N00101.AR.002366
NAS SOUTH WEYMOUTH
5090.3a

PRE DESIGN INVESTIGATION REPORT FOR WEST GATE LANDFILL NAS SOUTH WEYMOUTH MA

9/1/2010

TETRA TECH

Pre-Design Investigation Report
for
West Gate Landfill

Naval Air Station South Weymouth
Weymouth, Massachusetts

Naval Facilities Engineering Command
Mid-Atlantic

Contract Number N62467-04-D-0055
Contract Task Order 407

September 2010

W5209595F

PRE-DESIGN INVESTIGATION REPORT

FOR

WEST GATE LANDFILL

NAVAL AIR STATION SOUTH WEYMOUTH
WEYMOUTH, MASSACHUSETTS

COMPREHENSIVE LONG-TERM
ENVIRONMENTAL ACTION NAVY (CLEAN) CONTRACT

Submitted to:
Naval Facilities Engineering Command Mid-Atlantic
9742 Maryland Avenue
Norfolk, Virginia 23511

Submitted by:
Tetra Tech NUS, Inc.
234 Mall Boulevard, Suite 260
King of Prussia, Pennsylvania 19406

CONTRACT NUMBER N62467-04-D-0055
CONTRACT TASK ORDER 407

September 2010

PREPARED UNDER THE DIRECTION OF:

PHOEBE A. CALL
PROJECT MANAGER
TETRA TECH NUS, INC.
WILMINGTON, MASSACHUSETTS

APPROVED FOR SUBMISSION BY:

JOHN J. TREPANOWSKI, P.E.
PROGRAM MANAGER
TETRA TECH NUS, INC.
KING OF PRUSSIA, PENNSYLVANIA

TABLE OF CONTENTS

SECTION		PAGE
1.0	**INTRODUCTION**	**1-1**
1.1	SITE BACKGROUND	1-1
1.1.1	Site Location and Description	1-1
1.1.2	Site History	1-1
1.1.3	Previous Site Investigation and Data Gaps	1-2
1.2	PDI OBJECTIVES AND SCOPE	1-3
2.0	**FIELD INVESTIGATIONS**	**2-1**
2.1	MOBILIZATION/DEMOBILIZATION	2-2
2.2	SITE CLEARING	2-2
2.3	DEBRIS NATURE AND EXTENT SURVEY	2-3
2.3.1	Visual Survey	2-3
2.3.2	Surface Geophysics	2-4
2.3.3	Test Pit Excavation	2-5
2.3.4	Landfill Soil Gas Sampling	2-7
2.4	TRANSFORMER PARTS SURVEY AND SAMPLING	2-8
2.5	WETLANDS BASELINE ASSESSMENT	2-8
2.6	SOUTHERN WETLAND SEDIMENT SAMPLING AND ANALYSIS	2-9
2.6.1	Sediment Sampling	2-9
2.7	GEOTECHNICAL INVESTIGATION	2-10
2.7.1	Soil Borings	2-10
2.7.2	Soil Sampling and Analysis	2-11
2.8	BEDROCK WELL INSTALLATION	2-12
2.8.1	Bedrock Drilling	2-12
2.8.2	Bedrock Well Installation	2-12
2.9	WELL INSPECTION AND REPAIR	2-13
2.10	WELL DEVELOPMENT	2-14
2.11	LOCATION AND ELEVATION SURVEY	2-14
2.12	SYNOPTIC WATER LEVEL ROUND	2-15
2.13	GROUNDWATER SAMPLING AND ANALYSIS	2-16
2.14	FLOOD PLAIN ASSESSMENT	2-16
3.0	**DATA EVALUATION AND RESULTS**	**3-1**
3.1	PHYSICAL SETTING	3-1
3.1.1	Geology	3-1
3.1.2	Hydrogeology	3-4
3.2	DATA EVALUATION	3-5
3.2.1	Evaluation of Soil Geotechnical Investigation	3-6
3.2.2	Evaluation of (Transformer Related) Soil and Sediment Analytical Results	3-6
3.2.3	Evaluation of Groundwater	3-16
3.2.4	Landfill Soil Gas Monitoring Results	3-18
3.3	WETLANDS EVALUATION	3-19
3.4	100-YEAR FLOODPLAIN ANALYSIS	3-19
3.5	EXTENT OF DEBRIS	3-20
4.0	**CONCLUSIONS AND RECOMMEDATIONS**	**4-1**
4.1	CONCLUSIONS	4-1
4.2	RECOMMEDATIONS	4-4

TABLE OF CONTENTS (CONT.)

TABLES

NUMBER

2-1 Test Pit Excavation Summary
2-2 Well Construction Summary and Groundwater Elevation Data
2-3 Well Inspection Summary
2-4 Monitoring Well Development Stabilization Reference Summary
2-5 Monitoring Well Purge Data Prior to Sampling
3-1 Horizontal Hydraulic Gradients – June 2009
3-2 Vertical Hydraulic Gradients – June 2009
3-3 Geotechnical Results
3-4 Transformer Related Sediment Analytical Results
3-5 Test Pit Soil Analytical Results
3-6 Sediment Analytical Results
3-7 Chemicals In Sediment - Decision Steps
3-8 Dioxin TEQ Calculations and Comparison to Human Health Risk Screening Criteria
3-9 Dioxin TEQ Calculations and Comparison to Bird Risk Screening Criteria
3-10 Dioxin TEQ Calculations and Comparison to Mammal Risk Screening Criteria
3-11 Dioxin TEQ Calculations and Comparison to Fish Risk Screening Criteria
3-12 Groundwater Analytical Results
3-13 Dioxin TEQ Calculations and Comparison to Human Risk Screening Criteria (Tap Water)
3-14 Landfill Gas Monitoring Results

FIGURES

NUMBER

1-1 Location of NAS South Weymouth
1-2 Main Base Map
1-3 Site Plan
1-4 Pre-Design Sample Locations
2-1 EM Survey
3-1 Bedrock Elevation Map
3-2 Cross-Section Locations
3-3 Description Geological Cross-Section A-A’
3-4 Description Geological Cross-Section B-B’
3-5 Description Geological Cross-Section C-C’
3-6 Overburden Groundwater Contour Map – June 29, 2009
3-7 Bedrock Groundwater Contour Map – June 29, 2009
3-8 Peat or Silty Sand and Peat Thickness
3-9 PAH Tag Map
3-10 Dioxin/ Furan TEQ Tag Map
3-11 Extent of Debris and Remediation Area

REFERENCES

TABLE OF CONTENTS (CONT.)

APPENDICES

A Field Sampling Records
- A-1 Field Modification Records
- A-2 Test Pit Logs
- A-3 Landfill Soil Gas Logs
- A-4 Transformer Sample Log Sheets
- A-5 Sediment Sample Log Sheets
- A-6 Boring Logs
- A-7 Soil Sample Log Sheets
- A-8 Monitoring Well Construction Logs
- A-9 Monitoring Well Inspection Logs
- A-10 Well Development Log Sheets
- A-11 Groundwater Level Measurement
- A-12 Low-Flow Groundwater Sample Logs
- A-13 Groundwater Sample Log Sheets
- A-14 GPS Coordinates for All Features

B Photograph Documentation
- B-1 Debris and Sediment/Soil Sample Locations
- B-2 Test Pit Excavation Photographs

C Terrain Conductivity and Ground Penetrating Radar Surveys

D Wetland and Water Resources Delineation and Functional Assessment Report

E 100-Year Flood Plain Report

F Analytical Data Tables
- F-1 Sediment Analytical Data
- F-2 Groundwater Analytical Data

G Data Validation Memoranda and Laboratory Reports

H Geotechnical Laboratory Report

I Site Specific Project Action Limits and Remedial Goals
- I-1 Sediment PALS
- I-2 Soil PALs
- I-3 Groundwater PALs
- I-4 Remedial Goals

J Remedial Investigation Sediment Data

LIST OF ACRONYMS

BRAC	Base Realignment and Closure
C_c	Compression Index
C_s	Coefficient of swell
C_α	Secondary Compression Index
Cis-1,2-DCE	cis-1,2-dichloroethene
CLEAN	Comprehensive Long-Term Environmental Action Navy
COC	Contaminant of Concern
CSO	Caretaker Site Office
CTO	Contract Task Order
CSM	Conceptual Site Model
CU	Consolidated Undrained
EM	Electromagnetic
EPA	Environmental Protection Agency
ETPH	Extractable Total Petroleum Hydrocarbons
FID	Flame Ionization Detector
FMR	Field Modification Records
FS	Feasibility Study
GPR	Ground Penetrating Radar
HRS	Hazard Ranking System
HSA	Hollow Stem Auger
IDW	Investigation Derived Waste
LEL	Lower Explosive Limit
LNAPL	Light, Non-Aqueous Phase Liquid
MassDEP	Massachusetts Department of Environmental Protection
MCP	Massachusetts Contingency Plan
MTBE	Methyl tert-butyl ether
NAS	Naval Air Station
NAVFAC	Naval Facilities Engineering Command
PA	Preliminary Assessment
PAH	Polycyclic Aromatic Hydrocarbon
PAL	Project Action Limit
PCB	Polychlorinated Biphenyls
PDI	Pre-Design Investigation
PID	Photoionization Detector
PPA	Potential Productive Aquifer
PPM	Parts per Million
PQL	Project Quantitation Limits
PVC	Polyvinyl Chloride
QAPP	Quality Assurance Project Plan
RAO	Remedial Action Objective
RC	Reportable Concentration

RD	Remedial Design
RG	Remedial Goals
RI	Remedial Investigation
ROD	Record of Decision
RSL	Regional Screening Level
RQD	Rock Quality Designation
SI	Site Investigation
SOP	Standard Operating Procedures
SQL	Sample Qauntitation Limit
SVOC	Semi-Volatile Organic Compound
TEC	Threshold Effect Concentrations
TEF	Toxic Equivalency Factors
TEQ	Toxic Equivalents
TtNUS	Tetra Tech NUS, Inc.
TSCA	Toxic Substances Control Act
UEL	Upper Explosive Limit
USACE	United States Army Corps of Engineers
UU	Unconsolidated Undrained
VOC	Volatile Organic Compound
WGL	West Gate Landfill

1.0 INTRODUCTION

This Pre-Design Investigation (PDI) Report was prepared by Tetra Tech NUS, Inc., (TtNUS) for the U.S. Department of the Navy (Navy) to present the findings of the pre-design investigation for the West Gate Landfill (WGL) Site (the Site), at the former Naval Air Station (NAS) South Weymouth, Massachusetts (the Base). This PDI Report was prepared for the Navy's Naval Facilities Engineering Command (NAVFAC) Mid-Atlantic, under Comprehensive Long-Term Environmental Action Navy (CLEAN) Contract No. N62467-04-D-0055, Contract Task Order (CTO) 407.

1.1 SITE BACKGROUND

NAS South Weymouth was commissioned on March 1, 1942, and was closed administratively on September 30, 1997 under the Base Realignment and Closure Act of 1990 (BRAC). NAS South Weymouth is located approximately 15 miles southeast of Boston in Norfolk and Plymouth counties. Portions of the Base are located in the Towns of Weymouth, Abington, and Rockland, Massachusetts. The main Base encompasses approximately 1,444 acres. The Site location is shown of Figure 1-1.

1.1.1 Site Location and Description

The WGL is located near the western edge of the NAS South Weymouth property, west of Runway 17-35 and south of Trotter Road, as shown on Figure 1-2. Figure 1-3 presents the Site features. The Site is bounded on the northeast by wetlands along the west branch of French Stream and an adjoining drainage channel; on the south and southwest by forested, palustrine wetlands; on the northwest by woods; and on the north by an access road (Trotter Road) and abandoned railroad tracks.

1.1.2 Site History

As described in the West Gate Landfill Phase II Remedial Investigation (RI) report (Tetra Tech NUS, 2002), the WGL was active for approximately 30 years, from the 1940s through 1972. The landfill was used primarily for domestic wastes, and occasionally other wastes generated onsite. The landfill has not been closed in compliance with either state or federal regulations. Since 1972 it has become heavily overgrown with vegetation, brush, and trees. Some exposed debris is visible at the surface of the landfill in the vegetated areas. Material observed within the landfill includes metal scraps, asphalt, bricks, concrete, plastic sheeting, wires, bottles, cans, metal wheel rims, rubber pieces, tubing, hoses, glass, and other general debris. The estimated area of the landfill is approximately 6.3 acres, with an approximate fill thickness of 10 feet. Historically the area of the Site was referenced as being 5.23 acres, but the area

was re-evaluated during the PDI based on calculations of the area of land defined in the ROD. The approximate volume of fill within the landfill is estimated to be 85,000 cubic yards.

1.1.3 Previous Site Investigations and Data Gaps

Previous investigations that have been conducted at the WGL under the Installation Restoration Program are summarized below:

- **Preliminary Assessment (PA), Argonne National Laboratory, 1988.** The PA included a records search, interviews, and a site walkover. The purposes of the PA were to identify and evaluate past waste practices at NAS South Weymouth and make an assessment of the associated potential for environmental contamination.

- **Site Inspection (SI), Baker Environmental, Inc., 1991**. The SI included site walkovers, geophysical surveys, installation of groundwater monitoring wells, and the collection of soil, sediment, surface water, and groundwater samples at eight sites at the NAS South Weymouth property. The SI was conducted for screening purposes to assess the potential for contaminant presence and migration, provide data for Hazard Ranking System (HRS) scoring, and to provide the information necessary to develop a comprehensive work plan for further study.

- **Phase I RI Study, Brown & Root Environmental, 1998.** The Phase I RI included a literature search, geophysical survey, soil-vapor survey, immunoassay testing, ecological assessment, test pit excavation, monitoring well, well point and piezometer installation, hydraulic conductivity testing, groundwater gauging and water level measurements, stream gauging, and surface soil, subsurface soil, groundwater, sediment, and surface water sampling. This information was used to refine the Conceptual Site Model (CSM) and identify areas warranting further study.

- **Phase II RI, Tetra Tech NUS, 2002**. The Phase II RI was conducted to address and fill data gaps from the Phase I RI and previous investigations. The Phase II RI included further ecological assessment, groundwater gauging, water level measurements, and surface soil sampling.

- **Feasibility Study (FS), Tetra Tech NUS, 2003**. The Navy prepared an FS to identify the remedial action objectives (RAOs) for the Site, and to identify and evaluate cleanup alternatives to achieve the objectives.

Media sampled during the previous investigations include surface soil, subsurface soil, groundwater, surface water, and sediment (hydric soil in the adjacent wetlands, as well as sediment in French Stream).

In addition, terrestrial (upland) and aquatic (wetland and French Stream) tissue samples were collected from a variety of animals and organisms. In general, the heterogeneous mixture of soil, fill, and debris within the landfill contained concentrations of polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), pesticides, dioxins, arsenic, and other metals (aluminum, cadmium, chromium, copper, lead, mercury, nickel, silver, vanadium, zinc) in excess of background conditions and at concentrations posing potential excess risks. The majority of chemicals that contributed to potential risks (to human and ecological receptors) were detected in samples collected from the surface of the landfill. In general, significantly lower concentrations were detected in the subsurface (subsurface soil and groundwater), and lower concentrations were detected in the adjacent wetlands and French Stream.

According to the Phase II RI report, the potential presence of light, non-aqueous phase liquid (LNAPL) was assessed on several occasions. LNAPL is sometimes associated with fuel storage facilities. On no occasion was any sheen, odor, visual observation, or measurement of LNAPL or petroleum-impacted media observed.

As part of the Phase II RI, risk assessments were performed to evaluate potential current and future effects of chemicals present in site soil, groundwater, surface water, and sediment on human health and the environment. These risk assessments identified potential unacceptable risks to human health and ecological receptors from exposure to site soil, and potential unacceptable risks to human health from exposure to groundwater used as drinking water. No unacceptable human health or ecological risks were predicted for exposure to site sediment or surface water under any current or future exposure scenario and no unacceptable ecological risks were predicted for ecological receptors exposed to hydric soil from the Site wetlands.

Based on the risk assessment conclusions, soil and groundwater were identified as the media of concern for the Site and remediation goals (RGs) were established for the constituents in soil and groundwater that were identified as contaminants of concern (COCs).

1.2 PDI OBJECTIVES AND SCOPE

The objectives for the PDI are described in the FS and the Record of Decision (ROD) and updated in the QAPP (LFR, 2009). The RAOs for the Site were established during the FS and expanded upon during the development of the Proposed Plan and ROD to address the identified risks posed by contaminants in soil and groundwater. The RAOs established for the Site and presented in the ROD are:

- Eliminate human and ecological exposure to the surface of the landfill.
- Minimize erosion and deposition of surface soil and landfill material into the adjacent wetlands.

- Remove visible landfill material from the palustrine wetlands adjacent to the WGL, and restore the wetlands impacted by the removal.
- Meet state regulations and Toxic Substances Control Act (TSCA) requirements regarding closing a landfill, for those alternatives that include landfill capping.
- Prevent human exposure to groundwater containing contaminant concentrations in excess of federal or more stringent state drinking water standards, or posing an unacceptable risk to human health.

The last RAO was established to prevent the potential exposure to groundwater contaminants by a hypothetical future resident using site groundwater as a drinking water source. After further evaluation, the Navy concluded, and Environmental Protection Agency (EPA) and Massachusetts Department of Environmental Protection (MassDEP) agreed, that active groundwater cleanup is not necessary at the WGL. Instead, to address the last RAO, a long-term groundwater monitoring program will be implemented after completion of the remedial action to assess post-remedial groundwater conditions and determine whether any additional actions are needed for groundwater. As a result of this decision, active groundwater cleanup was not considered in the FS.

The FS report identified and evaluated several potential remedial alternatives to achieve the remaining RAOs. The Proposed Plan (U.S. Navy, 2007a) and ROD (U.S. Navy, 2007b) describe the selected remedy and the rationale for its selection. The selected remedy for the Site is Alternative WGL-3, constructing a soil cover over the landfill.

The purpose of the PDI as described in the ROD was to collect additional information needed to complete a Remedial Design for the construction of the soil cover at the Site. The PDI data will supplement the RI data presented in the WGL FS report (TtNUS, 2003). The PDI objectives were updated from the FS report (2003) in the PDI-Quality Assurrance Project Plan (QAPP) (LFR, 2009). The PDI objectives that have been completed are in accordance with the QAPP:

- Examine the stratigraphy, and the extent and characteristics of soil and peat underlying waste materials in the landfill to support evaluation of potential slope stability and settlement issues.
- Determine the extent of surface and subsurface debris at the Site.
- Determine the need for landfill gas management.
- Better delineate the extent of potential contamination of sediments in the wetland areas south and southwest of the main landfill where remedial actions will occur.
- Identify the locations of transformer parts potentially present in the northern wetland area and other areas of the Site, and evaluate the potential presence of PCBs in the identified locations.
- Determine the limits of the 100-year floodplain.

- Establish a pre-design baseline characterization of groundwater quality and flow direction.

The PDI sample locations are shown on Figure 1-4. The information collected during the PDI field investigation will be used to perform the Remedial Design (RD) for the Site. This will include constructing a soil landfill cover meeting state solid waste regulations and federal TSCA PCB regulations. The design goal of the landfill is to eliminate direct contact with landfill materials.

The PDI methods and sample locations are described in Section 2.0, and the results of the PDI evaluations are presented in Section 3.0 of this report. Section 4.0 presents the conclusions and recommendations.

2.0 FIELD INVESTIGATIONS

This section summarizes the procedures that were implemented to collect additional information needed to complete a Remedial Design for constructing the soil cover. The data collected during the PDI supplements the Phase I and Phase II RI data for the Site. TtNUS conducted field activities in support of PDI for the WGL, from May to June 2009.

All activities were conducted in accordance with the Site QAPP (LFR, 2009), except where noted. Sample collection records are presented in Appendix A. Photographs taken of the debris, sediment, and transformer part samples are presented in Appendix B. The field tasks for the PDI are described in the sections below.

The PDI field activities consisted of the following:

- Mobilization and demobilization
- Site clearing
- Debris nature and extent survey
- Surface Geophysics
- Test pit excavation
- Landfill soil gas sampling
- Transformer parts survey/sampling
- Wetlands assessment
- Southern wetland sediment sampling
- Geotechnical investigation
- Bedrock well installation
- Well inspection and repair
- Well development
- Location and elevation survey
- Water level measurement
- Groundwater sampling
- Flood plain assessment

Samples were collected in order to meet three main PDI objectives:

- Soil samples were collected for geotechnical parameters to gain information pertinent to constructing the landfill soil cover.

- Sediment and soil samples were collected in the western wetland area to better determine the extent of contamination in the wetland areas.
- Groundwater samples were collected to gather information as part of the design of the long-term groundwater monitoring program.

2.1 MOBILIZATION/DEMOBILIZATION

Mobilization included procurement of field equipment and supplies, coordination with Dig-Safe and base personnel, and field orientation meetings to prepare for the field work. Mobilization was coordinated with the NAS South Weymouth BRAC Environmental Coordinator at the Caretaker Site Office (CSO) in Building 11.

TtNUS obtained clearance of all underground utilities at sampling locations prior to beginning onsite work and conducted an additional review of subsurface utility drawings of the Base and marked the Site for clearance. Utility clearance was performed in accordance with TtNUS Standard Operating Procedure (SOP) HS-1.0.

Demobilization included removing field equipment and supplies from the Site after completion of the field investigation, returning rented equipment, managing IDW, performing general site cleanup, organizing and finalizing field paperwork, and entering field records/data into the site database.

2.2 SITE CLEARING

TtNUS contracted Global Remediation Services, Inc. (Global) to conduct vegetation removal activities at WGL. Vegetation removal activities were conducted from April 27, 2009 to May 8, 2009 to allow physical access for subsequent PDI activities including geotechnical investigation, test pit excavation, and monitoring well installation. The site fencing was temporarily removed by Global to provide access and reinstalled following completion of the PDI field activities. Generally, the entire landfill was cleared of vegetation. Removal of surficial debris and stumps and grading was not performed. The footprint of the landfill, shown on Figure 1-4, was cleared with the exception of the wetland areas. The wetland areas were cleared only to the extent necessary to provide access to individual sampling locations.

TtNUS marked north to south and east to west transects along the landfill to be cleared by Global in order to allow access for the subsequent geophysical survey. From April 27 to 30, 2009, several of the previously marked transects were cleared using two bobcats fitted with brush cutting attachments. During the initial clearing activities conducted along the marked transects numerous equipment breakdowns occurred when the brush cutting attachments hit obscured metal debris. After discussions with TtNUS

and Global, it was determined that heavier equipment was needed to complete brush clearing activities at the Site. In addition, it was also determined that the entire Site (approximately 6 acres) would be cleared rather than the original estimate of 3 acres. Refer to the field modification record (FMR) in Appendix A for a more detailed description of the modifications to the original QAPP.

From May 4 to May 8, 2009, Global contracted Blanchard Landscaping (Blanchard) to conduct the remaining brush clearing activities at the Site. Blanchard used a much heavier piece of equipment (Timbco fellar buncher) to clear Site vegetation. The entire 6-acre Site, along with several additional access points necessary for monitoring well installation, was cleared of vegetation. During clearing activities, trees were cut to 6-8 inches above ground surface, leaving the exposed stumps. Cleared vegetation was then stored at a staging area near the northeastern portion of the Site, and chipped onsite. All vegetation was chipped to a maximum diameter of 4 inches before being transported offsite. A total of 10 tractor trailers filled with wood chips were transported offsite for disposal. On May 8, 2009 Blanchard completed vegetation clearing activities at WGL. Following the completion of vegetation clearing activities, Global repaired the erosion control fencing that was damaged during brush clearing.

2.3 DEBRIS NATURE AND EXTENT SURVEY

The debris extent survey consisted of a visual survey, a surface geophysical survey, and test pit excavations conducted around the perimeter of the landfill. The purpose of this work was to delineate the lateral and vertical extent of the debris, particularly around the edges of the landfill.

The debris nature and extent survey also consisted of the completion of landfill gas sampling. Landfill gas sampling was performed to assess landfill gas management alternatives for the remedial design. These investigation elements are described below.

2.3.1 Visual Survey

A visual survey was conducted to delineate the lateral extent of debris present at or above the ground surface, and to determine the locations for test pit excavations. The survey encompassed the entire perimeter of the landfill and focused on the southern/southwestern wetlands, northern wetlands, and the border contiguous with French Stream.

Surface debris was noted around the perimeter along the western edge, southwestern edge, and southern edge. The debris began approximately 20 feet west of monitoring well MW-42 and ended at the southern edge in between test pits TP-110 and TP-111. Twenty debris locations were identified, as shown on Figure 1-4, and the locations were surveyed using GPS. Examples of debris from these 20

locations include: jet engine parts, metal debris, cables, partial drums, car parts, appliances, pipes, metal sheeting, and bottles. Field log sheets are included in Appendix A and photographs of the debris are included in Appendix B. The visual identification of surficial debris was used to help determine the locations and extent of the geophysics transects.

2.3.2 Surface Geophysics

An electromagnetic (EM) survey and a ground penetrating radar (GPR) survey were conducted between May 11 and 13, 2009 and on May 26, 2009. Northeast Geophysical Services of Bangor, Maine, performed the survey under a subcontract to TtNUS. The purposes of the EM and GPR surveys were to evaluate the visually identified extent of landfill debris and help delineate the lateral and vertical extent of subsurface debris in areas with and without visible surface debris.

EM-31 Terrain Conductivity – Terrain conductivity measurements are made by inducing an electromagnetic current into the ground and recording the resulting secondary electromagnetic field a fixed distance away. The strength of the secondary electromagnetic field is an indication of the conductivity of materials in the ground. Negative conductivity readings will occur over buried metal objects. Generally the amount of metal below the EM-31 instrument can be interpreted based upon how negative the conductivity readings are. A Geonics EM-31 terrain conductivity meter, with an effective exploration depth of about 18 feet, was used for this survey. EM-31 readings were measured at 2.5-foot intervals along survey lines spaced 50 feet apart in the north-south direction and 100 feet apart in the east-west direction. A total of 4,250 terrain conductivity measurements were recorded.

Figure 2-1 shows the limits of the EM survey, the contoured terrain conductivity data and the resulting interpreted limits of the landfill. Profiles of each survey line showing the EM-31 conductivity and inphase readings are included in the *Terrain Conductivity and Ground Penetrating Radar Survey Report* (Northeast Geophysical, 2009) (Appendix C).

Figure 2-1 indicates that the southern half of the landfill contains the majority of the metal-bearing debris at the Site. This is consistent with visual observations of abundant exposed metal and the very hummocky topography in this part of the landfill. A strong positive anomaly along the eastern side of the landfill occurs where there is an above-ground pile of metal-bearing debris. An area of generally flat, low positive conductivity values occurs in the center of the northern half of the landfill. This area appears to be a location where either there is very little waste material or there is little metal in the waste material. Slightly elevated conductivity values are observed in the wetland area on the south and southwest sides of the landfill and are interpreted to be a result of the standing water in the area at the time of the survey.

The location of the heavy red line indicating the interpreted limits of the landfill on Figure 2-1 was chosen using the contoured EM data.

GPR – The GPR survey was performed primarily to help determine the vertical extent of the subsurface debris within the landfill and if possible to determine the nature and condition of buried metal objects within the landfill. The GPR instrument used was a GSSI, SIR-3000. A 400-MHz antenna was used with a time range set for 100 nanoseconds. At this setting the depth surveyed is approximately 15 feet. A total of 13 GPR profiles were conducted within the landfill area. A distinct surface defining the bottom of the fill material was not detected and identification of individual metal objects was not possible. The GPR results appear to have been negatively affected by the rough ground surface at the Site and by the abundance of metal within the landfill waste material. Metal objects will reflect 100% of the radar signal that hits them. In the situation where the near-surface material is full of metal objects very little of the signal will be able to penetrate to underlying objects or surfaces.

Most of the GPR profiles from the Site show an irregular, roughly horizontal reflector that ranges from approximately 4 to 8 feet deep. This reflector appears to be below the bottom of the landfill material as it generally extends across the entire length of the profiles and does not show any apparent relationship to the limits of the landfill as defined by the EM survey. This layer also does not correspond to the water table. This layer may be an indicator of the peat layer, and corresponds strongly with the peat layer that was consistently observed in test pits and borings advanced in the south/southeastern portion of the Site. Other discontinuous horizontal and dipping reflectors can also be seen in the profiles that appear to be unrelated to the landfill material.

2.3.3 Test Pit Excavation

This section provides a general description of the test pits (TP-100 through TP-117) excavated at the Site to observe the nature, vertical and lateral extent of buried landfill waste and determine the nature of the subsurface below the landfill waste. Test pits were excavated from May 26 to 29, 2009. Based upon the Pre-Design Investigation QAPP (2009), 12 test pit locations were excavated. In addition an FMR (Appendix A) was created to document excavations of additional test pits, based on observations of a petroleum odor in the field. Test pit locations are shown on Figure 1-4.

Global Remediation Services advanced and backfilled the test pits using a Kobelco, Model135RLC track-mounted excavator. The test pits were excavated to depths ranging from approximately 6 to 10 feet bgs. A geologist observed the excavations and documented each test pit with test pit logs (Appendix A) and photographs (Appendix B). Soil was screened in the field using a portable photo-ionization detector

(PID) and flame-ionization detector (FID). The soils encountered, size of the excavations, depths to groundwater (if applicable), and the presence of debris, metal, oil, staining, or odors were recorded.

Test pits TP-100 and TP-103 through TP-112 were excavated at various locations adjacent to the landfill boundary. TP-102 was excavated in the northern interior of the landfill, TP-113 was excavated southeast of the landfill at a mounded “suspect” location and TP-114 through TP-117 were excavated north, south, east and west of TP-112, where petroleum contamination was discovered.

One soil sample was collected from TP-112, where a petroleum odor was noted approximately 4 to 6 feet below ground surface (bgs). The sample was collected and transferred into a decontaminated stainless steel bowl using a pre-cleaned plastic scoop, homogenized, and transferred into an appropriate sample container. Contrary to standard sample collection protocol aliquot for all analyses were collected in one sample container, due to the fact that the sample was not anticipated. The soil sample was submitted for laboratory analysis of VOCs, SVOCs, PCBs, and Extractable Total Petroleum Hydrocarbons (ETPH). The results of these analyses are summarized in Section 3.0. Because the sample aliquot had been homogenized and the VOC aliquot had not been contained in standard VOA vials, the VOC results are biased low and are considered only estimates.

2.3.3.1 General Summary of Test Pitting

Table 2-1 provides a general summary of the observations made during test pitting activities. Eleven test pits were excavated adjacent to landfill boundary (TP-101 and TP-103 through TP-112). Debris observed included: corroded metal debris, bottles, electrical wire, ceramic cups, bottles, wood, corrugated pipe, iron pipe, corroded 5-gallon containers, truck tailgate, gas tank, miscellaneous car parts, brick, concrete block and destroyed spray paint can. A small quantity (about one to two handfuls) of a white/blue crystalline substance was observed in TP-101 and TP-109 and was also observed in the bottom of a mangled 5-gallon container in TP-108. This substance is further discussed in Section 3.1.1. In addition, at one location adjacent to the eastern landfill boundary (TP-101) one empty corroded 55-gallon steel drum was observed. Debris was not observed in TP-112, but visual and olfactory evidence of petroleum-impacted soil was encountered. As a result of the evidence of petroleum impact, four additional test pits (TP-114, TP-115, TP-116 and TP-117) were advanced around TP-112. A soil sample was collected from TP-112 as described above.

Bedrock was not observed in any of the test pits. Groundwater was observed in the test pits at depths ranging from 2.0 to 9.0 feet bgs. Peat was observed in seven locations: TP-108; TP-111; TP-112; TP-114; TP-115; TP-116 and TP-117, at depths ranging from 4 to 7 feet bgs.

One test pit was excavated in the northern interior of the landfill (TP-102). Scraps of metal and ash were observed at this location. Groundwater was encountered at 7 feet bgs and bedrock was not encountered.

One test pit was excavated on a mound, southeast of the landfill (TP-113). A large boulder and tree stumps were observed. No debris, groundwater or bedrock was encountered.

Four test pits were excavated north (TP-117), south (TP-116), east (TP-114) and west (TP-115) of TP-112. Debris including metal scraps was found in TP-115 and a few bricks were found in TP-117. Slight petroleum odors were noted in TP-114 and TP-115 and elevated FID results were recorded in TP-116 and TP-117. Groundwater was observed at 7 feet bgs, no bedrock was encountered. Peat and wood were encountered at 7 feet bgs in all four test pits.

2.3.4 Landfill Soil Gas Sampling

Landfill soil gas sampling was conducted to determine the need to include landfill gas management in the WGL site remedial design. Landfill soil gas samples were collected in accordance with the Final PDI QAPP (LFR, 2009). Sample locations are depicted on Figure 1-4.

On June 17, 2009 five soil gas sampling points (WGL-SG-SG1 through WGL-SG-SG5) were installed at the WGL Site. The sampling points were located at areas that were determined to have the most significant magnetic anomalies. This determination was based on a review of the geophysical survey results collected during the June investigation and historical landfill cross-section information. (Northeast Geophysical, 2009 and TtNUS, 2002).

According to the PDI QAPP, soil gas samples were to be collected at a depth of 2 ft bgs. A power drill fitted with an approximately 18 inch long drill bit was used to initially advance the borehole to approximately 18 inches bgs. A hollow stainless steel metal sampling probe along with an attached aluminum drive point was then advanced the remaining 6 inches using a sledgehammer. After reaching a depth of 2 feet, the borehole was then sealed at the ground surface using cement-bentonite grout. Real-time direct-readings were then collected from soil gas using the following equipment: a Landtec GEM 500 landfill gas monitor; an Industrial Scientific LTX310 single gas monitor for hydrogen sulfide; a Photovac Micro FID; and a MiniRAE 2000 PID. All field instruments were calibrated in accordance with manufacturer's instructions prior to use, and calibration verification was conducted at the end of the day. Total VOC concentrations, percent LEL/methane, percent oxygen, hydrogen sulfide (in parts per million (ppm)), and percent carbon dioxide were measured using the instruments described above. These field data did not undergo formal data validation.

Field instruments were adequately purged between sampling locations and background readings were collected in ambient air at each sampling location prior to soil gas sample collection. Once sample collection began, real-time readings were collected at 1-minute intervals for 10 minutes. After the soil gas sampling round was completed, sample locations were surveyed using a GPS (Trimble Pro-XRS).

2.4 TRANSFORMER PARTS SURVEY AND SAMPLING

Based upon previously reported visual observations of suspect transformer parts at the ground surface at the WGL, a transformer parts survey was required as part of the PDI. The objective of the survey was to catalogue debris that appeared to be transformer parts or other electrical equipment that could have contained dielectric fluid. Based on the results of these surveys, soil and sediment sampling was conducted in the vicinity of identified suspect electrical equipment to determine if leakage of potentially PCB-containing dielectric fluid had occurred. Surface soil and sediment samples were collected from the ground surface to 6-inches bgs in locations that could have been impacted by a release of dielectric fluid. These sample locations were down slope of the observed surface extent of the electrical equipment. Sample locations are depicted on Figure 1-4.

The transformer parts survey was performed on May 11, 2009. During the survey, what appeared to be transformer parts were observed at two locations at the Site. One location was along the western bank of the northern wetland and a second location was along the northern boundary of the southern wetland. On May 12, 2009, based on the visual survey, a total of three soil samples (WGL-SO-PCB01, WGL-SO-PCB04, and one duplicate) and three sediment samples (WGL-SD-PCB02, WGL-SD-PCB03 and WGL-SD-PCB05) were collected at the Site. Soil samples WGL-SO-PCB01 and WGL-SO-DUP01, and sediment samples WGL-SD-PCB02 and WGL-SD-PCB03 were collected along the western bank of the northern wetland, while soil sample WGL-SO-PCB04 and sediment sample WGL-SD-PCB05 were collected in a debris-laden area located at the northern boundary of the southern wetland (Figure 1-4). Refer to the transformer survey sample collection logs (Appendix A) and photographs (Appendix B) for more details regarding the samples collected during the transformer parts survey.

2.5 WETLANDS BASELINE ASSESSMENT

On June 10, 2009 a wetlands baseline assessment was completed to provide the necessary information to prepare and complete a thorough and appropriate wetland restoration plan to be implemented following the completion of remedial actions. The wetland delineation followed the routine inspection methodology in the US Army Corps of Engineers *Wetlands Delineation Manual* (1987 Manual) (Environmental Laboratory 1987). The pre-existing conditions of the wetlands (vegetation, soil type, hydrology, wildlife) and a Functions and Values assessment were performed using the *Wetland Functions and Values*

Descriptive Approach developed as part of the Highway Methodology by the New England District of the United States Army Corps of Engineers (USACE, 1995; De Santo and Flieger, 1995).

The Wetlands Baseline Assessment Report is included in Appendix D and describes the wetland and surface waters at WGL, as well as discusses the functions and values of each wetland. Functions are physical, chemical, and biological processes or attributes of wetlands that are vital to the integrity of a wetland system, regardless of how those benefits are perceived by society. Values are attributes that are not necessarily important to the integrity of a wetland system but that are perceived as valuable to society (Adamus *et al*, 1991). Information from the wetland delineation and the functional assessment report will be used to support the design and construction of the remediation of the WGL, including the restoration of wetlands after the landfill soil cover is in place.

2.6 SOUTHERN WETLAND SEDIMENT SAMPLING AND ANALYSIS

Sediment sampling was conducted at the Site to better delineate the extent of sediment contamination in the wetland areas. All sediment samples were collected in accordance with the QAPP (LFR, 2009). No surface water samples were collected during this sediment investigation. Sample locations are depicted on Figure 1-4. Additional information regarding the June 2009 sediment investigation is provided below.

2.6.1 Sediment Sampling

On June 11, 2009, 14 sediment samples (WGL-SD-SD101 through WGL-SD-SD112, and 2 duplicate samples) were collected from wetland areas located along the western and southern portions of the landfill. Each sediment sample was collected at a depth of approximately the ground surface and 6 inches bgs. On June 30, 2009, sediment sample location WGL-SD-112 was re-sampled to provide additional sample volume for dioxin analysis. Additional sediment was necessary for processing by the laboratory due to the high organic content of the sediment.

Sediment samples submitted for VOC analysis were collected directly from the material using a coring tube, while samples submitted for percent solids analysis were collected from the same locations using a disposable trowel before being transferred into the appropriate sample containers. The remaining sediment sample parameters (SVOCs, pesticides, PCBs, metals, and dioxins) were collected using a disposable trowel, emptied into a stainless-steel bowl, homogenized, and decanted if necessary before being transferred into the appropriate sample containers.

Sediment samples were placed in laboratory supplied containers, shipped to the laboratories under proper chain of custody, and analyzed for the following parameters:

- VOCs by EPA Method 5035/8260B
- TCL SVOCs/PAHs by EPA Method 8270C;
- TCL Pesticides by EPA Method 8081A;
- TCL PCBs by EPA Method 8082;
- Dioxins by EPA Method 8290;
- TAL Metals by EPA Method 6010B/7471A.

Upon sample collection, TtNUS documented the physical description of the sediment sample and its location relative to other site features. After the sediment sample round was completed, the sample locations were surveyed using a GPS (Trimble Pro-XRS), documented in the field logbook, and photographed (Appendix B).

2.7 GEOTECHNICAL INVESTIGATION

During the PDI, ten geotechnical soil borings were advanced within the landfill (WGL-SB-101 to WGL-SB-110). These borings were advanced to facilitate soil lithologic characterization (to determine the extent of soil and peat underlying waste materials), to collect soil samples for geotechnical laboratory analysis the results of which will be used to support slope stability, bearing capacity, and settlement evaluation during landfill cap design. The results of the slope stability evaluation will be used to determine the need for a drainage layer in the landfill design. Three additional borings were advanced through the overburden and into bedrock to facilitate the installation of bedrock monitoring wells.

2.7.1 Soil Borings

Thirteen soil borings were advanced using hollow stem augers (HSA) and mud rotary during the field investigation. A TtNUS geologist directed the soil boring activities and documented the findings. Borings were advanced using a skid-mounted CME 750X drill rig. The split-spoon sampler was driven to the required depth with a rig-mounted hammer weighing 140 pounds and falling 30 inches. A physical description of each split-spoon sample, standard penetration test "N-value," and field-screening results were recorded on the boring logs. Soil boring locations are shown on Figure 1-4. Bedrock monitoring wells were installed, using HQ coring, at soil boring locations MW-101, MW-102, and MW-103.

Soil samples were described according to the Unified Soil Classification System and recorded on soil boring logs, presented in Appendix A, to provide a lithologic record of the subsurface materials.

2.7.2 Soil Sampling and Analysis

A total of 20 soil samples were collected and submitted for geotechnical analysis from soil borings WGL-SB-101 through WGL-SB-110. No soil samples were collected for analysis from the borings advanced to install monitoring wells.

Soil samples were collected with 2-inch diameter split spoons for each boring for the entire depth, except where "undisturbed" samples were collected in peat (soil borings SB-103 and SB-108). As each sample was opened, the soils were monitored for organic vapors using a FID and PID equipped with a 10.2 eV lamp, if weather permitted. In addition, an aliquot was collected for jar headspace screening. Soil collected for laboratory analysis was transferred and homogenized in a one gallon Ziploc bag. "Undisturbed" soil samples were collected from two soil borings, WGL-SB-103 and WGL-SB-108, using, 3-inch diameter, thin-walled, Shelby tubes due to peat encountered at these intervals. The Shelby tubes were packed and transported in an upright position, capped and sealed with paraffin wax on the bottom and electrical tape on the top. Soil samples were collected from six borings on the perimeter of the landfill and four borings from within the landfill interior.

Two representative samples from each boring were collected for analysis. Soil samples were collected and placed in appropriate containers for each of the analysis types and shipped to the analytical laboratory under proper chain of custody. Soil samples from soil borings were analyzed for the following parameters:

- Soil classification (ASTM D24870) – for soil classification
- Organic content (ASTM D2974) – to identify presence of peat and further characterize soil
- Particle size analysis (ASTM D422) – for soil classification
- Moisture content (ASTM D2216) – for soil classification
- Atterberg Limits (ASTM D4318) – for soil classification

In addition, the two "undisturbed" soil samples collected in Shelby tubes were analyzed for the following parameters:

- Triaxial strength testing – for peat – includes both unconsolidated undrained (UU) triaxial tests (ASTM D2850) to evaluate end-of-construction conditions, and consolidated undrained (CU) triaxial tests (ASTM D4767) with pore water pressure measurements to evaluate long-term conditions.
- Consolidation testing (D2435) – for peat – to determine compression index (C_c), coefficient of swell (C_s), and coefficient of secondary compression (C_α).

- Bulk density (ASTM D2937) to further characterize peat.
- Specific gravity (ASTM D854) to further characterize peat.

Figure 1-4 shows the boring locations; the boring logs are provided in Appendix A.

2.8 BEDROCK WELL INSTALLATION

Three bedrock monitoring wells were constructed in the area south and southeast of the landfill to more fully characterize groundwater quality and flow conditions at the Site, and to serve as wells for long term monitoring of the Site after the remedy is in place. The locations of the bedrock wells are presented on Figure 1-4. Two of the wells, MW-102 and MW-101, were installed adjacent to existing wells MW-04 and MW-39, respectively, to assess vertical gradients. MW-103 was installed approximately mid-way between existing wells MW-4 and MW-48D/D2.

2.8.1 Bedrock Drilling

The borings for installation of the bedrock monitoring wells were advanced through the overburden using mud rotary and HSA, and into the bedrock using wire-line coring. At monitoring wells WGL-MW-101 and WGL-MW-102 a roller bit was advanced 2 feet into the top of competent rock and steel casing was grouted in place. After at least 24 hours, the casing was cleared out and bedrock coring was conducted proceeding 13.5 to 15 feet below the bottom of casing to allow placement of a 10-foot screen within competent bedrock. Due to problems drilling a large diameter borehole at monitoring well location WGL-MW-103, steel casing was not installed. At this location, the bedrock was cored through the augers until the monitoring well was installed. The FMR for this change in the planned drilling technique is included in Appendix A.

2.8.2 Bedrock Well Installation

Three soil borings/boreholes (MW-101, MW-102, and MW-103) were utilized to install bedrock groundwater monitoring wells. Table 2-2 provides a summary of well construction details for each of the newly installed wells.

All new monitoring wells were completed in competent bedrock. The well screen intervals were selected based on the rock quality designation (RQD) of the cored rock.

The monitoring wells were constructed using 2-inch inside diameter (ID), schedule 40 polyvinyl chloride (PVC) riser and screens with flush-threaded joints. Each well was constructed with a 10-foot long, 10-slot (0.010-inch) screen and a silt trap on the bottom. The well screens were surrounded by a sand filter pack (20-40 grade size) up to at least 2 feet above each well screen, followed by a minimum 2-foot thick bentonite seal, and the remaining annular space was backfilled with grout. Because steel casing could not be grouted 2 feet into competent bedrock at monitoring well MW-103, the bentonite seal was brought above the overburden/bedrock interface and then the remaining annular space was backfilled with grout. A 5-foot, 4-inch outside-diameter protective steel casing was installed around all new wells. All protective casing protruded approximately 2 feet above ground surface, and was capped with a locking cover.

A black mark was drawn onto the top of the PVC well riser, using a permanent marker, to serve as a reference point for the well survey and groundwater depth measurements upon completion of each well. Monitoring well construction logs are provided in Appendix A.

2.9 WELL INSPECTION AND REPAIR

A total of 30 existing monitoring wells were inspected to determine their condition prior to use (either water level measurement or sampling). The condition of the casings, the integrity of the seals, and any other visual evidence of damage was recorded on field log sheets (Appendix A). During the inspection, a number of wells were found to be unlocked. If possible, the wells were secured with new locks during the inspection. The following monitoring wells, CGS-MW-11S, WGL-MW-03, WGL-MW-04, and WGL-MW-40S could not be relocked due to heaved PVC riser extending above the top of the protective casings. In addition, WGL-MW-01 could not be relocked because the protective casing hasp had been broken off.

The inspected wells were all clear of obstructions and re-labeled if necessary. All of the steel protective casings surrounding the PVC risers were found to be in good condition. Table 2-3 presents the results of the well inspection including if the well is locked, obstructed, re-labeled, the condition of the surface seal, and if tubing was in the well. Three concrete pads, surrounding JFP-MW-09, WGL-MW-39 and WGL-MW-40S were repaired and resurveyed and because the PVC riser was heaved at CGS-MW-11S and WGL-MW-04, these two wells were also resurveyed. A number of wells had dedicated bladder pumps in the wells that were removed during the well inspection. The wells with dedicated bladder pumps are also noted on Table 2-3.

Monitoring wells included in the groundwater sampling program (Section 2.13) were equipped with dedicated ¼-inch Teflon-lined tubing that remained in the wells for future sampling events. Previously installed monitoring wells included in the groundwater sampling round were re-developed, along with new wells installed during the PDI.

2.10 WELL DEVELOPMENT

The three newly installed bedrock monitoring wells and one existing bedrock monitoring well (WGL-MW-48D2) were developed in June 2009. In addition, eight existing overburden monitoring wells (WGL-MW-02, WGL-MW-03, WGL-MW-04, WGL-MW-38, WGL-MW-39, WGL-MW-40S, WGL-MW-48D, and WGL-MW-48D2) were re-developed in May 2009. The existing wells were selected for development to provide perimeter wells for the subsequent groundwater sampling event.

The pre-existing wells (except for WGL-MW-48D2) were re-developed by hand using Waterra® tubing equipped with a foot valve. Fine-grained material around the well screen was drawn into the well and removed by agitating the well water with the foot valve and simultaneously pumping water from the well at a discharge rate of approximately 0.2 to 0.3 gallons/minute.

The bedrock wells (existing well, WGL-MW-48D2, and the three newly installed wells) were developed with a Waterra® pump and tubing operated with a foot valve. Fine-grained material around the well screen was drawn into the well and removed by agitating the well water with the foot valve and simultaneously pumping water from the well at a discharge rate of approximately 0.3 to 0.6 gallons/minute.

Groundwater extracted from the new and existing monitoring wells during development was monitored for temperature, pH, specific conductivity, dissolved oxygen (DO), and turbidity at 5- to 10- minute intervals. Table 2-4 summarizes the well development results. Additional details regarding the well development are provided on the log sheets in Appendix A. Well development continued until the purge water was visually clear, or if the well ran dry, until five well volumes had been removed. The three newly installed bedrock wells ran dry during development, but development continued until approximately five well volumes had been removed. The purge water at these three monitoring well locations was visually clear at the end of development. During drilling at MW-102 approximately 15 to 20 gallons of water was lost down the hole, but 40 gallons were removed during development.

2.11 LOCATION AND ELEVATION SURVEY

In June 2009, a Massachusetts licensed land surveyor from Surveying and Mapping Consultants (SMC), a subcontractor to TtNUS, Inc, performed a location survey. The survey was performed to determine the vertical and horizontal locations of new monitoring wells and repaired/damaged monitoring wells. Survey control was maintained by tying into the Massachusetts State Grid coordinate NAD83 for horizontal datum and NAVD1988 system for vertical datum. Elevations were referenced to a United States Geological Survey (USGS) benchmark. Surveyed features were horizontally located to within +/-0.1 foot.

The tops of PVC well risers, tops of protective casings, and ground elevations were surveyed to +/- 0.01 foot vertically.

The remaining investigation locations (i.e., soil borings, test pits, geophysics transect lines, soil and sediment sample locations, and debris locations) were surveyed using GPS (Trimble Pro-XRS) with sub-meter accuracy.

Additional land survey work was performed by SMC under this contract in support of the 100- year floodplain analysis (Section 2.13).

2.12 SYNOPTIC WATER LEVEL ROUND

In addition to the sampling described above, the PDI included a comprehensive synoptic water level round to evaluate groundwater flow at the Site. The data from the water level round were used to draw a water table contour map for the Site and will be used to determine the locations of new and/or replacement wells to be installed at the Site following implementation of the remedial action. The existing wells were selected because they were used in synoptic water level measurement events evaluated in the Phase II RI (TtNUS, 2002). Therefore, the measurements from the PDI water level measurement event can be compared to the previous events.

After the well inspection and development tasks were completed and developed wells had recovered for approximately 5 days, a synoptic water level round was conducted to provide a pre-design baseline of groundwater flow direction at the Site. The water level round included 29 monitoring wells and piezometers located on and near the Site, including: the three new bedrock wells, 12 existing perimeter wells located on the Site, and 13 existing wells located on and near the Site. The monitoring wells and piezometers on and near the Site that were included in the synoptic water level round are identified in Table 2-2.

It should be noted that water levels in the new bedrock monitoring wells (especially WGL-MW-103) recovered very slowly. After approximately 5 days of recovery time, WGL-MW-103 may not have returned to static water levels. On June 18, 2009, prior to development of WGL-MW-103, the static water level was recorded at 6.06 ft. During the June 29, 2009 water level round the static water level was recorded at 7.88 ft.

Water level measurements are provided in Appendix A.

2.13 GROUNDWATER SAMPLING AND ANALYSIS

Groundwater samples were collected from each of the three newly installed monitoring wells and eight existing monitoring wells (WGL-MW-02, WGL-MW-03, WGL-MW-04, WGL-MW-38, WGl-MW-39, WGL-WGL-MW-40S, WGL-MW-48D, and WGL-MW-48D2) using the procedures specified in the QAPP (LFR, 2009).

Peristaltic pumps with dedicated ¼-inch ID Teflon-lined tubing were used for groundwater sampling. Monitoring wells were purged at flow rates between 90 and 290 milliliter (mL) per minute, depending on the drawdown observed during purging. Turbidity, pH, temperature, oxygen reduction potential (ORP), specific conductance, and dissolved oxygen were recorded at 5- to 10- minute intervals during groundwater sampling. Results are summarized on Table 2-5 and shown on the low flow groundwater log sheets provided in Appendix A. Purging continued until all parameters had stabilized in each of the wells. When three consecutive readings of ORP, DO and turbidity were within ten percent of each other; temperature and specific conductance were within three percent of each other, and when pH varied by +/- 0.1 or less, the well was considered stable and ready for sampling. During groundwater sample purging at shallow monitoring wells WGL-MW-04 and WGL-MW-40S, it was noted that the color of the water was yellow to yellow/orange and the water was effervescent, suggesting the presence of leachate. Monitoring well WGL-MW-40S is in the center of the landfill and monitoring well WGL-MW-04 is in the wetlands just south of the landfill. No odor or sheen was observed during groundwater purging at any location.

Groundwater samples were placed in laboratory supplied containers, shipped to the laboratory under proper chain of custody, and analyzed for the following parameters:

- VOCs by EPA Method 5030/8260B
- 1,2-dibromoethane (EDB) and 1,2-dibromo-3-chloropropane (DBCP) by EPA Method 504.1;
- TCL SVOCs/PAHs by EPA Method 8270C;
- TCL Pesticides by EPA Method 8081A;
- TCL PCBs by EPA Method 8082;
- TAL Metals (dissolved) by EPA Method 6010B/7470A; and
- Dioxins and furans by EPA Method 8290.

2.14 FLOOD PLAIN ASSESSMENT

A floodplain analysis was conducted to establish a 100-year flood plain elevation. A floodplain estimate will be used in the remedial design to determine the volume of landfill debris that may need to be excavated and relocated outside the limits of the floodplain, ensure that the impacts to floodplain storage

are minimized, and, if impacts from the landfill can not be avoided, to identify potential mitigation actions to ensure that the design will not result in a net loss of flood storage capacity per Executive Order 11988.

The floodplain designation was plotted onto a topographic map of the Site. The flood elevation was projected using the Federal Emergency Management Agency (FEMA) developed Flood Insurance Study (FIS). The floodplain assessment was performed using the U.S. Army Corps of Engineer's Hydrologic Engineering Center's River Analysis System (HEC-RAS) floodplain modeling program. This analysis included determining the 100-year Flood Plain elevation for the west branch of French Stream, under current conditions and following the construction of the landfill cap at the WGL that adjoins the west branch of French Stream. The prediction was performed by using existing ground topography and a grading plan developed as part of an internal draft preliminary design of the WGL engineered cap (TTNUS, 2006). The 100-Year Floodplain Analysis Report is included in Appendix E.

3.0 DATA EVALUATION AND RESULTS

This section provides a summary of the physical setting of the Site, including site geology and hydrogeology. In addition, an evaluation of the geotechnical and analytical laboratory data is included. Finally, the results of the wetlands functions and values assessment and the floodplain assessment are described. The data generated during the PDI were compared to data presented in the Phase II RI (TtNUS, 2002). The data evaluation followed the procedures described in the QAPP (LFR, 2009).

3.1 PHYSICAL SETTING

This section describes the physical conditions of the Site based upon information presented in Section 2.0, including test pit and soil boring logs, groundwater level measurements, and results of other site investigation activities.

3.1.1 Geology

The overburden material from the ground surface to bedrock consists of: fill, topsoil, peat, a sand and gravel unit and till. These units are not necessarily present at all locations. In borings advanced during the PDI, the overburden deposits ranged from approximately 27.5 to 36 feet thick. Depth to bedrock is based upon a combination of split-spoon refusal, HSA refusal, and bedrock coring. The units encountered are briefly described below.

3.1.1.1 Fill Material

This unit consists of sand, silt and gravel intermixed in some areas with some asphalt and other debris. The fill was observed to vary from 0 to 10 feet in thickness. Fill and debris piles occur intermittently throughout the upland sections of the landfill. Geologic deposits vary with location within the Site, with a thin veneer of topsoil at the surface in some areas, and fill or peat near the surface in other areas. During the PDI, fill with debris was recorded in four borings at depths up to 5 feet. Debris within the fill was noted at WGL-SB-105, WGL-SB-108, and WGL-SB-109, which are all located within the landfill (Figure 1-4). Debris within the fill was also noted at WGL-SB-104 (top 2 feet), which is located in the southwestern tip of the landfill, near large amounts of surficial debris in the wetland. The fill resembles the native material, sand and gravel, which underlies the entire site and contains zones of fine-grained sand and silt. Fill may have been present in other borings around the perimeter of the landfill, but it was difficult to distinguish from the native material when debris was not observed.

Debris observed included: corroded metal debris, bottles, electrical wire, ceramic cups, bottles, wood, corrugated pipe, iron pipe, corroded 5-gallon containers, truck tailgate, gas tank, miscellaneous car parts, brick, concrete block and a damaged spray paint can. In addition to the general debris, at one location adjacent to the eastern landfill boundary (TP-101) one empty corroded 55-gallon steel drum was observed.

Petroleum odor, visual evidence of soil or groundwater impact, and/or PID or FID responses were observed in test pits TP-104, TP-108, TP-110, TP, TP111, TP-114, TP-115, TP-116 and TP-117 (Figure 1-4).

A very small quantity (about one to two handfuls) of a white/blue crystalline substance was observed in test pits TP-101, TP-107 and TP-109. Within test pit TP-108 the crystalline substance was within a corroded 5-gallon container. Review of test pit information contained in the Phase 1 RI (B&R Environmental, 1998) indicates that a similar material (white powdery or whitish-green powdery material) was observed in test pits ATP-1, ATP-3 and ATP-5 (Figure 1-4). In ATP-3 a 55-gallon drum containing this substance was observed. NAS South Weymouth environmental staff collected a sample of the white granular substance for pH and sodium analysis. Environmental staff reported that the sample had a pH greater than 11 and was 50 percent sodium. Based upon the test pit observations, sample analysis, and the history of wastewater treatment operations at the base, the substance was determined to likely be sodium hydroxide (B&R Environmental, 1998). Furthermore, soil samples were collected from the Phase I RI test pits, and one soil sample (from ATP-3) was collected from the vicinity of the powdery white substance. A review of the test pit soil sample analytical results determined that the sample from the vicinity of the white powdery substance was similar to the other test pit soil samples. The presence of the white powdery substance observed during the PDI is consistent with the findings of the RI.

3.1.1.2 Shallow Sediments/Top Soil

The shallow soil has been disturbed or removed in many portions of the Site. Where not removed or disturbed this unit includes peat, roots, and other organic materials.

3.1.1.3 Peat

Peat, specifically decaying vegetation, was encountered in the three borings advanced for the monitoring wells (WGL-MW101; WGL-MW-102 and WGL-MW-103) and four of the geotechnical soil borings, WGL-SB-103, WGL-SB-106, WGL-SB-108, and WGL-SB-110. The peat unit was thickest in the southeastern portion of the landfill at WGL-SB-103 (4 feet thick), WGL-MW-102 (6 feet thick) and WGL-SB-108 (8 feet thick). At monitoring well WGL-MW-101 the top 2 feet contained peat-like material. At monitoring well

WGL-MW-103 peat-like material was encountered from 2.5 to 5 feet bgs. At soil boring WGL-SB-106 (north of WGL-SB-108) the peat layer was only about 2 inches thick. At soil boring WGL-SB-110 (north of WGL-SB-106), the peat layer was thicker (approximately 2.5 feet), but contained more silty sand and had higher blow counts than the peat encountered further south on the landfill.

3.1.1.4 Glaciofluvial Sand and Gravel and Glaciolacustrine Sand and Silt

A sand unit, typically containing gravel or silt, was observed to underlie the fill or peat. This unit corresponds to a mapped aquifer (TtNUS, 2002), and is directly underlain by glacial till or bedrock.

3.1.1.5 Glacial Till

Till was noted at boring locations WGL-MW-101, WGL-MW-102, WGL-SB-101, WGL-SB-103, WGL-SB-105, WGL-SB-106, WGL-SB-107, WGL-SB-108 and WGL-SB-110 overlying bedrock. Where till is absent, sand and gravel rests directly on weathered or competent bedrock.

3.1.1.6 Bedrock

The overburden deposits are underlain by fractured bedrock. The bedrock is greenish to pink coarse grained granite with varying fracture density. The bedrock is interpreted to be generally consistent with the description of the Dedham granite. In addition, purple to maroon quartz veins were noted in WGL-MW-102 and WGL-MW-103.

The borings for three new bedrock wells confirmed previous bedrock elevations for the Site. There is a bedrock high of 135.8 feet NAVD in the southern part of the Site, in the area of monitoring well MW-47D. Top of bedrock elevations across the remainder of the Site range from approximately 110 to 115 feet NAVD. Figure 3-1 presents bedrock elevation contours for the Site, which was updated from the Phase II RI (TtNUS, 2002).

In addition to describing the rock encountered in the cores, the bedrock cores were also characterized by noting evidence of fractures and evidence of water bearing fractures (e.g. iron staining/ weathering). The RQD was determined for each core run. The RQD is defined as the sum of all core pieces greater than 4 inches in length, divided by the total length of core run. A higher RQD indicates less fracturing.

Bedrock encountered in WGL-MW-101 contained little evidence of natural fracturing and even less evidence of water bearing fractures. The RQD for this core hole varied between 73 and 100 percent, again indicating competent bedrock. Bedrock encountered in the core hole for WGL-MW-102 contained

both horizontal and vertical fractures. Evidence of water bearing fractures were noted on fracture surfaces and the RQD in this core hole varied from 36 to 78 percent. Bedrock encountered in WGL-MW-103 contained vertical, horizontal and high angle fractures. The fracture surfaces were observed to contain secondary mineralization. The RQD in this core hole varied between 20 and 69 percent.

The geology beneath the Site is presented on three geologic cross-sections from the RI (TtNUS, 2002) which were updated based upon information collected during the PDI field effort. Overall the geology described in the RI has been confirmed by the PDI subsurface investigation. Approximate cross-section locations are shown on Figure 3-2. One cross section (A-A') is oriented primarily in a west to east direction (Figure 3-3). Two cross sections (B-B' and C-C') are oriented approximately north to south across the Site (Figures 3-4 and 3-5, respectively), perpendicular to the easterly direction of groundwater flow.

3.1.2 Hydrogeology

Portions of NAS South Weymouth, including the West Gate Landfill site, overlie stratified sand and gravel, a mapped potentially productive aquifer (PPA). Especially where they are of significant saturated thickness and positioned adjacent to surface water bodies, these stratified sand and gravel aquifers in New England can yield significant groundwater. The sand and gravel deposits encountered at the Site are part of this mapped PPA.

A synoptic round of groundwater levels were measured on June 29, 2009 in the monitoring wells listed in Table 2-2. Depths to groundwater ranged from approximately 2 feet above ground (piezometers located in the west branch of French Stream) to 12 feet bgs across the Site on June 29, 2009 and groundwater elevations calculated for each monitoring well are presented on Table 2-2.

The overburden and bedrock groundwater contour maps for June 29, 2009 are presented on Figures 3-6 and 3-7, respectively. Overburden and bedrock groundwater generally flows easterly, toward French Stream, as shown on Figure 3-6 and 3-7, respectively. As shown on Table 3-1, the horizontal hydraulic gradient calculated in the shallow groundwater ranges from 0.004 to 0.01 ft/ft and the horizontal hydraulic gradient in the bedrock ranges from 0.0067 to 0.0092 ft/ft. Shallow groundwater likely discharges to the west branch of French Stream.

Vertical hydraulic gradients were calculated to assess the interaction between overburden and bedrock groundwater. Water level measurements at four of the six overburden/bedrock monitoring well pairs and one shallow bedrock/deep bedrock monitoring well pair had downward gradients ranging from 0.001 (WGL-MW-66/WGL-MW66D) to 0.058 (WGL-MW-39/WGL-MW-102) (Table 3-2). Two

overburden/bedrock location wells MW-40D/S and APZ-3/WGL-MW-48D had upward gradients of 0.015 and 0.006, respectively. Monitoring well pair MW-40D/40S is located near the east-center of the landfill, in the area of bedrock high. Piezometer APZ-3 and monitoring well MW-48D are located near the southeastern edge of the landfill, near French Stream. Both of these couplet locations are within about 100 feet of the edge of the west branch of French Stream. The observed upward hydraulic gradients suggest that at these locations bedrock groundwater discharges into the west branch of French Stream. However, at the location of WGL-MW102 and WGL-MW-39, also within 100-feet of the west branch of French Stream, hydraulic gradients between overburden and bedrock are downward, suggesting that at these locations bedrock groundwater does not discharge to the west branch of French Stream. Throughout the Site, primarily a downward vertical gradient was observed indicating that the primary vertical component to groundwater flow is downward.

Overall, the hydrogeologic interpretation of the Site has not changed based upon the information obtained in the PDI. Distinct preferential flow paths are not thought to be significant in overburden or bedrock beneath the Site. The overburden aquifer is unconfined, and glacial till, where present, may act as a semi-confining layer over bedrock. The occurrence of till is limited at the Site; there is no evidence that till is hydraulically isolated from bedrock (LFR, 2009).

3.2 DATA EVALUATION

As discussed in previous sections, soil, sediment, and groundwater samples were collected during the PDI and analyzed for various chemical and geotechnical (soil only) constituents. These data were obtained to meet three basic objectives:

- To better delineate the extent of COCs present in Site soil and sediment in the wetlands, to better define the areas and volumes of material requiring remediation;
- To gain geotechnical information to properly design and construct the soil cover;
- To establish baseline groundwater quality conditions.

Sections 3.2.1 through 3.2.3 below summarize the evaluations of geotechnical and chemical data collected to meet these objectives. The data summary tables contained within this section present analytical results for chemicals detected in each media. A tabulation of the analytical results including the chemicals not detected above laboratory reporting limits is provided in Appendix F. The analytical laboratory reports and the data validation memorandum are provided in Appendix G. Analytical data collected by TtNUS during the PDI field investigation were validated using EPA Region I Data Validation

Guidelines as described in Section 5.2 of the QAPP (LFR, 2009). Tier II data validation was performed on all samples.

3.2.1 Evaluation of Soil Geotechnical Investigation

Pre-design investigation soil samples obtained from the geotechnical soil borings advanced through the landfill were subject to geotechnical laboratory testing. Geotechnical laboratory test results are summarized on Table 3-3; the complete test results are provided in Appendix H. Since limited quantities of peat or other plastic soils were encountered during the drilling program, undisturbed soil samples were only collected in two borings (SB-103 and SB-108). A significant thickness of peat was encountered in these two borings, but not elsewhere at the Site. The area of the landfill that has significant thickness of peat is limited to the southeastern portion of the landfill. Figure 3-8 shows the thickness of peat (or at WGL-SB-110 a mixture of silty sand/ peat) encountered in borings advanced at the Site during the RI and the PDI. This figure clearly demonstrates how the thickness of peat increases to the southeast and is thickest beyond the limits of the landfill at location WGL-MW-48D/D2.

3.2.2 Evaluation of (Transformer Related) Soil and Sediment Analytical Results

Sediment and soil samples were collected during the transformer part survey and sediment sampling. In addition, one soil sample was collected during test pitting activities due to an observed petroleum odor. The FMR for the soil sample collected during test pitting activities is included in Appendix A.

3.2.2.1 Transformer Soil/ Sediment Samples

Sediment and soil samples collected as part of the transformer parts survey were collected from two different locations and submitted to Katahdin Analytical Services, Inc. (Katahdin) for PCB analysis. Two locations where suspect dielectric containing equipment was observed were identified during the visual survey. One location was observed along the western slope of the northern wetland (Area 1) and one location was observed near the southern edge of the landfill (Area 2) (see Figure 1-4). Both of these locations are transitional areas between wetland and landfill. Three soil/sediment samples (PCB-01 through PCB-03 were collected in Area 1. Two soil/sediment samples (PCB-04 and PCB-05) were collected from Area 2. Samples PCB-01 and PCB-04 were designated as soil samples in the field. Samples PCB-02, PCB-03 and PCB-05 were designated as sediment samples in the field. These three samples were classified as sediment samples because the two sample locations in Area 1 had standing water the day prior to sample collection and the one sample location in Area 2 had 6-inches of standing water the day of collection.

The Project Action Limits (PALs) and Project Quantitation Limits (PQLs) for soil and sediment are included in Appendix I. The analytical data for collected sediment and soil samples, related to the suspect dielectric containing equipment, are summarized on Table 3-4. A copy of the data validation report is provided in Appendix G. Copies of the sediment and soil field sampling forms, including the sample collection data, are provided in Appendix A Full analytical results are tabulated in Appendix F, and are discussed below.

Soil

The two soil samples and a duplicate sample were collected and analyzed by Katahdin for PCBs by EPA Method 8082.

Two PCBs (Aroclor-1248 and Aroclor-1260) were detected in the soil samples. Aroclor-1248 was detected in one sample (SO-PCB04 at 8,300 µg/kg), well below the maximum Aroclor-1248 concentration detected in surface soil during the RI (46,000 µg/kg). Aroclor-1260 was detected in each of the samples, at concentrations ranging from 340 µg/kg (SO-PCB01) to 5,800 µg/kg (SO-PCB04), well below the maximum Aroclor 1260 concentration detected in surface soil during the RI (8,600 µg/kg).

The total Aroclor concentrations in these two surface soil samples were 340 µg/kg (SO-PCB-01) and 14,100 µg/kg (SO-PCB-04). Surface soil data from the RI indicate the maximum detection for Total PCBs was 55,000 mg/kg. This comparison to the maximum detections during the RI indicates that the PDI surface soil PCB data are within the range of expected (i.e. previously detected) PCB concentrations in surface soil at the Site.

Sediment

A total of 3 sediment samples (SD-PCB02, SD-PCB03, and SD-PCB05), were collected and analyzed by Katahdin for PCBs by EPA Method 8082.

Two PCB mixtures (Aroclor-1248 and Aroclor-1260) were detected in the sediment samples. Aroclor-1248 was detected in one sediment sample (WGL-SD-PCB03-0006 at 180 µg/kg). Aroclor-1260 was detected in each of the three sediment samples at concentrations ranging from 420 J µg/kg to 12,000 µg/kg. These concentrations were compared to soil PALs which are 669 µg/kg for each PCB mixture and total Aroclors. Two of the detected Aroclor-1260 concentrations are above the soil PAL. The Aroclor-1248 concentrations did not exceed the PAL.

PCBs were not detected in sediment or hydric soil during the RI. The MassDEP has adopted consensus-based threshold effect concentrations (TECs) for chemicals for use in screening concentrations of contaminants in freshwater sediment for potential environmental harm. The TEC is a concentration below which harmful effects are unlikely to be observed. The TEC for Total PCBs is 60 µg/kg. Total PCBs in these three samples collected from sediment around suspected transformers during the PDI ranged from 420 to 12,180 µg/kg, above the TEC. As discussed in Section 3.2.2.3 however, the sediment samples collected away from the suspected transformers did not contain concentrations of PCBs above laboratory reporting limits. This indicates that the PCBs detected are localized and have not migrated into the southern wetland.

3.2.2.2 Test Pit Soil Sample

One soil sample was collected from test pit TP-112 and submitted to Katahdin for the following analyses: VOCs, SVOCs, PCBs, ETPH, and percent solids. The analytical data for test pit sample are summarized on Tables 3-5. Tables of the full analytical data are provided in Appendix F and the data validation report is provided in Appendix G. Analytical results of test pit sampling are discussed below.

Because the sample aliquot had been homogenized and the VOC aliquot had not been collected in standard VOA vials, the VOC results are biased low and are considered only estimates.

Low levels of eight VOCs were detected in the soil sample collected from this test pit, with concentrations ranging from 5 J µg/kg (toluene) to 610 µg/kg (acetone). In addition to toluene, two other BTEX compounds [ethylbenzene (3 J µg/kg) and total xylenes (34 J µg/kg)] were detected in the soil sample. In addition, 2-butanone (59 µg/kg), isopropylbenzene (10 J µg/kg), methyl cyclohexane (6 J µg/kg), and methylene chloride (54 µg/kg) were detected in the sample. All of these detections are also below the EPA Regional Screening Levels (RSLs) for residential soil and/or the Massachusetts Contingency Plan (MCP) reportable concentration (RC S-1) and/or the MCP Method 1 S-1/GW-1 standards. It should be noted, that although the concentrations of VOCs in this soil sample are considered biased low due to sample collection methodology, the detected concentrations are significantly below the above referenced standards.

TPH (C9-C36) was detected at a concentration of 590 µg/kg. This concentration is significantly below the MCP RC S-1 of 1,000,000 µg/kg. Katahdin compared the chromatogram of this sample to standard chromatograms, consisting of the following petroleum products: gasoline, JP-A, FP-4, JP-5, JP-8, kerosene, mineral spirits, Stoddard solvent, naphtha, fuel oil #1, fuel oil #2, fuel oil #4, fuel oil #6, weathered gasoline, weathered kerosene, weathered fuel oil #2 and various grades of motor oil.

Katahdin reported that the chromatogram of the sample did not resemble or match any of these petroleum product standards, but it did elute within the retention time for fuel oil #6.

There were no SVOCs or PCBs detected above laboratory reporting limits in the test pit soil sample.

In summary, the low levels of VOCs and TPH detected in this soil sample appear to be attributable to use of the Site as a landfill. The concentrations are below MCP RCs and are generally consistent with low level contamination throughout the soil in the landfill. The observation of this slightly impacted soil does not affect the selected remedy for the Site, nor does it constitute a reportable condition under the MCP.

3.2.2.3 Wetland Sediment Samples

The risk assessments performed as part of the Phase II RI did not identify unacceptable risks to humans or wetland receptors from exposure to sediments. COCs were not identified and remediation goals were not established for the wetland sediments. However, during the RI, only a limited number of sediment samples were collected. The PDI sediment samples were collected to more fully characterize the area and determine whether contaminants are present that may pose a human health or ecological risk.

Sediment samples were collected in the wetland area south and west of the landfill (Figure 1-4) and submitted to Katahdin for VOC, SVOC/PAH, pesticides, PCB, and metals analysis. Sediment samples were submitted to SGS North America, Inc. (SGS) for dioxin analysis. Analytical results are discussed below.

The chemicals detected in sediment samples are summarized on Table 3-6. Analytical tables including the full suite of analyses are provided in Appendix F. The data validation reports are provided in Appendix G.

The positive detections of chemicals in sediment identified as part of the PDI were evaluated to determine whether contaminants are present that may pose a human health or ecological risk. The positive detections were evaluated using the decision rules detailed in the Final PDI QAPP (LFR, 2009) and summarized below:

1) The comparison to the previously detected sediment concentrations was the first step in the analysis. During the RI, the sediment was grouped into French Stream sediment and wetland sediment. Three RI samples were collected from wetland sediment (ASSD-6 through 8), west of the landfill. This is the wetland where the PDI sediment samples were collected so these three RI samples were used in the comparison. If the individual chemical detected during the PDI was

higher than the maximum concentrations detected in the wetland during the RI, the second step in the decision rules would be taken.

2) The second step was to compare the individual positive detections from the PDI to the basewide background concentrations for PAHs. If the individual chemical concentration detected during the PDI was higher than the background concentration, the third step in the decision rules would be performed.

3) The third step was to compare the individual positive detections from the PDI to the MassDEP TEC. If the individual chemical concentrations detected during the PDI was higher than the MassDEP TEC, then additional data analysis/ interpretation was performed.

At each of the three steps outlined above, if a compound was not detected above the RI maximum, the basewide background or the MassDEP TEC, it would be determined that it was not present at concentrations that pose a human health or ecological risk. The comparison is shown on Table 3-7.

Volatile Organic Compounds

Two VOCs were detected in the PDI sediment samples: acetone and 2-butanone.

The concentrations of 2-butanone in sediment samples collected during the PDI ranged from 50 to 120 µg/kg and in the RI, the maximum concentration of 2-butanone in wetland sediment was 58 µg/kg. Two samples contained 2-butanone above the maximum detected during the RI (SD-102 at 120 µg/kg and SD-106 at 83.5 µg/kg). The concentration of acetone in sediment samples from the PDI ranged from 73 to 810 µg/kg. The maximum concentration of acetone in the RI sediment samples was 550 µg/kg. The acetone concentration in PDI sediment sample SD-102 (810 µg/kg) was higher than the RI wetland sediment maximum concentration.

Although it is uncommon to consider any presence of VOCs as background in the environment, 2-butanone has been detected in background sediment samples at NAS South Weymouth. The basewide background concentration for 2-butanone has been set at 330 µg/kg, which is higher than the highest concentration of 2-butanone detected in sediment samples collected in the PDI. Furthermore, both 2-butanone and acetone are common analytical laboratory artifacts. Finally, the frequency and magnitude of detections of these VOCs above the highest detected RI concentrations is low (one to two detections and all within the same order of magnitude of the RI detections). For all of these reasons, the presence of 2-butanone and acetone in sediment adjoining the West Gate Landfill is not considered to pose unacceptable risks to human health or the environment.

Semivolatile Organic Compounds/ PAHs

Eighteen SVOCs, primarily PAHs, were detected in sediment samples. The PAHs are typically components of petroleum (motor oil, fuel oil), coal tar (bitumen, asphaltic tars, and combustion by-products. The PAHs pyrene and benzo(a)anthracene had the largest number of PAL exceedances. Figure 3-9 shows the pyrene and benzo(a)anthracene concentrations detected in wetland sediment samples collected during the PDI. The results are highlighted if they exceed the PALs.

In accordance with the PDI decision rules, the 2009 sediment results for SVOCs were compared to the three sediment sample results collected from the wetland during the 2002 RI: ASD-6, ASD-7, and ASD-8 (TtNUS, 2002). Six SVOCs were detected at these locations during the RI at relatively low concentrations.

The compounds benzo(b)fluoranthene, chrysene, fluoranthene, phenanthrene, pyrene and total PAHs were detected in the PDI sediment samples at concentrations below the maximum concentration detected in the RI wetland sediment samples. Therefore, following the decision rules, these five individual compounds are not present at concentrations that pose a human health or ecological risk.

The individual detections of benzo(a)anthracene, benzo(a)pyrene, benzo(k)fluoranthene were either below the maximum RI concentrations in wetland sediment or were below the basewide background concentration for sediment, indicating that these are not present at concentrations that pose a human health or ecological risk. Concentrations of acenaphthene, acenaphthylene, anthracene, benzo(g,h,i)perylene, dibenzo(a,h)anthracene, fluorene and indeno(1,2,3-cd)pyrene were below the basewide background concentration for sediment, indicating that these compounds are not present at concentrations that pose a human health or ecological risk. Concentrations of naphthalene were below the MassDEPs TEC, indicating naphthalene is not present at concentrations in sediment that pose a human health or ecological risk.

Two PAHs, 2-methylnaphthalene and benzaldehyde, were not eliminated as compounds of concern in the wetland sediment by the decision rules. 2-methylnaphthalene was detected in 4 of the 12 sediment samples at low concentrations, ranging from 3.7 to 5.9 µg/kg. Benzaldehyde was detected in each of the wetland sediment samples collected during the PDI at concentrations ranging from 370 to 3,800 µg/kg.

To further assess if the PDI concentrations of 2-methylnaphthalene and benzaldehyde could represent new conditions or COPCs for the Site, the EPA RSLs were used. The RSLs are based on exposure pathways for which generally accepted methods, models, and assumptions have been developed (i.e., ingestion, dermal contact and inhalation) for specific land-use conditions and do not consider impact to

groundwater or ecological receptors. The RSL for 2-methylnaphthalene, 310,000 µg/kg, is nearly five orders of magnitude higher than the concentrations detected in wetland sediment. The RSL for benzaldehyde, 7,800,000 µg/kg, is more than three orders of magnitude higher than the maximum concentration detected in sediment. This analysis indicates that these final two SVOCs do not pose a risk to human health. Ecological screening levels were not established, and are not readily available in the literature, for these two SVOCs.

Pesticides/PCBs

PCBs were not detected above laboratory reporting limits in the 12 (non-transformer) sediment samples collected. (PCBs detected in the sediment samples collected to characterize the transformers identified during the visual inspection were discussed in Section 3.2.2).

Ten pesticides were detected in the wetland sediment samples, and seven of these compounds exceeded the PAL (Table 3-6). The concentrations of 4, 4'-DDE and 4, 4'-DDT exceeded the PALs in every sediment sample collected. The maximum detection of 4, 4'-DDE was 280J µg/kg at sediment location SD-103. The maximum detection of 4, 4'-DDT was 260 µg/kg at sediment location SD-112. The pesticide 4, 4'-DDD was detected in eight samples exceeding the PAL, with the maximum concentration of 41 J µg/kg detected at SD-105. Dieldrin concentrations also exceeded the PAL at eight sediment locations; the maximum concentration, 8.0 J µg/kg, was detected at sediment locations SD-111 and SD-112. The gamma-BHC (also known as lindane) concentration was above the PALs in two sediment samples: SD-107 and SD-110. The compounds alpha-chlordane and gamma-chlordane were detected in one sediment sample (SD-107) at concentrations exceeding the PALs.

The 2009 sediment results for pesticides were compared to the three RI wetland sediment sample (ASD-6, ASD-7, and ASD-8) results, where five pesticides (4,4'-DDD, 4,4'-DDE, 4,4'-DDT, dieldrin and gamma-chlordane) were detected at relatively low concentrations. Three of the pesticides detected during the PDI (4,4'-DDD, 4,4'-DDE and dieldrin) were present at concentrations below the maximum concentration detected in wetland sediments during the RI. These three pesticides are not therefore considered a risk to human health and the environment at the Site. Three of the seven remaining pesticides (4-4'-DDT, alpha-chlordane and gamma-chlordane) were detected at concentrations below the base background concentrations for sediment. Of the remaining four pesticides detected during the PDI, only one (endosulfan II) has a basewide background concentration (2.9 µg/kg). Endosulfan II concentrations detected during the PDI (6.15 J to 19 µg/kg) were above the basewide background concentration. Only one of the remaining pesticides (gamma-BHC) has a MassDEP TEC (2.4 µg/kg). Two of the seven positive detections of gamma-BHC were slightly above (4.5 J and 2.6 J µg/kg) the MassDEP TEC.

The four pesticides beta-BHC, delta-BHC, endosulfan II and gamma-BHC were compared to the RSLs for residential soil. Beta-BHC was detected at concentrations ranging from 1.8 J to 7.4 J µg/kg, well below its RSL of 270 µg/kg. Delta-BHC was detected at concentrations ranging from 2.3 J to 6.1 J µg/kg, well below its RSL of 77 µg/kg. Endosulfan II was detected at concentrations ranging from 6.15 J to 19 µg/kg, three orders of magnitude below its RSL of 37,000 µg/kg. Gamma BHC was detected at concentrations ranging from 1.7 J to 4.5 J µg/kg, five orders of magnitude below its RSL of 520,000 µg/kg. These results indicate that the concentrations of these pesticides do not pose a human health risk. Ecological screening levels for these four pesticides were not developed.

Metals

Twenty-two metals were detected in the sediment samples. The 2009 sediment results for metals were compared to the wetland sediment sample results from the 2002 RI (TtNUS, 2002). Twenty-three metals were detected in the sediment samples during the RI; generally the concentrations were below or only slightly above the background concentrations (TtNUS, 2002). The 2002 RI sediment analytical results are provided in Appendix J.

Table 3-7 presents the comparison between the maximum concentration in the wetland sediment detected during the RI, the base background sediment concentrations and the MassDEP TEC to the concentrations of metals detected during the PDI. This comparison shows that all detections of aluminum, arsenic, barium, chromium, lead, mercury, nickel, potassium, selenium, thallium and vanadium in PDI sediment samples were below the maximum wetland sediment sample concentration reported in the RI wetland sediment samples. Furthermore, cadmium, cobalt, iron, magnesium, manganese, sodium and zinc were detected in PDI sediment samples at concentrations below the base background sediment concentrations. Finally, copper was detected at concentrations below the MassDEP TEC. This comparison suggests that these 19 metals are not likely to adversely impact human health or the environment from their presence in the wetland sediment at the Site. The three remaining metals: beryllium, calcium, and silver are discussed further in the following paragraphs.

Beryllium was detected in all of the wetland sediment samples collected during the PDI. Its concentration ranged from 0.48 J to 4.6 J mg/kg. All concentrations, except sample SD-101, were below the RI maximum wetland sediment concentration (4.4 J mg/kg). Because there is only one exceedance of the previous maximum detection and the exceedance is insignificant, beryllium is not considered to adversely impact human health or the environment from its presence in wetland sediment at the Site.

Calcium was detected at concentrations ranging from 3,340 to 14,600 mg/kg in the 12 PDI wetland sediment samples. All but one detection (14,600 mg/kg in SD-105) was below the previously detected

maximum (12,600 J mg/kg) in wetland sediment. The concentration detected at SD-105 (14,600 mg/kg) was also above the base background concentration of 13,900 mg/kg, but the other 11 samples were below base background. Because there is only one exceedance of the RI maximum and base background concentrations and the exceedances is not large, calcium is not considered to adversely impact human health or the environment from its presence in wetland sediment at the Site.

Silver was detected at concentrations ranging from 0.185 J to 0.41 J in the 12 wetland sediment samples collected during the PDI. The three wetland sediment samples collected during the RI did not contain concentrations of silver above laboratory reporting limits. Eleven of the 12 samples contained silver above the base sediment background concentration of 0.2 mg/kg. There is no MassDEP TEC for silver. The RI non-wetland sediment samples (collected from the west branch of French Stream) had concentrations of silver up to 2.4 J mg/kg. All of the PDI sediment samples had silver concentrations well below the French Stream RI wetland sediment samples. Therefore the presence of silver in the wetland sediment at the Site is not considered to adversely impact human health or the environment.

Overall, the PDI metals analytical results indicate that metals in wetland sediments do not adversely impact human health or the environment.

Dioxins/ Furans

Dioxins are a contaminant of concern in surface soil at the Site. Prior to implementation of the PDI, dioxins had not been analyzed for in sediment at the Site. Dioxins were detected in all of the sediment locations (Table 3-6). 1,2,3,4,6,7,8,9-OCDD was detected at the highest concentrations in all the sediment samples. The most toxic form of dioxin, 2,3,7,8-TCDD, was detected at four sediment locations ranging from 0.698J ng/kg (SD-111) to 2.43 ng/kg (SD-103).

Although useful, total concentrations of dioxins/ furans are not the best measure of the actual toxicity of dioxins/ furans because each compound has its own level of toxicity. As the initial step in the dioxin/furan risk evaluation, the concentrations detected in sediment were converted to values of 2,3,7,8-TCDD. To account for variations in toxicity, weighted values, or toxic equivalents (TEQs), were calculated and compared to screening values.

The 2,3,7,8-TCDD TEQ values were calculated using toxicity equivalency factors (TEFs) presented in Van den Berg et al. (1998) for birds and fish. Updated TEFs presented in Van den Berg et al. (2006) were used to calculate the TEQ values for mammals (including humans). The TEFs relate the toxicity of each dioxin/furan congener to that of 2,3,7,8-TCDD and are used to convert each dioxin/furan congener concentration to a TEQ value of 2,3,7,8-TCDD. TEQ values for the individual congeners were summed to

represent the total TEQ value for each sample. Tables 3-8 through 3-11 provide the calculations for the TEQs. The 2,3,7,8-TCDD TEQ values were calculated in two ways: (1) using positive detections only and (2) using positive detections and one-half the sample quantitation limit (SQL) for non-detected results. Both sets of calculations are presented in Tables 3-8 through 3-11. These tables also show the calculated total TEQ values, which are the sums of the dioxin/furan TEQ values. Figure 3-10 presents the mammal dioxin/ furan total TEQ values for the PDI sediment samples.

Since the RI did not include sampling and analysis of wetland sediment for dioxins/ furans, there are no RI sediment data to compare to the PDI data. The basewide background concentration for 1,2,3,4,6,7,8-HPCDD is 4.8 ng/kg; PDI concentrations ranged between 6.68 and 130 ng/kg. Furthermore, there are no MassDEP TECs developed for either individual dioxins/furans, total dioxin/furans, or for a dioxin/furan TEQ value.

Human health and ecological risk-based screening levels for exposure to sediment (risk to humans, mammals, birds, and fish) were developed or obtained from literature values. The following section summarizes the methods used to develop the risk screening levels used in the risk evaluation.

The human health screening level for 2,3,7,8 TCDD TEQ was selected as the RSL for residential soil of 4.5 ng/kg.

Ecological screening levels were located in the literature for sediment. Table 5-1 in the “Interim Report on Data and Methods for Assessment of 2,3,7,8-Tetrachlorodibenzo-p-Dioxin/Furan Risks to Aquatic Life and Associated Wildlife” (USEPA, 1993) lists 2,3,7,8-TCDD concentrations in sediment that are associated with risks to aquatic life and associated wildlife. These sediment concentrations were developed to protect birds exposed to sediment (via fish consumption) (21 ng/kg) and to protect fish from the accumulation of toxic levels in their tissues (60 ng/kg). Sediment concentrations established to protect mammals (2.5 ng/kg) were also selected as screening level for mammals.

Table 3-8 presents a comparison of dioxin/furan TEQ values for each sediment sample at the Site to the human health screening level of 4.5 ng/kg. TEQ values exceeded the human health screening level at 9 of the 12 sediment sampling locations. TEQ values for human health screening ranged from 1.46 ng/kg (sample SD-104) to 22.14 ng/kg (sample SD-103).

Because the dioxin/furan values exceeded the human health screening level in some samples, a comparison to the screening levels using average TEQ values was conducted. The average TEQ value across each station was compared to human health screening levels because it is assumed that humans would recreate throughout the area rather than in one specific location in the wetlands. The average TEQ for human exposure for all 12 locations is 10.1 ng/kg (using the more conservative assumption that the

non-detects are present at one-half the laboratory reporting limit). This average TEQ is slightly above the human health screening level of 4.5 ng/kg. In summary, risks to humans from dioxin/furans in wetland sediment could be slightly elevated because TEQ values slightly exceeded the screening level in the majority of sediment samples and in the average TEQ.

Sediment sample results were also compared to ecological screening levels for birds, fish and mammals.

Table 3-9 presents a comparison of dioxin/furan TEQ values for sediment samples at SD-101 through SD-112 to the ecological screening level of 21 ng/kg for the protection of birds (USEPA, 1993). Dioxin/furan TEQ values exceeded the sediment screening level for protection of birds at SD-102, SD-103, SD-105 and SD-111. At SD-103, the dioxin/furan TEQ values were greatest of the 12 sediment samples collected in the wetland.

Table 3-10 presents a comparison of dioxin/furan TEQ values for sediment samples at SD-101 through SD-112 to the ecological screening level of 2.5 ng/kg for the protection of mammals (USEPA, 1993). Dioxin/furan TEQ values exceeded the sediment screening level for protection of mammals at 9 of the 12 sediment sampling locations.

Table 3-11 presents a comparison of dioxin/furan TEQ values for sediment samples to the ecological screening level of 60 ng/kg for protection of fish. Dioxin/furan values did not exceed the screening level.

Because the dioxin/furan values exceeded the bird and mammal ecological screening level in some samples, a comparison to the screening levels using average TEQ values was conducted. The average TEQ value across each station was compared to bird and mammal screening levels because it is assumed that mammals and birds will live and feed throughout the area. The average total TEQ values for birds and mammals were 18.2 ng/kg and 10.1 ng/kg, respectively. The average bird TEQ is below the ecological risk screening criteria of 21 ng/kg. Therefore, it is not likely that birds will be significantly impacted by dioxins/furans in the wetland sediments. The average mammal TEQ (10.1 ng/kg) is slightly above the ecological screening criteria of 2.5 ng/kg, suggesting that mammals could be slightly impacted by the dioxins/furans in the wetland sediments.

3.2.3 Evaluation of Groundwater

A round of groundwater samples was collected from the wells listed in Table 2-4 to establish baseline groundwater quality conditions. Groundwater samples were submitted to analytical laboratories for VOC, EPH/VPH, SVOC/PAH, pesticides, PCB, dioxins, and metals analysis. The detected chemicals in groundwater samples collected during the PDI are summarized on Table 3-12. Full analytical tables,

showing the full lists of analytes, are provided in Appendix F and the data validation report is provided in Appendix G. The results are discussed below.

Volatile Organic Compounds

Three VOCs, acetone, methyl tert-butyl ether (MTBE) and cis-1,2-dichloroethene (cis-1,2-DCE), were detected in groundwater samples. Both acetone and MTBE compounds are common laboratory contaminants and were detected in 1 and 2 samples, respectively. Cis-1,2-DCE was detected at a very low concentration, 0.8 J µg/L, at MW-40S only. All VOC detected concentrations were below the PALs. The VOCs detected did not have RGs promulgated for the Site.

Semivolatile Organic Compounds/ PAHs

There were no SVOCs/PAHs detected in the groundwater samples above laboratory reporting limits.

Pesticides/PCBs

There were no pesticides or PCBs detected in the groundwater samples above laboratory reporting limits.

Dioxins/ Furans

Only one dioxin (1,2,3,4,6,7,8,9-OCDD) was detected at four locations, monitoring wells MW-2, MW-38, MW-40S, and MW-48D2, at very low concentrations, ranging from 0.00743J to 0.0366J ng/L. This particular dioxin congener is the least toxic of the dioxins. There are no PALs for dioxins in groundwater and there are no site specific remedial goals. Groundwater samples were inadvertently analyzed by the laboratory for dioxins/furans (they were not part of the QAPP (LFR, 2009), therefore there were no analytical project quantitation limits (PQLs) specified for the laboratory. The 2,3,7,8-TCDD TEQ values for humans were calculated using toxicity equivalency factors (TEFs) presented in Van den Berg et al. (2006). The analysis and the resulting TEFs are presented on Table 3-13. The groundwater 2,3,7,8-TCDD TEQ values were calculated in two ways: (1) using positive detections only; and (2) using positive detections and one-half the sample quantitation limit (SQL) for non-detected results. Because there were no PQLs specified for the laboratory, the sample quantitation limits are elevated. As a result, using the second calculation method (assuming one-half the SQL for non-detected dioxins/furan congeners) all of the groundwater samples have TEQs above the tapwater RSL.

However, using the first calculation method (using only the positive detections), the results indicate that the TEF calculated is significantly below the tapwater RSL of 5.2E-07 µg/L. As a chemical family, dioxins

have a low solubility in water and a low volatility, and they have an affinity for particulates. Due to the chemical properties of dioxins, very low concentrations (if any) of dioxins are expected in site groundwater.

Metals

Sixteen metals were detected in groundwater samples. All of the metals detected were below the PALs. Chromium and arsenic have site specific remedial goals promulgated (Table 3-12). The detected concentrations of these two metals were well below the site-specific remedial goals.

3.2.4 Landfill Soil Gas Monitoring Results

Landfill gas monitoring was conducted at locations which were determined based on the thickness of the landfill material and geophysics results (Figure 2-1). The gas monitoring measurements are presented in Table 3-14. There were no measured ambient air background readings for hydrogen sulfide in the breathing zone around the probes; VOC background readings ranged from 0 to 0.2 ppm (PID) and 0 to 4.2 ppm (FID). The amount of oxygen in the ambient environment was approximately 20 percent. Background readings for carbon dioxide were 0 and for methane were between 0.2 and 0.4%. Landfill gas monitoring log sheets are provided in Appendix A.

Landfill gas is composed of a mixture of gases; some, such as methane, are combustible. Combustible gases all have a lower explosive limit (LEL) and an upper explosive limit (UEL). The LEL and the UEL are measures of the percent of gas in the air, by volume. At concentrations below the LEL and above the UEL, a gas is not considered explosive. An explosion hazard may be present if a gas is present between the LEL and the UEL, oxygen is present, and an ignition source is available. The explosive limits of methane are 5 percent to 15 percent by volume in air, under normal atmospheric conditions. Five percent methane is approximately equivalent to 100 percent LEL.

Based on the QAPP (LFR, 2009) landfill gas monitoring would be necessary if methane concentrations exceeded 2.5% during soil gas sampling. As noted above, under background (ambient) conditions, methane was recorded between 0.2% and 0.4%. The methane concentrations at 4 of the 5 locations remained unchanged from the ambient condition reading. The methane concentration at SG-5 increased from 0.2% to 0.3%. Therefore the concentrations are below the LEL and below the recommended action level of 2.5%. Regardless, due to an agreement between the Navy and the MassDEP (see Section 4.1), a landfill gas venting layer will be installed at the landfill.

Hydrogen sulfide and carbon dioxide were not detected at any of the soil gas sample locations. The amount of oxygen in the landfill gas soil samples ranged from 19.8 (SG-1) to 20.2 (SG-5). Low concentrations of VOCs were recorded on the PID at four of the five soil gas locations, ranging from 0.4 ppm (SG-4) to 5.1 ppm (SG-5). Elevated VOC readings were recorded on the FID at three of the five soil gas location, ranging from 3.1 ppm (SG-2) to 6.1 ppm (SG-5).

3.3 WETLANDS EVALUATION

As presently conceptualized, part of the wetland immediately adjoining the western and/or southern edge of the landfill will be subject to shallow excavation to remove landfill waste and contaminated soil. The excavated material will be placed (consolidated) onto uplands comprising the top of the landfill. A low permeability soil cap will then be constructed over the entire landfill, including the consolidated material. A portion of the wetland will then be filled with clean fill and topsoil to restore the original grade to allow for wetland restoration. The cap will be constructed to allow for the expansion of the wetland at the same elevation as other areas near the edge of the wetland. The restored and expanded wetland area will then be seeded with indigenous wetland plants. The resulting boundaries of the wetland will only be slightly changed.

The northern wetland will be permanently filled and covered by the landfill cap. Restoration of the northern wetland as a depression within the landfill cap is not practicable. In addition, the elevated concentrations of PCBs in soil and sediment detected in the northern wetland during the PDI will be remedied by placing this area under the landfill cap.

Procedures to restore the wetlands are discussed in the *Wetland and Water Resources Delineation and Functional Assessment Report* (TtNUS, 2009) included in Appendix D. The report also details that there is no expected loss in the wetland functions and values, though the remedial design assumptions used to summarize the losses are only preliminary and are subject to change one the design is finalized. The results of the assessment indicates that implementation of a remedy that is at least conceptually similar to what is presently contemplated would not likely result in a significant net loss of wetland values or functions (TtNUS, 2009).

3.4 100-YEAR FLOODPLAIN ANALYSIS

The flood plain analysis determined the 100-year Flood Plain elevation for the west branch of French Stream. The model used in the floodplain analysis was also used to predict the effects of the construction of the landfill cap at the WGL that adjoins the west branch of French Stream. The prediction was performed by using the topography and proposed grading plan of the designed WGL engineered cap

(TtNUS, 2009). Based on the findings of the report, the proposed capping of the WGL will not result in any significant modification to the water surface during the 100 year flood event. If the plan is implemented as proposed there should be no adverse impacts to surrounding landowners. The complete Flood Plain Analysis Report is included in Appendix E.

3.5 EXTENT OF DEBRIS

A visual survey was conducted to assess the extent of surficial debris in the wetlands surrounding the WGL. The debris locations were marked using GPS and are presented on Figure 1-4. Photographs of the debris locations are included in Appendix B. The surficial debris locations corresponded fairly well with the extent of the debris at depth estimated from the geophysical survey. The extent of landfill and contamination that will be capped is estimated based on the information gathered during the visual survey, the geophysical survey, the subsurface investigation (test pits and borings) and the analytical results. The extent of the proposed landfill debris is shown on Figure 3-11.

4.0 CONCLUSIONS AND RECOMMENDATIONS

4.1 CONCLUSIONS

The following conclusions are based on the results of the WGL PDI:

The PDI confirmed the general overburden and bedrock geology beneath the Site. Overall the overburden geology consists of fill, peat, glaciofluvial sand and gravel, glaciolacustrine sand and silt, and till. The glaciofluvial sand and gravel and the glaciolacustrine sand and silt is a sand unit that often contains gravel or silt and underlies the fill or peat. The glacial till is a discontinuous unit directly overlying bedrock and is comprised of a dense mixture of heterogeneous sand, silt, and gravel. The bedrock beneath the Site is the Dedham granite and does not appear to be significantly fractured.

Because the engineering properties of fibrous peats are significantly different from those of most inorganic soils, the peat unit was investigated more thoroughly and engineering properties tested. The peat appears localized and is generally very soft, fibrous, and rich in organic material, except at one location where a mixture of silty sand and peat was observed. The peat unit ranged from 2 inches thick to 8 feet thick in the landfilled area. The depths to the top of the peat layer were about 2 to 4 feet. The engineering properties of the peat and its extent and thickness that are presented herein will be required for design of the landfill cap. Since landfilled materials were placed on top of the peat many years ago it is expected that some consolidation has occurred. Landfill cap design calculations will determine the best solution for dealing with the peat either during landfill design and/or construction.

The depth to groundwater ranged from approximately 2 feet above ground surface in the piezometers in the west branch of French Stream to 12 feet bgs. Groundwater was only observed above ground surface in the piezometers in the west branch of French Stream. Sand and gravel layers and certain bedrock fractures are considered to serve as flow paths at the Site, but sand and gravel deposits are ubiquitous, therefore distinct preferential flow paths are not thought to be significant. The overburden aquifer is unconfined, but till, where present, may act as a semi-confining layer over bedrock. The horizontal component of groundwater flow beneath WGL is easterly towards the west branch of French Stream. Overburden groundwater is expected to discharge into the west branch of French Stream. Some bedrock groundwater likely discharges to the west branch of French Stream but some is connected to the intermediate groundwater flow system beneath the Site and is expected to flow under the west branch of French Stream. Vertical hydraulic gradients at the site are primarily downward, except for monitoring well locations APZ-3/MW-48D and MW-40S/MW-40D. This indicates that the majority of bedrock groundwater at the Site is being recharged from the overburden groundwater, but there are some upward gradients in the vicinity of the west Branch of French Stream. The PDI results confirmed that the

hydrogeology of the Site is understood so that the long-term groundwater monitoring program for the Site can be designed.

Two PCBs (Aroclor-1248 and Aroclor-1260) were detected in the suspected transformer –related soil and sediment samples. Aroclor-1248 was detected in one soil sample, while Aroclor-1260 was detected in every sample collected for the transformer survey. The range of Aroclor concentrations is lower than the maximums detected in surface soil during the RI. The concentrations of total Aroclor in sediment samples are above the MassDEP TEC. However, PCB mixtures were not detected in the sediment samples located away from the suspect transformers. This indicates that the impact from these suspect transformers is localized and has not migrated into the southern wetland.

One soil sample was collected during test pitting activities based on field observations of contamination. Due to homogenization during sampling, the VOC results are biased low and considered only estimates. Even so, all detections at this location were well below available screening criteria. The soil contained evidence of low levels of petroleum contamination below screening and reporting criteria. This finding is considered generally consistent with low level contamination at the landfill that will be remediated by implementation of the remedial plan for the Site.

There were no exceedances of screening criteria in groundwater, and no detections of SVOCs, pesticides, or PCBs in groundwater samples. Overall, the PDI groundwater results confirmed the results of the RI and provided a baseline groundwater sampling round.

In accordance with the decision rules from the QAPP (LFR, 2009), all the detected concentrations of compounds (VOCs, SVOCs, pesticides/ PCBs and metals) in wetland sediment were compared first to RI wetland sediment concentrations (TtNUS, 2002), then to base background concentrations and finally to the MassDEP TEC. After the sediment results were compared to these screening criteria, most compounds were determined to not adversely impact the human health or the environmental at the Site. The compounds that were not eliminated using these three steps are discussed below.

- The VOCs acetone and 2-butanone were detected in sediment. Although it is uncommon to consider any presence of VOCs as background in the environment, 2-butanone has been detected in background sediment samples at NAS South Weymouth. The base background concentration for 2-butanone is higher than the highest concentration of 2-butanone detected in sediment samples collected in the PDI. Furthermore, both 2-butanone and acetone are common analytical laboratory artifacts. Finally, the frequency and concentrations of these VOCs compared to concentrations detected during the RI is low (one to two detections and all within the same order of magnitude of the RI detections). For all of these reasons, the presence of 2-

butanone and acetone in sediment adjoining the West Gate Landfill are not considered to pose increased human health or environmental risk.

- Two SVOCs, 2-methylnaphthalene and benzaldehyde, required further analysis. 2-methylnaphthalene was detected in 4 of the 12 sediment samples and benzaldehyde was detected in each of the wetland sediment samples. All detections were at low concentrations. The further analysis included using RSLs as screening criteria. The RSL for 2-methylnaphthalene is nearly five orders of magnitude higher than the highest concentration detected in wetland sediment. The RSL for benzaldehyde is over three orders of magnitude higher than the highest concentration detected in sediment. This analysis indicates that these two SVOCs do not pose a risk to human health. Ecological screening levels were not established, and are not readily available in the literature, for these two SVOCs.

- Three metals, beryllium, calcium, and silver required further analysis after completing the first three decision steps. Beryllium was detected in all of the wetland sediment samples. Because there is only one exceedance of the previous beryllium maximum concentration and the exceedance is insignificant, beryllium is not considered to adversely impact human health or the environment. All but one detection of calcium was below the previously detected maximum concentration in wetland sediment and above the base background concentration. The other 11 sample concentrations were below base background for calcium. Because there is only one exceedances of the previous maximum of detections and base background and the exceedance is not large, calcium is not considered to adversely impact human health or the environment at the Site. The silver concentrations in wetland sediment were compared to non-wetland sediment samples (collected from the west branch of French Stream during the RI). All of the PDI sediment samples had silver concentrations well below the French Stream wetland sediment samples. It is therefore determined that the presence of silver in the wetland sediment at the site does not adversely impact human health or the environment.

- The four pesticides beta-BHC, delta-BHC, endosulfan II and gamma-BHC required further analysis to determine if they would pose an increased human health or environmental risk at the Site. These four pesticides were compared to the RSLs for residential soil. Beta-BHC was detected at concentrations well below its RSL. Delta-BHC was detected at concentrations well below its RSL. Endosulfan II was detected at a maximum concentrations over three orders of magnitude below its RSL. Gamma BHC was detected at a maximum concentration five orders of magnitude below its RSL. These results indicate that these concentrations of pesticides do not pose a human health risk. Ecological screening levels for these four pesticides are not readily available.

- Dioxins were detected at all sediment locations. The dioxin results were compared to the human health and ecological risk-based screening levels for exposure to sediment (risk to humans, mammals, birds, and fish) that were developed or obtained from literature values. Based on the results, there may be a slightly elevated risk to humans from dioxins in the sediment. There was no significant ecological risk to fish, and based on the assumption that the birds will live and feed throughout the area, no significant ecological risk to birds. Mammals living in the area could be slightly impacted by the dioxins/furans in the sediment.

Landfill soil gas sampling results were below the action limit established to require permanent landfill gas management. However, it was previously determined (during QAPP development) that, regardless of the results of the soil gas survey, a landfill gas venting layer will be installed at the Site.

Geophysics and test pitting were conducted to delineate the edge of the landfill material to the east, south, and west. The type of debris found in the wetland consisted primarily of metal debris, scraps, appliances, 5-gallon containers, and drum carcasses. In addition, two possible transformers were located and soil and sediment samples were collected. The areal extent of debris, sediment/soil contamination, and the estimated remediation area is presented herein. This extent generally coincides with the extent of landfill depicted in the ROD, with additional area in the southern wetland. The southern wetland remediation area has been expanded in order to remove visual debris. The geophysical and subsurface investigations indicated that the visual extent of debris generally coincides well with the subsurface extent of metallic debris. Debris was observed as far south in the wetland as location D-13 and D-14 (Figure 3-11).

The Wetlands Function and Values Assessment indicates that if the draft preliminary design of the landfill is followed that there will be no loss of wetlands function, and actually a net gain of wetland areas.

The 100-Year Flood Plain Analysis shows that flood levels are not affected by the landfill capping, as currently conceived. If the preliminary plan is implemented in the construction of the landfill there would be no adverse affects to surrounding landowners.

4.2 RECOMMENDATIONS

The following recommendations are based upon the conclusions of the WGL PDI:

1. Based on the geophysics, visual inspection, test pitting the boundaries of the debris have been clearly defined. The volume of soil to be transferred from the wetland to the landfill area can now

be more accurately estimated during the design. Similarly, the nature and extent of the peat beneath the landfill has been more fully characterized and the design of the landfill cap can proceed with this information.

2. The 100-Year Flood Plain Analysis and the Wetlands Function and Values Assessment both state that the draft preliminary design will not be harmful to either surrounding landowners or the wetlands, respectively, indicating that the design basis is acceptable. During the remedial design the 100- year floodplain calculated for the Site should be updated and used to predict the post construction 100- year floodplain.

3. Based on the data collected from the temporary landfill soil gas sampling points, permanent landfill gas monitoring is not needed at this Site.

4. The baseline groundwater monitoring data described herein should be used to design the long term monitoring program for the Site. It is further recommended that institutional controls for the Site be developed as part of the design phase so they can be in place once the soil cap is constructed.

TABLES

TABLE 2-1
TEST PIT EXCAVATION SUMMARY
WEST GATE LANDFILL
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS

Test Pit ID	Location	Excavated	Total Depth (feet)	Length x Width (feet)	Natural Material Depth (feet)	Depth to water (feet)	Items Uncovered	Notes
TP-101	Eastern Border of Landfill	5/26/2009	9.0	18 x 10	5.0	9.0	Crushed 55-gallon drum, miscellaneous corroded metal debris, white/blue crystalline substance, bottles, wire, ceramic cup	Low level response on PID (0.4 ppm) and FID (0.7 ppm) in debris zone, no odor. Debris located in western portion of test pit, approximately 8.0 feet from east edge of test pit up to a depth of approximately 4.0 feet bgs.
TP-102	Northern Portion of Landfill; Parallel to Former Dirt Path	5/26/2009	10.0	21 x 14	7.0	Not encountered	Very little corroded scraps of metal, ash like material	Low level response on PID (0.5 ppm) and FID (0.8 ppm) of ash material, no odor. Scraps of metal observed at surface, ash like material observed from approximately 5.0 to 7.0 feet bgs.
TP-103	Northern Border of Landfill	5/26/2009	9.5	17 x 12	4.5	9.0	Few bricks, long piece of metal	No response on PID or FID. Debris observed approximately 15.0 feet south of the north wall of the test pit.
TP-104	Northwestern Border of Landfill	5/27/2009	10.0	22 x 14	7.0	9.0	Wooden timber (4' long) with nail (possible railroad tie)	No response on PID or FID. Wood observed approximately 2.0 feet bgs. Possible stained soil (2-4 feet bgs), no odor, PID or FID response noted.
TP-105	Adjacent to Northern Wetland	5/27/2009	6.0	25 x 13	1.0	5.0	Metal equipment housing, 4 foot length of corroded mangled corrugated pipe, electrical wire	No response on PID or FID. Debris found at ground surface to approximately 1.0 foot bgs.
TP-106	Western Border of Landfill	5/27/2009	6.0	21 x 8	2.0	5.0	Metal debris, iron pipe, concrete block, electrical wire	No response on PID or FID. Debris found at ground surface to approximately 2.0 feet bgs in eastern half of test pit.
TP-107	Western Border of Landfill; Adjacent to Wetland	5/27/2009	6.0	20 x 9	0.0	5.0	No fill/debris observed	No response on PID or FID.
TP-108	Southwestern Border of Landfill; Adjacent to Wetland	5/27/2009	7.0	15 x 12	4.0	2.0	Bottles, empty corroded 5-gallon container with blue/white crystalline substance, electrical wire, truck tailgate, metal debris, destroyed spray paint can	No response on PID or FID. Slight sheen observed on groundwater. Debris observed at ground surface to approx 3.5 feet bgs throughout test pit. No buried debris observed in wetland. Peat observed at approximately 4.0 feet bgs.
TP-109	Southern Border of Landfill; Adjacent to Wetland	5/28/2009	5.0	22 x 16	1.0	3.5	Bottles, cans, car parts, metal pipe, mangled metal, some white/blue crystalline substance, mangled corroded 5-gallon container	Debris observed throughout test pit, from ground surface to approximately 1.0 foot bgs Low level response on PID (3.7 ppm) in debris zone.
TP-110	Southern Border of Landfill; Adjacent to Wetland	5/28/2009	6.0	22 x 10	2.0	3.0	Bottles, cans, car parts, empty gas can, truck tailgate, mangled metal	No response on PID or FID. Pile of debris observed at surface to test pit in southeast corner, remaining debris found at ground surface to approximately 2.0 feet bgs in northern half of test pit. Groundwater frothy and brown.
TP-111	Southern Border of Landfill; Parallel to Wetland	5/28/2009	8.0	21 x 13	4.0	4.0	Few pieces of metal	No response on PID or FID. Metal debris observed at ground surface to approximately 1.0 foot bgs. Peat encountered from approximately 4.0 to 6.0 feet bgs. Groundwater frothy and brown.
TP-112	Southeastern Border of Landfill	5/28/2009	9.0	18 x 13	7.0	7.0	No debris observed	Petroleum odor, PID (9.2 ppm) and FID (179.2 ppm) responses in light gray soil approximately 4.0 to 7.0 feet bgs. Collected sample for laboratory analysis. Wood and peat observed approximately 7.0 feet bgs.
TP-113	Mounded Area Southeast of Landfill	5/28/2009	6.0	10 x 8	Not encountered	Not encountered	Large boulders, tree stumps No other debris observed	No response on PID or FID.
TP-114	Approximately 10' East of TP-112	5/28/2009	7.0	12 x 12	5.0	7.0	No debris observed	Slight petroleum odor, PID (4.0 ppm) and FID (52 ppm) response in light gray soil approximately 3.0 to 5.0 feet bgs. Wood and peat observed approximately 5.0 to 7.0 feet bgs.
TP-115	Approximately 10' West of TP-112	5/29/2009	8.0	12 x 8	6.0	7.0	Few pieces of metal	Little metal debris observed at surface to 1.0 foot bgs. Slight petroleum odor, PID (55.1 ppm) and FID (22.2 ppm) response in light gray soil approximately 4.0 to 6.0 feet bgs. Wood and peat observed approximately 6.0 to 8.0 feet bgs.
TP-116	Approximately 10' Southeast of TP-112	5/29/2009	7.0	14 x 10	5.0	7.0	No debris observed	No petroleum odor, PID (1.0 ppm) and FID (121.6 ppm) response in light gray soil approximately 4.0 to 5.0 feet bgs. Wood and peat observed approximately 5.0 to 7.0 feet bgs.
TP-117	Approximately 10' Northeast of TP-112	5/29/2009	8.0	12 x 10	6.0	7.0	Few bricks	Bricks observed from approximately 1.0 to 4.0 feet bgs. No petroleum odor, PID (3.0 ppm) and FID (126.6 ppm) response in light gray soil approximately 4.0 to 6.0 feet bgs. Wood and peat observed approximately 6.0 to 8.0 feet bgs.

TABLE 2-2
WELL CONSTRUCTION SUMMARY AND GROUNDWATER ELEVATION DATA
WEST GATE LANDFILL
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS

Monitoring Well / Piezometer ID	Ground Elevation (NAVD)	Top of Riser Elevation (NAVD)	Top of Casing Elevation (NAVD)	Elevation Top of Screen (feet)	Elevation Bottom of Screen (feet)	Depth to Groundwater Below TOR (feet)	Depth to Groundwater Below Ground Surface	Groundwater Elevation (feet)
WGL-APZ-1	141.04	145.24	145.24	140.78	137.83	1.89	-2.31	143.35
WGL-APZ-2	139.64	143.74	143.74	139.28	136.33	2.55	-1.55	141.19
WGL-APZ-3	147.21	149.52	149.91	144.00	134.00	7.92	5.61	141.60
WGL-MW-01	150.89	153.04	153.17	147.68	132.68	10.65	8.50	142.39
WGL-MW-02	148.44	151.36	151.57	147.53	132.53	5.31	2.39	146.05
WGL-MW-03	148.78	151.41	151.59	147.57	132.57	5.11	2.48	146.30
WGL-MW-04	146.80	150.07	149.39	144.80	129.80	4.35	1.08	145.72
WGL-MW-37	150.72	153.02	153.19	146.06	137.11	9.69	7.39	143.33
WGL-MW-38	150.68	153.63	153.83	146.07	137.12	11.12	8.17	142.51
WGL-MW-39	149.80	152.01	152.10	145.50	136.70	7.95	5.74	144.06
WGL-MW-40D	151.76	153.85	154.13	126.40	117.45	10.33	8.24	143.52
WGL-MW-40S	152.00	154.21	154.19	148.15	138.20	11.02	8.81	143.19
WGL-MW-41D	151.25	154.11	154.30	123.04	114.04	9.05	6.19	145.06
WGL-MW-41S	150.85	153.66	153.86	147.94	138.94	8.44	5.63	145.22
WGL-MW-42	150.83	153.76	153.93	147.82	138.82	7.90	4.97	145.86
WGL-MW-43	150.30	153.39	153.51	146.39	137.39	11.63	8.54	141.76
WGL-MW-47D	155.01	157.64	158.01	138.80	133.80	13.41	10.78	144.23
WGL-MW-48D	148.01	150.49	150.51	122.80	112.80	8.77	6.29	141.72
WGL-MW-48D2	147.51	149.58	150.01	108.30	93.30	8.33	6.26	141.25
WGL-MW-66	149.91	152.28	152.71	146.70	136.70	6.60	4.23	145.68
WGL-MW-66D	149.61	152.06	152.61	129.40	124.40	6.39	3.94	145.67
JFP-MW-8	147.81	149.82	150.10	144.60	139.60	3.88	1.87	145.94
CGS-MW-5D	159.21	161.70	161.91	134.00	124.00	14.62	12.13	147.08
CGS-MW-10S	159.51	161.86	162.00	154.30	144.30	14.57	12.22	147.29
CGS-MW-11S	147.30	151.01	149.69	142.04	138.04	4.35	0.64	146.66
EBS-MW-16-006	157.31	159.86	160.02	152.10	142.10	12.15	9.60	147.71
WGL-MW-101	146.10	148.06	148.17	106.60	96.60	2.58	0.62	145.48
WGL-MW-102	147.20	149.21	149.35	105.70	95.70	7.48	5.47	141.73
WGL-MW-103	148.50	150.49	150.65	107.50	97.50	7.88	5.89	142.61

Notes:
1) NAVD = North Americal Vertical Datum
2) TOR = top of riser
3) Depth to groundwater measured on June 29, 2009.

TABLE 2-3
WELL INSPECTION SUMMARY
WEST GATE LANDFILL
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS

Monitoring Well	Sampled	Locked	Obstructed	Re-Labeled	Surface Seal Condition	Tubing	Comments
APZ-1	N	N	N	Y	NA	Y	
APZ-2	N	N	N	Y	NA	N	No cap
APZ-3	Y	Y	N	Y	Broken	N	
MW16-006	N	Y	N	Y	Cracked	Y	
CGS-MW-5D	N	Y	N	N	Good	Y	
CGS-MW-5S	N	Y	N	N	Good	Y	
CGS-MW-10D	N	Y	N	Y	Good	Y	No well cap
CGS-MW-10S	N	Y	N	Y	Good	Y	
CGS-MW-11S	N	N	N	Y	Good	N	PVC heaved- cannot lock
JFP-MW-8	N	Y	N	Y	Good	Y	
JFP-MW-9	N	Y	N	Y	Heaved	Y	Standing water in pro-casing
JFP-MW-12	N	Y	N	Y	Broken	N	
MW-01	N	N	N	Y	Good	B	Pad 0.39' thick
MW-02	Y	N	N	Y	Good	B	Pad 0.51' thick
MW-03	Y	N	N	Y	Good	B	Pad 0.4' thick, cannot fully close well lid
MW-04	Y	N	N	Y	Good	B	PVC riser heaved
MW-37	N	Y	N	Y	Not Visible	B	
MW-38	Y	Y	N	Y	Not Visible	Y	
MW-39	Y	Y	N	Y	Heaved	B	
MW-40D	N	Y	N	Y	Slightly Heved	B	
MW-40S	Y	N	N	Y	Good	B	PVC above top of steel casing- cannot lock
MW-41D	N	Y	N	Y	Good	B	
MW-41S	N	Y	N	Y	Good	B	
MW-42	N	Y	N	Y	Broken	B	
MW-43	N	N	N	Y	Good	B	
MW-47D	N	Y	N	Y	Broken	B	
MW-48D	Y	Y	N	Y	Cracked	B	
MW-48D2	Y	Y	N	Y	Broken	N	
MW-66	N	Y	N	Y	Cracked	Y	
MW-66D	N	Y	N	Y	Cracked	Y	

Notes:
N - No
Y - Yes
NA - Not Applicable
B - Bladder Pump in well, removed during well inspection

TABLE 2-4
MONITORING WELL DEVELOPMENT STABILIZATION REFERENCE SUMMARY
WEST GATE LANDFILL
NAS SOUTH WEYMOUTH, SOUTH WEYMOUTH, MASSACHUSETTS

Well ID	Well Development Date	Pump Type	Initial Clock Time	Final Clock Time	Water Depth Below MP (ft)	Purge Rate (mL/min)	Cum. Volume Purged (gal)	Temp (^oC)	Spec. Cond. (uS/cm)	pH	DO (mg/L)	Turbidity (NTU)	Comments
WGL-MW-101	6/24/2009	Waterra	1038	1330	51.00	2400	46	10.90	1040	11.20	6.15	36.0	Developed over three days
WGL-MW-102	6/24/2009	Waterra	1140	1547	52.00	2400	40	11.00	428	8.99	8.59	8.0	Developed over two days
WGL-MW-103	6/24/2009	Waterra	1410	0940	51.00	1000	36	10.50	565	8.84	9.79	45.0	Developed over four days
WGL-MW-2 [1)]	5/15/2009	foot valve	1135	1235	4.73	820	13	12.68	277	5.08	N/R	18.7	
WGL-MW-3 [1)]	5/15/2009	foot valve	0850	1150	4.60	950	30	10.17	488	4.77	3.62	77.4	
WGL-MW-4 [1)]	5/15/2009	foot valve	0835	0935	3.56	880	14	12.66	183	4.67	N/R	3.5	Light Brown Color
WGL-MW-38 [1)]	5/14/2009	foot valve	0920	1120	11.05	640	20	10.21	160	4.56	5.01	21.4	
WGL-MW-39 [1)]	5/14/2009	foot valve	0910	1200	12.10	400	19	9.33	168	5.42	N/R	33.1	
WGL-MW-40S [1)]	5/14/2009	foot valve	1405	1625	10.70	720	26	9.04	153	4.95	3.06	48.9	
WGL-MW-48D [1)]	5/14/2009	foot valve	1340	1740	8.43	490	32	8.12	348	5.57	N/R	226.0	
WGL-MW-48D2	6/18/2009	Waterra	0905	1050	32.20	450	12.5	10.80	600	6.51	2.55	17.0	

Notes:
ND = Not Developed, previously
NR = Not Recorded
1) Calculated purge rate from cumulative volume purged and lenth of purge.

TABLE 2-5
MONITORING WELL PURGE DATA PRIOR TO SAMPLING
WEST GATE LANDFILL
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS

Well ID	Sample Collection Date	Sample Time (hrs)	Depth Sampled (ftbgs)	Screened Interval (ftbgs)	Sample Collection Method	Start Purge Time (hrs)	End Purge Time (hrs)	Final Water Depth Below MP (ft)	Purge Rate (mL/min)	Cumulative Volume Purged (gal)	Temp (^{o}C)	Spec. Cond. (µS/cm)	DO (mg/L)	pH	ORP (mV)	Turbidity (NTU)	Comments
MW-02	06/30/09	0855	14.5	1.7-16.7	Peristaltic	815	855	5.33	290	3	11.72	746	0.34	4.86	290.0	1.59	clear
MW-03	06/29/09	1505	15	2-17	Peristaltic	1424	1500	5.11	275	3	12.98	514	4.16	5.28	285.5	0.1	clear
MW-04	06/30/09	1000	14	2-17	Peristaltic	925	955	4.40	280	3	12.91	295	0.37	5.14	109.8	0.4	yellow/lt. orange
MW-38	06/30/09	1225	11.5	5.4-14.35	Peristaltic	1123	1220	11.14	240	4.75	12.60	160	0.29	5.21	224.5	0.4	clear
MW-39	06/30/09	1535	9	4.3-13.1	Peristaltic	1440	1530	10.45	90	1.5	15.30	134	0.44	5.32	64.1	3.2	clear
MW-40S	06/30/09	1455	11	3.85-13.8	Peristaltic	1405	1450	11.07	280	3.5	11.07	304	0.25	5.41	157.0	0.8	yellow/lt.orange/ bubbly
MW-48D	06/30/09	1245	31	26-36	Peristaltic	1155	1240	8.85	260	3	8.95	408	0.52	5.76	55.3	10.0	clear
MW-48D2[1]	06/30/09	1000	47.5	40-55	Peristaltic	850	957	12.37	90	1.5	10.35	632	0.70	6.86	-20.8	26.0	clear
MW-101[1]	06/29/09	1310	46	39.5-49.5	Peristaltic	1145	1305	9.57	90	2	12.14	852	2.54	11.07	35.7	2.0	clear
MW-102[1]	06/29/09	1555	47	41.5-51.5	Peristaltic	1450	1552	12.60	90	1.5	13.60	397	2.66	8.78	36.3	0.0	clear
MW-103[1]	06/29/09	1305	46	41-51	Peristaltic	1215	1300	13.75	90	1	14.29	538	3.70	7.88	51.6	4.0	clear

Notes:

1) At MW-48D2, MW-101, MW-102 and MW-103 the water level drawdown did exceed the desired low-flow procedure criterion (<0.3 feet). Stabilization of indicator parameters occurred (except for drawdown).

Abbreviations:

bgs=below ground surface ft=feet MP=measuring point ml/min=milliliters per minute gal=gallons °C=degrees Celcius hrs=Hours
µS/cm=microSiemen per centimeter DO=dissolved oxygen mg/l=milligram per liter ORP=oxidation reduction potential mv=millivolts
NTU=nephelometric turbidity unit

TABLE 3-1
HORIZONTAL HYDRAULIC GRADIENTS - JUNE 2009
WEST GATE LANDFILL
NAS SOUTH WEYMOUTH
WEYMOUTH, MASSACHUSETTS

Monitoring Well	Distance Between Wells (feet)	Ground-water Elevation	Head Difference[1]	Horizontal Gradients	Zone
Overburden					
WGL-MW-66		145.70			
WGL-MW-39	400	144.1	1.60	0.0040	Overburden
JFP-MW-08		145.90			
WGL-MW-38	340	142.50	3.40	0.0100	Overburden
WGL-MW-03		146.80			
WGL-APZ-3	600	141.60	5.20	0.0087	Overburden
Bedrock					
WGL-MW-66D		145.67			
WGL-MW-102	590	141.73	3.94	0.0067	Bedrock
WGL-MW101		145.48			
WGL-WM-48D	408	141.72	3.76	0.0092	Bedrock

Notes:

[1] head difference = the difference in elevation of the water levels between the upgradient and downgradinet monitoring well

All water levels recorded on June 29, 2009.

All measurements reported in feet. Elevations are relative to mean sea level (NAVD 1988).

TABLE 3-2
VERTICAL HYDRAULIC GRADIENTS - JUNE 2009
WEST GATE LANDFILL
NAS SOUTH WEYMOUTH
WEYMOUTH, MASSACHUSETTS

Monitoring Well	Top of Well Screen Elevation	Bottom of Well Screen Elevation	Midpoint of Well Screen Elevation	Ground-water Elevation	Vertical Distance	Head Difference[1]	Vertical Gradients[2]
WGL-MW-04	144.80	129.80	137.30	145.72			
WGL-MW-101	106.6	96.6	101.60	145.48	35.70	-0.24	-0.007
WGL-MW-40S	148.15	138.20	143.18	143.19			
WGL-MW-40D	126.40	117.45	121.93	143.52	21.25	0.33	0.015
WGL-MW-41S	147.94	138.94	143.44	145.22			
WGL-MW-41D	123.04	114.04	118.54	145.06	24.90	-0.16	-0.006
WGL-APZ-3	144	134	139.00	141.60			
WGL-MW-48D	122.8	112.8	117.80	141.72	21.20	0.12	0.006
WGL-MW-48D	122.8	112.8	117.80	141.72			
WGL-MW-48D2	108.3	93.3	100.80	141.25	17.00	-0.47	-0.028
WGL-MW-66	146.7	136.7	141.70	145.68			
WGL-MW-66D	129.4	124.4	126.90	145.67	14.80	-0.01	-0.001
WGL-MW-39	145.5	136.7	141.10	144.06			
WGL-MW-102	105.7	95.7	100.70	141.73	40.40	-2.33	-0.058

Notes:
All measurements reported in feet. Elevations are relative to mean sea level (NAVD 1988).
[1] head difference = deep well groundwater elevation minus the shallow well groundwater elevation.
[2] vertical gradient = head difference divided by the vertical distance.
negative vertical gradients indicate downward component to groundwater flow

TABLE 3-3
GEOTECHNICAL RESULTS
WEST GATE LANDFILL
NAS SOUTH WEYMOUTH
WEYMOUTH, MASSACHUSETTS

Sample ID	Moisture Content, %	Organic Content, %	Specific Gravity	USCS Classification		Grain Size			Atterberg Limits			In-Tube Density			CU Triaxial	
				Group Name	Group Symbol	Gravel, %	Sand, %	Fines, %	LL	PL	PI	Bulk Density, pcf	Dry Density, pcf	Moisture Content, %	Cohesion, psi	Friction Angle
WGL-SO-SB101-1416	20.0	0.1	---	Poorly Graded Sand with Silt	SP-SM	1.9	90.2	7.9	NP	NP	NP	---	---	---	---	---
WGL-SO-SB101-1820	21.9	0.1	---	Silty Sand	SM	3.4	47.6	49.0	NP	NP	NP	---	---	---	---	---
WGL-SO-SB102-0812	13.8	0.4	---	Poorly Graded Sand with Gravel	SP	27.5	69.7	2.8	NP	NP	NP	---	---	---	---	---
WGL-SO-SB102-2931	18.3	0.4	---	Sandy Silt	ML	0.7	46.8	52.5	NP	NP	NP	---	---	---	---	---
WGL-SO-SB103-1416	12.2	0.4	---	Poorly Graded Sand with Gravel	SP	18.5	78.3	3.2	NP	NP	NP	---	---	---	---	---
WGL-SO-SB104-1416	18.0	0.2	---	Poorly Graded Sand	SP	7.6	91.8	0.6	NP	NP	NP	---	---	---	---	---
WGL-SO-SB104-1921	15.9	0.3	---	Silty Sand with Gravel	SM	23.6	58.4	18.0	NP	NP	NP	---	---	---	---	---
WGL-SO-SB105-0608	8.3	0.4	---	Poorly Graded Gravel with Sand	GP	54.0	44.1	1.9	NP	NP	NP	---	---	---	---	---
WGL-SO-SB105-1921	20.8	0.3	---	Silty Sand	SM	6.8	44.3	48.9	NP	NP	NP	---	---	---	---	---
WGL-SO-SB106-1921	20.3	0.2	---	Silty Sand	SM	0.8	55.2	44.0	NP	NP	NP	---	---	---	---	---
WGL-SO-SB106-2426	8.7	0.2	---	Poorly Graded Sand with Silt and Gravel	SP-SM	37.2	51.8	11.0	NP	NP	NP	---	---	---	---	---
WGL-SO-SB107-0608	8.5	0.4	---	Silty Sand with Gravel	SM	37.0	50.2	12.8	NP	NP	NP	---	---	---	---	---
WGL-SO-SB107-1921	12.7	0.3	---	Silty Sand	SM	14.6	46.6	38.8	NP	NP	NP	---	---	---	---	---
WGL-SO-SB108-2931	19.3	0.1	---	Sandy Silt	ML	1.2	46.6	38.8	NP	NP	NP	---	---	---	---	---
WGL-SO-SB109-0810	12.2	2.0	---	Poorly Graded Sand with Silt and Gravel	SP-SM	35.9	57.5	6.6	NP	NP	NP	---	---	---	---	---
WGL-SO-SB109-1921	16.8	0.4	---	Silty Sand	SM	7.3	72.7	20.0	NP	NP	NP	---	---	---	---	---
WGL-SO-SB110-0810	11.6	1.1	---	Poorly Graded Gravel with Sand	GP	56.4	39.0	4.6	NP	NP	NP	---	---	---	---	---
WGL-SO-SB110-2426	14.8	0.2	---	Silty Sand	SM	4.3	47.4	48.3	NP	NP	NP	---	---	---	---	---
WGL-SO-SB103-0608	371.0	58.4	2.24	Peat	PT	2.7	90.4	6.9	396	266	130	66.0	14.0	379	1.01	38.3
WGL-SO-SB108-0911	367.0	70.1	1.62	Peat	PT	7.3	87.2	5.5	282	226	56	64.0	13.0	381	0.80	39.4

Notes:
LL - Liquid Limit
PL - Plastic Limit
PI - Plasticity Index
CU - Consolidated Undrained
NP - Nonplastic - Plasticity could not be calculated due to the sandy nature of the soil (either the liquid limit or the platic limit could not be determined).

TABLE 3-4
TRANSFORMER RELATED SEDIMENT ANALYTICAL RESULTS
WEST GATE LANDFILL
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS

SAMPLE ID	**PAL**	WGL-SD-PCB02-0006	WGL-SD-PCB03-0006	WGL-SD-PCB05-0006	WGL-SO-PCB01	WGL-SO-PCB01	WGL-SO-PCB01	WGL-SO-PCB04
PESTICIDES/PCBS (UG/KG)								
AROCLOR-1248	669[(a)]	30 U	180	31 U	21 U	20.5 U	20 U	8300
AROCLOR-1260	669[(a)]	420 J	12000	700 J	370	340	310	5800
TOTAL AROCLOR	669[(a)]	420 J	12180	700 J	370	340	310	14100

(a) PAL - Project Action Level which is the TEC for total PCBs. PRGs were not developed for individual PCB mixtures

BLACK SHADING-EXCEEDS AT LEAST ONE CRITERION; GRAY SHADING-DETECTED;
U-NOT DETECTED; J-QUANTITATION APPROXIMATE; R-REJECTED; NA-NOT ANALYZED

TABLE 3-5
TEST PIT SOIL ANALYTICAL RESULTS
WEST GATE LANDFILL
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS

LOCATION ID				WGL-SO-TP112
SAMPLE DATE				05/28/09
CRITERIA (ug/kg)	RSLs Soil Residential	MCP RCS-1	MCP Method 1 S-1/GW-1 Standards	
VOLATILES (UG/KG)				
2-BUTANONE	2800000	4000	4000	59
ACETONE	6100000	6000	6000	610 J
BENZENE	1100	2000	2000	3 J
ETHYLBENZENE	5700	40000	40000	3 J
ISOPROPYLBENZENE	220000			10 J
M+P-XYLENES			400000	12 J
METHYL CYCLOHEXANE				6 J
METHYLENE CHLORIDE	11000		100	54
O-XYLENE	530000		400000	22
TOLUENE	500000		30000	5 J
TOTAL XYLENES	60000	300000	400000	34 J
PESTICIDES/PCBS (UG/KG)				
AROCLOR-1248	220			23 U
AROCLOR-1260	220			23 U
TOTAL AROCLOR	220		2000	23 UJ
PETROLEUM HYDROCARBONS (UG/KG)				
TPH (C09-C36)		1000000	1,000,000	590

Notes:

The VOC sample was not collected per the QAPP, but as a grab sample in a 8-oz jar with no headspace. Therefore the results may be biased low.

TABLE 3-6
SEDIMENT ANALYTICAL RESULTS
WEST GATE LANDFILL
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS

SAMPLE ID		WGL-SD-SD101-000.6	WGL-SD-SD102-000.6-AVG	WGL-SD-SD103-000.6	WGL-SD-SD104-000.6	WGL-SD-SD105-000.6	WGL-SD-SD106-000.6-AVG	WGL-SD-SD107-000.6	WGL-SD-SD108-000.6	WGL-SD-SD109-000.6	WGL-SD-SD110-000.6	WGL-SD-SD111-000.6	WGL-SD-SD112-000.6
LOCATION ID		WGL-SD-SD101	WGL-SD-SD102	WGL-SD-SD103	WGL-SD-SD104	WGL-SD-SD105	WGL-SD-SD106	WGL-SD-SD107	WGL-SD-SD108	WGL-SD-SD109	WGL-SD-SD110	WGL-SD-SD111	WGL-SD-SD112
SAMPLE DATE		06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09
TOP DEPTH (FT)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BOTTOM DEPTH (FT)		0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
CRITERIA	**PAL***												
VOLATILES (UG/KG)													
2-BUTANONE		110 UJ	120 J	210 UJ	50 J	160 UJ	83.5 J	180 UJ	140 UJ	100 UJ	50 J	88 UJ	70 UJ
ACETONE		110 UJ	810 J	210 UJ	330 J	73 J	535 J	180 UJ	140 UJ	210 J	210 J	88 UJ	70 UJ
SEMIVOLATILES (UG/KG)													
2-METHYLNAPHTHALENE		42 UJ	4.65 J	5.9 J	25 UJ	21 UJ	31.5 UJ	42 UJ	21 UJ	21 UJ	3.7 J	5.4 J	21 UJ
ACENAPHTHENE		42 UJ	13 J	6.1 J	25 UJ	21 UJ	31.5 UJ	42 UJ	21 UJ	21 UJ	26 UJ	16 J	21 UJ
ACENAPHTHYLENE		9.2 J	14 J	18 J	25 U	20 J	31.5 UJ	42 U	6.4 J	21 U	13 J	26 J	13 J
ANTHRACENE	57	42 UJ	30	31	25 U	27	16 J	42 U	17 J	21 U	35	23	21 U
BENZALDEHYDE		790 J	725 J	1100 J	830 J	3800 J	385 J	3800 J	370 J	890 J	1400 J	490 J	1100 J
BENZO(A)ANTHRACENE	110	62 J	125	160	25 U	100	31.5 UJ	42 U	43 J	100	110	120	57
BENZO(A)PYRENE	150	64 J	125	170	25 U	93	31.5 UJ	42 U	38 J	110	88	150 J	86 J
BENZO(B)FLUORANTHENE		190 J	250	340	25 U	180	59.5 J	88	100 J	200	170	300	170 J
BENZO(G,H,I)PERYLENE		37 J	63	98	25 U	21 U	31.5 UJ	42 U	21 UJ	54	26 U	76 J	21 UJ
BENZO(K)FLUORANTHENE		34 J	78.5	84	25 U	74	17.5 J	25 J	22 J	77	61	70	52 J
CHRYSENE	170	92 J	125	200	25 U	110	31.5 UJ	42 U	59 J	89	120	130 J	45
DIBENZO(A,H)ANTHRACENE	33	42 UJ	21 J	35	25 U	21 U	31.5 UJ	42 U	21 UJ	18 J	26 U	27	21 UJ
FLUORANTHENE	420	64 J	315	350	14 J	260	66.5 J	96	130 J	200	320	300	210
FLUORENE	77	7.0 J	9.2 J	11 J	25 UJ	9.1 J	31.5 UJ	42 UJ	4.1 J	21 UJ	26 UJ	14 J	21 UJ
INDENO(1,2,3-CD)PYRENE		72 J	120	170	25 U	21 U	75.25 J	42 U	21 UJ	100	26 U	150	21 UJ
NAPHTHALENE	180	42 UJ	4.1 J	4.5 J	25 UJ	2.6 J	31.5 UJ	42 UJ	21 UJ	2.8 J	3.9 J	4.7 J	3.0 J
PHENANTHRENE	200	60 J	145	180	6.9 J	110	21.5 J	42 U	48 J	100	140	140	84
PYRENE	200	160 J	235	350	13 J	190	85 J	130	120 J	240	260	350	200

BLACK SHADING-EXCEEDS AT LEAST ONE CRITERION; GRAY SHADING-DETECTED;
U-NOT DETECTED; J-QUANTITATION APPROXIMATE; R-REJECTED; NA-NOT ANALYZED

TABLE 3-6
SEDIMENT ANALYTICAL RESULTS
WEST GATE LANDFILL
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS

SAMPLE ID		WGL-SD-SD101-000.6	WGL-SD-SD102-000.6-AVG	WGL-SD-SD103-000.6	WGL-SD-SD104-000.6	WGL-SD-SD105-000.6	WGL-SD-SD106-000.6-AVG	WGL-SD-SD107-000.6	WGL-SD-SD108-000.6	WGL-SD-SD109-000.6	WGL-SD-SD110-000.6	WGL-SD-SD111-000.6	WGL-SD-SD112-000.6
LOCATION ID		WGL-SD-SD101	WGL-SD-SD102	WGL-SD-SD103	WGL-SD-SD104	WGL-SD-SD105	WGL-SD-SD106	WGL-SD-SD107	WGL-SD-SD108	WGL-SD-SD109	WGL-SD-SD110	WGL-SD-SD111	WGL-SD-SD112
SAMPLE DATE		06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09
TOP DEPTH (FT)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BOTTOM DEPTH (FT)		0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
CRITERIA	**PAL***												
PESTICIDES/PCBS (UG/KG)													
4,4'-DDD	4.9	12 J	6.7 J	15 J	8.2 U	41 J	5.2 J	6.9 U	7.5 J	5.2 J	5.0 J	7.0 U	7.0 U
4,4'-DDE	3.2	61 J	135 J	280 J	9.4 J	210 J	18.5 J	120 J	48 J	34 J	45 J	190 J	210 J
4,4'-DDT	4.2	65	56.5	130	5.0 J	150	42.5	160	53	55	69	270	260
ALPHA-CHLORDANE	3.2	3.5 U	3.55 U	3.6 U	4.2 U	3.6 U	3.6 U	5.2	3.6 U	3.6 U	4.4 U	3.6 U	3.6 U
BETA-BHC		3.5 U	3.4 J	3.6 U	4.2 U	3.6 UJ	2.8 J	3.6 UJ	1.8 J	3.6 UJ	4.4 UJ	3.6 UJ	7.4 J
DELTA-BHC		2.3 J	3.55 UJ	3.6 UJ	4.2 UJ	3.6 UJ	2.5 J	6.1 J	3.6 UJ	3.3 J	3.7 J	4.4 J	2.4 J
DIELDRIN	1.9	6.9 U	4 J	5.0 J	8.2 U	4.2 J	6 J	6.9 U	7.0 U	7.9 J	7.5 J	8.0 J	8.0 J
ENDOSULFAN II		19	9.2	6.9 U	8.2 U	19 J	6.15 J	6.9 U	10 J	7.0 U	8.5 U	18 J	7.0 U
GAMMA-BHC (LINDANE)	2.4	2.4 J	3.55 U	3.6 U	4.2 U	2.1 J	1.7 J	4.5 J	3.6 UJ	2.0 J	2.6 J	3.6 UJ	2.2 J
GAMMA-CHLORDANE	3.24	2.7 J	1.8 J	3.6 U	4.2 U	3.1 J	2 J	11 J	1.8 J	3.6 U	2.6 J	3.6 U	3.0 J
METALS (MG/KG)													
ALUMINUM		3260	2945	3210	1860	2500	1655	1800	1480	1610	1620	1810	1580
ARSENIC	33	5.1 J	4.8 J	3.3 J	4.4 J	3.2 J	3.45 J	2.5 J	4.6 J	2.7 J	3.3 J	2.1 J	1.6 J
BARIUM		80.9 J	66.65 J	126 J	94.8 J	93.2 J	82.5 J	66.8 J	59.3 J	62.6 J	43.0 J	40.6 J	42.9 J
BERYLLIUM		4.6 J	2.5 J	2.1 J	1.1 J	1.1 J	0.765 J	1.0 J	0.78 J	0.62 J	0.48 J	0.64 J	0.48 J
CADMIUM	5	1.8	0.905 J	0.71 J	0.70 J	0.50 J	0.48 J	0.81 J	0.63 J	0.54 J	0.36 J	0.25 J	0.24 J
CALCIUM		6280	7220	13300	10800	14600	12450	6830	6750	7980	6140	5010	3340
CHROMIUM	110	5.2 J	4.35 J	6.3 J	4.2 J	3.7 J	3.1 J	3.6 J	4.8 J	2.8 J	2.9 J	4.0 J	2.8 J
COBALT		1.0 J	1.15 J	1.7 J	2.6 J	1.3 J	1.2 J	0.83 J	0.66 J	0.77 J	0.83 J	0.57 J	0.57 J
COPPER	150	137 J	18.15 J	24.5 J	15.3 J	25.4 J	12.5 J	25.4 J	23.4 J	17.6 J	15.2 J	14.3 J	11.9 J
IRON		7610	3485	3920	7710	3070	4770	5730	8860	4010	2680	2210	3890
LEAD	130	70.6 J	54.55 J	76.1 J	12.5 J	50.9 J	11.35 J	44.3 J	30.9 J	50.2 J	30.8 J	55.5 J	68.1 J
MAGNESIUM		542 J	718 J	1070 J	804 J	1020 J	877 J	542 J	529 J	681 J	638 J	566 J	429 J
MANGANESE		53.6	14.05	44.1	22.4	13.8	16.7	23.3	31.0	21.3	11.7	16.6	15.3

BLACK SHADING-EXCEEDS AT LEAST ONE CRITERION; GRAY SHADING-DETECTED;
U-NOT DETECTED; J-QUANTITATION APPROXIMATE; R-REJECTED; NA-NOT ANALYZED

TABLE 3-6
SEDIMENT ANALYTICAL RESULTS
WEST GATE LANDFILL
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS

SAMPLE ID		WGL-SD-SD101-000.6	WGL-SD-SD102-000.6-AVG	WGL-SD-SD103-000.6	WGL-SD-SD104-000.6	WGL-SD-SD105-000.6	WGL-SD-SD106-000.6-AVG	WGL-SD-SD107-000.6	WGL-SD-SD108-000.6	WGL-SD-SD109-000.6	WGL-SD-SD110-000.6	WGL-SD-SD111-000.6	WGL-SD-SD112-000.6
LOCATION ID		WGL-SD-SD101	WGL-SD-SD102	WGL-SD-SD103	WGL-SD-SD104	WGL-SD-SD105	WGL-SD-SD106	WGL-SD-SD107	WGL-SD-SD108	WGL-SD-SD109	WGL-SD-SD110	WGL-SD-SD111	WGL-SD-SD112
SAMPLE DATE		06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09
TOP DEPTH (FT)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BOTTOM DEPTH (FT)		0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
CRITERIA	**PAL***												
MERCURY	0.18	0.41 J	0.43 J	0.40 J	0.13 J	0.38 J	0.225 J	0.41 J	0.28 J	0.37 J	0.39 J	0.49 J	0.37 J
NICKEL	49	5.9 J	3.9 J	4.7 J	4.3 J	3.8 J	3.3 J	3.6 J	3.4 J	2.9 J	3.1 J	3.3 J	2.7 J
POTASSIUM		205 J	322 J	300 J	122 J	278 J	163 J	235 J	166 J	265 J	328 J	277 J	284 J
SELENIUM		5.0	5.1	4.0	1.5 U	2.6	2.1	3.6	2.1	2.0	1.9	2.2	2.4
SILVER		0.31 J	0.36 J	0.54 J	0.27 J	0.80 J	0.185 J	0.38 J	0.41 J	0.31 J	0.30 J	0.40 J	0.29 J
SODIUM		572 J	889.5 J	1160 J	1020 J	786 J	769 J	674 J	514 J	721 J	701 J	574 J	461 J
THALLIUM		0.09 U	0.09 U	0.09 U	0.09 U	0.10 U	0.09 U	0.09 U	0.08 UJ	0.10 U	0.08 U	0.12 J	0.10 U
VANADIUM		16.6 J	25.8 J	19.0 J	22.4 J	23.4 J	17.2 J	17.7 J	21.5 J	14.9 J	17.8 J	19.6 J	12.7 J
ZINC	460	68.5	15.3	26.8	19.8	14.6	14.55	26.8	17.0	16.4	22.7	12.5	12.3
DIOXINS/FURANS (NG/KG)													
1,2,3,4,6,7,8,9-OCDD		574	492	810	65.1	1240	144	443 J	343 J	341	399	560	64.1
1,2,3,4,6,7,8,9-OCDF		32.9 J	45.7	63.5	2.87 J	31.3	5.04 J	21.8	22.4 J	28.4	33.3	66.6	6.72 J
1,2,3,4,6,7,8-HPCDD		73.6	73.5	130	6.68 J	101	13 J	54	49.3 J	44.1	59.7	92.2	9.67
1,2,3,4,6,7,8-HPCDF		23.2	37.8	51.4	1.97 U	25.2	3.48 J	17	19.7 J	23	28.4	59.2	5.64
1,2,3,4,7,8,9-HPCDF		2.23 U	2.59 J	3.88 J	1.97 U	1.83 J	1.68 U	1.63 J	1.62 J	1.51 J	2.32 J	4.03 J	0.556 J
1,2,3,4,7,8-HXCDD		2.76 J	3.3 J	4.83 J	1.48 U	3.3 J	1.27 U	2.22 J	1.48 J	1.91 J	3.77 J	5.05 J	0.612 J
1,2,3,4,7,8-HXCDF		7.06 J	10.7 J	15.1	1.69 U	7 J	1.44 U	4.63 J	5.59 J	6.87 J	7.25 J	17.4	1.9 J
1,2,3,6,7,8-HXCDD		4.53 J	5.87 J	9.82 J	1.45 U	5.36 J	1.24 U	3.06 J	3.16 J	3.39 J	5.38 J	8.61 J	0.931 J
1,2,3,6,7,8-HXCDF		4.82 J	7.24 J	9.18 J	0.482 U	4.85 J	0.661 J	3.71 J	3.99 J	4.57 J	5.8 J	12.2	1.33 J
1,2,3,7,8,9-HXCDD		4.64 J	5.4 J	8 J	0.93 U	8.2 J	0.95 J	3.49 J	3.26 J	3.25 J	5.68 J	8.36 J	0.956 J
1,2,3,7,8,9-HXCDF		1.88 J	1.8 J	1.49 J	1.05 U	0.893 J	0.896 U	0.632 J	1.49 J	0.796 J	0.727 J	1.57 J	0.431 J
1,2,3,7,8-PECDD		2.21 J	3.26 J	5.3 J	0.974 U	3.85 J	0.833 U	2.59 J	1.37 J	2.2 J	3.2 J	4.02 J	0.242 U
1,2,3,7,8-PECDF		4.62 J	6.2 J	7.29 J	1.12 U	4.02 J	0.954 U	2.9 J	3.22 J	4.07 J	4.5 J	10.1 J	1.02 J
2,3,4,6,7,8-HXCDF		5.78 J	9.95 J	11	1.08 U	5.81 J	0.924 U	4.18 J	4.67 J	5.89 J	6.72 J	14.5	1.57 J
2,3,4,7,8-PECDF		8.21 J	14.4	16.4	1.12 U	9.06 J	1.11 J	8.04 J	3.74 J	8.72 J	9.66 J	19.6	1.96 J

BLACK SHADING-EXCEEDS AT LEAST ONE CRITERION; GRAY SHADING-DETECTED;
U-NOT DETECTED; J-QUANTITATION APPROXIMATE; R-REJECTED; NA-NOT ANALYZED

TABLE 3-6
SEDIMENT ANALYTICAL RESULTS
WEST GATE LANDFILL
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS

SAMPLE ID		WGL-SD-SD101-000.6	WGL-SD-SD102-000.6-AVG	WGL-SD-SD103-000.6	WGL-SD-SD104-000.6	WGL-SD-SD105-000.6	WGL-SD-SD106-000.6-AVG	WGL-SD-SD107-000.6	WGL-SD-SD108-000.6	WGL-SD-SD109-000.6	WGL-SD-SD110-000.6	WGL-SD-SD111-000.6	WGL-SD-SD112-000.6
LOCATION ID		WGL-SD-SD101	WGL-SD-SD102	WGL-SD-SD103	WGL-SD-SD104	WGL-SD-SD105	WGL-SD-SD106	WGL-SD-SD107	WGL-SD-SD108	WGL-SD-SD109	WGL-SD-SD110	WGL-SD-SD111	WGL-SD-SD112
SAMPLE DATE		06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09
TOP DEPTH (FT)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BOTTOM DEPTH (FT)		0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
CRITERIA	**PAL***												
2,3,7,8-TCDD		0.472 U	0.976 J	2.43	0.418 U	0.765 J	0.357 U	0.22 U	1.57 UJ	0.235 U	0.248 U	0.698 J	0.104 U
2,3,7,8-TCDF		7.36	5.74	12.1	1.23 U	4.93	1.54 UJ	3.38	4.43	2.93	2.6	5.02	0.685 J
TOTAL HPCDD		146	150	258	13.8	232	25.8	105	103 J	91.4	121	189 J	20.8
TOTAL HPCDF		41.7	57	84.6	17.5 U	35.7	4.86	25.5	31.6 J	34.9	44.6	86.3	8.17
TOTAL HXCDD		85.4	91.6 J	127 J	2.81	80.9	15.4	66.9	42.5 J	54	82.6 J	126	12.1
TOTAL HXCDF		69.5	103 J	128 J	3.23 J	65.4 J	7.46 J	47.8 J	38.2 J	60.6 J	71.8 J	157 J	15.8
TOTAL PECDD		41.7 J	63 J	85.7 J	1.38	46 J	8.92 J	54.7 J	32.7 J	42 J	59.7 J	87.7 J	7.25 J
TOTAL PECDF		99.8 J	170 J	213 J	4.56	112 J	12.6	94.5 J	67.7 J	111 J	122 J	239 J	27.5 J
TOTAL TCDD		140	65.4 J	82.6 J	7.23 J	58.2 J	35.2 J	118 J	54.3 J	66.5 J	61.8 J	99.4	9.53
TOTAL TCDF		381	242 J	331 J	18.2	191 J	57.4 J	253 J	161 J	181 J	148 J	317	34.3 DPE

* PAL - project action level

Note: Additional sediment samples associated with electrical equipment debris found onsite were collected and analyzed for PCBs only. These samples are presented in Table 3-4.

BLACK SHADING-EXCEEDS AT LEAST ONE CRITERION; GRAY SHADING-DETECTED;
U-NOT DETECTED; J-QUANTITATION APPROXIMATE; R-REJECTED; NA-NOT ANALYZED

TABLE 3-7
CHEMICALS IN SEDIMENT - DECISION STEPS
WEST GATE LANDFILL
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS

SAMPLE ID				WGL-SD-SD101-000.6	WGL-SD-SD102-000.6-AVG	WGL-SD-SD103-000.6	WGL-SD-SD104-000.6	WGL-SD-SD105-000.6	WGL-SD-SD106-000.6-AVG	WGL-SD-SD107-000.6	WGL-SD-SD108-000.6	WGL-SD-SD109-000.6	WGL-SD-SD110-000.6	WGL-SD-SD111-000.6	WGL-SD-SD112-000.6
LOCATION ID				WGL-SD-SD101	WGL-SD-SD102	WGL-SD-SD103	WGL-SD-SD104	WGL-SD-SD105	WGL-SD-SD106	WGL-SD-SD107	WGL-SD-SD108	WGL-SD-SD109	WGL-SD-SD110	WGL-SD-SD111	WGL-SD-SD112
SAMPLE DATE				06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09
TOP DEPTH (FT)	**RI Max. Conc.**	**Bkg. Conc.**	**MassDEP Screening Benchmark**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BOTTOM DEPTH (FT)				0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
VOLATILES (UG/KG)															
2-BUTANONE	58	330		110 UJ	120 J	210 UJ	50 J	160 UJ	83.5 J	180 UJ	140 UJ	100 UJ	50 J	88 UJ	70 UJ
ACETONE	550	416.84		110 UJ	810 J	210 UJ	330 J	73 J	535 J	180 UJ	140 UJ	210 J	210 J	88 UJ	70 UJ
SEMIVOLATILES (UG/KG)															
2-METHYLNAPHTHALENE				42 UJ	4.65 J	5.9 J	25 UJ	21 UJ	31.5 UJ	42 UJ	21 UJ	21 UJ	3.7 J	5.4 J	21 UJ
ACENAPHTHENE		83		42 UJ	13 J	6.1 J	25 UJ	21 UJ	31.5 UJ	42 UJ	21 UJ	21 UJ	26 UJ	16 J	21 UJ
ACENAPHTHYLENE		257.92		9.2 J	14 J	18 J	25 U	20 J	31.5 UJ	42 U	6.4 J	21 U	13 J	26 J	13 J
ANTHRACENE		435.6	57	42 UJ	30	31	25 U	27	16 J	42 U	17 J	21 U	35	23	21 U
BENZALDEHYDE				790 J	725 J	1100 J	830 J	3800 J	385 J	3800 J	370 J	890 J	1400 J	490 J	1100 J
BENZO(A)ANTHRACENE	63 J	1400	110	62 J	125	160	25 U	100	31.5 UJ	42 U	43 J	100	110	120	57
BENZO(A)PYRENE	53 J	3446.52	150	64 J	125	170	25 U	93	31.5 UJ	42 U	38 J	110	88	150 J	86 J
BENZO(B)FLUORANTHENE	690J	2000		190 J	250	340	25 U	180	59.5 J	88	100 J	200	170	300	170 J
BENZO(G,H,I)PERYLENE		374.77		37 J	63	98	25 U	21 U	31.5 UJ	42 U	21 UJ	54	26 U	76 J	21 UJ
BENZO(K)FLUORANTHENE	66 J	1100		34 J	78.5	84	25 U	74	17.5 J	25 J	22 J	77	61	70	52 J
CHRYSENE	780 J	1700	170	92 J	125	200	25 U	110	31.5 UJ	42 U	59 J	89	120	130 J	45
DIBENZO(A,H)ANTHRACENE		190	33	42 UJ	21 J	35	25 U	21 U	31.5 UJ	42 U	21 UJ	18 J	26 U	27	21 UJ
FLUORANTHENE	1100 J	3000	420	64 J	315	350	14 J	260	66.5 J	96	130 J	200	320	300	210
FLUORENE		130	77	7.0 J	9.2 J	11 J	25 UJ	9.1 J	31.5 UJ	42 UJ	4.1 J	21 UJ	26 UJ	14 J	21 UJ
INDENO(1,2,3-CD)PYRENE	38 J	490		72 J	120	170	25 U	21 U	75.25 J	42 U	21 UJ	100	26 U	150	21 UJ
NAPHTHALENE			180	42 UJ	4.1 J	4.5 J	25 UJ	2.6 J	31.5 UJ	42 UJ	21 UJ	2.8 J	3.9 J	4.7 J	3.0 J
PHENANTHRENE	620 J	1400	200	60 J	145	180	6.9 J	110	21.5 J	42 U	48 J	100	140	140	84
PYRENE	1100 J	2300	200	160 J	235	350	13 J	190	85 J	130	120 J	240	260	350	200
PESTICIDES/PCBS (UG/KG)															
4,4'-DDD	81	730		12 J	6.7 J	15 J	8.2 U	41 J	5.2 J	6.9 U	7.5 J	5.2 J	5.0 J	7.0 U	7.0 U
4,4'-DDE	400 J	234.28		61 J	135 J	280 J	9.4 J	210 J	18.5 J	120 J	48 J	34 J	45 J	190 J	210 J
4,4'-DDT	140 J	290		65	56.5	130	5.0 J	150	42.5	160	53	55	69	270	260
ALPHA-CHLORDANE		12		3.5 U	3.55 U	3.6 U	4.2 U	3.6 U	3.6 U	5.2	3.6 U	3.6 U	4.4 U	3.6 U	3.6 U
BETA-BHC				3.5 U	3.4 J	3.6 U	4.2 U	3.6 UJ	2.8 J	3.6 UJ	1.8 J	3.6 UJ	4.4 UJ	3.6 UJ	7.4 J
DELTA-BHC				2.3 J	3.55 UJ	3.6 UJ	4.2 UJ	3.6 UJ	2.5 J	6.1 J	3.6 UJ	3.3 J	3.7 J	4.4 J	2.4 J

TABLE 3-7
CHEMICALS IN SEDIMENT - DECISION STEPS
WEST GATE LANDFILL
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS

SAMPLE ID				WGL-SD-SD101-000.6	WGL-SD-SD102-000.6-AVG	WGL-SD-SD103-000.6	WGL-SD-SD104-000.6	WGL-SD-SD105-000.6	WGL-SD-SD106-000.6-AVG	WGL-SD-SD107-000.6	WGL-SD-SD108-000.6	WGL-SD-SD109-000.6	WGL-SD-SD110-000.6	WGL-SD-SD111-000.6	WGL-SD-SD112-000.6
LOCATION ID				WGL-SD-SD101	WGL-SD-SD102	WGL-SD-SD103	WGL-SD-SD104	WGL-SD-SD105	WGL-SD-SD106	WGL-SD-SD107	WGL-SD-SD108	WGL-SD-SD109	WGL-SD-SD110	WGL-SD-SD111	WGL-SD-SD112
SAMPLE DATE				06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09
TOP DEPTH (FT)	**RI Max. Conc.**	**Bkg. Conc.**	**MassDEP Screening Benchmark**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BOTTOM DEPTH (FT)				0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
DIELDRIN	57	17	1.9	6.9 U	4 J	5.0 J	8.2 U	4.2 J	6 J	6.9 U	7.0 U	7.9 J	7.5 J	8.0 J	8.0 J
ENDOSULFAN II		2.9		19	9.2	6.9 U	8.2 U	19 J	6.15 J	6.9 U	10 J	7.0 U	8.5 U	18 J	7.0 U
GAMMA-BHC (LINDANE)			2.4	2.4 J	3.55 U	3.6 U	4.2 U	2.1 J	1.7 J	4.5 J	3.6 UJ	2.0 J	2.6 J	3.6 UJ	2.2 J
GAMMA-CHLORDANE	5	14		2.7 J	1.8 J	3.6 U	4.2 U	3.1 J	2 J	11 J	1.8 J	3.6 U	2.6 J	3.6 U	3.0 J
METALS (MG/KG)															
ALUMINUM	4700J	8767.37		3260	2945	3210	1860	2500	1655	1800	1480	1610	1620	1810	1580
ARSENIC	6.5J	8.9	33	5.1 J	4.8 J	3.3 J	4.4 J	3.2 J	3.45 J	2.5 J	4.6 J	2.7 J	3.3 J	2.1 J	1.6 J
BARIUM	121 J	202.48		80.9 J	66.65 J	126 J	94.8 J	93.2 J	82.5 J	66.8 J	59.3 J	62.6 J	43.0 J	40.6 J	42.9 J
BERYLLIUM	4.4 J	0.46		4.6 J	2.5 J	2.1 J	1.1 J	1.1 J	0.765 J	1.0 J	0.78 J	0.62 J	0.48 J	0.64 J	0.48 J
CADMIUM	0.94J	1.95	5	1.8	0.905 J	0.71 J	0.70 J	0.50 J	0.48 J	0.81 J	0.63 J	0.54 J	0.36 J	0.25 J	0.24 J
CALCIUM	12600 J	13900		6280	7220	13300	10800	14600	12450	6830	6750	7980	6140	5010	3340
CHROMIUM	8.3J	11.92	110	5.2 J	4.35 J	6.3 J	4.2 J	3.7 J	3.1 J	3.6 J	4.8 J	2.8 J	2.9 J	4.0 J	2.8 J
COBALT	ND	25.7		1.0 J	1.15 J	1.7 J	2.6 J	1.3 J	1.2 J	0.83 J	0.66 J	0.77 J	0.83 J	0.57 J	0.57 J
COPPER	35J	53.3	150	137 J	18.15 J	24.5 J	15.3 J	25.4 J	12.5 J	25.4 J	23.4 J	17.6 J	15.2 J	14.3 J	11.9 J
IRON	7500J	24000		7610	3485	3920	7710	3070	4770	5730	8860	4010	2680	2210	3890
LEAD	126 J	200.86	130	70.6 J	54.55 J	76.1 J	12.5 J	50.9 J	11.35 J	44.3 J	30.9 J	50.2 J	30.8 J	55.5 J	68.1 J
MAGNESIUM	710J	1683.03		542 J	718 J	1070 J	804 J	1020 J	877 J	542 J	529 J	681 J	638 J	566 J	429 J
MANGANESE	34J	3690		53.6	14.05	44.1	22.4	13.8	16.7	23.3	31.0	21.3	11.7	16.6	15.3
MERCURY	0.45J	0.28	0.18	0.41 J	0.43 J	0.40 J	0.13 J	0.38 J	0.225 J	0.41 J	0.28 J	0.37 J	0.39 J	0.49 J	0.37 J
NICKEL	7.4J	11.71	49	5.9 J	3.9 J	4.7 J	4.3 J	3.8 J	3.3 J	3.6 J	3.4 J	2.9 J	3.1 J	3.3 J	2.7 J
POTASSIUM	380J	603.24		205 J	322 J	300 J	122 J	278 J	163 J	235 J	166 J	265 J	328 J	277 J	284 J
SELENIUM	9.1 J	0.6675		5.0	5.1	4.0	1.5 U	2.6	2.1	3.6	2.1	2.0	1.9	2.2	2.4
SILVER	ND	0.2		0.31 J	0.36 J	0.54 J	0.27 J	0.80 J	0.185 J	0.38 J	0.41 J	0.31 J	0.30 J	0.40 J	0.29 J
SODIUM	553 J	2180		572 J	889.5 J	1160 J	1020 J	786 J	769 J	674 J	514 J	721 J	701 J	574 J	461 J
THALLIUM	0.51J			0.09 U	0.09 U	0.09 U	0.09 U	0.10 U	0.09 U	0.09 U	0.08 UJ	0.10 U	0.08 U	0.12 J	0.10 U
VANADIUM	40J	38.18		16.6 J	25.8 J	19.0 J	22.4 J	23.4 J	17.2 J	17.7 J	21.5 J	14.9 J	17.8 J	19.6 J	12.7 J
ZINC	42J	549	460	68.5	15.3	26.8	19.8	14.6	14.55	26.8	17.0	16.4	22.7	12.5	12.3

Notes:

810 J = Exceeds all of the decision tree screening criteria. The decision tree is discussed in the WGL PDI (TtNUS, 2009).

References:

RI Maximum Sediment Detection - TtNUS, 2002.

Background Concentrations- Stone and Webster, 2002.

MassDEP Screening Benchmark -MassDEP, 2006.

TABLE 3-8
DIOXIN TEQ CALCULATIONS AND COMPARISON TO HUMAN RISK SCREENING CRITERIA
WEST GATE LANDFILL
NAS SOUTH WEYMOUTH, SOUTH WEYMOUTH, MASSACHUSETTS

DIOXINS/FURANS (NG/KG)	TEF[1]	RSL (NG/KG)	Base Background (NG/KG)	WGL-SD-SD101		TEQ[2]	TEQ[3]	WGL-SD-SD102		TEQ[2]	TEQ[3]	WGL-SD-SD103		TEQ[2]	TEQ[3]	WGL-SD-SD104		TEQ[2]	TEQ[3]	WGL-SD-SD105		TEQ[2]	TEQ[3]	WGL-SD-SD106		TEQ[2]	TEQ[3]
1,2,3,4,6,7,8,9-OCDD	0.0003			574		0.1722	0.1722	492		0.1476	0.1476	810		0.243	0.243	65.1		0.01953	0.01953	1240		0.372	0.372	144		0.0432	0.0432
1,2,3,4,6,7,8,9-OCDF	0.0003			32.9	J	0.00987	0.00987	45.7		0.01371	0.01371	63.5		0.01905	0.01905	2.87	J	0.000861	0.000861	31.3		0.00939	0.00939	5.04	J	0.001512	0.001512
1,2,3,4,6,7,8-HPCDD	0.01		4.8	73.6		0.736	0.736	73.5		0.735	0.735	130		1.3	1.3	6.68	J	0.0668	0.0668	101		1.01	1.01	13	J	0.13	0.13
1,2,3,4,6,7,8-HPCDF	0.01			23.2		0.232	0.232	37.8		0.378	0.378	51.4		0.514	0.514	1.97	U	0.00985	0	25.2		0.252	0.252	3.48	J	0.0348	0.0348
1,2,3,4,7,8,9-HPCDF	0.01			2.23	U	0.01115	0	2.59	J	0.0259	0.0259	3.88	J	0.0388	0.0388	1.97	U	0.00985	0	1.83	J	0.0183	0.0183	1.68	U	0.0084	0
1,2,3,4,7,8-HXCDD	0.1			2.76	J	0.276	0.276	3.3	J	0.33	0.33	4.83	J	0.483	0.483	1.48	U	0.074	0	3.3	J	0.33	0.33	1.27	U	0.0635	0
1,2,3,4,7,8-HXCDF	0.1			7.06	J	0.706	0.706	10.7	J	1.07	1.07	15.1		1.51	1.51	1.69	U	0.0845	0	7	J	0.7	0.7	1.44	U	0.072	0
1,2,3,6,7,8-HXCDD	0.1			4.53	J	0.453	0.453	5.87	J	0.587	0.587	9.82	J	0.982	0.982	1.45	U	0.0725	0	5.36	J	0.536	0.536	1.24	U	0.062	0
1,2,3,6,7,8-HXCDF	0.1			4.82	J	0.482	0.482	7.24	J	0.724	0.724	9.18	J	0.918	0.918	0.482	U	0.0241	0	4.85	J	0.485	0.485	0.661	J	0.0661	0.0661
1,2,3,7,8,9-HXCDD	0.1			4.64	J	0.464	0.464	5.4	J	0.54	0.54	8	J	0.8	0.8	0.93	U	0.0465	0	8.2	J	0.82	0.82	0.95	J	0.095	0.095
1,2,3,7,8,9-HXCDF	0.1			1.88	J	0.188	0.188	1.8	J	0.18	0.18	1.49	J	0.149	0.149	1.05	U	0.0525	0	0.893	J	0.0893	0.0893	0.896	U	0.0448	0
1,2,3,7,8-PECDD	1			2.21	J	2.21	2.21	3.26	J	3.26	3.26	5.3	J	5.3	5.3	0.974	U	0.487	0	3.85	J	3.85	3.85	0.833	U	0.4165	0
1,2,3,7,8-PECDF	0.03			4.62	J	0.1386	0.1386	6.2	J	0.186	0.186	7.29	J	0.2187	0.2187	1.12	U	0.0168	0	4.02	J	0.1206	0.1206	0.954	U	0.01431	0
2,3,4,6,7,8-HXCDF	0.1			5.78	J	0.578	0.578	9.95	J	0.995	0.995	11		1.1	1.1	1.08	U	0.054	0	5.81	J	0.581	0.581	0.924	U	0.0462	0
2,3,4,7,8-PECDF	0.3			8.21	J	2.463	2.463	14.4		4.32	4.32	16.4		4.92	4.92	1.12	U	0.168	0	9.06	J	2.718	2.718	1.11	J	0.333	0.333
2,3,7,8-TCDD	1			0.472	U	0.236	0	0.976	J	0.976	0.976	2.43		2.43	2.43	0.418	U	0.209	0	0.765	J	0.765	0.765	0.357	U	0.1785	0
2,3,7,8-TCDF	0.1			7.36		0.736	0.736	5.74		0.574	0.574	12.1		1.21	1.21	1.23	U	0.0615	0	4.93		0.493	0.493	1.54	UJ	0.077	0
Total of TEQ		4.5				10.09	9.84			15.04	15.04			22.14	22.14			1.46	0.09			13.15	13.15			1.69	0.70

TABLE 3-8
DIOXIN TEQ CALCULATIONS AND COMPARISON TO HUMAN RISK SCREENING CRITERIA
WEST GATE LANDFILL
NAS SOUTH WEYMOUTH, SOUTH WEYMOUTH, MASSACHUSETTS

DIOXINS/FURANS (NG/KG)	TEF[1]	RSL (NG/KG)	Base Background (NG/KG)	WGL-SD-SD107		TEQ[2]	TEQ[3]	WGL-SD-SD108		TEQ[2]	TEQ[3]	WGL-SD-SD109		TEQ[2]	TEQ[3]	WGL-SD-SD110		TEQ[2]	TEQ[3]	WGL-SD-SD111		TEQ[2]	TEQ[3]	WGL-SD-SD112		TEQ[2]	TEQ[3]
1,2,3,4,6,7,8,9-OCDD	0.0003			443	J	0.1329	0.1329	343	J	0.1029	0.1029	341		0.1023	0.1023	399		0.1197	0.1197	560		0.168	0.168	64.1		0.01923	0.01923
1,2,3,4,6,7,8,9-OCDF	0.0003			21.8		0.00654	0.00654	22.4	J	0.00672	0.00672	28.4		0.00852	0.00852	33.3		0.00999	0.00999	66.6		0.01998	0.01998	6.72	J	0.002016	0.002016
1,2,3,4,6,7,8-HPCDD	0.01		4.8	54		0.54	0.54	49.3	J	0.493	0.493	44.1		0.441	0.441	59.7		0.597	0.597	92.2		0.922	0.922	9.67		0.0967	0.0967
1,2,3,4,6,7,8-HPCDF	0.01			17		0.17	0.17	19.7	J	0.197	0.197	23		0.23	0.23	28.4		0.284	0.284	59.2		0.592	0.592	5.64		0.0564	0.0564
1,2,3,4,7,8,9-HPCDF	0.01			1.63	J	0.0163	0.0163	1.62	J	0.0162	0.0162	1.51	J	0.0151	0.0151	2.32	J	0.0232	0.0232	4.03	J	0.0403	0.0403	0.556	J	0.00556	0.00556
1,2,3,4,7,8-HXCDD	0.1			2.22	J	0.222	0.222	1.48	J	0.148	0.148	1.91	J	0.191	0.191	3.77	J	0.377	0.377	5.05	J	0.505	0.505	0.612	J	0.0612	0.0612
1,2,3,4,7,8-HXCDF	0.1			4.63	J	0.463	0.463	5.59	J	0.559	0.559	6.87	J	0.687	0.687	7.25	J	0.725	0.725	17.4		1.74	1.74	1.9	J	0.19	0.19
1,2,3,6,7,8-HXCDD	0.1			3.06	J	0.306	0.306	3.16	J	0.316	0.316	3.39	J	0.339	0.339	5.38	J	0.538	0.538	8.61	J	0.861	0.861	0.931	J	0.0931	0.0931
1,2,3,6,7,8-HXCDF	0.1			3.71	J	0.371	0.371	3.99	J	0.399	0.399	4.57	J	0.457	0.457	5.8	J	0.58	0.58	12.2		1.22	1.22	1.33	J	0.133	0.133
1,2,3,7,8,9-HXCDD	0.1			3.49	J	0.349	0.349	3.26	J	0.326	0.326	3.25	J	0.325	0.325	5.68	J	0.568	0.568	8.36	J	0.836	0.836	0.956	J	0.0956	0.0956
1,2,3,7,8,9-HXCDF	0.1			0.632	J	0.0632	0.0632	1.49	J	0.149	0.149	0.796	J	0.0796	0.0796	0.727	J	0.0727	0.0727	1.57	J	0.157	0.157	0.431	J	0.0431	0.0431
1,2,3,7,8-PECDD	1			2.59	J	2.59	2.59	1.37	J	1.37	1.37	2.2	J	2.2	2.2	3.2	J	3.2	3.2	4.02	J	4.02	4.02	0.242	U	0.121	0
1,2,3,7,8-PECDF	0.03			2.9	J	0.087	0.087	3.22	J	0.0966	0.0966	4.07	J	0.1221	0.1221	4.5	J	0.135	0.135	10.1	J	0.303	0.303	1.02	J	0.0306	0.0306
2,3,4,6,7,8-HXCDF	0.1			4.18	J	0.418	0.418	4.67	J	0.467	0.467	5.89	J	0.589	0.589	6.72	J	0.672	0.672	14.5		1.45	1.45	1.57	J	0.157	0.157
2,3,4,7,8-PECDF	0.3			8.04	J	2.412	2.412	3.74	J	1.122	1.122	8.72	J	2.616	2.616	9.66	J	2.898	2.898	19.6		5.88	5.88	1.96	J	0.588	0.588
2,3,7,8-TCDD	1			0.22	U	0.11	0.22	1.57	UJ	0.785	0	0.235	U	0.1175	0	0.248	U	0.124	0	0.698	J	0.698	0.698	0.104	U	0.052	0
2,3,7,8-TCDF	0.1			3.38		0.338	0.338	4.43		0.443	0.443	2.93		0.293	0.293	2.6		0.26	0.26	5.02		0.502	0.502	0.685	J	0.0685	0.0685
Total of TEQ		4.5				8.59	8.70			7.00	6.21			8.81	8.70			11.18	11.06			19.91	19.91			1.81	1.64

Notes:

[1] TEFs = Toxic Equivalency Factor. Reference: The 2005 World Health Organization Reevaluation of Human and mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds. *Toxicological Sciences*, Volume 93, Number 2. July 2006. pp. 223-241.

TEQ = Toxic Equivalent

NG/KG = nanograms per kilogram

RSL = EPA Regional Screening Levels (RSLs)- Oak Ridge National Laboratory (May, 2009) available online at http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/index.htm. Values represent the risk-based soil screening level for residential land u

[2] TEQ is calculated assuming a "U" designation is present in the sample at 1/2 U

[3] TEQ is calculated assuming a "U" designation is 0

13.15 bold indicates above human health risk screening criteria

TABLE 3-9
DIOXIN TEQ CALCULATIONS AND COMPARISON TO BIRD RISK SCREENING CRITERIA
WEST GATE LANDFILL
NAS SOUTH WEYMOUTH, SOUTH WEYMOUTH, MASSACHUSETTS

DIOXINS/FURANS (NG/KG)	TEF[1]	Eco Risk (NG/KG)	Base BKG (NG/KG)	WGL-SD-SD101		TEQ[2]	TEQ[3]	WGL-SD-SD102		TEQ[2]	TEQ[3]	WGL-SD-SD103		TEQ[2]	TEQ[3]	WGL-SD-SD104		TEQ[2]	TEQ[3]	WGL-SD-SD105		TEQ[2]	TEQ[3]	WGL-SD-SD106		TEQ[2]	TEQ[3]
1,2,3,4,6,7,8,9-OCDD	0.0001			574		0.0574	0.0574	492		0.0492	0.0492	810		0.081	0.081	65.1		0.00651	0.00651	1240		0.124	0.124	144		0.0144	0.0144
1,2,3,4,6,7,8,9-OCDF	0.0001			32.9	J	0.00329	0.00329	45.7		0.00457	0.00457	63.5		0.00635	0.00635	2.87	J	0.000287	0.000287	31.3		0.00313	0.00313	5.04	J	0.000504	0.000504
1,2,3,4,6,7,8-HPCDD	0.001		4.8	73.6		0.0736	0.0736	73.5		0.0735	0.0735	130		0.13	0.13	6.68	J	0.00668	0.00668	101		0.101	0.101	13	J	0.013	0.013
1,2,3,4,6,7,8-HPCDF	0.01			23.2		0.232	0.232	37.8		0.378	0.378	51.4		0.514	0.514	1.97	U	0.00985	0	25.2		0.252	0.252	3.48	J	0.0348	0.0348
1,2,3,4,7,8,9-HPCDF	0.01			2.23	U	0.01115	0	2.59	J	0.0259	0.0259	3.88	J	0.0388	0.0388	1.97	U	0.00985	0	1.83	J	0.0183	0.0183	1.68	U	0.0084	0
1,2,3,4,7,8-HXCDD	0.05			2.76	J	0.138	0.138	3.3	J	0.165	0.165	4.83	J	0.2415	0.2415	1.48	U	0.037	0	3.3	J	0.165	0.165	1.27	U	0.03175	0
1,2,3,4,7,8-HXCDF	0.1			7.06	J	0.706	0.706	10.7	J	1.07	1.07	15.1		1.51	1.51	1.69	U	0.0845	0	7	J	0.7	0.7	1.44	U	0.072	0
1,2,3,6,7,8-HXCDD	0.01			4.53	J	0.706	0.706	5.87	J	0.0587	0.0587	9.82	J	0.0982	0.0982	1.45	U	0.00725	0	5.36	J	0.0536	0.0536	1.24	U	0.0062	0
1,2,3,6,7,8-HXCDF	0.1			4.82	J	0.706	0.706	7.24	J	0.724	0.724	9.18	J	0.918	0.918	0.482	U	0.0241	0	4.85	J	0.485	0.485	0.661	J	0.0661	0.0661
1,2,3,7,8,9-HXCDD	0.1			4.64	J	0.706	0.706	5.4	J	0.54	0.54	8	J	0.8	0.8	0.93	U	0.0465	0	8.2	J	0.82	0.82	0.95	J	0.095	0.095
1,2,3,7,8,9-HXCDF	0.1			1.88	J	0.706	0.706	1.8	J	0.18	0.18	1.49	J	0.149	0.149	1.05	U	0.0525	0	0.893	J	0.0893	0.0893	0.896	U	0.0448	0
1,2,3,7,8-PECDD	1			2.21	J	0.706	0.706	3.26	J	3.26	3.26	5.3	J	5.3	5.3	0.974	U	0.487	0	3.85	J	3.85	3.85	0.833	U	0.4165	0
1,2,3,7,8-PECDF	0.1			4.62	J	0.706	0.706	6.2	J	0.62	0.62	7.29	J	0.729	0.729	1.12	U	0.056	0	4.02	J	0.402	0.402	0.954	U	0.0477	0
2,3,4,6,7,8-HXCDF	0.1			5.78	J	0.706	0.706	9.95	J	0.995	0.995	11		1.1	1.1	1.08	U	0.054	0	5.81	J	0.581	0.581	0.924	U	0.0462	0
2,3,4,7,8-PECDF	1			8.21	J	0.706	0.706	14.4		14.4	14.4	16.4		16.4	16.4	1.12	U	0.56	0	9.06	J	9.06	9.06	1.11	J	1.11	1.11
2,3,7,8-TCDD	1			0.472	U	0.236	0	0.976	J	0.976	0.976	2.43		2.43	2.43	0.418	U	0.209	0	0.765	J	0.765	0.765	0.357	U	0.1785	0
2,3,7,8-TCDF	1			7.36		7.36	7.36	5.74		5.74	5.74	12.1		12.1	12.1	1.23	U	0.615	0	4.93		4.93	4.93	1.54	UJ	0.77	0
Total TEQ		21				14.47	14.22			29.26	29.26			42.55	42.55			2.27	0.01			22.40	22.40			2.96	1.33

TABLE 3-9
DIOXIN TEQ CALCULATIONS AND COMPARISON TO BIRD RISK SCREENING CRITERIA
WEST GATE LANDFILL
NAS SOUTH WEYMOUTH, SOUTH WEYMOUTH, MASSACHUSETTS

DIOXINS/FURANS (NG/KG)	TEF[1]	Eco Risk (NG/KG)	Base BKG (NG/KG)	WGL-SD-SD107		TEQ[2]	TEQ[3]	WGL-SD-SD108		TEQ[2]	TEQ[3]	WGL-SD-SD109		TEQ[2]	TEQ[3]	WGL-SD-SD110		TEQ[2]	TEQ[3]	WGL-SD-SD111		TEQ[2]	TEQ[3]	WGL-SD-SD112		TEQ[2]	TEQ[3]
1,2,3,4,6,7,8,9-OCDD	0.0001			443	J	0.0443	0.0443	343	J	0.0343	0.0343	341		0.0341	0.0341	399		0.0399	0.0399	560		0.056	0.056	64.1		0.00641	0.00641
1,2,3,4,6,7,8,9-OCDF	0.0001			21.8		0.00218	0.00218	22.4	J	0.00224	0.00224	28.4		0.00284	0.00284	33.3		0.00333	0.00333	66.6		0.00666	0.00666	6.72	J	0.000672	0.000672
1,2,3,4,6,7,8-HPCDD	0.001		4.8	54		0.054	0.054	49.3	J	0.0493	0.0493	44.1		0.0441	0.0441	59.7		0.0597	0.0597	92.2		0.0922	0.0922	9.67		0.00967	0.00967
1,2,3,4,6,7,8-HPCDF	0.01			17		0.17	0.17	19.7	J	0.197	0.197	23		0.23	0.23	28.4		0.284	0.284	59.2		0.592	0.592	5.64		0.0564	0.0564
1,2,3,4,7,8,9-HPCDF	0.01			1.63	J	0.0163	0.0163	1.62	J	0.0162	0.0162	1.51	J	0.0151	0.0151	2.32	J	0.0232	0.0232	4.03	J	0.0403	0.0403	0.556	J	0.00556	0.00556
1,2,3,4,7,8-HXCDD	0.05			2.22	J	0.111	0.111	1.48	J	0.074	0.074	1.91	J	0.0955	0.0955	3.77	J	0.1885	0.1885	5.05	J	0.2525	0.2525	0.612	J	0.0306	0.0306
1,2,3,4,7,8-HXCDF	0.1			4.63	J	0.463	0.463	5.59	J	0.559	0.559	6.87	J	0.687	0.687	7.25	J	0.725	0.725	17.4		1.74	1.74	1.9	J	0.19	0.19
1,2,3,6,7,8-HXCDD	0.01			3.06	J	0.0306	0.0306	3.16	J	0.0316	0.0316	3.39	J	0.0339	0.0339	5.38	J	0.0538	0.0538	8.61	J	0.0861	0.0861	0.931	J	0.00931	0.00931
1,2,3,6,7,8-HXCDF	0.1			3.71	J	0.371	0.371	3.99	J	0.399	0.399	4.57	J	0.457	0.457	5.8	J	0.58	0.58	12.2		1.22	1.22	1.33	J	0.133	0.133
1,2,3,7,8,9-HXCDD	0.1			3.49	J	0.349	0.349	3.26	J	0.326	0.326	3.25	J	0.325	0.325	5.68	J	0.568	0.568	8.36	J	0.836	0.836	0.956	J	0.0956	0.0956
1,2,3,7,8,9-HXCDF	0.1			0.632	J	0.0632	0.0632	1.49	J	0.149	0.149	0.796	J	0.0796	0.0796	0.727	J	0.0727	0.0727	1.57	J	0.157	0.157	0.431	J	0.0431	0.0431
1,2,3,7,8-PECDD	1			2.59	J	2.59	2.59	1.37	J	1.37	1.37	2.2	J	2.2	2.2	3.2	J	3.2	3.2	4.02	J	4.02	4.02	0.242	U	0.242	0.242
1,2,3,7,8-PECDF	0.1			2.9	J	0.29	0.29	3.22	J	0.322	0.322	4.07	J	0.407	0.407	4.5	J	0.45	0.45	10.1	J	1.01	1.01	1.02	J	0.102	0.102
2,3,4,6,7,8-HXCDF	0.1			4.18	J	0.418	0.418	4.67	J	0.467	0.467	5.89	J	0.589	0.589	6.72	J	0.672	0.672	14.5		1.45	1.45	1.57	J	0.157	0.157
2,3,4,7,8-PECDF	1			8.04	J	8.04	8.04	3.74	J	3.74	3.74	8.72	J	8.72	8.72	9.66	J	9.66	9.66	19.6		19.6	19.6	1.96	J	1.96	1.96
2,3,7,8-TCDD	1			0.22	U	0.11	0	1.57	UJ	0.785	0	0.235	U	0.1175	0	0.248	U	0.124	0	0.698	J	0.698	0.698	0.104	U	0.052	0
2,3,7,8-TCDF	1			3.38		3.38	3.38	4.43		4.43	4.43	2.93		2.93	2.93	2.6		2.6	2.6	5.02		5.02	5.02	0.685	J	0.685	0.685
Total TEQ		21				16.50	16.39			12.95	12.17			16.97	16.85			19.30	19.18			36.88	36.88			3.78	3.73

Notes:
[1]TEFs = Toxic Equivalency Factor. Reference: *Toxic Equivalency Factors (TEFs) for PCBs, PCDDs, PCDFs for Humans and Wildlife.* Environmental Health Perspectives, Volume 106, Number 12. December 1998. pp. 775-791.
TEQ = Toxic Equivalent
NG/KG = nanograms per kilogram
Eco Risk = literature value for ecological risk screening criteria. Reference: *USEPA (U.S. Environmental Protection Agency), 1993. Interim Report on Data and Methods for Assessment of 2,3,7,8-Tetrachlorodibenzo-p-dioxin Risks to Aquatic Life and Associ*
[2] TEQ is calculated assuming a "U" designation is present in the sample at 1/2 U
[3] TEQ is calculated assuming a "U" designation is 0
22.40 bold indicates Total TEQ greater than ecological risk screening criteria
13 highlight indicates concentration greater than assigned base background concentration

TABLE 3-10
DIOXIN TEQ CALCULATIONS AND COMPARISON TO MAMMAL RISK SCREENING CRITERIA
WEST GATE LANDFILL
NAS SOUTH WEYMOUTH, SOUTH WEYMOUTH, MASSACHUSETTS

DIOXINS/FURANS (NG/KG)	TEF[1]	Eco Risk Std (NG/KG)	Base Background (NG/KG)	WGL-SD-SD101		TEQ[2]	TEQ[3]	WGL-SD-SD102		TEQ[2]	TEQ[3]	WGL-SD-SD103		TEQ[2]	TEQ[3]	WGL-SD-SD104		TEQ[2]	TEQ[3]	WGL-SD-SD105		TEQ[2]	TEQ[3]	WGL-SD-SD106		TEQ[2]	TEQ[3]
1,2,3,4,6,7,8,9-OCDD	0.0003			574		0.1722	0.1722	492		0.1476	0.1476	810		0.243	0.243	65.1		0.01953	0.01953	1240		0.372	0.372	144		0.0432	0.0144
1,2,3,4,6,7,8,9-OCDF	0.0003			32.9	J	0.00987	0.00987	45.7		0.01371	0.01371	63.5		0.01905	0.01905	2.87	J	0.000861	0.000861	31.3		0.00939	0.00939	5.04	J	0.001512	0.000504
1,2,3,4,6,7,8-HPCDD	0.01		4.8	73.6		0.736	0.736	73.5		0.735	0.735	130		1.3	1.3	6.68	J	0.0668	0.0668	101		1.01	1.01	13	J	0.13	0.13
1,2,3,4,6,7,8-HPCDF	0.01			23.2		0.232	0.232	37.8		0.378	0.378	51.4		0.514	0.514	1.97	U	0.00985	0	25.2		0.252	0.252	3.48	J	0.0348	0.348
1,2,3,4,7,8,9-HPCDF	0.01			2.23	U	0.01115	0	2.59	J	0.0259	0.0259	3.88	J	0.0388	0.0388	1.97	U	0.00985	0	1.83	J	0.0183	0.0183	1.68	U	0.0084	0
1,2,3,4,7,8-HXCDD	0.1			2.76	J	0.276	0.276	3.3	J	0.33	0.33	4.83	J	0.483	0.483	1.48	U	0.074	0	3.3	J	0.33	0.33	1.27	U	0.0635	0
1,2,3,4,7,8-HXCDF	0.1			7.06	J	0.706	0.706	10.7	J	1.07	1.07	15.1		1.51	1.51	1.69	U	0.0845	0	7	J	0.7	0.7	1.44	U	0.072	0
1,2,3,6,7,8-HXCDD	0.1			4.53	J	0.453	0.453	5.87	J	0.587	0.587	9.82	J	0.982	0.982	1.45	U	0.0725	0	5.36	J	0.536	0.536	1.24	U	0.062	0
1,2,3,6,7,8-HXCDF	0.1			4.82	J	0.482	0.482	7.24	J	0.724	0.724	9.18	J	0.918	0.918	0.482	U	0.0241	0	4.85	J	0.485	0.485	0.661	J	0.0661	0.0661
1,2,3,7,8,9-HXCDD	0.1			4.64	J	0.464	0.464	5.4	J	0.54	0.54	8	J	0.8	0.8	0.93	U	0.0465	0	8.2	J	0.82	0.82	0.95	J	0.095	0.095
1,2,3,7,8,9-HXCDF	0.1			1.88	J	0.188	0.188	1.8	J	0.18	0.18	1.49	J	0.149	0.149	1.05	U	0.0525	0	0.893	J	0.0893	0.0893	0.896	U	0.0448	0
1,2,3,7,8-PECDD	1			2.21	J	2.21	2.21	3.26	J	3.26	3.26	5.3	J	5.3	5.3	0.974	U	0.487	0	3.85	J	3.85	3.85	0.833	U	0.4165	0
1,2,3,7,8-PECDF	0.03			4.62	J	0.1386	0.1386	6.2	J	0.186	0.186	7.29	J	0.2187	0.2187	1.12	U	0.0168	0	4.02	J	0.1206	0.1206	0.954	U	0.01431	0
2,3,4,6,7,8-HXCDF	0.1			5.78	J	0.578	0.578	9.95	J	0.995	0.995	11		1.1	1.1	1.08	U	0.054	0	5.81	J	0.581	0.581	0.924	U	0.0462	0
2,3,4,7,8-PECDF	0.3			8.21	J	2.463	2.463	14.4		4.32	4.32	16.4		4.92	4.92	1.12	U	0.168	0	9.06	J	2.718	2.718	1.11	J	0.333	0.555
2,3,7,8-TCDD	1			0.472	U	0.236	0	0.976	J	0.976	0.976	2.43		2.43	2.43	0.418	U	0.209	0	0.765	J	0.765	0.765	0.357	U	0.1785	0
2,3,7,8-TCDF	0.1			7.36		0.736	0.736	5.74		0.574	0.574	12.1		1.21	1.21	1.23	U	0.0615	0	4.93		0.493	0.493	1.54	UJ	0.077	0
Total of TEQ		2.5		82.112		10.09	9.84			15.04	15.04			22.14	22.14			1.46	0.09			13.15	13.15			1.69	1.21

TABLE 3-10
DIOXIN TEQ CALCULATIONS AND COMPARISON TO MAMMAL RISK SCREENING CRITERIA
WEST GATE LANDFILL
NAS SOUTH WEYMOUTH, SOUTH WEYMOUTH, MASSACHUSETTS

DIOXINS/FURANS (NG/KG)	TEF[1]	Eco Risk Std (NG/KG)	Base Background (NG/KG)	WGL-SD-SD107		TEQ[2]	TEQ[3]	WGL-SD-SD108		TEQ[2]	TEQ[3]	WGL-SD-SD109		TEQ[2]	TEQ[3]	WGL-SD-SD110		TEQ[2]	TEQ[3]	WGL-SD-SD111		TEQ[2]	TEQ[3]	WGL-SD-SD112		TEQ[2]	TEQ[3]
1,2,3,4,6,7,8,9-OCDD	0.0003			443	J	0.1329	0.1329	343	J	0.1029	0.1029	341		0.1023	0.1023	399		0.1197	0.1197	560		0.168	0.168	64.1		0.01923	0.01923
1,2,3,4,6,7,8,9-OCDF	0.0003			21.8		0.00654	0.00654	22.4	J	0.00672	0.00672	28.4		0.00852	0.00852	33.3		0.00999	0.00999	66.6		0.01998	0.01998	6.72	J	0.002016	0.002016
1,2,3,4,6,7,8-HPCDD	0.01		4.8	54		0.54	0.54	49.3	J	0.493	0.493	44.1		0.441	0.441	59.7		0.597	0.597	92.2		0.922	0.922	9.67		0.0967	0.0967
1,2,3,4,6,7,8-HPCDF	0.01			17		0.17	0.17	19.7	J	0.197	0.197	23		0.23	0.23	28.4		0.284	0.284	59.2		0.592	0.592	5.64		0.0564	0.0564
1,2,3,4,7,8,9-HPCDF	0.01			1.63	J	0.0163	0.0163	1.62	J	0.0162	0.0162	1.51	J	0.0151	0.0151	2.32	J	0.0232	0.0232	4.03	J	0.0403	0.0403	0.556	J	0.00556	0.00556
1,2,3,4,7,8-HXCDD	0.1			2.22	J	0.222	0.222	1.48	J	0.148	0.148	1.91	J	0.191	0.191	3.77	J	0.377	0.377	5.05	J	0.505	0.505	0.612	J	0.0612	0.0612
1,2,3,4,7,8-HXCDF	0.1			4.63	J	0.463	0.463	5.59	J	0.559	0.559	6.87	J	0.687	0.687	7.25	J	0.725	0.725	17.4		1.74	1.74	1.9	J	0.19	0.19
1,2,3,6,7,8-HXCDD	0.1			3.06	J	0.306	0.306	3.16	J	0.316	0.316	3.39	J	0.339	0.339	5.38	J	0.538	0.538	8.61	J	0.861	0.861	0.931	J	0.0931	0.0931
1,2,3,6,7,8-HXCDF	0.1			3.71	J	0.371	0.371	3.99	J	0.399	0.399	4.57	J	0.457	0.457	5.8	J	0.58	0.58	12.2		1.22	1.22	1.33	J	0.133	0.133
1,2,3,7,8,9-HXCDD	0.1			3.49	J	0.349	0.349	3.26	J	0.326	0.326	3.25	J	0.325	0.325	5.68	J	0.568	0.568	8.36	J	0.836	0.836	0.956	J	0.0956	0.0956
1,2,3,7,8,9-HXCDF	0.1			0.632	J	0.0632	0.0632	1.49	J	0.149	0.149	0.796	J	0.0796	0.0796	0.727	J	0.0727	0.0727	1.57	J	0.157	0.157	0.431	J	0.0431	0.0431
1,2,3,7,8-PECDD	1			2.59	J	2.59	2.59	1.37	J	1.37	1.37	2.2	J	2.2	2.2	3.2	J	3.2	3.2	4.02	J	4.02	4.02	0.242	U	0.121	0
1,2,3,7,8-PECDF	0.03			2.9	J	0.087	0.087	3.22	J	0.0966	0.0966	4.07	J	0.1221	0.1221	4.5	J	0.135	0.135	10.1	J	0.303	0.303	1.02	J	0.0306	0.0306
2,3,4,6,7,8-HXCDF	0.1			4.18	J	0.418	0.418	4.67	J	0.467	0.467	5.89	J	0.589	0.589	6.72	J	0.672	0.672	14.5		1.45	1.45	1.57	J	0.157	0.157
2,3,4,7,8-PECDF	0.3			8.04	J	2.412	2.412	3.74	J	1.122	1.122	8.72	J	2.616	2.616	9.66	J	2.898	2.898	19.6		5.88	5.88	1.96	J	0.588	0.588
2,3,7,8-TCDD	1			0.22	U	0.11	0	1.57	UJ	0.785	0	0.235	U	0.1175	0	0.248	U	0.124	0	0.698	J	0.698	0.698	0.104	U	0.052	0
2,3,7,8-TCDF	0.1			3.38		0.338	0.338	4.43		0.443	0.443	2.93		0.293	0.293	2.6		0.26	0.26	5.02		0.502	0.502	0.685	J	0.0685	0.0685
Total of TEQ		2.5				8.59	8.48			7.00	6.21			8.81	8.70			11.18	11.06			19.91	19.91			1.81	1.64

Notes:

[1]TEFs = Toxic Equivalency Factor. Reference: The 2005 World Health Organization Reevaluation of Human and mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds. *Toxicological Sciences* , Volume 93, Number 2. July 2006. pp. 223-241.

TEQ = Toxic Equivalent

NG/KG = nanograms per kilogram

Eco Risk = literature value for ecological risk screening criteria. Reference: *USEPA (U.S. Environmental Protection Agency), 1993. Interim Report on Data and Methods for Assessment of 2,3,7,8-Tetrachlorodibenzo-p-dioxin Risks to Aquatic Life and Associ*

[2] TEQ is calculated assuming a "U" designation is present in the sample at 1/2 U

[3] TEQ is calculated assuming a "U" designation is 0

22.40 bold indicates Total TEQ greater than ecological risk screening criteria

TABLE 3-11
DIOXIN TEQ CALCULATION AND COMPARISON TO FISH RISK SCREENING CRITERIA
WEST GATE LANDFILL
NAS SOUTH WEYMOUTH, SOUTH WEYMOUTH, MASSACHUSETTS

DIOXINS/FURANS (NG/KG)	TEF[1]	Eco Risk (ng/Kg)	Base Background (NG/KG)	WGL-SD-SD101		TEQ[2]	TEQ[3]	WGL-SD-SD102		TEQ[2]	TEQ[3]	WGL-SD-SD103		TEQ[2]	TEQ[3]	WGL-SD-SD104		TEQ[2]	TEQ[3]	WGL-SD-SD105		TEQ[2]	TEQ[3]	WGL-SD-SD106		TEQ[2]	TEQ[3]	WGL-SD-SD107		TEQ[2]	TEQ[3]
1,2,3,4,6,7,8,9-OCDD	0.0001			574		0.0574	0.0574	492		0.0492	0.0492	810		0.081	0.081	65.1		0.00651	0.00651	1240		0.124	0.124	144		0.0144	0.0144	443	J	0.0443	0.0443
1,2,3,4,6,7,8,9-OCDF	0.0001			32.9	J	0.00329	0.00329	45.7		0.00457	0.00457	63.5		0.00635	0.00635	2.87	J	0.000287	0.000287	31.3		0.00313	0.00313	5.04	J	0.000504	0.000504	21.8		0.00218	0.00218
1,2,3,4,6,7,8-HPCDD	0.001		4.8	73.6		0.0736	0.0736	73.5		0.0735	0.0735	130		0.13	0.13	6.68	J	0.00668	0.00668	101		0.101	0.101	13	J	0.013	0.013	54		0.054	0.054
1,2,3,4,6,7,8-HPCDF	0.01			23.2		0.232	0.232	37.8		0.378	0.378	51.4		0.514	0.514	1.97	U	0.00985	0	25.2		0.252	0.252	3.48	J	0.0348	0.0348	17		0.17	0.17
1,2,3,4,7,8,9-HPCDF	0.01			2.23	U	0.01115	0	2.59	J	0.0259	0.0259	3.88	J	0.0388	0.0388	1.97	U	0.00985	0	1.83	J	0.0183	0.0183	1.68	U	0.0084	0	1.63	J	0.0163	0.0163
1,2,3,4,7,8-HXCDD	0.5			2.76	J	1.38	1.38	3.3	J	1.65	1.65	4.83	J	2.415	2.415	1.48	U	0.37	0	3.3	J	1.65	1.65	1.27	U	0.3175	0	2.22	J	1.11	1.11
1,2,3,4,7,8-HXCDF	0.1			7.06	J	0.706	0.706	10.7	J	1.07	1.07	15.1		1.51	1.51	1.69	U	0.0845	0	7	J	0.7	0.7	1.44	U	0.072	0	4.63	J	0.463	0.463
1,2,3,6,7,8-HXCDD	0.01			4.53	J	0.0453	0.0453	5.87	J	0.0587	0.0587	9.82	J	0.0982	0.0982	1.45	U	0.00725	0	5.36	J	0.0536	0.0536	1.24	U	0.0062	0	3.06	J	0.0306	0.0306
1,2,3,6,7,8-HXCDF	0.1			4.82	J	0.482	0.482	7.24	J	0.724	0.724	9.18	J	0.918	0.918	0.482	U	0.0241	0	4.85	J	0.485	0.485	0.661	J	0.0661	0.0661	3.71	J	0.371	0.371
1,2,3,7,8,9-HXCDD	0.01			4.64	J	0.0464	0.0464	5.4	J	0.054	0.054	8	J	0.08	0.08	0.93	U	0.00465	0	8.2	J	0.082	0.082	0.95	J	0.0095	0.0095	3.49	J	0.0349	0.0349
1,2,3,7,8,9-HXCDF	0.01			1.88	J	0.0188	0.0188	1.8	J	0.018	0.018	1.49	J	0.0149	0.0149	1.05	U	0.00525	0	0.893	J	0.00893	0.00893	0.896	U	0.00448	0	0.632	J	0.00632	0.00632
1,2,3,7,8-PECDD	1			2.21	J	2.21	2.21	3.26	J	3.26	3.26	5.3	J	5.3	5.3	0.974	U	0.487	0	3.85	J	3.85	3.85	0.833	U	0.4165	0	2.59	J	2.59	2.59
1,2,3,7,8-PECDF	0.05			4.62	J	0.231	0.231	6.2	J	0.31	0.31	7.29	J	0.3645	0.3645	1.12	U	0.028	0	4.02	J	0.201	0.201	0.954	U	0.02385	0	2.9	J	0.145	0.145
2,3,4,6,7,8-HXCDF	0.1			5.78	J	0.578	0.578	9.95	J	0.995	0.995	11		1.1	1.1	1.08	U	0.054	0	5.81	J	0.581	0.581	0.924	U	0.0462	0	4.18	J	0.418	0.418
2,3,4,7,8-PECDF	0.5			8.21	J	4.105	4.105	14.4		7.2	7.2	16.4		8.2	8.2	1.12	U	0.28	0	9.06	J	4.53	4.53	1.11	J	0.555	0.555	8.04	J	4.02	4.02
2,3,7,8-TCDD	1			0.472	U	0.236	0	0.976	J	0.976	0.976	2.43		2.43	2.43	0.418	U	0.209	0	0.765	J	0.765	0.765	0.357	U	0.1785	0	0.22	U	0.11	0
2,3,7,8-TCDF	0.05			7.36		0.368	0.368	5.74		0.287	0.287	12.1		0.605	0.605	1.23	U	0.03075	0	4.93		0.2465	0.2465	1.54	UJ	0.0385	0	3.38		0.169	0.169
Total TEQ		60				10.78	10.54			17.13	17.13			23.81	23.81			1.62	0.01			13.65	13.65			1.81	0.69			9.75	9.64

TABLE 3-11
DIOXIN TEQ CALCULATION AND COMPARISON TO FISH RISK SCREENING CRITERIA
WEST GATE LANDFILL
NAS SOUTH WEYMOUTH, SOUTH WEYMOUTH, MASSACHUSETTS

DIOXINS/FURANS (NG/KG)	TEF[1]	Eco Risk (ng/Kg)	Base Background (NG/KG)	WGL-SD-SD108		TEQ[2]	TEQ[3]	WGL-SD-SD109		TEQ[2]	TEQ[3]	WGL-SD-SD110		TEQ[2]	TEQ[3]	WGL-SD-SD111		TEQ[2]	TEQ[3]	WGL-SD-SD112		TEQ[2]	TEQ[3]
1,2,3,4,6,7,8,9-OCDD	0.0001			343	J	0.0343	0.0343	341		0.0341	0.0341	399		0.0399	0.0399	560		0.056	0.056	64.1		0.00641	0.00641
1,2,3,4,6,7,8,9-OCDF	0.0001			22.4	J	0.00224	0.00224	28.4		0.00284	0.00284	33.3		0.00333	0.00333	66.6		0.00666	0.00666	6.72	J	0.000672	0.000672
1,2,3,4,6,7,8-HPCDD	0.001		4.8	49.3	J	0.0493	0.0493	44.1		0.0441	0.0441	59.7		0.0597	0.0597	92.2		0.0922	0.0922	9.67		0.00967	0.00967
1,2,3,4,6,7,8-HPCDF	0.01			19.7	J	0.197	0.197	23		0.23	0.23	28.4		0.284	0.284	59.2		0.592	0.592	5.64		0.0564	0.0564
1,2,3,4,7,8,9-HPCDF	0.01			1.62	J	0.0162	0.0162	1.51	J	0.0151	0.0151	2.32	J	0.0232	0.0232	4.03	J	0.0403	0.0403	0.556	J	0.00556	0.00556
1,2,3,4,7,8-HXCDD	0.5			1.48	J	0.74	0.74	1.91	J	0.955	0.955	3.77	J	1.885	1.885	5.05	J	2.525	2.525	0.612	J	0.306	0.306
1,2,3,4,7,8-HXCDF	0.1			5.59	J	0.559	0.559	6.87	J	0.687	0.687	7.25	J	0.725	0.725	17.4		1.74	1.74	1.9	J	0.19	0.19
1,2,3,6,7,8-HXCDD	0.01			3.16	J	0.0316	0.0316	3.39	J	0.0339	0.0339	5.38	J	0.0538	0.0538	8.61	J	0.0861	0.0861	0.931	J	0.00931	0.00931
1,2,3,6,7,8-HXCDF	0.1			3.99	J	0.399	0.399	4.57	J	0.457	0.457	5.8	J	0.58	0.58	12.2		1.22	1.22	1.33	J	0.133	0.133
1,2,3,7,8,9-HXCDD	0.01			3.26	J	0.0326	0.0326	3.25	J	0.0325	0.0325	5.68	J	0.0568	0.0568	8.36	J	0.0836	0.0836	0.956	J	0.00956	0.00956
1,2,3,7,8,9-HXCDF	0.01			1.49	J	0.0149	0.0149	0.796	J	0.00796	0.00796	0.727	J	0.00727	0.00727	1.57	J	0.0157	0.0157	0.431	J	0.00431	0.00431
1,2,3,7,8-PECDD	1			1.37	J	1.37	1.37	2.2	J	2.2	2.2	3.2	J	3.2	3.2	4.02	J	4.02	4.02	0.242	U	0.121	0
1,2,3,7,8-PECDF	0.05			3.22	J	0.161	0.161	4.07	J	0.2035	0.2035	4.5	J	0.225	0.225	10.1	J	0.505	0.505	1.02	J	0.051	0.051
2,3,4,6,7,8-HXCDF	0.1			4.67	J	0.467	0.467	5.89	J	0.589	0.589	6.72	J	0.672	0.672	14.5		1.45	1.45	1.57	J	0.157	0.157
2,3,4,7,8-PECDF	0.5			3.74	J	1.87	1.87	8.72	J	4.36	4.36	9.66	J	4.83	4.83	19.6		9.8	9.8	1.96	J	0.98	0.98
2,3,7,8-TCDD	1			1.57	UJ	0.785	0	0.235	U	0.1175	0	0.248	U	0.124	0	0.698	J	0.698	0.698	0.104	U	0.052	0
2,3,7,8-TCDF	0.05			4.43		0.2215	0.2215	2.93		0.1465	0.1465	2.6		0.13	0.13	5.02		0.251	0.251	0.685	J	0.03425	0.03425
Total TEQ		60				6.95	6.17			10.12	10.00			12.90	12.78			23.18	23.18			2.13	1.95

Notes:
[1]TEFs = Toxic Equivalency Factor. Reference: *Toxic Equivalency Factors (TEFs) for PCBs, PCDDs, PCDFs for Humans and Wildlife.* Environmental Health Perspectives, Volume 106, Number 12. December 1998. pp. 775-791.
TEQ = Toxic Equivalent
NG/KG = nanograms per kilogram
Eco Risk = literature value for ecological risk screening criteria. Reference: *USEPA (U.S. Environmental Protection Agency), 1993. Interim Report on Data and Methods for Assessment of 2,3,7,8-Tetrachlorodibenzo-p-dioxin Risks to Aquatic Life and Associ*
[2] TEQ is calculated assuming a "U" designation is present in the sample at 1/2 U
[3] TEQ is calculated assuming a "U" designation is 0

TABLE 3-12
GROUNDWATER ANALYTICAL RESULTS
WEST GATE LANDFILL
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS

SAMPLE ID			WGL-GW-MW2-063009	WGL-GW-MW3-062909	WGL-GW-MW4-063009	WGL-GW-MW101-062909	WGL-GW-MW102-062909	WGL-GW-MW103-062909	WGL-GW-MW38-063009	WGL-GW-MW39-063009	WGL-GW-MW405-063009-AVG	WGL-GW-MW40S-063009-AVG	WGL-GW-MW48D2-063009	WGL-GW-MW48D-063009-AVG
LOCATION ID			WGL-MW-02	WGL-MW-03	WGL-MW-04	WGL-MW-101	WGL-MW-102	WGL-MW-103	WGL-MW-38	WGL-MW-39	WGL-MW-405	WGL-MW-40S	WGL-MW-48D2	WGL-MW-48D
SAMPLE DATE			06/30/09	06/29/09	06/30/09	06/29/09	06/29/09	06/29/09	06/30/09	06/30/09	06/30/09	06/30/09	06/30/09	06/30/09
CRITERIA	**PAL**	**RG**												
VOLATILES (UG/L)														
ACETONE			5 U	5 U	5 U	10	5 U	5 U	5 U	5 U	NA	5 U	5 U	5 U
CHLOROFORM			1 U	1 U	1 U	0.6 J	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U
CIS-1,2-DICHLOROETHENE	70		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	0.8 J	1 U	1 U
METHYL TERT-BUTYL ETHER			1 U	1 U	1 U	2	1 U	0.6 J	1 U	1 U	NA	1 U	1 U	1 U
TOTAL 1,2-DICHLOROETHENE			1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	0.8 J	1 U	1 U
TOTAL CHLORINATED ETHENES			1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	NA	0.8 J	1.2 U	1.2 U
TOTAL CHLORINATED VOCS			1.3 UJ	1.3 UJ	1.3 UJ	0.6 J	1.3 UJ	1.3 UJ	1.3 UJ	1.3 UJ	NA	0.8 J	1.3 UJ	1.3 UJ
METALS (UG/L)														
ALUMINUM			108 J	47.3 J	679	204 J	82.7 J	141 J	60.7 J	342	NA	204 J	56.4 J	279 J
ARSENIC	10	10	2.1 J	1.5 U	3.8 J	1.7 J	1.9 J	2.1 J	1.8 J	1.9 J	NA	1.5 U	1.5 U	1.18 J
BARIUM	2000		94.6	32.9	25.8	330	189	135	50.9	25	NA	73.6	63.4	51.9
CALCIUM			23900	13200	13000	47500	37000	47800	6150	8990	NA	17700	55800	12200
CHROMIUM	47	47	0.44 U	3.3 J	3.1 J	1.6 J	0.46 J	0.52 J	0.44 U	1.5 J	NA	1.7 J	1.6 J	1.45 J
COBALT			0.27 U	0.27 U	2.4 J	0.27 U	0.27 U	0.27 U	1.9 J	0.73 UJ	NA	3.05 J	0.49 UJ	2.75 J
COPPER	1300		0.7 U	0.7 U	7 UJ	0.7 U	0.95 UJ	0.7 U	0.7 U	1.3 UJ	NA	12.1 J	1.9 UJ	8.75 J
IRON			78.2 J	44.2 UJ	4220	10.4 UJ	12.6 UJ	54.6 UJ	14.7 UJ	9790	NA	438	2630	3620
LEAD	15		1.02 U	1 J	2.6 J	1.1 J	1.5 J	1.02 U	1.02 U	1.2 J	NA	1.02 U	1.02 U	1.02 U
MAGNESIUM			4860	2660	2640	5870	8000	9780	1200	1260	NA	3260	9480	3480
MANGANESE			481	9.9	41	15.1	64.3	662	117	356	NA	169	2180	426
NICKEL			2 UJ	0.62 UJ	2.4 J	0.24 U	0.24 U	2 UJ	2.1 UJ	0.64 UJ	NA	4.25 J	0.66 UJ	2.25 J
POTASSIUM			5030	3960	2820	20600	5330	5380	1130	1550	NA	2920	5400	2950
SODIUM			172000	76300	56800	53400	27700	45800	34400	2780	NA	60000	45700	52800

BLACK SHADING-EXCEEDS AT LEAST ONE CRITERION; GRAY SHADING-DETECTED;
U-NOT DETECTED; J-QUANTITATION APPROXIMATE; R-REJECTED; NA-NOT ANALYZED

TABLE 3-12
GROUNDWATER ANALYTICAL RESULTS
WEST GATE LANDFILL
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS

SAMPLE ID			WGL-GW-MW2-063009	WGL-GW-MW3-062909	WGL-GW-MW4-063009	WGL-GW-MW101-062909	WGL-GW-MW102-062909	WGL-GW-MW103-062909	WGL-GW-MW38-063009	WGL-GW-MW39-063009	WGL-GW-MW405-063009-AVG	WGL-GW-MW40S-063009-AVG	WGL-GW-MW48D2-063009	WGL-GW-MW48D-063009-AVG
LOCATION ID			WGL-MW-02	WGL-MW-03	WGL-MW-04	WGL-MW-101	WGL-MW-102	WGL-MW-103	WGL-MW-38	WGL-MW-39	WGL-MW-405	WGL-MW-40S	WGL-MW-48D2	WGL-MW-48D
SAMPLE DATE			06/30/09	06/29/09	06/30/09	06/29/09	06/29/09	06/29/09	06/30/09	06/30/09	06/30/09	06/30/09	06/30/09	06/30/09
CRITERIA	**PAL**	**RG**												
VANADIUM			5.12 U	5.12 U	14.6 J	6.8 J	5.12 U	5.12 U	5.12 U	5.12 U	NA	5.12 U	5.12 U	5.12 U
ZINC			9.7 J	3.2 J	22.7 J	1.73 U	1.73 U	1.73 U	28.6	17.5 J	NA	36.4	1.73 U	6.7 J
DIOXINS/FURANS (NG/L)														
1,2,3,4,6,7,8,9-OCDD			0.00743 J	0.0951 U	0.105 U	0.0962 U	0.104 U	0.109 U	0.0112 J	0.102 U	0.0366 J	NA	0.0095 J	0.0974 U

BLACK SHADING-EXCEEDS AT LEAST ONE CRITERION; GRAY SHADING-DETECTED;
U-NOT DETECTED; J-QUANTITATION APPROXIMATE; R-REJECTED; NA-NOT ANALYZED

TABLE 3-13
DIOXIN TEQ CALCULATIONS AND COMPARISON TO HUMAN RISK SCREENING CRITERIA (TAP WATER)
WEST GATE LANDFILL
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS

DIOXANS/FURANS (NG/L)	TEF[1]	RSL (NG/L)	MCL (NG/L)	WGL-GW-MW2-063009		TEQ[2]	TEQ[3]	WGL-GW-MW3-062909		TEQ[2]	TEQ[3]	WGL-GW-MW4-063009		TEQ[2]	TEQ[3]	WGL-GW-MW101-062909		TEQ[2]	TEQ[3]	WGL-GW-MW102-062909		TEQ[2]	TEQ[3]
1,2,3,4,6,7,8,9-OCDD	0.0003			0.00743	J	2.23E-06	2.23E-06	0.0951	U	1.43E-05	0	0.105	U	0.00001575	0	0.0962	U	0.00001443	0	0.104	U	1.56E-05	0
1,2,3,4,6,7,8,9-OCDF	0.0003			0.104	U	1.56E-05	0	0.0951	U	1.43E-05	0	0.105	U	0.00001575	0	0.0962	U	0.00001443	0	0.104	U	1.56E-05	0
1,2,3,4,6,7,8-HPCDD	0.01			0.0522	U	2.61E-04	0	0.0476	U	2.38E-04	0	0.0524	U	2.62E-04	0	0.0481	U	0.0002405	0	0.0521	U	2.61E-04	0
1,2,3,4,6,7,8-HPCDF	0.01			0.0522	U	2.61E-04	0	0.0476	U	2.38E-04	0	0.0524	U	2.62E-04	0	0.0481	U	0.0002405	0	0.0521	U	2.61E-04	0
1,2,3,4,7,8,9-HPCDF	0.01			0.0522	U	2.61E-04	0	0.0476	U	2.38E-04	0	0.0524	U	2.62E-04	0	0.0481	U	0.0002405	0	0.0521	U	2.61E-04	0
1,2,3,4,7,8-HXCDD	0.1			0.0522	U	2.61E-03	0	0.0476	U	2.38E-03	0	0.0524	U	2.62E-03	0	0.0481	U	0.002405	0	0.0521	U	2.61E-03	0
1,2,3,4,7,8-HXCDF	0.1			0.0522	U	2.61E-03	0	0.0476	U	2.38E-03	0	0.0524	U	2.62E-03	0	0.0481	U	0.002405	0	0.0521	U	2.61E-03	0
1,2,3,6,7,8-HXCDD	0.1			0.0522	U	2.61E-03	0	0.0476	U	2.38E-03	0	0.0524	U	2.62E-03	0	0.0481	U	0.002405	0	0.0521	U	2.61E-03	0
1,2,3,6,7,8-HXCDF	0.1			0.0522	U	2.61E-03	0	0.0476	U	2.38E-03	0	0.0524	U	2.62E-03	0	0.0481	U	0.002405	0	0.0521	U	2.61E-03	0
1,2,3,7,8,9-HXCDD	0.1			0.0522	U	2.61E-03	0	0.0476	U	2.38E-03	0	0.0524	U	2.62E-03	0	0.0481	U	0.002405	0	0.0521	U	2.61E-03	0
1,2,3,7,8,9-HXCDF	0.1			0.0522	U	2.61E-03	0	0.0476	U	2.38E-03	0	0.0524	U	2.62E-03	0	0.0481	U	0.002405	0	0.0521	U	2.61E-03	0
1,2,3,7,8-PECDD	1			0.0522	U	2.61E-02	0	0.0476	U	2.38E-02	0	0.0524	U	2.62E-02	0	0.0481	U	0.02405	0	0.0521	U	2.61E-02	0
1,2,3,7,8-PECDF	0.03			0.0522	U	7.83E-04	0	0.0476	U	7.14E-04	0	0.0524	U	7.86E-04	0	0.0481	U	7.22E-04	0	0.0521	U	7.82E-04	0
2,3,4,6,7,8-HXCDF	0.1			0.0522	U	2.61E-03	0	0.0476	U	2.38E-03	0	0.0524	U	2.62E-03	0	0.0481	U	2.41E-03	0	0.0521	U	2.61E-03	0
2,3,4,7,8-PECDF	0.3			0.0522	U	7.83E-03	0	0.0476	U	7.14E-03	0	0.0524	U	7.86E-03	0	0.0481	U	7.22E-03	0	0.0521	U	7.82E-03	0
2,3,7,8-TCDD	1			0.0104	U	5.20E-03	0	0.00951	U	4.76E-03	0	0.0105	U	5.25E-03	0	0.00962	U	4.81E-03	0	0.0104	U	5.20E-03	0
2,3,7,8-TCDF	0.1			0.0104	U	5.20E-04	0	0.00951	U	4.76E-04	0	0.0105	U	5.25E-04	0	0.00962	U	4.81E-04	0	0.0104	U	5.20E-04	0
Total of TEQ		5.20E-04	3.00E-02			5.95E-02	2.23E-06			5.43E-02	0			5.98E-02	0			5.49E-02	0			5.94E-02	0

TABLE 3-13
DIOXIN TEQ CALCULATIONS AND COMPARISON TO HUMAN RISK SCREENING CRITERIA (TAP WATER)
WEST GATE LANDFILL
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS

WGL-GW-MW103-062909		TEQ[2]	TEQ[3]	WGL-GW-MW38-063009		TEQ[2]	TEQ[3]	WGL-GW-MW39-063009		TEQ[2]	TEQ[3]	WGL-GW-MW405-063009-AVG		TEQ[2]	TEQ[3]	WGL-GW-MW48D2-063009		TEQ[2]	TEQ[3]	WGL-GW-MW48D-063009-AVG		TEQ[2]	TEQ[3]
0.109	U	1.64E-05	0	0.0112	J	3.36E-06	3.36E-06	0.102	U	1.53E-05	0	0.0366	J	1.10E-05	1.10E-05	0.0095	J	2.85E-06	2.85E-06	0.0974	U	1.46E-05	0
0.109	U	1.64E-05	0	0.102	U	1.53E-05	0	0.102	U	1.53E-05	0	0.104	U	1.56E-05	0	0.105	U	1.58E-05	0	0.0974	U	1.46E-05	0
0.0543	U	2.72E-04	0	0.0511	U	2.56E-04	0	0.0509	U	2.55E-04	0	0.0516	U	2.58E-04	0	0.0523	U	2.62E-04	0	0.0487	U	2.44E-04	0
0.0543	U	2.72E-04	0	0.0511	U	2.56E-04	0	0.0509	U	2.55E-04	0	0.0516	U	2.58E-04	0	0.0523	U	2.62E-04	0	0.0487	U	2.44E-04	0
0.0543	U	2.72E-04	0	0.0511	U	2.56E-04	0	0.0509	U	2.55E-04	0	0.0516	U	2.58E-04	0	0.0523	U	2.62E-04	0	0.0487	U	2.44E-04	0
0.0543	U	2.72E-03	0	0.0511	U	2.56E-03	0	0.0509	U	2.55E-03	0	0.0516	U	2.58E-03	0	0.0523	U	2.62E-03	0	0.0487	U	2.44E-03	0
0.0543	U	2.72E-03	0	0.0511	U	2.56E-03	0	0.0509	U	2.55E-03	0	0.0516	U	2.58E-03	0	0.0523	U	2.62E-03	0	0.0487	U	2.44E-03	0
0.0543	U	2.72E-03	0	0.0511	U	2.56E-03	0	0.0509	U	2.55E-03	0	0.0516	U	2.58E-03	0	0.0523	U	2.62E-03	0	0.0487	U	2.44E-03	0
0.0543	U	2.72E-03	0	0.0511	U	2.56E-03	0	0.0509	U	2.55E-03	0	0.0516	U	2.58E-03	0	0.0523	U	2.62E-03	0	0.0487	U	2.44E-03	0
0.0543	U	2.72E-03	0	0.0511	U	2.56E-03	0	0.0509	U	2.55E-03	0	0.0516	U	2.58E-03	0	0.0523	U	2.62E-03	0	0.0487	U	2.44E-03	0
0.0543	U	2.72E-03	0	0.0511	U	2.56E-03	0	0.0509	U	2.55E-03	0	0.0516	U	2.58E-03	0	0.0523	U	2.62E-03	0	0.0487	U	2.44E-03	0
0.0543	U	2.72E-02	0	0.0511	U	2.56E-02	0	0.0509	U	2.55E-02	0	0.0516	U	2.58E-02	0	0.0523	U	2.62E-02	0	0.0487	U	2.44E-02	0
0.0543	U	8.15E-04	0	0.0511	U	7.67E-04	0	0.0509	U	7.64E-04	0	0.0516	U	7.74E-04	0	0.0523	U	7.85E-04	0	0.0487	U	7.31E-04	0
0.0543	U	2.72E-03	0	0.0511	U	2.56E-03	0	0.0509	U	2.55E-03	0	0.0516	U	2.58E-03	0	0.0523	U	2.62E-03	0	0.0487	U	2.44E-03	0
0.0543	U	8.15E-03	0	0.0511	U	7.67E-03	0	0.0509	U	7.64E-03	0	0.0516	U	7.74E-03	0	0.0523	U	7.85E-03	0	0.0487	U	7.31E-03	0
0.0109	U	5.45E-03	0	0.0102	U	5.10E-03	0	0.0102	U	5.10E-03	0	0.0104	U	5.20E-03	0	0.0105	U	5.25E-03	0	0.00974	U	4.87E-03	0
0.0109	U	5.45E-04	0	0.0102	U	5.10E-04	0	0.0102	U	5.10E-04	0	0.0104	U	5.20E-04	0	0.0105	U	5.25E-04	0	0.00974	U	4.87E-04	0
		6.20E-02	0			5.83E-02	3.36E-06			5.81E-02	0			5.89E-02	1.10E-05			5.97E-02	2.85E-06			5.55E-02	0

Notes:
[1]TEFs = Toxic Equivalency Factor. Reference: The 2005 World Health Organization Reevaluation of Human and mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds. *Toxicological Sciences*, Volume 93, Number 2. July 2006. pp. 223-241.
TEQ = Toxic Equivalent
NG/KG = nanograms per kilogram
RSL = ORNL Regional Screening Levels (RSLs)- Oak Ridge National Laboratory (May, 2009) available online at http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/index.htm. Values represent the risk-based soil screening level for residential land
[2] TEQ is calculated assuming a "U" designation is present in the sample at 1/2 U
[3] TEQ is calculated assuming a "U" designation is 0
5.95E-02 bold indicates above human health risk screening criteria

TABLE 3-14
LANDFILL GAS MONITORING RESULTS
WEST GATE LANDFILL
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS

Location	Monitoring Date	Time (hrs)[1]	Methane (%)	Oxygen (%)	Hydrogen Sulfide (ppm)	VOCs (ppm) (PID)	VOCs (ppm) (FID)	Carbon Dioxide (%)	Comments
GAS PROBES									
WGL-SG-SG1-BKG	6/17/09	1455	0.4	20.1	0	0	4.0	0	
WGL-SG-SG1	6/17/10	1510	0.4	19.8	0	3.1	6.4	0	FID readings kept climbing even in open air
WGL-SG-SG2-BKG	6/17/11	1530	0.4	20	0	0	0.0	0.0	
WGL-SG-SG2	6/17/12	1546	0.4	19.9	0	0	3.1	0.0	
WGL-SG-SG3-BKG	6/17/13	1555	0.4	20.1	0	0.2	0	0.0	
WGL-SG-SG3	6/17/14	1610	0.4	20.1	0	2.8	0.0	0.0	
WGL-SG-SG4-BKG	6/17/15	1625	0.4	19.9	0	0	0	0.0	
WGL-SG-SG4	6/17/16	1640	0.4	20.1	0	0.4	0	0.0	
WGL-SG-SG5-BKG	6/17/17	1440	0.2	20.5	0	0	4.2	0.0	FID readings kept climbing even in open air
WGL-SG-SG5	6/17/18	1452	0.3	20.2	0	5.1	6.1	0.0	

Notes:

1) Soil gas background readings taken from open air and then soil gas readings were collected every minute for ten minutes. The final reading is presented in this table. See Appendix A-3 for field log sheets.

BKG - Background reading taken from outside gas probe casing in breathing zone.

FID - flame ionization detector

PID - photoioization detector

ppm - parts per million

% - percent

hrs - hours

FIGURES

ACAD: \00864\0340\WGL_LOCUS.DWG 08/04/09 DWM

BASE MAP FROM USGS QUADRANGLE SHEET: WEYMOUTH, MASSACHUSETTS, 1984

QUADRANGLE LOCATION

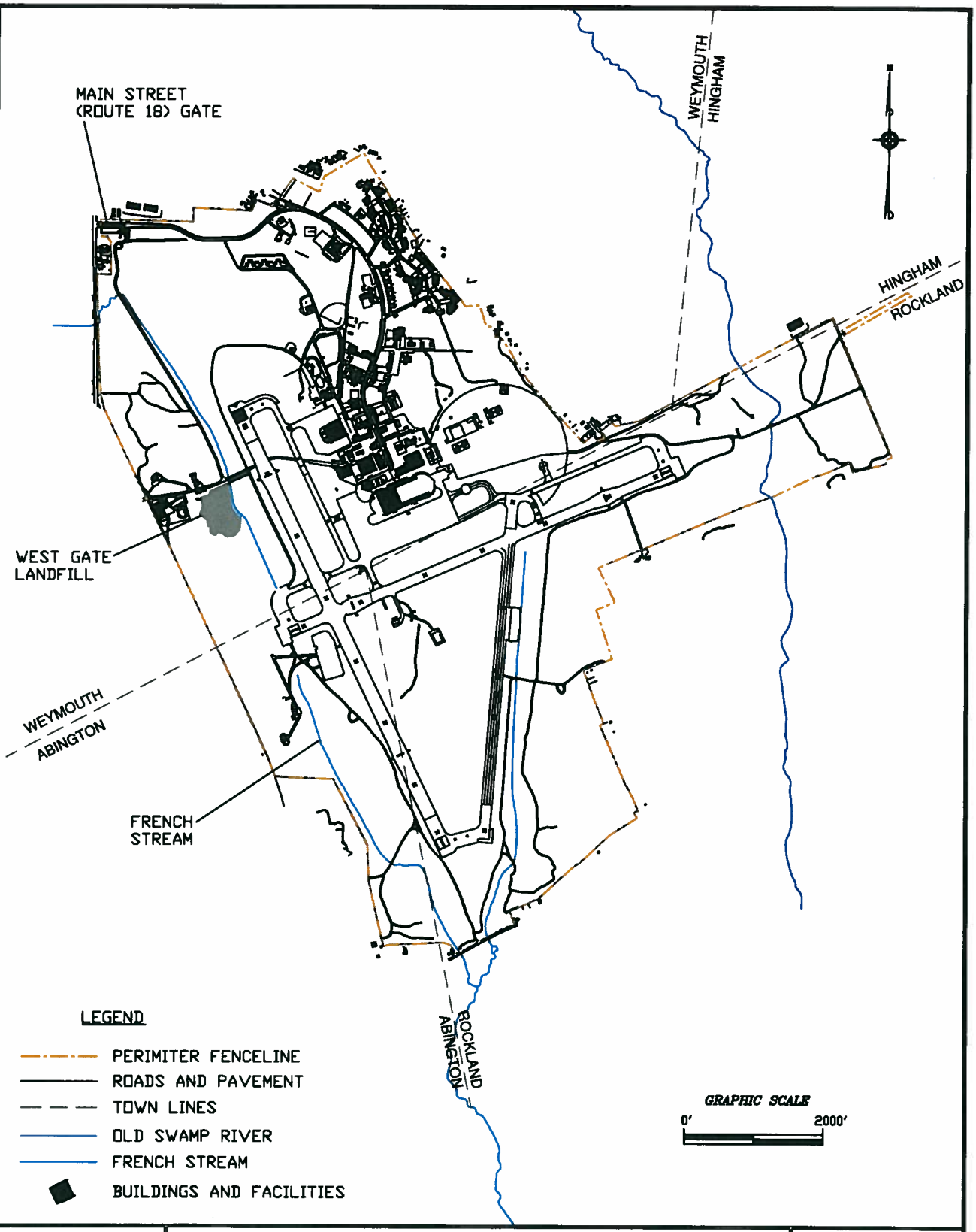
GRAPHIC SCALE
0 — 0.5 MILE — 1 MILE

TETRA TECH NUS, INC.

LOCATION OF NAS SOUTH WEYMOUTH
PRE-DESIGN INVESTIGATION REPORT
WEST GATE LANDFILL
NAVAL AIR STATION SOUTH WEYMOUTH
WEYMOUTH, MASSACHUSETTS

SCALE	AS NOTED
FILE	\..\WGL_LOCUS.DWG
REV	0
DATE	08/04/09
FIGURE NUMBER	1-1

ACAD: \00864\0350\WGL_BASE_MAP.DWG 11/09/09 DWM

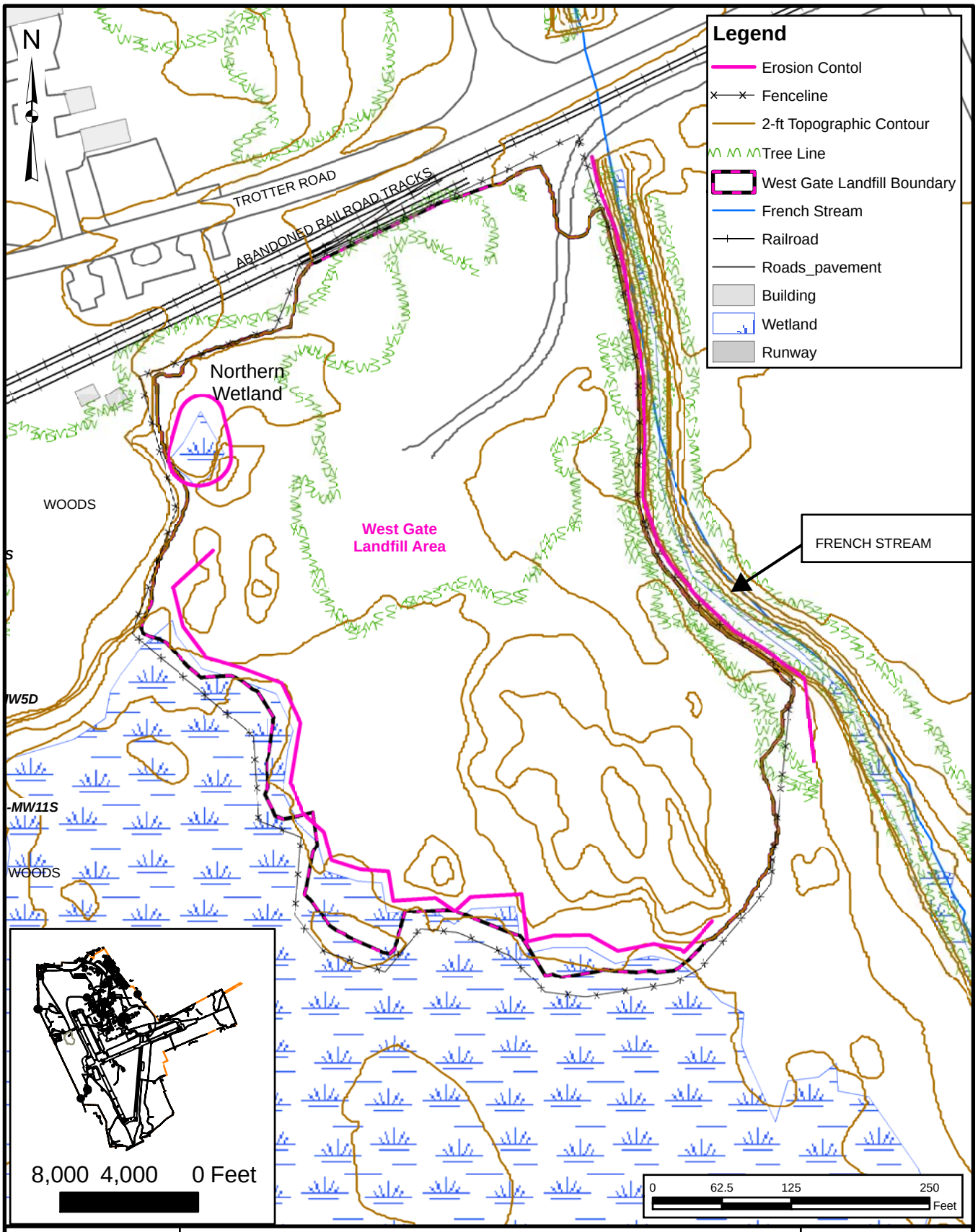


TETRA TECH NUS, INC.

MAIN BASE MAP
WEST GATE LANDFILL
PRE-DESIGN INVESTIGATION REPORT
NAS SOUTH WEYMOUTH
WEYMOUTH, MASSACHUSETTS

SCALE	AS NOTED
FILE	\..\WGL_BASE_MAP.DWG
REV	0
DATE	11/09/09
FIGURE NUMBER	1-2

I:\00864\0340\WGL_SITE_PLAN.MXD 09/21/09 DWM



Tetra Tech NUS, Inc.

SITE PLAN
WEST GATE LANDFILL
PRE-DESIGN INVESTIGATION REPORT
NAVAL STATION SOUTH WEYMOUTH
WEYMOUTH, MASSACHUSETTS

SCALE	AS NOTED
FILE	\..\WGL_SITE_PLAN.MXD
REV	0
DATE	09/21/09
FIGURE NUMBER	1-3

I:\0086A\0350\WGL_SAMP_LOC_MAP.MXD DWM 11/19/09

N

Legend

- WGL-SB-109 — Geotechnical Soil Boring Location
- WGL-SD-108 — Sediment Sample Location
- WGL-MW-101 — Monitoring Well
- WGL-APZ-1 — Piezometer
- D-10 — Debris Location
- PCB-02 — Transformer Sample Location
- WGL-SG-01 — Landfill Soil Gas Location
- WGL-TP-111 — Test Pit Locations
- Station #64525 — Benchmark Location
- Erosion Contol
- Landfill Extent
- Fenceline
- Estimated Extent of Visual Survey

Station #111
Station #10046
ABANDONED RAILROAD TRACKS
TROTTER ROAD
EBS-MW17-001
Station #64525
Area 1
WOODS
Northern Wetland
West Gate Landfill Area
CGS-MW6S
CGS-MW10S
Station #64526
CGS-MW5D
CGS-MW11S
Station #64500
Area 2
ADJACENT WETLAND AREA
FRENCH STREAM
WGL-MW-01
WGL-TP-103
WGL-APZ-1
WGL-SB-101
WGL-MW-37
WGL-SB-102
ATP-1
WGL-TP-101
JFP-MW-12
WGL-TP-104
WGL-TP-102
WGL-MW-38
JFP-MW-8
D-1
WGL-TP-105
PCB-1
PCB-2
PCB-3
MW-9
ASB12
WGL-SG-5
WGL-MW-43
WGL-SB-109
JFP-PZ-7
WGL-TP-106
WGL-MW-42
D-2
ASB11
WGL-SB-110
D-3
WGL-MW-41D
ATP-2
WGL-MW-41S
ATP-4
WGL-SG-1
WGL-MW-40D
WGL-MW-40S
WGL-SB-106
WGL-APZ-2
WGL-SB-107
WGL-TP-107
ATP-3
D-5
WGL-MW-66
WGL-SG-2
WGL-MW-66D
WGL-SD-101
D-6
WGL-TP-108
D-7
WGL-MW-02
WGL-SG-3
WGL-SB-108
WGL-MW-39
WGL-TP-117
WGL-TP-115
WGL-TP-114
WGL-MW-47D
WGL-TP-112
WGL-MW-102
WGL-TP-116
WGL-TP-113
D-8
WGL-SB-105
WGL-SD-102
ATP-5
WGL-SG-4
D-9
WGL-SD-103
D-10
WGL-SB-104
PCB-4
PCB-5
D-16
D-17
WGL-SB-103
D-11
WGL-SD-106
WGL-TP-110
WGL-TP-111
WGL-TP-109
WGL-SD-107
D-18
D-20
WGL-SD-104
D-12
D-15
D-19
WGL-MW-103
WGL-MW-101
WGL-SD-109
WGL-SD-110
WGL-MW-03
D-13
WGL-MW-04
WGL-APZ-3
WGL-SD-105
D-14
WGL-SD-111
WGL-MW-48D
WGL-MW-48D2
WGL-SD-106
WGL-SD-112

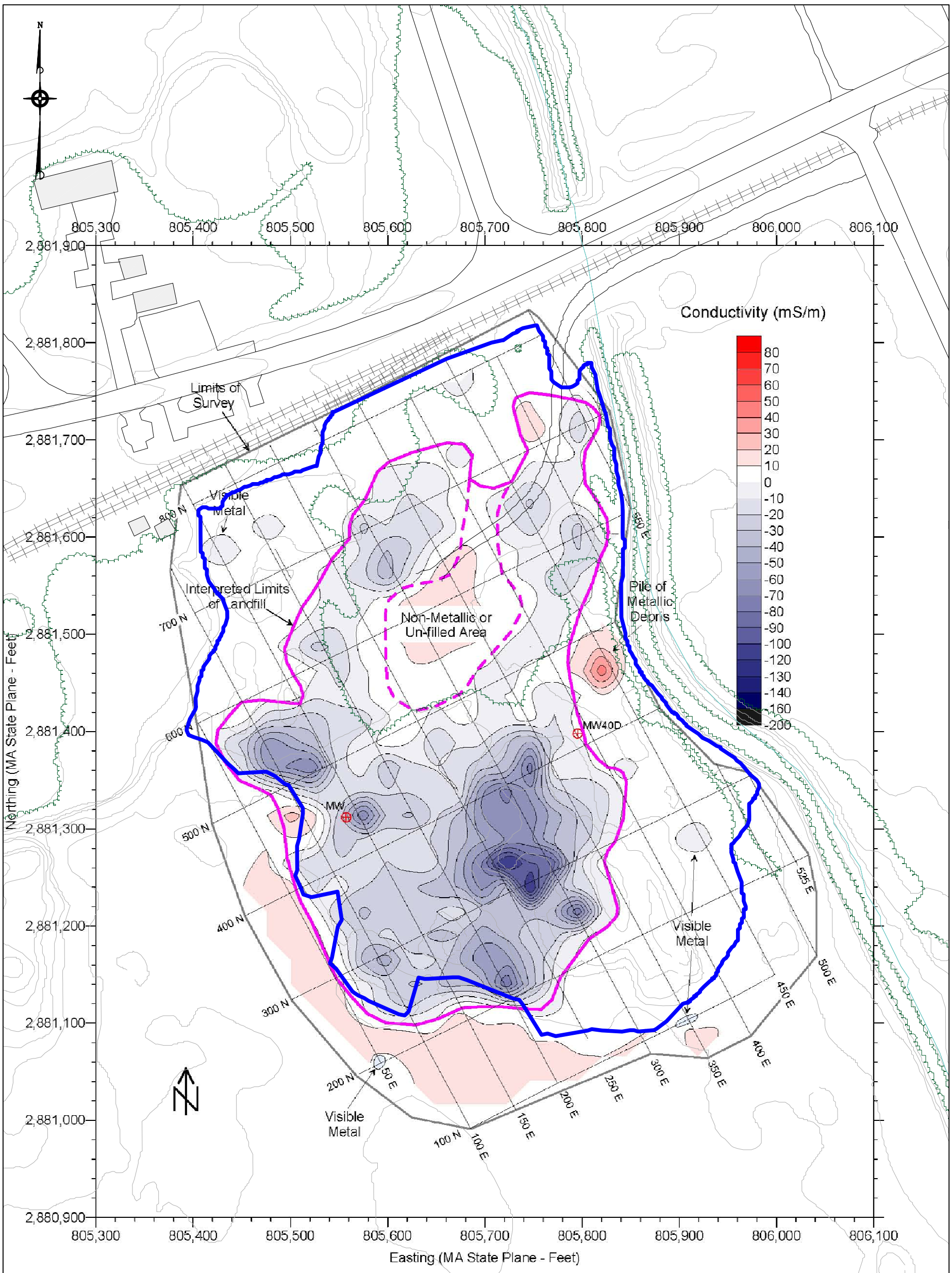
0 50 100 200 Feet

Tetra Tech NUS, Inc.

Pre-Design Sample Locations
West Gate Landfill
Pre-Design Investigation Report
NAS South Weymouth
Weymouth, Massachusetts

FILE	SCALE
\..\WGL_SAMP_LOC_MAP.MXD	AS NOTED
FIGURE NUMBER	REV / DATE
FIGURE NO. 1-4	0 / 11/19/09

ACAD: \00864\0360\WGL_EM_SURVEY 10/20/10 DWM

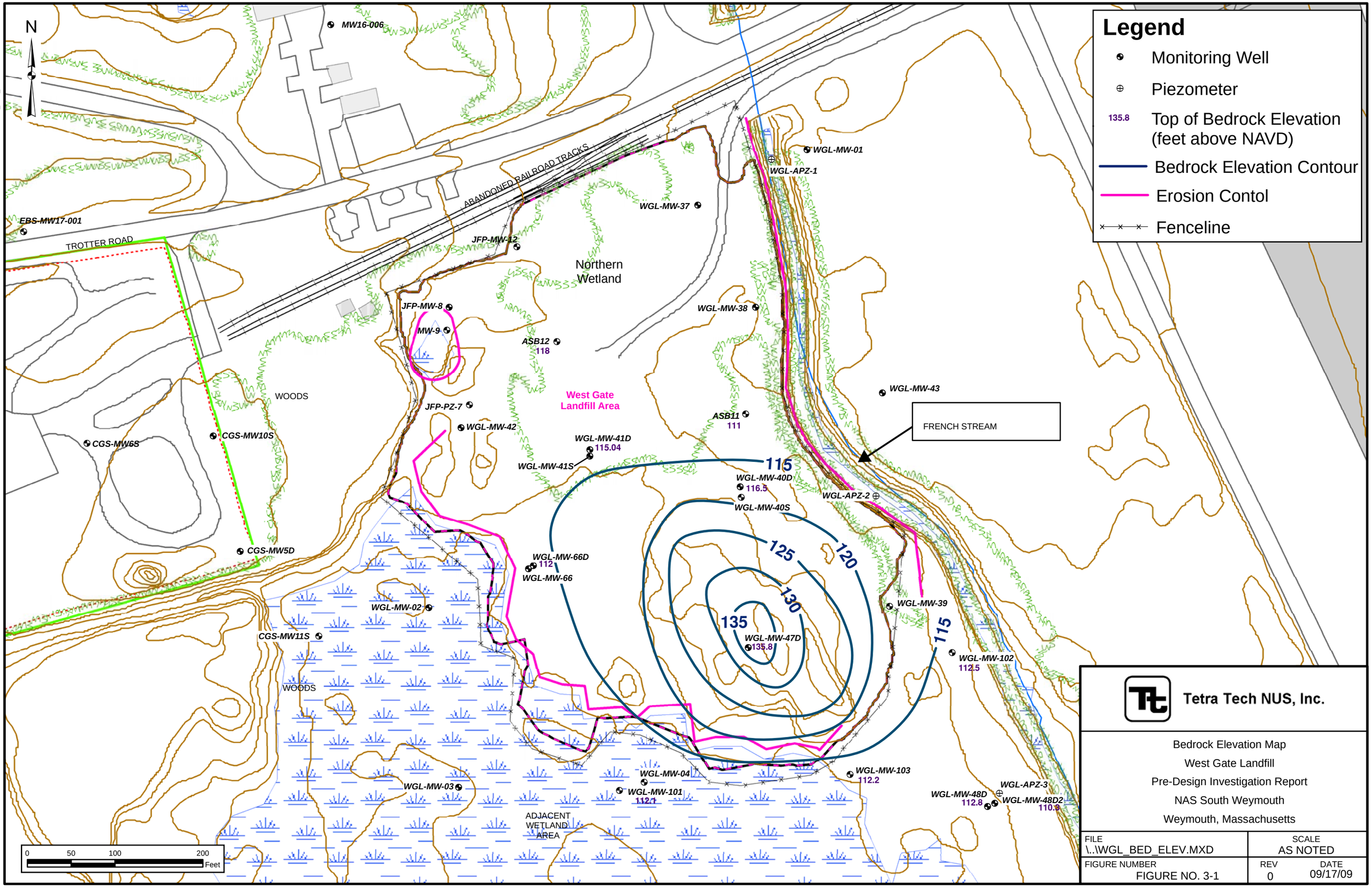


TETRA TECH NUS, INC.

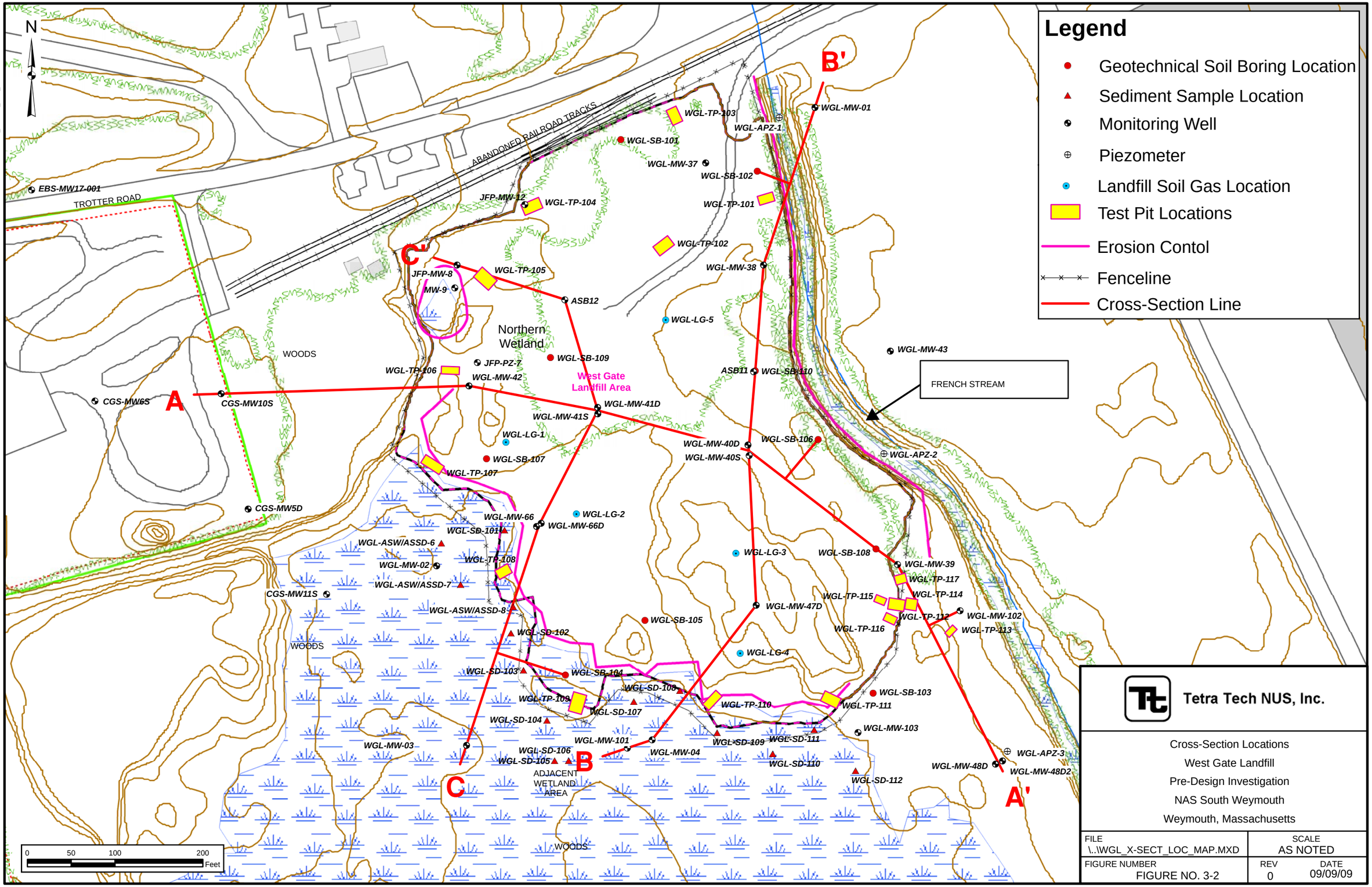
EM SURVEY
WEST GATE LANDFILL
PRE-DESIGN INVESTIGATION REPORT
NAVAL AIR STATION SOUTH WEYMOUTH
WEYMOUTH, MASSACHUSETTS

FILE	SCALE
\..\WGL_EM_SURVEY.DWG	AS NOTED
FIGURE NUMBER 2-1	REV 0 / DATE 10/20/10

I:\0086410340\WGL_BED_ELEV.MXD DWM 09/17/09



I:\0086\40340\WGL_X-SECT_LOC_MAP.MXD DWM 09/09/09

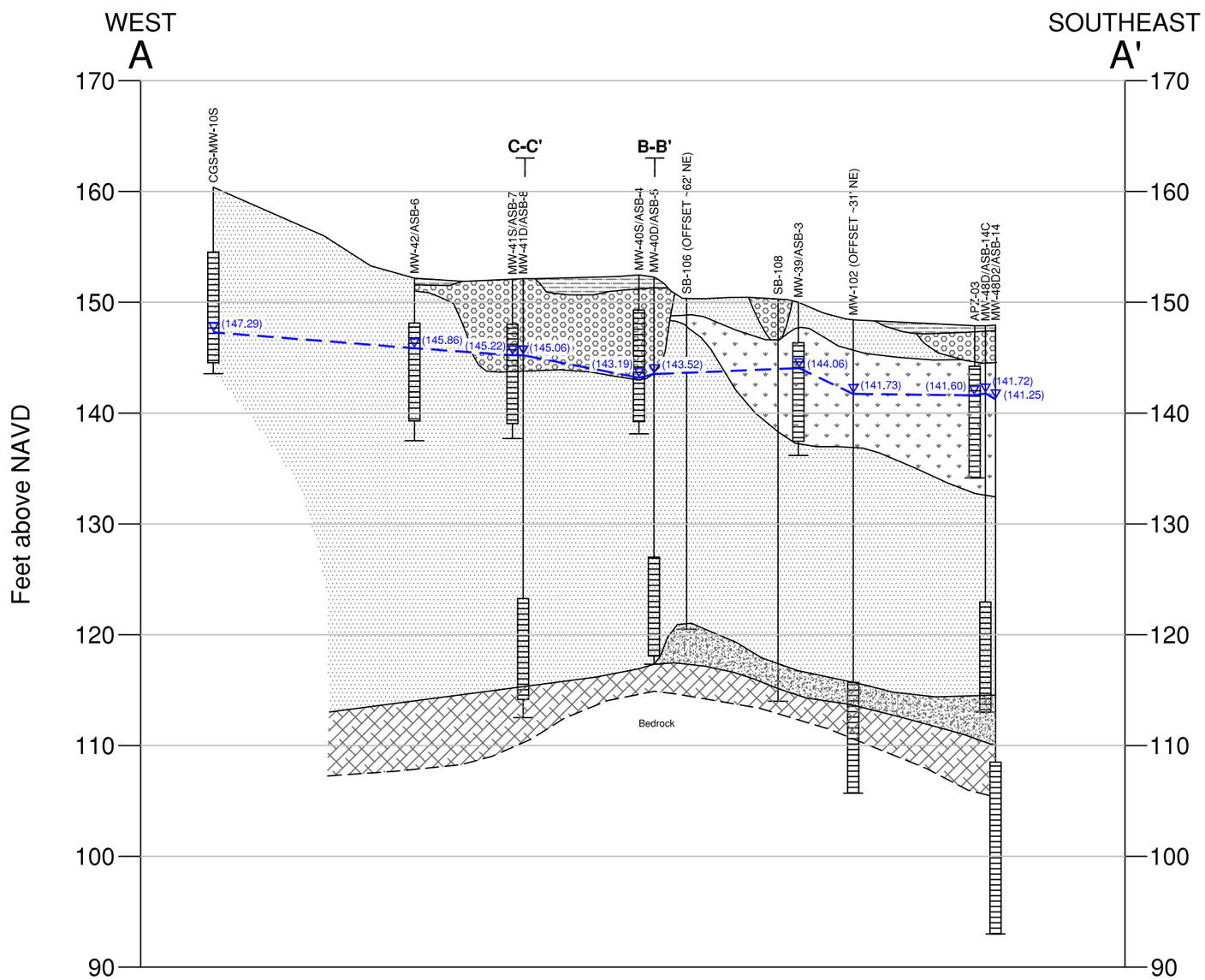


Tetra Tech NUS, Inc.

Cross-Section Locations
West Gate Landfill
Pre-Design Investigation
NAS South Weymouth
Weymouth, Massachusetts

FILE	SCALE
\..\WGL_X-SECT_LOC_MAP.MXD	AS NOTED
FIGURE NUMBER	REV / DATE
FIGURE NO. 3-2	0 / 09/09/09

ACAD: \00864\0340\WGL_X-SECTIONS.DWG 09/17/09 DWM



FILL

LOAM

PEAT

BROWN FLUVIAL SAND/SILT/GRAVEL AND LACUSTRINE SAND AND SILT

TILL (GREY, TAN SAND/SILT/COBBLES)

WEATHERED BEDROCK

MW-48D2/ASB-14 — SOIL BORING / WELL LOCATION ID (OFFSET INDICATED IF USED)

GROUND SURFACE

TOP OF WELL SCREEN

SCREENED SECTION

BOTTOM OF WELL SCREEN

BOTTOM OF BORING

B-B' — INTERSECTION OF CROSS-SECTIONS

(143.19) WATER ELEVATION (NAVD) MEASURED ON JUNE 29, 2009

GROUNDWATER ELEVATION (JUNE 29, 2009) (DASHED WHERE ESTIMATED)

HORIZONTAL SCALE

0' 150' 300'

VERTICAL SCALE

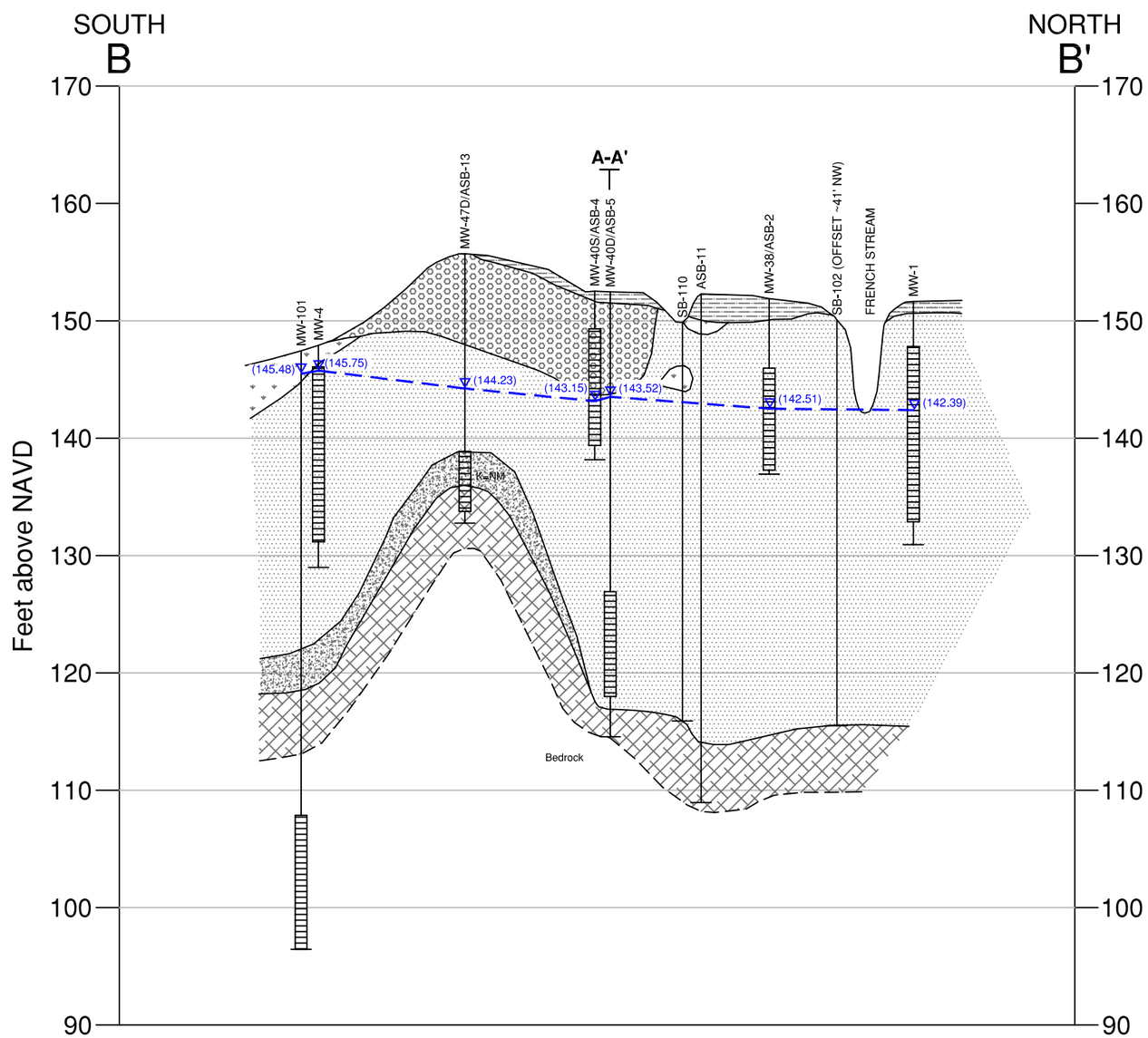
0' 10' 20'

TETRA TECH NUS, INC.

DESCRIPTION
GEOLOGICAL CROSS-SECTION A-A'
PRE-DESIGN INVESTIGATION REPORT
NAS SOUTH WEYMOUTH
WEYMOUTH, MASSACHUSETTS
LOCATION

FILE	SCALE
\..\WGL_X-SECTIONS.DWG	AS NOTED
FIGURE NUMBER 3-3	REV 0 / DATE 09/17/09

ACAD: \00864\0340\WGL_X-SECTIONS.DWG 09/17/09 DWM



FILL

LOAM

PEAT

BROWN FLUVIAL SAND/SILT/GRAVEL AND LACUSTRINE SAND AND SILT

TILL (GREY, TAN SAND/SILT/COBBLES)

WEATHERED BEDROCK

MW-38/ASB-2 — SOIL BORING / WELL LOCATION ID (OFFSET INDICATED IF USED)

GROUND SURFACE

TOP OF WELL SCREEN

SCREENED SECTION

BOTTOM OF WELL SCREEN

BOTTOM OF BORING

B-B' — INTERSECTION OF CROSS-SECTIONS

(143.52) — WATER ELEVATION (NAVD) MEASURED ON JUNE 29, 2009

GROUNDWATER ELEVATION (DATE NOTED) (DASHED WHERE ESTIMATED)

HORIZONTAL SCALE

0′ 150′ 300′

VERTICAL SCALE

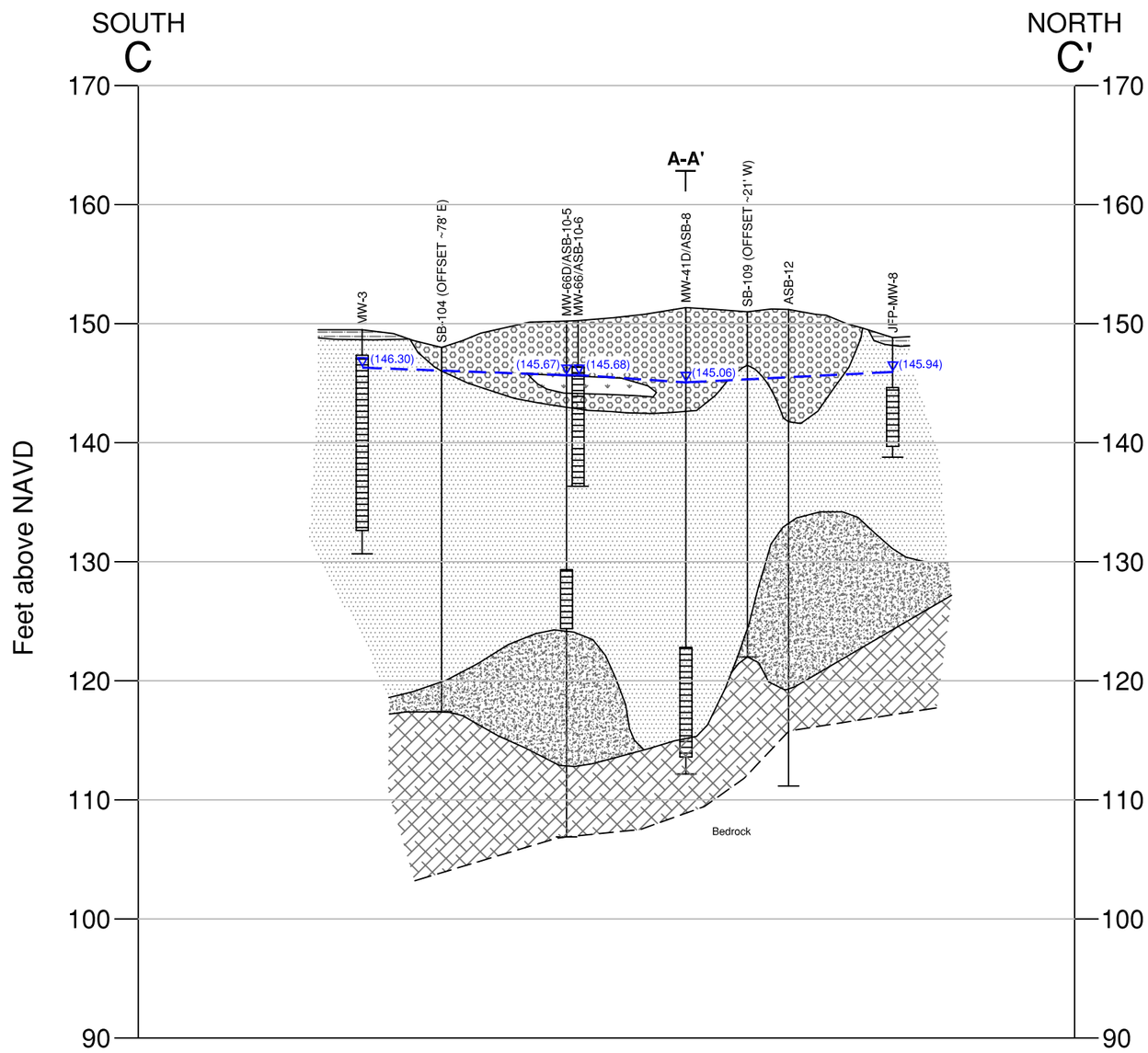
0′ 10′ 20′

TETRA TECH NUS, INC.

DESCRIPTION
GEOLOGICAL CROSS-SECTION B-B'
PRE-DESIGN INVESTIGATION REPORT
NAS SOUTH WEYMOUTH
WEYMOUTH, MASSACHUSETTS
LOCATION

FILE	SCALE
\..\WGL_X-SECTIONS.DWG	AS NOTED
FIGURE NUMBER 3-4	REV 0 / DATE 09/17/09

ACAD: \00864\0340\WGL_X-SECTIONS.DWG 09/17/09 DWM



FILL

LOAM

PEAT

BROWN FLUVIAL SAND/SILT/GRAVEL AND LACUSTRINE SAND AND SILT

TILL (GREY, TAN SAND/SILT/COBBLES)

WEATHERED BEDROCK

MW-66/ASB-10-6 — SOIL BORING / WELL LOCATION ID (OFFSET INDICATED IF USED)

GROUND SURFACE

TOP OF WELL SCREEN

SCREENED SECTION

BOTTOM OF WELL SCREEN

BOTTOM OF BORING

B-B' — INTERSECTION OF CROSS-SECTIONS

(145.06) WATER ELEVATION (NAVD) MEASURED ON JUNE 29, 2009

GROUNDWATER ELEVATION (DATE NOTED) (DASHED WHERE ESTIMATED)

HORIZONTAL SCALE

0' 150' 300'

VERTICAL SCALE

0' 10' 20'

TETRA TECH NUS, INC.

DESCRIPTION
GEOLOGICAL CROSS-SECTION C-C'
PRE-DESIGN INVESTIGATION REPORT
NAS SOUTH WEYMOUTH
WEYMOUTH, MASSACHUSETTS
LOCATION

FILE	SCALE
\..\WGL_X-SECTIONS.DWG	AS NOTED
FIGURE NUMBER 3-5	REV 0 / DATE 09/17/09

I:\008640350\WGL_OB_GW_062909.MXD DWM 11/10/09

N

Legend

- Monitoring Well
- Piezometer
- 143.2 Groundwater Elevation (NAVD)
- Groundwater Contour
- Erosion Contol
- Fenceline

MW16-006
147.7

147
146
145
144
143
142

ABANDONED RAILROAD TRACKS

TROTTER ROAD

WGL-APZ-1
143.3

WGL-MW-01
142.4

WGL-MW-37
143.3

JFP-MW-12

JFP-MW-8
145.9

MW-9

WGL-MW-38
142.5

Northern
Wetland

WOODS

WGL-MW-43
141.8

FRENCH STREAM

WGL-MW-42
145.9

West Gate
Landfill Area

WGL-MW-41D

WGL-MW-41S
145.2

WGL-MW-40D

WGL-MW-40S
143.2

WGL-APZ-2
141.2

CGS-MW10S
147.3

CGS-MW5D
147.1

WGL-MW-66D

WGL-MW-66
145.7

WGL-MW-02
146.1

WGL-MW-39
144.1

CGS-MW11S
146.7

WGL-MW-47D

WGL-MW-102
141.7

WOODS

WGL-MW-103

WGL-MW-04
145.7

WGL-MW-03
146.8

WGL-MW-101

WGL-APZ-3
141.6

WGL-MW-48D

WGL-MW-48D2

ADJACENT
WETLAND
AREA

0 50 100 200
Feet

Tetra Tech NUS, Inc.

Overburden GW Contour Map - June 29, 2009
West Gate Landfill
Pre-Design Investigation Report
NAS South Weymouth
Weymouth, Massachusetts

FILE	SCALE	
\..\WGL_OB_GW_062909.MXD	AS NOTED	
FIGURE NUMBER	REV	DATE
FIGURE NO. 3-6	0	11/10/09

I:\0086\0340\WGL_BED_GW_062909.MXD DWM 09/10/09

N

Legend

- Monitoring Well
- Piezometer
- 142.6 Groundwater Elevation (NAVD)
- Groundwater Contour (Dashed where approximate)
- Erosion Contol
- Fenceline

ABANDONED RAIL ROAD TRACKS

TROTTER ROAD

WOODS

CGS-MW10S

CGS-MW5D

CGS-MW11S

WOODS

JFP-MW-12

JFP-MW-8

MW-9

Northern Wetland

WGL-MW-42

West Gate Landfill Area

WGL-MW-41D
145.1
WGL-MW-41S

WGL-MW-66D
145.7
WGL-MW-66

WGL-MW-02

WGL-MW-03

WGL-MW-04

WGL-MW-101
145.5

ADJACENT WETLAND AREA

WOODS

WGL-MW-37

WGL-MW-38

WGL-MW-01

WGL-APZ-1

WGL-MW-43

FRENCH STREAM

WGL-MW-40D
143.5
WGL-MW-40S

WGL-APZ-2

WGL-MW-39

WGL-MW-47D
144.2

WGL-MW-102
141.7

WGL-MW-103
142.6

WGL-APZ-3

WGL-MW-48D
141.7

WGL-MW-48D2
141.3

145

144

143

142

0 50 100 200 Feet

Tetra Tech NUS, Inc.

Bedrock GW Contour Map - June 29, 2009

West Gate Landfill

Pre-Design Investigation Report

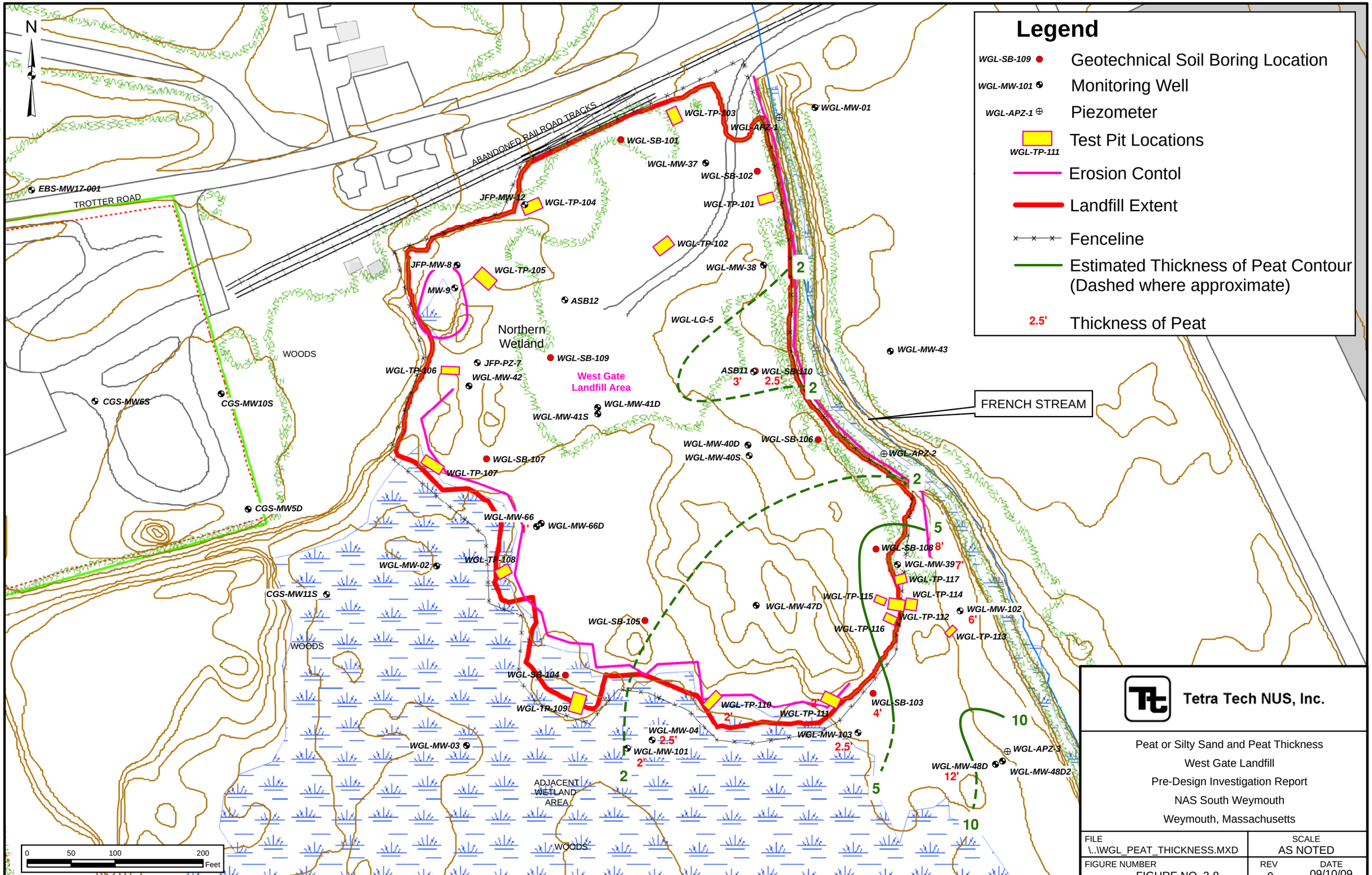
NAS South Weymouth

Weymouth, Massachusetts

FILE	SCALE
\..\WGL_BED_GW_062909.MXD	AS NOTED

FIGURE NUMBER	REV	DATE
FIGURE NO. 3-7	0	09/10/09

I:\00864\0360\WGL_PEAT_THICKNESS.MXD DWM 10/20/10



Tetra Tech NUS, Inc.

Peat or Silty Sand and Peat Thickness
West Gate Landfill
Pre-Design Investigation Report
NAS South Weymouth
Weymouth, Massachusetts

FILE	SCALE
\..\WGL_PEAT_THICKNESS.MXD	AS NOTED

FIGURE NUMBER	REV	DATE
FIGURE NO. 3-8	0	09/10/09

I:\0086401360\WGL_PAH_TAG_MAP.MXD DWM 10/20/10

N

Legend

- Sediment Sample Location
- Monitoring Well
- Debris Location
- Test Pit Locations
- Erosion Contol
- Landfill Extent
- Fenceline

ABANDONED RAIL ROAD TRACKS
TROTTER ROAD
WOODS
Northern Wetland
West Gate Landfill Area
FRENCH STREAM
ADJACENT WETLAND AREA

EBS-MW17-001
CGS-MW6S
CGS-MW10S
CGS-MW5D
CGS-MW11S
JFP-MW-12
JFP-MW-8
MW-9
JFP-PZ-7
WGL-MW-42
WGL-MW-41D
WGL-MW-41S
WGL-MW-40D
WGL-MW-40S
WGL-MW-37
WGL-MW-38
WGL-MW-01
WGL-MW-43
WGL-MW-66
WGL-MW-66D
WGL-MW-02
WGL-MW-03
WGL-MW-101
WGL-MW-04
WGL-MW-47D
WGL-MW-39
WGL-MW-102
WGL-MW-103
WGL-MW-48D
WGL-MW-48D2
ASB12
ASB11
WGL-SB-110
WGL-TP-103
WGL-TP-104
WGL-TP-105
WGL-TP-106
WGL-TP-107
WGL-TP-108
WGL-TP-101
WGL-TP-102
WGL-TP-109
WGL-TP-110
WGL-TP-111
WGL-TP-112
WGL-TP-113
WGL-TP-114
WGL-TP-115
WGL-TP-116
WGL-TP-117
D-2
D-3
D-5
D-9
D-10
D-11
D-13
D-14
D-15
D-17
D-18
D-19
WGL-SD-101
WGL-SD-102
WGL-SD-103
WGL-SD-104
WGL-SD-105
WGL-SD-106
WGL-SD-107
WGL-SD-108
WGL-SD-109
WGL-SD-110
WGL-SD-111
WGL-SD-112
WGL-ASW/ASSD-6
WGL-ASW/ASSD-7
WGL-ASW/ASSD-8

WGL-SD-SD101	
BENZO(A)ANTHRACENE	62 J
PYRENE	160 J

WGL-ASW/ASSD-6	
BENZO(A)ANTHRACENE	R
PYRENE	R

WGL-ASW/ASSD-7	
BENZO(A)ANTHRACENE	R
PYRENE	1100 J

WGL-ASW/ASSD-8	
BENZO(A)ANTHRACENE	R
PYRENE	960 J

WGL-SD-SD102	
BENZO(A)ANTHRACENE	125
PYRENE	235

WGL-SD-SD103	
BENZO(A)ANTHRACENE	160
PYRENE	350

WGL-SD-SD104	
BENZO(A)ANTHRACENE	25 U
PYRENE	13 J

WGL-SD-SD105	
BENZO(A)ANTHRACENE	100
PYRENE	190

WGL-SD-SD106	
BENZO(A)ANTHRACENE	31.5 UJ
PYRENE	85 J

WGL-SD-SD107	
BENZO(A)ANTHRACENE	42 U
PYRENE	130

WGL-SD-SD108	
BENZO(A)ANTHRACENE	43 J
PYRENE	120 J

WGL-SD-SD109	
BENZO(A)ANTHRACENE	100
PYRENE	240

WGL-SD-SD110	
BENZO(A)ANTHRACENE	110
PYRENE	260

WGL-SD-SD111	
BENZO(A)ANTHRACENE	120
PYRENE	350

WGL-SD-SD112	
BENZO(A)ANTHRACENE	57
PYRENE	200

Notes:

Benzo(a)anthracene and Pyrene analytical results are in µg/kg.
Results are indicated in yellow if they exceed the PAL
110 µg/kg for Benzo(a)anthracene
200 µg/kg for Pyrene
R = Rejected Value

0 50 100 200 Feet

Tetra Tech NUS, Inc.

Benzo(a)anthracene and Pyrene Tag Map
West Gate Landfill
Pre-Design Investigation Report
NAS South Weymouth
Weymouth, Massachusetts

FILE	SCALE
\..\WGL_PAH_TAG_MAP.MXD	AS NOTED
FIGURE NUMBER	REV / DATE
FIGURE NO. 3-9	0 / 10/20/10

I:\00864\0350\WGL_DIOX_TAG_MAP.MXD DWM 11/10/09

N

Legend

- Geotechnical Soil Boring Location
- Sediment Sample Location
- Monitoring Well
- Debris Location
- Transformer Sample Location
- Landfill Soil Gas Location
- Test Pit Locations
- Erosion Contol
- Landfill Extent
- Fenceline

ABANDONED RAILROAD TRACKS
TROTTER ROAD
EBS-MW17-001
WOODS
CGS-MW6S
CGS-MW10S
CGS-MW5D
CGS-MW11S
Northern Wetland
West Gate Landfill Area
FRENCH STREAM
ADJACENT WETLAND AREA
WGL-MW-01
WGL-TP-103
WGL-SB-101
WGL-MW-37
WGL-SB-102
WGL-TP-101
WGL-TP-102
WGL-MW-38
JFP-MW-12
WGL-TP-104
JFP-MW-8
WGL-TP-105
PCB-1
PCB-2
PCB-3
MW-9
ASB12
WGL-LG-5
WGL-SB-109
JFP-PZ-7
WGL-MW-42
WGL-TP-106
D-2
D-3
WGL-MW-41D
WGL-MW-41S
WGL-LG-1
WGL-SB-107
WGL-TP-107
WGL-MW-43
ASB11
WGL-SB-110
WGL-MW-40D
WGL-MW-40S
WGL-SB-106
D-5
WGL-MW-66
WGL-MW-66D
WGL-LG-2
WGL-SD-101
WGL-ASW/ASSD-6
WGL-MW-02
WGL-TP-108
WGL-ASW/ASSD-7
WGL-ASW/ASSD-8
WGL-SD-102
D-9
WGL-SD-103
D-10
WGL-SB-104
D-11
WGL-TP-109
WGL-SD-104
WGL-MW-03
WGL-SD-107
D-15
WGL-MW-101
D-13
D-14
WGL-SD-105
WGL-SD-106
WGL-MW-04
WGL-SB-105
WGL-LG-3
WGL-SB-108
WGL-MW-39
WGL-TP-117
WGL-TP-114
WGL-TP-115
WGL-MW-47D
WGL-TP-112
WGL-MW-102
WGL-TP-113
WGL-TP-116
WGL-LG-4
PCB-4
PCB-5
D-17
WGL-SD-108
D-18
WGL-TP-110
D-19
WGL-SD-109
WGL-SD-110
WGL-SD-111
WGL-SD-112
WGL-SB-103
WGL-TP-111
WGL-MW-103
WGL-MW-48D
WGL-MW-48D2

WGL-SD-SD101	
TOTAL OF TEQ	10.09

WGL-SD-SD102	
TOTAL OF TEQ	15.04

WGL-SD-SD103	
TOTAL OF TEQ	22.14

WGL-SD-SD104	
TOTAL OF TEQ	1.46

WGL-SD-SD105	
TOTAL OF TEQ	13.15

WGL-SD-SD106	
TOTAL OF TEQ	1.69

WGL-SD-SD107	
TOTAL OF TEQ	8.59

WGL-SD-SD108	
TOTAL OF TEQ	7.00

WGL-SD-SD109	
TOTAL OF TEQ	8.81

WGL-SD-SD110	
TOTAL OF TEQ	11.18

WGL-SD-SD111	
TOTAL OF TEQ	19.91

WGL-SD-SD112	
TOTAL OF TEQ	1.81

0 50 100 200 Feet

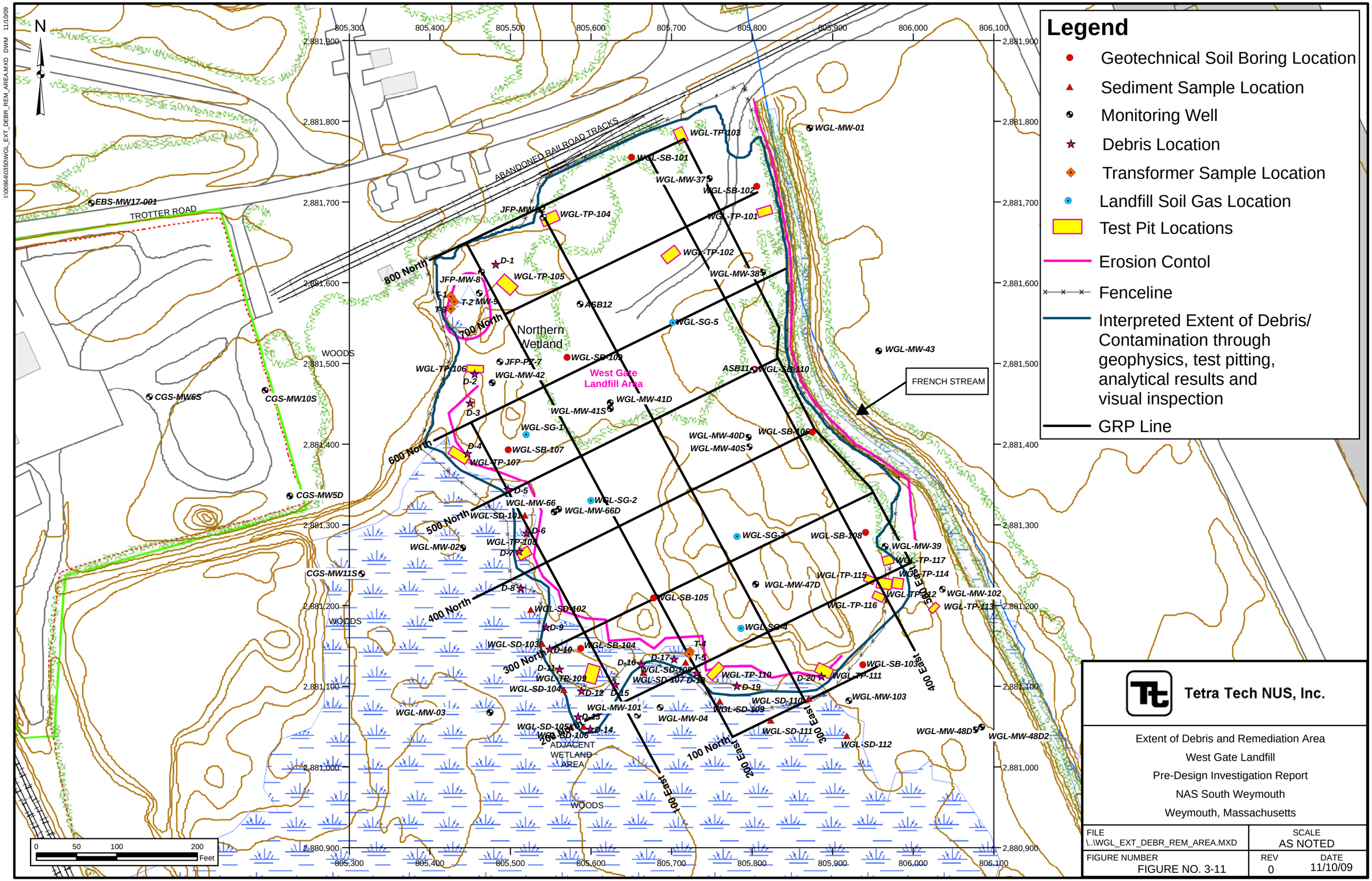
Notes:

Analytical results are for mammal dioxin/furan and are in ng/kg.
Results are indicated in yellow if they exceed the Eco Risk Standard (2.5 ng/kg)
R = Rejected Value

Tetra Tech NUS, Inc.

Dioxin/Furan TEQ Tag Map
West Gate Landfill
Pre-Design Investigation Report
NAS South Weymouth
Weymouth, Massachusetts

FILE	SCALE
\..\WGL_DIOX_TAG_MAP.MXD	AS NOTED
FIGURE NUMBER	REV / DATE
FIGURE NO. 3-10	0 / 11/10/09


Legend
Geotechnical Soil Boring Location
Sediment Sample Location
Monitoring Well
Debris Location
Transformer Sample Location
Landfill Soil Gas Location
Test Pit Locations
Erosion Contol
Fenceline
Interpreted Extent of Debris/ Contamination through geophysics, test pitting, analytical results and visual inspection
GRP Line
N
ABANDONED RAILROAD TRACKS
TROTTER ROAD
WOODS
Northern Wetland
West Gate Landfill Area
FRENCH STREAM
ADJACENT WETLAND AREA
800 North
700 North
600 North
500 North
400 North
300 North
200 North
100 North
100 East
200 East
300 East
400 East
500 East
EBS-MW17-001
CGS-MW6S
CGS-MW10S
CGS-MW5D
CGS-MW11S
WGL-MW-01
WGL-MW-37
WGL-MW-38
WGL-MW-43
WGL-MW-42
WGL-MW-41S
WGL-MW-41D
WGL-MW-40D
WGL-MW-40S
WGL-MW-66
WGL-MW-66D
WGL-MW-02S
WGL-MW-47D
WGL-MW-39
WGL-MW-102
WGL-MW-101
WGL-MW-04
WGL-MW-03
WGL-MW-103
WGL-MW-48D
WGL-MW-48D2
JFP-MW-8
JFP-MW-9
JFP-PZ-7
ASB12
ASB11
WGL-SG-1
WGL-SG-2
WGL-SG-3
WGL-SG-4
WGL-SG-5
WGL-SB-101
WGL-SB-102
WGL-SB-103
WGL-SB-104
WGL-SB-105
WGL-SB-106
WGL-SB-107
WGL-SB-108
WGL-SB-109
WGL-SB-110
WGL-TP-101
WGL-TP-102
WGL-TP-103
WGL-TP-104
WGL-TP-105
WGL-TP-106
WGL-TP-107
WGL-TP-108
WGL-TP-109
WGL-TP-110
WGL-TP-111
WGL-TP-112
WGL-TP-113
WGL-TP-114
WGL-TP-115
WGL-TP-116
WGL-TP-117
WGL-SD-101
WGL-SD-102
WGL-SD-103
WGL-SD-104
WGL-SD-105
WGL-SD-106
WGL-SD-107
WGL-SD-108
WGL-SD-109
WGL-SD-110
WGL-SD-111
WGL-SD-112
D-1
D-2
D-3
D-4
D-5
D-6
D-7
D-8
D-9
D-10
D-11
D-12
D-13
D-14
D-15
D-16
D-17
D-18
D-19
D-20
T-1
T-2
T-3
T-4
T-5
805,300
805,400
805,500
805,600
805,700
805,800
805,900
806,000
806,100
2,881,900
2,881,800
2,881,700
2,881,600
2,881,500
2,881,400
2,881,300
2,881,200
2,881,100
2,881,000
2,880,900
0 50 100 200 Feet
Tetra Tech NUS, Inc.
Extent of Debris and Remediation Area
West Gate Landfill
Pre-Design Investigation Report
NAS South Weymouth
Weymouth, Massachusetts
FILE
\..\WGL_EXT_DEBR_REM_AREA.MXD
SCALE
AS NOTED
FIGURE NUMBER
FIGURE NO. 3-11
REV
0
DATE
11/10/09
I:\0086A0350\WGL_EXT_DEBR_REM_AREA.MXD DWM 11/10/09

REFERENCES

REFERENCES

Adamus, P. R., L. T. Stockwell, E. J. Clairain, Jr., M. E. Morrow, L. P. Rozas, and R. D. Smith. 1991. *Wetland Evaluation Technique (WET); Volume I: Literature Review and Evaluation Rationale*. Technical Report WRP-DE-2, U.S. Army Engineer Waterways Experiment Station, Vicksburg, Mississippi.

Argonne, 1988. Preliminary Assessment, NAS South Weymouth, MA. Argonne National Laboratories, 1988.

B&R Environmental, 1998. NAS South Weymouth. Phase I Remedial Investigation, South Weymouth, Massachusetts. Volumes I-IV. July 1998.

Baker Environmental, 1991. Site Investigation at Naval Air Station South Weymouth. Baker Project Number 16746-19, December 1991.

De Santo, R. S. and T. A. Flieger. 1995. *Wetland Functions and Values: Descriptive Approach to Visualizing and Assessing Wetland Systems*. Transportation Research Record 1475 (1995): 123-132, Transportation Research Board, National Research Council, Washington, DC.

Environmental Laboratory. 1987. *Corps of Engineers Wetlands Delineation Manual*. Technical Report Y-87-1. U.S. Army Engineer Waterways Experiment Station, Vicksburg, Mississippi.

LFR, 2009. *Pre-Design Investigation Quality Assurance Project Plan for West Gate Landfill, Naval Air Station South Weymouth, Weymouth, Massachusetts*. February 2009.

MassDEP, 2006. Technical Update, *Revised Sediment Screening Values* (update to: *Section 9 of Guidance for Disposal Site Risk Characterization-In Support of the Massachusetts Contingency Plan* (1996)). January 2006.

Northeast Geophysical Services, 2009. *Terrain Conductivity and Ground Penetrating Radar Survey Report.* June 2009.

Stone & Webster Environmental, 2002. *Supplement to the Final Summary Report of Background Data Summary Statistics for NAS South Weymouth*. November 2002.

Tetra Tech NUS, Inc., 2002. *Phase II Remedial Investigation West Gate Landfill, Naval Air Station South Weymouth, Weymouth, Massachusetts*. April 2002.

Tetra Tech NUS, Inc., 2003. *Feasibility Study, West Gate Landfill, Naval Air Station South Weymouth, Weymouth, Massachusetts.* January, 2003.

Tetra Tech NUS, Inc., 2006. *Final Cover System and Consolidated Landfill Grading Options.* November 2006.

Tetra Tech NUS, Inc., 2009. *Wetland and Water Resources Delineation and Functional Assessment Report.* July 2009.

U.S. EPA, 1993. Interim Report on Data and Methods for Assessment of 2,3,7,8-Tetrachlorodibenzo-p-dioxin Risks to Aquatic Life and Associated Wildlife. Office of Research and Development. EPA/600/R-93/055. March, 1993.

U.S. EPA, *Test Methods for Evaluating Solid Wastes. Physical/Chemical Methods (SW-846)*, Office of Solid Waste. Third Edition, including all promulgated revisions.

U.S. Navy, 2007a. "Proposed Plan, Operable Unit 1 – West Gate Landfill, Naval Air Station South Weymouth, Weymouth, Massachusetts." May 2007.

U.S. Navy, 2007b. "Record of Decision, Operable Unit 1 – West Gate Landfill, Naval Air Station South Weymouth, Weymouth, Massachusetts." September 2007.

APPENDICES

A FIELD SAMPLING RECORDS
- A-1 FIELD MODIFICATION RECORDS
- A-2 TEST PIT LOGS
- A-3 LANDFILL SOIL GAS LOGS
- A-4 TRANSFORMER SAMPLE LOG SHEETS
- A-5 SEDIMENT SAMPLE LOG SHEETS
- A-6 BORING LOGS
- A-7 SOIL SAMPLE LOG SHEETS
- A-8 MONITORING WELL CONSTRUCTION LOGS
- A-9 MONITORING WELL INSPECTION LOGS
- A-10 WELL DEVELOPMENT LOG SHEETS
- A-11 GROUNDWATER LEVEL MEASUREMENT
- A-12 LOW-FLOW GROUNDWATER SAMPLE LOGS
- A-13 GROUNDWATER SAMPLE LOG SHEETS
- A-14 GPS COORDINATES FOR ALL FEATURES

B PHOTOGRAPH DOCUMENTATION
- B-1 DEBRIS AND SEDIMENT/SOIL SAMPLE LOCATIONS
- B-2 TEST PIT EXCAVATION PHOTOGRAPHS

C TERRAIN CONDUCTIVITY AND GROUND PENETRATING RADAR SURVEYS

D WETLAND AND WATER RESOURCES DELINEATION AND FUNCTIONAL ASSESSMENT REPORT

E 100-YEAR FLOOD PLAIN REPORT

F ANALYTICAL DATA TABLES
- F-1 SEDIMENT ANALYTICAL DATA
- F-2 GROUNDWATER ANALYTICAL DATA

G DATA VALIDATION MEMORANDA AND LABORATORY REPORTS

H GEOTECHNICAL LABORATORY REPORT

I SITE SPECIFIC PROJECT ACTION LIMITS AND REMEDIAL GOALS
- I-1 SEDIMENT PALS
- I-2 SOIL PALS
- I-3 GROUNDWATER PALS
- I-4 REMEDIAL GOALS

J REMEDIAL INVESTIGATION SEDIMENT DATA

APPENDIX A
FIELD FORMS
SOUTH WEYMOUTH NAS SOUTH GATE LANDFILL
PRE-REMEDIAL DESIGN INVESTIGATION
CTO 407

APPENDIX A-1
FIELD MODIFICATION RECORDS
SOUTH WEYMOUTH NAS SOUTH GATE LANDFILL
PRE-REMEDIAL DESIGN INVESTIGATION
CTO 407

TETRA TECH NUS
FIELD TASK MODIFICATION REQUEST FORM

West Gate Landfill PDI
Project/Installation Name

112600864 - 0320 (CTO 407)
CTO & Project Number

0320
Task Mod. Number

Work Plan/QAPP
Modification To (e.g. Work Plan)

Test Pit
Site/Sample Location

5/28/09
Date

Activity Description: Test Pit Excavation Soil Sampling (no soil sampling planned during test pit excavation)

Reason for Change: While excavating TP-112 encountered a petroleum odor. After discussion with project manager a sample was collected from the 4' to 6' interval and sent to Katahdin Analytical for analysis of VOCs SVOCs, EPH & VPH

Recommended Disposition: see reason for change

Hannah Stand
Field Operations Leader (Signature)

5/28/09
Date

Approved Disposition:
D. Seiken changed analytical suite

Project/Task Order Manager (Signature)

7/17/09
Date

Distribution:

Program/Project File –
Project/Task Order Manager –
Field Operations Leader –

Other:

TETRA TECH NUS
FIELD TASK MODIFICATION REQUEST FORM

WestGate Landfill PA	112G0864 (CC04-07)	0320
Project/Installation Name	CTO & Project Number	Task Mod. Number
Work Plan/QAPP	MW103	6/30/09
Modification To (e.g. Work Plan)	Site/Sample Location	Date

Activity Description: Installing steel casing around bedrock MW-10 (overburden)

Reason for Change: Difficulty drilling through boulders in overburden with 10" augers

Recommended Disposition: Decided not to case off overburden so that smaller diameter augers could be used while drilling through the overburden. The grout seal (bentonite chips) was brought above the top of rock

Johanna Lars — Field Operations Leader (Signature)

6/30/09 — Date

Approved Disposition:

Project/Task Order Manager (Signature)

7/17/09 — Date

Distribution:

Program/Project File –
Project/Task Order Manager –
Field Operations Leader –

Other:

TETRA TECH NUS, INC.

FIELD MODIFICATION RECORD

Site Name: West Gate Landfill Location: NAS South Weymouth

Project Number: 112G00864 (TO407) Task Assignment: 0326

To: Work Plan Location: WGL Site Date: 8/18/09

Description: A additional test pitting was conducted surrounding test pit location TP-112 & south ~~due to petrole~~ of TP-112, near MW-103

Reason for Change: Petroleum discovered in TP-112 & suspicious mound noted in MW-103 vicinity

Recommended Action: additional TP (TP-113) ~~at~~ in vicinity of MW-103 & additional test pits (TP-114 - TP-117) surrounding TP-112 (petroleum odor)

Field Operations Leader (Signature): [signature] Date: 8/18/09

Disposition/Action:

Project Manager (Signature): [signature] Date: 8/21/09

Distribution:

		Others as Required:
Program Manager:		
Project Manager:		
Quality Assurance Officer:		
Field Operations Leader:		
Project File:		

TtNUS Form 0003

TETRA TECH NUS, INC.

FIELD MODIFICATION RECORD

Site Name: West Gate Landfill Location: NAS South Weymouth

Project Number: 112G00864 (CTO407) Task Assignment: 0320

To: Work Plan Location: WGL Site Date: April 30, 2009

Description: Site clearing of original 3 acres changed to clearing the whole site (5 acres).

Reason for Change: Ease of access to locations throughout the site

Recommended Action: Clear 5 acres (whole site)

Field Operations Leader (Signature): Johanna Leard Date: 8/18/09

Disposition/Action:

Project Manager (Signature): [signature] Date: 8/21/09

Distribution:

		Others as Required:
Program Manager:		
Project Manager:		
Quality Assurance Officer:		
Field Operations Leader:		
Project File:		

TtNUS Form 0003

APPENDIX A-2
TEST PIT LOGS
SOUTH WEYMOUTH NAS SOUTH GATE LANDFILL
PRE-REMEDIAL DESIGN INVESTIGATION
CTO 407

TETRA TECH NUS, INC.

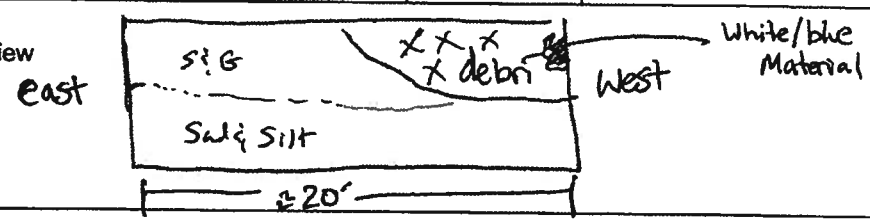
TEST PIT LOG

Site Name: West Gate Landfill
Project Number: 112G00864
Location: South Weymouth NAS

Test Pit No.: TP-101
Date: 05/26/09
Field Geologist: B. Geringer

DEPTH (feet)	LITHOLOGY CHANGE (Depth, feet)	MATERIAL DESCRIPTION (Soil Density/Consistency, Color)	USCS	REMARKS
0-5	SAND & GRAVEL	F-M SAND & GRAVEL, Cobbles,	GW	Fill-
		brown - Some black Staining		Metal debri * PID=0.4 PID=0.7
5-8	SAND & SILT	F-M SAND, Some Silt, Lt brown	SM	Native-
		Moist		Some orange bands
8-9	SAND & SILT	SAA - Wet; Water @ 9'	SM	

Test Pit Cross Section and/or Plan View



REMARKS: * Debri at 2' bgs located 8' of eastern edge of TP, debri is approx 4' deep - below is native material - Debri includes misc metal, crushed drum, white/blue crystalline material, bottles, wire and ceramic cups

PHOTO LOG:

TEST PIT: TP-101

PAGE 1 OF 1

TtNUS FORM 0011

TETRA TECH NUS, INC.

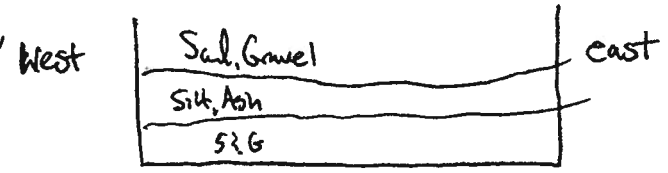
TEST PIT LOG

Site Name: West Gate Landfill
Project Number: 112G00864
Location: South Weymouth NAS

Test Pit No.: TP-102
Date: 05/26/09
Field Geologist: B. Geringer

DEPTH (feet)	LITHOLOGY CHANGE (Depth, feet)	MATERIAL DESCRIPTION (Soil Density/Consistency, Color)	USCS	REMARKS	
0-5	SAND & GRAVEL	F-M SAND, Some gravel, Some	GW	Very little metal pieces	Fill
		Cobbles, trace Silt - dry, brown			
5-7	SAND & SILT, GRAVEL	F-SAND & SILT, Some black Ash	SM	PID = 0.5 PID = 0.8 Ash like	
		like material, Wood Fragments, moist			
7-10	SAND & GRAVEL	M-SAND, GRAVEL, COBBLES, lt brown	GW	No evidence of debri -	Native
		tan - wet			

Test Pit Cross Section and/or Plan View



REMARKS: Ash material at approx 5' - little metal or debri observed (0-2')

PHOTO LOG:

TEST PIT: TP-102

PAGE 1 OF 1

TtNUS FORM 0011

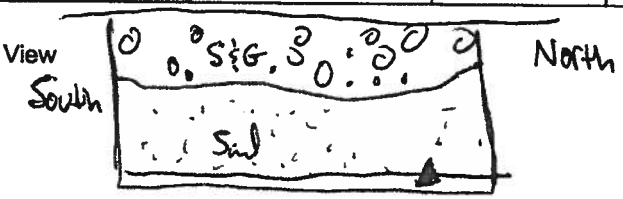
TETRA TECH NUS, INC.

TEST PIT LOG

Site Name:	West Gate Landfill	Test Pit No.:	TP-103
Project Number:	112G00864	Date:	05/26/09
Location:	South Weymouth NAS	Field Geologist:	B. Geringer

DEPTH (feet)	LITHOLOGY CHANGE (Depth, feet)	MATERIAL DESCRIPTION (Soil Density/Consistency, Color)	USCS	REMARKS
0-0.5'	Top Soil	Sand, Silt, organic Material	SM	Dry
0.5-4.5	SAND, GRAVEL	SAND & GRAVEL, Some Cobbles,	GW	few bricks - Fill
		lt brown, Fe. Staining at N. and		Moist PID/FID=0.0
		W. Wall below 1' bgs		
4.5-9.5	SAND	F-M SAND, little gravel, lt brown/	SW	Wet - Native
		tan - Water at 9' bgs		Saturated -

Test Pit Cross Section and/or Plan View



REMARKS: Few bricks 2' bgs, 7' From north Wall, long piece of Metal 2' bgs 15' From north Wall, Protruding From West Wall

PHOTO LOG:

TEST PIT: TP-103

PAGE 1 OF 1

TtNUS FORM 0011

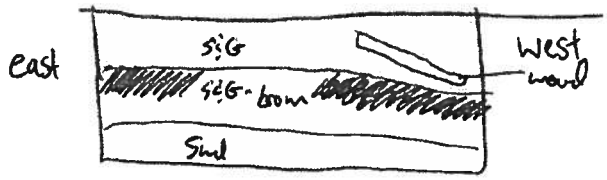
TETRA TECH NUS, INC.

TEST PIT LOG

Site Name:	West Gate Landfill	Test Pit No.:	TP-104
Project Number:	112G00864	Date:	5/27/09
Location:	South Weymouth NAS	Field Geologist:	B. Geringer

DEPTH (feet)	LITHOLOGY CHANGE (Depth, feet)	MATERIAL DESCRIPTION (Soil Density/Consistency, Color)	USCS	REMARKS
0-0.5	SAND, SILT	F-SAND, Some Silt, roots, organic	SM	dry Fill
		Material, brown		moist
0.5-2	SAND, GRAVEL	M-C SAND & GRAVEL, Some Cobbles	GW	
		Lt brown		
2-4	" "	" " - dark brown	GW	Possible Stain? no odor
4-7	SAND, GRAVEL	M-Sand, & GRAVEL, lt brown	GW	PID=0.0 FID=0.0 ↓
7-9	SAND	M-C Sand, little gravel, Lt brown	SP	Wet Native
9-10	SAA	SAA		Water encountered

Test Pit Cross Section and/or Plan View



REMARKS: No metal debris observed; large piece of timber with Nail (RR tie?) observed 2' bgs along South Wall (NE Corner) approx 4' long

PHOTO LOG:

TEST PIT: TP-104

PAGE 1 OF 1

TtNUS FORM 0011

TETRA TECH NUS, INC.

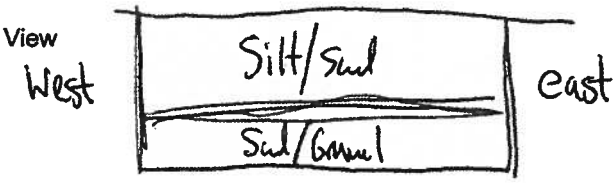
TEST PIT LOG

Site Name: West Gate Landfill
Project Number: 112G00864
Location: South Weymouth NAS

Test Pit No.: TP-105
Date: 5/27/09
Field Geologist: B. Geringer

DEPTH (feet)	LITHOLOGY CHANGE (Depth, feet)	MATERIAL DESCRIPTION (Soil Density/Consistency, Color)	USCS	REMARKS
0-0.5	SILT, SAND	SILT, Some F SAND, Roots, organic	SM	Native Material
		Material, dark brown/gray		
0.5-4.5	SILT, SAND	SILT, F-SAND, increasing	SM	PID= 0.0
		silt with depth, wet at bottom		FID = 0.0
		gray		
4.5-6.0	SAND, GRAVEL	F-M SAND & GRAVEL, Some	GW	Water at 5'
		Cobbles, lt brown		

Test Pit Cross Section and/or Plan View



REMARKS: Debri at Surface, including equipment housing, 4' of Corrugated Pipe and electrical wire debri located at Surface to 1' bgs - in center of TP

PHOTO LOG:

TEST PIT: TP-105

PAGE 1 OF 1

TtNUS FORM 0011

TETRA TECH NUS, INC.

TEST PIT LOG

Site Name:	West Gate Landfill	Test Pit No.:	TP-106
Project Number:	112G00864	Date:	5/27/09
Location:	South Weymouth NAS	Field Geologist:	B. Geringer

DEPTH (feet)	LITHOLOGY CHANGE (Depth, feet)	MATERIAL DESCRIPTION (Soil Density/Consistency, Color)	USCS	REMARKS
0-0.5	Silt, Sand	SILT, Some F-Sand, dry, organic	SM	Some debri *
0.5-1.5	SILT, Sand	SILT, F-SAND, Lt gray, Moist	↓	↓ FID/PID=0.0
1.5-4.0	SAND, GRAVEL	M-C SAND & GRAVEL, Moist, Lt brown	GW	Some Cobbles-
4.0-5.0	SAND	M-C-SAND, little gravel, wet	SP	Water at 5'
		brown		
5.0-6.0	SAND & GRAVEL	M-C SAND & GRAVEL, Saturated	GW	Native
		Lt brown, Lt gray		

Fill ↓

Test Pit Cross Section and/or Plan View

REMARKS: * Debri is located ~~[illegible]~~ at Surface to 2' bgs, approx 10' From Western edge of TP; including metal debri, pipe, Concrete blocks, wire

PHOTO LOG:

TEST PIT: TP-106

PAGE 1 OF 1

TtNUS FORM 0011

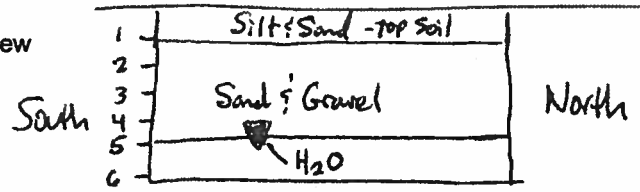
TETRA TECH NUS, INC.

TEST PIT LOG

Site Name:	West Gate Landfill	Test Pit No.:	TP-107
Project Number:	112G00864	Date:	05/27/09
Location:	South Weymouth NAS	Field Geologist:	B. Geringer

DEPTH (feet)	LITHOLOGY CHANGE (Depth, feet)	MATERIAL DESCRIPTION (Soil Density/Consistency, Color)	USCS	REMARKS
0-1	SILT, SAND	SILT, F-M SAND, organic Material	SM	No debri observed
		dark brown - Top Soil		Native Material
1-6	SAND, GRAVEL	M-C SAND & Gravel, Moist	GW	very loose
	↓	at 1', Saturated at 5', Light		PID/FID = 0.0
		brown / lt. gray, very few Cobbles		

Test Pit Cross Section and/or Plan View



REMARKS: No debri observed in test pit; Sand and gravel very loose - Collapsing -

PHOTO LOG:

TEST PIT: TP-107

PAGE 1 OF 1

TtNUS FORM 0011

TETRA TECH NUS, INC.

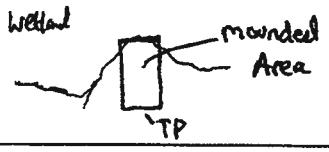
TEST PIT LOG

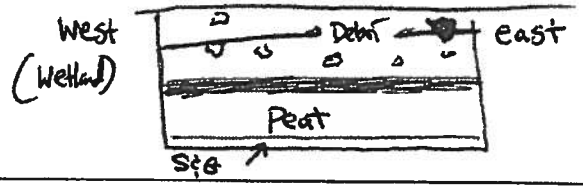
Site Name:	West Gate Landfill	Test Pit No.:	TP-108
Project Number:	112G00864	Date:	05/27/09
Location:	South Weymouth NAS	Field Geologist:	B. Geringer

DEPTH (feet)	LITHOLOGY CHANGE (Depth, feet)	MATERIAL DESCRIPTION (Soil Density/Consistency, Color)	USCS	REMARKS
0-4	SAND, SILT	M-C SAND & SILT, dark brown,	SM	PID=0.2 FID=0.0
		Wet, Fill, lots of refuse *		Water at 2' bgs
4-7	PEAT	Top 6" to 1' black/Fluffy, Soft	PT	- No debri observed
		Peat, bottom 2' brown and fibrous		- Sheen observed in
		Wet		GW-
>7	SAND & GRAVEL	C-SAND & Gravel, Wet	GW	

PID/FID 0.0

Test Pit Cross Section and/or Plan View





REMARKS: * Debri was observed throughout TP from Surface to approx 3.5' bgs debri included numerous bottles, 5-Gallon Container with blue crystalline Substance, Wire, truck tailgate, Various metal debri, destroyed Spray paint Can - No buried debri in Wetland -

PHOTO LOG:

TEST PIT: TP-108

PAGE 1 OF 1

TtNUS FORM 0011

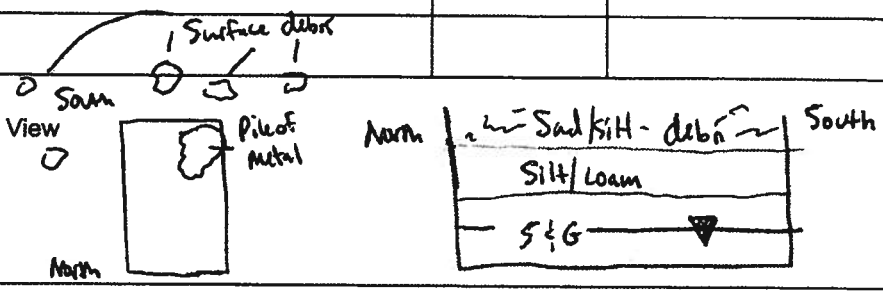
TETRA TECH NUS, INC.

TEST PIT LOG

Site Name:	West Gate Landfill	Test Pit No.:	TP-109
Project Number:	112G00864	Date:	5/28/09
Location:	South Weymouth NAS	Field Geologist:	B. Geringer

DEPTH (feet)	LITHOLOGY CHANGE (Depth, feet)	MATERIAL DESCRIPTION (Soil Density/Consistency, Color)	USCS	REMARKS
0-1	SAND, SILT	F-M SAND, and SILT, Some gravel	SM	debri visible *
		Organic Material, dry		PID = 3.7 FID = 0.0
1-2	Silt/Loam	black SILT/Loam, Moist	SM	
2-5	SAND, GRAVEL	M-C SAND & GRAVEL, Lt brown	GW	Water at 3.5'
		Some Cobbles, wet		PID = 0.0 FID = 0.0

Test Pit Cross Section and/or Plan View



REMARKS: Pile of metal in SE Corner * Debri visible throughout TP to 1' in depth debri includes, Cans, bottles, Car parts, Pipes, Mangled metal, Some white/blue powdery Material/ mangled 5-Gal ~~[illegible]~~ Container

PHOTO LOG:

TEST PIT: TP-109

PAGE 1 OF 1

TtNUS FORM 0011

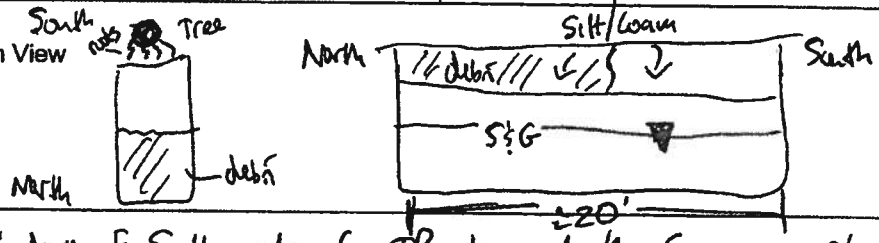
TETRA TECH NUS, INC.

TEST PIT LOG

Site Name:	West Gate Landfill	Test Pit No.:	TP-110
Project Number:	112G00864	Date:	5/28/09
Location:	South Weymouth NAS	Field Geologist:	B. Geringer

DEPTH (feet)	LITHOLOGY CHANGE (Depth, feet)	MATERIAL DESCRIPTION (Soil Density/Consistency, Color)	USCS	REMARKS
0-2	Silt/Loam	Silt, Loam, Some Sand, organic-	SM	Debri observed *
		roots, moist, black/dark brown		PID=0.0 FID=0.0
2-6	Sand/Gravel	m-c SAND & Gravel, moist to	GW	Water at 3' bgs
		Saturated, lt brown		PID=0.0 FID=0.0
				- GW encountered was
				Frothy -

Test Pit Cross Section and/or Plan View



REMARKS: * Debri located 6' North of Southern edge of TP, to a depth of approx 2' debri included, bottles, cans, car parts, Gas tank (empty), torpedo fin, Mangled metal

PHOTO LOG:

TEST PIT: TP-110

PAGE 1 OF 1

TtNUS FORM 0011

TETRA TECH NUS, INC.

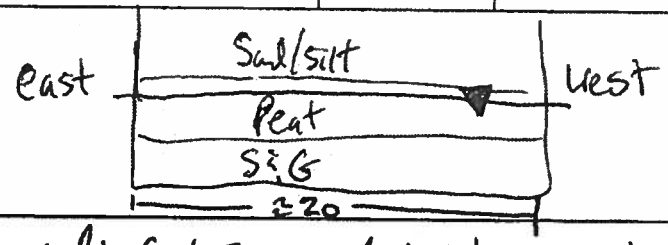
TEST PIT LOG

Site Name: West Gate Landfill
Project Number: 112G00864
Location: South Weymouth NAS

Test Pit No.: TP-~~112~~ BG 111
Date: 05/29/09
Field Geologist: B. Geringer

DEPTH (feet)	LITHOLOGY CHANGE (Depth, feet)	MATERIAL DESCRIPTION (Soil Density/Consistency, Color)	USCS	REMARKS
0-4	SAND, SILT	F-M SAND, and SILT; increasing	SM	Few pieces of metal observed
		Silt with depth, moist, brown		From 0-1'
		Very soft - Fill - few boulders, little gravel		PID=0.0 PID=0.0
4-6	Peat	Black, ~~Tan~~ Loam transitioning to	PT	Saturated - Water
		brown Peat		encountered at 4'
6-8	SAND, Gravel	M-C SAND & Gravel, Lt brown	GW	
		Wet		

Test Pit Cross Section and/or Plan View



REMARKS: No Significant debris encountered; GW Frothy, and Light brown in color

PHOTO LOG:

TEST PIT: TP-111

PAGE 1 OF 1

TtNUS FORM 0011

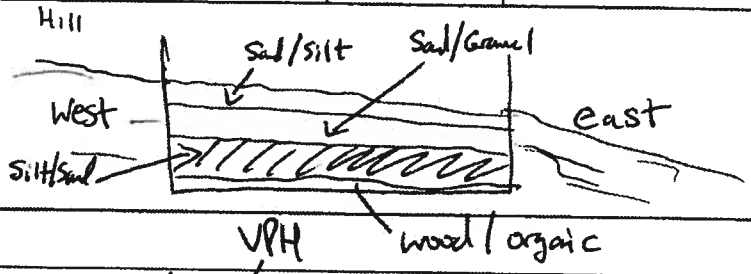
TETRA TECH NUS, INC.

TEST PIT LOG

Site Name:	West Gate Landfill	Test Pit No.:	TP-112
Project Number:	112G00864	Date:	05/28/09
Location:	South Weymouth NAS	Field Geologist:	B. Geringer

DEPTH (feet)	LITHOLOGY CHANGE (Depth, feet)	MATERIAL DESCRIPTION (Soil Density/Consistency, Color)	USCS	REMARKS
0 - 1	SAND/SILT	F-M SAND & SILT, brown, topsoil,		No debri
		roots, Moist		
1 - 4	SAND/GRAVEL	F-M SAND & Gravel, lt brown, moist		PID = 0.0 FID = 0.0
4 - 7	SILT/SAND	SILT, F-M SAND, lt gray, Stained		PID = 9.2 FID = 179.2
		Petroleum odor *		Water encountered at
7-9	Organic/Wood,	large pieces of wood, degraded		≈ 7'
	Peat	wood, Peat like, Wet		

Test Pit Cross Section and/or Plan View



REMARKS: No debri encountered -

* Collected Sample for SVOCs/EPH/PCBs/VPH analysis - Backfilled Contaminated material and placed poly on Material - then placed clean material on poly.

PHOTO LOG:

TEST PIT: TP-112

PAGE 1 OF 1

TtNUS FORM 0011

TETRA TECH NUS, INC.

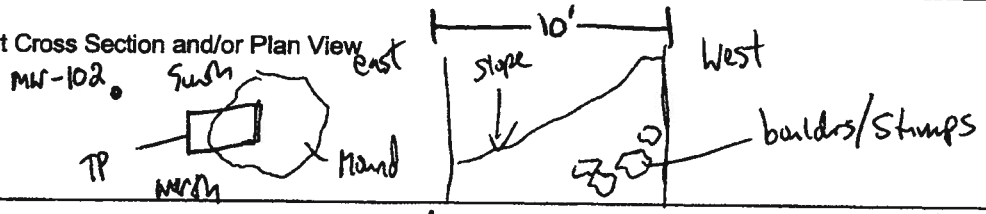
TEST PIT LOG

Site Name:	West Gate Landfill	Test Pit No.:	TP-113
Project Number:	112G00864	Date:	05/28/09
Location:	South Weymouth NAS	Field Geologist:	B. Geringer

DEPTH (feet)	LITHOLOGY CHANGE (Depth, feet)	MATERIAL DESCRIPTION (Soil Density/Consistency, Color)	USCS	REMARKS
0-4	SAND/SILT	SAND(F-M) SiH, Some gravel	GP	dry, PID=0.0 PID=0.0
4-6		" " - encountered		
		Stumps and very large boulders	GP	Moist-

FILL

Test Pit Cross Section and/or Plan View



REMARKS: No metal debris encountered; boulders and Stumps observed

PHOTO LOG:

TEST PIT: TP-113

PAGE 1 OF 1

TtNUS FORM 0011

TETRA TECH NUS, INC.

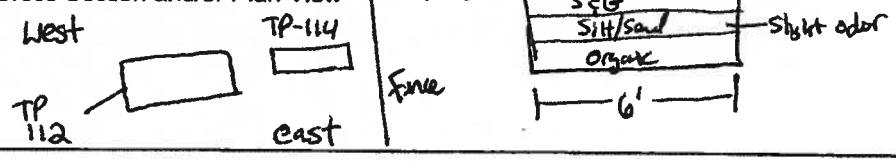
TEST PIT LOG

Site Name:	West Gate Landfill	Test Pit No.:	TP-114
Project Number:	112G00864	Date:	05/28/09
Location:	South Weymouth NAS	Field Geologist:	B. Geringer

DEPTH (feet)	LITHOLOGY CHANGE (Depth, feet)	MATERIAL DESCRIPTION (Soil Density/Consistency, Color)	USCS	REMARKS
0-1	SILT/SAND	SILT, F-M SAND, Organic Material	GP	moist - No debri
1-3	SAND/GRAVEL	F-M SAND, GRAVEL, Moist, Light brown	GW	Moist/wet
3-5	SILT/SAND	SILT - F SAND, Slight odor, Lt gray, little gravel	SM	wet - wood, Stump
5-7	Organic/wood, Peat	Degraded wood, Stumps/Peat like	PT	Saturated at 7'

PID=4.
FID=52.

Test Pit Cross Section and/or Plan View



REMARKS: TP-114 located 10-15 Ft east of TP-112 towards French Stream, Contamination Significantly less at TP-114

PHOTO LOG:

TEST PIT: TP-114

PAGE 1 OF 1

TtNUS FORM 0011

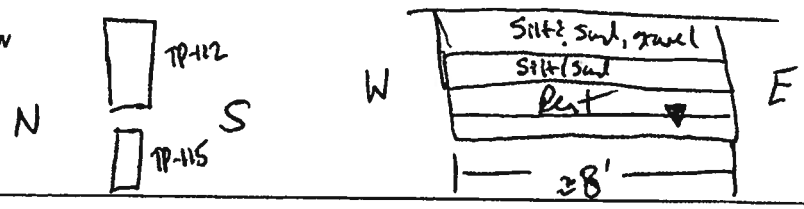
TETRA TECH NUS, INC.

TEST PIT LOG

Site Name:	West Gate Landfill	Test Pit No.:	TP-115
Project Number:	112G00864	Date:	5/29/09
Location:	South Weymouth NAS	Field Geologist:	B. Geringer

DEPTH (feet)	LITHOLOGY CHANGE (Depth, feet)	MATERIAL DESCRIPTION (Soil Density/Consistency, Color)	USCS	REMARKS
0-4	Silt, Sand	Silt, F-M Sand, Some gravel,	GM	Little metal debri
		moist, brown		PID=0.0 FID=0.0
4-6	Silt, Sand	Silt, F-Sand, wet, Slight Petroleum	SM	PID=55.1 FID=22.2
		odor, Lt gray		
6-8	wood/Peat	wood (decomposed), tree Fragments	PT	Water at 7'
		Peat like		

Test Pit Cross Section and/or Plan View



REMARKS: little metal debri encountered in top 1'; TP located approx 10' West of TP-112 Petroleum odor not as strong as TP-112; but PID reading higher.

PHOTO LOG:

TEST PIT: TP-115

PAGE 1 OF 1

TtNUS FORM 0011

TETRA TECH NUS, INC.

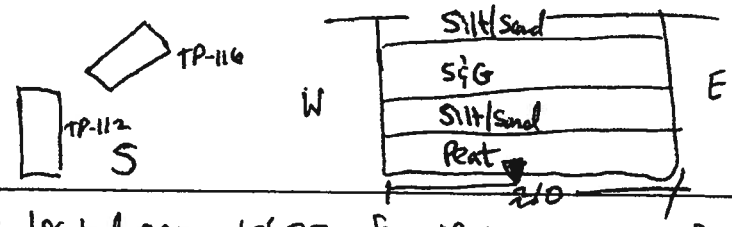
TEST PIT LOG

Site Name:	West Gate Landfill	Test Pit No.:	TP-116
Project Number:	112G00864	Date:	5/29/09
Location:	South Weymouth NAS	Field Geologist:	B. Geringer

DEPTH (feet)	LITHOLOGY CHANGE (Depth, feet)	MATERIAL DESCRIPTION (Soil Density/Consistency, Color)	USCS	REMARKS
0-1	SILT, SAND	Silt, F-M Sand, roots, organic	SM	No debri
		Material, brown, dry		
1-4	SAND, GRAVEL	F-M Sand & Gravel, moist, Lt brown	GP	PID=0.0 FID=0.0
4-5	SILT, SAND	Silt, F-Sand, trace gravel, wet,	SM	PID=1.0 FID=121.6
		Lt Gray - No odor		
5-7	Wood / Peat	Wood, decomposing wood, Stumps,	PT	Water at 7'
		Peat line		

Test Pit Cross Section and/or Plan View

refer to Figure 1-4 for exact testpit locations



REMARKS: No debri encountered, TP located approx 10' SE of TP-112, No Significant petroleum Contamination encountered.

PHOTO LOG:

TEST PIT: TP-116

PAGE 1 OF 1

TtNUS FORM 0011

TETRA TECH NUS, INC.

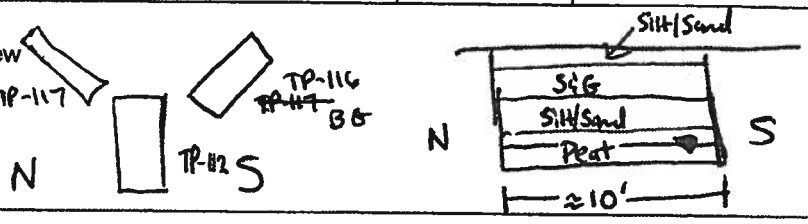
TEST PIT LOG

Site Name:	West Gate Landfill	Test Pit No.:	TP-117
Project Number:	112G00864	Date:	05/29/09
Location:	South Weymouth NAS	Field Geologist:	B. Geringer

DEPTH (feet)	LITHOLOGY CHANGE (Depth, feet)	MATERIAL DESCRIPTION (Soil Density/Consistency, Color)	USCS	REMARKS
0-1	SILT, Sand	Silt-f-M Sand, roots, trace gravel	SM	No debri
		brown, dry		
1-4	Sand / Gravel	m-c Sand and Gravel, trace	GP	few bricks - Fill -
		Silt at 4', moist, lt brown		PID=0.0 FID=0.0
4-6	Silt/Sand	Silt, f-M Sand, trace gravel	SM	PID=3.0 FID=126.6
		wet, No odor - lt gray		
6-8	Wood / Peat	Wood, tree fragments; Peat	PT	Water at 7'
		like, decomposed wood		

Test Pit Cross Section and/or Plan View

Refer to Figure 1-4 for exact testpit locations



REMARKS: No debri encountered; TP located 10' ~~SE~~ NE of TP-112, No significant petroleum contamination encountered

PHOTO LOG:

TEST PIT: TP-117

PAGE 1 OF 1

TtNUS FORM 0011

APPENDIX A-3
LANDFILL SOIL GAS LOGS
SOUTH WEYMOUTH NAS SOUTH GATE LANDFILL
PRE-REMEDIAL DESIGN INVESTIGATION
CTO 407

TETRA TECH NUS, INC.

LANDFILL GAS MONITORING LOG SHEET

Project Site Name:	West Gate Landfill	**Probe ID:** WGL-SG-SG1		**Date:**	6/17/09
Project No.:	112G00864 0000.0320			**Measured By:**	Peter Seward

Time	FID * Reading	PID Reading	CH_4 (%)	CO_2	O_2 (%)	H_2S (ppm)	Nitrogen Balance	COMMENTS
Bkground	4.0	0.0	0.4	0.0	20.1	0	79.5	
1500	6.3	3.1	0.4	0.0	20.0	0	79.6	
1501	6.0	3.3	0.4	0.0	19.8	0	79.6	
1502	6.5	2.9	0.4	0.0	20.0	0	79.6	
1503	6.3	2.2	0.4	0.0	19.8	0	79.6	
1504	6.5	1.9	0.4	0.0	20.0	0	79.6	
1505	6.4	1.6	0.4	0.0	19.9	0	79.6	
1506	7.2	1.6	0.5	0.0	19.8	0	79.8	
1507	7.1	3.0	0.4	0.0	19.8	0	79.7	
1508	7.0	3.2	0.4	0.0	19.8	0	79.8	
1509	6.6	3.3	0.4	0.0	19.8	0	79.8	
1510	6.4	3.1	0.4	0.0	19.8	0	79.8	

INSTRUMENTS USED:

OBSERVATIONS/NOTES:

* FID readings were suspect. Background readings were constantly climbing
- instrument did not read barometric pressure

TETRA TECH NUS, INC.

LANDFILL GAS MONITORING LOG SHEET

Project Site Name:	West Gate Landfill	**Probe ID:** WGL-SG-SG2		**Date:**	6/17/09
Project No.:	112G00864 0000.0320			**Measured By:**	Peter Seward

Time	FID * Reading	PID Reading	CH_4 (%)	CO_2	O_2 (%)	H_2S (ppm)	Nitrogen Balance	COMMENTS
Bkground	0.0	0.0	0.4	0.0	20.0	0	79.6	
1536	0.0	3.0	0.4	0.0	19.9	0	79.7	
1537	0.0	3.1	0.5	0.0	20.0	0	79.6	
1538	0.0	2.9	0.5	0.0	20.0	0	79.9	
1539	0.0	2.9	0.4	0.0	20.0	0	79.9	
1540	0.0	3.1	0.5	0.0	19.9	0	79.8	
1541	0.0	3.0	0.5	0.0	20.1	0	79.8	
1542	0.0	2.8	0.5	0.0	19.8	0	79.7	
1543	0.0	2.8	0.5	0.0	19.9	0	79.8	
1544	0.0	3.0	0.4	0.0	19.9	0	79.7	
1545	0.0	3.1	0.4	0.0	19.9	0	79.7	
1546	0.0	3.1	0.4	0.0	19.9	0	79.7	

INSTRUMENTS USED:

OBSERVATIONS/NOTES:

- zeroed the instrument.
- instrument did not read bar. pressure

TETRA TECH NUS, INC.

LANDFILL GAS MONITORING LOG SHEET

Project Site Name:	West Gate Landfill	**Probe ID:** WGL-SG-SG3		**Date:**	6/17/09
Project No.:	112G00864 0000.0320			**Measured By:**	Peter Seward

Time	FID Reading	PID Reading	CH_4 (%)	CO_2	O_2 (%)	H_2S (ppm)	Nitrogen Balance	COMMENTS
Bkground	0.0	0.2	0.4	0.0	20.1	0	79.5	
1600	0.0	2.1	0.4	0.0	20.1	0	79.6	
1601	0.0	2.6	0.3	0.0	20.1	0	79.5	
1602	0.0	2.8	0.4	0.0	20.1	0	79.5	
1603	0.0	2.8	0.4	0.0	20.1	0	79.5	
1604	0.0	2.8	0.4	0.0	20.2	0	79.5	
1605	0.0	2.8	0.4	0.0	20.2	0	79.5	
1606	0.0	2.8	0.4	0.0	20.1	0	79.4	
1607	0.0	2.8	0.4	0.0	20.1	0	79.5	
1608	0.0	2.8	0.4	0.0	20.1	0	79.4	
1609	0.0	2.7	0.4	0.0	20.1	0	79.5	
1610	0.0	2.8	0.4	0.0	20.1	0	79.5	

INSTRUMENTS USED:

OBSERVATIONS/NOTES:

- instrument did not read barometric pressure

TETRA TECH NUS, INC.

LANDFILL GAS MONITORING LOG SHEET

Project Site Name:	West Gate Landfill	**Probe ID:** WGL-SG-SG4		**Date:**	6/17/09
Project No.:	112G00864 0000.0320			**Measured By:**	Peter Seward

Time	FID Reading	PID Reading	CH_4 (%)	CO_2	O_2 (%)	H_2S (ppm)	Nitrogen Balance	COMMENTS
Bkground	0.0	0.0	0.4	0.0	19.9	0	79.7	
1630	0.0	0.5	0.4	0.0	20.0	0	79.6	
1631	0.0	0.6	0.4	0.0	20.0	0	79.7	
1632	0.0	0.5	0.4	0.0	20.0	0	79.6	
1633	0.0	0.6	0.4	0.0	20.1	0	79.6	
1634	0.0	0.5	0.4	0.0	20.1	0	79.5	
1635	0.0	0.5	0.4	0.0	20.1	0	79.5	
1636	0.0	0.5	0.4	0.0	20.1	0	79.5	
1637	0.0	0.5	0.4	0.0	20.1	0	79.5	
1638	0.0	0.5	0.4	0.0	20.1	0	79.5	
1639	0.0	0.5	0.4	0.0	20.1	0	79.5	
1640	0.0	0.4	0.4	0.0	20.1	0	79.4	

INSTRUMENTS USED:

OBSERVATIONS/NOTES:

- instrument did not read barometric pressure

TETRA TECH NUS, INC.

LANDFILL GAS MONITORING LOG SHEET

Project Site Name:	West Gate Landfill	**Probe ID:** WGL-SG-SG5		**Date:**	6/17/09
Project No.:	112G00864 0000.0320			**Measured By:**	Peter Seward

Time	FID * Reading	PID Reading	CH_4 (%)	CO_2	O_2 (%)	H_2S (ppm)	Nitrogen Balance	COMMENTS
Bkground	4.2	0.0	0.7	0	20.5	0	79.4	
1442	5.1	5.1	0.3	0	20.1	0	79.6	
1443	4.9	5.3	0.3	0	20.2	0	79.6	
1444	4.7	5.0	0.3	0	20.2	0	79.6	
1445	5.3	4.7	0.3	0	20.2	0	79.6	
1446	5.4	4.9	0.3	0	20.2	0	79.6	
1447	5.7	5.0	0.3	0	20.2	0	79.6	
1448	5.4	5.1	0.3	0	20.2	0	79.6	
1449	6.3	5.2	0.3	0	20.2	0	79.7	
1450	6.3	5.5	0.3	0	20.3	0	79.7	
1451	6.6	4.7	0.3	0	20.2	0	79.7	
1452	6.1	5.1	0.3	0	20.2	0	79.6	

INSTRUMENTS USED:

OBSERVATIONS/NOTES:

* FID readings were suspect. Background readings were constantly climbing - instrument did not read barometric pressure.

APPENDIX A-4
TRANSFORMER SAMPLE LOG SHEETS
SOUTH WEYMOUTH NAS SOUTH GATE LANDFILL
PRE-REMEDIAL DESIGN INVESTIGATION
CTO 407

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: West Gate Landfill
Project No.: 112G00864/CTO 407

Sample ID No.: WGL-SO-PCB01-0006
Sample Location: Northern Wetland
Sampled By: ~~J.Traut~~ B.Beringer / P. Seward
C.O.C. No.:

[X] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 5/12/09 Time: 1348 Method: Hand Auger Monitor Reading (ppm): N/A	0-0.5 feet	Brown	Sand & Silt - Moist

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

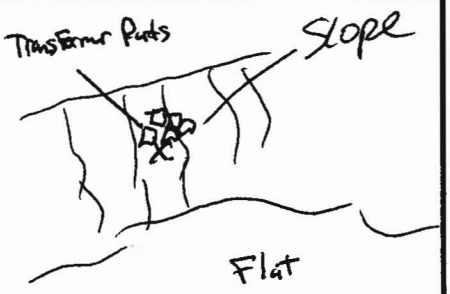
SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 X 8 oz	Y	

OBSERVATIONS / NOTES:

Sample Collected on Western Slope of Northern Wetland area directly below Suspected transformer parts.

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:
	WGL-SO-PCBDUP01

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: West Gate Landfill
Project No.: 112G00864/CTO 407

[ ] Surface Soil
[] Subsurface Soil
[X] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: WGL-SD-PCB02-0006
Sample Location: Northern Wetland
Sampled By: ~~J. Treut~~ B. Geringer / P. Seward
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 5/12/09 Time: 1352 Method: Hand Auger Monitor Reading (ppm): N/A	0-0.5 feet	Dark Brown	Silt/Sand, Plant Fragments - Saturated

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

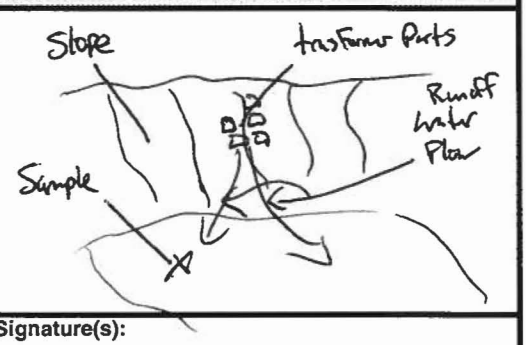
SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 X 8 oz	Y	

OBSERVATIONS / NOTES:

Collected at bottom of Slope where Standing Water periodically Collects. Water had dried up the day before.

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: West Gate Landfill
Project No.: 112G00864/CTO 407

[ ] Surface Soil
[ ] Subsurface Soil
[X] Sediment
[ ] Other:
[ ] QA Sample Type:

Sample ID No.: WGL-~~SO~~ SD -PCB03-0000
Sample Location: Northern Wetland
Sampled By: ~~J. Traut~~ B. Geringer / P. Seward
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[ ] High Concentration

GRAB SAMPLE DATA:

Date: 5/12/09	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 1353	0-0.5 feet	Dark Brown	Silt & Sand, Plant Fragments - Saturated
Method: Hand Auger			
Monitor Reading (ppm): N/A			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

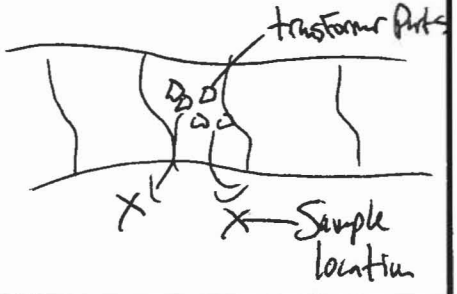
SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 X 8 oz	Y	

OBSERVATIONS / NOTES:

Collected Sample at bottom of Slope where Standing water periodically Collects; water dried up day before. Sample location is approx ~~[illegible]~~ 10-15' NE of Sample PCB2

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: West Gate Landfill
Project No.: 112G00864/CTO 407

Sample ID No.: WGL-SO-PB04-0000
Sample Location: Saltum Wetland
Sampled By: ~~J.Traut~~ B.Geringer / P.Seward
C.O.C. No.:

[X] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date: 5/12/09	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 1415	0-0.5 feet	Brown	Sand & Silt - Moist
Method: Hand Auger			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

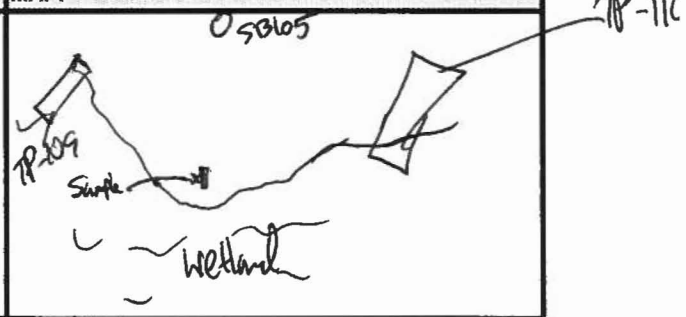
SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 X 8 oz	Y	

OBSERVATIONS / NOTES:

Collected Sample below Suspected transformer - transformer was approx. the size of a car battery.

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: West Gate Landfill
Project No.: 112G00864/CTO 407

[ ] Surface Soil
[] Subsurface Soil
[X] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: WGL-~~SO~~ SD-PCB05-0006
Sample Location: Southern Wetland
Sampled By: ~~J. Traut~~ B. Geringer / P. Seward
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 5/12/09 Time: 1420 Method: Hand Auger Monitor Reading (ppm): N/A	0-0.5 feet	Dark Brown/Black	Silt, organic Material - Saturated (Some pieces of Metal)

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

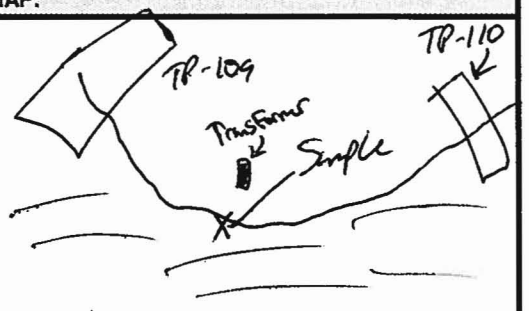
SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
PCBs	1 X 8 oz	Y	

OBSERVATIONS / NOTES:

Sample Collected approx. 5' South of Sample PCB04, downgradient in area periodically Covered with Standing Water, and Was Covered with 6" of Water at time of Sample Collection

MAP:



Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

APPENDIX A-5
SEDIMENT SAMPLE LOG SHEETS
SOUTH WEYMOUTH NAS SOUTH GATE LANDFILL
PRE-REMEDIAL DESIGN INVESTIGATION
CTO 407

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: West Gate Landfill
Project No.: 112G00864/CTO 407

[] Surface Soil
[] Subsurface Soil
[X] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: WGL-SD-SD101-0006
Sample Location: SD 101
Sampled By: J.Traut, P. Seward
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 6/11/09 Time: 0800 Method: ~~Hand Auger~~ Disposable Scoop Monitor Reading (ppm):	0-0.5 feet	dk brown	silty f. sand moist fluffy texture

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOC	3 X 40 mL (DI), 1 X 40 mL (MeOH)	Y or N	
SVOC, pesticides, PCBs	2 X 8 oz	Y or N	
metals	1 x 4 oz	Y or N	
Dioxins	1 x 8 oz	Y or N	
Total Solids	1x2 oz	Y	

OBSERVATIONS / NOTES:

- located in drainage channel
- DL & metal debris located within 5-15' W, NW, & SW of SD101
- Soil moist - ~~not underwater~~ no surface water
- VOC fraction collected before homogenization

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s): J Traut

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: West Gate Landfill
Project No.: 112G00864/CTO 407

[] Surface Soil
[] Subsurface Soil
[X] Sediment
[] Other:
[X] QA Sample Type: WGL-SD-DUP01-061109

Sample ID No.: WGL-SD-SD102-0006
Sample Location: SD102
Sampled By: J.Traut, P. Saward
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 6/11/09 Time: 0815 Method: ~~Hand Auger~~ Disposable Scoop Monitor Reading (ppm):	0-0.5 feet	dk. brown	moist-wet silty f. sand + root matter fluffy texture

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

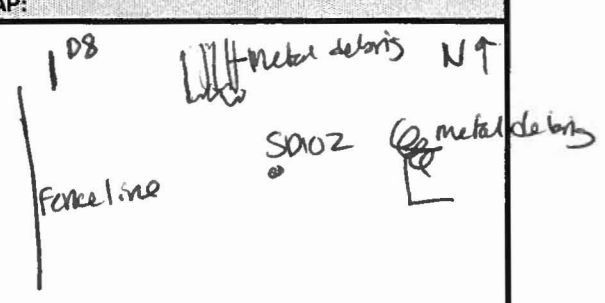
SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOC	3 X 40 mL (DI), 1 X 40 mL (MeOH)	Y or N	
SVOC, pesticides, PCBs	2 ~~1 X~~ 8 oz	Y or N	
metals	1 x ~~2 oz~~ 4 oz	Y or N	
Dioxins	1 x ~~8 oz~~ 4 oz	Y or N	
Total Solids	1 x 2 oz	Y	

OBSERVATIONS / NOTES:

SD102 located near D8
metal debris 10' to the North & ~7' to the west
- leaf litter on surface & root matter
- no surface water while sampling but evidence of surface water
- ~~no~~ water in hole - seeped in during sampling
- VOC fraction collected before homogenization

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	WGL-SD-DUP01-061109 @ 0820

Signature(s): J. Traut

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: West Gate Landfill
Project No.: 112G00864/CTO 407

[] Surface Soil
[] Subsurface Soil
[X] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: WGL-SD103-0006
Sample Location: SD
Sampled By: J.Traut, P. Seward
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 6-11-09 Time: 0915 Method: ~~Hand Auger~~ disposable scoop Monitor Reading (ppm):	0-0.5 feet	dk brown	moist-wet 0.0-0.2 silty f. sand fluffy 0.2-0.6 peaty mucky material some silty sand

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

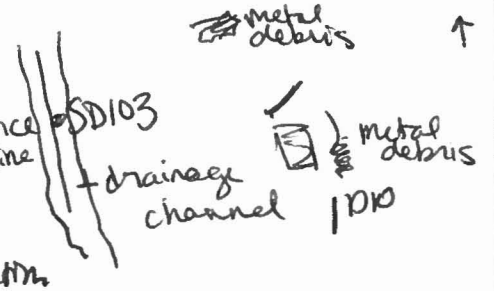
SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOC	3 X 40 mL (DI), 1 X 40 mL (MeOH)	Y or N	
SVOC, pesticides, PCBs	2 ~~1~~ X 8 oz	Y or N	
metals	1 x ~~2 oz~~ 4 oz	Y or N	
Dioxins	1 x ~~8 oz~~ 4 oz	Y or N	
Total Solids	1x 2 oz	Y	

OBSERVATIONS / NOTES:

- SD103 near debris D10 - metal debris ~10' west & 10' NW
- sed location in drainage channel along former fence line
- leaf litter on ground
- no standing water during sampling
- no water in hole
- VOC fraction collected from hole wall before homogenization

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s): J. Traut

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: West Gate Landfill
Project No.: 112G00864/CTO 407

[] Surface Soil
[] Subsurface Soil
[X] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: WGL-SD-SD104-0006
Sample Location: SD104
Sampled By: J.Traut, P. Seward
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 6/11/09 Time: 0930 Method: ~~Hand Auger~~ Disposable scoop Monitor Reading (ppm):	0-0.5 feet	dk brown	mucky peat - wet leaf litter roots

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

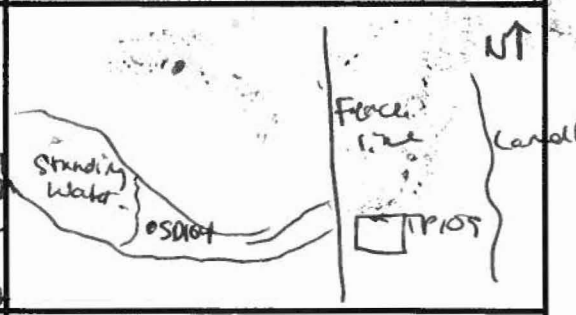
SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOC	3 X 40 mL (DI), 1 X 40 mL (MeOH)	Y or N	
SVOC, pesticides, PCBs	2 ~~1~~ X 8 oz	Y or N	
metals	1 x ~~2 oz~~ 4 oz	Y or N	
Dioxins	1 x ~~8 oz~~ 4 oz	Y or N	
Total Solids	1 x 2 oz	Y	

OBSERVATIONS / NOTES:

SD104 ~ 100' from landfill
TP109 to the west (~25-30')
- surface water ~2' east of SD104
- hole filling with water ~0.1' below gravel
- leaf litter
- no debris near SD location but in test pit location
- drainage channel running from landfill/TP109 to SD104 - VOC fraction collected before homogenization

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s): J. Traut

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: West Gate Landfill
Project No.: 112G00864/CTO 407

[] Surface Soil
[] Subsurface Soil
[X] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: WGL-SD-SD105-0006
Sample Location: SD 105
Sampled By: J.Traut, P. Sewbred
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 10/11/09 Time: 1010 Method: ~~Hand Auger~~ Disposable scoop Monitor Reading (ppm):	0-0.5 feet	dk brown	0.0-0.1 root material 0.1-0.5 sand some silt fluffy kind of mucky - moist-wet oxidized wood chunks at 0.5-0.6

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

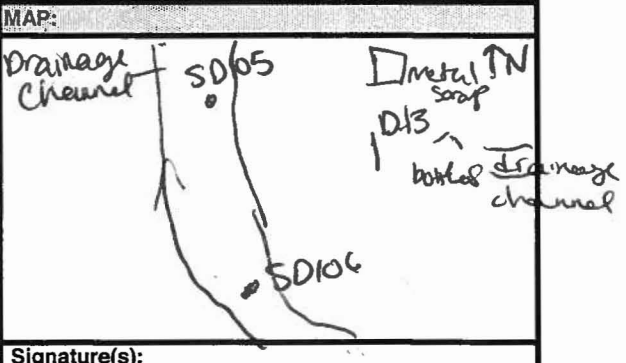
SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOC	3 X 40 mL (DI), 1 X 40 mL (MeOH)	Y or N	
SVOC, pesticides, PCBs	2 ~~1~~ X 8 oz	Y or N	
metals	1 x ~~2 oz~~ 4 oz	Y or N	
Dioxins	1 x ~~8 oz~~ 4 oz	Y or N	
Total Solids	1 x 2 oz	Y	

OBSERVATIONS / NOTES:

- SD105 located in N-S running drainage ditch
- drainage ditch running E-W from landfill stops ~15' W of SD105
- leaf litter
- no standing water
- debris ~15 W of SD105
- VOC fraction collected from side wall before homogenization

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s): J. Traut

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: West Gate Landfill
Project No.: 112G00864/CTO 407

[] Surface Soil
[] Subsurface Soil
[X] Sediment
[] Other:
[X] QA Sample Type: WGL-SD-~~SD106-S~~ DUP02-061109

Sample ID No.: WGL-SD-SD106-0001
Sample Location: SD106
Sampled By: J.Traut JP Seward
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 6/4/09 Time: 1015 Method: ~~Hand Auger~~ Disposable Scoop Monitor Reading (ppm):	0-0.5 feet	dk brown	silty f. sand mucky moist-wet

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

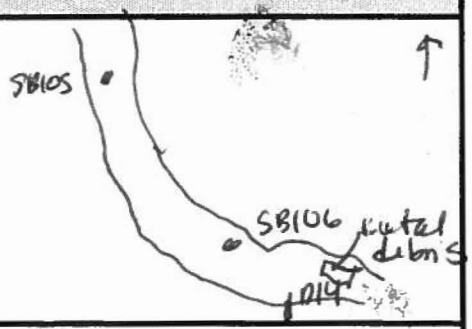
SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOC	3 X 40 mL (DI), 1 X 40 mL (MeOH)	Y or N	
SVOC, pesticides, PCBs	2 ~~1~~ X 8 oz	Y or N	
metals	1 x ~~2 oz~~ 4 oz	Y or N	
Dioxins	1 x ~~8 oz~~ 4 oz	Y or N	
Total Solids	1 x 2 oz	Y	

OBSERVATIONS / NOTES:

- leaf litter
- SD106 in drainage ditch that runs NW from landfill & heads N
- debris (metal) located in ditch SWE of SD106 (between landfill & sed location)
- no standing water
- water in hole ~ 0.2'
- VOC fraction collected from hole wall before homogenization

MAP:



Circle if Applicable:

~~MS/MSD~~

Duplicate ID No.: WGL-SD-~~SD106~~ DUP02-061109 @ 1020

Signature(s): J.Traut

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: West Gate Landfill
Project No.: 112G00864/CTO 407

[] Surface Soil
[] Subsurface Soil
[X] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: WGL-SD 107-000-6 (-30)
Sample Location: SD 107
Sampled By: J.Traut / P Sellard
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 6-11-09 Time: 1205 Method: ~~Hand Auger~~ Disposable Scoop Monitor Reading (ppm):	0-0.5 feet	dk. brown	moist silty sand (fine) w/ fluffy texture

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

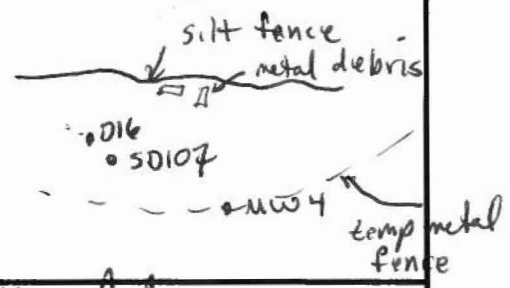
SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOC	3 X 40 mL (DI), 1 X 40 mL (MeOH)	Y or N	
SVOC, pesticides, PCBs	2 ~~1~~ X 8 oz	Y or N	
metals	1 ~~x 2 oz~~ 4 oz	Y or N	
Dioxins	1 x ~~8 oz~~ 4 oz	Y or N	
Total Solids	1 x 4 oz	Y	

OBSERVATIONS / NOTES:

located ~ 30' NW of MW04
metal debris ~ 15-20' NE of sample location
leaf litter on surface + root matter
no surface water while sampling and no water in hole.
-VOC fraction collected before homogenization

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): [illegible]

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: West Gate Landfill
Project No.: 112G00864/CTO 407

[] Surface Soil
[] Subsurface Soil
[X] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: WGL-SD 108-0006
Sample Location: SD
Sampled By: J.Traut, P. Seward
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 6-11-09 Time: 1245 Method: ~~Hand Auger~~ Disposable Scoop Monitor Reading (ppm):	0-0.5 feet	dk. brown	moist- silty fine sand w/ fluffy texture

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

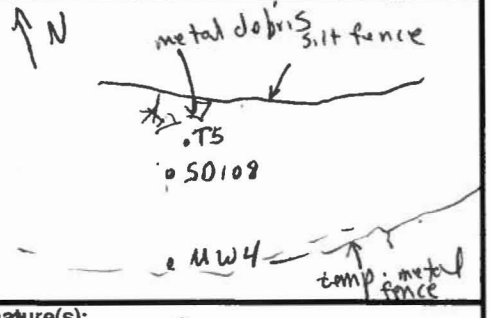
SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOC	3 X 40 mL (DI), 1 X 40 mL (MeOH)	Y or N	
SVOC, pesticides, PCBs	2 ~~1~~ X 8 oz	Y or N	
metals	1 x ~~2 oz~~ 4 oz	Y or N	
Dioxins	1 x ~~8 oz~~ 4 oz	Y or N	
Total Solids	1 x 2 oz	Y	

OBSERVATIONS / NOTES:

leaf litter cover
located ~~with~~ 5' S. of T5 & ~ 40' N of MW4
no surface water while sampling & no water in hole.
~ 5' S of metal debris
- VOC fraction collected from hole wall before homogenization

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s): Peter Seward

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: West Gate Landfill
Project No.: 112G00864/CTO 407

[] Surface Soil
[] Subsurface Soil
[X] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: WGL-SD ~~108~~ RS 109-000-6
Sample Location: SD
Sampled By: J.Traut, P. Sawyerd
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 6-11-09 Time: 1415 Method: ~~Hand Auger~~ Disposable scoop Monitor Reading (ppm):	0-0.5 feet	dk brown	moist - silty fine sand w/ fluffy texture

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

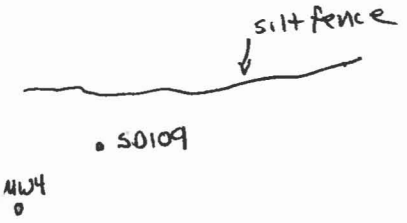
SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOC	3 X 40 mL (DI), 1 X 40 mL (MeOH)	Y or N	
SVOC, pesticides, PCBs	1 X 8 oz	Y or N	
metals	1 x 2 oz	Y or N	
Dioxins	1 x 8 oz	Y or N	
Total solids	1 x 2oz	Y	

OBSERVATIONS / NOTES:

- located ~ 40' ~~NW~~ NE of MW-4 & ~ 15' S of silt fence
- no surface water observed & no groundwater in hole
- VOC fraction collected from ~~wall hole~~ hole wall before homogenization

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: West Gate Landfill
Project No.: 112G00864/CTO 407

[] Surface Soil
[] Subsurface Soil
[X] Sediment
[] Other:
[] QA Sample Type: NO

Sample ID No.: WGL-SD-SD110-0006
Sample Location: SD 110
Sampled By: J.Traut, P. Seward
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 6/1/09 Time: 1430 Method: ~~Hand Auger~~ Disposable Scoop Monitor Reading (ppm):	0-0.5 feet	dk brown	silty / peaty soil root mat / leaf litter woodchips moist ~~wet~~

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

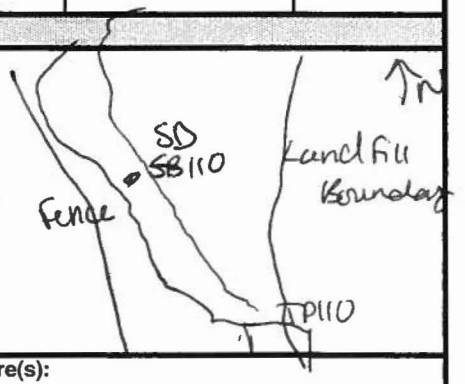
SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOC	3 X 40 mL (DI), 1 X 40 mL (MeOH)	Y or N	
SVOC, pesticides, PCBs	2 ~~4~~ X 8 oz	Y or N	
metals	1 x ~~2 oz~~ 4 oz	Y or N	
Dioxins	1 ~~x 8 oz~~ 4 oz	Y or N	
Total Solids	1 x 2 oz	Y	

OBSERVATIONS / NOTES:

- SD110 located in a sort of drainage ditch area
- no debris relatively close
- leaf litter
- if drainage then it comes from TP110 area (s)
- no surface water or water in hole
- VOC fraction collected from wall hole before homogenization

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s): J.Traut

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: West Gate Landfill
Project No.: 112G00864/CTO 407

[] Surface Soil
[] Subsurface Soil
[X] Sediment
[] Other:
[] QA Sample Type: Lab QC

Sample ID No.: WGL-SD-SD111-00060
Sample Location: SD 111
Sampled By: J.Traut / P. Seward
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 6/6/09 Time: Method: ~~Hand Auger~~ Disposable Scoop Monitor Reading (ppm):	0.5 feet	dk brown	root matter leaf litter silty peaty soil - fine moist - wet

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOC	3 X 40 mL (DI), 1 X 40 mL (MeOH)	Y or N	
SVOC, pesticides, PCBs	6 ~~1X~~ 8 oz	Y or N	
metals	3 ~~1x 8oz~~ 4oz	Y or N	
Dioxins	3 ~~1x 8oz~~ 4oz	Y or N	
Total Solids	1 x 2 oz	Y	

OBSERVATIONS / NOTES:

- leaf litter
- no debris - outer boundary
- downhill from landfill
- VOC fraction collected from walls of hole
- no standing water or water in hole

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
Yes	

Signature(s): J Traut

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: West Gate Landfill
Project No.: 112G00864/CTO 407

[] Surface Soil
[] Subsurface Soil
[X] Sediment
[] Other:
[] QA Sample Type: UA

Sample ID No.: WGL-SD-SD112-000.C
Sample Location: SD112
Sampled By: J.Traut, P. Sewand
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 6/11/09 ~~6/30/09~~ Time: 1500 Method: ~~Hand Auger~~ Disposable Scoop Monitor Reading (ppm):	0-0.5 feet	d Kbrown	leaf litter root mat silty/peaty soil - fluffy woodchips moist-wet

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
VOC	3 X 40 mL (DI), 1 X 40 mL (MeOH)	Y or N	
SVOC, pesticides, PCBs	2 ~~1~~ X 8 oz	Y or N	
metals	1 x ~~2 oz~~ 4oz	Y or N	
Dioxins	1 x ~~8 oz~~ 4oz	Y or N	
Total Solids	1 x 2oz	Y	

OBSERVATIONS / NOTES:

- no standing water or water in hole
- no debris
- drainage channel running off of lobe where WGL-MW-103 is located
- leaf litter
- VOC fraction collected from wall - no homogenization
- ✱ Recollected additional volume for dioxins base on laboratory request

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
—	—

Signature(s): J. Traut

Tetra Tech NUS, Inc.

QA SAMPLE LOG SHEET

Project Site Name: West Gate Landfill
Project Number: 112G00864 / CD407
Sample Location: N/A
QA Sample Type:

Sample ID Number: WGL-SD-TB0-061109
Sampled By: J. Trout
C.O.C. Number:

[X] Trip Blank
[] Source Water Blank
[] Rinsate Blank
[] Other Blank

SAMPLING DATA:

Date: 6/11/09
Time: 0700
Method: N/A

WATER SOURCE:

[] Laboratory Prepared
[] Purchased
[] Other
[] Tap
[] Fire Hydrant

PURCHASED WATER INFORMATION (If Applicable as Source or Rinsate Water):

Product Name:
Supplier:
Manufacturer:
Order Number:
Lot Number:
Expiration Date:

RINSATE INFORMATION (If Applicable):

Media Type:
Equipment Used:
Equipment Type:
[] Dedicated
[] Reusable

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
Volatiles	Cool 4°C & ~~HCl~~	OI (3) & MEOH(1) 40 mL	YES / NO
Semivolatiles	Cool 4°C		YES / NO
Pesticide / PCB	Cool 4°C		YES / NO
Metals	Cool 4°C & HNO_3		YES / NO
Dioxins	Cool 4°C		YES / NO

OBSERVATIONS / NOTES:

sent prepreserved vials to lab

Signature(s): J Trout

Tetra Tech NUS, Inc.

QA SAMPLE LOG SHEET

Project Site Name: West Gate Landfill
Project Number: 112G00864 / CTO 407
Sample Location: NA
QA Sample Type:

Sample ID Number: WGL-SD-FB01-061109
Sampled By: J. Drake
C.O.C. Number:

[] Trip Blank
[X] Source Water Blank
[] Rinsate Blank
[] Other Blank

SAMPLING DATA:

Date: 6/11/09
Time: 1300
Method: Direct Pour into Bottleware

WATER SOURCE:

[] Laboratory Prepared
[X] Purchased
[] Other
[] Tap
[] Fire Hydrant

PURCHASED WATER INFORMATION (If Applicable as Source or Rinsate Water):

Product Name: NERL
Supplier: NERL
Manufacturer: NERL
Order Number: ~~0110299~~
Lot Number: 0110299
Expiration Date: 01-02-2010

RINSATE INFORMATION (If Applicable):

Media Type:
Equipment Used:
Equipment Type:
[] Dedicated
[] Reusable

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
Volatiles	Cool 4°C & HCl	3 x 40mL vial	YES / NO
Semivolatiles / PAH	Cool 4°C	2 x 1L	YES / NO
Pesticide / PCB	Cool 4°C	2 x 1L	YES / NO
Metals	Cool 4°C & HNO_3	1 x 500mL	YES / NO
Dioxins	Cool 4°C	2 x 1L	YES / NO

OBSERVATIONS / NOTES:

Signature(s): J. Drake

Tetra Tech NUS, Inc.

QA SAMPLE LOG SHEET

Project Site Name: West Gate Landfill
Project Number: 112G0864 / CT0407
Sample Location: NA
QA Sample Type:

Sample ID Number: WGL-SD-RB01-061109
Sampled By: J. Trauf
C.O.C. Number:

[] Trip Blank
[] Source Water Blank
[X] Rinsate Blank
[] Other Blank

SAMPLING DATA:

Date: 6/11/09
Time: 1400
Method: Direct Pour over Aluminum Pans Stenleware

WATER SOURCE:

[] Laboratory Prepared
[X] Purchased
[] Other
[] Tap
[] Fire Hydrant

PURCHASED WATER INFORMATION (If Applicable as Source or Rinsate Water):

Product Name: NERL
Supplier: NERL
Manufacturer: NERL
Order Number:
Lot Number: 0110299
Expiration Date: 01-2010

RINSATE INFORMATION (If Applicable):

Media Type: Sediment
Equipment Used: Aluminum Pan & Stenleware
Equipment Type:
[X] Dedicated
[] Reusable

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
Volatiles	Cool 4°C & HCl		YES / NO
Semivolatiles	Cool 4°C		YES / NO
Pesticide / PCB	Cool 4°C		YES / NO
Metals	Cool 4°C & HNO_3		YES / NO
Dioxins	Cool 4°C		YES / NO

OBSERVATIONS / NOTES:

Signature(s): J. Trauf

APPENDIX A-6
BORING LOGS
SOUTH WEYMOUTH NAS SOUTH GATE LANDFILL
PRE-REMEDIAL DESIGN INVESTIGATION
CTO 407

BORING LOG FOR:	West Gate Landfill	BORING NO.:	WGL-SB-110
PROJECT NO:	112G00864-0320	START DATE:	6/4/2009
LOGGED BY:	J. Traut	COMPLETION DATE:	6/4/2009
DRILLED BY (Company/Driller):	Dragin/M. Wilkey	MON. WELL NO.:	NA
GRD. SURFACE ELEVATION:		CHECKED BY:	D.Seiken

TRANSCRIBED BY:J. Traut

DEPTH (FEET)	BLOWS PER 6" NA	"N"-VALUE	SAMP REC./ SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG/WELL PROF'L	SOIL DENSITY/ CONSIS. OR ROCK HARD	CLR	MATERIAL CLASSIFICATION	USCS OR ROCK BRKN	REMARKS (moisture condition;odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [PID, FID, (PPM)]
0											
	2	5	0.9 / 2.0		Sand	Loose	Dark Brown	0.0'-0.9' - SAND (fine to medium), trace fine gravel	SP	Dry	FID (S)=0.0
	2										PID (S)=0.0
	3										FID (H)=1.0
2	3			1220							PID (H)=0.9
	3	8	0.4 / 2.0				Tan/Brown	0.0'-0.4' - Similar to above		Dry	FID (S)=0.0
	4										PID (S)=0.0
	4										FID (H)=NR
4	6			1225							PID (H)=NR
	3	8	0.8 / 2.0		Peat and Silty Sand	Soft	Dark Brown	0.0'-0.8' - PEAT/SILTY SAND (fine sand) wood chips, fiberous material	PT/SM	Dry-Moist	FID (S)=0.0
	4										PID (S)=0.0
	4										FID (H)=1.0
6	2			1235							PID (H)=0.0
	10	14	0.7 / 2.0			Medium Dense		0.0'-0.4' - Similar to above		Saturated	FID (S)=0.0
	7				Sand and Gravel			0.4'-0.7' - SILTY SAND (fine to coarse) and	SP		PID (S)=0.0
	7						Gray	GRAVEL			FID (H)=0.0
8	6			1240							PID (H)=0.0
	8	5	0.8 / 2.0			Loose		0.0'-0.8' - SAND (coarse) and GRAVEL (fine and coarse, some fine to medium sand		Saturated	FID (S)=0.0
	3										PID (S)=0.0
	2			WGL-SO-SB110-0810							FID (H)=0.9
10	2			1245							PID (H)=0.3
	8	8	0.5 / 2.0					0.0'-0.5' - SAND (fine to coarse) and GRAVEL (fine and coarse)		Saturated	FID (S)=0.0
	4										PID (S)=0.0
	4										FID (H)=0.0
12	10			1250							PID (H)=0.0
								HSA and roller bit to 14' bgs			
								No split spoons collected			
14											
	3	4	0.4 / 2.0		Sand	Loose	Gray/ Tan	0.0'-0.4' - SAND (fine to coarse), trace fine gravel	SP	Saturated	FID (S)=0.0
	2										PID (S)=0.0
	2										FID (H)=0.0
16	1			1305							PID (H)=0.0

TYPE OF DRILLING RIG:	CME 750X		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	Hollow Stem Auger with 4" Roller Bit		
METHOD OF SOIL SAMPLING:	Continuous 2" split spoons - 2' lengths - Top of ground to refusal (140lb. Hammer)		
METHOD OF ROCK CORING:	NA		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS::	(s) = screening (H) = headspace	BORING NO.: SB - 110	PAGE: 1 OF 3

BORING LOG FOR:	West Gate Landfill		BORING NO.: WGL-SB-110
PROJECT NO:	112G00864-0320		START DATE: 6/4/2009
LOGGED BY:	J. Traut	TRANSCRIBED BY: J. Traut	COMPLETION DATE: 6/4/2009
DRILLED BY (Company/Driller):	Dragin/M. Wilkey		MON. WELL NO.: NA
GRD. SURFACE ELEVATION:			CHECKED BY: D.Seiken

DEPTH (FEET)	BLOWS PER 6" NA	"N"-VALUE	SAMP REC./ SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG/WELL PROF'L	SOIL DENSITY/ CONSIS. OR ROCK HARD	CLR	MATERIAL CLASSIFICATION	USCS OR ROCK BRKN	REMARKS (moisture condition;odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [PID, FID, (PPM)]
17					Sand			HSA and roller bit to 19' bgs No split spoons collected			
18								↓			
19								↓			
20	2 2	4	0.4 / 2.0			Loose	Gray/ Tan	0.0'-0.4' - SAND (mostly fine to medium, some coarse), trace fine gravel	SP	Saturated	FID (S)=0.0 PID (S)=0.0
21	2 2			1310		↓	↓		↓		FID (H)=0.0 PID (H)=0.0
22								HSA and roller bit to 24' bgs No split spoons collected			
23								↓			
24								↓			
25	3 2	15	1.0 / 2.0		Silty Sand	Medium Dense	Gray/Tan	0.0'-0.2' - SAND (fine to medium) 0.2'-0.5' - SILTY SAND (fine sand)	SM	Saturated	FID (S)=0.0 PID (S)=0.0
26	13 10			WGL-SO-SB112-2426 1325		↓	↓	0.5'-1.0' - SAND (fine to coarse), layer of silty fine sand, trace clay at 0.8'-0.9'	SP		FID (H)=0.0 PID (H)=0.0
27								HSA and roller bit to 29' bgs No split spoons collected			
28								↓			
29								↓			
30	23 11	19	0.9 / 2.0		Silty Sand and Gravel (Till)	Medium Dense	Gray/Tan	0.0'-0.7' - SAND (fine to coarse) 0.7'-0.9' - SIITY SAND (fine), some fine and	SM	Saturated Till	FID (S)=0.0 PID (S)=0.0
31	8 6			1345		↓	↓	coarse gravel	↓		FID (H)=0.0 PID (H)=0.0
32								HSA and roller bit to 34' bgs No split spoons collected			

TYPE OF DRILLING RIG:	CME 750X		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	Hollow Stem Auger with 4" Roller Bit		
METHOD OF SOIL SAMPLING:	Continuous 2" split spoons - 2' lengths - Top of ground to refusal (140lb. Hammer)		
METHOD OF ROCK CORING:	NA		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS::	(s) = screening (H) = headspace	BORING NO.: SB - 110	PAGE: 2 OF 3

BORING LOG FOR:	West Gate Landfill		BORING NO.: WGL-SB-110
PROJECT NO:	112G00864-0320		START DATE: 6/4/2009
LOGGED BY:	J. Traut	TRANSCRIBED BY: L. Homoleski	COMPLETION DATE: 6/4/2009
DRILLED BY (Company/Driller):	Dragin/M. Wilkey		MON. WELL NO.: NA
GRD. SURFACE ELEVATION:			CHECKED BY: B. Geringer

DEPTH (FEET)	BLOWS PER 6" NA	"N"-VALUE	SAMP REC./ SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG/WELL PROF'L	SOIL DENSITY/ CONSIS. OR ROCK HARD	CLR	MATERIAL CLASSIFICATION	USCS OR ROCK BRKN	REMARKS (moisture condition;odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [PID, FID, (PPM)]
33								HSA and roller bit to 34' bgs No split spoons collected			
34											
	50/0"		0.0 0.0		E.O.B. at 34' bgs			No recovery from 34-35'bgs - Refusal			

TYPE OF DRILLING RIG:	CME 750X		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	Hollow Stem Auger with 4" Roller Bit		
METHOD OF SOIL SAMPLING:	Continuous 2" split spoons - 2' lengths - Top of ground to refusal (140lb. Hammer)		
METHOD OF ROCK CORING:	NA		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS::		BORING NO.: SB - 110	PAGE: 3 OF 3

BORING LOG FOR:	West Gate Landfill	BORING NO.:	WGL-MW-101
PROJECT NO:	112G00864	START DATE:	6/17/2009
LOGGED BY:	J. Traut	COMPLETION DATE	6/18/2009
DRILLED BY (Company/Driller):	Dragin/M/Wilkey	MON. WELL NO.:	MW-101
GRD. SURFACE ELEVATION:		CHECKED BY:	D.Seiken

TRANSCRIBED BY: L. Homoleski

DEPTH (FEET)	BLOWS PER 6" NA	"N"-VALUE	SAMP REC./ SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG/WELL PROF'L	SOIL DENSITY/ CONSIS. OR ROCK HARD	CLR	MATERIAL CLASSIFICATION	USCS OR ROCK BRKN	REMARKS (moisture condition;odors; geological classification; rock weathering; etc.)	HEADSPACE FIELD SCREENING DATA METHOD = [PID, FID, (PPM)]
0											
	1	NA	0.1 / 2.0		Organic Peat	Very Soft	Black	PEATY silty topsoil	PT	Moist	FID - 0.0
	WOH										
2				1321							PID - 0.0
	1	11	1.3 / 2.0			Stiff/Medium Dense		0.0-0.9 - PEAT 0.6-0.9 some silt 0.9-1.0 - cobble		Wet	FID - 1.9
	3										
	8				Sand and Gravel		Tan	1.0-3.0 - SAND (fine to coarse) and GRAVEL (fine to coarse)	SP		
4	10			1324							PID - 0.6
	6	13	0.4 / 2.0					0.0-0.4 - similar to above		Saturated	FID - 0.0
	6										
	7										
6	8			1330							PID - 0.0
	4	12	0.7 / 2.0					0.0-0.7 - similar to above			FID - 0.0
	5										
	7						Orange Tan	iron staining 0.3-0.7			
8	14			1345							PID - 0.2
	8	14	0.4 / 2.0				Tan	0.0-0.4 similar to above cobble in shoe			FID - 0.0
	7										
	7										
10	11			1346							PID - 0.4
	9	11	0.6 / 2.0					0.0-0.6 - similar to above			FID - 0.0
	7										
	4										
12	3			1350							PID - 0.4
	1	4	0.4 / 2.0		Sand	Very Loose		0.0-0.4 - sand (fine to medium) some coarse sand trace fine gravel			FID - 0.0
	2										
	2										
14	2			1400							PID - 0.4
	2	3	0.4 / 2.0					0.0-0.4 - sand (fine to coarse)		Wet	FID - NR
	1										
	2										
16	3			1402							PID - NR

TYPE OF DRILLING RIG:	CME 750X ATV		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	6 1/2 HSA		
METHOD OF SOIL SAMPLING:	Split Spoon		
METHOD OF ROCK CORING:	HQ Wireline		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS::	Log hole ~5' East of well while grout is setting --> cores come from MW 101 location	BORING NO.: MW - 101	PAGE: 1 OF 4

BORING LOG FOR:	West Gate Landfill		BORING NO.: WGL-MW-101
PROJECT NO:	112G00864		START DATE: 6/17/2009
LOGGED BY:	J. Traut	TRANSCRIBED BY: L. Homoleski	COMPLETION DATE 6/18/2009
DRILLED BY (Company/Driller):	Dragin/M/Wilkey		MON. WELL NO.: MW-101
GRD. SURFACE ELEVATION:			CHECKED BY: D.Seiken

DEPTH (FEET) 16	BLOWS PER 6" NA	"N"-VALUE	SAMP REC./ SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG/WELL PROF'L	SOIL DENSITY/ CONSIS. OR ROCK HARD	CLR	MATERIAL CLASSIFICATION	USCS OR ROCK BRKN	REMARKS (moisture condition;odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [PID, FID, (PPM)]
	1 4	21	1.2 / 2.0		Sand	Medium Dense	Tan	0.0-1.0 SAND (fine to medium) trace coarse sand	SP	Wet	FID 0.0
18	17 23			1410		↓	↓	1.0-1.2 SAND (fine)	SW		PID 0.3
	3 3	7	1.1 / 2.0			Loose	↓	0.0-0.2 similar to above 0.2-0.6 silty fine sand some clay	SM	Saturated	FID 0.0
20	4 9			1415		↓	Orange Tan	0.6-1.1 sand (fine to coarse) iron staining	SP		PID 0.3
	3 3	7	0.4 / 2.0			↓	Tan	0.0-0.4 sand (fine to coarse)	↓	Wet	FID 0.0
22	4 7			1420		↓	↓	↓	↓		PID 0.5
	6 5	13	1.4 / 2.0			Medium Dense	↓	0.0-0.4 fine sand 0.4-0.6 fine to medium sand	SW	Wet	FID 0.0
24	8 13			1435		↓	Orange Tan Gray	0.6-1.3 fine to coarse sand and fine and coarse gravel 1.3-1.4 silty clay trace fine sand	SP CL	Saturated	PID 0.5
	9 12	27	1.4 / 2.0		Till	↓	↓	0.0-1.0 silty fine sand some medium to coarse sand some fine and coarse gravel and clay	SM	Till	FID NS
26	15 9			1442		↓	↓	1.0-1.2 sand (fine to coarse) gravel (fine and coarse) 1.2-1.4 silty clay - till	SP CL	Wet	PID NS
	6 10	22	1.0 / 2.0			↓	↓	0.0-1.0 silty fine sand some medium to coarse sand some fine and coarse gravel	SM	Wet	FID 0.0
28	12 18			1450		↓	↓	↓	↓		PID 0.5
	12 24	52	1.0 / 2.0			Very Dense	Tan	0.0-0.9 similar to above	↓		FID 0.0
30	28 50			1500		↓	↓	0.9-1.0 weathered rock	↓		PID 0.5
	32 50/3"		0.8 / 0.8		Weathered Rock	↓	↓	mix of till like (above) and weathered rock/ sand (fine)	SW		FID 0.0
32				1510		↓	↓	↓	↓		PID 0.5

TYPE OF DRILLING RIG:	CME 750X ATV		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	6 1/2 HSA		
METHOD OF SOIL SAMPLING:	Split Spoon		
METHOD OF ROCK CORING:	HQ Wireline		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS::	Log hole ~5' East of well while grout & scrapping --> cores come from MW 101 location	BORING NO.: MW - 101	PAGE: 2 OF 4

BORING LOG FOR:	West Gate Landfill		BORING NO.: WGL-MW-101
PROJECT NO:	112G00864		START DATE: 6/17/2009
LOGGED BY:	J. Traut	TRANSCRIBED BY: L. Homoleski	COMPLETION DATE 6/18/2009
DRILLED BY (Company/Driller):	Dragin/M/Wilkey		MON. WELL NO.: MW-101
GRD. SURFACE ELEVATION:			CHECKED BY: D.Seiken

DEPTH (FEET)	BLOWS PER 6" / Min/ft	"N"-VALUE	SAMP REC./ SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG/WELL PROF'L	SOIL DENSITY/ CONSIS. OR ROCK HARD	CLR	MATERIAL CLASSIFICATION	USCS OR ROCK BRKN	REMARKS (moisture condition;odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [PID, FID, (PPM)]
32											
								No spoon collected - weathered rock - refusal at 31.5 - rollerbit			
34											
					Bedrock			Rollerbit 2' into competent rock and set 4" casing			
36					4" Casing			~20 min/ft			
	3.30 min/ft		3.9	Run 1 RQD =(46/46)100 = 100%		Competant/ Hard	Green Green, White,	Green (chlorite) fine grained pink (feldpar) and white (quartz) veins	- some quartz/feldspar grains		
38	4.30 min/ft		4.0				Pink, Gray Green	chlorite rich granite (coarse grained) from 36.5 - 37.5 and 39-39.5 starts again at 40			
	5.40 min/ft							breaks may not be natural not weathered/ stained			
40	7 min/ft						Green, White, Pink, Gray	similar to above intermixed layers of green fine grained and granite (chlorite rich) fractures			
	4.20 min/ft			Run 2 RQD = (45/52) 100= 87%			Green	seem to be drillers breaks maybe 1 natural rust staining (slight)			
42	5.30 min/ft		4.3				Green/ layers of pink, white,				
	5 min/ft		5.0				green, gray				
44	6 min/ft										
	7.30 min/ft										
46	5.15 min/ft			Run 3 RQD = 73%				Top 6" probably left over from Run 2 - broken similar to above intermixed green fine grained			
	6.30 min/ft		5.0					(chlorite) granite veins and quartz and feldspar grains present in chlorite			
48	5.45 min/ft		5.0								

TYPE OF DRILLING RIG:	CME 750X ATV		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	6 1/2 HSA		
METHOD OF SOIL SAMPLING:	Split Spoon		
METHOD OF ROCK CORING:	HQ Wireline		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS::	Log hole ~5' East of well while grout & scrapping --> cores come from MW 101 location	BORING NO.: MW - 101	PAGE: 3 OF 4

BORING LOG FOR:	West Gate Landfill		BORING NO.: WGL-MW-101
PROJECT NO:	112G00864		START DATE: 6/17/2009
LOGGED BY:	J. Traut	TRANSCRIBED BY: L. Homoleski	COMPLETION DATE 6/18/2009
DRILLED BY (Company/Driller):	Dragin/M/Wilkey		MON. WELL NO.: MW-101
GRD. SURFACE ELEVATION:			CHECKED BY: D.Seiken

DEPTH (FEET) 48	BLOWS PER 6" NA	"N"-VALUE	SAMP REC./ SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG/WELL PROF'L	SOIL DENSITY/ CONSIS. OR ROCK HARD	CLR	MATERIAL CLASSIFICATION	USCS OR ROCK BRKN	REMARKS (moisture condition;odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [PID, FID, (PPM)]
	5.45 min/ft							Evidence of some fractures ~ 20% being natural- in majority of breaks no evidence of staining			
50	5.45 min/ft				End of Boring at 49.5' bgs			or weathering			

TYPE OF DRILLING RIG:	CME 750X ATV		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	6 1/2 HSA		
METHOD OF SOIL SAMPLING:	Split Spoon		
METHOD OF ROCK CORING:	HQ Wireline		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS::	Log hole ~5' East of well while grout & scrapping --> cores come from MW 101 location	BORING NO.: MW - 101	PAGE: 4 OF 4

BORING LOG FOR:	West Gate Landfill	BORING NO.:	WGL-MW-102
PROJECT NO:	112G00864	START DATE:	6/10/2009
LOGGED BY:	J. Traut, R. Clark	COMPLETION DATE:	6/22/2009
DRILLED BY (Company/Driller):	Dragin/M/Wilkey	MON. WELL NO.:	MW-102
GRD. SURFACE ELEVATION:		CHECKED BY:	D.Seiken

TRANSCRIBED BY: L. Homoleski

DEPTH (FEET)	BLOWS PER 6" NA	"N"-VALUE	SAMP REC./ SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG/WELL PROF'L	SOIL DENSITY/ CONSIS. OR ROCK HARD	CLR	MATERIAL CLASSIFICATION	USCS OR ROCK BRKN	REMARKS (moisture condition;odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [PID, FID, (PPM)]
0											
	2	56	0.2 / 1.2	0945	Fill	Very Dense	Dark Brown Tan	0.0-0.2 sand (fine to medium) and coarse gravel	SP	Dry	(s) 0.0
	6										
2	50/2"										(H) FID 0.0 PID 0.0
	2	2	0.7 / 2.0	1010	Peat	Very Loose Soft	Gray Tan Dark Brown/ Black	0.0-0.3 sand (fine) some silt	SM PT	Moist	(s) 0.0
	1										
4	1							0.3-0.7 peat wood chunks some silt			(H) FID 0.0 PID 0.0
	1	3	0.5 / 2.0	1015		Very Soft		0.0-0.5 peat similar to above		Moist/Wet	(s) 0.0
	2										
6	1							large wood chunk in shoe			(H) FID 0.4 PID 0.0
	1	2	0.8 / 2.0	1025				0.0-0.8 similar to above, granite cobble at 0.4'		Wet	(S) 0.0
	1										
8	1										(H) FID 58.4 PID 0.0
	WOH	0	1.0 / 2.0	Augers 8' 1450		Soft	Dark Brown	0-2" organic decomposed 2-3" Fine sand gray			
10								3-12" Dark brown/black silt			PID 0.4 FID 253
	6	20	1.5 / 2.0	Augers (10') 1455	Sand, Silt, and Gravel		Gray	0-6"- Same as above 6-9" Dark gray silt trace clay	SP		
	10										
12	10							9-18" gray fine to coarse SAND and Fine gravel Subrounded up to 1" trace silt			FID 4.0 PID 0.2
	12										
	8	21	1.0 / 2.0	Augers (12') 1505		Medium Dense		Same as above with platy and rounded gravel up to 1 in.			
	10										
14	11										FID 130 PID 0.3
	15										
	7	20	/ 2.0	Augers (14') 1510				Same as above No platy gravel			
	9										
16	11										FID 6.0 PID 0.2
	14										

TYPE OF DRILLING RIG:	CME 750X ATV		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	6 1/2 HSA 6" Roller bit 8-36 4 1/4 HSA with 4" roller bit for logging		
METHOD OF SOIL SAMPLING:	Split Spoon		
METHOD OF ROCK CORING:	HQ Wireline		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS::	(s) = screening (H) = headspace	BORING NO.: MW - 102	PAGE: 1 OF 4

BORING LOG FOR:	West Gate Landfill		BORING NO.: WGL-MW-102
PROJECT NO:	112G00864		START DATE: 6/10/2009
LOGGED BY:	J. Traut	TRANSCRIBED BY: L. Homoleski	COMPLETION DATE: 6/22/2009
DRILLED BY (Company/Driller):	Dragin/M/Wilkey		MON. WELL NO.: MW-102
GRD. SURFACE ELEVATION:			CHECKED BY: D.Seiken

DEPTH (FEET) 16	BLOWS PER 6" NA	"N"-VALUE	SAMP REC./ SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG/WELL PROF'L	SOIL DENSITY/ CONSIS. OR ROCK HARD	CLR	MATERIAL CLASSIFICATION	USCS OR ROCK BRKN	REMARKS (moisture condition;odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [PID, FID, (PPM)]
	8	25	1.0 / 2.0	Auger 16'	Sand, Silt and Gravel	Medium Dense	Gray	0.0-1.0 - Same as above	SP	Wet	
	8										
	17										FID 8.1
18	20			1325							PID 0.2
	6	72	0.7 / 2.0		Sand and Gravel	Very Dense		0.0-0.7 fine to coarse sand and fine and coarse gravel		Saturated	(s) 0.0
	22										
	50/5'							Subrounded - subangular gravel cobbles in shoe			(H) FID 1.8
20				0845							PID 0.2
	8	7	0.7 / 2.0			Loose		0.0-0.7 sand (mostly fine to medium some coarse) some fine and coarse gravel			(s) 0.0
	5										
	2							(subrounded)			(H) FID 1.1
22	4			0855							PID 0.1
	2	8	0.7 / 2.0		Sand		Gray tan	0.0-0.9 sand fine to medium 0.7-0.9 some coarse sand		Wet	(s) 0.0
	2										
	6										(H) FID 2.3
24	20			0900							PID 0.1
	1	11	0.9 / 2.0			Medium Dense		0.0-1.1 sand (fine to medium)			(s) 0.0
	2										
	9										(H) FID 1.4
26	22			0905							PID 0.2
	1	7	1.1 / 2.0			Loose		0.0-0.4 same as above 0.4-0.9 fine sand layer, fine to coarse sand at 0.6	SP SW		(s) 0.0
	3										
	4							0.9-1.3 fine to coarse sand	SP		(H) FID 0.3
28	12			0915							PID 0.1
	4	22	1.3 / 2.0			Medium Dense		0.0-1.0 fine to medium sand, trace coarse sand			(s) 0.0
	11										
	11							1.0-1.4 fine to coarse sand and fine to coarse gravel (subangular)			(H) FID 0.6
30	13			0925	Sand and Gravel						PID 0.1
	10	25	1.4 / 2.0					0.0-1.2 same as above - less coarse sand			(s) 0.0
	12										
	13							1.2-1.4 cobble			(H) FID 0.5
32	32			0930							PID 0.2

TYPE OF DRILLING RIG:	CME 750X ATV		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	6 1/2 HSA 6" Roller bit 8-36 4 1/4 HSA with 4" roller bit for logging		
METHOD OF SOIL SAMPLING:	Split Spoon		
METHOD OF ROCK CORING:	HQ Wireline		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS::	(s) = screening (H) = headspace	BORING NO.: MW - 102	PAGE: 2 OF 4

BORING LOG FOR:	West Gate Landfill	BORING NO.:	WGL-MW-102
PROJECT NO:	112G00864	START DATE:	6/10/2009
LOGGED BY:	J. Traut	COMPLETION DATE:	6/22/2009
DRILLED BY (Company/Driller):	Dragin/M/Wilkey	MON. WELL NO.:	MW-102
GRD. SURFACE ELEVATION:		CHECKED BY:	D.Seiken

TRANSCRIBED BY: L. Homoleski

DEPTH (FEET)	BLOWS PER 6" min/ft.	"N"-VALUE	SAMP REC./ SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG/WELL PROF'L	SOIL DENSITY/ CONSIS. OR ROCK HARD	CLR	MATERIAL CLASSIFICATION	USCS OR ROCK BRKN	REMARKS (moisture condition;odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [PID, FID, (PPM)]
32											
	31	38	0.7 / 2.0		Till	Dense	Gray Tan White	0.0-0.3 fine to coarse sand and fine to coarse gravel	SP		(s) 0.0
	25										
34	13			1000			Gray Tan	0.3-0.4 broken up cobble? 0.4-0.7 mostly coarse sand and fine to coarse			(H) FID 0.2 PID 0.2
	16										
	24	NA	1.0 / 2.0			Very Dense		gravel trace fine to medium sand 0.0-0.7 same as above - some fine to medium		Wet	(s) 0.0
	26				TOR						
36	50/6"			1020	Bedrock			sand 0.7-1.0 broken up cobble rock			(H) FID 0.4 PID 0.6
								roller bit Smooth ~15' min/ft		Roller bit 2' into competant rock and grout casing	
38					Bottom of 4"casing						
	3.40 min/ft		3.5 / 5.0	Run 1 RQD = (33/42)100= 78%		Slightly Broken	Pink, green white black	Granite, large feldspar crystals, finer purplish quartz. Chlorite In fractures			
40	4.45 min/ft						purple	horizontal fractures			
	5.45 min/ft										
42	5.45 min/ft										
	6.30 min/ft		3.9 / 5.0	Run 2 RQD =(17/47) 100 = 36%		Broken		Similar to above - same green weathering in fractures			
44	3.45 min/ft					Slightly Broken		some vertical fractures (70 degree angle and greater) some horizontal fractures, very broken			
	4.20 min/ft					Broken		in the bottom foot			
46	4.00 min/ft										
	4.50 min/ft		5.0 / 5.0	Run 3				similar to above			
48	4.30										

TYPE OF DRILLING RIG:	CME 750X ATV		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	6 1/2 HSA 6" Roller bit 8-36 4 1/4 HSA with 4" roller bit for logging		
METHOD OF SOIL SAMPLING:	Split Spoon		
METHOD OF ROCK CORING:	HQ Wireline		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS::	(s) = screening (H) = headspace	BORING NO.: MW - 102	PAGE: 3 OF 4

BORING LOG FOR:	West Gate Landfill		BORING NO.: WGL-MW-102
PROJECT NO:	112G00864		START DATE: 6/10/2009
LOGGED BY:	J. Traut	TRANSCRIBED BY: L. Homoleski	COMPLETION DATE: 6/22/2009
DRILLED BY (Company/Driller):	Dragin/M/Wilkey		MON. WELL NO.: MW-102
GRD. SURFACE ELEVATION:			CHECKED BY: D.Seiken

DEPTH (FEET) 48	BLOWS PER 6" NA	"N"-VALUE	SAMP REC./ SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG/WELL PROF'L	SOIL DENSITY/ CONSIS. OR ROCK HARD	CLR	MATERIAL CLASSIFICATION	USCS OR ROCK BRKN	REMARKS (moisture condition;odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [PID, FID, (PPM)]
	5		5.0 / 5.0	RQD = (27/60) 100 45%		Broken	Pink green white black	Granite - green weathering infractures - breaks appear natural		Cleared borehole ~ 0.5 hrs.	
50	min/ft 6.2						purple				
	min/ft 5										
52	min/ft										
					End of Boring at 51.5 bgs						

TYPE OF DRILLING RIG:	CME 750X ATV		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	6 1/2 HSA 6" Roller bit 8-36 4 1/4 HSA with 4" roller bit for logging		
METHOD OF SOIL SAMPLING:	Split Spoon		
METHOD OF ROCK CORING:	HQ Wireline		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS::	(s) = screening (H) = headspace	BORING NO.: MW - 102	PAGE: 4 OF 4

BORING LOG FOR:	West Gate Landfill		BORING NO.: WGL-MW-103
PROJECT NO:	112G00864		START DATE: 5/26/2009
LOGGED BY:	J. Traut	TRANSCRIBED BY: L. Homoleski	COMPLETION DATE 6/1/2009
DRILLED BY (Company/Driller):	Dragin/M/Wilkey		MON. WELL NO.: MW-103
GRD. SURFACE ELEVATION:			CHECKED BY: D.Seiken

DEPTH (FEET)	BLOWS PER 6" NA	"N"-VALUE	SAMP REC./ SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG/WELL PROF'L	SOIL DENSITY/ CONSIS. OR ROCK HARD	CLR	MATERIAL CLASSIFICATION	USCS OR ROCK BRKN	REMARKS (moisture condition;odors; geological classification; rock weathering; etc.)	HEADSPACE FIELD SCREENING DATA METHOD = [PID, FID, (PPM)]
0											
	WOH	1	0.1 / 2.0		Peat	Very Loose	Dark Brown	0.0-0.1 peaty topsoil fiberous material	PT	Dry	PID - 0.0
2	1			1350							FID - 0.0
	1	3	2.0 / 2.0				Tan/ Brown	0.0-0.6 silty sand (fine to medium) 0.6-1.8 peat layers, wood, trace silt	SM PT	Moist - damp	(s) 0.0
4	2			1351				1.8-2.0 silt trace fine sand	ML		(H) FID 69.9 (H) PID 0.0
	WOH	1	2.0 / 2.0				Brown	0.0-0.8 peat, organic material, wood some silt	PT	Damp - wet	(s) 0.0
6	1			1420			Dark Brown	0.8-2.0 silt trace organic material large cobble in shoe	ML		(H) FID 137.3 (H) PID 0.0
	7	24	1.5 / 2.0			Medium Dense		0.0-0.5 similar to above	SP	Saturated	(s) 0.0
8	10			1431	Sand and Gravel		Tan/ Gray	0.5-1.5 sand (fine to coarse) some fine and coarse gravel			(H) FID 20.2 (H) PID 0.0
	8	24	0.7 / 2.0					0.0-0.7 Similar to above			(s) 0.0
10	13			1510							(H) 0.0
	6	17	0.5 / 2.0					0.0-0.5 similar to above			(s) 0.0
12	9			1524							(H) 0.0
	4	8	0.7 / 2.0			Loose		0.0-0.7 similar to above			(s) 0.0
14	4			0846							(H) FID 0.6 PID 0.0
	1	3	1.0 / 2.0			Very Loose		0.0-1.0 similar to above			(s) 0.0 PID
16	2			0855							(H) FID 0.0 PID 0.0

TYPE OF DRILLING RIG:	CME ATV
METHOD OF ADVANCING BORING:	HSA 7 1/4 ID 10" OD with 6" roller bit/ 4 1/4" casing - 4" roller bit at 28' bgs
METHOD OF SOIL SAMPLING:	Split Spoon
METHOD OF ROCK CORING:	HQ Wireline core (4")
GROUNDWATER LEVELS:	
OTHER OBSERVATIONS::	Attempt 1: HSA & rollerbit to 22' bgs cannot get augers past 20.5 - split spoons down to 22' Attempt 2: moved 5' NE of staked location - drilled down to 18'bgs - augers grinding - no seal Attempt 3: move 5' NE of Attempt 2 - auger down 10' bgs and try mud rotary with bentonite mixture
	(s) = screening (H) = headspace

Tetra Tech NUS, Inc.

BORING LOG FOR:	West Gate Landfill	BORING NO.:	WGL-MW-103
PROJECT NO:	112G00864	START DATE:	5/26/2009
LOGGED BY:	J. Traut	COMPLETION DATE	6/1/2009
DRILLED BY (Company/Driller):	Dragin/M/Wilkey	MON. WELL NO.:	MW-103
GRD. SURFACE ELEVATION:		CHECKED BY:	D.Seiken

TRANSCRIBED BY: L. Homoleski

DEPTH (FEET) 16	BLOWS PER 6" NA	"N"-VALUE	SAMP REC./ SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG/WELL PROF'L	SOIL DENSITY/ CONSIS. OR ROCK HARD	CLR	MATERIAL CLASSIFICATION	USCS OR ROCK BRKN	REMARKS (moisture condition;odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [PID, FID, (PPM)]
	2	24	0.7 / 2.0		Sand and Silt	Very Loose	Tan/Gray	0.0-0.7 sand (fine) some silt	SM	Saturated	(s) PID 0.0
	2					Very Soft					
18	2			0920			↓	0.2-0.3 layer of sand (fine to coarse)	↓		(H) FID 0.3
	3										PID 0.0
	1	2	1.0 / 2.0			Very Loose	Tan	0.0-0.1 sand (fine) some silt 0.1-1.0 sand (fine to coarse)	SP	↓	(s) PID 0.0
	1										
20	1			0930			Orange Tan	orange iron staining 0.6-0.7	↓		(H) FID 0.0
	8										PID 0.0
	26	28	1.2 / 2.0			Medium Dense	Tan	0.0-1.2 sand (fine to coarse) layer of fine sand	↓	Wet	(s) PID 0.0
	13										
22	15			0950			↓	sand 0.5-0.6 granite cobble in shoe			(H) FID 0.0
	19										PID 0.0
			/		Sand and Gravel			drill cuttings - sand & gravel size particles			
24	NA										
			/					drill cuttings - sand & gravel size particles			
26	NA							↓			
			/	1430							
28	NA			1530							
			/								
30	NA							↓			
	26	76	1.3 / 2.0			Very Dense		0.0-0.1 broken cobble 0.1-0.3 sand (mostly fine to medium trace	SP	Saturated	
	27										
32	49			1000		↓	↓	coarse) trace to some fine and coarse gravel, trace silt, cobble in shoe		Till	
	50/5"										

TYPE OF DRILLING RIG:	CME ATV		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	HSA 7 1/4 ID 10" OD with 6" roller bit/ 4 1/4" casing - 4" roller bit at 28' bgs		
METHOD OF SOIL SAMPLING:	Split Spoon		
METHOD OF ROCK CORING:	HQ Wireline core (4")		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS::	(s) = screening (H) = headspace	BORING NO.: MW - 103	PAGE: 2 OF 4

BORING LOG FOR:	West Gate Landfill		BORING NO.: WGL-MW-103
PROJECT NO:	112G00864		START DATE: 5/26/2009
LOGGED BY:	J. Traut	TRANSCRIBED BY: L. Homoleski	COMPLETION DATE 6/1/2009
DRILLED BY (Company/Driller):	Dragin/M/Wilkey		MON. WELL NO.: MW-103
GRD. SURFACE ELEVATION:			CHECKED BY: D.Seiken

DEPTH (FEET)	BLOWS PER 6" / Min/ft	"N"-VALUE	SAMP REC./ SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG/WELL PROF'L	SOIL DENSITY/ CONSIS. OR ROCK HARD	CLR	MATERIAL CLASSIFICATION	USCS OR ROCK BRKN	REMARKS (moisture condition;odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [PID, FID, (PPM)]
32											
	42		0.9		Till	Very Dense	Tan/Gray	0.0-0.9 sand (mostly fine to medium, trace clay)	SP	Wet	
	50/5"		0.9								
34				1040				trace silt, trace fine and coarse gravel			
					Bedrock			roller bit steady and then drops			
	NA							cuttings sand and gravel			
36				1215							
	13 min/ft		2.3	Run 1		Very Broken	Gray Pink White	granite fractured - green - (chlorite) In fractures		Begin HQ coring at 36' bgs	
				RQD = 20%				0.0-0.7 very broken 0.7-1.9 broken - vertical			
38	8.30 min/ft		2.5	1400		Broken	Green	fractures 1.9-2.3 very broken			
	7 min/							large crystals		Roller bit to 39 - vertical fracture	
	0.5 ft										
40	3.35 min/ft			RQD = 52%				green (chlorite) In breaks all breaks appear natural		not letting H_2O through for drilling	
				Run 2						competent rock - weathering only along breaks	
	2.54 min/ft										
42	3 min/ft		5.0								
			5.0			Very Broken					
	2.54 min/ft										
44	4.45 min/ft			1535		Broken	Maroon	4.8-5.0 maroon quartz (vein?)			
	3 min/ft							0.0-1.3 maroon quartz - horizontal fractures			
46	3.08 min/ft			RQD = 69%			gray/pink				
				Run 3			white/green	granite - high angle fractures seem natural -			
	3.05 min/ft		4.8					green chlorite in most fractures. Some			
48	3.48 min/ft		4.8					horizontal fractures			

TYPE OF DRILLING RIG:	CME ATV		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	HSA 7 1/4 ID 10" OD with 6" roller bit/ 4 1/4" casing - 4" roller bit at 28' bgs		
METHOD OF SOIL SAMPLING:	Split Spoon		
METHOD OF ROCK CORING:	HQ Wireline core (4")		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS::	(s) = screening (H) = headspace	BORING NO.: MW - 103	PAGE: 3 OF 4

BORING LOG FOR:	West Gate Landfill		BORING NO.: WGL-MW-103
PROJECT NO:	112G00864		START DATE: 5/26/2009
LOGGED BY:	J. Traut	TRANSCRIBED BY: L. Homoleski	COMPLETION DATE 6/1/2009
DRILLED BY (Company/Driller):	Dragin/M/Wilkey		MON. WELL NO.: MW-103
GRD. SURFACE ELEVATION:			CHECKED BY: D.Seiken

DEPTH (FEET) 48	BLOWS PER 6" NA		SAMP REC./ SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG/WELL PROF'L	SOIL DENSITY/ CONSIS. OR ROCK HARD	CLR	MATERIAL CLASSIFICATION	USCS OR ROCK BRKN	REMARKS (moisture condition;odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [PID, FID, (PPM)]
	9 min/ 0.8 ft.			0930		Broken	pink gray white green	granite - green chlorite in fractures			
50	4.45 min/ft		1.6 / 2.0	Run 4 RQD= 89%			black	granite - breaks have only slight weathering			
51	5 min/ft.			1030							
					End of Boring at 51 bgs						

TYPE OF DRILLING RIG:	CME ATV
METHOD OF ADVANCING BORING:	HSA 7 1/4 ID 10" OD with 6" roller bit/ 4 1/4" casing - 4" roller bit at 28' bgs
METHOD OF SOIL SAMPLING:	Split Spoon
METHOD OF ROCK CORING:	HQ Wireline core (4")
GROUNDWATER LEVELS:	
OTHER OBSERVATIONS::	(s) = screening (H) = headspace

Tetra Tech NUS, Inc.

BORING LOG FOR:	West Gate Landfill		BORING NO.: WGL-SB-101
PROJECT NO:	112G00864		START DATE: 6/5/2009
LOGGED BY:	J. Traut	TRANSCRIBED BY: L. Homoleski	COMPLETION DATE: 6/5/2009
DRILLED BY (Company/Driller):	Dragin/M. Wilkey		MON. WELL NO.: NA
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY: D.Seiken

DEPTH (FEET)	BLOWS PER 6" NA	"N"-VALUE	SAMP REC./ SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG/WELL PROF'L	SOIL DENSITY/ CONSIS. OR ROCK HARD	CLR	MATERIAL CLASSIFICATION	USCS OR ROCK BRKN	REMARKS (moisture condition;odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [PID, FID, (PPM)]
0											
	3	19	0.7 / 2.0		Sand and Gravel	M. Dense	Dark Brown	0.0'-0.2' - SILTY SAND	SM SP		(S) 0.0
	4										
	15							0.2'-0.7' - SAND (fine and medium some coarse) trace fine gravel cobble in shoe		Dry	(H) FID 0.0 PID 0.0
2	31			1145							
	40	65	1.9 / 2.0			V. Dense		0.0'-1.9' - SAND (fine to medium, some coarse) and GRAVEL (fine and coarse)			(S) 0.0
	27										
	38							cobble at 1.2' and 1.5'-1.6'			(H) FID 0.0 PID 0.0
4	34			1200							
	17	49	0.4 / 2.0			Dense	Tan	0.0'-0.4' - SAND (fine to coarse) and GRAVEL			(S) 0.0
	26										
	23							(fine and coarse) cobble in shoe			(H) FID 0.0 PID 0.0
6	28			1215							
	10	25	0.9 / 2.0			M. Dense		0.0'-0.9' - SAND fine to coarse, trace fine and coarse gravel			(S) 0.0
	10										
	15									Moist - Damp	(H) FID 0.0 PID 0.0
8	12			1225							
	11	21	0.2 / 2.0					0.0'-0.2' - similar to above Mostly fine and medium sand, some coarse			(S) 0.0
	12										
	9										(H) not screened
10	17			1233							
	4	14	1.0 / 2.0				Gray/tan	0.0'-1.0' - SAND(fine to coarse) and GRAVEL (fine and coarse)			(S) 0.0
	6										
	8						Yellow/Tan	iron staining at 0.4'		Wet	(H) FID 0.0 PID 0.0
12	4			1240							
	3	11	0.5 / 2.0				Gray/Tan	0.0'-0.4' - SAND (fine and coarse), trace fine gravel			(S) FID 0.4 PID 0.0
	4										
	7							0.4'-0.5' - SILTY SAND (fine), trace fine gravel	SM		(H) FID 0.1 PID 0.0
14	10			1248							
	2	8	1.1 / 2.0	WGL-SO-SB101-1416		Loose		0.0'-0.2' - fine SAND some silt 0.2'-0.8' - SAND (fine to medium)	SP		(S) 0.0
	4										
	4							0.8'-1.1' - SAND (fine to coarse)			(H) FID 0.0 PID 0.0
16	6			1254							

TYPE OF DRILLING RIG:	CME 75OX ATV	Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	HSA 4 1/4" with 4" Roller Bit	
METHOD OF SOIL SAMPLING:	Split Spoon	
METHOD OF ROCK CORING:	NA	
GROUNDWATER LEVELS:		
OTHER OBSERVATIONS::	(s) = screening (H) = headspace	BORING NO.: WGL-SB-101

BORING LOG FOR:	West Gate Landfill			BORING NO.:	WGL-SB-101
PROJECT NO:	112G00864	TRANSCRIBED BY: L. Homoleski		START DATE:	6/5/2009
LOGGED BY:	J. Traut			COMPLETION DATE:	6/5/2009
DRILLED BY (Company/Driller):	Dragin/M. Wilkey			MON. WELL NO.:	NA
GRD. SURFACE ELEVATION:		ELEVATION FROM:		CHECKED BY:	D.Seiken

DEPTH (FEET) 16	BLOWS PER 6" NA	"N"-VALUE	SAMP REC./ SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG/WELL PROF'L	SOIL DENSITY/ CONSIS. OR ROCK HARD	CLR	MATERIAL CLASSIFICATION	USCS OR ROCK BRKN	REMARKS (moisture condition;odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [PID, FID, (PPM)]
	3	11	0.5 / 2.0		Sand and Gravel	M. Dense	Gray/Tan	0.0'-0.5' SAND (fine to coarse), trace gravel	SP	Wet	
	5										(S) 0.0
	6										(H) FID 0.0
18	10			1303							PID 0.0
	3	15	1.0 / 2.0	WGL-SO-SB101-1020	Silty Sand		Gray	0.0'-0.5' - SILTY SAND (fine), some clay	SM	Saturated	
	6										(S) 0.0
	9				Sand and Gravel			0.5'-1.0' - fine SAND	SW		(H) FID 0.0
20	13			1308							PID 0.0
	4	12	1.0 / 2.0					0.0'-0.8' - similar to above trace fine gravel			
	4										(S) 0.0
	8							0.8'-2.0' -SAND (fine to coarse) and GRAVEL (fine and coarse)	SP		(H) FID 0.0
22	12			1315							PID 0.0
	4	20	1.1 / 2.0					0.0'-0.4' - similar to above		Saturated	
	8										(S) 0.0
	12				Silty Sand and Gravel (Till)			0.4'-1.1' - SILTY SAND (fine sand, some medium to coarse sand), some fine and coarse gravel	SM		(H) FID 0.0
24	13			1323						Till	PID 0.0
	17	37	0.6 / 2.0			Dense		0.0'-0.4' - similar to above		Saturated	
	18										(S) 0.0
	19										(H) FID 0.0
26	21			1338						Till	PID 0.0
	13	41	1.2 / 2.0					0.0'-0.9' - similar to above		Till	
	15										(S) 0.0
	26							0.9'-1.2' - SAND(fine and coarse) and GRAVEL (fine a)	SP		(H) FID 0.0
28	39			1355							PID 0.0
	19	NA	0.4 / 1.0					0.0'-0.4' - similar to above			
	50/3"										(S) 0.0
					End of Boring at 29' bgs						(H) FID 0.0
30				1410							PID 0.0
			/								

TYPE OF DRILLING RIG:	CME 75OX ATV	Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	HSA 4 1/4" with 4" Roller Bit	
METHOD OF SOIL SAMPLING:	Split Spoon	
METHOD OF ROCK CORING:	NA	
GROUNDWATER LEVELS:		
OTHER OBSERVATIONS::	(s) = screening (H) = headspace BORING NO.: WGL-SB-101	PAGE: 2 OF 2

BORING LOG FOR:	West Gate Landfill		BORING NO.: WGL-SB-102
PROJECT NO:	112G00864		START DATE: 6/4/2009
LOGGED BY:	J. Traut	TRANSCRIBED BY: L. Homoleski	COMPLETION DATE: 6/5/2009
DRILLED BY (Company/Driller):	Dragin/M. Wilkey		MON. WELL NO.: NA
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY: D.Seiken

DEPTH (FEET)	BLOWS PER 6" NA	"N"-Value	SAMP REC./ SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG/WELL PROF'L	SOIL DENSITY/ CONSIS. OR ROCK HARD	CLR	MATERIAL CLASSIFICATION	USCS OR ROCK BRKN	REMARKS (moisture condition;odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [PID, FID, (PPM)]
0											
	2	7	1.5 / 2.0		Sand, Silt and Gravel	Loose	Dark Brown	0.0'-0.8' - SAND (mostly fine to medium) trace fine gravel	SP	Dry	(S) 0.0
	3										
	4					↓	Tan	0.8'-1.5' SAND (fine) some silt, trace fine to coar	SM		(H) FID 0.0
2	6			1530			Dark Brown	gravel			PID 0.0
	5	10	0.3 / 2.0			Medium Dense		0.0'-0.3' - SAND (mostly fine to medium), fine and coarse gravel	SP	Moist	(S) 0.0
	4										
	6										(H) FID 2.0
4	8			1535							PID 0.1
	4	17	1.3 / 2.0				↓	0.0'-0.1' - similar to above cobble in shoe	SM	Moist-wet	(S) 0.0
	6						tan/black	0.1'-0.4' - SILTY SAND (fine)			
	11					↓	layers	0.4'-1.3' - SAND (fine to coarse) and GRAVEL	SP	Dry	(H) FID 0.0
6	13			1545			Tan	(fine and coarse)			PID 0.0
	13	32	0.1 / 2.0			Dense		cobble in shoe No recovery		Wet	Not screened
	15										
	17					↓					Not screened
8	21			1600							
	5	8	0.9 / 2.0	WGL-SO-SB102-0812		Loose	↓	0.0'-0.9' -SAND (fine to coarse) and GRAVEL	SP	Saturated	(S) 0.0
	4						Orange/Tan	(fine and coarse)			
	4						Light tan			Wet	(H) FID 1.0
10	5			1605	Sand and Gravel						PID 0.0
	2	6	1.0 / 2.0				Tan	0.0'1-1.0' - SAND (fine to coarse) and GRAVEL		Wet	(S) 0.0
	3							(fine and coarse)			
	3						Gray/Tan				(H) FID 0.0
12	4			1610							PID 0.0
		NA						HSA and roller bit to 14' bgs			
								No split spoons collected			
14											
	2	4	0.6 / 2.0			Loose	Gray/Tan	0.0'-0.6' - SAND (mostly fine to medium),	SP	Wet	(S) 0.0
	2							trace fine gravel			
	2					↓	↓		↓		(H) FID 0.0
16	5			1620							PID 0.0

TYPE OF DRILLING RIG:	CME 75OX ATV	Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	HSA 4 1/4" with 4" Roller Bit	
METHOD OF SOIL SAMPLING:	Split Spoon	
METHOD OF ROCK CORING:	NA	
GROUNDWATER LEVELS:		
OTHER OBSERVATIONS::	(s) = screening (H) = headspace	BORING NO.: WGL-SB-102

BORING LOG FOR:	West Gate Landfill			BORING NO.:	WGL-SB-102
PROJECT NO:	112G00864	TRANSCRIBED BY: L. Homoleski		START DATE:	6/4/2009
LOGGED BY:	J. Traut			COMPLETION DATE:	6/5/2009
DRILLED BY (Company/Driller):	Dragin/M. Wilkey			MON. WELL NO.:	NA
GRD. SURFACE ELEVATION:		ELEVATION FROM:		CHECKED BY:	D.Seiken

DEPTH (FEET)	BLOWS PER 6" NA	"N"-Value	SAMP REC./ SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG/WELL PROF'L	SOIL DENSITY/ CONSIS. OR ROCK HARD	CLR	MATERIAL CLASSIFICATION	USCS OR ROCK BRKN	REMARKS (moisture condition;odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [PID, FID, (PPM)]
16											
			NA		Sand and Gravel			HSA and Roller bit to 19' bgs No split spoons collected			
18								↓			
								↓			
20	6 5	11	1.0 / 2.0	0830		Medium Dense	Gray/Tan	0.0'-0.1' - SAND (fine to coarse) and GRAVEL fine and coarse subrounded - angular gravel	SP	Saturated	(S) 0.0
	6 8					↓	↓				(H) FID 0.0 PID 0.0
22								HSA roller bit to 24' bgs No split spoons collected			
			NA					↓			
24								↓			
	4 5	20	1.3 / 2.0			Medium Dense	Gray-Tan Tan	0.0'-0.3' - SAND (fine to coarse) and GRAVEL (fine and coarse)	SP	Saturated	(S) 0.0
26	15 10			0840	Silty Sand		↓	0.3'-1.3' - SILTY SAND (fine) some fine and coarse gravel			(H) FID 0.4 PID 0.0
			NA					HSA and roller bit to 29' bgs No split spoons collected			
28								↓			
								↓			
30	11 26	53	2.0 / 2.0	WGL-SO-SB!02-2931 0910		Very Dense	Tan	0.0'-0.5' - SAND (fine to coarse), trace fine and coarse gravel	SP SM	Saturated Wet	(S) 0.0
	27 36					↓	↓	0.5'-2.0' - SILTY SAND (fine)	↓		(H) FID 0.0 PID 0.0
32								HSA and roller bit to 34' bgs No split spoons collected			

TYPE OF DRILLING RIG:	CME 75OX ATV		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	HSA 4 1/4" with 4" Roller Bit		
METHOD OF SOIL SAMPLING:	Split Spoon		
METHOD OF ROCK CORING:	NA		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS::	(s) = screening (H) = headspace	BORING NO.: WGL-SB-102	PAGE: 2 OF 3

BORING LOG FOR:	West Gate Landfill		BORING NO.: WGL-SB-102
PROJECT NO:	112G00864	TRANSCRIBED BY: L. Homoleski	START DATE: 6/4/2009
LOGGED BY:	J. Traut		COMPLETION DATE: 6/5/2009
DRILLED BY (Company/Driller):	Dragin/M. Wilkey		MON. WELL NO.: NA
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY: D.Seiken

DEPTH (FEET) 32	BLOWS PER 6" NA	"N"-Value	SAMP REC./ SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG/WELL PROF'L	SOIL DENSITY/ CONSIS. OR ROCK HARD	CLR	MATERIAL CLASSIFICATION	USCS OR ROCK BRKN	REMARKS (moisture condition;odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [PID, FID, (PPM)]
					Silty Sand			HSA and roller bit to 34' bgs No split spoons collected			
34								↓			
35	50/3"				End of Boring at 34.5		Tan	0.0'-0.3' - SILTY SAND (fine) with weathered BEDROCK mixed in - granite		Top of Weathered Bedrock	

TYPE OF DRILLING RIG:	CME 75OX ATV	Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	HSA 4 1/4" with 4" Roller Bit	
METHOD OF SOIL SAMPLING:	Split Spoon	
METHOD OF ROCK CORING:	NA	
GROUNDWATER LEVELS:		
OTHER OBSERVATIONS::	(s) = screening (H) = headspace BORING NO.: WGL-SB-102	PAGE: 3 OF 3

BORING LOG FOR:	West Gate Landfill	BORING NO.:	WGL-SB-103
PROJECT NO:	112G00864-0320	START DATE:	6/2/2009
LOGGED BY:	J. Traut	COMPLETION DATE:	6/3/2009
DRILLED BY (Company/Driller):	Dragin/M. Wilkey	MON. WELL NO.:	NA
GRD. SURFACE ELEVATION:		CHECKED BY:	D.Seiken

TRANSCRIBED BY:J. Traut

DEPTH (FEET) 0	BLOWS PER 6" NA	"N"-VALUE	SAMP REC./ SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG/WELL PROF'L	SOIL DENSITY/ CONSIS. OR ROCK HARD	CLR	MATERIAL CLASSIFICATION	USCS OR ROCK BRKN	REMARKS (moisture condition;odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [PID, FID, (PPM)]
	WOH	2	0.9 / 2.0		Silty Sand	Very Soft	Dark Brown	0.0'-0.4' - SAND (fine to medium) trace silt 0.4'-0.9' - SILTY SAND (fine to medium sand)	SP SM	Dry Moist	FID (S)=0.0 PID (S)=0.0
2	2 1			1430							FID (H)=NR PID (H)=NR
	1 1	3	1.5 / 2.0				Or. Brown	0.0'-0.3' - Similar to above 0.3'-0.4' - Layer of SILTY CLAY		Moist-damp	FID (S)=116 PID (S)=0.0
4	2 2			1435	Peat		Gray Brown Black	0.4'-0.6' - SILTY SAND 0.6'-1.5' - PEAT, fiberous, wood	PT	Screening from peat layer	FID (H)=91.1 PID (H)=0.4
	NA	NA	0.8 / 2.0				Dk. Brown Black	0.0'-0.8' - PEAT, wood chips, some silt		No split spoon-attempt Shelby tube	FID (S)=4.0 PID (S)=0.0
6				1520						Recovery only 0.8' Damp	FID (H)=3042 PID (H)=0.3
		NA	1.0 / 2.0					0.0'-0.9' - PEAT, large wood (1" diameter 2" length), fiberous, wood		Saturated	FID (S)=4.0 PID (S)=0.0
8				WGL-SO-SB103-0608 1540	Silty Sand		Gray	0.9'-1.0' SILTY SAND some gravel (fine gravel, fine sand)	SM	Shelby Tube Sample	FID (H)=104.7 PID (H)=0.0
	6 10	22	1.2 / 2.0		Sand and Gravel	Medium Dense	Brown Gray Tan	0.0'-1.2' - SAND AND GRAVEL (fine to coarse sand, fine and coarse gravel) subrounded to	SP	Saturated	FID (S)=0.0 PID (S)=0.0
10	12 13			1550				subangular gravel			FID (H)=0.0 PID (H)=0.0
	13 11	21	0.5 / 2.0					0.0'-0.5' - Similar to above		Saturated	FID (S)=0.0 PID (S)=0.0
12	10 10			1600							FID (H)=0.0 PID (H)=0.0
	2 3	6	1.1 / 2.0			Loose	Tan	0.0'-1.1' - Similar to above - no coarse gravel		Saturated	FID (S)=0.0 PID (S)=0.0
14	3 5			1610							FID (H)=0.5 PID (H)=0.0
	4 5	12	0.9 / 2.0		Sand	Medium Dense		0.0'-0.4' - SAND (fine to medium)		Saturated	FID (S)=0.0 PID (S)=0.0
16	7 9			WGL-SO-SB103-1416 825				0.4'-0.9' - SAND (fine to coarse) trace fine gravel			FID (H)=0.4 PID (H)=0.0

TYPE OF DRILLING RIG:	CME 750X
METHOD OF ADVANCING BORING:	Hollow Stem Auger with 4" Roller Bit
METHOD OF SOIL SAMPLING:	Continuous 2" split spoons - 2' lengths - Top of ground to refusal (140lb. Hammer)/Shelby Tube
METHOD OF ROCK CORING:	NA
GROUNDWATER LEVELS:	
OTHER OBSERVATIONS::	(s) = screening (H) = headspace

Tetra Tech NUS, Inc.

BORING LOG FOR:	West Gate Landfill	BORING NO.:	WGL-SB-103
PROJECT NO:	112G00864-0320	START DATE:	6/2/2009
LOGGED BY:	J. Traut	COMPLETION DATE:	6/3/2009
DRILLED BY (Company/Driller):	Dragin/M. Wilkey	MON. WELL NO.:	NA
GRD. SURFACE ELEVATION:		CHECKED BY:	D.Seiken

TRANSCRIBED BY: J. Traut

DEPTH (FEET)	BLOWS PER 6" NA	"N"-VALUE	SAMP REC./ SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG/WELL PROF'L	SOIL DENSITY/ CONSIS. OR ROCK HARD	CLR	MATERIAL CLASSIFICATION	USCS OR ROCK BRKN	REMARKS (moisture condition;odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [PID, FID, (PPM)]
17					Sand			HSA and roller bit to 19' bgs No split spoons collected			
18								↓			
19								↓			
20	2 2	5	0.8 / 2.0			Loose	Gray	0.0'-0.2' - SAND (fine to coarse) 0.2'-0.7' - SILTY SAND (fine) trace clay	SP SM	Saturated	FID (S)=0.0 PID (S)=0.0
21	3 3			840		↓	↓	0.7'-0.8'- SAND (fine to coarse) trace fine gravel	SP		FID (H)=0.0 PID (H)=0.0
22								HSA and roller bit to 24' bgs No split spoons collected			
23								↓			
24								↓			
25	12 9	15	0.8 / 2.0			Medium Dense	Tan	0.0'-0.4' - SAND (fine to medium)	SP	Saturated	FID (S)=0.0 PID (S)=0.0
26	6 7			900	Silty Sand and Gravel	↓	Gray	0.4'-0.8' - SILTY SAND (fine) some fine and coarse gravel	SM		FID (H)=0.0 PID (H)=0.0
27								HSA and roller bit to 29' bgs No split spoons collected			
28								↓			
29								↓			
30	16 13	25	1.1 / 2.0			Medium Dense	Gray/ Tan	0.0'-0.7' - SAND (fine to medium) 0.7'-1.1' - SILTY SAND (fine to medium sand)	SP	Wet	FID (S)=0.0 PID (S)=0.0
31	12 50/5"				Till	↓		and fine and coarse gravel	SM	Till	FID (H)=0.0 PID (H)=0.0
32								HSA and roller bit to 34' bgs No split spoons collected			

TYPE OF DRILLING RIG:	CME 750X		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	Hollow Stem Auger with 4" Roller Bit		
METHOD OF SOIL SAMPLING:	Continuous 2" split spoons - 2' lengths - Top of ground to refusal (140lb. Hammer)/Shelby Tube		
METHOD OF ROCK CORING:	NA		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS::	(s) = screening (H) = headspace	BORING NO.:SB-103	PAGE: 2 OF 3

BORING LOG FOR:	West Gate Landfill	BORING NO.:	WGL-SB-103
PROJECT NO:	112G00864-0320	START DATE:	6/2/2009
LOGGED BY:	J. Traut	COMPLETION DATE:	6/3/2009
DRILLED BY (Company/Driller):	Dragin/M. Wilkey	MON. WELL NO.:	NA
GRD. SURFACE ELEVATION:		CHECKED BY:	D.Seiken

TRANSCRIBED BY: J. Traut

DEPTH (FEET)	BLOWS PER 6" NA	"N"-VALUE	SAMP REC./ SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG/WELL PROF'L	SOIL DENSITY/ CONSIS. OR ROCK HARD	CLR	MATERIAL CLASSIFICATION	USCS OR ROCK BRKN	REMARKS (moisture condition;odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [PID, FID, (PPM)]
					Till			HSA and roller bit to 34' bgs No split spoons collected			
34								↓			
35	20 50/3"		0.8 / 1.0	945				0.0'-0.8' - SAND (fine to coarse) some silt iron staining 0.6'-0.7'	SP		FID (S)=0.0 PID (S)=0.0
					E.O.B. at 35' bgs						FID (H)=0.0 PID (H)=0.0

TYPE OF DRILLING RIG:	CME 750X
METHOD OF ADVANCING BORING:	Hollow Stem Auger with 4" Roller Bit
METHOD OF SOIL SAMPLING:	Continuous 2" split spoons - 2' lengths - Top of ground to refusal (140lb. Hammer)/Shelby Tube
METHOD OF ROCK CORING:	NA
GROUNDWATER LEVELS:	
OTHER OBSERVATIONS::	(s) = screening (H) = headspace

Tetra Tech NUS, Inc.

BORING LOG FOR:	West Gate Landfill		BORING NO.: WGL-SB-104
PROJECT NO:	112G00864-0320		START DATE: 6/9/2009
LOGGED BY:	J. Traut	TRANSCRIBED BY:J. Traut	COMPLETION DATE: 6/9/2009
DRILLED BY (Company/Driller):	Dragin/M. Wilkey		MON. WELL NO.: NA
GRD. SURFACE ELEVATION:			CHECKED BY: D.Seiken

DEPTH (FEET)	BLOWS PER 6" NA	"N"-VALUE	SAMP REC./ SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG/WELL PROF'L	SOIL DENSITY/ CONSIS. OR ROCK HARD	CLR	MATERIAL CLASSIFICATION	USCS OR ROCK BRKN	REMARKS (moisture condition;odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [PID, FID, (PPM)]
0											
	1	4	0.5 / 2.0		Fill	Very Loose	Dark Brown	0.0'-0.5' - SAND (fine to medium) some fine and coarse gravel and silt, pieces of glass	SP	Moist	FID (S)=0.0
	2										PID (S)=0.0
	2										FID (H)=0.0
2	1			1235							PID (H)=0.0
	2	13	1.1 / 2.0		Silty Sand	Medium Dense	Tan	0.0'-0.3'- SILTY SAND (fine) peat like material	SM	Wet	FID (S)=0.0
	2							0.3'-0.6' - SILT, some fine sand and fine gravel			PID (S)=0.0
	11				Sand and Gravel			trace clay			FID (H)=0.0
4	10			1305				0.6'-1.1' - SAND (fine to coarse) and gravel (fine to coarse)	SP		PID (H)=0.0
	4	9	0.4 / 2.0			Loose		0.0'-0.4' - SAND AND GRAVEL (fine and coars		Saturated	FID (S)=0.0
	4										PID (S)=0.0
	5										FID (H)=0.0
6	4			1310							PID (H)=0.0
	4	10	0.7 / 2.0					0.0'-0.7' - SAND (fine to coarse) some gravel (fine and coarse)		Saturated	FID (S)=0.0
	4										PID (S)=0.0
	6										FID (H)=0.0
8	4			1315							PID (H)=0.0
	2	6	0.7 / 2.0					0.0'-0.4' - SAND (mostly fine to medium some coarse)		Saturated	FID (S)=0.0
	2										PID (S)=0.0
	4							0.4'-0.7' - SAND (fine to coarse) iron staining			FID (H)=0.0
10	5			1320							PID (H)=0.0
	2	7	0.5 / 2.0				Orange-Tan	0.0'-0.5' - SAND (fine to coarse) and gravel (fin		Saturated	FID (S)=0.0
	3							and coarse) iron staining			PID (S)=0.0
	4										FID (H)=0.0
12	4			1325							PID (H)=0.0
	2	9	0.4 / 2.0					0.0'-0.4' - SAND (fine to coarse), trace fine and coarse gravel		Saturated	FID (S)=0.0
	6										PID (S)=0.0
	3										FID (H)=0.0
14	1			1335							PID (H)=0.0
	3	5	0.6 / 2.0					0.0'-0.6' - SAND (fine to coarse)		Saturated	FID (S)=0.0
	3										PID (S)=0.0
	2			WGL-SO-SB104-1416							FID (H)=0.0
16	4			1340							PID (H)=0.0

TYPE OF DRILLING RIG:	CME 750X		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	Hollow Stem Auger with 4" Roller Bit		
METHOD OF SOIL SAMPLING:	Continuous 2" split spoons - 2' lengths - Top of ground to refusal (140lb. Hammer)		
METHOD OF ROCK CORING:	NA		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS::	(s) = screening (H) = headspace	BORING NO.: SB - 104	PAGE: 1 OF 2

BORING LOG FOR:	West Gate Landfill		BORING NO.: WGL-SB-104
PROJECT NO:	112G00864-0320		START DATE: 6/9/2009
LOGGED BY:	J. Traut	TRANSCRIBED BY: J. Traut	COMPLETION DATE: 6/9/2009
DRILLED BY (Company/Driller):	Dragin/M. Wilkey		MON. WELL NO.: NA
GRD. SURFACE ELEVATION:			CHECKED BY: D.Seiken

DEPTH (FEET)	BLOWS PER 6" NA	"N"-VALUE	SAMP REC./ SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG/WELL PROF'L	SOIL DENSITY/ CONSIS. OR ROCK HARD	CLR	MATERIAL CLASSIFICATION	USCS OR ROCK BRKN	REMARKS (moisture condition;odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [PID, FID, (PPM)]
17					Sand and Gravel			HSA and roller bit to 19' bgs No split spoons collected			
18								↓			
19								↓			
20	2 3	7	0.7 / 2.0	WGL-SO-SB104-1921		Loose		0.0'-0.4' - SAND (fine) 0.4'-0.7' - SAND (fine to coarse) and gravel	SW	Wet	FID (S)=0.0 PID (S)=0.0
21	4 7			1345				(fine and coarse)	SP		FID (H)=0.0 PID (H)=0.0
22								HSA and roller bit to 24' bgs No split spoons collected			
23								↓			
24								↓			
25								Cobble at 24' pushed through to 25' bgs		Saturated	FID (S)=0.0 PID (S)=0.0
26	5 7	15	1.1 / 2.0			Medium Dense		0.0'-1.1' SAND (fine to coarse) and gravel (fine and coarse)	SP GP		FID (H)=0.0 PID (H)=0.0
27	8 9			1355				0.5'-0.8' - layer of fine and coarse gravel some fine to coarse sand	SP		
28								HSA and roller bit to 30' bgs No split spoons collected			
29								↓			
30								↓			FID (S)=NR PID (S)=NR
31	50/5"		0.5 / 0.5		E.O.B at 30.5' bgs		Gray/Tan	0.0'-0.3' - SILTY SAND (fine) 0.3'-0.5' - SAND (fine to medium) pieces of	SM	Dry - Top of Rock	FID (H)=NR PID (H)=NR
32								granite			

TYPE OF DRILLING RIG:	CME 750X		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	Hollow Stem Auger with 4" Roller Bit		
METHOD OF SOIL SAMPLING:	Continuous 2" split spoons - 2' lengths - Top of ground to refusal (140lb. Hammer)		
METHOD OF ROCK CORING:	NA		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS::	(s) = screening (H) = headspace	BORING NO.: SB-104	PAGE: 2 OF 2

BORING LOG FOR:	West Gate Landfill	BORING NO.:	WGL-SB-105
PROJECT NO:	112G00864-0320	START DATE:	6/9/2009
LOGGED BY:	J. Traut	COMPLETION DATE:	6/9/2009
DRILLED BY (Company/Driller):	Dragin/M. Wilkey	MON. WELL NO.:	NA
GRD. SURFACE ELEVATION:		CHECKED BY:	D.Seiken

TRANSCRIBED BY:J. Traut

DEPTH (FEET)	BLOWS PER 6" NA	"N"-VALUE	SAMP REC./ SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG/WELL PROF'L	SOIL DENSITY/ CONSIS. OR ROCK HARD	CLR	MATERIAL CLASSIFICATION	USCS OR ROCK BRKN	REMARKS (moisture condition;odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [PID, FID, (PPM)]
0											
	4	8	0.3 / 2.0		Fill	Loose	Dark Brown	0.0'-0.3' - SAND (fine to medium) wood chips	SP	Dry	FID (S)=0.0
	4										PID (S)=0.0
	4										FID (H)=0.0
2	4			845							PID (H)=0.0
	4	6	0.6 / 2.0					0.0'-0.2' - Large wood chunk 0.2'-0.6' - SAND (fine to medium) trace silt,		Dry- Moist	FID (S)=0.0
	4										PID (S)=0.0
	2							trace coarse gravel, pieces of glass		Glass - FILL	FID (H)=0.2
4	1			850							PID (H)=0.0
	2	13	1.4 / 2.0			Medium Dense	Dk. Brown Tan	0.0'-0.4' - Similar to above, glass pieces 0.4'-0.8' - SILTY SAND (fine sand)	SW SP	Moist	FID (S)=0.0
	2										PID (S)=0.0
	11				Sand and Gravel			0.8'-1.4' - SAND (fine to coarse) and gravel (fine and coarse)		Wet	FID (H)=0.3
6	19			900							PID (H)=0.0
	4	16	1.1 / 2.0				Gray/ Tan	0.0'-1.1' - SAND (fine to coarse) and gravel (fine and coarse)		Saturated	FID (S)=0.0
	8										PID (S)=0.0
	8			WGL-SO-SB105-0608							FID (H)=0.3
8	12			910							PID (H)=0.0
	7	15	0.2 / 2.0					0.0'-0.2' Similar to above		Saturated	FID (S)=0.0
	9										PID (S)=0.0
	6										FID (H)=0.1
10	6			915							PID (H)=0.0
	3	12	0.8 / 2.0					0.0'-0.8' - Similar to above iron staining 0.7'-0.8'		Saturated	FID (S)=0.0
	4										PID (S)=0.0
	8										FID (H)=0.4
12	9			920							PID (H)=0.0
	7	10	0.1 / 2.0					0.0'-0.1' - Similar to above, coarser materials		Saturated	FID (S)=NR
	5										PID (S)=NR
	5										FID (H)=NR
14	7			928							PID (H)=NR
	3	9	0.7 / 2.0		Sand	Loose	Tan	0.0'-0.7' - SAND (fine to coarse) trace fine gravel		Saturated	FID (S)=0.0
	5										PID (S)=0.0
	4										FID (H)=0.0
16	5			935							PID (H)=0.0

TYPE OF DRILLING RIG:	CME 750X		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	Hollow Stem Auger with 4" Roller Bit		
METHOD OF SOIL SAMPLING:	Continuous 2" split spoons - 2' lengths - Top of ground to refusal (140lb. Hammer)		
METHOD OF ROCK CORING:	NA		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS::	(s) = screening (H) = headspace	BORING NO.: SB - 105	PAGE: 1 OF 2

BORING LOG FOR:	West Gate Landfill		BORING NO.: WGL-SB-105
PROJECT NO:	112G00864-0320		START DATE: 6/9/2009
LOGGED BY:	J. Traut	TRANSCRIBED BY J. Traut	COMPLETION DATE: 6/9/2009
DRILLED BY (Company/Driller):	Dragin/M. Wilkey		MON. WELL NO.: NA
GRD. SURFACE ELEVATION:			CHECKED BY: D.Seiken

DEPTH (FEET)	BLOWS PER 6" NA	"N"-VALUE	SAMP REC./ SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG/WELL PROF'L	SOIL DENSITY/ CONSIS. OR ROCK HARD	CLR	MATERIAL CLASSIFICATION	USCS OR ROCK BRKN	REMARKS (moisture condition;odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [PID, FID, (PPM)]
17					Sand			HSA and roller bit to 19' bgs No split spoons collected			
18								↓			
19								↓			
20	2 3	5	0.9 / 2.0	WGL-SO-SB105-1921 940	Sand and Gravel	Loose	Gray/Tan	0.0'-0.7' - SAND (fine) some silt 0.7'-0.9' - SAND (fine to medium), trace coarse	SM	Saturated	FID (S)=0.0 PID (S)=0.0
21	2 3					↓	↓	sand and fine gravel	SP		FID (H)=0.0 PID (H)=0.0
22								HSA and roller bit to 24' bgs No split spoons collected			
23								↓			
24								↓			
25	6 8	14	0.9 / 2.0	955		Medium Dense	Tan	0.0'-0.9' - SAND (fine to coarse) and gravel (fine and coarse)	SP	Saturated	FID (S)=0.0 PID (S)=0.0
26	6 11					↓	↓				FID (H)=0.0 PID (H)=0.0
27								HSA and roller bit to 29' bgs No split spoons collected			
28								↓			
29								↓			
30	50/2"		0.2 / 0.2	1020	Till E.O.B. at 29.5' bgs		Tan	0.0'-0.2' - SILTY SAND (fine sand) some medium to coarse sand some fine and coarse	SM	Till Auger refusal	FID (S)=0.0 PID (S)=0.0
31								gravel			FID (H)=0.0 PID (H)=0.0
32											

TYPE OF DRILLING RIG:	CME 750X		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	Hollow Stem Auger with 4" Roller Bit		
METHOD OF SOIL SAMPLING:	Continuous 2" split spoons - 2' lengths - Top of ground to refusal (140lb. Hammer)		
METHOD OF ROCK CORING:	NA		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS::	(s) = screening (H) = headspace	BORING NO.: SB - 105	PAGE: 2 OF 2

BORING LOG FOR:	West Gate Landfill		BORING NO.: WGL-SB-106
PROJECT NO:	112G00864-0320		START DATE: 6/4/2009
LOGGED BY:	J. Traut	TRANSCRIBED BY:J. Traut	COMPLETION DATE: 6/4/2009
DRILLED BY (Company/Driller):	Dragin/M. Wilkey		MON. WELL NO.: NA
GRD. SURFACE ELEVATION:			CHECKED BY: D.Seiken

DEPTH (FEET) 0	BLOWS PER 6" NA	"N"-VALUE	SAMP REC./ SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG/WELL PROF'L	SOIL DENSITY/ CONSIS. OR ROCK HARD	CLR	MATERIAL CLASSIFICATION	USCS OR ROCK BRKN	REMARKS (moisture condition;odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [PID, FID, (PPM)]
	9	16	0.6 / 2.0			Medium Dense	Brown	0.0'-0.3' - SAND (Fine to medium) trace fine gravel	SP	Dry	FID (S)=0.0
	9										PID (S)=0.0
	7						White	0.3'-0.6' - broken/crushed rock			FID (H)=0.0
2	5			815							PID (H)=0.0
	2	18	1.4 / 2.0				Gray Tan	0.0'-0.5' - SAND and GRAVEL (fine to coarse sand, fine and coarse gravel)	PT	Dry	FID (S)=0.0
	3				Peat						PID (S)=0.0
	15						Dk. Brown Tan	0.5'-0.7' - PEAT 0.7'-1.4' - Similar to 0.0'-0.5'	SP		FID (H)=0.0
4	16			820							PID (H)=0.0
	11	31	1.3 / 2.0			Dense	Brown Tan	0.0'-1.3' - Similar to above		Dry	FID (S)=0.0
	14										PID (S)=0.0
	17										FID (H)=0.0
6	20			835							PID (H)=0.0
	28	49	0.9 / 2.0		Sand and Gravel			0.0'-0.9' - Similar to above cobble in shoe		Dry	FID (S)=0.0
	27										PID (S)=0.0
	22										FID (H)=0.0
8	23			850							PID (H)=0.0
	17	18	0.8 / 2.0			Medium Dense		0.0'-0.8' - Similar to above (mostly fine to medium sand) large cobbles at 0.5' and 0.6'			FID (S)=0.0
	10										PID (S)=0.0
	8										FID (H)=0.0
10	9			900						Wet at bottom 0.1'	PID (H)=0.0
	5	6	1.0 / 2.0			Loose		0.0'-0.6' Similar to above 0.6'-1.0' - SAND (fine to medium)		Saturated	FID (S)=0.0
	4										PID (S)=0.0
	2										FID (H)=0.4
12	2			925							PID (H)=0.0
	2	8	0.8 / 2.0					0.0'-0.6' - Similar to above 0.6'-0.8' - SAND (fine to coarse) and gravel		Saturated	FID (S)=0.0
	2										PID (S)=0.0
	5							(fine and coarse)			FID (H)=0.4
14	13			935							PID (H)=0.0
	2	4	0.6 / 2.0					0.0'-0.6' - Similar to above		Saturated	FID (S)=0.0
	2										PID (S)=0.0
	2										FID (H)=0.0
16	3			945							PID (H)=0.0

TYPE OF DRILLING RIG:	CME 750X		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	Hollow Stem Auger with 4" Roller Bit		
METHOD OF SOIL SAMPLING:	Continuous 2" split spoons - 2' lengths - Top of ground to refusal (140lb. Hammer)		
METHOD OF ROCK CORING:	NA		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS::	(s) = screening (H) = headspace	BORING NO.: SB - 106	PAGE: 1 OF 2

BORING LOG FOR:	West Gate Landfill		BORING NO.: WGL-SB-106
PROJECT NO:	112G00864-0320		START DATE: 6/4/2009
LOGGED BY:	J. Traut	TRANSCRIBED BY: L. Homoleski	COMPLETION DATE: 6/4/2009
DRILLED BY (Company/Driller):	Dragin/M. Wilkey		MON. WELL NO.: NA
GRD. SURFACE ELEVATION:			CHECKED BY: D.Seiken

DEPTH (FEET)	BLOWS PER 6" NA	"N"-VALUE	SAMP REC./ SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG/WELL PROF'L	SOIL DENSITY/ CONSIS. OR ROCK HARD	CLR	MATERIAL CLASSIFICATION	USCS OR ROCK BRKN	REMARKS (moisture condition;odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [PID, FID, (PPM)]
17					Sand and Gravel			HSA and roller bit to 19' bgs No split spoons collected			
18								↓			
19								↓			
20	5 5	9	0.9 / 2.0	WGL-SO-SB106-1921955	Silty Clay	Loose/ Soft	Tan/Brown Orange	0.0'-0.4' - SAND (fine to coarse) and GRAVEL (fine)	SP	Saturated iron staining 0.3'-0.5'	FID (S)=NR PID (S)=NR
21	4 5				Silty Sand	↓	Gray Tan	0.4'-0.6' - SILTY CLAY 0.6'-0.9' SILTY SAND (fine sand)	CL SM		FID (H)=NR PID (H)=NR
22								HSA and roller bit to 24' bgs No split spoons collected			
23								↓			
24								↓			
25	10 18	39	1.4 / 2.0	WGL-SO-SB106-2426 1010	Till	Dense	Gray/Tan	0.0'-1.1' - SAND (fine to coarse) and gravel (fine and coarse) coarser between 0.6'-1.1'	SP	Till	FID (S)=0.0 PID (S)=0.0
26	21 31					↓	↓	1.1'-1.4' - SILTY SAND (fine), some fine and coarse gravel	SM		FID (H)=0.2 PID (H)=0.0
27								HSA and roller bit to 29' bgs No split spoons collected			
28								↓			
29								↓			
30	50/5"		0.3 / 0.5	1030	E.O.B. at 29.5' bgs		Gray/Tan	0.0'-0.3' SILTY SAND (fine sand) some fine and coarse gravel, granite in shoe	SM	Till/top of weathered rock	FID (S)=0.0 PID (S)=0.0
31								Refusal at 29.5'bgs			FID (H)=0.1 PID (H)=0.0
32											

TYPE OF DRILLING RIG:	CME 750X		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	Hollow Stem Auger with 4" Roller Bit		
METHOD OF SOIL SAMPLING:	Continuous 2" split spoons - 2' lengths - Top of ground to refusal (140lb. Hammer)		
METHOD OF ROCK CORING:	NA		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS::	(s) = screening (H) = headspace	BORING NO.: SB - 106	PAGE: 2 OF 2

BORING LOG FOR:	West Gate Landfill		BORING NO.: WGL-SB-107
PROJECT NO:	112G00864-0320		START DATE: 6/8/2009
LOGGED BY:	J. Traut	TRANSCRIBED BY:J. Traut	COMPLETION DATE: 6/8/2009
DRILLED BY (Company/Driller):	Dragin/M. Wilkey		MON. WELL NO.: NA
GRD. SURFACE ELEVATION:			CHECKED BY: D.Seiken

DEPTH (FEET)	BLOWS PER 6" NA	"N"-VALUE	SAMP REC./ SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG/WELL PROF'L	SOIL DENSITY/ CONSIS. OR ROCK HARD	CLR	MATERIAL CLASSIFICATION	USCS OR ROCK BRKN	REMARKS (moisture condition;odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [PID, FID, (PPM)]
0											
	2	14	0.8 / 2.0		Sand and Gravel	Medium Dense	Dark Brown	0.0'-0.8' - SAND (fine to medium) some gravel (fine and coarse), trace silt	SP	Dry	FID (S)=0.0
	4										PID (S)=0.0
	10										FID (H)=0.0
2	8			1230							PID (H)=0.0
	3	21	1.1 / 2.0				Tan	0.0'-0.3' - Similar to above 0.3'-1.1' - SAND (fine to coarse), some gravel		Dry	FID (S)=0.0
	11										PID (S)=0.0
	18							(fine and coarse)			FID (H)=0.4
4	21			1235							PID (H)=0.0
	13	34	1.0 / 2.0			Dense		0.0'-0.7' - Similar to above, large cobble 0.2'-0.4' 0.7'-1.0' - Similar to above, increase in coarse		Dry	FID (S)=0.0
	38										PID (S)=0.0
	30							sand			FID (H)=0.0
6	32			1245						Moist	PID (H)=0.0
	40	80	1.3 / 2.0			Very Dense	Tan/	0.0'-0.3' - SAND (mostly fine to medium) and gravel (fine and coarse), trace silt		Saturated	FID (S)=0.0
	47										PID (S)=0.0
	33			WGL-SO-SB107-0608			Dk. Brown	0.3'-1.3' - SAND (fine to coarse) and gravel (fine and coarse)		Dark/iron staining from 0.3'-1.3'	FID (H)=0.0
8	23			1300							PID (H)=0.0
	11	20	0.3 / 2.0			Medium Dense	Orangish Tan	0.0'-0.3' - Similar to above		Saturated	FID (S)=0.0
	11										PID (S)=0.0
	9										FID (H)=0.0
10	8			1310							PID (H)=0.0
	2	8	0.8 / 2.0			Loose	Gray Tan	0.0'-0.8' - Similar to above, iron staining at 0.5' - 0.7'			FID (S)=0.0
	3										PID (S)=0.0
	5										FID (H)=0.0
12	7			1320							PID (H)=0.0
								HSA and roller bit to 14' bgs No split spoons collected			
14											
	2	2	0.0 / 2.0			Very Loose		No recovery			FID (S)=0.0
	2										PID (S)=0.0
	2										FID (H)=0.0
16	2			1325							PID (H)=0.0

TYPE OF DRILLING RIG:	CME 750X		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	Hollow Stem Auger with 4" Roller Bit		
METHOD OF SOIL SAMPLING:	Continuous 2" split spoons - 2' lengths - Top of ground to refusal (140lb. Hammer)		
METHOD OF ROCK CORING:	NA		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS::	(s) = screening (H) = headspace	BORING NO.: SB - 107	PAGE: 1 OF 2

BORING LOG FOR:	West Gate Landfill		BORING NO.: WGL-SB-107
PROJECT NO:	112G00864-0320		START DATE: 6/8/2009
LOGGED BY:	J. Traut	TRANSCRIBED BY: J. Traut	COMPLETION DATE: 6/8/2009
DRILLED BY (Company/Driller):	Dragin/M. Wilkey		MON. WELL NO.: NA
GRD. SURFACE ELEVATION:			CHECKED BY: D.Seiken

DEPTH (FEET)	BLOWS PER 6" NA	"N"-VALUE	SAMP REC./ SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG/WELL PROF'L	SOIL DENSITY/ CONSIS. OR ROCK HARD	CLR	MATERIAL CLASSIFICATION	USCS OR ROCK BRKN	REMARKS (moisture condition;odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [PID, FID, (PPM)]
17					Sand and Gravel			HSA and roller bit to 19' bgs No split spoons collected			
18								↓			
19								↓			
20	8 32	39	0.8 / 2.0	WGL-SO-SB107-1921 1345		Dense	Gray/Tan	0.0'-0.4' SILTY SAND (fine), trace caly	SM	Saturated	FID (S)=0.0 PID (S)=0.0
21	7 7					↓	Tan	0.4'-0.8' - SAND (fine to coarse), some fine and coarse gravel, layer of silty sand at 0.7'	SP	cobble in shoe Wet	FID (H)=0.0 PID (H)=0.0
22								HSA and roller bit to 24' bgs No split spoons collected			
23								↓			
24								↓			
25	40 28		0.4 / 2.0			Dense	Tan	0.0'-0.4' - SAND (fine to coarse) and gravel (fine and coarse) pushed cobble	SP		FID (S)=0.0 PID (S)=0.0
26	18 20			1425		↓	↓		↓		FID (H)=0.0 PID (H)=0.0
27	25 48		1.0 / 1.0	1435	Till			0.0'-0.5'- Similar to above 0.5'-1.0' - SILTY SAND (fine sand, some medium to coarse) and gravel (fine and coarse)	↓ SM	TILL	FID (S)=0.0 PID (S)=0.0
28	50/4"		0.2 / 0.5	1500	E.O.B. at 27.5' bgs		↓	0.0'-0.2' - SAND (fine to coarse) and gravel (fine and coarse), granite pieces in shoe		Top of Rock	FID (H)=0.0 PID (H)=0.0

TYPE OF DRILLING RIG:	CME 750X		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	Hollow Stem Auger with 4" Roller Bit		
METHOD OF SOIL SAMPLING:	Continuous 2" split spoons - 2' lengths - Top of ground to refusal (140lb. Hammer)		
METHOD OF ROCK CORING:	NA		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS::	(s) = screening (H) = headspace	BORING NO.: SB - 107	PAGE: 2 OF 2

BORING LOG FOR:	West Gate Landfill		BORING NO.: WGL-SB-108
PROJECT NO:	112G00864-0320		START DATE: 6/3/2009
LOGGED BY:	J. Traut	TRANSCRIBED BY:J. Traut	COMPLETION DATE: 6/3/2009
DRILLED BY (Company/Driller):	Dragin/M. Wilkey		MON. WELL NO.: NA
GRD. SURFACE ELEVATION:			CHECKED BY: B. Geringer

DEPTH (FEET)	BLOWS PER 6" NA	"N"-VALUE	SAMP REC./ SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG/WELL PROF'L	SOIL DENSITY/ CONSIS. OR ROCK HARD	CLR	MATERIAL CLASSIFICATION	USCS OR ROCK BRKN	REMARKS (moisture condition;odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [PID, FID, (PPM)]
0											
	2	10	1.0 / 2.0		Fill	Loose	Brown	0.0'-1.0' SAND (fine to medium), trace fine gravel	SP	Dry	FID (S)=0.0
	4										PID (S)=0.0
	6							drove cobble in shoe			FID (H)=6.4
2	7			1255							PID (H)=1.4
	2	6	1.7 / 2.0				Tan/Lt. Brown	0.0'-1.0' - SAND (fine to medium)		Dry-Moist	FID (S)=0.0
	3							1.0'-1.7' SAND (fine to medium) some gravel			PID (S)=0.0
	3							(fine and coarse), some silt, black layer at 0.2'			FID (H)=0.0
4	5			1300				wood chips at 1.6'-1.7'			PID (H)=0.0
	4	3	0.4 / 2.0				Gray	0.0'-0.2' - Similar to above		Moist	FID (S)=0.0
	1						Dk. Brown	0.2'-0.4' - PEAT, wood chips	PT		PID (S)=0.0
	2										FID (H)=0.0
6	2			1310							PID (H)=0.0
	WOH	0	/		Organic Peat	Soft		Shelby tube advance to approximately 8'bgs		Damp	FID (S)=NR
								Poor recovery - PEAT			PID (S)=NR
											FID (H)=NR
8				1315							PID (H)=NR
	WOH	0	/					Pushed Shelby Tube again			FID (S)=NR
								Went down easily - no recovery			PID (S)=NR
											FID (H)=NR
10				1320							PID (H)=NR
	1	2	2.0 / 2.0	WGL-SO-SB108-0911			Dk Brown	0.0'-1.7' - PEAT, wood chips, roots		Wet	FID (S)=1.0
	1							1.7'-1.9' - PEAT, some silt			PID (S)=0.0
	1							1.9'-2.0' - PEAT, some silt and fine sand			FID (H)=135.5
12	2			1340			Gray Brown				PID (H)=0.0
	WOH	27	1.6 / 2.0			Medium Dense	Dk. Brown	0.0'-0.4' - PEAT, similar to above		Saturated	FID (S)=0.0
	12						Gray	0.4'-0.9' - SILT and CLAY	CL		PID (S)=0.0
	15				Sand and Gravel		Tan	0.9'-1.6' - SAND and GRAVEL (mostly coarse	SP		FID (H)=3.5
14	16			1345				sand, fine and coarse gravel)			PID (H)=0.0
	9	23	0.3 / 2.0			Medium Dense/		0.0'-0.1' - SAND (fine to coarse)	SP	Saturated	FID (S)=0.0
	11							0.1'-0.2' - CLAY and SILT	CL		PID (S)=0.0
	12					Medium Stiff		0.2'-0.3' - PEAT (possibly washed in)	PT		FID (H)=10.0
16	13			1400							PID (H)=0.0

TYPE OF DRILLING RIG:	CME 750X
METHOD OF ADVANCING BORING:	Hollow Stem Auger with 4" Roller Bit
METHOD OF SOIL SAMPLING:	Continuous 2" split spoons - 2' lengths - Top of ground to refusal (140lb. Hammer)/Shelby Tube
METHOD OF ROCK CORING:	NA
GROUNDWATER LEVELS:	
OTHER OBSERVATIONS::	

Tetra Tech NUS, Inc.

BORING LOG FOR:	West Gate Landfill		BORING NO.: WGL-SB-108
PROJECT NO:	112G00864-0320		START DATE: 6/3/2009
LOGGED BY:	J. Traut	TRANSCRIBED BY: J. Traut	COMPLETION DATE: 6/3/2009
DRILLED BY (Company/Driller):	Dragin/M. Wilkey		MON. WELL NO.: NA
GRD. SURFACE ELEVATION:			CHECKED BY: D.Seiken

DEPTH (FEET)	BLOWS PER 6" NA	"N"-VALUE	SAMP REC./ SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG/WELL PROF'L	SOIL DENSITY/ CONSIS. OR ROCK HARD	CLR	MATERIAL CLASSIFICATION	USCS OR ROCK BRKN	REMARKS (moisture condition;odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [PID, FID, (PPM)]
17					Sand and Gravel			HSA and roller bit to 19' bgs No split spoons collected			
18								↓			
19								↓			
20	10 10	19	0.4 / 2.0			Medium Dense	Tan	0.0'-0.4' - SAND (fine to coarse) and gravel (fine and coarse) subrounded to subangular	SP	Saturated	FID (S)=0.0 PID (S)=0.0
21	9 10			1405		↓	↓		↓		FID (H)=0.2 PID (H)=0.0
22								HSA and roller bit to 24' bgs No split spoons collected			
23								↓			
24								↓			
25	3 3	6	0.7 / 2.0		Sand	Loose	Tan	0.0'-0.7' - SAND (fine to coarse)	SP	Saturated	FID (S)=0.0 PID (S)=0.0
26	3 5			1415		↓	↓	↓	↓		FID (H)=0.0 PID (H)=0.0
27								HSA and roller bit to 29' bgs No split spoons collected			
28								↓			
29								↓			
30	2 2	5	1.1 / 2.0		Silty Sand	Loose	Gray	0.0'-1.1' SILTY SAND (fine sand) iron staining 0.9'-1.1'	SM	Wet	FID (S)=0.0 PID (S)=0.0
31	3 5			WGL-SO-SB108-2931 1430		↓	Orange/ Gray		↓		
32								HSA and roller bit to 34' bgs No split spoons collected			

TYPE OF DRILLING RIG:	CME 750X		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	Hollow Stem Auger with 4" Roller Bit		
METHOD OF SOIL SAMPLING:	Continuous 2" split spoons - 2' lengths - Top of ground to refusal (140lb. Hammer)/Shelby Tube		
METHOD OF ROCK CORING:	NA		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS::	(s) = screening (H) = headspace	BORING NO.: SB - 108	PAGE: 2 OF 3

BORING LOG FOR:	West Gate Landfill		BORING NO.: WGL-SB-108
PROJECT NO:	112G00864-0320		START DATE: 6/3/2009
LOGGED BY:	J. Traut	TRANSCRIBED BY: L. Homoleski	COMPLETION DATE: 6/3/2009
DRILLED BY (Company/Driller):	Dragin/M. Wilkey		MON. WELL NO.: NA
GRD. SURFACE ELEVATION:			CHECKED BY: D.Seiken

DEPTH (FEET)	BLOWS PER 6" NA	"N"-VALUE	SAMP REC./ SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG/WELL PROF'L	SOIL DENSITY/ CONSIS. OR ROCK HARD	CLR	MATERIAL CLASSIFICATION	USCS OR ROCK BRKN	REMARKS (moisture condition;odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [PID, FID, (PPM)]
33								HSA and roller bit to 34' bgs No split spoons collected			
34								↓			
35	36 20	38	1.5 2.0			Dense	Tan	0.0'-0.9' - SAND (fine to coarse)	SP		FID (S)=0.0 PID (S)=0.0
36	18 25			1445	Till	↓	↓	0.9'-1.5' - SAND (fine to coarse), some silt, some fine and coarse gravel	↓	Till	FID (H)=0.2 PID (H)=0.0
					E.O.B. at 36' bgs			E.O.B			

TYPE OF DRILLING RIG:	CME 750X		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	Hollow Stem Auger with 4" Roller Bit		
METHOD OF SOIL SAMPLING:	Continuous 2" split spoons - 2' lengths - Top of ground to refusal (140lb. Hammer)/Shelby Tube		
METHOD OF ROCK CORING:	NA		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS::	(s) = screening (H) = headspace	BORING NO.: SB - 108	PAGE: 3 OF 3

BORING LOG FOR:	West Gate Landfill		BORING NO.: WGL-SB-109
PROJECT NO:	112G00864-0320		START DATE: 6/8/2009
LOGGED BY:	J. Traut	TRANSCRIBED BY:J. Traut	COMPLETION DATE: 6/8/2009
DRILLED BY (Company/Driller):	Dragin/M. Wilkey		MON. WELL NO.: NA
GRD. SURFACE ELEVATION:			CHECKED BY: D.Seiken

DEPTH (FEET) 0	BLOWS PER 6" NA	"N"-VALUE	SAMP REC./ SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG/WELL PROF'L	SOIL DENSITY/ CONSIS. OR ROCK HARD	CLR	MATERIAL CLASSIFICATION	USCS OR ROCK BRKN	REMARKS (moisture condition;odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [PID, FID, (PPM)]
	4	9	1.0 / 2.0		Fill	Loose	Dark Brown	0.0'-1.0' - SAND (fine to medium) cobble at 0.5', orange fine-medium sand layer at 0.6'	SP	Dry	FID (S)=0.0
	4										PID (S)=0.0
	5										FID (H)=0.0
2	6			820							PID (H)=0.0
	3	10	1.4 / 2.0					0.0'-0.7' - Similar to above, trace silt and fine and coarse gravel		Dry	FID (S)=0.0
	3										PID (S)=0.0
	7						Tan brown	0.7'-1.2' - SAND (fine to medium)		Glass-clear - Fill	FID (H)=0.0
4	8			825			Dk. Brown	1.2'-1.4' - SILTY SAND (fine to medium), glass			PID (H)=0.0
	5	9	1.5 / 2.0				Black	0.0'-0.2' - Asphalt	SM	Moist- Wet	FID (S)=0.0
	6				Silty Sand		Dk. Brown	0.2'-1.5' SILTY SAND (fine, some medium),			PID (S)=0.0
	3						Tan brown	trace fine and coarse gravel			FID (H)=0.8
6	5			835	Sand and Gravel		Gray Tan				PID (H)=0.0
	4	46	0.2 / 2.0			Dense	Dark Brown	0.0'-0.2' - SAND (fine to coarse) and GRAVEL (fine and coarse), trace silt	SP	Saturated	FID (S)=0.0
	14										PID (S)=0.0
	32										FID (H)=1.6
8	42			845							PID (H)=0.0
	7	23	1.5 / 2.0			Medium Dense		0.0'-0.6' - SILTY SAND (Fine to medium), some fine and coarse gravel	SM SP	Saturated	FID (S)=0.0
	10										PID (S)=0.0
	13			WGL-SO-SB109-0810			Tan	0.6'-1.5' - SAND (fine to coarse) and GRAVEL (fine and coarse)			FID (H)=2.3
10	15			850							PID (H)=0.0
	5	8	0.9 / 2.0			Loose		0.0'-0.3' - Similar to above		Wet	FID (S)=0.0
	4							0.3'-0.9' - SAND (fine to medium) trace coarse			PID (S)=0.0
	4							sand, trace fine and coarse gravel			FID (H)=0.7
12	5			855							PID (H)=0.1
	5	7	0.4 / 2.0					0.0'-0.4' - SAND (mostly fine to medium, some coarse), some fine and coarse gravel		Wet	FID (S)=0.0
	4										PID (S)=0.0
	3							rounded to subangular			FID (H)=0.2
14	3			915							PID (H)=0.0
	4	6	0..4 / 2.0					0.0'-0.4' - Similar to above, trace coarse sand		Wet	FID (S)=0.0
	3										PID (S)=0.0
	3										FID (H)=0.0
16	2			920							PID (H)=0.0

TYPE OF DRILLING RIG:	CME 750X		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	Hollow Stem Auger with 4" Roller Bit		
METHOD OF SOIL SAMPLING:	Continuous 2" split spoons - 2' lengths - Top of ground to refusal (140lb. Hammer)		
METHOD OF ROCK CORING:	NA		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS::	(s) = screening (H) = headspace	BORING NO.: SB - 109	PAGE: 1 OF 2

BORING LOG FOR:	West Gate Landfill		BORING NO.: WGL-SB-109
PROJECT NO:	112G00864-0320		START DATE: 6/8/2009
LOGGED BY:	J. Traut	TRANSCRIBED BY: J. Traut	COMPLETION DATE: 6/8/2009
DRILLED BY (Company/Driller):	Dragin/M. Wilkey		MON. WELL NO.: NA
GRD. SURFACE ELEVATION:			CHECKED BY: D.Seiken

DEPTH (FEET)	BLOWS PER 6" NA	"N"-VALUE	SAMP REC./ SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG/WELL PROF'L	SOIL DENSITY/ CONSIS. OR ROCK HARD	CLR	MATERIAL CLASSIFICATION	USCS OR ROCK BRKN	REMARKS (moisture condition;odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [PID, FID, (PPM)]
17					Sand and Gravel			HSA and roller bit to 19' bgs No split spoons collected			
18								↓			
19								↓			
20	3 4	9	1.1 / 2.0	WGL-SO-SB109-1921	Sand	Loose	Tan	0.0'-1.1' - SAND (fine to medium), trace coarse sand	SP	Wet	FID (S)=0.0 PID (S)=0.0
21	5 7			935		↓	↓	0.1'-0.2' layer of silty fine sand, trace clay	↓		FID (H)=0.0 PID (H)=0.0
22								HSA and roller bit to 24' bgs No split spoons collected			
23								↓			
24								↓			
25	24 29	42	0.8 / 2.0		Silty Sand and Gravel (Till)	Dense	Tan	0.0'-0.3' - SAND (Fine to coarse) and GRAVEL (fine and coarse)	SP		FID (S)=0.0 PID (S)=0.0
26	13 14			945		↓	↓	0.3'-0.8' - SILTY SAND (Fine) and GRAVEL (fine and coarse), some medium to coarse sand	GM	Till	FID (H)=0.0 PID (H)=0.0
27											
28											
29											
30	50/5"		0.3 / 0.5	1005	E.O.B. at 29.5' bgs		Tan	0.0'-0.3' - Similar to above Granite cobble in tip of shoe	GM	Top of Rock	
31											
32											

TYPE OF DRILLING RIG:	CME 750X		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	Hollow Stem Auger with 4" Roller Bit		
METHOD OF SOIL SAMPLING:	Continuous 2" split spoons - 2' lengths - Top of ground to refusal (140lb. Hammer)		
METHOD OF ROCK CORING:	NA		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS::	(s) = screening (H) = headspace	BORING NO.: SB -109	PAGE: 2 OF 2

APPENDIX A-7
SOIL SAMPLE LOG SHEETS
SOUTH WEYMOUTH NAS SOUTH GATE LANDFILL
PRE-REMEDIAL DESIGN INVESTIGATION
CTO 407

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: West Gate Landfill
Project No.: 112G00864/CTO 407

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: WGL-SB-101-1416
Sample Location: SB 101
Sampled By: J.Traut
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 6/5/09 Time: 1254 Method: D & W/ Split Spoon Monitor Reading (ppm): 0.0	12-14 ~~0-0.5 feet~~	gray tan	0.0-0.2 fine sand some silt 0.2-0.8 Sand (F-M) 0.8-1.1 Sand (F-L) loose

COMPOSITE SAMPLE DATA:

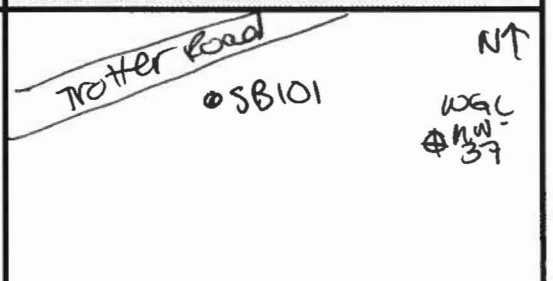
Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
Soil Classification	Shelby Tubing	Y or N	
Organic Content	or	Y or N	
Particle Size	Plastic Bags	Y or N	
Moisture Content		Y or N	
Atterberg Limits		Y or N	
Triaxial Compression		Y or N	
Consolidation		Y or N	
Bulk Densiity		Y or N	
Specific Gravity		Y or N	

OBSERVATIONS / NOTES:

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): J.Traut

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: West Gate Landfill
Project No.: 112G00864/CTO 407

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: WGL-SB-101-1820
Sample Location: SB101
Sampled By: J.Traut
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 6/5/09 Time: 1308 Method: D & W/ Split Spoon Monitor Reading (ppm): 0.0	18-20 ~~0-0.5 feet~~	gray	0.0-0.5 Silty f. sand some clay 0.5-1.0 fine sand medium dense

COMPOSITE SAMPLE DATA:

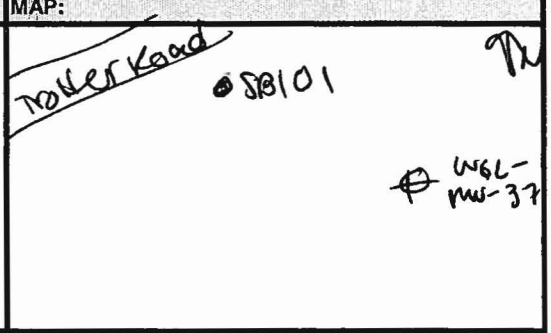
Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
Soil Classification	Shelby Tubing	Y or N	
Organic Content	or	Y or N	
Particle Size	~~Plastic Bags~~	Y or N	
Moisture Content		Y or N	
Atterberg Limits		Y or N	
Triaxial Compression		Y or N	
Consolidation		Y or N	
Bulk Density		Y or N	
Specific Gravity		Y or N	

OBSERVATIONS / NOTES:

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:
NA	NA

Signature(s): J.Traut

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: West Gate Landfill
Project No.: 112G00864/CTO 407

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: WGL-SB102-0812
Sample Location: SB102
Sampled By: J.Traut
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 6/4/09	8-12' ~~0-0.5 feet~~	tan/orange tan lt tan tan gray tan	sand (f-c) & gravel (f&c) loose
Time: 1605			
Method: D & W/ Split Spoon			
Monitor Reading (ppm): (S)0.0 (H)FID 6.0 P,D 0.0			

COMPOSITE SAMPLE DATA:

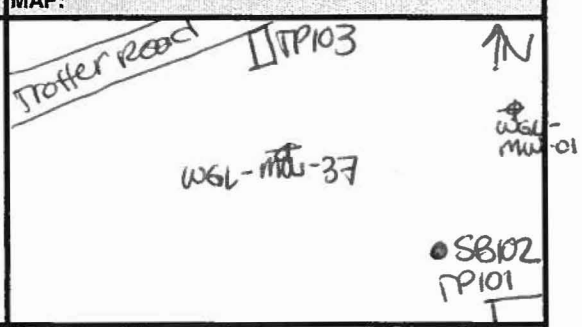
Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
Soil Classification	Shelby Tubing	Y or N	
Organic Content	or	Y or N	
Particle Size	Plastic Bags	Y or N	
Moisture Content		Y or N	
Atterberg Limits		Y or N	
Triaxial Compression		Y or N	
Consolidation		Y or N	
Bulk Density		Y or N	
Specific Gravity		Y or N	

OBSERVATIONS / NOTES:

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:
NA	NA

Signature(s): J.Traut

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: West Gate Landfill
Project No.: 112G00864/CTO 407

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: WGL-SB102-2031 -SO
Sample Location: SB 102
Sampled By: J.Traut
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 6/5/09	29-31 ~~0-0.5 feet~~	tan	0.0-0.5 sand(F-C) tr. c & cgravel
Time: 0910			0.5-20 silty f. sand
Method: D & W/ Split Spoon			
Monitor Reading (ppm): 0.0			

COMPOSITE SAMPLE DATA:

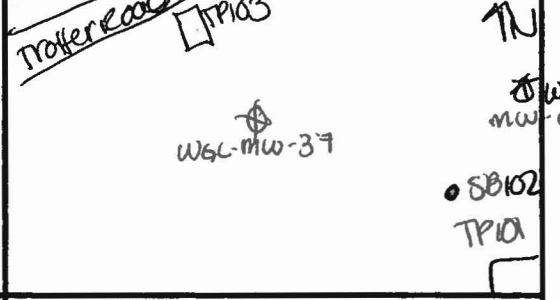
Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
Soil Classification	Shelby Tubing	Y or N	
Organic Content	or	Y or N	
Particle Size	Plastic Bags	Y or N	
Moisture Content		Y or N	
Atterberg Limits		Y or N	
Triaxial Compression		Y or N	
Consolidation		Y or N	
Bulk Densiity		Y or N	
Specific Gravity		Y or N	

OBSERVATIONS / NOTES:

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): J Traut

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: West Gate Landfill
Project No.: 112G00864/CTO 407

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: WGL-SB-SO 03-0608
Sample Location: SB 103
Sampled By: J.Traut
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 6/2/09			
Time: 1520	6-8	dk brown/black	0.0-0.9 peat large roots/organics fine sand some silt
Method: ~~D & W~~/ ~~Split Spoon~~ HSA Shelby Tube	~~0-0.5 feet~~		
Monitor Reading (ppm): PID(S) 4.0 FID(H) 4.7 PID 0.0			V. Soft

COMPOSITE SAMPLE DATA:

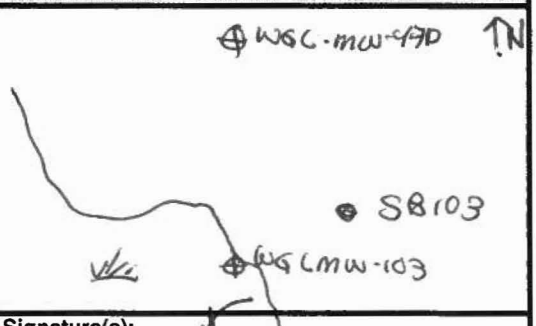
	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:				
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
Soil Classification	Shelby Tubing	Y or N	
Organic Content	or	Y or N	
Particle Size	Plastic Bags	Y or N	
Moisture Content		Y or N	
Atterberg Limits		Y or N	
Triaxial Compression		Y or N	
Consolidation		Y or N	
Bulk Density		Y or N	
Specific Gravity		Y or N	

OBSERVATIONS / NOTES:

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:
NA	NA

Signature(s): J.Traut

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: West Gate Landfill
Project No.: 112G00864/CTO 407

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: WGL-SB-103-1416
Sample Location: SB 103
Sampled By: J.Traut
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 5/6/2/09			
Time: 0825	14-16' ~~0-0.5 feet~~	tan	0.0-0.4 sand(F-m) 0.4-0.9 sand(F-C) tr. F gravel medium dense
Method: ~~D & W~~ Split Spoon			
Monitor Reading (ppm): 0.0(S) F 0(H) 0.4 P 1 0(H) 0.0			

COMPOSITE SAMPLE DATA:

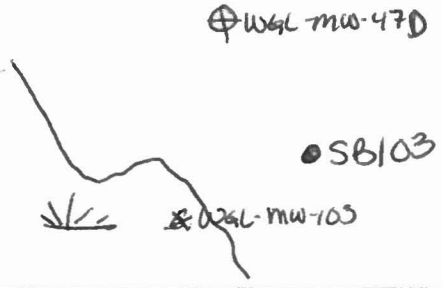
Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
Soil Classification	Shelby Tubing	Y or N	
Organic Content	or	Y or N	
Particle Size	Plastic Bags	Y or N	
Moisture Content		Y or N	
Atterberg Limits		Y or N	
Triaxial Compression		Y or N	
Consolidation		Y or N	
Bulk Density		Y or N	
Specific Gravity		Y or N	

OBSERVATIONS / NOTES:

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:
NA	NA

Signature(s): J. Traut

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: West Gate Landfill
Project No.: 112G00864/CTO 407

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: WGL-SB-104-1416
Sample Location: SB 104
Sampled By: J.Traut
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 6/9/09 Time: ~~1345~~ 1340 Method: D & W/ Split Spoon Monitor Reading (ppm): 0.0	14-16 ~~0-0.5 feet~~	orange/ tan	sand (f-c) loose

COMPOSITE SAMPLE DATA:

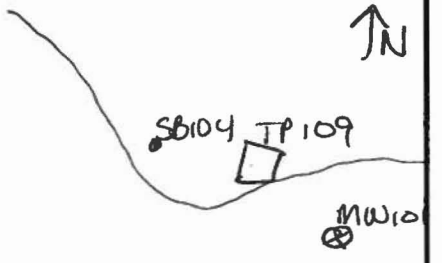
	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:				
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
Soil Classification	Shelby Tubing	Y or N	
Organic Content	or	Y or N	
Particle Size	Plastic Bags	Y or N	
Moisture Content		Y or N	
Atterberg Limits		Y or N	
Triaxial Compression		Y or N	
Consolidation		Y or N	
Bulk Density		Y or N	
Specific Gravity		Y or N	

OBSERVATIONS / NOTES:

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:
NA	NA

Signature(s): J. Traut

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: West Gate Landfill
Project No.: 112G00864/CTO 407

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: WGL-SB-104-1921
Sample Location: SB 104
Sampled By: J.Traut
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 6/9/09	19-21 ~~0-0.5 feet~~	tan → orange tan	0.0-0.4 fine sand 0.4-0.7 sand (f-c) & gravel (f&c) loose
Time: 1345			
Method: D & W/ Split Spoon			
Monitor Reading (ppm): 0.0			

COMPOSITE SAMPLE DATA:

	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:				
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
Soil Classification	Shelby Tubing	Y or N	
Organic Content	or	Y or N	
Particle Size	Plastic Bags	Y or N	
Moisture Content		Y or N	
Atterberg Limits		Y or N	
Triaxial Compression		~~Y or N~~	NO
Consolidation		Y or N	
Bulk Density		Y or N	
Specific Gravity		Y or N	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD: NA

Duplicate ID No.: NA

Signature(s): J Traut

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Page___ of ___

Project Site Name: West Gate Landfill
Project No.: 112G00864/CTO 407

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: WGL-SB-05-0608
Sample Location: SB 105
Sampled By: J.Traut
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 6/9/09 Time: 0910 Method: D & W/ Split Spoon Monitor Reading (ppm): 0.3(H) F10 0.0 PID	6-8' ~~0-0.5 feet~~	gray tan	Sand(f-c) & gravel (f&c) medium dense

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
Soil Classification	Shelby Tubing	Y or N	
Organic Content	or	Y or N	
Particle Size	Plastic Bags	Y or N	
Moisture Content		Y or N	
Atterberg Limits		Y or N	
Triaxial Compression		Y or N	
Consolidation		Y or N	
Bulk Density		Y or N	
Specific Gravity		Y or N	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
NA	NA

Signature(s): J Traut

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: West Gate Landfill
Project No.: 112G00864/CTO 407

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: WGL-SB-05-1921
Sample Location: SB 105
Sampled By: J.Traut
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 6/9/09	19-21 ~~0-0.5 feet~~	gray tan	0.0-0.7 f. sand some silt
Time: 0940			0.7-0.9 f. m sand Tr. c sand ~~some~~ & f gravel - loose
Method: D & W/ Split Spoon			
Monitor Reading (ppm): 0.0			

COMPOSITE SAMPLE DATA:

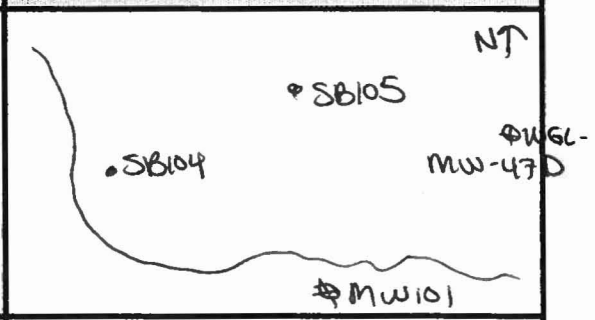
Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
Soil Classification	Shelby Tubing	Y or N	
Organic Content	or	Y or N	
Particle Size	Plastic Bags	Y or N	
Moisture Content		Y or N	
Atterberg Limits		Y or N	
Triaxial Compression		Y or N	
Consolidation		Y or N	
Bulk Density		Y or N	
Specific Gravity		Y or N	

OBSERVATIONS / NOTES:

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:
NA	NA

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: West Gate Landfill
Project No.: 112G00864/CTO 407

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: WGL-SB106-1921
Sample Location: SB 106
Sampled By: J.Traut
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 6/4/09	19-21' bgs ~~0-0.5 feet~~	tan brown orange gray tan	0.0-0.4 sand (f-c) & gravel fine) 0.4-0.6 silty clay 0.6-0.9 silty f. sand loose/soft
Time: 0955			
Method: ~~D & W~~ JSA Split Spoon			
Monitor Reading (ppm): —			

COMPOSITE SAMPLE DATA:

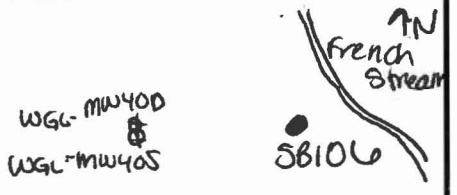
Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
Soil Classification	Shelby Tubing	Y or N	
Organic Content	or	Y or N	
Particle Size	Plastic Bags	Y or N	
Moisture Content		Y or N	
Atterberg Limits		Y or N	
Triaxial Compression		~~Y~~ or N	
Consolidation		Y or N	
Bulk Density		Y or N	
Specific Gravity		Y or N	

OBSERVATIONS / NOTES:

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:
NA	NA

Signature(s): J. Traut

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: West Gate Landfill
Project No.: 112G00864/CTO 407

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: WGL-SB106-2426 (-SO)
Sample Location: SB106
Sampled By: J.Traut
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 6/4/09 Time: 1010 Method: ~~D&W~~ Split Spoon Monitor Reading (ppm): (-) 0.0 (H) 0.0 2 PID 0.0	24-26' bgs ~~0-0.5 feet~~	gray/tan	0.0-1.1 sand (f-c) & gravel (f&c) coarser between 0.6 & 1.1 1.1-1.4 silty fine sand some f&c gravel dense

COMPOSITE SAMPLE DATA:

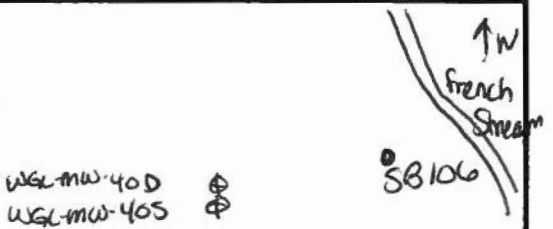
Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
Soil Classification	Shelby Tubing	~~Y~~ or N	
Organic Content	or	Y or N	
Particle Size	~~Plastic Bags~~	Y or N	
Moisture Content		Y or N	
Atterberg Limits		Y or N	
Triaxial Compression		Y or ~~N~~	
Consolidation		Y or N	
Bulk Density		Y or N	
Specific Gravity		Y or N	

OBSERVATIONS / NOTES:

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): J. Traut

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: West Gate Landfill
Project No.: 112G00864/CTO 407

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: WGL-SB-07-0608
Sample Location: SB 107
Sampled By: J.Traut
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 6/8/09	6-8' ~~0-0.5 feet~~	tan/ dk brown	0.0-0.3 Sand mostly f-m & gravel (fgc) tr. silt
Time: 1300			0.3-1.3 Sand (f-c) & gravel (fgc) dark staining/iron staining - very dense
Method: D & W/ Split Spoon			
Monitor Reading (ppm): 0.0			

COMPOSITE SAMPLE DATA:

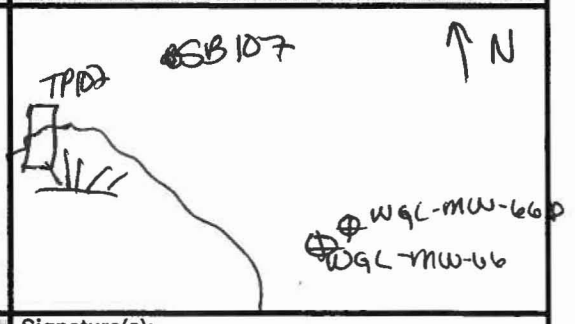
Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
Soil Classification	Shelby Tubing	Y or N	
Organic Content	or	Y or N	
Particle Size	Plastic Bags	Y or N	
Moisture Content		Y or N	
Atterberg Limits		Y or N	
Triaxial Compression		Y or N	
Consolidation		Y or N	
Bulk Density		Y or N	
Specific Gravity		Y or N	

OBSERVATIONS / NOTES:

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:
NA	NA

Signature(s): J. Traut

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: West Gate Landfill
Project No.: 112G00864/CTO 407

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: WGL-SB-107-1921
Sample Location: SB 107
Sampled By: J.Traut
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 6/8/09 Time: 1345 Method: D & W/ Split Spoon Monitor Reading (ppm): 0.0	19-21 ~~0-0.5 feet~~	gray tan-tan	0.0-0.4 silty f. sand, tr. clay 0.4-0.8 sand (f-c) some f&g gravel - layers of silty f. sand @ 0.7 cobble in shoe - dense.

COMPOSITE SAMPLE DATA:

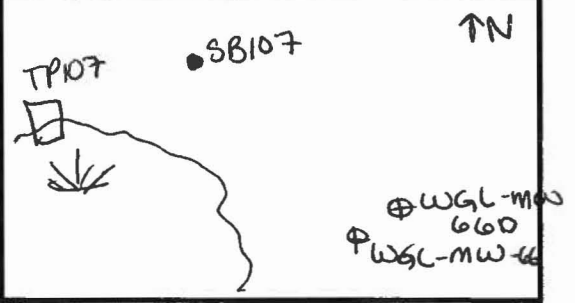
Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
Soil Classification	Shelby Tubing	Y or N	
Organic Content	or	Y or N	
Particle Size	Plastic Bags	Y or N	
Moisture Content		Y or N	
Atterberg Limits		Y or N	
Triaxial Compression		Y or N	
Consolidation		Y or N	
Bulk Density		Y or N	
Specific Gravity		Y or N	

OBSERVATIONS / NOTES:

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:
NA	NA

Signature(s): J.Traut

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: West Gate Landfill
Project No.: 112G00864/CTO 407

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: WGL-SB108-09-11 -SD
Sample Location: SB108
Sampled By: J.Traut
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 6/3/09			
Time:	09-11' bgs	dk brown	0.0-1.7 peat wood chips roots
Method: ~~D & W/ Split Spoon~~ HSA & Shelby tube ~~0-8.5 feet~~			1.7-1.9 Some silt
Monitor Reading (ppm): (S) PID 10 PID 0.0 (H) PID 1355 PID 0.0			1.9-2.0 fine sand

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
Soil Classification	Shelby Tubing	Y or N	
Organic Content	or	Y or N	
Particle Size	Plastic Bags	Y or N	
Moisture Content		Y or N	
Atterberg Limits		Y or N	
Triaxial Compression		Y or N	
Consolidation		Y or N	
Bulk Density		Y or N	
Specific Gravity		Y or N	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
NA	NA

Signature(s): J Traut

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: West Gate Landfill
Project No.: 112G00864/CTO 407

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: WGL-SB108-29-31
Sample Location: SB108
Sampled By: J.Traut
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 10/8/09			
Time: 1430			
Method: ~~D & W/ Split Spoon~~ Hand Split Spoon	Recovery 29-31 ~~0-8.5 feet~~	gray orange gray	0.0-1.1 silty f. sand iron staining 0.9-1.1 loose
Monitor Reading (ppm): 0.8			

COMPOSITE SAMPLE DATA:

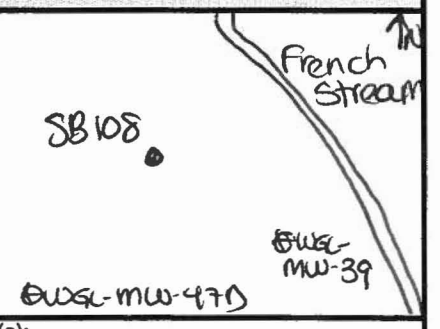
Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
Soil Classification	Shelby Tubing	Y or N	
Organic Content	or	Y or N	
Particle Size	Plastic Bags	Y or N	
Moisture Content		Y or N	
Atterberg Limits		Y or N	
Triaxial Compression		Y or N	
Consolidation		Y or N	
Bulk Density		Y or N	
Specific Gravity		Y or N	

OBSERVATIONS / NOTES:

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:
NA	NA

Signature(s):

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: West Gate Landfill
Project No.: 112G00864/CTO 407

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: WGL-SB109-080 -SO
Sample Location: SB109
Sampled By: J.Traut
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 6/8/09 Time: 0850 Method: D & W/ Split Spoon Monitor Reading (ppm): (s)0.0 PID(H)2.3 PID(H)0.0	8-10' ~~0-0.5 feet~~	dk brown - tan	0.0-0.6 silty sand (f-m) some f&c gravel 0.6-1.5 sand (f-c) & gravel (f&c) medium dense

COMPOSITE SAMPLE DATA:

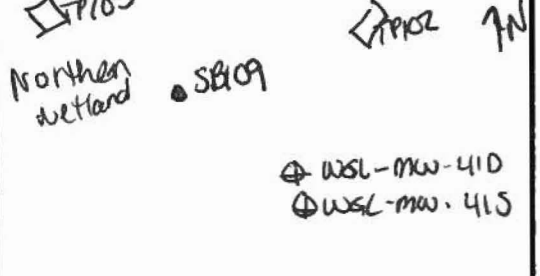
Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
Soil Classification	Shelby Tubing	Y or N	
Organic Content	or	Y or N	
Particle Size	Plastic Bags	Y or N	
Moisture Content		Y or N	
Atterberg Limits		Y or N	
Triaxial Compression		Y or N	
Consolidation		Y or N	
Bulk Density		Y or N	
Specific Gravity		Y or N	

OBSERVATIONS / NOTES:

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:
NA	NA

Signature(s): J. Traut

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: West Gate Landfill
Project No.: 112G00864/CTO 407

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: WGL-SB109-1921 (-SD-)
Sample Location: SB109
Sampled By: J.Traut
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 6/8/09 Time: 0935 Method: D & W/ Split Spoon Monitor Reading (ppm): 0.0	19-21 ~~0-0.5 feet~~	tan	0.0-1.1 sand (f-m) tr. c. sand 0.1-0.2 larger of silty f. sand tr. clay loose

COMPOSITE SAMPLE DATA:

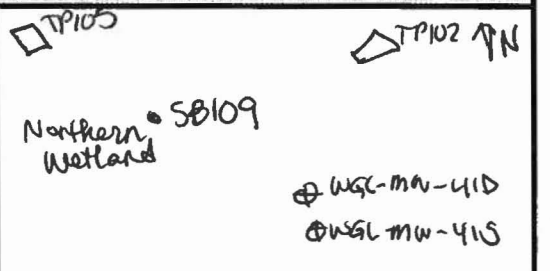
Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
Soil Classification	Shelby Tubing	Y or N	
Organic Content	or	Y or N	
Particle Size	Plastic Bags	Y or N	
Moisture Content		Y or N	
Atterberg Limits		Y or N	
Triaxial Compression		Y or N	
Consolidation		Y or N	
Bulk Density		Y or N	
Specific Gravity		Y or N	

OBSERVATIONS / NOTES:

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:
NA	NA

Signature(s): J. Traut

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: West Gate Landfill
Project No.: 112G00864/CTO 407

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: WGL-SB10-08-10 -SO-
Sample Location: SB10
Sampled By: J.Traut
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 6/4/09			
Time: 1245	08-10' bgs ~~0-0.5 feet~~	gray	c. sand & gravel (f&c) some f-m sand 100%
Method: ~~D & W~~ HSA/rotech/1 Split Spoon			
Monitor Reading (ppm): 0.0 (HS) F1D09 P1D03			

COMPOSITE SAMPLE DATA:

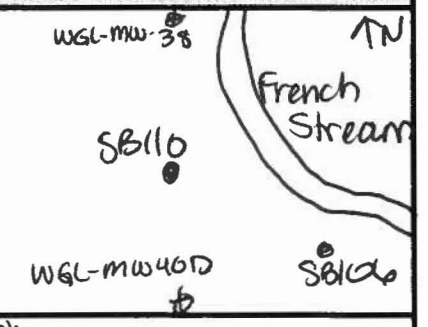
Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
Soil Classification	Shelby Tubing	Y or N	
Organic Content	or	Y or N	
Particle Size	Plastic Bags	Y or N	
Moisture Content		Y or N	
Atterberg Limits		Y or N	
Triaxial Compression		Y or N	
Consolidation		Y or N	
Bulk Densiity		Y or N	
Specific Gravity		Y or N	

OBSERVATIONS / NOTES:

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:
NA	NA

Signature(s): J Traut

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: West Gate Landfill
Project No.: 112G00864/CTO 407

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: SD-WGL-SB110-2426
Sample Location: SB 110
Sampled By: J.Traut
C.O.C. No.:

Type of Sample:
[] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 6/4/09	24-26' bgs ~~0-0.5 feet~~	gray tan	0.0-0.7 sand (f-c)
Time: 1325			0.7-0.9 silty f. sand, some f&c gravel
Method: ~~DPT~~ Split Spoon			med. um dense
Monitor Reading (ppm): 0.0			

COMPOSITE SAMPLE DATA:

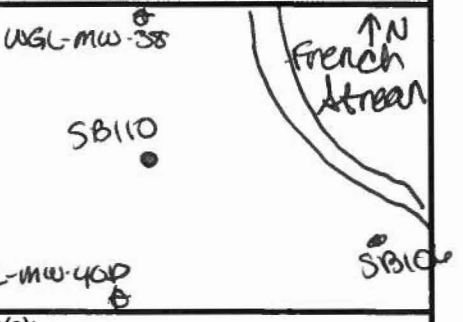
Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
Soil Classification	Shelby Tubing	Y or N	
Organic Content	or	Y or N	
Particle Size	Plastic Bags	Y or N	
Moisture Content		Y or N	
Atterberg Limits		Y or N	
Triaxial Compression		Y or N	
Consolidation		Y or N	
Bulk Density		Y or N	
Specific Gravity		Y or N	

OBSERVATIONS / NOTES:

MAP:



Circle if Applicable:

MS/MSD	Duplicate ID No.:
NA	NA

Signature(s):

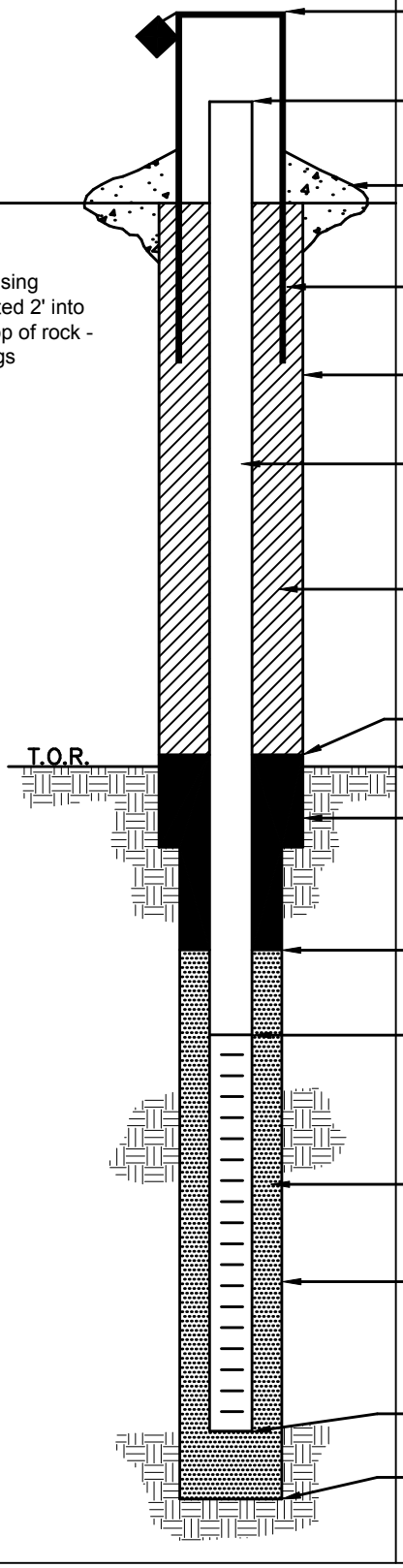
APPENDIX A-8
MONITORING WELL CONSTRUCTION LOGS
SOUTH WEYMOUTH NAS SOUTH GATE LANDFILL
PRE-REMEDIAL DESIGN INVESTIGATION
CTO 407

WELL NO.: WGL-MW-101

Tetra Tech NUS, Inc.

BEDROCK
MONITORING WELL SHEET
WELL INSTALLED IN BEDROCK

PROJECT	West Gate Landfill	LOCATION	NAS South Weymouth	DRILLER	Dragin/M.WIlkey
PROJECT NO.	112G00864	BORING	WGL-MW-101	DRILLING METHOD	Mud Rotary/HQ Coring
DATE BEGUN	6/16/09	DATE COMPLETED	6/18/09		
FIELD GEOLOGIST	J. Traut			DEVELOPMENT METHOD	Wattera
GROUND ELEVATION	146.1	DATUM	FEET NAVD 1988		



ELEVATION/HEIGHT OF TOP OF SURFACE CASING: 148.18 / 2.07'

ELEVATION/HEIGHT TOP OF RISER: 148.06' / 1.96'

TYPE OF SURFACE SEAL: Concrete

I.D. OF SURFACE CASING: 4"

DIAMETER OF HOLE: 8"

RISER PIPE I.D.: 2"

TYPE OF RISER PIPE: PVC

TYPE OF BACKFILL: Bentonite Slurry

ELEVATION/DEPTH TOP OF SEAL: 113.1' / 33

ELEVATION/DEPTH TOP OF BEDROCK: 112.1' / 34'

TYPE OF SEAL: Bentonite Chips

ELEVATION/DEPTH TOP OF SAND: 108.6' / 37.5'

ELEVATION/DEPTH TOP OF SCREEN: 106.6' / 39.5'

TYPE OF SCREEN: Schedule 40 PVC

SLOT SIZE x LENGTH: 0.01" x 10'

I.D. SCREEN: 2"

TYPE OF SAND PACK: Type 00 (20-40 Sieve)

DIAMETER OF HOLE IN BEDROCK: 4"

CORE/REAM: HQ Wireline Core

ELEVATION/DEPTH BOTTOM SCREEN: 96.6' / 49.5'

ELEVATION/DEPTH BOTTOM OF SAND: NA / NA

ELEVATION/DEPTH BOTTOM OF HOLE: 96.6' / 49.5'

BACKFILL MATERIAL BELOW SAND: NA

ACAD:FORM_MWINBR.dwg 07/20/99 INL

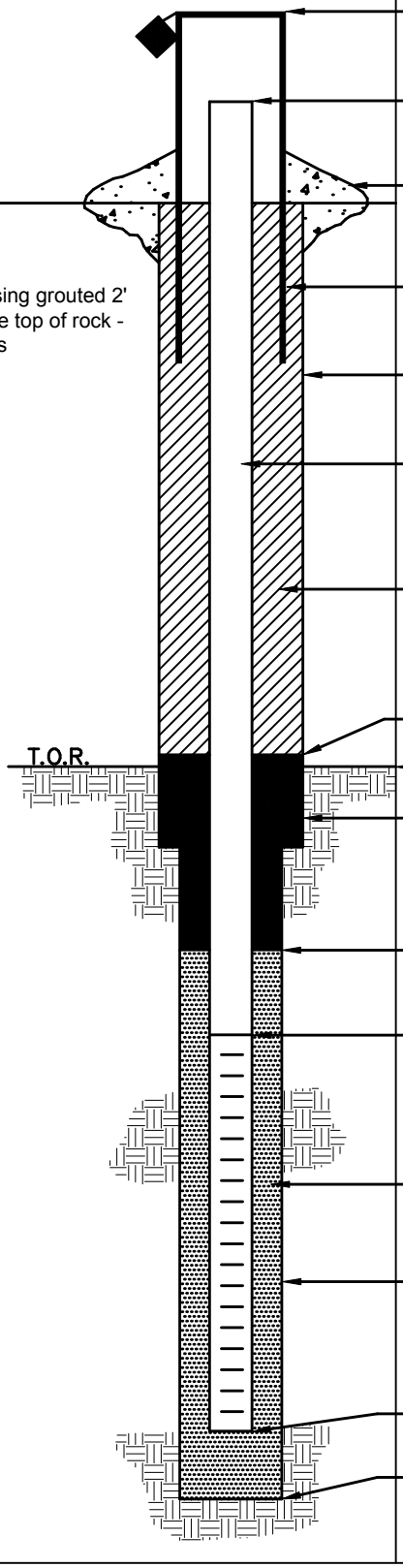
WELL NO.: WGL-MW-102

Tetra Tech NUS, Inc.

BEDROCK
MONITORING WELL SHEET
WELL INSTALLED IN BEDROCK

PROJECT	West Gate Landfill	LOCATION	NAS South Weymouth	DRILLER	Dragin/M.WIlkey
PROJECT NO.	112G00864	BORING	WGL-MW-102	DRILLING METHOD	Mud Rotary/HQ Coring
DATE BEGUN	6/10/09	DATE COMPLETED	6/22/09		
FIELD GEOLOGIST	J. Traut			DEVELOPMENT METHOD	Wattera
GROUND ELEVATION	147.2	DATUM	FEET NAVD 1988		

ACAD:FORM_MWINBR.dwg 07/20/99 INL



ELEVATION/HEIGHT OF TOP OF SURFACE CASING: 149.35 / 2.1'

ELEVATION/HEIGHT TOP OF RISER: 149.21' / 1.95'

TYPE OF SURFACE SEAL: Concrete

I.D. OF SURFACE CASING: 4"

DIAMETER OF HOLE: 8"

RISER PIPE I.D.: 2"

TYPE OF RISER PIPE: PVC

TYPE OF BACKFILL: Bentonite Slurry

ELEVATION/DEPTH TOP OF SEAL: 110.2' / 37

ELEVATION/DEPTH TOP OF BEDROCK: 109.2' / 36'

TYPE OF SEAL: Bentonite Chips/Grout around casing

ELEVATION/DEPTH TOP OF SAND: 107.7' / 39.5'

ELEVATION/DEPTH TOP OF SCREEN: 109.2' / 41.5'

TYPE OF SCREEN: Schedule 40 PVC

SLOT SIZE x LENGTH: 0.01" x 10'

I.D. SCREEN: 2"

TYPE OF SAND PACK: Type 00 (20-40 Sieve)

DIAMETER OF HOLE IN BEDROCK: 3.75"

CORE/REAM: HQ Wireline Core

ELEVATION/DEPTH BOTTOM SCREEN: 95.7' / 51.5'

ELEVATION/DEPTH BOTTOM OF SAND: 95.7' / 51.5'

ELEVATION/DEPTH BOTTOM OF HOLE: 95.7' / 51.5'

BACKFILL MATERIAL BELOW SAND: NA

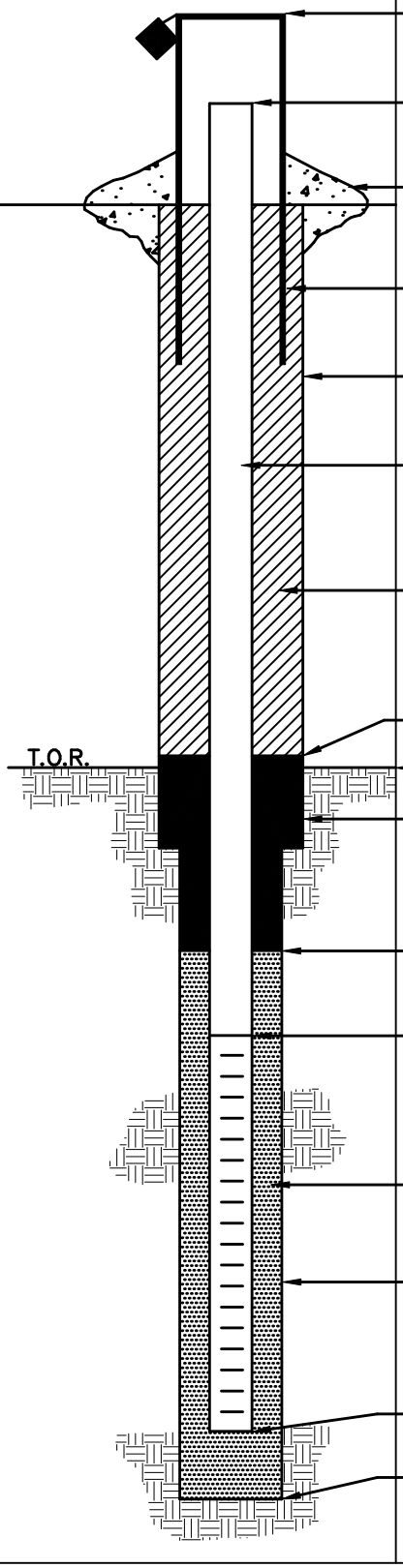
WELL NO.: WGL-MW-103

Tetra Tech NUS, Inc.

BEDROCK
MONITORING WELL SHEET
WELL INSTALLED IN BEDROCK

PROJECT	West Gate Landfill	LOCATION	NAS South Weymouth	DRILLER	Dragin/M.WIlkey
PROJECT NO.	112G00864	BORING	WGL-MW-103	DRILLING METHOD	Mud Rotary/HQ Coring
DATE BEGUN	6/1/09	DATE COMPLETED	6/12/09		
FIELD GEOLOGIST	J. Traut			DEVELOPMENT METHOD	Wattera
GROUND ELEVATION	148.5	DATUM	FEET NAVD 1988		

ACAD: FORM_MWINBR.dwg 07/20/99 INL



ELEVATION/HEIGHT OF TOP OF SURFACE CASING: 150.65 / 2.15'

ELEVATION/HEIGHT TOP OF RISER: 150.49' / 1.99'

TYPE OF SURFACE SEAL: Concrete

I.D. OF SURFACE CASING: 4"

DIAMETER OF HOLE: 4.25"

RISER PIPE I.D.: 2"

TYPE OF RISER PIPE: PVC

TYPE OF BACKFILL: Bentonite Slurry

ELEVATION/DEPTH TOP OF SEAL: 113' / 35.5

ELEVATION/DEPTH TOP OF BEDROCK: 112.5' / 36'

TYPE OF SEAL: Bentonite Chips

ELEVATION/DEPTH TOP OF SAND: 110.5' / 38'

ELEVATION/DEPTH TOP OF SCREEN: 107.5' / 41'

TYPE OF SCREEN: Schedule 40 PVC

SLOT SIZE x LENGTH: 0.01" x 10'

I.D. SCREEN: 2"

TYPE OF SAND PACK: Type 00 (20-40 Sieve)

DIAMETER OF HOLE IN BEDROCK: 4"

CORE/REAM: HQ Wireline Core

ELEVATION/DEPTH BOTTOM SCREEN: 97.5" / 51'

ELEVATION/DEPTH BOTTOM OF SAND: 97.5' / 51'

ELEVATION/DEPTH BOTTOM OF HOLE: 97.5' / 51'

BACKFILL MATERIAL BELOW SAND: No.1 Sand

APPENDIX A-9
MONITORING WELL INSPECTION LOGS
SOUTH WEYMOUTH NAS SOUTH GATE LANDFILL
PRE-REMEDIAL DESIGN INVESTIGATION
CTO 407

TETRA TECH NUS, INC.	WELL INSPECTION AND GROUNDWATER LEVEL MEASUREMENT SHEET

WELL NUMBER: APZ-1

PROJECT NAME: Weymouth NAS - WLF

DATE/TIME: 5-13-09 / 1058

PROJECT MANAGER: D. Seiken / P. Call

INSPECTED BY: ~~1058~~ P. Seward
B. Geringer

VENT WELL

MONITORING INSTRUMENT READING: N/A

LEL/02 READING: N/A

WELL INSPECTION/GROUNDWATER LEVEL MEASUREMENT

WELL DEPTH (FEET FROM TOP OF PVC) 6.23' top of steel

WATER LEVEL DEPTH (FEET FROM TOP OF PVC) N/A

WELL STICK-UP 2.69'

CASING STICK-UP (FEET) N/A

WELL DIAMETER (INCHES) 1"

WELL CONSTRUCTION (PVC, STEEL, ETC.) Steel

LOCKED UPON ARRIVAL?	YES	NO
LOCKED REPLACED?	YES	NO
OBSTRUCTIONS?	YES	NO
WELL RELABELED?	YES	NO
SLUG TEST CONDUCTED?	YES	NO (If YES, refer to "Hydraulic Conductivity Testing Data Sheet")

GENERAL CONDITION/COMMENTS: Tubing in well

TtNUS Form 0021

TETRA TECH NUS, INC.	WELL INSPECTION AND GROUNDWATER LEVEL MEASUREMENT SHEET

WELL NUMBER: APZ-2

PROJECT NAME: Weymouth NAS - WLF

DATE/TIME: 5/13/09

PROJECT MANAGER: D. Seiken / P. Call

INSPECTED BY: BG/PS 1536

VENT WELL

MONITORING INSTRUMENT READING: N/A

LEL/02 READING: N/A

WELL INSPECTION/GROUNDWATER LEVEL MEASUREMENT

WELL DEPTH (FEET FROM TOP OF PVC) 8.04'

WATER LEVEL DEPTH (FEET FROM TOP OF PVC) N/A

WELL STICK-UP ~~2.7'~~ 4.48' (To Stream bottom)

CASING STICK-UP (FEET) N/A

WELL DIAMETER (INCHES) 1"

WELL CONSTRUCTION (PVC, STEEL, ETC.) Steel

LOCKED UPON ARRIVAL?	YES	(NO)
LOCKED REPLACED?	YES	(NO)
OBSTRUCTIONS?	YES	(NO)
WELL RELABELED?	(YES)	NO
SLUG TEST CONDUCTED?	YES	(NO) (If YES, refer to "Hydraulic Conductivity Testing Data Sheet")

GENERAL CONDITION/COMMENTS: No tubing - No Cap

TtNUS Form 0021

TETRA TECH NUS, INC.	WELL INSPECTION AND GROUNDWATER LEVEL MEASUREMENT SHEET

WELL NUMBER: ~~MW-48D~~ BG PZ - AP23

PROJECT NAME: Weymouth NAS - WLF

DATE/TIME: 5/13/09 1205

PROJECT MANAGER: D. Seiken / P. Call

INSPECTED BY: BG/PS

VENT WELL

MONITORING INSTRUMENT READING: N/A

LEL/02 READING: N/A

WELL INSPECTION/GROUNDWATER LEVEL MEASUREMENT

WELL DEPTH (FEET FROM TOP OF PVC) 10.15' (50ft)

WATER LEVEL DEPTH (FEET FROM TOP OF PVC) N/A

WELL STICK-UP 2.68'

CASING STICK-UP (FEET) -0.03

WELL DIAMETER (INCHES) 2"

WELL CONSTRUCTION (PVC, STEEL, ETC.) PVC

LOCKED UPON ARRIVAL?	(YES)	NO
LOCKED REPLACED?	(YES)	NO
OBSTRUCTIONS?	YES	(NO)
WELL RELABELED?	(YES)	NO
SLUG TEST CONDUCTED?	YES	(NO) (If YES, refer to "Hydraulic Conductivity Testing Data Sheet")

GENERAL CONDITION/COMMENTS: Surface Seal broken - No tubing in well

TtNUS Form 0021

TETRA TECH NUS, INC.	WELL INSPECTION AND GROUNDWATER LEVEL MEASUREMENT SHEET

WELL NUMBER: EBS-MW16-006

PROJECT NAME: Weymouth NAS - WLF

DATE/TIME: 5/13/09 1307

PROJECT MANAGER: D. Seiken / P. Call

INSPECTED BY: BG/PS

VENT WELL

MONITORING INSTRUMENT READING: N/A

LEL/02 READING: N/A

WELL INSPECTION/GROUNDWATER LEVEL MEASUREMENT

WELL DEPTH (FEET FROM TOP OF PVC) 17.81'

WATER LEVEL DEPTH (FEET FROM TOP OF PVC) N/A

WELL STICK-UP 2.71'

CASING STICK-UP (FEET) -0.14'

WELL DIAMETER (INCHES) 2"

WELL CONSTRUCTION (PVC, STEEL, ETC.) PVC

LOCKED UPON ARRIVAL?	YES	(NO)
LOCKED REPLACED?	(YES)	NO
OBSTRUCTIONS?	YES	(NO)
WELL RELABELED?	(YES)	NO
SLUG TEST CONDUCTED?	YES	(NO) (If YES, refer to "Hydraulic Conductivity Testing Data Sheet")

GENERAL CONDITION/COMMENTS: Cracked Seal

TtNUS Form 0021

TETRA TECH NUS, INC.	WELL INSPECTION AND GROUNDWATER LEVEL MEASUREMENT SHEET

WELL NUMBER: CGS-MW5 D

PROJECT NAME: Weymouth NAS - WLF

DATE/TIME: 1507 5/15/09

PROJECT MANAGER: D. Seiken / P. Call

INSPECTED BY: BG

VENT WELL

MONITORING INSTRUMENT READING: N/A

LEL/02 READING: N/A

WELL INSPECTION/GROUNDWATER LEVEL MEASUREMENT

WELL DEPTH (FEET FROM TOP OF PVC) 37.78'

WATER LEVEL DEPTH (FEET FROM TOP OF PVC) N/A

WELL STICK-UP 1.89'

CASING STICK-UP (FEET) -0.23'

WELL DIAMETER (INCHES) 2"

WELL CONSTRUCTION (PVC, STEEL, ETC.) PVC

LOCKED UPON ARRIVAL?	(YES)	NO
LOCKED REPLACED?	YES	(NO)
OBSTRUCTIONS?	YES	(NO)
WELL RELABELED?	YES	(NO)
SLUG TEST CONDUCTED?	YES	(NO) (If YES, refer to "Hydraulic Conductivity Testing Data Sheet")

GENERAL CONDITION/COMMENTS: Good Condition

TtNUS Form 0021

TETRA TECH NUS, INC.	WELL INSPECTION AND GROUNDWATER LEVEL MEASUREMENT SHEET

WELL NUMBER: CGS-MW5S

PROJECT NAME: Weymouth NAS - WLF

DATE/TIME: 5/15/09 1504

PROJECT MANAGER: D. Seiken / P. Call

INSPECTED BY: BG

VENT WELL

MONITORING INSTRUMENT READING: N/A

LEL/02 READING: N/A

WELL INSPECTION/GROUNDWATER LEVEL MEASUREMENT

WELL DEPTH (FEET FROM TOP OF PVC) 18.18'

WATER LEVEL DEPTH (FEET FROM TOP OF PVC) N/A

WELL STICK-UP 2.09'

CASING STICK-UP (FEET) -0.14'

WELL DIAMETER (INCHES) 2"

WELL CONSTRUCTION (PVC, STEEL, ETC.) PVC

LOCKED UPON ARRIVAL?	(YES)	NO
LOCKED REPLACED?	YES	(NO)
OBSTRUCTIONS?	YES	(NO)
WELL RELABELED?	YES	(NO)
SLUG TEST CONDUCTED?	YES	(NO) (If YES, refer to "Hydraulic Conductivity Testing Data Sheet")

GENERAL CONDITION/COMMENTS: Good Condition

TtNUS Form 0021

DMS 8423

TETRA TECH NUS, INC.	WELL INSPECTION AND GROUNDWATER LEVEL MEASUREMENT SHEET

WELL NUMBER: CGS-MW10D

PROJECT NAME: Weymouth NAS - WLF

DATE/TIME: 5/15/09 1515

PROJECT MANAGER: D. Seiken / P. Call

INSPECTED BY: BG

VENT WELL

MONITORING INSTRUMENT READING: N/A

LEL/02 READING: N/A

WELL INSPECTION/GROUNDWATER LEVEL MEASUREMENT

WELL DEPTH (FEET FROM TOP OF PVC) 38.37'

WATER LEVEL DEPTH (FEET FROM TOP OF PVC) N/A

WELL STICK-UP 2.25'

CASING STICK-UP (FEET) -0.27'

WELL DIAMETER (INCHES) 2"

WELL CONSTRUCTION (PVC, STEEL, ETC.) PVC

LOCKED UPON ARRIVAL?	(YES)	NO
LOCKED REPLACED?	YES	(NO)
OBSTRUCTIONS?	YES	(NO)
WELL RELABELED?	(YES)	NO
SLUG TEST CONDUCTED?	YES	(NO) (If YES, refer to "Hydraulic Conductivity Testing Data Sheet")

GENERAL CONDITION/COMMENTS: Good Condition - No well cap

TtNUS Form 0021

TETRA TECH NUS, INC.	WELL INSPECTION AND GROUNDWATER LEVEL MEASUREMENT SHEET

WELL NUMBER: CGS-MW 105

PROJECT NAME: Weymouth NAS - WLF

DATE/TIME: 5/15/09 1512

PROJECT MANAGER: D. Seiken / P. Call

INSPECTED BY: BG

VENT WELL

MONITORING INSTRUMENT READING: N/A

LEL/02 READING: N/A

WELL INSPECTION/GROUNDWATER LEVEL MEASUREMENT

WELL DEPTH (FEET FROM TOP OF PVC) 18.12'

WATER LEVEL DEPTH (FEET FROM TOP OF PVC) N/A

WELL STICK-UP 2.34'

CASING STICK-UP (FEET) -0.15'

WELL DIAMETER (INCHES) 2"

WELL CONSTRUCTION (PVC, STEEL, ETC.) PVC

LOCKED UPON ARRIVAL?	(YES)	NO
LOCKED REPLACED?	YES	(NO)
OBSTRUCTIONS?	YES	(NO)
WELL RELABELED?	(YES)	NO
SLUG TEST CONDUCTED?	YES	(NO) (If YES, refer to "Hydraulic Conductivity Testing Data Sheet")

GENERAL CONDITION/COMMENTS: Good Condition

TtNUS Form 0021

TETRA TECH NUS, INC.	WELL INSPECTION AND GROUNDWATER LEVEL MEASUREMENT SHEET

WELL NUMBER: CGS-MW-11S

PROJECT NAME: Weymouth NAS - WLF

DATE/TIME: 5/13/09 1630

PROJECT MANAGER: D. Seiken / P. Call

INSPECTED BY: BG/PS

VENT WELL

MONITORING INSTRUMENT READING: N/A

LEL/02 READING: N/A

WELL INSPECTION/GROUNDWATER LEVEL MEASUREMENT

WELL DEPTH (FEET FROM TOP OF PVC) 12.22'

WATER LEVEL DEPTH (FEET FROM TOP OF PVC) N/A

WELL STICK-UP 2.32'

CASING STICK-UP (FEET) 1.33' (above Pro Casing)

WELL DIAMETER (INCHES) 2"

WELL CONSTRUCTION (PVC, STEEL, ETC.) PVC

LOCKED UPON ARRIVAL?	YES	NO
LOCKED REPLACED?	YES	NO
OBSTRUCTIONS?	YES	NO
WELL RELABELED?	YES	~~NO~~ BG
SLUG TEST CONDUCTED?	YES	NO (If YES, refer to "Hydraulic Conductivity Testing Data Sheet")

GENERAL CONDITION/COMMENTS: PVC Casing bent - No tubing

TtNUS Form 0021

TETRA TECH NUS, INC.	WELL INSPECTION AND GROUNDWATER LEVEL MEASUREMENT SHEET

WELL NUMBER: JFP-MW-8

PROJECT NAME: Weymouth NAS - WLF

DATE/TIME: 5/13/09 1250

PROJECT MANAGER: D. Seiken / P. Call

INSPECTED BY: BG/PS

VENT WELL

MONITORING INSTRUMENT READING: N/A

LEL/02 READING: N/A

WELL INSPECTION/GROUNDWATER LEVEL MEASUREMENT

WELL DEPTH (FEET FROM TOP OF PVC) 10.66'

WATER LEVEL DEPTH (FEET FROM TOP OF PVC) N/A

WELL STICK-UP 2.40'

CASING STICK-UP (FEET) -0.22'

WELL DIAMETER (INCHES) 2"

WELL CONSTRUCTION (PVC, STEEL, ETC.) PVC

LOCKED UPON ARRIVAL?	YES	(NO)
LOCKED REPLACED?	(YES)	NO
OBSTRUCTIONS?	YES	(NO)
WELL RELABELED?	(YES)	NO
SLUG TEST CONDUCTED?	YES	(NO) (If YES, refer to "Hydraulic Conductivity Testing Data Sheet")

GENERAL CONDITION/COMMENTS: tubing in well

TtNUS Form 0021

TETRA TECH NUS, INC.	WELL INSPECTION AND GROUNDWATER LEVEL MEASUREMENT SHEET

WELL NUMBER: JFP-MW-9

PROJECT NAME: Weymouth NAS - WLF

DATE/TIME: 5/13/09 1246

PROJECT MANAGER: D. Seiken / P. Call

INSPECTED BY: BG/PS

VENT WELL

MONITORING INSTRUMENT READING: N/A

LEL/02 READING: N/A

WELL INSPECTION/GROUNDWATER LEVEL MEASUREMENT

WELL DEPTH (FEET FROM TOP OF PVC) 10.74'

WATER LEVEL DEPTH (FEET FROM TOP OF PVC) N/A

WELL STICK-UP 2.12'

CASING STICK-UP (FEET) -0.36'

WELL DIAMETER (INCHES) 2"

WELL CONSTRUCTION (PVC, STEEL, ETC.) PVC

LOCKED UPON ARRIVAL?	(YES)	NO
LOCKED REPLACED?	YES	(NO)
OBSTRUCTIONS?	YES	(NO)
WELL RELABELED?	(YES)	NO
SLUG TEST CONDUCTED?	YES	(NO) (If YES, refer to "Hydraulic Conductivity Testing Data Sheet")

GENERAL CONDITION/COMMENTS: Tubing in Well (Ground to top Concrete 0.30) Surface Soil heaved - Standing water in Pro-Casing

TtNUS Form 0021

TETRA TECH NUS, INC.	WELL INSPECTION AND GROUNDWATER LEVEL MEASUREMENT SHEET

WELL NUMBER: ~~Adj to TP-104~~ BG JFP-MW-12

PROJECT NAME: Weymouth NAS - WLF

DATE/TIME: 5/13/09 1300

PROJECT MANAGER: D. Seiken / P. Call

INSPECTED BY: BG / PS

VENT WELL

MONITORING INSTRUMENT READING: N/A

LEL/02 READING: N/A

WELL INSPECTION/GROUNDWATER LEVEL MEASUREMENT

WELL DEPTH (FEET FROM TOP OF PVC) 16.40'

WATER LEVEL DEPTH (FEET FROM TOP OF PVC) N/A

WELL STICK-UP 3.00'

CASING STICK-UP (FEET) -0.60'

WELL DIAMETER (INCHES) 2"

WELL CONSTRUCTION (PVC, STEEL, ETC.) PVC

LOCKED UPON ARRIVAL?	YES	(NO)
LOCKED REPLACED?	(YES)	NO
OBSTRUCTIONS?	YES	(NO)
WELL RELABELED?	(YES)	NO
SLUG TEST CONDUCTED?	YES	(NO) (If YES, refer to "Hydraulic Conductivity Testing Data Sheet")

GENERAL CONDITION/COMMENTS: Broken Seal (very) No tubing

TtNUS Form 0021

TETRA TECH NUS, INC.	WELL INSPECTION AND GROUNDWATER LEVEL MEASUREMENT SHEET

WELL NUMBER: MW-01

PROJECT NAME: Weymouth NAS - WLF

DATE/TIME: 5/13/09 1046

PROJECT MANAGER: D. Seiken / P. Call

INSPECTED BY: BG/PS

VENT WELL

MONITORING INSTRUMENT READING: N/A

LEL/02 READING: N/A

WELL INSPECTION/GROUNDWATER LEVEL MEASUREMENT

WELL DEPTH (FEET FROM TOP OF PVC)	10.47' (Pump in well)
WATER LEVEL DEPTH (FEET FROM TOP OF PVC)	N/A
WELL STICK-UP	2.10' (Rusted)
CASING STICK-UP (FEET)	-.10' (top of Pump cap)
WELL DIAMETER (INCHES)	2"
WELL CONSTRUCTION (PVC, STEEL, ETC.)	PVC

LOCKED UPON ARRIVAL?	YES	(NO) - No hole for lock
LOCKED REPLACED?	YES	(NO)
OBSTRUCTIONS?	YES	(NO)
WELL RELABELED?	(YES)	~~NO~~
SLUG TEST CONDUCTED?	YES	(NO) (If YES, refer to "Hydraulic Conductivity Testing Data Sheet")

GENERAL CONDITION/COMMENTS: Concrete pad .39' to ground
Pad in Good Condition

TtNUS Form 0021

TETRA TECH NUS, INC.	WELL INSPECTION AND GROUNDWATER LEVEL MEASUREMENT SHEET

WELL NUMBER: MW-2

PROJECT NAME: Weymouth NAS - WLF

DATE/TIME: 5/13/09 1615

PROJECT MANAGER: D. Seiken / P. Call

INSPECTED BY: BG/PS

VENT WELL

MONITORING INSTRUMENT READING: N/A

LEL/02 READING: N/A

WELL INSPECTION/GROUNDWATER LEVEL MEASUREMENT

WELL DEPTH (FEET FROM TOP OF PVC) 8.77' (Top of Pump)

WATER LEVEL DEPTH (FEET FROM TOP OF PVC) N/A

WELL STICK-UP 2.82'

CASING STICK-UP (FEET) -0.04 (Top of pump cap)

WELL DIAMETER (INCHES) 2"

WELL CONSTRUCTION (PVC, STEEL, ETC.) PVC

LOCKED UPON ARRIVAL?	YES	(NO)
LOCKED REPLACED?	YES	(NO)
OBSTRUCTIONS?	YES	(NO)
WELL RELABELED?	(YES)	NO
SLUG TEST CONDUCTED?	YES	(NO) (If YES, refer to "Hydraulic Conductivity Testing Data Sheet")

GENERAL CONDITION/COMMENTS: (0.51') Thickness of Concrete - Surface Seal in Good Condition

TtNUS Form 0021

TETRA TECH NUS, INC.	WELL INSPECTION AND GROUNDWATER LEVEL MEASUREMENT SHEET

WELL NUMBER: MW-3

PROJECT NAME: Weymouth NAS - WLF

DATE/TIME: 5/13/09 1608

PROJECT MANAGER: D. Seiken / P. Call

INSPECTED BY: BG/PS

VENT WELL

MONITORING INSTRUMENT READING: N/A

LEL/02 READING: N/A

WELL INSPECTION/GROUNDWATER LEVEL MEASUREMENT

WELL DEPTH (FEET FROM TOP OF PVC) 8.48' (Top of pump)

WATER LEVEL DEPTH (FEET FROM TOP OF PVC) N/A

WELL STICK-UP 2.4'

CASING STICK-UP (FEET) ~~4~~ -0.3' (Top of cap)

WELL DIAMETER (INCHES) 2"

WELL CONSTRUCTION (PVC, STEEL, ETC.) PVC

LOCKED UPON ARRIVAL?	YES	(NO)
LOCKED REPLACED?	YES	(NO)
OBSTRUCTIONS?	YES	(NO)
WELL RELABELED?	(YES)	NO
SLUG TEST CONDUCTED?	YES	(NO) (If YES, refer to "Hydraulic Conductivity Testing Data Sheet")

GENERAL CONDITION/COMMENTS: Ht of Conc 0.40 - Surface Seal in good Condition
Cannot close well lid fully -

TtNUS Form 0021

TETRA TECH NUS, INC.	WELL INSPECTION AND GROUNDWATER LEVEL MEASUREMENT SHEET

WELL NUMBER: MW - 4

PROJECT NAME: Weymouth NAS - WLF

DATE/TIME: 5/13/09 1545

PROJECT MANAGER: D. Seiken / P. Call

INSPECTED BY: BG/ PS

VENT WELL

MONITORING INSTRUMENT READING: N/A

LEL/02 READING: N/A

WELL INSPECTION/GROUNDWATER LEVEL MEASUREMENT

WELL DEPTH (FEET FROM TOP OF PVC) 8.60' (Hit pump)

WATER LEVEL DEPTH (FEET FROM TOP OF PVC) N/A

WELL STICK-UP 2.55'

CASING STICK-UP (FEET) 0.73' (Above Pro-casing)

WELL DIAMETER (INCHES) 2"

WELL CONSTRUCTION (PVC, STEEL, ETC.) PVC

LOCKED UPON ARRIVAL?	YES	NO
LOCKED REPLACED?	YES	NO
OBSTRUCTIONS?	YES	NO
WELL RELABELED?	YES	NO
SLUG TEST CONDUCTED?	YES	NO (If YES, refer to "Hydraulic Conductivity Testing Data Sheet")

GENERAL CONDITION/COMMENTS: Surface Seal Good - PVC Riser heaved

TtNUS Form 0021

TETRA TECH NUS, INC.	WELL INSPECTION AND GROUNDWATER LEVEL MEASUREMENT SHEET

WELL NUMBER: MW-37

PROJECT NAME: Weymouth NAS - WLF

DATE/TIME: 5/13/09 1115

PROJECT MANAGER: D. Seiken / P. Call

INSPECTED BY: BG/PS

VENT WELL

MONITORING INSTRUMENT READING: N/A

LEL/02 READING: N/A

WELL INSPECTION/GROUNDWATER LEVEL MEASUREMENT

WELL DEPTH (FEET FROM TOP OF PVC)	10.76' (hit pump)
WATER LEVEL DEPTH (FEET FROM TOP OF PVC)	N/A
WELL STICK-UP	2.54'
CASING STICK-UP (FEET)	-.14' (Top of Pump Cap)
WELL DIAMETER (INCHES)	2"
WELL CONSTRUCTION (PVC, STEEL, ETC.)	PVC

LOCKED UPON ARRIVAL?	YES	(NO)
LOCKED REPLACED?	(YES)	NO
OBSTRUCTIONS?	YES	(NO)
WELL RELABELED?	(YES)	NO
SLUG TEST CONDUCTED?	YES	(NO) (If YES, refer to "Hydraulic Conductivity Testing Data Sheet")

GENERAL CONDITION/COMMENTS: Surface Seal not visible

TtNUS Form 0021

TETRA TECH NUS, INC.	WELL INSPECTION AND GROUNDWATER LEVEL MEASUREMENT SHEET

WELL NUMBER: MW-38

PROJECT NAME: Weymouth NAS - WLF

DATE/TIME: 5/13/09 1130

PROJECT MANAGER: D. Seiken / P. Call

INSPECTED BY: BG/PS

VENT WELL

MONITORING INSTRUMENT READING: N/A

LEL/02 READING: N/A

WELL INSPECTION/GROUNDWATER LEVEL MEASUREMENT

WELL DEPTH (FEET FROM TOP OF PVC) 17.70' (No Pump)

WATER LEVEL DEPTH (FEET FROM TOP OF PVC) N/A

WELL STICK-UP 3.11'

CASING STICK-UP (FEET) -0.24

WELL DIAMETER (INCHES) 2"

WELL CONSTRUCTION (PVC, STEEL, ETC.) PVC

LOCKED UPON ARRIVAL?	(YES)	NO
LOCKED REPLACED?	YES	(NO)
OBSTRUCTIONS?	YES	(NO)
WELL RELABELED?	(YES)	NO
SLUG TEST CONDUCTED?	YES	(NO) (If YES, refer to "Hydraulic Conductivity Testing Data Sheet")

GENERAL CONDITION/COMMENTS: Surface seal not visible - tubing in well

TtNUS Form 0021

TETRA TECH NUS, INC.	WELL INSPECTION AND GROUNDWATER LEVEL MEASUREMENT SHEET

WELL NUMBER: MW-39

PROJECT NAME: Weymouth NAS - WLF

DATE/TIME: 5-13-09 1148

PROJECT MANAGER: D. Seiken / P. Call

INSPECTED BY: PS/BG

VENT WELL

MONITORING INSTRUMENT READING: N/A

LEL/02 READING: N/A

WELL INSPECTION/GROUNDWATER LEVEL MEASUREMENT

WELL DEPTH (FEET FROM TOP OF PVC) 7.45' (Top of Pump)

WATER LEVEL DEPTH (FEET FROM TOP OF PVC) N/A

WELL STICK-UP -0.09' (Top of Cap)

CASING STICK-UP (FEET) 2.26'

WELL DIAMETER (INCHES) 2"

WELL CONSTRUCTION (PVC, STEEL, ETC.) PVC

LOCKED UPON ARRIVAL?	YES	NO
LOCKED REPLACED?	YES	NO
OBSTRUCTIONS?	YES	NO
WELL RELABELED?	YES	NO
SLUG TEST CONDUCTED?	YES	NO (If YES, refer to "Hydraulic Conductivity Testing Data Sheet")

GENERAL CONDITION/COMMENTS: Surface Seal heaved

TtNUS Form 0021

TETRA TECH NUS, INC.	WELL INSPECTION AND GROUNDWATER LEVEL MEASUREMENT SHEET

WELL NUMBER: MW-40D

PROJECT NAME: Weymouth NAS - WLF

DATE/TIME: 5/13/09 1137

PROJECT MANAGER: D. Seiken / P. Call

INSPECTED BY: BG/PS

VENT WELL

MONITORING INSTRUMENT READING: N/A

LEL/02 READING: N/A

WELL INSPECTION/GROUNDWATER LEVEL MEASUREMENT

WELL DEPTH (FEET FROM TOP OF PVC) 28.70' (Top of Pump)

WATER LEVEL DEPTH (FEET FROM TOP OF PVC) N/A

WELL STICK-UP 2.34'

CASING STICK-UP (FEET) -.26' (Top of Pump Cap)

WELL DIAMETER (INCHES) 2"

WELL CONSTRUCTION (PVC, STEEL, ETC.)

LOCKED UPON ARRIVAL?	YES	(NO)
LOCKED REPLACED?	(YES)	NO
OBSTRUCTIONS?	YES	(NO)
WELL RELABELED?	(YES)	NO
SLUG TEST CONDUCTED?	YES	NO (If YES, refer to "Hydraulic Conductivity Testing Data Sheet")

GENERAL CONDITION/COMMENTS: Pad slightly heaved

TtNUS Form 0021

TETRA TECH NUS, INC.	WELL INSPECTION AND GROUNDWATER LEVEL MEASUREMENT SHEET

WELL NUMBER: MW-405

PROJECT NAME: Weymouth NAS - WLF

DATE/TIME: 5/13/09 1140

PROJECT MANAGER: D. Seiken / P. Call

INSPECTED BY: BG/PS

VENT WELL

MONITORING INSTRUMENT READING: N/A

LEL/02 READING: N/A

WELL INSPECTION/GROUNDWATER LEVEL MEASUREMENT

WELL DEPTH (FEET FROM TOP OF PVC) 10.75' (Top of Pump)

WATER LEVEL DEPTH (FEET FROM TOP OF PVC) N/A

WELL STICK-UP 2.43'

CASING STICK-UP (FEET) ~~0.4~~ 0.04' (above PVC Casing)

WELL DIAMETER (INCHES) 2"

WELL CONSTRUCTION (PVC, STEEL, ETC.) PVC

LOCKED UPON ARRIVAL?	YES	(NO) - Cap on ground - Well cap above to of Steel Casing
LOCKED REPLACED?	YES	NO
OBSTRUCTIONS?	YES	(NO)
WELL RELABELED?	(YES)	NO
SLUG TEST CONDUCTED?	YES	(NO) (If YES, refer to "Hydraulic Conductivity Testing Data Sheet")

GENERAL CONDITION/COMMENTS: Surface Seal in good Condition

TtNUS Form 0021

TETRA TECH NUS, INC.	WELL INSPECTION AND GROUNDWATER LEVEL MEASUREMENT SHEET

WELL NUMBER: MW-41D

PROJECT NAME: Weymouth NAS - WLF

DATE/TIME: 5/13/09 1233

PROJECT MANAGER: D. Seiken / P. Call

INSPECTED BY: BG/PS

VENT WELL

MONITORING INSTRUMENT READING: N/A

LEL/02 READING: N/A

WELL INSPECTION/GROUNDWATER LEVEL MEASUREMENT

WELL DEPTH (FEET FROM TOP OF PVC) 31.66' (Top of Pump)

WATER LEVEL DEPTH (FEET FROM TOP OF PVC) N/A

WELL STICK-UP 2.98'

CASING STICK-UP (FEET) -0.15' (Top of Pump Cap)

WELL DIAMETER (INCHES) 2"

WELL CONSTRUCTION (PVC, STEEL, ETC.) PVC

LOCKED UPON ARRIVAL?	(YES)	NO
LOCKED REPLACED?	YES	(NO)
OBSTRUCTIONS?	YES	(NO)
WELL RELABELED?	(YES)	NO
SLUG TEST CONDUCTED?	YES	(NO) (If YES, refer to "Hydraulic Conductivity Testing Data Sheet")

GENERAL CONDITION/COMMENTS: Surface Seal Good Condition

TtNUS Form 0021

TETRA TECH NUS, INC.	WELL INSPECTION AND GROUNDWATER LEVEL MEASUREMENT SHEET

WELL NUMBER: MW-41S

PROJECT NAME: Weymouth NAS - WLF

DATE/TIME: 5/13/09 1230

PROJECT MANAGER: D. Seiken / P. Call

INSPECTED BY: BG / PS

VENT WELL

MONITORING INSTRUMENT READING: N/A

LEL/02 READING: N/A

WELL INSPECTION/GROUNDWATER LEVEL MEASUREMENT

WELL DEPTH (FEET FROM TOP OF PVC) 8.82' (Top of Pump)

WATER LEVEL DEPTH (FEET FROM TOP OF PVC) N/A

WELL STICK-UP 3.18'

CASING STICK-UP (FEET) 0.16' (Top of Pump cap)

WELL DIAMETER (INCHES) 2"

WELL CONSTRUCTION (PVC, STEEL, ETC.) PVC

LOCKED UPON ARRIVAL?	(YES)	NO
LOCKED REPLACED?	YES	(NO)
OBSTRUCTIONS?	YES	(NO)
WELL RELABELED?	(YES)	NO
SLUG TEST CONDUCTED?	YES	(NO) (If YES, refer to "Hydraulic Conductivity Testing Data Sheet")

GENERAL CONDITION/COMMENTS: Surface Seal - Good Condition

TtNUS Form 0021

TETRA TECH NUS, INC.	WELL INSPECTION AND GROUNDWATER LEVEL MEASUREMENT SHEET

WELL NUMBER: MW-42

PROJECT NAME: Weymouth NAS - WLF

DATE/TIME: 5/13/09 1240

PROJECT MANAGER: D. Seiken / P. Call

INSPECTED BY: BG/PS

VENT WELL

MONITORING INSTRUMENT READING: N/A

LEL/02 READING: N/A

WELL INSPECTION/GROUNDWATER LEVEL MEASUREMENT

WELL DEPTH (FEET FROM TOP OF PVC)	9.77' (Top of Pump)
WATER LEVEL DEPTH (FEET FROM TOP OF PVC)	N/A
WELL STICK-UP	3.24'
CASING STICK-UP (FEET)	-0.14' (Top of Pump Cap)
WELL DIAMETER (INCHES)	2"
WELL CONSTRUCTION (PVC, STEEL, ETC.)	PVC

LOCKED UPON ARRIVAL?	(YES)	NO
LOCKED REPLACED?	YES	(NO)
OBSTRUCTIONS?	YES	(NO)
WELL RELABELED?	(YES)	NO
SLUG TEST CONDUCTED?	YES	(NO) (If YES, refer to "Hydraulic Conductivity Testing Data Sheet")

GENERAL CONDITION/COMMENTS: Surface Seal broken

TtNUS Form 0021

TETRA TECH NUS, INC.	WELL INSPECTION AND GROUNDWATER LEVEL MEASUREMENT SHEET

WELL NUMBER: MW-43

PROJECT NAME: Weymouth NAS - WLF

DATE/TIME: 5/13/09 1103

PROJECT MANAGER: D. Seiken / P. Call

INSPECTED BY: BG/ PS ~~HO3~~ BK

VENT WELL

MONITORING INSTRUMENT READING: N/A

LEL/02 READING: N/A

WELL INSPECTION/GROUNDWATER LEVEL MEASUREMENT

WELL DEPTH (FEET FROM TOP OF PVC) 11.99' (Top of pump)

WATER LEVEL DEPTH (FEET FROM TOP OF PVC) N/A

WELL STICK-UP 3.25'

CASING STICK-UP (FEET) -0.22 (Top of cap)

WELL DIAMETER (INCHES) 2"

WELL CONSTRUCTION (PVC, STEEL, ETC.) PVC

LOCKED UPON ARRIVAL?	YES	(NO)
LOCKED REPLACED?	YES	(NO)
OBSTRUCTIONS?	YES	(NO)
WELL RELABELED?	(YES)	~~NO~~ BK
SLUG TEST CONDUCTED?	YES	(NO) (If YES, refer to "Hydraulic Conductivity Testing Data Sheet")

GENERAL CONDITION/COMMENTS: ~~Ao~~ BK Concrete Pad in Good Condition

TtNUS Form 0021

TETRA TECH NUS, INC.	WELL INSPECTION AND GROUNDWATER LEVEL MEASUREMENT SHEET

WELL NUMBER: MW-47D

PROJECT NAME: Weymouth NAS - WLF

DATE/TIME: 5/13/09 1156

PROJECT MANAGER: D. Seiken / P. Call

INSPECTED BY: BG/PS

VENT WELL

MONITORING INSTRUMENT READING: N/A

LEL/02 READING: N/A

WELL INSPECTION/GROUNDWATER LEVEL MEASUREMENT

WELL DEPTH (FEET FROM TOP OF PVC) 18.19' (Top of Pump)

WATER LEVEL DEPTH (FEET FROM TOP OF PVC) N/A

WELL STICK-UP 3.20

CASING STICK-UP (FEET) -0.45' (Top of Pump Cap)

WELL DIAMETER (INCHES) 2"

WELL CONSTRUCTION (PVC, STEEL, ETC.) PVC

LOCKED UPON ARRIVAL?	YES	(NO)
LOCKED REPLACED?	(YES)	NO
OBSTRUCTIONS?	YES	(NO)
WELL RELABELED?	(YES)	NO
SLUG TEST CONDUCTED?	YES	(NO) (If YES, refer to "Hydraulic Conductivity Testing Data Sheet")

GENERAL CONDITION/COMMENTS: Surface Seal broken

TtNUS Form 0021

TETRA TECH NUS, INC.	WELL INSPECTION AND GROUNDWATER LEVEL MEASUREMENT SHEET

WELL NUMBER: MW-48D

PROJECT NAME: Weymouth NAS - WLF

DATE/TIME: 5/13/09 1215

PROJECT MANAGER: D. Seiken / P. Call

INSPECTED BY: BG / PS

VENT WELL

MONITORING INSTRUMENT READING: N/A

LEL/02 READING: N/A

WELL INSPECTION/GROUNDWATER LEVEL MEASUREMENT

WELL DEPTH (FEET FROM TOP OF PVC) 29.58' (Top of Pump)

WATER LEVEL DEPTH (FEET FROM TOP OF PVC) N/A

WELL STICK-UP 2.88'

CASING STICK-UP (FEET) -0.25' (Top of Pump Cap)

WELL DIAMETER (INCHES) 2"

WELL CONSTRUCTION (PVC, STEEL, ETC.) PVC

LOCKED UPON ARRIVAL?	(YES)	NO
LOCKED REPLACED?	(YES)	NO
OBSTRUCTIONS?	YES	(NO)
WELL RELABELED?	(YES)	NO
SLUG TEST CONDUCTED?	YES	(NO) (If YES, refer to "Hydraulic Conductivity Testing Data Sheet")

GENERAL CONDITION/COMMENTS: Surface Seal Cracked - Pump in Well

TtNUS Form 0021

TETRA TECH NUS, INC.	WELL INSPECTION AND GROUNDWATER LEVEL MEASUREMENT SHEET

WELL NUMBER: MW-48D2

PROJECT NAME: Weymouth NAS - WLF

DATE/TIME: 5/13/09 1212

PROJECT MANAGER: D. Seiken / P. Call

INSPECTED BY: BG/PS

VENT WELL

MONITORING INSTRUMENT READING: N/A

LEL/02 READING: N/A

WELL INSPECTION/GROUNDWATER LEVEL MEASUREMENT

WELL DEPTH (FEET FROM TOP OF PVC) 57.75'

WATER LEVEL DEPTH (FEET FROM TOP OF PVC) N/A

WELL STICK-UP 2.68'

CASING STICK-UP (FEET) -0.38'

WELL DIAMETER (INCHES) 2"

WELL CONSTRUCTION (PVC, STEEL, ETC.) PVC

LOCKED UPON ARRIVAL?	(YES)	NO
LOCKED REPLACED?	(YES)	NO
OBSTRUCTIONS?	YES	(NO)
WELL RELABELED?	(YES)	NO
SLUG TEST CONDUCTED?	YES	(NO) (If YES, refer to "Hydraulic Conductivity Testing Data Sheet")

GENERAL CONDITION/COMMENTS: Surface Seal broken - No tubing

TtNUS Form 0021

TETRA TECH NUS, INC.	WELL INSPECTION AND GROUNDWATER LEVEL MEASUREMENT SHEET

WELL NUMBER: MW-C6e

PROJECT NAME: Weymouth NAS - WLF

DATE/TIME: 5/13/09 1221

PROJECT MANAGER: D. Seiken / P. Call

INSPECTED BY: BG/PS

VENT WELL

MONITORING INSTRUMENT READING: N/A

LEL/02 READING: N/A

WELL INSPECTION/GROUNDWATER LEVEL MEASUREMENT

WELL DEPTH (FEET FROM TOP OF PVC) 7.14' (Top of Pump)

WATER LEVEL DEPTH (FEET FROM TOP OF PVC) N/A

WELL STICK-UP 2.72'

CASING STICK-UP (FEET) -0.28' (Top of pump cap)

WELL DIAMETER (INCHES) 2"

WELL CONSTRUCTION (PVC, STEEL, ETC.) PVC

LOCKED UPON ARRIVAL?	(YES)	NO
LOCKED REPLACED?	(YES)	NO
OBSTRUCTIONS?	YES	(NO)
WELL RELABELED?	(YES)	NO
SLUG TEST CONDUCTED?	YES	(NO) (If YES, refer to "Hydraulic Conductivity Testing Data Sheet")

GENERAL CONDITION/COMMENTS: Surface Seal Cracked

TtNUS Form 0021

TETRA TECH NUS, INC.	WELL INSPECTION AND GROUNDWATER LEVEL MEASUREMENT SHEET

WELL NUMBER: MW-66D

PROJECT NAME: Weymouth NAS - WLF

DATE/TIME: 05/13/09 1224

PROJECT MANAGER: D. Seiken / P. Call

INSPECTED BY: BG/PS

VENT WELL

MONITORING INSTRUMENT READING: N/A

LEL/02 READING: N/A

WELL INSPECTION/GROUNDWATER LEVEL MEASUREMENT

WELL DEPTH (FEET FROM TOP OF PVC) 21.70' (Top of Pump)

WATER LEVEL DEPTH (FEET FROM TOP OF PVC) N/A

WELL STICK-UP 2.86'

CASING STICK-UP (FEET) -0.43' ~~Top of~~ (Pump Cap)

WELL DIAMETER (INCHES) 2"

WELL CONSTRUCTION (PVC, STEEL, ETC.) PVC

LOCKED UPON ARRIVAL?	(YES)	NO
LOCKED REPLACED?	(YES)	NO
OBSTRUCTIONS?	YES	(NO)
WELL RELABELED?	(YES)	NO
SLUG TEST CONDUCTED?	YES	(NO) (If YES, refer to "Hydraulic Conductivity Testing Data Sheet")

GENERAL CONDITION/COMMENTS: Surface Seal Cracked

TtNUS Form 0021

APPENDIX A-10
WELL DEVELOPMENT LOG SHEETS
SOUTH WEYMOUTH NAS SOUTH GATE LANDFILL
PRE-REMEDIAL DESIGN INVESTIGATION
CTO 407

TETRA TECH NUS, INC.

WELL DEVELOPMENT DATA SHEET

Well No.: WGL MW-101

PROJECT: West Gate Landfill
PROJECT NO.: 112G00864/CTO 407
SAMPLE ID: NA

DATE: 6/22/09 - 6/24/09
WEATHER: 60° rain light to heavy
PERSONNEL: J. Trant

Well Screen Depth: 39.5 / 49.5 ft. bgs
H&S Monitoring Instrument Reading 0.0

Pump Type/Material: Waterra w/ Footvalve
Pump Intake Depth: variable throughout screen

Total Purge Volume = 46 (gal)
Data Recorded By: J. Trant

	Time	Water Level ft below top PVC	Volume ~~mL~~ gal	Flow Rate mL/min	Temp °C	pH	Sp Cond mS/cm	DO mg/L	Turbidity NTU	Comments
6/22/09	1038	2.87								
	1104	27.5	8	2400	11.1	11.57	1.54	12.06	87.4	
	1114	40	12		11	11.60	1.46	10.91	50.5	
	1220	38	18		11	10.65	0.595	7.62	80.8	recovered to 20' TPVC before purging
	1345	21								
	1356	~~48~~ 51	24		11.5	10.43	0.595	9.87	47.6	
6/23/09	0750	2.45								
	0805	15.1	27		11.9	10.76	1.12	7.20	47.3	
	0810	37	32		11.4	11.15	0.991	8.22	95.4	
	0815	51	36						39.3	
			ran dry							
6/24/09	1000	2.4								
	1320	19	39		11.5	10.83	0.942	6.97	60	
	1325	41	44		10.9	11.20	1.04	6.15	36	
	1330	51	46		end development					

TtNUS Form 0013

TETRA TECH NUS, INC.

WELL DEVELOPMENT DATA SHEET

Well No.: MW102

PROJECT: West Gate Landfill
PROJECT NO.: 112G00864/CTO 407
SAMPLE ID: NA

DATE: 6/23/09 - 6/24/09
WEATHER: 60° rain-light-moderate
PERSONNEL: J. Traut

Well Screen Depth: 41.5 / 51.5 ft. bgs
H&S Monitoring Instrument Reading 0.0

Pump Type/Material: Wattera w/ foot valve
Pump Intake Depth: variable throughout screen

Total Purge Volume = 40 (gal)
Data Recorded By: J. Traut

	Time	Water Level ft below top PVC	Volume ~~mL~~ gal	Flow Rate mL/min	Temp °C	pH	Sp Cond mS/cm	DO mg/L	Turbidity NTU	Comments
6/23/09	1140	6.37								
		4.16 after tubing								
	1145	18.2	2.5	~2400	11.1	12.13	4.30	13.33	644	
	1152	38	7.5		11.1	12.22	4.79	12.73	25	clear
	1158	52	11	ran dry						
	1229	43	12 gal		12	11.70	1.68	10.91	47.3	
	1231	~~7.31 BT~~	13	ran dry						
6/24/09	0740	7.31 → 5.72 after tubing								
	0750	22.5	15.5	2400	10.1	8.80	0.444	7.84	31	
	0757	46	20.5		10.0	9.99	0.407	6.63	80	
	0801	52	24	ran dry						
	1350	8.41								
	1352	19	26	~~2400~~	10.9	9.46	0.401	6.83	28	
	1357	40	32		10.3	9.54	0.377	7.15	75	
	1401	52	34	ran dry						
	1530	30.7								
	1545	39	37		11	8.99	0.428	8.59	8.0	
	1547	~~45.52~~	40	ran ~~dry~~ / end development						

TtNUS Form 0013

TETRA TECH NUS, INC. | **WELL DEVELOPMENT DATA SHEET** | **Well No.:** MW 103

PROJECT: West Gate Landfill
PROJECT NO.: 112G0864 0000.0320
~~SAMPLE ID:~~ initial water level = 6.06

DATE: 6-18-09 - 6-24-09
WEATHER: Cloudy
PERSONNEL: P. Seward

Well Screen Depth: ~~42~~ 41 / ~~52~~ 51 ft. bgs
H&S Monitoring Instrument Reading _____

Pump Type/Material: Waterra & foot valve
Pump Intake Depth: variable - moving foot valve up & down the length of screen

Total Purge Volume = ~~12~~ 13 ~~gal~~ JT (gal)
Data Recorded By: P. Seward

Time	Water Level ft below top PVC	Volume ~~mL~~ gal	Flow Rate mL/min	Temp °C	pH	Sp Cond mS/cm	DO mg/L	Turbidity NTU	Comments
1410	6.06	began well surge - no water drawn from well - only pumping action.							
1430	10.14		500	10.7	7.29	0.199	7.70	off scale	dark brown
1440	16.60		500	10.9	7.01	0.194	2.60	"	"
1445	19.10		500	13.8	6.91	0.198	3.04	"	"
1450	25.41		500	13.5	6.88	0.188	2.21	"	"
1455	28.6		400	13.4	6.86	0.187	2.69	"	brown
1505	29.5		400	13.4	6.87	0.187	2.88	"	"
1510	32.1		500	10.3	6.80	0.190	2.18	"	"
1515	35.1		200*	12.3	6.81	0.184	3.38	"	"
1520	36.9	9 gal	200	12.5	7.11	0.137	4.21	"	"
1530	40.0	~~14 gal.~~	200	13.5	- was unable to control drawdown. WL reached screen interval. Per FOL instruction, well was evacuated				
		12 gal							
6/19/09 ~~6/22/09~~ 1400	~~235~~	17	ran well dry - no readings taken						
6/22/09 0800	13.3		1000	10.8	5.81	0.520	9.65	156	open air reading
0805	38		↓	11.3	6.46	0.575	9.11	80.8	
0810	~51	26	↓	12.6	8.05	0.509	9.46	337	
		ran dry							

TtNUS Form 0013

* attempted to lessen flow rate to prevent drawdown.

TETRA TECH NUS, INC.

WELL DEVELOPMENT DATA SHEET

Well No.: WGL-MW-103

PROJECT: West Gate Landfill
PROJECT NO.: 112G00864 0000.0320
~~SAMPLE ID:~~ initial waterlevel = 6.06

DATE: 6/18/09 - 6/24/09
WEATHER: 60-70 cloudy/rain
PERSONNEL: P. Seward / J. Trout

Well Screen Depth: 41 / 51 ft. bgs
H&S Monitoring Instrument Reading 0.0

Pump Type/Material: Waterra w/ footvalve
Pump Intake Depth: variable throughout screen

Total Purge Volume = _____ (gal)
Data Recorded By: J. Trout

	Time	Water Level ft below top PVC	Volume ~~mL~~ gal	Flow Rate mL/min	Temp °C	pH	Sp Cond mS/cm	DO mg/L	Turbidity NTU	Comments
6/23/09	~~0800~~ 0830	29.7								
	0852		28		10.4	9.12	0.538	10.27	50.4	
	0857	~51	31							
6/24/09	0926	28.85								
	0934	42	34		10.5	8.84	0.565	9.79	45	
	0940	51	36							
			Sandy / End development / water visually clear							

TtNUS Form 0013

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Site: Weymouth NAS
Well: MW-2
Date Installed: 10/11/1990
Date Developed: 05/15/09
Dev. Method: Hand
Pump Type: Foot Valve

Depth to Bottom (ft.): 20.81
Static Water Level Before (ft.): 4.73
Static Water Level After (ft.): 4.73
Screen Length (ft.): 15'
Specific Capacity: —
Casing ID (in.): 2"

Project Name: WestGate Landfill
Project Number: 112G00864
Site Geologist: B. Geringer
Drilling Co.: N/A

Time Start: 1135	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units mS/cm)	Turbidity (NTU)	Remarks (odor, color, etc.)
1145	N/A	3	4.73	12.92	4.86	0.300	381	Brown/Cloudy
1155	↓	5	4.73	12.32	4.92	0.290	20.1	Clear - Colorless
1205	↓	7	4.73	12.35	4.95	0.273	30.2	" "
1215	↓	9	4.73	12.31	4.98	0.292	13.3	↓
1225	↓	11	4.73	12.33	5.04	0.279	23.4	↓
1235	↓	13	4.73	12.68	5.08	0.277	18.7	↓
								Finished development

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Site: West Gate Landfill
Well: MW-3
Date Installed: 10-11-90
Date Developed: 5-15-09
Dev. Method: hand purge w/ foot valve
Pump Type: none used

Depth to Bottom (ft.):
Static Water Level Before (ft.): 4.60
Static Water Level After (ft.): 4.60
Screen Length (ft.): 15'
Specific Capacity: N/A
Casing ID (in.): 2"

Project Name: NAS S. Weymouth
Project Number: 112G00864
Site Geologist: PS/BG
Drilling Co.:

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units mS/cm)	Turbidity (NTU)	Remarks (odor, color, etc.) DO
0850		begin	purge					
~~0900~~ 0910			4.60	12.08	4.93	0.2066	293	3.63 brown - turbid
0915			4.60	10.50	4.81	0.505	159	3.86 light brown - turbid
0920			4.60	10.41	4.82	0.507	73.7	3.83 tan - mostly clear
0930			4.60	10.41	4.82	0.505	35.0	3.86 colorless - clear
0940			4.60	10.70	4.81	0.509	74.5	4.34 tan - mostly clear
0950			4.60	10.43	4.81	0.505	47.7	3.85 tan - mostly clear
1000			4.60	10.52	4.79	0.489	94.4	3.52 tan - turbid
1010			4.60	11.02	4.81	0.474	56.6	4.10 tan - turbid
1020			4.60	10.77	4.74	0.463	55.8	3.40 colorless - clear
1030			4.60	10.65	4.71	0.472	76.9	3.36 tan - mostly clear
1040			4.60	10.01	4.74	0.497	48.5	3.70 tan - turbid
1050			4.60	10.01	4.76	0.487	86.0	3.55 tan - turbid
1100			4.60	9.98	4.76	0.483	26.3	3.50 clear - colorless
1110			4.60	10.19	4.84	0.481	45.4	4.37 clear -
1120			4.60	10.08	4.51	0.481	70.6	3.93 tan - mostly clear
1130			4.60	10.28	4.77	0.474	243	4.57 brown - turbid
1140			4.60	10.11	4.77	0.482	92.2	3.43 tan - moderately turbid

- Developed up and down the screen @ 1' intervals

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Site: West Gate Landfill
Well: MW-3
Date Installed:
Date Developed: 5-15-09
Dev. Method: hand purge w/ foot valve
Pump Type: none

Depth to Bottom (ft.):
Static Water Level Before (ft.): 4.60
Static Water Level After (ft.): 4.60
Screen Length (ft.): 15'
Specific Capacity: —
Casing ID (in.): 2"

Project Name: NAS S. Weymouth
Project Number: 112G00864
Site Geologist: PS/BG
Drilling Co.:

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units mS/cm)	Turbidity (NTU)	Remarks (odor, color, etc.)
1150		~30 gal	4.60	10.17	4.77	0.488	77.4	3.62 - light tan - mostly clear.
	purge complete per FOL							

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Site: Weymouth NAS
Well: MW-4
Date Installed: 10/12/90
Date Developed: 5/15/09
Dev. Method: Hand
Pump Type: Foot Valve

Depth to Bottom (ft.): 21.36
Static Water Level Before (ft.): 3.56
Static Water Level After (ft.): 3.56
Screen Length (ft.): 15'
Specific Capacity: —
Casing ID (in.): 2"

Project Name: West Gate Landfill
Project Number: 112G00864
Site Geologist: B. Geringer
Drilling Co.: N/A

Time Start: 835	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units ms/cm)	Turbidity (NTU)	Remarks (odor, color, etc.)
845	N/A	4	3.56	13.21	4.26	0.198	91.2	Brown - Silty
855	↓	6	3.56	12.97	4.44	0.185	14.7	Orangish/Brown *
905	↓	8	3.56	12.97	4.51	0.184	6.53	Clear/ Lt. Brown color
915	↓	10	3.56	12.82	4.55	0.185	5.12	" "
925	↓	12	3.56	12.82	4.64	0.184	3.93	↓
935	↓	14	3.56	12.66	4.67	0.183	3.49	↓
								Finished Development

* Slightly Foamy in bucket

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Site: West Gate Landfill
Well: MW-38
Date Installed: 2-15-96
Date Developed: 5-14-09
Dev. Method: hand purging w/check valve
Pump Type: none

Depth to Bottom (ft.):
Static Water Level Before (ft.): 11.02
Static Water Level After (ft.): 11.02
Screen Length (ft.): 15'
Specific Capacity: N/A
Casing ID (in.): 2"

Project Name: West Gate Landfill - NAS S. Weymouth
Project Number: 112G00864
Site Geologist: B. Geringer / P. Seward
Drilling Co.: N/A

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units mS/cm)	Turbidity (NTU)	DO	Remarks (odor, color, etc.)
0920			~~11~~		~~4.34~~	~~0.156~~		~~3.36~~ 13	
0930			11.05	9.19	4.36	0.156	43.2	3.35	tan
0945			11.05	9.37	4.54	0.163	50.5	3.80	tan
0955			11.05	9.35	4.55	0.160	108.6	3.16	light-brown
1005			11.05	9.18	4.53	0.161	66.8	3.23	tan
		paused to empty purge buckets							
1015			11.05	13.12	4.77	0.154	77.1	6.12	tan
1025			11.05	12.77	4.84	0.149	80.2	6.32	tan
1035			11.05	13.06	4.84	0.136	174.0	5.49	brown
1045			11.05	11.24	4.74	0.139	Error 4	9.40	brown
1055			11.05	10.37	4.70	0.155	80.2	4.54	tan
1105			11.05	9.42	4.52	0.165	36.2	3.36	tan (light)
1110			11.05	9.97	4.54	0.164	41.5	4.14	light tan
1115			11.05	10.04	4.64	0.163	30.3	4.48	clear - colorless
1120		20.0 gal	11.05	10.21	4.56	0.160	21.4	5.01	clear - colorless

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Site: Wexmouth NAS - SGL
Well: MW-39
Date Installed: 2/15/96
Date Developed: 5/14/09
Dev. Method: Hand
Pump Type: Foot Valve

Depth to Bottom (ft.): 15.82
Static Water Level Before (ft.): 7.07
Static Water Level After (ft.): 12.10
Screen Length (ft.): 15'
Specific Capacity: —
Casing ID (in.): 2

Project Name: South Gate LandFill
Project Number: 112G00864
Site Geologist: B. Geringer
Drilling Co.: N/A

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units mS/cm)	Turbidity (NTU)	Remarks (odor, color, etc.)
Start: 900 ~~900~~								
910 ~~910~~	N/A	4	14.48	11.32	5.68	0.148	129	Brown - Well Dry - Wait 10 min For Recharge -
930		6	11.77	11.83	5.87	0.152	1263	Brown
940		8	11.96	9.94	5.72	0.153	1527	Brown
950		9	11.24	10.60	5.74	0.155	1011	Brown
1000		10	11.09	11.50	5.63	0.143	759	Brown
1010		10.5	10.94	11.50	5.65	0.142	190	Cloudy -
1025 ~~1025~~		11.0	10.54	11.79	5.73	0.131	189	Cloudy
1035		11.5	10.65	10.65	5.59	0.130	181	Cloudy
1045		12	10.58	10.54	5.08	0.130	178	
1100		13	11.46	8.57	5.05	0.148	181	
1110		14	12.04	8.38	5.24	0.150	176	
1120		15	12.12	8.63	5.52	0.160	77.7	Slightly Cloudy
1130		16	12.08	8.39	5.42	0.165	81.0	
1140		17	12.15	8.11	5.17	0.170	78.7	
1150		18	12.07	9.04	5.49	0.166	49.2	Clear - Some Floating Particulates
1200		19	12.10	9.33	5.42	0.168	33.1	Clear - little Floating Particulates

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Site: West Gate Landfill
Well: MW-405
Date Installed: 2-15-96
Date Developed: 5-14-09
Dev. Method: hand purge w/ foot valve
Pump Type: none

Depth to Bottom (ft.):
Static Water Level Before (ft.): 10.67
Static Water Level After (ft.): 10.67
Screen Length (ft.): 10'
Specific Capacity: —
Casing ID (in.): 2"

Project Name: Wegman NAS
Project Number: 112G00864
Site Geologist: P. Seward / B. Gerringer
Drilling Co.: MA

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units mS/cm)	Turbidity (NTU)	DO	Remarks (odor, color, etc.)
1405			10.67						
1415			10.70	10.43	4.99	0.148	Error 4	3.48	Dark brown
1425			10.70	10.63	5.12	0.100	11	2.74	brown
1435			10.70	7.71	4.80	0.151	69.5	3.14	brown
1445			10.70	7.71	4.81	0.148	27.3	3.62	brown
1455			10.72	7.75	4.86	0.151	75.9	3.15	tan
1505			10.70	7.76	4.84	0.149	153	3.17	brown
1520			10.70	7.84	4.88	0.147	26.1	3.11	brown
		Discontinued collecting readings - focused on continuous purging							
1600			10.70	7.84	4.93	0.142	41.3	3.41	clear
1605			10.70	7.76	4.80	0.152	40.1	3.22	clear
1610			10.70	7.69	4.90	0.151	123	3.13	light-brown
1615			10.70	8.47	4.92	0.147	62.2	3.02	clear
1620			10.70	8.47	4.93	0.149	30.1	3.05	clear
1625		26 gal	10.70	9.04	4.95	0.153	48.9	3.06	clear
		Development complete per FOL							

Hand purge w/ ~~suro~~ check valve only - obstruction in well, purged up and down the screen at ~~1~~ 1' intervals.

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Site: Weymouth NAS
Well: MW- 48D
Date Installed: 5/4/99
Date Developed: 5/14/09
Dev. Method: Hand
Pump Type: Foot Valve

Depth to Bottom (ft.): 37.68
Static Water Level Before (ft.): 8.43
Static Water Level After (ft.): 8.43
Screen Length (ft.): 10'
Specific Capacity: —
Casing ID (in.): 2"

Project Name: WestGate LandFill
Project Number: 112G00864
Site Geologist: B. Geringer
Drilling Co.: N/A

Time START: 1340	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units mS/cm)	Turbidity (NTU)	Remarks (odor, color, etc.)
1350		2	8.43	10.23	6.06	0.406	2919	Orange/Brown
1400		5	8.43	8.93	5.81	0.375	1444	" "
1410		8	8.60	8.86	5.69	0.350	2595	Lt Brown
1420		10	8.43	8.44	5.74	0.356	1463	↓
1430		11	8.43	9.09	5.64	0.336	100.9	Cloudy
1440		13	8.43	9.06	5.77	0.347	166	" "
1450		14	8.43	8.89	5.81	0.363	1443	Brown
1500		15	8.43	8.73	5.76	0.347	1762	" "
1510		16	8.43	8.71	5.57	0.337	127	Cloudy
1520		17	8.43	8.65	5.67	0.343	186	" "
1530		18	8.43	8.83	5.53	0.336	265	
1540		20	8.43	8.26	5.39	0.330	77.4	
1550		21	8.43	8.42	5.46	0.338	96	
1600		22	8.43	8.40	5.40	0.333	235	
1610		23	8.43	8.72	5.44	0.332	126	
1620		24	8.43	9.11	5.42	0.330	163	
1630		25	8.43	8.78	5.56	0.360	648	↓
1640		26	8.43	8.52	5.52	0.337	63.0	little Particulates

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Site: Weymouth NAS
Well: MW-48D
Date Installed: 5/4/99
Date Developed: 5/14/09
Dev. Method: Hand
Pump Type: Foot Valve

Depth to Bottom (ft.): 37.68
Static Water Level Before (ft.): 8.43
Static Water Level After (ft.): 8.43
Screen Length (ft.): 10'
Specific Capacity: —
Casing ID (in.): 2"

Project Name: West Gate Landfill
Project Number: 112600844
Site Geologist: B. Geringer
Drilling Co.: N/A

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units mS/cm)	Turbidity (NTU)	Remarks (odor, color, etc.)
1650		27	8.43	8.39	5.39	0.333	126	Cloudy - Yellowish
1700		28	8.43	8.29	5.57	0.339	150	" "
1710		29	8.43	8.14	5.47	0.349	151	↓
1720		30	8.43	8.29	5.50	0.351	288	
1730		31	8.43	8.40	5.50	0.352	270	
1740		32	~~8.13~~ 8.43	8.12	5.57	0.348	226	Reached 4 hours - Stopped development
~~1750~~								

Depth to bottom : 37.88' ~~[illegible]~~
Post Development

TETRA TECH NUS, INC.

WELL DEVELOPMENT DATA SHEET

Well No.: MW48D2

PROJECT: West Gate Landfill

PROJECT NO.: 112G0864 0000.0320

~~SAMPLE ID~~: initial water level = 8.08

DATE: 6-18-09

WEATHER: Cloudy

PERSONNEL: P. Seward

Well Screen Depth: 40 / 55 ft. bgs

H&S Monitoring Instrument Reading _____ initial water

Pump Type/Material: Waterra w/foot valve

Pump Intake Depth: variable - moving foot valve up and down the entire length of the screen

Total Purge Volume = 12.5 (gal)

Data Recorded By: P. Seward

Time	Water Level ft below top PVC	Volume mL	Flow Rate mL/min	Temp °C	pH	Sp Cond mS/cm	DO mg/L	Turbidity NTU	Comments
0905	began well surge								
0930	15.4	~~1100~~	1100	8.5	5.79	0.862	4.44	off scale	dark brown
0935	31.78	~~1100~~	1100	8.7	6.77	0.774	2.03	190	tan
0940	32.40		500	8.8	6.54	0.648	6.11	160	"
0945	32.91		500	8.8	6.47	0.628	3.87	150	"
0950	33.20		500	9.0	6.42	0.627	3.58	140	"
0955	33.21		500	9.1	6.44	0.633	3.62	135	"
1000	33.88		500	9.3	6.45	0.750	2.12	130	light tan
1005	33.40		500	10.0	6.47	0.607	2.00	170	"
1010	32.35		500	10.3	6.49	0.639	3.80	120	"
1015	31.20		300	10.3	6.47	0.600	2.66	110	"
1020	31.81		500	10.3	6.49	0.602	2.42	110	"
1025	31.40		500	10.3	6.55	0.594	2.52	95	"
1030	31.40		500	10.6	6.55	0.601	2.39	45	clear-colorless
1035	31.20		450	10.9	6.56	0.596	2.56	28	"
1040	31.11		450	10.7	6.56	0.604	2.59	22	"
1045	31.0		450	10.8	6.53	0.610	2.61	20	"
1050	32.2		450	10.8	6.51	0.600	2.55	17	"

TtNUS Form 0013

purge complete per work plan

Page ___ of ___

APPENDIX A-11
GROUNDWATER LEVEL MEASUREMENT
SOUTH WEYMOUTH NAS SOUTH GATE LANDFILL
PRE-REMEDIAL DESIGN INVESTIGATION
CTO 407

Tetra Tech NUS, Inc.

GROUNDWATER LEVEL MEASUREMENT SHEET

Project Name: West Gate Landfill **Project No.:** 112G00864/CTO 407
Location: NAS South Weymouth **Personnel:** J. Traut P. Seward
Weather Conditions: rain light-moderate **Measuring Device:** Solinst Interface meter
Tidally Influenced: Yes ___ No _X_ **Remarks:** heavy rains 6/27/09

Well or Piezometer Number	Date	Time	Elevation of Reference Point (feet)*	Total Well Depth (feet)*	Water Level Indicator Reading (feet)*	Thickness of Free Product (feet)*	Groundwater Elevation (feet)*	Comments
WGL-APZ-1	6/29/09	0905			1.89			
WGL-APZ-2		0917			2.55			
WGL-APZ-3		0844			7.92			
WGL-MW-01		0900			10.65			Read to pull bladder pump WL below top of pump
WGL-MW-02		1000			5.31			
WGL-MW-03		1012			5.11			
WGL-MW-04		0832			4.35			
WGL-MW-37		0808			9.69			
WGL-MW-38		0854			11.12			
WGL-MW-39		0850			7.95			
WGL-MW-40D		0851			10.33			
WGL-MW-40S		0852			11.02			
WGL-MW-41D		0930			9.05			
WGL-MW-41S		0932			8.44			
WGL-MW-42		0822			7.90			
WGL-MW-43		0908			11.63			
WGL-MW-47D		0835			13.41			
WGL-MW-48D		0846			8.77			
WGL-MW-48D2		0845			8.33			
WGL-MW-66		0826			6.60			
WGL-MW-66D		0827			6.39			
WGL-MW-101		0833			2.58			
WGL-MW-102		0841			7.48			
WGL-MW-103		0839			7.88			

Tetra Tech NUS, Inc.

GROUNDWATER LEVEL MEASUREMENT SHEET

Project Name: West Gate Landfill
Project No.: 112G00864/CTO 407
Location: NAS South Weymouth
Personnel: J. Traut P. Seward
Weather Conditions: rain light-moderate
Measuring Device: Solinst Interface Meter
Tidally Influenced: Yes ___ No _X_
Remarks: heavy rain on 6/27/09

Well or Piezometer Number	Date	Time	Elevation of Reference Point (feet)*	Total Well Depth (feet)*	Water Level Indicator Reading (feet)*	Thickness of Free Product (feet)*	Groundwater Elevation (feet)*	Comments
JFP-MW-8	6/29/09				3.88			
CGS-MW-5D					14.62			
CGS-MW-10S					~~4.35~~ 14.57			no standing water @ SLG
CGS-MW-11S					~~12.15~~ 4.35			
EBS-MW-16-006					12.15			
	Note 5D & 10S Not labeled - measured Total Depth							
	Shallower pair recorded for 10S & deeper for 5D							
	Other readings were							
			10BD	38.40 (TD)	WL 14.16			
			5S	18.5 (TD)	WL = 14.75			

APPENDIX A-12
LOW-FLOW GROUNDWATER SAMPLE LOGS
SOUTH WEYMOUTH NAS SOUTH GATE LANDFILL
PRE-REMEDIAL DESIGN INVESTIGATION
CTO 407

TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: West Gate Landfil
Sample ID: WGL-GW-MW2-~~062909~~ 063009 JT 6/30/09

Tetra Tech NUS Charge No. 112G00864/ CTO 407
QC: NA (If applicable)

Sample Method: Modified Low Flow w/ Peristaltic Pump
Depth Sampled: ~14.5 Feet bgs Screened Interval Depth 1.7 to 6.7 feet bgs
Sample Date & Time: 6/30/09 0855 hours NA /Dup
Sampler(s): J. Pagus
Data Recorded By: J. Pagus Signature: J. Pagus
Notes:

H&S Survey Meter — PPM Field Instrument Group A/B/C/D
Pre-pump insertion WL 5.32 ft Post - pump insertion WL 5.33 ft

Analysis	Bottle Lot #	Analysis	Bottle Lot #	Analysis	Bottle Lot #
VOC	5 x 40mL HCl	Boxing	2x1L		
SVOC/PAH	2x1L	Metals	1x500mL (HNO3)		
Pest/PCB	2x1L				

Clock Time 24hr	Water Depth below MP ft	Pump Dial 1	Purge Rate ml/min	Cumm. Volume Purged ~~liters~~ gal	Temp °C 3%	Spec. Cond. 2 uS/cm 3%	pH +/-0.1	ORP/Eh3 mv ±10	DO mg/L 10%	Turbidity NTU	Comments
0815	5.33	Begin low flow									
0830	5.33		290	1 gal	12.24	807	7.55	246.6	0.60	1.94	clear
0835				1.5	11.75	760	5.20	266.1	0.43	1.42	
0840				2	11.75	751	4.88	280.0	0.31	1.98	
0845				2.5	11.73	746	4.85	285.0	0.33	1.68	
0850				3	11.72	746	4.86	290.0	0.34	1.59	
0855		Parameters stable / Collect sample									

TtNUS Form 0009

1. Pump dial setting (for example: hertz, cycle/min, etc.)
2. Siemens per cm (same as umhos/cm) at 25 °C.
3. Oxidation reduction potential (stand in for Eh).

TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: West Gate Landfil
Sample ID: WGL-GW-MW3-062909

Tetra Tech NUS Charge No. 112G00864/ CTO 407
QC: _____ (If applicable)

Sample Method: Modified Low Flow w/ Peristaltic Pump
Depth Sampled: 15 Feet Screened Interval Depth 2-17 feet bgs
Sample Date & Time: 6/29/09 1505 hours — /Dup
Sampler(s): J. Traur
Data Recorded By: J. Traur Signature: J. Traur
Notes:

H&S Survey Meter — PPM Field Instrument Group A/B/C/D
Pre-pump insertion WL 5.10 ft Post - pump insertion WL 5.11 ft

Analysis	Bottle Lot #	Analysis	Bottle Lot #	Analysis	Bottle Lot #
SVOC/PAH	2x1L	Dioxins	2x1L	VOC	5x 40mL
Pest/PCB	2x1L				
Metals	1x500mL HNO3				

Clock Time 24hr	Water Depth below MP ft	Pump Dial 1	Purge Rate ml/min	Cumm. Volume Purged liters	Temp °C ±3%	Spec. Cond. 2 uS/cm ±3%	pH ±0.1	ORP/Eh3 mv ±10	DO mg/L 10%	Turbidity NTU	Comments
1424	Begin low flow purging										
1430	5.11		280		13.30	555	7.16	198.9	6.97	5.7	clear
1435	5.11		275	1.5	13.08	550	5.80	215.4	5.36	3.4	
1440					13.09	538	5.46	248.8	4.78	0.80	
1445				2	12.87	531	5.34	268.5	4.30	0.60	
1450					12.93	523	5.32	277.3	4.28	0.40	
1455				3	12.95	517	5.29	282.4	4.25	0.44	
1500					12.98	514	5.28	285.5	4.16	0.17	
1505	Parameters stable / collect sample										

TtNUS Form 0009

1. Pump dial setting (for example: hertz, cycle/min, etc.)
2. Siemens per cm (same as umhos/cm) at 25 °C.
3. Oxidation reduction potential (stand in for Eh).

TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: West Gate Landfil
Sample ID: WGL-GW-MW4-063009

Tetra Tech NUS Charge No. 112G00864/ CTO 407
QC: ~~WGL-GW-DUP~~ Lab QC (If applicable)

Sample Method: Modified Low Flow w/ Peristaltic Pump
Depth Sampled: 14 Feet Screened Interval Depth 2-17 feet bgs
Sample Date & Time: 6/30/09 1000 hours NA /Dup
Sampler(s): J. Traut
Data Recorded By: J. Traut Signature: J. Traut
Notes: could not collect lab QC - VOCs
difficult to collect → very bubbly

H&S Survey Meter — PPM Field Instrument Group A/B/C/D
Pre-pump insertion WL 4.37 ft Post - pump insertion WL 4.40 ft

Analysis	Bottle Lot #	Analysis	Bottle Lot #	Analysis	Bottle Lot #
VOC	~~8~~ 15 x 40mL (HCl)	Dioxins	~~2~~ 1 x 1L		
SVOC/PAH	~~2~~ x 1L	Metals	1 x 500mL (HNO3)		
Pest/PCB	~~2~~ x 1L				

Clock Time 24hr	Water Depth below MP ft	Pump Dial 1	Purge Rate ml/min	Cumm. Volume Purged ~~liters~~ gal	Temp °C	Spec. Cond. 2 uS/cm	pH	ORP/Eh3 mv	DO mg/L	Turbidity NTU	Comments
0925		Begin low flow purging									cloudy orange
0940	4.40		280	1.5	12.08	300	5.16	110.5	0.55	1.65	lt. orange/clear
0945	|		|	2	12.95	296	5.14	109.5	0.42	1.35	yellow/lt orange
0950	|		|	2.5	12.93	295	5.13	109.9	0.31	1.18	|
0955	|		|	3	12.91	295	5.14	109.8	0.37	1.24	|
1000		Parameters stable / collect sample									

TtNUS Form 0009

1. Pump dial setting (for example: hertz, cycle/min, etc.)
2. Siemens per cm (same as umhos/cm) at 25 °C.
3. Oxidation reduction potential (stand in for Eh).

TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: West Gate Landfil
Sample ID: WGL-GW-MW38-063009

Tetra Tech NUS Charge No. 112G00864/ CTO 407
QC: LabQC (If applicable)

Sample Method: Modified Low Flow w/ Peristaltic Pump
Depth Sampled: 11.5 Feet Screened Interval Depth 5.1-14.35 feet bgs
Sample Date & Time: 6/30/09 1225 hours NA /Dup
Sampler(s): J. Traut
Data Recorded By: J. Traut Signature: [signature]
Notes:

H&S Survey Meter – PPM Field Instrument Group A/B/C/D
Pre-pump insertion WL – ft Post - pump insertion WL 11.13 ft

Analysis	Bottle Lot #	Analysis	Bottle Lot #	Analysis	Bottle Lot #
VOC 15x 40mL (HCl)		Dioxins 6x1L			
SVOC/PAH 6x1L		Metals 2x500mL (HNO3)			
Pest/PCB 6x1L					

Clock Time 24hr	Water Depth below MP ft	Pump Dial 1	Purge Rate ml/min	Cumm. Volume Purged ~~liters~~ gal	Temp °C ±3%	Spec. Cond. 2 uS/cm ±3%	pH +/-0.1	ORP/Eh3 mv ±10	DO mg/L 10%	Turbidity NTU	Comments
1123	Begin low flow purging										
1140	11.15		240	1 gal	13.27	141	5.24	215.5	1.52	7.22	clear
1145	11.14			1.5	13.17	128	5.32	203.8	1.26	6.01	
1150				2	12.99	135	5.27	216.2	0.85	2.78	
1155				2.5	12.94	147	5.23	229.5	0.55	1.71	
1200				3	12.94	151	5.23	233.6	0.43	1.38	
1205				3.5	12.68	157	5.22	235.4	0.37	0.62	
1210				4	12.76	159	5.22	230.7	0.32	0.28	
1215				4.25	12.69 ~~4.25~~	162	5.21	223.6	0.30	0.26	
1220				4.75	12.60	160	5.21	224.5	0.29	0.42	
1225				Parameters stable / Collect Sample							

TtNUS Form 0009

1. Pump dial setting (for example: hertz, cycle/min, etc.)
2. Siemens per cm (same as umhos/cm) at 25 °C.
3. Oxidation reduction potential (stand in for Eh).

page 1 of 1

TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: West Gate Landfil
Sample ID: WGL-GW-MW39-063009

Tetra Tech NUS Charge No. 112G00864/ CTO 407
QC: NA (If applicable)

Sample Method: low flow w/ peristaltic pump
Depth Sampled: 19 Feet Screened Interval Depth 4.3-13.1 feet
Sample Date & Time: 6/30/09 1535 hours NA /Dup
Sampler(s): P. Seward
Data Recorded By: P. Seward Signature: Peter Seward
Notes:

H&S Survey Meter NA PPM Field Instrument Group A/B/C/D
Pre-pump insertion WL NA ft Post - pump insertion WL NA ft

Analysis	Bottle Lot #	Analysis	Bottle Lot #	Analysis	Bottle Lot #
VOC	5x40mL(HCl)	Dioxins	2x1L		
SVOC/PAH	2x1L	Metals	1x500mL(HNO3)		
Pest/PCB	2x1L				

Clock Time 24hr	Water Depth* below MP ft	Pump Dial 1	Purge Rate ml/min	Cumm. Volume Purged liters	Temp °C	Spec. Cond. 2 uS/cm	pH	ORP/Eh3 mv	DO mg/L	Turbidity NTU	Comments
1440	8.07		150								
1445	8.68		100		15.18	157	5.34	63.3	5.49	12.5	clear-colorless
1450	8.81		90		15.37	142	5.25	66.9	0.69	9.48	"
1455	8.99		90		15.57	140	5.33	64.6	0.64	12.8	"
1500	9.13		90		15.41	139	5.33	63.9	0.48	8.27	"
1505	9.27		90		15.48	137	5.32	63.9	0.38	4.68	"
1510	9.40		90		15.53	137	5.35	62.0	0.35	3.22	"
1515	9.81		90		15.54	136	5.35	62.3	0.38	3.37	"
1520	10.00		90		15.49	135	5.28	62.3	0.41	2.99	"
1530	10.45		90	1.5 gal	15.30	134	5.32	64.1	0.44	3.22	"
				purge	complete	per	work	plan			

TtNUS Form 0009

* could not control drawdown - was instructed to purge until other parameters stabilized & then collected sample

1. Pump dial setting (for example: hertz, cycle/min, etc.)
2. Siemens per cm (same as umhos/cm) at 25 °C.
3. Oxidation reduction potential (stand in for Eh).

TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: West Gate Landfil
Sample ID: WGL-GW-MW40S-063009

Tetra Tech NUS Charge No. 112G00864/ CTO 407
QC: WGL-GW-~~MW~~ DUP02-063009 (If applicable)

Sample Method: Modified Low Flow w/ Peristaltic Pump
Depth Sampled: 11 Feet Screened Interval Depth 3.85-13.8 feet bgs
Sample Date & Time: 6/30/09 1455 hours 1500/Dup
Sampler(s): J. Traut
Data Recorded By: J. Traut Signature: JTraut
Notes: Wasp nest in well

H&S Survey Meter — PPM Field Instrument Group A/B/C/D
Pre-pump insertion WL 11.07 ft Post - pump insertion WL 11.07 ft

Analysis	Bottle Lot #	Analysis	Bottle Lot #	Analysis	Bottle Lot #
VOC	5x40mL (HCl)	Dioxins	2x1L		
SVOC/PAH	2x1L	Metals	1x500mL (HNO3)		
Pest/PCB	2x1L				

Clock Time 24hr	Water Depth below MP ft	Pump Dial 1	Purge Rate ml/min	Cumm. Volume Purged ~~liters~~ gal	Temp °C ±%	Spec. Cond. 2 uS/cm ±%	pH ±0.1	ORP/Eh3 mv ±10	DO mg/L 10%	Turbidity NTU	Comments
1405		Begin low purging									
1415	11.07		280	0.75	11.60	318	5.23	171.9	0.28	3.38	Slightly yellow
1420				1.25	11.31	313	5.27	147.6	0.25	2.98	lt orange
1425				1.75	11.74	311	5.33	141.6	0.35	1.63	bubbly
1430				2.25	11.51	310	5.37	140.9	0.32	1.32	
1435				2.5	11.28	306	5.39	145.1	0.32	1.28	
1440				2.75	11.39	305	5.39	152.2	0.23	0.78	
1445				3.25	11.20	305	5.40	154.7	0.23	0.83	
1450				3.5	11.07	304	5.41	157.0	0.25	0.78	
1455		Parameters stable / collect sample									

TtNUS Form 0009

1. Pump dial setting (for example: hertz, cycle/min, etc.)
2. Siemens per cm (same as umhos/cm) at 25 °C.
3. Oxidation reduction potential (stand in for Eh).

TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: West Gate Landfil
Sample ID: WGL-GW-MW48D-063009

Tetra Tech NUS Charge No. 112G00864/ CTO 407
QC: Dup 01 (If applicable)

Sample Method: low flow w/ peristaltic pump
Depth Sampled: 31' Feet Screened Interval Depth 26-36 feet
Sample Date & Time: 6/30/09 1245 hours 1250 /Dup
Sampler(s): P. Seward / J. Trout
Data Recorded By: P. Seward Signature: [signature]
Notes:

H&S Survey Meter ____ PPM Field Instrument Group A/B/C/D
Pre-pump insertion WL NA ft Post - pump insertion WL NA ft

Analysis	Bottle Lot #	Analysis	Bottle Lot #	Analysis	Bottle Lot #
VOC 5x40mL(HCl)		Dioxins 2x1L			
SVOC(PAH) 2x1L		Metals 1x500mL(HNO3)			
Pest/PCB 2x1L					

Clock Time 24hr	Water Depth below MP ft	Pump Dial 1	Purge Rate ml/min	Cumm. Volume Purged liters	Temp °C	Spec. Cond. 2 uS/cm	pH	ORP/Eh3 mv	DO mg/L	Turbidity NTU	Comments
1155	8.80		90								
1200	8.81		90		13.22	240	7.32	0.5	7.89	37	clear-colorless
1205	8.80		90		10.34	449	6.11	29.8	1.41	33	" "
1210	8.85		~~240~~ 260		9.41	444	5.87	37.0	0.69	25	"
1215	8.85		260		9.14	432	5.83	40.6	0.49	20	"
1220	8.85		260	~1 gal	8.97	422	5.80	47.0	0.56	18	"
1225	8.85		260		8.79	420	5.81	47.4	0.51	14	"
1230	8.85		260		8.93	413	5.77	50.2	0.53	12	"
1235	8.85		260		8.92	411	5.77	52.5	0.53	11	"
1240	8.85		260	~3.0	8.95	408	5.76	55.3	0.52	10	"
			purge complete per work plan								

TtNUS Form 0009

1. Pump dial setting (for example: hertz, cycle/min, etc.)
2. Siemens per cm (same as umhos/cm) at 25 °C.
3. Oxidation reduction potential (stand in for Eh).

TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: West Gate Landfil
Sample ID: WGL-GW- MW48D2-063009

Tetra Tech NUS Charge No. 112G00864/ CTO 407
QC: NA (If applicable)

Sample Method: low flow w/ peristaltic pump
Depth Sampled: 47.5 Feet Screened Interval Depth 40-55 feet
Sample Date & Time: 6/30/09 1000 hours NA /Dup
Sampler(s): P. Seward / J. Grant
Data Recorded By: P. Seward Signature: [signature]
Notes:

H&S Survey Meter 1 PPM Field Instrument Group A/B/C/D
Pre-pump insertion WL NA ft Post - pump insertion WL NA ft

Analysis	Bottle Lot #	Analysis	Bottle Lot #	Analysis	Bottle Lot #
VOC	5x40mL (HCl)	Dioxins	2x1L		
SVOC (PAH)	2x1L	Metals	1x500mL (HNO3)		
Pest/PCB	2x1L				

Clock Time 24hr	Water Depth below MP ft **	Pump Dial 1	Purge Rate ml/min	Cumm. Volume Purged liters	Temp °C	Spec. Cond. 2 uS/cm	pH	ORP/Eh3 mv	DO mg/L	Turbidity NTU	Comments
0850	8.12		90								
0855	8.88		90		12.28	564	6.97	168.4	6.14	*	tan-cloudy
0900	9.30		90		11.07	633	6.80	60.5	1.56	*	clear-colorless
0906	9.78		90		10.69	634	6.73	25.0	1.09	*	"
0918	10.70		90		10.42	633	6.77	5.0	0.75	*	"
0924	11.00		90		10.48	630	6.79	2.3	0.70	*	"
0930	11.32		90		10.36	632	6.81	0.0	0.58	*	"
0936	11.64		90		10.15	631	6.83	-4.7	0.60	31	"
0942	11.88		90		10.26	630	6.83	-3.8	0.47	29	"
0947	12.04		90		10.39	630	6.85	-9.3	0.60	27	"
0952	12.25		90		10.48	631	6.87	-13.2	0.66	25	"
0957	12.37	~~1.50~~ 1.5	90	~1.5 gal	10.35	632	6.86	-20.8	0.70	26	"
				purge complete per work plan							

TtNUS Form 0009

1. Pump dial setting (for example: hertz, cycle/min, etc.)
2. Siemens per cm (same as umhos/cm) at 25 °C.
3. Oxidation reduction potential (stand in for Eh).

* turbidity meter malfunctioned - could not use.
** could not control drawdown - was instructed to purge until other parameters stabilized & then collect sample.

TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: West Gate Landfil
Sample ID: WGL-GW-MW101-062909

Tetra Tech NUS Charge No. 112G00864/ CTO 407
QC: NA (If applicable)

Sample Method: Modified Low Flow w/ Peristaltic Pump
Depth Sampled: ~46 Feet Screened Interval Depth 39.5-49.5 feet
Sample Date & Time: 6/29/09 1310 hours — /Dup
Sampler(s): J. Traut
Data Recorded By: J. Traut Signature: J Traut
Notes:

H&S Survey Meter — PPM Field Instrument Group A/B/C/D
Pre-pump insertion WL 2.55 ft Post - pump insertion WL ____ ft

Analysis	Bottle Lot #	Analysis	Bottle Lot #	Analysis	Bottle Lot #
SVOC	2x1L	VOC	3x40mL(HCl)		
Pest/PCB	2x1L				
Metals	1x500ml poly HNO3	Dioxins	2x1L		

Clock Time 24hr	Water Depth below MP ft	Pump Dial 1	Purge Rate ml/min	Cumm. Volume Purged ~~liters~~ gal	Temp °C 3%	Spec. Cond. 2 uS/cm 5%	pH ±1	ORP/Eh3 mv ±10	DO mg/L 10%	Turbidity NTU	Comments
1145	Begin low flow pumping							73.6			
1200	4.92		90	0	13.97	908	11.10	~~23.5~~	~~38.5~~ 4.18	3.9	
1210	5.31			0.5	13.03	891	10.85	79.2	3.03	6.7	
~~1220~~ ~~4.90~~	6.63			0.75	12.88	889	11.03	71.7	2.87	3.2	
1230	7.07			0.85	12.81	887	11.07	68.5	2.79	2.9	
1235	7.50			~~0.85~~ 1	12.66	883	11.09	68.9	2.83	3.9	
1240	7.86			1.10	12.51	880	11.09	67.0	2.74	4.6	
1245	8.27			1.25	12.44	876	11.09	67.8	2.74	2.2	
1250	8.63			1.35	12.24	870	11.12	57.8	2.75	3.8	
1255	8.97			1.5	12.20	863	11.10	39.6	2.67	3.4	
1300	9.29			1.75	12.23	859	11.11	33.7	2.58	3.2	
1305	9.57			2	12.14	852	11.07	35.7	2.54	2.0	Clear
1310	Parameters stable / collect sample										

TtNUS Form 0009

1. Pump dial setting (for example: hertz, cycle/min, etc.)
2. Siemens per cm (same as umhos/cm) at 25 °C.
3. Oxidation reduction potential (stand in for Eh).

TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: West Gate Landfil
Sample ID: WGL-GW-MW102-062909

Tetra Tech NUS Charge No. 112G00864/ CTO 407
QC: NA (If applicable)

Sample Method: low flow w/ peristaltic pump
Depth Sampled: 247 Feet Screened Interval Depth 41.5-51.5 feet
Sample Date & Time: 6/29/09 1555 hours NA/Dup
Sampler(s): P. Sevard
Data Recorded By: P. Sevard Signature: [signature]
Notes:

H&S Survey Meter _____ PPM Field Instrument Group A/B/C/D
Pre-pump insertion WL NA ft Post - pump insertion WL NA ft

Analysis	Bottle Lot #	Analysis	Bottle Lot #	Analysis	Bottle Lot #
VOC	5x40mL (HCl)	Dioxins	2xIL		
SVOC/PAH	2xIL	metals	1x500mL (HNO3)		
Pest/PCB	2xIL				

Clock Time 24hr	Water Depth below MP ft *	Pump Dial 1	Purge Rate ml/min	Cumm. Volume Purged liters	Temp °C	Spec. Cond. 2 uS/cm	pH	ORP/Eh3 mv	DO mg/L	Turbidity NTU	Comments
1450	7.35										
1455	7.85		90		16.34	521	9.95	75.2	9.41	17.2	clear-colorless
1500	8.49		90		15.55	419	9.34	34.7	6.52	10.65	"
1505	8.98		90		14.94	409	9.25	19.3	5.31	8.75	"
1510	9.41		90		14.62	409	9.17	22.6	4.11	6.32	"
1515 1514	9.80		90		14.39	408	8.91	28.0	3.34	2.8	"
1520	10.25		90		14.19	408	8.88	29.2	3.17	2.0	"
1526	10.56		90		13.75	406	8.84	30.1	3.17	1.62	"
1532	11.06		90		13.66	403	8.83	30.7	2.96	0.0	"
1537	11.50		90		13.80	401	8.78	33.2	2.82	0.0	"
1542	11.95		90		13.83	401	8.81	30.0	2.84	0.0	"
1547	12.20		90		13.70	398	8.78	34.2	2.76	0.0	"
1552	12.60		90	~1.5	13.60	397	8.79	36.3	2.66	0.0	"
				purge	complete	per	work	plan			

TtNUS Form 0009

1. Pump dial setting (for example: hertz, cycle/min, etc.)
2. Siemens per cm (same as umhos/cm) at 25 °C.
3. Oxidation reduction potential (stand in for Eh).

* could not control drawdown. was instructed to wait until other parameters stabilized before collecting sample.

page 1 of 1

TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: West Gate Landfil
Sample ID: WGL- GW - MW 103-062909

Tetra Tech NUS Charge No. 112G00864/ CTO 407
QC: NA (If applicable)

Sample Method: low flow w/ peristaltic pump
Depth Sampled: ~46 Feet Screened Interval Depth 41-51 feet
Sample Date & Time: 6/29/09 1305 hours NA /Dup
Sampler(s): P. Sewell
Data Recorded By: P. Sewell Signature: Peter Sewell
Notes: ~~cont~~ P3

H&S Survey Meter _____ PPM Field Instrument Group A/B/C/D
Pre-pump insertion WL NA ft Post - pump insertion WL NA ft

Analysis	Bottle Lot #	Analysis	Bottle Lot #	Analysis	Bottle Lot #
VOC	5x40ml (HCl)	Dioxins	2x1L		
SVOC/PAH	2x1L	Metals	1 x 500ml (HNO3)		
Pest/PCB	2x1L				

Clock Time 24hr	Water Depth below MP ft	Pump Dial 1	Purge Rate ml/min	Cumm. Volume Purged liters	Temp °C	Spec. Cond. 2 uS/cm	pH	ORP/Eh3 mv	DO mg/L	Turbidity NTU	Comments
1215	7.80	begin purge									
1220	8.71		90		16.53	557	8.59	64.7	7.39	18.7	clear; cobble
1225	9.48		90		16.47	547	8.18	51.8	4.09	10.87	
1230	10.10		90		15.58	552	8.12	49.8	4.29	8.37	
1235	10.43		90		14.95	547	8.02	48.6	4.08	7.81	
1240	11.25		80		14.94	545	7.96	50.6	3.91	5.38	
1245	11.76		80		14.63	543	7.93	49.9	3.85	5.82	
1250	12.46		90		14.48	539	7.92	48.3	3.85	4.88	
1255	13.08		90		14.38	539	7.91	48.8	3.82	4.81	
1300	13.75		90	~1 gal	14.29	538	7.88	51.6	3.78	4.03	
			purge complete per work plan								

TtNUS Form 0009

could not control drawdown. Other parameters stabilized

1. Pump dial setting (for example: hertz, cycle/min, etc.)
2. Siemens per cm (same as umhos/cm) at 25 °C.
3. Oxidation reduction potential (stand in for Eh).

APPENDIX A-13
GROUNDWATER SAMPLE LOG SHEETS
SOUTH WEYMOUTH NAS SOUTH GATE LANDFILL
PRE-REMEDIAL DESIGN INVESTIGATION
CTO 407

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: West Gate Landfill
Project No.: 112G00864/CTO 407

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: WGL-GW-MW2-060309
Sample Location: MW2
Sampled By: J. Trant
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	~~Other~~ ORP
Date: 6/30/09								
Time: 0855								
Method: Low Flow Peri	clear	4.86	746	11.72	1.59	0.34	NA	290.0

PURGE DATA:

Date:	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method:	See other sheet							
Monitor Reading (ppm):								
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	5/2 x 40 mL vial	Y
SVOC/PAH	Ice	2 X 1 Liter amber	Y
Pesticides	Ice	2 X 1 Liter amber	Y
PCBs	Ice	2 X 1 Liter amber	Y
Metals	HNO3	1 x 500 mL poly	Y

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): J Trant

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: West Gate Landfill
Project No.: 112G00864/CTO 407

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: WGL-GW- MW3-062909
Sample Location: MW3
Sampled By: J. Faust
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 6/29/09	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	~~Other~~
Time: 1505	(Visual)	(S.U.)	(mS/cm)	(°C)	(NTU)	(mg/l)	(%)	ORP
Method: LowFlow/Penpump	clear	5.28	514	12.98	0.12	4.16	NA	285S

PURGE DATA:

Date:	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method:	See other sheet							
Monitor Reading (ppm):								
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	5 ~~2~~ x 40 mL vial	Y
SVOC/PAH	Ice	2 X 1 Liter amber	Y
Pesticides	Ice	2 X 1 Liter amber	Y
PCBs	Ice	2 X 1 Liter amber	Y
Metals	HNO3	1 x 500 mL poly	Y

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): J. Faust

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: West Gate Landfill
Project No.: 112G00864/CTO 407

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: WGL-GW-MW4-063009
Sample Location: MW4
Sampled By: J. Trant
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	~~Other~~ ORP
Date: 6/30/09								
Time: 1000								
Method: Low flow/Peristaltic pump	lt orange/yellow	5.14	295	12.91	1.24	0.37	NA	109.8

PURGE DATA:

Date:	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method:	See other sheet							
Monitor Reading (ppm):								
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	5 ~~2~~ x 40 mL vial	Y
SVOC/PAH	Ice	2 X 1 Liter amber	Y
Pesticides	Ice	2 X 1 Liter amber	Y
PCBs	Ice	2 X 1 Liter amber	Y
Metals	HNO3	1 x 500 mL poly	Y

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): J. Trant

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: West Gate Landfill
Project No.: 112G00864/CTO 407

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[X] QA Sample Type: Lab QC

Sample ID No.: WGL-GW-MW38-063009
Sample Location: MW38
Sampled By: J. Travis
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 6/30/09								
Time: 1225								
Method: Low Flow/Peri	Clear	5.21	160	12.60	0.42	0.29	NA	ORP 224.5

PURGE DATA:

Date:	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method:	See other sheet							
Monitor Reading (ppm):								
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	15 x 40 mL vial	Y
SVOC/PAH	Ice	6 X 1 Liter amber	Y
Pesticides	Ice	6 X 1 Liter amber	Y
PCBs	Ice	6 X 1 Liter amber	Y
Metals	HNO3	2 x 500 mL poly	Y

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
Y	—

Signature(s): J. Travis

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Page___ of ___

Project Site Name: West Gate Landfill
Project No.: 112G00864/CTO 407

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type: _____
[] QA Sample Type: _____

Sample ID No.: WGL-GW
Sample Location: _____
Sampled By: _____
C.O.C. No.: _____
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date:	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time:	(Visual)	(S.U.)	(mS/cm)	(^{0}C)	(NTU)	(mg/l)	(%)	
Method:								

PURGE DATA:

Date:	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method:	See other sheet							
Monitor Reading (ppm):								
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	2 x 40 mL vial	
SVOC/PAH	Ice	2 X 1 Liter amber	
Pesticides	Ice	2 X 1 Liter amber	
PCBs	Ice	2 X 1 Liter amber	
Metals	HNO3	1 x 500 mL poly	

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: West Gate Landfill
Project No.: 112G00864/CTO 407

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: WGL-GW - MW39-063009
Sample Location: MW39
Sampled By: P Seward
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 6/30/09								
Time: 1535								ORP
Method: Low Flow Pen	clear	5.32	134	15.30	3.22	0.44	NA	64.1

PURGE DATA:

Date:	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method:	See other sheet							
Monitor Reading (ppm):								
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	5 ~~2~~ x 40 mL vial	Y
SVOC/PAH	Ice	2 X 1 Liter amber	Y
Pesticides	Ice	2 X 1 Liter amber	Y
PCBs	Ice	2 X 1 Liter amber	Y
Metals	HNO3	1 x 500 mL poly	Y

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: West Gate Landfill
Project No.: 112G00864/CTO 407

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[X] QA Sample Type: Duplicate

Sample ID No.: WGL-GW-MW40S-063009
Sample Location: MW40S
Sampled By: J. Trout
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other
Date: 6/30/09								
Time: 1455								ORP
Method: Low Flow Peri	Slightly yellow tinge	5.41	304	11.07	0.78	0.25	NA	157

PURGE DATA:

Date:	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method:	See other sheet							
Monitor Reading (ppm):								
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	5 x 40 mL vial	✓
SVOC/PAH	Ice	2 X 1 Liter amber	✓
Pesticides	Ice	2 X 1 Liter amber	✓
PCBs	Ice	2 X 1 Liter amber	✓
Metals	HNO3	1 x 500 mL poly	✓

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD

Duplicate ID No.: WGL-GW-DUP02-063009 @ 1500

Signature(s):

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: West Gate Landfill
Project No.: 112G00864/CTO 407

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[X] QA Sample Type: Duplicate

Sample ID No.: WGL-GW-MW48D-063009
Sample Location: MW48D
Sampled By: P. Seward
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Date: 6/30/09								
Time: 1245								
Method: LowFlow/Pen	Clear	5.76	408	8.95	10	0.52	NA	55.3

PURGE DATA:

Date:	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method:	See other sheet							
Monitor Reading (ppm):								
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	5 ~~2~~ x 40 mL vial	✓
SVOC/PAH	Ice	2 X 1 Liter amber	✓
Pesticides	Ice	2 X 1 Liter amber	✓
PCBs	Ice	2 X 1 Liter amber	✓
Metals	HNO3	1 x 500 mL poly	✓

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD

Duplicate ID No.: WGL-GW-DUP01-063009 @1250

Signature(s): J Seward

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: West Gate Landfill
Project No.: 112G00864/CTO 407

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: WGL-GW- MW48D2-063009
Sample Location: MW48D2
Sampled By: P. Seward
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	~~Other~~ ORP
Date: 6/30/09								
Time: 1000								
Method: Low Flow/Peri	Clear	6.86	632	10.35	26	0.70	NA	-20.8

PURGE DATA:

Date:	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method:	See other sheet							
Monitor Reading (ppm):								
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	5 ~~2~~ x 40 mL vial	Y
SVOC/PAH	Ice	2 X 1 Liter amber	Y
Pesticides	Ice	2 X 1 Liter amber	Y
PCBs	Ice	2 X 1 Liter amber	Y
Metals	HNO3	1 x 500 mL poly	Y

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): [signature]

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: West Gate Landfill
Project No.: 112G00864/CTO 407

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: WGL-GW-MW101-062909
Sample Location: MW101
Sampled By: J. Trauf
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Date: 6/29/09 Time: 1310								
Method: low flow peri	Clear	11.07	852	12.14	2.0	2.54	—	35.7

PURGE DATA:

Date:	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method:	See other sheet							
Monitor Reading (ppm):								
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	5 x 40 mL vial	Y
SVOC/PAH	Ice	2 X 1 Liter amber	Y
Pesticides	Ice	2 X 1 Liter amber	Y
PCBs	Ice	2 X 1 Liter amber	Y
Metals	HNO3	1 x 500 mL poly	Y

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): J. Trauf

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: West Gate Landfill
Project No.: 112G00864/CTO 407

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: WGL-GW-MW102-062909
Sample Location: MW 102
Sampled By: P. Seward
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	~~Other~~ ORP
Date: 6/29/09								
Time: 1555								
Method: Low Flow/Peri	Clear	8.78	397	13.60	0.0	2.66	–	36.3

PURGE DATA:

Date:	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method:	See other sheet							
Monitor Reading (ppm):								
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	5 ~~2~~ x 40 mL vial	Y
SVOC/PAH	Ice	2 X 1 Liter amber	Y
Pesticides	Ice	2 X 1 Liter amber	Y
PCBs	Ice	2 X 1 Liter amber	Y
Metals	HNO3	1 x 500 mL poly	Y

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): P. Seward

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: West Gate Landfill
Project No.: 112G00864/CTO 407

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: WGL-GW-MW103-062909
Sample Location: MW103
Sampled By: P.Seward
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color (Visual)	pH (S.U.)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (mg/l)	Salinity (%)	Other ORP
Date: 6/29/09								
Time: 1305								
Method: LowFlow/Peri	clear	7.88	538	14.29	4.03	3.70	—	51.6

PURGE DATA:

Date:	Volume	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Method:	See other sheet							
Monitor Reading (ppm):								
Well Casing Diameter & Material								
Type:								
Total Well Depth (TD):								
Static Water Level (WL):								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	~~2~~ 5 x 40 mL vial	✓
SVOC/PAH	Ice	2 X 1 Liter amber	✓
Pesticides	Ice	2 X 1 Liter amber	✓
PCBs	Ice	2 X 1 Liter amber	✓
Metals	HNO3	1 x 500 mL poly	✓

OBSERVATIONS / NOTES:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): J Grant

Tetra Tech NUS, Inc.

QA SAMPLE LOG SHEET

Project Site Name: West Gate Landfill
Project Number: 112G00864 / CT0407
Sample Location: NA
QA Sample Type:

Sample ID Number: WGL-GW-TB01-062909
Sampled By: JJ Trull
C.O.C. Number:

[X] Trip Blank
[] Source Water Blank
[] Rinsate Blank
[] Other Blank

SAMPLING DATA:

Date: 5/26/09
Time: 1000
Method: Premade by Lab

WATER SOURCE:

[X] Laboratory Prepared
[] Purchased
[] Other
[] Tap
[] Fire Hydrant

PURCHASED WATER INFORMATION (If Applicable as Source or Rinsate Water):

Product Name:
Supplier:
Manufacturer:
Order Number:
Lot Number:
Expiration Date:

RINSATE INFORMATION (If Applicable):

Media Type:
Equipment Used:
Equipment Type:
[] Dedicated
[] Reusable

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
Volatiles	Cool 4°C & HCl	2 x 40 mL	YES / NO
Semivolatiles	Cool 4°C		YES / NO
Pesticide / PCB	Cool 4°C		YES / NO
Metals	Cool 4°C & HNO_3		YES / NO
Dioxins	Cool 4°C		YES / NO

OBSERVATIONS / NOTES:

Signature(s):

Tetra Tech NUS, Inc.

QA SAMPLE LOG SHEET

Project Site Name: West Gate Landfill
Project Number: 112G00864 / CT0407
Sample Location: N/A
QA Sample Type:

Sample ID Number: WGL-GW-FB01-070109
Sampled By: J. Frank
C.O.C. Number:

[] Trip Blank
[X] Source Water Blank
[] Rinsate Blank
[] Other Blank

SAMPLING DATA:

Date: 7/1/09
Time: 0720
Method: Direct Pour

WATER SOURCE:

[] Laboratory Prepared
[X] Purchased
[] Other
[] Tap
[] Fire Hydrant

PURCHASED WATER INFORMATION (If Applicable as Source or Rinsate Water):

Product Name: NERL Reagent Grade Water
Supplier: NERL
Manufacturer: NERL
Order Number:
Lot Number: 0410149
Expiration Date: 04-2010

RINSATE INFORMATION (If Applicable):

Media Type: N/A
Equipment Used:
Equipment Type:
[] Dedicated
[] Reusable

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
Volatiles	Cool 4°C & HCl	5 x 40 mL	YES / NO
Semivolatiles	Cool 4°C	2 x 1 L	YES / NO
Pesticide / PCB	Cool 4°C	2 x 1 L	YES / NO
Metals	Cool 4°C & HNO_3	1 x 500 mL	YES / NO
Dioxins	Cool 4°C	2 x 1 L	YES / NO

OBSERVATIONS / NOTES:

Poland Spring used for VOC fraction

Signature(s): J. Frank

Tetra Tech NUS, Inc.

QA SAMPLE LOG SHEET

Project Site Name: West Gate Landfill
Project Number: 112600864 / CD407
Sample Location: NP
QA Sample Type:

Sample ID Number: OGL-GW-RB01-070109
Sampled By: J. Trax
C.O.C. Number:

[] Trip Blank
[] Source Water Blank
[X] Rinsate Blank
[] Other Blank

SAMPLING DATA:

Date: 7/1/09
Time: 0745
Method: Peri Pump

WATER SOURCE:

[] Laboratory Prepared
[X] Purchased
[] Other
[] Tap
[] Fire Hydrant

PURCHASED WATER INFORMATION (If Applicable as Source or Rinsate Water):

Product Name: Norl Reagent Grade Water
Supplier: NERL
Manufacturer: NERL
Order Number:
Lot Number: 0410149
Expiration Date: 04-2010

RINSATE INFORMATION (If Applicable):

Media Type: Groundwater
Equipment Used: Silicone & Teflon Tubing
Equipment Type:
[X] Dedicated
[] Reusable

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
Volatiles	Cool 4°C & HCl	5x 40mL	YES / NO
Semivolatiles	Cool 4°C	2x 1L	YES / NO
Pesticide / PCB	Cool 4°C	2x 1L	YES / NO
Metals	Cool 4°C & HNO_3	1x 500mL	YES / NO
Dioxins	Cool 4°C	2x 1L	YES / NO

OBSERVATIONS / NOTES:

Poland Spring used for VOC Rinsate

Signature(s):

APPENDIX A-14
GPS COORDINATES FOR ALL FEATURES
SOUTH WEYMOUTH NAS SOUTH GATE LANDFILL
PRE-REMEDIAL DESIGN INVESTIGATION
CTO 407

Test Pit GPS Locations

ID	Easting	Northing	Elevation
WGL-TP-110	805763.302	2881130.920	43.897
WGL-TP-110	805760.081	2881127.513	43.512
WGL-TP-110	805757.198	2881126.027	43.845
WGL-TP-110	805756.228	2881125.611	44.104
WGL-TP-110	805754.949	2881125.290	43.377
WGL-TP-110	805755.967	2881125.583	43.916
WGL-TP-110	805756.429	2881125.180	44.383
WGL-TP-110	805756.573	2881125.307	44.387
WGL-TP-110	805756.511	2881124.858	44.471
WGL-TP-110	805756.499	2881124.942	44.069
WGL-TP-110	805756.800	2881125.523	44.140
WGL-TP-110	805756.485	2881125.261	44.121
WGL-TP-110	805756.018	2881125.142	43.871
WGL-TP-110	805756.102	2881125.842	43.717
WGL-TP-110	805756.112	2881125.424	43.851
WGL-TP-110	805755.637	2881125.556	43.529
WGL-TP-110	805756.188	2881127.574	43.364
WGL-TP-110	805756.310	2881126.744	43.562
WGL-TP-110	805756.233	2881126.368	43.738
WGL-TP-110	805755.807	2881125.510	43.566
WGL-TP-110	805754.946	2881125.091	43.891
WGL-TP-110	805751.760	2881122.773	43.613
WGL-TP-110	805751.029	2881121.298	43.971
WGL-TP-110	805748.790	2881119.347	43.645
WGL-TP-110	805747.674	2881118.544	44.080
WGL-TP-110	805746.574	2881116.299	43.596
WGL-TP-110	805745.632	2881115.564	43.787
WGL-TP-110	805745.964	2881114.625	44.494
WGL-TP-110	805748.334	2881112.341	45.898
WGL-TP-110	805748.100	2881112.686	46.019
WGL-TP-110	805745.911	2881113.849	44.717
WGL-TP-110	805744.600	2881114.134	44.457
WGL-TP-110	805747.114	2881110.213	45.460
WGL-TP-110	805748.078	2881109.535	45.235
WGL-TP-110	805751.005	2881109.179	44.628
WGL-TP-110	805752.142	2881111.119	43.556
WGL-TP-110	805752.072	2881109.296	43.655
WGL-TP-110	805752.446	2881110.002	43.591
WGL-TP-110	805754.364	2881111.652	43.448
WGL-TP-110	805765.925	2881123.075	44.023
WGL-TP-110	805764.876	2881120.977	44.103
WGL-TP-110	805764.757	2881121.213	44.204
WGL-TP-110	805763.780	2881120.770	44.985
WGL-TP-110	805763.503	2881120.305	44.792
WGL-TP-110	805763.779	2881120.255	44.934
WGL-TP-110	805763.211	2881122.710	44.391
WGL-TP-110	805761.884	2881122.740	43.963
WGL-TP-110	805760.570	2881124.064	43.140
WGL-TP-110	805763.302	2881130.920	43.897
WGL-TP-109	805597.188	2881116.246	44.198
WGL-TP-109	805596.993	2881112.741	42.874
WGL-TP-109	805594.949	2881114.179	46.952
WGL-TP-109	805593.303	2881111.980	46.282
WGL-TP-109	805591.781	2881108.854	45.405
WGL-TP-109	805593.749	2881108.342	44.154
WGL-TP-109	805593.721	2881114.221	44.291
WGL-TP-109	805598.172	2881105.728	46.252
WGL-TP-109	805593.984	2881106.897	44.429
WGL-TP-109	805591.447	2881110.174	43.124
WGL-TP-109	805591.879	2881104.604	46.011
WGL-TP-109	805593.916	2881108.134	45.560
WGL-TP-109	805594.173	2881109.074	47.803
WGL-TP-109	805599.897	2881108.818	43.767
WGL-TP-109	805602.433	2881108.639	44.849
WGL-TP-109	805604.317	2881107.398	44.844
WGL-TP-109	805610.768	2881116.257	39.192

Sediment GPS Locations

ID	Easting	Northing	Elevation
WGL-SD-101	805517.984	2881311.824	43.246
WGL-SD-102	805525.287	2881194.870	45.151
WGL-SD-103	805539.381	2881152.632	47.120
WGL-SD-104	805566.254	2881095.864	47.314
WGL-SD-105	805574.933	2881049.947	45.079
WGL-SD-106	805590.750	2881050.100	43.461
WGL-SD-107	805664.981	2881117.023	45.439
WGL-SD-109	805759.832	2881081.511	45.552
WGL-SD-108	805717.526	2881129.507	42.041
WGL-SD-110	805870.269	2881084.973	43.785
WGL-SD-112	805917.381	2881038.589	45.026
WGL-SD-111	805823.089	2881057.664	42.802

Soil Gas GPS Locations

ID	Easting	Northing	Elevation
WGL-SG-4	805785.969	2881171.890	45.376
WGL-SG-3	805781.145	2881285.492	46.578
WGL-SG-2	805599.723	2881330.263	43.041
WGL-SG-1	805519.463	2881411.619	45.607
WGL-SG-5	805701.295	2881550.651	44.518

Soil Boring GPS Locations

ID	Easting	Northing	Elevation
WGL-SB-105	805677.612	2881209.410	44.894
WGL-SB-109	805570.269	2881507.800	44.680
WGL-SB-104	805587.194	2881147.188	43.707
WGL-SB-101	805650.267	2881755.512	46.037
WGL-SB-110	805803.339	2881492.705	45.502
WGL-SB-107	805497.338	2881392.919	44.929
WGL-SB-103	805937.461	2881126.690	43.314
WGL-SB-108	805940.782	2881290.623	43.957
WGL-SB-106	805874.727	2881414.828	44.865
WGL-SB-102	805805.564	2881719.463	45.496

Transformer/Debris GPS Locations

ID	EASTING	NORTHING	ELEVATION	TYPE
transformer del	805425.982	2881582.991	44.218	Transformer
transformer sar	805430.554	2881576.363	49.043	Transformer
transformer sar	805426.008	2881567.307	53.277	Transformer
debri 20	805886.055	2881112.711	44.266	Debris
debri 1	805481.767	2881623.017	45.695	Debris
debri 2	805455.456	2881487.338	48.809	Debris
debri 3	805449.872	2881450.966	45.168	Debris
debri 4	805446.683	2881388.404	45.235	Debris
debri 5	805497.201	2881344.399	48.848	Debris
debri 6	805520.116	2881289.785	38.550	Debris
debri 7	805510.883	2881267.395	43.969	Debris
debri 8	805513.111	2881222.138	45.186	Debris
debri 9	805544.392	2881173.333	45.414	Debris
debri 10	805548.749	2881146.122	44.848	Debris
debri 11	805560.929	2881121.489	44.312	Debris
debri 12	805588.229	2881094.556	46.816	Debris
debri 13	805584.185	2881062.423	52.890	Debris
debri 14	805599.115	2881046.989	45.166	Debris
debri 15	805630.125	2881102.435	46.765	Debris
debri 16	805662.479	2881127.347	42.959	Debris
debri 17	805703.272	2881133.832	43.373	Debris
transformer 4	805723.079	2881143.032	46.493	Transformer
transformer 5	805721.886	2881139.722	45.045	Transformer
debri 18	805731.084	2881116.407	47.466	Debris
debri 19	805781.077	2881100.535	45.647	Debris

ID	Easting	Northing	Elevation
WGL-TP-109	805603.858	2881110.308	38.025
WGL-TP-109	805603.622	2881102.975	48.237
WGL-TP-109	805602.896	2881103.518	46.204
WGL-TP-109	805605.945	2881102.942	45.682
WGL-TP-109	805605.188	2881114.310	46.902
WGL-TP-109	805609.883	2881117.361	46.623
WGL-TP-109	805609.843	2881120.462	45.141
WGL-TP-109	805612.761	2881121.067	46.331
WGL-TP-109	805610.959	2881121.704	45.236
WGL-TP-109	805611.372	2881123.742	44.779
WGL-TP-109	805605.121	2881124.908	51.508
WGL-TP-109	805607.902	2881124.362	46.847
WGL-TP-109	805606.469	2881124.409	46.767
WGL-TP-109	805598.111	2881116.518	63.814
WGL-TP-109	805597.876	2881119.719	59.486
WGL-TP-109	805598.211	2881120.282	55.380
WGL-TP-109	805596.882	2881124.277	51.892
WGL-TP-109	805596.962	2881122.807	52.265
WGL-TP-109	805597.194	2881124.576	52.879
WGL-TP-109	805597.093	2881127.677	47.421
WGL-TP-109	805595.995	2881124.998	48.422
WGL-TP-109	805597.188	2881116.246	44.198
WGL-TP-102	805710.906	2881634.834	45.702
WGL-TP-102	805710.104	2881634.400	45.816
WGL-TP-102	805709.287	2881634.092	45.742
WGL-TP-102	805710.950	2881635.320	45.459
WGL-TP-102	805709.795	2881635.662	45.373
WGL-TP-102	805709.072	2881637.214	45.532
WGL-TP-102	805708.101	2881639.030	45.850
WGL-TP-102	805707.280	2881641.234	45.838
WGL-TP-102	805706.422	2881642.702	45.506
WGL-TP-102	805704.975	2881644.299	45.435
WGL-TP-102	805704.100	2881645.563	44.979
WGL-TP-102	805703.080	2881646.452	45.036
WGL-TP-102	805703.200	2881646.470	45.046
WGL-TP-102	805703.055	2881646.516	45.067
WGL-TP-102	805702.117	2881645.813	44.984
WGL-TP-102	805700.116	2881644.344	45.083
WGL-TP-102	805698.336	2881642.777	45.086
WGL-TP-102	805696.773	2881641.480	44.946
WGL-TP-102	805695.726	2881640.440	44.992
WGL-TP-102	805694.534	2881639.308	44.920
WGL-TP-102	805693.046	2881638.204	44.939
WGL-TP-102	805691.568	2881637.104	44.904
WGL-TP-102	805690.366	2881635.927	44.848
WGL-TP-102	805689.000	2881635.140	44.832
WGL-TP-102	805688.309	2881634.345	44.710
WGL-TP-102	805687.950	2881633.792	44.656
WGL-TP-102	805688.117	2881633.824	44.630
WGL-TP-102	805688.439	2881632.436	44.679
WGL-TP-102	805689.232	2881630.651	44.732
WGL-TP-102	805690.181	2881628.973	44.801
WGL-TP-102	805691.546	2881627.447	44.796
WGL-TP-102	805692.757	2881625.951	44.850
WGL-TP-102	805693.681	2881624.937	44.843
WGL-TP-102	805694.904	2881624.132	44.779
WGL-TP-102	805695.530	2881623.744	44.761
WGL-TP-102	805696.477	2881624.445	44.780
WGL-TP-102	805698.308	2881625.661	44.752
WGL-TP-102	805700.162	2881627.453	44.829
WGL-TP-102	805702.331	2881628.732	44.907
WGL-TP-102	805703.773	2881630.223	44.909
WGL-TP-102	805705.916	2881631.513	45.000
WGL-TP-102	805707.596	2881632.594	44.951
WGL-TP-102	805709.077	2881633.810	44.929
WGL-TP-102	805709.565	2881634.958	44.996
WGL-TP-101	805825.967	2881686.404	45.990

ID	Easting	Northing	Elevation
WGL-TP-102	805709.898	2881635.081	44.776
WGL-TP-102	805710.906	2881634.834	45.702
WGL-TP-103	805710.725	2881775.173	44.676
WGL-TP-103	805710.790	2881774.881	45.254
WGL-TP-103	805711.080	2881774.855	45.011
WGL-TP-103	805710.986	2881774.127	45.189
WGL-TP-103	805711.264	2881774.488	45.185
WGL-TP-103	805711.136	2881774.830	45.302
WGL-TP-103	805711.786	2881775.245	44.811
WGL-TP-103	805712.632	2881775.744	45.154
WGL-TP-103	805714.875	2881777.554	45.181
WGL-TP-103	805716.750	2881778.622	45.418
WGL-TP-103	805717.983	2881779.947	45.215
WGL-TP-103	805718.454	2881780.310	45.084
WGL-TP-103	805718.572	2881780.258	45.280
WGL-TP-103	805717.971	2881780.796	45.151
WGL-TP-103	805716.944	2881782.691	45.176
WGL-TP-103	805716.090	2881785.179	45.424
WGL-TP-103	805715.446	2881786.551	45.341
WGL-TP-103	805714.965	2881788.479	45.548
WGL-TP-103	805714.259	2881789.835	45.515
WGL-TP-103	805713.905	2881791.411	45.551
WGL-TP-103	805713.616	2881792.507	45.741
WGL-TP-103	805713.453	2881792.265	45.476
WGL-TP-103	805711.520	2881792.344	45.550
WGL-TP-103	805709.377	2881791.470	45.162
WGL-TP-103	805707.012	2881790.605	45.263
WGL-TP-103	805705.076	2881789.756	45.174
WGL-TP-103	805703.606	2881788.864	44.664
WGL-TP-103	805702.882	2881788.433	44.830
WGL-TP-103	805702.827	2881787.701	44.670
WGL-TP-103	805702.303	2881786.627	45.114
WGL-TP-103	805702.921	2881786.283	45.109
WGL-TP-103	805703.670	2881784.239	45.052
WGL-TP-103	805704.404	2881782.291	45.050
WGL-TP-103	805705.623	2881780.377	45.150
WGL-TP-103	805706.681	2881778.504	45.252
WGL-TP-103	805707.316	2881776.964	45.238
WGL-TP-103	805708.609	2881775.326	45.075
WGL-TP-103	805709.610	2881773.408	45.195
WGL-TP-103	805710.819	2881772.470	45.086
WGL-TP-103	805712.130	2881772.779	45.123
WGL-TP-103	805712.451	2881773.080	45.214
WGL-TP-103	805710.725	2881775.173	44.676
WGL-TP-101	805808.152	2881690.364	44.295
WGL-TP-101	805807.716	2881691.505	43.635
WGL-TP-101	805807.532	2881691.828	43.308
WGL-TP-101	805807.464	2881691.466	43.530
WGL-TP-101	805807.067	2881691.881	42.942
WGL-TP-101	805807.301	2881689.092	43.278
WGL-TP-101	805807.059	2881686.802	43.504
WGL-TP-101	805808.066	2881684.305	43.971
WGL-TP-101	805808.579	2881683.216	43.737
WGL-TP-101	805808.590	2881681.180	44.451
WGL-TP-101	805809.056	2881681.399	44.336
WGL-TP-101	805809.928	2881681.192	44.574
WGL-TP-101	805810.953	2881681.501	44.739
WGL-TP-101	805812.916	2881681.923	44.994
WGL-TP-101	805815.443	2881683.012	44.743
WGL-TP-101	805817.236	2881683.338	44.679
WGL-TP-101	805818.891	2881684.305	44.996
WGL-TP-101	805820.968	2881684.766	45.200
WGL-TP-101	805822.346	2881685.652	45.470
WGL-TP-101	805824.591	2881684.301	45.883
WGL-TP-101	805825.903	2881684.920	46.566
WGL-TP-101	805825.575	2881685.445	46.076
WGL-TP-111	805878.653	2881119.111	45.965

ID	Easting	Northing	Elevation
WGL-TP-101	805825.268	2881687.970	45.662
WGL-TP-101	805824.736	2881690.009	45.414
WGL-TP-101	805823.980	2881691.213	45.645
WGL-TP-101	805823.638	2881692.739	45.249
WGL-TP-101	805822.474	2881693.079	45.164
WGL-TP-101	805820.546	2881692.890	45.582
WGL-TP-101	805818.312	2881693.151	45.997
WGL-TP-101	805817.185	2881692.898	45.589
WGL-TP-101	805815.174	2881692.246	45.763
WGL-TP-101	805814.020	2881691.854	45.546
WGL-TP-101	805812.341	2881691.279	45.635
WGL-TP-101	805810.441	2881691.462	45.450
WGL-TP-101	805809.158	2881691.681	45.405
WGL-TP-101	805807.578	2881691.582	45.183
WGL-TP-101	805806.425	2881691.435	45.211
WGL-TP-101	805806.424	2881690.628	45.191
WGL-TP-101	805806.290	2881690.152	45.244
WGL-TP-101	805806.883	2881688.032	45.134
WGL-TP-101	805807.045	2881685.801	45.104
WGL-TP-101	805807.815	2881683.757	45.046
WGL-TP-101	805808.702	2881682.311	44.799
WGL-TP-101	805808.836	2881681.779	44.930
WGL-TP-101	805808.648	2881681.839	45.042
WGL-TP-101	805808.152	2881690.364	44.295
WGL-TP-107	805430.380	2881386.112	49.408
WGL-TP-107	805430.058	2881385.184	50.094
WGL-TP-107	805425.892	2881380.911	54.220
WGL-TP-107	805426.176	2881381.086	54.542
WGL-TP-107	805428.094	2881382.828	55.798
WGL-TP-107	805429.589	2881384.543	55.314
WGL-TP-107	805428.272	2881385.444	54.399
WGL-TP-107	805428.547	2881385.204	54.105
WGL-TP-107	805430.754	2881385.496	52.935
WGL-TP-107	805428.598	2881389.766	43.662
WGL-TP-107	805432.130	2881386.953	45.625
WGL-TP-107	805430.239	2881389.397	46.349
WGL-TP-107	805428.233	2881389.744	45.185
WGL-TP-107	805428.497	2881387.442	47.027
WGL-TP-107	805426.501	2881385.708	48.800
WGL-TP-107	805424.120	2881389.651	43.278
WGL-TP-107	805423.482	2881391.296	43.421
WGL-TP-107	805448.264	2881380.656	46.679
WGL-TP-107	805443.179	2881387.309	46.848
WGL-TP-107	805441.301	2881387.128	44.006
WGL-TP-107	805440.107	2881386.900	44.700
WGL-TP-107	805440.103	2881389.480	44.411
WGL-TP-107	805437.401	2881390.975	44.892
WGL-TP-107	805436.947	2881391.214	45.937
WGL-TP-107	805440.122	2881390.193	45.951
WGL-TP-107	805440.672	2881388.883	45.635
WGL-TP-107	805441.547	2881386.591	45.731
WGL-TP-107	805444.250	2881380.455	44.383
WGL-TP-107	805445.536	2881378.626	45.935
WGL-TP-107	805430.380	2881386.112	49.408
WGL-TP-111	805881.662	2881127.385	42.944
WGL-TP-111	805882.635	2881127.335	45.230
WGL-TP-111	805882.752	2881127.596	45.594
WGL-TP-111	805882.915	2881128.139	45.721
WGL-TP-111	805882.459	2881128.488	45.337
WGL-TP-111	805882.563	2881128.576	45.031
WGL-TP-111	805882.455	2881126.680	46.407
WGL-TP-111	805881.795	2881124.880	46.380
WGL-TP-111	805880.585	2881122.770	46.112
WGL-TP-111	805879.951	2881121.160	46.030
WGL-TP-111	805879.038	2881119.668	45.841
WGL-TP-112	805971.320	2881222.117	43.359
WGL-TP-112	805971.523	2881222.100	43.945

ID	Easting	Northing	Elevation
WGL-TP-111	805878.350	2881119.024	45.609
WGL-TP-111	805878.467	2881119.104	45.443
WGL-TP-111	805879.012	2881118.250	45.579
WGL-TP-111	805880.994	2881116.847	45.676
WGL-TP-111	805882.452	2881116.228	45.623
WGL-TP-111	805884.051	2881115.680	45.486
WGL-TP-111	805885.119	2881114.326	45.438
WGL-TP-111	805887.255	2881112.503	45.307
WGL-TP-111	805889.534	2881111.739	45.274
WGL-TP-111	805891.833	2881110.908	45.130
WGL-TP-111	805893.641	2881109.618	44.976
WGL-TP-111	805895.092	2881108.708	45.159
WGL-TP-111	805896.156	2881111.404	43.109
WGL-TP-111	805896.875	2881109.923	44.639
WGL-TP-111	805897.733	2881110.971	44.790
WGL-TP-111	805899.425	2881112.951	45.188
WGL-TP-111	805899.689	2881115.647	45.466
WGL-TP-111	805898.884	2881117.389	45.410
WGL-TP-111	805898.539	2881118.146	45.466
WGL-TP-111	805898.643	2881119.316	44.859
WGL-TP-111	805897.519	2881121.818	45.327
WGL-TP-111	805894.341	2881123.424	45.655
WGL-TP-111	805892.038	2881124.640	45.783
WGL-TP-111	805890.014	2881125.523	45.776
WGL-TP-111	805887.643	2881126.685	45.897
WGL-TP-111	805884.896	2881127.806	45.850
WGL-TP-111	805883.242	2881128.585	45.894
WGL-TP-111	805882.803	2881129.075	45.597
WGL-TP-111	805883.061	2881128.878	45.441
WGL-TP-111	805882.866	2881129.514	45.733
WGL-TP-111	805882.816	2881129.732	45.748
WGL-TP-111	805881.662	2881127.385	42.944
WGL-TP-116	805960.557	2881206.410	43.956
WGL-TP-116	805960.259	2881206.829	44.196
WGL-TP-116	805960.289	2881206.862	44.205
WGL-TP-116	805960.190	2881207.845	44.867
WGL-TP-116	805960.757	2881207.166	44.384
WGL-TP-116	805960.958	2881206.045	44.032
WGL-TP-116	805961.006	2881206.577	44.476
WGL-TP-116	805961.192	2881206.470	44.466
WGL-TP-116	805961.794	2881206.896	44.515
WGL-TP-116	805962.647	2881208.057	44.352
WGL-TP-116	805964.037	2881209.888	44.328
WGL-TP-116	805964.723	2881211.924	44.343
WGL-TP-116	805964.267	2881213.703	44.615
WGL-TP-116	805961.978	2881214.680	44.574
WGL-TP-116	805959.714	2881214.823	44.570
WGL-TP-116	805957.108	2881214.819	44.481
WGL-TP-116	805955.092	2881214.770	44.502
WGL-TP-116	805954.039	2881214.806	44.463
WGL-TP-116	805953.460	2881213.865	44.920
WGL-TP-116	805952.351	2881212.795	45.039
WGL-TP-116	805950.677	2881212.258	45.162
WGL-TP-116	805948.655	2881211.355	44.974
WGL-TP-116	805947.834	2881210.461	44.751
WGL-TP-116	805947.881	2881209.952	44.880
WGL-TP-116	805948.568	2881209.258	44.804
WGL-TP-116	805950.855	2881208.194	44.969
WGL-TP-116	805953.099	2881207.506	44.628
WGL-TP-116	805955.142	2881207.101	44.861
WGL-TP-116	805961.669	2881204.238	50.565
WGL-TP-116	805959.661	2881205.870	45.682
WGL-TP-116	805962.364	2881205.195	47.297
WGL-TP-116	805960.629	2881206.329	44.013
WGL-TP-116	805960.557	2881206.410	43.956
WGL-TP-117	805969.044	2881260.793	44.374
WGL-TP-117	805967.101	2881260.516	44.367

ID	Easting	Northing	Elevation
WGL-TP-112	805971.558	2881222.138	44.179
WGL-TP-112	805972.296	2881223.275	44.931
WGL-TP-112	805972.966	2881225.067	44.955
WGL-TP-112	805973.621	2881227.620	45.107
WGL-TP-112	805974.232	2881229.844	44.998
WGL-TP-112	805974.667	2881231.813	45.170
WGL-TP-112	805974.353	2881232.713	45.150
WGL-TP-112	805972.952	2881232.604	45.003
WGL-TP-112	805971.353	2881233.401	45.162
WGL-TP-112	805969.395	2881233.457	45.287
WGL-TP-112	805967.414	2881234.017	45.172
WGL-TP-112	805965.473	2881233.840	45.164
WGL-TP-112	805963.477	2881233.810	45.263
WGL-TP-112	805961.949	2881233.688	45.419
WGL-TP-112	805960.541	2881233.757	45.511
WGL-TP-112	805959.006	2881233.422	45.846
WGL-TP-112	805957.978	2881233.975	46.021
WGL-TP-112	805957.745	2881234.115	46.015
WGL-TP-112	805957.453	2881234.522	45.995
WGL-TP-112	805958.045	2881233.720	46.292
WGL-TP-112	805958.025	2881231.314	45.852
WGL-TP-112	805957.247	2881229.522	45.811
WGL-TP-112	805956.568	2881229.133	45.480
WGL-TP-112	805956.616	2881229.015	45.506
WGL-TP-112	805957.627	2881228.234	47.027
WGL-TP-112	805956.879	2881228.681	46.219
WGL-TP-112	805956.418	2881228.512	46.000
WGL-TP-112	805954.879	2881226.642	46.347
WGL-TP-112	805954.665	2881224.355	46.654
WGL-TP-112	805954.626	2881222.041	46.594
WGL-TP-112	805954.623	2881221.438	46.333
WGL-TP-112	805955.412	2881221.100	46.576
WGL-TP-112	805956.989	2881221.220	46.026
WGL-TP-112	805958.549	2881221.372	45.836
WGL-TP-112	805960.004	2881221.388	45.651
WGL-TP-112	805962.219	2881221.336	45.992
WGL-TP-112	805962.670	2881221.513	45.204
WGL-TP-112	805964.135	2881221.845	45.538
WGL-TP-112	805965.453	2881221.880	45.348
WGL-TP-112	805968.152	2881222.070	45.557
WGL-TP-112	805970.039	2881222.355	45.608
WGL-TP-112	805971.272	2881222.730	45.274
WGL-TP-112	805972.334	2881222.797	45.095
WGL-TP-112	805972.785	2881223.345	45.258
WGL-TP-112	805972.573	2881223.491	45.256
WGL-TP-112	805971.320	2881222.117	43.359
WGL-TP-117	805964.374	2881252.458	45.300
WGL-TP-117	805964.364	2881252.359	45.397
WGL-TP-117	805964.264	2881252.469	45.333
WGL-TP-117	805965.688	2881252.308	45.078
WGL-TP-117	805968.130	2881252.151	44.891
WGL-TP-117	805970.717	2881251.827	44.609
WGL-TP-117	805973.055	2881251.544	44.730
WGL-TP-117	805975.209	2881251.151	44.665
WGL-TP-117	805976.720	2881251.996	44.529
WGL-TP-117	805976.702	2881252.206	44.446
WGL-TP-117	805976.240	2881252.948	44.457
WGL-TP-117	805975.506	2881254.839	44.440
WGL-TP-117	805974.789	2881256.960	44.451
WGL-TP-117	805974.337	2881258.795	44.350
WGL-TP-117	805974.189	2881260.297	44.282
WGL-TP-117	805973.108	2881261.476	44.360
WGL-TP-117	805972.522	2881261.160	44.371
WGL-TP-117	805971.268	2881260.894	44.423
WGL-TP-113	806021.486	2881197.721	47.297
WGL-TP-113	806022.708	2881197.957	47.423
WGL-TP-113	806024.656	2881198.150	47.612

ID	Easting	Northing	Elevation
WGL-TP-117	805965.037	2881260.453	44.382
WGL-TP-117	805963.175	2881259.938	44.379
WGL-TP-117	805961.469	2881259.439	44.473
WGL-TP-117	805960.941	2881258.365	44.536
WGL-TP-117	805961.367	2881257.145	44.505
WGL-TP-117	805962.158	2881255.669	44.483
WGL-TP-117	805962.931	2881254.138	44.456
WGL-TP-117	805963.451	2881252.902	44.349
WGL-TP-117	805964.098	2881251.776	44.304
WGL-TP-117	805967.431	2881250.446	47.136
WGL-TP-117	805964.875	2881251.828	44.485
WGL-TP-117	805965.633	2881251.926	44.063
WGL-TP-117	805964.374	2881252.458	45.300
WGL-TP-115	805940.619	2881236.208	44.998
WGL-TP-115	805940.853	2881236.066	45.250
WGL-TP-115	805940.993	2881236.133	45.429
WGL-TP-115	805941.100	2881236.108	45.685
WGL-TP-115	805940.328	2881235.276	45.649
WGL-TP-115	805939.413	2881233.196	45.270
WGL-TP-115	805938.578	2881231.346	45.220
WGL-TP-115	805938.703	2881230.188	45.075
WGL-TP-115	805938.713	2881230.469	44.655
WGL-TP-115	805940.712	2881229.639	45.249
WGL-TP-115	805943.134	2881228.932	45.265
WGL-TP-115	805945.241	2881227.959	44.969
WGL-TP-115	805947.243	2881227.275	45.090
WGL-TP-115	805948.953	2881226.506	45.155
WGL-TP-115	805949.117	2881226.676	44.674
WGL-TP-115	805949.709	2881226.967	45.213
WGL-TP-115	805950.011	2881227.608	45.096
WGL-TP-115	805951.266	2881229.452	45.220
WGL-TP-115	805952.219	2881231.201	45.452
WGL-TP-115	805952.440	2881232.800	45.445
WGL-TP-115	805952.314	2881233.654	45.420
WGL-TP-115	805951.968	2881234.084	45.558
WGL-TP-115	805950.546	2881235.279	45.717
WGL-TP-115	805948.167	2881235.722	45.539
WGL-TP-115	805945.646	2881236.002	45.547
WGL-TP-115	805943.308	2881236.736	45.598
WGL-TP-115	805941.704	2881236.805	45.597
WGL-TP-115	805940.550	2881236.758	45.346
WGL-TP-115	805940.561	2881236.504	45.195
WGL-TP-115	805939.772	2881234.422	45.253
WGL-TP-115	805939.221	2881232.551	45.065
WGL-TP-115	805939.082	2881230.915	45.045
WGL-TP-115	805940.619	2881236.208	44.998
WGL-TP-113	806030.938	2881198.405	44.148
WGL-TP-113	806031.094	2881198.699	44.763
WGL-TP-113	806031.100	2881198.370	44.895
WGL-TP-113	806030.208	2881197.123	44.993
WGL-TP-113	806028.953	2881195.563	45.136
WGL-TP-113	806027.728	2881194.019	45.736
WGL-TP-113	806026.968	2881192.315	46.050
WGL-TP-113	806026.225	2881191.955	46.166
WGL-TP-113	806025.745	2881191.397	46.370
WGL-TP-113	806023.882	2881192.233	45.782
WGL-TP-113	806023.903	2881192.767	46.637
WGL-TP-113	806023.669	2881192.771	46.517
WGL-TP-113	806021.958	2881196.675	47.236
WGL-TP-113	806021.563	2881193.388	45.187
WGL-TP-113	806021.234	2881193.956	45.500
WGL-TP-113	806020.309	2881195.484	46.563
WGL-TP-113	806019.695	2881195.076	45.312
WGL-TP-113	806019.906	2881196.711	46.051
WGL-TP-108	805512.770	2881259.446	45.261
WGL-TP-108	805508.541	2881263.602	44.198
WGL-TP-108	805507.988	2881263.481	43.508

ID	Easting	Northing	Elevation
WGL-TP-113	806025.863	2881200.506	48.328
WGL-TP-113	806026.568	2881201.819	47.172
WGL-TP-113	806027.318	2881203.050	46.581
WGL-TP-113	806027.895	2881204.146	46.186
WGL-TP-113	806031.065	2881201.621	45.633
WGL-TP-113	806025.584	2881204.084	42.741
WGL-TP-113	806028.339	2881200.398	39.603
WGL-TP-113	806031.086	2881199.227	42.247
WGL-TP-113	806030.573	2881198.311	40.247
WGL-TP-113	806031.576	2881197.080	40.675
WGL-TP-113	806030.938	2881198.405	44.148
WGL-TP-104	805558.908	2881676.388	44.262
WGL-TP-104	805559.419	2881676.909	44.294
WGL-TP-104	805559.404	2881676.999	44.334
WGL-TP-104	805559.559	2881677.094	44.396
WGL-TP-104	805559.956	2881677.537	44.387
WGL-TP-104	805559.837	2881681.767	45.116
WGL-TP-104	805558.871	2881683.894	44.909
WGL-TP-104	805557.725	2881685.924	44.964
WGL-TP-104	805556.907	2881687.414	44.867
WGL-TP-104	805555.957	2881689.876	45.199
WGL-TP-104	805555.421	2881689.434	44.941
WGL-TP-104	805554.680	2881689.078	44.757
WGL-TP-104	805552.520	2881688.050	44.642
WGL-TP-104	805550.055	2881687.062	44.717
WGL-TP-104	805547.590	2881686.136	44.784
WGL-TP-104	805545.054	2881685.172	44.761
WGL-TP-104	805542.959	2881684.388	44.628
WGL-TP-104	805541.499	2881683.943	44.627
WGL-TP-104	805539.080	2881683.127	44.658
WGL-TP-104	805537.136	2881682.466	44.769
WGL-TP-104	805537.214	2881681.779	44.626
WGL-TP-104	805536.849	2881681.408	44.484
WGL-TP-104	805537.894	2881679.371	44.775
WGL-TP-104	805538.830	2881676.864	44.739
WGL-TP-104	805539.149	2881674.499	44.676
WGL-TP-104	805539.583	2881672.101	44.712
WGL-TP-104	805540.097	2881669.827	44.621
WGL-TP-104	805540.957	2881669.157	44.291
WGL-TP-104	805541.251	2881669.536	44.419
WGL-TP-104	805541.894	2881670.492	44.688
WGL-TP-104	805544.084	2881670.898	44.489
WGL-TP-104	805546.781	2881671.500	44.566
WGL-TP-104	805550.106	2881672.311	44.697
WGL-TP-104	805552.560	2881673.753	44.672
WGL-TP-104	805554.767	2881675.268	44.470
WGL-TP-104	805557.050	2881676.408	44.359
WGL-TP-104	805559.127	2881677.268	44.146
WGL-TP-104	805561.177	2881678.274	44.346
WGL-TP-104	805561.363	2881678.716	44.539
WGL-TP-104	805561.293	2881679.951	44.513
WGL-TP-104	805560.532	2881682.797	44.684
WGL-TP-104	805558.908	2881676.388	44.262
WGL-TP-108	805525.672	2881263.468	43.949
WGL-TP-108	805527.600	2881262.171	45.321
WGL-TP-108	805525.836	2881262.819	46.261
WGL-TP-108	805523.527	2881262.271	45.926
WGL-TP-108	805520.594	2881262.213	44.625
WGL-TP-108	805518.243	2881261.926	44.101
WGL-TP-108	805517.664	2881260.409	45.048
WGL-TP-108	805513.364	2881258.452	43.990
WGL-TP-108	805513.392	2881258.414	43.826
WGL-TP-108	805513.834	2881257.985	44.924
WGL-TP-106	805446.139	2881496.770	46.426
WGL-TP-106	805446.373	2881497.115	45.672
WGL-TP-106	805446.432	2881498.133	44.446
WGL-TP-106	805448.396	2881497.707	45.810

ID	Easting	Northing	Elevation
WGL-TP-108	805508.464	2881264.999	44.933
WGL-TP-108	805506.490	2881265.333	43.727
WGL-TP-108	805507.484	2881265.764	43.688
WGL-TP-108	805508.665	2881266.392	42.995
WGL-TP-108	805511.083	2881267.149	43.068
WGL-TP-108	805514.095	2881268.749	43.198
WGL-TP-108	805516.621	2881270.012	43.801
WGL-TP-108	805516.504	2881270.950	43.392
WGL-TP-108	805518.811	2881272.117	43.701
WGL-TP-108	805519.885	2881271.780	43.561
WGL-TP-108	805521.124	2881270.156	43.581
WGL-TP-108	805525.672	2881263.468	43.949
WGL-TP-106	805463.449	2881489.748	41.464
WGL-TP-106	805462.471	2881489.756	40.370
WGL-TP-106	805461.062	2881491.002	40.211
WGL-TP-106	805459.900	2881491.924	39.105
WGL-TP-106	805460.001	2881492.384	39.322
WGL-TP-106	805459.438	2881492.727	39.463
WGL-TP-106	805460.072	2881492.663	39.620
WGL-TP-106	805459.680	2881492.598	39.425
WGL-TP-106	805460.167	2881492.836	40.331
WGL-TP-106	805461.300	2881493.081	40.774
WGL-TP-106	805460.212	2881492.733	40.192
WGL-TP-106	805460.345	2881492.769	40.363
WGL-TP-106	805460.325	2881492.783	40.467
WGL-TP-106	805460.306	2881492.777	40.490
WGL-TP-106	805459.513	2881493.229	40.682
WGL-TP-106	805459.225	2881493.225	40.719
WGL-TP-106	805460.142	2881493.347	41.061
WGL-TP-106	805460.070	2881493.331	41.074
WGL-TP-106	805459.045	2881493.245	40.837
WGL-TP-106	805458.757	2881493.333	40.901
WGL-TP-106	805458.782	2881493.293	40.962
WGL-TP-106	805458.542	2881492.706	40.620
WGL-TP-106	805458.483	2881492.723	40.673
WGL-TP-106	805458.757	2881492.537	40.806
WGL-TP-106	805458.623	2881492.571	40.799
WGL-TP-106	805458.174	2881492.240	40.455
WGL-TP-106	805458.259	2881492.183	40.547
WGL-TP-106	805458.151	2881492.280	40.540
WGL-TP-106	805458.070	2881492.258	40.589
WGL-TP-106	805457.988	2881492.285	40.598
WGL-TP-106	805457.942	2881492.276	40.657
WGL-TP-106	805457.754	2881492.082	40.387
WGL-TP-106	805457.683	2881492.039	40.389
WGL-TP-106	805457.427	2881492.176	40.436
WGL-TP-106	805457.312	2881492.194	40.483
WGL-TP-106	805457.383	2881492.500	40.863
WGL-TP-106	805457.283	2881492.476	40.893
WGL-TP-106	805457.205	2881492.497	40.920
WGL-TP-106	805457.156	2881492.472	40.922
WGL-TP-106	805457.102	2881492.438	40.935
WGL-TP-106	805457.094	2881492.450	40.973
WGL-TP-106	805457.433	2881492.469	41.280
WGL-TP-106	805456.841	2881492.683	41.204
WGL-TP-106	805456.971	2881492.654	41.305
WGL-TP-106	805456.342	2881492.659	42.889
WGL-TP-106	805448.254	2881490.912	42.985
WGL-TP-106	805446.351	2881495.322	39.864
WGL-TP-106	805446.399	2881497.245	44.601
WGL-TP-106	805445.425	2881496.945	45.459
WGL-TP-106	805445.368	2881496.875	45.565
WGL-TP-106	805445.812	2881496.853	45.724
WGL-TP-106	805467.195	2881497.297	48.687
WGL-TP-106	805463.449	2881489.748	41.464
WGL-TP-105	805503.101	2881585.762	45.763
WGL-TP-105	805502.676	2881586.027	45.913

ID	Easting	Northing	Elevation
WGL-TP-105	805502.921	2881586.727	45.906
WGL-TP-105	805505.256	2881588.704	45.357
WGL-TP-105	805506.560	2881591.570	44.316
WGL-TP-105	805508.185	2881595.465	43.768
WGL-TP-105	805490.188	2881612.170	45.083
WGL-TP-105	805491.030	2881612.412	45.490
WGL-TP-105	805491.461	2881612.835	45.045
WGL-TP-105	805491.410	2881614.331	45.359
WGL-TP-105	805491.336	2881611.356	45.975
WGL-TP-105	805493.323	2881612.692	47.314
WGL-TP-105	805488.278	2881599.478	45.055
WGL-TP-105	805487.673	2881599.316	45.100
WGL-TP-105	805487.480	2881598.413	45.110
WGL-TP-105	805487.110	2881598.089	45.317
WGL-TP-105	805487.428	2881597.850	45.756
WGL-TP-105	805487.660	2881597.544	45.880
WGL-TP-105	805486.797	2881597.493	45.829
WGL-TP-105	805499.799	2881595.177	45.139
WGL-TP-105	805500.181	2881594.928	44.994
WGL-TP-105	805502.485	2881593.997	44.891
WGL-TP-105	805503.101	2881585.762	45.763
WGL-TP-114	805973.967	2881231.562	43.170
WGL-TP-114	805975.125	2881231.124	43.924
WGL-TP-114	805977.067	2881232.819	45.097
WGL-TP-114	805978.331	2881234.532	45.226
WGL-TP-114	805979.479	2881233.767	45.346

ID	Easting	Northing	Elevation
WGL-TP-114	805981.330	2881232.399	45.213
WGL-TP-114	805983.439	2881232.531	44.945
WGL-TP-114	805984.616	2881232.915	44.984
WGL-TP-114	805985.586	2881233.084	45.114
WGL-TP-114	805986.772	2881231.222	45.112
WGL-TP-114	805986.945	2881229.596	44.969
WGL-TP-114	805987.155	2881227.527	45.107
WGL-TP-114	805986.378	2881226.705	45.120
WGL-TP-114	805986.374	2881224.987	44.943
WGL-TP-114	805985.870	2881223.883	44.910
WGL-TP-114	805984.852	2881222.106	45.067
WGL-TP-114	805982.696	2881221.962	45.329
WGL-TP-114	805981.279	2881222.466	45.140
WGL-TP-114	805979.481	2881222.312	45.290
WGL-TP-114	805977.335	2881221.916	45.562
WGL-TP-114	805976.054	2881222.011	45.481
WGL-TP-114	805971.966	2881221.945	46.681
WGL-TP-114	805975.252	2881227.330	43.704
WGL-TP-114	805975.096	2881228.134	44.027
WGL-TP-114	805974.557	2881230.970	43.830
WGL-TP-114	805974.544	2881232.433	43.959
WGL-TP-114	805974.916	2881234.103	43.802
WGL-TP-114	805976.146	2881234.632	43.587
WGL-TP-114	805977.642	2881234.834	43.602
WGL-TP-114	805981.704	2881234.073	43.591
WGL-TP-114	805983.424	2881232.285	43.608
WGL-TP-114	805973.967	2881231.562	43.170

APPENDIX B
PHOTOGRAPH DOCUMENTATION
SOUTH WEYMOUTH NAS SOUTH GATE LANDFILL
PRE-REMEDIAL DESIGN INVESTIGATION
CTO 407

APPENDIX B-1
DEBRIS AND SEDIMENT/ SOIL SAMPLE LOCATION PHOTOGRAPHS
SOUTH WEYMOUTH NAS SOUTH GATE LANDFILL
PRE-REMEDIAL DESIGN INVESTIGATION
MAY 2009
CTO 407

DEBRIS AND SEDEIMENT/ SOIL SAMPLE LOCATION PHOTOGRAPHS MAY 2009 SOUTH WEYMOUTH NAS WEST GATE LANDFILL

Left picture: D1
In vicinity of MW-8 and TP-105.
Chrome jet engine part, various metal debris, cables, partial drum.

Right picture: D2
West of TP-106.
Mound of various metal debris.

Left picture: D3
Approximately 20 feet south of D2. Five gallon metal container, broken clay pots between D2 and D3.

Right picture: D4
In front of TP-106.
Various metal debris, glass bottles, appliance, car parts, debris continuous south of TP-106.

DEBRIS AND SEDEIMENT/ SOIL SAMPLE LOCATION PHOTOGRAPHS MAY 2009 SOUTH WEYMOUTH NAS WEST GATE LANDFILL

Left Picture: D5
South of SB-107. Several drum carcasses, car parts, and metal debris.

Right Picture: D6
Approximately 30-40 feet south of D5. Household debris (metal), metal cables, bottles, and various metal debris runs about 20-25 feet west of silt fence and into adjacent water.

Left picture: D7
Twenty feet south of D6, adjacent to TP-108. Car parts, metal debris, rusted metal container (5 gal).

Right picture: D8
Thirty feet south of TP-18. Metal siding, tires, concrete debris, submerged drum carcass, several smaller containers, misc. metal debris.

DEBRIS AND SEDEIMENT/ SOIL SAMPLE LOCATION PHOTOGRAPHS MAY 2009 SOUTH WEYMOUTH NAS WEST GATE LANDFILL

Left picture: D9
Thirty feet south of D8.
Bottles, misc. metal debris, completely submerged with water, container carcasses towards bank.

Right picture: D10
Twenty feet south of D9, 10 feet west of SB-104.
Parts of heavy machinery, wheels, debris approximately 35 feet from silt fence, coke machine.

Left picture: D11
Twenty feet southwest of D10.
Car muffler, more metal debris towards silt fence, approximately 40 feet to silt fence.

Right picture: D12
Southwest of TP-109.
Drum carcass, metal fencing, and various metal debris.

DEBRIS AND SEDEIMENT/ SOIL SAMPLE LOCATION PHOTOGRAPHS MAY 2009 SOUTH WEYMOUTH NAS WEST GATE LANDFILL

Left picture: D13
Twenty feet south/southwest of D12.
Metal sheeting, pipes, misc. debris, and bottles.

Right picture D14
Fifteen feet west of D-13.
Metal grate, few bottles, no additional debris.

Left picture: D15
Twenty feet west of TP-109.
Drum carcass, containers, and tire. Debris from D-15 to silt fence approximately 30 feet.

Right picture: D16
Twenty five feet northeast of D15.
Metal containers, car parts, fifteen feet south of silt fence.

DEBRIS AND SEDEIMENT/ SOIL SAMPLE LOCATION PHOTOGRAPHS MAY 2009 SOUTH WEYMOUTH NAS WEST GATE LANDFILL

Left picture: D17
Thirty feet east/northeast of D16.
Five gallon containers, tire, metal trash can, 10 to 15 feet from silt fence, misc. debris.

Right picture: D18
Adjacent to the northwest edge of TP-110, twenty feet east of D17.
Several five gallon containers, numbers metals debris northwest of D18.

D19 (No photo)
Twenty feet east of TP-110 at silt fence.
Debris to the west, no debris east of location outside of silt fence.

D20 (No photo)
Adjacent to south edge of TP-111. Metal can, no other debris noted.

DEBRIS AND SEDEIMENT/ SOIL SAMPLE LOCATION PHOTOGRAPHS MAY 2009 SOUTH WEYMOUTH NAS WEST GATE LANDFILL

Left picture: WGL-SD-101

- Metal debris observed within 5-15 ft W, NW, and SW of sample location.
- Sediment sample located in a drainage channel downgradient from the metal debris.

Right picture: WGL-SD-102

- Sediment sample located in the vicinity of D8.
- Metal debris observed 10 ft N and 7 ft W of the sample location.

Left picture: WGL-SD-103

- Sediment sample located in the vicinity of D10.
- Metal debris located approx. 10 ft W and NW of sample location.

Right picture: WGL-SD-104

- Sediment sample located approx. 25-30 ft E (downgradient) of TP-109.
- Surface water located approx. 2 ft E of sample.
- No debris observed.
- Debris noted in TP-109.

DEBRIS AND SEDEIMENT/ SOIL SAMPLE LOCATION PHOTOGRAPHS MAY 2009 SOUTH WEYMOUTH NAS WEST GATE LANDFILL

Left picture: WGL-SD-105

- Sediment sample located in a N-S running drainage ditch.
- Debris observed approx. 15 ft W of sample location.

Right picture: WGL-SD-106

- Sample located in a drainage ditch running NW from the landfill.
- Metal debris observed in a ditch SE of sample location.

Left picture: WGL-SD-107

- Sediment sample located in the vicinity of D16.
- Sediment sample located approx. 30 ft NW of MW-4 and approx. 15-20 ft SW of metal debris.

Right picture: WGL-SD-108

- Sediment sample located approx. 5 ft S of metal debris and approx. 40 ft N of MW-4.

DEBRIS AND SEDEIMENT/ SOIL SAMPLE LOCATION PHOTOGRAPHS MAY 2009 SOUTH WEYMOUTH NAS WEST GATE LANDFILL

Left picture: WGL-SD-109

- Sediment sample located approx. 40 ft NE of MW-4 and 15 ft S of the temporary silt fence.

Right picture: WGL-SD-110

- Sediment sample location receives drainage from the surrounding area (TP-110 area).
- No debris observed in the vicinity.

Left picture: WGL-SD-111

- No debris observed in the vicinity.
- Located downgradient from the landfill.

Right picture: WGL-SD-112

- No debris observed in the vicinity.
- Observed drainage channel.
- Sample located in the drainage area for the entire southern wetland.

DEBRIS AND SEDEIMENT/ SOIL SAMPLE LOCATION PHOTOGRAPHS MAY 2009 SOUTH WEYMOUTH NAS WEST GATE LANDFILL

Left picture: WGL-T1
Transformer debris.
Sample 1 location.

Right picture: WGL-T2
Sample number 2 location at bottom of hill near T1.

Left picture: WGL-T3
Sample number 3 location at bottom of hill, near T1 and T2.

Right picture: WGL-T1, T2, and T3

DEBRIS AND SEDEIMENT/ SOIL SAMPLE LOCATION PHOTOGRAPHS MAY 2009 SOUTH WEYMOUTH NAS WEST GATE LANDFILL

Left picture: WGL-T4 and T5 Possible transformer. Sample below (T4) and four feet south (T5).

Right picture: Possible transformer part

APPENDIX B-2
TEST PIT EXCAVATION PHOTOGRAPHS
SOUTH WEYMOUTH NAS SOUTH GATE LANDFILL
PRE-REMEDIAL DESIGN INVESTIGATION
MAY 2009
CTO 407

TEST PIT EXCAVATION PHOTOGRAPHS MAY 2009 SOUTH WEYMOUTH NAS WEST GATE LANDFILL

TP-101

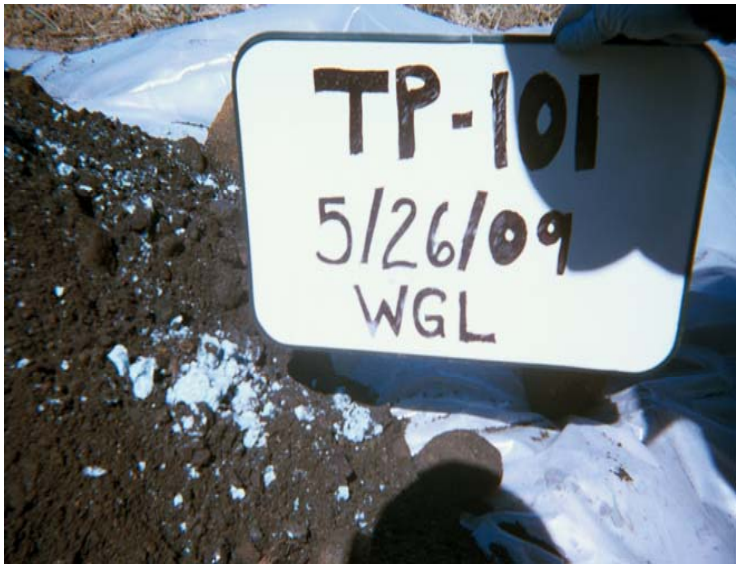
Near right: miscellaneous metal debris, bottles, ceramic cups and electrical wire.

Far right: crushed empty 55-gallon drum.

TP-101

Near right: white/blue crystalline material.

Far right: extent of debris in TP-101 located 10.0 feet west of the eastern edge of test pit to approximately 4.0 feet deep, groundwater encountered at approximately 9.0 feet bgs.



TEST PIT EXCAVATION PHOTOGRAPHS MAY 2009 SOUTH WEYMOUTH NAS WEST GATE LANDFILL

TP-102

Near and far right: ash like material observed at approximately 5.0 to 7.0 feet bgs.

TP-102

Near and right: sand and gravel with cobbles observed from ground surface to approximately 5.0 feet bgs, little corroded scraps of metal debris observed from ground surface to approximately 2.0 feet bgs; groundwater was not encountered during excavation of the test pit.

TEST PIT EXCAVATION PHOTOGRAPHS MAY 2009 SOUTH WEYMOUTH NAS WEST GATE LANDFILL

TP-103

Near and far right: piece of metal protruding from west wall approximately 15.0 feet from north wall of test pit.

TP-103

Near right: view of west wall; few bricks observed approximately 2.0 feet bgs.

Far right: view of north wall where no debris was observed, groundwater encountered at approximately 9.0 feet bgs.

TEST PIT EXCAVATION PHOTOGRAPHS MAY 2009 SOUTH WEYMOUTH NAS WEST GATE LANDFILL

TP-104

Near and far right: white arrow pointing to wood timber approximately 4.0 feet long with nail observed along south wall at approximately 2.0 feet bgs.

TP-104

Near and right: suspected petroleum stained sand and gravel approximately 2.0 to 4.0 feet bgs; no odor or response on PID or FID noted, groundwater was encountered at approximately 10.0 feet bgs.

TEST PIT EXCAVATION PHOTOGRAPHS MAY 2009 SOUTH WEYMOUTH NAS WEST GATE LANDFILL

TP-105

Near right: white arrow pointing to metal equipment housing and 4.0 foot length of mangled metal corrugated pipe observed at surface of test pit.

Far right: silt and sand with increasing silt with depth observed from approximately 0.5 to 4.5 feet bgs.

TP-105

Near and far right: silt and sand overlaying brown sand and gravel; groundwater encountered at approximately 5.0 feet bgs.

TEST PIT EXCAVATION PHOTOGRAPHS MAY 2009 SOUTH WEYMOUTH NAS WEST GATE LANDFILL

TP-106

Near and far right: metal debris, iron pipe, concrete block and electrical wire observed at ground surface to approximately 2.0 feet bgs located approximately 10.0 feet east of the west edge of test pit.

TP-106

Near right: groundwater encountered at approximately 5.0 feet bgs.

Far right: sidewall view of TP-106.

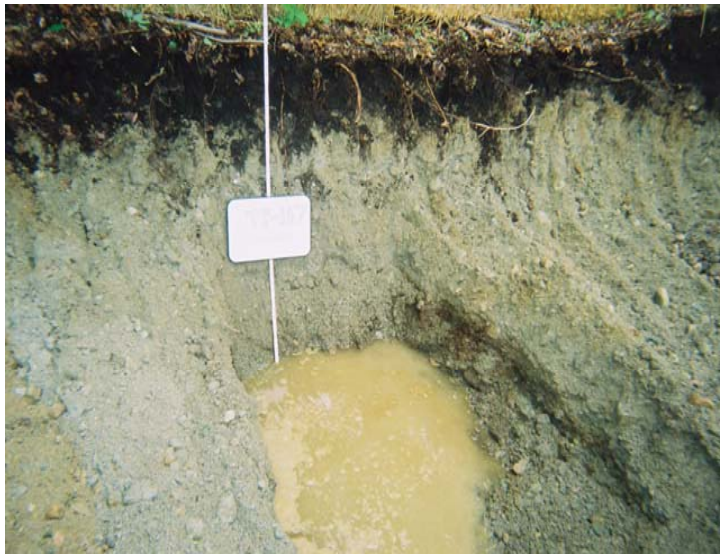
TEST PIT EXCAVATION PHOTOGRAPHS MAY 2009 SOUTH WEYMOUTH NAS WEST GATE LANDFILL

TP-107

Topsoil of test pit; no debris uncovered during excavation.

TP-107

Near and right: sidewall view of TP-107, groundwater encountered at approximately 5.0 feet bgs.



TEST PIT EXCAVATION PHOTOGRAPHS MAY 2009 SOUTH WEYMOUTH NAS WEST GATE LANDFILL

TP-108

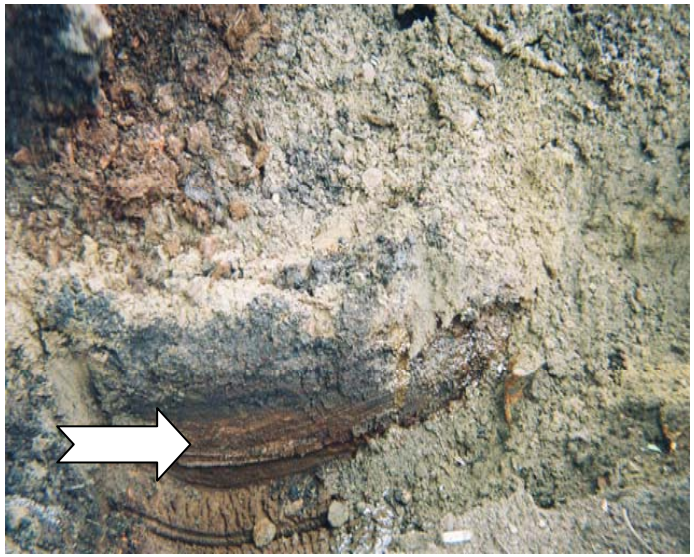
Near right: view of various metal debris, destroyed paint can, bottles and wire observed from ground surface to approximately 3.5 feet bgs, groundwater was encountered at approximately 2.0 feet bgs.

Far right: mangled 5-gallon metal container with white/blue crystalline substance in bottom of container.

TP-108

Near right: excavated truck tailgate.

Far right: white arrow pointing to peat observed at approximately 4.0 feet bgs.



TEST PIT EXCAVATION PHOTOGRAPHS MAY 2009 SOUTH WEYMOUTH NAS WEST GATE LANDFILL

TP-109

Near right: mangled surface metal located in the southern portion of the test pit; additional debris including car parts, cans, mangled 5-gallon container, bottles pipes and some white powdery material observed at ground surface to approximately 1.0 foot bgs throughout the test pit.

Far right: soil below surface debris at southern edge of the test pit.

TP-109

Near right: groundwater encountered at approximately 3.5 feet bgs.

Far right: side wall view of the test pit.

TEST PIT EXCAVATION PHOTOGRAPHS MAY 2009 SOUTH WEYMOUTH NAS WEST GATE LANDFILL

TP-110

Near right: empty gas tank uncovered in northern portion of test pit.

Far right: metallic projectile uncovered in northern portion of test pit.

TP-110

Near right: debris including mangled metal, car parts, bottled and cans observed in the northern portion of the test pit a depth of approximately 2.0 feet bgs.

Far right: natural material observed beneath the debris.

TEST PIT EXCAVATION PHOTOGRAPHS MAY 2009 SOUTH WEYMOUTH NAS WEST GATE LANDFILL

TP-111

Near right: side wall of test pit, no debris encountered during the excavation.

Far right: example of peat found in test pit at approximately 4.0 feet bgs.

TP-111

Right: groundwater encountered at approximately 4.0 feet bgs, groundwater appeared frothy and brown.

TEST PIT EXCAVATION PHOTOGRAPHS MAY 2009 SOUTH WEYMOUTH NAS WEST GATE LANDFILL

TP-112

Near right: white arrow pointing to light gray soil with petroleum odor noted at approximately 4.0 feet bgs.

Far right: log uncovered at approximately 7.0 feet bgs.

TP-112

Near right: groundwater encountered at approximately 7.0 feet bgs.

Far right: wood and peat material observed at approximately 7.0 feet bgs.

TEST PIT EXCAVATION PHOTOGRAPHS MAY 2009 SOUTH WEYMOUTH NAS WEST GATE LANDFILL

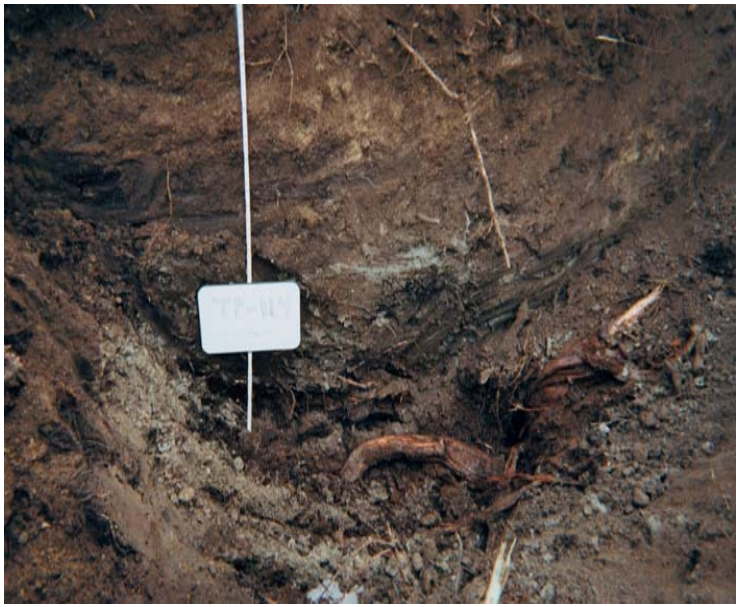
TP-113

Near right: boulder encountered at approximately 6.0 feet bgs and view of exposed mound.

Far right: arrow pointing to tree stump uncovered at approximately 6.0 feet bgs.

TP-114

Near and right: test pit located east of TP-112. Light gray soil with a slight petroleum odor noted at approximately 3.0 to 5.0 feet bgs, wood and peat like material encountered at approximately 5.0 to 7.0 feet bgs. Groundwater observed at approximately 7.0 feet bgs.

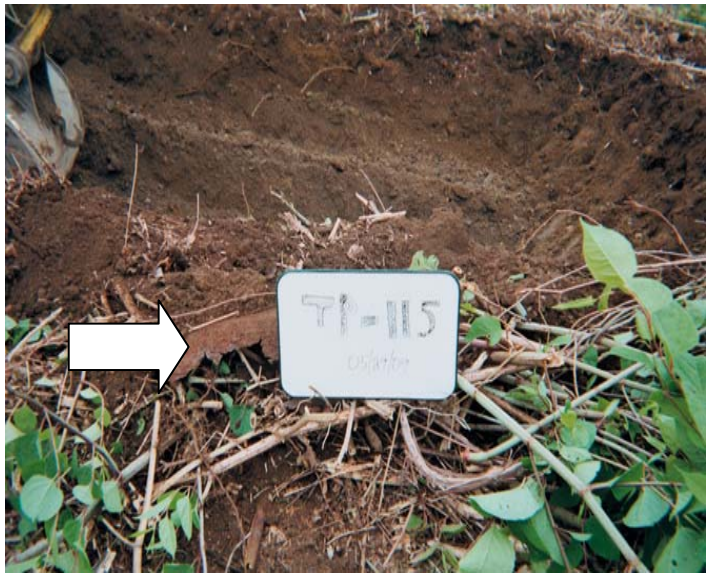


TEST PIT EXCAVATION PHOTOGRAPHS MAY 2009 SOUTH WEYMOUTH NAS WEST GATE LANDFILL

TP-115

Near right: side wall of test pit, light gray soil with a slight petroleum odor noted at approximately 4.0 to 6.0 feet bgs, groundwater encountered at approximately 7.0 feet bgs.

Far right: white arrow pointing to metal debris observed at ground surface of the test pit.



TP-116

Near right: side wall of test pit, light gray soil with no petroleum odor but with elevated FID result noted at approximately 4.0 to 5.0 feet bgs, groundwater encountered at approximately 7.0 feet bgs.

Far right: wood and peat material observed at approximately 5.0 t.o 7.0 feet bgs.

TEST PIT EXCAVATION PHOTOGRAPHS MAY 2009 SOUTH WEYMOUTH NAS WEST GATE LANDFILL

TP-117

Near and far right: side wall of test pit, few bricks noted at 1.0 to 4.0 feet bgs, light gray soil with no petroleum odor but with elevated FID result noted at approximately 4.0 to 6.0 feet bgs, groundwater encountered at approximately 7.0 feet bgs.

APPENDIX C
TERRAIN CONDUCTIVITY AND GROUND PENETRATING RADAR SURVEYS
SOUTH WEYMOUTH NAS SOUTH GATE LANDFILL
PRE-REMEDIAL DESIGN INVESTIGATION
CTO 407

Northeast Geophysical Services

TERRAIN CONDUCTIVITY AND GROUND PENETRATING RADAR SURVEYS AT THE WEST GATE LANDFILL SITE, NAS SOUTH WEYMOUTH, WEYMOUTH, MA

For:
TETRA TECH NUS, INC.

June, 2009

TERRAIN CONDUCTIVITY AND GROUND PENETRATING RADAR SURVEYS AT THE WEST GATE LANDFILL SITE, NAS SOUTH WEYMOUTH, WEYMOUTH, MA

INTRODUCTION

At the request of Tetra Tech NUS, Inc. electromagnetic terrain conductivity (EM) and ground penetrating radar (GPR) surveys were conducted at the West Gate Landfill site at Naval Air Station (NAS) South Weymouth, Weymouth, Massachusetts. The primary objective of the surveys was to help delineate the lateral and vertical extent of subsurface debris around the perimeter of the landfill. The surveys were conducted on May 11-13 and May 26, 2009 by Mike Scully of Northeast Geophysical Services (NGS). This report summarizes site conditions, methods used, and the results of the geophysical surveys.

SITE LOCATION AND CONDITIONS

Naval Air Station South Weymouth is located in Weymouth, Massachusetts and is approximately 1,267 acres in size. The base was operational from 1942 through 1997 when it was closed by the Base Realignment and Closure Commission. Some base facilities are currently being used for various commercial applications and there are plans to develop movie studios, shops, housing, a wildlife park, and a golf course at the site.

The West Gate Landfill operated as a site for disposal of domestic wastes from the 1940's through 1972. It is located on the west side of the base property and is approximately 6 acres in size – approximately 700 feet long by 500 feet wide. The site is bounded to the north by an abandoned railroad track adjacent to Trotter Road, to the east by French Stream and to the south and southwest by a wooded wetland area. The landfill is uncovered and had become densely overgrown with a variety of brushy vegetation and small trees. The site was almost entirely cleared of brush and trees by a separate contractor prior to the geophysical survey. Chain link fencing surrounding the landfill area was disconnected and left in rolls on the ground in order to facilitate the geophysical and other field work taking place at the site. The ground surface topography ranges from relatively flat in the northern end of the site to very hummocky in the southern end of the site. Exposed metal debris is abundant, especially in the southern half of the site. Weather conditions were amenable to field work during the survey.

METHODS AND INSTRUMENTATION

EM-31 Terrain Conductivity: Terrain conductivity measurements are made by inducing an electromagnetic current into the ground from a transmitter coil, and recording the resulting secondary electromagnetic field at a receiver coil a fixed distance away. The strength of the secondary field depends upon the conductivity of materials in the ground. Measurements are recorded in units of conductivity called milli-Siemens per meter (mS/m).

Terrain conductivity may be affected by a number of factors including moisture content, mineralogy, and soil thickness. The conductivity of groundwater is usually the primary factor.

Large increases in conductivity are likely due to increased ion concentration in the groundwater. Negative apparent conductivity readings will occur over buried metal objects.
A Geonics EM-31 terrain conductivity meter was used for this survey. The EM-31 is a one-person device containing both transmitter and receiver coils on a 3.7-meter frame. The effective exploration depth for this instrument is about 18 feet.

In addition to conductivity readings, measurements of the inphase component of the electromagnetic field are recorded. The inphase measurement is sensitive to the presence of metallic conductors and this measurement is often used for metal detection. Abrupt negative spikes in the inphase and conductivity measurements are indicative of metallic conductors.

EM-31 measurements were done at this site to better define the limits of the landfill. EM-31 readings were measured at 2.5-foot intervals along survey lines spaced 50 feet apart in the north-south direction and 100 feet apart in the east-west direction. A total of 4,250 terrain conductivity measurements were recorded.

Ground Penetrating Radar (GPR): Ground penetrating radar utilizes high frequency radio waves to probe the subsurface. Radar waves are transmitted into the ground from an antenna that is pulled across the ground surface. In the subsurface, radar waves are reflected at interfaces of materials with contrasting dielectric properties. The returning signal is intercepted by a receiver and converted to a digital graphic image. The horizontal axis of the image is distance along the traverse. The vertical axis is two-way travel time of the radar pulses in nanoseconds (ns), which can be converted to depth using certain assumptions about the materials that the signal is traveling through.

The GPR graphic images are examined and features noted on the images can then be transferred to a map. Tanks, pipelines and other objects with rounded tops (boulders, tree roots, or segments of old foundations, for example) may show up on the profiles as hyperbola-shaped reflections. Tanks and pipelines usually appear on more than one survey line as hyperbolic reflectors on lines perpendicular to the tank or pipe axis and as horizontal reflectors on lines along the axis. The GPR instrument used was a GSSI, SIR-3000. Radan software was used to display and analyze the GPR data. A 400-MHz antenna was used with a time range set for 100 nanoseconds. At this setting the depth surveyed is approximately 15 feet. A total of 13 GPR profiles were conducted within the landfill area as shown on Figure 2.

Field Survey Procedures: Prior to geophysical data collection a field survey grid was established using tape measures, wooden stakes and pin flags. An arbitrary numbering system was used for the grid with grid coordinates increasing to the north and east. Several grid points were later surveyed using GPS so that the grid survey results could be translated to real world coordinates as shown on Figures 1 and 2. A Trimble AG132 GPS system with real time differential corrections was used to record GPS data.

EM-31 readings were measured along the field grid lines at 2.5-foot intervals along lines spaced 50 feet apart in the north-south direction and 100 feet apart in the east-west direction. GPR profiles were recorded along lines nominally spaced 100 feet apart over the same area covered by

the EM survey (Figure 2). Due to the rough ground surface conditions at this site the GPR antenna was placed in a plastic "Jet Sled" and pulled manually along the survey lines.

RESULTS OF THE SURVEY

EM31 Terrain Conductivity: Figure 1 shows the limits of the EM survey, contoured terrain conductivity data and the resulting interpreted limits of the West Gate Landfill. Profiles of each survey line showing the EM31 conductivity and inphase readings are also appended with this report.

As shown by Figure 1 and by the EM profiles the occurrence of abundant metal within the landfill debris causes the conductivity and inphase readings to abruptly change from relatively flat low positive values to strongly negative values. The conductivity readings generally stay negative over the areas containing abundant buried metal while the inphase readings are spikier and tend to alternate between highly negative and highly positive values.

Figures 1 and 2 were prepared using the Surfer program by Golden software. The EM profiles were prepared using the Grapher program also by Golden software. For the conductivity contouring shown on Figure 1 the raw data was gridded to 25 foot by 25 foot-spaced nodes using kriging. The gridded data was then color contoured using the software and displayed with positive values as increasingly dark red shades and negative values as increasingly dark blue shades. The location of the heavy red line indicating the interpreted limits of the landfill on Figure 1 was initially chosen using the contoured EM data. Since the process of gridding and contouring data has a tendency to smooth the real values in order to make a simple visual presentation, the position of the line was adjusted using the actual data profiles. Using the profiles it is generally quite clear where the metallic waste starts and stops.

There is generally a strong negative correlation between the conductivity values and the amount of metal below the EM31 instrument. The conductivity contour map on Figure 1 indicates that the southern half of the landfill contains the majority of the metal-bearing debris at the site. This is consistent with observations of abundant exposed metal and the very hummocky topography in this part of the landfill. A strong positive anomaly along the eastern side of the landfill occurs where there is an above-ground pile of metal-bearing debris. It was impossible for the operator to walk over this pile and the conductivity values are positive because the metal was beside the instrument and not beneath it. An area of generally flat, low positive conductivity values occurs in the center of the northern half of the landfill. This area is outlined with a dashed heavy red line on Figures 1 and 2 and appears to be an area where either there is very little waste material or there is little metal in the waste. Slightly elevated conductivity values are observed in the wetland area on the south and southwest sides of the landfill (pinkish area on Figure 1). This is because the standing water in this area at the time of the survey would naturally have a higher conductivity than the dry soils adjacent to other portions of the landfill.

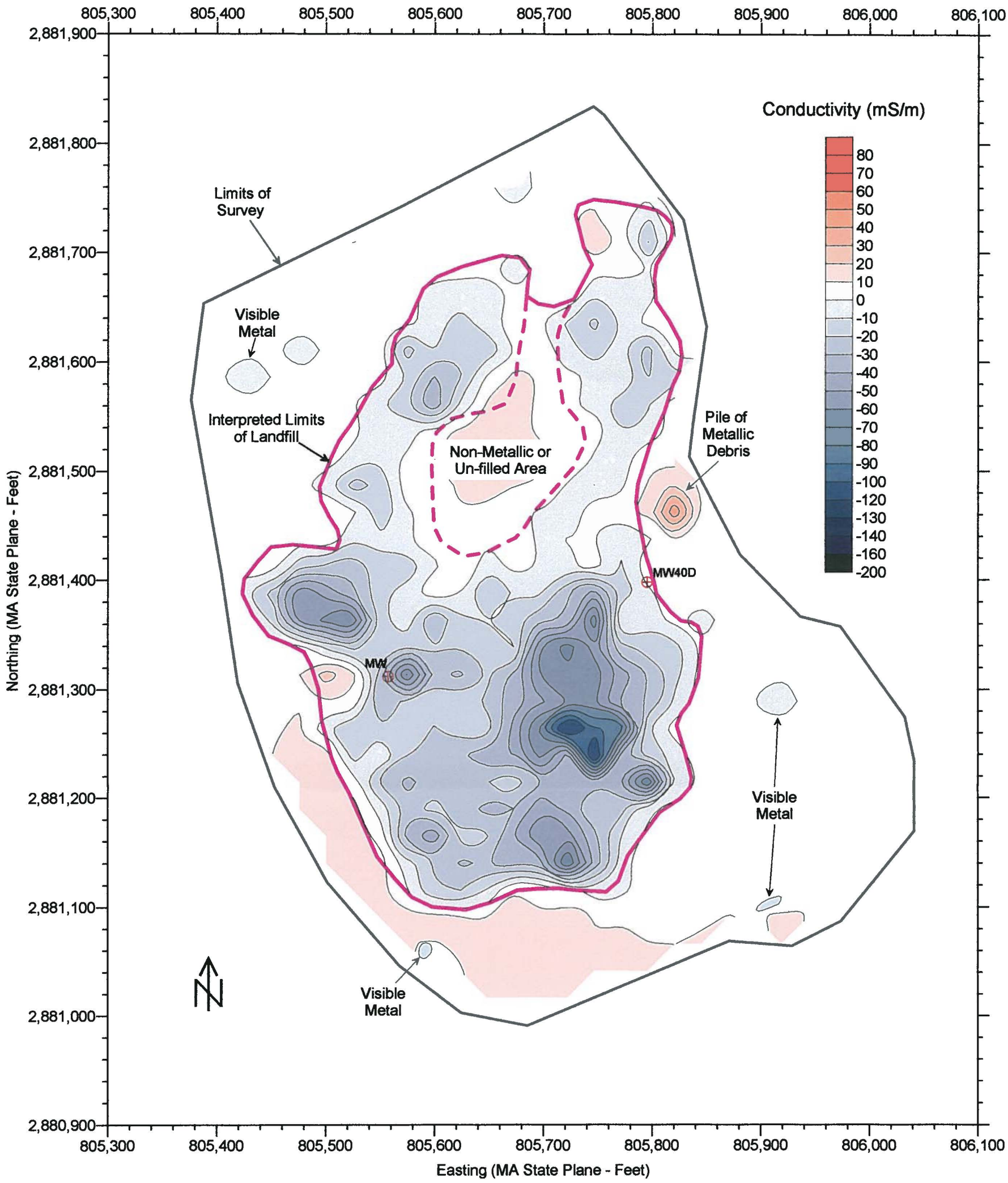
Ground Penetrating Radar: Figure 2 shows the locations of the GPR survey profiles conducted at the site which are appended with this report. The GPR survey was done primarily to help determine the vertical extent of the subsurface debris within the landfill and if possible to

determine the nature and condition of buried metal objects within the landfill. Unfortunately, the GPR surveys were not able to help much with these objectives. A distinct surface defining the bottom of the fill material was not detected and identification of individual metal objects was not possible. The GPR results appear to have been negatively affected by the rough ground surface at the site and by the abundance of metal within the landfill waste material. A very rough ground surface causes the GPR antenna to bounce around a lot as it is being pulled across the ground. In this situation the orientation of the antenna is constantly changing making it difficult to get a clean reflection from buried objects or surfaces. Metal objects will reflect 100% of the radar signal that hits them. A few small metal objects will not prevent an underlying object or surface to be detected since the antenna is moving across the surface and the radar signal is actually spread out in a cone shape below the antenna. In the situation where the near-surface material is full of metal objects very little of the signal will be able to penetrate to underlying objects or surfaces.

Most of the GPR profiles from the West Gate Landfill site do show an irregular, roughly horizontal reflector that ranges from approximately four to eight feet deep. This reflector appears to be below the bottom of the landfill material as it generally extends across the entire length of the profiles and does not show any apparent relationship to the limits of the landfill as defined by the EM survey. Other discontinuous horizontal and dipping reflectors can also be seen in the profiles that appear to be unrelated to the landfill material.

LIMITATIONS OF THE SURVEYS

The EM-31 terrain conductivity method can detect buried metal objects and high-conductivity groundwater plumes to a maximum depth of approximately 18 feet. The Ground Penetrating Radar survey produces reflectors at interfaces of materials with contrasting dielectric properties. Both of these instruments provide indirect measurements of subsurface conditions. The actual cause of the features depicted on the figures can only be conclusively determined by direct observation.



Scale in Feet

0 50 100 150 200

FIGURE 1

CONDUCTIVITY CONTOUR MAP

WEST GATE LANDFILL SITE

NAS SOUTH WEYMOUTH

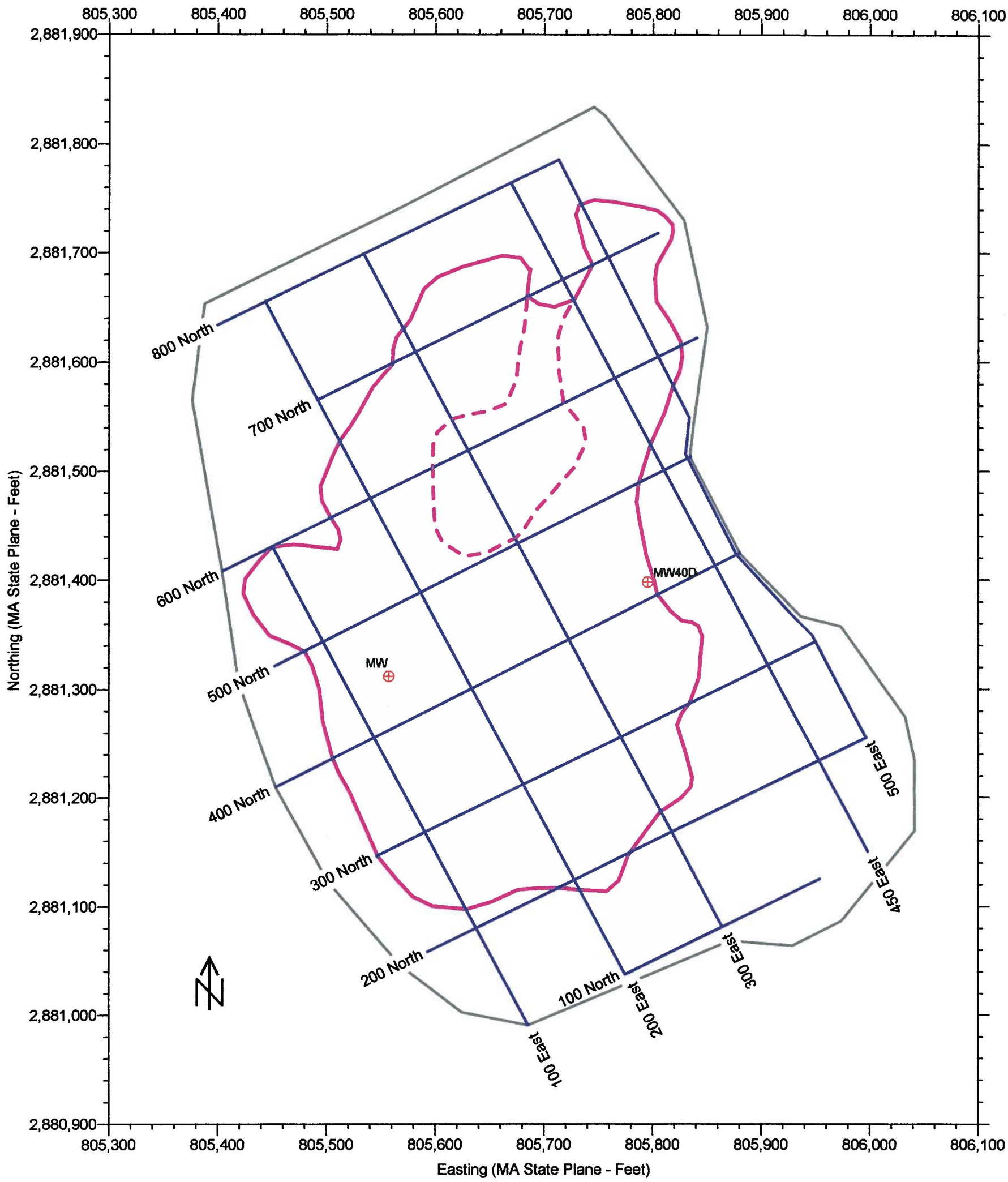
WEYMOUTH, MA

For:

Tetra Tech NUS, Inc.

Surveyed May 13 & 26, 2009 by:

NORTHEAST GEOPHYSICAL SERVICES



Scale in Feet

0 50 100 150 200

FIGURE 2

GPR LINE LOCATION MAP

WEST GATE LANDFILL SITE

NAS SOUTH WEYMOUTH

WEYMOUTH, MA

For:

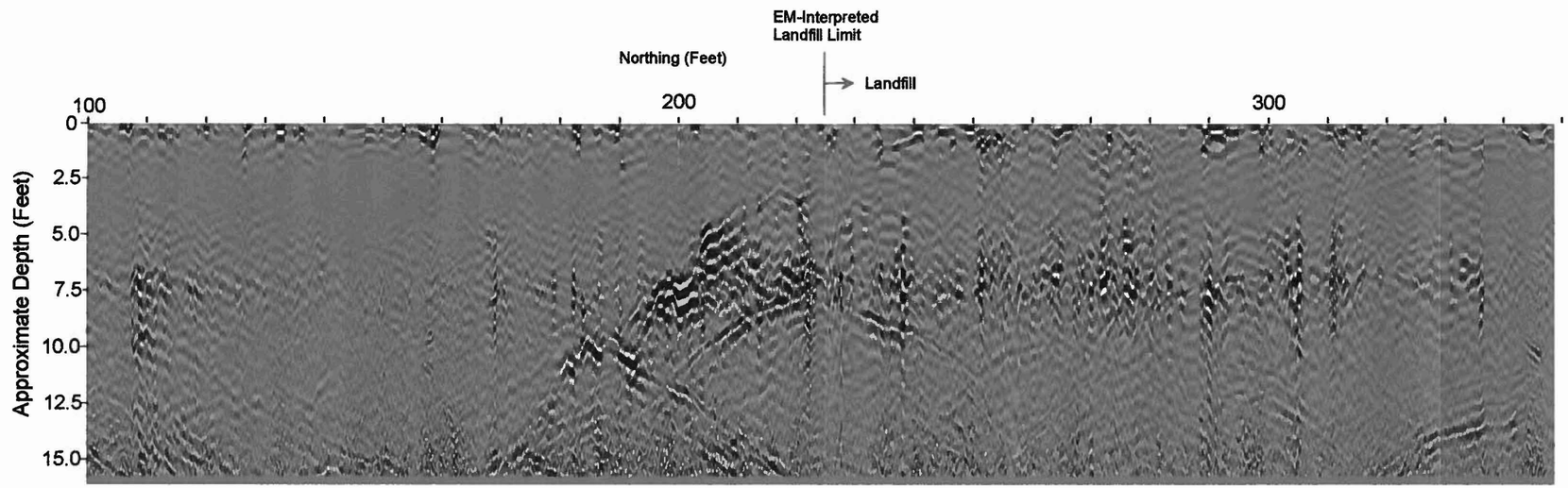
Tetra Tech NUS, Inc.

Surveyed May 13 & 26, 2009 by:

NORTHEAST GEOPHYSICAL SERVICES

WEST GATE LANDFILL, NAVAL AIR STATION SOUTH WEYMOUTH, WEYMOUTH, MA

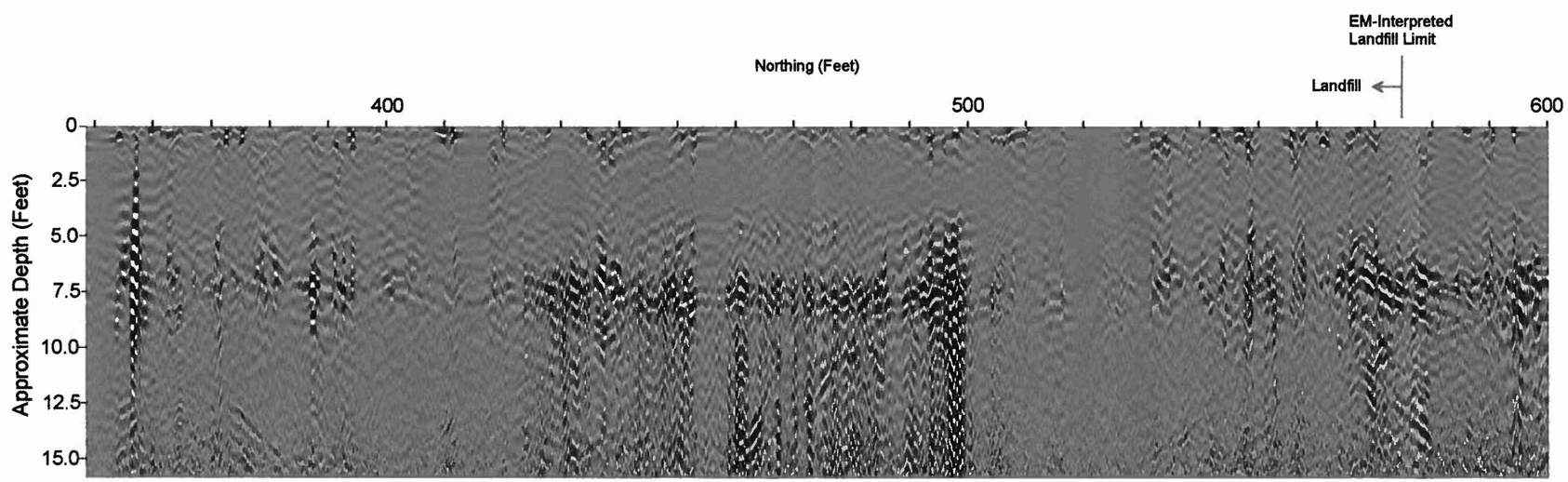
GPR PROFILE - GRID LINE 100 EAST



Southeast

Profile Looking Southwest

Northwest



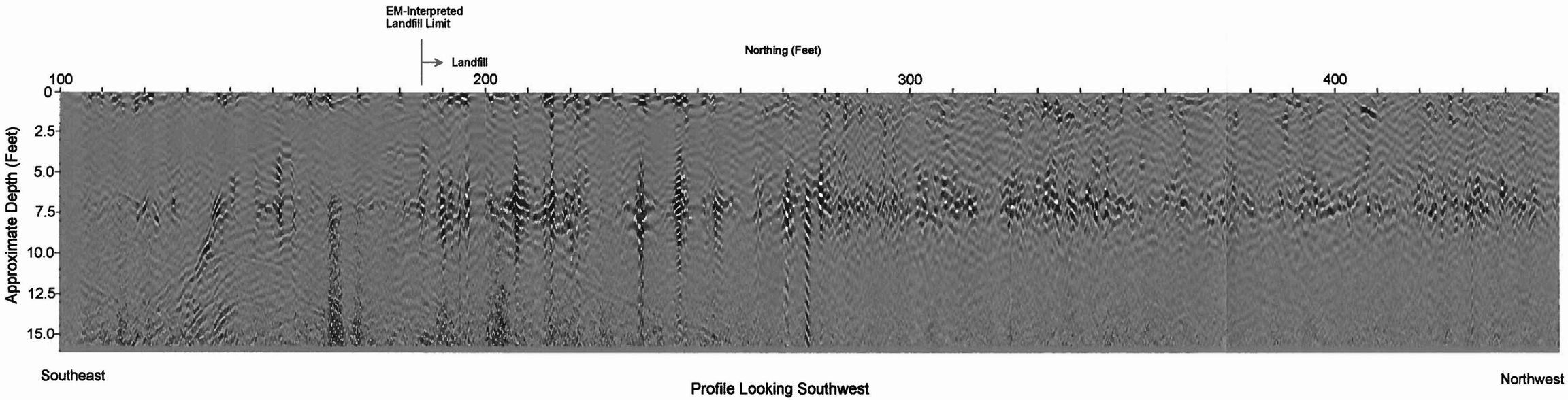
Southeast

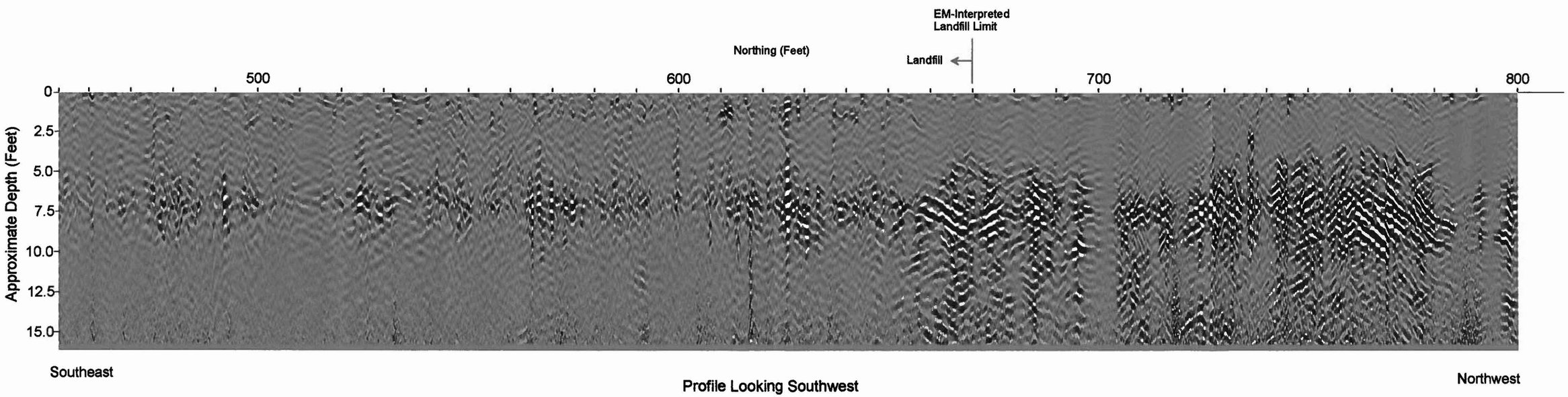
Profile Looking Southwest

Northwest

WEST GATE LANDFILL, NAVAL AIR STATION SOUTH WEYMOUTH, WEYMOUTH, MA

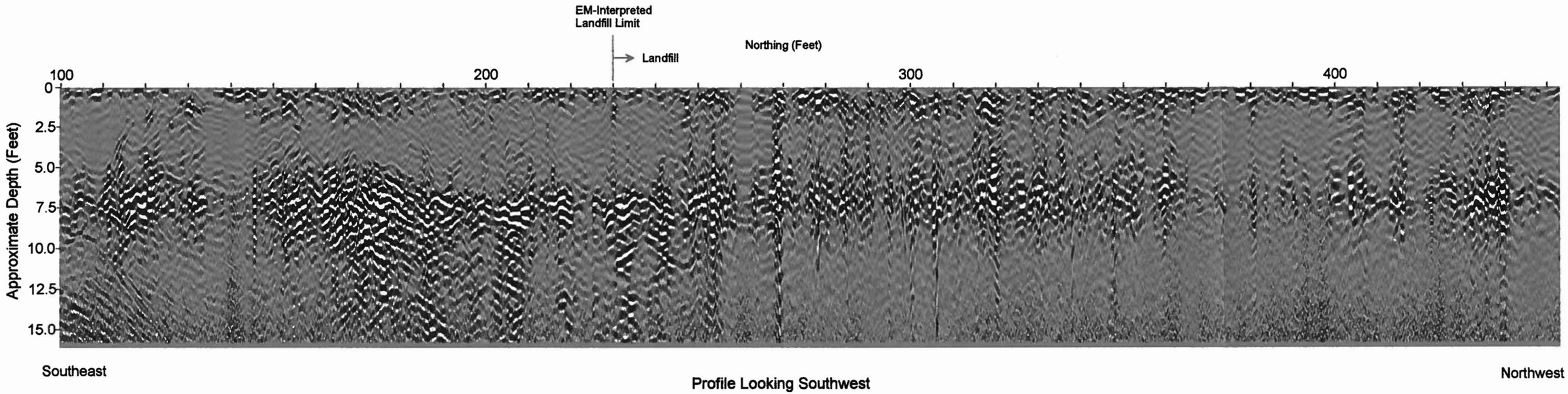
GPR PROFILE - GRID LINE 200 EAST

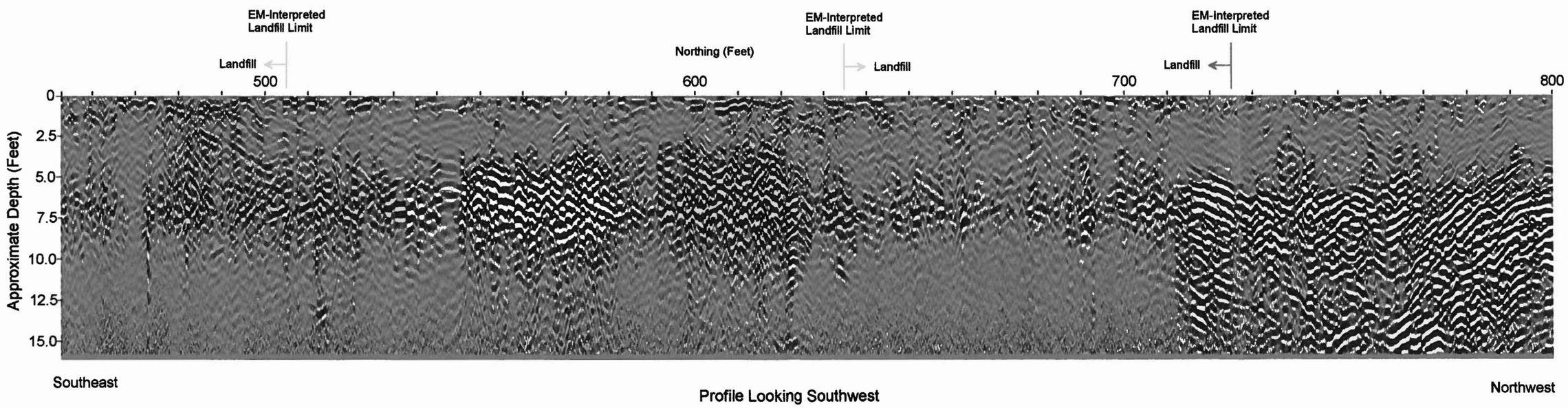




WEST GATE LANDFILL, NAVAL AIR STATION SOUTH WEYMOUTH, WEYMOUTH, MA

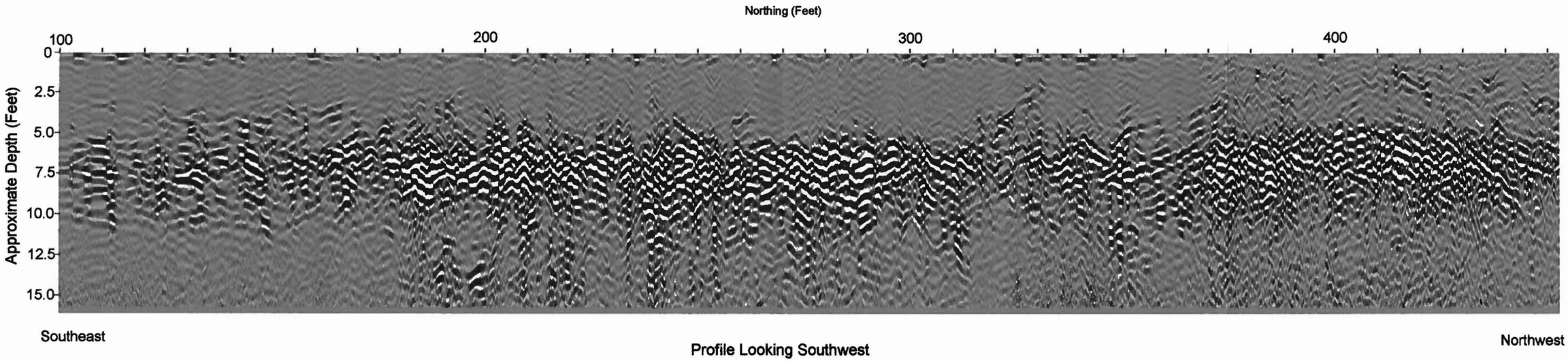
GPR PROFILE - GRID LINE 300 EAST

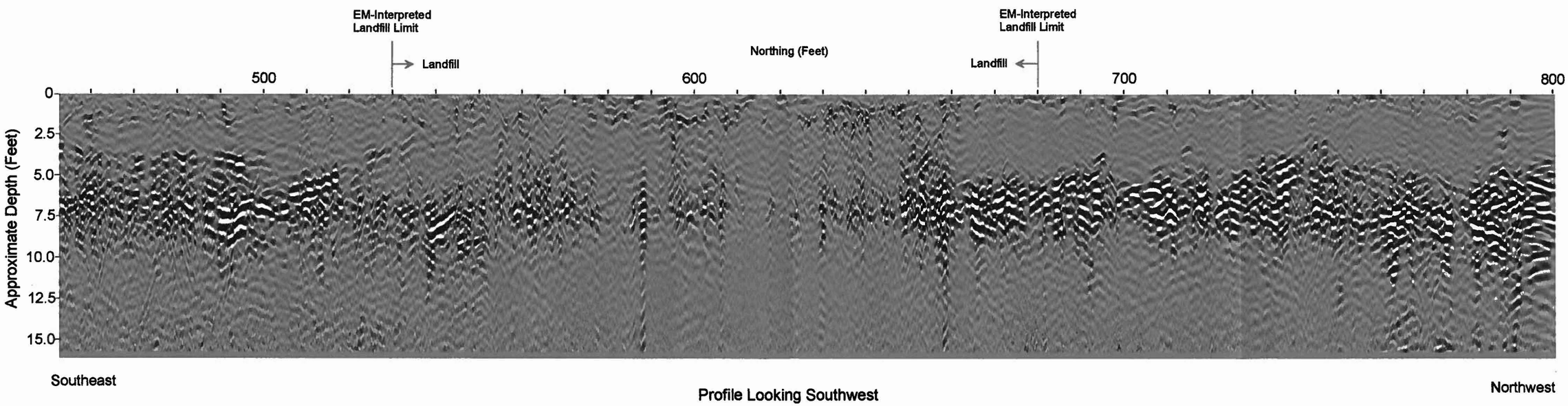




WEST GATE LANDFILL, NAVAL AIR STATION SOUTH WEYMOUTH, WEYMOUTH, MA

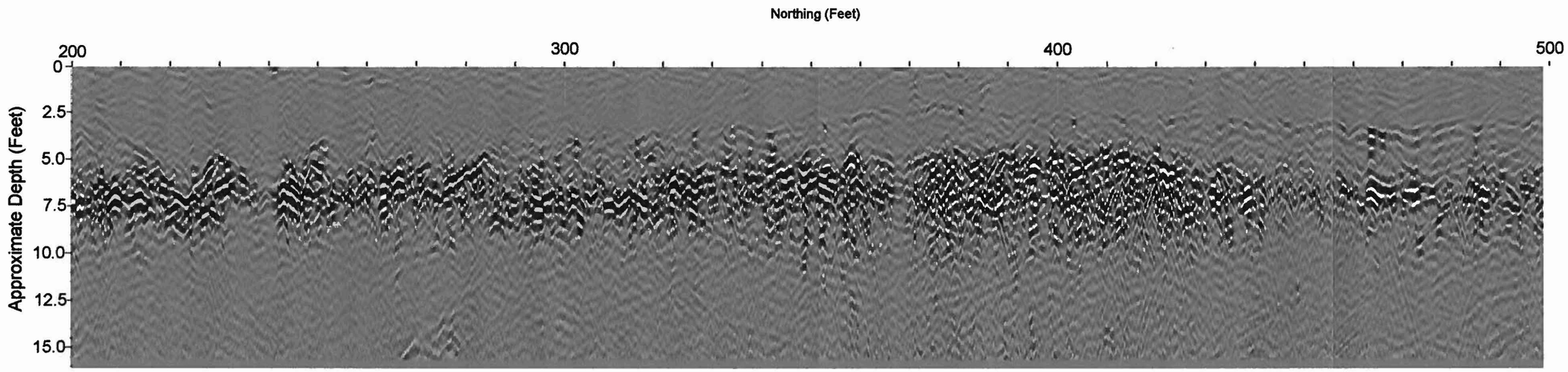
GPR PROFILE - GRID LINE 450 EAST

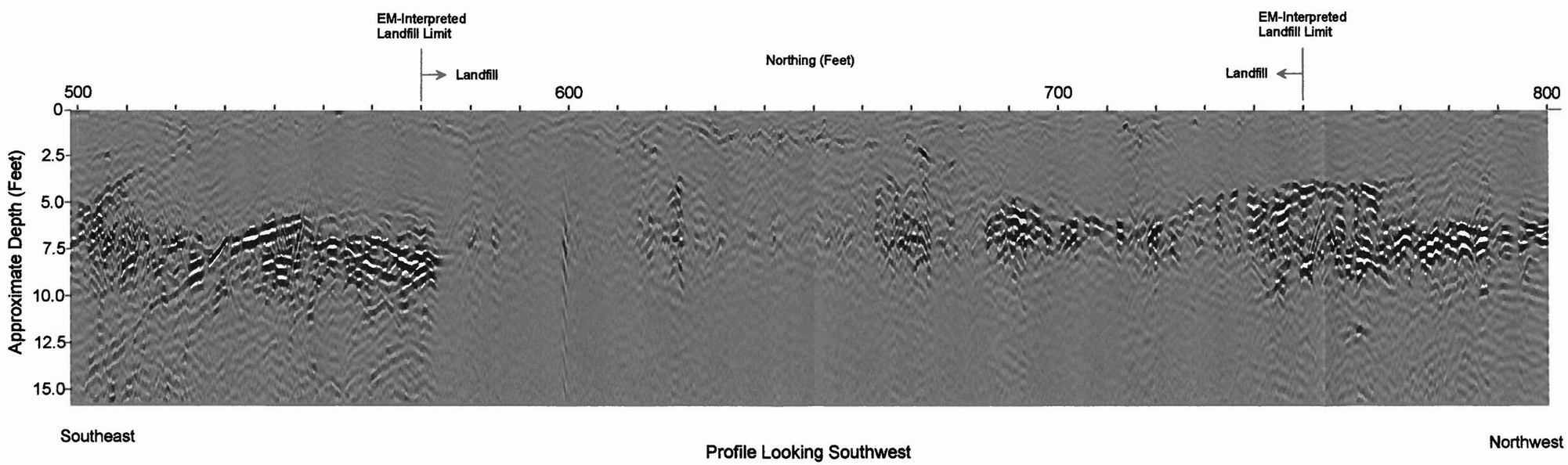




WEST GATE LANDFILL, NAVAL AIR STATION SOUTH WEYMOUTH, WEYMOUTH, MA

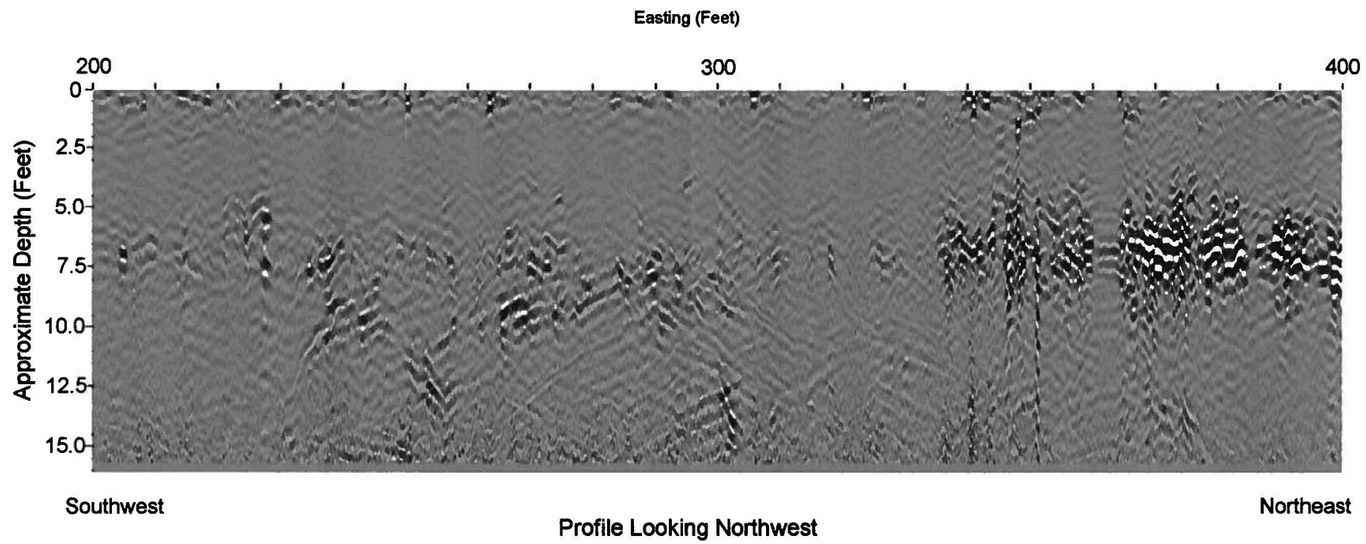
GPR PROFILE - GRID LINE 500 EAST





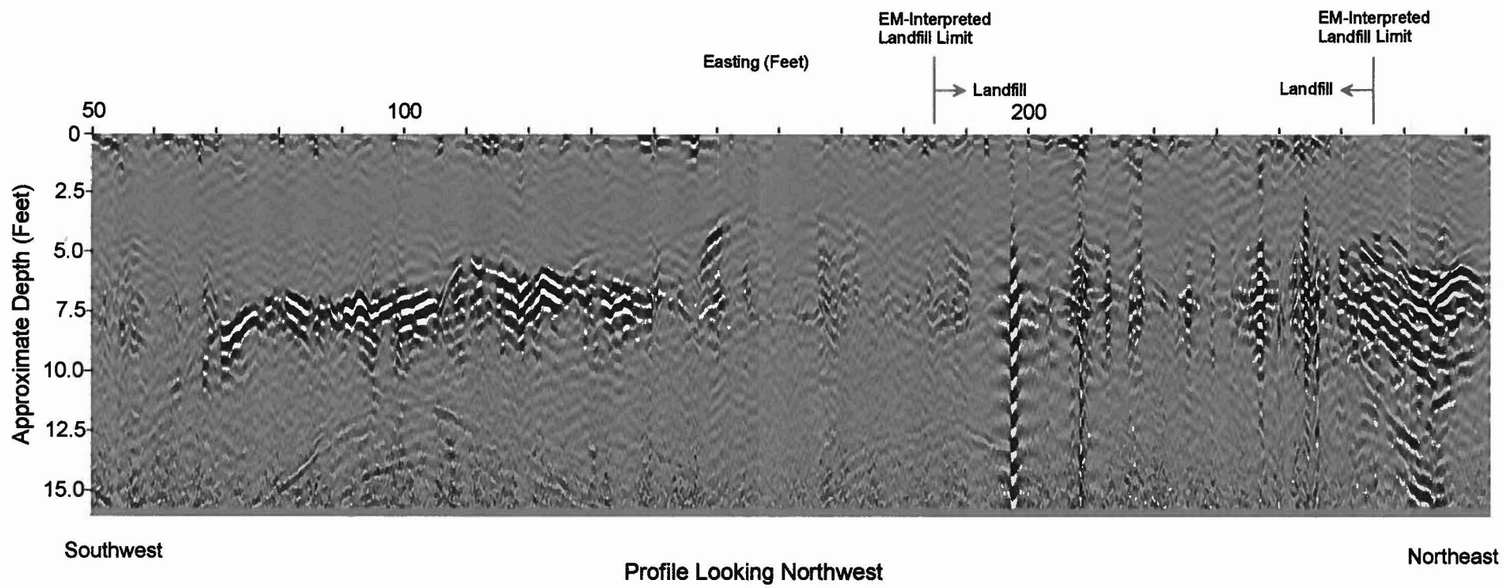
WEST GATE LANDFILL, NAVAL AIR STATION SOUTH WEYMOUTH, WEYMOUTH, MA

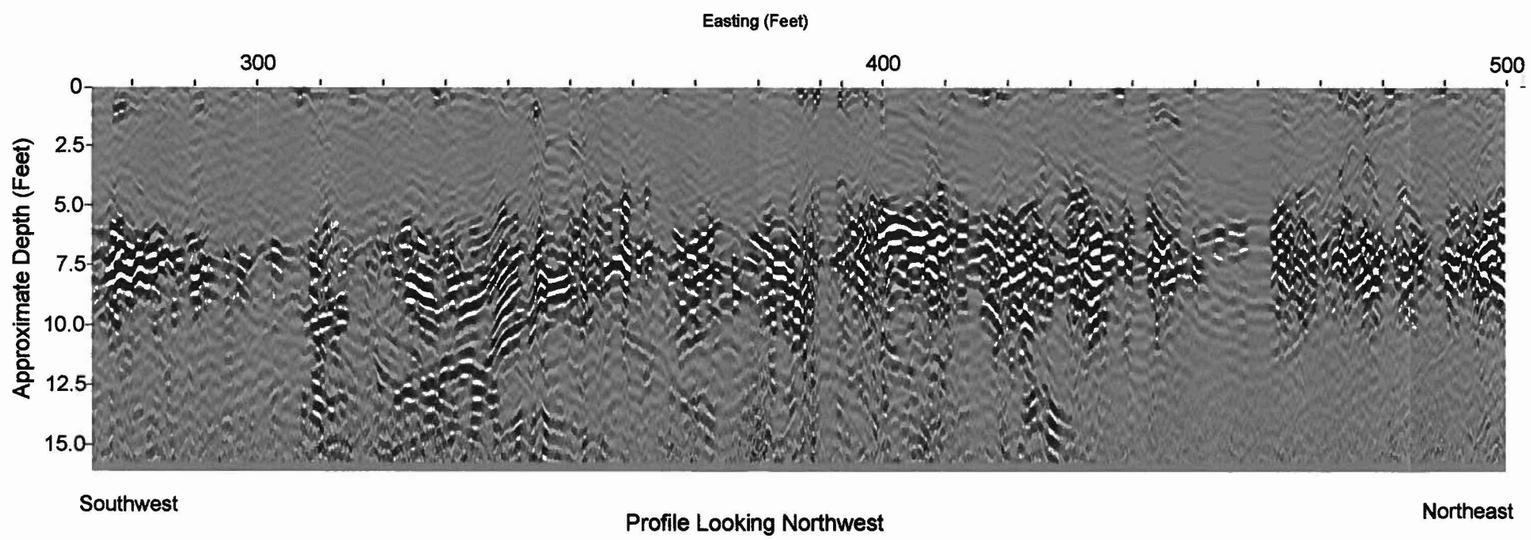
GPR PROFILE - GRID LINE 100 NORTH



WEST GATE LANDFILL, NAVAL AIR STATION SOUTH WEYMOUTH, WEYMOUTH, MA

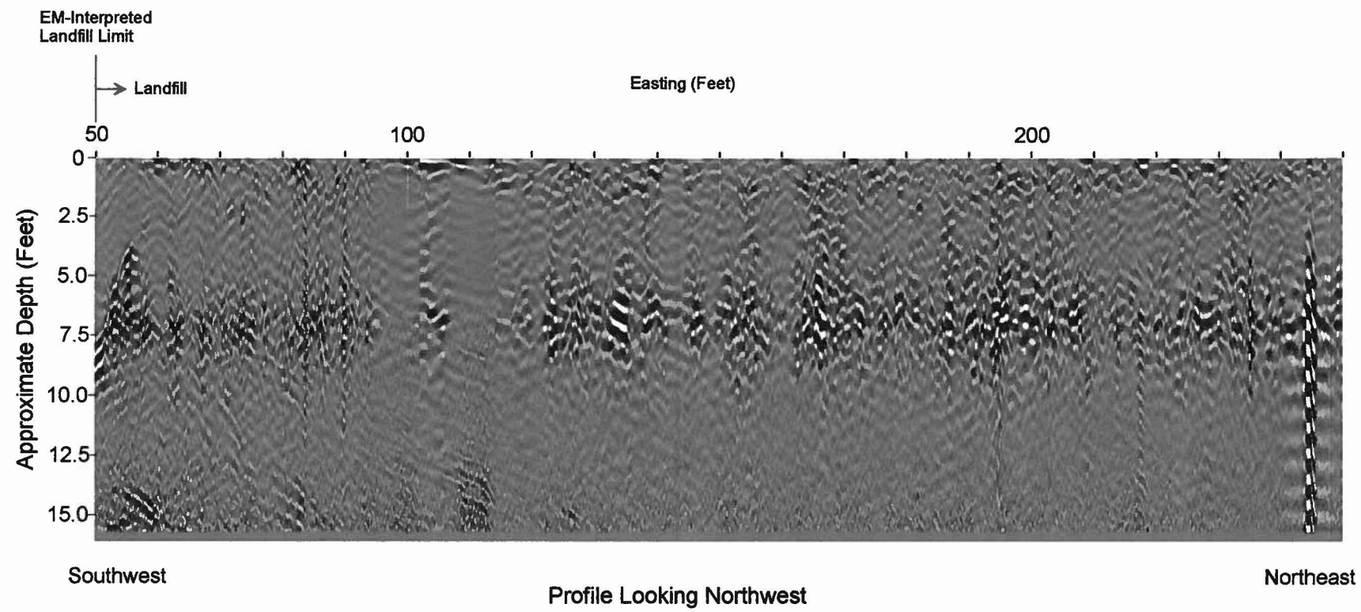
GPR PROFILE - GRID LINE 200 NORTH

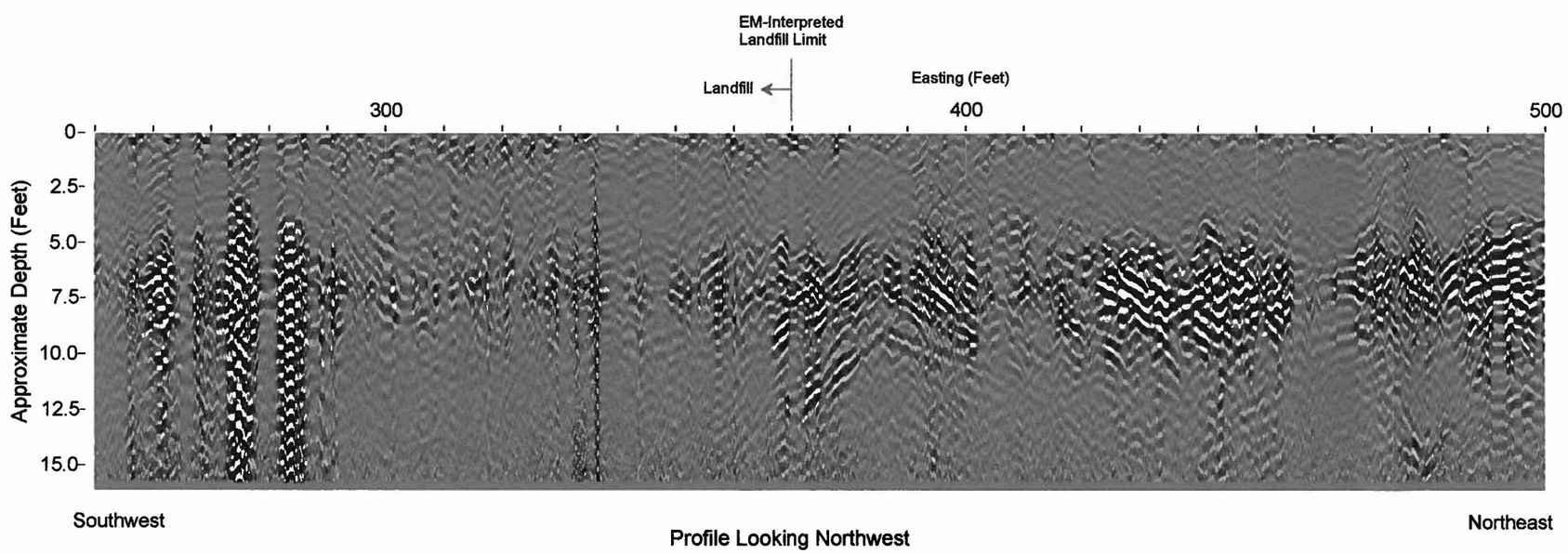




WEST GATE LANDFILL, NAVAL AIR STATION SOUTH WEYMOUTH, WEYMOUTH, MA

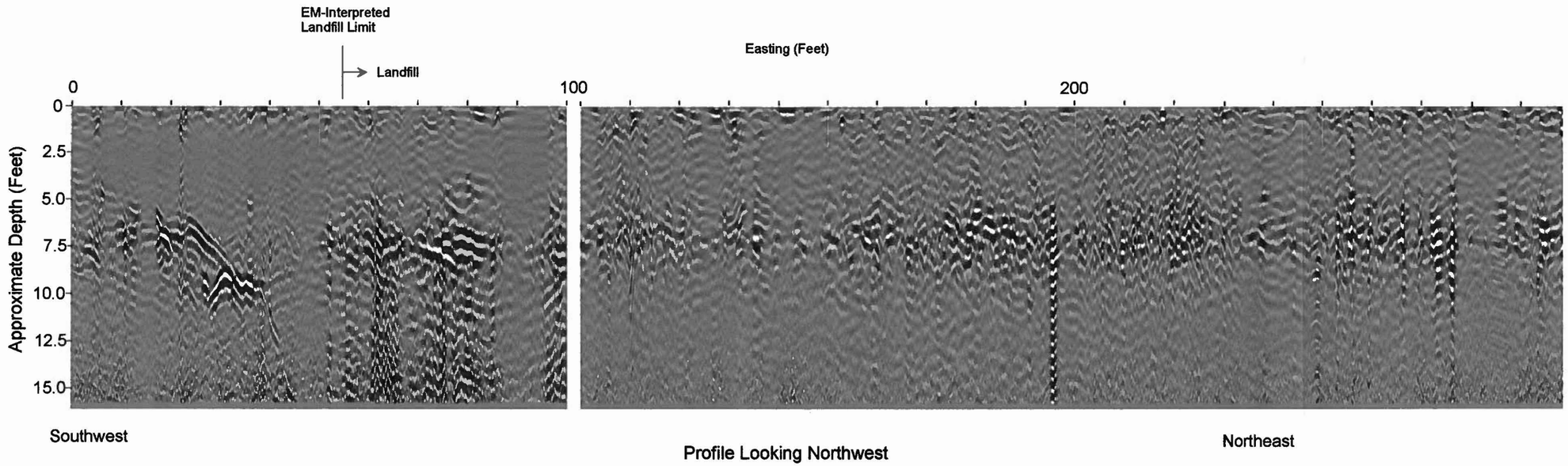
GPR PROFILE - GRID LINE 300 NORTH

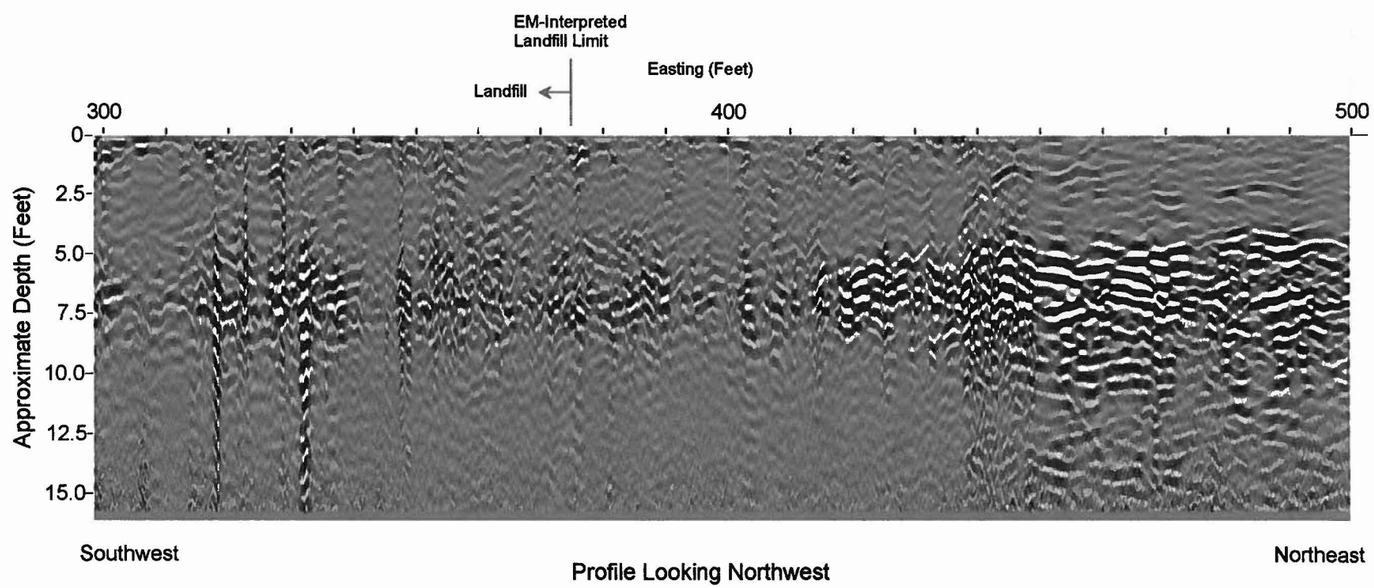




WEST GATE LANDFILL, NAVAL AIR STATION SOUTH WEYMOUTH, WEYMOUTH, MA

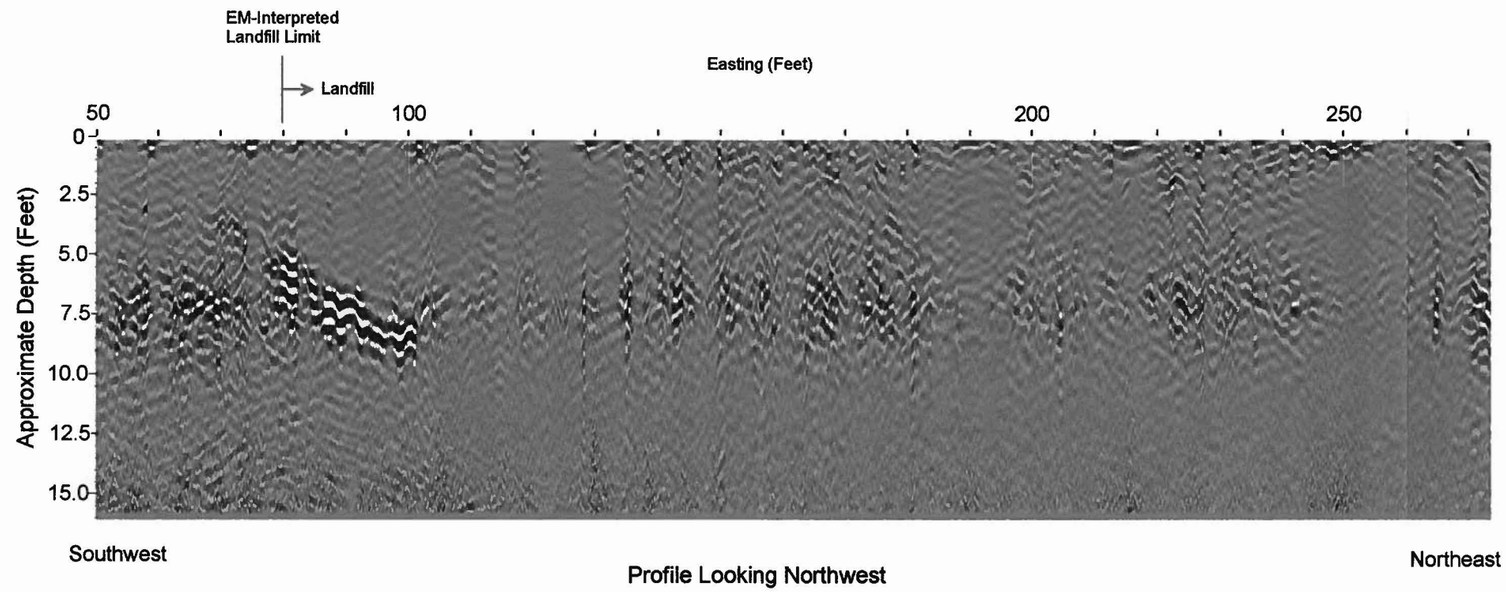
GPR PROFILE - GRID LINE 400 NORTH

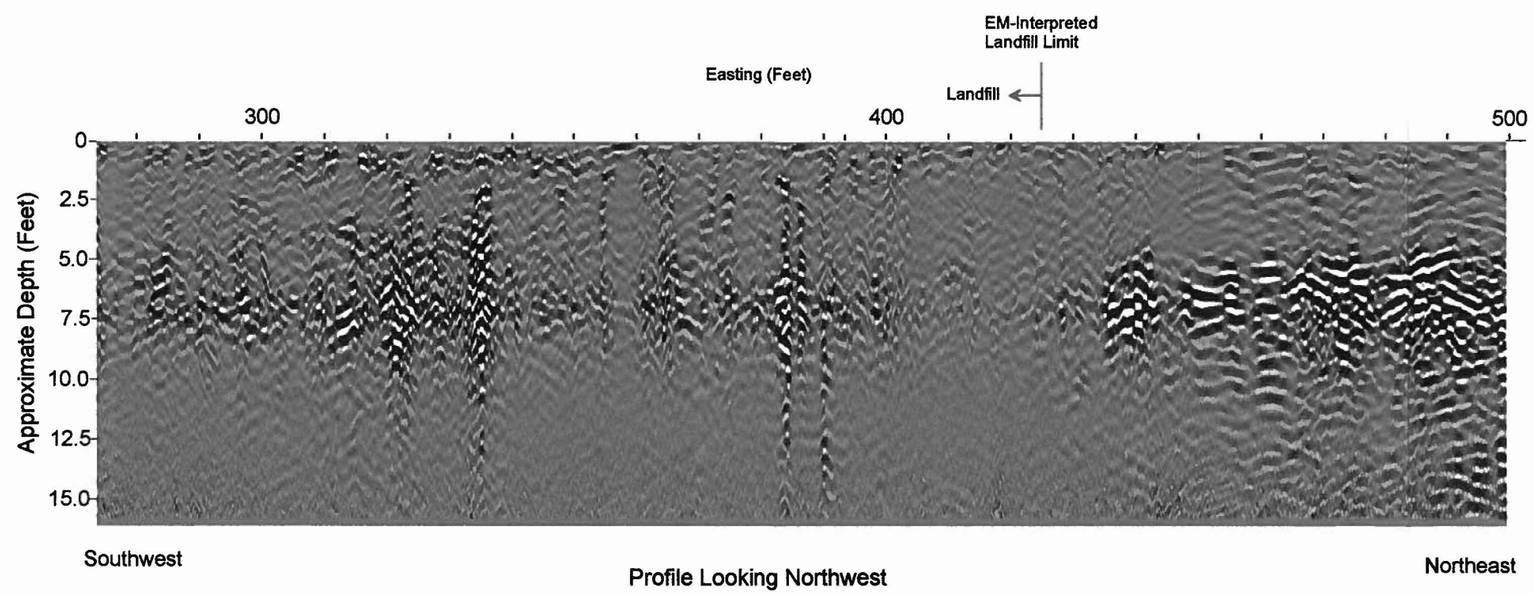




WEST GATE LANDFILL, NAVAL AIR STATION SOUTH WEYMOUTH, WEYMOUTH, MA

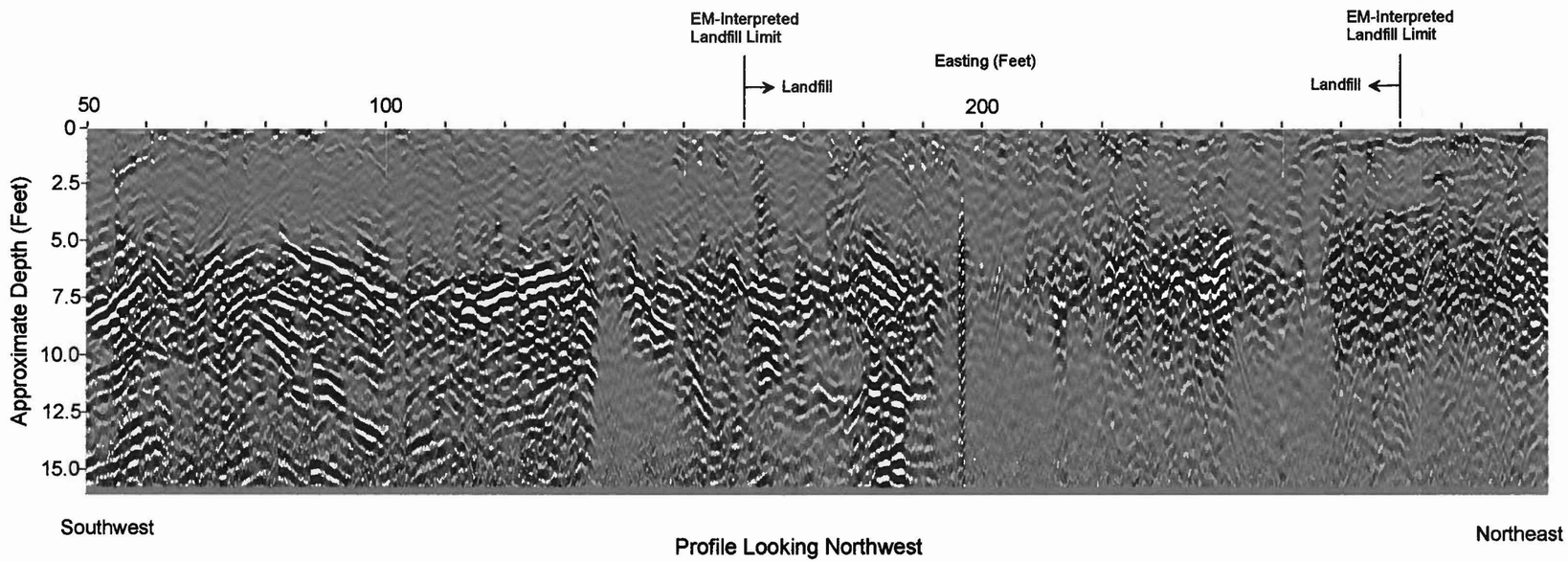
GPR PROFILE - GRID LINE 500 NORTH

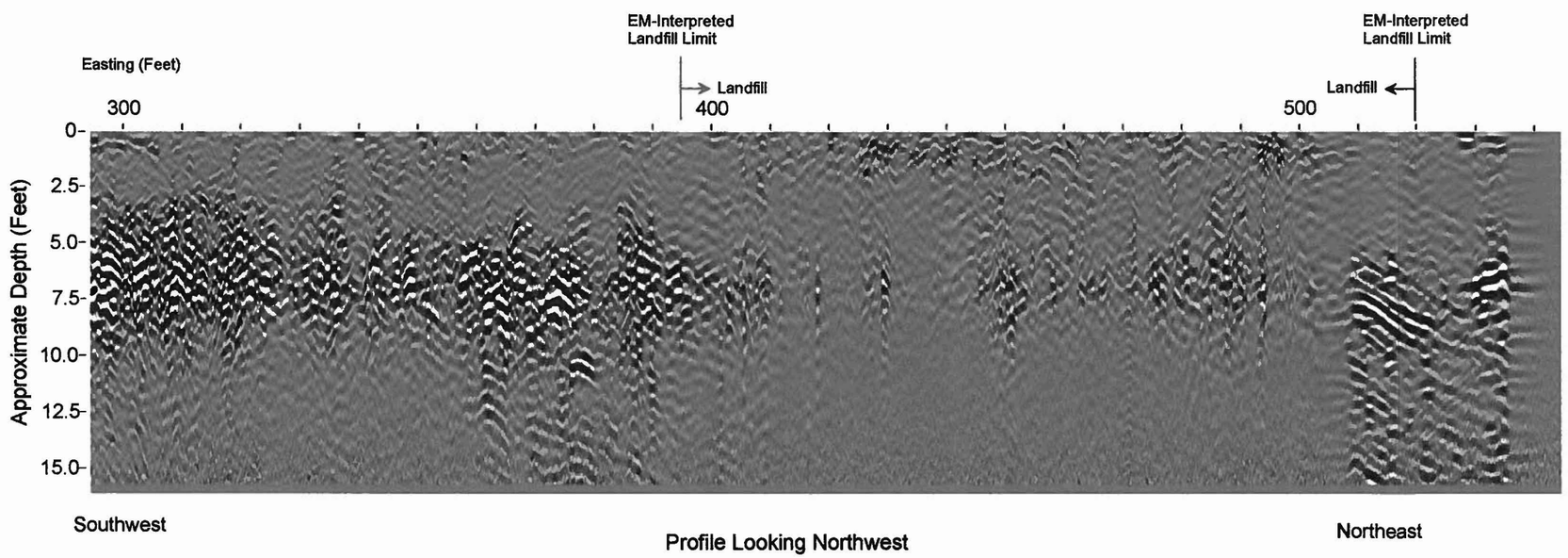




WEST GATE LANDFILL, NAVAL AIR STATION SOUTH WEYMOUTH, WEYMOUTH, MA

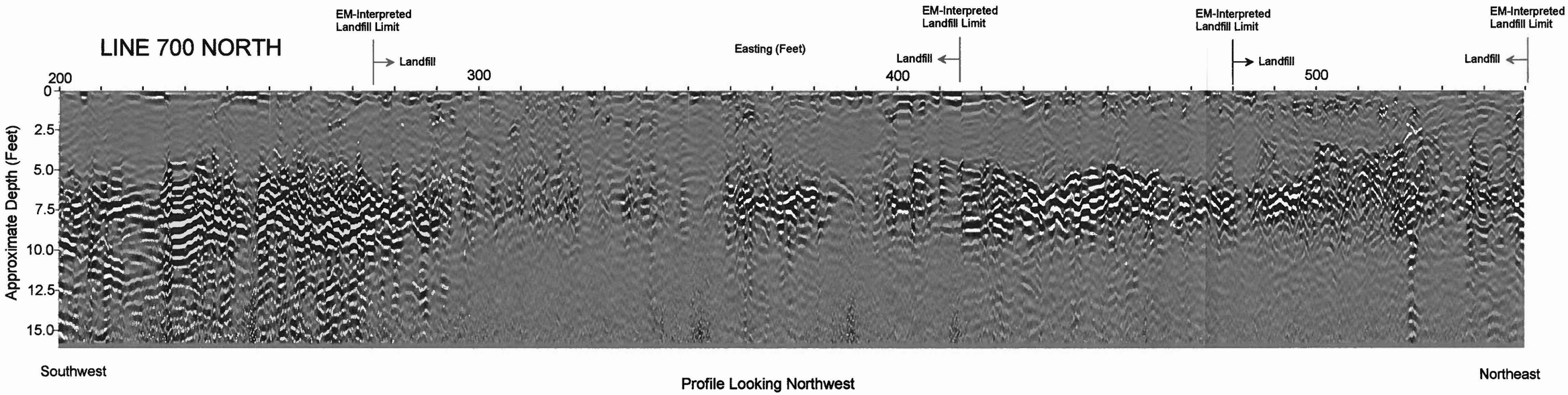
GPR PROFILE - GRID LINE 600 NORTH

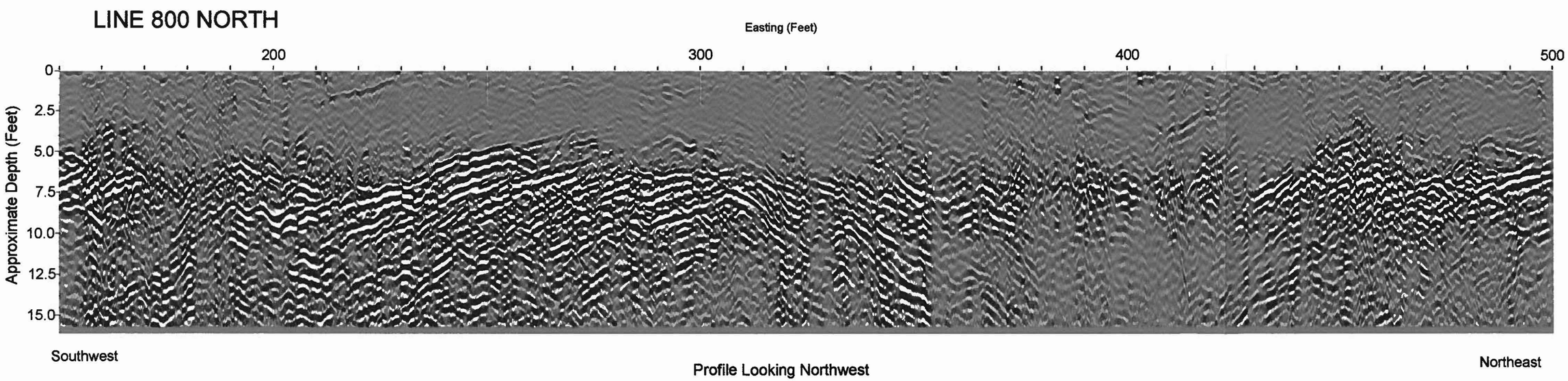




WEST GATE LANDFILL, NAVAL AIR STATION SOUTH WEYMOUTH, WEYMOUTH, MA

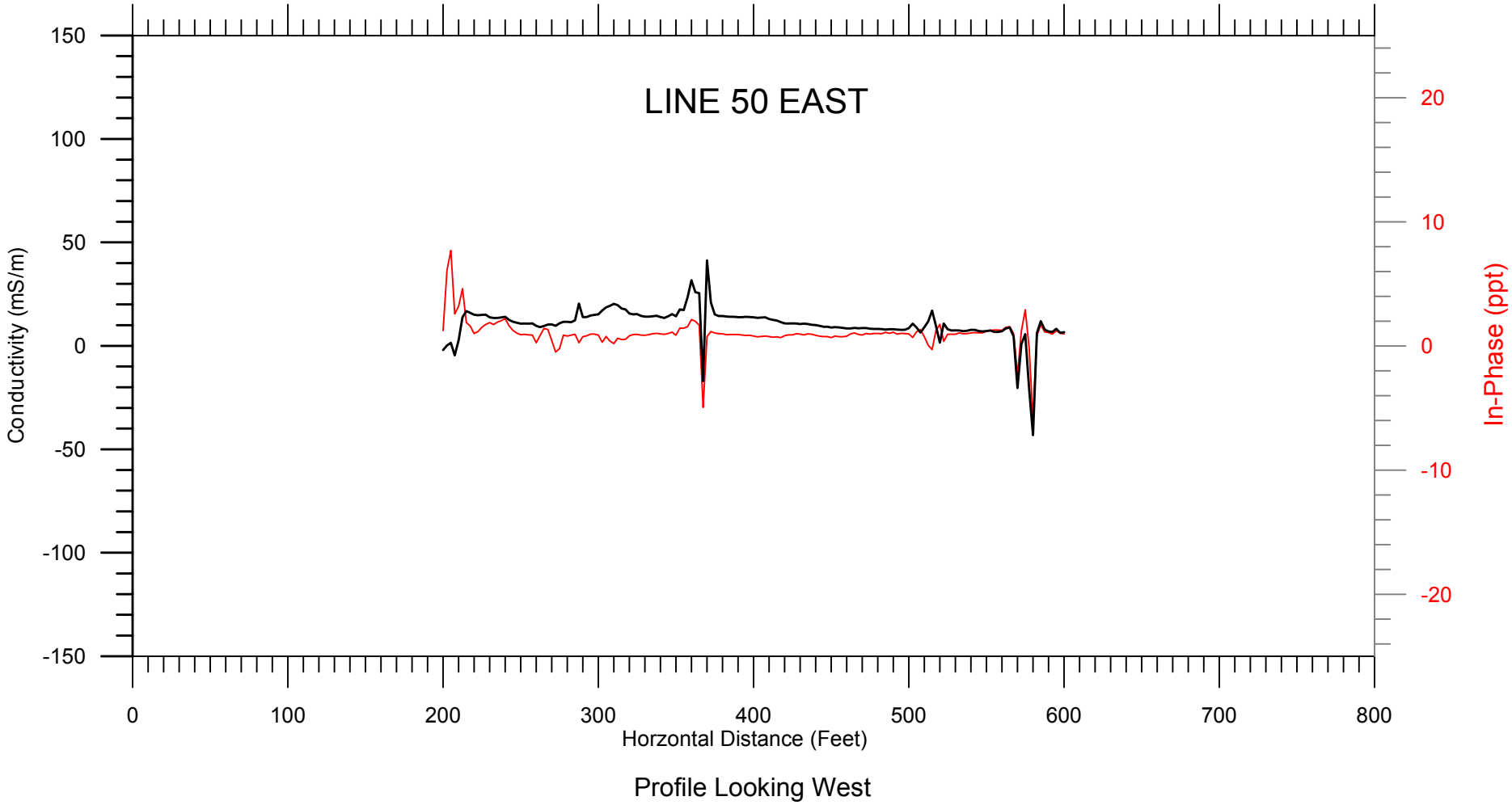
GPR PROFILE - GRID LINES 700 & 800 NORTH





EM-31 SURVEY PROFILE - WEST GATE LANDFILL

NAVAL AIR STATION - SOUTH WEYMOUTH, MA



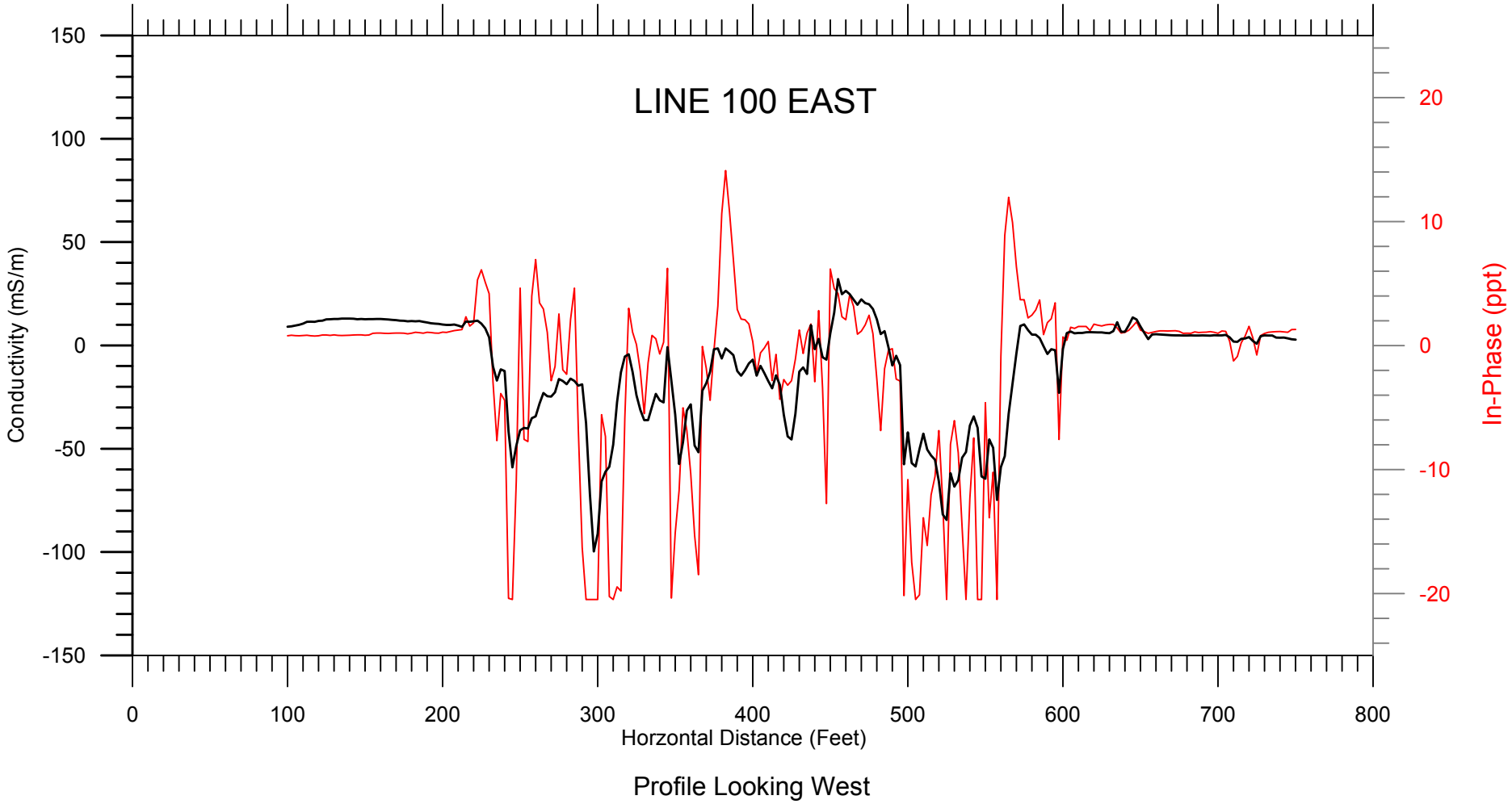
Profile Looking West

Surveyed 05/13/2009 by:

Northeast Geophysical Services

EM-31 SURVEY PROFILE - WEST GATE LANDFILL

NAVAL AIR STATION - SOUTH WEYMOUTH, MA



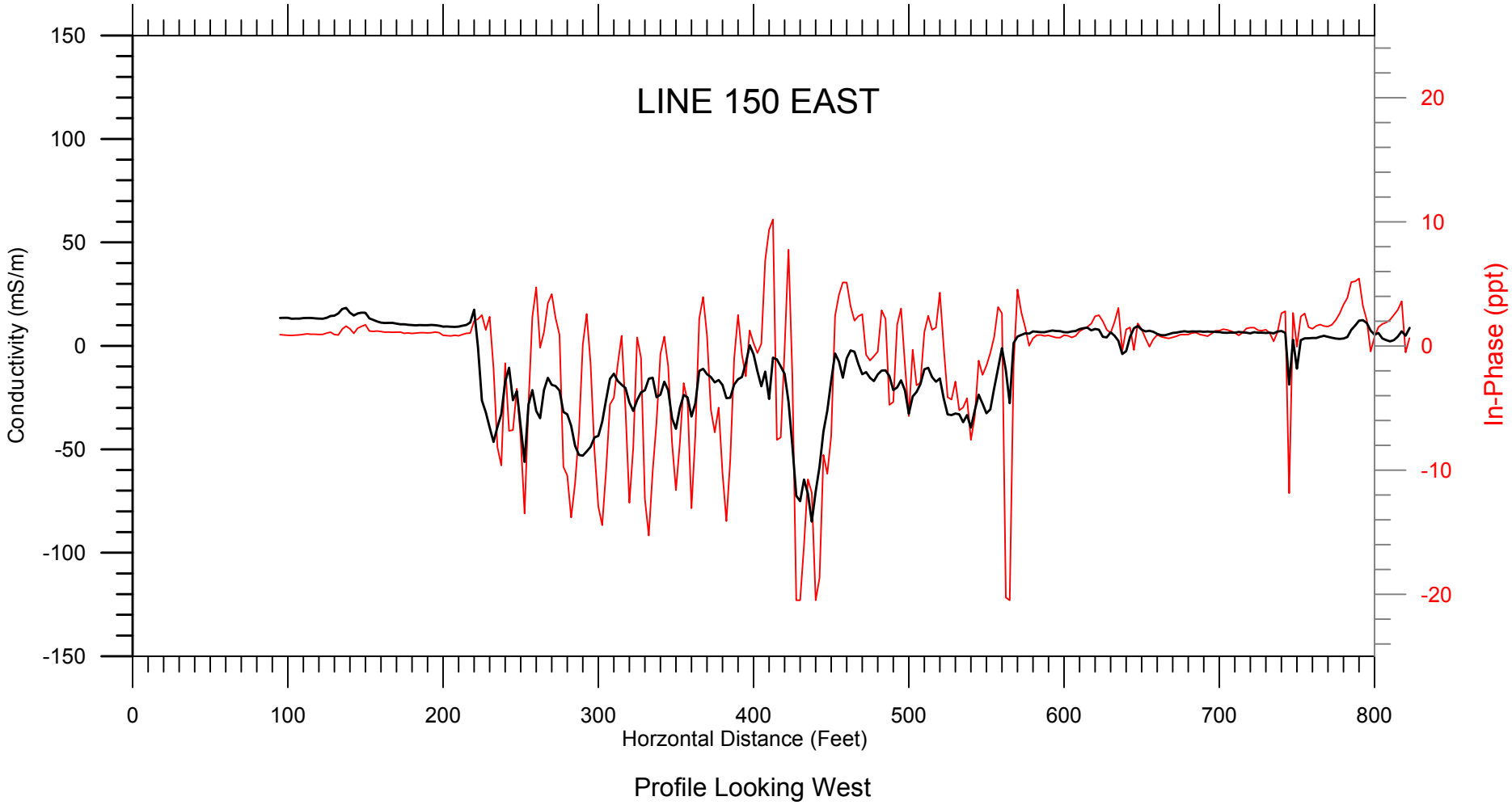
Profile Looking West

Surveyed 05/13/2009 by:

Northeast Geophysical Services

EM-31 SURVEY PROFILE - WEST GATE LANDFILL

NAVAL AIR STATION - SOUTH WEYMOUTH, MA



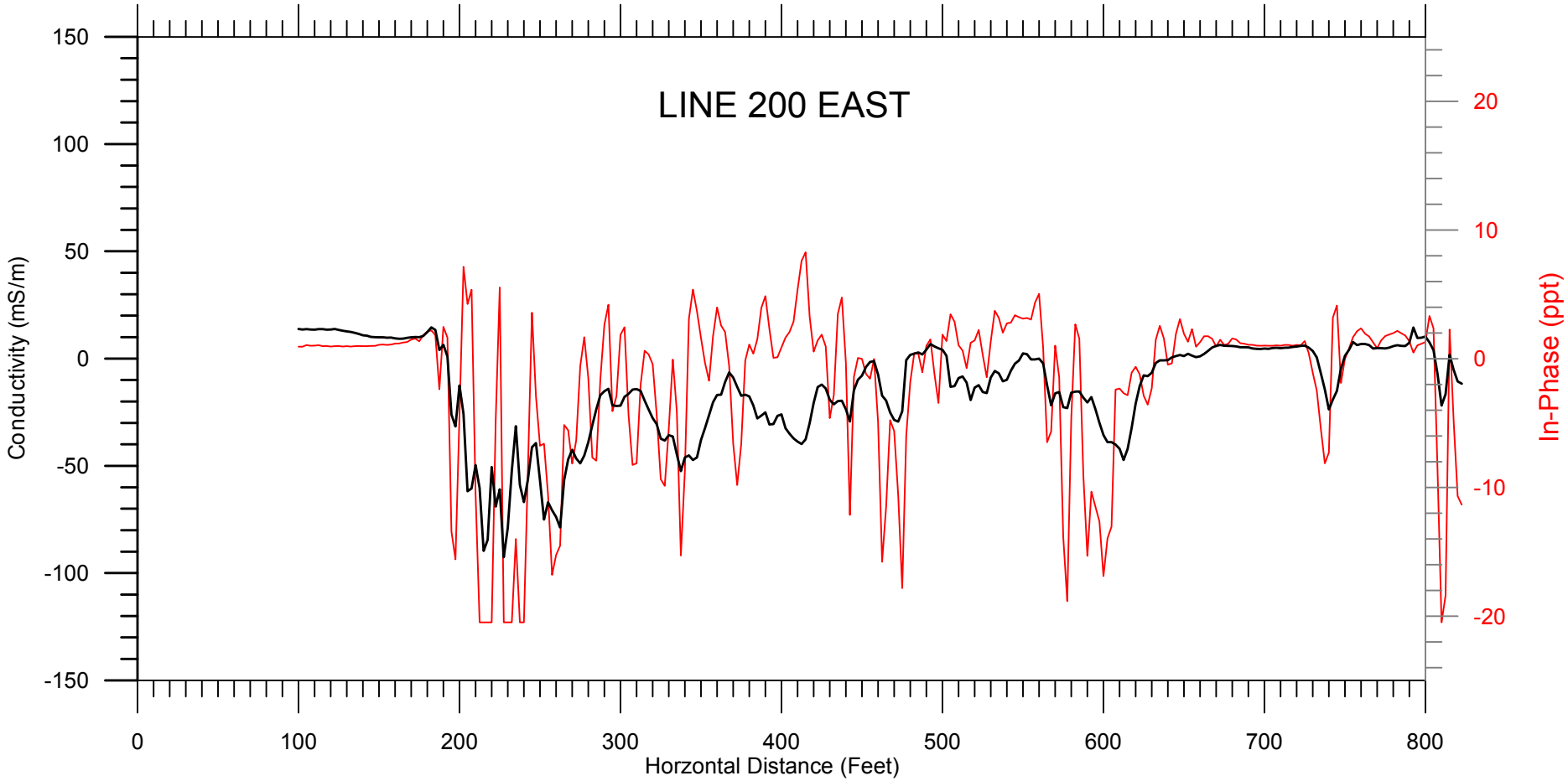
Profile Looking West

Surveyed 05/13/2009 by:

Northeast Geophysical Services

EM-31 SURVEY PROFILE - WEST GATE LANDFILL

NAVAL AIR STATION - SOUTH WEYMOUTH, MA



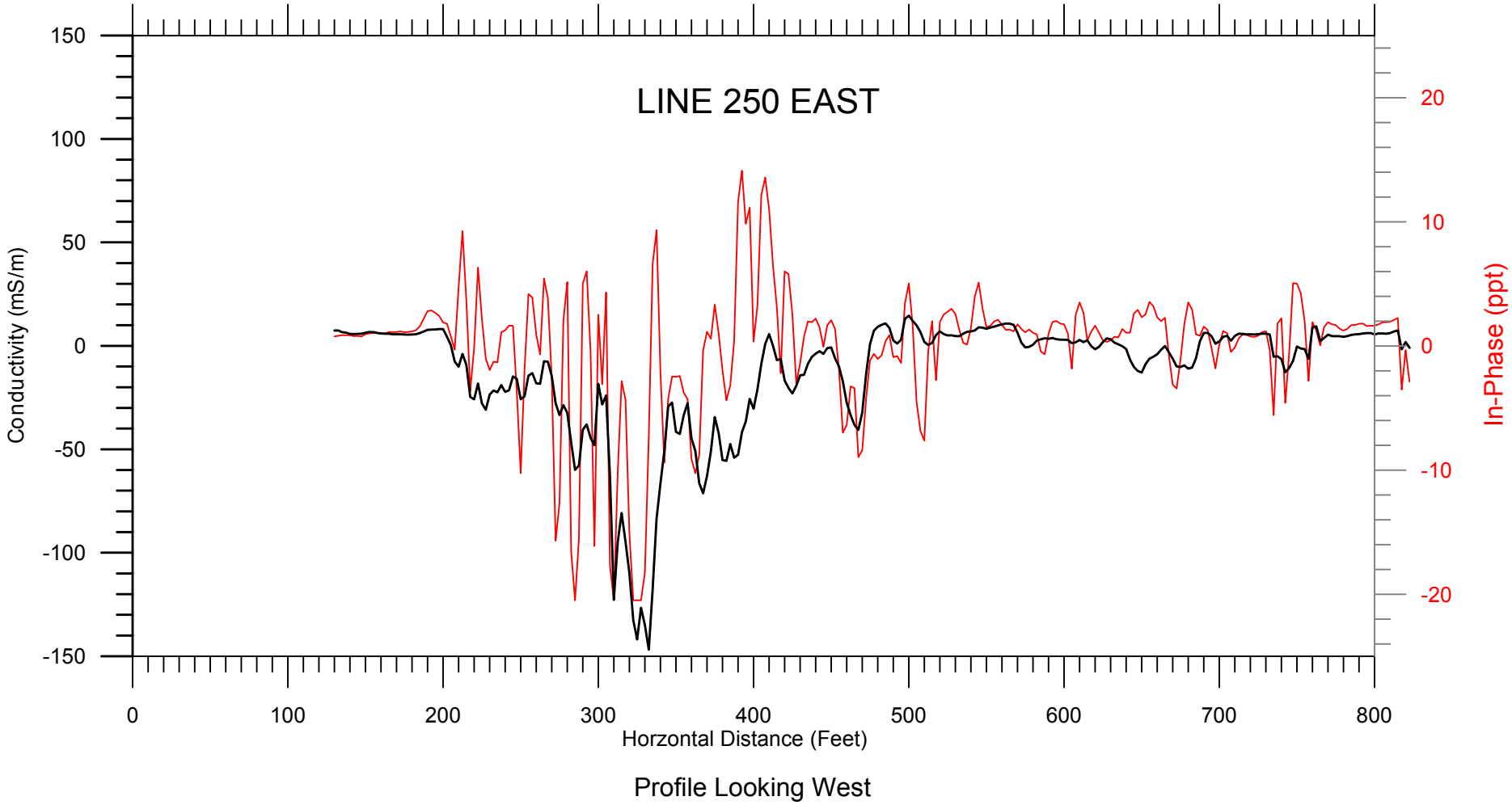
Profile Looking West

Surveyed 05/13/2009 by:

Northeast Geophysical Services

EM-31 SURVEY PROFILE - WEST GATE LANDFILL

NAVAL AIR STATION - SOUTH WEYMOUTH, MA



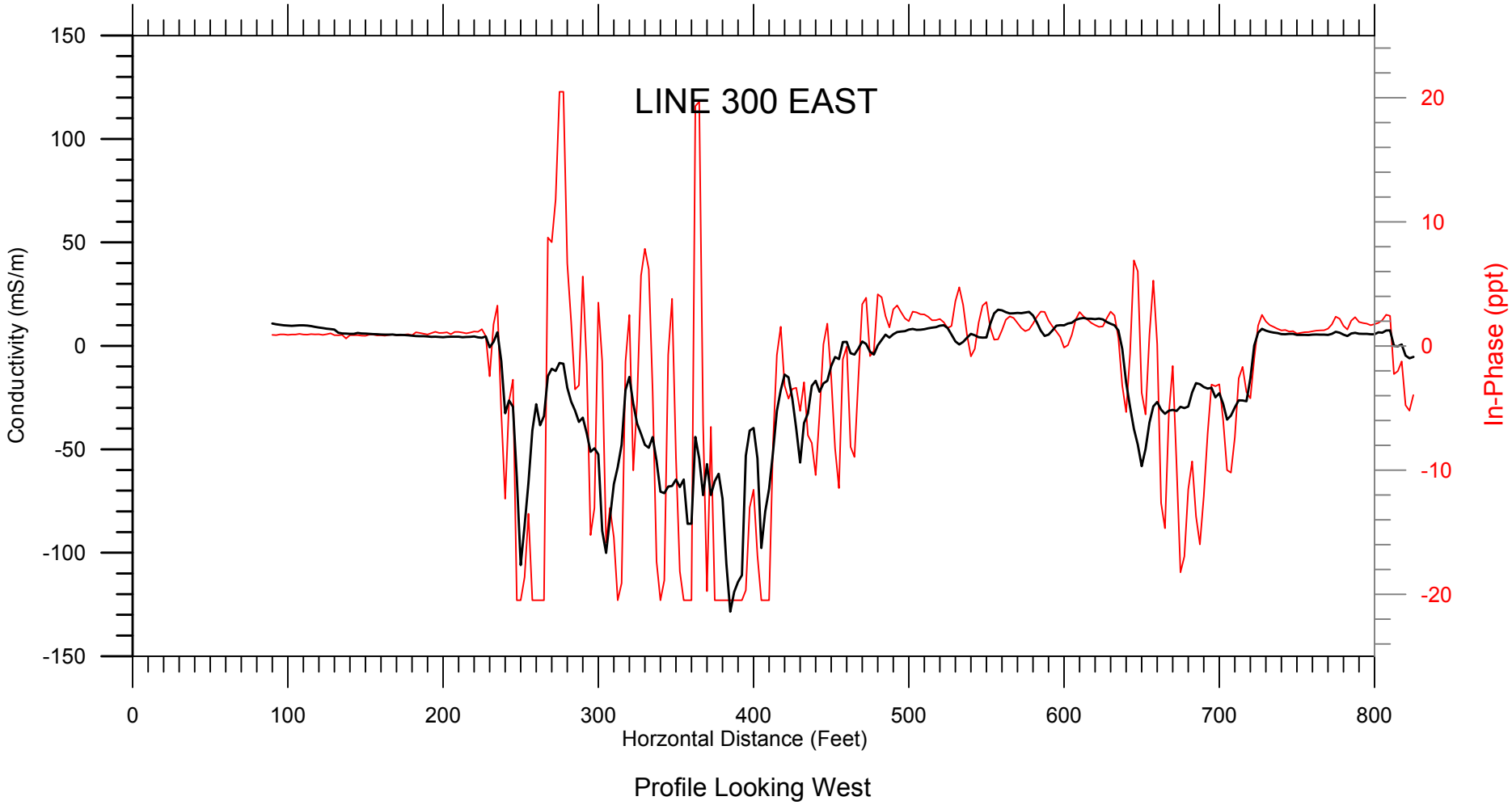
Profile Looking West

Surveyed 05/13/2009 by:

Northeast Geophysical Services

EM-31 SURVEY PROFILE - WEST GATE LANDFILL

NAVAL AIR STATION - SOUTH WEYMOUTH, MA



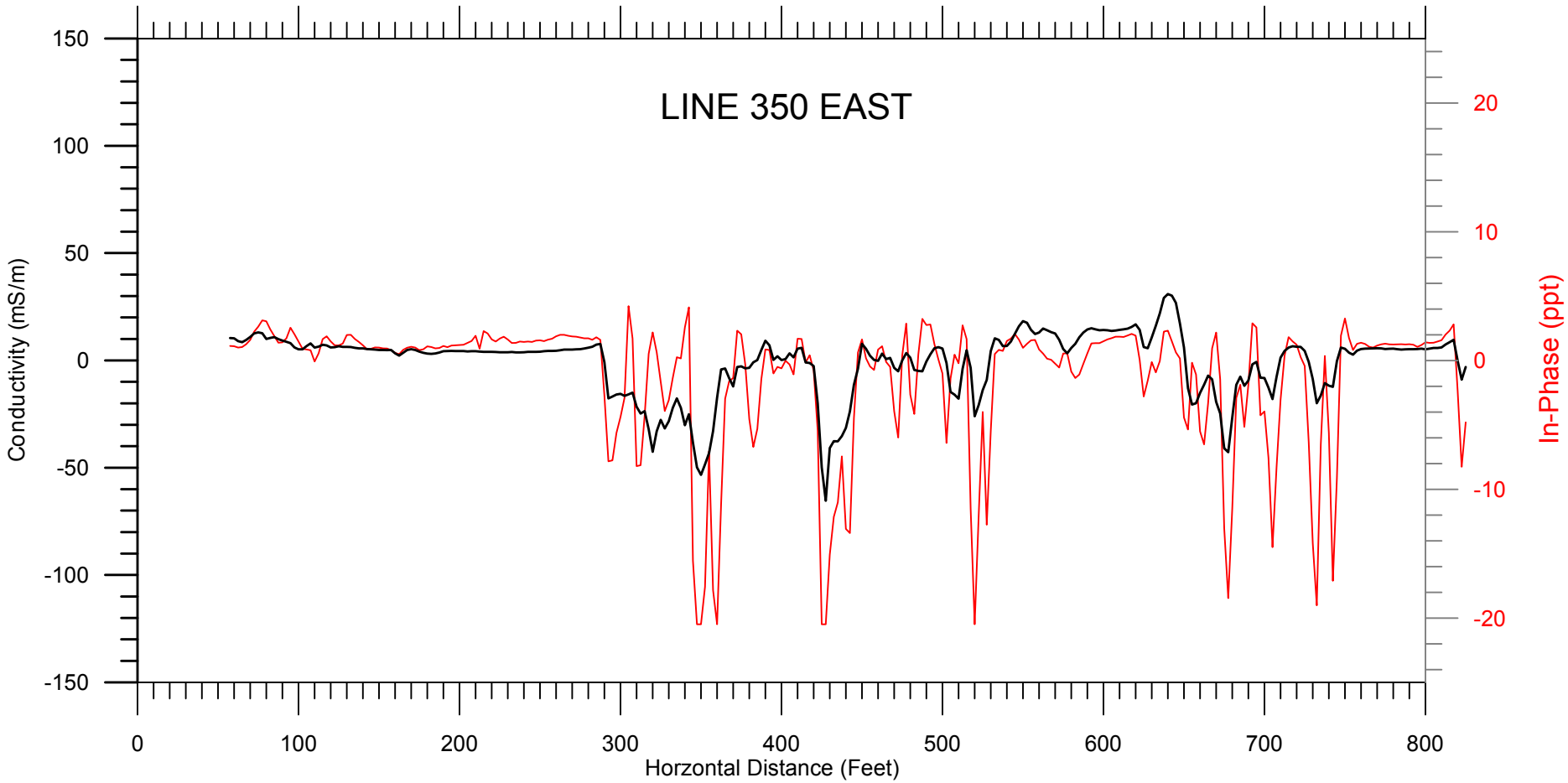
Profile Looking West

Surveyed 05/13/2009 by:

Northeast Geophysical Services

EM-31 SURVEY PROFILE - WEST GATE LANDFILL

NAVAL AIR STATION - SOUTH WEYMOUTH, MA



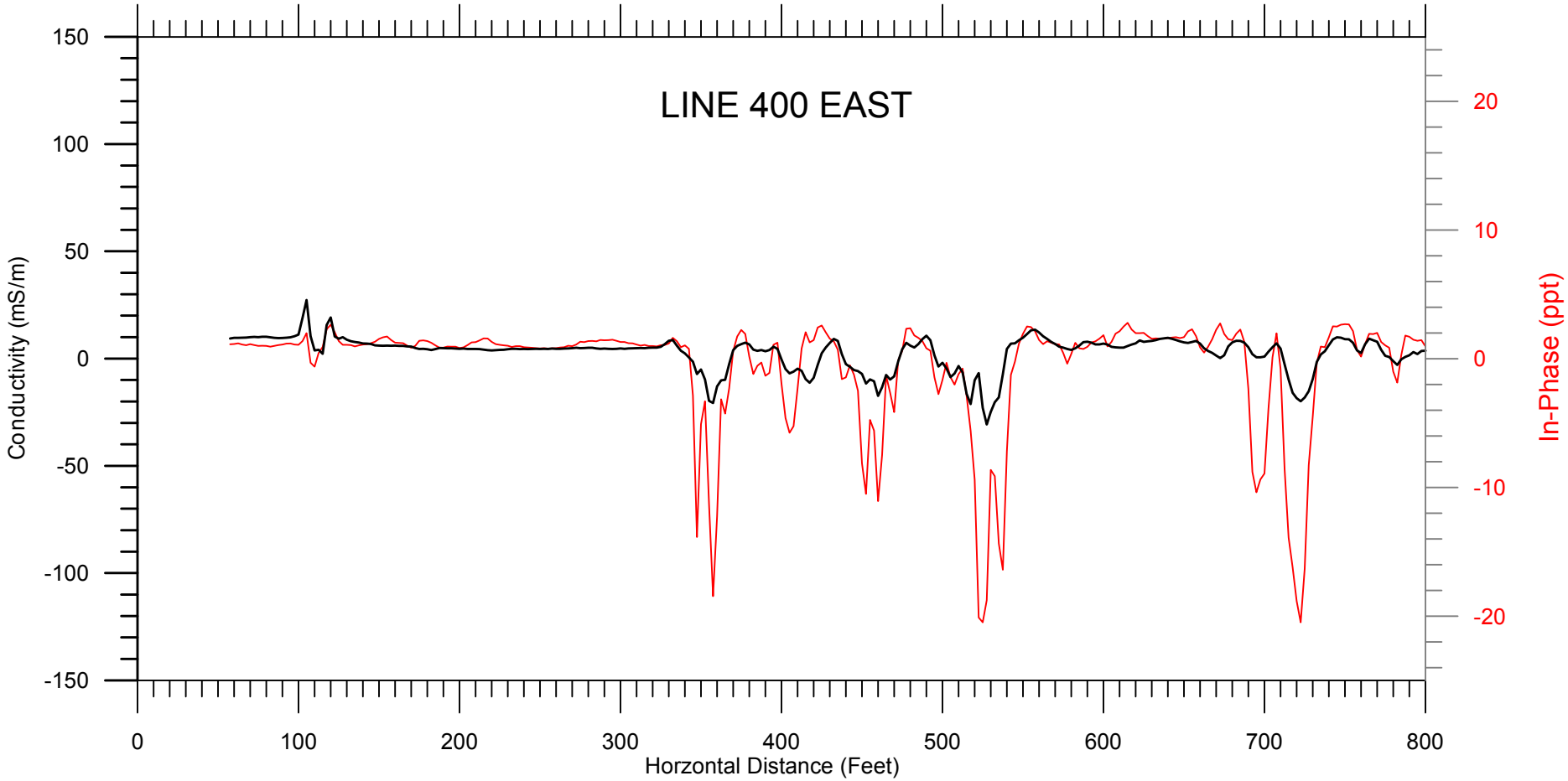
Profile Looking West

Surveyed 05/13/2009 by:

Northeast Geophysical Services

EM-31 SURVEY PROFILE - WEST GATE LANDFILL

NAVAL AIR STATION - SOUTH WEYMOUTH, MA



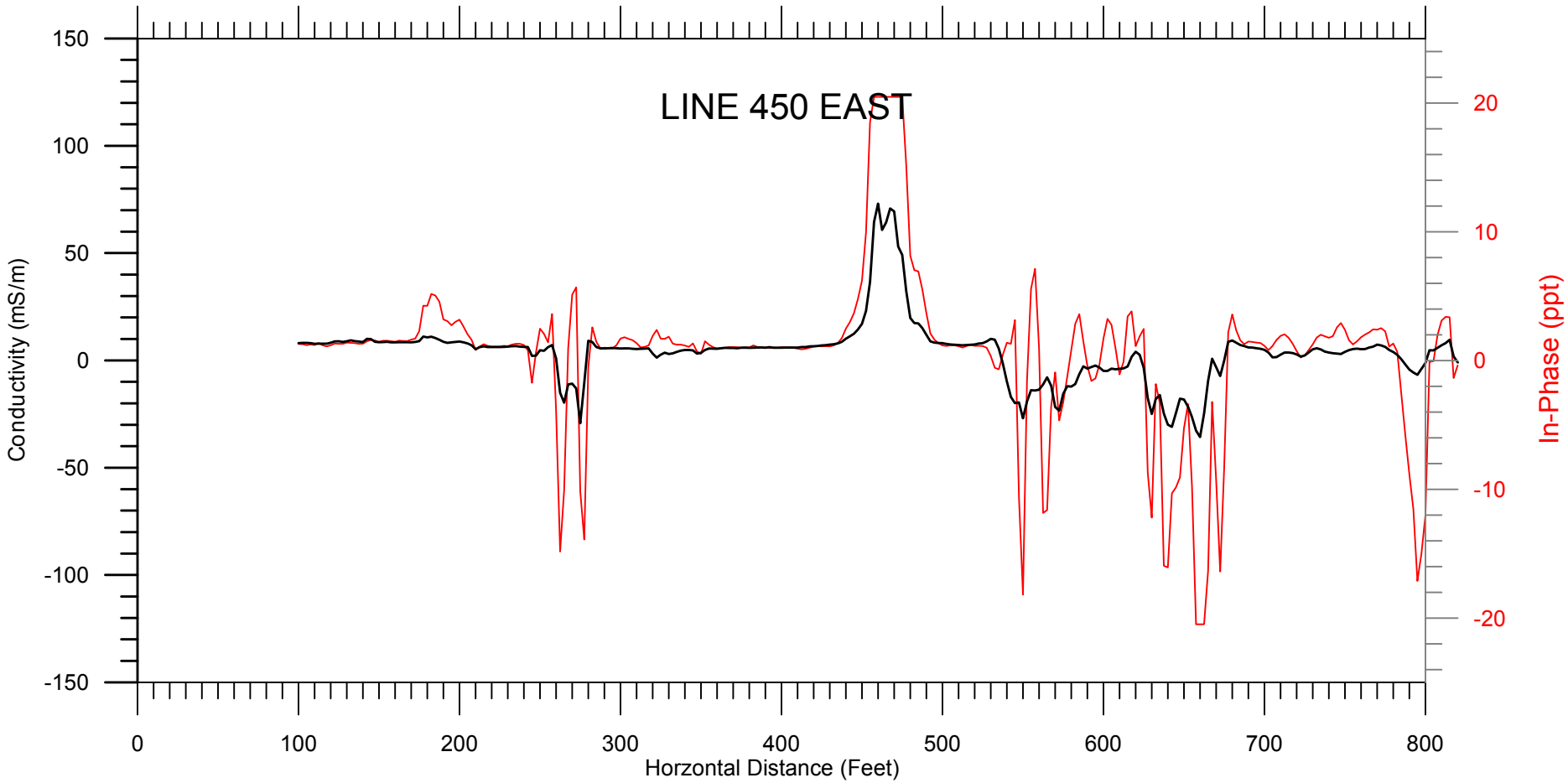
Profile Looking West

Surveyed 05/13/2009 by:

Northeast Geophysical Services

EM-31 SURVEY PROFILE - WEST GATE LANDFILL

NAVAL AIR STATION - SOUTH WEYMOUTH, MA



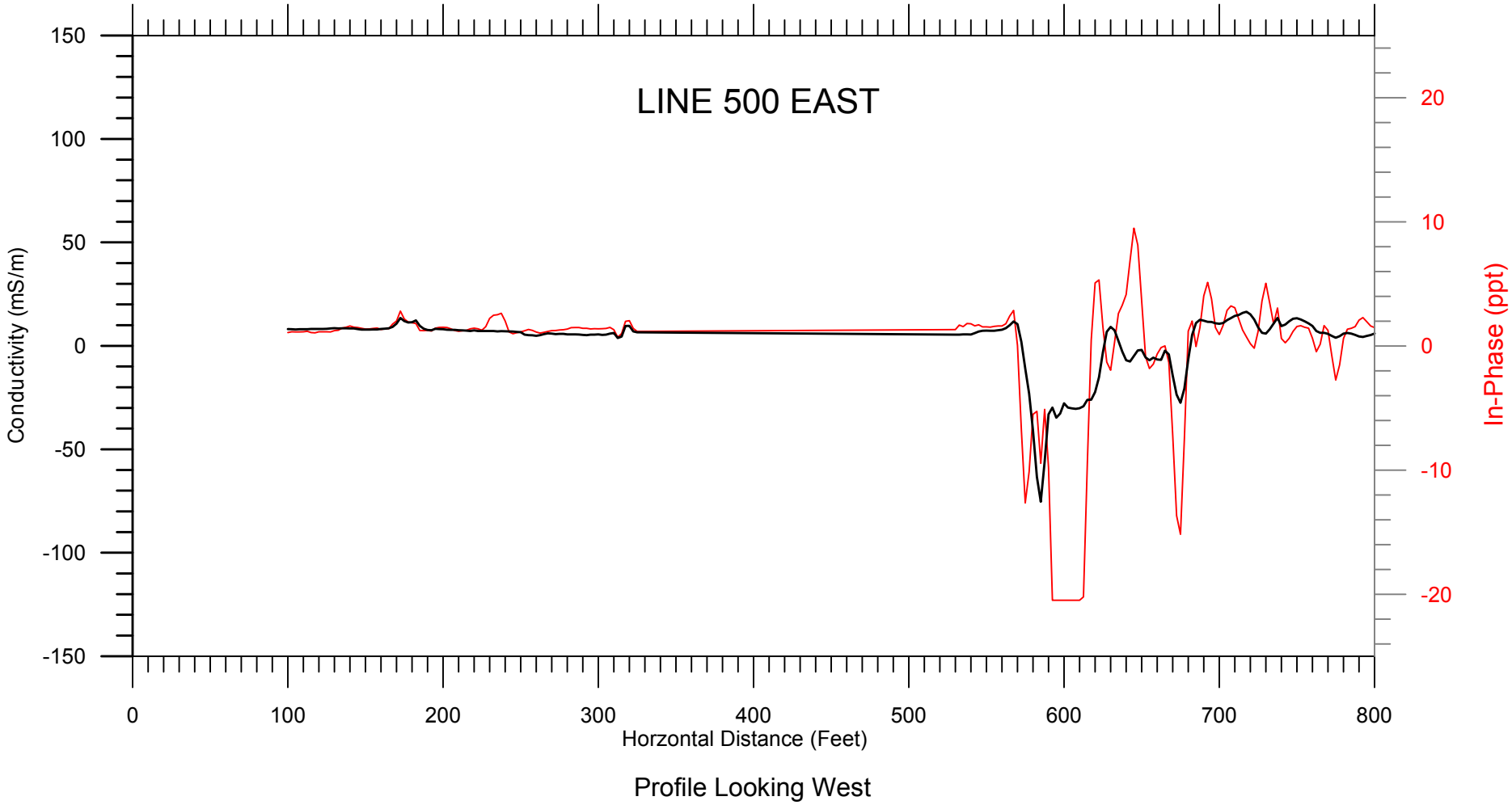
Profile Looking West

Surveyed 05/13/2009 by:

Northeast Geophysical Services

EM-31 SURVEY PROFILE - WEST GATE LANDFILL

NAVAL AIR STATION - SOUTH WEYMOUTH, MA



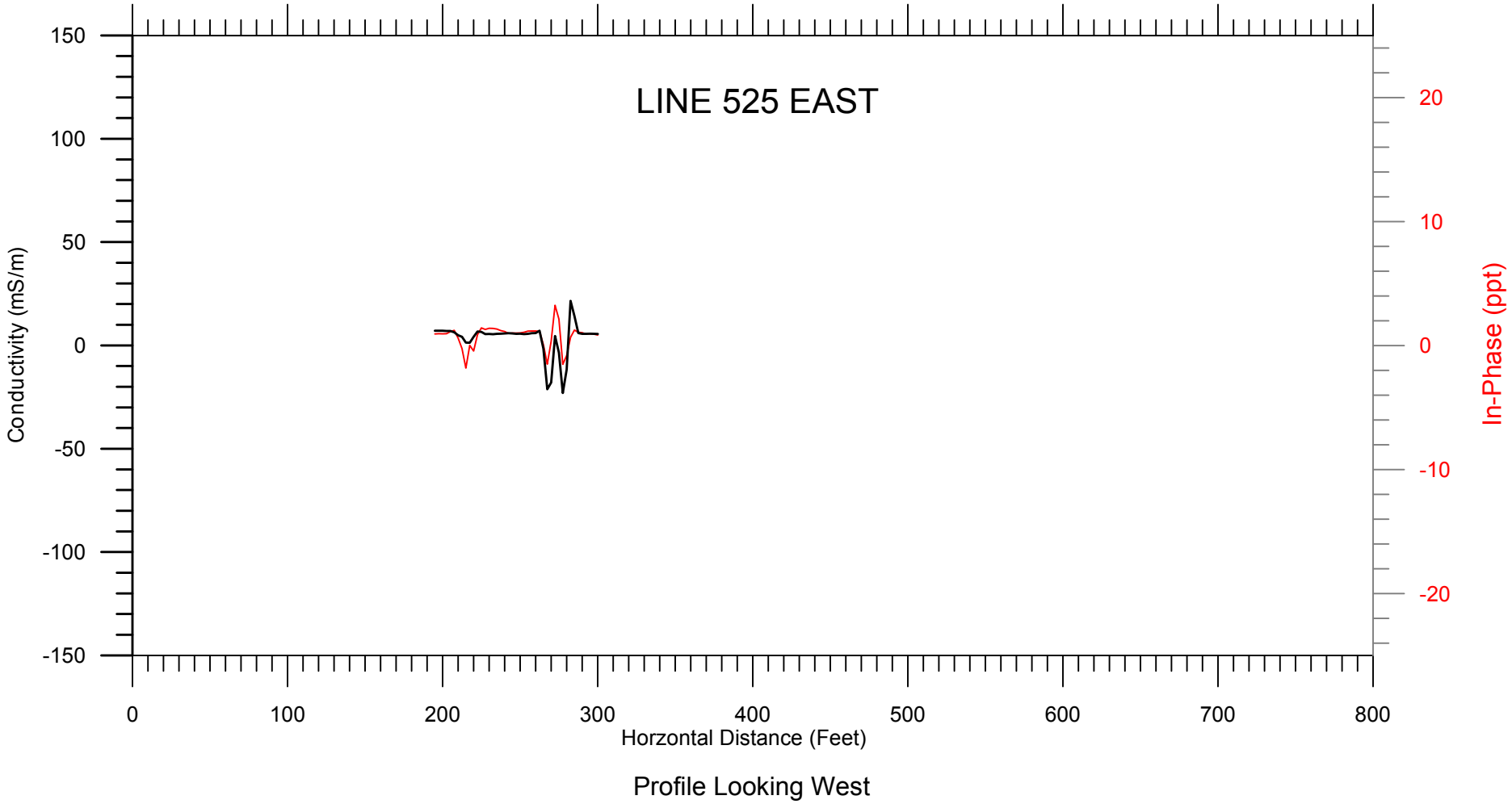
Profile Looking West

Surveyed 05/13/2009 by:

Northeast Geophysical Services

EM-31 SURVEY PROFILE - WEST GATE LANDFILL

NAVAL AIR STATION - SOUTH WEYMOUTH, MA



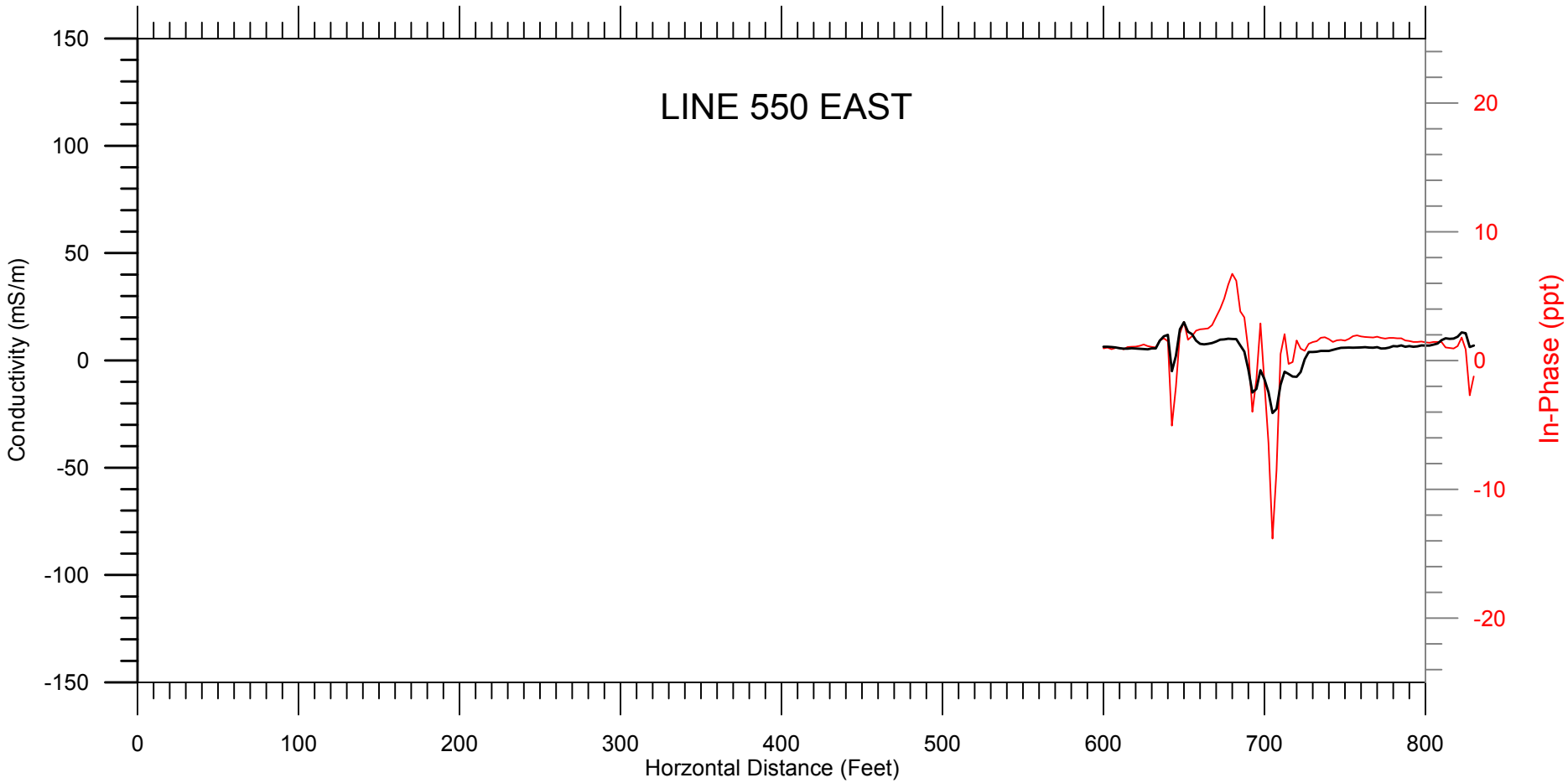
Profile Looking West

Surveyed 05/13/2009 by:

Northeast Geophysical Services

EM-31 SURVEY PROFILE - WEST GATE LANDFILL

NAVAL AIR STATION - SOUTH WEYMOUTH, MA



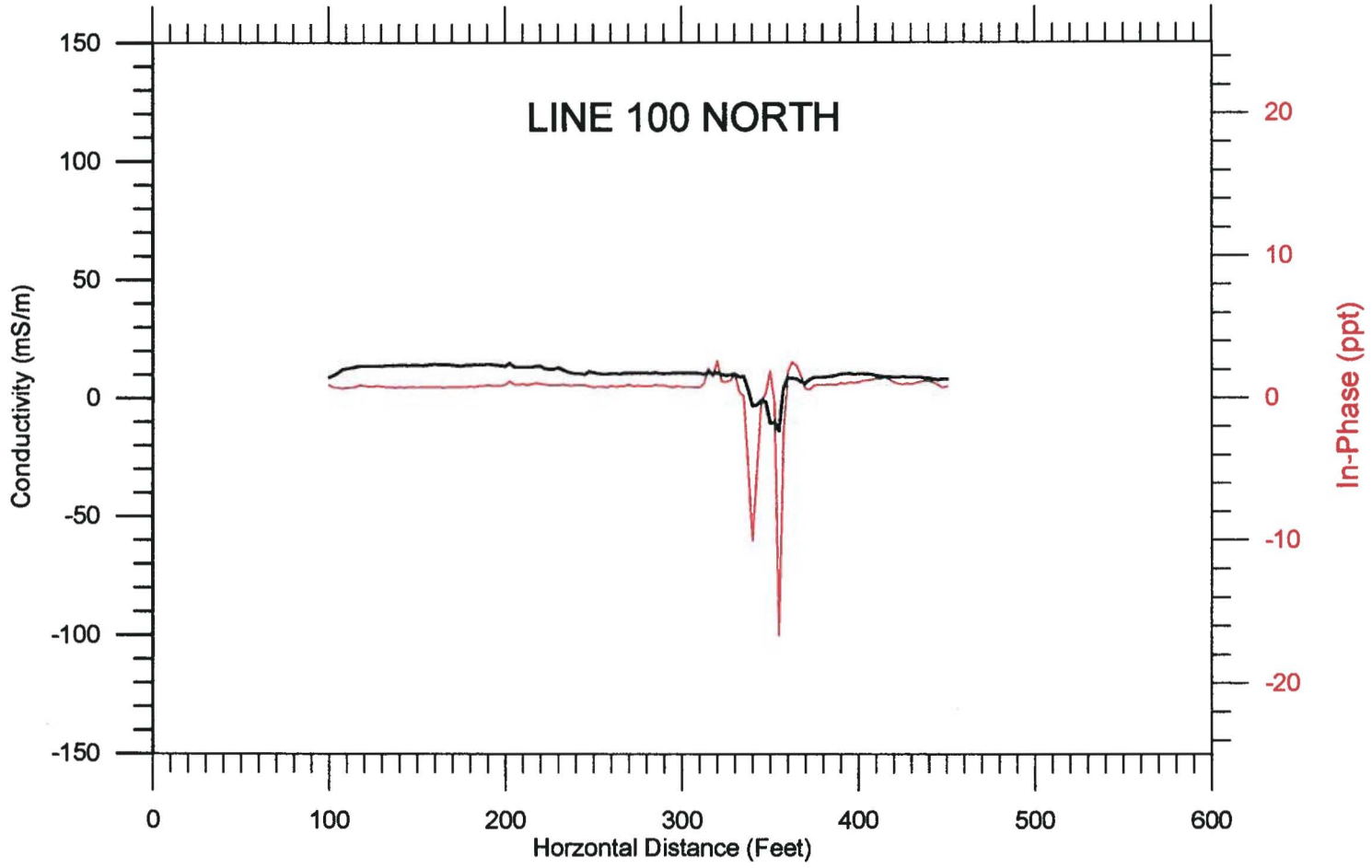
Profile Looking West

Surveyed 05/13/2009 by:

Northeast Geophysical Services

EM-31 SURVEY PROFILE - WEST GATE LANDFILL

NAVAL AIR STATION - SOUTH WEYMOUTH, MA



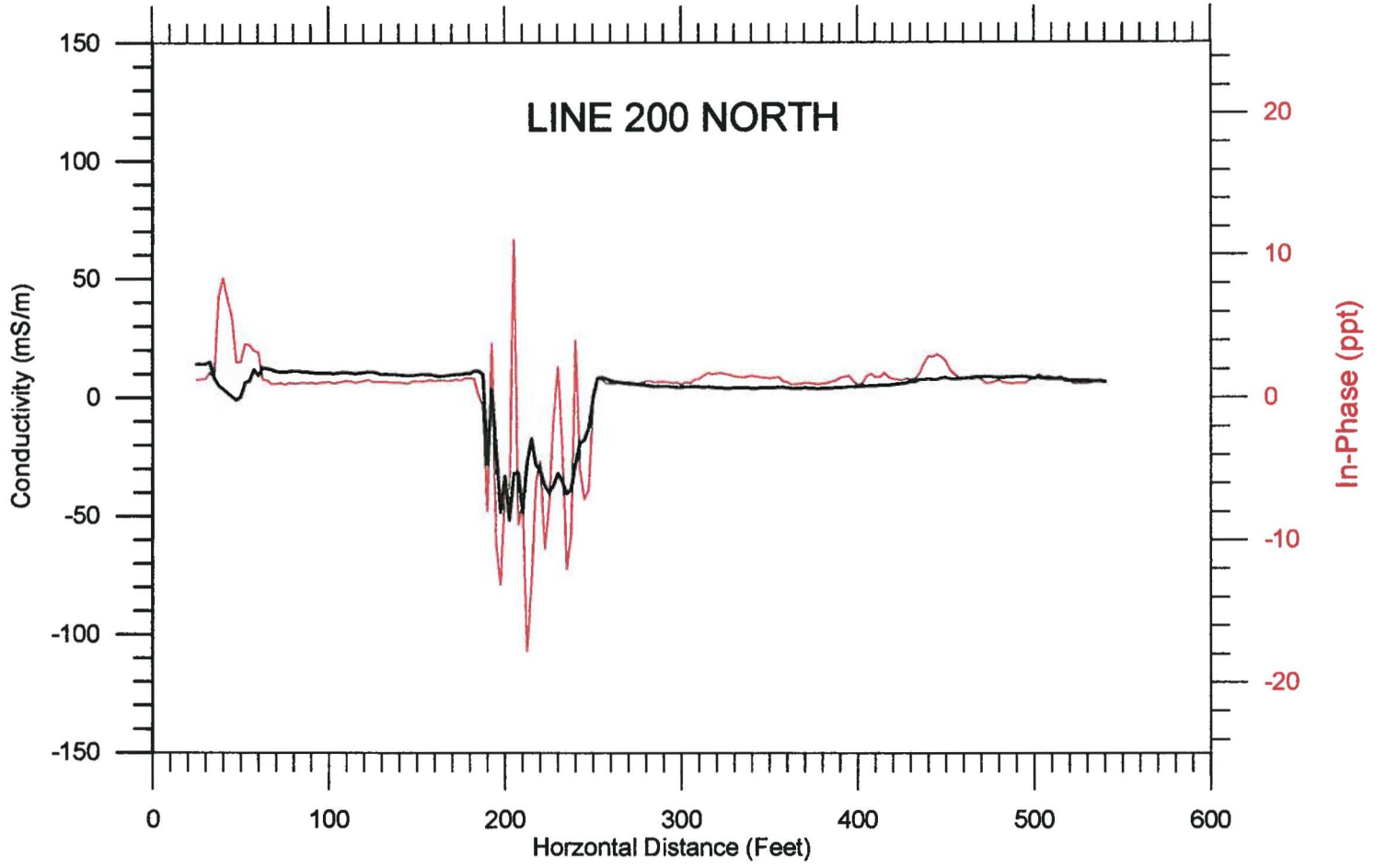
Profile Looking North

Surveyed 05/13/2009 by:

Northeast Geophysical Services

EM-31 SURVEY PROFILE - WEST GATE LANDFILL

NAVAL AIR STATION - SOUTH WEYMOUTH, MA



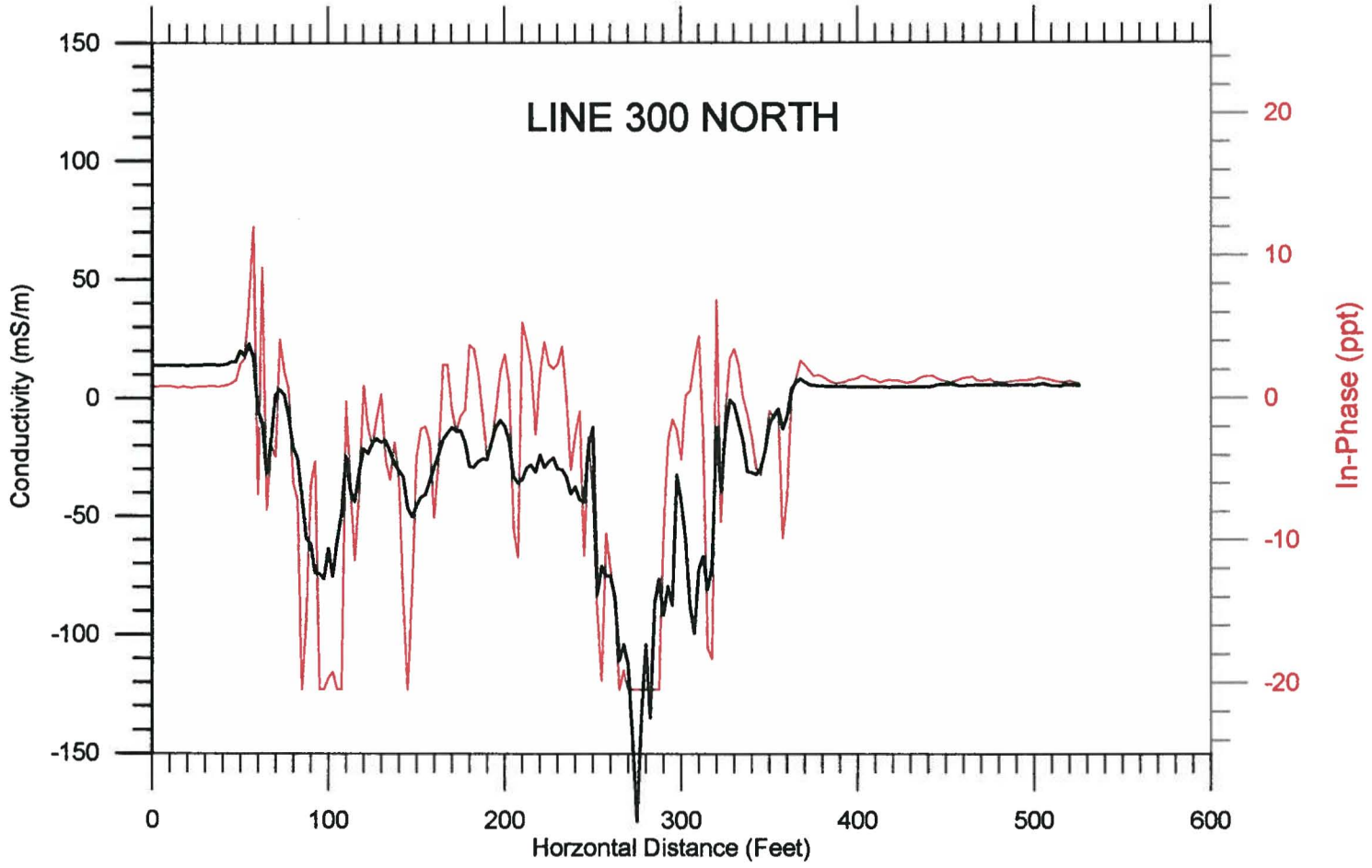
Profile Looking North

Surveyed 05/13/2009 by:

Northeast Geophysical Services

EM-31 SURVEY PROFILE - WEST GATE LANDFILL

NAVAL AIR STATION - SOUTH WEYMOUTH, MA



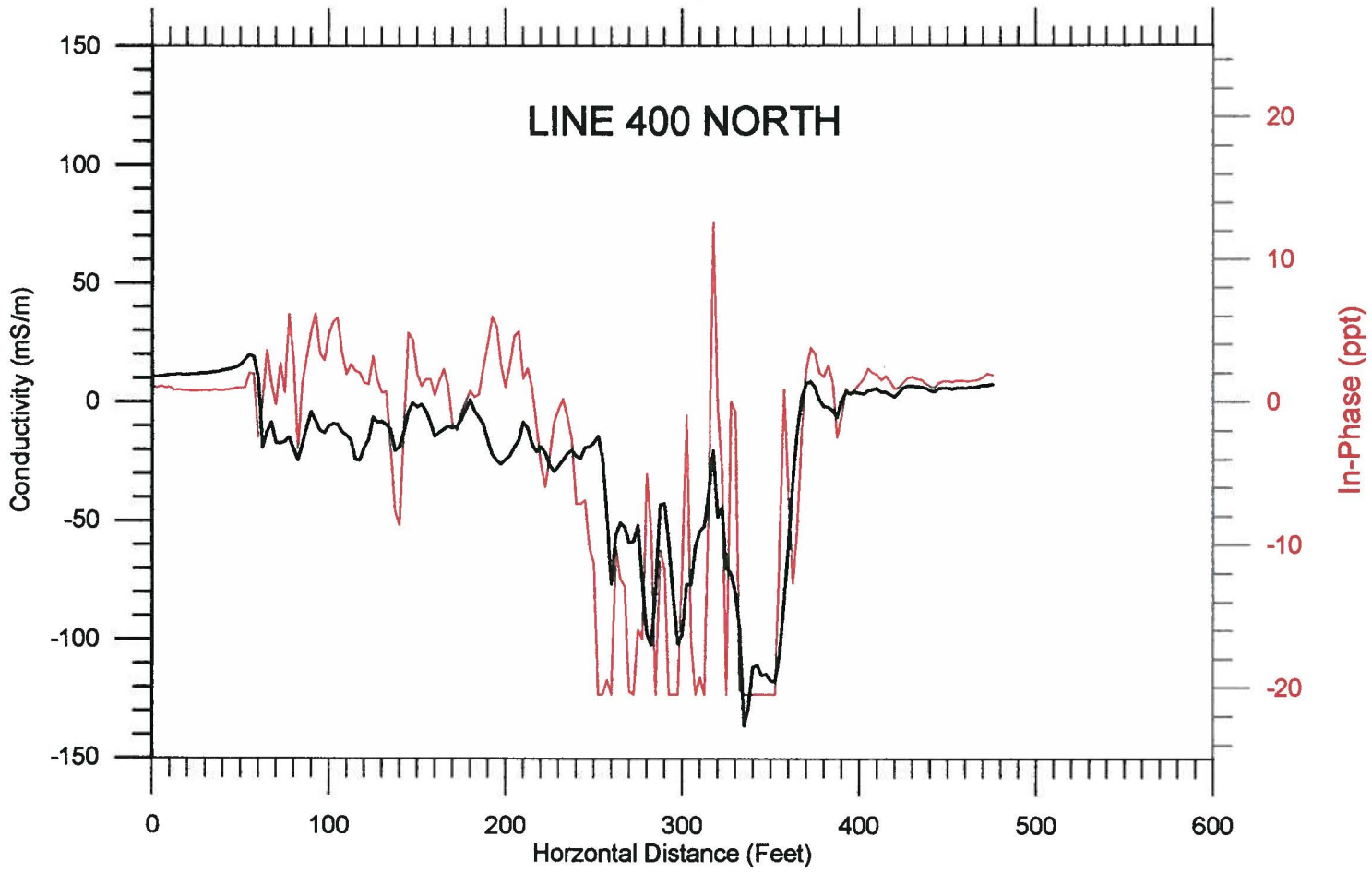
Profile Looking North

Surveyed 05/13/2009 by:

Northeast Geophysical Services

EM-31 SURVEY PROFILE - WEST GATE LANDFILL

NAVAL AIR STATION - SOUTH WEYMOUTH, MA



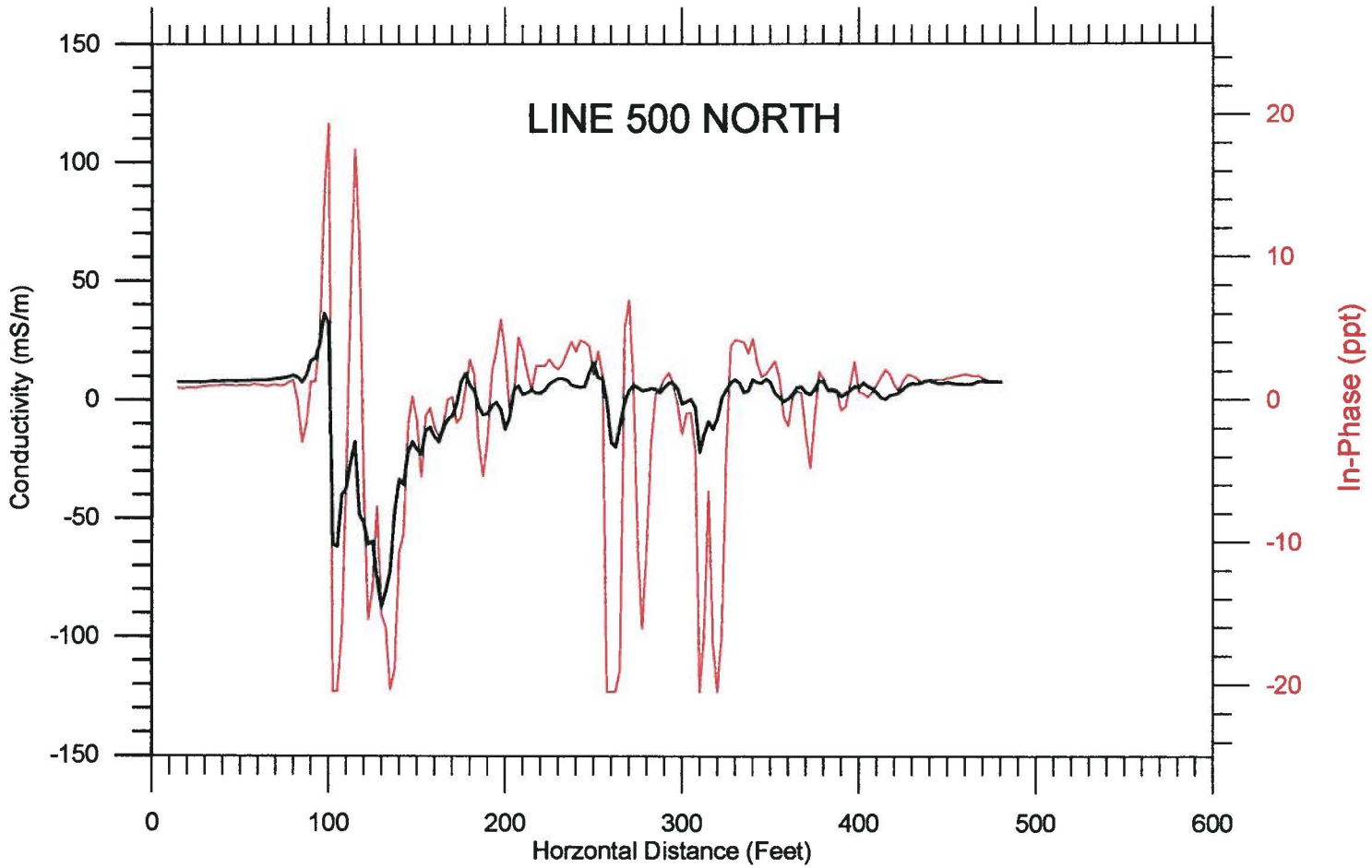
Profile Looking North

Surveyed 05/13/2009 by:

Northeast Geophysical Services

EM-31 SURVEY PROFILE - WEST GATE LANDFILL

NAVAL AIR STATION - SOUTH WEYMOUTH, MA



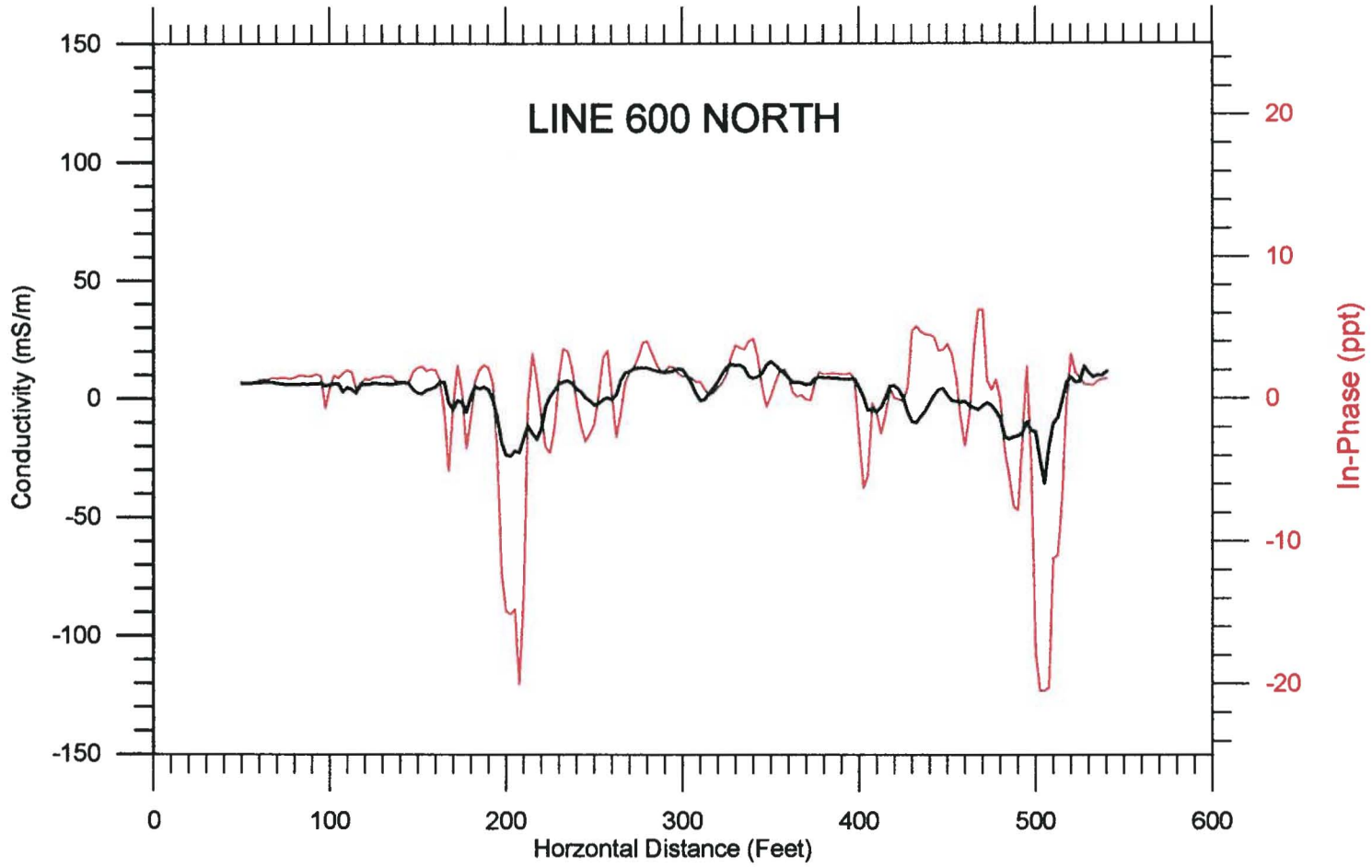
Profile Looking North

Surveyed 05/13/2009 by:

Northeast Geophysical Services

EM-31 SURVEY PROFILE - WEST GATE LANDFILL

NAVAL AIR STATION - SOUTH WEYMOUTH, MA



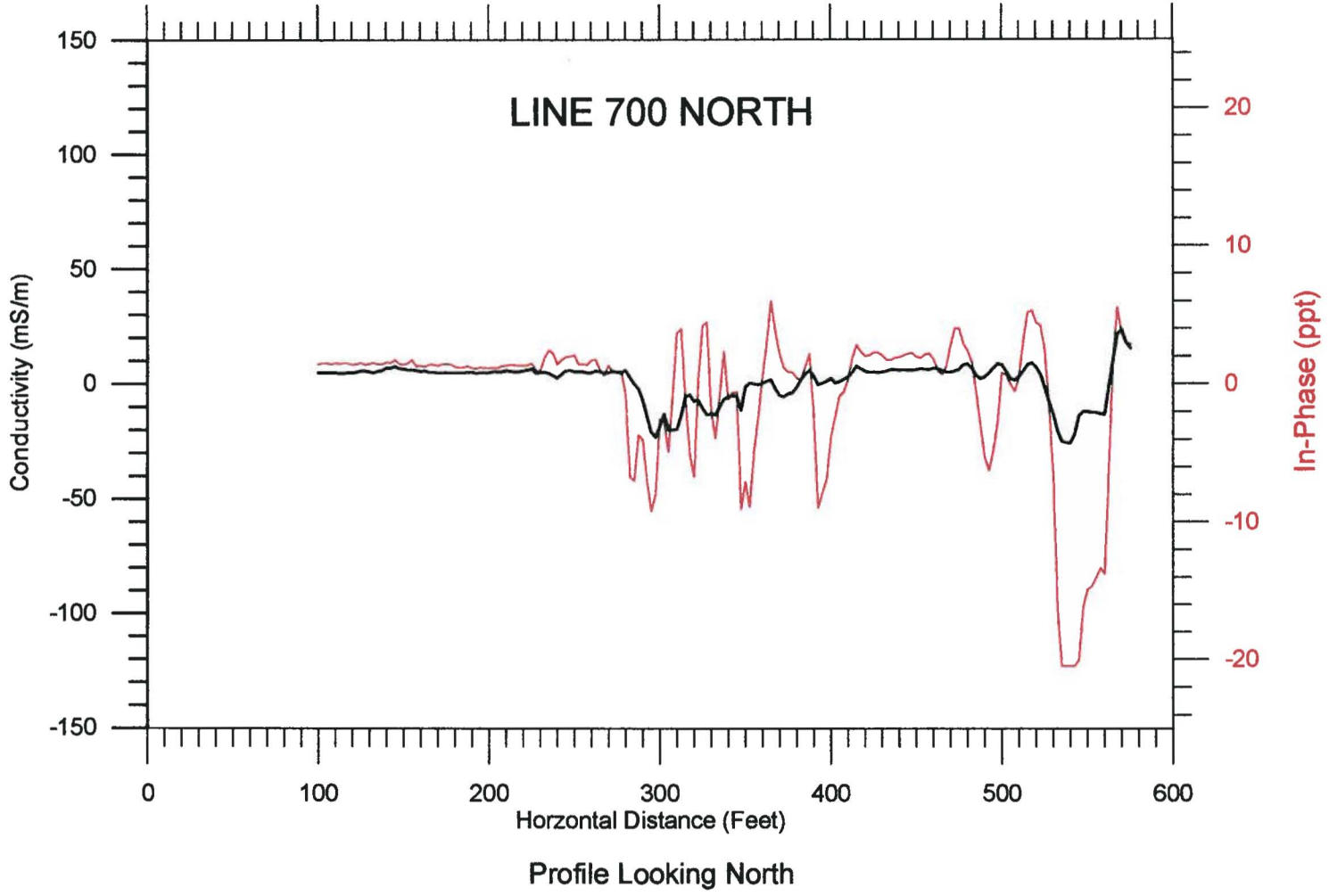
Profile Looking North

Surveyed 05/13/2009 by:

Northeast Geophysical Services

EM-31 SURVEY PROFILE - WEST GATE LANDFILL

NAVAL AIR STATION - SOUTH WEYMOUTH, MA



Profile Looking North

Surveyed 05/13/2009 by:

Northeast Geophysical Services

APPENDIX D
WETLAND AND WATER RESOURCES DELINEATION AND FUNCTIONAL ASSESSMENT
SOUTH WEYMOUTH NAS SOUTH GATE LANDFILL
PRE-REMEDIAL DESIGN INVESTIGATION
CTO 407

TABLE OF CONTENTS

SECTION **PAGE**

1.0 INTRODUCTION 1-1

2.0 WETLAND AND WATERBODY DELINEATION METHODS 2-1
2.1 PRE-FIELD BACKGROUND RESEARCH 2-1
2.2 ON-SITE FIELD DETERMINATION 2-1
2.3 VEGETATION REFERENCE PLOTS 2-3

3.0 FUNCTIONAL ASSESSMENT METHODOLOGY 3-1

4.0 DESCRIPTION OF WETLANDS AND WATERBODIES 4-1
4.1 WETLAND WGL-W1 4-1
4.2 WETLAND WGL-W2 4-2
4.3 WEST BRANCH OF FRENCH STREAM 4-2

5.0 FUNCTIONAL ASSESSMENT RESULTS AND DISCUSSION 5-1
5.1 WGL – W1 (WETLAND FUNCTION-VALUE EVALUATION FORM #1) 5-1
5.2 WGL – W2 (WETLAND FUNCTION-VALUE EVALUATION FORM #2) 5-4
5.3 WEST BRANCH OF FRENCH STREAM CHANNEL 5-9

6.0 POTENTIAL FUNCTION-VALUE IMPACTS AND MITIGATION RECOMMENDATIONS 6-1
6.1 PROPOSED ACTIVITIES IN WETLANDS 6-1
6.2 PROPOSED MITIGATION 6-1
6.3 EXPECTED LOSSES AND GAINS OF WETLAND FUNCTIONS AND VALUES 6-2

TABLES

NUMBER

1 Common Functions and Values of Wetlands
2 Wetland Function-Value Impact Summary Table

FIGURES

NUMBER

1 Site Location Map for West Gate Landfill
2 USDA/NRCS Soils for West Gate Landfill
3 Massachusetts Freshwater Wetlands Map for West Gate Landfill
4 National Wetlands Inventory Map for West Gate Landfill
5 Tetra Tech Delineated Wetlands and Streams for West Gate Landfill

REFERENCES

TABLE OF CONTENTS (cont.)

APPENDICES

A Resource Delineation Field Forms
B Photographic Record
C Reference Plot Data
D List Of Considerations Used In Functional Assessment Wetland Functions And Values Descriptive Approach, U.S. Army Corps Of Engineers, New England District Highway Methodology
E Wetland Function-Value Evaluation Forms, Wetland Functions And Values Descriptive Approach, U.S. Army Corps Of Engineers, New England District Highway Methodology

1.0 INTRODUCTION

The purpose of this combined wetland and water resources delineation and functional assessment is to characterize the wetland resources and determine the extent of potential impacts resulting from the planned remediation of the West Gate Landfill (WGL) at the former Naval Air Station (NAS) South Weymouth, Weymouth, Massachusetts (Figure 1). This wetland delineation/functional assessment report was prepared by Tetra Tech, Inc. (Tetra Tech) under the Comprehensive Long-Term Environmental Action Navy (CLEAN) Program, Contract No. N62470-08-D-1001, Contract Task Order (CTO) WE11. The work described herein was conducted by Tetra Tech under the direction of the Base Realignment and Closure (BRAC), Program Management Office (PMO), Northeast.

The NAS South Weymouth consists of approximately 1,442 acres occupying portions of the Towns of Weymouth, Rockland, and Abington. The United States (U.S.) Navy established NAS South Weymouth in 1941 and used it as a support facility for dirigible aircraft during World War II (WWII). The Base was closed at the end of WWII and then reopened in 1953 as a naval air station for aviation training. Facilities consist of two runways and approximately 200 flight operation support buildings (USEPA, 1994). The Base was closed on September 30, 1997 under BRAC. Congress established the South Shore Tri-Town Development Corporation (SSTTDC) in 1998 to economically redevelop the property formerly occupied by NAS South Weymouth (SSTTDC, 1998).

The WGL consists of approximately 6.3 acres near the midpoint of the western perimeter of NAS South Weymouth. From the 1940s to 1972, the WGL was used primarily for disposal of domestic wastes and occasionally other wastes generated onsite. The landfill has been inactive since 1972 and became overgrown with brush and trees. Site clearing was completed in early 2009. The Navy has sampled groundwater, leachate, surface water, sediment, surface soil, and subsurface soil at the site and found metals, pesticides, polycyclic aromatic hydrocarbons (PAHs), and polychlorinated biphenyls (PCBs) exceeding concentrations protective of human health and ecological receptors (ATSDR, 1999).

A remedial investigation was completed in 2000 and a feasibility study in 2002. The 2007 Record of Decision (ROD) documented the selected remedy which includes constructing a soil cover over the landfill, long-term monitoring, and institutional controls. The selected remedy addresses all current and potential future risks identified at the Site, which include human and ecological risks from PCBs, metals, dioxins, PAHs, and pesticides, primarily in surface soil. Prior to implementing the selected remedy, the ROD requires that a pre-design investigation (PDI) be conducted to collect information to be used in the design of the soil cover system. The Quality Assurance Project Plan (QAPP) for the WGL PDI includes an evaluation of pre-existing conditions of the wetlands (vegetation, soil type, hydrology, wildlife) and a functions and values assessment for use in a wetland restoration plan to be implemented following the

completion of the remedial actions. This document presents the results of the evaluation of the existing conditions in the wetlands around WGL.

Wetlands and other surface water features subject to federal, State, or local regulation were delineated in 2000 for NAS South Weymouth, including the WGL, by a consultant hired by the SSTTDC. Each of the three Conservation Commissions of the towns having jurisdiction over portions of the NAS South Weymouth issued an Order of Resource Area Delineation approving the wetland delineations.

On June 10, 2009, Tetra Tech biologists delineated the wetlands and surface waters in WGL. In addition to this delineation, biologists conducted a functional assessment of the wetlands that were identified during the resource delineation. This report describes the wetlands and surface waters at WGL and discusses the functions and values of each wetland. Functions are physical, chemical, and biological processes or attributes of wetlands that are vital to the integrity of a wetland system, regardless of how those benefits are perceived by society. Values are attributes that are not necessarily important to the integrity of a wetland system but that are perceived as valuable to society (Adamus *et al.,* 1991). Information from the wetland delineation and from this functional assessment report will be used to support the remediation of the WGL under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

2.0 SURFACE WATER DELINEATION METHODOLOGY

The on-site delineation was conducted using the U.S. Army Corps of Engineers (USACE) Wetlands Delineation Manual (Environmental Laboratory, 1987). Specifically, the Routine On-Site Determination Method, as described in the USACE Wetlands Delineation Manual, was employed in accordance with the WGL QAPP (United States Navy, 2009). This technique involved collection and review of background information, followed by an on-site survey and delineation.

2.1 PRE-FIELD BACKGROUND RESEARCH

Prior to conducting fieldwork, Tetra Tech conducted a thorough review of existing site information including:

- The Weymouth, Massachusetts 1984, United States Geological Survey (USGS) 7.5-minute series topographic quadrangle maps;
- Soil survey maps for Norfolk-Suffolk Counties (United States Department of Agriculture/Natural Resources Conservation Service [USDA/NRCS, 2008]) to determine presence and extent of hydric and upland soils (Figure 2);
- Massachusetts Department of Environmental Protection (MassDEP) Freshwater Wetland Map to determine the presence of mapped, state-designated wetlands (MassDEP, 2007) (Figure 3);
- The National Wetland Inventory (NWI) 7.5-minute series quadrangle maps from the U.S. Fish and Wildlife Service (USFWS) to determine the presence of mapped, Federally-designated wetlands (USFWS, 2006) (Figure 4); and,
- United States Geological Survey (USGS), Color Ortho Imagery to identify drainage and other hydrologic features from aerial photographs (USGS, 2008).

2.2 ON-SITE FIELD DETERMINATION

Following a review of background information, wetland scientists performed systematic field surveys of WGL on June 10, 2009, to delineate wetlands and waterbodies. The surveys consisted of walk-over inspections of WGL to identify topographic, drainage, and vegetation features that would indicate the potential for wetland classification. Examples of features that would indicate a potential wetland include, but are not limited to, inundation or obviously saturated soils, the presence of hydrophytic vegetation, observations of plant morphological adaptations to wet conditions, and sparsely vegetated concave surfaces.

Where potential wetlands were found, pairs of sample plots were established to document wetland boundaries. One sample plot of each pair was located within the wetland community, and the second was located within the adjacent upland community.

All wetlands were assigned a letter and number code based on the associated Project Area (e.g., "WGL-W1"), where WGL refers to the site location and W1 correlates to wetland #1. Wetlands and water bodies were tallied sequentially for each resource found (e.g., W1 and W2 denote wetlands, and S1 denotes a stream or water body).

All sample plots were investigated according to the *Routine On-Site Wetland Determination Method* (Environmental Laboratory, 1987), which involves a detailed examination of the vegetation, soils, and hydrologic indicators. The wetland scientists completed field data forms that follow the USACE Wetlands Delineation Manual format. Specific methods for characterizing and evaluating the vegetation, soils, and hydrologic indicators within the plant communities are described below.

Vegetation: Dominant plant species in each major vegetation stratum (tree, sapling/shrub, and herbaceous) were identified within 10-meter radius sample plots. The wetland indicator status of each species was assigned according to the *National List of Plant Species that Occur in Wetlands: Region 1* (Reed, 1988). Hydrophytic vegetation was determined to be present where more than 50 percent of the dominant species from all vegetation strata were classified as facultative (FAC), facultative wetland (FACW), or obligate wetland species (OBL).

Soils: A soil auger was used at each sample plot to extract a core sample to a depth of 18 inches, or until rocky substrate resulted in auger refusal. The soils were characterized by determining the color and texture of each soil horizon. Soil matrix and mottle colors were identified. Mineral soils were considered hydric if they exhibited a matrix chroma of 2 or less with mottles, or a matrix chroma of 1 or less without mottles in the horizon immediately below the A-horizon or 10 inches, whichever was less. Additional indicators examined for determining presence of hydric soils included histic epipedons, sulfidic odors, aquic moisture regimes, and concretions.

Hydrology: Each sample plot was examined for evidence of wetland hydrology. Indicators of wetland hydrology included inundation, saturation in the upper 12 inches of the soil, hummocks, water marks on vegetation, drift lines, drainage patterns, oxidized root channels in the upper 12 inches, water-stained leaves, and the FAC-Neutral Test. The presence of standing water or depth to soil saturation was recorded, when applicable.

Wetland boundaries were flagged and marked with the wetland code and consecutive flag numbers. Wetlands were photographed at a representative location, typically in the vicinity of the wetland sample plot. Additional notes and sketches of the wetlands were recorded on wetland delineation data forms or in a field notebook. Field data forms and photographic documentation are provided in Appendix A and B.

Wetland borders were located using a Trimble, Inc. (Sunnyvale, CA) Pathfinder Pro XL Global Positioning System ("GPS") receiver and GeoXH data logger. Wetland boundary flags were surveyed according to Trimble, Inc. sub-meter accuracy standards. Sub-meter accuracy was ensured at each wetland flag point through the collection of a minimum of 60 measurements, with a Precisional Dilution of Position ("PDOP") no greater than 6.0. Although uncommon, surveyed points that did not meet the sub-meter accuracy criterion due to restricted satellite reception caused by heavy vegetation or topography were identified as such in field log books.

GPS data were differentially corrected using Pathfinder Office 3.0 software (Trimble Inc., Sunnyvale, CA) and commercial base station control points. A geo-referenced wetland delineation boundary suitable for overlay onto Project maps and aerial photographs was created using ArcView (Environmental Systems Research Institute, Inc.; Redlands, CA) GIS mapping software.

2.3 VEGETATION REFERENCE PLOTS

Two vegetation reference plots were established within Wetland W2. The purpose of these plots was to provide baseline vegetation data for use in tracking changes in vegetation post-restoration. Because the vegetation within W2 was stratified, nested plots of multiple sizes were employed for the different strata. The observation plot sizes (radius from center) and target stratum were: 5 feet for herbaceous plants (including woody plant seedlings) and bryophytes; 15 feet for shrubs and saplings; and 30 feet for trees and vines.

Soil borings were taken in both of the reference plots. Soil profiles were examined for evidence of the development of hydric characteristics. Data on color, structure, texture, and hydric soil indicators, by horizon, were noted on data sheets in standard soil log format. The soil profile evaluated extended to 18 inches below the surface, or to auger refusal. The data collected at both of the reference plots are provided in Appendix C.

3.0 FUNCTIONAL ASSESSMENT METHODOLOGY

The functional assessment was performed using the *Wetland Functions and Values Descriptive Approach* developed as part of the Highway Methodology by the New England District of the United States Army Corps of Engineers (USACE, 1995; De Santo and Flieger, 1995), hereafter referred to as the Highway Method. The Highway Method uses subjective reasoning to conclude whether a wetland provides each of the eight functions and five values described in Table 1. The Highway Method is more subjective and relies more on the professional judgement of the assessor than do some other functional assessment methodologies. However, this rapid method of determining the occurrence of the specified functions and values within the evaluated wetland allows for direct comparison with other wetlands within the geographic boundary of the New England District (Bartoldus, 1999).

Assessing the functions and values of a wetland using the Highway Method involves reviewing the physical and biological properties of the wetland using a separate list of "considerations/qualifiers" for each of the 13 functions and values in Table 1. The standard list of considerations/qualifiers recommended by the authors of the Highway Method is presented in Appendix D. Physical and biological data available from various reports, publications, and other printed sources and from a site visit performed by the assessor are used in the evaluation. The assessor concludes the evaluation by deciding which of the 13 functions and values are present in the wetland (i.e., are performed or otherwise demonstrated by the wetland). The assessor then determines which of the functions and values occurring in the wetland are principal functions performed by the wetland, meaning those functions that "are an important physical component of a wetland ecosystem (function only) and/or are considered of special value to society, from a local, regional, and/or national perspective" (USACE, 1995).

The following functional assessment represents the professional judgement of the wetland scientists, following the Highway Method and using the lists of considerations/qualifiers recommended by the developers of the Highway Method. The scientists delineated the subject wetlands on June 10, 2009. The purpose of the site visit was to determine the extent of the existing wetlands and to familiarize the scientists with the general character of the wetlands prior to performing the assessment. Information from previous reports including the 2000 delineation (RAI, 2001) and a functional assessment conducted in 2003 (TtNUS, 2003), were used to supplement the 2009 functional assessment.

4.0 DESCRIPTION OF WETLANDS AND WATERBODIES

The resources that were identified during the delineation include an extensive forested wetland (WGL-W2), a small, isolated wetland (WGL-W1), and a perennial stream known as the West Branch of French Stream. Descriptions of each delineated resource at WGL are provided in the sections below. These descriptions are based primarily on the wetland delineation, including data collected from the two vegetation reference plots, conducted by Tetra Tech on June 10, 2009. Additional reports and published sources were used to supplement the delineation data, including a 2000 wetland delineation (RAI, 2001) and a desk-top functional assessment draft report created in 2003 (TtNUS, 2003a). The resource delineation field forms from the 2009 field survey and the photographic record are provided in Appendix C and D, respectively.

4.1 WETLAND WGL-W1

Isolated Wetland WGL-W1 (W1) is approximately 0.10-acre in size and is located in a topographic depression in the northwestern part of the WGL (Figure 5). Wetland W1 appears to be either an area of localized settlement in the landfill, an isolated area where landfill debris was not placed, or a stormwater catch basin handling surface runoff directed via culverts from upslope areas to the north and west. In any case, it appears to have been created from construction of the landfill and is not a natural topographic feature. A culvert is located in the northwest corner and likely drains from the road and parking lots to the north and west of W1. The side-slopes surrounding the wetland are steeper than those abutting natural wetlands on NAS South Weymouth (TtNUS, 2003a). Although spatially isolated from other surface water features, Wetland W1 may be connected hydrologically to wetland WGL-W2 via groundwater flow.

Wetland W1 is classified as a palustrine forested wetland, broad-leaved deciduous (PFO1) using the USFWS classification system (Cowardin *et al*., 1979). The wetland is dominated by a red maple (*Acer rubrum*) overstory comprising several red maple trees, with an understory dominated by glossy buckthorn (*Frangula alnus*); upland forest surrounds the wetland. The herbaceous layer is sparse and dominated by soft rush (*Juncus effusus*), glossy buckthorn seedlings, and bristly dewberry (*Rubus hispidus*).

At the time of the delineation, the soils in W1 were saturated at the surface. The soil profile revealed a silt loam with low chroma (10YR 2/1 and 10YR 3/1) down to approximately 44 centimeters. Oxidized root channels were observed between 10 and 25 centimeters with redoximorphic features (5YR 5/8) and a few, large inclusions (10YR 7/6) between 25 and 44 centimeters. These soil profiles meet one or more of the field indicators for hydric soils in the Corps of Engineers Wetlands Delineation Manual (Environmental Laboratory, 1987) and Field Indicators for Identifying Hydric Soils in New England (NEHSTC, 2004). The

wetland is spatially isolated from other surface water features. The surrounding area appears to have been historically disturbed by earth-moving and maintenance activities.

4.2 WETLAND WGL-W2

Wetland WGL-W2 (W2) is a large area of forested wetlands (approximately 30.3 acres) that extends into the southwestern section of the WGL (Figure 5). It is classified as a palustrine forested wetland, broad-leaved deciduous (PFO1) using the classification system developed by the United States Fish and Wildlife Service (USFWS) (Cowardin *et al*., 1979). The wetland supports forest vegetation dominated by red maple. Subdominant trees species include American ash (*Fraxinus americana*), slippery elm (*Ulmus rubra*), and swamp white oak (*Quercus bicolor*). The forest vegetation includes a dense understory dominated by coastal sweetpepperbush (*Clethra alnifolia*), spicebush (*Lindera benzoin*) and glossy buckthorn. Sub-dominant shrubs include willows (*Salix* sp.), multiflora rose (*Rosa multiflora*), highbush blueberry (*Vaccinium corymbosum*), meadowsweet (*Spirea tomentosa*), arrowwood (*Viburnum recognitum*), and poison ivy (*Toxicodendron radicans*) (TtNUS, 2003a). The sparse herbaceous community includes seedlings of species found in the over- and understory as well as spotted jewelweed (*Impatiens capensis*), cinnamon fern (*Osmunda cinnomomea*), jack-in-the-pulpit (*Arisaema triphyllum*), and sphagnum moss (*Sphagnum* spp.).

Soils in W2 are mapped as Freetown muck (SCS, 1990). In the field, however, the soil profiles revealed a low-chroma (10YR 2/1 and 7.5YR 2.5/1) loam down to 58 centimeters. These soil profiles meet one or more of the field indicators for hydric soils in the Corps of Engineers Wetlands Delineation Manual (Environmental Laboratory, 1987) and Field Indicators for Identifying Hydric Soils in New England (NEHSTC, 2004). Indicators of wetland hydrology include soils that are saturated to the surface and large trees with very shallow root systems.

Wetland W2 is not contiguous to the West Branch of French Stream or to any other streams at the WGL. However, W2 is hydrologically connected to the West Branch of French Stream downgradient from the WGL via an unnamed intermittent stream channel. Upland forest, Navy roadways, internal property fences, upland fields, and runway areas border the wetland. The wetland has historically been disturbed by ditching/channelization activities, road construction, maintenance activities, and utility installation. The wetland is contiguous to other wetlands west of the NAS South Weymouth (RAI, 2001).

4.3 WEST BRANCH OF FRENCH STREAM

The West Branch of French Stream is a perennial stream channel bordered by steep banks where it runs adjacent to the WGL, running north to south along the eastern boundary of the WGL. This channel is classified as a Riverine Lower Perennial (R2) feature under the USFWS classification system. It

originates near the northwestern corner of NAS South Weymouth, merges with other headwaters in the southwestern part of the Base, and flows as French Stream south of the NAS South Weymouth. French Stream ultimately flows into the Indian Head River, which becomes the North River prior to discharging into Massachusetts Bay at Scituate (U.S. Navy, 1999).

Upland forest, Navy roadways, internal property fences, upland fields, and runway areas border West Branch of French Stream. Where it adjoins WGL, the channel substrate is comprised primarily by cobble/gravel and sand and contains high levels of iron precipitate. The water depth ranges from 6–12 inches and the canopy cover over the channel is 75–100%. Vegetation species observed along the creek include woody stems such as red maple, gray birch (*Betula populifolia*), red oak (*Quercus rubra*), and white ash (*Fraxinus americana*), and herbaceous species such as meadowsweet (*Spiraea alba*), spotted jewelweed, foxtail sedge (*Carex vulpinoidea*), goldenrods (*Solidago* spp.), and the invasive liana oriental bittersweet (*Celastrus orbiculatus*).

5.0 FUNCTIONAL ASSESSMENT RESULTS AND DISCUSSION

The following sections present the functional assessment for Wetland W1 (Section 5.1) and W2 (Section 5.2). Completed Wetland Function-Value Evaluation Forms developed using the *Highway Methodology* are provided in Appendix E. The West Branch of French Stream is highly channelized and does not support wetlands in the vicinity of the WGL, and therefore is not assessed as such. However, its functional properties are briefly discussed in Section 5.3.

5.1 WGL – W1 (WETLAND FUNCTION-VALUE EVALUATION FORM #1)

Wetland W1 is too small (estimated size 0.10 acre) to play a substantial role in groundwater recharge/discharge, nutrient removal, production export, and wildlife habitat even though it possesses physical/biological characteristics potentially conducive to these functions. Although Wetland W1 appears to be a unique, manmade feature, its steep sides, lack of outlet, and culvert inflow indicate that it acts (or was intended to act) as a catch basin. Catch basins are strategically placed depressions that are designed to receive and retain floodwater, usually from areas with an impermeable surface, for the purpose of reducing damage caused by floodwater and allowing sediments and other particulates to settle out. As such, floodflow alteration and sediment retention were considered principal functions of W1. Because it lacks open water or surface connections to open water habitat, Wetland W1 does not provide fish or shellfish habitat and does not have the ability to play a role in sediment/shoreline stabilization. Its artificial origin within or adjacent to a landfill makes educational/scientific value and uniqueness/heritage value low. Its artificially steep sides and location within a landfill makes its aesthetic properties (visual quality) poor and preclude recreational use. It does not likely provide habitat for threatened or endangered species.

Groundwater Recharge/Discharge (Occurrence-Yes; Principal-No): This function refers to the ability of a wetland to serve as a point of groundwater recharge and/or discharge. Its intent is to elucidate the connection between the evaluated wetland and aquifer, regardless of the size or importance of either. Wetlands in the upper parts of watersheds can play a role in groundwater recharge (Adamus *et al*., 1991). Wetland W1 is too small to be of significant importance, however its high position in the watershed and lack of outlet indicate that it likely contributes, albeit a small amount, to the headwaters of French Stream. French Stream reportedly recharges off-site aquifers used for public water supply by towns in the south coastal basin (U. S. Navy, 1999).

Floodflow Alteration (Occurrence-Yes; Principal-Yes): This function refers to the ability of the wetland to attenuate floodwater by retaining it for prolonged periods following precipitation events and the releasing the water gradually. This function is best served in watersheds containing high proportions of

impermeable surfaces where overland flow is greater due to decreased infiltration. Isolated wetlands in the upper parts of watersheds can play a role in floodflow alteration (Adamus *et al*., 1991). Runoff from uplands upgradient of the WGL would not likely be intercepted by a single small depression such as W1. However, runoff that originates in the developed uplands to the northeast of WGL is directed into W1 via a culvert. Therefore, it is likely that this small wetland receives an abundant amount of stormwater runoff following a precipitation event. Flood-flow alteration is therefore considered a principal function of this resource.

Fish and Shellfish Habitat (Occurrence-No; Principal-No): This function captures the ability of seasonal or permanent waterbodies associated with the evaluated wetland to effectively provide habitat for fish and shellfish species. Wetland W1's small size and lack of surface connections to open water habitat suggest that the wetland has little or no value as aquatic habitat, despite the fact that the wetland could contain several inches of standing water for extended periods of time.

Sediment/Toxicant Retention (Occurrence-Yes; Principal-Yes): This function refers to the ability of a wetland to efficiently retain sediments, toxicants, and/or pathogens in runoff water from surrounding uplands or upstream eroding wetland areas, thereby causing degradation of water quality. Wetland W1 likely serves to trap some surface water runoff from the WGL, preventing runoff and any associated contaminants from these areas from reaching the higher quality Wetland W2. However, the wetland's small size suggests that any such effect is minimal. Runoff from the upland areas to the northeast of WGL is directed into W1 via a culvert. This stormwater runoff originates from developed land with a relatively high percentage of impervious surfaces, and is likely to be laden with sediments and contaminants that are associated with urban runoff. For these reasons, sediment/toxicant retention is considered to be a principal function of W1.

Nutrient Removal (Occurrence-Yes; Principal-No): This function refers to the ability of a wetland to retain nutrients such as nitrogen and phosphorus, which are transported by runoff water from surrounding uplands or wetlands, and the efficiency of the wetland to then transform these nutrients into other forms or trophic levels. Wetlands that possess a high potential of performing this function are able to prevent the negative effects of nutrients entering aquifers or surface waterbodies. Although the area in the vicinity contributes runoff to Wetland W1, this area does not contain agriculture, golf courses, manicured lawns, or other land uses that are usually associated with concentrated levels of nutrients.

Production Export (Occurrence-Yes; Principal-No): This function refers to the ability of the wetland to provide food or usable products for humans or other living organisms. Several species of vegetation that are found in W1 provide forage for various species of animals. However, the sparse vegetation that was observed within W1 indicates a relative dearth of organic carbon production in the form of twigs, leaves,

and other detritus that could be exported via surface water or direct removal by foraging animals. Additionally, Wetland W1 completely lacks associated surface water for production export. For these reasons production export is not a principle function of Wetland W1.

Sediment/Shoreline Stabilization (Occurrence-No; Principal-No): This function evaluates the effectiveness of the wetland to stabilize stream banks and shorelines against erosion. Wetland W1 is not associated with open water and therefore does not have to opportunity to perform this function.

Wildlife Habitat (Occurrence-Yes; Principal-No): This function refers to the ability of the wetland to provide habitat for various types of faunal species, including resident and/or migrating, that are often associated with wetlands. The small size of the forested wetland habitat provided by Wetland W1 provides only minimal opportunity for species favoring such habitat. However, Wetland W1 contains certain features that could benefit upland wildlife such as areas containing surface water that could provide a drinking water source and vegetation that provide forage and cover. For example, bristly dewberry (*Rubus hispidus*) belongs to a group of plants, the blackberries, which are considered to be one of the most important summer foods for wildlife. The fleshy, carbohydrate and vitamin rich fruits of this genus provide important forage for numerous bird species including gray catbirds (*Dumetella carolinensis*), cardinals (*Cardinalis cardinalis*), pine grosbeak (*Pinicola enucleator*), American robins (*Turdus migratorius*), brown thrashers (*Toxostoma rufum*), thrushes (*Catharus* spp.), and towhees (*Pipilo erythrophthalmus*) (Martin et. al, 1961). Blackberry fruit are consumed by mammals such as raccoons (*Procyon lotor*), chipmunks (*Tamias striatus*), and squirrels (*Sciurus carolinensis* and others), and other rodents. In addition to being browsed upon by white-tailed deer (*Odocoileus virginianus*) and rabbits (*Sylvilagus* spp.), the leaves and stems provide valuable cover for wildlife. Sedges (*Carex* spp.) are also of value to wildlife. The seeds are eaten by many species including ruffed grouse (*Bonasa umbellus*), and songbirds such as tree sparrows (*Spizella arborea*) (Martin et. al, 1961). Sedge seeds are also a major component of the diet of ruffed grouse chicks in the northeast and the sedge plants themselves provide cover for small mammals. Although Wetland W1 contains these plant species, the vegetation cover overall is quite sparse and therefore production export is not a principal function of W1.

Although this wetland could retain standing water for an extended period during particularly wet conditions, it is not likely that it does so in normal years. In order for a wetland to provide habitat for breeding amphibians, it must have standing water during the spring breeding period and retain the water long enough for the amphibian larvae to emerged from their egg masses and develop into terrestrial or semi-terrestrial adults that are able to leave the pool. Tetra Tech biologists conducted the wetland delineation in early June and observed no indication of standing water that would be expected to be present during a normal to wet year during the amphibian breeding season. Therefore, it is not likely that Wetland W1 retains water long enough in most years to provide amphibian breeding habitat. Due to the

small size of W1, paucity of vegetated cover, and absence of standing water, wildlife habitat is not considered to be a principal function of Wetland W1.

Recreation (Occurrence-No; Principal-No): This value refers to the suitability of the wetland to provide both consumptive and non-consumptive recreational opportunities such as hiking, canoeing, boating, fishing, and hunting. The small size of Wetland W1 makes it of little recreational consequence. In addition, the steep side slopes pose a potential injury risk to persons approaching the wetland. If adjoining areas were developed for recreation, the developers may want to consider fencing off W1 as many catch basins often are.

Educational/Scientific Value (Occurrence-No; Principal-No): This value refers to the appropriateness of the wetland for use in scientific research or as an "outdoor classroom". Although some small, isolated wetlands such as vernal pools are of educational and scientific interest, the artificial origin and artificially steep side slopes around Wetland W1 make it of little scientific interest.

Uniqueness/Heritage (Occurrence-No; Principal-No): This value considers the suitability of the wetland to provide special values such as use of wetlands for aesthetic enjoyment, open space, preservation of rare or endemic species, protection of archaeologically or geologically unique features, maintenance of historic sites, and a number of other primarily intangible uses. These functions are considered valuable attributes to aspects of public health, recreation, and habitat diversity. Although some small, isolated wetlands such as vernal pools can be unique natural features that are of high value to a region's natural heritage, the artificial origin and artificially steep side slopes around Wetland W1 preclude any such significance.

Visual Quality/Aesthetics (Occurrence-No; Principal-No): This value refers to the visual quality or usefulness of the wetland. Wetland W1 is located in an area of rough and irregular surface soils originating from landfill activity. Although aesthetic appreciation is highly subjective, few would interpret the appearance of Wetland W1 and its immediate surroundings as a visually pleasing natural area.

Endangered Species Habitat (Occurrence-No; Principal-No): This value refers to the ability of the wetland to provide habitat suitable for supporting threatened or endangered species. The Massachusetts Natural Heritage and Endangered Species Program stated in 1998 that they do not have any records of State-protected rare plants or animals on NAS South Weymouth (Campbell, 1998). In addition to the fact that Wetland W1 is of artificial origin and does not possess physical characteristics resembling natural wetlands, red maple swamps are the most common forested wetland in Massachusetts and many of the threatened or endangered species that are associated with these systems are found in calcium-rich

variants (Swain and Kearsley, 2001). These characteristics suggest that the future discovery of protected species in the wetland is unlikely.

5.2 WGL-W2 (WETLAND FUNCTION-VALUE EVALUATION FORM #2)

Information reviewed for the functional assessment suggests that the principal functions and values of Wetland W2 include groundwater recharge/discharge, floodflow alteration, sediment/toxicant retention, and wildlife habitat. The information also suggests that Wetland W2 might also play at least a minor role with respect to the following additional functions and values: groundwater recharge/discharge, nutrient removal, production export, uniqueness/heritage, and visual quality/aesthetics. The information suggests that Wetland W2 does not likely contribute substantially to fish and shellfish habitat, sediment/shoreline stabilization, recreation, education/scientific value, or endangered species habitat.

Groundwater Recharge/Discharge (Occurrence-Yes; Principal-Yes): This function refers to the ability of a wetland to serve as a point of groundwater recharge and/or discharge. Its intent is to elucidate the connection between the evaluated wetland and aquifers. Wetland W2 appears to serve both as a point where groundwater discharges to the headwaters of French Stream and as a point that collects runoff from upslope urban areas and allows it to infiltrate to groundwater. Wetland W2 is one of several wetlands that likely contribute surface flow to the headwaters of French Stream, which reportedly recharges off-site aquifers used for public water supply by towns in the south coastal basin (U. S. Navy, 1999). Wetland W2 lacks a defined inlet, but receives surface and possibly shallow subsurface flow from the area upslope. Although no outlet was observed during the 2009 field assessment, WGL-W2 reportedly possesses a constricted, intermittent outlet that discharges into the West Branch of French Stream down-gradient from the WGL (RAI, 2001; TtNUS, 2003). Due to its position in the landscape, it is probable that W2 serves as a recharge area as well as a discharge point for groundwater.

The relationship between Wetland W2 and other NAS South Weymouth wetlands and regional groundwater is not well understood but could be important. According to the South Shore Tri-Town Development Corporation, the aquifer associated with French Stream is recognized as having a limited recharge area that could limit future withdrawals of water for new development (SSTTDC, 2001). The aquifers under NAS South Weymouth have not been used in the past to supply water to the NAS South Weymouth. However, town water systems are presently operating close to or above their “safe yields,” and development of groundwater sources under the NAS South Weymouth could be necessary to support the planned redevelopment (DCG, 2000). Therefore, it is recognized that Wetland W2 could play a role in regulating the quantity and quality of regional groundwater, but this role is not completely defined. Despite this lack of understanding, the evidence suggests that groundwater recharge/discharge may be a principal function for Wetland W2.

Floodflow Alteration (Occurrence-Yes; Principal-Yes): Large wetlands that are located in the upper parts of watersheds containing a high proportion of impervious surfaces, that have no surface outlets or a constricted outlet, have dense woody vegetation, and have thick porous soils are generally regarded as having the greatest potential to reduce floodflows (Hayes *et al*., 2000; Adamus *et al*., 1991). Wetland W2 is a roughly 30-acre (large) wetland (RAI, 2001) located in the upper part of a predominantly urban/suburban watershed that contributes flow to French Stream and ultimately to the Indian Head River (U. S. Navy, 1999). The watershed contains many impervious surfaces, including the NAS South Weymouth runways and extensive off-base suburban development, much of it constructed without modern stormwater management facilities. The only outlet to Wetland W2 is an intermittent stream channel (RAI, 2001), which can be considered "constricted." It is therefore concluded that floodflow alteration is a principal function of Wetland W2.

Fish and Shellfish Habitat (Occurrence-No; Principal-No): This function aims to capture the ability of seasonal or permanent waterbodies associated with the evaluated wetland to effectively provide habitat for fish and shellfish species. Wetland W2 lacks open water capable of providing habitat for fish (RAI, 2001; TtNUS, 2003a). The only surface connection between French Stream and Wetland W2 is an intermittent channel (RAI, 2001). Therefore, fish are not likely able to access the wetland even at times of high water levels.

Sediment/Toxicant Retention (Occurrence-Yes; Principal-Yes): This function refers to the ability of a wetland to efficiently retain sediments, toxicants, and/or pathogens in runoff water from surrounding uplands or upstream eroding wetland areas, thereby reducing degradation of water quality. In addition to the WGL, Wetland W2 is bordered to the northeast by the United States Coast Guard (USCG) South Weymouth Buoy Depot (Figure 5). Current and former operations at the Buoy Depot include buoy rehabilitation (sandblasting, welding, painting, and electrical wiring); minor vehicle and equipment maintenance; waste (steel shot blast residue, waste oils, and paint-related waste) and fuel storage; and administrative uses (EA, 2000; TtNUS, 2003). The USCG recently performed a remedial investigation of the Buoy Depot. A Tier I ecological risk assessment performed as part of the remedial investigation concluded that soil and sediment concentrations of lead and certain other metals potentially posed a significant risk to ecological receptors (EA, 2000; TtNUS, 2003). The dense wetland vegetation is capable of slowing entering runoff, thereby encouraging suspended sediments and toxicants to settle into the soil rather than be carried into French Stream. The dense vegetation in Wetland W2 adjoining the WGL and the Buoy Depot has likely helped to slow the outward migration of chemical contaminants from both sources. Therefore, it is concluded that sediment/toxicant retention is a principal function of Wetland W2.

Nutrient Removal (Occurrence-Yes; Principal-No): This function refers to the ability of a wetland to retain nutrients that are transported by runoff water from surrounding uplands or wetlands and the efficiency of the wetland to then transform these nutrients into other forms or trophic levels. Wetlands that possess a high potential of performing this function are able to prevent the negative effects of nutrients entering aquifers or surface waterbodies. The dense vegetation prevalent throughout Wetland W2 is capable of serving as a sink for nutrients, such as nitrogen and phosphorus, carried by runoff. However, due to the absence of agriculture, golf courses, extensive manicured lawns, or other land uses that are commonly associated with nutrient–rich runoff, the opportunity to perform this function is lacking and therefore is not considered a principal function.

Production Export (Occurrence-Yes; Principal-No): This function refers to the ability of the wetland to provide food or usable products for humans or other living organisms. Several species of plants provide forage for wildlife and are consumed directly by these species. In addition, the dense vegetation throughout Wetland W2 would be expected to regularly shed leaves, twigs, fruits, and other detritus that contribute organic carbon to surface water that flows downgradient into aquatic habitats. This carbon contribution supports both the downstream aquatic food chain and the local terrestrial food chain. However, the benefits of production export requires surface connections from the wetland to downgradient aquatic habitats (Hayes *et al*., 2000; Adamus *et al*, 1991). The fact that Wetland W2 is connected to French Stream by an intermittent and constricted outlet reduces its ability to export materials.

Sediment/Shoreline Stabilization (Occurrence-No; Principal-No): This function evaluates the effectiveness of the wetland to stabilize stream banks and shorelines against erosion. Wetland W2 is not associated with open water, and is only connected to surface water (West Branch of French Stream) by an intermittent channel (RAI, 2001). There is no known direct connection between French's Stream and Wetland W2 within or directly adjacent to the assessed project boundary. Therefore, Wetland W2 does not have the opportunity to perform this function.

Wildlife Habitat (Occurrence-Yes; Principal-Yes): This function refers to the ability of the wetland to provide habitat for various types of faunal species that are often associated with wetlands. This function considers both resident and/or migrating species. The airfield and perimeter areas of NAS South Weymouth contain more than 1,000 acres of open space that serve as an island for terrestrial wildlife habitat surrounded by relatively dense urban and suburban development. Wetland W2 is part of a broad linear strip of upland and wetland forest that separate the airfield to the east, from dense development to the west associated with the State Route 18 corridor. This corridor is one of the last remaining continuous forest parcels in the area, and therefore is considered to be important habitat.

Wetland W2 contains an abundance of wildlife forage species. Red maple, a native tree species that is dominant throughout Wetland W2, is one example. The seeds, sap, and buds from red maple provide food for the bobwhite (*Colinus virginianus*), yellow-bellied sapsucker (*Sphyrapicus varius*), cardinals, pine and evening grosbeaks (*Coccothraustes vespertinus*), various species of waterbirds, squirrels, and chipmunks. Twigs and foliage from red maple provide food for white-tail deer. Red maple trees also provide cover and nesting for the American robin, prairie warbler, and American goldfinch (Thunhorst, 1993; Martin *et al*., 1961). The reddish fruit of spicebush (*Lindera benzoin*) that contains a single large seed is a favorite of woodthrush and veery and also consumed by other thrushes. The small fleshy fruits of glossy buckthorn, which is dominant in the shrub layer, are of value as a food source for some songbirds and mammals (Martin *et al*., 1961). However, glossy buckthorn is an introduced, invasive plant that chokes out native vegetation of greater wildlife value in forested wetlands in New England (Nature Conservancy, 2001; Maine Natural Areas Program, Undated). The abundance of glossy buckthorn in the shrub layer is a net detriment to the wildlife value of Wetland W2.

No standing water was observed within Wetland W2 during assessment activities which were conducted during the normal amphibian breeding season. Therefore, it is unlikely that Wetland W2 retains water long enough in most years to provide amphibian breeding habitat. Despite the presence of the invasive glossy buckthorn shrub species and the apparent absence of amphibian breeding habitat, Wetland W2 contains abundant wildlife habitat, and is considered a principal function of this wetland.

Recreation (Occurrence-No; Principal-No): This value refers to the suitability of the wetland to provide both consumptive and non-consumptive recreational opportunities such as hiking, canoeing, boating, fishing, and hunting. In its present condition and that of the surrounding land use, the wetland is not suitable for recreation. Wetland W2 does not possess a trail system and the area is not suitable for hunting or fishing. However, if the surrounding land uses were to improve, the potential value of the W2 wetland as a recreation area would improve.

Educational/Scientific Value (Occurrence-No Principal-No): This value refers to the appropriateness of the wetland for use in scientific research or as an “outdoor classroom”. Wetland W2 is located in a suburban setting proximate to several local schools and, once the reuse plan is implemented, will be part of a preserved natural area open to the public. However, the history of past disturbances to the wetland and surroundings, and the prevalence of an invasive shrub (glossy buckthorn) reduce the potential value of the wetland for scientific study and research.

Uniqueness/Heritage (Occurrence-Yes; Principal-No): This value considers the suitability of the wetland to provide special values such as use of wetlands for aesthetic enjoyment, open space, preservation of rare or endemic species, protection of archaeologically or geologically unique features,

maintenance of historic sites, and a number of other primarily intangible uses. These functions are considered valuable attributes to aspects of public health, recreation, and habitat diversity. NAS South Weymouth represents one of the largest remaining tracts of undeveloped land in a predominantly suburban landscape within 20 miles of Boston, a major metropolitan center. Large forested wetlands on NAS South Weymouth, such as Wetland W2, represent some of the last intact forested wetlands in the local region that have not been destroyed or fragmented by development. However, the setting of Wetland W2 has been degraded by construction of the WGL, the Buoy Depot, the railroad to the west, and the NAS South Weymouth airfield to the east. Additionally, the presence of a non-native invasive plant species, glossy buckthorn, reduces its scientific and intrinsic value as a regionally exemplary wetland. Although Wetland W2 is a unique feature in the landscape and provides uniqueness/heritage value, it is not considered a principal value.

Visual Quality/Aesthetics (Occurrence-Yes; Principal-No): This value refers to the visual quality or usefulness of the wetland. Naturally vegetated wetlands provide aesthetically pleasing natural scenery that contrasts with, and provides visual relief from, urban landscape features. Urban wetlands are generally viewed by larger numbers of people than wetlands in rural or wilderness settings. Wetland W2 is presently located within a fenced portion of NAS South Weymouth that is not accessible to the public and not highly visible from public places (TtNUS, 2003). In addition, the setting of Wetland W2 has been degraded by the surrounding land uses, in particular by construction of the WGL, which was constructed in part within the historical boundary of this wetland. It is for these reasons that visual quality is not considered a principal value of this wetland.

Endangered Species Habitat (Occurrence-No; Principal-No): This value refers to the ability of the wetland to provide habitat suitable for supporting threatened or endangered species. The Massachusetts Natural Heritage and Endangered Species Program stated in 1998 that they do not have any records of State-protected rare plants or animals on NAS South Weymouth (Campbell, 1998). The history of physical disturbance to Wetland W2 and its adjoining uplands and the abundance of an invasive plant species suggests that the future discovery of protected species in the wetland is unlikely. However, two turtle species recognized as Massachusetts Species of Special Concern have been observed in forested wetlands near the WGL and have been the subject of recent investigations. These include the spotted turtle (*Clemmys guttata*) and the Eastern box turtle (*Terrapene carolina*) (ENSR, 2001). The results of these surveys indicate there were no observations of spotted turtles or Eastern box turtles in W2 (NAI 2004). Note that the spotted turtle was delisted as a Species of Special Concern in 2006. The northern harrier, which is listed as threatened under the Massachusetts Endangered Species Act, has been reportedly observed hover-hunting in the vicinity of the WGL (TtNUS, 2002). But it is unlikely that this species, which hunts over a large range, visits the wetland on more than a transient basis.

5.3 WEST BRANCH OF FRENCH STREAM CHANNEL

The section of the channel of the West Branch French Stream immediately east of the WGL does not support wetlands and does not adjoin any wetlands. Therefore, it cannot be evaluated as a wetland even though it does display some of the functions and values of wetlands. Because it lacks substantial emergent vegetation, the channel does not substantially contribute to functions related to the ability of vegetation to slow, detain, and alter the quality of surface water (groundwater recharge/discharge, floodflow alteration, sediment/toxicant retention, nutrient removal, or sediment/shoreline stabilization). As a small perennial headwater stream, the channel likely provides habitat for benthic macroinvertebrates and small fish, and likely exports (production export) these items to downstream aquatic food chains such as those in the Indian Head River and North River. Terrestrial wildlife inhabiting the vegetated uplands on and near the WGL likely use the stream channel as a drinking water source and, perhaps, as a source of fish and insect prey. Depending on the future development surrounding this stream, the channel could be of some value as recreation or as an educational/scientific resource, and it could contribute favorably to the aesthetics of the landscape once development proceeds. However, the channel was artificially straightened during construction of the airfield and therefore does not likely possess the uniqueness/heritage value typical of most natural streams. No known threatened or endangered species inhabit the stream channel and surrounding area associated with the West Branch of French Stream.

6.0 POTENTIAL FUNCTION-VALUE IMPACTS AND MITIGATION RECOMMENDATIONS

The potential impacts to wetland functions and values from the proposed remediation of the WGL and the potential benefits from the proposed mitigation are discussed below. The internal draft preliminary design report for WGL (TtNUS, 2003b) was used to evaluate the impact of the proposed mitigation to the wetlands.

6.1 PROPOSED ACTIVITIES IN WETLANDS

As initially conceptualized (TtNUS, 2003b), approximately 0.65 acres of Wetland W2 immediately adjoining the western edge of the WGL would be subject to shallow excavation to remove landfill waste and contaminated soil. The depth of excavation would be approximately 3 feet and the volume of excavation would be approximately 3,146 cubic yards (yd^3). The excavated material would be placed (consolidated) onto uplands comprising the top of the landfill. A low permeability soil cap would then be constructed over the entire landfill, including the consolidated material. Approximately 0.63 acre of the excavated area within Wetland W2 would then be filled with clean fill and topsoil to restore the original grade to allow for wetland restoration. The cap would be constructed to allow for the expansion of Wetland W2 by approximately 0.06 acre at the same elevation as other areas near the edge of the wetland. The restored and expanded wetland area (0.69 acre) would then be seeded with indigenous wetland plants. The resulting boundaries of Wetland W2 would only be slightly changed. The net area of Wetland W2 would be expanded by approximately 0.04 acre.

Wetland W1 (0.1 acres) will be permanently filled and covered by the landfill cap. Restoration of Wetland W1 as a depression within the landfill cap is not practicable. However, counting the net expansion of Wetland W2 by 0.04 acre and the complete loss of the 0.1 acre Wetland W1, there will be a net loss of wetlands at the WGL of 0.6 acres.

6.2 PROPOSED MITIGATION

The restored and expanded area in Wetland W2 would be filled with clean soil obtained from local sources to restore the disturbed area to preexcavation elevations. The upper 6-inches of fill would consist of clean topsoil. The soil surface would be appropriately limed, fertilized, and disked/harrowed to create a suitable seedbed. A wetland seed mixture consisting of regionally indigenous non-invasive wetland plants suited to site hydrology would be hand-seeded or hydroseeded over the restored wetland area. The timing of the seeding would be adjusted to coincide with optimal growing conditions. The

seeding would be monitored for successful germination and growth, and pre-grown, bare-root, or potted plants would be planted in any areas where successful seeding is not possible.

It is expected that regionally indigenous trees and shrubs would establish through natural succession. Red maple is presently dominant throughout Wetland W2, and the unimpacted areas of Wetland W2 would provide a substantial red maple seed source immediately adjoining the restored area. Red maple seed germinates readily on bare, wet soils (Walters and Yawney, 2003) and is fast growing once established. One source reports seedlings growing 10 to 12 feet in 5 years (Dirr, 1998), and another source reports trees growing 18 to 25 feet in 10 years (Thunhorst, 1993). Red maple is generally considered to readily establish in wet soils via natural succession and its ability to do so is, in fact, regarded by some sources as a threat to the reestablishment of other bottomland trees in cleared areas (Eyre, 1980). It is expected that after red maple establishes and resumes dominance in the restored wetlands, the woody understory and herbaceous groundcover typical of natural red maple forests would be reestablished in the shade.

6.3 EXPECTED LOSSES AND GAINS OF WETLAND FUNCTIONS AND VALUES

Table 2 summarizes the losses of wetland functions and values resulting from the remediation of the WGL. Excavation in Wetland W2 will result in the loss of approximately 0.65 acre of wetland performing the following functions and values: groundwater recharge/discharge (principal), floodflow alteration (principal), sediment/toxicant retention (principal), nutrient removal, production export, wildlife habitat (principal), educational/scientific value, uniqueness/heritage, and visual quality/aesthetics. The proposed restoration and expansion work at Wetland W2 will ultimately restore 0.63 acre of the impacted wetlands and expand Wetland W2 to include 0.06 acre of additional wetlands performing the same functions and values. The net expansion of Wetland W2 by 0.04 acre will offset some of the unavoidable permanent loss of Isolated Wetland W1. Table 2 demonstrates that all functions except for sediment/toxicant retention, will experience no net loss, and many functions will experience a net gain, as a result of the planned work. If the surface water runoff that is currently directed via culverts into Wetland W1 is rerouted into Wetland W2, the minor loss of sediment/toxicant retention function that is currently performed by Wetland W1 would likely be absorbed by the much larger Wetland W2 system without substantial negative impacts on the wetland.

Those functions and values not dependent on dense and/or mature vegetation would be regained immediately, while functions and values dependent on mature woody vegetation would be regained progressively over a 20- to 30-year period as seeded vegetation matures and natural forest vegetation returns via natural succession.

It is noted that the remedial design assumptions used in compiling Table 2 are only preliminary and are subject to change once the design is finalized. Furthermore, the analysis presented in Table 2 is simplistic in that it only quantifies losses and gains in terms of wetland area possessing the functions and values under consideration. It does not acknowledge that the losses to Wetland W2 would be limited to the outer (drier) edge of the wetland fringe rather than the interior. For many functions and values (e.g., wildlife habitat, visual quality/aesthetics, production export), loss of wetland acreage at the outer edge is less severe than loss of the same acreage in the interior, especially where the wetland adjoins open water. However, Table 2 still effectively demonstrates that implementation of a remedy that is at least conceptually similar to what is presently contemplated would not likely result in a significant net loss of wetland values or functions.

TABLES

TABLE 1

COMMON FUNCTIONS AND VALUES OF WETLANDS
WETLAND AND WATER RESOURCES DELINEATION AND FUNCTIONAL ASSESSMENT
WEST GATE LANDFILL
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS

FUNCTIONS	
Groundwater Recharge/ Discharge	Considers the potential for a wetland to serve as a groundwater recharge or discharge area (or both). Reflects the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.
Floodflow Alteration	Considers the effectiveness of the wetland in reducing flood damage by water retention for prolonged periods following precipitation events. Adds to the stability of the wetland ecological system or its buffering characteristics and provides social and economic value relative to erosion and flood control.
Fish and Shellfish Habitat	Represents the effectiveness of seasonal or permanent water courses associated with the wetland in question as fish and shellfish habitat.
Sediment/ Toxicant Retention	Considers the ability of a wetland to reduce or prevent degradation of water quality. Relates to the effectiveness of the wetland as a trap for sediments, toxicants, or pathogens in runoff water from surrounding uplands or upstream eroding areas.
Nutrient Removal	Represents the effectiveness of the wetland in trapping nutrients in runoff water from surrounding uplands or contiguous wetlands and the ability of the wetland to convert these nutrients into other chemical forms or trophic levels. One element is the ability of the wetland to prevent ill effects from nutrients entering aquifers or surface waters such as ponds, lakes, streams, rivers, and estuaries.
Production Export	Represents the effectiveness of the wetland in producing food or usable products for man and other living organisms.
Sediment/ Shoreline Stabilization	Represents the effectiveness of a wetland in stabilizing stream banks and shorelines against erosion.
Wildlife Habitat	Represents the effectiveness of the wetland as habitat for various types and populations of animals typically associated with wetlands and the wetland edge. Also represents the use of the wetland as habitat for migrating species and species dependent on the wetland at some time in their life cycles.
VALUES	
Recreation	Represents the suitability of the wetland and associated water courses in providing recreational opportunities such as canoeing, boating, fishing, hunting, and other active or passive activities.
Educational/ Scientific Value	Considers the suitability of the wetland as a site for an “outdoor classroom” or as a location for scientific study or research.
Uniqueness/ Heritage	Considers certain special characteristics of the wetland or its associated water bodies. These may include archaeological sites, critical habitat, overall health and appearance, role in the ecological system of the area, or relative importance as a typical wetland class for its geographic region.
Visual Quality/ Aesthetics	Represents the visual and aesthetic quality or usefulness of the wetland.
Endangered Species Habitat	Represents the suitability of the wetland in supporting species whose survival has been officially acknowledged as being threatened or endangered.

Sources: De Santo and Flieger, 1995.
USACE, 1995

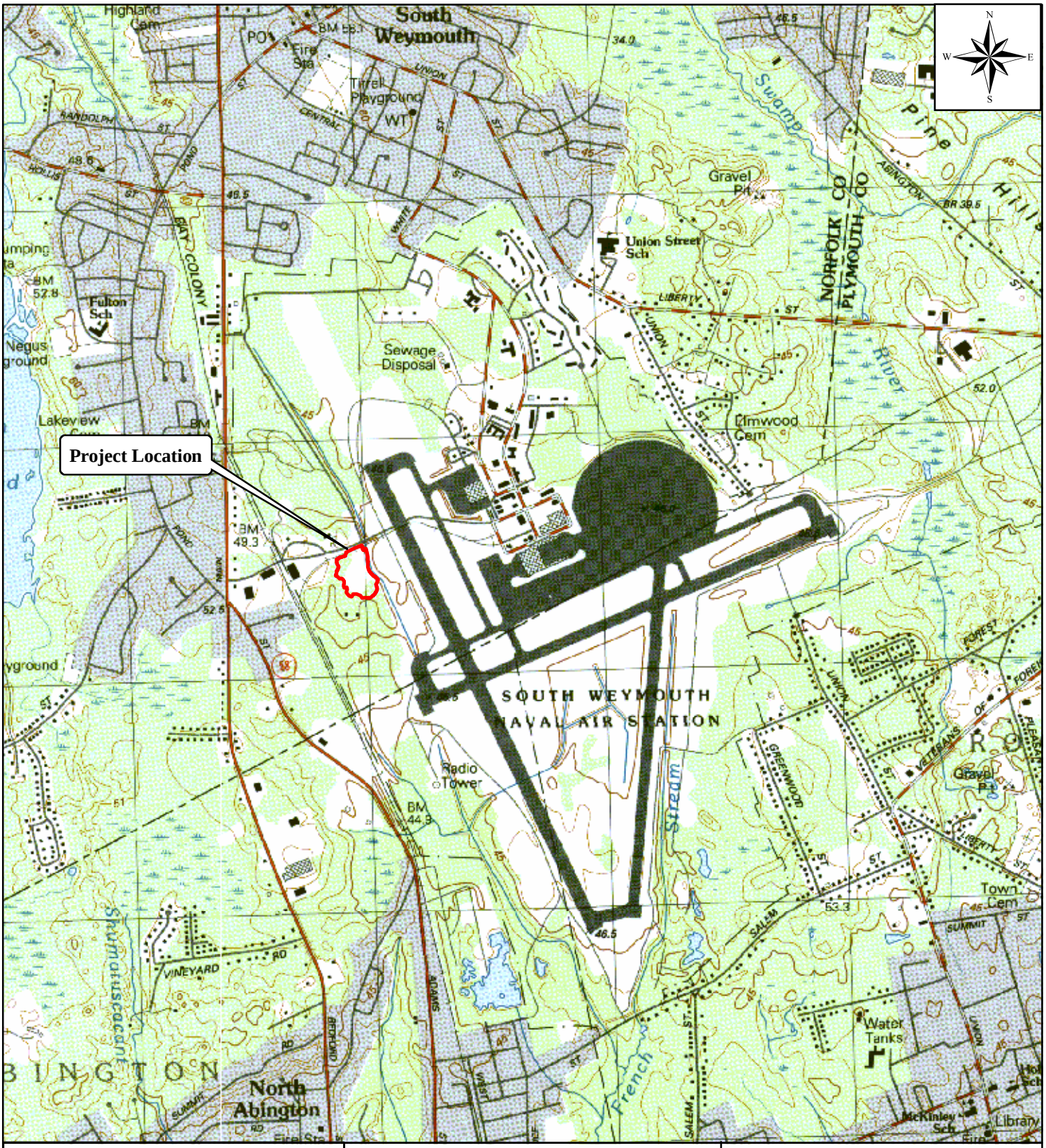
TABLE 2

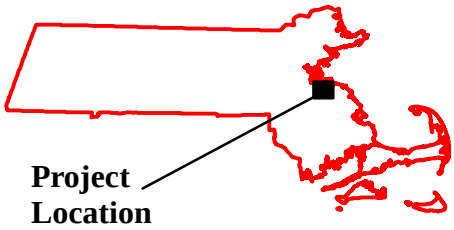
WETLAND FUNCTION-VALUE IMPACT SUMMARY TABLE
SITE 1 - WEST GATE LANDFILL
NAVAL AIR STATION SOUTH WEYMOUTH
WEYMOUTH, MASSACHUSETTS

Function or Value	Excavate in Wetland W2 (acres)	Restore/ Expand Wetland W2 (acres)	Fill and Cover Wetland W1 (acres)	Net Change (acres)
Principal Functions				
Groundwater Recharge/ Discharge	(0.65)	0.69	0	0.04
Floodflow Alteration	(0.65)	0.69	0	0.04
Sediment/ Toxicant Retention	(0.65)	0.69	(0.1)	(0.06)
Wildlife Habitat	(0.65)	0.69	0	0.04
Function/Value Occurring, Not Principal				
Nutrient Removal	(0.65)	0.69	0	0.04
Production Export	(0.65)	0.69	0	0.04
Uniqueness/ Heritage	(0.65)	0.69	0	0.04
Visual Quality/ Aesthetics	(0.65)	0.69	0	0.04
Not Occurring, Not Principal				
Fish and Shellfish Habitat	Not Applicable			
Sediment/ Shoreline Stabilization				
Recreation				
Educational/ Scientific Value				
Endangered Species Habitat				

Notes: Losses in (parentheses).

FIGURES





Source: USGS 24K Quad, Weymouth, Massachusetts, 1984.

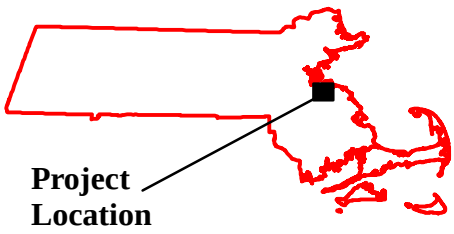
1,000500 0 1,000 2,000 3,000

Feet

Figure 1. Site Location for West Gate Landfill, NAS South Weymouth, Weymouth, Massachusetts

Prepared By: TETRA TECH, INC.

Date: 07/09



Source: NRCS Soils, MA Department of Agricultural Resources, Norfolk-Suffolk, Massachusetts, 2008; USGS Color Orthoimagery, 2008.

500 250 0 500

Feet

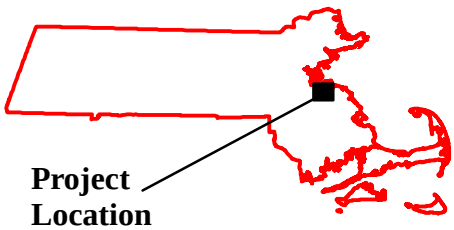
LEGEND

- WGL Landfill Boundary
- West Branch French's Stream
- Soil Boundaries

Figure 2. USDA NRCS Soils for West Gate Landfill, NAS South Weymouth, Weymouth Massachusetts.

Prepared By: TETRA TECH, INC.

Date: 07/09



Source: MA DEP Wetlands, Weymouth and Weir, 2007; USGS Color Orthoimagery, 2008.

500 250 0 500

Feet

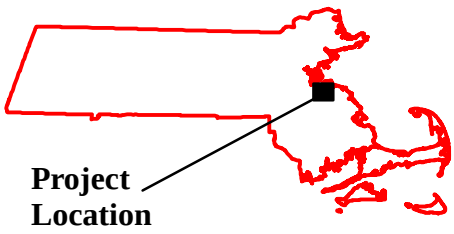
LEGEND

- WGL Landfill Boundary
- West Branch French's Stream
- Mass. DEP Fresh Water Wetlands

Figure 3. Massachusetts DEP Fresh Water Wetlands for West Gate Landfill, NAS South Weymouth, Weymouth, Massachusetts.

Prepared By: TETRA TECH, INC.

Date: 07/09



Source: USF&W, National Wetlands Inventory, 2006; USGS Color Orthoimagery, 2008.

500 250 0 500

Feet

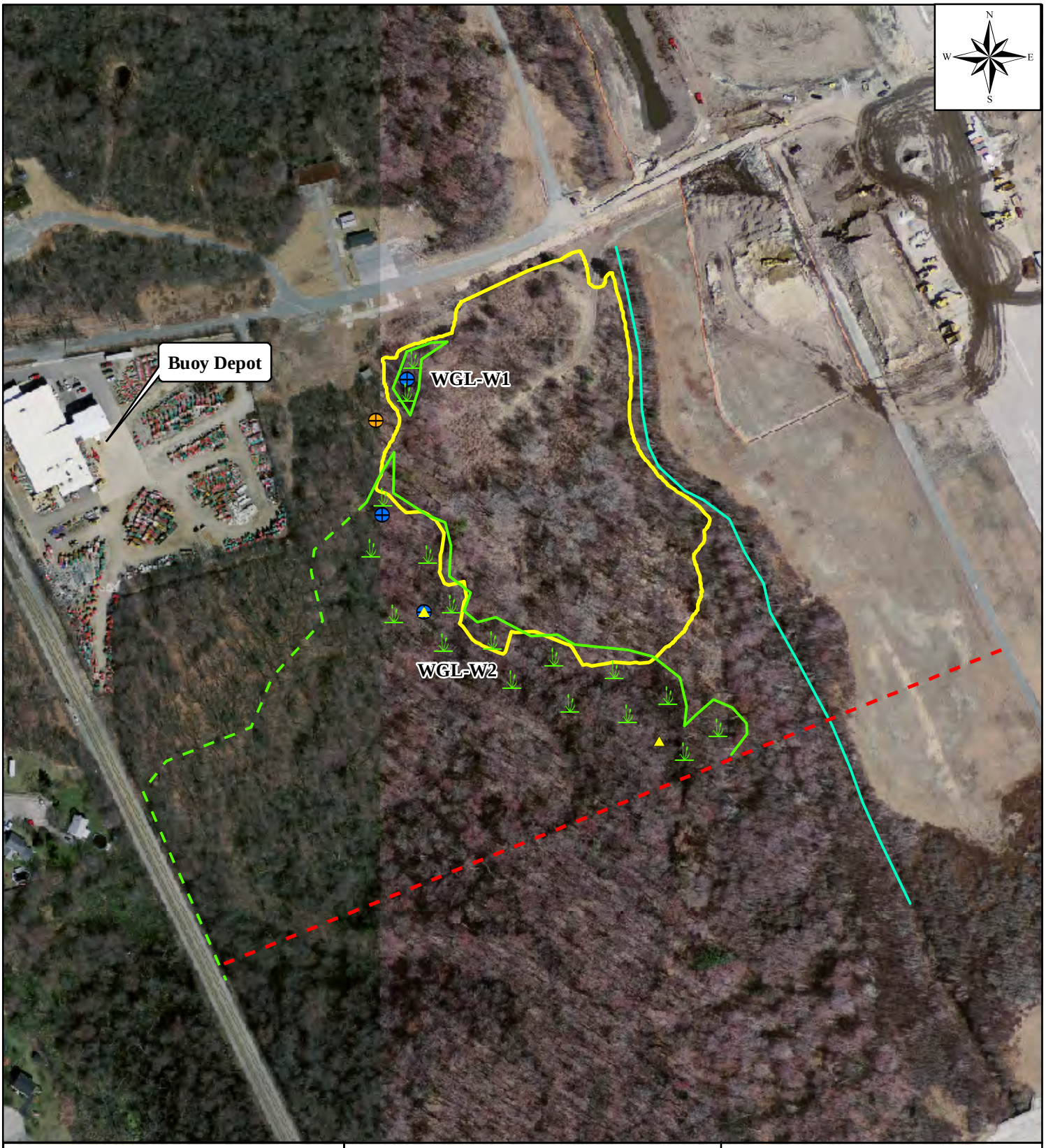
LEGEND

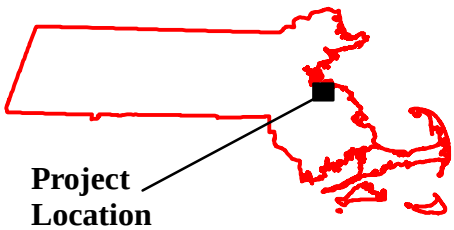
- WGL Landfill Boundary
- West Branch French's Stream
- PEM1E
- PFO1E
- PSS1E
- PSS1Ed
- PUBHx
- R2UBHx

Figure 4. NWI for West Gate Landfill, NAS South Weymouth, Weymouth, Massachusetts.

Prepared By: TETRA TECH, INC.

Date: 07/09





Source: Tetra Tech, 2009;
USGS Color Orthoimagery, 2008.

250 125 0 250

Feet

LEGEND

- WGL Landfill Boundary
- West Branch French's Stream
- Wetland Boundary - Surveyed
- Wetland Boundary - Approximate
- Vegetation Plot
- Wetland Plot
- Upland Plot
- Survey Limit

Figure 5. Tetra Tech Delineated Wetlands and Streams for West Gate Landfill, NAS South Weymouth, Weymouth, Massachusetts.

Prepared By: TETRA TECH, INC.

Date: 07/09

REFERENCES

Adamus, P. R., L. T. Stockwell, E. J. Clairain, Jr., M. E. Morrow, L. P. Rozas, and R. D. Smith. 1991. *Wetland Evaluation Technique (WET); Volume I: Literature Review and Evaluation Rationale*. Technical Report WRP-DE-2, U.S. Army Engineer Waterways Experiment Station, Vicksburg, Mississippi.

ATSDR (Agency for Toxic Substances and Disease Registry). 1999. *Public Health Assessment, South Weymouth Naval Air Station, South Weymouth, Norfolk County, Massachusetts*. September 30, 1999. http://www.atsdr.cdc.gov/HAC/PHA/weymouth/wey_toc.html.

Bartoldus, C.C. 1999. *A Comprehensive Review of Wetland Assessment Procedures: A Guide for Wetland Practitioners.* Environmental Concern, Inc. St. Michaels, MD. pp 17-18.

Campbell, C. L. 1998. Letter dated September 1, 1998 from C. L. Campbell of the Massachusetts Department of Fisheries, Wildlife, and Environmental Law Enforcement; Natural Heritage and Endangered Species Program to V. P. Frankenthaler of TAMS Consultants, Inc., Boston, Massachusetts. Subject: Naval Air Station South Weymouth, Weymouth, Massachusetts, NHESP File 96-1282. Included in *Draft Environmental Impact Statement, Disposal and Reuse of Naval Air Station South Weymouth, Massachusetts*, April 28, 1999.

Cowardin, L. M., V. Carter, F. C. Golet, and E. T. LaRoe. 1979. *Classification of Wetlands and Deepwater Habitats of the United States*. FWS/OBS-79/31, U.S. Fish and Wildlife Service, Office of Biological Services, Washington, DC.

DCG (Daylor Consulting Group). 2000. *Open Space and Recreation Plan, South Weymouth Naval Air Station, Abington, Rockland, and Weymouth, Massachusetts*. Daylor Consulting Group, Braintree, Massachusetts, March 3, 2000.

De Santo, R. S. and T. A. Flieger. 1995. *Wetland Functions and Values: Descriptive Approach to Visualizing and Assessing Wetland Systems*. Transportation Research Record 1475 (1995): 123-132, Transportation Research Board, National Research Council, Washington, DC.

Dirr, M. A. 1998. *Manual of Woody Landscape Plants*. Stipes Publishing L. L. C., Chicago, Illinois, revised 1998, original printing 1975.

EA (EA Engineering, Science, and Technology). 2000. *Draft Final Remedial Investigation Report for U.S. Coast Guard Integrated Support Detachment, South Weymouth Buoy Depot*. EA Engineering, Science, and Technology, Bedford, Massachusetts, December 2000.

Eyre, F. H., 1980. *Forest Cover Types of the United States and Canada*. Society of American Foresters, Washington, DC.

ENSR (ENSR International). 2001. *Calendar Year 2000 Report, Turtle Investigation Program*. ENSR International, Westford, Massachusetts, December 2001.

Environmental Laboratory. 1987. *Corps of Engineers Wetlands Delineation Manual*. Technical Report Y-87-1. U.S. Army Engineer Waterways Experiment Station, Vicksburg, Mississippi.

Hayes, D. F., T. J. Olin, J. C. Fischenich, and M. R. Palermo. 2000. *Wetlands Engineering Handbook*. Technical Report WRP-RE-21, March 2000, U.S. Army Engineer Waterways Experiment Station, Vicksburg, Mississippi.

Magee, D. W. 1988. *A Rapid Procedure for Assessing Wetland Functional Capacity Based on Hydrogeomorphic (HGM) Classification*. Association of State Wetlands Managers, Berne, New York.

Maine Natural Areas Program. Undated. *Maine Invasive Plant Fact Sheet – Common Buckthorn and Glossy Buckthorn*. State of Maine, Department of Conservation, Maine Natural Areas Program, Augusta, Maine.

Martin, A.C., H.S. Zim, and A.L. Nelson. 1961. American Widlife and Plants: A Guide To Widlife Food Habits. Dover Productions, Inc. New York, New York. First published by McGraw Hill Boo Company in 1951.

Massachusetts Department of Environmental Protection, Geographic Information Systems Group. 2007. Freshwater Wetlands, Weymouth and Wier Datalayer. http://www.mass.gov/mgis/wetdep.htm accessed June 4, 2009.

Nature Conservancy. 2001. *Invasive Plants Fact Sheet – Glossy Buckthorn (Rhamnus frangula), Buckthorn Family (Rhamnaceae)*. The Nature Conservancy, Connecticut Chapter, Middletown, Connecticut, May 17, 2001.

NAI (Normandeau Associates, Inc.). 2004. *Tri-Town Biological Surveys, Former Naval Air Station, South Weymouth, MA, Final Report*. Prepared by Normandeau Associates, Inc., Bedford, NH.

New England Hydric Soils Technical Committee (NEHSTC). 2004, 3rd ed. Field Indicators for Identifying Hydric Soils in New England. New England Interstate Water Pollution Control Commission. Wilmington, MA. P. 76.

RAI (Rizzo Associates, Inc.). 2001. Abbreviated Notice of Resource Area Delineation, Massachusetts Wetlands Protection Act (M.G.L. 131 Section 40) and Town of Weymouth Wetland Protection Bylaw (Chapter 119), Naval Air Station, Weymouth, Massachusetts. Submitted to Weymouth Conservation Commission, June 1, 2001.

Reed, P. B., Jr. 1988. *National List of Plant Species that Occur in the Northeast (Region 1*), U.S. Fish and Wildlife Service, Biological Report 88(26.1).

SCS (Soil Conservation Service). 1990. *Soil Survey, Weymouth Naval Air Station, South Weymouth, Massachusetts*. Prepared by U.S. Department of Agriculture, Soil Conservation Service, Amherst, Massachusetts, September 1990.

SSTTDC (South Shore Tri-Town Development Corporation). 1998. *An Act Authorizing the Establishment of the South Shore Tri-Town Development Corporation*. http://www.ssttdc.com/li_enabling_legislation.htm.

SSTTDC. 2001. *French Stream Aquifer Investigation*. October 1, 2001.

Swain, P.C. & J.B. Kearsley. 2001. Classification of the Natural Communities of Massachusetts. Version 1.3. Natural Heritage & Endangered Species Program, Division of Fisheries & Wildlife. Westborough, MA.

Thunhorst, G. A. 1993. *Wetland Planting Guide for the Northeastern United States*. Environmental Concern, St. Michaels, Maryland.

TtNUS. 2002. *Feasibility Study, West Gate Landfill, South Weymouth Naval Air Station*. Report No. 5060-071-400WGL, March 2002.

TtNUS. 2003a. *Internal Draft Wetland Functional Assessment for West Gate Landfill (Site 1), Naval Air Station South Weymouth, Weymouth, Massachusetts.* September, 2003.

TtNUS, 2003b. *Internal Draft Report: Cost Estimate for West Gate Landfill (Site 1), Naval Air Station South Weymouth, Weymouth, Massachusetts.* January, 2003.

United States Army Corps of Engineers (USACE) New England District. 1995. *The Highway Methodology Workbook Supplement – Wetland Functions and Values, A Descriptive Approach*.

United States Department of Agriculture, Soil Conservation Service (USDA/NRCS). 2008. Soil Survey Norfolk-Suffolk Counties. http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx. accessed June 4, 2009.

United States Department of the Interior, United States Fish and Wildlife Service (USFWS). 2006. National Wetland Inventory Wetland Map, 7.5-minute Series Quadrangle, Weymouth, Massachusetts.
United States Geological Survey (USGS). 2008. Color Ortho Imagery. Obtained from Massachusetts Office of Geographic and Environmental Information website, http://www.mass.gov/mgis/colororthos2008.htm accessed June 4, 2009.

United States Environmental Protection Agency (USEPA). 1994. *National Priorities List (NPL) Site Narrative for South Weymouth Naval Air Station*. Federal Register Notice: May 31, 1994. http://www.epa.gov/superfund/sites/npl/nar1392.htm.

United States Navy. 1999. *Draft Environmental Impact Statement, Disposal and Reuse of Naval Air Station South Weymouth, Massachusetts*. Northern Division, Naval Facilities Engineering Command, Lester, Pennsylvania, April 28, 1999.

United States Navy, 2009. Final *Pre-Design Investigation Quality Assurance Project Plan for West Gate Landfill, Naval Air Station South Weymouth, Weymouth, Massachusetts.* Naval Facilities Engineering Command Mid-Atlantic, February 23, 2009.

Walters, R. S. and H. W. Yawney. 2003. *Red Maple*. From *Trees of Western North Carolina*. http://www.wildwnc.org.

APPENDIX A

RESOURCE DELINEATION FIELD FORMS

PROJECT TITLE: Weymouth NAS TRANSECT: WGL-W1 PLOT: Wet 1

DELINEATOR(S): L. Eiser, S. Watts DATE: 061009

VEGETATION

Stratum and Species	Dominance Ratio	Percent Dominance	DOM	NWI Status
Seedlings & Herbs				
Juncus effusus	10/48	21	X	FACW+
Frangula alnus	20/48	42	X	FAC
Rubus hispidus	10/48	21	X	FACW
Unk. grass (Cinna	5/48	—		—
Carex lurida	2/48	—		—
Lycopus uniflorus	1/48	—		—
Shrubs				
F. alnus	70/70	100	X	FAC
Trees				
Acer. rubrum	15/15	100	X	FAC

HYDROPHYTES

OBL	FACW	FAC	*OTHER
	2	3	

Hydrophytes Subtotal (A): 5

NON-HYDROPHYTES

FAC-	FACU	UPL

Non-hydrophytes Subtotal (B): 0

PERCENT HYDROPHYTES (100A/A+B): 100

HYDROLOGY

☐ RECORDED DATA
Stream, lake, or tidal gage Identification: _____
Aerial photography Identification: _____
Other Identification: _____

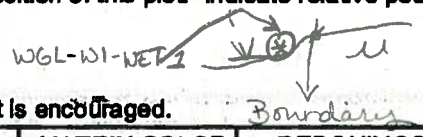
☐ NO RECORDED DATA

☒ OBSERVATIONS:
Depth to Free Water: —
Depth to Saturation (including capillary fringe): at surface
Altered Hydrology (explain): N/A

☐ Inundated ☒ Saturated in upper 12" ☒ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns within Wetland

☐ OTHER (explain):

SOIL Sketch landscape position of this plot. Indicate relative position of other plot(s) and the wetland flag if not on plan.



Submission of photo of plot is encouraged.

DEPTH (cm)	HORIZON	MATRIX COLOR	REDOXIMORPHIC FEATURES (color, abundance, size, contrast)	COMMENTS (USDA texture, nodules, concretions, masses, pore linings, restrictive layers, root distribution, soil water, etc.)
0-10	A	10 YR 2/1		silt loam
10-25	B1	10YR 2/1	7.5 YR 4/4	common & small oxidized root channels
25-44	B2	10 YR 3/1	5 YR 5/8 10 YR 7/6	common, small redox features & few, large inclusions

HYDRIC SOIL INDICATOR(S): F4- Depleted below dark surface.

REFERENCE(S): NRCS 2003

OPTIONAL SOIL DATA

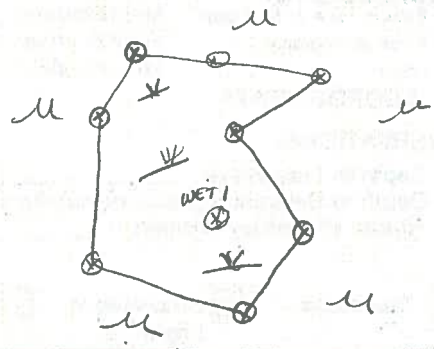
REFERENCE(S):

Taxonomic subgroup:
Soil drainage class:
Depth to active water table:
NTCHS hydric soil criterion:

CONCLUSIONS

	YES	NO
Hydrophytic vegetation criterion met?	☒	☐
Hydric soils criterion met?	☒	☐
Wetland hydrology criterion met?	☒	☐
IS THIS DATAPOINT IN A WETLAND?	☒	☐

REMARKS:



CENAE-COR-PT Version 7/1/00 Page 2

PROJECT TITLE: Weymouth NAS **TRANSECT:** WGL-W1 **PLOT:** WET 1

PROJECT TITLE: Weymouth NAS TRANSECT: WGL-W1/2 PLOT: UP 1

DELINEATOR(S): L. Eiser, S. Watts DATE: 061009

VEGETATION

Stratum and Species	Dominance Ratio	Percent Dominance	DOM	NWI Status
Seedlings & Herbs				
Parthenocissus quinquefolia	25/43	58	X	FACU
Toxicodendron radicans	10/43	23	X	FAC
Aralia nudicaulis	5/43	12	–	–
Frangula alnus	3/43	7	–	–
Shrubs				
Fralnus	45/50	90	X	FAC
Lonicera sp.	5/50	10	–	–
Vines				
T. radicans	5/7		X	FAC
P. quinquefolia	2/7		X	FACU
Trees				
A. rubrum	10/12	83	X	FAC
Quercus velutina	2/12	17	–	–

HYDROPHYTES

OBL	FACW	FAC	*OTHER
		4	

Hydrophytes Subtotal (A): 4

NON-HYDROPHYTES

FAC-	FACU	UPL
	2	

Non-hydrophytes Subtotal (B): 2

PERCENT HYDROPHYTES (100A/A+B): 67

HYDROLOGY

No Hydrology Indicators Observed

☐ RECORDED DATA
- Stream, lake, or tidal gage Identification: _____
- Aerial photography Identification: _____
- Other Identification: _____

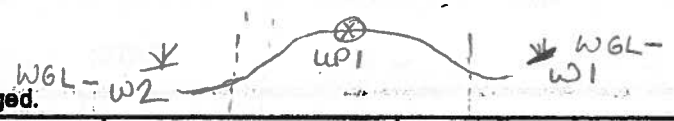
☐ NO RECORDED DATA

☐ OBSERVATIONS:
- Depth to Free Water: _____
- Depth to Saturation (including capillary fringe): _____
- Altered Hydrology (explain): _____

☐ Inundated ☐ Saturated in upper 12" ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns within Wetland

☐ OTHER (explain):

SOIL Sketch landscape position of this plot. Indicate relative position of other plot(s) and the wetland flag if not on plan.



Submission of photo of plot is encouraged.

DEPTH (cm)	HORIZON	MATRIX COLOR	REDOXIMORPHIC FEATURES (color, abundance, size, contrast)	COMMENTS (USDA texture, nodules, concretions, masses, pore linings, restrictive layers, root distribution, soil water, etc.)
0-3	A	7.5 YR 2.5/3	—	loam
3-25	B	10 YR 5/3	—	loam
* auger refusal @ 25 cm				

HYDRIC SOIL INDICATOR(S): **REFERENCE(S):**

No hydric soil indicators observed

OPTIONAL SOIL DATA **REFERENCE(S):**

Taxonomic subgroup:
Soil drainage class:
Depth to active water table:
NTCHS hydric soil criterion:

CONCLUSIONS

	YES	NO	REMARKS:
Hydrophytic vegetation criterion met?	☒	☐	
Hydric soils criterion met?	☐	☒	
Wetland hydrology criterion met?	☐	☒	
IS THIS DATAPOINT IN A WETLAND?	☐	☒	

PROJECT TITLE: Weymouth NAS **TRANSECT:** WGL-W1/2 **PLOT:** UP 1

PROJECT TITLE: Weymouth NAS TRANSECT: WGL-W2 PLOT: WET 1

DELINEATOR(S): L. Elser, S. Watts DATE: 061009

VEGETATION

Stratum and Species	Dominance Ratio	Percent Dominance	DOM	NWI Status
Herbs & Seedlings				
Acer rubrum	1/10	10		—
Maianthemum canadense	1/10	10		—
Lindera benzoin	3/10	30	X	FACW-
Clethra alnifolia	5/10	50	X	FAC+
Shrubs				
L. benzoin	35/70	50	X	FACW-
C. alnifolia	35/70	50	X	FAC+
Saplings N/A	—			
Trees				
A. rubrum	10/10	100		FAC

HYDROPHYTES

OBL	FACW	FAC	*OTHER
	2	3	

Hydrophytes Subtotal (A): 5

NON-HYDROPHYTES

FAC-	FACU	UPL

Non-hydrophytes Subtotal (B): ___

PERCENT HYDROPHYTES (100A/A+B): 100

HYDROLOGY

☐ RECORDED DATA
- Stream, lake, or tidal gage Identification: ___
- Aerial photography Identification: ___
- Other Identification: ___

☐ NO RECORDED DATA

☒ OBSERVATIONS:
- Depth to Free Water: ___
- Depth to Saturation (including capillary fringe): ___
- Altered Hydrology (explain): ___

☐ Inundated ☐ Saturated in upper 12" ☒ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns within Wetland

☒ OTHER (explain): Shallow root systems on large trees (A. rubrum)

SOIL Sketch landscape position of this plot. Indicate relative position of other plot(s) and the wetland flag if not on plan.

Submission of photo of plot is encouraged.

DEPTH	HORIZON	MATRIX COLOR	REDOXIMORPHIC FEATURES (color, abundance, size, contrast)	COMMENTS (USDA texture, nodules, concretions, masses, pore linings, restrictive layers, root distribution, soil water, etc.)
0-12	A	7.5 YR 2.5/1	—	loam, fibric
12-29	B	10YR 2/1	—	loam
* auger	refusal	@ 29 cm		

HYDRIC SOIL INDICATOR(S): F4- Depleted below dark surface **REFERENCE(S):** NRCS 2003.

NOTE: this sampling point is in close proximity to historically disturbed soils created by creation of the adjacent landfill (mounds visible @ landfill edge)

OPTIONAL SOIL DATA

REFERENCE(S):

Taxonomic subgroup:
Soil drainage class:
Depth to active water table:
NTCHS hydric soil criterion:

CONCLUSIONS

	YES	NO	REMARKS:
Hydrophytic vegetation criterion met?	☒	☐	
Hydric soils criterion met?	☐	☐	
Wetland hydrology criterion met?	☐	☐	
IS THIS DATAPOINT IN A WETLAND?	☐	☐	

PROJECT TITLE: Weymouth NAS **TRANSECT:** WGL-W2 **PLOT:** WET1

PROJECT TITLE: Weymouth NAS TRANSECT: WGL-W2 PLOT: WET 2

DELINEATOR(S): L. Eisier, S. Watts DATE: 061009

VEGETATION

Stratum and Species	Dominance Ratio	Percent Dominance	DOM	NWI Status
Herbs & Seedlings				
Clethra alnifolia	25/47	53	X	FAC+
Osmunda cinnomomea	15/47	32	X	FACW
Impatiens capensis	3/47	6		—
Frangula alnus	3/47	6		—
Arisaema triphylum	1/47	2		—
Saplings				
Ulmus rubra	2/2	100	X	FAC
Shrubs				
C. alnifolia	65/85	77	X	FAC+
Lindera benzoin	20/85	24	X	FACW-
Trees				
Acer rubrum	10/14	71	X	FAC
Fraxinus americana	2/14	14		
Quercus bicolor	2/14	14		

HYDROPHYTES

OBL	FACW	FAC	*OTHER
	2	4	

Hydrophytes Subtotal (A): 6

NON-HYDROPHYTES

FAC-	FACU	UPL

Non-hydrophytes Subtotal (B): 0

PERCENT HYDROPHYTES (100A/A+B): 100

HYDROLOGY

☐ RECORDED DATA
Stream, lake, or tidal gage Identification: _____
Aerial photography Identification: _____
Other Identification: _____

☐ NO RECORDED DATA

☒ OBSERVATIONS:
Depth to Free Water: _____
Depth to Saturation (including capillary fringe): _____
Altered Hydrology (explain): _____

☐ Inundated ☒ Saturated in upper 12" ☒ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns within Wetland

☒ OTHER (explain): shallow root systems on large trees

SOIL Sketch landscape position of this plot. Indicate relative position of other plot(s) and the wetland flag if not on plan.

Submission of photo of plot is encouraged.

DEPTH	HORIZON	MATRIX COLOR	REDOXIMORPHIC FEATURES (color, abundance, size, contrast)	COMMENTS (USDA texture, nodules, concretions, masses, pore linings, restrictive layers, root distribution, soil water, etc.)
0-40	A	10 YR 2/1	—	silt loam, fibric
40-50	B1	7.5 YR 2.5/2	—	silt clay loam
50-58	B2	10 YR 6/1	—	" " "

HYDRIC SOIL INDICATOR(S): A18 - Depletions below thick dark surface

REFERENCE(S): NRCS 2003

OPTIONAL SOIL DATA

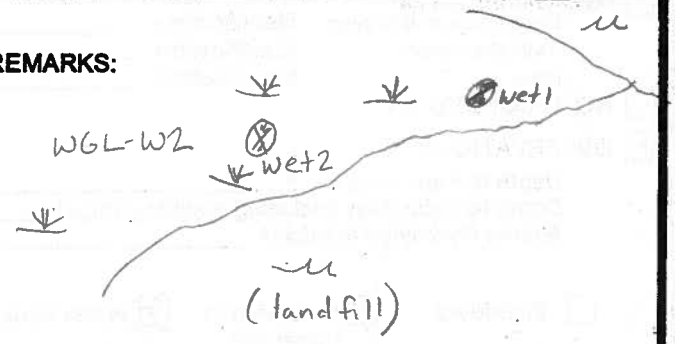
REFERENCE(S):

Taxonomic subgroup:
Soil drainage class:
Depth to active water table:
NTCHS hydric soil criterion:

CONCLUSIONS

	YES	NO
Hydrophytic vegetation criterion met?	☒	☐
Hydric soils criterion met?	☒	☐
Wetland hydrology criterion met?	☒	☐
IS THIS DATAPOINT IN A WETLAND?	☒	☐

REMARKS:



CENAE-COR-PT Version 7/1/99 Page 2

PROJECT TITLE: Weymouth NAS **TRANSECT:** WGL-W2 **PLOT:** WET 2

TETRA TECH

Water Resources Field Data Form	Data Sheet No.
Project Name: Exelon Victoria County Site Date: June 10, 2009 Surveyors: Photo: Roll _____ Frames _____	State/County: Texas, Victoria County Aerial Sheet No.: GPS Point No (s): Associated Data Sheet No(s): _____

Stream [X] Spring [ ] Water Well [ ]

Stream Information

Name: WGL-S1 Perceptible Flow Yes [X] No [ ] Direction of Flow: N → S	Stream Width: water ~10 ft. bank to bank ~10 ft. Perennial [ ] Intermittent [ ] Ephemeral [ ]

Probed Stream Depth	**Bottom Substrate**	**Observed Water Quality**
[ ] 0-6"	[ ] Shale	[ ] Clear
[X] 7-12"	[ ] Bedrock	[ ] Slightly Turbid
[ ] 13-24"	[X] Cobble/Gravel	[ ] Turbid
[ ] 25-36"	[X] Sand	[ ] Very Turbid
[ ] >36"	[ ] Silt/Clay	
	[ ] Organic	* ↑ iron precipitate

Aquatic Habitat	**Wildlife Observed (species)**	**Observed Use**
[ ] Sand Bar	[ ] Waterfowl _____	[ ] Drinking
[ ] Sand/Gravel Beach Bar	[ ] Fish _____	[ ] Irrigation
[ ] Mud Bar	[ ] Turtles _____	[ ] Swimming
[X] Overhanging Trees/Shrubs	[ ] Frogs _____	[ ] Fishing
[ ] Cobble Riffles	[ ] Invertebrates _____	[X] Drainage
[ ] Deep Pods/Holes	[ ] Salamanders _____	[ ] Boating
[ ] Aquatic Vegetation	[ ] Other: _____	[ ] Other: _____
[ ] Other: _____		

* a grate was observed @ N end adj. to road - possible draining former runway

Left Bank* Height and Slope		**Right Bank* Height and Slope**	
[X] 0-3' 3>	[ ] 0-20% (0-11°)	[X] 0-3' 3>	[ ] 0-20% (0-11°)
[ ] 3-6'	[ ] 21-50% (12-27°)	[ ] 3-6'	[ ] 21-50% (12-27°)
[ ] 6'+	[X] 51-100% (28-45°)	[ ] 6'+	[X] 51-100% (28-45°)

* Direction when facing downstream

Bank Substrate		**Erosion Potential**	**Channel Meander**
[ ] Shale	[X] Sand	[X] Low	[X] Low
[ ] Bedrock	[X] Silt/Clay	[ ] Moderate	[ ] Medium
[X] Cobble	[ ] Organic	[ ] High	[ ] High

* likely fill * pretty much stable w/ vegetation

Recommended Stream Crossing Technique

[ ] Directional drill [X] Flume [ ] Other: _____

[ ] Pump around with coffer dams [ ] Open-cut N/A

(over)

TETRA TECH

Stream Info Cont'd

Adjacent Vegetation Type: forest /shrub

Dominant Vegetative Species:

Trees: A. rubrum, B. populifolia, Q. rubra, F. americana

Shrubs: R. frangula, B. populifolia, Q. rubra, Q. alba

Herbs: S. alba, Dichanthelium, Impatiens capensis, C. vulpinoidea, Solidago, C. orbiculatus

Estimated % of canopy closure over stream channel:

[ ] 0-25% [ ] 26-50% [ ] 51-75% [X] 76-100%

Presence of threatened/endangered species (fish, reptiles, or amphibians)?

[X] Unknown [ ] No [ ] Yes (identify) Not likely – water matters

↑ iron precipitate & seepage from adj landfill

Spring Information

Approximate distance and direction from centerline:

Associated Wetland [ ] Yes: Data Form No.

[ ] No

Surrounding Land Use:

Associated Vegetation Type:

Water Well Information

Type: [ ] Private

[ ] Community

[ ] Municipal/Public

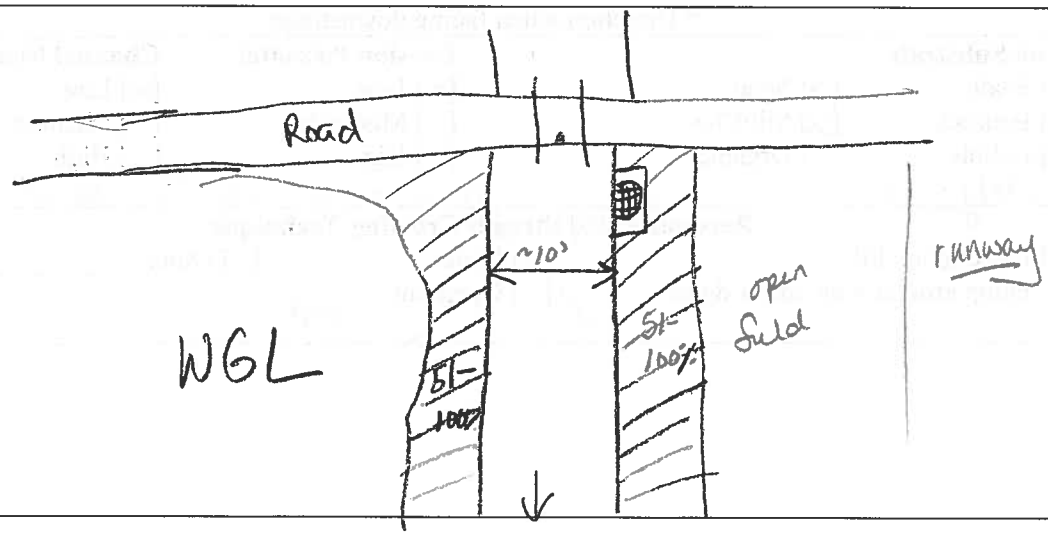
[ ] Unknown

Surrounding Land Use:

Approximate distance and direction from centerline:

Notes:

Sketch:



APPENDIX B

PHOTOGRAPHIC RECORD

TETRA TECH, INC.	
PHOTOGRAPHIC RECORD	
Location:	Naval Air Station South Weymouth, Weymouth, Massachusetts
Project:	West Gate Landfill
	Spring 2009 Wetland Functional Assessment
Survey Date:	June 10, 2009
Photo Number:	1

)

(1) WGL-W1/W2 Upland Plot - W

Photo 1 represents the upland observation point for Wetlands W1 and W2. The dominant species observed at this point included Virginia creeper, poison ivy, wild sarsaparilla, glossy buckthorn, and red maple.

TETRA TECH, INC.	
PHOTOGRAPHIC RECORD	
Location:	Naval Air Station South Weymouth, Weymouth, Massachusetts
Project:	West Gate Landfill
	Spring 2009 Wetland Functional Assessment
Survey Date:	June 10, 2009
Photo Number:	2 - 3

(2) WGL-W2 Wetland Plot 1 - SW

(3) WGL-W2 Wetland Plot 2 - W

Photo 2 shows one of two observation points in Wetland W2. This wetland plot was located towards the edge of the wetlands in the vicinity of historical ground disturbance associated with the WGL. Dominant plant species were sweet pepperbush, spicebush, and red maple. Photo 3 shows the center of Plot 4, the second wetland point in W2. Dominant species included sweet pepperbush, cinnamon fern, slippery elm, spicebush, and red maple.

TETRA TECH, INC.	
PHOTOGRAPHIC RECORD	
Location:	Naval Air Station South Weymouth, Weymouth, Massachusetts
Project:	West Gate Landfill
	Spring 2009 Wetland Functional Assessment
Survey Date:	June 10, 2009
Photo Number:	4 - 5

(4) Red Maple Root System - NA

(5) Reference Plot 2 - W

Photo 4 shows an example of the shallow root systems of a large red maple. This adaptation to low oxygen soil conditions was observed throughout W2 and indicates prolonged periods of flooding. Photo 5 shows the center of one of two vegetation reference plots in W2. Observed species included sweet pepperbush, glossy buckthorn, and red maple.

TETRA TECH, INC.	
PHOTOGRAPHIC RECORD	
Location:	Naval Air Station South Weymouth, Weymouth, Massachusetts
Project:	West Gate Landfill
	Spring 2009 Wetland Functional Assessment
Survey Date:	June 10, 2009
Photo Number:	6 - 7

(6) West Branch French's Stream (SE)

(7) West Branch French's Stream (NW)

Photos 6 and 7 show WB French's Creek to the southeast and north, respectively. Steep sideslopes and predominantly upland vegetation border this perennial stream channel which flows north to south along the eastern boundary of the WGL.

APPENDIX C

VEGETATION REFERENCE PLOT DATA

FORMER NAVAL AIR STATION SOUTH WEYMOUTH
WEST GATE LANDFILL
POST-REMEDIAL WETLANDS REFERENCE PLOT

Plot Number: R1 Investigators: Eiser, Watts Date: June 10, 2009

VEGETATION

Plant Species	Wetland Indicator Status	% Cover
5' Radius Plot		
Sweet Pepperbush (*Clethra alnifolia*)	FAC+	5
Spicebush (*Lindera benzoin*)	FACW-	3
Canada mayflower (*maianthemum canadense*)	FAC-	1
Red Maple (*Acer rubrum*)	FAC	1
15' Radius Plot		
Shrubs		
Spicebush (*Lindera benzoin*)	FACW-	35
Sweet Pepperbush (*Clethra alnifolia*)	FAC+	35
30' Radius Plot		
Red Maple (*Acer rubrum*)	FAC	10

*Dominant Species
Bold = invasive species

SOILS

Depth (cm)	Horizon	Description	Matrix Color	Redox Features
0 - 12	A	Loam, fibric	7.5YR 2.5/1	None
12 - 29	B	Loam	10YR 2/1	None
*Auger refusal at 29cm				

Notes: Soil saturated at surface

FORMER NAVAL AIR STATION SOUTH WEYMOUTH
WESTGATE LANDFILL
POST-REMEDIAL WETLANDS REFERENCE PLOT

Plot Number: R2 Investigators: Eiser, Watts Date: June 10, 2009

VEGETATION

Plant Species	Wetland Indicator Status	% Cover
5' Radius Plot		
Sweet Pepperbush (*Clethra alnifolia*)	FAC+	5
Glossy Buckthorn (*Frangula alnus*)	FAC	3
15' Radius Plot		
Shrubs		
Sweet Pepperbush (*Clethra alnifolia*)	FAC+	35
Glossy Buckthorn (*Frangula alnus*)	FAC	35
30' Radius Plot		
Red Maple (*Acer rubrum*)	FAC	15

*Dominant Species
Bold = invasive species

SOILS

Depth (in)	Horizon	Description	Matrix Color	Redox Features
0 - 33	A	Silt Loam	7.5YR 2.5/1	None
33 - 35	B1	Silty Clay Loam	7.5YR 2.5/2	None
35 - 50	B2	Silty Clay Loam	7.5YR 2.5/2	None

Notes: Soil saturated at surface
Free water in pit at 40cm

APPENDIX D

LIST OF CONSIDERATIONS USED IN FUNCTIONAL ASSESSMENT
WETLAND FUNCTIONS AND VALUES DESCRIPTIVE APPROACH
U.S. ARMY CORPS OF ENGINEERS, NEW ENGLAND DISTRICT
HIGHWAY METHODOLOGY

(Source: De Santo and Flieger, 1995)

Appendix A

Wetland evaluation supporting documentation and reproducible forms.

Below is an example list of considerations that was used for a New Hampshire highway project. Considerations are flexible, based on best professional judgement and interdisciplinary team consensus. This example provides a comprehensive base, however, and may only need slight modifications for use in other projects.

GROUNDWATER RECHARGE/DISCHARGE— This function considers the potential for a wetland to serve as a groundwater recharge and/or discharge area. It refers to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

CONSIDERATIONS/QUALIFIERS

1 Public or private wells occur downstream of the wetland.
2. Potential exists for public or private wells downstream of the wetland.
3. Wetland is underlain by stratified drift.
4. Gravel or sandy soils present in/or adjacent to the wetland.
5. Fragipan does not occur in the wetland.
6. Fragipan, impervious soils, or bedrock, does occur in the wetland.
7. Wetland is associated with a perennial or intermittent watercourse.
8. Signs of groundwater recharge are present or piezometer data demonstrates recharge.
9. Wetland is associated with a watercourse, but lacks a defined outlet or contains a constricted outlet.
10. Wetland contains only an outlet.
11. Groundwater quality of stratified drift aquifer within or downstream of wetland meets drinking water standards.
12. Quality of water associated with the wetland is high.
13. Signs of groundwater discharge are present (e.g. springs).
14. Water temperature suggests it is a discharge site.
15. Wetland shows signs of variable water levels.
16. Gravel or sandy soils present in or adjacent to wetland.
17. Piezometer data demonstrates discharge.
18. Other

FLOODFLOW ALTERATION (Storage & Desynchronization) — This function considers the effectiveness of the wetland in reducing flood damage by water retention for prolonged periods following precipitation events and the gradual release of floodwaters. It adds to the stability of the wetland ecological system or its buffering characteristics and provides social or economic value relative to erosion and/or flood prone areas.

CONSIDERATIONS/QUALIFIERS

1. Area of this wetland is large relative to its watershed.
2. Wetland occurs in the upper portions of its watershed.
3. Effective flood storage is small or non-existent upslope of or above the wetland.
4. Wetland watershed contains a high degree of impervious surfaces.
5. Wetland contains hydric soils which are able to absorb and detain water.
6. Wetland exists in a relatively flat area that has flood storage potential.
7. Wetland has an intermittent outlet, ponded water, or signs are present of variable water level.
8. During flood events, this wetland can retain higher volumes of water than under normal or average rainfall conditions.
9. Wetland receives and retains overland or sheet flow runoff from surrounding uplands.
10. In the event of a large storm, this wetland may receive and detain excessive flood water from a nearby watercourse.
11. Valuable properties, structures or resources are located in or near the floodplain downstream from the wetland.
12. The watershed has a history of economic loss due to flooding.
13. This wetland is associated with one or more watercourses.
14. This wetland watercourse is sinuous or diffuse.
15. This wetland outlet is constricted.
16. Channel flow velocity is affected by this wetland.
17. Land uses downstream are protected by this wetland.
18. This wetland contains a high density of vegetation.
19. Other

FISH AND SHELLFISH HABITAT — This function considers the effectiveness of seasonal or permanent watercourses associated with the wetland in question for fish and shellfish habitat.[1]

CONSIDERATIONS/QUALIFIERS

1. Forest land dominant in the watershed above this wetland.
2. Abundance of cover objects present.

STOP HERE IF THIS WETLAND IS NOT ASSOCIATED WITH A WATERCOURSE

3. Size of this wetland is able to support large fish/shellfish populations.
4. Wetland is part of a larger, contiguous watercourse.
5. Wetland has sufficient size and depth in open water areas so as not to freeze solid and retains some open water during winter.
6. Stream width (bank to bank) is more than 50 feet.
7. Quality of the watercourse associated with this wetland is able to support healthy fish/shellfish populations.
8. Streamside vegetation provides shade for the watercourse.
9. Spawning areas are present (submerged vegetation or gravel beds).
10. Food is available to fish/shellfish populations within this wetland.
11. Barrier(s) to anadromous fish (such as dams, including beaver dams, water falls, road crossing, etc.) are absent from the stream reach associated with this wetland.
12. Evidence of fish is present.
13. Wetland is stocked with fish.
14. The watercourse is persistent.
15. Man-made streams are absent.
16. Water velocities are not too excessive for fish usage.
17. Defined stream channel is present.
18. Other

SEDIMENT/TOXICANT/PATHOGEN RETENTION —This function reduces or prevents degradation of water quality. It relates to the effectiveness of the wetland as a trap for sediments, toxicants, or pathogens in runoff water from surrounding uplands, or upstream erod-

ing wetland areas.

CONSIDERATIONS/QUALIFIERS

1. Potential sources of excess sediment are in the watershed above the wetland.
2. Potential or known sources of toxicants are in the watershed above the wetland.
3. Opportunity for sediment trapping by slow moving water or deepwater habitat are present in this wetland.
4. Mineral, fine grained, or organic soils are present.
5. Long duration water retention time is present in this wetland.
6. Public or private water sources occur downstream.
7. The wetland edge is broad and intermittently aerobic.
8. The wetland is known to have existed for more than 50 years.
9. Drainage ditches have not been constructed in the wetland.

STOP HERE IF WETLAND IS NOT ASSOCIATED WITH A WATERCOURSE.

10. Wetland is associated with an intermittent or perennial stream, or a lake.
11. Channelized flows have visible velocity decreases in the wetland.
12. Effective floodwater storage in wetland is occurring. Areas of impounded open water are present.
13. No indicators of erosive forces are present. No high water velocities are present.
14. Diffuse water flows are present in the wetland.
15. Wetland has a high degree of water and vegetation interspersion.
16. Dense vegetation provides opportunity for sediment trapping and/or signs of sediment accumulation is present by dense vegetation.
17. Other

NUTRIENT REMOVAL/RETENTION/TRANSFORMATION — This function considers the effectiveness of the wetland as a trap for nutrients in runoff water from surrounding uplands or contiguous wetlands, and the ability of the wetland to process these nutrients into other forms or trophic levels. One aspect of this function is to prevent ill effects of nutrients entering aquifers or surface waters such as ponds, lakes, streams, rivers or estuaries.

CONSIDERATIONS/QUALIFIERS

1. Wetland is large relative to the size of its watershed.
2. Deep water or open water habitat exists.
3. Overall potential for sediment trapping exists in the wetland.
4. Potential sources of excess nutrients present in the watershed above the wetland.
5. Wetland saturated for most of the season. Ponded water is present in the wetland.
6. Deep organic/sediment deposits are present.
7. Slowly drained mineral, fine grained, or organic soils, are present.
8. Dense vegetation is present.
9. Emergent vegetation and/or dense woody stems are dominant.
10. Aquatic diversity/abundance sufficient to utilize nutrients.
11. Opportunity for nutrient attenuation exists.
12. Vegetation diversity/abundance sufficient to utilize nutrients.

STOP HERE IF WETLAND IS NOT ASSOCIATED WITH A WATERCOURSE.

13. Waterflow through this wetland is diffuse.
14. Water retention/detention time in this wetland is increased by constricted outlet or thick vegetation.
15. Water moves slowly through this wetland.
16. Other

PRODUCTION EXPORT (Nutrient) — This function evaluates the effectiveness of the wetland to produce food or usable products for man or other living organisms.

CONSIDERATIONS/QUALIFIERS

1. Wildlife food sources grow within this wetland.
2. Detritus development is present within this wetland
3. Economically or commercially used products found in this wetland.

4. Evidence of wildlife use found within this wetland.
5. Higher trophic level consumers are utilizing this wetland.
6. Fish or shellfish develop or occur in this wetland.
7. High vegetation density is present.
8. Wetland exhibits high degree of plant community structure/species diversity.
9. High aquatic diversity/abundance is present.
10. Nutrients exported in wetland watercourses (permanent outlet present).
11. "Flushing" of relatively large amounts of organic plant material occurs from this wetland.
12. Wetland contains flowering plants which are used by nectar-gathering insects.
13. Indications of export are present.
14. High production levels occurring however, no visible signs of export (assumes export is attenuated).
15. Other

SEDIMENT/SHORELINE STABILIZATION — This function considers the effectiveness of a wetland to stabilize stream banks and shorelines against erosion.

CONSIDERATIONS/QUALIFIERS

1. Indications of erosion, siltation present.
2. Topographical gradient is present in wetland.
3. Potential sediment sources are present up-slope.
4. No distinct shoreline or bank is evident between the waterbody and the wetland or upland.
5. A distinct step between the open waterbody or stream and the adjacent land exists (i.e. sharp bank) with dense roots throughout.
6. Wide wetland (>10') bordering watercourse, lake, or pond.
7. High flow velocities in the wetland.
8. Potential sediment sources present upstream.
9. The watershed is of sufficient size to produce channelized flow.
10. Open water fetch is present.
11. Boating activity is present.
12. Dense vegetation is bordering watercourse, lake, or pond.
13. High percentage of energy absorbing emergents and/or shrubs bordering watercourse, lake or pond.
14. Vegetation comprised of large trees and shrubs which withstand major flood events or erosive incidents and stabilize the shoreline on a large scale (feet).
15. Vegetation comprised of dense resilient herbaceous layer which stabilizes sediments and the shoreline on a small scale (inches) during minor flood events or potentially erosive events.
16. Other

WILDLIFE HABITAT — This function considers the effectiveness of the wetland to provide habitat for various types and populations of animals typically associated with wetlands and the wetland edge. Both resident and/or migrating species must be considered. Species lists of observed and potential animals should be included in the wetland assessment report.[2]

CONSIDERATIONS/QUALIFIERS

1. Wetland is not degraded by human activity.
2. Water quality of the watercourse, pond, or lake associated with this wetland meets or exceeds Class A or B standards.
3. Wetland is not fragmented by development.
4. Upland surrounding this wetland is undeveloped.
5. More than 40% of this wetland edge is bordered by upland wildlife habitat (e.g.brushland, wood land, active farmland, or idle land) at least 500 feet in width.
6. Wetland contiguous with other wetland systems connected by watercourse or lake.
7. Wildlife overland access to other wetlands is present.
8. Wildlife food sources are within this wetland or are nearby.

9. Wetland exhibits a high degree of interspersion of vegetation classes and/or open water.
10. Two or more islands or inclusions of upland within the wetland are present.
11. Dominant wetland class includes deep or shallow marsh or wooded swamp.
12. More than three acres of shallow permanent open water (less than 6.6 feet deep), including streams in or adjacent to wetland are present.
13. Density of the wetland vegetation is high.
14. Wetland exhibits a high degree of plant species diversity.
15. Wetland exhibits a high degree of diversity in plant community structure (e.g. tree/shrub/vine /grasses/mosses/etc.)
16. Plant/animal indicator species present.
17. Animal signs observed (tracks, scats, nesting areas, etc.)
18. Seasonal uses vary for wildlife, and wetland appears to support varied population diversity/abundance during different seasons.
19. Wetland contains or has potential to contain a high population of insects.
20. Wetland contains or has potential to contain large amphibian populations.
21. Wetland has a high avian utilization or its potential.
22. Indications of less disturbance-tolerant species present.
23. Signs of wildlife habitat enhancement present (birdhouses, nesting boxes, food sources, etc.).
24. Other

RECREATION (Consumptive and Non-Consumptive) — This value considers the suitability of the wetland and associated watercourses to provide recreational opportunities such as hiking, canoeing, boating, fishing, hunting and other active or passive recreational activities. Consumptive opportunities consume or diminish the plants, animals, or other resources that are intrinsic to the wetland. Non-consumptive opportunities do not consume or diminish these resources of the wetland.

CONSIDERATIONS/QUALIFIERS

1. Wetland is part of a recreation area, park, forest, or refuge.
2. Fishing is available within or from the wetland.
3. Hunting is permitted in the wetland.
4. Hiking occurs or has potential to occur within the wetland.
5. Wetland is a valuable wildlife habitat.
6. The watercourse, pond, or lake, associated with the wetland is unpolluted.
7. High visual/aesthetic quality of this potential recreation site.
8. Access to water is available at this potential recreation site for boating, canoeing, or fishing.
9. The watercourse associated with this wetland is wide and deep enough to accommodate canoeing and/or non-powered boating.
10. Off-road public parking available at the potential recreation site.
11. Accessibility and travel ease is present at this site.
12. The wetland is within a short drive or safe walk from highly populated public and private areas.
13. Other

EDUCATIONAL/SCIENTIFIC VALUE — This value considers the suitability of the wetland as a site for an "outdoor classroom" or as a location for scientific study or research.

CONSIDERATIONS/QUALIFIERS

1. Wetland contains or is known to contain threatened, rare, or endangered species.
2. Little or no disturbance is occurring in this wetland.
3. Potential educational site contains a diversity of wetland classes which are accessible or potentially accessible.
4. Potential educational site is undisturbed and natural.
5. Wetland is considered to be a valuable wildlife habitat.

6. Wetland is located within a nature preserve or wildlife management area.
7. Signs of wildlife habitat enhancement present (bird houses, nesting boxes, food sources, etc.).
8. Off-road parking at potential educational site suitable for school bus access in or near wetland.
9. Potential educational site is within safe walking distance or a short drive to schools.
10. Potential educational site within safe walking distance to other plant communities.
11. Direct access to perennial stream at potential educational site available.
12. Direct access to pond or lake at potential educational site available.
13. No known safety hazards within the potential educational site.
14. Public access to the potential educational site is controlled.
15. Handicap accessibility is available.
16. Site is currently used for educational or scientific purposes.
17. Other

UNIQUENESS/HERITAGE — This value considers the effectiveness of the wetland or its associated waterbodies to provide certain special values. These may include archaeological sites, critical habitat for endangered species, its overall health and appearance, its role in the ecological system of the area, its relative importance as a typical wetland class for this geographic location. These functions are clearly valuable wetland attributes relative to aspects of public health, recreation, and habitat diversity.

CONSIDERATIONS/QUALIFIERS

1. Upland surrounding wetland primarily urban.
2. Upland surrounding wetland developing rapidly.
3. More than 3 acres of shallow permanent open water occur in wetlands (less than 6.6 feet deep) including streams .
4. Three or more wetland classes present.
5. Deep and/or shallow marsh, or wooded swamp dominate.
6. High degree of interspersion of vegetation and/or open water occurring in this wetland.
7. Well-vegetated stream corridor (15 feet on each side of the stream) occurs in this wetland.
8. Potential educational site is within a short drive or a safe walk from schools.
9. Off-road parking at potential educational site is suitable for school buses.
10. No known safety hazards exist within this potential educational site.
11. Direct access to perennial stream or lake at potential educational site.
12. Two or more wetland classes visible from primary viewing locations.
13. Low-growing wetlands (marshes, scrub-shrub, bogs, open water) visible from primary viewing locations.
14. Half an acre of open water or 200 feet of stream is visible from the primary viewing locations.
15. Large area of wetland is dominated by flowering plants, or plants which turn vibrant colors in different seasons.
16. General appearance of the wetland visible from primary viewing locations is unpolluted and/or undisturbed.
17. Overall view of the wetland is available from the surrounding upland.
18. Quality of the water associated with the wetland is high.
19. Opportunities for wildlife observations are available.
20. Historical buildings occur within the wetland.
21. Presence of pond or pond site and remains of a dam occur within the wetland.
22. Wetland within 50 yards of the nearest perennial watercourse.
23. Visible stone or earthen foundations, berms, dams, standing structures or associated features occur within the wetland.
24. Wetland contains critical habitat for a state or federally listed threatened or endangered species.
25. Wetland is known to be a study site for scientific research.
26. Wetland is a natural landmark or recognized by the state natural heritage inventory authority as an exemplary natural community.
27. Wetland has local significance because it serves several functional values.

28. Wetland has local significance because it has biological, geological, or other features which are locally rare or unique.
29. Wetland is known to contain an important archaeological site.
30. Wetland is hydrologically connected to a state or federally designated scenic river.
31. Wetland is located in an area experiencing a high wetland loss rate.
32. Other

VISUAL QUALITY/AESTHETICS — This value considers the visual and aesthetic quality or usefulness of the wetland.

CONSIDERATIONS/QUALIFIERS

1. Multiple wetland classes visible from primary viewing locations.
2. Emergent marsh and/or open water visible from primary viewing locations.
3. Diversity of vegetation species visible from primary viewing locations.
4. Wetland dominated by flowering plants, or plants which turn vibrant colors in different seasons.
5. Land use surrounding the wetland is undeveloped as seen from primary viewing locations.
6. Visible surrounding land use form contrasts with wetland.
7. Wetland views absent of trash, debris, and signs of disturbance.
8. Wetland is considered to be a valuable wildlife habitat.
9. Wetland is easily accessed.
10. Low noise level at primary viewing locations.
11. Unpleasant odors absent at primary viewing locations.
12. Relatively unobstructed sight line exists through wetland.
13. Other

ES

ENDANGERED SPECIES HABITAT — This value considers the suitability of the wetland to support threatened or endangered species.

CONSIDERATIONS/QUALIFIERS

1. Wetland contains or is known to contain threatened or endangered species.
2. Wetland contains critical habitat for a state or federally listed threatened or endangered species.
3. Other

1 Although the above example refers to freshwater wetlands, it can also be adapted for marine ecosystems. Below is an example of an adaptation for the fish and shellfish function provided by the National Marine Fisheries Service.

FISH AND SHELLFISH HABITAT — This function considers the effectiveness of wetlands, embayments, tidal flats, vegetated shallows, and other environments in supporting marine resources such as fish, shellfish, marine mammals, and sea turtles.

CONSIDERATIONS/QUALIFIERS (Marine)

1. Special aquatic sites (tidal marsh, mud flats, eelgrass beds) are present.
2. Suitable spawning habitat is present at the site or in the area.
3. Commercially or recreationally important species are present or suitable habitat exists.
4. The wetland/waterway supports prey for higher trophic level marine organisms.
5. The waterway provides migratory habitat for anadromous fish.
6. Other

2 In March 1995 a rapid wildlife habitat assessment method was completed by a University of Massachusetts research team, with funding and oversight provided by the New England Transportation Consortium. The method is called WEThings (wetland habitat indicators for non- game species). It produces a list of potential wetland- dependent mammals, reptiles, and amphibian species that may be present in the wetland. The output is based on observable habitat characteristics documented on the field data form. This method may be used to generate the wildlife species list recommended as backup information to the wetland evaluation form, and to augment the considerations. Use of this method should first be coordinated with the Corps project manager. A computer program is also available to expedite this process.

APPENDIX E

WETLAND FUNCTION-VALUE EVALUATION FORMS
WETLAND FUNCTIONS AND VALUES DESCRIPTIVE APPROACH
U.S. ARMY CORPS OF ENGINEERS, NEW ENGLAND DISTRICT
HIGHWAY METHODOLOGY

Wetland Function-Value Evaluation Form

Total area of wetland 0.02 ac Human made? Y Is wetland part of a wildlife corridor? N or a "habitat island"? N

Adjacent land use Landfill, Forest Distance to nearest roadway or other development < 100 ft.

Dominant wetland systems present PFO Contiguous undeveloped buffer zone present N

Is the wetland a separate hydraulic system? Y If not, where does the wetland lie in the drainage basin? Isolated

How many tributaries contribute to the wetland? Ø Wildlife & vegetation diversity/abundance (see attached list)

Wetland I.D. WGL-W1

Latitude — Longitude —

Prepared by: SW Date 6/10/2009

Wetland Impact:
Type remediation Area

Evaluation based on:
Office ✓ Field ✓

Corps manual wetland delineation completed? Y ✓ N

Function/Value	Suitability Y	Suitability N	Rationale (Reference #)*	Principal Function(s)/Value(s)	Comments
Groundwater Recharge/Discharge	✓		4,5,15,8		GW recharge site likely, but minor influence overall b/c of small size of ⚶.
Floodflow Alteration	✓		5,7,8,9,1	✓	Culvert drains into ⚶. Potential floodwater storage in ⚶ basin.
Fish and Shellfish Habitat		✓	N/A		No fish or shellfish habitat in ⚶.
Sediment/Toxicant Retention	✓		1,2,4,5,9	✓	⚶ appears to be similar to/designed as a sediment retention basin, w/ culvert feeding ⚶ basin.
Nutrient Removal	✓		3,4,7		Nutrient removal potential present, but likely low due to low density of veg community in ⚶, and small size of ⚶.
Production Export	✓		1,2,4,12		Production is low due to small size and sparse vegetation.
Sediment/Shoreline Stabilization		✓	N/A		No watercourses assoc. w/ ⚶
Wildlife Habitat	✓		7,8,17		Animal tracks in ⚶. Use of ⚶ by wildlife is likely low due to sm. size and low diversity of habitat and sparse herb/shrub veg.
Recreation		✓	12		⚶ is not desirable or accessible site for recreation activities.
Educational/Scientific Value		✓	8,9,10,14		No known educational/scientific use or availability for future use at site.
Uniqueness/Heritage		✓	17,31		Small size and lack of diversity = low U/H value.
Visual Quality/Aesthetics		✓	9,10		Adjacent landfill detracts from visual quality/aesthetics of ⚶.
ES Endangered Species Habitat		✓	N/A		No known ES.
Other					

Notes:

* Refer to backup list of numbered considerations.

Wetland Function-Value Evaluation Form

Total area of wetland 30.3 Human made? N Is wetland part of a wildlife corridor? Y or a "habitat island"? N

Adjacent land use Landfill Distance to nearest roadway or other development <100 ft.

Dominant wetland systems present PFO Contiguous undeveloped buffer zone present N

Is the wetland a separate hydraulic system? N If not, where does the wetland lie in the drainage basin? Headwaters

How many tributaries contribute to the wetland? Ø Wildlife & vegetation diversity/abundance (see attached list)

Wetland I.D. WGL-W2

Latitude _____ Longitude _____

Prepared by: SW Date 6/10/09

Wetland Impact:
Type Remediation Area _____

Evaluation based on:
Office ✓ Field ✓

Corps manual wetland delineation completed? Y ✓ N _____

Function/Value	Suitability Y	Suitability N	Rationale (Reference #)*	Principal Function(s)/Value(s)	Comments
Groundwater Recharge/Discharge	✓		1,4,5,15,7,9	✓	Surface water collects, infiltrates into ground; suspect GW recharge system. Seasonally flooded Freshwater ⅄.
Floodflow Alteration	✓		1,5,6,7,8,9,18,2,3,4,11,13	✓	Flood water storage potential is high; unknown whether streams provide source water to ⅄. W.D. French's Creek may feed during signif. stormevent.
Fish and Shellfish Habitat		✓	N/A		No fish/shellfish habitat in ⅄.
Sediment/Toxicant Retention	✓		1,2,3,4,5,6,7,8,9,10,13,16	✓	Landfill is adjacent to ⅄ and has known contam sources (Fe, PCBs). Apparent connection to creek downstream of landfill/site.
Nutrient Removal	✓		1,3,5,7,8,9,14		30+ acre ⅄. Potential nutrients assoc w/ eroding sediments from landfill and creek.
Production Export	✓		1,2,5,7,12,14		Assume most of "production" is consumed by wildlife using this wetland as habitat.
Sediment/Shoreline Stabilization		✓	N/A		Wetland not contiguous to any open water, no shoreline.
Wildlife Habitat	✓		8,13,17,19,20,21,6	✓	Relatively low diversity of wildlife habitat, characteristic of PFO. Connection to other ⅄ systems by creek.
Recreation		✓	5,12		⅄ is not a desirable or accessible site for recreation activities. Recreational use potential of site is unknown.
Educational/Scientific Value		✓	5,10,14,8,9		No known educational/scientific use or availability for future use at site.
Uniqueness/Heritage	✓		1,2,22,27,31		Relatively large ⅄ in a heavily developed/developing area. Habitat is not particularly unique as ⅄.
Visual Quality/Aesthetics	✓		4,6,8,9,10,11		Adjacent landfill detracts from visual quality/aesthetics of ⅄.
ES Endangered Species Habitat		✓	N/A		No known ES.
Other					

Notes:

* Refer to backup list of numbered considerations.

APPENDIX E
100- YEAR FLOOD PLAIN REPORT
SOUTH WEYMOUTH NAS SOUTH GATE LANDFILL
PRE-REMEDIAL DESIGN INVESTIGATION
CTO 407

Analysis Report

100-YEAR FLOOD PLAIN

For

Naval Air Station
South Weymouth
Weymouth, Massachusetts

Engineering Field Activity Northeast
Naval Facilities Engineering Command

Prepared For:

TetraTech NUS, INC.

661 Andersen Dr Pittsburgh Pa 15220

May 2010

1.0 INTRODUCTION

This Draft 100-year Floodplain Analysis Report (FAR) was prepared by Tetra Tech NUS, Inc. (TtNUS) for the Department of Navy (Navy), as part of the Pre-Design Investigation (PDI) for the West Gate Landfill (WGL), Operable Unit (OU) 1 (the Site), located at the former Naval Air Station (NAS) South Weymouth in Weymouth, Massachusetts (the base). This FAR was prepared in general accordance with the Final Quality Assurance Project Plan (QAPP) for the PDI at the Site.

The WGL is located in the western portion of the base (Figure 1). The surface water in this area drains to the south through water channels to the French Stream.

1.1 Background

The following discussion regarding the hydrology of French Stream was obtained predominantly from the report: *Draft French Stream Ecological Risk Assessment Technical Memorandum Basewide Assessment* (ENSR, 2007). Review of the topographic maps drawn both before and after the base was constructed, indicate that the French Stream corridor at the base was re-routed and channelized during the development of the property. The original French Stream was meandering with multiple channels that included large wetlands. French Stream was channelized into the eastern and western branches and a former hill (Huckleberry Hill) was razed and wetlands were filled in order to modify the base topography into it's current relatively flat configuration.

The east branch of French Stream originates on the base in a scrub-shrub wetland and flows south in the central portion of the base. The west branch of French Stream originates off-base in an urbanized area and enters the base through a forested wetland. The west branch flows south through the base along the western border of the base. The two branches merge on Navy property south of the southern boundary of the base.

The west branch enters the base as a meandering channel with low banks and historically broad floodplain. The stream flows through the forested wetland prior to passing through a culvert under an access road and then flows through about 2,500 linear feet of filled wetland areas before a second, culvert road crossing at Trotter Road. The channelized reach of stream north of Trotter Road has banks that range in height from about 1 to 12 feet and are thickly vegetated with shrubs, interspersed with deciduous trees. Just south of Trotter Road, the west branch of French Stream flow past the WGL site, located adjacent to the stream to the west. South of Trotter Road, the stream is also channelized, and stream banks are high (about 5 to 15 feet) and thickly vegetated. The west branch continues flowing southward through about 1,500 linear feet of filled wetland and then a culvert for about 1,200 linear feet beneath a portion of the former taxiway for the base. South of the taxiway the stream has no culvert and it flows through about 1,200 linear feet of filled wetland and then about 300 linear feet of forested wetland. At the southern extent of the base, the west branch flows through a forested and scrub-scrub wetlands complex prior to exiting the base at Spruce Street. Along its southern limits, the west branch has a wider channel with lower banks (about 1 to 8 feet) and moderate vegetation.

Observations made during Basewide stream field reconnaissance conducted between December 2005 and May 2006, the west branch of French Stream varies from three to 25 feet in width and water depths range between 6 and 24 inches during sampling. The channel is generally narrower in the northern portion of the base and wider toward the south. Typical of streams in New England, the west branch measured surface water velocity is generally slower at the northern reach and increases to the south, indicating it is a gaining stream.

1.2 100 –Year Floodplain Analysis Study Objectives

The Record of Decision (ROD) for the WGL OU1 indicates that the selected remedy involves the construction of a soil cover over the landfill to meet Massachusetts solid waste regulations and federal regulations fof PCB-impacted soils, long-term monitoring (LTM) and institutional controls. The purpose of this study is to establish a 100-yr flood

plain elevation. The floodplain estimate will be used in the future landfill design to determine the volume of landfill debris that will need to be excavated and relocated outside the limits of the floodplain, ensure that the impacts to floodplain storage are minimized, and, if impacts from the landfill can not be avoided, to identify potential mitigation actions to ensure that the remedial design (RD) will not results in a net loss of flood storage capacity per Executive Order 11988.

2.0 REVIEW OF EXISITING DATA

In order to facilitate this flood plain study, Tetra Tech researched the existence of mapping, data, hydraulic models and surveys of or related to the site. An existing Federal Emergency Management Agency (FEMA) developed a Flood Insurance Study (FIS) and a 100-year flood boundary and floodway map for the Town of Rockland, Massachusetts, Plymouth County was identified. This existing FEMA study (map index panel 1 of 4, Community Panel Number 250281-0001B, effective date July 19, 1982) provides the water surface elevation south of the study area for the WGL floodplain study. This FEMA study also provides the southern limit of the WGL study area.

The FEMA FIS provides the downstream limit of the current floodplain analysis. FEMA specifically excluded the Naval Air Station from the scope of their study. See Section 2.1 of Attachment B. The FEMA FIS was used to determine the starting 100-yr Flood Plain Elevation at Station 2+00 of the 100 year floodplain analysis described herein..

The existing ground surface topographic data for the base was used. In addition, some headwall structures were previously surveyed and these survey data was also spot –checked and used. In addition, Tetra Tech hired SMC Surveying and Mapping Consultants of Braintree, Massachusetts (SMC) to perform a ground survey to supplement the topographic information to perform this study. Topography on Navy property south of the base was surveyed. In addition, surveying of headwall structures located within the study area, (locations as indicated in Figure A-1) was performed. This survey was performed in order to provide headwall information and inflow and outflow elevations at these points. At each of these

locations, the surveyor provided the elevations of the inverts (top and bottom), the size of the headwalls, and the elevation of the top of headwall and the ground surface.

The floodplain designation was plotted onto a topographic map of the site. The flood elevation was projected using the FIS. Supporting data used to complete the analysis is found in Attachment C.

This analysis determined the 100-yr Flood Plain elevation for the west branch of French Stream. In addition, this model was used to predict the effects of the construction of the landfill cap at the WGL that adjoins the west branch of French Stream. The prediction was performed by using the topography and proposed grading plan of the designed WGL engineered cap (TtNUS, FINAL COVER SYSTEM AND CONSOLIDATED LANDFILL GRADING OPTIONS, November 2006).

3.0 HYDRAULIC MODEL

In order to compute water profiles in this branch of French Stream inside the US Naval Air Station, a computer based mathematical model was used. The model is the HEC-RAS river analysis system version 4.0Beta and developed by the US Army Corp of Engineers Hydrologic Engineering Center in Davis, California. This model is widely used and accepted by public and private entities to compute water profiles for establishment of flood elevations, hydraulic analysis of bridges, culverts, and other structures associated with water bodies. (See Attachment D and E)

3.1 Model Input

A critical input to the HEC-RAS model is the design flow in the stream. In this analysis, ranges of flow were required for the 10, 50, 100 and 500 year rainfall events. The 1982 FEMA FIS for Town of Rockland, Massachusetts, Plymouth County, lists calculated stream flows at the point on French Stream just south of the NAS site. See Appendix B-Table 1 Summary of discharges for a point 1650 feet upstream of North Avenue, defined in the new study as Section 2+00.

The flows listed on the FIS were used for the model after station 43+00, where three branches combine into French Stream. (See Attachment E for Cross Section information).

The HEC-RAS model developed for the flood plain study contains 100 cross sections. Cross sections in the model are designated by consecutive numbers, with the lowest number being the furthest downstream and highest number being furthest upstream. In order to establish direct continuity from the existing FEMA flood plain study, the most upstream cross section on the FEMA Map, elevation 125 (NGVD 1929); correlates with the first downstream cross section (Cross Section 2+00) of the new study.

Elevation at Station 2+00	
EXISTING WSE NGVD 29	**EXISTING WSE NAVD 88**
125.00	124.206

All cross sections were obtained from field survey conducted in May 2009. A map showing cross section locations is included in Attachment F.

Another input to the hydraulic model is the Manning's roughness coefficient, often denoted as *n*, which is an empirically derived coefficient dependent on many factors, including river-bottom roughness and channel geometry. Values vary greatly in natural stream channels and will even vary in a given reach of channel with different stages of flow. Overbank *n* values for a given reach will vary greatly depending on the time of year and the velocity of flow. Summer vegetation will typically have a significantly higher *n* value due to leaves and seasonal vegetation. High velocity flows will cause some vegetation (such as grasses and forbs) to lay flat, where a lower velocity of flow through the same vegetation will not.

The Manning's roughness coefficients for the floodplain analysis were taken to be the values used in the adjacent FEMA study: 0.05 for overbanks and 0.03 for the center of the channel.

Starting water surface elevation at the most downstream cross section in the new model was determined by the FEMA study. (See Attachment B- Flood Profile 06P).
Starting water elevations were not required for the most upstream cross section because flow is subcritical throughout the modeled portion of French Stream

Attachment C includes a compilation of supporting calculations used for the floodplain analysis; this compilation includes drainage areas, flow statistics, time of concentration and runoff calculations. This information is necessary to support the detailed HEC-RAS analysis.

3.2 Hydraulic Results

Two different models were developed in HEC-RAS. The first was the Existing Model. The Existing Model serves to assure that the input data has been transferred correctly and that the revised data will be integrated into the existing data to provide a continuous model upstream and Downstream of the revised reach. The existing model is only a best fit attempt to emulate the widths and surcharges for the existing conditions of the site. The second model is the Proposed or Post Project Conditions which was developed to exhibit the proposed grading and associated effects of the project.

The US Army Corp of Engineers computer program, HEC-RAS, was used to perform these hydraulic comparison between the different models discussed in the previous paragraph. Complete printouts of all models are included with this report. After modeling each of the different cases, the resulting flood lines were mapped. (Please refer to enclosed drawings).

Development of each of the HEC-RAS models required the following steps: selection of appropriate input data, creation of HEC-RAS model files, execution of the models, and

review and interpretation of each model's output. The development process for the HEC-RAS models is provided below.

3.3 Hydrology

The flows were taken from the Flood Insurance Study of the Town of Rockland Massachusetts, Plymouth County (See Attachment B).

The following table summarizes the flow date used in the hydraulic model for the NAS Site.

STORM FREQUENCY	FLOW AT STA. FROM STA 2+00 TO STA 100+00 (CFS)
10 year	110
50 year	180
100 year	220
500 year	340

River Profiles for each storm, and plots of all cross sections are included in Attachment E. It should be noted that the cross section plots appear jagged with sharp elevation changes due to the extremely exaggerated vertical scale on the plots. When vertical and horizontal scales are plotted at the same scale, the cross sections are seen to be very flat, reflecting the site conditions.

The HEC-RAS model developed for the flood plain study contains 100 cross sections. Cross sections in the model are designated by consecutive numbers, with the lowest number being the furthest downstream and highest number being furthest upstream. In order to establish direct continuity from the existing FEMA flood plain study, the most upstream cross section on the FEMA Map, elevation 125; correlates with the first downstream cross section (Cross Section 2+00) of the new study.

4.0 Conclusions and Results

100 YEAR FLOOD ELEVATIONS		
SECTION ID	EXISTING WSE NAVD 88	PROPOSED WSE
100	148.34	148.30
99	148.19	148.14
98	148.04	147.95
97	147.93	147.81
96	147.64	147.63
95	147.48	147.48
94	147.37	147.37
93	147.31	147.31
92	147.25	147.25
91	147.24	147.24
90	147.20	147.20
89	147.20	147.20
88	147.18	147.18
87	147.17	147.17
86.36	147.16	147.16
85.1	143.99	143.94
85	144.01	143.90
84	143.80	143.75

This comparison indicates that the water surface is only minimally affected by the proposed project. This confirms that the project can be constructed as designed without causing any adverse condition on any adjacent land owner, upstream or downstream.
Table-1 presents the predicted 100 year flood water surface at various stations along the west branch of French Stream, assuming the current configuration of the WGL and the proposed (post-construction) configuration of the WGL. For complete output results see Attachment D- Existing Conditions and Attachment E- Proposed Conditions.

The proposed capping of the West Gate Landfill will no have any significant modification on the water surface elevation upon construction and placement of the engineered cap and it will not affect the hydrologic or hydraulic characteristics of the west branch of French Stream or the flooding characteristics south of the confluence of the west and east branches of French Stream.

The calculated 100-year floodplain in its current condition has been mapped and it is included as Attachment F. This 100- year floodplain analysis is anticipated to be used during the final design phase of the engineered cap at the WGL.

The calculated 100-year floodplain has been mapped and it is included on attachment F.

ATTACHMENTS

A- Location Map

A-1 Headwall Locations

B- Section of FEMA 250281-001b and Section of FIS-Town of Rockland, Massachusetts, Plymouth County

C- Support Calculations

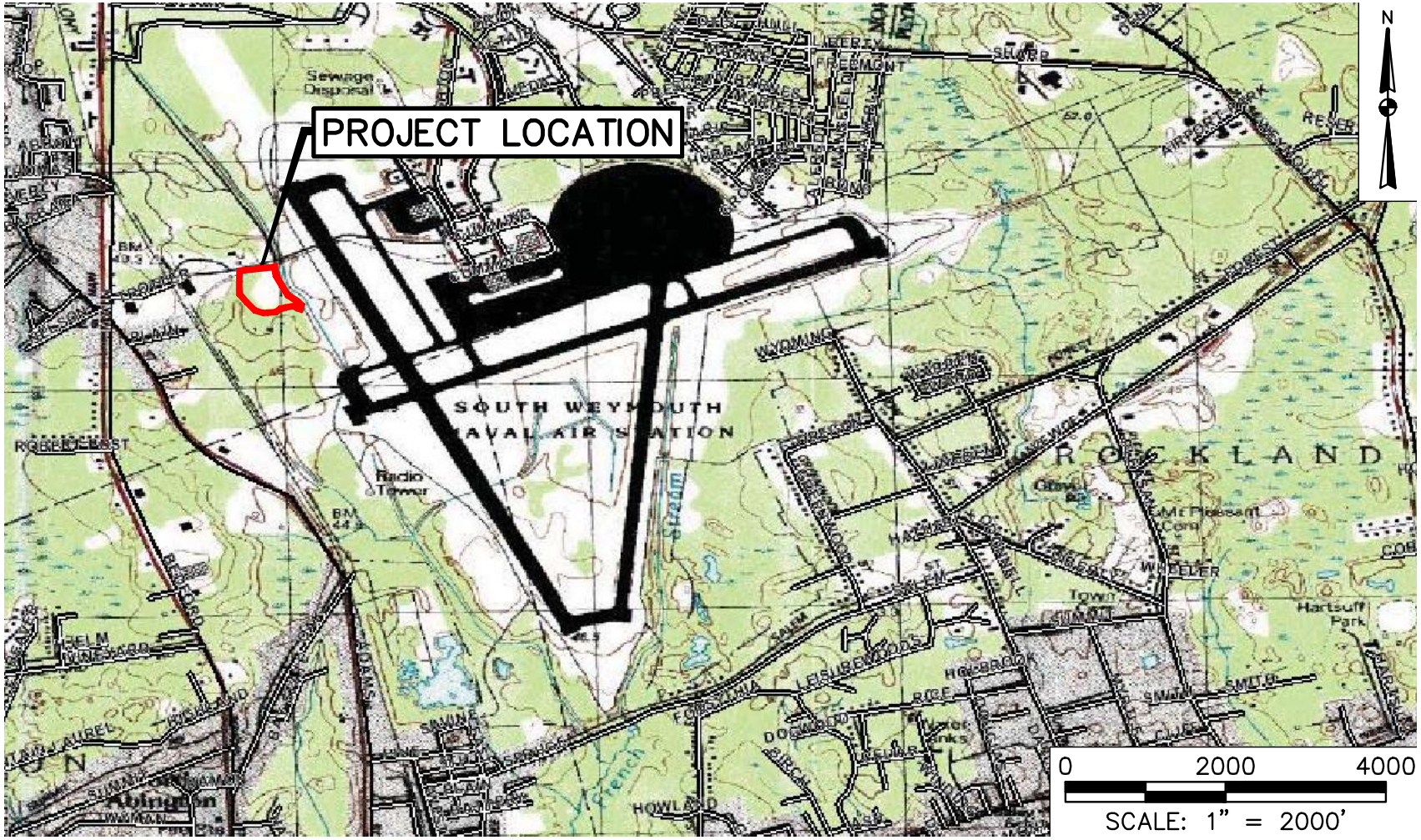
D- Hydraulic Model Existing Conditions

E- Hydraulic Model Proposed Conditions

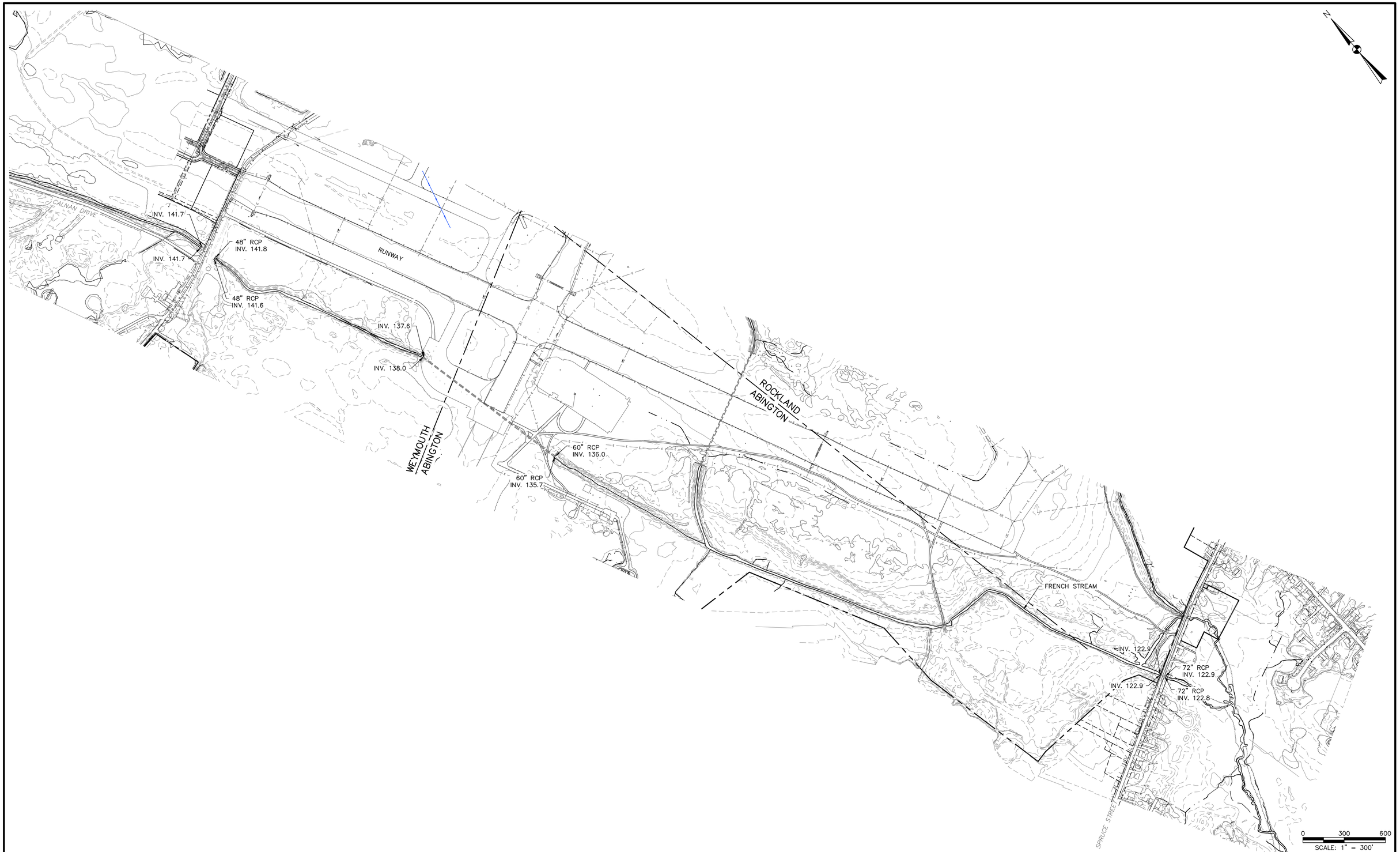
F- Floodplain Map

ATTACHMENT A

LOCATION MAP



DRAWN BY BH	DATE 6/11/09	LOCATION MAP WEYMOUTH NAVAL STATION SOUTH WEYMOUTH, MASSACHUSETTS	CONTRACT NO. 2073
CHECKED BY SL	DATE 6/11/09		OWNER NO. ----
REVISED BY	DATE		APPROVED BY / DATE
SCALE 1" = 2000'			DRAWING NO. FIGURE 1 / REV. 0



DRAWN BY BH	DATE 7/1/09	BRANCH OF FRENCH STREAM HEADWALL MAP NAVAL FACILITIES ENGINEERING SOUTH WEYMOUTH, MASSACHUSETTS	CONTRACT NO. 2073
CHECKED BY SL	DATE 7/1/09		OWNER NO. 0000
REVISED BY	DATE		APPROVED BY / DATE
SCALE 1" = 300'			DRAWING NO. FIGURE A-1 / REV. 0

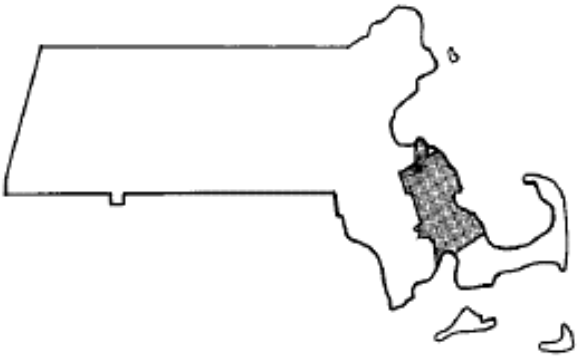
R:\2073\Figures\2073FG002.dwg PIT BEN.HOPPE 7/1/2009 12:07:49 PM

ATTACHMENT B

FEMA MAP AND FIS

FLOOD INSURANCE STUDY

TOWN OF ROCKLAND, MASSACHUSETTS
PLYMOUTH COUNTY



JANUARY 19, 1982

Federal Emergency Management Agency

COMMUNITY NUMBER - 250281

TABLE OF CONTENTS - continued

	Page
6.0 OTHER STUDIES	15
7.0 LOCATION OF DATA	15
8.0 BIBLIOGRAPHY AND REFERENCES	16

FIGURES

Figure 1 - Vicinity Map	3
Figure 2 - Floodway Schematic	11

TABLES

Table 1 - Summary of Discharges	6
Table 2 - Floodway Data	9 - 10
Table 3 - Flood Insurance Zone Data	14

EXHIBITS

Exhibit 1 - Flood Profiles	
French Stream	Panels 01P - 06P
Tributary A	Panel 07P
Exhibit 2 - Flood Boundary and Floodway Map Index	
Exhibit 3 - Flood Boundary and Floodway Map	

PUBLISHED SEPARATELY:

Flood Insurance Rate Map Index

Flood Insurance Rate Map

FLOOD INSURANCE STUDY
TOWN OF ROCKLAND, MASSACHUSETTS

1.0 INTRODUCTION

1.1 Purpose of Study

This Flood Insurance Study investigates the existence and severity of flood hazards in the Town of Rockland, Plymouth County, Massachusetts, and aids in the administration of the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973. This study will be used to convert Rockland to the regular program of flood insurance by the Federal Emergency Management Agency (FEMA). Local and regional planners will use this study in their efforts to promote sound flood plain management.

In some states or communities, flood plain management criteria or regulations may exist that are more restrictive or comprehensive than those on which these federally-supported studies are based. These criteria take precedence over the minimum federal criteria for purposes of regulating development in the flood plain, as set forth in the Code of Federal Regulations at 44 CFR, 60.3. In such cases, however, it shall be understood that the state (or other jurisdictional agency) shall be able to explain these requirements and criteria.

1.2 Authority and Acknowledgements

The source of authority for this Flood Insurance Study is the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973.

The hydrologic and hydraulic analyses for this study were prepared by PJR Consulting Engineers for the Federal Emergency Management Agency, under Contract No. H-4795. This work was completed in March 1980.

1.3 Coordination

In March 1978, an initial Consultation and Coordination Officer's (CCO) meeting was held to identify the streams to be studied by detailed methods. An intermediate CCO meeting was held on January 22, 1980, to obtain information regarding the study. Both meetings were attended by representatives of the Town of Rockland, the FEMA, and PJR Consulting Engineers (the study contractor). On January 8, 1981, the results of the study were reviewed at a final CCO meeting attended by representatives of the FEMA, the town, and the study contractor.

2.0 AREA STUDIED

2.1 Scope of Study

This Flood Insurance Study covers the incorporated area of the Town of Rockland, Plymouth County, Massachusetts. The South Weymouth Naval Air Station was an area not studied. The area of study is shown on the Vicinity Map (Figure 1).

French Stream was studied by detailed methods from the downstream corporate limits to a point approximately 530 feet downstream of Spruce Street. Tributary A, from its confluence with French Stream to Levin Road, was also studied by detailed methods. The areas studied by detailed methods were selected with priority given to all known flood hazard areas and areas of projected development and proposed construction for the next five years, through March 1985.

Ben Mann Brook, Cushing Brook, Tributary B, and a portion of French Stream were studied by approximate methods. Approximate methods of analysis were used to study those areas having low development potential and minimal flood hazards as identified at the initiation of the study. The scope and methods of study were proposed to and agreed upon by the FEMA.

2.2 Community Description

The Town of Rockland is located in Plymouth County in southeast Massachusetts and covers a land area of 10.1 square miles. The population of Rockland was estimated to be 18,000 by 1980, a 15-percent increase over the 1970 population. Rockland is bordered by the Town of Abington to the west, the Towns of Whitman and Hanson to the south, the Town of Hanover to the east, and the Towns of Weymouth, Hingham, and Norwell to the north.

The topography of the town consists of flat to gently rolling terrain, with elevations ranging from 70 to 180 feet. The Town of Rockland is primarily composed of soils of the Scituate-Essex-Merrimac association. These soils consist of moderately well-drained, coarse-textured, glacial tills found on hills and ridges to poorly-drained soils formed in sand and gravel deposits in the low-lying areas between the ridges. Peat and muck soils are often found in depressions and some have developed cranberry bogs (Reference 1).

The climate of Rockland is characteristic of southern New England. The mean temperature in January is 27 degrees Fahrenheit (°F), and the mean temperature in July is 70.9 °F. The average annual is 51 °F. The average annual precipitation is 41 inches and is well distributed throughout the year.

The land use in Rockland is primarily residential, with business and industrial areas located near the downtown area. The southern and northeastern areas of the town contain industrial park areas. A portion of the South Weymouth Naval Air Station extends into the northwest corner of the town. Generally, there is little development on the flood plains of French Stream, Tributary A and the other streams in the area. Along French Stream, just below Studleys Pond, there is some concentrated industrial development on the flood plain. The Rockland Conservation Commission operates a permit system for the control of development along watercourses and marsh areas in the town.

French Stream originates in Rockland approximately 3,500 feet north of its Spruce Street crossing. It flows southeast through Rockland and drains 8.4 square miles with an average slope of 12.9 feet per mile. Tributary A originates just upstream of Market Street and flows southeast to its confluence with French Stream. It drains 0.7 square mile with an average slope of 26 feet per mile.

2.3 Principal Flood Problems

Historically, Rockland has sustained some damage during flood situations. However, the relatively flat terrain and small drainage areas have tended to reduce flood flows and damage from flood events.

2.4 Flood Protection Measures

The most effective flood protection measures in Rockland are provided by the natural system of swamps which tend to attenuate flood flows by creating storage areas, and by the flat terrain which reduces flood velocities.

There are no structural flood protection measures in Rockland. As a non-structural flood protection measure, the Rockland Conservation Commission operates a permit system to control development along watercourses and water bodies.

3.0 ENGINEERING METHODS

For the flooding sources studied in detail in the community, standard hydrologic and hydraulic study methods were used to determine the flood hazard data for this study. Flood events of a magnitude which are expected to be equalled or exceeded once on the average during any 10-, 50-, 100-, or 500-year period (recurrence interval) have been selected as having special significance for flood plain management and for flood insurance premium rates. These events, commonly termed the 10-, 50-, 100-, and 500-year floods, have a 10-, 2-, 1-, and 0.2-percent chance, respectively, of being equalled or exceeded during any year. Although the recurrence interval represents the

long-term average period between floods of a specific magnitude, rare floods could occur at short intervals or even within the same year. The risk of experiencing a rare flood increases when periods greater than one year are considered. For example, the risk of having a flood which equals or exceeds the 100-year flood (one-percent chance of annual occurrence) in any 50-year period is about 40 percent (four in ten) and, for any 90-year period, the risk increases to about 60 percent (six in ten). The analyses reported here reflect flooding potentials based on conditions existing in the community at the time of completion of this study. Maps and flood elevations will be amended periodically to reflect future changes.

3.1 Hydrologic Analyses

Hydrologic analyses were carried out to establish the peak discharge-frequency relationships for floods of the selected recurrence intervals for each flooding source studied in detail affecting the community.

The peak discharges of French Stream were obtained by averaging the results of two methods of flood flow frequency determination. First, a standard log-Pearson Type III analysis was preformed using 12 years of data from the U. S. Geological Survey (USGS) gage located on Indian Head River in Hanover, Massachusetts (Gage No. 01105730) (References 2 and 3). French Stream is a tributary of the Indian Head River. A drainage area-discharge relationship was used to transpose the results of the Indian Head River analyses to French Stream. The equation used for transposing the gage based data was as follows:

$$Q/Qg = (A/Ag)^{0.75}$$

where Q is the discharge at the desired location on French Stream, Qg is the discharge at the Indian Head River gage, A is the drainage area of French Stream at the desired location, and Ag is the drainage area at the Indian Head River gage (Reference 4).

The second method used to obtain flood flows for French Stream was the regional regression equations developed by the USGS for ungaged watersheds in Massachusetts. These equations relate peak flow to drainage and slope (Reference 5). The final discharges for use on French Stream were obtained by averaging the discharges developed by both methods.

The flood discharges of Tributary A were computed using the Rational Method in conjunction with a routing of the flood flows through the Summer Street culvert (Reference 6). The Rational Method was chosen because of the small drainage area and the high degree of urbanization in the Tributary A watershed.

A summary of area-peak discharge relationships for the streams studied by detailed methods is shown in Table 1, "Summary of Discharges."

TABLE 1 - SUMMARY OF DISCHARGES

FLOODING SOURCE AND LOCATION	DRAINAGE AREA (sq. miles)	PEAK DISCHARGES (cfs) 10-YEAR	50-YEAR	100-YEAR	500-YEAR
FRENCH STREAM					
Upstream of corporate limits	8.4	340	530	620	890
Upstream of Beech Hill Swamp Tributary	5.9	290	440	520	750
Upstream of Tributary B	4.9	240	360	430	620
Upstream of Studleys Pond Dam	4.1	200	310	360	520
1,650 feet upstream of North Avenue	2.0	110	180	220	340
TRIBUTARY A					
At confluence of French Stream	0.7	100	120	130	150
550 feet downstream of Levin Road	0.5	240	310	350	415

The peak discharges for Tributary A are less at the confluence with French Stream than downstream of Levin Road because the culvert at Summer Street through which the flood water is routed causes water storage to occur upstream of the culvert. This storage results in a reduced peak discharge downstream of Summer Street to the confluence with French Stream.

3.2 Hydraulic Analysis

Analyses of the hydraulic characteristics of the flooding sources studied in detail were carried out to provide estimates of the elevations of floods of the selected recurrence intervals along each of these flooding sources.

Cross section data for the areas studied by detailed methods were obtained by field survey and photogrammetric maps (Reference 7). All bridges, dams and culverts were surveyed to obtain elevation data and structural geometry.

Channel roughness factors (Manning's "n") used in the hydraulic computations were selected based on field observations of the streams and flood plain areas (Reference 8). Roughness values for the channel of French Stream ranged from 0.030 to 0.045 and the overbank values ranged from 0.050 to 0.100. The channel "n" value for Tributary A ranged from 0.035 to 0.040 while the overbank "n" value was 0.080.

Projected water-surface elevations of floods of selected recurrance intervals on French Stream and Tributary A were computed through the use of the U. S. Army Corps of Engineers (COE) HEC-2 step-backwater computer program (References 9 and 10). The slope/area method was used to compute water-surface elevations on Tributary A. Starting water-surface elevations for French Stream were taken from the Flood Insurance Study for the Town of Hanover (Reference 11).

Flood profiles were drawn showing computed water-surface elevations to an accuracy of 0.5 foot for floods of the selected recurrence intervals. Locations of selected cross sections used in the hydraulic analyses are shown on the Flood Profiles (Exhibit 1). For stream segments for which a floodway is computed (Section 4.2), selected cross-section locations are also shown on the Flood Boundary and Floodway Map (Exhibit 3).

All elevations used in this study are referenced to the National Geodetic Vertical Datum of 1929 (NGVD), formerly referred to as Sea Level Datum of 1929. Locations of the elevation reference marks used in the study are shown on the maps.

The hydraulic analyses for this study are based on the effects of unobstructed flow. The flood elevations shown on the profiles are valid only if hydraulic structures remain unobstructed and do not fail.

4.0 FLOOD PLAIN MANAGEMENT APPLICATIONS

The National Flood Insurance Program encourages state and local governments to adopt sound flood plain management programs. Therefore, each Flood Insurance Study includes a flood boundary map designed to assist communities in developing sound flood plain management measures.

4.1 Flood Boundaries

In order to provide a national standard without regional discrimination, the 100-year flood has been adopted by the FEMA as the base flood for purposes of flood plain management measures. The 500-year flood is employed to indicate additional areas of flood risk in the community. For each stream studied in detail, the boundaries of the 100- and 500-year floods have been delineated using the flood elevations determined at each cross

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
					(FEET NGVD)			
French Stream								
A	4,400	430	1,370	0.5	71.6	71.6	72.6	1.0
B	5,310	401	1,199	0.5	71.7	71.7	72.7	1.0
C	6,750	230	698	0.7	71.9	71.9	72.9	1.0
D	8,420	*	137	3.8	73.6	73.6	74.2	0.6
E	10,425	*	124	3.5	80.3	80.3	80.8	0.5
F	12,540	*	122	3.5	85.2	85.2	85.6	0.4
G	13,760	*	101	4.3	87.0	87.0	87.7	0.7
H	14,800	*	94	4.6	90.3	90.3	90.3	0.0
I	17,690	*	191	1.9	102.3	102.3	102.3	0.0
J	18,420	*	212	1.7	103.3	103.3	103.4	0.1
K	18,880	50	154	2.3	103.3	103.3	103.5	0.2
L	19,300	*	78	4.6	104.2	104.2	104.3	0.1
M	21,630	*	40	9.0	109.1	109.1	109.1	0.0
N	22,740	*	87	4.2	116.0	116.0	116.2	0.2
O	23,480	100	411	0.9	119.3	119.3	119.3	0.0

[1]Feet above confluence with Drinkwater River
*Floodway coincident with channel banks

TABLE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

TOWN OF ROCKLAND, MA

(PLYMOUTH CO.)

FLOODWAY DATA

FRENCH STREAM

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
					(FEET NGVD)			
Tributary A								
A	100	*	51	2.5	71.4	68.2[2]	68.9	0.7
B	600	55	150	0.9	71.4	71.4[2]	71.8	0.4
C	1,690	55	134	1.0	71.6	71.6	72.3	0.7
D	2,330	*	39	8.9	77.4	77.4	78.3	0.9

[1]Feet above confluence with French Stream

[2]Elevation computed without consideration of backwater effects from French Stream

*Floodway coincident with channel banks

TABLE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

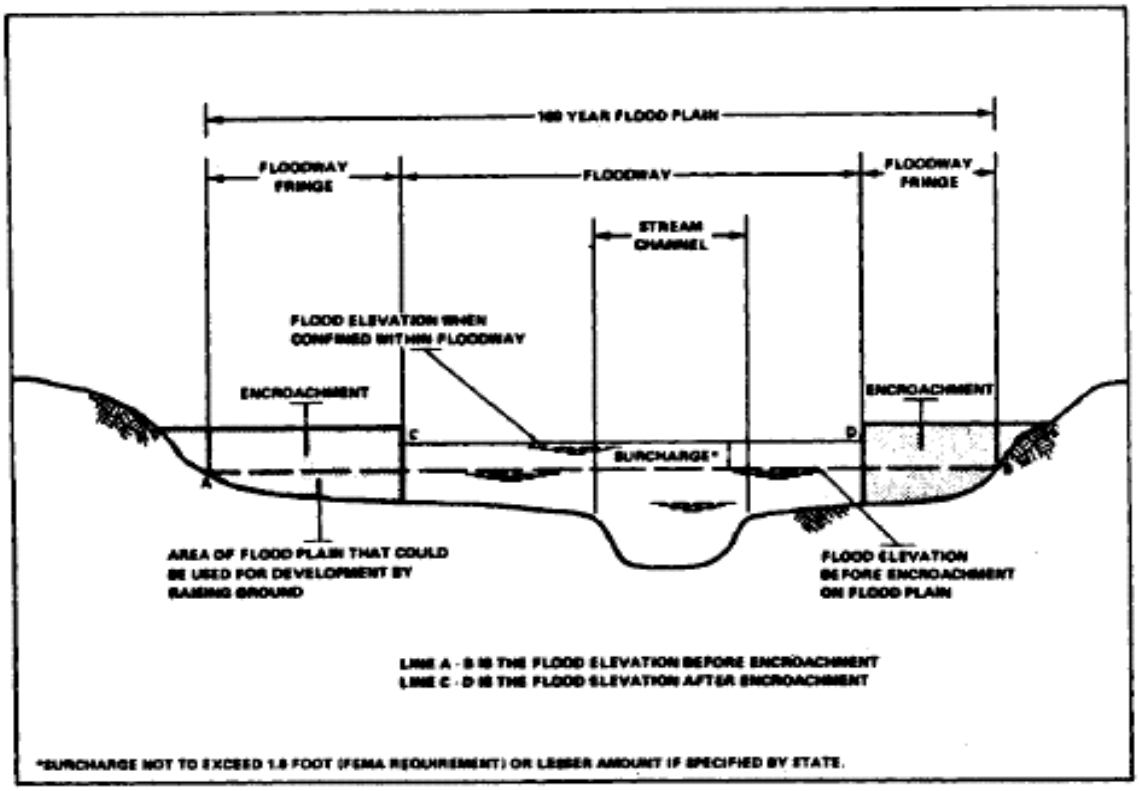
TOWN OF ROCKLAND, MA

(PLYMOUTH CO.)

FLOODWAY DATA

TRIBUTARY A

The area between the floodway and the boundary of the 100-year flood is termed the floodway fringe. The floodway fringe thus encompasses the portion of the flood plain that could be completely obstructed without increasing the water-surface elevation of the 100-year flood by more than 1.0 foot at any point. Typical relationships between the floodway and the floodway fringe and their significance to flood plain development are shown in Figure 2.



FLOODWAY SCHEMATIC Figure 2

Near the mouths of streams studied in detail, floodway computations are made without regard to flood elevations on the receiving water body. Therefore, "Without Floodway" elevations presented in Table 2 for certain downstream cross sections of Tributary A are lower than the regulatory flood elevations in that area, which must take into account the 100-year flooding due to backwater from other sources.

Certain portions of the floodways for French Stream and Tributary A are contained within the channel banks.

FLOODING SOURCE	PANEL[1]	ELEVATION DIFFERENCE[2] BETWEEN 1.0% (100-YEAR) FLOOD AND			FHF	ZONE	BASE FLOOD ELEVATION[3] (NGVD)
		10% (10 YR.)	2% (50 YR.)	0.2% (500 YR.)			
French Stream							
Reach 1	03, 04	-0.8	-0.3	+0.6	010	A2	Varies
Reach 2	03	-1.6	-0.4	+0.8	015	A3	Varies
Reach 3	03	-0.8	-0.2	+0.6	010	A2	Varies
Reach 4	01, 03	-1.7	-0.5	+1.6	015	A3	Varies
Reach 5	01	-0.8	-0.2	+1.0	010	A2	Varies
Tributary A							
Reach 1	03	-0.2	-0.1	+0.1	005	A1	Varies

[1]Flood Insurance Rate Map Panel
[2]Weighted Average
[3]Rounded to the nearest foot - see map

TABLE 3

FEDERAL EMERGENCY MANAGEMENT AGENCY

TOWN OF ROCKLAND, MA
(PLYMOUTH CO.)

FLOOD INSURANCE ZONE DATA

FRENCH STREAM AND TRIBUTARY A

Zones A1, A2,: and A3:	Special Flood Hazard Areas inundated by the 100-year flood, determined by detailed methods; base flood elevations shown, and zones subdivided according to FHF.
Zone B:	Areas between the Special Flood Hazard Area and the limits of the 500-year flood, including areas of the 500-year flood plain that are protected from the 100-year flood by dike, levee, or other water control structure; also, areas subject to certain types of 100-year shallow flooding where depths are less than 1.0 foot; and areas subject to 100-year flooding from sources with drainage areas less than 1 square mile. Zone B is not subdivided.
Zone C:	Areas of minimal flooding.
Zone D:	Areas of undetermined but possible flood hazard.

5.4 Flood Insurance Rate Map Description

The Flood Insurance Rate Map for the Town of Rockland is, for insurance purposes, the principal result of the Flood Insurance Study. This map (published separately) contains the official delineation of flood insurance zones and base flood elevation lines. Base flood elevation lines show the locations of the expected whole-foot water-surface elevations of the base (100-year) flood. This map is developed in accordance with the latest flood insurance map preparation guidelines published by the FEMA.

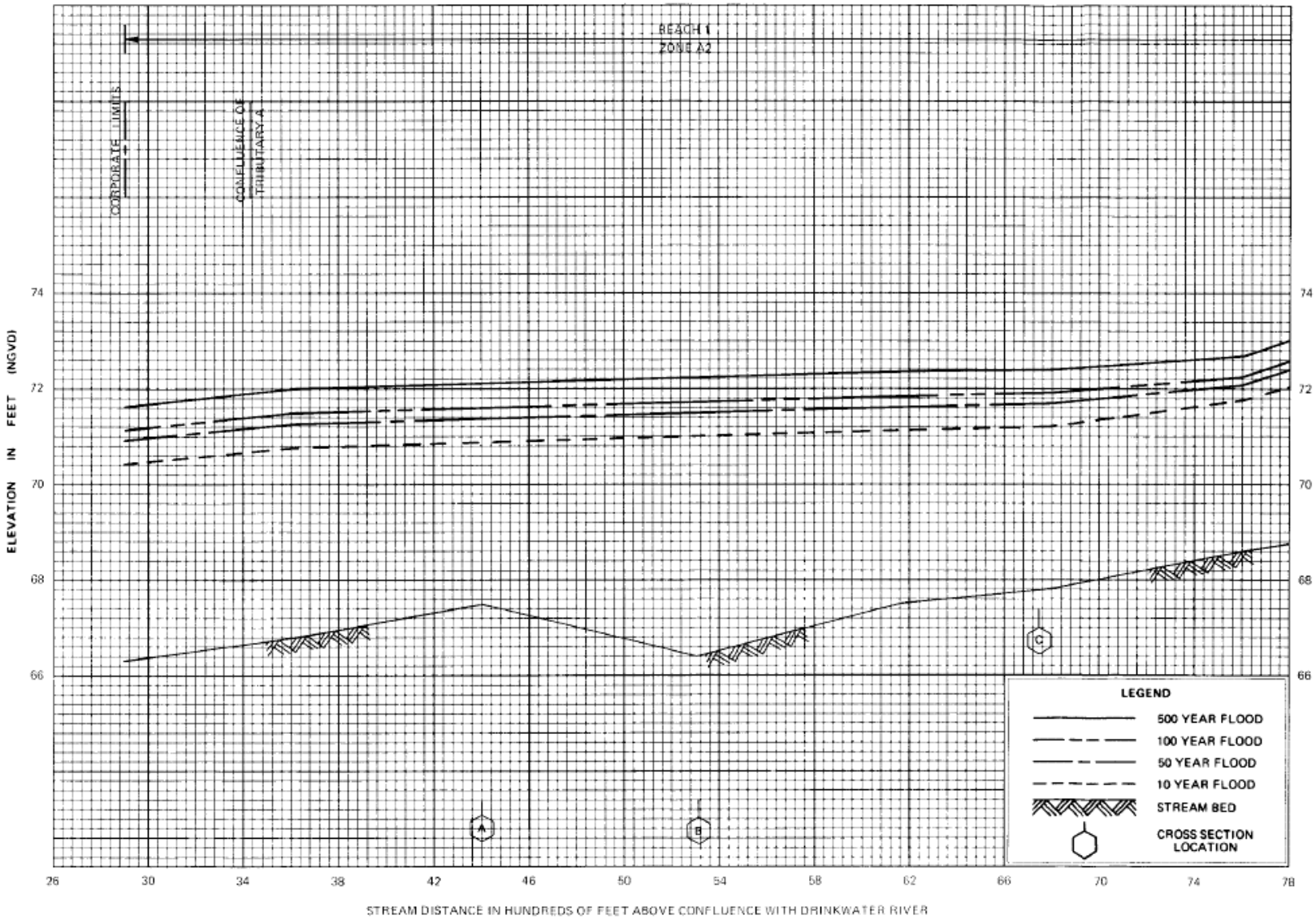
6.0 OTHER STUDIES

Flood Insurance Studies are being prepared for the Towns of Hanover, Whitman, Hanson, Hingham and Norwell (References 11, 13, 14, 15, and 16). The results of these Flood Insurance Studies will be in complete agreement with those of this Flood Insurance Study.

This study is authoritative for purposes of the Flood Insurance Program, and the data presented here either supersede or are compatible with previous determinations.

7.0 LOCATION OF DATA

Survey, hydrologic, hydraulic, and other pertinent data used in this study can be obtained by contacting the office of the Insurance and Mitigation Division of the Federal Emergency Management Agency, Regional Director, Region I Office, J. W. McCormack Post Office and Courthouse Building, Room 462, Boston, Massachusetts 02109.



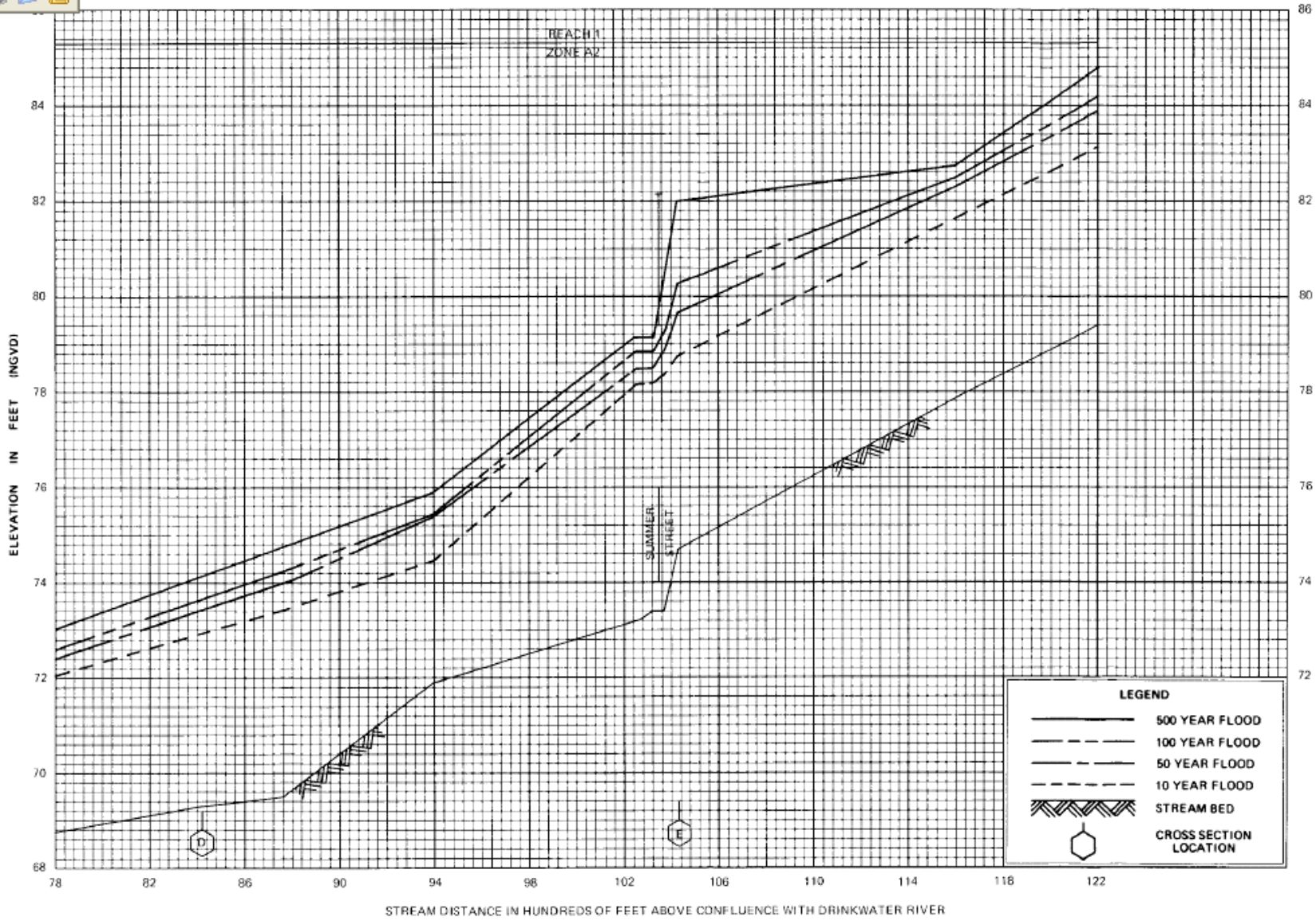
FLOOD PROFILES

FRENCH STREAM

FEDERAL EMERGENCY MANAGEMENT AGENCY

TOWN OF ROCKLAND, MA
(PLYMOUTH CO.)

01P



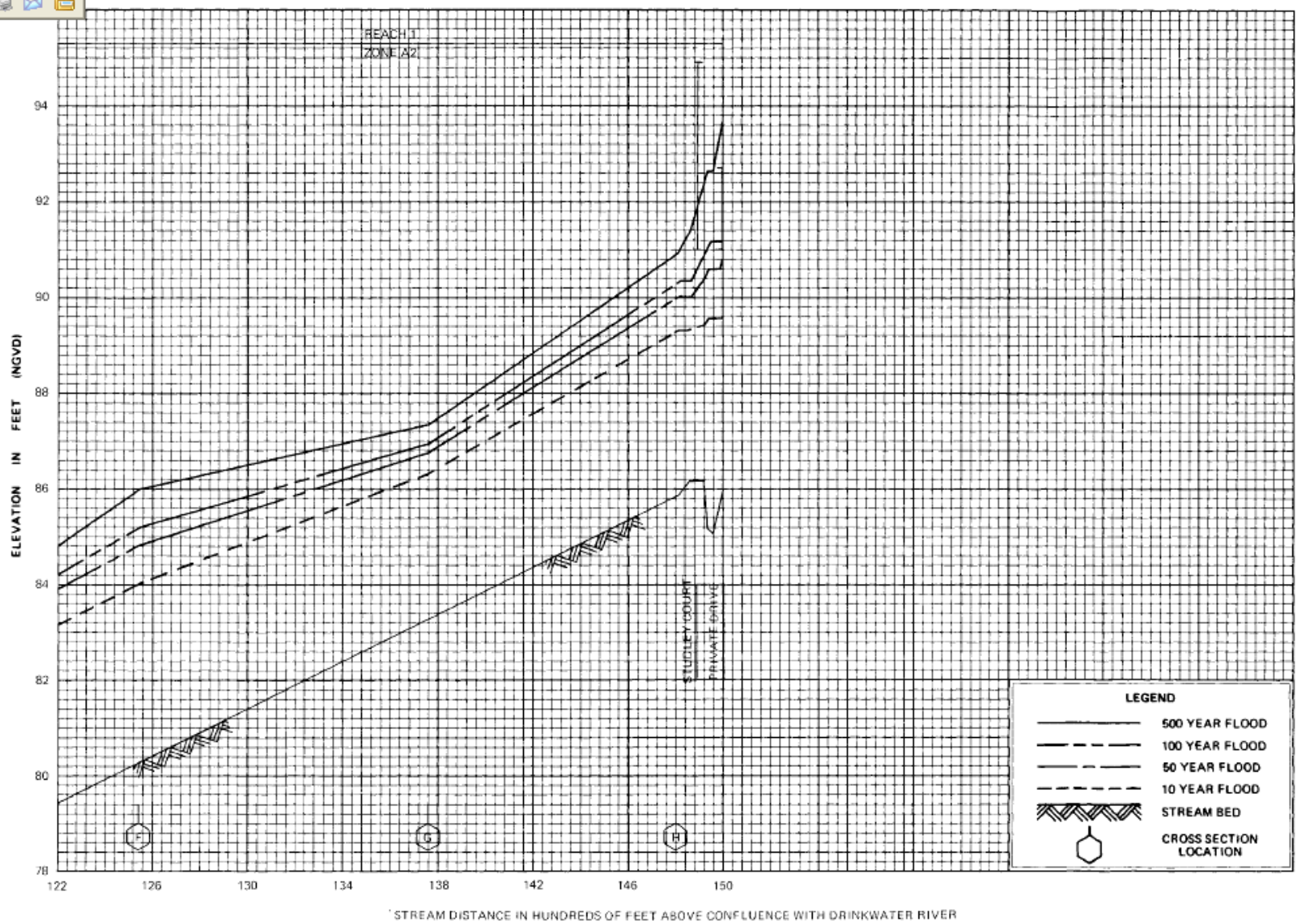
FLOOD PROFILES

FRENCH STREAM

FEDERAL EMERGENCY MANAGEMENT AGENCY

TOWN OF ROCKLAND, MA
(PLYMOUTH CO.)

02P



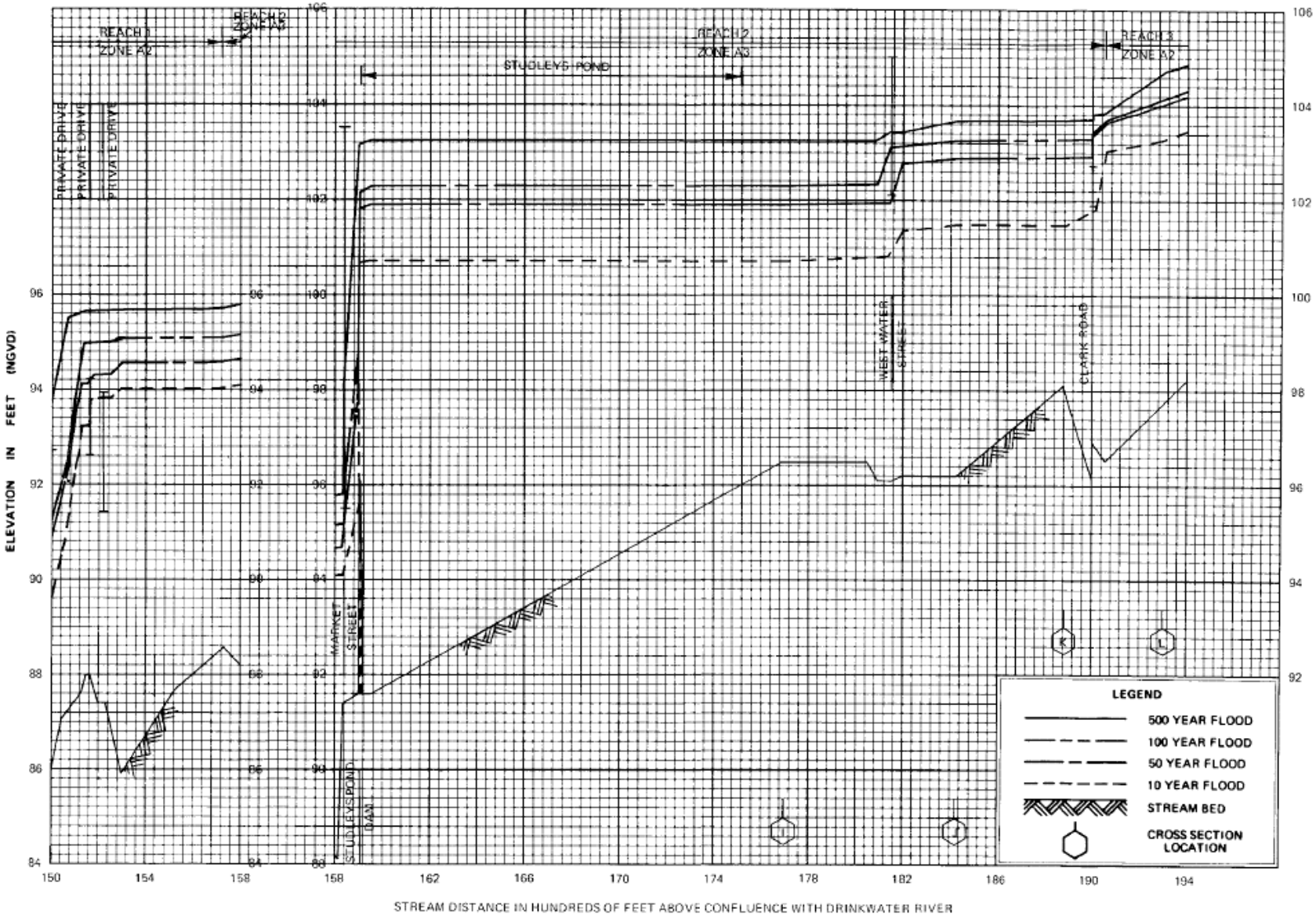
FLOOD PROFILES

FRENCH STREAM

FEDERAL EMERGENCY MANAGEMENT AGENCY

TOWN OF ROCKLAND, MA
(PLYMOUTH CO.)

03P



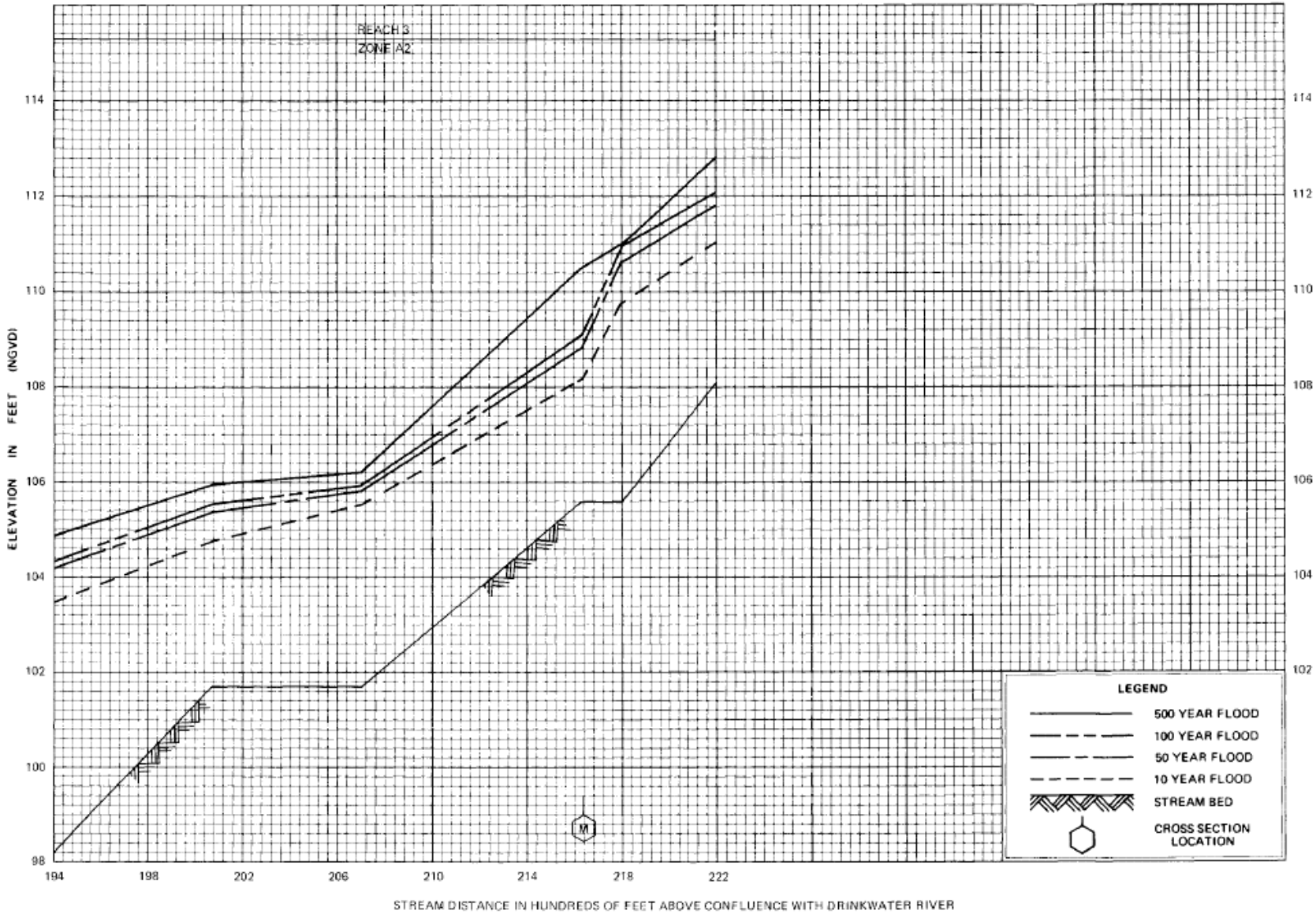
FLOOD PROFILES

FRENCH STREAM

FEDERAL EMERGENCY MANAGEMENT AGENCY

TOWN OF ROCKLAND, MA
(PLYMOUTH CO.)

04P



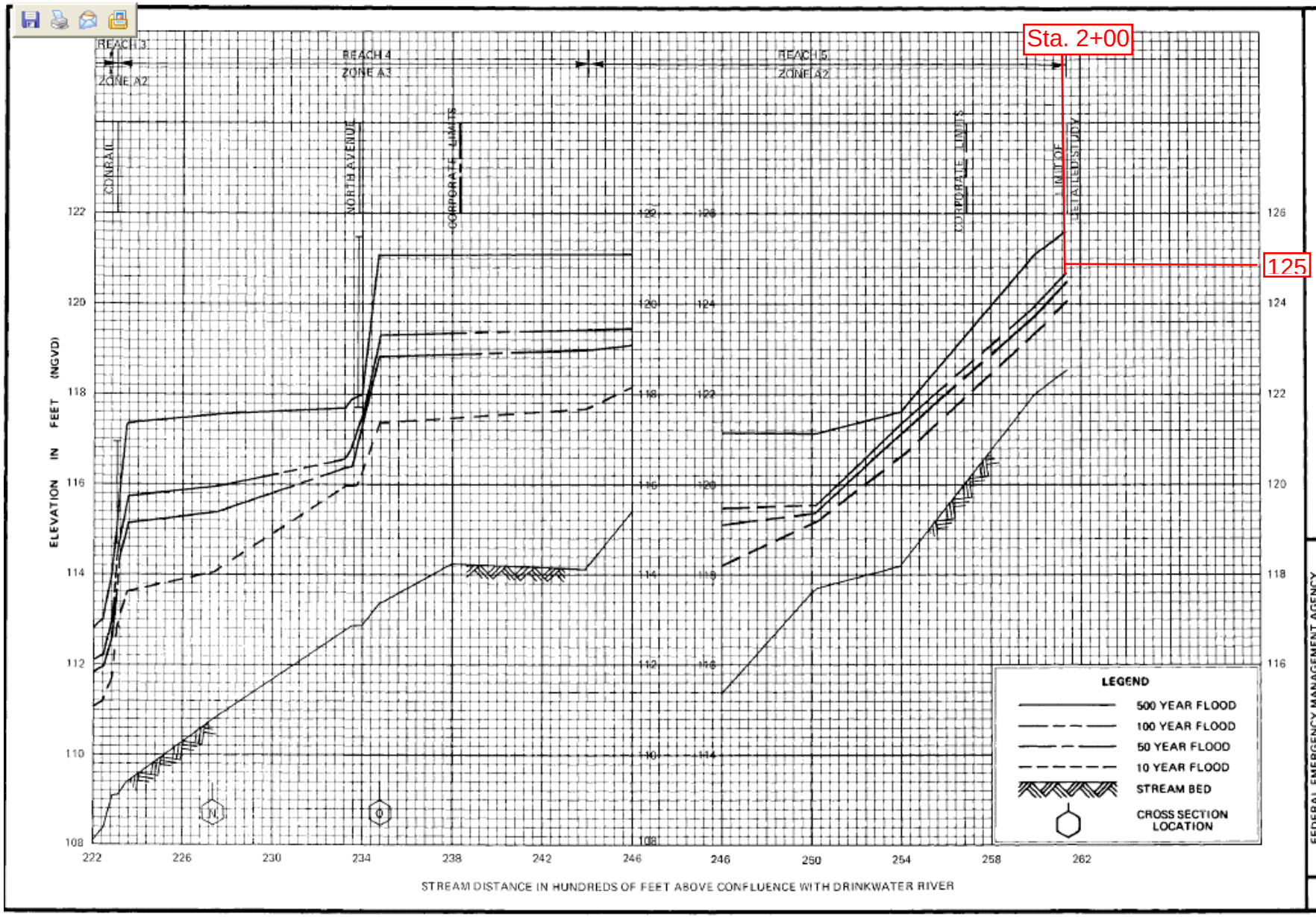
FLOOD PROFILES

FRENCH STREAM

FEDERAL EMERGENCY MANAGEMENT AGENCY

TOWN OF ROCKLAND, MA
(PLYMOUTH CO.)

05P



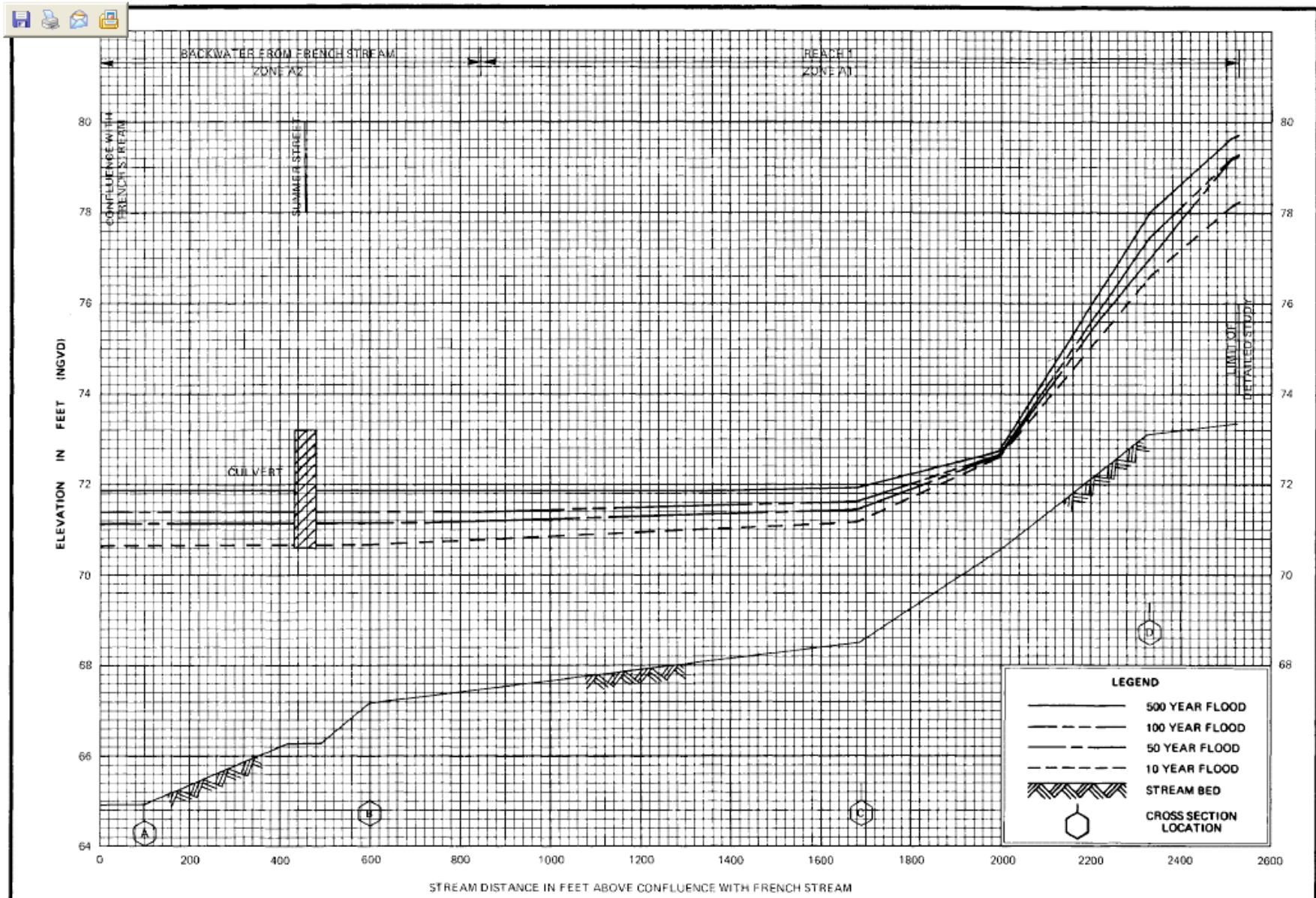
FLOOD PROFILES

FRENCH STREAM

FEDERAL EMERGENCY MANAGEMENT AGENCY

TOWN OF ROCKLAND, MA
(PLYMOUTH CO.)

06P



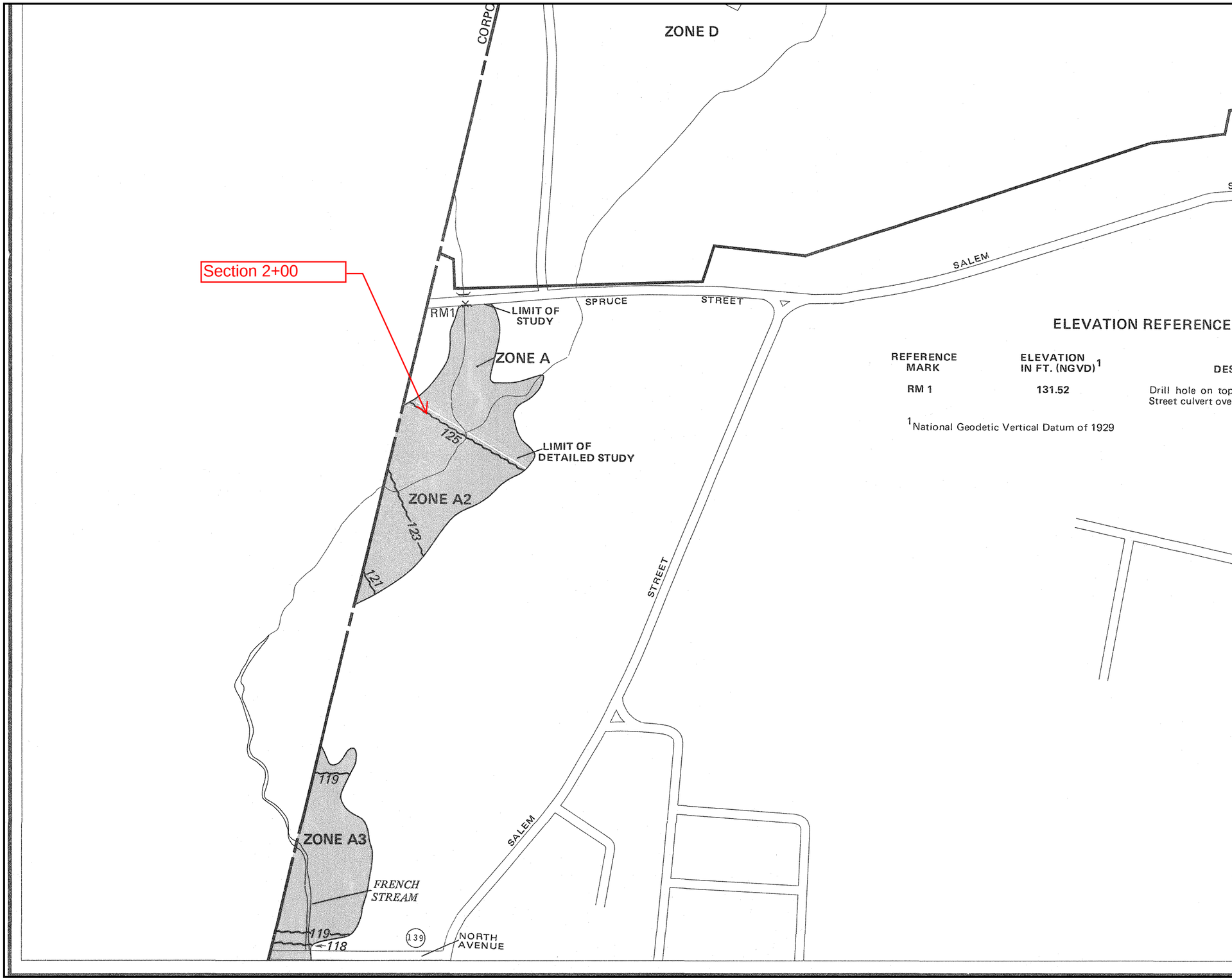
FLOOD PROFILES

TRIBUTARY A

FEDERAL EMERGENCY MANAGEMENT AGENCY

TOWN OF ROCKLAND, MA
(PLYMOUTH CO.)

07P



ELEVATION REFERENCE

REFERENCE MARK	ELEVATION IN FT. (NGVD)[1]	DES
RM 1	131.52	Drill hole on top Street culvert over

[1] National Geodetic Vertical Datum of 1929

APPROXIMATE SCALE

400 0 400 FEE

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

TOWN OF
ROCKLAND,
MASSACHUSETTS
PLYMOUTH COUNTY

PANEL 1 OF 4
(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY-PANEL NUMBER
250281 0001 B

EFFECTIVE DATE:
JULY 19, 1982

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

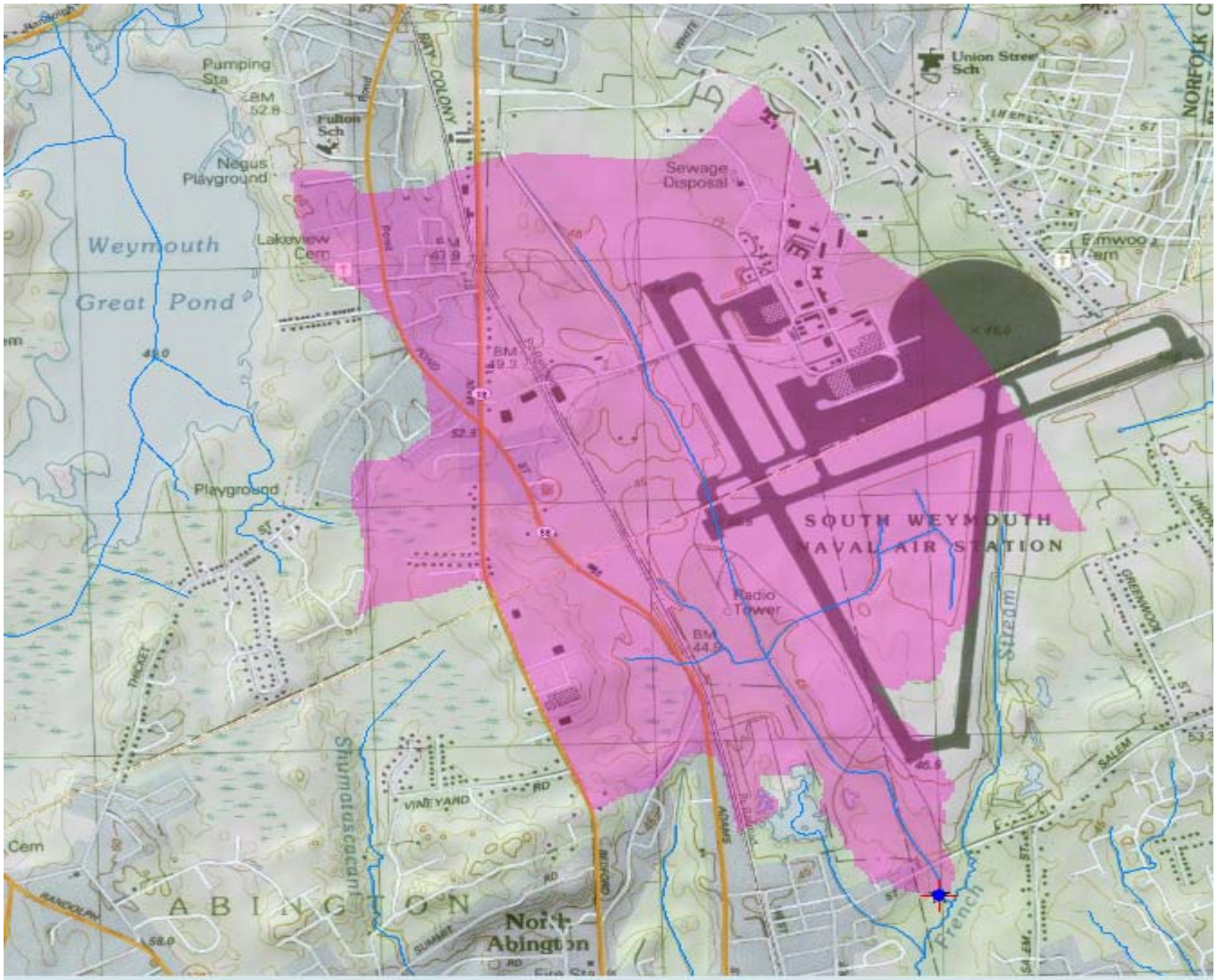
ATTACHMENT C

SUPPORT CALCULATIONS

USGS
Massachusetts StreamStats

StreamStats Print Page

West Gate Drainage Area



Legend

4/16/200

GlobalWatershedPoint	NHD Flowline	Stream Gages
GlobalWatershed	<all other values>	Gaging Stat
Excluded Areas	ArtificialPath	Low Flow, P
nhdgages	CanalDitch	Peak Flow, F

WinTR-55 Current Data Description

--- Identification Data ---

User: SL
Project: WestGate
SubTitle: French Stream West Branch before Junction
State: Massachusetts
County: Plymouth
Filename: S:\NAS - South Weymouth - Mertz - A\Flood Study\TR-55\French Stream.w55

Date: 4/28/2010
Units: English
Areal Units: Square Miles

--- Sub-Area Data ---

Name	Description	Reach	Area(mi²)	RCN	Tc
US	French Stream	Outlet	0.9	41	0.832

Total area: .90 (mi²)

--- Storm Data --

Rainfall Depth by Rainfall Return Period

2-Yr (in)	5-Yr (in)	10-Yr (in)	25-Yr (in)	50-Yr (in)	100-Yr (in)	500-Yr (in)
3.4	4.3	4.7	5.6	6.2	7.0	7.8

Storm Data Source: User-provided custom storm data
Rainfall Distribution Type: Type III
Dimensionless Unit Hydrograph: <standard>

SL

WestGate
French Stream West Branch before Junction
Plymouth County, Massachusetts

Storm Data

Rainfall Depth by Rainfall Return Period

2-Yr (in)	5-Yr (in)	10-Yr (in)	25-Yr (in)	50-Yr (in)	100-Yr (in)	500-Yr (in)
3.4	4.3	4.7	5.6	6.2	7.0	7.8

Storm Data Source: User-provided custom storm data
Rainfall Distribution Type: Type III
Dimensionless Unit Hydrograph: <standard>

SL

WestGate
French Stream West Branch before Junction
Plymouth County, Massachusetts

Watershed Peak Table

Sub-Area or Reach Identifier	Peak Flow by Rainfall Return Period 10-Yr (cfs)	50-Yr (cfs)	100-Yr (cfs)	500-Yr (cfs)
SUBAREAS				
US	17.28	106.59	185.38	283.00
REACHES				
OUTLET	17.28	106.59	185.38	283.00

SL WestGate
French Stream West Branch before Junction
Plymouth County, Massachusetts

Hydrograph Peak/Peak Time Table

Sub-Area or Reach Identifier	Peak Flow and Peak Time (hr) by Rainfall Return Period 10-Yr (cfs) (hr)	50-Yr (cfs) (hr)	100-Yr (cfs) (hr)	500-Yr (cfs) (hr)
SUBAREAS				
US	17.28	106.59	185.38	283.00
	13.48	12.80	12.78	12.73
REACHES				
OUTLET	17.28	106.59	185.38	283.00

SL

WestGate
French Stream West Branch before Junction
Plymouth County, Massachusetts

Sub-Area Summary Table

Sub-Area Identifier	Drainage Area (mi^2)	Time of Concentration (hr)	Curve Number	Receiving Reach	Sub-Area Description
US	.90	0.832	41	Outlet	French Stream

Total Area: .90 (mi^2)

SL

WestGate
French Stream West Branch before Junction
Plymouth County, Massachusetts

Sub-Area Time of Concentration Details

Sub-Area Identifier/	Flow Length (ft)	Slope (ft/ft)	Mannings's n	End Area (sq ft)	Wetted Perimeter (ft)	Velocity (ft/sec)	Travel Time (hr)
US							
SHEET	100	0.0800	0.400				0.199
SHALLOW	10400	0.0800	0.050				0.633
						Time of Concentration	0.832

SL

WestGate
French Stream West Branch before Junction
Plymouth County, Massachusetts

Sub-Area Land Use and Curve Number Details

Sub-Area Identifier	Land Use	Hydrologic Soil Group	Sub-Area Area (mi^2)	Curve Number
US	CN directly entered by user	-	.9	41
	Total Area / Weighted Curve Number		.9	41
			==	==

ATTACHMENT D

HYDRAULIC MODEL EXISTING CONDITIONS

HEC-RAS Version 4.0 Beta
U.S. Army Corp of Engineers
Hydrologic Engineering Center
609 Second Street
Davis, California

```
X     X  XXXXXX    XXXX        XXXX       XX      XXXX
X     X  X        X    X       X   X     X  X    X
X     X  X        X            X   X    X    X   X
XXXXXXX  XXXX     X       XXX  XXXX     XXXXXX    XXXX
X     X  X        X            X  X     X    X        X
X     X  X        X    X       X   X    X    X        X
X     X  XXXXXX    XXXX        X    X   X    X   XXXXX
```

****

PROJECT DATA
Project Title: WestGate-revised
Project File : WG.prj
Run Date and Time: 4/28/2010 2:55:53 PM

Project in English units

****

PLAN DATA

Plan Title: Existing
Plan File : h:\WestGate, MA\HecRas\WG.p02

Geometry Title: Existing
Geometry File : h:\WestGate, MA\HecRas\WG.g01

Flow Title : FS
Flow File : h:\WestGate, MA\HecRas\WG.f02

Plan Summary Information:
Number of: Cross Sections = 92 Multiple Openings = 0
Culverts = 4 Inline Structures = 0
Bridges = 0 Lateral Structures = 0

Computational Information
Water surface calculation tolerance = 0.01
Critical depth calculation tolerance = 0.01
Maximum number of iterations = 20
Maximum difference tolerance = 0.3
Flow tolerance factor = 0.001

Computation Options
Critical depth computed only where necessary
Conveyance Calculation Method: At breaks in n values only
Friction Slope Method: Average Conveyance
Computational Flow Regime: Subcritical Flow

****

FLOW DATA

Flow Title: FS
Flow File : h:\WestGate, MA\HecRas\WG.f02

Flow Data (cfs)
****
****
* River Reach RS * 10 50 100
500 *
* French Stream 1 100 * 110 180 220
340 *
****
****

Boundary Conditions
****
* River Reach Profile * Upstream Downstream *
****

```
* French Stream   1              10              *                                    Known WS = 0 *
* French Stream   1              50              *                                    Known WS = 0 *
* French Stream   1              100             *                                 Known WS = 124.2 *
* French Stream   1              500             *                                    Known WS = 0 *
*****************************************************************************************************

*****************************************************************************

GEOMETRY DATA

Geometry Title: Existing
Geometry File : h:\WestGate, MA\HecRas\WG.g01

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 100

INPUT
Description: 100+00
Station Elevation Data    num=      10
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
    -200   155.8    -130   152.7    -122   153.5    -100     152     -78     154
     -35     154      -8   146.8      20   146.8     200   149.2     350     152

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -35     .03     200     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -35     200              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
*****************************************************************************************************
* E.G. Elev (ft)         *  148.38  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.04  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  148.34  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *  135.81  *          *
* E.G. Slope (ft/ft)     *0.001212  * Area (sq ft)           *          *  135.81  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *  148.91  * Top Width (ft)         *          *  148.91  *          *
* Vel Total (ft/s)       *    1.62  * Avg. Vel. (ft/s)       *          *    1.62  *          *
* Max Chl Dpth (ft)      *    1.54  * Hydr. Depth (ft)       *          *    0.91  *          *
* Conv. Total (cfs)      *  6320.1  * Conv. (cfs)            *          *  6320.1  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *  149.12  *          *
* Min Ch El (ft)         *  146.80  * Shear (lb/sq ft)       *          *    0.07  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    0.11  *          *
* Frctn Loss (ft)        *    0.13  * Cum Volume (acre-ft)   *    0.39  *   19.26  *    0.66  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)         *    0.49  *    8.38  *    0.82  *
*****************************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 99

INPUT
Description: 99+00
Station Elevation Data    num=       9
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
    -200   157.2    -197     156     -85     154   -62.5   155.5     -37     154
      -6   146.6      15   146.6     200   149.4     350     152

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -37     .03     200     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -37     200              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
*****************************************************************************************************
* E.G. Elev (ft)         *  148.24  * Element                *  Left OB *  Channel * Right OB *
```

Vel Head (ft)	0.05	Wt. n-Val.		0.030		
W.S. Elev (ft)	148.19	Reach Len. (ft)	100.00	100.00	100.00	
Crit W.S. (ft)		Flow Area (sq ft)		122.45		
E.G. Slope (ft/ft)	0.001470	Area (sq ft)		122.45		
Q Total (cfs)	220.00	Flow (cfs)		220.00		
Top Width (ft)	132.85	Top Width (ft)		132.85		
Vel Total (ft/s)	1.80	Avg. Vel. (ft/s)		1.80		
Max Chl Dpth (ft)	1.59	Hydr. Depth (ft)		0.92		
Conv. Total (cfs)	5738.9	Conv. (cfs)		5738.9		
Length Wtd. (ft)	100.00	Wetted Per. (ft)		133.05		
Min Ch El (ft)	146.60	Shear (lb/sq ft)		0.08		
Alpha	1.00	Stream Power (lb/ft s)		0.15		
Frctn Loss (ft)	0.14	Cum Volume (acre-ft)	0.39	18.96	0.66	
C & E Loss (ft)	0.00	Cum SA (acres)	0.49	8.06	0.82	

CROSS SECTION

RIVER: French Stream
REACH: 1 RS: 98

INPUT
Description: 98+00
Station Elevation Data num= 7

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-200	156	-67	156	-35	154	-7	146.4	20	146.4
200	150	350	152						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-200	.05	-35	.03	200	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
-35	200	100	100	100	.1	.3

CROSS SECTION OUTPUT Profile #100

E.G. Elev (ft)	148.10	Element	Left OB	Channel	Right OB	
Vel Head (ft)	0.06	Wt. n-Val.		0.030		
W.S. Elev (ft)	148.04	Reach Len. (ft)	100.00	100.00	100.00	
Crit W.S. (ft)		Flow Area (sq ft)		116.63		
E.G. Slope (ft/ft)	0.001429	Area (sq ft)		116.63		
Q Total (cfs)	220.00	Flow (cfs)		220.00		
Top Width (ft)	115.11	Top Width (ft)		115.11		
Vel Total (ft/s)	1.89	Avg. Vel. (ft/s)		1.89		
Max Chl Dpth (ft)	1.64	Hydr. Depth (ft)		1.01		
Conv. Total (cfs)	5819.2	Conv. (cfs)		5819.2		
Length Wtd. (ft)	100.00	Wetted Per. (ft)		115.35		
Min Ch El (ft)	146.40	Shear (lb/sq ft)		0.09		
Alpha	1.00	Stream Power (lb/ft s)		0.17		
Frctn Loss (ft)	0.12	Cum Volume (acre-ft)	0.39	18.68	0.66	
C & E Loss (ft)	0.00	Cum SA (acres)	0.49	7.77	0.82	

CROSS SECTION

RIVER: French Stream
REACH: 1 RS: 97

INPUT
Description: 97+00
Station Elevation Data num= 10

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-200	160	-175	160	-159	157.8	-95	156	-78	154
-30	154.2	-10	146.2	10	146	200	149.8	320	152

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-200	.05	-30	.03	200	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
-30	200	100	100	100	.1	.3

CROSS SECTION OUTPUT Profile #100

E.G. Elev (ft)	147.98	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.04	Wt. n-Val.		0.030	
W.S. Elev (ft)	147.93	Reach Len. (ft)	100.00	100.00	100.00
Crit W.S. (ft)		Flow Area (sq ft)		134.00	
E.G. Slope (ft/ft)	0.000963	Area (sq ft)		134.00	
Q Total (cfs)	220.00	Flow (cfs)		220.00	
Top Width (ft)	121.06	Top Width (ft)		121.06	
Vel Total (ft/s)	1.64	Avg. Vel. (ft/s)		1.64	
Max Chl Dpth (ft)	1.93	Hydr. Depth (ft)		1.11	
Conv. Total (cfs)	7088.0	Conv. (cfs)		7088.0	
Length Wtd. (ft)	100.00	Wetted Per. (ft)		121.41	
Min Ch El (ft)	146.00	Shear (lb/sq ft)		0.07	
Alpha	1.00	Stream Power (lb/ft s)		0.11	
Frctn Loss (ft)	0.17	Cum Volume (acre-ft)	0.39	18.40	0.66
C & E Loss (ft)	0.01	Cum SA (acres)	0.49	7.50	0.82

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION

RIVER: French Stream
REACH: 1 RS: 96

INPUT
Description: 96+00
Station Elevation Data num= 10

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-200	155.95	-150	157	-80	152.8	-57	154	-20	154
-10	146	10	146	62	148	200	149	330	152

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-200	.05	-20	.03	62	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
-20	62	100	100	100	.1	.3

CROSS SECTION OUTPUT Profile #100

E.G. Elev (ft)	147.79	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.16	Wt. n-Val.		0.030	
W.S. Elev (ft)	147.64	Reach Len. (ft)	100.00	100.00	100.00
Crit W.S. (ft)		Flow Area (sq ft)		69.33	
E.G. Slope (ft/ft)	0.003786	Area (sq ft)		69.33	
Q Total (cfs)	220.00	Flow (cfs)		220.00	
Top Width (ft)	64.64	Top Width (ft)		64.64	
Vel Total (ft/s)	3.17	Avg. Vel. (ft/s)		3.17	
Max Chl Dpth (ft)	1.64	Hydr. Depth (ft)		1.07	
Conv. Total (cfs)	3575.4	Conv. (cfs)		3575.4	
Length Wtd. (ft)	100.00	Wetted Per. (ft)		65.25	
Min Ch El (ft)	146.00	Shear (lb/sq ft)		0.25	
Alpha	1.00	Stream Power (lb/ft s)		0.80	
Frctn Loss (ft)	0.20	Cum Volume (acre-ft)	0.39	18.16	0.66
C & E Loss (ft)	0.02	Cum SA (acres)	0.49	7.29	0.82

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION

RIVER: French Stream
REACH: 1 RS: 95

INPUT
Description: 95+00
Station Elevation Data num= 7

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-200	155.6	-25	154	-10	145	10	145	53	148.8
200	149.2	350	152						

```
Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
*********************************************
    -200     .05     -25     .03      53     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -25      53              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
*****************************************************************************************
* E.G. Elev (ft)         *  147.58  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.09  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  147.48  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   89.73  *          *
* E.G. Slope (ft/ft)     *0.001216  * Area (sq ft)           *          *   89.73  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   52.25  * Top Width (ft)         *          *   52.25  *          *
* Vel Total (ft/s)       *    2.45  * Avg. Vel. (ft/s)       *          *    2.45  *          *
* Max Chl Dpth (ft)      *    2.48  * Hydr. Depth (ft)       *          *    1.72  *          *
* Conv. Total (cfs)      *  6309.8  * Conv. (cfs)            *          *  6309.8  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   53.05  *          *
* Min Ch El (ft)         *  145.00  * Shear (lb/sq ft)       *          *    0.13  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    0.31  *          *
* Frctn Loss (ft)        *    0.11  * Cum Volume (acre-ft)   *    0.39  *   17.98  *    0.66  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)         *    0.49  *    7.15  *    0.82  *
*****************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 94

INPUT
Description: 94+00
Station Elevation Data    num=       9
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200     156    -115     154     -25     154     -10   144.5      10   144.5
      25 146.968      72     150     200   149.9     350     153

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
*********************************************
    -200     .05     -25     .03      72     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -25      72              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
*****************************************************************************************
* E.G. Elev (ft)         *  147.47  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.09  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  147.37  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   89.81  *          *
* E.G. Slope (ft/ft)     *0.001027  * Area (sq ft)           *          *   89.81  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   45.81  * Top Width (ft)         *          *   45.81  *          *
* Vel Total (ft/s)       *    2.45  * Avg. Vel. (ft/s)       *          *    2.45  *          *
* Max Chl Dpth (ft)      *    2.87  * Hydr. Depth (ft)       *          *    1.96  *          *
* Conv. Total (cfs)      *  6864.4  * Conv. (cfs)            *          *  6864.4  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   46.85  *          *
* Min Ch El (ft)         *  144.50  * Shear (lb/sq ft)       *          *    0.12  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    0.30  *          *
* Frctn Loss (ft)        *    0.08  * Cum Volume (acre-ft)   *    0.39  *   17.77  *    0.66  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)         *    0.49  *    7.04  *    0.82  *
*****************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 93

INPUT
Description: 93+00
Station Elevation Data    num=       9
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
```

```
*******************************************************************************
    -200   155.1    -127     154     -40     154     -10     144      10     144
      22     148      58     150     200  149.95     350     152

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
    -200     .05     -40     .03      58     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -40      58              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
*****************************************************************************************
* E.G. Elev (ft)         *  147.38  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.08  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  147.31  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   98.88  *          *
* E.G. Slope (ft/ft)     *0.000622  * Area (sq ft)           *          *   98.88  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)              *          *  220.00  *          *
* Top Width (ft)         *   39.83  * Top Width (ft)          *          *   39.83  *          *
* Vel Total (ft/s)       *    2.22  * Avg. Vel. (ft/s)        *          *    2.22  *          *
* Max Chl Dpth (ft)      *    3.31  * Hydr. Depth (ft)        *          *    2.48  *          *
* Conv. Total (cfs)      *  8821.8  * Conv. (cfs)              *          *  8821.8  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)        *          *   40.90  *          *
* Min Ch El (ft)         *  144.00  * Shear (lb/sq ft)        *          *    0.09  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s)   *          *    0.21  *          *
* Frctn Loss (ft)        *    0.05  * Cum Volume (acre-ft)     *    0.39  *   17.56  *    0.66  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)           *    0.49  *    6.94  *    0.82  *
*****************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 92

INPUT
Description: 92+00
Station Elevation Data    num=       8
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200     154     -23   152.4     -10   143.5      10   143.5      20   147.9
      75     150     200     150     300     152

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
    -200     .05     -23     .03      20     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -23      20              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
*****************************************************************************************
* E.G. Elev (ft)         *  147.33  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.07  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  147.25  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *  101.37  *          *
* E.G. Slope (ft/ft)     *0.000482  * Area (sq ft)           *          *  101.37  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)              *          *  220.00  *          *
* Top Width (ft)         *   34.01  * Top Width (ft)          *          *   34.01  *          *
* Vel Total (ft/s)       *    2.17  * Avg. Vel. (ft/s)        *          *    2.17  *          *
* Max Chl Dpth (ft)      *    3.75  * Hydr. Depth (ft)        *          *    2.98  *          *
* Conv. Total (cfs)      * 10018.0  * Conv. (cfs)              *          * 10018.0  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)        *          *   35.96  *          *
* Min Ch El (ft)         *  143.50  * Shear (lb/sq ft)        *          *    0.08  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s)   *          *    0.18  *          *
* Frctn Loss (ft)        *    0.04  * Cum Volume (acre-ft)     *    0.39  *   17.33  *    0.66  *
* C & E Loss (ft)        *    0.01  * Cum SA (acres)           *    0.49  *    6.86  *    0.82  *
*****************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 91

INPUT
```

```
Description: 91+00
Station Elevation Data    num=      10
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
    -200  152.05     -30     152     -10     143      10     143      30     150
      43   149.4      49     150      70   148.7     200   148.9     350     152

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -30     .03      30     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -30      30              100     100     100              .1       .3

CROSS SECTION OUTPUT  Profile #100
*********************************************************************************************
* E.G. Elev (ft)         *  147.28  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.04  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  147.24  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *  130.40  *          *
* E.G. Slope (ft/ft)     *0.000266  * Area (sq ft)           *          *  130.40  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   41.53  * Top Width (ft)          *          *   41.53  *          *
* Vel Total (ft/s)       *    1.69  * Avg. Vel. (ft/s)        *          *    1.69  *          *
* Max Chl Dpth (ft)      *    4.24  * Hydr. Depth (ft)        *          *    3.14  *          *
* Conv. Total (cfs)      * 13498.6  * Conv. (cfs)            *          * 13498.6  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)        *          *   43.16  *          *
* Min Ch El (ft)         *  143.00  * Shear (lb/sq ft)        *          *    0.05  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s)  *          *    0.08  *          *
* Frctn Loss (ft)        *    0.03  * Cum Volume (acre-ft)    *    0.39  *   17.06  *    0.66  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)          *    0.49  *    6.77  *    0.82  *
*********************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 90

INPUT
Description: 90+00
Station Elevation Data    num=      11
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
    -200  152.05    -188     152    -175   150.5    -158     153     -50     152
      -7   142.8       9   142.8      15     150     150     150     200  148.95
     350     152

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -50     .03      15     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -50      15              100     100     100              .1       .3

CROSS SECTION OUTPUT  Profile #100
*********************************************************************************************
* E.G. Elev (ft)         *  147.25  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.05  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  147.20  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *  123.90  *          *
* E.G. Slope (ft/ft)     *0.000311  * Area (sq ft)           *          *  123.90  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   40.26  * Top Width (ft)          *          *   40.26  *          *
* Vel Total (ft/s)       *    1.78  * Avg. Vel. (ft/s)        *          *    1.78  *          *
* Max Chl Dpth (ft)      *    4.40  * Hydr. Depth (ft)        *          *    3.08  *          *
* Conv. Total (cfs)      * 12467.5  * Conv. (cfs)            *          * 12467.5  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)        *          *   42.79  *          *
* Min Ch El (ft)         *  142.80  * Shear (lb/sq ft)        *          *    0.06  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s)  *          *    0.10  *          *
* Frctn Loss (ft)        *    0.02  * Cum Volume (acre-ft)    *    0.39  *   16.77  *    0.66  *
* C & E Loss (ft)        *    0.01  * Cum SA (acres)          *    0.49  *    6.68  *    0.82  *
*********************************************************************************************

CROSS SECTION
```

```
RIVER: French Stream
REACH: 1                  RS: 89

INPUT
Description: 89+00
Station Elevation Data    num=      12
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
    -200   152.9    -176  152.95    -144     155     -63   152.2     -49   146.7
     -33   148.8     -13   142.6       7   142.6      25   148.7      85   150.9
     180   150.5     200     151

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -33     .03      25     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -33      25              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
*************************************************************************************************
* E.G. Elev (ft)         *  147.23  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.03  * Wt. n-Val.             *   0.050  *   0.030  *          *
* W.S. Elev (ft)         *  147.20  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *    1.25  *  157.11  *          *
* E.G. Slope (ft/ft)     *0.000173  * Area (sq ft)           *    1.25  *  157.11  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *    0.19  *  219.81  *          *
* Top Width (ft)         *   53.41  * Top Width (ft)         *    5.03  *   48.38  *          *
* Vel Total (ft/s)       *    1.39  * Avg. Vel. (ft/s)       *    0.15  *    1.40  *          *
* Max Chl Dpth (ft)      *    4.60  * Hydr. Depth (ft)       *    0.25  *    3.25  *          *
* Conv. Total (cfs)      * 16744.9  * Conv. (cfs)            *    14.4  * 16730.5  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *    5.16  *   49.83  *          *
* Min Ch El (ft)         *  142.60  * Shear (lb/sq ft)       *    0.00  *    0.03  *          *
* Alpha                  *    1.01  * Stream Power (lb/ft s) *    0.00  *    0.05  *          *
* Frctn Loss (ft)        *    0.02  * Cum Volume (acre-ft)   *    0.39  *   16.45  *    0.66  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)         *    0.48  *    6.58  *    0.82  *
*************************************************************************************************

Warning: Divided flow computed for this cross-section.

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 88

INPUT
Description: 88+00
Station Elevation Data    num=       8
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
    -200   153.2    -185   154.3     -30     150     -10   142.4      10   142.4
      47     152     200   150.5     300     152

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -30     .03      47     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -30      47              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
*************************************************************************************************
* E.G. Elev (ft)         *  147.21  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.03  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  147.18  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *  169.81  *          *
* E.G. Slope (ft/ft)     *0.000143  * Area (sq ft)           *          *  169.81  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   51.02  * Top Width (ft)         *          *   51.02  *          *
* Vel Total (ft/s)       *    1.30  * Avg. Vel. (ft/s)       *          *    1.30  *          *
* Max Chl Dpth (ft)      *    4.78  * Hydr. Depth (ft)       *          *    3.33  *          *
* Conv. Total (cfs)      * 18394.8  * Conv. (cfs)            *          * 18394.8  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   52.51  *          *
* Min Ch El (ft)         *  142.40  * Shear (lb/sq ft)       *          *    0.03  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    0.04  *          *
* Frctn Loss (ft)        *    0.01  * Cum Volume (acre-ft)   *    0.39  *   16.07  *    0.66  *
```

```
* C & E Loss (ft)        *    0.00  * Cum SA (acres)         *    0.48  *    6.46  *    0.82  *
*****************************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 87

INPUT
Description: 87+00
Station Elevation Data    num=      10
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200   154.4    -190     153     -35     152     -10     142      10     142
      28     150      58   150.7     150     150     175   150.5     200   150.8

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
    -200     .05     -35     .03      28     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -35      28               64      64      64             .1       .3

CROSS SECTION OUTPUT  Profile #100
*****************************************************************************************************
* E.G. Elev (ft)         *  147.19  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.03  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  147.17  * Reach Len. (ft)        *   64.00  *   64.00  *   64.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *  166.78  *          *
* E.G. Slope (ft/ft)     *0.000130  * Area (sq ft)           *          *  166.78  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)              *          *  220.00  *          *
* Top Width (ft)         *   44.55  * Top Width (ft)          *          *   44.55  *          *
* Vel Total (ft/s)       *    1.32  * Avg. Vel. (ft/s)        *          *    1.32  *          *
* Max Chl Dpth (ft)      *    5.17  * Hydr. Depth (ft)        *          *    3.74  *          *
* Conv. Total (cfs)      * 19317.1  * Conv. (cfs)             *          * 19317.1  *          *
* Length Wtd. (ft)       *   64.00  * Wetted Per. (ft)        *          *   46.64  *          *
* Min Ch El (ft)         *  142.00  * Shear (lb/sq ft)        *          *    0.03  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s)   *          *    0.04  *          *
* Frctn Loss (ft)        *    0.01  * Cum Volume (acre-ft)     *    0.39  *   15.69  *    0.66  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)           *    0.48  *    6.35  *    0.82  *
*****************************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 86.36

INPUT
Description: 86+36
Station Elevation Data    num=       7
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200   154.1    -175     153     -35   151.8     -10   141.8      10   141.8
      31   151.2     200     150

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
    -200     .05     -35     .03      31     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -35      31              126     126     126             .1       .3

CROSS SECTION OUTPUT  Profile #100
*****************************************************************************************************
* E.G. Elev (ft)         *  147.19  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.02  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  147.16  * Reach Len. (ft)        *  126.00  *  126.00  *  126.00  *
* Crit W.S. (ft)         *  143.26  * Flow Area (sq ft)      *          *  175.28  *          *
* E.G. Slope (ft/ft)     *0.000113  * Area (sq ft)           *          *  175.28  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)              *          *  220.00  *          *
* Top Width (ft)         *   45.38  * Top Width (ft)          *          *   45.38  *          *
* Vel Total (ft/s)       *    1.26  * Avg. Vel. (ft/s)        *          *    1.26  *          *
* Max Chl Dpth (ft)      *    5.36  * Hydr. Depth (ft)        *          *    3.86  *          *
* Conv. Total (cfs)      * 20714.5  * Conv. (cfs)             *          * 20714.5  *          *
* Length Wtd. (ft)       *  126.00  * Wetted Per. (ft)        *          *   47.56  *          *
```

```
* Min Ch El (ft)         *  141.80  * Shear (lb/sq ft)       *          *    0.03  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    0.03  *          *
* Frctn Loss (ft)        *          * Cum Volume (acre-ft)   *    0.39  *   15.44  *    0.66  *
* C & E Loss (ft)        *          * Cum SA (acres)         *    0.48  *    6.29  *    0.82  *
*****************************************************************************************************

CULVERT


RIVER: French Stream
REACH: 1                  RS: 85.73

INPUT
Description:
Distance from Upstream XS =       3
Deck/Roadway Width        =      26
Weir Coefficient          =     2.6
Upstream  Deck/Roadway Coordinates
    num=       2
     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord
***********************************************
     -35   151.8   141.8      31   151.2   141.8

Upstream Bridge Cross Section Data
Station Elevation Data    num=       7
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200   154.1    -175     153     -35   151.8     -10   141.8      10   141.8
      31   151.2     200     150

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -35     .03      31     .05

Bank Sta: Left   Right    Coeff Contr.   Expan.
           -35      31             .1       .3

Downstream  Deck/Roadway Coordinates
    num=       2
     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord
***********************************************
     -28     149   141.6      25  147.33   141.6

Downstream Bridge Cross Section Data
Station Elevation Data    num=      10
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200   152.1     -28     149     -25 147.767     -10   141.6      10   141.6
      20     147      25 147.333      50     149     175     151     200     151

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -25     .03      25     .05

Bank Sta: Left   Right    Coeff Contr.   Expan.
           -25      25             .1       .3

Upstream Embankment side slope              =       0 horiz. to 1.0 vertical
Downstream Embankment side slope            =       0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow =     .95
Elevation at which weir flow begins         =
Energy head used in spillway design         =
Spillway height used in design              =
Weir crest shape                            = Broad Crested

Number of Culverts =  1

Culvert Name     Shape      Rise    Span
Culvert #1      Circular       4
FHWA Chart # 1 - Concrete Pipe Culvert
FHWA Scale # 1 - Square edge entrance with headwall
Solution Criteria = Highest U.S. EG
Culvert Upstrm Dist  Length    Top n  Bottom n  Depth Blocked  Entrance Loss Coef   Exit Loss Coef
                  5     120     .013     .013        0                   .1                1
Number of Barrels =  2
Upstream   Elevation =  141.8
Centerline Stations
```

```
    Sta.    Sta.
      -5       5
Downstream Elevation =  141.6
Centerline Stations
    Sta.    Sta.
      -5       5

CULVERT OUTPUT  Profile #100  Culv Group:  Culvert #1
**********************************************************************
* Q Culv Group (cfs)     *  220.00  * Culv Full Len (ft)     *   18.45  *
* # Barrels              *       2  * Culv Vel US (ft/s)     *    8.75  *
* Q Barrel (cfs)         *  110.00  * Culv Vel DS (ft/s)     *   10.30  *
* E.G. US. (ft)          *  147.19  * Culv Inv El Up (ft)    *  141.80  *
* W.S. US. (ft)          *  147.16  * Culv Inv El Dn (ft)    *  141.60  *
* E.G. DS (ft)           *  144.20  * Culv Frctn Ls (ft)     *    0.65  *
* W.S. DS (ft)           *  143.99  * Culv Exit Loss (ft)    *    2.22  *
* Delta EG (ft)          *    2.99  * Culv Entr Loss (ft)    *    0.12  *
* Delta WS (ft)          *    3.17  * Q Weir (cfs)           *          *
* E.G. IC (ft)           *  147.53  * Weir Sta Lft (ft)      *          *
* E.G. OC (ft)           *  147.19  * Weir Sta Rgt (ft)      *          *
* Culvert Control        *  Outlet  * Weir Submerg           *          *
* Culv WS Inlet (ft)     *  145.80  * Weir Max Depth (ft)    *          *
* Culv WS Outlet (ft)    *  144.77  * Weir Avg Depth (ft)    *          *
* Culv Nml Depth (ft)    *    4.00  * Weir Flow Area (sq ft) *          *
* Culv Crt Depth (ft)    *    3.17  * Min El Weir Flow (ft)  *  150.01  *
**********************************************************************

Note:    The normal depth exceeds the height of the culvert.  The program assumes that the normal
         depth is equal to the height of the culvert.
Note:    The culvert inlet is submerged and the culvert flows full over part or all of its length.
Therefore,
         the culvert inlet equations are not valid and the supercritical result has been discarded.  The
         outlet answer will be used.

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 85.10

INPUT
Description: 85+10
Station Elevation Data    num=      10
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
**********************************************************************************
    -200   152.1     -28     149     -25 147.767     -10   141.6      10   141.6
      20     147      25 147.333      50     149     175     151     200     151

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -25     .03      25     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -25      25               10      10      10              .1       .3

CROSS SECTION OUTPUT  Profile #100
**************************************************************************************************
* E.G. Elev (ft)         *  144.20  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.21  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  143.99  * Reach Len. (ft)        *   10.00  *   10.00  *   10.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   60.00  *          *
* E.G. Slope (ft/ft)     *0.002303  * Area (sq ft)           *          *   60.00  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   30.23  * Top Width (ft)          *          *   30.23  *          *
* Vel Total (ft/s)       *    3.67  * Avg. Vel. (ft/s)        *          *    3.67  *          *
* Max Chl Dpth (ft)      *    2.39  * Hydr. Depth (ft)        *          *    1.98  *          *
* Conv. Total (cfs)      *  4584.5  * Conv. (cfs)             *          *  4584.5  *          *
* Length Wtd. (ft)       *   10.00  * Wetted Per. (ft)        *          *   31.31  *          *
* Min Ch El (ft)         *  141.60  * Shear (lb/sq ft)        *          *    0.28  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s)  *          *    1.01  *          *
* Frctn Loss (ft)        *    0.02  * Cum Volume (acre-ft)    *    0.39  *   15.09  *    0.66  *
* C & E Loss (ft)        *    0.02  * Cum SA (acres)          *    0.48  *    6.18  *    0.82  *
**************************************************************************************************

CROSS SECTION


RIVER: French Stream
```

```
REACH: 1                  RS: 85

INPUT
Description: 85+00
Station Elevation Data    num=       9
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
    -200  150.05     -25 149.018     -22     149     -10   141.4      10   141.4
      25  145.52      55   149.5     165     151     200     151

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -25     .03      55     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -25      55              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
*********************************************************************************************
* E.G. Elev (ft)         *  144.16  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.15  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  144.01  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   69.91  *          *
* E.G. Slope (ft/ft)     *0.001587  * Area (sq ft)           *          *   69.91  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   33.61  * Top Width (ft)         *          *   33.61  *          *
* Vel Total (ft/s)       *    3.15  * Avg. Vel. (ft/s)       *          *    3.15  *          *
* Max Chl Dpth (ft)      *    2.61  * Hydr. Depth (ft)       *          *    2.08  *          *
* Conv. Total (cfs)      *  5521.8  * Conv. (cfs)            *          *  5521.8  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   34.72  *          *
* Min Ch El (ft)         *  141.40  * Shear (lb/sq ft)       *          *    0.20  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    0.63  *          *
* Frctn Loss (ft)        *    0.17  * Cum Volume (acre-ft)   *    0.39  *   15.08  *    0.66  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)         *    0.48  *    6.17  *    0.82  *
*********************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 84

INPUT
Description: 84+00
Station Elevation Data    num=       6
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
    -200     150     -25   150.1     -10   141.2      10   141.2      25     151
     200     151

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -25     .03      25     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -25      25              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
*********************************************************************************************
* E.G. Elev (ft)         *  143.99  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.19  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  143.80  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   62.75  *          *
* E.G. Slope (ft/ft)     *0.001859  * Area (sq ft)           *          *   62.75  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   28.35  * Top Width (ft)         *          *   28.35  *          *
* Vel Total (ft/s)       *    3.51  * Avg. Vel. (ft/s)       *          *    3.51  *          *
* Max Chl Dpth (ft)      *    2.60  * Hydr. Depth (ft)       *          *    2.21  *          *
* Conv. Total (cfs)      *  5102.8  * Conv. (cfs)            *          *  5102.8  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   29.83  *          *
* Min Ch El (ft)         *  141.20  * Shear (lb/sq ft)       *          *    0.24  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    0.86  *          *
* Frctn Loss (ft)        *    0.18  * Cum Volume (acre-ft)   *    0.39  *   14.93  *    0.66  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)         *    0.48  *    6.10  *    0.82  *
*********************************************************************************************

CROSS SECTION
```

```
RIVER: French Stream
REACH: 1                  RS: 83

INPUT
Description: 83+00
Station Elevation Data    num=      10
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200   150.1     -75     150     -70     150     -60   150.2     -35     151
     -30     151     -10     141      10     141      20   148.8     200  150.95

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
    -200     .05     -30     .03      20     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -30      20              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
*************************************************************************************
* E.G. Elev (ft)         *  143.80  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.19  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  143.62  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   63.56  *          *
* E.G. Slope (ft/ft)     *0.001803  * Area (sq ft)           *          *   63.56  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   28.59  * Top Width (ft)         *          *   28.59  *          *
* Vel Total (ft/s)       *    3.46  * Avg. Vel. (ft/s)       *          *    3.46  *          *
* Max Chl Dpth (ft)      *    2.62  * Hydr. Depth (ft)       *          *    2.22  *          *
* Conv. Total (cfs)      *  5180.7  * Conv. (cfs)            *          *  5180.7  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   30.10  *          *
* Min Ch El (ft)         *  141.00  * Shear (lb/sq ft)       *          *    0.24  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    0.82  *          *
* Frctn Loss (ft)        *    0.17  * Cum Volume (acre-ft)   *    0.39  *   14.78  *    0.66  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)         *    0.48  *    6.03  *    0.82  *
*************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 82

INPUT
Description: 82+00
Station Elevation Data    num=       8
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200   150.5    -100   149.7     -40     150     -25     149     -10   140.8
      10   140.8      25     149     200     151

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
    -200     .05     -25     .03      25     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -25      25              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
*************************************************************************************
* E.G. Elev (ft)         *  143.63  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.17  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  143.45  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   65.91  *          *
* E.G. Slope (ft/ft)     *0.001665  * Area (sq ft)           *          *   65.91  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   29.70  * Top Width (ft)         *          *   29.70  *          *
* Vel Total (ft/s)       *    3.34  * Avg. Vel. (ft/s)       *          *    3.34  *          *
* Max Chl Dpth (ft)      *    2.65  * Hydr. Depth (ft)       *          *    2.22  *          *
* Conv. Total (cfs)      *  5390.9  * Conv. (cfs)            *          *  5390.9  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   31.06  *          *
* Min Ch El (ft)         *  140.80  * Shear (lb/sq ft)       *          *    0.22  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    0.74  *          *
* Frctn Loss (ft)        *    0.15  * Cum Volume (acre-ft)   *    0.39  *   14.63  *    0.66  *
* C & E Loss (ft)        *    0.01  * Cum SA (acres)         *    0.48  *    5.97  *    0.82  *
```

```
*****************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 81

INPUT
Description: 81+00
Station Elevation Data    num=       8
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200   154.7     -82     150     -67   149.8     -40     150     -10   140.6
      10   140.6      25     150     200     151

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -40     .03      25     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -40      25              100     100     100              .1       .3

CROSS SECTION OUTPUT  Profile #100
*****************************************************************************************
* E.G. Elev (ft)         *  143.46  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.14  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  143.32  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   72.08  *          *
* E.G. Slope (ft/ft)     *0.001406  * Area (sq ft)           *          *   72.08  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   33.02  * Top Width (ft)         *          *   33.02  *          *
* Vel Total (ft/s)       *    3.05  * Avg. Vel. (ft/s)       *          *    3.05  *          *
* Max Chl Dpth (ft)      *    2.72  * Hydr. Depth (ft)       *          *    2.18  *          *
* Conv. Total (cfs)      *  5867.5  * Conv. (cfs)            *          *  5867.5  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   34.22  *          *
* Min Ch El (ft)         *  140.60  * Shear (lb/sq ft)       *          *    0.18  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    0.56  *          *
* Frctn Loss (ft)        *    0.13  * Cum Volume (acre-ft)   *    0.39  *   14.48  *    0.66  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)         *    0.48  *    5.89  *    0.82  *
*****************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 80

INPUT
Description: 80+00
Station Elevation Data    num=       8
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200   156.1    -183     152    -100   150.5   -37.5     150     -10   140.4
      10   140.4      30     150     200     151

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05   -37.5     .03      30     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
          -37.5      30              100     100     100              .1       .3

CROSS SECTION OUTPUT  Profile #100
*****************************************************************************************
* E.G. Elev (ft)         *  143.33  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.13  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  143.19  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   75.22  *          *
* E.G. Slope (ft/ft)     *0.001254  * Area (sq ft)           *          *   75.22  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   33.83  * Top Width (ft)         *          *   33.83  *          *
* Vel Total (ft/s)       *    2.92  * Avg. Vel. (ft/s)       *          *    2.92  *          *
* Max Chl Dpth (ft)      *    2.79  * Hydr. Depth (ft)       *          *    2.22  *          *
* Conv. Total (cfs)      *  6212.1  * Conv. (cfs)            *          *  6212.1  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   34.94  *          *
* Min Ch El (ft)         *  140.40  * Shear (lb/sq ft)       *          *    0.17  *          *
```

```
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    0.49  *          *
* Frctn Loss (ft)        *    0.11  * Cum Volume (acre-ft)   *    0.39  *   14.31  *    0.66  *
* C & E Loss (ft)        *    0.01  * Cum SA (acres)         *    0.48  *    5.82  *    0.82  *
*********************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 79

INPUT
Description: 79+00
Station Elevation Data    num=       9
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
    -200     155    -190     157    -170   152.9     -30     147     -10   140.2
      10   140.2      31     148     120     151     200   150.4

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -30     .03      31     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -30      31              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
*********************************************************************************************
* E.G. Elev (ft)         *  143.21  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.11  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  143.09  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   81.47  *          *
* E.G. Slope (ft/ft)     *0.001049  * Area (sq ft)           *          *   81.47  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   36.30  * Top Width (ft)         *          *   36.30  *          *
* Vel Total (ft/s)       *    2.70  * Avg. Vel. (ft/s)       *          *    2.70  *          *
* Max Chl Dpth (ft)      *    2.89  * Hydr. Depth (ft)       *          *    2.24  *          *
* Conv. Total (cfs)      *  6793.3  * Conv. (cfs)            *          *  6793.3  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   37.30  *          *
* Min Ch El (ft)         *  140.20  * Shear (lb/sq ft)       *          *    0.14  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    0.39  *          *
* Frctn Loss (ft)        *    0.09  * Cum Volume (acre-ft)   *    0.39  *   14.13  *    0.66  *
* C & E Loss (ft)        *    0.01  * Cum SA (acres)         *    0.48  *    5.74  *    0.82  *
*********************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 78

INPUT
Description: 78+00
Station Elevation Data    num=       9
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
    -200     150    -130   148.9     -70   152.7     -28   146.5     -10     140
      10     140      30 144.489      60     148     200   149.3

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -28     .03      30     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -28      30              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
*********************************************************************************************
* E.G. Elev (ft)         *  143.11  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.09  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  143.02  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   93.44  *          *
* E.G. Slope (ft/ft)     *0.000795  * Area (sq ft)           *          *   93.44  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   41.83  * Top Width (ft)         *          *   41.83  *          *
* Vel Total (ft/s)       *    2.35  * Avg. Vel. (ft/s)       *          *    2.35  *          *
* Max Chl Dpth (ft)      *    3.02  * Hydr. Depth (ft)       *          *    2.23  *          *
```

```
* Conv. Total (cfs)      *  7800.7  * Conv. (cfs)            *          *  7800.7  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   42.70  *          *
* Min Ch El (ft)         *  140.00  * Shear (lb/sq ft)       *          *    0.11  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    0.26  *          *
* Frctn Loss (ft)        *    0.06  * Cum Volume (acre-ft)   *    0.39  *   13.93  *    0.66  *
* C & E Loss (ft)        *    0.01  * Cum SA (acres)         *    0.48  *    5.65  *    0.82  *
**********************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 77

INPUT
Description: 77+00
Station Elevation Data    num=       9
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200   147.9    -146     149     -35   146.7     -10   139.8      10   139.8
      35 143.745      75 146.435     128     150     200     150

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -35     .03      75     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -35      75              100     100     100              .1       .3

CROSS SECTION OUTPUT  Profile #100
**********************************************************************************************
* E.G. Elev (ft)         *  143.03  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.06  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  142.98  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *  113.80  *          *
* E.G. Slope (ft/ft)     *0.000541  * Area (sq ft)           *          *  113.80  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   51.64  * Top Width (ft)         *          *   51.64  *          *
* Vel Total (ft/s)       *    1.93  * Avg. Vel. (ft/s)       *          *    1.93  *          *
* Max Chl Dpth (ft)      *    3.18  * Hydr. Depth (ft)       *          *    2.20  *          *
* Conv. Total (cfs)      *  9461.9  * Conv. (cfs)            *          *  9461.9  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   52.32  *          *
* Min Ch El (ft)         *  139.80  * Shear (lb/sq ft)       *          *    0.07  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    0.14  *          *
* Frctn Loss (ft)        *    0.06  * Cum Volume (acre-ft)   *    0.39  *   13.69  *    0.66  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)         *    0.48  *    5.54  *    0.82  *
**********************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 76

INPUT
Description: 76+00
Station Elevation Data    num=       7
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200   147.6     -82     149     -25     147     -10   139.6      10   139.6
      55     150     200     150

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -25     .03      55     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -25      55              100     100     100              .1       .3

CROSS SECTION OUTPUT  Profile #100
**********************************************************************************************
* E.G. Elev (ft)         *  142.98  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.07  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  142.90  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *  100.67  *          *
* E.G. Slope (ft/ft)     *0.000609  * Area (sq ft)           *          *  100.67  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
```

```
* Top Width (ft)         *   40.98  * Top Width (ft)         *          *   40.98  *          *
* Vel Total (ft/s)       *    2.19  * Avg. Vel. (ft/s)       *          *    2.19  *          *
* Max Chl Dpth (ft)      *    3.30  * Hydr. Depth (ft)       *          *    2.46  *          *
* Conv. Total (cfs)      *  8912.6  * Conv. (cfs)            *          *  8912.6  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   42.13  *          *
* Min Ch El (ft)         *  139.60  * Shear (lb/sq ft)       *          *    0.09  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    0.20  *          *
* Frctn Loss (ft)        *    0.06  * Cum Volume (acre-ft)   *    0.39  *   13.44  *    0.66  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)         *    0.48  *    5.43  *    0.82  *
*********************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 75

INPUT
Description: 75+00
Station Elevation Data    num=       7
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200     148    -125   149.9     -37     148     -10   139.4      10   139.4
      23     147     200   149.4

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
*********************************************
    -200     .05     -37     .03      23     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -37      23              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
*********************************************************************************************
* E.G. Elev (ft)         *  142.92  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.08  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  142.84  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   97.34  *          *
* E.G. Slope (ft/ft)     *0.000597  * Area (sq ft)           *          *   97.34  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   36.66  * Top Width (ft)         *          *   36.66  *          *
* Vel Total (ft/s)       *    2.26  * Avg. Vel. (ft/s)       *          *    2.26  *          *
* Max Chl Dpth (ft)      *    3.44  * Hydr. Depth (ft)       *          *    2.66  *          *
* Conv. Total (cfs)      *  9006.4  * Conv. (cfs)            *          *  9006.4  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   38.13  *          *
* Min Ch El (ft)         *  139.40  * Shear (lb/sq ft)       *          *    0.10  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    0.21  *          *
* Frctn Loss (ft)        *    0.06  * Cum Volume (acre-ft)   *    0.39  *   13.21  *    0.66  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)         *    0.48  *    5.34  *    0.82  *
*********************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 74

INPUT
Description: 74+00
Station Elevation Data    num=       9
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200     148    -125   149.5     -35     148     -10   139.2      10   139.2
      15   145.5      30   145.5      50     147     200   148.2

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
*********************************************
    -200     .05     -35     .03      15     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -35      15              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
*********************************************************************************************
* E.G. Elev (ft)         *  142.86  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.08  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  142.77  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
```

* Crit W.S. (ft)	*	* Flow Area (sq ft)	*	*	94.60	*	*
* E.G. Slope (ft/ft)	*0.000593	* Area (sq ft)	*	*	94.60	*	*
* Q Total (cfs)	* 220.00	* Flow (cfs)	*	*	220.00	*	*
* Top Width (ft)	* 32.98	* Top Width (ft)	*	*	32.98	*	*
* Vel Total (ft/s)	* 2.33	* Avg. Vel. (ft/s)	*	*	2.33	*	*
* Max Chl Dpth (ft)	* 3.57	* Hydr. Depth (ft)	*	*	2.87	*	*
* Conv. Total (cfs)	* 9037.8	* Conv. (cfs)	*	*	9037.8	*	*
* Length Wtd. (ft)	* 100.00	* Wetted Per. (ft)	*	*	35.31	*	*
* Min Ch El (ft)	* 139.20	* Shear (lb/sq ft)	*	*	0.10	*	*
* Alpha	* 1.00	* Stream Power (lb/ft s)	*	*	0.23	*	*
* Frctn Loss (ft)	* 0.06	* Cum Volume (acre-ft)	* 0.39	*	12.99	* 0.66	*
* C & E Loss (ft)	* 0.00	* Cum SA (acres)	* 0.48	*	5.26	* 0.82	*

CROSS SECTION

RIVER: French Stream
REACH: 1 RS: 73

INPUT
Description: 73+00
Station Elevation Data num= 10

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-200	147	-143	151	-125	151	-100	147.9	-30	148
-10	139	10	139	13	144	100	148	200	148.3

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-200	.05	-30	.03	13	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
-30	13	100	100	100	.1	.3

CROSS SECTION OUTPUT Profile #100

* E.G. Elev (ft)	* 142.80	* Element	* Left OB	*	Channel	* Right OB	*
* Vel Head (ft)	* 0.09	* Wt. n-Val.	*	*	0.030	*	*
* W.S. Elev (ft)	* 142.71	* Reach Len. (ft)	* 100.00	*	100.00	* 100.00	*
* Crit W.S. (ft)	*	* Flow Area (sq ft)	*	*	93.66	*	*
* E.G. Slope (ft/ft)	*0.000568	* Area (sq ft)	*	*	93.66	*	*
* Q Total (cfs)	* 220.00	* Flow (cfs)	*	*	220.00	*	*
* Top Width (ft)	* 30.47	* Top Width (ft)	*	*	30.47	*	*
* Vel Total (ft/s)	* 2.35	* Avg. Vel. (ft/s)	*	*	2.35	*	*
* Max Chl Dpth (ft)	* 3.71	* Hydr. Depth (ft)	*	*	3.07	*	*
* Conv. Total (cfs)	* 9230.7	* Conv. (cfs)	*	*	9230.7	*	*
* Length Wtd. (ft)	* 100.00	* Wetted Per. (ft)	*	*	33.37	*	*
* Min Ch El (ft)	* 139.00	* Shear (lb/sq ft)	*	*	0.10	*	*
* Alpha	* 1.00	* Stream Power (lb/ft s)	*	*	0.23	*	*
* Frctn Loss (ft)	* 0.04	* Cum Volume (acre-ft)	* 0.39	*	12.78	* 0.66	*
* C & E Loss (ft)	* 0.01	* Cum SA (acres)	* 0.48	*	5.19	* 0.82	*

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION

RIVER: French Stream
REACH: 1 RS: 72

INPUT
Description: 72+00
Station Elevation Data num= 8

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-200	149	-50	148.3	-25	143.3	-10	138.8	10	138.8
25	141.95	80	148	200	148				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-200	.05	-25	.03	25	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
-25	25	100	100	100	.1	.3

CROSS SECTION OUTPUT Profile #100

E.G. Elev (ft)	142.75	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.04	Wt. n-Val.		0.030	0.050
W.S. Elev (ft)	142.71	Reach Len. (ft)	100.00	100.00	100.00
Crit W.S. (ft)		Flow Area (sq ft)		138.59	2.61
E.G. Slope (ft/ft)	0.000255	Area (sq ft)		138.59	2.61
Q Total (cfs)	220.00	Flow (cfs)		219.35	0.65
Top Width (ft)	54.91	Top Width (ft)		48.03	6.89
Vel Total (ft/s)	1.56	Avg. Vel. (ft/s)		1.58	0.25
Max Chl Dpth (ft)	3.91	Hydr. Depth (ft)		2.89	0.38
Conv. Total (cfs)	13782.9	Conv. (cfs)		13742.5	40.4
Length Wtd. (ft)	100.00	Wetted Per. (ft)		48.93	6.93
Min Ch El (ft)	138.80	Shear (lb/sq ft)		0.05	0.01
Alpha	1.03	Stream Power (lb/ft s)		0.07	0.00
Frctn Loss (ft)	0.02	Cum Volume (acre-ft)	0.39	12.51	0.66
C & E Loss (ft)	0.00	Cum SA (acres)	0.48	5.10	0.81

CROSS SECTION

RIVER: French Stream
REACH: 1 RS: 71

INPUT
Description: 71+00
Station Elevation Data num= 8

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-200	151.3	-62.5	150	-25	143.119	-10	138.6	10	138.6
25	142.414	100	157.5	200	157.9				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-200	.05	-25	.03	25	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
-25	25	100	100	100	.1	.3

CROSS SECTION OUTPUT Profile #100

E.G. Elev (ft)	142.72	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.04	Wt. n-Val.		0.030	0.050
W.S. Elev (ft)	142.68	Reach Len. (ft)	100.00	100.00	100.00
Crit W.S. (ft)		Flow Area (sq ft)		142.01	0.18
E.G. Slope (ft/ft)	0.000241	Area (sq ft)		142.01	0.18
Q Total (cfs)	220.00	Flow (cfs)		219.98	0.02
Top Width (ft)	49.90	Top Width (ft)		48.56	1.34
Vel Total (ft/s)	1.55	Avg. Vel. (ft/s)		1.55	0.12
Max Chl Dpth (ft)	4.08	Hydr. Depth (ft)		2.92	0.13
Conv. Total (cfs)	14177.6	Conv. (cfs)		14176.2	1.4
Length Wtd. (ft)	100.00	Wetted Per. (ft)		49.63	1.37
Min Ch El (ft)	138.60	Shear (lb/sq ft)		0.04	0.00
Alpha	1.00	Stream Power (lb/ft s)		0.07	0.00
Frctn Loss (ft)	0.02	Cum Volume (acre-ft)	0.39	12.19	0.65
C & E Loss (ft)	0.00	Cum SA (acres)	0.48	4.99	0.80

CROSS SECTION

RIVER: French Stream
REACH: 1 RS: 70

INPUT
Description: 70+00
Station Elevation Data num= 9

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-200	151.2	-140	152.7	-25	141.465	-10	138.4	10	138.4
25	142.204	58	147.8	120	149.9	200	149.5		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-200	.05	-25	.03	25	.05

```
Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -25      25              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
*********************************************************************************************
* E.G. Elev (ft)         *  142.70  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.03  * Wt. n-Val.             *   0.050  *   0.030  *   0.050  *
* W.S. Elev (ft)         *  142.67  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *    7.45  *  162.05  *    0.64  *
* E.G. Slope (ft/ft)     *0.000157  * Area (sq ft)           *    7.45  *  162.05  *    0.64  *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *    1.97  *  217.94  *    0.09  *
* Top Width (ft)         *   65.10  * Top Width (ft)         *   12.35  *   50.00  *    2.76  *
* Vel Total (ft/s)       *    1.29  * Avg. Vel. (ft/s)       *    0.26  *    1.34  *    0.14  *
* Max Chl Dpth (ft)      *    4.27  * Hydr. Depth (ft)       *    0.60  *    3.24  *    0.23  *
* Conv. Total (cfs)      * 17560.9  * Conv. (cfs)            *   157.5  * 17396.3  *     7.2  *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *   12.41  *   50.78  *    2.80  *
* Min Ch El (ft)         *  138.40  * Shear (lb/sq ft)       *    0.01  *    0.03  *    0.00  *
* Alpha                  *    1.07  * Stream Power (lb/ft s) *    0.00  *    0.04  *    0.00  *
* Frctn Loss (ft)        *    0.02  * Cum Volume (acre-ft)   *    0.38  *   11.84  *    0.65  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)         *    0.46  *    4.88  *    0.80  *
*********************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 69

INPUT
Description: 69+00
Station Elevation Data    num=       9
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200     151     -75   150.7     -25 142.208     -10   138.2      10   138.2
      25 146.129      37     150     100   150.9     200     151

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -25     .03      25     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -25      25              109     109     109             .1       .3

CROSS SECTION OUTPUT  Profile #100
*********************************************************************************************
* E.G. Elev (ft)         *  142.68  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.04  * Wt. n-Val.             *   0.050  *   0.030  *          *
* W.S. Elev (ft)         *  142.64  * Reach Len. (ft)        *  109.00  *  109.00  *  109.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *    0.56  *  144.18  *          *
* E.G. Slope (ft/ft)     *0.000201  * Area (sq ft)           *    0.56  *  144.18  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *    0.08  *  219.92  *          *
* Top Width (ft)         *   45.98  * Top Width (ft)         *    2.57  *   43.41  *          *
* Vel Total (ft/s)       *    1.52  * Avg. Vel. (ft/s)       *    0.15  *    1.53  *          *
* Max Chl Dpth (ft)      *    4.44  * Hydr. Depth (ft)       *    0.22  *    3.32  *          *
* Conv. Total (cfs)      * 15518.6  * Conv. (cfs)            *     6.0  * 15512.6  *          *
* Length Wtd. (ft)       *  109.00  * Wetted Per. (ft)       *    2.61  *   45.04  *          *
* Min Ch El (ft)         *  138.20  * Shear (lb/sq ft)       *    0.00  *    0.04  *          *
* Alpha                  *    1.01  * Stream Power (lb/ft s) *    0.00  *    0.06  *          *
* Frctn Loss (ft)        *    0.02  * Cum Volume (acre-ft)   *    0.37  *   11.49  *    0.65  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)         *    0.45  *    4.77  *    0.80  *
*********************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 67.91

INPUT
Description: 67+91
Station Elevation Data    num=      11
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200     151     -82     152     -43     150     -40 148.909     -10     138
       0     138      10     138      20   140.8      40 149.409      43   150.7
     200     151
```

```
Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
    -200     .05     -40     .03      40     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -40      40             1200    1200    1200              .1       .3

CROSS SECTION OUTPUT  Profile #100
*****************************************************************************************
* E.G. Elev (ft)         *  142.66  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.03  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  142.63  * Reach Len. (ft)        * 1200.00  * 1200.00  * 1200.00  *
* Crit W.S. (ft)         *  139.43  * Flow Area (sq ft)      *          *  158.22  *          *
* E.G. Slope (ft/ft)     *0.000163  * Area (sq ft)           *          *  158.22  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   46.98  * Top Width (ft)         *          *   46.98  *          *
* Vel Total (ft/s)       *    1.39  * Avg. Vel. (ft/s)       *          *    1.39  *          *
* Max Chl Dpth (ft)      *    4.63  * Hydr. Depth (ft)       *          *    3.37  *          *
* Conv. Total (cfs)      * 17224.9  * Conv. (cfs)            *          * 17224.9  *          *
* Length Wtd. (ft)       * 1200.00  * Wetted Per. (ft)       *          *   48.56  *          *
* Min Ch El (ft)         *  138.00  * Shear (lb/sq ft)       *          *    0.03  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    0.05  *          *
* Frctn Loss (ft)        *          * Cum Volume (acre-ft)   *    0.37  *   11.11  *    0.65  *
* C & E Loss (ft)        *          * Cum SA (acres)         *    0.44  *    4.66  *    0.80  *
*****************************************************************************************

CULVERT


RIVER: French Stream
REACH: 1                  RS: 61.91

INPUT
Description:
Distance from Upstream XS =      .1
Deck/Roadway Width        =    1199
Weir Coefficient          =     2.6
Upstream  Deck/Roadway Coordinates
    num=       2
     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord
**********************************************
     -43     150     138      43   150.7     138

Upstream Bridge Cross Section Data
Station Elevation Data    num=      11
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200     151     -82     152     -43     150     -40 148.909     -10     138
       0     138      10     138      20   140.8      40 149.409      43   150.7
     200     151

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
    -200     .05     -40     .03      40     .05

Bank Sta: Left   Right    Coeff Contr.   Expan.
           -40      40             .1       .3

Downstream  Deck/Roadway Coordinates
    num=       2
     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord
**********************************************
     -25     145   135.7      25     145   135.7

Downstream Bridge Cross Section Data
Station Elevation Data    num=      10
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200     147     -25     145     -10     138     -10   135.7       0   135.7
      10   135.7      10     138      25     145      60     148     200   150.5

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
    -200     .05     -25     .03      25     .05

Bank Sta: Left   Right    Coeff Contr.   Expan.
```

```
          -25      25             .1       .3

Upstream Embankment side slope              =       0 horiz. to 1.0 vertical
Downstream Embankment side slope            =       0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow =     .95
Elevation at which weir flow begins         =
Energy head used in spillway design         =
Spillway height used in design              =
Weir crest shape                            = Broad Crested

Number of Culverts =  1

Culvert Name     Shape      Rise    Span
Culvert #1      Circular       5
FHWA Chart # 1 - Concrete Pipe Culvert
FHWA Scale # 1 - Square edge entrance with headwall
Solution Criteria = Highest U.S. EG
Culvert Upstrm Dist  Length    Top n  Bottom n  Depth Blocked  Entrance Loss Coef   Exit Loss Coef
                  1    1199     .013     .013        0                   .1                 1
Number of Barrels =  2
Upstream   Elevation =  138
Centerline Stations
    Sta.    Sta.
      -5       5
Downstream Elevation =  135.7
Centerline Stations
    Sta.    Sta.
      -5       5

CULVERT OUTPUT  Profile #100  Culv Group:  Culvert #1
**************************************************************************
* Q Culv Group (cfs)     *  220.00  * Culv Full Len (ft)     *          *
* # Barrels              *       2  * Culv Vel US (ft/s)     *    6.71  *
* Q Barrel (cfs)         *  110.00  * Culv Vel DS (ft/s)     *    8.97  *
* E.G. US. (ft)          *  142.66  * Culv Inv El Up (ft)    *  138.00  *
* W.S. US. (ft)          *  142.63  * Culv Inv El Dn (ft)    *  135.70  *
* E.G. DS (ft)           *  138.32  * Culv Frctn Ls (ft)     *    2.65  *
* W.S. DS (ft)           *  137.95  * Culv Exit Loss (ft)    *    1.62  *
* Delta EG (ft)          *    4.34  * Culv Entr Loss (ft)    *    0.07  *
* Delta WS (ft)          *    4.68  * Q Weir (cfs)           *          *
* E.G. IC (ft)           *  142.54  * Weir Sta Lft (ft)      *          *
* E.G. OC (ft)           *  142.66  * Weir Sta Rgt (ft)      *          *
* Culvert Control        *  Outlet  * Weir Submerg           *          *
* Culv WS Inlet (ft)     *  141.89  * Weir Max Depth (ft)    *          *
* Culv WS Outlet (ft)    *  138.69  * Weir Avg Depth (ft)    *          *
* Culv Nml Depth (ft)    *    3.94  * Weir Flow Area (sq ft) *          *
* Culv Crt Depth (ft)    *    2.99  * Min El Weir Flow (ft)  *  150.01  *
**************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 55.91

INPUT
Description: 55+91
Station Elevation Data    num=      10
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200     147     -25     145     -10     138     -10   135.7       0   135.7
      10   135.7      10     138      25     145      60     148     200   150.5

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
*********************************************
    -200     .05     -25     .03      25     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -25      25               91      91      91             .1       .3

CROSS SECTION OUTPUT  Profile #100
*********************************************************************************************
* E.G. Elev (ft)         *  138.32  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.37  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  137.95  * Reach Len. (ft)        *   91.00  *   91.00  *   91.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   44.98  *          *
* E.G. Slope (ft/ft)     *0.004338  * Area (sq ft)           *          *   44.98  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)              *          *  220.00  *          *
```

```
* Top Width (ft)         *   20.00  * Top Width (ft)         *          *   20.00  *          *
* Vel Total (ft/s)       *    4.89  * Avg. Vel. (ft/s)       *          *    4.89  *          *
* Max Chl Dpth (ft)      *    2.25  * Hydr. Depth (ft)       *          *    2.25  *          *
* Conv. Total (cfs)      *  3340.1  * Conv. (cfs)            *          *  3340.1  *          *
* Length Wtd. (ft)       *   91.00  * Wetted Per. (ft)       *          *   24.50  *          *
* Min Ch El (ft)         *  135.70  * Shear (lb/sq ft)       *          *    0.50  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    2.43  *          *
* Frctn Loss (ft)        *    0.34  * Cum Volume (acre-ft)   *    0.37  *    8.31  *    0.65  *
* C & E Loss (ft)        *    0.03  * Cum SA (acres)         *    0.44  *    3.74  *    0.80  *
*******************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 55

INPUT
Description: 55+00
Station Elevation Data    num=       9
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
    -200     157     -50     155     -25 143.906     -10   135.5       0   135.5
      10   135.5      25 142.325      50     149     200     150

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
*********************************************
    -200     .05     -25     .03      25     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -25      25              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
*******************************************************************************************
* E.G. Elev (ft)         *  137.95  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.27  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  137.69  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   53.23  *          *
* E.G. Slope (ft/ft)     *0.003206  * Area (sq ft)           *          *   53.23  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   28.70  * Top Width (ft)         *          *   28.70  *          *
* Vel Total (ft/s)       *    4.13  * Avg. Vel. (ft/s)       *          *    4.13  *          *
* Max Chl Dpth (ft)      *    2.19  * Hydr. Depth (ft)       *          *    1.85  *          *
* Conv. Total (cfs)      *  3885.6  * Conv. (cfs)            *          *  3885.6  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   29.75  *          *
* Min Ch El (ft)         *  135.50  * Shear (lb/sq ft)       *          *    0.36  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    1.48  *          *
* Frctn Loss (ft)        *    0.33  * Cum Volume (acre-ft)   *    0.37  *    8.21  *    0.65  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)         *    0.44  *    3.68  *    0.80  *
*******************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 54

INPUT
Description: 54+00
Station Elevation Data    num=       9
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
    -200   146.5     -35     144     -25  141.28     -10   135.2       0   135.2
      10   135.2      25 144.457      35     148     200   150.5

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
*********************************************
    -200     .05     -25     .03      25     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -25      25              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
*******************************************************************************************
* E.G. Elev (ft)         *  137.62  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.28  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  137.34  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
```

```
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   52.28  *          *
* E.G. Slope (ft/ft)     *0.003411  * Area (sq ft)           *          *   52.28  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)              *          *  220.00  *          *
* Top Width (ft)         *   28.76  * Top Width (ft)          *          *   28.76  *          *
* Vel Total (ft/s)       *    4.21  * Avg. Vel. (ft/s)        *          *    4.21  *          *
* Max Chl Dpth (ft)      *    2.14  * Hydr. Depth (ft)        *          *    1.82  *          *
* Conv. Total (cfs)      *  3766.9  * Conv. (cfs)              *          *  3766.9  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)        *          *   29.79  *          *
* Min Ch El (ft)         *  135.20  * Shear (lb/sq ft)        *          *    0.37  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s)   *          *    1.57  *          *
* Frctn Loss (ft)        *    0.35  * Cum Volume (acre-ft)     *    0.37  *    8.09  *    0.65  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)           *    0.44  *    3.62  *    0.80  *
*****************************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 53

INPUT
Description: 53+00
Station Elevation Data    num=       8
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*********************************************************************************
    -200     147     -25     146     -10   134.8       0   134.8      10   134.8
      25  145.25      30     148     200     150

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -25     .03      25     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -25      25              100     100     100              .1       .3

CROSS SECTION OUTPUT  Profile #100
*****************************************************************************************************
* E.G. Elev (ft)         *  137.26  * Element                 *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.30  * Wt. n-Val.              *          *   0.030  *          *
* W.S. Elev (ft)         *  136.96  * Reach Len. (ft)         *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)       *          *   49.69  *          *
* E.G. Slope (ft/ft)     *0.003613  * Area (sq ft)            *          *   49.69  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)              *          *  220.00  *          *
* Top Width (ft)         *   25.99  * Top Width (ft)          *          *   25.99  *          *
* Vel Total (ft/s)       *    4.43  * Avg. Vel. (ft/s)        *          *    4.43  *          *
* Max Chl Dpth (ft)      *    2.16  * Hydr. Depth (ft)        *          *    1.91  *          *
* Conv. Total (cfs)      *  3660.3  * Conv. (cfs)              *          *  3660.3  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)        *          *   27.39  *          *
* Min Ch El (ft)         *  134.80  * Shear (lb/sq ft)        *          *    0.41  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s)   *          *    1.81  *          *
* Frctn Loss (ft)        *    0.35  * Cum Volume (acre-ft)     *    0.37  *    7.97  *    0.65  *
* C & E Loss (ft)        *    0.01  * Cum SA (acres)           *    0.44  *    3.56  *    0.80  *
*****************************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 52

INPUT
Description: 52+00
Station Elevation Data    num=       9
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*********************************************************************************
    -200   145.5     -40   143.5     -25     140     -10   134.5       0   134.5
      10   134.5      25 142.688      40     147     200     150

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -25     .03      25     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -25      25              100     100     100              .1       .3

CROSS SECTION OUTPUT  Profile #100
*****************************************************************************************************
```

E.G. Elev (ft)	136.91	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.26	Wt. n-Val.		0.030	
W.S. Elev (ft)	136.64	Reach Len. (ft)	100.00	100.00	100.00
Crit W.S. (ft)		Flow Area (sq ft)		53.29	
E.G. Slope (ft/ft)	0.003329	Area (sq ft)		53.29	
Q Total (cfs)	220.00	Flow (cfs)		220.00	
Top Width (ft)	29.76	Top Width (ft)		29.76	
Vel Total (ft/s)	4.13	Avg. Vel. (ft/s)		4.13	
Max Chl Dpth (ft)	2.14	Hydr. Depth (ft)		1.79	
Conv. Total (cfs)	3813.2	Conv. (cfs)		3813.2	
Length Wtd. (ft)	100.00	Wetted Per. (ft)		30.69	
Min Ch El (ft)	134.50	Shear (lb/sq ft)		0.36	
Alpha	1.00	Stream Power (lb/ft s)		1.49	
Frctn Loss (ft)	0.43	Cum Volume (acre-ft)	0.37	7.85	0.65
C & E Loss (ft)	0.01	Cum SA (acres)	0.44	3.49	0.80

CROSS SECTION

RIVER: French Stream
REACH: 1 RS: 51

INPUT
Description: 51+00
Station Elevation Data num= 8

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-200	144.5	-25	143.5	-10	134.2	0	134.2	10	134.2
25	142.188	40	146.5	200	149.5				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-200	.05	-25	.03	25	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
-25	25	100	100	100	.1	.3

CROSS SECTION OUTPUT Profile #100

E.G. Elev (ft)	136.46	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.40	Wt. n-Val.		0.030	
W.S. Elev (ft)	136.07	Reach Len. (ft)	100.00	100.00	100.00
Crit W.S. (ft)		Flow Area (sq ft)		43.38	
E.G. Slope (ft/ft)	0.005710	Area (sq ft)		43.38	
Q Total (cfs)	220.00	Flow (cfs)		220.00	
Top Width (ft)	26.51	Top Width (ft)		26.51	
Vel Total (ft/s)	5.07	Avg. Vel. (ft/s)		5.07	
Max Chl Dpth (ft)	1.87	Hydr. Depth (ft)		1.64	
Conv. Total (cfs)	2911.4	Conv. (cfs)		2911.4	
Length Wtd. (ft)	100.00	Wetted Per. (ft)		27.51	
Min Ch El (ft)	134.20	Shear (lb/sq ft)		0.56	
Alpha	1.00	Stream Power (lb/ft s)		2.85	
Frctn Loss (ft)	0.42	Cum Volume (acre-ft)	0.37	7.74	0.65
C & E Loss (ft)	0.04	Cum SA (acres)	0.44	3.43	0.80

CROSS SECTION

RIVER: French Stream
REACH: 1 RS: 50

INPUT
Description:
Station Elevation Data num= 7

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-200	143.7	-25	143	-10	133.5	0	133.5	10	133.5
25	144	200	148						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-200	.05	-25	.03	25	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
-25	25	100	100	100	.1	.3

CROSS SECTION OUTPUT Profile #100

E.G. Elev (ft)	136.01	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.28	Wt. n-Val.		0.030	
W.S. Elev (ft)	135.74	Reach Len. (ft)	100.00	100.00	100.00
Crit W.S. (ft)		Flow Area (sq ft)		52.27	
E.G. Slope (ft/ft)	0.003153	Area (sq ft)		52.27	
Q Total (cfs)	220.00	Flow (cfs)		220.00	
Top Width (ft)	26.73	Top Width (ft)		26.73	
Vel Total (ft/s)	4.21	Avg. Vel. (ft/s)		4.21	
Max Chl Dpth (ft)	2.24	Hydr. Depth (ft)		1.96	
Conv. Total (cfs)	3918.0	Conv. (cfs)		3918.0	
Length Wtd. (ft)	100.00	Wetted Per. (ft)		28.08	
Min Ch El (ft)	133.50	Shear (lb/sq ft)		0.37	
Alpha	1.00	Stream Power (lb/ft s)		1.54	
Frctn Loss (ft)	0.25	Cum Volume (acre-ft)	0.37	7.63	0.65
C & E Loss (ft)	0.02	Cum SA (acres)	0.44	3.37	0.80

CROSS SECTION

RIVER: French Stream
REACH: 1 RS: 49

INPUT
Description: 49+00
Station Elevation Data num= 9

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-200	143	-25	143	-10	133	0	133	10	133
25	143	70	144	90	146.3	200	146.5		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-200	.05	-25	.03	25	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
-25	25	100	100	100	.1	.3

CROSS SECTION OUTPUT Profile #100

E.G. Elev (ft)	135.74	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.21	Wt. n-Val.		0.030	
W.S. Elev (ft)	135.53	Reach Len. (ft)	100.00	100.00	100.00
Crit W.S. (ft)		Flow Area (sq ft)		60.29	
E.G. Slope (ft/ft)	0.002058	Area (sq ft)		60.29	
Q Total (cfs)	220.00	Flow (cfs)		220.00	
Top Width (ft)	27.60	Top Width (ft)		27.60	
Vel Total (ft/s)	3.65	Avg. Vel. (ft/s)		3.65	
Max Chl Dpth (ft)	2.53	Hydr. Depth (ft)		2.18	
Conv. Total (cfs)	4849.6	Conv. (cfs)		4849.6	
Length Wtd. (ft)	100.00	Wetted Per. (ft)		29.13	
Min Ch El (ft)	133.00	Shear (lb/sq ft)		0.27	
Alpha	1.00	Stream Power (lb/ft s)		0.97	
Frctn Loss (ft)	0.20	Cum Volume (acre-ft)	0.37	7.50	0.65
C & E Loss (ft)	0.01	Cum SA (acres)	0.44	3.30	0.80

CROSS SECTION

RIVER: French Stream
REACH: 1 RS: 48

INPUT
Description: 48+00
Station Elevation Data num= 7

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-200	142	-25	142	-10	132.8	0	132.8	10	132.8
30	142	200	144						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-200	.05	-25	.03	30	.05

```
Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -25      30              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
*********************************************************************************************
* E.G. Elev (ft)         *  135.54  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.19  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  135.35  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   63.36  *          *
* E.G. Slope (ft/ft)     *0.001893  * Area (sq ft)           *          *   63.36  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   29.70  * Top Width (ft)         *          *   29.70  *          *
* Vel Total (ft/s)       *    3.47  * Avg. Vel. (ft/s)       *          *    3.47  *          *
* Max Chl Dpth (ft)      *    2.55  * Hydr. Depth (ft)       *          *    2.13  *          *
* Conv. Total (cfs)      *  5056.5  * Conv. (cfs)            *          *  5056.5  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   30.98  *          *
* Min Ch El (ft)         *  132.80  * Shear (lb/sq ft)       *          *    0.24  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    0.84  *          *
* Frctn Loss (ft)        *    0.22  * Cum Volume (acre-ft)   *    0.37  *    7.36  *    0.65  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)         *    0.44  *    3.24  *    0.80  *
*********************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 47

INPUT
Description: 47+00
Station Elevation Data    num=       8
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200   142.5     -25     142     -10  132.75       0  132.75      10  132.75
      25 139.625      30     141     200     144

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
    -200     .05     -25     .03      30     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -25      30              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
*********************************************************************************************
* E.G. Elev (ft)         *  135.31  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.23  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  135.08  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   56.93  *          *
* E.G. Slope (ft/ft)     *0.002594  * Area (sq ft)           *          *   56.93  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   28.86  * Top Width (ft)         *          *   28.86  *          *
* Vel Total (ft/s)       *    3.86  * Avg. Vel. (ft/s)       *          *    3.86  *          *
* Max Chl Dpth (ft)      *    2.33  * Hydr. Depth (ft)       *          *    1.97  *          *
* Conv. Total (cfs)      *  4319.4  * Conv. (cfs)            *          *  4319.4  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   30.03  *          *
* Min Ch El (ft)         *  132.75  * Shear (lb/sq ft)       *          *    0.31  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    1.19  *          *
* Frctn Loss (ft)        *    0.43  * Cum Volume (acre-ft)   *    0.37  *    7.22  *    0.65  *
* C & E Loss (ft)        *    0.03  * Cum SA (acres)         *    0.44  *    3.17  *    0.80  *
*********************************************************************************************

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than
         0.7 or greater than 1.4.  This may indicate the need for additional cross sections.

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 46

INPUT
Description: 46+00
Station Elevation Data    num=       7
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200     142     -25     140     -10   132.7      10   132.7      25     140
```

```
     100     144     200     143

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
    -200     .05     -25     .03      25     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -25      25              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
*****************************************************************************************
* E.G. Elev (ft)         *  134.85  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.51  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  134.34  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   38.41  *          *
* E.G. Slope (ft/ft)     *0.008569  * Area (sq ft)           *          *   38.41  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   26.75  * Top Width (ft)         *          *   26.75  *          *
* Vel Total (ft/s)       *    5.73  * Avg. Vel. (ft/s)       *          *    5.73  *          *
* Max Chl Dpth (ft)      *    1.64  * Hydr. Depth (ft)       *          *    1.44  *          *
* Conv. Total (cfs)      *  2376.6  * Conv. (cfs)            *          *  2376.6  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   27.51  *          *
* Min Ch El (ft)         *  132.70  * Shear (lb/sq ft)       *          *    0.75  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    4.28  *          *
* Frctn Loss (ft)        *    0.19  * Cum Volume (acre-ft)   *    0.37  *    7.11  *    0.65  *
* C & E Loss (ft)        *    0.14  * Cum SA (acres)         *    0.44  *    3.11  *    0.80  *
*****************************************************************************************

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than
         0.7 or greater than 1.4.  This may indicate the need for additional cross sections.

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 45

INPUT
Description: 45+00
Station Elevation Data    num=      11
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
    -200     142     -25     140     -10   132.1      10   132.1      30     140
     100     140     150     139     160  132.65     200  132.65     210     139
     250     141

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
    -200     .05     -25     .03      30     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -25      30              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
*****************************************************************************************
* E.G. Elev (ft)         *  134.53  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.05  * Wt. n-Val.             *          *   0.030  *   0.050  *
* W.S. Elev (ft)         *  134.48  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   60.04  *   78.31  *
* E.G. Slope (ft/ft)     *0.000787  * Area (sq ft)           *          *   60.04  *   78.31  *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  128.02  *   91.98  *
* Top Width (ft)         *   76.28  * Top Width (ft)         *          *   30.53  *   45.75  *
* Vel Total (ft/s)       *    1.59  * Avg. Vel. (ft/s)       *          *    2.13  *    1.17  *
* Max Chl Dpth (ft)      *    2.38  * Hydr. Depth (ft)       *          *    1.97  *    1.71  *
* Conv. Total (cfs)      *  7844.4  * Conv. (cfs)            *          *  4564.8  *  3279.5  *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   31.57  *   46.81  *
* Min Ch El (ft)         *  132.10  * Shear (lb/sq ft)       *          *    0.09  *    0.08  *
* Alpha                  *    1.27  * Stream Power (lb/ft s) *          *    0.20  *    0.10  *
* Frctn Loss (ft)        *    0.09  * Cum Volume (acre-ft)   *    0.37  *    7.00  *    0.56  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)         *    0.44  *    3.04  *    0.74  *
*****************************************************************************************

Warning: Divided flow computed for this cross-section.

CROSS SECTION
```

```
RIVER: French Stream
REACH: 1                  RS: 44

INPUT
Description: 44+00
Station Elevation Data    num=      10
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
    -200   140.5     -30     140     -10   131.9      10   131.9      30     139
      70     139      90   132.6     110   132.6     140   140.5     200   140.5

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -30     .03      30     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -30      30              100     100     100              .1       .3

CROSS SECTION OUTPUT  Profile #100
*************************************************************************************************
* E.G. Elev (ft)         *  134.43  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.08  * Wt. n-Val.             *          *   0.030  *   0.050  *
* W.S. Elev (ft)         *  134.35  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   64.92  *   45.66  *
* E.G. Slope (ft/ft)     *0.001091  * Area (sq ft)           *          *   64.92  *   45.66  *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  163.93  *   56.07  *
* Top Width (ft)         *   65.09  * Top Width (ft)          *          *   32.96  *   32.13  *
* Vel Total (ft/s)       *    1.99  * Avg. Vel. (ft/s)        *          *    2.53  *    1.23  *
* Max Chl Dpth (ft)      *    2.45  * Hydr. Depth (ft)        *          *    1.97  *    1.42  *
* Conv. Total (cfs)      *  6660.5  * Conv. (cfs)             *          *  4963.0  *  1697.5  *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)        *          *   33.86  *   32.63  *
* Min Ch El (ft)         *  131.90  * Shear (lb/sq ft)        *          *    0.13  *    0.10  *
* Alpha                  *    1.30  * Stream Power (lb/ft s)   *          *    0.33  *    0.12  *
* Frctn Loss (ft)        *    0.14  * Cum Volume (acre-ft)     *    0.37  *    6.86  *    0.42  *
* C & E Loss (ft)        *    0.01  * Cum SA (acres)           *    0.44  *    2.97  *    0.65  *
*************************************************************************************************

Warning: Divided flow computed for this cross-section.

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 43

INPUT
Description: 43+00
Station Elevation Data    num=       7
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
    -200     140     -25   138.5     -10   131.7      10   131.7      25 134.781
      50   138.5     200     140

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -25     .03      25     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -25      25              100     100     100              .1       .3

CROSS SECTION OUTPUT  Profile #100
*************************************************************************************************
* E.G. Elev (ft)         *  134.28  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.16  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  134.13  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   69.45  *          *
* E.G. Slope (ft/ft)     *0.001827  * Area (sq ft)           *          *   69.45  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   37.18  * Top Width (ft)          *          *   37.18  *          *
* Vel Total (ft/s)       *    3.17  * Avg. Vel. (ft/s)        *          *    3.17  *          *
* Max Chl Dpth (ft)      *    2.43  * Hydr. Depth (ft)        *          *    1.87  *          *
* Conv. Total (cfs)      *  5146.4  * Conv. (cfs)             *          *  5146.4  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)        *          *   37.96  *          *
* Min Ch El (ft)         *  131.70  * Shear (lb/sq ft)        *          *    0.21  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s)   *          *    0.66  *          *
* Frctn Loss (ft)        *    0.20  * Cum Volume (acre-ft)     *    0.37  *    6.70  *    0.37  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)           *    0.44  *    2.89  *    0.62  *
```

```
*****************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 42

INPUT
Description: 42+00
Station Elevation Data    num=       7
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200   140.5     -25   137.5     -10   131.5      10   131.5      25     138
     100     140     200     140

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -25     .03      25     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -25      25              100     100     100              .1       .3

CROSS SECTION OUTPUT  Profile #100
*****************************************************************************************
* E.G. Elev (ft)         *  134.08  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.20  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  133.88  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   61.10  *          *
* E.G. Slope (ft/ft)     *0.002266  * Area (sq ft)           *          *   61.10  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   31.42  * Top Width (ft)         *          *   31.42  *          *
* Vel Total (ft/s)       *    3.60  * Avg. Vel. (ft/s)       *          *    3.60  *          *
* Max Chl Dpth (ft)      *    2.38  * Hydr. Depth (ft)       *          *    1.94  *          *
* Conv. Total (cfs)      *  4621.9  * Conv. (cfs)            *          *  4621.9  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   32.38  *          *
* Min Ch El (ft)         *  131.50  * Shear (lb/sq ft)       *          *    0.27  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    0.96  *          *
* Frctn Loss (ft)        *    0.22  * Cum Volume (acre-ft)   *    0.37  *    6.55  *    0.37  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)         *    0.44  *    2.81  *    0.62  *
*****************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 41

INPUT
Description: 41+00
Station Elevation Data    num=       7
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200     139     -25     138     -10   131.3      10   131.3      35   138.5
     150     141     200   145.5

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -25     .03      35     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -25      35              100     100     100              .1       .3

CROSS SECTION OUTPUT  Profile #100
*****************************************************************************************
* E.G. Elev (ft)         *  133.85  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.19  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  133.66  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   63.20  *          *
* E.G. Slope (ft/ft)     *0.002190  * Area (sq ft)           *          *   63.20  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   33.49  * Top Width (ft)         *          *   33.49  *          *
* Vel Total (ft/s)       *    3.48  * Avg. Vel. (ft/s)       *          *    3.48  *          *
* Max Chl Dpth (ft)      *    2.36  * Hydr. Depth (ft)       *          *    1.89  *          *
* Conv. Total (cfs)      *  4701.4  * Conv. (cfs)            *          *  4701.4  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   34.33  *          *
* Min Ch El (ft)         *  131.30  * Shear (lb/sq ft)       *          *    0.25  *          *
```

```
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    0.88  *          *
* Frctn Loss (ft)        *    0.20  * Cum Volume (acre-ft)   *    0.37  *    6.41  *    0.37  *
* C & E Loss (ft)        *    0.01  * Cum SA (acres)         *    0.44  *    2.73  *    0.62  *
*********************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 40

INPUT
Description: 40+00
Station Elevation Data    num=       6
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
    -200     142     -40     138     -10   131.1      10   131.1      40   138.5
     200     141

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -40     .03      40     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -40      40              100     100     100              .1       .3

CROSS SECTION OUTPUT  Profile #100
*********************************************************************************************
* E.G. Elev (ft)         *  133.64  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.14  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  133.50  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   72.06  *          *
* E.G. Slope (ft/ft)     *0.001774  * Area (sq ft)           *          *   72.06  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   40.14  * Top Width (ft)         *          *   40.14  *          *
* Vel Total (ft/s)       *    3.05  * Avg. Vel. (ft/s)       *          *    3.05  *          *
* Max Chl Dpth (ft)      *    2.40  * Hydr. Depth (ft)       *          *    1.80  *          *
* Conv. Total (cfs)      *  5223.8  * Conv. (cfs)            *          *  5223.8  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   40.70  *          *
* Min Ch El (ft)         *  131.10  * Shear (lb/sq ft)       *          *    0.20  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    0.60  *          *
* Frctn Loss (ft)        *    0.19  * Cum Volume (acre-ft)   *    0.37  *    6.25  *    0.37  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)         *    0.44  *    2.65  *    0.62  *
*********************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 39

INPUT
Description: 39+00
Station Elevation Data    num=      11
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
    -200     142     -30   137.5     -20 134.925     -10   130.8      10   130.8
      20 134.925      30   137.5      60     138     120     140     150     139
     200   144.5

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -20     .03      20     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -20      20              100     100     100              .1       .3

CROSS SECTION OUTPUT  Profile #100
*********************************************************************************************
* E.G. Elev (ft)         *  133.45  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.18  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  133.27  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   64.12  *          *
* E.G. Slope (ft/ft)     *0.001975  * Area (sq ft)           *          *   64.12  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   31.96  * Top Width (ft)         *          *   31.96  *          *
* Vel Total (ft/s)       *    3.43  * Avg. Vel. (ft/s)       *          *    3.43  *          *
```

```
* Max Chl Dpth (ft)      *    2.47  * Hydr. Depth (ft)       *          *    2.01  *          *
* Conv. Total (cfs)      *  4950.5  * Conv. (cfs)            *          *  4950.5  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   32.94  *          *
* Min Ch El (ft)         *  130.80  * Shear (lb/sq ft)       *          *    0.24  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    0.82  *          *
* Frctn Loss (ft)        *    0.21  * Cum Volume (acre-ft)   *    0.37  *    6.10  *    0.37  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)         *    0.44  *    2.57  *    0.62  *
*****************************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 38

INPUT
Description: 38+00
Station Elevation Data    num=       8
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
    -200   139.5     -20     136     -10   130.6      10   130.6      20 136.433
      25   138.5     160   141.5     200     147

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -20     .03      20     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -20      20              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
*****************************************************************************************************
* E.G. Elev (ft)         *  133.23  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.22  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  133.02  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   58.70  *          *
* E.G. Slope (ft/ft)     *0.002326  * Area (sq ft)           *          *   58.70  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   28.61  * Top Width (ft)          *          *   28.61  *          *
* Vel Total (ft/s)       *    3.75  * Avg. Vel. (ft/s)        *          *    3.75  *          *
* Max Chl Dpth (ft)      *    2.42  * Hydr. Depth (ft)        *          *    2.05  *          *
* Conv. Total (cfs)      *  4561.5  * Conv. (cfs)            *          *  4561.5  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   29.88  *          *
* Min Ch El (ft)         *  130.60  * Shear (lb/sq ft)       *          *    0.29  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    1.07  *          *
* Frctn Loss (ft)        *    0.23  * Cum Volume (acre-ft)   *    0.37  *    5.96  *    0.37  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)         *    0.44  *    2.50  *    0.62  *
*****************************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 37

INPUT
Description: 37+00
Station Elevation Data    num=      10
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
    -200   139.5    -100     139     -25     135     -20 133.923     -10   130.4
      10   130.4      20     138      70     141     100   141.5     200     154

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -20     .03      20     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -20      20              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
*****************************************************************************************************
* E.G. Elev (ft)         *  133.00  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.21  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  132.79  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   59.55  *          *
* E.G. Slope (ft/ft)     *0.002343  * Area (sq ft)           *          *   59.55  *          *
```

```
* Q Total (cfs)          *  220.00  * Flow (cfs)              *          *  220.00  *          *
* Top Width (ft)         *   29.91  * Top Width (ft)         *          *   29.91  *          *
* Vel Total (ft/s)       *    3.69  * Avg. Vel. (ft/s)       *          *    3.69  *          *
* Max Chl Dpth (ft)      *    2.39  * Hydr. Depth (ft)       *          *    1.99  *          *
* Conv. Total (cfs)      *  4545.4  * Conv. (cfs)            *          *  4545.4  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   31.12  *          *
* Min Ch El (ft)         *  130.40  * Shear (lb/sq ft)       *          *    0.28  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    1.03  *          *
* Frctn Loss (ft)        *    0.23  * Cum Volume (acre-ft)   *    0.37  *    5.82  *    0.37  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)         *    0.44  *    2.43  *    0.62  *
*********************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 36

INPUT
Description: 36+00
Station Elevation Data    num=       9
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200   139.5     -40     138     -20 133.714     -10   130.2      10   130.2
      20 134.667      30     138     140     146     200     155

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -20     .03      20     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
            -20      20              100     100     100              .1       .3

CROSS SECTION OUTPUT  Profile #100
*********************************************************************************************
* E.G. Elev (ft)         *  132.76  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.20  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  132.57  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   61.53  *          *
* E.G. Slope (ft/ft)     *0.002265  * Area (sq ft)           *          *   61.53  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)              *          *  220.00  *          *
* Top Width (ft)         *   32.03  * Top Width (ft)         *          *   32.03  *          *
* Vel Total (ft/s)       *    3.58  * Avg. Vel. (ft/s)       *          *    3.58  *          *
* Max Chl Dpth (ft)      *    2.37  * Hydr. Depth (ft)       *          *    1.92  *          *
* Conv. Total (cfs)      *  4622.9  * Conv. (cfs)            *          *  4622.9  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   32.93  *          *
* Min Ch El (ft)         *  130.20  * Shear (lb/sq ft)       *          *    0.26  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    0.94  *          *
* Frctn Loss (ft)        *    0.25  * Cum Volume (acre-ft)   *    0.37  *    5.68  *    0.37  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)         *    0.44  *    2.36  *    0.62  *
*********************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 35

INPUT
Description: 35+00
Station Elevation Data    num=       9
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200   140.3     -25     137     -20 135.333     -10     130      10     130
      20   134.8      35     139     130     144     200   158.5

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -20     .03      20     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
            -20      20              100     100     100              .1       .3

CROSS SECTION OUTPUT  Profile #100
*********************************************************************************************
* E.G. Elev (ft)         *  132.51  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.25  * Wt. n-Val.             *          *   0.030  *          *
```

W.S. Elev (ft)	132.26	Reach Len. (ft)	100.00	100.00	100.00
Crit W.S. (ft)		Flow Area (sq ft)		55.31	
E.G. Slope (ft/ft)	0.002856	Area (sq ft)		55.31	
Q Total (cfs)	220.00	Flow (cfs)		220.00	
Top Width (ft)	28.95	Top Width (ft)		28.95	
Vel Total (ft/s)	3.98	Avg. Vel. (ft/s)		3.98	
Max Chl Dpth (ft)	2.26	Hydr. Depth (ft)		1.91	
Conv. Total (cfs)	4116.5	Conv. (cfs)		4116.5	
Length Wtd. (ft)	100.00	Wetted Per. (ft)		30.03	
Min Ch El (ft)	130.00	Shear (lb/sq ft)		0.33	
Alpha	1.00	Stream Power (lb/ft s)		1.31	
Frctn Loss (ft)	0.18	Cum Volume (acre-ft)	0.37	5.55	0.37
C & E Loss (ft)	0.04	Cum SA (acres)	0.44	2.29	0.62

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION

RIVER: French Stream
REACH: 1 RS: 34

INPUT
Description: 34+00
Station Elevation Data num= 10

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-200	141	-50	138	-40	139	-20	133	-10	129.4
10	129.4	20	132.833	40	138.5	150	142	200	157.5

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-200	.05	-20	.03	20	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
-20	20	100	100	100	.1	.3

CROSS SECTION OUTPUT Profile #100

E.G. Elev (ft)	132.29	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.13	Wt. n-Val.		0.030	
W.S. Elev (ft)	132.16	Reach Len. (ft)	100.00	100.00	100.00
Crit W.S. (ft)		Flow Area (sq ft)		76.97	
E.G. Slope (ft/ft)	0.001239	Area (sq ft)		76.97	
Q Total (cfs)	220.00	Flow (cfs)		220.00	
Top Width (ft)	35.72	Top Width (ft)		35.72	
Vel Total (ft/s)	2.86	Avg. Vel. (ft/s)		2.86	
Max Chl Dpth (ft)	2.76	Hydr. Depth (ft)		2.15	
Conv. Total (cfs)	6250.5	Conv. (cfs)		6250.5	
Length Wtd. (ft)	100.00	Wetted Per. (ft)		36.66	
Min Ch El (ft)	129.40	Shear (lb/sq ft)		0.16	
Alpha	1.00	Stream Power (lb/ft s)		0.46	
Frctn Loss (ft)	0.12	Cum Volume (acre-ft)	0.37	5.40	0.37
C & E Loss (ft)	0.00	Cum SA (acres)	0.44	2.21	0.62

CROSS SECTION

RIVER: French Stream
REACH: 1 RS: 33

INPUT
Description: 33+00
Station Elevation Data num= 10

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-200	142	-40	137.5	-20	132.046	-10	129.2	10	129.2
20	134.5	30	139	140	144	170	155.5	200	157.5

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-200	.05	-20	.03	20	.05

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.

```
           -20      20              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
*********************************************************************************************
* E.G. Elev (ft)         *  132.17  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.12  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  132.05  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   78.88  *          *
* E.G. Slope (ft/ft)     *0.001134  * Area (sq ft)           *    0.00  *   78.88  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   35.38  * Top Width (ft)         *          *   35.37  *          *
* Vel Total (ft/s)       *    2.79  * Avg. Vel. (ft/s)       *          *    2.79  *          *
* Max Chl Dpth (ft)      *    2.85  * Hydr. Depth (ft)       *          *    2.23  *          *
* Conv. Total (cfs)      *  6532.8  * Conv. (cfs)            *          *  6532.8  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   36.48  *          *
* Min Ch El (ft)         *  129.20  * Shear (lb/sq ft)       *          *    0.15  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    0.43  *          *
* Frctn Loss (ft)        *    0.11  * Cum Volume (acre-ft)   *    0.37  *    5.22  *    0.37  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)         *    0.44  *    2.13  *    0.62  *
*********************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 32

INPUT
Description: 32+00
Station Elevation Data    num=      11
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
    -200     142    -100     138     -25     136     -20   133.6     -10     129
      10     129      20 132.455      40     139     100     142     150     154
     200     157

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -20     .03      20     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -20      20              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
*********************************************************************************************
* E.G. Elev (ft)         *  132.06  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.11  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  131.94  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   80.87  *          *
* E.G. Slope (ft/ft)     *0.001028  * Area (sq ft)           *          *   80.87  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   34.92  * Top Width (ft)         *          *   34.92  *          *
* Vel Total (ft/s)       *    2.72  * Avg. Vel. (ft/s)       *          *    2.72  *          *
* Max Chl Dpth (ft)      *    2.94  * Hydr. Depth (ft)       *          *    2.32  *          *
* Conv. Total (cfs)      *  6861.9  * Conv. (cfs)            *          *  6861.9  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   36.06  *          *
* Min Ch El (ft)         *  129.00  * Shear (lb/sq ft)       *          *    0.14  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    0.39  *          *
* Frctn Loss (ft)        *    0.10  * Cum Volume (acre-ft)   *    0.37  *    5.03  *    0.37  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)         *    0.44  *    2.05  *    0.62  *
*********************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 31

INPUT
Description: 31+00
Station Elevation Data    num=      13
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
    -200   140.5     -40     135     -25   136.5     -20 134.021     -10   128.6
      10   128.6      20     138      35     138      45     141      95     143
     125     153     150     155     200   156.5

Manning's n Values        num=       3
```

```
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
    -200     .05     -20     .03      20     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
            -20      20              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
*********************************************************************************************
* E.G. Elev (ft)         *  131.96  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.12  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  131.85  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   80.29  *          *
* E.G. Slope (ft/ft)     *0.000881  * Area (sq ft)           *          *   80.29  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)              *          *  220.00  *          *
* Top Width (ft)         *   29.45  * Top Width (ft)          *          *   29.45  *          *
* Vel Total (ft/s)       *    2.74  * Avg. Vel. (ft/s)        *          *    2.74  *          *
* Max Chl Dpth (ft)      *    3.25  * Hydr. Depth (ft)        *          *    2.73  *          *
* Conv. Total (cfs)      *  7412.4  * Conv. (cfs)             *          *  7412.4  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)        *          *   31.56  *          *
* Min Ch El (ft)         *  128.60  * Shear (lb/sq ft)        *          *    0.14  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s)  *          *    0.38  *          *
* Frctn Loss (ft)        *    0.08  * Cum Volume (acre-ft)    *    0.37  *    4.85  *    0.37  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)          *    0.44  *    1.98  *    0.62  *
*********************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 30

INPUT
Description: 30+00
Station Elevation Data    num=      14
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
**************************************************************************
    -200   141.5  -187.5     142     -90     136     -25     135     -20 134.392
     -10   128.4      10   128.4      20 134.833      25     137      50     139
      55     141     110     142     125     150     145     151

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
    -200     .05     -20     .03      20     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
            -20      20              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
*********************************************************************************************
* E.G. Elev (ft)         *  131.88  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.10  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  131.78  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   85.94  *          *
* E.G. Slope (ft/ft)     *0.000740  * Area (sq ft)           *          *   85.94  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)              *          *  220.00  *          *
* Top Width (ft)         *   30.89  * Top Width (ft)          *          *   30.89  *          *
* Vel Total (ft/s)       *    2.56  * Avg. Vel. (ft/s)        *          *    2.56  *          *
* Max Chl Dpth (ft)      *    3.38  * Hydr. Depth (ft)        *          *    2.78  *          *
* Conv. Total (cfs)      *  8087.3  * Conv. (cfs)             *          *  8087.3  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)        *          *   32.81  *          *
* Min Ch El (ft)         *  128.40  * Shear (lb/sq ft)        *          *    0.12  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s)  *          *    0.31  *          *
* Frctn Loss (ft)        *    0.07  * Cum Volume (acre-ft)    *    0.37  *    4.66  *    0.37  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)          *    0.44  *    1.91  *    0.62  *
*********************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 29

INPUT
Description: 29+00
Station Elevation Data    num=      13
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
**************************************************************************
```

```
    -200     141     -90   137.5     -85     136     -25     135     -20 133.467
     -10   128.2      10   128.2      20 134.133      25     136      63     139
      80     146     160     148     200     151

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
    -200     .05     -20     .03      20     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -20      20              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
*****************************************************************************************
* E.G. Elev (ft)         *  131.81  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.08  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  131.72  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   92.61  *          *
* E.G. Slope (ft/ft)     *0.000616  * Area (sq ft)           *          *   92.61  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)              *          *  220.00  *          *
* Top Width (ft)         *   32.62  * Top Width (ft)          *          *   32.62  *          *
* Vel Total (ft/s)       *    2.38  * Avg. Vel. (ft/s)        *          *    2.38  *          *
* Max Chl Dpth (ft)      *    3.52  * Hydr. Depth (ft)        *          *    2.84  *          *
* Conv. Total (cfs)      *  8867.6  * Conv. (cfs)              *          *  8867.6  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)        *          *   34.45  *          *
* Min Ch El (ft)         *  128.20  * Shear (lb/sq ft)        *          *    0.10  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s)   *          *    0.25  *          *
* Frctn Loss (ft)        *    0.06  * Cum Volume (acre-ft)     *    0.37  *    4.45  *    0.37  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)           *    0.44  *    1.84  *    0.62  *
*****************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 28

INPUT
Description: 28+00
Station Elevation Data    num=      11
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
    -200     142    -125     140     -25     135     -20  133.14     -10     128
      10     128      20 135.058      22     136      50     138      75     145
     200     150

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
    -200     .05     -20     .03      20     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -20      20              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
*****************************************************************************************
* E.G. Elev (ft)         *  131.75  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.08  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  131.67  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   95.93  *          *
* E.G. Slope (ft/ft)     *0.000546  * Area (sq ft)           *          *   95.93  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)              *          *  220.00  *          *
* Top Width (ft)         *   32.33  * Top Width (ft)          *          *   32.33  *          *
* Vel Total (ft/s)       *    2.29  * Avg. Vel. (ft/s)        *          *    2.29  *          *
* Max Chl Dpth (ft)      *    3.67  * Hydr. Depth (ft)        *          *    2.97  *          *
* Conv. Total (cfs)      *  9417.1  * Conv. (cfs)              *          *  9417.1  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)        *          *   34.38  *          *
* Min Ch El (ft)         *  128.00  * Shear (lb/sq ft)        *          *    0.10  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s)   *          *    0.22  *          *
* Frctn Loss (ft)        *    0.05  * Cum Volume (acre-ft)     *    0.37  *    4.24  *    0.37  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)           *    0.44  *    1.76  *    0.62  *
*****************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 27
```

```
INPUT
Description: 27+00
Station Elevation Data    num=      17
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200   142.5    -105     140     -80   148.5     -55     148     -25     135
     -20 133.192     -10   127.8      10   127.8      20 133.059      30     137
      45   136.3      75     138     105     145     145   145.5     150     145
     180     145     200     147

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -20     .03      20     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -20      20              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
**********************************************************************************************
* E.G. Elev (ft)         *  131.70  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.07  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  131.63  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *  104.00  *          *
* E.G. Slope (ft/ft)     *0.000448  * Area (sq ft)           *          *  104.00  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   34.37  * Top Width (ft)         *          *   34.37  *          *
* Vel Total (ft/s)       *    2.12  * Avg. Vel. (ft/s)       *          *    2.12  *          *
* Max Chl Dpth (ft)      *    3.83  * Hydr. Depth (ft)       *          *    3.03  *          *
* Conv. Total (cfs)      * 10394.4  * Conv. (cfs)            *          * 10394.4  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   36.28  *          *
* Min Ch El (ft)         *  127.80  * Shear (lb/sq ft)       *          *    0.08  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    0.17  *          *
* Frctn Loss (ft)        *    0.04  * Cum Volume (acre-ft)   *    0.37  *    4.01  *    0.37  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)         *    0.44  *    1.69  *    0.62  *
**********************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 26

INPUT
Description: 26+00
Station Elevation Data    num=      14
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200     142     -50     137     -25     135     -20 133.154     -10   127.7
      10   127.7      20 133.769      25     136      80     137     105     142
     125     143     145   146.5     160     145     200   147.5

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -20     .03      20     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -20      20              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
**********************************************************************************************
* E.G. Elev (ft)         *  131.65  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.07  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  131.58  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *  103.84  *          *
* E.G. Slope (ft/ft)     *0.000439  * Area (sq ft)           *          *  103.84  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   33.51  * Top Width (ft)         *          *   33.51  *          *
* Vel Total (ft/s)       *    2.12  * Avg. Vel. (ft/s)       *          *    2.12  *          *
* Max Chl Dpth (ft)      *    3.88  * Hydr. Depth (ft)       *          *    3.10  *          *
* Conv. Total (cfs)      * 10502.2  * Conv. (cfs)            *          * 10502.2  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   35.59  *          *
* Min Ch El (ft)         *  127.70  * Shear (lb/sq ft)       *          *    0.08  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    0.17  *          *
* Frctn Loss (ft)        *    0.05  * Cum Volume (acre-ft)   *    0.37  *    3.77  *    0.37  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)         *    0.44  *    1.61  *    0.62  *
**********************************************************************************************
```

CROSS SECTION

RIVER: French Stream
REACH: 1 RS: 25

INPUT
Description: 25+00
Station Elevation Data num= 12

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-200	140.5	-140	139.5	-120	139.8	-20	134.5	-10	127.65
10	127.65	20	134.24	30	137	63	138	100	141
150	144	200	147						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-200	.05	-20	.03	20	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
-20	20	17	17	17	.1	.3

CROSS SECTION OUTPUT Profile #100

E.G. Elev (ft)	131.61	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.08	Wt. n-Val.		0.030	
W.S. Elev (ft)	131.53	Reach Len. (ft)	17.00	17.00	17.00
Crit W.S. (ft)		Flow Area (sq ft)		100.00	
E.G. Slope (ft/ft)	0.000467	Area (sq ft)		100.00	
Q Total (cfs)	220.00	Flow (cfs)		220.00	
Top Width (ft)	31.55	Top Width (ft)		31.55	
Vel Total (ft/s)	2.20	Avg. Vel. (ft/s)		2.20	
Max Chl Dpth (ft)	3.88	Hydr. Depth (ft)		3.17	
Conv. Total (cfs)	10185.2	Conv. (cfs)		10185.2	
Length Wtd. (ft)	17.00	Wetted Per. (ft)		33.92	
Min Ch El (ft)	127.65	Shear (lb/sq ft)		0.09	
Alpha	1.00	Stream Power (lb/ft s)		0.19	
Frctn Loss (ft)	0.01	Cum Volume (acre-ft)	0.37	3.54	0.37
C & E Loss (ft)	0.01	Cum SA (acres)	0.44	1.53	0.62

CROSS SECTION

RIVER: French Stream
REACH: 1 RS: 24.83

INPUT
Description: 24+83
Station Elevation Data num= 11

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-200	141	-120	139	-20	136	-10	127	0	127
10	127	20	135.25	25	137	87	140	110	140.5
200	146								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-200	.05	-20	.03	20	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
-20	20	32	32	32	.1	.3

CROSS SECTION OUTPUT Profile #100

E.G. Elev (ft)	131.59	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	Wt. n-Val.		0.030	
W.S. Elev (ft)	131.54	Reach Len. (ft)	32.00	32.00	32.00
Crit W.S. (ft)	128.51	Flow Area (sq ft)		114.62	
E.G. Slope (ft/ft)	0.000296	Area (sq ft)		114.62	
Q Total (cfs)	220.00	Flow (cfs)		220.00	
Top Width (ft)	30.54	Top Width (ft)		30.54	
Vel Total (ft/s)	1.92	Avg. Vel. (ft/s)		1.92	
Max Chl Dpth (ft)	4.54	Hydr. Depth (ft)		3.75	
Conv. Total (cfs)	12787.8	Conv. (cfs)		12787.8	
Length Wtd. (ft)	32.00	Wetted Per. (ft)		33.91	
Min Ch El (ft)	127.00	Shear (lb/sq ft)		0.06	

```
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    0.12  *          *
* Frctn Loss (ft)        *          * Cum Volume (acre-ft)   *    0.37  *    3.49  *    0.37  *
* C & E Loss (ft)        *          * Cum SA (acres)         *    0.44  *    1.52  *    0.62  *
*****************************************************************************************************

CULVERT


RIVER: French Stream
REACH: 1                 RS: 24.67

INPUT
Description:
Distance from Upstream XS =       1
Deck/Roadway Width        =      26
Weir Coefficient          =     2.6
Upstream  Deck/Roadway Coordinates
    num=       2
     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord
**********************************************
     -20     136     127      25     137     127

Upstream Bridge Cross Section Data
Station Elevation Data    num=      11
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200     141    -120     139     -20     136     -10     127       0     127
      10     127      20  135.25      25     137      87     140     110   140.5
     200     146

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
    -200     .05     -20     .03      20     .05

Bank Sta: Left   Right    Coeff Contr.   Expan.
           -20      20             .1       .3

Downstream  Deck/Roadway Coordinates
    num=       2
     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord
**********************************************
     -20     136   127.2      30     137   127.2

Downstream Bridge Cross Section Data
Station Elevation Data    num=      13
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200   140.5    -155     140     -90     138     -60     137     -50     136
     -20     135     -10   127.2       0   127.2      10   127.2      20 134.222
      30     137     150     141     200   145.5

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
    -200     .05     -20     .03      20     .05

Bank Sta: Left   Right    Coeff Contr.   Expan.
           -20      20             .1       .3

Upstream Embankment side slope              =       0 horiz. to 1.0 vertical
Downstream Embankment side slope            =       0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow =     .95
Elevation at which weir flow begins         =
Energy head used in spillway design         =
Spillway height used in design              =
Weir crest shape                            = Broad Crested

Number of Culverts =  1

Culvert Name     Shape      Rise    Span
Culvert #1      Circular       5
FHWA Chart # 1 - Concrete Pipe Culvert
FHWA Scale # 1 - Square edge entrance with headwall
Solution Criteria = Highest U.S. EG
Culvert Upstrm Dist  Length    Top n  Bottom n  Depth Blocked  Entrance Loss Coef   Exit Loss Coef
                  1      30     .013     .013        0                   .1                1
Number of Barrels =  2
Upstream   Elevation =  127
```

```
Centerline Stations
    Sta.    Sta.
      -5       5
Downstream Elevation =  127.2
Centerline Stations
    Sta.    Sta.
      -5       5

CULVERT OUTPUT  Profile #100  Culv Group:  Culvert #1
**********************************************************************
* Q Culv Group (cfs)     *  220.00  * Culv Full Len (ft)     *          *
* # Barrels              *       2  * Culv Vel US (ft/s)     *    6.91  *
* Q Barrel (cfs)         *  110.00  * Culv Vel DS (ft/s)     *    8.97  *
* E.G. US. (ft)          *  131.59  * Culv Inv El Up (ft)    *  127.00  *
* W.S. US. (ft)          *  131.54  * Culv Inv El Dn (ft)    *  127.20  *
* E.G. DS (ft)           *  129.44  * Culv Frctn Ls (ft)     *    0.08  *
* W.S. DS (ft)           *  128.96  * Culv Exit Loss (ft)    *    2.00  *
* Delta EG (ft)          *    2.15  * Culv Entr Loss (ft)    *    0.07  *
* Delta WS (ft)          *    2.58  * Q Weir (cfs)           *          *
* E.G. IC (ft)           *  131.57  * Weir Sta Lft (ft)      *          *
* E.G. OC (ft)           *  131.59  * Weir Sta Rgt (ft)      *          *
* Culvert Control        *  Outlet  * Weir Submerg           *          *
* Culv WS Inlet (ft)     *  130.78  * Weir Max Depth (ft)    *          *
* Culv WS Outlet (ft)    *  130.19  * Weir Avg Depth (ft)    *          *
* Culv Nml Depth (ft)    *          * Weir Flow Area (sq ft) *          *
* Culv Crt Depth (ft)    *    2.99  * Min El Weir Flow (ft)  *  136.01  *
**********************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 24.51

INPUT
Description: 24+51
Station Elevation Data    num=      13
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200   140.5    -155     140     -90     138     -60     137     -50     136
     -20     135     -10   127.2       0   127.2      10   127.2      20 134.222
      30     137     150     141     200   145.5

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
    -200     .05     -20     .03      20     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -20      20               51      51      51             .1       .3

CROSS SECTION OUTPUT  Profile #100
**************************************************************************************************
* E.G. Elev (ft)         *  129.44  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.49  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  128.96  * Reach Len. (ft)        *   51.00  *   51.00  *   51.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   39.34  *          *
* E.G. Slope (ft/ft)     *0.007309  * Area (sq ft)           *          *   39.34  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   24.76  * Top Width (ft)         *          *   24.76  *          *
* Vel Total (ft/s)       *    5.59  * Avg. Vel. (ft/s)       *          *    5.59  *          *
* Max Chl Dpth (ft)      *    1.76  * Hydr. Depth (ft)       *          *    1.59  *          *
* Conv. Total (cfs)      *  2573.3  * Conv. (cfs)            *          *  2573.3  *          *
* Length Wtd. (ft)       *   51.00  * Wetted Per. (ft)       *          *   25.92  *          *
* Min Ch El (ft)         *  127.20  * Shear (lb/sq ft)       *          *    0.69  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    3.87  *          *
* Frctn Loss (ft)        *    0.20  * Cum Volume (acre-ft)   *    0.37  *    3.44  *    0.37  *
* C & E Loss (ft)        *    0.07  * Cum SA (acres)         *    0.44  *    1.50  *    0.62  *
**************************************************************************************************

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than
         0.7 or greater than 1.4.  This may indicate the need for additional cross sections.

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 24
```

```
INPUT
Description: 24+00
Station Elevation Data    num=      19
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200   136.5    -155     138    -120     136     -75     136     -50     132
     -20   130.4   -12.5     130     -10   126.4       0   126.4      10   126.4
    12.5     130      20   134.2      30     137      55   137.5      70     138
      85   139.3     110     139     125     138     200     141

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -20     .03      20     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -20      20              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
**********************************************************************************************
* E.G. Elev (ft)         *  129.17  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.25  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  128.92  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   54.86  *          *
* E.G. Slope (ft/ft)     *0.002439  * Area (sq ft)           *          *   54.86  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   23.50  * Top Width (ft)         *          *   23.50  *          *
* Vel Total (ft/s)       *    4.01  * Avg. Vel. (ft/s)       *          *    4.01  *          *
* Max Chl Dpth (ft)      *    2.52  * Hydr. Depth (ft)       *          *    2.33  *          *
* Conv. Total (cfs)      *  4454.6  * Conv. (cfs)            *          *  4454.6  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   26.14  *          *
* Min Ch El (ft)         *  126.40  * Shear (lb/sq ft)       *          *    0.32  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    1.28  *          *
* Frctn Loss (ft)        *    0.22  * Cum Volume (acre-ft)   *    0.37  *    3.38  *    0.37  *
* C & E Loss (ft)        *    0.02  * Cum SA (acres)         *    0.44  *    1.47  *    0.62  *
**********************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 23

INPUT
Description: 23+00
Station Elevation Data    num=      18
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200   135.9    -180     136    -145   137.5    -115     136     -50     135
     -25     136     -20 133.667     -15     129     -10   126.2       0   126.2
      10   126.2      15     129      20 134.333      25     137      70     139
     110     143     160     147     200   150.2

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -20     .03      20     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -20      20              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
**********************************************************************************************
* E.G. Elev (ft)         *  128.94  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.19  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  128.75  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   62.49  *          *
* E.G. Slope (ft/ft)     *0.001935  * Area (sq ft)           *          *   62.49  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   29.09  * Top Width (ft)         *          *   29.09  *          *
* Vel Total (ft/s)       *    3.52  * Avg. Vel. (ft/s)       *          *    3.52  *          *
* Max Chl Dpth (ft)      *    2.55  * Hydr. Depth (ft)       *          *    2.15  *          *
* Conv. Total (cfs)      *  5001.4  * Conv. (cfs)            *          *  5001.4  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   30.42  *          *
* Min Ch El (ft)         *  126.20  * Shear (lb/sq ft)       *          *    0.25  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    0.87  *          *
* Frctn Loss (ft)        *    0.19  * Cum Volume (acre-ft)   *    0.37  *    3.25  *    0.37  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)         *    0.44  *    1.41  *    0.62  *
**********************************************************************************************
```

CROSS SECTION

RIVER: French Stream
REACH: 1 RS: 22

INPUT
Description: 22+00
Station Elevation Data num= 16

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-200	135.7	-80	136.5	-30	134	-25	134.5	-20	132.833
-15	128.5	-10	126	0	126	10	126	15	129
20	134.667	25	137.5	90	141	120	143	125	146
200	150								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-200	.05	-20	.03	20	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
-20	20	100	100	100	.1	.3

CROSS SECTION OUTPUT Profile #100

E.G. Elev (ft)	128.75	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.19	Wt. n-Val.		0.030	
W.S. Elev (ft)	128.56	Reach Len. (ft)	100.00	100.00	100.00
Crit W.S. (ft)		Flow Area (sq ft)		63.14	
E.G. Slope (ft/ft)	0.001888	Area (sq ft)		63.14	
Q Total (cfs)	220.00	Flow (cfs)		220.00	
Top Width (ft)	29.33	Top Width (ft)		29.33	
Vel Total (ft/s)	3.48	Avg. Vel. (ft/s)		3.48	
Max Chl Dpth (ft)	2.56	Hydr. Depth (ft)		2.15	
Conv. Total (cfs)	5063.0	Conv. (cfs)		5063.0	
Length Wtd. (ft)	100.00	Wetted Per. (ft)		30.65	
Min Ch El (ft)	126.00	Shear (lb/sq ft)		0.24	
Alpha	1.00	Stream Power (lb/ft s)		0.85	
Frctn Loss (ft)	0.17	Cum Volume (acre-ft)	0.37	3.10	0.37
C & E Loss (ft)	0.01	Cum SA (acres)	0.44	1.34	0.62

CROSS SECTION

RIVER: French Stream
REACH: 1 RS: 21

INPUT
Description: 21+00
Station Elevation Data num= 16

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-200	136.1	-145	137	-135	138	-120	138.7	-85	143.5
-20	130.583	-15	128	-10	125.8	0	125.8	10	125.8
15	127.5	20	132.194	25	134	65	138	125	141
200	145.9								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-200	.05	-20	.03	20	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
-20	20	100	100	100	.1	.3

CROSS SECTION OUTPUT Profile #100

E.G. Elev (ft)	128.57	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.16	Wt. n-Val.		0.030	
W.S. Elev (ft)	128.41	Reach Len. (ft)	100.00	100.00	100.00
Crit W.S. (ft)		Flow Area (sq ft)		69.13	
E.G. Slope (ft/ft)	0.001538	Area (sq ft)		69.13	
Q Total (cfs)	220.00	Flow (cfs)		220.00	
Top Width (ft)	31.76	Top Width (ft)		31.76	
Vel Total (ft/s)	3.18	Avg. Vel. (ft/s)		3.18	
Max Chl Dpth (ft)	2.61	Hydr. Depth (ft)		2.18	

```
* Conv. Total (cfs)      *  5610.3  * Conv. (cfs)            *          *  5610.3  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   32.96  *          *
* Min Ch El (ft)         *  125.80  * Shear (lb/sq ft)       *          *    0.20  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    0.64  *          *
* Frctn Loss (ft)        *    0.14  * Cum Volume (acre-ft)   *    0.37  *    2.95  *    0.37  *
* C & E Loss (ft)        *    0.01  * Cum SA (acres)         *    0.44  *    1.27  *    0.62  *
*****************************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 20

INPUT
Description: 20+00
Station Elevation Data    num=      20
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200     136    -175     136    -150     138    -135   137.2    -130   137.7
    -110   139.5     -85   144.5     -60     142     -45   134.5     -20 129.566
     -15     127     -10   125.6       0   125.6      10   125.6      15     127
      20     131      25     133      80     136     110     144     200   150.5

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -20     .03      20     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -20      20              100     100     100              .1       .3

CROSS SECTION OUTPUT  Profile #100
*****************************************************************************************************
* E.G. Elev (ft)         *  128.42  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.13  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  128.29  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   76.50  *          *
* E.G. Slope (ft/ft)     *0.001202  * Area (sq ft)           *          *   76.50  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   34.14  * Top Width (ft)          *          *   34.14  *          *
* Vel Total (ft/s)       *    2.88  * Avg. Vel. (ft/s)        *          *    2.88  *          *
* Max Chl Dpth (ft)      *    2.69  * Hydr. Depth (ft)        *          *    2.24  *          *
* Conv. Total (cfs)      *  6346.8  * Conv. (cfs)            *          *  6346.8  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   35.29  *          *
* Min Ch El (ft)         *  125.60  * Shear (lb/sq ft)       *          *    0.16  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    0.47  *          *
* Frctn Loss (ft)        *    0.12  * Cum Volume (acre-ft)   *    0.37  *    2.78  *    0.37  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)         *    0.44  *    1.20  *    0.62  *
*****************************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 19

INPUT
Description: 19+00
Station Elevation Data    num=      13
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200     136    -125     138     -20     134     -15     127     -10   125.4
       0   125.4      10   125.4      15     127      20   132.3      45     134
      75     145     150   147.5     200   146.2

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -20     .03      20     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -20      20              100     100     100              .1       .3

CROSS SECTION OUTPUT  Profile #100
*****************************************************************************************************
* E.G. Elev (ft)         *  128.31  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.13  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  128.18  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
```

```
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   76.48  *          *
* E.G. Slope (ft/ft)     *0.001125  * Area (sq ft)           *          *   76.48  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)              *          *  220.00  *          *
* Top Width (ft)         *   31.95  * Top Width (ft)          *          *   31.95  *          *
* Vel Total (ft/s)       *    2.88  * Avg. Vel. (ft/s)        *          *    2.88  *          *
* Max Chl Dpth (ft)      *    2.78  * Hydr. Depth (ft)        *          *    2.39  *          *
* Conv. Total (cfs)      *  6559.9  * Conv. (cfs)              *          *  6559.9  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)        *          *   33.57  *          *
* Min Ch El (ft)         *  125.40  * Shear (lb/sq ft)        *          *    0.16  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s)   *          *    0.46  *          *
* Frctn Loss (ft)        *    0.11  * Cum Volume (acre-ft)     *    0.37  *    2.61  *    0.37  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)           *    0.44  *    1.12  *    0.62  *
*****************************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 18

INPUT
Description: 18+00
Station Elevation Data    num=      15
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*********************************************************************************
    -200   135.3     -25     135     -20 132.333     -15     127     -10   125.2
       0   125.2      10   125.2      15     127      20  129.75      25   132.5
      80     136      95     139     120     141     125     142     180     143

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -20     .03      20     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -20      20              100     100     100              .1       .3

CROSS SECTION OUTPUT  Profile #100
*****************************************************************************************************
* E.G. Elev (ft)         *  128.20  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.12  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  128.07  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   78.83  *          *
* E.G. Slope (ft/ft)     *0.001048  * Area (sq ft)           *          *   78.83  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)              *          *  220.00  *          *
* Top Width (ft)         *   32.96  * Top Width (ft)          *          *   32.96  *          *
* Vel Total (ft/s)       *    2.79  * Avg. Vel. (ft/s)        *          *    2.79  *          *
* Max Chl Dpth (ft)      *    2.87  * Hydr. Depth (ft)        *          *    2.39  *          *
* Conv. Total (cfs)      *  6795.4  * Conv. (cfs)              *          *  6795.4  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)        *          *   34.33  *          *
* Min Ch El (ft)         *  125.20  * Shear (lb/sq ft)        *          *    0.15  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s)   *          *    0.42  *          *
* Frctn Loss (ft)        *    0.10  * Cum Volume (acre-ft)     *    0.37  *    2.43  *    0.37  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)           *    0.44  *    1.05  *    0.62  *
*****************************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 17

INPUT
Description: 17+00
Station Elevation Data    num=      14
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*********************************************************************************
    -200     136    -140     136    -140     134     -65     133     -25   134.5
     -20     132     -15     127     -10     125       0     125      10     125
      15     127      20     131      80     140     200     141

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -20     .03      20     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -20      20              100     100     100              .1       .3
```

CROSS SECTION OUTPUT Profile #100

E.G. Elev (ft)	128.09	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.12	Wt. n-Val.		0.030	
W.S. Elev (ft)	127.98	Reach Len. (ft)	100.00	100.00	100.00
Crit W.S. (ft)		Flow Area (sq ft)		80.41	
E.G. Slope (ft/ft)	0.000958	Area (sq ft)		80.41	
Q Total (cfs)	220.00	Flow (cfs)		220.00	
Top Width (ft)	32.20	Top Width (ft)		32.20	
Vel Total (ft/s)	2.74	Avg. Vel. (ft/s)		2.74	
Max Chl Dpth (ft)	2.98	Hydr. Depth (ft)		2.50	
Conv. Total (cfs)	7108.6	Conv. (cfs)		7108.6	
Length Wtd. (ft)	100.00	Wetted Per. (ft)		33.72	
Min Ch El (ft)	125.00	Shear (lb/sq ft)		0.14	
Alpha	1.00	Stream Power (lb/ft s)		0.39	
Frctn Loss (ft)	0.10	Cum Volume (acre-ft)	0.37	2.25	0.37
C & E Loss (ft)	0.00	Cum SA (acres)	0.44	0.97	0.62

CROSS SECTION

RIVER: French Stream
REACH: 1 RS: 16

INPUT
Description: 16+00
Station Elevation Data num= 15

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-200	134	-40	134	-20	128.4	-15	127	-10	124.9
0	124.9	10	124.9	15	127	20	130.5	25	130.5
30	128	75	132.5	95	138	150	141	200	140.5

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-200	.05	-20	.03	20	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
-20	20	100	100	100	.1	.3

CROSS SECTION OUTPUT Profile #100

E.G. Elev (ft)	128.00	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.12	Wt. n-Val.		0.030	
W.S. Elev (ft)	127.88	Reach Len. (ft)	100.00	100.00	100.00
Crit W.S. (ft)		Flow Area (sq ft)		80.84	
E.G. Slope (ft/ft)	0.001013	Area (sq ft)		80.84	
Q Total (cfs)	220.00	Flow (cfs)		220.00	
Top Width (ft)	34.40	Top Width (ft)		34.40	
Vel Total (ft/s)	2.72	Avg. Vel. (ft/s)		2.72	
Max Chl Dpth (ft)	2.98	Hydr. Depth (ft)		2.35	
Conv. Total (cfs)	6911.5	Conv. (cfs)		6911.5	
Length Wtd. (ft)	100.00	Wetted Per. (ft)		35.64	
Min Ch El (ft)	124.90	Shear (lb/sq ft)		0.14	
Alpha	1.00	Stream Power (lb/ft s)		0.39	
Frctn Loss (ft)	0.10	Cum Volume (acre-ft)	0.37	2.06	0.37
C & E Loss (ft)	0.00	Cum SA (acres)	0.44	0.90	0.62

CROSS SECTION

RIVER: French Stream
REACH: 1 RS: 15

INPUT
Description: 15+00
Station Elevation Data num= 13

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-200	134	-20	134	-15	127	-10	124.8	0	124.8
10	124.8	15	127	20	129	25	130	87	132
105	137	187	141	200	141				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val

```
    -200     .05     -20     .03      20     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -20      20              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
*********************************************************************************************
* E.G. Elev (ft)         *  127.89  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.12  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  127.77  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   79.16  *          *
* E.G. Slope (ft/ft)     *0.001019  * Area (sq ft)           *          *   79.16  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   32.49  * Top Width (ft)         *          *   32.49  *          *
* Vel Total (ft/s)       *    2.78  * Avg. Vel. (ft/s)       *          *    2.78  *          *
* Max Chl Dpth (ft)      *    2.97  * Hydr. Depth (ft)       *          *    2.44  *          *
* Conv. Total (cfs)      *  6893.0  * Conv. (cfs)            *          *  6893.0  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   33.96  *          *
* Min Ch El (ft)         *  124.80  * Shear (lb/sq ft)       *          *    0.15  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    0.41  *          *
* Frctn Loss (ft)        *    0.10  * Cum Volume (acre-ft)   *    0.37  *    1.88  *    0.37  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)         *    0.44  *    0.82  *    0.62  *
*********************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 14

INPUT
Description: 14+00
Station Elevation Data    num=      16
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
    -200     138    -137     138   -87.5     134     -25     134     -20 131.667
     -15     127     -10   124.7       0   124.7      10   124.7      15     127
      20 130.171      95     132     112   135.8     115   135.5     175     140
     200     139

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -20     .03      20     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -20      20              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
*********************************************************************************************
* E.G. Elev (ft)         *  127.79  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.12  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  127.67  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   78.10  *          *
* E.G. Slope (ft/ft)     *0.001035  * Area (sq ft)           *          *   78.10  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   31.77  * Top Width (ft)         *          *   31.77  *          *
* Vel Total (ft/s)       *    2.82  * Avg. Vel. (ft/s)       *          *    2.82  *          *
* Max Chl Dpth (ft)      *    2.97  * Hydr. Depth (ft)       *          *    2.46  *          *
* Conv. Total (cfs)      *  6837.7  * Conv. (cfs)            *          *  6837.7  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   33.23  *          *
* Min Ch El (ft)         *  124.70  * Shear (lb/sq ft)       *          *    0.15  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    0.43  *          *
* Frctn Loss (ft)        *    0.11  * Cum Volume (acre-ft)   *    0.37  *    1.70  *    0.37  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)         *    0.44  *    0.75  *    0.62  *
*********************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 13

INPUT
Description: 13+00
Station Elevation Data    num=      19
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
    -200   137.8    -160     138    -113     138     -60     134     -25     132
```

```
     -15     127     -10   124.6       0   124.6      10   124.6      15     127
      25     130      45   130.5      60     130   112.5     132     125     134
     145     135     150     133     163     133     200     134

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
*********************************************
    -200     .05     -25     .03      25     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -25      25              100     100     100              .1       .3

CROSS SECTION OUTPUT  Profile #100
*****************************************************************************************
* E.G. Elev (ft)         *  127.68  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.12  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  127.56  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   77.59  *          *
* E.G. Slope (ft/ft)     *0.001103  * Area (sq ft)           *          *   77.59  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   32.98  * Top Width (ft)         *          *   32.98  *          *
* Vel Total (ft/s)       *    2.84  * Avg. Vel. (ft/s)       *          *    2.84  *          *
* Max Chl Dpth (ft)      *    2.96  * Hydr. Depth (ft)       *          *    2.35  *          *
* Conv. Total (cfs)      *  6623.9  * Conv. (cfs)            *          *  6623.9  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   34.28  *          *
* Min Ch El (ft)         *  124.60  * Shear (lb/sq ft)       *          *    0.16  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    0.44  *          *
* Frctn Loss (ft)        *    0.10  * Cum Volume (acre-ft)   *    0.37  *    1.52  *    0.37  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)         *    0.44  *    0.67  *    0.62  *
*****************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 12

INPUT
Description: 12+00
Station Elevation Data    num=      14
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
    -200     134     -55     134     -20     132     -15     127     -10   124.4
       0   124.4      10   124.4      15     127      20     128     112     131
     125   132.3     138     132     200     132     250     135

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
*********************************************
    -200     .05     -15     .03      10     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -15      10              100     100     100              .1       .3

CROSS SECTION OUTPUT  Profile #100
*****************************************************************************************
* E.G. Elev (ft)         *  127.58  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.14  * Wt. n-Val.             *   0.050  *   0.030  *   0.050  *
* W.S. Elev (ft)         *  127.44  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *    0.10  *   69.52  *    9.19  *
* E.G. Slope (ft/ft)     *0.000988  * Area (sq ft)           *    0.10  *   69.52  *    9.19  *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *    0.03  *  210.47  *    9.51  *
* Top Width (ft)         *   32.65  * Top Width (ft)         *    0.44  *   25.00  *    7.20  *
* Vel Total (ft/s)       *    2.79  * Avg. Vel. (ft/s)       *    0.27  *    3.03  *    1.03  *
* Max Chl Dpth (ft)      *    3.04  * Hydr. Depth (ft)       *    0.22  *    2.78  *    1.28  *
* Conv. Total (cfs)      *  7000.2  * Conv. (cfs)            *     0.8  *  6696.8  *   302.5  *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *    0.62  *   25.64  *    7.88  *
* Min Ch El (ft)         *  124.40  * Shear (lb/sq ft)       *    0.01  *    0.17  *    0.07  *
* Alpha                  *    1.13  * Stream Power (lb/ft s) *    0.00  *    0.51  *    0.07  *
* Frctn Loss (ft)        *    0.10  * Cum Volume (acre-ft)   *    0.37  *    1.35  *    0.36  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)         *    0.44  *    0.61  *    0.61  *
*****************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 11
```

```
INPUT
Description: 11+00
Station Elevation Data    num=      13
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200     134     -45     134     -35     132     -15     127     -10   124.3
       0   124.3      10   124.3      15     127      50   133.8      95     134
     165     132     175     134     200     134

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
    -200     .05     -10     .03      10     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -10      10              100     100     100              .1       .3

CROSS SECTION OUTPUT  Profile #100
**********************************************************************************************
* E.G. Elev (ft)         *  127.47  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.16  * Wt. n-Val.             *   0.050  *   0.030  *   0.050  *
* W.S. Elev (ft)         *  127.31  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *    8.51  *   60.27  *    8.57  *
* E.G. Slope (ft/ft)     *0.001047  * Area (sq ft)           *    8.51  *   60.27  *    8.57  *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *    9.35  *  201.50  *    9.15  *
* Top Width (ft)         *   32.87  * Top Width (ft)         *    6.25  *   20.00  *    6.61  *
* Vel Total (ft/s)       *    2.84  * Avg. Vel. (ft/s)       *    1.10  *    3.34  *    1.07  *
* Max Chl Dpth (ft)      *    3.01  * Hydr. Depth (ft)       *    1.36  *    3.01  *    1.30  *
* Conv. Total (cfs)      *  6800.4  * Conv. (cfs)            *   289.0  *  6228.5  *   282.8  *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *    6.98  *   20.00  *    7.33  *
* Min Ch El (ft)         *  124.30  * Shear (lb/sq ft)       *    0.08  *    0.20  *    0.08  *
* Alpha                  *    1.28  * Stream Power (lb/ft s) *    0.09  *    0.66  *    0.08  *
* Frctn Loss (ft)        *    0.11  * Cum Volume (acre-ft)   *    0.36  *    1.20  *    0.34  *
* C & E Loss (ft)        *    0.01  * Cum SA (acres)         *    0.44  *    0.55  *    0.59  *
**********************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 10

INPUT
Description: 10+00
Station Elevation Data    num=      18
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200     134     -30     134     -20  128.75     -15     127     -10   124.3
       0   124.3      10   124.3      15     127      20     128      40     128
      45     127      60     127     105     133     137     133     150     132
     182     132     190     134     200     134

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
    -200     .05     -15     .03      15     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -15      15              100     100     100              .1       .3

CROSS SECTION OUTPUT  Profile #100
**********************************************************************************************
* E.G. Elev (ft)         *  127.36  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.13  * Wt. n-Val.             *   0.050  *   0.030  *   0.050  *
* W.S. Elev (ft)         *  127.22  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *    0.07  *   74.21  *    3.79  *
* E.G. Slope (ft/ft)     *0.001123  * Area (sq ft)           *    0.07  *   74.21  *    3.79  *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *    0.02  *  218.68  *    1.30  *
* Top Width (ft)         *   49.55  * Top Width (ft)         *    0.64  *   30.00  *   18.91  *
* Vel Total (ft/s)       *    2.82  * Avg. Vel. (ft/s)       *    0.22  *    2.95  *    0.34  *
* Max Chl Dpth (ft)      *    2.92  * Hydr. Depth (ft)       *    0.11  *    2.47  *    0.20  *
* Conv. Total (cfs)      *  6565.6  * Conv. (cfs)            *     0.5  *  6526.3  *    38.8  *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *    0.68  *   31.36  *   18.97  *
* Min Ch El (ft)         *  124.30  * Shear (lb/sq ft)       *    0.01  *    0.17  *    0.01  *
* Alpha                  *    1.09  * Stream Power (lb/ft s) *    0.00  *    0.49  *    0.00  *
* Frctn Loss (ft)        *    0.12  * Cum Volume (acre-ft)   *    0.35  *    1.05  *    0.32  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)         *    0.43  *    0.50  *    0.56  *
**********************************************************************************************
```

Warning: Divided flow computed for this cross-section.

CROSS SECTION

RIVER: French Stream
REACH: 1 RS: 9

INPUT
Description: 9+00
Station Elevation Data num= 15

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-200	134	-40	134	-25	132	-15	127	-10	124.2
0	124.2	10	124.2	15	127	20	127.125	50	128
70	127	95	127	130	131.2	137	130.5	200	132.5

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-200	.05	-15	.03	15	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
-15	15	100	100	100	.1	.3

CROSS SECTION OUTPUT Profile #100

E.G. Elev (ft)	127.24	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.14	Wt. n-Val.	0.050	0.030	0.050
W.S. Elev (ft)	127.10	Reach Len. (ft)	100.00	100.00	100.00
Crit W.S. (ft)		Flow Area (sq ft)	0.01	73.06	2.91
E.G. Slope (ft/ft)	0.001195	Area (sq ft)	0.01	73.06	2.91
Q Total (cfs)	220.00	Flow (cfs)	0.00	219.38	0.61
Top Width (ft)	62.18	Top Width (ft)	0.20	30.00	31.97
Vel Total (ft/s)	2.90	Avg. Vel. (ft/s)	0.13	3.00	0.21
Max Chl Dpth (ft)	2.90	Hydr. Depth (ft)	0.05	2.44	0.09
Conv. Total (cfs)	6363.9	Conv. (cfs)	0.0	6346.1	17.8
Length Wtd. (ft)	100.00	Wetted Per. (ft)	0.23	31.46	31.98
Min Ch El (ft)	124.20	Shear (lb/sq ft)	0.00	0.17	0.01
Alpha	1.07	Stream Power (lb/ft s)	0.00	0.52	0.00
Frctn Loss (ft)	0.07	Cum Volume (acre-ft)	0.35	0.88	0.31
C & E Loss (ft)	0.03	Cum SA (acres)	0.43	0.43	0.51

Warning: Divided flow computed for this cross-section.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION

RIVER: French Stream
REACH: 1 RS: 8

INPUT
Description: 8+00
Station Elevation Data num= 10

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-200	139.5	-100	140	-20	127.2	-10	124	0	124
10	124	20	125.513	75	127.2	100	130.5	200	132

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-200	.05	-20	.03	20	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
-20	20	100	100	100	.1	.3

CROSS SECTION OUTPUT Profile #100

E.G. Elev (ft)	127.15	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.05	Wt. n-Val.		0.030	0.050
W.S. Elev (ft)	127.09	Reach Len. (ft)	100.00	100.00	100.00
Crit W.S. (ft)		Flow Area (sq ft)		100.06	40.55
E.G. Slope (ft/ft)	0.000472	Area (sq ft)		100.06	40.55
Q Total (cfs)	220.00	Flow (cfs)		197.65	22.35
Top Width (ft)	91.07	Top Width (ft)		39.66	51.42

* Vel Total (ft/s)	* 1.56	* Avg. Vel. (ft/s)	*	*	1.98	* 0.55	*
* Max Chl Dpth (ft)	* 3.09	* Hydr. Depth (ft)	*	*	2.52	* 0.79	*
* Conv. Total (cfs)	* 10122.4	* Conv. (cfs)	*	*	9094.2	* 1028.1	*
* Length Wtd. (ft)	* 100.00	* Wetted Per. (ft)	*	*	40.25	* 51.44	*
* Min Ch El (ft)	* 124.00	* Shear (lb/sq ft)	*	*	0.07	* 0.02	*
* Alpha	* 1.44	* Stream Power (lb/ft s)	*	*	0.14	* 0.01	*
* Frctn Loss (ft)	* 0.07	* Cum Volume (acre-ft)	* 0.35	*	0.68	* 0.26	*
* C & E Loss (ft)	* 0.01	* Cum SA (acres)	* 0.43	*	0.35	* 0.41	*

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION

RIVER: French Stream
REACH: 1 RS: 7

INPUT
Description: 7+00
Station Elevation Data num= 14

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-200	139	-100	138.5	-50	136	-30	133	-25	133
-20	132.5	-15	127	-10	123.8	0	123.8	10	123.8
15	127	20	128.2	35	130	200	133		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-200	.05	-20	.03	35	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
-20	35	56	56	56	.1	.3

CROSS SECTION OUTPUT Profile #100

* E.G. Elev (ft)	* 127.07	* Element	*	Left OB *	Channel	* Right OB	*
* Vel Head (ft)	* 0.12	* Wt. n-Val.	*	*	0.030	*	*
* W.S. Elev (ft)	* 126.95	* Reach Len. (ft)	*	56.00 *	56.00	* 56.00	*
* Crit W.S. (ft)	*	* Flow Area (sq ft)	*	*	78.55	*	*
* E.G. Slope (ft/ft)	*0.000953	* Area (sq ft)	*	*	78.55	*	*
* Q Total (cfs)	* 220.00	* Flow (cfs)	*	*	220.00	*	*
* Top Width (ft)	* 29.85	* Top Width (ft)	*	*	29.85	*	*
* Vel Total (ft/s)	* 2.80	* Avg. Vel. (ft/s)	*	*	2.80	*	*
* Max Chl Dpth (ft)	* 3.15	* Hydr. Depth (ft)	*	*	2.63	*	*
* Conv. Total (cfs)	* 7125.0	* Conv. (cfs)	*	*	7125.0	*	*
* Length Wtd. (ft)	* 56.00	* Wetted Per. (ft)	*	*	31.69	*	*
* Min Ch El (ft)	* 123.80	* Shear (lb/sq ft)	*	*	0.15	*	*
* Alpha	* 1.00	* Stream Power (lb/ft s)	*	*	0.41	*	*
* Frctn Loss (ft)	* 0.10	* Cum Volume (acre-ft)	* 0.35	*	0.47	* 0.22	*
* C & E Loss (ft)	* 0.02	* Cum SA (acres)	* 0.43	*	0.27	* 0.35	*

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION

RIVER: French Stream
REACH: 1 RS: 6.44

INPUT
Description: 6+44
Station Elevation Data num= 10

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-200	136.5	-20	129	-10	122.9	0	128	10	122.9
20	129	25	129	35	129.4	100	130	200	132

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-200	.05	-20	.03	20	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
-20	20	44	44	44	.1	.3

CROSS SECTION OUTPUT Profile #100

E.G. Elev (ft)	126.96	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.29	Wt. n-Val.		0.030	
W.S. Elev (ft)	126.68	Reach Len. (ft)	44.00	44.00	44.00
Crit W.S. (ft)	125.87	Flow Area (sq ft)		51.35	
E.G. Slope (ft/ft)	0.003838	Area (sq ft)		51.35	
Q Total (cfs)	220.00	Flow (cfs)		220.00	
Top Width (ft)	27.19	Top Width (ft)		27.19	
Vel Total (ft/s)	4.28	Avg. Vel. (ft/s)		4.28	
Max Chl Dpth (ft)	3.78	Hydr. Depth (ft)		1.89	
Conv. Total (cfs)	3550.9	Conv. (cfs)		3550.9	
Length Wtd. (ft)	44.00	Wetted Per. (ft)		31.13	
Min Ch El (ft)	122.90	Shear (lb/sq ft)		0.40	
Alpha	1.00	Stream Power (lb/ft s)		1.69	
Frctn Loss (ft)		Cum Volume (acre-ft)	0.35	0.39	0.22
C & E Loss (ft)		Cum SA (acres)	0.43	0.23	0.35

CULVERT

RIVER: French Stream
REACH: 1 RS: 6.34

INPUT
Description: 2-60"RCP
Distance from Upstream XS = 2
Deck/Roadway Width = 26
Weir Coefficient = 2.6
Upstream Deck/Roadway Coordinates
num= 2

Sta Hi Cord	Lo Cord	Sta Hi Cord	Lo Cord
-20	129	122.9	20	129	122.8

Upstream Bridge Cross Section Data
Station Elevation Data num= 10

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-200	136.5	-20	129	-10	122.9	0	128	10	122.9
20	129	25	129	35	129.4	100	130	200	132

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-200	.05	-20	.03	20	.05

Bank Sta: Left Right Coeff Contr. Expan.
-20 20 .1 .3

Downstream Deck/Roadway Coordinates
num= 2

Sta Hi Cord	Lo Cord	Sta Hi Cord	Lo Cord
-20	129	122.9	20	129	122.8

Downstream Bridge Cross Section Data
Station Elevation Data num= 11

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-200	135	-100	133	-80	130	-20	129	-10	122.8
0	129	10	122.8	20	129	60	130	180	130
200	133								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-200	.05	-20	.03	20	.05

Bank Sta: Left Right Coeff Contr. Expan.
-20 20 .1 .3

Upstream Embankment side slope = 0 horiz. to 1.0 vertical
Downstream Embankment side slope = 0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow = .95
Elevation at which weir flow begins =
Energy head used in spillway design =

```
Spillway height used in design              =
Weir crest shape                            = Broad Crested

Number of Culverts =  1

Culvert Name     Shape      Rise    Span
Culvert #1      Circular       6
FHWA Chart # 1 - Concrete Pipe Culvert
FHWA Scale # 1 - Square edge entrance with headwall
Solution Criteria = Highest U.S. EG
Culvert Upstrm Dist  Length    Top n  Bottom n  Depth Blocked  Entrance Loss Coef   Exit Loss Coef
                  2      38     .013     .013        0                  .1                 1
Number of Barrels =  2
Upstream   Elevation =  122.9
Centerline Stations
    Sta.    Sta.
     -10      10
Downstream Elevation =  122.8
Centerline Stations
    Sta.    Sta.
     -10      10

CULVERT OUTPUT  Profile #100  Culv Group:  Culvert #1
*********************************************************************
* Q Culv Group (cfs)     *  220.00  * Culv Full Len (ft)     *          *
* # Barrels              *       2  * Culv Vel US (ft/s)     *    7.34  *
* Q Barrel (cfs)         *  110.00  * Culv Vel DS (ft/s)     *    7.22  *
* E.G. US. (ft)          *  126.96  * Culv Inv El Up (ft)    *  122.90  *
* W.S. US. (ft)          *  126.68  * Culv Inv El Dn (ft)    *  122.80  *
* E.G. DS (ft)           *  126.69  * Culv Frctn Ls (ft)     *    0.09  *
* W.S. DS (ft)           *  125.98  * Culv Exit Loss (ft)    *    0.11  *
* Delta EG (ft)          *    0.28  * Culv Entr Loss (ft)    *    0.08  *
* Delta WS (ft)          *    0.69  * Q Weir (cfs)           *          *
* E.G. IC (ft)           *  126.96  * Weir Sta Lft (ft)      *          *
* E.G. OC (ft)           *  126.96  * Weir Sta Rgt (ft)      *          *
* Culvert Control        *   Inlet  * Weir Submerg           *          *
* Culv WS Inlet (ft)     *  126.04  * Weir Max Depth (ft)    *          *
* Culv WS Outlet (ft)    *  125.98  * Weir Avg Depth (ft)    *          *
* Culv Nml Depth (ft)    *    3.02  * Weir Flow Area (sq ft) *          *
* Culv Crt Depth (ft)    *    2.83  * Min El Weir Flow (ft)  *  129.01  *
*********************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 6

INPUT
Description: 6+00
Station Elevation Data    num=      11
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
    -200     135    -100     133     -80     130     -20     129     -10   122.8
       0     129      10   122.8      20     129      60     130     180     130
     200     133

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
    -200     .05     -20     .03      20     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -20      20              100     100     100              .1       .3

CROSS SECTION OUTPUT  Profile #100
*************************************************************************************************
* E.G. Elev (ft)         *  126.69  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.70  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  125.98  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *  125.90  * Flow Area (sq ft)      *          *   32.67  *          *
* E.G. Slope (ft/ft)     *0.012363  * Area (sq ft)           *          *   32.67  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   20.53  * Top Width (ft)         *          *   20.53  *          *
* Vel Total (ft/s)       *    6.73  * Avg. Vel. (ft/s)       *          *    6.73  *          *
* Max Chl Dpth (ft)      *    3.18  * Hydr. Depth (ft)       *          *    1.59  *          *
* Conv. Total (cfs)      *  1978.6  * Conv. (cfs)            *          *  1978.6  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   24.16  *          *
* Min Ch El (ft)         *  122.80  * Shear (lb/sq ft)       *          *    1.04  *          *
```

```
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    7.03  *          *
* Frctn Loss (ft)        *    0.24  * Cum Volume (acre-ft)   *    0.35  *    0.35  *    0.22  *
* C & E Loss (ft)        *    0.19  * Cum SA (acres)         *    0.43  *    0.21  *    0.35  *
*********************************************************************************************

Warning: Divided flow computed for this cross-section.
Warning: The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for
         additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than
         0.7 or greater than 1.4.  This may indicate the need for additional cross sections.

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 5

INPUT
Description: 5+00
Station Elevation Data    num=      18
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200     131    -170  131.75    -145     131    -100     128     -75     126
     -50   126.5     -15     126     -10   125.2       0   122.4      10   124.5
      15  124.85      20   125.2      75     126     115   125.5     135     124
     140   126.5     155  128.75     200     130

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -15     .03      15     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -15      15              100     100     100              .1       .3

CROSS SECTION OUTPUT  Profile #100
*********************************************************************************************
* E.G. Elev (ft)         *  126.25  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.07  * Wt. n-Val.             *   0.050  *   0.030  *   0.050  *
* W.S. Elev (ft)         *  126.18  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *    2.09  *   61.45  *   87.93  *
* E.G. Slope (ft/ft)     *0.001012  * Area (sq ft)           *    2.09  *   61.45  *   87.93  *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *    0.39  *  153.85  *   65.76  *
* Top Width (ft)         *  177.89  * Top Width (ft)         *   23.53  *   30.00  *  124.36  *
* Vel Total (ft/s)       *    1.45  * Avg. Vel. (ft/s)       *    0.19  *    2.50  *    0.75  *
* Max Chl Dpth (ft)      *    3.78  * Hydr. Depth (ft)       *    0.09  *    2.05  *    0.71  *
* Conv. Total (cfs)      *  6916.6  * Conv. (cfs)            *    12.4  *  4836.8  *  2067.4  *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *   23.54  *   30.68  *  124.95  *
* Min Ch El (ft)         *  122.40  * Shear (lb/sq ft)       *    0.01  *    0.13  *    0.04  *
* Alpha                  *    2.16  * Stream Power (lb/ft s) *    0.00  *    0.32  *    0.03  *
* Frctn Loss (ft)        *    0.23  * Cum Volume (acre-ft)   *    0.35  *    0.24  *    0.12  *
* C & E Loss (ft)        *    0.04  * Cum SA (acres)         *    0.40  *    0.15  *    0.21  *
*********************************************************************************************

Warning: Divided flow computed for this cross-section.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than
         0.7 or greater than 1.4.  This may indicate the need for additional cross sections.

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 4

INPUT
Description: 4+00
Station Elevation Data    num=      18
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200     131    -160  131.25    -100     127     -65   124.5     -25     127
     -15 126.333     -10     126     -6.5     125       0   122.2      10     125
      15   125.5      20     126      45     126     100   125.5     115   125.5
     145     126     200     126     250     131

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -15     .03      15     .05
```

```
Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -15      15              100     100     100              .1       .3

CROSS SECTION OUTPUT  Profile #100
*********************************************************************************************
* E.G. Elev (ft)         *  125.97  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.51  * Wt. n-Val.             *   0.050  *   0.030  *         *
* W.S. Elev (ft)         *  125.46  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *  125.46  * Flow Area (sq ft)      *   13.92  *   32.19  *          *
* E.G. Slope (ft/ft)     *0.009966  * Area (sq ft)           *   13.92  *   32.19  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *   25.33  *  194.67  *          *
* Top Width (ft)         *   51.65  * Top Width (ft)          *   28.90  *   22.75  *          *
* Vel Total (ft/s)       *    4.77  * Avg. Vel. (ft/s)       *    1.82  *    6.05  *          *
* Max Chl Dpth (ft)      *    3.26  * Hydr. Depth (ft)       *    0.48  *    1.41  *          *
* Conv. Total (cfs)      *  2203.8  * Conv. (cfs)            *   253.8  *  1950.0  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *   28.96  *   23.80  *          *
* Min Ch El (ft)         *  122.20  * Shear (lb/sq ft)       *    0.30  *    0.84  *          *
* Alpha                  *    1.44  * Stream Power (lb/ft s) *    0.54  *    5.09  *          *
* Frctn Loss (ft)        *    0.51  * Cum Volume (acre-ft)   *    0.33  *    0.13  *    0.02  *
* C & E Loss (ft)        *    0.13  * Cum SA (acres)         *    0.34  *    0.09  *    0.07  *
*********************************************************************************************

Warning: The energy equation could not be balanced within the specified number of iterations.  The
         program used critical depth for the water surface and continued on with the calculations.
Warning: Divided flow computed for this cross-section.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than
         0.7 or greater than 1.4.  This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross
         section.  This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical
         depth, the calculated water surface came back below critical depth.  This indicates that there
         is not a valid subcritical answer.  The program defaulted to critical depth.

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 3

INPUT
Description: 3+00
Station Elevation Data    num=      21
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200     130    -160     126    -140     125    -120     123     -80     123
     -45     124     -30     126     -15     126     -10   125.5       0   122.1
      10   125.5      15 125.667      25     126      65   125.5      80     125
     170     125     175     124     180     124     185   124.5     200     125
     250     128

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
*********************************************
    -200     .05     -15     .03      15     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -15      15              100     100     100              .1       .3

CROSS SECTION OUTPUT  Profile #100
*********************************************************************************************
* E.G. Elev (ft)         *  124.47  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.06  * Wt. n-Val.             *   0.050  *   0.030  *   0.050  *
* W.S. Elev (ft)         *  124.41  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *   98.73  *   15.68  *    3.30  *
* E.G. Slope (ft/ft)     *0.003123  * Area (sq ft)           *   98.73  *   15.68  *    3.30  *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *  171.52  *   46.05  *    2.43  *
* Top Width (ft)         *  116.87  * Top Width (ft)          *   92.16  *   13.58  *   11.13  *
* Vel Total (ft/s)       *    1.87  * Avg. Vel. (ft/s)       *    1.74  *    2.94  *    0.74  *
* Max Chl Dpth (ft)      *    2.31  * Hydr. Depth (ft)       *    1.07  *    1.15  *    0.30  *
* Conv. Total (cfs)      *  3936.9  * Conv. (cfs)            *  3069.4  *   824.1  *    43.4  *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *   92.27  *   14.35  *   11.20  *
* Min Ch El (ft)         *  122.10  * Shear (lb/sq ft)       *    0.21  *    0.21  *    0.06  *
* Alpha                  *    1.19  * Stream Power (lb/ft s) *    0.36  *    0.63  *    0.04  *
* Frctn Loss (ft)        *    0.19  * Cum Volume (acre-ft)   *    0.20  *    0.08  *    0.01  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)         *    0.20  *    0.05  *    0.05  *
*********************************************************************************************

Warning: Divided flow computed for this cross-section.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than
```

0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION

RIVER: French Stream
REACH: 1 RS: 2

INPUT
Description: 2+00
Station Elevation Data num= 16

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-200	135	-100	123	-60	123	-30	124	-20	125
-15	124.8	-10	122	0	122	10	122	15	125
20	125	150	125	170	124	200	124	230	130
250	135								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-200	.05	-20	.03	20	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
-20	20	0	0	0	.1	.3

CROSS SECTION OUTPUT Profile #100

E.G. Elev (ft)	124.28	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.08	Wt. n-Val.	0.050	0.030	0.050
W.S. Elev (ft)	124.20	Reach Len. (ft)			
Crit W.S. (ft)	123.50	Flow Area (sq ft)	75.20	52.35	6.50
E.G. Slope (ft/ft)	0.001329	Area (sq ft)	75.20	52.35	6.50
Q Total (cfs)	220.00	Flow (cfs)	76.84	140.87	2.29
Top Width (ft)	144.60	Top Width (ft)	82.00	27.60	35.00
Vel Total (ft/s)	1.64	Avg. Vel. (ft/s)	1.02	2.69	0.35
Max Chl Dpth (ft)	2.20	Hydr. Depth (ft)	0.92	1.90	0.19
Conv. Total (cfs)	6035.1	Conv. (cfs)	2107.8	3864.4	62.8
Length Wtd. (ft)		Wetted Per. (ft)	82.10	28.78	35.02
Min Ch El (ft)	122.00	Shear (lb/sq ft)	0.08	0.15	0.02
Alpha	1.86	Stream Power (lb/ft s)	0.08	0.41	0.01
Frctn Loss (ft)		Cum Volume (acre-ft)			
C & E Loss (ft)		Cum SA (acres)			

Warning: Divided flow computed for this cross-section.

SUMMARY OF MANNING'S N VALUES

River:French Stream

Reach	River Sta.	n1	n2	n3
1	100	.05	.03	.05
1	99	.05	.03	.05
1	98	.05	.03	.05
1	97	.05	.03	.05
1	96	.05	.03	.05
1	95	.05	.03	.05
1	94	.05	.03	.05
1	93	.05	.03	.05
1	92	.05	.03	.05
1	91	.05	.03	.05
1	90	.05	.03	.05
1	89	.05	.03	.05
1	88	.05	.03	.05
1	87	.05	.03	.05
1	86.36	.05	.03	.05
1	85.73	Culvert		
1	85.10	.05	.03	.05
1	85	.05	.03	.05
1	84	.05	.03	.05
1	83	.05	.03	.05
1	82	.05	.03	.05
1	81	.05	.03	.05
1	80	.05	.03	.05
1	79	.05	.03	.05

```
*1                *    78          *      .05*      .03*      .05*
*1                *    77          *      .05*      .03*      .05*
*1                *    76          *      .05*      .03*      .05*
*1                *    75          *      .05*      .03*      .05*
*1                *    74          *      .05*      .03*      .05*
*1                *    73          *      .05*      .03*      .05*
*1                *    72          *      .05*      .03*      .05*
*1                *    71          *      .05*      .03*      .05*
*1                *    70          *      .05*      .03*      .05*
*1                *    69          *      .05*      .03*      .05*
*1                *    67.91       *      .05*      .03*      .05*
*1                *    61.91       *Culvert  *        *         *
*1                *    55.91       *      .05*      .03*      .05*
*1                *    55          *      .05*      .03*      .05*
*1                *    54          *      .05*      .03*      .05*
*1                *    53          *      .05*      .03*      .05*
*1                *    52          *      .05*      .03*      .05*
*1                *    51          *      .05*      .03*      .05*
*1                *    50          *      .05*      .03*      .05*
*1                *    49          *      .05*      .03*      .05*
*1                *    48          *      .05*      .03*      .05*
*1                *    47          *      .05*      .03*      .05*
*1                *    46          *      .05*      .03*      .05*
*1                *    45          *      .05*      .03*      .05*
*1                *    44          *      .05*      .03*      .05*
*1                *    43          *      .05*      .03*      .05*
*1                *    42          *      .05*      .03*      .05*
*1                *    41          *      .05*      .03*      .05*
*1                *    40          *      .05*      .03*      .05*
*1                *    39          *      .05*      .03*      .05*
*1                *    38          *      .05*      .03*      .05*
*1                *    37          *      .05*      .03*      .05*
*1                *    36          *      .05*      .03*      .05*
*1                *    35          *      .05*      .03*      .05*
*1                *    34          *      .05*      .03*      .05*
*1                *    33          *      .05*      .03*      .05*
*1                *    32          *      .05*      .03*      .05*
*1                *    31          *      .05*      .03*      .05*
*1                *    30          *      .05*      .03*      .05*
*1                *    29          *      .05*      .03*      .05*
*1                *    28          *      .05*      .03*      .05*
*1                *    27          *      .05*      .03*      .05*
*1                *    26          *      .05*      .03*      .05*
*1                *    25          *      .05*      .03*      .05*
*1                *    24.83       *      .05*      .03*      .05*
*1                *    24.67       *Culvert  *        *         *
*1                *    24.51       *      .05*      .03*      .05*
*1                *    24          *      .05*      .03*      .05*
*1                *    23          *      .05*      .03*      .05*
*1                *    22          *      .05*      .03*      .05*
*1                *    21          *      .05*      .03*      .05*
*1                *    20          *      .05*      .03*      .05*
*1                *    19          *      .05*      .03*      .05*
*1                *    18          *      .05*      .03*      .05*
*1                *    17          *      .05*      .03*      .05*
*1                *    16          *      .05*      .03*      .05*
*1                *    15          *      .05*      .03*      .05*
*1                *    14          *      .05*      .03*      .05*
*1                *    13          *      .05*      .03*      .05*
*1                *    12          *      .05*      .03*      .05*
*1                *    11          *      .05*      .03*      .05*
*1                *    10          *      .05*      .03*      .05*
*1                *    9           *      .05*      .03*      .05*
*1                *    8           *      .05*      .03*      .05*
*1                *    7           *      .05*      .03*      .05*
*1                *    6.44        *      .05*      .03*      .05*
*1                *    6.34        *Culvert  *        *         *
*1                *    6           *      .05*      .03*      .05*
*1                *    5           *      .05*      .03*      .05*
*1                *    4           *      .05*      .03*      .05*
*1                *    3           *      .05*      .03*      .05*
*1                *    2           *      .05*      .03*      .05*
*******************************************************************

*******************************************************************************

SUMMARY OF REACH LENGTHS

River: French Stream
```

Reach	River Sta.	Left	Channel	Right
1	100	100	100	100
1	99	100	100	100
1	98	100	100	100
1	97	100	100	100
1	96	100	100	100
1	95	100	100	100
1	94	100	100	100
1	93	100	100	100
1	92	100	100	100
1	91	100	100	100
1	90	100	100	100
1	89	100	100	100
1	88	100	100	100
1	87	64	64	64
1	86.36	126	126	126
1	85.73	Culvert		
1	85.10	10	10	10
1	85	100	100	100
1	84	100	100	100
1	83	100	100	100
1	82	100	100	100
1	81	100	100	100
1	80	100	100	100
1	79	100	100	100
1	78	100	100	100
1	77	100	100	100
1	76	100	100	100
1	75	100	100	100
1	74	100	100	100
1	73	100	100	100
1	72	100	100	100
1	71	100	100	100
1	70	100	100	100
1	69	109	109	109
1	67.91	1200	1200	1200
1	61.91	Culvert		
1	55.91	91	91	91
1	55	100	100	100
1	54	100	100	100
1	53	100	100	100
1	52	100	100	100
1	51	100	100	100
1	50	100	100	100
1	49	100	100	100
1	48	100	100	100
1	47	100	100	100
1	46	100	100	100
1	45	100	100	100
1	44	100	100	100
1	43	100	100	100
1	42	100	100	100
1	41	100	100	100
1	40	100	100	100
1	39	100	100	100
1	38	100	100	100
1	37	100	100	100
1	36	100	100	100
1	35	100	100	100
1	34	100	100	100
1	33	100	100	100
1	32	100	100	100
1	31	100	100	100
1	30	100	100	100
1	29	100	100	100
1	28	100	100	100
1	27	100	100	100
1	26	100	100	100
1	25	17	17	17
1	24.83	32	32	32
1	24.67	Culvert		
1	24.51	51	51	51
1	24	100	100	100
1	23	100	100	100
1	22	100	100	100
1	21	100	100	100
1	20	100	100	100

*1	* 19	* 100*	100*	100*
*1	* 18	* 100*	100*	100*
*1	* 17	* 100*	100*	100*
*1	* 16	* 100*	100*	100*
*1	* 15	* 100*	100*	100*
*1	* 14	* 100*	100*	100*
*1	* 13	* 100*	100*	100*
*1	* 12	* 100*	100*	100*
*1	* 11	* 100*	100*	100*
*1	* 10	* 100*	100*	100*
*1	* 9	* 100*	100*	100*
*1	* 8	* 100*	100*	100*
*1	* 7	* 56*	56*	56*
*1	* 6.44	* 44*	44*	44*
*1	* 6.34	*Culvert *	*	*
*1	* 6	* 100*	100*	100*
*1	* 5	* 100*	100*	100*
*1	* 4	* 100*	100*	100*
*1	* 3	* 100*	100*	100*
*1	* 2	* 0*	0*	0*

SUMMARY OF CONTRACTION AND EXPANSION COEFFICIENTS
River: French Stream

Reach	River Sta.	Contr.	Expan.
*1	* 100	* .1*	.3*
*1	* 99	* .1*	.3*
*1	* 98	* .1*	.3*
*1	* 97	* .1*	.3*
*1	* 96	* .1*	.3*
*1	* 95	* .1*	.3*
*1	* 94	* .1*	.3*
*1	* 93	* .1*	.3*
*1	* 92	* .1*	.3*
*1	* 91	* .1*	.3*
*1	* 90	* .1*	.3*
*1	* 89	* .1*	.3*
*1	* 88	* .1*	.3*
*1	* 87	* .1*	.3*
*1	* 86.36	* .1*	.3*
*1	* 85.73	*Culvert *	*
*1	* 85.10	* .1*	.3*
*1	* 85	* .1*	.3*
*1	* 84	* .1*	.3*
*1	* 83	* .1*	.3*
*1	* 82	* .1*	.3*
*1	* 81	* .1*	.3*
*1	* 80	* .1*	.3*
*1	* 79	* .1*	.3*
*1	* 78	* .1*	.3*
*1	* 77	* .1*	.3*
*1	* 76	* .1*	.3*
*1	* 75	* .1*	.3*
*1	* 74	* .1*	.3*
*1	* 73	* .1*	.3*
*1	* 72	* .1*	.3*
*1	* 71	* .1*	.3*
*1	* 70	* .1*	.3*
*1	* 69	* .1*	.3*
*1	* 67.91	* .1*	.3*
*1	* 61.91	*Culvert *	*
*1	* 55.91	* .1*	.3*
*1	* 55	* .1*	.3*
*1	* 54	* .1*	.3*
*1	* 53	* .1*	.3*
*1	* 52	* .1*	.3*
*1	* 51	* .1*	.3*
*1	* 50	* .1*	.3*
*1	* 49	* .1*	.3*
*1	* 48	* .1*	.3*
*1	* 47	* .1*	.3*
*1	* 46	* .1*	.3*
*1	* 45	* .1*	.3*
*1	* 44	* .1*	.3*

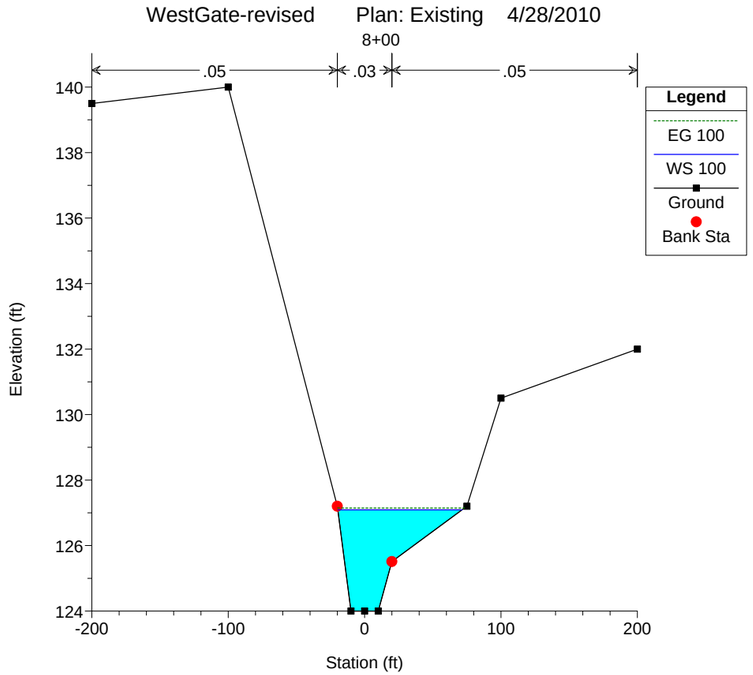
```
*1                *    43       *        .1*        .3*
*1                *    42       *        .1*        .3*
*1                *    41       *        .1*        .3*
*1                *    40       *        .1*        .3*
*1                *    39       *        .1*        .3*
*1                *    38       *        .1*        .3*
*1                *    37       *        .1*        .3*
*1                *    36       *        .1*        .3*
*1                *    35       *        .1*        .3*
*1                *    34       *        .1*        .3*
*1                *    33       *        .1*        .3*
*1                *    32       *        .1*        .3*
*1                *    31       *        .1*        .3*
*1                *    30       *        .1*        .3*
*1                *    29       *        .1*        .3*
*1                *    28       *        .1*        .3*
*1                *    27       *        .1*        .3*
*1                *    26       *        .1*        .3*
*1                *    25       *        .1*        .3*
*1                *    24.83    *        .1*        .3*
*1                *    24.67    *Culvert  *          *
*1                *    24.51    *        .1*        .3*
*1                *    24       *        .1*        .3*
*1                *    23       *        .1*        .3*
*1                *    22       *        .1*        .3*
*1                *    21       *        .1*        .3*
*1                *    20       *        .1*        .3*
*1                *    19       *        .1*        .3*
*1                *    18       *        .1*        .3*
*1                *    17       *        .1*        .3*
*1                *    16       *        .1*        .3*
*1                *    15       *        .1*        .3*
*1                *    14       *        .1*        .3*
*1                *    13       *        .1*        .3*
*1                *    12       *        .1*        .3*
*1                *    11       *        .1*        .3*
*1                *    10       *        .1*        .3*
*1                *    9        *        .1*        .3*
*1                *    8        *        .1*        .3*
*1                *    7        *        .1*        .3*
*1                *    6.44     *        .1*        .3*
*1                *    6.34     *Culvert  *          *
*1                *    6        *        .1*        .3*
*1                *    5        *        .1*        .3*
*1                *    4        *        .1*        .3*
*1                *    3        *        .1*        .3*
*1                *    2        *        .1*        .3*
*****************************************************
```

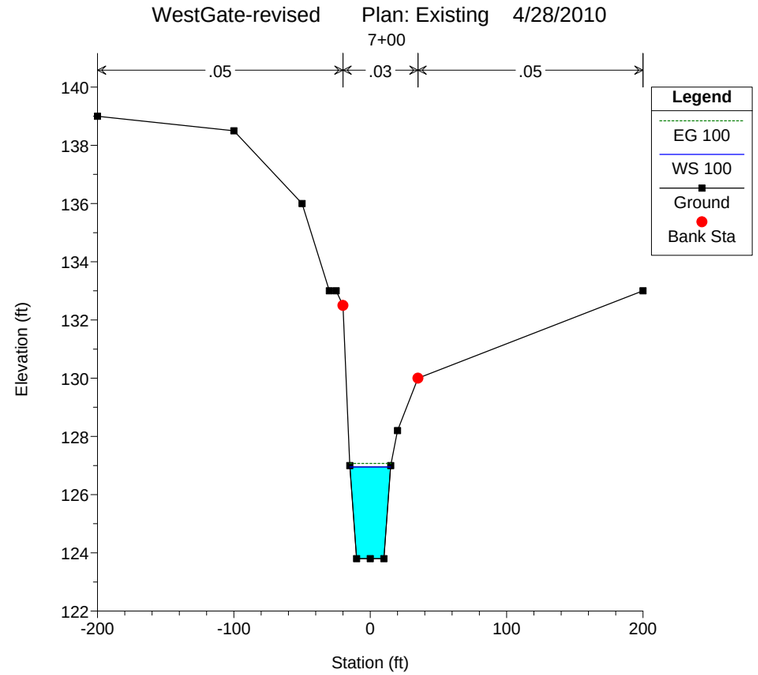
HEC-RAS Plan: Exisitng River: French Stream Reach: 1 Profile: 100

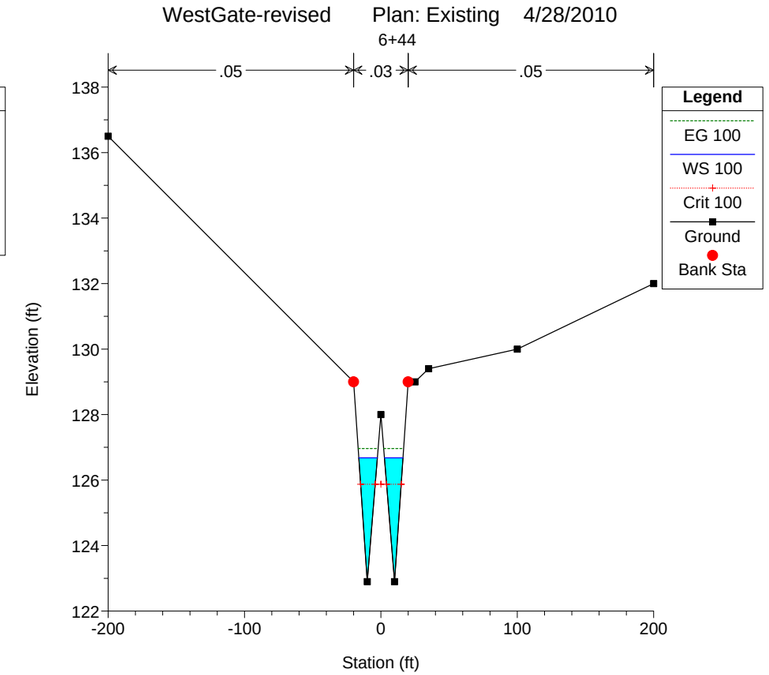
Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
1	100	100	220.00	146.80	148.34		148.38	0.001212	1.62	135.81	148.91	0.30
1	99	100	220.00	146.60	148.19		148.24	0.001470	1.80	122.45	132.85	0.33
1	98	100	220.00	146.40	148.04		148.10	0.001429	1.89	116.63	115.11	0.33
1	97	100	220.00	146.00	147.93		147.98	0.000963	1.64	134.00	121.06	0.28
1	96	100	220.00	146.00	147.64		147.79	0.003786	3.17	69.33	64.64	0.54
1	95	100	220.00	145.00	147.48		147.58	0.001216	2.45	89.73	52.25	0.33
1	94	100	220.00	144.50	147.37		147.47	0.001027	2.45	89.81	45.81	0.31
1	93	100	220.00	144.00	147.31		147.38	0.000622	2.22	98.88	39.83	0.25
1	92	100	220.00	143.50	147.25		147.33	0.000482	2.17	101.37	34.01	0.22
1	91	100	220.00	143.00	147.24		147.28	0.000266	1.69	130.40	41.53	0.17
1	90	100	220.00	142.80	147.20		147.25	0.000311	1.78	123.90	40.26	0.18
1	89	100	220.00	142.60	147.20		147.23	0.000173	1.40	158.35	53.41	0.14
1	88	100	220.00	142.40	147.18		147.21	0.000143	1.30	169.81	51.02	0.13
1	87	100	220.00	142.00	147.17		147.19	0.000130	1.32	166.78	44.55	0.12
1	86.36	100	220.00	141.80	147.16	143.26	147.19	0.000113	1.26	175.28	45.38	0.11
1	85.73		Culvert									
1	85.10	100	220.00	141.60	143.99		144.20	0.002303	3.67	60.00	30.23	0.46
1	85	100	220.00	141.40	144.01		144.16	0.001587	3.15	69.91	33.61	0.38
1	84	100	220.00	141.20	143.80		143.99	0.001859	3.51	62.75	28.35	0.42
1	83	100	220.00	141.00	143.62		143.80	0.001803	3.46	63.56	28.59	0.41
1	82	100	220.00	140.80	143.45		143.63	0.001665	3.34	65.91	29.70	0.39
1	81	100	220.00	140.60	143.32		143.46	0.001406	3.05	72.08	33.02	0.36
1	80	100	220.00	140.40	143.19		143.33	0.001254	2.92	75.22	33.83	0.35
1	79	100	220.00	140.20	143.09		143.21	0.001049	2.70	81.47	36.30	0.32
1	78	100	220.00	140.00	143.02		143.11	0.000795	2.35	93.44	41.83	0.28
1	77	100	220.00	139.80	142.98		143.03	0.000541	1.93	113.80	51.64	0.23
1	76	100	220.00	139.60	142.90		142.98	0.000609	2.19	100.67	40.98	0.25
1	75	100	220.00	139.40	142.84		142.92	0.000597	2.26	97.34	36.66	0.24
1	74	100	220.00	139.20	142.77		142.86	0.000593	2.33	94.60	32.98	0.24
1	73	100	220.00	139.00	142.71		142.80	0.000568	2.35	93.66	30.47	0.24
1	72	100	220.00	138.80	142.71		142.75	0.000255	1.58	141.20	54.91	0.16
1	71	100	220.00	138.60	142.68		142.72	0.000241	1.55	142.19	49.90	0.16
1	70	100	220.00	138.40	142.67		142.70	0.000157	1.34	170.14	65.10	0.13
1	69	100	220.00	138.20	142.64		142.68	0.000201	1.53	144.74	45.98	0.15
1	67.91	100	220.00	138.00	142.63	139.43	142.66	0.000163	1.39	158.22	46.98	0.13
1	61.91		Culvert									
1	55.91	100	220.00	135.70	137.95		138.32	0.004338	4.89	44.98	20.00	0.57
1	55	100	220.00	135.50	137.69		137.95	0.003206	4.13	53.23	28.70	0.53
1	54	100	220.00	135.20	137.34		137.62	0.003411	4.21	52.28	28.76	0.55
1	53	100	220.00	134.80	136.96		137.26	0.003613	4.43	49.69	25.99	0.56
1	52	100	220.00	134.50	136.64		136.91	0.003329	4.13	53.29	29.76	0.54
1	51	100	220.00	134.20	136.07		136.46	0.005710	5.07	43.38	26.51	0.70
1	50	100	220.00	133.50	135.74		136.01	0.003153	4.21	52.27	26.73	0.53
1	49	100	220.00	133.00	135.53		135.74	0.002058	3.65	60.29	27.60	0.44
1	48	100	220.00	132.80	135.35		135.54	0.001893	3.47	63.36	29.70	0.42
1	47	100	220.00	132.75	135.08		135.31	0.002594	3.86	56.93	28.86	0.48
1	46	100	220.00	132.70	134.34		134.85	0.008569	5.73	38.41	26.75	0.84
1	45	100	220.00	132.10	134.48		134.53	0.000787	2.13	138.35	76.28	0.27
1	44	100	220.00	131.90	134.35		134.43	0.001091	2.53	110.58	65.09	0.32
1	43	100	220.00	131.70	134.13		134.28	0.001827	3.17	69.45	37.18	0.41
1	42	100	220.00	131.50	133.88		134.08	0.002266	3.60	61.10	31.42	0.46
1	41	100	220.00	131.30	133.66		133.85	0.002190	3.48	63.20	33.49	0.45
1	40	100	220.00	131.10	133.50		133.64	0.001774	3.05	72.06	40.14	0.40
1	39	100	220.00	130.80	133.27		133.45	0.001975	3.43	64.12	31.96	0.43
1	38	100	220.00	130.60	133.02		133.23	0.002326	3.75	58.70	28.61	0.46
1	37	100	220.00	130.40	132.79		133.00	0.002343	3.69	59.55	29.91	0.46
1	36	100	220.00	130.20	132.57		132.76	0.002265	3.58	61.53	32.03	0.45
1	35	100	220.00	130.00	132.26		132.51	0.002856	3.98	55.31	28.95	0.51
1	34	100	220.00	129.40	132.16		132.29	0.001239	2.86	76.97	35.72	0.34
1	33	100	220.00	129.20	132.05		132.17	0.001134	2.79	78.88	35.38	0.33
1	32	100	220.00	129.00	131.94		132.06	0.001028	2.72	80.87	34.92	0.32
1	31	100	220.00	128.60	131.85		131.96	0.000881	2.74	80.29	29.45	0.29
1	30	100	220.00	128.40	131.78		131.88	0.000740	2.56	85.94	30.89	0.27
1	29	100	220.00	128.20	131.72		131.81	0.000616	2.38	92.61	32.62	0.25
1	28	100	220.00	128.00	131.67		131.75	0.000546	2.29	95.93	32.33	0.23
1	27	100	220.00	127.80	131.63		131.70	0.000448	2.12	104.00	34.37	0.21
1	26	100	220.00	127.70	131.58		131.65	0.000439	2.12	103.84	33.51	0.21
1	25	100	220.00	127.65	131.53		131.61	0.000467	2.20	100.00	31.55	0.22
1	24.83	100	220.00	127.00	131.54	128.51	131.59	0.000296	1.92	114.62	30.54	0.17
1	24.67		Culvert									
1	24.51	100	220.00	127.20	128.96		129.44	0.007309	5.59	39.34	24.76	0.78
1	24	100	220.00	126.40	128.92		129.17	0.002439	4.01	54.86	23.50	0.46
1	23	100	220.00	126.20	128.75		128.94	0.001935	3.52	62.49	29.09	0.42
1	22	100	220.00	126.00	128.56		128.75	0.001888	3.48	63.14	29.33	0.42
1	21	100	220.00	125.80	128.41		128.57	0.001538	3.18	69.13	31.76	0.38
1	20	100	220.00	125.60	128.29		128.42	0.001202	2.88	76.50	34.14	0.34
1	19	100	220.00	125.40	128.18		128.31	0.001125	2.88	76.48	31.95	0.33
1	18	100	220.00	125.20	128.07		128.20	0.001048	2.79	78.83	32.96	0.32

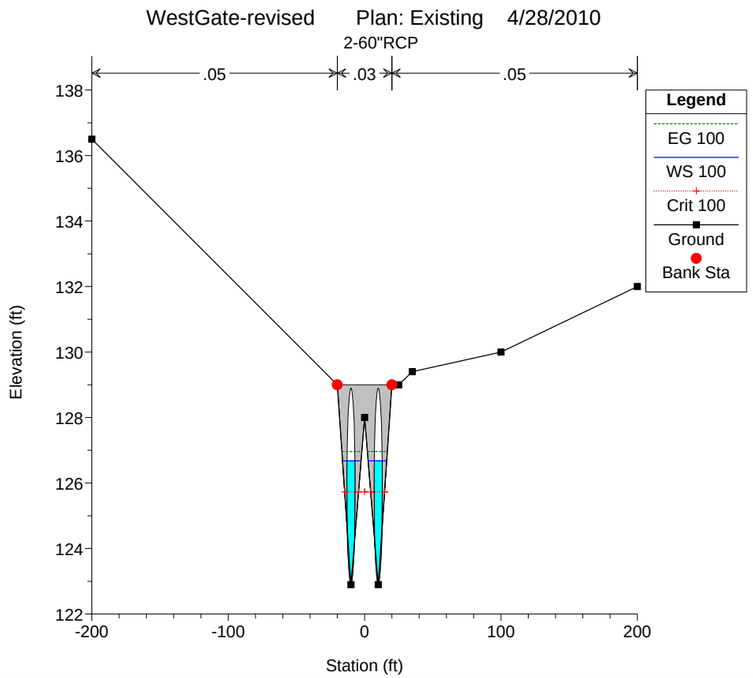
HEC-RAS Plan: Exisitng River: French Stream Reach: 1 Profile: 100 (Continued)

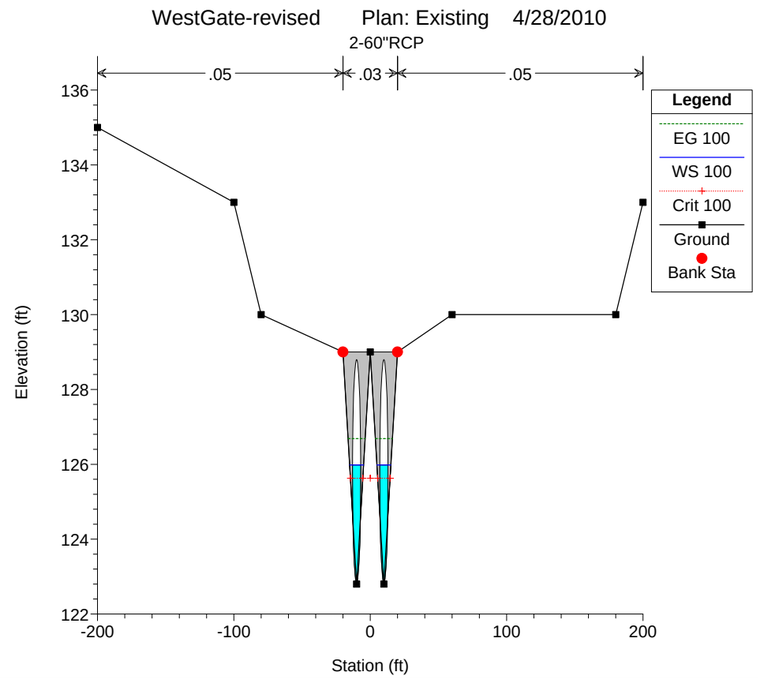
Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
1	17	100	220.00	125.00	127.98		128.09	0.000958	2.74	80.41	32.20	0.31
1	16	100	220.00	124.90	127.88		128.00	0.001013	2.72	80.84	34.40	0.31
1	15	100	220.00	124.80	127.77		127.89	0.001019	2.78	79.16	32.49	0.31
1	14	100	220.00	124.70	127.67		127.79	0.001035	2.82	78.10	31.77	0.32
1	13	100	220.00	124.60	127.56		127.68	0.001103	2.84	77.59	32.98	0.33
1	12	100	220.00	124.40	127.44		127.58	0.000988	3.03	78.81	32.65	0.32
1	11	100	220.00	124.30	127.31		127.47	0.001047	3.34	77.36	32.87	0.34
1	10	100	220.00	124.30	127.22		127.36	0.001123	2.95	78.07	49.55	0.33
1	9	100	220.00	124.20	127.10		127.24	0.001195	3.00	75.98	62.18	0.34
1	8	100	220.00	124.00	127.09		127.15	0.000472	1.98	140.60	91.07	0.22
1	7	100	220.00	123.80	126.95		127.07	0.000953	2.80	78.55	29.85	0.30
1	6.44	100	220.00	122.90	126.68	125.87	126.96	0.003838	4.28	51.35	27.19	0.55
1	6.34		Culvert									
1	6	100	220.00	122.80	125.98	125.90	126.69	0.012363	6.73	32.67	20.53	0.94
1	5	100	220.00	122.40	126.18		126.25	0.001012	2.50	151.47	177.89	0.31
1	4	100	220.00	122.20	125.46	125.46	125.97	0.009966	6.05	46.11	51.65	0.90
1	3	100	220.00	122.10	124.41		124.47	0.003123	2.94	117.71	116.87	0.48
1	2	100	220.00	122.00	124.20	123.50	124.28	0.001329	2.69	134.05	144.60	0.34

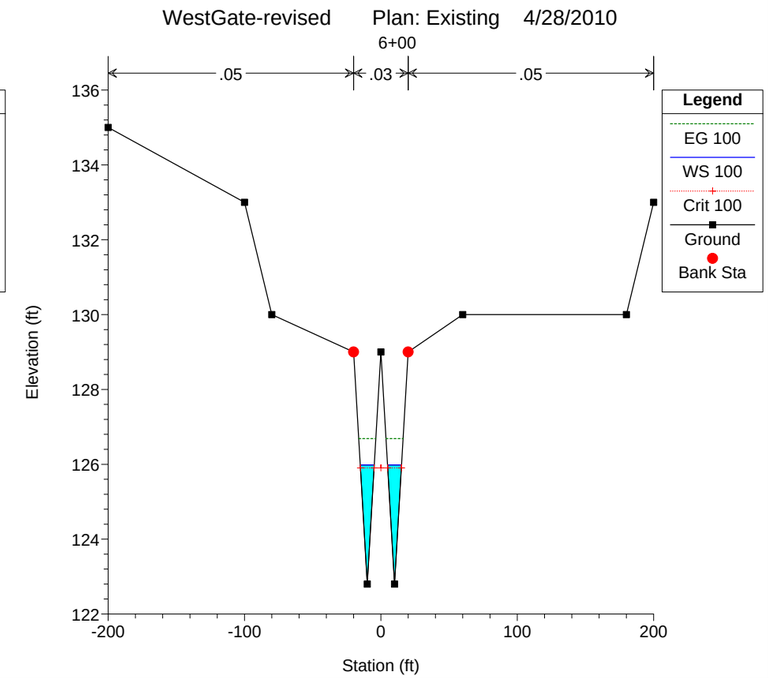

WestGate-revised Plan: Existing 4/28/2010
8+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

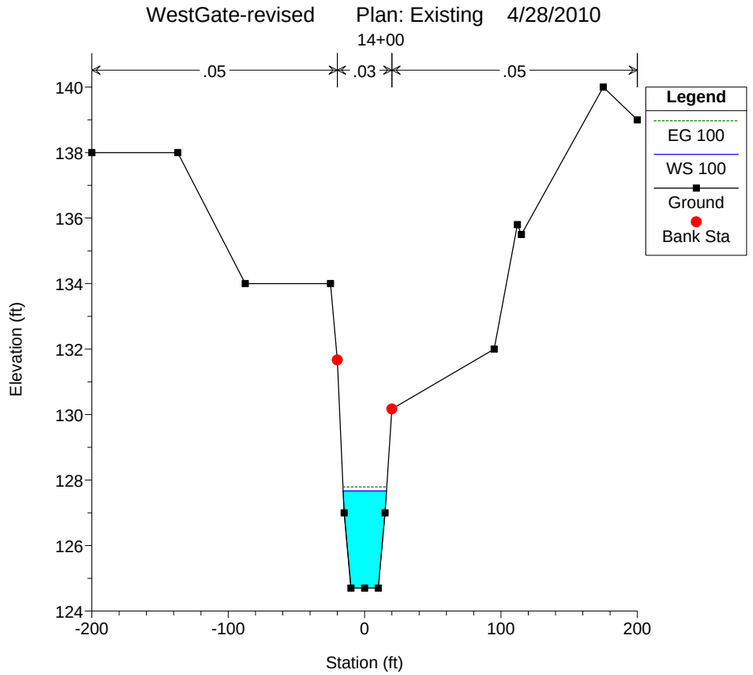

WestGate-revised Plan: Existing 4/28/2010
7+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

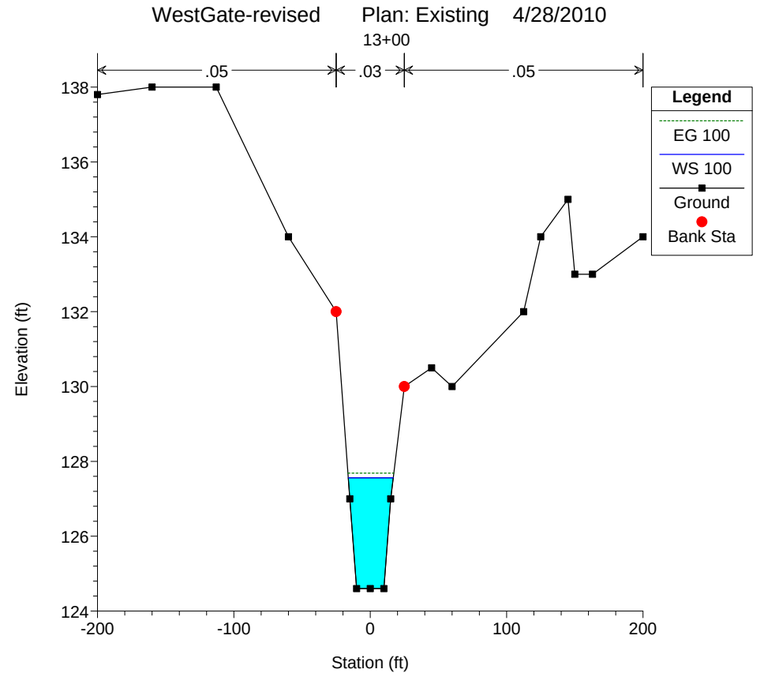

WestGate-revised Plan: Existing 4/28/2010
6+44
.05
.03
.05
Legend
EG 100
WS 100
Crit 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

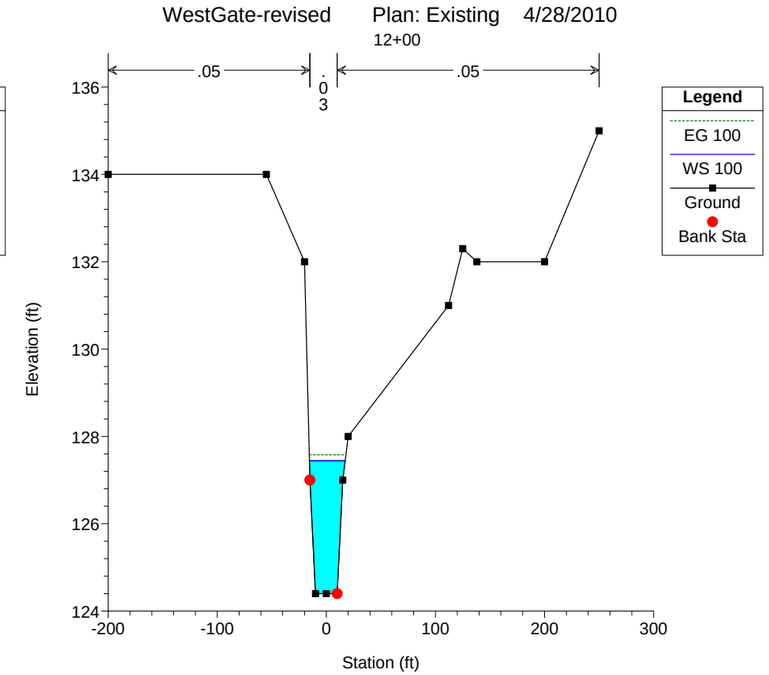

WestGate-revised Plan: Existing 4/28/2010
2-60"RCP
.05
.03
.05
Legend
EG 100
WS 100
Crit 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

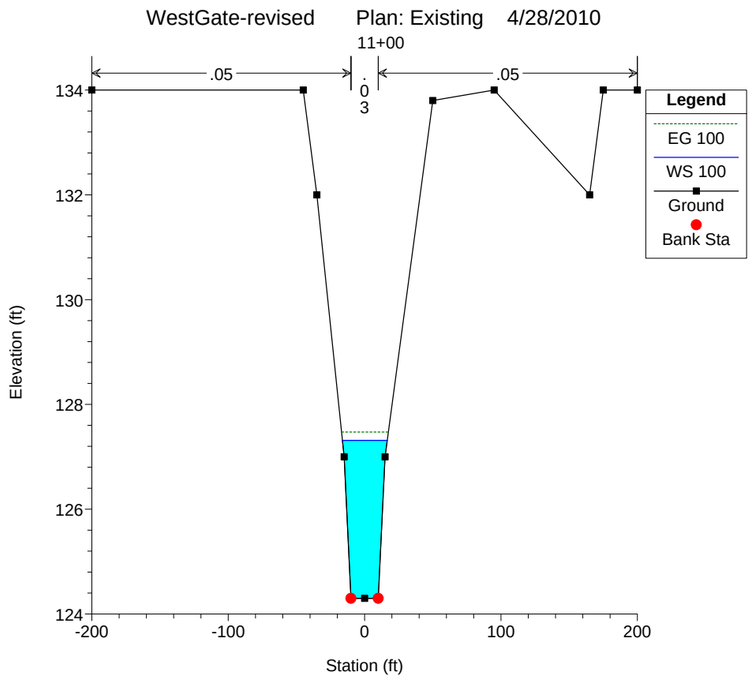

WestGate-revised Plan: Existing 4/28/2010
2-60"RCP
.05
.03
.05
Legend
EG 100
WS 100
Crit 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

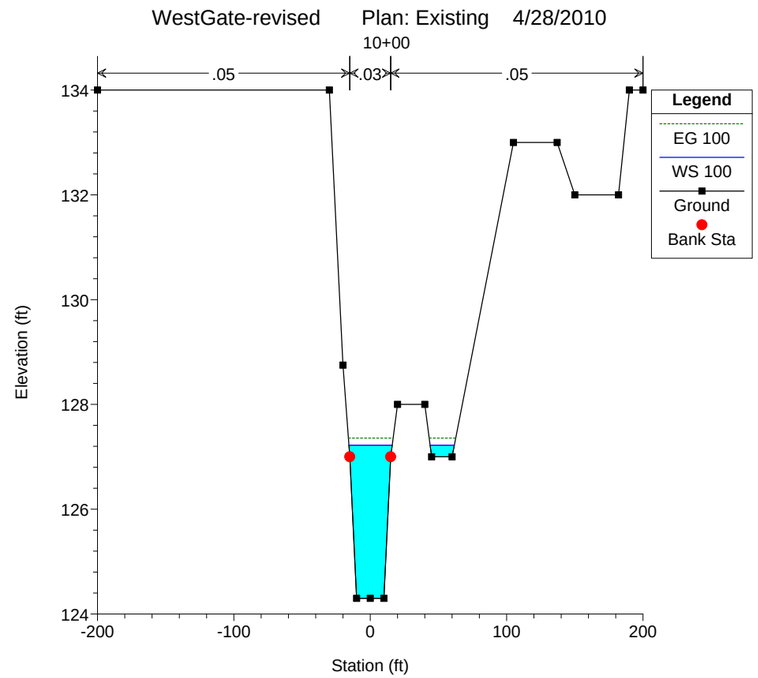

WestGate-revised Plan: Existing 4/28/2010
6+00
.05
.03
.05
Legend
EG 100
WS 100
Crit 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

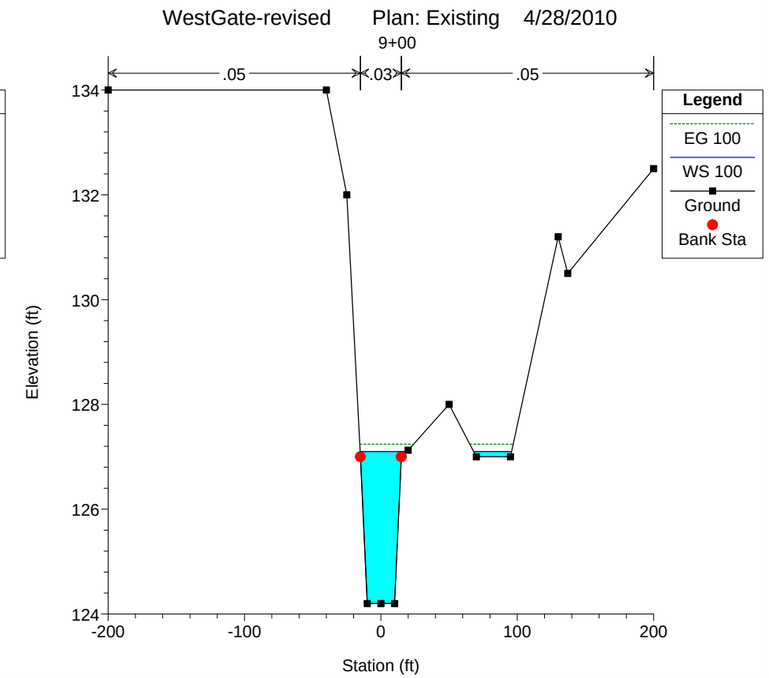

WestGate-revised Plan: Existing 4/28/2010
14+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

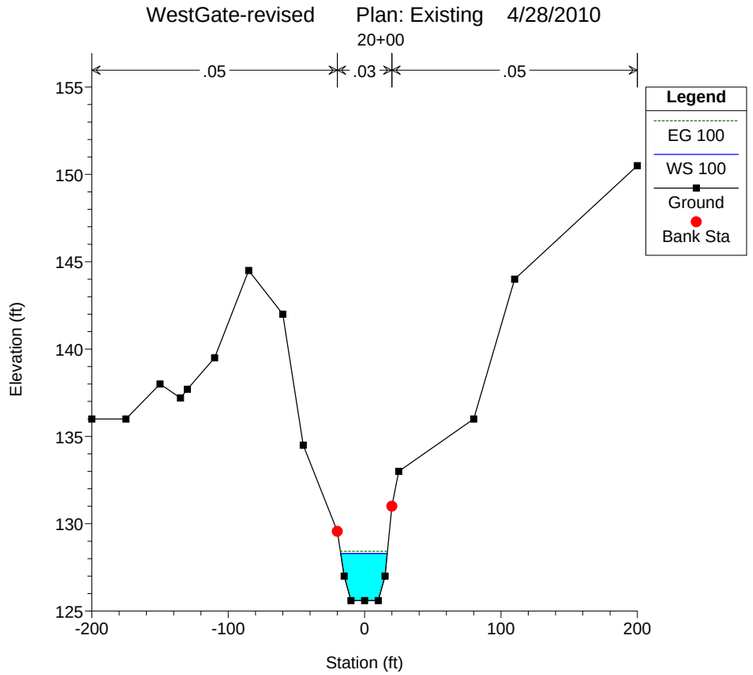

WestGate-revised Plan: Existing 4/28/2010
13+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

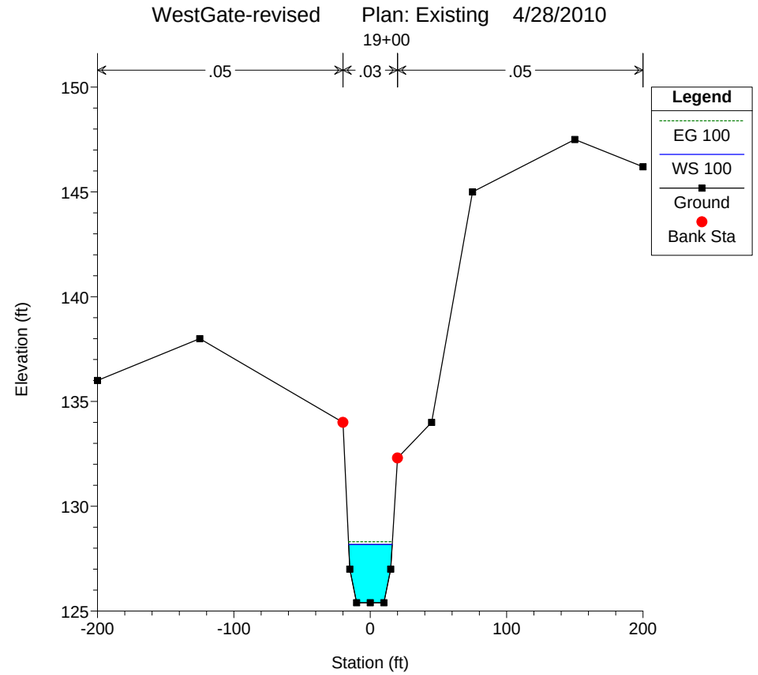

WestGate-revised Plan: Existing 4/28/2010
12+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

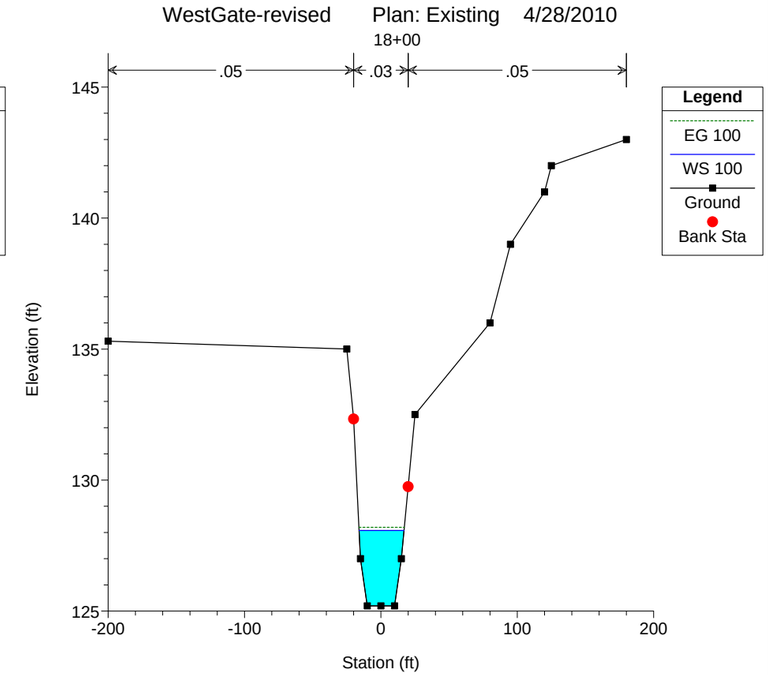

WestGate-revised Plan: Existing 4/28/2010
11+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

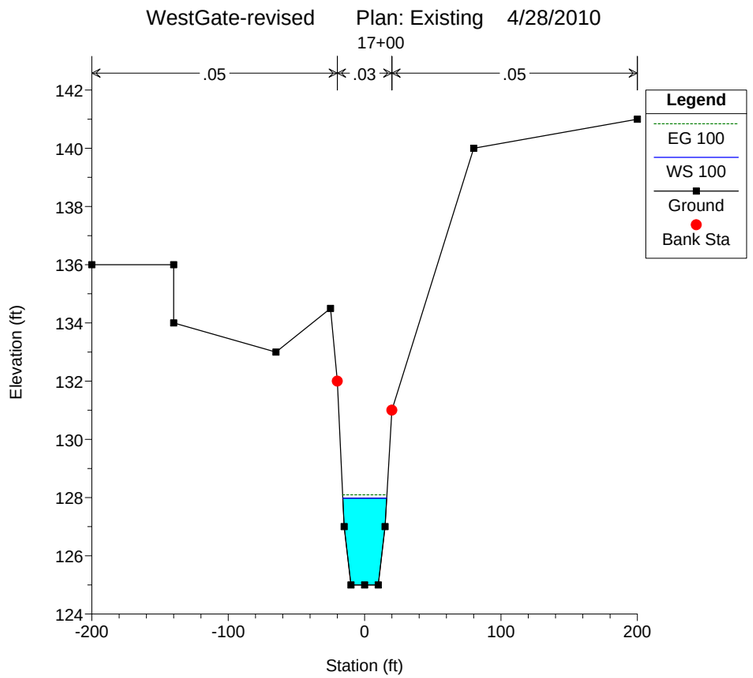

WestGate-revised Plan: Existing 4/28/2010
10+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

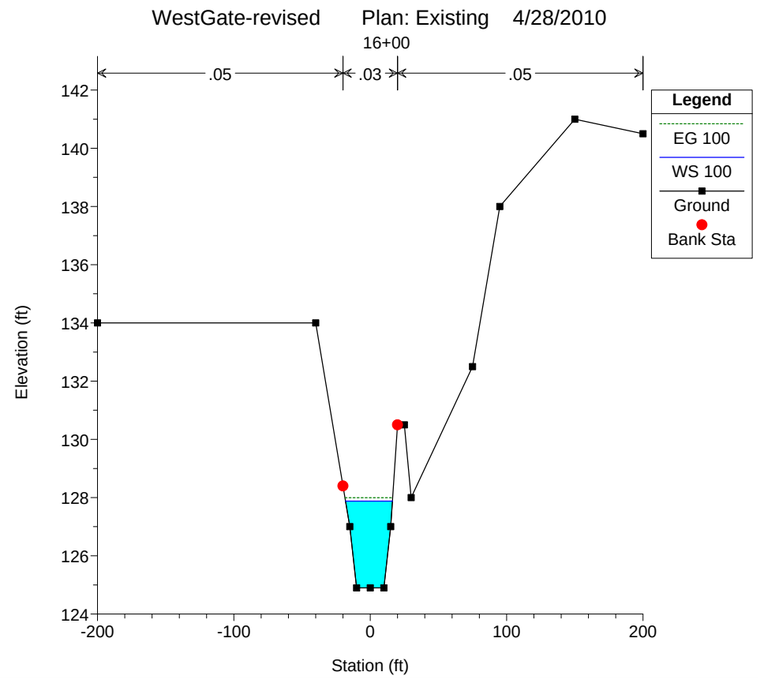

WestGate-revised Plan: Existing 4/28/2010
9+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

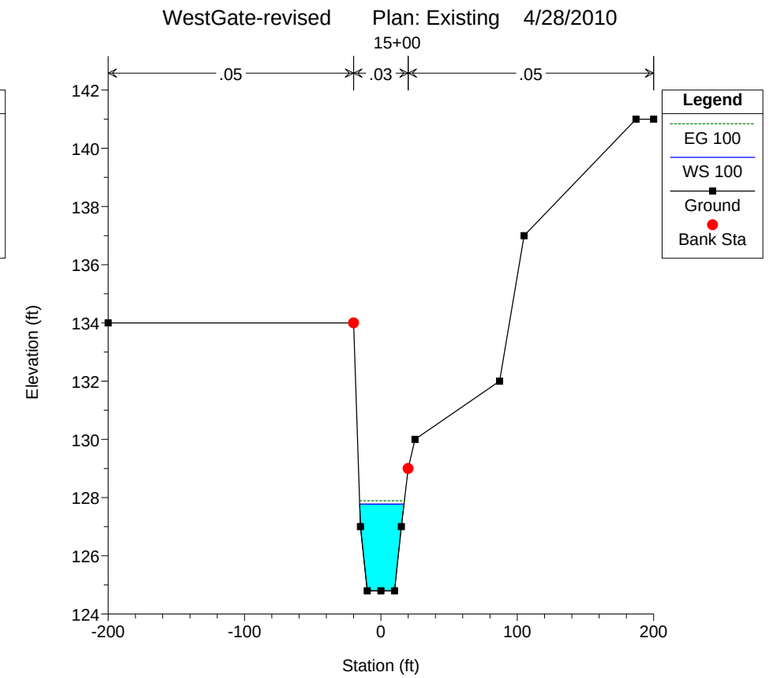

WestGate-revised Plan: Existing 4/28/2010
20+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

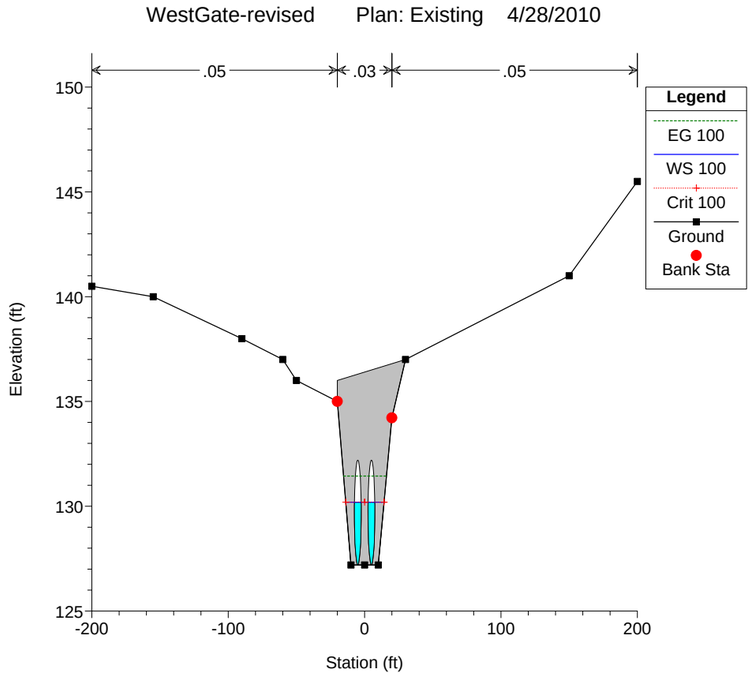

WestGate-revised Plan: Existing 4/28/2010
19+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

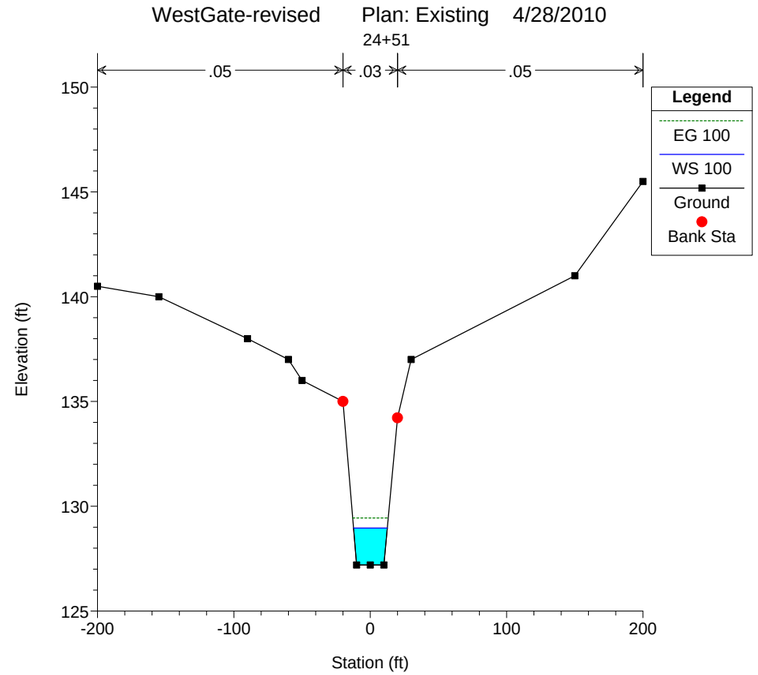

WestGate-revised Plan: Existing 4/28/2010
18+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

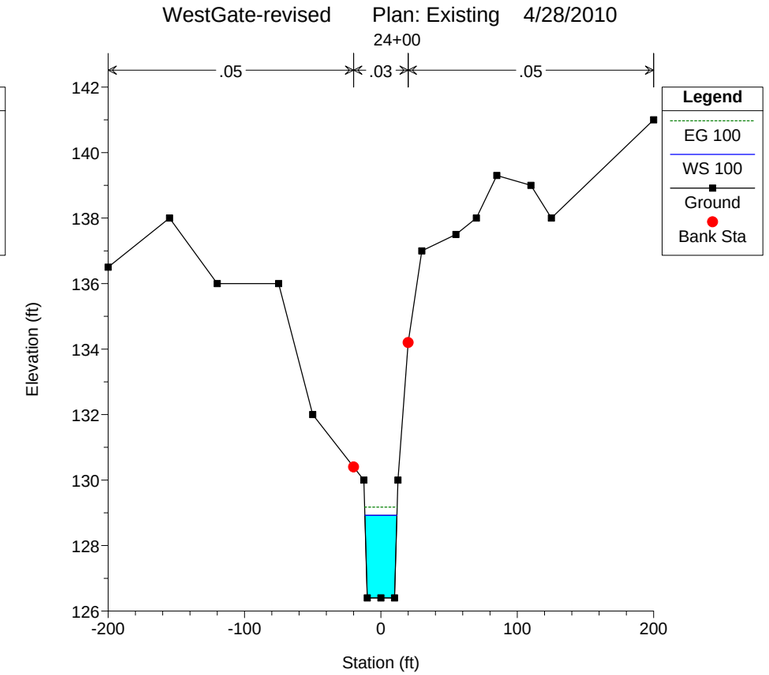

WestGate-revised Plan: Existing 4/28/2010
17+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

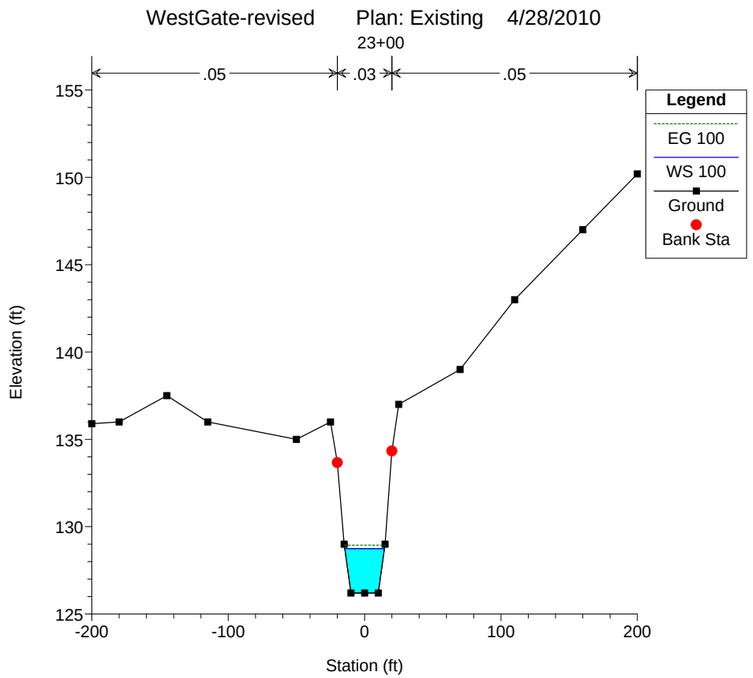

WestGate-revised Plan: Existing 4/28/2010
16+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

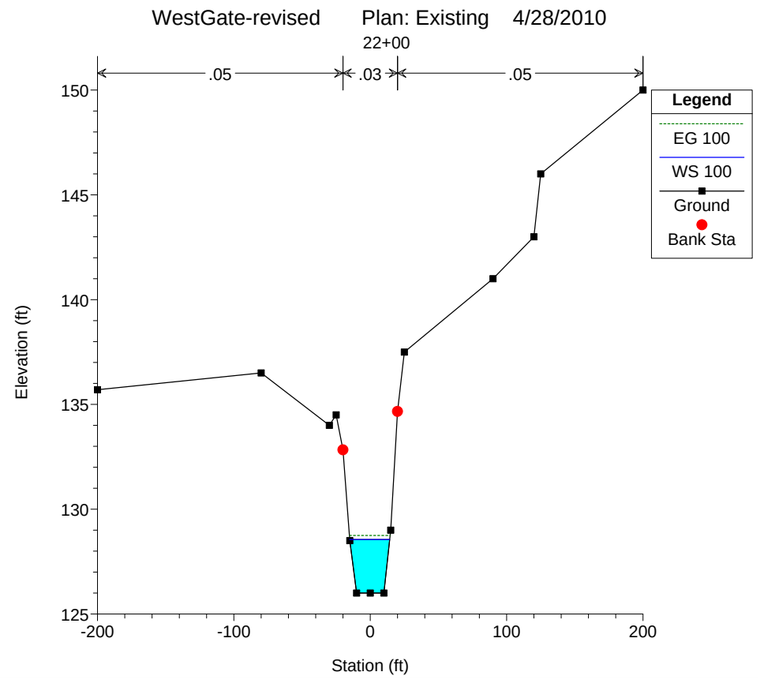

WestGate-revised Plan: Existing 4/28/2010
15+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

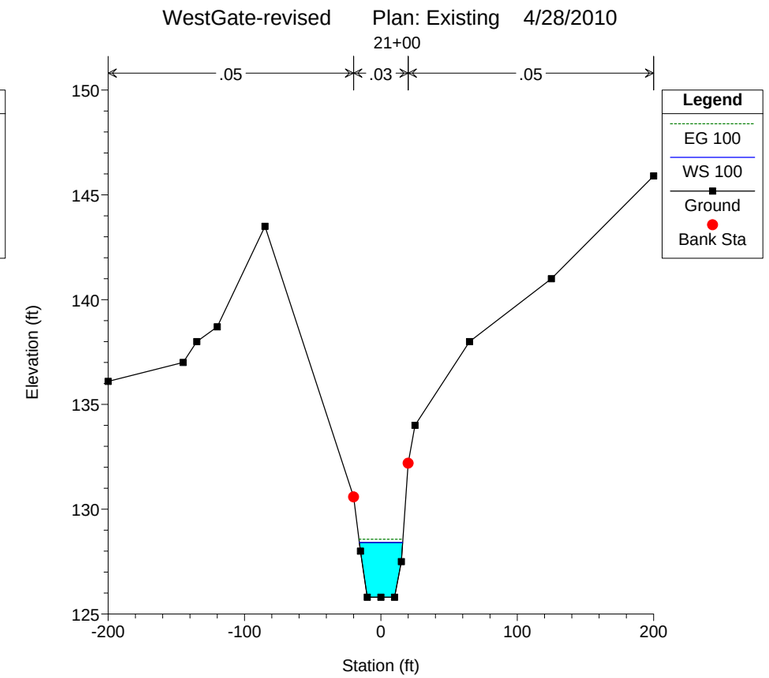

WestGate-revised Plan: Existing 4/28/2010
.05
.03
.05
Legend
EG 100
WS 100
Crit 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

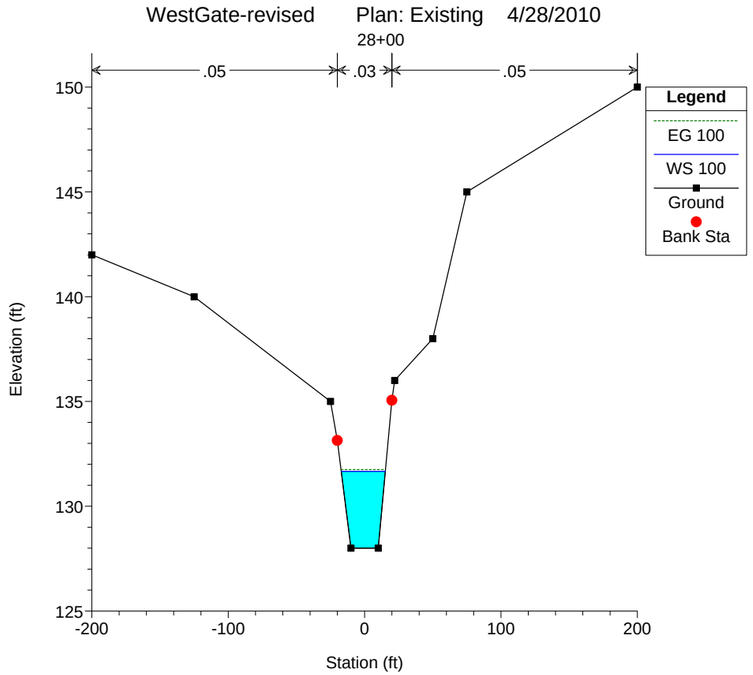

WestGate-revised Plan: Existing 4/28/2010
24+51
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

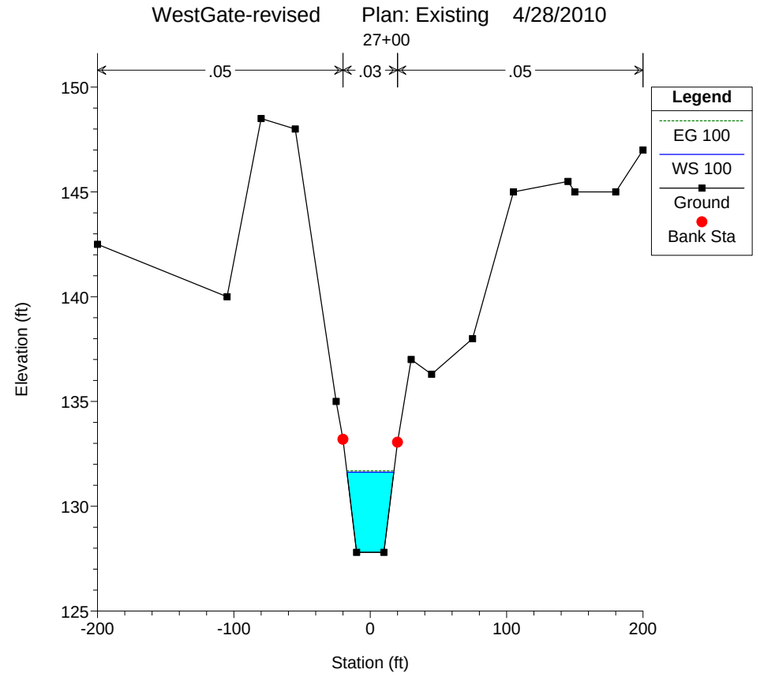

WestGate-revised Plan: Existing 4/28/2010
24+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

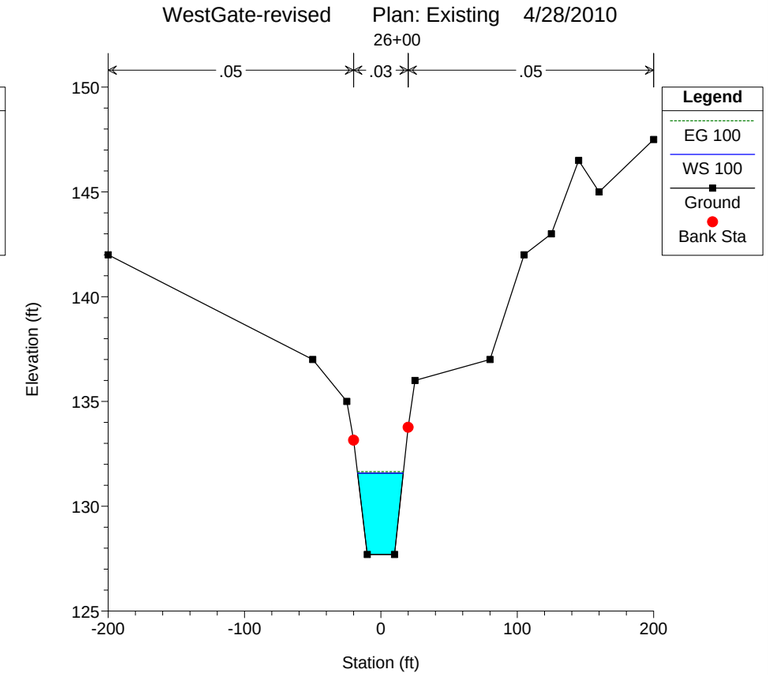

WestGate-revised Plan: Existing 4/28/2010
23+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

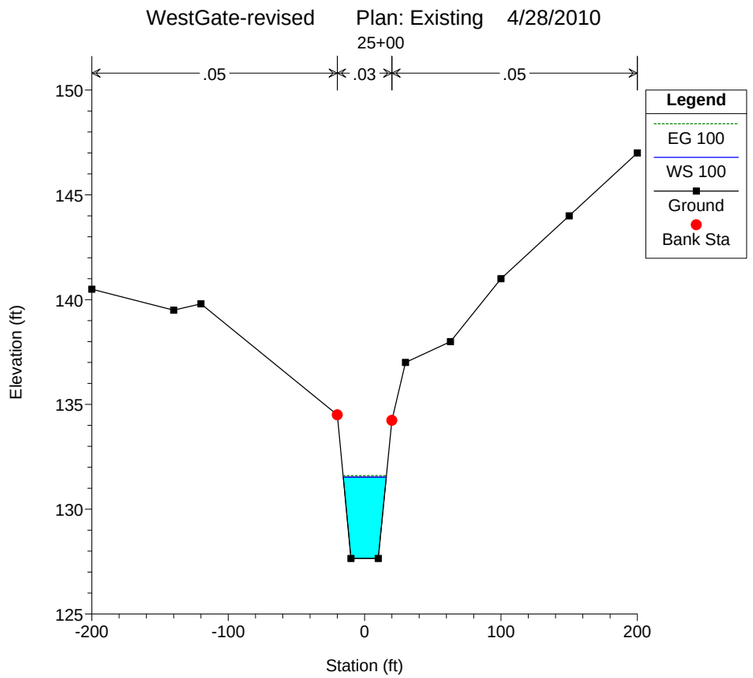

WestGate-revised Plan: Existing 4/28/2010
22+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

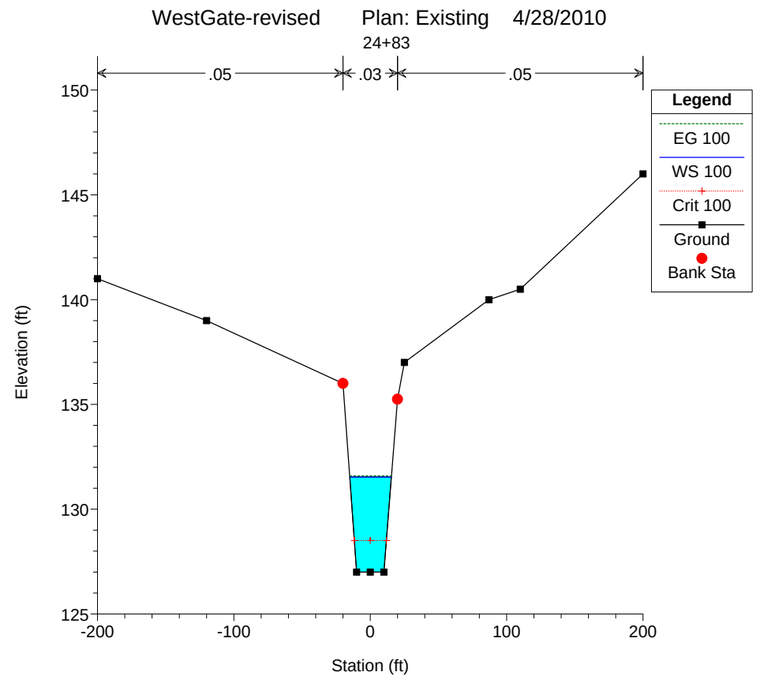

WestGate-revised Plan: Existing 4/28/2010
21+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

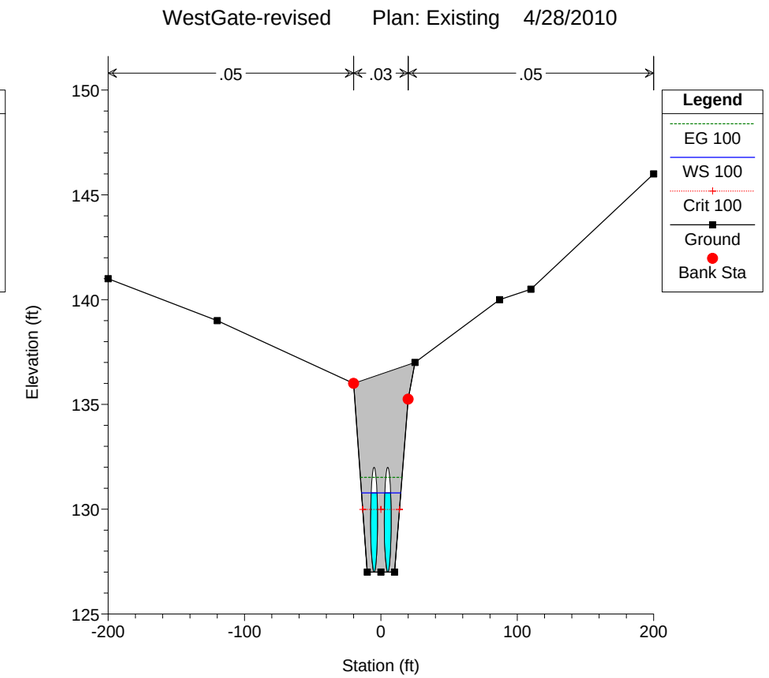

WestGate-revised Plan: Existing 4/28/2010
28+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

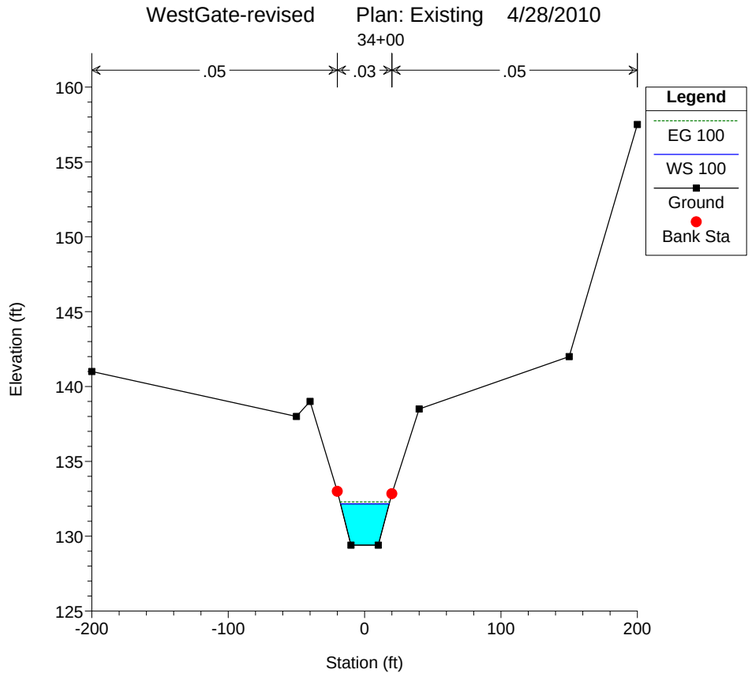

WestGate-revised Plan: Existing 4/28/2010
27+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

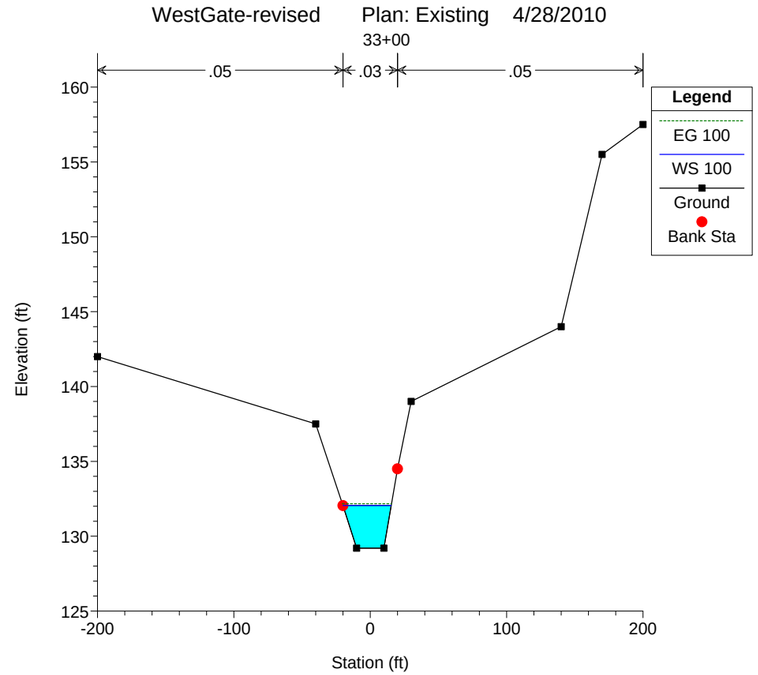

WestGate-revised Plan: Existing 4/28/2010
26+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

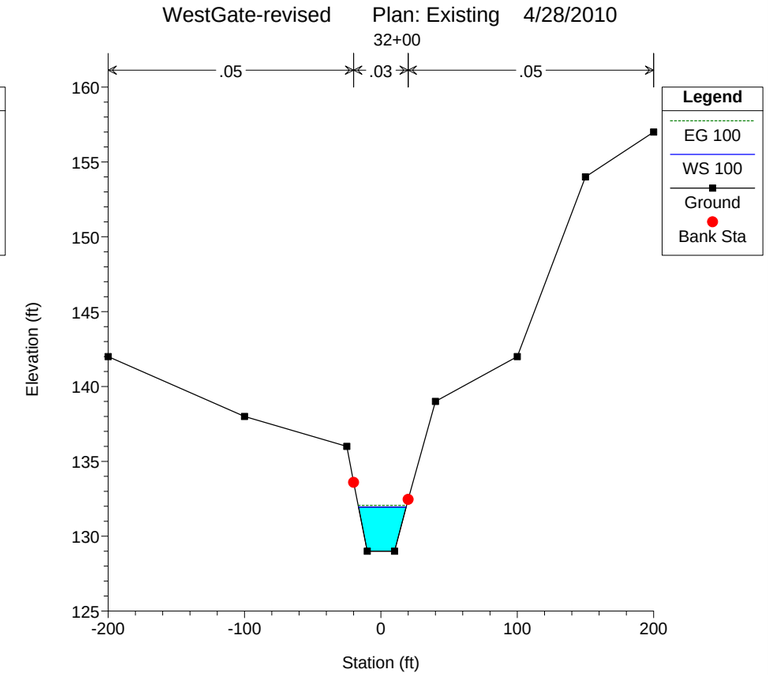

WestGate-revised Plan: Existing 4/28/2010
25+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

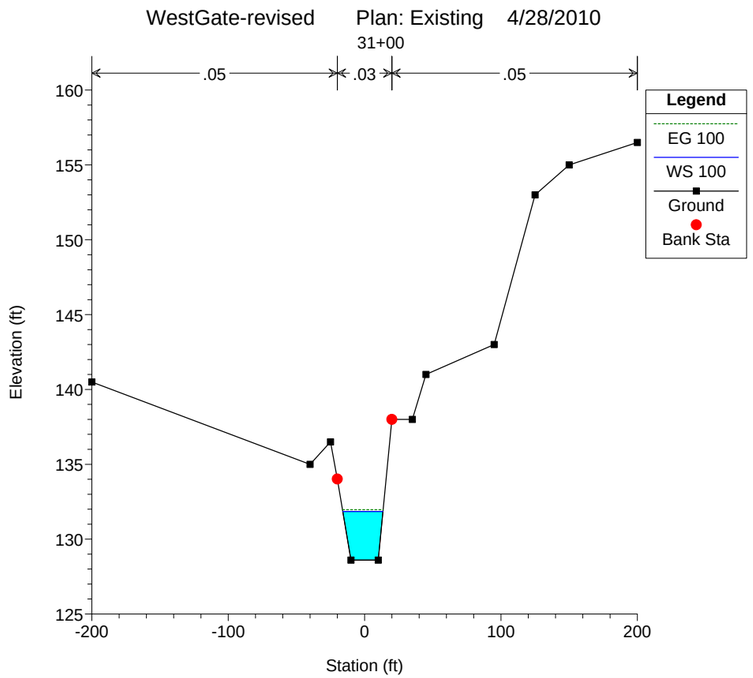

WestGate-revised Plan: Existing 4/28/2010
24+83
.05
.03
.05
Legend
EG 100
WS 100
Crit 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

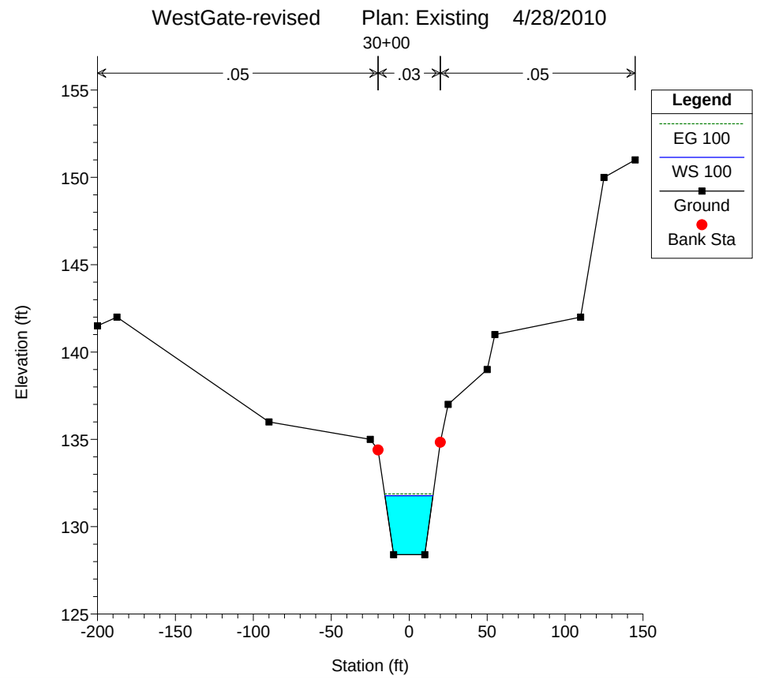

WestGate-revised Plan: Existing 4/28/2010
.05
.03
.05
Legend
EG 100
WS 100
Crit 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

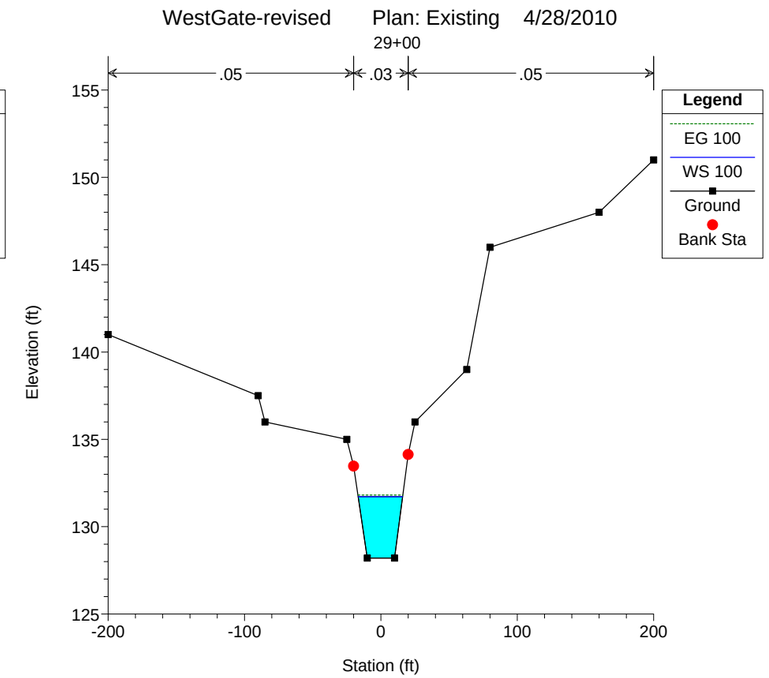

WestGate-revised Plan: Existing 4/28/2010
34+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

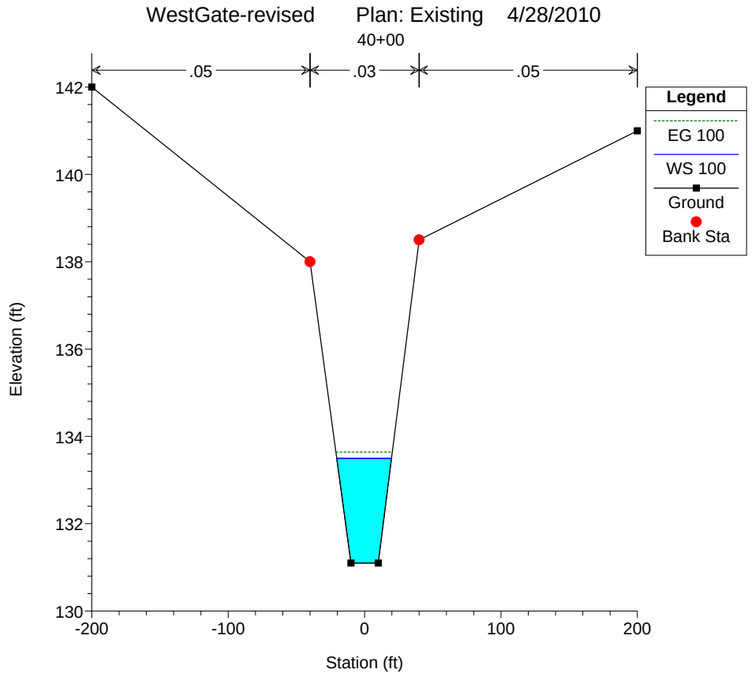

WestGate-revised Plan: Existing 4/28/2010
33+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

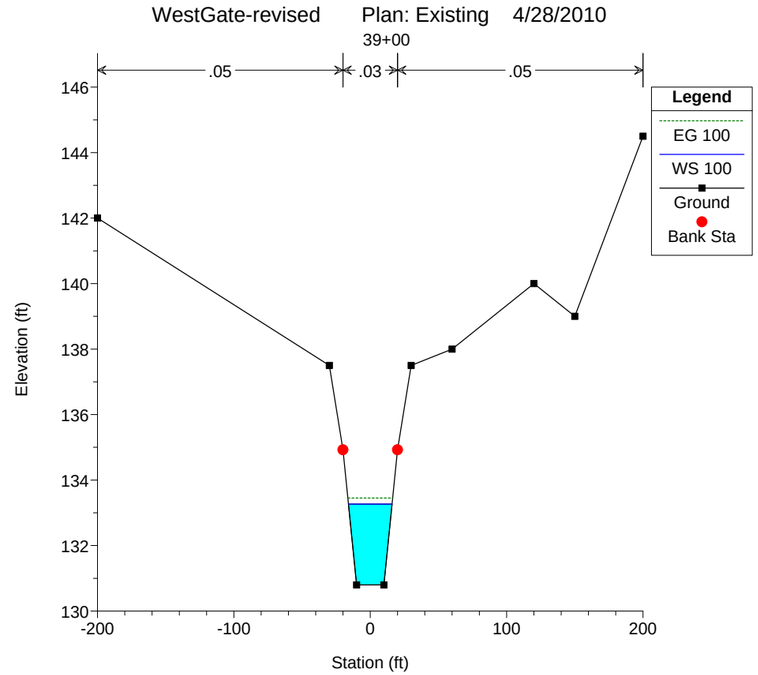

WestGate-revised Plan: Existing 4/28/2010
32+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

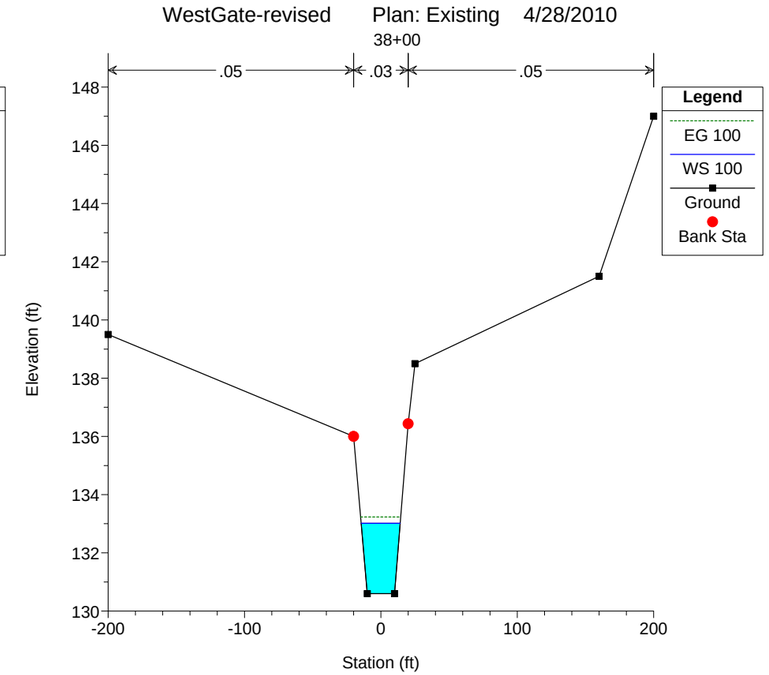

WestGate-revised Plan: Existing 4/28/2010
31+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

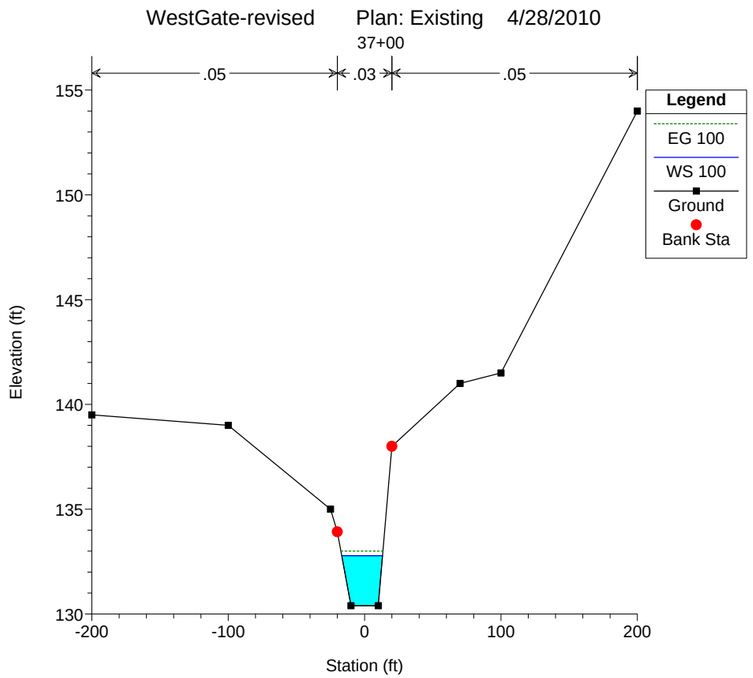

WestGate-revised Plan: Existing 4/28/2010
30+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

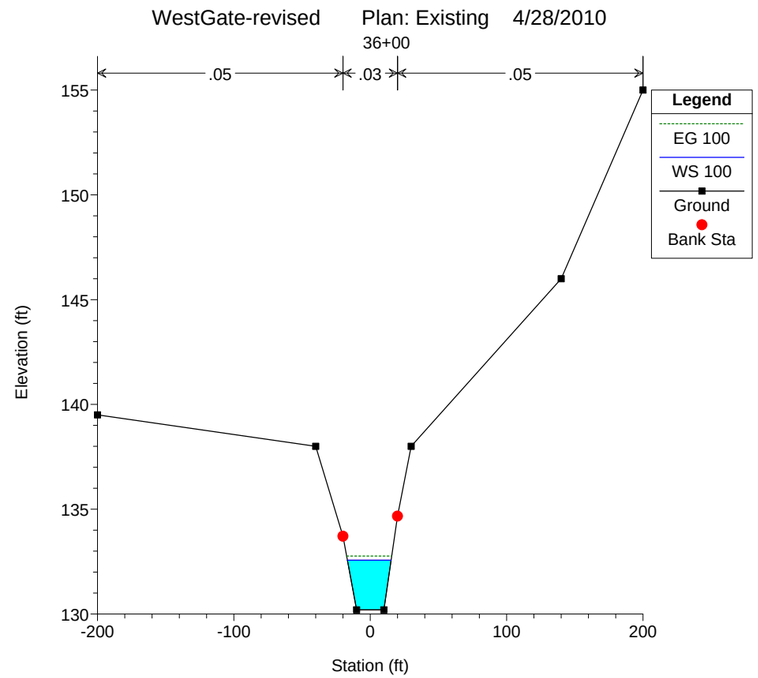

WestGate-revised Plan: Existing 4/28/2010
29+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

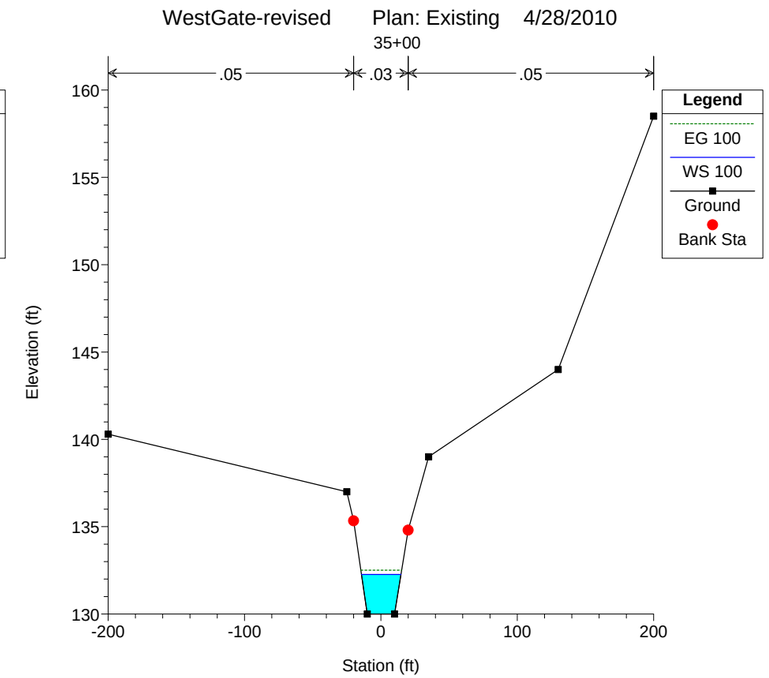

WestGate-revised Plan: Existing 4/28/2010
40+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

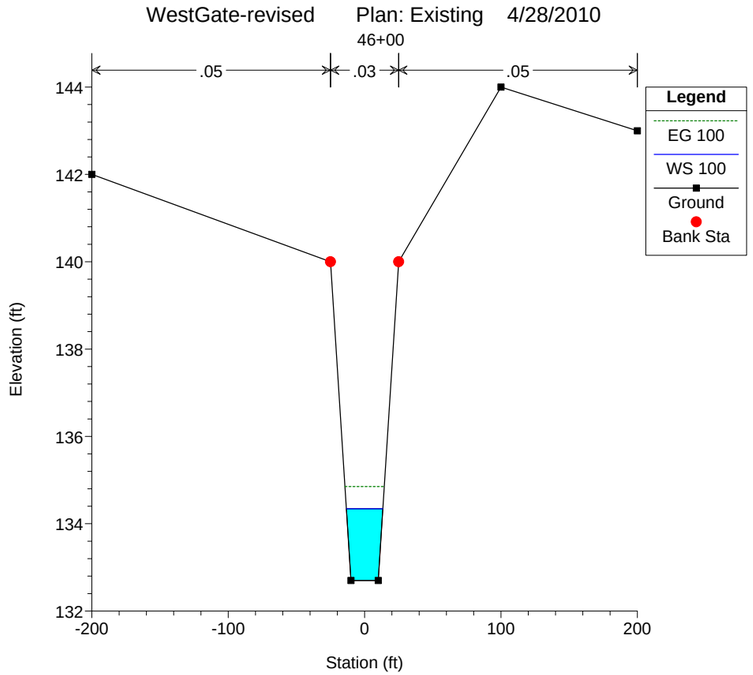

WestGate-revised Plan: Existing 4/28/2010
39+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

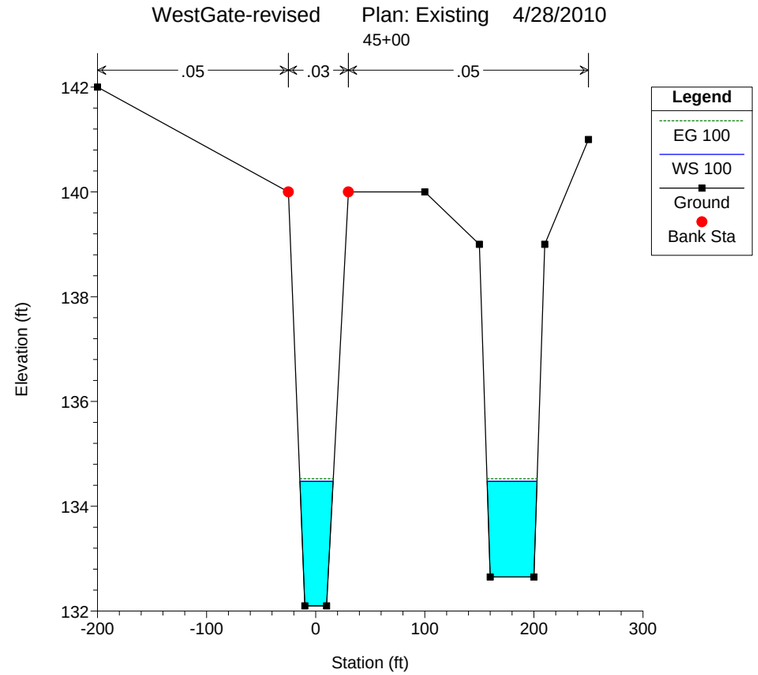

WestGate-revised Plan: Existing 4/28/2010
38+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

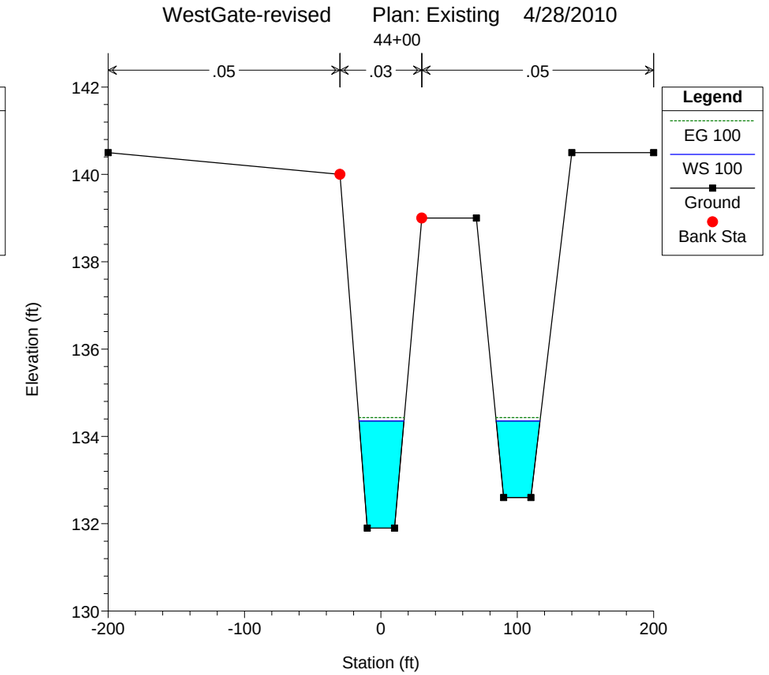

WestGate-revised Plan: Existing 4/28/2010
37+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

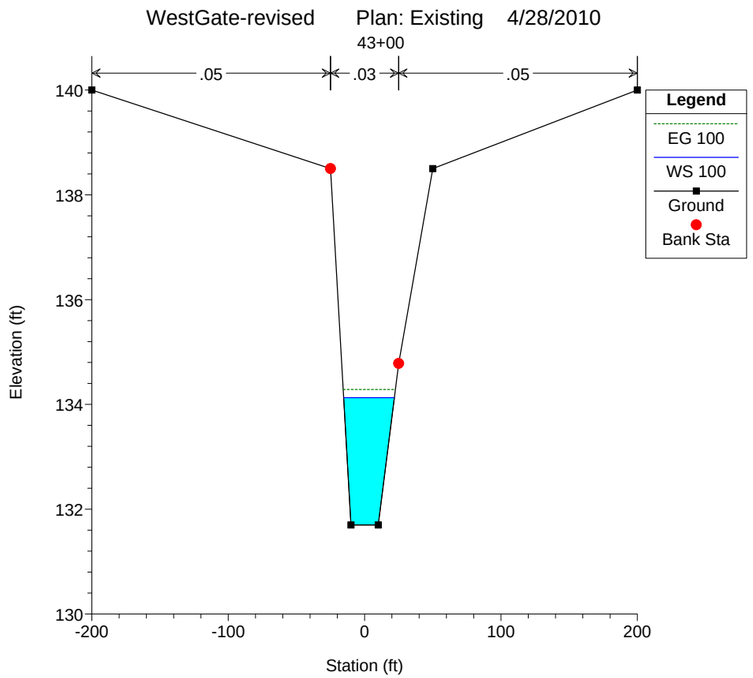

WestGate-revised Plan: Existing 4/28/2010
36+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

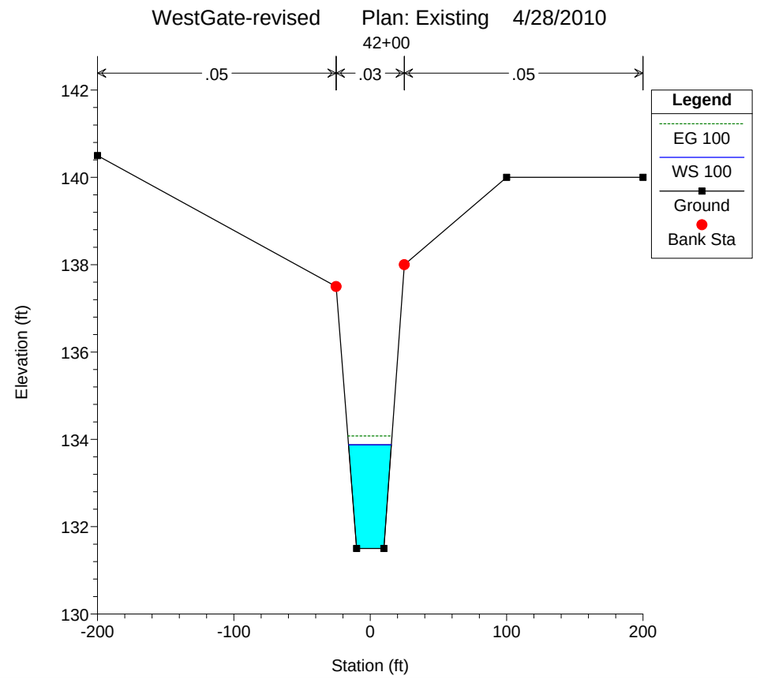

WestGate-revised Plan: Existing 4/28/2010
35+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

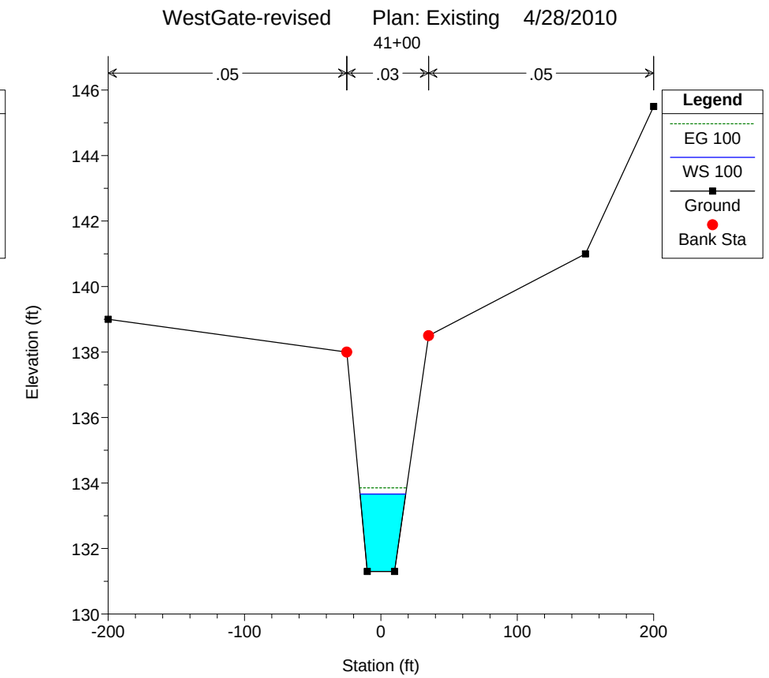

WestGate-revised Plan: Existing 4/28/2010
46+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

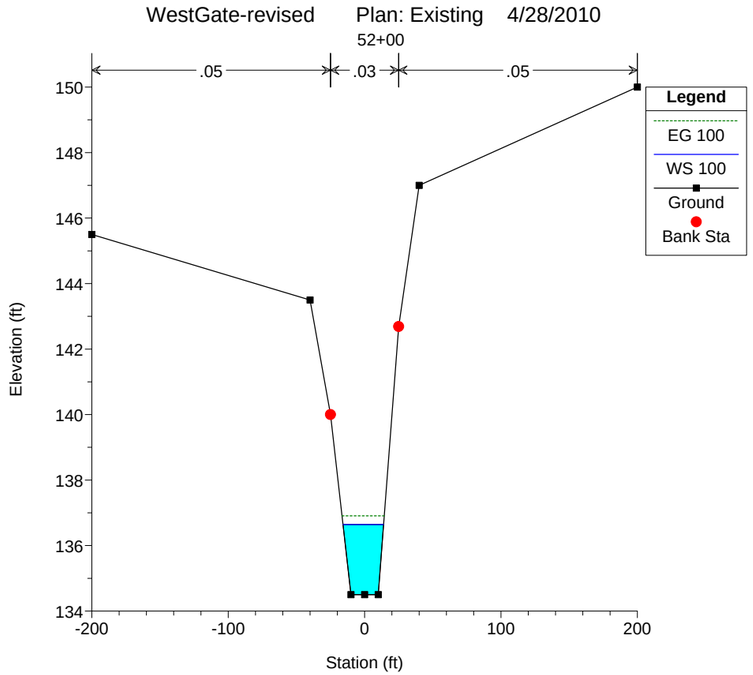

WestGate-revised Plan: Existing 4/28/2010
45+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

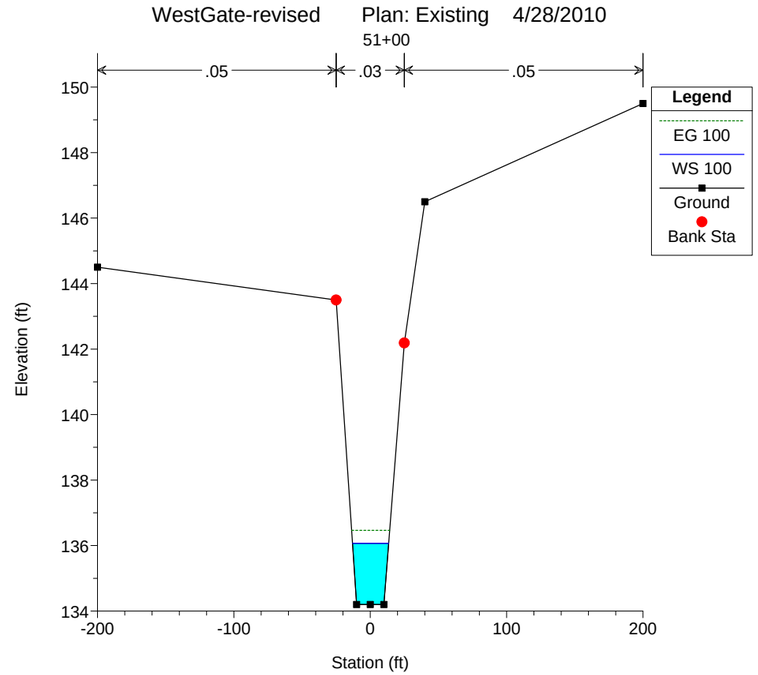

WestGate-revised Plan: Existing 4/28/2010
44+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

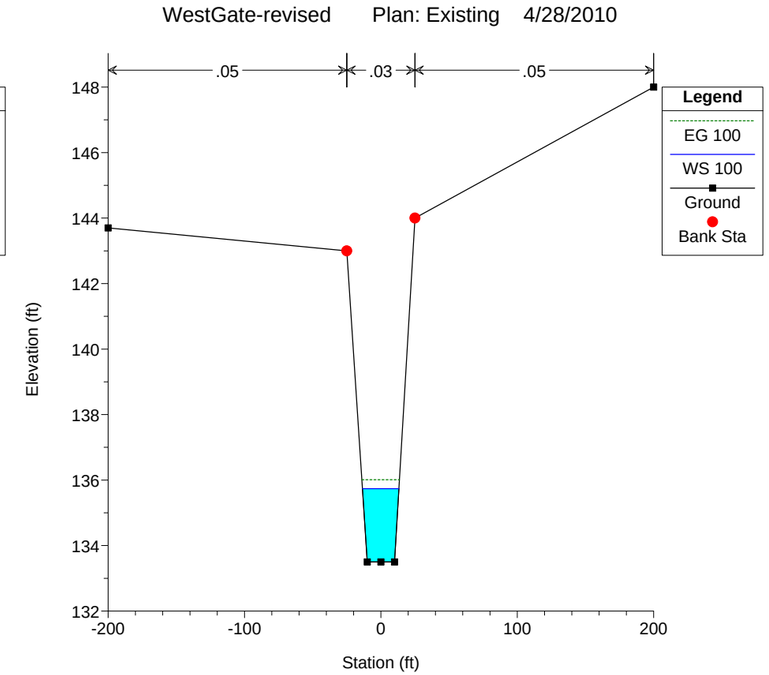

WestGate-revised Plan: Existing 4/28/2010
43+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

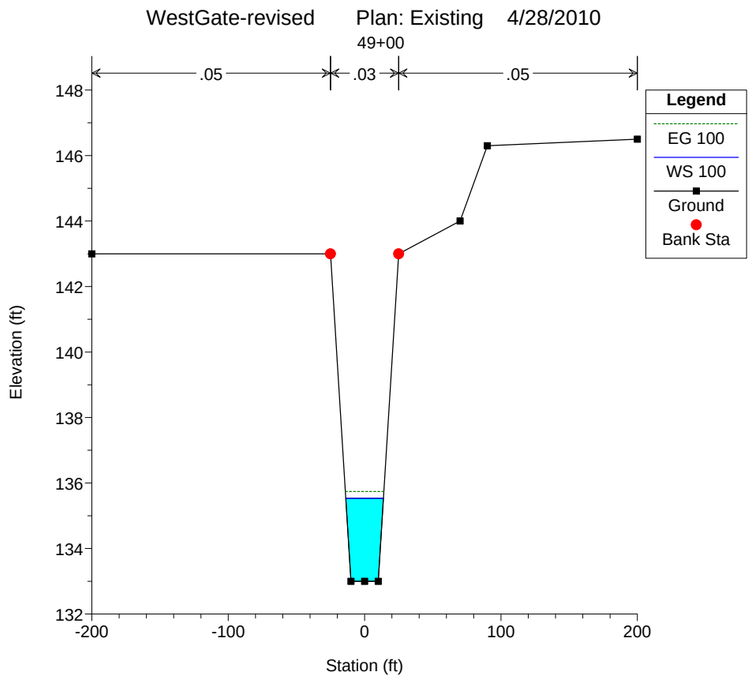

WestGate-revised Plan: Existing 4/28/2010
42+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

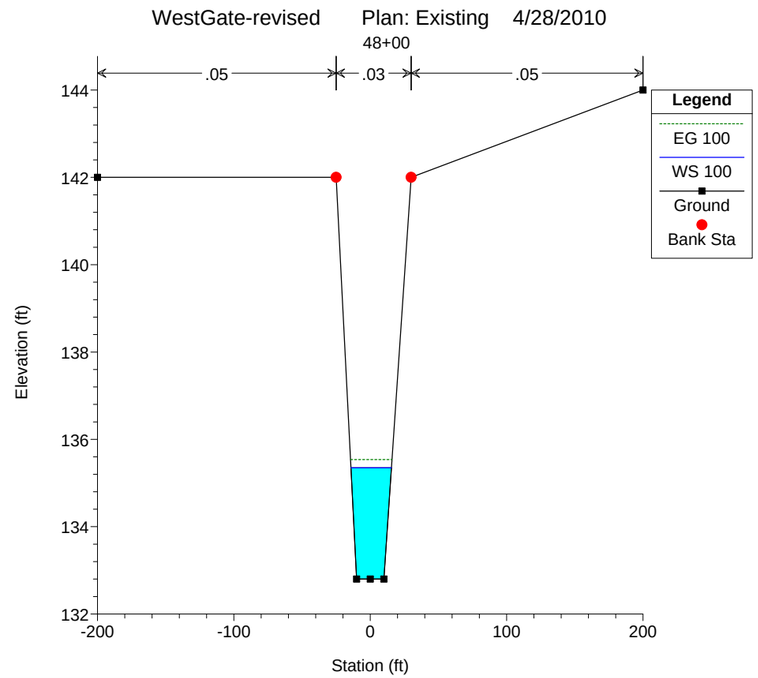

WestGate-revised Plan: Existing 4/28/2010
41+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

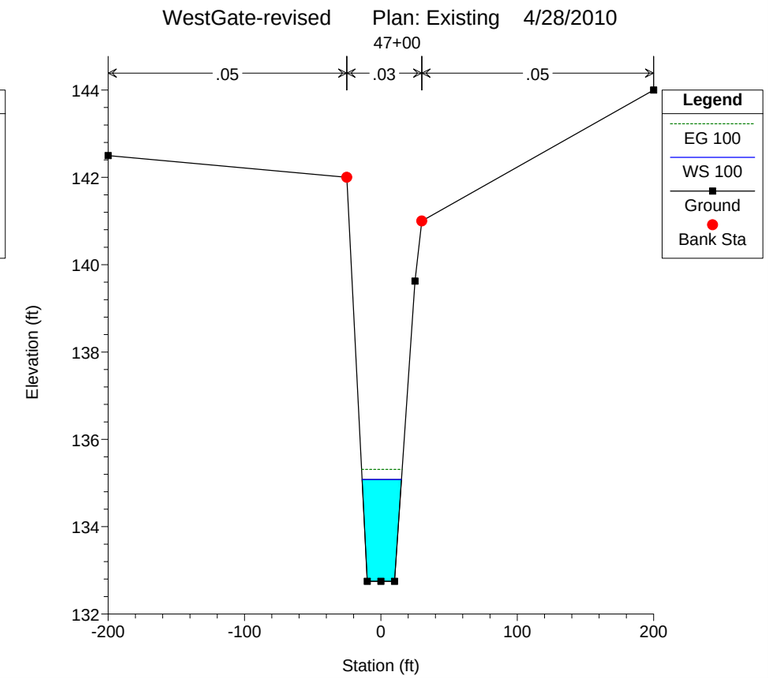

WestGate-revised Plan: Existing 4/28/2010
52+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

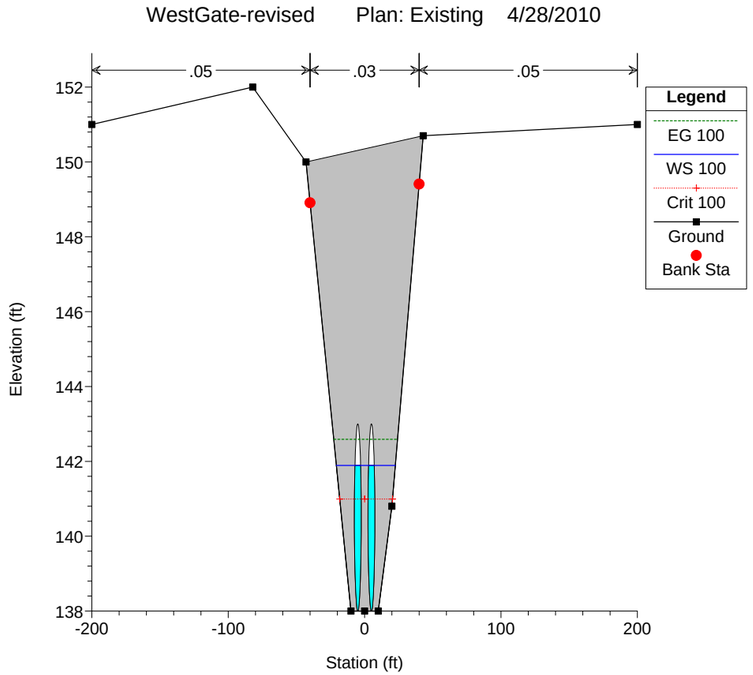

WestGate-revised Plan: Existing 4/28/2010
51+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

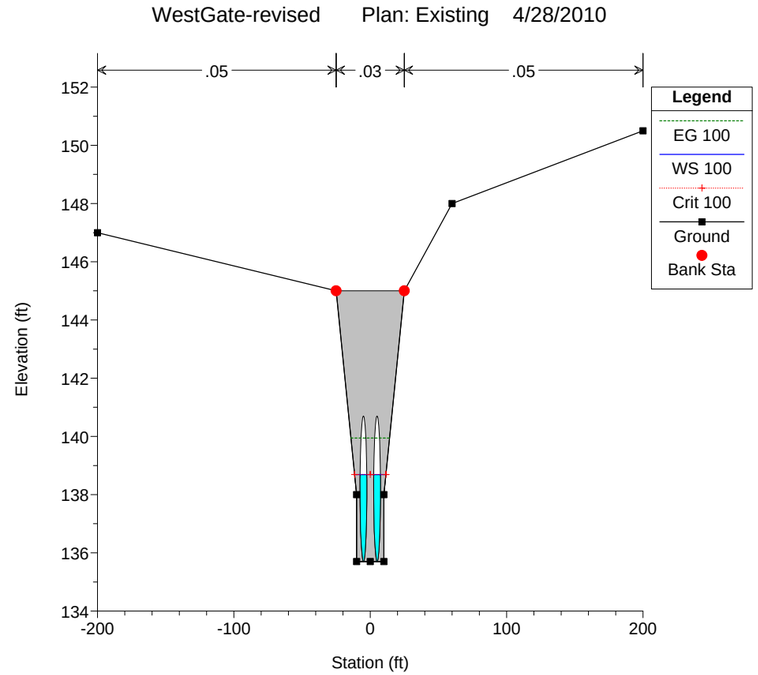

WestGate-revised Plan: Existing 4/28/2010
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

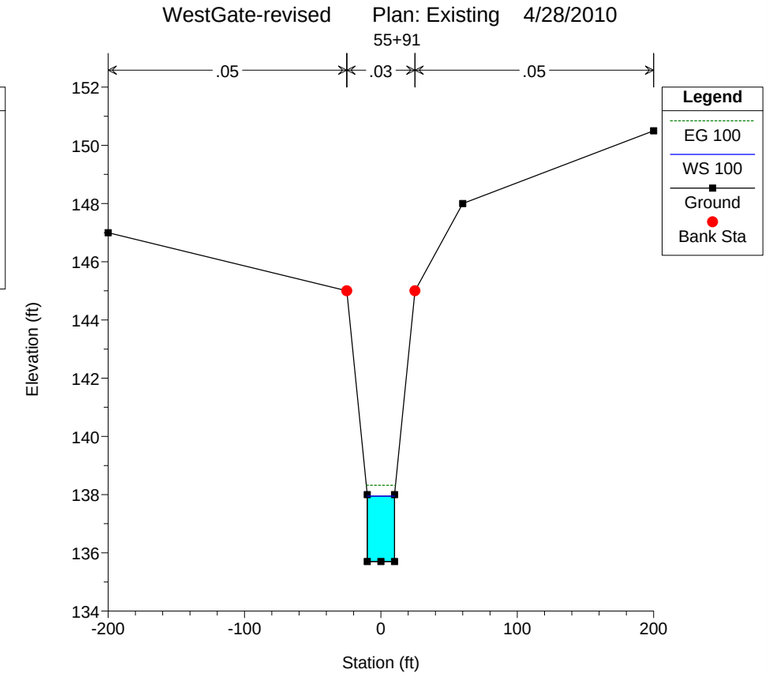

WestGate-revised Plan: Existing 4/28/2010
49+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

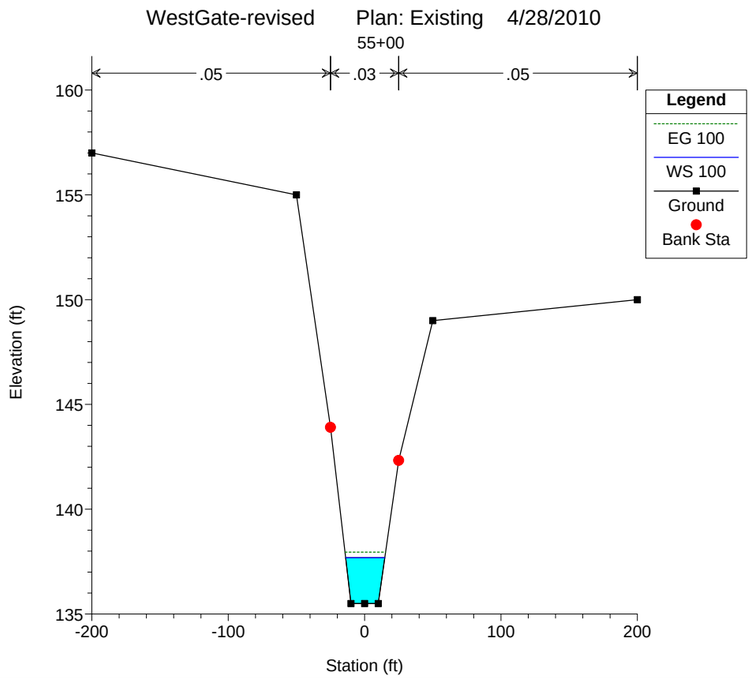

WestGate-revised Plan: Existing 4/28/2010
48+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

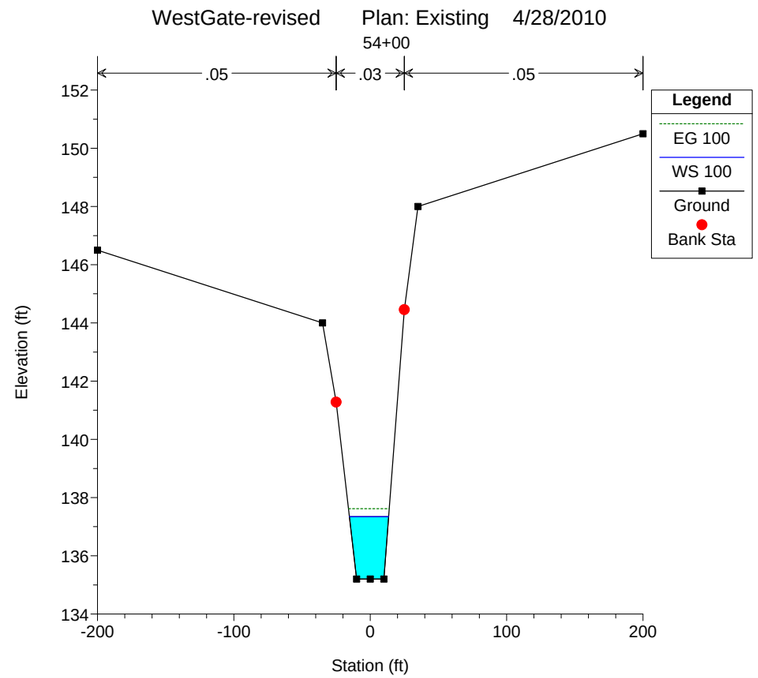

WestGate-revised Plan: Existing 4/28/2010
47+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

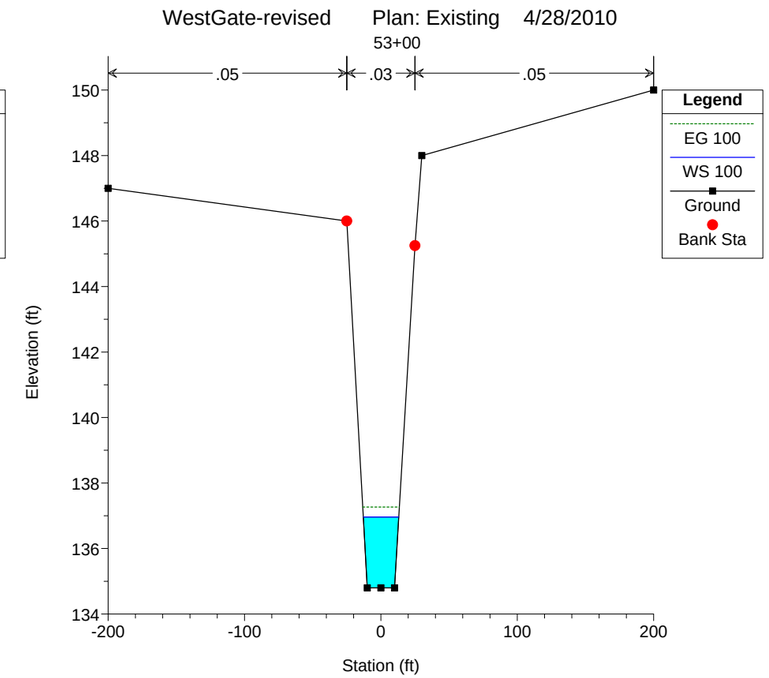

WestGate-revised Plan: Existing 4/28/2010
.05
.03
.05
Legend
EG 100
WS 100
Crit 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

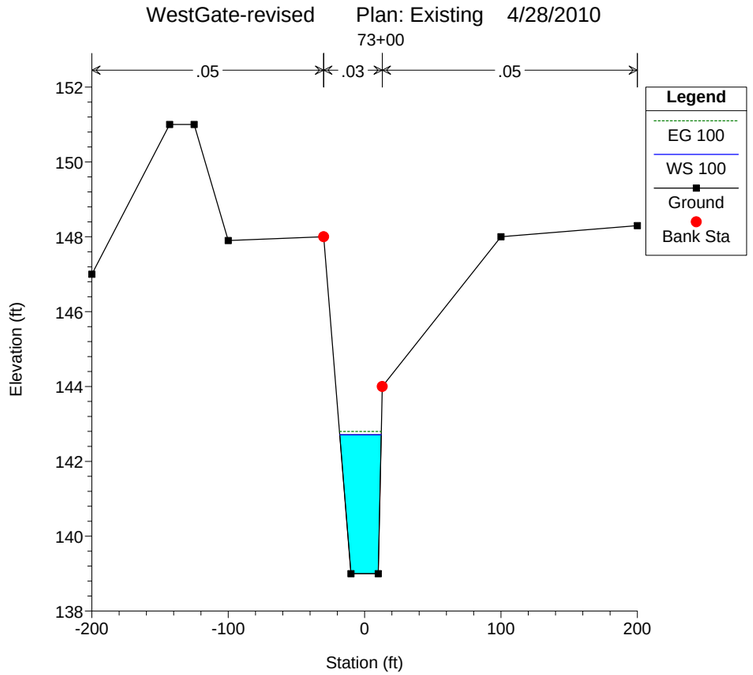

WestGate-revised Plan: Existing 4/28/2010
.05
.03
.05
Legend
EG 100
WS 100
Crit 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

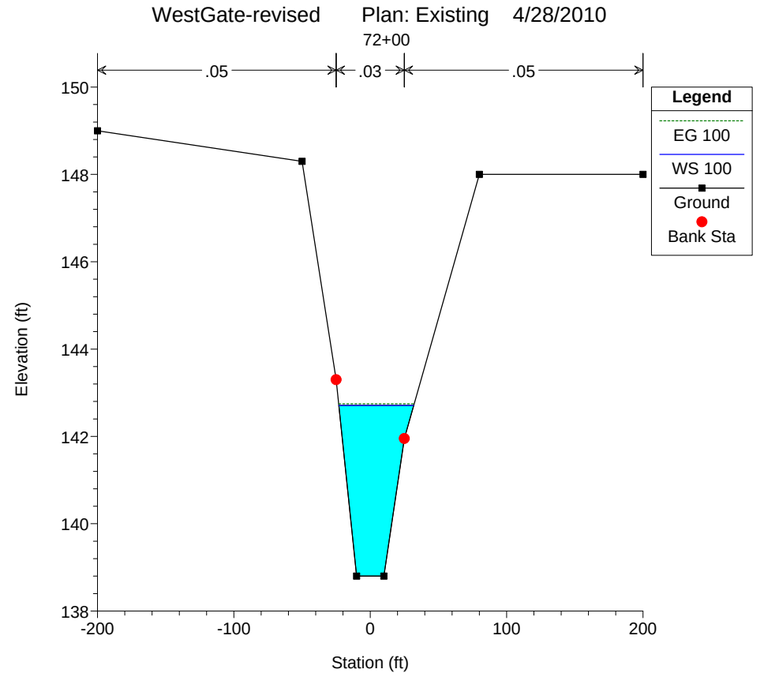

WestGate-revised Plan: Existing 4/28/2010
55+91
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

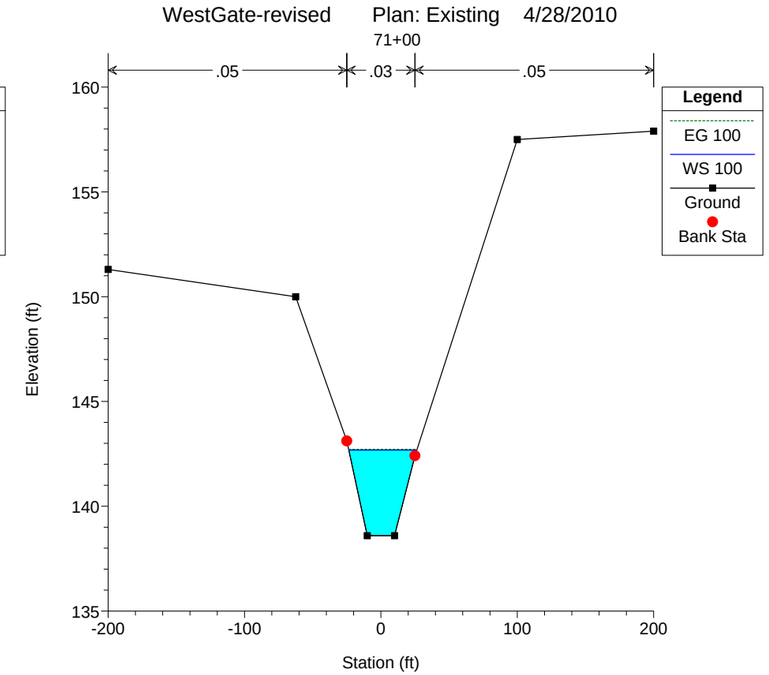

WestGate-revised Plan: Existing 4/28/2010
55+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

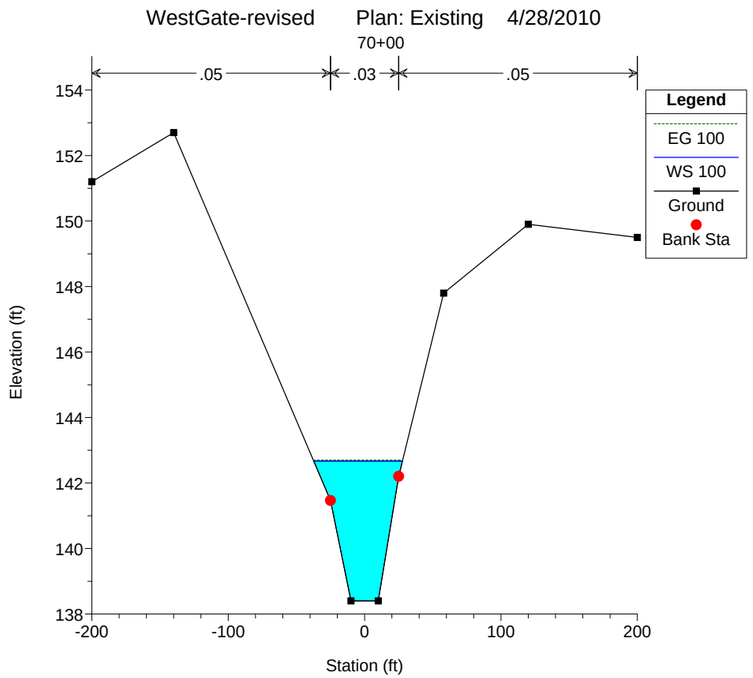

WestGate-revised Plan: Existing 4/28/2010
54+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

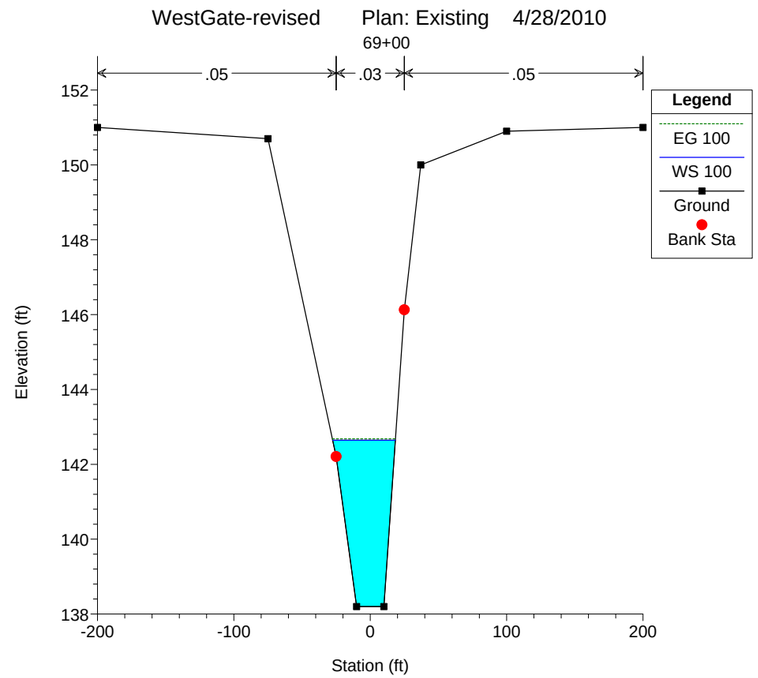

WestGate-revised Plan: Existing 4/28/2010
53+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

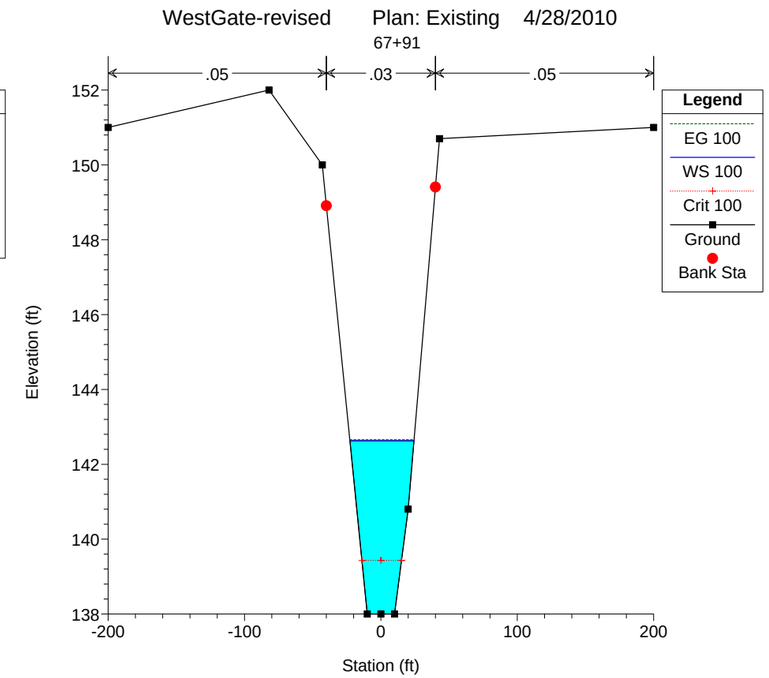

WestGate-revised Plan: Existing 4/28/2010
73+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

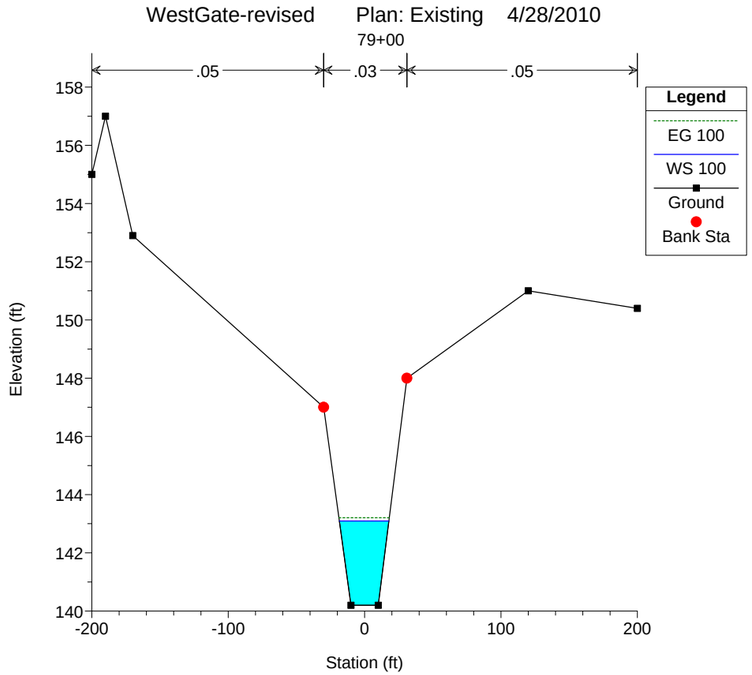

WestGate-revised Plan: Existing 4/28/2010
72+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

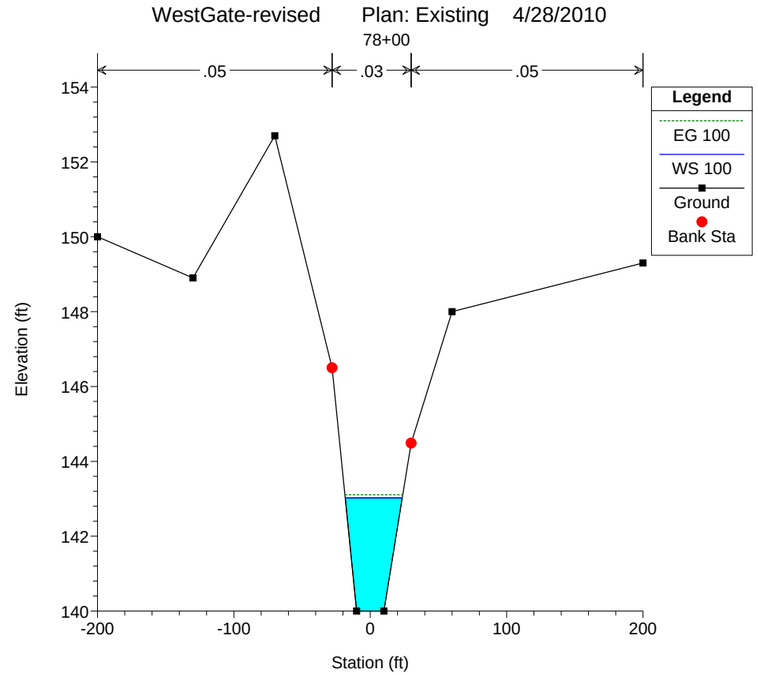

WestGate-revised Plan: Existing 4/28/2010
71+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

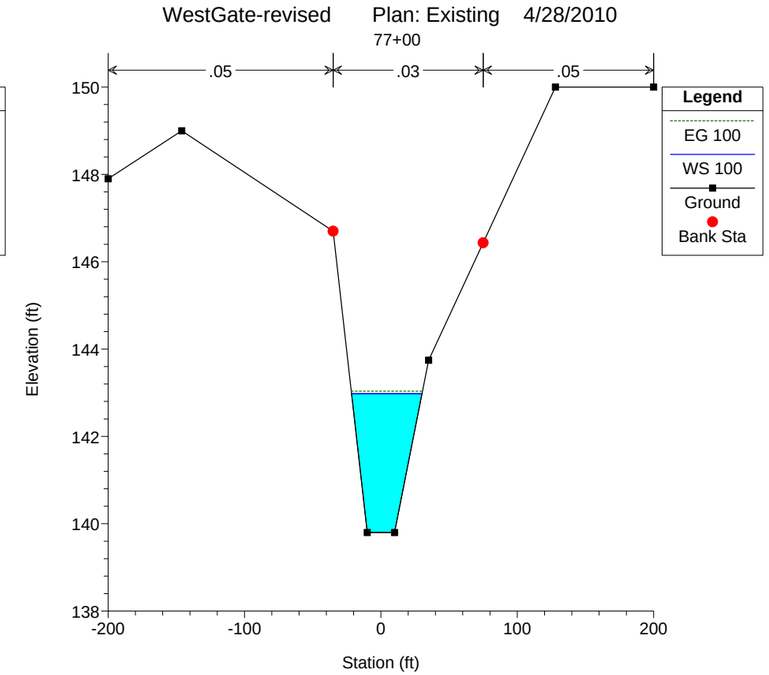

WestGate-revised Plan: Existing 4/28/2010
70+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

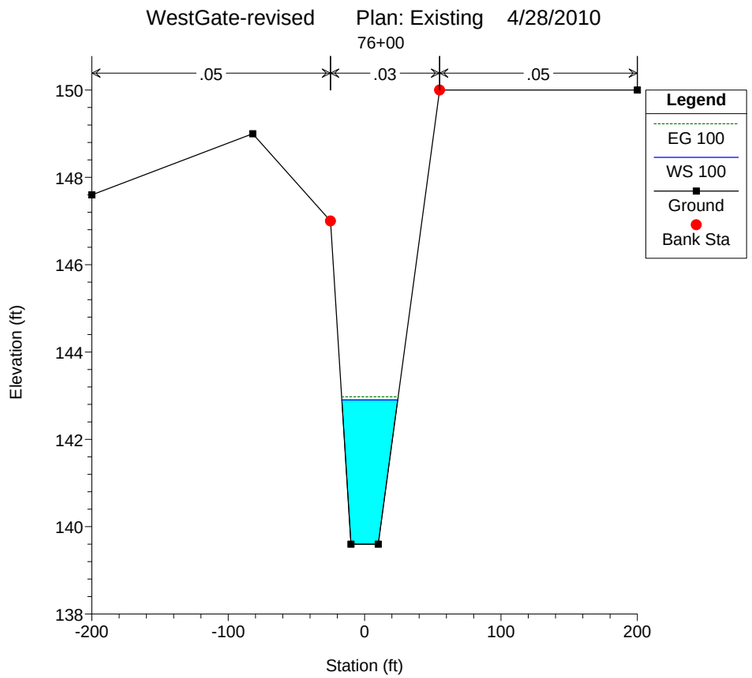

WestGate-revised Plan: Existing 4/28/2010
69+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

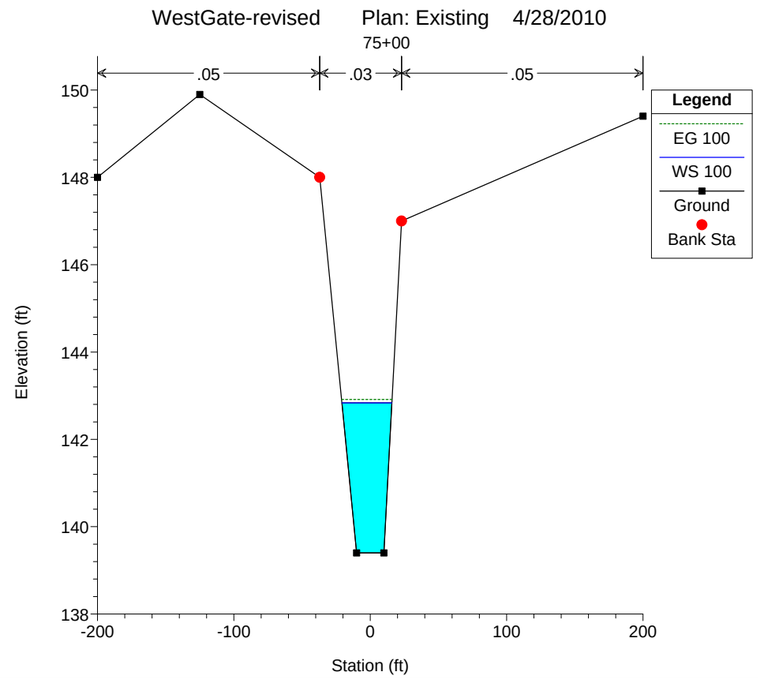

WestGate-revised Plan: Existing 4/28/2010
67+91
.05
.03
.05
Legend
EG 100
WS 100
Crit 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

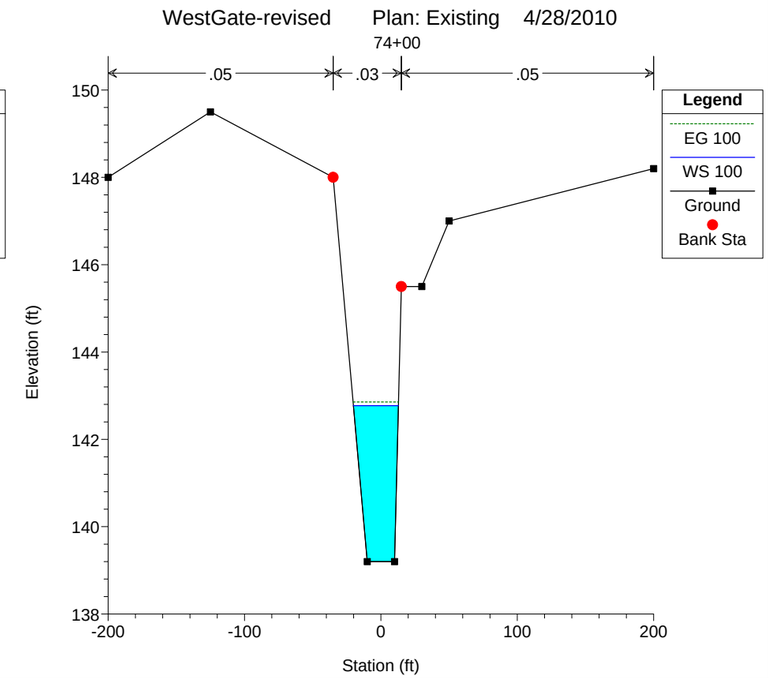

WestGate-revised Plan: Existing 4/28/2010
79+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

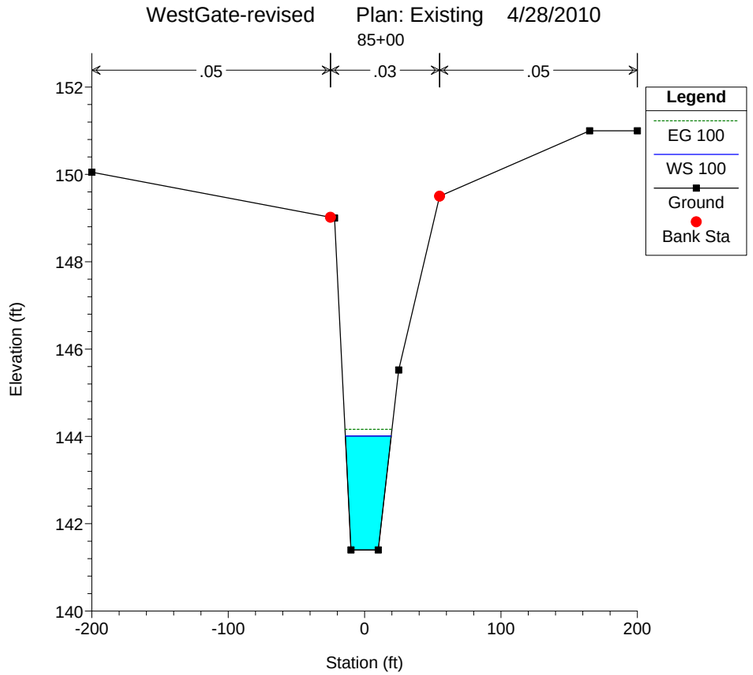

WestGate-revised Plan: Existing 4/28/2010
78+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

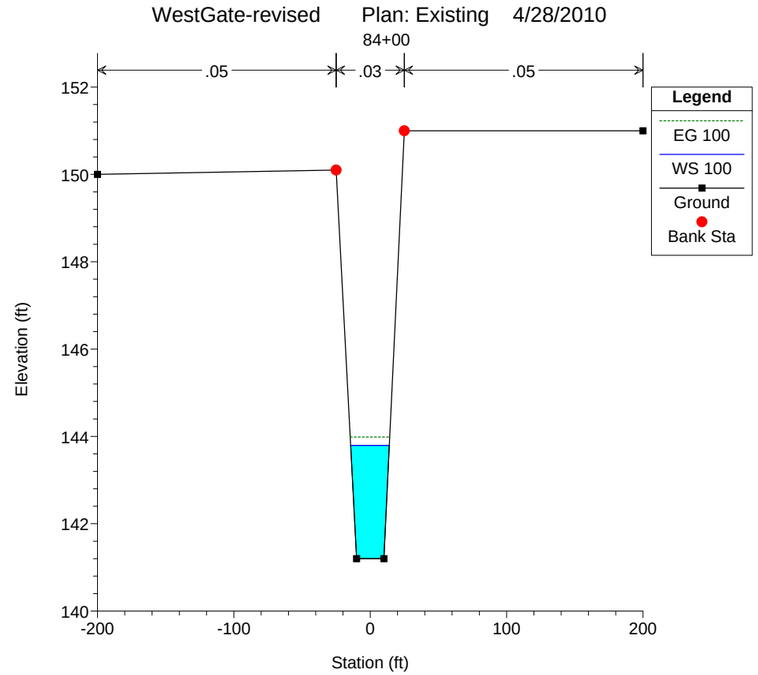

WestGate-revised Plan: Existing 4/28/2010
77+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

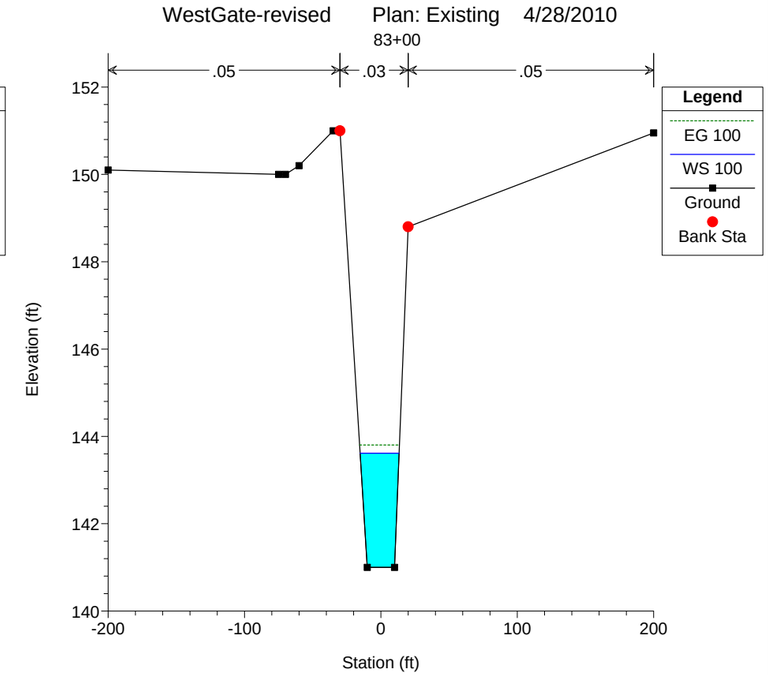

WestGate-revised Plan: Existing 4/28/2010
76+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

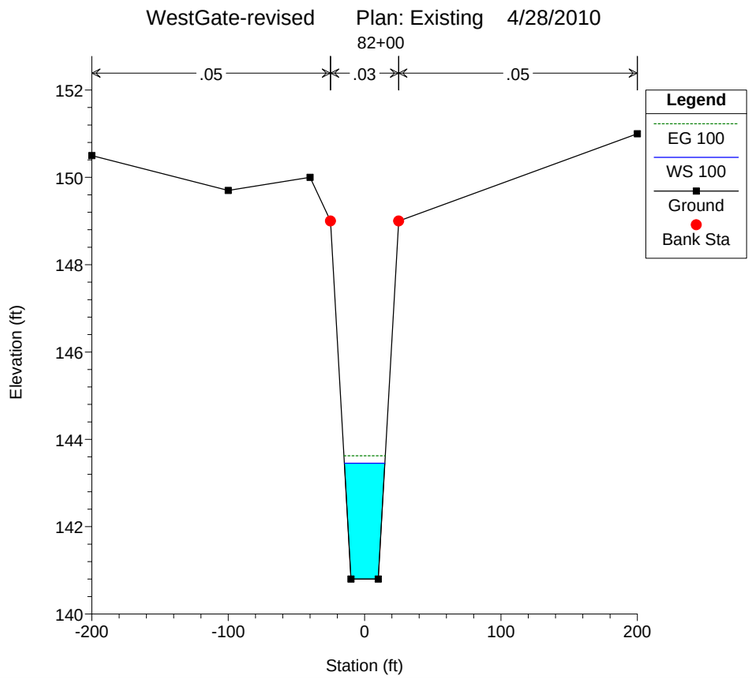

WestGate-revised Plan: Existing 4/28/2010
75+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

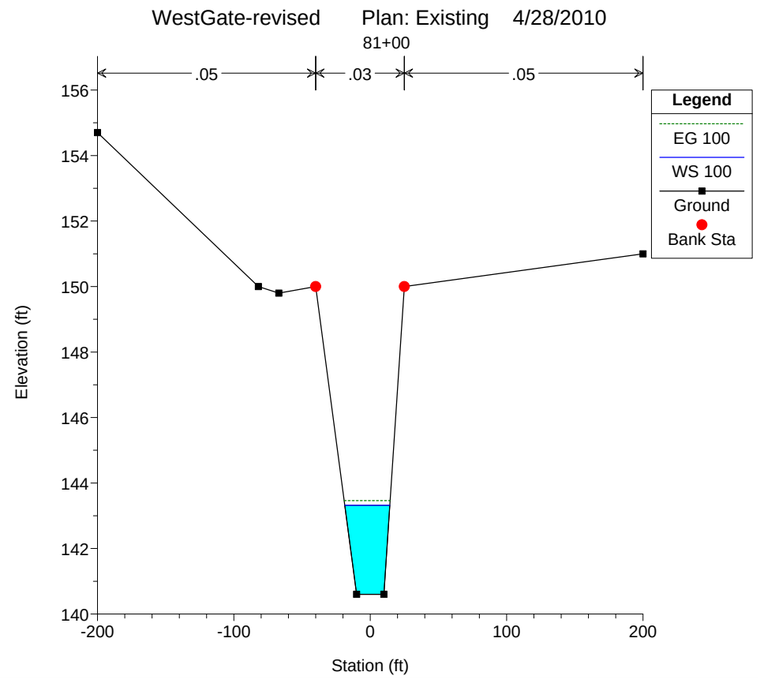

WestGate-revised Plan: Existing 4/28/2010
74+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

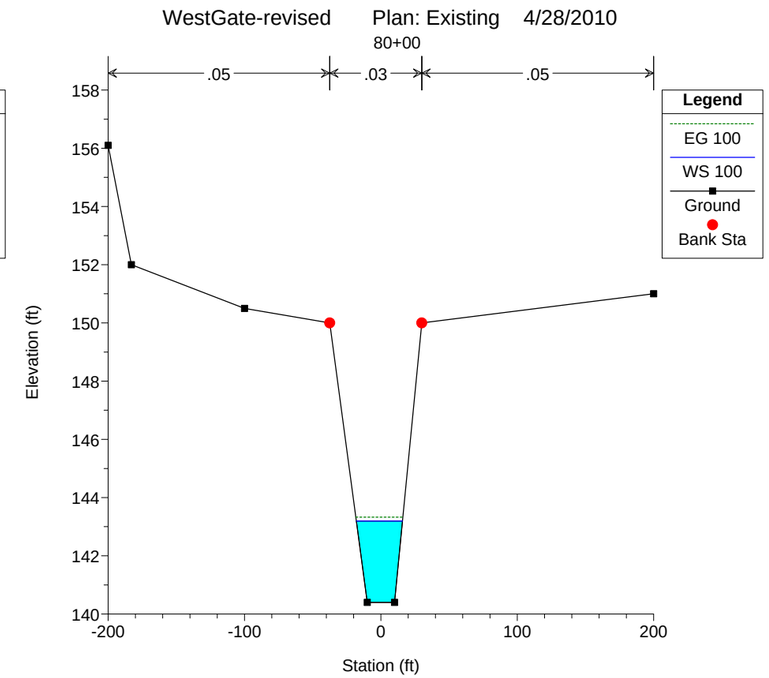

WestGate-revised Plan: Existing 4/28/2010
85+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

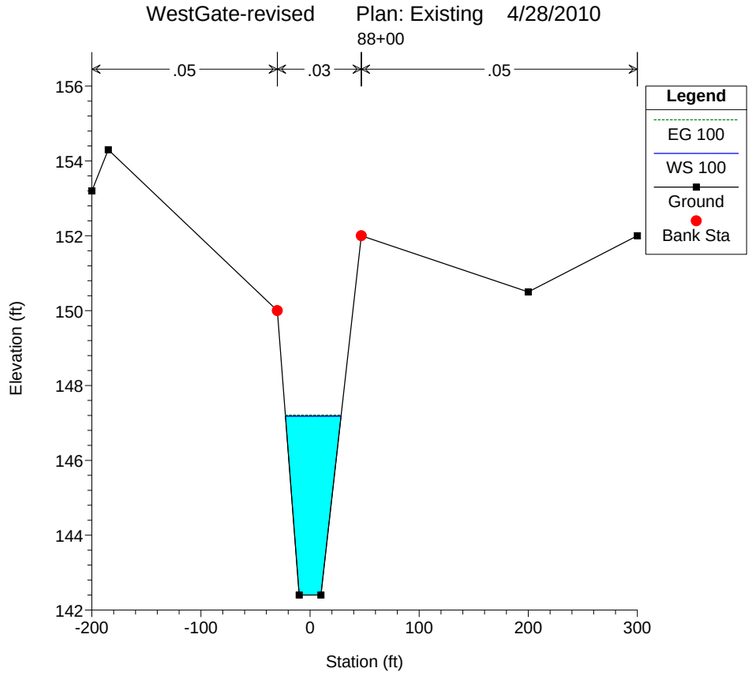

WestGate-revised Plan: Existing 4/28/2010
84+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

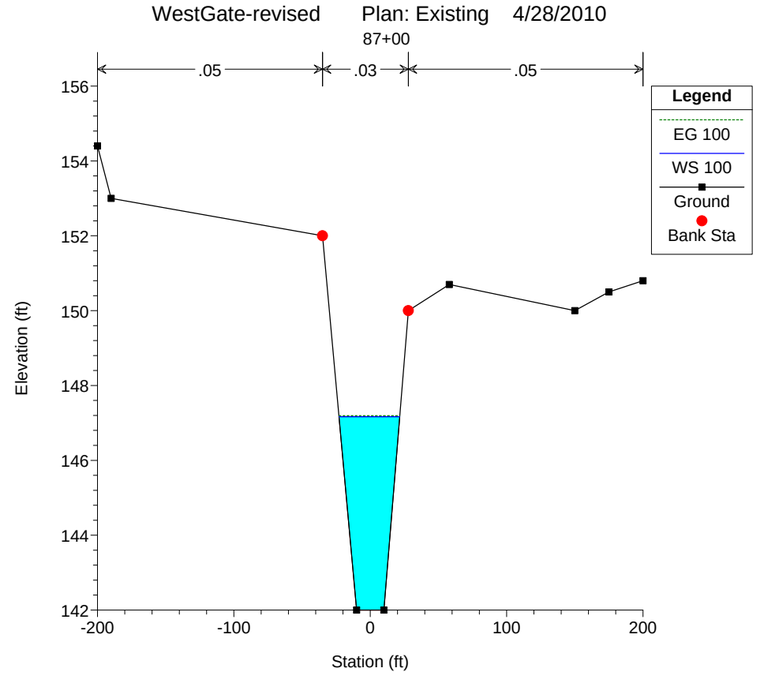

WestGate-revised Plan: Existing 4/28/2010
83+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

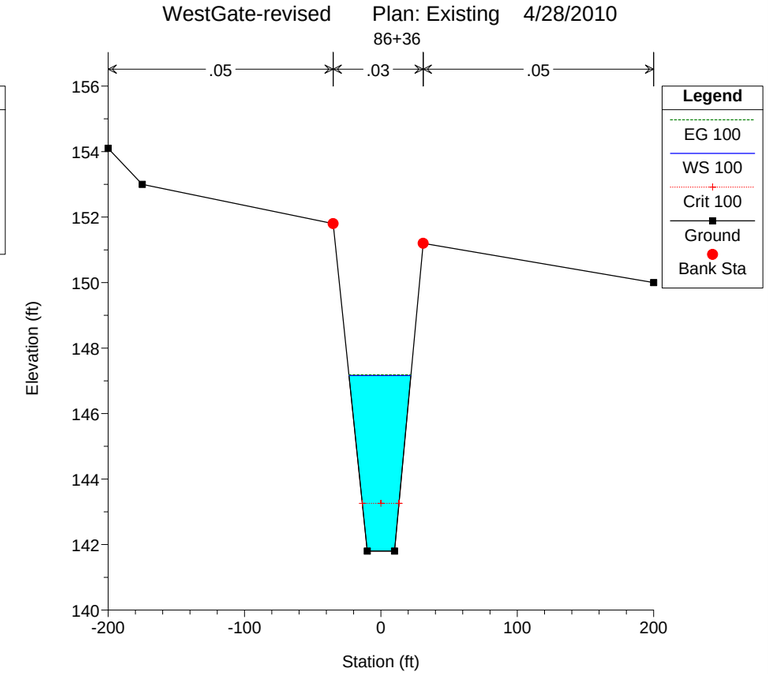

WestGate-revised Plan: Existing 4/28/2010
82+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

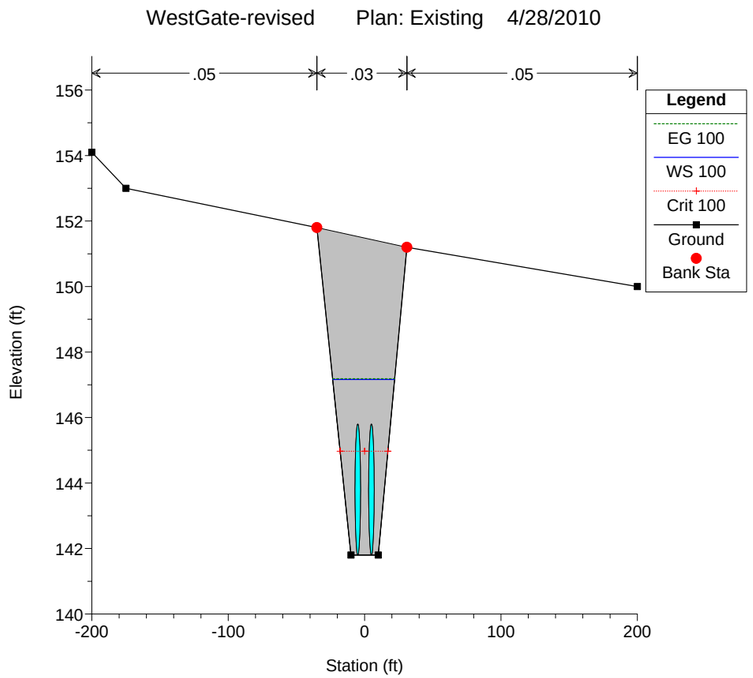

WestGate-revised Plan: Existing 4/28/2010
81+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

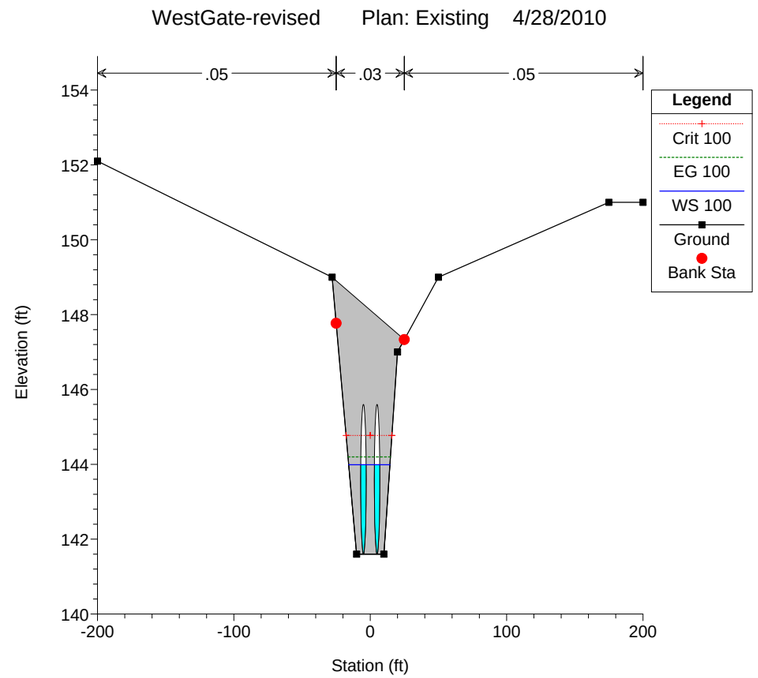

WestGate-revised Plan: Existing 4/28/2010
80+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

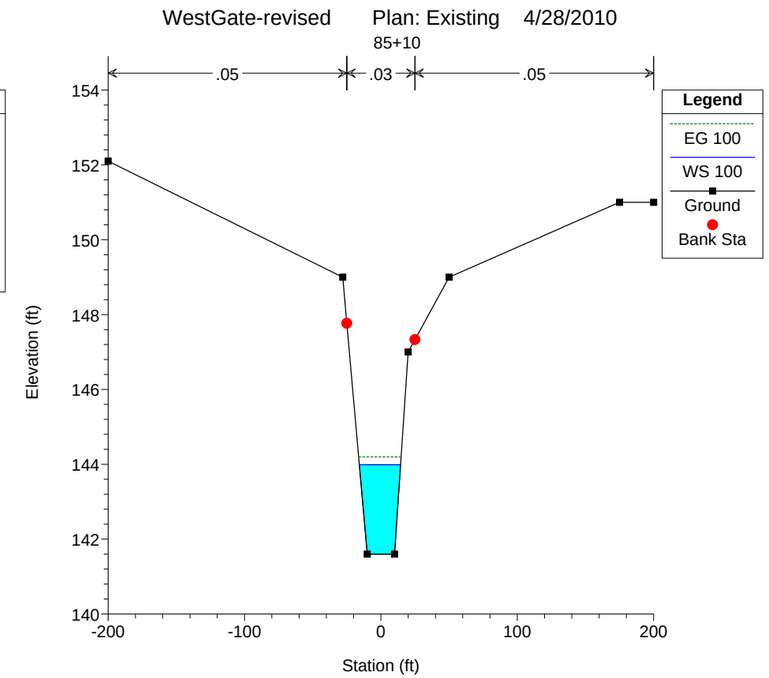

WestGate-revised Plan: Existing 4/28/2010
88+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

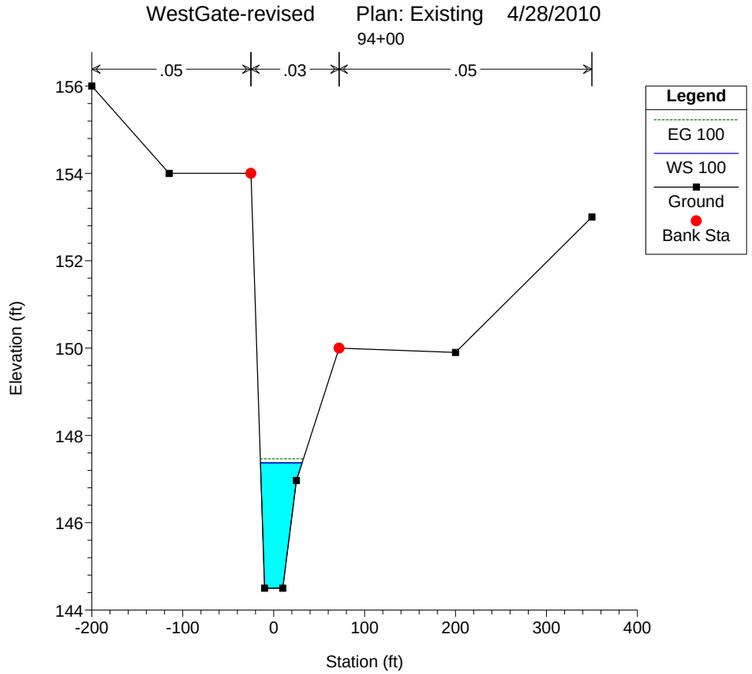

WestGate-revised Plan: Existing 4/28/2010
87+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

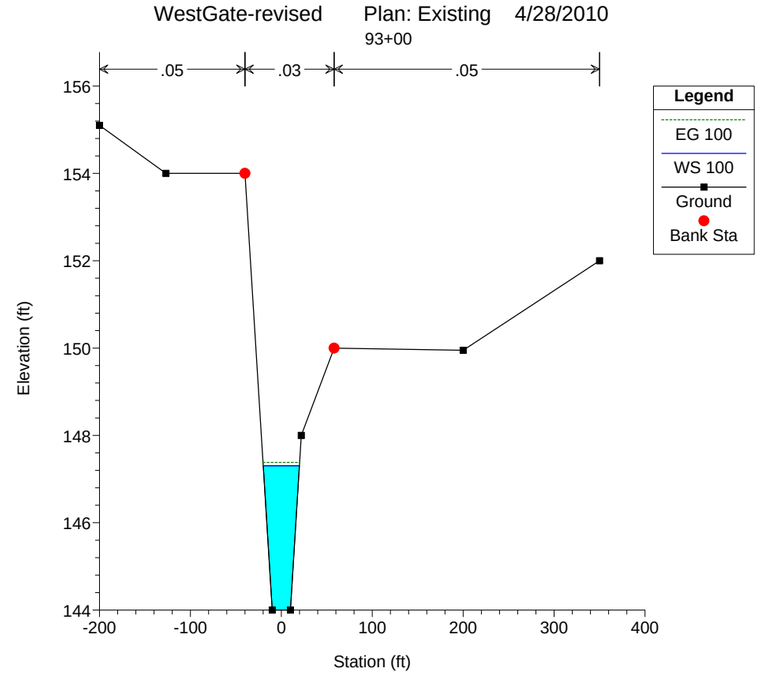

WestGate-revised Plan: Existing 4/28/2010
86+36
.05
.03
.05
Legend
EG 100
WS 100
Crit 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

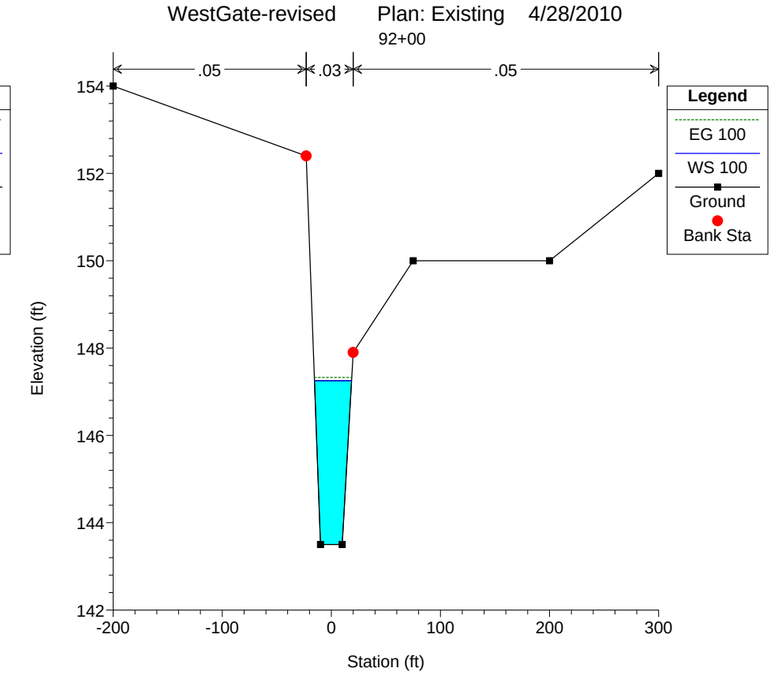

WestGate-revised Plan: Existing 4/28/2010
.05
.03
.05
Legend
EG 100
WS 100
Crit 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

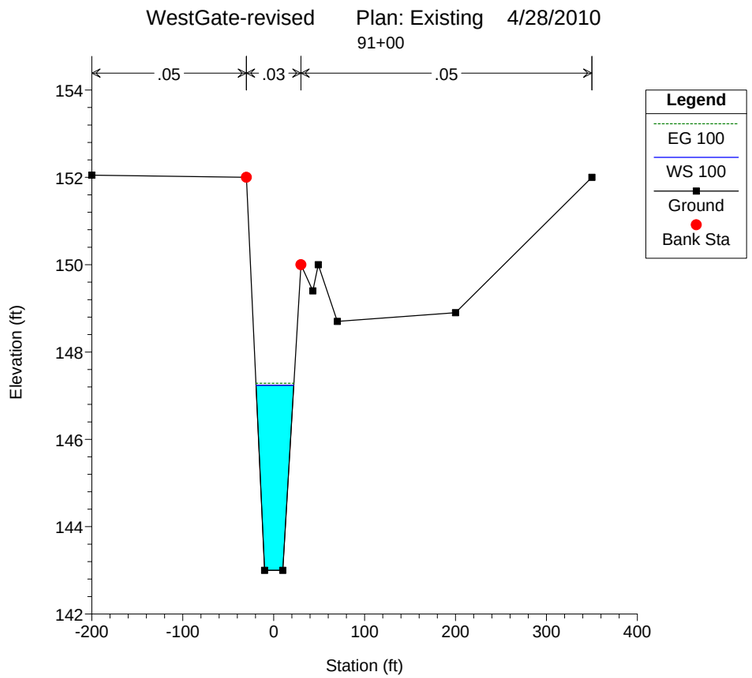

WestGate-revised Plan: Existing 4/28/2010
.05
.03
.05
Legend
Crit 100
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

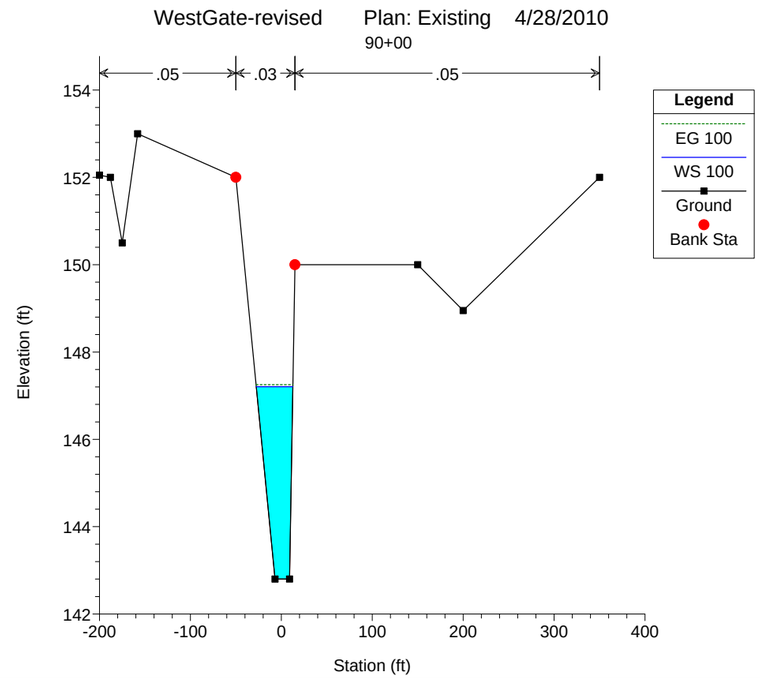

WestGate-revised Plan: Existing 4/28/2010
85+10
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

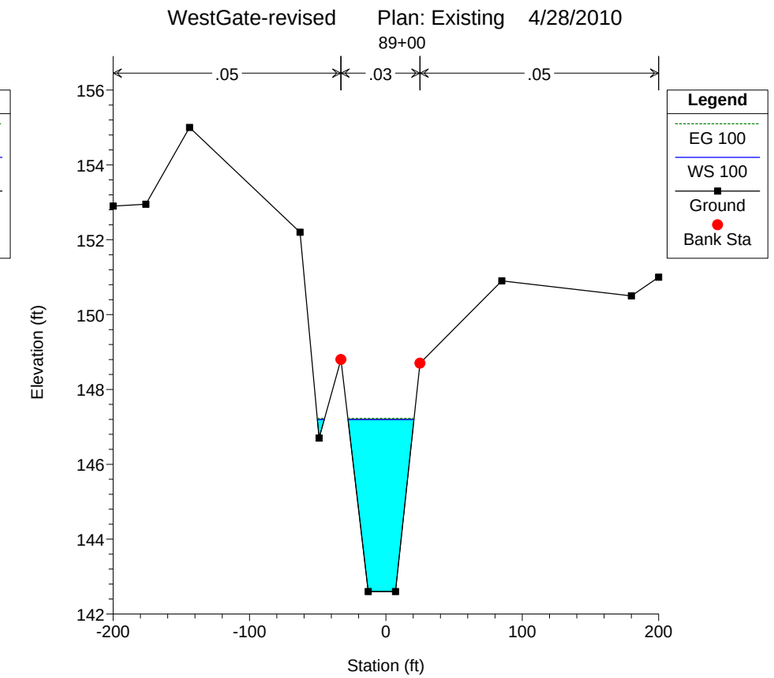

WestGate-revised Plan: Existing 4/28/2010
94+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

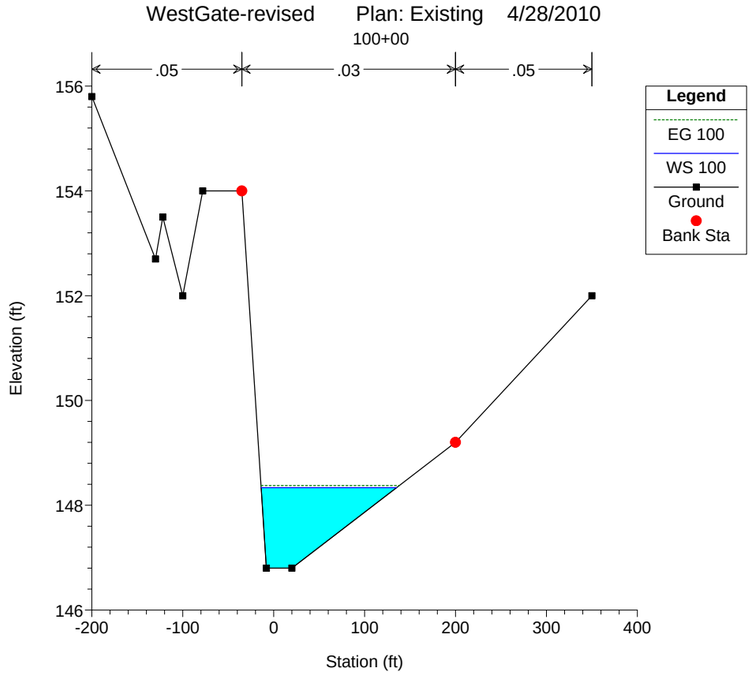

WestGate-revised Plan: Existing 4/28/2010
93+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

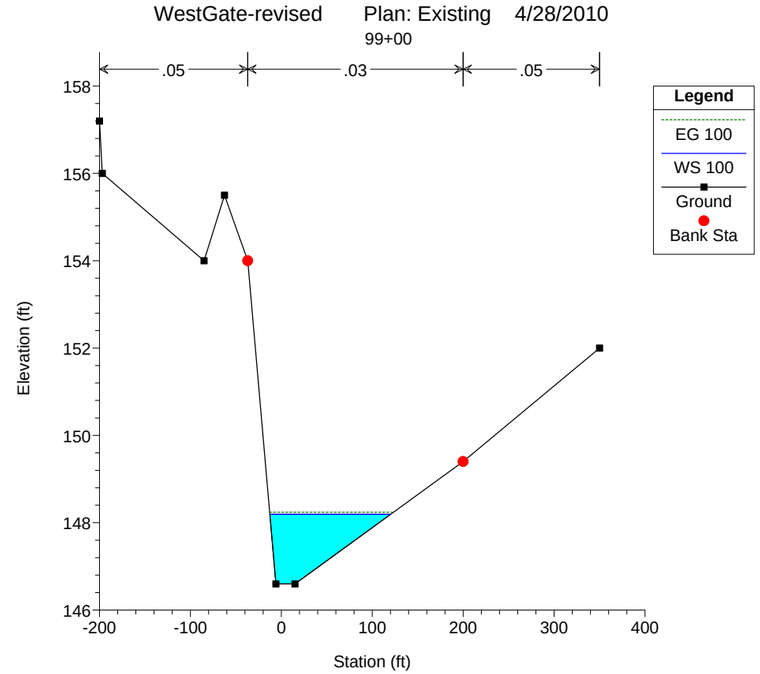

WestGate-revised Plan: Existing 4/28/2010
92+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

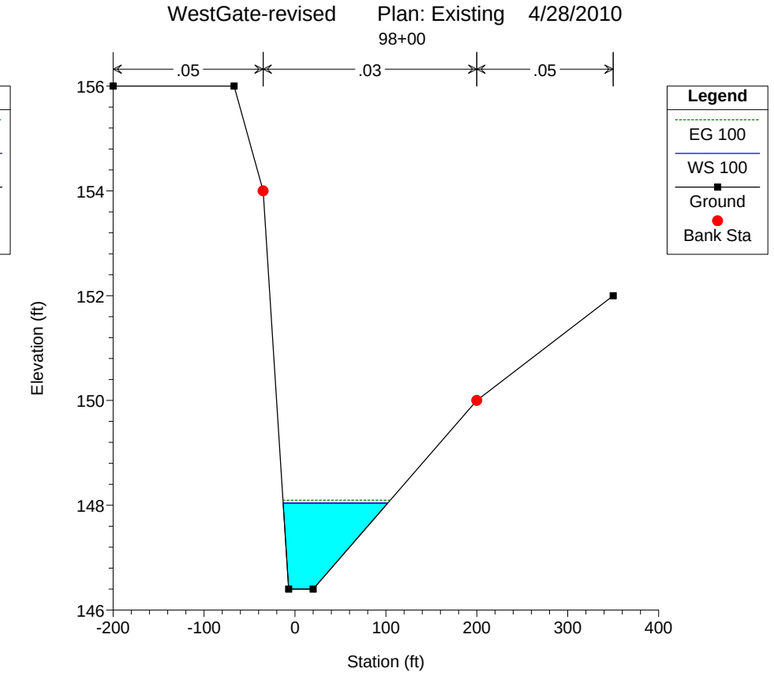

WestGate-revised Plan: Existing 4/28/2010
91+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

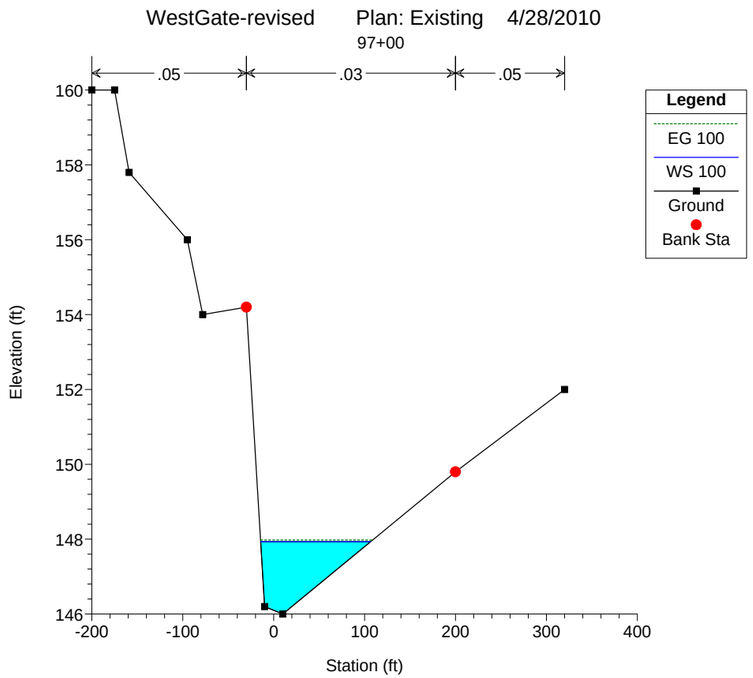

WestGate-revised Plan: Existing 4/28/2010
90+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

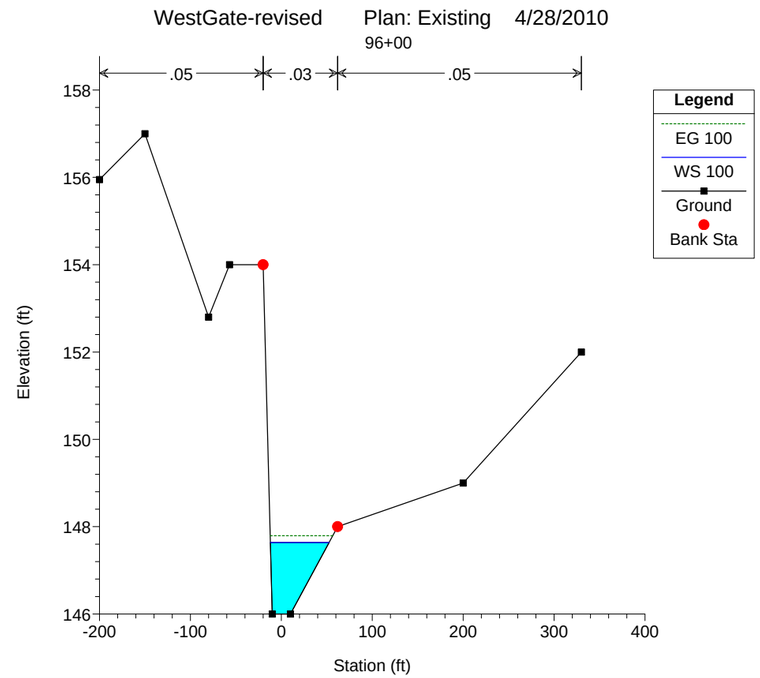

WestGate-revised Plan: Existing 4/28/2010
89+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

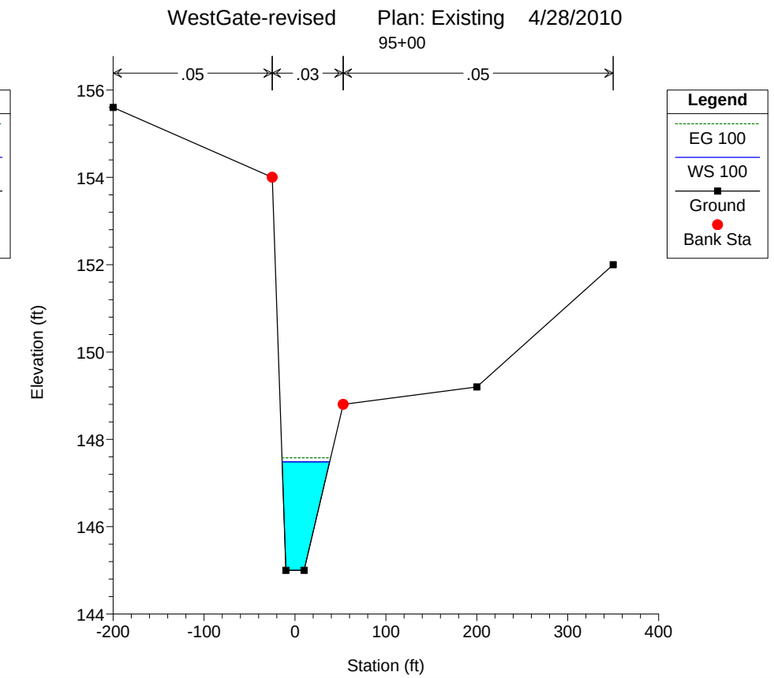

WestGate-revised Plan: Existing 4/28/2010
100+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

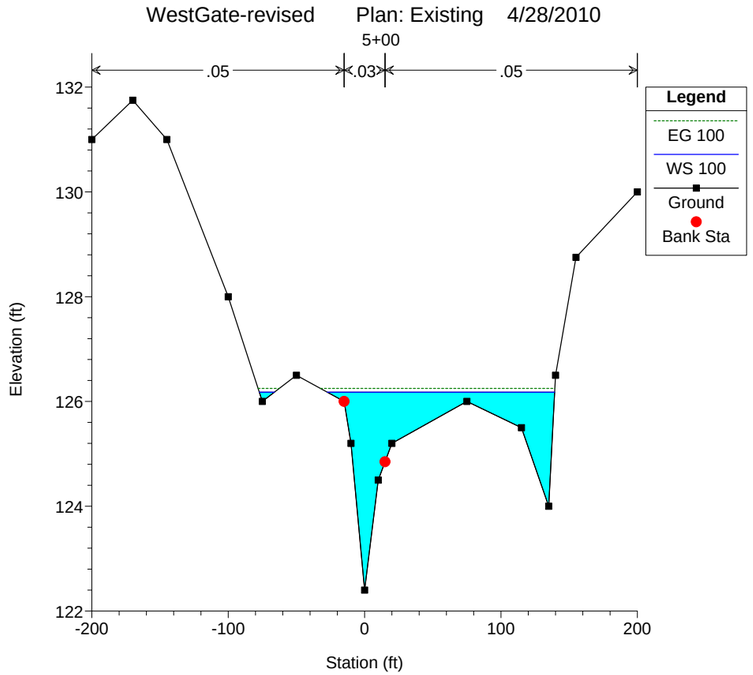

WestGate-revised Plan: Existing 4/28/2010
99+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

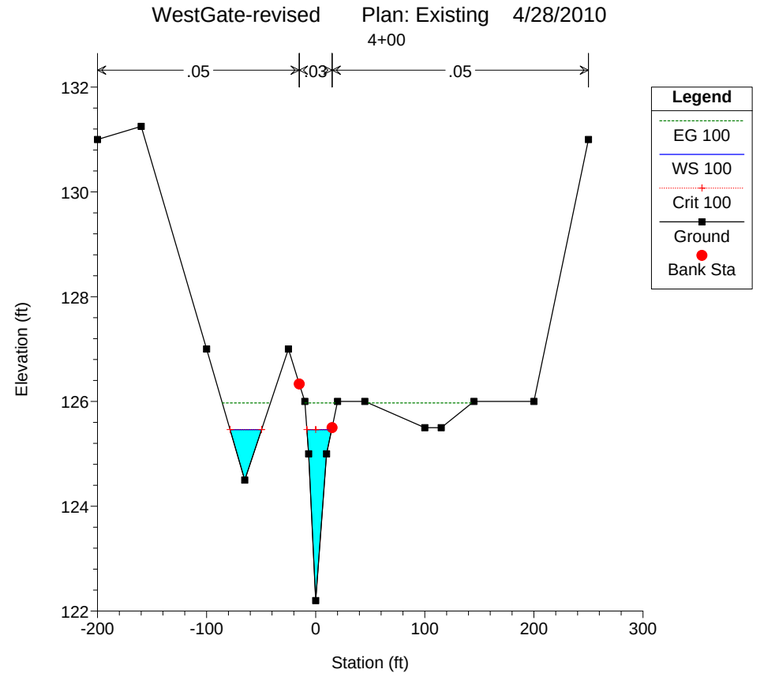

WestGate-revised Plan: Existing 4/28/2010
98+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

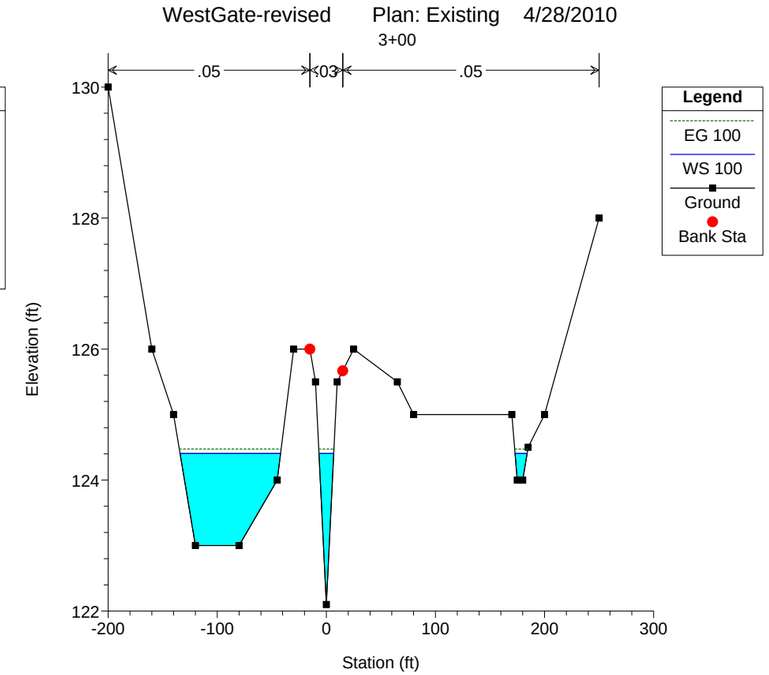

WestGate-revised Plan: Existing 4/28/2010
97+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

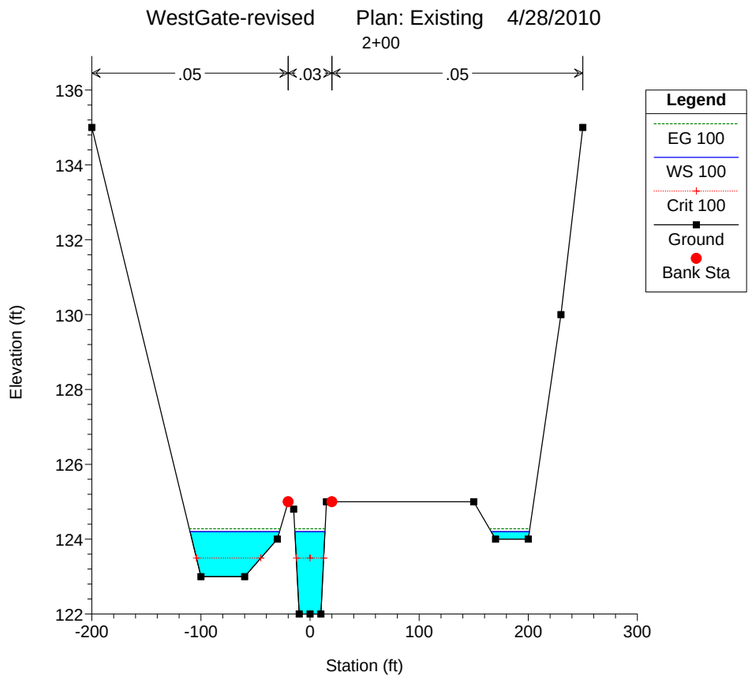

WestGate-revised Plan: Existing 4/28/2010
96+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)


WestGate-revised Plan: Existing 4/28/2010
95+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)


WestGate-revised Plan: Existing 4/28/2010
5+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)


WestGate-revised Plan: Existing 4/28/2010
4+00
.05
.03
.05
Legend
EG 100
WS 100
Crit 100
Ground
Bank Sta
Elevation (ft)
Station (ft)


WestGate-revised Plan: Existing 4/28/2010
3+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)


WestGate-revised Plan: Existing 4/28/2010
2+00
.05
.03
.05
Legend
EG 100
WS 100
Crit 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

ATTACHMENT E

HYDRAULIC MODEL PROPOSED CONDITIONS

HEC-RAS Version 4.0 Beta
U.S. Army Corp of Engineers
Hydrologic Engineering Center
609 Second Street
Davis, California

```
X     X  XXXXXX    XXXX        XXXX       XX      XXXX
X     X  X        X    X       X   X     X  X    X
X     X  X        X            X   X    X    X   X
XXXXXXX  XXXX     X       XXX  XXXX     XXXXXX    XXXX
X     X  X        X            X  X     X    X        X
X     X  X        X    X       X   X    X    X        X
X     X  XXXXXX    XXXX        X    X   X    X   XXXXX
```

****

PROJECT DATA
Project Title: WestGate-revised
Project File : WG.prj
Run Date and Time: 4/28/2010 3:01:35 PM

Project in English units

****

PLAN DATA

Plan Title: Proposed
Plan File : h:\WestGate, MA\HecRas\WG.p03

Geometry Title: Proposed
Geometry File : h:\WestGate, MA\HecRas\WG.g02

Flow Title : FS
Flow File : h:\WestGate, MA\HecRas\WG.f02

Plan Summary Information:
Number of: Cross Sections = 92 Multiple Openings = 0
Culverts = 4 Inline Structures = 0
Bridges = 0 Lateral Structures = 0

Computational Information
Water surface calculation tolerance = 0.01
Critical depth calculation tolerance = 0.01
Maximum number of iterations = 20
Maximum difference tolerance = 0.3
Flow tolerance factor = 0.001

Computation Options
Critical depth computed only where necessary
Conveyance Calculation Method: At breaks in n values only
Friction Slope Method: Average Conveyance
Computational Flow Regime: Subcritical Flow

****

FLOW DATA

Flow Title: FS
Flow File : h:\WestGate, MA\HecRas\WG.f02

Flow Data (cfs)
****
****
* River Reach RS * 10 50 100
500 *
* French Stream 1 100 * 110 180 220
340 *
****
****

Boundary Conditions
****
* River Reach Profile * Upstream Downstream *
****

```
* French Stream   1              10              *                                    Known WS = 0 *
* French Stream   1              50              *                                    Known WS = 0 *
* French Stream   1              100             *                                 Known WS = 124.2 *
* French Stream   1              500             *                                    Known WS = 0 *
*****************************************************************************************************

*************************************************************************

GEOMETRY DATA

Geometry Title: Proposed
Geometry File : h:\WestGate, MA\HecRas\WG.g02

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 100

INPUT
Description: 100+00
Station Elevation Data    num=      10
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*************************************************************************
    -200   155.8    -130   152.7    -122   153.5    -100     152     -78     154
     -35     154      -8   146.8      20   146.8     200   149.2     350     152

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -35     .03     200     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -35     200              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
*****************************************************************************************************
* E.G. Elev (ft)         *  148.35  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.04  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  148.30  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *  131.03  *          *
* E.G. Slope (ft/ft)     *0.001334  * Area (sq ft)           *          *  131.03  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *  146.36  * Top Width (ft)         *          *  146.36  *          *
* Vel Total (ft/s)       *    1.68  * Avg. Vel. (ft/s)       *          *    1.68  *          *
* Max Chl Dpth (ft)      *    1.50  * Hydr. Depth (ft)       *          *    0.90  *          *
* Conv. Total (cfs)      *  6022.6  * Conv. (cfs)            *          *  6022.6  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *  146.57  *          *
* Min Ch El (ft)         *  146.80  * Shear (lb/sq ft)       *          *    0.07  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    0.13  *          *
* Frctn Loss (ft)        *    0.15  * Cum Volume (acre-ft)   *    0.38  *   18.14  *    0.65  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)         *    0.47  *    8.22  *    0.80  *
*****************************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 99

INPUT
Description: 99+00
Station Elevation Data    num=       9
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*************************************************************************
    -200   157.2    -197     156     -85     154   -62.5   155.5     -37     154
      -6   146.6      15   146.6     200   149.4     350     152

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -37     .03     200     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -37     200              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
*****************************************************************************************************
* E.G. Elev (ft)         *  148.20  * Element                *  Left OB *  Channel * Right OB *
```

Vel Head (ft)	0.06	Wt. n-Val.		0.030		
W.S. Elev (ft)	148.14	Reach Len. (ft)	100.00	100.00	100.00	
Crit W.S. (ft)		Flow Area (sq ft)		115.62		
E.G. Slope (ft/ft)	0.001714	Area (sq ft)		115.62		
Q Total (cfs)	220.00	Flow (cfs)		220.00		
Top Width (ft)	129.18	Top Width (ft)		129.18		
Vel Total (ft/s)	1.90	Avg. Vel. (ft/s)		1.90		
Max Chl Dpth (ft)	1.54	Hydr. Depth (ft)		0.90		
Conv. Total (cfs)	5313.2	Conv. (cfs)		5313.2		
Length Wtd. (ft)	100.00	Wetted Per. (ft)		129.37		
Min Ch El (ft)	146.60	Shear (lb/sq ft)		0.10		
Alpha	1.00	Stream Power (lb/ft s)		0.18		
Frctn Loss (ft)	0.18	Cum Volume (acre-ft)	0.38	17.85	0.65	
C & E Loss (ft)	0.00	Cum SA (acres)	0.47	7.90	0.80	

CROSS SECTION

RIVER: French Stream
REACH: 1 RS: 98

INPUT
Description: 98+00
Station Elevation Data num= 7

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-200	156	-67	156	-35	154	-7	146.4	20	146.4
200	150	350	152						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-200	.05	-35	.03	200	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
-35	200	100	100	100	.1	.3

CROSS SECTION OUTPUT Profile #100

E.G. Elev (ft)	148.02	Element	Left OB	Channel	Right OB	
Vel Head (ft)	0.07	Wt. n-Val.		0.030		
W.S. Elev (ft)	147.95	Reach Len. (ft)	100.00	100.00	100.00	
Crit W.S. (ft)		Flow Area (sq ft)		106.62		
E.G. Slope (ft/ft)	0.001822	Area (sq ft)		106.62		
Q Total (cfs)	220.00	Flow (cfs)		220.00		
Top Width (ft)	110.35	Top Width (ft)		110.35		
Vel Total (ft/s)	2.06	Avg. Vel. (ft/s)		2.06		
Max Chl Dpth (ft)	1.55	Hydr. Depth (ft)		0.97		
Conv. Total (cfs)	5154.3	Conv. (cfs)		5154.3		
Length Wtd. (ft)	100.00	Wetted Per. (ft)		110.57		
Min Ch El (ft)	146.40	Shear (lb/sq ft)		0.11		
Alpha	1.00	Stream Power (lb/ft s)		0.23		
Frctn Loss (ft)	0.15	Cum Volume (acre-ft)	0.38	17.60	0.65	
C & E Loss (ft)	0.00	Cum SA (acres)	0.47	7.63	0.80	

CROSS SECTION

RIVER: French Stream
REACH: 1 RS: 97

INPUT
Description: 97+00
Station Elevation Data num= 10

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-200	160	-175	160	-159	157.8	-95	156	-78	154
-30	154.2	-10	146.2	10	146	200	149.8	320	152

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-200	.05	-30	.03	200	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
-30	200	100	100	100	.1	.3

CROSS SECTION OUTPUT Profile #100

E.G. Elev (ft)	147.86	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.05	Wt. n-Val.		0.030	
W.S. Elev (ft)	147.81	Reach Len. (ft)	100.00	100.00	100.00
Crit W.S. (ft)		Flow Area (sq ft)		119.00	
E.G. Slope (ft/ft)	0.001326	Area (sq ft)		119.00	
Q Total (cfs)	220.00	Flow (cfs)		220.00	
Top Width (ft)	114.37	Top Width (ft)		114.37	
Vel Total (ft/s)	1.85	Avg. Vel. (ft/s)		1.85	
Max Chl Dpth (ft)	1.81	Hydr. Depth (ft)		1.04	
Conv. Total (cfs)	6040.6	Conv. (cfs)		6040.6	
Length Wtd. (ft)	100.00	Wetted Per. (ft)		114.70	
Min Ch El (ft)	146.00	Shear (lb/sq ft)		0.09	
Alpha	1.00	Stream Power (lb/ft s)		0.16	
Frctn Loss (ft)	0.14	Cum Volume (acre-ft)	0.38	17.34	0.65
C & E Loss (ft)	0.00	Cum SA (acres)	0.47	7.37	0.80

CROSS SECTION

RIVER: French Stream
REACH: 1 RS: 96

INPUT
Description: 96+00
Station Elevation Data num= 10

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-200	155.95	-150	157	-80	152.8	-57	154	-20	154
-10	145.5	10	145.5	62	148	200	149	330	152

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-200	.05	-20	.03	62	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
-20	62	100	100	100	.1	.3

CROSS SECTION OUTPUT Profile #100

E.G. Elev (ft)	147.71	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.09	Wt. n-Val.		0.030	
W.S. Elev (ft)	147.63	Reach Len. (ft)	100.00	100.00	100.00
Crit W.S. (ft)		Flow Area (sq ft)		92.15	
E.G. Slope (ft/ft)	0.001535	Area (sq ft)		92.15	
Q Total (cfs)	220.00	Flow (cfs)		220.00	
Top Width (ft)	66.71	Top Width (ft)		66.71	
Vel Total (ft/s)	2.39	Avg. Vel. (ft/s)		2.39	
Max Chl Dpth (ft)	2.13	Hydr. Depth (ft)		1.38	
Conv. Total (cfs)	5614.6	Conv. (cfs)		5614.6	
Length Wtd. (ft)	100.00	Wetted Per. (ft)		67.54	
Min Ch El (ft)	145.50	Shear (lb/sq ft)		0.13	
Alpha	1.00	Stream Power (lb/ft s)		0.31	
Frctn Loss (ft)	0.14	Cum Volume (acre-ft)	0.38	17.10	0.65
C & E Loss (ft)	0.00	Cum SA (acres)	0.47	7.16	0.80

CROSS SECTION

RIVER: French Stream
REACH: 1 RS: 95

INPUT
Description: 95+00
Station Elevation Data num= 7

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-200	155.6	-25	154	-10	145	10	145	53	148.8
200	149.2	350	152						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-200	.05	-25	.03	53	.05

```
Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -25      53              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
*********************************************************************************************
* E.G. Elev (ft)         *  147.58  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.09  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  147.48  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   89.73  *          *
* E.G. Slope (ft/ft)     *0.001216  * Area (sq ft)           *          *   89.73  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)              *          *  220.00  *          *
* Top Width (ft)         *   52.25  * Top Width (ft)          *          *   52.25  *          *
* Vel Total (ft/s)       *    2.45  * Avg. Vel. (ft/s)        *          *    2.45  *          *
* Max Chl Dpth (ft)      *    2.48  * Hydr. Depth (ft)        *          *    1.72  *          *
* Conv. Total (cfs)      *  6309.8  * Conv. (cfs)             *          *  6309.8  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)        *          *   53.05  *          *
* Min Ch El (ft)         *  145.00  * Shear (lb/sq ft)        *          *    0.13  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s)   *          *    0.31  *          *
* Frctn Loss (ft)        *    0.11  * Cum Volume (acre-ft)     *    0.38  *   16.89  *    0.65  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)           *    0.47  *    7.03  *    0.80  *
*********************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                 RS: 94

INPUT
Description: 94+00
Station Elevation Data    num=       9
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*********************************************************************************
    -200     156    -115     154     -25     154     -10   144.5      10   144.5
      25 146.968      72     150     200   149.9     350     153

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -25     .03      72     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -25      72              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
*********************************************************************************************
* E.G. Elev (ft)         *  147.47  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.09  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  147.37  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   89.81  *          *
* E.G. Slope (ft/ft)     *0.001027  * Area (sq ft)           *          *   89.81  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)              *          *  220.00  *          *
* Top Width (ft)         *   45.81  * Top Width (ft)          *          *   45.81  *          *
* Vel Total (ft/s)       *    2.45  * Avg. Vel. (ft/s)        *          *    2.45  *          *
* Max Chl Dpth (ft)      *    2.87  * Hydr. Depth (ft)        *          *    1.96  *          *
* Conv. Total (cfs)      *  6864.4  * Conv. (cfs)             *          *  6864.4  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)        *          *   46.85  *          *
* Min Ch El (ft)         *  144.50  * Shear (lb/sq ft)        *          *    0.12  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s)   *          *    0.30  *          *
* Frctn Loss (ft)        *    0.08  * Cum Volume (acre-ft)     *    0.38  *   16.68  *    0.65  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)           *    0.47  *    6.91  *    0.80  *
*********************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                 RS: 93

INPUT
Description: 93+00
Station Elevation Data    num=       9
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*********************************************************************************
    -200   155.1    -127     154     -40     154     -10     144      10     144
      22     148      58     150     200  149.95     350     152

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
```

```
**********************************************
    -200     .05     -40     .03      58     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -40      58              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
*****************************************************************************************
* E.G. Elev (ft)         *  147.38  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.08  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  147.31  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   98.88  *          *
* E.G. Slope (ft/ft)     *0.000622  * Area (sq ft)           *          *   98.88  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   39.83  * Top Width (ft)         *          *   39.83  *          *
* Vel Total (ft/s)       *    2.22  * Avg. Vel. (ft/s)       *          *    2.22  *          *
* Max Chl Dpth (ft)      *    3.31  * Hydr. Depth (ft)       *          *    2.48  *          *
* Conv. Total (cfs)      *  8821.8  * Conv. (cfs)            *          *  8821.8  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   40.90  *          *
* Min Ch El (ft)         *  144.00  * Shear (lb/sq ft)       *          *    0.09  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    0.21  *          *
* Frctn Loss (ft)        *    0.05  * Cum Volume (acre-ft)   *    0.38  *   16.46  *    0.65  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)         *    0.47  *    6.81  *    0.80  *
*****************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 92

INPUT
Description: 92+00
Station Elevation Data    num=       8
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200     154     -23   152.4     -10   143.5      10   143.5      20   147.9
      75     150     200     150     300     152

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
    -200     .05     -23     .03      20     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -23      20              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
*****************************************************************************************
* E.G. Elev (ft)         *  147.33  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.07  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  147.25  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *  101.37  *          *
* E.G. Slope (ft/ft)     *0.000482  * Area (sq ft)           *          *  101.37  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   34.01  * Top Width (ft)         *          *   34.01  *          *
* Vel Total (ft/s)       *    2.17  * Avg. Vel. (ft/s)       *          *    2.17  *          *
* Max Chl Dpth (ft)      *    3.75  * Hydr. Depth (ft)       *          *    2.98  *          *
* Conv. Total (cfs)      * 10018.0  * Conv. (cfs)            *          * 10018.0  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   35.96  *          *
* Min Ch El (ft)         *  143.50  * Shear (lb/sq ft)       *          *    0.08  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    0.18  *          *
* Frctn Loss (ft)        *    0.04  * Cum Volume (acre-ft)   *    0.38  *   16.23  *    0.65  *
* C & E Loss (ft)        *    0.01  * Cum SA (acres)         *    0.47  *    6.73  *    0.80  *
*****************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 91

INPUT
Description: 91+00
Station Elevation Data    num=      10
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200  152.05     -30     152     -10     143      10     143      30     150
      43   149.4      49     150      70   148.7     200   148.9     350     152
```

```
Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
*********************************************
    -200     .05     -30     .03      30     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -30      30              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
**********************************************************************************************
* E.G. Elev (ft)         *  147.28  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.04  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  147.24  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *  130.40  *          *
* E.G. Slope (ft/ft)     *0.000266  * Area (sq ft)           *          *  130.40  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   41.53  * Top Width (ft)         *          *   41.53  *          *
* Vel Total (ft/s)       *    1.69  * Avg. Vel. (ft/s)       *          *    1.69  *          *
* Max Chl Dpth (ft)      *    4.24  * Hydr. Depth (ft)       *          *    3.14  *          *
* Conv. Total (cfs)      * 13498.6  * Conv. (cfs)            *          * 13498.6  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   43.16  *          *
* Min Ch El (ft)         *  143.00  * Shear (lb/sq ft)       *          *    0.05  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    0.08  *          *
* Frctn Loss (ft)        *    0.03  * Cum Volume (acre-ft)   *    0.38  *   15.97  *    0.65  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)         *    0.47  *    6.64  *    0.80  *
**********************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 90

INPUT
Description: 90+00
Station Elevation Data    num=      11
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200  152.05    -188     152    -175   150.5    -158     153     -50     152
      -7   142.8       9   142.8      15     150     150     150     200  148.95
     350     152

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
*********************************************
    -200     .05     -50     .03      15     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -50      15              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
**********************************************************************************************
* E.G. Elev (ft)         *  147.25  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.05  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  147.20  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *  123.90  *          *
* E.G. Slope (ft/ft)     *0.000311  * Area (sq ft)           *          *  123.90  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   40.26  * Top Width (ft)         *          *   40.26  *          *
* Vel Total (ft/s)       *    1.78  * Avg. Vel. (ft/s)       *          *    1.78  *          *
* Max Chl Dpth (ft)      *    4.40  * Hydr. Depth (ft)       *          *    3.08  *          *
* Conv. Total (cfs)      * 12467.5  * Conv. (cfs)            *          * 12467.5  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   42.79  *          *
* Min Ch El (ft)         *  142.80  * Shear (lb/sq ft)       *          *    0.06  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    0.10  *          *
* Frctn Loss (ft)        *    0.02  * Cum Volume (acre-ft)   *    0.38  *   15.68  *    0.65  *
* C & E Loss (ft)        *    0.01  * Cum SA (acres)         *    0.47  *    6.55  *    0.80  *
**********************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 89

INPUT
Description: 89+00
Station Elevation Data    num=      12
```

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-200	152.9	-176	152.95	-144	155	-63	152.2	-49	146.7
-33	148.8	-13	142.6	7	142.6	25	148.7	85	150.9
180	150.5	200	151						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-200	.05	-33	.03	25	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
-33	25	100	100	100	.1	.3

CROSS SECTION OUTPUT Profile #100

E.G. Elev (ft)	147.23	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.03	Wt. n-Val.	0.050	0.030	
W.S. Elev (ft)	147.20	Reach Len. (ft)	100.00	100.00	100.00
Crit W.S. (ft)		Flow Area (sq ft)	1.25	157.11	
E.G. Slope (ft/ft)	0.000173	Area (sq ft)	1.25	157.11	
Q Total (cfs)	220.00	Flow (cfs)	0.19	219.81	
Top Width (ft)	53.41	Top Width (ft)	5.03	48.38	
Vel Total (ft/s)	1.39	Avg. Vel. (ft/s)	0.15	1.40	
Max Chl Dpth (ft)	4.60	Hydr. Depth (ft)	0.25	3.25	
Conv. Total (cfs)	16744.9	Conv. (cfs)	14.4	16730.5	
Length Wtd. (ft)	100.00	Wetted Per. (ft)	5.16	49.83	
Min Ch El (ft)	142.60	Shear (lb/sq ft)	0.00	0.03	
Alpha	1.01	Stream Power (lb/ft s)	0.00	0.05	
Frctn Loss (ft)	0.02	Cum Volume (acre-ft)	0.38	15.35	0.65
C & E Loss (ft)	0.00	Cum SA (acres)	0.47	6.45	0.80

Warning: Divided flow computed for this cross-section.

CROSS SECTION

RIVER: French Stream
REACH: 1 RS: 88

INPUT
Description: 88+00
Station Elevation Data num= 8

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-200	153.2	-185	154.3	-30	150	-10	142.4	10	142.4
47	152	200	150.5	300	152				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-200	.05	-30	.03	47	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
-30	47	100	100	100	.1	.3

CROSS SECTION OUTPUT Profile #100

E.G. Elev (ft)	147.21	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.03	Wt. n-Val.		0.030	
W.S. Elev (ft)	147.18	Reach Len. (ft)	100.00	100.00	100.00
Crit W.S. (ft)		Flow Area (sq ft)		169.81	
E.G. Slope (ft/ft)	0.000143	Area (sq ft)		169.81	
Q Total (cfs)	220.00	Flow (cfs)		220.00	
Top Width (ft)	51.02	Top Width (ft)		51.02	
Vel Total (ft/s)	1.30	Avg. Vel. (ft/s)		1.30	
Max Chl Dpth (ft)	4.78	Hydr. Depth (ft)		3.33	
Conv. Total (cfs)	18394.8	Conv. (cfs)		18394.8	
Length Wtd. (ft)	100.00	Wetted Per. (ft)		52.51	
Min Ch El (ft)	142.40	Shear (lb/sq ft)		0.03	
Alpha	1.00	Stream Power (lb/ft s)		0.04	
Frctn Loss (ft)	0.01	Cum Volume (acre-ft)	0.38	14.98	0.65
C & E Loss (ft)	0.00	Cum SA (acres)	0.46	6.33	0.80

CROSS SECTION

RIVER: French Stream
REACH: 1 RS: 87

INPUT
Description: 87+00
Station Elevation Data num= 10

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-200	154.4	-190	153	-35	152	-10	142	10	142
28	150	58	150.7	150	150	175	150.5	200	150.8

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-200	.05	-35	.03	28	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
-35	28	64	64	64	.1	.3

CROSS SECTION OUTPUT Profile #100

E.G. Elev (ft)	147.19	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.03	Wt. n-Val.		0.030	
W.S. Elev (ft)	147.17	Reach Len. (ft)	64.00	64.00	64.00
Crit W.S. (ft)		Flow Area (sq ft)		166.78	
E.G. Slope (ft/ft)	0.000130	Area (sq ft)		166.78	
Q Total (cfs)	220.00	Flow (cfs)		220.00	
Top Width (ft)	44.55	Top Width (ft)		44.55	
Vel Total (ft/s)	1.32	Avg. Vel. (ft/s)		1.32	
Max Chl Dpth (ft)	5.17	Hydr. Depth (ft)		3.74	
Conv. Total (cfs)	19317.1	Conv. (cfs)		19317.1	
Length Wtd. (ft)	64.00	Wetted Per. (ft)		46.64	
Min Ch El (ft)	142.00	Shear (lb/sq ft)		0.03	
Alpha	1.00	Stream Power (lb/ft s)		0.04	
Frctn Loss (ft)	0.01	Cum Volume (acre-ft)	0.38	14.59	0.65
C & E Loss (ft)	0.00	Cum SA (acres)	0.46	6.22	0.80

CROSS SECTION

RIVER: French Stream
REACH: 1 RS: 86.36

INPUT
Description: 86+36
Station Elevation Data num= 7

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-200	154.1	-175	153	-35	151.8	-10	141.8	10	141.8
31	151.2	200	150						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-200	.05	-35	.03	31	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
-35	31	126	126	126	.1	.3

CROSS SECTION OUTPUT Profile #100

E.G. Elev (ft)	147.19	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.02	Wt. n-Val.		0.030	
W.S. Elev (ft)	147.16	Reach Len. (ft)	126.00	126.00	126.00
Crit W.S. (ft)	143.26	Flow Area (sq ft)		175.28	
E.G. Slope (ft/ft)	0.000113	Area (sq ft)		175.28	
Q Total (cfs)	220.00	Flow (cfs)		220.00	
Top Width (ft)	45.38	Top Width (ft)		45.38	
Vel Total (ft/s)	1.26	Avg. Vel. (ft/s)		1.26	
Max Chl Dpth (ft)	5.36	Hydr. Depth (ft)		3.86	
Conv. Total (cfs)	20714.5	Conv. (cfs)		20714.5	
Length Wtd. (ft)	126.00	Wetted Per. (ft)		47.56	
Min Ch El (ft)	141.80	Shear (lb/sq ft)		0.03	
Alpha	1.00	Stream Power (lb/ft s)		0.03	
Frctn Loss (ft)		Cum Volume (acre-ft)	0.38	14.34	0.65
C & E Loss (ft)		Cum SA (acres)	0.46	6.16	0.80

CULVERT

RIVER: French Stream
REACH: 1 RS: 85.73

INPUT
Description:
Distance from Upstream XS = 3
Deck/Roadway Width = 26
Weir Coefficient = 2.6
Upstream Deck/Roadway Coordinates
num= 2

Sta Hi Cord	Lo Cord	Sta Hi Cord	Lo Cord
-35	151.8	141.8	31	151.2	141.8

Upstream Bridge Cross Section Data
Station Elevation Data num= 7

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-200	154.1	-175	153	-35	151.8	-10	141.8	10	141.8
31	151.2	200	150						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-200	.05	-35	.03	31	.05

Bank Sta: Left	Right	Coeff Contr.	Expan.
-35	31	.1	.3

Downstream Deck/Roadway Coordinates
num= 2

Sta Hi Cord	Lo Cord	Sta Hi Cord	Lo Cord
-28	149	141.6	25	147.33	141.6

Downstream Bridge Cross Section Data
Station Elevation Data num= 10

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-200	153	-25	150	-20	147.767	-10	141.6	10	141.6
20	147	25	147.333	50	149	175	151	200	151

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-200	.05	-25	.03	25	.05

Bank Sta: Left	Right	Coeff Contr.	Expan.
-25	25	.1	.3

Upstream Embankment side slope = 0 horiz. to 1.0 vertical
Downstream Embankment side slope = 0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow = .95
Elevation at which weir flow begins =
Energy head used in spillway design =
Spillway height used in design =
Weir crest shape = Broad Crested

Number of Culverts = 1

Culvert Name	Shape	Rise	Span
Culvert #1	Circular	4	

FHWA Chart # 1 - Concrete Pipe Culvert
FHWA Scale # 1 - Square edge entrance with headwall
Solution Criteria = Highest U.S. EG

Culvert	Upstrm Dist	Length	Top n	Bottom n	Depth Blocked	Entrance Loss Coef	Exit Loss Coef
	5	120	.013	.013	0	.1	1

Number of Barrels = 2
Upstream Elevation = 141.8
Centerline Stations

Sta.	Sta.
-5	5

Downstream Elevation = 141.6
Centerline Stations

Sta.	Sta.
-5	5

CULVERT OUTPUT Profile #100 Culv Group: Culvert #1

Q Culv Group (cfs)	220.00	Culv Full Len (ft)	18.45
# Barrels	2	Culv Vel US (ft/s)	8.75
Q Barrel (cfs)	110.00	Culv Vel DS (ft/s)	10.30
E.G. US. (ft)	147.19	Culv Inv El Up (ft)	141.80
W.S. US. (ft)	147.16	Culv Inv El Dn (ft)	141.60
E.G. DS (ft)	144.18	Culv Frctn Ls (ft)	0.65
W.S. DS (ft)	143.94	Culv Exit Loss (ft)	2.24
Delta EG (ft)	3.01	Culv Entr Loss (ft)	0.12
Delta WS (ft)	3.22	Q Weir (cfs)	
E.G. IC (ft)	147.53	Weir Sta Lft (ft)	
E.G. OC (ft)	147.19	Weir Sta Rgt (ft)	
Culvert Control	Outlet	Weir Submerg	
Culv WS Inlet (ft)	145.80	Weir Max Depth (ft)	
Culv WS Outlet (ft)	144.77	Weir Avg Depth (ft)	
Culv Nml Depth (ft)	4.00	Weir Flow Area (sq ft)	
Culv Crt Depth (ft)	3.17	Min El Weir Flow (ft)	150.01

Note: The normal depth exceeds the height of the culvert. The program assumes that the normal depth is equal to the height of the culvert.
Note: The culvert inlet is submerged and the culvert flows full over part or all of its length. Therefore, the culvert inlet equations are not valid and the supercritical result has been discarded. The outlet answer will be used.

CROSS SECTION

RIVER: French Stream
REACH: 1 RS: 85.10

INPUT
Description: 85+10
Station Elevation Data num= 10

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-200	153	-25	150	-20	147.767	-10	141.6	10	141.6
20	147	25	147.333	50	149	175	151	200	151

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-200	.05	-25	.03	25	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
-25	25	10	10	10	.1	.3

CROSS SECTION OUTPUT Profile #100

E.G. Elev (ft)	144.18	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.24	Wt. n-Val.		0.030	
W.S. Elev (ft)	143.94	Reach Len. (ft)	10.00	10.00	10.00
Crit W.S. (ft)		Flow Area (sq ft)		56.37	
E.G. Slope (ft/ft)	0.002605	Area (sq ft)		56.37	
Q Total (cfs)	220.00	Flow (cfs)		220.00	
Top Width (ft)	28.14	Top Width (ft)		28.14	
Vel Total (ft/s)	3.90	Avg. Vel. (ft/s)		3.90	
Max Chl Dpth (ft)	2.34	Hydr. Depth (ft)		2.00	
Conv. Total (cfs)	4310.2	Conv. (cfs)		4310.2	
Length Wtd. (ft)	10.00	Wetted Per. (ft)		29.39	
Min Ch El (ft)	141.60	Shear (lb/sq ft)		0.31	
Alpha	1.00	Stream Power (lb/ft s)		1.22	
Frctn Loss (ft)	0.02	Cum Volume (acre-ft)	0.38	14.01	0.65
C & E Loss (ft)	0.02	Cum SA (acres)	0.46	6.05	0.80

CROSS SECTION

RIVER: French Stream
REACH: 1 RS: 85

INPUT
Description: 85+00
Station Elevation Data num= 11

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev

```
*******************************************************************************
    -200     153    -150   151.5     -65     155     -25 149.018     -22     149
     -10   141.4      10   141.4      25  145.52      55   149.5     165     151
     200     151

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
    -200     .05     -25     .03      55     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -25      55              100     100     100              .1       .3

CROSS SECTION OUTPUT  Profile #100
*********************************************************************************************
* E.G. Elev (ft)         *  144.13  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.16  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  143.98  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   68.84  *          *
* E.G. Slope (ft/ft)     *0.001660  * Area (sq ft)           *          *   68.84  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   33.45  * Top Width (ft)         *          *   33.45  *          *
* Vel Total (ft/s)       *    3.20  * Avg. Vel. (ft/s)       *          *    3.20  *          *
* Max Chl Dpth (ft)      *    2.58  * Hydr. Depth (ft)       *          *    2.06  *          *
* Conv. Total (cfs)      *  5399.5  * Conv. (cfs)            *          *  5399.5  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   34.54  *          *
* Min Ch El (ft)         *  141.40  * Shear (lb/sq ft)       *          *    0.21  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    0.66  *          *
* Frctn Loss (ft)        *    0.18  * Cum Volume (acre-ft)   *    0.38  *   13.99  *    0.65  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)         *    0.46  *    6.04  *    0.80  *
*********************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 84

INPUT
Description: 84+00
Station Elevation Data    num=       7
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200     162     -50   153.5     -25   150.1     -10   141.2      10   141.2
      25     151     200     151

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
    -200     .05     -25     .03      25     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -25      25              100     100     100              .1       .3

CROSS SECTION OUTPUT  Profile #100
*********************************************************************************************
* E.G. Elev (ft)         *  143.95  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.20  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  143.75  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   61.49  *          *
* E.G. Slope (ft/ft)     *0.001974  * Area (sq ft)           *          *   61.49  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   28.20  * Top Width (ft)         *          *   28.20  *          *
* Vel Total (ft/s)       *    3.58  * Avg. Vel. (ft/s)       *          *    3.58  *          *
* Max Chl Dpth (ft)      *    2.55  * Hydr. Depth (ft)       *          *    2.18  *          *
* Conv. Total (cfs)      *  4951.5  * Conv. (cfs)            *          *  4951.5  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   29.66  *          *
* Min Ch El (ft)         *  141.20  * Shear (lb/sq ft)       *          *    0.26  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    0.91  *          *
* Frctn Loss (ft)        *    0.21  * Cum Volume (acre-ft)   *    0.38  *   13.84  *    0.65  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)         *    0.46  *    5.97  *    0.80  *
*********************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 83
```

```
INPUT
Description: 83+00
Station Elevation Data    num=       8
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200     162     -50     155     -25     153     -20     151     -10     141
      10     141      20   148.8     200  150.95

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -20     .03      20     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -20      20              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
*********************************************************************************************
* E.G. Elev (ft)         *  143.74  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.23  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  143.51  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   57.30  *          *
* E.G. Slope (ft/ft)     *0.002271  * Area (sq ft)           *          *   57.30  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)              *          *  220.00  *          *
* Top Width (ft)         *   25.72  * Top Width (ft)          *          *   25.72  *          *
* Vel Total (ft/s)       *    3.84  * Avg. Vel. (ft/s)        *          *    3.84  *          *
* Max Chl Dpth (ft)      *    2.51  * Hydr. Depth (ft)        *          *    2.23  *          *
* Conv. Total (cfs)      *  4616.7  * Conv. (cfs)             *          *  4616.7  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)        *          *   27.62  *          *
* Min Ch El (ft)         *  141.00  * Shear (lb/sq ft)        *          *    0.29  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s)  *          *    1.13  *          *
* Frctn Loss (ft)        *    0.21  * Cum Volume (acre-ft)    *    0.38  *   13.71  *    0.65  *
* C & E Loss (ft)        *    0.01  * Cum SA (acres)          *    0.46  *    5.91  *    0.80  *
*********************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 82

INPUT
Description: 82+00
Station Elevation Data    num=       8
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200     161     -49     155     -32     150     -25     149     -10   140.8
      10   140.8      25     149     200     151

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -25     .03      25     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -25      25              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
*********************************************************************************************
* E.G. Elev (ft)         *  143.51  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.20  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  143.32  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   61.92  *          *
* E.G. Slope (ft/ft)     *0.002001  * Area (sq ft)           *          *   61.92  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)              *          *  220.00  *          *
* Top Width (ft)         *   29.21  * Top Width (ft)          *          *   29.21  *          *
* Vel Total (ft/s)       *    3.55  * Avg. Vel. (ft/s)        *          *    3.55  *          *
* Max Chl Dpth (ft)      *    2.52  * Hydr. Depth (ft)        *          *    2.12  *          *
* Conv. Total (cfs)      *  4917.7  * Conv. (cfs)             *          *  4917.7  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)        *          *   30.49  *          *
* Min Ch El (ft)         *  140.80  * Shear (lb/sq ft)        *          *    0.25  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s)  *          *    0.90  *          *
* Frctn Loss (ft)        *    0.19  * Cum Volume (acre-ft)    *    0.38  *   13.57  *    0.65  *
* C & E Loss (ft)        *    0.01  * Cum SA (acres)          *    0.46  *    5.85  *    0.80  *
*********************************************************************************************

CROSS SECTION
```

```
RIVER: French Stream
REACH: 1                  RS: 81

INPUT
Description: 81+00
Station Elevation Data    num=       7
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
    -200     161     -50     155     -40     150     -10   140.6      10   140.6
      25     150     200     151

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -40     .03      25     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -40      25              100     100     100              .1       .3

CROSS SECTION OUTPUT  Profile #100
*************************************************************************************************
* E.G. Elev (ft)         *  143.32  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.17  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  143.15  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   66.44  *          *
* E.G. Slope (ft/ft)     *0.001780  * Area (sq ft)           *          *   66.44  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   32.19  * Top Width (ft)         *          *   32.19  *          *
* Vel Total (ft/s)       *    3.31  * Avg. Vel. (ft/s)       *          *    3.31  *          *
* Max Chl Dpth (ft)      *    2.55  * Hydr. Depth (ft)       *          *    2.06  *          *
* Conv. Total (cfs)      *  5214.0  * Conv. (cfs)            *          *  5214.0  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   33.31  *          *
* Min Ch El (ft)         *  140.60  * Shear (lb/sq ft)       *          *    0.22  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    0.73  *          *
* Frctn Loss (ft)        *    0.17  * Cum Volume (acre-ft)   *    0.38  *   13.42  *    0.65  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)         *    0.46  *    5.78  *    0.80  *
*************************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 80

INPUT
Description: 80+00
Station Elevation Data    num=       7
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
    -200     160     -40     154   -37.5     150     -10   140.4      10   140.4
      30     150     200     151

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05   -37.5     .03      30     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
         -37.5      30              100     100     100              .1       .3

CROSS SECTION OUTPUT  Profile #100
*************************************************************************************************
* E.G. Elev (ft)         *  143.14  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.16  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  142.98  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   68.03  *          *
* E.G. Slope (ft/ft)     *0.001676  * Area (sq ft)           *          *   68.03  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   32.76  * Top Width (ft)         *          *   32.76  *          *
* Vel Total (ft/s)       *    3.23  * Avg. Vel. (ft/s)       *          *    3.23  *          *
* Max Chl Dpth (ft)      *    2.58  * Hydr. Depth (ft)       *          *    2.08  *          *
* Conv. Total (cfs)      *  5373.4  * Conv. (cfs)            *          *  5373.4  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   33.78  *          *
* Min Ch El (ft)         *  140.40  * Shear (lb/sq ft)       *          *    0.21  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    0.68  *          *
* Frctn Loss (ft)        *    0.16  * Cum Volume (acre-ft)   *    0.38  *   13.27  *    0.65  *
* C & E Loss (ft)        *    0.01  * Cum SA (acres)         *    0.46  *    5.70  *    0.80  *
*************************************************************************************************
```

CROSS SECTION

RIVER: French Stream
REACH: 1 RS: 79

INPUT
Description: 79+00
Station Elevation Data num= 10

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-200	160	-180	160.5	-125	158	-75	149	-30	147
-10	140.2	10	140.2	31	148	120	151	200	150.4

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-200	.05	-30	.03	31	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
-30	31	100	100	100	.1	.3

CROSS SECTION OUTPUT Profile #100

E.G. Elev (ft)	142.98	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.14	Wt. n-Val.		0.030	
W.S. Elev (ft)	142.83	Reach Len. (ft)	100.00	100.00	100.00
Crit W.S. (ft)		Flow Area (sq ft)		72.24	
E.G. Slope (ft/ft)	0.001480	Area (sq ft)		72.24	
Q Total (cfs)	220.00	Flow (cfs)		220.00	
Top Width (ft)	34.84	Top Width (ft)		34.84	
Vel Total (ft/s)	3.05	Avg. Vel. (ft/s)		3.05	
Max Chl Dpth (ft)	2.63	Hydr. Depth (ft)		2.07	
Conv. Total (cfs)	5718.4	Conv. (cfs)		5718.4	
Length Wtd. (ft)	100.00	Wetted Per. (ft)		35.75	
Min Ch El (ft)	140.20	Shear (lb/sq ft)		0.19	
Alpha	1.00	Stream Power (lb/ft s)		0.57	
Frctn Loss (ft)	0.13	Cum Volume (acre-ft)	0.38	13.11	0.65
C & E Loss (ft)	0.01	Cum SA (acres)	0.46	5.63	0.80

CROSS SECTION

RIVER: French Stream
REACH: 1 RS: 78

INPUT
Description: 78+00
Station Elevation Data num= 9

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-200	150	-130	148.9	-70	152.7	-28	146.5	-10	140
10	140	30	144.489	60	148	200	149.3		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-200	.05	-28	.03	30	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
-28	30	100	100	100	.1	.3

CROSS SECTION OUTPUT Profile #100

E.G. Elev (ft)	142.84	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.11	Wt. n-Val.		0.030	
W.S. Elev (ft)	142.72	Reach Len. (ft)	100.00	100.00	100.00
Crit W.S. (ft)		Flow Area (sq ft)		81.28	
E.G. Slope (ft/ft)	0.001178	Area (sq ft)		81.28	
Q Total (cfs)	220.00	Flow (cfs)		220.00	
Top Width (ft)	39.68	Top Width (ft)		39.68	
Vel Total (ft/s)	2.71	Avg. Vel. (ft/s)		2.71	
Max Chl Dpth (ft)	2.72	Hydr. Depth (ft)		2.05	
Conv. Total (cfs)	6410.0	Conv. (cfs)		6410.0	
Length Wtd. (ft)	100.00	Wetted Per. (ft)		40.46	
Min Ch El (ft)	140.00	Shear (lb/sq ft)		0.15	
Alpha	1.00	Stream Power (lb/ft s)		0.40	
Frctn Loss (ft)	0.10	Cum Volume (acre-ft)	0.38	12.93	0.65

```
* C & E Loss (ft)        *    0.01  * Cum SA (acres)         *    0.46  *    5.54  *    0.80  *
*******************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 77

INPUT
Description: 77+00
Station Elevation Data    num=       9
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200   147.9    -146     149     -35   146.7     -10   139.8      10   139.8
      35 143.745      75 146.435     128     150     200     150

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
    -200     .05     -35     .03      75     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -35      75              100     100     100              .1       .3

CROSS SECTION OUTPUT  Profile #100
*******************************************************************************************
* E.G. Elev (ft)         *  142.73  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.08  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  142.65  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   97.45  *          *
* E.G. Slope (ft/ft)     *0.000831  * Area (sq ft)           *          *   97.45  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)              *          *  220.00  *          *
* Top Width (ft)         *   48.39  * Top Width (ft)          *          *   48.39  *          *
* Vel Total (ft/s)       *    2.26  * Avg. Vel. (ft/s)        *          *    2.26  *          *
* Max Chl Dpth (ft)      *    2.85  * Hydr. Depth (ft)        *          *    2.01  *          *
* Conv. Total (cfs)      *  7634.0  * Conv. (cfs)             *          *  7634.0  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)        *          *   49.00  *          *
* Min Ch El (ft)         *  139.80  * Shear (lb/sq ft)        *          *    0.10  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s)   *          *    0.23  *          *
* Frctn Loss (ft)        *    0.09  * Cum Volume (acre-ft)     *    0.38  *   12.72  *    0.65  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)           *    0.46  *    5.44  *    0.80  *
*******************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 76

INPUT
Description: 76+00
Station Elevation Data    num=       7
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200   147.6     -82     149     -25     147     -10   139.6      10   139.6
      55     150     200     150

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
    -200     .05     -25     .03      55     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -25      55              100     100     100              .1       .3

CROSS SECTION OUTPUT  Profile #100
*******************************************************************************************
* E.G. Elev (ft)         *  142.64  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.10  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  142.54  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   86.15  *          *
* E.G. Slope (ft/ft)     *0.000946  * Area (sq ft)           *          *   86.15  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)              *          *  220.00  *          *
* Top Width (ft)         *   38.66  * Top Width (ft)          *          *   38.66  *          *
* Vel Total (ft/s)       *    2.55  * Avg. Vel. (ft/s)        *          *    2.55  *          *
* Max Chl Dpth (ft)      *    2.94  * Hydr. Depth (ft)        *          *    2.23  *          *
* Conv. Total (cfs)      *  7154.3  * Conv. (cfs)             *          *  7154.3  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)        *          *   39.68  *          *
```

```
* Min Ch El (ft)         *  139.60  * Shear (lb/sq ft)       *          *    0.13  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    0.33  *          *
* Frctn Loss (ft)        *    0.09  * Cum Volume (acre-ft)   *    0.38  *   12.51  *    0.65  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)         *    0.46  *    5.34  *    0.80  *
*****************************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 75

INPUT
Description: 75+00
Station Elevation Data    num=       7
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
    -200     148    -125   149.9     -37     148     -10   139.4      10   139.4
      23     147     200   149.4

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -37     .03      23     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -37      23              100     100     100              .1       .3

CROSS SECTION OUTPUT  Profile #100
*****************************************************************************************************
* E.G. Elev (ft)         *  142.54  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.11  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  142.43  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   83.01  *          *
* E.G. Slope (ft/ft)     *0.000940  * Area (sq ft)           *          *   83.01  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)              *          *  220.00  *          *
* Top Width (ft)         *   34.72  * Top Width (ft)          *          *   34.72  *          *
* Vel Total (ft/s)       *    2.65  * Avg. Vel. (ft/s)        *          *    2.65  *          *
* Max Chl Dpth (ft)      *    3.03  * Hydr. Depth (ft)        *          *    2.39  *          *
* Conv. Total (cfs)      *  7175.2  * Conv. (cfs)             *          *  7175.2  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)        *          *   36.01  *          *
* Min Ch El (ft)         *  139.40  * Shear (lb/sq ft)        *          *    0.14  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    0.36  *          *
* Frctn Loss (ft)        *    0.09  * Cum Volume (acre-ft)   *    0.38  *   12.32  *    0.65  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)         *    0.46  *    5.26  *    0.80  *
*****************************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 74

INPUT
Description: 74+00
Station Elevation Data    num=       9
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
    -200     148    -125   149.5     -35     148     -10   139.2      10   139.2
      15   145.5      30   145.5      50     147     200   148.2

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -35     .03      15     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -35      15              100     100     100              .1       .3

CROSS SECTION OUTPUT  Profile #100
*****************************************************************************************************
* E.G. Elev (ft)         *  142.45  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.12  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  142.33  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   80.48  *          *
* E.G. Slope (ft/ft)     *0.000944  * Area (sq ft)           *          *   80.48  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)              *          *  220.00  *          *
* Top Width (ft)         *   31.38  * Top Width (ft)          *          *   31.38  *          *
* Vel Total (ft/s)       *    2.73  * Avg. Vel. (ft/s)        *          *    2.73  *          *
```

```
* Max Chl Dpth (ft)      *    3.13  * Hydr. Depth (ft)       *          *    2.56  *          *
* Conv. Total (cfs)      *  7159.6  * Conv. (cfs)            *          *  7159.6  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   33.43  *          *
* Min Ch El (ft)         *  139.20  * Shear (lb/sq ft)       *          *    0.14  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    0.39  *          *
* Frctn Loss (ft)        *    0.09  * Cum Volume (acre-ft)   *    0.38  *   12.13  *    0.65  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)         *    0.46  *    5.18  *    0.80  *
*****************************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 73

INPUT
Description: 73+00
Station Elevation Data    num=      10
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
    -200     147    -143     151    -125     151    -100   147.9     -30     148
     -10     139      10     139      13     144     100     148     200   148.3

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -30     .03      13     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -30      13              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
*****************************************************************************************************
* E.G. Elev (ft)         *  142.36  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.12  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  142.24  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   79.51  *          *
* E.G. Slope (ft/ft)     *0.000914  * Area (sq ft)           *          *   79.51  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   29.13  * Top Width (ft)         *          *   29.13  *          *
* Vel Total (ft/s)       *    2.77  * Avg. Vel. (ft/s)       *          *    2.77  *          *
* Max Chl Dpth (ft)      *    3.24  * Hydr. Depth (ft)       *          *    2.73  *          *
* Conv. Total (cfs)      *  7275.5  * Conv. (cfs)            *          *  7275.5  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   31.66  *          *
* Min Ch El (ft)         *  139.00  * Shear (lb/sq ft)       *          *    0.14  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    0.40  *          *
* Frctn Loss (ft)        *    0.06  * Cum Volume (acre-ft)   *    0.38  *   11.95  *    0.65  *
* C & E Loss (ft)        *    0.02  * Cum SA (acres)         *    0.46  *    5.11  *    0.80  *
*****************************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 72

INPUT
Description: 72+00
Station Elevation Data    num=       8
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
    -200     149     -50   148.3     -25   143.3     -10   138.8      10   138.8
      25  141.95      80     148     200     148

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -25     .03      25     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -25      25              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
*****************************************************************************************************
* E.G. Elev (ft)         *  142.27  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.06  * Wt. n-Val.             *          *   0.030  *   0.050  *
* W.S. Elev (ft)         *  142.22  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *  115.48  *    0.33  *
* E.G. Slope (ft/ft)     *0.000449  * Area (sq ft)           *          *  115.48  *    0.33  *
```

```
* Q Total (cfs)          *  220.00  * Flow (cfs)              *          *  219.95  *    0.05  *
* Top Width (ft)         *   48.83  * Top Width (ft)          *          *   46.39  *    2.44  *
* Vel Total (ft/s)       *    1.90  * Avg. Vel. (ft/s)        *          *    1.90  *    0.16  *
* Max Chl Dpth (ft)      *    3.42  * Hydr. Depth (ft)        *          *    2.49  *    0.13  *
* Conv. Total (cfs)      * 10384.4  * Conv. (cfs)             *          * 10381.9  *     2.5  *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)        *          *   47.22  *    2.45  *
* Min Ch El (ft)         *  138.80  * Shear (lb/sq ft)        *          *    0.07  *    0.00  *
* Alpha                  *    1.00  * Stream Power (lb/ft s)   *          *    0.13  *    0.00  *
* Frctn Loss (ft)        *    0.04  * Cum Volume (acre-ft)    *    0.38  *   11.72  *    0.65  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)          *    0.46  *    5.02  *    0.80  *
*****************************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 71

INPUT
Description: 71+00
Station Elevation Data    num=       8
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200   151.3   -62.5     150     -25 143.119     -10   138.6      10   138.6
      25 142.414     100   157.5     200   157.9

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
*********************************************
    -200     .05     -25     .03      25     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
            -25      25              100     100     100              .1       .3

CROSS SECTION OUTPUT  Profile #100
*****************************************************************************************************
* E.G. Elev (ft)         *  142.23  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.05  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  142.18  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *  117.91  *          *
* E.G. Slope (ft/ft)     *0.000415  * Area (sq ft)           *          *  117.91  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)              *          *  220.00  *          *
* Top Width (ft)         *   45.94  * Top Width (ft)          *          *   45.94  *          *
* Vel Total (ft/s)       *    1.87  * Avg. Vel. (ft/s)        *          *    1.87  *          *
* Max Chl Dpth (ft)      *    3.58  * Hydr. Depth (ft)        *          *    2.57  *          *
* Conv. Total (cfs)      * 10796.4  * Conv. (cfs)             *          * 10796.4  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)        *          *   46.91  *          *
* Min Ch El (ft)         *  138.60  * Shear (lb/sq ft)        *          *    0.07  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s)   *          *    0.12  *          *
* Frctn Loss (ft)        *    0.03  * Cum Volume (acre-ft)    *    0.38  *   11.46  *    0.65  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)          *    0.46  *    4.92  *    0.80  *
*****************************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 70

INPUT
Description: 70+00
Station Elevation Data    num=       9
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200   151.2    -140   152.7     -25 141.465     -10   138.4      10   138.4
      25 142.204      58   147.8     120   149.9     200   149.5

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
*********************************************
    -200     .05     -25     .03      25     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
            -25      25              100     100     100              .1       .3

CROSS SECTION OUTPUT  Profile #100
*****************************************************************************************************
* E.G. Elev (ft)         *  142.19  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.04  * Wt. n-Val.             *   0.050  *   0.030  *          *
```

```
* W.S. Elev (ft)         *  142.15  * Reach Len. (ft)         *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)       *    2.42  *  136.10  *          *
* E.G. Slope (ft/ft)     *0.000283  * Area (sq ft)            *    2.42  *  136.10  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)              *    0.59  *  219.41  *          *
* Top Width (ft)         *   56.83  * Top Width (ft)          *    7.03  *   49.80  *          *
* Vel Total (ft/s)       *    1.59  * Avg. Vel. (ft/s)        *    0.24  *    1.61  *          *
* Max Chl Dpth (ft)      *    3.75  * Hydr. Depth (ft)        *    0.34  *    2.73  *          *
* Conv. Total (cfs)      * 13076.9  * Conv. (cfs)             *    35.1  * 13041.8  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)        *    7.07  *   50.57  *          *
* Min Ch El (ft)         *  138.40  * Shear (lb/sq ft)        *    0.01  *    0.05  *          *
* Alpha                  *    1.03  * Stream Power (lb/ft s)   *    0.00  *    0.08  *          *
* Frctn Loss (ft)        *    0.03  * Cum Volume (acre-ft)    *    0.37  *   11.17  *    0.65  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)          *    0.45  *    4.81  *    0.80  *
*****************************************************************************************************
```

CROSS SECTION

RIVER: French Stream
REACH: 1 RS: 69

INPUT
Description: 69+00
Station Elevation Data num= 9

```
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
    -200     151     -75   150.7     -25 142.208     -10   138.2      10   138.2
      25 146.129      37     150     100   150.9     200     151
```

Manning's n Values num= 3

```
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
    -200     .05     -25     .03      25     .05
```

```
Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -25      25              109     109     109             .1       .3
```

CROSS SECTION OUTPUT Profile #100

```
*****************************************************************************************************
* E.G. Elev (ft)         *  142.16  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.05  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  142.11  * Reach Len. (ft)        *  109.00  *  109.00  *  109.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *  121.23  *          *
* E.G. Slope (ft/ft)     *0.000342  * Area (sq ft)           *          *  121.23  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)              *          *  220.00  *          *
* Top Width (ft)         *   42.03  * Top Width (ft)          *          *   42.03  *          *
* Vel Total (ft/s)       *    1.81  * Avg. Vel. (ft/s)        *          *    1.81  *          *
* Max Chl Dpth (ft)      *    3.91  * Hydr. Depth (ft)        *          *    2.88  *          *
* Conv. Total (cfs)      * 11890.4  * Conv. (cfs)             *          * 11890.4  *          *
* Length Wtd. (ft)       *  109.00  * Wetted Per. (ft)        *          *   43.51  *          *
* Min Ch El (ft)         *  138.20  * Shear (lb/sq ft)        *          *    0.06  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s)   *          *    0.11  *          *
* Frctn Loss (ft)        *    0.03  * Cum Volume (acre-ft)    *    0.37  *   10.87  *    0.65  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)          *    0.44  *    4.70  *    0.80  *
*****************************************************************************************************
```

CROSS SECTION

RIVER: French Stream
REACH: 1 RS: 67.91

INPUT
Description: 67+91
Station Elevation Data num= 11

```
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
    -200     151     -82     152     -43     150     -40 148.909     -10     138
       0     138      10     138      20   140.8      40 149.409      43   150.7
     200     151
```

Manning's n Values num= 3

```
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
    -200     .05     -40     .03      40     .05
```

```
Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -40      40             1200    1200    1200             .1       .3
```

CROSS SECTION OUTPUT Profile #100

E.G. Elev (ft)	142.12	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.04	Wt. n-Val.		0.030	
W.S. Elev (ft)	142.08	Reach Len. (ft)	1200.00	1200.00	1200.00
Crit W.S. (ft)	139.43	Flow Area (sq ft)		133.31	
E.G. Slope (ft/ft)	0.000265	Area (sq ft)		133.31	
Q Total (cfs)	220.00	Flow (cfs)		220.00	
Top Width (ft)	44.21	Top Width (ft)		44.21	
Vel Total (ft/s)	1.65	Avg. Vel. (ft/s)		1.65	
Max Chl Dpth (ft)	4.08	Hydr. Depth (ft)		3.02	
Conv. Total (cfs)	13504.5	Conv. (cfs)		13504.5	
Length Wtd. (ft)	1200.00	Wetted Per. (ft)		45.58	
Min Ch El (ft)	138.00	Shear (lb/sq ft)		0.05	
Alpha	1.00	Stream Power (lb/ft s)		0.08	
Frctn Loss (ft)		Cum Volume (acre-ft)	0.37	10.55	0.65
C & E Loss (ft)		Cum SA (acres)	0.44	4.59	0.80

CULVERT

RIVER: French Stream
REACH: 1 RS: 61.91

INPUT
Description:
Distance from Upstream XS = .1
Deck/Roadway Width = 1199
Weir Coefficient = 2.6
Upstream Deck/Roadway Coordinates
num= 2

Sta Hi Cord	Lo Cord	Sta Hi Cord	Lo Cord
-43	150	138	43
150.7	138		

Upstream Bridge Cross Section Data
Station Elevation Data num= 11

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-200	151	-82	152	-43	150	-40	148.909	-10	138
0	138	10	138	20	140.8	40	149.409	43	150.7
200	151								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-200	.05	-40	.03	40	.05

Bank Sta: Left Right Coeff Contr. Expan.
-40 40 .1 .3

Downstream Deck/Roadway Coordinates
num= 2

Sta Hi Cord	Lo Cord	Sta Hi Cord	Lo Cord
-25	145	135.7	25
145	135.7		

Downstream Bridge Cross Section Data
Station Elevation Data num= 10

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-200	147	-25	145	-10	138	-10	135.7	0	135.7
10	135.7	10	138	25	145	60	148	200	150.5

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-200	.05	-25	.03	25	.05

Bank Sta: Left Right Coeff Contr. Expan.
-25 25 .1 .3

Upstream Embankment side slope = 0 horiz. to 1.0 vertical
Downstream Embankment side slope = 0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow = .95
Elevation at which weir flow begins =
Energy head used in spillway design =
Spillway height used in design =

Weir crest shape = Broad Crested

Number of Culverts = 1

Culvert Name	Shape	Rise	Span
Culvert #1	Circular	6	

FHWA Chart # 1 - Concrete Pipe Culvert
FHWA Scale # 1 - Square edge entrance with headwall
Solution Criteria = Highest U.S. EG

Culvert	Upstrm Dist	Length	Top n	Bottom n	Depth Blocked	Entrance Loss Coef	Exit Loss Coef
	1	1199	.013	.013	0	.1	1

Number of Barrels = 2
Upstream Elevation = 138
Centerline Stations

Sta.	Sta.
-5	5

Downstream Elevation = 135.7
Centerline Stations

Sta.	Sta.
-5	5

CULVERT OUTPUT Profile #100 Culv Group: Culvert #1

Q Culv Group (cfs)	220.00	Culv Full Len (ft)	
# Barrels	2	Culv Vel US (ft/s)	6.83
Q Barrel (cfs)	110.00	Culv Vel DS (ft/s)	8.39
E.G. US. (ft)	142.13	Culv Inv El Up (ft)	138.00
W.S. US. (ft)	142.08	Culv Inv El Dn (ft)	135.70
E.G. DS (ft)	138.32	Culv Frctn Ls (ft)	2.43
W.S. DS (ft)	137.95	Culv Exit Loss (ft)	1.30
Delta EG (ft)	3.80	Culv Entr Loss (ft)	0.07
Delta WS (ft)	4.13	Q Weir (cfs)	
E.G. IC (ft)	142.06	Weir Sta Lft (ft)	
E.G. OC (ft)	142.13	Weir Sta Rgt (ft)	
Culvert Control	Outlet	Weir Submerg	
Culv WS Inlet (ft)	141.33	Weir Max Depth (ft)	
Culv WS Outlet (ft)	138.53	Weir Avg Depth (ft)	
Culv Nml Depth (ft)	3.33	Weir Flow Area (sq ft)	
Culv Crt Depth (ft)	2.83	Min El Weir Flow (ft)	150.01

Note: During subcritical analysis, the culvert direct step method, the solution went to normal depth.

CROSS SECTION

RIVER: French Stream
REACH: 1 RS: 55.91

INPUT
Description: 55+91
Station Elevation Data num= 10

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-200	147	-25	145	-10	138	-10	135.7	0	135.7
10	135.7	10	138	25	145	60	148	200	150.5

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-200	.05	-25	.03	25	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
-25	25	91	91	91	.1	.3

CROSS SECTION OUTPUT Profile #100

E.G. Elev (ft)	138.32	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.37	Wt. n-Val.		0.030	
W.S. Elev (ft)	137.95	Reach Len. (ft)	91.00	91.00	91.00
Crit W.S. (ft)		Flow Area (sq ft)		44.98	
E.G. Slope (ft/ft)	0.004338	Area (sq ft)		44.98	
Q Total (cfs)	220.00	Flow (cfs)		220.00	
Top Width (ft)	20.00	Top Width (ft)		20.00	
Vel Total (ft/s)	4.89	Avg. Vel. (ft/s)		4.89	
Max Chl Dpth (ft)	2.25	Hydr. Depth (ft)		2.25	
Conv. Total (cfs)	3340.1	Conv. (cfs)		3340.1	
Length Wtd. (ft)	91.00	Wetted Per. (ft)		24.50	
Min Ch El (ft)	135.70	Shear (lb/sq ft)		0.50	

```
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    2.43  *          *
* Frctn Loss (ft)        *    0.34  * Cum Volume (acre-ft)   *    0.37  *    8.10  *    0.65  *
* C & E Loss (ft)        *    0.03  * Cum SA (acres)         *    0.44  *    3.71  *    0.80  *
*********************************************************************************************
```

CROSS SECTION

RIVER: French Stream
REACH: 1 RS: 55

INPUT
Description: 55+00
Station Elevation Data num= 9

```
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
    -200     157     -50     155     -25 143.906     -10   135.5       0   135.5
      10   135.5      25 142.325      50     149     200     150
```

Manning's n Values num= 3

```
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -25     .03      25     .05
```

```
Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -25      25              100     100     100             .1       .3
```

CROSS SECTION OUTPUT Profile #100

```
*********************************************************************************************
* E.G. Elev (ft)         *  137.95  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.27  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  137.69  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   53.23  *          *
* E.G. Slope (ft/ft)     *0.003206  * Area (sq ft)           *          *   53.23  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   28.70  * Top Width (ft)         *          *   28.70  *          *
* Vel Total (ft/s)       *    4.13  * Avg. Vel. (ft/s)       *          *    4.13  *          *
* Max Chl Dpth (ft)      *    2.19  * Hydr. Depth (ft)       *          *    1.85  *          *
* Conv. Total (cfs)      *  3885.6  * Conv. (cfs)            *          *  3885.6  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   29.75  *          *
* Min Ch El (ft)         *  135.50  * Shear (lb/sq ft)       *          *    0.36  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    1.48  *          *
* Frctn Loss (ft)        *    0.33  * Cum Volume (acre-ft)   *    0.37  *    7.99  *    0.65  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)         *    0.44  *    3.66  *    0.80  *
*********************************************************************************************
```

CROSS SECTION

RIVER: French Stream
REACH: 1 RS: 54

INPUT
Description: 54+00
Station Elevation Data num= 9

```
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
    -200   146.5     -35     144     -25  141.28     -10   135.2       0   135.2
      10   135.2      25 144.457      35     148     200   150.5
```

Manning's n Values num= 3

```
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -25     .03      25     .05
```

```
Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -25      25              100     100     100             .1       .3
```

CROSS SECTION OUTPUT Profile #100

```
*********************************************************************************************
* E.G. Elev (ft)         *  137.62  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.28  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  137.34  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   52.28  *          *
* E.G. Slope (ft/ft)     *0.003411  * Area (sq ft)           *          *   52.28  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   28.76  * Top Width (ft)         *          *   28.76  *          *
* Vel Total (ft/s)       *    4.21  * Avg. Vel. (ft/s)       *          *    4.21  *          *
* Max Chl Dpth (ft)      *    2.14  * Hydr. Depth (ft)       *          *    1.82  *          *
```

```
* Conv. Total (cfs)      *  3766.9  * Conv. (cfs)            *          *  3766.9  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   29.79  *          *
* Min Ch El (ft)         *  135.20  * Shear (lb/sq ft)       *          *    0.37  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    1.57  *          *
* Frctn Loss (ft)        *    0.35  * Cum Volume (acre-ft)   *    0.37  *    7.87  *    0.65  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)         *    0.44  *    3.59  *    0.80  *
*****************************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 53

INPUT
Description: 53+00
Station Elevation Data    num=       8
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200     147     -25     146     -10   134.8       0   134.8      10   134.8
      25  145.25      30     148     200     150

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
*********************************************
    -200     .05     -25     .03      25     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -25      25              100     100     100              .1       .3

CROSS SECTION OUTPUT  Profile #100
*****************************************************************************************************
* E.G. Elev (ft)         *  137.26  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.30  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  136.96  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   49.69  *          *
* E.G. Slope (ft/ft)     *0.003613  * Area (sq ft)           *          *   49.69  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   25.99  * Top Width (ft)         *          *   25.99  *          *
* Vel Total (ft/s)       *    4.43  * Avg. Vel. (ft/s)       *          *    4.43  *          *
* Max Chl Dpth (ft)      *    2.16  * Hydr. Depth (ft)       *          *    1.91  *          *
* Conv. Total (cfs)      *  3660.3  * Conv. (cfs)            *          *  3660.3  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   27.39  *          *
* Min Ch El (ft)         *  134.80  * Shear (lb/sq ft)       *          *    0.41  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    1.81  *          *
* Frctn Loss (ft)        *    0.35  * Cum Volume (acre-ft)   *    0.37  *    7.75  *    0.65  *
* C & E Loss (ft)        *    0.01  * Cum SA (acres)         *    0.44  *    3.53  *    0.80  *
*****************************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 52

INPUT
Description: 52+00
Station Elevation Data    num=       9
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200   145.5     -40   143.5     -25     140     -10   134.5       0   134.5
      10   134.5      25 142.688      40     147     200     150

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
*********************************************
    -200     .05     -25     .03      25     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -25      25              100     100     100              .1       .3

CROSS SECTION OUTPUT  Profile #100
*****************************************************************************************************
* E.G. Elev (ft)         *  136.91  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.26  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  136.64  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   53.29  *          *
* E.G. Slope (ft/ft)     *0.003329  * Area (sq ft)           *          *   53.29  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
```

```
* Top Width (ft)         *   29.76  * Top Width (ft)         *          *   29.76  *          *
* Vel Total (ft/s)       *    4.13  * Avg. Vel. (ft/s)       *          *    4.13  *          *
* Max Chl Dpth (ft)      *    2.14  * Hydr. Depth (ft)       *          *    1.79  *          *
* Conv. Total (cfs)      *  3813.2  * Conv. (cfs)            *          *  3813.2  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   30.69  *          *
* Min Ch El (ft)         *  134.50  * Shear (lb/sq ft)       *          *    0.36  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    1.49  *          *
* Frctn Loss (ft)        *    0.43  * Cum Volume (acre-ft)   *    0.37  *    7.64  *    0.65  *
* C & E Loss (ft)        *    0.01  * Cum SA (acres)         *    0.44  *    3.47  *    0.80  *
*******************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 51

INPUT
Description: 51+00
Station Elevation Data    num=       8
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
    -200   144.5     -25   143.5     -10   134.2       0   134.2      10   134.2
      25 142.188      40   146.5     200   149.5

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
*********************************************
    -200     .05     -25     .03      25     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -25      25              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
*******************************************************************************************
* E.G. Elev (ft)         *  136.46  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.40  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  136.07  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   43.38  *          *
* E.G. Slope (ft/ft)     *0.005710  * Area (sq ft)           *          *   43.38  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   26.51  * Top Width (ft)         *          *   26.51  *          *
* Vel Total (ft/s)       *    5.07  * Avg. Vel. (ft/s)       *          *    5.07  *          *
* Max Chl Dpth (ft)      *    1.87  * Hydr. Depth (ft)       *          *    1.64  *          *
* Conv. Total (cfs)      *  2911.5  * Conv. (cfs)            *          *  2911.5  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   27.51  *          *
* Min Ch El (ft)         *  134.20  * Shear (lb/sq ft)       *          *    0.56  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    2.85  *          *
* Frctn Loss (ft)        *    0.42  * Cum Volume (acre-ft)   *    0.37  *    7.53  *    0.65  *
* C & E Loss (ft)        *    0.04  * Cum SA (acres)         *    0.44  *    3.40  *    0.80  *
*******************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 50

INPUT
Description:
Station Elevation Data    num=       7
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
    -200   143.7     -25     143     -10   133.5       0   133.5      10   133.5
      25     144     200     148

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
*********************************************
    -200     .05     -25     .03      25     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -25      25              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
*******************************************************************************************
* E.G. Elev (ft)         *  136.01  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.28  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  135.74  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
```

```
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   52.28  *          *
* E.G. Slope (ft/ft)     *0.003153  * Area (sq ft)           *          *   52.28  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)              *          *  220.00  *          *
* Top Width (ft)         *   26.73  * Top Width (ft)          *          *   26.73  *          *
* Vel Total (ft/s)       *    4.21  * Avg. Vel. (ft/s)        *          *    4.21  *          *
* Max Chl Dpth (ft)      *    2.24  * Hydr. Depth (ft)        *          *    1.96  *          *
* Conv. Total (cfs)      *  3918.2  * Conv. (cfs)              *          *  3918.2  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)        *          *   28.08  *          *
* Min Ch El (ft)         *  133.50  * Shear (lb/sq ft)        *          *    0.37  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s)   *          *    1.54  *          *
* Frctn Loss (ft)        *    0.25  * Cum Volume (acre-ft)     *    0.37  *    7.42  *    0.65  *
* C & E Loss (ft)        *    0.02  * Cum SA (acres)           *    0.44  *    3.34  *    0.80  *
*****************************************************************************************************
```

CROSS SECTION

RIVER: French Stream
REACH: 1 RS: 49

INPUT
Description: 49+00
Station Elevation Data num= 9

```
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
    -200     143     -25     143     -10     133       0     133      10     133
      25     143      70     144      90   146.3     200   146.5
```

Manning's n Values num= 3

```
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -25     .03      25     .05
```

```
Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -25      25              100     100     100              .1       .3
```

CROSS SECTION OUTPUT Profile #100

```
*****************************************************************************************************
* E.G. Elev (ft)         *  135.74  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.21  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  135.53  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   60.29  *          *
* E.G. Slope (ft/ft)     *0.002058  * Area (sq ft)           *          *   60.29  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)              *          *  220.00  *          *
* Top Width (ft)         *   27.60  * Top Width (ft)          *          *   27.60  *          *
* Vel Total (ft/s)       *    3.65  * Avg. Vel. (ft/s)        *          *    3.65  *          *
* Max Chl Dpth (ft)      *    2.53  * Hydr. Depth (ft)        *          *    2.18  *          *
* Conv. Total (cfs)      *  4849.9  * Conv. (cfs)              *          *  4849.9  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)        *          *   29.13  *          *
* Min Ch El (ft)         *  133.00  * Shear (lb/sq ft)        *          *    0.27  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s)   *          *    0.97  *          *
* Frctn Loss (ft)        *    0.20  * Cum Volume (acre-ft)     *    0.37  *    7.29  *    0.65  *
* C & E Loss (ft)        *    0.01  * Cum SA (acres)           *    0.44  *    3.28  *    0.80  *
*****************************************************************************************************
```

CROSS SECTION

RIVER: French Stream
REACH: 1 RS: 48

INPUT
Description: 48+00
Station Elevation Data num= 7

```
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
    -200     142     -25     142     -10   132.8       0   132.8      10   132.8
      30     142     200     144
```

Manning's n Values num= 3

```
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -25     .03      30     .05
```

```
Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -25      30              100     100     100              .1       .3
```

CROSS SECTION OUTPUT Profile #100

```
*****************************************************************************************************
```

E.G. Elev (ft)	135.54	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.19	Wt. n-Val.		0.030	
W.S. Elev (ft)	135.35	Reach Len. (ft)	100.00	100.00	100.00
Crit W.S. (ft)		Flow Area (sq ft)		63.36	
E.G. Slope (ft/ft)	0.001893	Area (sq ft)		63.36	
Q Total (cfs)	220.00	Flow (cfs)		220.00	
Top Width (ft)	29.70	Top Width (ft)		29.70	
Vel Total (ft/s)	3.47	Avg. Vel. (ft/s)		3.47	
Max Chl Dpth (ft)	2.55	Hydr. Depth (ft)		2.13	
Conv. Total (cfs)	5057.0	Conv. (cfs)		5057.0	
Length Wtd. (ft)	100.00	Wetted Per. (ft)		30.98	
Min Ch El (ft)	132.80	Shear (lb/sq ft)		0.24	
Alpha	1.00	Stream Power (lb/ft s)		0.84	
Frctn Loss (ft)	0.22	Cum Volume (acre-ft)	0.37	7.14	0.65
C & E Loss (ft)	0.00	Cum SA (acres)	0.44	3.21	0.80

CROSS SECTION

RIVER: French Stream
REACH: 1 RS: 47

INPUT
Description: 47+00
Station Elevation Data num= 8

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-200	142.5	-25	142	-10	132.75	0	132.75	10	132.75
25	139.625	30	141	200	144				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-200	.05	-25	.03	30	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
-25	30	100	100	100	.1	.3

CROSS SECTION OUTPUT Profile #100

E.G. Elev (ft)	135.31	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.23	Wt. n-Val.		0.030	
W.S. Elev (ft)	135.08	Reach Len. (ft)	100.00	100.00	100.00
Crit W.S. (ft)		Flow Area (sq ft)		56.94	
E.G. Slope (ft/ft)	0.002593	Area (sq ft)		56.94	
Q Total (cfs)	220.00	Flow (cfs)		220.00	
Top Width (ft)	28.86	Top Width (ft)		28.86	
Vel Total (ft/s)	3.86	Avg. Vel. (ft/s)		3.86	
Max Chl Dpth (ft)	2.33	Hydr. Depth (ft)		1.97	
Conv. Total (cfs)	4320.1	Conv. (cfs)		4320.1	
Length Wtd. (ft)	100.00	Wetted Per. (ft)		30.03	
Min Ch El (ft)	132.75	Shear (lb/sq ft)		0.31	
Alpha	1.00	Stream Power (lb/ft s)		1.19	
Frctn Loss (ft)	0.43	Cum Volume (acre-ft)	0.37	7.01	0.65
C & E Loss (ft)	0.03	Cum SA (acres)	0.44	3.14	0.80

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION

RIVER: French Stream
REACH: 1 RS: 46

INPUT
Description: 46+00
Station Elevation Data num= 7

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-200	142	-25	140	-10	132.7	10	132.7	25	140
100	144	200	143						

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-200	.05	-25	.03	25	.05

```
Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -25      25              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
*********************************************************************************************
* E.G. Elev (ft)         *  134.85  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.51  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  134.34  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   38.35  *          *
* E.G. Slope (ft/ft)     *0.008611  * Area (sq ft)           *          *   38.35  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   26.74  * Top Width (ft)         *          *   26.74  *          *
* Vel Total (ft/s)       *    5.74  * Avg. Vel. (ft/s)       *          *    5.74  *          *
* Max Chl Dpth (ft)      *    1.64  * Hydr. Depth (ft)       *          *    1.43  *          *
* Conv. Total (cfs)      *  2370.8  * Conv. (cfs)            *          *  2370.8  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   27.50  *          *
* Min Ch El (ft)         *  132.70  * Shear (lb/sq ft)       *          *    0.75  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    4.30  *          *
* Frctn Loss (ft)        *    0.19  * Cum Volume (acre-ft)   *    0.37  *    6.90  *    0.65  *
* C & E Loss (ft)        *    0.14  * Cum SA (acres)         *    0.44  *    3.08  *    0.80  *
*********************************************************************************************

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than
         0.7 or greater than 1.4.  This may indicate the need for additional cross sections.

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 45

INPUT
Description: 45+00
Station Elevation Data    num=      11
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
    -200     142     -25     140     -10   132.1      10   132.1      30     140
     100     140     150     139     160  132.65     200  132.65     210     139
     250     141

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
    -200     .05     -25     .03      30     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -25      30              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
*********************************************************************************************
* E.G. Elev (ft)         *  134.52  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.05  * Wt. n-Val.             *          *   0.030  *   0.050  *
* W.S. Elev (ft)         *  134.47  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   59.98  *   78.22  *
* E.G. Slope (ft/ft)     *0.000789  * Area (sq ft)           *          *   59.98  *   78.22  *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  128.04  *   91.96  *
* Top Width (ft)         *   76.27  * Top Width (ft)         *          *   30.52  *   45.75  *
* Vel Total (ft/s)       *    1.59  * Avg. Vel. (ft/s)       *          *    2.13  *    1.18  *
* Max Chl Dpth (ft)      *    2.37  * Hydr. Depth (ft)       *          *    1.97  *    1.71  *
* Conv. Total (cfs)      *  7832.0  * Conv. (cfs)            *          *  4558.3  *  3273.7  *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   31.56  *   46.81  *
* Min Ch El (ft)         *  132.10  * Shear (lb/sq ft)       *          *    0.09  *    0.08  *
* Alpha                  *    1.27  * Stream Power (lb/ft s) *          *    0.20  *    0.10  *
* Frctn Loss (ft)        *    0.09  * Cum Volume (acre-ft)   *    0.37  *    6.78  *    0.56  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)         *    0.44  *    3.02  *    0.74  *
*********************************************************************************************

Warning: Divided flow computed for this cross-section.

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 44

INPUT
Description: 44+00
Station Elevation Data    num=      10
```

```
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
    -200   140.5     -30     140     -10   131.9      10   131.9      30     139
      70     139      90   132.6     110   132.6     140   140.5     200   140.5

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
    -200     .05     -30     .03      30     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -30      30              100     100     100              .1       .3

CROSS SECTION OUTPUT  Profile #100
*********************************************************************************************
* E.G. Elev (ft)         *  134.43  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.08  * Wt. n-Val.             *          *   0.030  *   0.050  *
* W.S. Elev (ft)         *  134.35  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   64.84  *   45.58  *
* E.G. Slope (ft/ft)     *0.001095  * Area (sq ft)           *          *   64.84  *   45.58  *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  163.96  *   56.04  *
* Top Width (ft)         *   65.06  * Top Width (ft)         *          *   32.95  *   32.11  *
* Vel Total (ft/s)       *    1.99  * Avg. Vel. (ft/s)       *          *    2.53  *    1.23  *
* Max Chl Dpth (ft)      *    2.45  * Hydr. Depth (ft)       *          *    1.97  *    1.42  *
* Conv. Total (cfs)      *  6647.6  * Conv. (cfs)            *          *  4954.3  *  1693.3  *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   33.85  *   32.61  *
* Min Ch El (ft)         *  131.90  * Shear (lb/sq ft)       *          *    0.13  *    0.10  *
* Alpha                  *    1.30  * Stream Power (lb/ft s) *          *    0.33  *    0.12  *
* Frctn Loss (ft)        *    0.14  * Cum Volume (acre-ft)   *    0.37  *    6.64  *    0.42  *
* C & E Loss (ft)        *    0.01  * Cum SA (acres)         *    0.44  *    2.94  *    0.65  *
*********************************************************************************************

Warning: Divided flow computed for this cross-section.

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 43

INPUT
Description: 43+00
Station Elevation Data    num=       7
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
    -200     140     -25   138.5     -10   131.7      10   131.7      25 134.781
      50   138.5     200     140

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
    -200     .05     -25     .03      25     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -25      25              100     100     100              .1       .3

CROSS SECTION OUTPUT  Profile #100
*********************************************************************************************
* E.G. Elev (ft)         *  134.28  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.16  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  134.13  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   69.33  *          *
* E.G. Slope (ft/ft)     *0.001837  * Area (sq ft)           *          *   69.33  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   37.16  * Top Width (ft)         *          *   37.16  *          *
* Vel Total (ft/s)       *    3.17  * Avg. Vel. (ft/s)       *          *    3.17  *          *
* Max Chl Dpth (ft)      *    2.43  * Hydr. Depth (ft)       *          *    1.87  *          *
* Conv. Total (cfs)      *  5133.1  * Conv. (cfs)            *          *  5133.1  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   37.93  *          *
* Min Ch El (ft)         *  131.70  * Shear (lb/sq ft)       *          *    0.21  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    0.67  *          *
* Frctn Loss (ft)        *    0.20  * Cum Volume (acre-ft)   *    0.37  *    6.49  *    0.37  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)         *    0.44  *    2.86  *    0.62  *
*********************************************************************************************

CROSS SECTION


RIVER: French Stream
```

```
REACH: 1                  RS: 42

INPUT
Description: 42+00
Station Elevation Data    num=       7
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
    -200   140.5     -25   137.5     -10   131.5      10   131.5      25     138
     100     140     200     140

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -25     .03      25     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -25      25              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
*********************************************************************************************
* E.G. Elev (ft)         *  134.07  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.20  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  133.87  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   60.93  *          *
* E.G. Slope (ft/ft)     *0.002284  * Area (sq ft)           *          *   60.93  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   31.40  * Top Width (ft)         *          *   31.40  *          *
* Vel Total (ft/s)       *    3.61  * Avg. Vel. (ft/s)       *          *    3.61  *          *
* Max Chl Dpth (ft)      *    2.37  * Hydr. Depth (ft)       *          *    1.94  *          *
* Conv. Total (cfs)      *  4603.5  * Conv. (cfs)            *          *  4603.5  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   32.35  *          *
* Min Ch El (ft)         *  131.50  * Shear (lb/sq ft)       *          *    0.27  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    0.97  *          *
* Frctn Loss (ft)        *    0.22  * Cum Volume (acre-ft)   *    0.37  *    6.34  *    0.37  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)         *    0.44  *    2.78  *    0.62  *
*********************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 41

INPUT
Description: 41+00
Station Elevation Data    num=       7
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
    -200     139     -25     138     -10   131.3      10   131.3      35   138.5
     150     141     200   145.5

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -25     .03      35     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -25      35              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
*********************************************************************************************
* E.G. Elev (ft)         *  133.84  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.19  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  133.65  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   62.93  *          *
* E.G. Slope (ft/ft)     *0.002217  * Area (sq ft)           *          *   62.93  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   33.45  * Top Width (ft)         *          *   33.45  *          *
* Vel Total (ft/s)       *    3.50  * Avg. Vel. (ft/s)       *          *    3.50  *          *
* Max Chl Dpth (ft)      *    2.35  * Hydr. Depth (ft)       *          *    1.88  *          *
* Conv. Total (cfs)      *  4672.9  * Conv. (cfs)            *          *  4672.9  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   34.28  *          *
* Min Ch El (ft)         *  131.30  * Shear (lb/sq ft)       *          *    0.25  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    0.89  *          *
* Frctn Loss (ft)        *    0.20  * Cum Volume (acre-ft)   *    0.37  *    6.20  *    0.37  *
* C & E Loss (ft)        *    0.01  * Cum SA (acres)         *    0.44  *    2.71  *    0.62  *
*********************************************************************************************

CROSS SECTION
```

```
RIVER: French Stream
REACH: 1                  RS: 40

INPUT
Description: 40+00
Station Elevation Data    num=       6
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200     142     -40     138     -10   131.1      10   131.1      40   138.5
     200     141

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
*********************************************
    -200     .05     -40     .03      40     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -40      40              100     100     100              .1       .3

CROSS SECTION OUTPUT  Profile #100
*************************************************************************************
* E.G. Elev (ft)         *  133.63  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.15  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  133.49  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   71.62  *          *
* E.G. Slope (ft/ft)     *0.001805  * Area (sq ft)           *          *   71.62  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   40.04  * Top Width (ft)         *          *   40.04  *          *
* Vel Total (ft/s)       *    3.07  * Avg. Vel. (ft/s)       *          *    3.07  *          *
* Max Chl Dpth (ft)      *    2.39  * Hydr. Depth (ft)       *          *    1.79  *          *
* Conv. Total (cfs)      *  5178.8  * Conv. (cfs)            *          *  5178.8  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   40.60  *          *
* Min Ch El (ft)         *  131.10  * Shear (lb/sq ft)       *          *    0.20  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    0.61  *          *
* Frctn Loss (ft)        *    0.19  * Cum Volume (acre-ft)   *    0.37  *    6.04  *    0.37  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)         *    0.44  *    2.62  *    0.62  *
*************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 39

INPUT
Description: 39+00
Station Elevation Data    num=      11
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200     142     -30   137.5     -20 134.925     -10   130.8      10   130.8
      20 134.925      30   137.5      60     138     120     140     150     139
     200   144.5

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
*********************************************
    -200     .05     -20     .03      20     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -20      20              100     100     100              .1       .3

CROSS SECTION OUTPUT  Profile #100
*************************************************************************************
* E.G. Elev (ft)         *  133.44  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.19  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  133.25  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   63.60  *          *
* E.G. Slope (ft/ft)     *0.002022  * Area (sq ft)           *          *   63.60  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   31.89  * Top Width (ft)         *          *   31.89  *          *
* Vel Total (ft/s)       *    3.46  * Avg. Vel. (ft/s)       *          *    3.46  *          *
* Max Chl Dpth (ft)      *    2.45  * Hydr. Depth (ft)       *          *    1.99  *          *
* Conv. Total (cfs)      *  4892.8  * Conv. (cfs)            *          *  4892.8  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   32.86  *          *
* Min Ch El (ft)         *  130.80  * Shear (lb/sq ft)       *          *    0.24  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    0.85  *          *
* Frctn Loss (ft)        *    0.22  * Cum Volume (acre-ft)   *    0.37  *    5.89  *    0.37  *
```

```
* C & E Loss (ft)        *    0.00  * Cum SA (acres)         *    0.44  *    2.54  *    0.62  *
*****************************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 38

INPUT
Description: 38+00
Station Elevation Data    num=       8
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200   139.5     -20     136     -10   130.6      10   130.6      20 136.433
      25   138.5     160   141.5     200     147

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
    -200     .05     -20     .03      20     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -20      20              100     100     100              .1       .3

CROSS SECTION OUTPUT  Profile #100
*****************************************************************************************************
* E.G. Elev (ft)         *  133.21  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.22  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  132.99  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   57.98  *          *
* E.G. Slope (ft/ft)     *0.002413  * Area (sq ft)           *          *   57.98  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   28.52  * Top Width (ft)         *          *   28.52  *          *
* Vel Total (ft/s)       *    3.79  * Avg. Vel. (ft/s)       *          *    3.79  *          *
* Max Chl Dpth (ft)      *    2.39  * Hydr. Depth (ft)       *          *    2.03  *          *
* Conv. Total (cfs)      *  4478.2  * Conv. (cfs)            *          *  4478.2  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   29.77  *          *
* Min Ch El (ft)         *  130.60  * Shear (lb/sq ft)       *          *    0.29  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    1.11  *          *
* Frctn Loss (ft)        *    0.24  * Cum Volume (acre-ft)   *    0.37  *    5.75  *    0.37  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)         *    0.44  *    2.47  *    0.62  *
*****************************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 37

INPUT
Description: 37+00
Station Elevation Data    num=      10
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200   139.5    -100     139     -25     135     -20 133.923     -10   130.4
      10   130.4      20     138      70     141     100   141.5     200     154

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
    -200     .05     -20     .03      20     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -20      20              100     100     100              .1       .3

CROSS SECTION OUTPUT  Profile #100
*****************************************************************************************************
* E.G. Elev (ft)         *  132.97  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.22  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  132.75  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   58.39  *          *
* E.G. Slope (ft/ft)     *0.002481  * Area (sq ft)           *          *   58.39  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   29.75  * Top Width (ft)         *          *   29.75  *          *
* Vel Total (ft/s)       *    3.77  * Avg. Vel. (ft/s)       *          *    3.77  *          *
* Max Chl Dpth (ft)      *    2.35  * Hydr. Depth (ft)       *          *    1.96  *          *
* Conv. Total (cfs)      *  4416.9  * Conv. (cfs)            *          *  4416.9  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   30.94  *          *
```

```
* Min Ch El (ft)         *  130.40  * Shear (lb/sq ft)       *          *    0.29  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    1.10  *          *
* Frctn Loss (ft)        *    0.25  * Cum Volume (acre-ft)   *    0.37  *    5.61  *    0.37  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)         *    0.44  *    2.41  *    0.62  *
*********************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 36

INPUT
Description: 36+00
Station Elevation Data    num=       9
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
    -200   139.5     -40     138     -20 133.714     -10   130.2      10   130.2
      20 134.667      30     138     140     146     200     155

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -20     .03      20     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -20      20              100     100     100              .1       .3

CROSS SECTION OUTPUT  Profile #100
*********************************************************************************************
* E.G. Elev (ft)         *  132.72  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.21  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  132.51  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   59.63  *          *
* E.G. Slope (ft/ft)     *0.002482  * Area (sq ft)           *          *   59.63  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   31.72  * Top Width (ft)         *          *   31.72  *          *
* Vel Total (ft/s)       *    3.69  * Avg. Vel. (ft/s)       *          *    3.69  *          *
* Max Chl Dpth (ft)      *    2.31  * Hydr. Depth (ft)       *          *    1.88  *          *
* Conv. Total (cfs)      *  4416.3  * Conv. (cfs)            *          *  4416.3  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   32.61  *          *
* Min Ch El (ft)         *  130.20  * Shear (lb/sq ft)       *          *    0.28  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    1.05  *          *
* Frctn Loss (ft)        *    0.29  * Cum Volume (acre-ft)   *    0.37  *    5.48  *    0.37  *
* C & E Loss (ft)        *    0.01  * Cum SA (acres)         *    0.44  *    2.34  *    0.62  *
*********************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 35

INPUT
Description: 35+00
Station Elevation Data    num=       9
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
    -200   140.3     -25     137     -20 135.333     -10     130      10     130
      20   134.8      35     139     130     144     200   158.5

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -20     .03      20     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -20      20              100     100     100              .1       .3

CROSS SECTION OUTPUT  Profile #100
*********************************************************************************************
* E.G. Elev (ft)         *  132.42  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.28  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  132.14  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   51.86  *          *
* E.G. Slope (ft/ft)     *0.003456  * Area (sq ft)           *          *   51.86  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   28.47  * Top Width (ft)         *          *   28.47  *          *
* Vel Total (ft/s)       *    4.24  * Avg. Vel. (ft/s)       *          *    4.24  *          *
```

```
* Max Chl Dpth (ft)      *    2.14  * Hydr. Depth (ft)       *          *    1.82  *          *
* Conv. Total (cfs)      *  3742.3  * Conv. (cfs)            *          *  3742.3  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   29.49  *          *
* Min Ch El (ft)         *  130.00  * Shear (lb/sq ft)       *          *    0.38  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    1.61  *          *
* Frctn Loss (ft)        *    0.22  * Cum Volume (acre-ft)   *    0.37  *    5.35  *    0.37  *
* C & E Loss (ft)        *    0.04  * Cum SA (acres)         *    0.44  *    2.27  *    0.62  *
*********************************************************************************************

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than
         0.7 or greater than 1.4.  This may indicate the need for additional cross sections.

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 34

INPUT
Description: 34+00
Station Elevation Data    num=      10
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
    -200     141     -50     138     -40     139     -20     133     -10   129.4
      10   129.4      20 132.833      40   138.5     150     142     200   157.5

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
    -200     .05     -20     .03      20     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
            -20      20              100     100     100              .1       .3

CROSS SECTION OUTPUT  Profile #100
*********************************************************************************************
* E.G. Elev (ft)         *  132.16  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.15  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  132.01  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   71.69  *          *
* E.G. Slope (ft/ft)     *0.001519  * Area (sq ft)           *          *   71.69  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)              *          *  220.00  *          *
* Top Width (ft)         *   34.87  * Top Width (ft)          *          *   34.87  *          *
* Vel Total (ft/s)       *    3.07  * Avg. Vel. (ft/s)        *          *    3.07  *          *
* Max Chl Dpth (ft)      *    2.61  * Hydr. Depth (ft)        *          *    2.06  *          *
* Conv. Total (cfs)      *  5645.5  * Conv. (cfs)             *          *  5645.5  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)        *          *   35.76  *          *
* Min Ch El (ft)         *  129.40  * Shear (lb/sq ft)        *          *    0.19  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    0.58  *          *
* Frctn Loss (ft)        *    0.15  * Cum Volume (acre-ft)   *    0.37  *    5.21  *    0.37  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)         *    0.44  *    2.19  *    0.62  *
*********************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 33

INPUT
Description: 33+00
Station Elevation Data    num=      10
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
    -200     142     -40   137.5     -20 132.046     -10   129.2      10   129.2
      20   134.5      30     139     140     144     170   155.5     200   157.5

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
    -200     .05     -20     .03      20     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
            -20      20              100     100     100              .1       .3

CROSS SECTION OUTPUT  Profile #100
*********************************************************************************************
* E.G. Elev (ft)         *  132.01  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.14  * Wt. n-Val.             *          *   0.030  *          *
```

W.S. Elev (ft)	131.87	Reach Len. (ft)	100.00	100.00	100.00	
Crit W.S. (ft)		Flow Area (sq ft)		72.57		
E.G. Slope (ft/ft)	0.001441	Area (sq ft)		72.57		
Q Total (cfs)	220.00	Flow (cfs)		220.00		
Top Width (ft)	34.41	Top Width (ft)		34.41		
Vel Total (ft/s)	3.03	Avg. Vel. (ft/s)		3.03		
Max Chl Dpth (ft)	2.67	Hydr. Depth (ft)		2.11		
Conv. Total (cfs)	5796.0	Conv. (cfs)		5796.0		
Length Wtd. (ft)	100.00	Wetted Per. (ft)		35.44		
Min Ch El (ft)	129.20	Shear (lb/sq ft)		0.18		
Alpha	1.00	Stream Power (lb/ft s)		0.56		
Frctn Loss (ft)	0.14	Cum Volume (acre-ft)	0.37	5.04	0.37	
C & E Loss (ft)	0.00	Cum SA (acres)	0.44	2.11	0.62	

CROSS SECTION

RIVER: French Stream
REACH: 1 RS: 32

INPUT
Description: 32+00
Station Elevation Data num= 11

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-200	142	-100	138	-25	136	-20	133.6	-10	129
10	129	20	132.455	40	139	100	142	150	154
200	157								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-200	.05	-20	.03	20	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
-20	20	100	100	100	.1	.3

CROSS SECTION OUTPUT Profile #100

E.G. Elev (ft)	131.87	Element	Left OB	Channel	Right OB	
Vel Head (ft)	0.14	Wt. n-Val.		0.030		
W.S. Elev (ft)	131.73	Reach Len. (ft)	100.00	100.00	100.00	
Crit W.S. (ft)		Flow Area (sq ft)		73.51		
E.G. Slope (ft/ft)	0.001352	Area (sq ft)		73.51		
Q Total (cfs)	220.00	Flow (cfs)		220.00		
Top Width (ft)	33.84	Top Width (ft)		33.84		
Vel Total (ft/s)	2.99	Avg. Vel. (ft/s)		2.99		
Max Chl Dpth (ft)	2.73	Hydr. Depth (ft)		2.17		
Conv. Total (cfs)	5983.2	Conv. (cfs)		5983.2		
Length Wtd. (ft)	100.00	Wetted Per. (ft)		34.90		
Min Ch El (ft)	129.00	Shear (lb/sq ft)		0.18		
Alpha	1.00	Stream Power (lb/ft s)		0.53		
Frctn Loss (ft)	0.12	Cum Volume (acre-ft)	0.37	4.87	0.37	
C & E Loss (ft)	0.00	Cum SA (acres)	0.44	2.04	0.62	

CROSS SECTION

RIVER: French Stream
REACH: 1 RS: 31

INPUT
Description: 31+00
Station Elevation Data num= 13

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-200	140.5	-40	135	-25	136.5	-20	134.021	-10	128.6
10	128.6	20	138	35	138	45	141	95	143
125	153	150	155	200	156.5				

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-200	.05	-20	.03	20	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
-20	20	100	100	100	.1	.3

```
CROSS SECTION OUTPUT  Profile #100
*********************************************************************************************
* E.G. Elev (ft)         *  131.74  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.14  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  131.60  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   73.22  *          *
* E.G. Slope (ft/ft)     *0.001154  * Area (sq ft)           *          *   73.22  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   28.74  * Top Width (ft)         *          *   28.74  *          *
* Vel Total (ft/s)       *    3.00  * Avg. Vel. (ft/s)       *          *    3.00  *          *
* Max Chl Dpth (ft)      *    3.00  * Hydr. Depth (ft)       *          *    2.55  *          *
* Conv. Total (cfs)      *  6475.5  * Conv. (cfs)            *          *  6475.5  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   30.69  *          *
* Min Ch El (ft)         *  128.60  * Shear (lb/sq ft)       *          *    0.17  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    0.52  *          *
* Frctn Loss (ft)        *    0.11  * Cum Volume (acre-ft)   *    0.37  *    4.71  *    0.37  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)         *    0.44  *    1.96  *    0.62  *
*********************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 30

INPUT
Description: 30+00
Station Elevation Data    num=      14
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
    -200   141.5  -187.5     142     -90     136     -25     135     -20 134.392
     -10   128.4      10   128.4      20 134.833      25     137      50     139
      55     141     110     142     125     150     145     151

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -20     .03      20     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -20      20              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
*********************************************************************************************
* E.G. Elev (ft)         *  131.63  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.12  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  131.51  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   77.76  *          *
* E.G. Slope (ft/ft)     *0.000990  * Area (sq ft)           *          *   77.76  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   30.02  * Top Width (ft)         *          *   30.02  *          *
* Vel Total (ft/s)       *    2.83  * Avg. Vel. (ft/s)       *          *    2.83  *          *
* Max Chl Dpth (ft)      *    3.11  * Hydr. Depth (ft)       *          *    2.59  *          *
* Conv. Total (cfs)      *  6991.3  * Conv. (cfs)            *          *  6991.3  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   31.80  *          *
* Min Ch El (ft)         *  128.40  * Shear (lb/sq ft)       *          *    0.15  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    0.43  *          *
* Frctn Loss (ft)        *    0.09  * Cum Volume (acre-ft)   *    0.37  *    4.53  *    0.37  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)         *    0.44  *    1.90  *    0.62  *
*********************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 29

INPUT
Description: 29+00
Station Elevation Data    num=      13
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
    -200     141     -90   137.5     -85     136     -25     135     -20 133.467
     -10   128.2      10   128.2      20 134.133      25     136      63     139
      80     146     160     148     200     151

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
```

```
**********************************************
    -200     .05     -20     .03      20     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -20      20              100     100     100              .1       .3

CROSS SECTION OUTPUT  Profile #100
*********************************************************************************************
* E.G. Elev (ft)         *  131.54  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.11  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  131.43  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   83.27  *          *
* E.G. Slope (ft/ft)     *0.000837  * Area (sq ft)           *          *   83.27  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   31.57  * Top Width (ft)         *          *   31.57  *          *
* Vel Total (ft/s)       *    2.64  * Avg. Vel. (ft/s)       *          *    2.64  *          *
* Max Chl Dpth (ft)      *    3.23  * Hydr. Depth (ft)       *          *    2.64  *          *
* Conv. Total (cfs)      *  7605.5  * Conv. (cfs)            *          *  7605.5  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   33.26  *          *
* Min Ch El (ft)         *  128.20  * Shear (lb/sq ft)       *          *    0.13  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    0.35  *          *
* Frctn Loss (ft)        *    0.08  * Cum Volume (acre-ft)   *    0.37  *    4.35  *    0.37  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)         *    0.44  *    1.83  *    0.62  *
*********************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 28

INPUT
Description: 28+00
Station Elevation Data    num=      11
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
    -200     142    -125     140     -25     135     -20  133.14     -10     128
      10     128      20 135.058      22     136      50     138      75     145
     200     150

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
    -200     .05     -20     .03      20     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -20      20              100     100     100              .1       .3

CROSS SECTION OUTPUT  Profile #100
*********************************************************************************************
* E.G. Elev (ft)         *  131.46  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.10  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  131.36  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   86.03  *          *
* E.G. Slope (ft/ft)     *0.000748  * Area (sq ft)           *          *   86.03  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   31.28  * Top Width (ft)         *          *   31.28  *          *
* Vel Total (ft/s)       *    2.56  * Avg. Vel. (ft/s)       *          *    2.56  *          *
* Max Chl Dpth (ft)      *    3.36  * Hydr. Depth (ft)       *          *    2.75  *          *
* Conv. Total (cfs)      *  8045.1  * Conv. (cfs)            *          *  8045.1  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   33.16  *          *
* Min Ch El (ft)         *  128.00  * Shear (lb/sq ft)       *          *    0.12  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    0.31  *          *
* Frctn Loss (ft)        *    0.07  * Cum Volume (acre-ft)   *    0.37  *    4.15  *    0.37  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)         *    0.44  *    1.75  *    0.62  *
*********************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 27

INPUT
Description: 27+00
Station Elevation Data    num=      17
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
    -200   142.5    -105     140     -80   148.5     -55     148     -25     135
```

```
     -20 133.192     -10   127.8      10   127.8      20 133.059      30     137
      45   136.3      75     138     105     145     145   145.5     150     145
     180     145     200     147

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
    -200     .05     -20     .03      20     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -20      20              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
*************************************************************************************************
* E.G. Elev (ft)         *  131.38  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.09  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  131.30  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   92.92  *          *
* E.G. Slope (ft/ft)     *0.000619  * Area (sq ft)           *          *   92.92  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)              *          *  220.00  *          *
* Top Width (ft)         *   33.14  * Top Width (ft)          *          *   33.14  *          *
* Vel Total (ft/s)       *    2.37  * Avg. Vel. (ft/s)        *          *    2.37  *          *
* Max Chl Dpth (ft)      *    3.50  * Hydr. Depth (ft)        *          *    2.80  *          *
* Conv. Total (cfs)      *  8843.6  * Conv. (cfs)              *          *  8843.6  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)        *          *   34.88  *          *
* Min Ch El (ft)         *  127.80  * Shear (lb/sq ft)        *          *    0.10  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s)   *          *    0.24  *          *
* Frctn Loss (ft)        *    0.06  * Cum Volume (acre-ft)     *    0.37  *    3.95  *    0.37  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)           *    0.44  *    1.68  *    0.62  *
*************************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 26

INPUT
Description: 26+00
Station Elevation Data    num=      14
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*********************************************************************************
    -200     142     -50     137     -25     135     -20 133.154     -10   127.7
      10   127.7      20 133.769      25     136      80     137     105     142
     125     143     145   146.5     160     145     200   147.5

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
    -200     .05     -20     .03      20     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -20      20              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
*************************************************************************************************
* E.G. Elev (ft)         *  131.32  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.09  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  131.23  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   92.44  *          *
* E.G. Slope (ft/ft)     *0.000613  * Area (sq ft)           *          *   92.44  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)              *          *  220.00  *          *
* Top Width (ft)         *   32.31  * Top Width (ft)          *          *   32.31  *          *
* Vel Total (ft/s)       *    2.38  * Avg. Vel. (ft/s)        *          *    2.38  *          *
* Max Chl Dpth (ft)      *    3.53  * Hydr. Depth (ft)        *          *    2.86  *          *
* Conv. Total (cfs)      *  8885.7  * Conv. (cfs)              *          *  8885.7  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)        *          *   34.20  *          *
* Min Ch El (ft)         *  127.70  * Shear (lb/sq ft)        *          *    0.10  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s)   *          *    0.25  *          *
* Frctn Loss (ft)        *    0.06  * Cum Volume (acre-ft)     *    0.37  *    3.73  *    0.37  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)           *    0.44  *    1.60  *    0.62  *
*************************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 25
```

```
INPUT
Description: 25+00
Station Elevation Data    num=      12
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200   140.5    -140   139.5    -120   139.8     -20   134.5     -10  127.65
      10  127.65      20  134.24      30     137      63     138     100     141
     150     144     200     147

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
    -200     .05     -20     .03      20     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -20      20               17      17      17              .1       .3

CROSS SECTION OUTPUT  Profile #100
**********************************************************************************************
* E.G. Elev (ft)         *  131.26  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.10  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  131.16  * Reach Len. (ft)        *   17.00  *   17.00  *   17.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   88.63  *          *
* E.G. Slope (ft/ft)     *0.000662  * Area (sq ft)           *          *   88.63  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   30.46  * Top Width (ft)         *          *   30.46  *          *
* Vel Total (ft/s)       *    2.48  * Avg. Vel. (ft/s)       *          *    2.48  *          *
* Max Chl Dpth (ft)      *    3.51  * Hydr. Depth (ft)       *          *    2.91  *          *
* Conv. Total (cfs)      *  8550.6  * Conv. (cfs)            *          *  8550.6  *          *
* Length Wtd. (ft)       *   17.00  * Wetted Per. (ft)       *          *   32.60  *          *
* Min Ch El (ft)         *  127.65  * Shear (lb/sq ft)       *          *    0.11  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    0.28  *          *
* Frctn Loss (ft)        *    0.01  * Cum Volume (acre-ft)   *    0.37  *    3.53  *    0.37  *
* C & E Loss (ft)        *    0.01  * Cum SA (acres)         *    0.44  *    1.53  *    0.62  *
**********************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 24.83

INPUT
Description: 24+83
Station Elevation Data    num=      11
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200     141    -120     139     -20     136     -10     127       0     127
      10     127      20  135.25      25     137      87     140     110   140.5
     200     146

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
    -200     .05     -20     .03      20     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -20      20               32      32      32              .1       .3

CROSS SECTION OUTPUT  Profile #100
**********************************************************************************************
* E.G. Elev (ft)         *  131.24  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.07  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  131.17  * Reach Len. (ft)        *   32.00  *   32.00  *   32.00  *
* Crit W.S. (ft)         *  128.51  * Flow Area (sq ft)      *          *  103.67  *          *
* E.G. Slope (ft/ft)     *0.000396  * Area (sq ft)           *          *  103.67  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   29.69  * Top Width (ft)         *          *   29.69  *          *
* Vel Total (ft/s)       *    2.12  * Avg. Vel. (ft/s)       *          *    2.12  *          *
* Max Chl Dpth (ft)      *    4.17  * Hydr. Depth (ft)       *          *    3.49  *          *
* Conv. Total (cfs)      * 11059.7  * Conv. (cfs)            *          * 11059.7  *          *
* Length Wtd. (ft)       *   32.00  * Wetted Per. (ft)       *          *   32.79  *          *
* Min Ch El (ft)         *  127.00  * Shear (lb/sq ft)       *          *    0.08  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    0.17  *          *
* Frctn Loss (ft)        *          * Cum Volume (acre-ft)   *    0.37  *    3.49  *    0.37  *
* C & E Loss (ft)        *          * Cum SA (acres)         *    0.44  *    1.52  *    0.62  *
**********************************************************************************************

CULVERT
```

```
RIVER: French Stream
REACH: 1                  RS: 24.67

INPUT
Description:
Distance from Upstream XS =       1
Deck/Roadway Width        =      26
Weir Coefficient          =     2.6
Upstream  Deck/Roadway Coordinates
    num=       2
     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord
**********************************************
     -20     136     127      25     137     127

Upstream Bridge Cross Section Data
Station Elevation Data    num=      11
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*********************************************************************************
    -200     141    -120     139     -20     136     -10     127       0     127
      10     127      20  135.25      25     137      87     140     110   140.5
     200     146

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
    -200     .05     -20     .03      20     .05

Bank Sta: Left   Right    Coeff Contr.   Expan.
           -20      20             .1       .3

Downstream  Deck/Roadway Coordinates
    num=       2
     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord
**********************************************
     -20     136   127.2      30     137   127.2

Downstream Bridge Cross Section Data
Station Elevation Data    num=      13
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*********************************************************************************
    -200   140.5    -155     140     -90     138     -60     137     -50     136
     -20     135     -10   127.2       0   127.2      10   127.2      20 134.222
      30     137     150     141     200   145.5

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
    -200     .05     -20     .03      20     .05

Bank Sta: Left   Right    Coeff Contr.   Expan.
           -20      20             .1       .3

Upstream Embankment side slope              =       0 horiz. to 1.0 vertical
Downstream Embankment side slope            =       0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow =     .95
Elevation at which weir flow begins         =
Energy head used in spillway design         =
Spillway height used in design              =
Weir crest shape                            = Broad Crested

Number of Culverts =  1

Culvert Name     Shape      Rise    Span
Culvert #1      Circular       6
FHWA Chart # 1 - Concrete Pipe Culvert
FHWA Scale # 1 - Square edge entrance with headwall
Solution Criteria = Highest U.S. EG
Culvert Upstrm Dist  Length    Top n  Bottom n  Depth Blocked  Entrance Loss Coef   Exit Loss Coef
                  1      30     .013     .013        0                   .1                1
Number of Barrels =  2
Upstream   Elevation =  127
Centerline Stations
    Sta.    Sta.
      -5       5
Downstream Elevation =  127.2
Centerline Stations
    Sta.    Sta.
```

```
      -5       5

CULVERT OUTPUT  Profile #100  Culv Group:  Culvert #1
**********************************************************************
* Q Culv Group (cfs)     *  220.00  * Culv Full Len (ft)     *          *
* # Barrels              *       2  * Culv Vel US (ft/s)     *    6.27  *
* Q Barrel (cfs)         *  110.00  * Culv Vel DS (ft/s)     *    8.39  *
* E.G. US. (ft)          *  131.24  * Culv Inv El Up (ft)    *  127.00  *
* W.S. US. (ft)          *  131.17  * Culv Inv El Dn (ft)    *  127.20  *
* E.G. DS (ft)           *  129.44  * Culv Frctn Ls (ft)     *    0.06  *
* W.S. DS (ft)           *  128.96  * Culv Exit Loss (ft)    *    1.68  *
* Delta EG (ft)          *    1.80  * Culv Entr Loss (ft)    *    0.06  *
* Delta WS (ft)          *    2.21  * Q Weir (cfs)           *          *
* E.G. IC (ft)           *  131.09  * Weir Sta Lft (ft)      *          *
* E.G. OC (ft)           *  131.24  * Weir Sta Rgt (ft)      *          *
* Culvert Control        *  Outlet  * Weir Submerg           *          *
* Culv WS Inlet (ft)     *  130.57  * Weir Max Depth (ft)    *          *
* Culv WS Outlet (ft)    *  130.03  * Weir Avg Depth (ft)    *          *
* Culv Nml Depth (ft)    *          * Weir Flow Area (sq ft) *          *
* Culv Crt Depth (ft)    *    2.83  * Min El Weir Flow (ft)  *  136.01  *
**********************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 24.51

INPUT
Description: 24+51
Station Elevation Data    num=      13
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
**********************************************************************
    -200   140.5    -155     140     -90     138     -60     137     -50     136
     -20     135     -10   127.2       0   127.2      10   127.2      20 134.222
      30     137     150     141     200   145.5

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
    -200     .05     -20     .03      20     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -20      20               51      51      51             .1       .3

CROSS SECTION OUTPUT  Profile #100
**************************************************************************************
* E.G. Elev (ft)         *  129.44  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.49  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  128.96  * Reach Len. (ft)        *   51.00  *   51.00  *   51.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   39.34  *          *
* E.G. Slope (ft/ft)     *0.007309  * Area (sq ft)           *          *   39.34  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)              *          *  220.00  *          *
* Top Width (ft)         *   24.76  * Top Width (ft)          *          *   24.76  *          *
* Vel Total (ft/s)       *    5.59  * Avg. Vel. (ft/s)        *          *    5.59  *          *
* Max Chl Dpth (ft)      *    1.76  * Hydr. Depth (ft)        *          *    1.59  *          *
* Conv. Total (cfs)      *  2573.3  * Conv. (cfs)              *          *  2573.3  *          *
* Length Wtd. (ft)       *   51.00  * Wetted Per. (ft)        *          *   25.92  *          *
* Min Ch El (ft)         *  127.20  * Shear (lb/sq ft)        *          *    0.69  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s)  *          *    3.87  *          *
* Frctn Loss (ft)        *    0.20  * Cum Volume (acre-ft)    *    0.37  *    3.44  *    0.37  *
* C & E Loss (ft)        *    0.07  * Cum SA (acres)          *    0.44  *    1.50  *    0.62  *
**************************************************************************************

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than
         0.7 or greater than 1.4.  This may indicate the need for additional cross sections.

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 24

INPUT
Description: 24+00
Station Elevation Data    num=      19
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
**********************************************************************
    -200   136.5    -155     138    -120     136     -75     136     -50     132
```

```
     -20   130.4   -12.5     130     -10   126.4       0   126.4      10   126.4
    12.5     130      20   134.2      30     137      55   137.5      70     138
      85   139.3     110     139     125     138     200     141

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
    -200     .05     -20     .03      20     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -20      20              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
*************************************************************************************************
* E.G. Elev (ft)         *  129.17  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.25  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  128.92  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   54.86  *          *
* E.G. Slope (ft/ft)     *0.002439  * Area (sq ft)           *          *   54.86  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)              *          *  220.00  *          *
* Top Width (ft)         *   23.50  * Top Width (ft)          *          *   23.50  *          *
* Vel Total (ft/s)       *    4.01  * Avg. Vel. (ft/s)        *          *    4.01  *          *
* Max Chl Dpth (ft)      *    2.52  * Hydr. Depth (ft)        *          *    2.33  *          *
* Conv. Total (cfs)      *  4454.6  * Conv. (cfs)              *          *  4454.6  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)        *          *   26.14  *          *
* Min Ch El (ft)         *  126.40  * Shear (lb/sq ft)        *          *    0.32  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s)   *          *    1.28  *          *
* Frctn Loss (ft)        *    0.22  * Cum Volume (acre-ft)     *    0.37  *    3.38  *    0.37  *
* C & E Loss (ft)        *    0.02  * Cum SA (acres)           *    0.44  *    1.47  *    0.62  *
*************************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 23

INPUT
Description: 23+00
Station Elevation Data    num=      18
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
**********************************************************************************
    -200   135.9    -180     136    -145   137.5    -115     136     -50     135
     -25     136     -20 133.667     -15     129     -10   126.2       0   126.2
      10   126.2      15     129      20 134.333      25     137      70     139
     110     143     160     147     200   150.2

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
    -200     .05     -20     .03      20     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -20      20              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
*************************************************************************************************
* E.G. Elev (ft)         *  128.94  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.19  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  128.75  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   62.49  *          *
* E.G. Slope (ft/ft)     *0.001935  * Area (sq ft)           *          *   62.49  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)              *          *  220.00  *          *
* Top Width (ft)         *   29.09  * Top Width (ft)          *          *   29.09  *          *
* Vel Total (ft/s)       *    3.52  * Avg. Vel. (ft/s)        *          *    3.52  *          *
* Max Chl Dpth (ft)      *    2.55  * Hydr. Depth (ft)        *          *    2.15  *          *
* Conv. Total (cfs)      *  5001.4  * Conv. (cfs)              *          *  5001.4  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)        *          *   30.42  *          *
* Min Ch El (ft)         *  126.20  * Shear (lb/sq ft)        *          *    0.25  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s)   *          *    0.87  *          *
* Frctn Loss (ft)        *    0.19  * Cum Volume (acre-ft)     *    0.37  *    3.25  *    0.37  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)           *    0.44  *    1.41  *    0.62  *
*************************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 22
```

```
INPUT
Description: 22+00
Station Elevation Data    num=      16
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200   135.7     -80   136.5     -30     134     -25   134.5     -20 132.833
     -15   128.5     -10     126       0     126      10     126      15     129
      20 134.667      25   137.5      90     141     120     143     125     146
     200     150

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -20     .03      20     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -20      20              100     100     100              .1       .3

CROSS SECTION OUTPUT  Profile #100
*************************************************************************************************
* E.G. Elev (ft)         *  128.75  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.19  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  128.56  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   63.14  *          *
* E.G. Slope (ft/ft)     *0.001888  * Area (sq ft)           *          *   63.14  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   29.33  * Top Width (ft)          *          *   29.33  *          *
* Vel Total (ft/s)       *    3.48  * Avg. Vel. (ft/s)       *          *    3.48  *          *
* Max Chl Dpth (ft)      *    2.56  * Hydr. Depth (ft)       *          *    2.15  *          *
* Conv. Total (cfs)      *  5063.0  * Conv. (cfs)            *          *  5063.0  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   30.65  *          *
* Min Ch El (ft)         *  126.00  * Shear (lb/sq ft)       *          *    0.24  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    0.85  *          *
* Frctn Loss (ft)        *    0.17  * Cum Volume (acre-ft)   *    0.37  *    3.10  *    0.37  *
* C & E Loss (ft)        *    0.01  * Cum SA (acres)         *    0.44  *    1.34  *    0.62  *
*************************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 21

INPUT
Description: 21+00
Station Elevation Data    num=      16
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200   136.1    -145     137    -135     138    -120   138.7     -85   143.5
     -20 130.583     -15     128     -10   125.8       0   125.8      10   125.8
      15   127.5      20 132.194      25     134      65     138     125     141
     200   145.9

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -20     .03      20     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -20      20              100     100     100              .1       .3

CROSS SECTION OUTPUT  Profile #100
*************************************************************************************************
* E.G. Elev (ft)         *  128.57  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.16  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  128.41  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   69.13  *          *
* E.G. Slope (ft/ft)     *0.001538  * Area (sq ft)           *          *   69.13  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   31.76  * Top Width (ft)          *          *   31.76  *          *
* Vel Total (ft/s)       *    3.18  * Avg. Vel. (ft/s)       *          *    3.18  *          *
* Max Chl Dpth (ft)      *    2.61  * Hydr. Depth (ft)       *          *    2.18  *          *
* Conv. Total (cfs)      *  5610.3  * Conv. (cfs)            *          *  5610.3  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   32.96  *          *
* Min Ch El (ft)         *  125.80  * Shear (lb/sq ft)       *          *    0.20  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    0.64  *          *
* Frctn Loss (ft)        *    0.14  * Cum Volume (acre-ft)   *    0.37  *    2.95  *    0.37  *
* C & E Loss (ft)        *    0.01  * Cum SA (acres)         *    0.44  *    1.27  *    0.62  *
```

```
*********************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 20

INPUT
Description: 20+00
Station Elevation Data    num=      20
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200     136    -175     136    -150     138    -135   137.2    -130   137.7
    -110   139.5     -85   144.5     -60     142     -45   134.5     -20 129.566
     -15     127     -10   125.6       0   125.6      10   125.6      15     127
      20     131      25     133      80     136     110     144     200   150.5

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -20     .03      20     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -20      20              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
*********************************************************************************************
* E.G. Elev (ft)         *  128.42  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.13  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  128.29  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   76.50  *          *
* E.G. Slope (ft/ft)     *0.001202  * Area (sq ft)           *          *   76.50  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   34.14  * Top Width (ft)         *          *   34.14  *          *
* Vel Total (ft/s)       *    2.88  * Avg. Vel. (ft/s)       *          *    2.88  *          *
* Max Chl Dpth (ft)      *    2.69  * Hydr. Depth (ft)       *          *    2.24  *          *
* Conv. Total (cfs)      *  6346.8  * Conv. (cfs)            *          *  6346.8  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   35.29  *          *
* Min Ch El (ft)         *  125.60  * Shear (lb/sq ft)       *          *    0.16  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    0.47  *          *
* Frctn Loss (ft)        *    0.12  * Cum Volume (acre-ft)   *    0.37  *    2.78  *    0.37  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)         *    0.44  *    1.20  *    0.62  *
*********************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 19

INPUT
Description: 19+00
Station Elevation Data    num=      13
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200     136    -125     138     -20     134     -15     127     -10   125.4
       0   125.4      10   125.4      15     127      20   132.3      45     134
      75     145     150   147.5     200   146.2

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -20     .03      20     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -20      20              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
*********************************************************************************************
* E.G. Elev (ft)         *  128.31  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.13  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  128.18  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   76.48  *          *
* E.G. Slope (ft/ft)     *0.001125  * Area (sq ft)           *          *   76.48  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   31.95  * Top Width (ft)         *          *   31.95  *          *
* Vel Total (ft/s)       *    2.88  * Avg. Vel. (ft/s)       *          *    2.88  *          *
* Max Chl Dpth (ft)      *    2.78  * Hydr. Depth (ft)       *          *    2.39  *          *
```

```
* Conv. Total (cfs)      *  6559.9  * Conv. (cfs)            *          *  6559.9  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   33.57  *          *
* Min Ch El (ft)         *  125.40  * Shear (lb/sq ft)       *          *    0.16  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    0.46  *          *
* Frctn Loss (ft)        *    0.11  * Cum Volume (acre-ft)   *    0.37  *    2.61  *    0.37  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)         *    0.44  *    1.12  *    0.62  *
*********************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 18

INPUT
Description: 18+00
Station Elevation Data    num=      15
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
    -200   135.3     -25     135     -20 132.333     -15     127     -10   125.2
       0   125.2      10   125.2      15     127      20  129.75      25   132.5
      80     136      95     139     120     141     125     142     180     143

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -20     .03      20     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -20      20              100     100     100              .1       .3

CROSS SECTION OUTPUT  Profile #100
*********************************************************************************************
* E.G. Elev (ft)         *  128.20  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.12  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  128.07  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   78.83  *          *
* E.G. Slope (ft/ft)     *0.001048  * Area (sq ft)           *          *   78.83  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   32.96  * Top Width (ft)         *          *   32.96  *          *
* Vel Total (ft/s)       *    2.79  * Avg. Vel. (ft/s)       *          *    2.79  *          *
* Max Chl Dpth (ft)      *    2.87  * Hydr. Depth (ft)       *          *    2.39  *          *
* Conv. Total (cfs)      *  6795.4  * Conv. (cfs)            *          *  6795.4  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   34.33  *          *
* Min Ch El (ft)         *  125.20  * Shear (lb/sq ft)       *          *    0.15  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    0.42  *          *
* Frctn Loss (ft)        *    0.10  * Cum Volume (acre-ft)   *    0.37  *    2.43  *    0.37  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)         *    0.44  *    1.05  *    0.62  *
*********************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 17

INPUT
Description: 17+00
Station Elevation Data    num=      14
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
    -200     136    -140     136    -140     134     -65     133     -25   134.5
     -20     132     -15     127     -10     125       0     125      10     125
      15     127      20     131      80     140     200     141

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -20     .03      20     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -20      20              100     100     100              .1       .3

CROSS SECTION OUTPUT  Profile #100
*********************************************************************************************
* E.G. Elev (ft)         *  128.09  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.12  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  127.98  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   80.41  *          *
```

```
* E.G. Slope (ft/ft)     *0.000958  * Area (sq ft)           *          *   80.41  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   32.20  * Top Width (ft)          *          *   32.20  *          *
* Vel Total (ft/s)       *    2.74  * Avg. Vel. (ft/s)        *          *    2.74  *          *
* Max Chl Dpth (ft)      *    2.98  * Hydr. Depth (ft)        *          *    2.50  *          *
* Conv. Total (cfs)      *  7108.6  * Conv. (cfs)             *          *  7108.6  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)        *          *   33.72  *          *
* Min Ch El (ft)         *  125.00  * Shear (lb/sq ft)        *          *    0.14  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s)  *          *    0.39  *          *
* Frctn Loss (ft)        *    0.10  * Cum Volume (acre-ft)    *    0.37  *    2.25  *    0.37  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)          *    0.44  *    0.97  *    0.62  *
*****************************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 16

INPUT
Description: 16+00
Station Elevation Data    num=      15
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*********************************************************************************
    -200     134     -40     134     -20   128.4     -15     127     -10   124.9
       0   124.9      10   124.9      15     127      20   130.5      25   130.5
      30     128      75   132.5      95     138     150     141     200   140.5

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -20     .03      20     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -20      20              100     100     100              .1       .3

CROSS SECTION OUTPUT  Profile #100
*****************************************************************************************************
* E.G. Elev (ft)         *  128.00  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.12  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  127.88  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   80.84  *          *
* E.G. Slope (ft/ft)     *0.001013  * Area (sq ft)           *          *   80.84  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   34.40  * Top Width (ft)          *          *   34.40  *          *
* Vel Total (ft/s)       *    2.72  * Avg. Vel. (ft/s)        *          *    2.72  *          *
* Max Chl Dpth (ft)      *    2.98  * Hydr. Depth (ft)        *          *    2.35  *          *
* Conv. Total (cfs)      *  6911.5  * Conv. (cfs)             *          *  6911.5  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)        *          *   35.64  *          *
* Min Ch El (ft)         *  124.90  * Shear (lb/sq ft)        *          *    0.14  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s)  *          *    0.39  *          *
* Frctn Loss (ft)        *    0.10  * Cum Volume (acre-ft)    *    0.37  *    2.06  *    0.37  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)          *    0.44  *    0.90  *    0.62  *
*****************************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 15

INPUT
Description: 15+00
Station Elevation Data    num=      13
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*********************************************************************************
    -200     134     -20     134     -15     127     -10   124.8       0   124.8
      10   124.8      15     127      20     129      25     130      87     132
     105     137     187     141     200     141

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -20     .03      20     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -20      20              100     100     100              .1       .3

CROSS SECTION OUTPUT  Profile #100
```

E.G. Elev (ft)	127.89	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.12	Wt. n-Val.		0.030	
W.S. Elev (ft)	127.77	Reach Len. (ft)	100.00	100.00	100.00
Crit W.S. (ft)		Flow Area (sq ft)		79.16	
E.G. Slope (ft/ft)	0.001019	Area (sq ft)		79.16	
Q Total (cfs)	220.00	Flow (cfs)		220.00	
Top Width (ft)	32.49	Top Width (ft)		32.49	
Vel Total (ft/s)	2.78	Avg. Vel. (ft/s)		2.78	
Max Chl Dpth (ft)	2.97	Hydr. Depth (ft)		2.44	
Conv. Total (cfs)	6893.0	Conv. (cfs)		6893.0	
Length Wtd. (ft)	100.00	Wetted Per. (ft)		33.96	
Min Ch El (ft)	124.80	Shear (lb/sq ft)		0.15	
Alpha	1.00	Stream Power (lb/ft s)		0.41	
Frctn Loss (ft)	0.10	Cum Volume (acre-ft)	0.37	1.88	0.37
C & E Loss (ft)	0.00	Cum SA (acres)	0.44	0.82	0.62

CROSS SECTION

RIVER: French Stream
REACH: 1 RS: 14

INPUT
Description: 14+00
Station Elevation Data num= 16

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-200	138	-137	138	-87.5	134	-25	134	-20	131.667
-15	127	-10	124.7	0	124.7	10	124.7	15	127
20	130.171	95	132	112	135.8	115	135.5	175	140
200	139								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-200	.05	-20	.03	20	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
-20	20	100	100	100	.1	.3

CROSS SECTION OUTPUT Profile #100

E.G. Elev (ft)	127.79	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.12	Wt. n-Val.		0.030	
W.S. Elev (ft)	127.67	Reach Len. (ft)	100.00	100.00	100.00
Crit W.S. (ft)		Flow Area (sq ft)		78.10	
E.G. Slope (ft/ft)	0.001035	Area (sq ft)		78.10	
Q Total (cfs)	220.00	Flow (cfs)		220.00	
Top Width (ft)	31.77	Top Width (ft)		31.77	
Vel Total (ft/s)	2.82	Avg. Vel. (ft/s)		2.82	
Max Chl Dpth (ft)	2.97	Hydr. Depth (ft)		2.46	
Conv. Total (cfs)	6837.7	Conv. (cfs)		6837.7	
Length Wtd. (ft)	100.00	Wetted Per. (ft)		33.23	
Min Ch El (ft)	124.70	Shear (lb/sq ft)		0.15	
Alpha	1.00	Stream Power (lb/ft s)		0.43	
Frctn Loss (ft)	0.11	Cum Volume (acre-ft)	0.37	1.70	0.37
C & E Loss (ft)	0.00	Cum SA (acres)	0.44	0.75	0.62

CROSS SECTION

RIVER: French Stream
REACH: 1 RS: 13

INPUT
Description: 13+00
Station Elevation Data num= 19

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-200	137.8	-160	138	-113	138	-60	134	-25	132
-15	127	-10	124.6	0	124.6	10	124.6	15	127
25	130	45	130.5	60	130	112.5	132	125	134
145	135	150	133	163	133	200	134		

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val

```
**********************************************
    -200     .05     -25     .03      25     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -25      25              100     100     100              .1       .3

CROSS SECTION OUTPUT  Profile #100
*********************************************************************************************
* E.G. Elev (ft)         *  127.68  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.12  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  127.56  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   77.59  *          *
* E.G. Slope (ft/ft)     *0.001103  * Area (sq ft)           *          *   77.59  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   32.98  * Top Width (ft)         *          *   32.98  *          *
* Vel Total (ft/s)       *    2.84  * Avg. Vel. (ft/s)       *          *    2.84  *          *
* Max Chl Dpth (ft)      *    2.96  * Hydr. Depth (ft)       *          *    2.35  *          *
* Conv. Total (cfs)      *  6623.9  * Conv. (cfs)            *          *  6623.9  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   34.28  *          *
* Min Ch El (ft)         *  124.60  * Shear (lb/sq ft)       *          *    0.16  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    0.44  *          *
* Frctn Loss (ft)        *    0.10  * Cum Volume (acre-ft)   *    0.37  *    1.52  *    0.37  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)         *    0.44  *    0.67  *    0.62  *
*********************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 12

INPUT
Description: 12+00
Station Elevation Data    num=      14
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200     134     -55     134     -20     132     -15     127     -10   124.4
       0   124.4      10   124.4      15     127      20     128     112     131
     125   132.3     138     132     200     132     250     135

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
    -200     .05     -15     .03      10     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -15      10              100     100     100              .1       .3

CROSS SECTION OUTPUT  Profile #100
*********************************************************************************************
* E.G. Elev (ft)         *  127.58  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.14  * Wt. n-Val.             *   0.050  *   0.030  *   0.050  *
* W.S. Elev (ft)         *  127.44  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *    0.10  *   69.52  *    9.19  *
* E.G. Slope (ft/ft)     *0.000988  * Area (sq ft)           *    0.10  *   69.52  *    9.19  *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *    0.03  *  210.47  *    9.51  *
* Top Width (ft)         *   32.65  * Top Width (ft)         *    0.44  *   25.00  *    7.20  *
* Vel Total (ft/s)       *    2.79  * Avg. Vel. (ft/s)       *    0.27  *    3.03  *    1.03  *
* Max Chl Dpth (ft)      *    3.04  * Hydr. Depth (ft)       *    0.22  *    2.78  *    1.28  *
* Conv. Total (cfs)      *  7000.2  * Conv. (cfs)            *     0.8  *  6696.8  *   302.5  *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *    0.62  *   25.64  *    7.88  *
* Min Ch El (ft)         *  124.40  * Shear (lb/sq ft)       *    0.01  *    0.17  *    0.07  *
* Alpha                  *    1.13  * Stream Power (lb/ft s) *    0.00  *    0.51  *    0.07  *
* Frctn Loss (ft)        *    0.10  * Cum Volume (acre-ft)   *    0.37  *    1.35  *    0.36  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)         *    0.44  *    0.61  *    0.61  *
*********************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 11

INPUT
Description: 11+00
Station Elevation Data    num=      13
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200     134     -45     134     -35     132     -15     127     -10   124.3
```

```
       0   124.3      10   124.3      15     127      50   133.8      95     134
     165     132     175     134     200     134

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
    -200     .05     -10     .03      10     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -10      10              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
*****************************************************************************************
* E.G. Elev (ft)         *  127.47  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.16  * Wt. n-Val.             *   0.050  *   0.030  *   0.050  *
* W.S. Elev (ft)         *  127.31  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *    8.51  *   60.27  *    8.57  *
* E.G. Slope (ft/ft)     *0.001047  * Area (sq ft)           *    8.51  *   60.27  *    8.57  *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *    9.35  *  201.50  *    9.15  *
* Top Width (ft)         *   32.87  * Top Width (ft)          *    6.25  *   20.00  *    6.61  *
* Vel Total (ft/s)       *    2.84  * Avg. Vel. (ft/s)       *    1.10  *    3.34  *    1.07  *
* Max Chl Dpth (ft)      *    3.01  * Hydr. Depth (ft)       *    1.36  *    3.01  *    1.30  *
* Conv. Total (cfs)      *  6800.4  * Conv. (cfs)            *   289.0  *  6228.5  *   282.8  *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *    6.98  *   20.00  *    7.33  *
* Min Ch El (ft)         *  124.30  * Shear (lb/sq ft)       *    0.08  *    0.20  *    0.08  *
* Alpha                  *    1.28  * Stream Power (lb/ft s) *    0.09  *    0.66  *    0.08  *
* Frctn Loss (ft)        *    0.11  * Cum Volume (acre-ft)   *    0.36  *    1.20  *    0.34  *
* C & E Loss (ft)        *    0.01  * Cum SA (acres)         *    0.44  *    0.55  *    0.59  *
*****************************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 10

INPUT
Description: 10+00
Station Elevation Data    num=      18
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
**************************************************************************
    -200     134     -30     134     -20  128.75     -15     127     -10   124.3
       0   124.3      10   124.3      15     127      20     128      40     128
      45     127      60     127     105     133     137     133     150     132
     182     132     190     134     200     134

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
    -200     .05     -15     .03      15     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -15      15              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
*****************************************************************************************
* E.G. Elev (ft)         *  127.36  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.13  * Wt. n-Val.             *   0.050  *   0.030  *   0.050  *
* W.S. Elev (ft)         *  127.22  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *    0.07  *   74.21  *    3.79  *
* E.G. Slope (ft/ft)     *0.001123  * Area (sq ft)           *    0.07  *   74.21  *    3.79  *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *    0.02  *  218.68  *    1.30  *
* Top Width (ft)         *   49.55  * Top Width (ft)          *    0.64  *   30.00  *   18.91  *
* Vel Total (ft/s)       *    2.82  * Avg. Vel. (ft/s)       *    0.22  *    2.95  *    0.34  *
* Max Chl Dpth (ft)      *    2.92  * Hydr. Depth (ft)       *    0.11  *    2.47  *    0.20  *
* Conv. Total (cfs)      *  6565.6  * Conv. (cfs)            *     0.5  *  6526.3  *    38.8  *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *    0.68  *   31.36  *   18.97  *
* Min Ch El (ft)         *  124.30  * Shear (lb/sq ft)       *    0.01  *    0.17  *    0.01  *
* Alpha                  *    1.09  * Stream Power (lb/ft s) *    0.00  *    0.49  *    0.00  *
* Frctn Loss (ft)        *    0.12  * Cum Volume (acre-ft)   *    0.35  *    1.05  *    0.32  *
* C & E Loss (ft)        *    0.00  * Cum SA (acres)         *    0.43  *    0.50  *    0.56  *
*****************************************************************************************

Warning: Divided flow computed for this cross-section.

CROSS SECTION


RIVER: French Stream
```

```
REACH: 1                  RS: 9

INPUT
Description: 9+00
Station Elevation Data    num=      15
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
    -200     134     -40     134     -25     132     -15     127     -10   124.2
       0   124.2      10   124.2      15     127      20 127.125      50     128
      70     127      95     127     130   131.2     137   130.5     200   132.5

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -15     .03      15     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -15      15              100     100     100              .1       .3

CROSS SECTION OUTPUT  Profile #100
*********************************************************************************************
* E.G. Elev (ft)         *  127.24  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.14  * Wt. n-Val.             *   0.050  *   0.030  *   0.050  *
* W.S. Elev (ft)         *  127.10  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *    0.01  *   73.06  *    2.91  *
* E.G. Slope (ft/ft)     *0.001195  * Area (sq ft)           *    0.01  *   73.06  *    2.91  *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *    0.00  *  219.38  *    0.61  *
* Top Width (ft)         *   62.18  * Top Width (ft)          *    0.20  *   30.00  *   31.97  *
* Vel Total (ft/s)       *    2.90  * Avg. Vel. (ft/s)       *    0.13  *    3.00  *    0.21  *
* Max Chl Dpth (ft)      *    2.90  * Hydr. Depth (ft)       *    0.05  *    2.44  *    0.09  *
* Conv. Total (cfs)      *  6363.9  * Conv. (cfs)            *     0.0  *  6346.1  *    17.8  *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *    0.23  *   31.46  *   31.98  *
* Min Ch El (ft)         *  124.20  * Shear (lb/sq ft)       *    0.00  *    0.17  *    0.01  *
* Alpha                  *    1.07  * Stream Power (lb/ft s) *    0.00  *    0.52  *    0.00  *
* Frctn Loss (ft)        *    0.07  * Cum Volume (acre-ft)   *    0.35  *    0.88  *    0.31  *
* C & E Loss (ft)        *    0.03  * Cum SA (acres)         *    0.43  *    0.43  *    0.51  *
*********************************************************************************************

Warning: Divided flow computed for this cross-section.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than
         0.7 or greater than 1.4.  This may indicate the need for additional cross sections.

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 8

INPUT
Description: 8+00
Station Elevation Data    num=      10
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
    -200   139.5    -100     140     -20   127.2     -10     124       0     124
      10     124      20 125.513      75   127.2     100   130.5     200     132

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -20     .03      20     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -20      20              100     100     100              .1       .3

CROSS SECTION OUTPUT  Profile #100
*********************************************************************************************
* E.G. Elev (ft)         *  127.15  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.05  * Wt. n-Val.             *          *   0.030  *   0.050  *
* W.S. Elev (ft)         *  127.09  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *  100.06  *   40.55  *
* E.G. Slope (ft/ft)     *0.000472  * Area (sq ft)           *          *  100.06  *   40.55  *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  197.65  *   22.35  *
* Top Width (ft)         *   91.07  * Top Width (ft)          *          *   39.66  *   51.42  *
* Vel Total (ft/s)       *    1.56  * Avg. Vel. (ft/s)       *          *    1.98  *    0.55  *
* Max Chl Dpth (ft)      *    3.09  * Hydr. Depth (ft)       *          *    2.52  *    0.79  *
* Conv. Total (cfs)      * 10122.4  * Conv. (cfs)            *          *  9094.2  *  1028.1  *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   40.25  *   51.44  *
* Min Ch El (ft)         *  124.00  * Shear (lb/sq ft)       *          *    0.07  *    0.02  *
* Alpha                  *    1.44  * Stream Power (lb/ft s) *          *    0.14  *    0.01  *
```

```
* Frctn Loss (ft)        *    0.07  * Cum Volume (acre-ft)   *    0.35  *    0.68  *    0.26  *
* C & E Loss (ft)        *    0.01  * Cum SA (acres)         *    0.43  *    0.35  *    0.41  *
*********************************************************************************************

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than
         0.7 or greater than 1.4.  This may indicate the need for additional cross sections.

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 7

INPUT
Description: 7+00
Station Elevation Data    num=      14
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
    -200     139    -100   138.5     -50     136     -30     133     -25     133
     -20   132.5     -15     127     -10   123.8       0   123.8      10   123.8
      15     127      20   128.2      35     130     200     133

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -20     .03      35     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -20      35               56      56      56             .1       .3

CROSS SECTION OUTPUT  Profile #100
*********************************************************************************************
* E.G. Elev (ft)         *  127.07  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.12  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  126.95  * Reach Len. (ft)        *   56.00  *   56.00  *   56.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *          *   78.55  *          *
* E.G. Slope (ft/ft)     *0.000953  * Area (sq ft)           *          *   78.55  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)              *          *  220.00  *          *
* Top Width (ft)         *   29.85  * Top Width (ft)          *          *   29.85  *          *
* Vel Total (ft/s)       *    2.80  * Avg. Vel. (ft/s)        *          *    2.80  *          *
* Max Chl Dpth (ft)      *    3.15  * Hydr. Depth (ft)        *          *    2.63  *          *
* Conv. Total (cfs)      *  7125.0  * Conv. (cfs)             *          *  7125.0  *          *
* Length Wtd. (ft)       *   56.00  * Wetted Per. (ft)        *          *   31.69  *          *
* Min Ch El (ft)         *  123.80  * Shear (lb/sq ft)        *          *    0.15  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s)  *          *    0.41  *          *
* Frctn Loss (ft)        *    0.10  * Cum Volume (acre-ft)    *    0.35  *    0.47  *    0.22  *
* C & E Loss (ft)        *    0.02  * Cum SA (acres)          *    0.43  *    0.27  *    0.35  *
*********************************************************************************************

Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than
         0.7 or greater than 1.4.  This may indicate the need for additional cross sections.

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 6.44

INPUT
Description: 6+44
Station Elevation Data    num=      10
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
    -200   136.5     -20     129     -10   122.9       0     128      10   122.9
      20     129      25     129      35   129.4     100     130     200     132

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -20     .03      20     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -20      20               44      44      44             .1       .3

CROSS SECTION OUTPUT  Profile #100
*********************************************************************************************
* E.G. Elev (ft)         *  126.96  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.29  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  126.68  * Reach Len. (ft)        *   44.00  *   44.00  *   44.00  *
```

```
* Crit W.S. (ft)         *  125.87  * Flow Area (sq ft)      *          *   51.35  *          *
* E.G. Slope (ft/ft)     *0.003838  * Area (sq ft)           *          *   51.35  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)              *          *  220.00  *          *
* Top Width (ft)         *   27.19  * Top Width (ft)          *          *   27.19  *          *
* Vel Total (ft/s)       *    4.28  * Avg. Vel. (ft/s)        *          *    4.28  *          *
* Max Chl Dpth (ft)      *    3.78  * Hydr. Depth (ft)        *          *    1.89  *          *
* Conv. Total (cfs)      *  3550.9  * Conv. (cfs)              *          *  3550.9  *          *
* Length Wtd. (ft)       *   44.00  * Wetted Per. (ft)        *          *   31.13  *          *
* Min Ch El (ft)         *  122.90  * Shear (lb/sq ft)        *          *    0.40  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s)   *          *    1.69  *          *
* Frctn Loss (ft)        *          * Cum Volume (acre-ft)    *    0.35  *    0.39  *    0.22  *
* C & E Loss (ft)        *          * Cum SA (acres)          *    0.43  *    0.23  *    0.35  *
*****************************************************************************************************

CULVERT


RIVER: French Stream
REACH: 1                  RS: 6.34

INPUT
Description: 2-60"RCP
Distance from Upstream XS =       2
Deck/Roadway Width        =      26
Weir Coefficient          =     2.6
Upstream  Deck/Roadway Coordinates
    num=       2
     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord
***********************************************
     -20     129   122.9      20     129   122.8

Upstream Bridge Cross Section Data
Station Elevation Data    num=      10
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200   136.5     -20     129     -10   122.9       0     128      10   122.9
      20     129      25     129      35   129.4     100     130     200     132

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -20     .03      20     .05

Bank Sta: Left   Right    Coeff Contr.   Expan.
           -20      20             .1       .3

Downstream  Deck/Roadway Coordinates
    num=       2
     Sta Hi Cord Lo Cord     Sta Hi Cord Lo Cord
***********************************************
     -20     129   122.9      20     129   122.8

Downstream Bridge Cross Section Data
Station Elevation Data    num=      11
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200     135    -100     133     -80     130     -20     129     -10   122.8
       0     129      10   122.8      20     129      60     130     180     130
     200     133

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -20     .03      20     .05

Bank Sta: Left   Right    Coeff Contr.   Expan.
           -20      20             .1       .3

Upstream Embankment side slope              =       0 horiz. to 1.0 vertical
Downstream Embankment side slope            =       0 horiz. to 1.0 vertical
Maximum allowable submergence for weir flow =     .95
Elevation at which weir flow begins         =
Energy head used in spillway design         =
Spillway height used in design              =
Weir crest shape                            = Broad Crested

Number of Culverts =  1

Culvert Name     Shape      Rise    Span
```

```
Culvert #1      Circular       6
FHWA Chart # 1 - Concrete Pipe Culvert
FHWA Scale # 1 - Square edge entrance with headwall
Solution Criteria = Highest U.S. EG
Culvert Upstrm Dist  Length    Top n  Bottom n  Depth Blocked  Entrance Loss Coef   Exit Loss Coef
                  2      38     .013     .013        0                  .1                1
Number of Barrels =  2
Upstream   Elevation =  122.9
Centerline Stations
    Sta.    Sta.
     -10      10
Downstream Elevation =  122.8
Centerline Stations
    Sta.    Sta.
     -10      10

CULVERT OUTPUT  Profile #100  Culv Group:  Culvert #1
**************************************************************************
* Q Culv Group (cfs)     *  220.00  * Culv Full Len (ft)     *          *
* # Barrels              *       2  * Culv Vel US (ft/s)     *    7.34  *
* Q Barrel (cfs)         *  110.00  * Culv Vel DS (ft/s)     *    7.22  *
* E.G. US. (ft)          *  126.96  * Culv Inv El Up (ft)    *  122.90  *
* W.S. US. (ft)          *  126.68  * Culv Inv El Dn (ft)    *  122.80  *
* E.G. DS (ft)           *  126.69  * Culv Frctn Ls (ft)     *    0.09  *
* W.S. DS (ft)           *  125.98  * Culv Exit Loss (ft)    *    0.11  *
* Delta EG (ft)          *    0.28  * Culv Entr Loss (ft)    *    0.08  *
* Delta WS (ft)          *    0.69  * Q Weir (cfs)           *          *
* E.G. IC (ft)           *  126.96  * Weir Sta Lft (ft)      *          *
* E.G. OC (ft)           *  126.96  * Weir Sta Rgt (ft)      *          *
* Culvert Control        *   Inlet  * Weir Submerg           *          *
* Culv WS Inlet (ft)     *  126.04  * Weir Max Depth (ft)    *          *
* Culv WS Outlet (ft)    *  125.98  * Weir Avg Depth (ft)    *          *
* Culv Nml Depth (ft)    *    3.02  * Weir Flow Area (sq ft) *          *
* Culv Crt Depth (ft)    *    2.83  * Min El Weir Flow (ft)  *  129.01  *
**************************************************************************

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 6

INPUT
Description: 6+00
Station Elevation Data    num=      11
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*******************************************************************************
    -200     135    -100     133     -80     130     -20     129     -10   122.8
       0     129      10   122.8      20     129      60     130     180     130
     200     133

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
**********************************************
    -200     .05     -20     .03      20     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
            -20      20              100     100     100              .1       .3

CROSS SECTION OUTPUT  Profile #100
*********************************************************************************************
* E.G. Elev (ft)         *  126.69  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.70  * Wt. n-Val.             *          *   0.030  *          *
* W.S. Elev (ft)         *  125.98  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *  125.90  * Flow Area (sq ft)      *          *   32.67  *          *
* E.G. Slope (ft/ft)     *0.012363  * Area (sq ft)           *          *   32.67  *          *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *          *  220.00  *          *
* Top Width (ft)         *   20.53  * Top Width (ft)         *          *   20.53  *          *
* Vel Total (ft/s)       *    6.73  * Avg. Vel. (ft/s)       *          *    6.73  *          *
* Max Chl Dpth (ft)      *    3.18  * Hydr. Depth (ft)       *          *    1.59  *          *
* Conv. Total (cfs)      *  1978.6  * Conv. (cfs)            *          *  1978.6  *          *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *          *   24.16  *          *
* Min Ch El (ft)         *  122.80  * Shear (lb/sq ft)       *          *    1.04  *          *
* Alpha                  *    1.00  * Stream Power (lb/ft s) *          *    7.03  *          *
* Frctn Loss (ft)        *    0.24  * Cum Volume (acre-ft)   *    0.35  *    0.35  *    0.22  *
* C & E Loss (ft)        *    0.19  * Cum SA (acres)         *    0.43  *    0.21  *    0.35  *
*********************************************************************************************

Warning: Divided flow computed for this cross-section.
```

```
Warning: The velocity head has changed by more than 0.5 ft (0.15 m).  This may indicate the need for
         additional cross sections.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than
         0.7 or greater than 1.4.  This may indicate the need for additional cross sections.

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 5

INPUT
Description: 5+00
Station Elevation Data    num=      18
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
    -200     131    -170  131.75    -145     131    -100     128     -75     126
     -50   126.5     -15     126     -10   125.2       0   122.4      10   124.5
      15  124.85      20   125.2      75     126     115   125.5     135     124
     140   126.5     155  128.75     200     130

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -15     .03      15     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -15      15              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
*********************************************************************************************
* E.G. Elev (ft)         *  126.25  * Element                *  Left OB *  Channel * Right OB *
* Vel Head (ft)          *    0.07  * Wt. n-Val.             *   0.050  *   0.030  *   0.050  *
* W.S. Elev (ft)         *  126.18  * Reach Len. (ft)        *  100.00  *  100.00  *  100.00  *
* Crit W.S. (ft)         *          * Flow Area (sq ft)      *    2.09  *   61.45  *   87.93  *
* E.G. Slope (ft/ft)     *0.001012  * Area (sq ft)           *    2.09  *   61.45  *   87.93  *
* Q Total (cfs)          *  220.00  * Flow (cfs)             *    0.39  *  153.85  *   65.76  *
* Top Width (ft)         *  177.89  * Top Width (ft)         *   23.53  *   30.00  *  124.36  *
* Vel Total (ft/s)       *    1.45  * Avg. Vel. (ft/s)       *    0.19  *    2.50  *    0.75  *
* Max Chl Dpth (ft)      *    3.78  * Hydr. Depth (ft)       *    0.09  *    2.05  *    0.71  *
* Conv. Total (cfs)      *  6916.6  * Conv. (cfs)            *    12.4  *  4836.8  *  2067.4  *
* Length Wtd. (ft)       *  100.00  * Wetted Per. (ft)       *   23.54  *   30.68  *  124.95  *
* Min Ch El (ft)         *  122.40  * Shear (lb/sq ft)       *    0.01  *    0.13  *    0.04  *
* Alpha                  *    2.16  * Stream Power (lb/ft s) *    0.00  *    0.32  *    0.03  *
* Frctn Loss (ft)        *    0.23  * Cum Volume (acre-ft)   *    0.35  *    0.24  *    0.12  *
* C & E Loss (ft)        *    0.04  * Cum SA (acres)         *    0.40  *    0.15  *    0.21  *
*********************************************************************************************

Warning: Divided flow computed for this cross-section.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than
         0.7 or greater than 1.4.  This may indicate the need for additional cross sections.

CROSS SECTION


RIVER: French Stream
REACH: 1                  RS: 4

INPUT
Description: 4+00
Station Elevation Data    num=      18
     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev     Sta    Elev
*****************************************************************************
    -200     131    -160  131.25    -100     127     -65   124.5     -25     127
     -15 126.333     -10     126    -6.5     125       0   122.2      10     125
      15   125.5      20     126      45     126     100   125.5     115   125.5
     145     126     200     126     250     131

Manning's n Values        num=       3
     Sta   n Val     Sta   n Val     Sta   n Val
***********************************************
    -200     .05     -15     .03      15     .05

Bank Sta: Left   Right    Lengths: Left Channel   Right     Coeff Contr.   Expan.
           -15      15              100     100     100             .1       .3

CROSS SECTION OUTPUT  Profile #100
*********************************************************************************************
* E.G. Elev (ft)         *  125.97  * Element                *  Left OB *  Channel * Right OB *
```

Vel Head (ft)	0.51	Wt. n-Val.	0.050	0.030	
W.S. Elev (ft)	125.46	Reach Len. (ft)	100.00	100.00	100.00
Crit W.S. (ft)	125.46	Flow Area (sq ft)	13.92	32.19	
E.G. Slope (ft/ft)	0.009966	Area (sq ft)	13.92	32.19	
Q Total (cfs)	220.00	Flow (cfs)	25.33	194.67	
Top Width (ft)	51.65	Top Width (ft)	28.90	22.75	
Vel Total (ft/s)	4.77	Avg. Vel. (ft/s)	1.82	6.05	
Max Chl Dpth (ft)	3.26	Hydr. Depth (ft)	0.48	1.41	
Conv. Total (cfs)	2203.8	Conv. (cfs)	253.8	1950.0	
Length Wtd. (ft)	100.00	Wetted Per. (ft)	28.96	23.80	
Min Ch El (ft)	122.20	Shear (lb/sq ft)	0.30	0.84	
Alpha	1.44	Stream Power (lb/ft s)	0.54	5.09	
Frctn Loss (ft)	0.51	Cum Volume (acre-ft)	0.33	0.13	0.02
C & E Loss (ft)	0.13	Cum SA (acres)	0.34	0.09	0.07

Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.
Warning: Divided flow computed for this cross-section.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.
Warning: The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.
Warning: During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

CROSS SECTION

RIVER: French Stream
REACH: 1 RS: 3

INPUT
Description: 3+00
Station Elevation Data num= 21

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-200	130	-160	126	-140	125	-120	123	-80	123
-45	124	-30	126	-15	126	-10	125.5	0	122.1
10	125.5	15	125.667	25	126	65	125.5	80	125
170	125	175	124	180	124	185	124.5	200	125
250	128								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-200	.05	-15	.03	15	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
-15	15	100	100	100	.1	.3

CROSS SECTION OUTPUT Profile #100

E.G. Elev (ft)	124.47	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.06	Wt. n-Val.	0.050	0.030	0.050
W.S. Elev (ft)	124.41	Reach Len. (ft)	100.00	100.00	100.00
Crit W.S. (ft)		Flow Area (sq ft)	98.73	15.68	3.30
E.G. Slope (ft/ft)	0.003123	Area (sq ft)	98.73	15.68	3.30
Q Total (cfs)	220.00	Flow (cfs)	171.52	46.05	2.43
Top Width (ft)	116.87	Top Width (ft)	92.16	13.58	11.13
Vel Total (ft/s)	1.87	Avg. Vel. (ft/s)	1.74	2.94	0.74
Max Chl Dpth (ft)	2.31	Hydr. Depth (ft)	1.07	1.15	0.30
Conv. Total (cfs)	3936.9	Conv. (cfs)	3069.4	824.1	43.4
Length Wtd. (ft)	100.00	Wetted Per. (ft)	92.27	14.35	11.20
Min Ch El (ft)	122.10	Shear (lb/sq ft)	0.21	0.21	0.06
Alpha	1.19	Stream Power (lb/ft s)	0.36	0.63	0.04
Frctn Loss (ft)	0.19	Cum Volume (acre-ft)	0.20	0.08	0.01
C & E Loss (ft)	0.00	Cum SA (acres)	0.20	0.05	0.05

Warning: Divided flow computed for this cross-section.
Warning: The conveyance ratio (upstream conveyance divided by downstream conveyance) is less than 0.7 or greater than 1.4. This may indicate the need for additional cross sections.

CROSS SECTION

RIVER: French Stream

REACH: 1 RS: 2

INPUT
Description: 2+00
Station Elevation Data num= 16

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
-200	135	-100	123	-60	123	-30	124	-20	125
-15	124.8	-10	122	0	122	10	122	15	125
20	125	150	125	170	124	200	124	230	130
250	135								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
-200	.05	-20	.03	20	.05

Bank Sta: Left	Right	Lengths: Left	Channel	Right	Coeff Contr.	Expan.
-20	20	0	0	0	.1	.3

CROSS SECTION OUTPUT Profile #100

E.G. Elev (ft)	124.28	Element	Left OB	Channel	Right OB
Vel Head (ft)	0.08	Wt. n-Val.	0.050	0.030	0.050
W.S. Elev (ft)	124.20	Reach Len. (ft)			
Crit W.S. (ft)	123.50	Flow Area (sq ft)	75.20	52.35	6.50
E.G. Slope (ft/ft)	0.001329	Area (sq ft)	75.20	52.35	6.50
Q Total (cfs)	220.00	Flow (cfs)	76.84	140.87	2.29
Top Width (ft)	144.60	Top Width (ft)	82.00	27.60	35.00
Vel Total (ft/s)	1.64	Avg. Vel. (ft/s)	1.02	2.69	0.35
Max Chl Dpth (ft)	2.20	Hydr. Depth (ft)	0.92	1.90	0.19
Conv. Total (cfs)	6035.1	Conv. (cfs)	2107.8	3864.4	62.8
Length Wtd. (ft)		Wetted Per. (ft)	82.10	28.78	35.02
Min Ch El (ft)	122.00	Shear (lb/sq ft)	0.08	0.15	0.02
Alpha	1.86	Stream Power (lb/ft s)	0.08	0.41	0.01
Frctn Loss (ft)		Cum Volume (acre-ft)			
C & E Loss (ft)		Cum SA (acres)			

Warning: Divided flow computed for this cross-section.

SUMMARY OF MANNING'S N VALUES

River:French Stream

Reach	River Sta.	n1	n2	n3
1	100	.05	.03	.05
1	99	.05	.03	.05
1	98	.05	.03	.05
1	97	.05	.03	.05
1	96	.05	.03	.05
1	95	.05	.03	.05
1	94	.05	.03	.05
1	93	.05	.03	.05
1	92	.05	.03	.05
1	91	.05	.03	.05
1	90	.05	.03	.05
1	89	.05	.03	.05
1	88	.05	.03	.05
1	87	.05	.03	.05
1	86.36	.05	.03	.05
1	85.73	Culvert		
1	85.10	.05	.03	.05
1	85	.05	.03	.05
1	84	.05	.03	.05
1	83	.05	.03	.05
1	82	.05	.03	.05
1	81	.05	.03	.05
1	80	.05	.03	.05
1	79	.05	.03	.05
1	78	.05	.03	.05
1	77	.05	.03	.05
1	76	.05	.03	.05
1	75	.05	.03	.05
1	74	.05	.03	.05
1	73	.05	.03	.05

*1	*	72	* .05*	.03*	.05*
*1	*	71	* .05*	.03*	.05*
*1	*	70	* .05*	.03*	.05*
*1	*	69	* .05*	.03*	.05*
*1	*	67.91	* .05*	.03*	.05*
*1	*	61.91	*Culvert *	*	*
*1	*	55.91	* .05*	.03*	.05*
*1	*	55	* .05*	.03*	.05*
*1	*	54	* .05*	.03*	.05*
*1	*	53	* .05*	.03*	.05*
*1	*	52	* .05*	.03*	.05*
*1	*	51	* .05*	.03*	.05*
*1	*	50	* .05*	.03*	.05*
*1	*	49	* .05*	.03*	.05*
*1	*	48	* .05*	.03*	.05*
*1	*	47	* .05*	.03*	.05*
*1	*	46	* .05*	.03*	.05*
*1	*	45	* .05*	.03*	.05*
*1	*	44	* .05*	.03*	.05*
*1	*	43	* .05*	.03*	.05*
*1	*	42	* .05*	.03*	.05*
*1	*	41	* .05*	.03*	.05*
*1	*	40	* .05*	.03*	.05*
*1	*	39	* .05*	.03*	.05*
*1	*	38	* .05*	.03*	.05*
*1	*	37	* .05*	.03*	.05*
*1	*	36	* .05*	.03*	.05*
*1	*	35	* .05*	.03*	.05*
*1	*	34	* .05*	.03*	.05*
*1	*	33	* .05*	.03*	.05*
*1	*	32	* .05*	.03*	.05*
*1	*	31	* .05*	.03*	.05*
*1	*	30	* .05*	.03*	.05*
*1	*	29	* .05*	.03*	.05*
*1	*	28	* .05*	.03*	.05*
*1	*	27	* .05*	.03*	.05*
*1	*	26	* .05*	.03*	.05*
*1	*	25	* .05*	.03*	.05*
*1	*	24.83	* .05*	.03*	.05*
*1	*	24.67	*Culvert *	*	*
*1	*	24.51	* .05*	.03*	.05*
*1	*	24	* .05*	.03*	.05*
*1	*	23	* .05*	.03*	.05*
*1	*	22	* .05*	.03*	.05*
*1	*	21	* .05*	.03*	.05*
*1	*	20	* .05*	.03*	.05*
*1	*	19	* .05*	.03*	.05*
*1	*	18	* .05*	.03*	.05*
*1	*	17	* .05*	.03*	.05*
*1	*	16	* .05*	.03*	.05*
*1	*	15	* .05*	.03*	.05*
*1	*	14	* .05*	.03*	.05*
*1	*	13	* .05*	.03*	.05*
*1	*	12	* .05*	.03*	.05*
*1	*	11	* .05*	.03*	.05*
*1	*	10	* .05*	.03*	.05*
*1	*	9	* .05*	.03*	.05*
*1	*	8	* .05*	.03*	.05*
*1	*	7	* .05*	.03*	.05*
*1	*	6.44	* .05*	.03*	.05*
*1	*	6.34	*Culvert *	*	*
*1	*	6	* .05*	.03*	.05*
*1	*	5	* .05*	.03*	.05*
*1	*	4	* .05*	.03*	.05*
*1	*	3	* .05*	.03*	.05*
*1	*	2	* .05*	.03*	.05*

****

SUMMARY OF REACH LENGTHS

River: French Stream

Reach	River Sta.	Left	Channel	Right
*1	100	100	100	100
*1	99	100	100	100
*1	98	100	100	100

```
*1              *    97          *      100*      100*      100*
*1              *    96          *      100*      100*      100*
*1              *    95          *      100*      100*      100*
*1              *    94          *      100*      100*      100*
*1              *    93          *      100*      100*      100*
*1              *    92          *      100*      100*      100*
*1              *    91          *      100*      100*      100*
*1              *    90          *      100*      100*      100*
*1              *    89          *      100*      100*      100*
*1              *    88          *      100*      100*      100*
*1              *    87          *       64*       64*       64*
*1              *    86.36       *      126*      126*      126*
*1              *    85.73       *Culvert  *         *         *
*1              *    85.10       *       10*       10*       10*
*1              *    85          *      100*      100*      100*
*1              *    84          *      100*      100*      100*
*1              *    83          *      100*      100*      100*
*1              *    82          *      100*      100*      100*
*1              *    81          *      100*      100*      100*
*1              *    80          *      100*      100*      100*
*1              *    79          *      100*      100*      100*
*1              *    78          *      100*      100*      100*
*1              *    77          *      100*      100*      100*
*1              *    76          *      100*      100*      100*
*1              *    75          *      100*      100*      100*
*1              *    74          *      100*      100*      100*
*1              *    73          *      100*      100*      100*
*1              *    72          *      100*      100*      100*
*1              *    71          *      100*      100*      100*
*1              *    70          *      100*      100*      100*
*1              *    69          *      109*      109*      109*
*1              *    67.91       *     1200*     1200*     1200*
*1              *    61.91       *Culvert  *         *         *
*1              *    55.91       *       91*       91*       91*
*1              *    55          *      100*      100*      100*
*1              *    54          *      100*      100*      100*
*1              *    53          *      100*      100*      100*
*1              *    52          *      100*      100*      100*
*1              *    51          *      100*      100*      100*
*1              *    50          *      100*      100*      100*
*1              *    49          *      100*      100*      100*
*1              *    48          *      100*      100*      100*
*1              *    47          *      100*      100*      100*
*1              *    46          *      100*      100*      100*
*1              *    45          *      100*      100*      100*
*1              *    44          *      100*      100*      100*
*1              *    43          *      100*      100*      100*
*1              *    42          *      100*      100*      100*
*1              *    41          *      100*      100*      100*
*1              *    40          *      100*      100*      100*
*1              *    39          *      100*      100*      100*
*1              *    38          *      100*      100*      100*
*1              *    37          *      100*      100*      100*
*1              *    36          *      100*      100*      100*
*1              *    35          *      100*      100*      100*
*1              *    34          *      100*      100*      100*
*1              *    33          *      100*      100*      100*
*1              *    32          *      100*      100*      100*
*1              *    31          *      100*      100*      100*
*1              *    30          *      100*      100*      100*
*1              *    29          *      100*      100*      100*
*1              *    28          *      100*      100*      100*
*1              *    27          *      100*      100*      100*
*1              *    26          *      100*      100*      100*
*1              *    25          *       17*       17*       17*
*1              *    24.83       *       32*       32*       32*
*1              *    24.67       *Culvert  *         *         *
*1              *    24.51       *       51*       51*       51*
*1              *    24          *      100*      100*      100*
*1              *    23          *      100*      100*      100*
*1              *    22          *      100*      100*      100*
*1              *    21          *      100*      100*      100*
*1              *    20          *      100*      100*      100*
*1              *    19          *      100*      100*      100*
*1              *    18          *      100*      100*      100*
*1              *    17          *      100*      100*      100*
*1              *    16          *      100*      100*      100*
*1              *    15          *      100*      100*      100*
*1              *    14          *      100*      100*      100*
```

*1	* 13	* 100*	100*	100*
*1	* 12	* 100*	100*	100*
*1	* 11	* 100*	100*	100*
*1	* 10	* 100*	100*	100*
*1	* 9	* 100*	100*	100*
*1	* 8	* 100*	100*	100*
*1	* 7	* 56*	56*	56*
*1	* 6.44	* 44*	44*	44*
*1	* 6.34	*Culvert *	*	*
*1	* 6	* 100*	100*	100*
*1	* 5	* 100*	100*	100*
*1	* 4	* 100*	100*	100*
*1	* 3	* 100*	100*	100*
*1	* 2	* 0*	0*	0*

****

****

SUMMARY OF CONTRACTION AND EXPANSION COEFFICIENTS
River: French Stream

Reach	River Sta.	Contr.	Expan.
*1	* 100	* .1*	.3*
*1	* 99	* .1*	.3*
*1	* 98	* .1*	.3*
*1	* 97	* .1*	.3*
*1	* 96	* .1*	.3*
*1	* 95	* .1*	.3*
*1	* 94	* .1*	.3*
*1	* 93	* .1*	.3*
*1	* 92	* .1*	.3*
*1	* 91	* .1*	.3*
*1	* 90	* .1*	.3*
*1	* 89	* .1*	.3*
*1	* 88	* .1*	.3*
*1	* 87	* .1*	.3*
*1	* 86.36	* .1*	.3*
*1	* 85.73	*Culvert *	*
*1	* 85.10	* .1*	.3*
*1	* 85	* .1*	.3*
*1	* 84	* .1*	.3*
*1	* 83	* .1*	.3*
*1	* 82	* .1*	.3*
*1	* 81	* .1*	.3*
*1	* 80	* .1*	.3*
*1	* 79	* .1*	.3*
*1	* 78	* .1*	.3*
*1	* 77	* .1*	.3*
*1	* 76	* .1*	.3*
*1	* 75	* .1*	.3*
*1	* 74	* .1*	.3*
*1	* 73	* .1*	.3*
*1	* 72	* .1*	.3*
*1	* 71	* .1*	.3*
*1	* 70	* .1*	.3*
*1	* 69	* .1*	.3*
*1	* 67.91	* .1*	.3*
*1	* 61.91	*Culvert *	*
*1	* 55.91	* .1*	.3*
*1	* 55	* .1*	.3*
*1	* 54	* .1*	.3*
*1	* 53	* .1*	.3*
*1	* 52	* .1*	.3*
*1	* 51	* .1*	.3*
*1	* 50	* .1*	.3*
*1	* 49	* .1*	.3*
*1	* 48	* .1*	.3*
*1	* 47	* .1*	.3*
*1	* 46	* .1*	.3*
*1	* 45	* .1*	.3*
*1	* 44	* .1*	.3*
*1	* 43	* .1*	.3*
*1	* 42	* .1*	.3*
*1	* 41	* .1*	.3*
*1	* 40	* .1*	.3*
*1	* 39	* .1*	.3*
*1	* 38	* .1*	.3*

```
*1                *    37       *        .1*        .3*
*1                *    36       *        .1*        .3*
*1                *    35       *        .1*        .3*
*1                *    34       *        .1*        .3*
*1                *    33       *        .1*        .3*
*1                *    32       *        .1*        .3*
*1                *    31       *        .1*        .3*
*1                *    30       *        .1*        .3*
*1                *    29       *        .1*        .3*
*1                *    28       *        .1*        .3*
*1                *    27       *        .1*        .3*
*1                *    26       *        .1*        .3*
*1                *    25       *        .1*        .3*
*1                *    24.83    *        .1*        .3*
*1                *    24.67    *Culvert  *          *
*1                *    24.51    *        .1*        .3*
*1                *    24       *        .1*        .3*
*1                *    23       *        .1*        .3*
*1                *    22       *        .1*        .3*
*1                *    21       *        .1*        .3*
*1                *    20       *        .1*        .3*
*1                *    19       *        .1*        .3*
*1                *    18       *        .1*        .3*
*1                *    17       *        .1*        .3*
*1                *    16       *        .1*        .3*
*1                *    15       *        .1*        .3*
*1                *    14       *        .1*        .3*
*1                *    13       *        .1*        .3*
*1                *    12       *        .1*        .3*
*1                *    11       *        .1*        .3*
*1                *    10       *        .1*        .3*
*1                *    9        *        .1*        .3*
*1                *    8        *        .1*        .3*
*1                *    7        *        .1*        .3*
*1                *    6.44     *        .1*        .3*
*1                *    6.34     *Culvert  *          *
*1                *    6        *        .1*        .3*
*1                *    5        *        .1*        .3*
*1                *    4        *        .1*        .3*
*1                *    3        *        .1*        .3*
*1                *    2        *        .1*        .3*
*******************************************************
```

HEC-RAS River: French Stream Reach: 1 Profile: 100

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
1	100	100	Exisitng	220.00	146.80	148.34		148.38	0.001212	1.62	135.81	148.91	0.30
1	100	100	PR	220.00	146.80	148.30		148.35	0.001334	1.68	131.03	146.36	0.31
1	99	100	Exisitng	220.00	146.60	148.19		148.24	0.001470	1.80	122.45	132.85	0.33
1	99	100	PR	220.00	146.60	148.14		148.20	0.001714	1.90	115.62	129.18	0.35
1	98	100	Exisitng	220.00	146.40	148.04		148.10	0.001429	1.89	116.63	115.11	0.33
1	98	100	PR	220.00	146.40	147.95		148.02	0.001822	2.06	106.62	110.35	0.37
1	97	100	Exisitng	220.00	146.00	147.93		147.98	0.000963	1.64	134.00	121.06	0.28
1	97	100	PR	220.00	146.00	147.81		147.86	0.001326	1.85	119.00	114.37	0.32
1	96	100	Exisitng	220.00	146.00	147.64		147.79	0.003786	3.17	69.33	64.64	0.54
1	96	100	PR	220.00	145.50	147.63		147.71	0.001535	2.39	92.15	66.71	0.36
1	95	100	Exisitng	220.00	145.00	147.48		147.58	0.001216	2.45	89.73	52.25	0.33
1	95	100	PR	220.00	145.00	147.48		147.58	0.001216	2.45	89.73	52.25	0.33
1	94	100	Exisitng	220.00	144.50	147.37		147.47	0.001027	2.45	89.81	45.81	0.31
1	94	100	PR	220.00	144.50	147.37		147.47	0.001027	2.45	89.81	45.81	0.31
1	93	100	Exisitng	220.00	144.00	147.31		147.38	0.000622	2.22	98.88	39.83	0.25
1	93	100	PR	220.00	144.00	147.31		147.38	0.000622	2.22	98.88	39.83	0.25
1	92	100	Exisitng	220.00	143.50	147.25		147.33	0.000482	2.17	101.37	34.01	0.22
1	92	100	PR	220.00	143.50	147.25		147.33	0.000482	2.17	101.37	34.01	0.22
1	91	100	Exisitng	220.00	143.00	147.24		147.28	0.000266	1.69	130.40	41.53	0.17
1	91	100	PR	220.00	143.00	147.24		147.28	0.000266	1.69	130.40	41.53	0.17
1	90	100	Exisitng	220.00	142.80	147.20		147.25	0.000311	1.78	123.90	40.26	0.18
1	90	100	PR	220.00	142.80	147.20		147.25	0.000311	1.78	123.90	40.26	0.18
1	89	100	Exisitng	220.00	142.60	147.20		147.23	0.000173	1.40	158.35	53.41	0.14
1	89	100	PR	220.00	142.60	147.20		147.23	0.000173	1.40	158.35	53.41	0.14
1	88	100	Exisitng	220.00	142.40	147.18		147.21	0.000143	1.30	169.81	51.02	0.13
1	88	100	PR	220.00	142.40	147.18		147.21	0.000143	1.30	169.81	51.02	0.13
1	87	100	Exisitng	220.00	142.00	147.17		147.19	0.000130	1.32	166.78	44.55	0.12
1	87	100	PR	220.00	142.00	147.17		147.19	0.000130	1.32	166.78	44.55	0.12

HEC-RAS River: French Stream Reach: 1 Profile: 100 (Continued)

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
1	86.36	100	Exisitng	220.00	141.80	147.16	143.26	147.19	0.000113	1.26	175.28	45.38	0.11
1	86.36	100	PR	220.00	141.80	147.16	143.26	147.19	0.000113	1.26	175.28	45.38	0.11
1	85.73			Culvert									
1	85.10	100	Exisitng	220.00	141.60	143.99		144.20	0.002303	3.67	60.00	30.23	0.46
1	85.10	100	PR	220.00	141.60	143.94		144.18	0.002605	3.90	56.37	28.14	0.49
1	85	100	Exisitng	220.00	141.40	144.01		144.16	0.001587	3.15	69.91	33.61	0.38
1	85	100	PR	220.00	141.40	143.98		144.13	0.001660	3.20	68.84	33.45	0.39
1	84	100	Exisitng	220.00	141.20	143.80		143.99	0.001859	3.51	62.75	28.35	0.42
1	84	100	PR	220.00	141.20	143.75		143.95	0.001974	3.58	61.49	28.20	0.43
1	83	100	Exisitng	220.00	141.00	143.62		143.80	0.001803	3.46	63.56	28.59	0.41
1	83	100	PR	220.00	141.00	143.51		143.74	0.002271	3.84	57.30	25.72	0.45
1	82	100	Exisitng	220.00	140.80	143.45		143.63	0.001665	3.34	65.91	29.70	0.39
1	82	100	PR	220.00	140.80	143.32		143.51	0.002001	3.55	61.92	29.21	0.43
1	81	100	Exisitng	220.00	140.60	143.32		143.46	0.001406	3.05	72.08	33.02	0.36
1	81	100	PR	220.00	140.60	143.15		143.32	0.001780	3.31	66.44	32.19	0.41
1	80	100	Exisitng	220.00	140.40	143.19		143.33	0.001254	2.92	75.22	33.83	0.35
1	80	100	PR	220.00	140.40	142.98		143.14	0.001676	3.23	68.03	32.76	0.40
1	79	100	Exisitng	220.00	140.20	143.09		143.21	0.001049	2.70	81.47	36.30	0.32
1	79	100	PR	220.00	140.20	142.83		142.98	0.001480	3.05	72.24	34.84	0.37
1	78	100	Exisitng	220.00	140.00	143.02		143.11	0.000795	2.35	93.44	41.83	0.28
1	78	100	PR	220.00	140.00	142.72		142.84	0.001178	2.71	81.28	39.68	0.33
1	77	100	Exisitng	220.00	139.80	142.98		143.03	0.000541	1.93	113.80	51.64	0.23
1	77	100	PR	220.00	139.80	142.65		142.73	0.000831	2.26	97.45	48.39	0.28
1	76	100	Exisitng	220.00	139.60	142.90		142.98	0.000609	2.19	100.67	40.98	0.25
1	76	100	PR	220.00	139.60	142.54		142.64	0.000946	2.55	86.15	38.66	0.30
1	75	100	Exisitng	220.00	139.40	142.84		142.92	0.000597	2.26	97.34	36.66	0.24
1	75	100	PR	220.00	139.40	142.43		142.54	0.000940	2.65	83.01	34.72	0.30
1	74	100	Exisitng	220.00	139.20	142.77		142.86	0.000593	2.33	94.60	32.98	0.24

HEC-RAS River: French Stream Reach: 1 Profile: 100 (Continued)

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
1	74	100	PR	220.00	139.20	142.33		142.45	0.000944	2.73	80.48	31.38	0.30
1	73	100	Exisitng	220.00	139.00	142.71		142.80	0.000568	2.35	93.66	30.47	0.24
1	73	100	PR	220.00	139.00	142.24		142.36	0.000914	2.77	79.51	29.13	0.30
1	72	100	Exisitng	220.00	138.80	142.71		142.75	0.000255	1.58	141.20	54.91	0.16
1	72	100	PR	220.00	138.80	142.22		142.27	0.000449	1.90	115.80	48.83	0.21
1	71	100	Exisitng	220.00	138.60	142.68		142.72	0.000241	1.55	142.19	49.90	0.16
1	71	100	PR	220.00	138.60	142.18		142.23	0.000415	1.87	117.91	45.94	0.21
1	70	100	Exisitng	220.00	138.40	142.67		142.70	0.000157	1.34	170.14	65.10	0.13
1	70	100	PR	220.00	138.40	142.15		142.19	0.000283	1.61	138.51	56.83	0.17
1	69	100	Exisitng	220.00	138.20	142.64		142.68	0.000201	1.53	144.74	45.98	0.15
1	69	100	PR	220.00	138.20	142.11		142.16	0.000342	1.81	121.23	42.03	0.19
1	67.91	100	Exisitng	220.00	138.00	142.63	139.43	142.66	0.000163	1.39	158.22	46.98	0.13
1	67.91	100	PR	220.00	138.00	142.08	139.43	142.12	0.000265	1.65	133.31	44.21	0.17
1	61.91			Culvert									
1	55.91	100	Exisitng	220.00	135.70	137.95		138.32	0.004338	4.89	44.98	20.00	0.57
1	55.91	100	PR	220.00	135.70	137.95		138.32	0.004338	4.89	44.98	20.00	0.57
1	55	100	Exisitng	220.00	135.50	137.69		137.95	0.003206	4.13	53.23	28.70	0.53
1	55	100	PR	220.00	135.50	137.69		137.95	0.003206	4.13	53.23	28.70	0.53
1	54	100	Exisitng	220.00	135.20	137.34		137.62	0.003411	4.21	52.28	28.76	0.55
1	54	100	PR	220.00	135.20	137.34		137.62	0.003411	4.21	52.28	28.76	0.55
1	53	100	Exisitng	220.00	134.80	136.96		137.26	0.003613	4.43	49.69	25.99	0.56
1	53	100	PR	220.00	134.80	136.96		137.26	0.003613	4.43	49.69	25.99	0.56
1	52	100	Exisitng	220.00	134.50	136.64		136.91	0.003329	4.13	53.29	29.76	0.54
1	52	100	PR	220.00	134.50	136.64		136.91	0.003329	4.13	53.29	29.76	0.54
1	51	100	Exisitng	220.00	134.20	136.07		136.46	0.005710	5.07	43.38	26.51	0.70
1	51	100	PR	220.00	134.20	136.07		136.46	0.005710	5.07	43.38	26.51	0.70
1	50	100	Exisitng	220.00	133.50	135.74		136.01	0.003153	4.21	52.27	26.73	0.53
1	50	100	PR	220.00	133.50	135.74		136.01	0.003153	4.21	52.28	26.73	0.53

HEC-RAS River: French Stream Reach: 1 Profile: 100 (Continued)

Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
1	49	100	Exisitng	220.00	133.00	135.53		135.74	0.002058	3.65	60.29	27.60	0.44
1	49	100	PR	220.00	133.00	135.53		135.74	0.002058	3.65	60.29	27.60	0.44
1	48	100	Exisitng	220.00	132.80	135.35		135.54	0.001893	3.47	63.36	29.70	0.42
1	48	100	PR	220.00	132.80	135.35		135.54	0.001893	3.47	63.36	29.70	0.42
1	47	100	Exisitng	220.00	132.75	135.08		135.31	0.002594	3.86	56.93	28.86	0.48
1	47	100	PR	220.00	132.75	135.08		135.31	0.002593	3.86	56.94	28.86	0.48
1	46	100	Exisitng	220.00	132.70	134.34		134.85	0.008569	5.73	38.41	26.75	0.84
1	46	100	PR	220.00	132.70	134.34		134.85	0.008611	5.74	38.35	26.74	0.84
1	45	100	Exisitng	220.00	132.10	134.48		134.53	0.000787	2.13	138.35	76.28	0.27
1	45	100	PR	220.00	132.10	134.47		134.52	0.000789	2.13	138.20	76.27	0.27
1	44	100	Exisitng	220.00	131.90	134.35		134.43	0.001091	2.53	110.58	65.09	0.32
1	44	100	PR	220.00	131.90	134.35		134.43	0.001095	2.53	110.42	65.06	0.32
1	43	100	Exisitng	220.00	131.70	134.13		134.28	0.001827	3.17	69.45	37.18	0.41
1	43	100	PR	220.00	131.70	134.13		134.28	0.001837	3.17	69.33	37.16	0.41
1	42	100	Exisitng	220.00	131.50	133.88		134.08	0.002266	3.60	61.10	31.42	0.46
1	42	100	PR	220.00	131.50	133.87		134.07	0.002284	3.61	60.93	31.40	0.46
1	41	100	Exisitng	220.00	131.30	133.66		133.85	0.002190	3.48	63.20	33.49	0.45
1	41	100	PR	220.00	131.30	133.65		133.84	0.002217	3.50	62.93	33.45	0.45
1	40	100	Exisitng	220.00	131.10	133.50		133.64	0.001774	3.05	72.06	40.14	0.40
1	40	100	PR	220.00	131.10	133.49		133.63	0.001805	3.07	71.62	40.04	0.40
1	39	100	Exisitng	220.00	130.80	133.27		133.45	0.001975	3.43	64.12	31.96	0.43
1	39	100	PR	220.00	130.80	133.25		133.44	0.002022	3.46	63.60	31.89	0.43
1	38	100	Exisitng	220.00	130.60	133.02		133.23	0.002326	3.75	58.70	28.61	0.46
1	38	100	PR	220.00	130.60	132.99		133.21	0.002413	3.79	57.98	28.52	0.47
1	37	100	Exisitng	220.00	130.40	132.79		133.00	0.002343	3.69	59.55	29.91	0.46
1	37	100	PR	220.00	130.40	132.75		132.97	0.002481	3.77	58.39	29.75	0.47
1	36	100	Exisitng	220.00	130.20	132.57		132.76	0.002265	3.58	61.53	32.03	0.45
1	36	100	PR	220.00	130.20	132.51		132.72	0.002482	3.69	59.63	31.72	0.47

HEC-RAS River: French Stream Reach: 1 Profile: 100 (Continued)

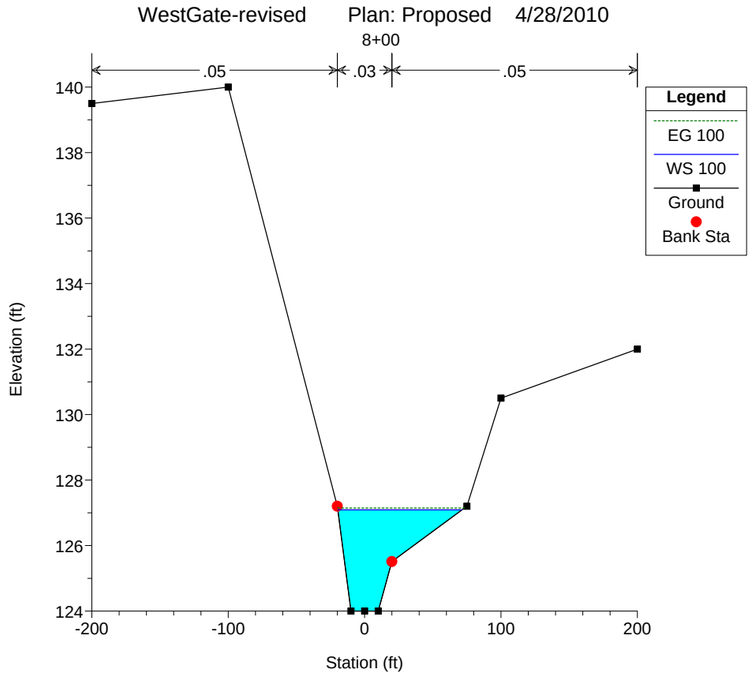
Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
1	35	100	Exisitng	220.00	130.00	132.26		132.51	0.002856	3.98	55.31	28.95	0.51
1	35	100	PR	220.00	130.00	132.14		132.42	0.003456	4.24	51.86	28.47	0.55
1	34	100	Exisitng	220.00	129.40	132.16		132.29	0.001239	2.86	76.97	35.72	0.34
1	34	100	PR	220.00	129.40	132.01		132.16	0.001519	3.07	71.69	34.87	0.38
1	33	100	Exisitng	220.00	129.20	132.05		132.17	0.001134	2.79	78.88	35.38	0.33
1	33	100	PR	220.00	129.20	131.87		132.01	0.001441	3.03	72.57	34.41	0.37
1	32	100	Exisitng	220.00	129.00	131.94		132.06	0.001028	2.72	80.87	34.92	0.32
1	32	100	PR	220.00	129.00	131.73		131.87	0.001352	2.99	73.51	33.84	0.36
1	31	100	Exisitng	220.00	128.60	131.85		131.96	0.000881	2.74	80.29	29.45	0.29
1	31	100	PR	220.00	128.60	131.60		131.74	0.001154	3.00	73.22	28.74	0.33
1	30	100	Exisitng	220.00	128.40	131.78		131.88	0.000740	2.56	85.94	30.89	0.27
1	30	100	PR	220.00	128.40	131.51		131.63	0.000990	2.83	77.76	30.02	0.31
1	29	100	Exisitng	220.00	128.20	131.72		131.81	0.000616	2.38	92.61	32.62	0.25
1	29	100	PR	220.00	128.20	131.43		131.54	0.000837	2.64	83.27	31.57	0.29
1	28	100	Exisitng	220.00	128.00	131.67		131.75	0.000546	2.29	95.93	32.33	0.23
1	28	100	PR	220.00	128.00	131.36		131.46	0.000748	2.56	86.03	31.28	0.27
1	27	100	Exisitng	220.00	127.80	131.63		131.70	0.000448	2.12	104.00	34.37	0.21
1	27	100	PR	220.00	127.80	131.30		131.38	0.000619	2.37	92.92	33.14	0.25
1	26	100	Exisitng	220.00	127.70	131.58		131.65	0.000439	2.12	103.84	33.51	0.21
1	26	100	PR	220.00	127.70	131.23		131.32	0.000613	2.38	92.44	32.31	0.25
1	25	100	Exisitng	220.00	127.65	131.53		131.61	0.000467	2.20	100.00	31.55	0.22
1	25	100	PR	220.00	127.65	131.16		131.26	0.000662	2.48	88.63	30.46	0.26
1	24.83	100	Exisitng	220.00	127.00	131.54	128.51	131.59	0.000296	1.92	114.62	30.54	0.17
1	24.83	100	PR	220.00	127.00	131.17	128.51	131.24	0.000396	2.12	103.67	29.69	0.20
1	24.67			Culvert									
1	24.51	100	Exisitng	220.00	127.20	128.96		129.44	0.007309	5.59	39.34	24.76	0.78
1	24.51	100	PR	220.00	127.20	128.96		129.44	0.007309	5.59	39.34	24.76	0.78

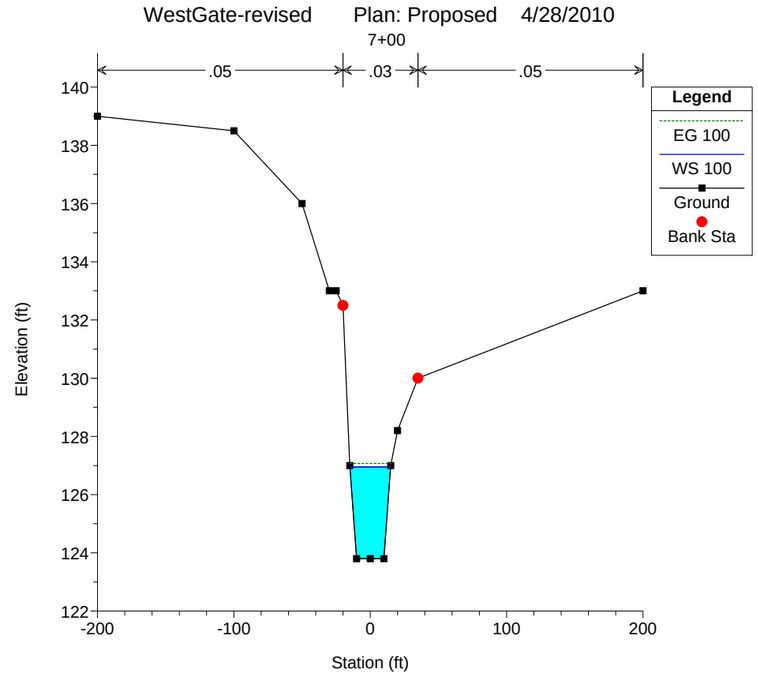
HEC-RAS River: French Stream Reach: 1 Profile: 100 (Continued)

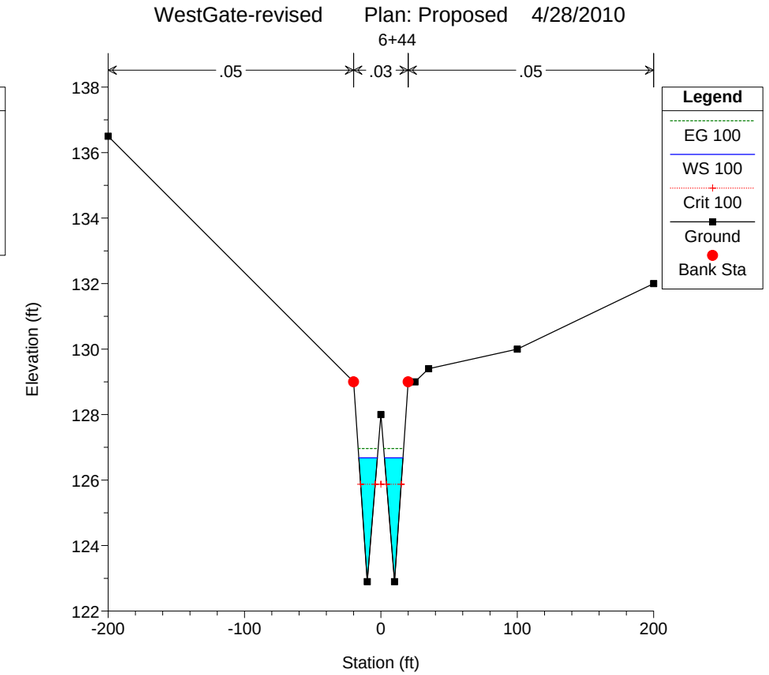
Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
1	24	100	Exisitng	220.00	126.40	128.92		129.17	0.002439	4.01	54.86	23.50	0.46
1	24	100	PR	220.00	126.40	128.92		129.17	0.002439	4.01	54.86	23.50	0.46
1	23	100	Exisitng	220.00	126.20	128.75		128.94	0.001935	3.52	62.49	29.09	0.42
1	23	100	PR	220.00	126.20	128.75		128.94	0.001935	3.52	62.49	29.09	0.42
1	22	100	Exisitng	220.00	126.00	128.56		128.75	0.001888	3.48	63.14	29.33	0.42
1	22	100	PR	220.00	126.00	128.56		128.75	0.001888	3.48	63.14	29.33	0.42
1	21	100	Exisitng	220.00	125.80	128.41		128.57	0.001538	3.18	69.13	31.76	0.38
1	21	100	PR	220.00	125.80	128.41		128.57	0.001538	3.18	69.13	31.76	0.38
1	20	100	Exisitng	220.00	125.60	128.29		128.42	0.001202	2.88	76.50	34.14	0.34
1	20	100	PR	220.00	125.60	128.29		128.42	0.001202	2.88	76.50	34.14	0.34
1	19	100	Exisitng	220.00	125.40	128.18		128.31	0.001125	2.88	76.48	31.95	0.33
1	19	100	PR	220.00	125.40	128.18		128.31	0.001125	2.88	76.48	31.95	0.33
1	18	100	Exisitng	220.00	125.20	128.07		128.20	0.001048	2.79	78.83	32.96	0.32
1	18	100	PR	220.00	125.20	128.07		128.20	0.001048	2.79	78.83	32.96	0.32
1	17	100	Exisitng	220.00	125.00	127.98		128.09	0.000958	2.74	80.41	32.20	0.31
1	17	100	PR	220.00	125.00	127.98		128.09	0.000958	2.74	80.41	32.20	0.31
1	16	100	Exisitng	220.00	124.90	127.88		128.00	0.001013	2.72	80.84	34.40	0.31
1	16	100	PR	220.00	124.90	127.88		128.00	0.001013	2.72	80.84	34.40	0.31
1	15	100	Exisitng	220.00	124.80	127.77		127.89	0.001019	2.78	79.16	32.49	0.31
1	15	100	PR	220.00	124.80	127.77		127.89	0.001019	2.78	79.16	32.49	0.31
1	14	100	Exisitng	220.00	124.70	127.67		127.79	0.001035	2.82	78.10	31.77	0.32
1	14	100	PR	220.00	124.70	127.67		127.79	0.001035	2.82	78.10	31.77	0.32
1	13	100	Exisitng	220.00	124.60	127.56		127.68	0.001103	2.84	77.59	32.98	0.33
1	13	100	PR	220.00	124.60	127.56		127.68	0.001103	2.84	77.59	32.98	0.33
1	12	100	Exisitng	220.00	124.40	127.44		127.58	0.000988	3.03	78.81	32.65	0.32
1	12	100	PR	220.00	124.40	127.44		127.58	0.000988	3.03	78.81	32.65	0.32
1	11	100	Exisitng	220.00	124.30	127.31		127.47	0.001047	3.34	77.36	32.87	0.34
1	11	100	PR	220.00	124.30	127.31		127.47	0.001047	3.34	77.36	32.87	0.34

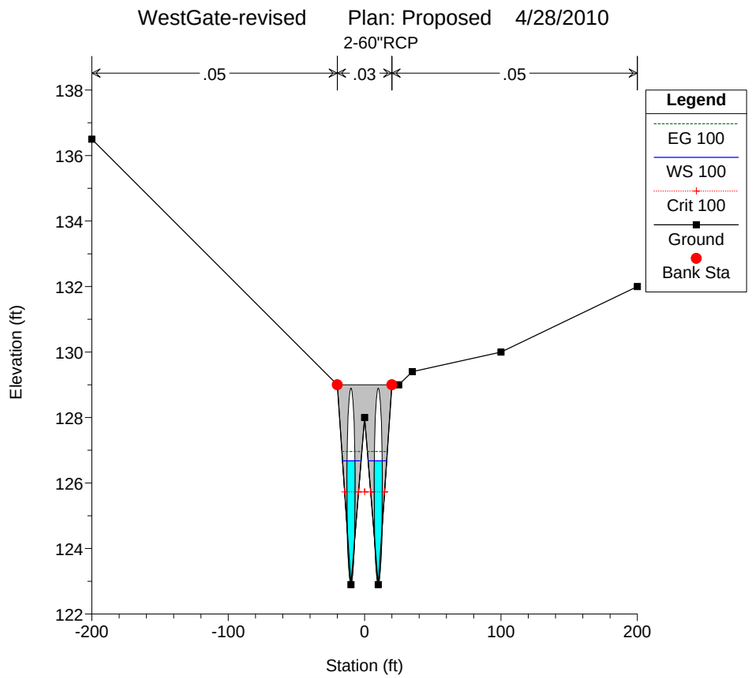
HEC-RAS River: French Stream Reach: 1 Profile: 100 (Continued)

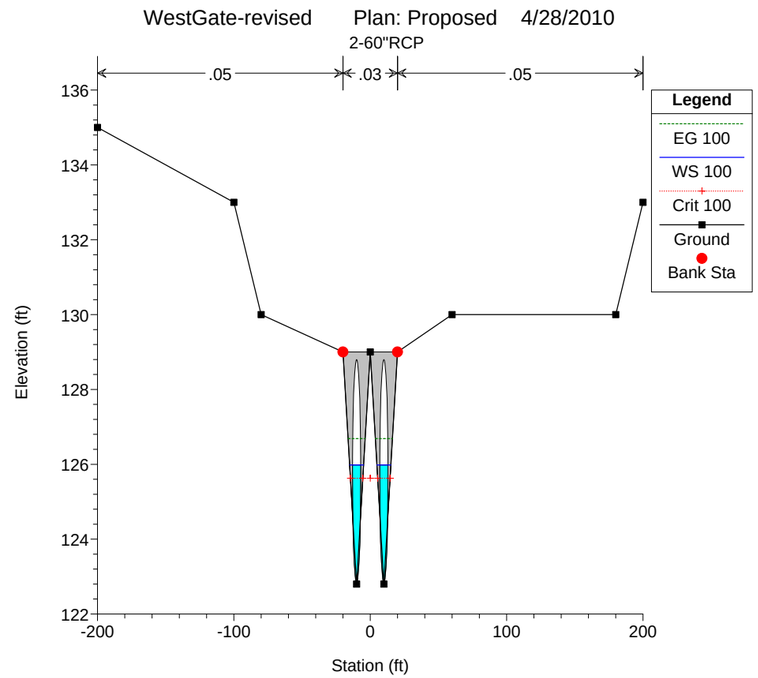
Reach	River Sta	Profile	Plan	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(cfs)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(ft/s)	(sq ft)	(ft)	
1	10	100	Exisitng	220.00	124.30	127.22		127.36	0.001123	2.95	78.07	49.55	0.33
1	10	100	PR	220.00	124.30	127.22		127.36	0.001123	2.95	78.07	49.55	0.33
1	9	100	Exisitng	220.00	124.20	127.10		127.24	0.001195	3.00	75.98	62.18	0.34
1	9	100	PR	220.00	124.20	127.10		127.24	0.001195	3.00	75.98	62.18	0.34
1	8	100	Exisitng	220.00	124.00	127.09		127.15	0.000472	1.98	140.60	91.07	0.22
1	8	100	PR	220.00	124.00	127.09		127.15	0.000472	1.98	140.60	91.07	0.22
1	7	100	Exisitng	220.00	123.80	126.95		127.07	0.000953	2.80	78.55	29.85	0.30
1	7	100	PR	220.00	123.80	126.95		127.07	0.000953	2.80	78.55	29.85	0.30
1	6.44	100	Exisitng	220.00	122.90	126.68	125.87	126.96	0.003838	4.28	51.35	27.19	0.55
1	6.44	100	PR	220.00	122.90	126.68	125.87	126.96	0.003838	4.28	51.35	27.19	0.55
1	6.34			Culvert									
1	6	100	Exisitng	220.00	122.80	125.98	125.90	126.69	0.012363	6.73	32.67	20.53	0.94
1	6	100	PR	220.00	122.80	125.98	125.90	126.69	0.012363	6.73	32.67	20.53	0.94
1	5	100	Exisitng	220.00	122.40	126.18		126.25	0.001012	2.50	151.47	177.89	0.31
1	5	100	PR	220.00	122.40	126.18		126.25	0.001012	2.50	151.47	177.89	0.31
1	4	100	Exisitng	220.00	122.20	125.46	125.46	125.97	0.009966	6.05	46.11	51.65	0.90
1	4	100	PR	220.00	122.20	125.46	125.46	125.97	0.009966	6.05	46.11	51.65	0.90
1	3	100	Exisitng	220.00	122.10	124.41		124.47	0.003123	2.94	117.71	116.87	0.48
1	3	100	PR	220.00	122.10	124.41		124.47	0.003123	2.94	117.71	116.87	0.48
1	2	100	Exisitng	220.00	122.00	124.20	123.50	124.28	0.001329	2.69	134.05	144.60	0.34
1	2	100	PR	220.00	122.00	124.20	123.50	124.28	0.001329	2.69	134.05	144.60	0.34

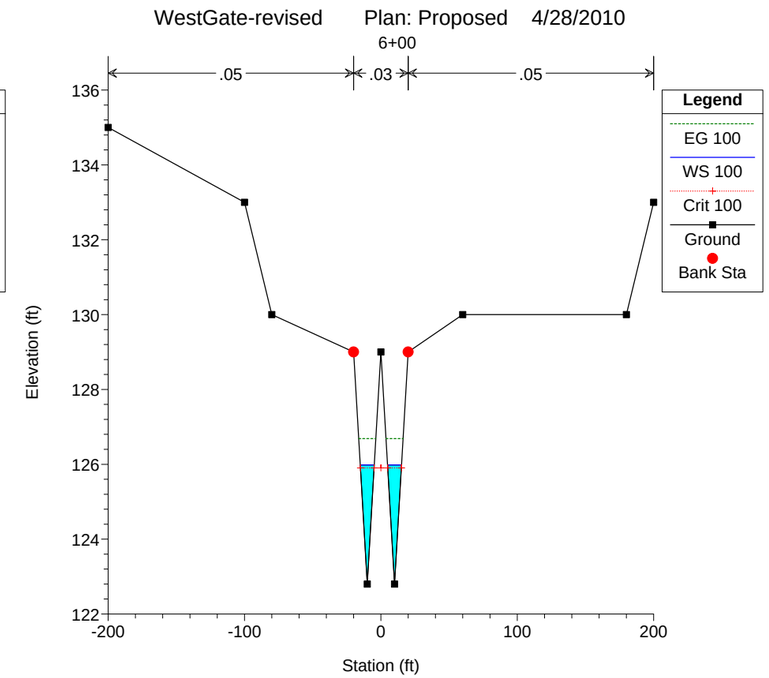

WestGate-revised Plan: Proposed 4/28/2010
8+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

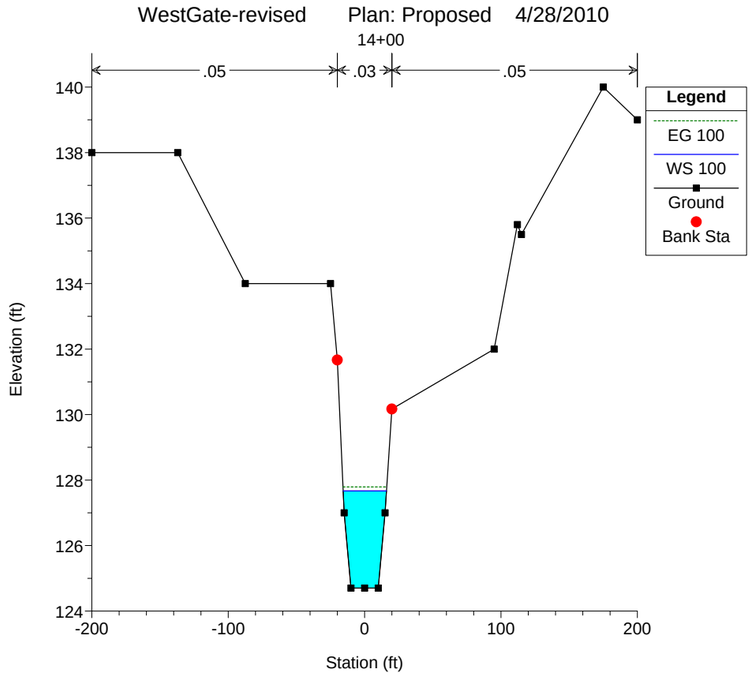

WestGate-revised Plan: Proposed 4/28/2010
7+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

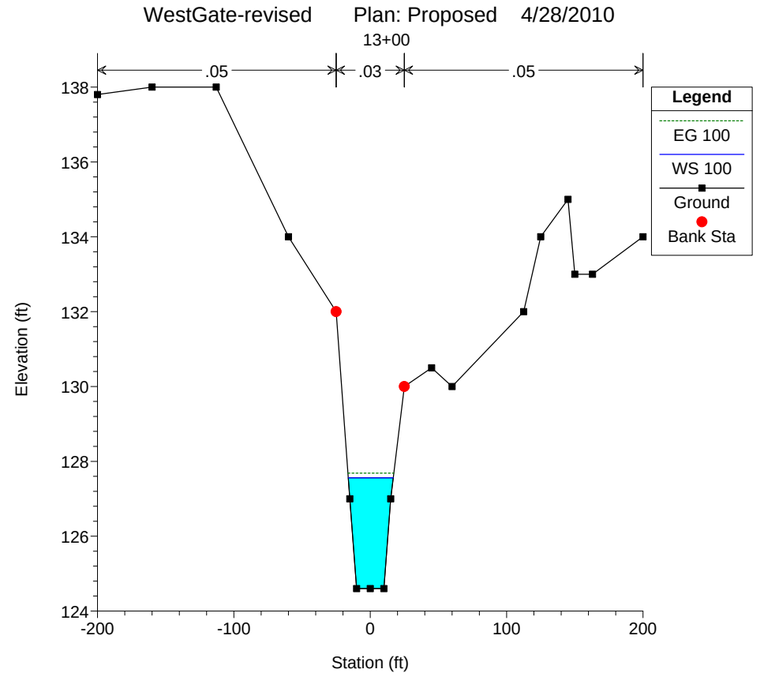

WestGate-revised Plan: Proposed 4/28/2010
6+44
.05
.03
.05
Legend
EG 100
WS 100
Crit 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

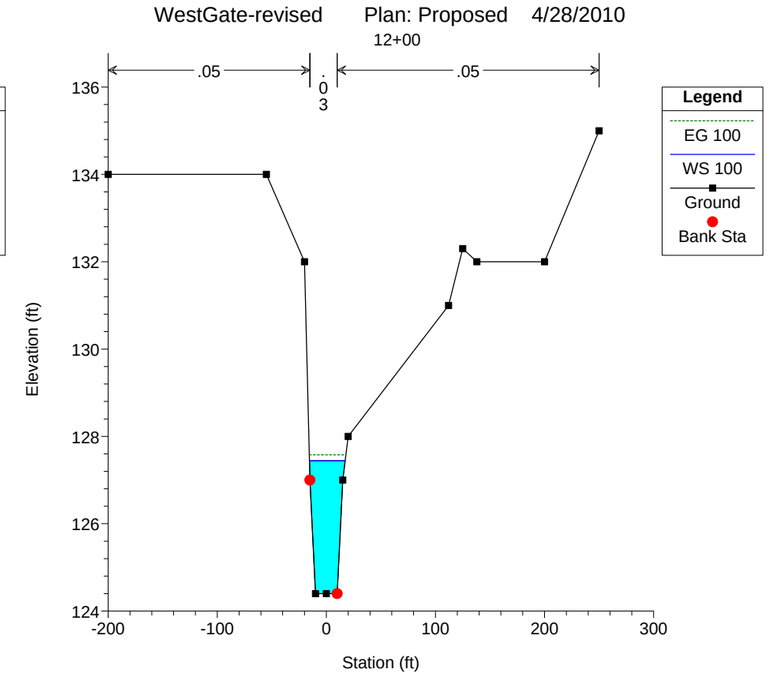

WestGate-revised Plan: Proposed 4/28/2010
2-60"RCP
.05
.03
.05
Legend
EG 100
WS 100
Crit 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

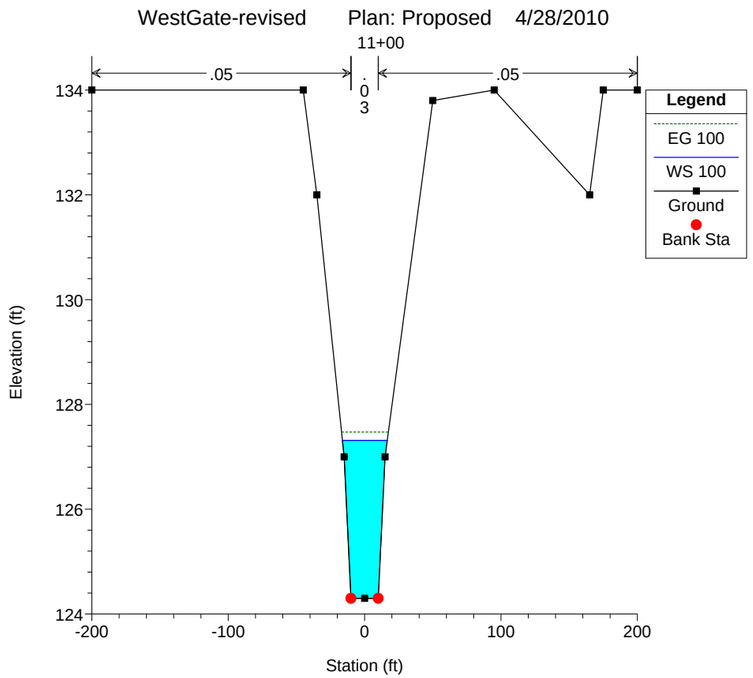

WestGate-revised Plan: Proposed 4/28/2010
2-60"RCP
.05
.03
.05
Legend
EG 100
WS 100
Crit 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

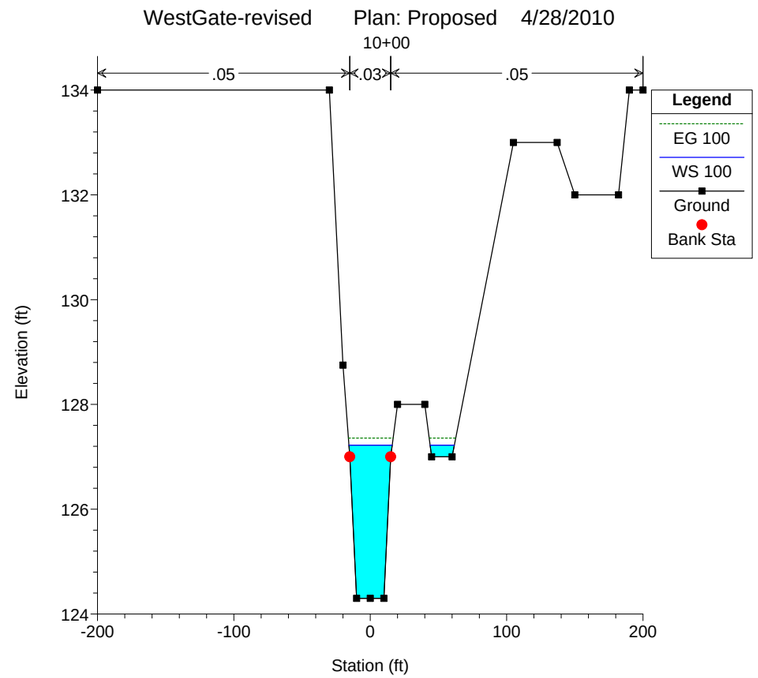

WestGate-revised Plan: Proposed 4/28/2010
6+00
.05
.03
.05
Legend
EG 100
WS 100
Crit 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

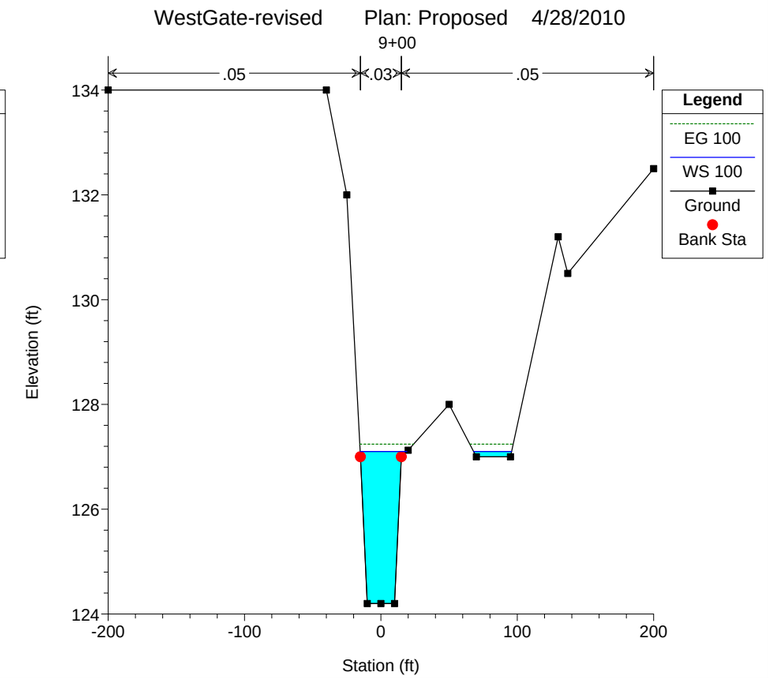

WestGate-revised Plan: Proposed 4/28/2010
14+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

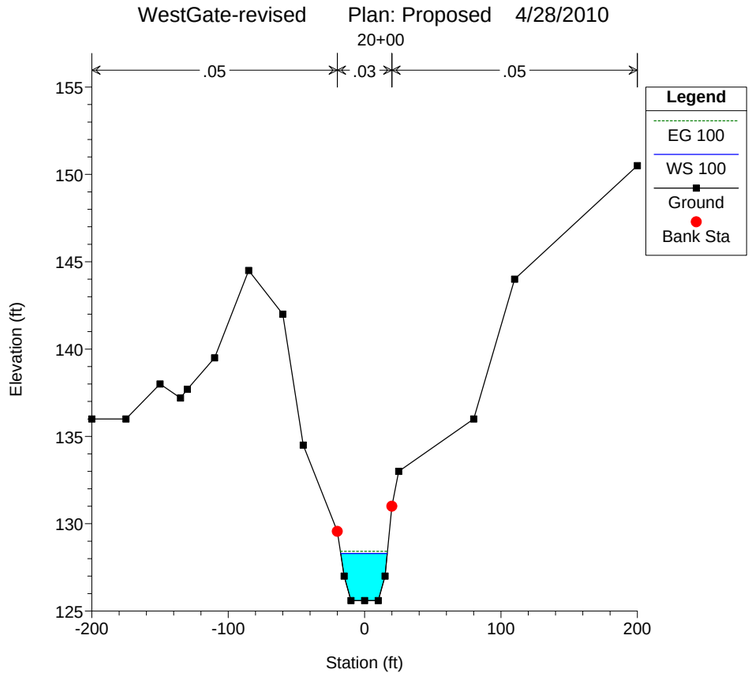

WestGate-revised Plan: Proposed 4/28/2010
13+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

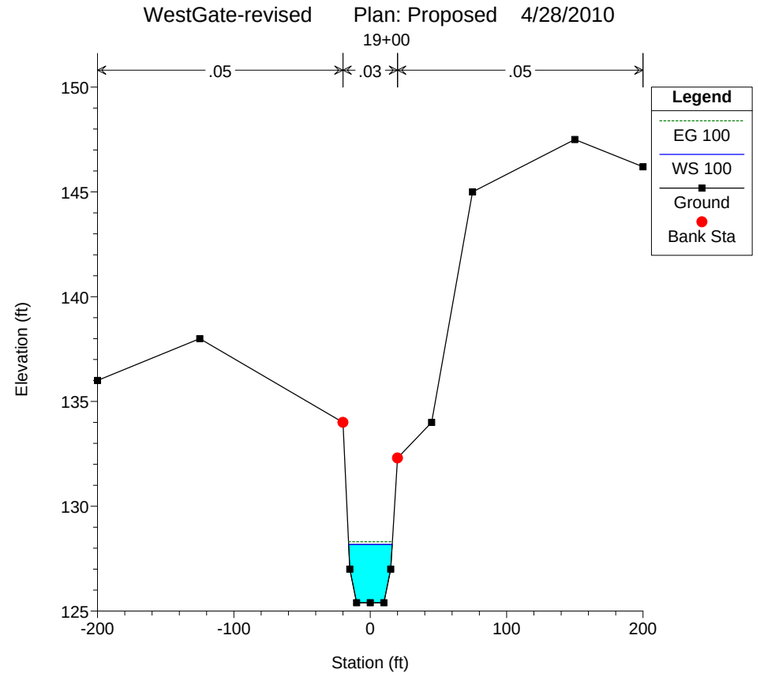

WestGate-revised Plan: Proposed 4/28/2010
12+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

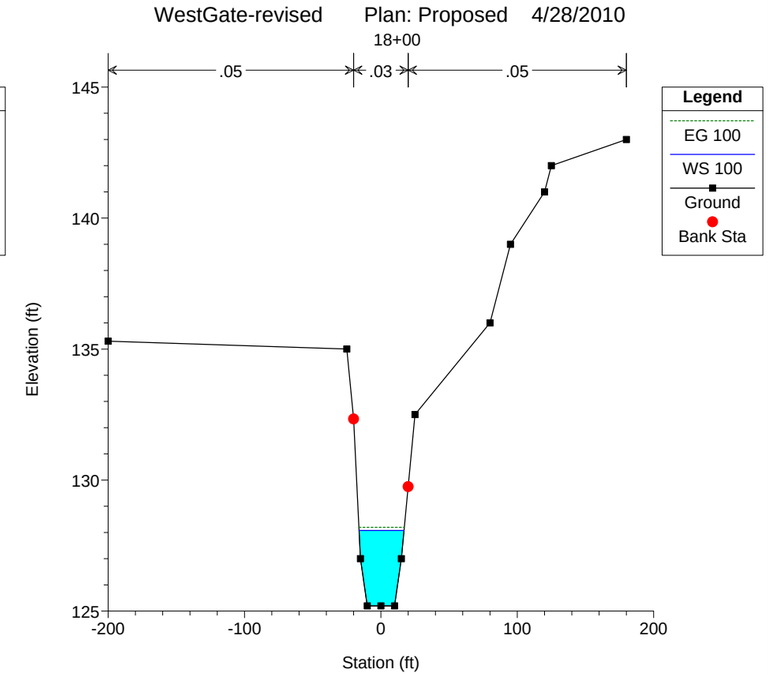

WestGate-revised Plan: Proposed 4/28/2010
11+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

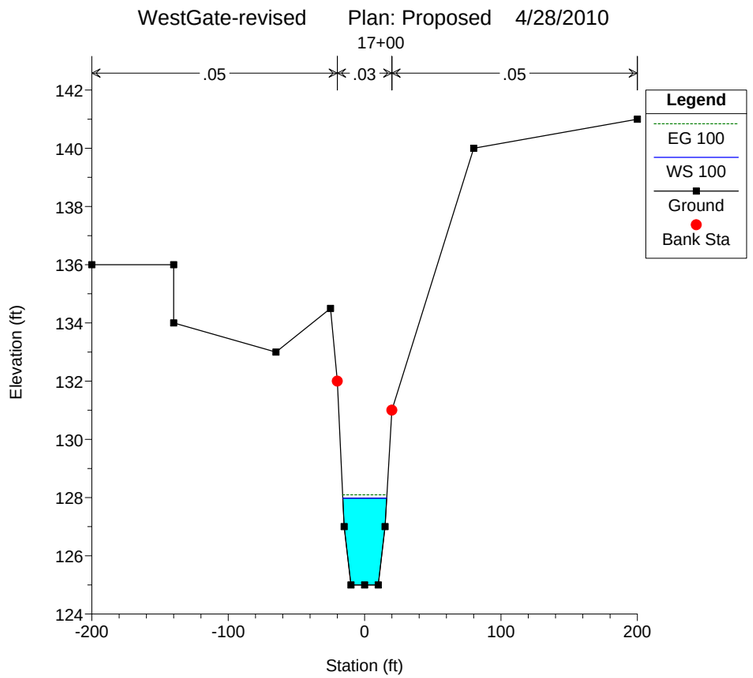

WestGate-revised Plan: Proposed 4/28/2010
10+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

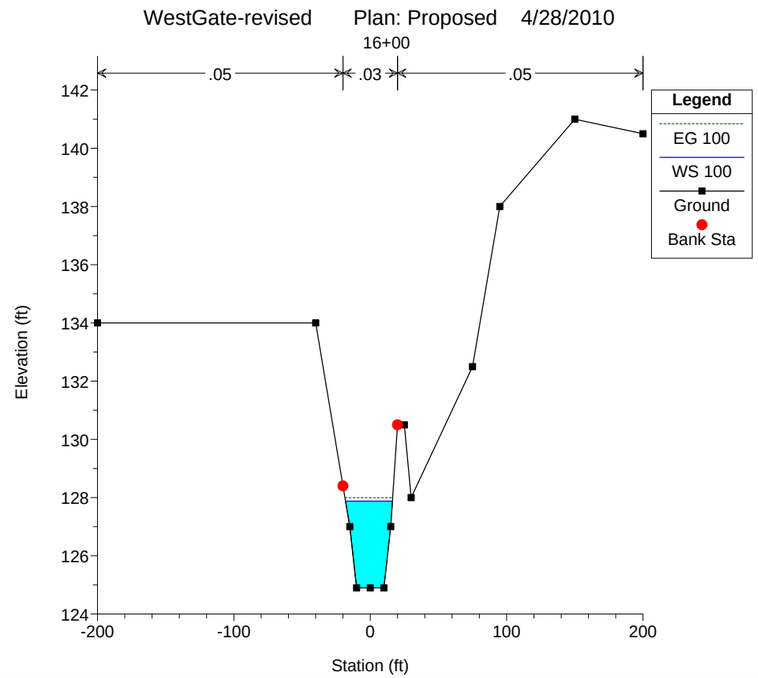

WestGate-revised Plan: Proposed 4/28/2010
9+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

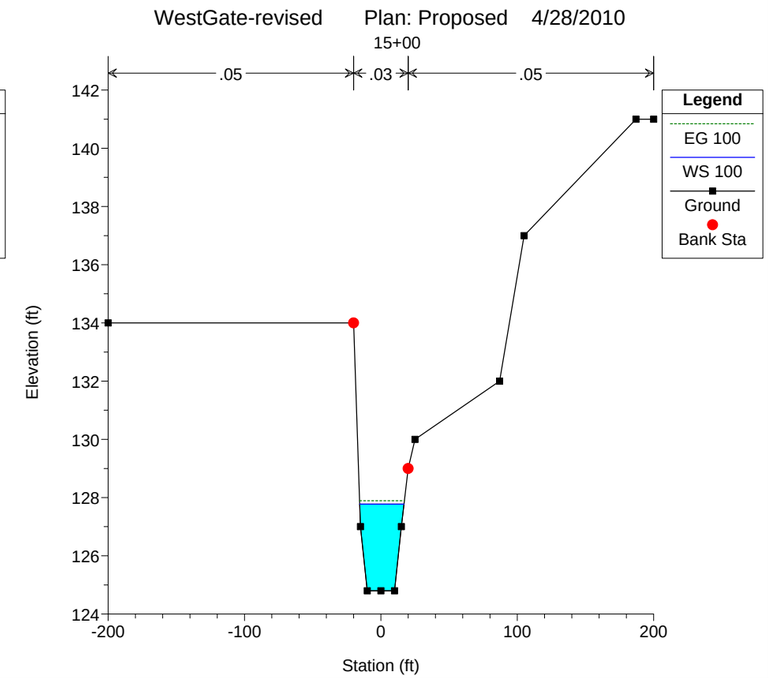

WestGate-revised Plan: Proposed 4/28/2010
20+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

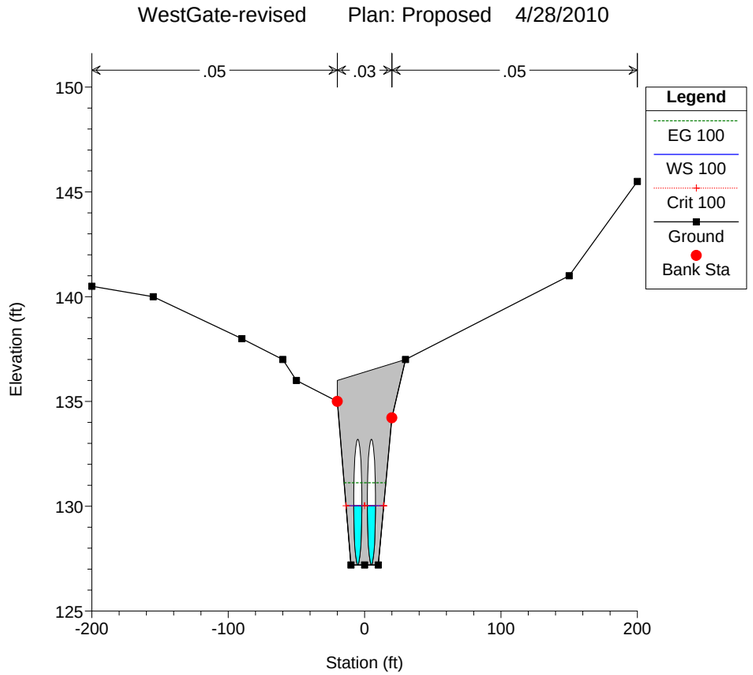

WestGate-revised Plan: Proposed 4/28/2010
19+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

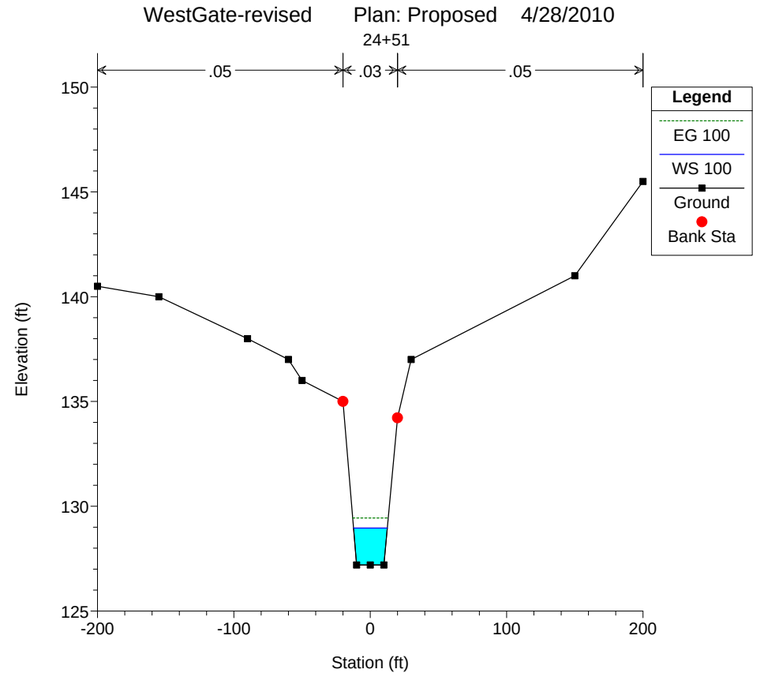

WestGate-revised Plan: Proposed 4/28/2010
18+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

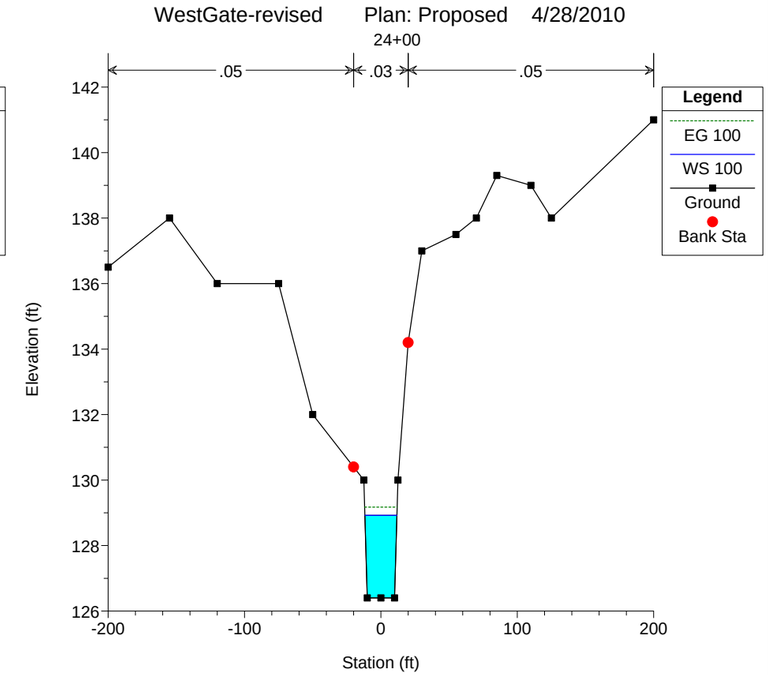

WestGate-revised Plan: Proposed 4/28/2010
17+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

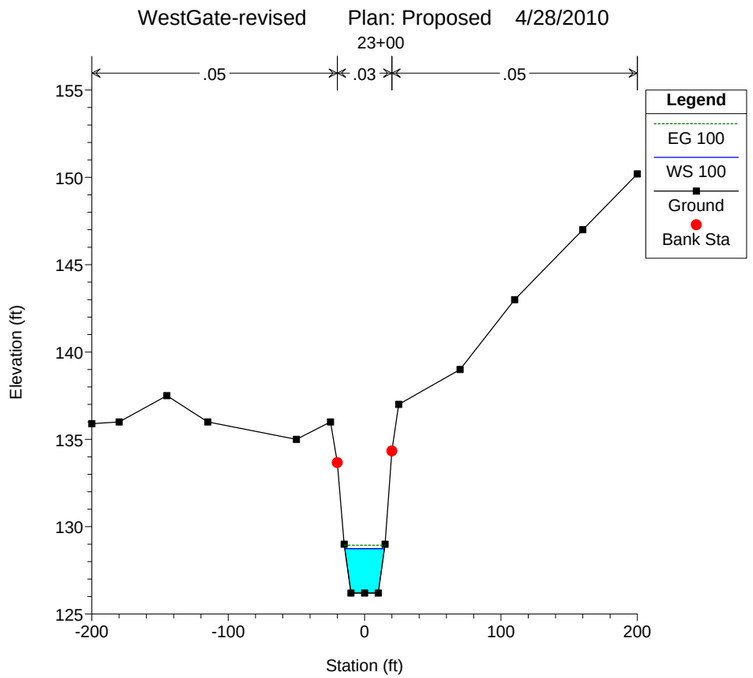

WestGate-revised Plan: Proposed 4/28/2010
16+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

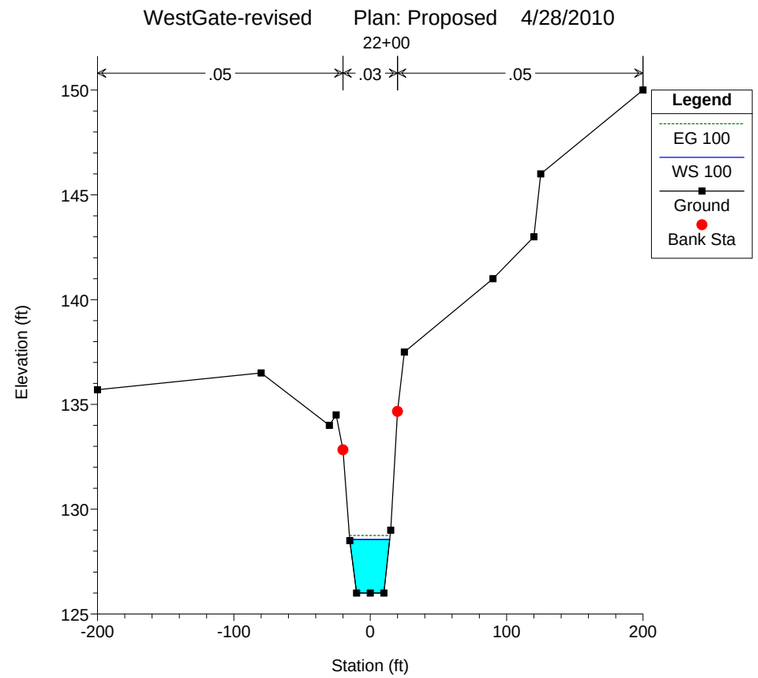

WestGate-revised Plan: Proposed 4/28/2010
15+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

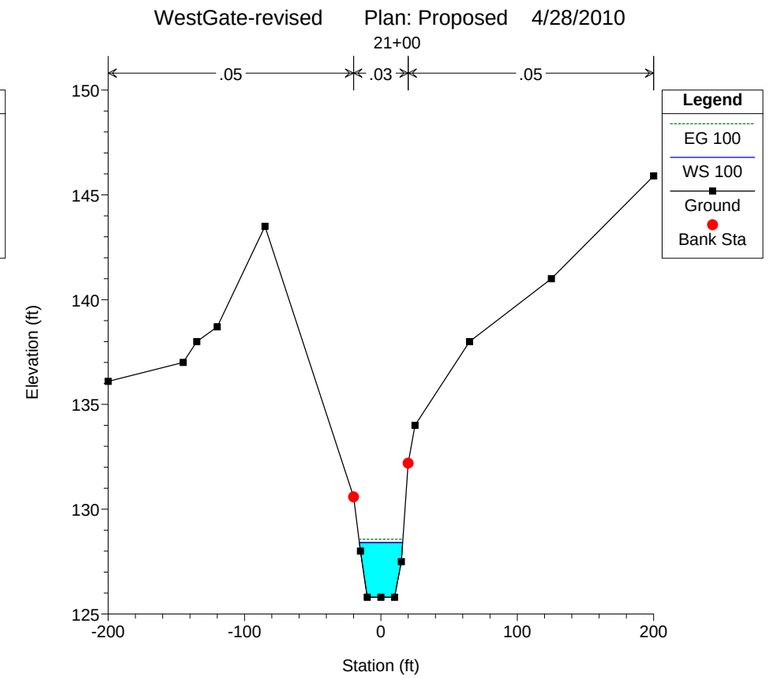

WestGate-revised Plan: Proposed 4/28/2010
.05
.03
.05
Legend
EG 100
WS 100
Crit 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

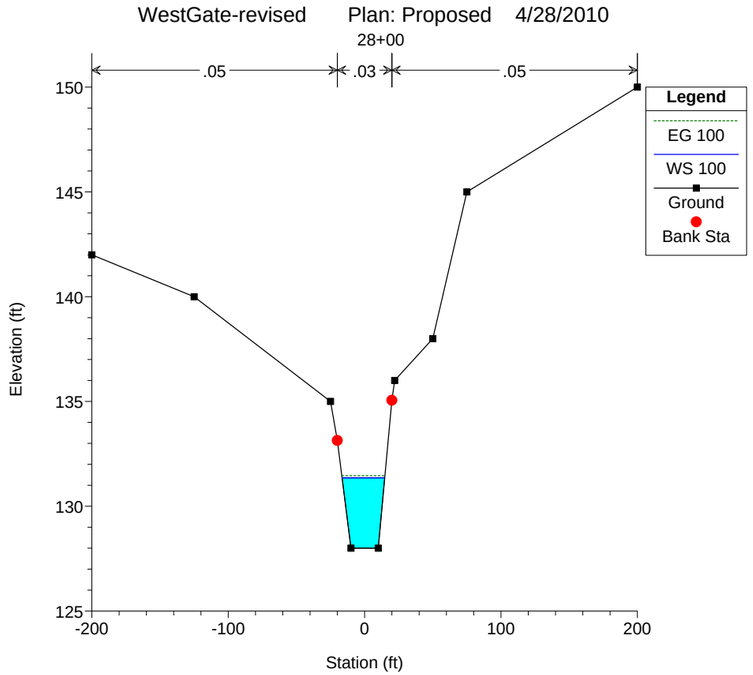

WestGate-revised Plan: Proposed 4/28/2010
24+51
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

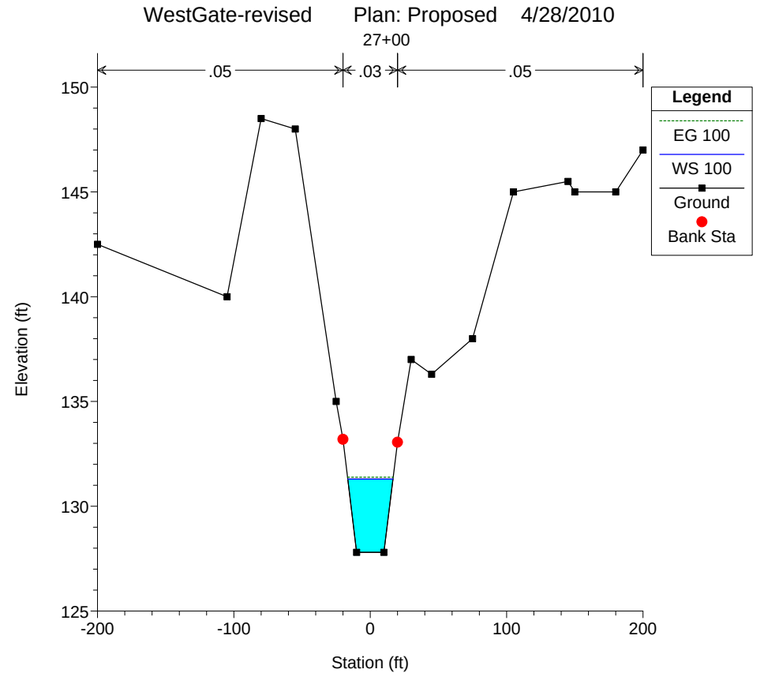

WestGate-revised Plan: Proposed 4/28/2010
24+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

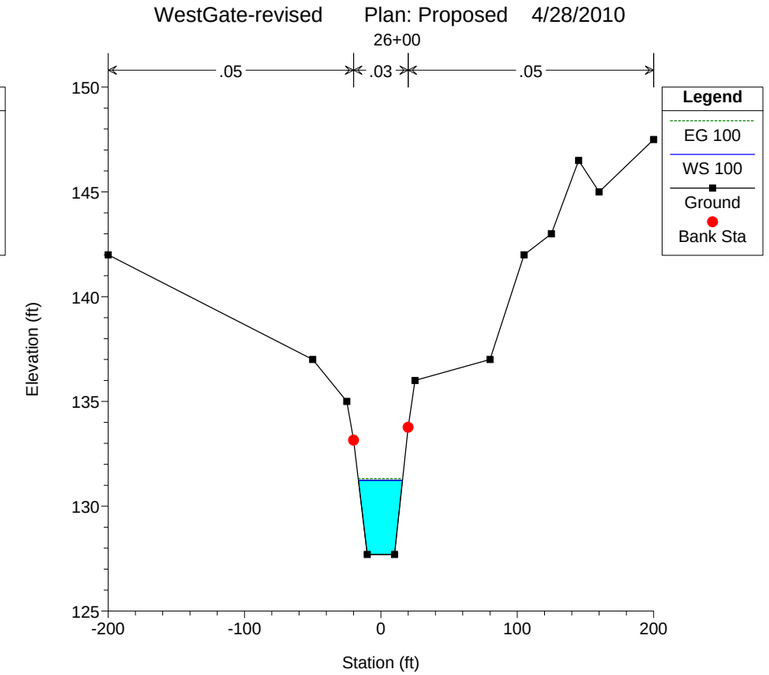

WestGate-revised Plan: Proposed 4/28/2010
23+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

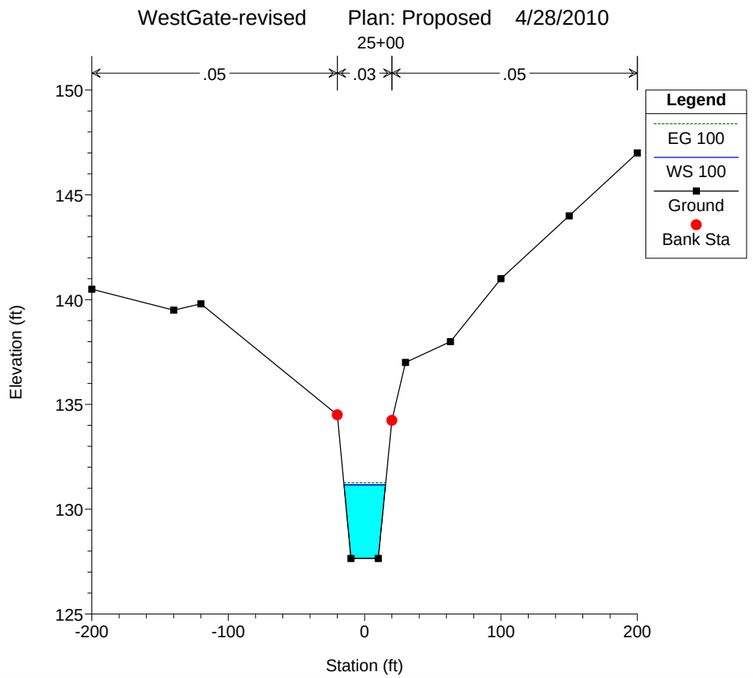

WestGate-revised Plan: Proposed 4/28/2010
22+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

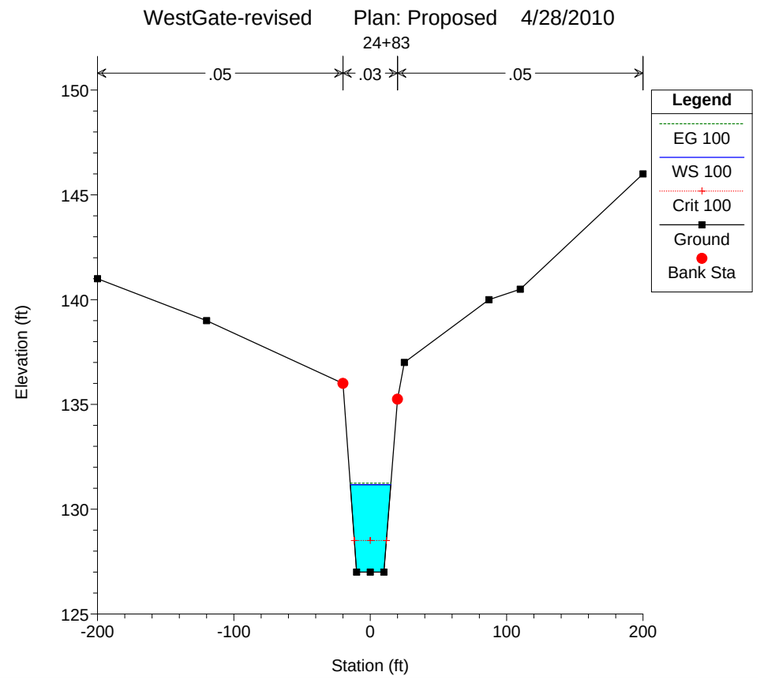

WestGate-revised Plan: Proposed 4/28/2010
21+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

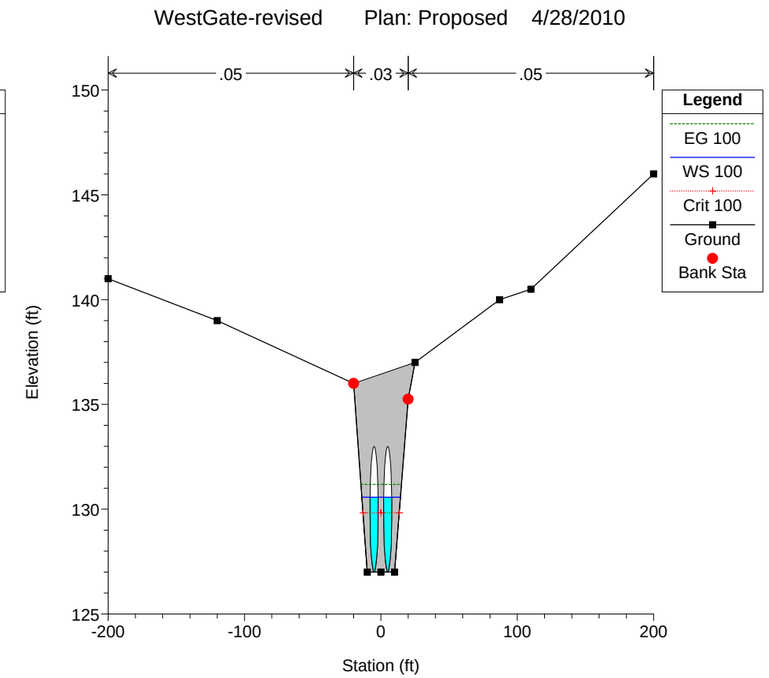

WestGate-revised Plan: Proposed 4/28/2010
28+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

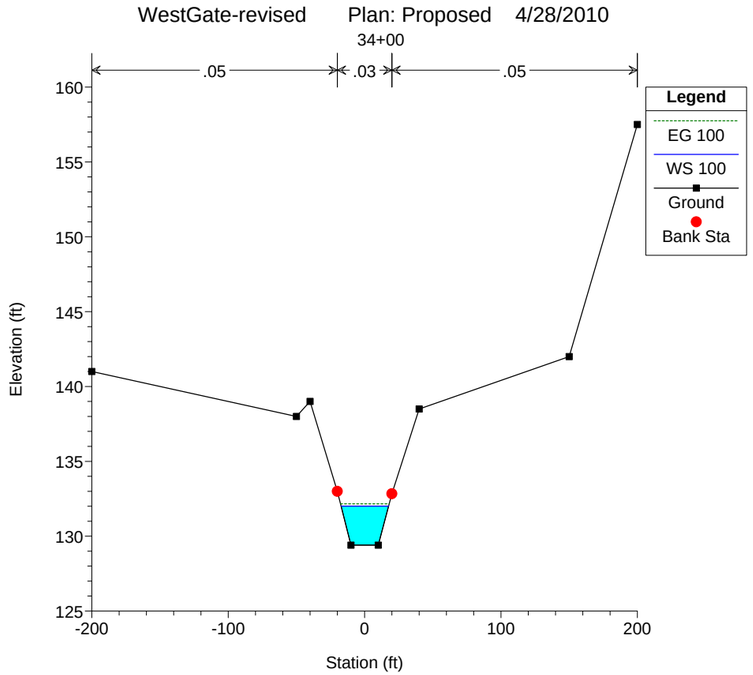

WestGate-revised Plan: Proposed 4/28/2010
27+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

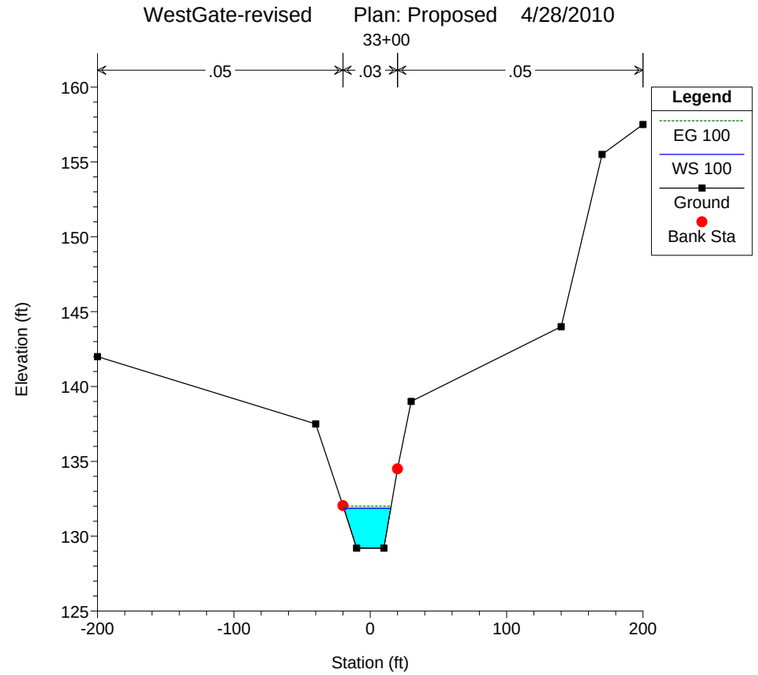

WestGate-revised Plan: Proposed 4/28/2010
26+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

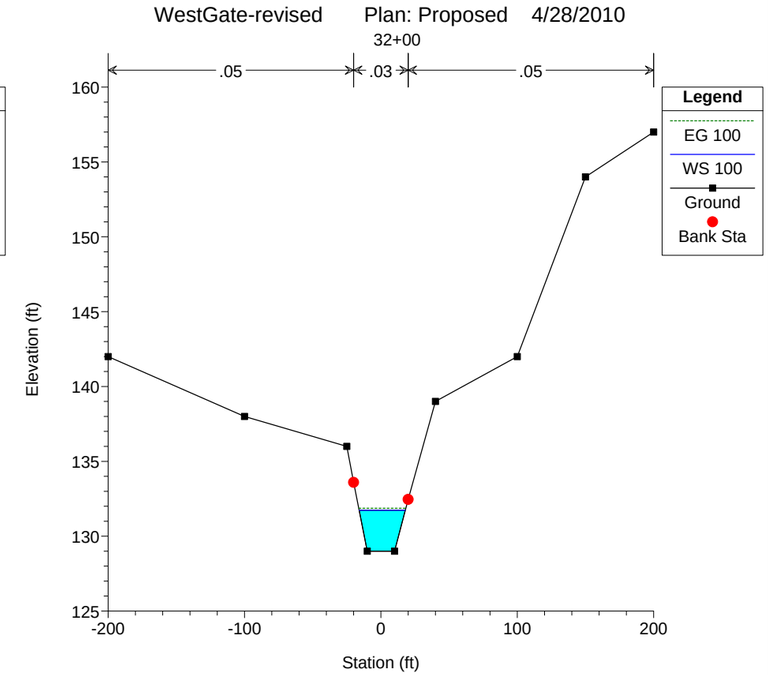

WestGate-revised Plan: Proposed 4/28/2010
25+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

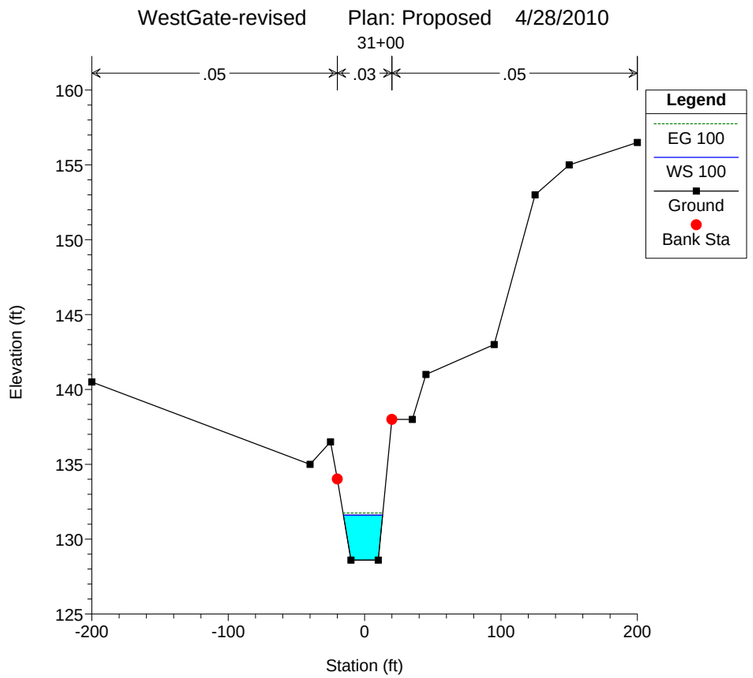

WestGate-revised Plan: Proposed 4/28/2010
24+83
.05
.03
.05
Legend
EG 100
WS 100
Crit 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

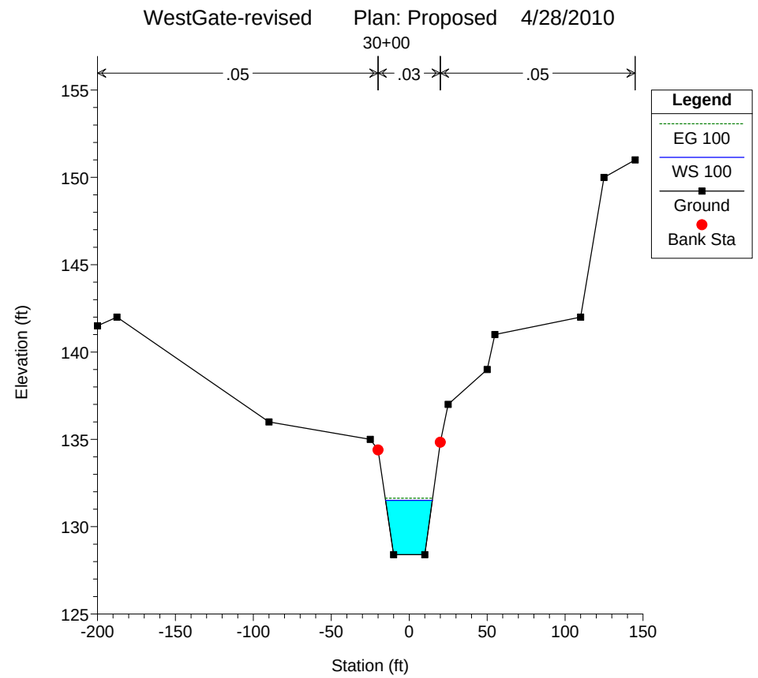

WestGate-revised Plan: Proposed 4/28/2010
.05
.03
.05
Legend
EG 100
WS 100
Crit 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

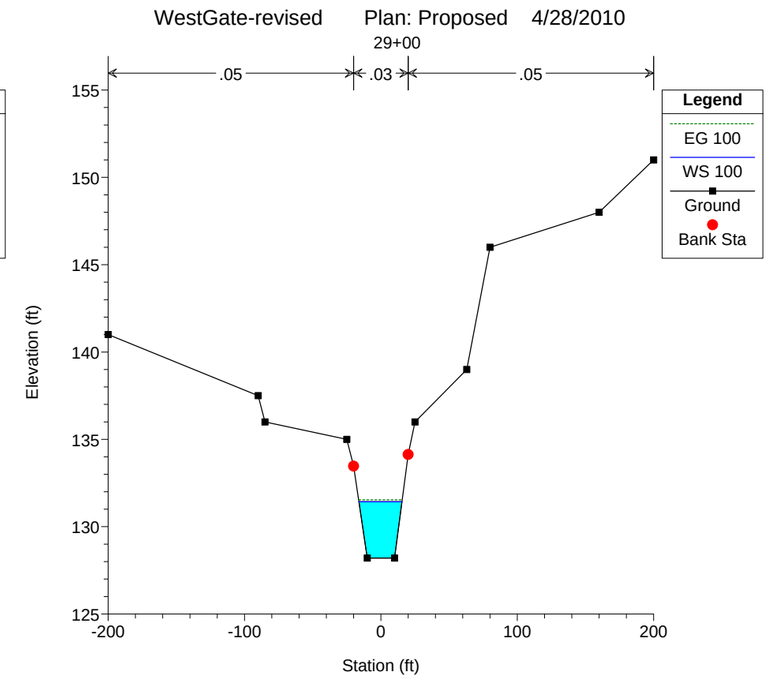

WestGate-revised Plan: Proposed 4/28/2010
34+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

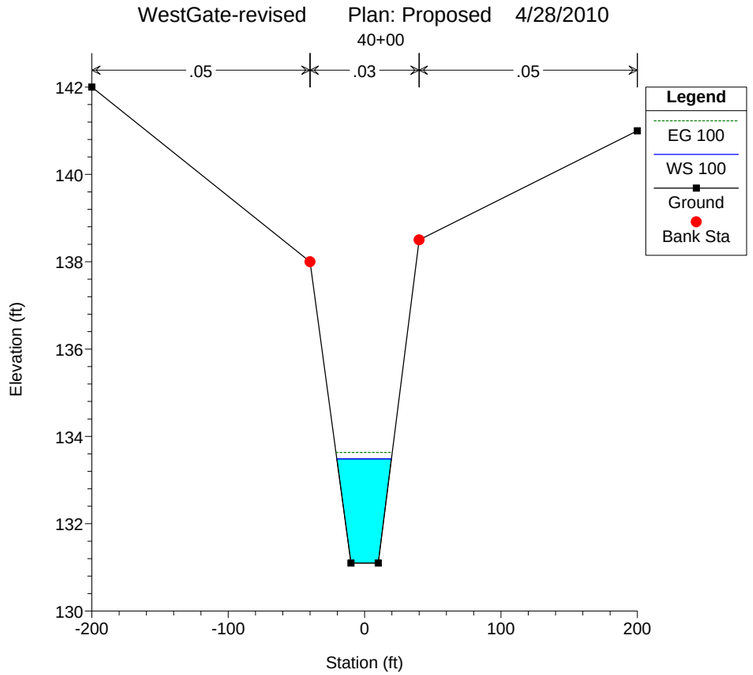

WestGate-revised Plan: Proposed 4/28/2010
33+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

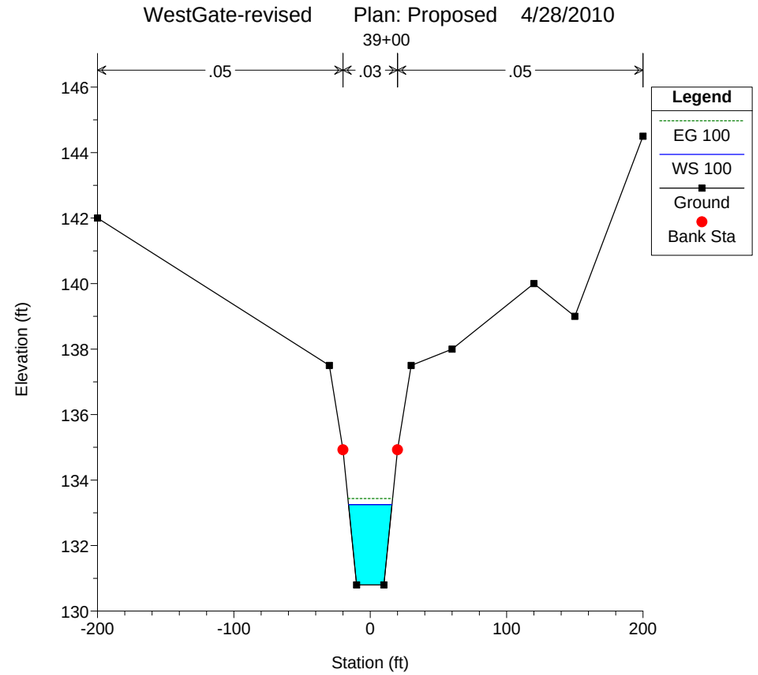

WestGate-revised Plan: Proposed 4/28/2010
32+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

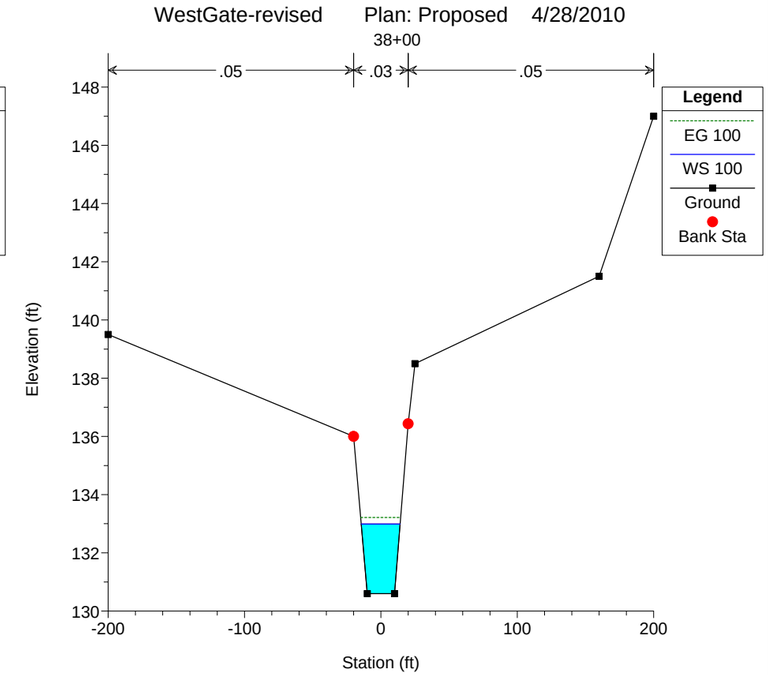

WestGate-revised Plan: Proposed 4/28/2010
31+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

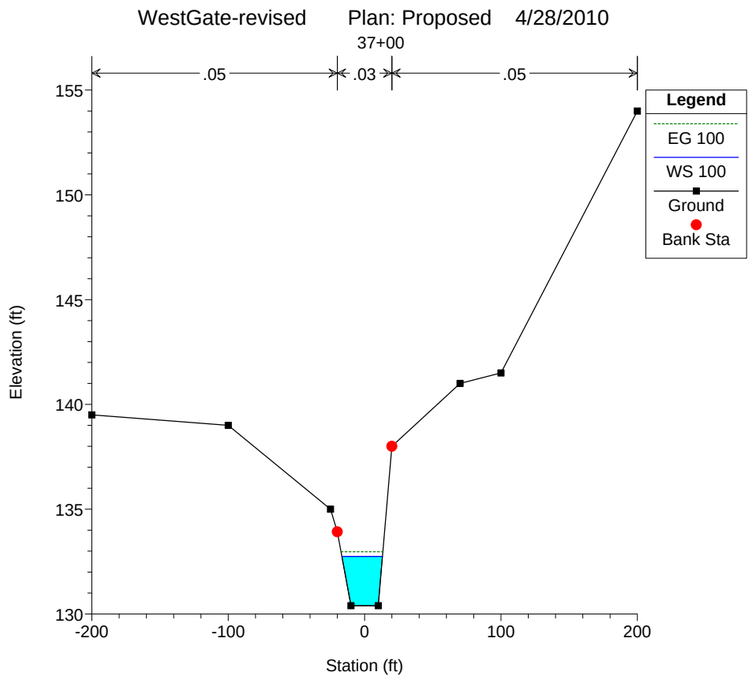

WestGate-revised Plan: Proposed 4/28/2010
30+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

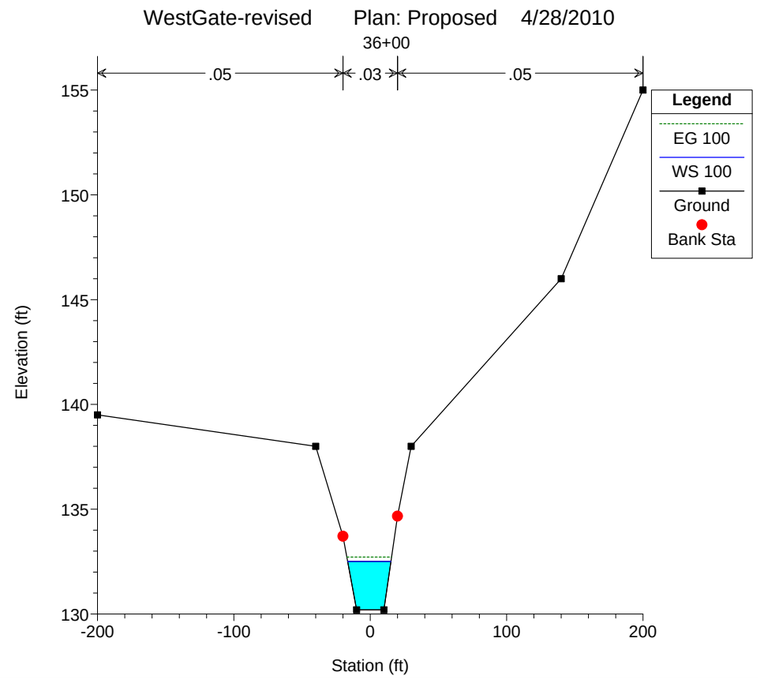

WestGate-revised Plan: Proposed 4/28/2010
29+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

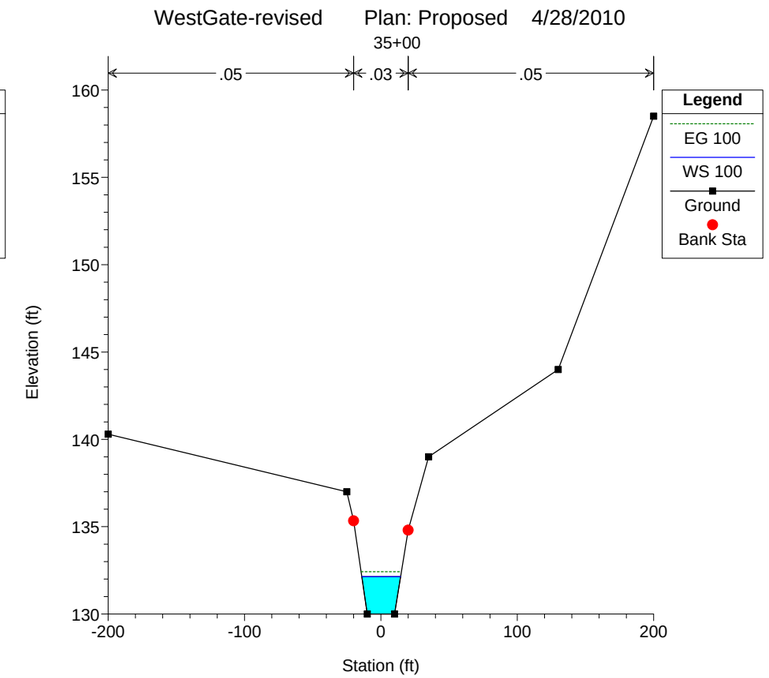

WestGate-revised Plan: Proposed 4/28/2010
40+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

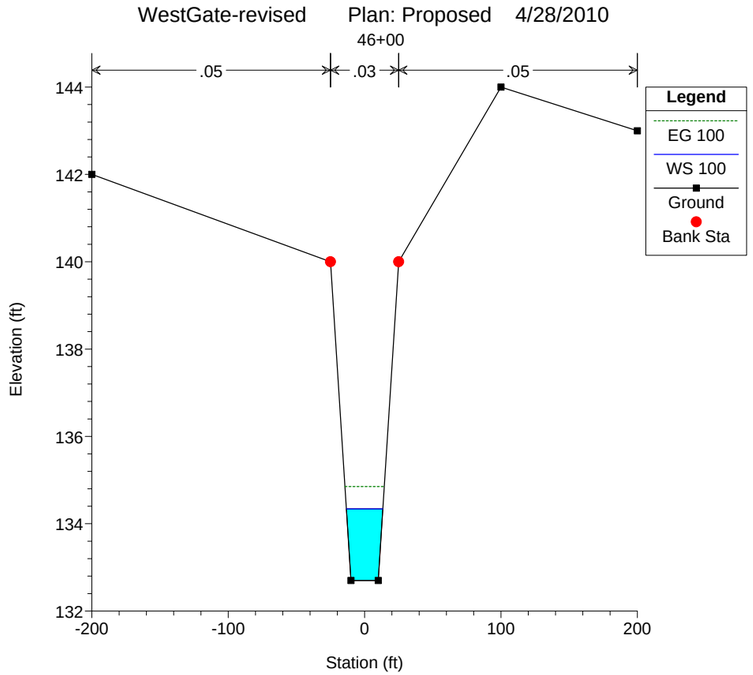

WestGate-revised Plan: Proposed 4/28/2010
39+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

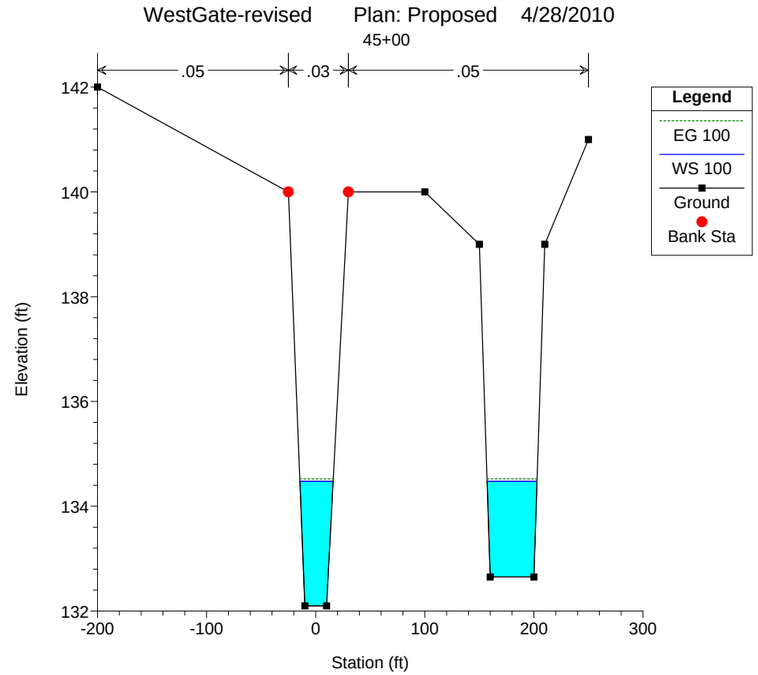

WestGate-revised Plan: Proposed 4/28/2010
38+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

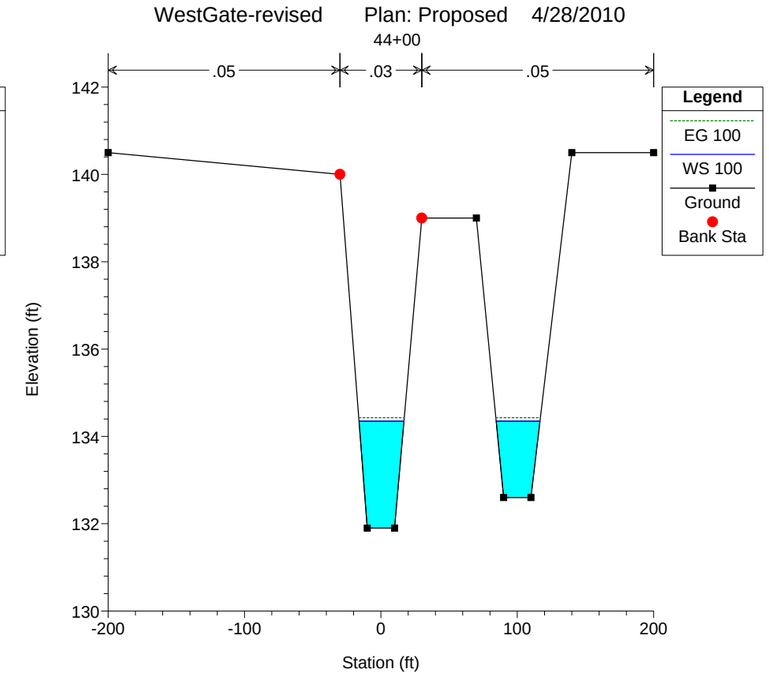

WestGate-revised Plan: Proposed 4/28/2010
37+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

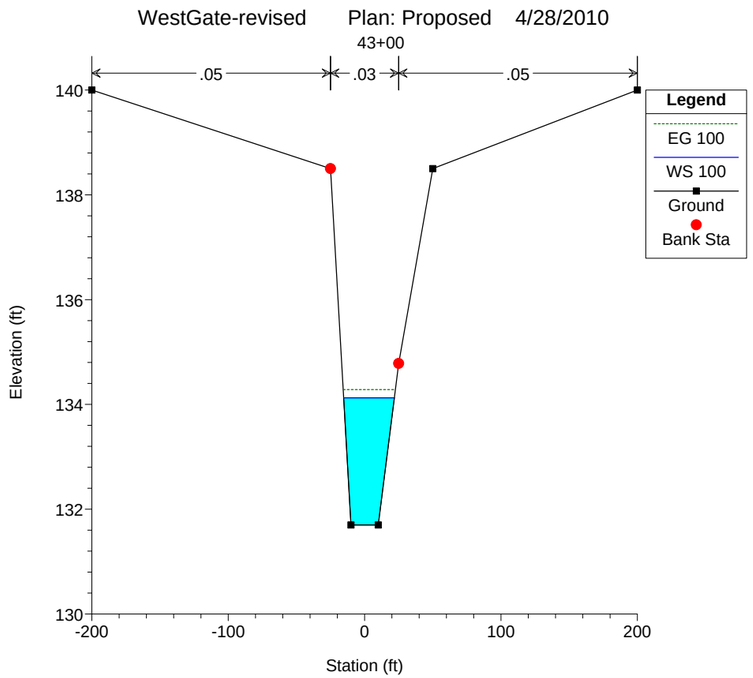

WestGate-revised Plan: Proposed 4/28/2010
36+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

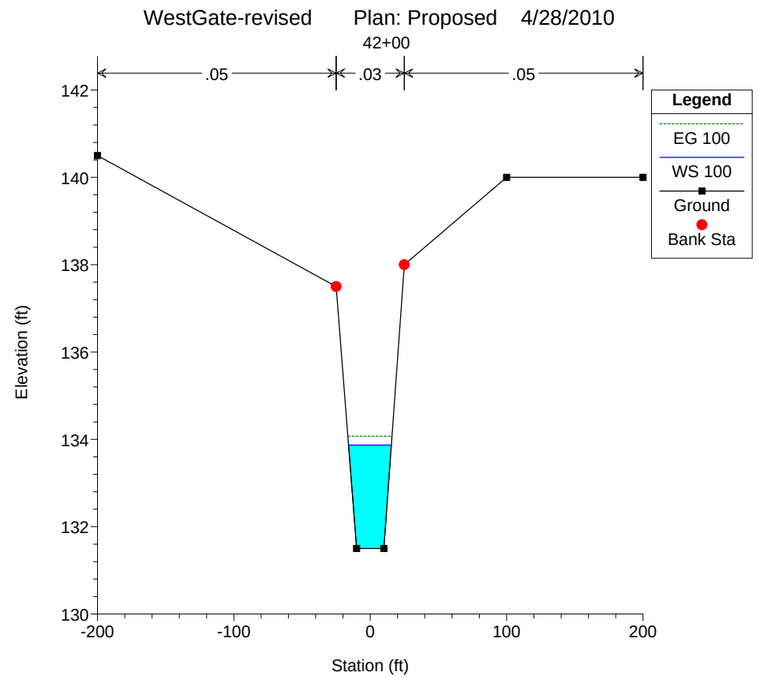

WestGate-revised Plan: Proposed 4/28/2010
35+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

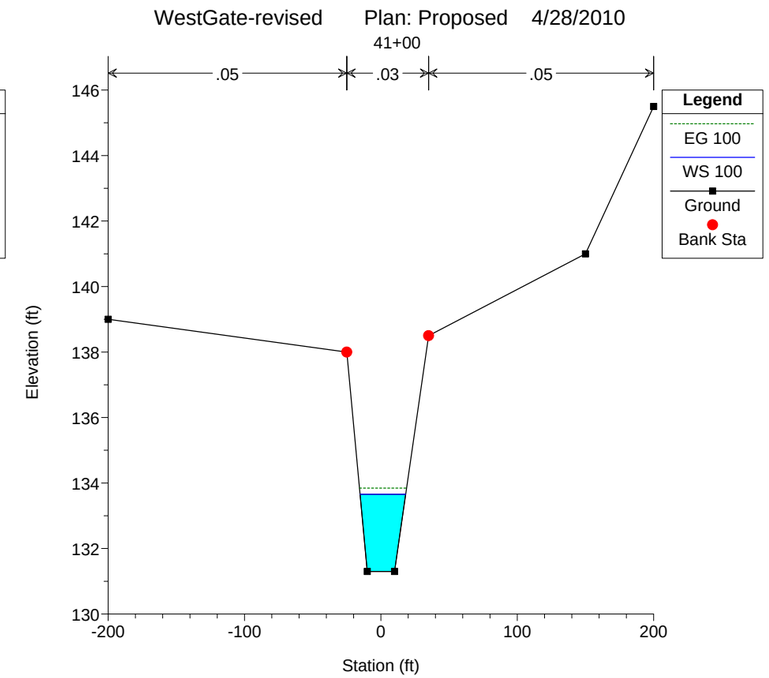

WestGate-revised Plan: Proposed 4/28/2010
46+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

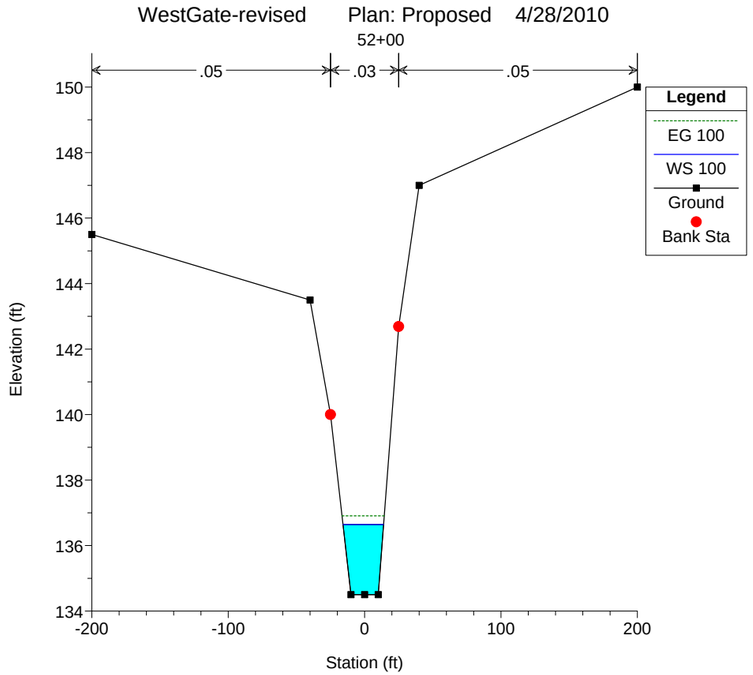

WestGate-revised Plan: Proposed 4/28/2010
45+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

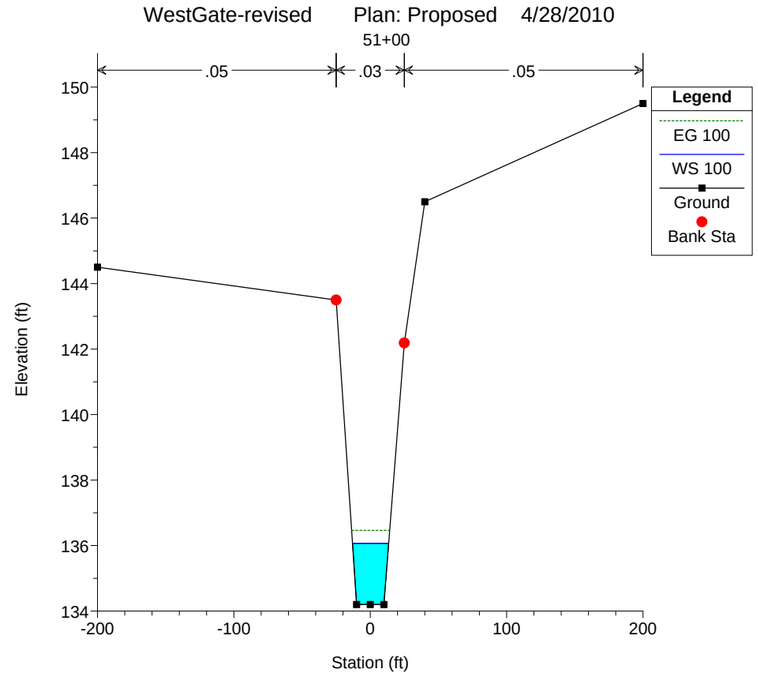

WestGate-revised Plan: Proposed 4/28/2010
44+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

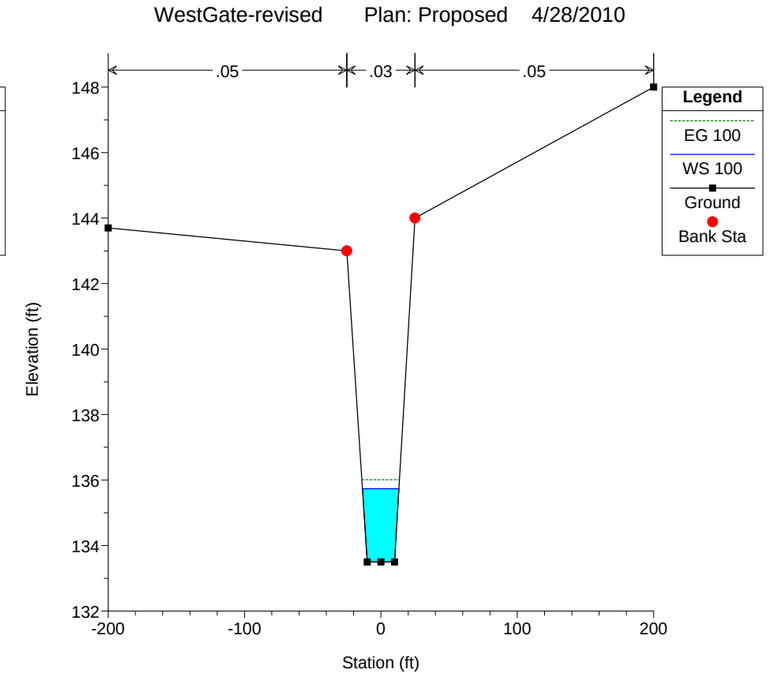

WestGate-revised Plan: Proposed 4/28/2010
43+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

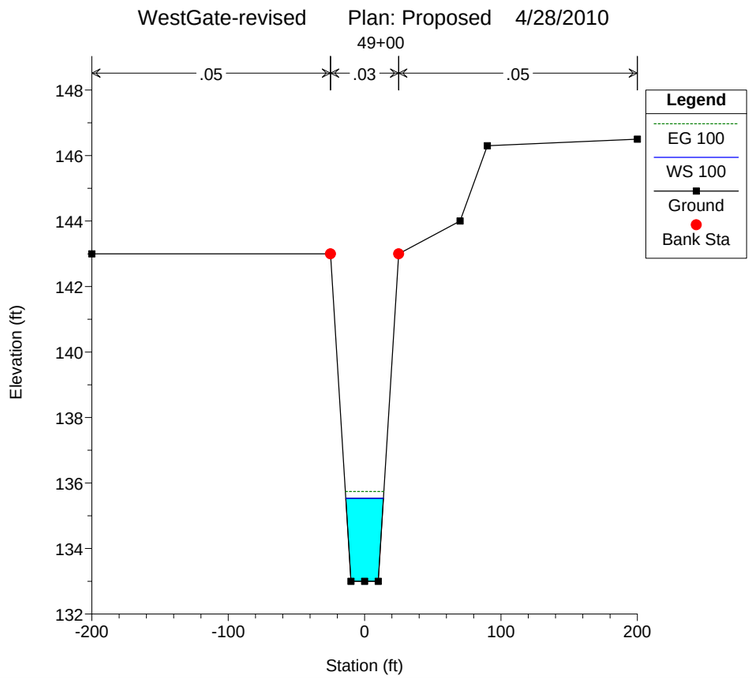

WestGate-revised Plan: Proposed 4/28/2010
42+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

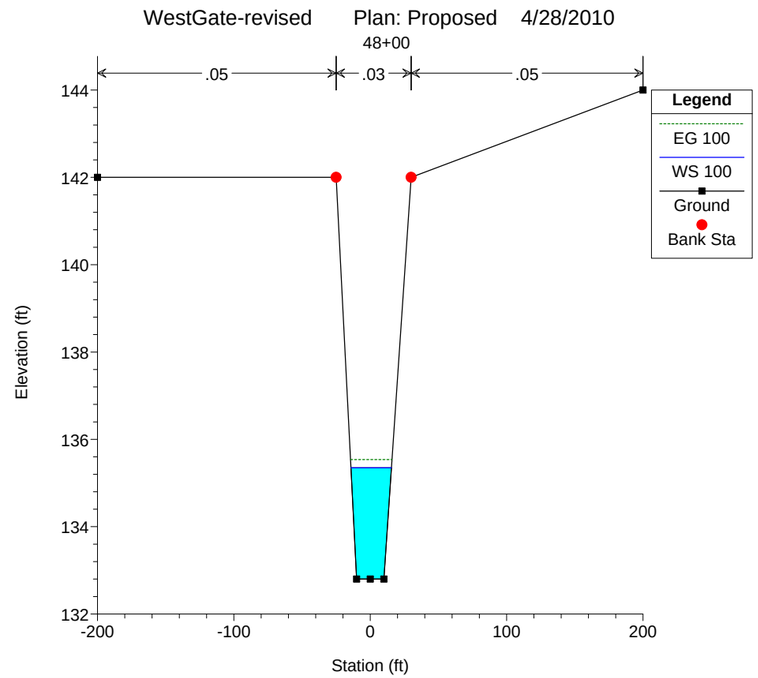

WestGate-revised Plan: Proposed 4/28/2010
41+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

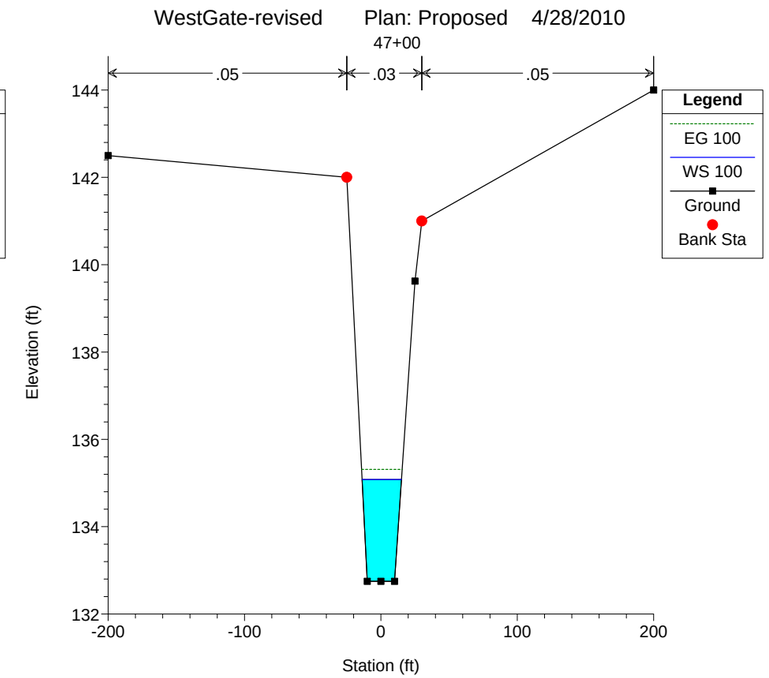

WestGate-revised Plan: Proposed 4/28/2010
52+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

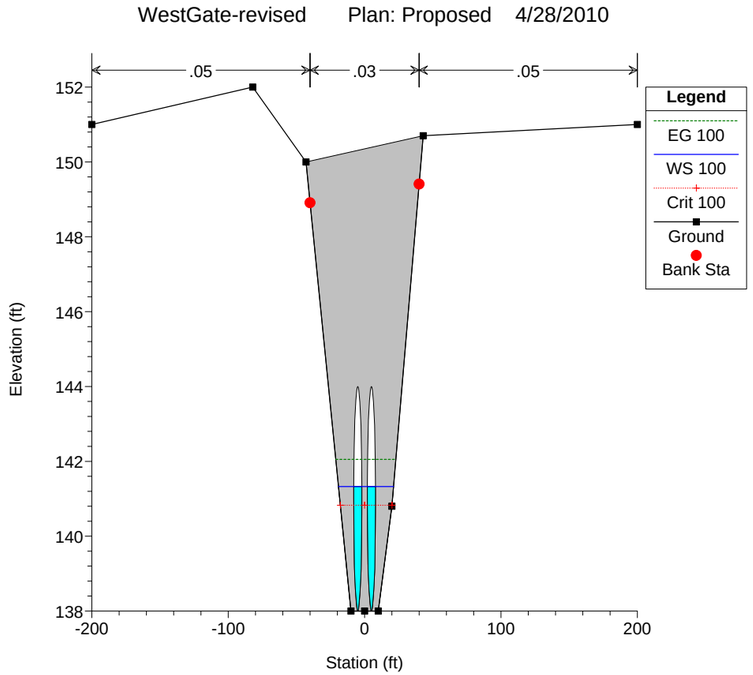

WestGate-revised Plan: Proposed 4/28/2010
51+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

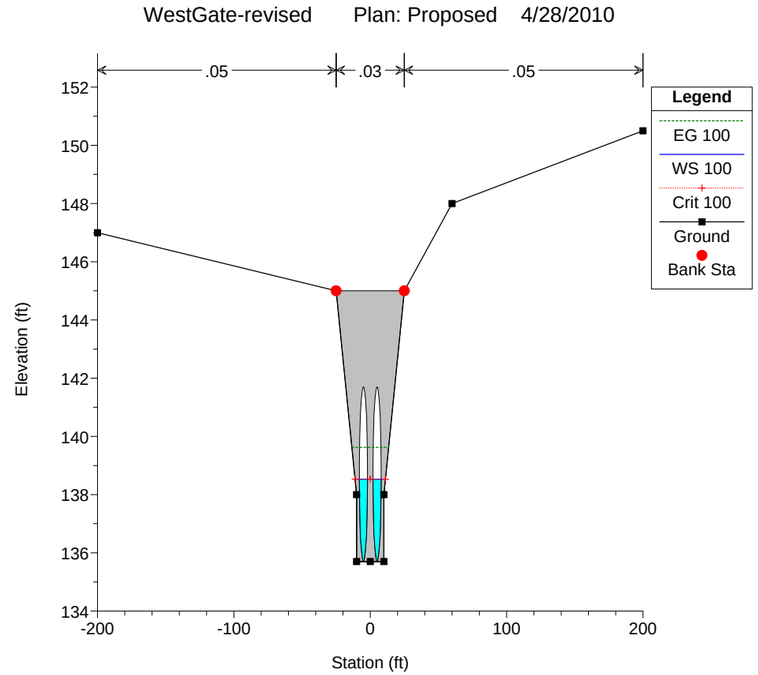

WestGate-revised Plan: Proposed 4/28/2010
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

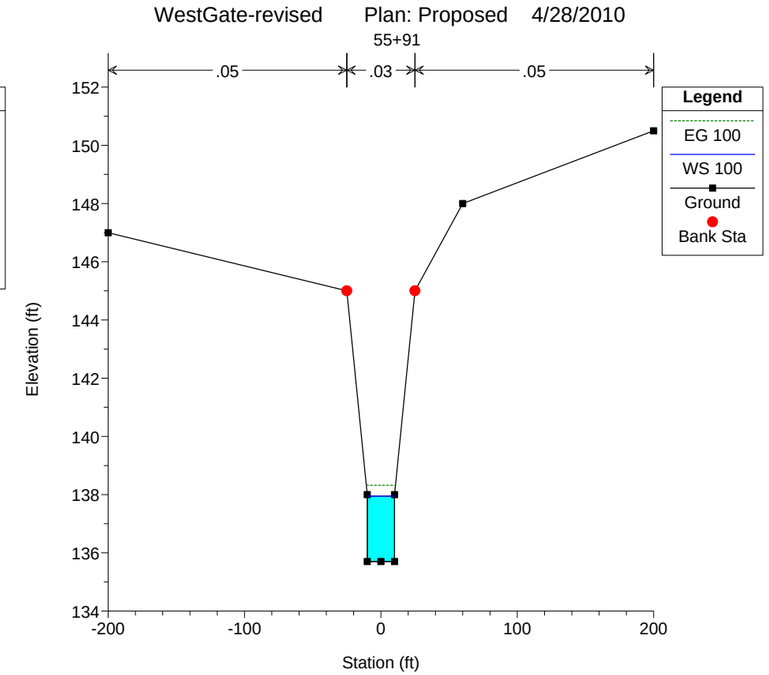

WestGate-revised Plan: Proposed 4/28/2010
49+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

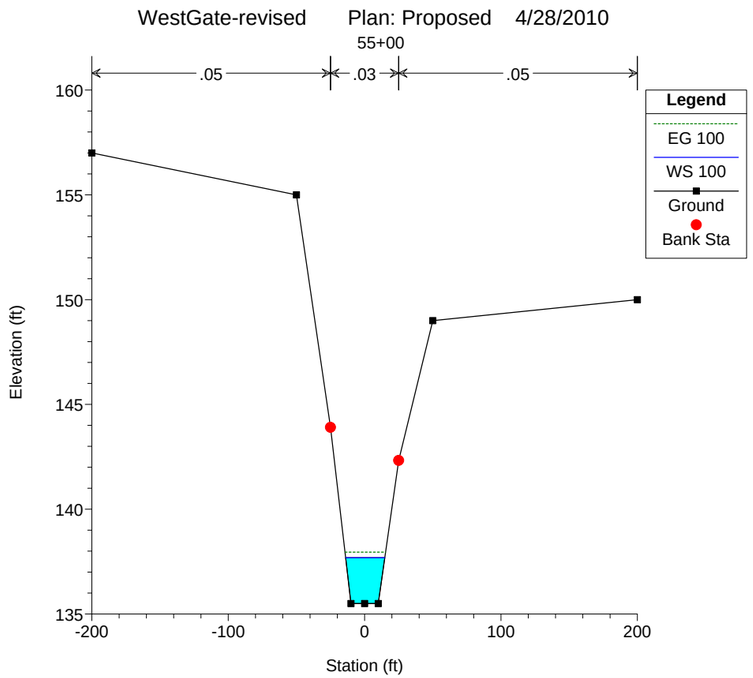

WestGate-revised Plan: Proposed 4/28/2010
48+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

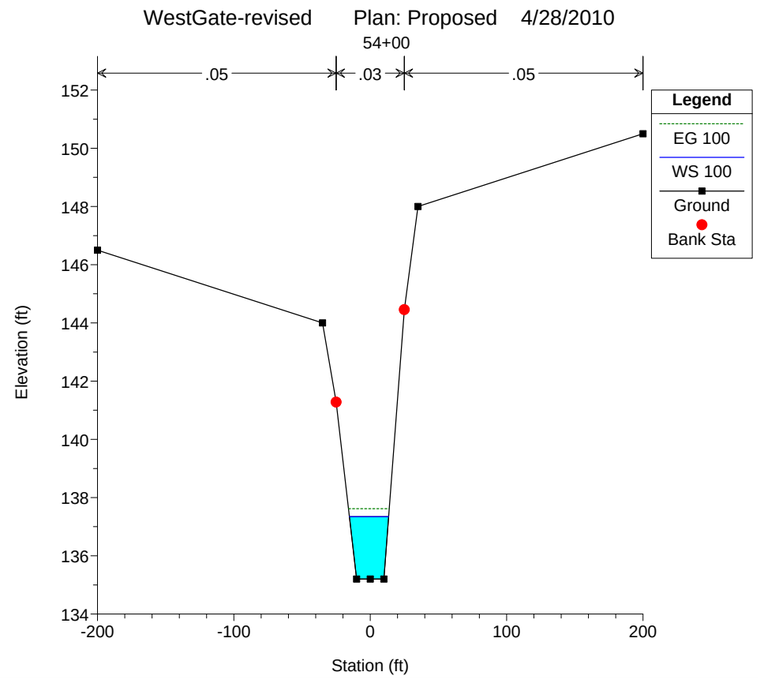

WestGate-revised Plan: Proposed 4/28/2010
47+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

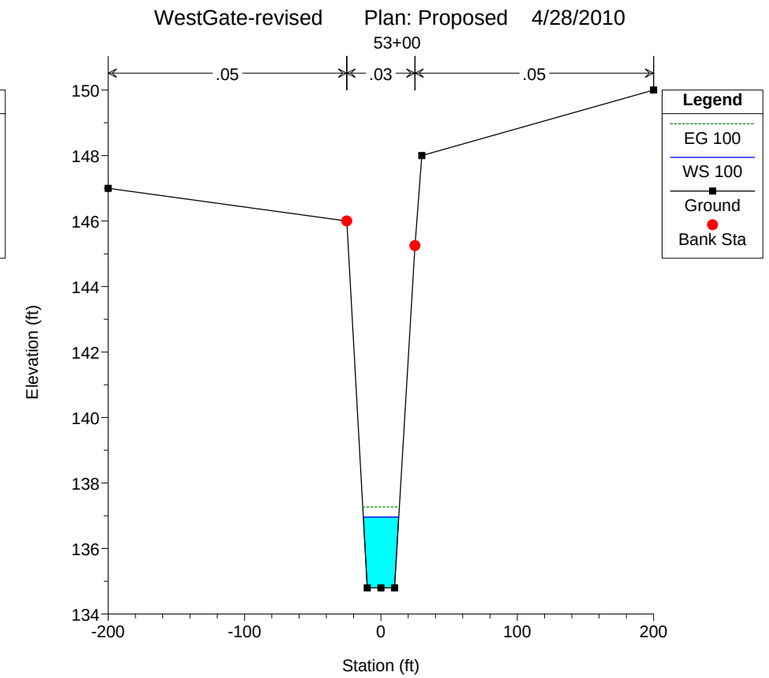

WestGate-revised Plan: Proposed 4/28/2010
.05
.03
.05
Legend
EG 100
WS 100
Crit 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

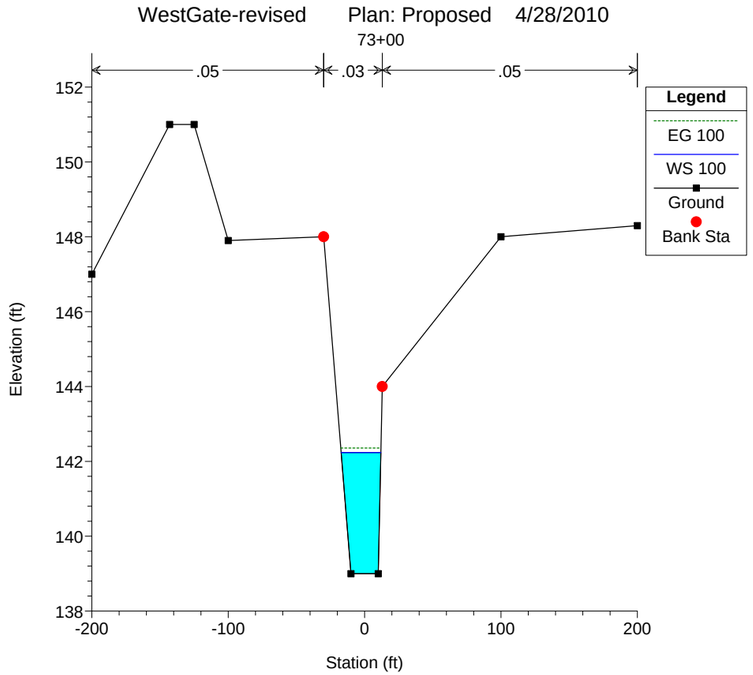

WestGate-revised Plan: Proposed 4/28/2010
.05
.03
.05
Legend
EG 100
WS 100
Crit 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

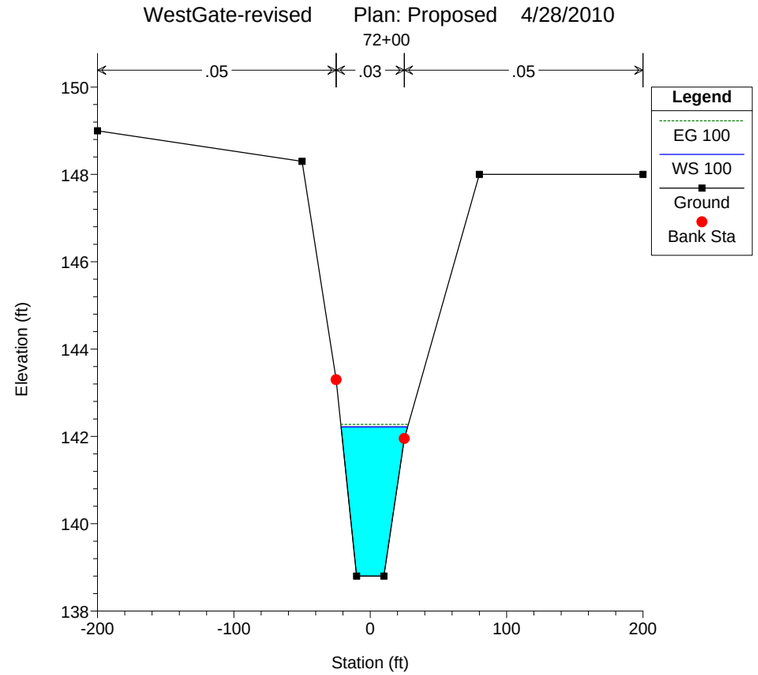

WestGate-revised Plan: Proposed 4/28/2010
55+91
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

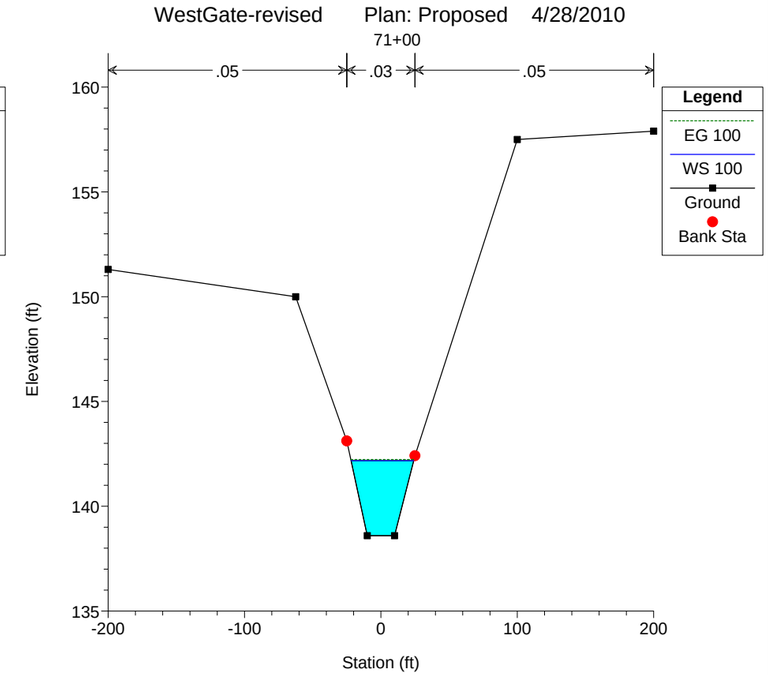

WestGate-revised Plan: Proposed 4/28/2010
55+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

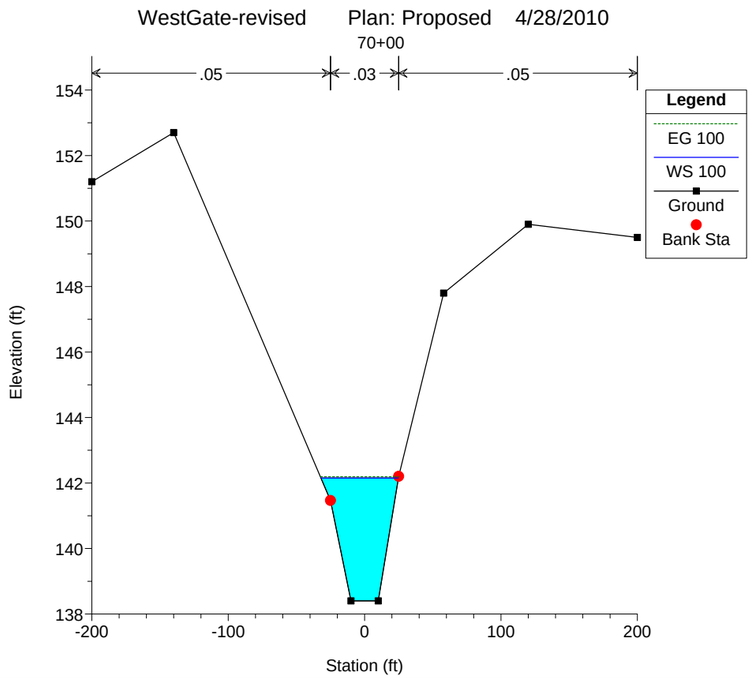

WestGate-revised Plan: Proposed 4/28/2010
54+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

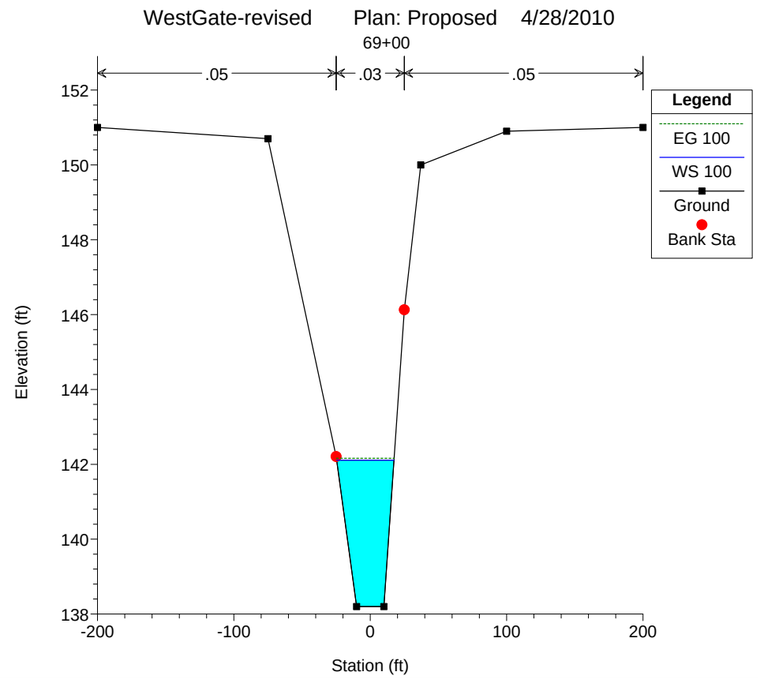

WestGate-revised Plan: Proposed 4/28/2010
53+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

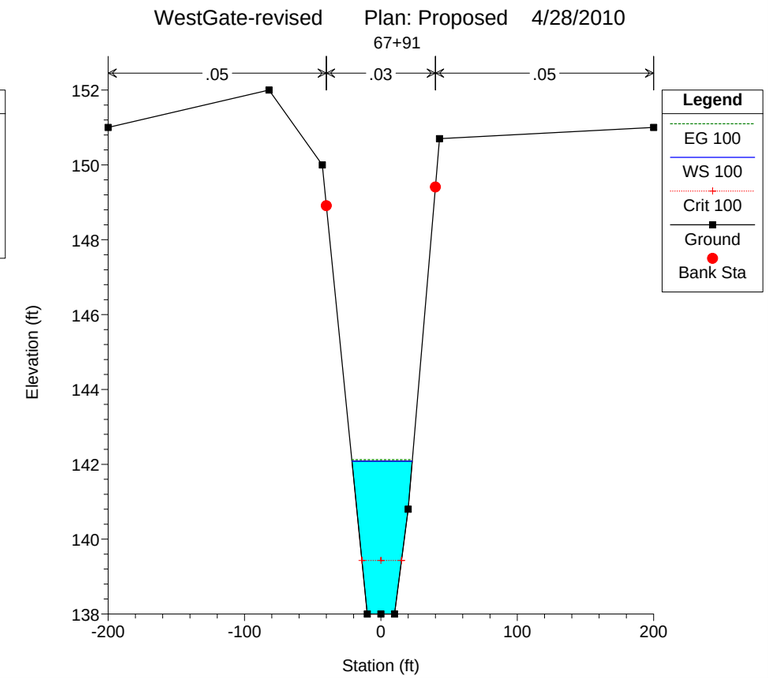

WestGate-revised Plan: Proposed 4/28/2010
73+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

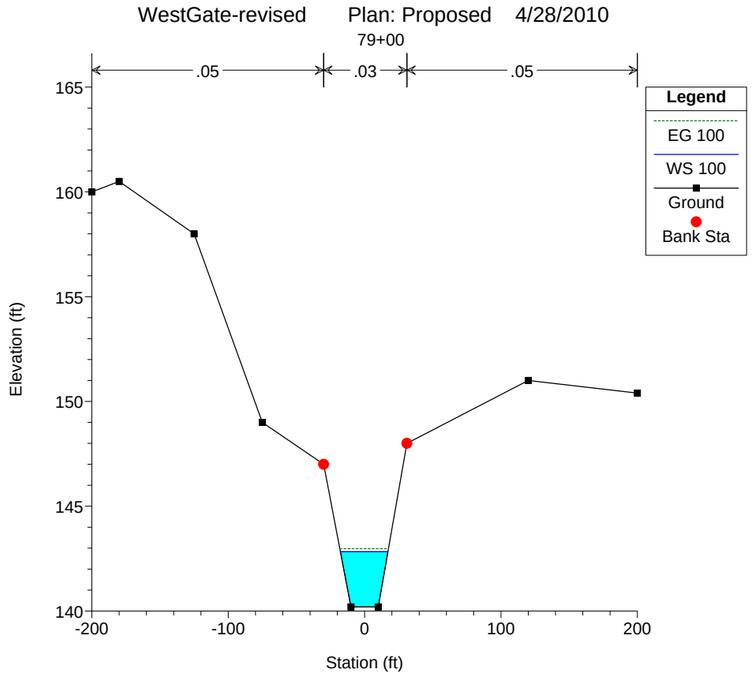

WestGate-revised Plan: Proposed 4/28/2010
72+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

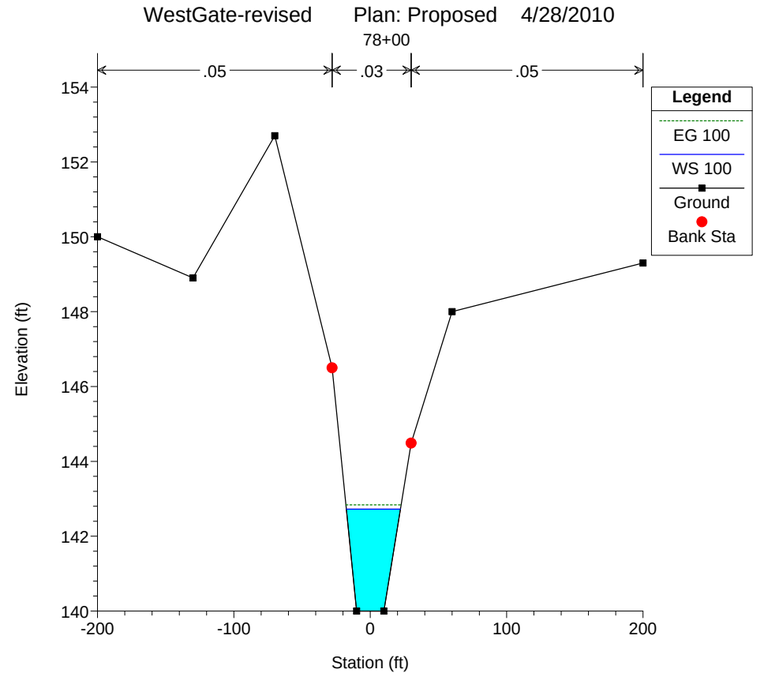

WestGate-revised Plan: Proposed 4/28/2010
71+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

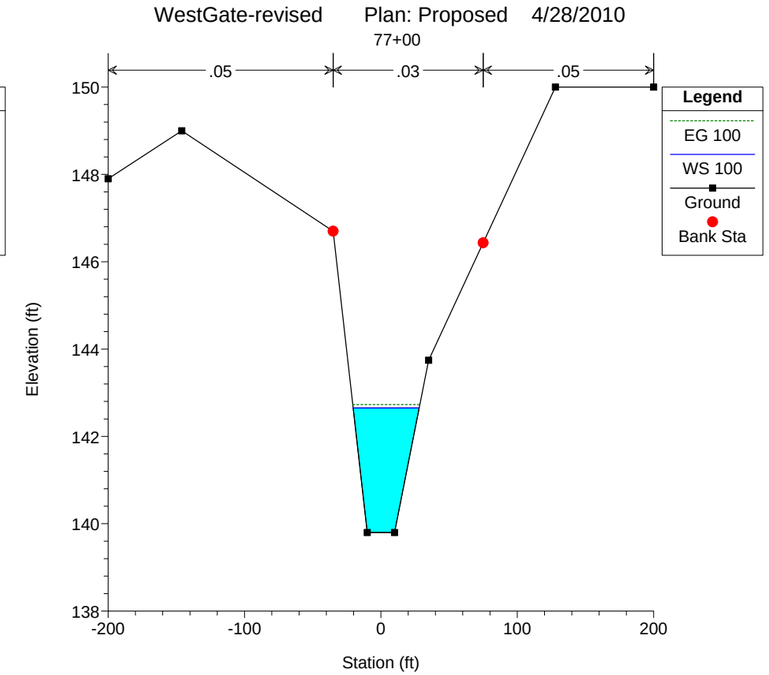

WestGate-revised Plan: Proposed 4/28/2010
70+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

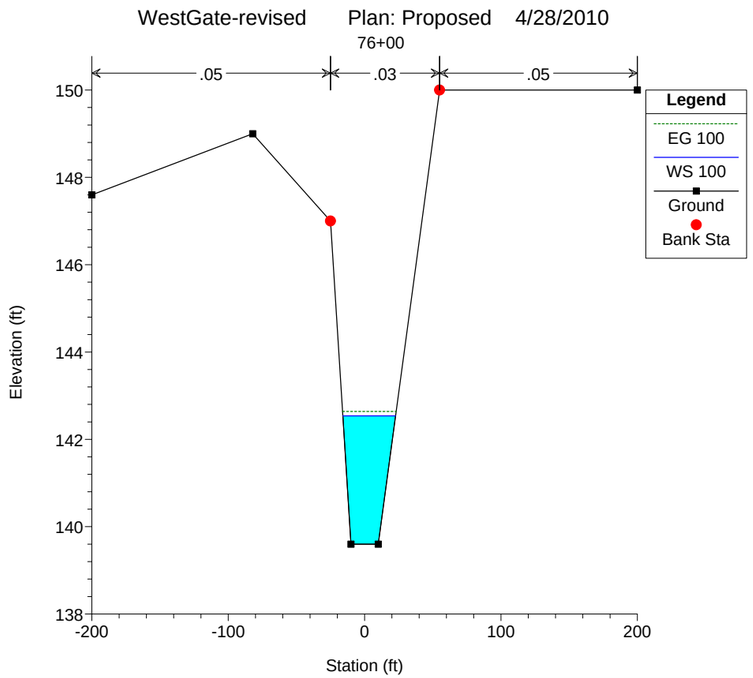

WestGate-revised Plan: Proposed 4/28/2010
69+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

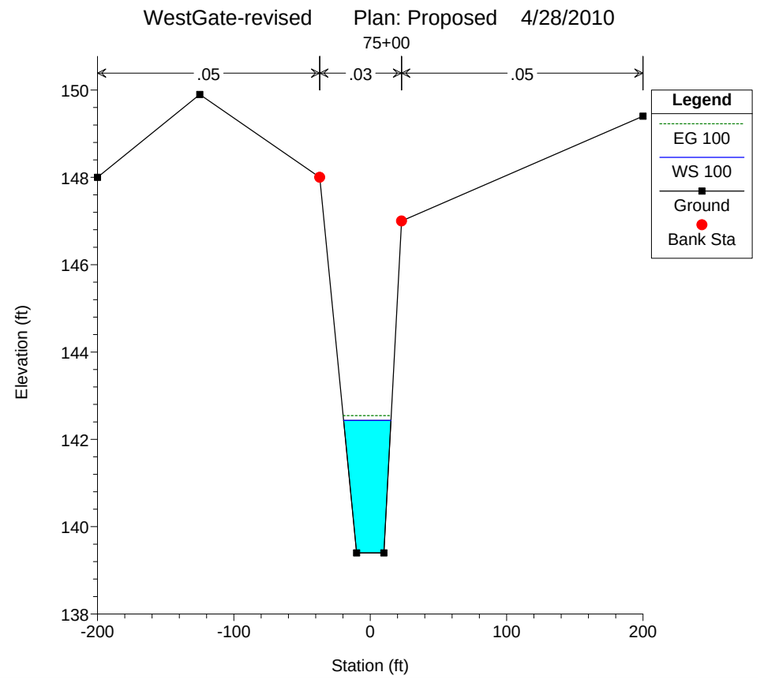

WestGate-revised Plan: Proposed 4/28/2010
67+91
.05
.03
.05
Legend
EG 100
WS 100
Crit 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

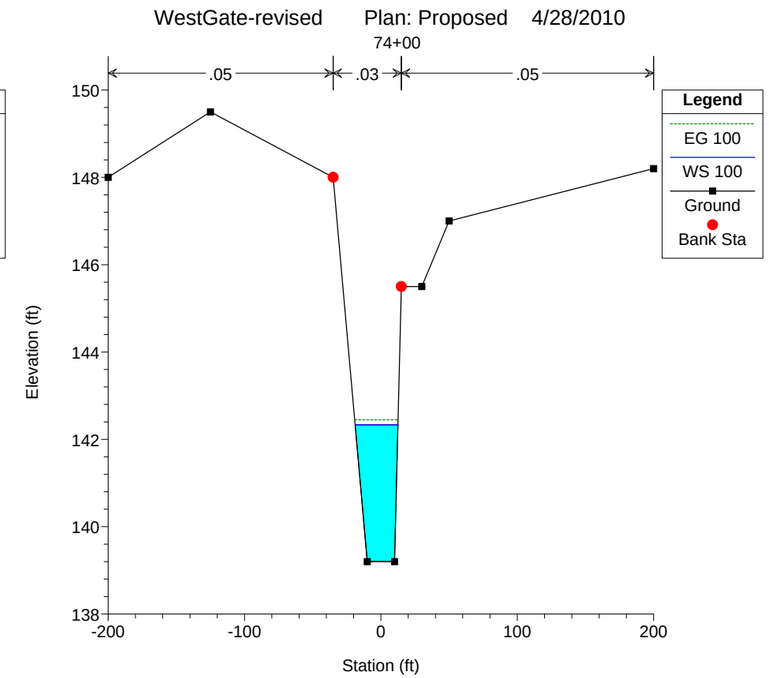

WestGate-revised Plan: Proposed 4/28/2010
79+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

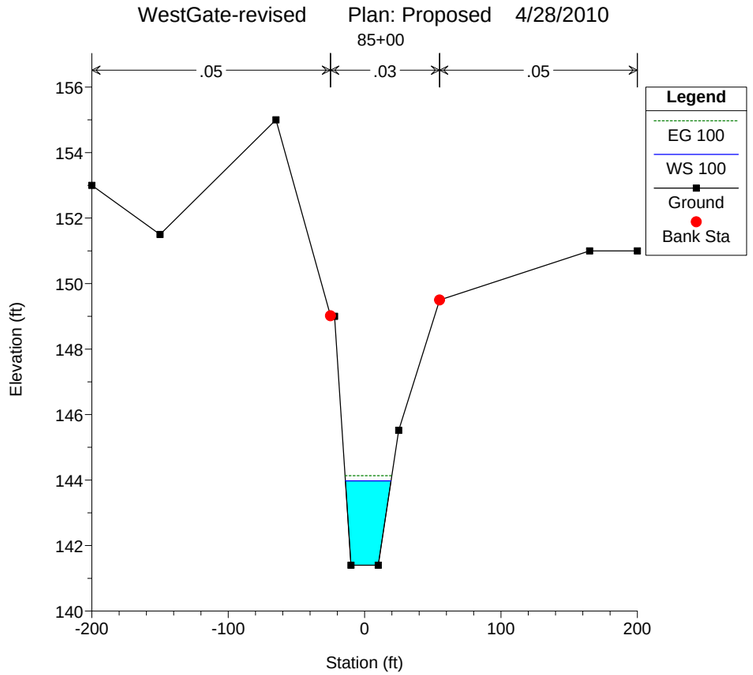

WestGate-revised Plan: Proposed 4/28/2010
78+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

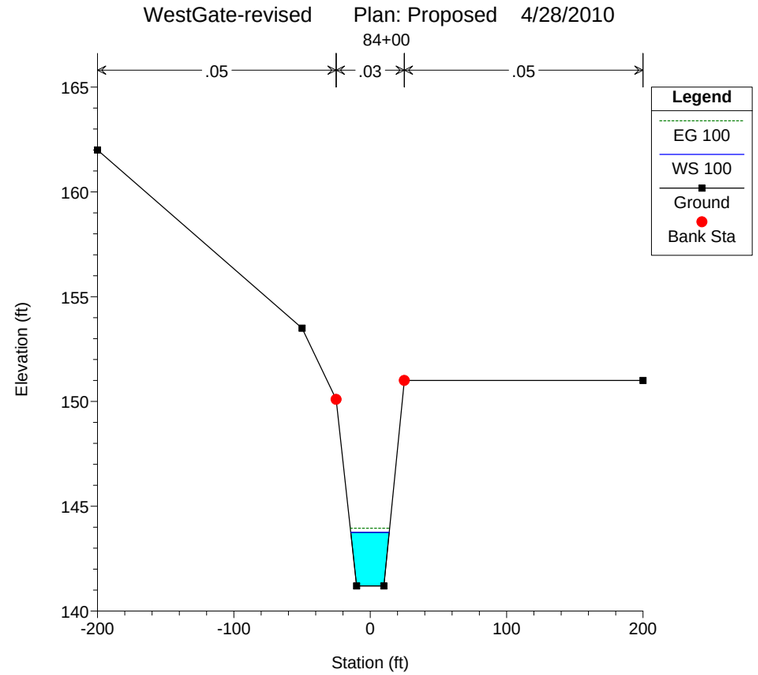

WestGate-revised Plan: Proposed 4/28/2010
77+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

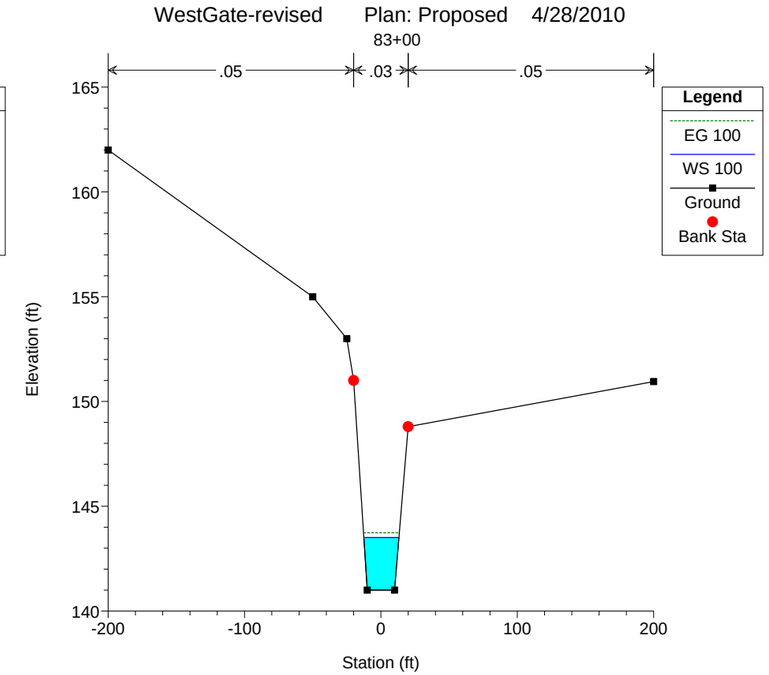

WestGate-revised Plan: Proposed 4/28/2010
76+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

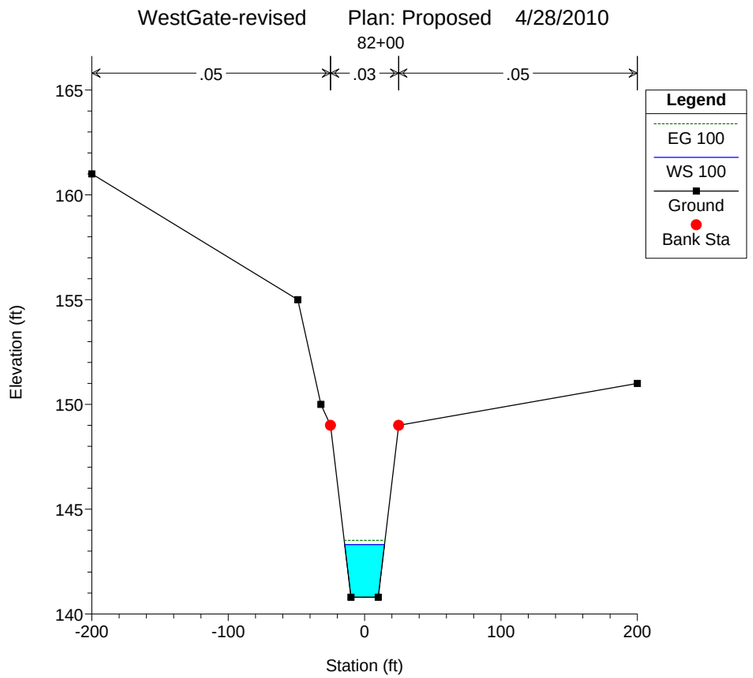

WestGate-revised Plan: Proposed 4/28/2010
75+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

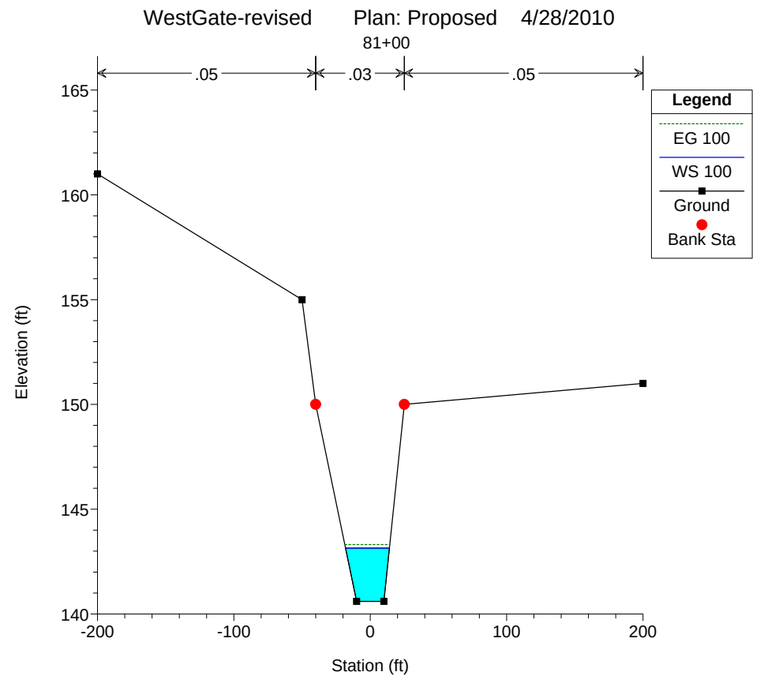

WestGate-revised Plan: Proposed 4/28/2010
74+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

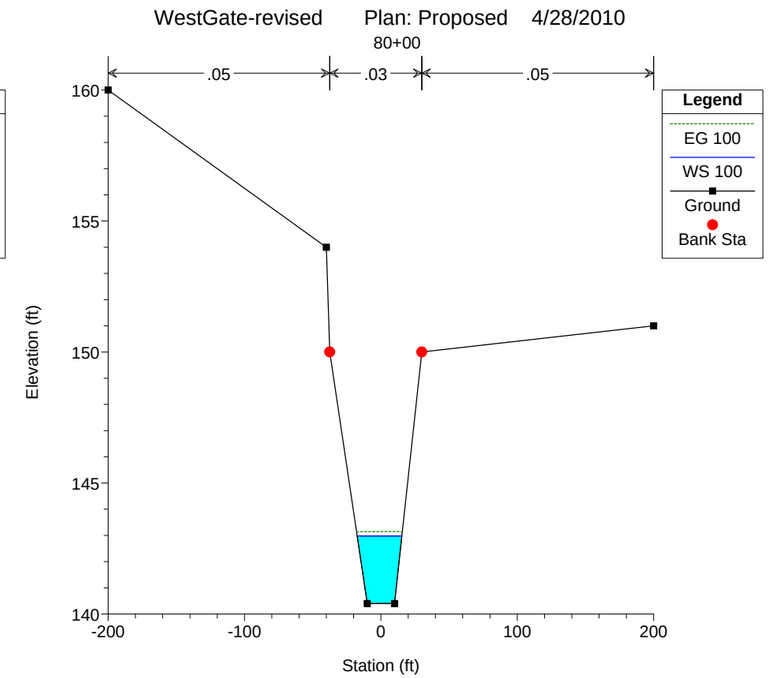

WestGate-revised Plan: Proposed 4/28/2010
85+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

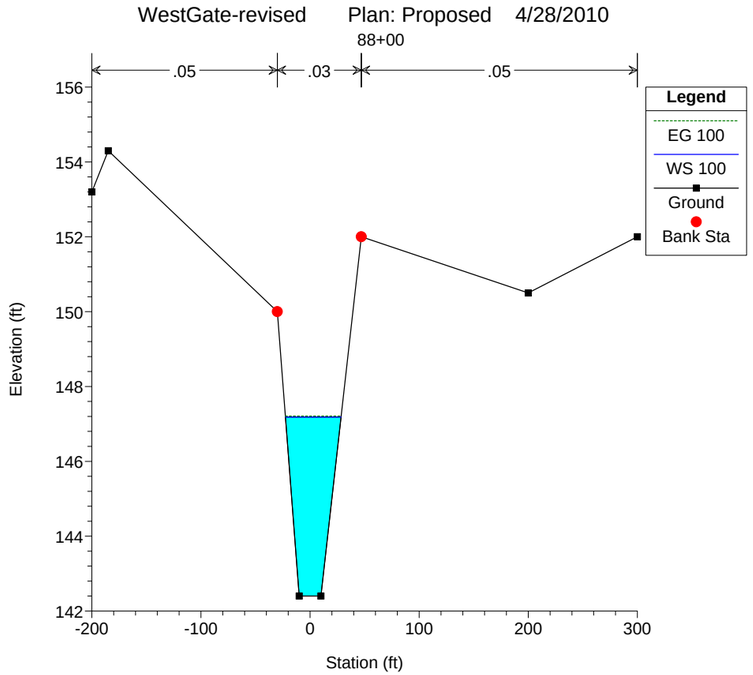

WestGate-revised Plan: Proposed 4/28/2010
84+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

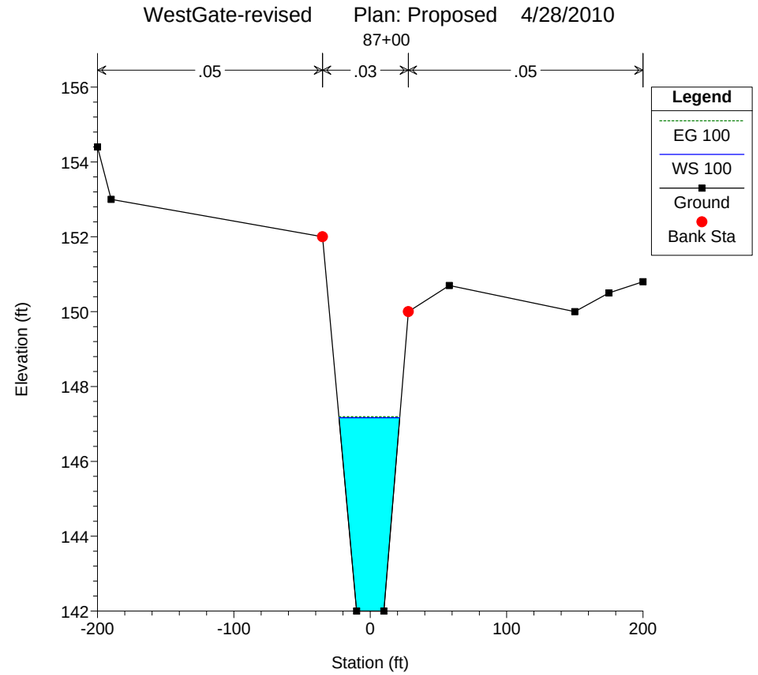

WestGate-revised Plan: Proposed 4/28/2010
83+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

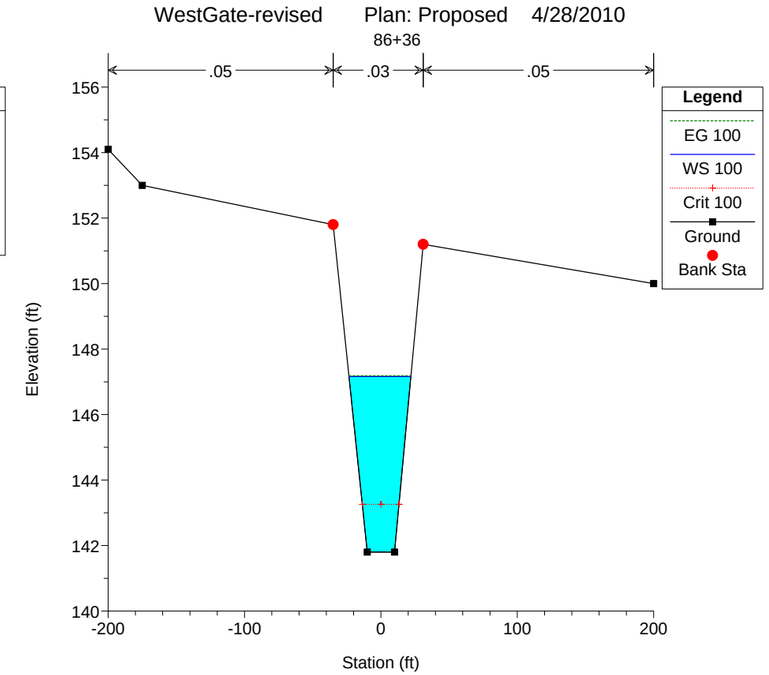

WestGate-revised Plan: Proposed 4/28/2010
82+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

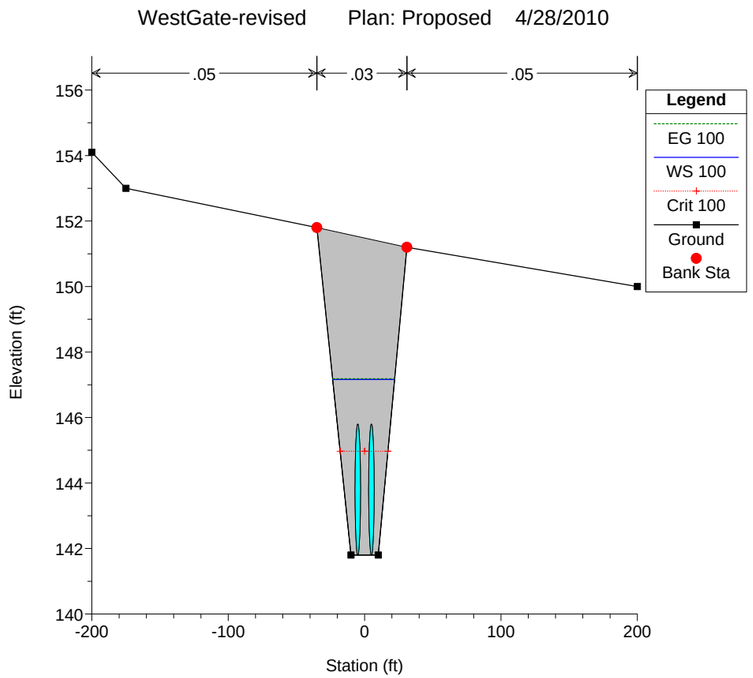

WestGate-revised Plan: Proposed 4/28/2010
81+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

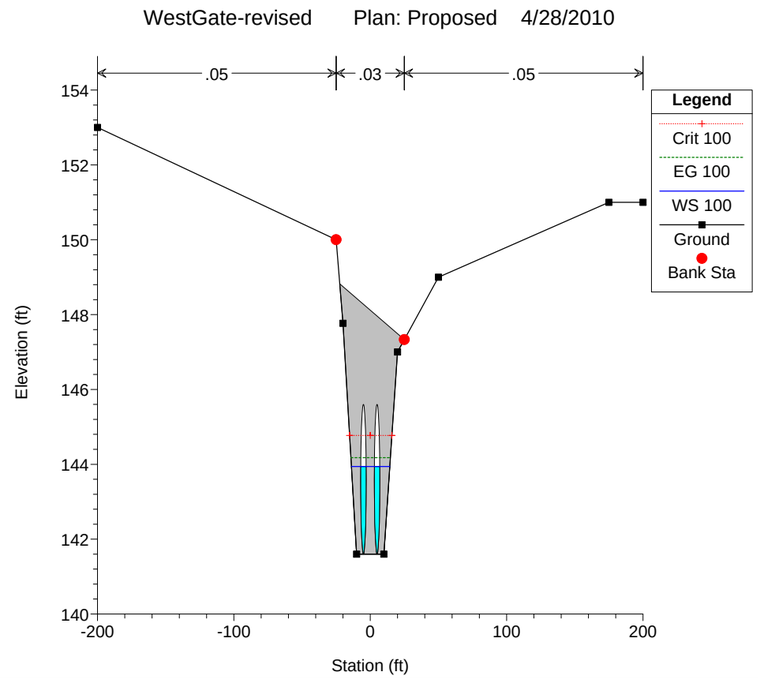

WestGate-revised Plan: Proposed 4/28/2010
80+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

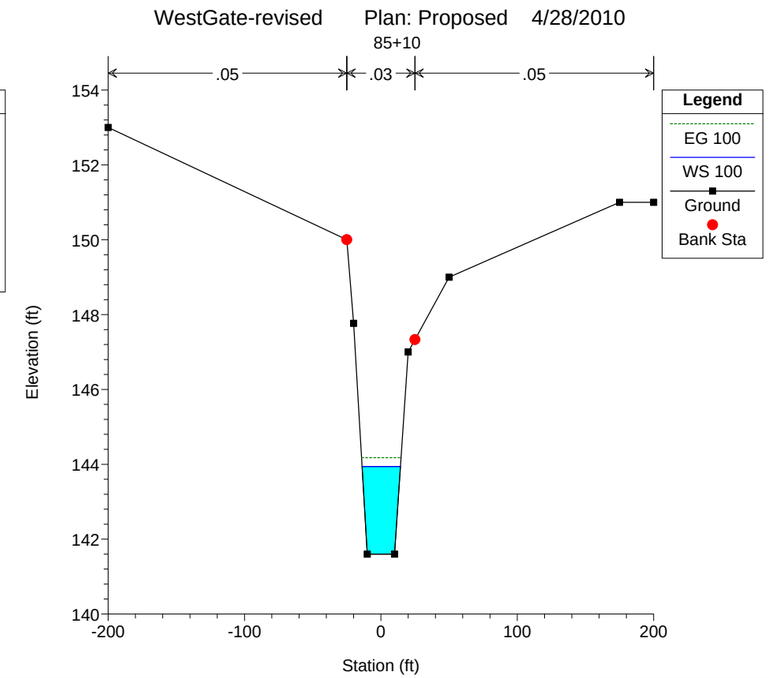

WestGate-revised Plan: Proposed 4/28/2010
88+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

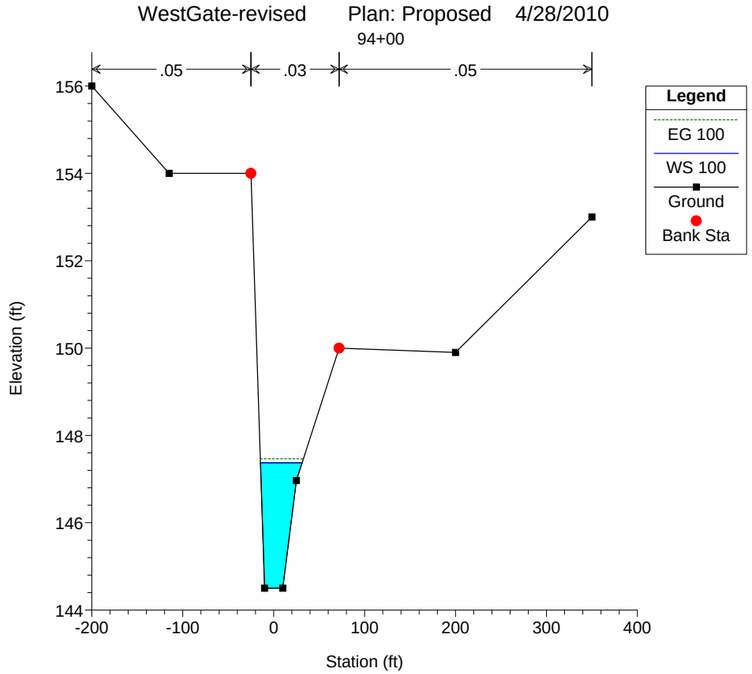

WestGate-revised Plan: Proposed 4/28/2010
87+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

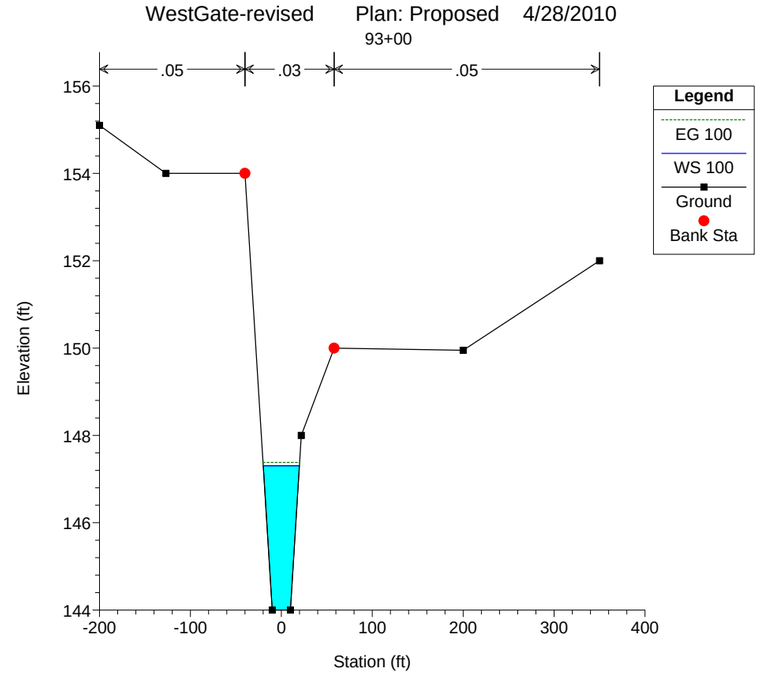

WestGate-revised Plan: Proposed 4/28/2010
86+36
.05
.03
.05
Legend
EG 100
WS 100
Crit 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

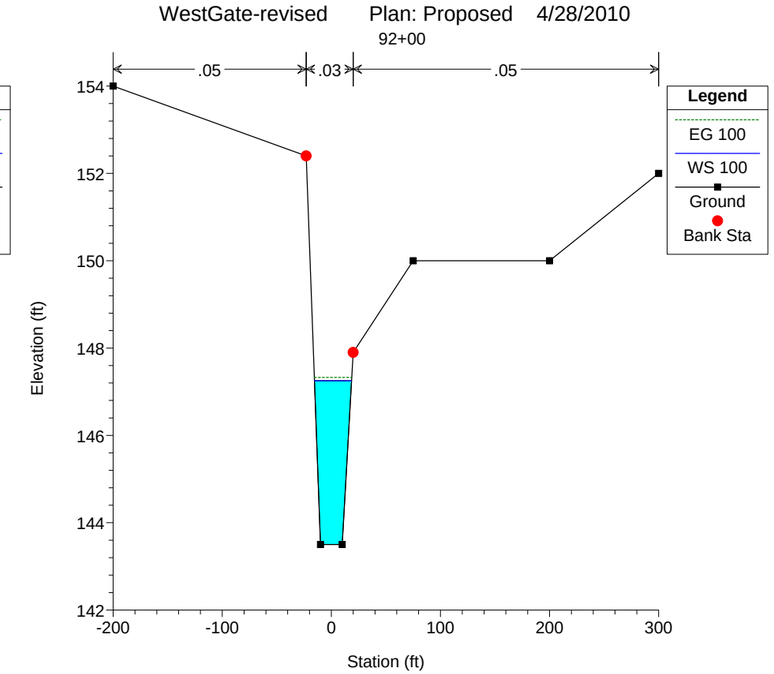

WestGate-revised Plan: Proposed 4/28/2010
.05
.03
.05
Legend
EG 100
WS 100
Crit 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

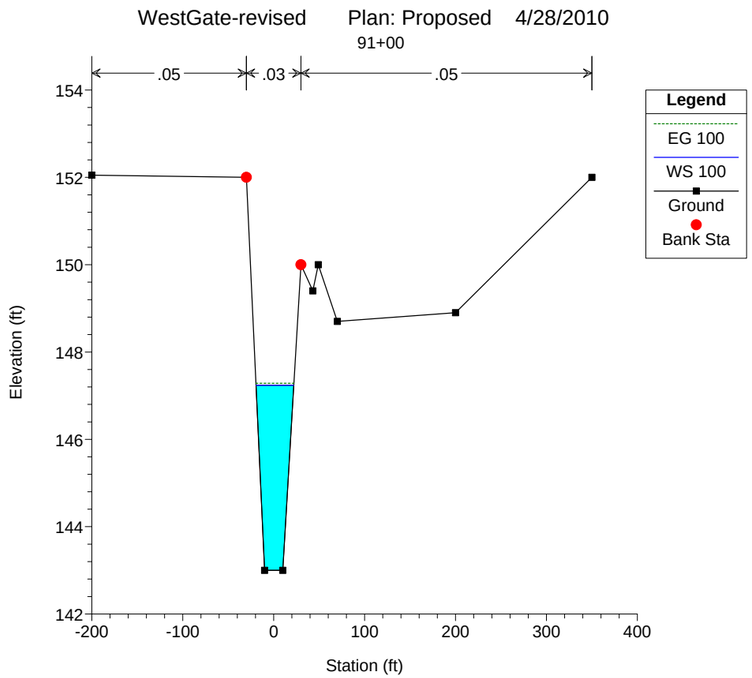

WestGate-revised Plan: Proposed 4/28/2010
.05
.03
.05
Legend
Crit 100
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

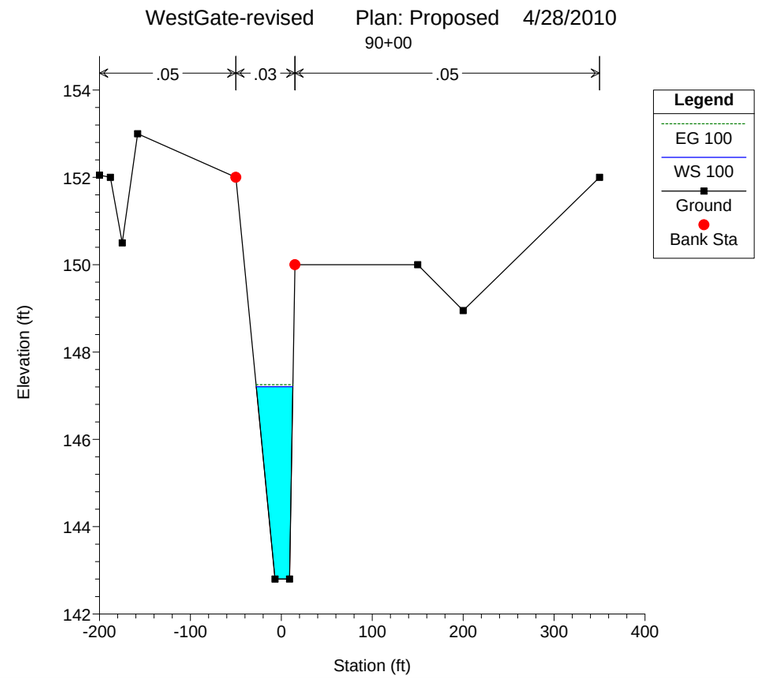

WestGate-revised Plan: Proposed 4/28/2010
85+10
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

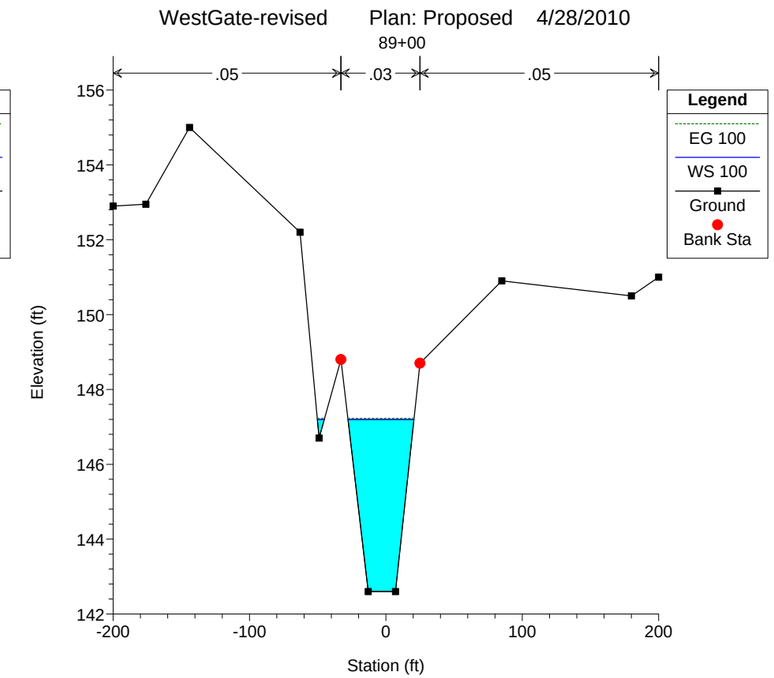

WestGate-revised Plan: Proposed 4/28/2010
94+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

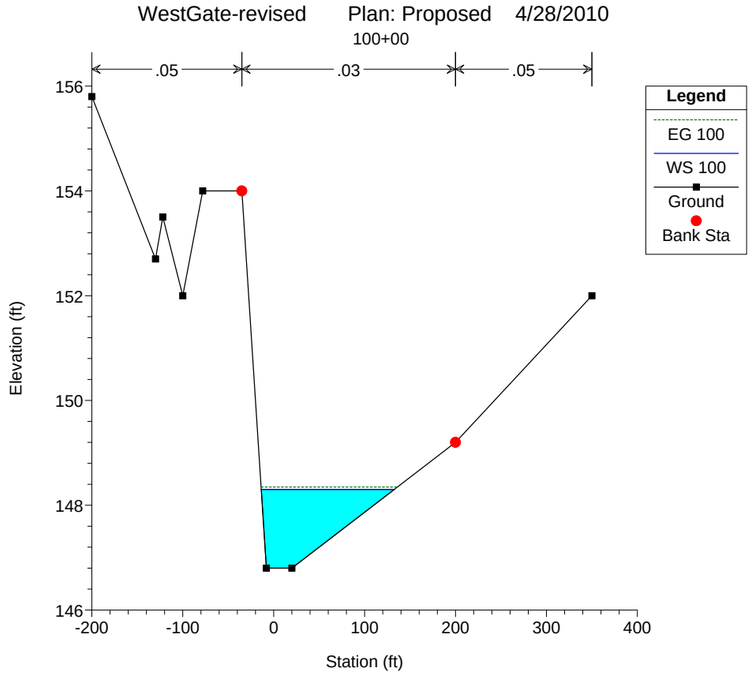

WestGate-revised Plan: Proposed 4/28/2010
93+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

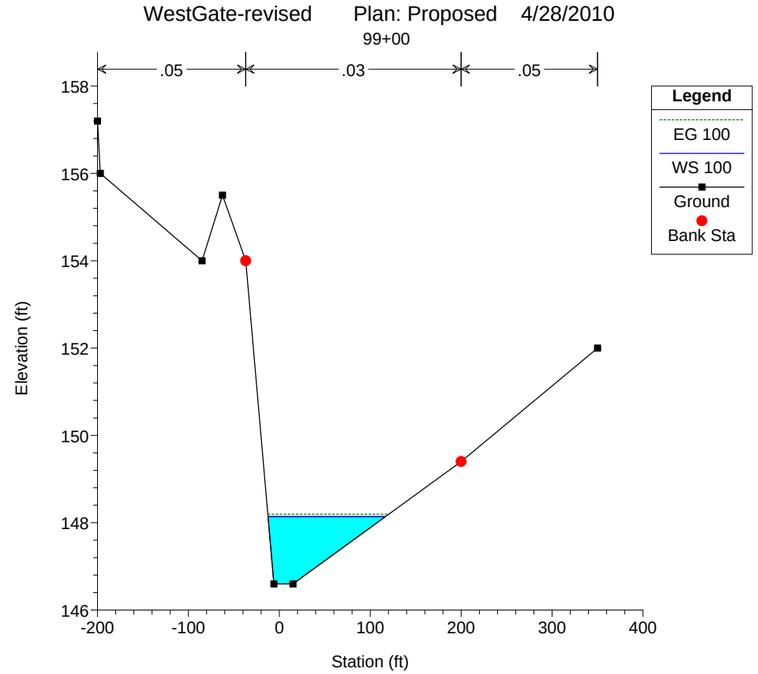

WestGate-revised Plan: Proposed 4/28/2010
92+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

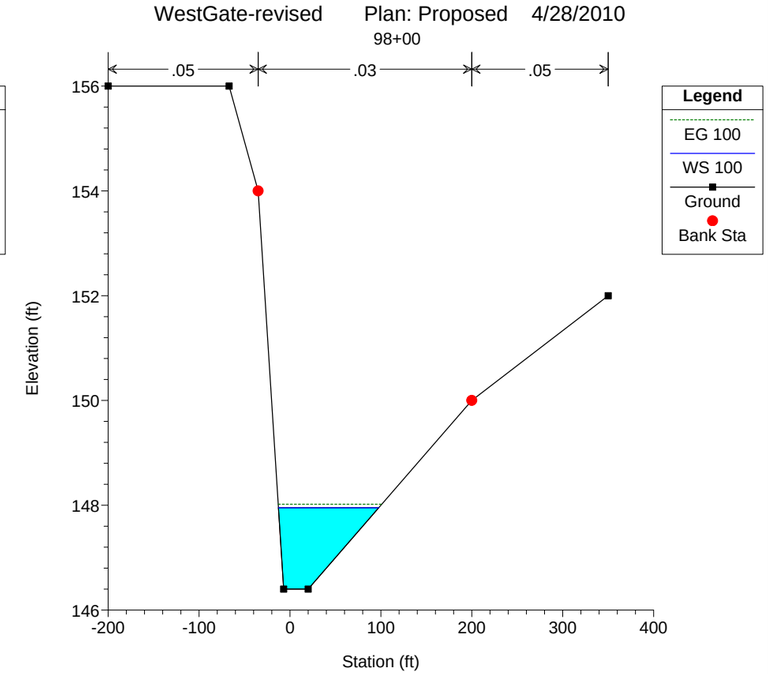

WestGate-revised Plan: Proposed 4/28/2010
91+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

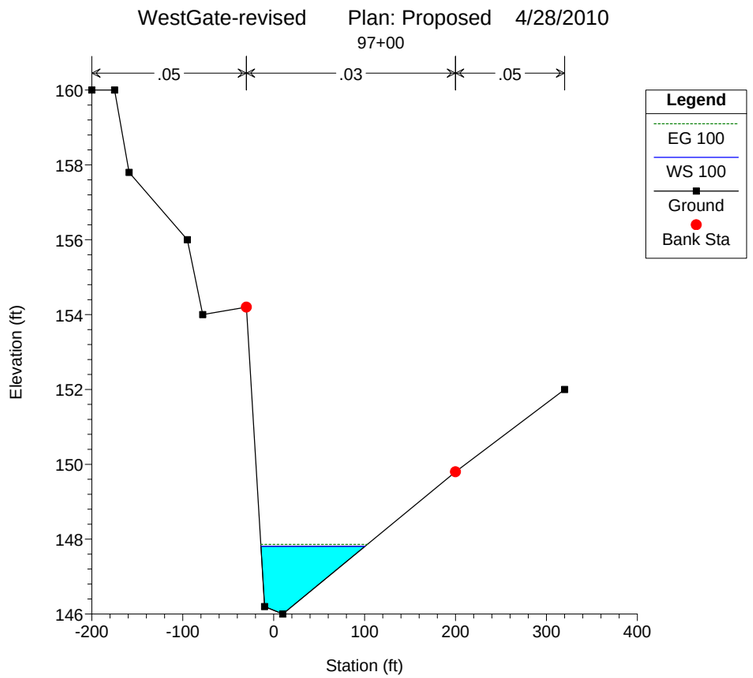

WestGate-revised Plan: Proposed 4/28/2010
90+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

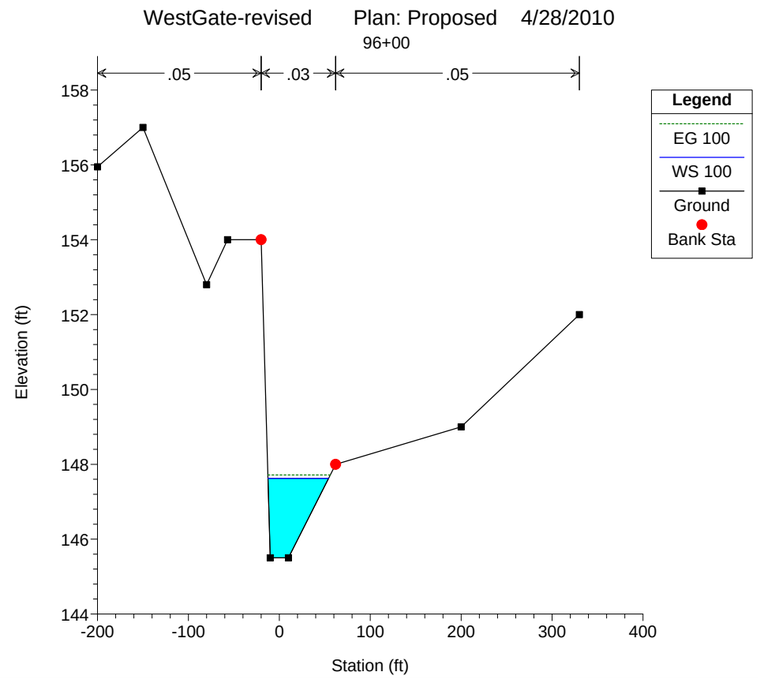

WestGate-revised Plan: Proposed 4/28/2010
89+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

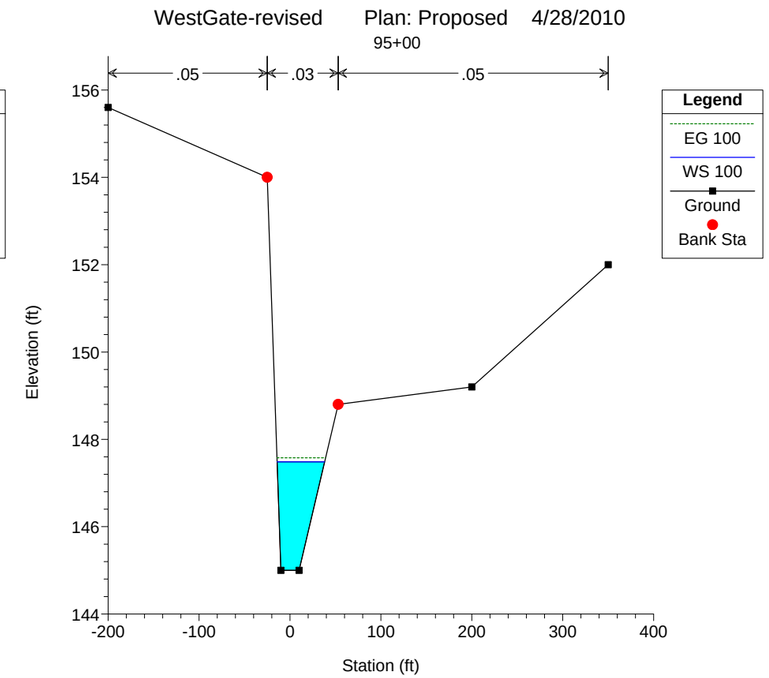

WestGate-revised Plan: Proposed 4/28/2010
100+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

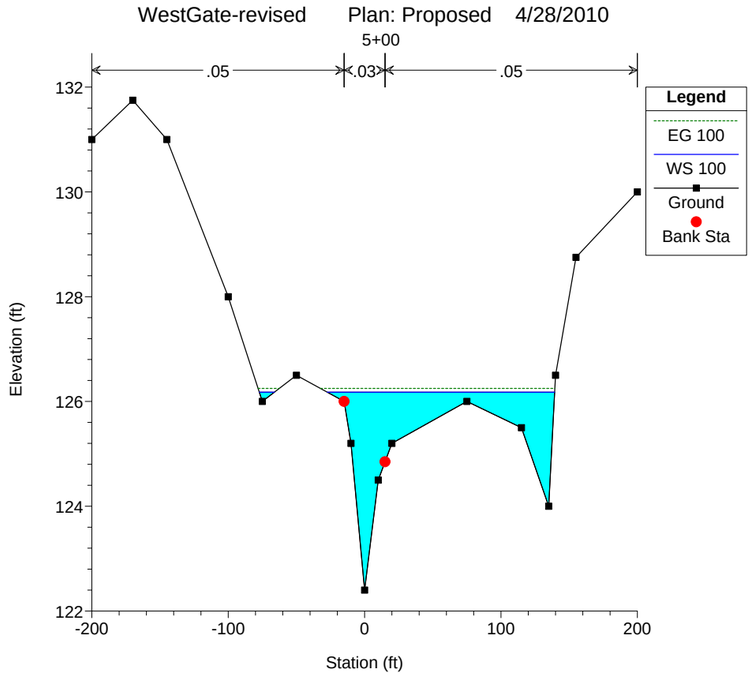

WestGate-revised Plan: Proposed 4/28/2010
99+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

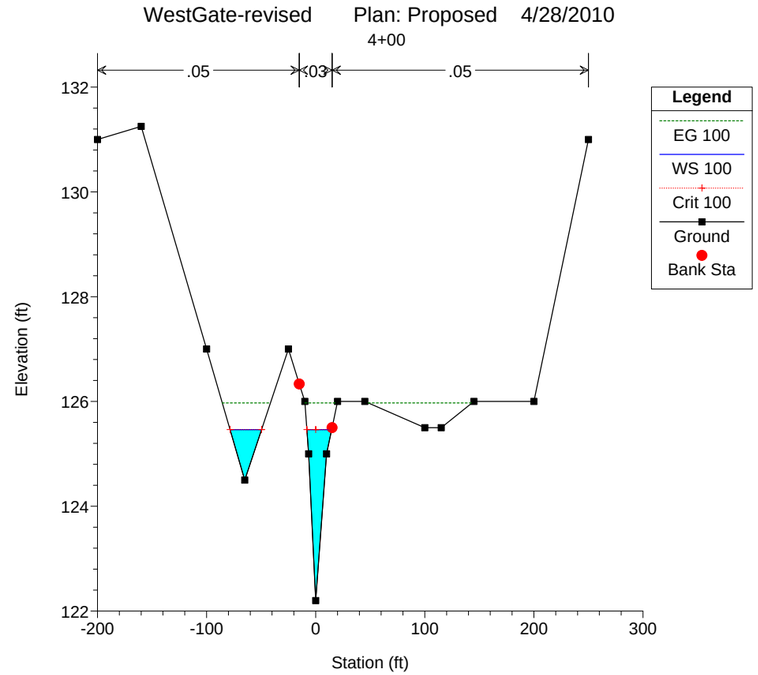

WestGate-revised Plan: Proposed 4/28/2010
98+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

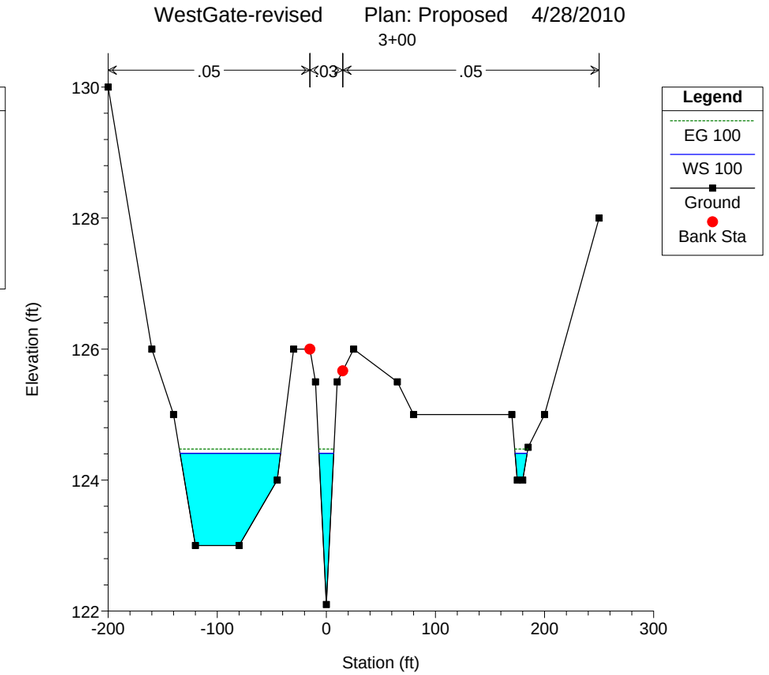

WestGate-revised Plan: Proposed 4/28/2010
97+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

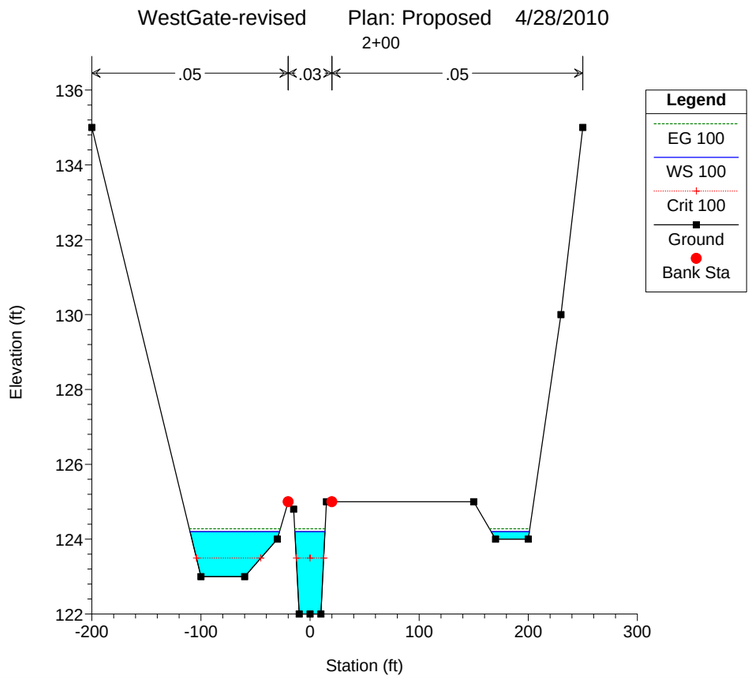

WestGate-revised Plan: Proposed 4/28/2010
96+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)


WestGate-revised Plan: Proposed 4/28/2010
95+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)


WestGate-revised Plan: Proposed 4/28/2010
5+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

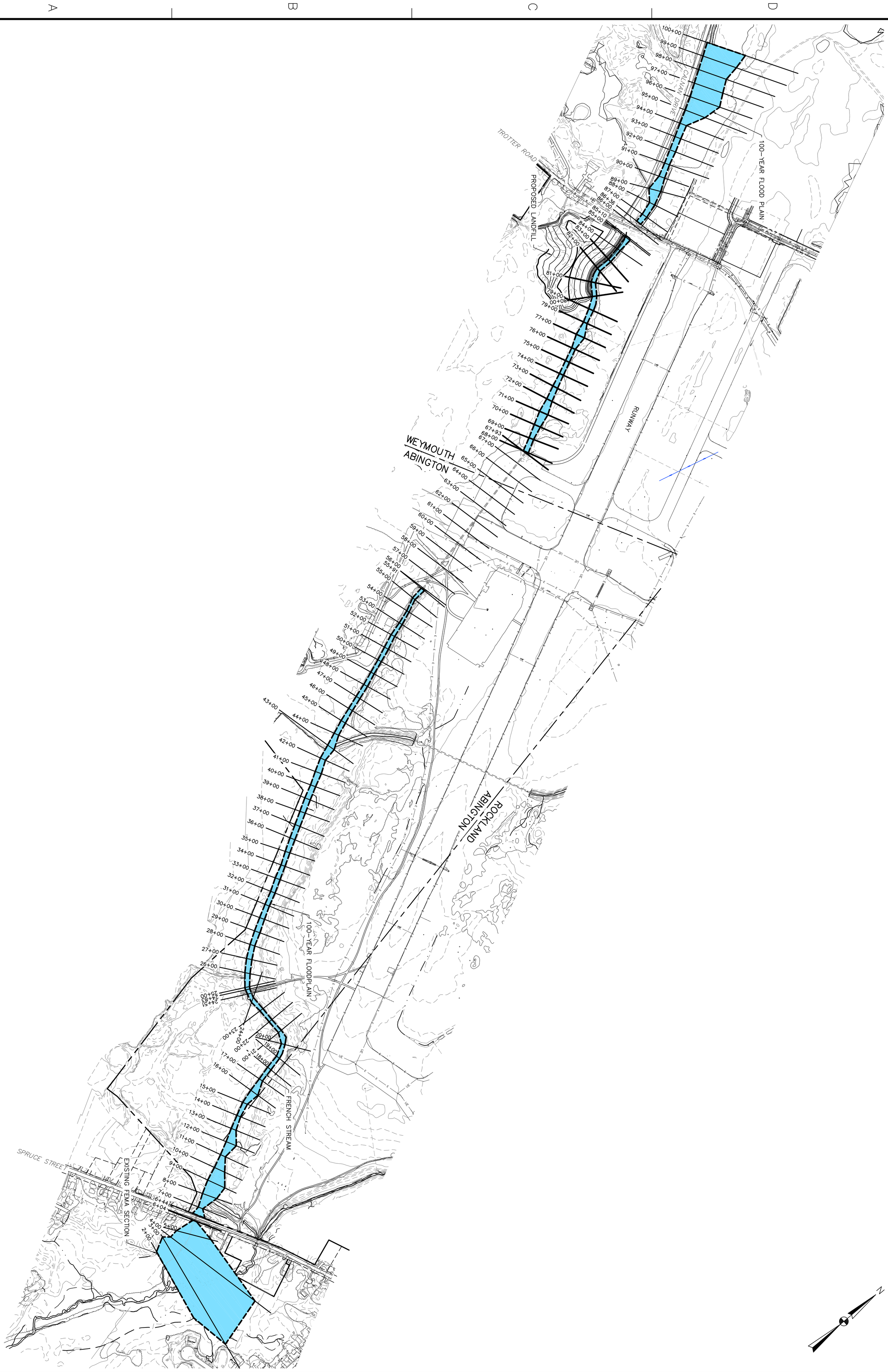

WestGate-revised Plan: Proposed 4/28/2010
4+00
.05
.03
.05
Legend
EG 100
WS 100
Crit 100
Ground
Bank Sta
Elevation (ft)
Station (ft)


WestGate-revised Plan: Proposed 4/28/2010
3+00
.05
.03
.05
Legend
EG 100
WS 100
Ground
Bank Sta
Elevation (ft)
Station (ft)


WestGate-revised Plan: Proposed 4/28/2010
2+00
.05
.03
.05
Legend
EG 100
WS 100
Crit 100
Ground
Bank Sta
Elevation (ft)
Station (ft)

ATTACHMENT F

FLOODPLAIN MAP



CAUTION: IF SHEET IS LESS THAN 36"x24" USE GRAPHIC SCALE

R:\2073\Civil\2073C001.dwg PIT BEN.HOPPE 8/14/2009 2:39:37 PM

DEPARTMENT OF THE NAVY — NAVAL FACILITIES ENGINEERING COMMAND

NAVAL FACILITIES ENGINEERING COMMAND ~ NORTHEAST

WEYMOUTH, MASSACHUSETTS — NAVAL STATION – SOUTH WEYMOUTH

HYDRAULIC STUDY OF BRANCH OF FRENCH STREAM

100-YEAR FLOODPLAN MAP

PRELIM

CODE ID. NO. 80091	SIZE D
SCALE:	1" = 300'
MAXIMO NO.	---
JOB ORDER NO.	---
SPEC. NO.	---
CONSTR. CONTR. NO.	N62470-08-D-1006
NAVFAC DRAWING NO.	---
SHEET 1 OF 1	C-1

DES	SL
DR	BH
REVIEWED BY PM/DM	---
CHIEF ENG/ARCH	---

SYM	DESCRIPTION	DATE	APPR

APPENDIX F
ANALYTICAL DATA TABLES
SOUTH WEYMOUTH NAS SOUTH GATE LANDFILL
PRE-REMEDIAL DESIGN INVESTIGATION
CTO 407

APPENDIX F-1
SEDIMENT ANALYTICAL DATA
SOUTH WEYMOUTH NAS SOUTH GATE LANDFILL
PRE-REMEDIAL DESIGN INVESTIGATION
CTO 407

TABLE F-1
SEDIMENT ANALYTICAL RESULTS
WEST GATE LANDFILL
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS

SAMPLE ID		WGL-SD-SD101-000.6	WGL-SD-SD102-000.6-AVG	WGL-SD-SD103-000.6	WGL-SD-SD104-000.6	WGL-SD-SD105-000.6	WGL-SD-SD106-000.6-AVG	WGL-SD-SD107-000.6	WGL-SD-SD108-000.6	WGL-SD-SD109-000.6	WGL-SD-SD110-000.6	WGL-SD-SD111-000.6	WGL-SD-SD112-000.6
LOCATION ID		WGL-SD-SD101	WGL-SD-SD102	WGL-SD-SD103	WGL-SD-SD104	WGL-SD-SD105	WGL-SD-SD106	WGL-SD-SD107	WGL-SD-SD108	WGL-SD-SD109	WGL-SD-SD110	WGL-SD-SD111	WGL-SD-SD112
SAMPLE DATE		06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09
TOP DEPTH (FT)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BOTTOM DEPTH (FT)		0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
SACODE		NORMAL	AVG	NORMAL	NORMAL	NORMAL	AVG	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
QC TYPE	PAL	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
VOLATILES (UG/KG)													
1,1,1-TRICHLOROETHANE		23 UJ	27 UJ	42 UJ	20 UJ	31 UJ	28.5 UJ	36 UJ	29 UJ	20 UJ	24 UJ	18 UJ	14 UJ
1,1,2,2-TETRACHLOROETHANE		23 UJ	27 UJ	42 UJ	20 UR	31 UR	28.5 UR	36 UJ	29 UR	20 UJ	24 UR	18 UJ	14 UR
1,1,2-TRICHLOROETHANE		23 UJ	27 UJ	42 UJ	20 UJ	31 UJ	28.5 UJ	36 UJ	29 UJ	20 UJ	24 UJ	18 UJ	14 UJ
1,1-DICHLOROETHANE		23 UJ	27 UJ	42 UJ	20 UJ	31 UJ	28.5 UJ	36 UJ	29 UJ	20 UJ	24 UJ	18 UJ	14 UJ
1,1-DICHLOROETHENE		23 UJ	27 UJ	42 UJ	20 UJ	31 UJ	28.5 UJ	36 UJ	29 UJ	20 UJ	24 UJ	18 UJ	14 UJ
1,2,4-TRICHLOROBENZENE		23 UJ	27 UJ	42 UJ	20 UR	31 UR	28.5 UR	36 UJ	29 UR	20 UJ	24 UR	18 UJ	14 UR
1,2-DIBROMO-3-CHLOROPROPANE		23 UJ	27 UJ	42 UJ	20 UR	31 UR	28.5 UR	36 UJ	29 UR	20 UJ	24 UR	18 UJ	14 UR
1,2-DIBROMOETHANE		23 UJ	27 UJ	42 UJ	20 UJ	31 UJ	28.5 UJ	36 UJ	29 UJ	20 UJ	24 UJ	18 UJ	14 UJ
1,2-DICHLOROBENZENE		23 UJ	27 UJ	42 UJ	20 UR	31 UR	28.5 UR	36 UJ	29 UR	20 UJ	24 UR	18 UJ	14 UR
1,2-DICHLOROETHANE		23 UJ	27 UJ	42 UJ	20 UJ	31 UJ	28.5 UJ	36 UJ	29 UJ	20 UJ	24 UJ	18 UJ	14 UJ
1,2-DICHLOROPROPANE		23 UJ	27 UJ	42 UJ	20 UJ	31 UJ	28.5 UJ	36 UJ	29 UJ	20 UJ	24 UJ	18 UJ	14 UJ
1,3-DICHLOROBENZENE		23 UJ	27 UJ	42 UJ	20 UR	31 UR	28.5 UR	36 UJ	29 UR	20 UJ	24 UR	18 UJ	14 UR
1,4-DICHLOROBENZENE		23 UJ	27 UJ	42 UJ	20 UR	31 UR	28.5 UR	36 UJ	29 UR	20 UJ	24 UR	18 UJ	14 UR
2-BUTANONE		110 UJ	120 J	210 UJ	50 J	160 UJ	83.5 J	180 UJ	140 UJ	100 UJ	50 J	88 UJ	70 UJ
2-HEXANONE		110 UJ	135 UJ	210 UJ	100 UJ	160 UJ	140 UJ	180 UJ	140 UJ	100 UJ	120 UJ	88 UJ	70 UJ
4-METHYL-2-PENTANONE		110 UJ	135 UJ	210 UJ	100 UJ	160 UJ	140 UJ	180 UJ	140 UJ	100 UJ	120 UJ	88 UJ	70 UJ
ACETONE		110 UJ	810 J	210 UJ	330 J	73 J	535 J	180 UJ	140 UJ	210 J	210 J	88 UJ	70 UJ
BENZENE		23 UJ	27 UJ	42 UJ	20 UJ	31 UJ	28.5 UJ	36 UJ	29 UJ	20 UJ	24 UJ	18 UJ	14 UJ
BROMODICHLOROMETHANE		23 UJ	27 UJ	42 UJ	20 UJ	31 UJ	28.5 UJ	36 UJ	29 UJ	20 UJ	24 UJ	18 UJ	14 UJ
BROMOFORM		23 UJ	27 UJ	42 UJ	20 UJ	31 UJ	28.5 UJ	36 UJ	29 UJ	20 UJ	24 UJ	18 UJ	14 UJ
BROMOMETHANE		23 UJ	27 UJ	42 UJ	20 UJ	31 UJ	28.5 UJ	36 UJ	29 UJ	20 UJ	24 UJ	18 UJ	14 UJ
BTEX		34 UJ	41 UJ	62 UJ	30 UJ	47 UJ	42 UJ	54 UJ	44 UJ	30 UJ	36 UJ	26 UJ	21 UJ

BLACK SHADING-EXCEEDS AT LEAST ONE CRITERION; GRAY SHADING-DETECTED;
U-NOT DETECTED; J-QUANTITATION APPROXIMATE; R-REJECTED; NA-NOT ANALYZED

TABLE F-1
SEDIMENT ANALYTICAL RESULTS
WEST GATE LANDFILL
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS

SAMPLE ID		WGL-SD-SD101-000.6	WGL-SD-SD102-000.6-AVG	WGL-SD-SD103-000.6	WGL-SD-SD104-000.6	WGL-SD-SD105-000.6	WGL-SD-SD106-000.6-AVG	WGL-SD-SD107-000.6	WGL-SD-SD108-000.6	WGL-SD-SD109-000.6	WGL-SD-SD110-000.6	WGL-SD-SD111-000.6	WGL-SD-SD112-000.6
LOCATION ID		WGL-SD-SD101	WGL-SD-SD102	WGL-SD-SD103	WGL-SD-SD104	WGL-SD-SD105	WGL-SD-SD106	WGL-SD-SD107	WGL-SD-SD108	WGL-SD-SD109	WGL-SD-SD110	WGL-SD-SD111	WGL-SD-SD112
SAMPLE DATE		06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09
TOP DEPTH (FT)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BOTTOM DEPTH (FT)		0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
SACODE		NORMAL	AVG	NORMAL	NORMAL	NORMAL	AVG	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
QC TYPE	PAL	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
CARBON DISULFIDE		23 UJ	27 UJ	42 UJ	20 UJ	31 UJ	28.5 UJ	36 UJ	29 UJ	20 UJ	24 UJ	18 UJ	14 UJ
CARBON TETRACHLORIDE		23 UJ	27 UJ	42 UJ	20 UJ	31 UJ	28.5 UJ	36 UJ	29 UJ	20 UJ	24 UJ	18 UJ	14 UJ
CHLOROBENZENE		23 UJ	27 UJ	42 UJ	20 UJ	31 UJ	28.5 UJ	36 UJ	29 UJ	20 UJ	24 UJ	18 UJ	14 UJ
CHLORODIBROMOMETHANE		23 UJ	27 UJ	42 UJ	20 UJ	31 UJ	28.5 UJ	36 UJ	29 UJ	20 UJ	24 UJ	18 UJ	14 UJ
CHLOROETHANE		23 UJ	27 UJ	42 UJ	20 UJ	31 UJ	28.5 UJ	36 UJ	29 UJ	20 UJ	24 UJ	18 UJ	14 UJ
CHLOROFORM		23 UJ	27 UJ	42 UJ	20 UJ	31 UJ	28.5 UJ	36 UJ	29 UJ	20 UJ	24 UJ	18 UJ	14 UJ
CHLOROMETHANE		23 UJ	27 UJ	42 UJ	20 UJ	31 UJ	28.5 UJ	36 UJ	29 UJ	20 UJ	24 UJ	18 UJ	14 UJ
CIS-1,2-DICHLOROETHENE		23 UJ	27 UJ	42 UJ	20 UJ	31 UJ	28.5 UJ	36 UJ	29 UJ	20 UJ	24 UJ	18 UJ	14 UJ
CIS-1,3-DICHLOROPROPENE		23 UJ	27 UJ	42 UJ	20 UJ	31 UJ	28.5 UJ	36 UJ	29 UJ	20 UJ	24 UJ	18 UJ	14 UJ
CYCLOHEXANE		23 UJ	27 UJ	42 UJ	20 UJ	31 UJ	28.5 UJ	36 UJ	29 UJ	20 UJ	24 UJ	18 UJ	14 UJ
DICHLORODIFLUOROMETHANE		23 UJ	27 UJ	42 UJ	20 UJ	31 UJ	28.5 UJ	36 UJ	29 UJ	20 UJ	24 UJ	18 UJ	14 UJ
ETHYLBENZENE		23 UJ	27 UJ	42 UJ	20 UJ	31 UJ	28.5 UJ	36 UJ	29 UJ	20 UJ	24 UJ	18 UJ	14 UJ
ISOPROPYLBENZENE		23 UJ	27 UJ	42 UJ	20 UR	31 UR	28.5 UR	36 UJ	29 UR	20 UJ	24 UR	18 UJ	14 UR
M+P-XYLENES		46 UJ	54.5 UJ	83 UJ	41 UJ	63 UJ	57 UJ	72 UJ	58 UJ	41 UJ	49 UJ	35 UJ	28 UJ
METHYL ACETATE		23 UJ	27 UJ	42 UJ	20 UJ	31 UJ	28.5 UJ	36 UJ	29 UJ	20 UJ	24 UJ	18 UJ	14 UJ
METHYL CYCLOHEXANE		23 UJ	27 UJ	42 UJ	20 UJ	31 UJ	28.5 UJ	36 UJ	29 UJ	20 UJ	24 UJ	18 UJ	14 UJ
METHYL TERT-BUTYL ETHER		23 UJ	27 UJ	42 UJ	20 UJ	31 UJ	28.5 UJ	36 UJ	29 UJ	20 UJ	24 UJ	18 UJ	14 UJ
METHYLENE CHLORIDE		110 UJ	135 UJ	210 UJ	100 UJ	160 UJ	140 UJ	180 UJ	140 UJ	100 UJ	120 UJ	88 UJ	70 UJ
O-XYLENE		23 UJ	27 UJ	42 UJ	20 UJ	31 UJ	28.5 UJ	36 UJ	29 UJ	20 UJ	24 UJ	18 UJ	14 UJ
STYRENE		23 UJ	27 UJ	42 UJ	20 UJ	31 UJ	28.5 UJ	36 UJ	29 UJ	20 UJ	24 UJ	18 UJ	14 UJ
TETRACHLOROETHENE		23 UJ	27 UJ	42 UJ	20 UJ	31 UJ	28.5 UJ	36 UJ	29 UJ	20 UJ	24 UJ	18 UJ	14 UJ
TOLUENE		23 UJ	27 UJ	42 UJ	20 UJ	31 UJ	28.5 UJ	36 UJ	29 UJ	20 UJ	24 UJ	18 UJ	14 UJ
TOTAL 1,2-DICHLOROETHENE		23 UJ	27 UJ	42 UJ	20 UJ	31 UJ	28 UJ	36 UJ	29 UJ	20 UJ	24 UJ	18 UJ	14 UJ

BLACK SHADING-EXCEEDS AT LEAST ONE CRITERION; GRAY SHADING-DETECTED;
U-NOT DETECTED; J-QUANTITATION APPROXIMATE; R-REJECTED; NA-NOT ANALYZED

TABLE F-1
SEDIMENT ANALYTICAL RESULTS
WEST GATE LANDFILL
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS

SAMPLE ID		WGL-SD-SD101-000.6	WGL-SD-SD102-000.6-AVG	WGL-SD-SD103-000.6	WGL-SD-SD104-000.6	WGL-SD-SD105-000.6	WGL-SD-SD106-000.6-AVG	WGL-SD-SD107-000.6	WGL-SD-SD108-000.6	WGL-SD-SD109-000.6	WGL-SD-SD110-000.6	WGL-SD-SD111-000.6	WGL-SD-SD112-000.6
LOCATION ID		WGL-SD-SD101	WGL-SD-SD102	WGL-SD-SD103	WGL-SD-SD104	WGL-SD-SD105	WGL-SD-SD106	WGL-SD-SD107	WGL-SD-SD108	WGL-SD-SD109	WGL-SD-SD110	WGL-SD-SD111	WGL-SD-SD112
SAMPLE DATE		06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09
TOP DEPTH (FT)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BOTTOM DEPTH (FT)		0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
SACODE		NORMAL	AVG	NORMAL	NORMAL	NORMAL	AVG	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
QC TYPE	PAL	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
TOTAL CHLORINATED ETHENES		23 UJ	27 UJ	42 UJ	20 UJ	31 UJ	28 UJ	36 UJ	29 UJ	20 UJ	24 UJ	18 UJ	14 UJ
TOTAL CHLORINATED VOCS		26 UJ	31 UJ	48 UJ	24 UJ	37 UJ	34 UJ	42 UJ	35 UJ	23 UJ	29 UJ	21 UJ	17 UJ
TOTAL XYLENES		68 UJ	81.5 UJ	120 UJ	62 UJ	94 UJ	83 UJ	110 UJ	87 UJ	62 UJ	74 UJ	52 UJ	42 UJ
TRANS-1,2-DICHLOROETHENE		23 UJ	27 UJ	42 UJ	20 UJ	31 UJ	28.5 UJ	36 UJ	29 UJ	20 UJ	24 UJ	18 UJ	14 UJ
TRANS-1,3-DICHLOROPROPENE		23 UJ	27 UJ	42 UJ	20 UJ	31 UJ	28.5 UJ	36 UJ	29 UJ	20 UJ	24 UJ	18 UJ	14 UJ
TRICHLOROETHENE		23 UJ	27 UJ	42 UJ	20 UJ	31 UJ	28.5 UJ	36 UJ	29 UJ	20 UJ	24 UJ	18 UJ	14 UJ
TRICHLOROFLUOROMETHANE		23 UJ	27 UJ	42 UJ	20 UJ	31 UJ	28.5 UJ	36 UJ	29 UJ	20 UJ	24 UJ	18 UJ	14 UJ
VINYL CHLORIDE		23 UJ	27 UJ	42 UJ	20 UJ	31 UJ	28.5 UJ	36 UJ	29 UJ	20 UJ	24 UJ	18 UJ	14 UJ
SEMIVOLATILES (UG/KG)													
1,1-BIPHENYL		340 U	340 U	340 U	410 U	350 U	350 U	690 U	350 UJ	350 U	430 U	350 U	350 U
1,4-DIOXANE		340 UJ	340 UJ	340 UJ	410 UJ	350 UJ	350 UJ	690 UJ	350 UJ	350 UJ	430 UJ	350 UJ	350 UJ
2,4,5-TRICHLOROPHENOL		850 UJ	855 UJ	860 U	1000 UJ	880 UJ	870 UJ	1700 U	860 UJ	860 UJ	1100 U	870 UR	870 UJ
2,4,6-TRICHLOROPHENOL		340 UJ	340 UJ	340 U	410 UJ	350 UJ	350 UJ	690 U	350 UJ	350 UJ	430 U	350 UJ	350 UJ
2,4-DICHLOROPHENOL		340 UJ	340 UJ	340 U	410 UJ	350 UJ	350 UJ	690 U	350 UJ	350 UJ	430 U	350 UJ	350 UJ
2,4-DIMETHYLPHENOL		340 UJ	340 UJ	340 U	410 UJ	350 UJ	350 UJ	690 U	350 UJ	350 UJ	430 U	350 UJ	350 UJ
2,4-DINITROPHENOL		850 UJ	855 UJ	860 UJ	1000 UJ	880 UJ	870 UJ	1700 UJ	860 UJ	860 UJ	1100 UJ	870 UJ	870 UJ
2,4-DINITROTOLUENE		340 U	340 U	340 U	410 U	350 U	350 U	690 U	350 UJ	350 U	430 U	350 U	350 U
2,6-DINITROTOLUENE		340 U	340 U	340 U	410 U	350 U	350 U	690 U	350 UJ	350 U	430 U	350 U	350 U
2-CHLORONAPHTHALENE		340 U	340 U	340 U	410 U	350 U	350 U	690 U	350 UJ	350 U	430 U	350 U	350 U
2-CHLOROPHENOL		340 UJ	340 UJ	340 U	410 UJ	350 UJ	350 UJ	690 U	350 UJ	350 UJ	430 U	350 UJ	350 UJ
2-METHYLNAPHTHALENE		42 UJ	4.65 J	5.9 J	25 UJ	21 UJ	31.5 UJ	42 UJ	21 UJ	21 UJ	3.7 J	5.4 J	21 UJ
2-METHYLPHENOL		340 UJ	340 UJ	340 U	410 UJ	350 UJ	350 UJ	690 U	350 UJ	350 UJ	430 U	350 UJ	350 UJ
2-NITROANILINE		850 U	855 U	860 U	1000 U	880 U	870 U	1700 U	860 UJ	860 U	1100 U	870 UR	870 U

BLACK SHADING-EXCEEDS AT LEAST ONE CRITERION; GRAY SHADING-DETECTED;
U-NOT DETECTED; J-QUANTITATION APPROXIMATE; R-REJECTED; NA-NOT ANALYZED

TABLE F-1
SEDIMENT ANALYTICAL RESULTS
WEST GATE LANDFILL
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS

SAMPLE ID		WGL-SD-SD101-000.6	WGL-SD-SD102-000.6-AVG	WGL-SD-SD103-000.6	WGL-SD-SD104-000.6	WGL-SD-SD105-000.6	WGL-SD-SD106-000.6-AVG	WGL-SD-SD107-000.6	WGL-SD-SD108-000.6	WGL-SD-SD109-000.6	WGL-SD-SD110-000.6	WGL-SD-SD111-000.6	WGL-SD-SD112-000.6
LOCATION ID		WGL-SD-SD101	WGL-SD-SD102	WGL-SD-SD103	WGL-SD-SD104	WGL-SD-SD105	WGL-SD-SD106	WGL-SD-SD107	WGL-SD-SD108	WGL-SD-SD109	WGL-SD-SD110	WGL-SD-SD111	WGL-SD-SD112
SAMPLE DATE		06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09
TOP DEPTH (FT)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BOTTOM DEPTH (FT)		0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
SACODE		NORMAL	AVG	NORMAL	NORMAL	NORMAL	AVG	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
QC TYPE	PAL	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
2-NITROPHENOL		340 UJ	340 UJ	340 U	410 UJ	350 UJ	350 UJ	690 U	350 UJ	350 UJ	430 U	350 UJ	350 UJ
3&4-METHYLPHENOL		340 UJ	340 UJ	340 U	410 UJ	350 UJ	350 UJ	690 U	350 UJ	350 UJ	430 U	350 UJ	350 UJ
3,3'-DICHLOROBENZIDINE		340 UR	340 UJ	340 UJ	410 UJ	350 UJ	350 UJ	690 UJ	350 UJ	350 UJ	430 UJ	350 UR	350 UJ
3-NITROANILINE		850 U	855 U	860 U	1000 U	880 U	870 U	1700 U	860 UJ	860 U	1100 U	870 UR	870 U
4,6-DINITRO-2-METHYLPHENOL		850 UJ	855 UJ	860 U	1000 UJ	880 UJ	870 UJ	1700 U	860 UJ	860 UJ	1100 U	870 UJ	870 UJ
4-BROMOPHENYL PHENYL ETHER		340 U	340 U	340 U	410 U	350 U	350 U	690 U	350 UJ	350 U	430 U	350 U	350 U
4-CHLORO-3-METHYLPHENOL		340 UJ	340 UJ	340 U	410 UJ	350 UJ	350 UJ	690 U	350 UJ	350 UJ	430 U	350 UJ	350 UJ
4-CHLOROANILINE		340 U	340 U	340 U	410 U	350 U	350 U	690 U	350 UJ	350 U	430 U	350 UR	350 U
4-CHLOROPHENYL PHENYL ETHER		340 U	340 U	340 U	410 U	350 U	350 U	690 U	350 UJ	350 U	430 U	350 U	350 U
4-NITROANILINE		850 U	855 U	860 U	1000 U	880 U	870 U	1700 U	860 UJ	860 U	1100 U	870 UR	870 U
4-NITROPHENOL		850 UJ	855 UJ	860 U	1000 UJ	880 UJ	870 UJ	1700 U	860 UJ	860 UJ	1100 U	870 UJ	870 UJ
ACENAPHTHENE		42 UJ	13 J	6.1 J	25 UJ	21 UJ	31.5 UJ	42 UJ	21 UJ	21 UJ	26 UJ	16 J	21 UJ
ACENAPHTHYLENE		9.2 J	14 J	18 J	25 U	20 J	31.5 UJ	42 U	6.4 J	21 U	13 J	26 J	13 J
ACETOPHENONE		340 UJ	340 UJ	340 UJ	410 UJ	350 UJ	350 UJ	690 UJ	350 UJ	350 UJ	430 UJ	350 UJ	350 UJ
ANTHRACENE	57	42 UJ	30	31	25 U	27	16 J	42 U	17 J	21 U	35	23	21 U
ATRAZINE		340 U	340 U	340 U	410 U	350 U	350 U	690 U	350 UJ	350 U	430 U	350 UJ	350 U
BENZALDEHYDE		790 J	725 J	1100 J	830 J	3800 J	385 J	3800 J	370 J	890 J	1400 J	490 J	1100 J
BENZO(A)ANTHRACENE	110	62 J	125	160	25 U	100	31.5 UJ	42 U	43 J	100	110	120	57
BENZO(A)PYRENE	150	64 J	125	170	25 U	93	31.5 UJ	42 U	38 J	110	88	150 J	86 J
BENZO(B)FLUORANTHENE		190 J	250	340	25 U	180	59.5 J	88	100 J	200	170	300	170 J
BENZO(G,H,I)PERYLENE		37 J	63	98	25 U	21 U	31.5 UJ	42 U	21 UJ	54	26 U	76 J	21 UJ
BENZO(K)FLUORANTHENE		34 J	78.5	84	25 U	74	17.5 J	25 J	22 J	77	61	70	52 J

BLACK SHADING-EXCEEDS AT LEAST ONE CRITERION; GRAY SHADING-DETECTED;
U-NOT DETECTED; J-QUANTITATION APPROXIMATE; R-REJECTED; NA-NOT ANALYZED

TABLE F-1
SEDIMENT ANALYTICAL RESULTS
WEST GATE LANDFILL
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS

SAMPLE ID		WGL-SD-SD101-000.6	WGL-SD-SD102-000.6-AVG	WGL-SD-SD103-000.6	WGL-SD-SD104-000.6	WGL-SD-SD105-000.6	WGL-SD-SD106-000.6-AVG	WGL-SD-SD107-000.6	WGL-SD-SD108-000.6	WGL-SD-SD109-000.6	WGL-SD-SD110-000.6	WGL-SD-SD111-000.6	WGL-SD-SD112-000.6
LOCATION ID		WGL-SD-SD101	WGL-SD-SD102	WGL-SD-SD103	WGL-SD-SD104	WGL-SD-SD105	WGL-SD-SD106	WGL-SD-SD107	WGL-SD-SD108	WGL-SD-SD109	WGL-SD-SD110	WGL-SD-SD111	WGL-SD-SD112
SAMPLE DATE		06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09
TOP DEPTH (FT)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BOTTOM DEPTH (FT)		0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
SACODE		NORMAL	AVG	NORMAL	NORMAL	NORMAL	AVG	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
QC TYPE	PAL	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
BIS(2-CHLOROETHOXY)METHANE		340 U	340 U	340 U	410 U	350 U	350 U	690 U	350 UJ	350 U	430 U	350 U	350 U
BIS(2-CHLOROETHYL)ETHER		340 U	340 U	340 U	410 U	350 U	350 U	690 U	350 UJ	350 U	430 U	350 U	350 U
BIS(2-CHLOROISOPROPYL)ETHER		340 U	340 U	340 U	410 U	350 U	350 U	690 U	350 UJ	350 U	430 U	350 U	350 U
BIS(2-ETHYLHEXYL)PHTHALATE		340 UR	340 UJ	340 UJ	410 UJ	350 UJ	350 UJ	690 UJ	350 UJ	350 U	430 U	350 UJ	350 UJ
BUTYL BENZYL PHTHALATE		340 UR	340 UJ	340 UJ	410 UJ	350 UJ	350 UJ	690 UJ	350 UJ	350 U	430 U	350 UJ	350 UJ
CAPROLACTAM		340 U	340 U	340 U	410 U	350 U	350 U	690 U	350 UJ	350 U	430 U	350 UR	350 U
CARBAZOLE		340 U	340 U	340 U	410 U	350 U	350 U	690 U	350 UJ	350 U	430 U	350 U	350 U
CHRYSENE	170	92 J	125	200	25 U	110	31.5 UJ	42 U	59 J	89	120	130 J	45
DIBENZO(A,H)ANTHRACENE	33	42 UJ	21 J	35	25 U	21 U	31.5 UJ	42 U	21 UJ	18 J	26 U	27	21 UJ
DIBENZOFURAN		340 U	340 U	340 U	410 U	350 U	350 U	690 U	350 UJ	350 U	430 U	350 U	350 U
DIETHYL PHTHALATE		340 U	340 U	340 U	410 U	350 U	350 U	690 U	350 UJ	350 U	430 U	350 U	350 U
DIMETHYL PHTHALATE		340 U	340 U	340 U	410 U	350 U	350 U	690 U	350 UJ	350 U	430 U	350 U	350 U
DI-N-BUTYL PHTHALATE		340 U	340 U	340 U	410 U	350 U	350 U	690 U	350 UJ	350 U	430 U	350 U	350 U
DI-N-OCTYL PHTHALATE		340 UR	340 UJ	340 UJ	410 UJ	350 UJ	350 UJ	690 UJ	350 UR	350 UR	430 UR	350 U	350 UJ
FLUORANTHENE	420	64 J	315	350	14 J	260	66.5 J	96	130 J	200	320	300	210
FLUORENE	77	7.0 J	9.2 J	11 J	25 UJ	9.1 J	31.5 UJ	42 UJ	4.1 J	21 UJ	26 UJ	14 J	21 UJ
HEXACHLOROBENZENE		340 U	340 U	340 U	410 U	350 U	350 U	690 U	350 UJ	350 U	430 U	350 U	350 U
HEXACHLOROBUTADIENE		340 U	340 U	340 U	410 U	350 U	350 U	690 U	350 UJ	350 U	430 U	350 U	350 U
HEXACHLOROCYCLOPENTADIENE		340 U	340 U	340 U	410 U	350 U	350 U	690 U	350 UJ	350 U	430 U	350 U	350 U
HEXACHLOROETHANE		340 U	340 U	340 U	410 U	350 U	350 U	690 U	350 UJ	350 U	430 U	350 U	350 U

BLACK SHADING-EXCEEDS AT LEAST ONE CRITERION; GRAY SHADING-DETECTED;
U-NOT DETECTED; J-QUANTITATION APPROXIMATE; R-REJECTED; NA-NOT ANALYZED

TABLE F-1
SEDIMENT ANALYTICAL RESULTS
WEST GATE LANDFILL
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS

SAMPLE ID		WGL-SD-SD101-000.6	WGL-SD-SD102-000.6-AVG	WGL-SD-SD103-000.6	WGL-SD-SD104-000.6	WGL-SD-SD105-000.6	WGL-SD-SD106-000.6-AVG	WGL-SD-SD107-000.6	WGL-SD-SD108-000.6	WGL-SD-SD109-000.6	WGL-SD-SD110-000.6	WGL-SD-SD111-000.6	WGL-SD-SD112-000.6
LOCATION ID		WGL-SD-SD101	WGL-SD-SD102	WGL-SD-SD103	WGL-SD-SD104	WGL-SD-SD105	WGL-SD-SD106	WGL-SD-SD107	WGL-SD-SD108	WGL-SD-SD109	WGL-SD-SD110	WGL-SD-SD111	WGL-SD-SD112
SAMPLE DATE		06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09
TOP DEPTH (FT)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BOTTOM DEPTH (FT)		0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
SACODE		NORMAL	AVG	NORMAL	NORMAL	NORMAL	AVG	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
QC TYPE	PAL	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
HIGH MOLECULAR WEIGHT PAHS		775 J	1457.5 J	1957	27 J	1007	303.75 J	339 J	512 J	1188 J	1129	1673 J	820 J
INDENO(1,2,3-CD)PYRENE		72 J	120	170	25 U	21 U	75.25 J	42 U	21 UJ	100	26 U	150	21 UJ
ISOPHORONE		340 U	340 U	340 U	410 U	350 U	350 U	690 U	350 UJ	350 U	430 U	350 U	350 U
LOW MOLECULAR WEIGHT PAHS		76.2 J	219.95 J	256.5 J	6.9 J	168.7 J	37.5 J	42 UJ	75.5 J	102.8 J	195.6 J	229.1 J	100 J
NAPHTHALENE	180	42 UJ	4.1 J	4.5 J	25 UJ	2.6 J	31.5 UJ	42 UJ	21 UJ	2.8 J	3.9 J	4.7 J	3.0 J
NITROBENZENE		340 U	340 U	340 U	410 U	350 U	350 U	690 U	350 UJ	350 U	430 U	350 U	350 U
N-NITROSO-DI-N-PROPYLAMINE		340 U	340 U	340 U	410 U	350 U	350 U	690 U	350 UJ	350 U	430 U	350 U	350 U
N-NITROSODIPHENYLAMINE		340 U	340 U	340 U	410 U	350 U	350 U	690 U	350 UJ	350 U	430 U	350 UJ	350 U
PENTACHLOROPHENOL		850 UJ	855 UJ	860 U	1000 UJ	880 UJ	870 UJ	1700 U	860 UJ	860 UJ	1100 U	870 UJ	870 UJ
PHENANTHRENE	200	60 J	145	180	6.9 J	110	21.5 J	42 U	48 J	100	140	140	84
PHENOL		340 UJ	340 UJ	340 U	410 UJ	350 UJ	350 UJ	690 U	350 UJ	350 UJ	430 U	350 UJ	350 UJ
PYRENE	200	160 J	235	350	13 J	190	85 J	130	120 J	240	260	350	200
TOTAL CHLORINATED VOCS		340 U	340 U	340 U	410 U	350 U	350 U	690 U	350 UJ	350 U	430 U	350 U	350 U
TOTAL PAHS		851.2 J	1677.45 J	2213.5 J	33.9 J	1175.7 J	341.25 J	339 J	587.5 J	1290.8 J	1324.6 J	1902.1 J	920 J
PESTICIDES/PCBS (UG/KG)													
4,4'-DDD	4.9	12 J	6.7 J	15 J	8.2 U	41 J	5.2 J	6.9 U	7.5 J	5.2 J	5.0 J	7.0 U	7.0 U
4,4'-DDE	3.2	61 J	135 J	280 J	9.4 J	210 J	18.5 J	120 J	48 J	34 J	45 J	190 J	210 J
4,4'-DDT	4.2	65	56.5	130	5.0 J	150	42.5	160	53	55	69	270	260
ALDRIN		3.5 U	3.55 U	3.6 U	4.2 U	3.6 UJ	3.6 UJ	3.6 UJ	3.6 UJ	3.6 UJ	4.4 UJ	3.6 UJ	3.6 UJ
ALPHA-BHC		3.5 U	3.55 U	3.6 U	4.2 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	4.4 U	3.6 UJ	3.6 U
ALPHA-CHLORDANE	3.2	3.5 U	3.55 U	3.6 U	4.2 U	3.6 U	3.6 U	5.2	3.6 U	3.6 U	4.4 U	3.6 U	3.6 U

BLACK SHADING-EXCEEDS AT LEAST ONE CRITERION; GRAY SHADING-DETECTED;
U-NOT DETECTED; J-QUANTITATION APPROXIMATE; R-REJECTED; NA-NOT ANALYZED

TABLE F-1
SEDIMENT ANALYTICAL RESULTS
WEST GATE LANDFILL
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS

SAMPLE ID		WGL-SD-SD101-000.6	WGL-SD-SD102-000.6-AVG	WGL-SD-SD103-000.6	WGL-SD-SD104-000.6	WGL-SD-SD105-000.6	WGL-SD-SD106-000.6-AVG	WGL-SD-SD107-000.6	WGL-SD-SD108-000.6	WGL-SD-SD109-000.6	WGL-SD-SD110-000.6	WGL-SD-SD111-000.6	WGL-SD-SD112-000.6
LOCATION ID		WGL-SD-SD101	WGL-SD-SD102	WGL-SD-SD103	WGL-SD-SD104	WGL-SD-SD105	WGL-SD-SD106	WGL-SD-SD107	WGL-SD-SD108	WGL-SD-SD109	WGL-SD-SD110	WGL-SD-SD111	WGL-SD-SD112
SAMPLE DATE		06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09
TOP DEPTH (FT)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BOTTOM DEPTH (FT)		0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
SACODE		NORMAL	AVG	NORMAL	NORMAL	NORMAL	AVG	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
QC TYPE	PAL	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
AROCLOR-1016	60	18 UJ	18 UJ	18 UJ	21 UJ	18 UJ	18 UJ	18 UJ	18 UJ	18 UR	22 UR	18 UJ	18 UR
AROCLOR-1221	60	18 UJ	18 UJ	18 UJ	21 UJ	18 UJ	18 UJ	18 UJ	18 UJ	18 UR	22 UR	18 UJ	18 UR
AROCLOR-1232	60	18 UJ	18 UJ	18 UJ	21 UJ	18 UJ	18 UJ	18 UJ	18 UJ	18 UR	22 UR	18 UJ	18 UR
AROCLOR-1242	60	18 UJ	18 UJ	18 UJ	21 UJ	18 UJ	18 UJ	18 UJ	18 UJ	18 UR	22 UR	18 UJ	18 UR
AROCLOR-1248	60	18 UJ	18 UJ	18 UJ	21 UJ	18 UJ	18 UJ	18 UJ	18 UJ	18 UR	22 UR	18 UJ	18 UR
AROCLOR-1254	60	18 UJ	18 UJ	18 UJ	21 UJ	18 UJ	18 UJ	18 UJ	18 UJ	18 UR	22 UR	18 UJ	18 UR
AROCLOR-1260	60	18 UJ	18 UJ	18 UJ	21 UJ	18 UJ	18 UJ	18 UJ	18 UJ	18 UR	22 UR	18 UJ	18 UR
BETA-BHC		3.5 U	3.4 J	3.6 U	4.2 U	3.6 UJ	2.8 J	3.6 UJ	1.8 J	3.6 UJ	4.4 UJ	3.6 UJ	7.4 J
DELTA-BHC		2.3 J	3.55 UJ	3.6 UJ	4.2 UJ	3.6 UJ	2.5 J	6.1 J	3.6 UJ	3.3 J	3.7 J	4.4 J	2.4 J
DIELDRIN	1.9	6.9 U	4 J	5.0 J	8.2 U	4.2 J	6 J	6.9 U	7.0 U	7.9 J	7.5 J	8.0 J	8.0 J
ENDOSULFAN I		3.5 U	3.55 U	3.6 U	4.2 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	4.4 U	3.6 U	3.6 U
ENDOSULFAN II		19	9.2	6.9 U	8.2 U	19 J	6.15 J	6.9 U	10 J	7.0 U	8.5 U	18 J	7.0 U
ENDOSULFAN SULFATE		6.9 UJ	6.85 UJ	6.9 UJ	8.2 UJ	7.1 UJ	7 UJ	6.9 UJ	7.0 UJ	7.0 UJ	8.5 UJ	7.0 UJ	7.0 UJ
ENDRIN	2.2	6.9 U	6.85 U	6.9 U	8.2 U	7.1 U	7 U	6.9 U	7.0 U	7.0 U	8.5 U	7.0 U	7.0 U
ENDRIN ALDEHYDE	2.2	6.9 U	6.85 U	6.9 U	8.2 U	7.1 U	7 U	6.9 U	7.0 U	7.0 U	8.5 U	7.0 U	7.0 U
ENDRIN KETONE	2.2	6.9 U	6.85 U	6.9 U	8.2 U	7.1 U	7 U	6.9 U	7.0 U	7.0 U	8.5 U	7.0 U	7.0 U
GAMMA-BHC (LINDANE)	2.4	2.4 J	3.55 U	3.6 U	4.2 U	2.1 J	1.7 J	4.5 J	3.6 UJ	2.0 J	2.6 J	3.6 UJ	2.2 J
GAMMA-CHLORDANE	3.24	2.7 J	1.8 J	3.6 U	4.2 U	3.1 J	2 J	11 J	1.8 J	3.6 U	2.6 J	3.6 U	3.0 J
HEPTACHLOR		3.5 U	3.55 U	3.6 U	4.2 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	4.4 U	3.6 U	3.6 U
HEPTACHLOR EPOXIDE	2.5	3.5 U	3.55 U	3.6 U	4.2 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	4.4 U	3.6 U	3.6 U
METHOXYCHLOR		35 U	35.5 U	36 U	42 U	36 U	36 U	36 U	36 U	36 U	44 U	36 U	36 U
TOTAL AROCLOR	60	18 UJ	18 UJ	18 UJ	21 UJ	18 UJ	18 UJ	18 UJ	18 UJ	18 R	22 R	18 UJ	18 R
TOTAL DDD/DDE/DDT		138 J	198.2 J	425 J	14.4 J	401 J	66.2 J	280 J	108.5 J	94.2 J	119 J	460 J	470 J
TOXAPHENE		69 U	68.5 U	69 U	82 U	71 U	70 U	69 U	70 U	70 U	85 U	70 U	70 U

BLACK SHADING-EXCEEDS AT LEAST ONE CRITERION; GRAY SHADING-DETECTED;
U-NOT DETECTED; J-QUANTITATION APPROXIMATE; R-REJECTED; NA-NOT ANALYZED

TABLE F-1
SEDIMENT ANALYTICAL RESULTS
WEST GATE LANDFILL
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS

SAMPLE ID		WGL-SD-SD101-000.6	WGL-SD-SD102-000.6-AVG	WGL-SD-SD103-000.6	WGL-SD-SD104-000.6	WGL-SD-SD105-000.6	WGL-SD-SD106-000.6-AVG	WGL-SD-SD107-000.6	WGL-SD-SD108-000.6	WGL-SD-SD109-000.6	WGL-SD-SD110-000.6	WGL-SD-SD111-000.6	WGL-SD-SD112-000.6
LOCATION ID		WGL-SD-SD101	WGL-SD-SD102	WGL-SD-SD103	WGL-SD-SD104	WGL-SD-SD105	WGL-SD-SD106	WGL-SD-SD107	WGL-SD-SD108	WGL-SD-SD109	WGL-SD-SD110	WGL-SD-SD111	WGL-SD-SD112
SAMPLE DATE		06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09
TOP DEPTH (FT)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BOTTOM DEPTH (FT)		0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
SACODE		NORMAL	AVG	NORMAL	NORMAL	NORMAL	AVG	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
QC TYPE	PAL	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
METALS (MG/KG)													
ALUMINUM		3260	2945	3210	1860	2500	1655	1800	1480	1610	1620	1810	1580
ANTIMONY		0.56 UJ	0.37 UJ	0.72 UJ	0.10 UJ	0.75 UJ	0.175 UJ	0.45 UJ	0.11 UJ	0.43 UJ	0.69 UJ	0.53 UJ	0.43 UJ
ARSENIC	33	5.1 J	4.8 J	3.3 J	4.4 J	3.2 J	3.45 J	2.5 J	4.6 J	2.7 J	3.3 J	2.1 J	1.6 J
BARIUM		80.9 J	66.65 J	126 J	94.8 J	93.2 J	82.5 J	66.8 J	59.3 J	62.6 J	43.0 J	40.6 J	42.9 J
BERYLLIUM		4.6 J	2.5 J	2.1 J	1.1 J	1.1 J	0.765 J	1.0 J	0.78 J	0.62 J	0.48 J	0.64 J	0.48 J
CADMIUM	5	1.8	0.905 J	0.71 J	0.70 J	0.50 J	0.48 J	0.81 J	0.63 J	0.54 J	0.36 J	0.25 J	0.24 J
CALCIUM		6280	7220	13300	10800	14600	12450	6830	6750	7980	6140	5010	3340
CHROMIUM	110	5.2 J	4.35 J	6.3 J	4.2 J	3.7 J	3.1 J	3.6 J	4.8 J	2.8 J	2.9 J	4.0 J	2.8 J
COBALT		1.0 J	1.15 J	1.7 J	2.6 J	1.3 J	1.2 J	0.83 J	0.66 J	0.77 J	0.83 J	0.57 J	0.57 J
COPPER	150	137 J	18.15 J	24.5 J	15.3 J	25.4 J	12.5 J	25.4 J	23.4 J	17.6 J	15.2 J	14.3 J	11.9 J
IRON		7610	3485	3920	7710	3070	4770	5730	8860	4010	2680	2210	3890
LEAD	130	70.6 J	54.55 J	76.1 J	12.5 J	50.9 J	11.35 J	44.3 J	30.9 J	50.2 J	30.8 J	55.5 J	68.1 J
MAGNESIUM		542 J	718 J	1070 J	804 J	1020 J	877 J	542 J	529 J	681 J	638 J	566 J	429 J
MANGANESE		53.6	14.05	44.1	22.4	13.8	16.7	23.3	31.0	21.3	11.7	16.6	15.3
MERCURY	0.18	0.41 J	0.43 J	0.40 J	0.13 J	0.38 J	0.225 J	0.41 J	0.28 J	0.37 J	0.39 J	0.49 J	0.37 J
NICKEL	49	5.9 J	3.9 J	4.7 J	4.3 J	3.8 J	3.3 J	3.6 J	3.4 J	2.9 J	3.1 J	3.3 J	2.7 J
POTASSIUM		205 J	322 J	300 J	122 J	278 J	163 J	235 J	166 J	265 J	328 J	277 J	284 J
SELENIUM		5.0	5.1	4.0	1.5 U	2.6	2.1	3.6	2.1	2.0	1.9	2.2	2.4
SILVER		0.31 J	0.36 J	0.54 J	0.27 J	0.80 J	0.185 J	0.38 J	0.41 J	0.31 J	0.30 J	0.40 J	0.29 J
SODIUM		572 J	889.5 J	1160 J	1020 J	786 J	769 J	674 J	514 J	721 J	701 J	574 J	461 J
THALLIUM		0.09 U	0.09 U	0.09 U	0.09 U	0.10 U	0.09 U	0.09 U	0.08 UJ	0.10 U	0.08 U	0.12 J	0.10 U
VANADIUM		16.6 J	25.8 J	19.0 J	22.4 J	23.4 J	17.2 J	17.7 J	21.5 J	14.9 J	17.8 J	19.6 J	12.7 J
ZINC	460	68.5	15.3	26.8	19.8	14.6	14.55	26.8	17.0	16.4	22.7	12.5	12.3

BLACK SHADING-EXCEEDS AT LEAST ONE CRITERION; GRAY SHADING-DETECTED;
U-NOT DETECTED; J-QUANTITATION APPROXIMATE; R-REJECTED; NA-NOT ANALYZED

TABLE F-1
SEDIMENT ANALYTICAL RESULTS
WEST GATE LANDFILL
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS

SAMPLE ID		WGL-SD-SD101-000.6	WGL-SD-SD102-000.6-AVG	WGL-SD-SD103-000.6	WGL-SD-SD104-000.6	WGL-SD-SD105-000.6	WGL-SD-SD106-000.6-AVG	WGL-SD-SD107-000.6	WGL-SD-SD108-000.6	WGL-SD-SD109-000.6	WGL-SD-SD110-000.6	WGL-SD-SD111-000.6	WGL-SD-SD112-000.6
LOCATION ID		WGL-SD-SD101	WGL-SD-SD102	WGL-SD-SD103	WGL-SD-SD104	WGL-SD-SD105	WGL-SD-SD106	WGL-SD-SD107	WGL-SD-SD108	WGL-SD-SD109	WGL-SD-SD110	WGL-SD-SD111	WGL-SD-SD112
SAMPLE DATE		06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09
TOP DEPTH (FT)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BOTTOM DEPTH (FT)		0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
SACODE		NORMAL	AVG	NORMAL	NORMAL	NORMAL	AVG	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
QC TYPE	PAL	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
DIOXINS/FURANS (NG/KG)													
1,2,3,4,6,7,8,9-OCDD		574	492	810	65.1	1240	144	443 J	343 J	341	399	560	64.1
1,2,3,4,6,7,8,9-OCDF		32.9 J	45.7	63.5	2.87 J	31.3	5.04 J	21.8	22.4 J	28.4	33.3	66.6	6.72 J
1,2,3,4,6,7,8-HPCDD		73.6	73.5	130	6.68 J	101	13 J	54	49.3 J	44.1	59.7	92.2	9.67
1,2,3,4,6,7,8-HPCDF		23.2	37.8	51.4	1.97 U	25.2	3.48 J	17	19.7 J	23	28.4	59.2	5.64
1,2,3,4,7,8,9-HPCDF		2.23 U	2.59 J	3.88 J	1.97 U	1.83 J	1.68 U	1.63 J	1.62 J	1.51 J	2.32 J	4.03 J	0.556 J
1,2,3,4,7,8-HXCDD		2.76 J	3.3 J	4.83 J	1.48 U	3.3 J	1.27 U	2.22 J	1.48 J	1.91 J	3.77 J	5.05 J	0.612 J
1,2,3,4,7,8-HXCDF		7.06 J	10.7 J	15.1	1.69 U	7 J	1.44 U	4.63 J	5.59 J	6.87 J	7.25 J	17.4	1.9 J
1,2,3,6,7,8-HXCDD		4.53 J	5.87 J	9.82 J	1.45 U	5.36 J	1.24 U	3.06 J	3.16 J	3.39 J	5.38 J	8.61 J	0.931 J
1,2,3,6,7,8-HXCDF		4.82 J	7.24 J	9.18 J	0.482 U	4.85 J	0.661 J	3.71 J	3.99 J	4.57 J	5.8 J	12.2	1.33 J
1,2,3,7,8,9-HXCDD		4.64 J	5.4 J	8 J	0.93 U	8.2 J	0.95 J	3.49 J	3.26 J	3.25 J	5.68 J	8.36 J	0.956 J
1,2,3,7,8,9-HXCDF		1.88 J	1.8 J	1.49 J	1.05 U	0.893 J	0.896 U	0.632 J	1.49 J	0.796 J	0.727 J	1.57 J	0.431 J
1,2,3,7,8-PECDD		2.21 J	3.26 J	5.3 J	0.974 U	3.85 J	0.833 U	2.59 J	1.37 J	2.2 J	3.2 J	4.02 J	0.242 U
1,2,3,7,8-PECDF		4.62 J	6.2 J	7.29 J	1.12 U	4.02 J	0.954 U	2.9 J	3.22 J	4.07 J	4.5 J	10.1 J	1.02 J
2,3,4,6,7,8-HXCDF		5.78 J	9.95 J	11	1.08 U	5.81 J	0.924 U	4.18 J	4.67 J	5.89 J	6.72 J	14.5	1.57 J
2,3,4,7,8-PECDF		8.21 J	14.4	16.4	1.12 U	9.06 J	1.11 J	8.04 J	3.74 J	8.72 J	9.66 J	19.6	1.96 J
2,3,7,8-TCDD		0.472 U	0.976 J	2.43	0.418 U	0.765 J	0.357 U	0.22 U	1.57 UJ	0.235 U	0.248 U	0.698 J	0.104 U
2,3,7,8-TCDF		7.36	5.74	12.1	1.23 U	4.93	1.54 UJ	3.38	4.43	2.93	2.6	5.02	0.685 J
TOTAL HPCDD		146	150	258	13.8	232	25.8	105	103 J	91.4	121	189 J	20.8
TOTAL HPCDF		41.7	57	84.6	17.5 U	35.7	4.86	25.5	31.6 J	34.9	44.6	86.3	8.17
TOTAL HXCDD		85.4	91.6 J	127 J	2.81	80.9	15.4	66.9	42.5 J	54	82.6 J	126	12.1
TOTAL HXCDF		69.5	103 J	128 J	3.23 J	65.4 J	7.46 J	47.8 J	38.2 J	60.6 J	71.8 J	157 J	15.8
TOTAL PECDD		41.7 J	63 J	85.7 J	1.38	46 J	8.92 J	54.7 J	32.7 J	42 J	59.7 J	87.7 J	7.25 J
TOTAL PECDF		99.8 J	170 J	213 J	4.56	112 J	12.6	94.5 J	67.7 J	111 J	122 J	239 J	27.5 J

BLACK SHADING-EXCEEDS AT LEAST ONE CRITERION; GRAY SHADING-DETECTED;
U-NOT DETECTED; J-QUANTITATION APPROXIMATE; R-REJECTED; NA-NOT ANALYZED

TABLE F-1
SEDIMENT ANALYTICAL RESULTS
WEST GATE LANDFILL
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS

SAMPLE ID		WGL-SD-SD101-000.6	WGL-SD-SD102-000.6-AVG	WGL-SD-SD103-000.6	WGL-SD-SD104-000.6	WGL-SD-SD105-000.6	WGL-SD-SD106-000.6-AVG	WGL-SD-SD107-000.6	WGL-SD-SD108-000.6	WGL-SD-SD109-000.6	WGL-SD-SD110-000.6	WGL-SD-SD111-000.6	WGL-SD-SD112-000.6
LOCATION ID		WGL-SD-SD101	WGL-SD-SD102	WGL-SD-SD103	WGL-SD-SD104	WGL-SD-SD105	WGL-SD-SD106	WGL-SD-SD107	WGL-SD-SD108	WGL-SD-SD109	WGL-SD-SD110	WGL-SD-SD111	WGL-SD-SD112
SAMPLE DATE		06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09	06/11/09
TOP DEPTH (FT)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BOTTOM DEPTH (FT)		0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
SACODE		NORMAL	AVG	NORMAL	NORMAL	NORMAL	AVG	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
QC TYPE	PAL	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
TOTAL TCDD		140	65.4 J	82.6 J	7.23 J	58.2 J	35.2 J	118 J	54.3 J	66.5 J	61.8 J	99.4	9.53
TOTAL TCDF		381	242 J	331 J	18.2	191 J	57.4 J	253 J	161 J	181 J	148 J	317	34.3 DPE

BLACK SHADING-EXCEEDS AT LEAST ONE CRITERION; GRAY SHADING-DETECTED;
U-NOT DETECTED; J-QUANTITATION APPROXIMATE; R-REJECTED; NA-NOT ANALYZED

APPENDIX F-2
GROUNDWATER ANALYTICAL DATA
SOUTH WEYMOUTH NAS SOUTH GATE LANDFILL
PRE-REMEDIAL DESIGN INVESTIGATION
CTO 407

TABLE F-2
GROUNDWATER ANALYTICAL RESULTS
WEST GATE LANDFILL
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS

SAMPLE ID		WGL-GW-MW2-063009	WGL-GW-MW3-062909	WGL-GW-MW4-063009	WGL-GW-MW101-062909	WGL-GW-MW102-062909	WGL-GW-MW103-062909	WGL-GW-MW38-063009	WGL-GW-MW39-063009	WGL-GW-MW405-063009-AVG	WGL-GW-MW40S-063009-AVG	WGL-GW-MW48D2-063009	WGL-GW-MW48D-063009-AVG
LOCATION ID		WGL-MW-02	WGL-MW-03	WGL-MW-04	WGL-MW-101	WGL-MW-102	WGL-MW-103	WGL-MW-38	WGL-MW-39	WGL-MW-405	WGL-MW-40S	WGL-MW-48D2	WGL-MW-48D
SAMPLE DATE		06/30/09	06/29/09	06/30/09	06/29/09	06/29/09	06/29/09	06/30/09	06/30/09	06/30/09	06/30/09	06/30/09	06/30/09
TOP DEPTH (FT)													
BOTTOM DEPTH (FT)													
SACODE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	AVG	AVG	NORMAL	AVG
QC TYPE	PAL	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
VOLATILES (UG/L)													
1,1,1-TRICHLOROETHANE	200	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U
1,1,2,2-TETRACHLOROETHANE		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U
1,1,2-TRICHLOROETHANE	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U
1,1-DICHLOROETHANE		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U
1,1-DICHLOROETHENE	7	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U
1,2,4-TRICHLOROBENZENE	70	1 UJ	1 U	1 UJ	1 U	1 UJ	1 U	1 UJ	1 UJ	NA	1 UJ	1 UJ	1 UJ
1,2-DIBROMO-3-CHLOROPROPANE	0.2	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	NA	0.0475 U	0.047 U	0.048 U
1,2-DIBROMOETHANE	0.02	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	NA	0.0475 U	0.047 U	0.048 U
1,2-DICHLOROBENZENE	600	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U
1,2-DICHLOROETHANE	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U
1,2-DICHLOROPROPANE	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U
1,3-DICHLOROBENZENE		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U
1,4-DICHLOROBENZENE	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U
2-BUTANONE		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 U	5 U	5 U
2-HEXANONE		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 U	5 U	5 U
4-METHYL-2-PENTANONE		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 U	5 U	5 U
ACETONE		5 U	5 U	5 U	10	5 U	5 U	5 U	5 U	NA	5 U	5 U	5 U
BENZENE	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U
BROMODICHLOROMETHANE		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U

BLACK SHADING-EXCEEDS AT LEAST ONE CRITERION; GRAY SHADING-DETECTED;
U-NOT DETECTED; J-QUANTITATION APPROXIMATE; R-REJECTED; NA-NOT ANALYZED

TABLE F-2
GROUNDWATER ANALYTICAL RESULTS
WEST GATE LANDFILL
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS

SAMPLE ID		WGL-GW-MW2-063009	WGL-GW-MW3-062909	WGL-GW-MW4-063009	WGL-GW-MW101-062909	WGL-GW-MW102-062909	WGL-GW-MW103-062909	WGL-GW-MW38-063009	WGL-GW-MW39-063009	WGL-GW-MW405-063009-AVG	WGL-GW-MW40S-063009-AVG	WGL-GW-MW48D2-063009	WGL-GW-MW48D-063009-AVG
LOCATION ID		WGL-MW-02	WGL-MW-03	WGL-MW-04	WGL-MW-101	WGL-MW-102	WGL-MW-103	WGL-MW-38	WGL-MW-39	WGL-MW-405	WGL-MW-40S	WGL-MW-48D2	WGL-MW-48D
SAMPLE DATE		06/30/09	06/29/09	06/30/09	06/29/09	06/29/09	06/29/09	06/30/09	06/30/09	06/30/09	06/30/09	06/30/09	06/30/09
TOP DEPTH (FT)													
BOTTOM DEPTH (FT)													
SACODE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	AVG	AVG	NORMAL	AVG
QC TYPE	PAL	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
BROMOFORM		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U
BROMOMETHANE		2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	NA	2 U	2 U	2 U
BTEX		1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	1.5 U	NA	1.5 U	1.5 U	1.5 U
CARBON DISULFIDE		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U
CARBON TETRACHLORIDE	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U
CHLOROBENZENE	100	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U
CHLORODIBROMOMETHANE		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U
CHLOROETHANE		2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	NA	2 U	2 U	2 U
CHLOROFORM		1 U	1 U	1 U	0.6 J	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U
CHLOROMETHANE		2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	NA	2 U	2 U	2 U
CIS-1,2-DICHLOROETHENE	70	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	0.8 J	1 U	1 U
CIS-1,3-DICHLOROPROPENE		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U
CYCLOHEXANE		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U
DICHLORODIFLUOROMETHANE		2 UJ	2 UJ	2 UJ	2 UJ	2 UJ	2 UJ	2 UJ	2 UJ	NA	2 UJ	2 UJ	2 UJ
ETHYLBENZENE	700	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U
ISOPROPYLBENZENE		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U
M+P-XYLENES		2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	NA	2 U	2 U	2 U
METHYL ACETATE		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U
METHYL CYCLOHEXANE		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U
METHYL TERT-BUTYL ETHER		1 U	1 U	1 U	2	1 U	0.6 J	1 U	1 U	NA	1 U	1 U	1 U
METHYLENE CHLORIDE	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NA	5 U	5 U	5 U
O-XYLENE		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U

BLACK SHADING-EXCEEDS AT LEAST ONE CRITERION; GRAY SHADING-DETECTED;
U-NOT DETECTED; J-QUANTITATION APPROXIMATE; R-REJECTED; NA-NOT ANALYZED

TABLE F-2
GROUNDWATER ANALYTICAL RESULTS
WEST GATE LANDFILL
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS

SAMPLE ID		WGL-GW-MW2-063009	WGL-GW-MW3-062909	WGL-GW-MW4-063009	WGL-GW-MW101-062909	WGL-GW-MW102-062909	WGL-GW-MW103-062909	WGL-GW-MW38-063009	WGL-GW-MW39-063009	WGL-GW-MW405-063009-AVG	WGL-GW-MW40S-063009-AVG	WGL-GW-MW48D2-063009	WGL-GW-MW48D-063009-AVG
LOCATION ID		WGL-MW-02	WGL-MW-03	WGL-MW-04	WGL-MW-101	WGL-MW-102	WGL-MW-103	WGL-MW-38	WGL-MW-39	WGL-MW-405	WGL-MW-40S	WGL-MW-48D2	WGL-MW-48D
SAMPLE DATE		06/30/09	06/29/09	06/30/09	06/29/09	06/29/09	06/29/09	06/30/09	06/30/09	06/30/09	06/30/09	06/30/09	06/30/09
TOP DEPTH (FT)													
BOTTOM DEPTH (FT)													
SACODE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	AVG	AVG	NORMAL	AVG
QC TYPE	PAL	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
STYRENE	100	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U
TETRACHLOROETHENE	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U
TOLUENE	1000	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U
TOTAL 1,2-DICHLOROETHENE		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	0.8 J	1 U	1 U
TOTAL CHLORINATED ETHENES		1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	NA	0.8 J	1.2 U	1.2 U
TOTAL CHLORINATED VOCS		1.3 UJ	1.3 UJ	1.3 UJ	0.6 J	1.3 UJ	1.3 UJ	1.3 UJ	1.3 UJ	NA	0.8 J	1.3 UJ	1.3 UJ
TOTAL XYLENES	10000	3 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	NA	3 U	3 U	3 U
TRANS-1,2-DICHLOROETHENE	100	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U
TRANS-1,3-DICHLOROPROPENE		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U
TRICHLOROETHENE	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	1 U	1 U	1 U
TRICHLOROFLUOROMETHANE		2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	NA	2 U	2 U	2 U
VINYL CHLORIDE	2	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	NA	2 U	2 U	2 U
SEMIVOLATILES (UG/L)													
1,1-BIPHENYL		9 U	9 U	9 U	9 U	10 U	11 U	10 U	10 U	NA	9 U	10 UJ	10 U
1,4-DIOXANE	3	4.7 U	4.7 U	4.7 U	4.7 U	5.1 U	5.4 U	4.8 U	5.2 U	NA	4.7 U	5 U	4.8 U
2,4,5-TRICHLOROPHENOL		24 U	24 U	24 U	24 U	26 U	27 U	24 U	26 U	NA	24 U	26 UR	24 U
2,4,6-TRICHLOROPHENOL		9 U	9 U	9 U	9 U	10 U	11 U	10 U	10 U	NA	9 U	10 UR	10 U
2,4-DICHLOROPHENOL		9 UJ	9 UJ	9 UJ	9 UJ	10 UJ	11 UJ	10 UJ	10 U	NA	9 UJ	10 UR	10 UJ
2,4-DIMETHYLPHENOL		9 U	9 U	9 U	9 U	10 U	11 U	10 UJ	10 U	NA	9 U	10 UR	10 U
2,4-DINITROPHENOL		24 U	24 U	24 U	24 U	26 U	27 U	24 U	26 U	NA	24 U	26 UR	24 U
2,4-DINITROTOLUENE		9 U	9 U	9 U	9 U	10 U	11 U	10 U	10 U	NA	9 U	10 UJ	10 U

BLACK SHADING-EXCEEDS AT LEAST ONE CRITERION; GRAY SHADING-DETECTED;
U-NOT DETECTED; J-QUANTITATION APPROXIMATE; R-REJECTED; NA-NOT ANALYZED

TABLE F-2
GROUNDWATER ANALYTICAL RESULTS
WEST GATE LANDFILL
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS

SAMPLE ID		WGL-GW-MW2-063009	WGL-GW-MW3-062909	WGL-GW-MW4-063009	WGL-GW-MW101-062909	WGL-GW-MW102-062909	WGL-GW-MW103-062909	WGL-GW-MW38-063009	WGL-GW-MW39-063009	WGL-GW-MW405-063009-AVG	WGL-GW-MW40S-063009-AVG	WGL-GW-MW48D2-063009	WGL-GW-MW48D-063009-AVG
LOCATION ID		WGL-MW-02	WGL-MW-03	WGL-MW-04	WGL-MW-101	WGL-MW-102	WGL-MW-103	WGL-MW-38	WGL-MW-39	WGL-MW-405	WGL-MW-40S	WGL-MW-48D2	WGL-MW-48D
SAMPLE DATE		06/30/09	06/29/09	06/30/09	06/29/09	06/29/09	06/29/09	06/30/09	06/30/09	06/30/09	06/30/09	06/30/09	06/30/09
TOP DEPTH (FT)													
BOTTOM DEPTH (FT)													
SACODE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	AVG	AVG	NORMAL	AVG
QC TYPE	PAL	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
2,6-DINITROTOLUENE		9 U	9 U	9 U	9 U	10 U	11 U	10 U	10 U	NA	9 U	10 UJ	10 U
2-CHLORONAPHTHALENE		9 U	9 U	9 U	9 U	10 U	11 U	10 UJ	10 U	NA	9 U	10 UJ	10 U
2-CHLOROPHENOL		9 U	9 U	9 U	9 U	10 U	11 U	10 U	10 U	NA	9 U	10 UJ	10 U
2-METHYLNAPHTHALENE		0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	0.22 U	0.19 U	0.21 U	NA	0.19 U	0.2 U	0.19 U
2-METHYLPHENOL		9 U	9 U	9 U	9 U	10 U	11 U	10 UJ	10 U	NA	9 U	10 UR	10 U
2-NITROANILINE		24 U	24 U	24 U	24 U	26 U	27 U	24 U	26 U	NA	24 U	26 UJ	24 U
2-NITROPHENOL		9 U	9 U	9 U	9 U	10 U	11 U	10 U	10 U	NA	9 U	10 UR	10 U
3&4-METHYLPHENOL		9 U	9 U	9 U	9 U	10 U	11 U	10 UJ	10 U	NA	9 U	10 UR	10 U
3,3'-DICHLOROBENZIDINE		9 U	9 U	9 U	9 U	10 U	11 U	10 U	10 U	NA	9 U	10 UJ	10 U
3-NITROANILINE		24 U	24 U	24 U	24 U	26 U	27 U	24 U	26 U	NA	24 U	26 UJ	24 U
4,6-DINITRO-2-METHYLPHENOL		24 UJ	24 UJ	24 UJ	24 UJ	26 UJ	27 UJ	24 UJ	26 UJ	NA	24 UJ	26 UR	24 UJ
4-BROMOPHENYL PHENYL ETHER		9 U	9 U	9 U	9 U	10 U	11 U	10 UJ	10 U	NA	9 U	10 UJ	10 U
4-CHLORO-3-METHYLPHENOL		9 U	9 U	9 U	9 U	10 U	11 U	10 U	10 U	NA	9 U	10 UR	10 U
4-CHLOROANILINE		9 U	9 U	9 U	9 U	10 U	11 U	10 U	10 U	NA	9 U	10 UJ	10 U
4-CHLOROPHENYL PHENYL ETHER		9 U	9 U	9 U	9 U	10 U	11 U	10 U	10 U	NA	9 U	10 UJ	10 U
4-NITROANILINE		24 U	24 U	24 U	24 U	26 U	27 U	24 U	26 U	NA	24 U	26 UJ	24 U
4-NITROPHENOL		24 U	24 U	24 U	24 U	26 U	27 U	24 U	26 UJ	NA	24 U	26 UR	24 U
ACENAPHTHENE		0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	0.22 U	0.19 U	0.21 U	NA	0.19 U	0.2 U	0.19 U
ACENAPHTHYLENE		0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	0.22 U	0.19 U	0.21 U	NA	0.19 U	0.2 U	0.19 U
ACETOPHENONE		9 U	9 U	9 U	9 U	10 U	11 U	10 U	10 U	NA	9 U	10 UJ	10 U

BLACK SHADING-EXCEEDS AT LEAST ONE CRITERION; GRAY SHADING-DETECTED;
U-NOT DETECTED; J-QUANTITATION APPROXIMATE; R-REJECTED; NA-NOT ANALYZED

TABLE F-2
GROUNDWATER ANALYTICAL RESULTS
WEST GATE LANDFILL
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS

SAMPLE ID		WGL-GW-MW2-063009	WGL-GW-MW3-062909	WGL-GW-MW4-063009	WGL-GW-MW101-062909	WGL-GW-MW102-062909	WGL-GW-MW103-062909	WGL-GW-MW38-063009	WGL-GW-MW39-063009	WGL-GW-MW405-063009-AVG	WGL-GW-MW40S-063009-AVG	WGL-GW-MW48D2-063009	WGL-GW-MW48D-063009-AVG
LOCATION ID		WGL-MW-02	WGL-MW-03	WGL-MW-04	WGL-MW-101	WGL-MW-102	WGL-MW-103	WGL-MW-38	WGL-MW-39	WGL-MW-405	WGL-MW-40S	WGL-MW-48D2	WGL-MW-48D
SAMPLE DATE		06/30/09	06/29/09	06/30/09	06/29/09	06/29/09	06/29/09	06/30/09	06/30/09	06/30/09	06/30/09	06/30/09	06/30/09
TOP DEPTH (FT)													
BOTTOM DEPTH (FT)													
SACODE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	AVG	AVG	NORMAL	AVG
QC TYPE	PAL	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
ANTHRACENE		0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	0.22 U	0.19 U	0.21 U	NA	0.19 U	0.2 U	0.19 U
ATRAZINE	3	9 U	9 U	9 U	9 U	10 U	11 U	10 U	10 U	NA	9 U	10 UJ	10 U
BENZALDEHYDE		9 UJ	9 UJ	9 UJ	9 UJ	10 UJ	11 UJ	10 UJ	10 UJ	NA	9 UJ	10 UJ	10 UJ
BENZO(A)ANTHRACENE	0.09	0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	0.22 U	0.19 U	0.21 U	NA	0.19 U	0.2 U	0.19 U
BENZO(A)PYRENE	0.2	0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	0.22 U	0.19 U	0.21 U	NA	0.19 U	0.2 U	0.19 U
BENZO(B)FLUORANTHENE	0.09	0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	0.22 U	0.19 U	0.21 U	NA	0.19 U	0.2 U	0.19 U
BENZO(G,H,I)PERYLENE		0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	0.22 U	0.19 U	0.21 U	NA	0.19 U	0.2 U	0.19 U
BENZO(K)FLUORANTHENE		0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	0.22 U	0.19 U	0.21 U	NA	0.19 U	0.2 U	0.19 U
BIS(2-CHLOROETHOXY)METHANE		9 U	9 U	9 U	9 U	10 U	11 U	10 U	10 U	NA	9 U	10 UJ	10 U
BIS(2-CHLOROETHYL)ETHER		9 U	9 U	9 U	9 U	10 U	11 U	10 U	10 U	NA	9 U	10 UJ	10 U
BIS(2-CHLOROISOPROPYL)ETHER		9 UJ	9 UJ	9 UJ	9 UJ	10 UJ	11 UJ	10 UJ	10 UJ	NA	9 UJ	10 UJ	10 UJ
BIS(2-ETHYLHEXYL)PHTHALATE		9 U	9 U	9 U	9 U	10 U	11 U	10 U	10 U	NA	9 U	10 UJ	10 U
BUTYL BENZYL PHTHALATE		9 U	9 U	9 U	9 U	10 U	11 U	10 U	10 U	NA	9 U	10 UJ	10 U
CAPROLACTAM		9 U	9 U	9 U	9 U	10 U	11 U	10 UJ	10 U	NA	9 U	10 UJ	10 U
CARBAZOLE		9 U	9 U	9 U	9 U	10 U	11 U	10 U	10 U	NA	9 U	10 UJ	10 U
CHRYSENE		0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	0.22 U	0.19 U	0.21 U	NA	0.19 U	0.2 U	0.19 U
DIBENZO(A,H)ANTHRACENE	0.009	0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	0.22 U	0.19 U	0.21 U	NA	0.19 U	0.2 U	0.19 U
DIBENZOFURAN		9 U	9 U	9 U	9 U	10 U	11 U	10 U	10 U	NA	9 U	10 UJ	10 U
DIETHYL PHTHALATE		9 U	9 U	9 U	9 U	10 U	11 U	10 U	10 U	NA	9 U	10 UJ	10 U
DIMETHYL PHTHALATE		9 U	9 U	9 U	9 U	10 U	11 U	10 U	10 U	NA	9 U	10 UJ	10 U

BLACK SHADING-EXCEEDS AT LEAST ONE CRITERION; GRAY SHADING-DETECTED;
U-NOT DETECTED; J-QUANTITATION APPROXIMATE; R-REJECTED; NA-NOT ANALYZED

TABLE F-2
GROUNDWATER ANALYTICAL RESULTS
WEST GATE LANDFILL
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS

SAMPLE ID		WGL-GW-MW2-063009	WGL-GW-MW3-062909	WGL-GW-MW4-063009	WGL-GW-MW101-062909	WGL-GW-MW102-062909	WGL-GW-MW103-062909	WGL-GW-MW38-063009	WGL-GW-MW39-063009	WGL-GW-MW405-063009-AVG	WGL-GW-MW40S-063009-AVG	WGL-GW-MW48D2-063009	WGL-GW-MW48D-063009-AVG
LOCATION ID		WGL-MW-02	WGL-MW-03	WGL-MW-04	WGL-MW-101	WGL-MW-102	WGL-MW-103	WGL-MW-38	WGL-MW-39	WGL-MW-405	WGL-MW-40S	WGL-MW-48D2	WGL-MW-48D
SAMPLE DATE		06/30/09	06/29/09	06/30/09	06/29/09	06/29/09	06/29/09	06/30/09	06/30/09	06/30/09	06/30/09	06/30/09	06/30/09
TOP DEPTH (FT)													
BOTTOM DEPTH (FT)													
SACODE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	AVG	AVG	NORMAL	AVG
QC TYPE	PAL	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
DI-N-BUTYL PHTHALATE		9 U	9 U	9 U	9 U	10 U	11 U	10 U	10 U	NA	9 U	10 UJ	10 U
DI-N-OCTYL PHTHALATE		9 U	9 U	9 U	9 U	10 U	11 U	10 U	10 U	NA	9 U	10 UJ	10 U
FLUORANTHENE		0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	0.22 U	0.19 U	0.21 U	NA	0.19 U	0.2 U	0.19 U
FLUORENE		0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	0.22 U	0.19 U	0.21 U	NA	0.19 U	0.2 U	0.19 U
HEXACHLOROBENZENE	1	0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	0.22 U	0.19 U	0.21 U	NA	0.19 U	0.2 U	0.19 U
HEXACHLOROBUTADIENE		9 U	9 U	9 U	9 U	10 U	11 U	10 U	10 U	NA	9 U	10 UJ	10 U
HEXACHLOROCYCLOPENTADIENE	50	9 U	9 U	9 U	9 U	10 U	11 U	10 U	10 U	NA	9 U	10 UJ	10 U
HEXACHLOROETHANE		9 U	9 U	9 U	9 U	10 U	11 U	10 U	10 U	NA	9 U	10 UJ	10 U
HIGH MOLECULAR WEIGHT PAHS		0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	0.22 U	0.19 U	0.21 U	NA	0.19 U	0.2 U	0.19 U
INDENO(1,2,3-CD)PYRENE	0.09	0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	0.22 U	0.19 U	0.21 U	NA	0.19 U	0.2 U	0.19 U
ISOPHORONE		9 U	9 U	9 U	9 U	10 U	11 U	10 U	10 U	NA	9 U	10 UJ	10 U
LOW MOLECULAR WEIGHT PAHS		0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	0.22 U	0.19 U	0.21 U	NA	0.19 U	0.2 U	0.19 U
NAPHTHALENE		0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	0.22 U	0.19 U	0.21 U	NA	0.19 U	0.2 U	0.19 U
NITROBENZENE		9 U	9 U	9 U	9 U	10 U	11 U	10 U	10 U	NA	9 U	10 UJ	10 U
N-NITROSO-DI-N-PROPYLAMINE		9 U	9 U	9 U	9 U	10 U	11 U	10 U	10 U	NA	9 U	10 UJ	10 U
N-NITROSODIPHENYLAMINE		9 U	9 U	9 U	9 U	10 U	11 U	10 U	10 U	NA	9 U	10 UJ	10 U
PENTACHLOROPHENOL	1	0.94 UJ	0.94 U	0.94 UJ	0.94 U	1 UJ	1.1 UJ	0.95 UJ	1 UJ	NA	0.94 UJ	1 UJ	0.955 UJ
PHENANTHRENE		0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	0.22 U	0.19 U	0.21 U	NA	0.19 U	0.2 U	0.19 U
PHENOL		9 U	9 U	9 U	9 U	10 U	11 U	10 U	10 U	NA	9 U	10 UR	10 U

BLACK SHADING-EXCEEDS AT LEAST ONE CRITERION; GRAY SHADING-DETECTED;
U-NOT DETECTED; J-QUANTITATION APPROXIMATE; R-REJECTED; NA-NOT ANALYZED

TABLE F-2
GROUNDWATER ANALYTICAL RESULTS
WEST GATE LANDFILL
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS

SAMPLE ID		WGL-GW-MW2-063009	WGL-GW-MW3-062909	WGL-GW-MW4-063009	WGL-GW-MW101-062909	WGL-GW-MW102-062909	WGL-GW-MW103-062909	WGL-GW-MW38-063009	WGL-GW-MW39-063009	WGL-GW-MW405-063009-AVG	WGL-GW-MW40S-063009-AVG	WGL-GW-MW48D2-063009	WGL-GW-MW48D-063009-AVG
LOCATION ID		WGL-MW-02	WGL-MW-03	WGL-MW-04	WGL-MW-101	WGL-MW-102	WGL-MW-103	WGL-MW-38	WGL-MW-39	WGL-MW-405	WGL-MW-40S	WGL-MW-48D2	WGL-MW-48D
SAMPLE DATE		06/30/09	06/29/09	06/30/09	06/29/09	06/29/09	06/29/09	06/30/09	06/30/09	06/30/09	06/30/09	06/30/09	06/30/09
TOP DEPTH (FT)													
BOTTOM DEPTH (FT)													
SACODE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	AVG	AVG	NORMAL	AVG
QC TYPE	PAL	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
PYRENE		0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	0.22 U	0.19 U	0.21 U	NA	0.19 U	0.2 U	0.19 U
TOTAL CHLORINATED VOCS		9 U	9 U	9 U	9 U	10 U	11 U	10 U	10 U	NA	9 U	10 UJ	10 U
TOTAL PAHS		0.19 U	0.19 U	0.19 U	0.19 U	0.2 U	0.22 U	0.19 U	0.21 U	NA	0.19 U	0.2 U	0.19 U
PESTICIDES/PCBS (UG/L)													
4,4'-DDD		0.095 U	0.094 U	0.094 U	0.094 U	0.11 U	0.1 U	0.094 U	0.094 U	NA	0.0985 U	0.094 U	0.098 U
4,4'-DDE		0.095 U	0.094 U	0.094 U	0.094 U	0.11 U	0.1 U	0.094 U	0.094 U	NA	0.0985 U	0.094 U	0.098 U
4,4'-DDT		0.095 U	0.094 U	0.094 U	0.094 U	0.11 U	0.1 U	0.094 U	0.094 U	NA	0.0985 U	0.094 U	0.098 U
ALDRIN		0.048 U	0.047 U	0.047 U	0.047 U	0.055 U	0.05 U	0.047 U	0.047 U	NA	0.0495 U	0.047 U	0.049 U
ALPHA-BHC		0.048 U	0.047 U	0.047 U	0.047 U	0.055 U	0.05 U	0.047 U	0.047 U	NA	0.0495 U	0.047 U	0.049 U
ALPHA-CHLORDANE	2	0.048 U	0.047 U	0.047 U	0.047 U	0.055 U	0.05 U	0.047 U	0.047 U	NA	0.0495 U	0.047 U	0.049 U
AROCLOR-1016	0.5	0.094 U	0.095 U	0.1 UJ	0.1 U	0.11 U	0.095 U	0.094 U	0.1 UJ	NA	0.094 UJ	0.11 U	0.098 UJ
AROCLOR-1221	0.5	0.094 U	0.095 U	0.1 UJ	0.1 U	0.11 U	0.095 U	0.094 U	0.1 UJ	NA	0.094 UJ	0.11 U	0.098 UJ
AROCLOR-1232	0.5	0.094 U	0.095 U	0.1 UJ	0.1 U	0.11 U	0.095 U	0.094 U	0.1 UJ	NA	0.094 UJ	0.11 U	0.098 UJ
AROCLOR-1242	0.5	0.094 U	0.095 U	0.1 UJ	0.1 U	0.11 U	0.095 U	0.094 U	0.1 UJ	NA	0.094 UJ	0.11 U	0.098 UJ
AROCLOR-1248	0.5	0.094 U	0.095 U	0.1 UJ	0.1 U	0.11 U	0.095 U	0.094 U	0.1 UJ	NA	0.094 UJ	0.11 U	0.098 UJ
AROCLOR-1254	0.5	0.094 U	0.095 U	0.1 UJ	0.1 U	0.11 U	0.095 U	0.094 U	0.1 UJ	NA	0.094 UJ	0.11 U	0.098 UJ
AROCLOR-1260	0.5	0.094 U	0.095 U	0.1 UJ	0.1 U	0.11 U	0.095 U	0.094 U	0.1 UJ	NA	0.094 UJ	0.11 U	0.098 UJ

BLACK SHADING-EXCEEDS AT LEAST ONE CRITERION; GRAY SHADING-DETECTED;
U-NOT DETECTED; J-QUANTITATION APPROXIMATE; R-REJECTED; NA-NOT ANALYZED

TABLE F-2
GROUNDWATER ANALYTICAL RESULTS
WEST GATE LANDFILL
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS

SAMPLE ID		WGL-GW-MW2-063009	WGL-GW-MW3-062909	WGL-GW-MW4-063009	WGL-GW-MW101-062909	WGL-GW-MW102-062909	WGL-GW-MW103-062909	WGL-GW-MW38-063009	WGL-GW-MW39-063009	WGL-GW-MW405-063009-AVG	WGL-GW-MW40S-063009-AVG	WGL-GW-MW48D2-063009	WGL-GW-MW48D-063009-AVG
LOCATION ID		WGL-MW-02	WGL-MW-03	WGL-MW-04	WGL-MW-101	WGL-MW-102	WGL-MW-103	WGL-MW-38	WGL-MW-39	WGL-MW-405	WGL-MW-40S	WGL-MW-48D2	WGL-MW-48D
SAMPLE DATE		06/30/09	06/29/09	06/30/09	06/29/09	06/29/09	06/29/09	06/30/09	06/30/09	06/30/09	06/30/09	06/30/09	06/30/09
TOP DEPTH (FT)													
BOTTOM DEPTH (FT)													
SACODE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	AVG	AVG	NORMAL	AVG
QC TYPE	PAL	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
BETA-BHC		0.048 U	0.047 U	0.047 U	0.047 U	0.055 U	0.05 U	0.047 U	0.047 U	NA	0.0495 U	0.047 U	0.049 U
DELTA-BHC		0.048 U	0.047 U	0.047 U	0.047 U	0.055 U	0.05 U	0.047 U	0.047 U	NA	0.0495 U	0.047 U	0.049 U
DIELDRIN		0.095 U	0.094 U	0.094 U	0.094 U	0.11 U	0.1 U	0.094 U	0.094 U	NA	0.0985 U	0.094 U	0.098 U
ENDOSULFAN I		0.048 U	0.047 U	0.047 U	0.047 U	0.055 U	0.05 U	0.047 U	0.047 U	NA	0.0495 U	0.047 U	0.049 U
ENDOSULFAN II		0.095 U	0.094 U	0.094 U	0.094 U	0.11 U	0.1 U	0.094 U	0.094 U	NA	0.0985 U	0.094 U	0.098 U
ENDOSULFAN SULFATE		0.095 U	0.094 U	0.094 U	0.094 U	0.11 U	0.1 U	0.094 U	0.094 U	NA	0.0985 U	0.094 U	0.098 U
ENDRIN	2	0.095 U	0.094 U	0.094 U	0.094 U	0.11 U	0.1 U	0.094 U	0.094 U	NA	0.0985 U	0.094 U	0.098 U
ENDRIN ALDEHYDE	2	0.095 U	0.094 U	0.094 U	0.094 U	0.11 U	0.1 U	0.094 U	0.094 U	NA	0.0985 U	0.094 U	0.098 U
ENDRIN KETONE		0.095 U	0.094 U	0.094 U	0.094 U	0.11 U	0.1 U	0.094 U	0.094 U	NA	0.0985 U	0.094 U	0.098 U
GAMMA-BHC (LINDANE)	0.2	0.048 U	0.047 U	0.047 U	0.047 U	0.055 U	0.05 U	0.047 U	0.047 U	NA	0.0495 U	0.047 U	0.049 U
GAMMA-CHLORDANE		0.048 U	0.047 U	0.047 U	0.047 U	0.055 U	0.05 U	0.047 U	0.047 U	NA	0.0495 U	0.047 U	0.049 U
HEPTACHLOR	0.4	0.048 U	0.047 U	0.047 U	0.047 U	0.055 U	0.05 U	0.047 U	0.047 U	NA	0.0495 U	0.047 U	0.049 U

BLACK SHADING-EXCEEDS AT LEAST ONE CRITERION; GRAY SHADING-DETECTED;
U-NOT DETECTED; J-QUANTITATION APPROXIMATE; R-REJECTED; NA-NOT ANALYZED

TABLE F-2
GROUNDWATER ANALYTICAL RESULTS
WEST GATE LANDFILL
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS

SAMPLE ID		WGL-GW-MW2-063009	WGL-GW-MW3-062909	WGL-GW-MW4-063009	WGL-GW-MW101-062909	WGL-GW-MW102-062909	WGL-GW-MW103-062909	WGL-GW-MW38-063009	WGL-GW-MW39-063009	WGL-GW-MW405-063009-AVG	WGL-GW-MW40S-063009-AVG	WGL-GW-MW48D2-063009	WGL-GW-MW48D-063009-AVG
LOCATION ID		WGL-MW-02	WGL-MW-03	WGL-MW-04	WGL-MW-101	WGL-MW-102	WGL-MW-103	WGL-MW-38	WGL-MW-39	WGL-MW-405	WGL-MW-40S	WGL-MW-48D2	WGL-MW-48D
SAMPLE DATE		06/30/09	06/29/09	06/30/09	06/29/09	06/29/09	06/29/09	06/30/09	06/30/09	06/30/09	06/30/09	06/30/09	06/30/09
TOP DEPTH (FT)													
BOTTOM DEPTH (FT)													
SACODE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	AVG	AVG	NORMAL	AVG
QC TYPE	PAL	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
HEPTACHLOR EPOXIDE	0.2	0.048 U	0.047 U	0.047 U	0.047 U	0.055 U	0.05 U	0.047 U	0.047 U	NA	0.0495 U	0.047 U	0.049 U
METHOXYCHLOR	40	0.48 U	0.47 U	0.47 U	0.47 U	0.55 U	0.5 U	0.47 U	0.47 U	NA	0.495 U	0.47 U	0.49 U
TOTAL AROCLOR	0.5	0.094 U	0.095 U	0.1 UJ	0.1 U	0.11 U	0.095 U	0.094 U	0.1 UJ	NA	0.094 UJ	0.11 U	0.098 UJ
TOTAL DDD/DDE/DDT		0.095 U	0.094 U	0.094 U	0.094 U	0.11 U	0.1 U	0.094 U	0.094 U	NA	0.098 U	0.094 U	0.098 U
TOXAPHENE		0.95 U	0.94 U	0.94 U	0.94 U	1.1 U	1 U	0.94 U	0.94 U	NA	0.985 U	0.94 U	0.98 U
METALS (UG/L)													
ALUMINUM		108 J	47.3 J	679	204 J	82.7 J	141 J	60.7 J	342	NA	204 J	56.4 J	279 J
ANTIMONY	6	0.17 UJ	0.15 U	0.33 UJ	0.8 UJ	0.54 UJ	0.15 U	0.17 UJ	0.15 U	NA	0.25 UJ	0.15 U	0.15 U
ARSENIC	10	2.1 J	1.5 U	3.8 J	1.7 J	1.9 J	2.1 J	1.8 J	1.9 J	NA	1.5 U	1.5 U	1.18 J
BARIUM	2000	94.6	32.9	25.8	330	189	135	50.9	25	NA	73.6	63.4	51.9
BERYLLIUM	4	0.23 UJ	0.11 UJ	0.28 UJ	0.05 U	0.12 UJ	0.05 U	0.44 UJ	0.09 UJ	NA	0.55 UJ	0.05 U	0.265 UJ
CADMIUM	5	0.45 UJ	0.08 UJ	0.22 UJ	0.05 U	0.1 UJ	0.05 U	0.2 UJ	0.05 U	NA	0.41 UJ	0.14 UJ	0.075 UJ
CALCIUM		23900	13200	13000	47500	37000	47800	6150	8990	NA	17700	55800	12200
CHROMIUM	47	0.44 U	3.3 J	3.1 J	1.6 J	0.46 J	0.52 J	0.44 U	1.5 J	NA	1.7 J	1.6 J	1.45 J
COBALT		0.27 U	0.27 U	2.4 J	0.27 U	0.27 U	0.27 U	1.9 J	0.73 UJ	NA	3.05 J	0.49 UJ	2.75 J
COPPER	1300	0.7 U	0.7 U	7 UJ	0.7 U	0.95 UJ	0.7 U	0.7 U	1.3 UJ	NA	12.1 J	1.9 UJ	8.75 J
IRON		78.2 J	44.2 UJ	4220	10.4 UJ	12.6 UJ	54.6 UJ	14.7 UJ	9790	NA	438	2630	3620
LEAD	15	1.02 U	1 J	2.6 J	1.1 J	1.5 J	1.02 U	1.02 U	1.2 J	NA	1.02 U	1.02 U	1.02 U
MAGNESIUM		4860	2660	2640	5870	8000	9780	1200	1260	NA	3260	9480	3480
MANGANESE		481	9.9	41	15.1	64.3	662	117	356	NA	169	2180	426
MERCURY	2	0.06 UJ	0.04 UJ	0.03 UJ	0.04 UJ	0.05 UJ	0.04 UJ	0.04 UJ	0.06 UJ	NA	0.09 UJ	0.06 UJ	0.055 UJ
NICKEL		2 UJ	0.62 UJ	2.4 J	0.24 U	0.24 U	2 UJ	2.1 UJ	0.64 UJ	NA	4.25 J	0.66 UJ	2.25 J

BLACK SHADING-EXCEEDS AT LEAST ONE CRITERION; GRAY SHADING-DETECTED;
U-NOT DETECTED; J-QUANTITATION APPROXIMATE; R-REJECTED; NA-NOT ANALYZED

TABLE F-2
GROUNDWATER ANALYTICAL RESULTS
WEST GATE LANDFILL
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS

SAMPLE ID		WGL-GW-MW2-063009	WGL-GW-MW3-062909	WGL-GW-MW4-063009	WGL-GW-MW101-062909	WGL-GW-MW102-062909	WGL-GW-MW103-062909	WGL-GW-MW38-063009	WGL-GW-MW39-063009	WGL-GW-MW405-063009-AVG	WGL-GW-MW40S-063009-AVG	WGL-GW-MW48D2-063009	WGL-GW-MW48D-063009-AVG
LOCATION ID		WGL-MW-02	WGL-MW-03	WGL-MW-04	WGL-MW-101	WGL-MW-102	WGL-MW-103	WGL-MW-38	WGL-MW-39	WGL-MW-405	WGL-MW-40S	WGL-MW-48D2	WGL-MW-48D
SAMPLE DATE		06/30/09	06/29/09	06/30/09	06/29/09	06/29/09	06/29/09	06/30/09	06/30/09	06/30/09	06/30/09	06/30/09	06/30/09
TOP DEPTH (FT)													
BOTTOM DEPTH (FT)													
SACODE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	AVG	AVG	NORMAL	AVG
QC TYPE	PAL	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
POTASSIUM		5030	3960	2820	20600	5330	5380	1130	1550	NA	2920	5400	2950
SELENIUM	50	3.03 UJ	3.03 UJ	3.03 U	3.03 UJ	3.03 UJ	3.03 UJ	3.03 U	3.03 U	NA	3.03 U	3.03 U	3.03 U
SILVER		0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	NA	0.79 U	0.79 U	0.79 U
SODIUM		172000	76300	56800	53400	27700	45800	34400	2780	NA	60000	45700	52800
THALLIUM	2	0.1 UJ	0.1 UJ	0.38 UJ	0.1 UJ	0.37 UJ	0.1 UJ	0.1 UJ	0.1 UJ	NA	0.365 UJ	0.24 UJ	0.1 UJ
VANADIUM		5.12 U	5.12 U	14.6 J	6.8 J	5.12 U	5.12 U	5.12 U	5.12 U	NA	5.12 U	5.12 U	5.12 U
ZINC		9.7 J	3.2 J	22.7 J	1.73 U	1.73 U	1.73 U	28.6	17.5 J	NA	36.4	1.73 U	6.7 J
DIOXINS/FURANS (NG/L)													
1,2,3,4,6,7,8,9-OCDD		0.00743 J	0.0951 U	0.105 U	0.0962 U	0.104 U	0.109 U	0.0112 J	0.102 U	0.0366 J	NA	0.0095 J	0.0974 U
1,2,3,4,6,7,8,9-OCDF		0.104 U	0.0951 U	0.105 U	0.0962 U	0.104 U	0.109 U	0.102 U	0.102 U	0.104 U	NA	0.105 U	0.0974 U
1,2,3,4,6,7,8-HPCDD		0.0522 U	0.0476 U	0.0524 U	0.0481 U	0.0521 U	0.0543 U	0.0511 U	0.0509 U	0.0516 U	NA	0.0523 U	0.0487 U
1,2,3,4,6,7,8-HPCDF		0.0522 U	0.0476 U	0.0524 U	0.0481 U	0.0521 U	0.0543 U	0.0511 U	0.0509 U	0.0516 U	NA	0.0523 U	0.0487 U
1,2,3,4,7,8,9-HPCDF		0.0522 U	0.0476 U	0.0524 U	0.0481 U	0.0521 U	0.0543 U	0.0511 U	0.0509 U	0.0516 U	NA	0.0523 U	0.0487 U
1,2,3,4,7,8-HXCDD		0.0522 U	0.0476 U	0.0524 U	0.0481 U	0.0521 U	0.0543 U	0.0511 U	0.0509 U	0.0516 U	NA	0.0523 U	0.0487 U
1,2,3,4,7,8-HXCDF		0.0522 U	0.0476 U	0.0524 U	0.0481 U	0.0521 U	0.0543 U	0.0511 U	0.0509 U	0.0516 U	NA	0.0523 U	0.0487 U
1,2,3,6,7,8-HXCDD		0.0522 U	0.0476 U	0.0524 U	0.0481 U	0.0521 U	0.0543 U	0.0511 U	0.0509 U	0.0516 U	NA	0.0523 U	0.0487 U

BLACK SHADING-EXCEEDS AT LEAST ONE CRITERION; GRAY SHADING-DETECTED;
U-NOT DETECTED; J-QUANTITATION APPROXIMATE; R-REJECTED; NA-NOT ANALYZED

TABLE F-2
GROUNDWATER ANALYTICAL RESULTS
WEST GATE LANDFILL
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS

SAMPLE ID		WGL-GW-MW2-063009	WGL-GW-MW3-062909	WGL-GW-MW4-063009	WGL-GW-MW101-062909	WGL-GW-MW102-062909	WGL-GW-MW103-062909	WGL-GW-MW38-063009	WGL-GW-MW39-063009	WGL-GW-MW405-063009-AVG	WGL-GW-MW40S-063009-AVG	WGL-GW-MW48D2-063009	WGL-GW-MW48D-063009-AVG
LOCATION ID		WGL-MW-02	WGL-MW-03	WGL-MW-04	WGL-MW-101	WGL-MW-102	WGL-MW-103	WGL-MW-38	WGL-MW-39	WGL-MW-405	WGL-MW-40S	WGL-MW-48D2	WGL-MW-48D
SAMPLE DATE		06/30/09	06/29/09	06/30/09	06/29/09	06/29/09	06/29/09	06/30/09	06/30/09	06/30/09	06/30/09	06/30/09	06/30/09
TOP DEPTH (FT)													
BOTTOM DEPTH (FT)													
SACODE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	AVG	AVG	NORMAL	AVG
QC TYPE	PAL	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
1,2,3,6,7,8-HXCDF		0.0522 U	0.0476 U	0.0524 U	0.0481 U	0.0521 U	0.0543 U	0.0511 U	0.0509 U	0.0516 U	NA	0.0523 U	0.0487 U
1,2,3,7,8,9-HXCDD		0.0522 U	0.0476 U	0.0524 U	0.0481 U	0.0521 U	0.0543 U	0.0511 U	0.0509 U	0.0516 U	NA	0.0523 U	0.0487 U
1,2,3,7,8,9-HXCDF		0.0522 U	0.0476 U	0.0524 U	0.0481 U	0.0521 U	0.0543 U	0.0511 U	0.0509 U	0.0516 U	NA	0.0523 U	0.0487 U
1,2,3,7,8-PECDD		0.0522 U	0.0476 U	0.0524 U	0.0481 U	0.0521 U	0.0543 U	0.0511 U	0.0509 U	0.0516 U	NA	0.0523 U	0.0487 U
1,2,3,7,8-PECDF		0.0522 U	0.0476 U	0.0524 U	0.0481 U	0.0521 U	0.0543 U	0.0511 U	0.0509 U	0.0516 U	NA	0.0523 U	0.0487 U
2,3,4,6,7,8-HXCDF		0.0522 U	0.0476 U	0.0524 U	0.0481 U	0.0521 U	0.0543 U	0.0511 U	0.0509 U	0.0516 U	NA	0.0523 U	0.0487 U
2,3,4,7,8-PECDF		0.0522 U	0.0476 U	0.0524 U	0.0481 U	0.0521 U	0.0543 U	0.0511 U	0.0509 U	0.0516 U	NA	0.0523 U	0.0487 U
2,3,7,8-TCDD		0.0104 U	0.00951 U	0.0105 U	0.00962 U	0.0104 U	0.0109 U	0.0102 U	0.0102 U	0.0104 U	NA	0.0105 U	0.00974 U
2,3,7,8-TCDF		0.0104 U	0.00951 U	0.0105 U	0.00962 U	0.0104 U	0.0109 U	0.0102 U	0.0102 U	0.0104 U	NA	0.0105 U	0.00974 U
TOTAL HPCDD		0.0522 U	0.0476 U	0.0524 U	0.0481 U	0.0521 U	0.0543 U	0.0511 U	0.0509 U	0.0516 U	NA	0.0523 U	0.0487 U
TOTAL HPCDF		0.0522 U	0.0476 U	0.0524 U	0.0481 U	0.0521 U	0.0543 U	0.0511 U	0.0509 U	0.0516 U	NA	0.0523 U	0.0487 U
TOTAL HXCDD		0.0522 U	0.0476 U	0.0524 U	0.0481 U	0.0521 U	0.0543 U	0.0511 U	0.0509 U	0.0516 U	NA	0.0523 U	0.0487 U

BLACK SHADING-EXCEEDS AT LEAST ONE CRITERION; GRAY SHADING-DETECTED;
U-NOT DETECTED; J-QUANTITATION APPROXIMATE; R-REJECTED; NA-NOT ANALYZED

TABLE F-2
GROUNDWATER ANALYTICAL RESULTS
WEST GATE LANDFILL
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS

SAMPLE ID		WGL-GW-MW2-063009	WGL-GW-MW3-062909	WGL-GW-MW4-063009	WGL-GW-MW101-062909	WGL-GW-MW102-062909	WGL-GW-MW103-062909	WGL-GW-MW38-063009	WGL-GW-MW39-063009	WGL-GW-MW405-063009-AVG	WGL-GW-MW40S-063009-AVG	WGL-GW-MW48D2-063009	WGL-GW-MW48D-063009-AVG
LOCATION ID		WGL-MW-02	WGL-MW-03	WGL-MW-04	WGL-MW-101	WGL-MW-102	WGL-MW-103	WGL-MW-38	WGL-MW-39	WGL-MW-405	WGL-MW-40S	WGL-MW-48D2	WGL-MW-48D
SAMPLE DATE		06/30/09	06/29/09	06/30/09	06/29/09	06/29/09	06/29/09	06/30/09	06/30/09	06/30/09	06/30/09	06/30/09	06/30/09
TOP DEPTH (FT)													
BOTTOM DEPTH (FT)													
SACODE		NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	AVG	AVG	NORMAL	AVG
QC TYPE	PAL	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
TOTAL HXCDF		0.0522 U	0.0476 U	0.0524 U	0.0481 U	0.0521 U	0.0543 U	0.0511 U	0.0509 U	0.0516 U	NA	0.0523 U	0.0487 U
TOTAL PECDD		0.0522 U	0.0476 U	0.0524 U	0.0481 U	0.0521 U	0.0543 U	0.0511 U	0.0509 U	0.0516 U	NA	0.0523 U	0.0487 U
TOTAL PECDF		0.0522 U	0.0476 U	0.0524 U	0.0481 U	0.0521 U	0.0543 U	0.0511 U	0.0509 U	0.0516 U	NA	0.0523 U	0.0487 U
TOTAL TCDD		0.0104 U	0.00951 U	0.0105 U	0.00962 U	0.0104 U	0.0109 U	0.0102 U	0.0102 U	0.0104 U	NA	0.0105 U	0.00974 U
TOTAL TCDF		0.0104 U	0.00951 U	0.0105 U	0.00962 U	0.0104 U	0.0109 U	0.0102 U	0.0102 U	0.0104 U	NA	0.0105 U	0.00974 U

BLACK SHADING-EXCEEDS AT LEAST ONE CRITERION; GRAY SHADING-DETECTED;
U-NOT DETECTED; J-QUANTITATION APPROXIMATE; R-REJECTED; NA-NOT ANALYZED

APPENDIX G
DATA VALIDATION RECORDS
SOUTH WEYMOUTH NAS SOUTH GATE LANDFILL
PRE-REMEDIAL DESIGN INVESTIGATION
CTO 407

Lucy Guzman
Tetra Tech Nus, Inc.
55 Jonspin Rd.
Wilmington, MA 01887

Report Number: G330-40

Client Project: CTO 407, N6242-04-D-0055, West Gate Landfill

Dear Lucy Guzman,

Enclosed are the results of the analytical services performed under the referenced project for the received samples and associated QC as applicable. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of five years in the event they are required for future reference. Any samples submitted to our laboratory will be retained for a maximum of thirty (30) days from the date of this report unless other arrangements are requested.

If there are any questions about the report or services performed during this project, please call Linda McWhirter at (910) 350-1903. We will be happy to answer any questions or concerns which you may have.

Thank you for using SGS Environmental Services for your analytical services. We look forward to working with you again on any additional analytical needs.

Sincerely,
SGS North America, Inc.

7/13/09

Project Manager
Linda McWhirter

Date

Paradigm Analytical Laboratories, Inc. | 5500 Business Dr., Wilmington, NC 28405 t (910) 350-1903 f (910) 350-1557 www.us.sgs.com
Member of the SGS Group

Case Narrative
SGS Project: **G330-40**
Project Name: **CTO407**
Site Name: **West Gate Landfill**
Contract Number: **N62472-04-D-0055**
Project Manager: **Phoebe Call**

For Method: 8290

- The submitted samples were accepted into the lab on June 12th, 2009 and extracted between June 18th, 2009 and July 7th, 2009 by methods 3520C and 3540C. The sample extracts and associated QC extracts were then processed through clean-up as prescribed in the SGS standard operating procedures and analyzed by HRGC/HRMS for method 8290.

- The reported recoveries of the Extraction Standards for sample **WGL-SD-SD108-000.6** are below the method's QC control limits due to matrix interferences. The sample was re-extracted 3 times with similar results. The results of the original analysis are being reported with this SDG.

- The OPR associated with WG17152 has a recovery for $^{13}C_{12}$-1,2,3,4,7,8, 9-HpCDF which is above the laboratory's recommended QC limits. Clean-up standards are not required by Method 8290 and are used by the laboratory for informational purposes only.

- The reported recovery of $^{13}C_{12}$-OCDD for sample **WGL-SD-SD111-000.6 MSD** is below the recommended QC limits. The associated data is considered valid based on favorable signal to noise and EDL recoveries.

- Sample **WGL-SD-SD101-000.6** was re-extracted at a lesser amount due to matrix interferences.

- The reported concentrations for sample **WGL-SD-SD112-000.6** are based on 100% solids. The sample aliquot was dried inside the hood overnight to completely remove any moisture prior to extraction.

Tamara Morgan 7-13-09
Tamara Morgan Date
Data Validation

Table of Contents

Section 1: Cover Letter/Case Narrative

Contains the Table of Contents, a project narrative, the client and SGS project identifiers, the number and type of samples, the methodology used to process the samples, and a summary table of sample results. A listing of current certifications by state, a table of abbreviations and qualifiers and the Toxic Equivalent Factors (TEF) are also supplied.

Section 2: Project Information

Contains the chain-of-custody(s), internal chain-of-custody(s) if applicable, sample login summary, sample receipt checklist, and any other project/client specific information.

Section 3: Sample Analytical Results

Contains results for client samples. Sample results include two pages of summarized analytical data and the associated raw data. The raw data includes a quantitation report from the instrumentation used that lists, ion areas, ratios, retention times, concentrations, and signal-to-noise ratios. It also has the selected ion current profiles (SICPs) for all homolog groups and any manual integrations.

Section 4: Quality Control Analytical Results

Contains results for each analytical workgroup associated with the submitted samples. A workgroup consists of the Lab Method Blank (LMB) and the Ongoing Precision and Recovery sample (OPR). All sample preparation data, including dry weight determinations, extraction logs, clean-up logs and observation notes are also documented. Any other supporting QC data will be documented here upon client request.

Section 5: Initial Calibration

Contains a table summarizing calibration data such as relative response factors, concentrations, and percent relative standard deviation. This section also contains related daily instrument QC information: GC performance data, mass resolution check, windows defining mix, and SICPs for all homolog groups and any manual integrations as well as the injection prep and instrument run logs.

Section 6: Continuing Calibration Data

Contains all daily instrument quality control information. This includes mass resolution checks, a table summarizing the window defining peaks, SICPs for the first and last eluters for each homolog group, SICPs documenting GC performance, a summary quantitation report showing RRFs for the Ccal and Ical, and SICPs for all homolog groups and any manual integrations, injection prep and instrumentation runlogs.

List of Qualifiers: Dioxin's

B Analyte was detected in the Lab Method Blank at a level above the Reporting Limit.

EDL "Estimated Detection Limit"

EMPC "Estimated Maximum Possible Concentration"

RL Report Limit

CL Control Limit

U Undetected

ppt Parts-per-trillion (pg/g; ng/L)

V Recovery is below quality control limit. The data has been validated based on a favorable signal-to-noise and detection limit.

Outside quality control limits

* Indicates that the ion-ratio fails high or low; analyte reported as an EMPC

An average uncertainty of 30% can be routinely achieved as concluded from the evaluation of HRGC-HRMS standard operating procedures. The following flags warn the data user of situations where the uncertainty may be greater than stated.

A Amount detected is less than the Lower Method Calibration Limit.

J Amount detected is between the Method Detection Limit and the Lower Calibration Limit.

O The recovery of this analyte in the OPR is above the Method QC Limits and the reported concentration in the sample may be biased high.

E Amount detected is greater than the Upper Calibration Limit.

S The amount of analyte present has saturated the detector. This situation results in an underestimation of the affected analyte(s).

Q Indicates the presence of a quantitative interference. This situation may result in an underestimation of the affected analyte(s).

I Indicates the presence of a qualitative interference that could cause a false positive or an overestimation of the affected analyte(s).

DPE Indicates the presence of a peak in the polychlorinated diphenylether channel that could cause a false positive or an overestimation of the affected analyte(s).

DC250.081908.1

Toxic Equivalency Factors

Analyte	WHO* 1998	WHO* 2005	International-89	MADEP+
2,3,7,8-TCDD	1	1	1	1
1,2,3,7,8-PeCDD	1	1	0.5	0.5
1,2,3,4,7,8-HxCDD	0.1	0.1	0.1	0.1
1,2,3,6,7,8-HxCDD	0.1	0.1	0.1	0.1
1,2,3,7,8,9-HxCDD	0.1	0.1	0.1	0.1
1,2,3,4,6,7,8-HpCDD	0.01	0.01	0.01	0.1
OCDD	0.0001	0.0003	0.001	0.001
2,3,7,8-TCDF	0.1	0.1	0.1	0.1
1,2,3,7,8-PeCDF	0.05	0.03	0.05	0.5
2,3,4,7,8-PeCDF	0.5	0.3	0.5	0.5
1,2,3,4,7,8-HxCDF	0.1	0.1	0.1	0.1
1,2,3,6,7,8-HxCDF	0.1	0.1	0.1	0.1
2,3,4,6,7,8-HxCDF	0.1	0.1	0.1	0.1
1,2,3,7,8,9-HxCDF	0.1	0.1	0.1	0.1
1,2,3,4,6,7,8-HpCDF	0.01	0.01	0.01	0.1
1,2,3,4,7,8,9-HpCDF	0.01	0.01	0.01	0.1
OCDF	0.0001	0.0003	0.001	0.001

* World Health Organization
+ Massachusetts Department of Environmental Protection

Method 8290
WGL-SD-SD103-000.6
Tetra Tech Nus, Inc.

Analytical Data Summary Sheet

Analyte	Amount pg/g	MDL pg/g	RL pg/g	EMPC pg/g	RT (min.)	Ratio		Qualifier
2,3,7,8-TCDD	**2.43**	0.257	2.16		30:22	0.78		
1,2,3,7,8-PeCDD	**5.30**	0.599	10.8		33:37	1.68		J
1,2,3,4,7,8-HxCDD	EMPC	0.911	10.8	4.83	36:07	1.47	*	J
1,2,3,6,7,8-HxCDD	**9.82**	0.891	10.8		36:12	1.18		J
1,2,3,7,8,9-HxCDD	**8.00**	0.572	10.8		36:25	1.30		J
1,2,3,4,6,7,8-HpCDD	**130**	0.891	10.8		39:19	1.06		
OCDD	**810**	1.95	21.6		43:25	0.90		
2,3,7,8-TCDF	**12.7**	0.222	2.16		29:28	0.79		
1,2,3,7,8-PeCDF	**7.29**	0.688	10.8		32:49	1.51		DPEJ
2,3,4,7,8-PeCDF	**16.4**	0.687	10.8		33:25	1.67		
1,2,3,4,7,8-HxCDF	**15.1**	1.04	10.8		35:25	1.29		
1,2,3,6,7,8-HxCDF	**9.18**	0.297	10.8		35:31	1.26		J
2,3,4,6,7,8-HxCDF	**11.0**	0.665	10.8		36:00	1.32		
1,2,3,7,8,9-HxCDF	**1.49**	0.644	10.8		36:43	1.29		QJ
1,2,3,4,6,7,8-HpCDF	**51.4**	1.21	10.8		38:09	1.04		
1,2,3,4,7,8,9-HpCDF	**3.88**	1.21	10.8		39:57	0.96		J
OCDF	**63.5**	1.53	21.6		43:40	0.87		
Total TCDDs	**82.6**	0.257	2.16	91.9				Q
Total PeCDDs	**85.7**	0.599	10.8					Q
Total HxCDDs	**127**	0.572	10.8	131				Q
Total HpCDDs	**258**	0.891	10.8					
Total TCDFs	**331**	0.222	2.16					Q
Total PeCDFs	**213**	0.687	10.8					DPE Q
Total HxCDFs	**128**	0.297	10.8					Q
Total HpCDFs	**84.6**	1.21	10.8					
WHO-2005 TEQ (ND=0)	**21.7**			22.2				
WHO-2005 TEQ (ND=½)	**21.8**			22.2				

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Dry	
			Matrix:	Sediment	
Sample ID:	WGL-SD-SD103-000.6		Weight / Volume:	24.20	g
			Solids / Lipids:	19.2	%
			Original pH :	NA	
Laboratory Information			Batch ID:	WG17152	
Project ID:	G330-40		Instrument:	HRMS1	
Sample ID:	G330-40-1B		Filename:	a19jun09a-5	
Collection Date/Time:	06/11/09	9:15	Retchk:	a19jun09a-1	
Receipt Date/Time:	06/12/09	10:00	Begin ConCal:	a19jun09a-1	
Extraction Date:	06/18/09		End ConCal:	a19jun09a-15	
Analysis Date/Time:	06/19/09	19:35	Initial Cal:	m8290-100708a	

Method 8290
WGL-SD-SD103-000.6
Tetra Tech Nus, Inc.

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)		Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards							
13C12-2,3,7,8-TCDD	2	1.08		54.0	30:22	0.79	
13C12-1,2,3,7,8-PeCDD	2	1.27		63.5	33:36	1.58	
13C12-1,2,3,6,7,8-HxCDD	2	1.15		57.7	36:10	1.25	
13C12-1,2,3,4,6,7,8-HpCDD	2	1.36		68.0	39:19	1.05	
13C12-OCDD	4.0	2.20		54.9	43:24	0.89	
13C12-2,3,7,8-TCDF	2	1.18		58.8	29:27	0.80	
13C12-1,2,3,7,8-PeCDF	2	1.21		60.7	32:49	1.57	
13C12-1,2,3,6,7,8-HxCDF	2	1.21		60.3	35:31	0.53	
13C12-1,2,3,4,6,7,8-HpCDF	2	1.23		61.4	38:09	0.44	
Cleanup Standards							
37Cl4-2,3,7,8-TCDD	0.4	0.359		89.6	30:24	-	
13C12-2,3,4,7,8-PeCDF	0.4	0.401		100	33:25	1.60	
13C12-1,2,3,4,7,8-HxCDD	0.4	0.443		111	36:06	1.24	
13C12-1,2,3,4,7,8-HxCDF	0.4	0.324		81.0	35:24	0.52	
13C12-1,2,3,4,7,8,9-HpCDF	0.4	0.454		113	39:55	0.45	
Injection Standards							
13C12-1,2,3,4-TCDD	2.0	-		-	29:36	0.79	
13C12-1,2,3,7,8,9-HxCDD	2.0	-		-	36:25	1.25	

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Dry	
			Matrix:	Sediment	
Sample ID:	WGL-SD-SD103-000.6		Weight / Volume:	24.20	g
			Solids / Lipids:	19.2	%
			Original pH :	NA	
Laboratory Information			Batch ID:	WG17152	
Project ID:	G330-40		Instrument:	HRMS1	
Sample ID:	G330-40-1B		Filename:	a19jun09a-5	
Collection Date/Time:	06/11/09	9:15	Retchk:	a19jun09a-1	
Receipt Date/Time:	06/12/09	10:00	Begin ConCal:	a19jun09a-1	
Extraction Date:	06/18/09		End ConCal:	a19jun09a-15	
Analysis Date/Time:	06/19/09	19:35	Initial Cal:	m8290-100708a	

Form Version:[8290]Report

Analyzed by: DS
Date: 7-2-09

Reviewed by: [illegible]
Date: 7/2/09

TCDF Confirmation - Method 8290

WGL-SD-SD103-000.6

Tetra Tech Nus, Inc.

Analytical Data Summary Sheet

Analyte	Adj. MDL (pg/g)	Amount (pg/g)	Adj. RL (pg/g)	EMPC (pg/g)	RT (min.)	Ratio	Qualifier
2,3,7,8-TCDF	0.222	12.1	2.15		20.38	0.80	

Labeled Standard	Spiked Amount (ng)	RT (min.)	Ratio	Qualifier
Extraction Standards				
13C12-2,3,7,8-TCDF	2	20.37	0.76	

Client Information		**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate	Report Basis:	Dry	
		Matrix:	Sediment	
Sample ID:	WGL-SD-SD103-000.6	Weight / Volume:	24.20	g
		Solids / Lipids:	19.16	%
		Original pH :	NA	
Laboratory Information		Batch ID:	WG17152	
Project ID:	G330-40	Instrument:	hrms3	
Sample ID:	G330-40-1B	Filename:	c22jun09d-16	
Collection Date/Time:	06/11/09 9:15	Retchk:	c22jun09d-2	
Receipt Date:	06/12/09 10:00	Begin ConCal:	c22jun09d-13	
Extraction Date:	06/18/09	End ConCal:	c22jun09d-23	
Analysis Date/Time:	06/22/09 17:22	Initial Cal:	mcf-c042709a	

Analyzed by: DMP

Date: 070109

Reviewed by: TM

Date: 7-1-09

Method 8290
WGL-SD-SD102-000.6
Tetra Tech Nus, Inc.

Analytical Data Summary Sheet

Analyte	Amount pg/g	MDL pg/g	RL pg/g	EMPC pg/g	RT (min.)	Ratio		Qualifier
2,3,7,8-TCDD	**1.20**	0.246	2.06		30:22	0.66		J
1,2,3,7,8-PeCDD	**4.15**	0.573	10.3		33:37	1.66		J
1,2,3,4,7,8-HxCDD	**3.89**	0.871	10.3		36:06	1.37		J
1,2,3,6,7,8-HxCDD	**6.70**	0.852	10.3		36:10	1.29		J
1,2,3,7,8,9-HxCDD	**6.22**	0.547	10.3		36:25	1.14		J
1,2,3,4,6,7,8-HpCDD	**84.4**	0.852	10.3		39:19	1.03		
OCDD	**540**	1.87	20.6		43:25	0.89		
2,3,7,8-TCDF	**5.83**	0.212	2.06		29:28	0.83		
1,2,3,7,8-PeCDF	**7.31**	0.657	10.3		32:49	1.59		DPEJ
2,3,4,7,8-PeCDF	**17.2**	0.656	10.3		33:25	1.60		
1,2,3,4,7,8-HxCDF	**12.7**	0.992	10.3		35:25	1.18		
1,2,3,6,7,8-HxCDF	**8.44**	0.284	10.3		35:31	1.15		J
2,3,4,6,7,8-HxCDF	**11.7**	0.636	10.3		35:58	1.17		
1,2,3,7,8,9-HxCDF	EMPC	0.616	10.3	1.89	36:43	1.45	*	QJ
1,2,3,4,6,7,8-HpCDF	**43.3**	1.16	10.3		38:09	1.03		
1,2,3,4,7,8,9-HpCDF	**3.21**	1.16	10.3		39:57	1.06		J
OCDF	**51.6**	1.46	20.6		43:40	0.92		
Total TCDDs	**76.5**	0.246	2.06	77.2				Q
Total PeCDDs	**74.4**	0.573	10.3	75.1				Q
Total HxCDDs	**112**	0.547	10.3					Q
Total HpCDDs	**172**	0.852	10.3					
Total TCDFs	**268**	0.212	2.06	275				Q
Total PeCDFs	**201**	0.656	10.3					DPE Q
Total HxCDFs	**117**	0.284	10.3	122				Q
Total HpCDFs	**65.1**	1.16	10.3					
WHO-2005 TEQ (ND=0)	**17.8**			18.0				
WHO-2005 TEQ (ND=½)	**17.8**			18.0				

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Dry	
			Matrix:	Sediment	
Sample ID:	WGL-SD-SD102-000.6		Weight / Volume:	24.21	g
			Solids / Lipids:	20.0	%
			Original pH :	NA	
Laboratory Information			Batch ID:	WG17152	
Project ID:	G330-40		Instrument:	HRMS1	
Sample ID:	G330-40-2B		Filename:	a19jun09a-6	
Collection Date/Time:	06/11/09	8:15	Retchk:	a19jun09a-1	
Receipt Date/Time:	06/12/09	10:00	Begin ConCal:	a19jun09a-1	
Extraction Date:	06/18/09		End ConCal:	a19jun09a-15	
Analysis Date/Time:	06/19/09	20:23	Initial Cal:	m8290-100708a	

Method 8290
WGL-SD-SD102-000.6
Tetra Tech Nus, Inc.

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)		Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards							
13C12-2,3,7,8-TCDD	2	1.08		54.2	30:22	0.79	
13C12-1,2,3,7,8-PeCDD	2	1.26		62.9	33:36	1.59	
13C12-1,2,3,6,7,8-HxCDD	2	1.16		58.2	36:10	1.25	
13C12-1,2,3,4,6,7,8-HpCDD	2	1.27		63.4	39:19	1.05	
13C12-OCDD	4.0	2.16		53.9	43:22	0.90	
13C12-2,3,7,8-TCDF	2	1.17		58.6	29:27	0.79	
13C12-1,2,3,7,8-PeCDF	2	1.23		61.6	32:49	1.58	
13C12-1,2,3,6,7,8-HxCDF	2	1.13		56.7	35:30	0.52	
13C12-1,2,3,4,6,7,8-HpCDF	2	1.20		60.2	38:09	0.44	
Cleanup Standards							
37Cl4-2,3,7,8-TCDD	0.4	0.430		108	30:24	-	
13C12-2,3,4,7,8-PeCDF	0.4	0.455		114	33:25	1.58	
13C12-1,2,3,4,7,8-HxCDD	0.4	0.375		93.8	36:04	1.25	
13C12-1,2,3,4,7,8-HxCDF	0.4	0.388		97.1	35:24	0.51	
13C12-1,2,3,4,7,8,9-HpCDF	0.4	0.461		115	39:55	0.40	
Injection Standards							
13C12-1,2,3,4-TCDD	2.0	-		-	29:36	0.79	
13C12-1,2,3,7,8,9-HxCDD	2.0	-		-	36:24	1.25	

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Dry	
			Matrix:	Sediment	
Sample ID:	WGL-SD-SD102-000.6		Weight / Volume:	24.21	g
			Solids / Lipids:	20.0	%
			Original pH :	NA	
Laboratory Information			Batch ID:	WG17152	
Project ID:	G330-40		Instrument:	HRMS1	
Sample ID:	G330-40-2B		Filename:	a19jun09a-6	
Collection Date/Time:	06/11/09	8:15	Retchk:	a19jun09a-1	
Receipt Date/Time:	06/12/09	10:00	Begin ConCal:	a19jun09a-1	
Extraction Date:	06/18/09		End ConCal:	a19jun09a-15	
Analysis Date/Time:	06/19/09	20:23	Initial Cal:	m8290-100708a	

Form Version:[8290]Report

Analyzed by: DS
Date: 7-2-09

Reviewed by: UD
Date: 7/2/09

TCDF Confirmation - Method 8290
WGL-SD-SD102-000.6
Tetra Tech Nus, Inc.

Analytical Data Summary Sheet

Analyte	Adj. MDL (pg/g)	Amount (pg/g)	Adj. RL (pg/g)	EMPC (pg/g)	RT (min.)	Ratio	Qualifier
2,3,7,8-TCDF	0.213	6.72	2.07		20.38	0.75	

Labeled Standard	Spiked Amount (ng)	RT (min.)	Ratio	Qualifier
Extraction Standards				
13C12-2,3,7,8-TCDF	2	20.36	0.76	

Client Information		**Sample Information**	
Project Name:	CTO 407, N6242-04-D-0055, West Gate	Report Basis:	Dry
		Matrix:	Sediment
Sample ID:	WGL-SD-SD102-000.6	Weight / Volume:	24.21 g
		Solids / Lipids:	20.04 %
		Original pH :	NA
Laboratory Information		Batch ID:	WG17152
Project ID:	G330-40	Instrument:	hrms3
Sample ID:	G330-40-2B	Filename:	c22jun09d-17
Collection Date/Time:	06/11/09 8:15	Retchk:	c22jun09d-2
Receipt Date:	06/12/09 10:00	Begin ConCal:	c22jun09d-13
Extraction Date:	06/18/09	End ConCal:	c22jun09d-23
Analysis Date/Time:	06/22/09 17:47	Initial Cal:	mcf-c042709a

Analyzed by: [illegible]
Date: 070109

Reviewed by: TM
Date: 7-1-09

Method 8290
WGL-SD-SD101-000.6
Tetra Tech Nus, Inc.

Analytical Data Summary Sheet

Analyte	Amount pg/g	MDL pg/g	RL pg/g	EMPC pg/g	RT (min.)	Ratio		Qualifier
2,3,7,8-TCDD	ND	0.472	3.96					
1,2,3,7,8-PeCDD	EMPC	1.10	19.8	2.21	33:16	2.38	*	J
1,2,3,4,7,8-HxCDD	EMPC	1.67	19.8	2.76	35:42	1.48	*	J
1,2,3,6,7,8-HxCDD	**4.53**	1.64	19.8		35:46	1.25		J
1,2,3,7,8,9-HxCDD	**4.64**	1.05	19.8		36:00	1.42		J
1,2,3,4,6,7,8-HpCDD	**73.6**	1.64	19.8		38:48	1.03		
OCDD	**574**	3.59	39.6		42:40	0.89		
2,3,7,8-TCDF	**7.47**	0.407	3.96		28:43	0.80		
1,2,3,7,8-PeCDF	**4.62**	1.26	19.8		32:31	1.61		DPEJ
2,3,4,7,8-PeCDF	**8.21**	1.26	19.8		33:06	1.68		J
1,2,3,4,7,8-HxCDF	**7.06**	1.91	19.8		35:01	1.31		J
1,2,3,6,7,8-HxCDF	**4.82**	0.545	19.8		35:07	1.13		J
2,3,4,6,7,8-HxCDF	**5.78**	1.22	19.8		35:34	1.32		J
1,2,3,7,8,9-HxCDF	**1.88**	1.18	19.8		36:16	1.09		J
1,2,3,4,6,7,8-HpCDF	**23.2**	2.23	19.8		37:40	1.06		
1,2,3,4,7,8,9-HpCDF	ND	2.23	19.8					
OCDF	**32.9**	2.81	39.6		42:54	0.87		J
Total TCDDs	**140**	0.472	3.96					
Total PeCDDs	**41.7**	1.10	19.8	48.7				Q
Total HxCDDs	**85.4**	1.05	19.8	88.2				
Total HpCDDs	**146**	1.64	19.8					
Total TCDFs	**381**	0.407	3.96	386				
Total PeCDFs	**99.8**	1.26	19.8	106				DPE Q
Total HxCDFs	**69.5**	0.545	19.8					
Total HpCDFs	**41.7**	2.23	19.8					
WHO-2005 TEQ (ND=0)	**7.37**			9.86				
WHO-2005 TEQ (ND=½)	**9.10**			10.5				

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Dry	
			Matrix:	Sediment	
Sample ID:	WGL-SD-SD101-000.6		Weight / Volume:	11.55	g
			Solids / Lipids:	21.9	%
			Original pH :	NA	
Laboratory Information			Batch ID:	WG17182	
Project ID:	G330-40		Instrument:	HRMS1	
Sample ID:	G330-40-3F		Filename:	a08jul09b-5	
Collection Date/Time:	06/11/09	8:00	Retchk:	a08jul09b-1	
Receipt Date/Time:	06/12/09	10:00	Begin ConCal:	a08jul09b-1	
Extraction Date:	07/07/09		End ConCal:	a08jul09b-15	
Analysis Date/Time:	07/08/09	18:59	Initial Cal:	m8290-100708a	

Method 8290
WGL-SD-SD101-000.6
Tetra Tech Nus, Inc.

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)		Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards							
13C12-2,3,7,8-TCDD	2	1.20		60.0	29:39	0.79	
13C12-1,2,3,7,8-PeCDD	2	1.40		70.2	33:16	1.59	
13C12-1,2,3,6,7,8-HxCDD	2	1.32		66.0	35:46	1.26	
13C12-1,2,3,4,6,7,8-HpCDD	2	1.33		66.6	38:46	1.06	
13C12-OCDD	4.0	2.60		65.0	42:39	0.91	
13C12-2,3,7,8-TCDF	2	1.28		64.1	28:43	0.80	
13C12-1,2,3,7,8-PeCDF	2	1.42		71.2	32:31	1.58	
13C12-1,2,3,6,7,8-HxCDF	2	1.38		69.2	35:07	0.53	
13C12-1,2,3,4,6,7,8-HpCDF	2	1.37		68.7	37:39	0.45	
Cleanup Standards							
37Cl4-2,3,7,8-TCDD	0.4	0.388		97.0	29:40	-	
13C12-2,3,4,7,8-PeCDF	0.4	0.436		109	33:06	1.60	
13C12-1,2,3,4,7,8-HxCDD	0.4	0.467		117	35:40	1.27	
13C12-1,2,3,4,7,8-HxCDF	0.4	0.452		113	35:01	0.51	
13C12-1,2,3,4,7,8,9-HpCDF	0.4	0.405		101	39:22	0.45	
Injection Standards							
13C12-1,2,3,4-TCDD	2.0	-		-	28:52	0.80	
13C12-1,2,3,7,8,9-HxCDD	2.0	-		-	36:00	1.26	

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Dry	
			Matrix:	Sediment	
Sample ID:	WGL-SD-SD101-000.6		Weight / Volume:	11.55	g
			Solids / Lipids:	21.9	%
			Original pH :	NA	
Laboratory Information			Batch ID:	WG17182	
Project ID:	G330-40		Instrument:	HRMS1	
Sample ID:	G330-40-3F		Filename:	a08jul09b-5	
Collection Date/Time:	06/11/09	8:00	Retchk:	a08jul09b-1	
Receipt Date/Time:	06/12/09	10:00	Begin ConCal:	a08jul09b-1	
Extraction Date:	07/07/09		End ConCal:	a08jul09b-15	
Analysis Date/Time:	07/08/09	18:59	Initial Cal:	m8290-100708a	

Form Version:[8290]Report

Analyzed by: DS
Date: 7-9-09

Reviewed by: [illegible]
Date: 7-13-09

TCDF Confirmation - Method 8290
WGL-SD-SD101-000.6
Tetra Tech Nus, Inc.

Analytical Data Summary Sheet

Analyte	Adj. MDL (pg/g)	Amount (pg/g)	Adj. RL (pg/g)	EMPC (pg/g)	RT (min.)	Ratio	Qualifier
2,3,7,8-TCDF	0.407	7.360	3.95		20.02	0.84	

Labeled Standard	Spiked Amount (ng)	RT (min.)	Ratio	Qualifier
Extraction Standards				
13C12-2,3,7,8-TCDF	2	20.01	0.76	

Client Information		**Sample Information**	
Project Name:	CTO 407, N6242-04-D-0055, West Gate	Report Basis:	Dry
		Matrix:	Sediment
Sample ID:	WGL-SD-SD101-000.6	Weight / Volume:	11.55 g
		Solids / Lipids:	21.85 %
		Original pH :	NA
Laboratory Information		Batch ID:	WG17182
Project ID:	G330-40	Instrument:	hrms3
Sample ID:	G330-40-3F	Filename:	c09jul09b-4
Collection Date/Time:	06/11/09 8:00	Retchk:	c09jul09b-2
Receipt Date:	06/12/09 10:00	Begin ConCal:	c09jul09b-1
Extraction Date:	07/07/09	End ConCal:	c09jul09b-7
Analysis Date/Time:	07/09/09 13:54	Initial Cal:	mcf-c042709a

Analyzed by: JWP
Date: 071009

Reviewed by: TM
Date: 7-10-09

Method 8290
WGL-SD-DUP01-061109
Tetra Tech Nus, Inc.

Analytical Data Summary Sheet

Analyte	Amount pg/g	MDL pg/g	RL pg/g	EMPC pg/g	RT (min.)	Ratio		Qualifier
2,3,7,8-TCDD	EMPC	0.257	2.16	0.751	30:22	0.49	*	J
1,2,3,7,8-PeCDD	**2.37**	0.600	10.8		33:36	1.77		J
1,2,3,4,7,8-HxCDD	**2.71**	0.912	10.8		36:04	1.26		J
1,2,3,6,7,8-HxCDD	**5.04**	0.892	10.8		36:10	1.18		J
1,2,3,7,8,9-HxCDD	**4.57**	0.573	10.8		36:25	1.23		J
1,2,3,4,6,7,8-HpCDD	**62.6**	0.892	10.8		39:19	1.07		
OCDD	**444**	1.95	21.6		43:24	0.90		
2,3,7,8-TCDF	**4.32**	0.222	2.16		29:27	0.88		
1,2,3,7,8-PeCDF	**5.09**	0.689	10.8		32:49	1.74		J
2,3,4,7,8-PeCDF	**11.5**	0.687	10.8		33:25	1.45		
1,2,3,4,7,8-HxCDF	**8.64**	1.04	10.8		35:25	1.18		J
1,2,3,6,7,8-HxCDF	**6.05**	0.297	10.8		35:31	1.21		J
2,3,4,6,7,8-HxCDF	**8.20**	0.666	10.8		35:58	1.21		J
1,2,3,7,8,9-HxCDF	**1.71**	0.645	10.8		36:43	1.17		J
1,2,3,4,6,7,8-HpCDF	**32.4**	1.22	10.8		38:09	1.04		
1,2,3,4,7,8,9-HpCDF	**1.97**	1.21	10.8		39:57	1.01		J
OCDF	**39.8**	1.53	21.6		43:39	0.90		
Total TCDDs	**54.2**	0.257	2.16	57.8				Q
Total PeCDDs	**51.6**	0.600	10.8					Q
Total HxCDDs	**71.3**	0.573	10.8	74.3				
Total HpCDDs	**127**	0.892	10.8					
Total TCDFs	**217**	0.222	2.16	225				Q
Total PeCDFs	**139**	0.687	10.8	150				Q
Total HxCDFs	**88.2**	0.297	10.8	89.4				Q
Total HpCDFs	**48.9**	1.21	10.8					
WHO-2005 TEQ (ND=0)	**11.2**			12.0				
WHO-2005 TEQ (ND=½)	**11.9**			12.0				

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Dry	
			Matrix:	Sediment	
Sample ID:	WGL-SD-DUP01-061109		Weight / Volume:	24.43	g
			Solids / Lipids:	19.0	%
			Original pH :	NA	
Laboratory Information			Batch ID:	WG17152	
Project ID:	G330-40		Instrument:	HRMS1	
Sample ID:	G330-40-4B		Filename:	a19jun09a-8	
Collection Date/Time:	06/11/09	8:20	Retchk:	a19jun09a-1	
Receipt Date/Time:	06/12/09	10:00	Begin ConCal:	a19jun09a-1	
Extraction Date:	06/18/09		End ConCal:	a19jun09a-15	
Analysis Date/Time:	06/19/09	22:00	Initial Cal:	m8290-100708a	

Method 8290
WGL-SD-DUP01-061109
Tetra Tech Nus, Inc.

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)		Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards							
13C12-2,3,7,8-TCDD	2	1.15		57.5	30:22	0.78	
13C12-1,2,3,7,8-PeCDD	2	1.39		69.4	33:36	1.58	
13C12-1,2,3,6,7,8-HxCDD	2	1.27		63.3	36:09	1.24	
13C12-1,2,3,4,6,7,8-HpCDD	2	1.37		68.4	39:19	1.05	
13C12-OCDD	4.0	2.37		59.2	43:22	0.90	
13C12-2,3,7,8-TCDF	2	1.26		63.1	29:25	0.80	
13C12-1,2,3,7,8-PeCDF	2	1.36		68.0	32:49	1.60	
13C12-1,2,3,6,7,8-HxCDF	2	1.21		60.5	35:30	0.53	
13C12-1,2,3,4,6,7,8-HpCDF	2	1.30		65.2	38:07	0.45	
Cleanup Standards							
37Cl4-2,3,7,8-TCDD	0.4	0.423		106	30:22	-	
13C12-2,3,4,7,8-PeCDF	0.4	0.482		121	33:25	1.58	
13C12-1,2,3,4,7,8-HxCDD	0.4	0.378		94.4	36:04	1.32	
13C12-1,2,3,4,7,8-HxCDF	0.4	0.410		103	35:24	0.51	
13C12-1,2,3,4,7,8,9-HpCDF	0.4	0.488		122	39:55	0.45	
Injection Standards							
13C12-1,2,3,4-TCDD	2.0	-		-	29:36	0.79	
13C12-1,2,3,7,8,9-HxCDD	2.0	-		-	36:24	1.25	

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Dry	
			Matrix:	Sediment	
Sample ID:	WGL-SD-DUP01-061109		Weight / Volume:	24.43	g
			Solids / Lipids:	19.0	%
			Original pH :	NA	
Laboratory Information			Batch ID:	WG17152	
Project ID:	G330-40		Instrument:	HRMS1	
Sample ID:	G330-40-4B		Filename:	a19jun09a-8	
Collection Date/Time:	06/11/09	8:20	Retchk:	a19jun09a-1	
Receipt Date/Time:	06/12/09	10:00	Begin ConCal:	a19jun09a-1	
Extraction Date:	06/18/09		End ConCal:	a19jun09a-15	
Analysis Date/Time:	06/19/09	22:00	Initial Cal:	m8290-100708a	

Form Version:[8290]Report

Analyzed by: DS
Date: 7-2-09

Reviewed by: [illegible]
Date: 7/2/09

TCDF Confirmation - Method 8290
WGL-SD-DUP01-061109
Tetra Tech Nus, Inc.

Analytical Data Summary Sheet

Analyte	Adj. MDL (pg/g)	Amount (pg/g)	Adj. RL (pg/g)	EMPC (pg/g)	RT (min.)	Ratio	Qualifier
2,3,7,8-TCDF	0.222	4.75	2.15		20.39	0.80	

Labeled Standard	Spiked Amount (ng)	RT (min.)	Ratio	Qualifier
Extraction Standards				
13C12-2,3,7,8-TCDF	2	20.36	0.76	

Client Information		**Sample Information**	
Project Name:	CTO 407, N6242-04-D-0055, West Gate	Report Basis:	Dry
		Matrix:	Sediment
Sample ID:	WGL-SD-DUP01-061109	Weight / Volume:	24.43 g
		Solids / Lipids:	18.96 %
		Original pH :	NA
Laboratory Information		Batch ID:	WG17152
Project ID:	G330-40	Instrument:	hrms3
Sample ID:	G330-40-4B	Filename:	c22jun09d-18
Collection Date/Time:	06/11/09 8:20	Retchk:	c22jun09d-2
Receipt Date:	06/12/09 10:00	Begin ConCal:	c22jun09d-13
Extraction Date:	06/18/09	End ConCal:	c22jun09d-23
Analysis Date/Time:	06/22/09 18:13	Initial Cal:	mcf-c042709a

Analyzed by: JWP
Date: 070109

Reviewed by: TM
Date: 7-1-09

Method 8290
WGL-SD-SD104-000.6
Tetra Tech Nus, Inc.

Analytical Data Summary Sheet

Analyte	Amount pg/g	MDL pg/g	RL pg/g	EMPC pg/g	RT (min.)	Ratio	Qualifier
2,3,7,8-TCDD	ND	0.418	3.51				
1,2,3,7,8-PeCDD	ND	0.974	17.5				
1,2,3,4,7,8-HxCDD	ND	1.48	17.5				
1,2,3,6,7,8-HxCDD	ND	1.45	17.5				
1,2,3,7,8,9-HxCDD	ND	0.930	17.5				
1,2,3,4,6,7,8-HpCDD	**6.68**	1.45	17.5		39:22	1.00	J
OCDD	**65.1**	3.17	35.1		43:43	0.84	
2,3,7,8-TCDF	**1.23**	0.360	3.51		29:27	0.88	J
1,2,3,7,8-PeCDF	ND	1.12	17.5				
2,3,4,7,8-PeCDF	ND	1.12	17.5				
1,2,3,4,7,8-HxCDF	ND	1.69	17.5				
1,2,3,6,7,8-HxCDF	ND	0.482	17.5				
2,3,4,6,7,8-HxCDF	ND	1.08	17.5				
1,2,3,7,8,9-HxCDF	ND	1.05	17.5				
1,2,3,4,6,7,8-HpCDF	ND	1.97	17.5				
1,2,3,4,7,8,9-HpCDF	ND	1.97	17.5				
OCDF	**2.87**	2.48	35.1		43:58	0.89	J
Total TCDDs	**7.23**	0.418	3.51	21.1			Q
Total PeCDDs	**1.38**	0.974	17.5	3.11			
Total HxCDDs	**2.81**	0.930	17.5	7.16			
Total HpCDDs	**13.8**	1.45	17.5				
Total TCDFs	**18.2**	0.360	3.51				
Total PeCDFs	**4.56**	1.12	17.5	6.27			
Total HxCDFs	**3.23**	0.482	17.5	3.79			Q
Total HpCDFs	ND	1.97	17.5				
WHO-2005 TEQ (ND=0)	**0.210**			0.266			
WHO-2005 TEQ (ND=½)	**2.60**			2.57			

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Dry	
			Matrix:	Sediment	
Sample ID:	WGL-SD-SD104-000.6		Weight / Volume:	24.68	g
			Solids / Lipids:	11.6	%
			Original pH :	NA	
Laboratory Information			Batch ID:	WG17152	
Project ID:	G330-40		Instrument:	HRMS1	
Sample ID:	G330-40-5B		Filename:	a19jun09a-9	
Collection Date/Time:	06/11/09	9:30	Retchk:	a19jun09a-1	
Receipt Date/Time:	06/12/09	10:00	Begin ConCal:	a19jun09a-1	
Extraction Date:	06/18/09		End ConCal:	a19jun09a-15	
Analysis Date/Time:	06/19/09	22:48	Initial Cal:	m8290-100708a	

Method 8290
WGL-SD-SD104-000.6
Tetra Tech Nus, Inc.

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)		Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards							
13C12-2,3,7,8-TCDD	2	1.22		61.1	30:22	0.78	
13C12-1,2,3,7,8-PeCDD	2	1.48		73.9	33:36	1.60	
13C12-1,2,3,6,7,8-HxCDD	2	1.31		65.4	36:10	1.26	
13C12-1,2,3,4,6,7,8-HpCDD	2	1.40		69.8	39:22	1.06	
13C12-OCDD	4.0	2.32		58.1	43:42	0.89	
13C12-2,3,7,8-TCDF	2	1.34		67.2	29:25	0.79	
13C12-1,2,3,7,8-PeCDF	2	1.48		73.8	32:49	1.57	
13C12-1,2,3,6,7,8-HxCDF	2	1.25		62.6	35:30	0.53	
13C12-1,2,3,4,6,7,8-HpCDF	2	1.34		67.2	38:10	0.45	
Cleanup Standards							
37Cl4-2,3,7,8-TCDD	0.4	0.424		106	30:22	-	
13C12-2,3,4,7,8-PeCDF	0.4	0.481		120	33:25	1.57	
13C12-1,2,3,4,7,8-HxCDD	0.4	0.378		94.5	36:04	1.26	
13C12-1,2,3,4,7,8-HxCDF	0.4	0.388		97.0	35:24	0.51	
13C12-1,2,3,4,7,8,9-HpCDF	0.4	0.452		113	40:00	0.45	
Injection Standards							
13C12-1,2,3,4-TCDD	2.0	-		-	29:36	0.79	
13C12-1,2,3,7,8,9-HxCDD	2.0	-		-	36:24	1.26	

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Dry	
			Matrix:	Sediment	
Sample ID:	WGL-SD-SD104-000.6		Weight / Volume:	24.68	g
			Solids / Lipids:	11.6	%
			Original pH :	NA	
Laboratory Information			Batch ID:	WG17152	
Project ID:	G330-40		Instrument:	HRMS1	
Sample ID:	G330-40-5B		Filename:	a19jun09a-9	
Collection Date/Time:	06/11/09	9:30	Retchk:	a19jun09a-1	
Receipt Date/Time:	06/12/09	10:00	Begin ConCal:	a19jun09a-1	
Extraction Date:	06/18/09		End ConCal:	a19jun09a-15	
Analysis Date/Time:	06/19/09	22:48	Initial Cal:	m8290-100708a	

Form Version:[8290]Report

Analyzed by: DS
Date: 7-2-09

Reviewed by: [illegible]
Date: 7/2/09

Method 8290
WGL-SD-SD106-000.6
Tetra Tech Nus, Inc.

Analytical Data Summary Sheet

Analyte	Amount pg/g	MDL pg/g	RL pg/g	EMPC pg/g	RT (min.)	Ratio		Qualifier
2,3,7,8-TCDD	ND	0.332	2.78					
1,2,3,7,8-PeCDD	ND	0.774	13.9					
1,2,3,4,7,8-HxCDD	ND	1.18	13.9					
1,2,3,6,7,8-HxCDD	ND	1.15	13.9					
1,2,3,7,8,9-HxCDD	EMPC	0.739	13.9	1.02	36:22	1.52	*	J
1,2,3,4,6,7,8-HpCDD	**13.5**	1.15	13.9		39:19	1.12		J
OCDD	**148**	2.52	27.8		43:28	0.90		
2,3,7,8-TCDF	EMPC	0.286	2.78	1.52	29:27	0.91	*	J
1,2,3,7,8-PeCDF	ND	0.888	13.9					
2,3,4,7,8-PeCDF	**1.12**	0.886	13.9		33:25	1.58		J
1,2,3,4,7,8-HxCDF	ND	1.34	13.9					
1,2,3,6,7,8-HxCDF	**0.674**	0.383	13.9		35:31	1.10		J
2,3,4,6,7,8-HxCDF	ND	0.859	13.9					
1,2,3,7,8,9-HxCDF	ND	0.832	13.9					
1,2,3,4,6,7,8-HpCDF	**3.77**	1.57	13.9		38:09	1.05		J
1,2,3,4,7,8,9-HpCDF	ND	1.56	13.9					
OCDF	**5.08**	1.97	27.8		43:45	0.77		J
Total TCDDs	**38.0**	0.332	2.78					Q
Total PeCDDs	**9.57**	0.774	13.9	12.2				
Total HxCDDs	**16.3**	0.739	13.9	18.0				
Total HpCDDs	**26.3**	1.15	13.9					
Total TCDFs	**64.2**	0.286	2.78	66.7				Q
Total PeCDFs	**14.2**	0.886	13.9					
Total HxCDFs	**8.29**	0.383	13.9	9.76				Q
Total HpCDFs	**5.07**	1.56	13.9					
WHO-2005 TEQ (ND=0)	**0.622**			0.950				
WHO-2005 TEQ (ND=½)	**3.01**			3.17				

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Dry	
			Matrix:	Sediment	
Sample ID:	WGL-SD-SD106-000.6		Weight / Volume:	24.45	g
			Solids / Lipids:	14.7	%
			Original pH :	NA	
Laboratory Information			Batch ID:	WG17152	
Project ID:	G330-40		Instrument:	HRMS1	
Sample ID:	G330-40-6B		Filename:	a19jun09a-10	
Collection Date/Time:	06/11/09	10:15	Retchk:	a19jun09a-1	
Receipt Date/Time:	06/12/09	10:00	Begin ConCal:	a19jun09a-1	
Extraction Date:	06/18/09		End ConCal:	a19jun09a-15	
Analysis Date/Time:	06/19/09	23:36	Initial Cal:	m8290-100708a	

Method 8290
WGL-SD-SD106-000.6
Tetra Tech Nus, Inc.

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)		Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards							
13C12-2,3,7,8-TCDD	2	1.12		55.8	30:21	0.78	
13C12-1,2,3,7,8-PeCDD	2	1.35		67.7	33:36	1.58	
13C12-1,2,3,6,7,8-HxCDD	2	1.30		64.8	36:10	1.27	
13C12-1,2,3,4,6,7,8-HpCDD	2	1.39		69.6	39:19	1.05	
13C12-OCDD	4.0	2.57		64.1	43:28	0.90	
13C12-2,3,7,8-TCDF	2	1.20		60.0	29:25	0.79	
13C12-1,2,3,7,8-PeCDF	2	1.34		67.1	32:49	1.58	
13C12-1,2,3,6,7,8-HxCDF	2	1.20		59.8	35:30	0.53	
13C12-1,2,3,4,6,7,8-HpCDF	2	1.33		66.5	38:09	0.45	
Cleanup Standards							
37Cl4-2,3,7,8-TCDD	0.4	0.387		96.6	30:22	-	
13C12-2,3,4,7,8-PeCDF	0.4	0.433		108	33:25	1.60	
13C12-1,2,3,4,7,8-HxCDD	0.4	0.323		80.8	36:04	1.26	
13C12-1,2,3,4,7,8-HxCDF	0.4	0.379		94.8	35:24	0.52	
13C12-1,2,3,4,7,8,9-HpCDF	0.4	0.462		115	39:57	0.43	
Injection Standards							
13C12-1,2,3,4-TCDD	2.0	-		-	29:36	0.79	
13C12-1,2,3,7,8,9-HxCDD	2.0	-		-	36:24	1.25	

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Dry	
			Matrix:	Sediment	
Sample ID:	WGL-SD-SD106-000.6		Weight / Volume:	24.45	g
			Solids / Lipids:	14.7	%
			Original pH :	NA	
Laboratory Information			Batch ID:	WG17152	
Project ID:	G330-40		Instrument:	HRMS1	
Sample ID:	G330-40-6B		Filename:	a19jun09a-10	
Collection Date/Time:	06/11/09	10:15	Retchk:	a19jun09a-1	
Receipt Date/Time:	06/12/09	10:00	Begin ConCal:	a19jun09a-1	
Extraction Date:	06/18/09		End ConCal:	a19jun09a-15	
Analysis Date/Time:	06/19/09	23:36	Initial Cal:	m8290-100708a	

Form Version:[8290]Report

Analyzed by: DS
Date: 7-10-09

Reviewed by: [illegible]
Date: 7/21/09

Method 8290
WGL-SD-DUP02-061109
Tetra Tech Nus, Inc.

Analytical Data Summary Sheet

Analyte	Amount pg/g	MDL pg/g	RL pg/g	EMPC pg/g	RT (min.)	Ratio		Qualifier
2,3,7,8-TCDD	ND	0.382	3.21					
1,2,3,7,8-PeCDD	ND	0.892	16.0					
1,2,3,4,7,8-HxCDD	ND	1.36	16.0					
1,2,3,6,7,8-HxCDD	ND	1.33	16.0					
1,2,3,7,8,9-HxCDD	**0.879**	0.852	16.0		36:24	1.32		J
1,2,3,4,6,7,8-HpCDD	**12.6**	1.33	16.0		39:21	1.01		J
OCDD	**139**	2.90	32.1		43:31	0.89		
2,3,7,8-TCDF	**1.56**	0.330	3.21		29:27	0.80		J
1,2,3,7,8-PeCDF	ND	1.02	16.0					
2,3,4,7,8-PeCDF	EMPC	1.02	16.0	1.10	33:25	1.28	*	J
1,2,3,4,7,8-HxCDF	ND	1.54	16.0					
1,2,3,6,7,8-HxCDF	EMPC	0.441	16.0	0.648	35:30	1.58	*	J
2,3,4,6,7,8-HxCDF	ND	0.990	16.0					
1,2,3,7,8,9-HxCDF	ND	0.959	16.0					
1,2,3,4,6,7,8-HpCDF	**3.20**	1.81	16.0		38:09	1.08		J
1,2,3,4,7,8,9-HpCDF	ND	1.80	16.0					
OCDF	**4.99**	2.27	32.1		43:46	0.98		J
Total TCDDs	**32.5**	0.382	3.21	33.9				Q
Total PeCDDs	**8.27**	0.892	16.0	10.7				Q
Total HxCDDs	**14.6**	0.852	16.0	15.4				
Total HpCDDs	**25.4**	1.33	16.0					
Total TCDFs	**50.5**	0.330	3.21	56.7				Q
Total PeCDFs	**11.0**	1.02	16.0	13.9				
Total HxCDFs	**6.64**	0.441	16.0	9.01				Q
Total HpCDFs	**4.65**	1.80	16.0					
WHO-2005 TEQ (ND=0)	**0.445**			1.01				
WHO-2005 TEQ (ND=½)	**2.56**			2.62				

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Dry	
			Matrix:	Sediment	
Sample ID:	WGL-SD-DUP02-061109		Weight / Volume:	24.44	g
			Solids / Lipids:	12.8	%
			Original pH :	NA	
Laboratory Information			Batch ID:	WG17152	
Project ID:	G330-40		Instrument:	HRMS1	
Sample ID:	G330-40-7B		Filename:	a19jun09a-11	
Collection Date/Time:	06/11/09	10:20	Retchk:	a19jun09a-1	
Receipt Date/Time:	06/12/09	10:00	Begin ConCal:	a19jun09a-1	
Extraction Date:	06/18/09		End ConCal:	a19jun09a-15	
Analysis Date/Time:	06/20/09	0:25	Initial Cal:	m8290-100708a	

Method 8290
WGL-SD-DUP02-061109
Tetra Tech Nus, Inc.

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)		Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards							
13C12-2,3,7,8-TCDD	2	1.37		68.7	30:22	0.79	
13C12-1,2,3,7,8-PeCDD	2	1.69		84.3	33:36	1.58	
13C12-1,2,3,6,7,8-HxCDD	2	1.58		79.1	36:10	1.25	
13C12-1,2,3,4,6,7,8-HpCDD	2	1.75		87.3	39:19	1.05	
13C12-OCDD	4.0	3.02		75.4	43:30	0.90	
13C12-2,3,7,8-TCDF	2	1.48		74.2	29:25	0.80	
13C12-1,2,3,7,8-PeCDF	2	1.67		83.7	32:49	1.59	
13C12-1,2,3,6,7,8-HxCDF	2	1.46		72.9	35:30	0.53	
13C12-1,2,3,4,6,7,8-HpCDF	2	1.66		82.9	38:09	0.45	
Cleanup Standards							
37Cl4-2,3,7,8-TCDD	0.4	0.395		98.7	30:22	-	
13C12-2,3,4,7,8-PeCDF	0.4	0.455		114	33:25	1.60	
13C12-1,2,3,4,7,8-HxCDD	0.4	0.315		78.8	36:04	1.25	
13C12-1,2,3,4,7,8-HxCDF	0.4	0.386		96.6	35:24	0.52	
13C12-1,2,3,4,7,8,9-HpCDF	0.4	0.474		118	39:57	0.45	
Injection Standards							
13C12-1,2,3,4-TCDD	2.0	-		-	29:36	0.80	
13C12-1,2,3,7,8,9-HxCDD	2.0	-		-	36:24	1.25	

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Dry	
			Matrix:	Sediment	
Sample ID:	WGL-SD-DUP02-061109		Weight / Volume:	24.44	g
			Solids / Lipids:	12.8	%
			Original pH :	NA	
Laboratory Information			Batch ID:	WG17152	
Project ID:	G330-40		Instrument:	HRMS1	
Sample ID:	G330-40-7B		Filename:	a19jun09a-11	
Collection Date/Time:	06/11/09	10:20	Retchk:	a19jun09a-1	
Receipt Date/Time:	06/12/09	10:00	Begin ConCal:	a19jun09a-1	
Extraction Date:	06/18/09		End ConCal:	a19jun09a-15	
Analysis Date/Time:	06/20/09	0:25	Initial Cal:	m8290-100708a	

Form Version:[8290]Report

Analyzed by: _____
Date: _____

Reviewed by: BD
Date: 7/2/09

Method 8290
WGL-SD-SD107-000.6
Tetra Tech Nus, Inc.

Analytical Data Summary Sheet

Analyte	Amount pg/g	MDL pg/g	RL pg/g	EMPC pg/g	RT (min.)	Ratio		Qualifier
2,3,7,8-TCDD	ND	0.220	1.85					
1,2,3,7,8-PeCDD	**2.59**	0.514	9.24		33:37	1.58		J
1,2,3,4,7,8-HxCDD	**2.22**	0.781	9.24		36:07	1.15		J
1,2,3,6,7,8-HxCDD	**3.06**	0.764	9.24		36:10	1.21		J
1,2,3,7,8,9-HxCDD	**3.49**	0.491	9.24		36:25	1.19		J
1,2,3,4,6,7,8-HpCDD	**54.0**	0.764	9.24		39:19	1.06		
OCDD	**443**	1.67	18.5		43:25	0.89		Q
2,3,7,8-TCDF	**3.89**	0.190	1.85		29:28	0.80		
1,2,3,7,8-PeCDF	**2.90**	0.589	9.24		32:49	1.76		J
2,3,4,7,8-PeCDF	**8.04**	0.588	9.24		33:25	1.59		J
1,2,3,4,7,8-HxCDF	**4.63**	0.889	9.24		35:25	1.11		J
1,2,3,6,7,8-HxCDF	**3.71**	0.254	9.24		35:31	1.35		J
2,3,4,6,7,8-HxCDF	**4.18**	0.570	9.24		36:00	1.29		J
1,2,3,7,8,9-HxCDF	EMPC	0.552	9.24	0.632	36:43	1.02	*	QJ
1,2,3,4,6,7,8-HpCDF	**17.0**	1.04	9.24		38:10	1.05		
1,2,3,4,7,8,9-HpCDF	**1.63**	1.04	9.24		39:57	0.97		J
OCDF	**21.8**	1.31	18.5		43:40	0.90		
Total TCDDs	**118**	0.220	1.85	124				Q
Total PeCDDs	**54.7**	0.514	9.24	59.0				Q
Total HxCDDs	**66.9**	0.491	9.24					
Total HpCDDs	**105**	0.764	9.24					
Total TCDFs	**253**	0.190	1.85	258				Q
Total PeCDFs	**94.5**	0.588	9.24	95.9				Q
Total HxCDFs	**47.8**	0.254	9.24					Q
Total HpCDFs	**25.5**	1.04	9.24	26.9				
WHO-2005 TEQ (ND=0)	**8.47**			8.54				
WHO-2005 TEQ (ND=½)	**8.89**			8.86				

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Dry	
			Matrix:	Sediment	
Sample ID:	WGL-SD-SD107-000.6		Weight / Volume:	24.57	g
			Solids / Lipids:	22.0	%
			Original pH :	NA	
Laboratory Information			Batch ID:	WG17152	
Project ID:	G330-40		Instrument:	HRMS1	
Sample ID:	G330-40-8B		Filename:	a19jun09a-12	
Collection Date/Time:	06/11/09	12:05	Retchk:	a19jun09a-1	
Receipt Date/Time:	06/12/09	10:00	Begin ConCal:	a19jun09a-1	
Extraction Date:	06/18/09		End ConCal:	a19jun09a-15	
Analysis Date/Time:	06/20/09	1:13	Initial Cal:	m8290-100708a	

Method 8290
WGL-SD-SD107-000.6
Tetra Tech Nus, Inc.

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)		Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards							
13C12-2,3,7,8-TCDD	2	1.17		58.7	30:24	0.79	
13C12-1,2,3,7,8-PeCDD	2	1.40		70.0	33:37	1.59	
13C12-1,2,3,6,7,8-HxCDD	2	1.26		63.1	36:10	1.25	
13C12-1,2,3,4,6,7,8-HpCDD	2	1.39		69.7	39:19	1.06	
13C12-OCDD	4.0	2.17		54.2	43:25	0.90	
13C12-2,3,7,8-TCDF	2	1.25		62.3	29:28	0.80	
13C12-1,2,3,7,8-PeCDF	2	1.33		66.5	32:49	1.59	
13C12-1,2,3,6,7,8-HxCDF	2	1.23		61.5	35:31	0.53	
13C12-1,2,3,4,6,7,8-HpCDF	2	1.30		65.1	38:09	0.45	
Cleanup Standards							
37Cl4-2,3,7,8-TCDD	0.4	0.394		98.4	30:25	-	
13C12-2,3,4,7,8-PeCDF	0.4	0.445		111	33:25	1.59	
13C12-1,2,3,4,7,8-HxCDD	0.4	0.394		98.4	36:04	1.28	
13C12-1,2,3,4,7,8-HxCDF	0.4	0.347		86.7	35:24	0.53	
13C12-1,2,3,4,7,8,9-HpCDF	0.4	0.445		111	39:55	0.42	
Injection Standards							
13C12-1,2,3,4-TCDD	2.0	-		-	29:37	0.80	
13C12-1,2,3,7,8,9-HxCDD	2.0	-		-	36:25	1.26	

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Dry	
			Matrix:	Sediment	
Sample ID:	WGL-SD-SD107-000.6		Weight / Volume:	24.57	g
			Solids / Lipids:	22.0	%
			Original pH :	NA	
Laboratory Information			Batch ID:	WG17152	
Project ID:	G330-40		Instrument:	HRMS1	
Sample ID:	G330-40-8B		Filename:	a19jun09a-12	
Collection Date/Time:	06/11/09	12:05	Retchk:	a19jun09a-1	
Receipt Date/Time:	06/12/09	10:00	Begin ConCal:	a19jun09a-1	
Extraction Date:	06/18/09		End ConCal:	a19jun09a-15	
Analysis Date/Time:	06/20/09	1:13	Initial Cal:	m8290-100708a	

Form Version:[8290]Report

Analyzed by: DS
Date: 7-2-09

Reviewed by: [illegible]
Date: 7/2/09

TCDF Confirmation - Method 8290
WGL-SD-SD107-000.6
Tetra Tech Nus, Inc.

Analytical Data Summary Sheet

Analyte	Adj. MDL (pg/g)	Amount (pg/g)	Adj. RL (pg/g)	EMPC (pg/g)	RT (min.)	Ratio	Qualifier
2,3,7,8-TCDF	0.191	3.38	1.85		20.02	0.76	

Labeled Standard	Spiked Amount (ng)	RT (min.)	Ratio	Qualifier
Extraction Standards				
13C12-2,3,7,8-TCDF	2	20.01	0.75	

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate		Report Basis:	Dry	
			Matrix:	Sediment	
Sample ID:	WGL-SD-SD107-000.6		Weight / Volume:	24.57	g
			Solids / Lipids:	22.02	%
			Original pH :	NA	
Laboratory Information			Batch ID:	WG17152	
Project ID:	G330-40		Instrument:	hrms3	
Sample ID:	G330-40-8B		Filename:	c10jul09a-10	
Collection Date/Time:	06/11/09	12:05	Retchk:	c10jul09a-2	
Receipt Date:	06/12/09	10:00	Begin ConCal:	c10jul09a-1	
Extraction Date:	06/18/09		End ConCal:	c10jul09a-11	
Analysis Date/Time:	07/10/09	15:00	Initial Cal:	mcf-c042709a	

Analyzed by: JWS
Date: 071009

Reviewed by: TM
Date: 7-13-09

Method 8290
WGL-SD-SD108-000.6
Tetra Tech Nus, Inc.

Analytical Data Summary Sheet

Analyte	Amount pg/g	MDL pg/g	RL pg/g	EMPC pg/g	RT (min.)	Ratio		Qualifier
2,3,7,8-TCDD	ND	0.187	1.57					
1,2,3,7,8-PeCDD	**1.37**	0.437	7.87		33:37	1.48		J
1,2,3,4,7,8-HxCDD	EMPC	0.665	7.87	1.48	36:04	0.98	*	J
1,2,3,6,7,8-HxCDD	**3.16**	0.650	7.87		36:10	1.16		J
1,2,3,7,8,9-HxCDD	**3.26**	0.418	7.87		36:24	1.12		J
1,2,3,4,6,7,8-HpCDD	**49.3**	0.650	7.87		39:21	1.03		
OCDD	**343**	1.42	15.7		43:31	0.88		
2,3,7,8-TCDF	EMPC	0.162	1.57	3.03	29:28	0.63	*	
1,2,3,7,8-PeCDF	**3.22**	0.502	7.87		32:49	1.37		J
2,3,4,7,8-PeCDF	**3.74**	0.501	7.87		33:25	1.50		J
1,2,3,4,7,8-HxCDF	**5.59**	0.757	7.87		35:25	1.14		QJ
1,2,3,6,7,8-HxCDF	**3.99**	0.216	7.87		35:31	1.19		QJ
2,3,4,6,7,8-HxCDF	**4.67**	0.485	7.87		35:58	1.26		J
1,2,3,7,8,9-HxCDF	**1.49**	0.470	7.87		36:43	1.29		QJ
1,2,3,4,6,7,8-HpCDF	**19.7**	0.885	7.87		38:10	1.02		
1,2,3,4,7,8,9-HpCDF	**1.62**	0.884	7.87		39:58	1.07		J
OCDF	**22.4**	1.11	15.7		43:46	0.91		
Total TCDDs	**54.3**	0.187	1.57	57.5				Q
Total PeCDDs	**32.7**	0.437	7.87	36.6				Q
Total HxCDDs	**42.5**	0.418	7.87	46.5				Q
Total HpCDDs	**103**	0.650	7.87					
Total TCDFs	**161**	0.162	1.57	168				Q DPE
Total PeCDFs	**67.7**	0.501	7.87	69.0				DPE Q
Total HxCDFs	**38.2**	0.216	7.87					Q
Total HpCDFs	**31.6**	0.884	7.87					
WHO-2005 TEQ (ND=0)	**5.62**			6.07				
WHO-2005 TEQ (ND=½)	**6.25**			6.60				

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Dry	
			Matrix:	Sediment	
Sample ID:	WGL-SD-SD108-000.6		Weight / Volume:	24.86	g
			Solids / Lipids:	25.6	%
			Original pH :	NA	
Laboratory Information			Batch ID:	WG17152	
Project ID:	G330-40		Instrument:	HRMS1	
Sample ID:	G330-40-9B		Filename:	a19jun09a-13	
Collection Date/Time:	06/11/09	12:45	Retchk:	a19jun09a-1	
Receipt Date/Time:	06/12/09	10:00	Begin ConCal:	a19jun09a-1	
Extraction Date:	06/18/09		End ConCal:	a19jun09a-15	
Analysis Date/Time:	06/20/09	2:01	Initial Cal:	m8290-100708a	

Method 8290
WGL-SD-SD108-000.6
Tetra Tech Nus, Inc.

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)		Percent Recovery (%)		RT (min.)	Ratio	Qualifier
Extraction Standards								
13C12-2,3,7,8-TCDD	2	0.643		32.2	#	30:22	0.78	
13C12-1,2,3,7,8-PeCDD	2	0.763		38.2	#	33:37	1.59	
13C12-1,2,3,6,7,8-HxCDD	2	0.720		36.0	#	36:10	1.26	
13C12-1,2,3,4,6,7,8-HpCDD	2	0.739		37.0	#	39:19	1.06	
13C12-OCDD	4.0	1.32		33.0	#	43:30	0.90	
13C12-2,3,7,8-TCDF	2	0.689		34.5	#	29:25	0.80	
13C12-1,2,3,7,8-PeCDF	2	0.761		38.0	#	32:49	1.59	
13C12-1,2,3,6,7,8-HxCDF	2	0.618		30.9	#	35:31	0.53	Q
13C12-1,2,3,4,6,7,8-HpCDF	2	0.707		35.4	#	38:09	0.45	
Cleanup Standards								
37Cl4-2,3,7,8-TCDD	0.4	0.409		102		30:22	-	
13C12-2,3,4,7,8-PeCDF	0.4	0.454		113		33:25	1.61	
13C12-1,2,3,4,7,8-HxCDD	0.4	0.345		86.3		36:04	1.26	
13C12-1,2,3,4,7,8-HxCDF	0.4	0.379		94.6		35:25	0.52	Q
13C12-1,2,3,4,7,8,9-HpCDF	0.4	0.451		113		39:57	0.45	
Injection Standards								
13C12-1,2,3,4-TCDD	2.0	-		-		29:36	0.79	
13C12-1,2,3,7,8,9-HxCDD	2.0	-		-		36:24	1.25	

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Dry	
			Matrix:	Sediment	
Sample ID:	WGL-SD-SD108-000.6		Weight / Volume:	24.86	g
			Solids / Lipids:	25.6	%
			Original pH :	NA	
Laboratory Information			Batch ID:	WG17152	
Project ID:	G330-40		Instrument:	HRMS1	
Sample ID:	G330-40-9B		Filename:	a19jun09a-13	
Collection Date/Time:	06/11/09	12:45	Retchk:	a19jun09a-1	
Receipt Date/Time:	06/12/09	10:00	Begin ConCal:	a19jun09a-1	
Extraction Date:	06/18/09		End ConCal:	a19jun09a-15	
Analysis Date/Time:	06/20/09	2:01	Initial Cal:	m8290-100708a	

Form Version:[8290]Report

Analyzed by: DS
Date: 7-9-09

Reviewed by: TM
Date: 7-10-09

TCDF Confirmation - Method 8290
WGL-SD-SD108-000.6
Tetra Tech Nus, Inc.

Analytical Data Summary Sheet

Analyte	Adj. MDL (pg/g)	Amount (pg/g)	Adj. RL (pg/g)	EMPC (pg/g)	RT (min.)	Ratio	Qualifier
2,3,7,8-TCDF	0.162	4.430	1.57		20.02	0.68	

Labeled Standard	Spiked Amount (ng)	RT (min.)	Ratio	Qualifier
Extraction Standards				
13C12-2,3,7,8-TCDF	2	20.01	0.75	

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate		Report Basis:	Dry	
			Matrix:	Sediment	
Sample ID:	WGL-SD-SD108-000.6		Weight / Volume:	24.86	g
			Solids / Lipids:	25.57	%
			Original pH :	NA	
Laboratory Information			Batch ID:	WG17152	
Project ID:	G330-40		Instrument:	hrms3	
Sample ID:	G330-40-9B		Filename:	c09jul09b-5	
Collection Date/Time:	06/11/09	12:45	Retchk:	c09jul09b-2	
Receipt Date:	06/12/09	10:00	Begin ConCal:	c09jul09b-1	
Extraction Date:	06/18/09		End ConCal:	c09jul09b-7	
Analysis Date/Time:	07/09/09	14:19	Initial Cal:	mcf-c042709a	

Analyzed by: JWP
Date: 071009

Reviewed by: TM
Date: 7-10-09

Method 8290
WGL-SD-SD105-000.6
Tetra Tech Nus, Inc.

Analytical Data Summary Sheet

Analyte	Amount pg/g	MDL pg/g	RL pg/g	EMPC pg/g	RT (min.)	Ratio	Qualifier
2,3,7,8-TCDD	EMPC	0.232	1.95	0.765	30:24	0.61 *	J
1,2,3,7,8-PeCDD	**3.85**	0.542	9.75		33:37	1.46	J
1,2,3,4,7,8-HxCDD	**3.30**	0.824	9.75		36:06	1.27	J
1,2,3,6,7,8-HxCDD	**5.36**	0.806	9.75		36:10	1.34	J
1,2,3,7,8,9-HxCDD	**8.20**	0.518	9.75		36:25	1.32	J
1,2,3,4,6,7,8-HpCDD	**101**	0.806	9.75		39:19	1.05	
OCDD	**1240**	1.77	19.5		43:24	0.89	
2,3,7,8-TCDF	**4.60**	0.201	1.95		29:28	0.83	
1,2,3,7,8-PeCDF	**4.02**	0.622	9.75		32:49	1.61	J
2,3,4,7,8-PeCDF	**9.06**	0.621	9.75		33:25	1.56	J
1,2,3,4,7,8-HxCDF	**7.00**	0.938	9.75		35:25	1.27	J
1,2,3,6,7,8-HxCDF	**4.85**	0.268	9.75		35:31	1.23	J
2,3,4,6,7,8-HxCDF	**5.81**	0.602	9.75		35:58	1.21	J
1,2,3,7,8,9-HxCDF	**0.893**	0.583	9.75		36:43	1.25	QJ
1,2,3,4,6,7,8-HpCDF	**25.2**	1.10	9.75		38:09	1.08	
1,2,3,4,7,8,9-HpCDF	**1.83**	1.10	9.75		39:57	0.93	J
OCDF	**31.3**	1.38	19.5		43:39	0.89	
Total TCDDs	**58.2**	0.232	1.95	60.8			Q
Total PeCDDs	**46.0**	0.542	9.75	46.8			Q
Total HxCDDs	**80.9**	0.518	9.75				
Total HpCDDs	**232**	0.806	9.75				
Total TCDFs	**191**	0.201	1.95	195			Q
Total PeCDFs	**112**	0.621	9.75	113			Q
Total HxCDFs	**65.4**	0.268	9.75				Q
Total HpCDFs	**35.7**	1.10	9.75	37.9			
WHO-2005 TEQ (ND=0)	**12.4**			13.1			
WHO-2005 TEQ (ND=½)	**12.6**			13.1			

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Dry	
			Matrix:	Sediment	
Sample ID:	WGL-SD-SD105-000.6		Weight / Volume:	24.00	g
			Solids / Lipids:	21.4	%
			Original pH :	NA	
Laboratory Information			Batch ID:	WG17152	
Project ID:	G330-40		Instrument:	HRMS1	
Sample ID:	G330-40-10B		Filename:	a19jun09a-14	
Collection Date/Time:	06/11/09	10:10	Retchk:	a19jun09a-1	
Receipt Date/Time:	06/12/09	10:00	Begin ConCal:	a19jun09a-1	
Extraction Date:	06/18/09		End ConCal:	a19jun09a-15	
Analysis Date/Time:	06/20/09	2:50	Initial Cal:	m8290-100708a	

Method 8290
WGL-SD-SD105-000.6
Tetra Tech Nus, Inc.

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)		Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards							
13C12-2,3,7,8-TCDD	2	1.39		69.7	30:24	0.79	
13C12-1,2,3,7,8-PeCDD	2	1.61		80.4	33:36	1.58	
13C12-1,2,3,6,7,8-HxCDD	2	1.40		70.2	36:10	1.25	
13C12-1,2,3,4,6,7,8-HpCDD	2	1.62		81.2	39:19	1.06	
13C12-OCDD	4.0	2.81		70.3	43:22	0.90	
13C12-2,3,7,8-TCDF	2	1.51		75.5	29:28	0.79	
13C12-1,2,3,7,8-PeCDF	2	1.59		79.3	32:49	1.57	
13C12-1,2,3,6,7,8-HxCDF	2	1.43		71.4	35:31	0.53	
13C12-1,2,3,4,6,7,8-HpCDF	2	1.54		77.2	38:09	0.44	
Cleanup Standards							
37Cl4-2,3,7,8-TCDD	0.4	0.422		105	30:25	-	
13C12-2,3,4,7,8-PeCDF	0.4	0.451		113	33:25	1.61	
13C12-1,2,3,4,7,8-HxCDD	0.4	0.434		108	36:06	1.30	
13C12-1,2,3,4,7,8-HxCDF	0.4	0.383		95.7	35:25	0.52	
13C12-1,2,3,4,7,8,9-HpCDF	0.4	0.473		118	39:55	0.44	
Injection Standards							
13C12-1,2,3,4-TCDD	2.0	-		-	29:37	0.80	
13C12-1,2,3,7,8,9-HxCDD	2.0	-		-	36:25	1.26	

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Dry	
			Matrix:	Sediment	
Sample ID:	WGL-SD-SD105-000.6		Weight / Volume:	24.00	g
			Solids / Lipids:	21.4	%
			Original pH :	NA	
Laboratory Information			Batch ID:	WG17152	
Project ID:	G330-40		Instrument:	HRMS1	
Sample ID:	G330-40-10B		Filename:	a19jun09a-14	
Collection Date/Time:	06/11/09	10:10	Retchk:	a19jun09a-1	
Receipt Date/Time:	06/12/09	10:00	Begin ConCal:	a19jun09a-1	
Extraction Date:	06/18/09		End ConCal:	a19jun09a-15	
Analysis Date/Time:	06/20/09	2:50	Initial Cal:	m8290-100708a	

Form Version:[8290]Report

Analyzed by: DS
Date: 7-2-09

Reviewed by: [illegible]
Date: 7/2/09

TCDF Confirmation - Method 8290

WGL-SD-SD105-000.6

Tetra Tech Nus, Inc.

Analytical Data Summary Sheet

Analyte	Adj. MDL (pg/g)	Amount (pg/g)	Adj. RL (pg/g)	EMPC (pg/g)	RT (min.)	Ratio	Qualifier
2,3,7,8-TCDF	0.201	4.93	1.95		20.39	0.75	

Labeled Standard	Spiked Amount (ng)	RT (min.)	Ratio	Qualifier
Extraction Standards				
13C12-2,3,7,8-TCDF	2	20.37	0.77	

Client Information		**Sample Information**	
Project Name:	CTO 407, N6242-04-D-0055, West Gate	Report Basis:	Dry
		Matrix:	Sediment
Sample ID:	WGL-SD-SD105-000.6	Weight / Volume:	24.00 g
		Solids / Lipids:	21.36 %
		Original pH :	NA
Laboratory Information		Batch ID:	WG17152
Project ID:	G330-40	Instrument:	hrms3
Sample ID:	G330-40-10B	Filename:	c22jun09d-19
Collection Date/Time:	06/11/09 10:10	Retchk:	c22jun09d-2
Receipt Date:	06/12/09 10:00	Begin ConCal:	c22jun09d-13
Extraction Date:	06/18/09	End ConCal:	c22jun09d-23
Analysis Date/Time:	06/22/09 18:39	Initial Cal:	mcf-c042709a

Analyzed by: [illegible]
Date: 070109

Reviewed by: TM
Date: 7-1-09

Method 8290
WGL-SD-SD112-000.6
Tetra Tech Nus, Inc.

Analytical Data Summary Sheet

Analyte	Amount pg/g	MDL pg/g	RL pg/g	EMPC pg/g	RT (min.)	Ratio		Qualifier
2,3,7,8-TCDD	ND	0.104	0.872					
1,2,3,7,8-PeCDD	ND	0.242	4.36					
1,2,3,4,7,8-HxCDD	EMPC	0.368	4.36	0.612	35:40	1.74	*	J
1,2,3,6,7,8-HxCDD	**0.931**	0.360	4.36		35:46	1.23		J
1,2,3,7,8,9-HxCDD	**0.956**	0.231	4.36		35:58	1.17		J
1,2,3,4,6,7,8-HpCDD	**9.67**	0.360	4.36		38:48	1.06		
OCDD	**64.1**	0.789	8.72		42:40	0.90		
2,3,7,8-TCDF	EMPC	0.0897	0.872	0.685	28:45	0.89	*	J
1,2,3,7,8-PeCDF	**1.02**	0.278	4.36		32:31	1.59		J
2,3,4,7,8-PeCDF	**1.96**	0.278	4.36		33:07	1.63		J
1,2,3,4,7,8-HxCDF	**1.90**	0.419	4.36		35:01	1.19		J
1,2,3,6,7,8-HxCDF	**1.33**	0.120	4.36		35:07	1.18		J
2,3,4,6,7,8-HxCDF	**1.57**	0.269	4.36		35:34	1.17		J
1,2,3,7,8,9-HxCDF	EMPC	0.260	4.36	0.431	36:16	1.03	*	J
1,2,3,4,6,7,8-HpCDF	**5.64**	0.491	4.36		37:40	1.01		
1,2,3,4,7,8,9-HpCDF	EMPC	0.490	4.36	0.556	39:22	0.79	*	J
OCDF	**6.72**	0.618	8.72		42:54	0.93		J
Total TCDDs	**9.53**	0.104	0.872					
Total PeCDDs	**7.25**	0.242	4.36	7.94				Q
Total HxCDDs	**12.1**	0.231	4.36	13.4				
Total HpCDDs	**20.8**	0.360	4.36					
Total TCDFs	**34.3**	0.0897	0.872	36.4				DPE
Total PeCDFs	**27.5**	0.278	4.36	28.0				Q DPE
Total HxCDFs	**15.8**	0.120	4.36	16.2				
Total HpCDFs	**8.17**	0.490	4.36	8.73				
WHO-2005 TEQ (ND=0)	**1.46**			1.64				
WHO-2005 TEQ (ND=½)	**1.91**			2.03				

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Dry	
			Matrix:	Sediment	
Sample ID:	WGL-SD-SD112-000.6		Weight / Volume:	11.47	g
			Solids / Lipids:	100	%
			Original pH :	NA	
Laboratory Information			Batch ID:	WG17177	
Project ID:	G330-40		Instrument:	HRMS1	
Sample ID:	G330-40-11E		Filename:	a06jul09c-7	
Collection Date/Time:	06/11/09	15:00	Retchk:	a06jul09c-1	
Receipt Date/Time:	06/12/09	10:00	Begin ConCal:	a06jul09c-1	
Extraction Date:	07/05/09		End ConCal:	a06jul09c-15	
Analysis Date/Time:	07/06/09	20:43	Initial Cal:	m8290-100708a	

Method 8290
WGL-SD-SD112-000.6
Tetra Tech Nus, Inc.

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)		Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards							
13C12-2,3,7,8-TCDD	2	1.08		54.0	29:39	0.79	
13C12-1,2,3,7,8-PeCDD	2	1.24		62.1	33:16	1.57	
13C12-1,2,3,6,7,8-HxCDD	2	1.20		60.0	35:46	1.26	
13C12-1,2,3,4,6,7,8-HpCDD	2	1.04		51.9	38:46	1.05	
13C12-OCDD	4.0	2.06		51.5	42:37	0.89	
13C12-2,3,7,8-TCDF	2	1.12		56.2	28:43	0.79	
13C12-1,2,3,7,8-PeCDF	2	1.16		58.1	32:31	1.56	
13C12-1,2,3,6,7,8-HxCDF	2	1.11		55.7	35:07	0.52	
13C12-1,2,3,4,6,7,8-HpCDF	2	1.01		50.7	37:39	0.44	
Cleanup Standards							
37Cl4-2,3,7,8-TCDD	0.4	0.349		87.3	29:40	-	
13C12-2,3,4,7,8-PeCDF	0.4	0.378		94.6	33:07	1.58	
13C12-1,2,3,4,7,8-HxCDD	0.4	0.358		89.6	35:40	1.26	
13C12-1,2,3,4,7,8-HxCDF	0.4	0.361		90.3	35:01	0.52	
13C12-1,2,3,4,7,8,9-HpCDF	0.4	0.302		75.5	39:22	0.44	
Injection Standards							
13C12-1,2,3,4-TCDD	2.0	-		-	28:52	0.79	
13C12-1,2,3,7,8,9-HxCDD	2.0	-		-	35:58	1.25	

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Dry	
			Matrix:	Sediment	
Sample ID:	WGL-SD-SD112-000.6		Weight / Volume:	11.47	g
			Solids / Lipids:	100	%
			Original pH :	NA	
Laboratory Information			Batch ID:	WG17177	
Project ID:	G330-40		Instrument:	HRMS1	
Sample ID:	G330-40-11E		Filename:	a06jul09c-7	
Collection Date/Time:	06/11/09	15:00	Retchk:	a06jul09c-1	
Receipt Date/Time:	06/12/09	10:00	Begin ConCal:	a06jul09c-1	
Extraction Date:	07/05/09		End ConCal:	a06jul09c-15	
Analysis Date/Time:	07/06/09	20:43	Initial Cal:	m8290-100708a	

Form Version:[8290]Report

Analyzed by: DS
Date: 7-7-09

Reviewed by: TM
Date: 7.7.09

Method 8290
WGL-SD-SD110-000.6
Tetra Tech Nus, Inc.

Analytical Data Summary Sheet

Analyte	Amount pg/g	MDL pg/g	RL pg/g	EMPC pg/g	RT (min.)	Ratio		Qualifier
2,3,7,8-TCDD	ND	0.248	2.08					
1,2,3,7,8-PeCDD	**3.20**	0.578	10.4		33:37	1.58		J
1,2,3,4,7,8-HxCDD	**3.77**	0.878	10.4		36:07	1.34		J
1,2,3,6,7,8-HxCDD	**5.38**	0.859	10.4		36:13	1.22		J
1,2,3,7,8,9-HxCDD	**5.68**	0.552	10.4		36:25	1.27		J
1,2,3,4,6,7,8-HpCDD	**59.7**	0.859	10.4		39:19	1.07		
OCDD	**399**	1.88	20.8		43:24	0.89		
2,3,7,8-TCDF	**2.94**	0.214	2.08		29:27	0.85		
1,2,3,7,8-PeCDF	**4.50**	0.663	10.4		32:49	1.51		DPEJ
2,3,4,7,8-PeCDF	**9.66**	0.662	10.4		33:25	1.58		J
1,2,3,4,7,8-HxCDF	**7.25**	1.00	10.4		35:25	1.18		J
1,2,3,6,7,8-HxCDF	**5.80**	0.286	10.4		35:31	1.23		J
2,3,4,6,7,8-HxCDF	**6.72**	0.641	10.4		36:00	1.27		J
1,2,3,7,8,9-HxCDF	EMPC	0.621	10.4	0.727	36:43	1.02	*	QJ
1,2,3,4,6,7,8-HpCDF	**28.4**	1.17	10.4		38:09	1.04		
1,2,3,4,7,8,9-HpCDF	**2.32**	1.17	10.4		39:57	0.95		J
OCDF	**33.3**	1.47	20.8		43:39	0.85		
Total TCDDs	**61.8**	0.248	2.08	62.9				Q
Total PeCDDs	**59.7**	0.578	10.4	60.8				Q
Total HxCDDs	**82.6**	0.552	10.4					Q
Total HpCDDs	**121**	0.859	10.4					
Total TCDFs	**148**	0.214	2.08	151				Q
Total PeCDFs	**122**	0.662	10.4					DPE Q
Total HxCDFs	**71.8**	0.286	10.4					Q
Total HpCDFs	**44.6**	1.17	10.4					
WHO-2005 TEQ (ND=0)	**11.0**			11.1				
WHO-2005 TEQ (ND=½)	**11.7**			11.6				

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Dry	
			Matrix:	Sediment	
Sample ID:	WGL-SD-SD110-000.6		Weight / Volume:	24.60	g
			Solids / Lipids:	19.6	%
			Original pH :	NA	
Laboratory Information			Batch ID:	WG17152	
Project ID:	G330-40		Instrument:	HRMS1	
Sample ID:	G330-40-12B		Filename:	a19jun09a_2-11	
Collection Date/Time:	06/11/09	14:30	Retchk:	a19jun09a-15	
Receipt Date/Time:	06/12/09	10:00	Begin ConCal:	a19jun09a-15	
Extraction Date:	06/18/09		End ConCal:	a19jun09a_2-14	
Analysis Date/Time:	06/20/09	12:35	Initial Cal:	m8290-100708a	

Method 8290
WGL-SD-SD110-000.6
Tetra Tech Nus, Inc.

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)		Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards							
13C12-2,3,7,8-TCDD	2	1.45		72.7	30:22	0.79	
13C12-1,2,3,7,8-PeCDD	2	1.75		87.6	33:36	1.59	
13C12-1,2,3,6,7,8-HxCDD	2	1.44		72.0	36:12	1.25	
13C12-1,2,3,4,6,7,8-HpCDD	2	1.76		88.2	39:19	1.05	
13C12-OCDD	4.0	3.25		81.2	43:22	0.91	
13C12-2,3,7,8-TCDF	2	1.63		81.6	29:25	0.80	
13C12-1,2,3,7,8-PeCDF	2	1.69		84.6	32:49	1.58	
13C12-1,2,3,6,7,8-HxCDF	2	1.59		79.4	35:31	0.53	
13C12-1,2,3,4,6,7,8-HpCDF	2	1.68		84.2	38:09	0.46	
Cleanup Standards							
37Cl4-2,3,7,8-TCDD	0.4	0.417		104	30:24	-	
13C12-2,3,4,7,8-PeCDF	0.4	0.469		117	33:25	1.57	
13C12-1,2,3,4,7,8-HxCDD	0.4	0.475		119	36:06	1.25	
13C12-1,2,3,4,7,8-HxCDF	0.4	0.297		74.3	35:25	0.52	
13C12-1,2,3,4,7,8,9-HpCDF	0.4	0.478		120	39:55	0.46	
Injection Standards							
13C12-1,2,3,4-TCDD	2.0	-		-	29:36	0.80	
13C12-1,2,3,7,8,9-HxCDD	2.0	-		-	36:25	1.26	

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Dry	
			Matrix:	Sediment	
Sample ID:	WGL-SD-SD110-000.6		Weight / Volume:	24.60	g
			Solids / Lipids:	19.6	%
			Original pH :	NA	
Laboratory Information			Batch ID:	WG17152	
Project ID:	G330-40		Instrument:	HRMS1	
Sample ID:	G330-40-12B		Filename:	a19jun09a_2-11	
Collection Date/Time:	06/11/09	14:30	Retchk:	a19jun09a-15	
Receipt Date/Time:	06/12/09	10:00	Begin ConCal:	a19jun09a-15	
Extraction Date:	06/18/09		End ConCal:	a19jun09a_2-14	
Analysis Date/Time:	06/20/09	12:35	Initial Cal:	m8290-100708a	

Form Version:[8290]Report

Analyzed by: DS
Date: 7-1-09

Reviewed by: [illegible]
Date: 7/1/09

TCDF Confirmation - Method 8290
WGL-SD-SD110-000.6
Tetra Tech Nus, Inc.

Analytical Data Summary Sheet

Analyte	Adj. MDL (pg/g)	Amount (pg/g)	Adj. RL (pg/g)	EMPC (pg/g)	RT (min.)	Ratio	Qualifier
2,3,7,8-TCDF	0.214	2.60	2.07		20.37	0.65	

Labeled Standard	Spiked Amount (ng)	RT (min.)	Ratio	Qualifier
Extraction Standards				
13C12-2,3,7,8-TCDF	2	20.37	0.76	

Client Information		**Sample Information**	
Project Name:	CTO 407, N6242-04-D-0055, West Gate	Report Basis:	Dry
		Matrix:	Sediment
Sample ID:	WGL-SD-SD110-000.6	Weight / Volume:	24.60 g
		Solids / Lipids:	19.56 %
		Original pH :	NA
Laboratory Information		Batch ID:	WG17152
Project ID:	G330-40	Instrument:	hrms3
Sample ID:	G330-40-12B	Filename:	c22jun09d-20
Collection Date/Time:	06/11/09 14:30	Retchk:	c22jun09d-2
Receipt Date:	06/12/09 10:00	Begin ConCal:	c22jun09d-13
Extraction Date:	06/18/09	End ConCal:	c22jun09d-23
Analysis Date/Time:	06/22/09 19:05	Initial Cal:	mcf-c042709a

Analyzed by: [illegible]
Date: 070109

Reviewed by: TM
Date: 7-1-09

Method 8290
WGL-SD-SD109-000.6
Tetra Tech Nus, Inc.

Analytical Data Summary Sheet

Analyte	Amount pg/g	MDL pg/g	RL pg/g	EMPC pg/g	RT (min.)	Ratio		Qualifier
2,3,7,8-TCDD	ND	0.235	1.97					
1,2,3,7,8-PeCDD	**2.20**	0.548	9.85		33:37	1.33		J
1,2,3,4,7,8-HxCDD	**1.91**	0.833	9.85		36:06	1.34		J
1,2,3,6,7,8-HxCDD	**3.39**	0.814	9.85		36:10	1.33		J
1,2,3,7,8,9-HxCDD	**3.25**	0.523	9.85		36:25	1.32		J
1,2,3,4,6,7,8-HpCDD	**44.1**	0.815	9.85		39:19	1.08		
OCDD	**341**	1.78	19.7		43:24	0.88		
2,3,7,8-TCDF	**2.46**	0.203	1.97		29:27	0.74		
1,2,3,7,8-PeCDF	**4.07**	0.629	9.85		32:49	1.45		J
2,3,4,7,8-PeCDF	**8.72**	0.627	9.85		33:25	1.58		J
1,2,3,4,7,8-HxCDF	**6.87**	0.948	9.85		35:25	1.30		J
1,2,3,6,7,8-HxCDF	**4.57**	0.271	9.85		35:31	1.40		J
2,3,4,6,7,8-HxCDF	**5.89**	0.608	9.85		35:58	1.31		J
1,2,3,7,8,9-HxCDF	EMPC	0.589	9.85	0.796	36:43	0.94	*	QJ
1,2,3,4,6,7,8-HpCDF	**23.0**	1.11	9.85		38:09	1.07		
1,2,3,4,7,8,9-HpCDF	**1.51**	1.11	9.85		39:57	1.11		J
OCDF	**28.4**	1.40	19.7		43:40	0.92		
Total TCDDs	**66.5**	0.235	1.97					Q
Total PeCDDs	**42.0**	0.548	9.85	44.5				Q
Total HxCDDs	**54.0**	0.523	9.85					
Total HpCDDs	**91.4**	0.815	9.85					
Total TCDFs	**181**	0.203	1.97	182				Q
Total PeCDFs	**111**	0.627	9.85					Q
Total HxCDFs	**60.6**	0.271	9.85	65.4				Q
Total HpCDFs	**34.9**	1.11	9.85					
WHO-2005 TEQ (ND=0)	**8.57**			8.65				
WHO-2005 TEQ (ND=½)	**9.26**			9.29				

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Dry	
			Matrix:	Sediment	
Sample ID:	WGL-SD-SD109-000.6		Weight / Volume:	24.57	g
			Solids / Lipids:	20.6	%
			Original pH :	NA	
Laboratory Information			Batch ID:	WG17152	
Project ID:	G330-40		Instrument:	HRMS1	
Sample ID:	G330-40-13B		Filename:	a19jun09a_2-12	
Collection Date/Time:	06/11/09	14:15	Retchk:	a19jun09a-15	
Receipt Date/Time:	06/12/09	10:00	Begin ConCal:	a19jun09a-15	
Extraction Date:	06/18/09		End ConCal:	a19jun09a_2-14	
Analysis Date/Time:	06/20/09	13:23	Initial Cal:	m8290-100708a	

Method 8290
WGL-SD-SD109-000.6
Tetra Tech Nus, Inc.

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)		Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards							
13C12-2,3,7,8-TCDD	2	1.34		67.0	30:22	0.79	
13C12-1,2,3,7,8-PeCDD	2	1.60		80.2	33:36	1.57	
13C12-1,2,3,6,7,8-HxCDD	2	1.34		67.1	36:10	1.26	
13C12-1,2,3,4,6,7,8-HpCDD	2	1.45		72.6	39:19	1.05	
13C12-OCDD	4.0	2.66		66.5	43:22	0.90	
13C12-2,3,7,8-TCDF	2	1.47		73.4	29:25	0.80	
13C12-1,2,3,7,8-PeCDF	2	1.56		78.0	32:49	1.58	
13C12-1,2,3,6,7,8-HxCDF	2	1.29		64.5	35:30	0.53	
13C12-1,2,3,4,6,7,8-HpCDF	2	1.40		69.9	38:09	0.45	
Cleanup Standards							
37Cl4-2,3,7,8-TCDD	0.4	0.422		106	30:24	-	
13C12-2,3,4,7,8-PeCDF	0.4	0.471		118	33:25	1.59	
13C12-1,2,3,4,7,8-HxCDD	0.4	0.382		95.4	36:04	1.26	
13C12-1,2,3,4,7,8-HxCDF	0.4	0.387		96.8	35:25	0.52	
13C12-1,2,3,4,7,8,9-HpCDF	0.4	0.432		108	39:55	0.44	
Injection Standards							
13C12-1,2,3,4-TCDD	2.0	-		-	29:36	0.79	
13C12-1,2,3,7,8,9-HxCDD	2.0	-		-	36:24	1.26	

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Dry	
			Matrix:	Sediment	
Sample ID:	WGL-SD-SD109-000.6		Weight / Volume:	24.57	g
			Solids / Lipids:	20.6	%
			Original pH :	NA	
Laboratory Information			Batch ID:	WG17152	
Project ID:	G330-40		Instrument:	HRMS1	
Sample ID:	G330-40-13B		Filename:	a19jun09a_2-12	
Collection Date/Time:	06/11/09	14:15	Retchk:	a19jun09a-15	
Receipt Date/Time:	06/12/09	10:00	Begin ConCal:	a19jun09a-15	
Extraction Date:	06/18/09		End ConCal:	a19jun09a_2-14	
Analysis Date/Time:	06/20/09	13:23	Initial Cal:	m8290-100708a	

Form Version:[8290]Report

Analyzed by: DS
Date: 7-1-09

Reviewed by: CB
Date: 7/1/09

TCDF Confirmation - Method 8290

WGL-SD-SD109-000.6

Tetra Tech Nus, Inc.

Analytical Data Summary Sheet

Analyte	Adj. MDL (pg/g)	Amount (pg/g)	Adj. RL (pg/g)	EMPC (pg/g)	RT (min.)	Ratio	Qualifier
2,3,7,8-TCDF	0.204	2.93	1.98		20.39	0.80	

Labeled Standard	Spiked Amount (ng)	RT (min.)	Ratio	Qualifier
Extraction Standards				
13C12-2,3,7,8-TCDF	2	20.37	0.77	

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate		Report Basis:	Dry	
			Matrix:	Sediment	
Sample ID:	WGL-SD-SD109-000.6		Weight / Volume:	24.57	g
			Solids / Lipids:	20.65	%
			Original pH :	NA	
Laboratory Information			Batch ID:	WG17152	
Project ID:	G330-40		Instrument:	hrms3	
Sample ID:	G330-40-13B		Filename:	c22jun09d-21	
Collection Date/Time:	06/11/09	14:15	Retchk:	c22jun09d-2	
Receipt Date:	06/12/09	10:00	Begin ConCal:	c22jun09d-13	
Extraction Date:	06/18/09		End ConCal:	c22jun09d-23	
Analysis Date/Time:	06/22/09	19:30	Initial Cal:	mcf-c042709a	

Analyzed by: JW

Date: 070109

Reviewed by: TM

Date: 7-1-09

Method 8290
WGL-SD-SD111-000.6
Tetra Tech Nus, Inc.

Analytical Data Summary Sheet

Analyte	Amount pg/g	MDL pg/g	RL pg/g	EMPC pg/g	RT (min.)	Ratio	Qualifier
2,3,7,8-TCDD	EMPC	0.218	1.83	0.698	30:22	0.54 *	J
1,2,3,7,8-PeCDD	**4.02**	0.508	9.13		33:37	1.49	J
1,2,3,4,7,8-HxCDD	**5.05**	0.772	9.13		36:06	1.28	J
1,2,3,6,7,8-HxCDD	**8.61**	0.755	9.13		36:12	1.26	J
1,2,3,7,8,9-HxCDD	**8.36**	0.485	9.13		36:25	1.31	J
1,2,3,4,6,7,8-HpCDD	**92.2**	0.755	9.13		39:19	1.04	
OCDD	**560**	1.65	18.3		43:24	0.89	
2,3,7,8-TCDF	**4.23**	0.188	1.83		29:27	0.78	
1,2,3,7,8-PeCDF	**10.1**	0.583	9.13		32:49	1.56	DPE
2,3,4,7,8-PeCDF	**19.6**	0.582	9.13		33:25	1.58	
1,2,3,4,7,8-HxCDF	**17.4**	0.879	9.13		35:25	1.25	
1,2,3,6,7,8-HxCDF	**12.2**	0.251	9.13		35:31	1.27	
2,3,4,6,7,8-HxCDF	**14.5**	0.563	9.13		36:00	1.24	
1,2,3,7,8,9-HxCDF	**1.57**	0.546	9.13		36:43	1.10	QJ
1,2,3,4,6,7,8-HpCDF	**59.2**	1.03	9.13		38:09	1.03	
1,2,3,4,7,8,9-HpCDF	**4.03**	1.03	9.13		39:57	1.02	J
OCDF	**66.6**	1.29	18.3		43:39	0.89	
Total TCDDs	**99.4**	0.218	1.83	102			
Total PeCDDs	**87.7**	0.508	9.13				Q
Total HxCDDs	**126**	0.485	9.13				
Total HpCDDs	**189**	0.755	9.13				Q
Total TCDFs	**317**	0.188	1.83				
Total PeCDFs	**239**	0.582	9.13	269			DPE Q
Total HxCDFs	**157**	0.251	9.13				Q
Total HpCDFs	**86.3**	1.03	9.13				
WHO-2005 TEQ (ND=0)	**19.1**			19.8			
WHO-2005 TEQ (ND=½)	**19.4**			19.8			

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Dry	
			Matrix:	Sediment	
Sample ID:	WGL-SD-SD111-000.6		Weight / Volume:	24.86	g
			Solids / Lipids:	22.0	%
			Original pH :	NA	
Laboratory Information			Batch ID:	WG17152	
Project ID:	G330-40		Instrument:	HRMS1	
Sample ID:	G330-40-14B		Filename:	a19jun09a_2-13	
Collection Date/Time:	06/11/09	15:15	Retchk:	a19jun09a-15	
Receipt Date/Time:	06/12/09	10:00	Begin ConCal:	a19jun09a-15	
Extraction Date:	06/18/09		End ConCal:	a19jun09a_2-14	
Analysis Date/Time:	06/20/09	14:12	Initial Cal:	m8290-100708a	

Method 8290
WGL-SD-SD111-000.6
Tetra Tech Nus, Inc.

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)		Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards							
13C12-2,3,7,8-TCDD	2	1.34		67.2	30:22	0.79	
13C12-1,2,3,7,8-PeCDD	2	1.71		85.3	33:36	1.59	
13C12-1,2,3,6,7,8-HxCDD	2	1.39		69.4	36:12	1.26	
13C12-1,2,3,4,6,7,8-HpCDD	2	1.65		82.4	39:19	1.05	
13C12-OCDD	4.0	3.18		79.4	43:22	0.90	
13C12-2,3,7,8-TCDF	2	1.47		73.3	29:25	0.79	
13C12-1,2,3,7,8-PeCDF	2	1.61		80.7	32:49	1.57	
13C12-1,2,3,6,7,8-HxCDF	2	1.47		73.5	35:31	0.53	
13C12-1,2,3,4,6,7,8-HpCDF	2	1.61		80.3	38:09	0.45	
Cleanup Standards							
37Cl4-2,3,7,8-TCDD	0.4	0.417		104	30:22	-	
13C12-2,3,4,7,8-PeCDF	0.4	0.485		121	33:25	1.59	
13C12-1,2,3,4,7,8-HxCDD	0.4	0.530		132	36:06	1.24	
13C12-1,2,3,4,7,8-HxCDF	0.4	0.415		104	35:25	0.51	
13C12-1,2,3,4,7,8,9-HpCDF	0.4	0.513		128	39:55	0.45	
Injection Standards							
13C12-1,2,3,4-TCDD	2.0	-		-	29:36	0.80	
13C12-1,2,3,7,8,9-HxCDD	2.0	-		-	36:25	1.24	

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Dry	
			Matrix:	Sediment	
Sample ID:	WGL-SD-SD111-000.6		Weight / Volume:	24.86	g
			Solids / Lipids:	22.0	%
			Original pH :	NA	
Laboratory Information			Batch ID:	WG17152	
Project ID:	G330-40		Instrument:	HRMS1	
Sample ID:	G330-40-14B		Filename:	a19jun09a_2-13	
Collection Date/Time:	06/11/09	15:15	Retchk:	a19jun09a-15	
Receipt Date/Time:	06/12/09	10:00	Begin ConCal:	a19jun09a-15	
Extraction Date:	06/18/09		End ConCal:	a19jun09a_2-14	
Analysis Date/Time:	06/20/09	14:12	Initial Cal:	m8290-100708a	

Form Version:[8290]Report

Analyzed by: DS
Date: 7-1-09

Reviewed by: [illegible]
Date: 7/1/09

TCDF Confirmation - Method 8290
WGL-SD-SD111-000.6
Tetra Tech Nus, Inc.

Analytical Data Summary Sheet

Analyte	Adj. MDL (pg/g)	Amount (pg/g)	Adj. RL (pg/g)	EMPC (pg/g)	RT (min.)	Ratio	Qualifier
2,3,7,8-TCDF	0.188	5.02	1.83		20.37	0.85	

Labeled Standard	Spiked Amount (ng)	RT (min.)	Ratio	Qualifier
Extraction Standards				
13C12-2,3,7,8-TCDF	2	20.36	0.76	

Client Information		**Sample Information**	
Project Name:	CTO 407, N6242-04-D-0055, West Gate	Report Basis:	Dry
		Matrix:	Sediment
Sample ID:	WGL-SD-SD111-000.6	Weight / Volume:	24.86 g
		Solids / Lipids:	22.02 %
		Original pH :	NA
Laboratory Information		Batch ID:	WG17152
Project ID:	G330-40	Instrument:	hrms3
Sample ID:	G330-40-14B	Filename:	c22jun09d-22
Collection Date/Time:	06/11/09 15:15	Retchk:	c22jun09d-2
Receipt Date:	06/12/09 10:00	Begin ConCal:	c22jun09d-13
Extraction Date:	06/18/09	End ConCal:	c22jun09d-23
Analysis Date/Time:	06/22/09 19:56	Initial Cal:	mcf-c042709a

Analyzed by: [illegible]
Date: 070109

Reviewed by: TM
Date: 7-1-09

Method 8290
WGL-SD-FB01-061109
Tetra Tech Nus, Inc.

Analytical Data Summary Sheet

Analyte	Amount ng/L	MDL ng/L	RL ng/L	EMPC ng/L	RT (min.)	Ratio	Qualifier
2,3,7,8-TCDD	ND	0.00089	0.0104				
1,2,3,7,8-PeCDD	ND	0.00261	0.0519				
1,2,3,4,7,8-HxCDD	ND	0.00749	0.0519				
1,2,3,6,7,8-HxCDD	ND	0.00349	0.0519				
1,2,3,7,8,9-HxCDD	ND	0.00400	0.0519				
1,2,3,4,6,7,8-HpCDD	ND	0.00605	0.0519				
OCDD	ND	0.0067	0.104				
2,3,7,8-TCDF	ND	0.00156	0.0104				
1,2,3,7,8-PeCDF	ND	0.00307	0.0519				
2,3,4,7,8-PeCDF	ND	0.00723	0.0519				
1,2,3,4,7,8-HxCDF	ND	0.00569	0.0519				
1,2,3,6,7,8-HxCDF	ND	0.00496	0.0519				
2,3,4,6,7,8-HxCDF	ND	0.00442	0.0519				
1,2,3,7,8,9-HxCDF	ND	0.00607	0.0519				
1,2,3,4,6,7,8-HpCDF	ND	0.00243	0.0519				
1,2,3,4,7,8,9-HpCDF	ND	0.00426	0.0519				
OCDF	ND	0.0066	0.104				
Total TCDDs	ND	0.00089	0.0104				
Total PeCDDs	ND	0.00261	0.0519				
Total HxCDDs	ND	0.00349	0.0519				
Total HpCDDs	ND	0.00605	0.0519				
Total TCDFs	ND	0.00156	0.0104				
Total PeCDFs	ND	0.00307	0.0519				
Total HxCDFs	ND	0.00442	0.0519				
Total HpCDFs	ND	0.00243	0.0519				
WHO-2005 TEQ (ND=0)	ND			ND			
WHO-2005 TEQ (ND=½)	**0.00665**			0.00665			

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Wet	
			Matrix:	Water	
Sample ID:	WGL-SD-FB01-061109		Weight / Volume:	964	mL
			Solids / Lipids:	NA	%
			Original pH :	8.00	
Laboratory Information			Batch ID:	WG17172	
Project ID:	G330-40		Instrument:	HRMS1	
Sample ID:	G330-40-15C		Filename:	a01jul09c-13	
Collection Date/Time:	06/11/09	13:00	Retchk:	a01jul09c-1	
Receipt Date/Time:	06/12/09	10:00	Begin ConCal:	a01jul09c-1	
Extraction Date:	06/29/09		End ConCal:	a01jul09c-15	
Analysis Date/Time:	07/02/09	0:50	Initial Cal:	m8290-100708a	

Method 8290
WGL-SD-FB01-061109
Tetra Tech Nus, Inc.

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)		Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards							
13C12-2,3,7,8-TCDD	2	1.75		87.4	29:40	0.79	
13C12-1,2,3,7,8-PeCDD	2	2.41		120	33:16	1.58	
13C12-1,2,3,6,7,8-HxCDD	2	1.84		92.2	35:46	1.25	
13C12-1,2,3,4,6,7,8-HpCDD	2	1.78		89.1	38:46	1.05	
13C12-OCDD	4.0	3.36		84.1	42:39	0.90	
13C12-2,3,7,8-TCDF	2	1.88		93.9	28:45	0.79	
13C12-1,2,3,7,8-PeCDF	2	2.12		106	32:31	1.55	
13C12-1,2,3,6,7,8-HxCDF	2	1.72		86.1	35:07	0.52	
13C12-1,2,3,4,6,7,8-HpCDF	2	1.63		81.6	37:40	0.45	
Cleanup Standards							
37Cl4-2,3,7,8-TCDD	0.4	0.447		112	29:42	-	
13C12-2,3,4,7,8-PeCDF	0.4	0.518		129	33:07	1.55	
13C12-1,2,3,4,7,8-HxCDD	0.4	0.472		118	35:40	1.26	
13C12-1,2,3,4,7,8-HxCDF	0.4	0.410		102	35:01	0.51	
13C12-1,2,3,4,7,8,9-HpCDF	0.4	0.386		96.4	39:22	0.45	
Injection Standards							
13C12-1,2,3,4-TCDD	2.0	-		-	28:55	0.80	
13C12-1,2,3,7,8,9-HxCDD	2.0	-		-	36:00	1.24	

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Wet	
			Matrix:	Water	
Sample ID:	WGL-SD-FB01-061109		Weight / Volume:	964	mL
			Solids / Lipids:	NA	%
			Original pH :	8.00	
Laboratory Information			Batch ID:	WG17172	
Project ID:	G330-40		Instrument:	HRMS1	
Sample ID:	G330-40-15C		Filename:	a01jul09c-13	
Collection Date/Time:	06/11/09	13:00	Retchk:	a01jul09c-1	
Receipt Date/Time:	06/12/09	10:00	Begin ConCal:	a01jul09c-1	
Extraction Date:	06/29/09		End ConCal:	a01jul09c-15	
Analysis Date/Time:	07/02/09	0:50	Initial Cal:	m8290-100708a	

Form Version:[8290]Report

Analyzed by: DS
Date: 7-2-09

Reviewed by: TM
Date: 7-2-09

Method 8290
WGL-SD-RB01-061109
Tetra Tech Nus, Inc.

Analytical Data Summary Sheet

Analyte	Amount ng/L	MDL ng/L	RL ng/L	EMPC ng/L	RT (min.)	Ratio	Qualifier
2,3,7,8-TCDD	ND	0.000872	0.0102				
1,2,3,7,8-PeCDD	ND	0.00256	0.0509				
1,2,3,4,7,8-HxCDD	ND	0.00736	0.0509				
1,2,3,6,7,8-HxCDD	ND	0.00343	0.0509				
1,2,3,7,8,9-HxCDD	ND	0.00392	0.0509				
1,2,3,4,6,7,8-HpCDD	ND	0.00594	0.0509				
OCDD	ND	0.00657	0.102				
2,3,7,8-TCDF	ND	0.00153	0.0102				
1,2,3,7,8-PeCDF	ND	0.00302	0.0509				
2,3,4,7,8-PeCDF	ND	0.00710	0.0509				
1,2,3,4,7,8-HxCDF	ND	0.00558	0.0509				
1,2,3,6,7,8-HxCDF	ND	0.00486	0.0509				
2,3,4,6,7,8-HxCDF	ND	0.00434	0.0509				
1,2,3,7,8,9-HxCDF	ND	0.00596	0.0509				
1,2,3,4,6,7,8-HpCDF	ND	0.00239	0.0509				
1,2,3,4,7,8,9-HpCDF	ND	0.00418	0.0509				
OCDF	ND	0.00652	0.102				
Total TCDDs	ND	0.000872	0.0102				
Total PeCDDs	ND	0.00256	0.0509				
Total HxCDDs	ND	0.00343	0.0509				
Total HpCDDs	ND	0.00594	0.0509				
Total TCDFs	ND	0.00153	0.0102				
Total PeCDFs	ND	0.00302	0.0509				
Total HxCDFs	ND	0.00434	0.0509				
Total HpCDFs	ND	0.00239	0.0509				
WHO-2005 TEQ (ND=0)	ND			ND			
WHO-2005 TEQ (ND=½)	**0.00734**			0.00734			

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Wet	
			Matrix:	Water	
Sample ID:	WGL-SD-RB01-061109		Weight / Volume:	982	mL
			Solids / Lipids:	NA	%
			Original pH :	8.00	
Laboratory Information			Batch ID:	WG17172	
Project ID:	G330-40		Instrument:	HRMS1	
Sample ID:	G330-40-16C		Filename:	a01jul09c-14	
Collection Date/Time:	06/11/09	14:00	Retchk:	a01jul09c-1	
Receipt Date/Time:	06/12/09	10:00	Begin ConCal:	a01jul09c-1	
Extraction Date:	06/29/09		End ConCal:	a01jul09c-15	
Analysis Date/Time:	07/02/09	1:39	Initial Cal:	m8290-100708a	

Method 8290
WGL-SD-RB01-061109
Tetra Tech Nus, Inc.

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)		Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards							
13C12-2,3,7,8-TCDD	2	1.78		89.1	29:40	0.79	
13C12-1,2,3,7,8-PeCDD	2	2.33		116	33:16	1.57	
13C12-1,2,3,6,7,8-HxCDD	2	1.92		95.9	35:46	1.26	
13C12-1,2,3,4,6,7,8-HpCDD	2	1.93		96.4	38:46	1.05	
13C12-OCDD	4.0	3.68		92.0	42:39	0.90	
13C12-2,3,7,8-TCDF	2	1.96		98.2	28:45	0.79	
13C12-1,2,3,7,8-PeCDF	2	2.11		105	32:31	1.55	
13C12-1,2,3,6,7,8-HxCDF	2	1.80		90.0	35:07	0.51	
13C12-1,2,3,4,6,7,8-HpCDF	2	1.77		88.7	37:40	0.45	
Cleanup Standards							
37Cl4-2,3,7,8-TCDD	0.4	0.458		114	29:42	-	
13C12-2,3,4,7,8-PeCDF	0.4	0.539		135	33:07	1.56	
13C12-1,2,3,4,7,8-HxCDD	0.4	0.485		121	35:42	1.26	
13C12-1,2,3,4,7,8-HxCDF	0.4	0.437		109	35:01	0.52	
13C12-1,2,3,4,7,8,9-HpCDF	0.4	0.434		108	39:22	0.45	
Injection Standards							
13C12-1,2,3,4-TCDD	2.0	-		-	28:55	0.80	
13C12-1,2,3,7,8,9-HxCDD	2.0	-		-	36:00	1.26	

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Wet	
			Matrix:	Water	
Sample ID:	WGL-SD-RB01-061109		Weight / Volume:	982	mL
			Solids / Lipids:	NA	%
			Original pH :	8.00	
Laboratory Information			Batch ID:	WG17172	
Project ID:	G330-40		Instrument:	HRMS1	
Sample ID:	G330-40-16C		Filename:	a01jul09c-14	
Collection Date/Time:	06/11/09	14:00	Retchk:	a01jul09c-1	
Receipt Date/Time:	06/12/09	10:00	Begin ConCal:	a01jul09c-1	
Extraction Date:	06/29/09		End ConCal:	a01jul09c-15	
Analysis Date/Time:	07/02/09	1:39	Initial Cal:	m8290-100708a	

Form Version:[8290]Report

Analyzed by: DS
Date: 7-2-09

Reviewed by: TM
Date: 7-2-09

Method 8290

Results for MS/MSD

WGL-SD-SD111-000.6

Analyte	Sample pg/g	Spike pg	MS pg/g	%REC (70-130)	#	MSD pg/g	%REC (70-130)	#	%RPD (20)	#
2,3,7,8-TCDD	0.698	200	44.9	119		39.8	106		12.0	
1,2,3,7,8-PeCDD	4.02	1000	209	110		193	103		7.96	
1,2,3,4,7,8-HxCDD	5.05	1000	250	132	*	238	127		4.92	
1,2,3,6,7,8-HxCDD	8.61	1000	210	109		191	99.1		9.48	
1,2,3,7,8,9-HxCDD	8.36	1000	229	119		211	110		8.18	
1,2,3,4,6,7,8-HpCDD	92.2	1000	296	110		273	98.2		8.08	
OCDD	560	2000	966	109		889	89.4		8.30	
2,3,7,8-TCDF	4.23	200	49.6	122		52.7	132	*	6.06	
1,2,3,7,8-PeCDF	10.1	1000	204	105		194	99.9		5.03	
2,3,4,7,8-PeCDF	19.6	1000	213	104		190	92.6		11.4	
1,2,3,4,7,8-HxCDF	17.4	1000	231	115		191	94.3		19.0	
1,2,3,6,7,8-HxCDF	12.2	1000	211	107		189	96.1		11.0	
2,3,4,6,7,8-HxCDF	14.5	1000	205	103		194	97.5		5.51	
1,2,3,7,8,9-HxCDF	1.57	1000	233	125		179	96.4		26.2	*
1,2,3,4,6,7,8-HpCDF	59.2	1000	244	99.6		227	91.2		7.22	
1,2,3,4,7,8,9-HpCDF	4.03	1000	193	102		164	86.9		16.2	
OCDF	66.6	2000	471	109		521	123		10.1	

Client Information

		Solids:	22.0	%
Project ID:	CTO 407, N6242-04-D-0055, West Gate Landfill	Sample amount:	24.86	g
		MS amount:	24.5	g
Sample ID:	WGL-SD-SD111-000.6	MSD amount:	24.7	g

Laboratory Information

Project ID:	G330-40
Sample ID:	G330-40-14B
MS ID:	G330-40-18B
MSD ID:	G330-40-19B

Reviewed By:

Method 8290
WGL-SD-SD111-000.6 MS
Tetra Tech Nus, Inc.

Analytical Data Summary Sheet

Analyte	Amount pg/g	MDL pg/g	RL pg/g	EMPC pg/g	RT (min.)	Ratio	Qualifier
2,3,7,8-TCDD	**44.9**	0.227	1.90		29:40	0.78	
1,2,3,7,8-PeCDD	**209**	0.528	9.50		33:16	1.56	
1,2,3,4,7,8-HxCDD	**250**	0.803	9.50		35:42	1.25	
1,2,3,6,7,8-HxCDD	**210**	0.785	9.50		35:46	1.25	
1,2,3,7,8,9-HxCDD	**229**	0.505	9.50		36:00	1.25	
1,2,3,4,6,7,8-HpCDD	**296**	0.786	9.50		38:46	1.04	
OCDD	**966**	1.72	19.0		42:37	0.89	
2,3,7,8-TCDF	**49.6**	0.195	1.90		28:43	0.77	
1,2,3,7,8-PeCDF	**204**	0.606	9.50		32:31	1.55	DPE
2,3,4,7,8-PeCDF	**213**	0.605	9.50		33:07	1.52	
1,2,3,4,7,8-HxCDF	**231**	0.914	9.50		35:01	1.22	
1,2,3,6,7,8-HxCDF	**211**	0.262	9.50		35:07	1.23	
2,3,4,6,7,8-HxCDF	**205**	0.586	9.50		35:36	1.23	
1,2,3,7,8,9-HxCDF	**233**	0.568	9.50		36:16	1.24	
1,2,3,4,6,7,8-HpCDF	**244**	1.07	9.50		37:39	1.02	
1,2,3,4,7,8,9-HpCDF	**193**	1.07	9.50		39:21	1.03	
OCDF	**471**	1.35	19.0		42:51	0.89	

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Dry	
			Matrix:	Sediment	
Sample ID:	WGL-SD-SD111-000.6 MS		Weight / Volume:	24.49	g
			Solids / Lipids:	21.5	%
			Original pH :	NA	
Laboratory Information			Batch ID:	WG17152	
Project ID:	G330-40		Instrument:	HRMS1	
Sample ID:	G330-40-18B		Filename:	a25jun09a_5-7	
Collection Date/Time:	06/11/09	15:15	Retchk:	a25jun09a_4-14	
Receipt Date/Time:	06/12/09	10:00	Begin ConCal:	a25jun09a_4-14	
Extraction Date:	06/18/09		End ConCal:	a25jun09a_5-14	
Analysis Date/Time:	06/27/09	12:55	Initial Cal:	m8290-100708a	

Method 8290
WGL-SD-SD111-000.6 MS
Tetra Tech Nus, Inc.

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)		Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards							
13C12-2,3,7,8-TCDD	2	1.08		53.9	29:39	0.78	
13C12-1,2,3,7,8-PeCDD	2	1.28		64.1	33:16	1.59	
13C12-1,2,3,6,7,8-HxCDD	2	1.03		51.3	35:46	1.26	
13C12-1,2,3,4,6,7,8-HpCDD	2	1.18		58.8	38:45	1.05	
13C12-OCDD	4.0	2.14		53.5	42:36	0.90	
13C12-2,3,7,8-TCDF	2	1.12		55.9	28:43	0.80	
13C12-1,2,3,7,8-PeCDF	2	1.28		64.0	32:31	1.58	
13C12-1,2,3,6,7,8-HxCDF	2	1.05		52.3	35:07	0.52	
13C12-1,2,3,4,6,7,8-HpCDF	2	1.08		54.1	37:37	0.44	
Cleanup Standards							
37Cl4-2,3,7,8-TCDD	0.4	0.390		97.6	29:40	-	
13C12-2,3,4,7,8-PeCDF	0.4	0.453		113	33:06	1.58	
13C12-1,2,3,4,7,8-HxCDD	0.4	0.471		118	35:42	1.26	
13C12-1,2,3,4,7,8-HxCDF	0.4	0.397		99.3	35:01	0.51	
13C12-1,2,3,4,7,8,9-HpCDF	0.4	0.390		97.6	39:19	0.45	
Injection Standards							
13C12-1,2,3,4-TCDD	2.0	-		-	28:54	0.80	
13C12-1,2,3,7,8,9-HxCDD	2.0	-		-	36:00	1.26	

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Dry	
			Matrix:	Sediment	
Sample ID:	WGL-SD-SD111-000.6 MS		Weight / Volume:	24.49	g
			Solids / Lipids:	21.5	%
			Original pH :	NA	
Laboratory Information			Batch ID:	WG17152	
Project ID:	G330-40		Instrument:	HRMS1	
Sample ID:	G330-40-18B		Filename:	a25jun09a_5-7	
Collection Date/Time:	06/11/09	15:15	Retchk:	a25jun09a_4-14	
Receipt Date/Time:	06/12/09	10:00	Begin ConCal:	a25jun09a_4-14	
Extraction Date:	06/18/09		End ConCal:	a25jun09a_5-14	
Analysis Date/Time:	06/27/09	12:55	Initial Cal:	m8290-100708a	

Form Version:[8290]Report

Analyzed by: DS
Date: 7-1-09

Reviewed by: [illegible]
Date: 7/1/09

TCDF Confirmation - Method 8290
WGL-SD-SD111-000.6 MS
Tetra Tech Nus, Inc.

Analytical Data Summary Sheet

Analyte	Adj. MDL (pg/g)	Amount (pg/g)	Adj. RL (pg/g)	EMPC (pg/g)	RT (min.)	Ratio	Qualifier
2,3,7,8-TCDF	0.196	35.6	1.90		20.30	0.74	

Labeled Standard	Spiked Amount (ng)	RT (min.)	Ratio	Qualifier
Extraction Standards				
13C12-2,3,7,8-TCDF	2	20.29	0.75	

Client Information		**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate	Report Basis:	Dry	
		Matrix:	Sediment	
Sample ID:	WGL-SD-SD111-000.6 MS	Weight / Volume:	24.49	g
		Solids / Lipids:	21.48	%
		Original pH :	NA	
Laboratory Information		Batch ID:	WG17152	
Project ID:	G330-40	Instrument:	hrms3	
Sample ID:	G330-40-18B	Filename:	c01jul09b-11	
Collection Date/Time:	06/11/09 15:15	Retchk:	c01jul09b-2	
Receipt Date:	06/12/09 10:00	Begin ConCal:	c01jul09b-1	
Extraction Date:	06/18/09	End ConCal:	c01jul09b-15	
Analysis Date/Time:	07/01/09 14:15	Initial Cal:	mcf-c042709a	

Analyzed by: [illegible]
Date: 070209

Reviewed by: TM
Date: 7-2-09

Method 8290
WGL-SD-SD111-000.6 MSD
Tetra Tech Nus, Inc.

Analytical Data Summary Sheet

Analyte	Amount pg/g	MDL pg/g	RL pg/g	EMPC pg/g	RT (min.)	Ratio	Qualifier
2,3,7,8-TCDD	**39.8**	0.211	1.77		29:42	0.78	
1,2,3,7,8-PeCDD	**193**	0.492	8.85		33:18	1.47	
1,2,3,4,7,8-HxCDD	**238**	0.747	8.85		35:43	1.24	
1,2,3,6,7,8-HxCDD	**191**	0.731	8.85		35:49	1.27	
1,2,3,7,8,9-HxCDD	**211**	0.470	8.85		36:01	1.26	
1,2,3,4,6,7,8-HpCDD	**273**	0.731	8.85		38:48	1.03	
OCDD	**889**	1.60	17.7		42:40	0.89	
2,3,7,8-TCDF	**52.7**	0.182	1.77		28:46	0.77	
1,2,3,7,8-PeCDF	**194**	0.564	8.85		32:31	1.57	
2,3,4,7,8-PeCDF	**190**	0.563	8.85		33:07	1.56	
1,2,3,4,7,8-HxCDF	**191**	0.851	8.85		35:03	1.27	
1,2,3,6,7,8-HxCDF	**189**	0.243	8.85		35:09	1.26	
2,3,4,6,7,8-HxCDF	**194**	0.546	8.85		35:37	1.25	
1,2,3,7,8,9-HxCDF	**179**	0.529	8.85		36:16	1.24	
1,2,3,4,6,7,8-HpCDF	**227**	0.996	8.85		37:39	1.02	
1,2,3,4,7,8,9-HpCDF	**164**	0.994	8.85		39:22	1.03	
OCDF	**521**	1.25	17.7		42:54	0.90	

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Dry	
			Matrix:	Sediment	
Sample ID:	WGL-SD-SD111-000.6 MSD		Weight / Volume:	24.66	g
			Solids / Lipids:	22.9	%
			Original pH :	NA	
Laboratory Information			Batch ID:	WG17152	
Project ID:	G330-40		Instrument:	HRMS1	
Sample ID:	G330-40-19B		Filename:	a25jun09a_5-8	
Collection Date/Time:	06/11/09	15:15	Retchk:	a25jun09a_4-14	
Receipt Date/Time:	06/12/09	10:00	Begin ConCal:	a25jun09a_4-14	
Extraction Date:	06/18/09		End ConCal:	a25jun09a_5-14	
Analysis Date/Time:	06/27/09	13:43	Initial Cal:	m8290-100708a	

Method 8290
WGL-SD-SD111-000.6 MSD
Tetra Tech Nus, Inc.

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)		Percent Recovery (%)		RT (min.)	Ratio	Qualifier
Extraction Standards								
13C12-2,3,7,8-TCDD	2	1.22		61.0		29:40	0.79	
13C12-1,2,3,7,8-PeCDD	2	1.38		69.1		33:16	1.57	
13C12-1,2,3,6,7,8-HxCDD	2	1.11		55.4		35:48	1.26	
13C12-1,2,3,4,6,7,8-HpCDD	2	1.27		63.3		38:46	1.06	
13C12-OCDD	4.0	1.47		36.8	#	42:39	0.90	
13C12-2,3,7,8-TCDF	2	1.27		63.3		28:45	0.80	
13C12-1,2,3,7,8-PeCDF	2	1.37		68.4		32:31	1.50	
13C12-1,2,3,6,7,8-HxCDF	2	1.16		57.8		35:07	0.52	
13C12-1,2,3,4,6,7,8-HpCDF	2	1.23		61.4		37:39	0.45	
Cleanup Standards								
37Cl4-2,3,7,8-TCDD	0.4	0.391		97.8		29:42	-	
13C12-2,3,4,7,8-PeCDF	0.4	0.423		106		33:07	1.58	
13C12-1,2,3,4,7,8-HxCDD	0.4	0.522		130		35:43	1.27	
13C12-1,2,3,4,7,8-HxCDF	0.4	0.356		88.9		35:03	0.51	
13C12-1,2,3,4,7,8,9-HpCDF	0.4	0.365		91.1		39:22	0.46	
Injection Standards								
13C12-1,2,3,4-TCDD	2.0	-		-		28:55	0.80	
13C12-1,2,3,7,8,9-HxCDD	2.0	-		-		36:01	1.25	

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Dry	
			Matrix:	Sediment	
Sample ID:	WGL-SD-SD111-000.6 MSD		Weight / Volume:	24.66	g
			Solids / Lipids:	22.9	%
			Original pH :	NA	
Laboratory Information			Batch ID:	WG17152	
Project ID:	G330-40		Instrument:	HRMS1	
Sample ID:	G330-40-19B		Filename:	a25jun09a_5-8	
Collection Date/Time:	06/11/09	15:15	Retchk:	a25jun09a_4-14	
Receipt Date/Time:	06/12/09	10:00	Begin ConCal:	a25jun09a_4-14	
Extraction Date:	06/18/09		End ConCal:	a25jun09a_5-14	
Analysis Date/Time:	06/27/09	13:43	Initial Cal:	m8290-100708a	

Form Version:[8290]Report

Analyzed by: DS
Date: 7-1-09

Reviewed by: [illegible]
Date: 7/1/09

TCDF Confirmation - Method 8290
WGL-SD-SD111-000.6 MSD
Tetra Tech Nus, Inc.

Analytical Data Summary Sheet

Analyte	Adj. MDL (pg/g)	Amount (pg/g)	Adj. RL (pg/g)	EMPC (pg/g)	RT (min.)	Ratio	Qualifier
2,3,7,8-TCDF	0.182	40.7	1.77		20.33	0.67	

Labeled Standard	Spiked Amount (ng)	RT (min.)	Ratio	Qualifier
Extraction Standards				
13C12-2,3,7,8-TCDF	2	20.31	0.75	

Client Information		**Sample Information**	
Project Name:	CTO 407, N6242-04-D-0055, West Gate	Report Basis:	Dry
		Matrix:	Sediment
Sample ID:	WGL-SD-SD111-000.6 MSD	Weight / Volume:	24.66 g
		Solids / Lipids:	22.92 %
		Original pH :	NA
Laboratory Information		Batch ID:	WG17152
Project ID:	G330-40	Instrument:	hrms3
Sample ID:	G330-40-19B	Filename:	c01jul09b-12
Collection Date/Time:	06/11/09 15:15	Retchk:	c01jul09b-2
Receipt Date:	06/12/09 10:00	Begin ConCal:	c01jul09b-1
Extraction Date:	06/18/09	End ConCal:	c01jul09b-15
Analysis Date/Time:	07/01/09 14:41	Initial Cal:	mcf-c042709a

Analyzed by: JWP
Date: 070209

Reviewed by: YM
Date: 7-7-09

Method 8290
Lab Method Blank

Analytical Data Summary Sheet

Analyte	Amount pg/g	MDL pg/g	RL pg/g	EMPC pg/g	RT (min.)	Ratio	Qualifier
2,3,7,8-TCDD	ND	0.119	1.00				
1,2,3,7,8-PeCDD	ND	0.278	5.00				
1,2,3,4,7,8-HxCDD	ND	0.422	5.00				
1,2,3,6,7,8-HxCDD	ND	0.413	5.00				
1,2,3,7,8,9-HxCDD	ND	0.265	5.00				
1,2,3,4,6,7,8-HpCDD	ND	0.413	5.00				
OCDD	ND	0.905	10.0				
2,3,7,8-TCDF	**0.198**	0.103	1.00		29:28	0.72	J
1,2,3,7,8-PeCDF	ND	0.319	5.00				
2,3,4,7,8-PeCDF	ND	0.318	5.00				
1,2,3,4,7,8-HxCDF	ND	0.481	5.00				
1,2,3,6,7,8-HxCDF	ND	0.138	5.00				
2,3,4,6,7,8-HxCDF	ND	0.308	5.00				
1,2,3,7,8,9-HxCDF	ND	0.299	5.00				
1,2,3,4,6,7,8-HpCDF	ND	0.563	5.00				
1,2,3,4,7,8,9-HpCDF	ND	0.562	5.00				
OCDF	ND	0.709	10.0				
Total TCDDs	ND	0.119	1.00				
Total PeCDDs	ND	0.278	5.00				
Total HxCDDs	ND	0.265	5.00				
Total HpCDDs	ND	0.413	5.00				
Total TCDFs	**0.198**	0.103	1.00	0.594			
Total PeCDFs	ND	0.318	5.00				
Total HxCDFs	ND	0.138	5.00				
Total HpCDFs	ND	0.562	5.00				
WHO-2005 TEQ (ND=0)	**0.0198**			0.0198			
WHO-2005 TEQ (ND=½)	**0.668**			0.668			

Client Information			**Sample Information**		
Project Name:			Report Basis:	Wet	
			Matrix:	Soil	
Sample ID:	Lab Method Blank		Weight / Volume:	10.00	g
			Solids / Lipids:	NA	%
			Original pH :	NA	
Laboratory Information			Batch ID:	WG17152	
Project ID:			Instrument:	HRMS1	
Sample ID:			Filename:	a19jun09a-4	
Collection Date/Time:			Retchk:	a19jun09a-1	
Receipt Date/Time:			Begin ConCal:	a19jun09a-1	
Extraction Date:	06/18/09		End ConCal:	a19jun09a-15	
Analysis Date/Time:	06/19/09	18:46	Initial Cal:	m8290-100708a	

Method 8290
Lab Method Blank

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)		Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards							
13C12-2,3,7,8-TCDD	2	1.51		75.3	30:21	0.79	
13C12-1,2,3,7,8-PeCDD	2	1.98		98.9	33:36	1.58	
13C12-1,2,3,6,7,8-HxCDD	2	1.90		95.1	36:10	1.26	
13C12-1,2,3,4,6,7,8-HpCDD	2	2.09		105	39:19	1.06	
13C12-OCDD	4.0	3.83		95.8	43:22	0.90	
13C12-2,3,7,8-TCDF	2	1.70		84.9	29:25	0.80	
13C12-1,2,3,7,8-PeCDF	2	1.91		95.7	32:49	1.59	
13C12-1,2,3,6,7,8-HxCDF	2	1.73		86.3	35:30	0.52	
13C12-1,2,3,4,6,7,8-HpCDF	2	1.86		93.0	38:09	0.45	
Cleanup Standards							
37Cl4-2,3,7,8-TCDD	0.4	0.376		94.0	30:22	-	
13C12-2,3,4,7,8-PeCDF	0.4	0.456		114	33:25	1.59	
13C12-1,2,3,4,7,8-HxCDD	0.4	0.305		76.3	36:04	1.25	
13C12-1,2,3,4,7,8-HxCDF	0.4	0.389		97.3	35:24	0.51	
13C12-1,2,3,4,7,8,9-HpCDF	0.4	0.490		123	39:57	0.44	
Injection Standards							
13C12-1,2,3,4-TCDD	2.0	-		-	29:36	0.80	
13C12-1,2,3,7,8,9-HxCDD	2.0	-		-	36:24	1.25	

Client Information			**Sample Information**		
Project Name:			Report Basis:	Wet	
			Matrix:	Soil	
Sample ID:	Lab Method Blank		Weight / Volume:	10.00	g
			Solids / Lipids:	NA	%
			Original pH :	NA	
Laboratory Information			Batch ID:	WG17152	
Project ID:			Instrument:	HRMS1	
Sample ID:			Filename:	a19jun09a-4	
Collection Date/Time:			Retchk:	a19jun09a-1	
Receipt Date/Time:			Begin ConCal:	a19jun09a-1	
Extraction Date:	06/18/09		End ConCal:	a19jun09a-15	
Analysis Date/Time:	06/19/09	18:46	Initial Cal:	m8290-100708a	

Form Version:[8290]Report

Analyzed by: DS
Date: 7-9-09

Reviewed by: TM
Date: 7-9-09

Analytical Results
for
Ongoing Precision Result (OPR)

Analyte	Spiked (pg/µL)	AMT (pg/µL)	REC %	Range % Lower	Range % Upper	Qualifier
2,3,7,8-TCDD	10	11.2	112	70.0	130	
1,2,3,7,8-PeCDD	50	52.4	105	70.0	130	
1,2,3,4,7,8-HxCDD	50	51.9	104	70.0	130	
1,2,3,6,7,8-HxCDD	50	53.0	106	70.0	130	
1,2,3,7,8,9-HxCDD	50	52.6	105	70.0	130	
1,2,3,4,6,7,8-HpCDD	50	52.5	105	70.0	130	
OCDD	100	104	104	70.0	130	
2,3,7,8-TCDF	10	10.1	101	70.0	130	
1,2,3,7,8-PeCDF	50	51.9	104	70.0	130	
2,3,4,7,8-PeCDF	50	53.8	108	70.0	130	
1,2,3,4,7,8-HxCDF	50	52.8	106	70.0	130	
1,2,3,6,7,8-HxCDF	50	54.5	109	70.0	130	
2,3,4,6,7,8-HxCDF	50	54.7	109	70.0	130	
1,2,3,7,8,9-HxCDF	50	55.5	111	70.0	130	
1,2,3,4,6,7,8-HpCDF	50	52.3	105	70.0	130	
1,2,3,4,7,8,9-HpCDF	50	57.2	114	70.0	130	
OCDF	100	112	112	70.0	130	

= Outside range limits
* = Ion Ratio Out

QC Information

OPR Project No: OPR17152
Extraction Date: 18-Jun-09
Analysis Date: 19-Jun-09
Method: 8290

File Information

OPR Filename: a19jun09a-2
Retchk: a19jun09a-1
Begin ConCal: a19jun09a-1
End ConCal: a19jun09a-15
Initial Cal: m8290-100708a

Sample Information

Matrix: Soil

Analytical Results
for
Ongoing Precision Result (OPR)

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)	Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards						
13C12-2,3,7,8-TCDD	2	1.76	88.0	30:22	0.78	
13C12-1,2,3,7,8-PeCDD	2	2.11	106	33:36	1.60	
13C12-1,2,3,6,7,8-HxCDD	2	1.94	97.0	36:10	1.25	
13C12-1,2,3,4,6,7,8-HpCDD	2	2.20	110	39:19	1.06	
13C12-OCDD	4	4.21	105	43:24	0.89	
13C12-2,3,7,8-TCDF	2	1.96	98.0	29:25	0.80	
13C12-1,2,3,7,8-PeCDF	2	1.96	98.0	32:49	1.58	
13C12-1,2,3,6,7,8-HxCDF	2	1.81	90.5	35:30	0.53	
13C12-1,2,3,4,6,7,8-HpCDF	2	1.94	97.0	38:09	0.45	
Cleanup Standards						
37Cl4-2,3,7,8-TCDD	0.4	0.444	111	30:22	-	
13C12-2,3,4,7,8-PeCDF	0.4	0.498	125	33:25	1.60	
13C12-1,2,3,4,7,8-HxCDD	0.4	0.372	93.0	36:04	1.25	
13C12-1,2,3,4,7,8-HxCDF	0.4	0.413	103	35:24	0.51	
13C12-1,2,3,4,7,8,9-HpCDF	0.4	0.542	136 #	39:57	0.45	
Injection Standards						
13C12-1,2,3,4-TCDD	2	-	-	29:36	0.79	
13C12-1,2,3,7,8,9-HxCDD	2	-	-	36:24	1.25	

QC Information

OPR Project No: OPR17152
Extraction Date: 18-Jun-09
Analysis Date: 19-Jun-09
Method: 8290

Sample Information

Matrix: Soil

File Information

OPR Filename : a19jun09a-2
Retchk: a19jun09a-1
Begin ConCal: a19jun09a-1
End ConCal: a19jun09a-15
Initial Cal: m8290-100708a

Form Version:[8290]OPR

Reviewed By: TM

Date Reviewed: 6-30-09

Analytical Results
for
Ongoing Precision & Recovery Duplicate Results (OPRD)

Analyte	Spiked (pg/µL)	AMT (pg/µL)	Recovery %	#	Range Lower	Range Upper	OPR Rec(%)	#	RPD (±20%)	Qualifier
2,3,7,8-TCDD	10.0	11.7	117		70.0	130	112		4.05	
1,2,3,7,8-PeCDD	50.0	53.0	106		70.0	130	105		0.913	
1,2,3,4,7,8-HxCDD	50.0	54.0	108		70.0	130	104		3.78	
1,2,3,6,7,8-HxCDD	50.0	53.3	107		70.0	130	106		0.540	
1,2,3,7,8,9-HxCDD	50.0	55.5	111		70.0	130	105		5.48	
1,2,3,4,6,7,8-HpCDD	50.0	52.7	105		70.0	130	105		0.366	
OCDD	100	104	104		70.0	130	104		0.373	
2,3,7,8-TCDF	10.0	10.1	101		70.0	130	101		0.365	
1,2,3,7,8-PeCDF	50.0	54.0	108		70.0	130	104		3.64	
2,3,4,7,8-PeCDF	50.0	51.4	103		70.0	130	108		5.03	
1,2,3,4,7,8-HxCDF	50.0	53.7	107		70.0	130	106		1.37	
1,2,3,6,7,8-HxCDF	50.0	54.3	109		70.0	130	109		0.428	
2,3,4,6,7,8-HxCDF	50.0	54.3	109		70.0	130	109		0.348	
1,2,3,7,8,9-HxCDF	50.0	54.6	109		70.0	130	111		1.59	
1,2,3,4,6,7,8-HpCDF	50.0	53.9	108		70.0	130	105		2.66	
1,2,3,4,7,8,9-HpCDF	50.0	55.7	111		70.0	130	114		2.32	
OCDF	100	109	109		70.0	130	112		3.11	

= Outside range limits
* = Ion Ratio Out

QC Information

OPR Project No: OPRD17152
Extraction Date: 18-Jun-09
Analysis Date: 19-Jun-09
Method: 8290

Sample Information

Matrix: Soil

File Information

OPRD Filename : a19jun09a-3
Retchk: a19jun09a-1
Begin ConCal: a19jun09a-1
End ConCal: a19jun09a-15
Initial Cal: m8290-100708a

Analytical Results
for
Ongoing Precision & Recovery Duplicate Results (OPRD)

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)	Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards			(40-135%)			
13C12-2,3,7,8-TCDD	2	1.52	76.0	30:21	0.79	
13C12-1,2,3,7,8-PeCDD	2	1.81	90.6	33:36	1.59	
13C12-1,2,3,6,7,8-HxCDD	2	1.60	79.9	36:10	1.26	
13C12-1,2,3,4,6,7,8-HpCDD	2	1.86	93.0	39:19	1.06	
13C12-OCDD	4	3.49	87.3	43:22	0.90	
13C12-2,3,7,8-TCDF	2	1.72	85.8	29:25	0.79	
13C12-1,2,3,7,8-PeCDF	2	1.76	88.1	32:49	1.60	
13C12-1,2,3,6,7,8-HxCDF	2	1.55	77.3	35:30	0.53	
13C12-1,2,3,4,6,7,8-HpCDF	2	1.63	81.5	38:09	0.45	
Cleanup Standards			(70-130%)			
37Cl4-2,3,7,8-TCDD	0.4	0.413	103	30:22	-	
13C12-2,3,4,7,8-PeCDF	0.4	0.457	114	33:25	1.59	
13C12-1,2,3,4,7,8-HxCDD	0.4	0.339	84.7	36:04	1.25	
13C12-1,2,3,4,7,8-HxCDF	0.4	0.385	96.2	35:24	0.51	
13C12-1,2,3,4,7,8,9-HpCDF	0.4	0.473	118	39:55	0.45	
Injection Standards						
13C12-1,2,3,4-TCDD	2	-	-	29:36	0.79	
13C12-1,2,3,7,8,9-HxCDD	2	-	-	36:24	1.25	

QC Information

OPR Project No: OPRD17152
Extraction Date: 18-Jun-09
Analysis Date: 19-Jun-09
Method: 8290

Sample Information

Matrix: Soil

File Information

OPRD Filename : a19jun09a-3
Retchk: a19jun09a-1
Begin ConCal: a19jun09a-1
End ConCal: a19jun09a-15
Initial Cal: m8290-100708a

Form Version:[8290]OPRD

Reviewed By: TM

Date Reviewed: 6-30-09

Method 8290
Lab Method Blank

Analytical Data Summary Sheet

Analyte	Amount ng/L	MDL ng/L	RL ng/L	EMPC ng/L	RT (min.)	Ratio	Qualifier
2,3,7,8-TCDD	ND	0.00086	0.0100				
1,2,3,7,8-PeCDD	ND	0.00252	0.0500				
1,2,3,4,7,8-HxCDD	ND	0.00722	0.0500				
1,2,3,6,7,8-HxCDD	ND	0.00337	0.0500				
1,2,3,7,8,9-HxCDD	ND	0.00385	0.0500				
1,2,3,4,6,7,8-HpCDD	ND	0.00583	0.0500				
OCDD	ND	0.0065	0.100				
2,3,7,8-TCDF	ND	0.00150	0.0100				
1,2,3,7,8-PeCDF	ND	0.00296	0.0500				
2,3,4,7,8-PeCDF	ND	0.00697	0.0500				
1,2,3,4,7,8-HxCDF	ND	0.00548	0.0500				
1,2,3,6,7,8-HxCDF	ND	0.00478	0.0500				
2,3,4,6,7,8-HxCDF	ND	0.00426	0.0500				
1,2,3,7,8,9-HxCDF	ND	0.00586	0.0500				
1,2,3,4,6,7,8-HpCDF	ND	0.00234	0.0500				
1,2,3,4,7,8,9-HpCDF	ND	0.00411	0.0500				
OCDF	ND	0.0064	0.100				
Total TCDDs	ND	0.00086	0.0100				
Total PeCDDs	ND	0.00252	0.0500				
Total HxCDDs	ND	0.00337	0.0500				
Total HpCDDs	ND	0.00583	0.0500				
Total TCDFs	ND	0.00150	0.0100				
Total PeCDFs	ND	0.00296	0.0500				
Total HxCDFs	ND	0.00426	0.0500				
Total HpCDFs	ND	0.00234	0.0500				
WHO-2005 TEQ (ND=0)	ND			ND			
WHO-2005 TEQ (ND=½)	0.00694			0.00694			

Client Information			**Sample Information**		
Project Name:			Report Basis:	Wet	
			Matrix:	Water	
Sample ID:	Lab Method Blank		Weight / Volume:	1000	mL
			Solids / Lipids:	NA	%
			Original pH :	5.00	
Laboratory Information			Batch ID:	WG17172	
Project ID:			Instrument:	HRMS1	
Sample ID:			Filename:	a01jul09c-4	
Collection Date/Time:			Retchk:	a01jul09c-1	
Receipt Date/Time:			Begin ConCal:	a01jul09c-1	
Extraction Date:	06/29/09		End ConCal:	a01jul09c-15	
Analysis Date/Time:	07/01/09	17:35	Initial Cal:	m8290-100708a	

Method 8290
Lab Method Blank

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)		Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards							
13C12-2,3,7,8-TCDD	2	1.76		87.9	29:39	0.78	
13C12-1,2,3,7,8-PeCDD	2	1.99		99.5	33:16	1.58	
13C12-1,2,3,6,7,8-HxCDD	2	1.80		90.2	35:46	1.25	
13C12-1,2,3,4,6,7,8-HpCDD	2	1.84		92.2	38:46	1.05	
13C12-OCDD	4.0	3.78		94.4	42:37	0.89	
13C12-2,3,7,8-TCDF	2	1.88		93.9	28:43	0.78	
13C12-1,2,3,7,8-PeCDF	2	1.86		92.9	32:31	1.56	
13C12-1,2,3,6,7,8-HxCDF	2	1.68		84.1	35:07	0.52	
13C12-1,2,3,4,6,7,8-HpCDF	2	1.65		82.6	37:39	0.45	
Cleanup Standards							
37Cl4-2,3,7,8-TCDD	0.4	0.439		110	29:40	-	
13C12-2,3,4,7,8-PeCDF	0.4	0.464		116	33:06	1.54	
13C12-1,2,3,4,7,8-HxCDD	0.4	0.421		105	35:40	1.25	
13C12-1,2,3,4,7,8-HxCDF	0.4	0.390		97.5	35:01	0.51	
13C12-1,2,3,4,7,8,9-HpCDF	0.4	0.404		101	39:22	0.44	
Injection Standards							
13C12-1,2,3,4-TCDD	2.0	-		-	28:54	0.80	
13C12-1,2,3,7,8,9-HxCDD	2.0	-		-	35:58	1.26	

Client Information			**Sample Information**		
Project Name:			Report Basis:	Wet	
			Matrix:	Water	
Sample ID:	Lab Method Blank		Weight / Volume:	1000	mL
			Solids / Lipids:	NA	%
			Original pH :	5.00	
Laboratory Information			Batch ID:	WG17172	
Project ID:			Instrument:	HRMS1	
Sample ID:			Filename:	a01jul09c-4	
Collection Date/Time:			Retchk:	a01jul09c-1	
Receipt Date/Time:			Begin ConCal:	a01jul09c-1	
Extraction Date:	06/29/09		End ConCal:	a01jul09c-15	
Analysis Date/Time:	07/01/09	17:35	Initial Cal:	m8290-100708a	

Form Version:[8290]Report

Analyzed by: DS
Date: 7-2-09

Reviewed by: YM
Date: 7-2-09

Analytical Results
for
Ongoing Precision Result (OPR)

Analyte	Spiked (pg/µL)	AMT (pg/µL)	REC %	Range % Lower	Range % Upper	Qualifier
2,3,7,8-TCDD	10	10.7	107	70.0	130	
1,2,3,7,8-PeCDD	50	50.6	101	70.0	130	
1,2,3,4,7,8-HxCDD	50	51.0	102	70.0	130	
1,2,3,6,7,8-HxCDD	50	49.3	98.6	70.0	130	
1,2,3,7,8,9-HxCDD	50	53.6	107	70.0	130	
1,2,3,4,6,7,8-HpCDD	50	48.7	97.3	70.0	130	
OCDD	100	98.4	98.4	70.0	130	
2,3,7,8-TCDF	10	9.21	92.1	70.0	130	
1,2,3,7,8-PeCDF	50	49.2	98.5	70.0	130	
2,3,4,7,8-PeCDF	50	50.3	101	70.0	130	
1,2,3,4,7,8-HxCDF	50	49.6	99.2	70.0	130	
1,2,3,6,7,8-HxCDF	50	50.2	100	70.0	130	
2,3,4,6,7,8-HxCDF	50	49.1	98.2	70.0	130	
1,2,3,7,8,9-HxCDF	50	51.4	103	70.0	130	
1,2,3,4,6,7,8-HpCDF	50	46.6	93.1	70.0	130	
1,2,3,4,7,8,9-HpCDF	50	47.1	94.1	70.0	130	
OCDF	100	93.4	93.4	70.0	130	

= Outside range limits
* = Ion Ratio Out

QC Information

OPR Project No:	OPR17172
Extraction Date:	29-Jun-09
Analysis Date:	1-Jul-09
Method:	8290

Sample Information

Matrix:	Water

File Information

OPR Filename:	a01jul09c-2
Retchk:	a01jul09c-1
Begin ConCal:	a01jul09c-1
End ConCal:	a01jul09c-15
Initial Cal:	m8290-100708a

Analytical Results
for
Ongoing Precision Result (OPR)

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)	Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards						
13C12-2,3,7,8-TCDD	2	1.75	87.5	29:39	0.79	
13C12-1,2,3,7,8-PeCDD	2	1.99	99.5	33:16	1.58	
13C12-1,2,3,6,7,8-HxCDD	2	1.86	93.0	35:46	1.25	
13C12-1,2,3,4,6,7,8-HpCDD	2	1.82	91.0	38:46	1.06	
13C12-OCDD	4	3.79	94.8	42:37	0.89	
13C12-2,3,7,8-TCDF	2	1.92	96.0	28:43	0.79	
13C12-1,2,3,7,8-PeCDF	2	1.86	93.0	32:31	1.57	
13C12-1,2,3,6,7,8-HxCDF	2	1.73	86.5	35:07	0.52	
13C12-1,2,3,4,6,7,8-HpCDF	2	1.69	84.5	37:39	0.45	
Cleanup Standards						
37Cl4-2,3,7,8-TCDD	0.4	0.473	118	29:40	-	
13C12-2,3,4,7,8-PeCDF	0.4	0.506	127	33:07	1.56	
13C12-1,2,3,4,7,8-HxCDD	0.4	0.464	116	35:40	1.27	
13C12-1,2,3,4,7,8-HxCDF	0.4	0.467	117	35:01	0.51	
13C12-1,2,3,4,7,8,9-HpCDF	0.4	0.440	110	39:22	0.45	
Injection Standards						
13C12-1,2,3,4-TCDD	2	-	-	28:54	0.80	
13C12-1,2,3,7,8,9-HxCDD	2	-	-	35:58	1.25	

QC Information

OPR Project No: OPR17172
Extraction Date: 29-Jun-09
Analysis Date: 1-Jul-09
Method: 8290

Sample Information

Matrix: Water

File Information

OPR Filename : a01jul09c-2
Retchk: a01jul09c-1
Begin ConCal: a01jul09c-1
End ConCal: a01jul09c-15
Initial Cal: m8290-100708a

Form Version:[8290]OPR

Reviewed By: TM

Date Reviewed: 7-2-09

Analytical Results
for
Ongoing Precision & Recovery Duplicate Results (OPRD)

Analyte	Spiked (pg/µL)	AMT (pg/µL)	Recovery %	#	Range Lower	Range Upper	OPR Rec(%)	#	RPD (±20%)	Qualifier
2,3,7,8-TCDD	10.0	10.6	106		70.0	130	107		1.04	
1,2,3,7,8-PeCDD	50.0	49.9	99.8		70.0	130	101		1.25	
1,2,3,4,7,8-HxCDD	50.0	48.6	97.2		70.0	130	102		4.90	
1,2,3,6,7,8-HxCDD	50.0	50.3	101		70.0	130	98.6		2.04	
1,2,3,7,8,9-HxCDD	50.0	53.9	108		70.0	130	107		0.808	
1,2,3,4,6,7,8-HpCDD	50.0	48.6	97.1		70.0	130	97.3		0.194	
OCDD	100	96.3	96.3		70.0	130	98.4		2.18	
2,3,7,8-TCDF	10.0	9.11	91.1		70.0	130	92.1		1.14	
1,2,3,7,8-PeCDF	50.0	47.9	95.8		70.0	130	98.5		2.83	
2,3,4,7,8-PeCDF	50.0	48.2	96.5		70.0	130	101		4.69	
1,2,3,4,7,8-HxCDF	50.0	48.5	96.9		70.0	130	99.2		2.37	
1,2,3,6,7,8-HxCDF	50.0	48.3	96.6		70.0	130	100		3.54	
2,3,4,6,7,8-HxCDF	50.0	48.2	96.4		70.0	130	98.2		1.90	
1,2,3,7,8,9-HxCDF	50.0	49.8	99.6		70.0	130	103		3.38	
1,2,3,4,6,7,8-HpCDF	50.0	46.0	92.1		70.0	130	93.1		1.10	
1,2,3,4,7,8,9-HpCDF	50.0	45.7	91.4		70.0	130	94.1		2.95	
OCDF	100	89.5	89.5		70.0	130	93.4		4.37	

= Outside range limits
* = Ion Ratio Out

QC Information

OPR Project No: OPRD17172
Extraction Date: 29-Jun-09
Analysis Date: 1-Jul-09
Method: 8290

Sample Information

Matrix: Water

File Information

OPRD Filename : a01jul09c-3
Retchk: a01jul09c-1
Begin ConCal: a01jul09c-1
End ConCal: a01jul09c-15
Initial Cal: m8290-100708a

Analytical Results
for
Ongoing Precision & Recovery Duplicate Results (OPRD)

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)	Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards			(40-135%)			
13C12-2,3,7,8-TCDD	2	1.79	89.7	29:39	0.79	
13C12-1,2,3,7,8-PeCDD	2	2.03	101	33:16	1.56	
13C12-1,2,3,6,7,8-HxCDD	2	1.84	92.0	35:46	1.25	
13C12-1,2,3,4,6,7,8-HpCDD	2	1.75	87.5	38:46	1.04	
13C12-OCDD	4	3.61	90.2	42:37	0.90	
13C12-2,3,7,8-TCDF	2	1.92	96.2	28:43	0.79	
13C12-1,2,3,7,8-PeCDF	2	1.88	94.2	32:31	1.54	
13C12-1,2,3,6,7,8-HxCDF	2	1.71	85.4	35:07	0.52	
13C12-1,2,3,4,6,7,8-HpCDF	2	1.61	80.4	37:39	0.45	
Cleanup Standards			(70-130%)			
37Cl4-2,3,7,8-TCDD	0.4	0.469	117	29:40	-	
13C12-2,3,4,7,8-PeCDF	0.4	0.489	122	33:06	1.54	
13C12-1,2,3,4,7,8-HxCDD	0.4	0.453	113	35:40	1.25	
13C12-1,2,3,4,7,8-HxCDF	0.4	0.410	103	35:01	0.52	
13C12-1,2,3,4,7,8,9-HpCDF	0.4	0.406	101	39:22	0.44	
Injection Standards						
13C12-1,2,3,4-TCDD	2	-	-	28:54	0.79	
13C12-1,2,3,7,8,9-HxCDD	2	-	-	35:58	1.26	

QC Information

OPR Project No: OPRD17172
Extraction Date: 29-Jun-09
Analysis Date: 01-Jul-09
Method: 8290

Sample Information

Matrix: Water

File Information

OPRD Filename : a01jul09c-3
Retchk: a01jul09c-1
Begin ConCal: a01jul09c-1
End ConCal: a01jul09c-15
Initial Cal: m8290-100708a

Form Version:[8290]OPRD

Reviewed By: YM

Date Reviewed: 7-2-09

Method 8290
Lab Method Blank

Analytical Data Summary Sheet

Analyte	Amount pg/g	MDL pg/g	RL pg/g	EMPC pg/g	RT (min.)	Ratio	Qualifier
2,3,7,8-TCDD	ND	0.119	1.00				
1,2,3,7,8-PeCDD	ND	0.278	5.00				
1,2,3,4,7,8-HxCDD	ND	0.422	5.00				
1,2,3,6,7,8-HxCDD	ND	0.413	5.00				
1,2,3,7,8,9-HxCDD	ND	0.265	5.00				
1,2,3,4,6,7,8-HpCDD	ND	0.413	5.00				
OCDD	ND	0.905	10.0				
2,3,7,8-TCDF	ND	0.103	1.00				
1,2,3,7,8-PeCDF	ND	0.319	5.00				
2,3,4,7,8-PeCDF	ND	0.318	5.00				
1,2,3,4,7,8-HxCDF	ND	0.481	5.00				
1,2,3,6,7,8-HxCDF	ND	0.138	5.00				
2,3,4,6,7,8-HxCDF	ND	0.308	5.00				
1,2,3,7,8,9-HxCDF	ND	0.299	5.00				
1,2,3,4,6,7,8-HpCDF	ND	0.563	5.00				
1,2,3,4,7,8,9-HpCDF	ND	0.562	5.00				
OCDF	ND	0.709	10.0				
Total TCDDs	ND	0.119	1.00				
Total PeCDDs	ND	0.278	5.00				
Total HxCDDs	ND	0.265	5.00				
Total HpCDDs	ND	0.413	5.00				
Total TCDFs	ND	0.103	1.00				
Total PeCDFs	ND	0.318	5.00				
Total HxCDFs	ND	0.138	5.00				
Total HpCDFs	ND	0.562	5.00				
WHO-2005 TEQ (ND=0)	ND			ND			
WHO-2005 TEQ (ND=½)	**0.648**			0.648			

Client Information			**Sample Information**		
Project Name:·			Report Basis:	Wet	
			Matrix:	Soil	
Sample ID:	Lab Method Blank		Weight / Volume:	10.00	g
			Solids / Lipids:	NA	%
			Original pH :	NA	
Laboratory Information			Batch ID:	WG17177	
Project ID:			Instrument:	HRMS1	
Sample ID:			Filename:	a06jul09c-4	
Collection Date/Time:			Retchk:	a06jul09c-1	
Receipt Date/Time:			Begin ConCal:	a06jul09c-1	
Extraction Date:	07/05/09		End ConCal:	a06jul09c-15	
Analysis Date/Time:	07/06/09	18:18	Initial Cal:	m8290-100708a	

Method 8290
Lab Method Blank

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)		Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards							
13C12-2,3,7,8-TCDD	2	1.51		75.3	29:39	0.78	
13C12-1,2,3,7,8-PeCDD	2	1.66		82.9	33:16	1.57	
13C12-1,2,3,6,7,8-HxCDD	2	1.70		85.2	35:46	1.26	
13C12-1,2,3,4,6,7,8-HpCDD	2	1.52		75.9	38:46	1.05	
13C12-OCDD	4.0	2.78		69.5	42:39	0.90	
13C12-2,3,7,8-TCDF	2	1.66		82.9	28:43	0.78	
13C12-1,2,3,7,8-PeCDF	2	1.63		81.4	32:31	1.58	
13C12-1,2,3,6,7,8-HxCDF	2	1.57		78.6	35:07	0.52	
13C12-1,2,3,4,6,7,8-HpCDF	2	1.37		68.5	37:40	0.44	
Cleanup Standards							
37Cl4-2,3,7,8-TCDD	0.4	0.357		89.2	29:40	-	
13C12-2,3,4,7,8-PeCDF	0.4	0.364		91.0	33:07	1.58	
13C12-1,2,3,4,7,8-HxCDD	0.4	0.351		87.8	35:40	1.27	
13C12-1,2,3,4,7,8-HxCDF	0.4	0.362		90.5	35:01	0.51	
13C12-1,2,3,4,7,8,9-HpCDF	0.4	0.290		72.5	39:22	0.44	
Injection Standards							
13C12-1,2,3,4-TCDD	2.0	-		-	28:54	0.79	
13C12-1,2,3,7,8,9-HxCDD	2.0	-		-	35:58	1.24	

Client Information			**Sample Information**		
Project Name:			Report Basis:	Wet	
			Matrix:	Soil	
Sample ID:	Lab Method Blank		Weight / Volume:	10.00	g
			Solids / Lipids:	NA	%
			Original pH :	NA	
Laboratory Information			Batch ID:	WG17177	
Project ID:			Instrument:	HRMS1	
Sample ID:			Filename:	a06jul09c-4	
Collection Date/Time:			Retchk:	a06jul09c-1	
Receipt Date/Time:			Begin ConCal:	a06jul09c-1	
Extraction Date:	07/05/09		End ConCal:	a06jul09c-15	
Analysis Date/Time:	07/06/09	18:18	Initial Cal:	m8290-100708a	

Form Version:[8290]Report

Analyzed by: DS
Date: 7-7-09

Reviewed by: TM
Date: 7.7.09

Analytical Results
for
Ongoing Precision Result (OPR)

Analyte	Spiked (pg/µL)	AMT (pg/µL)	REC %	Range % Lower	Range % Upper	Qualifier
2,3,7,8-TCDD	10	9.94	99.4	70.0	130	
1,2,3,7,8-PeCDD	50	46.1	92.2	70.0	130	
1,2,3,4,7,8-HxCDD	50	45.7	91.4	70.0	130	
1,2,3,6,7,8-HxCDD	50	44.3	88.6	70.0	130	
1,2,3,7,8,9-HxCDD	50	46.1	92.1	70.0	130	
1,2,3,4,6,7,8-HpCDD	50	44.9	89.8	70.0	130	
OCDD	100	89.4	89.4	70.0	130	
2,3,7,8-TCDF	10	9.28	92.8	70.0	130	
1,2,3,7,8-PeCDF	50	46.8	93.6	70.0	130	
2,3,4,7,8-PeCDF	50	45.8	91.7	70.0	130	
1,2,3,4,7,8-HxCDF	50	44.6	89.2	70.0	130	
1,2,3,6,7,8-HxCDF	50	46.2	92.4	70.0	130	
2,3,4,6,7,8-HxCDF	50	43.3	86.7	70.0	130	
1,2,3,7,8,9-HxCDF	50	44.8	89.6	70.0	130	
1,2,3,4,6,7,8-HpCDF	50	43.3	86.7	70.0	130	
1,2,3,4,7,8,9-HpCDF	50	39.6	79.2	70.0	130	
OCDF	100	79.8	79.8	70.0	130	

= Outside range limits
* = Ion Ratio Out

QC Information

OPR Project No: OPR17177
Extraction Date: 5-Jul-09
Analysis Date: 6-Jul-09
Method: 8290

File Information

OPR Filename: a06jul09c-2
Retchk: a06jul09c-1
Begin ConCal: a06jul09c-1
End ConCal: a06jul09c-15
Initial Cal: m8290-100708a

Sample Information

Matrix: Soil

Analytical Results
for
Ongoing Precision Result (OPR)

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)	Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards						
13C12-2,3,7,8-TCDD	2	1.40	70.0	29:39	0.79	
13C12-1,2,3,7,8-PeCDD	2	1.76	88.0	33:16	1.58	
13C12-1,2,3,6,7,8-HxCDD	2	1.65	82.5	35:46	1.26	
13C12-1,2,3,4,6,7,8-HpCDD	2	1.61	80.5	38:46	1.05	
13C12-OCDD	4	3.25	81.3	42:37	0.89	
13C12-2,3,7,8-TCDF	2	1.52	76.0	28:43	0.80	
13C12-1,2,3,7,8-PeCDF	2	1.60	80.0	32:31	1.57	
13C12-1,2,3,6,7,8-HxCDF	2	1.53	76.5	35:07	0.52	
13C12-1,2,3,4,6,7,8-HpCDF	2	1.45	72.5	37:39	0.44	
Cleanup Standards						
37Cl4-2,3,7,8-TCDD	0.4	0.372	93.0	29:40	-	
13C12-2,3,4,7,8-PeCDF	0.4	0.406	102	33:07	1.56	
13C12-1,2,3,4,7,8-HxCDD	0.4	0.363	90.8	35:40	1.26	
13C12-1,2,3,4,7,8-HxCDF	0.4	0.381	95.3	35:01	0.51	
13C12-1,2,3,4,7,8,9-HpCDF	0.4	0.322	80.5	39:22	0.44	
Injection Standards						
13C12-1,2,3,4-TCDD	2	-	-	28:54	0.79	
13C12-1,2,3,7,8,9-HxCDD	2	-	-	35:58	1.24	

QC Information

OPR Project No: OPR17177
Extraction Date: 5-Jul-09
Analysis Date: 6-Jul-09
Method: 8290

Sample Information

Matrix: Soil

File Information

OPR Filename : a06jul09c-2
Retchk: a06jul09c-1
Begin ConCal: a06jul09c-1
End ConCal: a06jul09c-15
Initial Cal: m8290-100708a

Form Version:[8290]OPR

Reviewed By: JM

Date Reviewed: 7-7-09

Analytical Results
for
Ongoing Precision & Recovery Duplicate Results (OPRD)

Analyte	Spiked (pg/µL)	AMT (pg/µL)	Recovery %	#	Range Lower	Range Upper	OPR Rec(%)	#	RPD (±20%)	Qualifier
2,3,7,8-TCDD	10.0	10.1	101		70.0	130	99.4		1.12	
1,2,3,7,8-PeCDD	50.0	46.0	92.0		70.0	130	92.2		0.178	
1,2,3,4,7,8-HxCDD	50.0	45.3	90.5		70.0	130	91.4		0.961	
1,2,3,6,7,8-HxCDD	50.0	43.2	86.5		70.0	130	88.6		2.45	
1,2,3,7,8,9-HxCDD	50.0	44.2	88.4		70.0	130	92.1		4.17	
1,2,3,4,6,7,8-HpCDD	50.0	44.9	89.8		70.0	130	89.8		0.0267	
OCDD	100	89.5	89.5		70.0	130	89.4		0.116	
2,3,7,8-TCDF	10.0	9.40	94.0		70.0	130	92.8		1.26	
1,2,3,7,8-PeCDF	50.0	45.8	91.6		70.0	130	93.6		2.19	
2,3,4,7,8-PeCDF	50.0	45.3	90.7		70.0	130	91.7		1.15	
1,2,3,4,7,8-HxCDF	50.0	44.4	88.7		70.0	130	89.2		0.552	
1,2,3,6,7,8-HxCDF	50.0	45.8	91.5		70.0	130	92.4		0.968	
2,3,4,6,7,8-HxCDF	50.0	42.4	84.9		70.0	130	86.7		2.15	
1,2,3,7,8,9-HxCDF	50.0	44.8	89.6		70.0	130	89.6		0.0514	
1,2,3,4,6,7,8-HpCDF	50.0	42.8	85.7		70.0	130	86.7		1.18	
1,2,3,4,7,8,9-HpCDF	50.0	40.8	81.6		70.0	130	79.2		2.90	
OCDF	100	81.5	81.5		70.0	130	79.8		2.09	

= Outside range limits
* = Ion Ratio Out

QC Information

OPR Project No:	OPRD17177
Extraction Date:	5-Jul-09
Analysis Date:	6-Jul-09
Method:	8290

Sample Information

Matrix:	Soil

File Information

OPRD Filename :	a06jul09c-3
Retchk:	a06jul09c-1
Begin ConCal:	a06jul09c-1
End ConCal:	a06jul09c-15
Initial Cal:	m8290-100708a

Analytical Results
for
Ongoing Precision & Recovery Duplicate Results (OPRD)

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)	Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards			(40-135%)			
13C12-2,3,7,8-TCDD	2	1.49	74.3	29:39	0.79	
13C12-1,2,3,7,8-PeCDD	2	1.76	88.1	33:16	1.57	
13C12-1,2,3,6,7,8-HxCDD	2	1.74	87.1	35:46	1.25	
13C12-1,2,3,4,6,7,8-HpCDD	2	1.66	82.8	38:46	1.05	
13C12-OCDD	4	3.43	85.7	42:39	0.89	
13C12-2,3,7,8-TCDF	2	1.64	81.8	28:43	0.79	
13C12-1,2,3,7,8-PeCDF	2	1.65	82.3	32:31	1.54	
13C12-1,2,3,6,7,8-HxCDF	2	1.62	81.0	35:07	0.52	
13C12-1,2,3,4,6,7,8-HpCDF	2	1.49	74.4	37:39	0.44	
Cleanup Standards			(70-130%)			
37Cl4-2,3,7,8-TCDD	0.4	0.376	93.9	29:40	-	
13C12-2,3,4,7,8-PeCDF	0.4	0.404	101	33:07	1.58	
13C12-1,2,3,4,7,8-HxCDD	0.4	0.380	95.0	35:40	1.27	
13C12-1,2,3,4,7,8-HxCDF	0.4	0.400	100	35:01	0.51	
13C12-1,2,3,4,7,8,9-HpCDF	0.4	0.338	84.4	39:22	0.44	
Injection Standards						
13C12-1,2,3,4-TCDD	2	-	-	28:54	0.79	
13C12-1,2,3,7,8,9-HxCDD	2	-	-	35:58	1.25	

QC Information

OPR Project No: OPRD17177
Extraction Date: 05-Jul-09
Analysis Date: 06-Jul-09
Method: 8290

Sample Information

Matrix: Soil

File Information

OPRD Filename : a06jul09c-3
Retchk: a06jul09c-1
Begin ConCal: a06jul09c-1
End ConCal: a06jul09c-15
Initial Cal: m8290-100708a

Form Version:[8290]OPRD

Reviewed By: TM

Date Reviewed: 7-7-09

Method 8290
Lab Method Blank

Analytical Data Summary Sheet

Analyte	Amount pg/g	MDL pg/g	EMPC pg/g	RT (min.)	Ratio	Qualifier
2,3,7,8-TCDD	ND	0.119				
1,2,3,7,8-PeCDD	ND	0.278				
1,2,3,4,7,8-HxCDD	ND	0.422				
1,2,3,6,7,8-HxCDD	ND	0.413				
1,2,3,7,8,9-HxCDD	ND	0.265				
1,2,3,4,6,7,8-HpCDD	ND	0.413				
OCDD	ND	0.905				
2,3,7,8-TCDF	ND	0.103				
1,2,3,7,8-PeCDF	ND	0.319				
2,3,4,7,8-PeCDF	ND	0.318				
1,2,3,4,7,8-HxCDF	ND	0.481				
1,2,3,6,7,8-HxCDF	ND	0.138				
2,3,4,6,7,8-HxCDF	ND	0.308				
1,2,3,7,8,9-HxCDF	ND	0.299				
1,2,3,4,6,7,8-HpCDF	ND	0.563				
1,2,3,4,7,8,9-HpCDF	ND	0.562				
OCDF	ND	0.709				
Total TCDDs	ND	0.119				
Total PeCDDs	ND	0.278				
Total HxCDDs	ND	0.265				
Total HpCDDs	ND	0.413				
Total TCDFs	ND	0.103				
Total PeCDFs	ND	0.318				
Total HxCDFs	ND	0.138				
Total HpCDFs	ND	0.562				
WHO-2005 TEQ (ND=0)	ND		ND			
WHO-2005 TEQ (ND=½)	**0.655**		0.655			

Client Information			**Sample Information**		
Project Name:			Report Basis:	Wet	
			Matrix:	Soil	
Sample ID:	Lab Method Blank		Weight / Volume:	10.00	g
			Solids / Lipids:	NA	%
			Original pH :	NA	
Laboratory Information			Batch ID:	WG17182	
Project ID:			Instrument:	HRMS1	
Sample ID:			Filename:	a08jul09b-4	
Collection Date/Time:			Retchk:	a08jul09b-1	
Receipt Date/Time:			Begin ConCal:	a08jul09b-1	
Extraction Date:	07/07/09		End ConCal:	a08jul09b-15	
Analysis Date/Time:	07/08/09	18:11	Initial Cal:	m8290-100708a	

Method 8290
Lab Method Blank

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)	Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards						
13C12-2,3,7,8-TCDD	2	1.24	62.1	29:39	0.79	
13C12-1,2,3,7,8-PeCDD	2	1.60	79.9	33:16	1.58	
13C12-1,2,3,6,7,8-HxCDD	2	1.74	87.0	35:46	1.26	
13C12-1,2,3,4,6,7,8-HpCDD	2	1.73	86.6	38:46	1.06	
13C12-OCDD	4.0	3.48	86.9	42:39	0.90	
13C12-2,3,7,8-TCDF	2	1.42	71.1	28:43	0.80	
13C12-1,2,3,7,8-PeCDF	2	1.53	76.4	32:31	1.60	
13C12-1,2,3,6,7,8-HxCDF	2	1.61	80.4	35:07	0.53	
13C12-1,2,3,4,6,7,8-HpCDF	2	1.66	83.0	37:39	0.45	
Cleanup Standards						
37Cl4-2,3,7,8-TCDD	0.4	0.313	78.2	29:40	-	
13C12-2,3,4,7,8-PeCDF	0.4	0.383	95.8	33:07	1.61	
13C12-1,2,3,4,7,8-HxCDD	0.4	0.393	98.3	35:40	1.27	
13C12-1,2,3,4,7,8-HxCDF	0.4	0.403	101	35:01	0.52	
13C12-1,2,3,4,7,8,9-HpCDF	0.4	0.389	97.2	39:22	0.44	
Injection Standards						
13C12-1,2,3,4-TCDD	2.0	-	-	28:52	0.80	
13C12-1,2,3,7,8,9-HxCDD	2.0	-	-	35:58	1.26	

Client Information			**Sample Information**		
Project Name:			Report Basis:	Wet	
			Matrix:	Soil	
Sample ID:	Lab Method Blank		Weight / Volume:	10.00	g
			Solids / Lipids:	NA	%
			Original pH :	NA	
Laboratory Information			Batch ID:	WG17182	
Project ID:			Instrument:	HRMS1	
Sample ID:			Filename:	a08jul09b-4	
Collection Date/Time:			Retchk:	a08jul09b-1	
Receipt Date/Time:			Begin ConCal:	a08jul09b-1	
Extraction Date:	07/07/09		End ConCal:	a08jul09b-15	
Analysis Date/Time:	07/08/09	18:11	Initial Cal:	m8290-100708a	

Form Version:[8290]Report

Analyzed by: DS
Date: 7-9-09

Reviewed by: TM
Date: 7-9-09

Analytical Results
for
Ongoing Precision Result (OPR)

Analyte	Spiked (pg/µL)	AMT (pg/µL)	REC %	Range % Lower	Range % Upper	Qualifier
2,3,7,8-TCDD	10	11.0	110	70.0	130	
1,2,3,7,8-PeCDD	50	49.0	98.0	70.0	130	
1,2,3,4,7,8-HxCDD	50	50.4	101	70.0	130	
1,2,3,6,7,8-HxCDD	50	48.6	97.1	70.0	130	
1,2,3,7,8,9-HxCDD	50	51.3	103	70.0	130	
1,2,3,4,6,7,8-HpCDD	50	49.5	98.9	70.0	130	
OCDD	100	99.8	99.8	70.0	130	
2,3,7,8-TCDF	10	9.71	97.1	70.0	130	
1,2,3,7,8-PeCDF	50	50.0	100	70.0	130	
2,3,4,7,8-PeCDF	50	52.8	106	70.0	130	
1,2,3,4,7,8-HxCDF	50	48.5	96.9	70.0	130	
1,2,3,6,7,8-HxCDF	50	52.1	104	70.0	130	
2,3,4,6,7,8-HxCDF	50	51.7	103	70.0	130	
1,2,3,7,8,9-HxCDF	50	52.8	106	70.0	130	
1,2,3,4,6,7,8-HpCDF	50	48.4	96.8	70.0	130	
1,2,3,4,7,8,9-HpCDF	50	46.4	92.9	70.0	130	
OCDF	100	94.9	94.9	70.0	130	

= Outside range limits
* = Ion Ratio Out

QC Information

OPR Project No:	OPR17182
Extraction Date:	7-Jul-09
Analysis Date:	8-Jul-09
Method:	8290

File Information

OPR Filename:	a08jul09b-2
Retchk:	a08jul09b-1
Begin ConCal:	a08jul09b-1
End ConCal:	a08jul09b-15
Initial Cal:	m8290-100708a

Sample Information

Matrix: Soil

Analytical Results
for
Ongoing Precision Result (OPR)

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)	Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards						
13C12-2,3,7,8-TCDD	2	1.02	51.0	29:39	0.79	
13C12-1,2,3,7,8-PeCDD	2	1.44	72.0	33:16	1.60	
13C12-1,2,3,6,7,8-HxCDD	2	1.64	82.0	35:46	1.24	
13C12-1,2,3,4,6,7,8-HpCDD	2	1.57	78.5	38:46	1.06	
13C12-OCDD	4	3.14	78.5	42:39	0.90	
13C12-2,3,7,8-TCDF	2	1.17	58.5	28:43	0.80	
13C12-1,2,3,7,8-PeCDF	2	1.35	67.5	32:31	1.59	
13C12-1,2,3,6,7,8-HxCDF	2	1.52	76.0	35:07	0.52	
13C12-1,2,3,4,6,7,8-HpCDF	2	1.55	77.5	37:40	0.45	
Cleanup Standards						
37Cl4-2,3,7,8-TCDD	0.4	0.257	64.3	29:40	-	
13C12-2,3,4,7,8-PeCDF	0.4	0.345	86.3	33:07	1.61	
13C12-1,2,3,4,7,8-HxCDD	0.4	0.362	90.5	35:40	1.27	
13C12-1,2,3,4,7,8-HxCDF	0.4	0.347	86.8	35:01	0.57	
13C12-1,2,3,4,7,8,9-HpCDF	0.4	0.360	90.0	39:22	0.43	
Injection Standards						
13C12-1,2,3,4-TCDD	2	-	-	28:52	0.80	
13C12-1,2,3,7,8,9-HxCDD	2	-	-	35:58	1.25	

QC Information

OPR Project No: OPR17182
Extraction Date: 7-Jul-09
Analysis Date: 8-Jul-09
Method: 8290

Sample Information

Matrix: Soil

File Information

OPR Filename : a08jul09b-2
Retchk: a08jul09b-1
Begin ConCal: a08jul09b-1
End ConCal: a08jul09b-15
Initial Cal: m8290-100708a

Form Version:[8290]OPR

Reviewed By: TM

Date Reviewed: 7-9-09

Analytical Results
for
Ongoing Precision & Recovery Duplicate Results (OPRD)

Analyte	Spiked (pg/µL)	AMT (pg/µL)	Recovery %	#	Range Lower	Range Upper	OPR Rec(%)	#	RPD (±20%)	Qualifier
2,3,7,8-TCDD	10.0	10.4	104		70.0	130	110		5.49	
1,2,3,7,8-PeCDD	50.0	48.5	97.0		70.0	130	98.0		0.987	
1,2,3,4,7,8-HxCDD	50.0	48.9	97.8		70.0	130	101		3.30	
1,2,3,6,7,8-HxCDD	50.0	48.9	97.8		70.0	130	97.1		0.714	
1,2,3,7,8,9-HxCDD	50.0	48.4	96.7		70.0	130	103		6.50	
1,2,3,4,6,7,8-HpCDD	50.0	47.5	95.1		70.0	130	98.9		4.02	
OCDD	100	98.0	98.0		70.0	130	99.8		1.81	
2,3,7,8-TCDF	10.0	9.28	92.8		70.0	130	97.1		4.68	
1,2,3,7,8-PeCDF	50.0	49.1	98.2		70.0	130	100		1.80	
2,3,4,7,8-PeCDF	50.0	46.8	93.6		70.0	130	106		13.2	
1,2,3,4,7,8-HxCDF	50.0	48.9	97.8		70.0	130	96.9		0.949	
1,2,3,6,7,8-HxCDF	50.0	49.5	99.0		70.0	130	104		5.05	
2,3,4,6,7,8-HxCDF	50.0	48.3	96.5		70.0	130	103		6.73	
1,2,3,7,8,9-HxCDF	50.0	49.4	98.7		70.0	130	106		7.35	
1,2,3,4,6,7,8-HpCDF	50.0	46.9	93.7		70.0	130	96.8		3.26	
1,2,3,4,7,8,9-HpCDF	50.0	44.0	88.1		70.0	130	92.9		5.45	
OCDF	100	93.1	93.1		70.0	130	94.9		1.94	

= Outside range limits
* = Ion Ratio Out

QC Information

OPR Project No: OPRD17182
Extraction Date: 7-Jul-09
Analysis Date: 8-Jul-09
Method: 8290

Sample Information

Matrix: Soil

File Information

OPRD Filename : a08jul09b-3
Retchk: a08jul09b-1
Begin ConCal: a08jul09b-1
End ConCal: a08jul09b-15
Initial Cal: m8290-100708a

Analytical Results
for
Ongoing Precision & Recovery Duplicate Results (OPRD)

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)	Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards			(40-135%)			
13C12-2,3,7,8-TCDD	2	1.78	89.2	29:39	0.79	
13C12-1,2,3,7,8-PeCDD	2	2.01	100	33:16	1.59	
13C12-1,2,3,6,7,8-HxCDD	2	1.92	96.2	35:46	1.26	
13C12-1,2,3,4,6,7,8-HpCDD	2	1.79	89.4	38:46	1.06	
13C12-OCDD	4	3.30	82.4	42:37	0.91	
13C12-2,3,7,8-TCDF	2	2.03	102	28:43	0.79	
13C12-1,2,3,7,8-PeCDF	2	2.00	100	32:31	1.61	
13C12-1,2,3,6,7,8-HxCDF	2	1.86	93.2	35:07	0.53	
13C12-1,2,3,4,6,7,8-HpCDF	2	1.74	87.1	37:39	0.45	
Cleanup Standards			(70-130%)			
37Cl4-2,3,7,8-TCDD	0.4	0.440	110	29:40	-	
13C12-2,3,4,7,8-PeCDF	0.4	0.477	119	33:07	1.60	
13C12-1,2,3,4,7,8-HxCDD	0.4	0.443	111	35:40	1.27	
13C12-1,2,3,4,7,8-HxCDF	0.4	0.429	107	35:01	0.51	
13C12-1,2,3,4,7,8,9-HpCDF	0.4	0.396	99.0	39:22	0.44	
Injection Standards						
13C12-1,2,3,4-TCDD	2	-	-	28:52	0.80	
13C12-1,2,3,7,8,9-HxCDD	2	-	-	35:58	1.26	

QC Information

OPR Project No: OPRD17182
Extraction Date: 07-Jul-09
Analysis Date: 08-Jul-09
Method: 8290

Sample Information

Matrix: Soil

File Information

OPRD Filename : a08jul09b-3
Retchk: a08jul09b-1
Begin ConCal: a08jul09b-1
End ConCal: a08jul09b-15
Initial Cal: m8290-100708a

Form Version.[8290]OPRD

Reviewed By: TM

Date Reviewed: 7-9-09

SGS

CHAIN OF CUSTODY RECORD
SGS North America Inc.

G330-40

Locations Nationwide
- Alaska
- New Jersey
- North Carolina
- Maryland
- New York
- Ohio

www.us.sgs.com

098317

(1)

CLIENT: TetraTech, NVS

CONTACT: Dabra Seiken PHONE NO: (978) 474-8445

PROJECT: WGL/CTD407/412G00864 SITE/PWSID#:

REPORTS TO: D. Seiken, 55 Jonspin Rd, Wilmington MA FAX NO.: ( )

INVOICE TO: Same QUOTE #:

P.O. NUMBER:

SGS Reference:

PAGE 1 OF 2

(2)

LAB NO.	SAMPLE IDENTIFICATION	DATE 2009	TIME	MATRIX	No CONTAINERS	SAMPLE TYPE (C= COMP, G= GRAB)	Preservatives Used	Analysis Required (3) Dioxin	REMARKS
	WGL-SD-SD103-000.6	6/11	0915	SD	~~20~~ 1	G	—	~~20~~ 1	
	WGL-SD-SD102-000.6		0815	SD				~~20~~ 1	
	WGL-SD-SD101-000.6		0800					~~20~~ 1	
	WGL-SD-~~SD~~ DUP01-061109		0820					~~20~~ 1	
	WGL-SD-SD104-000.6		0930					~~20~~ 1	
	WGL-SD-SD106-000.6		1015					~~20~~ 1	
	WGL-SD-DUP02-061109		1020					~~20~~ 1	
	WGL-SD-SD107-000.6		1205					~~20~~ 1	
	WGL-SD-SD108-000.6		1245					~~20~~ 1	
	WGL-SD-SD105-000.6		1010					~~20~~ 1	

(5)

Collected/Relinquished By:	Date	Time	Received By:
(1) [signature]	6/11/09	1700	FedEX
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date 6/12/09	Time 10:00	Received By: [signature]

(4)

Shipping Carrier: FedEX

Shipping Ticket No:

Samples Received Cold? (Circle) YES NO

Temperature°C: 5.9, 5.8

Special Deliverable Requirements:

Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT

Special Instructions:

Requested Turnaround Time:

☐ RUSH _____ Date Needed ☒ STD

☐ 200 W. Potter Drive **Anchorage, AK 99518** Tel: (907) 562-2343 Fax: (907) 561-5301
☐ 5500 Business Drive **Wilmington, NC 28405** Tel: (910) 350-1903 Fax: (910) 350-1557

White - Retained by Lab
Pink - Retained by Client

SGS

CHAIN OF CUSTODY RECORD
SGS North America Inc.

Locations Nationwide
- Alaska
- Maryland
- New Jersey
- New York
- North Carolina
- Ohio

www.us.sgs.com

098315

(1)

CLIENT: TetraTech, NUS

CONTACT: Debra Seiken PHONE NO: (978) 474-8445

PROJECT: WGL/CTO407 112600824 SITE/PWSID#:

REPORTS TO: D. Seiken 55 Jonspin Rd Winnington, MA 01887 FAX NO.: ( )

INVOICE TO: same QUOTE #:

P.O. NUMBER:

SGS Reference:

PAGE 2 OF 2

(2)

LAB NO.	SAMPLE IDENTIFICATION	DATE 2009	TIME	MATRIX	No CONTAINERS	SAMPLE TYPE (C= COMP, G= GRAB)	Preservatives Used	Analysis Required (3) Dioxin									REMARKS
	WGL-SD-SD112-000.6	6/11	1500	SD	21	G		1									
✓	WGL-SD-SD110-000.6		1430	SD	1			1									
✓	WGL-SD-SD109-000.6		1415	SD	1			1									
✓✓	WGL-SD-SD111-000.6		1515	SD	3			3									Lab QC
	WGL-SD-FB01-061109		1300	AQ	2			2									
	WGL-SD-RB01-061109		1400	AQ	2			2									

(5)

Collected/Relinquished By: (1)	Date	Time	Received By:
[signature]	6/11/09	1700	FedEx
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date 6/12/09	Time 10:00	Received By: [signature]

(4)

Shipping Carrier: FedEx

Shipping Ticket No:

Samples Received Cold? (Circle) YES NO

Temperature°C: 5.9, 5.5

Special Deliverable Requirements:

Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT

Special Instructions:

Requested Turnaround Time:

☐ RUSH _____ Date Needed ☒ STD

❑ 200 W. Potter Drive **Anchorage, AK 99518** Tel: (907) 562-2343 Fax: (907) 561-5301
❑ 5500 Business Drive **Wilmington, NC 28405** Tel: (910) 350-1903 Fax: (910) 350-1557

White - Retained by Lab
Pink - Retained by Client

SGS

Lucy Guzman
Tetra Tech Nus, Inc.
55 Jonspin Rd.
Wilmington, MA 01887

Report Number: G330-41

Client Project: CTO 407, N6242-04-D-0055, West Gate Landfill

Dear Lucy Guzman,

Enclosed are the results of the analytical services performed under the referenced project for the received samples and associated QC as applicable. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of five years in the event they are required for future reference. Any samples submitted to our laboratory will be retained for a maximum of thirty (30) days from the date of this report unless other arrangements are requested.

If there are any questions about the report or services performed during this project, please call Linda McWhirter at (910) 350-1903. We will be happy to answer any questions or concerns which you may have.

Thank you for using SGS North America, Inc. for your analytical services. We look forward to working with you again on any additional analytical needs.

Sincerely,
SGS North America, Inc.

7/23/09

Project Manager
Linda McWhirter

Date

5500 Business Dr., Wilmington, NC 28405 t (910) 350-1903 f (910) 350-1557 www.us.sgs.com

Member of the SGS Group

SGS

Case Narrative
SGS Project: **G330-41**
Project Name: **CTO407**
Site Name: **West Gate Landfill**
Contract Number: **N62472-04-D-0055**
Project Manager: **Phoebe Call**

For Method: 8290

- The submitted samples were accepted into the lab on July 2nd, 2009 and extracted on July 19th, 2009 and July 21st, 2009 by method 3520C. The sample extracts and associated QC extracts were then processed through clean-up as prescribed in the SGS standard operating procedures and analyzed by HRGC/HRMS for method 8290.

- The OPRD associated with WG17203 has a recovery for $^{13}C_{12}$-2,3,4,7,8-PeCDF which is above the laboratory's recommended QC limits. Clean-up standards are not required by Method 8290 and are used by the laboratory for informational purposes only.

- Manual integrations were required on samples **WGL-GW-MW3-062909, WGL-GW-MW2-063009, WGL-GW-MW38-063009, WGL-GW-DUP01-063009, WGL-GW-DUP02-063009** and **WGL-GW-MW48D2-063009** for OCDD and PeCDF analytes as well as $^{13}C_{12}$-HxCDF for sample **WGL-GW-MW405-063009.**

Tamara Morgan 7-23-09

Tamara Morgan Date
Data Validation

List of Qualifiers: Dioxin's

B Analyte was detected in the Lab Method Blank at a level above the Reporting Limit.

EDL "Estimated Detection Limit"

EMPC "Estimated Maximum Possible Concentration"

RL Report Limit

CL Control Limit

U Undetected

ppt Parts-per-trillion (pg/g; ng/L)

V Recovery is below quality control limit. The data has been validated based on a favorable signal-to-noise and detection limit.

Outside quality control limits

* Indicates that the ion-ratio fails high or low; analyte reported as an EMPC

An average uncertainty of 30% can be routinely achieved as concluded from the evaluation of HRGC-HRMS standard operating procedures. The following flags warn the data user of situations where the uncertainty may be greater than stated.

A Amount detected is less than the Lower Method Calibration Limit.

J Amount detected is between the Method Detection Limit and the Lower Calibration Limit.

O The recovery of this analyte in the OPR is above the Method QC Limits and the reported concentration in the sample may be biased high.

E Amount detected is greater than the Upper Calibration Limit.

S The amount of analyte present has saturated the detector. This situation results in an underestimation of the affected analyte(s).

Q Indicates the presence of a quantitative interference. This situation may result in an underestimation of the affected analyte(s).

I Indicates the presence of a qualitative interference that could cause a false positive or an overestimation of the affected analyte(s).

DPE Indicates the presence of a peak in the polychlorinated diphenylether channel that could cause a false positive or an overestimation of the affected analyte(s).

5500 Business Dr., Wilmington, NC 28405 t (910) 350-1903 f (910) 350-1557 www.us.sgs.com

Member of the SGS Group

SGS

Toxic Equivalency Factors

Analyte	WHO* 1998	WHO* 2005	International-89	MADEP+
2,3,7,8-TCDD	1	1	1	1
1,2,3,7,8-PeCDD	1	1	0.5	0.5
1,2,3,4,7,8-HxCDD	0.1	0.1	0.1	0.1
1,2,3,6,7,8-HxCDD	0.1	0.1	0.1	0.1
1,2,3,7,8,9-HxCDD	0.1	0.1	0.1	0.1
1,2,3,4,6,7,8-HpCDD	0.01	0.01	0.01	0.1
OCDD	0.0001	0.0003	0.001	0.001
2,3,7,8-TCDF	0.1	0.1	0.1	0.1
1,2,3,7,8-PeCDF	0.05	0.03	0.05	0.5
2,3,4,7,8-PeCDF	0.5	0.3	0.5	0.5
1,2,3,4,7,8-HxCDF	0.1	0.1	0.1	0.1
1,2,3,6,7,8-HxCDF	0.1	0.1	0.1	0.1
2,3,4,6,7,8-HxCDF	0.1	0.1	0.1	0.1
1,2,3,7,8,9-HxCDF	0.1	0.1	0.1	0.1
1,2,3,4,6,7,8-HpCDF	0.01	0.01	0.01	0.1
1,2,3,4,7,8,9-HpCDF	0.01	0.01	0.01	0.1
OCDF	0.0001	0.0003	0.001	0.001

* World Health Organization
+ Massachusetts Department of Environmental Protection

Method 8290
WGL-GW-MW101-062909
Tetra Tech Nus, Inc.

Analytical Data Summary Sheet

Analyte	Amount ng/L	MDL ng/L	RL ng/L	EMPC ng/L	RT (min.)	Ratio	Qualifier
2,3,7,8-TCDD	ND	0.000823	0.00962				
1,2,3,7,8-PeCDD	ND	0.00242	0.0481				
1,2,3,4,7,8-HxCDD	ND	0.00695	0.0481				
1,2,3,6,7,8-HxCDD	ND	0.00324	0.0481				
1,2,3,7,8,9-HxCDD	ND	0.00370	0.0481				
1,2,3,4,6,7,8-HpCDD	ND	0.00561	0.0481				
OCDD	ND	0.00620	0.0962				
2,3,7,8-TCDF	ND	0.00145	0.00962				
1,2,3,7,8-PeCDF	ND	0.00285	0.0481				
2,3,4,7,8-PeCDF	ND	0.00670	0.0481				
1,2,3,4,7,8-HxCDF	ND	0.00527	0.0481				
1,2,3,6,7,8-HxCDF	ND	0.00459	0.0481				
2,3,4,6,7,8-HxCDF	ND	0.00410	0.0481				
1,2,3,7,8,9-HxCDF	ND	0.00563	0.0481				
1,2,3,4,6,7,8-HpCDF	ND	0.00225	0.0481				
1,2,3,4,7,8,9-HpCDF	ND	0.00395	0.0481				
OCDF	ND	0.00615	0.0962				
Total TCDDs	ND	0.000823	0.00962				
Total PeCDDs	ND	0.00242	0.0481				
Total HxCDDs	ND	0.00324	0.0481				
Total HpCDDs	ND	0.00561	0.0481				
Total TCDFs	ND	0.00145	0.00962				
Total PeCDFs	ND	0.00285	0.0481				
Total HxCDFs	ND	0.00410	0.0481				
Total HpCDFs	ND	0.00225	0.0481				
WHO-2005 TEQ (ND=0)	ND			ND			
WHO-2005 TEQ (ND=½)	**0.00695**			0.00695			

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Wet	
			Matrix:	Water	
Sample ID:	WGL-GW-MW101-062909		Weight / Volume:	1040	mL
			Solids / Lipids:	NA	%
			Original pH :	10.0	
Laboratory Information			Batch ID:	WG17199	
Project ID:	G330-41		Instrument:	HRMS1	
Sample ID:	G330-41-1C		Filename:	a20jul09b-5	
Collection Date/Time:	06/29/09	13:10	Retchk:	a20jul09b-1	
Receipt Date/Time:	07/02/09	10:00	Begin ConCal:	a20jul09b-1	
Extraction Date:	07/19/09		End ConCal:	a20jul09b-15	
Analysis Date/Time:	07/20/09	19:49	Initial Cal:	m8290-100708a	

Method 8290
WGL-GW-MW101-062909
Tetra Tech Nus, Inc.

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)		Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards							
13C12-2,3,7,8-TCDD	2	1.83		91.3	29:39	0.80	
13C12-1,2,3,7,8-PeCDD	2	2.14		107	33:16	1.57	
13C12-1,2,3,6,7,8-HxCDD	2	1.88		93.9	35:46	1.25	
13C12-1,2,3,4,6,7,8-HpCDD	2	1.97		98.6	38:46	1.04	
13C12-OCDD	4.0	4.15		104	42:39	0.90	
13C12-2,3,7,8-TCDF	2	1.92		96.1	28:43	0.79	
13C12-1,2,3,7,8-PeCDF	2	2.04		102	32:31	1.58	
13C12-1,2,3,6,7,8-HxCDF	2	1.63		81.5	35:07	0.52	
13C12-1,2,3,4,6,7,8-HpCDF	2	1.70		85.1	37:39	0.45	
Cleanup Standards							
37Cl4-2,3,7,8-TCDD	0.4	0.462		116	29:40	-	
13C12-2,3,4,7,8-PeCDF	0.4	0.495		124	33:07	1.59	
13C12-1,2,3,4,7,8-HxCDD	0.4	0.436		109	35:40	1.25	
13C12-1,2,3,4,7,8-HxCDF	0.4	0.427		107	35:01	0.51	
13C12-1,2,3,4,7,8,9-HpCDF	0.4	0.436		109	39:22	0.44	
Injection Standards							
13C12-1,2,3,4-TCDD	2.0	-		-	28:52	0.79	
13C12-1,2,3,7,8,9-HxCDD	2.0	-		-	35:58	1.23	

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Wet	
			Matrix:	Water	
Sample ID:	WGL-GW-MW101-062909		Weight / Volume:	1040	mL
			Solids / Lipids:	NA	%
			Original pH :	10.0	
Laboratory Information			Batch ID:	WG17199	
Project ID:	G330-41		Instrument:	HRMS1	
Sample ID:	G330-41-1C		Filename:	a20jul09b-5	
Collection Date/Time:	06/29/09	13:10	Retchk:	a20jul09b-1	
Receipt Date/Time:	07/02/09	10:00	Begin ConCal:	a20jul09b-1	
Extraction Date:	07/19/09		End ConCal:	a20jul09b-15	
Analysis Date/Time:	07/20/09	19:49	Initial Cal:	m8290-100708a	

Form Version:[8290]Report

Analyzed by: DS
Date: 7-23-09

Reviewed by: TM
Date: 7-23-09

Method 8290
WGL-GW-MW3-062909
Tetra Tech Nus, Inc.

Analytical Data Summary Sheet

Analyte	Amount ng/L	MDL ng/L	RL ng/L	EMPC ng/L	RT (min.)	Ratio	Qualifier
2,3,7,8-TCDD	ND	0.000815	0.00951				
1,2,3,7,8-PeCDD	ND	0.00239	0.0476				
1,2,3,4,7,8-HxCDD	ND	0.00687	0.0476				
1,2,3,6,7,8-HxCDD	ND	0.00320	0.0476				
1,2,3,7,8,9-HxCDD	ND	0.00367	0.0476				
1,2,3,4,6,7,8-HpCDD	ND	0.00555	0.0476				
OCDD	ND	0.00614	0.0951				
2,3,7,8-TCDF	ND	0.00143	0.00951				
1,2,3,7,8-PeCDF	ND	0.00282	0.0476				
2,3,4,7,8-PeCDF	ND	0.00663	0.0476				
1,2,3,4,7,8-HxCDF	ND	0.00521	0.0476				
1,2,3,6,7,8-HxCDF	ND	0.00455	0.0476				
2,3,4,6,7,8-HxCDF	ND	0.00406	0.0476				
1,2,3,7,8,9-HxCDF	ND	0.00557	0.0476				
1,2,3,4,6,7,8-HpCDF	ND	0.00223	0.0476				
1,2,3,4,7,8,9-HpCDF	ND	0.00391	0.0476				
OCDF	ND	0.00609	0.0951				
Total TCDDs	ND	0.000815	0.00951				
Total PeCDDs	ND	0.00239	0.0476				
Total HxCDDs	ND	0.00320	0.0476				
Total HpCDDs	ND	0.00555	0.0476				
Total TCDFs	ND	0.00143	0.00951				
Total PeCDFs	ND	0.00282	0.0476				
Total HxCDFs	ND	0.00406	0.0476				
Total HpCDFs	ND	0.00223	0.0476				
WHO-2005 TEQ (ND=0)	ND			ND			
WHO-2005 TEQ (ND=½)	**0.00698**			0.00698			

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Wet	
			Matrix:	Water	
Sample ID:	WGL-GW-MW3-062909		Weight / Volume:	1051	mL
			Solids / Lipids:	NA	%
			Original pH :	7.00	
Laboratory Information			Batch ID:	WG17199	
Project ID:	G330-41		Instrument:	HRMS1	
Sample ID:	G330-41-2C		Filename:	a20jul09b-6	
Collection Date/Time:	06/29/09	15:05	Retchk:	a20jul09b-1	
Receipt Date/Time:	07/02/09	10:00	Begin ConCal:	a20jul09b-1	
Extraction Date:	07/19/09		End ConCal:	a20jul09b-15	
Analysis Date/Time:	07/20/09	20:37	Initial Cal:	m8290-100708a	

Method 8290
WGL-GW-MW3-062909
Tetra Tech Nus, Inc.

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)		Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards							
13C12-2,3,7,8-TCDD	2	1.83		91.5	29:39	0.79	
13C12-1,2,3,7,8-PeCDD	2	2.17		108	33:16	1.58	
13C12-1,2,3,6,7,8-HxCDD	2	1.93		96.6	35:46	1.24	
13C12-1,2,3,4,6,7,8-HpCDD	2	2.04		102	38:46	1.05	
13C12-OCDD	4.0	4.28		107	42:39	0.89	
13C12-2,3,7,8-TCDF	2	1.96		97.9	28:43	0.79	
13C12-1,2,3,7,8-PeCDF	2	2.02		101	32:31	1.56	
13C12-1,2,3,6,7,8-HxCDF	2	1.73		86.3	35:07	0.52	
13C12-1,2,3,4,6,7,8-HpCDF	2	1.77		88.4	37:40	0.45	
Cleanup Standards							
37Cl4-2,3,7,8-TCDD	0.4	0.464		116	29:40	-	
13C12-2,3,4,7,8-PeCDF	0.4	0.488		122	33:07	1.57	
13C12-1,2,3,4,7,8-HxCDD	0.4	0.435		109	35:40	1.26	
13C12-1,2,3,4,7,8-HxCDF	0.4	0.426		107	35:01	0.50	
13C12-1,2,3,4,7,8,9-HpCDF	0.4	0.439		110	39:22	0.43	
Injection Standards							
13C12-1,2,3,4-TCDD	2.0	-		-	28:52	0.79	
13C12-1,2,3,7,8,9-HxCDD	2.0	-		-	35:58	1.25	

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Wet	
			Matrix:	Water	
Sample ID:	WGL-GW-MW3-062909		Weight / Volume:	1051	mL
			Solids / Lipids:	NA	%
			Original pH :	7.00	
Laboratory Information			Batch ID:	WG17199	
Project ID:	G330-41		Instrument:	HRMS1	
Sample ID:	G330-41-2C		Filename:	a20jul09b-6	
Collection Date/Time:	06/29/09	15:05	Retchk:	a20jul09b-1	
Receipt Date/Time:	07/02/09	10:00	Begin ConCal:	a20jul09b-1	
Extraction Date:	07/19/09		End ConCal:	a20jul09b-15	
Analysis Date/Time:	07/20/09	20:37	Initial Cal:	m8290-100708a	

Form Version:[8290]Report

Analyzed by: DS
Date: 7-23-09

Reviewed by: TM
Date: 7-23-09

Method 8290
WGL-GW-MW103-062909
Tetra Tech Nus, Inc.

Analytical Data Summary Sheet

Analyte	Amount ng/L	MDL ng/L	RL ng/L	EMPC ng/L	RT (min.)	Ratio	Qualifier
2,3,7,8-TCDD	ND	0.000931	0.0109				
1,2,3,7,8-PeCDD	ND	0.00273	0.0543				
1,2,3,4,7,8-HxCDD	ND	0.00785	0.0543				
1,2,3,6,7,8-HxCDD	ND	0.00366	0.0543				
1,2,3,7,8,9-HxCDD	ND	0.00419	0.0543				
1,2,3,4,6,7,8-HpCDD	ND	0.00634	0.0543				
OCDD	ND	0.00701	0.109				
2,3,7,8-TCDF	ND	0.00164	0.0109				
1,2,3,7,8-PeCDF	ND	0.00322	0.0543				
2,3,4,7,8-PeCDF	ND	0.00758	0.0543				
1,2,3,4,7,8-HxCDF	ND	0.00596	0.0543				
1,2,3,6,7,8-HxCDF	ND	0.00519	0.0543				
2,3,4,6,7,8-HxCDF	ND	0.00464	0.0543				
1,2,3,7,8,9-HxCDF	ND	0.00636	0.0543				
1,2,3,4,6,7,8-HpCDF	ND	0.00255	0.0543				
1,2,3,4,7,8,9-HpCDF	ND	0.00447	0.0543				
OCDF	ND	0.00695	0.109				
Total TCDDs	ND	0.000931	0.0109				
Total PeCDDs	ND	0.00273	0.0543				
Total HxCDDs	ND	0.00366	0.0543				
Total HpCDDs	ND	0.00634	0.0543				
Total TCDFs	ND	0.00164	0.0109				
Total PeCDFs	ND	0.00322	0.0543				
Total HxCDFs	ND	0.00464	0.0543				
Total HpCDFs	ND	0.00255	0.0543				
WHO-2005 TEQ (ND=0)	ND			ND			
WHO-2005 TEQ (ND=½)	**0.00805**			0.00805			

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Wet	
			Matrix:	Water	
Sample ID:	WGL-GW-MW103-062909		Weight / Volume:	920	mL
			Solids / Lipids:	NA	%
			Original pH :	8.00	
Laboratory Information			Batch ID:	WG17199	
Project ID:	G330-41		Instrument:	HRMS1	
Sample ID:	G330-41-3C		Filename:	a20jul09b-7	
Collection Date/Time:	06/29/09	13:05	Retchk:	a20jul09b-1	
Receipt Date/Time:	07/02/09	10:00	Begin ConCal:	a20jul09b-1	
Extraction Date:	07/19/09		End ConCal:	a20jul09b-15	
Analysis Date/Time:	07/20/09	21:25	Initial Cal:	m8290-100708a	

Method 8290
WGL-GW-MW103-062909
Tetra Tech Nus, Inc.

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)		Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards							
13C12-2,3,7,8-TCDD	2	1.80		89.9	29:39	0.78	
13C12-1,2,3,7,8-PeCDD	2	2.03		101	33:16	1.56	
13C12-1,2,3,6,7,8-HxCDD	2	1.75		87.4	35:46	1.25	
13C12-1,2,3,4,6,7,8-HpCDD	2	1.78		88.8	38:46	1.07	
13C12-OCDD	4.0	3.85		96.3	42:39	0.89	
13C12-2,3,7,8-TCDF	2	1.90		95.0	28:43	0.80	
13C12-1,2,3,7,8-PeCDF	2	1.90		95.2	32:31	1.58	
13C12-1,2,3,6,7,8-HxCDF	2	1.52		76.1	35:07	0.52	
13C12-1,2,3,4,6,7,8-HpCDF	2	1.42		71.0	37:40	0.44	
Cleanup Standards							
37Cl4-2,3,7,8-TCDD	0.4	0.460		115	29:40	-	
13C12-2,3,4,7,8-PeCDF	0.4	0.491		123	33:07	1.60	
13C12-1,2,3,4,7,8-HxCDD	0.4	0.423		106	35:40	1.25	
13C12-1,2,3,4,7,8-HxCDF	0.4	0.411		103	35:01	0.52	
13C12-1,2,3,4,7,8,9-HpCDF	0.4	0.432		108	39:22	0.44	
Injection Standards							
13C12-1,2,3,4-TCDD	2.0	-		-	28:52	0.80	
13C12-1,2,3,7,8,9-HxCDD	2.0	-		-	35:58	1.25	

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Wet	
			Matrix:	Water	
Sample ID:	WGL-GW-MW103-062909		Weight / Volume:	920	mL
			Solids / Lipids:	NA	%
			Original pH :	8.00	
Laboratory Information			Batch ID:	WG17199	
Project ID:	G330-41		Instrument:	HRMS1	
Sample ID:	G330-41-3C		Filename:	a20jul09b-7	
Collection Date/Time:	06/29/09	13:05	Retchk:	a20jul09b-1	
Receipt Date/Time:	07/02/09	10:00	Begin ConCal:	a20jul09b-1	
Extraction Date:	07/19/09		End ConCal:	a20jul09b-15	
Analysis Date/Time:	07/20/09	21:25	Initial Cal:	m8290-100708a	

Form Version:[8290]Report

Analyzed by: DS
Date: 7-23-09

Reviewed by: TM
Date: 7-23-09

Method 8290
WGL-GW-MW102-062909
Tetra Tech Nus, Inc.

Analytical Data Summary Sheet

Analyte	Amount ng/L	MDL ng/L	RL ng/L	EMPC ng/L	RT (min.)	Ratio	Qualifier
2,3,7,8-TCDD	ND	0.000892	0.0104				
1,2,3,7,8-PeCDD	ND	0.00262	0.0521				
1,2,3,4,7,8-HxCDD	ND	0.00752	0.0521				
1,2,3,6,7,8-HxCDD	ND	0.00351	0.0521				
1,2,3,7,8,9-HxCDD	ND	0.00401	0.0521				
1,2,3,4,6,7,8-HpCDD	ND	0.00607	0.0521				
OCDD	ND	0.00672	0.104				
2,3,7,8-TCDF	ND	0.00157	0.0104				
1,2,3,7,8-PeCDF	ND	0.00309	0.0521				
2,3,4,7,8-PeCDF	ND	0.00726	0.0521				
1,2,3,4,7,8-HxCDF	ND	0.00571	0.0521				
1,2,3,6,7,8-HxCDF	ND	0.00498	0.0521				
2,3,4,6,7,8-HxCDF	ND	0.00444	0.0521				
1,2,3,7,8,9-HxCDF	ND	0.00610	0.0521				
1,2,3,4,6,7,8-HpCDF	ND	0.00244	0.0521				
1,2,3,4,7,8,9-HpCDF	ND	0.00428	0.0521				
OCDF	ND	0.00667	0.104				
Total TCDDs	ND	0.000892	0.0104				
Total PeCDDs	ND	0.00262	0.0521				
Total HxCDDs	ND	0.00351	0.0521				
Total HpCDDs	ND	0.00607	0.0521				
Total TCDFs	ND	0.00157	0.0104				
Total PeCDFs	ND	0.00309	0.0521				
Total HxCDFs	ND	0.00444	0.0521				
Total HpCDFs	ND	0.00244	0.0521				
WHO-2005 TEQ (ND=0)	ND			ND			
WHO-2005 TEQ (ND=½)	**0.00734**			0.00734			

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Wet	
			Matrix:	Water	
Sample ID:	WGL-GW-MW102-062909		Weight / Volume:	960	mL
			Solids / Lipids:	NA	%
			Original pH :	8.00	
Laboratory Information			Batch ID:	WG17199	
Project ID:	G330-41		Instrument:	HRMS1	
Sample ID:	G330-41-4C		Filename:	a20jul09b-8	
Collection Date/Time:	06/29/09	15:55	Retchk:	a20jul09b-1	
Receipt Date/Time:	07/02/09	10:00	Begin ConCal:	a20jul09b-1	
Extraction Date:	07/19/09		End ConCal:	a20jul09b-15	
Analysis Date/Time:	07/20/09	22:14	Initial Cal:	m8290-100708a	

Method 8290
WGL-GW-MW102-062909
Tetra Tech Nus, Inc.

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)		Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards							
13C12-2,3,7,8-TCDD	2	1.85		92.6	29:39	0.78	
13C12-1,2,3,7,8-PeCDD	2	2.11		106	33:16	1.58	
13C12-1,2,3,6,7,8-HxCDD	2	1.86		93.0	35:46	1.25	
13C12-1,2,3,4,6,7,8-HpCDD	2	1.98		99.0	38:46	1.05	
13C12-OCDD	4.0	4.24		106	42:39	0.90	
13C12-2,3,7,8-TCDF	2	1.90		94.9	28:43	0.79	
13C12-1,2,3,7,8-PeCDF	2	1.94		97.1	32:31	1.58	
13C12-1,2,3,6,7,8-HxCDF	2	1.64		82.0	35:07	0.52	
13C12-1,2,3,4,6,7,8-HpCDF	2	1.75		87.5	37:40	0.45	
Cleanup Standards							
37Cl4-2,3,7,8-TCDD	0.4	0.472		118	29:40	-	
13C12-2,3,4,7,8-PeCDF	0.4	0.501		125	33:07	1.56	
13C12-1,2,3,4,7,8-HxCDD	0.4	0.433		108	35:40	1.25	
13C12-1,2,3,4,7,8-HxCDF	0.4	0.425		106	35:01	0.51	
13C12-1,2,3,4,7,8,9-HpCDF	0.4	0.450		112	39:22	0.44	
Injection Standards							
13C12-1,2,3,4-TCDD	2.0	-		-	28:52	0.79	
13C12-1,2,3,7,8,9-HxCDD	2.0	-		-	35:58	1.25	

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Wet	
			Matrix:	Water	
Sample ID:	WGL-GW-MW102-062909		Weight / Volume:	960	mL
			Solids / Lipids:	NA	%
			Original pH :	8.00	
Laboratory Information			Batch ID:	WG17199	
Project ID:	G330-41		Instrument:	HRMS1	
Sample ID:	G330-41-4C		Filename:	a20jul09b-8	
Collection Date/Time:	06/29/09	15:55	Retchk:	a20jul09b-1	
Receipt Date/Time:	07/02/09	10:00	Begin ConCal:	a20jul09b-1	
Extraction Date:	07/19/09		End ConCal:	a20jul09b-15	
Analysis Date/Time:	07/20/09	22:14	Initial Cal:	m8290-100708a	

Form Version:[8290]Report

Analyzed by: DS
Date: 7-23-09

Reviewed by: TM
Date: 7-23-09

Method 8290
WGL-GW-MW2-063009
Tetra Tech Nus, Inc.

Analytical Data Summary Sheet

Analyte	Amount ng/L	MDL ng/L	RL ng/L	EMPC ng/L	RT (min.)	Ratio	Qualifier
2,3,7,8-TCDD	ND	0.000894	0.0104				
1,2,3,7,8-PeCDD	ND	0.00263	0.0522				
1,2,3,4,7,8-HxCDD	ND	0.00754	0.0522				
1,2,3,6,7,8-HxCDD	ND	0.00351	0.0522				
1,2,3,7,8,9-HxCDD	ND	0.00402	0.0522				
1,2,3,4,6,7,8-HpCDD	ND	0.00609	0.0522				
OCDD	**0.00743**	0.00673	0.104				J
2,3,7,8-TCDF	ND	0.00157	0.0104				
1,2,3,7,8-PeCDF	ND	0.00309	0.0522				
2,3,4,7,8-PeCDF	ND	0.00728	0.0522				
1,2,3,4,7,8-HxCDF	ND	0.00572	0.0522				
1,2,3,6,7,8-HxCDF	ND	0.00499	0.0522				
2,3,4,6,7,8-HxCDF	ND	0.00445	0.0522				
1,2,3,7,8,9-HxCDF	ND	0.00611	0.0522				
1,2,3,4,6,7,8-HpCDF	ND	0.00245	0.0522				
1,2,3,4,7,8,9-HpCDF	ND	0.00429	0.0522				
OCDF	ND	0.00668	0.104				
Total TCDDs	ND	0.000894	0.0104				
Total PeCDDs	ND	0.00263	0.0522				
Total HxCDDs	ND	0.00351	0.0522				
Total HpCDDs	ND	0.00609	0.0522				
Total TCDFs	ND	0.00157	0.0104				
Total PeCDFs	ND	0.00309	0.0522				
Total HxCDFs	ND	0.00445	0.0522				
Total HpCDFs	ND	0.00245	0.0522				
WHO-2005 TEQ (ND=0)	**0.00000223**			0.00000223			
WHO-2005 TEQ (ND=½)	**0.00765**			0.00765			

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Wet	
			Matrix:	Water	
Sample ID:	WGL-GW-MW2-063009		Weight / Volume:	958	mL
			Solids / Lipids:	NA	%
			Original pH :	6.00	
Laboratory Information			Batch ID:	WG17199	
Project ID:	G330-41		Instrument:	HRMS1	
Sample ID:	G330-41-5C		Filename:	a20jul09b-9	
Collection Date/Time:	06/30/09	8:55	Retchk:	a20jul09b-1	
Receipt Date/Time:	07/02/09	10:00	Begin ConCal:	a20jul09b-1	
Extraction Date:	07/19/09		End ConCal:	a20jul09b-15	
Analysis Date/Time:	07/20/09	23:02	Initial Cal:	m8290-100708a	

Method 8290
WGL-GW-MW2-063009
Tetra Tech Nus, Inc.

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)		Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards							
13C12-2,3,7,8-TCDD	2	1.85		92.6	29:39	0.79	
13C12-1,2,3,7,8-PeCDD	2	2.24		112	33:16	1.58	
13C12-1,2,3,6,7,8-HxCDD	2	1.97		98.7	35:46	1.26	
13C12-1,2,3,4,6,7,8-HpCDD	2	2.09		104	38:46	1.05	
13C12-OCDD	4.0	4.50		113	42:39	0.89	
13C12-2,3,7,8-TCDF	2	1.94		96.8	28:43	0.79	
13C12-1,2,3,7,8-PeCDF	2	2.06		103	32:31	1.58	
13C12-1,2,3,6,7,8-HxCDF	2	1.73		86.6	35:07	0.52	
13C12-1,2,3,4,6,7,8-HpCDF	2	1.81		90.6	37:40	0.44	
Cleanup Standards							
37Cl4-2,3,7,8-TCDD	0.4	0.465		116	29:40	-	
13C12-2,3,4,7,8-PeCDF	0.4	0.511		128	33:07	1.59	
13C12-1,2,3,4,7,8-HxCDD	0.4	0.431		108	35:40	1.27	
13C12-1,2,3,4,7,8-HxCDF	0.4	0.429		107	35:01	0.52	
13C12-1,2,3,4,7,8,9-HpCDF	0.4	0.441		110	39:22	0.45	
Injection Standards							
13C12-1,2,3,4-TCDD	2.0	-		-	28:52	0.78	
13C12-1,2,3,7,8,9-HxCDD	2.0	-		-	35:58	1.24	

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Wet	
			Matrix:	Water	
Sample ID:	WGL-GW-MW2-063009		Weight / Volume:	958	mL
			Solids / Lipids:	NA	%
			Original pH :	6.00	
Laboratory Information			Batch ID:	WG17199	
Project ID:	G330-41		Instrument:	HRMS1	
Sample ID:	G330-41-5C		Filename:	a20jul09b-9	
Collection Date/Time:	06/30/09	8:55	Retchk:	a20jul09b-1	
Receipt Date/Time:	07/02/09	10:00	Begin ConCal:	a20jul09b-1	
Extraction Date:	07/19/09		End ConCal:	a20jul09b-15	
Analysis Date/Time:	07/20/09	23:02	Initial Cal:	m8290-100708a	

Form Version:[8290]Report

Analyzed by: DS
Date: 7-23-09

Reviewed by: [illegible]
Date: 7-23-09

Method 8290
WGL-GW-MW4-063009
Tetra Tech Nus, Inc.

Analytical Data Summary Sheet

Analyte	Amount ng/L	MDL ng/L	RL ng/L	EMPC ng/L	RT (min.)	Ratio	Qualifier
2,3,7,8-TCDD	ND	0.000897	0.0105				
1,2,3,7,8-PeCDD	ND	0.00263	0.0524				
1,2,3,4,7,8-HxCDD	ND	0.00756	0.0524				
1,2,3,6,7,8-HxCDD	ND	0.00352	0.0524				
1,2,3,7,8,9-HxCDD	ND	0.00403	0.0524				
1,2,3,4,6,7,8-HpCDD	ND	0.00611	0.0524				
OCDD	ND	0.00675	0.105				
2,3,7,8-TCDF	ND	0.00158	0.0105				
1,2,3,7,8-PeCDF	ND	0.00310	0.0524				
2,3,4,7,8-PeCDF	ND	0.00730	0.0524				
1,2,3,4,7,8-HxCDF	ND	0.00574	0.0524				
1,2,3,6,7,8-HxCDF	ND	0.00500	0.0524				
2,3,4,6,7,8-HxCDF	ND	0.00447	0.0524				
1,2,3,7,8,9-HxCDF	ND	0.00613	0.0524				
1,2,3,4,6,7,8-HpCDF	ND	0.00246	0.0524				
1,2,3,4,7,8,9-HpCDF	ND	0.00430	0.0524				
OCDF	ND	0.00670	0.105				
Total TCDDs	ND	0.000897	0.0105				
Total PeCDDs	ND	0.00263	0.0524				
Total HxCDDs	ND	0.00352	0.0524				
Total HpCDDs	ND	0.00611	0.0524				
Total TCDFs	ND	0.00158	0.0105				
Total PeCDFs	ND	0.00310	0.0524				
Total HxCDFs	ND	0.00447	0.0524				
Total HpCDFs	ND	0.00246	0.0524				
WHO-2005 TEQ (ND=0)	ND			ND			
WHO-2005 TEQ (ND=½)	**0.00847**			0.00847			

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Wet	
			Matrix:	Water	
Sample ID:	WGL-GW-MW4-063009		Weight / Volume:	955	mL
			Solids / Lipids:	NA	%
			Original pH :	6.00	
Laboratory Information			Batch ID:	WG17199	
Project ID:	G330-41		Instrument:	HRMS1	
Sample ID:	G330-41-6C		Filename:	a20jul09b-10	
Collection Date/Time:	06/30/09	10:00	Retchk:	a20jul09b-1	
Receipt Date/Time:	07/02/09	10:00	Begin ConCal:	a20jul09b-1	
Extraction Date:	07/19/09		End ConCal:	a20jul09b-15	
Analysis Date/Time:	07/20/09	23:50	Initial Cal:	m8290-100708a	

Method 8290
WGL-GW-MW4-063009
Tetra Tech Nus, Inc.

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)		Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards							
13C12-2,3,7,8-TCDD	2	1.33		66.7	29:39	0.79	
13C12-1,2,3,7,8-PeCDD	2	1.46		72.8	33:16	1.61	
13C12-1,2,3,6,7,8-HxCDD	2	1.27		63.5	35:46	1.24	
13C12-1,2,3,4,6,7,8-HpCDD	2	1.37		68.4	38:46	1.03	
13C12-OCDD	4.0	3.05		76.3	42:39	0.89	
13C12-2,3,7,8-TCDF	2	1.44		71.8	28:43	0.79	
13C12-1,2,3,7,8-PeCDF	2	1.34		66.8	32:31	1.58	
13C12-1,2,3,6,7,8-HxCDF	2	1.07		53.3	35:07	0.52	
13C12-1,2,3,4,6,7,8-HpCDF	2	1.11		55.5	37:40	0.44	
Cleanup Standards							
37Cl4-2,3,7,8-TCDD	0.4	0.452		113	29:40	-	
13C12-2,3,4,7,8-PeCDF	0.4	0.477		119	33:07	1.56	
13C12-1,2,3,4,7,8-HxCDD	0.4	0.428		107	35:40	1.28	
13C12-1,2,3,4,7,8-HxCDF	0.4	0.414		104	35:01	0.51	
13C12-1,2,3,4,7,8,9-HpCDF	0.4	0.424		106	39:22	0.44	
Injection Standards							
13C12-1,2,3,4-TCDD	2.0	-		-	28:52	0.79	
13C12-1,2,3,7,8,9-HxCDD	2.0	-		-	35:58	1.24	

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Wet	
			Matrix:	Water	
Sample ID:	WGL-GW-MW4-063009		Weight / Volume:	955	mL
			Solids / Lipids:	NA	%
			Original pH :	6.00	
Laboratory Information			Batch ID:	WG17199	
Project ID:	G330-41		Instrument:	HRMS1	
Sample ID:	G330-41-6C		Filename:	a20jul09b-10	
Collection Date/Time:	06/30/09	10:00	Retchk:	a20jul09b-1	
Receipt Date/Time:	07/02/09	10:00	Begin ConCal:	a20jul09b-1	
Extraction Date:	07/19/09		End ConCal:	a20jul09b-15	
Analysis Date/Time:	07/20/09	23:50	Initial Cal:	m8290-100708a	

Form Version:[8290]Report

Analyzed by: DS
Date: 7-23-09

Reviewed by: JM
Date: 7-23-09

Method 8290
WGL-GW-MW38-063009
Tetra Tech Nus, Inc.

Analytical Data Summary Sheet

Analyte	Amount ng/L	MDL ng/L	RL ng/L	EMPC ng/L	RT (min.)	Ratio	Qualifier
2,3,7,8-TCDD	ND	0.000876	0.0102				
1,2,3,7,8-PeCDD	ND	0.00257	0.0511				
1,2,3,4,7,8-HxCDD	ND	0.00739	0.0511				
1,2,3,6,7,8-HxCDD	ND	0.00344	0.0511				
1,2,3,7,8,9-HxCDD	ND	0.00394	0.0511				
1,2,3,4,6,7,8-HpCDD	ND	0.00596	0.0511				
OCDD	**0.0112**	0.00659	0.102		42:40	1.02	J
2,3,7,8-TCDF	ND	0.00154	0.0102				
1,2,3,7,8-PeCDF	ND	0.00303	0.0511				
2,3,4,7,8-PeCDF	ND	0.00713	0.0511				
1,2,3,4,7,8-HxCDF	ND	0.00560	0.0511				
1,2,3,6,7,8-HxCDF	ND	0.00488	0.0511				
2,3,4,6,7,8-HxCDF	ND	0.00436	0.0511				
1,2,3,7,8,9-HxCDF	ND	0.00599	0.0511				
1,2,3,4,6,7,8-HpCDF	ND	0.00240	0.0511				
1,2,3,4,7,8,9-HpCDF	ND	0.00420	0.0511				
OCDF	ND	0.00654	0.102				
Total TCDDs	ND	0.000876	0.0102				
Total PeCDDs	ND	0.00257	0.0511				
Total HxCDDs	ND	0.00344	0.0511				
Total HpCDDs	ND	0.00596	0.0511				
Total TCDFs	ND	0.00154	0.0102				
Total PeCDFs	ND	0.00303	0.0511				
Total HxCDFs	ND	0.00436	0.0511				
Total HpCDFs	ND	0.00240	0.0511				
WHO-2005 TEQ (ND=0)	**0.00000336**			0.00000336			
WHO-2005 TEQ (ND=½)	**0.00701**			0.00701			

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Wet	
			Matrix:	Water	
Sample ID:	WGL-GW-MW38-063009		Weight / Volume:	978	mL
			Solids / Lipids:	NA	%
			Original pH :	7.00	
Laboratory Information			Batch ID:	WG17199	
Project ID:	G330-41		Instrument:	HRMS1	
Sample ID:	G330-41-7C		Filename:	a20jul09b-11	
Collection Date/Time:	06/30/09	12:25	Retchk:	a20jul09b-1	
Receipt Date/Time:	07/02/09	10:00	Begin ConCal:	a20jul09b-1	
Extraction Date:	07/19/09		End ConCal:	a20jul09b-15	
Analysis Date/Time:	07/21/09	0:38	Initial Cal:	m8290-100708a	

Method 8290
WGL-GW-MW38-063009
Tetra Tech Nus, Inc.

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)		Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards							
13C12-2,3,7,8-TCDD	2	1.78		88.9	29:39	0.78	
13C12-1,2,3,7,8-PeCDD	2	2.14		107	33:16	1.58	
13C12-1,2,3,6,7,8-HxCDD	2	1.95		97.6	35:46	1.26	
13C12-1,2,3,4,6,7,8-HpCDD	2	2.01		101	38:46	1.05	
13C12-OCDD	4.0	4.25		106	42:39	0.90	
13C12-2,3,7,8-TCDF	2	1.89		94.7	28:43	0.79	
13C12-1,2,3,7,8-PeCDF	2	1.95		97.4	32:31	1.56	
13C12-1,2,3,6,7,8-HxCDF	2	1.72		86.2	35:07	0.52	
13C12-1,2,3,4,6,7,8-HpCDF	2	1.78		89.0	37:40	0.45	
Cleanup Standards							
37Cl4-2,3,7,8-TCDD	0.4	0.445		111	29:40	-	
13C12-2,3,4,7,8-PeCDF	0.4	0.486		121	33:07	1.57	
13C12-1,2,3,4,7,8-HxCDD	0.4	0.428		107	35:40	1.22	
13C12-1,2,3,4,7,8-HxCDF	0.4	0.418		105	35:01	0.51	
13C12-1,2,3,4,7,8,9-HpCDF	0.4	0.425		106	39:22	0.44	
Injection Standards							
13C12-1,2,3,4-TCDD	2.0	-		-	28:52	0.80	
13C12-1,2,3,7,8,9-HxCDD	2.0	-		-	36:00	1.25	

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Wet	
			Matrix:	Water	
Sample ID:	WGL-GW-MW38-063009		Weight / Volume:	978	mL
			Solids / Lipids:	NA	%
			Original pH :	7.00	
Laboratory Information			Batch ID:	WG17199	
Project ID:	G330-41		Instrument:	HRMS1	
Sample ID:	G330-41-7C		Filename:	a20jul09b-11	
Collection Date/Time:	06/30/09	12:25	Retchk:	a20jul09b-1	
Receipt Date/Time:	07/02/09	10:00	Begin ConCal:	a20jul09b-1	
Extraction Date:	07/19/09		End ConCal:	a20jul09b-15	
Analysis Date/Time:	07/21/09	0:38	Initial Cal:	m8290-100708a	

Form Version:[8290]Report

Analyzed by: DS
Date: 7-23-09

Reviewed by: YM
Date: 7-23-09

Method 8290
WGL-GW-MW405-063009
Tetra Tech Nus, Inc.

Analytical Data Summary Sheet

Analyte	Amount ng/L	MDL ng/L	RL ng/L	EMPC ng/L	RT (min.)	Ratio	Qualifier
2,3,7,8-TCDD	ND	0.000881	0.0103				
1,2,3,7,8-PeCDD	ND	0.00259	0.0514				
1,2,3,4,7,8-HxCDD	ND	0.00743	0.0514				
1,2,3,6,7,8-HxCDD	ND	0.00346	0.0514				
1,2,3,7,8,9-HxCDD	ND	0.00396	0.0514				
1,2,3,4,6,7,8-HpCDD	ND	0.00600	0.0514				
OCDD	ND	0.00663	0.103				
2,3,7,8-TCDF	ND	0.00155	0.0103				
1,2,3,7,8-PeCDF	ND	0.00305	0.0514				
2,3,4,7,8-PeCDF	ND	0.00717	0.0514				
1,2,3,4,7,8-HxCDF	ND	0.00564	0.0514				
1,2,3,6,7,8-HxCDF	ND	0.00491	0.0514				
2,3,4,6,7,8-HxCDF	ND	0.00439	0.0514				
1,2,3,7,8,9-HxCDF	ND	0.00602	0.0514				
1,2,3,4,6,7,8-HpCDF	ND	0.00241	0.0514				
1,2,3,4,7,8,9-HpCDF	ND	0.00423	0.0514				
OCDF	ND	0.00658	0.103				
Total TCDDs	ND	0.000881	0.0103				
Total PeCDDs	ND	0.00259	0.0514				
Total HxCDDs	ND	0.00346	0.0514				
Total HpCDDs	ND	0.00600	0.0514				
Total TCDFs	ND	0.00155	0.0103				
Total PeCDFs	ND	0.00305	0.0514				
Total HxCDFs	ND	0.00439	0.0514				
Total HpCDFs	ND	0.00241	0.0514				
WHO-2005 TEQ (ND=0)	ND			ND			
WHO-2005 TEQ (ND=½)	**0.00721**			0.00721			

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Wet	
			Matrix:	Water	
Sample ID:	WGL-GW-MW405-063009		Weight / Volume:	972	mL
			Solids / Lipids:	NA	%
			Original pH :	7.00	
Laboratory Information			Batch ID:	WG17203	
Project ID:	G330-41		Instrument:	HRMS1	
Sample ID:	G330-41-8D		Filename:	a21jul09c-5	
Collection Date/Time:	06/30/09	14:55	Retchk:	a21jul09c-1	
Receipt Date/Time:	07/02/09	10:00	Begin ConCal:	a21jul09c-1	
Extraction Date:	07/21/09		End ConCal:	a21jul09c-15	
Analysis Date/Time:	07/22/09	18:41	Initial Cal:	m8290-100708a	

Method 8290
WGL-GW-MW405-063009
Tetra Tech Nus, Inc.

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)		Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards							
13C12-2,3,7,8-TCDD	2	1.81		90.6	29:37	0.79	
13C12-1,2,3,7,8-PeCDD	2	2.22		111	33:16	1.60	
13C12-1,2,3,6,7,8-HxCDD	2	1.87		93.4	35:45	1.26	
13C12-1,2,3,4,6,7,8-HpCDD	2	1.98		99.0	38:46	1.06	
13C12-OCDD	4.0	3.67		91.7	42:37	0.90	
13C12-2,3,7,8-TCDF	2	2.10		105	28:42	0.80	
13C12-1,2,3,7,8-PeCDF	2	2.17		109	32:31	1.59	
13C12-1,2,3,6,7,8-HxCDF	2	1.89		94.4	35:06	0.53	
13C12-1,2,3,4,6,7,8-HpCDF	2	1.87		93.4	37:37	0.45	
Cleanup Standards							
37Cl4-2,3,7,8-TCDD	0.4	0.450		113	29:37	-	
13C12-2,3,4,7,8-PeCDF	0.4	0.520		130	33:06	1.61	
13C12-1,2,3,4,7,8-HxCDD	0.4	0.432		108	35:40	1.27	
13C12-1,2,3,4,7,8-HxCDF	0.4	0.473		118	35:01	0.51	
13C12-1,2,3,4,7,8,9-HpCDF	0.4	0.446		112	39:21	0.45	
Injection Standards							
13C12-1,2,3,4-TCDD	2.0	-		-	28:51	0.80	
13C12-1,2,3,7,8,9-HxCDD	2.0	-		-	35:58	1.26	

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Wet	
			Matrix:	Water	
Sample ID:	WGL-GW-MW405-063009		Weight / Volume:	972	mL
			Solids / Lipids:	NA	%
			Original pH :	7.00	
Laboratory Information			Batch ID:	WG17203	
Project ID:	G330-41		Instrument:	HRMS1	
Sample ID:	G330-41-8D		Filename:	a21jul09c-5	
Collection Date/Time:	06/30/09	14:55	Retchk:	a21jul09c-1	
Receipt Date/Time:	07/02/09	10:00	Begin ConCal:	a21jul09c-1	
Extraction Date:	07/21/09		End ConCal:	a21jul09c-15	
Analysis Date/Time:	07/22/09	18:41	Initial Cal:	m8290-100708a	

Form Version:[8290]Report

Analyzed by: DS
Date: 7-23-09

Reviewed by: TM
Date: 7-23-09

Method 8290
WGL-GW-DUP01-063009
Tetra Tech Nus, Inc.

Analytical Data Summary Sheet

Analyte	Amount ng/L	MDL ng/L	RL ng/L	EMPC ng/L	RT (min.)	Ratio	Qualifier
2,3,7,8-TCDD	ND	0.000836	0.00976				
1,2,3,7,8-PeCDD	ND	0.00245	0.0488				
1,2,3,4,7,8-HxCDD	ND	0.00705	0.0488				
1,2,3,6,7,8-HxCDD	ND	0.00328	0.0488				
1,2,3,7,8,9-HxCDD	ND	0.00376	0.0488				
1,2,3,4,6,7,8-HpCDD	ND	0.00569	0.0488				
OCDD	ND	0.00629	0.0976				
2,3,7,8-TCDF	ND	0.00147	0.00976				
1,2,3,7,8-PeCDF	ND	0.00289	0.0488				
2,3,4,7,8-PeCDF	ND	0.00680	0.0488				
1,2,3,4,7,8-HxCDF	ND	0.00535	0.0488				
1,2,3,6,7,8-HxCDF	ND	0.00466	0.0488				
2,3,4,6,7,8-HxCDF	ND	0.00416	0.0488				
1,2,3,7,8,9-HxCDF	ND	0.00571	0.0488				
1,2,3,4,6,7,8-HpCDF	ND	0.00229	0.0488				
1,2,3,4,7,8,9-HpCDF	ND	0.00401	0.0488				
OCDF	ND	0.00624	0.0976				
Total TCDDs	ND	0.000836	0.00976				
Total PeCDDs	ND	0.00245	0.0488				
Total HxCDDs	ND	0.00328	0.0488				
Total HpCDDs	ND	0.00569	0.0488				
Total TCDFs	ND	0.00147	0.00976				
Total PeCDFs	ND	0.00289	0.0488				
Total HxCDFs	ND	0.00416	0.0488				
Total HpCDFs	ND	0.00229	0.0488				
WHO-2005 TEQ (ND=0)	ND			ND			
WHO-2005 TEQ (ND=½)	**0.00753**			0.00753			

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Wet	
			Matrix:	Water	
Sample ID:	WGL-GW-DUP01-063009		Weight / Volume:	1025	mL
			Solids / Lipids:	NA	%
			Original pH :	7.00	
Laboratory Information			Batch ID:	WG17199	
Project ID:	G330-41		Instrument:	HRMS1	
Sample ID:	G330-41-9C		Filename:	a20jul09b-13	
Collection Date/Time:	06/30/09	12:50	Retchk:	a20jul09b-1	
Receipt Date/Time:	07/02/09	10:00	Begin ConCal:	a20jul09b-1	
Extraction Date:	07/19/09		End ConCal:	a20jul09b-15	
Analysis Date/Time:	07/21/09	2:15	Initial Cal:	m8290-100708a	

Method 8290
WGL-GW-DUP01-063009
Tetra Tech Nus, Inc.

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)		Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards							
13C12-2,3,7,8-TCDD	2	1.66		82.8	29:39	0.78	
13C12-1,2,3,7,8-PeCDD	2	1.89		94.5	33:16	1.59	
13C12-1,2,3,6,7,8-HxCDD	2	1.75		87.3	35:46	1.24	
13C12-1,2,3,4,6,7,8-HpCDD	2	1.83		91.7	38:46	1.05	
13C12-OCDD	4.0	4.07		102	42:39	0.90	
13C12-2,3,7,8-TCDF	2	1.80		89.8	28:43	0.79	
13C12-1,2,3,7,8-PeCDF	2	1.67		83.3	32:31	1.57	
13C12-1,2,3,6,7,8-HxCDF	2	1.36		68.1	35:07	0.52	
13C12-1,2,3,4,6,7,8-HpCDF	2	1.45		72.4	37:40	0.45	
Cleanup Standards							
37Cl4-2,3,7,8-TCDD	0.4	0.464		116	29:40	-	
13C12-2,3,4,7,8-PeCDF	0.4	0.491		123	33:07	1.58	
13C12-1,2,3,4,7,8-HxCDD	0.4	0.426		107	35:40	1.25	
13C12-1,2,3,4,7,8-HxCDF	0.4	0.420		105	35:01	0.51	
13C12-1,2,3,4,7,8,9-HpCDF	0.4	0.434		108	39:22	0.43	
Injection Standards							
13C12-1,2,3,4-TCDD	2.0	-		-	28:52	0.79	
13C12-1,2,3,7,8,9-HxCDD	2.0	-		-	36:00	1.25	

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Wet	
			Matrix:	Water	
Sample ID:	WGL-GW-DUP01-063009		Weight / Volume:	1025	mL
			Solids / Lipids:	NA	%
			Original pH :	7.00	
Laboratory Information			Batch ID:	WG17199	
Project ID:	G330-41		Instrument:	HRMS1	
Sample ID:	G330-41-9C		Filename:	a20jul09b-13	
Collection Date/Time:	06/30/09	12:50	Retchk:	a20jul09b-1	
Receipt Date/Time:	07/02/09	10:00	Begin ConCal:	a20jul09b-1	
Extraction Date:	07/19/09		End ConCal:	a20jul09b-15	
Analysis Date/Time:	07/21/09	2:15	Initial Cal:	m8290-100708a	

Form Version:[8290]Report

Analyzed by: DS
Date: 7-23-09

Reviewed by: TM
Date: 7-23-09

Method 8290
WGL-GW-MW48D-063009
Tetra Tech Nus, Inc.

Analytical Data Summary Sheet

Analyte	Amount ng/L	MDL ng/L	RL ng/L	EMPC ng/L	RT (min.)	Ratio	Qualifier
2,3,7,8-TCDD	ND	0.000833	0.00973				
1,2,3,7,8-PeCDD	ND	0.00245	0.0486				
1,2,3,4,7,8-HxCDD	ND	0.00703	0.0486				
1,2,3,6,7,8-HxCDD	ND	0.00327	0.0486				
1,2,3,7,8,9-HxCDD	ND	0.00375	0.0486				
1,2,3,4,6,7,8-HpCDD	ND	0.00567	0.0486				
OCDD	ND	0.00627	0.0973				
2,3,7,8-TCDF	ND	0.00146	0.00973				
1,2,3,7,8-PeCDF	ND	0.00288	0.0486				
2,3,4,7,8-PeCDF	ND	0.00678	0.0486				
1,2,3,4,7,8-HxCDF	ND	0.00533	0.0486				
1,2,3,6,7,8-HxCDF	ND	0.00465	0.0486				
2,3,4,6,7,8-HxCDF	ND	0.00415	0.0486				
1,2,3,7,8,9-HxCDF	ND	0.00570	0.0486				
1,2,3,4,6,7,8-HpCDF	ND	0.00228	0.0486				
1,2,3,4,7,8,9-HpCDF	ND	0.00400	0.0486				
OCDF	ND	0.00622	0.0973				
Total TCDDs	ND	0.000833	0.00973				
Total PeCDDs	ND	0.00245	0.0486				
Total HxCDDs	ND	0.00327	0.0486				
Total HpCDDs	ND	0.00567	0.0486				
Total TCDFs	ND	0.00146	0.00973				
Total PeCDFs	ND	0.00288	0.0486				
Total HxCDFs	ND	0.00415	0.0486				
Total HpCDFs	ND	0.00228	0.0486				
WHO-2005 TEQ (ND=0)	ND			ND			
WHO-2005 TEQ (ND=½)	**0.00734**			0.00734			

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Wet	
			Matrix:	Water	
Sample ID:	WGL-GW-MW48D-063009		Weight / Volume:	1028	mL
			Solids / Lipids:	NA	%
			Original pH :	7.00	
Laboratory Information			Batch ID:	WG17199	
Project ID:	G330-41		Instrument:	HRMS1	
Sample ID:	G330-41-10C		Filename:	a20jul09b-14	
Collection Date/Time:	06/30/09	12:45	Retchk:	a20jul09b-1	
Receipt Date/Time:	07/02/09	10:00	Begin ConCal:	a20jul09b-1	
Extraction Date:	07/19/09		End ConCal:	a20jul09b-15	
Analysis Date/Time:	07/21/09	3:03	Initial Cal:	m8290-100708a	

Method 8290
WGL-GW-MW48D-063009
Tetra Tech Nus, Inc.

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)		Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards							
13C12-2,3,7,8-TCDD	2	1.63		81.5	29:39	0.78	
13C12-1,2,3,7,8-PeCDD	2	1.81		90.7	33:16	1.57	
13C12-1,2,3,6,7,8-HxCDD	2	1.70		84.9	35:46	1.24	
13C12-1,2,3,4,6,7,8-HpCDD	2	1.85		92.5	38:46	1.05	
13C12-OCDD	4.0	4.20		105	42:39	0.89	
13C12-2,3,7,8-TCDF	2	1.73		86.5	28:43	0.79	
13C12-1,2,3,7,8-PeCDF	2	1.58		79.2	32:31	1.59	
13C12-1,2,3,6,7,8-HxCDF	2	1.31		65.7	35:07	0.52	
13C12-1,2,3,4,6,7,8-HpCDF	2	1.42		70.8	37:40	0.44	
Cleanup Standards							
37Cl4-2,3,7,8-TCDD	0.4	0.464		116	29:40	-	
13C12-2,3,4,7,8-PeCDF	0.4	0.499		125	33:07	1.59	
13C12-1,2,3,4,7,8-HxCDD	0.4	0.475		119	35:40	1.24	
13C12-1,2,3,4,7,8-HxCDF	0.4	0.410		102	35:01	0.51	
13C12-1,2,3,4,7,8,9-HpCDF	0.4	0.451		113	39:22	0.45	
Injection Standards							
13C12-1,2,3,4-TCDD	2.0	-		-	28:54	0.80	
13C12-1,2,3,7,8,9-HxCDD	2.0	-		-	36:00	1.24	

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Wet	
			Matrix:	Water	
Sample ID:	WGL-GW-MW48D-063009		Weight / Volume:	1028	mL
			Solids / Lipids:	NA	%
			Original pH :	7.00	
Laboratory Information			Batch ID:	WG17199	
Project ID:	G330-41		Instrument:	HRMS1	
Sample ID:	G330-41-10C		Filename:	a20jul09b-14	
Collection Date/Time:	06/30/09	12:45	Retchk:	a20jul09b-1	
Receipt Date/Time:	07/02/09	10:00	Begin ConCal:	a20jul09b-1	
Extraction Date:	07/19/09		End ConCal:	a20jul09b-15	
Analysis Date/Time:	07/21/09	3:03	Initial Cal:	m8290-100708a	

Form Version:[8290]Report

Analyzed by: DS
Date: 7-23-09

Reviewed by: JM
Date: 7-23-09

Method 8290
WGL-GW-DUP02-063009
Tetra Tech Nus, Inc.

Analytical Data Summary Sheet

Analyte	Amount ng/L	MDL ng/L	RL ng/L	EMPC ng/L	RT (min.)	Ratio	Qualifier
2,3,7,8-TCDD	ND	0.000887	0.0104				
1,2,3,7,8-PeCDD	ND	0.00261	0.0518				
1,2,3,4,7,8-HxCDD	ND	0.00748	0.0518				
1,2,3,6,7,8-HxCDD	ND	0.00349	0.0518				
1,2,3,7,8,9-HxCDD	ND	0.00399	0.0518				
1,2,3,4,6,7,8-HpCDD	ND	0.00604	0.0518				
OCDD	**0.0218**	0.00668	0.104		42:40	0.99	J
2,3,7,8-TCDF	ND	0.00156	0.0104				
1,2,3,7,8-PeCDF	ND	0.00307	0.0518				
2,3,4,7,8-PeCDF	ND	0.00722	0.0518				
1,2,3,4,7,8-HxCDF	ND	0.00568	0.0518				
1,2,3,6,7,8-HxCDF	ND	0.00495	0.0518				
2,3,4,6,7,8-HxCDF	ND	0.00442	0.0518				
1,2,3,7,8,9-HxCDF	ND	0.00607	0.0518				
1,2,3,4,6,7,8-HpCDF	ND	0.00243	0.0518				
1,2,3,4,7,8,9-HpCDF	ND	0.00426	0.0518				
OCDF	ND	0.00663	0.104				
Total TCDDs	ND	0.000887	0.0104				
Total PeCDDs	ND	0.00261	0.0518				
Total HxCDDs	ND	0.00349	0.0518				
Total HpCDDs	ND	0.00604	0.0518				
Total TCDFs	ND	0.00156	0.0104				
Total PeCDFs	ND	0.00307	0.0518				
Total HxCDFs	ND	0.00442	0.0518				
Total HpCDFs	ND	0.00243	0.0518				
WHO-2005 TEQ (ND=0)	**0.00000654**			6.54E-06			
WHO-2005 TEQ (ND=½)	**0.00896**			0.00896			

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Wet	
			Matrix:	Water	
Sample ID:	WGL-GW-DUP02-063009		Weight / Volume:	965	mL
			Solids / Lipids:	NA	%
			Original pH :	6.00	
Laboratory Information			Batch ID:	WG17199	
Project ID:	G330-41		Instrument:	HRMS1	
Sample ID:	G330-41-11C		Filename:	a20jul09b_2-5	
Collection Date/Time:	06/30/09	15:00	Retchk:	a20jul09b-15	
Receipt Date/Time:	07/02/09	10:00	Begin ConCal:	a20jul09b-15	
Extraction Date:	07/19/09		End ConCal:	a20jul09b_2-12	
Analysis Date/Time:	07/21/09	7:58	Initial Cal:	m8290-100708a	

Method 8290
WGL-GW-DUP02-063009
Tetra Tech Nus, Inc.

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)		Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards							
13C12-2,3,7,8-TCDD	2	1.37		68.3	29:39	0.79	
13C12-1,2,3,7,8-PeCDD	2	1.44		72.2	33:16	1.58	
13C12-1,2,3,6,7,8-HxCDD	2	1.18		59.2	35:46	1.25	
13C12-1,2,3,4,6,7,8-HpCDD	2	1.28		64.0	38:46	1.05	
13C12-OCDD	4.0	2.85		71.2	42:39	0.89	
13C12-2,3,7,8-TCDF	2	1.54		77.0	28:43	0.79	
13C12-1,2,3,7,8-PeCDF	2	1.34		66.9	32:31	1.59	
13C12-1,2,3,6,7,8-HxCDF	2	1.02		51.0	35:07	0.53	
13C12-1,2,3,4,6,7,8-HpCDF	2	0.995		49.7	37:40	0.45	
Cleanup Standards							
37Cl4-2,3,7,8-TCDD	0.4	0.453		113	29:40	-	
13C12-2,3,4,7,8-PeCDF	0.4	0.508		127	33:07	1.57	
13C12-1,2,3,4,7,8-HxCDD	0.4	0.452		113	35:40	1.27	
13C12-1,2,3,4,7,8-HxCDF	0.4	0.405		101	35:01	0.51	
13C12-1,2,3,4,7,8,9-HpCDF	0.4	0.439		110	39:22	0.43	
Injection Standards							
13C12-1,2,3,4-TCDD	2.0	-		-	28:54	0.79	
13C12-1,2,3,7,8,9-HxCDD	2.0	-		-	36:00	1.26	

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Wet	
			Matrix:	Water	
Sample ID:	WGL-GW-DUP02-063009		Weight / Volume:	965	mL
			Solids / Lipids:	NA	%
			Original pH :	6.00	
Laboratory Information			Batch ID:	WG17199	
Project ID:	G330-41		Instrument:	HRMS1	
Sample ID:	G330-41-11C		Filename:	a20jul09b_2-5	
Collection Date/Time:	06/30/09	15:00	Retchk:	a20jul09b-15	
Receipt Date/Time:	07/02/09	10:00	Begin ConCal:	a20jul09b-15	
Extraction Date:	07/19/09		End ConCal:	a20jul09b_2-12	
Analysis Date/Time:	07/21/09	7:58	Initial Cal:	m8290-100708a	

Form Version:[8290]Report

Analyzed by: DS
Date: 7-23-09

Reviewed by: TM
Date: 7-23-09

Method 8290
WGL-GW-MW48D2-063009
Tetra Tech Nus, Inc.

Analytical Data Summary Sheet

Analyte	Amount ng/L	MDL ng/L	RL ng/L	EMPC ng/L	RT (min.)	Ratio	Qualifier
2,3,7,8-TCDD	ND	0.000896	0.0105				
1,2,3,7,8-PeCDD	ND	0.00263	0.0523				
1,2,3,4,7,8-HxCDD	ND	0.00756	0.0523				
1,2,3,6,7,8-HxCDD	ND	0.00352	0.0523				
1,2,3,7,8,9-HxCDD	ND	0.00403	0.0523				
1,2,3,4,6,7,8-HpCDD	ND	0.00610	0.0523				
OCDD	**0.00950**	0.00675	0.105		42:40	0.97	J
2,3,7,8-TCDF	ND	0.00157	0.0105				
1,2,3,7,8-PeCDF	ND	0.00310	0.0523				
2,3,4,7,8-PeCDF	ND	0.00729	0.0523				
1,2,3,4,7,8-HxCDF	ND	0.00573	0.0523				
1,2,3,6,7,8-HxCDF	ND	0.00500	0.0523				
2,3,4,6,7,8-HxCDF	ND	0.00446	0.0523				
1,2,3,7,8,9-HxCDF	ND	0.00613	0.0523				
1,2,3,4,6,7,8-HpCDF	ND	0.00245	0.0523				
1,2,3,4,7,8,9-HpCDF	ND	0.00430	0.0523				
OCDF	ND	0.00669	0.105				
Total TCDDs	ND	0.000896	0.0105				
Total PeCDDs	ND	0.00263	0.0523				
Total HxCDDs	ND	0.00352	0.0523				
Total HpCDDs	ND	0.00610	0.0523				
Total TCDFs	ND	0.00157	0.0105				
Total PeCDFs	ND	0.00310	0.0523				
Total HxCDFs	ND	0.00446	0.0523				
Total HpCDFs	ND	0.00245	0.0523				
WHO-2005 TEQ (ND=0)	**0.00000285**			0.00000285			
WHO-2005 TEQ (ND=½)	**0.00740**			0.0074			

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Wet	
			Matrix:	Water	
Sample ID:	WGL-GW-MW48D2-063009		Weight / Volume:	956	mL
			Solids / Lipids:	NA	%
			Original pH :	8.00	
Laboratory Information			Batch ID:	WG17199	
Project ID:	G330-41		Instrument:	HRMS1	
Sample ID:	G330-41-12C		Filename:	a20jul09b_2-6	
Collection Date/Time:	06/30/09	10:00	Retchk:	a20jul09b-15	
Receipt Date/Time:	07/02/09	10:00	Begin ConCal:	a20jul09b-15	
Extraction Date:	07/19/09		End ConCal:	a20jul09b_2-12	
Analysis Date/Time:	07/21/09	8:46	Initial Cal:	m8290-100708a	

Method 8290
WGL-GW-MW48D2-063009
Tetra Tech Nus, Inc.

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)		Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards							
13C12-2,3,7,8-TCDD	2	1.84		92.2	29:39	0.79	
13C12-1,2,3,7,8-PeCDD	2	2.12		106	33:16	1.58	
13C12-1,2,3,6,7,8-HxCDD	2	1.88		94.2	35:46	1.25	
13C12-1,2,3,4,6,7,8-HpCDD	2	1.99		99.6	38:46	1.05	
13C12-OCDD	4.0	4.35		109	42:39	0.89	
13C12-2,3,7,8-TCDF	2	1.97		98.6	28:43	0.78	
13C12-1,2,3,7,8-PeCDF	2	1.94		97.2	32:31	1.55	
13C12-1,2,3,6,7,8-HxCDF	2	1.67		83.6	35:07	0.53	
13C12-1,2,3,4,6,7,8-HpCDF	2	1.70		85.2	37:40	0.45	
Cleanup Standards							
37Cl4-2,3,7,8-TCDD	0.4	0.465		116	29:40	-	
13C12-2,3,4,7,8-PeCDF	0.4	0.494		123	33:07	1.62	
13C12-1,2,3,4,7,8-HxCDD	0.4	0.469		117	35:40	1.26	
13C12-1,2,3,4,7,8-HxCDF	0.4	0.417		104	35:01	0.52	
13C12-1,2,3,4,7,8,9-HpCDF	0.4	0.452		113	39:22	0.43	
Injection Standards							
13C12-1,2,3,4-TCDD	2.0	-		-	28:54	0.79	
13C12-1,2,3,7,8,9-HxCDD	2.0	-		-	36:00	1.25	

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Wet	
			Matrix:	Water	
Sample ID:	WGL-GW-MW48D2-063009		Weight / Volume:	956	mL
			Solids / Lipids:	NA	%
			Original pH :	8.00	
Laboratory Information			Batch ID:	WG17199	
Project ID:	G330-41		Instrument:	HRMS1	
Sample ID:	G330-41-12C		Filename:	a20jul09b_2-6	
Collection Date/Time:	06/30/09	10:00	Retchk:	a20jul09b-15	
Receipt Date/Time:	07/02/09	10:00	Begin ConCal:	a20jul09b-15	
Extraction Date:	07/19/09		End ConCal:	a20jul09b_2-12	
Analysis Date/Time:	07/21/09	8:46	Initial Cal:	m8290-100708a	

Form Version:[8290]Report

Analyzed by: OS
Date: 7-23-09

Reviewed by: [illegible]
Date: 7-23-09

Method 8290
WGL-GW-MW39-063009
Tetra Tech Nus, Inc.

Analytical Data Summary Sheet

Analyte	Amount ng/L	MDL ng/L	RL ng/L	EMPC ng/L	RT (min.)	Ratio	Qualifier
2,3,7,8-TCDD	ND	0.000871	0.0102				
1,2,3,7,8-PeCDD	ND	0.00256	0.0509				
1,2,3,4,7,8-HxCDD	ND	0.00735	0.0509				
1,2,3,6,7,8-HxCDD	ND	0.00342	0.0509				
1,2,3,7,8,9-HxCDD	ND	0.00392	0.0509				
1,2,3,4,6,7,8-HpCDD	ND	0.00593	0.0509				
OCDD	ND	0.00656	0.102				
2,3,7,8-TCDF	ND	0.00153	0.0102				
1,2,3,7,8-PeCDF	ND	0.00301	0.0509				
2,3,4,7,8-PeCDF	ND	0.00709	0.0509				
1,2,3,4,7,8-HxCDF	ND	0.00558	0.0509				
1,2,3,6,7,8-HxCDF	ND	0.00486	0.0509				
2,3,4,6,7,8-HxCDF	ND	0.00434	0.0509				
1,2,3,7,8,9-HxCDF	ND	0.00596	0.0509				
1,2,3,4,6,7,8-HpCDF	ND	0.00239	0.0509				
1,2,3,4,7,8,9-HpCDF	ND	0.00418	0.0509				
OCDF	ND	0.00651	0.102				
Total TCDDs	ND	0.000871	0.0102				
Total PeCDDs	ND	0.00256	0.0509				
Total HxCDDs	ND	0.00342	0.0509				
Total HpCDDs	ND	0.00593	0.0509				
Total TCDFs	ND	0.00153	0.0102				
Total PeCDFs	ND	0.00301	0.0509				
Total HxCDFs	ND	0.00434	0.0509				
Total HpCDFs	ND	0.00239	0.0509				
WHO-2005 TEQ (ND=0)	ND			ND			
WHO-2005 TEQ (ND=½)	**0.00828**			0.00828			

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Wet	
			Matrix:	Water	
Sample ID:	WGL-GW-MW39-063009		Weight / Volume:	983	mL
			Solids / Lipids:	NA	%
			Original pH :	7.00	
Laboratory Information			Batch ID:	WG17199	
Project ID:	G330-41		Instrument:	HRMS1	
Sample ID:	G330-41-13C		Filename:	a20jul09b_2-7	
Collection Date/Time:	06/30/09	15:35	Retchk:	a20jul09b-15	
Receipt Date/Time:	07/02/09	10:00	Begin ConCal:	a20jul09b-15	
Extraction Date:	07/19/09		End ConCal:	a20jul09b_2-12	
Analysis Date/Time:	07/21/09	9:34	Initial Cal:	m8290-100708a	

Method 8290
WGL-GW-MW39-063009
Tetra Tech Nus, Inc.

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)		Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards							
13C12-2,3,7,8-TCDD	2	1.25		62.3	29:39	0.79	
13C12-1,2,3,7,8-PeCDD	2	1.36		68.1	33:16	1.59	
13C12-1,2,3,6,7,8-HxCDD	2	1.33		66.7	35:46	1.25	
13C12-1,2,3,4,6,7,8-HpCDD	2	1.61		80.6	38:46	1.05	
13C12-OCDD	4.0	3.76		94.0	42:39	0.90	
13C12-2,3,7,8-TCDF	2	1.34		66.9	28:43	0.79	
13C12-1,2,3,7,8-PeCDF	2	1.21		60.5	32:31	1.56	
13C12-1,2,3,6,7,8-HxCDF	2	1.04		51.9	35:07	0.51	
13C12-1,2,3,4,6,7,8-HpCDF	2	1.12		55.9	37:40	0.45	
Cleanup Standards							
37Cl4-2,3,7,8-TCDD	0.4	0.454		113	29:40	-	
13C12-2,3,4,7,8-PeCDF	0.4	0.491		123	33:07	1.56	
13C12-1,2,3,4,7,8-HxCDD	0.4	0.449		112	35:40	1.25	
13C12-1,2,3,4,7,8-HxCDF	0.4	0.412		103	35:01	0.55	
13C12-1,2,3,4,7,8,9-HpCDF	0.4	0.434		108	39:22	0.45	
Injection Standards							
13C12-1,2,3,4-TCDD	2.0	-		-	28:54	0.79	
13C12-1,2,3,7,8,9-HxCDD	2.0	-		-	36:00	1.25	

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Wet	
			Matrix:	Water	
Sample ID:	WGL-GW-MW39-063009		Weight / Volume:	983	mL
			Solids / Lipids:	NA	%
			Original pH :	7.00	
Laboratory Information			Batch ID:	WG17199	
Project ID:	G330-41		Instrument:	HRMS1	
Sample ID:	G330-41-13C		Filename:	a20jul09b_2-7	
Collection Date/Time:	06/30/09	15:35	Retchk:	a20jul09b-15	
Receipt Date/Time:	07/02/09	10:00	Begin ConCal:	a20jul09b-15	
Extraction Date:	07/19/09		End ConCal:	a20jul09b_2-12	
Analysis Date/Time:	07/21/09	9:34	Initial Cal:	m8290-100708a	

Form Version:[8290]Report

Analyzed by: DS
Date: 7-23-09

Reviewed by: TM
Date: 7-23-09

Method 8290
WGL-GW-FB01-070109
Tetra Tech Nus, Inc.

Analytical Data Summary Sheet

Analyte	Amount ng/L	MDL ng/L	RL ng/L	EMPC ng/L	RT (min.)	Ratio	Qualifier
2,3,7,8-TCDD	ND	0.000812	0.00948				
1,2,3,7,8-PeCDD	ND	0.00238	0.0474				
1,2,3,4,7,8-HxCDD	ND	0.00685	0.0474				
1,2,3,6,7,8-HxCDD	ND	0.00319	0.0474				
1,2,3,7,8,9-HxCDD	ND	0.00365	0.0474				
1,2,3,4,6,7,8-HpCDD	ND	0.00553	0.0474				
OCDD	ND	0.00611	0.0948				
2,3,7,8-TCDF	ND	0.00143	0.00948				
1,2,3,7,8-PeCDF	ND	0.00281	0.0474				
2,3,4,7,8-PeCDF	ND	0.00661	0.0474				
1,2,3,4,7,8-HxCDF	ND	0.00520	0.0474				
1,2,3,6,7,8-HxCDF	ND	0.00453	0.0474				
2,3,4,6,7,8-HxCDF	ND	0.00404	0.0474				
1,2,3,7,8,9-HxCDF	ND	0.00555	0.0474				
1,2,3,4,6,7,8-HpCDF	ND	0.00222	0.0474				
1,2,3,4,7,8,9-HpCDF	ND	0.00389	0.0474				
OCDF	ND	0.00606	0.0948				
Total TCDDs	ND	0.000812	0.00948				
Total PeCDDs	ND	0.00238	0.0474				
Total HxCDDs	ND	0.00319	0.0474				
Total HpCDDs	ND	0.00553	0.0474				
Total TCDFs	ND	0.00143	0.00948				
Total PeCDFs	ND	0.00281	0.0474				
Total HxCDFs	ND	0.00404	0.0474				
Total HpCDFs	ND	0.00222	0.0474				
WHO-2005 TEQ (ND=0)	ND			ND			
WHO-2005 TEQ (ND=½)	**0.00707**			0.00707			

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Wet	
			Matrix:	Water	
Sample ID:	WGL-GW-FB01-070109		Weight / Volume:	1055	mL
			Solids / Lipids:	NA	%
			Original pH :	8.00	
Laboratory Information			Batch ID:	WG17199	
Project ID:	G330-41		Instrument:	HRMS1	
Sample ID:	G330-41-14C		Filename:	a20jul09b_2-8	
Collection Date/Time:	07/01/09	7:20	Retchk:	a20jul09b-15	
Receipt Date/Time:	07/02/09	10:00	Begin ConCal:	a20jul09b-15	
Extraction Date:	07/19/09		End ConCal:	a20jul09b_2-12	
Analysis Date/Time:	07/21/09	10:23	Initial Cal:	m8290-100708a	

Method 8290
WGL-GW-FB01-070109
Tetra Tech Nus, Inc.

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)		Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards							
13C12-2,3,7,8-TCDD	2	1.80		89.8	29:39	0.79	
13C12-1,2,3,7,8-PeCDD	2	2.15		108	33:16	1.59	
13C12-1,2,3,6,7,8-HxCDD	2	1.88		94.2	35:46	1.25	
13C12-1,2,3,4,6,7,8-HpCDD	2	1.96		97.9	38:46	1.06	
13C12-OCDD	4.0	4.12		103	42:39	0.89	
13C12-2,3,7,8-TCDF	2	1.91		95.3	28:43	0.78	
13C12-1,2,3,7,8-PeCDF	2	1.93		96.3	32:31	1.57	
13C12-1,2,3,6,7,8-HxCDF	2	1.72		86.1	35:07	0.53	
13C12-1,2,3,4,6,7,8-HpCDF	2	1.74		87.1	37:40	0.44	
Cleanup Standards							
37Cl4-2,3,7,8-TCDD	0.4	0.462		116	29:40	-	
13C12-2,3,4,7,8-PeCDF	0.4	0.505		126	33:07	1.60	
13C12-1,2,3,4,7,8-HxCDD	0.4	0.464		116	35:40	1.27	
13C12-1,2,3,4,7,8-HxCDF	0.4	0.416		104	35:01	0.50	
13C12-1,2,3,4,7,8,9-HpCDF	0.4	0.435		109	39:22	0.45	
Injection Standards							
13C12-1,2,3,4-TCDD	2.0	-		-	28:54	0.79	
13C12-1,2,3,7,8,9-HxCDD	2.0	-		-	36:00	1.24	

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Wet	
			Matrix:	Water	
Sample ID:	WGL-GW-FB01-070109		Weight / Volume:	1055	mL
			Solids / Lipids:	NA	%
			Original pH :	8.00	
Laboratory Information			Batch ID:	WG17199	
Project ID:	G330-41		Instrument:	HRMS1	
Sample ID:	G330-41-14C		Filename:	a20jul09b_2-8	
Collection Date/Time:	07/01/09	7:20	Retchk:	a20jul09b-15	
Receipt Date/Time:	07/02/09	10:00	Begin ConCal:	a20jul09b-15	
Extraction Date:	07/19/09		End ConCal:	a20jul09b_2-12	
Analysis Date/Time:	07/21/09	10:23	Initial Cal:	m8290-100708a	

Form Version:[8290]Report

Analyzed by: DS
Date: 7-23-09

Reviewed by: JM
Date: 7-23-09

Method 8290
WGL-GW-RB01-070109
Tetra Tech Nus, Inc.

Analytical Data Summary Sheet

Analyte	Amount ng/L	MDL ng/L	RL ng/L	EMPC ng/L	RT (min.)	Ratio	Qualifier
2,3,7,8-TCDD	ND	0.000873	0.0102				
1,2,3,7,8-PeCDD	ND	0.00256	0.0510				
1,2,3,4,7,8-HxCDD	ND	0.00736	0.0510				
1,2,3,6,7,8-HxCDD	ND	0.00343	0.0510				
1,2,3,7,8,9-HxCDD	ND	0.00393	0.0510				
1,2,3,4,6,7,8-HpCDD	ND	0.00594	0.0510				
OCDD	ND	0.00657	0.102				
2,3,7,8-TCDF	ND	0.00153	0.0102				
1,2,3,7,8-PeCDF	ND	0.00302	0.0510				
2,3,4,7,8-PeCDF	ND	0.00711	0.0510				
1,2,3,4,7,8-HxCDF	ND	0.00559	0.0510				
1,2,3,6,7,8-HxCDF	ND	0.00487	0.0510				
2,3,4,6,7,8-HxCDF	ND	0.00435	0.0510				
1,2,3,7,8,9-HxCDF	ND	0.00597	0.0510				
1,2,3,4,6,7,8-HpCDF	ND	0.00239	0.0510				
1,2,3,4,7,8,9-HpCDF	ND	0.00419	0.0510				
OCDF	ND	0.00652	0.102				
Total TCDDs	ND	0.000873	0.0102				
Total PeCDDs	ND	0.00256	0.0510				
Total HxCDDs	ND	0.00343	0.0510				
Total HpCDDs	ND	0.00594	0.0510				
Total TCDFs	ND	0.00153	0.0102				
Total PeCDFs	ND	0.00302	0.0510				
Total HxCDFs	ND	0.00435	0.0510				
Total HpCDFs	ND	0.00239	0.0510				
WHO-2005 TEQ (ND=0)	ND			ND			
WHO-2005 TEQ (ND=½)	**0.00721**			0.00721			

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Wet	
			Matrix:	Water	
Sample ID:	WGL-GW-RB01-070109		Weight / Volume:	981	mL
			Solids / Lipids:	NA	%
			Original pH :	8.00	
Laboratory Information			Batch ID:	WG17199	
Project ID:	G330-41		Instrument:	HRMS1	
Sample ID:	G330-41-15C		Filename:	a20jul09b_2-9	
Collection Date/Time:	07/01/09	7:45	Retchk:	a20jul09b-15	
Receipt Date/Time:	07/02/09	10:00	Begin ConCal:	a20jul09b-15	
Extraction Date:	07/19/09		End ConCal:	a20jul09b_2-12	
Analysis Date/Time:	07/21/09	11:11	Initial Cal:	m8290-100708a	

Method 8290
WGL-GW-RB01-070109
Tetra Tech Nus, Inc.

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)		Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards							
13C12-2,3,7,8-TCDD	2	1.86		92.9	29:39	0.79	
13C12-1,2,3,7,8-PeCDD	2	2.16		108	33:16	1.57	
13C12-1,2,3,6,7,8-HxCDD	2	1.90		95.1	35:46	1.26	
13C12-1,2,3,4,6,7,8-HpCDD	2	2.03		102	38:46	1.05	
13C12-OCDD	4.0	4.19		105	42:39	0.90	
13C12-2,3,7,8-TCDF	2	1.94		97.0	28:43	0.79	
13C12-1,2,3,7,8-PeCDF	2	2.01		101	32:31	1.59	
13C12-1,2,3,6,7,8-HxCDF	2	1.70		85.1	35:07	0.52	
13C12-1,2,3,4,6,7,8-HpCDF	2	1.79		89.5	37:40	0.45	
Cleanup Standards							
37Cl4-2,3,7,8-TCDD	0.4	0.469		117	29:40	-	
13C12-2,3,4,7,8-PeCDF	0.4	0.488		122	33:07	1.54	
13C12-1,2,3,4,7,8-HxCDD	0.4	0.455		114	35:40	1.22	
13C12-1,2,3,4,7,8-HxCDF	0.4	0.409		102	35:01	0.51	
13C12-1,2,3,4,7,8,9-HpCDF	0.4	0.432		108	39:22	0.44	
Injection Standards							
13C12-1,2,3,4-TCDD	2.0	-		-	28:54	0.79	
13C12-1,2,3,7,8,9-HxCDD	2.0	-		-	36:00	1.25	

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Wet	
			Matrix:	Water	
Sample ID:	WGL-GW-RB01-070109		Weight / Volume:	981	mL
			Solids / Lipids:	NA	%
			Original pH :	8.00	
Laboratory Information			Batch ID:	WG17199	
Project ID:	G330-41		Instrument:	HRMS1	
Sample ID:	G330-41-15C		Filename:	a20jul09b_2-9	
Collection Date/Time:	07/01/09	7:45	Retchk:	a20jul09b-15	
Receipt Date/Time:	07/02/09	10:00	Begin ConCal:	a20jul09b-15	
Extraction Date:	07/19/09		End ConCal:	a20jul09b_2-12	
Analysis Date/Time:	07/21/09	11:11	Initial Cal:	m8290-100708a	

Form Version:[8290]Report

Analyzed by: DS
Date: 7-23-09

Reviewed by: JM
Date: 7-23-09

Method 8290

Results for MS/MSD

WGL-GW-MW38-063009

Analyte	Sample ng/L	Spike pg	MS ng/L	%REC (70-130)	#	MSD ng/L	%REC (70-130)	#	%RPD (20)	#
2,3,7,8-TCDD	ND	200	0.219	104		0.220	106		0.456	
1,2,3,7,8-PeCDD	ND	1000	1.03	98.0		1.04	101		0.966	
1,2,3,4,7,8-HxCDD	ND	1000	1.03	98.0		1.04	101		0.966	
1,2,3,6,7,8-HxCDD	ND	1000	1.01	96.1		1.04	101		2.93	
1,2,3,7,8,9-HxCDD	ND	1000	1.06	101		1.05	102		0.948	
1,2,3,4,6,7,8-HpCDD	ND	1000	1.00	95.1		0.975	94.3		2.53	
OCDD	0.0112	2000	2.00	94.6		1.97	94.7		1.51	
2,3,7,8-TCDF	ND	200	0.187	88.9		0.181	87.5		3.26	
1,2,3,7,8-PeCDF	ND	1000	0.983	93.5		0.979	94.7		0.408	
2,3,4,7,8-PeCDF	ND	1000	0.984	93.6		0.965	93.3		1.95	
1,2,3,4,7,8-HxCDF	ND	1000	1.03	98.0		1.02	98.6		0.976	
1,2,3,6,7,8-HxCDF	ND	1000	0.992	94.3		0.984	95.2		0.810	
2,3,4,6,7,8-HxCDF	ND	1000	1.04	98.9		0.995	96.2		4.42	
1,2,3,7,8,9-HxCDF	ND	1000	1.08	103		1.04	101		3.77	
1,2,3,4,6,7,8-HpCDF	ND	1000	0.946	90.0		0.916	88.6		3.22	
1,2,3,4,7,8,9-HpCDF	ND	1000	0.977	92.9		0.935	90.4		4.39	
OCDF	ND	2000	1.85	88.0		1.81	87.5		2.19	

Client Information

Project ID:	CTO 407, N6242-04-D-0055,	Sample amount:	978	mL
	West Gate Landfill	MS amount:	951	mL
Sample ID:	WGL-GW-MW38-063009	MSD amount:	967	mL

Laboratory Information

Project ID:	G330-41
Sample ID:	G330-41-7C
MS ID:	G330-41-16C
MSD ID:	G330-41-17C

Reviewed By:

Method 8290
WGL-GW-MW38-063009 MS
Tetra Tech Nus, Inc.

Analytical Data Summary Sheet

Analyte	Amount ng/L	MDL ng/L	RL ng/L	EMPC ng/L	RT (min.)	Ratio	Qualifier
2,3,7,8-TCDD	**0.219**	0.000901	0.0105		29:40	0.76	
1,2,3,7,8-PeCDD	**1.03**	0.00265	0.0526		33:18	1.56	
1,2,3,4,7,8-HxCDD	**1.03**	0.00759	0.0526		35:42	1.24	
1,2,3,6,7,8-HxCDD	**1.01**	0.00354	0.0526		35:46	1.25	
1,2,3,7,8,9-HxCDD	**1.06**	0.00405	0.0526		36:00	1.24	
1,2,3,4,6,7,8-HpCDD	**1.00**	0.00613	0.0526		38:48	1.04	
OCDD	**2.00**	0.00678	0.105		42:39	0.89	
2,3,7,8-TCDF	**0.187**	0.00158	0.0105		28:45	0.79	
1,2,3,7,8-PeCDF	**0.983**	0.00312	0.0526		32:33	1.56	
2,3,4,7,8-PeCDF	**0.984**	0.00733	0.0526		33:07	1.56	
1,2,3,4,7,8-HxCDF	**1.03**	0.00576	0.0526		35:03	1.23	
1,2,3,6,7,8-HxCDF	**0.992**	0.00502	0.0526		35:07	1.24	
2,3,4,6,7,8-HxCDF	**1.04**	0.00448	0.0526		35:36	1.23	
1,2,3,7,8,9-HxCDF	**1.08**	0.00616	0.0526		36:16	1.26	
1,2,3,4,6,7,8-HpCDF	**0.946**	0.00247	0.0526		37:40	1.03	
1,2,3,4,7,8,9-HpCDF	**0.977**	0.00432	0.0526		39:22	1.03	
OCDF	**1.85**	0.00673	0.105		42:54	0.89	

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Wet	
			Matrix:	Water	
Sample ID:	WGL-GW-MW38-063009 MS		Weight / Volume:	951	mL
			Solids / Lipids:	NA	%
			Original pH :	6.00	
Laboratory Information			Batch ID:	WG17199	
Project ID:	G330-41		Instrument:	HRMS1	
Sample ID:	G330-41-16C		Filename:	a20jul09b_2-10	
Collection Date/Time:	06/30/09	12:25	Retchk:	a20jul09b-15	
Receipt Date/Time:	07/02/09	10:00	Begin ConCal:	a20jul09b-15	
Extraction Date:	07/19/09		End ConCal:	a20jul09b_2-12	
Analysis Date/Time:	07/21/09	11:59	Initial Cal:	m8290-100708a	

Method 8290
WGL-GW-MW38-063009 MS
Tetra Tech Nus, Inc.

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)		Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards							
13C12-2,3,7,8-TCDD	2	1.82		90.8	29:39	0.78	
13C12-1,2,3,7,8-PeCDD	2	2.15		107	33:16	1.56	
13C12-1,2,3,6,7,8-HxCDD	2	1.94		97.2	35:46	1.27	
13C12-1,2,3,4,6,7,8-HpCDD	2	2.01		100	38:46	1.04	
13C12-OCDD	4.0	4.20		105	42:39	0.89	
13C12-2,3,7,8-TCDF	2	1.91		95.3	28:43	0.78	
13C12-1,2,3,7,8-PeCDF	2	1.96		98.1	32:31	1.57	
13C12-1,2,3,6,7,8-HxCDF	2	1.71		85.3	35:07	0.52	
13C12-1,2,3,4,6,7,8-HpCDF	2	1.77		88.3	37:40	0.45	
Cleanup Standards							
37Cl4-2,3,7,8-TCDD	0.4	0.419		105	29:40	-	
13C12-2,3,4,7,8-PeCDF	0.4	0.435		109	33:07	1.60	
13C12-1,2,3,4,7,8-HxCDD	0.4	0.369		92.1	35:40	1.26	
13C12-1,2,3,4,7,8-HxCDF	0.4	0.372		93.1	35:01	0.51	
13C12-1,2,3,4,7,8,9-HpCDF	0.4	0.397		99.2	39:22	0.44	
Injection Standards							
13C12-1,2,3,4-TCDD	2.0	-		-	28:54	0.79	
13C12-1,2,3,7,8,9-HxCDD	2.0	-		-	36:00	1.25	

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Wet	
			Matrix:	Water	
Sample ID:	WGL-GW-MW38-063009 MS		Weight / Volume:	951	mL
			Solids / Lipids:	NA	%
			Original pH :	6.00	
Laboratory Information			Batch ID:	WG17199	
Project ID:	G330-41		Instrument:	HRMS1	
Sample ID:	G330-41-16C		Filename:	a20jul09b_2-10	
Collection Date/Time:	06/30/09	12:25	Retchk:	a20jul09b-15	
Receipt Date/Time:	07/02/09	10:00	Begin ConCal:	a20jul09b-15	
Extraction Date:	07/19/09		End ConCal:	a20jul09b_2-12	
Analysis Date/Time:	07/21/09	11:59	Initial Cal:	m8290-100708a	

Form Version:[8290]Report

Analyzed by: DS
Date: 7-23-09

Reviewed by: TM
Date: 7-23-09

Method 8290
WGL-GW-MW38-063009 MSD
Tetra Tech Nus, Inc.

Analytical Data Summary Sheet

Analyte	Amount ng/L	MDL ng/L	RL ng/L	EMPC ng/L	RT (min.)	Ratio	Qualifier
2,3,7,8-TCDD	**0.220**	0.000886	0.0103		29:40	0.81	
1,2,3,7,8-PeCDD	**1.04**	0.00260	0.0517		33:18	1.57	
1,2,3,4,7,8-HxCDD	**1.04**	0.00747	0.0517		35:42	1.26	
1,2,3,6,7,8-HxCDD	**1.04**	0.00348	0.0517		35:46	1.26	
1,2,3,7,8,9-HxCDD	**1.05**	0.00398	0.0517		36:00	1.27	
1,2,3,4,6,7,8-HpCDD	**0.975**	0.00603	0.0517		38:48	1.04	
OCDD	**1.97**	0.00667	0.103		42:39	0.88	
2,3,7,8-TCDF	**0.181**	0.00156	0.0103		28:45	0.80	
1,2,3,7,8-PeCDF	**0.979**	0.00306	0.0517		32:33	1.54	
2,3,4,7,8-PeCDF	**0.965**	0.00721	0.0517		33:07	1.57	
1,2,3,4,7,8-HxCDF	**1.02**	0.00567	0.0517		35:03	1.23	
1,2,3,6,7,8-HxCDF	**0.984**	0.00494	0.0517		35:07	1.23	
2,3,4,6,7,8-HxCDF	**0.995**	0.00441	0.0517		35:36	1.22	
1,2,3,7,8,9-HxCDF	**1.04**	0.00606	0.0517		36:16	1.25	
1,2,3,4,6,7,8-HpCDF	**0.916**	0.00242	0.0517		37:40	1.02	
1,2,3,4,7,8,9-HpCDF	**0.935**	0.00425	0.0517		39:22	1.03	
OCDF	**1.81**	0.00662	0.103		42:54	0.90	

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Wet	
			Matrix:	Water	
Sample ID:	WGL-GW-MW38-063009 MSD		Weight / Volume:	967	mL
			Solids / Lipids:	NA	%
			Original pH :	6.00	
Laboratory Information			Batch ID:	WG17199	
Project ID:	G330-41		Instrument:	HRMS1	
Sample ID:	G330-41-17C		Filename:	a20jul09b_2-11	
Collection Date/Time:	06/30/09	12:25	Retchk:	a20jul09b-15	
Receipt Date/Time:	07/02/09	10:00	Begin ConCal:	a20jul09b-15	
Extraction Date:	07/19/09		End ConCal:	a20jul09b_2-12	
Analysis Date/Time:	07/21/09	12:48	Initial Cal:	m8290-100708a	

Method 8290
WGL-GW-MW38-063009 MSD
Tetra Tech Nus, Inc.

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)		Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards							
13C12-2,3,7,8-TCDD	2	1.87		93.5	29:39	0.78	
13C12-1,2,3,7,8-PeCDD	2	2.13		107	33:16	1.55	
13C12-1,2,3,6,7,8-HxCDD	2	1.90		94.8	35:46	1.26	
13C12-1,2,3,4,6,7,8-HpCDD	2	2.06		103	38:46	1.04	
13C12-OCDD	4.0	4.32		108	42:39	0.90	
13C12-2,3,7,8-TCDF	2	1.96		98.0	28:43	0.79	
13C12-1,2,3,7,8-PeCDF	2	1.97		98.3	32:31	1.58	
13C12-1,2,3,6,7,8-HxCDF	2	1.74		86.9	35:07	0.52	
13C12-1,2,3,4,6,7,8-HpCDF	2	1.84		91.8	37:40	0.45	
Cleanup Standards							
37Cl4-2,3,7,8-TCDD	0.4	0.459		115	29:40	-	
13C12-2,3,4,7,8-PeCDF	0.4	0.463		116	33:07	1.58	
13C12-1,2,3,4,7,8-HxCDD	0.4	0.454		113	35:40	1.28	
13C12-1,2,3,4,7,8-HxCDF	0.4	0.402		101	35:01	0.51	
13C12-1,2,3,4,7,8,9-HpCDF	0.4	0.431		108	39:22	0.44	
Injection Standards							
13C12-1,2,3,4-TCDD	2.0	-		-	28:54	0.79	
13C12-1,2,3,7,8,9-HxCDD	2.0	-		-	36:00	1.24	

Client Information			**Sample Information**		
Project Name:	CTO 407, N6242-04-D-0055, West Gate Landfill		Report Basis:	Wet	
			Matrix:	Water	
Sample ID:	WGL-GW-MW38-063009 MSD		Weight / Volume:	967	mL
			Solids / Lipids:	NA	%
			Original pH :	6.00	
Laboratory Information			Batch ID:	WG17199	
Project ID:	G330-41		Instrument:	HRMS1	
Sample ID:	G330-41-17C		Filename:	a20jul09b_2-11	
Collection Date/Time:	06/30/09	12:25	Retchk:	a20jul09b-15	
Receipt Date/Time:	07/02/09	10:00	Begin ConCal:	a20jul09b-15	
Extraction Date:	07/19/09		End ConCal:	a20jul09b_2-12	
Analysis Date/Time:	07/21/09	12:48	Initial Cal:	m8290-100708a	

Form Version:[8290]Report

Analyzed by: DS
Date: 7-23-09

Reviewed by: TM
Date: 7-23-09

Method 8290
Lab Method Blank

Analytical Data Summary Sheet

Analyte	Amount ng/L	MDL ng/L	RL ng/L	EMPC ng/L	RT (min.)	Ratio	Qualifier
2,3,7,8-TCDD	ND	0.00086	0.0100				
1,2,3,7,8-PeCDD	ND	0.00252	0.0500				
1,2,3,4,7,8-HxCDD	ND	0.00722	0.0500				
1,2,3,6,7,8-HxCDD	ND	0.00337	0.0500				
1,2,3,7,8,9-HxCDD	ND	0.00385	0.0500				
1,2,3,4,6,7,8-HpCDD	ND	0.00583	0.0500				
OCDD	ND	0.0065	0.100				
2,3,7,8-TCDF	ND	0.00150	0.0100				
1,2,3,7,8-PeCDF	ND	0.003	0.0500				
2,3,4,7,8-PeCDF	ND	0.00697	0.0500				
1,2,3,4,7,8-HxCDF	ND	0.00548	0.0500				
1,2,3,6,7,8-HxCDF	ND	0.00478	0.0500				
2,3,4,6,7,8-HxCDF	ND	0.00426	0.0500				
1,2,3,7,8,9-HxCDF	ND	0.00586	0.0500				
1,2,3,4,6,7,8-HpCDF	ND	0.00234	0.0500				
1,2,3,4,7,8,9-HpCDF	ND	0.00411	0.0500				
OCDF	ND	0.0064	0.100				
Total TCDDs	ND	0.00086	0.0100				
Total PeCDDs	ND	0.00252	0.0500				
Total HxCDDs	ND	0.00337	0.0500				
Total HpCDDs	ND	0.00583	0.0500				
Total TCDFs	ND	0.00150	0.0100				
Total PeCDFs	ND	0.003	0.0500	0.00322			
Total HxCDFs	ND	0.00426	0.0500				
Total HpCDFs	ND	0.00234	0.0500				
WHO-2005 TEQ (ND=0)	ND			0.000432			
WHO-2005 TEQ (ND=½)	**0.00742**			0.0071			

Client Information			**Sample Information**		
Project Name:			Report Basis:	Wet	
			Matrix:	Water	
Sample ID:	Lab Method Blank		Weight / Volume:	1000	mL
			Solids / Lipids:	NA	%
			Original pH :	5.00	
Laboratory Information			Batch ID:	WG17199	
Project ID:			Instrument:	HRMS1	
Sample ID:			Filename:	a20jul09b-4	
Collection Date/Time:			Retchk:	a20jul09b-1	
Receipt Date/Time:			Begin ConCal:	a20jul09b-1	
Extraction Date:	07/19/09		End ConCal:	a20jul09b-15	
Analysis Date/Time:	07/20/09	19:00	Initial Cal:	m8290-100708a	

Method 8290
Lab Method Blank

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)		Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards							
13C12-2,3,7,8-TCDD	2	1.85		92.5	29:39	0.78	
13C12-1,2,3,7,8-PeCDD	2	2.16		108	33:16	1.58	
13C12-1,2,3,6,7,8-HxCDD	2	1.91		95.7	35:46	1.27	
13C12-1,2,3,4,6,7,8-HpCDD	2	2.00		100	38:46	1.05	
13C12-OCDD	4.0	4.29		107	42:39	0.89	
13C12-2,3,7,8-TCDF	2	1.93		96.7	28:43	0.78	
13C12-1,2,3,7,8-PeCDF	2	2.04		102	32:31	1.59	
13C12-1,2,3,6,7,8-HxCDF	2	1.67		83.3	35:07	0.52	
13C12-1,2,3,4,6,7,8-HpCDF	2	1.76		87.9	37:40	0.44	
Cleanup Standards							
37Cl4-2,3,7,8-TCDD	0.4	0.431		108	29:40	-	
13C12-2,3,4,7,8-PeCDF	0.4	0.460		115	33:07	1.58	
13C12-1,2,3,4,7,8-HxCDD	0.4	0.395		98.6	35:40	1.25	
13C12-1,2,3,4,7,8-HxCDF	0.4	0.387		96.8	35:01	0.51	
13C12-1,2,3,4,7,8,9-HpCDF	0.4	0.408		102	39:22	0.44	
Injection Standards							
13C12-1,2,3,4-TCDD	2.0	-		-	28:52	0.79	
13C12-1,2,3,7,8,9-HxCDD	2.0	-		-	36:00	1.24	

Client Information			**Sample Information**		
Project Name:			Report Basis:	Wet	
			Matrix:	Water	
Sample ID:	Lab Method Blank		Weight / Volume:	1000	mL
			Solids / Lipids:	NA	%
			Original pH :	5.00	
Laboratory Information			Batch ID:	WG17199	
Project ID:			Instrument:	HRMS1	
Sample ID:			Filename:	a20jul09b-4	
Collection Date/Time:			Retchk:	a20jul09b-1	
Receipt Date/Time:			Begin ConCal:	a20jul09b-1	
Extraction Date:	07/19/09		End ConCal:	a20jul09b-15	
Analysis Date/Time:	07/20/09	19:00	Initial Cal:	m8290-100708a	

Form Version:[8290]Report

Analyzed by: DS
Date: 7-23-09

Reviewed by: TM
Date: 7-23-09

Analytical Results
for
Ongoing Precision Result (OPR)

Analyte	Spiked (pg/µL)	AMT (pg/µL)	REC %	Range % Lower	Range % Upper	Qualifier
2,3,7,8-TCDD	10	10.3	103	70.0	130	
1,2,3,7,8-PeCDD	50	47.3	94.7	70.0	130	
1,2,3,4,7,8-HxCDD	50	49.9	99.9	70.0	130	
1,2,3,6,7,8-HxCDD	50	45.8	91.6	70.0	130	
1,2,3,7,8,9-HxCDD	50	49.6	99.3	70.0	130	
1,2,3,4,6,7,8-HpCDD	50	46.4	92.9	70.0	130	
OCDD	100	94.0	94.0	70.0	130	
2,3,7,8-TCDF	10	8.88	88.8	70.0	130	
1,2,3,7,8-PeCDF	50	45.6	91.2	70.0	130	
2,3,4,7,8-PeCDF	50	44.8	89.7	70.0	130	
1,2,3,4,7,8-HxCDF	50	48.3	96.6	70.0	130	
1,2,3,6,7,8-HxCDF	50	47.5	95.0	70.0	130	
2,3,4,6,7,8-HxCDF	50	48.7	97.5	70.0	130	
1,2,3,7,8,9-HxCDF	50	51.2	102	70.0	130	
1,2,3,4,6,7,8-HpCDF	50	43.9	87.9	70.0	130	
1,2,3,4,7,8,9-HpCDF	50	46.0	92.0	70.0	130	
OCDF	100	84.6	84.6	70.0	130	

= Outside range limits
* = Ion Ratio Out

QC Information

OPR Project No:	OPR17199
Extraction Date:	19-Jul-09
Analysis Date:	20-Jul-09
Method:	8290

File Information

OPR Filename:	a20jul09b-2
Retchk:	a20jul09b-1
Begin ConCal:	a20jul09b-1
End ConCal:	a20jul09b-15
Initial Cal:	m8290-100708a

Sample Information

Matrix: Water

Analytical Results
for
Ongoing Precision Result (OPR)

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)	Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards						
13C12-2,3,7,8-TCDD	2	1.84	92.0	29:39	0.78	
13C12-1,2,3,7,8-PeCDD	2	2.21	111	33:16	1.60	
13C12-1,2,3,6,7,8-HxCDD	2	1.91	95.5	35:46	1.26	
13C12-1,2,3,4,6,7,8-HpCDD	2	2.12	106	38:46	1.05	
13C12-OCDD	4	4.61	115	42:37	0.89	
13C12-2,3,7,8-TCDF	2	1.91	95.5	28:43	0.80	
13C12-1,2,3,7,8-PeCDF	2	2.03	102	32:31	1.59	
13C12-1,2,3,6,7,8-HxCDF	2	1.66	83.0	35:07	0.52	
13C12-1,2,3,4,6,7,8-HpCDF	2	1.81	90.5	37:39	0.44	
Cleanup Standards						
37Cl4-2,3,7,8-TCDD	0.4	0.454	114	29:40	-	
13C12-2,3,4,7,8-PeCDF	0.4	0.465	116	33:07	1.59	
13C12-1,2,3,4,7,8-HxCDD	0.4	0.425	106	35:40	1.25	
13C12-1,2,3,4,7,8-HxCDF	0.4	0.401	100	35:01	0.51	
13C12-1,2,3,4,7,8,9-HpCDF	0.4	0.442	111	39:22	0.45	
Injection Standards						
13C12-1,2,3,4-TCDD	2	-	-	28:52	0.79	
13C12-1,2,3,7,8,9-HxCDD	2	-	-	35:58	1.24	

QC Information

OPR Project No: OPR17199
Extraction Date: 19-Jul-09
Analysis Date: 20-Jul-09
Method: 8290

Sample Information

Matrix: Water

File Information

OPR Filename : a20jul09b-2
Retchk: a20jul09b-1
Begin ConCal: a20jul09b-1
End ConCal: a20jul09b-15
Initial Cal: m8290-100708a

Form Version: [8290]OPR

Reviewed By: CM

Date Reviewed: 7-23-09

Analytical Results
for
Ongoing Precision & Recovery Duplicate Results (OPRD)

Analyte	Spiked (pg/µL)	AMT (pg/µL)	Recovery %	#	Range Lower	Range Upper	OPR Rec(%)	#	RPD (±20%)	Qualifier
2,3,7,8-TCDD	10.0	10.1	101		70.0	130	103		2.20	
1,2,3,7,8-PeCDD	50.0	46.8	93.6		70.0	130	94.7		1.19	
1,2,3,4,7,8-HxCDD	50.0	48.8	97.6		70.0	130	99.9		2.32	
1,2,3,6,7,8-HxCDD	50.0	46.3	92.5		70.0	130	91.6		1.01	
1,2,3,7,8,9-HxCDD	50.0	49.5	99.1		70.0	130	99.3		0.216	
1,2,3,4,6,7,8-HpCDD	50.0	46.4	92.8		70.0	130	92.9		0.114	
OCDD	100	93.7	93.7		70.0	130	94.0		0.350	
2,3,7,8-TCDF	10.0	8.81	88.1		70.0	130	88.8		0.829	
1,2,3,7,8-PeCDF	50.0	46.8	93.7		70.0	130	91.2		2.62	
2,3,4,7,8-PeCDF	50.0	46.6	93.1		70.0	130	89.7		3.66	
1,2,3,4,7,8-HxCDF	50.0	47.4	94.9		70.0	130	96.6		1.82	
1,2,3,6,7,8-HxCDF	50.0	47.8	95.5		70.0	130	95.0		0.551	
2,3,4,6,7,8-HxCDF	50.0	48.3	96.7		70.0	130	97.5		0.871	
1,2,3,7,8,9-HxCDF	50.0	51.0	102		70.0	130	102		0.00981	
1,2,3,4,6,7,8-HpCDF	50.0	44.1	88.2		70.0	130	87.9		0.336	
1,2,3,4,7,8,9-HpCDF	50.0	45.9	91.8		70.0	130	92.0		0.172	
OCDF	100	85.2	85.2		70.0	130	84.6		0.711	

= Outside range limits
* = Ion Ratio Out

QC Information

OPR Project No:	OPRD17199
Extraction Date:	19-Jul-09
Analysis Date:	20-Jul-09
Method:	8290

Sample Information

Matrix:	Water

File Information

OPRD Filename :	a20jul09b-3
Retchk:	a20jul09b-1
Begin ConCal:	a20jul09b-1
End ConCal:	a20jul09b-15
Initial Cal:	m8290-100708a

Analytical Results
for
Ongoing Precision & Recovery Duplicate Results (OPRD)

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)	Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards			(40-135%)			
13C12-2,3,7,8-TCDD	2	1.75	87.3	29:39	0.79	
13C12-1,2,3,7,8-PeCDD	2	2.07	104	33:16	1.58	
13C12-1,2,3,6,7,8-HxCDD	2	1.81	90.7	35:46	1.24	
13C12-1,2,3,4,6,7,8-HpCDD	2	1.93	96.6	38:46	1.05	
13C12-OCDD	4	4.25	106	42:39	0.89	
13C12-2,3,7,8-TCDF	2	1.83	91.5	28:43	0.78	
13C12-1,2,3,7,8-PeCDF	2	1.87	93.5	32:31	1.57	
13C12-1,2,3,6,7,8-HxCDF	2	1.59	79.5	35:07	0.52	
13C12-1,2,3,4,6,7,8-HpCDF	2	1.68	83.9	37:40	0.45	
Cleanup Standards			(70-130%)			
37Cl4-2,3,7,8-TCDD	0.4	0.438	110	29:40	-	
13C12-2,3,4,7,8-PeCDF	0.4	0.459	115	33:07	1.60	
13C12-1,2,3,4,7,8-HxCDD	0.4	0.407	102	35:40	1.26	
13C12-1,2,3,4,7,8-HxCDF	0.4	0.398	99.5	35:01	0.51	
13C12-1,2,3,4,7,8,9-HpCDF	0.4	0.421	105	39:22	0.45	
Injection Standards						
13C12-1,2,3,4-TCDD	2	-	-	28:54	0.78	
13C12-1,2,3,7,8,9-HxCDD	2	-	-	36:00	1.24	

QC Information

OPR Project No: OPRD17199
Extraction Date: 19-Jul-09
Analysis Date: 20-Jul-09
Method: 8290

Sample Information

Matrix: Water

File Information

OPRD Filename : a20jul09b-3
Retchk: a20jul09b-1
Begin ConCal: a20jul09b-1
End ConCal: a20jul09b-15
Initial Cal: m8290-100708a

Form Version:[8290]OPRD

Reviewed By: TM

Date Reviewed: 7-23-09

Method 8290
Lab Method Blank

Analytical Data Summary Sheet

Analyte	Amount ng/L	MDL ng/L	RL ng/L	EMPC ng/L	RT (min.)	Ratio	Qualifier
2,3,7,8-TCDD	ND	0.000856	0.0100				
1,2,3,7,8-PeCDD	ND	0.00252	0.0500				
1,2,3,4,7,8-HxCDD	ND	0.00722	0.0500				
1,2,3,6,7,8-HxCDD	ND	0.00337	0.0500				
1,2,3,7,8,9-HxCDD	ND	0.00385	0.0500				
1,2,3,4,6,7,8-HpCDD	ND	0.00583	0.0500				
OCDD	ND	0.00645	0.100				
2,3,7,8-TCDF	ND	0.00150	0.0100				
1,2,3,7,8-PeCDF	ND	0.00296	0.0500				
2,3,4,7,8-PeCDF	ND	0.00697	0.0500				
1,2,3,4,7,8-HxCDF	ND	0.00548	0.0500				
1,2,3,6,7,8-HxCDF	ND	0.00478	0.0500				
2,3,4,6,7,8-HxCDF	ND	0.00426	0.0500				
1,2,3,7,8,9-HxCDF	ND	0.00586	0.0500				
1,2,3,4,6,7,8-HpCDF	ND	0.00234	0.0500				
1,2,3,4,7,8,9-HpCDF	ND	0.00411	0.0500				
OCDF	ND	0.00640	0.100				
Total TCDDs	ND	0.000856	0.0100				
Total PeCDDs	ND	0.00252	0.0500				
Total HxCDDs	ND	0.00337	0.0500				
Total HpCDDs	ND	0.00583	0.0500				
Total TCDFs	ND	0.00150	0.0100				
Total PeCDFs	ND	0.00296	0.0500				
Total HxCDFs	ND	0.00426	0.0500				
Total HpCDFs	ND	0.00234	0.0500				
WHO-2005 TEQ (ND=0)	ND			ND			
WHO-2005 TEQ (ND=½)	**0.00700**			0.007			

Client Information			**Sample Information**		
Project Name:			Report Basis:	Wet	
			Matrix:	Water	
Sample ID:	Lab Method Blank		Weight / Volume:	1000	mL
			Solids / Lipids:	NA	%
			Original pH :	5.00	
Laboratory Information			Batch ID:	WG17203	
Project ID:			Instrument:	HRMS1	
Sample ID:			Filename:	a21jul09c-4	
Collection Date/Time:			Retchk:	a21jul09c-1	
Receipt Date/Time:			Begin ConCal:	a21jul09c-1	
Extraction Date:	07/21/09		End ConCal:	a21jul09c-15	
Analysis Date/Time:	07/22/09	17:53	Initial Cal:	m8290-100708a	

Method 8290
Lab Method Blank

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)		Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards							
13C12-2,3,7,8-TCDD	2	1.79		89.6	29:37	0.80	
13C12-1,2,3,7,8-PeCDD	2	2.15		107	33:16	1.60	
13C12-1,2,3,6,7,8-HxCDD	2	1.87		93.4	35:45	1.26	
13C12-1,2,3,4,6,7,8-HpCDD	2	1.99		99.4	38:46	1.05	
13C12-OCDD	4.0	3.78		94.5	42:37	0.91	
13C12-2,3,7,8-TCDF	2	2.06		103	28:42	0.80	
13C12-1,2,3,7,8-PeCDF	2	2.15		107	32:31	1.58	
13C12-1,2,3,6,7,8-HxCDF	2	1.94		96.9	35:06	0.53	
13C12-1,2,3,4,6,7,8-HpCDF	2	1.88		94.2	37:37	0.45	
Cleanup Standards							
37Cl4-2,3,7,8-TCDD	0.4	0.424		106	29:39	-	
13C12-2,3,4,7,8-PeCDF	0.4	0.483		121	33:06	1.61	
13C12-1,2,3,4,7,8-HxCDD	0.4	0.406		102	35:40	1.26	
13C12-1,2,3,4,7,8-HxCDF	0.4	0.399		99.8	35:01	0.51	
13C12-1,2,3,4,7,8,9-HpCDF	0.4	0.440		110	39:21	0.44	
Injection Standards							
13C12-1,2,3,4-TCDD	2.0	-		-	28:51	0.80	
13C12-1,2,3,7,8,9-HxCDD	2.0	-		-	35:58	1.26	

Client Information			**Sample Information**		
Project Name:			Report Basis:	Wet	
			Matrix:	Water	
Sample ID:	Lab Method Blank		Weight / Volume:	1000	mL
			Solids / Lipids:	NA	%
			Original pH :	5.00	
Laboratory Information			Batch ID:	WG17203	
Project ID:			Instrument:	HRMS1	
Sample ID:			Filename:	a21jul09c-4	
Collection Date/Time:			Retchk:	a21jul09c-1	
Receipt Date/Time:			Begin ConCal:	a21jul09c-1	
Extraction Date:	07/21/09		End ConCal:	a21jul09c-15	
Analysis Date/Time:	07/22/09	17:53	Initial Cal:	m8290-100708a	

Form Version:[8290]Report

Analyzed by: DS
Date: 7-23-09

Reviewed by: JM
Date: 7-23-09

Analytical Results
for
Ongoing Precision Result (OPR)

Analyte	Spiked (pg/µL)	AMT (pg/µL)	REC %	Range % Lower	Range % Upper	Qualifier
2,3,7,8-TCDD	10	10.6	106	70.0	130	
1,2,3,7,8-PeCDD	50	49.9	99.8	70.0	130	
1,2,3,4,7,8-HxCDD	50	54.1	108	70.0	130	
1,2,3,6,7,8-HxCDD	50	47.8	95.5	70.0	130	
1,2,3,7,8,9-HxCDD	50	53.3	107	70.0	130	
1,2,3,4,6,7,8-HpCDD	50	48.7	97.3	70.0	130	
OCDD	100	97.1	97.1	70.0	130	
2,3,7,8-TCDF	10	9.42	94.2	70.0	130	
1,2,3,7,8-PeCDF	50	48.8	97.6	70.0	130	
2,3,4,7,8-PeCDF	50	49.3	98.5	70.0	130	
1,2,3,4,7,8-HxCDF	50	49.2	98.4	70.0	130	
1,2,3,6,7,8-HxCDF	50	49.9	99.8	70.0	130	
2,3,4,6,7,8-HxCDF	50	50.0	100.0	70.0	130	
1,2,3,7,8,9-HxCDF	50	52.3	105	70.0	130	
1,2,3,4,6,7,8-HpCDF	50	46.6	93.2	70.0	130	
1,2,3,4,7,8,9-HpCDF	50	48.5	97.1	70.0	130	
OCDF	100	99.6	99.6	70.0	130	

= Outside range limits
* = Ion Ratio Out

QC Information

OPR Project No: OPR17203
Extraction Date: 21-Jul-09
Analysis Date: 22-Jul-09
Method: 8290

File Information

OPR Filename: a21jul09c-2
Retchk: a21jul09c-1
Begin ConCal: a21jul09c-1
End ConCal: a21jul09c-15
Initial Cal: m8290-100708a

Sample Information

Matrix: Water

Analytical Results
for
Ongoing Precision Result (OPR)

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)	Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards						
13C12-2,3,7,8-TCDD	2	1.77	88.5	29:37	0.79	
13C12-1,2,3,7,8-PeCDD	2	2.14	107	33:16	1.59	
13C12-1,2,3,6,7,8-HxCDD	2	1.82	91.0	35:45	1.26	
13C12-1,2,3,4,6,7,8-HpCDD	2	1.93	96.5	38:46	1.06	
13C12-OCDD	4	3.68	92.0	42:37	0.91	
13C12-2,3,7,8-TCDF	2	2.03	102	28:42	0.80	
13C12-1,2,3,7,8-PeCDF	2	2.10	105	32:31	1.57	
13C12-1,2,3,6,7,8-HxCDF	2	1.81	90.5	35:07	0.53	
13C12-1,2,3,4,6,7,8-HpCDF	2	1.79	89.5	37:37	0.45	
Cleanup Standards						
37Cl4-2,3,7,8-TCDD	0.4	0.454	114	29:39	-	
13C12-2,3,4,7,8-PeCDF	0.4	0.528	132	33:06	1.58	
13C12-1,2,3,4,7,8-HxCDD	0.4	0.434	109	35:40	1.25	
13C12-1,2,3,4,7,8-HxCDF	0.4	0.455	114	35:01	0.52	
13C12-1,2,3,4,7,8,9-HpCDF	0.4	0.457	114	39:21	0.44	
Injection Standards						
13C12-1,2,3,4-TCDD	2	-	-	28:52	0.80	
13C12-1,2,3,7,8,9-HxCDD	2	-	-	35:58	1.26	

QC Information

OPR Project No: OPR17203
Extraction Date: 21-Jul-09
Analysis Date: 22-Jul-09
Method: 8290

Sample Information

Matrix: Water

File Information

OPR Filename : a21jul09c-2
Retchk: a21jul09c-1
Begin ConCal: a21jul09c-1
End ConCal: a21jul09c-15
Initial Cal: m8290-100708a

Form Version:[8290]OPR

Reviewed By: TM

Date Reviewed: 7/23/09

Analytical Results
for
Ongoing Precision & Recovery Duplicate Results (OPRD)

Analyte	Spiked (pg/µL)	AMT (pg/µL)	Recovery %	#	Range Lower	Range Upper	OPR Rec(%)	#	RPD (±20%)	Qualifier
2,3,7,8-TCDD	10.0	11.1	111		70.0	130	106		4.49	
1,2,3,7,8-PeCDD	50.0	51.3	103		70.0	130	99.8		2.65	
1,2,3,4,7,8-HxCDD	50.0	58.1	116		70.0	130	108		7.07	
1,2,3,6,7,8-HxCDD	50.0	49.4	98.8		70.0	130	95.5		3.32	
1,2,3,7,8,9-HxCDD	50.0	55.7	111		70.0	130	107		4.00	
1,2,3,4,6,7,8-HpCDD	50.0	49.8	99.5		70.0	130	97.3		2.25	
OCDD	100	100	100		70.0	130	97.1		3.24	
2,3,7,8-TCDF	10.0	9.56	95.6		70.0	130	94.2		1.42	
1,2,3,7,8-PeCDF	50.0	50.8	102		70.0	130	97.6		3.98	
2,3,4,7,8-PeCDF	50.0	51.8	104		70.0	130	98.5		4.94	
1,2,3,4,7,8-HxCDF	50.0	50.0	100		70.0	130	98.4		1.69	
1,2,3,6,7,8-HxCDF	50.0	48.9	97.9		70.0	130	99.8		1.96	
2,3,4,6,7,8-HxCDF	50.0	49.6	99.2		70.0	130	100.0		0.857	
1,2,3,7,8,9-HxCDF	50.0	52.5	105		70.0	130	105		0.0648	
1,2,3,4,6,7,8-HpCDF	50.0	47.2	94.4		70.0	130	93.2		1.31	
1,2,3,4,7,8,9-HpCDF	50.0	49.8	99.6		70.0	130	97.1		2.49	
OCDF	100	104	104		70.0	130	99.6		3.79	

= Outside range limits
* = Ion Ratio Out

QC Information

OPR Project No: OPRD17203
Extraction Date: 21-Jul-09
Analysis Date: 22-Jul-09
Method: 8290

Sample Information

Matrix: Water

File Information

OPRD Filename : a21jul09c-3
Retchk: a21jul09c-1
Begin ConCal: a21jul09c-1
End ConCal: a21jul09c-15
Initial Cal: m8290-100708a

Analytical Results
for
Ongoing Precision & Recovery Duplicate Results (OPRD)

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)	Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards			(40-135%)			
13C12-2,3,7,8-TCDD	2	1.84	91.9	29:37	0.80	
13C12-1,2,3,7,8-PeCDD	2	2.22	111	33:16	1.61	
13C12-1,2,3,6,7,8-HxCDD	2	1.87	93.6	35:43	1.26	
13C12-1,2,3,4,6,7,8-HpCDD	2	2.05	102	38:45	1.06	
13C12-OCDD	4	3.91	97.8	42:37	0.90	
13C12-2,3,7,8-TCDF	2	2.09	105	28:42	0.79	
13C12-1,2,3,7,8-PeCDF	2	2.19	109	32:31	1.60	
13C12-1,2,3,6,7,8-HxCDF	2	1.95	97.6	35:06	0.53	
13C12-1,2,3,4,6,7,8-HpCDF	2	1.93	96.4	37:37	0.45	
Cleanup Standards			(70-130%)			
37Cl4-2,3,7,8-TCDD	0.4	0.469	117	29:37	-	
13C12-2,3,4,7,8-PeCDF	0.4	0.545	136 #	33:06	1.59	
13C12-1,2,3,4,7,8-HxCDD	0.4	0.460	115	35:40	1.25	
13C12-1,2,3,4,7,8-HxCDF	0.4	0.438	110	35:01	0.52	
13C12-1,2,3,4,7,8,9-HpCDF	0.4	0.474	119	39:21	0.44	
Injection Standards						
13C12-1,2,3,4-TCDD	2	-	-	28:51	0.80	
13C12-1,2,3,7,8,9-HxCDD	2	-	-	35:58	1.26	

QC Information

OPR Project No: OPRD17203
Extraction Date: 21-Jul-09
Analysis Date: 22-Jul-09
Method: 8290

Sample Information

Matrix: Water

File Information

OPRD Filename : a21jul09c-3
Retchk: a21jul09c-1
Begin ConCal: a21jul09c-1
End ConCal: a21jul09c-15
Initial Cal: m8290-100708a

Form Version:[8290]OPRD

Reviewed By: TM

Date Reviewed: 7-23-09

TETRA TECH NUS, INC. CHAIN OF CUSTODY | NUMBER 26557 | PAGE 1 OF 2

PROJECT NO: 112G00864-0320	FACILITY: NAS So. Weymouth	PROJECT MANAGER: Debra Seiker	PHONE NUMBER: 978-474-8445
LABORATORY NAME AND CONTACT: SGS / Trent Temperly	SAMPLERS (SIGNATURE): Johanna Trout	FIELD OPERATIONS LEADER: Johanna Trout	PHONE NUMBER: 774-722-0409
ADDRESS: 5500 Business Drive	CARRIER/WAYBILL NUMBER: FedEx 869365445680	CITY, STATE: Wilmington NC 28405	

STANDARD TAT ☒
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G): G
PRESERVATIVE USED: Ice

DATE YEAR 2009	TIME	SAMPLE ID	LOCATION ID	TOP DEPTH (FT)	BOTTOM DEPTH (FT)	MATRIX (GW, SO, SW, SD, QC, ETC.)	COLLECTION METHOD GRAB (G) COMP (C)	No. OF CONTAINERS	TYPE OF ANALYSIS: Dioxins (1-Liter)	COMMENTS
6/29	1310	WGL-GW-~~MW5~~ MW101-062909				GW	G	2	2	
6/29	1505	WGL-GW-MW3-062909				GW	G	2	2	
6/29	1305	WGL-GW-MW103-062909				GW	G	2	2	
6/29	1555	WGL-GW-MW102-062909				GW	G	2	2	
6/30	0855	WGL-GW-MW2-063009				GW	G	2	2	
6/30	1000	WGL-GW-MW4-063009						2	2	
6/30	1225	WGL-GW-MW38-063009						6	6	Lab QC
6/30	1455	WGL-GW-MW40S-063009						2	2	
6/30	1250	WGL-GW-DUP01-063009						2	2	
6/30	1245	WGL-GW-MW48D-063009						2	2	
6/30	1500	WGL-GW-DUP02-063009						2	2	
6/30	1600	WGL-GW-MW48D2-063009						2	2	
6/30	1535	WGL-GW-MW39-063009						2	2	

	DATE	TIME		DATE	TIME
1. RELINQUISHED BY: Johanna Trout	7/1/09	1100	1. RECEIVED BY: FedEx		
2. RELINQUISHED BY			2. RECEIVED BY		
3. RELINQUISHED BY			3. RECEIVED BY	7/2/09	10:00

COMMENTS: 5.6, 5.8, 5.5, 4.8, 5.0

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

4/02R
FORM NO. TtNUS-001

SGS

CHAIN OF CUSTODY RECORD
SGS North America Inc.

Locations Nationwide
- Alaska
- Maryland
- New Jersey
- New York
- North Carolina
- Ohio

www.us.sgs.com

098438

(1)

CLIENT: Tetra Tech, NUS

CONTACT: Dabra Seiken PHONE NO: (978) 474-8445

PROJECT: West Gate Landfill SITE/PWSID#: 1126008364/CTA407

REPORTS TO: ~~D. Seiken~~ L Guzman
55 Jonspin Rd
Wilmington, MA 01887 FAX NO.: (978) 474-8491

INVOICE TO: QUOTE #:

P.O. NUMBER:

SGS Reference:

PAGE 2 OF 2

(2)

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	No CONTAINERS	SAMPLE TYPE (C= COMP, G= GRAB)	Preservatives Used: Ice	Analysis Required (3): Dioxins								REMARKS
	WGL-SD-SD112-000.6	6/30/09	1400	SD	2	G		2								replacement sample
	WGL-GW-FB01 ~~063109~~ 070109	~~6/31/09~~ 7/1/09	0720	AQ	2	G		2								
	WGL-GW-RB01 ~~063109~~ 070109	~~6/31/09~~ 7/1/09	0745	AQ	2	G		2								

(5)

Collected/Relinquished By: (1)	Date	Time	Received By:
Joanne Hart	7/1/09	1100	to FedEx
Relinquished By: (2)	Date	Time	Received By:
Relinquished By: (3)	Date	Time	Received By:
Relinquished By: (4)	Date	Time	Received By:
	7/2/09	10:00	

(4)

Shipping Carrier:

Shipping Ticket No:

Samples Received Cold? (Circle) YES NO

Temperature °C: 5.6, 5.8, 5.5, 4.8, 5.0

Special Deliverable Requirements:

Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT

Special Instructions:

Requested Turnaround Time:

☐ RUSH _____ Date Needed ☐ STD

❑ 200 W. Potter Drive **Anchorage, AK 99518** Tel: (907) 562-2343 Fax: (907) 561-5301
❑ 5500 Business Drive **Wilmington, NC 28405** Tel: (910) 350-1903 Fax: (910) 350-1557

White - Retained by Lab
Pink - Retained by Client

SAMPLE DATA SUMMARY PACKAGE

KATAHDIN ANALYTICAL SERVICES - ORGANIC DATA QUALIFIERS

The sampled date indicated on the attached Report(s) of Analysis (ROA) is the date for which a grab sample was collected or the date for which a composite sample was completed. Beginning and start times for composite samples can be found on the Chain-of-Custody.

U Indicates the compound was analyzed for but not detected above the laboratory Practical Quantitation Limit.

* Compound recovery outside of quality control limits.

D Indicates the result was obtained from analysis of a diluted sample. Surrogate recoveries may not be calculable.

E Estimated value. This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis.

J Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Practical Quantitation Limit (PQL), but above the Method Detection Limit (MDL).

or

J Used for Pesticide/Aroclor analyte when there is a greater than 40% difference for detected concentrations between the two GC columns.

B Indicates the analyte was detected in the laboratory method blank analyzed concurrently with the sample.

N Presumptive evidence of a compound based on a mass spectral library search.

A Indicates that a tentatively identified compound is a suspected aldol-condensation product.

P Used for Pesticide/Aroclor analyte when there is a greater than 25% difference for detected concentrations between the two GC columns. (for CLP methods only).

KATAHDIN ANALYTICAL SERVICES – INORGANIC DATA QUALIFIERS

(Refer to BOD Qualifiers Page for BOD footnotes)

The sampled date indicated on the attached Report(s) of Analysis (ROA) is the date for which a grab sample was collected or the date for which a composite sample was completed. Beginning and start times for composite samples can be found on the Chain-of-Custody.

U	Indicates the compound was analyzed for but not detected above the laboratory Practical Quantitation Limit.
E	Estimated value. This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis.
J	Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Practical Quantitation Limit (PQL), but above the Method Detection Limit (MDL).
I-7	The laboratory's Practical Quantitation Level could not be achieved for this parameter due to sample composition, matrix effects, sample volume, or quantity used for analysis.
A-4	Please refer to cover letter or narrative for further information.
MCL	Maximum Contaminant Level
NL	No limit
NFL	No Free Liquid Present
FLP	Free Liquid Present
NOD	No Odor Detected
TON	Threshold Odor Number
H1	Please note that the regulatory holding time for pH is "analyze immediately". Ideally, this analysis must be performed in the field at the time of sample collection. pH for this sample was not performed at the time of sample collection. The analysis was performed as soon as possible after receipt by the laboratory.
H2	Please note that the regulatory holding time for DO is "analyze immediately". Ideally, this analysis must be performed in the field at the time of sample collection. DO for this sample was not performed at the time of sample collection. The analysis was performed as soon as possible after receipt by the laboratory.
H3	Please note that the regulatory holding time for sulfite is "analyze immediately". Ideally, this analysis must be performed in the field at the time of sample collection. Sulfite for this sample was not performed at the time of sample collection. The analysis was performed as soon as possible after receipt by the laboratory.
H4	Please note that the regulatory holding time for residual chlorine is "analyze immediately". Ideally, this analysis must be performed in the field at the time of sample collection. Residual chlorine for this sample was not performed at the time of sample collection. The analysis was performed as soon as possible after receipt by the laboratory.

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 05/12/09
Received Date: 05/13/09
Extraction Date: 05/14/09
Analysis Date: 19-MAY-2009 20:13
Report Date: 06/01/2009
Matrix: SOIL
% Solids: 81.3

Lab ID: SC2369-1
Client ID: WGL-SO-PCB01-0006
SDG: SC2369
Extracted by: CB
Extraction Method: SW846 3550
Analyst: RCT
Analysis Method: SW846 8082
Lab Prep Batch: WG63728
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
12674-11-2	Aroclor-1016	U	21	1.0	17	21	6.4
11104-28-2	Aroclor-1221	U	21	1.0	17	21	12
11141-16-5	Aroclor-1232	U	21	1.0	17	21	8.1
53469-21-9	Aroclor-1242	U	21	1.0	17	21	4.7
12672-29-6	Aroclor-1248	U	21	1.0	17	21	12
11097-69-1	Aroclor-1254	U	21	1.0	17	21	8.5
11096-82-5	Aroclor-1260		370	1.0	17	21	4.0
877-09-8	Tetrachloro-m-xylene		*123%				
2051-24-3	Decachlorobiphenyl		108%				

FORM 10
PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

CLIENT SAMPLE ID

WGL-SO-P
CB01-0006

Lab Name: KATAHDIN ANALYTICAL SERVICES Project: CTO 407 NAS WE

Lab Code: KAS PO No.: SDG No.: SC2369

Lab Sample ID: SC2369-1 Date(s) Analyzed: 05/19/09 05/19/09

Instrument ID (1): GC07 Instrument ID (2): GC07

GC Column(1): ZB-MULTIRESIDUE-1 ID: 0.53(mm) GC Column(2): ZB-MULTIRESIDUE-2 ID: 0.53(mm

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	RPD
	1	10.23	10.16	10.30	289		
Aroclor-1260	2	11.06	11.00	11.14	406		
	3	11.94	11.88	12.02	436		
COLUMN 1	4	14.16	14.09	14.23	340		
	5	15.19	15.13	15.27	391	372	
	1	10.22	10.16	10.30	299		
	2	10.85	10.78	10.92	408		
	3	11.35	11.29	11.43	279		
COLUMN 2	4	14.02	13.96	14.10	371		
	5	15.39	15.33	15.47	376	347	7.0
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks are required for identification of multicomponent analytes.

FORM X PEST-2

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 05/12/09
Received Date: 05/13/09
Extraction Date: 05/14/09
Analysis Date: 19-MAY-2009 20:40
Report Date: 06/01/2009
Matrix: SOIL
% Solids: 83.4

Lab ID: SC2369-2
Client ID: WGL-SO-PCBDUP01
SDG: SC2369
Extracted by: CB
Extraction Method: SW846 3550
Analyst: RCT
Analysis Method: SW846 8082
Lab Prep Batch: WG63728
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
12674-11-2	Aroclor-1016	U	20	1.0	17	20	6.2
11104-28-2	Aroclor-1221	U	20	1.0	17	20	12
11141-16-5	Aroclor-1232	U	20	1.0	17	20	7.9
53469-21-9	Aroclor-1242	U	20	1.0	17	20	4.6
12672-29-6	Aroclor-1248	U	20	1.0	17	20	11
11097-69-1	Aroclor-1254	U	20	1.0	17	20	8.3
11096-82-5	Aroclor-1260		310	1.0	17	20	4.0
877-09-8	Tetrachloro-m-xylene		113%				
2051-24-3	Decachlorobiphenyl		92%				

FORM 10
PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

CLIENT SAMPLE ID

WGL-SO-PCBDUP01

Lab Name: KATAHDIN ANALYTICAL SERVICES Project: CTO 407 NAS WE

Lab Code: KAS PO No.: SDG No.: SC2369

Lab Sample ID: SC2369-2 Date(s) Analyzed: 05/19/09 05/19/09

Instrument ID (1): GC07 Instrument ID (2): GC07

GC Column(1): ZB-MULTIRESIDUE-1 ID: 0.53(mm) GC Column(2): ZB-MULTIRESIDUE-2 ID: 0.53(mm

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	RPD
	1	10.23	10.16	10.30	247		
Aroclor-1260	2	11.06	11.00	11.14	352		
	3	11.94	11.88	12.02	374		
COLUMN 1	4	14.16	14.09	14.23	280		
	5	15.20	15.13	15.27	316	314	
	1	10.23	10.16	10.30	258		
	2	10.85	10.78	10.92	343		
	3	11.35	11.29	11.43	233		
COLUMN 2	4	14.03	13.96	14.10	301		
	5	15.39	15.33	15.47	311	289	8.3
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks are required for identification of multicomponent analytes.

FORM X PEST-2

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 05/12/09
Received Date: 05/13/09
Extraction Date: 05/14/09
Analysis Date: 19-MAY-2009 23:22
Report Date: 06/01/2009
Matrix: SOIL
% Solids: 57.0

Lab ID: SC2369-3
Client ID: WGL-SD-PCB02-0006
SDG: SC2369
Extracted by: CB
Extraction Method: SW846 3550
Analyst: RCT
Analysis Method: SW846 8082
Lab Prep Batch: WG63728
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
12674-11-2	Aroclor-1016	U	30	1.0	17	30	9.1
11104-28-2	Aroclor-1221	U	30	1.0	17	30	17
11141-16-5	Aroclor-1232	U	30	1.0	17	30	12
53469-21-9	Aroclor-1242	U	30	1.0	17	30	6.7
12672-29-6	Aroclor-1248	U	30	1.0	17	30	17
11097-69-1	Aroclor-1254	U	30	1.0	17	30	12
11096-82-5	Aroclor-1260		420	1.0	17	30	5.8
877-09-8	Tetrachloro-m-xylene		109%				
2051-24-3	Decachlorobiphenyl		85%				

FORM 10
PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

CLIENT SAMPLE ID

WGL-SD-P
CB02-0006

Lab Name: KATAHDIN ANALYTICAL SERVICES Project: CTO 407 NAS WE

Lab Code: KAS PO No.: SDG No.: SC2369

Lab Sample ID: SC2369-3 Date(s) Analyzed: 05/19/09 05/19/09

Instrument ID (1): GC07 Instrument ID (2): GC07

GC Column(1): ZB-MULTIRESIDUE-1 ID: 0.53(mm) GC Column(2): ZB-MULTIRESIDUE-2 ID: 0.53(mm

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	RPD
	1	10.23	10.16	10.30	389		
Aroclor-1260	2	11.07	11.00	11.14	554		
	3	11.94	11.88	12.02	563		
COLUMN 1	4	14.16	14.09	14.23	343		
	5	15.19	15.13	15.27	242	418	
	1	10.23	10.16	10.30	435		
	2	10.85	10.78	10.92	521		
	3	11.35	11.29	11.43	392		
COLUMN 2	4	14.03	13.96	14.10	383		
	5	15.39	15.33	15.47	370	420	0.5
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks are required for identification of multicomponent analytes.

FORM X PEST-2

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 05/12/09
Received Date: 05/13/09
Extraction Date: 05/14/09
Analysis Date: 27-MAY-2009 03:13
Report Date: 06/01/2009
Matrix: SOIL
% Solids: 22.0

Lab ID: SC2369-4
Client ID: WGL-SD-PCB03-0006
SDG: SC2369
Extracted by: CB
Extraction Method: SW846 3550
Analyst: RCT
Analysis Method: SW846 8082
Lab Prep Batch: WG63728
Units: ug/Kgdrywt

Compound	Flags	Results	DF	PQL	Adj.PQL
Aroclor-1016	U	77	1.0	17	77
Aroclor-1221	U	77	1.0	17	77
Aroclor-1232	U	77	1.0	17	77
Aroclor-1242	U	77	1.0	17	77
Aroclor-1248		180	1.0	17	77
Aroclor-1254	U	77	1.0	17	77
Aroclor-1260		12000	1.0	17	77
Tetrachloro-m-xylene		99%			
Decachlorobiphenyl		89%			

FORM 10
PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

CLIENT SAMPLE ID

WGL-SD-P
CB03-0006

Lab Name: KATAHDIN ANALYTICAL SERVICES Project: CTO 407 NAS WE

Lab Code: KAS PO No.: SDG No.: SC2369

Lab Sample ID: SC2369-4 Date(s) Analyzed: 05/27/09 05/27/09

Instrument ID (1): GC07 Instrument ID (2): GC07

GC Column(1): ZB-MULTIRESIDUE-1 ID: 0.53(mm) GC Column(2): ZB-MULTIRESIDUE-2 ID: 0.53(mm

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	RPD
	1	8.70	8.63	8.77	311		
Aroclor-1248	2	9.04	8.97	9.11	148		
	3	9.30	9.23	9.37	90.1		
COLUMN 1	4						
	5					183	
	1	8.23	8.15	8.29	82.6		
	2	9.06	8.99	9.13	137		
	3	9.36	9.28	9.42	96.4		
COLUMN 2	4	9.90	9.82	9.96	346		
	5					166	9.7
	1	11.61	11.54	11.68	10600		
Aroclor-1260	2	12.42	12.35	12.49	10900		
	3	13.27	13.20	13.34	12800		
COLUMN 1	4	15.43	15.36	15.50	9840		
	5	16.44	16.38	16.52	8810	10600	
	1	11.61	11.54	11.68	12000		
	2	12.22	12.15	12.29	13200		
	3	12.70	12.63	12.77	11200		
COLUMN 2	4	15.31	15.24	15.38	10700		
	5	16.64	16.57	16.71	10600	11500	8.1
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks are required for identification of multicomponent analytes.

FORM X PEST-2

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 05/12/09
Received Date: 05/13/09
Extraction Date: 05/19/09
Analysis Date: 20-MAY-2009 02:05
Report Date: 06/01/2009
Matrix: SOIL
% Solids: 22.0

Lab ID: SC2369-4RE
Client ID: WGL-SD-PCB03-0006
SDG: SC2369
Extracted by: CB
Extraction Method: SW846 3550
Analyst: RCT
Analysis Method: SW846 8082
Lab Prep Batch: WG63921
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
12674-11-2	Aroclor-1016	U	17	1.0	17	17	5.3
11104-28-2	Aroclor-1221	U	17	1.0	17	17	10
11141-16-5	Aroclor-1232	U	17	1.0	17	17	6.7
53469-21-9	Aroclor-1242	U	17	1.0	17	17	3.8
12672-29-6	Aroclor-1248		100	1.0	17	17	9.6
11097-69-1	Aroclor-1254	U	17	1.0	17	17	7.0
11096-82-5	Aroclor-1260		2300	1.0	17	17	3.3
877-09-8	Tetrachloro-m-xylene		* 49%				
2051-24-3	Decachlorobiphenyl		* 53%				

FORM 10
PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

CLIENT SAMPLE ID

WGL-SD-P
CB03-0006

Lab Name: KATAHDIN ANALYTICAL SERVICES Project: CTO 407 NAS WE

Lab Code: KAS PO No.: SDG No.: SC2369

Lab Sample ID: SC2369-4RE Date(s) Analyzed: 05/20/09 05/20/09

Instrument ID (1): GC07 Instrument ID (2): GC07

GC Column(1): ZB-MULTIRESIDUE-1 ID: 0.53(mm) GC Column(2): ZB-MULTIRESIDUE-2 ID: 0.53(mm

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	RPD
	1	7.10	7.03	7.17	135		
Aroclor-1248	2	7.46	7.39	7.53	58.3		
	3	7.74	7.67	7.81	52.4		
COLUMN 1	4						
	5					82.0	
	1	6.58	6.51	6.65	201		
	2	7.46	7.39	7.53	62.9		
	3	7.79	7.72	7.86	49.9		
COLUMN 2	4						
	5					104	23.6
	1	10.23	10.16	10.30	2060		
Aroclor-1260	2	11.07	11.00	11.14	2490		
	3	11.95	11.88	12.02	2640		
COLUMN 1	4	14.17	14.09	14.23	2330		
	5	15.20	15.13	15.27	1860	2280	
	1	10.23	10.16	10.30	2300		
	2	10.85	10.78	10.92	2630		
	3	11.36	11.29	11.43	2140		
COLUMN 2	4	14.03	13.96	14.10	2160		
	5	15.40	15.33	15.47	2100	2270	0.4
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks are required for identification of multicomponent analytes.

FORM X PEST-2

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 05/12/09
Received Date: 05/13/09
Extraction Date: 05/14/09
Analysis Date: 30-MAY-2009 04:34
Report Date: 06/01/2009
Matrix: SOIL
% Solids: 65.1

Lab ID: SC2369-5DL
Client ID: WGL-SO-PCB04-0006
SDG: SC2369
Extracted by: CB
Extraction Method: SW846 3550
Analyst: RCT
Analysis Method: SW846 8082
Lab Prep Batch: WG63728
Units: ug/Kg

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
12674-11-2	Aroclor-1016	U	260	10	17	260	80
11104-28-2	Aroclor-1221	U	260	10	17	260	150
11141-16-5	Aroclor-1232	U	260	10	17	260	100
53469-21-9	Aroclor-1242	U	260	10	17	260	58
12672-29-6	Aroclor-1248		8300	10	17	260	140
11097-69-1	Aroclor-1254	U	260	10	17	260	110
11096-82-5	Aroclor-1260		5800	10	17	260	51
877-09-8	Tetrachloro-m-xylene		D				
2051-24-3	Decachlorobiphenyl		D				

FORM 10
PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

CLIENT SAMPLE ID

WGL-SO-P
CB04-0006

Lab Name: KATAHDIN ANALYTICAL SERVICES Project: CTO 407 NAS WE

Lab Code: KAS PO No.: SDG No.: SC2369

Lab Sample ID: SC2369-5DL Date(s) Analyzed: 05/30/09 05/30/09

Instrument ID (1): GC07 Instrument ID (2): GC07

GC Column(1): ZB-MULTIRESIDUE-1 ID: 0.53(mm) GC Column(2): ZB-MULTIRESIDUE-2 ID: 0.53(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	RPD
	1	8.70	8.63	8.77	5310		
Aroclor-1248	2	9.04	8.97	9.11	6610		
	3	9.30	9.23	9.37	8500		
COLUMN 1	4	10.24	10.18	10.32	11100		
	5	11.14	11.07	11.21	10200	8340	
	1	8.25	8.15	8.29	10100		
	2	9.05	8.98	9.12	6640		
	3	9.35	9.28	9.42	9320		
COLUMN 2	4	9.80	9.73	9.87	10800		
	5					9230	10.1
	1	11.61	11.55	11.69	5010		
Aroclor-1260	2	12.42	12.36	12.50	6890		
	3	13.26	13.21	13.35	7380		
COLUMN 1	4	15.43	15.37	15.51	6020		
	5	16.44	16.38	16.52	6690	6400	
	1	11.60	11.54	11.68	5700		
	2	12.21	12.16	12.30	6040		
	3	12.69	12.63	12.77	4980		
COLUMN 2	4	15.30	15.25	15.39	6140		
	5	16.63	16.58	16.72	6380	5850	9.0
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks are required for identification of multicomponent analytes.

FORM X PEST-2

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 05/12/09
Received Date: 05/13/09
Extraction Date: 05/14/09
Analysis Date: 19-MAY-2009 23:49
Report Date: 06/01/2009
Matrix: SOIL
% Solids: 55.0

Lab ID: SC2369-6
Client ID: GL-SD-PCB05-0006
SDG: SC2369
Extracted by: CB
Extraction Method: SW846 3550
Analyst: RCT
Analysis Method: SW846 8082
Lab Prep Batch: WG63728
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
12674-11-2	Aroclor-1016	U	31	1.0	17	31	9.4
11104-28-2	Aroclor-1221	U	31	1.0	17	31	18
11141-16-5	Aroclor-1232	U	31	1.0	17	31	12
53469-21-9	Aroclor-1242	U	31	1.0	17	31	6.9
12672-29-6	Aroclor-1248	U	31	1.0	17	31	17
11097-69-1	Aroclor-1254	U	31	1.0	17	31	12
11096-82-5	Aroclor-1260		700	1.0	17	31	6.0
877-09-8	Tetrachloro-m-xylene		94%				
2051-24-3	Decachlorobiphenyl		*245%				

FORM 10
PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

CLIENT SAMPLE ID

GL-SD-PC
B05-0006

Lab Name: KATAHDIN ANALYTICAL SERVICES Project: CTO 407 NAS WE

Lab Code: KAS PO No.: SDG No.: SC2369

Lab Sample ID: SC2369-6 Date(s) Analyzed: 05/19/09 05/19/09

Instrument ID (1): GC07 Instrument ID (2): GC07

GC Column(1): ZB-MULTIRESIDUE-1 ID: 0.53(mm) GC Column(2): ZB-MULTIRESIDUE-2 ID: 0.53(mm

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	RPD
	1	10.23	10.16	10.30	576		
Aroclor-1260	2	11.06	11.00	11.14	989		
	3	11.95	11.88	12.02	844		
COLUMN 1	4	14.17	14.09	14.23	392		
	5					700	
	1	10.23	10.16	10.30	620		
	2	10.86	10.78	10.92	642		
	3	11.36	11.29	11.43	476		
COLUMN 2	4	14.03	13.96	14.10	449		
	5					547	24.5
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						
	1						
	2						
	3						
COLUMN 1	4						
	5						
	1						
	2						
	3						
COLUMN 2	4						
	5						

At least 3 peaks are required for identification of multicomponent analytes.

FORM X PEST-2

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client:
Project: CTO 407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date: 05/14/09
Analysis Date: 19-MAY-2009 17:56
Report Date: 06/01/2009
Matrix: SOIL
% Solids: 100

Lab ID: WG63728-1
Client ID: WG63728-Blank
SDG: SC2369
Extracted by: CB
Extraction Method: SW846 3550
Analyst: RCT
Analysis Method: SW846 8082
Lab Prep Batch: WG63728
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
12674-11-2	Aroclor-1016	U	17	1.0	17	17	5.2
11104-28-2	Aroclor-1221	U	17	1.0	17	17	9.9
11141-16-5	Aroclor-1232	U	17	1.0	17	17	6.6
53469-21-9	Aroclor-1242	U	17	1.0	17	17	3.8
12672-29-6	Aroclor-1248	U	17	1.0	17	17	9.5
11097-69-1	Aroclor-1254	U	17	1.0	17	17	6.9
11096-82-5	Aroclor-1260	U	17	1.0	17	17	3.3
877-09-8	Tetrachloro-m-xylene		103%				
2051-24-3	Decachlorobiphenyl		95%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client:
Project: CTO 407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date: 05/19/09
Analysis Date: 19-MAY-2009 18:51
Report Date: 06/01/2009
Matrix: SOIL
% Solids: 100

Lab ID: WG63921-1
Client ID: WG63921-Blank
SDG: SC2369
Extracted by: CB
Extraction Method: SW846 3550
Analyst: RCT
Analysis Method: SW846 8082
Lab Prep Batch: WG63921
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
12674-11-2	Aroclor-1016	U	17	1.0	17	17	5.2
11104-28-2	Aroclor-1221	U	17	1.0	17	17	9.9
11141-16-5	Aroclor-1232	U	17	1.0	17	17	6.6
53469-21-9	Aroclor-1242	U	17	1.0	17	17	3.8
12672-29-6	Aroclor-1248	U	17	1.0	17	17	9.5
11097-69-1	Aroclor-1254	U	17	1.0	17	17	6.9
11096-82-5	Aroclor-1260	U	17	1.0	17	17	3.3
877-09-8	Tetrachloro-m-xylene		*119%				
2051-24-3	Decachlorobiphenyl		109%				

FORM 2
SOIL PCB SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2369

GC Column(1): ZB-MULTIRESIDUE-1ID: 0.53 (mm)GC Column(2): ZB-MULTIRESIDUE-2ID: 0.53 (mm)

	CLIENT SAMPLE ID	LAB SAMPLE ID	TCX1 REC#	TCX2 REC#	DCB1 REC#	DCB2 REC#	OTHR (1)	OTHR (2)	TOT OUT
01	WG63728-BLANK	WG63728-1	97	103	88	95			0
02	WG63728-LCS	WG63728-2	107	114	89	96			0
03	WG63921-BLANK	WG63921-1	110	119*	101	109			1
04	WG63921-LCS	WG63921-2	112	119*	93	103			1
05	WG63921-LCSD	WG63921-3	122*	132*	99	106			2
06	WGL-SO-PCB01-0006	SC2369-1	105	123*	108	103			1
07	WGL-SO-PCBDUP01	SC2369-2	98	113	92	90			0
08	WGL-SD-PCB02-0006	SC2369-3	97	109	80	85			0
09	GL-SD-PCB05-0006	SC2369-6	78	94	245*	87			1
10	GL-SD-PCB05-0006MS	WG63728-3	87	105	296*	85			1
11	GL-SD-PCB05-0006MSD	WG63728-4	89	104	444*	94			1
12	WGL-SD-PCB03-0006	SC2369-4RE	44*	49*	53*	28*			4
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									

ADVISORY
QC LIMITS

S1 (TCX) = Tetrachloro-m-xylene (56-115)
S2 (DCB) = Decachlorobiphenyl (60-125)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out

FORM 2
SOIL PCB SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2369

GC Column(1): ZB-MULTIRESIDUE-1ID: 0.53 (mm)GC Column(2): ZB-MULTIRESIDUE-2ID: 0.53 (mm)

	CLIENT SAMPLE ID	LAB SAMPLE ID	TCX1 REC#	TCX2 REC#	DCB1 REC#	DCB2 REC#	OTHR (1)	OTHR (2)	TOT OUT
01	WGL-SD-PCB03-0006	SC2369-4	79	99	82	89			0
02									
03									
04									
05									
06									
07									
08									
09									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									

ADVISORY
QC LIMITS

S1 (TCX) = Tetrachloro-m-xylene (56-115)
S2 (DCB) = Decachlorobiphenyl (60-125)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out

FORM 2
SOIL PCB SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2369

GC Column(1): ZB-MULTIRESIDUE-1ID: 0.53 (mm)GC Column(2): ZB-MULTIRESIDUE-2ID: 0.53 (mm)

	CLIENT SAMPLE ID	LAB SAMPLE ID	TCX1 REC#	TCX2 REC#	DCB1 REC#	DCB2 REC#	OTHR (1)	OTHR (2)	TOT OUT
01	WGL-SO-PCB04-0006	SC2369-5DL	D	D	D	D			0
02									
03									
04									
05									
06									
07									
08									
09									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									

ADVISORY
QC LIMITS

S1 (TCX) = Tetrachloro-m-xylene (56-115)
S2 (DCB) = Decachlorobiphenyl (60-125)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out

KATAHDIN ANALYTICAL SERVICES
LAB CONTROL SAMPLE

Client:
Project: CTO 407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date: 05/14/09
Analysis Date: 05/19/09
Report Date: 06/01/2009
Matrix: SOIL

Lab ID: WG63728-2
Client ID: WG63728-LCS
SDG: SC2369
Extracted by: CB
Extraction Method: SW846 3550
Analyst: RCT
Analysis Method: SW846 8082
Lab Prep Batch: WG63728
Units: ug/Kgdrywt

COMPOUND	LCS SPIKE	SAMPLE CONC.	LCS CONC.	%REC.	QC. LIMITS
Aroclor-1016	167	NA	163	98	40-140
Aroclor-1260	167	NA	151	91	60-130

KATAHDIN ANALYTICAL SERVICES
LAB CONTROL SAMPLE

Client:
Project: CTO 407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date: 05/19/09
Analysis Date: 05/19/09
Report Date: 06/01/2009
Matrix: SOIL

Lab ID: WG63921-2 & WG63921-3
Client ID: WG63921-LCS & WG63921-LCSD
SDG: SC2369
Extracted by: CB
Extraction Method: SW846 3550
Analyst: RCT
Analysis Method: SW846 8082
Lab Prep Batch: WG63921
Units: ug/Kgdrywt

COMPOUND	LCS SPIKE	LCSD SPIKE	SAMPLE CONC.	LCS CONC.	LCSD CONC.	LCS %REC.	LCSD %REC.	%RPD	%RPD LIMIT	QC. LIMITS
Aroclor-1016	167	167	NA	166	184	100	110	10	50	40-140
Aroclor-1260	167	167	NA	158	167	95	100	6	50	60-130

FORM III PCB-2

7CE365.D & 7CE366.D

FORM 4
PESTICIDE METHOD BLANK SUMMARY

CLIENT SAMPLE ID

WG63728-BLANK

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2369

Lab Sample ID: WG63728-1 Lab File ID: 7CE362

Matrix (soil/water) SOIL Extraction:(SepF/Cont/Sonc) SW846 3550

Sulfur Cleanup: (Y/N) N Date Extracted: 05/14/09

Date Analyzed (1): 05/19/09 Date Analyzed (2): 05/19/09

Time Analyzed (1): 1756 Time Analyzed (2): 1756

Instrument ID (1): GC07 Instrument ID (2): GC07

GC Column (1): ZB-MULTIRESIDUE-1 ID: 0.53(mm) GC Column (2): ZB-MULTIRESIDUE-2 ID: 0.53(mm

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	WG63728-LCS	WG63728-2	7CE363	05/19/09	05/19/09
02	WGL-SO-PCB01-0006	SC2369-1	7CE367	05/19/09	05/19/09
03	WGL-SO-PCBDUP01	SC2369-2	7CE368	05/19/09	05/19/09
04	WGL-SD-PCB02-0006	SC2369-3	7CE374	05/19/09	05/19/09
05	GL-SD-PCB05-0006	SC2369-6	7CE375	05/19/09	05/19/09
06	GL-SD-PCB05-0006MS	WG63728-3	7CE378	05/20/09	05/20/09
07	GL-SD-PCB05-0006MSD	WG63728-4	7CE379	05/20/09	05/20/09
08	WGL-SD-PCB03-0006	SC2369-4	7CE469	05/27/09	05/27/09
09	WGL-SO-PCB04-0006	SC2369-5DL	7CE510	05/30/09	05/30/09
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					

COMMENTS:

FORM IVPCB

FORM 4
PESTICIDE METHOD BLANK SUMMARY

CLIENT SAMPLE ID

WG63921-BLANK

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2369

Lab Sample ID: WG63921-1 Lab File ID: 7CE364

Matrix (soil/water) SOIL Extraction:(SepF/Cont/Sonc) SW846 3550

Sulfur Cleanup: (Y/N) N Date Extracted: 05/19/09

Date Analyzed (1): 05/19/09 Date Analyzed (2): 05/19/09

Time Analyzed (1): 1851 Time Analyzed (2): 1851

Instrument ID (1): GC07 Instrument ID (2): GC07

GC Column (1): ZB-MULTIRESIDUE-1 ID: 0.53(mm) GC Column (2): ZB-MULTIRESIDUE-2 ID: 0.53(mm

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	WG63921-LCS	WG63921-2	7CE365	05/19/09	05/19/09
02	WG63921-LCSD	WG63921-3	7CE366	05/19/09	05/19/09
03	WGL-SD-PCB03-0006	SC2369-4RE	7CE380	05/20/09	05/20/09
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					

COMMENTS:

FORM IVPCB

FORM 6
PCB INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project CTO 407 NAS WEYMOUTH SDG No.: SC2369

Instrument ID: GC07 Calibration Date(s): 04/20/09 04/21/09

Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm) Calibration Time(s): 1535 0442

LAB FILE ID: RF0.05: 7CD218 RF0.1: 7CD219 RF0.25: 7CD220
RF1: 7CD226 RF2.5: 7CD221 RF10: 7CD222

COMPOUND	RF0.05	RF0.1	RF0.25	RF1	RF2.5	RF10	CURVE	COEFF. A1	%RSD OR R^2	MAX %RSD OR R^2	
Aroclor-1016	7515500	6686600	6032400	5581100	5230800	4726600	AVRG	5962169.58	17.021	20.000	
(2)	6537000	5980700	5495800	5185600	4947900	4530600	AVRG	5446262.35	13.323	20.000	
(3)	1e+007	1e+007	1e+007	1e+007	1e+007	9785800	AVRG	11441014.6	10.840	20.000	
(4)	7313500	6658300	6204800	5891600	5614200	5206600	AVRG	6148175.87	12.299	20.000	
(5)	5486200	4917400	4545900	4335900	4361000	4088700	AVRG	4622512.30	10.921	20.000	
Aroclor-1221				1482100			AVRG	1482073.00	0.000	20.000	<-
(2)				872770			AVRG	872772.000	0.000	20.000	<-
(3)				2602700			AVRG	2602663.00	0.000	20.000	<-
(4)				1850100			AVRG	1850096.00	0.000	20.000	<-
Aroclor-1232				4126400			AVRG	4126375.00	0.000	20.000	<-
(2)				2584700			AVRG	2584687.00	0.000	20.000	<-
(3)				2430300			AVRG	2430290.00	0.000	20.000	<-
(4)				4879500			AVRG	4879529.00	0.000	20.000	<-
(5)				1831300			AVRG	1831349.00	0.000	20.000	<-
Aroclor-1242	5549400	5231500	5043200	4467800	4282200	3746800	AVRG	4720150.38	14.232	20.000	
(2)	4910700	4667200	4573900	4133500	3920000	3575400	AVRG	4296807.20	11.775	20.000	
(3)	9294900	9085100	9244100	8886300	8716300	7913400	AVRG	8856664.98	5.768	20.000	
(4)	5275500	5225200	5075600	4697800	4588100	4167900	AVRG	4838358.25	8.909	20.000	
(5)	3994500	3887300	3781200	3537600	3480400	3276400	AVRG	3659575.35	7.460	20.000	
Aroclor-1248	6381000	6222200	5976900	5586900	5484900	5084700	AVRG	5789440.15	8.472	20.000	
(2)	6707800	6549300	6374200	6258400	6207000	5660600	AVRG	6292896.55	5.742	20.000	
(3)	4605000	4627100	4653300	4433700	4443200	4227500	AVRG	4498298.65	3.619	20.000	
(4)	5479000	5445800	5532400	5379400	5355800	5113900	AVRG	5384390.05	2.737	20.000	
(5)	3135000	3181100	3187800	3167000	3152900	3111200	AVRG	3155846.18	0.920	20.000	
Aroclor-1254	1e+007	1.e+007	9409200	8380100	9151800	7619900	AVRG	9294376.37	13.314	20.000	
(2)	6856500	6349000	5995400	5683500	6160100	5430100	AVRG	6079123.60	8.285	20.000	
(3)	1e+007	1e+007	1e+007	1.e+007	1e+007	9243300	AVRG	10840877.4	10.171	20.000	
(4)	4424300	4069600	3821300	3321400	3625200	3201100	AVRG	3743814.05	12.311	20.000	
(5)	5166600	4777700	4624900	4173600	4489000	4007800	AVRG	4539950.77	9.221	20.000	
Aroclor-1260	9222500	8154300	7751600	7492500	7367400	7043200	AVRG	7838578.62	9.877	20.000	
(2)	1e+007	9434500	8901300	8769300	8814700	8342700	AVRG	9154366.03	8.932	20.000	
(3)	9920200	9121800	8459600	8782400	8827600	9016900	AVRG	9021412.20	5.494	20.000	
(4)	1e+007	1e+007	1e+007	1e+007	1e+007	1e+007	AVRG	12677547.9	4.472	20.000	
(5)	7593400	6859000	6346600	6946200	7146900	7503500	AVRG	7065932.27	6.488	20.000	
Tetrachloro-m-xylene	3e+008	2e+008	2e+008	2e+008	2e+008	2e+008	AVRG	235418122	8.982	20.000	
Decachlorobiphenyl	1e+008	1e+008	1.e+008	1e+008	9e+007	1e+008	AVRG	103188853	9.212	20.000	

FORM VI PCB

FORM 6
PCB INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project CTO 407 NAS WEYMOUTH SDG No.: SC2369

Instrument ID: GC07 Calibration Date(s): 04/20/09 04/21/09

Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm) Calibration Time(s): 1535 0442

LAB FILE ID: RF0.05: 7CD218 RF0.1: 7CD219 RF0.25: 7CD220
RF1: 7CD226 RF2.5: 7CD221 RF10: 7CD222

COMPOUND	RF0.05	RF0.1	RF0.25	RF1	RF2.5	RF10	CURVE	COEFF. A1	%RSD OR R^2	MAX %RSD OR R^2	
Aroclor-1016	1280200	1136100	1006200	947870	905140	854400	AVRG	1021648.27	15.608	20.000	
(2)	987900	868490	790800	762910	730880	691480	AVRG	805409.567	13.354	20.000	
(3)	2102300	1859500	1773600	1822000	1824400	1679300	AVRG	1843530.38	7.669	20.000	
(4)	1134500	1015900	923480	911180	887480	864960	AVRG	956258.217	10.613	20.000	
(5)	923300	845150	766600	741660	739550	727680	AVRG	790656.617	9.817	20.000	
Aroclor-1221				262830			AVRG	262826.000	0.000	20.000	<-
(2)				136280			AVRG	136280.000	0.000	20.000	<-
(3)				440680			AVRG	440683.000	0.000	20.000	<-
(4)				315260			AVRG	315262.000	0.000	20.000	<-
Aroclor-1232				711210			AVRG	711213.000	0.000	20.000	<-
(2)				435880			AVRG	435876.000	0.000	20.000	<-
(3)				348640			AVRG	348639.000	0.000	20.000	<-
(4)				758950			AVRG	758953.000	0.000	20.000	<-
(5)				310630			AVRG	310632.000	0.000	20.000	<-
Aroclor-1242	939800	889310	851610	753040	741020	686200	AVRG	810162.583	12.119	20.000	
(2)	693060	678310	659370	609400	594030	562130	AVRG	632717.700	8.198	20.000	
(3)	1480800	1410600	1448200	1413500	1453700	1358000	AVRG	1427465.85	3.018	20.000	
(4)	804100	783200	762050	692030	711400	693360	AVRG	741022.450	6.542	20.000	
(5)	685360	667920	644380	587010	588310	590380	AVRG	627225.833	7.065	20.000	
Aroclor-1248	875660	852640	813960	796220	822390	808310	AVRG	828196.250	3.624	20.000	
(2)	1147600	1116100	1071800	1028400	1059400	1013200	AVRG	1072750.43	4.784	20.000	
(3)	756120	733380	693160	691080	722200	716970	AVRG	718817.917	3.434	20.000	
(4)	1334100	1308400	1307200	1316600	1387900	1330900	AVRG	1330863.70	2.261	20.000	
(5)	868880	857040	854280	879390	938900	952680	AVRG	891862.300	4.815	20.000	
Aroclor-1254	1877000	1667600	1561800	1465000	1602200	1381300	AVRG	1592493.48	10.820	20.000	
(2)	1596900	1411400	1284100	1191200	1299300	1156800	AVRG	1323288.57	12.181	20.000	
(3)	1136700	1021400	964620	901980	1023200	958630	AVRG	1001079.25	8.021	20.000	
(4)	2005800	1797800	1752400	1688400	1881400	1631700	AVRG	1792911.45	7.553	20.000	
(5)	782280	705520	661530	599410	677600	650020	AVRG	679394.133	9.038	20.000	
Aroclor-1260	1511400	1332900	1206300	1229600	1235300	1198900	AVRG	1285730.48	9.377	20.000	
(2)	1640800	1436000	1333400	1402500	1435100	1381100	AVRG	1438128.92	7.397	20.000	
(3)	1466000	1293700	1235500	1243000	1284500	1282900	AVRG	1300943.23	6.480	20.000	
(4)	2172500	1941100	1867900	2147700	2196900	2152300	AVRG	2079738.95	6.673	20.000	
(5)	1440800	1288400	1274300	1393600	1424000	1433300	AVRG	1375733.77	5.450	20.000	
Tetrachloro-m-xylene	4e+007	4e+007	4e+007	4e+007	4e+007	4.e+007	AVRG	38795954.2	7.502	20.000	
Decachlorobiphenyl	2e+007	2e+007	2e+007	2e+007	2e+007	2e+007	AVRG	17003718.3	6.947	20.000	

FORM VI PCB

FORM 6
PCB INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project CTO 407 NAS WEYMOUTH SDG No.: SC2369

Instrument ID: GC07 Calibration Date(s): 05/22/09 05/23/09

Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm) Calibration Time(s): 1615 0628

LAB FILE ID: RF0.05: 7CE430 RF0.1: 7CE431 RF0.25: 7CE432
RF1: 7CE438 RF2.5: 7CE433 RF10: 7CE434

COMPOUND	RF0.05	RF0.1	RF0.25	RF1	RF2.5	RF10	CURVE	COEFF. A1	%RSD OR R^2	MAX %RSD OR R^2	
Aroclor-1016	7297400	6831700	6430600	6792700	6123900	6064300	AVRG	6590113.28	7.178	20.000	
(2)	6371900	5953200	5698800	5925800	5588000	5534400	AVRG	5845346.93	5.299	20.000	
(3)	1e+007	1e+007	1e+007	1e+007	1e+007	1e+007	AVRG	12192773.2	4.234	20.000	
(4)	7809700	6871100	6690300	6705700	6503400	6462600	AVRG	6840475.57	7.272	20.000	
(5)	5182900	4745900	4815600	4663700	4461300	4534400	AVRG	4733961.72	5.406	20.000	
Aroclor-1221				2357900			AVRG	2357915.00	0.000	20.000	<-
(2)				1107600			AVRG	1107615.00	0.000	20.000	<-
(3)				3108200			AVRG	3108228.00	0.000	20.000	<-
(4)				2241300			AVRG	2241296.00	0.000	20.000	<-
Aroclor-1232				4963000			AVRG	4962987.00	0.000	20.000	<-
(2)				2787000			AVRG	2786965.00	0.000	20.000	<-
(3)				2624900			AVRG	2624928.00	0.000	20.000	<-
(4)				5154200			AVRG	5154184.00	0.000	20.000	<-
(5)				1856400			AVRG	1856374.00	0.000	20.000	<-
Aroclor-1242	5390700	5375200	5493200	5024300	5127200	4894600	AVRG	5217523.32	4.541	20.000	
(2)	4680900	4713800	4671000	4490100	4737600	4501000	AVRG	4632398.97	2.346	20.000	
(3)	9301300	9417800	9832700	9480100	9912600	9536200	AVRG	9580136.02	2.516	20.000	
(4)	5190200	5271700	5387900	5085700	5492800	5251200	AVRG	5279916.63	2.727	20.000	
(5)	3710900	3770000	3787200	3636400	3777200	3765900	AVRG	3741245.85	1.547	20.000	
Aroclor-1248	5883600	5842400	6027500	5477400	5886200	5910400	AVRG	5837916.53	3.210	20.000	
(2)	6623900	6712400	6715000	6744800	6693900	6781300	AVRG	6711871.92	0.788	20.000	
(3)	4467400	4483600	4549300	4624200	4693200	4864800	AVRG	4613744.12	3.244	20.000	
(4)	5240900	5066500	5020000	4861100	5154300	5155900	AVRG	5083103.38	2.622	20.000	
(5)	3081100	3107400	3059600	3159700	3086700	3266600	AVRG	3126853.62	2.444	20.000	
Aroclor-1254	1e+007	9363400	8472800	7988800	8511700	7554000	AVRG	8760006.30	12.714	20.000	
(2)	6954500	6252600	5740500	5504300	5985300	5522000	AVRG	5993190.43	9.189	20.000	
(3)	1e+007	1e+007	1e+007	1.e+007	1e+007	9997500	AVRG	10845288.7	6.878	20.000	
(4)	7275900	6625400	6453600	6384300	7193800	6564000	AVRG	6749504.10	5.720	20.000	
(5)	8083800	7603300	7052600	7015400	7627700	6878200	AVRG	7376829.73	6.354	20.000	
Aroclor-1260	7685300	7043400	6959800	7025900	6980900	7050800	AVRG	7124364.50	3.890	20.000	
(2)	9820700	8797500	8504200	8694000	8556800	8480900	AVRG	8809014.55	5.790	20.000	
(3)	9342800	8271500	8295900	8875200	8676800	8748600	AVRG	8701800.60	4.578	20.000	
(4)	1e+007	1e+007	1e+007	1e+007	1e+007	1e+007	AVRG	12752613.1	4.405	20.000	
(5)	7623300	6903600	6959800	6948200	7266300	7530400	AVRG	7205296.75	4.396	20.000	
Tetrachloro-m-xylene	3e+008	3.e+008	3e+008	3.e+008	3.e+008	3.e+008	AVRG	303981358	3.996	20.000	
Decachlorobiphenyl	1e+008	1.e+008	9e+007	1e+008	9e+007	1e+008	AVRG	99651141.7	7.744	20.000	

FORM VI PCB

FORM 6
PCB INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project CTO 407 NAS WEYMOUTH SDG No.: SC2369

Instrument ID: GC07 Calibration Date(s): 05/22/09 05/23/09

Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm) Calibration Time(s): 1615 0628

LAB FILE ID: RF0.05: 7CE430 RF0.1: 7CE431 RF0.25: 7CE432
RF1: 7CE438 RF2.5: 7CE433 RF10: 7CE434

COMPOUND	RF0.05	RF0.1	RF0.25	RF1	RF2.5	RF10	CURVE	COEFF. A1	%RSD OR R^2	MAX %RSD OR R^2	
Aroclor-1016	1143700	1025800	995760	1043200	1019300	1015400	AVRG	1040517.37	5.076	20.000	
(2)	890280	833340	810320	823230	831550	844620	AVRG	838890.867	3.295	20.000	
(3)	2010300	1882300	1850600	2026400	1994300	1995000	AVRG	1959836.23	3.774	20.000	
(4)	1010600	933140	918060	999720	974610	1010200	AVRG	974388.283	4.133	20.000	
(5)	733200	707360	760090	761810	756190	807920	AVRG	754427.367	4.443	20.000	
Aroclor-1221				391530			AVRG	391532.000	0.000	20.000	<-
(2)				149290			AVRG	149287.000	0.000	20.000	<-
(3)				526440			AVRG	526436.000	0.000	20.000	<-
(4)				370040			AVRG	370035.000	0.000	20.000	<-
Aroclor-1232				824390			AVRG	824392.000	0.000	20.000	<-
(2)				456120			AVRG	456123.000	0.000	20.000	<-
(3)				364020			AVRG	364015.000	0.000	20.000	<-
(4)				807790			AVRG	807794.000	0.000	20.000	<-
(5)				304790			AVRG	304789.000	0.000	20.000	<-
Aroclor-1242	857940	850090	862430	808790	836560	836330	AVRG	842023.150	2.316	20.000	
(2)	654680	663300	680060	647480	685380	698410	AVRG	671550.183	2.916	20.000	
(3)	1462600	1442000	1481600	1510400	1636500	1643600	AVRG	1529467.08	5.794	20.000	
(4)	740440	736430	756020	741780	783350	824980	AVRG	763833.667	4.522	20.000	
(5)	649560	629510	648520	585380	634840	665500	AVRG	635551.583	4.346	20.000	
Aroclor-1248	875460	832570	820200	875560	886990	920830	AVRG	868602.017	4.246	20.000	
(2)	1104500	1081200	1068800	1116600	1141700	1176200	AVRG	1114842.28	3.554	20.000	
(3)	721600	702890	706930	757500	777370	813430	AVRG	746619.483	5.881	20.000	
(4)	1338600	1267400	1332000	1473700	1529100	1541100	AVRG	1413655.63	8.181	20.000	
(5)	870760	842860	874400	1008500	1032500	1087900	AVRG	952812.700	10.771	20.000	
Aroclor-1254	1726300	1656100	1583500	1564400	1718400	1565400	AVRG	1635678.87	4.592	20.000	
(2)	1485600	1356200	1272700	1228900	1355200	1251000	AVRG	1324954.75	7.171	20.000	
(3)	1045900	996840	915810	880440	997430	951010	AVRG	964567.467	6.284	20.000	
(4)	1809500	1791200	1741900	1682700	1873600	1684100	AVRG	1763829.43	4.264	20.000	
(5)	1280600	1201400	1163000	1123100	1263700	1169300	AVRG	1200192.33	5.107	20.000	
Aroclor-1260	1201700	1112100	1102400	1141200	1154700	1188500	AVRG	1150123.82	3.468	20.000	
(2)	1476900	1368300	1317000	1288600	1371600	1377600	AVRG	1366663.47	4.726	20.000	
(3)	1166500	1075900	1071700	1057400	1162900	1197000	AVRG	1121900.72	5.363	20.000	
(4)	2198300	2034400	1990200	2256600	2249200	2126300	AVRG	2142499.00	5.225	20.000	
(5)	1398000	1260500	1248800	1363200	1390900	1421400	AVRG	1347133.92	5.500	20.000	
Tetrachloro-m-xylene	5e+007	5e+007	4e+007	5e+007	5e+007	5.e+007	AVRG	46707380.0	6.493	20.000	
Decachlorobiphenyl	2e+007	2e+007	2e+007	2e+007	2e+007	2e+007	AVRG	16772578.3	7.207	20.000	

FORM VI PCB

FORM 6
PCB INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project CTO 407 NAS WEYMOUTH SDG No.: SC2369

Instrument ID: GC07 Calibration Date(s): 05/22/09 05/29/09

Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm) Calibration Time(s): 1615 1618

LAB FILE ID: RF0.05: 7CE430 RF0.1: 7CE431 RF0.25: 7CE432
RF1: 7CE438 RF2.5: 7CE433 RF10: 7CE434

COMPOUND	RF0.05	RF0.1	RF0.25	RF1	RF2.5	RF10	CURVE	COEFF. A1	%RSD OR R^2	MAX %RSD OR R^2	
Aroclor-1016	7297400	6831700	6430600	6792700	6123900	6064300	AVRG	6590113.28	7.178	20.000	
(2)	6371900	5953200	5698800	5925800	5588000	5534400	AVRG	5845346.93	5.299	20.000	
(3)	1e+007	1e+007	1e+007	1e+007	1e+007	1e+007	AVRG	12192773.2	4.234	20.000	
(4)	7809700	6871100	6690300	6705700	6503400	6462600	AVRG	6840475.57	7.272	20.000	
(5)	5182900	4745900	4815600	4663700	4461300	4534400	AVRG	4733961.72	5.406	20.000	
Aroclor-1221				2357900			AVRG	2357915.00	0.000	20.000	<-
(2)				1107600			AVRG	1107615.00	0.000	20.000	<-
(3)				3108200			AVRG	3108228.00	0.000	20.000	<-
(4)				2241300			AVRG	2241296.00	0.000	20.000	<-
Aroclor-1232				4963000			AVRG	4962987.00	0.000	20.000	<-
(2)				2787000			AVRG	2786965.00	0.000	20.000	<-
(3)				2624900			AVRG	2624928.00	0.000	20.000	<-
(4)				5154200			AVRG	5154184.00	0.000	20.000	<-
(5)				1856400			AVRG	1856374.00	0.000	20.000	<-
Aroclor-1242	5390700	5375200	5493200	5024300	5127200	4894600	AVRG	5217523.32	4.541	20.000	
(2)	4680900	4713800	4671000	4490100	4737600	4501000	AVRG	4632398.97	2.346	20.000	
(3)	9301300	9417800	9832700	9480100	9912600	9536200	AVRG	9580136.02	2.516	20.000	
(4)	5190200	5271700	5387900	5085700	5492800	5251200	AVRG	5279916.63	2.727	20.000	
(5)	3710900	3770000	3787200	3636400	3777200	3765900	AVRG	3741245.85	1.547	20.000	
Aroclor-1248	7285600	7093100	7356400	6715800	7122200	7319100	AVRG	7148682.90	3.323	20.000	
(2)	7848500	7663700	7895100	7488200	8078200	8181100	AVRG	7859154.92	3.263	20.000	
(3)	5396500	5117700	5309900	5135200	5571700	5693600	AVRG	5370754.83	4.315	20.000	
(4)	5426800	5299100	5452600	5354800	5745800	5975600	AVRG	5542458.93	4.738	20.000	
(5)	3368000	3376100	3439000	3336800	3627000	3791900	AVRG	3489792.62	5.187	20.000	
Aroclor-1254	1e+007	9363400	8472800	7988800	8511700	7554000	AVRG	8760006.30	12.714	20.000	
(2)	6954500	6252600	5740500	5504300	5985300	5522000	AVRG	5993190.43	9.189	20.000	
(3)	1e+007	1e+007	1e+007	1.e+007	1e+007	9997500	AVRG	10845288.7	6.878	20.000	
(4)	7275900	6625400	6453600	6384300	7193800	6564000	AVRG	6749504.10	5.720	20.000	
(5)	8083800	7603300	7052600	7015400	7627700	6878200	AVRG	7376829.73	6.354	20.000	
Aroclor-1260	7685300	7043400	6959800	7025900	6980900	7050800	AVRG	7124364.50	3.890	20.000	
(2)	9820700	8797500	8504200	8694000	8556800	8480900	AVRG	8809014.55	5.790	20.000	
(3)	9342800	8271500	8295900	8875200	8676800	8748600	AVRG	8701800.60	4.578	20.000	
(4)	1e+007	1e+007	1e+007	1e+007	1e+007	1e+007	AVRG	12752613.1	4.405	20.000	
(5)	7623300	6903600	6959800	6948200	7266300	7530400	AVRG	7205296.75	4.396	20.000	
Tetrachloro-m-xylene	3e+008	3.e+008	3e+008	3.e+008	3.e+008	3.e+008	AVRG	303981358	3.996	20.000	
Decachlorobiphenyl	1e+008	1.e+008	9e+007	1e+008	9e+007	1e+008	AVRG	99651141.7	7.744	20.000	

FORM VI PCB

FORM 6
PCB INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project CTO 407 NAS WEYMOUTH SDG No.: SC2369

Instrument ID: GC07 Calibration Date(s): 05/22/09 05/29/09

Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm) Calibration Time(s): 1615 1618

LAB FILE ID: RF0.05: 7CE430 RF0.1: 7CE431 RF0.25: 7CE432
RF1: 7CE438 RF2.5: 7CE433 RF10: 7CE434

COMPOUND	RF0.05	RF0.1	RF0.25	RF1	RF2.5	RF10	CURVE	COEFF. A1	%RSD OR R^2	MAX %RSD OR R^2	
Aroclor-1016	1143700	1025800	995760	1060800	1019300	1015400	AVRG	1043456.87	5.125	20.000	
(2)	890280	833340	810320	831020	831550	844620	AVRG	840189.200	3.205	20.000	
(3)	2010300	1882300	1850600	2033200	1994300	1995000	AVRG	1960968.73	3.836	20.000	
(4)	1010600	933140	918060	1005100	974610	1010200	AVRG	975279.117	4.204	20.000	
(5)	733200	707360	760090	761810	756190	807920	AVRG	754427.367	4.443	20.000	
Aroclor-1221				391530			AVRG	391532.000	0.000	20.000	<-
(2)				149290			AVRG	149287.000	0.000	20.000	<-
(3)				526440			AVRG	526436.000	0.000	20.000	<-
(4)				370040			AVRG	370035.000	0.000	20.000	<-
Aroclor-1232				824390			AVRG	824392.000	0.000	20.000	<-
(2)				456120			AVRG	456123.000	0.000	20.000	<-
(3)				364020			AVRG	364015.000	0.000	20.000	<-
(4)				807790			AVRG	807794.000	0.000	20.000	<-
(5)				304790			AVRG	304789.000	0.000	20.000	<-
Aroclor-1242	857940	850090	862430	808790	836560	836330	AVRG	842023.150	2.316	20.000	
(2)	654680	663300	680060	647480	685380	698410	AVRG	671550.183	2.916	20.000	
(3)	1462600	1442000	1481600	1510400	1636500	1643600	AVRG	1529467.08	5.794	20.000	
(4)	740440	736430	756020	741780	783350	824980	AVRG	763833.667	4.522	20.000	
(5)	649560	629510	648520	585380	634840	665500	AVRG	635551.583	4.346	20.000	
Aroclor-1248	907840	882890	885930	982320	995200	1057000	AVRG	951872.500	7.416	20.000	
(2)	1260500	1216100	1212900	1215500	1346300	1368200	AVRG	1269911.78	5.535	20.000	
(3)	782360	762940	789910	843480	899330	963840	AVRG	840309.700	9.316	20.000	
(4)	1362700	1300700	1386600	1678700	1707300	1757200	AVRG	1532219.32	13.256	20.000	
(5)	919600	892670	943140	1137200	1163100	1260300	AVRG	1052669.00	14.578	20.000	
Aroclor-1254	1726300	1656100	1583500	1564400	1718400	1565400	AVRG	1635678.87	4.592	20.000	
(2)	1485600	1356200	1272700	1228900	1355200	1251000	AVRG	1324954.75	7.171	20.000	
(3)	1045900	996840	915810	880440	997430	951010	AVRG	964567.467	6.284	20.000	
(4)	1809500	1791200	1741900	1682700	1873600	1684100	AVRG	1763829.43	4.264	20.000	
(5)	1280600	1201400	1163000	1123100	1263700	1169300	AVRG	1200192.33	5.107	20.000	
Aroclor-1260	1201700	1112100	1102400	1141200	1154700	1188500	AVRG	1150123.82	3.468	20.000	
(2)	1476900	1368300	1317000	1288600	1371600	1377600	AVRG	1366663.47	4.726	20.000	
(3)	1166500	1075900	1071700	1057400	1162900	1197000	AVRG	1121900.72	5.363	20.000	
(4)	2198300	2034400	1990200	2256600	2249200	2126300	AVRG	2142499.00	5.225	20.000	
(5)	1398000	1260500	1248800	1363200	1390900	1421400	AVRG	1347133.92	5.500	20.000	
Tetrachloro-m-xylene	5e+007	5e+007	4e+007	5e+007	5e+007	5.e+007	AVRG	46707380.0	6.493	20.000	
Decachlorobiphenyl	2e+007	2e+007	2e+007	2e+007	2e+007	2e+007	AVRG	16772578.3	7.207	20.000	

FORM VI PCB

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2369

Instrument ID: GC07 Calibration Date: 04/20/09 Time: 1820

Lab File ID: 7CD203 Init. Calib. Date(s): 04/20/09 04/21/09

Init. Calib. Times: 1535 0442

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1016	5962200.0	5306200.0	0.001	-11.00	20.00	AVRG
(2)	5446300.0	4985500.0	0.001	-8.46	20.00	AVRG
(3)	11441000	10532000	0.001	-7.94	20.00	AVRG
(4)	6148200.0	5634400.0	0.001	-8.36	20.00	AVRG
(5)	4622500.0	4163700.0	0.001	-9.92	20.00	AVRG
Average %D: -9.140						

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2369

Instrument ID: GC07 Calibration Date: 04/20/09 Time: 1820

Lab File ID: 7CD203 Init. Calib. Date(s): 04/20/09 04/21/09

Init. Calib. Times: 1535 0442

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1016	1021600.0	898650.00	0.001	-12.04	20.00	AVRG
(2)	805410.00	720580.00	0.001	-10.53	20.00	AVRG
(3)	1843500.0	1682000.0	0.001	-8.76	20.00	AVRG
(4)	956250.00	830440.00	0.001	-13.16	20.00	AVRG
(5)	790660.00	701820.00	0.001	-11.24	20.00	AVRG
Average %D: -11.15						

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2369

Instrument ID: GC07 Calibration Date: 04/20/09 Time: 1847

Lab File ID: 7CD204 Init. Calib. Date(s): 04/20/09 04/21/09

Init. Calib. Times: 1535 0442

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1260	7838600.0	7542400.0	0.001	-3.78	20.00	AVRG
(2)	9154400.0	9048800.0	0.001	-1.15	20.00	AVRG
(3)	9021400.0	9603600.0	0.001	6.45	20.00	AVRG
(4)	12677000	11759000	0.001	-7.24	20.00	AVRG
(5)	7065900.0	6421600.0	0.001	-9.12	20.00	AVRG
Average %D: -2.970						

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2369

Instrument ID: GC07 Calibration Date: 04/20/09 Time: 1847

Lab File ID: 7CD204 Init. Calib. Date(s): 04/20/09 04/21/09

Init. Calib. Times: 1535 0442

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1260	1285700.0	1225100.0	0.001	-4.71	20.00	AVRG
(2)	1438200.0	1375600.0	0.001	-4.35	20.00	AVRG
(3)	1300900.0	1277700.0	0.001	-1.78	20.00	AVRG
(4)	2079700.0	1911000.0	0.001	-8.11	20.00	AVRG
(5)	1375700.0	1232700.0	0.001	-10.40	20.00	AVRG
Average %D: -5.870						

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2369

Instrument ID: GC07 Calibration Date: 05/19/09 Time: 1039

Lab File ID: 7CE355 Init. Calib. Date(s): 04/20/09 04/20/09

Init. Calib. Times: 1535 1753

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1016	5962200.0	6170700.0	0.001	3.50	20.00	AVRG
(2)	5446300.0	5833200.0	0.001	7.10	20.00	AVRG
(3)	11441000	11529000	0.001	0.77	20.00	AVRG
(4)	6148200.0	6349600.0	0.001	3.28	20.00	AVRG
(5)	4622500.0	4333000.0	0.001	-6.26	20.00	AVRG
Average %D: 1.6800						
Aroclor-1260	7838600.0	6576600.0	0.001	-16.10	20.00	AVRG
(2)	9154400.0	8019500.0	0.001	-12.40	20.00	AVRG
(3)	9021400.0	8465400.0	0.001	-6.16	20.00	AVRG
(4)	12677000	11312000	0.001	-10.77	20.00	AVRG
(5)	7065900.0	6158100.0	0.001	-12.85	20.00	AVRG
Average %D: -11.66						
Tetrachloro-m-xylene	235420000	269400000	0.001	14.43	20.00	AVRG
Decachlorobiphenyl	103190000	94149000	0.001	-8.76	20.00	AVRG

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2369

Instrument ID: GC07 Calibration Date: 05/19/09 Time: 1039

Lab File ID: 7CE355 Init. Calib. Date(s): 04/20/09 04/20/09

Init. Calib. Times: 1535 1753

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE	
Aroclor-1016	1021600.0	1064300.0	0.001	4.18	20.00	AVRG	
(2)	805410.00	851380.00	0.001	5.71	20.00	AVRG	
(3)	1843500.0	1997700.0	0.001	8.36	20.00	AVRG	
(4)	956250.00	977560.00	0.001	2.23	20.00	AVRG	
(5)	790660.00	753930.00	0.001	-4.64	20.00	AVRG	
Average %D: 3.1700							
Aroclor-1260	1285700.0	1081600.0	0.001	-15.88	20.00	AVRG	
(2)	1438200.0	1297400.0	0.001	-9.79	20.00	AVRG	
(3)	1300900.0	1147900.0	0.001	-11.76	20.00	AVRG	
(4)	2079700.0	2212100.0	0.001	6.37	20.00	AVRG	
(5)	1375700.0	1349300.0	0.001	-1.92	20.00	AVRG	
Average %D: -6.600							
Tetrachloro-m-xylene	38796000	46594000	0.001	20.10	20.00	AVRG	<-
Decachlorobiphenyl	17004000	16588000	0.001	-2.45	20.00	AVRG	

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2369

Instrument ID: GC07 Calibration Date: 05/19/09 Time: 2134

Lab File ID: 7CE370 Init. Calib. Date(s): 04/20/09 04/20/09

Init. Calib. Times: 1535 1753

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF0.2500 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1016	5962200.0	6362400.0	0.001	6.71	20.00	AVRG
(2)	5446300.0	6032800.0	0.001	10.77	20.00	AVRG
(3)	11441000	11405000	0.001	-0.31	20.00	AVRG
(4)	6148200.0	6344400.0	0.001	3.19	20.00	AVRG
(5)	4622500.0	4606000.0	0.001	-0.36	20.00	AVRG
Average %D: 4.0000						
Aroclor-1260	7838600.0	6722200.0	0.001	-14.24	20.00	AVRG
(2)	9154400.0	8016900.0	0.001	-12.43	20.00	AVRG
(3)	9021400.0	8422100.0	0.001	-6.64	20.00	AVRG
(4)	12677000	11901000	0.001	-6.12	20.00	AVRG
(5)	7065900.0	6879200.0	0.001	-2.64	20.00	AVRG
Average %D: -8.400						
Tetrachloro-m-xylene	235420000	258090000	0.001	9.63	20.00	AVRG
Decachlorobiphenyl	103190000	103220000	0.001	0.03	20.00	AVRG

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2369

Instrument ID: GC07 Calibration Date: 05/19/09 Time: 2134

Lab File ID: 7CE370 Init. Calib. Date(s): 04/20/09 04/20/09

Init. Calib. Times: 1535 1753

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF0.2500 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1016	1021600.0	1029000.0	0.001	0.72	20.00	AVRG
(2)	805410.00	833850.00	0.001	3.53	20.00	AVRG
(3)	1843500.0	1865200.0	0.001	1.18	20.00	AVRG
(4)	956250.00	996150.00	0.001	4.17	20.00	AVRG
(5)	790660.00	754160.00	0.001	-4.62	20.00	AVRG
Average %D: 1.0000						
Aroclor-1260	1285700.0	1166100.0	0.001	-9.30	20.00	AVRG
(2)	1438200.0	1334200.0	0.001	-7.23	20.00	AVRG
(3)	1300900.0	1122100.0	0.001	-13.74	20.00	AVRG
(4)	2079700.0	2018200.0	0.001	-2.96	20.00	AVRG
(5)	1375700.0	1292200.0	0.001	-6.07	20.00	AVRG
Average %D: -7.880						
Tetrachloro-m-xylene	38796000	42971000	0.001	10.76	20.00	AVRG
Decachlorobiphenyl	17004000	15969000	0.001	-6.09	20.00	AVRG

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2369

Instrument ID: GC07 Calibration Date: 05/19/09 Time: 2228

Lab File ID: 7CE372 Init. Calib. Date(s): 04/20/09 04/21/09

Init. Calib. Times: 2156 0011

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1248	5789400.0	6070800.0	0.001	4.86	20.00	AVRG
(2)	6292900.0	6645300.0	0.001	5.60	20.00	AVRG
(3)	4498300.0	4590100.0	0.001	2.04	20.00	AVRG
(4)	5384400.0	5551800.0	0.001	3.11	20.00	AVRG
(5)	3155800.0	3159800.0	0.001	0.13	20.00	AVRG
Average %D: 3.1500						

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2369

Instrument ID: GC07 Calibration Date: 05/19/09 Time: 2228

Lab File ID: 7CE372 Init. Calib. Date(s): 04/20/09 04/21/09

Init. Calib. Times: 2156 0011

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1248	828200.00	883700.00	0.001	6.70	20.00	AVRG
(2)	1072800.0	1134400.0	0.001	5.74	20.00	AVRG
(3)	718820.00	755540.00	0.001	5.11	20.00	AVRG
(4)	1330800.0	1451000.0	0.001	9.03	20.00	AVRG
(5)	891860.00	983490.00	0.001	10.27	20.00	AVRG
Average %D: 7.3700						

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2369

Instrument ID: GC07 Calibration Date: 05/20/09 Time: 0259

Lab File ID: 7CE382 Init. Calib. Date(s): 04/20/09 04/20/09

Init. Calib. Times: 1535 1753

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE	
Aroclor-1016	5962200.0	4975400.0	0.001	-16.55	20.00	AVRG	
(2)	5446300.0	4723100.0	0.001	-13.28	20.00	AVRG	
(3)	11441000	9287400.0	0.001	-18.82	20.00	AVRG	
(4)	6148200.0	4969300.0	0.001	-19.18	20.00	AVRG	
(5)	4622500.0	3570000.0	0.001	-22.77	20.00	AVRG	<-
Average %D: -18.12							
Aroclor-1260	7838600.0	5482300.0	0.001	-30.06	20.00	AVRG	<-
(2)	9154400.0	6524500.0	0.001	-28.73	20.00	AVRG	<-
(3)	9021400.0	7582500.0	0.001	-15.95	20.00	AVRG	
(4)	12677000	11152000	0.001	-12.03	20.00	AVRG	
(5)	7065900.0	5914400.0	0.001	-16.30	20.00	AVRG	
Average %D: -20.61							
Tetrachloro-m-xylene	235420000	225760000	0.001	-4.10	20.00	AVRG	
Decachlorobiphenyl	103190000	87933000	0.001	-14.78	20.00	AVRG	

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2369

Instrument ID: GC07 Calibration Date: 05/20/09 Time: 0259

Lab File ID: 7CE382 Init. Calib. Date(s): 04/20/09 04/20/09

Init. Calib. Times: 1535 1753

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1016	1021600.0	1029000.0	0.001	0.72	20.00	AVRG
(2)	805410.00	833850.00	0.001	3.53	20.00	AVRG
(3)	1843500.0	1865200.0	0.001	1.18	20.00	AVRG
(4)	956250.00	996150.00	0.001	4.17	20.00	AVRG
(5)	790660.00	754160.00	0.001	-4.62	20.00	AVRG
Average %D: -4.880						
Aroclor-1260	1285700.0	1166100.0	0.001	-9.30	20.00	AVRG
(2)	1438200.0	1334200.0	0.001	-7.23	20.00	AVRG
(3)	1300900.0	1122100.0	0.001	-13.74	20.00	AVRG
(4)	2079700.0	2018200.0	0.001	-2.96	20.00	AVRG
(5)	1375700.0	1292200.0	0.001	-6.07	20.00	AVRG
Average %D: -30.88						
Tetrachloro-m-xylene	38796000	42971000	0.001	10.76	20.00	AVRG
Decachlorobiphenyl	17004000	15969000	0.001	-6.09	20.00	AVRG

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2369

Instrument ID: GC07 Calibration Date: 05/20/09 Time: 0353

Lab File ID: 7CE384 Init. Calib. Date(s): 04/20/09 04/21/09

Init. Calib. Times: 2156 0011

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1248	5789400.0	5593400.0	0.001	-3.38	20.00	AVRG
(2)	6292900.0	5987600.0	0.001	-4.85	20.00	AVRG
(3)	4498300.0	4284300.0	0.001	-4.76	20.00	AVRG
(4)	5384400.0	4773800.0	0.001	-11.34	20.00	AVRG
(5)	3155800.0	2687000.0	0.001	-14.86	20.00	AVRG
Average %D: -7.840						

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2369

Instrument ID: GC07 Calibration Date: 05/20/09 Time: 0353

Lab File ID: 7CE384 Init. Calib. Date(s): 04/20/09 04/21/09

Init. Calib. Times: 2156 0011

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1248	828200.00	874220.00	0.001	5.56	20.00	AVRG
(2)	1072800.0	1040700.0	0.001	-2.99	20.00	AVRG
(3)	718820.00	741330.00	0.001	3.13	20.00	AVRG
(4)	1330800.0	1401900.0	0.001	5.34	20.00	AVRG
(5)	891860.00	956140.00	0.001	7.21	20.00	AVRG
Average %D: 3.6500						

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2369

Instrument ID: GC07 Calibration Date: 05/22/09 Time: 1912

Lab File ID: 7CE415 Init. Calib. Date(s): 05/22/09 05/23/09

Init. Calib. Times: 1615 0628

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm)

COMPOUND	___ RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1016	6590100.0	5921100.0	0.001	-10.15	20.00	AVRG
(2)	5845400.0	5314100.0	0.001	-9.09	20.00	AVRG
(3)	12193000	11202000	0.001	-8.13	20.00	AVRG
(4)	6840500.0	6120800.0	0.001	-10.52	20.00	AVRG
(5)	4734000.0	4267900.0	0.001	-9.84	20.00	AVRG
Average %D: -12.81						

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2369

Instrument ID: GC07 Calibration Date: 05/22/09 Time: 1912

Lab File ID: 7CE415 Init. Calib. Date(s): 05/22/09 05/23/09

Init. Calib. Times: 1615 0628

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1016	1040500.0	957190.00	0.001	-8.01	20.00	AVRG
(2)	838890.00	761620.00	0.001	-9.21	20.00	AVRG
(3)	1959800.0	1827100.0	0.001	-6.77	20.00	AVRG
(4)	974390.00	881420.00	0.001	-9.54	20.00	AVRG
(5)	754430.00	707460.00	0.001	-6.22	20.00	AVRG
Average %D: -8.060						

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2369

Instrument ID: GC07 Calibration Date: 05/22/09 Time: 1941

Lab File ID: 7CE416 Init. Calib. Date(s): 05/22/09 05/23/09

Init. Calib. Times: 1615 0628

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1260	7124400.0	7081800.0	0.001	-0.60	20.00	AVRG
(2)	8809000.0	8913200.0	0.001	1.18	20.00	AVRG
(3)	8701800.0	9229300.0	0.001	6.06	20.00	AVRG
(4)	12752000	11703000	0.001	-8.23	20.00	AVRG
(5)	7205300.0	6828500.0	0.001	-5.23	20.00	AVRG
Average %D: -1.360						

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2369

Instrument ID: GC07 Calibration Date: 05/22/09 Time: 1941

Lab File ID: 7CE416 Init. Calib. Date(s): 05/22/09 05/23/09

Init. Calib. Times: 1615 0628

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1260	1150100.0	1180400.0	0.001	2.63	20.00	AVRG
(2)	1366700.0	1365800.0	0.001	-0.06	20.00	AVRG
(3)	1121900.0	1166800.0	0.001	4.00	20.00	AVRG
(4)	2142500.0	1988800.0	0.001	-7.17	20.00	AVRG
(5)	1347100.0	1240800.0	0.001	-7.89	20.00	AVRG
Average %D: -1.700						

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2369

Instrument ID: GC07 Calibration Date: 05/26/09 Time: 2219

Lab File ID: 7CE459 Init. Calib. Date(s): 05/22/09 05/22/09

Init. Calib. Times: 1615 1842

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF0.2500 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1016	6590100.0	6672200.0	0.001	1.24	20.00	AVRG
(2)	5845400.0	5952500.0	0.001	1.83	20.00	AVRG
(3)	12193000	12498000	0.001	2.50	20.00	AVRG
(4)	6840500.0	7084400.0	0.001	3.56	20.00	AVRG
(5)	4734000.0	5186900.0	0.001	9.57	20.00	AVRG
Average %D: 3.7600						
Aroclor-1260	7124400.0	7510500.0	0.001	5.42	20.00	AVRG
(2)	8809000.0	9439200.0	0.001	7.15	20.00	AVRG
(3)	8701800.0	9004800.0	0.001	3.48	20.00	AVRG
(4)	12752000	13407000	0.001	5.14	20.00	AVRG
(5)	7205300.0	7795100.0	0.001	8.18	20.00	AVRG
Average %D: 5.8800						
Tetrachloro-m-xylene	303980000	295520000	0.001	-2.78	20.00	AVRG
Decachlorobiphenyl	99652000	113410000	0.001	13.81	20.00	AVRG

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2369

Instrument ID: GC07 Calibration Date: 05/26/09 Time: 2219

Lab File ID: 7CE459 Init. Calib. Date(s): 05/22/09 05/22/09

Init. Calib. Times: 1615 1842

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF0.2500 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1016	1043500.0	1060400.0	0.001	1.62	20.00	AVRG
(2)	840190.00	879800.00	0.001	4.71	20.00	AVRG
(3)	1961000.0	1987200.0	0.001	1.34	20.00	AVRG
(4)	975280.00	1024800.0	0.001	5.08	20.00	AVRG
(5)	754430.00	846550.00	0.001	12.21	20.00	AVRG
Average %D: 5.0000						
Aroclor-1260	1150100.0	1260700.0	0.001	9.62	20.00	AVRG
(2)	1366700.0	1389500.0	0.001	1.67	20.00	AVRG
(3)	1121900.0	1149100.0	0.001	2.42	20.00	AVRG
(4)	2142500.0	2236400.0	0.001	4.38	20.00	AVRG
(5)	1347100.0	1441200.0	0.001	6.98	20.00	AVRG
Average %D: 5.0000						
Tetrachloro-m-xylene	46707000	46198000	0.001	-1.09	20.00	AVRG
Decachlorobiphenyl	16772000	18356000	0.001	9.44	20.00	AVRG

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2369

Instrument ID: GC07 Calibration Date: 05/26/09 Time: 2318

Lab File ID: 7CE461 Init. Calib. Date(s): 05/22/09 05/23/09

Init. Calib. Times: 2307 0134

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1248	5837900.0	5956600.0	0.001	2.03	20.00	AVRG
(2)	6711900.0	7511100.0	0.001	11.91	20.00	AVRG
(3)	4613800.0	5113900.0	0.001	10.84	20.00	AVRG
(4)	5083100.0	5314700.0	0.001	4.56	20.00	AVRG
(5)	3126800.0	3389900.0	0.001	8.41	20.00	AVRG
Average %D: 7.5500						

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2369

Instrument ID: GC07 Calibration Date: 05/26/09 Time: 2318

Lab File ID: 7CE461 Init. Calib. Date(s): 05/22/09 05/23/09

Init. Calib. Times: 2307 0134

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE	
Aroclor-1248	868600.00	967140.00	0.001	11.34	20.00	AVRG	
(2)	1114800.0	1284700.0	0.001	15.24	20.00	AVRG	
(3)	746620.00	844420.00	0.001	13.10	20.00	AVRG	
(4)	1413600.0	1698800.0	0.001	20.18	20.00	AVRG	<-
(5)	952820.00	1142200.0	0.001	19.88	20.00	AVRG	
Average %D: 15.950							

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2369

Instrument ID: GC07 Calibration Date: 05/27/09 Time: 0412

Lab File ID: 7CE471 Init. Calib. Date(s): 05/22/09 05/22/09

Init. Calib. Times: 1615 1842

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1016	6590100.0	7031200.0	0.001	6.69	20.00	AVRG
(2)	5845400.0	6212600.0	0.001	6.28	20.00	AVRG
(3)	12193000	13612000	0.001	11.64	20.00	AVRG
(4)	6840500.0	7451000.0	0.001	8.92	20.00	AVRG
(5)	4734000.0	4996700.0	0.001	5.55	20.00	AVRG
Average %D: 7.8200						
Aroclor-1260	7124400.0	7223200.0	0.001	1.39	20.00	AVRG
(2)	8809000.0	9291800.0	0.001	5.48	20.00	AVRG
(3)	8701800.0	9429700.0	0.001	8.36	20.00	AVRG
(4)	12752000	13064000	0.001	2.45	20.00	AVRG
(5)	7205300.0	7348700.0	0.001	1.99	20.00	AVRG
Average %D: 3.9300						
Tetrachloro-m-xylene	303980000	335010000	0.001	10.21	20.00	AVRG
Decachlorobiphenyl	99652000	100290000	0.001	0.64	20.00	AVRG

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2369

Instrument ID: GC07 Calibration Date: 05/27/09 Time: 0412

Lab File ID: 7CE471 Init. Calib. Date(s): 05/22/09 05/22/09

Init. Calib. Times: 1615 1842

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE	
Aroclor-1016	1043500.0	1191000.0	0.001	14.14	20.00	AVRG	
(2)	840190.00	878240.00	0.001	4.53	20.00	AVRG	
(3)	1961000.0	2354800.0	0.001	20.08	20.00	AVRG	<-
(4)	975280.00	1176200.0	0.001	20.60	20.00	AVRG	<-
(5)	754430.00	887120.00	0.001	17.59	20.00	AVRG	
Average %D: 15.390							
Aroclor-1260	1150100.0	1265800.0	0.001	10.06	20.00	AVRG	
(2)	1366700.0	1425400.0	0.001	4.30	20.00	AVRG	
(3)	1121900.0	1135000.0	0.001	1.17	20.00	AVRG	
(4)	2142500.0	2433300.0	0.001	13.57	20.00	AVRG	
(5)	1347100.0	1412000.0	0.001	4.82	20.00	AVRG	
Average %D: 6.7800							
Tetrachloro-m-xylene	46707000	54657000	0.001	17.02	20.00	AVRG	
Decachlorobiphenyl	16772000	18684000	0.001	11.40	20.00	AVRG	

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2369

Instrument ID: GC07 Calibration Date: 05/27/09 Time: 0511

Lab File ID: 7CE473 Init. Calib. Date(s): 05/22/09 05/23/09

Init. Calib. Times: 2307 0134

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1248	5837900.0	5905000.0	0.001	1.15	20.00	AVRG
(2)	6711900.0	7302400.0	0.001	8.80	20.00	AVRG
(3)	4613800.0	5139700.0	0.001	11.40	20.00	AVRG
(4)	5083100.0	5235600.0	0.001	3.00	20.00	AVRG
(5)	3126800.0	3263700.0	0.001	4.38	20.00	AVRG
Average %D: 5.7500						

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2369

Instrument ID: GC07 Calibration Date: 05/27/09 Time: 0511

Lab File ID: 7CE473 Init. Calib. Date(s): 05/22/09 05/23/09

Init. Calib. Times: 2307 0134

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE	
Aroclor-1248	868600.00	954560.00	0.001	9.90	20.00	AVRG	
(2)	1114800.0	1258100.0	0.001	12.85	20.00	AVRG	
(3)	746620.00	842100.00	0.001	12.79	20.00	AVRG	
(4)	1413600.0	1684800.0	0.001	19.18	20.00	AVRG	
(5)	952820.00	1152400.0	0.001	20.95	20.00	AVRG	<-
Average %D: 15.130							

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2369

Instrument ID: GC07 Calibration Date: 05/29/09 Time: 2211

Lab File ID: 7CE497 Init. Calib. Date(s): 05/22/09 05/22/09

Init. Calib. Times: 1615 1842

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF0.2500 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE	
Aroclor-1016	6590100.0	7284300.0	0.001	10.53	20.00	AVRG	
(2)	5845400.0	6497000.0	0.001	11.15	20.00	AVRG	
(3)	12193000	13650000	0.001	11.95	20.00	AVRG	
(4)	6840500.0	7675200.0	0.001	12.20	20.00	AVRG	
(5)	4734000.0	5523000.0	0.001	16.67	20.00	AVRG	
Average %D: 12.520							
Aroclor-1260	7124400.0	8423000.0	0.001	18.23	20.00	AVRG	
(2)	8809000.0	10610000	0.001	20.44	20.00	AVRG	<-
(3)	8701800.0	9892700.0	0.001	13.69	20.00	AVRG	
(4)	12752000	14857000	0.001	16.51	20.00	AVRG	
(5)	7205300.0	8473400.0	0.001	17.60	20.00	AVRG	
Average %D: 17.280							
Tetrachloro-m-xylene	303980000	317960000	0.001	4.60	20.00	AVRG	
Decachlorobiphenyl	99652000	130360000	0.001	30.82	20.00	AVRG	<-

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2369

Instrument ID: GC07 Calibration Date: 05/29/09 Time: 2211

Lab File ID: 7CE497 Init. Calib. Date(s): 05/22/09 05/22/09

Init. Calib. Times: 1615 1842

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF0.2500 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1016	1043500.0	1122100.0	0.001	7.53	20.00	AVRG
(2)	840190.00	975760.00	0.001	16.14	20.00	AVRG
(3)	1961000.0	1962900.0	0.001	0.10	20.00	AVRG
(4)	975280.00	1057300.0	0.001	8.41	20.00	AVRG
(5)	754430.00	892650.00	0.001	18.32	20.00	AVRG
Average %D: 10.080						
Aroclor-1260	1150100.0	1318900.0	0.001	14.68	20.00	AVRG
(2)	1366700.0	1467000.0	0.001	7.34	20.00	AVRG
(3)	1121900.0	1172100.0	0.001	4.47	20.00	AVRG
(4)	2142500.0	2295800.0	0.001	7.16	20.00	AVRG
(5)	1347100.0	1477200.0	0.001	9.66	20.00	AVRG
Average %D: 8.6400						
Tetrachloro-m-xylene	46707000	48779000	0.001	4.44	20.00	AVRG
Decachlorobiphenyl	16772000	19881000	0.001	18.54	20.00	AVRG

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2369

Instrument ID: GC07 Calibration Date: 05/29/09 Time: 2310

Lab File ID: 7CE499 Init. Calib. Date(s): 05/29/09 05/29/09

Init. Calib. Times: 1352 1618

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1248	7148700.0	7447300.0	0.001	4.18	20.00	AVRG
(2)	7859100.0	8751100.0	0.001	11.35	20.00	AVRG
(3)	5370800.0	6185400.0	0.001	15.17	20.00	AVRG
(4)	5542400.0	6141800.0	0.001	10.82	20.00	AVRG
(5)	3489800.0	3886800.0	0.001	11.38	20.00	AVRG
Average %D: 10.580						

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2369

Instrument ID: GC07 Calibration Date: 05/29/09 Time: 2310

Lab File ID: 7CE499 Init. Calib. Date(s): 05/29/09 05/29/09

Init. Calib. Times: 1352 1618

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE	
Aroclor-1248	951860.00	1027600.0	0.001	7.96	20.00	AVRG	
(2)	1269900.0	1374600.0	0.001	8.24	20.00	AVRG	
(3)	840310.00	949160.00	0.001	12.95	20.00	AVRG	
(4)	1532200.0	1871400.0	0.001	22.14	20.00	AVRG	<-
(5)	1052700.0	1251600.0	0.001	18.89	20.00	AVRG	
Average %D: 14.040							

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2369

Instrument ID: GC07 Calibration Date: 05/30/09 Time: 0533

Lab File ID: 7CE512 Init. Calib. Date(s): 05/22/09 05/22/09

Init. Calib. Times: 1615 1842

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE	
Aroclor-1016	6590100.0	7384500.0	0.001	12.05	20.00	AVRG	
(2)	5845400.0	6585600.0	0.001	12.66	20.00	AVRG	
(3)	12193000	14387000	0.001	17.99	20.00	AVRG	
(4)	6840500.0	8192500.0	0.001	19.76	20.00	AVRG	
(5)	4734000.0	5655600.0	0.001	19.47	20.00	AVRG	
Average %D: 16.390							
Aroclor-1260	7124400.0	8756400.0	0.001	22.91	20.00	AVRG	<-
(2)	8809000.0	10932000	0.001	24.10	20.00	AVRG	<-
(3)	8701800.0	10485000	0.001	20.49	20.00	AVRG	<-
(4)	12752000	15907000	0.001	24.74	20.00	AVRG	<-
(5)	7205300.0	8828400.0	0.001	22.53	20.00	AVRG	<-
Average %D: 22.950							
Tetrachloro-m-xylene	303980000	346740000	0.001	14.07	20.00	AVRG	
Decachlorobiphenyl	99652000	125320000	0.001	25.76	20.00	AVRG	<-

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2369

Instrument ID: GC07 Calibration Date: 05/30/09 Time: 0533

Lab File ID: 7CE512 Init. Calib. Date(s): 05/22/09 05/22/09

Init. Calib. Times: 1615 1842

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE	
Aroclor-1016	1043500.0	1205600.0	0.001	15.53	20.00	AVRG	
(2)	840190.00	998570.00	0.001	18.85	20.00	AVRG	
(3)	1961000.0	2323800.0	0.001	18.50	20.00	AVRG	
(4)	975280.00	1180000.0	0.001	20.99	20.00	AVRG	<-
(5)	754430.00	842940.00	0.001	11.73	20.00	AVRG	
Average %D: 17.120							
Aroclor-1260	1150100.0	1426000.0	0.001	23.99	20.00	AVRG	<-
(2)	1366700.0	1620100.0	0.001	18.54	20.00	AVRG	
(3)	1121900.0	1313700.0	0.001	17.10	20.00	AVRG	
(4)	2142500.0	2584100.0	0.001	20.61	20.00	AVRG	<-
(5)	1347100.0	1551400.0	0.001	15.17	20.00	AVRG	
Average %D: 19.080							
Tetrachloro-m-xylene	46707000	53396000	0.001	14.32	20.00	AVRG	
Decachlorobiphenyl	16772000	20014000	0.001	19.33	20.00	AVRG	

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2369

Instrument ID: GC07 Calibration Date: 05/30/09 Time: 0632

Lab File ID: 7CE514 Init. Calib. Date(s): 05/29/09 05/29/09

Init. Calib. Times: 1352 1618

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1248	7148700.0	7726900.0	0.001	8.09	20.00	AVRG
(2)	7859100.0	8970600.0	0.001	14.14	20.00	AVRG
(3)	5370800.0	6232600.0	0.001	16.05	20.00	AVRG
(4)	5542400.0	6381100.0	0.001	15.13	20.00	AVRG
(5)	3489800.0	3975100.0	0.001	13.91	20.00	AVRG
Average %D: 13.460						

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2369

Instrument ID: GC07 Calibration Date: 05/30/09 Time: 0632

Lab File ID: 7CE514 Init. Calib. Date(s): 05/29/09 05/29/09

Init. Calib. Times: 1352 1618

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE	
Aroclor-1248	951860.00	1085900.0	0.001	14.08	20.00	AVRG	
(2)	1269900.0	1379000.0	0.001	8.59	20.00	AVRG	
(3)	840310.00	979850.00	0.001	16.61	20.00	AVRG	
(4)	1532200.0	1896700.0	0.001	23.79	20.00	AVRG	<-
(5)	1052700.0	1292300.0	0.001	22.76	20.00	AVRG	<-
Average %D: 17.160							

FORM VII PEST

FORM 8
PCB ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2369

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm) Init. Calib. Date(s): 04/20/09 04/21/09

Instrument ID: GC07

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 5.16 DCB: 20.13

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01		AR1660 1.0	04/20/09	1535	5.16	20.13
02		AR1660 0.05	04/20/09	1603	5.16	20.13
03		AR1660 0.1	04/20/09	1630	5.16	20.14
04		AR1660 0.25	04/20/09	1658	5.16	20.13
05		AR1660 2.5	04/20/09	1725	5.16	20.13
06		AR1660 10	04/20/09	1753	5.17	20.16
07		AR1016 1.0	04/20/09	1820		
08		AR1260 1.0	04/20/09	1847		
09		AR1242 1.0	04/20/09	1914		
10		AR1248 1.0	04/20/09	2156		
11		AR1248 0.05	04/20/09	2223		
12		AR1248 0.1	04/20/09	2250		
13		AR1248 0.25	04/20/09	2317		
14		AR1248 2.5	04/20/09	2344		
15		AR1248 10	04/21/09	0011		
16		AR1254 1.0	04/21/09	0038		
17		AR1221 1.0	04/21/09	0321		
18		AR1232 1.0	04/21/09	0348		
19						
20						

QC LIMITS
TCX = Tetrachloro-m-xylene (+/- 0.07 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PCB

FORM 8
PCB ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2369

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm) Init. Calib. Date(s): 04/20/09 04/21/09

Instrument ID: GC07

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 4.88 DCB: 19.48

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01		AR1660 1.0	05/19/09	1039	4.86	19.42
02	WG63728-BLAN	WG63728-1	05/19/09	1756	4.87	19.44
03	WG63728-LCS	WG63728-2	05/19/09	1824	4.87	19.44
04	WG63921-BLAN	WG63921-1	05/19/09	1851	4.87	19.46
05	WG63921-LCS	WG63921-2	05/19/09	1918	4.88	19.47
06	WG63921-LCSD	WG63921-3	05/19/09	1945	4.88	19.47
07	WGL-SO-PCB01	SC2369-1	05/19/09	2013	4.88	19.47
08	WGL-SO-PCBDU	SC2369-2	05/19/09	2040	4.88	19.48
09		AR1660 0.25	05/19/09	2134	4.88	19.48
10		AR1248 1.0	05/19/09	2228		
11	WGL-SD-PCB02	SC2369-3	05/19/09	2322	4.88	19.48
12	GL-SD-PCB05-	SC2369-6	05/19/09	2349	4.88	19.47
13	GL-SD-PCB05-	WG63728-3	05/20/09	0111	4.88	19.47
14	GL-SD-PCB05-	WG63728-4	05/20/09	0138	4.88	19.47
15	WGL-SD-PCB03	SC2369-4RE	05/20/09	0205	4.88	19.47
16		AR1660 1.0	05/20/09	0259	4.88	19.48
17		AR1248 1.0	05/20/09	0353		
18						
19						
20						

QC LIMITS
TCX = Tetrachloro-m-xylene (+/- 0.07 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PCB

FORM 8
PCB ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2369

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm) Init. Calib. Date(s): 04/20/09 04/21/09

Instrument ID: GC07

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 5.02 DCB: 20.21

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01		AR1660 1.0	04/20/09	1535	5.02	20.21
02		AR1660 0.05	04/20/09	1603	5.02	20.21
03		AR1660 0.1	04/20/09	1630	5.03	20.22
04		AR1660 0.25	04/20/09	1658	5.02	20.21
05		AR1660 2.5	04/20/09	1725	5.02	20.21
06		AR1660 10	04/20/09	1753	5.03	20.24
07		AR1016 1.0	04/20/09	1820		
08		AR1260 1.0	04/20/09	1847		
09		AR1242 1.0	04/20/09	1914		
10		AR1248 1.0	04/20/09	2156		
11		AR1248 0.05	04/20/09	2223		
12		AR1248 0.1	04/20/09	2250		
13		AR1248 0.25	04/20/09	2317		
14		AR1248 2.5	04/20/09	2344		
15		AR1248 10	04/21/09	0011		
16		AR1254 1.0	04/21/09	0038		
17		AR1221 1.0	04/21/09	0321		
18		AR1232 1.0	04/21/09	0348		
19						
20						

QC LIMITS
TCX = Tetrachloro-m-xylene (+/- 0.07 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PCB

FORM 8
PCB ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2369

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm) Init. Calib. Date(s): 04/20/09 04/21/09

Instrument ID: GC07

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 4.75 DCB: 19.58

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01		AR1660 1.0	05/19/09	1039	4.73	19.52
02	WG63728-BLAN	WG63728-1	05/19/09	1756	4.74	19.54
03	WG63728-LCS	WG63728-2	05/19/09	1824	4.74	19.54
04	WG63921-BLAN	WG63921-1	05/19/09	1851	4.75	19.56
05	WG63921-LCS	WG63921-2	05/19/09	1918	4.75	19.57
06	WG63921-LCSD	WG63921-3	05/19/09	1945	4.75	19.57
07	WGL-SO-PCB01	SC2369-1	05/19/09	2013	4.75	19.57
08	WGL-SO-PCBDU	SC2369-2	05/19/09	2040	4.75	19.58
09		AR1660 0.25	05/19/09	2134	4.75	19.58
10		AR1248 1.0	05/19/09	2228		
11	WGL-SD-PCB02	SC2369-3	05/19/09	2322	4.76	19.58
12	GL-SD-PCB05-	SC2369-6	05/19/09	2349	4.76	19.58
13	GL-SD-PCB05-	WG63728-3	05/20/09	0111	4.76	19.58
14	GL-SD-PCB05-	WG63728-4	05/20/09	0138	4.76	19.58
15	WGL-SD-PCB03	SC2369-4RE	05/20/09	0205	4.76	19.58
16		AR1660 1.0	05/20/09	0259	4.76	19.58
17		AR1248 1.0	05/20/09	0353		
18						
19						
20						

QC LIMITS
TCX = Tetrachloro-m-xylene (+/- 0.07 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PCB

FORM 8
PCB ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2369

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm) Init. Calib. Date(s): 05/22/09 05/23/09

Instrument ID: GC07

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 6.57 DCB: 21.37

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01		AR1660 1.0	05/22/09	1615	6.57	21.37
02		AR1660 0.05	05/22/09	1645	6.57	21.37
03		AR1660 0.1	05/22/09	1714	6.57	21.36
04		AR1660 0.25	05/22/09	1744	6.56	21.35
05		AR1660 2.5	05/22/09	1813	6.56	21.35
06		AR1660 10	05/22/09	1842	6.56	21.36
07		AR1016 1.0	05/22/09	1912		
08		AR1260 1.0	05/22/09	1941		
09		AR1242 1.0	05/22/09	2010		
10		AR1248 1.0	05/22/09	2307		
11		AR1248 0.05	05/22/09	2336		
12		AR1248 0.1	05/23/09	0006		
13		AR1248 0.25	05/23/09	0035		
14		AR1248 2.5	05/23/09	0105		
15		AR1248 10	05/23/09	0134		
16		AR1254 1.0	05/23/09	0203		
17		AR1221 1.0	05/23/09	0500		
18		AR1232 1.0	05/23/09	0529		
19						
20						

QC LIMITS
TCX = Tetrachloro-m-xylene (+/- 0.07 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PCB

FORM 8
PCB ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2369

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm) Init. Calib. Date(s): 05/22/09 05/23/09

Instrument ID: GC07

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 6.21 DCB: 20.66

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01		AR1660 0.25	05/26/09	2219	6.21	20.66
02		AR1248 1.0	05/26/09	2318		
03	WGL-SD-PCB03	SC2369-4	05/27/09	0313	6.21	20.66
04		AR1660 1.0	05/27/09	0412	6.21	20.66
05		AR1248 1.0	05/27/09	0511		
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

QC LIMITS
TCX = Tetrachloro-m-xylene (+/- 0.07 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PCB

FORM 8
PCB ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2369

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm) Init. Calib. Date(s): 05/22/09 05/29/09

Instrument ID: GC07

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

	MEAN SURROGATE RT FROM INITIAL CALIBRATION					
	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	RT #	RT #
01		AR1248 1.0	05/29/09	1352		
02		AR1248 0.05	05/29/09	1421		
03		AR1248 0.1	05/29/09	1450		
04		AR1248 0.25	05/29/09	1520		
05		AR1248 2.5	05/29/09	1549		
06		AR1248 10	05/29/09	1618		
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

QC LIMITS

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PCB

FORM 8
PCB ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2369

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm) Init. Calib. Date(s): 05/22/09 05/29/09

Instrument ID: GC07

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 6.21 DCB: 20.67

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01		AR1660 0.25	05/29/09	2211	6.21	20.67
02		AR1248 1.0	05/29/09	2310		
03	WGL-SO-PCB04	SC2369-5DL	05/30/09	0434		
04		AR1660 1.0	05/30/09	0533	6.21	20.67
05		AR1248 1.0	05/30/09	0632		
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

QC LIMITS
TCX = Tetrachloro-m-xylene (+/- 0.07 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PCB

FORM 8
PCB ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2369

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm) Init. Calib. Date(s): 05/22/09 05/23/09

Instrument ID: GC07

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 6.43 DCB: 21.45

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01		AR1660 1.0	05/22/09	1615	6.43	21.45
02		AR1660 0.05	05/22/09	1645	6.43	21.45
03		AR1660 0.1	05/22/09	1714	6.44	21.45
04		AR1660 0.25	05/22/09	1744	6.43	21.44
05		AR1660 2.5	05/22/09	1813	6.43	21.43
06		AR1660 10	05/22/09	1842	6.43	21.44
07		AR1016 1.0	05/22/09	1912		
08		AR1260 1.0	05/22/09	1941		
09		AR1242 1.0	05/22/09	2010		
10		AR1248 1.0	05/22/09	2307		
11		AR1248 0.05	05/22/09	2336		
12		AR1248 0.1	05/23/09	0006		
13		AR1248 0.25	05/23/09	0035		
14		AR1248 2.5	05/23/09	0105		
15		AR1248 10	05/23/09	0134		
16		AR1254 1.0	05/23/09	0203		
17		AR1221 1.0	05/23/09	0500		
18		AR1232 1.0	05/23/09	0529		
19						
20						

QC LIMITS
TCX = Tetrachloro-m-xylene (+/- 0.07 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PCB

FORM 8
PCB ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2369

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm) Init. Calib. Date(s): 05/22/09 05/23/09

Instrument ID: GC07

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 6.09 DCB: 20.76

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01		AR1660 0.25	05/26/09	2219	6.09	20.76
02		AR1248 1.0	05/26/09	2318		
03	WGL-SD-PCB03	SC2369-4	05/27/09	0313	6.09	20.76
04		AR1660 1.0	05/27/09	0412	6.09	20.76
05		AR1248 1.0	05/27/09	0511		
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

QC LIMITS
TCX = Tetrachloro-m-xylene (+/- 0.07 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PCB

FORM 8
PCB ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2369

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm) Init. Calib. Date(s): 05/22/09 05/29/09

Instrument ID: GC07

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

	MEAN SURROGATE RT FROM INITIAL CALIBRATION					
	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	RT #	RT #
01		AR1248 1.0	05/29/09	1352		
02		AR1248 0.05	05/29/09	1421		
03		AR1248 0.1	05/29/09	1450		
04		AR1248 0.25	05/29/09	1520		
05		AR1248 2.5	05/29/09	1549		
06		AR1248 10	05/29/09	1618		
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

QC LIMITS

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PCB

FORM 8
PCB ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2369

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm) Init. Calib. Date(s): 05/22/09 05/29/09

Instrument ID: GC07

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 6.09 DCB: 20.77

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01		AR1660 0.25	05/29/09	2211	6.09	20.77
02		AR1248 1.0	05/29/09	2310		
03	WGL-SO-PCB04	SC2369-5DL	05/30/09	0434		
04		AR1660 1.0	05/30/09	0533	6.09	20.77
05		AR1248 1.0	05/30/09	0632		
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

QC LIMITS
TCX = Tetrachloro-m-xylene (+/- 0.07 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PCB

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Lucy Guzman
Tetra Tech NUS
55 Jonspin Road
Wilmington,MA 01887-1020

Lab Sample ID: SC2369-1
Report Date: 01-JUN-09
Client PO: 1045366 01-CTO407
Project: CTO 407 NAS Weymouth
SDG: SC2369

Sample Description	Matrix	Date Sampled	Date Received
WGL-SO-PCB01-0006	SL	12-MAY-09	13-MAY-09

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
Total Solids	81. %	1	D2216	WG63807	15-MAY-09 09:24:00	ASTM D2216	14-MAY-09	JF	

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Lucy Guzman
Tetra Tech NUS
55 Jonspin Road
Wilmington,MA 01887-1020

Lab Sample ID: SC2369-2
Report Date: 01-JUN-09
Client PO: 1045366 01-CTO407
Project: CTO 407 NAS Weymouth
SDG: SC2369

Sample Description	Matrix	Date Sampled	Date Received
WGL-SO-PCBDUP01	SL	12-MAY-09	13-MAY-09

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
Total Solids	83. %	1	D2216	WG63807	15-MAY-09 09:24:00	ASTM D2216	14-MAY-09	JF	

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Lucy Guzman
Tetra Tech NUS
55 Jonspin Road
Wilmington,MA 01887-1020

Lab Sample ID: SC2369-3
Report Date: 01-JUN-09
Client PO: 1045366 01-CTO407
Project: CTO 407 NAS Weymouth
SDG: SC2369

Sample Description	Matrix	Date Sampled	Date Received
WGL-SD-PCB02-0006	SL	12-MAY-09	13-MAY-09

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
Total Solids	57. %	1	D2216	WG63807	15-MAY-09 09:24:00	ASTM D2216	14-MAY-09	JF	

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Lucy Guzman
Tetra Tech NUS
55 Jonspin Road
Wilmington,MA 01887-1020

Lab Sample ID: SC2369-4
Report Date: 01-JUN-09
Client PO: 1045366 01-CTO407
Project: CTO 407 NAS Weymouth
SDG: SC2369

Sample Description	Matrix	Date Sampled	Date Received
WGL-SD-PCB03-0006	SL	12-MAY-09	13-MAY-09

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
Total Solids	22. %	1	D2216	WG64186	26-MAY-09 10:44:00	ASTM D2216	23-MAY-09	JF	

Report of Analytical Results

Client: Lucy Guzman
Tetra Tech NUS
55 Jonspin Road
Wilmington,MA 01887-1020

Lab Sample ID: SC2369-5
Report Date: 01-JUN-09
Client PO: 1045366 01-CTO407
Project: CTO 407 NAS Weymouth
SDG: SC2369

Sample Description	Matrix	Date Sampled	Date Received
WGL-SO-PCB04-0006	SL	12-MAY-09	13-MAY-09

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
Total Solids	65. %	1	D2216	WG63807	15-MAY-09 09:24:00	ASTM D2216	14-MAY-09	JF	

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Lucy Guzman
Tetra Tech NUS
55 Jonspin Road
Wilmington,MA 01887-1020

Lab Sample ID: SC2369-6
Report Date: 01-JUN-09
Client PO: 1045366 01-CTO407
Project: CTO 407 NAS Weymouth
SDG: SC2369

Sample Description	Matrix	Date Sampled	Date Received
WGL-SD-PCB05-0006	SL	12-MAY-09	13-MAY-09

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
Total Solids	55. %	1	D2216	WG63807	15-MAY-09 09:24:00	ASTM D2216	14-MAY-09	JF	

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Quality Control Report

Blank Sample Summary Report

Total Solids

Samp Type	QC Batch	Anal. Method	Anal. Date	Prep. Date	Result	PQL
MBLANK	WG63807	ASTM D2216	15-MAY-09	14-MAY-09	U 1 %	1 %
MBLANK	WG64186	ASTM D2216	26-MAY-09	23-MAY-09	U 1 %	1 %

Quality Control Report

Laboratory Control Sample Summary Report

Total Solids

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG63807-2	LCS	WG63807	15-MAY-09	14-MAY-09	%	90	90.	100	80-120	
WG64186-2	LCS	WG64186	26-MAY-09	23-MAY-09	%	90	90.	100	80-120	

Quality Control Report

Duplicate Sample Summary Report

Total Solids

Duplicate Sample ID	Original Sample ID	QC Batch	Analysis Date	Result Units	Sample Result	Duplicate Result	RPD(%)	RPD Limit
WG63807-4	SC2369-6	WG63807	15-MAY-09	%	55.	54.	2	20

SAMPLE DATA SUMMARY PACKAGE

KATAHDIN ANALYTICAL SERVICES - ORGANIC DATA QUALIFIERS

The sampled date indicated on the attached Report(s) of Analysis (ROA) is the date for which a grab sample was collected or the date for which a composite sample was completed. Beginning and start times for composite samples can be found on the Chain-of-Custody.

U Indicates the compound was analyzed for but not detected above the laboratory Practical Quantitation Limit.

* Compound recovery outside of quality control limits.

D Indicates the result was obtained from analysis of a diluted sample. Surrogate recoveries may not be calculable.

E Estimated value. This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis.

J Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Practical Quantitation Limit (PQL), but above the Method Detection Limit (MDL).

or

J Used for Pesticide/Aroclor analyte when there is a greater than 40% difference for detected concentrations between the two GC columns.

B Indicates the analyte was detected in the laboratory method blank analyzed concurrently with the sample.

N Presumptive evidence of a compound based on a mass spectral library search.

A Indicates that a tentatively identified compound is a suspected aldol-condensation product.

P Used for Pesticide/Aroclor analyte when there is a greater than 25% difference for detected concentrations between the two GC columns. (for CLP methods only).

KATAHDIN ANALYTICAL SERVICES – INORGANIC DATA QUALIFIERS

(Refer to BOD Qualifiers Page for BOD footnotes)

The sampled date indicated on the attached Report(s) of Analysis (ROA) is the date for which a grab sample was collected or the date for which a composite sample was completed. Beginning and start times for composite samples can be found on the Chain-of-Custody.

U Indicates the compound was analyzed for but not detected above the laboratory Practical Quantitation Limit.

E Estimated value. This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis.

J Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Practical Quantitation Limit (PQL), but above the Method Detection Limit (MDL).

I-7 The laboratory's Practical Quantitation Level could not be achieved for this parameter due to sample composition, matrix effects, sample volume, or quantity used for analysis.

A-4 Please refer to cover letter or narrative for further information.

MCL Maximum Contaminant Level

NL No limit

NFL No Free Liquid Present

FLP Free Liquid Present

NOD No Odor Detected

TON Threshold Odor Number

H1 Please note that the regulatory holding time for pH is "analyze immediately". Ideally, this analysis must be performed in the field at the time of sample collection. pH for this sample was not performed at the time of sample collection. The analysis was performed as soon as possible after receipt by the laboratory.

H2 Please note that the regulatory holding time for DO is "analyze immediately". Ideally, this analysis must be performed in the field at the time of sample collection. DO for this sample was not performed at the time of sample collection. The analysis was performed as soon as possible after receipt by the laboratory.

H3 Please note that the regulatory holding time for sulfite is "analyze immediately". Ideally, this analysis must be performed in the field at the time of sample collection. Sulfite for this sample was not performed at the time of sample collection. The analysis was performed as soon as possible after receipt by the laboratory.

H4 Please note that the regulatory holding time for residual chlorine is "analyze immediately". Ideally, this analysis must be performed in the field at the time of sample collection. Residual chlorine for this sample was not performed at the time of sample collection. The analysis was performed as soon as possible after receipt by the laboratory.

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 05/28/09
Received Date: 05/29/09
Extraction Date:
Analysis Date: 08-JUN-2009 12:46
Report Date: 06/10/2009
Matrix: SOIL
% Solids: 72.4

Lab ID: SC2728-1
Client ID: WGL-SO-TP112-0406
SDG: SC2728
Extracted by:
Extraction Method: SW846 5030
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG64740
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
75-71-8	Dichlorodifluoromethane	U	7	1.0	5	7	2
74-87-3	Chloromethane	U	7	1.0	5	7	2
75-01-4	Vinyl chloride	U	7	1.0	5	7	2
74-83-9	Bromomethane	U	7	1.0	5	7	3
75-00-3	Chloroethane	U	7	1.0	5	7	3
75-69-4	Trichlorofluoromethane	U	7	1.0	5	7	2
75-35-4	1,1-Dichloroethene	U	7	1.0	5	7	2
67-64-1	Acetone		530	1.0	25	34	15
75-15-0	Carbon Disulfide	U	7	1.0	5	7	2
79-20-9	Methyl Acetate	U	7	1.0	5	7	6
75-09-2	Methylene Chloride		48	1.0	25	34	4
156-60-5	trans-1,2-Dichloroethene	U	7	1.0	5	7	3
1634-04-4	Methyl tert-butyl ether	U	7	1.0	5	7	4
75-34-3	1,1-Dichloroethane	U	7	1.0	5	7	2
156-59-2	cis-1,2-Dichloroethene	U	7	1.0	5	7	3
78-93-3	2-Butanone		53	1.0	25	34	13
67-66-3	Chloroform	U	7	1.0	5	7	2
71-55-6	1,1,1-Trichloroethane	U	7	1.0	5	7	2
1735-17-7	Cyclohexane	U	7	1.0	5	7	2
56-23-5	Carbon Tetrachloride	U	7	1.0	5	7	2
71-43-2	Benzene	J	2	1.0	5	7	2
107-06-2	1,2-Dichloroethane	U	7	1.0	5	7	2
79-01-6	Trichloroethene	U	7	1.0	5	7	2
108-87-2	Methylcyclohexane	J	6	1.0	5	7	2
78-87-5	1,2-Dichloropropane	U	7	1.0	5	7	2
75-27-4	Bromodichloromethane	U	7	1.0	5	7	2
10061-01-5	cis-1,3-dichloropropene	U	7	1.0	5	7	2
108-10-1	4-methyl-2-pentanone	U	34	1.0	25	34	13
108-88-3	Toluene	J	4	1.0	5	7	2
10061-02-6	trans-1,3-Dichloropropene	U	7	1.0	5	7	3
79-00-5	1,1,2-Trichloroethane	U	7	1.0	5	7	2
127-18-4	Tetrachloroethene	U	7	1.0	5	7	2
591-78-6	2-Hexanone	U	34	1.0	25	34	11
124-48-1	Dibromochloromethane	U	7	1.0	5	7	2
106-93-4	1,2-Dibromoethane	U	7	1.0	5	7	2
108-90-7	Chlorobenzene	U	7	1.0	5	7	2
100-41-4	Ethylbenzene	J	3	1.0	5	7	2
	m+p-Xylenes		15	1.0	10	14	5
95-47-6	o-Xylene		22	1.0	5	7	1
1330-20-7	Xylenes (total)		37	1.0	15	20	1
100-42-5	Styrene	U	7	1.0	5	7	2
75-25-2	Bromoform	U	7	1.0	5	7	2
98-82-8	Isopropylbenzene		9	1.0	5	7	2

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 05/28/09
Received Date: 05/29/09
Extraction Date:
Analysis Date: 08-JUN-2009 12:46
Report Date: 06/10/2009
Matrix: SOIL
% Solids: 72.4

Lab ID: SC2728-1
Client ID: WGL-SO-TP112-0406
SDG: SC2728
Extracted by:
Extraction Method: SW846 5030
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG64740
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
79-34-5	1,1,2,2-Tetrachloroethane	U	7	1.0	5	7	1
541-73-1	1,3-Dichlorobenzene	U	7	1.0	5	7	2
106-46-7	1,4-Dichlorobenzene	U	7	1.0	5	7	2
95-50-1	1,2-Dichlorobenzene	U	7	1.0	5	7	2
96-12-8	1,2-Dibromo-3-Chloropropane	U	7	1.0	5	7	3
120-82-1	1,2,4-Trichlorobenzene	U	7	1.0	5	7	2
1868-53-7	Dibromofluoromethane		108%				
17060-07-0	1,2-Dichloroethane-D4		111%				
2037-26-5	Toluene-D8		87%				
460-00-4	P-Bromofluorobenzene		* 46%				

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE ID

WGL-SO-TP112-0406

Lab Name: KATAHDIN ANALYTICAL SERVICES

Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH

SDG No.: SC2728

Matrix: (soil/water) SOIL

Lab Sample ID: SC2728-1

Sample wt/vol: 5.100(g/mL) G

Lab File ID: M0921

Level: (low/med) LOW

Date Received: 05/29/09

% Moisture: not dec. 28

Date Analyzed: 06/08/09

GC Column: RTX-VMS ID: 0.18 (mm)

Dilution Factor: 1.0

Soil Extract Volume:_____(mL)

Soil Aliquot Volume: _____(uL)

Number TICs found: 19

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kgdrywt

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	95-36-3	1,2,4-TRIMETHYLBENZENE	15.90	100	NJ
2.	527-84-4	BENZENE, 1-METHYL-2-(1-METHY	16.21	100	NJ
3.	526-73-8	BENZENE, 1,2,3-TRIMETHYL-	16.42	70	NJ
4.	1120-21-4	UNDECANE	16.64	100	NJ
5.	99-87-6	BENZENE, 1-METHYL-4-(1-METHY	17.01	60	NJ
6.	95-93-2	BENZENE, 1,2,4,5-TETRAMETHYL	17.57	70	NJ
7.	112-40-3	DODECANE	17.77	100	NJ
8.	17301-23-4	UNDECANE, 2,6-DIMETHYL-	17.94	200	NJ
9.		UNKNOWN ALKANE	18.32	100	J
10.	61141-72-8	DODECANE, 4,6-DIMETHYL-	18.50	100	NJ
11.	629-50-5	TRIDECANE	18.69	200	NJ
12.		UNKNOWN	18.74	80	J
13.	55162-61-3	TETRACONTANE, 3,5,24-TRIMETH	18.88	100	NJ
14.	1560-96-9	TRIDECANE, 2-METHYL-	19.23	100	NJ
15.	3891-98-3	DODECANE, 2,6,10-TRIMETHYL-	19.37	200	NJ
16.	629-59-4	TETRADECANE	19.49	200	NJ
17.	3891-98-3	DODECANE, 2,6,10-TRIMETHYL-	20.04	100	NJ
18.		UNKNOWN	20.34	200	J
19.		UNKNOWN	20.63	80	J
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

FORM I VOA-TIC

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 05/28/09
Received Date: 05/29/09
Extraction Date:
Analysis Date: 08-JUN-2009 20:58
Report Date: 06/10/2009
Matrix: SOIL
% Solids: 72.4

Lab ID: SC2728-1RA
Client ID: WGL-SO-TP112-0406
SDG: SC2728
Extracted by:
Extraction Method: SW846 5030
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG64740
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
75-71-8	Dichlorodifluoromethane	U	7	1.0	5	7	2
74-87-3	Chloromethane	U	7	1.0	5	7	2
75-01-4	Vinyl chloride	U	7	1.0	5	7	2
74-83-9	Bromomethane	U	7	1.0	5	7	3
75-00-3	Chloroethane	U	7	1.0	5	7	2
75-69-4	Trichlorofluoromethane	U	7	1.0	5	7	2
75-35-4	1,1-Dichloroethene	U	7	1.0	5	7	2
67-64-1	Acetone		610	1.0	25	33	15
75-15-0	Carbon Disulfide	U	7	1.0	5	7	2
79-20-9	Methyl Acetate	U	7	1.0	5	7	6
75-09-2	Methylene Chloride		54	1.0	25	33	4
156-60-5	trans-1,2-Dichloroethene	U	7	1.0	5	7	3
1634-04-4	Methyl tert-butyl ether	U	7	1.0	5	7	4
75-34-3	1,1-Dichloroethane	U	7	1.0	5	7	2
156-59-2	cis-1,2-Dichloroethene	U	7	1.0	5	7	3
78-93-3	2-Butanone		59	1.0	25	33	13
67-66-3	Chloroform	U	7	1.0	5	7	2
71-55-6	1,1,1-Trichloroethane	U	7	1.0	5	7	2
1735-17-7	Cyclohexane	U	7	1.0	5	7	2
56-23-5	Carbon Tetrachloride	U	7	1.0	5	7	2
71-43-2	Benzene	J	3	1.0	5	7	2
107-06-2	1,2-Dichloroethane	U	7	1.0	5	7	2
79-01-6	Trichloroethene	U	7	1.0	5	7	2
108-87-2	Methylcyclohexane	J	6	1.0	5	7	2
78-87-5	1,2-Dichloropropane	U	7	1.0	5	7	2
75-27-4	Bromodichloromethane	U	7	1.0	5	7	2
10061-01-5	cis-1,3-dichloropropene	U	7	1.0	5	7	2
108-10-1	4-methyl-2-pentanone	U	33	1.0	25	33	13
108-88-3	Toluene	J	5	1.0	5	7	2
10061-02-6	trans-1,3-Dichloropropene	U	7	1.0	5	7	3
79-00-5	1,1,2-Trichloroethane	U	7	1.0	5	7	2
127-18-4	Tetrachloroethene	U	7	1.0	5	7	2
591-78-6	2-Hexanone	U	33	1.0	25	33	11
124-48-1	Dibromochloromethane	U	7	1.0	5	7	2
106-93-4	1,2-Dibromoethane	U	7	1.0	5	7	2
108-90-7	Chlorobenzene	U	7	1.0	5	7	2
100-41-4	Ethylbenzene	J	3	1.0	5	7	2
	m+p-Xylenes	J	12	1.0	10	13	5
95-47-6	o-Xylene		22	1.0	5	7	1
1330-20-7	Xylenes (total)		34	1.0	15	20	1
100-42-5	Styrene	U	7	1.0	5	7	2
75-25-2	Bromoform	U	7	1.0	5	7	2
98-82-8	Isopropylbenzene		10	1.0	5	7	2

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 05/28/09
Received Date: 05/29/09
Extraction Date:
Analysis Date: 08-JUN-2009 20:58
Report Date: 06/10/2009
Matrix: SOIL
% Solids: 72.4

Lab ID: SC2728-1RA
Client ID: WGL-SO-TP112-0406
SDG: SC2728
Extracted by:
Extraction Method: SW846 5030
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG64740
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
79-34-5	1,1,2,2-Tetrachloroethane	U	7	1.0	5	7	1
541-73-1	1,3-Dichlorobenzene	U	7	1.0	5	7	2
106-46-7	1,4-Dichlorobenzene	U	7	1.0	5	7	2
95-50-1	1,2-Dichlorobenzene	U	7	1.0	5	7	1
96-12-8	1,2-Dibromo-3-Chloropropane	U	7	1.0	5	7	3
120-82-1	1,2,4-Trichlorobenzene	U	7	1.0	5	7	2
1868-53-7	Dibromofluoromethane		115%				
17060-07-0	1,2-Dichloroethane-D4		121%				
2037-26-5	Toluene-D8		95%				
460-00-4	P-Bromofluorobenzene		57%				

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE ID

WGL-SO-TP112-0406

Lab Name: KATAHDIN ANALYTICAL SERVICES

Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH

SDG No.: SC2728

Matrix: (soil/water) SOIL

Lab Sample ID: SC2728-1RA

Sample wt/vol: 5.170(g/mL) G

Lab File ID: M0935

Level: (low/med) LOW

Date Received: 05/29/09

% Moisture: not dec. 28

Date Analyzed: 06/08/09

GC Column: RTX-VMS ID: 0.18 (mm)

Dilution Factor: 1.0

Soil Extract Volume:_____(mL)

Soil Aliquot Volume: _____(uL)

Number TICs found: 19

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kgdrywt

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 1678-82-6	CYCLOHEXANE, 1-METHYL-4-(1-M	15.03	100	NJ
2. 95-36-3	1,2,4-TRIMETHYLBENZENE	15.90	100	NJ
3. 99-87-6	BENZENE, 1-METHYL-4-(1-METHY	16.22	100	NJ
4. 95-36-3	1,2,4-TRIMETHYLBENZENE	16.42	100	NJ
5. 99-87-6	BENZENE, 1-METHYL-4-(1-METHY	16.68	200	NJ
6. 1587-04-8	BENZENE, 1-METHYL-2-(2-PROPE	17.78	100	NJ
7. 1587-04-8	BENZENE, 1-METHYL-2-(2-PROPE	17.96	400	NJ
8.	UNKNOWN	18.33	200	J
9. 16608-68-7	2-BUTENE, 3-CHLORO-1-PHENYL-	18.41	200	NJ
10.	UNKNOWN ALKANE	18.50	100	J
11.	UNKNOWN ALKANE	18.70	200	J
12. 1075-22-5	1H-INDENE, 2,3-DIHYDRO-5,6-D	18.86	100	NJ
13. 1559-81-5	NAPHTHALENE, 1,2,3,4-TETRAHY	19.03	100	NJ
14.	UNKNOWN	19.23	200	J
15. 3891-98-3	DODECANE, 2,6,10-TRIMETHYL-	19.37	200	NJ
16. 629-59-4	TETRADECANE	19.50	100	NJ
17.	UNKNOWN	19.56	100	J
18. 3891-98-3	DODECANE, 2,6,10-TRIMETHYL-	20.04	200	NJ
19. 0-00-0	DECAHYDRO-4,4,8,9,10-PENTAME	20.35	100	NJ
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

FORM I VOA-TIC

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client:
Project: CTO 407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date:
Analysis Date: 08-JUN-2009 12:10
Report Date: 06/10/2009
Matrix: SOIL
% Solids: 100

Lab ID: WG64740-2
Client ID: WG64740-Blank
SDG: SC2728
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG64740
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
75-71-8	Dichlorodifluoromethane	U	5	1.0	5	5	1
74-87-3	Chloromethane	U	5	1.0	5	5	2
75-01-4	Vinyl chloride	U	5	1.0	5	5	1
74-83-9	Bromomethane	U	5	1.0	5	5	2
75-00-3	Chloroethane	U	5	1.0	5	5	2
75-69-4	Trichlorofluoromethane	U	5	1.0	5	5	1
75-35-4	1,1-Dichloroethene	U	5	1.0	5	5	2
67-64-1	Acetone	U	25	1.0	25	25	11
75-15-0	Carbon Disulfide	U	5	1.0	5	5	2
79-20-9	Methyl Acetate	U	5	1.0	5	5	4
75-09-2	Methylene Chloride	U	25	1.0	25	25	3
156-60-5	trans-1,2-Dichloroethene	U	5	1.0	5	5	2
1634-04-4	Methyl tert-butyl ether	U	5	1.0	5	5	3
75-34-3	1,1-Dichloroethane	U	5	1.0	5	5	2
156-59-2	cis-1,2-Dichloroethene	U	5	1.0	5	5	2
78-93-3	2-Butanone	U	25	1.0	25	25	9
67-66-3	Chloroform	U	5	1.0	5	5	2
71-55-6	1,1,1-Trichloroethane	U	5	1.0	5	5	2
1735-17-7	Cyclohexane	U	5	1.0	5	5	1
56-23-5	Carbon Tetrachloride	U	5	1.0	5	5	1
71-43-2	Benzene	U	5	1.0	5	5	2
107-06-2	1,2-Dichloroethane	U	5	1.0	5	5	1
79-01-6	Trichloroethene	U	5	1.0	5	5	2
108-87-2	Methylcyclohexane	U	5	1.0	5	5	2
78-87-5	1,2-Dichloropropane	U	5	1.0	5	5	2
75-27-4	Bromodichloromethane	U	5	1.0	5	5	2
10061-01-5	cis-1,3-dichloropropene	U	5	1.0	5	5	2
108-10-1	4-methyl-2-pentanone	U	25	1.0	25	25	9
108-88-3	Toluene	U	5	1.0	5	5	1
10061-02-6	trans-1,3-Dichloropropene	U	5	1.0	5	5	2
79-00-5	1,1,2-Trichloroethane	U	5	1.0	5	5	2
127-18-4	Tetrachloroethene	U	5	1.0	5	5	2
591-78-6	2-Hexanone	U	25	1.0	25	25	8
124-48-1	Dibromochloromethane	U	5	1.0	5	5	2
106-93-4	1,2-Dibromoethane	U	5	1.0	5	5	2
108-90-7	Chlorobenzene	U	5	1.0	5	5	2
100-41-4	Ethylbenzene	U	5	1.0	5	5	1
	m+p-Xylenes	U	10	1.0	10	10	4
95-47-6	o-Xylene	U	5	1.0	5	5	1
1330-20-7	Xylenes (total)	U	15	1.0	15	15	1
100-42-5	Styrene	U	5	1.0	5	5	1
75-25-2	Bromoform	U	5	1.0	5	5	1
98-82-8	Isopropylbenzene	U	5	1.0	5	5	1

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client:
Project: CTO 407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date:
Analysis Date: 08-JUN-2009 12:10
Report Date: 06/10/2009
Matrix: SOIL
% Solids: 100

Lab ID: WG64740-2
Client ID: WG64740-Blank
SDG: SC2728
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG64740
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
79-34-5	1,1,2,2-Tetrachloroethane	U	5	1.0	5	5	1
541-73-1	1,3-Dichlorobenzene	U	5	1.0	5	5	1
106-46-7	1,4-Dichlorobenzene	U	5	1.0	5	5	1
95-50-1	1,2-Dichlorobenzene	U	5	1.0	5	5	1
96-12-8	1,2-Dibromo-3-Chloropropane	U	5	1.0	5	5	2
120-82-1	1,2,4-Trichlorobenzene	U	5	1.0	5	5	1
1868-53-7	Dibromofluoromethane		96%				
17060-07-0	1,2-Dichloroethane-D4		96%				
2037-26-5	Toluene-D8		96%				
460-00-4	P-Bromofluorobenzene		96%				

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE ID

WG64740-Blank

Lab Name: KATAHDIN ANALYTICAL SERVICES

Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH

SDG No.: SC2728

Matrix: (soil/water) SOIL

Lab Sample ID: WG64740-2

Sample wt/vol: 5.000(g/mL) G

Lab File ID: M0920

Level: (low/med) LOW

Date Received: _____

% Moisture: not dec. _____

Date Analyzed: 06/08/09

GC Column: RTX-VMS ID: 0.18 (mm)

Dilution Factor: 1.0

Soil Extract Volume:_____(mL)

Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kgdrywt

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

FORM I VOA-TIC

FORM 2
SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2728

Level:(low/med) LOW

	CLIENT SAMPLE ID	LAB SAMPLE ID	SMC1 DBF#	SMC2 DCA#	SMC3 TOL#	SMC4 BFB#	TOT OUT
01	WG64740-LCS	WG64740-1	103	102	102	102	0
02	WG64740-BLANK	WG64740-2	96	96	96	96	0
03	WGL-SO-TP112-0406	SC2728-1	108	111	87	46*	1
04	WGL-SO-TP112-0406	SC2728-1RA	115	121	95	57	0
05							
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							

		QC LIMITS
SMC1 (DBF)	= Dibromofluoromethane	(67-118)
SMC2 (DCA)	= 1,2-Dichloroethane-D4	(55-148)
SMC3 (TOL)	= Toluene-D8	(71-102)
SMC4 (BFB)	= P-Bromofluorobenzene	(53-122)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

Katahdin Analytical Services A0000013

KATAHDIN ANALYTICAL SERVICES
LAB CONTROL SAMPLE

Client:
Project: CTO 407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date:
Analysis Date: 06/08/09
Report Date: 06/10/2009
Matrix: SOIL

Lab ID: WG64740-1
Client ID: WG64740-LCS
SDG: SC2728
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG64740
Units: ug/Kgdrywt

COMPOUND	LCS SPIKE	SAMPLE CONC.	LCS CONC.		%REC.	QC. LIMITS
Dichlorodifluoromethane	50	NA	58		115	72-196
Chloromethane	50	NA	46		91	78-146
Vinyl chloride	50	NA	51		102	80-142
Bromomethane	50	NA	50		100	70-165
Chloroethane	50	NA	46		93	76-132
Trichlorofluoromethane	50	NA	55		111	73-200
Diethyl Ether	50	NA	64		127	81-133
Tertiary-butyl alcohol	250	NA	346		138	80-141
1,1-Dichloroethene	50	NA	52		104	84-128
Carbon Disulfide	50	NA	53		106	78-146
Freon-113	50	NA	59		119	83-137
Iodomethane	50	NA	55		109	77-145
Acrolein	250	NA	393		157	42-167
Methylene Chloride	50	NA	52		104	58-141
Acetone	50	NA	79		158	74-200
Isobutyl Alcohol	1000	NA	1250		125	81-135
trans-1,2-Dichloroethene	50	NA	50		100	83-121
Allyl Chloride	50	NA	57		115	74-129
Methyl tert-butyl ether	100	NA	123		123	58-157
Acetonitrile	500	NA	635		127	57-142
Di-isopropyl ether	50	NA	57		113	78-119
Chloroprene	50	NA	58		116	84-123
Methacrylonitrile	500	NA	623		125	82-129
Propionitrile	500	NA	624		125	81-126
1,1-Dichloroethane	50	NA	53		105	89-122
Acrylonitrile	250	NA	294		118	79-125
Ethyl tertiary-butyl ether	50	NA	60		119	78-130
Vinyl Acetate	50	NA	54		109	80-131
cis-1,2-Dichloroethene	50	NA	54		108	80-111
1,2-Dichloroethylene (total)	100	NA	104		104	83-115
Methyl Methacrylate	50	NA	64		128	82-133
2,2-Dichloropropane	50	NA	56		113	76-137
Bromochloromethane	50	NA	53		106	90-134
Chloroform	50	NA	54		108	90-126
Carbon Tetrachloride	50	NA	55		110	81-147
Tetrahydrofuran	50	NA	54		108	87-120
1,1,1-Trichloroethane	50	NA	55		110	87-133
1,1-Dichloropropene	50	NA	52		105	86-122
2-Butanone	50	NA	59		119	76-137
Benzene	50	NA	51		102	80-119
Cyclohexane	50	NA	51		102	87-133
Ethyl Methacrylate	50	NA	64	*	128	89-124
Tertiary-amyl methyl ether	50	NA	62		124	68-147
1,2-Dichloroethane	50	NA	58		117	85-136
Trichloroethene	50	NA	52		105	86-116

KATAHDIN ANALYTICAL SERVICES
LAB CONTROL SAMPLE

Client:
Project: CTO 407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date:
Analysis Date: 06/08/09
Report Date: 06/10/2009
Matrix: SOIL

Lab ID: WG64740-1
Client ID: WG64740-LCS
SDG: SC2728
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG64740
Units: ug/Kgdrywt

COMPOUND	LCS SPIKE	SAMPLE CONC.	LCS CONC.	%REC.	QC. LIMITS
Dibromomethane	50	NA	57	114	90-124
1,2-Dichloropropane	50	NA	50	101	86-114
Bromodichloromethane	50	NA	55	110	83-126
cis-1,3-dichloropropene	50	NA	53	105	89-122
1,4-Dioxane	1000	NA	1150	115	76-132
2-Chloroethylvinylether	50	NA	26	* 52	70-130
Toluene	50	NA	50	99	86-119
4-methyl-2-pentanone	50	NA	58	117	84-122
Tetrachloroethene	50	NA	57	114	71-144
trans-1,3-Dichloropropene	50	NA	65	130	90-143
1,1,2-Trichloroethane	50	NA	54	109	88-115
Dibromochloromethane	50	NA	57	115	86-127
1,3-Dichloropropane	50	NA	54	109	89-115
1,2-Dibromoethane	50	NA	56	112	85-122
2-Hexanone	50	NA	63	127	83-128
Chlorobenzene	50	NA	51	102	88-115
Ethylbenzene	50	NA	49	97	88-117
1,1,1,2-Tetrachloroethane	50	NA	54	107	86-121
Xylenes (total)	150	NA	152	101	90-118
m+p-Xylenes	100	NA	100	100	89-119
o-Xylene	50	NA	51	102	90-119
Styrene	50	NA	51	103	90-121
Bromoform	50	NA	58	117	87-134
Isopropylbenzene	50	NA	55	110	90-137
cis-1,4-Dichloro-2-Butene	50	NA	62	123	87-131
trans-1,4-Dichloro-2-Butene	50	NA	58	117	83-136
Bromobenzene	50	NA	50	100	83-115
N-Propylbenzene	50	NA	50	99	81-124
1,1,2,2-Tetrachloroethane	50	NA	54	108	82-118
1,3,5-Trimethylbenzene	50	NA	50	99	82-124
2-Chlorotoluene	50	NA	49	98	80-122
1,2,3-Trichloropropane	50	NA	54	107	78-124
4-Chlorotoluene	50	NA	50	100	83-126
tert-Butylbenzene	50	NA	48	96	80-123
Pentachloroethane	50	NA	44	88	23-157
1,2,4-Trimethylbenzene	50	NA	49	99	81-118
P-Isopropyltoluene	50	NA	50	101	85-129
1,3-Dichlorobenzene	50	NA	50	100	84-120
1,4-Dichlorobenzene	50	NA	51	101	86-121
N-Butylbenzene	50	NA	48	96	81-126
sec-Butylbenzene	50	NA	48	97	82-123
1,2-Dichlorobenzene	50	NA	50	101	86-117
1,2-Dibromo-3-Chloropropane	50	NA	53	106	78-137
1,3,5-Trichlorobenzene	50	NA	61	122	84-130
Hexachlorobutadiene	50	NA	51	101	79-121

KATAHDIN ANALYTICAL SERVICES
LAB CONTROL SAMPLE

Client:
Project: CTO 407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date:
Analysis Date: 06/08/09
Report Date: 06/10/2009
Matrix: SOIL

Lab ID: WG64740-1
Client ID: WG64740-LCS
SDG: SC2728
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG64740
Units: ug/Kgdrywt

COMPOUND	LCS SPIKE	SAMPLE CONC.	LCS CONC.	%REC.	QC. LIMITS
1,2,4-Trichlorobenzene	50	NA	53	106	79-129
1,2,3-Trimethylbenzene	50	NA	57	114	88-124
Naphthalene	50	NA	51	102	73-119
1,2,3-Trichlorobenzene	50	NA	51	102	82-124
Methyl Acetate	50	NA	57	113	85-129
Methylcyclohexane	50	NA	54	107	80-123
1-Chlorohexane	50	NA	46	93	85-124
Total Alkylbenzenes	350	NA	344	98	83-123

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE ID

WG64740-BLANK

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2728

Lab File ID: M0920 Lab Sample ID: WG64740-2

Date Analyzed: 06/08/09 Time Analyzed: 1210

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

Instrument ID: GCMS-M

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	WG64740-LCS	WG64740-1	M0918	06/08/09	1049
02	WGL-SO-TP112-0406	SC2728-1	M0921	06/08/09	1246
03	WGL-SO-TP112-0406	SC2728-1RA	M0935	06/08/09	2058
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

COMMENTS:

FORM IVVOA

FORM 5
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2728

Lab File ID: MB072 BFB Injection Date: 06/05/09

Instrument ID: GCMS-M BFB Injection Time: 1204

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.9
75	30.0 - 60.0% of mass 95	47.5
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.2
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	104.8
175	5.0 - 9.0% of mass 174	7.6 (7.3)1
176	95.0 - 101.0% of mass 174	100.2 (95.7)1
177	5.0 - 9.0% of mass 176	7.5 (7.5)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		VSTD200M05A	M0902	06/05/09	1418
02		VSTD050M05C	M0903	06/05/09	1453
03		VSTD050M05C	M0904	06/05/09	1527
04		VSTD020M05A	M0905	06/05/09	1602
05		VSTD010M05A	M0906	06/05/09	1636
06		VSTD005M05A	M0907	06/05/09	1711
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

FORM V VOA

FORM 5
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2728

Lab File ID: MB073 BFB Injection Date: 06/08/09

Instrument ID: GCMS-M BFB Injection Time: 0935

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.6
75	30.0 - 60.0% of mass 95	47.2
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	5.8
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	108.4
175	5.0 - 9.0% of mass 174	6.4 (5.9)1
176	95.0 - 101.0% of mass 174	104.6 (96.4)1
177	5.0 - 9.0% of mass 176	7.7 (7.4)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		VSTD050M08A	M0917	06/08/09	1002
02	WG64740-LCS	WG64740-1	M0918	06/08/09	1049
03	WG64740-BLANK	WG64740-2	M0920	06/08/09	1210
04	WGL-SO-TP112-0406	SC2728-1	M0921	06/08/09	1246
05	WGL-SO-TP112-0406	SC2728-1RA	M0935	06/08/09	2058
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project CTO 407 NAS WEYMOUTH SDG No.: SC2728

Instrument ID: GCMS-M Calibration Date(s): 06/05/09 06/05/09

Column: RTX-VMS ID: 0.18 (mm) Calibration Time(s): 1418 1711

LAB FILE ID: RF5: M0907 RF10: M0906 RF20: M0905
RF50: M0903 RF100: M0904 RF200: M0902

COMPOUND	RF5	RF10	RF20	RF50	RF100	RF200	CURVE	COEFF. A1	%RSD OR R^2	MAX %RSD OR R^2
Dichlorodifluoromethane	0.251	0.276	0.287	0.272	0.303	0.348	AVRG	0.28969792	11.540	15.000
Chloromethane	0.340	0.334	0.366	0.366	0.358	0.389	AVRG	0.35885819	5.622	15.000
Vinyl chloride	0.308	0.304	0.311	0.313	0.338	0.349	AVRG	0.32056780	5.780	15.000
Bromomethane	0.237	0.255	0.258	0.268	0.251	0.287	AVRG	0.25936236	6.515	15.000
Chloroethane	0.168	0.195	0.183	0.193	0.168	0.194	AVRG	0.18383301	6.951	15.000
Trichlorofluoromethane	0.635	0.618	0.666	0.667	0.625	0.678	AVRG	0.64816547	3.881	15.000
1,1-Dichloroethene	0.286	0.280	0.306	0.303	0.280	0.290	AVRG	0.29095976	3.888	15.000
Acetone	0.075	0.068	0.072	0.072	0.064	0.077	AVRG	7.134e-002	6.617	15.000
Carbon Disulfide	0.936	0.941	0.987	0.987	0.931	0.956	AVRG	0.95632590	2.648	15.000
Methyl Acetate	0.143	0.149	0.166	0.158	0.143	0.182	AVRG	0.15694835	9.692	15.000
Methylene Chloride	0.347	0.343	0.329	0.330	0.310	0.341	AVRG	0.33335168	4.070	15.000
trans-1,2-Dichloroethene	0.337	0.339	0.348	0.353	0.336	0.372	AVRG	0.34767033	3.871	15.000
Methyl tert-butyl ether	0.622	0.677	0.724	0.682	0.678	0.756	AVRG	0.68999291	6.673	15.000
1,1-Dichloroethane	0.523	0.535	0.563	0.560	0.551	0.591	AVRG	0.55369737	4.305	15.000
cis-1,2-Dichloroethene	0.350	0.343	0.349	0.350	0.333	0.361	AVRG	0.34770219	2.644	15.000
2-Butanone	0.064	0.081	0.090	0.080	0.079	0.091	AVRG	8.072e-002	11.880	15.000
Chloroform	0.642	0.635	0.665	0.647	0.632	0.686	AVRG	0.65103384	3.185	15.000
1,1,1-Trichloroethane	0.530	0.557	0.592	0.591	0.577	0.620	AVRG	0.57792883	5.371	15.000
Cyclohexane	0.353	0.378	0.411	0.413	0.410	0.430	AVRG	0.39926172	7.072	15.000
Carbon Tetrachloride	0.435	0.420	0.434	0.458	0.446	0.466	AVRG	0.44337816	3.868	15.000
Benzene	0.875	0.869	0.883	0.895	0.859	0.870	AVRG	0.87497276	1.436	15.000
1,2-Dichloroethane	0.351	0.341	0.335	0.340	0.331	0.352	AVRG	0.34150929	2.423	15.000
Trichloroethene	0.297	0.276	0.284	0.287	0.280	0.276	AVRG	0.28345971	2.868	15.000
Methylcyclohexane	0.330	0.367	0.391	0.444	0.409	0.436	AVRG	0.39610283	10.835	15.000
1,2-Dichloropropane	0.206	0.198	0.196	0.192	0.191	0.190	AVRG	0.19566261	2.964	15.000
Bromodichloromethane	0.362	0.356	0.376	0.367	0.366	0.369	AVRG	0.36609988	1.789	15.000
cis-1,3-dichloropropene	0.349	0.371	0.377	0.375	0.362	0.365	AVRG	0.36691101	2.812	15.000
4-methyl-2-pentanone	0.127	0.142	0.158	0.136	0.135	0.136	AVRG	0.13882207	7.751	15.000
Toluene	0.605	0.596	0.583	0.562	0.544	0.533	AVRG	0.57069996	5.067	15.000
trans-1,3-Dichloropropene	0.287	0.303	0.316	0.307	0.308	0.307	AVRG	0.30473645	3.097	15.000
1,1,2-Trichloroethane	0.145	0.145	0.147	0.145	0.137	0.140	AVRG	0.14322328	2.560	15.000
Tetrachloroethene	0.440	0.397	0.379	0.389	0.367	0.362	AVRG	0.38908583	7.184	15.000
2-Hexanone	0.121	0.130	0.150	0.130	0.126	0.133	AVRG	0.13185506	7.500	15.000
Dibromochloromethane	0.353	0.363	0.389	0.379	0.377	0.382	AVRG	0.37383129	3.561	15.000
1,2-Dibromoethane	0.198	0.207	0.219	0.199	0.203	0.205	AVRG	0.20548078	3.688	15.000
Chlorobenzene	0.877	0.860	0.889	0.869	0.827	0.821	AVRG	0.85751495	3.199	15.000
Ethylbenzene	0.437	0.456	0.455	0.462	0.443	0.435	AVRG	0.44804875	2.481	15.000
m+p-Xylenes	0.547	0.538	0.545	0.556	0.529	0.516	AVRG	0.53857679	2.622	15.000
o-Xylene	0.478	0.505	0.529	0.529	0.512	0.516	AVRG	0.51148239	3.728	15.000
Xylenes (total)							AVRG			0.000
Styrene	0.804	0.837	0.853	0.870	0.839	0.829	AVRG	0.83858602	2.676	15.000
Bromoform	0.233	0.232	0.261	0.249	0.240	0.246	AVRG	0.24356695	4.549	15.000
Isopropylbenzene	2.080	2.202	2.225	2.323	2.194	2.301	AVRG	2.22093694	3.923	15.000
1,1,2,2-Tetrachloroethane	0.422	0.464	0.495	0.442	0.431	0.463	AVRG	0.45283597	5.890	15.000

FORM VI VOA

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project CTO 407 NAS WEYMOUTH SDG No.: SC2728

Instrument ID: GCMS-M Calibration Date(s): 06/05/09 06/05/09

Column: RTX-VMS ID: 0.18 (mm) Calibration Time(s): 1418 1711

LAB FILE ID: RF5: M0907 RF10: M0906 RF20: M0905
RF50: M0903 RF100: M0904 RF200: M0902

COMPOUND	RF5	RF10	RF20	RF50	RF100	RF200	CURVE	COEFF. A1	%RSD OR R^2	MAX %RSD OR R^2
1,3-Dichlorobenzene	1.296	1.379	1.361	1.363	1.288	1.334	AVRG	1.33705708	2.808	15.000
1,4-Dichlorobenzene	1.381	1.361	1.358	1.380	1.279	1.308	AVRG	1.34445316	3.086	15.000
1,2-Dichlorobenzene	1.179	1.220	1.226	1.231	1.163	1.174	AVRG	1.19875028	2.513	15.000
1,2-Dibromo-3-Chloropropa	0.067	0.091	0.096	0.088	0.082	0.099	AVRG	8.732e-002	13.184	15.000
1,2,4-Trichlorobenzene	0.809	0.884	0.882	0.890	0.829	0.848	AVRG	0.85702456	3.891	15.000
Dibromofluoromethane	0.370	0.392	0.417	0.441	0.426	0.442	AVRG	0.41475207	6.908	15.000
1,2-Dichloroethane-D4	0.339	0.356	0.368	0.360	0.360	0.381	AVRG	0.36081657	3.790	15.000
Toluene-D8	0.773	0.829	0.877	0.918	0.866	0.829	AVRG	0.84892598	5.867	15.000
P-Bromofluorobenzene	0.334	0.328	0.338	0.344	0.337	0.330	AVRG	0.33532827	1.698	15.000

Average %RSD test result.

Calculate Average %RSD: 5.934344292
Maximum Average %RSD: 15.00000000

Note: Passes Average %RSD Test.

FORM VI VOA

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2728

Instrument ID: GCMS-M Calibration Date: 06/08/09 Time: 1002

Lab File ID: M0917 Init. Calib. Date(s): 06/05/09 06/05/09

Init. Calib. Times: 1418 1711

GC Column: RTX-VMS ID: 0.18 (mm)

COMPOUND	RRF OR AMOUNT	RRF50.000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Dichlorodifluoromethane	0.2900000	0.2205300	0.01	-23.96		AVRG
Chloromethane	0.3590000	0.2806200	0.1	-21.83		AVRG
Vinyl chloride	0.3200000	0.2730700	0.01	-14.67	20.00	AVRG
Bromomethane	0.2590000	0.2190200	0.01	-15.44		AVRG
Chloroethane	0.1840000	0.1654200	0.01	-10.10		AVRG
Trichlorofluoromethane	0.6480000	0.6530000	0.01	0.77		AVRG
1,1-Dichloroethene	0.2910000	0.2738000	0.01	-5.91	20.00	AVRG
Acetone	7.1e-002	8.39e-002	0.01	18.17		AVRG
Carbon Disulfide	0.9560000	0.8816200	0.01	-7.78		AVRG
Methyl Acetate	0.1570000	0.1628800	0.01	3.74		AVRG
Methylene Chloride	0.3330000	0.3196200	0.01	-4.02		AVRG
trans-1,2-Dichloroethene	0.3480000	0.3198000	0.01	-8.10		AVRG
Methyl tert-butyl ether	0.6900000	0.7291400	0.01	5.67		AVRG
1,1-Dichloroethane	0.5540000	0.5370600	0.1	-3.06		AVRG
cis-1,2-Dichloroethene	0.3480000	0.3249600	0.01	-6.62		AVRG
2-Butanone	8.1e-002	8.6e-002	0.01	6.17		AVRG
Chloroform	0.6510000	0.6499300	0.01	-0.16	20.00	AVRG
1,1,1-Trichloroethane	0.5780000	0.5836000	0.01	0.97		AVRG
Cyclohexane	0.3990000	0.3614500	0.01	-9.41		AVRG
Carbon Tetrachloride	0.4430000	0.4575500	0.01	3.28		AVRG
Benzene	0.8750000	0.8082300	0.01	-7.63		AVRG
1,2-Dichloroethane	0.3420000	0.3746000	0.01	9.53		AVRG
Trichloroethene	0.2830000	0.2750800	0.01	-2.80		AVRG
Methylcyclohexane	0.3960000	0.3533500	0.01	-10.77		AVRG
1,2-Dichloropropane	0.1960000	0.1905600	0.01	-2.78	20.00	AVRG
Bromodichloromethane	0.3660000	0.3850400	0.01	5.20		AVRG
cis-1,3-dichloropropene	0.3660000	0.3751700	0.01	2.50		AVRG
4-methyl-2-pentanone	0.1390000	0.1471800	0.01	5.88		AVRG
Toluene	0.5700000	0.5313600	0.01	-6.78	20.00	AVRG

FORM VII PEST

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2728

Instrument ID: GCMS-M Calibration Date: 06/08/09 Time: 1002

Lab File ID: M0917 Init. Calib. Date(s): 06/05/09 06/05/09

Init. Calib. Times: 1418 1711

GC Column: RTX-VMS ID: 0.18 (mm)

COMPOUND	RRF OR AMOUNT	RRF50.000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE	
trans-1,3-Dichloropropene	0.3050000	0.3258000	0.01	6.82		AVRG	
1,1,2-Trichloroethane	0.1430000	0.1434900	0.01	0.34		AVRG	
Tetrachloroethene	0.3890000	0.3949700	0.01	1.53		AVRG	
2-Hexanone	0.1320000	0.1346900	0.01	2.04		AVRG	
Dibromochloromethane	0.3740000	0.3961800	0.01	5.93		AVRG	
1,2-Dibromoethane	0.2050000	0.2094400	0.01	2.16		AVRG	
Chlorobenzene	0.8570000	0.8048200	0.3	-6.09		AVRG	
Ethylbenzene	0.4480000	0.4066800	0.01	-9.22	20.00	AVRG	
m+p-Xylenes	0.5380000	0.5060200	0.01	-5.94		AVRG	
o-Xylene	0.5120000	0.4838300	0.01	-5.50		AVRG	
Xylenes (total)	0.0000000	0.4986300	0.01	0.00		AVRG	<-
Styrene	0.8390000	0.8028100	0.01	-4.31		AVRG	
Bromoform	0.2440000	0.2546400	0.1	4.36		AVRG	
Isopropylbenzene	2.2210000	2.1171000	0.01	-4.68		AVRG	
1,1,2,2-Tetrachloroethane	0.4530000	0.4603000	0.3	1.61		AVRG	
1,3-Dichlorobenzene	1.3370000	1.2808000	0.01	-4.20		AVRG	
1,4-Dichlorobenzene	1.3440000	1.2842000	0.01	-4.45		AVRG	
1,2-Dichlorobenzene	1.1990000	1.1905000	0.01	-0.71		AVRG	
1,2-Dibromo-3-Chloropropane	8.7e-002	0.1078500	0.01	23.97		AVRG	
1,2,4-Trichlorobenzene	0.8570000	0.8286900	0.01	-3.30		AVRG	
Dibromofluoromethane	0.4150000	0.4216000	0.01	1.59		AVRG	
1,2-Dichloroethane-D4	0.3610000	0.3713600	0.01	2.87		AVRG	
Toluene-D8	0.8490000	0.8824900	0.01	3.94		AVRG	
P-Bromofluorobenzene	0.3350000	0.3443000	0.01	2.78		AVRG	

FORM VII PEST

FORM 8
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2728

Lab File ID (Standard): M0917 Date Analyzed: 06/08/09

Instrument ID: GCMS-M Time Analyzed: 1002

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

	IS1(PFB) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CBZ) AREA #	RT #
12 HOUR STD	779864	8.50	928180	9.41	716788	13.01
UPPER LIMIT	1559728	9.00	1856360	9.91	1433576	13.51
LOWER LIMIT	389932	8.00	464090	8.91	358394	12.51

	CLIENT SAMPLE ID	LAB SAMPLE ID						
01	WG64740-LCS	WG64740-1	785576	8.50	938819	9.41	722566	13.02
02	WG64740-BLANK	WG64740-2	741518	8.50	881668	9.41	692294	13.02
03	WGL-SO-TP112-0406	SC2728-1	578604	8.51	699347	9.41	358016*	13.02
04	WGL-SO-TP112-0406	SC2728-1RA	500116	8.50	608877	9.42	338098*	13.02
05								
06								
07								
08								
09								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

IS1 (PFB) = Pentafluorobenzene
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

FORM VIII VOA

FORM 8
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2728

Lab File ID (Standard): M0917 Date Analyzed: 06/08/09

Instrument ID: GCMS-M Time Analyzed: 1002

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

	IS4(DCB) AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	388051	16.35				
UPPER LIMIT	776102	16.85				
LOWER LIMIT	194026	15.85				

	CLIENT SAMPLE ID	LAB SAMPLE ID						
01	WG64740-LCS	WG64740-1	413229	16.36				
02	WG64740-BLANK	WG64740-2	376209	16.36				
03	WGL-SO-TP112-0406	SC2728-1	87159*	16.35				
04	WGL-SO-TP112-0406	SC2728-1RA	82226*	16.35				
05								
06								
07								
08								
09								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

IS4 (DCB) = 1,4-Dichlorobenzene-D4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 05/28/09
Received Date: 05/29/09
Extraction Date: 06/03/09
Analysis Date: 10-JUN-2009 19:22
Report Date: 06/11/2009
Matrix: SOIL
% Solids: 72.4

Lab ID: SC2728-1
Client ID: WGL-SO-TP112-0406
SDG: SC2728
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JCG
Analysis Method: SW846 8270C
Lab Prep Batch: WG64520
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
123-91-1	1,4-Dioxane	U	460	1.0	330	460	74
100-52-7	Benzaldehyde	U	460	1.0	330	460	160
108-95-2	Phenol	U	460	1.0	330	460	220
111-44-4	Bis(2-Chloroethyl)ether	U	460	1.0	330	460	110
95-57-8	2-Chlorophenol	U	460	1.0	330	460	230
95-48-7	2-Methylphenol	U	460	1.0	330	460	280
108-60-1	2,2'-Oxybis(1-chloropropane)	U	460	1.0	330	460	120
98-86-2	Acetophenone	U	460	1.0	330	460	240
621-64-7	N-Nitroso-di-n-propylamine	U	460	1.0	330	460	110
65794-96-9	3&4-Methylphenol	U	460	1.0	330	460	260
67-72-1	Hexachloroethane	U	460	1.0	330	460	130
98-95-3	Nitrobenzene	U	460	1.0	330	460	120
78-59-1	Isophorone	U	460	1.0	330	460	100
88-75-5	2-Nitrophenol	U	460	1.0	330	460	230
105-67-9	2,4-Dimethylphenol	U	460	1.0	330	460	230
111-91-1	Bis(2-Chloroethoxy)methane	U	460	1.0	330	460	130
120-83-2	2,4-Dichlorophenol	U	460	1.0	330	460	210
91-20-3	Naphthalene	U	460	1.0	330	460	120
106-47-8	4-Chloroaniline	U	460	1.0	330	460	160
87-68-3	Hexachlorobutadiene	U	460	1.0	330	460	110
105-60-2	Caprolactam	U	460	1.0	330	460	200
59-50-7	4-Chloro-3-Methylphenol	U	460	1.0	330	460	230
91-57-6	2-Methylnaphthalene	U	460	1.0	330	460	130
77-47-4	Hexachlorocyclopentadiene	U	460	1.0	330	460	110
88-06-2	2,4,6-Trichlorophenol	U	460	1.0	330	460	210
95-95-4	2,4,5-Trichlorophenol	U	1100	1.0	820	1100	210
91-58-7	2-Chloronaphthalene	U	460	1.0	330	460	120
92-52-4	1,1'-Biphenyl	U	460	1.0	330	460	100
88-74-4	2-Nitroaniline	U	1100	1.0	820	1100	100
131-11-3	Dimethyl Phthalate	U	460	1.0	330	460	110
606-20-2	2,6-Dinitrotoluene	U	460	1.0	330	460	110
208-96-8	Acenaphthylene	U	460	1.0	330	460	97
99-09-2	3-Nitroaniline	U	1100	1.0	820	1100	130
83-32-9	Acenaphthene	U	460	1.0	330	460	90
51-28-5	2,4-Dinitrophenol	U	1100	1.0	820	1100	520
132-64-9	Dibenzofuran	U	460	1.0	330	460	110
100-02-7	4-Nitrophenol	U	1100	1.0	820	1100	430
121-14-2	2,4-Dinitrotoluene	U	460	1.0	330	460	120
84-66-2	Diethylphthalate	U	460	1.0	330	460	110
86-73-7	Fluorene	U	460	1.0	330	460	110
7005-72-3	4-Chlorophenyl-phenylether	U	460	1.0	330	460	110
100-01-6	4-Nitroaniline	U	1100	1.0	820	1100	180
534-52-1	4,6-Dinitro-2-Methylphenol	U	1100	1.0	820	1100	460

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 05/28/09
Received Date: 05/29/09
Extraction Date: 06/03/09
Analysis Date: 10-JUN-2009 19:22
Report Date: 06/11/2009
Matrix: SOIL
% Solids: 72.4

Lab ID: SC2728-1
Client ID: WGL-SO-TP112-0406
SDG: SC2728
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JCG
Analysis Method: SW846 8270C
Lab Prep Batch: WG64520
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
86-30-6	N-Nitrosodiphenylamine	U	460	1.0	330	460	300
101-55-3	4-Bromophenyl-phenylether	U	460	1.0	330	460	120
118-74-1	Hexachlorobenzene	U	460	1.0	330	460	110
1912-24-9	Atrazine	U	460	1.0	330	460	120
87-86-5	Pentachlorophenol	U	1100	1.0	820	1100	330
85-01-8	Phenanthrene	U	460	1.0	330	460	110
120-12-7	Anthracene	U	460	1.0	330	460	120
86-74-8	Carbazole	U	460	1.0	330	460	150
84-74-2	Di-n-butylphthalate	U	460	1.0	330	460	140
206-44-0	Fluoranthene	U	460	1.0	330	460	150
129-00-0	Pyrene	U	460	1.0	330	460	140
85-68-7	Butylbenzylphthalate	U	460	1.0	330	460	130
56-55-3	Benzo(a)anthracene	U	460	1.0	330	460	120
91-94-1	3,3'-Dichlorobenzidine	U	460	1.0	330	460	160
218-01-9	Chrysene	U	460	1.0	330	460	130
117-81-7	bis(2-Ethylhexyl)phthalate	U	460	1.0	330	460	140
117-84-0	Di-n-octylphthalate	U	460	1.0	330	460	290
205-99-2	Benzo(b)fluoranthene	U	460	1.0	330	460	180
207-08-9	Benzo(k)fluoranthene	U	460	1.0	330	460	110
50-32-8	Benzo(a)pyrene	U	460	1.0	330	460	130
193-39-5	Indeno(1,2,3-cd)pyrene	U	460	1.0	330	460	170
53-70-3	Dibenzo(a,h)anthracene	U	460	1.0	330	460	180
191-24-2	Benzo(g,h,i)perylene	U	460	1.0	330	460	140
367-12-4	2-Fluorophenol		50%				
13127-88-3	Phenol-D6		* 50%				
4165-60-0	Nitrobenzene-D5		* 44%				
321-60-8	2-Fluorobiphenyl		52%				
118-79-6	2,4,6-Tribromophenol		57%				
1718-51-0	Terphenyl-D14		65%				

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE ID

WGL-SO-TP112-0406

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2728

Matrix: (soil/water) SOIL Lab Sample ID: SC2728-1

Sample wt/vol: 0.030(Kg/mL) KG Lab File ID: U7288

Level: (low/med) LOW Date Received: 05/29/09

% Moisture: 28 decanted: (Y/N) N Date Extracted:06/03/09

Concentrated Extract Volume: 0.001(L) Date Analyzed: 06/10/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

Number TICs found: 30

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kgdrywt

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN ALDOL CONDENSATE	5.45	20000	JBA
2.		UNKNOWN ALKANE	13.62	600	J
3.		UNKNOWN ALKANE	15.12	700	J
4.	469-61-4	1H-3A,7-METHANOAZULENE, 2,3,	15.44	600	NJ
5.		UNKNOWN	15.57	900	J
6.		UNKNOWN ALKANE	15.97	800	J
7.	0-00-0	DECAHYDRO-4,4,8,9,10-PENTAME	16.11	300	NJ
8.		UNKNOWN ALKANE	16.54	1000	J
9.	483-77-2	NAPHTHALENE, 1,2,3,4-TETRAHY	16.89	300	NJ
10.		UNKNOWN ALKANE	17.39	300	J
11.		UNKNOWN	17.48	400	J
12.		UNKNOWN ALKANE	17.88	800	J
13.		UNKNOWN	17.95	300	J
14.		UNKNOWN ALKANE	19.15	1000	J
15.		UNKNOWN ALKANE	20.35	700	J
16.		UNKNOWN ALKANE	20.42	500	J
17.		UNKNOWN ALKANE	21.50	400	J
18.		UNKNOWN	22.16	300	J
19.		UNKNOWN ALKANE	22.60	300	J
20.		UNKNOWN	22.86	300	J
21.	19407-28-4	PHENANTHRENE, 1,2,3,4,4A,9,1	23.27	600	NJ
22.		UNKNOWN	23.69	600	J
23.		UNKNOWN	23.94	600	J
24.		UNKNOWN	24.02	500	J
25.		UNKNOWN	24.90	4000	J
26.	511-15-9	2-PHENANTHRENOL, 4B,5,6,7,8,	25.79	4000	NJ
27.		UNKNOWN	25.94	2000	J
28.		UNKNOWN	26.24	600	J
29.	1740-19-8	1-PHENANTHRENECARBOXYLIC ACI	26.95	900	NJ
30.		UNKNOWN	33.80	400	J

FORM I SV-TIC

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client:
Project: CTO 407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date: 06/03/09
Analysis Date: 10-JUN-2009 17:06
Report Date: 06/11/2009
Matrix: SOIL
% Solids: 100

Lab ID: WG64520-1
Client ID: WG64520-Blank
SDG: SC2728
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JCG
Analysis Method: SW846 8270C
Lab Prep Batch: WG64520
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
123-91-1	1,4-Dioxane	U	330	1.0	330	330	54
100-52-7	Benzaldehyde	U	330	1.0	330	330	120
108-95-2	Phenol	U	330	1.0	330	330	160
111-44-4	Bis(2-Chloroethyl)ether	U	330	1.0	330	330	81
95-57-8	2-Chlorophenol	U	330	1.0	330	330	160
95-48-7	2-Methylphenol	U	330	1.0	330	330	200
108-60-1	2,2'-Oxybis(1-chloropropane)	U	330	1.0	330	330	89
98-86-2	Acetophenone	U	330	1.0	330	330	180
621-64-7	N-Nitroso-di-n-propylamine	U	330	1.0	330	330	83
65794-96-9	3&4-Methylphenol	U	330	1.0	330	330	190
67-72-1	Hexachloroethane	U	330	1.0	330	330	96
98-95-3	Nitrobenzene	U	330	1.0	330	330	91
78-59-1	Isophorone	U	330	1.0	330	330	75
88-75-5	2-Nitrophenol	U	330	1.0	330	330	170
105-67-9	2,4-Dimethylphenol	U	330	1.0	330	330	160
111-91-1	Bis(2-Chloroethoxy)methane	U	330	1.0	330	330	96
120-83-2	2,4-Dichlorophenol	U	330	1.0	330	330	150
91-20-3	Naphthalene	U	330	1.0	330	330	87
106-47-8	4-Chloroaniline	U	330	1.0	330	330	120
87-68-3	Hexachlorobutadiene	U	330	1.0	330	330	83
105-60-2	Caprolactam	U	330	1.0	330	330	140
59-50-7	4-Chloro-3-Methylphenol	U	330	1.0	330	330	170
91-57-6	2-Methylnaphthalene	U	330	1.0	330	330	92
77-47-4	Hexachlorocyclopentadiene	U	330	1.0	330	330	82
88-06-2	2,4,6-Trichlorophenol	U	330	1.0	330	330	160
95-95-4	2,4,5-Trichlorophenol	U	820	1.0	820	820	160
91-58-7	2-Chloronaphthalene	U	330	1.0	330	330	87
92-52-4	1,1'-Biphenyl	U	330	1.0	330	330	73
88-74-4	2-Nitroaniline	U	820	1.0	820	820	75
131-11-3	Dimethyl Phthalate	U	330	1.0	330	330	78
606-20-2	2,6-Dinitrotoluene	U	330	1.0	330	330	79
208-96-8	Acenaphthylene	U	330	1.0	330	330	70
99-09-2	3-Nitroaniline	U	820	1.0	820	820	94
83-32-9	Acenaphthene	U	330	1.0	330	330	65
51-28-5	2,4-Dinitrophenol	U	820	1.0	820	820	380
132-64-9	Dibenzofuran	U	330	1.0	330	330	79
100-02-7	4-Nitrophenol	U	820	1.0	820	820	310
121-14-2	2,4-Dinitrotoluene	U	330	1.0	330	330	85
84-66-2	Diethylphthalate	U	330	1.0	330	330	80
86-73-7	Fluorene	U	330	1.0	330	330	81
7005-72-3	4-Chlorophenyl-phenylether	U	330	1.0	330	330	78
100-01-6	4-Nitroaniline	U	820	1.0	820	820	130
534-52-1	4,6-Dinitro-2-Methylphenol	U	820	1.0	820	820	340

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client:
Project: CTO 407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date: 06/03/09
Analysis Date: 10-JUN-2009 17:06
Report Date: 06/11/2009
Matrix: SOIL
% Solids: 100

Lab ID: WG64520-1
Client ID: WG64520-Blank
SDG: SC2728
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JCG
Analysis Method: SW846 8270C
Lab Prep Batch: WG64520
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
86-30-6	N-Nitrosodiphenylamine	U	330	1.0	330	330	220
101-55-3	4-Bromophenyl-phenylether	U	330	1.0	330	330	85
118-74-1	Hexachlorobenzene	U	330	1.0	330	330	82
1912-24-9	Atrazine	U	330	1.0	330	330	91
87-86-5	Pentachlorophenol	U	820	1.0	820	820	240
85-01-8	Phenanthrene	U	330	1.0	330	330	83
120-12-7	Anthracene	U	330	1.0	330	330	84
86-74-8	Carbazole	U	330	1.0	330	330	110
84-74-2	Di-n-butylphthalate	U	330	1.0	330	330	100
206-44-0	Fluoranthene	U	330	1.0	330	330	110
129-00-0	Pyrene	U	330	1.0	330	330	100
85-68-7	Butylbenzylphthalate	U	330	1.0	330	330	93
56-55-3	Benzo(a)anthracene	U	330	1.0	330	330	86
91-94-1	3,3'-Dichlorobenzidine	U	330	1.0	330	330	110
218-01-9	Chrysene	U	330	1.0	330	330	95
117-81-7	bis(2-Ethylhexyl)phthalate	U	330	1.0	330	330	98
117-84-0	Di-n-octylphthalate	U	330	1.0	330	330	210
205-99-2	Benzo(b)fluoranthene	U	330	1.0	330	330	130
207-08-9	Benzo(k)fluoranthene	U	330	1.0	330	330	83
50-32-8	Benzo(a)pyrene	U	330	1.0	330	330	93
193-39-5	Indeno(1,2,3-cd)pyrene	U	330	1.0	330	330	120
53-70-3	Dibenzo(a,h)anthracene	U	330	1.0	330	330	130
191-24-2	Benzo(g,h,i)perylene	U	330	1.0	330	330	100
367-12-4	2-Fluorophenol		56%				
13127-88-3	Phenol-D6		54%				
4165-60-0	Nitrobenzene-D5		54%				
321-60-8	2-Fluorobiphenyl		55%				
118-79-6	2,4,6-Tribromophenol		61%				
1718-51-0	Terphenyl-D14		69%				

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE ID

WG64520-Blank

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2728

Matrix: (soil/water) SOIL Lab Sample ID: WG64520-1

Sample wt/vol: 0.030(Kg/mL) KG Lab File ID: U7285

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:06/03/09

Concentrated Extract Volume: 0.001(L) Date Analyzed: 06/10/09

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

Number TICs found: 2

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kgdrywt

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	2.77	400	J
2.		UNKNOWN ALDOL CONDENSATE	5.45	10000	JA
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

FORM I SV-TIC

FORM 2
SOIL SEMIVOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2728

Level:(low/med) LOW

	CLIENT SAMPLE ID	LAB SAMPLE ID	S1 2FP#	S2 PHL#	S3 NBZ#	S4 FBP#	S5 TBP#	S6 TPH#	S7 #	S8 #	TOT OUT
01	WG64520-BLANK	WG64520-1	56	54	54	55	61	69			0
02	WG64520-LCS	WG64520-2	62	62	58	63	75	68			0
03	WG64520-LCSD	WG64520-3	68	70	68	67	82	77			0
04	WGL-SO-TP112-0406	SC2728-1	50	50*	44*	52	57	65			2
05											
06											
07											
08											
09											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											
21											
22											
23											
24											
25											
26											
27											
28											

		QC LIMITS
S1 (2FP)	= 2-Fluorophenol	(43- 99)
S2 (PHL)	= Phenol-D6	(53- 98)
S3 (NBZ)	= Nitrobenzene-D5	(47-100)
S4 (FBP)	= 2-Fluorobiphenyl	(49-114)
S5 (TBP)	= 2,4,6-Tribromophenol	(44-111)
S6 (TPH)	= Terphenyl-D14	(58-140)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

KATAHDIN ANALYTICAL SERVICES
LAB CONTROL SAMPLE

Client:
Project: CTO 407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date: 06/03/09
Analysis Date: 06/10/09
Report Date: 06/11/2009
Matrix: SOIL

Lab ID: WG64520-2 & WG64520-3
Client ID: WG64520-LCS & WG64520-LCSD
SDG: SC2728
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JCG
Analysis Method: SW846 8270C
Lab Prep Batch: WG64520
Units: ug/Kgdrywt

COMPOUND	LCS SPIKE	LCSD SPIKE	SAMPLE CONC.	LCS CONC.	LCSD CONC.	LCS %REC.	LCSD %REC.	%RPD	%RPD LIMIT	QC. LIMITS
1,4-Dioxane	1667	1667	NA	565	605	34	36	7	50	15- 59
Benzaldehyde	1667	1667	NA	830	1260	50	76	41	50	10-123
Phenol	3333	3333	NA	2050	2280	62	68	11	50	56-108
Bis(2-Chloroethyl)ether	1667	1667	NA	989	1060	59	64	7	50	50-104
2-Chlorophenol	3333	3333	NA	2060	2230	62	67	8	50	57-102
2-Methylphenol	3333	3333	NA	1950	2170	* 58	65	11	50	60- 99
2,2'-Oxybis(1-chloropropane)	1667	1667	NA	1020	1100	61	66	8	50	61- 98
Acetophenone	1667	1667	NA	1050	1180	63	71	12	50	59-102
N-Nitroso-di-n-propylamine	1667	1667	NA	917	1100	55	66	18	50	52- 93
3&4-Methylphenol	3333	3333	NA	2050	2220	62	67	8	50	58-105
Hexachloroethane	1667	1667	NA	947	1050	* 57	63	10	50	59- 90
Nitrobenzene	1667	1667	NA	1030	1130	62	68	9	50	59-103
Isophorone	1667	1667	NA	985	1110	59	67	12	50	23-110
2-Nitrophenol	3333	3333	NA	2120	2250	64	68	6	50	61-100
2,4-Dimethylphenol	3333	3333	NA	1790	1960	54	59	9	50	52- 99
Bis(2-Chloroethoxy)methane	1667	1667	NA	1050	1140	63	68	8	50	63- 99
2,4-Dichlorophenol	3333	3333	NA	2040	2250	* 61	68	10	50	63-102
Naphthalene	1667	1667	NA	994	1070	60	64	7	50	55- 99
4-Chloroaniline	1667	1667	NA	667	751	40	45	12	50	10- 89
Hexachlorobutadiene	1667	1667	NA	936	1000	* 56	60	7	50	59- 90
Caprolactam	1667	1667	NA	1060	1130	64	68	6	50	30-140
4-Chloro-3-Methylphenol	3333	3333	NA	2270	2420	68	73	6	50	62-109
2-Methylnaphthalene	1667	1667	NA	1300	1260	78	76	3	50	42-127
Hexachlorocyclopentadiene	1667	1667	NA	782	869	47	52	10	50	23-107
2,4,6-Trichlorophenol	3333	3333	NA	2390	2480	72	74	4	50	61-105
2,4,5-Trichlorophenol	3333	3333	NA	2450	2560	74	77	4	50	64-107
2-Chloronaphthalene	1667	1667	NA	869	910	* 52	* 55	5	50	68-102
1,1'-Biphenyl	1667	1667	NA	1210	1240	73	74	2	50	50-113
2-Nitroaniline	1667	1667	NA	1200	1270	72	76	6	50	58-120
Dimethyl Phthalate	1667	1667	NA	1180	1250	71	75	6	50	66-121
2,6-Dinitrotoluene	1667	1667	NA	1100	1250	66	75	13	50	64-109
Acenaphthylene	1667	1667	NA	1100	1160	66	70	5	50	59-108
3-Nitroaniline	1667	1667	NA	783	865	47	52	10	50	10-173
Acenaphthene	1667	1667	NA	1080	1180	65	71	9	50	64-106
2,4-Dinitrophenol	3333	3333	NA	2390	2510	72	75	5	50	20- 81
Dibenzofuran	1667	1667	NA	1070	1190	64	71	11	50	60-108
4-Nitrophenol	3333	3333	NA	2860	2990	86	90	4	50	45-139
2,4-Dinitrotoluene	1667	1667	NA	1260	1380	76	83	9	50	64-111
Diethylphthalate	1667	1667	NA	1220	1240	73	74	2	50	59-113
Fluorene	1667	1667	NA	1190	1220	71	73	2	50	57-108
4-Chlorophenyl-phenylether	1667	1667	NA	1120	1160	67	70	4	50	67-110
4-Nitroaniline	1667	1667	NA	960	1130	58	68	16	50	40-142
4,6-Dinitro-2-Methylphenol	3333	3333	NA	2410	2720	72	82	12	50	40-111
N-Nitrosodiphenylamine	1667	1667	NA	880	1010	53	61	14	50	12-145
4-Bromophenyl-phenylether	1667	1667	NA	1070	1200	* 64	72	11	50	67-119

KATAHDIN ANALYTICAL SERVICES
LAB CONTROL SAMPLE

Client:
Project: CTO 407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date: 06/03/09
Analysis Date: 06/10/09
Report Date: 06/11/2009
Matrix: SOIL

Lab ID: WG64520-2 & WG64520-3
Client ID: WG64520-LCS & WG64520-LCSD
SDG: SC2728
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JCG
Analysis Method: SW846 8270C
Lab Prep Batch: WG64520
Units: ug/Kgdrywt

COMPOUND	LCS SPIKE	LCSD SPIKE	SAMPLE CONC.	LCS CONC.	LCSD CONC.	LCS %REC.	LCSD %REC.	%RPD	%RPD LIMIT	QC. LIMITS
Hexachlorobenzene	1667	1667	NA	1070	1190	* 64	71	11	50	65-112
Atrazine	1667	1667	NA	1510	1650	91	99	9	50	55-135
Pentachlorophenol	3333	3333	NA	2790	2970	84	89	6	50	57-125
Phenanthrene	1667	1667	NA	1080	1240	65	74	14	50	61-117
Anthracene	1667	1667	NA	1140	1280	68	77	12	50	56-114
Carbazole	1667	1667	NA	1050	1250	63	75	17	50	49-168
Di-n-butylphthalate	1667	1667	NA	1150	1270	69	76	10	50	56-129
Fluoranthene	1667	1667	NA	1190	1310	71	79	10	50	70-115
Pyrene	1667	1667	NA	1090	1180	65	71	8	50	54-131
Butylbenzylphthalate	1667	1667	NA	1100	1200	66	72	9	50	50-131
Benzo(a)anthracene	1667	1667	NA	1060	1160	* 64	70	9	50	65-111
3,3'-Dichlorobenzidine	1667	1667	NA	649	823	39	49	24	50	10-130
Chrysene	1667	1667	NA	1160	1210	70	73	4	50	66-107
bis(2-Ethylhexyl)phthalate	1667	1667	NA	1070	1270	64	76	17	50	42-142
Di-n-octylphthalate	1667	1667	NA	1130	1310	68	79	15	50	10-187
Benzo(b)fluoranthene	1667	1667	NA	1070	1160	64	70	8	50	47-121
Benzo(k)fluoranthene	1667	1667	NA	1150	1350	69	81	16	50	37-130
Benzo(a)pyrene	1667	1667	NA	1110	1300	67	78	16	50	62-114
Indeno(1,2,3-cd)pyrene	1667	1667	NA	972	1070	58	64	10	50	55-128
Dibenzo(a,h)anthracene	1667	1667	NA	1030	1180	62	71	14	50	54-133
Benzo(g,h,i)perylene	1667	1667	NA	1050	1210	63	73	14	50	53-126

FORM III SV-2
U7286.D & U7287.D

FORM 4
SEMIVOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE ID

WG64520-BLANK

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2728

Lab File ID: U7285 Lab Sample ID: WG64520-1

Instrument ID: GCMS-U Date Extracted: 06/03/09

Matrix: (soil/water) SOIL Date Analyzed: 06/10/09

Level:(low/med) LOW Time Analyzed: 1706

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	WG64520-LCS	WG64520-2	U7286	06/10/09	1751
02	WG64520-LCSD	WG64520-3	U7287	06/10/09	1836
03	WGL-SO-TP112-0406	SC2728-1	U7288	06/10/09	1922
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

COMMENTS:

FORM IVSV

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2728

Lab File ID: UD077 DFTPP Injection Date: 05/29/09

Instrument ID: GCMS-U DFTPP Injection Time: 0937

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	33.8
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Less than 100.0% of mass 198	38.7
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	50.2
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.8
275	10.0 - 30.0% of mass 198	25.4
365	1.0 - 100.0% of mass 198	3.4
441	0.0 - 100.0% of mass 443	13.6 (77.9)2
442	40.0 - 100.0% of mass 198	90.8
443	17.0 - 23.0% of mass 442	17.4 (19.1)3

1-Value is % mass 69 2-Value is % mass 443
3-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		SSTD050U0529	U7146	05/29/09	0956
02		SSTD010U0529	U7147	05/29/09	1040
03		SSTD025U0529	U7148	05/29/09	1124
04		SSTD075U0529	U7149	05/29/09	1207
05		SSTD100U0529	U7150	05/29/09	1251
06		SSTD125U0529	U7151	05/29/09	1335
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

FORM V SV

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2728

Lab File ID: UD087 DFTPP Injection Date: 06/10/09

Instrument ID: GCMS-U DFTPP Injection Time: 0841

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	34.9
68	Less than 2.0% of mass 69	0.3 (0.9)1
69	Less than 100.0% of mass 198	38.3
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	49.8
197	Less than 1.0% of mass 198	0.4
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.6
275	10.0 - 30.0% of mass 198	24.6
365	1.0 - 100.0% of mass 198	3.6
441	0.0 - 100.0% of mass 443	14.3 (83.3)2
442	40.0 - 100.0% of mass 198	91.1
443	17.0 - 23.0% of mass 442	17.2 (18.9)3

1-Value is % mass 69 2-Value is % mass 443
3-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		SSTD050U0610	U7274	06/10/09	0901
02	WG64520-BLANK	WG64520-1	U7285	06/10/09	1706
03	WG64520-LCS	WG64520-2	U7286	06/10/09	1751
04	WG64520-LCSD	WG64520-3	U7287	06/10/09	1836
05	WGL-SO-TP112-0406	SC2728-1	U7288	06/10/09	1922
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

FORM V SV

FORM 6
SEMIVOLATILE INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project CTO 407 NAS WEYMOUTH SDG No.: SC2728

Instrument ID: GCMS-U Calibration Date(s): 05/29/09 05/29/09

Column: DB5-MS ID: 0.25 (mm) Calibration Time(s): 0956 1335

LAB FILE ID: RF10: U7147 RF25: U7148 RF50: U7146
RF75: U7149 RF100: U7150 RF125: U7151

COMPOUND	RF10	RF25	RF50	RF75	RF100	RF125	CURVE	COEFFICENTS A0	A1	A2	%RSD OR R^2	MAX %RSD OR R^2
1,4-Dioxane	0.263	0.304	0.296	0.269	0.284	0.279	AVRG		0.28253747		5.533	15.000
Benzaldehyde	0.515	0.500	0.472	0.382	0.374	0.065	AVRG		0.38463450		43.571	15.000
Phenol	1.313	1.369	1.441	1.223	1.397	1.369	AVRG		1.35195642		5.624	15.000
Bis(2-Chloroethyl)ether	1.162	1.054	1.081	0.922	1.043	1.028	AVRG		1.04807587		7.440	15.000
2-Chlorophenol	1.159	1.180	1.194	1.090	1.164	1.120	AVRG		1.15147416		3.373	15.000
2-Methylphenol	1.040	1.037	1.080	0.942	1.069	1.072	AVRG		1.03993917		4.930	15.000
2,2'-Oxybis(1-chloropropa	1.466	1.529	1.558	1.320	1.481	1.424	AVRG		1.46303715		5.767	15.000
Acetophenone	0.390	0.417	0.420	0.377	0.404	0.418	AVRG		0.40449061		4.313	15.000
N-Nitroso-di-n-propylamin	0.742	0.728	0.752	0.648	0.694	0.643	AVRG		0.70110605		6.769	15.000
3&4-Methylphenol	1.019	1.106	1.090	1.017	1.086	1.058	AVRG		1.06242844		3.558	15.000
Hexachloroethane	0.538	0.575	0.562	0.483	0.526	0.444	AVRG		0.52124523		9.492	15.000
Nitrobenzene	0.322	0.328	0.307	0.270	0.296	0.295	AVRG		0.30308172		6.965	15.000
Isophorone	0.568	0.610	0.608	0.536	0.550	0.561	AVRG		0.57219209		5.299	15.000
2-Nitrophenol	0.137	0.156	0.167	0.149	0.165	0.171	AVRG		0.15763969		8.173	15.000
2,4-Dimethylphenol	0.312	0.319	0.321	0.284	0.301	0.306	AVRG		0.30716479		4.532	15.000
Bis(2-Chloroethoxy)methan	0.330	0.363	0.360	0.317	0.336	0.322	AVRG		0.33797576		5.766	15.000
2,4-Dichlorophenol	0.230	0.252	0.272	0.240	0.256	0.254	AVRG		0.25050056		5.831	15.000
Naphthalene	0.952	0.970	0.955	0.793	0.833	0.798	AVRG		0.88334600		9.501	15.000
4-Chloroaniline	0.312	0.369	0.384	0.331	0.342	0.334	AVRG		0.34547508		7.689	15.000
Hexachlorobutadiene	0.180	0.180	0.186	0.163	0.172	0.169	AVRG		0.17503458		4.749	15.000
Caprolactam	0.070	0.084	0.094	0.082	0.091	0.100	AVRG		8.685e-002		12.369	15.000
4-Chloro-3-Methylphenol	0.247	0.256	0.256	0.236	0.253	0.247	AVRG		0.24907096		3.050	15.000
2-Methylnaphthalene	0.774	0.788	0.774	0.631	0.650	0.723	AVRG		0.72357806		9.443	15.000
Hexachlorocyclopentadiene	0.337	0.415	0.416	0.386	0.406	0.383	AVRG		0.39047610		7.565	15.000
2,4,6-Trichlorophenol	0.334	0.358	0.361	0.315	0.340	0.331	AVRG		0.33983933		5.089	15.000
2,4,5-Trichlorophenol	0.335	0.376	0.366	0.329	0.338	0.336	AVRG		0.34663059		5.519	15.000
2-Chloronaphthalene	0.419	0.451	0.443	0.360	0.385	0.371	AVRG		0.40492200		9.490	15.000
1,1'-Biphenyl	1.323	1.428	1.264	1.080	1.127	1.026	AVRG		1.20807585		12.889	15.000
2-Nitroaniline	0.254	0.294	0.295	0.271	0.299	0.306	AVRG		0.28639351		6.921	15.000
Dimethyl Phthalate	1.247	1.323	1.225	1.063	1.154	1.106	AVRG		1.18640280		8.136	15.000
2,6-Dinitrotoluene	0.256	0.279	0.282	0.247	0.270	0.273	AVRG		0.26783412		5.117	15.000
Acenaphthylene	1.828	1.824	1.842	1.539	1.592	1.477	AVRG		1.68372893		9.861	15.000
3-Nitroaniline	0.220	0.270	0.266	0.254	0.277	0.280	AVRG		0.26133569		8.458	15.000
Acenaphthene	1.114	1.173	1.066	0.960	1.030	0.982	AVRG		1.05404356		7.650	15.000
2,4-Dinitrophenol	2344	14011	43875	75703	124590	214590	2ORDR	0.13662679	13.3078856	-14.456603	0.99443	0.99000
Dibenzofuran	1.501	1.624	1.511	1.312	1.402	1.327	AVRG		1.44612892		8.359	15.000
4-Nitrophenol	0.043	0.097	0.138	0.118	0.131	0.097	AVRG		0.10434949		33.041	15.000
2,4-Dinitrotoluene	0.274	0.342	0.327	0.308	0.334	0.349	AVRG		0.32248180		8.574	15.000
Diethylphthalate	1.232	1.325	1.252	1.053	1.073	1.017	AVRG		1.15871430		10.948	15.000
Fluorene	1.239	1.239	1.236	1.055	1.086	1.014	AVRG		1.14504008		9.118	15.000
4-Chlorophenyl-phenylethe	0.584	0.624	0.611	0.519	0.539	0.534	AVRG		0.56866075		7.704	15.000
4-Nitroaniline	0.168	0.234	0.248	0.221	0.243	0.240	AVRG		0.22556930		13.224	15.000
4,6-Dinitro-2-Methylpheno	10096	38324	88891	145520	211590	331520	2ORDR	7.424e-002	11.1059689	-8.4423959	0.99814	0.99000
N-Nitrosodiphenylamine	0.595	0.646	0.618	0.548	0.607	0.598	AVRG		0.60178534		5.322	15.000

FORM VI SV

FORM 6
SEMIVOLATILE INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project CTO 407 NAS WEYMOUTH SDG No.: SC2728

Instrument ID: GCMS-U Calibration Date(s): 05/29/09 05/29/09

Column: DB5-MS ID: 0.25 (mm) Calibration Time(s): 0956 1335

LAB FILE ID: RF10: U7147 RF25: U7148 RF50: U7146
RF75: U7149 RF100: U7150 RF125: U7151

COMPOUND	RF10	RF25	RF50	RF75	RF100	RF125	CURVE	COEFFICENTS A0	A1	A2	%RSD OR R^2	MAX %RSD OR R^2
4-Bromophenyl-phenylether	0.215	0.242	0.238	0.210	0.218	0.218	AVRG		0.22340058		6.039	15.000
Hexachlorobenzene	0.254	0.263	0.261	0.234	0.253	0.248	AVRG		0.25220366		4.150	15.000
Atrazine	39552	88876	164350	201560	249600	324710	2ORDR	2.822e-002	3.75015976	11.4525988	0.99461	0.99000
Pentachlorophenol	11104	37219	80654	119900	202260	325480	2ORDR	4.791e-002	13.1395197	-13.565632	0.99477	0.99000
Phenanthrene	1.072	1.119	1.080	0.970	1.006	0.944	AVRG		1.03176421		6.661	15.000
Anthracene	1.054	1.156	1.076	0.887	0.968	0.984	AVRG		1.02075449		9.245	15.000
Carbazole	0.834	0.935	0.894	0.814	0.836	0.893	AVRG		0.86792091		5.377	15.000
Di-n-butylphthalate	1.347	1.364	1.274	1.054	1.101	1.109	AVRG		1.20820045		11.282	15.000
Fluoranthene	1.057	1.099	1.001	0.859	0.880	0.923	AVRG		0.96985767		10.082	15.000
Pyrene	1.128	1.285	1.215	1.103	1.125	1.116	AVRG		1.16226642		6.192	15.000
Butylbenzylphthalate	0.579	0.578	0.560	0.495	0.528	0.522	AVRG		0.54369419		6.245	15.000
Benzo(a)anthracene	0.946	0.951	0.929	0.836	0.956	0.920	AVRG		0.92307095		4.830	15.000
3,3'-Dichlorobenzidine	0.275	0.282	0.285	0.250	0.286	0.266	AVRG		0.27393827		5.106	15.000
Chrysene	0.949	0.946	0.924	0.774	0.839	0.798	AVRG		0.87176896		8.933	15.000
bis(2-Ethylhexyl)phthalat	0.815	0.789	0.814	0.680	0.738	0.714	AVRG		0.75831730		7.428	15.000
Di-n-octylphthalate	1.495	1.657	1.441	1.254	1.339	1.170	AVRG		1.39282738		12.595	15.000
Benzo(b)fluoranthene	1.006	1.058	0.962	0.847	0.952	0.881	AVRG		0.95116885		8.194	15.000
Benzo(k)fluoranthene	1.073	1.130	1.076	0.864	0.980	0.807	AVRG		0.98843194		13.057	15.000
Benzo(a)pyrene	0.916	0.955	0.945	0.817	0.910	0.824	AVRG		0.89456419		6.683	15.000
Indeno(1,2,3-cd)pyrene	0.601	0.715	0.733	0.678	0.780	0.730	AVRG		0.70632841		8.682	15.000
Dibenzo(a,h)anthracene	0.675	0.784	0.745	0.691	0.772	0.747	AVRG		0.73553159		5.967	15.000
Benzo(g,h,i)perylene	0.676	0.821	0.820	0.724	0.835	0.786	AVRG		0.77710432		8.189	15.000
2-Fluorophenol	1.042	1.092	1.122	0.977	1.081	0.988	AVRG		1.05030686		5.560	15.000
Phenol-D6	1.192	1.270	1.365	1.161	1.340	1.306	AVRG		1.27212022		6.401	15.000
Nitrobenzene-D5	0.282	0.314	0.319	0.280	0.312	0.308	AVRG		0.30225690		5.651	15.000
2-Fluorobiphenyl	1.224	1.351	1.269	1.109	1.170	1.054	AVRG		1.19617587		9.033	15.000
2,4,6-Tribromophenol	0.176	0.203	0.199	0.178	0.188	0.198	AVRG		0.19035703		6.024	15.000
Terphenyl-D14	0.767	0.804	0.765	0.693	0.712	0.676	AVRG		0.73638684		6.778	15.000

Average %RSD test result.

Calculate Average %RSD: 9.141575813
Maximum Average %RSD: 15.00000000

Note: Passes Average %RSD Test.

FORM VI SV

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2728

Instrument ID: GCMS-U Calibration Date: 06/10/09 Time: 0901

Lab File ID: U7274 Init. Calib. Date(s): 05/29/09 05/29/09

Init. Calib. Times: 0956 1335

GC Column: DB5-MS ID: 0.25 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
1,4-Dioxane	0.2820000	0.2924600	0.2924600	0.01	3.71	100.00	AVRG
Benzaldehyde	0.3850000	0.3396800	0.3396800	0.01	-11.77	100.00	AVRG
Phenol	1.3520000	1.4322000	1.4322000	0.01	5.93	20.00	AVRG
Bis(2-Chloroethyl)ether	1.0480000	1.0788000	1.0788000	0.01	2.94	100.00	AVRG
2-Chlorophenol	1.1510000	1.1327000	1.1327000	0.01	-1.59	100.00	AVRG
2-Methylphenol	1.0400000	1.0940000	1.0940000	0.01	5.19	100.00	AVRG
2,2'-Oxybis(1-chloropropane)	1.4630000	1.5978000	1.5978000	0.01	9.21	100.00	AVRG
Acetophenone	0.4040000	0.3736200	0.3736200	0.01	-7.52	100.00	AVRG
N-Nitroso-di-n-propylamine	0.7010000	0.7577000	0.7577000	0.05	8.09	100.00	AVRG
3&4-Methylphenol	1.0630000	1.1327000	1.1327000	0.01	6.56	100.00	AVRG
Hexachloroethane	0.5210000	0.5472200	0.5472200	0.01	5.03	100.00	AVRG
Nitrobenzene	0.3030000	0.3227400	0.3227400	0.01	6.51	100.00	AVRG
Isophorone	0.5720000	0.5662400	0.5662400	0.01	-1.01	100.00	AVRG
2-Nitrophenol	0.1580000	0.1585000	0.1585000	0.01	0.32	20.00	AVRG
2,4-Dimethylphenol	0.3070000	0.3001400	0.3001400	0.01	-2.23	100.00	AVRG
Bis(2-Chloroethoxy)methane	0.3380000	0.3523700	0.3523700	0.01	4.25	100.00	AVRG
2,4-Dichlorophenol	0.2510000	0.2449000	0.2449000	0.01	-2.43	20.00	AVRG
Naphthalene	0.8840000	0.8618800	0.8618800	0.01	-2.50	100.00	AVRG
4-Chloroaniline	0.3450000	0.3618700	0.3618700	0.01	4.89	100.00	AVRG
Hexachlorobutadiene	0.1750000	0.1704200	0.1704200	0.01	-2.62	20.00	AVRG
Caprolactam	8.7e-002	8.88e-002	8.88e-002	0.01	2.07	100.00	AVRG
4-Chloro-3-Methylphenol	0.2490000	0.2529800	0.2529800	0.01	1.60	20.00	AVRG
2-Methylnaphthalene	0.7230000	0.7333500	0.7333500	0.01	1.43	100.00	AVRG
Hexachlorocyclopentadiene	0.3900000	0.3835600	0.3835600	0.05	-1.65	100.00	AVRG
2,4,6-Trichlorophenol	0.3400000	0.3438100	0.3438100	0.01	1.12	20.00	AVRG
2,4,5-Trichlorophenol	0.3470000	0.3499100	0.3499100	0.01	0.84	100.00	AVRG
2-Chloronaphthalene	0.4050000	0.3955800	0.3955800	0.01	-2.32	100.00	AVRG
1,1'-Biphenyl	1.2080000	1.1651000	1.1651000	0.01	-3.55	100.00	AVRG
2-Nitroaniline	0.2860000	0.3120800	0.3120800	0.01	9.12	100.00	AVRG

FORM VII PEST

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2728

Instrument ID: GCMS-U Calibration Date: 06/10/09 Time: 0901

Lab File ID: U7274 Init. Calib. Date(s): 05/29/09 05/29/09

Init. Calib. Times: 0956 1335

GC Column: DB5-MS ID: 0.25 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
Dimethyl Phthalate	1.1860000	1.1886000	1.1886000	0.01	0.22	100.00	AVRG	
2,6-Dinitrotoluene	0.2680000	0.2767800	0.2767800	0.01	3.28	100.00	AVRG	
Acenaphthylene	1.6840000	1.6764000	1.6764000	0.01	-0.45	100.00	AVRG	
3-Nitroaniline	0.2610000	0.2776200	0.2776200	0.01	6.37	100.00	AVRG	
Acenaphthene	1.0540000	1.0427000	1.0427000	0.01	-1.07	20.00	AVRG	
2,4-Dinitrophenol	72.910000	50.000000	0.1213600	0.05	45.82	100.00	2RDR	
Dibenzofuran	1.4460000	1.4317000	1.4317000	0.01	-0.99	100.00	AVRG	
4-Nitrophenol	0.1040000	0.1247800	0.1247800	0.05	19.98	100.00	AVRG	
2,4-Dinitrotoluene	0.3220000	0.3575200	0.3575200	0.01	11.03	100.00	AVRG	
Diethylphthalate	1.1590000	1.1324000	1.1324000	0.01	-2.30	100.00	AVRG	
Fluorene	1.1450000	1.0813000	1.0813000	0.01	-5.56	100.00	AVRG	
4-Chlorophenyl-phenylether	0.5680000	0.5385300	0.5385300	0.01	-5.19	100.00	AVRG	
4-Nitroaniline	0.2260000	0.2409700	0.2409700	0.01	6.62	100.00	AVRG	
4,6-Dinitro-2-Methylphenol	60.918000	50.000000	0.1174600	0.01	21.84	100.00	2RDR	
N-Nitrosodiphenylamine	0.6020000	0.5782000	0.5782000	0.01	-3.95	20.00	AVRG	
4-Bromophenyl-phenylether	0.2240000	0.2199300	0.2199300	0.01	-1.82	100.00	AVRG	
Hexachlorobenzene	0.2520000	0.2450200	0.2450200	0.01	-2.77	100.00	AVRG	
Atrazine	51.811000	50.000000	0.1656000	0.01	3.62	100.00	2RDR	
Pentachlorophenol	69.444000	50.000000	0.1219900	0.01	38.89	20.00	2RDR	<-
Phenanthrene	1.0320000	1.0312000	1.0312000	0.01	-0.08	100.00	AVRG	
Anthracene	1.0210000	1.0263000	1.0263000	0.01	0.52	100.00	AVRG	
Carbazole	0.8680000	0.9054900	0.9054900	0.01	4.32	100.00	AVRG	
Di-n-butylphthalate	1.2080000	1.2193000	1.2193000	0.01	0.94	100.00	AVRG	
Fluoranthene	0.9700000	1.0006000	1.0006000	0.01	3.15	20.00	AVRG	
Pyrene	1.1620000	1.1458000	1.1458000	0.01	-1.39	100.00	AVRG	
Butylbenzylphthalate	0.5440000	0.5453400	0.5453400	0.01	0.25	100.00	AVRG	
Benzo(a)anthracene	0.9230000	0.9436800	0.9436800	0.01	2.24	100.00	AVRG	
3,3'-Dichlorobenzidine	0.2740000	0.2826200	0.2826200	0.01	3.15	100.00	AVRG	
Chrysene	0.8720000	0.9171000	0.9171000	0.01	5.17	100.00	AVRG	

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2728

Instrument ID: GCMS-U Calibration Date: 06/10/09 Time: 0901

Lab File ID: U7274 Init. Calib. Date(s): 05/29/09 05/29/09

Init. Calib. Times: 0956 1335

GC Column: DB5-MS ID: 0.25 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
bis(2-Ethylhexyl)phthalate	0.7580000	0.7313100	0.7313100	0.01	-3.52	100.00	AVRG
Di-n-octylphthalate	1.3930000	1.3872000	1.3872000	0.01	-0.42	20.00	AVRG
Benzo(b)fluoranthene	0.9510000	0.9422800	0.9422800	0.01	-0.92	100.00	AVRG
Benzo(k)fluoranthene	0.9880000	1.0126000	1.0126000	0.01	2.49	100.00	AVRG
Benzo(a)pyrene	0.8940000	0.9043600	0.9043600	0.01	1.16	20.00	AVRG
Indeno(1,2,3-cd)pyrene	0.7060000	0.6816200	0.6816200	0.01	-3.45	100.00	AVRG
Dibenzo(a,h)anthracene	0.7360000	0.7349200	0.7349200	0.01	-0.15	100.00	AVRG
Benzo(g,h,i)perylene	0.7770000	0.8119800	0.8119800	0.01	4.50	100.00	AVRG
2-Fluorophenol	1.0500000	1.0746000	1.0746000	0.01	2.34	100.00	AVRG
Phenol-D6	1.2720000	1.3074000	1.3074000	0.01	2.78	100.00	AVRG
Nitrobenzene-D5	0.3020000	0.3072000	0.3072000	0.01	1.72	100.00	AVRG
2-Fluorobiphenyl	1.1960000	1.1091000	1.1091000	0.01	-7.26	100.00	AVRG
2,4,6-Tribromophenol	0.1900000	0.1831500	0.1831500	0.01	-3.60	100.00	AVRG
Terphenyl-D14	0.7360000	0.7076900	0.7076900	0.01	-3.85	100.00	AVRG

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2728

Lab File ID (Standard): U7274 Date Analyzed: 06/10/09

Instrument ID: GCMS-U Time Analyzed: 0901

	IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
12 HOUR STD	290056	8.72	1112453	11.79	550236	16.33
UPPER LIMIT	580112	9.22	2224906	12.29	1100472	16.83
LOWER LIMIT	145028	8.22	556227	11.29	275118	15.83

	CLIENT SAMPLE ID	LAB SAMPLE ID						
01	WG64520-BLANK	WG64520-1	291103	8.72	1065297	11.78	536050	16.34
02	WG64520-LCS	WG64520-2	293277	8.73	1061740	11.79	508669	16.32
03	WG64520-LCSD	WG64520-3	292633	8.73	1080960	11.79	523263	16.32
04	WGL-SO-TP112-0406	SC2728-1	292127	8.72	1099721	11.78	526740	16.32
05								
06								
07								
08								
09								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

IS1 (DCB) = 1,4-Dichlorobenzene-D4
IS2 (NPT) = Naphthalene-D8
IS3 (ANT) = Acenaphthene-D10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM VIII SV

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2728

Lab File ID (Standard): U7274 Date Analyzed: 06/10/09

Instrument ID: GCMS-U Time Analyzed: 0901

		IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
12 HOUR STD		896499	20.24	811458	27.23	670781	30.71
UPPER LIMIT		1792998	20.74	1622916	27.73	1341562	31.21
LOWER LIMIT		448250	19.74	405729	26.73	335391	30.21
	CLIENT SAMPLE ID	LAB SAMPLE ID					
01	WG64520-BLANK	WG64520-1	941196	20.23	885079	27.22	699758	30.72
02	WG64520-LCS	WG64520-2	897387	20.23	872713	27.22	717823	30.71
03	WG64520-LCSD	WG64520-3	876663	20.23	840363	27.22	676964	30.71
04	WGL-SO-TP112-0406	SC2728-1	842646	20.23	657603	27.22	554581	30.71
05								
06								
07								
08								
09								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

IS4 (PHN) = Phenanthrene-D10
IS5 (CRY) = Chrysene-D12
IS6 (PRY) = Perylene-D12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM VIII SV

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 05/28/09
Received Date: 05/29/09
Extraction Date: 06/03/09
Analysis Date: 09-JUN-2009 23:22
Report Date: 06/10/2009
Matrix: SOIL
% Solids: 72.4

Lab ID: SC2728-1
Client ID: WGL-SO-TP112-0406
SDG: SC2728
Extracted by: AC
Extraction Method: SW846 3550
Analyst: RCT
Analysis Method: SW846 8082
Lab Prep Batch: WG64538
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
12674-11-2	Aroclor-1016	U	23	1.0	17	23	7.2
11104-28-2	Aroclor-1221	U	23	1.0	17	23	14
11141-16-5	Aroclor-1232	U	23	1.0	17	23	9.1
53469-21-9	Aroclor-1242	U	23	1.0	17	23	5.2
12672-29-6	Aroclor-1248	U	23	1.0	17	23	13
11097-69-1	Aroclor-1254	U	23	1.0	17	23	9.5
11096-82-5	Aroclor-1260	U	23	1.0	17	23	4.6
877-09-8	Tetrachloro-m-xylene		62%				
2051-24-3	Decachlorobiphenyl		77%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client:
Project: CTO 407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date: 06/03/09
Analysis Date: 05-JUN-2009 20:27
Report Date: 06/10/2009
Matrix: SOIL
% Solids: 100

Lab ID: WG64538-1
Client ID: WG64538-Blank
SDG: SC2728
Extracted by: AC
Extraction Method: SW846 3550
Analyst: RCT
Analysis Method: SW846 8082
Lab Prep Batch: WG64538
Units: ug/Kg

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
12674-11-2	Aroclor-1016	U	17	1.0	17	17	5.2
11104-28-2	Aroclor-1221	U	17	1.0	17	17	9.9
11141-16-5	Aroclor-1232	U	17	1.0	17	17	6.6
53469-21-9	Aroclor-1242	U	17	1.0	17	17	3.8
12672-29-6	Aroclor-1248	U	17	1.0	17	17	9.5
11097-69-1	Aroclor-1254	U	17	1.0	17	17	6.9
11096-82-5	Aroclor-1260	U	17	1.0	17	17	3.3
877-09-8	Tetrachloro-m-xylene		75%				
2051-24-3	Decachlorobiphenyl		83%				

FORM 2
SOIL PCB SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2728

GC Column(1): ZB-MULTIRESIDUE-1ID: 0.53 (mm)GC Column(2): ZB-MULTIRESIDUE-2ID: 0.53 (mm)

	CLIENT SAMPLE ID	LAB SAMPLE ID	TCX1 REC#	TCX2 REC#	DCB1 REC#	DCB2 REC#	OTHR (1)	OTHR (2)	TOT OUT
01	WG64538-BLANK	WG64538-1	70	75	82	83			0
02	WG64538-LCS	WG64538-2RA	79	84	83	84			0
03	WG64538-LCSD	WG64538-3RA	69	73	80	79			0
04	WGL-SO-TP112-0406	SC2728-1	52*	62	77	76			1
05									
06									
07									
08									
09									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									

ADVISORY
QC LIMITS

S1 (TCX) = Tetrachloro-m-xylene (56-115)
S2 (DCB) = Decachlorobiphenyl (59-124)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out

KATAHDIN ANALYTICAL SERVICES
LAB CONTROL SAMPLE

Client:
Project: CTO 407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date: 06/03/09
Analysis Date: 06/09/09
Report Date: 06/10/2009
Matrix: SOIL

Lab ID: WG64538-2RA& WG64538-3RA
Client ID: WG64538-LCS & WG64538-LCSD
SDG: SC2728
Extracted by: AC
Extraction Method: SW846 3550
Analyst: RCT
Analysis Method: SW846 8082
Lab Prep Batch: WG64538
Units: ug/Kgdrywt

COMPOUND	LCS SPIKE	LCSD SPIKE	SAMPLE CONC.	LCS CONC.	LCSD CONC.	LCS %REC.	LCSD %REC.	%RPD	%RPD LIMIT	QC. LIMITS
Aroclor-1016	167	167	NA	156	117	94	* 70	28	50	75-122
Aroclor-1260	167	167	NA	138	133	83	80	4	50	78-132

FORM III PCB-2

7CF090.D & 7CF091.D

FORM 4
PESTICIDE METHOD BLANK SUMMARY

CLIENT SAMPLE ID

WG64538-BLANK

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2728

Lab Sample ID: WG64538-1 Lab File ID: 7CF071

Matrix (soil/water) SOIL Extraction:(SepF/Cont/Sonc) SW846 3550

Sulfur Cleanup: (Y/N) N Date Extracted: 06/03/09

Date Analyzed (1): 06/05/09 Date Analyzed (2): 06/05/09

Time Analyzed (1): 2027 Time Analyzed (2): 2027

Instrument ID (1): GC07 Instrument ID (2): GC07

GC Column (1): ZB-MULTIRESIDUE-1 ID: 0.53(mm) GC Column (2): ZB-MULTIRESIDUE-2 ID: 0.53(mm

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	WG64538-LCS	WG64538-2RA	7CF090	06/09/09	06/09/09
02	WG64538-LCSD	WG64538-3RA	7CF091	06/09/09	06/09/09
03	WGL-SO-TP112-0406	SC2728-1	7CF108	06/09/09	06/09/09
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					

COMMENTS:

FORM IVPCB

FORM 6
PCB INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project CTO 407 NAS WEYMOUTH SDG No.: SC2728

Instrument ID: GC07 Calibration Date(s): 06/01/09 06/05/09

Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm) Calibration Time(s): 1706 1838

LAB FILE ID: RF0.05: 7CF063 RF0.1: 7CF064 RF0.25: 7CF065
RF1: 7CF032 RF2.5: 7CF066 RF10: 7CF067

COMPOUND	RF0.05	RF0.1	RF0.25	RF1	RF2.5	RF10	CURVE	COEFF. A1	%RSD OR R^2	MAX %RSD OR R^2	
Aroclor-1016	8040300	7452100	7071900	6331700	6664000	6301500	AVRG	6976932.40	9.797	20.000	
(2)	7274100	6845500	6645500	5843100	6389300	6191300	AVRG	6531465.92	7.725	20.000	
(3)	1e+007	1e+007	1e+007	1e+007	1e+007	1e+007	AVRG	12828645.5	5.327	20.000	
(4)	7538200	7367100	7185100	6345800	7134900	6779200	AVRG	7058393.23	6.121	20.000	
(5)	5158800	5212700	5139900	4606600	5006900	4948400	AVRG	5012206.13	4.431	20.000	
Aroclor-1221				2428600			AVRG	2428608.00	0.000	20.000	<-
(2)				1269200			AVRG	1269191.00	0.000	20.000	<-
(3)				3517700			AVRG	3517683.00	0.000	20.000	<-
(4)				2570000			AVRG	2569988.00	0.000	20.000	<-
Aroclor-1232				5544000			AVRG	5543961.00	0.000	20.000	<-
(2)				3220200			AVRG	3220231.00	0.000	20.000	<-
(3)				3098500			AVRG	3098517.00	0.000	20.000	<-
(4)				6000200			AVRG	6000174.00	0.000	20.000	<-
(5)				2226300			AVRG	2226346.00	0.000	20.000	<-
Aroclor-1242	6342900	6190000	6062600	5501200	5385400	5026200	AVRG	5751390.88	9.074	20.000	
(2)	5806900	5644100	5608000	5184800	5236100	4879000	AVRG	5393156.07	6.491	20.000	
(3)	1e+007	1e+007	1e+007	1.e+007	1.e+007	9833200	AVRG	10462910.5	3.247	20.000	
(4)	6086800	5978700	5936300	5658500	5672600	5353200	AVRG	5781012.27	4.683	20.000	
(5)	4365800	4333100	4343500	3999400	4099200	4034600	AVRG	4195929.77	4.037	20.000	
Aroclor-1248	7649300	7278000	7136600	6762000	6647000	6405800	AVRG	6979758.40	6.564	20.000	
(2)	7720400	7705700	7570700	7312400	7289900	7141400	AVRG	7456761.98	3.244	20.000	
(3)	5367200	5267700	5386400	5132000	5262800	5217300	AVRG	5272244.73	1.796	20.000	
(4)	6450200	6297800	6443200	6089500	6225000	6134000	AVRG	6273306.05	2.431	20.000	
(5)	3772900	3701800	3652500	3572800	3620900	3637300	AVRG	3659707.13	1.901	20.000	
Aroclor-1254	1e+007	1e+007	9977200	8165300	9668000	8722800	AVRG	9774438.22	12.296	20.000	
(2)	7418200	6765200	6463500	5435100	6441400	5964600	AVRG	6414680.35	10.562	20.000	
(3)	1e+007	1e+007	1e+007	9953100	1e+007	1e+007	AVRG	11811713.0	10.262	20.000	
(4)	8934300	8533900	7917800	6972500	7961200	7301800	AVRG	7936935.43	9.234	20.000	
(5)	9425300	8658100	8215900	7330200	8319600	7624900	AVRG	8262336.72	9.041	20.000	
Aroclor-1260	8311200	8350700	8233500	7221600	8003300	7729200	AVRG	7974921.05	5.465	20.000	
(2)	1.e+007	1.e+007	9754400	9113500	9716300	9415600	AVRG	9747931.77	4.607	20.000	
(3)	1.e+007	9704400	9809000	9133700	9988200	9930300	AVRG	9777330.72	3.518	20.000	
(4)	1e+007	1e+007	1e+007	1e+007	2e+007	1e+007	AVRG	14398222.1	3.867	20.000	
(5)	8734100	8137000	8110900	7487800	8189000	8390200	AVRG	8174847.10	5.004	20.000	
Tetrachloro-m-xylene	3e+008	3.e+008	3e+008	3e+008	3.e+008	3e+008	AVRG	297147183	5.615	20.000	
Decachlorobiphenyl	1e+008	1e+008	1e+008	1.e+008	1e+008	1e+008	AVRG	115223851	9.729	20.000	

FORM VI PCB

Report Date : 10-Jun-2009 15:23

Katahdin Analytical Services

INITIAL CALIBRATION DATA

Start Cal Date : 01-JUN-2009 17:06
End Cal Date : 05-JUN-2009 18:38
Quant Method : ESTD
Origin : Disabled
Target Version : 4.12
Integrator : Falcon
Method file : \\target_server\gg\chem\gc07.i\GC07CF09.b\PCB013LB.m
Cal Date : 10-Jun-2009 09:26 rthomas
Curve Type : Average

Calibration File Names:
Level 1: \\target_server\gg\chem\gc07.i\GC07CF05.b\7CF063.D
Level 2: \\target_server\gg\chem\gc07.i\GC07CF05.b\7CF064.D
Level 3: \\target_server\gg\chem\gc07.i\GC07CF05.b\7CF065.D
Level 4: \\target_server\gg\chem\gc07.i\GC07CF01.b\7CF032.D
Level 5: \\target_server\gg\chem\gc07.i\GC07CF05.b\7CF066.D
Level 6: \\target_server\gg\chem\gc07.i\GC07CF05.b\7CF067.D

Compound	0.05000 Level 1	0.10000 Level 2	0.25000 Level 3	1.000 Level 4	2.500 Level 5	10.000 Level 6	___ RRF	% RSD
M 1 Total PCBs	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
2 Aroclor-1221(1)	+++++	+++++	+++++	2428608	+++++	+++++	2428608	0.000
(2)	+++++	+++++	+++++	1269191	+++++	+++++	1269191	0.000
(3)	+++++	+++++	+++++	3517683	+++++	+++++	3517683	0.000
(4)	+++++	+++++	+++++	2569988	+++++	+++++	2569988	0.000
4 Aroclor-1232(1)	+++++	+++++	+++++	5543961	+++++	+++++	5543961	0.000
(2)	+++++	+++++	+++++	3220231	+++++	+++++	3220231	0.000
(3)	+++++	+++++	+++++	3098517	+++++	+++++	3098517	0.000
(4)	+++++	+++++	+++++	6000174	+++++	+++++	6000174	0.000
(5)	+++++	+++++	+++++	2226346	+++++	+++++	2226346	0.000
5 Aroclor-1242(1)	6342940	6190000	6062616	5501229	5385393	5026168	5751391	9.074
(2)	5806880	5644100	5608008	5184848	5236136	4878964	5393156	6.491
(3)	10705640	10752440	10638104	10379758	10468344	9833177	10462910	3.247
(4)	6086760	5978720	5936348	5658520	5672566	5353159	5781012	4.683
(5)	4365820	4333070	4343504	3999396	4099192	4034596	4195930	4.037
6 Aroclor-1016(1)	8040260	7452140	7071940	6331674	6664056	6301525	6976932	9.797
(2)	7274100	6845470	6645528	5843117	6389307	6191274	6531466	7.725
(3)	13733320	13186580	12956052	11775937	12981594	12338390	12828645	5.327
(4)	7538180	7367120	7185140	6345777	7134916	6779226	7058393	6.121
(5)	5158760	5212700	5139944	4606591	5006860	4948381	5012206	4.431
7 Aroclor-1248(1)	7649320	7277950	7136556	6761980	6646980	6405764	6979758	6.564
(2)	7720440	7705740	7570724	7312356	7289931	7141381	7456762	3.244
(3)	5367240	5267720	5386388	5132041	5262757	5217323	5272245	1.796
(4)	6450240	6297800	6443248	6089546	6225008	6133994	6273306	2.431
(5)	3772900	3701850	3652508	3572787	3620877	3637321	3659707	1.901
8 Aroclor-1254(1)	11361600	10751720	9977168	8165319	9668047	8722775	9774438	12.296
(2)	7418240	6765250	6463484	5435093	6441450	5964566	6414680	10.562
(3)	13338040	12542530	12052616	9953137	12110491	10873464	11811713	10.262

Report Date : 10-Jun-2009 15:23

Katahdin Analytical Services

INITIAL CALIBRATION DATA

Start Cal Date : 01-JUN-2009 17:06
End Cal Date : 05-JUN-2009 18:38
Quant Method : ESTD
Origin : Disabled
Target Version : 4.12
Integrator : Falcon
Method file : \\target_server\gg\chem\gc07.i\GC07CF09.b\PCB013LB.m
Cal Date : 10-Jun-2009 09:26 rthomas
Curve Type : Average

Compound	0.05000 Level 1	0.10000 Level 2	0.25000 Level 3	1.000 Level 4	2.500 Level 5	10.000 Level 6	___ RRF	% RSD
(4)	8934320	8533940	7917792	6972511	7961224	7301826	7936935	9.234
(5)	9425340	8658090	8215912	7330177	8319565	7624937	8262337	9.041
9 Aroclor-1260(1)	8311200	8350670	8233492	7221588	8003334	7729242	7974921	5.465
(2)	10279780	10207920	9754444	9113543	9716301	9415603	9747932	4.607
(3)	10098320	9704380	9809048	9133665	9988248	9930323	9777331	3.518
(4)	14325440	14185960	14053272	13719652	15231150	14873858	14398222	3.867
(5)	8734080	8136990	8110900	7487859	8189037	8390216	8174847	5.004
10 Aroclor-1262(1)	+++++	+++++	+++++	7038743	+++++	+++++	7038743	0.000
(2)	+++++	+++++	+++++	8289294	+++++	+++++	8289294	0.000
(3)	+++++	+++++	+++++	10998491	+++++	+++++	10998491	0.000
(4)	+++++	+++++	+++++	8344242	+++++	+++++	8344242	0.000
(5)	+++++	+++++	+++++	11324234	+++++	+++++	11324234	0.000
11 Aroclor-1268(1)	+++++	+++++	+++++	23938600	+++++	+++++	23938600	0.000
(2)	+++++	+++++	+++++	19889917	+++++	+++++	19889917	0.000
(3)	+++++	+++++	+++++	16500337	+++++	+++++	16500337	0.000
(4)	+++++	+++++	+++++	6208084	+++++	+++++	6208084	0.000
(5)	+++++	+++++	+++++	7571687	+++++	+++++	7571687	0.000
$ 3 Tetrachloro-m-xylene	325087000	297911000	293817200	273259800	300139280	292668820	297147183	5.615
$ 12 Decachlorobiphenyl	132191000	122781000	118825200	103977200	107623360	105945345	115223851	9.729

Report Date: 10-Jun-2009 15:23

Calibration History

Method : \\target_server\gg\chem\gc07.i\GC07CF09.b\PCB013LB.m
Start Cal Date: 01-JUN-2009 17:06
End Cal Date : 05-JUN-2009 18:38
Last Cal Level: 6
Last Cal Type : Continuing Calibration

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 0.05000		
05-JUN-2009 16:50	AR1254	7CF063.D
01-JUN-2009 23:54	AR1248	7CF018.D
01-JUN-2009 21:11	AR1242	7CF012.D
01-JUN-2009 17:34	AR1660	7CF004.D
Cal Level: 2 , Cal Amount: 0.10000		
05-JUN-2009 17:17	AR1254	7CF064.D
02-JUN-2009 00:21	AR1248	7CF019.D
01-JUN-2009 21:38	AR1242	7CF013.D
01-JUN-2009 18:01	AR1660	7CF005.D
Cal Level: 3 , Cal Amount: 0.25000		
05-JUN-2009 17:44	AR1254	7CF065.D
02-JUN-2009 00:48	AR1248	7CF020.D
01-JUN-2009 22:05	AR1242	7CF014.D
01-JUN-2009 18:28	AR1660	7CF006.D
Cal Level: 4 , Cal Amount: 1.00000		
02-JUN-2009 06:10	AR1268	7CF032.D
02-JUN-2009 05:43	AR1262	7CF031.D
02-JUN-2009 05:16	AR1232	7CF030.D
02-JUN-2009 04:49	AR1221	7CF029.D
05-JUN-2009 16:23	AR1254	7CF062.D
01-JUN-2009 23:27	AR1248	7CF017.D
01-JUN-2009 20:44	AR1242	7CF011.D
01-JUN-2009 17:06	AR1660	7CF003.D
Cal Level: 5 , Cal Amount: 2.50000		
05-JUN-2009 18:11	AR1254	7CF066.D
02-JUN-2009 01:14	AR1248	7CF021.D
01-JUN-2009 22:33	AR1242	7CF015.D
01-JUN-2009 18:55	AR1660	7CF007.D
Cal Level: 6 , Cal Amount: 10.00000		

05-JUN-2009 18:38	AR1254	7CF067.D
02-JUN-2009 01:41	AR1248	7CF022.D
01-JUN-2009 23:00	AR1242	7CF016.D
01-JUN-2009 19:23	AR1660	7CF008.D

Continuing Calibration
Ccal Level Mode: BY SAMPLE

10-JUN-2009 02:32	AR1254	7CF115.D
10-JUN-2009 02:05	AR1248	7CF114.D
10-JUN-2009 01:38	AR1242	7CF113.D
10-JUN-2009 01:11	AR1660	7CF112.D
09-JUN-2009 19:45	AR1248	7CF100.D
09-JUN-2009 18:51	AR1660	7CF098.D
09-JUN-2009 20:13	AR1254	7CF101.D
09-JUN-2009 19:18	AR1242	7CF099.D
09-JUN-2009 11:14	AR1660	7CF086.D
09-JUN-2009 10:19	AR1248	7CF084.D
09-JUN-2009 10:46	AR1254	7CF085.D
09-JUN-2009 09:51	AR1242	7CF083.D
09-JUN-2009 09:24	AR1660	7CF082.D

FORM 6
PCB INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project CTO 407 NAS WEYMOUTH SDG No.: SC2728

Instrument ID: GC07 Calibration Date(s): 06/01/09 06/05/09

Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm) Calibration Time(s): 1706 1838

LAB FILE ID: RF0.05: 7CF063 RF0.1: 7CF064 RF0.25: 7CF065
RF1: 7CF032 RF2.5: 7CF066 RF10: 7CF067

COMPOUND	RF0.05	RF0.1	RF0.25	RF1	RF2.5	RF10	CURVE	COEFF. A1	%RSD OR R^2	MAX %RSD OR R^2	
Aroclor-1016	1391400	1234200	1175700	1058400	1128500	1097500	AVRG	1180941.55	10.155	20.000	
(2)	1092900	981740	952150	847080	915720	899150	AVRG	948130.350	8.922	20.000	
(3)	2321600	2137200	2081900	2045900	2203700	2113500	AVRG	2150620.62	4.616	20.000	
(4)	1278400	1139400	1125000	1011700	1090100	1082000	AVRG	1121108.03	7.933	20.000	
(5)	1012900	947400	876210	797140	861350	871650	AVRG	894442.250	8.404	20.000	
Aroclor-1221				133090			AVRG	133093.000	0.000	20.000	<-
(2)				183040			AVRG	183044.000	0.000	20.000	<-
(3)				604260			AVRG	604257.000	0.000	20.000	<-
(4)				425310			AVRG	425308.000	0.000	20.000	<-
Aroclor-1232				933620			AVRG	933616.000	0.000	20.000	<-
(2)				519390			AVRG	519394.000	0.000	20.000	<-
(3)				430680			AVRG	430678.000	0.000	20.000	<-
(4)				958670			AVRG	958672.000	0.000	20.000	<-
(5)				373680			AVRG	373685.000	0.000	20.000	<-
Aroclor-1242	1072600	1014800	999470	903080	925250	876910	AVRG	965361.633	7.811	20.000	
(2)	832920	797900	780400	718100	723440	728360	AVRG	763521.150	6.196	20.000	
(3)	1770200	1701700	1723000	1667100	1753000	1673300	AVRG	1714723.95	2.441	20.000	
(4)	961600	920790	920880	847710	886440	883210	AVRG	903438.817	4.370	20.000	
(5)	783940	758290	749920	687000	709740	707850	AVRG	732789.950	5.036	20.000	
Aroclor-1248	1048600	1013800	961310	954050	971800	987230	AVRG	989465.350	3.631	20.000	
(2)	1334300	1302500	1273500	1236500	1286300	1246800	AVRG	1279973.38	2.823	20.000	
(3)	900140	862930	842040	839440	875080	888820	AVRG	868074.767	2.837	20.000	
(4)	1675600	1582300	1590700	1656600	1705200	1638700	AVRG	1641539.15	2.926	20.000	
(5)	1130600	1088700	1083000	1113400	1163700	1168700	AVRG	1124676.58	3.243	20.000	
Aroclor-1254	2240500	1947100	1838800	1614500	1867500	1702400	AVRG	1868478.03	11.665	20.000	
(2)	1817900	1619300	1468700	1287100	1460500	1349700	AVRG	1500547.10	12.845	20.000	
(3)	1305700	1149300	1060000	960250	1103300	1031300	AVRG	1101643.70	10.786	20.000	
(4)	2281400	2074200	1982600	1782600	2026000	1820600	AVRG	1994573.65	9.106	20.000	
(5)	1556700	1404000	1296600	1225400	1352500	1257300	AVRG	1348742.28	8.936	20.000	
Aroclor-1260	1515200	1362800	1335200	1229400	1332900	1311700	AVRG	1347877.42	6.955	20.000	
(2)	1698700	1534900	1523500	1376200	1561000	1511200	AVRG	1534256.97	6.736	20.000	
(3)	1478000	1311900	1294500	1172800	1364800	1338700	AVRG	1326790.18	7.495	20.000	
(4)	2435900	2335600	2352200	2227100	2483900	2347900	AVRG	2363757.03	3.760	20.000	
(5)	1336900	1291200	1340100	1357600	1474600	1504600	AVRG	1384167.23	6.147	20.000	
Tetrachloro-m-xylene	5e+007	5e+007	5e+007	5e+007	5e+007	5e+007	AVRG	49641372.5	6.286	20.000	
Decachlorobiphenyl	2e+007	2e+007	2e+007	2e+007	2e+007	2e+007	AVRG	18751230.0	9.130	20.000	

FORM VI PCB

Report Date : 10-Jun-2009 15:23

Katahdin Analytical Services

INITIAL CALIBRATION DATA

Start Cal Date : 01-JUN-2009 17:06
End Cal Date : 05-JUN-2009 18:38
Quant Method : ESTD
Origin : Disabled
Target Version : 4.12
Integrator : Falcon
Method file : \\target_server\gg\chem\gc07.i\GC07CF09.b\PCB013LB.m\PCB01
Cal Date : 10-Jun-2009 09:27 rthomas
Curve Type : Average

Calibration File Names:
Level 1: \\target_server\gg\chem\gc07.i\GC07CF05.b\GC07CF05.b\7CF063.D
Level 2: \\target_server\gg\chem\gc07.i\GC07CF05.b\GC07CF05.b\7CF064.D
Level 3: \\target_server\gg\chem\gc07.i\GC07CF05.b\GC07CF05.b\7CF065.D
Level 4: \\target_server\gg\chem\gc07.i\GC07CF01.b\GC07CF01.b\7CF032.D
Level 5: \\target_server\gg\chem\gc07.i\GC07CF05.b\GC07CF05.b\7CF066.D
Level 6: \\target_server\gg\chem\gc07.i\GC07CF05.b\GC07CF05.b\7CF067.D

Compound	0.05000 Level 1	0.10000 Level 2	0.25000 Level 3	1.000 Level 4	2.500 Level 5	10.000 Level 6	___ RRF	% RSD
M 1 Total PCBs	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
3 Aroclor-1221(1)	+++++	+++++	+++++	133093	+++++	+++++	133093	0.000
(2)	+++++	+++++	+++++	183044	+++++	+++++	183044	0.000
(3)	+++++	+++++	+++++	604257	+++++	+++++	604257	0.000
(4)	+++++	+++++	+++++	425308	+++++	+++++	425308	0.000
4 Aroclor-1232(1)	+++++	+++++	+++++	933616	+++++	+++++	933616	0.000
(2)	+++++	+++++	+++++	519394	+++++	+++++	519394	0.000
(3)	+++++	+++++	+++++	430678	+++++	+++++	430678	0.000
(4)	+++++	+++++	+++++	958672	+++++	+++++	958672	0.000
(5)	+++++	+++++	+++++	373685	+++++	+++++	373685	0.000
5 Aroclor-1016(1)	1391420	1234210	1175668	1058367	1128472	1097513	1180942	10.155
(2)	1092940	981740	952148	847083	915719	899152	948130	8.922
(3)	2321560	2137150	2081916	2045897	2203699	2113502	2150621	4.616
(4)	1278420	1139390	1124976	1011700	1090140	1082022	1121108	7.933
(5)	1012900	947400	876212	797136	861353	871652	894442	8.404
6 Aroclor-1242(1)	1072640	1014810	999472	903084	925252	876912	965362	7.811
(2)	832920	797900	780404	718105	723436	728362	763521	6.196
(3)	1770200	1701690	1722996	1667147	1753020	1673290	1714724	2.441
(4)	961600	920790	920880	847706	886445	883212	903439	4.370
(5)	783940	758290	749924	686996	709742	707848	732790	5.036
7 Aroclor-1248(1)	1048600	1013800	961312	954049	971798	987233	989465	3.631
(2)	1334300	1302460	1273484	1236549	1286268	1246780	1279973	2.823
(3)	900140	862930	842040	839441	875078	888819	868075	2.837
(4)	1675620	1582340	1590728	1656632	1705204	1638711	1641539	2.926
(5)	1130620	1088690	1082976	1113418	1163672	1168684	1124677	3.243
8 Aroclor-1254(1)	2240480	1947140	1838840	1614513	1867474	1702421	1868478	11.665
(2)	1817900	1619340	1468692	1287101	1460549	1349701	1500547	12.845
(3)	1305720	1149330	1060012	960248	1103272	1031281	1101644	10.786

Report Date : 10-Jun-2009 15:23

Katahdin Analytical Services

INITIAL CALIBRATION DATA

Start Cal Date : 01-JUN-2009 17:06
End Cal Date : 05-JUN-2009 18:38
Quant Method : ESTD
Origin : Disabled
Target Version : 4.12
Integrator : Falcon
Method file : \\target_server\gg\chem\gc07.i\GC07CF09.b\PCB013LB.m\PCB0
Cal Date : 10-Jun-2009 09:27 rthomas
Curve Type : Average

Compound	0.05000 Level 1	0.10000 Level 2	0.25000 Level 3	1.000 Level 4	2.500 Level 5	10.000 Level 6	___ RRF	% RSD
(4)	2281360	2074250	1982584	1782644	2026050	1820554	1994574	9.106
(5)	1556740	1403960	1296556	1225408	1352512	1257278	1348742	8.936
9 Aroclor-1260(1)	1515200	1362840	1335196	1229441	1332876	1311712	1347877	6.955
(2)	1698700	1534880	1523532	1376157	1561030	1511243	1534257	6.736
(3)	1478020	1311890	1294504	1172769	1364817	1338741	1326790	7.495
(4)	2435900	2335550	2352244	2227082	2483896	2347871	2363757	3.760
(5)	1336920	1291230	1340084	1357580	1474628	1504561	1384167	6.147
10 Aroclor-1262(1)	+++++	+++++	+++++	1181918	+++++	+++++	1181918	0.000
(2)	+++++	+++++	+++++	1735633	+++++	+++++	1735633	0.000
(3)	+++++	+++++	+++++	1499081	+++++	+++++	1499081	0.000
(4)	+++++	+++++	+++++	1869067	+++++	+++++	1869067	0.000
(5)	+++++	+++++	+++++	947424	+++++	+++++	947424	0.000
11 Aroclor-1268(1)	+++++	+++++	+++++	3984957	+++++	+++++	3984957	0.000
(2)	+++++	+++++	+++++	3595492	+++++	+++++	3595492	0.000
(3)	+++++	+++++	+++++	2761270	+++++	+++++	2761270	0.000
(4)	+++++	+++++	+++++	1054179	+++++	+++++	1054179	0.000
(5)	+++++	+++++	+++++	1288043	+++++	+++++	1288043	0.000
$ 2 Tetrachloro-m-xylene	53205000	48689000	46920600	45383500	51867680	51782455	49641373	6.286
$ 12 Decachlorobiphenyl	21988000	18900500	18326000	16928300	18235480	18129100	18751230	9.130

Report Date: 10-Jun-2009 15:23

Calibration History

Method : \\target_server\gg\chem\gc07.i\GC07CF09.b\PCB013LB.m\PCB013LB.m
Start Cal Date: 01-JUN-2009 17:06
End Cal Date : 05-JUN-2009 18:38
Last Cal Level: 6
Last Cal Type : Continuing Calibration

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 0.05000		
05-JUN-2009 16:50	AR1254	7CF063.D
01-JUN-2009 23:54	AR1248	7CF018.D
01-JUN-2009 21:11	AR1242	7CF012.D
01-JUN-2009 17:34	AR1660	7CF004.D

Cal Level: 2 , Cal Amount: 0.10000		
05-JUN-2009 17:17	AR1254	7CF064.D
02-JUN-2009 00:21	AR1248	7CF019.D
01-JUN-2009 21:38	AR1242	7CF013.D
01-JUN-2009 18:01	AR1660	7CF005.D

Cal Level: 3 , Cal Amount: 0.25000		
05-JUN-2009 17:44	AR1254	7CF065.D
02-JUN-2009 00:48	AR1248	7CF020.D
01-JUN-2009 22:05	AR1242	7CF014.D
01-JUN-2009 18:28	AR1660	7CF006.D

Cal Level: 4 , Cal Amount: 1.00000		
02-JUN-2009 06:10	AR1268	7CF032.D
02-JUN-2009 05:43	AR1262	7CF031.D
02-JUN-2009 05:16	AR1232	7CF030.D
02-JUN-2009 04:49	AR1221	7CF029.D
05-JUN-2009 16:23	AR1254	7CF062.D
01-JUN-2009 23:27	AR1248	7CF017.D
01-JUN-2009 20:44	AR1242	7CF011.D
01-JUN-2009 17:06	AR1660	7CF003.D

Cal Level: 5 , Cal Amount: 2.50000		
05-JUN-2009 18:11	AR1254	7CF066.D
02-JUN-2009 01:14	AR1248	7CF021.D
01-JUN-2009 22:33	AR1242	7CF015.D
01-JUN-2009 18:55	AR1660	7CF007.D

Cal Level: 6 , Cal Amount: 10.00000		

05-JUN-2009 18:38	AR1254	7CF067.D
02-JUN-2009 01:41	AR1248	7CF022.D
01-JUN-2009 23:00	AR1242	7CF016.D
01-JUN-2009 19:23	AR1660	7CF008.D

Continuing Calibration
Ccal Level Mode: BY SAMPLE

10-JUN-2009 02:32	AR1254	7CF115.D
10-JUN-2009 02:05	AR1248	7CF114.D
10-JUN-2009 01:38	AR1242	7CF113.D
10-JUN-2009 01:11	AR1660	7CF112.D
09-JUN-2009 19:18	AR1242	7CF099.D
09-JUN-2009 18:51	AR1660	7CF098.D
09-JUN-2009 20:13	AR1254	7CF101.D
09-JUN-2009 19:45	AR1248	7CF100.D
09-JUN-2009 11:14	AR1660	7CF086.D
09-JUN-2009 10:19	AR1248	7CF084.D
09-JUN-2009 10:46	AR1254	7CF085.D
09-JUN-2009 09:51	AR1242	7CF083.D
09-JUN-2009 09:24	AR1660	7CF082.D

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2728

Instrument ID: GC07 Calibration Date: 06/01/09 Time: 1950

Lab File ID: 7CF009 Init. Calib. Date(s): 06/01/09 06/02/09

Init. Calib. Times: 1706 0610

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1016	6976900.0	6429200.0	0.001	-7.85	20.00	AVRG
(2)	6531500.0	6089800.0	0.001	-6.76	20.00	AVRG
(3)	12828000	12250000	0.001	-4.50	20.00	AVRG
(4)	7058400.0	6691900.0	0.001	-5.19	20.00	AVRG
(5)	5012200.0	4693500.0	0.001	-6.36	20.00	AVRG
Average %D: -6.140						

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2728

Instrument ID: GC07 Calibration Date: 06/01/09 Time: 1950

Lab File ID: 7CF009 Init. Calib. Date(s): 06/01/09 06/02/09

Init. Calib. Times: 1706 0610

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1016	1181000.0	1066700.0	0.001	-9.68	20.00	AVRG
(2)	948120.00	855740.00	0.001	-9.74	20.00	AVRG
(3)	2150600.0	2035500.0	0.001	-5.35	20.00	AVRG
(4)	1121100.0	1027900.0	0.001	-8.31	20.00	AVRG
(5)	894440.00	807960.00	0.001	-9.67	20.00	AVRG
Average %D: -8.550						

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2728

Instrument ID: GC07 Calibration Date: 06/01/09 Time: 2017

Lab File ID: 7CF010 Init. Calib. Date(s): 06/01/09 06/02/09

Init. Calib. Times: 1706 0610

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1260	7974900.0	8215500.0	0.001	3.02	20.00	AVRG
(2)	9748000.0	10018000	0.001	2.77	20.00	AVRG
(3)	9777300.0	10836000	0.001	10.83	20.00	AVRG
(4)	14398000	13362000	0.001	-7.20	20.00	AVRG
(5)	8174800.0	7539400.0	0.001	-7.77	20.00	AVRG
Average %D: 0.3300						

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2728

Instrument ID: GC07 Calibration Date: 06/01/09 Time: 2017

Lab File ID: 7CF010 Init. Calib. Date(s): 06/01/09 06/02/09

Init. Calib. Times: 1706 0610

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1260	1347900.0	1335000.0	0.001	-0.96	20.00	AVRG
(2)	1534200.0	1536500.0	0.001	0.15	20.00	AVRG
(3)	1326800.0	1396200.0	0.001	5.23	20.00	AVRG
(4)	2363800.0	2264600.0	0.001	-4.20	20.00	AVRG
(5)	1384200.0	1335100.0	0.001	-3.55	20.00	AVRG
Average %D: -0.660						

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2728

Instrument ID: GC07 Calibration Date: 06/05/09 Time: 1251

Lab File ID: 7CF060 Init. Calib. Date(s): 06/01/09 06/01/09

Init. Calib. Times: 1706 1923

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1016	6976900.0	6270400.0	0.001	-10.13	20.00	AVRG
(2)	6531500.0	5846500.0	0.001	-10.49	20.00	AVRG
(3)	12828000	11918000	0.001	-7.09	20.00	AVRG
(4)	7058400.0	6472900.0	0.001	-8.30	20.00	AVRG
(5)	5012200.0	4559500.0	0.001	-9.03	20.00	AVRG
Average %D: -9.010						
Aroclor-1260	7974900.0	7513300.0	0.001	-5.79	20.00	AVRG
(2)	9748000.0	9046100.0	0.001	-7.20	20.00	AVRG
(3)	9777300.0	9594500.0	0.001	-1.87	20.00	AVRG
(4)	14398000	14666000	0.001	1.86	20.00	AVRG
(5)	8174800.0	8140800.0	0.001	-0.42	20.00	AVRG
Average %D: -2.680						
Tetrachloro-m-xylene	297150000	273640000	0.001	-7.91	20.00	AVRG
Decachlorobiphenyl	115220000	114500000	0.001	-0.62	20.00	AVRG

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2728

Instrument ID: GC07 Calibration Date: 06/05/09 Time: 1251

Lab File ID: 7CF060 Init. Calib. Date(s): 06/01/09 06/01/09

Init. Calib. Times: 1706 1923

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1016	1181000.0	1049200.0	0.001	-11.16	20.00	AVRG
(2)	948120.00	842630.00	0.001	-11.13	20.00	AVRG
(3)	2150600.0	2019100.0	0.001	-6.11	20.00	AVRG
(4)	1121100.0	1039300.0	0.001	-7.30	20.00	AVRG
(5)	894440.00	814070.00	0.001	-8.98	20.00	AVRG
Average %D: -8.940						
Aroclor-1260	1347900.0	1250100.0	0.001	-7.26	20.00	AVRG
(2)	1534200.0	1509500.0	0.001	-1.61	20.00	AVRG
(3)	1326800.0	1274600.0	0.001	-3.93	20.00	AVRG
(4)	2363800.0	2411200.0	0.001	2.00	20.00	AVRG
(5)	1384200.0	1433800.0	0.001	3.58	20.00	AVRG
Average %D: -1.440						
Tetrachloro-m-xylene	49642000	44972000	0.001	-9.41	20.00	AVRG
Decachlorobiphenyl	18751000	18310000	0.001	-2.35	20.00	AVRG

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2728

Instrument ID: GC07 Calibration Date: 06/05/09 Time: 2336

Lab File ID: 7CF078 Init. Calib. Date(s): 06/01/09 06/01/09

Init. Calib. Times: 1706 1923

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF0.2500 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1016	6976900.0	7101200.0	0.001	1.78	20.00	AVRG
(2)	6531500.0	6620000.0	0.001	1.36	20.00	AVRG
(3)	12828000	13006000	0.001	1.39	20.00	AVRG
(4)	7058400.0	7094800.0	0.001	0.52	20.00	AVRG
(5)	5012200.0	5209800.0	0.001	3.94	20.00	AVRG
Average %D: 1.8000						
Aroclor-1260	7974900.0	8168300.0	0.001	2.42	20.00	AVRG
(2)	9748000.0	9625800.0	0.001	-1.25	20.00	AVRG
(3)	9777300.0	9621200.0	0.001	-1.60	20.00	AVRG
(4)	14398000	14471000	0.001	0.51	20.00	AVRG
(5)	8174800.0	8230800.0	0.001	0.68	20.00	AVRG
Average %D: 0.1600						
Tetrachloro-m-xylene	297150000	286770000	0.001	-3.49	20.00	AVRG
Decachlorobiphenyl	115220000	126900000	0.001	10.14	20.00	AVRG

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2728

Instrument ID: GC07 Calibration Date: 06/05/09 Time: 2336

Lab File ID: 7CF078 Init. Calib. Date(s): 06/01/09 06/01/09

Init. Calib. Times: 1706 1923

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF0.2500 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1016	1181000.0	1180700.0	0.001	-0.02	20.00	AVRG
(2)	948120.00	943470.00	0.001	-0.49	20.00	AVRG
(3)	2150600.0	2128100.0	0.001	-1.05	20.00	AVRG
(4)	1121100.0	1122900.0	0.001	0.16	20.00	AVRG
(5)	894440.00	883410.00	0.001	-1.23	20.00	AVRG
Average %D: -0.520						
Aroclor-1260	1347900.0	1300300.0	0.001	-3.53	20.00	AVRG
(2)	1534200.0	1503200.0	0.001	-2.02	20.00	AVRG
(3)	1326800.0	1265100.0	0.001	-4.65	20.00	AVRG
(4)	2363800.0	2310800.0	0.001	-2.24	20.00	AVRG
(5)	1384200.0	1320700.0	0.001	-4.59	20.00	AVRG
Average %D: -3.400						
Tetrachloro-m-xylene	49642000	46552000	0.001	-6.22	20.00	AVRG
Decachlorobiphenyl	18751000	19878000	0.001	6.01	20.00	AVRG

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2728

Instrument ID: GC07 Calibration Date: 06/09/09 Time: 1114

Lab File ID: 7CF086 Init. Calib. Date(s): 06/01/09 06/01/09

Init. Calib. Times: 1706 1923

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1016	6976900.0	6957300.0	0.001	-0.28	20.00	AVRG
(2)	6531500.0	6754000.0	0.001	3.41	20.00	AVRG
(3)	12828000	13354000	0.001	4.10	20.00	AVRG
(4)	7058400.0	7363800.0	0.001	4.33	20.00	AVRG
(5)	5012200.0	5276800.0	0.001	5.28	20.00	AVRG
Average %D: 3.3700						
Aroclor-1260	7974900.0	8244600.0	0.001	3.38	20.00	AVRG
(2)	9748000.0	9917200.0	0.001	1.74	20.00	AVRG
(3)	9777300.0	9705100.0	0.001	-0.74	20.00	AVRG
(4)	14398000	14930000	0.001	3.70	20.00	AVRG
(5)	8174800.0	8352500.0	0.001	2.17	20.00	AVRG
Average %D: 2.0500						
Tetrachloro-m-xylene	297150000	301150000	0.001	1.35	20.00	AVRG
Decachlorobiphenyl	115220000	116610000	0.001	1.21	20.00	AVRG

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2728

Instrument ID: GC07 Calibration Date: 06/09/09 Time: 1114

Lab File ID: 7CF086 Init. Calib. Date(s): 06/01/09 06/01/09

Init. Calib. Times: 1706 1923

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1016	1181000.0	1152300.0	0.001	-2.43	20.00	AVRG
(2)	948120.00	931340.00	0.001	-1.77	20.00	AVRG
(3)	2150600.0	2205100.0	0.001	2.53	20.00	AVRG
(4)	1121100.0	1115800.0	0.001	-0.47	20.00	AVRG
(5)	894440.00	887490.00	0.001	-0.78	20.00	AVRG
Average %D: -0.580						
Aroclor-1260	1347900.0	1318500.0	0.001	-2.18	20.00	AVRG
(2)	1534200.0	1551400.0	0.001	1.12	20.00	AVRG
(3)	1326800.0	1301300.0	0.001	-1.92	20.00	AVRG
(4)	2363800.0	2407600.0	0.001	1.85	20.00	AVRG
(5)	1384200.0	1451000.0	0.001	4.82	20.00	AVRG
Average %D: 0.7400						
Tetrachloro-m-xylene	49642000	49641000	0.001	-0.00	20.00	AVRG
Decachlorobiphenyl	18751000	18427000	0.001	-1.73	20.00	AVRG

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2728

Instrument ID: GC07 Calibration Date: 06/09/09 Time: 1851

Lab File ID: 7CF098 Init. Calib. Date(s): 06/01/09 06/01/09

Init. Calib. Times: 1706 1923

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF0.2500 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1016	6976900.0	7443600.0	0.001	6.69	20.00	AVRG
(2)	6531500.0	7066900.0	0.001	8.20	20.00	AVRG
(3)	12828000	13609000	0.001	6.09	20.00	AVRG
(4)	7058400.0	7490600.0	0.001	6.12	20.00	AVRG
(5)	5012200.0	5441400.0	0.001	8.56	20.00	AVRG
Average %D: 7.1200						
Aroclor-1260	7974900.0	8662300.0	0.001	8.62	20.00	AVRG
(2)	9748000.0	10438000	0.001	7.08	20.00	AVRG
(3)	9777300.0	10273000	0.001	5.07	20.00	AVRG
(4)	14398000	14758000	0.001	2.50	20.00	AVRG
(5)	8174800.0	8474800.0	0.001	3.67	20.00	AVRG
Average %D: 5.4000						
Tetrachloro-m-xylene	297150000	305910000	0.001	2.95	20.00	AVRG
Decachlorobiphenyl	115220000	132410000	0.001	14.92	20.00	AVRG

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2728

Instrument ID: GC07 Calibration Date: 06/09/09 Time: 1851

Lab File ID: 7CF098 Init. Calib. Date(s): 06/01/09 06/01/09

Init. Calib. Times: 1706 1923

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF0.2500 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1016	1181000.0	1229800.0	0.001	4.13	20.00	AVRG
(2)	948120.00	1000600.0	0.001	5.54	20.00	AVRG
(3)	2150600.0	2160900.0	0.001	0.48	20.00	AVRG
(4)	1121100.0	1129000.0	0.001	0.70	20.00	AVRG
(5)	894440.00	907840.00	0.001	1.50	20.00	AVRG
Average %D: 2.4800						
Aroclor-1260	1347900.0	1360600.0	0.001	0.94	20.00	AVRG
(2)	1534200.0	1538500.0	0.001	0.28	20.00	AVRG
(3)	1326800.0	1297000.0	0.001	-2.25	20.00	AVRG
(4)	2363800.0	2343800.0	0.001	-0.85	20.00	AVRG
(5)	1384200.0	1331100.0	0.001	-3.84	20.00	AVRG
Average %D: -1.160						
Tetrachloro-m-xylene	49642000	48588000	0.001	-2.12	20.00	AVRG
Decachlorobiphenyl	18751000	19619000	0.001	4.63	20.00	AVRG

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2728

Instrument ID: GC07 Calibration Date: 06/10/09 Time: 0111

Lab File ID: 7CF112 Init. Calib. Date(s): 06/01/09 06/01/09

Init. Calib. Times: 1706 1923

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1016	6976900.0	6309200.0	0.001	-9.57	20.00	AVRG
(2)	6531500.0	6183000.0	0.001	-5.34	20.00	AVRG
(3)	12828000	12191000	0.001	-4.96	20.00	AVRG
(4)	7058400.0	6827000.0	0.001	-3.28	20.00	AVRG
(5)	5012200.0	4953100.0	0.001	-1.18	20.00	AVRG
Average %D: -4.870						
Aroclor-1260	7974900.0	7909600.0	0.001	-0.82	20.00	AVRG
(2)	9748000.0	9557100.0	0.001	-1.96	20.00	AVRG
(3)	9777300.0	9568900.0	0.001	-2.13	20.00	AVRG
(4)	14398000	14346000	0.001	-0.36	20.00	AVRG
(5)	8174800.0	7845200.0	0.001	-4.03	20.00	AVRG
Average %D: -1.860						
Tetrachloro-m-xylene	297150000	301100000	0.001	1.33	20.00	AVRG
Decachlorobiphenyl	115220000	108380000	0.001	-5.94	20.00	AVRG

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2728

Instrument ID: GC07 Calibration Date: 06/10/09 Time: 0111

Lab File ID: 7CF112 Init. Calib. Date(s): 06/01/09 06/01/09

Init. Calib. Times: 1706 1923

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1016	1181000.0	1147400.0	0.001	-2.84	20.00	AVRG
(2)	948120.00	912760.00	0.001	-3.73	20.00	AVRG
(3)	2150600.0	2131200.0	0.001	-0.90	20.00	AVRG
(4)	1121100.0	1083200.0	0.001	-3.38	20.00	AVRG
(5)	894440.00	852410.00	0.001	-4.70	20.00	AVRG
Average %D: -3.110						
Aroclor-1260	1347900.0	1277800.0	0.001	-5.20	20.00	AVRG
(2)	1534200.0	1447600.0	0.001	-5.64	20.00	AVRG
(3)	1326800.0	1253500.0	0.001	-5.52	20.00	AVRG
(4)	2363800.0	2451200.0	0.001	3.70	20.00	AVRG
(5)	1384200.0	1414500.0	0.001	2.19	20.00	AVRG
Average %D: -2.100						
Tetrachloro-m-xylene	49642000	49514000	0.001	-0.26	20.00	AVRG
Decachlorobiphenyl	18751000	17930000	0.001	-4.38	20.00	AVRG

FORM VII PEST

FORM 8
PCB ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2728

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm) Init. Calib. Date(s): 06/01/09 06/02/09

Instrument ID: GC07

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 4.80 DCB: 19.28

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01		AR1660 1.0	06/01/09	1706	4.80	19.28
02		AR1660 0.05	06/01/09	1734	4.80	19.27
03		AR1660 0.1	06/01/09	1801	4.79	19.26
04		AR1660 0.25	06/01/09	1828	4.79	19.27
05		AR1660 2.5	06/01/09	1855	4.79	19.27
06		AR1660 10	06/01/09	1923	4.79	19.28
07		AR1016 1.0	06/01/09	1950		
08		AR1260 1.0	06/01/09	2017		
09		AR1242 1.0	06/01/09	2044		
10		AR1248 1.0	06/01/09	2327		
11		AR1221 1.0	06/02/09	0449		
12		AR1232 1.0	06/02/09	0516		
13						
14						
15						
16						
17						
18						
19						
20						

QC LIMITS
TCX = Tetrachloro-m-xylene (+/- 0.07 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PCB

Katahdin Analytical Services A0000074

FORM 8
PCB ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2728

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm) Init. Calib. Date(s): 06/01/09 06/05/09

Instrument ID: GC07

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 4.77 DCB: 19.22

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01		AR1660 1.0	06/05/09	1251	4.75	19.17
02						
03						
04						
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

QC LIMITS
TCX = Tetrachloro-m-xylene (+/- 0.07 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PCB

FORM 8
PCB ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2728

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm) Init. Calib. Date(s): 06/01/09 06/05/09

Instrument ID: GC07

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

	MEAN SURROGATE RT FROM INITIAL CALIBRATION					
	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	RT #	RT #
01		AR1254 1.0	06/05/09	1623		
02						
03						
04						
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

QC LIMITS

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PCB

FORM 8
PCB ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2728

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm) Init. Calib. Date(s): 06/01/09 06/05/09

Instrument ID: GC07

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 4.77 DCB: 19.22

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01	WG64538-BLAN	WG64538-1	06/05/09	2027	4.77	19.22
02		AR1660 0.25	06/05/09	2336	4.77	19.22
03						
04						
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

QC LIMITS
TCX = Tetrachloro-m-xylene (+/- 0.07 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PCB

FORM 8
PCB ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2728

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm) Init. Calib. Date(s): 06/01/09 06/05/09

Instrument ID: GC07

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 4.77 DCB: 19.21

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01		AR1660 1.0	06/09/09	1114	4.75	19.16
02	WG64538-LCS	WG64538-2RA	06/09/09	1512	4.75	19.14
03	WG64538-LCSD	WG64538-3RA	06/09/09	1539	4.75	19.15
04						
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

QC LIMITS
TCX = Tetrachloro-m-xylene (+/- 0.07 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PCB

FORM 8
PCB ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2728

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm) Init. Calib. Date(s): 06/01/09 06/05/09

Instrument ID: GC07

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 4.77 DCB: 19.21

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01		AR1660 0.25	06/09/09	1851	4.76	19.20
02	WGL-SO-TP112	SC2728-1	06/09/09	2322	4.77	19.21
03		AR1660 1.0	06/10/09	0111	4.77	19.21
04						
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

QC LIMITS
TCX = Tetrachloro-m-xylene (+/- 0.07 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PCB

FORM 8
PCB ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2728

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm) Init. Calib. Date(s): 06/01/09 06/02/09

Instrument ID: GC07

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 4.67 DCB: 19.37

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01		AR1660 1.0	06/01/09	1706	4.67	19.37
02		AR1660 0.05	06/01/09	1734	4.67	19.36
03		AR1660 0.1	06/01/09	1801	4.66	19.35
04		AR1660 0.25	06/01/09	1828	4.67	19.35
05		AR1660 2.5	06/01/09	1855	4.66	19.36
06		AR1660 10	06/01/09	1923	4.67	19.37
07		AR1016 1.0	06/01/09	1950		
08		AR1260 1.0	06/01/09	2017		
09		AR1242 1.0	06/01/09	2044		
10		AR1248 1.0	06/01/09	2327		
11		AR1221 1.0	06/02/09	0449		
12		AR1232 1.0	06/02/09	0516		
13						
14						
15						
16						
17						
18						
19						
20						

QC LIMITS
TCX = Tetrachloro-m-xylene (+/- 0.07 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PCB

FORM 8
PCB ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2728

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm) Init. Calib. Date(s): 06/01/09 06/05/09

Instrument ID: GC07

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 4.65 DCB: 19.36

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01		AR1660 1.0	06/05/09	1251	4.62	19.30
02						
03						
04						
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

QC LIMITS
TCX = Tetrachloro-m-xylene (+/- 0.07 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PCB

FORM 8
PCB ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2728

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm) Init. Calib. Date(s): 06/01/09 06/05/09

Instrument ID: GC07

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

	MEAN SURROGATE RT FROM INITIAL CALIBRATION					
	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	RT #	RT #
01		AR1254 1.0	06/05/09	1623		
02						
03						
04						
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

QC LIMITS

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PCB

FORM 8
PCB ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2728

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm) Init. Calib. Date(s): 06/01/09 06/05/09

Instrument ID: GC07

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 4.65 DCB: 19.36

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01	WG64538-BLAN	WG64538-1	06/05/09	2027	4.65	19.35
02		AR1660 0.25	06/05/09	2336	4.65	19.36
03						
04						
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

QC LIMITS
TCX = Tetrachloro-m-xylene (+/- 0.07 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PCB

FORM 8
PCB ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2728

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm) Init. Calib. Date(s): 06/01/09 06/05/09

Instrument ID: GC07

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 4.65 DCB: 19.35

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01		AR1660 1.0	06/09/09	1114	4.63	19.29
02	WG64538-LCS	WG64538-2RA	06/09/09	1512	4.63	19.29
03	WG64538-LCSD	WG64538-3RA	06/09/09	1539	4.63	19.29
04						
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

QC LIMITS
TCX = Tetrachloro-m-xylene (+/- 0.07 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PCB

Katahdin Analytical Services A0000084

FORM 8
PCB ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2728

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm) Init. Calib. Date(s): 06/01/09 06/05/09

Instrument ID: GC07

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 4.65 DCB: 19.35

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01		AR1660 0.25	06/09/09	1851	4.64	19.34
02	WGL-SO-TP112	SC2728-1	06/09/09	2322	4.65	19.34
03		AR1660 1.0	06/10/09	0111	4.65	19.35
04						
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

QC LIMITS
TCX = Tetrachloro-m-xylene (+/- 0.07 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PCB

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Lucy Guzman
Tetra Tech NUS
55 Jonspin Road
Wilmington,MA 01887-1020

Lab Sample ID: SC2728-1
Report Date: 10-JUN-09
Client PO: 1045366 01-CTO407
Project: CTO 407 NAS Weymouth
SDG: SC2728

Sample Description	Matrix	Date Sampled	Date Received
WGL-SO-TP112-0406	SL	28-MAY-09	29-MAY-09

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
Total Solids	72. %	1	D2216	WG64440	01-JUN-09 09:07:00	ASTM D2216	29-MAY-09	JF	

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Quality Control Report

Blank Sample Summary Report

Total Solids

Samp Type	QC Batch	Anal. Method	Anal. Date	Prep. Date	Result	PQL
MBLANK	WG64440	ASTM D2216	01-JUN-09	29-MAY-09	U 1 %	1 %

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Quality Control Report

Laboratory Control Sample Summary Report

Total Solids

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG64440-2	LCS	WG64440	01-JUN-09	29-MAY-09	%	90	90.	100	80-120	

Quality Control Report

Duplicate Sample Summary Report

Total Solids

Duplicate Sample ID	Original Sample ID	QC Batch	Analysis Date	Result Units	Sample Result	Duplicate Result	RPD(%)	RPD Limit
WG64440-3	SC2728-1	WG64440	01-JUN-09	%	72.	72.	0	20

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://katahdinlab.com
sales@katahdinlab.com

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 05/28/09
Received Date: 05/29/09
Extraction Date: 06/04/09
Analysis Date: 08-JUN-2009 14:54
Report Date: 06/11/2009
Matrix: SOIL
% Solids: 72.4

Lab ID: SC2728-1DL2
Client ID: WGL-SO-TP112-0406
SDG: SC2728
Extracted by: AC
Extraction Method: SW846 3550
Analyst: KT
Analysis Method: SW846 M8015B
Lab Prep Batch: WG64579
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
	Extractable TPH C9-C36		590	20	5.0	140	26
	O-Terphenyl		D				

FORM 2
SOIL DRO SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2728

Level:(low/med) LOW

	CLIENT SAMPLE ID	LAB SAMPLE ID	S1 OTP#	S2 #	S3 #	S4 #	S5 #	S6 #	S7 #	S8 #	TOT OUT
01	WG64579-BLANK	WG64579-1	95								0
02	WG64579-LCS	WG64579-2	88								0
03	WG64579-LCSD	WG64579-3	89								0
04	WGL-SO-TP112-0406	SC2728-1DL2	D								0
05											
06											
07											
08											
09											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											
21											
22											
23											
24											
25											
26											
27											
28											

S1 (OTP) = O-Terphenyl QC LIMITS (32-121)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

KATAHDIN ANALYTICAL SERVICES
LAB CONTROL SAMPLE

Client:
Project: CTO 407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date: 06/04/09
Analysis Date: 06/06/09
Report Date: 06/09/2009
Matrix: SOIL

Lab ID: WG64579-2 & WG64579-3
Client ID: WG64579-LCS & WG64579-LCSD
SDG: SC2728
Extracted by: AC
Extraction Method: SW846 3550
Analyst: KT
Analysis Method: SW846 M8015B
Lab Prep Batch: WG64579
Units: mg/Kgdrywt

COMPOUND	LCS SPIKE	LCSD SPIKE	SAMPLE CONC.	LCS CONC.	LCSD CONC.	LCS %REC.	LCSD %REC.	%RPD	%RPD LIMIT	QC. LIMITS
Extractable TPH C9-C36	17	17	NA	14	15	87	92	6	50	60-127

FORM III DRO-2

ACF2124.d & ACF2125.d

FORM 4
SEMIVOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE ID

WG64579-BLANK

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2728

Lab File ID: ACF2123 Lab Sample ID: WG64579-1

Instrument ID: GC10 Date Extracted: 06/04/09

Matrix: (soil/water) SOIL Date Analyzed: 06/06/09

Level:(low/med) LOW Time Analyzed: 0152

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	WG64579-LCS	WG64579-2	ACF2124	06/06/09	0230
02	WG64579-LCSD	WG64579-3	ACF2125	06/06/09	0309
03	WGL-SO-TP112-0406	SC2728-1DL2	ACF2141	06/08/09	1454
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

COMMENTS:

FORM IVDRO

FORM 6
DRO INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project CTO 407 NAS WEYMOUTH SDG No.: SC2728

Instrument ID: GC10 Calibration Date(s): 04/27/09 04/27/09

Column: ZB-1 ID: 0.25 (mm) Calibration Time(s): 1359 1743

LAB FILE ID: RF5: ACD2219A RF20: ACD2220A RF50: ACD2225A
RF100: ACD2221A RF200: ACD2222A

COMPOUND	RF5	RF20	RF50	RF100	RF200	CURVE	COEFFICENTS A0	A1	%RSD OR R^2	MAX %RSD OR R^2
TPH Peaks C9-C36	458120	1867500	5155000	8658400	2e+007	LINR	-29.616657	1.62e-004	0.99763	0.99000
C-9	40950	128900	344270	598980	1197000	LINR	-2.3183476	1.684e-004	0.99862	0.99000
C-10	34372	140230	367170	613100	1222600	LINR	-2.7606965	1.647e-004	0.99740	0.99000
C-12	29855	134250	363760	645960	1297000	LINR	-1.1427763	1.545e-004	0.99892	0.99000
C-14	30047	131590	359920	607110	1220700	LINR	-1.9328437	1.646e-004	0.99775	0.99000
C-16	30048	131870	362920	613730	1225800	LINR	-2.0162119	1.637e-004	0.99771	0.99000
C-18	29702	133240	368750	617270	1243900	LINR	-1.8835930	1.614e-004	0.99754	0.99000
C-19	32840	134250	366210	624510	1261000	LINR	-1.7630873	1.594e-004	0.99814	0.99000
C-20	35180	136360	371080	612590	1236200	LINR	-2.4342706	1.629e-004	0.99725	0.99000
C-22	38571	135590	375480	625730	1229100	LINR	-3.0301395	1.635e-004	0.99703	0.99000
C-24	36890	136050	378560	620410	1234500	LINR	-2.8525936	1.629e-004	0.99674	0.99000
C-26	34582	133900	373540	613660	1230500	LINR	-2.5030424	1.634e-004	0.99695	0.99000
C-28	37941	136280	381320	619270	1243300	LINR	-2.7780343	1.62e-004	0.99662	0.99000
C-30	31691	137030	386630	639130	1284800	LINR	-2.0736577	1.563e-004	0.99710	0.99000
C-36	15445	117960	355420	606910	1238500	LINR	-0.1481115	1.61e-004	0.99780	0.99000
O-Terphenyl	16066	58044	156680	274390	550060	LINR	-0.7130498	1.462e-004	0.99874	0.99000

FORM VI DRO

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2728

Instrument ID: GC10 Calibration Date: 04/27/09 Time: 1628

Lab File ID: ACD2223A Init. Calib. Date(s): 04/27/09 04/27/09

Init. Calib. Times: 1359 1743

GC Column: ZB-1 ID: 0.25 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
C-10	49.684000	50.000000	6368.6000	0.01	-0.63	20.00	LINR
C-12	48.149000	50.000000	6379.0000	0.01	-3.70	20.00	LINR
C-14	50.420000	50.000000	6363.1000	0.01	0.84	20.00	LINR
C-16	50.782000	50.000000	6449.8000	0.01	1.56	20.00	LINR
C-18	49.604000	50.000000	6378.5000	0.01	-0.79	20.00	LINR
C-20	50.531000	50.000000	6502.2000	0.01	1.06	20.00	LINR
C-22	49.781000	50.000000	6459.3000	0.01	-0.44	20.00	LINR
C-24	49.852000	50.000000	6469.1000	0.01	-0.30	20.00	LINR
C-26	50.259000	50.000000	6456.1000	0.01	0.52	20.00	LINR
C-28	49.994000	50.000000	6516.2000	0.01	-0.01	20.00	LINR

FORM VII PEST

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2728

Instrument ID: GC10 Calibration Date: 06/06/09 Time: 0114

Lab File ID: ACF2122A Init. Calib. Date(s): 04/27/09 04/27/09

Init. Calib. Times: 1359 1743

GC Column: ZB-1 ID: 0.25 (mm)

COMPOUND	RRF or AMOUNT	RRF20.000 or AMOUNT	CCAL RRF20.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
TPH Peaks C9-C36	245.56000	280.00000	6066.2000	0.01	-12.30	20.00	LINR
C-9	17.734000	20.000000	5955.4000	0.01	-11.33	20.00	LINR
C-10	17.545000	20.000000	6164.8000	0.01	-12.28	20.00	LINR
C-12	18.587000	20.000000	6383.2000	0.01	-7.06	20.00	LINR
C-14	17.950000	20.000000	6041.6000	0.01	-10.25	20.00	LINR
C-16	17.767000	20.000000	6041.8000	0.01	-11.16	20.00	LINR
C-18	17.738000	20.000000	6077.0000	0.01	-11.31	20.00	LINR
C-19	17.703000	20.000000	6105.9000	0.01	-11.48	20.00	LINR
C-20	17.041000	20.000000	5977.2000	0.01	-14.80	20.00	LINR
C-22	16.876000	20.000000	6086.7000	0.01	-15.62	20.00	LINR
C-24	16.816000	20.000000	6035.2000	0.01	-15.92	20.00	LINR
C-26	17.154000	20.000000	6013.1000	0.01	-14.23	20.00	LINR
C-28	16.746000	20.000000	6026.8000	0.01	-16.27	20.00	LINR
C-30	17.087000	20.000000	6130.5000	0.01	-14.56	20.00	LINR
C-36	18.814000	20.000000	5887.8000	0.01	-5.93	20.00	LINR
O-Terphenyl	7.2700000	8.0000000	6825.4000	0.01	-9.12	20.00	LINR

FORM VII PEST

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2728

Instrument ID: GC10 Calibration Date: 06/06/09 Time: 0542

Lab File ID: ACF2129 Init. Calib. Date(s): 04/27/09 04/27/09

Init. Calib. Times: 1359 1743

GC Column: ZB-1 ID: 0.25 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
TPH Peaks C9-C36	669.82000	700.00000	6168.1000	0.01	-4.31	20.00	LINR
C-9	47.447000	50.000000	5912.0000	0.01	-5.11	20.00	LINR
C-10	47.495000	50.000000	6102.9000	0.01	-5.01	20.00	LINR
C-12	48.392000	50.000000	6410.5000	0.01	-3.22	20.00	LINR
C-14	47.804000	50.000000	6045.1000	0.01	-4.39	20.00	LINR
C-16	47.596000	50.000000	6060.6000	0.01	-4.81	20.00	LINR
C-18	47.296000	50.000000	6092.6000	0.01	-5.41	20.00	LINR
C-19	47.369000	50.000000	6164.4000	0.01	-5.26	20.00	LINR
C-20	46.743000	50.000000	6037.2000	0.01	-6.51	20.00	LINR
C-22	47.491000	50.000000	6179.3000	0.01	-5.02	20.00	LINR
C-24	47.841000	50.000000	6222.2000	0.01	-4.32	20.00	LINR
C-26	47.883000	50.000000	6165.5000	0.01	-4.23	20.00	LINR
C-28	48.233000	50.000000	6298.7000	0.01	-3.53	20.00	LINR
C-30	47.487000	50.000000	6342.8000	0.01	-5.03	20.00	LINR
C-36	50.736000	50.000000	6319.8000	0.01	1.47	20.00	LINR
O-Terphenyl	18.933000	20.000000	6719.0000	0.01	-5.34	20.00	LINR

FORM VII PEST

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2728

Instrument ID: GC10 Calibration Date: 06/08/09 Time: 1338

Lab File ID: ACF2139 Init. Calib. Date(s): 04/27/09 04/27/09

Init. Calib. Times: 1359 1743

GC Column: ZB-1 ID: 0.25 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
TPH Peaks C9-C36	0.0000000	700.00000	5961.5000	0.01	0.00	20.00	LINR	<-
C-9	46.241000	50.000000	5768.7000	0.01	-7.52	20.00	LINR	
C-10	45.391000	50.000000	5847.4000	0.01	-9.22	20.00	LINR	
C-12	47.134000	50.000000	6247.7000	0.01	-5.73	20.00	LINR	
C-14	45.849000	50.000000	5807.5000	0.01	-8.30	20.00	LINR	
C-16	45.490000	50.000000	5803.3000	0.01	-9.02	20.00	LINR	
C-18	45.296000	50.000000	5844.9000	0.01	-9.41	20.00	LINR	
C-19	46.345000	50.000000	6035.9000	0.01	-7.31	20.00	LINR	
C-20	44.927000	50.000000	5814.2000	0.01	-10.15	20.00	LINR	
C-22	45.848000	50.000000	5978.3000	0.01	-8.30	20.00	LINR	
C-24	46.426000	50.000000	6048.5000	0.01	-7.15	20.00	LINR	
C-26	46.737000	50.000000	6025.2000	0.01	-6.53	20.00	LINR	
C-28	46.389000	50.000000	6071.0000	0.01	-7.22	20.00	LINR	
C-30	45.987000	50.000000	6150.9000	0.01	-8.03	20.00	LINR	
C-36	48.304000	50.000000	6017.7000	0.01	-3.39	20.00	LINR	
O-Terphenyl	18.064000	20.000000	6421.7000	0.01	-9.68	20.00	LINR	

FORM VII PEST

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2728

Instrument ID: GC10 Calibration Date: 06/08/09 Time: 1726

Lab File ID: ACF2145 Init. Calib. Date(s): 04/27/09 04/27/09

Init. Calib. Times: 1359 1743

GC Column: ZB-1 ID: 0.25 (mm)

COMPOUND	RRF or AMOUNT	RRF20.000 or AMOUNT	CCAL RRF20.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
TPH Peaks C9-C36	0.0000000	280.00000	6844.0000	0.01	0.00	20.00	LINR	<-
C-9	19.913000	20.000000	6602.6000	0.01	-0.44	20.00	LINR	
C-10	19.699000	20.000000	6818.5000	0.01	-1.50	20.00	LINR	
C-12	20.949000	20.000000	7147.3000	0.01	4.74	20.00	LINR	
C-14	18.074000	20.000000	6079.2000	0.01	-9.63	20.00	LINR	
C-16	17.881000	20.000000	6076.6000	0.01	-10.60	20.00	LINR	
C-18	22.391000	20.000000	7518.2000	0.01	11.96	20.00	LINR	
C-19	19.601000	20.000000	6701.2000	0.01	-2.00	20.00	LINR	
C-20	21.113000	20.000000	7226.8000	0.01	5.56	20.00	LINR	
C-22	19.694000	20.000000	6948.4000	0.01	-1.53	20.00	LINR	
C-24	19.968000	20.000000	7002.4000	0.01	-0.16	20.00	LINR	
C-26	19.525000	20.000000	6738.5000	0.01	-2.38	20.00	LINR	
C-28	19.302000	20.000000	6815.8000	0.01	-3.49	20.00	LINR	
C-30	20.432000	20.000000	7200.8000	0.01	2.16	20.00	LINR	
C-36	22.200000	20.000000	6939.0000	0.01	11.00	20.00	LINR	
O-Terphenyl	8.1776000	8.0000000	7601.4000	0.01	2.22	20.00	LINR	

FORM VII PEST

FORM 8
DRO ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC2728

GC Column: ZB-1 ID: 0.25 (mm) Init. Calib. Date(s): 04/27/09 04/27/09

Instrument ID: GC10

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 12.59

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT #
01		PHC 5UG/ML	04/27/09	1359	12.58	
02		PHC 20UG/ML	04/27/09	1436	12.59	
03		PHC 100UG/ML	04/27/09	1513	12.59	
04		PHC 200UG/ML	04/27/09	1551	12.60	
05		IND	04/27/09	1628		
06		PHC 50UG/ML	04/27/09	1743	12.59	
07		PHC 20UG/ML	06/06/09	0114	12.57	
08	WG64579-BLAN	WG64579-1	06/06/09	0152	12.57	
09	WG64579-LCS	WG64579-2	06/06/09	0230	12.58	
10	WG64579-LCSD	WG64579-3	06/06/09	0309	12.58	
11		PHC 50UG/ML	06/06/09	0542	12.58	
12		PHC50UG/ML	06/08/09	1338	12.61	
13	WGL-SO-TP112	SC2728-1DL2	06/08/09	1454		
14		PHC20UG/ML	06/08/09	1726	12.58	
15						
16						
17						
18						
19						
20						

S1 = O-Terphenyl QC LIMITS (+/- 0.38 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

SAMPLE DATA SUMMARY PACKAGE

KATAHDIN ANALYTICAL SERVICES - ORGANIC DATA QUALIFIERS

The sampled date indicated on the attached Report(s) of Analysis (ROA) is the date for which a grab sample was collected or the date for which a composite sample was completed. Beginning and start times for composite samples can be found on the Chain-of-Custody.

U Indicates the compound was analyzed for but not detected above the laboratory Practical Quantitation Limit.

* Compound recovery outside of quality control limits.

D Indicates the result was obtained from analysis of a diluted sample. Surrogate recoveries may not be calculable.

E Estimated value. This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis.

J Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Practical Quantitation Limit (PQL), but above the Method Detection Limit (MDL).

or

J Used for Pesticide/Aroclor analyte when there is a greater than 40% difference for detected concentrations between the two GC columns.

B Indicates the analyte was detected in the laboratory method blank analyzed concurrently with the sample.

N Presumptive evidence of a compound based on a mass spectral library search.

A Indicates that a tentatively identified compound is a suspected aldol-condensation product.

P Used for Pesticide/Aroclor analyte when there is a greater than 25% difference for detected concentrations between the two GC columns. (for CLP methods only).

KATAHDIN ANALYTICAL SERVICES – INORGANIC DATA QUALIFIERS

(Refer to BOD Qualifiers Page for BOD footnotes)

The sampled date indicated on the attached Report(s) of Analysis (ROA) is the date for which a grab sample was collected or the date for which a composite sample was completed. Beginning and start times for composite samples can be found on the Chain-of-Custody.

U	Indicates the compound was analyzed for but not detected above the laboratory Practical Quantitation Limit.
E	Estimated value. This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis.
J	Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Practical Quantitation Limit (PQL), but above the Method Detection Limit (MDL).
I-7	The laboratory's Practical Quantitation Level could not be achieved for this parameter due to sample composition, matrix effects, sample volume, or quantity used for analysis.
A-4	Please refer to cover letter or narrative for further information.
MCL	Maximum Contaminant Level
NL	No limit
NFL	No Free Liquid Present
FLP	Free Liquid Present
NOD	No Odor Detected
TON	Threshold Odor Number
H1	Please note that the regulatory holding time for pH is "analyze immediately". Ideally, this analysis must be performed in the field at the time of sample collection. pH for this sample was not performed at the time of sample collection. The analysis was performed as soon as possible after receipt by the laboratory.
H2	Please note that the regulatory holding time for DO is "analyze immediately". Ideally, this analysis must be performed in the field at the time of sample collection. DO for this sample was not performed at the time of sample collection. The analysis was performed as soon as possible after receipt by the laboratory.
H3	Please note that the regulatory holding time for sulfite is "analyze immediately". Ideally, this analysis must be performed in the field at the time of sample collection. Sulfite for this sample was not performed at the time of sample collection. The analysis was performed as soon as possible after receipt by the laboratory.
H4	Please note that the regulatory holding time for residual chlorine is "analyze immediately". Ideally, this analysis must be performed in the field at the time of sample collection. Residual chlorine for this sample was not performed at the time of sample collection. The analysis was performed as soon as possible after receipt by the laboratory.

METALS SAMPLE FLAGGING

FLAG	SPECIFIED MEANING
E	The reported value is estimated because of the presence of interference (as indicated by serial dilution).
N	Spiked sample recovery not within control limits.
*	Duplicate sample analysis not within control limits.
●	Analytical run QC sample (e.g. ICV, CCV, ICB, CCB, ICSA, ICSAB) not within control limits.
U	The analyte was not detected in the sample at a level greater than the instrument detection limit or greater than the method detection limit.
B	The analyte was detected in the sample at a concentration greater than the instrument detection limit or greater than the method detection limit, but less than the laboratory's Practical Quantitation Level (PQL).

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date:
Analysis Date: 15-JUN-2009 15:25
Report Date: 07/02/2009
Matrix: SOIL
% Solids: 17.9

Lab ID: SC3122-1
Client ID: WGL-SD-SD103-000.6
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65028
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
75-71-8	Dichlorodifluoromethane	U	42	1.0	5	42	10
74-87-3	Chloromethane	U	42	1.0	5	42	16
75-01-4	Vinyl chloride	U	42	1.0	5	42	12
74-83-9	Bromomethane	U	42	1.0	5	42	19
75-00-3	Chloroethane	U	42	1.0	5	42	16
75-69-4	Trichlorofluoromethane	U	42	1.0	5	42	12
75-35-4	1,1-Dichloroethene	U	42	1.0	5	42	13
67-64-1	Acetone	U	210	1.0	25	210	92
75-15-0	Carbon Disulfide	U	42	1.0	5	42	16
79-20-9	Methyl Acetate	U	42	1.0	5	42	37
75-09-2	Methylene Chloride	U	210	1.0	25	210	23
156-60-5	trans-1,2-Dichloroethene	U	42	1.0	5	42	18
1634-04-4	Methyl tert-butyl ether	U	42	1.0	5	42	24
75-34-3	1,1-Dichloroethane	U	42	1.0	5	42	16
156-59-2	cis-1,2-Dichloroethene	U	42	1.0	5	42	17
78-93-3	2-Butanone	U	210	1.0	25	210	79
67-66-3	Chloroform	U	42	1.0	5	42	15
71-55-6	1,1,1-Trichloroethane	U	42	1.0	5	42	15
1735-17-7	Cyclohexane	U	42	1.0	5	42	10
56-23-5	Carbon Tetrachloride	U	42	1.0	5	42	12
71-43-2	Benzene	U	42	1.0	5	42	13
107-06-2	1,2-Dichloroethane	U	42	1.0	5	42	11
79-01-6	Trichloroethene	U	42	1.0	5	42	14
108-87-2	Methylcyclohexane	U	42	1.0	5	42	13
78-87-5	1,2-Dichloropropane	U	42	1.0	5	42	14
75-27-4	Bromodichloromethane	U	42	1.0	5	42	14
10061-01-5	cis-1,3-dichloropropene	U	42	1.0	5	42	13
108-10-1	4-methyl-2-pentanone	U	210	1.0	25	210	79
108-88-3	Toluene	U	42	1.0	5	42	11
10061-02-6	trans-1,3-Dichloropropene	U	42	1.0	5	42	18
79-00-5	1,1,2-Trichloroethane	U	42	1.0	5	42	13
127-18-4	Tetrachloroethene	U	42	1.0	5	42	16
591-78-6	2-Hexanone	U	210	1.0	25	210	66
124-48-1	Dibromochloromethane	U	42	1.0	5	42	13
106-93-4	1,2-Dibromoethane	U	42	1.0	5	42	14
108-90-7	Chlorobenzene	U	42	1.0	5	42	12
100-41-4	Ethylbenzene	U	42	1.0	5	42	10
	m+p-Xylenes	U	83	1.0	10	83	30
95-47-6	o-Xylene	U	42	1.0	5	42	9
1330-20-7	Xylenes (total)	U	120	1.0	15	120	9
100-42-5	Styrene	U	42	1.0	5	42	10
75-25-2	Bromoform	U	42	1.0	5	42	10
98-82-8	Isopropylbenzene	U	42	1.0	5	42	12

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date:
Analysis Date: 15-JUN-2009 15:25
Report Date: 07/02/2009
Matrix: SOIL
% Solids: 17.9

Lab ID: SC3122-1
Client ID: WGL-SD-SD103-000.6
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65028
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
79-34-5	1,1,2,2-Tetrachloroethane	U	42	1.0	5	42	9
541-73-1	1,3-Dichlorobenzene	U	42	1.0	5	42	11
106-46-7	1,4-Dichlorobenzene	U	42	1.0	5	42	12
95-50-1	1,2-Dichlorobenzene	U	42	1.0	5	42	9
96-12-8	1,2-Dibromo-3-Chloropropane	U	42	1.0	5	42	17
120-82-1	1,2,4-Trichlorobenzene	U	42	1.0	5	42	12
1868-53-7	Dibromofluoromethane		*134%				
17060-07-0	1,2-Dichloroethane-D4		87%				
2037-26-5	Toluene-D8		75%				
460-00-4	P-Bromofluorobenzene		* 38%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date:
Analysis Date: 15-JUN-2009 16:00
Report Date: 07/02/2009
Matrix: SOIL
% Solids: 18.1

Lab ID: SC3122-4
Client ID: WGL-SD-SD102-000.6
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65028
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
75-71-8	Dichlorodifluoromethane	U	32	1.0	5	32	8
74-87-3	Chloromethane	U	32	1.0	5	32	12
75-01-4	Vinyl chloride	U	32	1.0	5	32	9
74-83-9	Bromomethane	U	32	1.0	5	32	15
75-00-3	Chloroethane	U	32	1.0	5	32	12
75-69-4	Trichlorofluoromethane	U	32	1.0	5	32	9
75-35-4	1,1-Dichloroethene	U	32	1.0	5	32	10
67-64-1	Acetone		730	1.0	25	160	71
75-15-0	Carbon Disulfide	U	32	1.0	5	32	12
79-20-9	Methyl Acetate	U	32	1.0	5	32	29
75-09-2	Methylene Chloride	U	160	1.0	25	160	17
156-60-5	trans-1,2-Dichloroethene	U	32	1.0	5	32	14
1634-04-4	Methyl tert-butyl ether	U	32	1.0	5	32	19
75-34-3	1,1-Dichloroethane	U	32	1.0	5	32	12
156-59-2	cis-1,2-Dichloroethene	U	32	1.0	5	32	13
78-93-3	2-Butanone	J	94	1.0	25	160	61
67-66-3	Chloroform	U	32	1.0	5	32	12
71-55-6	1,1,1-Trichloroethane	U	32	1.0	5	32	12
1735-17-7	Cyclohexane	U	32	1.0	5	32	8
56-23-5	Carbon Tetrachloride	U	32	1.0	5	32	9
71-43-2	Benzene	U	32	1.0	5	32	10
107-06-2	1,2-Dichloroethane	U	32	1.0	5	32	9
79-01-6	Trichloroethene	U	32	1.0	5	32	11
108-87-2	Methylcyclohexane	U	32	1.0	5	32	10
78-87-5	1,2-Dichloropropane	U	32	1.0	5	32	10
75-27-4	Bromodichloromethane	U	32	1.0	5	32	10
10061-01-5	cis-1,3-dichloropropene	U	32	1.0	5	32	10
108-10-1	4-methyl-2-pentanone	U	160	1.0	25	160	61
108-88-3	Toluene	U	32	1.0	5	32	8
10061-02-6	trans-1,3-Dichloropropene	U	32	1.0	5	32	14
79-00-5	1,1,2-Trichloroethane	U	32	1.0	5	32	10
127-18-4	Tetrachloroethene	U	32	1.0	5	32	12
591-78-6	2-Hexanone	U	160	1.0	25	160	51
124-48-1	Dibromochloromethane	U	32	1.0	5	32	10
106-93-4	1,2-Dibromoethane	U	32	1.0	5	32	11
108-90-7	Chlorobenzene	U	32	1.0	5	32	10
100-41-4	Ethylbenzene	U	32	1.0	5	32	8
	m+p-Xylenes	U	64	1.0	10	64	23
95-47-6	o-Xylene	U	32	1.0	5	32	7
1330-20-7	Xylenes (total)	U	97	1.0	15	97	7
100-42-5	Styrene	U	32	1.0	5	32	8
75-25-2	Bromoform	U	32	1.0	5	32	7
98-82-8	Isopropylbenzene	U	32	1.0	5	32	10

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date:
Analysis Date: 15-JUN-2009 16:00
Report Date: 07/02/2009
Matrix: SOIL
% Solids: 18.1

Lab ID: SC3122-4
Client ID: WGL-SD-SD102-000.6
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65028
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
79-34-5	1,1,2,2-Tetrachloroethane	U	32	1.0	5	32	7
541-73-1	1,3-Dichlorobenzene	U	32	1.0	5	32	8
106-46-7	1,4-Dichlorobenzene	U	32	1.0	5	32	9
95-50-1	1,2-Dichlorobenzene	U	32	1.0	5	32	7
96-12-8	1,2-Dibromo-3-Chloropropane	U	32	1.0	5	32	13
120-82-1	1,2,4-Trichlorobenzene	U	32	1.0	5	32	9
1868-53-7	Dibromofluoromethane		*137%				
17060-07-0	1,2-Dichloroethane-D4		90%				
2037-26-5	Toluene-D8		76%				
460-00-4	P-Bromofluorobenzene		* 31%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date:
Analysis Date: 16-JUN-2009 14:05
Report Date: 07/02/2009
Matrix: SOIL
% Solids: 18.1

Lab ID: SC3122-4RA
Client ID: WGL-SD-SD102-000.6
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65083
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
75-71-8	Dichlorodifluoromethane	U	26	1.0	5	26	6
74-87-3	Chloromethane	U	26	1.0	5	26	10
75-01-4	Vinyl chloride	U	26	1.0	5	26	8
74-83-9	Bromomethane	U	26	1.0	5	26	12
75-00-3	Chloroethane	U	26	1.0	5	26	10
75-69-4	Trichlorofluoromethane	U	26	1.0	5	26	8
75-35-4	1,1-Dichloroethene	U	26	1.0	5	26	8
67-64-1	Acetone		420	1.0	25	130	58
75-15-0	Carbon Disulfide	U	26	1.0	5	26	10
79-20-9	Methyl Acetate	U	26	1.0	5	26	24
75-09-2	Methylene Chloride	U	130	1.0	25	130	14
156-60-5	trans-1,2-Dichloroethene	U	26	1.0	5	26	11
1634-04-4	Methyl tert-butyl ether	U	26	1.0	5	26	15
75-34-3	1,1-Dichloroethane	U	26	1.0	5	26	10
156-59-2	cis-1,2-Dichloroethene	U	26	1.0	5	26	10
78-93-3	2-Butanone	U	130	1.0	25	130	50
67-66-3	Chloroform	U	26	1.0	5	26	10
71-55-6	1,1,1-Trichloroethane	U	26	1.0	5	26	10
1735-17-7	Cyclohexane	U	26	1.0	5	26	6
56-23-5	Carbon Tetrachloride	U	26	1.0	5	26	8
71-43-2	Benzene	U	26	1.0	5	26	8
107-06-2	1,2-Dichloroethane	U	26	1.0	5	26	7
79-01-6	Trichloroethene	U	26	1.0	5	26	9
108-87-2	Methylcyclohexane	U	26	1.0	5	26	8
78-87-5	1,2-Dichloropropane	U	26	1.0	5	26	9
75-27-4	Bromodichloromethane	U	26	1.0	5	26	9
10061-01-5	cis-1,3-dichloropropene	U	26	1.0	5	26	8
108-10-1	4-methyl-2-pentanone	U	130	1.0	25	130	50
108-88-3	Toluene	U	26	1.0	5	26	7
10061-02-6	trans-1,3-Dichloropropene	U	26	1.0	5	26	12
79-00-5	1,1,2-Trichloroethane	U	26	1.0	5	26	8
127-18-4	Tetrachloroethene	U	26	1.0	5	26	10
591-78-6	2-Hexanone	U	130	1.0	25	130	42
124-48-1	Dibromochloromethane	U	26	1.0	5	26	8
106-93-4	1,2-Dibromoethane	U	26	1.0	5	26	9
108-90-7	Chlorobenzene	U	26	1.0	5	26	8
100-41-4	Ethylbenzene	U	26	1.0	5	26	6
	m+p-Xylenes	U	53	1.0	10	53	19
95-47-6	o-Xylene	U	26	1.0	5	26	6
1330-20-7	Xylenes (total)	U	79	1.0	15	79	6
100-42-5	Styrene	U	26	1.0	5	26	6
75-25-2	Bromoform	U	26	1.0	5	26	6
98-82-8	Isopropylbenzene	U	26	1.0	5	26	8

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date:
Analysis Date: 16-JUN-2009 14:05
Report Date: 07/02/2009
Matrix: SOIL
% Solids: 18.1

Lab ID: SC3122-4RA
Client ID: WGL-SD-SD102-000.6
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65083
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
79-34-5	1,1,2,2-Tetrachloroethane	U	26	1.0	5	26	6
541-73-1	1,3-Dichlorobenzene	U	26	1.0	5	26	7
106-46-7	1,4-Dichlorobenzene	U	26	1.0	5	26	7
95-50-1	1,2-Dichlorobenzene	U	26	1.0	5	26	6
96-12-8	1,2-Dibromo-3-Chloropropane	U	26	1.0	5	26	11
120-82-1	1,2,4-Trichlorobenzene	U	26	1.0	5	26	7
1868-53-7	Dibromofluoromethane		*121%				
17060-07-0	1,2-Dichloroethane-D4		80%				
2037-26-5	Toluene-D8		79%				
460-00-4	P-Bromofluorobenzene		* 48%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date:
Analysis Date: 15-JUN-2009 16:35
Report Date: 07/02/2009
Matrix: SOIL
% Solids: 26.5

Lab ID: SC3122-7
Client ID: WGL-SD-SD101-000.6
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65028
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
75-71-8	Dichlorodifluoromethane	U	23	1.0	5	23	6
74-87-3	Chloromethane	U	23	1.0	5	23	9
75-01-4	Vinyl chloride	U	23	1.0	5	23	6
74-83-9	Bromomethane	U	23	1.0	5	23	10
75-00-3	Chloroethane	U	23	1.0	5	23	9
75-69-4	Trichlorofluoromethane	U	23	1.0	5	23	7
75-35-4	1,1-Dichloroethene	U	23	1.0	5	23	7
67-64-1	Acetone	U	110	1.0	25	110	50
75-15-0	Carbon Disulfide	U	23	1.0	5	23	8
79-20-9	Methyl Acetate	U	23	1.0	5	23	20
75-09-2	Methylene Chloride	U	110	1.0	25	110	12
156-60-5	trans-1,2-Dichloroethene	U	23	1.0	5	23	10
1634-04-4	Methyl tert-butyl ether	U	23	1.0	5	23	13
75-34-3	1,1-Dichloroethane	U	23	1.0	5	23	8
156-59-2	cis-1,2-Dichloroethene	U	23	1.0	5	23	9
78-93-3	2-Butanone	U	110	1.0	25	110	43
67-66-3	Chloroform	U	23	1.0	5	23	8
71-55-6	1,1,1-Trichloroethane	U	23	1.0	5	23	8
1735-17-7	Cyclohexane	U	23	1.0	5	23	5
56-23-5	Carbon Tetrachloride	U	23	1.0	5	23	6
71-43-2	Benzene	U	23	1.0	5	23	7
107-06-2	1,2-Dichloroethane	U	23	1.0	5	23	6
79-01-6	Trichloroethene	U	23	1.0	5	23	8
108-87-2	Methylcyclohexane	U	23	1.0	5	23	7
78-87-5	1,2-Dichloropropane	U	23	1.0	5	23	7
75-27-4	Bromodichloromethane	U	23	1.0	5	23	7
10061-01-5	cis-1,3-dichloropropene	U	23	1.0	5	23	7
108-10-1	4-methyl-2-pentanone	U	110	1.0	25	110	43
108-88-3	Toluene	U	23	1.0	5	23	6
10061-02-6	trans-1,3-Dichloropropene	U	23	1.0	5	23	10
79-00-5	1,1,2-Trichloroethane	U	23	1.0	5	23	7
127-18-4	Tetrachloroethene	U	23	1.0	5	23	9
591-78-6	2-Hexanone	U	110	1.0	25	110	36
124-48-1	Dibromochloromethane	U	23	1.0	5	23	7
106-93-4	1,2-Dibromoethane	U	23	1.0	5	23	8
108-90-7	Chlorobenzene	U	23	1.0	5	23	7
100-41-4	Ethylbenzene	U	23	1.0	5	23	6
	m+p-Xylenes	U	46	1.0	10	46	16
95-47-6	o-Xylene	U	23	1.0	5	23	5
1330-20-7	Xylenes (total)	U	68	1.0	15	68	5
100-42-5	Styrene	U	23	1.0	5	23	5
75-25-2	Bromoform	U	23	1.0	5	23	5
98-82-8	Isopropylbenzene	U	23	1.0	5	23	7

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date:
Analysis Date: 15-JUN-2009 16:35
Report Date: 07/02/2009
Matrix: SOIL
% Solids: 26.5

Lab ID: SC3122-7
Client ID: WGL-SD-SD101-000.6
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65028
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
79-34-5	1,1,2,2-Tetrachloroethane	U	23	1.0	5	23	5
541-73-1	1,3-Dichlorobenzene	U	23	1.0	5	23	6
106-46-7	1,4-Dichlorobenzene	U	23	1.0	5	23	6
95-50-1	1,2-Dichlorobenzene	U	23	1.0	5	23	5
96-12-8	1,2-Dibromo-3-Chloropropane	U	23	1.0	5	23	9
120-82-1	1,2,4-Trichlorobenzene	U	23	1.0	5	23	6
1868-53-7	Dibromofluoromethane		*144%				
17060-07-0	1,2-Dichloroethane-D4		97%				
2037-26-5	Toluene-D8		* 68%				
460-00-4	P-Bromofluorobenzene		* 25%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date:
Analysis Date: 16-JUN-2009 14:40
Report Date: 07/02/2009
Matrix: SOIL
% Solids: 26.5

Lab ID: SC3122-7RA
Client ID: WGL-SD-SD101-000.6
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65083
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
75-71-8	Dichlorodifluoromethane	U	35	1.0	5	35	9
74-87-3	Chloromethane	U	35	1.0	5	35	13
75-01-4	Vinyl chloride	U	35	1.0	5	35	10
74-83-9	Bromomethane	U	35	1.0	5	35	16
75-00-3	Chloroethane	U	35	1.0	5	35	14
75-69-4	Trichlorofluoromethane	U	35	1.0	5	35	10
75-35-4	1,1-Dichloroethene	U	35	1.0	5	35	11
67-64-1	Acetone		220	1.0	25	180	77
75-15-0	Carbon Disulfide	U	35	1.0	5	35	13
79-20-9	Methyl Acetate	U	35	1.0	5	35	31
75-09-2	Methylene Chloride	U	180	1.0	25	180	19
156-60-5	trans-1,2-Dichloroethene	U	35	1.0	5	35	15
1634-04-4	Methyl tert-butyl ether	U	35	1.0	5	35	20
75-34-3	1,1-Dichloroethane	U	35	1.0	5	35	13
156-59-2	cis-1,2-Dichloroethene	U	35	1.0	5	35	14
78-93-3	2-Butanone	U	180	1.0	25	180	66
67-66-3	Chloroform	U	35	1.0	5	35	13
71-55-6	1,1,1-Trichloroethane	U	35	1.0	5	35	13
1735-17-7	Cyclohexane	U	35	1.0	5	35	8
56-23-5	Carbon Tetrachloride	U	35	1.0	5	35	10
71-43-2	Benzene	U	35	1.0	5	35	11
107-06-2	1,2-Dichloroethane	U	35	1.0	5	35	10
79-01-6	Trichloroethene	U	35	1.0	5	35	12
108-87-2	Methylcyclohexane	U	35	1.0	5	35	11
78-87-5	1,2-Dichloropropane	U	35	1.0	5	35	11
75-27-4	Bromodichloromethane	U	35	1.0	5	35	11
10061-01-5	cis-1,3-dichloropropene	U	35	1.0	5	35	11
108-10-1	4-methyl-2-pentanone	U	180	1.0	25	180	66
108-88-3	Toluene	U	35	1.0	5	35	9
10061-02-6	trans-1,3-Dichloropropene	U	35	1.0	5	35	15
79-00-5	1,1,2-Trichloroethane	U	35	1.0	5	35	11
127-18-4	Tetrachloroethene	U	35	1.0	5	35	13
591-78-6	2-Hexanone	U	180	1.0	25	180	56
124-48-1	Dibromochloromethane	U	35	1.0	5	35	11
106-93-4	1,2-Dibromoethane	U	35	1.0	5	35	12
108-90-7	Chlorobenzene	U	35	1.0	5	35	10
100-41-4	Ethylbenzene	U	35	1.0	5	35	8
	m+p-Xylenes	U	70	1.0	10	70	25
95-47-6	o-Xylene	U	35	1.0	5	35	8
1330-20-7	Xylenes (total)	U	100	1.0	15	100	8
100-42-5	Styrene	U	35	1.0	5	35	8
75-25-2	Bromoform	U	35	1.0	5	35	8
98-82-8	Isopropylbenzene	U	35	1.0	5	35	10

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date:
Analysis Date: 16-JUN-2009 14:40
Report Date: 07/02/2009
Matrix: SOIL
% Solids: 26.5

Lab ID: SC3122-7RA
Client ID: WGL-SD-SD101-000.6
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65083
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
79-34-5	1,1,2,2-Tetrachloroethane	U	35	1.0	5	35	7
541-73-1	1,3-Dichlorobenzene	U	35	1.0	5	35	9
106-46-7	1,4-Dichlorobenzene	U	35	1.0	5	35	10
95-50-1	1,2-Dichlorobenzene	U	35	1.0	5	35	8
96-12-8	1,2-Dibromo-3-Chloropropane	U	35	1.0	5	35	14
120-82-1	1,2,4-Trichlorobenzene	U	35	1.0	5	35	10
1868-53-7	Dibromofluoromethane		*127%				
17060-07-0	1,2-Dichloroethane-D4		77%				
2037-26-5	Toluene-D8		* 68%				
460-00-4	P-Bromofluorobenzene		* 28%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date:
Analysis Date: 15-JUN-2009 17:11
Report Date: 07/02/2009
Matrix: SOIL
% Solids: 18.3

Lab ID: SC3122-10
Client ID: WGL-SD-DUP01-061109
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65028
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
75-71-8	Dichlorodifluoromethane	U	28	1.0	5	28	7
74-87-3	Chloromethane	U	28	1.0	5	28	11
75-01-4	Vinyl chloride	U	28	1.0	5	28	8
74-83-9	Bromomethane	U	28	1.0	5	28	13
75-00-3	Chloroethane	U	28	1.0	5	28	11
75-69-4	Trichlorofluoromethane	U	28	1.0	5	28	8
75-35-4	1,1-Dichloroethene	U	28	1.0	5	28	8
67-64-1	Acetone		1200	1.0	25	140	61
75-15-0	Carbon Disulfide	U	28	1.0	5	28	10
79-20-9	Methyl Acetate	U	28	1.0	5	28	25
75-09-2	Methylene Chloride	U	140	1.0	25	140	15
156-60-5	trans-1,2-Dichloroethene	U	28	1.0	5	28	12
1634-04-4	Methyl tert-butyl ether	U	28	1.0	5	28	16
75-34-3	1,1-Dichloroethane	U	28	1.0	5	28	10
156-59-2	cis-1,2-Dichloroethene	U	28	1.0	5	28	11
78-93-3	2-Butanone	J	120	1.0	25	140	53
67-66-3	Chloroform	U	28	1.0	5	28	10
71-55-6	1,1,1-Trichloroethane	U	28	1.0	5	28	10
1735-17-7	Cyclohexane	U	28	1.0	5	28	6
56-23-5	Carbon Tetrachloride	U	28	1.0	5	28	8
71-43-2	Benzene	U	28	1.0	5	28	8
107-06-2	1,2-Dichloroethane	U	28	1.0	5	28	8
79-01-6	Trichloroethene	U	28	1.0	5	28	10
108-87-2	Methylcyclohexane	U	28	1.0	5	28	8
78-87-5	1,2-Dichloropropane	U	28	1.0	5	28	9
75-27-4	Bromodichloromethane	U	28	1.0	5	28	9
10061-01-5	cis-1,3-dichloropropene	U	28	1.0	5	28	9
108-10-1	4-methyl-2-pentanone	U	140	1.0	25	140	53
108-88-3	Toluene	U	28	1.0	5	28	7
10061-02-6	trans-1,3-Dichloropropene	U	28	1.0	5	28	12
79-00-5	1,1,2-Trichloroethane	U	28	1.0	5	28	8
127-18-4	Tetrachloroethene	U	28	1.0	5	28	11
591-78-6	2-Hexanone	U	140	1.0	25	140	45
124-48-1	Dibromochloromethane	U	28	1.0	5	28	8
106-93-4	1,2-Dibromoethane	U	28	1.0	5	28	10
108-90-7	Chlorobenzene	U	28	1.0	5	28	8
100-41-4	Ethylbenzene	U	28	1.0	5	28	7
	m+p-Xylenes	U	56	1.0	10	56	20
95-47-6	o-Xylene	U	28	1.0	5	28	6
1330-20-7	Xylenes (total)	U	84	1.0	15	84	6
100-42-5	Styrene	U	28	1.0	5	28	7
75-25-2	Bromoform	U	28	1.0	5	28	6
98-82-8	Isopropylbenzene	U	28	1.0	5	28	8

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date:
Analysis Date: 15-JUN-2009 17:11
Report Date: 07/02/2009
Matrix: SOIL
% Solids: 18.3

Lab ID: SC3122-10
Client ID: WGL-SD-DUP01-061109
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65028
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
79-34-5	1,1,2,2-Tetrachloroethane	U	28	1.0	5	28	6
541-73-1	1,3-Dichlorobenzene	U	28	1.0	5	28	7
106-46-7	1,4-Dichlorobenzene	U	28	1.0	5	28	8
95-50-1	1,2-Dichlorobenzene	U	28	1.0	5	28	6
96-12-8	1,2-Dibromo-3-Chloropropane	U	28	1.0	5	28	12
120-82-1	1,2,4-Trichlorobenzene	U	28	1.0	5	28	8
1868-53-7	Dibromofluoromethane		*137%				
17060-07-0	1,2-Dichloroethane-D4		89%				
2037-26-5	Toluene-D8		82%				
460-00-4	P-Bromofluorobenzene		* 50%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date:
Analysis Date: 16-JUN-2009 15:15
Report Date: 07/02/2009
Matrix: SOIL
% Solids: 18.3

Lab ID: SC3122-10RA
Client ID: WGL-SD-DUP01-061109
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65083
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
75-71-8	Dichlorodifluoromethane	U	24	1.0	5	24	6
74-87-3	Chloromethane	U	24	1.0	5	24	9
75-01-4	Vinyl chloride	U	24	1.0	5	24	7
74-83-9	Bromomethane	U	24	1.0	5	24	11
75-00-3	Chloroethane	U	24	1.0	5	24	9
75-69-4	Trichlorofluoromethane	U	24	1.0	5	24	7
75-35-4	1,1-Dichloroethene	U	24	1.0	5	24	7
67-64-1	Acetone		690	1.0	25	120	52
75-15-0	Carbon Disulfide	U	24	1.0	5	24	9
79-20-9	Methyl Acetate	U	24	1.0	5	24	21
75-09-2	Methylene Chloride	U	120	1.0	25	120	13
156-60-5	trans-1,2-Dichloroethene	U	24	1.0	5	24	10
1634-04-4	Methyl tert-butyl ether	U	24	1.0	5	24	14
75-34-3	1,1-Dichloroethane	U	24	1.0	5	24	9
156-59-2	cis-1,2-Dichloroethene	U	24	1.0	5	24	9
78-93-3	2-Butanone	J	79	1.0	25	120	45
67-66-3	Chloroform	U	24	1.0	5	24	8
71-55-6	1,1,1-Trichloroethane	U	24	1.0	5	24	9
1735-17-7	Cyclohexane	U	24	1.0	5	24	6
56-23-5	Carbon Tetrachloride	U	24	1.0	5	24	7
71-43-2	Benzene	U	24	1.0	5	24	7
107-06-2	1,2-Dichloroethane	U	24	1.0	5	24	6
79-01-6	Trichloroethene	U	24	1.0	5	24	8
108-87-2	Methylcyclohexane	U	24	1.0	5	24	7
78-87-5	1,2-Dichloropropane	U	24	1.0	5	24	8
75-27-4	Bromodichloromethane	U	24	1.0	5	24	8
10061-01-5	cis-1,3-dichloropropene	U	24	1.0	5	24	8
108-10-1	4-methyl-2-pentanone	U	120	1.0	25	120	45
108-88-3	Toluene	U	24	1.0	5	24	6
10061-02-6	trans-1,3-Dichloropropene	U	24	1.0	5	24	10
79-00-5	1,1,2-Trichloroethane	U	24	1.0	5	24	7
127-18-4	Tetrachloroethene	U	24	1.0	5	24	9
591-78-6	2-Hexanone	U	120	1.0	25	120	38
124-48-1	Dibromochloromethane	U	24	1.0	5	24	7
106-93-4	1,2-Dibromoethane	U	24	1.0	5	24	8
108-90-7	Chlorobenzene	U	24	1.0	5	24	7
100-41-4	Ethylbenzene	U	24	1.0	5	24	6
	m+p-Xylenes	U	47	1.0	10	47	17
95-47-6	o-Xylene	U	24	1.0	5	24	5
1330-20-7	Xylenes (total)	U	71	1.0	15	71	5
100-42-5	Styrene	U	24	1.0	5	24	6
75-25-2	Bromoform	U	24	1.0	5	24	5
98-82-8	Isopropylbenzene	U	24	1.0	5	24	7

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date:
Analysis Date: 16-JUN-2009 15:15
Report Date: 07/02/2009
Matrix: SOIL
% Solids: 18.3

Lab ID: SC3122-10RA
Client ID: WGL-SD-DUP01-061109
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65083
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
79-34-5	1,1,2,2-Tetrachloroethane	U	24	1.0	5	24	5
541-73-1	1,3-Dichlorobenzene	U	24	1.0	5	24	6
106-46-7	1,4-Dichlorobenzene	U	24	1.0	5	24	7
95-50-1	1,2-Dichlorobenzene	U	24	1.0	5	24	5
96-12-8	1,2-Dibromo-3-Chloropropane	U	24	1.0	5	24	10
120-82-1	1,2,4-Trichlorobenzene	U	24	1.0	5	24	6
1868-53-7	Dibromofluoromethane		*123%				
17060-07-0	1,2-Dichloroethane-D4		74%				
2037-26-5	Toluene-D8		* 68%				
460-00-4	P-Bromofluorobenzene		* 27%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date:
Analysis Date: 15-JUN-2009 17:46
Report Date: 07/02/2009
Matrix: SOIL
% Solids: 18.0

Lab ID: SC3122-13
Client ID: WGL-SD-SD104-000.6
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65028
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
75-71-8	Dichlorodifluoromethane	U	27	1.0	5	27	7
74-87-3	Chloromethane	U	27	1.0	5	27	10
75-01-4	Vinyl chloride	U	27	1.0	5	27	8
74-83-9	Bromomethane	U	27	1.0	5	27	12
75-00-3	Chloroethane	U	27	1.0	5	27	10
75-69-4	Trichlorofluoromethane	U	27	1.0	5	27	8
75-35-4	1,1-Dichloroethene	U	27	1.0	5	27	8
67-64-1	Acetone		210	1.0	25	140	60
75-15-0	Carbon Disulfide	U	27	1.0	5	27	10
79-20-9	Methyl Acetate	U	27	1.0	5	27	24
75-09-2	Methylene Chloride	U	140	1.0	25	140	15
156-60-5	trans-1,2-Dichloroethene	U	27	1.0	5	27	11
1634-04-4	Methyl tert-butyl ether	U	27	1.0	5	27	16
75-34-3	1,1-Dichloroethane	U	27	1.0	5	27	10
156-59-2	cis-1,2-Dichloroethene	U	27	1.0	5	27	11
78-93-3	2-Butanone	U	140	1.0	25	140	52
67-66-3	Chloroform	U	27	1.0	5	27	10
71-55-6	1,1,1-Trichloroethane	U	27	1.0	5	27	10
1735-17-7	Cyclohexane	U	27	1.0	5	27	6
56-23-5	Carbon Tetrachloride	U	27	1.0	5	27	8
71-43-2	Benzene	U	27	1.0	5	27	8
107-06-2	1,2-Dichloroethane	U	27	1.0	5	27	7
79-01-6	Trichloroethene	U	27	1.0	5	27	9
108-87-2	Methylcyclohexane	U	27	1.0	5	27	8
78-87-5	1,2-Dichloropropane	U	27	1.0	5	27	9
75-27-4	Bromodichloromethane	U	27	1.0	5	27	9
10061-01-5	cis-1,3-dichloropropene	U	27	1.0	5	27	9
108-10-1	4-methyl-2-pentanone	U	140	1.0	25	140	51
108-88-3	Toluene	U	27	1.0	5	27	7
10061-02-6	trans-1,3-Dichloropropene	U	27	1.0	5	27	12
79-00-5	1,1,2-Trichloroethane	U	27	1.0	5	27	8
127-18-4	Tetrachloroethene	U	27	1.0	5	27	10
591-78-6	2-Hexanone	U	140	1.0	25	140	43
124-48-1	Dibromochloromethane	U	27	1.0	5	27	8
106-93-4	1,2-Dibromoethane	U	27	1.0	5	27	9
108-90-7	Chlorobenzene	U	27	1.0	5	27	8
100-41-4	Ethylbenzene	U	27	1.0	5	27	7
	m+p-Xylenes	U	54	1.0	10	54	19
95-47-6	o-Xylene	U	27	1.0	5	27	6
1330-20-7	Xylenes (total)	U	82	1.0	15	82	6
100-42-5	Styrene	U	27	1.0	5	27	6
75-25-2	Bromoform	U	27	1.0	5	27	6
98-82-8	Isopropylbenzene	U	27	1.0	5	27	8

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date:
Analysis Date: 15-JUN-2009 17:46
Report Date: 07/02/2009
Matrix: SOIL
% Solids: 18.0

Lab ID: SC3122-13
Client ID: WGL-SD-SD104-000.6
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65028
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
79-34-5	1,1,2,2-Tetrachloroethane	U	27	1.0	5	27	6
541-73-1	1,3-Dichlorobenzene	U	27	1.0	5	27	7
106-46-7	1,4-Dichlorobenzene	U	27	1.0	5	27	8
95-50-1	1,2-Dichlorobenzene	U	27	1.0	5	27	6
96-12-8	1,2-Dibromo-3-Chloropropane	U	27	1.0	5	27	11
120-82-1	1,2,4-Trichlorobenzene	U	27	1.0	5	27	8
1868-53-7	Dibromofluoromethane		*148%				
17060-07-0	1,2-Dichloroethane-D4		91%				
2037-26-5	Toluene-D8		* 70%				
460-00-4	P-Bromofluorobenzene		* 28%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date:
Analysis Date: 16-JUN-2009 15:51
Report Date: 07/02/2009
Matrix: SOIL
% Solids: 18.0

Lab ID: SC3122-13RA
Client ID: WGL-SD-SD104-000.6
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65083
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
75-71-8	Dichlorodifluoromethane	U	20	1.0	5	20	5
74-87-3	Chloromethane	U	20	1.0	5	20	8
75-01-4	Vinyl chloride	U	20	1.0	5	20	6
74-83-9	Bromomethane	U	20	1.0	5	20	9
75-00-3	Chloroethane	U	20	1.0	5	20	8
75-69-4	Trichlorofluoromethane	U	20	1.0	5	20	6
75-35-4	1,1-Dichloroethene	U	20	1.0	5	20	6
67-64-1	Acetone		330	1.0	25	100	45
75-15-0	Carbon Disulfide	U	20	1.0	5	20	8
79-20-9	Methyl Acetate	U	20	1.0	5	20	18
75-09-2	Methylene Chloride	U	100	1.0	25	100	11
156-60-5	trans-1,2-Dichloroethene	U	20	1.0	5	20	9
1634-04-4	Methyl tert-butyl ether	U	20	1.0	5	20	12
75-34-3	1,1-Dichloroethane	U	20	1.0	5	20	8
156-59-2	cis-1,2-Dichloroethene	U	20	1.0	5	20	8
78-93-3	2-Butanone	J	50	1.0	25	100	39
67-66-3	Chloroform	U	20	1.0	5	20	7
71-55-6	1,1,1-Trichloroethane	U	20	1.0	5	20	8
1735-17-7	Cyclohexane	U	20	1.0	5	20	5
56-23-5	Carbon Tetrachloride	U	20	1.0	5	20	6
71-43-2	Benzene	U	20	1.0	5	20	6
107-06-2	1,2-Dichloroethane	U	20	1.0	5	20	6
79-01-6	Trichloroethene	U	20	1.0	5	20	7
108-87-2	Methylcyclohexane	U	20	1.0	5	20	6
78-87-5	1,2-Dichloropropane	U	20	1.0	5	20	7
75-27-4	Bromodichloromethane	U	20	1.0	5	20	7
10061-01-5	cis-1,3-dichloropropene	U	20	1.0	5	20	6
108-10-1	4-methyl-2-pentanone	U	100	1.0	25	100	39
108-88-3	Toluene	U	20	1.0	5	20	5
10061-02-6	trans-1,3-Dichloropropene	U	20	1.0	5	20	9
79-00-5	1,1,2-Trichloroethane	U	20	1.0	5	20	6
127-18-4	Tetrachloroethene	U	20	1.0	5	20	8
591-78-6	2-Hexanone	U	100	1.0	25	100	33
124-48-1	Dibromochloromethane	U	20	1.0	5	20	6
106-93-4	1,2-Dibromoethane	U	20	1.0	5	20	7
108-90-7	Chlorobenzene	U	20	1.0	5	20	6
100-41-4	Ethylbenzene	U	20	1.0	5	20	5
	m+p-Xylenes	U	41	1.0	10	41	15
95-47-6	o-Xylene	U	20	1.0	5	20	4
1330-20-7	Xylenes (total)	U	62	1.0	15	62	4
100-42-5	Styrene	U	20	1.0	5	20	5
75-25-2	Bromoform	U	20	1.0	5	20	5
98-82-8	Isopropylbenzene	U	20	1.0	5	20	6

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date:
Analysis Date: 16-JUN-2009 15:51
Report Date: 07/02/2009
Matrix: SOIL
% Solids: 18.0

Lab ID: SC3122-13RA
Client ID: WGL-SD-SD104-000.6
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65083
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
79-34-5	1,1,2,2-Tetrachloroethane	U	20	1.0	5	20	4
541-73-1	1,3-Dichlorobenzene	U	20	1.0	5	20	5
106-46-7	1,4-Dichlorobenzene	U	20	1.0	5	20	6
95-50-1	1,2-Dichlorobenzene	U	20	1.0	5	20	4
96-12-8	1,2-Dibromo-3-Chloropropane	U	20	1.0	5	20	8
120-82-1	1,2,4-Trichlorobenzene	U	20	1.0	5	20	6
1868-53-7	Dibromofluoromethane		*130%				
17060-07-0	1,2-Dichloroethane-D4		76%				
2037-26-5	Toluene-D8		* 63%				
460-00-4	P-Bromofluorobenzene		* 23%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date:
Analysis Date: 16-JUN-2009 16:26
Report Date: 07/02/2009
Matrix: SOIL
% Solids: 17.4

Lab ID: SC3122-16
Client ID: WGL-SD-SD106-000.6
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65083
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
75-71-8	Dichlorodifluoromethane	U	35	1.0	5	35	9
74-87-3	Chloromethane	U	35	1.0	5	35	13
75-01-4	Vinyl chloride	U	35	1.0	5	35	10
74-83-9	Bromomethane	U	35	1.0	5	35	16
75-00-3	Chloroethane	U	35	1.0	5	35	13
75-69-4	Trichlorofluoromethane	U	35	1.0	5	35	10
75-35-4	1,1-Dichloroethene	U	35	1.0	5	35	10
67-64-1	Acetone		600	1.0	25	170	76
75-15-0	Carbon Disulfide	U	35	1.0	5	35	13
79-20-9	Methyl Acetate	U	35	1.0	5	35	31
75-09-2	Methylene Chloride	U	170	1.0	25	170	19
156-60-5	trans-1,2-Dichloroethene	U	35	1.0	5	35	15
1634-04-4	Methyl tert-butyl ether	U	35	1.0	5	35	20
75-34-3	1,1-Dichloroethane	U	35	1.0	5	35	13
156-59-2	cis-1,2-Dichloroethene	U	35	1.0	5	35	14
78-93-3	2-Butanone	J	100	1.0	25	170	66
67-66-3	Chloroform	U	35	1.0	5	35	13
71-55-6	1,1,1-Trichloroethane	U	35	1.0	5	35	13
1735-17-7	Cyclohexane	U	35	1.0	5	35	8
56-23-5	Carbon Tetrachloride	U	35	1.0	5	35	10
71-43-2	Benzene	U	35	1.0	5	35	11
107-06-2	1,2-Dichloroethane	U	35	1.0	5	35	10
79-01-6	Trichloroethene	U	35	1.0	5	35	12
108-87-2	Methylcyclohexane	U	35	1.0	5	35	10
78-87-5	1,2-Dichloropropane	U	35	1.0	5	35	11
75-27-4	Bromodichloromethane	U	35	1.0	5	35	11
10061-01-5	cis-1,3-dichloropropene	U	35	1.0	5	35	11
108-10-1	4-methyl-2-pentanone	U	170	1.0	25	170	66
108-88-3	Toluene	U	35	1.0	5	35	9
10061-02-6	trans-1,3-Dichloropropene	U	35	1.0	5	35	15
79-00-5	1,1,2-Trichloroethane	U	35	1.0	5	35	10
127-18-4	Tetrachloroethene	U	35	1.0	5	35	13
591-78-6	2-Hexanone	U	170	1.0	25	170	56
124-48-1	Dibromochloromethane	U	35	1.0	5	35	11
106-93-4	1,2-Dibromoethane	U	35	1.0	5	35	12
108-90-7	Chlorobenzene	U	35	1.0	5	35	10
100-41-4	Ethylbenzene	U	35	1.0	5	35	8
	m+p-Xylenes	U	70	1.0	10	70	25
95-47-6	o-Xylene	U	35	1.0	5	35	8
1330-20-7	Xylenes (total)	U	100	1.0	15	100	8
100-42-5	Styrene	U	35	1.0	5	35	8
75-25-2	Bromoform	U	35	1.0	5	35	8
98-82-8	Isopropylbenzene	U	35	1.0	5	35	10

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date:
Analysis Date: 16-JUN-2009 16:26
Report Date: 07/02/2009
Matrix: SOIL
% Solids: 17.4

Lab ID: SC3122-16
Client ID: WGL-SD-SD106-000.6
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65083
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
79-34-5	1,1,2,2-Tetrachloroethane	U	35	1.0	5	35	7
541-73-1	1,3-Dichlorobenzene	U	35	1.0	5	35	9
106-46-7	1,4-Dichlorobenzene	U	35	1.0	5	35	10
95-50-1	1,2-Dichlorobenzene	U	35	1.0	5	35	8
96-12-8	1,2-Dibromo-3-Chloropropane	U	35	1.0	5	35	14
120-82-1	1,2,4-Trichlorobenzene	U	35	1.0	5	35	10
1868-53-7	Dibromofluoromethane		*136%				
17060-07-0	1,2-Dichloroethane-D4		86%				
2037-26-5	Toluene-D8		* 67%				
460-00-4	P-Bromofluorobenzene		* 24%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date:
Analysis Date: 17-JUN-2009 13:06
Report Date: 07/02/2009
Matrix: SOIL
% Solids: 17.4

Lab ID: SC3122-16RA
Client ID: WGL-SD-SD106-000.6
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65115
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
75-71-8	Dichlorodifluoromethane	U	40	1.0	5	40	10
74-87-3	Chloromethane	U	40	1.0	5	40	15
75-01-4	Vinyl chloride	U	40	1.0	5	40	11
74-83-9	Bromomethane	U	40	1.0	5	40	18
75-00-3	Chloroethane	U	40	1.0	5	40	15
75-69-4	Trichlorofluoromethane	U	40	1.0	5	40	12
75-35-4	1,1-Dichloroethene	U	40	1.0	5	40	12
67-64-1	Acetone		280	1.0	25	200	87
75-15-0	Carbon Disulfide	U	40	1.0	5	40	15
79-20-9	Methyl Acetate	U	40	1.0	5	40	36
75-09-2	Methylene Chloride	U	200	1.0	25	200	22
156-60-5	trans-1,2-Dichloroethene	U	40	1.0	5	40	17
1634-04-4	Methyl tert-butyl ether	U	40	1.0	5	40	23
75-34-3	1,1-Dichloroethane	U	40	1.0	5	40	15
156-59-2	cis-1,2-Dichloroethene	U	40	1.0	5	40	16
78-93-3	2-Butanone	U	200	1.0	25	200	75
67-66-3	Chloroform	U	40	1.0	5	40	14
71-55-6	1,1,1-Trichloroethane	U	40	1.0	5	40	15
1735-17-7	Cyclohexane	U	40	1.0	5	40	9
56-23-5	Carbon Tetrachloride	U	40	1.0	5	40	11
71-43-2	Benzene	U	40	1.0	5	40	12
107-06-2	1,2-Dichloroethane	U	40	1.0	5	40	11
79-01-6	Trichloroethene	U	40	1.0	5	40	14
108-87-2	Methylcyclohexane	U	40	1.0	5	40	12
78-87-5	1,2-Dichloropropane	U	40	1.0	5	40	13
75-27-4	Bromodichloromethane	U	40	1.0	5	40	13
10061-01-5	cis-1,3-dichloropropene	U	40	1.0	5	40	13
108-10-1	4-methyl-2-pentanone	U	200	1.0	25	200	75
108-88-3	Toluene	U	40	1.0	5	40	10
10061-02-6	trans-1,3-Dichloropropene	U	40	1.0	5	40	17
79-00-5	1,1,2-Trichloroethane	U	40	1.0	5	40	12
127-18-4	Tetrachloroethene	U	40	1.0	5	40	15
591-78-6	2-Hexanone	U	200	1.0	25	200	63
124-48-1	Dibromochloromethane	U	40	1.0	5	40	12
106-93-4	1,2-Dibromoethane	U	40	1.0	5	40	14
108-90-7	Chlorobenzene	U	40	1.0	5	40	12
100-41-4	Ethylbenzene	U	40	1.0	5	40	10
	m+p-Xylenes	U	79	1.0	10	79	28
95-47-6	o-Xylene	U	40	1.0	5	40	9
1330-20-7	Xylenes (total)	U	120	1.0	15	120	9
100-42-5	Styrene	U	40	1.0	5	40	9
75-25-2	Bromoform	U	40	1.0	5	40	9
98-82-8	Isopropylbenzene	U	40	1.0	5	40	12

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date:
Analysis Date: 17-JUN-2009 13:06
Report Date: 07/02/2009
Matrix: SOIL
% Solids: 17.4

Lab ID: SC3122-16RA
Client ID: WGL-SD-SD106-000.6
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65115
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
79-34-5	1,1,2,2-Tetrachloroethane	U	40	1.0	5	40	8
541-73-1	1,3-Dichlorobenzene	U	40	1.0	5	40	10
106-46-7	1,4-Dichlorobenzene	U	40	1.0	5	40	11
95-50-1	1,2-Dichlorobenzene	U	40	1.0	5	40	9
96-12-8	1,2-Dibromo-3-Chloropropane	U	40	1.0	5	40	16
120-82-1	1,2,4-Trichlorobenzene	U	40	1.0	5	40	11
1868-53-7	Dibromofluoromethane		*140%				
17060-07-0	1,2-Dichloroethane-D4		87%				
2037-26-5	Toluene-D8		71%				
460-00-4	P-Bromofluorobenzene		* 28%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date:
Analysis Date: 16-JUN-2009 17:01
Report Date: 07/02/2009
Matrix: SOIL
% Solids: 17.2

Lab ID: SC3122-19
Client ID: WGL-SD-DUP02-061109
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65083
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
75-71-8	Dichlorodifluoromethane	U	22	1.0	5	22	5
74-87-3	Chloromethane	U	22	1.0	5	22	8
75-01-4	Vinyl chloride	U	22	1.0	5	22	6
74-83-9	Bromomethane	U	22	1.0	5	22	10
75-00-3	Chloroethane	U	22	1.0	5	22	8
75-69-4	Trichlorofluoromethane	U	22	1.0	5	22	6
75-35-4	1,1-Dichloroethene	U	22	1.0	5	22	7
67-64-1	Acetone		470	1.0	25	110	48
75-15-0	Carbon Disulfide	U	22	1.0	5	22	8
79-20-9	Methyl Acetate	U	22	1.0	5	22	20
75-09-2	Methylene Chloride	U	110	1.0	25	110	12
156-60-5	trans-1,2-Dichloroethene	U	22	1.0	5	22	9
1634-04-4	Methyl tert-butyl ether	U	22	1.0	5	22	13
75-34-3	1,1-Dichloroethane	U	22	1.0	5	22	8
156-59-2	cis-1,2-Dichloroethene	U	22	1.0	5	22	9
78-93-3	2-Butanone	J	67	1.0	25	110	42
67-66-3	Chloroform	U	22	1.0	5	22	8
71-55-6	1,1,1-Trichloroethane	U	22	1.0	5	22	8
1735-17-7	Cyclohexane	U	22	1.0	5	22	5
56-23-5	Carbon Tetrachloride	U	22	1.0	5	22	6
71-43-2	Benzene	U	22	1.0	5	22	7
107-06-2	1,2-Dichloroethane	U	22	1.0	5	22	6
79-01-6	Trichloroethene	U	22	1.0	5	22	8
108-87-2	Methylcyclohexane	U	22	1.0	5	22	7
78-87-5	1,2-Dichloropropane	U	22	1.0	5	22	7
75-27-4	Bromodichloromethane	U	22	1.0	5	22	7
10061-01-5	cis-1,3-dichloropropene	U	22	1.0	5	22	7
108-10-1	4-methyl-2-pentanone	U	110	1.0	25	110	41
108-88-3	Toluene	U	22	1.0	5	22	6
10061-02-6	trans-1,3-Dichloropropene	U	22	1.0	5	22	10
79-00-5	1,1,2-Trichloroethane	U	22	1.0	5	22	7
127-18-4	Tetrachloroethene	U	22	1.0	5	22	8
591-78-6	2-Hexanone	U	110	1.0	25	110	35
124-48-1	Dibromochloromethane	U	22	1.0	5	22	7
106-93-4	1,2-Dibromoethane	U	22	1.0	5	22	8
108-90-7	Chlorobenzene	U	22	1.0	5	22	7
100-41-4	Ethylbenzene	U	22	1.0	5	22	5
	m+p-Xylenes	U	44	1.0	10	44	16
95-47-6	o-Xylene	U	22	1.0	5	22	5
1330-20-7	Xylenes (total)	U	66	1.0	15	66	5
100-42-5	Styrene	U	22	1.0	5	22	5
75-25-2	Bromoform	U	22	1.0	5	22	5
98-82-8	Isopropylbenzene	U	22	1.0	5	22	6

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date:
Analysis Date: 16-JUN-2009 17:01
Report Date: 07/02/2009
Matrix: SOIL
% Solids: 17.2

Lab ID: SC3122-19
Client ID: WGL-SD-DUP02-061109
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65083
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
79-34-5	1,1,2,2-Tetrachloroethane	U	22	1.0	5	22	5
541-73-1	1,3-Dichlorobenzene	U	22	1.0	5	22	6
106-46-7	1,4-Dichlorobenzene	U	22	1.0	5	22	6
95-50-1	1,2-Dichlorobenzene	U	22	1.0	5	22	5
96-12-8	1,2-Dibromo-3-Chloropropane	U	22	1.0	5	22	9
120-82-1	1,2,4-Trichlorobenzene	U	22	1.0	5	22	6
1868-53-7	Dibromofluoromethane		*136%				
17060-07-0	1,2-Dichloroethane-D4		77%				
2037-26-5	Toluene-D8		* 68%				
460-00-4	P-Bromofluorobenzene		* 24%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date:
Analysis Date: 17-JUN-2009 13:41
Report Date: 07/02/2009
Matrix: SOIL
% Solids: 17.2

Lab ID: SC3122-19RA
Client ID: WGL-SD-DUP02-061109
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65115
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
75-71-8	Dichlorodifluoromethane	U	54	1.0	5	54	14
74-87-3	Chloromethane	U	54	1.0	5	54	21
75-01-4	Vinyl chloride	U	54	1.0	5	54	16
74-83-9	Bromomethane	U	54	1.0	5	54	25
75-00-3	Chloroethane	U	54	1.0	5	54	21
75-69-4	Trichlorofluoromethane	U	54	1.0	5	54	16
75-35-4	1,1-Dichloroethene	U	54	1.0	5	54	16
67-64-1	Acetone	J	190	1.0	25	270	120
75-15-0	Carbon Disulfide	U	54	1.0	5	54	20
79-20-9	Methyl Acetate	U	54	1.0	5	54	49
75-09-2	Methylene Chloride	U	270	1.0	25	270	30
156-60-5	trans-1,2-Dichloroethene	U	54	1.0	5	54	23
1634-04-4	Methyl tert-butyl ether	U	54	1.0	5	54	32
75-34-3	1,1-Dichloroethane	U	54	1.0	5	54	20
156-59-2	cis-1,2-Dichloroethene	U	54	1.0	5	54	22
78-93-3	2-Butanone	U	270	1.0	25	270	100
67-66-3	Chloroform	U	54	1.0	5	54	20
71-55-6	1,1,1-Trichloroethane	U	54	1.0	5	54	20
1735-17-7	Cyclohexane	U	54	1.0	5	54	13
56-23-5	Carbon Tetrachloride	U	54	1.0	5	54	16
71-43-2	Benzene	U	54	1.0	5	54	17
107-06-2	1,2-Dichloroethane	U	54	1.0	5	54	15
79-01-6	Trichloroethene	U	54	1.0	5	54	19
108-87-2	Methylcyclohexane	U	54	1.0	5	54	16
78-87-5	1,2-Dichloropropane	U	54	1.0	5	54	18
75-27-4	Bromodichloromethane	U	54	1.0	5	54	18
10061-01-5	cis-1,3-dichloropropene	U	54	1.0	5	54	17
108-10-1	4-methyl-2-pentanone	U	270	1.0	25	270	100
108-88-3	Toluene	U	54	1.0	5	54	14
10061-02-6	trans-1,3-Dichloropropene	U	54	1.0	5	54	24
79-00-5	1,1,2-Trichloroethane	U	54	1.0	5	54	16
127-18-4	Tetrachloroethene	U	54	1.0	5	54	21
591-78-6	2-Hexanone	U	270	1.0	25	270	87
124-48-1	Dibromochloromethane	U	54	1.0	5	54	17
106-93-4	1,2-Dibromoethane	U	54	1.0	5	54	19
108-90-7	Chlorobenzene	U	54	1.0	5	54	16
100-41-4	Ethylbenzene	U	54	1.0	5	54	13
	m+p-Xylenes	U	110	1.0	10	110	39
95-47-6	o-Xylene	U	54	1.0	5	54	12
1330-20-7	Xylenes (total)	U	160	1.0	15	160	12
100-42-5	Styrene	U	54	1.0	5	54	13
75-25-2	Bromoform	U	54	1.0	5	54	13
98-82-8	Isopropylbenzene	U	54	1.0	5	54	16

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date:
Analysis Date: 17-JUN-2009 13:41
Report Date: 07/02/2009
Matrix: SOIL
% Solids: 17.2

Lab ID: SC3122-19RA
Client ID: WGL-SD-DUP02-061109
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65115
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
79-34-5	1,1,2,2-Tetrachloroethane	U	54	1.0	5	54	12
541-73-1	1,3-Dichlorobenzene	U	54	1.0	5	54	14
106-46-7	1,4-Dichlorobenzene	U	54	1.0	5	54	15
95-50-1	1,2-Dichlorobenzene	U	54	1.0	5	54	12
96-12-8	1,2-Dibromo-3-Chloropropane	U	54	1.0	5	54	22
120-82-1	1,2,4-Trichlorobenzene	U	54	1.0	5	54	15
1868-53-7	Dibromofluoromethane		*133%				
17060-07-0	1,2-Dichloroethane-D4		82%				
2037-26-5	Toluene-D8		76%				
460-00-4	P-Bromofluorobenzene		* 31%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date:
Analysis Date: 16-JUN-2009 17:36
Report Date: 07/02/2009
Matrix: SOIL
% Solids: 22.3

Lab ID: SC3122-22
Client ID: WGL-SD-SD107-000.6
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65083
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
75-71-8	Dichlorodifluoromethane	U	34	1.0	5	34	8
74-87-3	Chloromethane	U	34	1.0	5	34	13
75-01-4	Vinyl chloride	U	34	1.0	5	34	10
74-83-9	Bromomethane	U	34	1.0	5	34	15
75-00-3	Chloroethane	U	34	1.0	5	34	13
75-69-4	Trichlorofluoromethane	U	34	1.0	5	34	10
75-35-4	1,1-Dichloroethene	U	34	1.0	5	34	10
67-64-1	Acetone	U	170	1.0	25	170	74
75-15-0	Carbon Disulfide	U	34	1.0	5	34	13
79-20-9	Methyl Acetate	U	34	1.0	5	34	30
75-09-2	Methylene Chloride	U	170	1.0	25	170	18
156-60-5	trans-1,2-Dichloroethene	U	34	1.0	5	34	14
1634-04-4	Methyl tert-butyl ether	U	34	1.0	5	34	20
75-34-3	1,1-Dichloroethane	U	34	1.0	5	34	12
156-59-2	cis-1,2-Dichloroethene	U	34	1.0	5	34	13
78-93-3	2-Butanone	U	170	1.0	25	170	64
67-66-3	Chloroform	U	34	1.0	5	34	12
71-55-6	1,1,1-Trichloroethane	U	34	1.0	5	34	12
1735-17-7	Cyclohexane	U	34	1.0	5	34	8
56-23-5	Carbon Tetrachloride	U	34	1.0	5	34	10
71-43-2	Benzene	U	34	1.0	5	34	10
107-06-2	1,2-Dichloroethane	U	34	1.0	5	34	9
79-01-6	Trichloroethene	U	34	1.0	5	34	12
108-87-2	Methylcyclohexane	U	34	1.0	5	34	10
78-87-5	1,2-Dichloropropane	U	34	1.0	5	34	11
75-27-4	Bromodichloromethane	U	34	1.0	5	34	11
10061-01-5	cis-1,3-dichloropropene	U	34	1.0	5	34	11
108-10-1	4-methyl-2-pentanone	U	170	1.0	25	170	64
108-88-3	Toluene	U	34	1.0	5	34	9
10061-02-6	trans-1,3-Dichloropropene	U	34	1.0	5	34	15
79-00-5	1,1,2-Trichloroethane	U	34	1.0	5	34	10
127-18-4	Tetrachloroethene	U	34	1.0	5	34	13
591-78-6	2-Hexanone	U	170	1.0	25	170	54
124-48-1	Dibromochloromethane	U	34	1.0	5	34	10
106-93-4	1,2-Dibromoethane	U	34	1.0	5	34	12
108-90-7	Chlorobenzene	U	34	1.0	5	34	10
100-41-4	Ethylbenzene	U	34	1.0	5	34	8
	m+p-Xylenes	U	67	1.0	10	67	24
95-47-6	o-Xylene	U	34	1.0	5	34	7
1330-20-7	Xylenes (total)	U	100	1.0	15	100	7
100-42-5	Styrene	U	34	1.0	5	34	8
75-25-2	Bromoform	U	34	1.0	5	34	8
98-82-8	Isopropylbenzene	U	34	1.0	5	34	10

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date:
Analysis Date: 16-JUN-2009 17:36
Report Date: 07/02/2009
Matrix: SOIL
% Solids: 22.3

Lab ID: SC3122-22
Client ID: WGL-SD-SD107-000.6
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65083
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
79-34-5	1,1,2,2-Tetrachloroethane	U	34	1.0	5	34	7
541-73-1	1,3-Dichlorobenzene	U	34	1.0	5	34	9
106-46-7	1,4-Dichlorobenzene	U	34	1.0	5	34	10
95-50-1	1,2-Dichlorobenzene	U	34	1.0	5	34	7
96-12-8	1,2-Dibromo-3-Chloropropane	U	34	1.0	5	34	14
120-82-1	1,2,4-Trichlorobenzene	U	34	1.0	5	34	9
1868-53-7	Dibromofluoromethane		*133%				
17060-07-0	1,2-Dichloroethane-D4		80%				
2037-26-5	Toluene-D8		* 69%				
460-00-4	P-Bromofluorobenzene		* 30%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date:
Analysis Date: 17-JUN-2009 14:17
Report Date: 07/02/2009
Matrix: SOIL
% Solids: 22.3

Lab ID: SC3122-22RA
Client ID: WGL-SD-SD107-000.6
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65115
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
75-71-8	Dichlorodifluoromethane	U	36	1.0	5	36	9
74-87-3	Chloromethane	U	36	1.0	5	36	14
75-01-4	Vinyl chloride	U	36	1.0	5	36	10
74-83-9	Bromomethane	U	36	1.0	5	36	16
75-00-3	Chloroethane	U	36	1.0	5	36	14
75-69-4	Trichlorofluoromethane	U	36	1.0	5	36	10
75-35-4	1,1-Dichloroethene	U	36	1.0	5	36	11
67-64-1	Acetone	U	180	1.0	25	180	78
75-15-0	Carbon Disulfide	U	36	1.0	5	36	13
79-20-9	Methyl Acetate	U	36	1.0	5	36	32
75-09-2	Methylene Chloride	U	180	1.0	25	180	19
156-60-5	trans-1,2-Dichloroethene	U	36	1.0	5	36	15
1634-04-4	Methyl tert-butyl ether	U	36	1.0	5	36	21
75-34-3	1,1-Dichloroethane	U	36	1.0	5	36	13
156-59-2	cis-1,2-Dichloroethene	U	36	1.0	5	36	14
78-93-3	2-Butanone	U	180	1.0	25	180	68
67-66-3	Chloroform	U	36	1.0	5	36	13
71-55-6	1,1,1-Trichloroethane	U	36	1.0	5	36	13
1735-17-7	Cyclohexane	U	36	1.0	5	36	8
56-23-5	Carbon Tetrachloride	U	36	1.0	5	36	10
71-43-2	Benzene	U	36	1.0	5	36	11
107-06-2	1,2-Dichloroethane	U	36	1.0	5	36	10
79-01-6	Trichloroethene	U	36	1.0	5	36	12
108-87-2	Methylcyclohexane	U	36	1.0	5	36	11
78-87-5	1,2-Dichloropropane	U	36	1.0	5	36	12
75-27-4	Bromodichloromethane	U	36	1.0	5	36	12
10061-01-5	cis-1,3-dichloropropene	U	36	1.0	5	36	11
108-10-1	4-methyl-2-pentanone	U	180	1.0	25	180	68
108-88-3	Toluene	U	36	1.0	5	36	9
10061-02-6	trans-1,3-Dichloropropene	U	36	1.0	5	36	16
79-00-5	1,1,2-Trichloroethane	U	36	1.0	5	36	11
127-18-4	Tetrachloroethene	U	36	1.0	5	36	14
591-78-6	2-Hexanone	U	180	1.0	25	180	57
124-48-1	Dibromochloromethane	U	36	1.0	5	36	11
106-93-4	1,2-Dibromoethane	U	36	1.0	5	36	12
108-90-7	Chlorobenzene	U	36	1.0	5	36	11
100-41-4	Ethylbenzene	U	36	1.0	5	36	9
	m+p-Xylenes	U	72	1.0	10	72	25
95-47-6	o-Xylene	U	36	1.0	5	36	8
1330-20-7	Xylenes (total)	U	110	1.0	15	110	8
100-42-5	Styrene	U	36	1.0	5	36	8
75-25-2	Bromoform	U	36	1.0	5	36	8
98-82-8	Isopropylbenzene	U	36	1.0	5	36	10

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date:
Analysis Date: 17-JUN-2009 14:17
Report Date: 07/02/2009
Matrix: SOIL
% Solids: 22.3

Lab ID: SC3122-22RA
Client ID: WGL-SD-SD107-000.6
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65115
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
79-34-5	1,1,2,2-Tetrachloroethane	U	36	1.0	5	36	8
541-73-1	1,3-Dichlorobenzene	U	36	1.0	5	36	9
106-46-7	1,4-Dichlorobenzene	U	36	1.0	5	36	10
95-50-1	1,2-Dichlorobenzene	U	36	1.0	5	36	8
96-12-8	1,2-Dibromo-3-Chloropropane	U	36	1.0	5	36	15
120-82-1	1,2,4-Trichlorobenzene	U	36	1.0	5	36	10
1868-53-7	Dibromofluoromethane		*133%				
17060-07-0	1,2-Dichloroethane-D4		83%				
2037-26-5	Toluene-D8		72%				
460-00-4	P-Bromofluorobenzene		* 32%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date:
Analysis Date: 16-JUN-2009 18:12
Report Date: 07/02/2009
Matrix: SOIL
% Solids: 25.2

Lab ID: SC3122-25
Client ID: WGL-SD-SD108-000.6
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65083
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
75-71-8	Dichlorodifluoromethane	U	29	1.0	5	29	7
74-87-3	Chloromethane	U	29	1.0	5	29	11
75-01-4	Vinyl chloride	U	29	1.0	5	29	8
74-83-9	Bromomethane	U	29	1.0	5	29	13
75-00-3	Chloroethane	U	29	1.0	5	29	11
75-69-4	Trichlorofluoromethane	U	29	1.0	5	29	8
75-35-4	1,1-Dichloroethene	U	29	1.0	5	29	9
67-64-1	Acetone	U	140	1.0	25	140	64
75-15-0	Carbon Disulfide	U	29	1.0	5	29	11
79-20-9	Methyl Acetate	U	29	1.0	5	29	26
75-09-2	Methylene Chloride	U	140	1.0	25	140	16
156-60-5	trans-1,2-Dichloroethene	U	29	1.0	5	29	12
1634-04-4	Methyl tert-butyl ether	U	29	1.0	5	29	17
75-34-3	1,1-Dichloroethane	U	29	1.0	5	29	11
156-59-2	cis-1,2-Dichloroethene	U	29	1.0	5	29	12
78-93-3	2-Butanone	U	140	1.0	25	140	55
67-66-3	Chloroform	U	29	1.0	5	29	10
71-55-6	1,1,1-Trichloroethane	U	29	1.0	5	29	11
1735-17-7	Cyclohexane	U	29	1.0	5	29	7
56-23-5	Carbon Tetrachloride	U	29	1.0	5	29	8
71-43-2	Benzene	U	29	1.0	5	29	9
107-06-2	1,2-Dichloroethane	U	29	1.0	5	29	8
79-01-6	Trichloroethene	U	29	1.0	5	29	10
108-87-2	Methylcyclohexane	U	29	1.0	5	29	9
78-87-5	1,2-Dichloropropane	U	29	1.0	5	29	10
75-27-4	Bromodichloromethane	U	29	1.0	5	29	9
10061-01-5	cis-1,3-dichloropropene	U	29	1.0	5	29	9
108-10-1	4-methyl-2-pentanone	U	140	1.0	25	140	55
108-88-3	Toluene	U	29	1.0	5	29	8
10061-02-6	trans-1,3-Dichloropropene	U	29	1.0	5	29	13
79-00-5	1,1,2-Trichloroethane	U	29	1.0	5	29	9
127-18-4	Tetrachloroethene	U	29	1.0	5	29	11
591-78-6	2-Hexanone	U	140	1.0	25	140	46
124-48-1	Dibromochloromethane	U	29	1.0	5	29	9
106-93-4	1,2-Dibromoethane	U	29	1.0	5	29	10
108-90-7	Chlorobenzene	U	29	1.0	5	29	9
100-41-4	Ethylbenzene	U	29	1.0	5	29	7
	m+p-Xylenes	U	58	1.0	10	58	21
95-47-6	o-Xylene	U	29	1.0	5	29	6
1330-20-7	Xylenes (total)	U	87	1.0	15	87	6
100-42-5	Styrene	U	29	1.0	5	29	7
75-25-2	Bromoform	U	29	1.0	5	29	7
98-82-8	Isopropylbenzene	U	29	1.0	5	29	8

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date:
Analysis Date: 16-JUN-2009 18:12
Report Date: 07/02/2009
Matrix: SOIL
% Solids: 25.2

Lab ID: SC3122-25
Client ID: WGL-SD-SD108-000.6
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65083
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
79-34-5	1,1,2,2-Tetrachloroethane	U	29	1.0	5	29	6
541-73-1	1,3-Dichlorobenzene	U	29	1.0	5	29	7
106-46-7	1,4-Dichlorobenzene	U	29	1.0	5	29	8
95-50-1	1,2-Dichlorobenzene	U	29	1.0	5	29	6
96-12-8	1,2-Dibromo-3-Chloropropane	U	29	1.0	5	29	12
120-82-1	1,2,4-Trichlorobenzene	U	29	1.0	5	29	8
1868-53-7	Dibromofluoromethane		*143%				
17060-07-0	1,2-Dichloroethane-D4		84%				
2037-26-5	Toluene-D8		* 63%				
460-00-4	P-Bromofluorobenzene		* 24%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date:
Analysis Date: 17-JUN-2009 14:52
Report Date: 07/02/2009
Matrix: SOIL
% Solids: 25.2

Lab ID: SC3122-25RA
Client ID: WGL-SD-SD108-000.6
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65115
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
75-71-8	Dichlorodifluoromethane	U	30	1.0	5	30	7
74-87-3	Chloromethane	U	30	1.0	5	30	11
75-01-4	Vinyl chloride	U	30	1.0	5	30	8
74-83-9	Bromomethane	U	30	1.0	5	30	13
75-00-3	Chloroethane	U	30	1.0	5	30	11
75-69-4	Trichlorofluoromethane	U	30	1.0	5	30	9
75-35-4	1,1-Dichloroethene	U	30	1.0	5	30	9
67-64-1	Acetone	U	150	1.0	25	150	65
75-15-0	Carbon Disulfide	U	30	1.0	5	30	11
79-20-9	Methyl Acetate	U	30	1.0	5	30	27
75-09-2	Methylene Chloride	U	150	1.0	25	150	16
156-60-5	trans-1,2-Dichloroethene	U	30	1.0	5	30	12
1634-04-4	Methyl tert-butyl ether	U	30	1.0	5	30	17
75-34-3	1,1-Dichloroethane	U	30	1.0	5	30	11
156-59-2	cis-1,2-Dichloroethene	U	30	1.0	5	30	12
78-93-3	2-Butanone	U	150	1.0	25	150	56
67-66-3	Chloroform	U	30	1.0	5	30	11
71-55-6	1,1,1-Trichloroethane	U	30	1.0	5	30	11
1735-17-7	Cyclohexane	U	30	1.0	5	30	7
56-23-5	Carbon Tetrachloride	U	30	1.0	5	30	8
71-43-2	Benzene	U	30	1.0	5	30	9
107-06-2	1,2-Dichloroethane	U	30	1.0	5	30	8
79-01-6	Trichloroethene	U	30	1.0	5	30	10
108-87-2	Methylcyclohexane	U	30	1.0	5	30	9
78-87-5	1,2-Dichloropropane	U	30	1.0	5	30	10
75-27-4	Bromodichloromethane	U	30	1.0	5	30	10
10061-01-5	cis-1,3-dichloropropene	U	30	1.0	5	30	10
108-10-1	4-methyl-2-pentanone	U	150	1.0	25	150	56
108-88-3	Toluene	U	30	1.0	5	30	8
10061-02-6	trans-1,3-Dichloropropene	U	30	1.0	5	30	13
79-00-5	1,1,2-Trichloroethane	U	30	1.0	5	30	9
127-18-4	Tetrachloroethene	U	30	1.0	5	30	11
591-78-6	2-Hexanone	U	150	1.0	25	150	47
124-48-1	Dibromochloromethane	U	30	1.0	5	30	9
106-93-4	1,2-Dibromoethane	U	30	1.0	5	30	10
108-90-7	Chlorobenzene	U	30	1.0	5	30	9
100-41-4	Ethylbenzene	U	30	1.0	5	30	7
	m+p-Xylenes	U	59	1.0	10	59	21
95-47-6	o-Xylene	U	30	1.0	5	30	6
1330-20-7	Xylenes (total)	U	89	1.0	15	89	6
100-42-5	Styrene	U	30	1.0	5	30	7
75-25-2	Bromoform	U	30	1.0	5	30	7
98-82-8	Isopropylbenzene	U	30	1.0	5	30	9

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date:
Analysis Date: 17-JUN-2009 14:52
Report Date: 07/02/2009
Matrix: SOIL
% Solids: 25.2

Lab ID: SC3122-25RA
Client ID: WGL-SD-SD108-000.6
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65115
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
79-34-5	1,1,2,2-Tetrachloroethane	U	30	1.0	5	30	6
541-73-1	1,3-Dichlorobenzene	U	30	1.0	5	30	8
106-46-7	1,4-Dichlorobenzene	U	30	1.0	5	30	8
95-50-1	1,2-Dichlorobenzene	U	30	1.0	5	30	7
96-12-8	1,2-Dibromo-3-Chloropropane	U	30	1.0	5	30	12
120-82-1	1,2,4-Trichlorobenzene	U	30	1.0	5	30	8
1868-53-7	Dibromofluoromethane		*150%				
17060-07-0	1,2-Dichloroethane-D4		92%				
2037-26-5	Toluene-D8		* 67%				
460-00-4	P-Bromofluorobenzene		* 25%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date:
Analysis Date: 16-JUN-2009 18:47
Report Date: 07/02/2009
Matrix: SOIL
% Solids: 23.1

Lab ID: SC3122-28
Client ID: WGL-SD-SD105-000.6
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65083
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
75-71-8	Dichlorodifluoromethane	U	31	1.0	5	31	8
74-87-3	Chloromethane	U	31	1.0	5	31	12
75-01-4	Vinyl chloride	U	31	1.0	5	31	9
74-83-9	Bromomethane	U	31	1.0	5	31	14
75-00-3	Chloroethane	U	31	1.0	5	31	12
75-69-4	Trichlorofluoromethane	U	31	1.0	5	31	9
75-35-4	1,1-Dichloroethene	U	31	1.0	5	31	10
67-64-1	Acetone	J	73	1.0	25	160	69
75-15-0	Carbon Disulfide	U	31	1.0	5	31	12
79-20-9	Methyl Acetate	U	31	1.0	5	31	28
75-09-2	Methylene Chloride	U	160	1.0	25	160	17
156-60-5	trans-1,2-Dichloroethene	U	31	1.0	5	31	13
1634-04-4	Methyl tert-butyl ether	U	31	1.0	5	31	18
75-34-3	1,1-Dichloroethane	U	31	1.0	5	31	12
156-59-2	cis-1,2-Dichloroethene	U	31	1.0	5	31	12
78-93-3	2-Butanone	U	160	1.0	25	160	60
67-66-3	Chloroform	U	31	1.0	5	31	11
71-55-6	1,1,1-Trichloroethane	U	31	1.0	5	31	12
1735-17-7	Cyclohexane	U	31	1.0	5	31	7
56-23-5	Carbon Tetrachloride	U	31	1.0	5	31	9
71-43-2	Benzene	U	31	1.0	5	31	10
107-06-2	1,2-Dichloroethane	U	31	1.0	5	31	9
79-01-6	Trichloroethene	U	31	1.0	5	31	11
108-87-2	Methylcyclohexane	U	31	1.0	5	31	10
78-87-5	1,2-Dichloropropane	U	31	1.0	5	31	10
75-27-4	Bromodichloromethane	U	31	1.0	5	31	10
10061-01-5	cis-1,3-dichloropropene	U	31	1.0	5	31	10
108-10-1	4-methyl-2-pentanone	U	160	1.0	25	160	59
108-88-3	Toluene	U	31	1.0	5	31	8
10061-02-6	trans-1,3-Dichloropropene	U	31	1.0	5	31	14
79-00-5	1,1,2-Trichloroethane	U	31	1.0	5	31	10
127-18-4	Tetrachloroethene	U	31	1.0	5	31	12
591-78-6	2-Hexanone	U	160	1.0	25	160	50
124-48-1	Dibromochloromethane	U	31	1.0	5	31	10
106-93-4	1,2-Dibromoethane	U	31	1.0	5	31	11
108-90-7	Chlorobenzene	U	31	1.0	5	31	9
100-41-4	Ethylbenzene	U	31	1.0	5	31	8
	m+p-Xylenes	U	63	1.0	10	63	22
95-47-6	o-Xylene	U	31	1.0	5	31	7
1330-20-7	Xylenes (total)	U	94	1.0	15	94	7
100-42-5	Styrene	U	31	1.0	5	31	7
75-25-2	Bromoform	U	31	1.0	5	31	7
98-82-8	Isopropylbenzene	U	31	1.0	5	31	9

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date:
Analysis Date: 16-JUN-2009 18:47
Report Date: 07/02/2009
Matrix: SOIL
% Solids: 23.1

Lab ID: SC3122-28
Client ID: WGL-SD-SD105-000.6
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65083
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
79-34-5	1,1,2,2-Tetrachloroethane	U	31	1.0	5	31	7
541-73-1	1,3-Dichlorobenzene	U	31	1.0	5	31	8
106-46-7	1,4-Dichlorobenzene	U	31	1.0	5	31	9
95-50-1	1,2-Dichlorobenzene	U	31	1.0	5	31	7
96-12-8	1,2-Dibromo-3-Chloropropane	U	31	1.0	5	31	13
120-82-1	1,2,4-Trichlorobenzene	U	31	1.0	5	31	9
1868-53-7	Dibromofluoromethane		*140%				
17060-07-0	1,2-Dichloroethane-D4		82%				
2037-26-5	Toluene-D8		* 65%				
460-00-4	P-Bromofluorobenzene		* 24%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date:
Analysis Date: 17-JUN-2009 15:27
Report Date: 07/02/2009
Matrix: SOIL
% Solids: 23.1

Lab ID: SC3122-28RA
Client ID: WGL-SD-SD105-000.6
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65115
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
75-71-8	Dichlorodifluoromethane	U	28	1.0	5	28	7
74-87-3	Chloromethane	U	28	1.0	5	28	11
75-01-4	Vinyl chloride	U	28	1.0	5	28	8
74-83-9	Bromomethane	U	28	1.0	5	28	13
75-00-3	Chloroethane	U	28	1.0	5	28	11
75-69-4	Trichlorofluoromethane	U	28	1.0	5	28	8
75-35-4	1,1-Dichloroethene	U	28	1.0	5	28	8
67-64-1	Acetone	J	73	1.0	25	140	62
75-15-0	Carbon Disulfide	U	28	1.0	5	28	11
79-20-9	Methyl Acetate	U	28	1.0	5	28	25
75-09-2	Methylene Chloride	U	140	1.0	25	140	15
156-60-5	trans-1,2-Dichloroethene	U	28	1.0	5	28	12
1634-04-4	Methyl tert-butyl ether	U	28	1.0	5	28	16
75-34-3	1,1-Dichloroethane	U	28	1.0	5	28	10
156-59-2	cis-1,2-Dichloroethene	U	28	1.0	5	28	11
78-93-3	2-Butanone	U	140	1.0	25	140	53
67-66-3	Chloroform	U	28	1.0	5	28	10
71-55-6	1,1,1-Trichloroethane	U	28	1.0	5	28	10
1735-17-7	Cyclohexane	U	28	1.0	5	28	7
56-23-5	Carbon Tetrachloride	U	28	1.0	5	28	8
71-43-2	Benzene	U	28	1.0	5	28	9
107-06-2	1,2-Dichloroethane	U	28	1.0	5	28	8
79-01-6	Trichloroethene	U	28	1.0	5	28	10
108-87-2	Methylcyclohexane	U	28	1.0	5	28	8
78-87-5	1,2-Dichloropropane	U	28	1.0	5	28	9
75-27-4	Bromodichloromethane	U	28	1.0	5	28	9
10061-01-5	cis-1,3-dichloropropene	U	28	1.0	5	28	9
108-10-1	4-methyl-2-pentanone	U	140	1.0	25	140	53
108-88-3	Toluene	U	28	1.0	5	28	7
10061-02-6	trans-1,3-Dichloropropene	U	28	1.0	5	28	12
79-00-5	1,1,2-Trichloroethane	U	28	1.0	5	28	8
127-18-4	Tetrachloroethene	U	28	1.0	5	28	11
591-78-6	2-Hexanone	U	140	1.0	25	140	45
124-48-1	Dibromochloromethane	U	28	1.0	5	28	9
106-93-4	1,2-Dibromoethane	U	28	1.0	5	28	10
108-90-7	Chlorobenzene	U	28	1.0	5	28	8
100-41-4	Ethylbenzene	U	28	1.0	5	28	7
	m+p-Xylenes	U	56	1.0	10	56	20
95-47-6	o-Xylene	U	28	1.0	5	28	6
1330-20-7	Xylenes (total)	U	85	1.0	15	85	6
100-42-5	Styrene	U	28	1.0	5	28	7
75-25-2	Bromoform	U	28	1.0	5	28	6
98-82-8	Isopropylbenzene	U	28	1.0	5	28	8

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date:
Analysis Date: 17-JUN-2009 15:27
Report Date: 07/02/2009
Matrix: SOIL
% Solids: 23.1

Lab ID: SC3122-28RA
Client ID: WGL-SD-SD105-000.6
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65115
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
79-34-5	1,1,2,2-Tetrachloroethane	U	28	1.0	5	28	6
541-73-1	1,3-Dichlorobenzene	U	28	1.0	5	28	7
106-46-7	1,4-Dichlorobenzene	U	28	1.0	5	28	8
95-50-1	1,2-Dichlorobenzene	U	28	1.0	5	28	6
96-12-8	1,2-Dibromo-3-Chloropropane	U	28	1.0	5	28	12
120-82-1	1,2,4-Trichlorobenzene	U	28	1.0	5	28	8
1868-53-7	Dibromofluoromethane		*135%				
17060-07-0	1,2-Dichloroethane-D4		82%				
2037-26-5	Toluene-D8		74%				
460-00-4	P-Bromofluorobenzene		* 26%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date:
Analysis Date: 16-JUN-2009 19:23
Report Date: 07/02/2009
Matrix: SOIL
% Solids: 22.7

Lab ID: SC3122-31
Client ID: WGL-SD-SD112-000.6
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65083
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
75-71-8	Dichlorodifluoromethane	U	14	1.0	5	14	3
74-87-3	Chloromethane	U	14	1.0	5	14	5
75-01-4	Vinyl chloride	U	14	1.0	5	14	4
74-83-9	Bromomethane	U	14	1.0	5	14	6
75-00-3	Chloroethane	U	14	1.0	5	14	5
75-69-4	Trichlorofluoromethane	U	14	1.0	5	14	4
75-35-4	1,1-Dichloroethene	U	14	1.0	5	14	4
67-64-1	Acetone	U	70	1.0	25	70	31
75-15-0	Carbon Disulfide	U	14	1.0	5	14	5
79-20-9	Methyl Acetate	U	14	1.0	5	14	12
75-09-2	Methylene Chloride	U	70	1.0	25	70	8
156-60-5	trans-1,2-Dichloroethene	U	14	1.0	5	14	6
1634-04-4	Methyl tert-butyl ether	U	14	1.0	5	14	8
75-34-3	1,1-Dichloroethane	U	14	1.0	5	14	5
156-59-2	cis-1,2-Dichloroethene	U	14	1.0	5	14	6
78-93-3	2-Butanone	U	70	1.0	25	70	26
67-66-3	Chloroform	U	14	1.0	5	14	5
71-55-6	1,1,1-Trichloroethane	U	14	1.0	5	14	5
1735-17-7	Cyclohexane	U	14	1.0	5	14	3
56-23-5	Carbon Tetrachloride	U	14	1.0	5	14	4
71-43-2	Benzene	U	14	1.0	5	14	4
107-06-2	1,2-Dichloroethane	U	14	1.0	5	14	4
79-01-6	Trichloroethene	U	14	1.0	5	14	5
108-87-2	Methylcyclohexane	U	14	1.0	5	14	4
78-87-5	1,2-Dichloropropane	U	14	1.0	5	14	4
75-27-4	Bromodichloromethane	U	14	1.0	5	14	4
10061-01-5	cis-1,3-dichloropropene	U	14	1.0	5	14	4
108-10-1	4-methyl-2-pentanone	U	70	1.0	25	70	26
108-88-3	Toluene	U	14	1.0	5	14	4
10061-02-6	trans-1,3-Dichloropropene	U	14	1.0	5	14	6
79-00-5	1,1,2-Trichloroethane	U	14	1.0	5	14	4
127-18-4	Tetrachloroethene	U	14	1.0	5	14	5
591-78-6	2-Hexanone	U	70	1.0	25	70	22
124-48-1	Dibromochloromethane	U	14	1.0	5	14	4
106-93-4	1,2-Dibromoethane	U	14	1.0	5	14	5
108-90-7	Chlorobenzene	U	14	1.0	5	14	4
100-41-4	Ethylbenzene	U	14	1.0	5	14	3
	m+p-Xylenes	U	28	1.0	10	28	10
95-47-6	o-Xylene	U	14	1.0	5	14	3
1330-20-7	Xylenes (total)	U	42	1.0	15	42	3
100-42-5	Styrene	U	14	1.0	5	14	3
75-25-2	Bromoform	U	14	1.0	5	14	3
98-82-8	Isopropylbenzene	U	14	1.0	5	14	4

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date:
Analysis Date: 16-JUN-2009 19:23
Report Date: 07/02/2009
Matrix: SOIL
% Solids: 22.7

Lab ID: SC3122-31
Client ID: WGL-SD-SD112-000.6
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65083
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
79-34-5	1,1,2,2-Tetrachloroethane	U	14	1.0	5	14	3
541-73-1	1,3-Dichlorobenzene	U	14	1.0	5	14	4
106-46-7	1,4-Dichlorobenzene	U	14	1.0	5	14	4
95-50-1	1,2-Dichlorobenzene	U	14	1.0	5	14	3
96-12-8	1,2-Dibromo-3-Chloropropane	U	14	1.0	5	14	6
120-82-1	1,2,4-Trichlorobenzene	U	14	1.0	5	14	4
1868-53-7	Dibromofluoromethane		*138%				
17060-07-0	1,2-Dichloroethane-D4		88%				
2037-26-5	Toluene-D8		76%				
460-00-4	P-Bromofluorobenzene		* 42%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date:
Analysis Date: 17-JUN-2009 16:02
Report Date: 07/02/2009
Matrix: SOIL
% Solids: 22.7

Lab ID: SC3122-31RA
Client ID: WGL-SD-SD112-000.6
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65115
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
75-71-8	Dichlorodifluoromethane	U	15	1.0	5	15	4
74-87-3	Chloromethane	U	15	1.0	5	15	6
75-01-4	Vinyl chloride	U	15	1.0	5	15	4
74-83-9	Bromomethane	U	15	1.0	5	15	7
75-00-3	Chloroethane	U	15	1.0	5	15	6
75-69-4	Trichlorofluoromethane	U	15	1.0	5	15	4
75-35-4	1,1-Dichloroethene	U	15	1.0	5	15	4
67-64-1	Acetone	J	55	1.0	25	74	32
75-15-0	Carbon Disulfide	U	15	1.0	5	15	6
79-20-9	Methyl Acetate	U	15	1.0	5	15	13
75-09-2	Methylene Chloride	U	74	1.0	25	74	8
156-60-5	trans-1,2-Dichloroethene	U	15	1.0	5	15	6
1634-04-4	Methyl tert-butyl ether	U	15	1.0	5	15	9
75-34-3	1,1-Dichloroethane	U	15	1.0	5	15	6
156-59-2	cis-1,2-Dichloroethene	U	15	1.0	5	15	6
78-93-3	2-Butanone	U	74	1.0	25	74	28
67-66-3	Chloroform	U	15	1.0	5	15	5
71-55-6	1,1,1-Trichloroethane	U	15	1.0	5	15	5
1735-17-7	Cyclohexane	U	15	1.0	5	15	3
56-23-5	Carbon Tetrachloride	U	15	1.0	5	15	4
71-43-2	Benzene	U	15	1.0	5	15	4
107-06-2	1,2-Dichloroethane	U	15	1.0	5	15	4
79-01-6	Trichloroethene	U	15	1.0	5	15	5
108-87-2	Methylcyclohexane	U	15	1.0	5	15	4
78-87-5	1,2-Dichloropropane	U	15	1.0	5	15	5
75-27-4	Bromodichloromethane	U	15	1.0	5	15	5
10061-01-5	cis-1,3-dichloropropene	U	15	1.0	5	15	5
108-10-1	4-methyl-2-pentanone	U	74	1.0	25	74	28
108-88-3	Toluene	U	15	1.0	5	15	4
10061-02-6	trans-1,3-Dichloropropene	U	15	1.0	5	15	6
79-00-5	1,1,2-Trichloroethane	U	15	1.0	5	15	4
127-18-4	Tetrachloroethene	U	15	1.0	5	15	6
591-78-6	2-Hexanone	U	74	1.0	25	74	24
124-48-1	Dibromochloromethane	U	15	1.0	5	15	4
106-93-4	1,2-Dibromoethane	U	15	1.0	5	15	5
108-90-7	Chlorobenzene	U	15	1.0	5	15	4
100-41-4	Ethylbenzene	U	15	1.0	5	15	4
	m+p-Xylenes	U	30	1.0	10	30	10
95-47-6	o-Xylene	U	15	1.0	5	15	3
1330-20-7	Xylenes (total)	U	44	1.0	15	44	3
100-42-5	Styrene	U	15	1.0	5	15	4
75-25-2	Bromoform	U	15	1.0	5	15	3
98-82-8	Isopropylbenzene	U	15	1.0	5	15	4

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date:
Analysis Date: 17-JUN-2009 16:02
Report Date: 07/02/2009
Matrix: SOIL
% Solids: 22.7

Lab ID: SC3122-31RA
Client ID: WGL-SD-SD112-000.6
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65115
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
79-34-5	1,1,2,2-Tetrachloroethane	U	15	1.0	5	15	3
541-73-1	1,3-Dichlorobenzene	U	15	1.0	5	15	4
106-46-7	1,4-Dichlorobenzene	U	15	1.0	5	15	4
95-50-1	1,2-Dichlorobenzene	U	15	1.0	5	15	3
96-12-8	1,2-Dibromo-3-Chloropropane	U	15	1.0	5	15	6
120-82-1	1,2,4-Trichlorobenzene	U	15	1.0	5	15	4
1868-53-7	Dibromofluoromethane		*142%				
17060-07-0	1,2-Dichloroethane-D4		87%				
2037-26-5	Toluene-D8		75%				
460-00-4	P-Bromofluorobenzene		* 32%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date:
Analysis Date: 16-JUN-2009 19:58
Report Date: 07/02/2009
Matrix: SOIL
% Solids: 20.7

Lab ID: SC3122-34
Client ID: WGL-SD-SD110-000.6
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65083
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
75-71-8	Dichlorodifluoromethane	U	20	1.0	5	20	5
74-87-3	Chloromethane	U	20	1.0	5	20	8
75-01-4	Vinyl chloride	U	20	1.0	5	20	6
74-83-9	Bromomethane	U	20	1.0	5	20	9
75-00-3	Chloroethane	U	20	1.0	5	20	8
75-69-4	Trichlorofluoromethane	U	20	1.0	5	20	6
75-35-4	1,1-Dichloroethene	U	20	1.0	5	20	6
67-64-1	Acetone	J	61	1.0	25	100	45
75-15-0	Carbon Disulfide	U	20	1.0	5	20	8
79-20-9	Methyl Acetate	U	20	1.0	5	20	18
75-09-2	Methylene Chloride	U	100	1.0	25	100	11
156-60-5	trans-1,2-Dichloroethene	U	20	1.0	5	20	8
1634-04-4	Methyl tert-butyl ether	U	20	1.0	5	20	12
75-34-3	1,1-Dichloroethane	U	20	1.0	5	20	8
156-59-2	cis-1,2-Dichloroethene	U	20	1.0	5	20	8
78-93-3	2-Butanone	U	100	1.0	25	100	38
67-66-3	Chloroform	U	20	1.0	5	20	7
71-55-6	1,1,1-Trichloroethane	U	20	1.0	5	20	7
1735-17-7	Cyclohexane	U	20	1.0	5	20	5
56-23-5	Carbon Tetrachloride	U	20	1.0	5	20	6
71-43-2	Benzene	U	20	1.0	5	20	6
107-06-2	1,2-Dichloroethane	U	20	1.0	5	20	6
79-01-6	Trichloroethene	U	20	1.0	5	20	7
108-87-2	Methylcyclohexane	U	20	1.0	5	20	6
78-87-5	1,2-Dichloropropane	U	20	1.0	5	20	7
75-27-4	Bromodichloromethane	U	20	1.0	5	20	7
10061-01-5	cis-1,3-dichloropropene	U	20	1.0	5	20	6
108-10-1	4-methyl-2-pentanone	U	100	1.0	25	100	38
108-88-3	Toluene	U	20	1.0	5	20	5
10061-02-6	trans-1,3-Dichloropropene	U	20	1.0	5	20	9
79-00-5	1,1,2-Trichloroethane	U	20	1.0	5	20	6
127-18-4	Tetrachloroethene	U	20	1.0	5	20	8
591-78-6	2-Hexanone	U	100	1.0	25	100	32
124-48-1	Dibromochloromethane	U	20	1.0	5	20	6
106-93-4	1,2-Dibromoethane	U	20	1.0	5	20	7
108-90-7	Chlorobenzene	U	20	1.0	5	20	6
100-41-4	Ethylbenzene	U	20	1.0	5	20	5
	m+p-Xylenes	U	41	1.0	10	41	14
95-47-6	o-Xylene	U	20	1.0	5	20	4
1330-20-7	Xylenes (total)	U	61	1.0	15	61	4
100-42-5	Styrene	U	20	1.0	5	20	5
75-25-2	Bromoform	U	20	1.0	5	20	5
98-82-8	Isopropylbenzene	U	20	1.0	5	20	6

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date:
Analysis Date: 16-JUN-2009 19:58
Report Date: 07/02/2009
Matrix: SOIL
% Solids: 20.7

Lab ID: SC3122-34
Client ID: WGL-SD-SD110-000.6
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65083
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
79-34-5	1,1,2,2-Tetrachloroethane	U	20	1.0	5	20	4
541-73-1	1,3-Dichlorobenzene	U	20	1.0	5	20	5
106-46-7	1,4-Dichlorobenzene	U	20	1.0	5	20	6
95-50-1	1,2-Dichlorobenzene	U	20	1.0	5	20	4
96-12-8	1,2-Dibromo-3-Chloropropane	U	20	1.0	5	20	8
120-82-1	1,2,4-Trichlorobenzene	U	20	1.0	5	20	6
1868-53-7	Dibromofluoromethane		*141%				
17060-07-0	1,2-Dichloroethane-D4		77%				
2037-26-5	Toluene-D8		* 64%				
460-00-4	P-Bromofluorobenzene		* 24%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date:
Analysis Date: 17-JUN-2009 16:38
Report Date: 07/02/2009
Matrix: SOIL
% Solids: 20.7

Lab ID: SC3122-34RA
Client ID: WGL-SD-SD110-000.6
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65115
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
75-71-8	Dichlorodifluoromethane	U	24	1.0	5	24	6
74-87-3	Chloromethane	U	24	1.0	5	24	9
75-01-4	Vinyl chloride	U	24	1.0	5	24	7
74-83-9	Bromomethane	U	24	1.0	5	24	11
75-00-3	Chloroethane	U	24	1.0	5	24	9
75-69-4	Trichlorofluoromethane	U	24	1.0	5	24	7
75-35-4	1,1-Dichloroethene	U	24	1.0	5	24	7
67-64-1	Acetone		210	1.0	25	120	54
75-15-0	Carbon Disulfide	U	24	1.0	5	24	9
79-20-9	Methyl Acetate	U	24	1.0	5	24	22
75-09-2	Methylene Chloride	U	120	1.0	25	120	13
156-60-5	trans-1,2-Dichloroethene	U	24	1.0	5	24	10
1634-04-4	Methyl tert-butyl ether	U	24	1.0	5	24	14
75-34-3	1,1-Dichloroethane	U	24	1.0	5	24	9
156-59-2	cis-1,2-Dichloroethene	U	24	1.0	5	24	10
78-93-3	2-Butanone	J	50	1.0	25	120	47
67-66-3	Chloroform	U	24	1.0	5	24	9
71-55-6	1,1,1-Trichloroethane	U	24	1.0	5	24	9
1735-17-7	Cyclohexane	U	24	1.0	5	24	6
56-23-5	Carbon Tetrachloride	U	24	1.0	5	24	7
71-43-2	Benzene	U	24	1.0	5	24	8
107-06-2	1,2-Dichloroethane	U	24	1.0	5	24	7
79-01-6	Trichloroethene	U	24	1.0	5	24	8
108-87-2	Methylcyclohexane	U	24	1.0	5	24	7
78-87-5	1,2-Dichloropropane	U	24	1.0	5	24	8
75-27-4	Bromodichloromethane	U	24	1.0	5	24	8
10061-01-5	cis-1,3-dichloropropene	U	24	1.0	5	24	8
108-10-1	4-methyl-2-pentanone	U	120	1.0	25	120	46
108-88-3	Toluene	U	24	1.0	5	24	6
10061-02-6	trans-1,3-Dichloropropene	U	24	1.0	5	24	11
79-00-5	1,1,2-Trichloroethane	U	24	1.0	5	24	7
127-18-4	Tetrachloroethene	U	24	1.0	5	24	9
591-78-6	2-Hexanone	U	120	1.0	25	120	39
124-48-1	Dibromochloromethane	U	24	1.0	5	24	8
106-93-4	1,2-Dibromoethane	U	24	1.0	5	24	8
108-90-7	Chlorobenzene	U	24	1.0	5	24	7
100-41-4	Ethylbenzene	U	24	1.0	5	24	6
	m+p-Xylenes	U	49	1.0	10	49	17
95-47-6	o-Xylene	U	24	1.0	5	24	5
1330-20-7	Xylenes (total)	U	74	1.0	15	74	5
100-42-5	Styrene	U	24	1.0	5	24	6
75-25-2	Bromoform	U	24	1.0	5	24	6
98-82-8	Isopropylbenzene	U	24	1.0	5	24	7

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date:
Analysis Date: 17-JUN-2009 16:38
Report Date: 07/02/2009
Matrix: SOIL
% Solids: 20.7

Lab ID: SC3122-34RA
Client ID: WGL-SD-SD110-000.6
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65115
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
79-34-5	1,1,2,2-Tetrachloroethane	U	24	1.0	5	24	5
541-73-1	1,3-Dichlorobenzene	U	24	1.0	5	24	6
106-46-7	1,4-Dichlorobenzene	U	24	1.0	5	24	7
95-50-1	1,2-Dichlorobenzene	U	24	1.0	5	24	5
96-12-8	1,2-Dibromo-3-Chloropropane	U	24	1.0	5	24	10
120-82-1	1,2,4-Trichlorobenzene	U	24	1.0	5	24	7
1868-53-7	Dibromofluoromethane		*138%				
17060-07-0	1,2-Dichloroethane-D4		81%				
2037-26-5	Toluene-D8		72%				
460-00-4	P-Bromofluorobenzene		* 29%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date:
Analysis Date: 16-JUN-2009 20:33
Report Date: 07/02/2009
Matrix: SOIL
% Solids: 19.5

Lab ID: SC3122-37
Client ID: WGL-SD-SD109-000.6
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65083
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
75-71-8	Dichlorodifluoromethane	U	20	1.0	5	20	5
74-87-3	Chloromethane	U	20	1.0	5	20	8
75-01-4	Vinyl chloride	U	20	1.0	5	20	6
74-83-9	Bromomethane	U	20	1.0	5	20	9
75-00-3	Chloroethane	U	20	1.0	5	20	8
75-69-4	Trichlorofluoromethane	U	20	1.0	5	20	6
75-35-4	1,1-Dichloroethene	U	20	1.0	5	20	6
67-64-1	Acetone		210	1.0	25	100	45
75-15-0	Carbon Disulfide	U	20	1.0	5	20	8
79-20-9	Methyl Acetate	U	20	1.0	5	20	18
75-09-2	Methylene Chloride	U	100	1.0	25	100	11
156-60-5	trans-1,2-Dichloroethene	U	20	1.0	5	20	9
1634-04-4	Methyl tert-butyl ether	U	20	1.0	5	20	12
75-34-3	1,1-Dichloroethane	U	20	1.0	5	20	8
156-59-2	cis-1,2-Dichloroethene	U	20	1.0	5	20	8
78-93-3	2-Butanone	U	100	1.0	25	100	39
67-66-3	Chloroform	U	20	1.0	5	20	7
71-55-6	1,1,1-Trichloroethane	U	20	1.0	5	20	8
1735-17-7	Cyclohexane	U	20	1.0	5	20	5
56-23-5	Carbon Tetrachloride	U	20	1.0	5	20	6
71-43-2	Benzene	U	20	1.0	5	20	6
107-06-2	1,2-Dichloroethane	U	20	1.0	5	20	6
79-01-6	Trichloroethene	U	20	1.0	5	20	7
108-87-2	Methylcyclohexane	U	20	1.0	5	20	6
78-87-5	1,2-Dichloropropane	U	20	1.0	5	20	7
75-27-4	Bromodichloromethane	U	20	1.0	5	20	7
10061-01-5	cis-1,3-dichloropropene	U	20	1.0	5	20	6
108-10-1	4-methyl-2-pentanone	U	100	1.0	25	100	39
108-88-3	Toluene	U	20	1.0	5	20	5
10061-02-6	trans-1,3-Dichloropropene	U	20	1.0	5	20	9
79-00-5	1,1,2-Trichloroethane	U	20	1.0	5	20	6
127-18-4	Tetrachloroethene	U	20	1.0	5	20	8
591-78-6	2-Hexanone	U	100	1.0	25	100	33
124-48-1	Dibromochloromethane	U	20	1.0	5	20	6
106-93-4	1,2-Dibromoethane	U	20	1.0	5	20	7
108-90-7	Chlorobenzene	U	20	1.0	5	20	6
100-41-4	Ethylbenzene	U	20	1.0	5	20	5
	m+p-Xylenes	U	41	1.0	10	41	15
95-47-6	o-Xylene	U	20	1.0	5	20	4
1330-20-7	Xylenes (total)	U	62	1.0	15	62	4
100-42-5	Styrene	U	20	1.0	5	20	5
75-25-2	Bromoform	U	20	1.0	5	20	5
98-82-8	Isopropylbenzene	U	20	1.0	5	20	6

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date:
Analysis Date: 16-JUN-2009 20:33
Report Date: 07/02/2009
Matrix: SOIL
% Solids: 19.5

Lab ID: SC3122-37
Client ID: WGL-SD-SD109-000.6
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65083
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
79-34-5	1,1,2,2-Tetrachloroethane	U	20	1.0	5	20	4
541-73-1	1,3-Dichlorobenzene	U	20	1.0	5	20	5
106-46-7	1,4-Dichlorobenzene	U	20	1.0	5	20	6
95-50-1	1,2-Dichlorobenzene	U	20	1.0	5	20	4
96-12-8	1,2-Dibromo-3-Chloropropane	U	20	1.0	5	20	8
120-82-1	1,2,4-Trichlorobenzene	U	20	1.0	5	20	6
1868-53-7	Dibromofluoromethane		*131%				
17060-07-0	1,2-Dichloroethane-D4		76%				
2037-26-5	Toluene-D8		71%				
460-00-4	P-Bromofluorobenzene		* 43%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date:
Analysis Date: 17-JUN-2009 17:13
Report Date: 07/02/2009
Matrix: SOIL
% Solids: 19.5

Lab ID: SC3122-37RA
Client ID: WGL-SD-SD109-000.6
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65115
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
75-71-8	Dichlorodifluoromethane	U	20	1.0	5	20	5
74-87-3	Chloromethane	U	20	1.0	5	20	8
75-01-4	Vinyl chloride	U	20	1.0	5	20	6
74-83-9	Bromomethane	U	20	1.0	5	20	9
75-00-3	Chloroethane	U	20	1.0	5	20	8
75-69-4	Trichlorofluoromethane	U	20	1.0	5	20	6
75-35-4	1,1-Dichloroethene	U	20	1.0	5	20	6
67-64-1	Acetone		150	1.0	25	100	45
75-15-0	Carbon Disulfide	U	20	1.0	5	20	8
79-20-9	Methyl Acetate	U	20	1.0	5	20	18
75-09-2	Methylene Chloride	U	100	1.0	25	100	11
156-60-5	trans-1,2-Dichloroethene	U	20	1.0	5	20	9
1634-04-4	Methyl tert-butyl ether	U	20	1.0	5	20	12
75-34-3	1,1-Dichloroethane	U	20	1.0	5	20	8
156-59-2	cis-1,2-Dichloroethene	U	20	1.0	5	20	8
78-93-3	2-Butanone	U	100	1.0	25	100	39
67-66-3	Chloroform	U	20	1.0	5	20	7
71-55-6	1,1,1-Trichloroethane	U	20	1.0	5	20	8
1735-17-7	Cyclohexane	U	20	1.0	5	20	5
56-23-5	Carbon Tetrachloride	U	20	1.0	5	20	6
71-43-2	Benzene	U	20	1.0	5	20	6
107-06-2	1,2-Dichloroethane	U	20	1.0	5	20	6
79-01-6	Trichloroethene	U	20	1.0	5	20	7
108-87-2	Methylcyclohexane	U	20	1.0	5	20	6
78-87-5	1,2-Dichloropropane	U	20	1.0	5	20	7
75-27-4	Bromodichloromethane	U	20	1.0	5	20	7
10061-01-5	cis-1,3-dichloropropene	U	20	1.0	5	20	6
108-10-1	4-methyl-2-pentanone	U	100	1.0	25	100	39
108-88-3	Toluene	U	20	1.0	5	20	5
10061-02-6	trans-1,3-Dichloropropene	U	20	1.0	5	20	9
79-00-5	1,1,2-Trichloroethane	U	20	1.0	5	20	6
127-18-4	Tetrachloroethene	U	20	1.0	5	20	8
591-78-6	2-Hexanone	U	100	1.0	25	100	33
124-48-1	Dibromochloromethane	U	20	1.0	5	20	6
106-93-4	1,2-Dibromoethane	U	20	1.0	5	20	7
108-90-7	Chlorobenzene	U	20	1.0	5	20	6
100-41-4	Ethylbenzene	U	20	1.0	5	20	5
	m+p-Xylenes	U	41	1.0	10	41	15
95-47-6	o-Xylene	U	20	1.0	5	20	4
1330-20-7	Xylenes (total)	U	62	1.0	15	62	4
100-42-5	Styrene	U	20	1.0	5	20	5
75-25-2	Bromoform	U	20	1.0	5	20	5
98-82-8	Isopropylbenzene	U	20	1.0	5	20	6

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date:
Analysis Date: 17-JUN-2009 17:13
Report Date: 07/02/2009
Matrix: SOIL
% Solids: 19.5

Lab ID: SC3122-37RA
Client ID: WGL-SD-SD109-000.6
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65115
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
79-34-5	1,1,2,2-Tetrachloroethane	U	20	1.0	5	20	4
541-73-1	1,3-Dichlorobenzene	U	20	1.0	5	20	5
106-46-7	1,4-Dichlorobenzene	U	20	1.0	5	20	6
95-50-1	1,2-Dichlorobenzene	U	20	1.0	5	20	4
96-12-8	1,2-Dibromo-3-Chloropropane	U	20	1.0	5	20	8
120-82-1	1,2,4-Trichlorobenzene	U	20	1.0	5	20	6
1868-53-7	Dibromofluoromethane		*135%				
17060-07-0	1,2-Dichloroethane-D4		77%				
2037-26-5	Toluene-D8		74%				
460-00-4	P-Bromofluorobenzene		* 32%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date:
Analysis Date: 16-JUN-2009 21:08
Report Date: 07/02/2009
Matrix: SOIL
% Solids: 23.0

Lab ID: SC3122-40
Client ID: -SD-SD111-000.6
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65083
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
75-71-8	Dichlorodifluoromethane	U	18	1.0	5	18	4
74-87-3	Chloromethane	U	18	1.0	5	18	7
75-01-4	Vinyl chloride	U	18	1.0	5	18	5
74-83-9	Bromomethane	U	18	1.0	5	18	8
75-00-3	Chloroethane	U	18	1.0	5	18	7
75-69-4	Trichlorofluoromethane	U	18	1.0	5	18	5
75-35-4	1,1-Dichloroethene	U	18	1.0	5	18	5
67-64-1	Acetone	U	88	1.0	25	88	38
75-15-0	Carbon Disulfide	U	18	1.0	5	18	6
79-20-9	Methyl Acetate	U	18	1.0	5	18	16
75-09-2	Methylene Chloride	U	88	1.0	25	88	9
156-60-5	trans-1,2-Dichloroethene	U	18	1.0	5	18	7
1634-04-4	Methyl tert-butyl ether	U	18	1.0	5	18	10
75-34-3	1,1-Dichloroethane	U	18	1.0	5	18	6
156-59-2	cis-1,2-Dichloroethene	U	18	1.0	5	18	7
78-93-3	2-Butanone	U	88	1.0	25	88	33
67-66-3	Chloroform	U	18	1.0	5	18	6
71-55-6	1,1,1-Trichloroethane	U	18	1.0	5	18	6
1735-17-7	Cyclohexane	U	18	1.0	5	18	4
56-23-5	Carbon Tetrachloride	U	18	1.0	5	18	5
71-43-2	Benzene	U	18	1.0	5	18	5
107-06-2	1,2-Dichloroethane	U	18	1.0	5	18	5
79-01-6	Trichloroethene	U	18	1.0	5	18	6
108-87-2	Methylcyclohexane	U	18	1.0	5	18	5
78-87-5	1,2-Dichloropropane	U	18	1.0	5	18	6
75-27-4	Bromodichloromethane	U	18	1.0	5	18	6
10061-01-5	cis-1,3-dichloropropene	U	18	1.0	5	18	6
108-10-1	4-methyl-2-pentanone	U	88	1.0	25	88	33
108-88-3	Toluene	U	18	1.0	5	18	5
10061-02-6	trans-1,3-Dichloropropene	U	18	1.0	5	18	8
79-00-5	1,1,2-Trichloroethane	U	18	1.0	5	18	5
127-18-4	Tetrachloroethene	U	18	1.0	5	18	7
591-78-6	2-Hexanone	U	88	1.0	25	88	28
124-48-1	Dibromochloromethane	U	18	1.0	5	18	5
106-93-4	1,2-Dibromoethane	U	18	1.0	5	18	6
108-90-7	Chlorobenzene	U	18	1.0	5	18	5
100-41-4	Ethylbenzene	U	18	1.0	5	18	4
	m+p-Xylenes	U	35	1.0	10	35	12
95-47-6	o-Xylene	U	18	1.0	5	18	4
1330-20-7	Xylenes (total)	U	52	1.0	15	52	4
100-42-5	Styrene	U	18	1.0	5	18	4
75-25-2	Bromoform	U	18	1.0	5	18	4
98-82-8	Isopropylbenzene	U	18	1.0	5	18	5

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date:
Analysis Date: 16-JUN-2009 21:08
Report Date: 07/02/2009
Matrix: SOIL
% Solids: 23.0

Lab ID: SC3122-40
Client ID: -SD-SD111-000.6
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65083
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
79-34-5	1,1,2,2-Tetrachloroethane	U	18	1.0	5	18	4
541-73-1	1,3-Dichlorobenzene	U	18	1.0	5	18	4
106-46-7	1,4-Dichlorobenzene	U	18	1.0	5	18	5
95-50-1	1,2-Dichlorobenzene	U	18	1.0	5	18	4
96-12-8	1,2-Dibromo-3-Chloropropane	U	18	1.0	5	18	7
120-82-1	1,2,4-Trichlorobenzene	U	18	1.0	5	18	5
1868-53-7	Dibromofluoromethane		*131%				
17060-07-0	1,2-Dichloroethane-D4		83%				
2037-26-5	Toluene-D8		84%				
460-00-4	P-Bromofluorobenzene		75%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date:
Analysis Date: 15-JUN-2009 12:15
Report Date: 07/02/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3122-43
Client ID: WGL-SD-FB01-061109
SDG: SC3122
Extracted by:
Extraction Method: SW846 5030
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65026
Units: ug/l

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
75-71-8	Dichlorodifluoromethane	U	2	1.0	2	2	0.4
74-87-3	Chloromethane	U	2	1.0	2	2	0.3
75-01-4	Vinyl chloride	U	2	1.0	2	2	0.3
74-83-9	Bromomethane	U	2	1.0	2	2	0.3
75-00-3	Chloroethane	U	2	1.0	2	2	0.3
75-69-4	Trichlorofluoromethane	U	2	1.0	2	2	0.5
75-35-4	1,1-Dichloroethene	U	1	1.0	1	1	0.3
67-64-1	Acetone	U	5	1.0	5	5	2
75-15-0	Carbon Disulfide	U	1	1.0	1	1	0.2
79-20-9	Methyl Acetate	U	1	1.0	1	1	0.8
75-09-2	Methylene Chloride	U	5	1.0	5	5	0.3
156-60-5	trans-1,2-Dichloroethene	U	1	1.0	1	1	0.4
1634-04-4	Methyl tert-butyl ether	U	1	1.0	1	1	0.5
75-34-3	1,1-Dichloroethane	U	1	1.0	1	1	0.2
156-59-2	cis-1,2-Dichloroethene	U	1	1.0	1	1	0.2
78-93-3	2-Butanone	U	5	1.0	5	5	1
67-66-3	Chloroform	U	1	1.0	1	1	0.2
71-55-6	1,1,1-Trichloroethane	U	1	1.0	1	1	0.3
1735-17-7	Cyclohexane	U	1	1.0	1	1	0.4
56-23-5	Carbon Tetrachloride	U	1	1.0	1	1	0.4
71-43-2	Benzene	U	1	1.0	1	1	0.3
107-06-2	1,2-Dichloroethane	U	1	1.0	1	1	0.3
79-01-6	Trichloroethene	U	1	1.0	1	1	0.4
108-87-2	Methylcyclohexane	U	1	1.0	1	1	0.4
78-87-5	1,2-Dichloropropane	U	1	1.0	1	1	0.3
75-27-4	Bromodichloromethane	U	1	1.0	1	1	0.3
10061-01-5	cis-1,3-dichloropropene	U	1	1.0	1	1	0.3
108-10-1	4-methyl-2-pentanone	U	5	1.0	5	5	2
108-88-3	Toluene	U	1	1.0	1	1	0.4
10061-02-6	trans-1,3-Dichloropropene	U	1	1.0	1	1	0.2
79-00-5	1,1,2-Trichloroethane	U	1	1.0	1	1	0.3
127-18-4	Tetrachloroethene	U	1	1.0	1	1	0.4
591-78-6	2-Hexanone	U	5	1.0	5	5	2
124-48-1	Dibromochloromethane	U	1	1.0	1	1	0.3
106-93-4	1,2-Dibromoethane	U	1	1.0	1	1	0.3
108-90-7	Chlorobenzene	U	1	1.0	1	1	0.2
100-41-4	Ethylbenzene	U	1	1.0	1	1	0.3
	m+p-Xylenes	U	2	1.0	2	2	0.7
95-47-6	o-Xylene	U	1	1.0	1	1	0.3
1330-20-7	Xylenes (total)	U	3	1.0	3	3	0.3
100-42-5	Styrene	U	1	1.0	1	1	0.3
75-25-2	Bromoform	U	1	1.0	1	1	0.4
98-82-8	Isopropylbenzene	U	1	1.0	1	1	0.4

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date:
Analysis Date: 15-JUN-2009 12:15
Report Date: 07/02/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3122-43
Client ID: WGL-SD-FB01-061109
SDG: SC3122
Extracted by:
Extraction Method: SW846 5030
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65026
Units: ug/l

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
79-34-5	1,1,2,2-Tetrachloroethane	U	1	1.0	1	1	0.3
541-73-1	1,3-Dichlorobenzene	U	1	1.0	1	1	0.3
106-46-7	1,4-Dichlorobenzene	U	1	1.0	1	1	0.3
95-50-1	1,2-Dichlorobenzene	U	1	1.0	1	1	0.3
96-12-8	1,2-Dibromo-3-Chloropropane	U	1	1.0	1	1	0.6
120-82-1	1,2,4-Trichlorobenzene	U	1	1.0	1	1	0.3
1868-53-7	Dibromofluoromethane		99%				
17060-07-0	1,2-Dichloroethane-D4		110%				
2037-26-5	Toluene-D8		103%				
460-00-4	P-Bromofluorobenzene		114%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date:
Analysis Date: 15-JUN-2009 12:46
Report Date: 07/02/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3122-45
Client ID: WGL-SD-RB01-061109
SDG: SC3122
Extracted by:
Extraction Method: SW846 5030
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65026
Units: ug/l

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
75-71-8	Dichlorodifluoromethane	U	2	1.0	2	2	0.4
74-87-3	Chloromethane	U	2	1.0	2	2	0.3
75-01-4	Vinyl chloride	U	2	1.0	2	2	0.3
74-83-9	Bromomethane	U	2	1.0	2	2	0.3
75-00-3	Chloroethane	U	2	1.0	2	2	0.3
75-69-4	Trichlorofluoromethane	U	2	1.0	2	2	0.5
75-35-4	1,1-Dichloroethene	U	1	1.0	1	1	0.3
67-64-1	Acetone	J	4	1.0	5	5	2
75-15-0	Carbon Disulfide	U	1	1.0	1	1	0.2
79-20-9	Methyl Acetate	U	1	1.0	1	1	0.8
75-09-2	Methylene Chloride	U	5	1.0	5	5	0.3
156-60-5	trans-1,2-Dichloroethene	U	1	1.0	1	1	0.4
1634-04-4	Methyl tert-butyl ether	U	1	1.0	1	1	0.5
75-34-3	1,1-Dichloroethane	U	1	1.0	1	1	0.2
156-59-2	cis-1,2-Dichloroethene	U	1	1.0	1	1	0.2
78-93-3	2-Butanone	U	5	1.0	5	5	1
67-66-3	Chloroform	U	1	1.0	1	1	0.2
71-55-6	1,1,1-Trichloroethane	U	1	1.0	1	1	0.3
1735-17-7	Cyclohexane	U	1	1.0	1	1	0.4
56-23-5	Carbon Tetrachloride	U	1	1.0	1	1	0.4
71-43-2	Benzene	U	1	1.0	1	1	0.3
107-06-2	1,2-Dichloroethane	U	1	1.0	1	1	0.3
79-01-6	Trichloroethene	U	1	1.0	1	1	0.4
108-87-2	Methylcyclohexane	U	1	1.0	1	1	0.4
78-87-5	1,2-Dichloropropane	U	1	1.0	1	1	0.3
75-27-4	Bromodichloromethane	U	1	1.0	1	1	0.3
10061-01-5	cis-1,3-dichloropropene	U	1	1.0	1	1	0.3
108-10-1	4-methyl-2-pentanone	U	5	1.0	5	5	2
108-88-3	Toluene	U	1	1.0	1	1	0.4
10061-02-6	trans-1,3-Dichloropropene	U	1	1.0	1	1	0.2
79-00-5	1,1,2-Trichloroethane	U	1	1.0	1	1	0.3
127-18-4	Tetrachloroethene	U	1	1.0	1	1	0.4
591-78-6	2-Hexanone	U	5	1.0	5	5	2
124-48-1	Dibromochloromethane	U	1	1.0	1	1	0.3
106-93-4	1,2-Dibromoethane	U	1	1.0	1	1	0.3
108-90-7	Chlorobenzene	U	1	1.0	1	1	0.2
100-41-4	Ethylbenzene	U	1	1.0	1	1	0.3
	m+p-Xylenes	U	2	1.0	2	2	0.7
95-47-6	o-Xylene	U	1	1.0	1	1	0.3
1330-20-7	Xylenes (total)	U	3	1.0	3	3	0.3
100-42-5	Styrene	U	1	1.0	1	1	0.3
75-25-2	Bromoform	U	1	1.0	1	1	0.4
98-82-8	Isopropylbenzene	U	1	1.0	1	1	0.4

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date:
Analysis Date: 15-JUN-2009 12:46
Report Date: 07/02/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3122-45
Client ID: WGL-SD-RB01-061109
SDG: SC3122
Extracted by:
Extraction Method: SW846 5030
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65026
Units: ug/l

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
79-34-5	1,1,2,2-Tetrachloroethane	U	1	1.0	1	1	0.3
541-73-1	1,3-Dichlorobenzene	U	1	1.0	1	1	0.3
106-46-7	1,4-Dichlorobenzene	U	1	1.0	1	1	0.3
95-50-1	1,2-Dichlorobenzene	U	1	1.0	1	1	0.3
96-12-8	1,2-Dibromo-3-Chloropropane	U	1	1.0	1	1	0.6
120-82-1	1,2,4-Trichlorobenzene	U	1	1.0	1	1	0.3
1868-53-7	Dibromofluoromethane		97%				
17060-07-0	1,2-Dichloroethane-D4		105%				
2037-26-5	Toluene-D8		104%				
460-00-4	P-Bromofluorobenzene		114%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date:
Analysis Date: 16-JUN-2009 21:44
Report Date: 07/02/2009
Matrix: SOIL
% Solids: 100

Lab ID: SC3122-47
Client ID: WGL-SD-TB01-061109
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65083
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
75-71-8	Dichlorodifluoromethane	U	5	1.0	5	5	1
74-87-3	Chloromethane	U	5	1.0	5	5	2
75-01-4	Vinyl chloride	U	5	1.0	5	5	1
74-83-9	Bromomethane	U	5	1.0	5	5	2
75-00-3	Chloroethane	U	5	1.0	5	5	2
75-69-4	Trichlorofluoromethane	U	5	1.0	5	5	1
75-35-4	1,1-Dichloroethene	U	5	1.0	5	5	2
67-64-1	Acetone	U	25	1.0	25	25	11
75-15-0	Carbon Disulfide	U	5	1.0	5	5	2
79-20-9	Methyl Acetate	U	5	1.0	5	5	4
75-09-2	Methylene Chloride	U	25	1.0	25	25	3
156-60-5	trans-1,2-Dichloroethene	U	5	1.0	5	5	2
1634-04-4	Methyl tert-butyl ether	U	5	1.0	5	5	3
75-34-3	1,1-Dichloroethane	U	5	1.0	5	5	2
156-59-2	cis-1,2-Dichloroethene	U	5	1.0	5	5	2
78-93-3	2-Butanone	U	25	1.0	25	25	9
67-66-3	Chloroform	U	5	1.0	5	5	2
71-55-6	1,1,1-Trichloroethane	U	5	1.0	5	5	2
1735-17-7	Cyclohexane	U	5	1.0	5	5	1
56-23-5	Carbon Tetrachloride	U	5	1.0	5	5	1
71-43-2	Benzene	U	5	1.0	5	5	2
107-06-2	1,2-Dichloroethane	U	5	1.0	5	5	1
79-01-6	Trichloroethene	U	5	1.0	5	5	2
108-87-2	Methylcyclohexane	U	5	1.0	5	5	2
78-87-5	1,2-Dichloropropane	U	5	1.0	5	5	2
75-27-4	Bromodichloromethane	U	5	1.0	5	5	2
10061-01-5	cis-1,3-dichloropropene	U	5	1.0	5	5	2
108-10-1	4-methyl-2-pentanone	U	25	1.0	25	25	9
108-88-3	Toluene	U	5	1.0	5	5	1
10061-02-6	trans-1,3-Dichloropropene	U	5	1.0	5	5	2
79-00-5	1,1,2-Trichloroethane	U	5	1.0	5	5	2
127-18-4	Tetrachloroethene	U	5	1.0	5	5	2
591-78-6	2-Hexanone	U	25	1.0	25	25	8
124-48-1	Dibromochloromethane	U	5	1.0	5	5	2
106-93-4	1,2-Dibromoethane	U	5	1.0	5	5	2
108-90-7	Chlorobenzene	U	5	1.0	5	5	2
100-41-4	Ethylbenzene	U	5	1.0	5	5	1
	m+p-Xylenes	U	10	1.0	10	10	4
95-47-6	o-Xylene	U	5	1.0	5	5	1
1330-20-7	Xylenes (total)	U	15	1.0	15	15	1
100-42-5	Styrene	U	5	1.0	5	5	1
75-25-2	Bromoform	U	5	1.0	5	5	1
98-82-8	Isopropylbenzene	U	5	1.0	5	5	1

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date:
Analysis Date: 16-JUN-2009 21:44
Report Date: 07/02/2009
Matrix: SOIL
% Solids: 100

Lab ID: SC3122-47
Client ID: WGL-SD-TB01-061109
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65083
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
79-34-5	1,1,2,2-Tetrachloroethane	U	5	1.0	5	5	1
541-73-1	1,3-Dichlorobenzene	U	5	1.0	5	5	1
106-46-7	1,4-Dichlorobenzene	U	5	1.0	5	5	1
95-50-1	1,2-Dichlorobenzene	U	5	1.0	5	5	1
96-12-8	1,2-Dibromo-3-Chloropropane	U	5	1.0	5	5	2
120-82-1	1,2,4-Trichlorobenzene	U	5	1.0	5	5	1
1868-53-7	Dibromofluoromethane		114%				
17060-07-0	1,2-Dichloroethane-D4		75%				
2037-26-5	Toluene-D8		79%				
460-00-4	P-Bromofluorobenzene		84%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client:
Project: CTO 407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date:
Analysis Date: 15-JUN-2009 11:15
Report Date: 07/02/2009
Matrix: WATER
% Solids: NA

Lab ID: WG65026-2
Client ID: WG65026-Blank
SDG: SC3122
Extracted by:
Extraction Method: SW846 5030
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65026
Units: ug/l

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
75-71-8	Dichlorodifluoromethane	U	1	1.0	1	1	0.4
74-87-3	Chloromethane	U	1	1.0	1	1	0.3
75-01-4	Vinyl chloride	U	1	1.0	1	1	0.3
74-83-9	Bromomethane	U	1	1.0	1	1	0.3
75-00-3	Chloroethane	U	1	1.0	1	1	0.3
75-69-4	Trichlorofluoromethane	U	1	1.0	1	1	0.5
75-35-4	1,1-Dichloroethene	U	1	1.0	1	1	0.3
67-64-1	Acetone	U	5	1.0	5	5	2
75-15-0	Carbon Disulfide	U	1	1.0	1	1	0.2
79-20-9	Methyl Acetate	U	1	1.0	1	1	0.8
75-09-2	Methylene Chloride	U	5	1.0	5	5	0.3
156-60-5	trans-1,2-Dichloroethene	U	1	1.0	1	1	0.4
1634-04-4	Methyl tert-butyl ether	U	1	1.0	1	1	0.5
75-34-3	1,1-Dichloroethane	U	1	1.0	1	1	0.2
156-59-2	cis-1,2-Dichloroethene	U	1	1.0	1	1	0.2
78-93-3	2-Butanone	U	5	1.0	5	5	1
67-66-3	Chloroform	U	1	1.0	1	1	0.2
71-55-6	1,1,1-Trichloroethane	U	1	1.0	1	1	0.3
1735-17-7	Cyclohexane	U	1	1.0	1	1	0.4
56-23-5	Carbon Tetrachloride	U	1	1.0	1	1	0.4
71-43-2	Benzene	U	1	1.0	1	1	0.3
107-06-2	1,2-Dichloroethane	U	1	1.0	1	1	0.3
79-01-6	Trichloroethene	U	1	1.0	1	1	0.4
108-87-2	Methylcyclohexane	U	1	1.0	1	1	0.4
78-87-5	1,2-Dichloropropane	U	1	1.0	1	1	0.3
75-27-4	Bromodichloromethane	U	1	1.0	1	1	0.3
10061-01-5	cis-1,3-dichloropropene	U	1	1.0	1	1	0.3
108-10-1	4-methyl-2-pentanone	U	5	1.0	5	5	2
108-88-3	Toluene	U	1	1.0	1	1	0.4
10061-02-6	trans-1,3-Dichloropropene	U	1	1.0	1	1	0.2
79-00-5	1,1,2-Trichloroethane	U	1	1.0	1	1	0.3
127-18-4	Tetrachloroethene	U	1	1.0	1	1	0.4
591-78-6	2-Hexanone	U	5	1.0	5	5	2
124-48-1	Dibromochloromethane	U	1	1.0	1	1	0.3
106-93-4	1,2-Dibromoethane	U	1	1.0	1	1	0.3
108-90-7	Chlorobenzene	U	1	1.0	1	1	0.2
100-41-4	Ethylbenzene	U	1	1.0	1	1	0.3
	m+p-Xylenes	U	2	1.0	2	2	0.7
95-47-6	o-Xylene	U	1	1.0	1	1	0.3
1330-20-7	Xylenes (total)	U	3	1.0	3	3	0.3
100-42-5	Styrene	U	1	1.0	1	1	0.3
75-25-2	Bromoform	U	1	1.0	1	1	0.4
98-82-8	Isopropylbenzene	U	1	1.0	1	1	0.4

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client:
Project: CTO 407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date:
Analysis Date: 15-JUN-2009 11:15
Report Date: 07/02/2009
Matrix: WATER
% Solids: NA

Lab ID: WG65026-2
Client ID: WG65026-Blank
SDG: SC3122
Extracted by:
Extraction Method: SW846 5030
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65026
Units: ug/l

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
79-34-5	1,1,2,2-Tetrachloroethane	U	1	1.0	1	1	0.3
541-73-1	1,3-Dichlorobenzene	U	1	1.0	1	1	0.3
106-46-7	1,4-Dichlorobenzene	U	1	1.0	1	1	0.3
95-50-1	1,2-Dichlorobenzene	U	1	1.0	1	1	0.3
96-12-8	1,2-Dibromo-3-Chloropropane	U	1	1.0	1	1	0.6
120-82-1	1,2,4-Trichlorobenzene	U	1	1.0	1	1	0.3
1868-53-7	Dibromofluoromethane		93%				
17060-07-0	1,2-Dichloroethane-D4		102%				
2037-26-5	Toluene-D8		97%				
460-00-4	P-Bromofluorobenzene		111%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client:
Project: CTO 407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date:
Analysis Date: 15-JUN-2009 11:53
Report Date: 07/02/2009
Matrix: SOIL
% Solids: 100

Lab ID: WG65028-2
Client ID: WG65028-Blank
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65028
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
75-71-8	Dichlorodifluoromethane	U	5	1.0	5	5	1
74-87-3	Chloromethane	U	5	1.0	5	5	2
75-01-4	Vinyl chloride	U	5	1.0	5	5	1
74-83-9	Bromomethane	U	5	1.0	5	5	2
75-00-3	Chloroethane	U	5	1.0	5	5	2
75-69-4	Trichlorofluoromethane	U	5	1.0	5	5	1
75-35-4	1,1-Dichloroethene	U	5	1.0	5	5	2
67-64-1	Acetone	U	25	1.0	25	25	11
75-15-0	Carbon Disulfide	U	5	1.0	5	5	2
79-20-9	Methyl Acetate	U	5	1.0	5	5	4
75-09-2	Methylene Chloride	U	25	1.0	25	25	3
156-60-5	trans-1,2-Dichloroethene	U	5	1.0	5	5	2
1634-04-4	Methyl tert-butyl ether	U	5	1.0	5	5	3
75-34-3	1,1-Dichloroethane	U	5	1.0	5	5	2
156-59-2	cis-1,2-Dichloroethene	U	5	1.0	5	5	2
78-93-3	2-Butanone	U	25	1.0	25	25	9
67-66-3	Chloroform	U	5	1.0	5	5	2
71-55-6	1,1,1-Trichloroethane	U	5	1.0	5	5	2
1735-17-7	Cyclohexane	U	5	1.0	5	5	1
56-23-5	Carbon Tetrachloride	U	5	1.0	5	5	1
71-43-2	Benzene	U	5	1.0	5	5	2
107-06-2	1,2-Dichloroethane	U	5	1.0	5	5	1
79-01-6	Trichloroethene	U	5	1.0	5	5	2
108-87-2	Methylcyclohexane	U	5	1.0	5	5	2
78-87-5	1,2-Dichloropropane	U	5	1.0	5	5	2
75-27-4	Bromodichloromethane	U	5	1.0	5	5	2
10061-01-5	cis-1,3-dichloropropene	U	5	1.0	5	5	2
108-10-1	4-methyl-2-pentanone	U	25	1.0	25	25	9
108-88-3	Toluene	U	5	1.0	5	5	1
10061-02-6	trans-1,3-Dichloropropene	U	5	1.0	5	5	2
79-00-5	1,1,2-Trichloroethane	U	5	1.0	5	5	2
127-18-4	Tetrachloroethene	U	5	1.0	5	5	2
591-78-6	2-Hexanone	U	25	1.0	25	25	8
124-48-1	Dibromochloromethane	U	5	1.0	5	5	2
106-93-4	1,2-Dibromoethane	U	5	1.0	5	5	2
108-90-7	Chlorobenzene	U	5	1.0	5	5	2
100-41-4	Ethylbenzene	U	5	1.0	5	5	1
	m+p-Xylenes	U	10	1.0	10	10	4
95-47-6	o-Xylene	U	5	1.0	5	5	1
1330-20-7	Xylenes (total)	U	15	1.0	15	15	1
100-42-5	Styrene	U	5	1.0	5	5	1
75-25-2	Bromoform	U	5	1.0	5	5	1
98-82-8	Isopropylbenzene	U	5	1.0	5	5	1

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client:
Project: CTO 407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date:
Analysis Date: 15-JUN-2009 11:53
Report Date: 07/02/2009
Matrix: SOIL
% Solids: 100

Lab ID: WG65028-2
Client ID: WG65028-Blank
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65028
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
79-34-5	1,1,2,2-Tetrachloroethane	U	5	1.0	5	5	1
541-73-1	1,3-Dichlorobenzene	U	5	1.0	5	5	1
106-46-7	1,4-Dichlorobenzene	U	5	1.0	5	5	1
95-50-1	1,2-Dichlorobenzene	U	5	1.0	5	5	1
96-12-8	1,2-Dibromo-3-Chloropropane	U	5	1.0	5	5	2
120-82-1	1,2,4-Trichlorobenzene	U	5	1.0	5	5	1
1868-53-7	Dibromofluoromethane		112%				
17060-07-0	1,2-Dichloroethane-D4		89%				
2037-26-5	Toluene-D8		89%				
460-00-4	P-Bromofluorobenzene		88%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client:
Project: CTO 407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date:
Analysis Date: 16-JUN-2009 13:26
Report Date: 07/02/2009
Matrix: SOIL
% Solids: 100

Lab ID: WG65083-2
Client ID: WG65083-Blank
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65083
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
75-71-8	Dichlorodifluoromethane	U	5	1.0	5	5	1
74-87-3	Chloromethane	U	5	1.0	5	5	2
75-01-4	Vinyl chloride	U	5	1.0	5	5	1
74-83-9	Bromomethane	U	5	1.0	5	5	2
75-00-3	Chloroethane	U	5	1.0	5	5	2
75-69-4	Trichlorofluoromethane	U	5	1.0	5	5	1
75-35-4	1,1-Dichloroethene	U	5	1.0	5	5	2
67-64-1	Acetone	U	25	1.0	25	25	11
75-15-0	Carbon Disulfide	U	5	1.0	5	5	2
79-20-9	Methyl Acetate	U	5	1.0	5	5	4
75-09-2	Methylene Chloride	U	25	1.0	25	25	3
156-60-5	trans-1,2-Dichloroethene	U	5	1.0	5	5	2
1634-04-4	Methyl tert-butyl ether	U	5	1.0	5	5	3
75-34-3	1,1-Dichloroethane	U	5	1.0	5	5	2
156-59-2	cis-1,2-Dichloroethene	U	5	1.0	5	5	2
78-93-3	2-Butanone	U	25	1.0	25	25	9
67-66-3	Chloroform	U	5	1.0	5	5	2
71-55-6	1,1,1-Trichloroethane	U	5	1.0	5	5	2
1735-17-7	Cyclohexane	U	5	1.0	5	5	1
56-23-5	Carbon Tetrachloride	U	5	1.0	5	5	1
71-43-2	Benzene	U	5	1.0	5	5	2
107-06-2	1,2-Dichloroethane	U	5	1.0	5	5	1
79-01-6	Trichloroethene	U	5	1.0	5	5	2
108-87-2	Methylcyclohexane	U	5	1.0	5	5	2
78-87-5	1,2-Dichloropropane	U	5	1.0	5	5	2
75-27-4	Bromodichloromethane	U	5	1.0	5	5	2
10061-01-5	cis-1,3-dichloropropene	U	5	1.0	5	5	2
108-10-1	4-methyl-2-pentanone	U	25	1.0	25	25	9
108-88-3	Toluene	U	5	1.0	5	5	1
10061-02-6	trans-1,3-Dichloropropene	U	5	1.0	5	5	2
79-00-5	1,1,2-Trichloroethane	U	5	1.0	5	5	2
127-18-4	Tetrachloroethene	U	5	1.0	5	5	2
591-78-6	2-Hexanone	U	25	1.0	25	25	8
124-48-1	Dibromochloromethane	U	5	1.0	5	5	2
106-93-4	1,2-Dibromoethane	U	5	1.0	5	5	2
108-90-7	Chlorobenzene	U	5	1.0	5	5	2
100-41-4	Ethylbenzene	U	5	1.0	5	5	1
	m+p-Xylenes	U	10	1.0	10	10	4
95-47-6	o-Xylene	U	5	1.0	5	5	1
1330-20-7	Xylenes (total)	U	15	1.0	15	15	1
100-42-5	Styrene	U	5	1.0	5	5	1
75-25-2	Bromoform	U	5	1.0	5	5	1
98-82-8	Isopropylbenzene	U	5	1.0	5	5	1

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client:
Project: CTO 407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date:
Analysis Date: 16-JUN-2009 13:26
Report Date: 07/02/2009
Matrix: SOIL
% Solids: 100

Lab ID: WG65083-2
Client ID: WG65083-Blank
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65083
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
79-34-5	1,1,2,2-Tetrachloroethane	U	5	1.0	5	5	1
541-73-1	1,3-Dichlorobenzene	U	5	1.0	5	5	1
106-46-7	1,4-Dichlorobenzene	U	5	1.0	5	5	1
95-50-1	1,2-Dichlorobenzene	U	5	1.0	5	5	1
96-12-8	1,2-Dibromo-3-Chloropropane	U	5	1.0	5	5	2
120-82-1	1,2,4-Trichlorobenzene	U	5	1.0	5	5	1
1868-53-7	Dibromofluoromethane		101%				
17060-07-0	1,2-Dichloroethane-D4		75%				
2037-26-5	Toluene-D8		82%				
460-00-4	P-Bromofluorobenzene		82%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client:
Project: CTO 407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date:
Analysis Date: 17-JUN-2009 11:56
Report Date: 07/02/2009
Matrix: SOIL
% Solids: 100

Lab ID: WG65115-2
Client ID: WG65115-Blank
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65115
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
75-71-8	Dichlorodifluoromethane	U	5	1.0	5	5	1
74-87-3	Chloromethane	U	5	1.0	5	5	2
75-01-4	Vinyl chloride	U	5	1.0	5	5	1
74-83-9	Bromomethane	U	5	1.0	5	5	2
75-00-3	Chloroethane	U	5	1.0	5	5	2
75-69-4	Trichlorofluoromethane	U	5	1.0	5	5	1
75-35-4	1,1-Dichloroethene	U	5	1.0	5	5	2
67-64-1	Acetone	U	25	1.0	25	25	11
75-15-0	Carbon Disulfide	U	5	1.0	5	5	2
79-20-9	Methyl Acetate	U	5	1.0	5	5	4
75-09-2	Methylene Chloride	U	25	1.0	25	25	3
156-60-5	trans-1,2-Dichloroethene	U	5	1.0	5	5	2
1634-04-4	Methyl tert-butyl ether	U	5	1.0	5	5	3
75-34-3	1,1-Dichloroethane	U	5	1.0	5	5	2
156-59-2	cis-1,2-Dichloroethene	U	5	1.0	5	5	2
78-93-3	2-Butanone	U	25	1.0	25	25	9
67-66-3	Chloroform	U	5	1.0	5	5	2
71-55-6	1,1,1-Trichloroethane	U	5	1.0	5	5	2
1735-17-7	Cyclohexane	U	5	1.0	5	5	1
56-23-5	Carbon Tetrachloride	U	5	1.0	5	5	1
71-43-2	Benzene	U	5	1.0	5	5	2
107-06-2	1,2-Dichloroethane	U	5	1.0	5	5	1
79-01-6	Trichloroethene	U	5	1.0	5	5	2
108-87-2	Methylcyclohexane	U	5	1.0	5	5	2
78-87-5	1,2-Dichloropropane	U	5	1.0	5	5	2
75-27-4	Bromodichloromethane	U	5	1.0	5	5	2
10061-01-5	cis-1,3-dichloropropene	U	5	1.0	5	5	2
108-10-1	4-methyl-2-pentanone	U	25	1.0	25	25	9
108-88-3	Toluene	U	5	1.0	5	5	1
10061-02-6	trans-1,3-Dichloropropene	U	5	1.0	5	5	2
79-00-5	1,1,2-Trichloroethane	U	5	1.0	5	5	2
127-18-4	Tetrachloroethene	U	5	1.0	5	5	2
591-78-6	2-Hexanone	U	25	1.0	25	25	8
124-48-1	Dibromochloromethane	U	5	1.0	5	5	2
106-93-4	1,2-Dibromoethane	U	5	1.0	5	5	2
108-90-7	Chlorobenzene	U	5	1.0	5	5	2
100-41-4	Ethylbenzene	U	5	1.0	5	5	1
	m+p-Xylenes	U	10	1.0	10	10	4
95-47-6	o-Xylene	U	5	1.0	5	5	1
1330-20-7	Xylenes (total)	U	15	1.0	15	15	1
100-42-5	Styrene	U	5	1.0	5	5	1
75-25-2	Bromoform	U	5	1.0	5	5	1
98-82-8	Isopropylbenzene	U	5	1.0	5	5	1

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client:
Project: CTO 407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date:
Analysis Date: 17-JUN-2009 11:56
Report Date: 07/02/2009
Matrix: SOIL
% Solids: 100

Lab ID: WG65115-2
Client ID: WG65115-Blank
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65115
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
79-34-5	1,1,2,2-Tetrachloroethane	U	5	1.0	5	5	1
541-73-1	1,3-Dichlorobenzene	U	5	1.0	5	5	1
106-46-7	1,4-Dichlorobenzene	U	5	1.0	5	5	1
95-50-1	1,2-Dichlorobenzene	U	5	1.0	5	5	1
96-12-8	1,2-Dibromo-3-Chloropropane	U	5	1.0	5	5	2
120-82-1	1,2,4-Trichlorobenzene	U	5	1.0	5	5	1
1868-53-7	Dibromofluoromethane		108%				
17060-07-0	1,2-Dichloroethane-D4		80%				
2037-26-5	Toluene-D8		83%				
460-00-4	P-Bromofluorobenzene		78%				

FORM 2
SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Level:(low/med) LOW

	CLIENT SAMPLE ID	LAB SAMPLE ID	SMC1 DBF#	SMC2 DCA#	SMC3 TOL#	SMC4 BFB#	TOT OUT
01	WG65028-LCS	WG65028-1	102	83	77	88	0
02	WG65028-BLANK	WG65028-2	112	89	89	88	0
03	WGL-SD-SD103-000.6	SC3122-1	134*	87	75	38*	2
04	WGL-SD-SD102-000.6	SC3122-4	137*	90	76	31*	2
05	WGL-SD-SD101-000.6	SC3122-7	144*	97	68*	25*	3
06	WGL-SD-DUP01-061109	SC3122-10	137*	89	82	50*	2
07	WGL-SD-SD104-000.6	SC3122-13	148*	91	70*	28*	3
08	WG65083-LCS	WG65083-1	100	72	84	88	0
09	WG65083-BLANK	WG65083-2	101	75	82	82	0
10	WGL-SD-SD102-000.6	SC3122-4RA	121*	80	79	48*	2
11	WGL-SD-SD101-000.6	SC3122-7RA	127*	77	68*	28*	3
12	WGL-SD-DUP01-061109	SC3122-10RA	123*	74	68*	27*	3
13	WGL-SD-SD104-000.6	SC3122-13RA	130*	76	63*	23*	3
14	WGL-SD-SD106-000.6	SC3122-16	136*	86	67*	24*	3
15	WGL-SD-DUP02-061109	SC3122-19	136*	77	68*	24*	3
16	WGL-SD-SD107-000.6	SC3122-22	133*	80	69*	30*	3
17	WGL-SD-SD108-000.6	SC3122-25	143*	84	63*	24*	3
18	WGL-SD-SD105-000.6	SC3122-28	140*	82	65*	24*	3
19	WGL-SD-SD112-000.6	SC3122-31	138*	88	76	42*	2
20	WGL-SD-SD110-000.6	SC3122-34	141*	77	64*	24*	3
21	WGL-SD-SD109-000.6	SC3122-37	131*	76	71	43*	2
22	-SD-SD111-000.6	SC3122-40	131*	83	84	75	1
23	WGL-SD-TB01-061109	SC3122-47	114	75	79	84	0
24	WG65115-LCS	WG65115-1	106	72	90	90	0
25	WG65115-BLANK	WG65115-2	108	80	83	78	0
26	WGL-SD-SD106-000.6	SC3122-16RA	140*	87	71	28*	2
27	WGL-SD-DUP02-061109	SC3122-19RA	133*	82	76	31*	2
28	WGL-SD-SD107-000.6	SC3122-22RA	133*	83	72	32*	2

		QC LIMITS
SMC1 (DBF)	= Dibromofluoromethane	(67-118)
SMC2 (DCA)	= 1,2-Dichloroethane-D4	(55-148)
SMC3 (TOL)	= Toluene-D8	(71-102)
SMC4 (BFB)	= P-Bromofluorobenzene	(53-122)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

FORM 2
SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Level:(low/med) LOW

	CLIENT SAMPLE ID	LAB SAMPLE ID	SMC1 DBF#	SMC2 DCA#	SMC3 TOL#	SMC4 BFB#	TOT OUT
01	WGL-SD-SD108-000.6	SC3122-25RA	150*	92	67*	25*	3
02	WGL-SD-SD105-000.6	SC3122-28RA	135*	82	74	26*	2
03	WGL-SD-SD112-000.6	SC3122-31RA	142*	87	75	32*	2
04	WGL-SD-SD110-000.6	SC3122-34RA	138*	81	72	29*	2
05	WGL-SD-SD109-000.6	SC3122-37RA	135*	77	74	32*	2
06	-SD-SD111-000.6MS	WG65115-3	148*	92	82	41*	2
07	-SD-SD111-000.6MSD	WG65115-4	134*	80	79	42*	2
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							

		QC LIMITS
SMC1 (DBF)	= Dibromofluoromethane	(67-118)
SMC2 (DCA)	= 1,2-Dichloroethane-D4	(55-148)
SMC3 (TOL)	= Toluene-D8	(71-102)
SMC4 (BFB)	= P-Bromofluorobenzene	(53-122)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

FORM 2
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

	CLIENT SAMPLE ID	LAB SAMPLE ID	SMC1 DBF#	SMC2 DCA#	SMC3 TOL#	SMC4 BFB#	TOT OUT
01	WG65026-LCS	WG65026-1	95	97	97	112	0
02	WG65026-BLANK	WG65026-2	93	102	97	111	0
03	WGL-SD-FB01-061109	SC3122-43	99	110	103	114	0
04	WGL-SD-RB01-061109	SC3122-45	97	105	104	114	0
05							
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							

		QC LIMITS
SMC1 (DBF)	= Dibromofluoromethane	(78-116)
SMC2 (DCA)	= 1,2-Dichloroethane-D4	(70-124)
SMC3 (TOL)	= Toluene-D8	(70-123)
SMC4 (BFB)	= P-Bromofluorobenzene	(69-119)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

KATAHDIN ANALYTICAL SERVICES
MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date:
Analysis Date: 06/17/09
Report Date: 07/02/2009
Matrix: SOIL

Lab ID: WG65115-3 & WG65115-4
Client ID: -SD-SD111-000.6MS & -SD-SD111-000.6MSD
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65115
Units: ug/Kgdrywt

COMPOUND	MS SPIKE	MSD SPIKE	SAMPLE CONC.	MS CONC.	MSD CONC.	MS %REC.	MSD %REC.	%RPD	%RPD LIMIT	QC. LIMITS
Dichlorodifluoromethane	164	195	0.00	276	311	168	159	12	30	72-196
Chloromethane	164	195	0.00	169	228	103	117	30	30	78-146
Vinyl chloride	164	195	0.00	173	206	105	105	17	30	80-142
Bromomethane	164	195	0.00	82	85	* 50	* 44	4	30	70-165
Chloroethane	164	195	0.00	154	211	94	108	* 31	30	76-132
Trichlorofluoromethane	164	195	0.00	197	211	120	108	7	30	73-200
1,1-Dichloroethene	164	195	0.00	122	150	* 74	* 77	20	30	84-128
Acetone	164	195	0.00	81	72	* 50	* 37	12	30	74-200
Carbon Disulfide	164	195	0.00	85	109	* 52	* 56	24	30	78-146
Methyl Acetate	164	195	0.00	173	221	105	113	24	30	85-129
Methylene Chloride	164	195	0.00	90	119	* 55	61	28	30	58-141
trans-1,2-Dichloroethene	164	195	0.00	75	106	* 45	* 54	* 35	30	83-121
Methyl tert-butyl ether	328	391	0.00	174	239	* 53	61	* 31	30	58-157
1,1-Dichloroethane	164	195	0.00	92	139	* 56	* 71	* 40	30	89-122
cis-1,2-Dichloroethene	164	195	0.00	70	103	* 43	* 53	* 38	30	80-111
2-Butanone	164	195	0.00	38	45	* 23	* 23	17	30	76-137
Chloroform	164	195	0.00	75	118	* 46	* 60	* 44	30	90-126
1,1,1-Trichloroethane	164	195	0.00	94	129	* 57	* 66	* 31	30	87-133
Cyclohexane	164	195	0.00	128	110	* 78	* 56	15	30	87-133
Carbon Tetrachloride	164	195	0.00	100	120	* 61	* 61	18	30	81-147
Benzene	164	195	0.00	60	97	* 36	* 50	* 47	30	80-119
1,2-Dichloroethane	164	195	0.00	65	95	* 40	* 49	* 38	30	85-136
Trichloroethene	164	195	0.00	51	73	* 31	* 37	* 36	30	86-116
Methylcyclohexane	164	195	0.00	72	60	* 44	* 31	19	30	80-123
1,2-Dichloropropane	164	195	0.00	63	96	* 38	* 49	* 41	30	86-114
Bromodichloromethane	164	195	0.00	50	78	* 31	* 40	* 42	30	83-126
cis-1,3-dichloropropene	164	195	0.00	10	14	* 6	* 7	26	30	89-122
4-methyl-2-pentanone	164	195	0.00	23	30	* 14	* 16	29	30	84-122
Toluene	164	195	0.00	40	60	* 25	* 31	* 39	30	86-119
trans-1,3-Dichloropropene	164	195	0.00	28	35	* 17	* 18	21	30	90-143
1,1,2-Trichloroethane	164	195	0.00	44	63	* 26	* 32	* 36	30	88-115
Tetrachloroethene	164	195	0.00	47	60	* 28	* 31	24	30	71-144
2-Hexanone	164	195	0.00	6.4	11	* 4	* 6	* 52	30	83-128
Dibromochloromethane	164	195	0.00	50	76	* 30	* 39	* 42	30	86-127
1,2-Dibromoethane	164	195	0.00	35	47	* 21	* 24	28	30	85-122
Chlorobenzene	164	195	0.00	41	58	* 25	* 30	* 34	30	88-115
Ethylbenzene	164	195	0.00	41	65	* 25	* 33	* 45	30	88-117
m+p-Xylenes	328	391	0.00	80	118	* 24	* 30	* 39	30	89-119
o-Xylene	164	195	0.00	36	52	* 22	* 26	* 36	30	90-119
Xylenes (total)	492	586	0.00	116	170	* 24	* 29	* 38	30	90-118
Styrene	164	195	0.00	23	31	* 14	* 16	* 31	30	90-121
Bromoform	164	195	0.00	36	46	* 22	* 24	25	30	87-134
Isopropylbenzene	164	195	0.00	82	105	* 50	* 54	24	30	90-137
1,1,2,2-Tetrachloroethane	164	195	0.00	83	102	* 50	* 52	21	30	82-118
1,3-Dichlorobenzene	164	195	0.00	33	39	* 20	* 20	16	30	84-120

FORM III VOA-2
F5296.D & F5297.D

KATAHDIN ANALYTICAL SERVICES
MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date:
Analysis Date: 06/17/09
Report Date: 07/02/2009
Matrix: SOIL

Lab ID: WG65115-3 & WG65115-4
Client ID: -SD-SD111-000.6MS & -SD-SD111-000.6MSD
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65115
Units: ug/Kgdrywt

COMPOUND	MS SPIKE	MSD SPIKE	SAMPLE CONC.	MS CONC.	MSD CONC.	MS %REC.	MSD %REC.	%RPD	%RPD LIMIT	QC. LIMITS
1,4-Dichlorobenzene	164	195	0.00	36	41	* 22	* 21	12	30	86-121
1,2-Dichlorobenzene	164	195	0.00	29	31	* 17	* 16	9	30	86-117
1,2-Dibromo-3-Chloropropane	164	195	0.00	22	22	* 13	* 11	0.0	30	78-137
1,2,4-Trichlorobenzene	164	195	0.00	6.8	11	* 4	* 6	* 46	30	79-129

FORM III VOA-2

F5296.D & F5297.D

KATAHDIN ANALYTICAL SERVICES
LAB CONTROL SAMPLE

Client:
Project: CTO 407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date:
Analysis Date: 06/15/09
Report Date: 07/02/2009
Matrix: WATER

Lab ID: WG65026-1
Client ID: WG65026-LCS
SDG: SC3122
Extracted by:
Extraction Method: SW846 5030
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65026
Units: ug/l

COMPOUND	LCS SPIKE	SAMPLE CONC.	LCS CONC.	%REC.	QC. LIMITS
Dichlorodifluoromethane	50	NA	43	85	40-192
Chloromethane	50	NA	44	89	47-151
Vinyl chloride	50	NA	49	98	63-141
Bromomethane	50	NA	55	111	41-169
Chloroethane	50	NA	39	79	57-145
Trichlorofluoromethane	50	NA	51	101	85-164
Diethyl Ether	50	NA	50	100	74-132
Tertiary-butyl alcohol	250	NA	267	107	30-162
1,1-Dichloroethene	50	NA	50	100	79-126
Carbon Disulfide	50	NA	47	95	72-127
Freon-113	50	NA	46	92	78-132
Iodomethane	50	NA	68	137	54-181
Acrolein	250	NA	243	97	67-125
Methylene Chloride	50	NA	49	97	70-120
Acetone	50	NA	53	105	54-134
Isobutyl Alcohol	1000	NA	1120	112	28-157
trans-1,2-Dichloroethene	50	NA	49	98	76-127
Allyl Chloride	50	NA	51	102	62-141
Methyl tert-butyl ether	100	NA	100	100	78-136
Acetonitrile	500	NA	507	101	47-143
Di-isopropyl ether	50	NA	51	102	72-129
Chloroprene	50	NA	49	98	74-132
Methacrylonitrile	500	NA	500	100	67-138
Propionitrile	500	NA	526	105	61-136
1,1-Dichloroethane	50	NA	51	102	80-126
Acrylonitrile	250	NA	250	100	63-135
Ethyl tertiary-butyl ether	50	NA	50	99	79-124
Vinyl Acetate	50	NA	49	97	68-135
cis-1,2-Dichloroethene	50	NA	53	106	80-116
1,2-Dichloroethylene (total)	100	NA	102	102	79-121
Methyl Methacrylate	50	NA	55	110	70-133
2,2-Dichloropropane	50	NA	54	107	66-150
Bromochloromethane	50	NA	47	94	90-131
Chloroform	50	NA	53	106	86-124
Carbon Tetrachloride	50	NA	51	102	73-146
Tetrahydrofuran	50	NA	55	109	66-120
1,1,1-Trichloroethane	50	NA	52	104	88-125
1,1-Dichloropropene	50	NA	54	107	84-123
2-Butanone	50	NA	53	106	59-125
Benzene	50	NA	52	103	88-115
Cyclohexane	50	NA	51	102	60-150
Ethyl Methacrylate	50	NA	54	108	76-121
Tertiary-amyl methyl ether	50	NA	50	100	80-122
1,2-Dichloroethane	50	NA	50	101	82-125
Trichloroethene	50	NA	51	102	84-115

KATAHDIN ANALYTICAL SERVICES
LAB CONTROL SAMPLE

Client:
Project: CTO 407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date:
Analysis Date: 06/15/09
Report Date: 07/02/2009
Matrix: WATER

Lab ID: WG65026-1
Client ID: WG65026-LCS
SDG: SC3122
Extracted by:
Extraction Method: SW846 5030
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65026
Units: ug/l

COMPOUND	LCS SPIKE	SAMPLE CONC.	LCS CONC.	%REC.	QC. LIMITS
Dibromomethane	50	NA	52	103	83-121
1,2-Dichloropropane	50	NA	56	111	79-121
Bromodichloromethane	50	NA	55	111	89-113
cis-1,3-dichloropropene	50	NA	49	98	87-118
1,4-Dioxane	1000	NA	1150	115	10-156
2-Chloroethylvinylether	50	NA	44	87	30-177
Toluene	50	NA	54	107	87-119
4-methyl-2-pentanone	50	NA	58	115	70-123
Tetrachloroethene	50	NA	45	90	58-147
trans-1,3-Dichloropropene	50	NA	56	113	90-137
1,1,2-Trichloroethane	50	NA	54	108	80-115
Dibromochloromethane	50	NA	51	101	84-122
1,3-Dichloropropane	50	NA	51	103	76-118
1,2-Dibromoethane	50	NA	51	102	83-116
2-Hexanone	50	NA	56	112	66-121
Chlorobenzene	50	NA	50	101	88-112
Ethylbenzene	50	NA	52	103	86-116
1,1,1,2-Tetrachloroethane	50	NA	53	105	83-118
Xylenes (total)	150	NA	158	105	84-120
m+p-Xylenes	100	NA	106	106	83-122
o-Xylene	50	NA	52	105	82-119
Styrene	50	NA	53	106	85-116
Bromoform	50	NA	51	103	78-127
Isopropylbenzene	50	NA	60	121	90-132
cis-1,4-Dichloro-2-Butene	50	NA	52	104	70-126
trans-1,4-Dichloro-2-Butene	50	NA	50	100	69-132
Bromobenzene	50	NA	50	100	87-113
N-Propylbenzene	50	NA	54	109	84-121
1,1,2,2-Tetrachloroethane	50	NA	52	104	72-119
1,3,5-Trimethylbenzene	50	NA	54	107	84-121
2-Chlorotoluene	50	NA	51	102	85-114
1,2,3-Trichloropropane	50	NA	50	100	74-114
4-Chlorotoluene	50	NA	52	104	81-120
tert-Butylbenzene	50	NA	55	110	73-132
Pentachloroethane	50	NA	53	106	32-163
1,2,4-Trimethylbenzene	50	NA	53	106	80-116
P-Isopropyltoluene	50	NA	55	110	82-125
1,3-Dichlorobenzene	50	NA	49	98	82-118
1,4-Dichlorobenzene	50	NA	48	95	83-113
N-Butylbenzene	50	NA	54	109	72-128
sec-Butylbenzene	50	NA	53	106	83-120
1,2-Dichlorobenzene	50	NA	50	99	83-116
1,2-Dibromo-3-Chloropropane	50	NA	53	106	69-121
1,3,5-Trichlorobenzene	50	NA	51	101	80-123
Hexachlorobutadiene	50	NA	49	98	61-124

KATAHDIN ANALYTICAL SERVICES
LAB CONTROL SAMPLE

Client:
Project: CTO 407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date:
Analysis Date: 06/15/09
Report Date: 07/02/2009
Matrix: WATER

Lab ID: WG65026-1
Client ID: WG65026-LCS
SDG: SC3122
Extracted by:
Extraction Method: SW846 5030
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65026
Units: ug/l

COMPOUND	LCS SPIKE	SAMPLE CONC.	LCS CONC.	%REC.	QC. LIMITS
1,2,4-Trichlorobenzene	50	NA	49	98	71-127
1,2,3-Trimethylbenzene	50	NA	51	101	89-115
Naphthalene	50	NA	46	91	57-132
1,2,3-Trichlorobenzene	50	NA	46	92	62-124
Methyl Acetate	50	NA	52	105	62-137
Methylcyclohexane	50	NA	48	96	74-128
1-Chlorohexane	50	NA	51	101	84-118
Total Alkylbenzenes	350	NA	379	108	60-140

KATAHDIN ANALYTICAL SERVICES
LAB CONTROL SAMPLE

Client:
Project: CTO 407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date:
Analysis Date: 06/15/09
Report Date: 07/02/2009
Matrix: SOIL

Lab ID: WG65028-1
Client ID: WG65028-LCS
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65028
Units: ug/Kgdrywt

COMPOUND	LCS SPIKE	SAMPLE CONC.	LCS CONC.		%REC.	QC. LIMITS
Dichlorodifluoromethane	50	NA	44		87	72-196
Chloromethane	50	NA	51		101	78-146
Vinyl chloride	50	NA	50		101	80-142
Bromomethane	50	NA	56		112	70-165
Chloroethane	50	NA	53		106	76-132
Trichlorofluoromethane	50	NA	56		113	73-200
Diethyl Ether	50	NA	53		107	81-133
Tertiary-butyl alcohol	250	NA	298		119	80-141
1,1-Dichloroethene	50	NA	55		110	84-128
Carbon Disulfide	50	NA	56		113	78-146
Freon-113	50	NA	55		110	83-137
Iodomethane	50	NA	34	*	69	77-145
Acrolein	250	NA	282		113	42-167
Methylene Chloride	50	NA	49		98	58-141
Acetone	50	NA	54		108	74-200
Isobutyl Alcohol	1000	NA	1190		119	81-135
trans-1,2-Dichloroethene	50	NA	52		104	83-121
Allyl Chloride	50	NA	52		103	74-129
Methyl tert-butyl ether	100	NA	111		111	58-157
Acetonitrile	500	NA	581		116	57-142
Di-isopropyl ether	50	NA	50		100	78-119
Chloroprene	50	NA	50		100	84-123
Methacrylonitrile	500	NA	516		103	82-129
Propionitrile	500	NA	537		107	81-126
1,1-Dichloroethane	50	NA	53		106	89-122
Acrylonitrile	250	NA	276		110	79-125
Ethyl tertiary-butyl ether	50	NA	51		102	78-130
Vinyl Acetate	50	NA	61		122	80-131
cis-1,2-Dichloroethene	50	NA	59	*	117	80-111
1,2-Dichloroethylene (total)	100	NA	111		111	83-115
Methyl Methacrylate	50	NA	51		102	82-133
2,2-Dichloropropane	50	NA	57		115	76-137
Bromochloromethane	50	NA	57		114	90-134
Chloroform	50	NA	55		110	90-126
Carbon Tetrachloride	50	NA	55		110	81-147
Tetrahydrofuran	50	NA	59		118	87-120
1,1,1-Trichloroethane	50	NA	54		109	87-133
1,1-Dichloropropene	50	NA	52		103	86-122
2-Butanone	50	NA	54		108	76-137
Benzene	50	NA	49		98	80-119
Cyclohexane	50	NA	58		117	87-133
Ethyl Methacrylate	50	NA	53		106	89-124
Tertiary-amyl methyl ether	50	NA	55		109	68-147
1,2-Dichloroethane	50	NA	53		105	85-136
Trichloroethene	50	NA	51		103	86-116

KATAHDIN ANALYTICAL SERVICES
LAB CONTROL SAMPLE

Client:
Project: CTO 407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date:
Analysis Date: 06/15/09
Report Date: 07/02/2009
Matrix: SOIL

Lab ID: WG65028-1
Client ID: WG65028-LCS
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65028
Units: ug/Kgdrywt

COMPOUND	LCS SPIKE	SAMPLE CONC.	LCS CONC.		%REC.	QC. LIMITS
Dibromomethane	50	NA	52		104	90-124
1,2-Dichloropropane	50	NA	50		100	86-114
Bromodichloromethane	50	NA	54		108	83-126
cis-1,3-dichloropropene	50	NA	52		104	89-122
1,4-Dioxane	1000	NA	925		92	76-132
2-Chloroethylvinylether	50	NA	65	*	131	70-130
Toluene	50	NA	49		98	86-119
4-methyl-2-pentanone	50	NA	54		108	84-122
Tetrachloroethene	50	NA	50		100	71-144
trans-1,3-Dichloropropene	50	NA	57		113	90-143
1,1,2-Trichloroethane	50	NA	55		110	88-115
Dibromochloromethane	50	NA	58		117	86-127
1,3-Dichloropropane	50	NA	56		111	89-115
1,2-Dibromoethane	50	NA	53		106	85-122
2-Hexanone	50	NA	58		115	83-128
Chlorobenzene	50	NA	52		105	88-115
Ethylbenzene	50	NA	55		111	88-117
1,1,1,2-Tetrachloroethane	50	NA	55		111	86-121
Xylenes (total)	150	NA	160		107	90-118
m+p-Xylenes	100	NA	105		105	89-119
o-Xylene	50	NA	55		110	90-119
Styrene	50	NA	52		104	90-121
Bromoform	50	NA	56		111	87-134
Isopropylbenzene	50	NA	59		118	90-137
cis-1,4-Dichloro-2-Butene	50	NA	45		90	87-131
trans-1,4-Dichloro-2-Butene	50	NA	44		87	83-136
Bromobenzene	50	NA	48		96	83-115
N-Propylbenzene	50	NA	53		106	81-124
1,1,2,2-Tetrachloroethane	50	NA	54		108	82-118
1,3,5-Trimethylbenzene	50	NA	52		103	82-124
2-Chlorotoluene	50	NA	49		98	80-122
1,2,3-Trichloropropane	50	NA	50		99	78-124
4-Chlorotoluene	50	NA	52		104	83-126
tert-Butylbenzene	50	NA	51		102	80-123
Pentachloroethane	50	NA	61		122	23-157
1,2,4-Trimethylbenzene	50	NA	51		102	81-118
P-Isopropyltoluene	50	NA	53		106	85-129
1,3-Dichlorobenzene	50	NA	49		98	84-120
1,4-Dichlorobenzene	50	NA	49		97	86-121
N-Butylbenzene	50	NA	49		97	81-126
sec-Butylbenzene	50	NA	49		98	82-123
1,2-Dichlorobenzene	50	NA	50		99	86-117
1,2-Dibromo-3-Chloropropane	50	NA	52		105	78-137
1,3,5-Trichlorobenzene	50	NA	54		108	84-130
Hexachlorobutadiene	50	NA	52		104	79-121

KATAHDIN ANALYTICAL SERVICES
LAB CONTROL SAMPLE

Client:
Project: CTO 407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date:
Analysis Date: 06/15/09
Report Date: 07/02/2009
Matrix: SOIL

Lab ID: WG65028-1
Client ID: WG65028-LCS
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65028
Units: ug/Kgdrywt

COMPOUND	LCS SPIKE	SAMPLE CONC.	LCS CONC.		%REC.	QC. LIMITS
1,2,4-Trichlorobenzene	50	NA	52		103	79-129
1,2,3-Trimethylbenzene	50	NA	51		102	88-124
Naphthalene	50	NA	48		96	73-119
1,2,3-Trichlorobenzene	50	NA	52		104	82-124
Methyl Acetate	50	NA	45		90	85-129
Methylcyclohexane	50	NA	54		108	80-123
1-Chlorohexane	50	NA	65	*	131	85-124
Total Alkylbenzenes	350	NA	358		102	83-123

KATAHDIN ANALYTICAL SERVICES
LAB CONTROL SAMPLE

Client:
Project: CTO 407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date:
Analysis Date: 06/16/09
Report Date: 07/02/2009
Matrix: SOIL

Lab ID: WG65083-1
Client ID: WG65083-LCS
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65083
Units: ug/Kgdrywt

COMPOUND	LCS SPIKE	SAMPLE CONC.	LCS CONC.		%REC.	QC. LIMITS
Dichlorodifluoromethane	50	NA	34	*	69	72-196
Chloromethane	50	NA	42		83	78-146
Vinyl chloride	50	NA	42		85	80-142
Bromomethane	50	NA	45		90	70-165
Chloroethane	50	NA	45		89	76-132
Trichlorofluoromethane	50	NA	48		97	73-200
Diethyl Ether	50	NA	45		90	81-133
Tertiary-butyl alcohol	250	NA	236		94	80-141
1,1-Dichloroethene	50	NA	48		96	84-128
Carbon Disulfide	50	NA	46		92	78-146
Freon-113	50	NA	44		88	83-137
Iodomethane	50	NA	52		104	77-145
Acrolein	250	NA	244		98	42-167
Methylene Chloride	50	NA	47		95	58-141
Acetone	50	NA	66		133	74-200
Isobutyl Alcohol	1000	NA	982		98	81-135
trans-1,2-Dichloroethene	50	NA	46		93	83-121
Allyl Chloride	50	NA	42		84	74-129
Methyl tert-butyl ether	100	NA	96		96	58-157
Acetonitrile	500	NA	582		116	57-142
Di-isopropyl ether	50	NA	40		80	78-119
Chloroprene	50	NA	38	*	75	84-123
Methacrylonitrile	500	NA	439		88	82-129
Propionitrile	500	NA	460		92	81-126
1,1-Dichloroethane	50	NA	45		90	89-122
Acrylonitrile	250	NA	231		92	79-125
Ethyl tertiary-butyl ether	50	NA	44		88	78-130
Vinyl Acetate	50	NA	49		98	80-131
cis-1,2-Dichloroethene	50	NA	52		104	80-111
1,2-Dichloroethylene (total)	100	NA	98		98	83-115
Methyl Methacrylate	50	NA	47		94	82-133
2,2-Dichloropropane	50	NA	49		97	76-137
Bromochloromethane	50	NA	53		106	90-134
Chloroform	50	NA	49		98	90-126
Carbon Tetrachloride	50	NA	49		98	81-147
Tetrahydrofuran	50	NA	56		112	87-120
1,1,1-Trichloroethane	50	NA	50		99	87-133
1,1-Dichloropropene	50	NA	47		94	86-122
2-Butanone	50	NA	58		116	76-137
Benzene	50	NA	47		94	80-119
Cyclohexane	50	NA	47		95	87-133
Ethyl Methacrylate	50	NA	48		95	89-124
Tertiary-amyl methyl ether	50	NA	44		88	68-147
1,2-Dichloroethane	50	NA	48		96	85-136
Trichloroethene	50	NA	47		95	86-116

KATAHDIN ANALYTICAL SERVICES
LAB CONTROL SAMPLE

Client:
Project: CTO 407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date:
Analysis Date: 06/16/09
Report Date: 07/02/2009
Matrix: SOIL

Lab ID: WG65083-1
Client ID: WG65083-LCS
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65083
Units: ug/Kgdrywt

COMPOUND	LCS SPIKE	SAMPLE CONC.	LCS CONC.		%REC.	QC. LIMITS
Dibromomethane	50	NA	51		102	90-124
1,2-Dichloropropane	50	NA	50		100	86-114
Bromodichloromethane	50	NA	50		100	83-126
cis-1,3-dichloropropene	50	NA	49		99	89-122
1,4-Dioxane	1000	NA	954		95	76-132
2-Chloroethylvinylether	50	NA	51		103	70-130
Toluene	50	NA	48		97	86-119
4-methyl-2-pentanone	50	NA	51		102	84-122
Tetrachloroethene	50	NA	48		95	71-144
trans-1,3-Dichloropropene	50	NA	53		106	90-143
1,1,2-Trichloroethane	50	NA	54		109	88-115
Dibromochloromethane	50	NA	54		109	86-127
1,3-Dichloropropane	50	NA	48		95	89-115
1,2-Dibromoethane	50	NA	52		105	85-122
2-Hexanone	50	NA	55		110	83-128
Chlorobenzene	50	NA	49		98	88-115
Ethylbenzene	50	NA	49		98	88-117
1,1,1,2-Tetrachloroethane	50	NA	51		101	86-121
Xylenes (total)	150	NA	151		101	90-118
m+p-Xylenes	100	NA	98		98	89-119
o-Xylene	50	NA	53		105	90-119
Styrene	50	NA	49		99	90-121
Bromoform	50	NA	57		114	87-134
Isopropylbenzene	50	NA	60		119	90-137
cis-1,4-Dichloro-2-Butene	50	NA	44		87	87-131
trans-1,4-Dichloro-2-Butene	50	NA	37	*	74	83-136
Bromobenzene	50	NA	53		106	83-115
N-Propylbenzene	50	NA	51		103	81-124
1,1,2,2-Tetrachloroethane	50	NA	51		101	82-118
1,3,5-Trimethylbenzene	50	NA	49		98	82-124
2-Chlorotoluene	50	NA	49		98	80-122
1,2,3-Trichloropropane	50	NA	50		99	78-124
4-Chlorotoluene	50	NA	47		94	83-126
tert-Butylbenzene	50	NA	49		98	80-123
Pentachloroethane	50	NA	45		91	23-157
1,2,4-Trimethylbenzene	50	NA	48		96	81-118
P-Isopropyltoluene	50	NA	55		111	85-129
1,3-Dichlorobenzene	50	NA	51		103	84-120
1,4-Dichlorobenzene	50	NA	51		102	86-121
N-Butylbenzene	50	NA	52		103	81-126
sec-Butylbenzene	50	NA	53		106	82-123
1,2-Dichlorobenzene	50	NA	52		103	86-117
1,2-Dibromo-3-Chloropropane	50	NA	46		93	78-137
1,3,5-Trichlorobenzene	50	NA	57		115	84-130
Hexachlorobutadiene	50	NA	56		113	79-121

KATAHDIN ANALYTICAL SERVICES
LAB CONTROL SAMPLE

Client:
Project: CTO 407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date:
Analysis Date: 06/16/09
Report Date: 07/02/2009
Matrix: SOIL

Lab ID: WG65083-1
Client ID: WG65083-LCS
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65083
Units: ug/Kgdrywt

COMPOUND	LCS SPIKE	SAMPLE CONC.	LCS CONC.	%REC.	QC. LIMITS
1,2,4-Trichlorobenzene	50	NA	63	126	79-129
1,2,3-Trimethylbenzene	50	NA	49	98	88-124
Naphthalene	50	NA	56	111	73-119
1,2,3-Trichlorobenzene	50	NA	65	* 129	82-124
Methyl Acetate	50	NA	43	86	85-129
Methylcyclohexane	50	NA	43	87	80-123
1-Chlorohexane	50	NA	56	111	85-124
Total Alkylbenzenes	350	NA	357	102	83-123

KATAHDIN ANALYTICAL SERVICES
LAB CONTROL SAMPLE

Client:
Project: CTO 407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date:
Analysis Date: 06/17/09
Report Date: 07/02/2009
Matrix: SOIL

Lab ID: WG65115-1
Client ID: WG65115-LCS
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65115
Units: ug/Kgdrywt

COMPOUND	LCS SPIKE	SAMPLE CONC.	LCS CONC.		%REC.	QC. LIMITS
Dichlorodifluoromethane	50	NA	68		137	72-196
Chloromethane	50	NA	56		111	78-146
Vinyl chloride	50	NA	52		104	80-142
Bromomethane	50	NA	56		112	70-165
Chloroethane	50	NA	53		106	76-132
Trichlorofluoromethane	50	NA	57		114	73-200
Diethyl Ether	50	NA	44		89	81-133
Tertiary-butyl alcohol	250	NA	211		84	80-141
1,1-Dichloroethene	50	NA	50		101	84-128
Carbon Disulfide	50	NA	51		103	78-146
Freon-113	50	NA	46		93	83-137
Iodomethane	50	NA	57		114	77-145
Acrolein	250	NA	215		86	42-167
Methylene Chloride	50	NA	50		101	58-141
Acetone	50	NA	56		111	74-200
Isobutyl Alcohol	1000	NA	850		85	81-135
trans-1,2-Dichloroethene	50	NA	50		101	83-121
Allyl Chloride	50	NA	41		82	74-129
Methyl tert-butyl ether	100	NA	92		92	58-157
Acetonitrile	500	NA	307		61	57-142
Di-isopropyl ether	50	NA	40		80	78-119
Chloroprene	50	NA	40	*	80	84-123
Methacrylonitrile	500	NA	409		82	82-129
Propionitrile	500	NA	432		86	81-126
1,1-Dichloroethane	50	NA	46		92	89-122
Acrylonitrile	250	NA	206		82	79-125
Ethyl tertiary-butyl ether	50	NA	42		84	78-130
Vinyl Acetate	50	NA	64		129	80-131
cis-1,2-Dichloroethene	50	NA	53		107	80-111
1,2-Dichloroethylene (total)	100	NA	104		104	83-115
Methyl Methacrylate	50	NA	46		92	82-133
2,2-Dichloropropane	50	NA	46		91	76-137
Bromochloromethane	50	NA	52		104	90-134
Chloroform	50	NA	49		98	90-126
Carbon Tetrachloride	50	NA	58		115	81-147
Tetrahydrofuran	50	NA	46		92	87-120
1,1,1-Trichloroethane	50	NA	49		98	87-133
1,1-Dichloropropene	50	NA	54		107	86-122
2-Butanone	50	NA	49		98	76-137
Benzene	50	NA	52		105	80-119
Cyclohexane	50	NA	50		100	87-133
Ethyl Methacrylate	50	NA	46		92	89-124
Tertiary-amyl methyl ether	50	NA	43		86	68-147
1,2-Dichloroethane	50	NA	51		101	85-136
Trichloroethene	50	NA	51		102	86-116

KATAHDIN ANALYTICAL SERVICES
LAB CONTROL SAMPLE

Client:
Project: CTO 407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date:
Analysis Date: 06/17/09
Report Date: 07/02/2009
Matrix: SOIL

Lab ID: WG65115-1
Client ID: WG65115-LCS
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65115
Units: ug/Kgdrywt

COMPOUND	LCS SPIKE	SAMPLE CONC.	LCS CONC.		%REC.	QC. LIMITS
Dibromomethane	50	NA	55		110	90-124
1,2-Dichloropropane	50	NA	55		110	86-114
Bromodichloromethane	50	NA	54		107	83-126
cis-1,3-dichloropropene	50	NA	55		110	89-122
1,4-Dioxane	1000	NA	1000		100	76-132
2-Chloroethylvinylether	50	NA	80	*	159	70-130
Toluene	50	NA	52		103	86-119
4-methyl-2-pentanone	50	NA	53		105	84-122
Tetrachloroethene	50	NA	47		94	71-144
trans-1,3-Dichloropropene	50	NA	62		123	90-143
1,1,2-Trichloroethane	50	NA	56		111	88-115
Dibromochloromethane	50	NA	52		104	86-127
1,3-Dichloropropane	50	NA	47		94	89-115
1,2-Dibromoethane	50	NA	59		117	85-122
2-Hexanone	50	NA	44		89	83-128
Chlorobenzene	50	NA	50		99	88-115
Ethylbenzene	50	NA	47		94	88-117
1,1,1,2-Tetrachloroethane	50	NA	50		99	86-121
Xylenes (total)	150	NA	149		99	90-118
m+p-Xylenes	100	NA	96		96	89-119
o-Xylene	50	NA	53		105	90-119
Styrene	50	NA	50		100	90-121
Bromoform	50	NA	55		109	87-134
Isopropylbenzene	50	NA	57		113	90-137
cis-1,4-Dichloro-2-Butene	50	NA	37	*	73	87-131
trans-1,4-Dichloro-2-Butene	50	NA	34	*	67	83-136
Bromobenzene	50	NA	46		92	83-115
N-Propylbenzene	50	NA	46		93	81-124
1,1,2,2-Tetrachloroethane	50	NA	47		94	82-118
1,3,5-Trimethylbenzene	50	NA	46		92	82-124
2-Chlorotoluene	50	NA	47		94	80-122
1,2,3-Trichloropropane	50	NA	44		87	78-124
4-Chlorotoluene	50	NA	46		92	83-126
tert-Butylbenzene	50	NA	46		92	80-123
Pentachloroethane	50	NA	48		95	23-157
1,2,4-Trimethylbenzene	50	NA	46		91	81-118
P-Isopropyltoluene	50	NA	48		95	85-129
1,3-Dichlorobenzene	50	NA	46		92	84-120
1,4-Dichlorobenzene	50	NA	51		102	86-121
N-Butylbenzene	50	NA	46		93	81-126
sec-Butylbenzene	50	NA	48		97	82-123
1,2-Dichlorobenzene	50	NA	47		95	86-117
1,2-Dibromo-3-Chloropropane	50	NA	44		89	78-137
1,3,5-Trichlorobenzene	50	NA	53		106	84-130
Hexachlorobutadiene	50	NA	57		113	79-121

KATAHDIN ANALYTICAL SERVICES
LAB CONTROL SAMPLE

Client:
Project: CTO 407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date:
Analysis Date: 06/17/09
Report Date: 07/02/2009
Matrix: SOIL

Lab ID: WG65115-1
Client ID: WG65115-LCS
SDG: SC3122
Extracted by:
Extraction Method: SW846 5035
Analyst: HCG
Analysis Method: SW846 8260B
Lab Prep Batch: WG65115
Units: ug/Kgdrywt

COMPOUND	LCS SPIKE	SAMPLE CONC.	LCS CONC.		%REC.	QC. LIMITS
1,2,4-Trichlorobenzene	50	NA	51		103	79-129
1,2,3-Trimethylbenzene	50	NA	48		95	88-124
Naphthalene	50	NA	36	*	72	73-119
1,2,3-Trichlorobenzene	50	NA	44		89	82-124
Methyl Acetate	50	NA	40	*	81	85-129
Methylcyclohexane	50	NA	44		88	80-123
1-Chlorohexane	50	NA	57		115	85-124
Total Alkylbenzenes	350	NA	326		93	83-123

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE ID

WG65028-BLANK

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Lab File ID: F5245 Lab Sample ID: WG65028-2

Date Analyzed: 06/15/09 Time Analyzed: 1153

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

Instrument ID: GCMS-F

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	WG65028-LCS	WG65028-1	F5243	06/15/09	1034
02	WGL-SD-SD103-000.6	SC3122-1	F5251	06/15/09	1525
03	WGL-SD-SD102-000.6	SC3122-4	F5252	06/15/09	1600
04	WGL-SD-SD101-000.6	SC3122-7	F5253	06/15/09	1635
05	WGL-SD-DUP01-061109	SC3122-10	F5254	06/15/09	1711
06	WGL-SD-SD104-000.6	SC3122-13	F5255	06/15/09	1746
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

COMMENTS:

FORM IVVOA

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE ID

WG65083-BLANK

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Lab File ID: F5266 Lab Sample ID: WG65083-2

Date Analyzed: 06/16/09 Time Analyzed: 1326

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

Instrument ID: GCMS-F

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	WG65083-LCS	WG65083-1	F5264	06/16/09	1206
02	WGL-SD-SD102-000.6	SC3122-4RA	F5267	06/16/09	1405
03	WGL-SD-SD101-000.6	SC3122-7RA	F5268	06/16/09	1440
04	WGL-SD-DUP01-061109	SC3122-10RA	F5269	06/16/09	1515
05	WGL-SD-SD104-000.6	SC3122-13RA	F5270	06/16/09	1551
06	WGL-SD-SD106-000.6	SC3122-16	F5271	06/16/09	1626
07	WGL-SD-DUP02-061109	SC3122-19	F5272	06/16/09	1701
08	WGL-SD-SD107-000.6	SC3122-22	F5273	06/16/09	1736
09	WGL-SD-SD108-000.6	SC3122-25	F5274	06/16/09	1812
10	WGL-SD-SD105-000.6	SC3122-28	F5275	06/16/09	1847
11	WGL-SD-SD112-000.6	SC3122-31	F5276	06/16/09	1923
12	WGL-SD-SD110-000.6	SC3122-34	F5277	06/16/09	1958
13	WGL-SD-SD109-000.6	SC3122-37	F5278	06/16/09	2033
14	WGL-SD-SD111-000.6	SC3122-40	F5279	06/16/09	2108
15	WGL-SD-TB01-061109	SC3122-47	F5280	06/16/09	2144
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

COMMENTS:

FORM IVVOA

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE ID

WG65115-BLANK

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Lab File ID: F5286 Lab Sample ID: WG65115-2

Date Analyzed: 06/17/09 Time Analyzed: 1156

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

Instrument ID: GCMS-F

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	WG65115-LCS	WG65115-1	F5284	06/17/09	1034
02	WGL-SD-SD106-000.6	SC3122-16RA	F5288	06/17/09	1306
03	WGL-SD-DUP02-061109	SC3122-19RA	F5289	06/17/09	1341
04	WGL-SD-SD107-000.6	SC3122-22RA	F5290	06/17/09	1417
05	WGL-SD-SD108-000.6	SC3122-25RA	F5291	06/17/09	1452
06	WGL-SD-SD105-000.6	SC3122-28RA	F5292	06/17/09	1527
07	WGL-SD-SD112-000.6	SC3122-31RA	F5293	06/17/09	1602
08	WGL-SD-SD110-000.6	SC3122-34RA	F5294	06/17/09	1638
09	WGL-SD-SD109-000.6	SC3122-37RA	F5295	06/17/09	1713
10	-SD-SD111-000.6MS	WG65115-3	F5296	06/17/09	1748
11	-SD-SD111-000.6MSD	WG65115-4	F5297	06/17/09	1824
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

COMMENTS:

FORM IVVOA

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE ID

WG65026-BLANK

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Lab File ID: T4855 Lab Sample ID: WG65026-2

Date Analyzed: 06/15/09 Time Analyzed: 1115

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

Instrument ID: GCMS-T

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	WG65026-LCS	WG65026-1	T4853	06/15/09	1002
02	WGL-SD-FB01-061109	SC3122-43	T4857	06/15/09	1215
03	WGL-SD-RB01-061109	SC3122-45	T4858	06/15/09	1246
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

COMMENTS:

FORM IVVOA

FORM 5
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Lab File ID: FB219 BFB Injection Date: 06/08/09

Instrument ID: GCMS-F BFB Injection Time: 1238

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	29.6
75	30.0 - 60.0% of mass 95	56.2
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.2
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	85.0
175	5.0 - 9.0% of mass 174	7.5 (8.8)1
176	95.0 - 101.0% of mass 174	82.2 (96.7)1
177	5.0 - 9.0% of mass 176	5.4 (6.6)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		VSTD200F08A	F5156	06/08/09	1307
02		VSTD100F08A	F5157	06/08/09	1342
03		VSTD050F08A	F5158	06/08/09	1417
04		VSTD020F08A	F5159	06/08/09	1452
05		VSTD010F08A	F5160	06/08/09	1527
06		VSTD005F08A	F5161	06/08/09	1603
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

FORM V VOA

FORM 5
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Lab File ID: FB223 BFB Injection Date: 06/15/09

Instrument ID: GCMS-F BFB Injection Time: 0837

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	26.0
75	30.0 - 60.0% of mass 95	52.5
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.3
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	74.9
175	5.0 - 9.0% of mass 174	6.7 (8.9)1
176	95.0 - 101.0% of mass 174	74.4 (99.3)1
177	5.0 - 9.0% of mass 176	4.4 (5.9)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		VSTD050F15B	F5242	06/15/09	0951
02	WG65028-LCS	WG65028-1	F5243	06/15/09	1034
03	WG65028-BLANK	WG65028-2	F5245	06/15/09	1153
04	WGL-SD-SD103-000.6	SC3122-1	F5251	06/15/09	1525
05	WGL-SD-SD102-000.6	SC3122-4	F5252	06/15/09	1600
06	WGL-SD-SD101-000.6	SC3122-7	F5253	06/15/09	1635
07	WGL-SD-DUP01-061109	SC3122-10	F5254	06/15/09	1711
08	WGL-SD-SD104-000.6	SC3122-13	F5255	06/15/09	1746
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

FORM V VOA

FORM 5
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Lab File ID: FB224 BFB Injection Date: 06/16/09

Instrument ID: GCMS-F BFB Injection Time: 1041

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	22.1
75	30.0 - 60.0% of mass 95	47.9
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	5.8
173	Less than 2.0% of mass 174	1.2 (1.5)1
174	Greater than 50.0% of mass 95	83.8
175	5.0 - 9.0% of mass 174	7.3 (8.7)1
176	95.0 - 101.0% of mass 174	83.7 (99.8)1
177	5.0 - 9.0% of mass 176	5.3 (6.3)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		VSTD050F16A	F5263	06/16/09	1115
02	WG65083-LCS	WG65083-1	F5264	06/16/09	1206
03	WG65083-BLANK	WG65083-2	F5266	06/16/09	1326
04	WGL-SD-SD102-000.6	SC3122-4RA	F5267	06/16/09	1405
05	WGL-SD-SD101-000.6	SC3122-7RA	F5268	06/16/09	1440
06	WGL-SD-DUP01-061109	SC3122-10RA	F5269	06/16/09	1515
07	WGL-SD-SD104-000.6	SC3122-13RA	F5270	06/16/09	1551
08	WGL-SD-SD106-000.6	SC3122-16	F5271	06/16/09	1626
09	WGL-SD-DUP02-061109	SC3122-19	F5272	06/16/09	1701
10	WGL-SD-SD107-000.6	SC3122-22	F5273	06/16/09	1736
11	WGL-SD-SD108-000.6	SC3122-25	F5274	06/16/09	1812
12	WGL-SD-SD105-000.6	SC3122-28	F5275	06/16/09	1847
13	WGL-SD-SD112-000.6	SC3122-31	F5276	06/16/09	1923
14	WGL-SD-SD110-000.6	SC3122-34	F5277	06/16/09	1958
15	WGL-SD-SD109-000.6	SC3122-37	F5278	06/16/09	2033
16	WGL-SD-SD111-000.6	SC3122-40	F5279	06/16/09	2108
17	WGL-SD-TB01-061109	SC3122-47	F5280	06/16/09	2144
18					
19					
20					
21					
22					

FORM V VOA

FORM 5
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Lab File ID: FB225 BFB Injection Date: 06/17/09

Instrument ID: GCMS-F BFB Injection Time: 0918

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	23.0
75	30.0 - 60.0% of mass 95	53.2
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	8.6
173	Less than 2.0% of mass 174	1.0 (0.9)1
174	Greater than 50.0% of mass 95	112.9
175	5.0 - 9.0% of mass 174	8.5 (7.5)1
176	95.0 - 101.0% of mass 174	109.7 (97.1)1
177	5.0 - 9.0% of mass 176	8.8 (8.0)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		VSTD050F17A	F5283	06/17/09	0948
02	WG65115-LCS	WG65115-1	F5284	06/17/09	1034
03	WG65115-BLANK	WG65115-2	F5286	06/17/09	1156
04	WGL-SD-SD106-000.6	SC3122-16RA	F5288	06/17/09	1306
05	WGL-SD-DUP02-061109	SC3122-19RA	F5289	06/17/09	1341
06	WGL-SD-SD107-000.6	SC3122-22RA	F5290	06/17/09	1417
07	WGL-SD-SD108-000.6	SC3122-25RA	F5291	06/17/09	1452
08	WGL-SD-SD105-000.6	SC3122-28RA	F5292	06/17/09	1527
09	WGL-SD-SD112-000.6	SC3122-31RA	F5293	06/17/09	1602
10	WGL-SD-SD110-000.6	SC3122-34RA	F5294	06/17/09	1638
11	WGL-SD-SD109-000.6	SC3122-37RA	F5295	06/17/09	1713
12	-SD-SD111-000.6MS	WG65115-3	F5296	06/17/09	1748
13	-SD-SD111-000.6MSD	WG65115-4	F5297	06/17/09	1824
14					
15					
16					
17					
18					
19					
20					
21					
22					

FORM V VOA

FORM 5
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Lab File ID: TB874 BFB Injection Date: 06/09/09

Instrument ID: GCMS-T BFB Injection Time: 1606

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	20.3
75	30.0 - 60.0% of mass 95	42.7
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.1
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	79.4
175	5.0 - 9.0% of mass 174	6.0 (7.6)1
176	95.0 - 101.0% of mass 174	77.3 (97.3)1
177	5.0 - 9.0% of mass 176	5.0 (6.5)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		VSTD200T09A	T4766	06/09/09	1628
02		VSTD100T09A	T4767	06/09/09	1659
03		VSTD050T09A	T4768	06/09/09	1729
04		VSTD020T09A	T4769	06/09/09	1800
05		VSTD005T09A	T4770	06/09/09	1832
06		VSTD001T09A	T4771	06/09/09	1904
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

FORM V VOA

FORM 5
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Lab File ID: TB878 BFB Injection Date: 06/15/09

Instrument ID: GCMS-T BFB Injection Time: 0851

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.8
75	30.0 - 60.0% of mass 95	37.1
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.8
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	71.3
175	5.0 - 9.0% of mass 174	6.2 (8.7)1
176	95.0 - 101.0% of mass 174	69.0 (96.7)1
177	5.0 - 9.0% of mass 176	3.9 (5.7)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		VSTD050T15A	T4852	06/15/09	0916
02	WG65026-LCS	WG65026-1	T4853	06/15/09	1002
03	WG65026-BLANK	WG65026-2	T4855	06/15/09	1115
04	WGL-SD-FB01-061109	SC3122-43	T4857	06/15/09	1215
05	WGL-SD-RB01-061109	SC3122-45	T4858	06/15/09	1246
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

FORM V VOA

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GCMS-F Calibration Date(s): 06/08/09 06/08/09

Column: RTX-VMS ID: 0.18 (mm) Calibration Time(s): 1307 1603

LAB FILE ID: RF5: F5161 RF10: F5160 RF20: F5159
RF50: F5158 RF100: F5157 RF200: F5156

COMPOUND	RF5	RF10	RF20	RF50	RF100	RF200	CURVE	COEFF. A1	%RSD OR R^2	MAX %RSD OR R^2
Dichlorodifluoromethane	0.785	0.708	0.746	0.737	0.791	0.784	AVRG	0.75834763	4.403	15.000
Chloromethane	0.719	0.690	0.666	0.664	0.757	0.716	AVRG	0.70198081	5.130	15.000
Vinyl chloride	0.761	0.739	0.734	0.718	0.687	0.697	AVRG	0.72270596	3.857	15.000
Bromomethane	0.512	0.387	0.399	0.406	0.457	0.365	AVRG	0.42102065	12.833	15.000
Chloroethane	0.392	0.336	0.355	0.317	0.323	0.254	AVRG	0.32954469	13.997	15.000
Trichlorofluoromethane	0.990	0.934	0.947	0.917	0.986	0.922	AVRG	0.94961268	3.364	15.000
1,1-Dichloroethene	0.506	0.474	0.468	0.462	0.475	0.448	AVRG	0.47225386	4.073	15.000
Acetone	0.224	0.176	0.179	0.192	0.219	0.197	AVRG	0.19776425	10.194	15.000
Carbon Disulfide	1.909	1.895	1.962	1.897	2.016	1.880	AVRG	1.92649980	2.701	15.000
Methyl Acetate	0.462	0.432	0.407	0.441	0.486	0.539	AVRG	0.46135358	10.082	15.000
Methylene Chloride	0.650	0.631	0.610	0.567	0.656	0.602	AVRG	0.61924792	5.359	15.000
trans-1,2-Dichloroethene	0.530	0.527	0.540	0.516	0.607	0.531	AVRG	0.54180079	6.071	15.000
Methyl tert-butyl ether	1.565	1.443	1.384	1.387	1.602	1.576	AVRG	1.49273462	6.679	15.000
1,1-Dichloroethane	1.147	1.089	1.136	1.094	1.144	1.117	AVRG	1.12108795	2.225	15.000
cis-1,2-Dichloroethene	0.604	0.517	0.540	0.504	0.561	0.541	AVRG	0.54441826	6.480	15.000
2-Butanone	0.275	0.221	0.241	0.260	0.269	0.275	AVRG	0.25668398	8.482	15.000
Chloroform	1.159	1.092	1.097	1.104	1.240	1.185	AVRG	1.14613156	5.160	15.000
1,1,1-Trichloroethane	0.916	0.845	0.887	0.856	0.912	0.885	AVRG	0.88369443	3.279	15.000
Cyclohexane	0.874	0.800	0.806	0.792	0.813	0.766	AVRG	0.80852392	4.422	15.000
Carbon Tetrachloride	0.596	0.542	0.630	0.602	0.636	0.664	AVRG	0.61196890	6.843	15.000
Benzene	1.776	1.579	1.828	1.726	1.807	1.859	AVRG	1.76243247	5.722	15.000
1,2-Dichloroethane	0.757	0.614	0.683	0.652	0.699	0.788	AVRG	0.69901924	9.254	15.000
Trichloroethene	0.522	0.454	0.517	0.514	0.520	0.547	AVRG	0.51227842	6.034	15.000
Methylcyclohexane	0.810	0.778	0.812	0.779	0.820	0.788	AVRG	0.79783322	2.289	15.000
1,2-Dichloropropane	0.474	0.374	0.415	0.422	0.417	0.436	AVRG	0.42292512	7.677	15.000
Bromodichloromethane	0.681	0.637	0.690	0.677	0.731	0.712	AVRG	0.68804608	4.689	15.000
cis-1,3-dichloropropene	0.782	0.656	0.742	0.700	0.742	0.752	AVRG	0.72903738	6.090	15.000
4-methyl-2-pentanone	0.455	0.390	0.390	0.424	0.405	0.421	AVRG	0.41428412	6.007	15.000
Toluene	1.132	0.865	0.959	0.937	0.902	0.924	AVRG	0.95297998	9.790	15.000
trans-1,3-Dichloropropene	0.610	0.557	0.584	0.614	0.621	0.633	AVRG	0.60320060	4.629	15.000
1,1,2-Trichloroethane	0.324	0.288	0.307	0.308	0.288	0.316	AVRG	0.30509031	4.801	15.000
Tetrachloroethene	0.859	0.740	0.771	0.813	0.763	0.811	AVRG	0.79280213	5.430	15.000
2-Hexanone	0.438	0.368	0.376	0.430	0.410	0.450	AVRG	0.41209303	8.216	15.000
Dibromochloromethane	0.598	0.535	0.552	0.593	0.556	0.676	AVRG	0.58502254	8.671	15.000
1,2-Dibromoethane	0.370	0.312	0.354	0.355	0.347	0.390	AVRG	0.35472069	7.275	15.000
Chlorobenzene	1.251	1.114	1.227	1.209	1.182	1.198	AVRG	1.19677776	3.944	15.000
Ethylbenzene	0.646	0.532	0.623	0.603	0.621	0.648	AVRG	0.61223173	6.970	15.000
m+p-Xylenes	0.845	0.682	0.755	0.747	0.695	0.766	AVRG	0.74848065	7.792	15.000
o-Xylene	0.723	0.723	0.699	0.719	0.734	0.748	AVRG	0.72429764	2.210	15.000
Xylenes (total)				0.738			AVRG	0.73790619	0.000	15.000
Styrene	1.292	1.194	1.194	1.301	1.235	1.309	AVRG	1.25432455	4.240	15.000
Bromoform	0.423	0.383	0.396	0.444	0.443	0.494	AVRG	0.43061694	9.260	15.000
Isopropylbenzene	2.970	2.719	2.887	3.116	3.171	2.797	AVRG	2.94329125	6.031	15.000
1,1,2,2-Tetrachloroethane	0.875	0.718	0.730	0.773	0.768	0.757	AVRG	0.77037696	7.204	15.000

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GCMS-F Calibration Date(s): 06/08/09 06/08/09

Column: RTX-VMS ID: 0.18 (mm) Calibration Time(s): 1307 1603

LAB FILE ID: RF5: F5161 RF10: F5160 RF20: F5159
RF50: F5158 RF100: F5157 RF200: F5156

COMPOUND	RF5	RF10	RF20	RF50	RF100	RF200	CURVE	COEFF. A1	%RSD OR R^2	MAX %RSD OR R^2
1,3-Dichlorobenzene	1.943	1.699	1.777	1.784	1.880	1.772	AVRG	1.80923791	4.821	15.000
1,4-Dichlorobenzene	1.785	1.609	1.834	1.751	1.846	1.682	AVRG	1.75106574	5.236	15.000
1,2-Dichlorobenzene	1.690	1.526	1.657	1.746	1.671	1.554	AVRG	1.64070913	5.129	15.000
1,2-Dibromo-3-Chloropropa	0.358	0.365	0.396	0.397	0.405	0.395	AVRG	0.38600774	5.011	15.000
1,2,4-Trichlorobenzene	1.019	0.846	1.086	0.986	1.038	1.086	AVRG	1.01035056	8.820	15.000
Dibromofluoromethane	0.388	0.357	0.411	0.398	0.374	0.383	AVRG	0.38518266	4.872	15.000
1,2-Dichloroethane-D4	0.730	0.608	0.693	0.683	0.714	0.742	AVRG	0.69525727	6.881	15.000
Toluene-D8	1.377	1.134	1.400	1.315	1.252	1.241	AVRG	1.28629638	7.639	15.000
P-Bromofluorobenzene	0.582	0.451	0.590	0.523	0.492	0.530	AVRG	0.52812339	10.050	15.000

Average %RSD test result.

Calculate Average %RSD: 6.701052666
Maximum Average %RSD: 15.00000000

Note: Passes Average %RSD Test.

FORM VI VOA

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GCMS-T Calibration Date(s): 06/09/09 06/09/09

Column: RTX-VMS ID: 0.18 (mm) Calibration Time(s): 1628 1904

LAB FILE ID: RF1: T4771 RF5: T4770 RF20: T4769
RF50: T4768 RF100: T4767 RF200: T4766

COMPOUND	RF1	RF5	RF20	RF50	RF100	RF200	CURVE	COEFFICENTS A0	A1	A2	%RSD OR R^2	MAX %RSD OR R^2
Dichlorodifluoromethane	0.518	0.673	0.652	0.698	0.726	0.760	AVRG		0.67125905		12.531	15.000
Chloromethane	1.317	1.165	1.098	1.114	1.079	1.151	AVRG		1.15403025		7.463	15.000
Vinyl chloride	0.758	0.790	0.716	0.787	0.809	0.882	AVRG		0.79021547		6.999	15.000
Bromomethane	4560	15198	50920	146490	329380	611190	LINR	-7.9e-003	3.68463455		0.99945	0.99000
Chloroethane	3978	19739	47622	145500	241290	399540	2ORDR	-3.03e-004	3.12031595	3.64448690	0.99731	0.99000
Trichlorofluoromethane	0.794	0.908	0.851	0.759	0.612		AVRG		0.78486945		14.270	15.000
1,1-Dichloroethene	0.575	0.634	0.566	0.614	0.671	0.656	AVRG		0.61940987		6.886	15.000
Acetone	0.264	0.278	0.245	0.254	0.246	0.275	AVRG		0.26047005		5.496	15.000
Carbon Disulfide	2.786	2.295	2.034	2.212	2.208	2.249	AVRG		2.29716835		11.118	15.000
Methyl Acetate	0.626	0.621	0.622	0.679	0.712	0.762	AVRG		0.67036914		8.727	15.000
Methylene Chloride	0.871	0.779	0.689	0.729	0.777	0.768	AVRG		0.76867124		7.931	15.000
trans-1,2-Dichloroethene	0.771	0.701	0.634	0.698	0.742	0.727	AVRG		0.71221641		6.585	15.000
Methyl tert-butyl ether	1.757	1.681	1.575	1.652	1.767	1.709	AVRG		1.69010444		4.228	15.000
1,1-Dichloroethane	1.272	1.286	1.168	1.263	1.376	1.380	AVRG		1.29080376		6.133	15.000
cis-1,2-Dichloroethene	0.732	0.716	0.660	0.672	0.715	0.720	AVRG		0.70242516		4.110	15.000
2-Butanone	8406	90368	376210	1064400	2315400	4822000	LINR	0.18537816	2.35746941		0.99879	0.99000
Chloroform	1.082	1.118	1.010	1.086	1.156	1.178	AVRG		1.10476045		5.421	15.000
1,1,1-Trichloroethane	0.794	0.814	0.791	0.860	0.923	0.928	AVRG		0.85194591		7.291	15.000
Cyclohexane	1.267	1.226	1.166	1.257	1.316	1.340	AVRG		1.26182374		4.965	15.000
Carbon Tetrachloride	0.335	0.389	0.385	0.408	0.446	0.437	AVRG		0.39996184		10.059	15.000
Benzene	1.401	1.449	1.356	1.434	1.480	1.440	AVRG		1.42661136		3.018	15.000
1,2-Dichloroethane	0.482	0.477	0.435	0.465	0.483	0.475	AVRG		0.46942585		3.829	15.000
Trichloroethene	0.377	0.374	0.348	0.362	0.371	0.355	AVRG		0.36461729		3.148	15.000
Methylcyclohexane	1.215	0.993	0.929	0.958	1.014	0.985	AVRG		1.01586466		10.054	15.000
1,2-Dichloropropane	0.269	0.388	0.360	0.394	0.394	0.377	AVRG		0.36364267		13.266	15.000
Bromodichloromethane	0.430	0.438	0.437	0.468	0.478	0.471	AVRG		0.45389857		4.596	15.000
cis-1,3-dichloropropene	0.652	0.570	0.544	0.544	0.562	0.527	AVRG		0.56665523		7.896	15.000
4-methyl-2-pentanone	0.411	0.447	0.422	0.437	0.390	0.335	AVRG		0.40703352		9.929	15.000
Toluene	0.769	0.842	0.773	0.820	0.803	0.725	AVRG		0.78844123		5.314	15.000
trans-1,3-Dichloropropene	0.562	0.455	0.417	0.431	0.440	0.419	AVRG		0.45402968		12.022	15.000
1,1,2-Trichloroethane	0.249	0.267	0.250	0.266	0.252	0.244	AVRG		0.25448572		3.829	15.000
Tetrachloroethene	0.501	0.510	0.368	0.389	0.408	0.403	AVRG		0.42972837		14.004	15.000
2-Hexanone	0.328	0.364	0.352	0.377	0.386	0.370	AVRG		0.36260933		5.692	15.000
Dibromochloromethane	0.456	0.455	0.422	0.473	0.505	0.503	AVRG		0.46898864		6.794	15.000
1,2-Dibromoethane	0.408	0.361	0.323	0.353	0.341	0.334	AVRG		0.35339193		8.527	15.000
Chlorobenzene	1.221	1.138	1.016	1.073	1.084	0.988	AVRG		1.08666269		7.753	15.000
Ethylbenzene	0.550	0.569	0.522	0.556	0.573	0.559	AVRG		0.55478065		3.272	15.000
m+p-Xylenes	0.632	0.705	0.630	0.674	0.652	0.588	AVRG		0.64692168		6.204	15.000
o-Xylene	0.649	0.651	0.607	0.640	0.652	0.650	AVRG		0.64138138		2.735	15.000
Xylenes (total)							AVRG					0.000
Styrene	1.025	1.145	1.019	1.116	1.117	1.078	AVRG		1.08364254		4.800	15.000
Bromoform	0.316	0.296	0.291	0.322	0.333	0.341	AVRG		0.31647469		6.223	15.000
Isopropylbenzene	3.107	3.255	3.003	3.096	3.225	2.905	AVRG		3.09849822		4.260	15.000
1,1,2,2-Tetrachloroethane	1.073	1.102	0.981	1.031	1.070	1.008	AVRG		1.04419869		4.357	15.000

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GCMS-T Calibration Date(s): 06/09/09 06/09/09

Column: RTX-VMS ID: 0.18 (mm) Calibration Time(s): 1628 1904

LAB FILE ID: RF1: T4771 RF5: T4770 RF20: T4769
RF50: T4768 RF100: T4767 RF200: T4766

COMPOUND	RF1	RF5	RF20	RF50	RF100	RF200	CURVE	COEFFICENTS A0	A1	A2	%RSD OR R^2	MAX %RSD OR R^2
1,3-Dichlorobenzene	2.024	1.729	1.544	1.594	1.674	1.561	AVRG		1.68764210		10.622	15.000
1,4-Dichlorobenzene	2.261	1.787	1.567	1.624	1.693	1.556	AVRG		1.74812242		15.196	15.000
1,2-Dichlorobenzene	1.541	1.600	1.460	1.457	1.545	1.430	AVRG		1.50568191		4.404	15.000
1,2-Dibromo-3-Chloropropa	0.145	0.152	0.146	0.154	0.161	0.164	AVRG		0.15379388		5.164	15.000
1,2,4-Trichlorobenzene	4109	21015	93128	298620	658880	1331600	LINR	3.087e-002	1.08018272		0.99878	0.99000
Dibromofluoromethane	0.899	0.713	0.695	0.726	0.765	0.734	AVRG		0.75560553		9.800	15.000
1,2-Dichloroethane-D4	0.852	0.617	0.633	0.622	0.655	0.629	AVRG		0.66798327		13.665	15.000
Toluene-D8	1.278	1.192	1.143	1.153	1.133	1.033	AVRG		1.15523143		6.927	15.000
P-Bromofluorobenzene	10407	41031	162410	418870	847060	1597800	LINR	-4.48e-002	2.50932655		0.99856	0.99000

Average %RSD test result.

Calculate Average %RSD: 7.416523457
Maximum Average %RSD: 15.00000000

Note: Passes Average %RSD Test.

FORM VI VOA

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GCMS-F Calibration Date: 06/15/09 Time: 0951

Lab File ID: F5242 Init. Calib. Date(s): 06/08/09 06/08/09

Init. Calib. Times: 1307 1603

GC Column: RTX-VMS ID: 0.18 (mm)

COMPOUND	RRF OR AMOUNT	RRF50.000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Dichlorodifluoromethane	0.7580000	0.8050600	0.01	6.21		AVRG
Chloromethane	0.7020000	0.7574900	0.1	7.90		AVRG
Vinyl chloride	0.7230000	0.8122000	0.01	12.34	20.00	AVRG
Bromomethane	0.4210000	0.4956800	0.01	17.74		AVRG
Chloroethane	0.3300000	0.3896600	0.01	18.08		AVRG
Trichlorofluoromethane	0.9490000	1.1754000	0.01	23.86		AVRG
1,1-Dichloroethene	0.4720000	0.5447500	0.1	15.41	20.00	AVRG
Acetone	0.1980000	0.2114200	0.01	6.78		AVRG
Carbon Disulfide	1.9260000	2.2700000	0.01	17.86		AVRG
Methyl Acetate	0.4610000	0.5404000	0.01	17.22		AVRG
Methylene Chloride	0.6190000	0.6858000	0.01	10.79		AVRG
trans-1,2-Dichloroethene	0.5420000	0.6129400	0.01	13.09		AVRG
Methyl tert-butyl ether	1.4930000	1.8428000	0.01	23.43		AVRG
1,1-Dichloroethane	1.1210000	1.3593000	0.1	21.26		AVRG
cis-1,2-Dichloroethene	0.5440000	0.6201100	0.01	13.99		AVRG
2-Butanone	0.2570000	0.3036800	0.01	18.16		AVRG
Chloroform	1.1460000	1.3215000	0.01	15.31	20.00	AVRG
1,1,1-Trichloroethane	0.8840000	1.0661000	0.01	20.60		AVRG
Cyclohexane	0.8080000	1.0055000	0.01	24.44		AVRG
Carbon Tetrachloride	0.6120000	0.7300900	0.01	19.30		AVRG
Benzene	1.7620000	1.8603000	0.01	5.58		AVRG
1,2-Dichloroethane	0.6990000	0.7977200	0.01	14.12		AVRG
Trichloroethene	0.5120000	0.5423800	0.01	5.93		AVRG
Methylcyclohexane	0.7980000	0.8824800	0.01	10.59		AVRG
1,2-Dichloropropane	0.4230000	0.4895100	0.01	15.72	20.00	AVRG
Bromodichloromethane	0.6880000	0.7344400	0.01	6.75		AVRG
cis-1,3-dichloropropene	0.7290000	0.8559000	0.01	17.41		AVRG
4-methyl-2-pentanone	0.4140000	0.4795500	0.01	15.83		AVRG
Toluene	0.9530000	1.0678000	0.01	12.05	20.00	AVRG

FORM VII PEST

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GCMS-F Calibration Date: 06/15/09 Time: 0951

Lab File ID: F5242 Init. Calib. Date(s): 06/08/09 06/08/09

Init. Calib. Times: 1307 1603

GC Column: RTX-VMS ID: 0.18 (mm)

COMPOUND	RRF OR AMOUNT	RRF50.000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
trans-1,3-Dichloropropene	0.6030000	0.7205900	0.01	19.50		AVRG
1,1,2-Trichloroethane	0.3050000	0.3480200	0.01	14.10		AVRG
Tetrachloroethene	0.7930000	0.8224400	0.01	3.71		AVRG
2-Hexanone	0.4120000	0.4524800	0.01	9.82		AVRG
Dibromochloromethane	0.5850000	0.6490100	0.01	10.94		AVRG
1,2-Dibromoethane	0.3550000	0.4083900	0.01	15.04		AVRG
Chlorobenzene	1.1970000	1.3250000	0.3	10.69		AVRG
Ethylbenzene	0.6120000	0.6587100	0.01	7.63	20.00	AVRG
m+p-Xylenes	0.7480000	0.8558300	0.01	14.42		AVRG
o-Xylene	0.7240000	0.8482000	0.01	17.16		AVRG
Xylenes (total)	0.7380000	0.8532900	0.01	15.62		AVRG
Styrene	1.2540000	1.4344000	0.01	14.39		AVRG
Bromoform	0.4300000	0.4995400	0.1	16.17		AVRG
Isopropylbenzene	2.9430000	2.9539000	0.01	0.37		AVRG
1,1,2,2-Tetrachloroethane	0.7700000	0.7762400	0.3	0.81		AVRG
1,3-Dichlorobenzene	1.8090000	1.8810000	0.01	3.98		AVRG
1,4-Dichlorobenzene	1.7510000	1.8678000	0.01	6.67		AVRG
1,2-Dichlorobenzene	1.6410000	1.7657000	0.01	7.60		AVRG
1,2-Dibromo-3-Chloropropane	0.3860000	0.4222600	0.01	9.39		AVRG
1,2,4-Trichlorobenzene	1.0100000	1.1467000	0.01	13.54		AVRG
Dibromofluoromethane	0.3850000	0.4347700	0.01	12.93		AVRG
1,2-Dichloroethane-D4	0.6950000	0.6166200	0.01	-11.28		AVRG
Toluene-D8	1.2860000	1.2122000	0.01	-5.74		AVRG
P-Bromofluorobenzene	0.5280000	0.5617600	0.01	6.39		AVRG

FORM VII PEST

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GCMS-F Calibration Date: 06/16/09 Time: 1115

Lab File ID: F5263 Init. Calib. Date(s): 06/08/09 06/08/09

Init. Calib. Times: 1307 1603

GC Column: RTX-VMS ID: 0.18 (mm)

COMPOUND	RRF OR AMOUNT	RRF50.000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Dichlorodifluoromethane	0.7580000	0.6877800	0.01	-9.26		AVRG
Chloromethane	0.7020000	0.6949600	0.1	-1.00		AVRG
Vinyl chloride	0.7230000	0.7184500	0.01	-0.63	20.00	AVRG
Bromomethane	0.4210000	0.4885200	0.01	16.04		AVRG
Chloroethane	0.3300000	0.3499400	0.01	6.04		AVRG
Trichlorofluoromethane	0.9490000	1.0995000	0.01	15.86		AVRG
1,1-Dichloroethene	0.4720000	0.4831700	0.1	2.37	20.00	AVRG
Acetone	0.1980000	0.2005800	0.01	1.30		AVRG
Carbon Disulfide	1.9260000	1.9407000	0.01	0.76		AVRG
Methyl Acetate	0.4610000	0.3787000	0.01	-17.85		AVRG
Methylene Chloride	0.6190000	0.6503300	0.01	5.06		AVRG
trans-1,2-Dichloroethene	0.5420000	0.5518300	0.01	1.81		AVRG
Methyl tert-butyl ether	1.4930000	1.4566000	0.01	-2.44		AVRG
1,1-Dichloroethane	1.1210000	1.1818000	0.1	5.42		AVRG
cis-1,2-Dichloroethene	0.5440000	0.6143400	0.01	12.93		AVRG
2-Butanone	0.2570000	0.2704800	0.01	5.24		AVRG
Chloroform	1.1460000	1.2977000	0.01	13.24	20.00	AVRG
1,1,1-Trichloroethane	0.8840000	0.9736700	0.01	10.14		AVRG
Cyclohexane	0.8080000	0.8594300	0.01	6.36		AVRG
Carbon Tetrachloride	0.6120000	0.6595000	0.01	7.76		AVRG
Benzene	1.7620000	1.7669000	0.01	0.28		AVRG
1,2-Dichloroethane	0.6990000	0.6990600	0.01	0.01		AVRG
Trichloroethene	0.5120000	0.5397300	0.01	5.42		AVRG
Methylcyclohexane	0.7980000	0.7600600	0.01	-4.75		AVRG
1,2-Dichloropropane	0.4230000	0.4566600	0.01	7.96	20.00	AVRG
Bromodichloromethane	0.6880000	0.7807100	0.01	13.48		AVRG
cis-1,3-dichloropropene	0.7290000	0.7950000	0.01	9.05		AVRG
4-methyl-2-pentanone	0.4140000	0.4027600	0.01	-2.72		AVRG
Toluene	0.9530000	1.0191000	0.01	6.94	20.00	AVRG

FORM VII PEST

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GCMS-F Calibration Date: 06/16/09 Time: 1115

Lab File ID: F5263 Init. Calib. Date(s): 06/08/09 06/08/09

Init. Calib. Times: 1307 1603

GC Column: RTX-VMS ID: 0.18 (mm)

COMPOUND	RRF OR AMOUNT	RRF50.000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
trans-1,3-Dichloropropene	0.6030000	0.6612900	0.01	9.67		AVRG
1,1,2-Trichloroethane	0.3050000	0.3221400	0.01	5.62		AVRG
Tetrachloroethene	0.7930000	0.8388000	0.01	5.78		AVRG
2-Hexanone	0.4120000	0.3619000	0.01	-12.16		AVRG
Dibromochloromethane	0.5850000	0.6017100	0.01	2.86		AVRG
1,2-Dibromoethane	0.3550000	0.4086100	0.01	15.10		AVRG
Chlorobenzene	1.1970000	1.2552000	0.3	4.86		AVRG
Ethylbenzene	0.6120000	0.6070300	0.01	-0.81	20.00	AVRG
m+p-Xylenes	0.7480000	0.7822000	0.01	4.57		AVRG
o-Xylene	0.7240000	0.7345200	0.01	1.45		AVRG
Xylenes (total)	0.7380000	0.7663000	0.01	3.83		AVRG
Styrene	1.2540000	1.3274000	0.01	5.85		AVRG
Bromoform	0.4300000	0.4953900	0.1	15.21		AVRG
Isopropylbenzene	2.9430000	3.3059000	0.01	12.33		AVRG
1,1,2,2-Tetrachloroethane	0.7700000	0.8598800	0.3	11.67		AVRG
1,3-Dichlorobenzene	1.8090000	1.9132000	0.01	5.76		AVRG
1,4-Dichlorobenzene	1.7510000	1.8613000	0.01	6.30		AVRG
1,2-Dichlorobenzene	1.6410000	1.8222000	0.01	11.04		AVRG
1,2-Dibromo-3-Chloropropane	0.3860000	0.3809500	0.01	-1.31		AVRG
1,2,4-Trichlorobenzene	1.0100000	1.1747000	0.01	16.31		AVRG
Dibromofluoromethane	0.3850000	0.3998300	0.01	3.85		AVRG
1,2-Dichloroethane-D4	0.6950000	0.5060400	0.01	-27.19		AVRG
Toluene-D8	1.2860000	1.1238000	0.01	-12.61		AVRG
P-Bromofluorobenzene	0.5280000	0.5128700	0.01	-2.86		AVRG

FORM VII PEST

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GCMS-F Calibration Date: 06/17/09 Time: 0948

Lab File ID: F5283 Init. Calib. Date(s): 06/08/09 06/08/09

Init. Calib. Times: 1307 1603

GC Column: RTX-VMS ID: 0.18 (mm)

COMPOUND	RRF OR AMOUNT	RRF50.000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Dichlorodifluoromethane	0.7580000	0.6208800	0.01	-18.09		AVRG
Chloromethane	0.7020000	0.6374300	0.1	-9.20		AVRG
Vinyl chloride	0.7230000	0.6673800	0.01	-7.69	20.00	AVRG
Bromomethane	0.4210000	0.3839500	0.01	-8.80		AVRG
Chloroethane	0.3300000	0.3579700	0.01	8.48		AVRG
Trichlorofluoromethane	0.9490000	1.0316000	0.01	8.70		AVRG
1,1-Dichloroethene	0.4720000	0.4559800	0.1	-3.39	20.00	AVRG
Acetone	0.1980000	0.2026500	0.01	2.35		AVRG
Carbon Disulfide	1.9260000	1.9538000	0.01	1.44		AVRG
Methyl Acetate	0.4610000	0.3471100	0.01	-24.70		AVRG
Methylene Chloride	0.6190000	0.6418700	0.01	3.69		AVRG
trans-1,2-Dichloroethene	0.5420000	0.5455400	0.01	0.65		AVRG
Methyl tert-butyl ether	1.4930000	1.4733000	0.01	-1.32		AVRG
1,1-Dichloroethane	1.1210000	1.1601000	0.1	3.49		AVRG
cis-1,2-Dichloroethene	0.5440000	0.5747200	0.01	5.65		AVRG
2-Butanone	0.2570000	0.2458500	0.01	-4.34		AVRG
Chloroform	1.1460000	1.2095000	0.01	5.54	20.00	AVRG
1,1,1-Trichloroethane	0.8840000	0.9354400	0.01	5.82		AVRG
Cyclohexane	0.8080000	0.7743500	0.01	-4.16		AVRG
Carbon Tetrachloride	0.6120000	0.6521600	0.01	6.56		AVRG
Benzene	1.7620000	1.7933000	0.01	1.78		AVRG
1,2-Dichloroethane	0.6990000	0.7260900	0.01	3.88		AVRG
Trichloroethene	0.5120000	0.5162200	0.01	0.82		AVRG
Methylcyclohexane	0.7980000	0.7232500	0.01	-9.37		AVRG
1,2-Dichloropropane	0.4230000	0.4468700	0.01	5.64	20.00	AVRG
Bromodichloromethane	0.6880000	0.7678700	0.01	11.61		AVRG
cis-1,3-dichloropropene	0.7290000	0.7516300	0.01	3.10		AVRG
4-methyl-2-pentanone	0.4140000	0.4088500	0.01	-1.24		AVRG
Toluene	0.9530000	0.9849600	0.01	3.35	20.00	AVRG

FORM VII PEST

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GCMS-F Calibration Date: 06/17/09 Time: 0948

Lab File ID: F5283 Init. Calib. Date(s): 06/08/09 06/08/09

Init. Calib. Times: 1307 1603

GC Column: RTX-VMS ID: 0.18 (mm)

COMPOUND	RRF OR AMOUNT	RRF50.000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
trans-1,3-Dichloropropene	0.6030000	0.6409800	0.01	6.30		AVRG
1,1,2-Trichloroethane	0.3050000	0.3449100	0.01	13.08		AVRG
Tetrachloroethene	0.7930000	0.7735500	0.01	-2.45		AVRG
2-Hexanone	0.4120000	0.3391100	0.01	-17.69		AVRG
Dibromochloromethane	0.5850000	0.6205900	0.01	6.08		AVRG
1,2-Dibromoethane	0.3550000	0.4052700	0.01	14.16		AVRG
Chlorobenzene	1.1970000	1.2331000	0.3	3.02		AVRG
Ethylbenzene	0.6120000	0.5985200	0.01	-2.20	20.00	AVRG
m+p-Xylenes	0.7480000	0.7573000	0.01	1.24		AVRG
o-Xylene	0.7240000	0.7392900	0.01	2.11		AVRG
Xylenes (total)	0.7380000	0.7513000	0.01	1.80		AVRG
Styrene	1.2540000	1.2517000	0.01	-0.18		AVRG
Bromoform	0.4300000	0.4772400	0.1	10.99		AVRG
Isopropylbenzene	2.9430000	2.9430000	0.01	0.00		AVRG
1,1,2,2-Tetrachloroethane	0.7700000	0.7947400	0.3	3.21		AVRG
1,3-Dichlorobenzene	1.8090000	1.8355000	0.01	1.46		AVRG
1,4-Dichlorobenzene	1.7510000	1.7963000	0.01	2.59		AVRG
1,2-Dichlorobenzene	1.6410000	1.6922000	0.01	3.12		AVRG
1,2-Dibromo-3-Chloropropane	0.3860000	0.3612000	0.01	-6.42		AVRG
1,2,4-Trichlorobenzene	1.0100000	1.1002000	0.01	8.93		AVRG
Dibromofluoromethane	0.3850000	0.4071400	0.01	5.75		AVRG
1,2-Dichloroethane-D4	0.6950000	0.5166500	0.01	-25.66		AVRG
Toluene-D8	1.2860000	1.1507000	0.01	-10.52		AVRG
P-Bromofluorobenzene	0.5280000	0.4802100	0.01	-9.05		AVRG

FORM VII PEST

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GCMS-T Calibration Date: 06/15/09 Time: 0916

Lab File ID: T4852 Init. Calib. Date(s): 06/09/09 06/09/09

Init. Calib. Times: 1628 1904

GC Column: RTX-VMS ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
Dichlorodifluoromethane	0.6710000	0.6883700	0.6883700	0.01	2.59		AVRG
Chloromethane	1.1540000	1.2314000	1.2314000	0.1	6.71		AVRG
Vinyl chloride	0.7900000	0.8803200	0.8803200	0.01	11.43	20.00	AVRG
Bromomethane	48.071000	50.000000	0.2630700	0.01	-3.86		LINR
Chloroethane	40.125000	50.000000	0.2071600	0.01	-19.75		2RDR
Trichlorofluoromethane	0.7850000	0.8779300	0.8779300	0.01	11.84		AVRG
1,1-Dichloroethene	0.6190000	0.6368200	0.6368200	0.01	2.88	20.00	AVRG
Acetone	0.2600000	0.2739700	0.2739700	0.01	5.37		AVRG
Carbon Disulfide	2.2970000	2.4398000	2.4398000	0.01	6.22		AVRG
Methyl Acetate	0.6700000	0.7595500	0.7595500	0.01	13.37		AVRG
Methylene Chloride	0.7690000	0.7974400	0.7974400	0.01	3.70		AVRG
trans-1,2-Dichloroethene	0.7120000	0.7239900	0.7239900	0.01	1.68		AVRG
Methyl tert-butyl ether	1.6900000	1.8162000	1.8162000	0.01	7.47		AVRG
1,1-Dichloroethane	1.2910000	1.4212000	1.4212000	0.1	10.08		AVRG
cis-1,2-Dichloroethene	0.7020000	0.7376700	0.7376700	0.01	5.08		AVRG
2-Butanone	272.18000	250.00000	0.4461000	0.01	8.87		LINR
Chloroform	1.1050000	1.2214000	1.2214000	0.01	10.53	20.00	AVRG
1,1,1-Trichloroethane	0.8520000	0.9139000	0.9139000	0.01	7.26		AVRG
Cyclohexane	1.2620000	1.3935000	1.3935000	0.01	10.42		AVRG
Carbon Tetrachloride	0.4000000	0.4130400	0.4130400	0.01	3.26		AVRG
Benzene	1.4270000	1.5530000	1.5530000	0.01	8.83		AVRG
1,2-Dichloroethane	0.4700000	0.4875000	0.4875000	0.01	3.72		AVRG
Trichloroethene	0.3640000	0.3786800	0.3786800	0.01	4.03		AVRG
Methylcyclohexane	1.0160000	1.0194000	1.0194000	0.01	0.33		AVRG
1,2-Dichloropropane	0.3640000	0.4213300	0.4213300	0.01	15.75	20.00	AVRG
Bromodichloromethane	0.4540000	0.5070200	0.5070200	0.01	11.68		AVRG
cis-1,3-dichloropropene	0.5660000	0.5860600	0.5860600	0.01	3.54		AVRG
4-methyl-2-pentanone	0.4070000	0.4702900	0.4702900	0.01	15.55		AVRG
Toluene	0.7890000	0.8568200	0.8568200	0.01	8.60	20.00	AVRG

FORM VII PEST

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GCMS-T Calibration Date: 06/15/09 Time: 0916

Lab File ID: T4852 Init. Calib. Date(s): 06/09/09 06/09/09

Init. Calib. Times: 1628 1904

GC Column: RTX-VMS ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
trans-1,3-Dichloropropene	0.4540000	0.4755100	0.4755100	0.01	4.74		AVRG	
1,1,2-Trichloroethane	0.2550000	0.2780500	0.2780500	0.01	9.04		AVRG	
Tetrachloroethene	0.4300000	0.3587200	0.3587200	0.01	-16.58		AVRG	
2-Hexanone	0.3630000	0.3919000	0.3919000	0.01	7.96		AVRG	
Dibromochloromethane	0.4690000	0.4507100	0.4507100	0.01	-3.90		AVRG	
1,2-Dibromoethane	0.3530000	0.3593900	0.3593900	0.01	1.81		AVRG	
Chlorobenzene	1.0870000	1.0482000	1.0482000	0.3	-3.57		AVRG	
Ethylbenzene	0.5550000	0.5577000	0.5577000	0.01	0.49	20.00	AVRG	
m+p-Xylenes	0.6470000	0.6592500	0.6592500	0.01	1.89		AVRG	
o-Xylene	0.6420000	0.6312600	0.6312600	0.01	-1.67		AVRG	
Xylenes (total)	0.0000000	0.6499200	0.6499200	0.01	0.00		AVRG	<-
Styrene	1.0830000	1.1083000	1.1083000	0.01	2.34		AVRG	
Bromoform	0.3160000	0.3072100	0.3072100	0.1	-2.78		AVRG	
Isopropylbenzene	3.0980000	3.0853000	3.0853000	0.01	-0.41		AVRG	
1,1,2,2-Tetrachloroethane	1.0440000	1.0480000	1.0480000	0.3	0.38		AVRG	
1,3-Dichlorobenzene	1.6880000	1.5474000	1.5474000	0.01	-8.33		AVRG	
1,4-Dichlorobenzene	1.7480000	1.5824000	1.5824000	0.01	-9.47		AVRG	
1,2-Dichlorobenzene	1.5060000	1.4355000	1.4355000	0.01	-4.68		AVRG	
1,2-Dibromo-3-Chloropropane	0.1540000	0.1604600	0.1604600	0.01	4.19		AVRG	
1,2,4-Trichlorobenzene	45.414000	50.000000	0.8122700	0.01	-9.17		LINR	
Dibromofluoromethane	0.7550000	0.7398000	0.7398000	0.01	-2.01		AVRG	
1,2-Dichloroethane-D4	0.6680000	0.7077000	0.7077000	0.01	5.94		AVRG	
Toluene-D8	1.1550000	1.2051000	1.2051000	0.01	4.34		AVRG	
P-Bromofluorobenzene	58.840000	50.000000	0.4868300	0.01	17.68		LINR	

FORM VII PEST

FORM 8
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Lab File ID (Standard): F5242 Date Analyzed: 06/15/09

Instrument ID: GCMS-F Time Analyzed: 0951

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

		IS1(PFB) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CBZ) AREA #	RT #
12 HOUR STD		309211	7.12	388141	8.30	310919	11.85
UPPER LIMIT		618422	7.62	776282	8.80	621838	12.35
LOWER LIMIT		154606	6.62	194071	7.80	155460	11.35
CLIENT SAMPLE ID	LAB SAMPLE ID						
01 WG65028-LCS	WG65028-1	364056	7.12	462403	8.30	343599	11.85
02 WG65028-BLANK	WG65028-2	330533	7.12	423485	8.31	358791	11.84
03 WGL-SD-SD103-000.6	SC3122-1	268120	7.12	336752	8.29	184503	11.85
04 WGL-SD-SD102-000.6	SC3122-4	236634	7.11	291511	8.30	145156*	11.86
05 WGL-SD-SD101-000.6	SC3122-7	198850	7.12	241564	8.32	100255*	11.86
06 WGL-SD-DUP01-061109	SC3122-10	276559	7.12	352746	8.30	218322	11.85
07 WGL-SD-SD104-000.6	SC3122-13	229386	7.12	308624	8.30	142715*	11.85
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

IS1 (PFB) = Pentafluorobenzene
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

FORM VIII VOA

FORM 8
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Lab File ID (Standard): F5242 Date Analyzed: 06/15/09

Instrument ID: GCMS-F Time Analyzed: 0951

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

		IS4 (DCB) AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD		202892	13.98				
UPPER LIMIT		405784	14.48				
LOWER LIMIT		101446	13.48				
CLIENT SAMPLE ID	LAB SAMPLE ID						
01 WG65028-LCS	WG65028-1	209111	13.98				
02 WG65028-BLANK	WG65028-2	180113	13.98				
03 WGL-SD-SD103-000.6	SC3122-1	46695*	13.97				
04 WGL-SD-SD102-000.6	SC3122-4	32091*	13.98				
05 WGL-SD-SD101-000.6	SC3122-7	22125*	13.98				
06 WGL-SD-DUP01-061109	SC3122-10	66459*	13.98				
07 WGL-SD-SD104-000.6	SC3122-13	24782*	13.98				
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

IS4 (DCB) = 1,4-Dichlorobenzene-D4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

FORM VIII VOA

FORM 8
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Lab File ID (Standard): F5263 Date Analyzed: 06/16/09

Instrument ID: GCMS-F Time Analyzed: 1115

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

	IS1(PFB) AREA #	IS1(PFB) RT #	IS2(DFB) AREA #	IS2(DFB) RT #	IS3(CBZ) AREA #	IS3(CBZ) RT #
12 HOUR STD	352048	7.12	438500	8.31	364878	11.85
UPPER LIMIT	704096	7.62	877000	8.81	729756	12.35
LOWER LIMIT	176024	6.62	219250	7.81	182439	11.35

	CLIENT SAMPLE ID	LAB SAMPLE ID						
01	WG65083-LCS	WG65083-1	407391	7.12	501722	8.30	389340	11.85
02	WG65083-BLANK	WG65083-2	382640	7.12	472542	8.30	366372	11.84
03	WGL-SD-SD102-000.6	SC3122-4RA	287611	7.12	352755	8.30	201230	11.85
04	WGL-SD-SD101-000.6	SC3122-7RA	270132	7.12	315038	8.30	146971*	11.85
05	WGL-SD-DUP01-061109	SC3122-10RA	250476	7.11	295846	8.31	131916*	11.85
06	WGL-SD-SD104-000.6	SC3122-13RA	239185	7.12	282269	8.30	109815*	11.85
07	WGL-SD-SD106-000.6	SC3122-16	233082	7.14	286255	8.30	120930*	11.85
08	WGL-SD-DUP02-061109	SC3122-19	213074	7.11	253565	8.30	98876*	11.85
09	WGL-SD-SD107-000.6	SC3122-22	266228	7.11	301376	8.30	150898*	11.85
10	WGL-SD-SD108-000.6	SC3122-25	217093	7.11	281296	8.30	120365*	11.84
11	WGL-SD-SD105-000.6	SC3122-28	250540	7.09	300492	8.28	133467*	11.85
12	WGL-SD-SD112-000.6	SC3122-31	246083	7.10	293248	8.28	160115*	11.84
13	WGL-SD-SD110-000.6	SC3122-34	221568	7.10	270676	8.28	120690*	11.84
14	WGL-SD-SD109-000.6	SC3122-37	266252	7.09	323305	8.28	191012	11.84
15	WGL-SD-SD111-000.6	SC3122-40	323965	7.09	392872	8.28	310406	11.85
16	WGL-SD-TB01-061109	SC3122-47	344126	7.08	427697	8.28	355659	11.84
17								
18								
19								
20								

IS1 (PFB) = Pentafluorobenzene
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

FORM VIII VOA

FORM 8
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Lab File ID (Standard): F5263 Date Analyzed: 06/16/09

Instrument ID: GCMS-F Time Analyzed: 1115

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

	IS4 (DCB) AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	197684	13.97				
UPPER LIMIT	395368	14.47				
LOWER LIMIT	98842	13.47				

	CLIENT SAMPLE ID	LAB SAMPLE ID						
01	WG65083-LCS	WG65083-1	228724	13.97				
02	WG65083-BLANK	WG65083-2	208352	13.98				
03	WGL-SD-SD102-000.6	SC3122-4RA	79791*	13.97				
04	WGL-SD-SD101-000.6	SC3122-7RA	33047*	13.98				
05	WGL-SD-DUP01-061109	SC3122-10RA	31879*	13.97				
06	WGL-SD-SD104-000.6	SC3122-13RA	20157*	13.98				
07	WGL-SD-SD106-000.6	SC3122-16	22151*	13.98				
08	WGL-SD-DUP02-061109	SC3122-19	17391*	13.97				
09	WGL-SD-SD107-000.6	SC3122-22	35285*	13.97				
10	WGL-SD-SD108-000.6	SC3122-25	26654*	13.97				
11	WGL-SD-SD105-000.6	SC3122-28	32101*	13.97				
12	WGL-SD-SD112-000.6	SC3122-31	38923*	13.97				
13	WGL-SD-SD110-000.6	SC3122-34	24506*	13.96				
14	WGL-SD-SD109-000.6	SC3122-37	61490*	13.97				
15	WGL-SD-SD111-000.6	SC3122-40	141103	13.97				
16	WGL-SD-TB01-061109	SC3122-47	189032	13.96				
17								
18								
19								
20								

IS4 (DCB) = 1,4-Dichlorobenzene-D4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

FORM VIII VOA

FORM 8
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Lab File ID (Standard): F5283 Date Analyzed: 06/17/09

Instrument ID: GCMS-F Time Analyzed: 0948

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

	IS1(PFB) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CBZ) AREA #	RT #
12 HOUR STD	355085	7.11	422839	8.31	359631	11.85
UPPER LIMIT	710170	7.61	845678	8.81	719262	12.35
LOWER LIMIT	177543	6.61	211420	7.81	179816	11.35

	CLIENT SAMPLE ID	LAB SAMPLE ID						
01	WG65115-LCS	WG65115-1	408578	7.13	447070	8.31	392433	11.85
02	WG65115-BLANK	WG65115-2	370991	7.13	458843	8.32	368834	11.85
03	WGL-SD-SD106-000.6	SC3122-16RA	239107	7.12	279380	8.30	129607*	11.85
04	WGL-SD-DUP02-061109	SC3122-19RA	276245	7.12	316317	8.30	148137*	11.85
05	WGL-SD-SD107-000.6	SC3122-22RA	284294	7.11	347010	8.31	173829*	11.84
06	WGL-SD-SD108-000.6	SC3122-25RA	217528	7.12	264453	8.30	119020*	11.85
07	WGL-SD-SD105-000.6	SC3122-28RA	268729	7.12	310543	8.30	150842*	11.85
08	WGL-SD-SD112-000.6	SC3122-31RA	246912	7.13	301466	8.30	143749*	11.85
09	WGL-SD-SD110-000.6	SC3122-34RA	254799	7.12	307001	8.30	145157*	11.85
10	WGL-SD-SD109-000.6	SC3122-37RA	269161	7.12	308062	8.31	163533*	11.84
11	-SD-SD111-000.6MS	WG65115-3	273111	7.12	339434	8.31	187176	11.86
12	-SD-SD111-000.6MSD	WG65115-4	309407	7.11	371712	8.29	189521	11.85
13								
14								
15								
16								
17								
18								
19								
20								

IS1 (PFB) = Pentafluorobenzene
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

FORM VIII VOA

FORM 8
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Lab File ID (Standard): F5283 Date Analyzed: 06/17/09

Instrument ID: GCMS-F Time Analyzed: 0948

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) Y

	IS4 (DCB) AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	204559	13.97				
UPPER LIMIT	409118	14.47				
LOWER LIMIT	102280	13.47				

	CLIENT SAMPLE ID	LAB SAMPLE ID						
01	WG65115-LCS	WG65115-1	227528	13.98				
02	WG65115-BLANK	WG65115-2	199934	13.98				
03	WGL-SD-SD106-000.6	SC3122-16RA	27516*	13.97				
04	WGL-SD-DUP02-061109	SC3122-19RA	38253*	13.98				
05	WGL-SD-SD107-000.6	SC3122-22RA	43859*	13.98				
06	WGL-SD-SD108-000.6	SC3122-25RA	28005*	13.98				
07	WGL-SD-SD105-000.6	SC3122-28RA	37007*	13.98				
08	WGL-SD-SD112-000.6	SC3122-31RA	29789*	13.97				
09	WGL-SD-SD110-000.6	SC3122-34RA	33085*	13.97				
10	WGL-SD-SD109-000.6	SC3122-37RA	38360*	13.98				
11	-SD-SD111-000.6MS	WG65115-3	48363*	13.98				
12	-SD-SD111-000.6MSD	WG65115-4	57302*	13.97				
13								
14								
15								
16								
17								
18								
19								
20								

IS4 (DCB) = 1,4-Dichlorobenzene-D4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

FORM 8
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Lab File ID (Standard): T4852 Date Analyzed: 06/15/09

Instrument ID: GCMS-T Time Analyzed: 0916

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

	IS1(PFB) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CBZ) AREA #	RT #
12 HOUR STD	442062	8.41	771010	9.26	640748	12.77
UPPER LIMIT	884124	8.91	1542020	9.76	1281496	13.27
LOWER LIMIT	221031	7.91	385505	8.76	320374	12.27

	CLIENT SAMPLE ID	LAB SAMPLE ID						
01	WG65026-LCS	WG65026-1	467901	8.41	804849	9.26	638510	12.77
02	WG65026-BLANK	WG65026-2	457609	8.41	798561	9.25	646877	12.76
03	WGL-SD-FB01-061109	SC3122-43	423861	8.40	770544	9.26	652287	12.76
04	WGL-SD-RB01-061109	SC3122-45	449374	8.40	774751	9.26	642582	12.77
05								
06								
07								
08								
09								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

IS1 (PFB) = Pentafluorobenzene
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

FORM VIII VOA

FORM 8
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Lab File ID (Standard): T4852 Date Analyzed: 06/15/09

Instrument ID: GCMS-T Time Analyzed: 0916

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

	IS4(DCB) AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	299682	15.91				
UPPER LIMIT	599364	16.41				
LOWER LIMIT	149841	15.41				

	CLIENT SAMPLE ID	LAB SAMPLE ID						
01	WG65026-LCS	WG65026-1	298638	15.91				
02	WG65026-BLANK	WG65026-2	281010	15.90				
03	WGL-SD-FB01-061109	SC3122-43	270723	15.90				
04	WGL-SD-RB01-061109	SC3122-45	262884	15.91				
05								
06								
07								
08								
09								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

IS4 (DCB) = 1,4-Dichlorobenzene-D4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

FORM VIII VOA

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 06-JUL-2009 13:04
Report Date: 07/08/2009
Matrix: SOIL
% Solids: 95.6

Lab ID: SC3122-2
Client ID: WGL-SD-SD103-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JCG
Analysis Method: SW846 8270C
Lab Prep Batch: WG65397
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
123-91-1	1,4-Dioxane	U	340	1.0	330	340	56
100-52-7	Benzaldehyde		1100	1.0	330	340	120
108-95-2	Phenol	U	340	1.0	330	340	160
111-44-4	Bis(2-Chloroethyl)ether	U	340	1.0	330	340	85
95-57-8	2-Chlorophenol	U	340	1.0	330	340	170
95-48-7	2-Methylphenol	U	340	1.0	330	340	210
108-60-1	2,2'-Oxybis(1-chloropropane)	U	340	1.0	330	340	93
98-86-2	Acetophenone	U	340	1.0	330	340	190
621-64-7	N-Nitroso-di-n-propylamine	U	340	1.0	330	340	87
65794-96-9	3&4-Methylphenol	U	340	1.0	330	340	200
67-72-1	Hexachloroethane	U	340	1.0	330	340	100
98-95-3	Nitrobenzene	U	340	1.0	330	340	95
78-59-1	Isophorone	U	340	1.0	330	340	78
88-75-5	2-Nitrophenol	U	340	1.0	330	340	170
105-67-9	2,4-Dimethylphenol	U	340	1.0	330	340	170
111-91-1	Bis(2-Chloroethoxy)methane	U	340	1.0	330	340	100
120-83-2	2,4-Dichlorophenol	U	340	1.0	330	340	160
91-20-3	Naphthalene	U	340	1.0	330	340	91
106-47-8	4-Chloroaniline	U	340	1.0	330	340	120
87-68-3	Hexachlorobutadiene	U	340	1.0	330	340	87
105-60-2	Caprolactam	U	340	1.0	330	340	150
59-50-7	4-Chloro-3-Methylphenol	U	340	1.0	330	340	170
91-57-6	2-Methylnaphthalene	U	340	1.0	330	340	96
77-47-4	Hexachlorocyclopentadiene	U	340	1.0	330	340	86
88-06-2	2,4,6-Trichlorophenol	U	340	1.0	330	340	160
95-95-4	2,4,5-Trichlorophenol	U	860	1.0	820	860	160
91-58-7	2-Chloronaphthalene	U	340	1.0	330	340	91
92-52-4	1,1'-Biphenyl	U	340	1.0	330	340	76
88-74-4	2-Nitroaniline	U	860	1.0	820	860	78
131-11-3	Dimethyl Phthalate	U	340	1.0	330	340	82
606-20-2	2,6-Dinitrotoluene	U	340	1.0	330	340	83
208-96-8	Acenaphthylene	U	340	1.0	330	340	73
99-09-2	3-Nitroaniline	U	860	1.0	820	860	98
83-32-9	Acenaphthene	U	340	1.0	330	340	68
51-28-5	2,4-Dinitrophenol	U	860	1.0	820	860	390
132-64-9	Dibenzofuran	U	340	1.0	330	340	83
100-02-7	4-Nitrophenol	U	860	1.0	820	860	320
121-14-2	2,4-Dinitrotoluene	U	340	1.0	330	340	89
84-66-2	Diethylphthalate	U	340	1.0	330	340	84
86-73-7	Fluorene	U	340	1.0	330	340	85
7005-72-3	4-Chlorophenyl-phenylether	U	340	1.0	330	340	82
100-01-6	4-Nitroaniline	U	860	1.0	820	860	140
534-52-1	4,6-Dinitro-2-Methylphenol	U	860	1.0	820	860	350

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 06-JUL-2009 13:04
Report Date: 07/08/2009
Matrix: SOIL
% Solids: 95.6

Lab ID: SC3122-2
Client ID: WGL-SD-SD103-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JCG
Analysis Method: SW846 8270C
Lab Prep Batch: WG65397
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
86-30-6	N-Nitrosodiphenylamine	U	340	1.0	330	340	230
101-55-3	4-Bromophenyl-phenylether	U	340	1.0	330	340	89
118-74-1	Hexachlorobenzene	U	340	1.0	330	340	86
1912-24-9	Atrazine	U	340	1.0	330	340	95
87-86-5	Pentachlorophenol	U	860	1.0	820	860	250
85-01-8	Phenanthrene	J	180	1.0	330	340	87
120-12-7	Anthracene	U	340	1.0	330	340	88
86-74-8	Carbazole	U	340	1.0	330	340	120
84-74-2	Di-n-butylphthalate	U	340	1.0	330	340	100
206-44-0	Fluoranthene	J	260	1.0	330	340	110
129-00-0	Pyrene		480	1.0	330	340	100
85-68-7	Butylbenzylphthalate	U	340	1.0	330	340	97
56-55-3	Benzo(a)anthracene	J	150	1.0	330	340	90
91-94-1	3,3'-Dichlorobenzidine	U	340	1.0	330	340	120
218-01-9	Chrysene	J	220	1.0	330	340	99
117-81-7	bis(2-Ethylhexyl)phthalate	U	340	1.0	330	340	100
117-84-0	Di-n-octylphthalate	U	340	1.0	330	340	220
205-99-2	Benzo(b)fluoranthene	J	280	1.0	330	340	140
207-08-9	Benzo(k)fluoranthene	J	200	1.0	330	340	87
50-32-8	Benzo(a)pyrene	J	220	1.0	330	340	97
193-39-5	Indeno(1,2,3-cd)pyrene	J	140	1.0	330	340	130
53-70-3	Dibenzo(a,h)anthracene	U	340	1.0	330	340	130
191-24-2	Benzo(g,h,i)perylene	J	120	1.0	330	340	110
367-12-4	2-Fluorophenol		47%				
13127-88-3	Phenol-D6		* 51%				
4165-60-0	Nitrobenzene-D5		50%				
321-60-8	2-Fluorobiphenyl		62%				
118-79-6	2,4,6-Tribromophenol		46%				
1718-51-0	Terphenyl-D14		86%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 06-JUL-2009 13:48
Report Date: 07/08/2009
Matrix: SOIL
% Solids: 96.4

Lab ID: SC3122-5
Client ID: WGL-SD-SD102-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JCG
Analysis Method: SW846 8270C
Lab Prep Batch: WG65397
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
123-91-1	1,4-Dioxane	U	340	1.0	330	340	56
100-52-7	Benzaldehyde		640	1.0	330	340	120
108-95-2	Phenol	U	340	1.0	330	340	160
111-44-4	Bis(2-Chloroethyl)ether	U	340	1.0	330	340	84
95-57-8	2-Chlorophenol	U	340	1.0	330	340	170
95-48-7	2-Methylphenol	U	340	1.0	330	340	210
108-60-1	2,2'-Oxybis(1-chloropropane)	U	340	1.0	330	340	92
98-86-2	Acetophenone	U	340	1.0	330	340	180
621-64-7	N-Nitroso-di-n-propylamine	U	340	1.0	330	340	86
65794-96-9	3&4-Methylphenol	U	340	1.0	330	340	190
67-72-1	Hexachloroethane	U	340	1.0	330	340	100
98-95-3	Nitrobenzene	U	340	1.0	330	340	94
78-59-1	Isophorone	U	340	1.0	330	340	78
88-75-5	2-Nitrophenol	U	340	1.0	330	340	170
105-67-9	2,4-Dimethylphenol	U	340	1.0	330	340	170
111-91-1	Bis(2-Chloroethoxy)methane	U	340	1.0	330	340	100
120-83-2	2,4-Dichlorophenol	U	340	1.0	330	340	160
91-20-3	Naphthalene	U	340	1.0	330	340	90
106-47-8	4-Chloroaniline	U	340	1.0	330	340	120
87-68-3	Hexachlorobutadiene	U	340	1.0	330	340	86
105-60-2	Caprolactam	U	340	1.0	330	340	150
59-50-7	4-Chloro-3-Methylphenol	U	340	1.0	330	340	170
91-57-6	2-Methylnaphthalene	U	340	1.0	330	340	95
77-47-4	Hexachlorocyclopentadiene	U	340	1.0	330	340	85
88-06-2	2,4,6-Trichlorophenol	U	340	1.0	330	340	160
95-95-4	2,4,5-Trichlorophenol	U	850	1.0	820	850	160
91-58-7	2-Chloronaphthalene	U	340	1.0	330	340	90
92-52-4	1,1'-Biphenyl	U	340	1.0	330	340	76
88-74-4	2-Nitroaniline	U	850	1.0	820	850	78
131-11-3	Dimethyl Phthalate	U	340	1.0	330	340	81
606-20-2	2,6-Dinitrotoluene	U	340	1.0	330	340	82
208-96-8	Acenaphthylene	U	340	1.0	330	340	73
99-09-2	3-Nitroaniline	U	850	1.0	820	850	98
83-32-9	Acenaphthene	U	340	1.0	330	340	67
51-28-5	2,4-Dinitrophenol	U	850	1.0	820	850	390
132-64-9	Dibenzofuran	U	340	1.0	330	340	82
100-02-7	4-Nitrophenol	U	850	1.0	820	850	320
121-14-2	2,4-Dinitrotoluene	U	340	1.0	330	340	88
84-66-2	Diethylphthalate	U	340	1.0	330	340	83
86-73-7	Fluorene	U	340	1.0	330	340	84
7005-72-3	4-Chlorophenyl-phenylether	U	340	1.0	330	340	81
100-01-6	4-Nitroaniline	U	850	1.0	820	850	140
534-52-1	4,6-Dinitro-2-Methylphenol	U	850	1.0	820	850	350

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 06-JUL-2009 13:48
Report Date: 07/08/2009
Matrix: SOIL
% Solids: 96.4

Lab ID: SC3122-5
Client ID: WGL-SD-SD102-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JCG
Analysis Method: SW846 8270C
Lab Prep Batch: WG65397
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
86-30-6	N-Nitrosodiphenylamine	U	340	1.0	330	340	230
101-55-3	4-Bromophenyl-phenylether	U	340	1.0	330	340	88
118-74-1	Hexachlorobenzene	U	340	1.0	330	340	85
1912-24-9	Atrazine	U	340	1.0	330	340	94
87-86-5	Pentachlorophenol	U	850	1.0	820	850	240
85-01-8	Phenanthrene	J	180	1.0	330	340	86
120-12-7	Anthracene	U	340	1.0	330	340	87
86-74-8	Carbazole	U	340	1.0	330	340	120
84-74-2	Di-n-butylphthalate	U	340	1.0	330	340	100
206-44-0	Fluoranthene	J	200	1.0	330	340	110
129-00-0	Pyrene		510	1.0	330	340	100
85-68-7	Butylbenzylphthalate	U	340	1.0	330	340	96
56-55-3	Benzo(a)anthracene	J	130	1.0	330	340	89
91-94-1	3,3'-Dichlorobenzidine	U	340	1.0	330	340	120
218-01-9	Chrysene	J	190	1.0	330	340	98
117-81-7	bis(2-Ethylhexyl)phthalate	U	340	1.0	330	340	100
117-84-0	Di-n-octylphthalate	U	340	1.0	330	340	220
205-99-2	Benzo(b)fluoranthene	J	270	1.0	330	340	140
207-08-9	Benzo(k)fluoranthene	J	170	1.0	330	340	86
50-32-8	Benzo(a)pyrene	J	200	1.0	330	340	96
193-39-5	Indeno(1,2,3-cd)pyrene	U	340	1.0	330	340	130
53-70-3	Dibenzo(a,h)anthracene	U	340	1.0	330	340	130
191-24-2	Benzo(g,h,i)perylene	U	340	1.0	330	340	110
367-12-4	2-Fluorophenol		* 42%				
13127-88-3	Phenol-D6		* 49%				
4165-60-0	Nitrobenzene-D5		48%				
321-60-8	2-Fluorobiphenyl		67%				
118-79-6	2,4,6-Tribromophenol		46%				
1718-51-0	Terphenyl-D14		90%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 06-JUL-2009 14:31
Report Date: 07/08/2009
Matrix: SOIL
% Solids: 96.1

Lab ID: SC3122-8
Client ID: WGL-SD-SD101-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JCG
Analysis Method: SW846 8270C
Lab Prep Batch: WG65397
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
123-91-1	1,4-Dioxane	U	340	1.0	330	340	56
100-52-7	Benzaldehyde		790	1.0	330	340	120
108-95-2	Phenol	U	340	1.0	330	340	160
111-44-4	Bis(2-Chloroethyl)ether	U	340	1.0	330	340	84
95-57-8	2-Chlorophenol	U	340	1.0	330	340	170
95-48-7	2-Methylphenol	U	340	1.0	330	340	210
108-60-1	2,2'-Oxybis(1-chloropropane)	U	340	1.0	330	340	92
98-86-2	Acetophenone	U	340	1.0	330	340	180
621-64-7	N-Nitroso-di-n-propylamine	U	340	1.0	330	340	86
65794-96-9	3&4-Methylphenol	U	340	1.0	330	340	190
67-72-1	Hexachloroethane	U	340	1.0	330	340	100
98-95-3	Nitrobenzene	U	340	1.0	330	340	95
78-59-1	Isophorone	U	340	1.0	330	340	78
88-75-5	2-Nitrophenol	U	340	1.0	330	340	170
105-67-9	2,4-Dimethylphenol	U	340	1.0	330	340	170
111-91-1	Bis(2-Chloroethoxy)methane	U	340	1.0	330	340	100
120-83-2	2,4-Dichlorophenol	U	340	1.0	330	340	160
91-20-3	Naphthalene	U	340	1.0	330	340	90
106-47-8	4-Chloroaniline	U	340	1.0	330	340	120
87-68-3	Hexachlorobutadiene	U	340	1.0	330	340	86
105-60-2	Caprolactam	U	340	1.0	330	340	150
59-50-7	4-Chloro-3-Methylphenol	U	340	1.0	330	340	170
91-57-6	2-Methylnaphthalene	U	340	1.0	330	340	96
77-47-4	Hexachlorocyclopentadiene	U	340	1.0	330	340	85
88-06-2	2,4,6-Trichlorophenol	U	340	1.0	330	340	160
95-95-4	2,4,5-Trichlorophenol	U	850	1.0	820	850	160
91-58-7	2-Chloronaphthalene	U	340	1.0	330	340	90
92-52-4	1,1'-Biphenyl	U	340	1.0	330	340	76
88-74-4	2-Nitroaniline	U	850	1.0	820	850	78
131-11-3	Dimethyl Phthalate	U	340	1.0	330	340	81
606-20-2	2,6-Dinitrotoluene	U	340	1.0	330	340	82
208-96-8	Acenaphthylene	U	340	1.0	330	340	73
99-09-2	3-Nitroaniline	U	850	1.0	820	850	98
83-32-9	Acenaphthene	U	340	1.0	330	340	68
51-28-5	2,4-Dinitrophenol	U	850	1.0	820	850	390
132-64-9	Dibenzofuran	U	340	1.0	330	340	82
100-02-7	4-Nitrophenol	U	850	1.0	820	850	320
121-14-2	2,4-Dinitrotoluene	U	340	1.0	330	340	88
84-66-2	Diethylphthalate	U	340	1.0	330	340	83
86-73-7	Fluorene	U	340	1.0	330	340	84
7005-72-3	4-Chlorophenyl-phenylether	U	340	1.0	330	340	81
100-01-6	4-Nitroaniline	U	850	1.0	820	850	140
534-52-1	4,6-Dinitro-2-Methylphenol	U	850	1.0	820	850	350

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 06-JUL-2009 14:31
Report Date: 07/08/2009
Matrix: SOIL
% Solids: 96.1

Lab ID: SC3122-8
Client ID: WGL-SD-SD101-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JCG
Analysis Method: SW846 8270C
Lab Prep Batch: WG65397
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
86-30-6	N-Nitrosodiphenylamine	U	340	1.0	330	340	230
101-55-3	4-Bromophenyl-phenylether	U	340	1.0	330	340	88
118-74-1	Hexachlorobenzene	U	340	1.0	330	340	85
1912-24-9	Atrazine	U	340	1.0	330	340	95
87-86-5	Pentachlorophenol	U	850	1.0	820	850	250
85-01-8	Phenanthrene	U	340	1.0	330	340	86
120-12-7	Anthracene	U	340	1.0	330	340	87
86-74-8	Carbazole	U	340	1.0	330	340	120
84-74-2	Di-n-butylphthalate	U	340	1.0	330	340	100
206-44-0	Fluoranthene	U	340	1.0	330	340	110
129-00-0	Pyrene	J	270	1.0	330	340	100
85-68-7	Butylbenzylphthalate	U	340	1.0	330	340	97
56-55-3	Benzo(a)anthracene	U	340	1.0	330	340	89
91-94-1	3,3'-Dichlorobenzidine	U	340	1.0	330	340	120
218-01-9	Chrysene	J	110	1.0	330	340	99
117-81-7	bis(2-Ethylhexyl)phthalate	U	340	1.0	330	340	100
117-84-0	Di-n-octylphthalate	U	340	1.0	330	340	220
205-99-2	Benzo(b)fluoranthene	J	170	1.0	330	340	140
207-08-9	Benzo(k)fluoranthene	J	160	1.0	330	340	86
50-32-8	Benzo(a)pyrene	J	140	1.0	330	340	97
193-39-5	Indeno(1,2,3-cd)pyrene	U	340	1.0	330	340	130
53-70-3	Dibenzo(a,h)anthracene	U	340	1.0	330	340	130
191-24-2	Benzo(g,h,i)perylene	U	340	1.0	330	340	110
367-12-4	2-Fluorophenol		47%				
13127-88-3	Phenol-D6		* 52%				
4165-60-0	Nitrobenzene-D5		55%				
321-60-8	2-Fluorobiphenyl		61%				
118-79-6	2,4,6-Tribromophenol		* 35%				
1718-51-0	Terphenyl-D14		99%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 06-JUL-2009 15:14
Report Date: 07/08/2009
Matrix: SOIL
% Solids: 95.7

Lab ID: SC3122-11
Client ID: WGL-SD-DUP01-061109
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JCG
Analysis Method: SW846 8270C
Lab Prep Batch: WG65397
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
123-91-1	1,4-Dioxane	U	340	1.0	330	340	56
100-52-7	Benzaldehyde		810	1.0	330	340	120
108-95-2	Phenol	U	340	1.0	330	340	160
111-44-4	Bis(2-Chloroethyl)ether	U	340	1.0	330	340	85
95-57-8	2-Chlorophenol	U	340	1.0	330	340	170
95-48-7	2-Methylphenol	U	340	1.0	330	340	210
108-60-1	2,2'-Oxybis(1-chloropropane)	U	340	1.0	330	340	93
98-86-2	Acetophenone	U	340	1.0	330	340	180
621-64-7	N-Nitroso-di-n-propylamine	U	340	1.0	330	340	87
65794-96-9	3&4-Methylphenol	U	340	1.0	330	340	200
67-72-1	Hexachloroethane	U	340	1.0	330	340	100
98-95-3	Nitrobenzene	U	340	1.0	330	340	95
78-59-1	Isophorone	U	340	1.0	330	340	78
88-75-5	2-Nitrophenol	U	340	1.0	330	340	170
105-67-9	2,4-Dimethylphenol	U	340	1.0	330	340	170
111-91-1	Bis(2-Chloroethoxy)methane	U	340	1.0	330	340	100
120-83-2	2,4-Dichlorophenol	U	340	1.0	330	340	160
91-20-3	Naphthalene	U	340	1.0	330	340	91
106-47-8	4-Chloroaniline	U	340	1.0	330	340	120
87-68-3	Hexachlorobutadiene	U	340	1.0	330	340	87
105-60-2	Caprolactam	U	340	1.0	330	340	150
59-50-7	4-Chloro-3-Methylphenol	U	340	1.0	330	340	170
91-57-6	2-Methylnaphthalene	U	340	1.0	330	340	96
77-47-4	Hexachlorocyclopentadiene	U	340	1.0	330	340	86
88-06-2	2,4,6-Trichlorophenol	U	340	1.0	330	340	160
95-95-4	2,4,5-Trichlorophenol	U	860	1.0	820	860	160
91-58-7	2-Chloronaphthalene	U	340	1.0	330	340	91
92-52-4	1,1'-Biphenyl	U	340	1.0	330	340	76
88-74-4	2-Nitroaniline	U	860	1.0	820	860	78
131-11-3	Dimethyl Phthalate	U	340	1.0	330	340	82
606-20-2	2,6-Dinitrotoluene	U	340	1.0	330	340	82
208-96-8	Acenaphthylene	U	340	1.0	330	340	73
99-09-2	3-Nitroaniline	U	860	1.0	820	860	98
83-32-9	Acenaphthene	U	340	1.0	330	340	68
51-28-5	2,4-Dinitrophenol	U	860	1.0	820	860	390
132-64-9	Dibenzofuran	U	340	1.0	330	340	82
100-02-7	4-Nitrophenol	U	860	1.0	820	860	320
121-14-2	2,4-Dinitrotoluene	U	340	1.0	330	340	89
84-66-2	Diethylphthalate	U	340	1.0	330	340	84
86-73-7	Fluorene	U	340	1.0	330	340	85
7005-72-3	4-Chlorophenyl-phenylether	U	340	1.0	330	340	82
100-01-6	4-Nitroaniline	U	860	1.0	820	860	140
534-52-1	4,6-Dinitro-2-Methylphenol	U	860	1.0	820	860	350

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 06-JUL-2009 15:14
Report Date: 07/08/2009
Matrix: SOIL
% Solids: 95.7

Lab ID: SC3122-11
Client ID: WGL-SD-DUP01-061109
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JCG
Analysis Method: SW846 8270C
Lab Prep Batch: WG65397
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
86-30-6	N-Nitrosodiphenylamine	U	340	1.0	330	340	230
101-55-3	4-Bromophenyl-phenylether	U	340	1.0	330	340	89
118-74-1	Hexachlorobenzene	U	340	1.0	330	340	86
1912-24-9	Atrazine	U	340	1.0	330	340	95
87-86-5	Pentachlorophenol	U	860	1.0	820	860	250
85-01-8	Phenanthrene	J	170	1.0	330	340	87
120-12-7	Anthracene	U	340	1.0	330	340	88
86-74-8	Carbazole	U	340	1.0	330	340	120
84-74-2	Di-n-butylphthalate	U	340	1.0	330	340	100
206-44-0	Fluoranthene	J	190	1.0	330	340	110
129-00-0	Pyrene		580	1.0	330	340	100
85-68-7	Butylbenzylphthalate	U	340	1.0	330	340	97
56-55-3	Benzo(a)anthracene	J	120	1.0	330	340	90
91-94-1	3,3'-Dichlorobenzidine	U	340	1.0	330	340	120
218-01-9	Chrysene	J	170	1.0	330	340	99
117-81-7	bis(2-Ethylhexyl)phthalate	U	340	1.0	330	340	100
117-84-0	Di-n-octylphthalate	U	340	1.0	330	340	220
205-99-2	Benzo(b)fluoranthene	J	250	1.0	330	340	140
207-08-9	Benzo(k)fluoranthene	J	190	1.0	330	340	87
50-32-8	Benzo(a)pyrene	J	180	1.0	330	340	97
193-39-5	Indeno(1,2,3-cd)pyrene	J	150	1.0	330	340	130
53-70-3	Dibenzo(a,h)anthracene	U	340	1.0	330	340	130
191-24-2	Benzo(g,h,i)perylene	J	120	1.0	330	340	110
367-12-4	2-Fluorophenol		54%				
13127-88-3	Phenol-D6		61%				
4165-60-0	Nitrobenzene-D5		56%				
321-60-8	2-Fluorobiphenyl		80%				
118-79-6	2,4,6-Tribromophenol		55%				
1718-51-0	Terphenyl-D14		108%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 06-JUL-2009 15:57
Report Date: 07/08/2009
Matrix: SOIL
% Solids: 95.9

Lab ID: SC3122-14
Client ID: WGL-SD-SD104-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JCG
Analysis Method: SW846 8270C
Lab Prep Batch: WG65397
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
123-91-1	1,4-Dioxane	U	410	1.0	330	410	68
100-52-7	Benzaldehyde		830	1.0	330	410	150
108-95-2	Phenol	U	410	1.0	330	410	200
111-44-4	Bis(2-Chloroethyl)ether	U	410	1.0	330	410	100
95-57-8	2-Chlorophenol	U	410	1.0	330	410	200
95-48-7	2-Methylphenol	U	410	1.0	330	410	250
108-60-1	2,2'-Oxybis(1-chloropropane)	U	410	1.0	330	410	110
98-86-2	Acetophenone	U	410	1.0	330	410	220
621-64-7	N-Nitroso-di-n-propylamine	U	410	1.0	330	410	100
65794-96-9	3&4-Methylphenol	U	410	1.0	330	410	230
67-72-1	Hexachloroethane	U	410	1.0	330	410	120
98-95-3	Nitrobenzene	U	410	1.0	330	410	110
78-59-1	Isophorone	U	410	1.0	330	410	94
88-75-5	2-Nitrophenol	U	410	1.0	330	410	210
105-67-9	2,4-Dimethylphenol	U	410	1.0	330	410	210
111-91-1	Bis(2-Chloroethoxy)methane	U	410	1.0	330	410	120
120-83-2	2,4-Dichlorophenol	U	410	1.0	330	410	190
91-20-3	Naphthalene	U	410	1.0	330	410	110
106-47-8	4-Chloroaniline	U	410	1.0	330	410	150
87-68-3	Hexachlorobutadiene	U	410	1.0	330	410	100
105-60-2	Caprolactam	U	410	1.0	330	410	180
59-50-7	4-Chloro-3-Methylphenol	U	410	1.0	330	410	210
91-57-6	2-Methylnaphthalene	U	410	1.0	330	410	120
77-47-4	Hexachlorocyclopentadiene	U	410	1.0	330	410	100
88-06-2	2,4,6-Trichlorophenol	U	410	1.0	330	410	190
95-95-4	2,4,5-Trichlorophenol	U	1000	1.0	820	1000	190
91-58-7	2-Chloronaphthalene	U	410	1.0	330	410	110
92-52-4	1,1'-Biphenyl	U	410	1.0	330	410	91
88-74-4	2-Nitroaniline	U	1000	1.0	820	1000	94
131-11-3	Dimethyl Phthalate	U	410	1.0	330	410	98
606-20-2	2,6-Dinitrotoluene	U	410	1.0	330	410	99
208-96-8	Acenaphthylene	U	410	1.0	330	410	88
99-09-2	3-Nitroaniline	U	1000	1.0	820	1000	120
83-32-9	Acenaphthene	U	410	1.0	330	410	81
51-28-5	2,4-Dinitrophenol	U	1000	1.0	820	1000	470
132-64-9	Dibenzofuran	U	410	1.0	330	410	99
100-02-7	4-Nitrophenol	U	1000	1.0	820	1000	390
121-14-2	2,4-Dinitrotoluene	U	410	1.0	330	410	110
84-66-2	Diethylphthalate	U	410	1.0	330	410	100
86-73-7	Fluorene	U	410	1.0	330	410	100
7005-72-3	4-Chlorophenyl-phenylether	U	410	1.0	330	410	98
100-01-6	4-Nitroaniline	U	1000	1.0	820	1000	170
534-52-1	4,6-Dinitro-2-Methylphenol	U	1000	1.0	820	1000	420

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 06-JUL-2009 15:57
Report Date: 07/08/2009
Matrix: SOIL
% Solids: 95.9

Lab ID: SC3122-14
Client ID: WGL-SD-SD104-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JCG
Analysis Method: SW846 8270C
Lab Prep Batch: WG65397
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
86-30-6	N-Nitrosodiphenylamine	U	410	1.0	330	410	270
101-55-3	4-Bromophenyl-phenylether	U	410	1.0	330	410	110
118-74-1	Hexachlorobenzene	U	410	1.0	330	410	100
1912-24-9	Atrazine	U	410	1.0	330	410	110
87-86-5	Pentachlorophenol	U	1000	1.0	820	1000	300
85-01-8	Phenanthrene	U	410	1.0	330	410	100
120-12-7	Anthracene	U	410	1.0	330	410	100
86-74-8	Carbazole	U	410	1.0	330	410	140
84-74-2	Di-n-butylphthalate	U	410	1.0	330	410	130
206-44-0	Fluoranthene	U	410	1.0	330	410	130
129-00-0	Pyrene	U	410	1.0	330	410	130
85-68-7	Butylbenzylphthalate	U	410	1.0	330	410	120
56-55-3	Benzo(a)anthracene	U	410	1.0	330	410	110
91-94-1	3,3'-Dichlorobenzidine	U	410	1.0	330	410	140
218-01-9	Chrysene	U	410	1.0	330	410	120
117-81-7	bis(2-Ethylhexyl)phthalate	U	410	1.0	330	410	120
117-84-0	Di-n-octylphthalate	U	410	1.0	330	410	260
205-99-2	Benzo(b)fluoranthene	U	410	1.0	330	410	170
207-08-9	Benzo(k)fluoranthene	U	410	1.0	330	410	100
50-32-8	Benzo(a)pyrene	U	410	1.0	330	410	120
193-39-5	Indeno(1,2,3-cd)pyrene	U	410	1.0	330	410	150
53-70-3	Dibenzo(a,h)anthracene	U	410	1.0	330	410	160
191-24-2	Benzo(g,h,i)perylene	U	410	1.0	330	410	130
367-12-4	2-Fluorophenol		46%				
13127-88-3	Phenol-D6		* 46%				
4165-60-0	Nitrobenzene-D5		* 43%				
321-60-8	2-Fluorobiphenyl		63%				
118-79-6	2,4,6-Tribromophenol		* 42%				
1718-51-0	Terphenyl-D14		81%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 06-JUL-2009 16:40
Report Date: 07/08/2009
Matrix: SOIL
% Solids: 94.4

Lab ID: SC3122-17
Client ID: WGL-SD-SD106-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JCG
Analysis Method: SW846 8270C
Lab Prep Batch: WG65397
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
123-91-1	1,4-Dioxane	U	350	1.0	330	350	57
100-52-7	Benzaldehyde		400	1.0	330	350	130
108-95-2	Phenol	U	350	1.0	330	350	160
111-44-4	Bis(2-Chloroethyl)ether	U	350	1.0	330	350	86
95-57-8	2-Chlorophenol	U	350	1.0	330	350	170
95-48-7	2-Methylphenol	U	350	1.0	330	350	210
108-60-1	2,2'-Oxybis(1-chloropropane)	U	350	1.0	330	350	94
98-86-2	Acetophenone	U	350	1.0	330	350	190
621-64-7	N-Nitroso-di-n-propylamine	U	350	1.0	330	350	88
65794-96-9	3&4-Methylphenol	U	350	1.0	330	350	200
67-72-1	Hexachloroethane	U	350	1.0	330	350	100
98-95-3	Nitrobenzene	U	350	1.0	330	350	96
78-59-1	Isophorone	U	350	1.0	330	350	79
88-75-5	2-Nitrophenol	U	350	1.0	330	350	180
105-67-9	2,4-Dimethylphenol	U	350	1.0	330	350	170
111-91-1	Bis(2-Chloroethoxy)methane	U	350	1.0	330	350	100
120-83-2	2,4-Dichlorophenol	U	350	1.0	330	350	160
91-20-3	Naphthalene	U	350	1.0	330	350	92
106-47-8	4-Chloroaniline	U	350	1.0	330	350	130
87-68-3	Hexachlorobutadiene	U	350	1.0	330	350	88
105-60-2	Caprolactam	U	350	1.0	330	350	150
59-50-7	4-Chloro-3-Methylphenol	U	350	1.0	330	350	180
91-57-6	2-Methylnaphthalene	U	350	1.0	330	350	97
77-47-4	Hexachlorocyclopentadiene	U	350	1.0	330	350	87
88-06-2	2,4,6-Trichlorophenol	U	350	1.0	330	350	160
95-95-4	2,4,5-Trichlorophenol	U	870	1.0	820	870	160
91-58-7	2-Chloronaphthalene	U	350	1.0	330	350	92
92-52-4	1,1'-Biphenyl	U	350	1.0	330	350	77
88-74-4	2-Nitroaniline	U	870	1.0	820	870	79
131-11-3	Dimethyl Phthalate	U	350	1.0	330	350	83
606-20-2	2,6-Dinitrotoluene	U	350	1.0	330	350	84
208-96-8	Acenaphthylene	U	350	1.0	330	350	74
99-09-2	3-Nitroaniline	U	870	1.0	820	870	100
83-32-9	Acenaphthene	U	350	1.0	330	350	69
51-28-5	2,4-Dinitrophenol	U	870	1.0	820	870	400
132-64-9	Dibenzofuran	U	350	1.0	330	350	84
100-02-7	4-Nitrophenol	U	870	1.0	820	870	330
121-14-2	2,4-Dinitrotoluene	U	350	1.0	330	350	90
84-66-2	Diethylphthalate	U	350	1.0	330	350	85
86-73-7	Fluorene	U	350	1.0	330	350	86
7005-72-3	4-Chlorophenyl-phenylether	U	350	1.0	330	350	83
100-01-6	4-Nitroaniline	U	870	1.0	820	870	140
534-52-1	4,6-Dinitro-2-Methylphenol	U	870	1.0	820	870	360

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 06-JUL-2009 16:40
Report Date: 07/08/2009
Matrix: SOIL
% Solids: 94.4

Lab ID: SC3122-17
Client ID: WGL-SD-SD106-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JCG
Analysis Method: SW846 8270C
Lab Prep Batch: WG65397
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
86-30-6	N-Nitrosodiphenylamine	U	350	1.0	330	350	230
101-55-3	4-Bromophenyl-phenylether	U	350	1.0	330	350	90
118-74-1	Hexachlorobenzene	U	350	1.0	330	350	87
1912-24-9	Atrazine	U	350	1.0	330	350	96
87-86-5	Pentachlorophenol	U	870	1.0	820	870	250
85-01-8	Phenanthrene	U	350	1.0	330	350	88
120-12-7	Anthracene	U	350	1.0	330	350	89
86-74-8	Carbazole	U	350	1.0	330	350	120
84-74-2	Di-n-butylphthalate	U	350	1.0	330	350	110
206-44-0	Fluoranthene	U	350	1.0	330	350	110
129-00-0	Pyrene	J	120	1.0	330	350	110
85-68-7	Butylbenzylphthalate	U	350	1.0	330	350	98
56-55-3	Benzo(a)anthracene	U	350	1.0	330	350	91
91-94-1	3,3'-Dichlorobenzidine	U	350	1.0	330	350	120
218-01-9	Chrysene	U	350	1.0	330	350	100
117-81-7	bis(2-Ethylhexyl)phthalate	U	350	1.0	330	350	100
117-84-0	Di-n-octylphthalate	U	350	1.0	330	350	220
205-99-2	Benzo(b)fluoranthene	U	350	1.0	330	350	140
207-08-9	Benzo(k)fluoranthene	U	350	1.0	330	350	88
50-32-8	Benzo(a)pyrene	U	350	1.0	330	350	98
193-39-5	Indeno(1,2,3-cd)pyrene	U	350	1.0	330	350	130
53-70-3	Dibenzo(a,h)anthracene	U	350	1.0	330	350	140
191-24-2	Benzo(g,h,i)perylene	U	350	1.0	330	350	110
367-12-4	2-Fluorophenol		* 42%				
13127-88-3	Phenol-D6		* 46%				
4165-60-0	Nitrobenzene-D5		47%				
321-60-8	2-Fluorobiphenyl		61%				
118-79-6	2,4,6-Tribromophenol		44%				
1718-51-0	Terphenyl-D14		102%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 06-JUL-2009 17:23
Report Date: 07/08/2009
Matrix: SOIL
% Solids: 93.8

Lab ID: SC3122-20
Client ID: WGL-SD-DUP02-061109
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JCG
Analysis Method: SW846 8270C
Lab Prep Batch: WG65397
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
123-91-1	1,4-Dioxane	U	350	1.0	330	350	58
100-52-7	Benzaldehyde		370	1.0	330	350	130
108-95-2	Phenol	U	350	1.0	330	350	170
111-44-4	Bis(2-Chloroethyl)ether	U	350	1.0	330	350	86
95-57-8	2-Chlorophenol	U	350	1.0	330	350	170
95-48-7	2-Methylphenol	U	350	1.0	330	350	210
108-60-1	2,2'-Oxybis(1-chloropropane)	U	350	1.0	330	350	95
98-86-2	Acetophenone	U	350	1.0	330	350	190
621-64-7	N-Nitroso-di-n-propylamine	U	350	1.0	330	350	88
65794-96-9	3&4-Methylphenol	U	350	1.0	330	350	200
67-72-1	Hexachloroethane	U	350	1.0	330	350	100
98-95-3	Nitrobenzene	U	350	1.0	330	350	97
78-59-1	Isophorone	U	350	1.0	330	350	80
88-75-5	2-Nitrophenol	U	350	1.0	330	350	180
105-67-9	2,4-Dimethylphenol	U	350	1.0	330	350	180
111-91-1	Bis(2-Chloroethoxy)methane	U	350	1.0	330	350	100
120-83-2	2,4-Dichlorophenol	U	350	1.0	330	350	160
91-20-3	Naphthalene	U	350	1.0	330	350	93
106-47-8	4-Chloroaniline	U	350	1.0	330	350	130
87-68-3	Hexachlorobutadiene	U	350	1.0	330	350	88
105-60-2	Caprolactam	U	350	1.0	330	350	150
59-50-7	4-Chloro-3-Methylphenol	U	350	1.0	330	350	180
91-57-6	2-Methylnaphthalene	U	350	1.0	330	350	98
77-47-4	Hexachlorocyclopentadiene	U	350	1.0	330	350	87
88-06-2	2,4,6-Trichlorophenol	U	350	1.0	330	350	160
95-95-4	2,4,5-Trichlorophenol	U	870	1.0	820	870	160
91-58-7	2-Chloronaphthalene	U	350	1.0	330	350	93
92-52-4	1,1'-Biphenyl	U	350	1.0	330	350	78
88-74-4	2-Nitroaniline	U	870	1.0	820	870	80
131-11-3	Dimethyl Phthalate	U	350	1.0	330	350	83
606-20-2	2,6-Dinitrotoluene	U	350	1.0	330	350	84
208-96-8	Acenaphthylene	U	350	1.0	330	350	75
99-09-2	3-Nitroaniline	U	870	1.0	820	870	100
83-32-9	Acenaphthene	U	350	1.0	330	350	69
51-28-5	2,4-Dinitrophenol	U	870	1.0	820	870	400
132-64-9	Dibenzofuran	U	350	1.0	330	350	84
100-02-7	4-Nitrophenol	U	870	1.0	820	870	330
121-14-2	2,4-Dinitrotoluene	U	350	1.0	330	350	91
84-66-2	Diethylphthalate	U	350	1.0	330	350	85
86-73-7	Fluorene	U	350	1.0	330	350	86
7005-72-3	4-Chlorophenyl-phenylether	U	350	1.0	330	350	83
100-01-6	4-Nitroaniline	U	870	1.0	820	870	140
534-52-1	4,6-Dinitro-2-Methylphenol	U	870	1.0	820	870	360

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 06-JUL-2009 17:23
Report Date: 07/08/2009
Matrix: SOIL
% Solids: 93.8

Lab ID: SC3122-20
Client ID: WGL-SD-DUP02-061109
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JCG
Analysis Method: SW846 8270C
Lab Prep Batch: WG65397
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
86-30-6	N-Nitrosodiphenylamine	U	350	1.0	330	350	230
101-55-3	4-Bromophenyl-phenylether	U	350	1.0	330	350	91
118-74-1	Hexachlorobenzene	U	350	1.0	330	350	87
1912-24-9	Atrazine	U	350	1.0	330	350	97
87-86-5	Pentachlorophenol	U	870	1.0	820	870	250
85-01-8	Phenanthrene	U	350	1.0	330	350	88
120-12-7	Anthracene	U	350	1.0	330	350	90
86-74-8	Carbazole	U	350	1.0	330	350	120
84-74-2	Di-n-butylphthalate	U	350	1.0	330	350	110
206-44-0	Fluoranthene	U	350	1.0	330	350	110
129-00-0	Pyrene	U	350	1.0	330	350	110
85-68-7	Butylbenzylphthalate	U	350	1.0	330	350	99
56-55-3	Benzo(a)anthracene	U	350	1.0	330	350	92
91-94-1	3,3'-Dichlorobenzidine	U	350	1.0	330	350	120
218-01-9	Chrysene	U	350	1.0	330	350	100
117-81-7	bis(2-Ethylhexyl)phthalate	U	350	1.0	330	350	100
117-84-0	Di-n-octylphthalate	U	350	1.0	330	350	220
205-99-2	Benzo(b)fluoranthene	U	350	1.0	330	350	140
207-08-9	Benzo(k)fluoranthene	U	350	1.0	330	350	88
50-32-8	Benzo(a)pyrene	U	350	1.0	330	350	99
193-39-5	Indeno(1,2,3-cd)pyrene	U	350	1.0	330	350	130
53-70-3	Dibenzo(a,h)anthracene	U	350	1.0	330	350	140
191-24-2	Benzo(g,h,i)perylene	U	350	1.0	330	350	110
367-12-4	2-Fluorophenol		* 38%				
13127-88-3	Phenol-D6		* 41%				
4165-60-0	Nitrobenzene-D5		* 42%				
321-60-8	2-Fluorobiphenyl		50%				
118-79-6	2,4,6-Tribromophenol		* 38%				
1718-51-0	Terphenyl-D14		84%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 06-JUL-2009 18:07
Report Date: 07/08/2009
Matrix: SOIL
% Solids: 95.0

Lab ID: SC3122-23DL
Client ID: WGL-SD-SD107-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JCG
Analysis Method: SW846 8270C
Lab Prep Batch: WG65397
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
123-91-1	1,4-Dioxane	U	690	2.0	330	690	110
100-52-7	Benzaldehyde		3800	2.0	330	690	250
108-95-2	Phenol	U	690	2.0	330	690	330
111-44-4	Bis(2-Chloroethyl)ether	U	690	2.0	330	690	170
95-57-8	2-Chlorophenol	U	690	2.0	330	690	340
95-48-7	2-Methylphenol	U	690	2.0	330	690	420
108-60-1	2,2'-Oxybis(1-chloropropane)	U	690	2.0	330	690	190
98-86-2	Acetophenone	U	690	2.0	330	690	370
621-64-7	N-Nitroso-di-n-propylamine	U	690	2.0	330	690	170
65794-96-9	3&4-Methylphenol	U	690	2.0	330	690	390
67-72-1	Hexachloroethane	U	690	2.0	330	690	200
98-95-3	Nitrobenzene	U	690	2.0	330	690	190
78-59-1	Isophorone	U	690	2.0	330	690	160
88-75-5	2-Nitrophenol	U	690	2.0	330	690	350
105-67-9	2,4-Dimethylphenol	U	690	2.0	330	690	350
111-91-1	Bis(2-Chloroethoxy)methane	U	690	2.0	330	690	200
120-83-2	2,4-Dichlorophenol	U	690	2.0	330	690	320
91-20-3	Naphthalene	U	690	2.0	330	690	180
106-47-8	4-Chloroaniline	U	690	2.0	330	690	250
87-68-3	Hexachlorobutadiene	U	690	2.0	330	690	170
105-60-2	Caprolactam	U	690	2.0	330	690	300
59-50-7	4-Chloro-3-Methylphenol	U	690	2.0	330	690	350
91-57-6	2-Methylnaphthalene	U	690	2.0	330	690	190
77-47-4	Hexachlorocyclopentadiene	U	690	2.0	330	690	170
88-06-2	2,4,6-Trichlorophenol	U	690	2.0	330	690	330
95-95-4	2,4,5-Trichlorophenol	U	1700	2.0	820	1700	330
91-58-7	2-Chloronaphthalene	U	690	2.0	330	690	180
92-52-4	1,1'-Biphenyl	U	690	2.0	330	690	150
88-74-4	2-Nitroaniline	U	1700	2.0	820	1700	160
131-11-3	Dimethyl Phthalate	U	690	2.0	330	690	160
606-20-2	2,6-Dinitrotoluene	U	690	2.0	330	690	170
208-96-8	Acenaphthylene	U	690	2.0	330	690	150
99-09-2	3-Nitroaniline	U	1700	2.0	820	1700	200
83-32-9	Acenaphthene	U	690	2.0	330	690	140
51-28-5	2,4-Dinitrophenol	U	1700	2.0	820	1700	790
132-64-9	Dibenzofuran	U	690	2.0	330	690	170
100-02-7	4-Nitrophenol	U	1700	2.0	820	1700	650
121-14-2	2,4-Dinitrotoluene	U	690	2.0	330	690	180
84-66-2	Diethylphthalate	U	690	2.0	330	690	170
86-73-7	Fluorene	U	690	2.0	330	690	170
7005-72-3	4-Chlorophenyl-phenylether	U	690	2.0	330	690	160
100-01-6	4-Nitroaniline	U	1700	2.0	820	1700	280
534-52-1	4,6-Dinitro-2-Methylphenol	U	1700	2.0	820	1700	710

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 06-JUL-2009 18:07
Report Date: 07/08/2009
Matrix: SOIL
% Solids: 95.0

Lab ID: SC3122-23DL
Client ID: WGL-SD-SD107-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JCG
Analysis Method: SW846 8270C
Lab Prep Batch: WG65397
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
86-30-6	N-Nitrosodiphenylamine	U	690	2.0	330	690	460
101-55-3	4-Bromophenyl-phenylether	U	690	2.0	330	690	180
118-74-1	Hexachlorobenzene	U	690	2.0	330	690	170
1912-24-9	Atrazine	U	690	2.0	330	690	190
87-86-5	Pentachlorophenol	U	1700	2.0	820	1700	500
85-01-8	Phenanthrene	U	690	2.0	330	690	170
120-12-7	Anthracene	U	690	2.0	330	690	180
86-74-8	Carbazole	U	690	2.0	330	690	230
84-74-2	Di-n-butylphthalate	U	690	2.0	330	690	210
206-44-0	Fluoranthene	U	690	2.0	330	690	220
129-00-0	Pyrene	U	690	2.0	330	690	210
85-68-7	Butylbenzylphthalate	U	690	2.0	330	690	200
56-55-3	Benzo(a)anthracene	U	690	2.0	330	690	180
91-94-1	3,3'-Dichlorobenzidine	U	690	2.0	330	690	240
218-01-9	Chrysene	U	690	2.0	330	690	200
117-81-7	bis(2-Ethylhexyl)phthalate	U	690	2.0	330	690	210
117-84-0	Di-n-octylphthalate	U	690	2.0	330	690	440
205-99-2	Benzo(b)fluoranthene	U	690	2.0	330	690	280
207-08-9	Benzo(k)fluoranthene	U	690	2.0	330	690	170
50-32-8	Benzo(a)pyrene	U	690	2.0	330	690	200
193-39-5	Indeno(1,2,3-cd)pyrene	U	690	2.0	330	690	260
53-70-3	Dibenzo(a,h)anthracene	U	690	2.0	330	690	270
191-24-2	Benzo(g,h,i)perylene	U	690	2.0	330	690	220
367-12-4	2-Fluorophenol		47%				
13127-88-3	Phenol-D6		* 50%				
4165-60-0	Nitrobenzene-D5		48%				
321-60-8	2-Fluorobiphenyl		74%				
118-79-6	2,4,6-Tribromophenol		48%				
1718-51-0	Terphenyl-D14		103%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 06-JUL-2009 18:50
Report Date: 07/08/2009
Matrix: SOIL
% Solids: 94.9

Lab ID: SC3122-26
Client ID: WGL-SD-SD108-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JCG
Analysis Method: SW846 8270C
Lab Prep Batch: WG65397
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
123-91-1	1,4-Dioxane	U	350	1.0	330	350	57
100-52-7	Benzaldehyde		370	1.0	330	350	130
108-95-2	Phenol	U	350	1.0	330	350	160
111-44-4	Bis(2-Chloroethyl)ether	U	350	1.0	330	350	85
95-57-8	2-Chlorophenol	U	350	1.0	330	350	170
95-48-7	2-Methylphenol	U	350	1.0	330	350	210
108-60-1	2,2'-Oxybis(1-chloropropane)	U	350	1.0	330	350	94
98-86-2	Acetophenone	U	350	1.0	330	350	190
621-64-7	N-Nitroso-di-n-propylamine	U	350	1.0	330	350	87
65794-96-9	3&4-Methylphenol	U	350	1.0	330	350	200
67-72-1	Hexachloroethane	U	350	1.0	330	350	100
98-95-3	Nitrobenzene	U	350	1.0	330	350	96
78-59-1	Isophorone	U	350	1.0	330	350	79
88-75-5	2-Nitrophenol	U	350	1.0	330	350	180
105-67-9	2,4-Dimethylphenol	U	350	1.0	330	350	170
111-91-1	Bis(2-Chloroethoxy)methane	U	350	1.0	330	350	100
120-83-2	2,4-Dichlorophenol	U	350	1.0	330	350	160
91-20-3	Naphthalene	U	350	1.0	330	350	92
106-47-8	4-Chloroaniline	U	350	1.0	330	350	120
87-68-3	Hexachlorobutadiene	U	350	1.0	330	350	87
105-60-2	Caprolactam	U	350	1.0	330	350	150
59-50-7	4-Chloro-3-Methylphenol	U	350	1.0	330	350	170
91-57-6	2-Methylnaphthalene	U	350	1.0	330	350	97
77-47-4	Hexachlorocyclopentadiene	U	350	1.0	330	350	86
88-06-2	2,4,6-Trichlorophenol	U	350	1.0	330	350	160
95-95-4	2,4,5-Trichlorophenol	U	860	1.0	820	860	160
91-58-7	2-Chloronaphthalene	U	350	1.0	330	350	92
92-52-4	1,1'-Biphenyl	U	350	1.0	330	350	77
88-74-4	2-Nitroaniline	U	860	1.0	820	860	79
131-11-3	Dimethyl Phthalate	U	350	1.0	330	350	82
606-20-2	2,6-Dinitrotoluene	U	350	1.0	330	350	83
208-96-8	Acenaphthylene	U	350	1.0	330	350	74
99-09-2	3-Nitroaniline	U	860	1.0	820	860	99
83-32-9	Acenaphthene	U	350	1.0	330	350	68
51-28-5	2,4-Dinitrophenol	U	860	1.0	820	860	400
132-64-9	Dibenzofuran	U	350	1.0	330	350	83
100-02-7	4-Nitrophenol	U	860	1.0	820	860	320
121-14-2	2,4-Dinitrotoluene	U	350	1.0	330	350	90
84-66-2	Diethylphthalate	U	350	1.0	330	350	84
86-73-7	Fluorene	U	350	1.0	330	350	85
7005-72-3	4-Chlorophenyl-phenylether	U	350	1.0	330	350	82
100-01-6	4-Nitroaniline	U	860	1.0	820	860	140
534-52-1	4,6-Dinitro-2-Methylphenol	U	860	1.0	820	860	360

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 06-JUL-2009 18:50
Report Date: 07/08/2009
Matrix: SOIL
% Solids: 94.9

Lab ID: SC3122-26
Client ID: WGL-SD-SD108-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JCG
Analysis Method: SW846 8270C
Lab Prep Batch: WG65397
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
86-30-6	N-Nitrosodiphenylamine	U	350	1.0	330	350	230
101-55-3	4-Bromophenyl-phenylether	U	350	1.0	330	350	90
118-74-1	Hexachlorobenzene	U	350	1.0	330	350	86
1912-24-9	Atrazine	U	350	1.0	330	350	96
87-86-5	Pentachlorophenol	U	860	1.0	820	860	250
85-01-8	Phenanthrene	U	350	1.0	330	350	87
120-12-7	Anthracene	U	350	1.0	330	350	88
86-74-8	Carbazole	U	350	1.0	330	350	120
84-74-2	Di-n-butylphthalate	U	350	1.0	330	350	110
206-44-0	Fluoranthene	U	350	1.0	330	350	110
129-00-0	Pyrene	J	170	1.0	330	350	110
85-68-7	Butylbenzylphthalate	U	350	1.0	330	350	98
56-55-3	Benzo(a)anthracene	U	350	1.0	330	350	91
91-94-1	3,3'-Dichlorobenzidine	U	350	1.0	330	350	120
218-01-9	Chrysene	U	350	1.0	330	350	100
117-81-7	bis(2-Ethylhexyl)phthalate	U	350	1.0	330	350	100
117-84-0	Di-n-octylphthalate	U	350	1.0	330	350	220
205-99-2	Benzo(b)fluoranthene	U	350	1.0	330	350	140
207-08-9	Benzo(k)fluoranthene	U	350	1.0	330	350	87
50-32-8	Benzo(a)pyrene	U	350	1.0	330	350	98
193-39-5	Indeno(1,2,3-cd)pyrene	U	350	1.0	330	350	130
53-70-3	Dibenzo(a,h)anthracene	U	350	1.0	330	350	130
191-24-2	Benzo(g,h,i)perylene	U	350	1.0	330	350	110
367-12-4	2-Fluorophenol		* 25%				
13127-88-3	Phenol-D6		* 30%				
4165-60-0	Nitrobenzene-D5		* 31%				
321-60-8	2-Fluorobiphenyl		* 39%				
118-79-6	2,4,6-Tribromophenol		* 29%				
1718-51-0	Terphenyl-D14		68%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 06-JUL-2009 19:34
Report Date: 07/08/2009
Matrix: SOIL
% Solids: 93.0

Lab ID: SC3122-29
Client ID: WGL-SD-SD105-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JCG
Analysis Method: SW846 8270C
Lab Prep Batch: WG65397
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
123-91-1	1,4-Dioxane	U	350	1.0	330	350	58
100-52-7	Benzaldehyde		3800	1.0	330	350	130
108-95-2	Phenol	U	350	1.0	330	350	170
111-44-4	Bis(2-Chloroethyl)ether	U	350	1.0	330	350	87
95-57-8	2-Chlorophenol	U	350	1.0	330	350	180
95-48-7	2-Methylphenol	U	350	1.0	330	350	210
108-60-1	2,2'-Oxybis(1-chloropropane)	U	350	1.0	330	350	96
98-86-2	Acetophenone	U	350	1.0	330	350	190
621-64-7	N-Nitroso-di-n-propylamine	U	350	1.0	330	350	89
65794-96-9	3&4-Methylphenol	U	350	1.0	330	350	200
67-72-1	Hexachloroethane	U	350	1.0	330	350	100
98-95-3	Nitrobenzene	U	350	1.0	330	350	98
78-59-1	Isophorone	U	350	1.0	330	350	81
88-75-5	2-Nitrophenol	U	350	1.0	330	350	180
105-67-9	2,4-Dimethylphenol	U	350	1.0	330	350	180
111-91-1	Bis(2-Chloroethoxy)methane	U	350	1.0	330	350	100
120-83-2	2,4-Dichlorophenol	U	350	1.0	330	350	160
91-20-3	Naphthalene	U	350	1.0	330	350	93
106-47-8	4-Chloroaniline	U	350	1.0	330	350	130
87-68-3	Hexachlorobutadiene	U	350	1.0	330	350	89
105-60-2	Caprolactam	U	350	1.0	330	350	150
59-50-7	4-Chloro-3-Methylphenol	U	350	1.0	330	350	180
91-57-6	2-Methylnaphthalene	U	350	1.0	330	350	99
77-47-4	Hexachlorocyclopentadiene	U	350	1.0	330	350	88
88-06-2	2,4,6-Trichlorophenol	U	350	1.0	330	350	170
95-95-4	2,4,5-Trichlorophenol	U	880	1.0	820	880	170
91-58-7	2-Chloronaphthalene	U	350	1.0	330	350	93
92-52-4	1,1'-Biphenyl	U	350	1.0	330	350	78
88-74-4	2-Nitroaniline	U	880	1.0	820	880	81
131-11-3	Dimethyl Phthalate	U	350	1.0	330	350	84
606-20-2	2,6-Dinitrotoluene	U	350	1.0	330	350	85
208-96-8	Acenaphthylene	U	350	1.0	330	350	75
99-09-2	3-Nitroaniline	U	880	1.0	820	880	100
83-32-9	Acenaphthene	U	350	1.0	330	350	70
51-28-5	2,4-Dinitrophenol	U	880	1.0	820	880	400
132-64-9	Dibenzofuran	U	350	1.0	330	350	85
100-02-7	4-Nitrophenol	U	880	1.0	820	880	330
121-14-2	2,4-Dinitrotoluene	U	350	1.0	330	350	91
84-66-2	Diethylphthalate	U	350	1.0	330	350	86
86-73-7	Fluorene	U	350	1.0	330	350	87
7005-72-3	4-Chlorophenyl-phenylether	U	350	1.0	330	350	84
100-01-6	4-Nitroaniline	U	880	1.0	820	880	140
534-52-1	4,6-Dinitro-2-Methylphenol	U	880	1.0	820	880	360

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 06-JUL-2009 19:34
Report Date: 07/08/2009
Matrix: SOIL
% Solids: 93.0

Lab ID: SC3122-29
Client ID: WGL-SD-SD105-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JCG
Analysis Method: SW846 8270C
Lab Prep Batch: WG65397
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
86-30-6	N-Nitrosodiphenylamine	U	350	1.0	330	350	240
101-55-3	4-Bromophenyl-phenylether	U	350	1.0	330	350	91
118-74-1	Hexachlorobenzene	U	350	1.0	330	350	88
1912-24-9	Atrazine	U	350	1.0	330	350	98
87-86-5	Pentachlorophenol	U	880	1.0	820	880	250
85-01-8	Phenanthrene	J	120	1.0	330	350	89
120-12-7	Anthracene	U	350	1.0	330	350	90
86-74-8	Carbazole	U	350	1.0	330	350	120
84-74-2	Di-n-butylphthalate	U	350	1.0	330	350	110
206-44-0	Fluoranthene	J	170	1.0	330	350	110
129-00-0	Pyrene	J	320	1.0	330	350	110
85-68-7	Butylbenzylphthalate	U	350	1.0	330	350	100
56-55-3	Benzo(a)anthracene	J	100	1.0	330	350	92
91-94-1	3,3'-Dichlorobenzidine	U	350	1.0	330	350	120
218-01-9	Chrysene	J	150	1.0	330	350	100
117-81-7	bis(2-Ethylhexyl)phthalate	U	350	1.0	330	350	100
117-84-0	Di-n-octylphthalate	U	350	1.0	330	350	230
205-99-2	Benzo(b)fluoranthene	J	200	1.0	330	350	140
207-08-9	Benzo(k)fluoranthene	J	98	1.0	330	350	89
50-32-8	Benzo(a)pyrene	J	160	1.0	330	350	100
193-39-5	Indeno(1,2,3-cd)pyrene	J	150	1.0	330	350	130
53-70-3	Dibenzo(a,h)anthracene	U	350	1.0	330	350	140
191-24-2	Benzo(g,h,i)perylene	J	120	1.0	330	350	110
367-12-4	2-Fluorophenol		* 40%				
13127-88-3	Phenol-D6		* 44%				
4165-60-0	Nitrobenzene-D5		* 43%				
321-60-8	2-Fluorobiphenyl		53%				
118-79-6	2,4,6-Tribromophenol		45%				
1718-51-0	Terphenyl-D14		79%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 06-JUL-2009 20:17
Report Date: 07/08/2009
Matrix: SOIL
% Solids: 94.6

Lab ID: SC3122-32
Client ID: WGL-SD-SD112-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JCG
Analysis Method: SW846 8270C
Lab Prep Batch: WG65397
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
123-91-1	1,4-Dioxane	U	350	1.0	330	350	57
100-52-7	Benzaldehyde		1100	1.0	330	350	130
108-95-2	Phenol	U	350	1.0	330	350	160
111-44-4	Bis(2-Chloroethyl)ether	U	350	1.0	330	350	86
95-57-8	2-Chlorophenol	U	350	1.0	330	350	170
95-48-7	2-Methylphenol	U	350	1.0	330	350	210
108-60-1	2,2'-Oxybis(1-chloropropane)	U	350	1.0	330	350	94
98-86-2	Acetophenone	U	350	1.0	330	350	190
621-64-7	N-Nitroso-di-n-propylamine	U	350	1.0	330	350	88
65794-96-9	3&4-Methylphenol	U	350	1.0	330	350	200
67-72-1	Hexachloroethane	U	350	1.0	330	350	100
98-95-3	Nitrobenzene	U	350	1.0	330	350	96
78-59-1	Isophorone	U	350	1.0	330	350	79
88-75-5	2-Nitrophenol	U	350	1.0	330	350	180
105-67-9	2,4-Dimethylphenol	U	350	1.0	330	350	170
111-91-1	Bis(2-Chloroethoxy)methane	U	350	1.0	330	350	100
120-83-2	2,4-Dichlorophenol	U	350	1.0	330	350	160
91-20-3	Naphthalene	U	350	1.0	330	350	92
106-47-8	4-Chloroaniline	U	350	1.0	330	350	120
87-68-3	Hexachlorobutadiene	U	350	1.0	330	350	88
105-60-2	Caprolactam	U	350	1.0	330	350	150
59-50-7	4-Chloro-3-Methylphenol	U	350	1.0	330	350	180
91-57-6	2-Methylnaphthalene	U	350	1.0	330	350	97
77-47-4	Hexachlorocyclopentadiene	U	350	1.0	330	350	87
88-06-2	2,4,6-Trichlorophenol	U	350	1.0	330	350	160
95-95-4	2,4,5-Trichlorophenol	U	870	1.0	820	870	160
91-58-7	2-Chloronaphthalene	U	350	1.0	330	350	92
92-52-4	1,1'-Biphenyl	U	350	1.0	330	350	77
88-74-4	2-Nitroaniline	U	870	1.0	820	870	79
131-11-3	Dimethyl Phthalate	U	350	1.0	330	350	82
606-20-2	2,6-Dinitrotoluene	U	350	1.0	330	350	83
208-96-8	Acenaphthylene	U	350	1.0	330	350	74
99-09-2	3-Nitroaniline	U	870	1.0	820	870	99
83-32-9	Acenaphthene	U	350	1.0	330	350	69
51-28-5	2,4-Dinitrophenol	U	870	1.0	820	870	400
132-64-9	Dibenzofuran	U	350	1.0	330	350	83
100-02-7	4-Nitrophenol	U	870	1.0	820	870	330
121-14-2	2,4-Dinitrotoluene	U	350	1.0	330	350	90
84-66-2	Diethylphthalate	U	350	1.0	330	350	84
86-73-7	Fluorene	U	350	1.0	330	350	86
7005-72-3	4-Chlorophenyl-phenylether	U	350	1.0	330	350	82
100-01-6	4-Nitroaniline	U	870	1.0	820	870	140
534-52-1	4,6-Dinitro-2-Methylphenol	U	870	1.0	820	870	360

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 06-JUL-2009 20:17
Report Date: 07/08/2009
Matrix: SOIL
% Solids: 94.6

Lab ID: SC3122-32
Client ID: WGL-SD-SD112-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JCG
Analysis Method: SW846 8270C
Lab Prep Batch: WG65397
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
86-30-6	N-Nitrosodiphenylamine	U	350	1.0	330	350	230
101-55-3	4-Bromophenyl-phenylether	U	350	1.0	330	350	90
118-74-1	Hexachlorobenzene	U	350	1.0	330	350	87
1912-24-9	Atrazine	U	350	1.0	330	350	96
87-86-5	Pentachlorophenol	U	870	1.0	820	870	250
85-01-8	Phenanthrene	U	350	1.0	330	350	88
120-12-7	Anthracene	U	350	1.0	330	350	89
86-74-8	Carbazole	U	350	1.0	330	350	120
84-74-2	Di-n-butylphthalate	U	350	1.0	330	350	110
206-44-0	Fluoranthene	U	350	1.0	330	350	110
129-00-0	Pyrene	J	180	1.0	330	350	110
85-68-7	Butylbenzylphthalate	U	350	1.0	330	350	98
56-55-3	Benzo(a)anthracene	U	350	1.0	330	350	91
91-94-1	3,3'-Dichlorobenzidine	U	350	1.0	330	350	120
218-01-9	Chrysene	U	350	1.0	330	350	100
117-81-7	bis(2-Ethylhexyl)phthalate	U	350	1.0	330	350	100
117-84-0	Di-n-octylphthalate	U	350	1.0	330	350	220
205-99-2	Benzo(b)fluoranthene	U	350	1.0	330	350	140
207-08-9	Benzo(k)fluoranthene	U	350	1.0	330	350	88
50-32-8	Benzo(a)pyrene	J	100	1.0	330	350	98
193-39-5	Indeno(1,2,3-cd)pyrene	U	350	1.0	330	350	130
53-70-3	Dibenzo(a,h)anthracene	U	350	1.0	330	350	140
191-24-2	Benzo(g,h,i)perylene	U	350	1.0	330	350	110
367-12-4	2-Fluorophenol		* 38%				
13127-88-3	Phenol-D6		* 39%				
4165-60-0	Nitrobenzene-D5		* 46%				
321-60-8	2-Fluorobiphenyl		65%				
118-79-6	2,4,6-Tribromophenol		* 42%				
1718-51-0	Terphenyl-D14		74%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 06-JUL-2009 21:00
Report Date: 07/08/2009
Matrix: SOIL
% Solids: 92.7

Lab ID: SC3122-35
Client ID: WGL-SD-SD110-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JCG
Analysis Method: SW846 8270C
Lab Prep Batch: WG65397
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
123-91-1	1,4-Dioxane	U	430	1.0	330	430	70
100-52-7	Benzaldehyde		1400	1.0	330	430	160
108-95-2	Phenol	U	430	1.0	330	430	200
111-44-4	Bis(2-Chloroethyl)ether	U	430	1.0	330	430	100
95-57-8	2-Chlorophenol	U	430	1.0	330	430	210
95-48-7	2-Methylphenol	U	430	1.0	330	430	260
108-60-1	2,2'-Oxybis(1-chloropropane)	U	430	1.0	330	430	120
98-86-2	Acetophenone	U	430	1.0	330	430	230
621-64-7	N-Nitroso-di-n-propylamine	U	430	1.0	330	430	110
65794-96-9	3&4-Methylphenol	U	430	1.0	330	430	240
67-72-1	Hexachloroethane	U	430	1.0	330	430	120
98-95-3	Nitrobenzene	U	430	1.0	330	430	120
78-59-1	Isophorone	U	430	1.0	330	430	97
88-75-5	2-Nitrophenol	U	430	1.0	330	430	220
105-67-9	2,4-Dimethylphenol	U	430	1.0	330	430	210
111-91-1	Bis(2-Chloroethoxy)methane	U	430	1.0	330	430	120
120-83-2	2,4-Dichlorophenol	U	430	1.0	330	430	190
91-20-3	Naphthalene	U	430	1.0	330	430	110
106-47-8	4-Chloroaniline	U	430	1.0	330	430	150
87-68-3	Hexachlorobutadiene	U	430	1.0	330	430	110
105-60-2	Caprolactam	U	430	1.0	330	430	190
59-50-7	4-Chloro-3-Methylphenol	U	430	1.0	330	430	210
91-57-6	2-Methylnaphthalene	U	430	1.0	330	430	120
77-47-4	Hexachlorocyclopentadiene	U	430	1.0	330	430	110
88-06-2	2,4,6-Trichlorophenol	U	430	1.0	330	430	200
95-95-4	2,4,5-Trichlorophenol	U	1100	1.0	820	1100	200
91-58-7	2-Chloronaphthalene	U	430	1.0	330	430	110
92-52-4	1,1'-Biphenyl	U	430	1.0	330	430	94
88-74-4	2-Nitroaniline	U	1100	1.0	820	1100	97
131-11-3	Dimethyl Phthalate	U	430	1.0	330	430	100
606-20-2	2,6-Dinitrotoluene	U	430	1.0	330	430	100
208-96-8	Acenaphthylene	U	430	1.0	330	430	91
99-09-2	3-Nitroaniline	U	1100	1.0	820	1100	120
83-32-9	Acenaphthene	U	430	1.0	330	430	84
51-28-5	2,4-Dinitrophenol	U	1100	1.0	820	1100	490
132-64-9	Dibenzofuran	U	430	1.0	330	430	100
100-02-7	4-Nitrophenol	U	1100	1.0	820	1100	400
121-14-2	2,4-Dinitrotoluene	U	430	1.0	330	430	110
84-66-2	Diethylphthalate	U	430	1.0	330	430	100
86-73-7	Fluorene	U	430	1.0	330	430	100
7005-72-3	4-Chlorophenyl-phenylether	U	430	1.0	330	430	100
100-01-6	4-Nitroaniline	U	1100	1.0	820	1100	170
534-52-1	4,6-Dinitro-2-Methylphenol	U	1100	1.0	820	1100	440

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 06-JUL-2009 21:00
Report Date: 07/08/2009
Matrix: SOIL
% Solids: 92.7

Lab ID: SC3122-35
Client ID: WGL-SD-SD110-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JCG
Analysis Method: SW846 8270C
Lab Prep Batch: WG65397
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
86-30-6	N-Nitrosodiphenylamine	U	430	1.0	330	430	280
101-55-3	4-Bromophenyl-phenylether	U	430	1.0	330	430	110
118-74-1	Hexachlorobenzene	U	430	1.0	330	430	110
1912-24-9	Atrazine	U	430	1.0	330	430	120
87-86-5	Pentachlorophenol	U	1100	1.0	820	1100	310
85-01-8	Phenanthrene	J	130	1.0	330	430	110
120-12-7	Anthracene	U	430	1.0	330	430	110
86-74-8	Carbazole	U	430	1.0	330	430	140
84-74-2	Di-n-butylphthalate	U	430	1.0	330	430	130
206-44-0	Fluoranthene	J	180	1.0	330	430	140
129-00-0	Pyrene		530	1.0	330	430	130
85-68-7	Butylbenzylphthalate	U	430	1.0	330	430	120
56-55-3	Benzo(a)anthracene	U	430	1.0	330	430	110
91-94-1	3,3'-Dichlorobenzidine	U	430	1.0	330	430	150
218-01-9	Chrysene	U	430	1.0	330	430	120
117-81-7	bis(2-Ethylhexyl)phthalate	U	430	1.0	330	430	130
117-84-0	Di-n-octylphthalate	U	430	1.0	330	430	270
205-99-2	Benzo(b)fluoranthene	J	270	1.0	330	430	170
207-08-9	Benzo(k)fluoranthene	J	160	1.0	330	430	110
50-32-8	Benzo(a)pyrene	J	260	1.0	330	430	120
193-39-5	Indeno(1,2,3-cd)pyrene	U	430	1.0	330	430	160
53-70-3	Dibenzo(a,h)anthracene	U	430	1.0	330	430	160
191-24-2	Benzo(g,h,i)perylene	U	430	1.0	330	430	130
367-12-4	2-Fluorophenol		50%				
13127-88-3	Phenol-D6		55%				
4165-60-0	Nitrobenzene-D5		49%				
321-60-8	2-Fluorobiphenyl		76%				
118-79-6	2,4,6-Tribromophenol		51%				
1718-51-0	Terphenyl-D14		107%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 06-JUL-2009 21:44
Report Date: 07/08/2009
Matrix: SOIL
% Solids: 94.8

Lab ID: SC3122-38
Client ID: WGL-SD-SD109-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JCG
Analysis Method: SW846 8270C
Lab Prep Batch: WG65397
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
123-91-1	1,4-Dioxane	U	350	1.0	330	350	57
100-52-7	Benzaldehyde		890	1.0	330	350	130
108-95-2	Phenol	U	350	1.0	330	350	160
111-44-4	Bis(2-Chloroethyl)ether	U	350	1.0	330	350	85
95-57-8	2-Chlorophenol	U	350	1.0	330	350	170
95-48-7	2-Methylphenol	U	350	1.0	330	350	210
108-60-1	2,2'-Oxybis(1-chloropropane)	U	350	1.0	330	350	94
98-86-2	Acetophenone	U	350	1.0	330	350	190
621-64-7	N-Nitroso-di-n-propylamine	U	350	1.0	330	350	88
65794-96-9	3&4-Methylphenol	U	350	1.0	330	350	200
67-72-1	Hexachloroethane	U	350	1.0	330	350	100
98-95-3	Nitrobenzene	U	350	1.0	330	350	96
78-59-1	Isophorone	U	350	1.0	330	350	79
88-75-5	2-Nitrophenol	U	350	1.0	330	350	180
105-67-9	2,4-Dimethylphenol	U	350	1.0	330	350	170
111-91-1	Bis(2-Chloroethoxy)methane	U	350	1.0	330	350	100
120-83-2	2,4-Dichlorophenol	U	350	1.0	330	350	160
91-20-3	Naphthalene	U	350	1.0	330	350	92
106-47-8	4-Chloroaniline	U	350	1.0	330	350	120
87-68-3	Hexachlorobutadiene	U	350	1.0	330	350	88
105-60-2	Caprolactam	U	350	1.0	330	350	150
59-50-7	4-Chloro-3-Methylphenol	U	350	1.0	330	350	180
91-57-6	2-Methylnaphthalene	U	350	1.0	330	350	97
77-47-4	Hexachlorocyclopentadiene	U	350	1.0	330	350	86
88-06-2	2,4,6-Trichlorophenol	U	350	1.0	330	350	160
95-95-4	2,4,5-Trichlorophenol	U	860	1.0	820	860	160
91-58-7	2-Chloronaphthalene	U	350	1.0	330	350	92
92-52-4	1,1'-Biphenyl	U	350	1.0	330	350	77
88-74-4	2-Nitroaniline	U	860	1.0	820	860	79
131-11-3	Dimethyl Phthalate	U	350	1.0	330	350	82
606-20-2	2,6-Dinitrotoluene	U	350	1.0	330	350	83
208-96-8	Acenaphthylene	U	350	1.0	330	350	74
99-09-2	3-Nitroaniline	U	860	1.0	820	860	99
83-32-9	Acenaphthene	U	350	1.0	330	350	68
51-28-5	2,4-Dinitrophenol	U	860	1.0	820	860	400
132-64-9	Dibenzofuran	U	350	1.0	330	350	83
100-02-7	4-Nitrophenol	U	860	1.0	820	860	330
121-14-2	2,4-Dinitrotoluene	U	350	1.0	330	350	90
84-66-2	Diethylphthalate	U	350	1.0	330	350	84
86-73-7	Fluorene	U	350	1.0	330	350	85
7005-72-3	4-Chlorophenyl-phenylether	U	350	1.0	330	350	82
100-01-6	4-Nitroaniline	U	860	1.0	820	860	140
534-52-1	4,6-Dinitro-2-Methylphenol	U	860	1.0	820	860	360

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 06-JUL-2009 21:44
Report Date: 07/08/2009
Matrix: SOIL
% Solids: 94.8

Lab ID: SC3122-38
Client ID: WGL-SD-SD109-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JCG
Analysis Method: SW846 8270C
Lab Prep Batch: WG65397
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
86-30-6	N-Nitrosodiphenylamine	U	350	1.0	330	350	230
101-55-3	4-Bromophenyl-phenylether	U	350	1.0	330	350	90
118-74-1	Hexachlorobenzene	U	350	1.0	330	350	86
1912-24-9	Atrazine	U	350	1.0	330	350	96
87-86-5	Pentachlorophenol	U	860	1.0	820	860	250
85-01-8	Phenanthrene	J	110	1.0	330	350	88
120-12-7	Anthracene	U	350	1.0	330	350	89
86-74-8	Carbazole	U	350	1.0	330	350	120
84-74-2	Di-n-butylphthalate	U	350	1.0	330	350	110
206-44-0	Fluoranthene	J	120	1.0	330	350	110
129-00-0	Pyrene		430	1.0	330	350	110
85-68-7	Butylbenzylphthalate	U	350	1.0	330	350	98
56-55-3	Benzo(a)anthracene	U	350	1.0	330	350	91
91-94-1	3,3'-Dichlorobenzidine	U	350	1.0	330	350	120
218-01-9	Chrysene	U	350	1.0	330	350	100
117-81-7	bis(2-Ethylhexyl)phthalate	U	350	1.0	330	350	100
117-84-0	Di-n-octylphthalate	U	350	1.0	330	350	220
205-99-2	Benzo(b)fluoranthene	U	350	1.0	330	350	140
207-08-9	Benzo(k)fluoranthene	U	350	1.0	330	350	88
50-32-8	Benzo(a)pyrene	J	160	1.0	330	350	98
193-39-5	Indeno(1,2,3-cd)pyrene	U	350	1.0	330	350	130
53-70-3	Dibenzo(a,h)anthracene	U	350	1.0	330	350	140
191-24-2	Benzo(g,h,i)perylene	U	350	1.0	330	350	110
367-12-4	2-Fluorophenol		44%				
13127-88-3	Phenol-D6		* 48%				
4165-60-0	Nitrobenzene-D5		* 46%				
321-60-8	2-Fluorobiphenyl		65%				
118-79-6	2,4,6-Tribromophenol		* 41%				
1718-51-0	Terphenyl-D14		100%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 08-JUL-2009 00:26
Report Date: 07/10/2009
Matrix: SOIL
% Solids: 94.2

Lab ID: SC3122-41
Client ID: L-SD-SD111-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JCG
Analysis Method: SW846 8270C
Lab Prep Batch: WG65397
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
123-91-1	1,4-Dioxane	U	350	1.0	330	350	57
100-52-7	Benzaldehyde		490	1.0	330	350	130
108-95-2	Phenol	U	350	1.0	330	350	160
111-44-4	Bis(2-Chloroethyl)ether	U	350	1.0	330	350	86
95-57-8	2-Chlorophenol	U	350	1.0	330	350	170
95-48-7	2-Methylphenol	U	350	1.0	330	350	210
108-60-1	2,2'-Oxybis(1-chloropropane)	U	350	1.0	330	350	94
98-86-2	Acetophenone	U	350	1.0	330	350	190
621-64-7	N-Nitroso-di-n-propylamine	U	350	1.0	330	350	88
65794-96-9	3&4-Methylphenol	U	350	1.0	330	350	200
67-72-1	Hexachloroethane	U	350	1.0	330	350	100
98-95-3	Nitrobenzene	U	350	1.0	330	350	97
78-59-1	Isophorone	U	350	1.0	330	350	80
88-75-5	2-Nitrophenol	U	350	1.0	330	350	180
105-67-9	2,4-Dimethylphenol	U	350	1.0	330	350	180
111-91-1	Bis(2-Chloroethoxy)methane	U	350	1.0	330	350	100
120-83-2	2,4-Dichlorophenol	U	350	1.0	330	350	160
91-20-3	Naphthalene	U	350	1.0	330	350	92
106-47-8	4-Chloroaniline	U	350	1.0	330	350	130
87-68-3	Hexachlorobutadiene	U	350	1.0	330	350	88
105-60-2	Caprolactam	U	350	1.0	330	350	150
59-50-7	4-Chloro-3-Methylphenol	U	350	1.0	330	350	180
91-57-6	2-Methylnaphthalene	U	350	1.0	330	350	98
77-47-4	Hexachlorocyclopentadiene	U	350	1.0	330	350	87
88-06-2	2,4,6-Trichlorophenol	U	350	1.0	330	350	160
95-95-4	2,4,5-Trichlorophenol	U	870	1.0	820	870	160
91-58-7	2-Chloronaphthalene	U	350	1.0	330	350	92
92-52-4	1,1'-Biphenyl	U	350	1.0	330	350	78
88-74-4	2-Nitroaniline	U	870	1.0	820	870	80
131-11-3	Dimethyl Phthalate	U	350	1.0	330	350	83
606-20-2	2,6-Dinitrotoluene	U	350	1.0	330	350	84
208-96-8	Acenaphthylene	U	350	1.0	330	350	74
99-09-2	3-Nitroaniline	U	870	1.0	820	870	100
83-32-9	Acenaphthene	U	350	1.0	330	350	69
51-28-5	2,4-Dinitrophenol	U	870	1.0	820	870	400
132-64-9	Dibenzofuran	U	350	1.0	330	350	84
100-02-7	4-Nitrophenol	U	870	1.0	820	870	330
121-14-2	2,4-Dinitrotoluene	U	350	1.0	330	350	90
84-66-2	Diethylphthalate	U	350	1.0	330	350	85
86-73-7	Fluorene	U	350	1.0	330	350	86
7005-72-3	4-Chlorophenyl-phenylether	U	350	1.0	330	350	83
100-01-6	4-Nitroaniline	U	870	1.0	820	870	140
534-52-1	4,6-Dinitro-2-Methylphenol	U	870	1.0	820	870	360

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 08-JUL-2009 00:26
Report Date: 07/10/2009
Matrix: SOIL
% Solids: 94.2

Lab ID: SC3122-41
Client ID: L-SD-SD111-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JCG
Analysis Method: SW846 8270C
Lab Prep Batch: WG65397
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
86-30-6	N-Nitrosodiphenylamine	U	350	1.0	330	350	230
101-55-3	4-Bromophenyl-phenylether	U	350	1.0	330	350	90
118-74-1	Hexachlorobenzene	U	350	1.0	330	350	87
1912-24-9	Atrazine	U	350	1.0	330	350	97
87-86-5	Pentachlorophenol	U	870	1.0	820	870	250
85-01-8	Phenanthrene	J	160	1.0	330	350	88
120-12-7	Anthracene	U	350	1.0	330	350	89
86-74-8	Carbazole	U	350	1.0	330	350	120
84-74-2	Di-n-butylphthalate	U	350	1.0	330	350	110
206-44-0	Fluoranthene	J	260	1.0	330	350	110
129-00-0	Pyrene		400	1.0	330	350	110
85-68-7	Butylbenzylphthalate	U	350	1.0	330	350	99
56-55-3	Benzo(a)anthracene	J	120	1.0	330	350	91
91-94-1	3,3'-Dichlorobenzidine	U	350	1.0	330	350	120
218-01-9	Chrysene	J	190	1.0	330	350	100
117-81-7	bis(2-Ethylhexyl)phthalate	U	350	1.0	330	350	100
117-84-0	Di-n-octylphthalate	U	350	1.0	330	350	220
205-99-2	Benzo(b)fluoranthene	J	240	1.0	330	350	140
207-08-9	Benzo(k)fluoranthene	J	120	1.0	330	350	88
50-32-8	Benzo(a)pyrene	J	160	1.0	330	350	99
193-39-5	Indeno(1,2,3-cd)pyrene	U	350	1.0	330	350	130
53-70-3	Dibenzo(a,h)anthracene	U	350	1.0	330	350	140
191-24-2	Benzo(g,h,i)perylene	U	350	1.0	330	350	110
367-12-4	2-Fluorophenol		* 40%				
13127-88-3	Phenol-D6		* 44%				
4165-60-0	Nitrobenzene-D5		* 42%				
321-60-8	2-Fluorobiphenyl		55%				
118-79-6	2,4,6-Tribromophenol		* 40%				
1718-51-0	Terphenyl-D14		72%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/15/09
Analysis Date: 16-JUN-2009 12:11
Report Date: 07/08/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3122-43
Client ID: WGL-SD-FB01-061109
SDG: SC3122
Extracted by: KF
Extraction Method: SW846 3510
Analyst: JCG
Analysis Method: SW846 8270C
Lab Prep Batch: WG64998
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
123-91-1	1,4-Dioxane	U	9	1.0	10	9	1
100-52-7	Benzaldehyde	U	9	1.0	10	9	3
108-95-2	Phenol	U	9	1.0	10	9	2
111-44-4	Bis(2-Chloroethyl)ether	U	9	1.0	10	9	2
95-57-8	2-Chlorophenol	U	9	1.0	10	9	3
95-48-7	2-Methylphenol	U	9	1.0	10	9	4
108-60-1	2,2'-Oxybis(1-chloropropane)	U	9	1.0	10	9	2
98-86-2	Acetophenone	U	9	1.0	10	9	4
621-64-7	N-Nitroso-di-n-propylamine	U	9	1.0	10	9	2
65794-96-9	3&4-Methylphenol	U	9	1.0	10	9	2
67-72-1	Hexachloroethane	U	9	1.0	10	9	2
98-95-3	Nitrobenzene	U	9	1.0	10	9	2
78-59-1	Isophorone	U	9	1.0	10	9	2
88-75-5	2-Nitrophenol	U	9	1.0	10	9	3
105-67-9	2,4-Dimethylphenol	U	9	1.0	10	9	4
111-91-1	Bis(2-Chloroethoxy)methane	U	9	1.0	10	9	2
120-83-2	2,4-Dichlorophenol	U	9	1.0	10	9	4
91-20-3	Naphthalene	U	9	1.0	10	9	2
106-47-8	4-Chloroaniline	U	9	1.0	10	9	2
87-68-3	Hexachlorobutadiene	U	9	1.0	10	9	2
105-60-2	Caprolactam	U	9	1.0	10	9	0.4
59-50-7	4-Chloro-3-Methylphenol	U	9	1.0	10	9	2
91-57-6	2-Methylnaphthalene	U	9	1.0	10	9	2
77-47-4	Hexachlorocyclopentadiene	U	9	1.0	10	9	1
88-06-2	2,4,6-Trichlorophenol	U	9	1.0	10	9	3
95-95-4	2,4,5-Trichlorophenol	U	24	1.0	25	24	4
91-58-7	2-Chloronaphthalene	U	9	1.0	10	9	2
92-52-4	1,1'-Biphenyl	U	9	1.0	10	9	2
88-74-4	2-Nitroaniline	U	24	1.0	25	24	1
131-11-3	Dimethyl Phthalate	U	9	1.0	10	9	0.7
606-20-2	2,6-Dinitrotoluene	U	9	1.0	10	9	1.0
208-96-8	Acenaphthylene	U	9	1.0	10	9	2
99-09-2	3-Nitroaniline	U	24	1.0	25	24	1
83-32-9	Acenaphthene	U	9	1.0	10	9	2
51-28-5	2,4-Dinitrophenol	U	24	1.0	25	24	14
132-64-9	Dibenzofuran	U	9	1.0	10	9	1
100-02-7	4-Nitrophenol	U	24	1.0	25	24	5
121-14-2	2,4-Dinitrotoluene	U	9	1.0	10	9	1
84-66-2	Diethylphthalate	U	9	1.0	10	9	1
86-73-7	Fluorene	U	9	1.0	10	9	1
7005-72-3	4-Chlorophenyl-phenylether	U	9	1.0	10	9	1
100-01-6	4-Nitroaniline	U	24	1.0	25	24	2
534-52-1	4,6-Dinitro-2-Methylphenol	U	24	1.0	25	24	6

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/15/09
Analysis Date: 16-JUN-2009 12:11
Report Date: 07/08/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3122-43
Client ID: WGL-SD-FB01-061109
SDG: SC3122
Extracted by: KF
Extraction Method: SW846 3510
Analyst: JCG
Analysis Method: SW846 8270C
Lab Prep Batch: WG64998
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
86-30-6	N-Nitrosodiphenylamine	U	9	1.0	10	9	2
101-55-3	4-Bromophenyl-phenylether	U	9	1.0	10	9	1
118-74-1	Hexachlorobenzene	U	9	1.0	10	9	0.9
1912-24-9	Atrazine	U	9	1.0	10	9	2
87-86-5	Pentachlorophenol	U	24	1.0	25	24	7
85-01-8	Phenanthrene	U	9	1.0	10	9	0.9
120-12-7	Anthracene	U	9	1.0	10	9	1
86-74-8	Carbazole	U	9	1.0	10	9	1
84-74-2	Di-n-butylphthalate	U	9	1.0	10	9	1
206-44-0	Fluoranthene	U	9	1.0	10	9	1
129-00-0	Pyrene	U	9	1.0	10	9	1
85-68-7	Butylbenzylphthalate	U	9	1.0	10	9	1
56-55-3	Benzo(a)anthracene	U	9	1.0	10	9	1
91-94-1	3,3'-Dichlorobenzidine	U	9	1.0	10	9	3
218-01-9	Chrysene	U	9	1.0	10	9	1
117-81-7	bis(2-Ethylhexyl)phthalate	U	9	1.0	10	9	2
117-84-0	Di-n-octylphthalate	U	9	1.0	10	9	2
205-99-2	Benzo(b)fluoranthene	U	9	1.0	10	9	1
207-08-9	Benzo(k)fluoranthene	U	9	1.0	10	9	1
50-32-8	Benzo(a)pyrene	U	9	1.0	10	9	1
193-39-5	Indeno(1,2,3-cd)pyrene	U	9	1.0	10	9	2
53-70-3	Dibenzo(a,h)anthracene	U	9	1.0	10	9	2
191-24-2	Benzo(g,h,i)perylene	U	9	1.0	10	9	2
367-12-4	2-Fluorophenol		51%				
13127-88-3	Phenol-D6		28%				
4165-60-0	Nitrobenzene-D5		75%				
321-60-8	2-Fluorobiphenyl		78%				
118-79-6	2,4,6-Tribromophenol		84%				
1718-51-0	Terphenyl-D14		91%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/15/09
Analysis Date: 16-JUN-2009 12:55
Report Date: 07/08/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3122-45
Client ID: WGL-SD-RB01-061109
SDG: SC3122
Extracted by: KF
Extraction Method: SW846 3510
Analyst: JCG
Analysis Method: SW846 8270C
Lab Prep Batch: WG64998
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
123-91-1	1,4-Dioxane	U	9	1.0	10	9	1
100-52-7	Benzaldehyde	U	9	1.0	10	9	3
108-95-2	Phenol	U	9	1.0	10	9	2
111-44-4	Bis(2-Chloroethyl)ether	U	9	1.0	10	9	2
95-57-8	2-Chlorophenol	U	9	1.0	10	9	3
95-48-7	2-Methylphenol	U	9	1.0	10	9	4
108-60-1	2,2'-Oxybis(1-chloropropane)	U	9	1.0	10	9	2
98-86-2	Acetophenone	U	9	1.0	10	9	4
621-64-7	N-Nitroso-di-n-propylamine	U	9	1.0	10	9	2
65794-96-9	3&4-Methylphenol	U	9	1.0	10	9	2
67-72-1	Hexachloroethane	U	9	1.0	10	9	2
98-95-3	Nitrobenzene	U	9	1.0	10	9	2
78-59-1	Isophorone	U	9	1.0	10	9	2
88-75-5	2-Nitrophenol	U	9	1.0	10	9	3
105-67-9	2,4-Dimethylphenol	U	9	1.0	10	9	4
111-91-1	Bis(2-Chloroethoxy)methane	U	9	1.0	10	9	2
120-83-2	2,4-Dichlorophenol	U	9	1.0	10	9	4
91-20-3	Naphthalene	U	9	1.0	10	9	2
106-47-8	4-Chloroaniline	U	9	1.0	10	9	2
87-68-3	Hexachlorobutadiene	U	9	1.0	10	9	2
105-60-2	Caprolactam	U	9	1.0	10	9	0.4
59-50-7	4-Chloro-3-Methylphenol	U	9	1.0	10	9	2
91-57-6	2-Methylnaphthalene	U	9	1.0	10	9	2
77-47-4	Hexachlorocyclopentadiene	U	9	1.0	10	9	1
88-06-2	2,4,6-Trichlorophenol	U	9	1.0	10	9	3
95-95-4	2,4,5-Trichlorophenol	U	24	1.0	25	24	4
91-58-7	2-Chloronaphthalene	U	9	1.0	10	9	2
92-52-4	1,1'-Biphenyl	U	9	1.0	10	9	2
88-74-4	2-Nitroaniline	U	24	1.0	25	24	1
131-11-3	Dimethyl Phthalate	U	9	1.0	10	9	0.7
606-20-2	2,6-Dinitrotoluene	U	9	1.0	10	9	1.0
208-96-8	Acenaphthylene	U	9	1.0	10	9	2
99-09-2	3-Nitroaniline	U	24	1.0	25	24	1
83-32-9	Acenaphthene	U	9	1.0	10	9	2
51-28-5	2,4-Dinitrophenol	U	24	1.0	25	24	14
132-64-9	Dibenzofuran	U	9	1.0	10	9	1
100-02-7	4-Nitrophenol	U	24	1.0	25	24	5
121-14-2	2,4-Dinitrotoluene	U	9	1.0	10	9	1
84-66-2	Diethylphthalate	U	9	1.0	10	9	1
86-73-7	Fluorene	U	9	1.0	10	9	1
7005-72-3	4-Chlorophenyl-phenylether	U	9	1.0	10	9	1
100-01-6	4-Nitroaniline	U	24	1.0	25	24	2
534-52-1	4,6-Dinitro-2-Methylphenol	U	24	1.0	25	24	6

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/15/09
Analysis Date: 16-JUN-2009 12:55
Report Date: 07/08/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3122-45
Client ID: WGL-SD-RB01-061109
SDG: SC3122
Extracted by: KF
Extraction Method: SW846 3510
Analyst: JCG
Analysis Method: SW846 8270C
Lab Prep Batch: WG64998
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
86-30-6	N-Nitrosodiphenylamine	U	9	1.0	10	9	2
101-55-3	4-Bromophenyl-phenylether	U	9	1.0	10	9	1
118-74-1	Hexachlorobenzene	U	9	1.0	10	9	0.9
1912-24-9	Atrazine	U	9	1.0	10	9	2
87-86-5	Pentachlorophenol	U	24	1.0	25	24	7
85-01-8	Phenanthrene	U	9	1.0	10	9	0.9
120-12-7	Anthracene	U	9	1.0	10	9	1
86-74-8	Carbazole	U	9	1.0	10	9	1
84-74-2	Di-n-butylphthalate	U	9	1.0	10	9	1
206-44-0	Fluoranthene	U	9	1.0	10	9	1
129-00-0	Pyrene	U	9	1.0	10	9	1
85-68-7	Butylbenzylphthalate	U	9	1.0	10	9	1
56-55-3	Benzo(a)anthracene	U	9	1.0	10	9	1
91-94-1	3,3'-Dichlorobenzidine	U	9	1.0	10	9	3
218-01-9	Chrysene	U	9	1.0	10	9	1
117-81-7	bis(2-Ethylhexyl)phthalate	U	9	1.0	10	9	2
117-84-0	Di-n-octylphthalate	U	9	1.0	10	9	2
205-99-2	Benzo(b)fluoranthene	U	9	1.0	10	9	1
207-08-9	Benzo(k)fluoranthene	U	9	1.0	10	9	1
50-32-8	Benzo(a)pyrene	U	9	1.0	10	9	1
193-39-5	Indeno(1,2,3-cd)pyrene	U	9	1.0	10	9	2
53-70-3	Dibenzo(a,h)anthracene	U	9	1.0	10	9	2
191-24-2	Benzo(g,h,i)perylene	U	9	1.0	10	9	2
367-12-4	2-Fluorophenol		43%				
13127-88-3	Phenol-D6		24%				
4165-60-0	Nitrobenzene-D5		63%				
321-60-8	2-Fluorobiphenyl		67%				
118-79-6	2,4,6-Tribromophenol		68%				
1718-51-0	Terphenyl-D14		79%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client:
Project: CTO 407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date: 06/06/09
Analysis Date: 16-JUN-2009 10:00
Report Date: 07/08/2009
Matrix: WATER
% Solids: NA

Lab ID: WG64998-1
Client ID: WG64998-Blank
SDG: SC3122
Extracted by: CB
Extraction Method: SW846 3510
Analyst: JCG
Analysis Method: SW846 8270C
Lab Prep Batch: WG64998
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
123-91-1	1,4-Dioxane	U	10	1.0	10	10	1
100-52-7	Benzaldehyde	U	10	1.0	10	10	3
108-95-2	Phenol	U	10	1.0	10	10	2
111-44-4	Bis(2-Chloroethyl)ether	U	10	1.0	10	10	2
95-57-8	2-Chlorophenol	U	10	1.0	10	10	3
95-48-7	2-Methylphenol	U	10	1.0	10	10	4
108-60-1	2,2'-Oxybis(1-chloropropane)	U	10	1.0	10	10	2
98-86-2	Acetophenone	U	10	1.0	10	10	4
621-64-7	N-Nitroso-di-n-propylamine	U	10	1.0	10	10	2
65794-96-9	3&4-Methylphenol	U	10	1.0	10	10	3
67-72-1	Hexachloroethane	U	10	1.0	10	10	2
98-95-3	Nitrobenzene	U	10	1.0	10	10	2
78-59-1	Isophorone	U	10	1.0	10	10	2
88-75-5	2-Nitrophenol	U	10	1.0	10	10	4
105-67-9	2,4-Dimethylphenol	U	10	1.0	10	10	4
111-91-1	Bis(2-Chloroethoxy)methane	U	10	1.0	10	10	2
120-83-2	2,4-Dichlorophenol	U	10	1.0	10	10	4
91-20-3	Naphthalene	U	10	1.0	10	10	2
106-47-8	4-Chloroaniline	U	10	1.0	10	10	2
87-68-3	Hexachlorobutadiene	U	10	1.0	10	10	2
105-60-2	Caprolactam	U	10	1.0	10	10	0.4
59-50-7	4-Chloro-3-Methylphenol	U	10	1.0	10	10	2
91-57-6	2-Methylnaphthalene	U	10	1.0	10	10	2
77-47-4	Hexachlorocyclopentadiene	U	10	1.0	10	10	1
88-06-2	2,4,6-Trichlorophenol	U	10	1.0	10	10	3
95-95-4	2,4,5-Trichlorophenol	U	25	1.0	25	25	4
91-58-7	2-Chloronaphthalene	U	10	1.0	10	10	2
92-52-4	1,1'-Biphenyl	U	10	1.0	10	10	2
88-74-4	2-Nitroaniline	U	25	1.0	25	25	2
131-11-3	Dimethyl Phthalate	U	10	1.0	10	10	0.8
606-20-2	2,6-Dinitrotoluene	U	10	1.0	10	10	1
208-96-8	Acenaphthylene	U	10	1.0	10	10	2
99-09-2	3-Nitroaniline	U	25	1.0	25	25	1
83-32-9	Acenaphthene	U	10	1.0	10	10	2
51-28-5	2,4-Dinitrophenol	U	25	1.0	25	25	15
132-64-9	Dibenzofuran	U	10	1.0	10	10	1
100-02-7	4-Nitrophenol	U	25	1.0	25	25	6
121-14-2	2,4-Dinitrotoluene	U	10	1.0	10	10	1
84-66-2	Diethylphthalate	U	10	1.0	10	10	1
86-73-7	Fluorene	U	10	1.0	10	10	1
7005-72-3	4-Chlorophenyl-phenylether	U	10	1.0	10	10	1
100-01-6	4-Nitroaniline	U	25	1.0	25	25	2
534-52-1	4,6-Dinitro-2-Methylphenol	U	25	1.0	25	25	6

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client:
Project: CTO 407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date: 06/06/09
Analysis Date: 16-JUN-2009 10:00
Report Date: 07/08/2009
Matrix: WATER
% Solids: NA

Lab ID: WG64998-1
Client ID: WG64998-Blank
SDG: SC3122
Extracted by: CB
Extraction Method: SW846 3510
Analyst: JCG
Analysis Method: SW846 8270C
Lab Prep Batch: WG64998
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
86-30-6	N-Nitrosodiphenylamine	U	10	1.0	10	10	2
101-55-3	4-Bromophenyl-phenylether	U	10	1.0	10	10	1
118-74-1	Hexachlorobenzene	U	10	1.0	10	10	1.0
1912-24-9	Atrazine	U	10	1.0	10	10	2
87-86-5	Pentachlorophenol	U	25	1.0	25	25	8
85-01-8	Phenanthrene	U	10	1.0	10	10	0.9
120-12-7	Anthracene	U	10	1.0	10	10	1
86-74-8	Carbazole	U	10	1.0	10	10	1
84-74-2	Di-n-butylphthalate	U	10	1.0	10	10	1
206-44-0	Fluoranthene	U	10	1.0	10	10	1
129-00-0	Pyrene	U	10	1.0	10	10	2
85-68-7	Butylbenzylphthalate	U	10	1.0	10	10	2
56-55-3	Benzo(a)anthracene	U	10	1.0	10	10	1
91-94-1	3,3'-Dichlorobenzidine	U	10	1.0	10	10	3
218-01-9	Chrysene	U	10	1.0	10	10	1
117-81-7	bis(2-Ethylhexyl)phthalate	U	10	1.0	10	10	2
117-84-0	Di-n-octylphthalate	U	10	1.0	10	10	2
205-99-2	Benzo(b)fluoranthene	U	10	1.0	10	10	2
207-08-9	Benzo(k)fluoranthene	U	10	1.0	10	10	1
50-32-8	Benzo(a)pyrene	U	10	1.0	10	10	1
193-39-5	Indeno(1,2,3-cd)pyrene	U	10	1.0	10	10	2
53-70-3	Dibenzo(a,h)anthracene	U	10	1.0	10	10	2
191-24-2	Benzo(g,h,i)perylene	U	10	1.0	10	10	2
367-12-4	2-Fluorophenol		61%				
13127-88-3	Phenol-D6		32%				
4165-60-0	Nitrobenzene-D5		77%				
321-60-8	2-Fluorobiphenyl		75%				
118-79-6	2,4,6-Tribromophenol		85%				
1718-51-0	Terphenyl-D14		106%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client:
Project: CTO 407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date: 06/25/09
Analysis Date: 06-JUL-2009 11:38
Report Date: 07/08/2009
Matrix: SOIL
% Solids: 100

Lab ID: WG65397-1
Client ID: WG65397-Blank
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JCG
Analysis Method: SW846 8270C
Lab Prep Batch: WG65397
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
123-91-1	1,4-Dioxane	U	330	1.0	330	330	54
100-52-7	Benzaldehyde	U	330	1.0	330	330	120
108-95-2	Phenol	U	330	1.0	330	330	160
111-44-4	Bis(2-Chloroethyl)ether	U	330	1.0	330	330	81
95-57-8	2-Chlorophenol	U	330	1.0	330	330	160
95-48-7	2-Methylphenol	U	330	1.0	330	330	200
108-60-1	2,2'-Oxybis(1-chloropropane)	U	330	1.0	330	330	89
98-86-2	Acetophenone	U	330	1.0	330	330	180
621-64-7	N-Nitroso-di-n-propylamine	U	330	1.0	330	330	83
65794-96-9	3&4-Methylphenol	U	330	1.0	330	330	190
67-72-1	Hexachloroethane	U	330	1.0	330	330	96
98-95-3	Nitrobenzene	U	330	1.0	330	330	91
78-59-1	Isophorone	U	330	1.0	330	330	75
88-75-5	2-Nitrophenol	U	330	1.0	330	330	170
105-67-9	2,4-Dimethylphenol	U	330	1.0	330	330	160
111-91-1	Bis(2-Chloroethoxy)methane	U	330	1.0	330	330	96
120-83-2	2,4-Dichlorophenol	U	330	1.0	330	330	150
91-20-3	Naphthalene	U	330	1.0	330	330	87
106-47-8	4-Chloroaniline	U	330	1.0	330	330	120
87-68-3	Hexachlorobutadiene	U	330	1.0	330	330	83
105-60-2	Caprolactam	U	330	1.0	330	330	140
59-50-7	4-Chloro-3-Methylphenol	U	330	1.0	330	330	170
91-57-6	2-Methylnaphthalene	U	330	1.0	330	330	92
77-47-4	Hexachlorocyclopentadiene	U	330	1.0	330	330	82
88-06-2	2,4,6-Trichlorophenol	U	330	1.0	330	330	160
95-95-4	2,4,5-Trichlorophenol	U	820	1.0	820	820	160
91-58-7	2-Chloronaphthalene	U	330	1.0	330	330	87
92-52-4	1,1'-Biphenyl	U	330	1.0	330	330	73
88-74-4	2-Nitroaniline	U	820	1.0	820	820	75
131-11-3	Dimethyl Phthalate	U	330	1.0	330	330	78
606-20-2	2,6-Dinitrotoluene	U	330	1.0	330	330	79
208-96-8	Acenaphthylene	U	330	1.0	330	330	70
99-09-2	3-Nitroaniline	U	820	1.0	820	820	94
83-32-9	Acenaphthene	U	330	1.0	330	330	65
51-28-5	2,4-Dinitrophenol	U	820	1.0	820	820	380
132-64-9	Dibenzofuran	U	330	1.0	330	330	79
100-02-7	4-Nitrophenol	U	820	1.0	820	820	310
121-14-2	2,4-Dinitrotoluene	U	330	1.0	330	330	85
84-66-2	Diethylphthalate	U	330	1.0	330	330	80
86-73-7	Fluorene	U	330	1.0	330	330	81
7005-72-3	4-Chlorophenyl-phenylether	U	330	1.0	330	330	78
100-01-6	4-Nitroaniline	U	820	1.0	820	820	130
534-52-1	4,6-Dinitro-2-Methylphenol	U	820	1.0	820	820	340

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client:
Project: CTO 407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date: 06/25/09
Analysis Date: 06-JUL-2009 11:38
Report Date: 07/08/2009
Matrix: SOIL
% Solids: 100

Lab ID: WG65397-1
Client ID: WG65397-Blank
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JCG
Analysis Method: SW846 8270C
Lab Prep Batch: WG65397
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
86-30-6	N-Nitrosodiphenylamine	U	330	1.0	330	330	220
101-55-3	4-Bromophenyl-phenylether	U	330	1.0	330	330	85
118-74-1	Hexachlorobenzene	U	330	1.0	330	330	82
1912-24-9	Atrazine	U	330	1.0	330	330	91
87-86-5	Pentachlorophenol	U	820	1.0	820	820	240
85-01-8	Phenanthrene	U	330	1.0	330	330	83
120-12-7	Anthracene	U	330	1.0	330	330	84
86-74-8	Carbazole	U	330	1.0	330	330	110
84-74-2	Di-n-butylphthalate	U	330	1.0	330	330	100
206-44-0	Fluoranthene	U	330	1.0	330	330	110
129-00-0	Pyrene	U	330	1.0	330	330	100
85-68-7	Butylbenzylphthalate	U	330	1.0	330	330	93
56-55-3	Benzo(a)anthracene	U	330	1.0	330	330	86
91-94-1	3,3'-Dichlorobenzidine	U	330	1.0	330	330	110
218-01-9	Chrysene	U	330	1.0	330	330	95
117-81-7	bis(2-Ethylhexyl)phthalate	U	330	1.0	330	330	98
117-84-0	Di-n-octylphthalate	U	330	1.0	330	330	210
205-99-2	Benzo(b)fluoranthene	U	330	1.0	330	330	130
207-08-9	Benzo(k)fluoranthene	U	330	1.0	330	330	83
50-32-8	Benzo(a)pyrene	U	330	1.0	330	330	93
193-39-5	Indeno(1,2,3-cd)pyrene	U	330	1.0	330	330	120
53-70-3	Dibenzo(a,h)anthracene	U	330	1.0	330	330	130
191-24-2	Benzo(g,h,i)perylene	U	330	1.0	330	330	100
367-12-4	2-Fluorophenol		45%				
13127-88-3	Phenol-D6		* 45%				
4165-60-0	Nitrobenzene-D5		* 40%				
321-60-8	2-Fluorobiphenyl		49%				
118-79-6	2,4,6-Tribromophenol		48%				
1718-51-0	Terphenyl-D14		68%				

FORM 2
SOIL SEMIVOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Level:(low/med) LOW

	CLIENT SAMPLE ID	LAB SAMPLE ID	S1 2FP#	S2 PHL#	S3 NBZ#	S4 FBP#	S5 TBP#	S6 TPH#	S7 #	S8 #	TOT OUT
01	WG65397-BLANK	WG65397-1	45	45*	40*	49	48	68			2
02	WG65397-LCS	WG65397-2	52	55	51	59	68	83			0
03	WGL-SD-SD103-000.6	SC3122-2	47	51*	50	62	46	86			1
04	WGL-SD-SD102-000.6	SC3122-5	42*	49*	48	67	46	90			2
05	WGL-SD-SD101-000.6	SC3122-8	47	52*	55	61	35*	99			2
06	WGL-SD-DUP01-061109	SC3122-11	54	61	56	80	55	108			0
07	WGL-SD-SD104-000.6	SC3122-14	46	46*	43*	63	42*	81			3
08	WGL-SD-SD106-000.6	SC3122-17	42*	46*	47	61	44	102			2
09	WGL-SD-DUP02-061109	SC3122-20	38*	41*	42*	50	38*	84			4
10	WGL-SD-SD107-000.6	SC3122-23DL	47	50*	48	74	48	103			1
11	WGL-SD-SD108-000.6	SC3122-26	25*	30*	31*	39*	29*	68			5
12	WGL-SD-SD105-000.6	SC3122-29	40*	44*	43*	53	45	79			3
13	WGL-SD-SD112-000.6	SC3122-32	38*	39*	46*	65	42*	74			4
14	WGL-SD-SD110-000.6	SC3122-35	50	55	49	76	51	107			0
15	WGL-SD-SD109-000.6	SC3122-38	44	48*	46*	65	41*	100			3
16	L-SD-SD111-000.6	SC3122-41	40*	44*	42*	55	40*	72			4
17	L-SD-SD111-000.6MS	WG65397-3	49	56	53	63	53	80			0
18	L-SD-SD111-000.6MSD	WG65397-4	49	54	55	64	60	87			0
19											
20											
21											
22											
23											
24											
25											
26											
27											
28											

		QC LIMITS
S1 (2FP)	= 2-Fluorophenol	(43- 99)
S2 (PHL)	= Phenol-D6	(53- 98)
S3 (NBZ)	= Nitrobenzene-D5	(47-100)
S4 (FBP)	= 2-Fluorobiphenyl	(49-114)
S5 (TBP)	= 2,4,6-Tribromophenol	(44-111)
S6 (TPH)	= Terphenyl-D14	(58-140)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

FORM 2
WATER SEMIVOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

	CLIENT SAMPLE ID	LAB SAMPLE ID	S1 2FP#	S2 PHL#	S3 NBZ#	S4 FBP#	S5 TBP#	S6 TPH#	S7 #	S8 #	TOT OUT
01	WG64998-BLANK	WG64998-1	61	32	77	75	85	106			0
02	WG64998-LCS	WG64998-2	54	32	73	68	92	97			0
03	WG64998-LCSD	WG64998-3	53	32	68	70	87	84			0
04	WGL-SD-FB01-061109	SC3122-43	51	28	75	78	84	91			0
05	WGL-SD-RB01-061109	SC3122-45	43	24	63	67	68	79			0
06											
07											
08											
09											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											
21											
22											
23											
24											
25											
26											
27											
28											

		QC LIMITS
S1 (2FP)	= 2-Fluorophenol	(12- 62)
S2 (PHL)	= Phenol-D6	(10- 42)
S3 (NBZ)	= Nitrobenzene-D5	(50- 88)
S4 (FBP)	= 2-Fluorobiphenyl	(44-109)
S5 (TBP)	= 2,4,6-Tribromophenol	(32-109)
S6 (TPH)	= Terphenyl-D14	(61-116)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

KATAHDIN ANALYTICAL SERVICES
LAB CONTROL SAMPLE

Client:
Project: CTO 407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date: 06/15/09
Analysis Date: 06/16/09
Report Date: 07/08/2009
Matrix: WATER

Lab ID: WG64998-2 & WG64998-3
Client ID: WG64998-LCS & WG64998-LCSD
SDG: SC3122
Extracted by: KF
Extraction Method: SW846 3510
Analyst: JCG
Analysis Method: SW846 8270C
Lab Prep Batch: WG64998
Units: ug/L

COMPOUND	LCS SPIKE	LCSD SPIKE	SAMPLE CONC.	LCS CONC.	LCSD CONC.	LCS %REC.	LCSD %REC.		%RPD	%RPD LIMIT	QC. LIMITS
1,4-Dioxane	50	50	NA	26	25	51	50		3	30	38- 72
Benzaldehyde	50	50	NA	24	15	49	31	*	45	30	10- 77
Phenol	100	100	NA	36	34	36	34		3	30	10-115
Bis(2-Chloroethyl)ether	50	50	NA	39	39	77	77		0.2	30	42-101
2-Chlorophenol	100	100	NA	78	77	78	77		2	30	47- 99
2-Methylphenol	100	100	NA	71	67	71	67		6	30	45- 88
2,2'-Oxybis(1-chloropropane)	50	50	NA	38	38	76	77		0.8	30	58- 96
Acetophenone	50	50	NA	41	42	81	84		3	30	54-103
N-Nitroso-di-n-propylamine	50	50	NA	38	40	76	79		4	30	44- 98
3&4-Methylphenol	100	100	NA	66	63	66	63		5	30	41- 80
Hexachloroethane	50	50	NA	37	38	74	76		3	30	31- 98
Nitrobenzene	50	50	NA	40	38	79	77		3	30	56-105
Isophorone	50	50	NA	39	39	77	78		0.8	30	10-126
2-Nitrophenol	100	100	NA	79	82	79	82		4	30	56-105
2,4-Dimethylphenol	100	100	NA	74	69	74	69		7	30	51- 93
Bis(2-Chloroethoxy)methane	50	50	NA	40	41	80	82		2	30	55-103
2,4-Dichlorophenol	100	100	NA	78	79	78	79		0.9	30	53-103
Naphthalene	50	50	NA	38	38	77	76		1	30	40- 99
4-Chloroaniline	50	50	NA	38	39	76	79		4	30	30-115
Hexachlorobutadiene	50	50	NA	35	36	70	72		2	30	39- 94
Caprolactam	50	50	NA	15	13	31	25		19	30	15- 35
4-Chloro-3-Methylphenol	100	100	NA	87	85	87	85		2	30	62-108
2-Methylnaphthalene	50	50	NA	46	45	92	90		2	30	43-112
Hexachlorocyclopentadiene	50	50	NA	23	23	46	46		1	30	10-106
2,4,6-Trichlorophenol	100	100	NA	80	80	80	80		1	30	59-108
2,4,5-Trichlorophenol	100	100	NA	88	87	88	87		1	30	64-111
2-Chloronaphthalene	50	50	NA	29	31	58	61		5	30	57-108
1,1'-Biphenyl	50	50	NA	41	41	81	82		0.5	30	49-112
2-Nitroaniline	50	50	NA	44	42	88	84		4	30	69-117
Dimethyl Phthalate	50	50	NA	28	22	56	43		26	30	10-116
2,6-Dinitrotoluene	50	50	NA	45	42	90	85		6	30	66-111
Acenaphthylene	50	50	NA	38	39	77	78		2	30	47-118
3-Nitroaniline	50	50	NA	38	33	75	65		14	30	51-139
Acenaphthene	50	50	NA	40	38	80	77		4	30	60-111
2,4-Dinitrophenol	100	100	NA	109	107	109	107		2	30	12-116
Dibenzofuran	50	50	NA	40	37	79	74		6	30	57-108
4-Nitrophenol	100	100	NA	42	22	42	22	*	62	30	10-125
2,4-Dinitrotoluene	50	50	NA	48	45	97	90		7	30	63-122
Diethylphthalate	50	50	NA	40	35	79	69		14	30	50-101
Fluorene	50	50	NA	42	41	84	82		3	30	61-112
4-Chlorophenyl-phenylether	50	50	NA	42	39	84	78		8	30	60-118
4-Nitroaniline	50	50	NA	37	35	73	70		4	30	30-154
4,6-Dinitro-2-Methylphenol	100	100	NA	105	95	105	95		10	30	57-126
N-Nitrosodiphenylamine	50	50	NA	36	32	72	63		14	30	42-104
4-Bromophenyl-phenylether	50	50	NA	42	38	84	77		9	30	76-114

KATAHDIN ANALYTICAL SERVICES
LAB CONTROL SAMPLE

Client:
Project: CTO 407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date: 06/15/09
Analysis Date: 06/16/09
Report Date: 07/08/2009
Matrix: WATER

Lab ID: WG64998-2 & WG64998-3
Client ID: WG64998-LCS & WG64998-LCSD
SDG: SC3122
Extracted by: KF
Extraction Method: SW846 3510
Analyst: JCG
Analysis Method: SW846 8270C
Lab Prep Batch: WG64998
Units: ug/L

COMPOUND	LCS SPIKE	LCSD SPIKE	SAMPLE CONC.	LCS CONC.	LCSD CONC.	LCS %REC.	LCSD %REC.	%RPD	%RPD LIMIT	QC. LIMITS
Hexachlorobenzene	50	50	NA	45	39	90	78	14	30	75-109
Atrazine	50	50	NA	70	59	* 141	118	18	30	57-126
Pentachlorophenol	100	100	NA	109	102	109	102	7	30	39-156
Phenanthrene	50	50	NA	45	39	91	79	14	30	60-120
Anthracene	50	50	NA	45	42	91	85	7	30	58-118
Carbazole	50	50	NA	44	38	87	75	15	30	45-173
Di-n-butylphthalate	50	50	NA	48	41	95	83	14	30	58-112
Fluoranthene	50	50	NA	47	41	93	82	13	30	61-134
Pyrene	50	50	NA	47	41	94	82	14	30	63-123
Butylbenzylphthalate	50	50	NA	50	42	100	84	18	30	36-134
Benzo(a)anthracene	50	50	NA	41	37	82	74	10	30	64-122
3,3'-Dichlorobenzidine	50	50	NA	28	27	56	53	4	30	32-174
Chrysene	50	50	NA	47	43	95	86	10	30	61-119
bis(2-Ethylhexyl)phthalate	50	50	NA	56	47	111	94	16	30	32-154
Di-n-octylphthalate	50	50	NA	64	49	128	97	27	30	12-175
Benzo(b)fluoranthene	50	50	NA	41	36	82	72	12	30	54-121
Benzo(k)fluoranthene	50	50	NA	50	42	101	84	18	30	50-126
Benzo(a)pyrene	50	50	NA	43	40	86	79	8	30	61-124
Indeno(1,2,3-cd)pyrene	50	50	NA	51	48	102	97	5	30	45-153
Dibenzo(a,h)anthracene	50	50	NA	39	35	78	70	10	30	60-149
Benzo(g,h,i)perylene	50	50	NA	34	33	68	66	4	30	55-144

FORM III SV-1 U7370.D & U7371.D

KATAHDIN ANALYTICAL SERVICES
LAB CONTROL SAMPLE

Client:
Project: CTO 407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date: 06/25/09
Analysis Date: 07/06/09
Report Date: 07/08/2009
Matrix: SOIL

Lab ID: WG65397-2
Client ID: WG65397-LCS
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JCG
Analysis Method: SW846 8270C
Lab Prep Batch: WG65397
Units: ug/Kgdrywt

COMPOUND	LCS SPIKE	SAMPLE CONC.	LCS CONC.	%REC.	QC. LIMITS
1,4-Dioxane	1667	NA	363	* 22	40-100
Benzaldehyde	1667	NA	1670	100	10-100
Phenol	3333	NA	1780	53	40-100
Bis(2-Chloroethyl)ether	1667	NA	820	49	40-100
2-Chlorophenol	3333	NA	1760	53	40-100
2-Methylphenol	3333	NA	1750	52	40-100
2,2'-Oxybis(1-chloropropane)	1667	NA	830	50	20-100
Acetophenone	1667	NA	913	55	40-100
N-Nitroso-di-n-propylamine	1667	NA	925	56	40-100
3&4-Methylphenol	3333	NA	1830	55	40-100
Hexachloroethane	1667	NA	808	48	20-100
Nitrobenzene	1667	NA	875	52	40-100
Isophorone	1667	NA	837	50	40-100
2-Nitrophenol	3333	NA	1710	51	40-100
2,4-Dimethylphenol	3333	NA	1550	46	20-100
Bis(2-Chloroethoxy)methane	1667	NA	917	55	40-100
2,4-Dichlorophenol	3333	NA	1970	59	40-100
Naphthalene	1667	NA	879	53	40-100
4-Chloroaniline	1667	NA	834	50	10-100
Hexachlorobutadiene	1667	NA	756	45	40-100
Caprolactam	1667	NA	1050	63	20-100
4-Chloro-3-Methylphenol	3333	NA	2100	63	40-100
2-Methylnaphthalene	1667	NA	1450	87	40-100
Hexachlorocyclopentadiene	1667	NA	668	40	10-100
2,4,6-Trichlorophenol	3333	NA	1960	59	40-100
2,4,5-Trichlorophenol	3333	NA	2250	68	40-100
2-Chloronaphthalene	1667	NA	794	48	40-100
1,1'-Biphenyl	1667	NA	1150	69	40-100
2-Nitroaniline	1667	NA	1020	61	40-100
Dimethyl Phthalate	1667	NA	1120	67	40-100
2,6-Dinitrotoluene	1667	NA	1080	65	40-100
Acenaphthylene	1667	NA	968	58	40-100
3-Nitroaniline	1667	NA	736	44	20-100
Acenaphthene	1667	NA	1070	64	40-100
2,4-Dinitrophenol	3333	NA	1340	40	10-100
Dibenzofuran	1667	NA	1100	66	40-100
4-Nitrophenol	3333	NA	2070	62	10-100
2,4-Dinitrotoluene	1667	NA	1170	70	40-100
Diethylphthalate	1667	NA	1120	67	40-100
Fluorene	1667	NA	1140	68	40-100
4-Chlorophenyl-phenylether	1667	NA	1120	67	40-100
4-Nitroaniline	1667	NA	878	53	20-100
4,6-Dinitro-2-Methylphenol	3333	NA	1820	55	20-100
N-Nitrosodiphenylamine	1667	NA	887	53	40-100
4-Bromophenyl-phenylether	1667	NA	998	60	40-100

KATAHDIN ANALYTICAL SERVICES
LAB CONTROL SAMPLE

Client:
Project: CTO 407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date: 06/25/09
Analysis Date: 07/06/09
Report Date: 07/08/2009
Matrix: SOIL

Lab ID: WG65397-2
Client ID: WG65397-LCS
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JCG
Analysis Method: SW846 8270C
Lab Prep Batch: WG65397
Units: ug/Kgdrywt

COMPOUND	LCS SPIKE	SAMPLE CONC.	LCS CONC.	%REC.	QC. LIMITS
Hexachlorobenzene	1667	NA	1020	61	40-100
Atrazine	1667	NA	1520	91	40-100
Pentachlorophenol	3333	NA	1780	53	20-100
Phenanthrene	1667	NA	1070	64	40-100
Anthracene	1667	NA	1090	65	40-100
Carbazole	1667	NA	1010	61	40-100
Di-n-butylphthalate	1667	NA	1050	63	40-100
Fluoranthene	1667	NA	1020	61	40-100
Pyrene	1667	NA	1310	79	40-100
Butylbenzylphthalate	1667	NA	1250	75	40-100
Benzo(a)anthracene	1667	NA	1010	61	40-100
3,3'-Dichlorobenzidine	1667	NA	626	38	10-100
Chrysene	1667	NA	1150	69	40-100
bis(2-Ethylhexyl)phthalate	1667	NA	1260	76	40-100
Di-n-octylphthalate	1667	NA	1270	76	40-100
Benzo(b)fluoranthene	1667	NA	1030	62	40-100
Benzo(k)fluoranthene	1667	NA	1260	76	40-100
Benzo(a)pyrene	1667	NA	1040	62	40-100
Indeno(1,2,3-cd)pyrene	1667	NA	883	53	40-100
Dibenzo(a,h)anthracene	1667	NA	1010	61	40-100
Benzo(g,h,i)perylene	1667	NA	1010	61	40-100

KATAHDIN ANALYTICAL SERVICES
MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 07/08/09
Report Date: 07/08/2009
Matrix: SOIL

Lab ID: WG65397-3 & WG65397-4
Client ID: L-SD-SD111-000.6MS & L-SD-SD111-000.6MSD
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JCG
Analysis Method: SW846 8270C
Lab Prep Batch: WG65397
Units: ug/Kgdrywt

COMPOUND	MS SPIKE	MSD SPIKE	SAMPLE CONC.	MS CONC.	MSD CONC.	MS %REC.	MSD %REC.	%RPD	%RPD LIMIT	QC. LIMITS
1,4-Dioxane	3539	3539	0.00	616	561	* 17	* 16	9	50	40-100
Benzaldehyde	3539	3539	488	6870	6630	* 180	* 174	4	50	10-100
Phenol	7079	7079	0.00	3320	3420	47	48	3	50	40-100
Bis(2-Chloroethyl)ether	3539	3539	0.00	1570	1520	44	43	3	50	40-100
2-Chlorophenol	7079	7079	0.00	3470	3650	49	52	5	50	40-100
2-Methylphenol	7079	7079	0.00	3370	3690	48	52	9	50	40-100
2,2'-Oxybis(1-chloropropane)	3539	3539	0.00	1110	908	31	26	20	50	20-100
Acetophenone	3539	3539	0.00	1870	2120	53	60	12	50	40-100
N-Nitroso-di-n-propylamine	3539	3539	0.00	1940	2030	55	57	4	50	40-100
3&4-Methylphenol	7079	7079	0.00	3510	3810	50	54	8	50	40-100
Hexachloroethane	3539	3539	0.00	1610	1640	45	46	2	50	20-100
Nitrobenzene	3539	3539	0.00	1960	2040	55	58	4	50	40-100
Isophorone	3539	3539	0.00	1560	1760	44	50	12	50	40-100
2-Nitrophenol	7079	7079	0.00	3660	3940	52	56	7	50	40-100
2,4-Dimethylphenol	7079	7079	0.00	3090	3350	44	47	8	50	20-100
Bis(2-Chloroethoxy)methane	3539	3539	0.00	1800	1960	51	55	8	50	40-100
2,4-Dichlorophenol	7079	7079	0.00	3450	3950	49	56	14	50	40-100
Naphthalene	3539	3539	0.00	1820	1870	51	53	3	50	40-100
4-Chloroaniline	3500	3500	0.00	0.0	0.0	* 0	* 0		50	10-100
Hexachlorobutadiene	3539	3539	0.00	1730	1810	49	51	4	50	40-100
Caprolactam	3539	3500	0.00	1040	0.0	29	* 0		50	20-100
4-Chloro-3-Methylphenol	7079	7079	0.00	3420	4060	48	57	17	50	40-100
2-Methylnaphthalene	3539	3539	0.00	1600	1840	45	52	14	50	40-100
Hexachlorocyclopentadiene	3539	3539	0.00	1020	1170	29	33	14	50	10-100
2,4,6-Trichlorophenol	7079	7079	0.00	3940	4250	56	60	8	50	40-100
2,4,5-Trichlorophenol	7079	7079	0.00	3850	610	54	* 9	* 140	50	40-100
2-Chloronaphthalene	3539	3539	0.00	1620	1710	46	48	5	50	40-100
1,1'-Biphenyl	3539	3539	0.00	2340	2360	66	67	0.8	50	40-100
2-Nitroaniline	3539	3500	2100	830	0.0	NC	* 0		50	40-100
Dimethyl Phthalate	3539	3539	0.00	1790	2060	50	58	14	50	40-100
2,6-Dinitrotoluene	3539	3539	0.00	1800	2080	51	59	14	50	40-100
Acenaphthylene	3539	3539	0.00	1900	2000	54	56	5	50	40-100
3-Nitroaniline	3500	3500	0.00	0.0	0.0	* 0	* 0		50	20-100
Acenaphthene	3539	3539	0.00	1880	2120	53	60	12	50	40-100
2,4-Dinitrophenol	7079	7079	0.00	3630	4760	51	67	27	50	10-100
Dibenzofuran	3539	3539	0.00	1860	2140	52	60	14	50	40-100
4-Nitrophenol	7079	7079	0.00	3240	3840	46	54	17	50	10-100
2,4-Dinitrotoluene	3539	3539	0.00	1630	1930	46	54	17	50	40-100
Diethylphthalate	3539	3539	0.00	1660	1910	47	54	14	50	40-100
Fluorene	3539	3539	0.00	1760	1940	50	55	10	50	40-100
4-Chlorophenyl-phenylether	3539	3539	0.00	1800	2090	51	59	15	50	40-100
4-Nitroaniline	3539	3500	902	1180	0.0	* 8	* 0		50	20-100
4,6-Dinitro-2-Methylphenol	7079	7079	0.00	3650	3830	52	54	5	50	20-100
N-Nitrosodiphenylamine	3539	3539	0.00	1020	686	* 29	* 19	39	50	40-100
4-Bromophenyl-phenylether	3539	3539	0.00	1890	2050	53	58	8	50	40-100

FORM III SV-2 U7724.D & U7725.D

KATAHDIN ANALYTICAL SERVICES
MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 07/08/09
Report Date: 07/08/2009
Matrix: SOIL

Lab ID: WG65397-3 & WG65397-4
Client ID: L-SD-SD111-000.6MS & L-SD-SD111-000.6MSD
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JCG
Analysis Method: SW846 8270C
Lab Prep Batch: WG65397
Units: ug/Kgdrywt

COMPOUND	MS SPIKE	MSD SPIKE	SAMPLE CONC.	MS CONC.	MSD CONC.	MS %REC.	MSD %REC.	%RPD	%RPD LIMIT	QC. LIMITS
Hexachlorobenzene	3539	3539	0.00	1850	2010	52	57	8	50	40-100
Atrazine	3539	3539	0.00	655	704	* 18	* 20	7	50	40-100
Pentachlorophenol	7079	7079	0.00	4070	4120	57	58	1	50	20-100
Phenanthrene	3539	3539	164	1920	2130	50	56	10	50	40-100
Anthracene	3539	3539	166	1820	1970	47	51	8	50	40-100
Carbazole	3539	3539	0.00	1650	1590	47	45	4	50	40-100
Di-n-butylphthalate	3539	3539	0.00	1720	1640	48	46	5	50	40-100
Fluoranthene	3539	3539	257	1910	1700	47	41	12	50	40-100
Pyrene	3539	3539	399	2580	3180	62	78	21	50	40-100
Butylbenzylphthalate	3539	3539	1090	1610	2530	* 15	41	44	50	40-100
Benzo(a)anthracene	3539	3539	186	1720	1890	43	48	9	50	40-100
3,3'-Dichlorobenzidine	3500	3500	0.00	0.0	0.0	* 0	* 0		50	10-100
Chrysene	3539	3539	189	1940	1910	49	49	2	50	40-100
bis(2-Ethylhexyl)phthalate	3539	3539	0.00	1940	2220	55	63	13	50	40-100
Di-n-octylphthalate	3539	3539	0.00	2360	2640	67	74	11	50	40-100
Benzo(b)fluoranthene	3539	3539	245	1970	2140	49	54	8	50	40-100
Benzo(k)fluoranthene	3539	3539	226	1850	2090	46	53	12	50	40-100
Benzo(a)pyrene	3539	3539	156	1540	1750	* 39	45	13	50	40-100
Indeno(1,2,3-cd)pyrene	3539	3539	0.00	1150	1840	* 32	52	46	50	40-100
Dibenzo(a,h)anthracene	3539	3539	0.00	1260	1540	* 36	44	20	50	40-100
Benzo(g,h,i)perylene	3539	3539	0.00	1140	1260	* 32	* 36	10	50	40-100

FORM III SV-2
U7724.D & U7725.D

FORM 4
SEMIVOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE ID

WG64998-BLANK

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Lab File ID: U7369 Lab Sample ID: WG64998-1

Instrument ID: GCMS-U Date Extracted: 06/06/09

Matrix: (soil/water) WATER Date Analyzed: 06/16/09

Level:(low/med) LOW Time Analyzed: 1000

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	WG64998-LCS	WG64998-2	U7370	06/16/09	1044
02	WG64998-LCSD	WG64998-3	U7371	06/16/09	1128
03	WGL-SD-FB01-061109	SC3122-43	U7372	06/16/09	1211
04	WGL-SD-RB01-061109	SC3122-45	U7373	06/16/09	1255
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

COMMENTS:

FORM IVSV

FORM 4
SEMIVOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE ID

WG65397-BLANK

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Lab File ID: U7679 Lab Sample ID: WG65397-1

Instrument ID: GCMS-U Date Extracted: 06/25/09

Matrix: (soil/water) SOIL Date Analyzed: 07/06/09

Level:(low/med) LOW Time Analyzed: 1138

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	WG65397-LCS	WG65397-2	U7680	07/06/09	1221
02	WGL-SD-SD103-000.6	SC3122-2	U7681	07/06/09	1304
03	WGL-SD-SD102-000.6	SC3122-5	U7682	07/06/09	1348
04	WGL-SD-SD101-000.6	SC3122-8	U7683	07/06/09	1431
05	WGL-SD-DUP01-061109	SC3122-11	U7684	07/06/09	1514
06	WGL-SD-SD104-000.6	SC3122-14	U7685	07/06/09	1557
07	WGL-SD-SD106-000.6	SC3122-17	U7686	07/06/09	1640
08	WGL-SD-DUP02-061109	SC3122-20	U7687	07/06/09	1723
09	WGL-SD-SD107-000.6	SC3122-23DL	U7688	07/06/09	1807
10	WGL-SD-SD108-000.6	SC3122-26	U7689	07/06/09	1850
11	WGL-SD-SD105-000.6	SC3122-29	U7690	07/06/09	1934
12	WGL-SD-SD112-000.6	SC3122-32	U7691	07/06/09	2017
13	WGL-SD-SD110-000.6	SC3122-35	U7692	07/06/09	2100
14	WGL-SD-SD109-000.6	SC3122-38	U7693	07/06/09	2144
15	L-SD-SD111-000.6	SC3122-41	U7723	07/08/09	0026
16	L-SD-SD111-000.6MS	WG65397-3	U7724	07/08/09	0110
17	L-SD-SD111-000.6MSD	WG65397-4	U7725	07/08/09	0153
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

COMMENTS:

FORM IVSV

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Lab File ID: UD077 DFTPP Injection Date: 05/29/09

Instrument ID: GCMS-U DFTPP Injection Time: 0937

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	33.8
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Less than 100.0% of mass 198	38.7
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	50.2
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.8
275	10.0 - 30.0% of mass 198	25.4
365	1.0 - 100.0% of mass 198	3.4
441	0.0 - 100.0% of mass 443	13.6 (77.9)2
442	40.0 - 100.0% of mass 198	90.8
443	17.0 - 23.0% of mass 442	17.4 (19.1)3

1-Value is % mass 69 2-Value is % mass 443
3-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		SSTD050U0529	U7146	05/29/09	0956
02		SSTD010U0529	U7147	05/29/09	1040
03		SSTD025U0529	U7148	05/29/09	1124
04		SSTD075U0529	U7149	05/29/09	1207
05		SSTD100U0529	U7150	05/29/09	1251
06		SSTD125U0529	U7151	05/29/09	1335
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

FORM V SV

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Lab File ID: UD091 DFTPP Injection Date: 06/16/09

Instrument ID: GCMS-U DFTPP Injection Time: 0721

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	35.1
68	Less than 2.0% of mass 69	0.7 (1.7)1
69	Less than 100.0% of mass 198	40.4
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	50.6
197	Less than 1.0% of mass 198	0.4
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.0
275	10.0 - 30.0% of mass 198	24.3
365	1.0 - 100.0% of mass 198	3.1
441	0.0 - 100.0% of mass 443	12.7 (76.5)2
442	40.0 - 100.0% of mass 198	84.9
443	17.0 - 23.0% of mass 442	16.5 (19.5)3

1-Value is % mass 69 2-Value is % mass 443
3-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		SSTD050U0616	U7367	06/16/09	0830
02	WG64998-BLANK	WG64998-1	U7369	06/16/09	1000
03	WG64998-LCS	WG64998-2	U7370	06/16/09	1044
04	WG64998-LCSD	WG64998-3	U7371	06/16/09	1128
05	WGL-SD-FB01-061109	SC3122-43	U7372	06/16/09	1211
06	WGL-SD-RB01-061109	SC3122-45	U7373	06/16/09	1255
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

FORM V SV

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Lab File ID: UD099 DFTPP Injection Date: 06/25/09

Instrument ID: GCMS-U DFTPP Injection Time: 1526

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	35.6
68	Less than 2.0% of mass 69	0.6 (1.6)1
69	Less than 100.0% of mass 198	38.6
70	Less than 2.0% of mass 69	0.2 (0.4)1
127	40.0 - 60.0% of mass 198	50.6
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.8
275	10.0 - 30.0% of mass 198	23.0
365	1.0 - 100.0% of mass 198	3.1
441	0.0 - 100.0% of mass 443	12.4 (85.9)2
442	40.0 - 100.0% of mass 198	75.2
443	17.0 - 23.0% of mass 442	14.4 (19.2)3

1-Value is % mass 69 2-Value is % mass 443
3-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		SSTD050U0625	U7509	06/25/09	1545
02		SSTD010U0625	U7510	06/25/09	1641
03		SSTD025U0625	U7511	06/25/09	1725
04		SSTD100U0625	U7513	06/25/09	1856
05		SSTD125U0625	U7514	06/25/09	1941
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

FORM V SV

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Lab File ID: UD106 DFTPP Injection Date: 07/06/09

Instrument ID: GCMS-U DFTPP Injection Time: 1033

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	34.3
68	Less than 2.0% of mass 69	0.6 (1.5)1
69	Less than 100.0% of mass 198	39.8
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	50.6
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.9
275	10.0 - 30.0% of mass 198	24.4
365	1.0 - 100.0% of mass 198	3.1
441	0.0 - 100.0% of mass 443	13.6 (76.7)2
442	40.0 - 100.0% of mass 198	87.1
443	17.0 - 23.0% of mass 442	17.8 (20.4)3

1-Value is % mass 69 2-Value is % mass 443
3-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		SSTD050U0706	U7678	07/06/09	1054
02	WG65397-BLANK	WG65397-1	U7679	07/06/09	1138
03	WG65397-LCS	WG65397-2	U7680	07/06/09	1221
04	WGL-SD-SD103-000.6	SC3122-2	U7681	07/06/09	1304
05	WGL-SD-SD102-000.6	SC3122-5	U7682	07/06/09	1348
06	WGL-SD-SD101-000.6	SC3122-8	U7683	07/06/09	1431
07	WGL-SD-DUP01-061109	SC3122-11	U7684	07/06/09	1514
08	WGL-SD-SD104-000.6	SC3122-14	U7685	07/06/09	1557
09	WGL-SD-SD106-000.6	SC3122-17	U7686	07/06/09	1640
10	WGL-SD-DUP02-061109	SC3122-20	U7687	07/06/09	1723
11	WGL-SD-SD107-000.6	SC3122-23DL	U7688	07/06/09	1807
12	WGL-SD-SD108-000.6	SC3122-26	U7689	07/06/09	1850
13	WGL-SD-SD105-000.6	SC3122-29	U7690	07/06/09	1934
14	WGL-SD-SD112-000.6	SC3122-32	U7691	07/06/09	2017
15	WGL-SD-SD110-000.6	SC3122-35	U7692	07/06/09	2100
16	WGL-SD-SD109-000.6	SC3122-38	U7693	07/06/09	2144
17					
18					
19					
20					

FORM V SV

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Lab File ID: UD107 DFTPP Injection Date: 07/07/09

Instrument ID: GCMS-U DFTPP Injection Time: 1520

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	36.7
68	Less than 2.0% of mass 69	0.6 (1.5)1
69	Less than 100.0% of mass 198	42.2
70	Less than 2.0% of mass 69	0.5 (1.1)1
127	40.0 - 60.0% of mass 198	53.8
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.1
275	10.0 - 30.0% of mass 198	24.2
365	1.0 - 100.0% of mass 198	3.1
441	0.0 - 100.0% of mass 443	12.6 (77.4)2
442	40.0 - 100.0% of mass 198	80.7
443	17.0 - 23.0% of mass 442	16.2 (20.1)3

1-Value is % mass 69 2-Value is % mass 443
3-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		SSTD050U0707	U7711	07/07/09	1544
02	L-SD-SD111-000.6	SC3122-41	U7723	07/08/09	0026
03	L-SD-SD111-000.6MS	WG65397-3	U7724	07/08/09	0110
04	L-SD-SD111-000.6MSD	WG65397-4	U7725	07/08/09	0153
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

FORM V SV

FORM 6
SEMIVOLATILE INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GCMS-U Calibration Date(s): 05/29/09 05/29/09

Column: DB5-MS ID: 0.25 (mm) Calibration Time(s): 0956 1335

LAB FILE ID: RF10: U7147 RF25: U7148 RF50: U7146
RF75: U7149 RF100: U7150 RF125: U7151

COMPOUND	RF10	RF25	RF50	RF75	RF100	RF125	CURVE	COEFFICENTS A0	A1	A2	%RSD OR R^2	MAX %RSD OR R^2
1,4-Dioxane	0.263	0.304	0.296	0.269	0.284	0.279	AVRG		0.28253747		5.533	15.000
Benzaldehyde	0.515	0.500	0.472	0.382	0.374	0.065	AVRG		0.38463450		43.571	15.000
Phenol	1.313	1.369	1.441	1.223	1.397	1.369	AVRG		1.35195642		5.624	15.000
Bis(2-Chloroethyl)ether	1.162	1.054	1.081	0.922	1.043	1.028	AVRG		1.04807587		7.440	15.000
2-Chlorophenol	1.159	1.180	1.194	1.090	1.164	1.120	AVRG		1.15147416		3.373	15.000
2-Methylphenol	1.040	1.037	1.080	0.942	1.069	1.072	AVRG		1.03993917		4.930	15.000
2,2'-Oxybis(1-chloropropa	1.466	1.529	1.558	1.320	1.481	1.424	AVRG		1.46303715		5.767	15.000
Acetophenone	0.390	0.417	0.420	0.377	0.404	0.418	AVRG		0.40449061		4.313	15.000
N-Nitroso-di-n-propylamin	0.742	0.728	0.752	0.648	0.694	0.643	AVRG		0.70110605		6.769	15.000
3&4-Methylphenol	1.019	1.106	1.090	1.017	1.086	1.058	AVRG		1.06242844		3.558	15.000
Hexachloroethane	0.538	0.575	0.562	0.483	0.526	0.444	AVRG		0.52124523		9.492	15.000
Nitrobenzene	0.322	0.328	0.307	0.270	0.296	0.295	AVRG		0.30308172		6.965	15.000
Isophorone	0.568	0.610	0.608	0.536	0.550	0.561	AVRG		0.57219209		5.299	15.000
2-Nitrophenol	0.137	0.156	0.167	0.149	0.165	0.171	AVRG		0.15763969		8.173	15.000
2,4-Dimethylphenol	0.312	0.319	0.321	0.284	0.301	0.306	AVRG		0.30716479		4.532	15.000
Bis(2-Chloroethoxy)methan	0.330	0.363	0.360	0.317	0.336	0.322	AVRG		0.33797576		5.766	15.000
2,4-Dichlorophenol	0.230	0.252	0.272	0.240	0.256	0.254	AVRG		0.25050056		5.831	15.000
Naphthalene	0.952	0.970	0.955	0.793	0.833	0.798	AVRG		0.88334600		9.501	15.000
4-Chloroaniline	0.312	0.369	0.384	0.331	0.342	0.334	AVRG		0.34547508		7.689	15.000
Hexachlorobutadiene	0.180	0.180	0.186	0.163	0.172	0.169	AVRG		0.17503458		4.749	15.000
Caprolactam	0.070	0.084	0.094	0.082	0.091	0.100	AVRG		8.685e-002		12.369	15.000
4-Chloro-3-Methylphenol	0.247	0.256	0.256	0.236	0.253	0.247	AVRG		0.24907096		3.050	15.000
2-Methylnaphthalene	0.774	0.788	0.774	0.631	0.650	0.723	AVRG		0.72357806		9.443	15.000
Hexachlorocyclopentadiene	0.337	0.415	0.416	0.386	0.406	0.383	AVRG		0.39047610		7.565	15.000
2,4,6-Trichlorophenol	0.334	0.358	0.361	0.315	0.340	0.331	AVRG		0.33983933		5.089	15.000
2,4,5-Trichlorophenol	0.335	0.376	0.366	0.329	0.338	0.336	AVRG		0.34663059		5.519	15.000
2-Chloronaphthalene	0.419	0.451	0.443	0.360	0.385	0.371	AVRG		0.40492200		9.490	15.000
1,1'-Biphenyl	1.323	1.428	1.264	1.080	1.127	1.026	AVRG		1.20807585		12.889	15.000
2-Nitroaniline	0.254	0.294	0.295	0.271	0.299	0.306	AVRG		0.28639351		6.921	15.000
Dimethyl Phthalate	1.247	1.323	1.225	1.063	1.154	1.106	AVRG		1.18640280		8.136	15.000
2,6-Dinitrotoluene	0.256	0.279	0.282	0.247	0.270	0.273	AVRG		0.26783412		5.117	15.000
Acenaphthylene	1.828	1.824	1.842	1.539	1.592	1.477	AVRG		1.68372893		9.861	15.000
3-Nitroaniline	0.220	0.270	0.266	0.254	0.277	0.280	AVRG		0.26133569		8.458	15.000
Acenaphthene	1.114	1.173	1.066	0.960	1.030	0.982	AVRG		1.05404356		7.650	15.000
2,4-Dinitrophenol	2344	14011	43875	75703	124590	214590	2ORDR	0.13662679	13.3078856	-14.456603	0.99443	0.99000
Dibenzofuran	1.501	1.624	1.511	1.312	1.402	1.327	AVRG		1.44612892		8.359	15.000
4-Nitrophenol	0.043	0.097	0.138	0.118	0.131	0.097	AVRG		0.10434949		33.041	15.000
2,4-Dinitrotoluene	0.274	0.342	0.327	0.308	0.334	0.349	AVRG		0.32248180		8.574	15.000
Diethylphthalate	1.232	1.325	1.252	1.053	1.073	1.017	AVRG		1.15871430		10.948	15.000
Fluorene	1.239	1.239	1.236	1.055	1.086	1.014	AVRG		1.14504008		9.118	15.000
4-Chlorophenyl-phenylethe	0.584	0.624	0.611	0.519	0.539	0.534	AVRG		0.56866075		7.704	15.000
4-Nitroaniline	0.168	0.234	0.248	0.221	0.243	0.240	AVRG		0.22556930		13.224	15.000
4,6-Dinitro-2-Methylpheno	10096	38324	88891	145520	211590	331520	2ORDR	7.424e-002	11.1059689	-8.4423959	0.99814	0.99000
N-Nitrosodiphenylamine	0.595	0.646	0.618	0.548	0.607	0.598	AVRG		0.60178534		5.322	15.000

FORM VI SV

FORM 6
SEMIVOLATILE INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GCMS-U Calibration Date(s): 05/29/09 05/29/09

Column: DB5-MS ID: 0.25 (mm) Calibration Time(s): 0956 1335

LAB FILE ID: RF10: U7147 RF25: U7148 RF50: U7146
RF75: U7149 RF100: U7150 RF125: U7151

COMPOUND	RF10	RF25	RF50	RF75	RF100	RF125	CURVE	COEFFICENTS A0	A1	A2	%RSD OR R^2	MAX %RSD OR R^2
4-Bromophenyl-phenylether	0.215	0.242	0.238	0.210	0.218	0.218	AVRG		0.22340058		6.039	15.000
Hexachlorobenzene	0.254	0.263	0.261	0.234	0.253	0.248	AVRG		0.25220366		4.150	15.000
Atrazine	39552	88876	164350	201560	249600	324710	2ORDR	2.822e-002	3.75015976	11.4525988	0.99461	0.99000
Pentachlorophenol	11104	37219	80654	119900	202260	325480	2ORDR	4.791e-002	13.1395197	-13.565632	0.99477	0.99000
Phenanthrene	1.072	1.119	1.080	0.970	1.006	0.944	AVRG		1.03176421		6.661	15.000
Anthracene	1.054	1.156	1.076	0.887	0.968	0.984	AVRG		1.02075449		9.245	15.000
Carbazole	0.834	0.935	0.894	0.814	0.836	0.893	AVRG		0.86792091		5.377	15.000
Di-n-butylphthalate	1.347	1.364	1.274	1.054	1.101	1.109	AVRG		1.20820045		11.282	15.000
Fluoranthene	1.057	1.099	1.001	0.859	0.880	0.923	AVRG		0.96985767		10.082	15.000
Pyrene	1.128	1.285	1.215	1.103	1.125	1.116	AVRG		1.16226642		6.192	15.000
Butylbenzylphthalate	0.579	0.578	0.560	0.495	0.528	0.522	AVRG		0.54369419		6.245	15.000
Benzo(a)anthracene	0.946	0.951	0.929	0.836	0.956	0.920	AVRG		0.92307095		4.830	15.000
3,3'-Dichlorobenzidine	0.275	0.282	0.285	0.250	0.286	0.266	AVRG		0.27393827		5.106	15.000
Chrysene	0.949	0.946	0.924	0.774	0.839	0.798	AVRG		0.87176896		8.933	15.000
bis(2-Ethylhexyl)phthalat	0.815	0.789	0.814	0.680	0.738	0.714	AVRG		0.75831730		7.428	15.000
Di-n-octylphthalate	1.495	1.657	1.441	1.254	1.339	1.170	AVRG		1.39282738		12.595	15.000
Benzo(b)fluoranthene	1.006	1.058	0.962	0.847	0.952	0.881	AVRG		0.95116885		8.194	15.000
Benzo(k)fluoranthene	1.073	1.130	1.076	0.864	0.980	0.807	AVRG		0.98843194		13.057	15.000
Benzo(a)pyrene	0.916	0.955	0.945	0.817	0.910	0.824	AVRG		0.89456419		6.683	15.000
Indeno(1,2,3-cd)pyrene	0.601	0.715	0.733	0.678	0.780	0.730	AVRG		0.70632841		8.682	15.000
Dibenzo(a,h)anthracene	0.675	0.784	0.745	0.691	0.772	0.747	AVRG		0.73553159		5.967	15.000
Benzo(g,h,i)perylene	0.676	0.821	0.820	0.724	0.835	0.786	AVRG		0.77710432		8.189	15.000
2-Fluorophenol	1.042	1.092	1.122	0.977	1.081	0.988	AVRG		1.05030686		5.560	15.000
Phenol-D6	1.192	1.270	1.365	1.161	1.340	1.306	AVRG		1.27212022		6.401	15.000
Nitrobenzene-D5	0.282	0.314	0.319	0.280	0.312	0.308	AVRG		0.30225690		5.651	15.000
2-Fluorobiphenyl	1.224	1.351	1.269	1.109	1.170	1.054	AVRG		1.19617587		9.033	15.000
2,4,6-Tribromophenol	0.176	0.203	0.199	0.178	0.188	0.198	AVRG		0.19035703		6.024	15.000
Terphenyl-D14	0.767	0.804	0.765	0.693	0.712	0.676	AVRG		0.73638684		6.778	15.000

Average %RSD test result.

Calculate Average %RSD: 9.141575813
Maximum Average %RSD: 15.00000000

Note: Passes Average %RSD Test.

FORM VI SV

FORM 6
SEMIVOLATILE INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GCMS-U Calibration Date(s): 06/25/09 06/25/09

Column: DB5-MS ID: 0.25 (mm) Calibration Time(s): 1545 1941

LAB FILE ID: RF10: U7510 RF25: U7511 RF50: U7509
RF75: U7512 RF100: U7513 RF125: U7514

COMPOUND	RF10	RF25	RF50	RF75	RF100	RF125	CURVE	COEFFICENTS A0	COEFFICENTS A1	%RSD OR R^2	MAX %RSD OR R^2	
1,4-Dioxane	0.357	0.350	0.338		0.335	0.309	AVRG		0.33780816	5.444	15.000	
Benzaldehyde	0.363	0.338	0.281		0.207	0.243	AVRG		0.28650301	22.545	15.000	<-
Phenol	1.703	1.656	1.552		1.530	1.545	AVRG		1.59742224	4.838	15.000	
Bis(2-Chloroethyl)ether	1.459	1.356	1.122		1.141	1.133	AVRG		1.24210795	12.514	15.000	
2-Chlorophenol	1.337	1.326	1.345		1.268	1.235	AVRG		1.30213881	3.702	15.000	
2-Methylphenol	1.103	1.210	1.177		1.207	1.250	AVRG		1.18929039	4.615	15.000	
2,2'-Oxybis(1-chloropropa	1.820	1.752	1.618		1.586	1.594	AVRG		1.67392530	6.309	15.000	
Acetophenone	0.498	0.440	0.440		0.422	0.428	AVRG		0.44587135	6.738	15.000	
N-Nitroso-di-n-propylamin	0.884	0.834	0.715		0.687	0.728	AVRG		0.76968958	11.030	15.000	
3&4-Methylphenol	1.301	1.232	1.215		1.244	1.261	AVRG		1.25066082	2.636	15.000	
Hexachloroethane	0.648	0.640	0.580		0.497	0.446	AVRG		0.56211660	15.781	15.000	<-
Nitrobenzene	0.433	0.371	0.320		0.317	0.315	AVRG		0.35117861	14.634	15.000	
Isophorone	0.729	0.666	0.661		0.636	0.621	AVRG		0.66272866	6.248	15.000	
2-Nitrophenol	0.197	0.191	0.182		0.177	0.193	AVRG		0.18785859	4.373	15.000	
2,4-Dimethylphenol	0.394	0.351	0.346		0.328	0.317	AVRG		0.34717828	8.442	15.000	
Bis(2-Chloroethoxy)methan	0.474	0.419	0.398		0.366	0.374	AVRG		0.40647535	10.600	15.000	
2,4-Dichlorophenol	0.290	0.259	0.275		0.285	0.272	AVRG		0.27630960	4.347	15.000	
Naphthalene	1.149	1.034	0.944		0.836	0.832	AVRG		0.95888216	14.124	15.000	
4-Chloroaniline	0.427	0.426	0.394		0.365	0.366	AVRG		0.39572055	7.697	15.000	
Hexachlorobutadiene	0.224	0.198	0.185		0.174	0.169	AVRG		0.19029464	11.568	15.000	
Caprolactam	0.103	0.093	0.104		0.105	0.109	AVRG		0.10272429	5.956	15.000	
4-Chloro-3-Methylphenol	0.314	0.272	0.281		0.266	0.262	AVRG		0.27917328	7.428	15.000	
2-Methylnaphthalene	0.663	0.802	0.798		0.746	0.723	AVRG		0.74645076	7.700	15.000	
Hexachlorocyclopentadiene	0.387	0.363	0.385		0.356	0.406	AVRG		0.37949184	5.311	15.000	
2,4,6-Trichlorophenol	0.402	0.373	0.388		0.364	0.401	AVRG		0.38570235	4.375	15.000	
2,4,5-Trichlorophenol	0.428	0.391	0.387		0.348	0.396	AVRG		0.39030319	7.299	15.000	
2-Chloronaphthalene	0.421	0.408	0.422		0.357	0.425	AVRG		0.40681018	6.989	15.000	
1,1'-Biphenyl	1.503	1.290	1.164		0.957	0.986	AVRG		1.17991599	19.125	15.000	<-
2-Nitroaniline	0.326	0.332	0.333		0.346	0.375	AVRG		0.34227118	5.752	15.000	
Dimethyl Phthalate	1.382	1.293	1.261		1.241	1.325	AVRG		1.30040538	4.281	15.000	
2,6-Dinitrotoluene	0.311	0.304	0.292		0.299	0.334	AVRG		0.30804331	5.230	15.000	
Acenaphthylene	2.031	1.857	1.726		1.595	1.654	AVRG		1.77259068	9.847	15.000	
3-Nitroaniline	0.275	0.298	0.317		0.327	0.360	AVRG		0.31546527	10.145	15.000	
Acenaphthene	1.235	1.162	1.110		1.025	1.093	AVRG		1.12482149	6.993	15.000	
2,4-Dinitrophenol	0.054	0.104	0.143		0.160	0.169	AVRG		0.12598989	37.447	15.000	<-
Dibenzofuran	1.716	1.617	1.483		1.347	1.420	AVRG		1.51643955	9.843	15.000	
4-Nitrophenol	0.125	0.104	0.104		0.168	0.121	AVRG		0.12457763	20.996	15.000	<-
2,4-Dinitrotoluene	0.361	0.379	0.406		0.390	0.434	AVRG		0.39408039	7.033	15.000	
Diethylphthalate	1.848	1.295	1.282		1.085	1.144	AVRG		1.33103114	22.749	15.000	<-
Fluorene	1.371	1.242	1.219		1.072	1.150	AVRG		1.21075972	9.190	15.000	
4-Chlorophenyl-phenylethe	0.666	0.621	0.579		0.555	0.621	AVRG		0.60838856	7.019	15.000	
4-Nitroaniline	0.212	0.265	0.269		0.271	0.296	AVRG		0.26288131	11.695	15.000	
4,6-Dinitro-2-Methylpheno	20623	77792	178790		359350	506830	LINR	7.701e-002	7.19462160	0.99775	0.99000	
N-Nitrosodiphenylamine	0.738	0.648	0.628		0.579	0.596	AVRG		0.63797359	9.723	15.000	

FORM VI SV

FORM 6
SEMIVOLATILE INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GCMS-U Calibration Date(s): 06/25/09 06/25/09

Column: DB5-MS ID: 0.25 (mm) Calibration Time(s): 1545 1941

LAB FILE ID: RF10: U7510 RF25: U7511 RF50: U7509
RF75: U7512 RF100: U7513 RF125: U7514

COMPOUND	RF10	RF25	RF50	RF75	RF100	RF125	CURVE	COEFFICENTS A0	COEFFICENTS A1	%RSD OR R^2	MAX %RSD OR R^2	
4-Bromophenyl-phenylether	0.278	0.250	0.224		0.248	0.236	AVRG		0.24755005	8.076	15.000	
Hexachlorobenzene	0.319	0.280	0.256		0.284	0.269	AVRG		0.28143319	8.432	15.000	
Atrazine	0.208	0.183	0.155		0.147	0.117	AVRG		0.16204392	21.568	15.000	<-
Pentachlorophenol	22026	77986	186320		390950	546610	LINR	9.584e-002	6.61562594	0.99609	0.99000	
Phenanthrene	1.275	1.116	1.065		1.097	0.957	AVRG		1.10217301	10.380	15.000	
Anthracene	1.266	1.120	1.044		1.028	1.002	AVRG		1.09218397	9.777	15.000	
Carbazole	1.012	0.973	0.919		0.988	0.880	AVRG		0.95455334	5.661	15.000	
Di-n-butylphthalate	1.797	1.474	1.363		1.294	1.111	AVRG		1.40777349	18.068	15.000	<-
Fluoranthene	1.149	1.117	1.075		1.041	0.930	AVRG		1.06225726	7.965	15.000	
Pyrene	1.257	1.302	1.246		1.198	1.277	AVRG		1.25586210	3.096	15.000	
Butylbenzylphthalate	0.622	0.625	0.629		0.589	0.611	AVRG		0.61502927	2.614	15.000	
Benzo(a)anthracene	0.948	1.001	0.931		0.952	0.998	AVRG		0.96608176	3.284	15.000	
3,3'-Dichlorobenzidine	0.213	0.301	0.296		0.304	0.290	AVRG		0.28060201	13.632	15.000	
Chrysene	1.078	1.042	0.915		0.882	0.851	AVRG		0.95375781	10.508	15.000	
bis(2-Ethylhexyl)phthalat	244340	571030	1158600		1927400	2403400	LINR	-6.67e-002	1.20556614	0.99860	0.99000	
Di-n-octylphthalate	1.702	1.787	1.593		1.493	1.361	AVRG		1.58711455	10.600	15.000	
Benzo(b)fluoranthene	1.062	1.109	0.919		0.918	0.894	AVRG		0.98057576	9.946	15.000	
Benzo(k)fluoranthene	1.121	1.205	0.997		1.014	0.962	AVRG		1.05988911	9.482	15.000	
Benzo(a)pyrene	1.000	1.036	0.895		0.920	0.901	AVRG		0.95022617	6.676	15.000	
Indeno(1,2,3-cd)pyrene	0.880	0.676	0.608		0.676	0.705	AVRG		0.70893962	14.372	15.000	
Dibenzo(a,h)anthracene	0.674	0.788	0.726		0.727	0.732	AVRG		0.72943745	5.548	15.000	
Benzo(g,h,i)perylene	0.746	0.861	0.734		0.759	0.773	AVRG		0.77435444	6.513	15.000	
2-Fluorophenol	1.356	1.241	1.255		1.232	1.242	AVRG		1.26514250	4.075	15.000	
Phenol-D6	1.566	1.430	1.418		1.437	1.496	AVRG		1.46918960	4.215	15.000	
Nitrobenzene-D5	0.389	0.355	0.335		0.330	0.348	AVRG		0.35147465	6.637	15.000	
2-Fluorobiphenyl	1.438	1.320	1.211		1.077	1.144	AVRG		1.23795613	11.570	15.000	
2,4,6-Tribromophenol	0.216	0.218	0.224		0.219	0.226	AVRG		0.22045257	1.809	15.000	
Terphenyl-D14	0.821	0.767	0.724		0.741	0.783	AVRG		0.76717691	4.921	15.000	

FORM VI SV

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GCMS-U Calibration Date: 06/16/09 Time: 0830

Lab File ID: U7367 Init. Calib. Date(s): 05/29/09 05/29/09

Init. Calib. Times: 0956 1335

GC Column: DB5-MS ID: 0.25 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
1,4-Dioxane	0.2820000	0.3264000	0.3264000	0.01	15.74	100.00	AVRG
Benzaldehyde	0.3850000	0.1240900	0.1240900	0.01	-67.77	100.00	AVRG
Phenol	1.3520000	1.5593000	1.5593000	0.01	15.33	20.00	AVRG
Bis(2-Chloroethyl)ether	1.0480000	1.2198000	1.2198000	0.01	16.39	100.00	AVRG
2-Chlorophenol	1.1510000	1.3115000	1.3115000	0.01	13.94	100.00	AVRG
2-Methylphenol	1.0400000	1.1926000	1.1926000	0.01	14.67	100.00	AVRG
2,2'-Oxybis(1-chloropropane)	1.4630000	1.6152000	1.6152000	0.01	10.40	100.00	AVRG
Acetophenone	0.4040000	0.4316000	0.4316000	0.01	6.83	100.00	AVRG
N-Nitroso-di-n-propylamine	0.7010000	0.7829300	0.7829300	0.05	11.69	100.00	AVRG
3&4-Methylphenol	1.0630000	1.2649000	1.2649000	0.01	18.99	100.00	AVRG
Hexachloroethane	0.5210000	0.5741700	0.5741700	0.01	10.20	100.00	AVRG
Nitrobenzene	0.3030000	0.3431300	0.3431300	0.01	13.24	100.00	AVRG
Isophorone	0.5720000	0.6409200	0.6409200	0.01	12.05	100.00	AVRG
2-Nitrophenol	0.1580000	0.1838800	0.1838800	0.01	16.38	20.00	AVRG
2,4-Dimethylphenol	0.3070000	0.3428800	0.3428800	0.01	11.69	100.00	AVRG
Bis(2-Chloroethoxy)methane	0.3380000	0.3854300	0.3854300	0.01	14.03	100.00	AVRG
2,4-Dichlorophenol	0.2510000	0.2731700	0.2731700	0.01	8.83	20.00	AVRG
Naphthalene	0.8840000	0.9428400	0.9428400	0.01	6.66	100.00	AVRG
4-Chloroaniline	0.3450000	0.3876000	0.3876000	0.01	12.35	100.00	AVRG
Hexachlorobutadiene	0.1750000	0.1841500	0.1841500	0.01	5.23	20.00	AVRG
Caprolactam	8.7e-002	0.1001200	0.1001200	0.01	15.08	100.00	AVRG
4-Chloro-3-Methylphenol	0.2490000	0.2821500	0.2821500	0.01	13.31	20.00	AVRG
2-Methylnaphthalene	0.7230000	0.7923700	0.7923700	0.01	9.59	100.00	AVRG
Hexachlorocyclopentadiene	0.3900000	0.3840300	0.3840300	0.05	-1.53	100.00	AVRG
2,4,6-Trichlorophenol	0.3400000	0.3832800	0.3832800	0.01	12.73	20.00	AVRG
2,4,5-Trichlorophenol	0.3470000	0.3793900	0.3793900	0.01	9.33	100.00	AVRG
2-Chloronaphthalene	0.4050000	0.4067100	0.4067100	0.01	0.42	100.00	AVRG
1,1'-Biphenyl	1.2080000	1.1816000	1.1816000	0.01	-2.18	100.00	AVRG
2-Nitroaniline	0.2860000	0.3337600	0.3337600	0.01	16.70	100.00	AVRG

FORM VII PEST

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GCMS-U Calibration Date: 06/16/09 Time: 0830

Lab File ID: U7367 Init. Calib. Date(s): 05/29/09 05/29/09

Init. Calib. Times: 0956 1335

GC Column: DB5-MS ID: 0.25 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
Dimethyl Phthalate	1.1860000	1.2780000	1.2780000	0.01	7.76	100.00	AVRG	
2,6-Dinitrotoluene	0.2680000	0.3006000	0.3006000	0.01	12.16	100.00	AVRG	
Acenaphthylene	1.6840000	1.7911000	1.7911000	0.01	6.36	100.00	AVRG	
3-Nitroaniline	0.2610000	0.3129600	0.3129600	0.01	19.91	100.00	AVRG	
Acenaphthene	1.0540000	1.1112000	1.1112000	0.01	5.43	20.00	AVRG	
2,4-Dinitrophenol	79.465000	50.000000	0.1365200	0.05	58.93	100.00	2RDR	
Dibenzofuran	1.4460000	1.4960000	1.4960000	0.01	3.46	100.00	AVRG	
4-Nitrophenol	0.1040000	8.8e-002	8.8e-002	0.05	-15.38	100.00	AVRG	
2,4-Dinitrotoluene	0.3220000	0.3911300	0.3911300	0.01	21.47	100.00	AVRG	
Diethylphthalate	1.1590000	1.2367000	1.2367000	0.01	6.70	100.00	AVRG	
Fluorene	1.1450000	1.1587000	1.1587000	0.01	1.20	100.00	AVRG	
4-Chlorophenyl-phenylether	0.5680000	0.5996700	0.5996700	0.01	5.58	100.00	AVRG	
4-Nitroaniline	0.2260000	0.2662400	0.2662400	0.01	17.80	100.00	AVRG	
4,6-Dinitro-2-Methylphenol	68.050000	50.000000	0.1343500	0.01	36.10	100.00	2RDR	
N-Nitrosodiphenylamine	0.6020000	0.6094000	0.6094000	0.01	1.23	20.00	AVRG	
4-Bromophenyl-phenylether	0.2240000	0.2206400	0.2206400	0.01	-1.50	100.00	AVRG	
Hexachlorobenzene	0.2520000	0.2639300	0.2639300	0.01	4.73	100.00	AVRG	
Atrazine	54.216000	50.000000	0.1712100	0.01	8.43	100.00	2RDR	
Pentachlorophenol	70.555000	50.000000	0.1244700	0.01	41.11	20.00	2RDR	<-
Phenanthrene	1.0320000	1.0602000	1.0602000	0.01	2.73	100.00	AVRG	
Anthracene	1.0210000	1.0156000	1.0156000	0.01	-0.53	100.00	AVRG	
Carbazole	0.8680000	0.9487500	0.9487500	0.01	9.30	100.00	AVRG	
Di-n-butylphthalate	1.2080000	1.3470000	1.3470000	0.01	11.51	100.00	AVRG	
Fluoranthene	0.9700000	1.0883000	1.0883000	0.01	12.20	20.00	AVRG	
Pyrene	1.1620000	1.2804000	1.2804000	0.01	10.19	100.00	AVRG	
Butylbenzylphthalate	0.5440000	0.6453600	0.6453600	0.01	18.63	100.00	AVRG	
Benzo(a)anthracene	0.9230000	0.9844300	0.9844300	0.01	6.66	100.00	AVRG	
3,3'-Dichlorobenzidine	0.2740000	0.2781400	0.2781400	0.01	1.51	100.00	AVRG	
Chrysene	0.8720000	0.9495700	0.9495700	0.01	8.90	100.00	AVRG	

FORM VII PEST

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GCMS-U Calibration Date: 06/16/09 Time: 0830

Lab File ID: U7367 Init. Calib. Date(s): 05/29/09 05/29/09

Init. Calib. Times: 0956 1335

GC Column: DB5-MS ID: 0.25 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
bis(2-Ethylhexyl)phthalate	0.7580000	0.9155900	0.9155900	0.01	20.79	100.00	AVRG	
Di-n-octylphthalate	1.3930000	1.8037000	1.8037000	0.01	29.48	20.00	AVRG	<-
Benzo(b)fluoranthene	0.9510000	1.0127000	1.0127000	0.01	6.49	100.00	AVRG	
Benzo(k)fluoranthene	0.9880000	1.0974000	1.0974000	0.01	11.07	100.00	AVRG	
Benzo(a)pyrene	0.8940000	0.9127400	0.9127400	0.01	2.10	20.00	AVRG	
Indeno(1,2,3-cd)pyrene	0.7060000	0.5899800	0.5899800	0.01	-16.43	100.00	AVRG	
Dibenzo(a,h)anthracene	0.7360000	0.7561200	0.7561200	0.01	2.73	100.00	AVRG	
Benzo(g,h,i)perylene	0.7770000	0.7376400	0.7376400	0.01	-5.06	100.00	AVRG	
2-Fluorophenol	1.0500000	1.1790000	1.1790000	0.01	12.29	100.00	AVRG	
Phenol-D6	1.2720000	1.3708000	1.3708000	0.01	7.77	100.00	AVRG	
Nitrobenzene-D5	0.3020000	0.3314200	0.3314200	0.01	9.74	100.00	AVRG	
2-Fluorobiphenyl	1.1960000	1.1304000	1.1304000	0.01	-5.48	100.00	AVRG	
2,4,6-Tribromophenol	0.1900000	0.2118200	0.2118200	0.01	11.48	100.00	AVRG	
Terphenyl-D14	0.7360000	0.7796900	0.7796900	0.01	5.94	100.00	AVRG	

FORM VII PEST

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GCMS-U Calibration Date: 07/06/09 Time: 1054

Lab File ID: U7678 Init. Calib. Date(s): 06/25/09 06/25/09

Init. Calib. Times: 1545 1941

GC Column: DB5-MS ID: 0.25 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
1,4-Dioxane	0.3380000	0.3140700	0.3140700	0.01	-7.08	100.00	AVRG
Benzaldehyde	0.2860000	0.1984700	0.1984700	0.01	-30.60	100.00	AVRG
Phenol	1.5970000	1.4845000	1.4845000	0.01	-7.04	20.00	AVRG
Bis(2-Chloroethyl)ether	1.2420000	1.0671000	1.0671000	0.01	-14.08	100.00	AVRG
2-Chlorophenol	1.3020000	1.2178000	1.2178000	0.01	-6.47	100.00	AVRG
2-Methylphenol	1.1890000	1.1522000	1.1522000	0.01	-3.10	100.00	AVRG
2,2'-Oxybis(1-chloropropane)	1.6740000	1.5398000	1.5398000	0.01	-8.02	100.00	AVRG
Acetophenone	0.4460000	0.4052900	0.4052900	0.01	-9.13	100.00	AVRG
N-Nitroso-di-n-propylamine	0.7700000	0.7378000	0.7378000	0.05	-4.18	100.00	AVRG
3&4-Methylphenol	1.2510000	1.2239000	1.2239000	0.01	-2.17	100.00	AVRG
Hexachloroethane	0.5620000	0.5396800	0.5396800	0.01	-3.97	100.00	AVRG
Nitrobenzene	0.3510000	0.3341800	0.3341800	0.01	-4.79	100.00	AVRG
Isophorone	0.6630000	0.6254900	0.6254900	0.01	-5.66	100.00	AVRG
2-Nitrophenol	0.1880000	0.1789000	0.1789000	0.01	-4.84	20.00	AVRG
2,4-Dimethylphenol	0.3470000	0.3428500	0.3428500	0.01	-1.20	100.00	AVRG
Bis(2-Chloroethoxy)methane	0.4060000	0.3836400	0.3836400	0.01	-5.51	100.00	AVRG
2,4-Dichlorophenol	0.2760000	0.2696400	0.2696400	0.01	-2.30	20.00	AVRG
Naphthalene	0.9590000	0.9086400	0.9086400	0.01	-5.25	100.00	AVRG
4-Chloroaniline	0.3960000	0.3875200	0.3875200	0.01	-2.14	100.00	AVRG
Hexachlorobutadiene	0.1900000	0.1726800	0.1726800	0.01	-9.12	20.00	AVRG
Caprolactam	0.1030000	0.1080700	0.1080700	0.01	4.92	100.00	AVRG
4-Chloro-3-Methylphenol	0.2790000	0.2661400	0.2661400	0.01	-4.61	20.00	AVRG
2-Methylnaphthalene	0.7460000	0.7834400	0.7834400	0.01	5.02	100.00	AVRG
Hexachlorocyclopentadiene	0.3790000	0.3796200	0.3796200	0.05	0.16	100.00	AVRG
2,4,6-Trichlorophenol	0.3860000	0.3876300	0.3876300	0.01	0.42	20.00	AVRG
2,4,5-Trichlorophenol	0.3900000	0.3981700	0.3981700	0.01	2.09	100.00	AVRG
2-Chloronaphthalene	0.4070000	0.3487000	0.3487000	0.01	-14.32	100.00	AVRG
1,1'-Biphenyl	1.1800000	1.1185000	1.1185000	0.01	-5.21	100.00	AVRG
2-Nitroaniline	0.3420000	0.3165400	0.3165400	0.01	-7.44	100.00	AVRG

FORM VII PEST

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GCMS-U Calibration Date: 07/06/09 Time: 1054

Lab File ID: U7678 Init. Calib. Date(s): 06/25/09 06/25/09

Init. Calib. Times: 1545 1941

GC Column: DB5-MS ID: 0.25 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
Dimethyl Phthalate	1.3000000	1.2668000	1.2668000	0.01	-2.55	100.00	AVRG	
2,6-Dinitrotoluene	0.3080000	0.3131900	0.3131900	0.01	1.68	100.00	AVRG	
Acenaphthylene	1.7730000	1.7962000	1.7962000	0.01	1.31	100.00	AVRG	
3-Nitroaniline	0.3150000	0.3221200	0.3221200	0.01	2.26	100.00	AVRG	
Acenaphthene	1.1250000	1.0810000	1.0810000	0.01	-3.91	20.00	AVRG	
2,4-Dinitrophenol	0.1260000	0.1372400	0.1372400	0.05	8.92	100.00	AVRG	
Dibenzofuran	1.5170000	1.4530000	1.4530000	0.01	-4.22	100.00	AVRG	
4-Nitrophenol	0.1240000	0.1263600	0.1263600	0.05	1.90	100.00	AVRG	
2,4-Dinitrotoluene	0.3940000	0.4032100	0.4032100	0.01	2.34	100.00	AVRG	
Diethylphthalate	1.3310000	1.2417000	1.2417000	0.01	-6.71	100.00	AVRG	
Fluorene	1.2110000	1.2094000	1.2094000	0.01	-0.13	100.00	AVRG	
4-Chlorophenyl-phenylether	0.6080000	0.6097600	0.6097600	0.01	0.29	100.00	AVRG	
4-Nitroaniline	0.2630000	0.2504300	0.2504300	0.01	-4.78	100.00	AVRG	
4,6-Dinitro-2-Methylphenol	45.913000	50.000000	0.1190700	0.01	-8.17	100.00	LINR	
N-Nitrosodiphenylamine	0.6380000	0.5796200	0.5796200	0.01	-9.15	20.00	AVRG	
4-Bromophenyl-phenylether	0.2470000	0.2323400	0.2323400	0.01	-5.94	100.00	AVRG	
Hexachlorobenzene	0.2820000	0.2543000	0.2543000	0.01	-9.82	100.00	AVRG	
Atrazine	0.1620000	0.1710000	0.1710000	0.01	5.56	100.00	AVRG	
Pentachlorophenol	44.182000	50.000000	0.1219800	0.01	-11.64	20.00	LINR	
Phenanthrene	1.1020000	0.9826500	0.9826500	0.01	-10.83	100.00	AVRG	
Anthracene	1.0920000	0.9947000	0.9947000	0.01	-8.91	100.00	AVRG	
Carbazole	0.9540000	0.8341800	0.8341800	0.01	-12.56	100.00	AVRG	
Di-n-butylphthalate	1.4080000	1.2408000	1.2408000	0.01	-11.88	100.00	AVRG	
Fluoranthene	1.0620000	0.8140500	0.8140500	0.01	-23.35	20.00	AVRG	<-
Pyrene	1.2560000	1.4335000	1.4335000	0.01	14.13	100.00	AVRG	
Butylbenzylphthalate	0.6150000	0.6547200	0.6547200	0.01	6.46	100.00	AVRG	
Benzo(a)anthracene	0.9660000	0.9299000	0.9299000	0.01	-3.74	100.00	AVRG	
3,3'-Dichlorobenzidine	0.2810000	0.2734500	0.2734500	0.01	-2.69	100.00	AVRG	
Chrysene	0.9540000	0.9279100	0.9279100	0.01	-2.73	100.00	AVRG	

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GCMS-U Calibration Date: 07/06/09 Time: 1054

Lab File ID: U7678 Init. Calib. Date(s): 06/25/09 06/25/09

Init. Calib. Times: 1545 1941

GC Column: DB5-MS ID: 0.25 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
bis(2-Ethylhexyl)phthalate	54.130000	50.000000	0.9422500	0.01	8.26	100.00	LINR
Di-n-octylphthalate	1.5870000	1.8204000	1.8204000	0.01	14.71	20.00	AVRG
Benzo(b)fluoranthene	0.9800000	0.9641800	0.9641800	0.01	-1.61	100.00	AVRG
Benzo(k)fluoranthene	1.0600000	1.0682000	1.0682000	0.01	0.77	100.00	AVRG
Benzo(a)pyrene	0.9500000	0.9435000	0.9435000	0.01	-0.68	20.00	AVRG
Indeno(1,2,3-cd)pyrene	0.7090000	0.6522600	0.6522600	0.01	-8.00	100.00	AVRG
Dibenzo(a,h)anthracene	0.7290000	0.6853600	0.6853600	0.01	-5.99	100.00	AVRG
Benzo(g,h,i)perylene	0.7750000	0.7397600	0.7397600	0.01	-4.55	100.00	AVRG
2-Fluorophenol	1.2650000	1.2049000	1.2049000	0.01	-4.75	100.00	AVRG
Phenol-D6	1.4690000	1.3433000	1.3433000	0.01	-8.56	100.00	AVRG
Nitrobenzene-D5	0.3510000	0.3231900	0.3231900	0.01	-7.92	100.00	AVRG
2-Fluorobiphenyl	1.2380000	1.2138000	1.2138000	0.01	-1.95	100.00	AVRG
2,4,6-Tribromophenol	0.2210000	0.2306500	0.2306500	0.01	4.37	100.00	AVRG
Terphenyl-D14	0.7670000	0.9137000	0.9137000	0.01	19.13	100.00	AVRG

FORM VII PEST

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GCMS-U Calibration Date: 07/07/09 Time: 1544

Lab File ID: U7711 Init. Calib. Date(s): 06/25/09 06/25/09

Init. Calib. Times: 1545 1941

GC Column: DB5-MS ID: 0.25 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
1,4-Dioxane	0.3380000	0.2975000	0.2975000	0.01	-11.98	100.00	AVRG
Benzaldehyde	0.2860000	0.1418800	0.1418800	0.01	-50.39	100.00	AVRG
Phenol	1.5970000	1.3745000	1.3745000	0.01	-13.93	20.00	AVRG
Bis(2-Chloroethyl)ether	1.2420000	1.0106000	1.0106000	0.01	-18.63	100.00	AVRG
2-Chlorophenol	1.3020000	1.1656000	1.1656000	0.01	-10.48	100.00	AVRG
2-Methylphenol	1.1890000	1.0215000	1.0215000	0.01	-14.09	100.00	AVRG
2,2'-Oxybis(1-chloropropane)	1.6740000	1.4265000	1.4265000	0.01	-14.78	100.00	AVRG
Acetophenone	0.4460000	0.4076200	0.4076200	0.01	-8.60	100.00	AVRG
N-Nitroso-di-n-propylamine	0.7700000	0.6678000	0.6678000	0.05	-13.27	100.00	AVRG
3&4-Methylphenol	1.2510000	1.0883000	1.0883000	0.01	-13.01	100.00	AVRG
Hexachloroethane	0.5620000	0.4901000	0.4901000	0.01	-12.79	100.00	AVRG
Nitrobenzene	0.3510000	0.3261800	0.3261800	0.01	-7.07	100.00	AVRG
Isophorone	0.6630000	0.5685000	0.5685000	0.01	-14.25	100.00	AVRG
2-Nitrophenol	0.1880000	0.1655800	0.1655800	0.01	-11.93	20.00	AVRG
2,4-Dimethylphenol	0.3470000	0.3142600	0.3142600	0.01	-9.44	100.00	AVRG
Bis(2-Chloroethoxy)methane	0.4060000	0.3470500	0.3470500	0.01	-14.52	100.00	AVRG
2,4-Dichlorophenol	0.2760000	0.2543300	0.2543300	0.01	-7.85	20.00	AVRG
Naphthalene	0.9590000	0.8405600	0.8405600	0.01	-12.35	100.00	AVRG
4-Chloroaniline	0.3960000	0.3705300	0.3705300	0.01	-6.43	100.00	AVRG
Hexachlorobutadiene	0.1900000	0.1647500	0.1647500	0.01	-13.29	20.00	AVRG
Caprolactam	0.1030000	9.75e-002	9.75e-002	0.01	-5.34	100.00	AVRG
4-Chloro-3-Methylphenol	0.2790000	0.2527000	0.2527000	0.01	-9.43	20.00	AVRG
2-Methylnaphthalene	0.7460000	0.7370100	0.7370100	0.01	-1.20	100.00	AVRG
Hexachlorocyclopentadiene	0.3790000	0.3315000	0.3315000	0.05	-12.53	100.00	AVRG
2,4,6-Trichlorophenol	0.3860000	0.3535800	0.3535800	0.01	-8.40	20.00	AVRG
2,4,5-Trichlorophenol	0.3900000	0.3501500	0.3501500	0.01	-10.22	100.00	AVRG
2-Chloronaphthalene	0.4070000	0.3529500	0.3529500	0.01	-13.28	100.00	AVRG
1,1'-Biphenyl	1.1800000	1.0810000	1.0810000	0.01	-8.39	100.00	AVRG
2-Nitroaniline	0.3420000	0.2974400	0.2974400	0.01	-13.03	100.00	AVRG

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GCMS-U Calibration Date: 07/07/09 Time: 1544

Lab File ID: U7711 Init. Calib. Date(s): 06/25/09 06/25/09

Init. Calib. Times: 1545 1941

GC Column: DB5-MS ID: 0.25 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
Dimethyl Phthalate	1.3000000	1.1138000	1.1138000	0.01	-14.32	100.00	AVRG
2,6-Dinitrotoluene	0.3080000	0.2692600	0.2692600	0.01	-12.58	100.00	AVRG
Acenaphthylene	1.7730000	1.4484000	1.4484000	0.01	-18.31	100.00	AVRG
3-Nitroaniline	0.3150000	0.2870700	0.2870700	0.01	-8.87	100.00	AVRG
Acenaphthene	1.1250000	0.9871000	0.9871000	0.01	-12.26	20.00	AVRG
2,4-Dinitrophenol	0.1260000	0.1329400	0.1329400	0.05	5.51	100.00	AVRG
Dibenzofuran	1.5170000	1.3432000	1.3432000	0.01	-11.46	100.00	AVRG
4-Nitrophenol	0.1240000	0.1390300	0.1390300	0.05	12.12	100.00	AVRG
2,4-Dinitrotoluene	0.3940000	0.3585200	0.3585200	0.01	-9.00	100.00	AVRG
Diethylphthalate	1.3310000	1.0731000	1.0731000	0.01	-19.38	100.00	AVRG
Fluorene	1.2110000	0.9772200	0.9772200	0.01	-19.30	100.00	AVRG
4-Chlorophenyl-phenylether	0.6080000	0.5270000	0.5270000	0.01	-13.32	100.00	AVRG
4-Nitroaniline	0.2630000	0.2387100	0.2387100	0.01	-9.24	100.00	AVRG
4,6-Dinitro-2-Methylphenol	49.505000	50.000000	0.1290500	0.01	-0.99	100.00	LINR
N-Nitrosodiphenylamine	0.6380000	0.5865200	0.5865200	0.01	-8.07	20.00	AVRG
4-Bromophenyl-phenylether	0.2470000	0.2374900	0.2374900	0.01	-3.85	100.00	AVRG
Hexachlorobenzene	0.2820000	0.2555500	0.2555500	0.01	-9.38	100.00	AVRG
Atrazine	0.1620000	0.1619200	0.1619200	0.01	-0.05	100.00	AVRG
Pentachlorophenol	43.553000	50.000000	0.1200800	0.01	-12.89	20.00	LINR
Phenanthrene	1.1020000	1.0074000	1.0074000	0.01	-8.58	100.00	AVRG
Anthracene	1.0920000	1.0102000	1.0102000	0.01	-7.49	100.00	AVRG
Carbazole	0.9540000	0.8691000	0.8691000	0.01	-8.90	100.00	AVRG
Di-n-butylphthalate	1.4080000	1.2944000	1.2944000	0.01	-8.07	100.00	AVRG
Fluoranthene	1.0620000	1.0144000	1.0144000	0.01	-4.48	20.00	AVRG
Pyrene	1.2560000	1.1332000	1.1332000	0.01	-9.78	100.00	AVRG
Butylbenzylphthalate	0.6150000	0.5591200	0.5591200	0.01	-9.09	100.00	AVRG
Benzo(a)anthracene	0.9660000	0.8707500	0.8707500	0.01	-9.86	100.00	AVRG
3,3'-Dichlorobenzidine	0.2810000	0.2770700	0.2770700	0.01	-1.40	100.00	AVRG
Chrysene	0.9540000	0.8451800	0.8451800	0.01	-11.41	100.00	AVRG

FORM VII PEST

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GCMS-U Calibration Date: 07/07/09 Time: 1544

Lab File ID: U7711 Init. Calib. Date(s): 06/25/09 06/25/09

Init. Calib. Times: 1545 1941

GC Column: DB5-MS ID: 0.25 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
bis(2-Ethylhexyl)phthalate	45.440000	50.000000	0.7980800	0.01	-9.12	100.00	LINR
Di-n-octylphthalate	1.5870000	1.5649000	1.5649000	0.01	-1.39	20.00	AVRG
Benzo(b)fluoranthene	0.9800000	0.9249000	0.9249000	0.01	-5.62	100.00	AVRG
Benzo(k)fluoranthene	1.0600000	1.0369000	1.0369000	0.01	-2.18	100.00	AVRG
Benzo(a)pyrene	0.9500000	0.8979000	0.8979000	0.01	-5.48	20.00	AVRG
Indeno(1,2,3-cd)pyrene	0.7090000	0.6664200	0.6664200	0.01	-6.00	100.00	AVRG
Dibenzo(a,h)anthracene	0.7290000	0.7050500	0.7050500	0.01	-3.28	100.00	AVRG
Benzo(g,h,i)perylene	0.7750000	0.7882900	0.7882900	0.01	1.71	100.00	AVRG
2-Fluorophenol	1.2650000	1.1057000	1.1057000	0.01	-12.59	100.00	AVRG
Phenol-D6	1.4690000	1.2238000	1.2238000	0.01	-16.69	100.00	AVRG
Nitrobenzene-D5	0.3510000	0.3183200	0.3183200	0.01	-9.31	100.00	AVRG
2-Fluorobiphenyl	1.2380000	1.1282000	1.1282000	0.01	-8.87	100.00	AVRG
2,4,6-Tribromophenol	0.2210000	0.1973600	0.1973600	0.01	-10.70	100.00	AVRG
Terphenyl-D14	0.7670000	0.7643300	0.7643300	0.01	-0.35	100.00	AVRG

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Lab File ID (Standard): U7367 Date Analyzed: 06/16/09

Instrument ID: GCMS-U Time Analyzed: 0830

	IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
12 HOUR STD	363092	8.72	1354642	11.78	711499	16.32
UPPER LIMIT	726184	9.22	2709284	12.28	1422998	16.82
LOWER LIMIT	181546	8.22	677321	11.28	355750	15.82

	CLIENT SAMPLE ID	LAB SAMPLE ID						
01	WG64998-BLANK	WG64998-1	382363	8.72	1453821	11.78	775135	16.35
02	WG64998-LCS	WG64998-2	329239	8.72	1251952	11.78	693524	16.32
03	WG64998-LCSD	WG64998-3	387597	8.72	1435984	11.78	772183	16.32
04	WGL-SD-FB01-061109	SC3122-43	360358	8.72	1354196	11.78	691033	16.35
05	WGL-SD-RB01-061109	SC3122-45	357394	8.72	1366226	11.78	697583	16.34
06								
07								
08								
09								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

IS1 (DCB) = 1,4-Dichlorobenzene-D4
IS2 (NPT) = Naphthalene-D8
IS3 (ANT) = Acenaphthene-D10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM VIII SV

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Lab File ID (Standard): U7367 Date Analyzed: 06/16/09

Instrument ID: GCMS-U Time Analyzed: 0830

		IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
12 HOUR STD		1183629	20.23	1064220	27.22	851164	30.72
UPPER LIMIT		2367258	20.73	2128440	27.72	1702328	31.22
LOWER LIMIT		591815	19.73	532110	26.72	425582	30.22
CLIENT SAMPLE ID	LAB SAMPLE ID						
01 WG64998-BLANK	WG64998-1	1287224	20.24	896357	27.25	636862	30.75
02 WG64998-LCS	WG64998-2	1116123	20.23	974763	27.22	701166	30.73
03 WG64998-LCSD	WG64998-3	1304737	20.23	1167766	27.23	959038	30.73
04 WGL-SD-FB01-061109	SC3122-43	1180042	20.24	903458	27.25	642189	30.76
05 WGL-SD-RB01-061109	SC3122-45	1155800	20.23	955482	27.23	782412	30.74
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

IS4 (PHN) = Phenanthrene-D10
IS5 (CRY) = Chrysene-D12
IS6 (PRY) = Perylene-D12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM VIII SV

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Lab File ID (Standard): U7678 Date Analyzed: 07/06/09

Instrument ID: GCMS-U Time Analyzed: 1054

	IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
12 HOUR STD	400792	8.65	1474879	11.73	768410	16.27
UPPER LIMIT	801584	9.15	2949758	12.23	1536820	16.77
LOWER LIMIT	200396	8.15	737440	11.23	384205	15.77

	CLIENT SAMPLE ID	LAB SAMPLE ID						
01	WG65397-BLANK	WG65397-1	410931	8.65	1566864	11.73	747357	16.27
02	WG65397-LCS	WG65397-2	399964	8.66	1477619	11.73	774192	16.27
03	WGL-SD-SD103-000.6	SC3122-2	440107	8.66	1645112	11.73	772484	16.28
04	WGL-SD-SD102-000.6	SC3122-5	549053	8.66	1969029	11.73	776623	16.29
05	WGL-SD-SD101-000.6	SC3122-8	529431	8.66	1781439	11.73	723956	16.29
06	WGL-SD-DUP01-061109	SC3122-11	565001	8.67	1998079	11.74	776602	16.30
07	WGL-SD-SD104-000.6	SC3122-14	489759	8.67	1968484	11.73	794492	16.29
08	WGL-SD-SD106-000.6	SC3122-17	523756	8.67	1764974	11.74	717371	16.28
09	WGL-SD-DUP02-061109	SC3122-20	574663	8.67	2042563	11.74	925359	16.29
10	WGL-SD-SD107-000.6	SC3122-23DL	520595	8.67	2004661	11.74	815655	16.29
11	WGL-SD-SD108-000.6	SC3122-26	520248	8.67	1806920	11.74	869602	16.29
12	WGL-SD-SD105-000.6	SC3122-29	482911	8.66	1846631	11.74	878567	16.29
13	WGL-SD-SD112-000.6	SC3122-32	456467	8.66	1429015	11.75	605032	16.30
14	WGL-SD-SD110-000.6	SC3122-35	521494	8.68	1936521	11.75	748575	16.33
15	WGL-SD-SD109-000.6	SC3122-38	559910	8.68	2071797	11.75	841621	16.32
16								
17								
18								
19								
20								

IS1 (DCB) = 1,4-Dichlorobenzene-D4
IS2 (NPT) = Naphthalene-D8
IS3 (ANT) = Acenaphthene-D10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM VIII SV

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Lab File ID (Standard): U7678 Date Analyzed: 07/06/09

Instrument ID: GCMS-U Time Analyzed: 1054

	IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
12 HOUR STD	1356315	20.17	875122	27.16	602377	30.65
UPPER LIMIT	2712630	20.67	1750244	27.66	1204754	31.15
LOWER LIMIT	678158	19.67	437561	26.66	301189	30.15

	CLIENT SAMPLE ID	LAB SAMPLE ID						
01	WG65397-BLANK	WG65397-1	1205452	20.17	938107	27.17	740218	30.66
02	WG65397-LCS	WG65397-2	1362529	20.16	903739	27.16	614295	30.66
03	WGL-SD-SD103-000.6	SC3122-2	997396	20.17	404372*	27.17	208785*	30.67
04	WGL-SD-SD102-000.6	SC3122-5	1001658	20.18	315081*	27.18	143358*	30.68
05	WGL-SD-SD101-000.6	SC3122-8	718696	20.18	173365*	27.20	98389*	30.68
06	WGL-SD-DUP01-061109	SC3122-11	992065	20.18	269697*	27.19	131611*	30.69
07	WGL-SD-SD104-000.6	SC3122-14	958282	20.18	431558*	27.18	222987*	30.68
08	WGL-SD-SD106-000.6	SC3122-17	857238	20.18	223043*	27.20	125888*	30.69
09	WGL-SD-DUP02-061109	SC3122-20	1126934	20.20	305564*	27.20	155070*	30.70
10	WGL-SD-SD107-000.6	SC3122-23DL	1058371	20.21	300680*	27.21	162491*	30.70
11	WGL-SD-SD108-000.6	SC3122-26	994256	20.20	277707*	27.20	116474*	30.70
12	WGL-SD-SD105-000.6	SC3122-29	1070591	20.19	388045*	27.21	254214*	30.71
13	WGL-SD-SD112-000.6	SC3122-32	745522	20.21	264181*	27.23	182875*	30.72
14	WGL-SD-SD110-000.6	SC3122-35	926418	20.22	221423*	27.24	112319*	30.73
15	WGL-SD-SD109-000.6	SC3122-38	960183	20.22	209154*	27.24	90710*	30.73
16								
17								
18								
19								
20								

IS4 (PHN) = Phenanthrene-D10
IS5 (CRY) = Chrysene-D12
IS6 (PRY) = Perylene-D12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM VIII SV

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Lab File ID (Standard): U7711 Date Analyzed: 07/07/09

Instrument ID: GCMS-U Time Analyzed: 1544

	IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
12 HOUR STD	387837	8.65	1418008	11.73	730059	16.28
UPPER LIMIT	775674	9.15	2836016	12.23	1460118	16.78
LOWER LIMIT	193919	8.15	709004	11.23	365030	15.78

	CLIENT SAMPLE ID	LAB SAMPLE ID						
01	L-SD-SD111-000.6	SC3122-41	363002	8.65	1377239	11.73	617057	16.28
02	L-SD-SD111-000.6MS	WG65397-3	354002	8.65	1349276	11.74	628294	16.28
03	L-SD-SD111-000.6MSD	WG65397-4	431673	8.66	1560836	11.74	762876	16.29
04								
05								
06								
07								
08								
09								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

IS1 (DCB) = 1,4-Dichlorobenzene-D4
IS2 (NPT) = Naphthalene-D8
IS3 (ANT) = Acenaphthene-D10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM VIII SV

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Lab File ID (Standard): U7711 Date Analyzed: 07/07/09

Instrument ID: GCMS-U Time Analyzed: 1544

	IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
12 HOUR STD	1096928	20.18	957431	27.18	688962	30.67
UPPER LIMIT	2193856	20.68	1914862	27.68	1377924	31.17
LOWER LIMIT	548464	19.68	478716	26.68	344481	30.17

	CLIENT SAMPLE ID	LAB SAMPLE ID						
01	L-SD-SD111-000.6	SC3122-41	907102	20.18	422597*	27.21	228893*	30.69
02	L-SD-SD111-000.6MS	WG65397-3	903886	20.19	534337	27.21	301856*	30.70
03	L-SD-SD111-000.6MSD	WG65397-4	1153661	20.20	489570	27.23	259602*	30.72
04								
05								
06								
07								
08								
09								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

IS4 (PHN) = Phenanthrene-D10
IS5 (CRY) = Chrysene-D12
IS6 (PRY) = Perylene-D12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM VIII SV

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 07-JUL-2009 15:32
Report Date: 07/10/2009
Matrix: SOIL
% Solids: 95.6

Lab ID: SC3122-2DL
Client ID: WGL-SD-SD103-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: RCT
Analysis Method: SW846 8081A
Lab Prep Batch: WG65399
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
319-84-6	alpha-BHC	U	3.6	10	1.7	3.6	0.96
58-89-9	gamma BHC	U	3.6	10	1.7	3.6	0.96
319-85-7	beta-BHC	U	3.6	10	1.7	3.6	0.80
319-86-8	delta-BHC	U	3.6	10	1.7	3.6	0.69
76-44-8	Heptachlor	U	3.6	10	1.7	3.6	0.98
309-00-2	Aldrin	U	3.6	10	1.7	3.6	0.86
1024-57-3	Heptachlor Epoxide	U	3.6	10	1.7	3.6	0.92
5103-74-2	gamma-Chlordane	U	3.6	10	1.7	3.6	0.98
5103-71-9	alpha-Chlordane	U	3.6	10	1.7	3.6	0.94
72-55-9	4,4'-DDE	E	260	10	3.3	6.9	0.77
959-98-8	Endosulfan I	U	3.6	10	1.7	3.6	0.84
60-57-1	Dieldrin	J	5.0	10	3.3	6.9	0.80
72-20-8	Endrin	U	6.9	10	3.3	6.9	0.80
72-54-8	4,4'-DDD		15	10	3.3	6.9	0.88
33213-65-9	Endosulfan II	U	6.9	10	3.3	6.9	0.92
50-29-3	4,4'-DDT		130	10	3.3	6.9	0.88
7421-36-3	Endrin Aldehyde	U	6.9	10	3.3	6.9	0.73
72-43-5	Methoxychlor	U	36	10	17	36	1.0
1031-07-8	Endosulfan sulfate	U	6.9	10	3.3	6.9	0.94
53494-70-5	Endrin Ketone	U	6.9	10	3.3	6.9	1.9
8001-35-2	Toxaphene	U	69	10	33	69	29
877-09-8	Tetrachloro-m-Xylene		D				
2051-24-3	Decachlorobiphenyl		D				

FORM 10
PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

CLIENT SAMPLE ID

WGL-SD-SD
103-000.6

Lab Name: KATAHDIN ANALYTICAL SERVICES Project: CTO 407 NAS WE

Lab Code: KAS PO No.: SDG No.: SC3122

Lab Sample ID: SC3122-2DL Date(s) Analyzed: 07/07/09 07/07/09

Instrument ID (1): GC01 Instrument ID (2): GC01

GC Column(1): ZB-MULTIRESIDUE-1 ID: 0.53(mm) GC Column(2): ZB-MULTIRESIDUE-2 ID: 0.53(mr

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	RPD
4,4'-DDE	1	7.38	7.31	7.45	265	
	2	7.40	7.33	7.47	264	0.4
Dieldrin	1	7.53	7.48	7.62	2.10	
	2	7.61	7.55	7.69	5.04	82.4
4,4'-DDD	1	8.14	8.07	8.21	14.8	
	2	8.22	8.16	8.30	12.6	16.0
4,4'-DDT	1	8.59	8.52	8.66	130	
	2	8.61	8.54	8.68	131	0.8
	1					
	2					
	1					
	2					
	1					
	2					
	1					
	2					

FORM X PEST-1

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 08-JUL-2009 13:50
Report Date: 07/10/2009
Matrix: SOIL
% Solids: 95.6

Lab ID: SC3122-2DL2
Client ID: WGL-SD-SD103-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: RCT
Analysis Method: SW846 8081A
Lab Prep Batch: WG65399
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
319-84-6	alpha-BHC	U	18	50	1.7	18	4.8
58-89-9	gamma BHC	U	18	50	1.7	18	4.8
319-85-7	beta-BHC	U	18	50	1.7	18	4.0
319-86-8	delta-BHC	U	18	50	1.7	18	3.4
76-44-8	Heptachlor	U	18	50	1.7	18	4.9
309-00-2	Aldrin	U	18	50	1.7	18	4.3
1024-57-3	Heptachlor Epoxide	U	18	50	1.7	18	4.6
5103-74-2	gamma-Chlordane	U	18	50	1.7	18	4.9
5103-71-9	alpha-Chlordane	U	18	50	1.7	18	4.7
72-55-9	4,4'-DDE		280	50	3.3	34	3.9
959-98-8	Endosulfan I	U	18	50	1.7	18	4.2
60-57-1	Dieldrin	J	7.1	50	3.3	34	4.0
72-20-8	Endrin	U	34	50	3.3	34	4.0
72-54-8	4,4'-DDD	J	22	50	3.3	34	4.4
33213-65-9	Endosulfan II	U	34	50	3.3	34	4.6
50-29-3	4,4'-DDT		120	50	3.3	34	4.4
7421-36-3	Endrin Aldehyde	U	34	50	3.3	34	3.7
72-43-5	Methoxychlor	U	180	50	17	180	5.2
1031-07-8	Endosulfan sulfate	U	34	50	3.3	34	4.7
53494-70-5	Endrin Ketone	U	34	50	3.3	34	9.4
8001-35-2	Toxaphene	U	340	50	33	340	150
877-09-8	Tetrachloro-m-Xylene		D				
2051-24-3	Decachlorobiphenyl		D				

FORM 10
PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

CLIENT SAMPLE ID

WGL-SD-SD
103-000.6

Lab Name: KATAHDIN ANALYTICAL SERVICES Project: CTO 407 NAS WE

Lab Code: KAS PO No.: SDG No.: SC3122

Lab Sample ID: SC3122-2DL2 Date(s) Analyzed: 07/08/09 07/08/09

Instrument ID (1): GC01 Instrument ID (2): GC01

GC Column(1): ZB-MULTIRESIDUE-1 ID: 0.53(mm) GC Column(2): ZB-MULTIRESIDUE-2 ID: 0.53(mm

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	RPD
4,4'-DDE	1	7.38	7.30	7.44	278	
	2	7.38	7.33	7.47	270	2.9
Dieldrin	1	7.53	7.48	7.62	5.00	
	2	7.59	7.54	7.68	7.10	34.7
4,4'-DDD	1	8.14	8.07	8.21	21.8	
	2	8.21	8.15	8.29	13.0	50.6
4,4'-DDT	1	8.59	8.51	8.65	120	
	2	8.60	8.54	8.68	115	4.2
	1					
	2					
	1					
	2					
	1					
	2					
	1					
	2					

FORM X PEST-1

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 07-JUL-2009 15:49
Report Date: 07/10/2009
Matrix: SOIL
% Solids: 96.4

Lab ID: SC3122-5DL
Client ID: WGL-SD-SD102-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: RCT
Analysis Method: SW846 8081A
Lab Prep Batch: WG65399
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
319-84-6	alpha-BHC	U	3.5	10	1.7	3.5	0.95
58-89-9	gamma BHC	U	3.5	10	1.7	3.5	0.95
319-85-7	beta-BHC	J	3.4	10	1.7	3.5	0.79
319-86-8	delta-BHC	U	3.5	10	1.7	3.5	0.68
76-44-8	Heptachlor	U	3.5	10	1.7	3.5	0.98
309-00-2	Aldrin	U	3.5	10	1.7	3.5	0.85
1024-57-3	Heptachlor Epoxide	U	3.5	10	1.7	3.5	0.91
5103-74-2	gamma-Chlordane	J	1.6	10	1.7	3.5	0.98
5103-71-9	alpha-Chlordane	U	3.5	10	1.7	3.5	0.93
72-55-9	4,4'-DDE		120	10	3.3	6.8	0.77
959-98-8	Endosulfan I	U	3.5	10	1.7	3.5	0.83
60-57-1	Dieldrin	J	4.0	10	3.3	6.8	0.79
72-20-8	Endrin	U	6.8	10	3.3	6.8	0.79
72-54-8	4,4'-DDD	J	6.7	10	3.3	6.8	0.87
33213-65-9	Endosulfan II		7.4	10	3.3	6.8	0.91
50-29-3	4,4'-DDT		51	10	3.3	6.8	0.87
7421-36-3	Endrin Aldehyde	U	6.8	10	3.3	6.8	0.73
72-43-5	Methoxychlor	U	35	10	17	35	1.0
1031-07-8	Endosulfan sulfate	U	6.8	10	3.3	6.8	0.93
53494-70-5	Endrin Ketone	U	6.8	10	3.3	6.8	1.9
8001-35-2	Toxaphene	U	68	10	33	68	29
877-09-8	Tetrachloro-m-Xylene		D				
2051-24-3	Decachlorobiphenyl		D				

FORM 10
PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

CLIENT SAMPLE ID

WGL-SD-SD
102-000.6

Lab Name: KATAHDIN ANALYTICAL SERVICES Project: CTO 407 NAS WE

Lab Code: KAS PO No.: SDG No.: SC3122

Lab Sample ID: SC3122-5DL Date(s) Analyzed: 07/07/09 07/07/09

Instrument ID (1): GC01 Instrument ID (2): GC01

GC Column(1): ZB-MULTIRESIDUE-1 ID: 0.53(mm) GC Column(2): ZB-MULTIRESIDUE-2 ID: 0.53(mm

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	RPD
beta-BHC	1	5.04	4.98	5.08	3.08	
	2	5.32	5.29	5.39	3.42	10.5
gamma-Chlordane	1	6.98	6.91	7.05	1.62	
	2	7.06	6.99	7.13	1.39	15.3
4,4'-DDE	1	7.38	7.31	7.45	121	
	2	7.40	7.33	7.47	116	4.2
Dieldrin	1	7.53	7.48	7.62	2.22	
	2	7.61	7.55	7.69	3.96	56.3
4,4'-DDD	1	8.14	8.07	8.21	6.73	
	2	8.22	8.16	8.30	4.42	41.4
Endosulfan II	1	8.23	8.15	8.29	7.36	
	2	8.44	8.38	8.52	7.08	3.9
4,4'-DDT	1	8.58	8.52	8.66	51.0	
	2	8.61	8.54	8.68	50.2	1.6
	1					
	2					

FORM X PEST-1

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 07-JUL-2009 16:07
Report Date: 07/10/2009
Matrix: SOIL
% Solids: 96.1

Lab ID: SC3122-8DL
Client ID: WGL-SD-SD101-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: RCT
Analysis Method: SW846 8081A
Lab Prep Batch: WG65399
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
319-84-6	alpha-BHC	U	3.5	10	1.7	3.5	0.96
58-89-9	gamma BHC	J	2.4	10	1.7	3.5	0.96
319-85-7	beta-BHC	U	3.5	10	1.7	3.5	0.79
319-86-8	delta-BHC	J	2.3	10	1.7	3.5	0.69
76-44-8	Heptachlor	U	3.5	10	1.7	3.5	0.98
309-00-2	Aldrin	U	3.5	10	1.7	3.5	0.85
1024-57-3	Heptachlor Epoxide	U	3.5	10	1.7	3.5	0.92
5103-74-2	gamma-Chlordane	J	2.7	10	1.7	3.5	0.98
5103-71-9	alpha-Chlordane	U	3.5	10	1.7	3.5	0.94
72-55-9	4,4'-DDE		61	10	3.3	6.9	0.77
959-98-8	Endosulfan I	U	3.5	10	1.7	3.5	0.83
60-57-1	Dieldrin	U	6.9	10	3.3	6.9	0.79
72-20-8	Endrin	U	6.9	10	3.3	6.9	0.79
72-54-8	4,4'-DDD		12	10	3.3	6.9	0.87
33213-65-9	Endosulfan II		19	10	3.3	6.9	0.92
50-29-3	4,4'-DDT		65	10	3.3	6.9	0.87
7421-36-3	Endrin Aldehyde	U	6.9	10	3.3	6.9	0.73
72-43-5	Methoxychlor	U	35	10	17	35	1.0
1031-07-8	Endosulfan sulfate	U	6.9	10	3.3	6.9	0.94
53494-70-5	Endrin Ketone	U	6.9	10	3.3	6.9	1.9
8001-35-2	Toxaphene	U	69	10	33	69	29
877-09-8	Tetrachloro-m-Xylene		D				
2051-24-3	Decachlorobiphenyl		D				

FORM 10
PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

CLIENT SAMPLE ID

WGL-SD-SD 101-000.6

Lab Name: KATAHDIN ANALYTICAL SERVICES Project: CTO 407 NAS WE

Lab Code: KAS PO No.: SDG No.: SC3122

Lab Sample ID: SC3122-8DL Date(s) Analyzed: 07/07/09 07/07/09

Instrument ID (1): GC01 Instrument ID (2): GC01

GC Column(1): ZB-MULTIRESIDUE-1 ID: 0.53(mm) GC Column(2): ZB-MULTIRESIDUE-2 ID: 0.53(m

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	RPD
gamma BHC	1	4.73	4.68	4.78	2.36	
	2	4.91	4.84	4.94	2.14	9.8
delta-BHC	1	5.35	5.31	5.41	2.32	
	2	5.67	5.65	5.75	1.83	23.6
gamma-Chlordane	1	6.98	6.91	7.05	2.27	
	2	7.07	6.99	7.13	2.68	16.6
4,4'-DDE	1	7.38	7.31	7.45	59.8	
	2	7.40	7.33	7.47	61.1	2.2
4,4'-DDD	1	8.14	8.07	8.21	9.44	
	2	8.20	8.16	8.30	11.6	20.5
Endosulfan II	1	8.23	8.15	8.29	18.9	
	2	8.45	8.38	8.52	14.4	27.0
4,4'-DDT	1	8.58	8.52	8.66	59.2	
	2	8.61	8.54	8.68	65.4	10.0
	1					
	2					

FORM X PEST-1

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 07-JUL-2009 16:24
Report Date: 07/10/2009
Matrix: SOIL
% Solids: 95.7

Lab ID: SC3122-11DL
Client ID: WGL-SD-DUP01-061109
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: RCT
Analysis Method: SW846 8081A
Lab Prep Batch: WG65399
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
319-84-6	alpha-BHC	U	3.6	10	1.7	3.6	0.96
58-89-9	gamma BHC	U	3.6	10	1.7	3.6	0.96
319-85-7	beta-BHC	U	3.6	10	1.7	3.6	0.79
319-86-8	delta-BHC	U	3.6	10	1.7	3.6	0.69
76-44-8	Heptachlor	U	3.6	10	1.7	3.6	0.98
309-00-2	Aldrin	U	3.6	10	1.7	3.6	0.86
1024-57-3	Heptachlor Epoxide	U	3.6	10	1.7	3.6	0.92
5103-74-2	gamma-Chlordane	J	2.0	10	1.7	3.6	0.98
5103-71-9	alpha-Chlordane	U	3.6	10	1.7	3.6	0.94
72-55-9	4,4'-DDE		150	10	3.3	6.9	0.77
959-98-8	Endosulfan I	U	3.6	10	1.7	3.6	0.84
60-57-1	Dieldrin	U	6.9	10	3.3	6.9	0.79
72-20-8	Endrin	U	6.9	10	3.3	6.9	0.79
72-54-8	4,4'-DDD	U	6.9	10	3.3	6.9	0.88
33213-65-9	Endosulfan II		11	10	3.3	6.9	0.92
50-29-3	4,4'-DDT		62	10	3.3	6.9	0.88
7421-36-3	Endrin Aldehyde	U	6.9	10	3.3	6.9	0.73
72-43-5	Methoxychlor	U	36	10	17	36	1.0
1031-07-8	Endosulfan sulfate	U	6.9	10	3.3	6.9	0.94
53494-70-5	Endrin Ketone	U	6.9	10	3.3	6.9	1.9
8001-35-2	Toxaphene	U	69	10	33	69	29
877-09-8	Tetrachloro-m-Xylene		D				
2051-24-3	Decachlorobiphenyl		D				

FORM 10
PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

CLIENT SAMPLE ID

WGL-SD-DU
P01-061109

Lab Name: KATAHDIN ANALYTICAL SERVICES Project: CTO 407 NAS WE

Lab Code: KAS PO No.: SDG No.: SC3122

Lab Sample ID: SC3122-11DL Date(s) Analyzed: 07/07/09 07/07/09

Instrument ID (1): GC01 Instrument ID (2): GC01

GC Column(1): ZB-MULTIRESIDUE-1 ID: 0.53(mm) GC Column(2): ZB-MULTIRESIDUE-2 ID: 0.53(mm

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	RPD
gamma-Chlordane	1	6.98	6.91	7.05	2.00	
	2	7.06	6.99	7.13	1.76	12.8
4,4'-DDE	1	7.38	7.31	7.45	145	
	2	7.40	7.33	7.47	146	0.7
Endosulfan II	1	8.23	8.15	8.29	8.54	
	2	8.45	8.38	8.52	11.2	27.0
4,4'-DDT	1	8.59	8.52	8.66	56.9	
	2	8.61	8.54	8.68	61.9	8.4
	1					
	2					
	1					
	2					
	1					
	2					
	1					
	2					

FORM X PEST-1

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 07-JUL-2009 16:41
Report Date: 07/10/2009
Matrix: SOIL
% Solids: 95.9

Lab ID: SC3122-14DL
Client ID: WGL-SD-SD104-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: RCT
Analysis Method: SW846 8081A
Lab Prep Batch: WG65399
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
319-84-6	alpha-BHC	U	4.2	10	1.7	4.2	1.2
58-89-9	gamma BHC	U	4.2	10	1.7	4.2	1.2
319-85-7	beta-BHC	U	4.2	10	1.7	4.2	0.95
319-86-8	delta-BHC	U	4.2	10	1.7	4.2	0.82
76-44-8	Heptachlor	U	4.2	10	1.7	4.2	1.2
309-00-2	Aldrin	U	4.2	10	1.7	4.2	1.0
1024-57-3	Heptachlor Epoxide	U	4.2	10	1.7	4.2	1.1
5103-74-2	gamma-Chlordane	U	4.2	10	1.7	4.2	1.2
5103-71-9	alpha-Chlordane	U	4.2	10	1.7	4.2	1.1
72-55-9	4,4'-DDE		9.4	10	3.3	8.2	0.92
959-98-8	Endosulfan I	U	4.2	10	1.7	4.2	1.0
60-57-1	Dieldrin	U	8.2	10	3.3	8.2	0.95
72-20-8	Endrin	U	8.2	10	3.3	8.2	0.95
72-54-8	4,4'-DDD	U	8.2	10	3.3	8.2	1.0
33213-65-9	Endosulfan II	U	8.2	10	3.3	8.2	1.1
50-29-3	4,4'-DDT	J	5.0	10	3.3	8.2	1.0
7421-36-3	Endrin Aldehyde	U	8.2	10	3.3	8.2	0.88
72-43-5	Methoxychlor	U	42	10	17	42	1.2
1031-07-8	Endosulfan sulfate	U	8.2	10	3.3	8.2	1.1
53494-70-5	Endrin Ketone	U	8.2	10	3.3	8.2	2.2
8001-35-2	Toxaphene	U	82	10	33	82	35
877-09-8	Tetrachloro-m-Xylene		D				
2051-24-3	Decachlorobiphenyl		D				

FORM 10
PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

CLIENT SAMPLE ID

WGL-SD-SD
104-000.6

Lab Name: KATAHDIN ANALYTICAL SERVICES Project: CTO 407 NAS WE

Lab Code: KAS PO No.: SDG No.: SC3122

Lab Sample ID: SC3122-14DL Date(s) Analyzed: 07/07/09 07/07/09

Instrument ID (1): GC01 Instrument ID (2): GC01

GC Column(1): ZB-MULTIRESIDUE-1 ID: 0.53(mm) GC Column(2): ZB-MULTIRESIDUE-2 ID: 0.53(mm

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	RPD
4,4'-DDE	1	7.38	7.31	7.45	7.20	
	2	7.41	7.33	7.47	9.40	26.5
4,4'-DDT	1	8.58	8.52	8.66	4.08	
	2	8.62	8.54	8.68	5.02	20.6
	1					
	2					
	1					
	2					
	1					
	2					
	1					
	2					
	1					
	2					
	1					
	2					

FORM X PEST-1

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 07-JUL-2009 16:59
Report Date: 07/10/2009
Matrix: SOIL
% Solids: 94.4

Lab ID: SC3122-17DL
Client ID: WGL-SD-SD106-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: RCT
Analysis Method: SW846 8081A
Lab Prep Batch: WG65399
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
319-84-6	alpha-BHC	U	3.6	10	1.7	3.6	0.97
58-89-9	gamma BHC	U	3.6	10	1.7	3.6	0.97
319-85-7	beta-BHC	U	3.6	10	1.7	3.6	0.80
319-86-8	delta-BHC	J	2.9	10	1.7	3.6	0.70
76-44-8	Heptachlor	U	3.6	10	1.7	3.6	1.00
309-00-2	Aldrin	U	3.6	10	1.7	3.6	0.87
1024-57-3	Heptachlor Epoxide	U	3.6	10	1.7	3.6	0.93
5103-74-2	gamma-Chlordane	J	2.3	10	1.7	3.6	1.00
5103-71-9	alpha-Chlordane	U	3.6	10	1.7	3.6	0.95
72-55-9	4,4'-DDE		22	10	3.3	7.0	0.78
959-98-8	Endosulfan I	U	3.6	10	1.7	3.6	0.85
60-57-1	Dieldrin	J	6.0	10	3.3	7.0	0.80
72-20-8	Endrin	U	7.0	10	3.3	7.0	0.80
72-54-8	4,4'-DDD	U	7.0	10	3.3	7.0	0.89
33213-65-9	Endosulfan II	U	7.0	10	3.3	7.0	0.93
50-29-3	4,4'-DDT		43	10	3.3	7.0	0.89
7421-36-3	Endrin Aldehyde	U	7.0	10	3.3	7.0	0.74
72-43-5	Methoxychlor	U	36	10	17	36	1.0
1031-07-8	Endosulfan sulfate	U	7.0	10	3.3	7.0	0.95
53494-70-5	Endrin Ketone	U	7.0	10	3.3	7.0	1.9
8001-35-2	Toxaphene	U	70	10	33	70	30
877-09-8	Tetrachloro-m-Xylene		D				
2051-24-3	Decachlorobiphenyl		D				

FORM 10
PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

CLIENT SAMPLE ID

WGL-SD-SD
106-000.6

Lab Name: KATAHDIN ANALYTICAL SERVICES Project: CTO 407 NAS WE

Lab Code: KAS PO No.: SDG No.: SC3122

Lab Sample ID: SC3122-17DL Date(s) Analyzed: 07/07/09 07/07/09

Instrument ID (1): GC01 Instrument ID (2): GC01

GC Column(1): ZB-MULTIRESIDUE-1 ID: 0.53(mm) GC Column(2): ZB-MULTIRESIDUE-2 ID: 0.53(mm

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	RPD
delta-BHC	1	5.35	5.31	5.41	2.90	
	2	5.68	5.65	5.75	1.85	44.2
gamma-Chlordane	1	6.98	6.91	7.05	1.49	
	2	7.07	6.99	7.13	2.26	41.1
4,4'-DDE	1	7.38	7.31	7.45	21.9	
	2	7.41	7.33	7.47	21.4	2.3
Dieldrin	1	7.53	7.48	7.62	4.07	
	2	7.62	7.55	7.69	5.99	38.2
4,4'-DDT	1	8.58	8.52	8.66	42.8	
	2	8.62	8.54	8.68	42.4	0.9
	1					
	2					
	1					
	2					
	1					
	2					

FORM X PEST-1

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 08-JUL-2009 14:07
Report Date: 07/10/2009
Matrix: SOIL
% Solids: 93.8

Lab ID: SC3122-20DL
Client ID: WGL-SD-DUP02-061109
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: RCT
Analysis Method: SW846 8081A
Lab Prep Batch: WG65399
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
319-84-6	alpha-BHC	U	3.6	10	1.7	3.6	0.98
58-89-9	gamma BHC	J	1.7	10	1.7	3.6	0.98
319-85-7	beta-BHC	J	2.8	10	1.7	3.6	0.81
319-86-8	delta-BHC	J	2.1	10	1.7	3.6	0.70
76-44-8	Heptachlor	U	3.6	10	1.7	3.6	1.0
309-00-2	Aldrin	U	3.6	10	1.7	3.6	0.87
1024-57-3	Heptachlor Epoxide	U	3.6	10	1.7	3.6	0.94
5103-74-2	gamma-Chlordane	J	1.7	10	1.7	3.6	1.0
5103-71-9	alpha-Chlordane	U	3.6	10	1.7	3.6	0.96
72-55-9	4,4'-DDE		15	10	3.3	7.0	0.79
959-98-8	Endosulfan I	U	3.6	10	1.7	3.6	0.85
60-57-1	Dieldrin	U	7.0	10	3.3	7.0	0.81
72-20-8	Endrin	U	7.0	10	3.3	7.0	0.81
72-54-8	4,4'-DDD	J	5.2	10	3.3	7.0	0.90
33213-65-9	Endosulfan II	J	8.8	10	3.3	7.0	0.94
50-29-3	4,4'-DDT		42	10	3.3	7.0	0.90
7421-36-3	Endrin Aldehyde	U	7.0	10	3.3	7.0	0.75
72-43-5	Methoxychlor	U	36	10	17	36	1.1
1031-07-8	Endosulfan sulfate	U	7.0	10	3.3	7.0	0.96
53494-70-5	Endrin Ketone	U	7.0	10	3.3	7.0	1.9
8001-35-2	Toxaphene	U	70	10	33	70	30
877-09-8	Tetrachloro-m-Xylene		D				
2051-24-3	Decachlorobiphenyl		D				

FORM 10
PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

CLIENT SAMPLE ID

WGL-SD-DU
P02-061109

Lab Name: KATAHDIN ANALYTICAL SERVICES Project: CTO 407 NAS WE

Lab Code: KAS PO No.: SDG No.: SC3122

Lab Sample ID: SC3122-20DL Date(s) Analyzed: 07/08/09 07/08/09

Instrument ID (1): GC01 Instrument ID (2): GC01

GC Column(1): ZB-MULTIRESIDUE-1 ID: 0.53(mm) GC Column(2): ZB-MULTIRESIDUE-2 ID: 0.53(m

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	RPD
gamma BHC	1	4.72	4.68	4.78	1.66	
	2	4.90	4.84	4.94	1.53	8.2
beta-BHC	1	5.04	4.98	5.08	2.24	
	2	5.31	5.28	5.38	2.78	21.5
delta-BHC	1	5.35	5.30	5.40	2.14	
	2	5.66	5.64	5.74	1.57	30.7
gamma-Chlordane	1	6.97	6.90	7.04	1.68	
	2	7.05	6.98	7.12	1.74	3.5
4,4'-DDE	1	7.37	7.30	7.44	15.1	
	2	7.39	7.33	7.47	15.2	0.7
4,4'-DDD	1	8.13	8.07	8.21	5.16	
	2	8.19	8.15	8.29	4.01	25.1
Endosulfan II	1	8.22	8.14	8.28	8.82	
	2	8.44	8.38	8.52	5.42	47.8
4,4'-DDT	1	8.57	8.51	8.65	41.6	
	2	8.61	8.54	8.68	30.8	29.8

FORM X PEST-1

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 08-JUL-2009 14:25
Report Date: 07/10/2009
Matrix: SOIL
% Solids: 95.0

Lab ID: SC3122-23DL
Client ID: WGL-SD-SD107-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: RCT
Analysis Method: SW846 8081A
Lab Prep Batch: WG65399
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
319-84-6	alpha-BHC	U	3.6	10	1.7	3.6	0.97
58-89-9	gamma BHC		4.5	10	1.7	3.6	0.97
319-85-7	beta-BHC	U	3.6	10	1.7	3.6	0.80
319-86-8	delta-BHC		6.1	10	1.7	3.6	0.69
76-44-8	Heptachlor	U	3.6	10	1.7	3.6	0.99
309-00-2	Aldrin	U	3.6	10	1.7	3.6	0.86
1024-57-3	Heptachlor Epoxide	U	3.6	10	1.7	3.6	0.93
5103-74-2	gamma-Chlordane	J	11	10	1.7	3.6	0.99
5103-71-9	alpha-Chlordane		5.2	10	1.7	3.6	0.95
72-55-9	4,4'-DDE		120	10	3.3	6.9	0.78
959-98-8	Endosulfan I	U	3.6	10	1.7	3.6	0.84
60-57-1	Dieldrin	U	6.9	10	3.3	6.9	0.80
72-20-8	Endrin	U	6.9	10	3.3	6.9	0.80
72-54-8	4,4'-DDD	U	6.9	10	3.3	6.9	0.88
33213-65-9	Endosulfan II	U	6.9	10	3.3	6.9	0.93
50-29-3	4,4'-DDT		160	10	3.3	6.9	0.88
7421-36-3	Endrin Aldehyde	U	6.9	10	3.3	6.9	0.74
72-43-5	Methoxychlor	U	36	10	17	36	1.0
1031-07-8	Endosulfan sulfate	U	6.9	10	3.3	6.9	0.95
53494-70-5	Endrin Ketone	U	6.9	10	3.3	6.9	1.9
8001-35-2	Toxaphene	U	69	10	33	69	29
877-09-8	Tetrachloro-m-Xylene		D				
2051-24-3	Decachlorobiphenyl		D				

FORM 10
PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

CLIENT SAMPLE ID

WGL-SD-SD
107-000.6

Lab Name: KATAHDIN ANALYTICAL SERVICES Project: CTO 407 NAS WE

Lab Code: KAS PO No.: SDG No.: SC3122

Lab Sample ID: SC3122-23DL Date(s) Analyzed: 07/08/09 07/08/09

Instrument ID (1): GC01 Instrument ID (2): GC01

GC Column(1): ZB-MULTIRESIDUE-1 ID: 0.53(mm) GC Column(2): ZB-MULTIRESIDUE-2 ID: 0.53(mm

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	RPD
gamma BHC	1	4.72	4.68	4.78	4.53	
	2	4.91	4.84	4.94	3.98	12.9
delta-BHC	1	5.35	5.30	5.40	6.13	
	2	5.67	5.64	5.74	5.16	17.2
gamma-Chlordane	1	6.97	6.90	7.04	11.4	
	2	7.05	6.98	7.12	5.56	68.9
alpha-Chlordane	1	7.08	7.01	7.15	4.31	
	2	7.15	7.06	7.20	5.21	18.9
4,4'-DDE	1	7.37	7.30	7.44	124	
	2	7.39	7.33	7.47	118	5.0
4,4'-DDT	1	8.58	8.51	8.65	164	
	2	8.61	8.54	8.68	116	34.3
	1					
	2					
	1					
	2					

FORM X PEST-1

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 08-JUL-2009 14:42
Report Date: 07/10/2009
Matrix: SOIL
% Solids: 94.9

Lab ID: SC3122-26DL
Client ID: WGL-SD-SD108-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: RCT
Analysis Method: SW846 8081A
Lab Prep Batch: WG65399
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
319-84-6	alpha-BHC	U	3.6	10	1.7	3.6	0.97
58-89-9	gamma BHC	U	3.6	10	1.7	3.6	0.97
319-85-7	beta-BHC	J	1.8	10	1.7	3.6	0.80
319-86-8	delta-BHC	U	3.6	10	1.7	3.6	0.70
76-44-8	Heptachlor	U	3.6	10	1.7	3.6	0.99
309-00-2	Aldrin	U	3.6	10	1.7	3.6	0.86
1024-57-3	Heptachlor Epoxide	U	3.6	10	1.7	3.6	0.93
5103-74-2	gamma-Chlordane	J	1.8	10	1.7	3.6	0.99
5103-71-9	alpha-Chlordane	U	3.6	10	1.7	3.6	0.95
72-55-9	4,4'-DDE		48	10	3.3	7.0	0.78
959-98-8	Endosulfan I	U	3.6	10	1.7	3.6	0.84
60-57-1	Dieldrin	U	7.0	10	3.3	7.0	0.80
72-20-8	Endrin	U	7.0	10	3.3	7.0	0.80
72-54-8	4,4'-DDD		7.5	10	3.3	7.0	0.88
33213-65-9	Endosulfan II	J	10	10	3.3	7.0	0.93
50-29-3	4,4'-DDT		53	10	3.3	7.0	0.88
7421-36-3	Endrin Aldehyde	U	7.0	10	3.3	7.0	0.74
72-43-5	Methoxychlor	U	36	10	17	36	1.0
1031-07-8	Endosulfan sulfate	U	7.0	10	3.3	7.0	0.95
53494-70-5	Endrin Ketone	U	7.0	10	3.3	7.0	1.9
8001-35-2	Toxaphene	U	70	10	33	70	30
877-09-8	Tetrachloro-m-Xylene		D				
2051-24-3	Decachlorobiphenyl		D				

FORM 10
PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

CLIENT SAMPLE ID

WGL-SD-SD
108-000.6

Lab Name: KATAHDIN ANALYTICAL SERVICES Project: CTO 407 NAS WE

Lab Code: KAS PO No.: SDG No.: SC3122

Lab Sample ID: SC3122-26DL Date(s) Analyzed: 07/08/09 07/08/09

Instrument ID (1): GC01 Instrument ID (2): GC01

GC Column(1): ZB-MULTIRESIDUE-1 ID: 0.53(mm) GC Column(2): ZB-MULTIRESIDUE-2 ID: 0.53(mm

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	RPD
beta-BHC	1	5.01	4.98	5.08	1.39	
	2	5.31	5.28	5.38	1.80	25.7
gamma-Chlordane	1	6.97	6.90	7.04	1.75	
	2	7.06	6.98	7.12	1.81	3.4
4,4'-DDE	1	7.37	7.30	7.44	47.8	
	2	7.39	7.33	7.47	47.7	0.2
4,4'-DDD	1	8.14	8.07	8.21	5.21	
	2	8.21	8.15	8.29	7.49	35.9
Endosulfan II	1	8.23	8.14	8.28	6.44	
	2	8.44	8.38	8.52	10.3	46.1
4,4'-DDT	1	8.58	8.51	8.65	44.8	
	2	8.61	8.54	8.68	53.4	17.5
	1					
	2					
	1					
	2					

FORM X PEST-1

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 08-JUL-2009 14:59
Report Date: 07/10/2009
Matrix: SOIL
% Solids: 93.0

Lab ID: SC3122-29DL
Client ID: WGL-SD-SD105-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: RCT
Analysis Method: SW846 8081A
Lab Prep Batch: WG65399
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
319-84-6	alpha-BHC	U	3.6	10	1.7	3.6	0.99
58-89-9	gamma BHC	J	2.1	10	1.7	3.6	0.99
319-85-7	beta-BHC	U	3.6	10	1.7	3.6	0.82
319-86-8	delta-BHC	U	3.6	10	1.7	3.6	0.71
76-44-8	Heptachlor	U	3.6	10	1.7	3.6	1.0
309-00-2	Aldrin	U	3.6	10	1.7	3.6	0.88
1024-57-3	Heptachlor Epoxide	U	3.6	10	1.7	3.6	0.94
5103-74-2	gamma-Chlordane	J	3.1	10	1.7	3.6	1.0
5103-71-9	alpha-Chlordane	U	3.6	10	1.7	3.6	0.97
72-55-9	4,4'-DDE	E	200	10	3.3	7.1	0.80
959-98-8	Endosulfan I	U	3.6	10	1.7	3.6	0.86
60-57-1	Dieldrin	J	4.2	10	3.3	7.1	0.82
72-20-8	Endrin	U	7.1	10	3.3	7.1	0.82
72-54-8	4,4'-DDD		41	10	3.3	7.1	0.90
33213-65-9	Endosulfan II	J	19	10	3.3	7.1	0.94
50-29-3	4,4'-DDT		150	10	3.3	7.1	0.90
7421-36-3	Endrin Aldehyde	U	7.1	10	3.3	7.1	0.75
72-43-5	Methoxychlor	U	36	10	17	36	1.1
1031-07-8	Endosulfan sulfate	U	7.1	10	3.3	7.1	0.97
53494-70-5	Endrin Ketone	U	7.1	10	3.3	7.1	1.9
8001-35-2	Toxaphene	U	71	10	33	71	30
877-09-8	Tetrachloro-m-Xylene		D				
2051-24-3	Decachlorobiphenyl		D				

FORM 10
PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

CLIENT SAMPLE ID

WGL-SD-SD
105-000.6

Lab Name: KATAHDIN ANALYTICAL SERVICES Project: CTO 407 NAS WE

Lab Code: KAS PO No.: SDG No.: SC3122

Lab Sample ID: SC3122-29DL Date(s) Analyzed: 07/08/09 07/08/09

Instrument ID (1): GC01 Instrument ID (2): GC01

GC Column(1): ZB-MULTIRESIDUE-1 ID: 0.53(mm) GC Column(2): ZB-MULTIRESIDUE-2 ID: 0.53(mm

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	RPD
gamma BHC	1	4.72	4.68	4.78	1.70	
	2	4.91	4.84	4.94	2.10	21.0
gamma-Chlordane	1	6.97	6.90	7.04	2.07	
	2	7.05	6.98	7.12	3.08	39.2
4,4'-DDE	1	7.37	7.30	7.44	195	
	2	7.39	7.33	7.47	191	2.1
Dieldrin	1	7.52	7.48	7.62	3.91	
	2	7.60	7.54	7.68	4.22	7.6
4,4'-DDD	1	8.14	8.07	8.21	40.9	
	2	8.22	8.15	8.29	29.5	32.4
Endosulfan II	1	8.23	8.14	8.28	7.66	
	2	8.44	8.38	8.52	19.2	85.9
4,4'-DDT	1	8.58	8.51	8.65	147	
	2	8.61	8.54	8.68	139	5.6
	1					
	2					

FORM X PEST-1

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 09-JUL-2009 12:18
Report Date: 07/10/2009
Matrix: SOIL
% Solids: 93.0

Lab ID: SC3122-29DL2
Client ID: WGL-SD-SD105-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: RCT
Analysis Method: SW846 8081A
Lab Prep Batch: WG65399
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
319-84-6	alpha-BHC	U	7.3	20	1.7	7.3	2.0
58-89-9	gamma BHC	J	2.7	20	1.7	7.3	2.0
319-85-7	beta-BHC	U	7.3	20	1.7	7.3	1.6
319-86-8	delta-BHC	U	7.3	20	1.7	7.3	1.4
76-44-8	Heptachlor	U	7.3	20	1.7	7.3	2.0
309-00-2	Aldrin	U	7.3	20	1.7	7.3	1.8
1024-57-3	Heptachlor Epoxide	U	7.3	20	1.7	7.3	1.9
5103-74-2	gamma-Chlordane	J	3.7	20	1.7	7.3	2.0
5103-71-9	alpha-Chlordane	U	7.3	20	1.7	7.3	1.9
72-55-9	4,4'-DDE		210	20	3.3	14	1.6
959-98-8	Endosulfan I	U	7.3	20	1.7	7.3	1.7
60-57-1	Dieldrin	J	5.8	20	3.3	14	1.6
72-20-8	Endrin	U	14	20	3.3	14	1.6
72-54-8	4,4'-DDD		42	20	3.3	14	1.8
33213-65-9	Endosulfan II	J	8.6	20	3.3	14	1.9
50-29-3	4,4'-DDT		150	20	3.3	14	1.8
7421-36-3	Endrin Aldehyde	U	14	20	3.3	14	1.5
72-43-5	Methoxychlor	U	73	20	17	73	2.1
1031-07-8	Endosulfan sulfate	U	14	20	3.3	14	1.9
53494-70-5	Endrin Ketone	U	14	20	3.3	14	3.9
8001-35-2	Toxaphene	U	140	20	33	140	60
877-09-8	Tetrachloro-m-Xylene		D				
2051-24-3	Decachlorobiphenyl		D				

FORM 10
PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

CLIENT SAMPLE ID

WGL-SD-SD
105-000.6

Lab Name: KATAHDIN ANALYTICAL SERVICES Project: CTO 407 NAS WE

Lab Code: KAS PO No.: SDG No.: SC3122

Lab Sample ID: SC3122-29DL2 Date(s) Analyzed: 07/09/09 07/09/09

Instrument ID (1): GC01 Instrument ID (2): GC01

GC Column(1): ZB-MULTIRESIDUE-1 ID: 0.53(mm) GC Column(2): ZB-MULTIRESIDUE-2 ID: 0.53(mm

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	RPD
gamma BHC	1	4.68	4.63	4.73	2.44	
	2	4.86	4.79	4.89	2.68	9.4
gamma-Chlordane	1	6.93	6.85	6.99	2.89	
	2	7.00	6.93	7.07	3.66	23.5
4,4'-DDE	1	7.33	7.26	7.40	207	
	2	7.35	7.28	7.42	199	3.9
Dieldrin	1	7.48	7.43	7.57	4.41	
	2	7.56	7.49	7.63	5.84	27.9
4,4'-DDD	1	8.09	8.02	8.16	41.6	
	2	8.17	8.11	8.25	31.0	29.2
Endosulfan II	1	8.18	8.10	8.24	5.22	
	2	8.39	8.33	8.47	8.63	49.2
4,4'-DDT	1	8.54	8.47	8.61	148	
	2	8.56	8.49	8.63	137	7.7
	1					
	2					

FORM X PEST-1

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 08-JUL-2009 15:17
Report Date: 07/10/2009
Matrix: SOIL
% Solids: 94.6

Lab ID: SC3122-32DL
Client ID: WGL-SD-SD112-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: RCT
Analysis Method: SW846 8081A
Lab Prep Batch: WG65399
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
319-84-6	alpha-BHC	U	3.6	10	1.7	3.6	0.97
58-89-9	gamma BHC	J	2.2	10	1.7	3.6	0.97
319-85-7	beta-BHC	J	7.4	10	1.7	3.6	0.80
319-86-8	delta-BHC	J	2.4	10	1.7	3.6	0.70
76-44-8	Heptachlor	U	3.6	10	1.7	3.6	0.99
309-00-2	Aldrin	U	3.6	10	1.7	3.6	0.87
1024-57-3	Heptachlor Epoxide	U	3.6	10	1.7	3.6	0.93
5103-74-2	gamma-Chlordane	J	3.0	10	1.7	3.6	0.99
5103-71-9	alpha-Chlordane	U	3.6	10	1.7	3.6	0.95
72-55-9	4,4'-DDE	E	200	10	3.3	7.0	0.78
959-98-8	Endosulfan I	U	3.6	10	1.7	3.6	0.84
60-57-1	Dieldrin	J	8.0	10	3.3	7.0	0.80
72-20-8	Endrin	U	7.0	10	3.3	7.0	0.80
72-54-8	4,4'-DDD	U	7.0	10	3.3	7.0	0.89
33213-65-9	Endosulfan II	U	7.0	10	3.3	7.0	0.93
50-29-3	4,4'-DDT	E	230	10	3.3	7.0	0.89
7421-36-3	Endrin Aldehyde	U	7.0	10	3.3	7.0	0.74
72-43-5	Methoxychlor	U	36	10	17	36	1.0
1031-07-8	Endosulfan sulfate	U	7.0	10	3.3	7.0	0.95
53494-70-5	Endrin Ketone	U	7.0	10	3.3	7.0	1.9
8001-35-2	Toxaphene	U	70	10	33	70	30
877-09-8	Tetrachloro-m-Xylene		D				
2051-24-3	Decachlorobiphenyl		D				

FORM 10
PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

CLIENT SAMPLE ID

WGL-SD-SD
112-000.6

Lab Name: KATAHDIN ANALYTICAL SERVICES Project: CTO 407 NAS WE

Lab Code: KAS PO No.: SDG No.: SC3122

Lab Sample ID: SC3122-32DL Date(s) Analyzed: 07/08/09 07/08/09

Instrument ID (1): GC01 Instrument ID (2): GC01

GC Column(1): ZB-MULTIRESIDUE-1 ID: 0.53(mm) GC Column(2): ZB-MULTIRESIDUE-2 ID: 0.53(mm

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	RPD
gamma BHC	1	4.72	4.68	4.78	2.16	
	2	4.91	4.84	4.94	2.12	1.9
beta-BHC	1	5.04	4.98	5.08	4.20	
	2	5.32	5.28	5.38	7.41	55.3
delta-BHC	1	5.35	5.30	5.40	2.40	
	2	5.67	5.64	5.74	2.27	5.6
gamma-Chlordane	1	6.98	6.90	7.04	2.48	
	2	7.06	6.98	7.12	3.02	19.6
4,4'-DDE	1	7.37	7.30	7.44	198	
	2	7.40	7.33	7.47	201	1.5
Dieldrin	1	7.53	7.48	7.62	4.49	
	2	7.61	7.54	7.68	8.03	56.6
4,4'-DDT	1	8.58	8.51	8.65	228	
	2	8.61	8.54	8.68	214	6.3
	1					
	2					

FORM X PEST-1

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 09-JUL-2009 12:35
Report Date: 07/10/2009
Matrix: SOIL
% Solids: 94.6

Lab ID: SC3122-32DL2
Client ID: WGL-SD-SD112-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: RCT
Analysis Method: SW846 8081A
Lab Prep Batch: WG65399
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
319-84-6	alpha-BHC	U	18	50	1.7	18	4.9
58-89-9	gamma BHC	U	18	50	1.7	18	4.9
319-85-7	beta-BHC	J	7.7	50	1.7	18	4.0
319-86-8	delta-BHC	J	5.8	50	1.7	18	3.5
76-44-8	Heptachlor	U	18	50	1.7	18	5.0
309-00-2	Aldrin	U	18	50	1.7	18	4.3
1024-57-3	Heptachlor Epoxide	U	18	50	1.7	18	4.6
5103-74-2	gamma-Chlordane	U	18	50	1.7	18	5.0
5103-71-9	alpha-Chlordane	U	18	50	1.7	18	4.8
72-55-9	4,4'-DDE		210	50	3.3	35	3.9
959-98-8	Endosulfan I	U	18	50	1.7	18	4.2
60-57-1	Dieldrin	J	7.2	50	3.3	35	4.0
72-20-8	Endrin	U	35	50	3.3	35	4.0
72-54-8	4,4'-DDD	U	35	50	3.3	35	4.4
33213-65-9	Endosulfan II	J	13	50	3.3	35	4.6
50-29-3	4,4'-DDT		260	50	3.3	35	4.4
7421-36-3	Endrin Aldehyde	U	35	50	3.3	35	3.7
72-43-5	Methoxychlor	U	180	50	17	180	5.3
1031-07-8	Endosulfan sulfate	U	35	50	3.3	35	4.8
53494-70-5	Endrin Ketone	U	35	50	3.3	35	9.5
8001-35-2	Toxaphene	U	350	50	33	350	150
877-09-8	Tetrachloro-m-Xylene		D				
2051-24-3	Decachlorobiphenyl		D				

FORM 10
PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

CLIENT SAMPLE ID

WGL-SD-SD
112-000.6

Lab Name: KATAHDIN ANALYTICAL SERVICES Project: CTO 407 NAS WE

Lab Code: KAS PO No.: SDG No.: SC3122

Lab Sample ID: SC3122-32DL2 Date(s) Analyzed: 07/09/09 07/09/09

Instrument ID (1): GC01 Instrument ID (2): GC01

GC Column(1): ZB-MULTIRESIDUE-1 ID: 0.53(mm) GC Column(2): ZB-MULTIRESIDUE-2 ID: 0.53(mm

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	RPD
beta-BHC	1	4.99	4.93	5.03	7.74	
	2	5.27	5.24	5.34	7.73	0.1
delta-BHC	1	5.30	5.26	5.36	5.66	
	2	5.62	5.60	5.70	5.77	1.9
4,4'-DDE	1	7.33	7.26	7.40	203	
	2	7.35	7.28	7.42	206	1.5
Dieldrin	1	7.48	7.43	7.57	7.21	
	2	7.56	7.49	7.63	7.17	0.6
Endosulfan II	1	8.18	8.10	8.24	13.2	
	2	8.40	8.33	8.47	10.5	22.8
4,4'-DDT	1	8.53	8.47	8.61	261	
	2	8.56	8.49	8.63	228	13.5
	1					
	2					
	1					
	2					

FORM X PEST-1

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 08-JUL-2009 15:34
Report Date: 07/10/2009
Matrix: SOIL
% Solids: 92.7

Lab ID: SC3122-35DL
Client ID: WGL-SD-SD110-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: RCT
Analysis Method: SW846 8081A
Lab Prep Batch: WG65399
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
319-84-6	alpha-BHC	U	4.4	10	1.7	4.4	1.2
58-89-9	gamma BHC	J	2.6	10	1.7	4.4	1.2
319-85-7	beta-BHC	U	4.4	10	1.7	4.4	0.98
319-86-8	delta-BHC	J	3.7	10	1.7	4.4	0.85
76-44-8	Heptachlor	U	4.4	10	1.7	4.4	1.2
309-00-2	Aldrin	U	4.4	10	1.7	4.4	1.1
1024-57-3	Heptachlor Epoxide	U	4.4	10	1.7	4.4	1.1
5103-74-2	gamma-Chlordane	J	2.6	10	1.7	4.4	1.2
5103-71-9	alpha-Chlordane	U	4.4	10	1.7	4.4	1.2
72-55-9	4,4'-DDE		45	10	3.3	8.5	0.96
959-98-8	Endosulfan I	U	4.4	10	1.7	4.4	1.0
60-57-1	Dieldrin	J	7.5	10	3.3	8.5	0.98
72-20-8	Endrin	U	8.5	10	3.3	8.5	0.98
72-54-8	4,4'-DDD	J	5.0	10	3.3	8.5	1.1
33213-65-9	Endosulfan II	U	8.5	10	3.3	8.5	1.1
50-29-3	4,4'-DDT		69	10	3.3	8.5	1.1
7421-36-3	Endrin Aldehyde	U	8.5	10	3.3	8.5	0.91
72-43-5	Methoxychlor	U	44	10	17	44	1.3
1031-07-8	Endosulfan sulfate	U	8.5	10	3.3	8.5	1.2
53494-70-5	Endrin Ketone	U	8.5	10	3.3	8.5	2.3
8001-35-2	Toxaphene	U	85	10	33	85	36
877-09-8	Tetrachloro-m-Xylene		D				
2051-24-3	Decachlorobiphenyl		D				

FORM 10
PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

CLIENT SAMPLE ID

WGL-SD-SD
110-000.6

Lab Name: KATAHDIN ANALYTICAL SERVICES Project: CTO 407 NAS WE

Lab Code: KAS PO No.: SDG No.: SC3122

Lab Sample ID: SC3122-35DL Date(s) Analyzed: 07/08/09 07/08/09

Instrument ID (1): GC01 Instrument ID (2): GC01

GC Column(1): ZB-MULTIRESIDUE-1 ID: 0.53(mm) GC Column(2): ZB-MULTIRESIDUE-2 ID: 0.53(mm

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	RPD
gamma BHC	1	4.72	4.68	4.78	2.20	
	2	4.91	4.84	4.94	2.57	15.5
delta-BHC	1	5.35	5.30	5.40	3.67	
	2	5.67	5.64	5.74	2.31	45.5
gamma-Chlordane	1	6.98	6.90	7.04	2.44	
	2	7.06	6.98	7.12	2.61	6.7
4,4'-DDE	1	7.37	7.30	7.44	45.0	
	2	7.40	7.33	7.47	44.2	1.8
Dieldrin	1	7.52	7.48	7.62	4.18	
	2	7.61	7.54	7.68	7.53	57.2
4,4'-DDD	1	8.15	8.07	8.21	3.50	
	2	8.20	8.15	8.29	5.00	35.3
4,4'-DDT	1	8.58	8.51	8.65	51.3	
	2	8.61	8.54	8.68	69.3	29.8
	1					
	2					

FORM X PEST-1

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 08-JUL-2009 15:52
Report Date: 07/10/2009
Matrix: SOIL
% Solids: 94.8

Lab ID: SC3122-38DL
Client ID: WGL-SD-SD109-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: RCT
Analysis Method: SW846 8081A
Lab Prep Batch: WG65399
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
319-84-6	alpha-BHC	U	3.6	10	1.7	3.6	0.97
58-89-9	gamma BHC	J	2.0	10	1.7	3.6	0.97
319-85-7	beta-BHC	U	3.6	10	1.7	3.6	0.80
319-86-8	delta-BHC	J	3.3	10	1.7	3.6	0.70
76-44-8	Heptachlor	U	3.6	10	1.7	3.6	0.99
309-00-2	Aldrin	U	3.6	10	1.7	3.6	0.86
1024-57-3	Heptachlor Epoxide	U	3.6	10	1.7	3.6	0.93
5103-74-2	gamma-Chlordane	U	3.6	10	1.7	3.6	0.99
5103-71-9	alpha-Chlordane	U	3.6	10	1.7	3.6	0.95
72-55-9	4,4'-DDE		34	10	3.3	7.0	0.78
959-98-8	Endosulfan I	U	3.6	10	1.7	3.6	0.84
60-57-1	Dieldrin	J	7.9	10	3.3	7.0	0.80
72-20-8	Endrin	U	7.0	10	3.3	7.0	0.80
72-54-8	4,4'-DDD	J	5.2	10	3.3	7.0	0.89
33213-65-9	Endosulfan II	U	7.0	10	3.3	7.0	0.93
50-29-3	4,4'-DDT		55	10	3.3	7.0	0.89
7421-36-3	Endrin Aldehyde	U	7.0	10	3.3	7.0	0.74
72-43-5	Methoxychlor	U	36	10	17	36	1.0
1031-07-8	Endosulfan sulfate	U	7.0	10	3.3	7.0	0.95
53494-70-5	Endrin Ketone	U	7.0	10	3.3	7.0	1.9
8001-35-2	Toxaphene	U	70	10	33	70	30
877-09-8	Tetrachloro-m-Xylene		D				
2051-24-3	Decachlorobiphenyl		D				

FORM 10
PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

CLIENT SAMPLE ID

WGL-SD-SD
109-000.6

Lab Name: KATAHDIN ANALYTICAL SERVICES Project: CTO 407 NAS WE

Lab Code: KAS PO No.: SDG No.: SC3122

Lab Sample ID: SC3122-38DL Date(s) Analyzed: 07/08/09 07/08/09

Instrument ID (1): GC01 Instrument ID (2): GC01

GC Column(1): ZB-MULTIRESIDUE-1 ID: 0.53(mm) GC Column(2): ZB-MULTIRESIDUE-2 ID: 0.53(m

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	RPD
gamma BHC	1	4.72	4.68	4.78	1.89	
	2	4.91	4.84	4.94	1.99	5.2
delta-BHC	1	5.35	5.30	5.40	3.26	
	2	5.67	5.64	5.74	2.01	47.4
4,4'-DDE	1	7.37	7.30	7.44	32.7	
	2	7.40	7.33	7.47	33.6	2.7
Dieldrin	1	7.52	7.48	7.62	3.58	
	2	7.61	7.54	7.68	7.86	74.8
4,4'-DDD	1	8.15	8.07	8.21	4.81	
	2	8.21	8.15	8.29	5.20	7.8
4,4'-DDT	1	8.58	8.51	8.65	51.6	
	2	8.61	8.54	8.68	55.4	7.1
	1					
	2					
	1					
	2					

FORM X PEST-1

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 08-JUL-2009 16:09
Report Date: 07/10/2009
Matrix: SOIL
% Solids: 94.2

Lab ID: SC3122-41DL
Client ID: L-SD-SD111-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: RCT
Analysis Method: SW846 8081A
Lab Prep Batch: WG65399
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
319-84-6	alpha-BHC	U	3.6	10	1.7	3.6	0.98
58-89-9	gamma BHC	U	3.6	10	1.7	3.6	0.98
319-85-7	beta-BHC	U	3.6	10	1.7	3.6	0.81
319-86-8	delta-BHC	J	4.4	10	1.7	3.6	0.70
76-44-8	Heptachlor	U	3.6	10	1.7	3.6	1.00
309-00-2	Aldrin	U	3.6	10	1.7	3.6	0.87
1024-57-3	Heptachlor Epoxide	U	3.6	10	1.7	3.6	0.93
5103-74-2	gamma-Chlordane	U	3.6	10	1.7	3.6	1.00
5103-71-9	alpha-Chlordane	U	3.6	10	1.7	3.6	0.96
72-55-9	4,4'-DDE	E	180	10	3.3	7.0	0.78
959-98-8	Endosulfan I	U	3.6	10	1.7	3.6	0.85
60-57-1	Dieldrin	J	8.0	10	3.3	7.0	0.81
72-20-8	Endrin	U	7.0	10	3.3	7.0	0.81
72-54-8	4,4'-DDD	U	7.0	10	3.3	7.0	0.89
33213-65-9	Endosulfan II	J	18	10	3.3	7.0	0.93
50-29-3	4,4'-DDT	E	220	10	3.3	7.0	0.89
7421-36-3	Endrin Aldehyde	U	7.0	10	3.3	7.0	0.74
72-43-5	Methoxychlor	U	36	10	17	36	1.1
1031-07-8	Endosulfan sulfate	U	7.0	10	3.3	7.0	0.96
53494-70-5	Endrin Ketone	U	7.0	10	3.3	7.0	1.9
8001-35-2	Toxaphene	U	70	10	33	70	30
877-09-8	Tetrachloro-m-Xylene		D				
2051-24-3	Decachlorobiphenyl		D				

FORM 10
PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

CLIENT SAMPLE ID

L-SD-SD1
11-000.6

Lab Name: KATAHDIN ANALYTICAL SERVICES Project: CTO 407 NAS WE

Lab Code: KAS PO No.: SDG No.: SC3122

Lab Sample ID: SC3122-41DL Date(s) Analyzed: 07/08/09 07/08/09

Instrument ID (1): GC01 Instrument ID (2): GC01

GC Column(1): ZB-MULTIRESIDUE-1 ID: 0.53(mm) GC Column(2): ZB-MULTIRESIDUE-2 ID: 0.53(mm

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	RPD
delta-BHC	1	5.34	5.30	5.40	4.44	
	2	5.67	5.64	5.74	2.35	61.6
4,4'-DDE	1	7.37	7.30	7.44	183	
	2	7.40	7.33	7.47	180	1.6
Dieldrin	1	7.53	7.48	7.62	3.43	
	2	7.61	7.54	7.68	7.99	79.9
Endosulfan II	1	8.23	8.14	8.28	18.3	
	2	8.44	8.38	8.52	9.05	67.6
4,4'-DDT	1	8.58	8.51	8.65	225	
	2	8.61	8.54	8.68	216	4.1
	1					
	2					
	1					
	2					
	1					
	2					

FORM X PEST-1

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 09-JUL-2009 12:53
Report Date: 07/10/2009
Matrix: SOIL
% Solids: 94.2

Lab ID: SC3122-41DL2
Client ID: L-SD-SD111-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: RCT
Analysis Method: SW846 8081A
Lab Prep Batch: WG65399
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
319-84-6	alpha-BHC	U	18	50	1.7	18	4.9
58-89-9	gamma BHC	U	18	50	1.7	18	4.9
319-85-7	beta-BHC	U	18	50	1.7	18	4.0
319-86-8	delta-BHC	J	6.0	50	1.7	18	3.5
76-44-8	Heptachlor	U	18	50	1.7	18	5.0
309-00-2	Aldrin	U	18	50	1.7	18	4.4
1024-57-3	Heptachlor Epoxide	U	18	50	1.7	18	4.7
5103-74-2	gamma-Chlordane	U	18	50	1.7	18	5.0
5103-71-9	alpha-Chlordane	U	18	50	1.7	18	4.8
72-55-9	4,4'-DDE		190	50	3.3	35	3.9
959-98-8	Endosulfan I	U	18	50	1.7	18	4.2
60-57-1	Dieldrin	U	35	50	3.3	35	4.0
72-20-8	Endrin	U	35	50	3.3	35	4.0
72-54-8	4,4'-DDD	U	35	50	3.3	35	4.4
33213-65-9	Endosulfan II	J	14	50	3.3	35	4.7
50-29-3	4,4'-DDT		270	50	3.3	35	4.4
7421-36-3	Endrin Aldehyde	U	35	50	3.3	35	3.7
72-43-5	Methoxychlor	U	180	50	17	180	5.3
1031-07-8	Endosulfan sulfate	U	35	50	3.3	35	4.8
53494-70-5	Endrin Ketone	U	35	50	3.3	35	9.6
8001-35-2	Toxaphene	U	350	50	33	350	150
877-09-8	Tetrachloro-m-Xylene		D				
2051-24-3	Decachlorobiphenyl		D				

FORM 10
PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

CLIENT SAMPLE ID

L-SD-SD1
11-000.6

Lab Name: KATAHDIN ANALYTICAL SERVICES Project: CTO 407 NAS WE

Lab Code: KAS PO No.: SDG No.: SC3122

Lab Sample ID: SC3122-41DL2 Date(s) Analyzed: 07/09/09 07/09/09

Instrument ID (1): GC01 Instrument ID (2): GC01

GC Column(1): ZB-MULTIRESIDUE-1 ID: 0.53(mm) GC Column(2): ZB-MULTIRESIDUE-2 ID: 0.53(m

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	RPD
delta-BHC	1	5.30	5.26	5.36	5.96	
	2	5.62	5.60	5.70	5.76	3.4
4,4'-DDE	1	7.33	7.26	7.40	194	
	2	7.35	7.28	7.42	186	4.2
Endosulfan II	1	8.18	8.10	8.24	13.6	
	2	8.40	8.33	8.47	8.82	42.6
4,4'-DDT	1	8.53	8.47	8.61	266	
	2	8.56	8.49	8.63	240	10.3
	1					
	2					
	1					
	2					
	1					
	2					
	1					
	2					

FORM X PEST-1

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/15/09
Analysis Date: 24-JUN-2009 17:13
Report Date: 07/10/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3122-43
Client ID: WGL-SD-FB01-061109
SDG: SC3122
Extracted by: KF
Extraction Method: SW846 3510
Analyst: RCT
Analysis Method: SW846 8081A
Lab Prep Batch: WG65039
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
319-84-6	alpha-BHC	U	0.0094	1.0	0.050	0.0094	0.0012
58-89-9	gamma BHC	U	0.0094	1.0	0.050	0.0094	0.0011
319-85-7	beta-BHC	U	0.0094	1.0	0.050	0.0094	0.0015
319-86-8	delta-BHC	U	0.0094	1.0	0.050	0.0094	0.00083
76-44-8	Heptachlor		0.043	1.0	0.050	0.0094	0.0026
309-00-2	Aldrin	U	0.0094	1.0	0.050	0.0094	0.0028
1024-57-3	Heptachlor Epoxide	U	0.0094	1.0	0.050	0.0094	0.0012
5103-74-2	gamma-Chlordane	U	0.0094	1.0	0.050	0.0094	0.0018
5103-71-9	alpha-Chlordane	U	0.0094	1.0	0.050	0.0094	0.0015
72-55-9	4,4'-DDE	U	0.019	1.0	0.10	0.019	0.0013
959-98-8	Endosulfan I	U	0.0094	1.0	0.050	0.0094	0.0011
60-57-1	Dieldrin	U	0.019	1.0	0.10	0.019	0.00079
72-20-8	Endrin	U	0.019	1.0	0.10	0.019	0.00062
72-54-8	4,4'-DDD	U	0.019	1.0	0.10	0.019	0.0023
33213-65-9	Endosulfan II	U	0.019	1.0	0.10	0.019	0.0012
50-29-3	4,4'-DDT	U	0.019	1.0	0.10	0.019	0.00098
7421-36-3	Endrin Aldehyde	U	0.019	1.0	0.10	0.019	0.00077
72-43-5	Methoxychlor	U	0.094	1.0	0.50	0.094	0.0024
1031-07-8	Endosulfan sulfate	U	0.019	1.0	0.10	0.019	0.00068
53494-70-5	Endrin Ketone	U	0.019	1.0	0.10	0.019	0.00045
8001-35-2	Toxaphene	U	0.19	1.0	1.0	0.19	0.011
877-09-8	Tetrachloro-m-Xylene		86%				
2051-24-3	Decachlorobiphenyl		95%				

FORM 10
PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

CLIENT SAMPLE ID

WGL-SD-FB
01-061109

Lab Name: KATAHDIN ANALYTICAL SERVICES Project: CTO 407 NAS WE

Lab Code: KAS PO No.: SDG No.: SC3122

Lab Sample ID: SC3122-43 Date(s) Analyzed: 06/24/09 06/24/09

Instrument ID (1): GC08 Instrument ID (2): GC08

GC Column(1): ZB-MULTIRESIDUE-1 ID: 0.53(mm) GC Column(2): ZB-MULTIRESIDUE-2 ID: 0.53(mm

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	RPD
Heptachlor	1	5.84	5.78	5.88	0.0333	
	2	5.98	5.91	6.01	0.0429	25.2
	1					
	2					
	1					
	2					
	1					
	2					
	1					
	2					
	1					
	2					
	1					
	2					
	1					
	2					

FORM X PEST-1

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/15/09
Analysis Date: 24-JUN-2009 18:09
Report Date: 07/10/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3122-45
Client ID: WGL-SD-RB01-061109
SDG: SC3122
Extracted by: KF
Extraction Method: SW846 3510
Analyst: RCT
Analysis Method: SW846 8081A
Lab Prep Batch: WG65039
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
319-84-6	alpha-BHC	U	0.0094	1.0	0.050	0.0094	0.0012
58-89-9	gamma BHC	U	0.0094	1.0	0.050	0.0094	0.0011
319-85-7	beta-BHC	U	0.0094	1.0	0.050	0.0094	0.0015
319-86-8	delta-BHC	U	0.0094	1.0	0.050	0.0094	0.00083
76-44-8	Heptachlor		0.034	1.0	0.050	0.0094	0.0026
309-00-2	Aldrin	U	0.0094	1.0	0.050	0.0094	0.0028
1024-57-3	Heptachlor Epoxide	U	0.0094	1.0	0.050	0.0094	0.0012
5103-74-2	gamma-Chlordane	U	0.0094	1.0	0.050	0.0094	0.0018
5103-71-9	alpha-Chlordane	U	0.0094	1.0	0.050	0.0094	0.0015
72-55-9	4,4'-DDE	U	0.019	1.0	0.10	0.019	0.0013
959-98-8	Endosulfan I	U	0.0094	1.0	0.050	0.0094	0.0011
60-57-1	Dieldrin	U	0.019	1.0	0.10	0.019	0.00079
72-20-8	Endrin	U	0.019	1.0	0.10	0.019	0.00062
72-54-8	4,4'-DDD	U	0.019	1.0	0.10	0.019	0.0023
33213-65-9	Endosulfan II	U	0.019	1.0	0.10	0.019	0.0012
50-29-3	4,4'-DDT	U	0.019	1.0	0.10	0.019	0.00098
7421-36-3	Endrin Aldehyde	U	0.019	1.0	0.10	0.019	0.00077
72-43-5	Methoxychlor	U	0.094	1.0	0.50	0.094	0.0024
1031-07-8	Endosulfan sulfate	U	0.019	1.0	0.10	0.019	0.00068
53494-70-5	Endrin Ketone	U	0.019	1.0	0.10	0.019	0.00045
8001-35-2	Toxaphene	U	0.19	1.0	1.0	0.19	0.011
877-09-8	Tetrachloro-m-Xylene		82%				
2051-24-3	Decachlorobiphenyl		74%				

FORM 10
PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

CLIENT SAMPLE ID

WGL-SD-RB
01-061109

Lab Name: KATAHDIN ANALYTICAL SERVICES Project: CTO 407 NAS WE

Lab Code: KAS PO No.: SDG No.: SC3122

Lab Sample ID: SC3122-45 Date(s) Analyzed: 06/24/09 06/24/09

Instrument ID (1): GC08 Instrument ID (2): GC08

GC Column(1): ZB-MULTIRESIDUE-1 ID: 0.53(mm) GC Column(2): ZB-MULTIRESIDUE-2 ID: 0.53(mm

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	RPD
Heptachlor	1	5.84	5.78	5.88	0.0261	
	2	5.98	5.91	6.01	0.0344	27.4
	1					
	2					
	1					
	2					
	1					
	2					
	1					
	2					
	1					
	2					
	1					
	2					
	1					
	2					

FORM X PEST-1

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client:
Project: CTO 407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date: 06/15/09
Analysis Date: 24-JUN-2009 14:24
Report Date: 07/10/2009
Matrix: WATER
% Solids: NA

Lab ID: WG65039-1
Client ID: WG65039-Blank
SDG: SC3122
Extracted by: KF
Extraction Method: SW846 3510
Analyst: RCT
Analysis Method: SW846 8081A
Lab Prep Batch: WG65039
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
319-84-6	alpha-BHC	U	0.010	1.0	0.050	0.010	0.0012
58-89-9	gamma BHC	U	0.010	1.0	0.050	0.010	0.0012
319-85-7	beta-BHC	U	0.010	1.0	0.050	0.010	0.0016
319-86-8	delta-BHC	U	0.010	1.0	0.050	0.010	0.00088
76-44-8	Heptachlor	U	0.010	1.0	0.050	0.010	0.0028
309-00-2	Aldrin	U	0.010	1.0	0.050	0.010	0.0030
1024-57-3	Heptachlor Epoxide	U	0.010	1.0	0.050	0.010	0.0013
5103-74-2	gamma-Chlordane	U	0.010	1.0	0.050	0.010	0.0020
5103-71-9	alpha-Chlordane	U	0.010	1.0	0.050	0.010	0.0016
72-55-9	4,4'-DDE	U	0.020	1.0	0.10	0.020	0.0014
959-98-8	Endosulfan I	U	0.010	1.0	0.050	0.010	0.0012
60-57-1	Dieldrin	U	0.020	1.0	0.10	0.020	0.00084
72-20-8	Endrin	U	0.020	1.0	0.10	0.020	0.00066
72-54-8	4,4'-DDD	U	0.020	1.0	0.10	0.020	0.0024
33213-65-9	Endosulfan II	U	0.020	1.0	0.10	0.020	0.0013
50-29-3	4,4'-DDT	U	0.020	1.0	0.10	0.020	0.0010
7421-36-3	Endrin Aldehyde	U	0.020	1.0	0.10	0.020	0.00082
72-43-5	Methoxychlor	U	0.10	1.0	0.50	0.10	0.0026
1031-07-8	Endosulfan sulfate	U	0.020	1.0	0.10	0.020	0.00072
53494-70-5	Endrin Ketone	U	0.020	1.0	0.10	0.020	0.00048
8001-35-2	Toxaphene	U	0.20	1.0	1.0	0.20	0.012
877-09-8	Tetrachloro-m-Xylene		77%				
2051-24-3	Decachlorobiphenyl		97%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client:
Project: CTO 407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date: 06/25/09
Analysis Date: 07-JUL-2009 14:22
Report Date: 07/10/2009
Matrix: SOIL
% Solids: 100

Lab ID: WG65399-1
Client ID: WG65399-Blank
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: RCT
Analysis Method: SW846 8081A
Lab Prep Batch: WG65399
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
319-84-6	alpha-BHC	U	0.34	1.0	1.7	0.34	0.092
58-89-9	gamma BHC	U	0.34	1.0	1.7	0.34	0.092
319-85-7	beta-BHC	U	0.34	1.0	1.7	0.34	0.076
319-86-8	delta-BHC	U	0.34	1.0	1.7	0.34	0.066
76-44-8	Heptachlor	U	0.34	1.0	1.7	0.34	0.094
309-00-2	Aldrin	U	0.34	1.0	1.7	0.34	0.082
1024-57-3	Heptachlor Epoxide	U	0.34	1.0	1.7	0.34	0.088
5103-74-2	gamma-Chlordane	U	0.34	1.0	1.7	0.34	0.094
5103-71-9	alpha-Chlordane	U	0.34	1.0	1.7	0.34	0.090
72-55-9	4,4'-DDE	U	0.66	1.0	3.3	0.66	0.074
959-98-8	Endosulfan I	U	0.34	1.0	1.7	0.34	0.080
60-57-1	Dieldrin	U	0.66	1.0	3.3	0.66	0.076
72-20-8	Endrin	U	0.66	1.0	3.3	0.66	0.076
72-54-8	4,4'-DDD	U	0.66	1.0	3.3	0.66	0.084
33213-65-9	Endosulfan II	U	0.66	1.0	3.3	0.66	0.088
50-29-3	4,4'-DDT	U	0.66	1.0	3.3	0.66	0.084
7421-36-3	Endrin Aldehyde	U	0.66	1.0	3.3	0.66	0.070
72-43-5	Methoxychlor	U	3.4	1.0	17	3.4	0.10
1031-07-8	Endosulfan sulfate	U	0.66	1.0	3.3	0.66	0.090
53494-70-5	Endrin Ketone	U	0.66	1.0	3.3	0.66	0.18
8001-35-2	Toxaphene	U	6.6	1.0	33	6.6	2.8
877-09-8	Tetrachloro-m-Xylene		87%				
2051-24-3	Decachlorobiphenyl		112%				

FORM 2
SOIL PESTICIDE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

GC Column(1): ZB-MULTIRESIDUE-1ID: 0.53 (mm)GC Column(2): ZB-MULTIRESIDUE-2ID: 0.53 (mm)

	CLIENT SAMPLE ID	LAB SAMPLE ID	TCX1 REC#	TCX2 REC#	DCB1 REC#	DCB2 REC#	OTHR (1)	OTHR (2)	TOT OUT
01	WG65399-BLANK	WG65399-1	87	87	112	108			0
02	WG65399-LCS	WG65399-2	86	84	108	103			0
03	L-SD-SD111-000.6MS	WG65399-3DL	D	D	D	D			0
04	L-SD-SD111-000.6MSD	WG65399-4DL	D	D	D	D			0
05	WGL-SD-SD103-000.6	SC3122-2DL	D	D	D	D			0
06	WGL-SD-SD102-000.6	SC3122-5DL	D	D	D	D			0
07	WGL-SD-SD101-000.6	SC3122-8DL	D	D	D	D			0
08	WGL-SD-DUP01-061109	SC3122-11DL	D	D	D	D			0
09	WGL-SD-SD104-000.6	SC3122-14DL	D	D	D	D			0
10	WGL-SD-SD106-000.6	SC3122-17DL	D	D	D	D			0
11	WGL-SD-SD103-000.6	SC3122-2DL2	D	D	D	D			0
12	WGL-SD-DUP02-061109	SC3122-20DL	D	D	D	D			0
13	WGL-SD-SD107-000.6	SC3122-23DL	D	D	D	D			0
14	WGL-SD-SD108-000.6	SC3122-26DL	D	D	D	D			0
15	WGL-SD-SD105-000.6	SC3122-29DL	D	D	D	D			0
16	WGL-SD-SD112-000.6	SC3122-32DL	D	D	D	D			0
17	WGL-SD-SD110-000.6	SC3122-35DL	D	D	D	D			0
18	WGL-SD-SD109-000.6	SC3122-38DL	D	D	D	D			0
19	L-SD-SD111-000.6	SC3122-41DL	D	D	D	D			0
20	WGL-SD-SD105-000.6	SC3122-29DL2	D	D	D	D			0
21	WGL-SD-SD112-000.6	SC3122-32DL2	D	D	D	D			0
22	L-SD-SD111-000.6	SC3122-41DL2	D	D	D	D			0
23									
24									
25									
26									
27									
28									

ADVISORY
QC LIMITS

S1 (TCX) = Tetrachloro-m-Xylene (42-104)
S2 (DCB) = Decachlorobiphenyl (51-119)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out

FORM 2
WATER PESTICIDE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

GC Column(1): ZB-MULTIRESIDUE-1ID: 0.53 (mm)GC Column(2): ZB-MULTIRESIDUE-2ID: 0.53 (mm)

	CLIENT SAMPLE ID	LAB SAMPLE ID	TCX1 REC#	TCX2 REC#	DCB1 REC#	DCB2 REC#	OTHR (1)	OTHR (2)	TOT OUT
01	WG65039-BLANK	WG65039-1	73	77	97	85			0
02	WG65039-LCS	WG65039-2	79	81	96	86			0
03	WG65039-LCSD	WG65039-3	73	78	90	85			0
04	WGL-SD-FB01-061109	SC3122-43	70	86	95	93			0
05	WGL-SD-RB01-061109	SC3122-45	67	82	74	70			0
06									
07									
08									
09									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									

ADVISORY
QC LIMITS

S1 (TCX) = Tetrachloro-m-Xylene (48-112)
S2 (DCB) = Decachlorobiphenyl (41-131)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out

KATAHDIN ANALYTICAL SERVICES
LAB CONTROL SAMPLE

Client:
Project: CTO 407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date: 06/15/09
Analysis Date: 06/24/09
Report Date: 07/10/2009
Matrix: WATER

Lab ID: WG65039-2 & WG65039-3
Client ID: WG65039-LCS & WG65039-LCSD
SDG: SC3122
Extracted by: KF
Extraction Method: SW846 3510
Analyst: RCT
Analysis Method: SW846 8081A
Lab Prep Batch: WG65039
Units: ug/L

COMPOUND	LCS SPIKE	LCSD SPIKE	SAMPLE CONC.	LCS CONC.	LCSD CONC.	LCS %REC.	LCSD %REC.	%RPD	%RPD LIMIT	QC. LIMITS
alpha-BHC	0.10	0.10	NA	0.10	0.10	96	101	5	30	62-116
gamma BHC	0.10	0.10	NA	0.10	0.11	99	107	8	30	65-124
beta-BHC	0.10	0.10	NA	0.10	0.11	104	106	2	30	75-122
delta-BHC	0.10	0.10	NA	0.10	0.11	98	106	8	30	66-142
Heptachlor	0.10	0.10	NA	0.10	0.10	100	103	3	30	60-114
Aldrin	0.10	0.10	NA	0.10	0.10	95	99	4	30	59-116
Heptachlor Epoxide	0.10	0.10	NA	0.09	0.10	88	96	8	30	64-123
gamma-Chlordane	0.10	0.10	NA	0.10	0.11	100	106	6	30	68-126
alpha-Chlordane	0.10	0.10	NA	0.10	0.10	98	104	6	30	66-124
4,4'-DDE	0.10	0.10	NA	0.10	0.11	99	108	9	30	63-124
Endosulfan I	0.10	0.10	NA	0.08	0.09	85	89	4	30	56-118
Dieldrin	0.10	0.10	NA	0.10	0.10	97	101	4	30	66-126
Endrin	0.10	0.10	NA	0.10	0.11	104	109	5	30	67-119
4,4'-DDD	0.10	0.10	NA	0.11	0.11	114	114	0.0	30	60-120
Endosulfan II	0.10	0.10	NA	0.09	0.10	94	100	6	30	64-118
4,4'-DDT	0.10	0.10	NA	0.11	0.11	108	110	2	30	68-127
Endrin Aldehyde	0.10	0.10	NA	0.08	0.08	85	84	1	30	68-120
Methoxychlor	0.10	0.10	NA	0.14	0.14	* 138	* 139	0.7	30	64-129
Endosulfan sulfate	0.10	0.10	NA	0.11	0.12	112	116	4	30	65-138
Endrin Ketone	0.10	0.10	NA	0.11	0.11	108	110	2	30	71-131

FORM III PESTICIDE-1

8CF00105.D & 8CF00106.D

KATAHDIN ANALYTICAL SERVICES
LAB CONTROL SAMPLE

Client:
Project: CTO 407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date: 06/25/09
Analysis Date: 07/07/09
Report Date: 07/10/2009
Matrix: SOIL

Lab ID: WG65399-2
Client ID: WG65399-LCS
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: RCT
Analysis Method: SW846 8081A
Lab Prep Batch: WG65399
Units: ug/Kgdrywt

COMPOUND	LCS SPIKE	SAMPLE CONC.	LCS CONC.		%REC.	QC. LIMITS
alpha-BHC	17	NA	18		107	61-108
gamma BHC	17	NA	18		110	67-116
beta-BHC	17	NA	19		115	68-124
delta-BHC	17	NA	18		111	53-145
Heptachlor	17	NA	18		109	59-118
Aldrin	17	NA	17		101	61-117
Heptachlor Epoxide	17	NA	17		101	64-119
gamma-Chlordane	17	NA	18		110	68-121
alpha-Chlordane	17	NA	18		109	64-121
4,4'-DDE	17	NA	20	*	121	69-120
Endosulfan I	17	NA	17		100	58-108
Dieldrin	17	NA	18		107	66-122
Endrin	17	NA	20	*	119	63-118
4,4'-DDD	17	NA	22	*	131	61-127
Endosulfan II	17	NA	18		107	63-116
4,4'-DDT	17	NA	19		116	64-133
Endrin Aldehyde	17	NA	14		82	54-105
Methoxychlor	17	NA	27	*	160	68-129
Endosulfan sulfate	17	NA	20		121	58-144
Endrin Ketone	17	NA	19		116	71-132

KATAHDIN ANALYTICAL SERVICES
MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 07/07/09
Report Date: 07/10/2009
Matrix: SOIL

Lab ID: WG65399-3DL& WG65399-4DL
Client ID: L-SD-SD111-000.6MS & L-SD-SD111-000.6MSD
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: RCT
Analysis Method: SW846 8081A
Lab Prep Batch: WG65399
Units: ug/Kgdrywt

COMPOUND	MS SPIKE	MSD SPIKE	SAMPLE CONC.	MS CONC.	MSD CONC.	MS %REC.	MSD %REC.	%RPD	%RPD LIMIT	QC. LIMITS
alpha-BHC	35	35	0.00	20	18	* 56	* 50	12	50	61-108
gamma BHC	35	35	0.00	22	20	* 61	* 56	9	50	67-116
beta-BHC	35	35	0.00	21	19	* 60	* 55	9	50	68-124
delta-BHC	35	35	4.4	21	18	* 46	* 38	13	50	53-145
Heptachlor	35	35	0.00	26	23	74	66	12	50	59-118
Aldrin	35	35	0.00	24	20	69	* 56	19	50	61-117
Heptachlor Epoxide	35	35	0.00	35	31	98	88	10	50	64-119
gamma-Chlordane	35	35	0.00	33	29	94	82	14	50	68-121
alpha-Chlordane	35	35	0.00	32	29	90	81	10	50	64-121
4,4'-DDE	35	35	183	367	324	* 520	* 398	12	50	69-120
Endosulfan I	35	35	0.00	28	24	78	68	15	50	58-108
Dieldrin	35	35	6.6	50	44	121	106	12	50	66-122
Endrin	35	35	0.00	43	38	* 122	108	12	50	63-118
4,4'-DDD	35	35	0.00	60	53	* 170	* 149	13	50	61-127
Endosulfan II	35	35	18	40	40	* 62	* 60	1	50	63-116
4,4'-DDT	35	35	225	429	426	* 576	* 568	0.7	50	64-133
Endrin Aldehyde	35	35	0.00	201	197	* 568	* 557	2	50	54-105
Methoxychlor	35	35	0.00	118	152	* 333	* 429	25	50	68-129
Endosulfan sulfate	35	35	0.00	420	436	* 1187	* 1232	4	50	58-144
Endrin Ketone	35	35	0.00	28	28	78	78	1	50	71-132

FORM III PESTICIDE-2

1CG00050.D & 1CG00051.D

FORM 4
PESTICIDE METHOD BLANK SUMMARY

CLIENT SAMPLE ID

WG65039-BLANK

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Lab Sample ID: WG65039-1 Lab File ID: 8CF00104

Matrix (soil/water) WATER Extraction:(SepF/Cont/Sonc) SW846 3510

Sulfur Cleanup: (Y/N) N Date Extracted: 06/15/09

Date Analyzed (1): 06/24/09 Date Analyzed (2): 06/24/09

Time Analyzed (1): 1424 Time Analyzed (2): 1424

Instrument ID (1): GC08 Instrument ID (2): GC08

GC Column (1): ZB-MULTIRESIDUE-1 ID: 0.53(mm) GC Column (2): ZB-MULTIRESIDUE-2 ID: 0.53(m

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	WG65039-LCS	WG65039-2	8CF00105	06/24/09	06/24/09
02	WG65039-LCSD	WG65039-3	8CF00106	06/24/09	06/24/09
03	WGL-SD-FB01-061109	SC3122-43	8CF00113	06/24/09	06/24/09
04	WGL-SD-RB01-061109	SC3122-45	8CF00116	06/24/09	06/24/09
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					

COMMENTS:

FORM IVPESTICIDE

FORM 4
PESTICIDE METHOD BLANK SUMMARY

CLIENT SAMPLE ID

WG65399-BLANK

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Lab Sample ID: WG65399-1 Lab File ID: 1CG00048

Matrix (soil/water) SOIL Extraction:(SepF/Cont/Sonc) SW846 3550

Sulfur Cleanup: (Y/N) N Date Extracted: 06/25/09

Date Analyzed (1): 07/07/09 Date Analyzed (2): 07/07/09

Time Analyzed (1): 1422 Time Analyzed (2): 1422

Instrument ID (1): GC01 Instrument ID (2): GC01

GC Column (1): ZB-MULTIRESIDUE-1 ID: 0.53(mm) GC Column (2): ZB-MULTIRESIDUE-2 ID: 0.53(m

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	WG65399-LCS	WG65399-2	1CG00049	07/07/09	07/07/09
02	L-SD-SD111-000.6MS	WG65399-3DL	1CG00050	07/07/09	07/07/09
03	L-SD-SD111-000.6MSD	WG65399-4DL	1CG00051	07/07/09	07/07/09
04	WGL-SD-SD103-000.6	SC3122-2DL	1CG00052	07/07/09	07/07/09
05	WGL-SD-SD102-000.6	SC3122-5DL	1CG00053	07/07/09	07/07/09
06	WGL-SD-SD101-000.6	SC3122-8DL	1CG00054	07/07/09	07/07/09
07	WGL-SD-DUP01-061109	SC3122-11DL	1CG00055	07/07/09	07/07/09
08	WGL-SD-SD104-000.6	SC3122-14DL	1CG00056	07/07/09	07/07/09
09	WGL-SD-SD106-000.6	SC3122-17DL	1CG00057	07/07/09	07/07/09
10	WGL-SD-SD103-000.6	SC3122-2DL2	1CG00064	07/08/09	07/08/09
11	WGL-SD-DUP02-061109	SC3122-20DL	1CG00065	07/08/09	07/08/09
12	WGL-SD-SD107-000.6	SC3122-23DL	1CG00066	07/08/09	07/08/09
13	WGL-SD-SD108-000.6	SC3122-26DL	1CG00067	07/08/09	07/08/09
14	WGL-SD-SD105-000.6	SC3122-29DL	1CG00068	07/08/09	07/08/09
15	WGL-SD-SD112-000.6	SC3122-32DL	1CG00069	07/08/09	07/08/09
16	WGL-SD-SD110-000.6	SC3122-35DL	1CG00070	07/08/09	07/08/09
17	WGL-SD-SD109-000.6	SC3122-38DL	1CG00071	07/08/09	07/08/09
18	L-SD-SD111-000.6	SC3122-41DL	1CG00072	07/08/09	07/08/09
19	WGL-SD-SD105-000.6	SC3122-29DL2	1CG00081	07/09/09	07/09/09
20	WGL-SD-SD112-000.6	SC3122-32DL2	1CG00082	07/09/09	07/09/09
21	L-SD-SD111-000.6	SC3122-41DL2	1CG00083	07/09/09	07/09/09
22					
23					
24					

COMMENTS: _____

FORM IVPESTICIDE

FORM 6
PESTICIDE INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GC01 Calibration Date(s): 06/19/09 06/19/09

Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm) Calibration Time(s): 1623 1843

LAB FILE ID: RF0.005: 1CF00343 RF0.01: 1CF00344 RF0.025: 1CF00345
RF0.05: 1CF00350 RF0.1: 1CF00346 RF0.25: 1CF00347

COMPOUND	RF0.005	RF0.01	RF0.025	RF0.05	RF0.1	RF0.25	CURVE	COEFFICENTS A0	A1	A2	%RSD OR R^2	MAX %RSD OR R^2
alpha-BHC	2657400	5803000	2e+007	3e+007	7e+007	2e+008	2ORDR	9.644e-004	1.446e-009	-3.5e-020	0.99995	0.99000
gamma BHC	2479800	5162200	1e+007	3e+007	6.e+007	2e+008	2ORDR	7.739e-004	1.677e-009	-3.79e-019	0.99998	0.99000
beta-BHC	1070900	2132900	5413100	1e+007	2e+007	6.e+007	2ORDR	3.382e-005	4.597e-009	-6.92e-018	0.99997	0.99000
delta-BHC	2019500	4158200	1e+007	3e+007	5e+007	1e+008	2ORDR	1.145e-003	1.906e-009	-6.1e-019	0.99971	0.99000
Heptachlor	2378400	4779800	1e+007	3e+007	5e+007	1e+008	2ORDR	5.786e-004	1.859e-009	-5.24e-020	0.99998	0.99000
Aldrin	2151000	4557000	1e+007	3e+007	5e+007	1e+008	2ORDR	9.657e-004	1.886e-009	-3.91e-019	0.99996	0.99000
Heptachlor Epoxide	1985900	4120500	1e+007	2e+007	5e+007	1e+008	2ORDR	7.02e-004	2.182e-009	2.228e-019	0.99998	0.99000
gamma-Chlordane	1942100	4001900	1.e+007	2e+007	5e+007	1e+008	2ORDR	8.822e-004	2.271e-009	-1.3e-018	0.99990	0.99000
alpha-Chlordane	1939500	3854700	9966100	2e+007	4e+007	1e+008	2ORDR	8.385e-004	2.323e-009	-7.68e-019	0.99994	0.99000
4,4'-DDE	1384500	2861200	7798900	2.e+007	4e+007	1e+008	2ORDR	1.269e-003	2.72e-009	-2.04e-018	0.99940	0.99000
Endosulfan I	1718300	3522300	9309200	2e+007	4.e+007	1.e+008	2ORDR	9.796e-004	2.486e-009	-1.99e-019	0.99993	0.99000
Dieldrin	1772000	3678300	1.e+007	2e+007	4e+007	1e+008	2ORDR	1.012e-003	2.323e-009	-1.3e-018	0.99995	0.99000
Endrin	1547500	3249000	8412900	2e+007	4e+007	1e+008	2ORDR	9.313e-004	2.722e-009	-1.65e-018	0.99994	0.99000
4,4'-DDD	709980	1445600	3984000	1e+007	2e+007	6e+007	2ORDR	1.841e-003	4.583e-009	-1.01e-017	0.99465	0.99000
Endosulfan II	1413800	2840600	7404400	2e+007	3e+007	9e+007	2ORDR	6.533e-004	3.151e-009	-3.79e-018	0.99992	0.99000
4,4'-DDT	1070300	2142600	5907700	2e+007	3e+007	8.e+007	2ORDR	1.154e-003	3.567e-009	-5.5e-018	0.99875	0.99000
Endrin Aldehyde	961610	1804800	4690900	1e+007	2e+007	6e+007	2ORDR	3.695e-004	4.986e-009	-1.04e-017	0.99973	0.99000
Methoxychlor	461130	898780	2211600	6993400	9378100	3e+007	2ORDR	6.31e-004	9.308e-009	1.115e-018	0.99151	0.99000
Endosulfan sulfate	752890	1482700	4295200	1e+007	2e+007	6e+007	2ORDR	1.664e-003	4.556e-009	-1.04e-017	0.99776	0.99000
Endrin Ketone	1211900	2455300	6523100	2e+007	3e+007	8.e+007	2ORDR	6.019e-004	3.422e-009	-3.75e-018	0.99877	0.99000
Toxaphene				2930800			2ORDR	0.00000000	3.412e-007	0.00000000	1.00000	0.99000
(2)				5651800			2ORDR	0.00000000	1.769e-007	0.00000000	1.00000	0.99000
(3)				7937700			2ORDR	0.00000000	1.26e-007	0.00000000	1.00000	0.99000
(4)				7825600			2ORDR	0.00000000	1.278e-007	0.00000000	1.00000	0.99000
(5)				1e+007			2ORDR	0.00000000	9.479e-008	0.00000000	1.00000	0.99000
(6)				8634300			2ORDR	0.00000000	1.158e-007	0.00000000	1.00000	0.99000
(7)				5773600			2ORDR	0.00000000	1.732e-007	0.00000000	1.00000	0.99000
(8)				1e+007			2ORDR	0.00000000	7.745e-008	0.00000000	1.00000	0.99000
(9)				7129800			2ORDR	0.00000000	1.403e-007	0.00000000	1.00000	0.99000
(10)				5263100			2ORDR	0.00000000	1.9e-007	0.00000000	1.00000	0.99000
Tetrachloro-m-Xylene	1939400	3954000	1e+007	2e+007	4e+007	1e+008	2ORDR	-4.27e-005	2.408e-009	-1.03e-018	0.99991	0.99000
Decachlorobiphenyl	1014900	1946400	4807600	1.e+007	2e+007	5e+007	2ORDR	-5.48e-004	5.286e-009	-2.9e-018	0.99972	0.99000

FORM VI PESTICIDE

ort Date : 10-Jul-2009 13:20

Katahdin Analytical Services

INITIAL CALIBRATION DATA

rt Cal Date : 19-JUN-2009 16:23
Cal Date : 19-JUN-2009 18:43
nt Method : ESTD
gin : Included
get Version : 4.12
egrator : Falcon
hod file : \\target_server\gg\chem\gc01.i\GC01CG09.b\PEST017.m
Date : 10-Jul-2009 11:35 gc01.i

ibration File Names:
el 1: \\target_server\gg\chem\gc01.i\GC01CF19.b\1CF00343.D
el 2: \\target_server\gg\chem\gc01.i\GC01CF19.b\1CF00344.D
el 3: \\target_server\gg\chem\gc01.i\GC01CF19.b\1CF00345.D
el 4: \\target_server\gg\chem\gc01.i\GC01CF19.b\1CF00350.D
el 5: \\target_server\gg\chem\gc01.i\GC01CF19.b\1CF00346.D
el 6: \\target_server\gg\chem\gc01.i\GC01CF19.b\1CF00347.D

ompound	0.0050000 Level 1	0.0100000 Level 2	0.0250000 Level 3	0.0500000 Level 4	0.1000000 Level 5	0.2500000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
Total DDDs	#####	#####	#####	#####	#####	#####	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
Aroclor-1016 (1)	#####	#####	#####	#####	#####	#####	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
(2)	#####	#####	#####	#####	#####	#####	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
(3)	#####	#####	#####	#####	#####	#####	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
(4)	#####	#####	#####	#####	#####	#####	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
(5)	#####	#####	#####	#####	#####	#####	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
Aroclor-1221 (1)	#####	#####	#####	#####	#####	#####	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
(2)	#####	#####	#####	#####	#####	#####	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
(3)	#####	#####	#####	#####	#####	#####	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
(4)	#####	#####	#####	#####	#####	#####	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
Aroclor-1232 (1)	#####	#####	#####	#####	#####	#####	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
(2)	#####	#####	#####	#####	#####	#####	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
(3)	#####	#####	#####	#####	#####	#####	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
(4)	#####	#####	#####	#####	#####	#####	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-

ort Date : 10-Jul-2009 13:20

Katahdin Analytical Services

INITIAL CALIBRATION DATA

rt Cal Date : 19-JUN-2009 16:23
Cal Date : 19-JUN-2009 18:43
nt Method : ESTD
gin : Included
get Version : 4.12
egrator : Falcon
hod file : \\target_server\gg\chem\gc01.i\GC01CG09.b\PEST017.m
Date : 10-Jul-2009 11:35 gc01.i

ompound	0.0050000 Level 1	0.0100000 Level 2	0.0250000 Level 3	0.0500000 Level 4	0.1000000 Level 5	0.2500000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
(5)	++++++	++++++	++++++	++++++	++++++	++++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
6 Aroclor-1242(1)	++++++	++++++	++++++	++++++	++++++	++++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
(2)	++++++	++++++	++++++	++++++	++++++	++++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
(3)	++++++	++++++	++++++	++++++	++++++	++++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
(4)	++++++	++++++	++++++	++++++	++++++	++++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
(5)	++++++	++++++	++++++	++++++	++++++	++++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
7 Aroclor-1248(1)	++++++	++++++	++++++	++++++	++++++	++++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
(2)	++++++	++++++	++++++	++++++	++++++	++++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
(3)	++++++	++++++	++++++	++++++	++++++	++++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
(4)	++++++	++++++	++++++	++++++	++++++	++++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
(5)	++++++	++++++	++++++	++++++	++++++	++++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
8 Aroclor-1254(1)	++++++	++++++	++++++	++++++	++++++	++++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
(2)	++++++	++++++	++++++	++++++	++++++	++++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
(3)	++++++	++++++	++++++	++++++	++++++	++++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
(4)	++++++	++++++	++++++	++++++	++++++	++++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
(5)	++++++	++++++	++++++	++++++	++++++	++++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
9 Aroclor-1260(1)	++++++	++++++	++++++	++++++	++++++	++++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
(2)	++++++	++++++	++++++	++++++	++++++	++++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
(3)	++++++	++++++	++++++	++++++	++++++	++++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
(4)	++++++	++++++	++++++	++++++	++++++	++++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
(5)	++++++	++++++	++++++	++++++	++++++	++++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
2 Dichlobenil	++++++	++++++	++++++	++++++	++++++	++++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-

Sample Data Summary A0000239

ort Date : 10-Jul-2009 13:20

Katahdin Analytical Services

INITIAL CALIBRATION DATA

rt Cal Date : 19-JUN-2009 16:23
Cal Date : 19-JUN-2009 18:43
nt Method : ESTD
gin : Included
get Version : 4.12
egrator : Falcon
hod file : \\target_server\gg\chem\gc01.i\GC01CG09.b\PEST017.m
Date : 10-Jul-2009 11:35 gc01.i

ompound	0.0050000 Level 1	0.0100000 Level 2	0.0250000 Level 3	0.0500000 Level 4	0.1000000 Level 5	0.2500000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
2 Total DDEs	+++++	+++++	+++++	+++++	+++++	+++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
3 Total DDTs	+++++	+++++	+++++	+++++	+++++	+++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
5 alpha-BHC	2657416	5803009	16106975	34476030	68488928	172931011	QUAD	0.00096	1.446e-009	-3.496e-02	0.99995	
6 gamma BHC	2479833	5162247	14415862	29413762	60174964	153991818	QUAD	0.00077	1.677e-009	-3.787e-01	0.99998	
7 beta-BHC	1070889	2132907	5413125	11262103	22395626	59756677	QUAD	0.00003	4.597e-009	-6.924e-01	0.99997	
8 delta-BHC	2019490	4158208	11593235	27264867	52179236	136577936	QUAD	0.00115	1.906e-009	-6.096e-01	0.99971	
9 Heptachlor	2378405	4779788	12882322	26906908	53493522	134679099	QUAD	0.00058	1.859e-009	-5.243e-02	0.99998	
0 Aldrin	2151025	4556988	12334169	26118917	53284640	135823231	QUAD	0.00097	1.886e-009	-3.915e-01	0.99996	
1 Chlorothalonil(1)	+++++	+++++	+++++	+++++	+++++	+++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
(2)	+++++	+++++	+++++	+++++	+++++	+++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
2 Alachlor	+++++	+++++	+++++	+++++	+++++	+++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
3 Heptachlor Epoxide	1985904	4120485	10920362	22355118	45511800	112922976	QUAD	0.00070	2.182e-009	2.228e-019	0.99998	
4 Chlordane(1)	+++++	+++++	+++++	30280778	+++++	+++++	QUAD	0.000e+000	1.651e-008	0.000e+000	1.00000	<-
(2)	+++++	+++++	+++++	34924686	+++++	+++++	QUAD	0.000e+000	1.432e-008	0.000e+000	1.00000	<-
5 gamma-Chlordane	1942103	4001893	10381326	21239430	45307399	117519656	QUAD	0.00088	2.271e-009	-1.299e-01	0.99990	
6 2,4'-DDE	+++++	+++++	+++++	+++++	+++++	+++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
7 alpha-Chlordane	1939501	3854715	9966125	21108230	43617148	111336590	QUAD	0.00084	2.323e-009	-7.676e-01	0.99994	
8 Toxaphene(1)	+++++	+++++	+++++	2930840	+++++	+++++	QUAD	0.000e+000	3.412e-007	0.000e+000	1.00000	<-
(2)	+++++	+++++	+++++	5651809	+++++	+++++	QUAD	0.000e+000	1.769e-007	0.000e+000	1.00000	<-
(3)	+++++	+++++	+++++	7937741	+++++	+++++	QUAD	0.000e+000	1.260e-007	0.000e+000	1.00000	<-
(4)	+++++	+++++	+++++	7825645	+++++	+++++	QUAD	0.000e+000	1.278e-007	0.000e+000	1.00000	<-
(5)	+++++	+++++	+++++	10549096	+++++	+++++	QUAD	0.000e+000	9.479e-008	0.000e+000	1.00000	<-

SampleData Summary A0000240

ort Date : 10-Jul-2009 13:20

Katahdin Analytical Services

INITIAL CALIBRATION DATA

rt Cal Date : 19-JUN-2009 16:23
Cal Date : 19-JUN-2009 18:43
nt Method : ESTD
gin : Included
get Version : 4.12
egrator : Falcon
hod file : \\target_server\gg\chem\gc01.i\GC01CG09.b\PEST017.m
Date : 10-Jul-2009 11:35 gc01.i

ompound	0.0050000 Level 1	0.0100000 Level 2	0.0250000 Level 3	0.0500000 Level 4	0.1000000 Level 5	0.2500000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
(6)	+++++	+++++	+++++	8634265	+++++	+++++	QUAD	0.000e+000	1.158e-007	0.000e+000	1.00000	<-
(7)	+++++	+++++	+++++	5773613	+++++	+++++	QUAD	0.000e+000	1.732e-007	0.000e+000	1.00000	<-
(8)	+++++	+++++	+++++	12912107	+++++	+++++	QUAD	0.000e+000	7.745e-008	0.000e+000	1.00000	<-
(9)	+++++	+++++	+++++	7129752	+++++	+++++	QUAD	0.000e+000	1.403e-007	0.000e+000	1.00000	<-
(10) (10)	+++++	+++++	+++++	5263076	+++++	+++++	QUAD	0.000e+000	1.900e-007	0.000e+000	1.00000	<-
9 4,4'-DDE	1384497	2861164	7798947	19674316	36645978	98812794	QUAD	0.00127	2.720e-009	-2.043e-01	0.99940	
0 Endosulfan I	1718278	3522345	9309222	19405891	40315718	100942101	QUAD	0.00098	2.486e-009	-1.991e-01	0.99993	
1 Dieldrin	1771977	3678262	10002279	21230398	43898676	114451786	QUAD	0.00101	2.323e-009	-1.297e-01	0.99995	
2 2,4'-DDD	+++++	+++++	+++++	+++++	+++++	+++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
3 Endrin	1547537	3249042	8412898	18275805	37370462	97197811	QUAD	0.00093	2.722e-009	-1.651e-01	0.99994	
4 4,4'-DDD	709980	1445567	3984045	13663900	20552219	62903989	QUAD	0.00184	4.583e-009	-1.007e-01	0.99465	
5 2,4'-DDT	+++++	+++++	+++++	+++++	+++++	+++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
6 Endosulfan II	1413751	2840568	7404411	16372669	32709949	88576335	QUAD	0.00065	3.151e-009	-3.788e-01	0.99992	
7 4,4'-DDT	1070270	2142605	5907670	15801619	28006898	79566844	QUAD	0.00115	3.567e-009	-5.497e-01	0.99875	
8 Endrin Aldehyde	961606	1804854	4690899	10775934	20594993	56828136	QUAD	0.00037	4.986e-009	-1.041e-01	0.99973	
9 Methoxychlor	461134	898777	2211609	6993385	9378148	26749654	QUAD	0.00063	9.308e-009	1.115e-018	0.99151	
0 Propiconizole (Tilt)	+++++	+++++	+++++	+++++	+++++	+++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
1 Mirex	+++++	+++++	+++++	+++++	+++++	+++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
2 Endosulfan sulfate	752888	1482739	4295182	12767222	21662953	63900806	QUAD	0.00166	4.556e-009	-1.043e-01	0.99776	
3 Endrin Ketone	1211870	2455338	6523146	16576764	28901857	79929621	QUAD	0.00060	3.422e-009	-3.745e-01	0.99877	
4 Tetrachloro-m-Xylene	1939398	3954010	10615123	21627406	41852644	108962087	QUAD	-0.00004	2.408e-009	-1.027e-01	0.99991	

Sample Data Summary A0000241

ort Date : 10-Jul-2009 13:20

Katahdin Analytical Services

INITIAL CALIBRATION DATA

rt Cal Date : 19-JUN-2009 16:23
Cal Date : 19-JUN-2009 18:43
nt Method : ESTD
gin : Included
get Version : 4.12
egrator : Falcon
hod file : \\target_server\gg\chem\gc01.i\GC01CG09.b\PEST017.m
Date : 10-Jul-2009 11:35 gc01.i

ompound	0.0050000 Level 1	0.0100000 Level 2	0.0250000 Level 3	0.0500000 Level 4	0.1000000 Level 5	0.2500000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
4 Decachlorobiphenyl	1014867	1946417	4807575	10186574	18847371	48734244	QUAD	-0.00055	5.286e-009	-2.903e-01	0.99972

ort Date : 10-Jul-2009 13:20

Katahdin Analytical Services

INITIAL CALIBRATION DATA

rt Cal Date : 19-JUN-2009 16:23
Cal Date : 19-JUN-2009 18:43
nt Method : ESTD
gin : Included
get Version : 4.12
egrator : Falcon
hod file : \\target_server\gg\chem\gc01.i\GC01CG09.b\PEST017.m
Date : 10-Jul-2009 11:35 gc01.i

ve	Formula	Units
d	Amt = b + m1*Rsp + m2*Rsp^2	Response

Sample Data Summary A0000243

Report Date: 10-Jul-2009 13:20

Calibration History

Method : \\target_server\gg\chem\gc01.i\GC01CG09.b\PEST017.m
Start Cal Date: 19-JUN-2009 16:23
End Cal Date : 19-JUN-2009 18:43
Last Cal Level: 4
Last Cal Type : Continuing Calibration

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 0.00500		
19-JUN-2009 16:41	ICAL	1CF00343.D
Cal Level: 2 , Cal Amount: 0.01000		
19-JUN-2009 16:58	ICAL	1CF00344.D
Cal Level: 3 , Cal Amount: 0.02500		
19-JUN-2009 17:16	ICAL	1CF00345.D
Cal Level: 4 , Cal Amount: 0.05000		
19-JUN-2009 18:43	TC	1CF00350.D
19-JUN-2009 18:26	Tox	1CF00349.D
19-JUN-2009 16:23	ICAL	1CF00342.D
Cal Level: 5 , Cal Amount: 0.10000		
19-JUN-2009 17:33	ICAL	1CF00346.D
Cal Level: 6 , Cal Amount: 0.25000		
19-JUN-2009 17:51	ICAL	1CF00347.D

Continuing Calibration
Ccal Level Mode: BY SAMPLE

09-JUL-2009 13:28	cv	1CG00085.D
09-JUL-2009 11:37	cv	1CG00079.D
09-JUL-2009 15:33	cv	1CG00088.D
09-JUL-2009 11:55	cv	1CG00080.D
09-JUL-2009 10:58	cv	1CG00078.D

FORM 6
PESTICIDE INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GC01 Calibration Date(s): 06/19/09 06/19/09

Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm) Calibration Time(s): 1623 1843

LAB FILE ID: RF0.005: 1CF00343 RF0.01: 1CF00344 RF0.025: 1CF00345
RF0.05: 1CF00350 RF0.1: 1CF00346 RF0.25: 1CF00347

COMPOUND	RF0.005	RF0.01	RF0.025	RF0.05	RF0.1	RF0.25	CURVE	COEFFICENTS A0	A1	A2	%RSD OR R^2	MAX %RSD OR R^2
alpha-BHC	2954500	6374400	2e+007	4e+007	8e+007	2e+008	2ORDR	9.749e-004	1.334e-009	-1.31e-019	0.99996	0.99000
gamma BHC	2716000	5542700	2e+007	3e+007	7e+007	2e+008	2ORDR	8.454e-004	1.545e-009	-3.41e-019	0.99997	0.99000
beta-BHC	1258400	2450800	6234300	1e+007	3e+007	7e+007	2ORDR	4.318e-005	4.068e-009	-5.63e-018	0.99999	0.99000
delta-BHC	2371100	4915700	1e+007	3e+007	6e+007	2e+008	2ORDR	1.175e-003	1.669e-009	-5.17e-019	0.99994	0.99000
Heptachlor	2367600	4828300	1e+007	3e+007	5e+007	1e+008	2ORDR	5.096e-004	1.845e-009	-4.31e-019	0.99996	0.99000
Aldrin	2197400	4612900	1e+007	2e+007	5e+007	1e+008	2ORDR	1.105e-003	1.892e-009	-7.04e-019	0.99981	0.99000
Heptachlor Epoxide	2007000	4000900	1e+007	2e+007	5e+007	1e+008	2ORDR	6.082e-004	2.241e-009	-1.01e-018	0.99998	0.99000
gamma-Chlordane	1864800	3853400	1.e+007	2e+007	4e+007	1e+008	2ORDR	7.402e-004	2.342e-009	-1.91e-018	0.99997	0.99000
alpha-Chlordane	1894000	3792000	9963200	2.e+007	4e+007	1e+008	2ORDR	8.7e-004	2.379e-009	-1.62e-018	0.99989	0.99000
4,4'-DDE	1546800	3208400	8793000	2.e+007	4.e+007	1e+008	2ORDR	1.257e-003	2.521e-009	-1.89e-018	0.99987	0.99000
Endosulfan I	1673400	3433200	9139600	2e+007	4.e+007	1.e+008	2ORDR	9.271e-004	2.58e-009	-1.39e-018	0.99992	0.99000
Dieldrin	1703600	3617300	9842500	2e+007	4e+007	1e+008	2ORDR	1.096e-003	2.354e-009	-1.77e-018	0.99994	0.99000
Endrin	1480300	3004100	8171800	2e+007	4e+007	1e+008	2ORDR	1.272e-003	2.765e-009	-1.88e-018	0.99990	0.99000
4,4'-DDD	961310	2013500	5445800	1e+007	3e+007	8e+007	2ORDR	1.445e-003	3.812e-009	-6.66e-018	0.99939	0.99000
Endosulfan II	1434600	2876900	7615000	2e+007	3e+007	9e+007	2ORDR	5.839e-004	3.099e-009	-4.01e-018	0.99991	0.99000
4,4'-DDT	1271800	2521200	6900800	2e+007	3e+007	9e+007	2ORDR	1.006e-003	3.2e-009	-4.24e-018	0.99958	0.99000
Endrin Aldehyde	1073000	2138300	5583300	1e+007	2e+007	7e+007	2ORDR	5.544e-004	4.298e-009	-8.29e-018	0.99998	0.99000
Methoxychlor	560110	1069000	2803400	7164300	1e+007	3e+007	2ORDR	1.278e-004	8.227e-009	-2.2e-017	0.99806	0.99000
Endosulfan sulfate	984280	2021000	5527800	1e+007	3e+007	7e+007	2ORDR	1.331e-003	3.881e-009	-5.82e-018	0.99967	0.99000
Endrin Ketone	1399000	2828700	7531100	2e+007	3e+007	9e+007	2ORDR	6.92e-004	3.101e-009	-3.84e-018	0.99990	0.99000
Toxaphene				3095400			2ORDR	0.00000000	3.231e-007	0.00000000	1.00000	0.99000
(2)				2223400			2ORDR	0.00000000	4.498e-007	0.00000000	1.00000	0.99000
(3)				3698500			2ORDR	0.00000000	2.704e-007	0.00000000	1.00000	0.99000
(4)				3020800			2ORDR	0.00000000	3.31e-007	0.00000000	1.00000	0.99000
(5)				8175800			2ORDR	0.00000000	1.223e-007	0.00000000	1.00000	0.99000
(6)				1e+007			2ORDR	0.00000000	8.387e-008	0.00000000	1.00000	0.99000
(7)				5228900			2ORDR	0.00000000	1.912e-007	0.00000000	1.00000	0.99000
(8)				8140300			2ORDR	0.00000000	1.228e-007	0.00000000	1.00000	0.99000
(9)				9374200			2ORDR	0.00000000	1.067e-007	0.00000000	1.00000	0.99000
(10)				5483200			2ORDR	0.00000000	1.824e-007	0.00000000	1.00000	0.99000
Tetrachloro-m-Xylene	2205900	4531400	1e+007	2e+007	5e+007	1e+008	2ORDR	1.369e-004	2.105e-009	-1.02e-018	0.99998	0.99000
Decachlorobiphenyl	966940	1866800	4575400	9564400	2e+007	5e+007	2ORDR	-2.93e-004	5.469e-009	-4.11e-018	0.99992	0.99000

FORM VI PESTICIDE

ort Date : 10-Jul-2009 13:20

Katahdin Analytical Services

INITIAL CALIBRATION DATA

rt Cal Date : 19-JUN-2009 16:23
Cal Date : 19-JUN-2009 18:43
nt Method : ESTD
gin : Included
get Version : 4.12
egrator : Falcon
hod file : \\target_server\gg\chem\gc01.i\GC01CG09.b\PEST017.m\PEST017.m
Date : 10-Jul-2009 11:34 gc01.i

ibration File Names:
el 1: \\target_server\gg\chem\gc01.i\GC01CF19.b\GC01CF19.b\1CF00343.D
el 2: \\target_server\gg\chem\gc01.i\GC01CF19.b\GC01CF19.b\1CF00344.D
el 3: \\target_server\gg\chem\gc01.i\GC01CF19.b\GC01CF19.b\1CF00345.D
el 4: \\target_server\gg\chem\gc01.i\GC01CF19.b\GC01CF19.b\1CF00350.D
el 5: \\target_server\gg\chem\gc01.i\GC01CF19.b\GC01CF19.b\1CF00346.D
el 6: \\target_server\gg\chem\gc01.i\GC01CF19.b\GC01CF19.b\1CF00347.D

ompound	0.0050000 Level 1	0.0100000 Level 2	0.0250000 Level 3	0.0500000 Level 4	0.1000000 Level 5	0.2500000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
1 Total DDDs	+++++	+++++	+++++	+++++	+++++	+++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
3 Aroclor-1016(1)	+++++	+++++	+++++	+++++	+++++	+++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
(2)	+++++	+++++	+++++	+++++	+++++	+++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
(3)	+++++	+++++	+++++	+++++	+++++	+++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
(4)	+++++	+++++	+++++	+++++	+++++	+++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
(5)	+++++	+++++	+++++	+++++	+++++	+++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
4 Aroclor-1221(1)	+++++	+++++	+++++	+++++	+++++	+++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
(2)	+++++	+++++	+++++	+++++	+++++	+++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
(3)	+++++	+++++	+++++	+++++	+++++	+++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
(4)	+++++	+++++	+++++	+++++	+++++	+++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
5 Aroclor-1232(1)	+++++	+++++	+++++	+++++	+++++	+++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
(2)	+++++	+++++	+++++	+++++	+++++	+++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
(3)	+++++	+++++	+++++	+++++	+++++	+++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
(4)	+++++	+++++	+++++	+++++	+++++	+++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-

ort Date : 10-Jul-2009 13:20

Katahdin Analytical Services

INITIAL CALIBRATION DATA

rt Cal Date : 19-JUN-2009 16:23
Cal Date : 19-JUN-2009 18:43
nt Method : ESTD
gin : Included
get Version : 4.12
egrator : Falcon
hod file : \\target_server\gg\chem\gc01.i\GC01CG09.b\PEST017.m\PEST017.m
Date : 10-Jul-2009 11:34 gc01.i

ompound	0.0050000 Level 1	0.0100000 Level 2	0.0250000 Level 3	0.0500000 Level 4	0.1000000 Level 5	0.2500000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
(5)	+++++	+++++	+++++	+++++	+++++	+++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
6 Aroclor-1242(1)	+++++	+++++	+++++	+++++	+++++	+++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
(2)	+++++	+++++	+++++	+++++	+++++	+++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
(3)	+++++	+++++	+++++	+++++	+++++	+++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
(4)	+++++	+++++	+++++	+++++	+++++	+++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
(5)	+++++	+++++	+++++	+++++	+++++	+++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
7 Aroclor-1248(1)	+++++	+++++	+++++	+++++	+++++	+++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
(2)	+++++	+++++	+++++	+++++	+++++	+++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
(3)	+++++	+++++	+++++	+++++	+++++	+++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
(4)	+++++	+++++	+++++	+++++	+++++	+++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
(5)	+++++	+++++	+++++	+++++	+++++	+++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
8 Aroclor-1254(1)	+++++	+++++	+++++	+++++	+++++	+++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
(2)	+++++	+++++	+++++	+++++	+++++	+++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
(3)	+++++	+++++	+++++	+++++	+++++	+++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
(4)	+++++	+++++	+++++	+++++	+++++	+++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
(5)	+++++	+++++	+++++	+++++	+++++	+++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
9 Aroclor-1260(1)	+++++	+++++	+++++	+++++	+++++	+++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
(2)	+++++	+++++	+++++	+++++	+++++	+++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
(3)	+++++	+++++	+++++	+++++	+++++	+++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
(4)	+++++	+++++	+++++	+++++	+++++	+++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
(5)	+++++	+++++	+++++	+++++	+++++	+++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
2 Dichlobenil	+++++	+++++	+++++	+++++	+++++	+++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-

ort Date : 10-Jul-2009 13:20

Katahdin Analytical Services

INITIAL CALIBRATION DATA

rt Cal Date : 19-JUN-2009 16:23
Cal Date : 19-JUN-2009 18:43
nt Method : ESTD
gin : Included
get Version : 4.12
egrator : Falcon
hod file : \\target_server\gg\chem\gc01.i\GC01CG09.b\PEST017.m\PEST017.m
Date : 10-Jul-2009 11:34 gc01.i

Compound	0.0050000 Level 1	0.0100000 Level 2	0.0250000 Level 3	0.0500000 Level 4	0.1000000 Level 5	0.2500000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
2 Total DDEs	+++++	+++++	+++++	+++++	+++++	+++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
3 Total DDTs	+++++	+++++	+++++	+++++	+++++	+++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
5 alpha-BHC	2954500	6374450	17691035	36713975	75104147	190243638	QUAD	0.00097	1.334e-009	-1.311e-01	0.99997	
6 gamma BHC	2716022	5542682	15304010	32139186	65239086	167430806	QUAD	0.00085	1.545e-009	-3.407e-01	0.99997	
7 beta-BHC	1258420	2450792	6234334	12321811	25567457	67801739	QUAD	0.00004	4.068e-009	-5.626e-01	0.99999	
8 delta-BHC	2371120	4915673	13786163	29382132	60658746	156630894	QUAD	0.00118	1.669e-009	-5.174e-01	0.99994	
9 Heptachlor	2367604	4828297	13109245	27536252	54387011	139818423	QUAD	0.00051	1.845e-009	-4.312e-01	0.99996	
0 Aldrin	2197431	4612920	12562979	24845076	54152668	138587704	QUAD	0.00110	1.892e-009	-7.040e-01	0.99981	
1 Chlorothalonil(1)	+++++	+++++	+++++	+++++	+++++	+++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
(2)	+++++	+++++	+++++	+++++	+++++	+++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
2 Alachlor	+++++	+++++	+++++	+++++	+++++	+++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
3 Heptachlor Epoxide	2006979	4000909	10876036	22019397	45472964	117444395	QUAD	0.00061	2.241e-009	-1.005e-01	0.99998	
4 Chlordane(1)	+++++	+++++	+++++	24747532	+++++	+++++	QUAD	0.000e+000	2.020e-008	0.000e+000	1.00000	<-
(2)	+++++	+++++	+++++	28346066	+++++	+++++	QUAD	0.000e+000	1.764e-008	0.000e+000	1.00000	<-
5 Gamma-Chlordane	1864844	3853427	10179168	21232552	44182341	117708459	QUAD	0.00074	2.342e-009	-1.910e-01	0.99997	
6 4,4'-DDE	+++++	+++++	+++++	+++++	+++++	+++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
7 alpha-Chlordane	1894054	3791986	9963238	20274302	43445309	113429380	QUAD	0.00087	2.379e-009	-1.618e-01	0.99989	
8 Toxaphene(1)	+++++	+++++	+++++	3095441	+++++	+++++	QUAD	0.000e+000	3.231e-007	0.000e+000	1.00000	<-
(2)	+++++	+++++	+++++	2223380	+++++	+++++	QUAD	0.000e+000	4.498e-007	0.000e+000	1.00000	<-
(3)	+++++	+++++	+++++	3698541	+++++	+++++	QUAD	0.000e+000	2.704e-007	0.000e+000	1.00000	<-
(4)	+++++	+++++	+++++	3020806	+++++	+++++	QUAD	0.000e+000	3.310e-007	0.000e+000	1.00000	<-
(5)	+++++	+++++	+++++	8175780	+++++	+++++	QUAD	0.000e+000	1.223e-007	0.000e+000	1.00000	<-

ort Date : 10-Jul-2009 13:20

Katahdin Analytical Services

INITIAL CALIBRATION DATA

rt Cal Date : 19-JUN-2009 16:23
Cal Date : 19-JUN-2009 18:43
nt Method : ESTD
gin : Included
get Version : 4.12
egrator : Falcon
hod file : \\target_server\gg\chem\gc01.i\GC01CG09.b\PEST017.m\PEST017.m
Date : 10-Jul-2009 11:34 gc01.i

ompound	0.0050000 Level 1	0.0100000 Level 2	0.0250000 Level 3	0.0500000 Level 4	0.1000000 Level 5	0.2500000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
(6)	+++++	+++++	+++++	11922718	+++++	+++++	QUAD	0.000e+000	8.387e-008	0.000e+000	1.00000	<-
(7)	+++++	+++++	+++++	5228892	+++++	+++++	QUAD	0.000e+000	1.912e-007	0.000e+000	1.00000	<-
(8)	+++++	+++++	+++++	8140340	+++++	+++++	QUAD	0.000e+000	1.228e-007	0.000e+000	1.00000	<-
(9)	+++++	+++++	+++++	9374254	+++++	+++++	QUAD	0.000e+000	1.067e-007	0.000e+000	1.00000	<-
(10) (10)	+++++	+++++	+++++	5483174	+++++	+++++	QUAD	0.000e+000	1.824e-007	0.000e+000	1.00000	<-
9 4,4'-DDE	1546826	3208354	8793016	20063483	40364475	107309516	QUAD	0.00126	2.521e-009	-1.893e-01	0.99987	
0 Endosulfan I	1673392	3433161	9139591	18740995	39632069	102126412	QUAD	0.00093	2.580e-009	-1.391e-01	0.99992	
1 Dieldrin	1703589	3617301	9842463	20931733	43722145	115830100	QUAD	0.00110	2.354e-009	-1.772e-01	0.99994	
2 2,4'-DDD	+++++	+++++	+++++	+++++	+++++	+++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
3 Endrin	1480306	3004063	8171800	17550281	36963501	96177212	QUAD	0.00127	2.765e-009	-1.876e-01	0.99990	
4 4,4'-DDD	961309	2013532	5445847	14100531	26678133	75069558	QUAD	0.00145	3.812e-009	-6.657e-01	0.99939	
5 2,4'-DDT	+++++	+++++	+++++	+++++	+++++	+++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
6 Endosulfan II	1434604	2876904	7615003	16798381	33336540	91268516	QUAD	0.00058	3.099e-009	-4.008e-01	0.99991	
7 4,4'-DDT	1271773	2521166	6900838	16741917	31805483	88119717	QUAD	0.00101	3.200e-009	-4.241e-01	0.99958	
8 Endrin Aldehyde	1072989	2138311	5583328	11803266	24319534	66577168	QUAD	0.00055	4.298e-009	-8.286e-01	0.99998	
9 Methoxychlor	560111	1069048	2803425	7164333	11912238	33394761	QUAD	0.00013	8.227e-009	-2.204e-01	0.99806	
0 Propiconizole (Tilt)	+++++	+++++	+++++	+++++	+++++	+++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
1 Mirex	+++++	+++++	+++++	+++++	+++++	+++++	QUAD	0.000e+000	0.000e+000	0.000e+000	0.000e+000	<-
2 Endosulfan sulfate	984279	2021048	5527797	13491947	26222814	71830174	QUAD	0.00133	3.881e-009	-5.825e-01	0.99967	
3 Endrin Ketone	1399007	2828744	7531066	16741417	33216514	90551976	QUAD	0.00069	3.101e-009	-3.838e-01	0.99990	
4 Tetrachloro-m-Xylene	2205877	4531386	11984151	24242207	48394032	126462757	QUAD	0.00014	2.105e-009	-1.019e-01	0.99999	

Sample Data Summary A0000249

ort Date : 10-Jul-2009 13:20

Katahdin Analytical Services

INITIAL CALIBRATION DATA

rt Cal Date : 19-JUN-2009 16:23
Cal Date : 19-JUN-2009 18:43
nt Method : ESTD
gin : Included
get Version : 4.12
egrator : Falcon
hod file : \\target_server\gg\chem\gc01.i\GC01CG09.b\PEST017.m\PEST017.m
Date : 10-Jul-2009 11:34 gc01.i

ompound	0.0050000 Level 1	0.0100000 Level 2	0.0250000 Level 3	0.0500000 Level 4	0.1000000 Level 5	0.2500000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
4 Decachlorobiphenyl	966942	1866830	4575353	9564398	18418131	47476697	QUAD	-0.00029	5.469e-009	-4.112e-01	0.99992

ort Date : 10-Jul-2009 13:20

Katahdin Analytical Services

INITIAL CALIBRATION DATA

rt Cal Date : 19-JUN-2009 16:23
Cal Date : 19-JUN-2009 18:43
nt Method : ESTD
gin : Included
get Version : 4.12
egrator : Falcon
hod file : \\target_server\gg\chem\gc01.i\GC01CG09.b\PEST017.m\PEST017.m
Date : 10-Jul-2009 11:34 gc01.i

ve	Formula	Units
d	Amt = b + m1*Rsp + m2*Rsp^2	Response

Sample Data Summary A0000251

Report Date: 10-Jul-2009 13:20

Calibration History

Method : \\target_server\gg\chem\gc01.i\GC01CG09.b\PEST017.m\PEST017.m
Start Cal Date: 19-JUN-2009 16:23
End Cal Date : 19-JUN-2009 18:43
Last Cal Level: 4
Last Cal Type : Continuing Calibration

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 0.00500		
19-JUN-2009 16:41	ICAL	1CF00343.D
Cal Level: 2 , Cal Amount: 0.01000		
19-JUN-2009 16:58	ICAL	1CF00344.D
Cal Level: 3 , Cal Amount: 0.02500		
19-JUN-2009 17:16	ICAL	1CF00345.D
Cal Level: 4 , Cal Amount: 0.05000		
19-JUN-2009 18:43	TC	1CF00350.D
19-JUN-2009 18:26	Tox	1CF00349.D
19-JUN-2009 16:23	ICAL	1CF00342.D
Cal Level: 5 , Cal Amount: 0.10000		
19-JUN-2009 17:33	ICAL	1CF00346.D
Cal Level: 6 , Cal Amount: 0.25000		
19-JUN-2009 17:51	ICAL	1CF00347.D

Continuing Calibration
Ccal Level Mode: BY SAMPLE

09-JUL-2009 13:28	cv	1CG00085.D
09-JUL-2009 11:37	cv	1CG00079.D
09-JUL-2009 15:33	cv	1CG00088.D
09-JUL-2009 13:28	cv	1CG00085.D
09-JUL-2009 13:28	cv	1CG00085.D
09-JUL-2009 11:55	cv	1CG00080.D
09-JUL-2009 11:55	cv	1CG00080.D
09-JUL-2009 11:37	cv	1CG00079.D
09-JUL-2009 11:37	cv	1CG00079.D

09-JUL-2009 10:58	cv	1CG00078.D
09-JUL-2009 10:58	cv	1CG00078.D

FORM 6
PESTICIDE INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GC08 Calibration Date(s): 06/23/09 06/23/09

Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm) Calibration Time(s): 1702 1932

LAB FILE ID: RF0.005: 8CF00080 RF0.01: 8CF00081 RF0.025: 8CF00082
RF0.05: 8CF00087 RF0.1: 8CF00083 RF0.25: 8CF00084

COMPOUND	RF0.005	RF0.01	RF0.025	RF0.05	RF0.1	RF0.25	CURVE	COEFFICENTS A0	A1	A2	%RSD OR R^2	MAX %RS OR R^2
alpha-BHC	760	1552	3964	7505	13387	26395	2ORDR	7.623e-004	5.395e-006	1.532e-010	0.99997	0.99000
gamma BHC	679	1345	3458	6564	11747	23834	2ORDR	4.23e-004	6.516e-006	1.66e-010	0.99999	0.99000
beta-BHC	308	589	1457	2817	5308	11809	2ORDR	-1.83e-004	1.689e-005	3.642e-010	0.99999	0.99000
delta-BHC	551	1085	2866	5810	10310	21230	2ORDR	8.156e-004	7.538e-006	1.978e-010	0.99992	0.99000
Heptachlor	570	1132	2938	5460	9823	19227	2ORDR	8.012e-004	7.281e-006	2.95e-010	0.99996	0.99000
Aldrin	559	1152	2990	5726	10193	20369	2ORDR	7.402e-004	7.254e-006	2.446e-010	0.99998	0.99000
Heptachlor Epoxide	504	1003	2556	4853	8711	17148	2ORDR	8.046e-004	8.307e-006	3.626e-010	0.99996	0.99000
gamma-Chlordane	494	974	2482	4927	8824	18393	2ORDR	4.362e-004	9.07e-006	2.447e-010	0.99996	0.99000
alpha-Chlordane	478	951	2389	4654	8673	17712	2ORDR	7.795e-004	9.136e-006	2.781e-010	0.99994	0.99000
4,4'-DDE	426	853	2218	4442	8197	17099	2ORDR	8.335e-004	9.901e-006	2.729e-010	0.99996	0.99000
Endosulfan I	428	866	2217	4190	7750	15826	2ORDR	5.781e-004	1.017e-005	3.526e-010	0.99997	0.99000
Dieldrin	460	909	2362	4594	8449	17034	2ORDR	9.387e-004	9.083e-006	3.246e-010	0.99994	0.99000
Endrin	370	754	1968	3812	7138	14720	2ORDR	8.489e-004	1.126e-005	3.842e-010	0.99995	0.99000
4,4'-DDD	264	522	1381	3030	5593	12646	2ORDR	8.891e-004	1.593e-005	2.984e-010	0.99984	0.99000
Endosulfan II	360	702	1834	3613	6674	14210	2ORDR	4.805e-004	1.255e-005	3.528e-010	0.99998	0.99000
4,4'-DDT	279	533	1466	2984	5975	13273	2ORDR	1.238e-003	1.513e-005	2.713e-010	0.99987	0.99000
Endrin Aldehyde	252	486	1213	2594	4801	10728	2ORDR	5.339e-004	1.848e-005	4.451e-010	0.99990	0.99000
Methoxychlor	111	205	540	1183	2203	5605	2ORDR	1.017e-004	4.462e-005	-1.97e-012	0.99975	0.99000
Endosulfan sulfate	234	457	1266	2570	5068	11537	2ORDR	9.478e-004	1.817e-005	2.96e-010	0.99995	0.99000
Endrin Ketone	305	604	1560	3206	5922	13222	2ORDR	3.714e-004	1.495e-005	2.978e-010	0.99994	0.99000
Toxaphene				627			2ORDR	0.00000000	1.595e-003	0.00000000	1.00000	0.99000
(2)				1284			2ORDR	0.00000000	7.788e-004	0.00000000	1.00000	0.99000
(3)				1846			2ORDR	0.00000000	5.417e-004	0.00000000	1.00000	0.99000
(4)				1748			2ORDR	0.00000000	5.721e-004	0.00000000	1.00000	0.99000
(5)				2416			2ORDR	0.00000000	4.139e-004	0.00000000	1.00000	0.99000
(6)				1850			2ORDR	0.00000000	5.405e-004	0.00000000	1.00000	0.99000
(7)				1298			2ORDR	0.00000000	7.704e-004	0.00000000	1.00000	0.99000
(8)				2720			2ORDR	0.00000000	3.676e-004	0.00000000	1.00000	0.99000
(9)				1640			2ORDR	0.00000000	6.098e-004	0.00000000	1.00000	0.99000
(10)				1051			2ORDR	0.00000000	9.515e-004	0.00000000	1.00000	0.99000
Tetrachloro-m-Xylene	569	1110	2764	5273	9540	19249	2ORDR	4.557e-004	8.023e-006	2.565e-010	0.99999	0.99000
Decachlorobiphenyl	198	383	917	1776	3333	7766	2ORDR	-7.15e-004	2.815e-005	5.336e-010	0.99994	0.99000

FORM VI PESTICIDE

Report Date: 10-Jul-2009 13:21

Calibration History

Method : \\target_server\gg\chem\gc08.i\GC08CF24.b\PEST002.m
Start Cal Date: 23-JUN-2009 17:02
End Cal Date : 23-JUN-2009 19:32
Last Cal Level: 4
Last Cal Type : Continuing Calibration

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 0.00500		
23-JUN-2009 17:20	ICAL	8CF00080.D
Cal Level: 2 , Cal Amount: 0.01000		
23-JUN-2009 17:39	ICAL	8CF00081.D
Cal Level: 3 , Cal Amount: 0.02500		
23-JUN-2009 17:58	ICAL	8CF00082.D
Cal Level: 4 , Cal Amount: 0.05000		
23-JUN-2009 19:32	TC	8CF00087.D
23-JUN-2009 19:13	Tox	8CF00086.D
23-JUN-2009 17:02	ICAL	8CF00079.D
Cal Level: 5 , Cal Amount: 0.10000		
23-JUN-2009 18:17	ICAL	8CF00083.D
Cal Level: 6 , Cal Amount: 0.25000		
23-JUN-2009 18:35	ICAL	8CF00084.D

Continuing Calibration
Ccal Level Mode: BY SAMPLE

24-JUN-2009 21:36	cv	8CF00127.D
24-JUN-2009 17:50	cv	8CF00115.D
24-JUN-2009 12:25	cv	8CF00103.D

FORM 6
PESTICIDE INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GC08 Calibration Date(s): 06/23/09 06/23/09

Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm) Calibration Time(s): 1702 1932

LAB FILE ID: RF0.005: 8CF00080 RF0.01: 8CF00081 RF0.025: 8CF00082
RF0.05: 8CF00087 RF0.1: 8CF00083 RF0.25: 8CF00084

COMPOUND	RF0.005	RF0.01	RF0.025	RF0.05	RF0.1	RF0.25	CURVE	COEFFICENTS A0	A1	A2	%RSD OR R^2	MAX %RSD OR R^2
alpha-BHC	437	920	2471	4530	9370	20210	2ORDR	1.024e-003	9.476e-006	1.4e-010	0.99967	0.99000
gamma BHC	403	821	2174	3904	8207	18119	2ORDR	7.238e-004	1.119e-005	1.411e-010	0.99964	0.99000
beta-BHC	189	372	939	1705	3636	8696	2ORDR	1.341e-004	2.726e-005	1.677e-010	0.99976	0.99000
delta-BHC	343	714	1928	3627	7680	17159	2ORDR	1.17e-003	1.207e-005	1.407e-010	0.99966	0.99000
Heptachlor	313	636	1738	3147	6538	14449	2ORDR	7.816e-004	1.397e-005	2.256e-010	0.99972	0.99000
Aldrin	312	649	1792	3331	6692	14932	2ORDR	6.541e-004	1.361e-005	2.062e-010	0.99990	0.99000
Heptachlor Epoxide	294	598	1591	2891	5935	13113	2ORDR	5.873e-004	1.536e-005	2.777e-010	0.99978	0.99000
gamma-Chlordane	288	589	1606	2867	6165	14193	2ORDR	7.158e-004	1.554e-005	1.413e-010	0.99962	0.99000
alpha-Chlordane	283	574	1537	2807	5930	13571	2ORDR	6.684e-004	1.602e-005	1.723e-010	0.99973	0.99000
4,4'-DDE	293	592	1624	3032	6259	14282	2ORDR	7.18e-004	1.501e-005	1.706e-010	0.99984	0.99000
Endosulfan I	262	531	1406	2610	5555	12057	2ORDR	1.247e-003	1.626e-005	3.601e-010	0.99950	0.99000
Dieldrin	280	583	1538	2936	6046	13396	2ORDR	9.842e-004	1.51e-005	2.589e-010	0.99979	0.99000
Endrin	222	446	1228	2267	4779	10649	2ORDR	1.027e-003	1.933e-005	3.775e-010	0.99967	0.99000
4,4'-DDD	217	428	1234	2264	4810	11260	2ORDR	8.566e-004	2.006e-005	1.824e-010	0.99975	0.99000
Endosulfan II	249	480	1258	2367	4952	11358	2ORDR	6.315e-004	1.92e-005	2.407e-010	0.99979	0.99000
4,4'-DDT	224	451	1203	2220	4901	11498	2ORDR	1.03e-003	1.997e-005	1.446e-010	0.99953	0.99000
Endrin Aldehyde	184	360	932	1812	3806	8794	2ORDR	8.595e-004	2.513e-005	3.612e-010	0.99979	0.99000
Methoxychlor	104	197	518	994	2112	5302	2ORDR	3.986e-004	4.812e-005	-2.01e-010	0.99988	0.99000
Endosulfan sulfate	190	371	1017	1897	4063	9713	2ORDR	7.338e-004	2.423e-005	1.451e-010	0.99976	0.99000
Endrin Ketone	214	435	1111	2091	4563	10381	2ORDR	1.113e-003	2.09e-005	2.933e-010	0.99950	0.99000
Toxaphene				590			2ORDR	0.00000000	1.695e-003	0.00000000	1.00000	0.99000
(2)				302			2ORDR	0.00000000	3.311e-003	0.00000000	1.00000	0.99000
(3)				525			2ORDR	0.00000000	1.905e-003	0.00000000	1.00000	0.99000
(4)				555			2ORDR	0.00000000	1.802e-003	0.00000000	1.00000	0.99000
(5)				1240			2ORDR	0.00000000	8.065e-004	0.00000000	1.00000	0.99000
(6)				1837			2ORDR	0.00000000	5.444e-004	0.00000000	1.00000	0.99000
(7)				937			2ORDR	0.00000000	1.067e-003	0.00000000	1.00000	0.99000
(8)				1084			2ORDR	0.00000000	9.225e-004	0.00000000	1.00000	0.99000
(9)				1716			2ORDR	0.00000000	5.828e-004	0.00000000	1.00000	0.99000
(10)				751			2ORDR	0.00000000	1.332e-003	0.00000000	1.00000	0.99000
Tetrachloro-m-Xylene	338	681	1781	3231	6699	14918	2ORDR	5.254e-004	1.378e-005	1.96e-010	0.99975	0.99000
Decachlorobiphenyl	135	260	654	1218	2506	6016	2ORDR	-1.16e-004	3.932e-005	3.724e-010	0.99992	0.99000

FORM VI PESTICIDE

Report Date: 10-Jul-2009 13:21

Calibration History

Method : \\target_server\gg\chem\gc08.i\GC08CF24.b\PEST002.m\PEST002.m
Start Cal Date: 23-JUN-2009 17:02
End Cal Date : 23-JUN-2009 19:32
Last Cal Level: 4
Last Cal Type : Continuing Calibration

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 0.00500		
23-JUN-2009 17:20	ICAL	8CF00080.D
Cal Level: 2 , Cal Amount: 0.01000		
23-JUN-2009 17:39	ICAL	8CF00081.D
Cal Level: 3 , Cal Amount: 0.02500		
23-JUN-2009 17:58	ICAL	8CF00082.D
Cal Level: 4 , Cal Amount: 0.05000		
23-JUN-2009 19:32	TC	8CF00087.D
23-JUN-2009 19:13	Tox	8CF00086.D
23-JUN-2009 17:02	ICAL	8CF00079.D
Cal Level: 5 , Cal Amount: 0.10000		
23-JUN-2009 18:17	ICAL	8CF00083.D
Cal Level: 6 , Cal Amount: 0.25000		
23-JUN-2009 18:35	ICAL	8CF00084.D

Continuing Calibration
Ccal Level Mode: BY SAMPLE

24-JUN-2009 21:36	cv	8CF00127.D
24-JUN-2009 17:50	cv	8CF00115.D
24-JUN-2009 12:25	cv	8CF00103.D

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm) Init. Calib. Date(s): 06/19/09 06/19/09

Client Sample ID (PEM): Date Analyzed :06/19/09
Lab Sample ID (PEM): EVAL Time Analyzed :1541

LAB SAMPLE ID	FILENAME	% DDT BREAKDOWN	% ENDRIN BREAKDOWN
EVAL	1CF00341.D	0.83	1.98

QC LIMITS:

4,4'-DDT breakdown must be less than or equal to 15.0%
Endrin breakdown must be less than or equal to 15.0%

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm) Init. Calib. Date(s): 06/19/09 06/19/09

Client Sample ID (PEM): Date Analyzed :06/19/09
Lab Sample ID (PEM): EVAL Time Analyzed :1541

LAB SAMPLE ID	FILENAME	% DDT BREAKDOWN	% ENDRIN BREAKDOWN
EVAL	1CF00341.D	0.62	2.91

QC LIMITS:

4,4'-DDT breakdown must be less than or equal to 15.0%
Endrin breakdown must be less than or equal to 15.0%

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GC01 Calibration Date: 06/19/09 Time: 1808

Lab File ID: 1CF00348 Init. Calib. Date(s): 06/19/09 06/19/09

Init. Calib. Times: 1623 1843

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm)

COMPOUND	RRF or AMOUNT	RRF5e-002 or AMOUNT	CCAL RRF5e-002	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
alpha-BHC	5.38e-002	5.e-002	731260000	0.01	7.60	15.00	2RDR	
gamma BHC	5.38e-002	5.e-002	637300000	0.01	7.60	15.00	2RDR	
beta-BHC	5.53e-002	5.e-002	245070000	0.01	10.60	15.00	2RDR	
delta-BHC	4.97e-002	5.e-002	514150000	0.01	-0.60	15.00	2RDR	
Heptachlor	5.28e-002	5.e-002	561840000	0.01	5.60	15.00	2RDR	
Aldrin	5.24e-002	5.e-002	548190000	0.01	4.80	15.00	2RDR	
Heptachlor Epoxide	5.21e-002	5.e-002	470370000	0.01	4.20	15.00	2RDR	
gamma-Chlordane	5.27e-002	5.e-002	462800000	0.01	5.40	15.00	2RDR	
alpha-Chlordane	5.11e-002	5.e-002	435670000	0.01	2.20	15.00	2RDR	
4,4'-DDE	4.83e-002	5.e-002	350500000	0.01	-3.40	15.00	2RDR	
Endosulfan I	5.14e-002	5.e-002	406510000	0.01	2.80	15.00	2RDR	
Dieldrin	5.21e-002	5.e-002	445700000	0.01	4.20	15.00	2RDR	
Endrin	5.17e-002	5.e-002	377410000	0.01	3.40	15.00	2RDR	
4,4'-DDD	4.19e-002	5.e-002	178440000	0.01	-16.20	15.00	2RDR	<
Endosulfan II	5.07e-002	5.e-002	324210000	0.01	1.40	15.00	2RDR	
4,4'-DDT	4.64e-002	5.e-002	258580000	0.01	-7.20	15.00	2RDR	
Endrin Aldehyde	4.75e-002	5.e-002	192940000	0.01	-5.00	15.00	2RDR	
Methoxychlor	4.4e-002	5.e-002	93124000	0.01	-12.00	15.00	2RDR	
Endosulfan sulfate	4.58e-002	5.e-002	198150000	0.01	-8.40	15.00	2RDR	
Endrin Ketone	4.85e-002	5.e-002	284240000	0.01	-3.00	15.00	2RDR	

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GC01 Calibration Date: 06/19/09 Time: 1808

Lab File ID: 1CF00348 Init. Calib. Date(s): 06/19/09 06/19/09

Init. Calib. Times: 1623 1843

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm)

COMPOUND	RRF or AMOUNT	RRF5e-002 or AMOUNT	CCAL RRF5e-002	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
alpha-BHC	5.32e-002	5.e-002	785480000	0.01	6.40	15.00	2RDR
gamma BHC	5.21e-002	5.e-002	668520000	0.01	4.20	15.00	2RDR
beta-BHC	5.5e-002	5.e-002	275360000	0.01	10.00	15.00	2RDR
delta-BHC	5.28e-002	5.e-002	624290000	0.01	5.60	15.00	2RDR
Heptachlor	5.24e-002	5.e-002	566520000	0.01	4.80	15.00	2RDR
Aldrin	5.25e-002	5.e-002	548730000	0.01	5.00	15.00	2RDR
Heptachlor Epoxide	5.26e-002	5.e-002	469010000	0.01	5.20	15.00	2RDR
gamma-Chlordane	5.29e-002	5.e-002	454050000	0.01	5.80	15.00	2RDR
alpha-Chlordane	5.25e-002	5.e-002	440730000	0.01	5.00	15.00	2RDR
4,4'-DDE	4.95e-002	5.e-002	388360000	0.01	-1.00	15.00	2RDR
Endosulfan I	5.2e-002	5.e-002	400290000	0.01	4.00	15.00	2RDR
Dieldrin	5.09e-002	5.e-002	429860000	0.01	1.80	15.00	2RDR
Endrin	5.06e-002	5.e-002	360830000	0.01	1.20	15.00	2RDR
4,4'-DDD	4.68e-002	5.e-002	242870000	0.01	-6.40	15.00	2RDR
Endosulfan II	5.05e-002	5.e-002	329150000	0.01	1.00	15.00	2RDR
4,4'-DDT	4.79e-002	5.e-002	299080000	0.01	-4.20	15.00	2RDR
Endrin Aldehyde	4.92e-002	5.e-002	231760000	0.01	-1.60	15.00	2RDR
Methoxychlor	4.87e-002	5.e-002	120030000	0.01	-2.60	15.00	2RDR
Endosulfan sulfate	4.83e-002	5.e-002	246720000	0.01	-3.40	15.00	2RDR
Endrin Ketone	4.95e-002	5.e-002	321450000	0.01	-1.00	15.00	2RDR

FORM VII PEST

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm) Init. Calib. Date(s): 06/19/09 06/19/09

Client Sample ID (PEM): Date Analyzed :07/07/09
Lab Sample ID (PEM): EVAL Time Analyzed :1225

LAB SAMPLE ID	FILENAME	% DDT BREAKDOWN	% ENDRIN BREAKDOWN
EVAL	1CG00046.D	1.51	2.01

QC LIMITS:

4,4'-DDT breakdown must be less than or equal to 15.0%
Endrin breakdown must be less than or equal to 15.0%

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm) Init. Calib. Date(s): 06/19/09 06/19/09

Client Sample ID (PEM): Date Analyzed :07/07/09
Lab Sample ID (PEM): EVAL Time Analyzed :1225

LAB SAMPLE ID	FILENAME	% DDT BREAKDOWN	% ENDRIN BREAKDOWN
EVAL	1CG00046.D	0.98	2.78

QC LIMITS:

4,4'-DDT breakdown must be less than or equal to 15.0%
Endrin breakdown must be less than or equal to 15.0%

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GC01 Calibration Date: 07/07/09 Time: 1242

Lab File ID: 1CG00047 Init. Calib. Date(s): 06/19/09 06/19/09

Init. Calib. Times: 1623 1843

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm)

COMPOUND	RRF or AMOUNT	RRF5e-002 or AMOUNT	CCAL RRF5e-002	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
alpha-BHC	5.25e-002	5.e-002	712890000	0.01	5.00	15.00	2RDR
gamma BHC	5.12e-002	5.e-002	605500000	0.01	2.40	15.00	2RDR
Heptachlor	5.06e-002	5.e-002	538040000	0.01	1.20	15.00	2RDR
beta-BHC	5.14e-002	5.e-002	227430000	0.01	2.80	15.00	2RDR
Aldrin	4.97e-002	5.e-002	519150000	0.01	-0.60	15.00	2RDR
delta-BHC	5.01e-002	5.e-002	518500000	0.01	0.20	15.00	2RDR
Heptachlor Epoxide	4.91e-002	5.e-002	442320000	0.01	-1.80	15.00	2RDR
Endosulfan I	4.78e-002	5.e-002	377400000	0.01	-4.40	15.00	2RDR
4,4'-DDE	5.15e-002	5.e-002	374390000	0.01	3.00	15.00	2RDR
Dieldrin	4.82e-002	5.e-002	410780000	0.01	-3.60	15.00	2RDR
Endrin	5.08e-002	5.e-002	370420000	0.01	1.60	15.00	2RDR
4,4'-DDD	5.36e-002	5.e-002	231900000	0.01	7.20	15.00	2RDR
Endosulfan II	5.01e-002	5.e-002	320080000	0.01	0.20	15.00	2RDR
4,4'-DDT	5.2e-002	5.e-002	291790000	0.01	4.00	15.00	2RDR
Endrin Aldehyde	5.13e-002	5.e-002	208990000	0.01	2.60	15.00	2RDR
Endosulfan sulfate	5.12e-002	5.e-002	223250000	0.01	2.40	15.00	2RDR
Methoxychlor	5.96e-002	5.e-002	126580000	0.01	19.20	15.00	2RDR
alpha-Chlordane	4.93e-002	5.e-002	420230000	0.01	-1.40	15.00	2RDR
gamma-Chlordane	4.91e-002	5.e-002	430140000	0.01	-1.80	15.00	2RDR
Endrin Ketone	5.18e-002	5.e-002	304390000	0.01	3.60	15.00	2RDR
Tetrachloro-m-Xylene	5.46e-002	5.e-002	458440000	0.01	9.20	15.00	2RDR
Decachlorobiphenyl	5.4e-002	5.e-002	207720000	0.01	8.00	15.00	2RDR

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GC01 Calibration Date: 07/07/09 Time: 1242

Lab File ID: 1CG00047 Init. Calib. Date(s): 06/19/09 06/19/09

Init. Calib. Times: 1623 1843

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm)

COMPOUND	RRF or AMOUNT	RRF5e-002 or AMOUNT	CCAL RRF5e-002	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
alpha-BHC	5.15e-002	5.e-002	760090000	0.01	3.00	15.00	2RDR
gamma BHC	5.08e-002	5.e-002	650950000	0.01	1.60	15.00	2RDR
Heptachlor	5.09e-002	5.e-002	549890000	0.01	1.80	15.00	2RDR
beta-BHC	5.06e-002	5.e-002	252960000	0.01	1.20	15.00	2RDR
Aldrin	4.98e-002	5.e-002	519460000	0.01	-0.40	15.00	2RDR
delta-BHC	4.88e-002	5.e-002	575480000	0.01	-2.40	15.00	2RDR
Heptachlor Epoxide	4.92e-002	5.e-002	437640000	0.01	-1.60	15.00	2RDR
Endosulfan I	4.89e-002	5.e-002	375680000	0.01	-2.20	15.00	2RDR
4,4'-DDE	4.84e-002	5.e-002	379260000	0.01	-3.20	15.00	2RDR
Dieldrin	4.85e-002	5.e-002	408710000	0.01	-3.00	15.00	2RDR
Endrin	5.05e-002	5.e-002	360710000	0.01	1.00	15.00	2RDR
4,4'-DDD	5.26e-002	5.e-002	274920000	0.01	5.20	15.00	2RDR
Endosulfan II	5.05e-002	5.e-002	329190000	0.01	1.00	15.00	2RDR
4,4'-DDT	5.09e-002	5.e-002	318590000	0.01	1.80	15.00	2RDR
Endrin Aldehyde	4.98e-002	5.e-002	234460000	0.01	-0.40	15.00	2RDR
Endosulfan sulfate	5.01e-002	5.e-002	256120000	0.01	0.20	15.00	2RDR
Methoxychlor	5.57e-002	5.e-002	137740000	0.01	11.40	15.00	2RDR
alpha-Chlordane	4.82e-002	5.e-002	403360000	0.01	-3.60	15.00	2RDR
gamma-Chlordane	4.84e-002	5.e-002	414420000	0.01	-3.20	15.00	2RDR
Endrin Ketone	4.96e-002	5.e-002	321600000	0.01	-0.80	15.00	2RDR
Tetrachloro-m-Xylene	5.39e-002	5.e-002	517260000	0.01	7.80	15.00	2RDR
Decachlorobiphenyl	5.21e-002	5.e-002	192970000	0.01	4.20	15.00	2RDR

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GC01 Calibration Date: 07/07/09 Time: 1751

Lab File ID: 1CG00060 Init. Calib. Date(s): 06/19/09 06/19/09

Init. Calib. Times: 1623 1843

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm)

COMPOUND	RRF or AMOUNT	RRF3e-002 or AMOUNT	CCAL RRF3e-002	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
alpha-BHC	1.97e-002	2.5e-002	517050000	0.01	-21.20	15.00	2RDR	<
gamma BHC	1.87e-002	2.5e-002	427760000	0.01	-25.20	15.00	2RDR	<
Heptachlor	1.94e-002	2.5e-002	404930000	0.01	-22.40	15.00	2RDR	<
beta-BHC	1.84e-002	2.5e-002	160850000	0.01	-26.40	15.00	2RDR	<
Aldrin	1.84e-002	2.5e-002	370070000	0.01	-26.40	15.00	2RDR	<
delta-BHC	1.49e-002	2.5e-002	289420000	0.01	-40.40	15.00	2RDR	<
Heptachlor Epoxide	1.89e-002	2.5e-002	333210000	0.01	-24.40	15.00	2RDR	<
Endosulfan I	1.86e-002	2.5e-002	283990000	0.01	-25.60	15.00	2RDR	<
4,4'-DDE	2.23e-002	2.5e-002	310920000	0.01	-10.80	15.00	2RDR	
Dieldrin	2.05e-002	2.5e-002	337810000	0.01	-18.00	15.00	2RDR	<
Endrin	2.16e-002	2.5e-002	305780000	0.01	-13.60	15.00	2RDR	
4,4'-DDD	2.79e-002	2.5e-002	230170000	0.01	11.60	15.00	2RDR	
Endosulfan II	2.13e-002	2.5e-002	263600000	0.01	-14.80	15.00	2RDR	
4,4'-DDT	2.47e-002	2.5e-002	266680000	0.01	-1.20	15.00	2RDR	
Endrin Aldehyde	2.37e-002	2.5e-002	188640000	0.01	-5.20	15.00	2RDR	
Endosulfan sulfate	1.57e-002	2.5e-002	124040000	0.01	-37.20	15.00	2RDR	<
Methoxychlor	3.27e-002	2.5e-002	137820000	0.01	30.80	15.00	2RDR	<
alpha-Chlordane	1.78e-002	2.5e-002	291980000	0.01	-28.80	15.00	2RDR	<
gamma-Chlordane	1.96e-002	2.5e-002	330540000	0.01	-21.60	15.00	2RDR	<
Endrin Ketone	2.53e-002	2.5e-002	290980000	0.01	1.20	15.00	2RDR	
Tetrachloro-m-Xylene	2.25e-002	2.5e-002	375630000	0.01	-10.00	15.00	2RDR	
Decachlorobiphenyl	2.54e-002	2.5e-002	197000000	0.01	1.60	15.00	2RDR	

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GC01 Calibration Date: 07/07/09 Time: 1751

Lab File ID: 1CG00060 Init. Calib. Date(s): 06/19/09 06/19/09

Init. Calib. Times: 1623 1843

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm)

COMPOUND	RRF or AMOUNT	RRF3e-002 or AMOUNT	CCAL RRF3e-002	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
alpha-BHC	2.1e-002	2.5e-002	601410000	0.01	-16.00	15.00	2RDR	<
gamma BHC	2.03e-002	2.5e-002	504460000	0.01	-18.80	15.00	2RDR	<
Heptachlor	2.06e-002	2.5e-002	437490000	0.01	-17.60	15.00	2RDR	<
beta-BHC	1.95e-002	2.5e-002	192990000	0.01	-22.00	15.00	2RDR	<
Aldrin	1.99e-002	2.5e-002	398100000	0.01	-20.40	15.00	2RDR	<
delta-BHC	1.57e-002	2.5e-002	349730000	0.01	-37.20	15.00	2RDR	<
Heptachlor Epoxide	2.07e-002	2.5e-002	359430000	0.01	-17.20	15.00	2RDR	<
Endosulfan I	2.05e-002	2.5e-002	304160000	0.01	-18.00	15.00	2RDR	<
4,4'-DDE	2.22e-002	2.5e-002	334500000	0.01	-11.20	15.00	2RDR	
Dieldrin	2.13e-002	2.5e-002	346070000	0.01	-14.80	15.00	2RDR	
Endrin	2.18e-002	2.5e-002	298970000	0.01	-12.80	15.00	2RDR	
4,4'-DDD	2.63e-002	2.5e-002	263620000	0.01	5.20	15.00	2RDR	
Endosulfan II	2.2e-002	2.5e-002	278480000	0.01	-12.00	15.00	2RDR	
4,4'-DDT	2.22e-002	2.5e-002	266750000	0.01	-11.20	15.00	2RDR	
Endrin Aldehyde	2.22e-002	2.5e-002	203100000	0.01	-11.20	15.00	2RDR	
Endosulfan sulfate	1.47e-002	2.5e-002	138370000	0.01	-41.20	15.00	2RDR	<
Methoxychlor	2.88e-002	2.5e-002	140760000	0.01	15.20	15.00	2RDR	<
alpha-Chlordane	1.97e-002	2.5e-002	318170000	0.01	-21.20	15.00	2RDR	<
gamma-Chlordane	2.02e-002	2.5e-002	333870000	0.01	-19.20	15.00	2RDR	<
Endrin Ketone	2.52e-002	2.5e-002	319100000	0.01	0.80	15.00	2RDR	
Tetrachloro-m-Xylene	2.35e-002	2.5e-002	445700000	0.01	-6.00	15.00	2RDR	
Decachlorobiphenyl	2.72e-002	2.5e-002	201790000	0.01	8.80	15.00	2RDR	

FORM VII PEST

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm) Init. Calib. Date(s): 06/19/09 06/19/09

Client Sample ID (PEM): Date Analyzed :07/08/09
Lab Sample ID (PEM): EVAL Time Analyzed :1016

LAB SAMPLE ID	FILENAME	% DDT BREAKDOWN	% ENDRIN BREAKDOWN
EVAL	1CG00062.D	1.37	2.15

QC LIMITS:

4,4'-DDT breakdown must be less than or equal to 15.0%
Endrin breakdown must be less than or equal to 15.0%

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm) Init. Calib. Date(s): 06/19/09 06/19/09

Client Sample ID (PEM): Date Analyzed :07/08/09
Lab Sample ID (PEM): EVAL Time Analyzed :1016

LAB SAMPLE ID	FILENAME	% DDT BREAKDOWN	% ENDRIN BREAKDOWN
EVAL	1CG00062.D	1.29	3.82

QC LIMITS:

4,4'-DDT breakdown must be less than or equal to 15.0%
Endrin breakdown must be less than or equal to 15.0%

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GC01 Calibration Date: 07/08/09 Time: 1033

Lab File ID: 1CG00063 Init. Calib. Date(s): 06/19/09 06/19/09

Init. Calib. Times: 1623 1843

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm)

COMPOUND	RRF or AMOUNT	RRF5e-002 or AMOUNT	CCAL RRF5e-002	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
alpha-BHC	4.87e-002	5.e-002	660540000	0.01	-2.60	15.00	2RDR	
gamma BHC	4.77e-002	5.e-002	563740000	0.01	-4.60	15.00	2RDR	
Heptachlor	4.82e-002	5.e-002	512480000	0.01	-3.60	15.00	2RDR	
beta-BHC	4.85e-002	5.e-002	214170000	0.01	-3.00	15.00	2RDR	
Aldrin	4.45e-002	5.e-002	464300000	0.01	-11.00	15.00	2RDR	
delta-BHC	4.47e-002	5.e-002	460440000	0.01	-10.60	15.00	2RDR	
Heptachlor Epoxide	4.41e-002	5.e-002	396720000	0.01	-11.80	15.00	2RDR	
Endosulfan I	4.16e-002	5.e-002	327450000	0.01	-16.80	15.00	2RDR	<
4,4'-DDE	4.36e-002	5.e-002	314940000	0.01	-12.80	15.00	2RDR	
Dieldrin	4.22e-002	5.e-002	357810000	0.01	-15.60	15.00	2RDR	<
Endrin	4.38e-002	5.e-002	317620000	0.01	-12.40	15.00	2RDR	
4,4'-DDD	4.58e-002	5.e-002	195970000	0.01	-8.40	15.00	2RDR	
Endosulfan II	4.31e-002	5.e-002	273890000	0.01	-13.80	15.00	2RDR	
4,4'-DDT	4.35e-002	5.e-002	242070000	0.01	-13.00	15.00	2RDR	
Endrin Aldehyde	4.34e-002	5.e-002	175730000	0.01	-13.20	15.00	2RDR	
Endosulfan sulfate	4.2e-002	5.e-002	180960000	0.01	-16.00	15.00	2RDR	<
Methoxychlor	4.62e-002	5.e-002	97753000	0.01	-7.60	15.00	2RDR	
alpha-Chlordane	4.25e-002	5.e-002	360460000	0.01	-15.00	15.00	2RDR	
gamma-Chlordane	4.26e-002	5.e-002	370920000	0.01	-14.80	15.00	2RDR	
Endrin Ketone	4.46e-002	5.e-002	260570000	0.01	-10.80	15.00	2RDR	
Tetrachloro-m-Xylene	4.95e-002	5.e-002	415010000	0.01	-1.00	15.00	2RDR	
Decachlorobiphenyl	4.34e-002	5.e-002	167000000	0.01	-13.20	15.00	2RDR	

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GC01 Calibration Date: 07/08/09 Time: 1033

Lab File ID: 1CG00063 Init. Calib. Date(s): 06/19/09 06/19/09

Init. Calib. Times: 1623 1843

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm)

COMPOUND	RRF or AMOUNT	RRF5e-002 or AMOUNT	CCAL RRF5e-002	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
alpha-BHC	4.89e-002	5.e-002	720520000	0.01	-2.20	15.00	2RDR
gamma BHC	4.86e-002	5.e-002	623010000	0.01	-2.80	15.00	2RDR
Heptachlor	4.87e-002	5.e-002	525940000	0.01	-2.60	15.00	2RDR
beta-BHC	4.85e-002	5.e-002	242260000	0.01	-3.00	15.00	2RDR
Aldrin	4.73e-002	5.e-002	492310000	0.01	-5.40	15.00	2RDR
delta-BHC	4.6e-002	5.e-002	541370000	0.01	-8.00	15.00	2RDR
Heptachlor Epoxide	4.49e-002	5.e-002	398820000	0.01	-10.20	15.00	2RDR
Endosulfan I	4.5e-002	5.e-002	345160000	0.01	-10.00	15.00	2RDR
4,4'-DDE	4.45e-002	5.e-002	347220000	0.01	-11.00	15.00	2RDR
Dieldrin	4.44e-002	5.e-002	373100000	0.01	-11.20	15.00	2RDR
Endrin	4.48e-002	5.e-002	318420000	0.01	-10.40	15.00	2RDR
4,4'-DDD	4.65e-002	5.e-002	241560000	0.01	-7.00	15.00	2RDR
Endosulfan II	4.44e-002	5.e-002	287940000	0.01	-11.20	15.00	2RDR
4,4'-DDT	4.3e-002	5.e-002	267430000	0.01	-14.00	15.00	2RDR
Endrin Aldehyde	4.46e-002	5.e-002	209290000	0.01	-10.80	15.00	2RDR
Endosulfan sulfate	4.21e-002	5.e-002	213420000	0.01	-15.80	15.00	2RDR
Methoxychlor	4.71e-002	5.e-002	116090000	0.01	-5.80	15.00	2RDR
alpha-Chlordane	4.4e-002	5.e-002	367530000	0.01	-12.00	15.00	2RDR
gamma-Chlordane	4.43e-002	5.e-002	378000000	0.01	-11.40	15.00	2RDR
Endrin Ketone	4.34e-002	5.e-002	280490000	0.01	-13.20	15.00	2RDR
Tetrachloro-m-Xylene	5.04e-002	5.e-002	482860000	0.01	0.80	15.00	2RDR
Decachlorobiphenyl	4.5e-002	5.e-002	166650000	0.01	-10.00	15.00	2RDR

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GC01 Calibration Date: 07/08/09 Time: 1701

Lab File ID: 1CG00075 Init. Calib. Date(s): 06/19/09 06/19/09

Init. Calib. Times: 1623 1843

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm)

COMPOUND	RRF or AMOUNT	RRF3e-002 or AMOUNT	CCAL RRF3e-002	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
alpha-BHC	1.77e-002	2.5e-002	462010000	0.01	-29.20	15.00	2RDR	<
gamma BHC	1.72e-002	2.5e-002	393800000	0.01	-31.20	15.00	2RDR	<
Heptachlor	1.78e-002	2.5e-002	369640000	0.01	-28.80	15.00	2RDR	<
beta-BHC	1.68e-002	2.5e-002	147060000	0.01	-32.80	15.00	2RDR	<
Aldrin	1.71e-002	2.5e-002	343300000	0.01	-31.60	15.00	2RDR	<
delta-BHC	1.39e-002	2.5e-002	268100000	0.01	-44.40	15.00	2RDR	<
Heptachlor Epoxide	1.8e-002	2.5e-002	316380000	0.01	-28.00	15.00	2RDR	<
Endosulfan I	1.88e-002	2.5e-002	286300000	0.01	-24.80	15.00	2RDR	<
4,4'-DDE	2.19e-002	2.5e-002	305720000	0.01	-12.40	15.00	2RDR	
Dieldrin	1.98e-002	2.5e-002	325670000	0.01	-20.80	15.00	2RDR	<
Endrin	2.07e-002	2.5e-002	291140000	0.01	-17.20	15.00	2RDR	<
4,4'-DDD	2.88e-002	2.5e-002	238460000	0.01	15.20	15.00	2RDR	<
Endosulfan II	2.04e-002	2.5e-002	252390000	0.01	-18.40	15.00	2RDR	<
4,4'-DDT	2.41e-002	2.5e-002	259820000	0.01	-3.60	15.00	2RDR	
Endrin Aldehyde	2.34e-002	2.5e-002	186660000	0.01	-6.40	15.00	2RDR	
Endosulfan sulfate	1.46e-002	2.5e-002	114320000	0.01	-41.60	15.00	2RDR	<
Methoxychlor	3.26e-002	2.5e-002	137260000	0.01	30.40	15.00	2RDR	<
alpha-Chlordane	1.83e-002	2.5e-002	301480000	0.01	-26.80	15.00	2RDR	<
gamma-Chlordane	1.87e-002	2.5e-002	315250000	0.01	-25.20	15.00	2RDR	<
Endrin Ketone	2.61e-002	2.5e-002	299910000	0.01	4.40	15.00	2RDR	
Tetrachloro-m-Xylene	2.e-002	2.5e-002	333820000	0.01	-20.00	15.00	2RDR	<
Decachlorobiphenyl	2.35e-002	2.5e-002	182070000	0.01	-6.00	15.00	2RDR	

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GC01 Calibration Date: 07/08/09 Time: 1701

Lab File ID: 1CG00075 Init. Calib. Date(s): 06/19/09 06/19/09

Init. Calib. Times: 1623 1843

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm)

COMPOUND	RRF or AMOUNT	RRF3e-002 or AMOUNT	CCAL RRF3e-002	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
alpha-BHC	1.89e-002	2.5e-002	538640000	0.01	-24.40	15.00	2RDR	<
gamma BHC	1.84e-002	2.5e-002	456350000	0.01	-26.40	15.00	2RDR	<
Heptachlor	1.9e-002	2.5e-002	401860000	0.01	-24.00	15.00	2RDR	<
beta-BHC	1.79e-002	2.5e-002	176520000	0.01	-28.40	15.00	2RDR	<
Aldrin	1.85e-002	2.5e-002	368020000	0.01	-26.00	15.00	2RDR	<
delta-BHC	1.43e-002	2.5e-002	314730000	0.01	-42.80	15.00	2RDR	<
Heptachlor Epoxide	1.93e-002	2.5e-002	334530000	0.01	-22.80	15.00	2RDR	<
Endosulfan I	1.94e-002	2.5e-002	286920000	0.01	-22.40	15.00	2RDR	<
4,4'-DDE	2.16e-002	2.5e-002	324720000	0.01	-13.60	15.00	2RDR	
Dieldrin	1.99e-002	2.5e-002	321070000	0.01	-20.40	15.00	2RDR	<
Endrin	2.13e-002	2.5e-002	290570000	0.01	-14.80	15.00	2RDR	
4,4'-DDD	2.56e-002	2.5e-002	256360000	0.01	2.40	15.00	2RDR	
Endosulfan II	2.15e-002	2.5e-002	272030000	0.01	-14.00	15.00	2RDR	
4,4'-DDT	2.17e-002	2.5e-002	261470000	0.01	-13.20	15.00	2RDR	
Endrin Aldehyde	2.12e-002	2.5e-002	194180000	0.01	-15.20	15.00	2RDR	<
Endosulfan sulfate	1.36e-002	2.5e-002	126920000	0.01	-45.60	15.00	2RDR	<
Methoxychlor	2.74e-002	2.5e-002	134030000	0.01	9.60	15.00	2RDR	
alpha-Chlordane	1.87e-002	2.5e-002	301300000	0.01	-25.20	15.00	2RDR	<
gamma-Chlordane	1.9e-002	2.5e-002	313980000	0.01	-24.00	15.00	2RDR	<
Endrin Ketone	2.37e-002	2.5e-002	299700000	0.01	-5.20	15.00	2RDR	
Tetrachloro-m-Xylene	2.09e-002	2.5e-002	397020000	0.01	-16.40	15.00	2RDR	<
Decachlorobiphenyl	2.73e-002	2.5e-002	202460000	0.01	9.20	15.00	2RDR	

FORM VII PEST

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm) Init. Calib. Date(s): 06/19/09 06/19/09

Client Sample ID (PEM): Date Analyzed :07/09/09
Lab Sample ID (PEM): EVAL Time Analyzed :1040

LAB SAMPLE ID	FILENAME	% DDT BREAKDOWN	% ENDRIN BREAKDOWN
EVAL	1CG00077.D	1.47	2.16

QC LIMITS:

4,4'-DDT breakdown must be less than or equal to 15.0%
Endrin breakdown must be less than or equal to 15.0%

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm) Init. Calib. Date(s): 06/19/09 06/19/09

Client Sample ID (PEM): Date Analyzed :07/09/09
Lab Sample ID (PEM): EVAL Time Analyzed :1040

LAB SAMPLE ID	FILENAME	% DDT BREAKDOWN	% ENDRIN BREAKDOWN
EVAL	1CG00077.D	1.42	3.71

QC LIMITS:

4,4'-DDT breakdown must be less than or equal to 15.0%
Endrin breakdown must be less than or equal to 15.0%

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GC01 Calibration Date: 07/09/09 Time: 1137

Lab File ID: 1CG00079 Init. Calib. Date(s): 06/19/09 06/19/09

Init. Calib. Times: 1623 1843

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm)

COMPOUND	RRF or AMOUNT	RRF5e-002 or AMOUNT	CCAL RRF5e-002	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
alpha-BHC	4.94e-002	5.e-002	670300000	0.01	-1.20	15.00	2RDR	
gamma BHC	4.89e-002	5.e-002	578350000	0.01	-2.20	15.00	2RDR	
Heptachlor	4.53e-002	5.e-002	481160000	0.01	-9.40	15.00	2RDR	
beta-BHC	4.81e-002	5.e-002	212460000	0.01	-3.80	15.00	2RDR	
Aldrin	4.19e-002	5.e-002	435700000	0.01	-16.20	15.00	2RDR	<
delta-BHC	4.33e-002	5.e-002	445610000	0.01	-13.40	15.00	2RDR	
Heptachlor Epoxide	4.12e-002	5.e-002	370700000	0.01	-17.60	15.00	2RDR	<
Endosulfan I	4.02e-002	5.e-002	315600000	0.01	-19.60	15.00	2RDR	<
4,4'-DDE	4.52e-002	5.e-002	327350000	0.01	-9.60	15.00	2RDR	
Dieldrin	4.05e-002	5.e-002	343420000	0.01	-19.00	15.00	2RDR	<
Endrin	4.24e-002	5.e-002	307680000	0.01	-15.20	15.00	2RDR	<
4,4'-DDD	5.43e-002	5.e-002	234870000	0.01	8.60	15.00	2RDR	
Endosulfan II	4.48e-002	5.e-002	284930000	0.01	-10.40	15.00	2RDR	
4,4'-DDT	4.64e-002	5.e-002	258720000	0.01	-7.20	15.00	2RDR	
Endrin Aldehyde	4.45e-002	5.e-002	180360000	0.01	-11.00	15.00	2RDR	
Endosulfan sulfate	4.75e-002	5.e-002	206230000	0.01	-5.00	15.00	2RDR	
Methoxychlor	5.86e-002	5.e-002	124460000	0.01	17.20	15.00	2RDR	<
alpha-Chlordane	4.e-002	5.e-002	338980000	0.01	-20.00	15.00	2RDR	<
gamma-Chlordane	4.08e-002	5.e-002	355300000	0.01	-18.40	15.00	2RDR	<
Endrin Ketone	4.83e-002	5.e-002	283190000	0.01	-3.40	15.00	2RDR	
Tetrachloro-m-Xylene	5.19e-002	5.e-002	435720000	0.01	3.80	15.00	2RDR	
Decachlorobiphenyl	4.74e-002	5.e-002	182150000	0.01	-5.20	15.00	2RDR	

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GC01 Calibration Date: 07/09/09 Time: 1137

Lab File ID: 1CG00079 Init. Calib. Date(s): 06/19/09 06/19/09

Init. Calib. Times: 1623 1843

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm)

COMPOUND	RRF or AMOUNT	RRF5e-002 or AMOUNT	CCAL RRF5e-002	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
alpha-BHC	4.93e-002	5.e-002	727360000	0.01	-1.40	15.00	2RDR	
gamma BHC	4.76e-002	5.e-002	608760000	0.01	-4.80	15.00	2RDR	
Heptachlor	4.75e-002	5.e-002	512140000	0.01	-5.00	15.00	2RDR	
beta-BHC	4.49e-002	5.e-002	223920000	0.01	-10.20	15.00	2RDR	
Aldrin	4.36e-002	5.e-002	452500000	0.01	-12.80	15.00	2RDR	
delta-BHC	4.21e-002	5.e-002	493940000	0.01	-15.80	15.00	2RDR	<
Heptachlor Epoxide	4.27e-002	5.e-002	379090000	0.01	-14.60	15.00	2RDR	
Endosulfan I	4.18e-002	5.e-002	319910000	0.01	-16.40	15.00	2RDR	<
4,4'-DDE	4.37e-002	5.e-002	341220000	0.01	-12.60	15.00	2RDR	
Dieldrin	4.23e-002	5.e-002	354620000	0.01	-15.40	15.00	2RDR	<
Endrin	4.38e-002	5.e-002	310730000	0.01	-12.40	15.00	2RDR	
4,4'-DDD	4.76e-002	5.e-002	247640000	0.01	-4.80	15.00	2RDR	
Endosulfan II	4.4e-002	5.e-002	285580000	0.01	-12.00	15.00	2RDR	
4,4'-DDT	4.43e-002	5.e-002	275330000	0.01	-11.40	15.00	2RDR	
Endrin Aldehyde	4.41e-002	5.e-002	206560000	0.01	-11.80	15.00	2RDR	
Endosulfan sulfate	4.17e-002	5.e-002	211460000	0.01	-16.60	15.00	2RDR	<
Methoxychlor	5.09e-002	5.e-002	125520000	0.01	1.80	15.00	2RDR	
alpha-Chlordane	4.08e-002	5.e-002	339890000	0.01	-18.40	15.00	2RDR	<
gamma-Chlordane	4.29e-002	5.e-002	365200000	0.01	-14.20	15.00	2RDR	
Endrin Ketone	4.39e-002	5.e-002	283750000	0.01	-12.20	15.00	2RDR	
Tetrachloro-m-Xylene	5.04e-002	5.e-002	483660000	0.01	0.80	15.00	2RDR	
Decachlorobiphenyl	4.17e-002	5.e-002	154460000	0.01	-16.60	15.00	2RDR	<

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GC01 Calibration Date: 07/09/09 Time: 1328

Lab File ID: 1CG00085 Init. Calib. Date(s): 06/19/09 06/19/09

Init. Calib. Times: 1623 1843

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm)

COMPOUND	RRF or AMOUNT	RRF3e-002 or AMOUNT	CCAL RRF3e-002	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
alpha-BHC	2.2e-002	2.5e-002	582160000	0.01	-12.00	15.00	2RDR	
gamma BHC	2.22e-002	2.5e-002	511540000	0.01	-11.20	15.00	2RDR	
Heptachlor	2.33e-002	2.5e-002	488140000	0.01	-6.80	15.00	2RDR	
beta-BHC	2.25e-002	2.5e-002	196800000	0.01	-10.00	15.00	2RDR	
Aldrin	2.14e-002	2.5e-002	434820000	0.01	-14.40	15.00	2RDR	
delta-BHC	1.8e-002	2.5e-002	354920000	0.01	-28.00	15.00	2RDR	<
Heptachlor Epoxide	2.08e-002	2.5e-002	368690000	0.01	-16.80	15.00	2RDR	<
Endosulfan I	2.1e-002	2.5e-002	321760000	0.01	-16.00	15.00	2RDR	<
4,4'-DDE	2.09e-002	2.5e-002	290970000	0.01	-16.40	15.00	2RDR	<
Dieldrin	2.09e-002	2.5e-002	343970000	0.01	-16.40	15.00	2RDR	<
Endrin	2.09e-002	2.5e-002	295250000	0.01	-16.40	15.00	2RDR	<
4,4'-DDD	2.41e-002	2.5e-002	196520000	0.01	-3.60	15.00	2RDR	
Endosulfan II	2.17e-002	2.5e-002	268760000	0.01	-13.20	15.00	2RDR	
4,4'-DDT	2.29e-002	2.5e-002	246640000	0.01	-8.40	15.00	2RDR	
Endrin Aldehyde	2.22e-002	2.5e-002	176460000	0.01	-11.20	15.00	2RDR	
Endosulfan sulfate	1.82e-002	2.5e-002	146680000	0.01	-27.20	15.00	2RDR	<
Methoxychlor	2.66e-002	2.5e-002	111360000	0.01	6.40	15.00	2RDR	
alpha-Chlordane	2.03e-002	2.5e-002	336600000	0.01	-18.80	15.00	2RDR	<
gamma-Chlordane	2.08e-002	2.5e-002	353260000	0.01	-16.80	15.00	2RDR	<
Endrin Ketone	2.4e-002	2.5e-002	275410000	0.01	-4.00	15.00	2RDR	
Tetrachloro-m-Xylene	2.42e-002	2.5e-002	403900000	0.01	-3.20	15.00	2RDR	
Decachlorobiphenyl	2.29e-002	2.5e-002	178230000	0.01	-8.40	15.00	2RDR	

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GC01 Calibration Date: 07/09/09 Time: 1328

Lab File ID: 1CG00085 Init. Calib. Date(s): 06/19/09 06/19/09

Init. Calib. Times: 1623 1843

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm)

COMPOUND	RRF or AMOUNT	RRF3e-002 or AMOUNT	CCAL RRF3e-002	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
alpha-BHC	2.27e-002	2.5e-002	651400000	0.01	-9.20	15.00	2RDR	
gamma BHC	2.24e-002	2.5e-002	560170000	0.01	-10.40	15.00	2RDR	
Heptachlor	2.31e-002	2.5e-002	491590000	0.01	-7.60	15.00	2RDR	
beta-BHC	2.24e-002	2.5e-002	221480000	0.01	-10.40	15.00	2RDR	
Aldrin	2.19e-002	2.5e-002	441520000	0.01	-12.40	15.00	2RDR	
delta-BHC	1.84e-002	2.5e-002	413000000	0.01	-26.40	15.00	2RDR	<
Heptachlor Epoxide	2.17e-002	2.5e-002	377410000	0.01	-13.20	15.00	2RDR	
Endosulfan I	2.13e-002	2.5e-002	317710000	0.01	-14.80	15.00	2RDR	
4,4'-DDE	2.14e-002	2.5e-002	321610000	0.01	-14.40	15.00	2RDR	
Dieldrin	2.13e-002	2.5e-002	345670000	0.01	-14.80	15.00	2RDR	
Endrin	2.2e-002	2.5e-002	300640000	0.01	-12.00	15.00	2RDR	
4,4'-DDD	2.3e-002	2.5e-002	228810000	0.01	-8.00	15.00	2RDR	
Endosulfan II	2.22e-002	2.5e-002	281000000	0.01	-11.20	15.00	2RDR	
4,4'-DDT	2.16e-002	2.5e-002	260100000	0.01	-13.60	15.00	2RDR	
Endrin Aldehyde	2.18e-002	2.5e-002	199370000	0.01	-12.80	15.00	2RDR	
Endosulfan sulfate	1.73e-002	2.5e-002	165900000	0.01	-30.80	15.00	2RDR	<
Methoxychlor	2.48e-002	2.5e-002	120880000	0.01	-0.80	15.00	2RDR	
alpha-Chlordane	2.14e-002	2.5e-002	347470000	0.01	-14.40	15.00	2RDR	
gamma-Chlordane	2.15e-002	2.5e-002	356830000	0.01	-14.00	15.00	2RDR	
Endrin Ketone	2.32e-002	2.5e-002	293430000	0.01	-7.20	15.00	2RDR	
Tetrachloro-m-Xylene	2.43e-002	2.5e-002	460820000	0.01	-2.80	15.00	2RDR	
Decachlorobiphenyl	2.17e-002	2.5e-002	161220000	0.01	-13.20	15.00	2RDR	

FORM VII PEST

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm) Init. Calib. Date(s): 06/23/09 06/23/09

Client Sample ID (PEM): Date Analyzed :06/23/09
Lab Sample ID (PEM): EVAL Time Analyzed :1302

LAB SAMPLE ID	FILENAME	% DDT BREAKDOWN	% ENDRIN BREAKDOWN
EVAL	8CF00075.D	4.27	3.79

QC LIMITS:

4,4'-DDT breakdown must be less than or equal to 15.0%
Endrin breakdown must be less than or equal to 15.0%

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm) Init. Calib. Date(s): 06/23/09 06/23/09

Client Sample ID (PEM): Date Analyzed :06/23/09
Lab Sample ID (PEM): EVAL Time Analyzed :1302

LAB SAMPLE ID	FILENAME	% DDT BREAKDOWN	% ENDRIN BREAKDOWN
EVAL	8CF00075.D	2.69	2.84

QC LIMITS:

4,4'-DDT breakdown must be less than or equal to 15.0%
Endrin breakdown must be less than or equal to 15.0%

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GC08 Calibration Date: 06/23/09 Time: 1854

Lab File ID: 8CF00085 Init. Calib. Date(s): 06/23/09 06/23/09

Init. Calib. Times: 1702 1932

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm)

COMPOUND	RRF or AMOUNT	RRF5e-002 or AMOUNT	CCAL RRF5e-002	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
alpha-BHC	5.27e-002	5.e-002	157380.00	0.01	5.40	15.00	2RDR
gamma BHC	5.43e-002	5.e-002	140260.00	0.01	8.60	15.00	2RDR
beta-BHC	5.48e-002	5.e-002	61140.000	0.01	9.60	15.00	2RDR
delta-BHC	5.21e-002	5.e-002	117760.00	0.01	4.20	15.00	2RDR
Heptachlor	5.31e-002	5.e-002	116320.00	0.01	6.20	15.00	2RDR
Aldrin	5.17e-002	5.e-002	117340.00	0.01	3.40	15.00	2RDR
Heptachlor Epoxide	5.26e-002	5.e-002	101920.00	0.01	5.20	15.00	2RDR
gamma-Chlordane	5.4e-002	5.e-002	103580.00	0.01	8.00	15.00	2RDR
alpha-Chlordane	5.29e-002	5.e-002	99140.000	0.01	5.80	15.00	2RDR
4,4'-DDE	5.22e-002	5.e-002	92100.000	0.01	4.40	15.00	2RDR
Endosulfan I	5.31e-002	5.e-002	89460.000	0.01	6.20	15.00	2RDR
Dieldrin	5.16e-002	5.e-002	95320.000	0.01	3.20	15.00	2RDR
Endrin	5.3e-002	5.e-002	81280.000	0.01	6.00	15.00	2RDR
4,4'-DDD	5.01e-002	5.e-002	58540.000	0.01	0.20	15.00	2RDR
Endosulfan II	5.15e-002	5.e-002	73740.000	0.01	3.00	15.00	2RDR
4,4'-DDT	5.06e-002	5.e-002	61880.000	0.01	1.20	15.00	2RDR
Endrin Aldehyde	4.93e-002	5.e-002	49820.000	0.01	-1.40	15.00	2RDR
Methoxychlor	5.13e-002	5.e-002	22960.000	0.01	2.60	15.00	2RDR
Endosulfan sulfate	5.22e-002	5.e-002	54100.000	0.01	4.40	15.00	2RDR
Endrin Ketone	5.14e-002	5.e-002	64180.000	0.01	2.80	15.00	2RDR

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GC08 Calibration Date: 06/23/09 Time: 1854

Lab File ID: 8CF00085 Init. Calib. Date(s): 06/23/09 06/23/09

Init. Calib. Times: 1702 1932

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm)

COMPOUND	RRF or AMOUNT	RRF5e-002 or AMOUNT	CCAL RRF5e-002	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
alpha-BHC	5.46e-002	5.e-002	105020.00	0.01	9.20	15.00	2RDR
gamma BHC	5.65e-002	5.e-002	94160.000	0.01	13.00	15.00	2RDR
beta-BHC	5.74e-002	5.e-002	41520.000	0.01	14.80	15.00	2RDR
delta-BHC	5.54e-002	5.e-002	85560.000	0.01	10.80	15.00	2RDR
Heptachlor	5.6e-002	5.e-002	74580.000	0.01	12.00	15.00	2RDR
Aldrin	5.63e-002	5.e-002	77280.000	0.01	12.60	15.00	2RDR
Heptachlor Epoxide	5.52e-002	5.e-002	67080.000	0.01	10.40	15.00	2RDR
gamma-Chlordane	5.57e-002	5.e-002	68580.000	0.01	11.40	15.00	2RDR
alpha-Chlordane	5.48e-002	5.e-002	65260.000	0.01	9.60	15.00	2RDR
4,4'-DDE	5.55e-002	5.e-002	70220.000	0.01	11.00	15.00	2RDR
Endosulfan I	5.44e-002	5.e-002	61200.000	0.01	8.80	15.00	2RDR
Dieldrin	5.39e-002	5.e-002	66280.000	0.01	7.80	15.00	2RDR
Endrin	5.52e-002	5.e-002	53280.000	0.01	10.40	15.00	2RDR
4,4'-DDD	5.25e-002	5.e-002	50300.000	0.01	5.00	15.00	2RDR
Endosulfan II	5.4e-002	5.e-002	53760.000	0.01	8.00	15.00	2RDR
4,4'-DDT	5.36e-002	5.e-002	51660.000	0.01	7.20	15.00	2RDR
Endrin Aldehyde	5.16e-002	5.e-002	39300.000	0.01	3.20	15.00	2RDR
Methoxychlor	5.7e-002	5.e-002	23640.000	0.01	14.00	15.00	2RDR
Endosulfan sulfate	5.58e-002	5.e-002	44860.000	0.01	11.60	15.00	2RDR
Endrin Ketone	5.45e-002	5.e-002	49400.000	0.01	9.00	15.00	2RDR

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm) Init. Calib. Date(s): 06/23/09 06/23/09

Client Sample ID (PEM): Date Analyzed :06/24/09
Lab Sample ID (PEM): EVAL Time Analyzed :1206

LAB SAMPLE ID	FILENAME	% DDT BREAKDOWN	% ENDRIN BREAKDOWN
EVAL	8CF00102.D	3.46	3.68

QC LIMITS:

4,4'-DDT breakdown must be less than or equal to 15.0%
Endrin breakdown must be less than or equal to 15.0%

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm) Init. Calib. Date(s): 06/23/09 06/23/09

Client Sample ID (PEM): Date Analyzed :06/24/09
Lab Sample ID (PEM): EVAL Time Analyzed :1206

LAB SAMPLE ID	FILENAME	% DDT BREAKDOWN	% ENDRIN BREAKDOWN
EVAL	8CF00102.D	2.52	2.98

QC LIMITS:

4,4'-DDT breakdown must be less than or equal to 15.0%
Endrin breakdown must be less than or equal to 15.0%

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GC08 Calibration Date: 06/24/09 Time: 1225

Lab File ID: 8CF00103 Init. Calib. Date(s): 06/23/09 06/23/09

Init. Calib. Times: 1702 1932

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm)

COMPOUND	RRF or AMOUNT	RRF5e-002 or AMOUNT	CCAL RRF5e-002	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
alpha-BHC	4.55e-002	5.e-002	138520.00	0.01	-9.00	15.00	2RDR
gamma BHC	4.63e-002	5.e-002	121800.00	0.01	-7.40	15.00	2RDR
Heptachlor	4.7e-002	5.e-002	104660.00	0.01	-6.00	15.00	2RDR
beta-BHC	4.67e-002	5.e-002	52580.000	0.01	-6.60	15.00	2RDR
Aldrin	4.57e-002	5.e-002	105300.00	0.01	-8.60	15.00	2RDR
delta-BHC	4.62e-002	5.e-002	105820.00	0.01	-7.60	15.00	2RDR
Heptachlor Epoxide	4.44e-002	5.e-002	88000.000	0.01	-11.20	15.00	2RDR
Endosulfan I	4.65e-002	5.e-002	79320.000	0.01	-7.00	15.00	2RDR
4,4'-DDE	4.63e-002	5.e-002	82440.000	0.01	-7.40	15.00	2RDR
Dieldrin	4.58e-002	5.e-002	85700.000	0.01	-8.40	15.00	2RDR
Endrin	4.69e-002	5.e-002	72780.000	0.01	-6.20	15.00	2RDR
4,4'-DDD	4.83e-002	5.e-002	56520.000	0.01	-3.40	15.00	2RDR
Endosulfan II	4.65e-002	5.e-002	67000.000	0.01	-7.00	15.00	2RDR
4,4'-DDT	4.79e-002	5.e-002	58640.000	0.01	-4.20	15.00	2RDR
Endrin Aldehyde	4.58e-002	5.e-002	46380.000	0.01	-8.40	15.00	2RDR
Endosulfan sulfate	4.75e-002	5.e-002	49280.000	0.01	-5.00	15.00	2RDR
Methoxychlor	5.21e-002	5.e-002	23300.000	0.01	4.20	15.00	2RDR
alpha-Chlordane	4.46e-002	5.e-002	84980.000	0.01	-10.80	15.00	2RDR
gamma-Chlordane	4.61e-002	5.e-002	89820.000	0.01	-7.80	15.00	2RDR
Endrin Ketone	4.71e-002	5.e-002	59060.000	0.01	-5.80	15.00	2RDR
Tetrachloro-m-Xylene	4.43e-002	5.e-002	94860.000	0.01	-11.40	15.00	2RDR
Decachlorobiphenyl	4.8e-002	5.e-002	33520.000	0.01	-4.00	15.00	2RDR

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GC08 Calibration Date: 06/24/09 Time: 1225

Lab File ID: 8CF00103 Init. Calib. Date(s): 06/23/09 06/23/09

Init. Calib. Times: 1702 1932

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm)

COMPOUND	RRF or AMOUNT	RRF5e-002 or AMOUNT	CCAL RRF5e-002	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
alpha-BHC	4.78e-002	5.e-002	92500.000	0.01	-4.40	15.00	2RDR
gamma BHC	4.9e-002	5.e-002	82140.000	0.01	-2.00	15.00	2RDR
Heptachlor	4.97e-002	5.e-002	66440.000	0.01	-0.60	15.00	2RDR
beta-BHC	4.8e-002	5.e-002	34760.000	0.01	-4.00	15.00	2RDR
Aldrin	4.82e-002	5.e-002	66500.000	0.01	-3.60	15.00	2RDR
delta-BHC	4.82e-002	5.e-002	74660.000	0.01	-3.60	15.00	2RDR
Heptachlor Epoxide	4.86e-002	5.e-002	59300.000	0.01	-2.80	15.00	2RDR
Endosulfan I	4.72e-002	5.e-002	53320.000	0.01	-5.60	15.00	2RDR
4,4'-DDE	4.88e-002	5.e-002	61900.000	0.01	-2.40	15.00	2RDR
Dieldrin	4.84e-002	5.e-002	59720.000	0.01	-3.20	15.00	2RDR
Endrin	4.84e-002	5.e-002	46880.000	0.01	-3.20	15.00	2RDR
4,4'-DDD	4.97e-002	5.e-002	47660.000	0.01	-0.60	15.00	2RDR
Endosulfan II	4.91e-002	5.e-002	48960.000	0.01	-1.80	15.00	2RDR
4,4'-DDT	4.97e-002	5.e-002	47900.000	0.01	-0.60	15.00	2RDR
Endrin Aldehyde	4.78e-002	5.e-002	36380.000	0.01	-4.40	15.00	2RDR
Endosulfan sulfate	5.e-002	5.e-002	40180.000	0.01	0.00	15.00	2RDR
Methoxychlor	5.2e-002	5.e-002	21540.000	0.01	4.00	15.00	2RDR
alpha-Chlordane	4.83e-002	5.e-002	57740.000	0.01	-3.40	15.00	2RDR
gamma-Chlordane	4.87e-002	5.e-002	60080.000	0.01	-2.60	15.00	2RDR
Endrin Ketone	4.65e-002	5.e-002	42220.000	0.01	-7.00	15.00	2RDR
Tetrachloro-m-Xylene	4.76e-002	5.e-002	65240.000	0.01	-4.80	15.00	2RDR
Decachlorobiphenyl	4.89e-002	5.e-002	24620.000	0.01	-2.20	15.00	2RDR

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GC08 Calibration Date: 06/24/09 Time: 1750

Lab File ID: 8CF00115 Init. Calib. Date(s): 06/23/09 06/23/09

Init. Calib. Times: 1702 1932

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm)

COMPOUND	RRF or AMOUNT	RRF3e-002 or AMOUNT	CCAL RRF3e-002	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
alpha-BHC	2.24e-002	2.5e-002	145600.00	0.01	-10.40	15.00	2RDR	
gamma BHC	2.31e-002	2.5e-002	128600.00	0.01	-7.60	15.00	2RDR	
Heptachlor	2.26e-002	2.5e-002	108040.00	0.01	-9.60	15.00	2RDR	
beta-BHC	2.31e-002	2.5e-002	53600.000	0.01	-7.60	15.00	2RDR	
Aldrin	2.19e-002	2.5e-002	107080.00	0.01	-12.40	15.00	2RDR	
delta-BHC	2.16e-002	2.5e-002	103120.00	0.01	-13.60	15.00	2RDR	
Heptachlor Epoxide	2.2e-002	2.5e-002	92720.000	0.01	-12.00	15.00	2RDR	
Endosulfan I	2.25e-002	2.5e-002	80600.000	0.01	-10.00	15.00	2RDR	
4,4'-DDE	2.21e-002	2.5e-002	81440.000	0.01	-11.60	15.00	2RDR	
Dieldrin	2.18e-002	2.5e-002	85520.000	0.01	-12.80	15.00	2RDR	
Endrin	2.28e-002	2.5e-002	73440.000	0.01	-8.80	15.00	2RDR	
4,4'-DDD	2.09e-002	2.5e-002	49160.000	0.01	-16.40	15.00	2RDR	<
Endosulfan II	2.23e-002	2.5e-002	66480.000	0.01	-10.80	15.00	2RDR	
4,4'-DDT	2.23e-002	2.5e-002	54440.000	0.01	-10.80	15.00	2RDR	
Endrin Aldehyde	2.1e-002	2.5e-002	43080.000	0.01	-16.00	15.00	2RDR	<
Endosulfan sulfate	2.24e-002	2.5e-002	46320.000	0.01	-10.40	15.00	2RDR	
Methoxychlor	2.3e-002	2.5e-002	20560.000	0.01	-8.00	15.00	2RDR	
alpha-Chlordane	2.2e-002	2.5e-002	87240.000	0.01	-12.00	15.00	2RDR	
gamma-Chlordane	2.22e-002	2.5e-002	90520.000	0.01	-11.20	15.00	2RDR	
Endrin Ketone	2.23e-002	2.5e-002	57040.000	0.01	-10.80	15.00	2RDR	
Tetrachloro-m-Xylene	2.21e-002	2.5e-002	99960.000	0.01	-11.60	15.00	2RDR	
Decachlorobiphenyl	2.27e-002	2.5e-002	32720.000	0.01	-9.20	15.00	2RDR	

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GC08 Calibration Date: 06/24/09 Time: 1750

Lab File ID: 8CF00115 Init. Calib. Date(s): 06/23/09 06/23/09

Init. Calib. Times: 1702 1932

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm)

COMPOUND	RRF or AMOUNT	RRF3e-002 or AMOUNT	CCAL RRF3e-002	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
alpha-BHC	2.36e-002	2.5e-002	92120.000	0.01	-5.60	15.00	2RDR
gamma BHC	2.44e-002	2.5e-002	82440.000	0.01	-2.40	15.00	2RDR
Heptachlor	2.38e-002	2.5e-002	64120.000	0.01	-4.80	15.00	2RDR
beta-BHC	2.41e-002	2.5e-002	35040.000	0.01	-3.60	15.00	2RDR
Aldrin	2.43e-002	2.5e-002	67720.000	0.01	-2.80	15.00	2RDR
delta-BHC	2.35e-002	2.5e-002	72520.000	0.01	-6.00	15.00	2RDR
Heptachlor Epoxide	2.41e-002	2.5e-002	59680.000	0.01	-3.60	15.00	2RDR
Endosulfan I	2.44e-002	2.5e-002	55320.000	0.01	-2.40	15.00	2RDR
4,4'-DDE	2.44e-002	2.5e-002	61920.000	0.01	-2.40	15.00	2RDR
Dieldrin	2.41e-002	2.5e-002	59720.000	0.01	-3.60	15.00	2RDR
Endrin	2.45e-002	2.5e-002	47440.000	0.01	-2.00	15.00	2RDR
4,4'-DDD	2.39e-002	2.5e-002	45560.000	0.01	-4.40	15.00	2RDR
Endosulfan II	2.47e-002	2.5e-002	49400.000	0.01	-1.20	15.00	2RDR
4,4'-DDT	2.47e-002	2.5e-002	47000.000	0.01	-1.20	15.00	2RDR
Endrin Aldehyde	2.28e-002	2.5e-002	34520.000	0.01	-8.80	15.00	2RDR
Endosulfan sulfate	2.39e-002	2.5e-002	38000.000	0.01	-4.40	15.00	2RDR
Methoxychlor	2.56e-002	2.5e-002	21000.000	0.01	2.40	15.00	2RDR
alpha-Chlordane	2.42e-002	2.5e-002	57760.000	0.01	-3.20	15.00	2RDR
gamma-Chlordane	2.49e-002	2.5e-002	61320.000	0.01	-0.40	15.00	2RDR
Endrin Ketone	2.44e-002	2.5e-002	43880.000	0.01	-2.40	15.00	2RDR
Tetrachloro-m-Xylene	2.42e-002	2.5e-002	66960.000	0.01	-3.20	15.00	2RDR
Decachlorobiphenyl	2.41e-002	2.5e-002	24480.000	0.01	-3.60	15.00	2RDR

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GC08 Calibration Date: 06/24/09 Time: 2136

Lab File ID: 8CF00127 Init. Calib. Date(s): 06/23/09 06/23/09

Init. Calib. Times: 1702 1932

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm)

COMPOUND	RRF or AMOUNT	RRF5e-002 or AMOUNT	CCAL RRF5e-002	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
alpha-BHC	4.59e-002	5.e-002	139560.00	0.01	-8.20	15.00	2RDR
gamma BHC	4.61e-002	5.e-002	121440.00	0.01	-7.80	15.00	2RDR
Heptachlor	4.44e-002	5.e-002	99580.000	0.01	-11.20	15.00	2RDR
beta-BHC	4.67e-002	5.e-002	52520.000	0.01	-6.60	15.00	2RDR
Aldrin	4.51e-002	5.e-002	104080.00	0.01	-9.80	15.00	2RDR
delta-BHC	4.58e-002	5.e-002	104980.00	0.01	-8.40	15.00	2RDR
Heptachlor Epoxide	4.48e-002	5.e-002	88720.000	0.01	-10.40	15.00	2RDR
Endosulfan I	4.67e-002	5.e-002	79640.000	0.01	-6.60	15.00	2RDR
4,4'-DDE	4.46e-002	5.e-002	79620.000	0.01	-10.80	15.00	2RDR
Dieldrin	4.53e-002	5.e-002	84860.000	0.01	-9.40	15.00	2RDR
Endrin	4.55e-002	5.e-002	70740.000	0.01	-9.00	15.00	2RDR
4,4'-DDD	4.26e-002	5.e-002	50080.000	0.01	-14.80	15.00	2RDR
Endosulfan II	4.59e-002	5.e-002	66300.000	0.01	-8.20	15.00	2RDR
4,4'-DDT	4.47e-002	5.e-002	54820.000	0.01	-10.60	15.00	2RDR
Endrin Aldehyde	4.62e-002	5.e-002	46800.000	0.01	-7.60	15.00	2RDR
Endosulfan sulfate	4.54e-002	5.e-002	47180.000	0.01	-9.20	15.00	2RDR
Methoxychlor	4.2e-002	5.e-002	18800.000	0.01	-16.00	15.00	2RDR
alpha-Chlordane	4.6e-002	5.e-002	87300.000	0.01	-8.00	15.00	2RDR
gamma-Chlordane	4.62e-002	5.e-002	90040.000	0.01	-7.60	15.00	2RDR
Endrin Ketone	4.6e-002	5.e-002	57700.000	0.01	-8.00	15.00	2RDR
Tetrachloro-m-Xylene	4.46e-002	5.e-002	95460.000	0.01	-10.80	15.00	2RDR
Decachlorobiphenyl	4.33e-002	5.e-002	30420.000	0.01	-13.40	15.00	2RDR

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GC08 Calibration Date: 06/24/09 Time: 2136

Lab File ID: 8CF00127 Init. Calib. Date(s): 06/23/09 06/23/09

Init. Calib. Times: 1702 1932

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm)

COMPOUND	RRF or AMOUNT	RRF5e-002 or AMOUNT	CCAL RRF5e-002	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
alpha-BHC	5.6e-002	5.e-002	107460.00	0.01	12.00	15.00	2RDR	
gamma BHC	5.64e-002	5.e-002	93900.000	0.01	12.80	15.00	2RDR	
Heptachlor	5.7e-002	5.e-002	75880.000	0.01	14.00	15.00	2RDR	
beta-BHC	5.62e-002	5.e-002	40640.000	0.01	12.40	15.00	2RDR	
Aldrin	5.8e-002	5.e-002	79520.000	0.01	16.00	15.00	2RDR	<
delta-BHC	5.66e-002	5.e-002	87360.000	0.01	13.20	15.00	2RDR	
Heptachlor Epoxide	5.66e-002	5.e-002	68600.000	0.01	13.20	15.00	2RDR	
Endosulfan I	5.61e-002	5.e-002	63020.000	0.01	12.20	15.00	2RDR	
4,4'-DDE	5.73e-002	5.e-002	72460.000	0.01	14.60	15.00	2RDR	
Dieldrin	5.68e-002	5.e-002	69800.000	0.01	13.60	15.00	2RDR	
Endrin	5.78e-002	5.e-002	55720.000	0.01	15.60	15.00	2RDR	<
4,4'-DDD	5.56e-002	5.e-002	53340.000	0.01	11.20	15.00	2RDR	
Endosulfan II	5.74e-002	5.e-002	57120.000	0.01	14.80	15.00	2RDR	
4,4'-DDT	5.62e-002	5.e-002	54240.000	0.01	12.40	15.00	2RDR	
Endrin Aldehyde	5.59e-002	5.e-002	42500.000	0.01	11.80	15.00	2RDR	
Endosulfan sulfate	5.59e-002	5.e-002	44900.000	0.01	11.80	15.00	2RDR	
Methoxychlor	5.84e-002	5.e-002	24240.000	0.01	16.80	15.00	2RDR	<
alpha-Chlordane	5.71e-002	5.e-002	67960.000	0.01	14.20	15.00	2RDR	
gamma-Chlordane	5.67e-002	5.e-002	69800.000	0.01	13.40	15.00	2RDR	
Endrin Ketone	5.63e-002	5.e-002	51000.000	0.01	12.60	15.00	2RDR	
Tetrachloro-m-Xylene	5.63e-002	5.e-002	76800.000	0.01	12.60	15.00	2RDR	
Decachlorobiphenyl	5.54e-002	5.e-002	27880.000	0.01	10.80	15.00	2RDR	

FORM 8
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm) Init. Calib. Date(s): 06/19/09 06/19/09

Instrument ID: GC01

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 3.73 DCB: 11.70

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01		EVAL	06/19/09	1541		
02		INDAB 0.05	06/19/09	1623	3.73	11.71
03		INDAB 0.005	06/19/09	1641	3.73	11.71
04		INDAB 0.01	06/19/09	1658	3.73	11.70
05		INDAB 0.025	06/19/09	1716	3.73	11.70
06		INDAB 0.1	06/19/09	1733	3.73	11.70
07		INDAB 0.25	06/19/09	1751	3.73	11.70
08		IND 0.05	06/19/09	1808		
09		TOX 1.0	06/19/09	1826		
10		EVAL	07/07/09	1225		
11		INDAB 0.05	07/07/09	1242	3.72	11.68
12	WG65399-BLAN	WG65399-1	07/07/09	1422	3.72	11.68
13	WG65399-LCS	WG65399-2	07/07/09	1440	3.72	11.68
14	L-SD-SD111-0	WG65399-3DL	07/07/09	1457		
15	L-SD-SD111-0	WG65399-4DL	07/07/09	1514		
16	WGL-SD-SD103	SC3122-2DL	07/07/09	1532		
17	WGL-SD-SD102	SC3122-5DL	07/07/09	1549		
18	WGL-SD-SD101	SC3122-8DL	07/07/09	1607		
19	WGL-SD-DUP01	SC3122-11DL	07/07/09	1624		
20	WGL-SD-SD104	SC3122-14DL	07/07/09	1641		

QC LIMITS
TCX = Tetrachloro-m-Xylene (+/- 0.07 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PESTICIDE

FORM 8
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm) Init. Calib. Date(s): 06/19/09 06/19/09

Instrument ID: GC01

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 3.73 DCB: 11.70

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01	WGL-SD-SD106	SC3122-17DL	07/07/09	1659		
02		INDAB 0.025	07/07/09	1751	3.72	11.68
03		EVAL	07/08/09	1016		
04		INDAB 0.05	07/08/09	1033	3.71	11.67
05	WGL-SD-SD103	SC3122-2DL2	07/08/09	1350		
06	WGL-SD-DUP02	SC3122-20DL	07/08/09	1407		
07	WGL-SD-SD107	SC3122-23DL	07/08/09	1425		
08	WGL-SD-SD108	SC3122-26DL	07/08/09	1442		
09	WGL-SD-SD105	SC3122-29DL	07/08/09	1459		
10	WGL-SD-SD112	SC3122-32DL	07/08/09	1517		
11	WGL-SD-SD110	SC3122-35DL	07/08/09	1534		
12	WGL-SD-SD109	SC3122-38DL	07/08/09	1552		
13	L-SD-SD111-0	SC3122-41DL	07/08/09	1609		
14		INDAB 0.025	07/08/09	1701	3.72	11.67
15		EVAL	07/09/09	1040		
16						
17						
18						
19						
20						

QC LIMITS
TCX = Tetrachloro-m-Xylene (+/- 0.07 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PESTICIDE

FORM 8
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm) Init. Calib. Date(s): 06/19/09 06/19/09

Instrument ID: GC01

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 3.67 DCB: 11.60

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01		INDAB 0.05	07/09/09	1137	3.69	11.62
02	WGL-SD-SD105	SC3122-29DL2	07/09/09	1218		
03	WGL-SD-SD112	SC3122-32DL2	07/09/09	1235		
04	L-SD-SD111-0	SC3122-41DL2	07/09/09	1253		
05		INDAB 0.025	07/09/09	1328	3.67	11.60
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

QC LIMITS
TCX = Tetrachloro-m-Xylene (+/- 0.07 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PESTICIDE

FORM 8
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm) Init. Calib. Date(s): 06/19/09 06/19/09

Instrument ID: GC01

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 3.74 DCB: 11.85

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01		EVAL	06/19/09	1541		
02		INDAB 0.05	06/19/09	1623	3.73	11.85
03		INDAB 0.005	06/19/09	1641	3.74	11.85
04		INDAB 0.01	06/19/09	1658	3.75	11.85
05		INDAB 0.025	06/19/09	1716	3.75	11.85
06		INDAB 0.1	06/19/09	1733	3.75	11.85
07		INDAB 0.25	06/19/09	1751	3.75	11.85
08		IND 0.05	06/19/09	1808		
09		TOX 1.0	06/19/09	1826		
10		EVAL	07/07/09	1225		
11		INDAB 0.05	07/07/09	1242	3.73	11.81
12	WG65399-BLAN	WG65399-1	07/07/09	1422	3.71	11.80
13	WG65399-LCS	WG65399-2	07/07/09	1440	3.73	11.81
14	L-SD-SD111-0	WG65399-3DL	07/07/09	1457		
15	L-SD-SD111-0	WG65399-4DL	07/07/09	1514		
16	WGL-SD-SD103	SC3122-2DL	07/07/09	1532		
17	WGL-SD-SD102	SC3122-5DL	07/07/09	1549		
18	WGL-SD-SD101	SC3122-8DL	07/07/09	1607		
19	WGL-SD-DUP01	SC3122-11DL	07/07/09	1624		
20	WGL-SD-SD104	SC3122-14DL	07/07/09	1641		

QC LIMITS
TCX = Tetrachloro-m-Xylene (+/- 0.07 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PESTICIDE

FORM 8
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm) Init. Calib. Date(s): 06/19/09 06/19/09

Instrument ID: GC01

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 3.74 DCB: 11.85

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01	WGL-SD-SD106	SC3122-17DL	07/07/09	1659		
02		INDAB 0.025	07/07/09	1751	3.73	11.81
03		EVAL	07/08/09	1016		
04		INDAB 0.05	07/08/09	1033	3.72	11.80
05	WGL-SD-SD103	SC3122-2DL2	07/08/09	1350		
06	WGL-SD-DUP02	SC3122-20DL	07/08/09	1407		
07	WGL-SD-SD107	SC3122-23DL	07/08/09	1425		
08	WGL-SD-SD108	SC3122-26DL	07/08/09	1442		
09	WGL-SD-SD105	SC3122-29DL	07/08/09	1459		
10	WGL-SD-SD112	SC3122-32DL	07/08/09	1517		
11	WGL-SD-SD110	SC3122-35DL	07/08/09	1534		
12	WGL-SD-SD109	SC3122-38DL	07/08/09	1552		
13	L-SD-SD111-0	SC3122-41DL	07/08/09	1609		
14		INDAB 0.025	07/08/09	1701	3.73	11.80
15		EVAL	07/09/09	1040		
16						
17						
18						
19						
20						

QC LIMITS
TCX = Tetrachloro-m-Xylene (+/- 0.07 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PESTICIDE

FORM 8
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm) Init. Calib. Date(s): 06/19/09 06/19/09

Instrument ID: GC01

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 3.69 DCB: 11.74

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01		INDAB 0.05	07/09/09	1137	3.67	11.74
02	WGL-SD-SD105	SC3122-29DL2	07/09/09	1218		
03	WGL-SD-SD112	SC3122-32DL2	07/09/09	1235		
04	L-SD-SD111-0	SC3122-41DL2	07/09/09	1253		
05		INDAB 0.025	07/09/09	1328	3.69	11.74
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

QC LIMITS
TCX = Tetrachloro-m-Xylene (+/- 0.07 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PESTICIDE

FORM 8
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm) Init. Calib. Date(s): 06/23/09 06/23/09

Instrument ID: GC08

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 4.03 DCB: 12.07

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01		EVAL	06/23/09	1302		
02		INDAB 0.05	06/23/09	1702	4.02	12.07
03		INDAB 0.005	06/23/09	1720	4.02	12.07
04		INDAB 0.01	06/23/09	1739	4.02	12.07
05		INDAB 0.025	06/23/09	1758	4.02	12.07
06		INDAB 0.1	06/23/09	1817	4.02	12.07
07		INDAB 0.25	06/23/09	1835	4.02	12.07
08		IND 0.05	06/23/09	1854		
09		TOX 1.0	06/23/09	1913		
10		EVAL	06/24/09	1206		
11		INDAB 0.05	06/24/09	1225	4.02	12.07
12	WG65039-BLAN	WG65039-1	06/24/09	1424	4.03	12.07
13	WG65039-LCS	WG65039-2	06/24/09	1443	4.03	12.07
14	WG65039-LCSD	WG65039-3	06/24/09	1501	4.02	12.06
15	WGL-SD-FB01-	SC3122-43	06/24/09	1713	4.03	12.07
16		INDAB 0.025	06/24/09	1750	4.02	12.07
17	WGL-SD-RB01-	SC3122-45	06/24/09	1809	4.03	12.06
18		INDAB 0.05	06/24/09	2136	4.02	12.07
19						
20						

QC LIMITS
TCX = Tetrachloro-m-Xylene (+/- 0.07 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PESTICIDE

FORM 8
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm) Init. Calib. Date(s): 06/23/09 06/23/09

Instrument ID: GC08

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 4.16 DCB: 12.62

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01		EVAL	06/23/09	1302		
02		INDAB 0.05	06/23/09	1702	4.16	12.62
03		INDAB 0.005	06/23/09	1720	4.16	12.62
04		INDAB 0.01	06/23/09	1739	4.16	12.62
05		INDAB 0.025	06/23/09	1758	4.16	12.62
06		INDAB 0.1	06/23/09	1817	4.16	12.62
07		INDAB 0.25	06/23/09	1835	4.16	12.62
08		IND 0.05	06/23/09	1854		
09		TOX 1.0	06/23/09	1913		
10		EVAL	06/24/09	1206		
11		INDAB 0.05	06/24/09	1225	4.16	12.61
12	WG65039-BLAN	WG65039-1	06/24/09	1424	4.16	12.61
13	WG65039-LCS	WG65039-2	06/24/09	1443	4.16	12.61
14	WG65039-LCSD	WG65039-3	06/24/09	1501	4.16	12.61
15	WGL-SD-FB01-	SC3122-43	06/24/09	1713	4.16	12.61
16		INDAB 0.025	06/24/09	1750	4.16	12.62
17	WGL-SD-RB01-	SC3122-45	06/24/09	1809	4.17	12.61
18		INDAB 0.05	06/24/09	2136	4.16	12.62
19						
20						

QC LIMITS
TCX = Tetrachloro-m-Xylene (+/- 0.07 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PESTICIDE

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** WGL-SD-SD103-000.6

Matrix: SOIL **SDG Name:** SC3122

Percent Solids: 95.6 **Lab Sample ID:** SC3122-002

Concentration Units : mg/Kgdrywt

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7429-90-5	ALUMINUM, TOTAL	3210			P	1	29	2.81
7440-36-0	ANTIMONY, TOTAL	0.72	J	N	P	1	0.78	0.10
7440-38-2	ARSENIC, TOTAL	3.3		N	P	1	0.78	0.09
7440-39-3	BARIUM, TOTAL	126		N	P	1	0.49	0.06
7440-41-7	BERYLLIUM, TOTAL	2.1		N	P	1	0.49	0.01
7440-43-9	CADMIUM, TOTAL	0.71	J		P	1	0.98	0.01
7440-70-2	CALCIUM, TOTAL	13300			P	1	4.9	2.04
7440-47-3	CHROMIUM, TOTAL	6.3		N	P	1	1.5	0.10
7440-48-4	COBALT, TOTAL	1.7	J	N	P	1	2.9	0.03
7440-50-8	COPPER, TOTAL	24.5		N	P	1	2.4	0.09
7439-89-6	IRON, TOTAL	3920			P	1	9.8	1.27
7439-92-1	LEAD, TOTAL	76.1		N	P	1	0.49	0.13
7439-95-4	MAGNESIUM, TOTAL	1070		N	P	1	4.9	0.90
7439-96-5	MANGANESE, TOTAL	44.1			P	1	0.49	0.08
7439-97-6	MERCURY, TOTAL	0.40		NE	CV	1	0.037	0.01
7440-02-0	NICKEL, TOTAL	4.7		N	P	1	3.9	0.03
7440-09-7	POTASSIUM, TOTAL	300		E	MS	5	98	3.81
7782-49-2	SELENIUM, TOTAL	4.0			P	1	0.98	0.21
7440-22-4	SILVER, TOTAL	0.54	J	N	P	1	1.5	0.06
7440-23-5	SODIUM, TOTAL	1160		N	P	1	98	3.81
7440-28-0	THALLIUM, TOTAL	0.09	U		P	1	1.5	0.09
7440-62-2	VANADIUM, TOTAL	19.0		N	P	1	2.4	0.04
7440-66-6	ZINC, TOTAL	26.8			P	1	2.4	0.11

Bottle ID: A

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** WGL-SD-SD102-000.6

Matrix: SOIL **SDG Name:** SC3122

Percent Solids: 96.4 **Lab Sample ID:** SC3122-005

Concentration Units : mg/Kgdrywt

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7429-90-5	ALUMINUM, TOTAL	2860			P	1	30	2.84
7440-36-0	ANTIMONY, TOTAL	0.32	J	N	P	1	0.79	0.10
7440-38-2	ARSENIC, TOTAL	4.6		N	P	1	0.79	0.09
7440-39-3	BARIUM, TOTAL	65.3		N	P	1	0.49	0.06
7440-41-7	BERYLLIUM, TOTAL	2.5		N	P	1	0.49	0.01
7440-43-9	CADMIUM, TOTAL	0.85	J		P	1	0.99	0.01
7440-70-2	CALCIUM, TOTAL	7080			P	1	4.9	2.06
7440-47-3	CHROMIUM, TOTAL	4.2		N	P	1	1.5	0.10
7440-48-4	COBALT, TOTAL	1.1	J	N	P	1	3.0	0.03
7440-50-8	COPPER, TOTAL	17.5		N	P	1	2.5	0.09
7439-89-6	IRON, TOTAL	3380			P	1	9.9	1.28
7439-92-1	LEAD, TOTAL	53.7		N	P	1	0.49	0.13
7439-95-4	MAGNESIUM, TOTAL	701		N	P	1	4.9	0.91
7439-96-5	MANGANESE, TOTAL	13.7			P	1	0.49	0.08
7439-97-6	MERCURY, TOTAL	0.42		NE	CV	1	0.028	0.01
7440-02-0	NICKEL, TOTAL	3.7	J	N	P	1	4.0	0.03
7440-09-7	POTASSIUM, TOTAL	317		E	MS	5	99	3.85
7782-49-2	SELENIUM, TOTAL	5.1			P	1	0.99	0.22
7440-22-4	SILVER, TOTAL	0.34	J	N	P	1	1.5	0.06
7440-23-5	SODIUM, TOTAL	855		N	P	1	99	3.85
7440-28-0	THALLIUM, TOTAL	0.09	U		P	1	1.5	0.09
7440-62-2	VANADIUM, TOTAL	25.1		N	P	1	2.5	0.04
7440-66-6	ZINC, TOTAL	14.8			P	1	2.5	0.11

Bottle ID: A

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** WGL-SD-SD101-000.6

Matrix: SOIL **SDG Name:** SC3122

Percent Solids: 96.1 **Lab Sample ID:** SC3122-008

Concentration Units : mg/Kgdrywt

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7429-90-5	ALUMINUM, TOTAL	3260			P	1	30	2.90
7440-36-0	ANTIMONY, TOTAL	0.56	J	N	P	1	0.81	0.10
7440-38-2	ARSENIC, TOTAL	5.1		N	P	1	0.81	0.09
7440-39-3	BARIUM, TOTAL	80.9		N	P	1	0.50	0.06
7440-41-7	BERYLLIUM, TOTAL	4.6		N	P	1	0.50	0.01
7440-43-9	CADMIUM, TOTAL	1.8			P	1	1.0	0.01
7440-70-2	CALCIUM, TOTAL	6280			P	1	5.0	2.11
7440-47-3	CHROMIUM, TOTAL	5.2		N	P	1	1.5	0.10
7440-48-4	COBALT, TOTAL	1.0	J	N	P	1	3.0	0.03
7440-50-8	COPPER, TOTAL	137		N	P	1	2.5	0.09
7439-89-6	IRON, TOTAL	7610			P	1	10	1.31
7439-92-1	LEAD, TOTAL	70.6		N	P	1	0.50	0.14
7439-95-4	MAGNESIUM, TOTAL	542		N	P	1	5.0	0.93
7439-96-5	MANGANESE, TOTAL	53.6			P	1	0.50	0.08
7439-97-6	MERCURY, TOTAL	0.41		NE	CV	1	0.037	0.01
7440-02-0	NICKEL, TOTAL	5.9		N	P	1	4.0	0.03
7440-09-7	POTASSIUM, TOTAL	205		E	MS	5	100	3.93
7782-49-2	SELENIUM, TOTAL	5.0			P	1	1.0	0.22
7440-22-4	SILVER, TOTAL	0.31	J	N	P	1	1.5	0.07
7440-23-5	SODIUM, TOTAL	572		N	P	1	100	3.94
7440-28-0	THALLIUM, TOTAL	0.09	U		P	1	1.5	0.09
7440-62-2	VANADIUM, TOTAL	16.6		N	P	1	2.5	0.04
7440-66-6	ZINC, TOTAL	68.5			P	1	2.5	0.12

Bottle ID: A

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** WGL-SD-DUP01-061109

Matrix: SOIL **SDG Name:** SC3122

Percent Solids: 95.7 **Lab Sample ID:** SC3122-011

Concentration Units : mg/Kgdrywt

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7429-90-5	ALUMINUM, TOTAL	3030			P	1	30	2.86
7440-36-0	ANTIMONY, TOTAL	0.42	J	N	P	1	0.80	0.10
7440-38-2	ARSENIC, TOTAL	5.0		N	P	1	0.80	0.09
7440-39-3	BARIUM, TOTAL	68.0		N	P	1	0.50	0.06
7440-41-7	BERYLLIUM, TOTAL	2.5		N	P	1	0.50	0.01
7440-43-9	CADMIUM, TOTAL	0.96	J		P	1	1.0	0.01
7440-70-2	CALCIUM, TOTAL	7360			P	1	5.0	2.08
7440-47-3	CHROMIUM, TOTAL	4.5		N	P	1	1.5	0.10
7440-48-4	COBALT, TOTAL	1.2	J	N	P	1	3.0	0.03
7440-50-8	COPPER, TOTAL	18.8		N	P	1	2.5	0.09
7439-89-6	IRON, TOTAL	3590			P	1	10	1.29
7439-92-1	LEAD, TOTAL	55.4		N	P	1	0.50	0.14
7439-95-4	MAGNESIUM, TOTAL	735		N	P	1	5.0	0.92
7439-96-5	MANGANESE, TOTAL	14.4			P	1	0.50	0.08
7439-97-6	MERCURY, TOTAL	0.44		NE	CV	1	0.038	0.01
7440-02-0	NICKEL, TOTAL	4.1		N	P	1	4.0	0.03
7440-09-7	POTASSIUM, TOTAL	327		E	MS	5	100	3.88
7782-49-2	SELENIUM, TOTAL	5.1			P	1	1.0	0.22
7440-22-4	SILVER, TOTAL	0.38	J	N	P	1	1.5	0.06
7440-23-5	SODIUM, TOTAL	924		N	P	1	100	3.88
7440-28-0	THALLIUM, TOTAL	0.09	U		P	1	1.5	0.09
7440-62-2	VANADIUM, TOTAL	26.5		N	P	1	2.5	0.04
7440-66-6	ZINC, TOTAL	15.8			P	1	2.5	0.11

Bottle ID: A

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** WGL-SD-SD104-000.6

Matrix: SOIL **SDG Name:** SC3122

Percent Solids: 95.9 **Lab Sample ID:** SC3122-014

Concentration Units : mg/Kgdrywt

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7429-90-5	ALUMINUM, TOTAL	1860			P	1	31	2.93
7440-36-0	ANTIMONY, TOTAL	0.10	U	N	P	1	0.82	0.10
7440-38-2	ARSENIC, TOTAL	4.4		N	P	1	0.82	0.09
7440-39-3	BARIUM, TOTAL	94.8		N	P	1	0.51	0.06
7440-41-7	BERYLLIUM, TOTAL	1.1		N	P	1	0.51	0.01
7440-43-9	CADMIUM, TOTAL	0.70	J		P	1	1.0	0.01
7440-70-2	CALCIUM, TOTAL	10800			P	1	5.1	2.14
7440-47-3	CHROMIUM, TOTAL	4.2		N	P	1	1.5	0.10
7440-48-4	COBALT, TOTAL	2.6	J	N	P	1	3.1	0.03
7440-50-8	COPPER, TOTAL	15.3		N	P	1	2.6	0.10
7439-89-6	IRON, TOTAL	7710			P	1	10	1.33
7439-92-1	LEAD, TOTAL	12.5		N	P	1	0.51	0.14
7439-95-4	MAGNESIUM, TOTAL	804		N	P	1	5.1	0.94
7439-96-5	MANGANESE, TOTAL	22.4			P	1	0.51	0.08
7439-97-6	MERCURY, TOTAL	0.13		NE	CV	1	0.038	0.01
7440-02-0	NICKEL, TOTAL	4.3		N	P	1	4.1	0.03
7440-09-7	POTASSIUM, TOTAL	122		E	MS	5	100	3.98
7782-49-2	SELENIUM, TOTAL	1.5			P	1	1.0	0.22
7440-22-4	SILVER, TOTAL	0.27	J	N	P	1	1.5	0.07
7440-23-5	SODIUM, TOTAL	1020		N	P	1	100	3.99
7440-28-0	THALLIUM, TOTAL	0.09	U		P	1	1.5	0.09
7440-62-2	VANADIUM, TOTAL	22.4		N	P	1	2.6	0.04
7440-66-6	ZINC, TOTAL	19.8			P	1	2.6	0.12

Bottle ID: A

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** WGL-SD-SD106-000.6

Matrix: SOIL **SDG Name:** SC3122

Percent Solids: 94.4 **Lab Sample ID:** SC3122-017

Concentration Units : mg/Kgdrywt

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7429-90-5	ALUMINUM, TOTAL	1700			P	1	28	2.67
7440-36-0	ANTIMONY, TOTAL	0.15	J	N	P	1	0.74	0.09
7440-38-2	ARSENIC, TOTAL	3.3		N	P	1	0.74	0.08
7440-39-3	BARIUM, TOTAL	83.2		N	P	1	0.46	0.06
7440-41-7	BERYLLIUM, TOTAL	0.77		N	P	1	0.46	0.01
7440-43-9	CADMIUM, TOTAL	0.50	J		P	1	0.93	0.01
7440-70-2	CALCIUM, TOTAL	12700			P	1	4.6	1.94
7440-47-3	CHROMIUM, TOTAL	3.0		N	P	1	1.4	0.09
7440-48-4	COBALT, TOTAL	1.2	J	N	P	1	2.8	0.03
7440-50-8	COPPER, TOTAL	13.2		N	P	1	2.3	0.09
7439-89-6	IRON, TOTAL	4540			P	1	9.3	1.21
7439-92-1	LEAD, TOTAL	12.5		N	P	1	0.46	0.13
7439-95-4	MAGNESIUM, TOTAL	892		N	P	1	4.6	0.85
7439-96-5	MANGANESE, TOTAL	16.8			P	1	0.46	0.07
7439-97-6	MERCURY, TOTAL	0.25		NE	CV	1	0.036	0.01
7440-02-0	NICKEL, TOTAL	3.3	J	N	P	1	3.7	0.03
7440-09-7	POTASSIUM, TOTAL	168		E	MS	5	93	3.62
7782-49-2	SELENIUM, TOTAL	2.3			P	1	0.93	0.20
7440-22-4	SILVER, TOTAL	0.20	J	N	P	1	1.4	0.06
7440-23-5	SODIUM, TOTAL	793		N	P	1	93	3.62
7440-28-0	THALLIUM, TOTAL	0.09	U		P	1	1.4	0.09
7440-62-2	VANADIUM, TOTAL	18.0		N	P	1	2.3	0.04
7440-66-6	ZINC, TOTAL	14.7			P	1	2.3	0.11

Bottle ID: A

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** WGL-SD-DUP02-061109

Matrix: SOIL **SDG Name:** SC3122

Percent Solids: 93.8 **Lab Sample ID:** SC3122-020

Concentration Units : mg/Kgdrywt

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7429-90-5	ALUMINUM, TOTAL	1610			P	1	30	2.86
7440-36-0	ANTIMONY, TOTAL	0.20	J	N	P	1	0.80	0.10
7440-38-2	ARSENIC, TOTAL	3.6		N	P	1	0.80	0.09
7440-39-3	BARIUM, TOTAL	81.8		N	P	1	0.50	0.06
7440-41-7	BERYLLIUM, TOTAL	0.76		N	P	1	0.50	0.01
7440-43-9	CADMIUM, TOTAL	0.46	J		P	1	1.0	0.01
7440-70-2	CALCIUM, TOTAL	12200			P	1	5.0	2.08
7440-47-3	CHROMIUM, TOTAL	3.2		N	P	1	1.5	0.10
7440-48-4	COBALT, TOTAL	1.2	J	N	P	1	3.0	0.03
7440-50-8	COPPER, TOTAL	11.8		N	P	1	2.5	0.09
7439-89-6	IRON, TOTAL	5000			P	1	10	1.30
7439-92-1	LEAD, TOTAL	10.2		N	P	1	0.50	0.14
7439-95-4	MAGNESIUM, TOTAL	862		N	P	1	5.0	0.92
7439-96-5	MANGANESE, TOTAL	16.6			P	1	0.50	0.08
7439-97-6	MERCURY, TOTAL	0.20		NE	CV	1	0.038	0.01
7440-02-0	NICKEL, TOTAL	3.3	J	N	P	1	4.0	0.03
7440-09-7	POTASSIUM, TOTAL	158		E	MS	5	100	3.88
7782-49-2	SELENIUM, TOTAL	1.9			P	1	1.0	0.22
7440-22-4	SILVER, TOTAL	0.17	J	N	P	1	1.5	0.06
7440-23-5	SODIUM, TOTAL	745		N	P	1	100	3.89
7440-28-0	THALLIUM, TOTAL	0.09	U		P	1	1.5	0.09
7440-62-2	VANADIUM, TOTAL	16.4		N	P	1	2.5	0.04
7440-66-6	ZINC, TOTAL	14.4			P	1	2.5	0.11

Bottle ID: A

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** WGL-SD-SD107-000.6

Matrix: SOIL **SDG Name:** SC3122

Percent Solids: 95.0 **Lab Sample ID:** SC3122-023

Concentration Units : mg/Kgdrywt

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7429-90-5	ALUMINUM, TOTAL	1800			P	1	31	2.96
7440-36-0	ANTIMONY, TOTAL	0.45	J	N	P	1	0.82	0.10
7440-38-2	ARSENIC, TOTAL	2.5		N	P	1	0.82	0.09
7440-39-3	BARIUM, TOTAL	66.8		N	P	1	0.52	0.06
7440-41-7	BERYLLIUM, TOTAL	1.0		N	P	1	0.52	0.01
7440-43-9	CADMIUM, TOTAL	0.81	J		P	1	1.0	0.01
7440-70-2	CALCIUM, TOTAL	6830			P	1	5.2	2.16
7440-47-3	CHROMIUM, TOTAL	3.6		N	P	1	1.5	0.10
7440-48-4	COBALT, TOTAL	0.83	J	N	P	1	3.1	0.03
7440-50-8	COPPER, TOTAL	25.4		N	P	1	2.6	0.10
7439-89-6	IRON, TOTAL	5730			P	1	10	1.34
7439-92-1	LEAD, TOTAL	44.3		N	P	1	0.52	0.14
7439-95-4	MAGNESIUM, TOTAL	542		N	P	1	5.2	0.95
7439-96-5	MANGANESE, TOTAL	23.3			P	1	0.52	0.08
7439-97-6	MERCURY, TOTAL	0.41		NE	CV	1	0.037	0.01
7440-02-0	NICKEL, TOTAL	3.6	J	N	P	1	4.1	0.03
7440-09-7	POTASSIUM, TOTAL	235		E	MS	5	100	4.02
7782-49-2	SELENIUM, TOTAL	3.6			P	1	1.0	0.22
7440-22-4	SILVER, TOTAL	0.38	J	N	P	1	1.5	0.07
7440-23-5	SODIUM, TOTAL	674		N	P	1	100	4.02
7440-28-0	THALLIUM, TOTAL	0.09	U		P	1	1.5	0.09
7440-62-2	VANADIUM, TOTAL	17.7		N	P	1	2.6	0.04
7440-66-6	ZINC, TOTAL	26.8			P	1	2.6	0.12

Bottle ID: A

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** WGL-SD-SD108-000.6

Matrix: SOIL **SDG Name:** SC3122

Percent Solids: 94.9 **Lab Sample ID:** SC3122-026

Concentration Units : mg/Kgdrywt

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7429-90-5	ALUMINUM, TOTAL	1480			P	1	25	2.40
7440-36-0	ANTIMONY, TOTAL	0.11	J	N	P	1	0.67	0.08
7440-38-2	ARSENIC, TOTAL	4.6		N	P	1	0.67	0.08
7440-39-3	BARIUM, TOTAL	59.3		N	P	1	0.42	0.05
7440-41-7	BERYLLIUM, TOTAL	0.78		N	P	1	0.42	0.01
7440-43-9	CADMIUM, TOTAL	0.63	J		P	1	0.84	0.01
7440-70-2	CALCIUM, TOTAL	6750			P	1	4.2	1.75
7440-47-3	CHROMIUM, TOTAL	4.8		N	P	1	1.2	0.08
7440-48-4	COBALT, TOTAL	0.66	J	N	P	1	2.5	0.02
7440-50-8	COPPER, TOTAL	23.4		N	P	1	2.1	0.08
7439-89-6	IRON, TOTAL	8860			P	1	8.4	1.09
7439-92-1	LEAD, TOTAL	30.9		N	P	1	0.42	0.11
7439-95-4	MAGNESIUM, TOTAL	529		N	P	1	4.2	0.77
7439-96-5	MANGANESE, TOTAL	31.0			P	1	0.42	0.07
7439-97-6	MERCURY, TOTAL	0.28		NE	CV	1	0.036	0.01
7440-02-0	NICKEL, TOTAL	3.4		N	P	1	3.3	0.03
7440-09-7	POTASSIUM, TOTAL	166		E	MS	5	84	3.26
7782-49-2	SELENIUM, TOTAL	2.1			P	1	0.84	0.18
7440-22-4	SILVER, TOTAL	0.41	J	N	P	1	1.2	0.05
7440-23-5	SODIUM, TOTAL	514		N	P	1	84	3.26
7440-28-0	THALLIUM, TOTAL	0.08	U		P	1	1.2	0.08
7440-62-2	VANADIUM, TOTAL	21.5		N	P	1	2.1	0.03
7440-66-6	ZINC, TOTAL	17.0			P	1	2.1	0.10

Bottle ID: A

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** WGL-SD-SD105-000.6

Matrix: SOIL **SDG Name:** SC3122

Percent Solids: 93.0 **Lab Sample ID:** SC3122-029

Concentration Units : mg/Kgdrywt

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7429-90-5	ALUMINUM, TOTAL	2500			P	1	31	2.97
7440-36-0	ANTIMONY, TOTAL	0.75	J	N	P	1	0.83	0.10
7440-38-2	ARSENIC, TOTAL	3.2		N	P	1	0.83	0.09
7440-39-3	BARIUM, TOTAL	93.2		N	P	1	0.52	0.06
7440-41-7	BERYLLIUM, TOTAL	1.1		N	P	1	0.52	0.01
7440-43-9	CADMIUM, TOTAL	0.50	J		P	1	1.0	0.01
7440-70-2	CALCIUM, TOTAL	14600			P	1	5.2	2.16
7440-47-3	CHROMIUM, TOTAL	3.7		N	P	1	1.6	0.10
7440-48-4	COBALT, TOTAL	1.3	J	N	P	1	3.1	0.03
7440-50-8	COPPER, TOTAL	25.4		N	P	1	2.6	0.10
7439-89-6	IRON, TOTAL	3070			P	1	10	1.34
7439-92-1	LEAD, TOTAL	50.9		N	P	1	0.52	0.14
7439-95-4	MAGNESIUM, TOTAL	1020		N	P	1	5.2	0.95
7439-96-5	MANGANESE, TOTAL	13.8			P	1	0.52	0.08
7439-97-6	MERCURY, TOTAL	0.38		NE	CV	1	0.034	0.01
7440-02-0	NICKEL, TOTAL	3.8	J	N	P	1	4.1	0.03
7440-09-7	POTASSIUM, TOTAL	278		E	MS	5	100	4.02
7782-49-2	SELENIUM, TOTAL	2.6			P	1	1.0	0.23
7440-22-4	SILVER, TOTAL	0.80	J	N	P	1	1.6	0.07
7440-23-5	SODIUM, TOTAL	786		N	P	1	100	4.03
7440-28-0	THALLIUM, TOTAL	0.10	U		P	1	1.6	0.10
7440-62-2	VANADIUM, TOTAL	23.4		N	P	1	2.6	0.04
7440-66-6	ZINC, TOTAL	14.6			P	1	2.6	0.12

Bottle ID: A

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** WGL-SD-SD112-000.6

Matrix: SOIL **SDG Name:** SC3122

Percent Solids: 94.6 **Lab Sample ID:** SC3122-032

Concentration Units : mg/Kgdrywt

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7429-90-5	ALUMINUM, TOTAL	1580			P	1	31	3.00
7440-36-0	ANTIMONY, TOTAL	0.43	J	N	P	1	0.84	0.10
7440-38-2	ARSENIC, TOTAL	1.6		N	P	1	0.84	0.09
7440-39-3	BARIUM, TOTAL	42.9		N	P	1	0.52	0.06
7440-41-7	BERYLLIUM, TOTAL	0.48	J	N	P	1	0.52	0.01
7440-43-9	CADMIUM, TOTAL	0.24	J		P	1	1.0	0.01
7440-70-2	CALCIUM, TOTAL	3340			P	1	5.2	2.19
7440-47-3	CHROMIUM, TOTAL	2.8		N	P	1	1.6	0.10
7440-48-4	COBALT, TOTAL	0.57	J	N	P	1	3.1	0.03
7440-50-8	COPPER, TOTAL	11.9		N	P	1	2.6	0.10
7439-89-6	IRON, TOTAL	3890			P	1	10	1.36
7439-92-1	LEAD, TOTAL	68.1		N	P	1	0.52	0.14
7439-95-4	MAGNESIUM, TOTAL	429		N	P	1	5.2	0.96
7439-96-5	MANGANESE, TOTAL	15.3			P	1	0.52	0.08
7439-97-6	MERCURY, TOTAL	0.37		NE	CV	1	0.034	0.01
7440-02-0	NICKEL, TOTAL	2.7	J	N	P	1	4.2	0.03
7440-09-7	POTASSIUM, TOTAL	284		E	MS	5	100	4.08
7782-49-2	SELENIUM, TOTAL	2.4			P	1	1.0	0.23
7440-22-4	SILVER, TOTAL	0.29	J	N	P	1	1.6	0.07
7440-23-5	SODIUM, TOTAL	461		N	P	1	100	4.08
7440-28-0	THALLIUM, TOTAL	0.10	U		P	1	1.6	0.10
7440-62-2	VANADIUM, TOTAL	12.7		N	P	1	2.6	0.04
7440-66-6	ZINC, TOTAL	12.3			P	1	2.6	0.12

Bottle ID: A

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** WGL-SD-SD110-000.6

Matrix: SOIL **SDG Name:** SC3122

Percent Solids: 92.7 **Lab Sample ID:** SC3122-035

Concentration Units : mg/Kgdrywt

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7429-90-5	ALUMINUM, TOTAL	1620			P	1	26	2.52
7440-36-0	ANTIMONY, TOTAL	0.69	J	N	P	1	0.70	0.09
7440-38-2	ARSENIC, TOTAL	3.3		N	P	1	0.70	0.08
7440-39-3	BARIUM, TOTAL	43.0		N	P	1	0.44	0.05
7440-41-7	BERYLLIUM, TOTAL	0.48		N	P	1	0.44	0.01
7440-43-9	CADMIUM, TOTAL	0.36	J		P	1	0.88	0.01
7440-70-2	CALCIUM, TOTAL	6140			P	1	4.4	1.83
7440-47-3	CHROMIUM, TOTAL	2.9		N	P	1	1.3	0.09
7440-48-4	COBALT, TOTAL	0.83	J	N	P	1	2.6	0.02
7440-50-8	COPPER, TOTAL	15.2		N	P	1	2.2	0.08
7439-89-6	IRON, TOTAL	2680			P	1	8.8	1.14
7439-92-1	LEAD, TOTAL	30.8		N	P	1	0.44	0.12
7439-95-4	MAGNESIUM, TOTAL	638		N	P	1	4.4	0.81
7439-96-5	MANGANESE, TOTAL	11.7			P	1	0.44	0.07
7439-97-6	MERCURY, TOTAL	0.39		NE	CV	1	0.038	0.01
7440-02-0	NICKEL, TOTAL	3.1	J	N	P	1	3.5	0.03
7440-09-7	POTASSIUM, TOTAL	328		E	MS	5	88	3.42
7782-49-2	SELENIUM, TOTAL	1.9			P	1	0.88	0.19
7440-22-4	SILVER, TOTAL	0.30	J	N	P	1	1.3	0.06
7440-23-5	SODIUM, TOTAL	701		N	P	1	88	3.42
7440-28-0	THALLIUM, TOTAL	0.08	U		P	1	1.3	0.08
7440-62-2	VANADIUM, TOTAL	17.8		N	P	1	2.2	0.03
7440-66-6	ZINC, TOTAL	22.7			P	1	2.2	0.10

Bottle ID: A

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** WGL-SD-SD109-000.6

Matrix: SOIL **SDG Name:** SC3122

Percent Solids: 94.8 **Lab Sample ID:** SC3122-038

Concentration Units : mg/Kgdrywt

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7429-90-5	ALUMINUM, TOTAL	1610			P	1	31	2.97
7440-36-0	ANTIMONY, TOTAL	0.43	J	N	P	1	0.83	0.10
7440-38-2	ARSENIC, TOTAL	2.7		N	P	1	0.83	0.09
7440-39-3	BARIUM, TOTAL	62.6		N	P	1	0.52	0.06
7440-41-7	BERYLLIUM, TOTAL	0.62		N	P	1	0.52	0.01
7440-43-9	CADMIUM, TOTAL	0.54	J		P	1	1.0	0.01
7440-70-2	CALCIUM, TOTAL	7980			P	1	5.2	2.16
7440-47-3	CHROMIUM, TOTAL	2.8		N	P	1	1.6	0.10
7440-48-4	COBALT, TOTAL	0.77	J	N	P	1	3.1	0.03
7440-50-8	COPPER, TOTAL	17.6		N	P	1	2.6	0.10
7439-89-6	IRON, TOTAL	4010			P	1	10	1.35
7439-92-1	LEAD, TOTAL	50.2		N	P	1	0.52	0.14
7439-95-4	MAGNESIUM, TOTAL	681		N	P	1	5.2	0.95
7439-96-5	MANGANESE, TOTAL	21.3			P	1	0.52	0.08
7439-97-6	MERCURY, TOTAL	0.37		NE	CV	1	0.036	0.01
7440-02-0	NICKEL, TOTAL	2.9	J	N	P	1	4.1	0.03
7440-09-7	POTASSIUM, TOTAL	265		E	MS	5	100	4.03
7782-49-2	SELENIUM, TOTAL	2.0			P	1	1.0	0.23
7440-22-4	SILVER, TOTAL	0.31	J	N	P	1	1.6	0.07
7440-23-5	SODIUM, TOTAL	721		N	P	1	100	4.04
7440-28-0	THALLIUM, TOTAL	0.10	U		P	1	1.6	0.10
7440-62-2	VANADIUM, TOTAL	14.9		N	P	1	2.6	0.04
7440-66-6	ZINC, TOTAL	16.4			P	1	2.6	0.12

Bottle ID: A

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** WGL-SD-SD111-000.6

Matrix: SOIL **SDG Name:** SC3122

Percent Solids: 94.2 **Lab Sample ID:** SC3122-041

Concentration Units : mg/Kgdrywt

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7429-90-5	ALUMINUM, TOTAL	1810			P	1	31	2.96
7440-36-0	ANTIMONY, TOTAL	0.53	J	N	P	1	0.82	0.10
7440-38-2	ARSENIC, TOTAL	2.1		N	P	1	0.82	0.09
7440-39-3	BARIUM, TOTAL	40.6		N	P	1	0.52	0.06
7440-41-7	BERYLLIUM, TOTAL	0.64		N	P	1	0.52	0.01
7440-43-9	CADMIUM, TOTAL	0.25	J		P	1	1.0	0.01
7440-70-2	CALCIUM, TOTAL	5010			P	1	5.2	2.15
7440-47-3	CHROMIUM, TOTAL	4.0		N	P	1	1.5	0.10
7440-48-4	COBALT, TOTAL	0.57	J	N	P	1	3.1	0.03
7440-50-8	COPPER, TOTAL	14.3		N	P	1	2.6	0.10
7439-89-6	IRON, TOTAL	2210			P	1	10	1.34
7439-92-1	LEAD, TOTAL	55.5		N	P	1	0.52	0.14
7439-95-4	MAGNESIUM, TOTAL	566		N	P	1	5.2	0.95
7439-96-5	MANGANESE, TOTAL	16.6			P	1	0.52	0.08
7439-97-6	MERCURY, TOTAL	0.49		NE	CV	1	0.040	0.01
7440-02-0	NICKEL, TOTAL	3.3	J	N	P	1	4.1	0.03
7440-09-7	POTASSIUM, TOTAL	277		E	MS	5	100	4.02
7782-49-2	SELENIUM, TOTAL	2.2			P	1	1.0	0.22
7440-22-4	SILVER, TOTAL	0.40	J	N	P	1	1.5	0.07
7440-23-5	SODIUM, TOTAL	574		N	P	1	100	4.02
7440-28-0	THALLIUM, TOTAL	0.12	J		P	1	1.5	0.09
7440-62-2	VANADIUM, TOTAL	19.6		N	P	1	2.6	0.04
7440-66-6	ZINC, TOTAL	12.5			P	1	2.6	0.12

Bottle ID: B

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** WGL-SD-FB01-061109

Matrix: WATER **SDG Name:** SC3122

Percent Solids: 0.00 **Lab Sample ID:** SC3122-043

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7429-90-5	ALUMINUM, TOTAL	23.8	J		P	1	300	12.50
7440-36-0	ANTIMONY, TOTAL	1.33	U		P	1	8.0	1.33
7440-38-2	ARSENIC, TOTAL	1.20	U		P	1	8.0	1.20
7440-39-3	BARIUM, TOTAL	0.68	J		P	1	5.0	0.35
7440-41-7	BERYLLIUM, TOTAL	0.09	U		P	1	5.0	0.09
7440-43-9	CADMIUM, TOTAL	0.12	U		P	1	10	0.12
7440-70-2	CALCIUM, TOTAL	10.4	J		P	1	50	6.84
7440-47-3	CHROMIUM, TOTAL	0.44	U		P	1	15	0.44
7440-48-4	COBALT, TOTAL	0.27	U		P	1	30	0.27
7440-50-8	COPPER, TOTAL	0.70	U		P	1	25	0.70
7439-89-6	IRON, TOTAL	5.17	U		P	1	100	5.17
7439-92-1	LEAD, TOTAL	1.0	J		P	1	5.0	1.02
7439-95-4	MAGNESIUM, TOTAL	25.2	J		P	1	50	9.39
7439-96-5	MANGANESE, TOTAL	0.67	U		P	1	5.0	0.67
7439-97-6	MERCURY, TOTAL	0.02	U		CV	1	0.20	0.02
7440-02-0	NICKEL, TOTAL	0.24	U		P	1	40	0.24
7440-09-7	POTASSIUM, TOTAL	45.6	J		MS	5	1000	44.65
7782-49-2	SELENIUM, TOTAL	3.03	U		P	1	10	3.03
7440-22-4	SILVER, TOTAL	0.79	U		P	1	15	0.79
7440-23-5	SODIUM, TOTAL	29.5	J		P	1	1000	21.70
7440-28-0	THALLIUM, TOTAL	0.60	U		P	1	15	0.60
7440-62-2	VANADIUM, TOTAL	5.12	U		P	1	25	5.12
7440-66-6	ZINC, TOTAL	1.73	U		P	1	25	1.73

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** WGL-SD-RB01-061109

Matrix: WATER **SDG Name:** SC3122

Percent Solids: 0.00 **Lab Sample ID:** SC3122-045

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted MDL
7429-90-5	ALUMINUM, TOTAL	21.4	J		P	1	300	12.50
7440-36-0	ANTIMONY, TOTAL	1.33	U		P	1	8.0	1.33
7440-38-2	ARSENIC, TOTAL	1.20	U		P	1	8.0	1.20
7440-39-3	BARIUM, TOTAL	0.71	J		P	1	5.0	0.35
7440-41-7	BERYLLIUM, TOTAL	0.09	U		P	1	5.0	0.09
7440-43-9	CADMIUM, TOTAL	0.12	U		P	1	10	0.12
7440-70-2	CALCIUM, TOTAL	6.84	U		P	1	50	6.84
7440-47-3	CHROMIUM, TOTAL	0.44	U		P	1	15	0.44
7440-48-4	COBALT, TOTAL	0.27	U		P	1	30	0.27
7440-50-8	COPPER, TOTAL	0.70	U		P	1	25	0.70
7439-89-6	IRON, TOTAL	5.17	U		P	1	100	5.17
7439-92-1	LEAD, TOTAL	1.02	U		P	1	5.0	1.02
7439-95-4	MAGNESIUM, TOTAL	24.1	J		P	1	50	9.39
7439-96-5	MANGANESE, TOTAL	0.67	U		P	1	5.0	0.67
7439-97-6	MERCURY, TOTAL	0.02	U		CV	1	0.20	0.02
7440-02-0	NICKEL, TOTAL	0.24	U		P	1	40	0.24
7440-09-7	POTASSIUM, TOTAL	44.65	U		MS	5	1000	44.65
7782-49-2	SELENIUM, TOTAL	3.03	U		P	1	10	3.03
7440-22-4	SILVER, TOTAL	0.79	U		P	1	15	0.79
7440-23-5	SODIUM, TOTAL	33.2	J		P	1	1000	21.70
7440-28-0	THALLIUM, TOTAL	0.60	U		P	1	15	0.60
7440-62-2	VANADIUM, TOTAL	5.12	U		P	1	25	5.12
7440-66-6	ZINC, TOTAL	1.73	U		P	1	25	1.73

Comments:

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Concentration Units: ug/L

SAMPLE: ICV

File: HZF22A Jun 22, 2009 14:31

Analyte	True	Found	%R (1)
MERCURY	6.0	5.87	97.8

SAMPLE: CCV

File: HZF22A Jun 22, 2009 14:38

Analyte	True	Found	%R (1)
MERCURY	5.0	4.96	99.2

(1) Control Limits: Mercury 80-120; Other Metals 90-110

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Concentration Units: ug/L

SAMPLE: CCV

File: HZF22A Jun 22, 2009 15:06

Analyte	True	Found	%R (1)
MERCURY	5.0	5.09	101.8

SAMPLE: CCV

File: HZF22A Jun 22, 2009 15:34

Analyte	True	Found	%R (1)
MERCURY	5.0	5.04	100.8

(1) Control Limits: Mercury 80-120; Other Metals 90-110

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Concentration Units: ug/L

SAMPLE: CCV

File: HZF22A Jun 22, 2009 15:59

Analyte	True	Found	%R (1)
MERCURY	5.0	5.09	101.8

SAMPLE: CCV

File: HZF22A Jun 22, 2009 16:25

Analyte	True	Found	%R (1)
MERCURY	5.0	5.15	103.0

(1) Control Limits: Mercury 80-120; Other Metals 90-110

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Concentration Units: ug/L

SAMPLE: CCV

File: HZF22A Jun 22, 2009 16:54

Analyte	True	Found	%R (1)
MERCURY	5.0	5.10	102.0

SAMPLE: CCV

File: HZF22A Jun 22, 2009 17:13

Analyte	True	Found	%R (1)
MERCURY	5.0	5.09	101.8

(1) Control Limits: Mercury 80-120; Other Metals 90-110

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Concentration Units: ug/L

SAMPLE: ICV

File: HZG01A Jul 01, 2009 8:32

Analyte	True	Found	%R (1)
MERCURY	6.0	5.59	93.2

SAMPLE: CCV

File: HZG01A Jul 01, 2009 8:58

Analyte	True	Found	%R (1)
MERCURY	5.0	5.36	107.2

(1) Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (Part 1) - IN

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Concentration Units: ug/L

SAMPLE: CCV

File: HZG01A Jul 01, 2009 9:28

Analyte	True	Found	%R (1)
MERCURY	5.0	5.59	111.8

SAMPLE: CCV

File: HZG01A Jul 01, 2009 9:54

Analyte	True	Found	%R (1)
MERCURY	5.0	5.65	113.0

(1) Control Limits: Mercury 80-120; Other Metals 90-110

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Concentration Units: ug/L

SAMPLE: ICV

File: IZF18A Jun 18, 2009 16:43

Analyte	True	Found	%R (1)
ALUMINUM	10000.0	9959.00	99.6
ANTIMONY	400.0	395.80	99.0
ARSENIC	400.0	399.40	99.8
BARIUM	400.0	393.50	98.4
BERYLLIUM	400.0	393.90	98.5
CADMIUM	400.0	403.20	100.8
CALCIUM	10000.0	9688.00	96.9
CHROMIUM	400.0	415.00	103.8
COBALT	400.0	406.10	101.5
COPPER	400.0	412.00	103.0
IRON	10000.0	9833.00	98.3
LEAD	400.0	410.10	102.5
MAGNESIUM	10000.0	10050.00	100.5
MANGANESE	400.0	397.00	99.3
NICKEL	400.0	404.10	101.0
SELENIUM	400.0	398.30	99.6
SILVER	400.0	412.40	103.1
SODIUM	10000.0	9844.00	98.4
THALLIUM	400.0	411.00	102.8
VANADIUM	400.0	413.60	103.4
ZINC	400.0	401.50	100.4

SAMPLE: CCV

File: IZF18A Jun 18, 2009 17:08

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12660.00	101.3
ANTIMONY	500.0	502.60	100.5
ARSENIC	500.0	499.10	99.8
BARIUM	500.0	513.50	102.7
BERYLLIUM	500.0	503.20	100.6
CADMIUM	500.0	510.00	102.0
CALCIUM	12500.0	12680.00	101.4
CHROMIUM	500.0	508.20	101.6
COBALT	500.0	507.40	101.5
COPPER	500.0	506.30	101.3
IRON	12500.0	12570.00	100.6
LEAD	500.0	517.40	103.5
MAGNESIUM	12500.0	12670.00	101.4
MANGANESE	500.0	506.00	101.2
NICKEL	500.0	513.40	102.7
SELENIUM	500.0	506.40	101.3
SILVER	500.0	512.80	102.6
SODIUM	12500.0	12520.00	100.2
THALLIUM	500.0	517.10	103.4
VANADIUM	500.0	510.20	102.0
ZINC	500.0	503.20	100.6

(1) Control Limits: Mercury 80-120; Other Metals 90-110

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Concentration Units: ug/L

SAMPLE: CCV

File: IZF18A Jun 18, 2009 18:07

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12710.00	101.7
ANTIMONY	500.0	506.00	101.2
ARSENIC	500.0	504.30	100.9
BARIUM	500.0	512.00	102.4
BERYLLIUM	500.0	502.60	100.5
CADMIUM	500.0	514.50	102.9
CALCIUM	12500.0	12740.00	101.9
CHROMIUM	500.0	505.20	101.0
COBALT	500.0	509.60	101.9
COPPER	500.0	508.00	101.6
IRON	12500.0	12520.00	100.2
LEAD	500.0	522.40	104.5
MAGNESIUM	12500.0	12810.00	102.5
MANGANESE	500.0	501.70	100.3
NICKEL	500.0	516.70	103.3
SELENIUM	500.0	513.50	102.7
SILVER	500.0	514.80	103.0
SODIUM	12500.0	12400.00	99.2
THALLIUM	500.0	521.20	104.2
VANADIUM	500.0	513.90	102.8
ZINC	500.0	503.30	100.7

SAMPLE: CCV

File: IZF18A Jun 18, 2009 19:07

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12770.00	102.2
ANTIMONY	500.0	516.00	103.2
ARSENIC	500.0	510.10	102.0
BARIUM	500.0	514.00	102.8
BERYLLIUM	500.0	501.60	100.3
CADMIUM	500.0	511.60	102.3
CALCIUM	12500.0	12620.00	101.0
CHROMIUM	500.0	510.90	102.2
COBALT	500.0	514.30	102.9
COPPER	500.0	515.30	103.1
IRON	12500.0	12640.00	101.1
LEAD	500.0	519.70	103.9
MAGNESIUM	12500.0	12700.00	101.6
MANGANESE	500.0	509.30	101.9
NICKEL	500.0	517.00	103.4
SELENIUM	500.0	509.50	101.9
SILVER	500.0	514.90	103.0
SODIUM	12500.0	12710.00	101.7
THALLIUM	500.0	519.20	103.8
VANADIUM	500.0	514.70	102.9
ZINC	500.0	506.10	101.2

(1) Control Limits: Mercury 80-120; Other Metals 90-110

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Concentration Units: ug/L

SAMPLE: CCV

File: IZF18A Jun 18, 2009 20:07

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12800.00	102.4
ANTIMONY	500.0	515.30	103.1
ARSENIC	500.0	508.60	101.7
BARIUM	500.0	514.20	102.8
BERYLLIUM	500.0	501.30	100.3
CADMIUM	500.0	507.10	101.4
CALCIUM	12500.0	12400.00	99.2
CHROMIUM	500.0	505.30	101.1
COBALT	500.0	516.00	103.2
COPPER	500.0	520.70	104.1
IRON	12500.0	12640.00	101.1
LEAD	500.0	513.60	102.7
MAGNESIUM	12500.0	12770.00	102.2
MANGANESE	500.0	512.90	102.6
NICKEL	500.0	515.00	103.0
SELENIUM	500.0	504.00	100.8
SILVER	500.0	513.50	102.7
SODIUM	12500.0	13280.00	106.2
THALLIUM	500.0	514.70	102.9
VANADIUM	500.0	507.90	101.6
ZINC	500.0	502.70	100.5

SAMPLE: CCV

File: IZF18A Jun 18, 2009 21:07

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12660.00	101.3
ANTIMONY	500.0	499.90	100.0
ARSENIC	500.0	496.40	99.3
BARIUM	500.0	509.70	101.9
BERYLLIUM	500.0	499.50	99.9
CADMIUM	500.0	493.90	98.8
CALCIUM	12500.0	12400.00	99.2
CHROMIUM	500.0	504.10	100.8
COBALT	500.0	502.10	100.4
COPPER	500.0	512.50	102.5
IRON	12500.0	12640.00	101.1
LEAD	500.0	497.90	99.6
MAGNESIUM	12500.0	12750.00	102.0
MANGANESE	500.0	513.00	102.6
NICKEL	500.0	498.10	99.6
SELENIUM	500.0	489.10	97.8
SILVER	500.0	505.00	101.0
SODIUM	12500.0	12900.00	103.2
THALLIUM	500.0	500.90	100.2
VANADIUM	500.0	505.80	101.2
ZINC	500.0	491.50	98.3

(1) Control Limits: Mercury 80-120; Other Metals 90-110

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Concentration Units: ug/L

SAMPLE: CCV

File: IZF18A Jun 18, 2009 22:07

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	13670.00	109.4
ANTIMONY	500.0	516.10	103.2
ARSENIC	500.0	508.40	101.7
BARIUM	500.0	545.10	109.0
BERYLLIUM	500.0	537.80	107.6
CADMIUM	500.0	512.00	102.4
CALCIUM	12500.0	13550.00	108.4
CHROMIUM	500.0	503.70	100.7
COBALT	500.0	515.20	103.0
COPPER	500.0	507.20	101.4
IRON	12500.0	13550.00	108.4
LEAD	500.0	515.30	103.1
MAGNESIUM	12500.0	13600.00	108.8
MANGANESE	500.0	548.10	109.6
NICKEL	500.0	515.00	103.0
SELENIUM	500.0	507.70	101.5
SILVER	500.0	506.70	101.3
SODIUM	12500.0	13530.00	108.2
THALLIUM	500.0	517.40	103.5
VANADIUM	500.0	509.10	101.8
ZINC	500.0	506.30	101.3

SAMPLE: CCV

File: IZF18A Jun 18, 2009 23:07

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12820.00	102.6
ANTIMONY	500.0	499.60	99.9
ARSENIC	500.0	496.40	99.3
BARIUM	500.0	507.70	101.5
BERYLLIUM	500.0	508.60	101.7
CADMIUM	500.0	507.50	101.5
CALCIUM	12500.0	12810.00	102.5
CHROMIUM	500.0	509.30	101.9
COBALT	500.0	506.00	101.2
COPPER	500.0	507.80	101.6
IRON	12500.0	12680.00	101.4
LEAD	500.0	515.30	103.1
MAGNESIUM	12500.0	12910.00	103.3
MANGANESE	500.0	510.00	102.0
NICKEL	500.0	511.00	102.2
SELENIUM	500.0	503.20	100.6
SILVER	500.0	513.90	102.8
SODIUM	12500.0	12550.00	100.4
THALLIUM	500.0	515.30	103.1
VANADIUM	500.0	513.20	102.6
ZINC	500.0	500.80	100.2

(1) Control Limits: Mercury 80-120; Other Metals 90-110

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Concentration Units: ug/L

SAMPLE: CCV

File: IZF18A Jun 19, 2009 0:07

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12850.00	102.8
ANTIMONY	500.0	497.50	99.5
ARSENIC	500.0	492.80	98.6
BARIUM	500.0	509.90	102.0
BERYLLIUM	500.0	508.00	101.6
CADMIUM	500.0	506.70	101.3
CALCIUM	12500.0	12840.00	102.7
CHROMIUM	500.0	505.70	101.1
COBALT	500.0	502.50	100.5
COPPER	500.0	504.00	100.8
IRON	12500.0	12650.00	101.2
LEAD	500.0	513.90	102.8
MAGNESIUM	12500.0	12920.00	103.4
MANGANESE	500.0	506.60	101.3
NICKEL	500.0	508.90	101.8
SELENIUM	500.0	500.60	100.1
SILVER	500.0	514.50	102.9
SODIUM	12500.0	12390.00	99.1
THALLIUM	500.0	515.80	103.2
VANADIUM	500.0	513.40	102.7
ZINC	500.0	494.60	98.9

SAMPLE: CCV

File: IZF18A Jun 19, 2009 1:08

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12760.00	102.1
ANTIMONY	500.0	506.80	101.4
ARSENIC	500.0	492.30	98.5
BARIUM	500.0	508.70	101.7
BERYLLIUM	500.0	507.00	101.4
CADMIUM	500.0	512.40	102.5
CALCIUM	12500.0	12770.00	102.2
CHROMIUM	500.0	503.90	100.8
COBALT	500.0	507.90	101.6
COPPER	500.0	502.90	100.6
IRON	12500.0	12580.00	100.6
LEAD	500.0	520.00	104.0
MAGNESIUM	12500.0	12710.00	101.7
MANGANESE	500.0	503.50	100.7
NICKEL	500.0	514.80	103.0
SELENIUM	500.0	508.80	101.8
SILVER	500.0	513.30	102.7
SODIUM	12500.0	12380.00	99.0
THALLIUM	500.0	522.30	104.5
VANADIUM	500.0	515.30	103.1
ZINC	500.0	498.20	99.6

(1) Control Limits: Mercury 80-120; Other Metals 90-110

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Concentration Units: ug/L

SAMPLE: ICV

File: IZF29A Jun 29, 2009 16:28

Analyte	True	Found	%R (1)
ALUMINUM	10000.0	10400.00	104.0
ANTIMONY	400.0	394.60	98.7
ARSENIC	400.0	397.70	99.4
BARIUM	400.0	403.30	100.8
BERYLLIUM	400.0	404.30	101.1
CADMIUM	400.0	400.20	100.1
CALCIUM	10000.0	10060.00	100.6
CHROMIUM	400.0	401.20	100.3
COBALT	400.0	404.20	101.1
COPPER	400.0	398.40	99.6
IRON	10000.0	10260.00	102.6
LEAD	400.0	406.80	101.7
MAGNESIUM	10000.0	10570.00	105.7
MANGANESE	400.0	406.50	101.6
NICKEL	400.0	401.40	100.3
SELENIUM	400.0	396.00	99.0
SILVER	400.0	400.10	100.0
SODIUM	10000.0	10200.00	102.0
THALLIUM	400.0	410.60	102.6
VANADIUM	400.0	398.70	99.7
ZINC	400.0	399.80	100.0

SAMPLE: CCV

File: IZF29A Jun 29, 2009 16:54

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12410.00	99.3
ANTIMONY	500.0	503.70	100.7
ARSENIC	500.0	494.70	98.9
BARIUM	500.0	502.20	100.4
BERYLLIUM	500.0	490.50	98.1
CADMIUM	500.0	497.50	99.5
CALCIUM	12500.0	12270.00	98.2
CHROMIUM	500.0	495.60	99.1
COBALT	500.0	500.90	100.2
COPPER	500.0	499.40	99.9
IRON	12500.0	12340.00	98.7
LEAD	500.0	503.90	100.8
MAGNESIUM	12500.0	12580.00	100.6
MANGANESE	500.0	495.90	99.2
NICKEL	500.0	503.80	100.8
SELENIUM	500.0	494.10	98.8
SILVER	500.0	499.30	99.9
SODIUM	12500.0	12420.00	99.4
THALLIUM	500.0	507.30	101.5
VANADIUM	500.0	496.70	99.3
ZINC	500.0	494.70	98.9

(1) Control Limits: Mercury 80-120; Other Metals 90-110

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Concentration Units: ug/L

SAMPLE: CCV

File: IZF29A Jun 29, 2009 17:55

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12470.00	99.8
ANTIMONY	500.0	507.50	101.5
ARSENIC	500.0	491.60	98.3
BARIUM	500.0	515.60	103.1
BERYLLIUM	500.0	488.70	97.7
CADMIUM	500.0	491.40	98.3
CALCIUM	12500.0	12120.00	97.0
CHROMIUM	500.0	496.80	99.4
COBALT	500.0	496.50	99.3
COPPER	500.0	510.90	102.2
IRON	12500.0	12420.00	99.4
LEAD	500.0	499.30	99.9
MAGNESIUM	12500.0	12800.00	102.4
MANGANESE	500.0	493.10	98.6
NICKEL	500.0	501.60	100.3
SELENIUM	500.0	493.10	98.6
SILVER	500.0	501.90	100.4
SODIUM	12500.0	12520.00	100.2
THALLIUM	500.0	503.10	100.6
VANADIUM	500.0	491.80	98.4
ZINC	500.0	482.60	96.5

SAMPLE: CCV

File: IZF29A Jun 29, 2009 18:55

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12480.00	99.8
ANTIMONY	500.0	521.50	104.3
ARSENIC	500.0	472.90	94.6
BARIUM	500.0	511.20	102.2
BERYLLIUM	500.0	486.00	97.2
CADMIUM	500.0	478.80	95.8
CALCIUM	12500.0	11670.00	93.4
CHROMIUM	500.0	489.60	97.9
COBALT	500.0	473.50	94.7
COPPER	500.0	514.00	102.8
IRON	12500.0	12670.00	101.4
LEAD	500.0	485.00	97.0
MAGNESIUM	12500.0	12670.00	101.4
MANGANESE	500.0	475.10	95.0
NICKEL	500.0	496.60	99.3
SELENIUM	500.0	487.00	97.4
SILVER	500.0	481.20	96.2
SODIUM	12500.0	12220.00	97.8
THALLIUM	500.0	494.30	98.9
VANADIUM	500.0	474.40	94.9
ZINC	500.0	453.60	90.7

(1) Control Limits: Mercury 80-120; Other Metals 90-110

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Concentration Units: ug/L

SAMPLE: CCV

File: IZF29A Jun 29, 2009 19:55

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12520.00	100.2
ANTIMONY	500.0	524.10	104.8
ARSENIC	500.0	481.80	96.4
BARIUM	500.0	515.40	103.1
BERYLLIUM	500.0	473.90	94.8
CADMIUM	500.0	483.50	96.7
CALCIUM	12500.0	11560.00	92.5
CHROMIUM	500.0	478.30	95.7
COBALT	500.0	486.60	97.3
COPPER	500.0	510.40	102.1
IRON	12500.0	12300.00	98.4
LEAD	500.0	489.30	97.9
MAGNESIUM	12500.0	12490.00	99.9
MANGANESE	500.0	473.70	94.7
NICKEL	500.0	501.10	100.2
SELENIUM	500.0	484.10	96.8
SILVER	500.0	486.00	97.2
SODIUM	12500.0	12450.00	99.6
THALLIUM	500.0	502.40	100.5
VANADIUM	500.0	474.80	95.0
ZINC	500.0	459.70	91.9

SAMPLE: CCV

File: IZF29A Jun 29, 2009 20:54

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	11820.00	94.6
ANTIMONY	500.0	505.70	101.1
ARSENIC	500.0	455.10	91.0
BARIUM	500.0	493.90	98.8
BERYLLIUM	500.0	449.30	89.9
CADMIUM	500.0	457.80	91.6
CALCIUM	12500.0	10840.00	86.7•
CHROMIUM	500.0	466.20	93.2
COBALT	500.0	456.90	91.4
COPPER	500.0	502.30	100.5
IRON	12500.0	11820.00	94.6
LEAD	500.0	462.40	92.5
MAGNESIUM	12500.0	11970.00	95.8
MANGANESE	500.0	445.00	89.0•
NICKEL	500.0	475.60	95.1
SELENIUM	500.0	463.10	92.6
SILVER	500.0	469.20	93.8
SODIUM	12500.0	11840.00	94.7
THALLIUM	500.0	469.80	94.0
VANADIUM	500.0	451.20	90.2
ZINC	500.0	428.30	85.7•

(1) Control Limits: Mercury 80-120; Other Metals 90-110

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Concentration Units: ug/L

SAMPLE: ICV

File: IZG01A Jul 01, 2009 9:50

Analyte	True	Found	%R (1)
ALUMINUM	10000.0	10430.00	104.3
BARIUM	400.0	404.40	101.1
CALCIUM	10000.0	10060.00	100.6
IRON	10000.0	10270.00	102.7
LEAD	400.0	415.10	103.8
MAGNESIUM	10000.0	10150.00	101.5
MANGANESE	400.0	408.80	102.2
ZINC	400.0	404.90	101.2

SAMPLE: CCV

File: IZG01A Jul 01, 2009 10:15

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12560.00	100.5
BARIUM	500.0	504.10	100.8
CALCIUM	12500.0	12450.00	99.6
IRON	12500.0	12450.00	99.6
LEAD	500.0	510.90	102.2
MAGNESIUM	12500.0	12320.00	98.6
MANGANESE	500.0	500.20	100.0
ZINC	500.0	499.30	99.9

(1) Control Limits: Mercury 80-120; Other Metals 90-110

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Concentration Units: ug/L

SAMPLE: CCV

File: IZG01A Jul 01, 2009 11:14

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12670.00	101.4
BARIUM	500.0	510.20	102.0
CALCIUM	12500.0	12380.00	99.0
IRON	12500.0	12420.00	99.4
LEAD	500.0	506.20	101.2
MAGNESIUM	12500.0	12420.00	99.4
MANGANESE	500.0	501.20	100.2
ZINC	500.0	491.70	98.3

(1) Control Limits: Mercury 80-120; Other Metals 90-110

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Concentration Units: ug/L

SAMPLE: ICV

File: JZF26A Jun 26, 2009 19:00

Analyte	True	Found	%R (1)
ALUMINUM	400.0	428.00	107.0
CALCIUM	4000.0	3884.00	97.1
IRON	4000.0	3964.00	99.1
MAGNESIUM	4000.0	4193.00	104.8
MOLYBDENUM	40.0	41.78	104.5
POTASSIUM	4000.0	4063.00	101.6
SODIUM	4000.0	4050.00	101.3

SAMPLE: CCV

File: JZF26A Jun 26, 2009 19:52

Analyte	True	Found	%R (1)
ALUMINUM	500.0	558.00	111.6•
CALCIUM	5000.0	5120.00	102.4
IRON	5000.0	4925.00	98.5
MAGNESIUM	5000.0	5141.00	102.8
MOLYBDENUM	25.0	28.22	112.9•
POTASSIUM	5000.0	5087.00	101.7
SODIUM	5000.0	5085.00	101.7

(1) Control Limits: Mercury 80-120; Other Metals 90-110

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Concentration Units: ug/L

SAMPLE: CCV

File: JZF26A Jun 26, 2009 20:27

Analyte	True	Found	%R (1)
ALUMINUM	500.0	498.60	99.7
CALCIUM	5000.0	4877.00	97.5
IRON	5000.0	4860.00	97.2
MAGNESIUM	5000.0	4935.00	98.7
MOLYBDENUM	25.0	25.12	100.5
POTASSIUM	5000.0	4908.00	98.2
SODIUM	5000.0	4838.00	96.8

SAMPLE: CCV

File: JZF26A Jun 26, 2009 22:09

Analyte	True	Found	%R (1)
ALUMINUM	500.0	525.40	105.1
CALCIUM	5000.0	5148.00	103.0
IRON	5000.0	5029.00	100.6
MAGNESIUM	5000.0	5141.00	102.8
MOLYBDENUM	25.0	25.59	102.4
POTASSIUM	5000.0	5105.00	102.1
SODIUM	5000.0	5074.00	101.5

(1) Control Limits: Mercury 80-120; Other Metals 90-110

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Concentration Units: ug/L

SAMPLE: ICV

File: JZF30A Jun 30, 2009 18:23

Analyte	True	Found	%R (1)
ALUMINUM	400.0	419.00	104.8
CALCIUM	4000.0	4019.00	100.5
IRON	4000.0	4075.00	101.9
MAGNESIUM	4000.0	4127.00	103.2
MOLYBDENUM	40.0	40.99	102.5
POTASSIUM	4000.0	4023.00	100.6
SODIUM	4000.0	4007.00	100.2

SAMPLE: CCV

File: JZF30A Jun 30, 2009 19:14

Analyte	True	Found	%R (1)
ALUMINUM	500.0	564.90	113.0•
CALCIUM	5000.0	5346.00	106.9
IRON	5000.0	5157.00	103.1
MAGNESIUM	5000.0	5210.00	104.2
MOLYBDENUM	25.0	31.15	124.6•
POTASSIUM	5000.0	5228.00	104.6
SODIUM	5000.0	5156.00	103.1

(1) Control Limits: Mercury 80-120; Other Metals 90-110

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Concentration Units: ug/L

SAMPLE: CCV

File: JZF30A Jun 30, 2009 19:49

Analyte	True	Found	%R (1)
ALUMINUM	500.0	530.20	106.0
CALCIUM	5000.0	5286.00	105.7
IRON	5000.0	5064.00	101.3
MAGNESIUM	5000.0	5240.00	104.8
MOLYBDENUM	25.0	26.35	105.4
POTASSIUM	5000.0	5237.00	104.7
SODIUM	5000.0	5198.00	104.0

SAMPLE: CCV

File: JZF30A Jun 30, 2009 21:31

Analyte	True	Found	%R (1)
ALUMINUM	500.0	488.70	97.7
CALCIUM	5000.0	5019.00	100.4
IRON	5000.0	5079.00	101.6
MAGNESIUM	5000.0	4898.00	98.0
MOLYBDENUM	25.0	25.53	102.1
POTASSIUM	5000.0	4902.00	98.0
SODIUM	5000.0	4803.00	96.1

(1) Control Limits: Mercury 80-120; Other Metals 90-110

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Concentration Units: ug/L

SAMPLE: CCV

File: JZF30A Jun 30, 2009 23:13

Analyte	True	Found	%R (1)
ALUMINUM	500.0	515.40	103.1
CALCIUM	5000.0	5120.00	102.4
IRON	5000.0	5200.00	104.0
MAGNESIUM	5000.0	5050.00	101.0
MOLYBDENUM	25.0	25.64	102.6
POTASSIUM	5000.0	5026.00	100.5
SODIUM	5000.0	4897.00	97.9

SAMPLE: CCV

File: JZF30A Jul 01, 2009 0:55

Analyte	True	Found	%R (1)
ALUMINUM	500.0	507.70	101.5
CALCIUM	5000.0	5025.00	100.5
IRON	5000.0	5090.00	101.8
MAGNESIUM	5000.0	5032.00	100.6
MOLYBDENUM	25.0	25.53	102.1
POTASSIUM	5000.0	5007.00	100.1
SODIUM	5000.0	4929.00	98.6

(1) Control Limits: Mercury 80-120; Other Metals 90-110

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Concentration Units: ug/L

SAMPLE: CCV

File: JZF30A Jul 01, 2009 2:37

Analyte	True	Found	%R (1)
ALUMINUM	500.0	547.60	109.5
CALCIUM	5000.0	5521.00	110.4
IRON	5000.0	5328.00	106.6
MAGNESIUM	5000.0	5410.00	108.2
MOLYBDENUM	25.0	26.83	107.3
POTASSIUM	5000.0	5502.00	110.0
SODIUM	5000.0	5359.00	107.2

SAMPLE: CCV

File: JZF30A Jul 01, 2009 3:37

Analyte	True	Found	%R (1)
ALUMINUM	500.0	523.40	104.7
CALCIUM	5000.0	5237.00	104.7
IRON	5000.0	5187.00	103.7
MAGNESIUM	5000.0	5213.00	104.3
MOLYBDENUM	25.0	25.66	102.6
POTASSIUM	5000.0	5117.00	102.3
SODIUM	5000.0	5189.00	103.8

(1) Control Limits: Mercury 80-120; Other Metals 90-110

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Concentration Units: ug/L

SAMPLE: CCV

File: JZF30A Jul 01, 2009 5:20

Analyte	True	Found	%R (1)
ALUMINUM	500.0	526.20	105.2
CALCIUM	5000.0	5134.00	102.7
IRON	5000.0	5184.00	103.7
MAGNESIUM	5000.0	5117.00	102.3
MOLYBDENUM	25.0	25.82	103.3
POTASSIUM	5000.0	5065.00	101.3
SODIUM	5000.0	5048.00	101.0

(1) Control Limits: Mercury 80-120; Other Metals 90-110

2C

PQL STANDARD FOR AA AND ICP

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Concentration Units: ug/L

SAMPLE: PQL

File: HZF22A Jun 22, 2009 14:35

Analyte	TRUE	FOUND	% R
MERCURY	0.2	0.19	95.0

2C

PQL STANDARD FOR AA AND ICP

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Concentration Units: ug/L

SAMPLE: PQL

File: HZG01A Jul 01, 2009 08:36

Analyte	TRUE	FOUND	% R
MERCURY	0.2	0.22	110.0

2C

PQL STANDARD FOR AA AND ICP

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Concentration Units: ug/L

SAMPLE: PQL

File: IZF18A Jun 18, 2009 16:52

Analyte	TRUE	FOUND	% R
ALUMINUM	300.0	297.70	99.2
ANTIMONY	8.0	6.00	75.0
ARSENIC	8.0	9.09	113.6
BARIUM	5.0	6.05	121.0
BERYLLIUM	5.0	5.07	101.4
CADMIUM	10.0	10.12	101.2
CALCIUM	50.0	58.77	117.5
CHROMIUM	15.0	15.09	100.6
COBALT	30.0	29.73	99.1
COPPER	25.0	24.81	99.2
IRON	100.0	97.93	97.9
LEAD	5.0	5.60	112.0
MAGNESIUM	50.0	58.00	116.0
MANGANESE	5.0	5.71	114.2
NICKEL	40.0	40.57	101.4
SELENIUM	10.0	10.64	106.4
SILVER	15.0	15.45	103.0
SODIUM	1000.0	1022.00	102.2
THALLIUM	15.0	15.40	102.7
VANADIUM	25.0	24.86	99.4
ZINC	25.0	24.93	99.7

SAMPLE: PQL

File: IZF18A Jun 18, 2009 18:52

Analyte	TRUE	FOUND	% R
ALUMINUM	300.0	319.60	106.5
ANTIMONY	8.0	6.39	79.9
ARSENIC	8.0	9.84	123.0
BARIUM	5.0	5.60	112.0
BERYLLIUM	5.0	5.04	100.8
CADMIUM	10.0	10.22	102.2
CALCIUM	50.0	57.74	115.5
CHROMIUM	15.0	15.59	103.9
COBALT	30.0	30.29	101.0
COPPER	25.0	25.90	103.6
IRON	100.0	96.62	96.6
LEAD	5.0	5.37	107.4
MAGNESIUM	50.0	61.36	122.7
MANGANESE	5.0	5.45	109.0
NICKEL	40.0	41.19	103.0
SELENIUM	10.0	10.17	101.7
SILVER	15.0	16.31	108.7
SODIUM	1000.0	1055.00	105.5
THALLIUM	15.0	15.16	101.1
VANADIUM	25.0	25.26	101.0
ZINC	25.0	25.04	100.2

2C

PQL STANDARD FOR AA AND ICP

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Concentration Units: ug/L

SAMPLE: PQL

File: IZF18A Jun 18, 2009 21:52

Analyte	TRUE	FOUND	% R
ALUMINUM	300.0	304.80	101.6
ANTIMONY	8.0	7.40	92.5
ARSENIC	8.0	9.10	113.8
BARIUM	5.0	5.46	109.2
BERYLLIUM	5.0	4.96	99.2
CADMIUM	10.0	10.27	102.7
CALCIUM	50.0	53.03	106.1
CHROMIUM	15.0	14.94	99.6
COBALT	30.0	30.52	101.7
COPPER	25.0	26.27	105.1
IRON	100.0	111.40	111.4
LEAD	5.0	5.91	118.2
MAGNESIUM	50.0	60.18	120.4
MANGANESE	5.0	5.43	108.6
NICKEL	40.0	41.28	103.2
SELENIUM	10.0	9.70	97.0
SILVER	15.0	15.53	103.5
SODIUM	1000.0	1087.00	108.7
THALLIUM	15.0	16.14	107.6
VANADIUM	25.0	24.84	99.4
ZINC	25.0	25.09	100.4

SAMPLE: PQL

File: IZF18A Jun 19, 2009 00:52

Analyte	TRUE	FOUND	% R
ALUMINUM	300.0	307.20	102.4
ANTIMONY	8.0	6.39	79.9
ARSENIC	8.0	8.53	106.6
BARIUM	5.0	5.83	116.6
BERYLLIUM	5.0	5.05	101.0
CADMIUM	10.0	10.41	104.1
CALCIUM	50.0	46.40	92.8
CHROMIUM	15.0	15.10	100.7
COBALT	30.0	30.59	102.0
COPPER	25.0	25.93	103.7
IRON	100.0	98.53	98.5
LEAD	5.0	5.59	111.8
MAGNESIUM	50.0	60.43	120.9
MANGANESE	5.0	5.52	110.4
NICKEL	40.0	41.20	103.0
SELENIUM	10.0	9.47	94.7
SILVER	15.0	15.85	105.7
SODIUM	1000.0	1049.00	104.9
THALLIUM	15.0	14.76	98.4
VANADIUM	25.0	25.64	102.6
ZINC	25.0	25.20	100.8

2C

PQL STANDARD FOR AA AND ICP

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Concentration Units: ug/L

SAMPLE: PQL

File: IZF29A Jun 29, 2009 16:39

Analyte	TRUE	FOUND	% R
ALUMINUM	300.0	300.10	100.0
ANTIMONY	8.0	7.77	97.1
ARSENIC	8.0	6.92	86.5
BARIUM	5.0	5.08	101.6
BERYLLIUM	5.0	5.12	102.4
CADMIUM	10.0	10.28	102.8
CALCIUM	50.0	61.06	122.1
CHROMIUM	15.0	15.29	101.9
COBALT	30.0	30.92	103.1
COPPER	25.0	25.62	102.5
IRON	100.0	98.42	98.4
LEAD	5.0	5.83	116.6
MAGNESIUM	50.0	56.05	112.1
MANGANESE	5.0	5.69	113.8
NICKEL	40.0	41.42	103.6
SELENIUM	10.0	9.97	99.7
SILVER	15.0	15.46	103.1
SODIUM	1000.0	1051.00	105.1
THALLIUM	15.0	15.81	105.4
VANADIUM	25.0	25.17	100.7
ZINC	25.0	25.51	102.0

SAMPLE: PQL

File: IZF29A Jun 29, 2009 19:40

Analyte	TRUE	FOUND	% R
ALUMINUM	300.0	330.50	110.2
ANTIMONY	8.0	8.26	103.3
ARSENIC	8.0	6.17	77.1
BARIUM	5.0	4.95	99.0
BERYLLIUM	5.0	4.80	96.0
CADMIUM	10.0	9.80	98.0
CALCIUM	50.0	59.27	118.5
CHROMIUM	15.0	14.60	97.3
COBALT	30.0	29.14	97.1
COPPER	25.0	26.62	106.5
IRON	100.0	101.10	101.1
LEAD	5.0	5.76	115.2
MAGNESIUM	50.0	55.69	111.4
MANGANESE	5.0	4.75	95.0
NICKEL	40.0	40.41	101.0
SELENIUM	10.0	10.34	103.4
SILVER	15.0	14.75	98.3
SODIUM	1000.0	1005.00	100.5
THALLIUM	15.0	14.75	98.3
VANADIUM	25.0	24.29	97.2
ZINC	25.0	22.87	91.5

2C

PQL STANDARD FOR AA AND ICP

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Concentration Units: ug/L

SAMPLE: PQL

File: IZG01A Jul 01, 2009 09:59

Analyte	TRUE	FOUND	% R
ALUMINUM	300.0	324.60	108.2
BARIUM	5.0	4.94	98.8
CALCIUM	50.0	62.31	124.6
IRON	100.0	99.74	99.7
LEAD	5.0	5.75	115.0
MAGNESIUM	50.0	50.64	101.3
MANGANESE	5.0	5.59	111.8
ZINC	25.0	25.45	101.8

2C

PQL STANDARD FOR AA AND ICP

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Concentration Units: ug/L

SAMPLE: PQL

File: JZF26A Jun 26, 2009 19:18

Analyte	TRUE	FOUND	% R
ALUMINUM	60.0	61.15	101.9
CALCIUM	20.0	16.54	82.7
IRON	20.0	19.20	96.0
MAGNESIUM	20.0	20.72	103.6
MOLYBDENUM	1.0	1.10	110.0
POTASSIUM	200.0	219.80	109.9
SODIUM	200.0	212.70	106.3

2C

PQL STANDARD FOR AA AND ICP

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Concentration Units: ug/L

SAMPLE: PQL

File: JZF30A Jun 30, 2009 18:40

Analyte	TRUE	FOUND	% R
ALUMINUM	60.0	60.49	100.8
CALCIUM	20.0	20.21	101.1
IRON	20.0	22.13	110.7
MAGNESIUM	20.0	20.93	104.7
MOLYBDENUM	1.0	1.06	106.0
POTASSIUM	200.0	207.10	103.5
SODIUM	200.0	209.80	104.9

SAMPLE: PQL

File: JZF30A Jul 01, 2009 03:28

Analyte	TRUE	FOUND	% R
ALUMINUM	60.0	58.86	98.1
CALCIUM	20.0	19.51	97.5
IRON	20.0	20.15	100.7
MAGNESIUM	20.0	18.21	91.1
MOLYBDENUM	1.0	0.97	97.0
POTASSIUM	200.0	197.90	99.0
SODIUM	200.0	200.70	100.3

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Concentration Units: ug/L

SAMPLE: ICB

File: HZF22A Jun 22, 2009 14:33

Analyte	Result	C
MERCURY	-0.02	J

SAMPLE: CCB

File: HZF22A Jun 22, 2009 14:40

Analyte	Result	C
MERCURY	0.02	U

SAMPLE: CCB

File: HZF22A Jun 22, 2009 15:08

Analyte	Result	C
MERCURY	-0.02	J

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Concentration Units: ug/L

SAMPLE: CCB

File: HZF22A Jun 22, 2009 15:36

Analyte	Result	C
MERCURY	0.02	U

SAMPLE: CCB

File: HZF22A Jun 22, 2009 16:01

Analyte	Result	C
MERCURY	0.02	U

SAMPLE: CCB

File: HZF22A Jun 22, 2009 16:27

Analyte	Result	C
MERCURY	0.02	U

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Concentration Units: ug/L

SAMPLE: CCB

File: HZF22A Jun 22, 2009 16:56

Analyte	Result	C
MERCURY	0.02	U

SAMPLE: CCB

File: HZF22A Jun 22, 2009 17:15

Analyte	Result	C
MERCURY	0.02	U

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Concentration Units: ug/L

SAMPLE: ICB

File: HZG01A Jul 01, 2009 8:34

Analyte	Result	C
MERCURY	0.02	U

SAMPLE: CCB

File: HZG01A Jul 01, 2009 9:00

Analyte	Result	C
MERCURY	0.02	U

SAMPLE: CCB

File: HZG01A Jul 01, 2009 9:30

Analyte	Result	C
MERCURY	-0.02	J

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Concentration Units: ug/L

SAMPLE: CCB

File: HZG01A Jul 01, 2009 9:56

Analyte	Result	C
MERCURY	0.02	U

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Concentration Units: ug/L

SAMPLE: ICB

File: IZF18A Jun 18, 2009 16:47

Analyte	Result	C
ALUMINUM	32.00	U
ANTIMONY	1.70	U
ARSENIC	1.50	U
BARIUM	0.57	U
BERYLLIUM	0.11	U
CADMIUM	0.07	U
CALCIUM	15.00	U
CHROMIUM	0.62	U
COBALT	0.19	U
COPPER	0.79	U
IRON	3.70	U
LEAD	1.40	U
MAGNESIUM	2.23	J
MANGANESE	1.10	U
NICKEL	0.34	U
SELENIUM	2.10	U
SILVER	0.63	U
SODIUM	32.00	U
THALLIUM	1.90	J
VANADIUM	0.69	U
ZINC	0.32	U

SAMPLE: CCB

File: IZF18A Jun 18, 2009 17:13

Analyte	Result	C
ALUMINUM	32.00	U
ANTIMONY	1.70	U
ARSENIC	1.50	U
BARIUM	0.83	J
BERYLLIUM	0.11	U
CADMIUM	0.07	J
CALCIUM	15.00	U
CHROMIUM	0.62	U
COBALT	0.19	U
COPPER	0.79	J
IRON	5.50	J
LEAD	1.40	U
MAGNESIUM	13.67	J
MANGANESE	1.10	U
NICKEL	0.34	U
SELENIUM	3.20	J
SILVER	0.63	U
SODIUM	32.00	U
THALLIUM	1.92	J
VANADIUM	0.69	U
ZINC	0.38	J

SAMPLE: CCB

File: IZF18A Jun 18, 2009 18:12

Analyte	Result	C
ALUMINUM	32.00	U
ANTIMONY	1.70	U
ARSENIC	1.50	U
BARIUM	0.57	U
BERYLLIUM	0.11	U
CADMIUM	0.10	J
CALCIUM	15.00	U
CHROMIUM	0.62	U
COBALT	0.19	U
COPPER	0.79	U
IRON	6.87	J
LEAD	1.40	U
MAGNESIUM	14.59	J
MANGANESE	1.10	U
NICKEL	0.34	U
SELENIUM	2.94	J
SILVER	0.63	U
SODIUM	51.70	J
THALLIUM	1.63	J
VANADIUM	0.69	U
ZINC	0.50	J

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Concentration Units: ug/L

SAMPLE: CCB
File: IZF18A Jun 18, 2009 19:12

Analyte	Result	C
ALUMINUM	32.00	U
ANTIMONY	1.70	U
ARSENIC	1.50	U
BARIUM	0.57	U
BERYLLIUM	0.11	U
CADMIUM	0.10	J
CALCIUM	16.48	J
CHROMIUM	0.62	U
COBALT	0.19	U
COPPER	0.79	U
IRON	8.19	J
LEAD	1.40	U
MAGNESIUM	17.21	J
MANGANESE	1.10	U
NICKEL	0.34	U
SELENIUM	2.10	U
SILVER	0.63	U
SODIUM	60.57	J
THALLIUM	2.75	J
VANADIUM	0.69	U
ZINC	0.58	J

SAMPLE: CCB
File: IZF18A Jun 18, 2009 20:12

Analyte	Result	C
ALUMINUM	32.00	U
ANTIMONY	1.70	U
ARSENIC	1.50	U
BARIUM	0.57	U
BERYLLIUM	0.11	U
CADMIUM	0.14	J
CALCIUM	20.06	J
CHROMIUM	0.62	U
COBALT	0.19	U
COPPER	0.79	U
IRON	10.94	J
LEAD	1.40	U
MAGNESIUM	19.70	J
MANGANESE	1.10	U
NICKEL	0.34	U
SELENIUM	2.10	U
SILVER	0.64	J
SODIUM	225.10	J
THALLIUM	1.30	U
VANADIUM	0.69	U
ZINC	0.33	J

SAMPLE: CCB
File: IZF18A Jun 18, 2009 21:12

Analyte	Result	C
ALUMINUM	32.00	U
ANTIMONY	1.70	U
ARSENIC	2.17	J
BARIUM	0.57	U
BERYLLIUM	0.12	J
CADMIUM	0.14	J
CALCIUM	15.00	U
CHROMIUM	0.62	U
COBALT	0.19	U
COPPER	0.79	U
IRON	11.45	J
LEAD	1.40	U
MAGNESIUM	17.45	J
MANGANESE	1.10	U
NICKEL	0.34	U
SELENIUM	2.10	U
SILVER	0.63	U
SODIUM	110.00	J
THALLIUM	1.55	J
VANADIUM	0.69	U
ZINC	0.42	J

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Concentration Units: ug/L

SAMPLE: CCB
File: IZF18A Jun 18, 2009 22:12

Analyte	Result	C
ALUMINUM	32.00	U
ANTIMONY	1.70	U
ARSENIC	1.50	U
BARIUM	0.69	J
BERYLLIUM	0.18	J
CADMIUM	0.22	J
CALCIUM	15.00	U
CHROMIUM	0.62	U
COBALT	0.19	U
COPPER	0.79	U
IRON	13.74	J
LEAD	1.40	U
MAGNESIUM	21.29	J
MANGANESE	1.10	U
NICKEL	0.47	J
SELENIUM	2.28	J
SILVER	0.63	U
SODIUM	87.52	J
THALLIUM	1.82	J
VANADIUM	0.69	U
ZINC	0.52	J

SAMPLE: CCB
File: IZF18A Jun 18, 2009 23:12

Analyte	Result	C
ALUMINUM	33.26	J
ANTIMONY	1.70	U
ARSENIC	1.50	U
BARIUM	0.57	U
BERYLLIUM	0.13	J
CADMIUM	0.20	J
CALCIUM	15.51	J
CHROMIUM	0.62	U
COBALT	0.19	U
COPPER	0.79	U
IRON	14.68	J
LEAD	1.40	U
MAGNESIUM	20.15	J
MANGANESE	1.10	U
NICKEL	0.39	J
SELENIUM	3.02	J
SILVER	0.63	U
SODIUM	96.36	J
THALLIUM	1.98	J
VANADIUM	0.69	U
ZINC	0.56	J

SAMPLE: CCB
File: IZF18A Jun 19, 2009 0:12

Analyte	Result	C
ALUMINUM	32.00	U
ANTIMONY	1.70	U
ARSENIC	1.50	U
BARIUM	0.57	U
BERYLLIUM	0.17	J
CADMIUM	0.23	J
CALCIUM	21.90	J
CHROMIUM	0.62	U
COBALT	0.19	U
COPPER	0.79	U
IRON	15.65	J
LEAD	1.40	U
MAGNESIUM	23.42	J
MANGANESE	1.10	U
NICKEL	0.34	U
SELENIUM	2.10	U
SILVER	0.63	U
SODIUM	97.96	J
THALLIUM	1.90	J
VANADIUM	0.69	U
ZINC	0.49	J

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Concentration Units: ug/L

SAMPLE: CCB

File: IZF18A Jun 19, 2009 1:13

Analyte	Result	C
ALUMINUM	32.00	U
ANTIMONY	1.70	U
ARSENIC	1.50	U
BARIUM	0.57	U
BERYLLIUM	0.11	U
CADMIUM	0.09	J
CALCIUM	15.00	U
CHROMIUM	0.62	U
COBALT	-0.29	J
COPPER	0.79	U
IRON	3.70	U
LEAD	1.40	U
MAGNESIUM	4.79	J
MANGANESE	1.10	U
NICKEL	0.34	U
SELENIUM	2.50	J
SILVER	0.63	U
SODIUM	93.19	J
THALLIUM	1.30	U
VANADIUM	0.69	U
ZINC	0.32	U

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Concentration Units: ug/L

SAMPLE: ICB

File: IZF29A Jun 29, 2009 16:33

Analyte	Result	C
ALUMINUM	32.00	U
ANTIMONY	1.70	U
ARSENIC	1.50	U
BARIUM	0.57	U
BERYLLIUM	0.11	U
CADMIUM	0.07	U
CALCIUM	15.00	U
CHROMIUM	0.62	U
COBALT	0.19	U
COPPER	0.79	U
IRON	3.70	U
LEAD	1.40	U
MAGNESIUM	2.20	U
MANGANESE	1.10	U
NICKEL	0.34	U
SELENIUM	3.42	J
SILVER	0.63	U
SODIUM	40.79	J
THALLIUM	1.30	U
VANADIUM	0.69	U
ZINC	0.32	U

SAMPLE: CCB

File: IZF29A Jun 29, 2009 16:59

Analyte	Result	C
ALUMINUM	32.00	U
ANTIMONY	1.70	U
ARSENIC	1.50	U
BARIUM	0.57	U
BERYLLIUM	0.11	U
CADMIUM	0.07	U
CALCIUM	15.00	U
CHROMIUM	0.62	U
COBALT	0.19	U
COPPER	0.79	J
IRON	3.70	U
LEAD	1.40	U
MAGNESIUM	2.92	J
MANGANESE	1.10	U
NICKEL	0.34	U
SELENIUM	2.10	U
SILVER	0.63	U
SODIUM	32.00	U
THALLIUM	1.30	U
VANADIUM	0.69	U
ZINC	0.32	U

SAMPLE: CCB

File: IZF29A Jun 29, 2009 18:00

Analyte	Result	C
ALUMINUM	32.00	U
ANTIMONY	1.70	U
ARSENIC	1.50	U
BARIUM	0.57	U
BERYLLIUM	0.11	U
CADMIUM	0.07	U
CALCIUM	15.00	U
CHROMIUM	0.62	U
COBALT	0.19	U
COPPER	0.79	U
IRON	3.70	U
LEAD	1.40	U
MAGNESIUM	4.34	J
MANGANESE	1.10	U
NICKEL	0.34	U
SELENIUM	2.62	J
SILVER	0.63	U
SODIUM	32.00	U
THALLIUM	1.32	J
VANADIUM	0.69	U
ZINC	0.32	U

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Concentration Units: ug/L

SAMPLE: CCB
File: IZF29A Jun 29, 2009 19:00

Analyte	Result	C
ALUMINUM	32.00	U
ANTIMONY	1.70	U
ARSENIC	-2.05	J
BARIUM	0.57	U
BERYLLIUM	0.11	U
CADMIUM	0.07	U
CALCIUM	15.00	U
CHROMIUM	0.62	U
COBALT	0.19	U
COPPER	1.07	J
IRON	3.70	U
LEAD	1.40	U
MAGNESIUM	5.84	J
MANGANESE	1.10	U
NICKEL	0.34	U
SELENIUM	2.10	U
SILVER	0.63	U
SODIUM	32.00	U
THALLIUM	1.39	J
VANADIUM	0.69	U
ZINC	0.32	U

SAMPLE: CCB
File: IZF29A Jun 29, 2009 20:00

Analyte	Result	C
ALUMINUM	32.00	U
ANTIMONY	1.70	U
ARSENIC	1.50	U
BARIUM	0.57	U
BERYLLIUM	0.11	U
CADMIUM	0.08	J
CALCIUM	15.00	U
CHROMIUM	0.62	U
COBALT	0.19	U
COPPER	1.19	J
IRON	4.00	J
LEAD	1.40	U
MAGNESIUM	8.12	J
MANGANESE	1.10	U
NICKEL	0.34	U
SELENIUM	2.10	U
SILVER	0.63	U
SODIUM	32.00	U
THALLIUM	1.30	U
VANADIUM	0.69	U
ZINC	0.32	U

SAMPLE: CCB
File: IZF29A Jun 29, 2009 20:59

Analyte	Result	C
ALUMINUM	32.00	U
ANTIMONY	1.70	U
ARSENIC	-1.59	J
BARIUM	0.57	U
BERYLLIUM	0.11	J
CADMIUM	0.09	J
CALCIUM	15.52	J
CHROMIUM	0.62	U
COBALT	0.19	U
COPPER	1.22	J
IRON	5.11	J
LEAD	1.40	U
MAGNESIUM	8.62	J
MANGANESE	1.10	U
NICKEL	0.34	U
SELENIUM	2.10	U
SILVER	0.63	U
SODIUM	60.44	J
THALLIUM	2.50	J
VANADIUM	0.69	U
ZINC	0.32	U

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Concentration Units: ug/L

SAMPLE: ICB

File: IZG01A Jul 01, 2009 9:54

Analyte	Result	C
ALUMINUM	32.00	U
BARIUM	-0.88	J
CALCIUM	15.00	U
IRON	3.70	U
LEAD	1.40	U
MAGNESIUM	2.20	U
MANGANESE	1.10	U
ZINC	0.32	U

SAMPLE: CCB

File: IZG01A Jul 01, 2009 10:20

Analyte	Result	C
ALUMINUM	32.00	U
BARIUM	-1.27	J
CALCIUM	15.00	U
IRON	3.70	U
LEAD	1.40	U
MAGNESIUM	2.20	U
MANGANESE	1.10	U
ZINC	0.32	U

SAMPLE: CCB

File: IZG01A Jul 01, 2009 11:19

Analyte	Result	C
ALUMINUM	32.00	U
BARIUM	-1.21	J
CALCIUM	15.00	U
IRON	3.70	U
LEAD	1.91	J
MAGNESIUM	2.20	U
MANGANESE	1.10	U
ZINC	0.32	U

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Concentration Units: ug/L

SAMPLE: ICB

File: JZF26A Jun 26, 2009 19:09

Analyte	Result	C
ALUMINUM	2.20	U
CALCIUM	3.90	U
IRON	3.10	U
MAGNESIUM	4.09	J
MOLYBDENUM	0.21	J
POTASSIUM	16.47	J
SODIUM	6.50	U

SAMPLE: CCB

File: JZF26A Jun 26, 2009 20:01

Analyte	Result	C
ALUMINUM	25.62	J
CALCIUM	23.03	J
IRON	29.23	J
MAGNESIUM	28.97	J
MOLYBDENUM	1.52	J
POTASSIUM	102.60	J
SODIUM	41.78	J

SAMPLE: CCB

File: JZF26A Jun 26, 2009 20:35

Analyte	Result	C
ALUMINUM	6.43	J
CALCIUM	3.90	U
IRON	9.42	J
MAGNESIUM	10.58	J
MOLYBDENUM	0.39	J
POTASSIUM	53.99	J
SODIUM	16.33	J

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Concentration Units: ug/L

SAMPLE: CCB

File: JZF26A Jun 26, 2009 22:18

Analyte	Result	C
ALUMINUM	2.20	U
CALCIUM	3.90	U
IRON	3.50	J
MAGNESIUM	5.16	J
MOLYBDENUM	0.18	J
POTASSIUM	22.53	J
SODIUM	7.75	J

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Concentration Units: ug/L

SAMPLE: ICB

File: JZF30A Jun 30, 2009 18:31

Analyte	Result	C
ALUMINUM	2.20	U
CALCIUM	4.61	J
IRON	5.17	J
MAGNESIUM	4.15	J
MOLYBDENUM	0.42	J
POTASSIUM	13.01	J
SODIUM	6.50	U

SAMPLE: CCB

File: JZF30A Jun 30, 2009 19:23

Analyte	Result	C
ALUMINUM	26.86	J
CALCIUM	29.54	J
IRON	30.29	J
MAGNESIUM	30.19	J
MOLYBDENUM	2.74	J
POTASSIUM	40.87	J
SODIUM	31.91	J

SAMPLE: CCB

File: JZF30A Jun 30, 2009 19:57

Analyte	Result	C
ALUMINUM	6.76	J
CALCIUM	9.85	J
IRON	10.42	J
MAGNESIUM	10.35	J
MOLYBDENUM	0.75	J
POTASSIUM	20.88	J
SODIUM	12.27	J

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Concentration Units: ug/L

SAMPLE: CCB

File: JZF30A Jun 30, 2009 21:39

Analyte	Result	C
ALUMINUM	6.68	J
CALCIUM	18.41	J
IRON	18.68	J
MAGNESIUM	14.94	J
MOLYBDENUM	0.38	J
POTASSIUM	20.80	J
SODIUM	20.05	J

SAMPLE: CCB

File: JZF30A Jun 30, 2009 23:21

Analyte	Result	C
ALUMINUM	5.42	J
CALCIUM	16.55	J
IRON	12.86	J
MAGNESIUM	12.00	J
MOLYBDENUM	0.22	J
POTASSIUM	10.57	J
SODIUM	6.50	U

SAMPLE: CCB

File: JZF30A Jul 01, 2009 1:04

Analyte	Result	C
ALUMINUM	2.66	J
CALCIUM	6.78	J
IRON	9.21	J
MAGNESIUM	5.47	J
MOLYBDENUM	0.32	J
POTASSIUM	10.12	J
SODIUM	6.50	U

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Concentration Units: ug/L

SAMPLE: CCB

File: JZF30A Jul 01, 2009 2:46

Analyte	Result	C
ALUMINUM	2.29	J
CALCIUM	8.28	J
IRON	7.02	J
MAGNESIUM	4.97	J
MOLYBDENUM	0.22	J
POTASSIUM	8.80	U
SODIUM	6.50	U

SAMPLE: CCB

File: JZF30A Jul 01, 2009 3:45

Analyte	Result	C
ALUMINUM	2.20	U
CALCIUM	3.90	U
IRON	3.64	J
MAGNESIUM	3.59	J
MOLYBDENUM	0.17	J
POTASSIUM	8.80	U
SODIUM	6.50	U

SAMPLE: CCB

File: JZF30A Jul 01, 2009 5:28

Analyte	Result	C
ALUMINUM	8.42	J
CALCIUM	5.97	J
IRON	16.14	J
MAGNESIUM	4.55	J
MOLYBDENUM	0.22	J
POTASSIUM	11.21	J
SODIUM	6.50	U

3P

PREPARATION BLANKS

Lab Name: Katahdin Analytical Services **Sample ID:** PBSZF25ICS0

Matrix: SOIL **SDG Name:** SC3122

QC Batch ID: ZF25ICS0

Concentration Units : mg/Kgdrywt

Analyte	RESULT	C
ALUMINUM	4.628	J
ANTIMONY	0.157	J
ARSENIC	0.090	U
BARIUM	0.060	U
BERYLLIUM	0.010	U
CADMIUM	0.010	U
CALCIUM	3.037	J
CHROMIUM	0.100	U
COBALT	0.030	U
COPPER	0.164	J
IRON	4.683	J
LEAD	0.140	U
MAGNESIUM	1.897	J
MANGANESE	0.080	U
NICKEL	0.030	U
POTASSIUM	6.255	J
SELENIUM	0.222	J
SILVER	0.060	U
SODIUM	3.900	U
THALLIUM	0.186	J
VANADIUM	0.040	U
ZINC	0.120	U

3P

PREPARATION BLANKS

Lab Name: Katahdin Analytical Services **Sample ID:** PBSZF30HGS0

Matrix: SOIL **SDG Name:** SC3122

QC Batch ID: ZF30HGS0

Concentration Units : mg/Kgdrywt

Analyte	RESULT	C
MERCURY	0.010	U

3P

PREPARATION BLANKS

Lab Name: Katahdin Analytical Services **Sample ID:** PBWZF16ICW0

Matrix: WATER **SDG Name:** SC3122

QC Batch ID: ZF16ICW0

Concentration Units : ug/L

Analyte	RESULT	C
ALUMINUM	22.050	J
ANTIMONY	1.330	U
ARSENIC	1.200	U
BARIUM	0.350	U
BERYLLIUM	0.090	U
CADMIUM	0.120	U
CALCIUM	6.840	U
CHROMIUM	0.440	U
COBALT	0.270	U
COPPER	0.700	U
IRON	11.530	J
LEAD	1.020	U
MAGNESIUM	22.820	J
MANGANESE	0.670	U
NICKEL	-0.281	J
POTASSIUM	265.350	J
SELENIUM	3.030	U
SILVER	0.790	U
SODIUM	60.660	J
THALLIUM	-0.614	J
VANADIUM	5.120	U
ZINC	1.730	U

3P

PREPARATION BLANKS

Lab Name: Katahdin Analytical Services **Sample ID:** PBWZF22HGW2

Matrix: WATER **SDG Name:** SC3122

QC Batch ID: ZF22HGW2

Concentration Units : ug/L

Analyte	RESULT	C
MERCURY	0.020	U

ICP INTERFERENCE CHECK SAMPLE

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Concentration Units: ug/L

SAMPLE: ICSA

File: IZF18A Jun 18, 2009 16:57

Analyte	TRUE	FOUND	% R
ALUMINUM	500000	543100	108.6
ANTIMONY	0	1	
ARSENIC	0	-1	
BARIUM	0	1	
BERYLLIUM	0	0	
CADMIUM	0	0	
CALCIUM	500000	494200	98.8
CHROMIUM	0	2	
COBALT	0	-1	
COPPER	0	4	
IRON	200000	205100	102.6
LEAD	0	1	
MAGNESIUM	500000	493200	98.6
MANGANESE	6	8	
NICKEL	0	2	
SELENIUM	0	-1	
SILVER	0	-2	
SODIUM	0	-13	
THALLIUM	0	1	
VANADIUM	0	-1	
ZINC	0	10	

SAMPLE: ICSAB

File: IZF18A Jun 18, 2009 17:03

Analyte	TRUE	FOUND	% R
ALUMINUM	500000	549500	109.9
ANTIMONY	600	616	102.7
ARSENIC	100	102	102.0
BARIUM	500	562	112.4
BERYLLIUM	500	541	108.2
CADMIUM	1000	978	97.8
CALCIUM	500000	518200	103.6
CHROMIUM	500	505	101.0
COBALT	500	480	96.0
COPPER	500	547	109.4
IRON	200000	201100	100.6
LEAD	50	50	100.0
MAGNESIUM	500000	501100	100.2
MANGANESE	506	537	106.1
NICKEL	1000	953	95.3
SELENIUM	50	49	98.0
SILVER	200	205	102.5
SODIUM	20000	22690	113.5
THALLIUM	100	96	96.0
VANADIUM	500	517	103.4
ZINC	1000	963	96.3

ICP INTERFERENCE CHECK SAMPLE

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Concentration Units: ug/L

SAMPLE: ICSA

File: IZF18A Jun 18, 2009 18:57

Analyte	TRUE	FOUND	% R
ALUMINUM	500000	520800	104.2
ANTIMONY	0	1	
ARSENIC	0	0	
BARIUM	0	1	
BERYLLIUM	0	0	
CADMIUM	0	1	
CALCIUM	500000	479900	96.0
CHROMIUM	0	2	
COBALT	0	-1	
COPPER	0	4	
IRON	200000	194700	97.4
LEAD	0	2	
MAGNESIUM	500000	481800	96.4
MANGANESE	6	8	
NICKEL	0	1	
SELENIUM	0	0	
SILVER	0	-2	
SODIUM	0	74	
THALLIUM	0	4	
VANADIUM	0	0	
ZINC	0	7	

SAMPLE: ICSAB

File: IZF18A Jun 18, 2009 19:02

Analyte	TRUE	FOUND	% R
ALUMINUM	500000	499900	100.0
ANTIMONY	600	612	102.0
ARSENIC	100	105	105.0
BARIUM	500	491	98.2
BERYLLIUM	500	470	94.0
CADMIUM	1000	977	97.7
CALCIUM	500000	459800	92.0
CHROMIUM	500	522	104.4
COBALT	500	482	96.4
COPPER	500	569	113.8
IRON	200000	190400	95.2
LEAD	50	45	90.0
MAGNESIUM	500000	466800	93.4
MANGANESE	506	472	93.3
NICKEL	1000	949	94.9
SELENIUM	50	47	94.0
SILVER	200	211	105.5
SODIUM	20000	19820	99.1
THALLIUM	100	99	99.0
VANADIUM	500	543	108.6
ZINC	1000	954	95.4

ICP INTERFERENCE CHECK SAMPLE

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Concentration Units: ug/L

SAMPLE: ICSA

File: IZF18A Jun 18, 2009 21:57

Analyte	TRUE	FOUND	% R
ALUMINUM	500000	521700	104.3
ANTIMONY	0	0	
ARSENIC	0	0	
BARIUM	0	1	
BERYLLIUM	0	0	
CADMIUM	0	1	
CALCIUM	500000	472200	94.4
CHROMIUM	0	2	
COBALT	0	0	
COPPER	0	4	
IRON	200000	196000	98.0
LEAD	0	1	
MAGNESIUM	500000	490800	98.2
MANGANESE	6	8	
NICKEL	0	2	
SELENIUM	0	-4	
SILVER	0	-3	
SODIUM	0	118	
THALLIUM	0	3	
VANADIUM	0	0	
ZINC	0	7	

SAMPLE: ICSAB

File: IZF18A Jun 18, 2009 22:02

Analyte	TRUE	FOUND	% R
ALUMINUM	500000	526800	105.4
ANTIMONY	600	617	102.8
ARSENIC	100	103	103.0
BARIUM	500	519	103.8
BERYLLIUM	500	501	100.2
CADMIUM	1000	985	98.5
CALCIUM	500000	490700	98.1
CHROMIUM	500	502	100.4
COBALT	500	488	97.6
COPPER	500	546	109.2
IRON	200000	197300	98.7
LEAD	50	47	94.0
MAGNESIUM	500000	494900	99.0
MANGANESE	506	502	99.2
NICKEL	1000	960	96.0
SELENIUM	50	49	98.0
SILVER	200	203	101.5
SODIUM	20000	21180	105.9
THALLIUM	100	96	96.0
VANADIUM	500	515	103.0
ZINC	1000	968	96.8

ICP INTERFERENCE CHECK SAMPLE

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Concentration Units: ug/L

SAMPLE: ICSA

File: IZF18A Jun 19, 2009 00:57

Analyte	TRUE	FOUND	% R
ALUMINUM	500000	522700	104.5
ANTIMONY	0	0	
ARSENIC	0	-2	
BARIUM	0	0	
BERYLLIUM	0	0	
CADMIUM	0	0	
CALCIUM	500000	491800	98.4
CHROMIUM	0	1	
COBALT	0	-1	
COPPER	0	4	
IRON	200000	195200	97.6
LEAD	0	1	
MAGNESIUM	500000	505800	101.2
MANGANESE	6	7	
NICKEL	0	2	
SELENIUM	0	-1	
SILVER	0	-3	
SODIUM	0	77	
THALLIUM	0	3	
VANADIUM	0	0	
ZINC	0	7	

SAMPLE: ICSAB

File: IZF18A Jun 19, 2009 01:03

Analyte	TRUE	FOUND	% R
ALUMINUM	500000	518300	103.7
ANTIMONY	600	587	97.8
ARSENIC	100	98	98.0
BARIUM	500	516	103.2
BERYLLIUM	500	500	100.0
CADMIUM	1000	955	95.5
CALCIUM	500000	488000	97.6
CHROMIUM	500	494	98.8
COBALT	500	466	93.2
COPPER	500	543	108.6
IRON	200000	196300	98.2
LEAD	50	48	96.0
MAGNESIUM	500000	500800	100.2
MANGANESE	506	493	97.4
NICKEL	1000	928	92.8
SELENIUM	50	50	100.0
SILVER	200	203	101.5
SODIUM	20000	20650	103.3
THALLIUM	100	96	96.0
VANADIUM	500	519	103.8
ZINC	1000	920	92.0

ICP INTERFERENCE CHECK SAMPLE

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Concentration Units: ug/L

SAMPLE: ICSA

File: IZF29A Jun 29, 2009 16:44

Analyte	TRUE	FOUND	% R
ALUMINUM	500000	508400	101.7
ANTIMONY	0	5	
ARSENIC	0	6	
BARIUM	0	0	
BERYLLIUM	0	0	
CADMIUM	0	1	
CALCIUM	500000	459700	91.9
CHROMIUM	0	2	
COBALT	0	0	
COPPER	0	5	
IRON	200000	187500	93.8
LEAD	0	4	
MAGNESIUM	500000	486200	97.2
MANGANESE	6	6	
NICKEL	0	1	
SELENIUM	0	3	
SILVER	0	-1	
SODIUM	0	24	
THALLIUM	0	1	
VANADIUM	0	1	
ZINC	0	8	

SAMPLE: ICSAB

File: IZF29A Jun 29, 2009 16:49

Analyte	TRUE	FOUND	% R
ALUMINUM	500000	509800	102.0
ANTIMONY	600	613	102.2
ARSENIC	100	110	110.0
BARIUM	500	508	101.6
BERYLLIUM	500	485	97.0
CADMIUM	1000	941	94.1
CALCIUM	500000	468000	93.6
CHROMIUM	500	475	95.0
COBALT	500	469	93.8
COPPER	500	528	105.6
IRON	200000	188800	94.4
LEAD	50	51	102.0
MAGNESIUM	500000	488900	97.8
MANGANESE	506	487	96.2
NICKEL	1000	921	92.1
SELENIUM	50	51	102.0
SILVER	200	195	97.5
SODIUM	20000	21030	105.2
THALLIUM	100	93	93.0
VANADIUM	500	492	98.4
ZINC	1000	931	93.1

ICP INTERFERENCE CHECK SAMPLE

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Concentration Units: ug/L

SAMPLE: ICSA

File: IZF29A Jun 29, 2009 19:45

Analyte	TRUE	FOUND	% R
ALUMINUM	500000	513100	102.6
ANTIMONY	0	6	
ARSENIC	0	8	
BARIUM	0	0	
BERYLLIUM	0	0	
CADMIUM	0	3	
CALCIUM	500000	435800	87.2
CHROMIUM	0	2	
COBALT	0	0	
COPPER	0	4	
IRON	200000	190000	95.0
LEAD	0	8	
MAGNESIUM	500000	483000	96.6
MANGANESE	6	6	
NICKEL	0	1	
SELENIUM	0	0	
SILVER	0	3	
SODIUM	0	7	
THALLIUM	0	-2	
VANADIUM	0	1	
ZINC	0	7	

SAMPLE: ICSAB

File: IZF29A Jun 29, 2009 19:50

Analyte	TRUE	FOUND	% R
ALUMINUM	500000	483500	96.7
ANTIMONY	600	639	106.5
ARSENIC	100	101	101.0
BARIUM	500	482	96.4
BERYLLIUM	500	436	87.2
CADMIUM	1000	908	90.8
CALCIUM	500000	413700	82.7
CHROMIUM	500	450	90.0
COBALT	500	448	89.6
COPPER	500	530	106.0
IRON	200000	165700	82.8
LEAD	50	49	98.0
MAGNESIUM	500000	429200	85.8
MANGANESE	506	430	85.0
NICKEL	1000	900	90.0
SELENIUM	50	44	88.0
SILVER	200	187	93.5
SODIUM	20000	19480	97.4
THALLIUM	100	90	90.0
VANADIUM	500	463	92.6
ZINC	1000	848	84.8

ICP INTERFERENCE CHECK SAMPLE

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Concentration Units: ug/L

SAMPLE: ICSA

File: IZG01A Jul 01, 2009 10:04

Analyte	TRUE	FOUND	% R
ALUMINUM	500000	515200	103.0
BARIUM	0	0	
CALCIUM	500000	464700	92.9
IRON	200000	188000	94.0
LEAD	0	4	
MAGNESIUM	500000	496100	99.2
MANGANESE	6	7	
ZINC	0	8	

SAMPLE: ICSAB

File: IZG01A Jul 01, 2009 10:10

Analyte	TRUE	FOUND	% R
ALUMINUM	500000	518800	103.8
BARIUM	500	507	101.4
CALCIUM	500000	476600	95.3
IRON	200000	193000	96.5
LEAD	50	52	104.0
MAGNESIUM	500000	507300	101.5
MANGANESE	506	491	97.0
ZINC	1000	947	94.7

ICP INTERFERENCE CHECK SAMPLE

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Concentration Units: ug/L

SAMPLE: ICSA

File: JZF26A Jun 26, 2009 19:26

Analyte	TRUE	FOUND	% R
ALUMINUM	100000	95660	95.7
CALCIUM	100000	94810	94.8
IRON	100000	91200	91.2
MAGNESIUM	100000	93490	93.5
MOLYBDENUM	2000	1975	98.8
POTASSIUM	100000	95910	95.9
SODIUM	100000	95110	95.1

SAMPLE: ICSAB

File: JZF26A Jun 26, 2009 19:35

Analyte	TRUE	FOUND	% R
ALUMINUM	100000	97650	97.7
CALCIUM	100000	98420	98.4
IRON	100000	92400	92.4
MAGNESIUM	100000	96410	96.4
MOLYBDENUM	2000	2028	101.4
POTASSIUM	100000	98870	98.9
SODIUM	100000	98320	98.3

ICP INTERFERENCE CHECK SAMPLE

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Concentration Units: ug/L

SAMPLE: ICSA

File: JZF30A Jun 30, 2009 18:48

Analyte	TRUE	FOUND	% R
ALUMINUM	100000	102100	102.1
CALCIUM	100000	100700	100.7
IRON	100000	93570	93.6
MAGNESIUM	100000	100700	100.7
MOLYBDENUM	2000	1994	99.7
POTASSIUM	100000	103700	103.7
SODIUM	100000	103800	103.8

SAMPLE: ICSAB

File: JZF30A Jun 30, 2009 18:57

Analyte	TRUE	FOUND	% R
ALUMINUM	100000	92620	92.6
CALCIUM	100000	90780	90.8
IRON	100000	89130	89.1
MAGNESIUM	100000	91500	91.5
MOLYBDENUM	2000	1933	96.7
POTASSIUM	100000	93220	93.2
SODIUM	100000	92360	92.4

5A

SPIKE SAMPLE RECOVERY

Lab Name: Katahdin Analytical Services **Client Field ID:** WGL-SD-SD111-000.6S

Matrix: SOIL **SDG Name:** SC3122

Percent Solids: 94.2 **Lab Sample ID:** SC3122-041P

Concentration Units : mg/Kgdrywt

Analyte	Spiked Sample Result	C	Sample Result	C	Spike Added	%R	Q	Control Limits (%R) Low	High	M
ALUMINUM, TOTAL	2259.2088		1814.3321		210.26	211.6		75	125	P
ANTIMONY, TOTAL	36.4480		0.5299	J	52.56	68.3	N	75	125	P
ARSENIC, TOTAL	43.0185		2.0720		52.56	77.9		75	125	P
BARIUM, TOTAL	205.9465		40.6472		210.26	78.6		75	125	P
BERYLLIUM, TOTAL	4.7045		0.6354		5.26	77.4		75	125	P
CADMIUM, TOTAL	21.1203		0.2461	J	26.28	79.4		75	125	P
CALCIUM, TOTAL	5179.6750		5013.1232		262.82	63.4		75	125	P
CHROMIUM, TOTAL	20.3739		3.9802		21.03	78.0		75	125	P
COBALT, TOTAL	41.2419		0.5745	J	52.56	77.4		75	125	P
COPPER, TOTAL	35.5965		14.2776		26.28	81.1		75	125	P
IRON, TOTAL	2195.0805		2207.0937		105.13	-11.4		75	125	P
LEAD, TOTAL	90.9045		55.4608		52.56	67.4	N	75	125	P
MAGNESIUM, TOTAL	991.0452		566.4633		525.64	80.8		75	125	P
MANGANESE, TOTAL	61.1111		16.5558		52.56	84.8		75	125	P
MERCURY, TOTAL	0.6313		0.4884		0.2	71.4	N	75	125	CV
NICKEL, TOTAL	45.2157		3.2699	J	52.56	79.8		75	125	P
POTASSIUM, TOTAL	1227.8994		277.1495		1051.28	90.4		75	125	MS
SELENIUM, TOTAL	45.8675		2.2143		52.56	83.1		75	125	P
SILVER, TOTAL	4.4301		0.4033	J	5.26	76.6		75	125	P
SODIUM, TOTAL	1244.7200		573.9887		788.46	85.1		75	125	P
THALLIUM, TOTAL	42.1355		0.1194	J	52.56	79.9		75	125	P
VANADIUM, TOTAL	58.3357		19.6175		52.56	73.7	N	75	125	P
ZINC, TOTAL	55.2555		12.5354		52.56	81.3		75	125	P

Comments:

5A

SPIKE SAMPLE RECOVERY

Lab Name: Katahdin Analytical Services **Client Field ID:** WGL-SD-SD111-000.6S

Matrix: SOIL **SDG Name:** SC3122

Percent Solids: 94.2 **Lab Sample ID:** SC3122-041S

Concentration Units : mg/Kgdrywt

Analyte	Spiked Sample Result	C	Sample Result	C	Spike Added	%R	Q	Control Limits (%R) Low	High	M
ALUMINUM, TOTAL	2064.6044		1814.3321		196.63	127.3		75	125	P
ANTIMONY, TOTAL	32.5814		0.5299	J	49.16	65.2	N	75	125	P
ARSENIC, TOTAL	38.4410		2.0720		49.16	74.0	N	75	125	P
BARIUM, TOTAL	178.8341		40.6472		196.63	70.3	N	75	125	P
BERYLLIUM, TOTAL	4.0761		0.6354		4.92	69.9	N	75	125	P
CADMIUM, TOTAL	18.8076		0.2461	J	24.58	75.5		75	125	P
CALCIUM, TOTAL	5074.9942		5013.1232		245.79	25.2		75	125	P
CHROMIUM, TOTAL	18.0112		3.9802		19.66	71.4	N	75	125	P
COBALT, TOTAL	36.0323		0.5745	J	49.16	72.1	N	75	125	P
COPPER, TOTAL	31.7163		14.2776		24.58	70.9	N	75	125	P
IRON, TOTAL	2062.6381		2207.0937		98.31	-146.9		75	125	P
LEAD, TOTAL	84.1670		55.4608		49.16	58.4	N	75	125	P
MAGNESIUM, TOTAL	897.6113		566.4633		491.57	67.4	N	75	125	P
MANGANESE, TOTAL	58.0350		16.5558		49.16	84.4		75	125	P
MERCURY, TOTAL	0.6356		0.4884		0.19	77.5		75	125	CV
NICKEL, TOTAL	39.7485		3.2699	J	49.16	74.2	N	75	125	P
POTASSIUM, TOTAL	1162.0773		277.1495		983.14	90.0		75	125	MS
SELENIUM, TOTAL	41.3806		2.2143		49.16	79.7		75	125	P
SILVER, TOTAL	4.0869		0.4033	J	4.92	74.9	N	75	125	P
SODIUM, TOTAL	1110.9538		573.9887		737.36	72.8	N	75	125	P
THALLIUM, TOTAL	37.6053		0.1194	J	49.16	76.3		75	125	P
VANADIUM, TOTAL	51.0842		19.6175		49.16	64.0	N	75	125	P
ZINC, TOTAL	51.9101		12.5354		49.16	80.1		75	125	P

Comments:

5B

POST DIGEST SPIKE SAMPLE RECOVERY

Lab Name: Katahdin Analytical Services **Client Field ID:** WGL-SD-SD111-000.6S

Matrix: SOIL **SDG Name:** SC3122

Percent Solids: 94.2 **Lab Sample ID:** SC3122-041A

Concentration Units : ug/L

Analyte	Spiked Sample Result	C	Sample Result	C	Spike Added	%R	Q	Control Limits (%R) Low	High	M
ANTIMONY, TOTAL	55.6300		5.1400	J	50	101.0		75	125	P
ARSENIC, TOTAL	68.2500		20.1000		50	96.3		75	125	P
BARIUM, TOTAL	882.5000		394.3000		500	97.6		75	125	P
BERYLLIUM, TOTAL	11.0300		6.1640		5	97.3		75	125	P
CHROMIUM, TOTAL	62.6500		38.6100		25	96.2		75	125	P
COBALT, TOTAL	15.3100	J	5.5730	J	10	97.4		75	125	P
COPPER, TOTAL	188.8000		138.5000		50	99.0		75	125	P
LEAD, TOTAL	1056.0000		538.0000		500	103.6		75	125	P
MAGNESIUM, TOTAL	9898.0000		5495.0000		5000	88.1		75	125	P
NICKEL, TOTAL	55.3500		31.7200	J	25	94.5		75	125	P
SILVER, TOTAL	28.4500		3.9120	J	25	98.2		75	125	P
SODIUM, TOTAL	6397.0000		5568.0000		1000	82.9		75	125	P
VANADIUM, TOTAL	210.3000		190.3000		25	80.0		75	125	P

Comments:

5D

SPIKE DUPLICATES

Lab Name: Katahdin Analytical Services **Client Field ID:** WGL-SD-SD111-000.6

Matrix: SOIL **SDG Name:** SC3122

Percent Solids: 94.2 **Lab Sample ID:** SC3122-041

Concentration Units : mg/Kgdrywt

Analyte	Control Limits	Spike Result	C	Spike Dup. Result	C	RPD	Q	M
ALUMINUM, TOTAL		2064.6044		2259.2088		9.0		P
ANTIMONY, TOTAL		32.5814		36.4480		11.2		P
ARSENIC, TOTAL		38.4410		43.0185		11.2		P
BARIUM, TOTAL		178.8341		205.9465		14.1		P
BERYLLIUM, TOTAL		4.0761		4.7045		14.3		P
CADMIUM, TOTAL		18.8076		21.1203		11.6		P
CALCIUM, TOTAL		5074.9942		5179.6750		2.0		P
CHROMIUM, TOTAL		18.0112		20.3739		12.3		P
COBALT, TOTAL		36.0323		41.2419		13.5		P
COPPER, TOTAL		31.7163		35.5965		11.5		P
IRON, TOTAL		2062.6381		2195.0805		6.2		P
LEAD, TOTAL		84.1670		90.9045		7.7		P
MAGNESIUM, TOTAL		897.6113		991.0452		9.9		P
MANGANESE, TOTAL		58.0350		61.1111		5.2		P
MERCURY, TOTAL		0.6356		0.6313		0.7		CV
NICKEL, TOTAL		39.7485		45.2157		12.9		P
POTASSIUM, TOTAL		1162.0773		1227.8994		5.5		MS
SELENIUM, TOTAL		41.3806		45.8675		10.3		P
SILVER, TOTAL	1.5	4.0869		4.4301		8.1		P
SODIUM, TOTAL		1110.9538		1244.7200		11.4		P
THALLIUM, TOTAL		37.6053		42.1355		11.4		P
VANADIUM, TOTAL		51.0842		58.3357		13.3		P
ZINC, TOTAL		51.9101		55.2555		6.2		P

Comments:

LABORATORY CONTROL SAMPLES

Lab Name: Katahdin Analytical Services **Sample ID:** LC2SZF25ICS0

Matrix: SOIL **SDG Name:** SC3122

QC Batch ID: ZF25ICS0

Concentration Units : mg/Kgdrywt

Analyte	TRUE	FOUND	% R	LIMITS (%)	
ALUMINUM	10600.0	13375.72	126.2	54	145
ANTIMONY	126.0	102.11	81.0	50	150
ARSENIC	225.0	234.45	104.2	80	120
BARIUM	565.0	606.80	107.4	82	118
BERYLLIUM	162.0	160.44	99.0	83	117
CADMIUM	69.1	67.16	97.2	84	116
CALCIUM	10000.0	9415.86	94.2	83	117
CHROMIUM	124.0	128.43	103.6	82	118
COBALT	115.0	115.32	100.3	83	117
COPPER	66.7	76.65	114.9	81	119
IRON	17600.0	20604.01	117.1	51	140
LEAD	223.0	232.47	104.2	82	118
MAGNESIUM	4260.0	4796.34	112.6	77	123
MANGANESE	368.0	389.23	105.8	83	118
NICKEL	172.0	173.18	100.7	81	119
POTASSIUM	4090.0	4307.57	105.3	72	128
SELENIUM	147.0	151.86	103.3	78	122
SILVER	35.2	36.46	103.6	66	134
SODIUM	538.0	550.57	102.3	68	132
THALLIUM	173.0	181.05	104.7	81	118
VANADIUM	93.9	104.49	111.3	77	124
ZINC	349.0	346.71	99.3	80	120

LABORATORY CONTROL SAMPLES

Lab Name: Katahdin Analytical Services **Sample ID:** LC2SZF30HGS0

Matrix: SOIL **SDG Name:** SC3122

QC Batch ID: ZF30HGS0

Concentration Units : mg/Kgdrywt

Analyte	TRUE	FOUND	% R	LIMITS (%)	
MERCURY	5.2	4.84	93.1	72	128

LABORATORY CONTROL SAMPLES

Lab Name: Katahdin Analytical Services **Sample ID:** LCSSZF25ICS0

Matrix: SOIL **SDG Name:** SC3122

QC Batch ID: ZF25ICS0

Concentration Units : mg/Kgdrywt

Analyte	TRUE	FOUND	% R	LIMITS (%)	
ALUMINUM	10600.0	12946.75	122.1	54	145
ANTIMONY	126.0	97.22	77.2	50	150
ARSENIC	225.0	223.47	99.3	80	120
BARIUM	565.0	583.63	103.3	82	118
BERYLLIUM	162.0	154.10	95.1	83	117
CADMIUM	69.1	64.18	92.9	84	116
CALCIUM	10000.0	9143.98	91.4	83	117
CHROMIUM	124.0	123.04	99.2	82	118
COBALT	115.0	109.21	95.0	83	117
COPPER	66.7	70.83	106.2	81	119
IRON	17600.0	20335.30	115.5	51	140
LEAD	223.0	219.13	98.3	82	118
MAGNESIUM	4260.0	4696.25	110.2	77	123
MANGANESE	368.0	355.62	96.6	83	118
NICKEL	172.0	165.80	96.4	81	119
POTASSIUM	4090.0	4347.14	106.3	72	128
SELENIUM	147.0	145.23	98.8	78	122
SILVER	35.2	35.38	100.5	66	134
SODIUM	538.0	522.09	97.0	68	132
THALLIUM	173.0	170.55	98.6	81	118
VANADIUM	93.9	99.05	105.5	77	124
ZINC	349.0	342.41	98.1	80	120

LABORATORY CONTROL SAMPLES

Lab Name: Katahdin Analytical Services **Sample ID:** LCSSZF30HGS0

Matrix: SOIL **SDG Name:** SC3122

QC Batch ID: ZF30HGS0

Concentration Units : mg/Kgdrywt

Analyte	TRUE	FOUND	% R	LIMITS (%)	
MERCURY	5.2	4.74	91.2	72	128

LABORATORY CONTROL SAMPLES

Lab Name: Katahdin Analytical Services **Sample ID:** LCSWZF16ICW0

Matrix: WATER **SDG Name:** SC3122

QC Batch ID: ZF16ICW0

Concentration Units : ug/L

Analyte	TRUE	FOUND	% R	LIMITS (%)	
ALUMINUM	2000.0	2145.00	107.3	80	120
ANTIMONY	500.0	520.60	104.1	80	120
ARSENIC	500.0	507.00	101.4	80	120
BARIUM	2000.0	2109.00	105.5	80	120
BERYLLIUM	50.0	51.97	103.9	80	120
CADMIUM	250.0	264.90	106.0	80	120
CALCIUM	2500.0	2692.00	107.7	80	120
CHROMIUM	200.0	203.20	101.6	80	120
COBALT	500.0	518.50	103.7	80	120
COPPER	250.0	260.30	104.1	80	120
IRON	1000.0	1059.00	105.9	80	120
LEAD	500.0	538.00	107.6	80	120
MAGNESIUM	5000.0	5317.00	106.3	80	120
MANGANESE	500.0	521.40	104.3	80	120
NICKEL	500.0	520.90	104.2	80	120
POTASSIUM	10000.0	10050.00	100.5	80	120
SELENIUM	500.0	517.00	103.4	80	120
SILVER	50.0	51.42	102.8	80	120
SODIUM	7500.0	7929.00	105.7	80	120
THALLIUM	500.0	527.70	105.5	80	120
VANADIUM	500.0	521.40	104.3	80	120
ZINC	500.0	500.00	100.0	80	120

LABORATORY CONTROL SAMPLES

Lab Name: Katahdin Analytical Services **Sample ID:** LCSWZF22HGW2

Matrix: WATER **SDG Name:** SC3122

QC Batch ID: ZF22HGW2

Concentration Units : ug/L

Analyte	TRUE	FOUND	% R	LIMITS (%)	
MERCURY	5.0	5.15	103.0	80	120

7D

LABORATORY CONTROL SAMPLE DUPLICATES

Lab Name: Katahdin Analytical Services

Matrix: SOIL **SDG Name:** SC3122

QC Batch ID: ZF25ICS0 **Lab Sample ID:** LCSSZF25ICS0

Concentration Units: mg/Kgdrywt

Analyte	Control Limit (%)	LCS Result	LCS Dup. Result	RPD(%)	Q
ALUMINUM	20.0	12946.75	13375.72	3.3	
ANTIMONY	20.0	97.22	102.11	4.9	
ARSENIC	20.0	223.47	234.45	4.8	
BARIUM	20.0	583.63	606.80	3.9	
BERYLLIUM	20.0	154.10	160.44	4.0	
CADMIUM	20.0	64.18	67.16	4.5	
CALCIUM	20.0	9143.98	9415.86	2.9	
CHROMIUM	20.0	123.04	128.43	4.3	
COBALT	20.0	109.21	115.32	5.4	
COPPER	20.0	70.83	76.65	7.9	
IRON	20.0	20335.30	20604.01	1.3	
LEAD	20.0	219.13	232.47	5.9	
MAGNESIUM	20.0	4696.25	4796.34	2.1	
MANGANESE	20.0	355.62	389.23	9.0	
NICKEL	20.0	165.80	173.18	4.4	
POTASSIUM	20.0	4347.14	4307.57	0.9	
SELENIUM	20.0	145.23	151.86	4.5	
SILVER	20.0	35.38	36.46	3.0	
SODIUM	20.0	522.09	550.57	5.3	
THALLIUM	20.0	170.55	181.05	6.0	
VANADIUM	20.0	99.05	104.49	5.3	
ZINC	20.0	342.41	346.71	1.2	

7D

LABORATORY CONTROL SAMPLE DUPLICATES

Lab Name: Katahdin Analytical Services

Matrix: SOIL **SDG Name:** SC3122

QC Batch ID: ZF30HGS0 **Lab Sample ID:** LCSSZF30HGS0

Concentration Units: mg/Kgdrywt

Analyte	Control Limit (%)	LCS Result	LCS Dup. Result	RPD(%)	Q
MERCURY	20.0	4.74	4.84	2.1	

ICP SERIAL DILUTION

Lab Name: Katahdin Analytical Services **Client Field ID:** WGL-SD-SD111-000.6L

Matrix: SOIL **SDG Name:** SC3122

Lab Sample ID: SC3122-041L

Concentration Units: ug/L

Analyte	Sample Result	C	Dilution Result	C	% Difference	Q	M
ALUMINUM, TOTAL	17600.00		17100.00		2.8		P
ANTIMONY, TOTAL	5.14	J	7.47	J	45.3		P
ARSENIC, TOTAL	20.10		11.68	J	41.9		P
BARIUM, TOTAL	394.30		373.90		5.2		P
BERYLLIUM, TOTAL	6.16		6.13	J	0.5		P
CADMIUM, TOTAL	2.39	J	2.28	J	4.6		P
CALCIUM, TOTAL	48630.00		50450.00		3.7		P
CHROMIUM, TOTAL	38.61		36.54	J	5.4		P
COBALT, TOTAL	5.57	J	5.19	J	6.8		P
COPPER, TOTAL	138.50		135.30		2.3		P
IRON, TOTAL	21410.00		21120.00		1.4		P
LEAD, TOTAL	538.00		538.70		0.1		P
MAGNESIUM, TOTAL	5495.00		5329.00		3.0		P
MANGANESE, TOTAL	160.60		168.70		5.0		P
MERCURY, TOTAL	2.47		2.81		13.8	E	CV
NICKEL, TOTAL	31.72	J	31.43	J	0.9		P
POTASSIUM, TOTAL	537.70		598.50	J	11.3	E	MS
SELENIUM, TOTAL	21.48		22.27	J	3.7		P
SILVER, TOTAL	3.91	J	2.80	U	100.0		P
SODIUM, TOTAL	5568.00		5320.00		4.5		P
THALLIUM, TOTAL	1.16	J	0.81	U	100.0		P
VANADIUM, TOTAL	190.30		184.60		3.0		P
ZINC, TOTAL	121.60		126.10		3.7		P

INSTRUMENT DETECTION LIMITS

Lab Name: Katahdin Analytical Services **Instrument Code:** H

Instrument Name: CETAC M6100 **Date:** 3/17/2009

Concentration Units: ug/L

Analyte	CRDL	IDL	M
MERCURY	0.20	0.02	CV

INSTRUMENT DETECTION LIMITS

Lab Name: Katahdin Analytical Services **Instrument Code:** I

Instrument Name: THERMO ICAP 6500 **Date:** 3/6/2009

Concentration Units: ug/L

Analyte	CRDL	IDL	M
ALUMINUM	300	32.00	P
ANTIMONY	8.0	1.70	P
ARSENIC	8.0	1.50	P
BARIUM	5.0	0.57	P
BERYLLIUM	5.0	0.11	P
CADMIUM	10	0.07	P
CALCIUM	50	15.00	P
CHROMIUM	15	0.62	P
COBALT	30	0.19	P
COPPER	25	0.79	P
IRON	100	3.70	P
LEAD	5.0	1.40	P
MAGNESIUM	50	2.20	P
MANGANESE	5.0	1.10	P
MOLYBDENUM	10	0.29	P
NICKEL	40	0.34	P
POTASSIUM	200	61.00	P
SELENIUM	10	2.10	P
SILVER	15	0.63	P
SODIUM	1000	32.00	P
THALLIUM	15	1.30	P
VANADIUM	25	0.69	P
ZINC	25	0.32	P

INSTRUMENT DETECTION LIMITS

Lab Name: Katahdin Analytical Services **Instrument Code:** J

Instrument Name: AGILENT 7500 ICP-MS **Date:** 3/6/2009

Concentration Units: ug/L

Analyte	CRDL	IDL	M
ALUMINUM	300	2.20	MS
ANTIMONY	8.0	0.03	MS
ARSENIC	8.0	0.08	MS
BARIUM	5.0	0.05	MS
BERYLLIUM	5.0	0.01	MS
CADMIUM	10	0.01	MS
CALCIUM	50	3.90	MS
CHROMIUM	15	0.08	MS
COBALT	30	0.02	MS
COPPER	25	0.04	MS
IRON	100	3.10	MS
LEAD	5.0	0.02	MS
MAGNESIUM	50	2.00	MS
MANGANESE	5.0	0.03	MS
MOLYBDENUM	10	0.07	MS
NICKEL	40	0.03	MS
POTASSIUM	200	8.80	MS
SELENIUM	10	0.16	MS
SILVER	15	0.01	MS
SODIUM	1000	6.50	MS
THALLIUM	15	0.05	MS
VANADIUM	25	0.08	MS
ZINC	25	0.44	MS

METHOD DETECTION LIMITS

Lab Name: Katahdin Analytical Services **Instrument Code:** H

Instrument Name: CETAC M6100 **Date:** 3/19/2009

Analyte	MDL	Units	M	EPA Prep./Anal. Method
MERCURY	0.02	ug/L	CV	SW846 7470A / SW846 7470A

METHOD DETECTION LIMITS

Lab Name: Katahdin Analytical Services **Instrument Code:** H

Instrument Name: CETAC M6100 **Date:** 3/20/2009

Analyte	MDL	Units	M	EPA Prep./Anal. Method
MERCURY	0.01	mg/Kg	CV	SW846 7471A / SW846 7471A

METHOD DETECTION LIMITS

Lab Name: Katahdin Analytical Services **Instrument Code:** I

Instrument Name: THERMO ICAP 6500 **Date:** 2/26/2009

Analyte	MDL	Units	M	EPA Prep./Anal. Method
ALUMINUM	12.50	ug/L	P	SW846 3010A / SW846 6010B
ANTIMONY	1.33	ug/L	P	SW846 3010A / SW846 6010B
ARSENIC	1.20	ug/L	P	SW846 3010A / SW846 6010B
BARIUM	0.35	ug/L	P	SW846 3010A / SW846 6010B
BERYLLIUM	0.09	ug/L	P	SW846 3010A / SW846 6010B
CADMIUM	0.12	ug/L	P	SW846 3010A / SW846 6010B
CALCIUM	6.84	ug/L	P	SW846 3010A / SW846 6010B
CHROMIUM	0.44	ug/L	P	SW846 3010A / SW846 6010B
COBALT	0.27	ug/L	P	SW846 3010A / SW846 6010B
COPPER	0.70	ug/L	P	SW846 3010A / SW846 6010B
IRON	5.17	ug/L	P	SW846 3010A / SW846 6010B
LEAD	1.02	ug/L	P	SW846 3010A / SW846 6010B
MAGNESIUM	9.39	ug/L	P	SW846 3010A / SW846 6010B
MANGANESE	0.67	ug/L	P	SW846 3010A / SW846 6010B
NICKEL	0.24	ug/L	P	SW846 3010A / SW846 6010B
SELENIUM	3.03	ug/L	P	SW846 3010A / SW846 6010B
SILVER	0.79	ug/L	P	SW846 3010A / SW846 6010B
SODIUM	21.70	ug/L	P	SW846 3010A / SW846 6010B
THALLIUM	0.60	ug/L	P	SW846 3010A / SW846 6010B
VANADIUM	5.12	ug/L	P	SW846 3010A / SW846 6010B
ZINC	1.73	ug/L	P	SW846 3010A / SW846 6010B

METHOD DETECTION LIMITS

Lab Name: Katahdin Analytical Services **Instrument Code:** I

Instrument Name: THERMO ICAP 6500 **Date:** 3/17/2009

Analyte	MDL	Units	M	EPA Prep./Anal. Method
ALUMINUM	2.87	mg/Kg	P	SW846 3050B / SW846 6010B
ANTIMONY	0.10	mg/Kg	P	SW846 3050B / SW846 6010B
ARSENIC	0.09	mg/Kg	P	SW846 3050B / SW846 6010B
BARIUM	0.06	mg/Kg	P	SW846 3050B / SW846 6010B
BERYLLIUM	0.01	mg/Kg	P	SW846 3050B / SW846 6010B
CADMIUM	0.01	mg/Kg	P	SW846 3050B / SW846 6010B
CALCIUM	2.09	mg/Kg	P	SW846 3050B / SW846 6010B
CHROMIUM	0.10	mg/Kg	P	SW846 3050B / SW846 6010B
COBALT	0.03	mg/Kg	P	SW846 3050B / SW846 6010B
COPPER	0.09	mg/Kg	P	SW846 3050B / SW846 6010B
IRON	1.30	mg/Kg	P	SW846 3050B / SW846 6010B
LEAD	0.14	mg/Kg	P	SW846 3050B / SW846 6010B
MAGNESIUM	0.92	mg/Kg	P	SW846 3050B / SW846 6010B
MANGANESE	0.08	mg/Kg	P	SW846 3050B / SW846 6010B
NICKEL	0.03	mg/Kg	P	SW846 3050B / SW846 6010B
SELENIUM	0.22	mg/Kg	P	SW846 3050B / SW846 6010B
SILVER	0.06	mg/Kg	P	SW846 3050B / SW846 6010B
SODIUM	3.90	mg/Kg	P	SW846 3050B / SW846 6010B
THALLIUM	0.09	mg/Kg	P	SW846 3050B / SW846 6010B
VANADIUM	0.04	mg/Kg	P	SW846 3050B / SW846 6010B
ZINC	0.12	mg/Kg	P	SW846 3050B / SW846 6010B

METHOD DETECTION LIMITS

Lab Name: Katahdin Analytical Services **Instrument Code:** J

Instrument Name: AGILENT 7500 ICP-MS **Date:** 2/25/2009

Analyte	MDL	Units	M	EPA Prep./Anal. Method
POTASSIUM	8.93	ug/L	MS	SW846 3010A / SW846 6020

METHOD DETECTION LIMITS

Lab Name: Katahdin Analytical Services **Instrument Code:** J

Instrument Name: AGILENT 7500 ICP-MS **Date:** 3/11/2009

Analyte	MDL	Units	M	EPA Prep./Anal. Method
POTASSIUM	0.78	mg/kg	MS	SW846 3050B / SW846 6020

ICP INTERELEMENT CORRECTION FACTORS

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Instrument Name THERMO ICAP 6500 **Date:** 10/9/2008

Instrument ID: I

Analyte	Wavelength (nm)	Interelement Correction Factors for: Al	Ca	Fe	Mg	Co	Cr	Cu	Mo	Ni	Ti	V
ALUMINUM	396.15	0.0	0.0002050	0.0	0.0	0.0	0.0	0.0	0.0475580	0.0	0.0	0.0
ANTIMONY	206.88	0.0000080	0.0	0.0000260	0.0	0.0	0.0095150	0.0	-0.0026030	-0.0003890	0.0	-0.0019060
ARSENIC	189.04	-0.0000010	0.0	-0.0001440	0.0	0.0	0.0002520	0.0	0.0004800	0.0	0.0	0.0
BARIUM	455.40	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BERYLLIUM	313.04	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0004960	0.0000360
BORON	208.96	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0044509	0.0	0.0	0.0
CADMIUM	226.50	0.0	0.0	0.0000700	0.0	-0.0000220	0.0	0.0	0.0	-0.0000800	0.0000450	0.0
CALCIUM	315.89	0.0	0.0	0.0	0.0	0.0010540	-0.0002580	0.0	0.0	0.0	0.0	0.0
CHROMIUM	267.72	0.0	0.0	-0.0000100	0.0	0.0	0.0	0.0	-0.0000210	0.0	0.0	0.0000720
COBALT	228.62	0.0	0.0	0.0000120	0.0	0.0	0.0000230	0.0	0.0000180	0.0002140	0.0020610	0.0
COPPER	327.40	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0006350	0.0002980
IRON	259.94	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0005620	0.0	0.0	0.0
LEAD	220.35	-0.0001090	0.0	0.0000360	0.0	-0.0001570	0.0	0.0002330	-0.0011960	0.0003810	-0.0002030	0.0
MAGNESIUM	285.21	0.0	0.0	-0.0000080	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANGANESE	257.61	-0.0000090	0.0	-0.0000200	0.0000260	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MOLYBDENUM	202.03	0.0	0.0	0.0	0.0	0.0	0.0001080	0.0	0.0	0.0	0.0	-0.0001440
NICKEL	231.60	0.0	0.0	-0.0000450	0.0	0.0002300	0.0	0.0	0.0024100	0.0	0.0	0.0
POTASSIUM	766.49	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SELENIUM	196.09	0.0000070	0.0	-0.0001320	0.0	-0.0004270	0.0	0.0	0.0	0.0	0.0	0.0000290
SILVER	328.07	0.0	0.0	-0.0002180	0.0	0.0	0.0	0.0	0.0	0.0	-0.0001650	0.0
SODIUM	589.59	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
THALLIUM	190.86	0.0000050	0.0	-0.0000030	0.0	0.0054870	0.0	-0.0000030	-0.0001640	0.0	-0.0011620	-0.0051480
TIN	189.99	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TITANIUM	334.90	0.0	0.0	0.0	0.0	0.0	0.0001290	0.0	0.0015460	0.0	0.0	0.0
VANADIUM	292.40	0.0	0.0	0.0000260	0.0	0.0	-0.0029690	0.0	-0.0080400	0.0	0.0010400	0.0
ZINC	206.20	0.0	0.0	0.0	0.0	0.0	-0.0005230	0.0	0.0	0.0	0.0	0.0

FORM XI - IN

Sample Data Summary A0000399

ICP LINEAR RANGES

Lab Name: Katahdin Analytical Services **Instrument Code:** I

Instrument Name: THERMO ICAP 6500 **Date:** 1/26/2009

Concentration Units: ug/L

Analyte	Integration Time (sec)	Linear Range	M
ALUMINUM	5.00	1000000	P
ANTIMONY	60.00	20000	P
ARSENIC	60.00	20000	P
BARIUM	5.00	20000	P
BERYLLIUM	5.00	20000	P
CADMIUM	60.00	20000	P
CALCIUM	5.00	1000000	P
CHROMIUM	10.00	20000	P
COBALT	60.00	20000	P
COPPER	10.00	20000	P
IRON	5.00	400000	P
LEAD	60.00	20000	P
MAGNESIUM	5.00	500000	P
MANGANESE	5.00	20000	P
MOLYBDENUM	60.00	20000	P
NICKEL	10.00	20000	P
POTASSIUM	5.00	1000000	P
SELENIUM	60.00	20000	P
SILVER	10.00	2000	P
SODIUM	5.00	500000	P
THALLIUM	60.00	20000	P
VANADIUM	10.00	20000	P
ZINC	60.00	20000	P

ICP LINEAR RANGES

Lab Name: Katahdin Analytical Services **Instrument Code:** J

Instrument Name: AGILENT 7500 ICP-MS **Date:** 1/6/2009

Concentration Units: ug/L

Analyte	Integration Time (sec)	Linear Range	M
ALUMINUM	0.01	100000	MS
ANTIMONY	0.10	1000	MS
ARSENIC	0.30	1000	MS
BARIUM	0.10	1000	MS
BERYLLIUM	0.30	1000	MS
CADMIUM	0.10	500	MS
CALCIUM	0.03	100000	MS
CHROMIUM	0.10	1000	MS
COBALT	0.10	500	MS
COPPER	0.10	500	MS
IRON	0.03	100000	MS
LEAD	0.10	1000	MS
MAGNESIUM	0.05	100000	MS
MANGANESE	0.10	500	MS
MOLYBDENUM	0.10	2000	MS
NICKEL	0.10	500	MS
POTASSIUM	0.01	100000	MS
SELENIUM	0.30	500	MS
SILVER	0.10	100	MS
SODIUM	0.01	100000	MS
THALLIUM	0.10	1000	MS
VANADIUM	0.10	1000	MS
ZINC	0.10	250	MS

PREPARATION LOG

Lab Name: Katahdin Analytical Services **QC Batch ID:** ZF16ICW0

Matrix: WATER **SDG Name:** SC3122

Method: P **Prep Date:** 06/16/2009

Client ID	Lab Sample ID	Initial (L)	Final (L)
LCSWZF16ICW0	LCSWZF16ICW0	0.05	0.05
PBWZF16ICW0	PBWZF16ICW0	0.05	0.05
WGL-SD-FB01-061109	SC3122-043	0.05	0.05
WGL-SD-RB01-061109	SC3122-045	0.05	0.05

PREPARATION LOG

Lab Name: Katahdin Analytical Services **QC Batch ID:** ZF22HGW2

Matrix: WATER **SDG Name:** SC3122

Method: CV **Prep Date:** 06/22/2009

Client ID	Lab Sample ID	Initial (L)	Final (L)
LCSWZF22HGW2	LCSWZF22HGW2	0.025	0.025
PBWZF22HGW2	PBWZF22HGW2	0.025	0.025
WGL-SD-FB01-061109	SC3122-043	0.025	0.025
WGL-SD-RB01-061109	SC3122-045	0.025	0.025

PREPARATION LOG

Lab Name: Katahdin Analytical Services **QC Batch ID:** ZF25ICS0

Matrix: SOIL **SDG Name:** SC3122

Method: P **Prep Date:** 06/25/2009

Client ID	Lab Sample ID	Initial (g)	Final (L)
LC2SZF25ICS0	LC2SZF25ICS0	0.5033	0.1
LCSSZF25ICS0	LCSSZF25ICS0	0.507	0.1
PBSZF25ICS0	PBSZF25ICS0	1	0.1
WGL-SD-SD103-000.6	SC3122-002	1.07	0.1
WGL-SD-SD102-000.6	SC3122-005	1.05	0.1
WGL-SD-SD101-000.6	SC3122-008	1.03	0.1
WGL-SD-DUP01-061109	SC3122-011	1.05	0.1
WGL-SD-SD104-000.6	SC3122-014	1.02	0.1
WGL-SD-SD106-000.6	SC3122-017	1.14	0.1
WGL-SD-DUP02-061109	SC3122-020	1.07	0.1
WGL-SD-SD107-000.6	SC3122-023	1.02	0.1
WGL-SD-SD108-000.6	SC3122-026	1.26	0.1
WGL-SD-SD105-000.6	SC3122-029	1.04	0.1
WGL-SD-SD112-000.6	SC3122-032	1.01	0.1
WGL-SD-SD110-000.6	SC3122-035	1.23	0.1
WGL-SD-SD109-000.6	SC3122-038	1.02	0.1
WGL-SD-SD111-000.6	SC3122-041	1.03	0.1
WGL-SD-SD111-000.6P	SC3122-041P	1.01	0.1
WGL-SD-SD111-000.6S	SC3122-041S	1.08	0.1

PREPARATION LOG

Lab Name: Katahdin Analytical Services **QC Batch ID:** ZF30HGS0

Matrix: SOIL **SDG Name:** SC3122

Method: CV **Prep Date:** 06/30/2009

Client ID	Lab Sample ID	Initial (g)	Final (L)
LC2SZF30HGS0	LC2SZF30HGS0	0.1005	0.1
LCSSZF30HGS0	LCSSZF30HGS0	0.1034	0.1
PBSZF30HGS0	PBSZF30HGS0	0.6	0.1
WGL-SD-SD103-000.6	SC3122-002	0.62	0.11
WGL-SD-SD102-000.6	SC3122-005	0.81	0.11
WGL-SD-SD101-000.6	SC3122-008	0.62	0.11
WGL-SD-DUP01-061109	SC3122-011	0.61	0.11
WGL-SD-SD104-000.6	SC3122-014	0.6	0.11
WGL-SD-SD106-000.6	SC3122-017	0.65	0.11
WGL-SD-DUP02-061109	SC3122-020	0.62	0.11
WGL-SD-SD107-000.6	SC3122-023	0.62	0.11
WGL-SD-SD108-000.6	SC3122-026	0.64	0.11
WGL-SD-SD105-000.6	SC3122-029	0.69	0.11
WGL-SD-SD112-000.6	SC3122-032	0.68	0.11
WGL-SD-SD110-000.6	SC3122-035	0.62	0.11
WGL-SD-SD109-000.6	SC3122-038	0.65	0.11
WGL-SD-SD111-000.6	SC3122-041	0.59	0.11
WGL-SD-SD111-000.6P	SC3122-041P	0.59	0.11
WGL-SD-SD111-000.6S	SC3122-041S	0.6	0.11

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Instrument ID: CETAC M6100 **File Name:** HZF22A

Date: 6/22/2009 **Method:** CV

Lab Sample ID	Client ID	D.F.	Time	Elements
Calibration Blank		1	14:18	Hg
Standard #1 (0.2 pp		1	14:20	Hg
Standard #2 (0.5 pp		1	14:22	Hg
Standard #3 (1.0 pp		1	14:24	Hg
Standard #4 (5.0 pp		1	14:26	Hg
Standard #5 (10.0 p		1	14:28	Hg
ICV		1	14:31	HG
ICB		1	14:33	HG
PQL		1	14:35	HG
CCV		1	14:38	HG
CCB		1	14:40	HG
ZZZZZZ		1	14:42	
ZZZZZZ		1	14:44	
ZZZZZZ		1	14:46	
ZZZZZZ		1	14:48	
ZZZZZZ		1	14:50	
ZZZZZZ		1	14:52	
ZZZZZZ		1	14:54	
ZZZZZZ		1	14:57	
ZZZZZZ		1	14:59	
ZZZZZZ		1	15:04	
CCV		1	15:06	HG
CCB		1	15:08	HG
ZZZZZZ		1	15:10	
ZZZZZZ		1	15:12	
ZZZZZZ		1	15:15	
ZZZZZZ		1	15:17	
ZZZZZZ		1	15:19	
ZZZZZZ		1	15:21	
ZZZZZZ		1	15:25	
ZZZZZZ		1	15:27	
ZZZZZZ		1	15:29	
ZZZZZZ		1	15:32	
CCV		1	15:34	HG
CCB		1	15:36	HG
ZZZZZZ		1	15:38	
ZZZZZZ		1	15:40	
ZZZZZZ		1	15:42	
ZZZZZZ		1	15:44	
ZZZZZZ		1	15:46	
ZZZZZZ		5	15:49	
ZZZZZZ		1	15:51	
PBWZF22HGW2		1	15:53	HG
ZZZZZZ		1	15:55	
ZZZZZZ		1	15:57	
CCV		1	15:59	HG
CCB		1	16:01	HG
ZZZZZZ		1	16:04	
ZZZZZZ		1	16:06	
ZZZZZZ		1	16:08	

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Instrument ID: CETAC M6100 **File Name:** HZF22A

Date: 6/22/2009 **Method:** CV

Lab Sample ID	Client ID	D.F.	Time	Elements
ZZZZZZ		1	16:10	
ZZZZZZ		1	16:12	
SC3122-043	WGL-SD-FB01-061109	1	16:14	HG
SC3122-045	WGL-SD-RB01-061109	1	16:16	HG
ZZZZZZ		1	16:19	
ZZZZZZ		1	16:21	
ZZZZZZ		1	16:23	
CCV		1	16:25	HG
CCB		1	16:27	HG
ZZZZZZ		1	16:29	
ZZZZZZ		1	16:31	
ZZZZZZ		1	16:34	
ZZZZZZ		1	16:36	
ZZZZZZ		1	16:38	
ZZZZZZ		1	16:40	
ZZZZZZ		1	16:42	
ZZZZZZ		1	16:44	
ZZZZZZ		1	16:47	
ZZZZZZ		5	16:52	
CCV		1	16:54	HG
CCB		1	16:56	HG
ZZZZZZ		5	16:59	
ZZZZZZ		1	17:01	
LCSWZF22HGW2		1	17:03	HG
ZZZZZZ		1	17:07	
ZZZZZZ		1	17:09	
ZZZZZZ		1	17:11	
CCV		1	17:13	HG
CCB		1	17:15	HG

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Instrument ID: CETAC M6100 **File Name:** HZG01A

Date: 7/1/2009 **Method:** CV

Lab Sample ID	Client ID	D.F.	Time	Elements
Calibration Blank		1	8:17	Hg
Standard #1 (0.2 pp		1	8:19	Hg
Standard #2 (0.5 pp		1	8:22	Hg
Standard #3 (1.0 pp		1	8:24	Hg
Standard #4 (5.0 pp		1	8:26	Hg
Standard #5 (10.0 p		1	8:28	Hg
ICV		1	8:32	HG
ICB		1	8:34	HG
PQL		1	8:36	HG
LCSSZF30HGS0		1	8:39	HG
LC2SZF30HGS0		1	8:41	HG
PBSZF30HGS0		1	8:43	HG
SC3122-002	WGL-SD-SD103-000.6	1	8:45	HG
SC3122-005	WGL-SD-SD102-000.6	1	8:47	HG
SC3122-008	WGL-SD-SD101-000.6	1	8:49	HG
SC3122-011	WGL-SD-DUP01-061109	1	8:51	HG
SC3122-014	WGL-SD-SD104-000.6	1	8:53	HG
SC3122-017	WGL-SD-SD106-000.6	1	8:55	HG
CCV		1	8:58	HG
CCB		1	9:00	HG
SC3122-020	WGL-SD-DUP02-061109	1	9:02	HG
SC3122-023	WGL-SD-SD107-000.6	1	9:04	HG
SC3122-026	WGL-SD-SD108-000.6	1	9:06	HG
SC3122-029	WGL-SD-SD105-000.6	1	9:08	HG
SC3122-032	WGL-SD-SD112-000.6	1	9:15	HG
SC3122-035	WGL-SD-SD110-000.6	1	9:17	HG
SC3122-038	WGL-SD-SD109-000.6	1	9:19	HG
SC3122-041	WGL-SD-SD111-000.6	1	9:22	HG
SC3122-041P	WGL-SD-SD111-000.6P	1	9:24	HG
SC3122-041S	WGL-SD-SD111-000.6S	1	9:26	HG
CCV		1	9:28	HG
CCB		1	9:30	HG
ZZZZZZ		1	9:32	
ZZZZZZ		1	9:34	
ZZZZZZ		1	9:36	
ZZZZZZ		1	9:39	
ZZZZZZ		1	9:41	
SC3122-041L	WGL-SD-SD111-000.6L	5	9:43	HG
ZZZZZZ		1	9:45	
ZZZZZZ		1	9:47	
ZZZZZZ		1	9:49	
ZZZZZZ		1	9:51	
CCV		1	9:54	HG
CCB		1	9:56	HG

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Instrument ID: THERMO ICAP 6500 **File Name:** IZF18A

Date: 6/18/2009 **Method:** P

Lab Sample ID	Client ID	D.F.	Time	Elements												
Blank		1	16:33	AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	NI	SE	AG	NA	TL	V	ZN
Std 1		1	16:38	AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	NI	SE	AG	NA	TL	V	ZN
ICV		1	16:43	AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	NI	SE	AG	NA	TL	V	ZN
ICB		1	16:47	AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	NI	SE	AG	NA	TL	V	ZN
PQL		1	16:52	AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	NI	SE	AG	NA	TL	V	ZN
ICSA		1	16:57	AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	NI	SE	AG	NA	TL	V	ZN
ICSAB		1	17:03	AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	NI	SE	AG	NA	TL	V	ZN
CCV		1	17:08	AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	NI	SE	AG	NA	TL	V	ZN
CCB		1	17:13	AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	NI	SE	AG	NA	TL	V	ZN
ZZZZZZ		1	17:18																					
ZZZZZZ		1	17:23																					
ZZZZZZ		1	17:28																					
ZZZZZZ		1	17:32																					
ZZZZZZ		1	17:37																					
ZZZZZZ		1	17:42																					
ZZZZZZ		1	17:47																					
ZZZZZZ		1	17:52																					
ZZZZZZ		1	17:57																					
ZZZZZZ		1	18:02																					
CCV		1	18:07	AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	NI	SE	AG	NA	TL	V	ZN
CCB		1	18:12	AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	NI	SE	AG	NA	TL	V	ZN
ZZZZZZ		1	18:17																					
ZZZZZZ		1	18:22																					
ZZZZZZ		1	18:27																					
ZZZZZZ		1	18:32																					
ZZZZZZ		1	18:37																					
ZZZZZZ		1	18:42																					
ZZZZZZ		1	18:47																					
PQL		1	18:52	AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	NI	SE	AG	NA	TL	V	ZN
ICSA		1	18:57	AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	NI	SE	AG	NA	TL	V	ZN
ICSAB		1	19:02	AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	NI	SE	AG	NA	TL	V	ZN
CCV		1	19:07	AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	NI	SE	AG	NA	TL	V	ZN
CCB		1	19:12	AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	NI	SE	AG	NA	TL	V	ZN
ZZZZZZ		1	19:17																					
ZZZZZZ		1	19:22																					
ZZZZZZ		5	19:27																					
ZZZZZZ		1	19:32																					
ZZZZZZ		1	19:37																					
ZZZZZZ		1	19:42																					
ZZZZZZ		1	19:47																					
ZZZZZZ		1	19:52																					
ZZZZZZ		1	19:57																					
ZZZZZZ		1	20:02																					
CCV		1	20:07	AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	NI	SE	AG	NA	TL	V	ZN
CCB		1	20:12	AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	NI	SE	AG	NA	TL	V	ZN
ZZZZZZ		1	20:17																					
ZZZZZZ		1	20:22																					
ZZZZZZ		1	20:27																					
ZZZZZZ		1	20:32																					
ZZZZZZ		1	20:37																					

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Instrument ID: THERMO ICAP 6500 **File Name:** IZF18A

Date: 6/18/2009 **Method:** P

Lab Sample ID	Client ID	D.F.	Time	Elements														
ZZZZZZ		1	20:42															
ZZZZZZ		2	20:47															
ZZZZZZ		1	20:52															
ZZZZZZ		1	20:57															
ZZZZZZ		5	21:02															
CCV		1	21:07	AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	NI	SE	AG	NA	TL	V	ZN
CCB		1	21:12	AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	NI	SE	AG	NA	TL	V	ZN
ZZZZZZ		1	21:17																					
ZZZZZZ		5	21:22																					
ZZZZZZ		1	21:27																					
ZZZZZZ		1	21:32																					
ZZZZZZ		2	21:37																					
ZZZZZZ		10	21:42																					
ZZZZZZ		2	21:47																					
PQL		1	21:52	AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	NI	SE	AG	NA	TL	V	ZN
ICSA		1	21:57	AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	NI	SE	AG	NA	TL	V	ZN
ICSAB		1	22:02	AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	NI	SE	AG	NA	TL	V	ZN
CCV		1	22:07	AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	NI	SE	AG	NA	TL	V	ZN
CCB		1	22:12	AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	NI	SE	AG	NA	TL	V	ZN
ZZZZZZ		2	22:17																					
ZZZZZZ		1	22:22																					
ZZZZZZ		1	22:27																					
ZZZZZZ		1	22:32																					
ZZZZZZ		2	22:37																					
ZZZZZZ		1	22:42																					
ZZZZZZ		1	22:47																					
ZZZZZZ		2	22:52																					
ZZZZZZ		1	22:57																					
ZZZZZZ		2	23:02																					
CCV		1	23:07	AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	NI	SE	AG	NA	TL	V	ZN
CCB		1	23:12	AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	NI	SE	AG	NA	TL	V	ZN
ZZZZZZ		1	23:17																					
ZZZZZZ		1	23:22																					
ZZZZZZ		1	23:27																					
ZZZZZZ		2	23:32																					
ZZZZZZ		3	23:38																					
ZZZZZZ		1	23:43																					
ZZZZZZ		1	23:48																					
ZZZZZZ		1	23:53																					
ZZZZZZ		10	23:57																					
ZZZZZZ		10	0:02																					
CCV		1	0:07	AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	NI	SE	AG	NA	TL	V	ZN
CCB		1	0:12	AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	NI	SE	AG	NA	TL	V	ZN
ZZZZZZ		1	0:17																					
PBWZF16ICW0		1	0:22	AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	NI	SE	AG	NA	TL	V	ZN
LCSWZF16ICW0		1	0:27	AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	NI	SE	AG	NA	TL	V	ZN
ZZZZZZ		1	0:32																					
ZZZZZZ		1	0:37																					
SC3122-043	WGL-SD-FB01-061109	1	0:42	AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	NI	SE	AG	NA	TL	V	ZN
SC3122-045	WGL-SD-RB01-061109	1	0:47	AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	NI	SE	AG	NA	TL	V	ZN
PQL		1	0:52	AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	NI	SE	AG	NA	TL	V	ZN

FORM XIV - IN

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Instrument ID: THERMO ICAP 6500 **File Name:** IZF18A

Date: 6/19/2009 **Method:** P

Lab Sample ID	Client ID	D.F.	Time	Elements																			
ICSA		1	0:57	AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	NI	SE	AG	NA	TL	V	ZN
ICSAB		1	1:03	AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	NI	SE	AG	NA	TL	V	ZN
CCV		1	1:08	AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	NI	SE	AG	NA	TL	V	ZN
CCB		1	1:13	AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	NI	SE	AG	NA	TL	V	ZN

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Instrument ID: THERMO ICAP 6500 **File Name:** IZF29A

Date: 6/29/2009 **Method:** P

Lab Sample ID	Client ID	D.F.	Time	Elements
Blank		1	16:18	AL SB AS BA BE CD CA CR CO CU FE PB MG MN NI SE AG NA TL V ZN
Std 1		1	16:23	AL SB AS BA BE CD CA CR CO CU FE PB MG MN NI SE AG NA TL V ZN
ICV		1	16:28	AL SB AS BA BE CD CA CR CO CU FE PB MG MN NI SE AG NA TL V ZN
ICB		1	16:33	AL SB AS BA BE CD CA CR CO CU FE PB MG MN NI SE AG NA TL V ZN
PQL		1	16:39	AL SB AS BA BE CD CA CR CO CU FE PB MG MN NI SE AG NA TL V ZN
ICSA		1	16:44	AL SB AS BA BE CD CA CR CO CU FE PB MG MN NI SE AG NA TL V ZN
ICSAB		1	16:49	AL SB AS BA BE CD CA CR CO CU FE PB MG MN NI SE AG NA TL V ZN
CCV		1	16:54	AL SB AS BA BE CD CA CR CO CU FE PB MG MN NI SE AG NA TL V ZN
CCB		1	16:59	AL SB AS BA BE CD CA CR CO CU FE PB MG MN NI SE AG NA TL V ZN
ZZZZZZ		1	17:04	
ZZZZZZ		1	17:09	
ZZZZZZ		25	17:14	
ZZZZZZ		1	17:19	
ZZZZZZ		1	17:24	
ZZZZZZ		1	17:29	
ZZZZZZ		1	17:34	
ZZZZZZ		1	17:39	
ZZZZZZ		1	17:45	
ZZZZZZ		2	17:50	
CCV		1	17:55	AL SB AS BA BE CD CA CR CO CU FE PB MG MN NI SE AG NA TL V ZN
CCB		1	18:00	AL SB AS BA BE CD CA CR CO CU FE PB MG MN NI SE AG NA TL V ZN
LC2SZF25ICS0		1	18:05	AL SB AS BA BE CD CA CR CO CU FE PB MG MN NI SE AG NA TL V ZN
LCSSZF25ICS0		1	18:10	AL SB AS BA BE CD CA CR CO CU FE PB MG MN NI SE AG NA TL V ZN
PBSZF25ICS0		1	18:15	AL SB AS BA BE CD CA CR CO CU FE PB MG MN NI SE AG NA TL V ZN
SC3122-002	WGL-SD-SD103-000.6	1	18:20	AL SB AS BA BE CD CA CR CO CU FE PB MG MN NI SE AG NA TL V ZN
SC3122-005	WGL-SD-SD102-000.6	1	18:25	AL SB AS BA BE CD CA CR CO CU FE PB MG MN NI SE AG NA TL V ZN
SC3122-008	WGL-SD-SD101-000.6	1	18:30	AL SB AS BA BE CD CA CR CO CU FE PB MG MN NI SE AG NA TL V ZN
SC3122-011	WGL-SD-DUP01-061109	1	18:35	AL SB AS BA BE CD CA CR CO CU FE PB MG MN NI SE AG NA TL V ZN
SC3122-014	WGL-SD-SD104-000.6	1	18:40	AL SB AS BA BE CD CA CR CO CU FE PB MG MN NI SE AG NA TL V ZN
SC3122-017	WGL-SD-SD106-000.6	1	18:45	AL SB AS BA BE CD CA CR CO CU FE PB MG MN NI SE AG NA TL V ZN
SC3122-020	WGL-SD-DUP02-061109	1	18:50	AL SB AS BA BE CD CA CR CO CU FE PB MG MN NI SE AG NA TL V ZN
CCV		1	18:55	AL SB AS BA BE CD CA CR CO CU FE PB MG MN NI SE AG NA TL V ZN
CCB		1	19:00	AL SB AS BA BE CD CA CR CO CU FE PB MG MN NI SE AG NA TL V ZN
SC3122-023	WGL-SD-SD107-000.6	1	19:05	AL SB AS BA BE CD CA CR CO CU FE PB MG MN NI SE AG NA TL V ZN
SC3122-026	WGL-SD-SD108-000.6	1	19:10	AL SB AS BA BE CD CA CR CO CU FE PB MG MN NI SE AG NA TL V ZN
SC3122-029	WGL-SD-SD105-000.6	1	19:15	AL SB AS BA BE CD CA CR CO CU FE PB MG MN NI SE AG NA TL V ZN
SC3122-032	WGL-SD-SD112-000.6	1	19:20	AL SB AS BA BE CD CA CR CO CU FE PB MG MN NI SE AG NA TL V ZN
SC3122-035	WGL-SD-SD110-000.6	1	19:25	AL SB AS BA BE CD CA CR CO CU FE PB MG MN NI SE AG NA TL V ZN
SC3122-038	WGL-SD-SD109-000.6	1	19:30	AL SB AS BA BE CD CA CR CO CU FE PB MG MN NI SE AG NA TL V ZN
SC3122-041L	WGL-SD-SD111-000.6L	5	19:35	AL SB AS BA BE CD CR CO CU FE PB MG NI SE AG NA TL V
PQL		1	19:40	AL SB AS BA BE CD CA CR CO CU FE PB MG MN NI SE AG NA TL V ZN
ICSA		1	19:45	AL SB AS BA BE CD CA CR CO CU FE PB MG MN NI SE AG NA TL V ZN
ICSAB		1	19:50	AL SB AS BA BE CD CA CR CO CU FE PB MG MN NI SE AG NA TL V ZN
CCV		1	19:55	AL SB AS BA BE CD CA CR CO CU FE PB MG MN NI SE AG NA TL V ZN
CCB		1	20:00	AL SB AS BA BE CD CA CR CO CU FE PB MG MN NI SE AG NA TL V ZN
SC3122-041	WGL-SD-SD111-000.6	1	20:05	AL SB AS BA BE CD CR CO CU FE PB MG NI SE AG NA TL V
SC3122-041A	WGL-SD-SD111-000.6A	1	20:10	SB AS BE CR CO CU NI AG NA V
SC3122-041P	WGL-SD-SD111-000.6P	1	20:15	AL SB AS BA BE CD CR CO CU FE PB MG NI SE AG NA TL V
SC3122-041S	WGL-SD-SD111-000.6S	1	20:20	AL SB AS BA BE CD CR CO CU FE PB MG NI SE AG NA TL V
ZZZZZZ		1	20:25	

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Instrument ID: THERMO ICAP 6500 **File Name:** IZF29A

Date: 6/29/2009 **Method:** P

Lab Sample ID	Client ID	D.F.	Time	Elements																			
ZZZZZZ		1	20:30																				
ZZZZZZ		1	20:35																				
ZZZZZZ		1	20:39																				
ZZZZZZ		1	20:44																				
ZZZZZZ		1	20:49																				
CCV		1	20:54	AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	NI	SE	AG	NA	TL	V	ZN
CCB		1	20:59	AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	NI	SE	AG	NA	TL	V	ZN

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Instrument ID: THERMO ICAP 6500 **File Name:** IZG01A

Date: 7/1/2009 **Method:** P

Lab Sample ID	Client ID	D.F.	Time	Elements							
Blank		1	9:40	AL	BA	CA	FE	PB	MG	MN	ZN
Std 1		1	9:45	AL	BA	CA	FE	PB	MG	MN	ZN
ICV		1	9:50	AL	BA	CA	FE	PB	MG	MN	ZN
ICB		1	9:54	AL	BA	CA	FE	PB	MG	MN	ZN
PQL		1	9:59	AL	BA	CA	FE	PB	MG	MN	ZN
ICSA		1	10:04	AL	BA	CA	FE	PB	MG	MN	ZN
ICSAB		1	10:10	AL	BA	CA	FE	PB	MG	MN	ZN
CCV		1	10:15	AL	BA	CA	FE	PB	MG	MN	ZN
CCB		1	10:20	AL	BA	CA	FE	PB	MG	MN	ZN
SC3122-041	WGL-SD-SD111-000.6	1	10:25			CA				MN	ZN
SC3122-041L	WGL-SD-SD111-000.6L	5	10:29			CA				MN	ZN
SC3122-041A	WGL-SD-SD111-000.6A	1	10:34		BA			PB	MG		
SC3122-041S	WGL-SD-SD111-000.6S	1	10:39			CA				MN	ZN
SC3122-041P	WGL-SD-SD111-000.6P	1	10:44			CA				MN	ZN
ZZZZZZ		2	10:49								
ZZZZZZ		2	10:54								
ZZZZZZ		2	10:59								
ZZZZZZ		10	11:04								
ZZZZZZ		2	11:09								
CCV		1	11:14	AL	BA	CA	FE	PB	MG	MN	ZN
CCB		1	11:19	AL	BA	CA	FE	PB	MG	MN	ZN

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Instrument ID: AGILENT 7500 ICP-MS **File Name:** JZF26A

Date: 6/26/2009 **Method:** MS

Lab Sample ID	Client ID	D.F.	Time	Elements					
Cal Blank		1	18:09	Al	Ca	Fe	Mg	Mo	K	Na
Cal Std 1		1	18:18	Al	Ca	Fe	Mg	Mo	K	Na
Cal Std 2		1	18:26	Al	Ca	Fe	Mg	Mo	K	Na
Cal Std 3		1	18:35	Al	Ca	Fe	Mg	Mo	K	Na
Cal Std 4		1	18:43	Al	Ca	Fe	Mg	Mo	K	Na
ZZZZZZ		1	18:52							
ICV		1	19:00	Al	Ca	Fe	Mg	Mo	K	Na
ICB		1	19:09	Al	Ca	Fe	Mg	Mo	K	Na
PQL		1	19:18	Al	Ca	Fe	Mg	Mo	K	Na
ICSA		1	19:26	Al	Ca	Fe	Mg	Mo	K	Na
ICSAB		1	19:35	Al	Ca	Fe	Mg	Mo	K	Na
Blank		1	19:44	Al	Ca	Fe	Mg	Mo	K	Na
CCV		1	19:52	Al	Ca	Fe	Mg	Mo	K	Na
CCB		1	20:01	Al	Ca	Fe	Mg	Mo	K	Na
BLANK		1	20:09	Al	Ca	Fe	Mg	Mo	K	Na
BLANK		1	20:18	Al	Ca	Fe	Mg	Mo	K	Na
CCV		1	20:27	Al	Ca	Fe	Mg	Mo	K	Na
CCB		1	20:35	Al	Ca	Fe	Mg	Mo	K	Na
PBWZF16ICW0		5	20:44						K	
ZZZZZZ		1	20:52							
ZZZZZZ		1	21:01							
ZZZZZZ		1	21:09							
ZZZZZZ		5	21:18							
ZZZZZZ		5	21:27							
ZZZZZZ		5	21:35							
ZZZZZZ		5	21:44							
LCSWZF16ICW0		10	21:52						K	
BLANK		1	22:01	Al	Ca	Fe	Mg	Mo	K	Na
CCV		1	22:09	Al	Ca	Fe	Mg	Mo	K	Na
CCB		1	22:18	Al	Ca	Fe	Mg	Mo	K	Na

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Instrument ID: AGILENT 7500 ICP-MS **File Name:** JZF30A

Date: 6/30/2009 **Method:** MS

Lab Sample ID	Client ID	D.F.	Time	Elements					
Cal Blank		1	17:32	Al	Ca	Fe	Mg	Mo	K	Na
Cal Std 1		1	17:40	Al	Ca	Fe	Mg	Mo	K	Na
Cal Std 2		1	17:49	Al	Ca	Fe	Mg	Mo	K	Na
Cal Std 3		1	17:57	Al	Ca	Fe	Mg	Mo	K	Na
Cal Std 4		1	18:06	Al	Ca	Fe	Mg	Mo	K	Na
ZZZZZZ		1	18:14							
ICV		1	18:23	Al	Ca	Fe	Mg	Mo	K	Na
ICB		1	18:31	Al	Ca	Fe	Mg	Mo	K	Na
PQL		1	18:40	Al	Ca	Fe	Mg	Mo	K	Na
ICSA		1	18:48	Al	Ca	Fe	Mg	Mo	K	Na
ICSAB		1	18:57	Al	Ca	Fe	Mg	Mo	K	Na
Blank		1	19:06	Al	Ca	Fe	Mg	Mo	K	Na
CCV		1	19:14	Al	Ca	Fe	Mg	Mo	K	Na
CCB		1	19:23	Al	Ca	Fe	Mg	Mo	K	Na
BLANK		1	19:31	Al	Ca	Fe	Mg	Mo	K	Na
BLANK		1	19:40	Al	Ca	Fe	Mg	Mo	K	Na
CCV		1	19:49	Al	Ca	Fe	Mg	Mo	K	Na
CCB		1	19:57	Al	Ca	Fe	Mg	Mo	K	Na
ZZZZZZ		5	20:06							
ZZZZZZ		5	20:14							
ZZZZZZ		5	20:23							
ZZZZZZ		5	20:31							
ZZZZZZ		5	20:40							
ZZZZZZ		5	20:48							
ZZZZZZ		5	20:57							
ZZZZZZ		5	21:05							
ZZZZZZ		5	21:14							
BLANK		1	21:22	Al	Ca	Fe	Mg	Mo	K	Na
CCV		1	21:31	Al	Ca	Fe	Mg	Mo	K	Na
CCB		1	21:39	Al	Ca	Fe	Mg	Mo	K	Na
ZZZZZZ		5	21:48							
ZZZZZZ		10	21:56							
ZZZZZZ		50	22:05							
ZZZZZZ		10	22:13							
ZZZZZZ		5	22:22							
ZZZZZZ		5	22:30							
ZZZZZZ		5	22:39							
ZZZZZZ		5	22:47							
ZZZZZZ		5	22:56							
BLANK		1	23:04	Al	Ca	Fe	Mg	Mo	K	Na
CCV		1	23:13	Al	Ca	Fe	Mg	Mo	K	Na
CCB		1	23:21	Al	Ca	Fe	Mg	Mo	K	Na
PBSZF25ICS0		5	23:30						K	
SC3122-002	WGL-SD-SD103-000.6	5	23:39						K	
SC3122-005	WGL-SD-SD102-000.6	5	23:47						K	
SC3122-008	WGL-SD-SD101-000.6	5	23:56						K	
SC3122-011	WGL-SD-DUP01-061109	5	0:04						K	
SC3122-014	WGL-SD-SD104-000.6	5	0:13						K	
SC3122-017	WGL-SD-SD106-000.6	5	0:21						K	
LCSSZF25ICS0		10	0:30						K	

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** SC3122

Instrument ID: AGILENT 7500 ICP-MS **File Name:** JZF30A

Date: 7/1/2009 **Method:** MS

Lab Sample ID	Client ID	D.F.	Time	Elements						
LC2SZF25ICS0		10	0:38						K	
BLANK		1	0:47	Al	Ca	Fe	Mg	Mo	K	Na
CCV		1	0:55	Al	Ca	Fe	Mg	Mo	K	Na
CCB		1	1:04	Al	Ca	Fe	Mg	Mo	K	Na
SC3122-020	WGL-SD-DUP02-061109	5	1:12						K	
SC3122-023	WGL-SD-SD107-000.6	5	1:21						K	
SC3122-026	WGL-SD-SD108-000.6	5	1:29						K	
SC3122-029	WGL-SD-SD105-000.6	5	1:38						K	
SC3122-032	WGL-SD-SD112-000.6	5	1:46						K	
SC3122-035	WGL-SD-SD110-000.6	5	1:55						K	
SC3122-038	WGL-SD-SD109-000.6	5	2:03						K	
SC3122-041S	WGL-SD-SD111-000.6S	10	2:12						K	
SC3122-041P	WGL-SD-SD111-000.6P	10	2:20						K	
BLANK		1	2:29	Al	Ca	Fe	Mg	Mo	K	Na
CCV		1	2:37	Al	Ca	Fe	Mg	Mo	K	Na
CCB		1	2:46	Al	Ca	Fe	Mg	Mo	K	Na
SC3122-043	WGL-SD-FB01-061109	5	2:54						K	
SC3122-045	WGL-SD-RB01-061109	5	3:03						K	
Blank		1	3:12	Al	Ca	Fe	Mg	Mo	K	Na
Blank		1	3:20	Al	Ca	Fe	Mg	Mo	K	Na
PQL		1	3:28	Al	Ca	Fe	Mg	Mo	K	Na
CCV		1	3:37	Al	Ca	Fe	Mg	Mo	K	Na
CCB		1	3:45	Al	Ca	Fe	Mg	Mo	K	Na
ZZZZZZ		5	3:54							
SC3122-041	WGL-SD-SD111-000.6	5	4:02						K	
SC3122-041L	WGL-SD-SD111-000.6L	25	4:11						K	
ZZZZZZ		5	4:20							
ZZZZZZ		5	4:28							
ZZZZZZ		5	4:37							
ZZZZZZ		5	4:45							
SC3122-041A	WGL-SD-SD111-000.6A	5	4:54						K	
ZZZZZZ		10	5:03							
BLANK		1	5:11	Al	Ca	Fe	Mg	Mo	K	Na
CCV		1	5:20	Al	Ca	Fe	Mg	Mo	K	Na
CCB		1	5:28	Al	Ca	Fe	Mg	Mo	K	Na

Report of Analytical Results

Client: Lucy Guzman
Tetra Tech NUS
55 Jonspin Road
Wilmington,MA 01887-1020

Lab Sample ID: SC3122-1
Report Date: 30-JUN-09
Client PO: 1045366 01-CTO 407
Project: CTO 407 NAS Weymouth
SDG: SC3122

Sample Description	Matrix	Date Sampled	Date Received
WGL-SD-SD103-000.6	SL	11-JUN-09	12-JUN-09

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
Total Solids	18. %	1	D2216	WG65470	16-JUN-09 10:00:00	ASTM D2216	15-JUN-09	JF	

Report of Analytical Results

Client: Lucy Guzman
Tetra Tech NUS
55 Jonspin Road
Wilmington,MA 01887-1020

Lab Sample ID: SC3122-2
Report Date: 30-JUN-09
Client PO: 1045366 01-CTO 407
Project: CTO 407 NAS Weymouth
SDG: SC3122

Sample Description	Matrix	Date Sampled	Date Received
WGL-SD-SD103-000.6	SL	11-JUN-09	12-JUN-09

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
Total Solids	96. %	1	D2216	WG65404	24-JUN-09 08:30:00	ASTM D2216	23-JUN-09	JF	

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Lucy Guzman
Tetra Tech NUS
55 Jonspin Road
Wilmington,MA 01887-1020

Lab Sample ID: SC3122-3
Report Date: 30-JUN-09
Client PO: 1045366 01-CTO 407
Project: CTO 407 NAS Weymouth
SDG: SC3122

Sample Description	Matrix	Date Sampled	Date Received
WGL-SD-SD103-000.6	SL	11-JUN-09	12-JUN-09

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
Total Solids	96. %	1	D2216	WG65404	24-JUN-09 08:30:00	ASTM D2216	23-JUN-09	JF	

Report of Analytical Results

Client: Lucy Guzman
Tetra Tech NUS
55 Jonspin Road
Wilmington,MA 01887-1020

Lab Sample ID: SC3122-4
Report Date: 30-JUN-09
Client PO: 1045366 01-CTO 407
Project: CTO 407 NAS Weymouth
SDG: SC3122

Sample Description	Matrix	Date Sampled	Date Received
WGL-SD-SD102-000.6	SL	11-JUN-09	12-JUN-09

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
Total Solids	18. %	1	D2216	WG65470	16-JUN-09 10:00:00	ASTM D2216	15-JUN-09	JF	

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Lucy Guzman
Tetra Tech NUS
55 Jonspin Road
Wilmington,MA 01887-1020

Lab Sample ID: SC3122-5
Report Date: 30-JUN-09
Client PO: 1045366 01-CTO 407
Project: CTO 407 NAS Weymouth
SDG: SC3122

Sample Description	Matrix	Date Sampled	Date Received
WGL-SD-SD102-000.6	SL	11-JUN-09	12-JUN-09

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
Total Solids	96. %	1	D2216	WG65404	24-JUN-09 08:30:00	ASTM D2216	23-JUN-09	JF	

00 Technology Way
O. Box 540, Scarborough, ME 04070
el:(207) 874-2400 Fax:(207) 775-4029
http://katahdinlab.com
sales@katahdinlab.com

Report of Analytical Results

Client: Lucy Guzman
Tetra Tech NUS
55 Jonspin Road
Wilmington,MA 01887-1020

Lab Sample ID: SC3122-6
Report Date: 30-JUN-09
Client PO: 1045366 01-CTO 407
Project: CTO 407 NAS Weymouth
SDG: SC3122

Sample Description	Matrix	Date Sampled	Date Received
WGL-SD-SD102-000.6	SL	11-JUN-09	12-JUN-09

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
Total Solids	96. %	1	D2216	WG65404	24-JUN-09 08:30:00	ASTM D2216	23-JUN-09	JF	

Report of Analytical Results

Client: Lucy Guzman
Tetra Tech NUS
55 Jonspin Road
Wilmington,MA 01887-1020

Lab Sample ID: SC3122-7
Report Date: 30-JUN-09
Client PO: 1045366 01-CTO 407
Project: CTO 407 NAS Weymouth
SDG: SC3122

Sample Description	Matrix	Date Sampled	Date Received
WGL-SD-SD101-000.6	SL	11-JUN-09	12-JUN-09

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
Total Solids	26. %	1	D2216	WG65470	16-JUN-09 10:00:00	ASTM D2216	15-JUN-09	JF	

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Lucy Guzman
Tetra Tech NUS
55 Jonspin Road
Wilmington,MA 01887-1020

Lab Sample ID: SC3122-8
Report Date: 30-JUN-09
Client PO: 1045366 01-CTO 407
Project: CTO 407 NAS Weymouth
SDG: SC3122

Sample Description	Matrix	Date Sampled	Date Received
WGL-SD-SD101-000.6	SL	11-JUN-09	12-JUN-09

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
Total Solids	96. %	1	D2216	WG65404	24-JUN-09 08:30:00	ASTM D2216	23-JUN-09	JF	

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Lucy Guzman
Tetra Tech NUS
55 Jonspin Road
Wilmington,MA 01887-1020

Lab Sample ID: SC3122-9
Report Date: 30-JUN-09
Client PO: 1045366 01-CTO 407
Project: CTO 407 NAS Weymouth
SDG: SC3122

Sample Description	Matrix	Date Sampled	Date Received
WGL-SD-SD101-000.6	SL	11-JUN-09	12-JUN-09

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
Total Solids	96. %	1	D2216	WG65404	24-JUN-09 08:30:00	ASTM D2216	23-JUN-09	JF	

00 Technology Way
.O. Box 540, Scarborough, ME 04070
el:(207) 874-2400 Fax:(207) 775-4029

http://katahdinlab.com
sales@katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Lucy Guzman
Tetra Tech NUS
55 Jonspin Road
Wilmington,MA 01887-1020

Lab Sample ID: SC3122-10
Report Date: 30-JUN-09
Client PO: 1045366 01-CTO 407
Project: CTO 407 NAS Weymouth
SDG: SC3122

Sample Description	Matrix	Date Sampled	Date Received
WGL-SD-DUP01-061109	SL	11-JUN-09	12-JUN-09

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
Total Solids	18. %	1	D2216	WG65470	16-JUN-09 10:00:00	ASTM D2216	15-JUN-09	JF	

Report of Analytical Results

Client: Lucy Guzman
Tetra Tech NUS
55 Jonspin Road
Wilmington,MA 01887-1020

Lab Sample ID: SC3122-11
Report Date: 30-JUN-09
Client PO: 1045366 01-CTO 407
Project: CTO 407 NAS Weymouth
SDG: SC3122

Sample Description	Matrix	Date Sampled	Date Received
WGL-SD-DUP01-061109	SL	11-JUN-09	12-JUN-09

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
Total Solids	96. %	1	D2216	WG65404	24-JUN-09 08:30:00	ASTM D2216	23-JUN-09	JF	

Report of Analytical Results

Client: Lucy Guzman
Tetra Tech NUS
55 Jonspin Road
Wilmington,MA 01887-1020

Lab Sample ID: SC3122-12
Report Date: 30-JUN-09
Client PO: 1045366 01-CTO 407
Project: CTO 407 NAS Weymouth
SDG: SC3122

Sample Description	Matrix	Date Sampled	Date Received
WGL-SD-DUP01-061109	SL	11-JUN-09	12-JUN-09

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
Total Solids	96. %	1	D2216	WG65404	24-JUN-09 08:30:00	ASTM D2216	23-JUN-09	JF	

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Lucy Guzman
Tetra Tech NUS
55 Jonspin Road
Wilmington,MA 01887-1020

Lab Sample ID: SC3122-13
Report Date: 30-JUN-09
Client PO: 1045366 01-CTO 407
Project: CTO 407 NAS Weymouth
SDG: SC3122

Sample Description	Matrix	Date Sampled	Date Received
WGL-SD-SD104-000.6	SL	11-JUN-09	12-JUN-09

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
Total Solids	18. %	1	D2216	WG65470	16-JUN-09 10:00:00	ASTM D2216	15-JUN-09	JF	

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Lucy Guzman
Tetra Tech NUS
55 Jonspin Road
Wilmington,MA 01887-1020

Lab Sample ID: SC3122-14
Report Date: 30-JUN-09
Client PO: 1045366 01-CTO 407
Project: CTO 407 NAS Weymouth
SDG: SC3122

Sample Description	Matrix	Date Sampled	Date Received
WGL-SD-SD104-000.6	SL	11-JUN-09	12-JUN-09

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
Total Solids	96. %	1	D2216	WG65404	24-JUN-09 08:30:00	ASTM D2216	23-JUN-09	JF	

00 Technology Way
.O. Box 540, Scarborough, ME 04070
el:(207) 874-2400 Fax:(207) 775-4029
https://katahdinlab.com
sales@katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Lucy Guzman
Tetra Tech NUS
55 Jonspin Road
Wilmington,MA 01887-1020

Lab Sample ID: SC3122-15
Report Date: 30-JUN-09
Client PO: 1045366 01-CTO 407
Project: CTO 407 NAS Weymouth
SDG: SC3122

Sample Description	Matrix	Date Sampled	Date Received
WGL-SD-SD104-000.6	SL	11-JUN-09	12-JUN-09

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
Total Solids	96. %	1	D2216	WG65404	24-JUN-09 08:30:00	ASTM D2216	23-JUN-09	JF	

00 Technology Way
O. Box 540, Scarborough, ME 04070
el:(207) 874-2400 Fax:(207) 775-4029
http://katahdinlab.com
sales@katahdinlab.com

Report of Analytical Results

Client: Lucy Guzman
Tetra Tech NUS
55 Jonspin Road
Wilmington,MA 01887-1020

Lab Sample ID: SC3122-16
Report Date: 30-JUN-09
Client PO: 1045366 01-CTO 407
Project: CTO 407 NAS Weymouth
SDG: SC3122

Sample Description	Matrix	Date Sampled	Date Received
WGL-SD-SD106-000.6	SL	11-JUN-09	12-JUN-09

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
Total Solids	17. %	1	D2216	WG65470	16-JUN-09 10:00:00	ASTM D2216	15-JUN-09	JF	

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Lucy Guzman
Tetra Tech NUS
55 Jonspin Road
Wilmington,MA 01887-1020

Lab Sample ID: SC3122-17
Report Date: 30-JUN-09
Client PO: 1045366 01-CTO 407
Project: CTO 407 NAS Weymouth
SDG: SC3122

Sample Description	Matrix	Date Sampled	Date Received
WGL-SD-SD106-000.6	SL	11-JUN-09	12-JUN-09

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
Total Solids	94. %	1	D2216	WG65404	24-JUN-09 08:30:00	ASTM D2216	23-JUN-09	JF	

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Lucy Guzman
Tetra Tech NUS
55 Jonspin Road
Wilmington,MA 01887-1020

Lab Sample ID: SC3122-18
Report Date: 30-JUN-09
Client PO: 1045366 01-CTO 407
Project: CTO 407 NAS Weymouth
SDG: SC3122

Sample Description	Matrix	Date Sampled	Date Received
WGL-SD-SD106-000.6	SL	11-JUN-09	12-JUN-09

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
Total Solids	94. %	1	D2216	WG65404	24-JUN-09 08:30:00	ASTM D2216	23-JUN-09	JF	

00 Technology Way
.O. Box 540, Scarborough, ME 04070
el:(207) 874-2400 Fax:(207) 775-4029
http://katahdinlab.com
sales@katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Lucy Guzman
Tetra Tech NUS
55 Jonspin Road
Wilmington,MA 01887-1020

Lab Sample ID: SC3122-19
Report Date: 30-JUN-09
Client PO: 1045366 01-CTO 407
Project: CTO 407 NAS Weymouth
SDG: SC3122

Sample Description	Matrix	Date Sampled	Date Received
WGL-SD-DUP02-061109	SL	11-JUN-09	12-JUN-09

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
Total Solids	17. %	1	D2216	WG65470	16-JUN-09 10:00:00	ASTM D2216	15-JUN-09	JF	

00 Technology Way
.O. Box 540, Scarborough, ME 04070
el:(207) 874-2400 Fax:(207) 775-4029
http://katahdinlab.com
sales@katahdinlab.com

Report of Analytical Results

Client: Lucy Guzman
Tetra Tech NUS
55 Jonspin Road
Wilmington,MA 01887-1020

Lab Sample ID: SC3122-20
Report Date: 30-JUN-09
Client PO: 1045366 01-CTO 407
Project: CTO 407 NAS Weymouth
SDG: SC3122

Sample Description	Matrix	Date Sampled	Date Received
WGL-SD-DUP02-061109	SL	11-JUN-09	12-JUN-09

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
Total Solids	94. %	1	D2216	WG65404	24-JUN-09 08:30:00	ASTM D2216	23-JUN-09	JF	

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Lucy Guzman
Tetra Tech NUS
55 Jonspin Road
Wilmington,MA 01887-1020

Lab Sample ID: SC3122-21
Report Date: 30-JUN-09
Client PO: 1045366 01-CTO 407
Project: CTO 407 NAS Weymouth
SDG: SC3122

Sample Description	Matrix	Date Sampled	Date Received
WGL-SD-DUP02-061109	SL	11-JUN-09	12-JUN-09

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
Total Solids	94. %	1	D2216	WG65404	24-JUN-09 08:30:00	ASTM D2216	23-JUN-09	JF	

00 Technology Way
.O. Box 540, Scarborough, ME 04070
el:(207) 874-2400 Fax:(207) 775-4029
http://katahdinlab.com
sales@katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Lucy Guzman
Tetra Tech NUS
55 Jonspin Road
Wilmington,MA 01887-1020

Lab Sample ID: SC3122-22
Report Date: 30-JUN-09
Client PO: 1045366 01-CTO 407
Project: CTO 407 NAS Weymouth
SDG: SC3122

Sample Description	Matrix	Date Sampled	Date Received
WGL-SD-SD107-000.6	SL	11-JUN-09	12-JUN-09

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
Total Solids	22. %	1	D2216	WG65470	16-JUN-09 10:00:00	ASTM D2216	15-JUN-09	JF	

00 Technology Way
.O. Box 540, Scarborough, ME 04070
el:(207) 874-2400 Fax:(207) 775-4029
http://katahdinlab.com
sales@katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Lucy Guzman
Tetra Tech NUS
55 Jonspin Road
Wilmington,MA 01887-1020

Lab Sample ID: SC3122-23
Report Date: 30-JUN-09
Client PO: 1045366 01-CTO 407
Project: CTO 407 NAS Weymouth
SDG: SC3122

Sample Description	Matrix	Date Sampled	Date Received
WGL-SD-SD107-000.6	SL	11-JUN-09	12-JUN-09

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
Total Solids	95. %	1	D2216	WG65404	24-JUN-09 08:30:00	ASTM D2216	23-JUN-09	JF	

00 Technology Way
.O. Box 540, Scarborough, ME 04070
el:(207) 874-2400 Fax:(207) 775-4029
http://katahdinlab.com
sales@katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Lucy Guzman
Tetra Tech NUS
55 Jonspin Road
Wilmington,MA 01887-1020

Lab Sample ID: SC3122-24
Report Date: 30-JUN-09
Client PO: 1045366 01-CTO 407
Project: CTO 407 NAS Weymouth
SDG: SC3122

Sample Description	Matrix	Date Sampled	Date Received
WGL-SD-SD107-000.6	SL	11-JUN-09	12-JUN-09

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
Total Solids	95. %	1	D2216	WG65404	24-JUN-09 08:30:00	ASTM D2216	23-JUN-09	JF	

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Lucy Guzman
Tetra Tech NUS
55 Jonspin Road
Wilmington,MA 01887-1020

Lab Sample ID: SC3122-25
Report Date: 30-JUN-09
Client PO: 1045366 01-CTO 407
Project: CTO 407 NAS Weymouth
SDG: SC3122

Sample Description	Matrix	Date Sampled	Date Received
WGL-SD-SD108-000.6	SL	11-JUN-09	12-JUN-09

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
Total Solids	25. %	1	D2216	WG65470	16-JUN-09 10:00:00	ASTM D2216	15-JUN-09	JF	

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Lucy Guzman
Tetra Tech NUS
55 Jonspin Road
Wilmington,MA 01887-1020

Lab Sample ID: SC3122-26
Report Date: 30-JUN-09
Client PO: 1045366 01-CTO 407
Project: CTO 407 NAS Weymouth
SDG: SC3122

Sample Description	Matrix	Date Sampled	Date Received
WGL-SD-SD108-000.6	SL	11-JUN-09	12-JUN-09

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
Total Solids	95. %	1	D2216	WG65404	24-JUN-09 08:30:00	ASTM D2216	23-JUN-09	JF	

00 Technology Way
.O. Box 540, Scarborough, ME 04070
el:(207) 874-2400 Fax:(207) 775-4029
http://katahdinlab.com

Report of Analytical Results

Client: Lucy Guzman
Tetra Tech NUS
55 Jonspin Road
Wilmington,MA 01887-1020

Lab Sample ID: SC3122-27
Report Date: 30-JUN-09
Client PO: 1045366 01-CTO 407
Project: CTO 407 NAS Weymouth
SDG: SC3122

Sample Description	Matrix	Date Sampled	Date Received
WGL-SD-SD108-000.6	SL	11-JUN-09	12-JUN-09

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
Total Solids	95. %	1	D2216	WG65404	24-JUN-09 08:30:00	ASTM D2216	23-JUN-09	JF	

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Lucy Guzman
Tetra Tech NUS
55 Jonspin Road
Wilmington,MA 01887-1020

Lab Sample ID: SC3122-28
Report Date: 30-JUN-09
Client PO: 1045366 01-CTO 407
Project: CTO 407 NAS Weymouth
SDG: SC3122

Sample Description	Matrix	Date Sampled	Date Received
WGL-SD-SD105-000.6	SL	11-JUN-09	12-JUN-09

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
Total Solids	23. %	1	D2216	WG65470	16-JUN-09 10:00:00	ASTM D2216	15-JUN-09	JF	

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Lucy Guzman
Tetra Tech NUS
55 Jonspin Road
Wilmington,MA 01887-1020

Lab Sample ID: SC3122-29
Report Date: 30-JUN-09
Client PO: 1045366 01-CTO 407
Project: CTO 407 NAS Weymouth
SDG: SC3122

Sample Description	Matrix	Date Sampled	Date Received
WGL-SD-SD105-000.6	SL	11-JUN-09	12-JUN-09

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
Total Solids	93. %	1	D2216	WG65404	24-JUN-09 08:30:00	ASTM D2216	23-JUN-09	JF	

Report of Analytical Results

Client: Lucy Guzman
Tetra Tech NUS
55 Jonspin Road
Wilmington,MA 01887-1020

Lab Sample ID: SC3122-30
Report Date: 30-JUN-09
Client PO: 1045366 01-CTO 407
Project: CTO 407 NAS Weymouth
SDG: SC3122

Sample Description	Matrix	Date Sampled	Date Received
WGL-SD-SD105-000.6	SL	11-JUN-09	12-JUN-09

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
Total Solids	93. %	1	D2216	WG65404	24-JUN-09 08:30:00	ASTM D2216	23-JUN-09	JF	

Report of Analytical Results

Client: Lucy Guzman
Tetra Tech NUS
55 Jonspin Road
Wilmington,MA 01887-1020

Lab Sample ID: SC3122-31
Report Date: 30-JUN-09
Client PO: 1045366 01-CTO 407
Project: CTO 407 NAS Weymouth
SDG: SC3122

Sample Description	Matrix	Date Sampled	Date Received
WGL-SD-SD112-000.6	SL	11-JUN-09	12-JUN-09

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
Total Solids	23. %	1	D2216	WG65471	16-JUN-09 10:27:00	ASTM D2216	15-JUN-09	JF	

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Lucy Guzman
Tetra Tech NUS
55 Jonspin Road
Wilmington,MA 01887-1020

Lab Sample ID: SC3122-32
Report Date: 30-JUN-09
Client PO: 1045366 01-CTO 407
Project: CTO 407 NAS Weymouth
SDG: SC3122

Sample Description	Matrix	Date Sampled	Date Received
WGL-SD-SD112-000.6	SL	11-JUN-09	12-JUN-09

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
Total Solids	95. %	1	D2216	WG65404	24-JUN-09 08:30:00	ASTM D2216	23-JUN-09	JF	

00 Technology Way
.O. Box 540, Scarborough, ME 04070
el:(207) 874-2400 Fax:(207) 775-4029
http://katahdinlab.com
sales@katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Lucy Guzman
Tetra Tech NUS
55 Jonspin Road
Wilmington,MA 01887-1020

Lab Sample ID: SC3122-33
Report Date: 30-JUN-09
Client PO: 1045366 01-CTO 407
Project: CTO 407 NAS Weymouth
SDG: SC3122

Sample Description	Matrix	Date Sampled	Date Received
WGL-SD-SD112-000.6	SL	11-JUN-09	12-JUN-09

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
Total Solids	95. %	1	D2216	WG65404	24-JUN-09 08:30:00	ASTM D2216	23-JUN-09	JF	

00 Technology Way
.O. Box 540, Scarborough, ME 04070
el:(207) 874-2400 Fax:(207) 775-4029
http://katahdinlab.com
sales@katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Lucy Guzman
Tetra Tech NUS
55 Jonspin Road
Wilmington,MA 01887-1020

Lab Sample ID: SC3122-34
Report Date: 30-JUN-09
Client PO: 1045366 01-CTO 407
Project: CTO 407 NAS Weymouth
SDG: SC3122

Sample Description	Matrix	Date Sampled	Date Received
WGL-SD-SD110-000.6	SL	11-JUN-09	12-JUN-09

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
Total Solids	21. %	1	D2216	WG65471	16-JUN-09 10:29:00	ASTM D2216	15-JUN-09	JF	

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://katahdinlab.com
sales@katahdinlab.com

Report of Analytical Results

Client: Lucy Guzman
Tetra Tech NUS
55 Jonspin Road
Wilmington,MA 01887-1020

Lab Sample ID: SC3122-35
Report Date: 30-JUN-09
Client PO: 1045366 01-CTO 407
Project: CTO 407 NAS Weymouth
SDG: SC3122

Sample Description	Matrix	Date Sampled	Date Received
WGL-SD-SD110-000.6	SL	11-JUN-09	12-JUN-09

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
Total Solids	93. %	1	D2216	WG65404	24-JUN-09 08:30:00	ASTM D2216	23-JUN-09	JF	

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Lucy Guzman
Tetra Tech NUS
55 Jonspin Road
Wilmington,MA 01887-1020

Lab Sample ID: SC3122-36
Report Date: 30-JUN-09
Client PO: 1045366 01-CTO 407
Project: CTO 407 NAS Weymouth
SDG: SC3122

Sample Description	Matrix	Date Sampled	Date Received
WGL-SD-SD110-000.6	SL	11-JUN-09	12-JUN-09

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
Total Solids	93. %	1	D2216	WG65404	24-JUN-09 08:30:00	ASTM D2216	23-JUN-09	JF	

600 Technology Way
P.O. Box 540, Scarborough, ME 04070
Tel:(207) 874-2400 Fax:(207) 775-4029
http://katahdinlab.com

Report of Analytical Results

Client: Lucy Guzman
Tetra Tech NUS
55 Jonspin Road
Wilmington,MA 01887-1020

Lab Sample ID: SC3122-37
Report Date: 30-JUN-09
Client PO: 1045366 01-CTO 407
Project: CTO 407 NAS Weymouth
SDG: SC3122

Sample Description	Matrix	Date Sampled	Date Received
WGL-SD-SD109-000.6	SL	11-JUN-09	12-JUN-09

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
Total Solids	19. %	1	D2216	WG65471	16-JUN-09 10:23:00	ASTM D2216	15-JUN-09	JF	

Report of Analytical Results

Client: Lucy Guzman
Tetra Tech NUS
55 Jonspin Road
Wilmington,MA 01887-1020

Lab Sample ID: SC3122-38
Report Date: 30-JUN-09
Client PO: 1045366 01-CTO 407
Project: CTO 407 NAS Weymouth
SDG: SC3122

Sample Description	Matrix	Date Sampled	Date Received
WGL-SD-SD109-000.6	SL	11-JUN-09	12-JUN-09

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
Total Solids	95. %	1	D2216	WG65404	24-JUN-09 08:30:00	ASTM D2216	23-JUN-09	JF	

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Lucy Guzman
Tetra Tech NUS
55 Jonspin Road
Wilmington,MA 01887-1020

Lab Sample ID: SC3122-39
Report Date: 30-JUN-09
Client PO: 1045366 01-CTO 407
Project: CTO 407 NAS Weymouth
SDG: SC3122

Sample Description	Matrix	Date Sampled	Date Received
WGL-SD-SD109-000.6	SL	11-JUN-09	12-JUN-09

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
Total Solids	95. %	1	D2216	WG65404	24-JUN-09 08:30:00	ASTM D2216	23-JUN-09	JF	

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Lucy Guzman
Tetra Tech NUS
55 Jonspin Road
Wilmington,MA 01887-1020

Lab Sample ID: SC3122-40
Report Date: 30-JUN-09
Client PO: 1045366 01-CTO 407
Project: CTO 407 NAS Weymouth
SDG: SC3122

Sample Description	Matrix	Date Sampled	Date Received
WGL-SD-SD111-000.6	SL	11-JUN-09	12-JUN-09

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
Total Solids	23. %	1	D2216	WG65471	16-JUN-09 10:23:00	ASTM D2216	15-JUN-09	JF	

00 Technology Way
.O. Box 540, Scarborough, ME 04070
el:(207) 874-2400 Fax:(207) 775-4029
http://katahdinlab.com
sales@katahdinlab.com

Katahdin
ANALYTICAL SERVICES

Cert No E87604

Report of Analytical Results

Client: Lucy Guzman
Tetra Tech NUS
55 Jonspin Road
Wilmington,MA 01887-1020

Lab Sample ID: SC3122-41
Report Date: 30-JUN-09
Client PO: 1045366 01-CTO 407
Project: CTO 407 NAS Weymouth
SDG: SC3122

Sample Description	Matrix	Date Sampled	Date Received
WGL-SD-SD111-000.6	SL	11-JUN-09	12-JUN-09

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
Total Solids	94. %	1	D2216	WG65404	24-JUN-09 08:30:00	ASTM D2216	23-JUN-09	JF	

Report of Analytical Results

Client: Lucy Guzman
Tetra Tech NUS
55 Jonspin Road
Wilmington,MA 01887-1020

Lab Sample ID: SC3122-42
Report Date: 30-JUN-09
Client PO: 1045366 01-CTO 407
Project: CTO 407 NAS Weymouth
SDG: SC3122

Sample Description	Matrix	Date Sampled	Date Received
WGL-SD-SD111-000.6	SL	11-JUN-09	12-JUN-09

Parameter	Result	Adj PQL	Anal. Method	QC.Batch	Anal. Date	Prep. Method	Prep. Date	Analyst	Footnotes
Total Solids	94. %	1	D2216	WG65404	24-JUN-09 08:30:00	ASTM D2216	23-JUN-09	JF	

Quality Control Report

Blank Sample Summary Report

Total Solids

Samp Type	QC Batch	Anal. Method	Anal. Date	Prep. Date	Result	PQL
MBLANK	WG65404	ASTM D2216	24-JUN-09	23-JUN-09	U 1 %	1 %
MBLANK	WG65470	ASTM D2216	16-JUN-09	15-JUN-09	U 1 %	1 %
MBLANK	WG65471	ASTM D2216	16-JUN-09	15-JUN-09	U 1 %	1 %

Quality Control Report

Laboratory Control Sample Summary Report

Total Solids

Lab Sample Id	Samp Type	QC Batch	Analysis Date	Prep Date	Units	Spike Amt.	Result	Recovery	Acceptance Range	RPD
WG65471-2	LCS	WG65471	16-JUN-09	15-JUN-09	%	90	90.	100	80-120	
WG65404-2	LCS	WG65404	24-JUN-09	23-JUN-09	%	90	90.	100	80-120	
WG65404-3	LCSD	WG65404	24-JUN-09	23-JUN-09	%	90	90.	100	80-120	0
WG65470-2	LCS	WG65470	16-JUN-09	15-JUN-09	%	90	90.	100	80-120	

Quality Control Report

Duplicate Sample Summary Report

Total Solids

Duplicate Sample ID	Original Sample ID	QC Batch	Analysis Date	Result Units	Sample Result	Duplicate Result	RPD(%)	RPD Limit
WG65470-3	SC3122-1	WG65470	16-JUN-09	%	18.	19.	8	20
WG65470-4	SC3122-16	WG65470	16-JUN-09	%	17.	16.	5	20
WG65471-3	SC3122-40	WG65471	16-JUN-09	%	23.	22.	2	20
WG65404-5	SC3122-42	WG65404	24-JUN-09	%	94.	95.	1	20
WG65404-4	SC3122-41	WG65404	24-JUN-09	%	94.	95.	1	20

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 01-JUL-2009 13:47
Report Date: 07/09/2009
Matrix: SOIL
% Solids: 95.6

Lab ID: SC3122-2
Client ID: WGL-SD-SD103-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JLP
Analysis Method: SW846 8082
Lab Prep Batch: WG65400
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
12674-11-2	Aroclor-1016	U	18	1.0	17	18	5.4
11104-28-2	Aroclor-1221	U	18	1.0	17	18	10
11141-16-5	Aroclor-1232	U	18	1.0	17	18	6.9
53469-21-9	Aroclor-1242	U	18	1.0	17	18	4.0
12672-29-6	Aroclor-1248	U	18	1.0	17	18	9.9
11097-69-1	Aroclor-1254	U	18	1.0	17	18	7.2
11096-82-5	Aroclor-1260	U	18	1.0	17	18	3.4
877-09-8	Tetrachloro-m-xylene		90%				
2051-24-3	Decachlorobiphenyl		71%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 01-JUL-2009 14:15
Report Date: 07/09/2009
Matrix: SOIL
% Solids: 96.4

Lab ID: SC3122-5
Client ID: WGL-SD-SD102-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JLP
Analysis Method: SW846 8082
Lab Prep Batch: WG65400
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
12674-11-2	Aroclor-1016	U	18	1.0	17	18	5.4
11104-28-2	Aroclor-1221	U	18	1.0	17	18	10
11141-16-5	Aroclor-1232	U	18	1.0	17	18	6.8
53469-21-9	Aroclor-1242	U	18	1.0	17	18	3.9
12672-29-6	Aroclor-1248	U	18	1.0	17	18	9.8
11097-69-1	Aroclor-1254	U	18	1.0	17	18	7.2
11096-82-5	Aroclor-1260	U	18	1.0	17	18	3.4
877-09-8	Tetrachloro-m-xylene		90%				
2051-24-3	Decachlorobiphenyl		72%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 01-JUL-2009 14:42
Report Date: 07/09/2009
Matrix: SOIL
% Solids: 96.1

Lab ID: SC3122-8
Client ID: WGL-SD-SD101-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JLP
Analysis Method: SW846 8082
Lab Prep Batch: WG65400
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
12674-11-2	Aroclor-1016	U	18	1.0	17	18	5.4
11104-28-2	Aroclor-1221	U	18	1.0	17	18	10
11141-16-5	Aroclor-1232	U	18	1.0	17	18	6.9
53469-21-9	Aroclor-1242	U	18	1.0	17	18	4.0
12672-29-6	Aroclor-1248	U	18	1.0	17	18	9.9
11097-69-1	Aroclor-1254	U	18	1.0	17	18	7.2
11096-82-5	Aroclor-1260	U	18	1.0	17	18	3.4
877-09-8	Tetrachloro-m-xylene		57%				
2051-24-3	Decachlorobiphenyl		* 33%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 01-JUL-2009 15:10
Report Date: 07/10/2009
Matrix: SOIL
% Solids: 95.7

Lab ID: SC3122-11
Client ID: WGL-SD-DUP01-061109
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JLP
Analysis Method: SW846 8082
Lab Prep Batch: WG65400
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
12674-11-2	Aroclor-1016	U	18	1.0	17	18	5.4
11104-28-2	Aroclor-1221	U	18	1.0	17	18	10
11141-16-5	Aroclor-1232	U	18	1.0	17	18	6.9
53469-21-9	Aroclor-1242	U	18	1.0	17	18	4.0
12672-29-6	Aroclor-1248	U	18	1.0	17	18	9.9
11097-69-1	Aroclor-1254	U	18	1.0	17	18	7.2
11096-82-5	Aroclor-1260	U	18	1.0	17	18	3.4
877-09-8	Tetrachloro-m-xylene		66%				
2051-24-3	Decachlorobiphenyl		* 36%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 01-JUL-2009 15:37
Report Date: 07/09/2009
Matrix: SOIL
% Solids: 95.9

Lab ID: SC3122-14
Client ID: WGL-SD-SD104-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JLP
Analysis Method: SW846 8082
Lab Prep Batch: WG65400
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
12674-11-2	Aroclor-1016	U	21	1.0	17	21	6.5
11104-28-2	Aroclor-1221	U	21	1.0	17	21	12
11141-16-5	Aroclor-1232	U	21	1.0	17	21	8.2
53469-21-9	Aroclor-1242	U	21	1.0	17	21	4.8
12672-29-6	Aroclor-1248	U	21	1.0	17	21	12
11097-69-1	Aroclor-1254	U	21	1.0	17	21	8.6
11096-82-5	Aroclor-1260	U	21	1.0	17	21	4.1
877-09-8	Tetrachloro-m-xylene		* 54%				
2051-24-3	Decachlorobiphenyl		* 36%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 01-JUL-2009 16:05
Report Date: 07/09/2009
Matrix: SOIL
% Solids: 94.4

Lab ID: SC3122-17
Client ID: WGL-SD-SD106-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JLP
Analysis Method: SW846 8082
Lab Prep Batch: WG65400
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
12674-11-2	Aroclor-1016	U	18	1.0	17	18	5.5
11104-28-2	Aroclor-1221	U	18	1.0	17	18	10
11141-16-5	Aroclor-1232	U	18	1.0	17	18	7.0
53469-21-9	Aroclor-1242	U	18	1.0	17	18	4.0
12672-29-6	Aroclor-1248	U	18	1.0	17	18	10
11097-69-1	Aroclor-1254	U	18	1.0	17	18	7.3
11096-82-5	Aroclor-1260	U	18	1.0	17	18	3.5
877-09-8	Tetrachloro-m-xylene		* 53%				
2051-24-3	Decachlorobiphenyl		* 33%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 01-JUL-2009 16:32
Report Date: 07/09/2009
Matrix: SOIL
% Solids: 93.8

Lab ID: SC3122-20
Client ID: WGL-SD-DUP02-061109
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JLP
Analysis Method: SW846 8082
Lab Prep Batch: WG65400
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
12674-11-2	Aroclor-1016	U	18	1.0	17	18	5.5
11104-28-2	Aroclor-1221	U	18	1.0	17	18	10
11141-16-5	Aroclor-1232	U	18	1.0	17	18	7.0
53469-21-9	Aroclor-1242	U	18	1.0	17	18	4.0
12672-29-6	Aroclor-1248	U	18	1.0	17	18	10
11097-69-1	Aroclor-1254	U	18	1.0	17	18	7.4
11096-82-5	Aroclor-1260	U	18	1.0	17	18	3.5
877-09-8	Tetrachloro-m-xylene		* 50%				
2051-24-3	Decachlorobiphenyl		* 36%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 06-JUL-2009 12:33
Report Date: 07/10/2009
Matrix: SOIL
% Solids: 95.0

Lab ID: SC3122-23
Client ID: WGL-SD-SD107-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: RCT
Analysis Method: SW846 8082
Lab Prep Batch: WG65400
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
12674-11-2	Aroclor-1016	U	18	1.0	17	18	5.5
11104-28-2	Aroclor-1221	U	18	1.0	17	18	10
11141-16-5	Aroclor-1232	U	18	1.0	17	18	6.9
53469-21-9	Aroclor-1242	U	18	1.0	17	18	4.0
12672-29-6	Aroclor-1248	U	18	1.0	17	18	10
11097-69-1	Aroclor-1254	U	18	1.0	17	18	7.3
11096-82-5	Aroclor-1260	U	18	1.0	17	18	3.5
877-09-8	Tetrachloro-m-xylene		71%				
2051-24-3	Decachlorobiphenyl		86%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 06-JUL-2009 13:00
Report Date: 07/09/2009
Matrix: SOIL
% Solids: 94.9

Lab ID: SC3122-26
Client ID: WGL-SD-SD108-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: RCT
Analysis Method: SW846 8082
Lab Prep Batch: WG65400
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
12674-11-2	Aroclor-1016	U	18	1.0	17	18	5.5
11104-28-2	Aroclor-1221	U	18	1.0	17	18	10
11141-16-5	Aroclor-1232	U	18	1.0	17	18	7.0
53469-21-9	Aroclor-1242	U	18	1.0	17	18	4.0
12672-29-6	Aroclor-1248	U	18	1.0	17	18	10
11097-69-1	Aroclor-1254	U	18	1.0	17	18	7.3
11096-82-5	Aroclor-1260	U	18	1.0	17	18	3.5
877-09-8	Tetrachloro-m-xylene		61%				
2051-24-3	Decachlorobiphenyl		* 19%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 06-JUL-2009 13:28
Report Date: 07/09/2009
Matrix: SOIL
% Solids: 93.0

Lab ID: SC3122-29
Client ID: WGL-SD-SD105-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: RCT
Analysis Method: SW846 8082
Lab Prep Batch: WG65400
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
12674-11-2	Aroclor-1016	U	18	1.0	17	18	5.6
11104-28-2	Aroclor-1221	U	18	1.0	17	18	11
11141-16-5	Aroclor-1232	U	18	1.0	17	18	7.1
53469-21-9	Aroclor-1242	U	18	1.0	17	18	4.1
12672-29-6	Aroclor-1248	U	18	1.0	17	18	10
11097-69-1	Aroclor-1254	U	18	1.0	17	18	7.4
11096-82-5	Aroclor-1260	U	18	1.0	17	18	3.5
877-09-8	Tetrachloro-m-xylene		57%				
2051-24-3	Decachlorobiphenyl		* 39%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 06-JUL-2009 13:55
Report Date: 07/09/2009
Matrix: SOIL
% Solids: 94.6

Lab ID: SC3122-32
Client ID: WGL-SD-SD112-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: RCT
Analysis Method: SW846 8082
Lab Prep Batch: WG65400
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
12674-11-2	Aroclor-1016	U	18	1.0	17	18	5.5
11104-28-2	Aroclor-1221	U	18	1.0	17	18	10
11141-16-5	Aroclor-1232	U	18	1.0	17	18	7.0
53469-21-9	Aroclor-1242	U	18	1.0	17	18	4.0
12672-29-6	Aroclor-1248	U	18	1.0	17	18	10
11097-69-1	Aroclor-1254	U	18	1.0	17	18	7.3
11096-82-5	Aroclor-1260	U	18	1.0	17	18	3.5
877-09-8	Tetrachloro-m-xylene		62%				
2051-24-3	Decachlorobiphenyl		* 10%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 06-JUL-2009 14:23
Report Date: 07/09/2009
Matrix: SOIL
% Solids: 92.7

Lab ID: SC3122-35
Client ID: WGL-SD-SD110-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: RCT
Analysis Method: SW846 8082
Lab Prep Batch: WG65400
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
12674-11-2	Aroclor-1016	U	22	1.0	17	22	6.7
11104-28-2	Aroclor-1221	U	22	1.0	17	22	13
11141-16-5	Aroclor-1232	U	22	1.0	17	22	8.5
53469-21-9	Aroclor-1242	U	22	1.0	17	22	4.9
12672-29-6	Aroclor-1248	U	22	1.0	17	22	12
11097-69-1	Aroclor-1254	U	22	1.0	17	22	8.9
11096-82-5	Aroclor-1260	U	22	1.0	17	22	4.3
877-09-8	Tetrachloro-m-xylene		* 50%				
2051-24-3	Decachlorobiphenyl		* 10%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 06-JUL-2009 14:50
Report Date: 07/09/2009
Matrix: SOIL
% Solids: 94.8

Lab ID: SC3122-38
Client ID: WGL-SD-SD109-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: RCT
Analysis Method: SW846 8082
Lab Prep Batch: WG65400
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
12674-11-2	Aroclor-1016	U	18	1.0	17	18	5.5
11104-28-2	Aroclor-1221	U	18	1.0	17	18	10
11141-16-5	Aroclor-1232	U	18	1.0	17	18	7.0
53469-21-9	Aroclor-1242	U	18	1.0	17	18	4.0
12672-29-6	Aroclor-1248	U	18	1.0	17	18	10
11097-69-1	Aroclor-1254	U	18	1.0	17	18	7.3
11096-82-5	Aroclor-1260	U	18	1.0	17	18	3.5
877-09-8	Tetrachloro-m-xylene		* 46%				
2051-24-3	Decachlorobiphenyl		* 6%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 06-JUL-2009 15:18
Report Date: 07/09/2009
Matrix: SOIL
% Solids: 94.2

Lab ID: SC3122-41
Client ID: L-SD-SD111-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: RCT
Analysis Method: SW846 8082
Lab Prep Batch: WG65400
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
12674-11-2	Aroclor-1016	U	18	1.0	17	18	5.5
11104-28-2	Aroclor-1221	U	18	1.0	17	18	10
11141-16-5	Aroclor-1232	U	18	1.0	17	18	7.0
53469-21-9	Aroclor-1242	U	18	1.0	17	18	4.0
12672-29-6	Aroclor-1248	U	18	1.0	17	18	10
11097-69-1	Aroclor-1254	U	18	1.0	17	18	7.3
11096-82-5	Aroclor-1260	U	18	1.0	17	18	3.5
877-09-8	Tetrachloro-m-xylene		* 37%				
2051-24-3	Decachlorobiphenyl		* 0%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/15/09
Analysis Date: 01-JUL-2009 08:38
Report Date: 07/09/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3122-43
Client ID: WGL-SD-FB01-061109
SDG: SC3122
Extracted by: KF
Extraction Method: SW846 3510
Analyst: JLP
Analysis Method: SW846 8082
Lab Prep Batch: WG65040
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
12674-11-2	Aroclor-1016	U	0.47	1.0	0.50	0.47	0.15
11104-28-2	Aroclor-1221	U	0.47	1.0	0.50	0.47	0.38
11141-16-5	Aroclor-1232	U	0.47	1.0	0.50	0.47	0.11
53469-21-9	Aroclor-1242	U	0.47	1.0	0.50	0.47	0.11
12672-29-6	Aroclor-1248	U	0.47	1.0	0.50	0.47	0.075
11097-69-1	Aroclor-1254	U	0.47	1.0	0.50	0.47	0.087
11096-82-5	Aroclor-1260	U	0.47	1.0	0.50	0.47	0.12
877-09-8	Tetrachloro-m-xylene		92%				
2051-24-3	Decachlorobiphenyl		63%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/17/09
Analysis Date: 01-JUL-2009 09:06
Report Date: 07/09/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3122-45
Client ID: WGL-SD-RB01-061109
SDG: SC3122
Extracted by: KF
Extraction Method: SW846 3510
Analyst: JLP
Analysis Method: SW846 8082
Lab Prep Batch: WG65096
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
12674-11-2	Aroclor-1016	U	0.48	1.0	0.50	0.48	0.15
11104-28-2	Aroclor-1221	U	0.48	1.0	0.50	0.48	0.38
11141-16-5	Aroclor-1232	U	0.48	1.0	0.50	0.48	0.11
53469-21-9	Aroclor-1242	U	0.48	1.0	0.50	0.48	0.11
12672-29-6	Aroclor-1248	U	0.48	1.0	0.50	0.48	0.076
11097-69-1	Aroclor-1254	U	0.48	1.0	0.50	0.48	0.088
11096-82-5	Aroclor-1260	U	0.48	1.0	0.50	0.48	0.12
877-09-8	Tetrachloro-m-xylene		98%				
2051-24-3	Decachlorobiphenyl		49%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client:
Project: CTO 407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date: 06/25/09
Analysis Date: 25-JUN-2009 14:30
Report Date: 07/09/2009
Matrix: SOIL
% Solids: 100

Lab ID: WG65400-1
Client ID: WG65400-Blank
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JLP
Analysis Method: SW846 8082
Lab Prep Batch: WG65400
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
12674-11-2	Aroclor-1016	U	17	1.0	17	17	5.2
11104-28-2	Aroclor-1221	U	17	1.0	17	17	9.9
11141-16-5	Aroclor-1232	U	17	1.0	17	17	6.6
53469-21-9	Aroclor-1242	U	17	1.0	17	17	3.8
12672-29-6	Aroclor-1248	U	17	1.0	17	17	9.5
11097-69-1	Aroclor-1254	U	17	1.0	17	17	6.9
11096-82-5	Aroclor-1260	U	17	1.0	17	17	3.3
877-09-8	Tetrachloro-m-xylene		100%				
2051-24-3	Decachlorobiphenyl		107%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client:
Project: CTO 407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date: 06/15/09
Analysis Date: 01-JUL-2009 07:16
Report Date: 07/09/2009
Matrix: WATER
% Solids: NA

Lab ID: WG65040-1
Client ID: WG65040-Blank
SDG: SC3122
Extracted by: KF
Extraction Method: SW846 3510
Analyst: JLP
Analysis Method: SW846 8082
Lab Prep Batch: WG65040
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
12674-11-2	Aroclor-1016	U	0.50	1.0	0.50	0.50	0.16
11104-28-2	Aroclor-1221	U	0.50	1.0	0.50	0.50	0.40
11141-16-5	Aroclor-1232	U	0.50	1.0	0.50	0.50	0.12
53469-21-9	Aroclor-1242	U	0.50	1.0	0.50	0.50	0.12
12672-29-6	Aroclor-1248	U	0.50	1.0	0.50	0.50	0.080
11097-69-1	Aroclor-1254	U	0.50	1.0	0.50	0.50	0.092
11096-82-5	Aroclor-1260	U	0.50	1.0	0.50	0.50	0.13
877-09-8	Tetrachloro-m-xylene		97%				
2051-24-3	Decachlorobiphenyl		83%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client:
Project: CTO 407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date: 06/17/09
Analysis Date: 01-JUL-2009 12:25
Report Date: 07/09/2009
Matrix: WATER
% Solids: NA

Lab ID: WG65096-1
Client ID: WG65096-Blank
SDG: SC3122
Extracted by: KF
Extraction Method: SW846 3510
Analyst: JLP
Analysis Method: SW846 8082
Lab Prep Batch: WG65096
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
12674-11-2	Aroclor-1016	U	0.50	1.0	0.50	0.50	0.16
11104-28-2	Aroclor-1221	U	0.50	1.0	0.50	0.50	0.40
11141-16-5	Aroclor-1232	U	0.50	1.0	0.50	0.50	0.12
53469-21-9	Aroclor-1242	U	0.50	1.0	0.50	0.50	0.12
12672-29-6	Aroclor-1248	U	0.50	1.0	0.50	0.50	0.080
11097-69-1	Aroclor-1254	U	0.50	1.0	0.50	0.50	0.092
11096-82-5	Aroclor-1260	U	0.50	1.0	0.50	0.50	0.13
877-09-8	Tetrachloro-m-xylene		109%				
2051-24-3	Decachlorobiphenyl		82%				

FORM 2
WATER PCB SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

GC Column(1): RTX-CLPESTICIDESID: 0.53 (mm) GC Column(2): RTX-CLPESTICIDES2ID: 0.53 (mm)

	CLIENT SAMPLE ID	LAB SAMPLE ID	TCX1 REC#	TCX2 REC#	DCB1 REC#	DCB2 REC#	OTHR (1)	OTHR (2)	TOT OUT
01	WG65040-BLANK	WG65040-1	89	97	83	83			0
02	WG65040-LCS	WG65040-2	88	94	81	81			0
03	WG65040-LCSD	WG65040-3	84	95	79	79			0
04	WGL-SD-FB01-061109	SC3122-43	81	92	63	63			0
05	WGL-SD-RB01-061109	SC3122-45	88	98	49	49			0
06	WG65096-BLANK	WG65096-1	96	109	81	82			0
07	WG65096-LCS	WG65096-2	98	108	68	68			0
08	WG65096-LCSD	WG65096-3	91	100	68	68			0
09									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									

ADVISORY
QC LIMITS

S1 (TCX) = Tetrachloro-m-xylene (62-111)
S2 (DCB) = Decachlorobiphenyl (44-135)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out

FORM 2
SOIL PCB SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

GC Column(1): ZB-MULTIRESIDUE-1ID: 0.53 (mm)GC Column(2): ZB-MULTIRESIDUE-2ID: 0.53 (mm)

	CLIENT SAMPLE ID	LAB SAMPLE ID	TCX1 REC#	TCX2 REC#	DCB1 REC#	DCB2 REC#	OTHR (1)	OTHR (2)	TOT OUT
01	WG65400-BLANK	WG65400-1	100	93	107	105			0
02	WG65400-LCS	WG65400-2	108	101	108	107			0
03	WG65400-LCSD	WG65400-5	98	91	101	98			0
04	WGL-SD-SD103-000.6	SC3122-2	71	90	71	70			0
05	WGL-SD-SD102-000.6	SC3122-5	65	90	49*	72			1
06	WGL-SD-SD101-000.6	SC3122-8	40*	57	22*	33*			3
07	WGL-SD-DUP01-061109	SC3122-11	46*	66	29*	36*			3
08	WGL-SD-SD104-000.6	SC3122-14	38*	54*	23*	36*			4
09	WGL-SD-SD106-000.6	SC3122-17	37*	53*	18*	33*			4
10	WGL-SD-DUP02-061109	SC3122-20	35*	50*	20*	36*			4
11	WGL-SD-SD107-000.6	SC3122-23	48*	71	86	0*			2
12	WGL-SD-SD108-000.6	SC3122-26	42*	61	19*	0*			3
13	WGL-SD-SD105-000.6	SC3122-29	42*	57	0*	39*			3
14	WGL-SD-SD112-000.6	SC3122-32	46*	62	10*	0*			3
15	WGL-SD-SD110-000.6	SC3122-35	36*	50*	10*	0*			4
16	WGL-SD-SD109-000.6	SC3122-38	34*	46*	6*	0*			4
17	L-SD-SD111-000.6	SC3122-41	27*	37*	0*	0*			4
18	L-SD-SD111-000.6MS	WG65400-3	28*	39*	0*	0*			4
19	L-SD-SD111-000.6MSD	WG65400-4	32*	46*	0*	0*			4
20									
21									
22									
23									
24									
25									
26									
27									
28									

ADVISORY
QC LIMITS

S1 (TCX) = Tetrachloro-m-xylene (56-115)
S2 (DCB) = Decachlorobiphenyl (59-124)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out

FORM 4
PESTICIDE METHOD BLANK SUMMARY

CLIENT SAMPLE ID

WG65040-BLANK

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Lab Sample ID: WG65040-1 Lab File ID: 7CF599

Matrix (soil/water) WATER Extraction:(SepF/Cont/Sonc) SW846 3510

Sulfur Cleanup: (Y/N) N Date Extracted: 06/15/09

Date Analyzed (1): 07/01/09 Date Analyzed (2): 07/01/09

Time Analyzed (1): 0716 Time Analyzed (2): 0716

Instrument ID (1): GC07 Instrument ID (2): GC07

GC Column (1): RTX-CLPESTICIDES ID: 0.53(mm) GC Column (2): RTX-CLPESTICIDES2 ID: 0.53(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	WG65040-LCS	WG65040-2	7CF600	07/01/09	07/01/09
02	WG65040-LCSD	WG65040-3	7CF601	07/01/09	07/01/09
03	WGL-SD-FB01-061109	SC3122-43	7CF602	07/01/09	07/01/09
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					

COMMENTS:

FORM IVPCB

FORM 4

PESTICIDE METHOD BLANK SUMMARY

CLIENT SAMPLE ID

WG65096-BLANK

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Lab Sample ID: WG65096-1 Lab File ID: 7CG001

Matrix (soil/water) WATER Extraction:(SepF/Cont/Sonc) SW846 3510

Sulfur Cleanup: (Y/N) N Date Extracted: 06/17/09

Date Analyzed (1): 07/01/09 Date Analyzed (2): 07/01/09

Time Analyzed (1): 1225 Time Analyzed (2): 1225

Instrument ID (1): GC07 Instrument ID (2): GC07

GC Column (1): RTX-CLPESTICIDES ID: 0.53(mm) GC Column (2): RTX-CLPESTICIDES2 ID: 0.53(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	WGL-SD-RB01-061109	SC3122-45	7CF603	07/01/09	07/01/09
02	WG65096-LCS	WG65096-2	7CG002	07/01/09	07/01/09
03	WG65096-LCSD	WG65096-3	7CG003	07/01/09	07/01/09
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					

COMMENTS:

FORM IVPCB

FORM 4

PESTICIDE METHOD BLANK SUMMARY

CLIENT SAMPLE ID

WG65400-BLANK

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Lab Sample ID: WG65400-1 Lab File ID: 7CF475

Matrix (soil/water) SOIL Extraction:(SepF/Cont/Sonc) SW846 3550

Sulfur Cleanup: (Y/N) N Date Extracted: 06/25/09

Date Analyzed (1): 06/25/09 Date Analyzed (2): 06/25/09

Time Analyzed (1): 1430 Time Analyzed (2): 1430

Instrument ID (1): GC07 Instrument ID (2): GC07

GC Column (1): ZB-MULTIRESIDUE-1 ID: 0.53(mm) GC Column (2): ZB-MULTIRESIDUE-2 ID: 0.53(mm

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	WG65400-LCS	WG65400-2	7CF476	06/25/09	06/25/09
02	WG65400-LCSD	WG65400-5	7CF477	06/25/09	06/25/09
03	WGL-SD-SD103-000.6	SC3122-2	7CG004	07/01/09	07/01/09
04	WGL-SD-SD102-000.6	SC3122-5	7CG005	07/01/09	07/01/09
05	WGL-SD-SD101-000.6	SC3122-8	7CG006	07/01/09	07/01/09
06	WGL-SD-DUP01-061109	SC3122-11	7CG007	07/01/09	07/01/09
07	WGL-SD-SD104-000.6	SC3122-14	7CG008	07/01/09	07/01/09
08	WGL-SD-SD106-000.6	SC3122-17	7CG009	07/01/09	07/01/09
09	WGL-SD-DUP02-061109	SC3122-20	7CG010	07/01/09	07/01/09
10	WGL-SD-SD107-000.6	SC3122-23	7CG053	07/06/09	07/06/09
11	WGL-SD-SD108-000.6	SC3122-26	7CG054	07/06/09	07/06/09
12	WGL-SD-SD105-000.6	SC3122-29	7CG055	07/06/09	07/06/09
13	WGL-SD-SD112-000.6	SC3122-32	7CG056	07/06/09	07/06/09
14	WGL-SD-SD110-000.6	SC3122-35	7CG057	07/06/09	07/06/09
15	WGL-SD-SD109-000.6	SC3122-38	7CG058	07/06/09	07/06/09
16	L-SD-SD111-000.6	SC3122-41	7CG059	07/06/09	07/06/09
17	L-SD-SD111-000.6MS	WG65400-3	7CG060	07/06/09	07/06/09
18	L-SD-SD111-000.6MSD	WG65400-4	7CG061	07/06/09	07/06/09
19					
20					
21					
22					
23					
24					

COMMENTS:

FORM IVPCB

KATAHDIN ANALYTICAL SERVICES
LAB CONTROL SAMPLE

Client:
Project: CTO 407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date: 06/15/09
Analysis Date: 07/01/09
Report Date: 07/09/2009
Matrix: WATER

Lab ID: WG65040-2 & WG65040-3
Client ID: WG65040-LCS & WG65040-LCSD
SDG: SC3122
Extracted by: KF
Extraction Method: SW846 3510
Analyst: JLP
Analysis Method: SW846 8082
Lab Prep Batch: WG65040
Units: ug/L

COMPOUND	LCS SPIKE	LCSD SPIKE	SAMPLE CONC.	LCS CONC.	LCSD CONC.	LCS %REC.	LCSD %REC.	%RPD	%RPD LIMIT	QC. LIMITS
Aroclor-1016	5.0	5.0	NA	4.6	4.4	91	89	3	30	82-117
Aroclor-1260	5.0	5.0	NA	4.2	4.1	83	83	1.0	30	75-125

FORM III PCB-1

7CF600.D & 7CF601.D

KATAHDIN ANALYTICAL SERVICES
LAB CONTROL SAMPLE

Client:
Project: CTO 407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date: 06/17/09
Analysis Date: 07/01/09
Report Date: 07/09/2009
Matrix: WATER

Lab ID: WG65096-2 & WG65096-3
Client ID: WG65096-LCS & WG65096-LCSD
SDG: SC3122
Extracted by: KF
Extraction Method: SW846 3510
Analyst: JLP
Analysis Method: SW846 8082
Lab Prep Batch: WG65096
Units: ug/L

COMPOUND	LCS SPIKE	LCSD SPIKE	SAMPLE CONC.	LCS CONC.	LCSD CONC.	LCS %REC.	LCSD %REC.	%RPD	%RPD LIMIT	QC. LIMITS
Aroclor-1016	5.0	5.0	NA	5.1	4.6	101	93	9	30	82-117
Aroclor-1260	5.0	5.0	NA	4.6	4.3	91	85	7	30	75-125

FORM III PCB-1

7CG002.D & 7CG003.D

KATAHDIN ANALYTICAL SERVICES
LAB CONTROL SAMPLE

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date: 06/25/09
Analysis Date: 06/25/09
Report Date: 07/09/2009
Matrix: SOIL

Lab ID: WG65400-2 & WG65400-5
Client ID: WG65400-LCS & WG65400-LCSD
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JLP
Analysis Method: SW846 8082
Lab Prep Batch: WG65400
Units: ug/Kgdrywt

COMPOUND	LCS SPIKE	LCSD SPIKE	SAMPLE CONC.	LCS CONC.	LCSD CONC.	LCS %REC.	LCSD %REC.	%RPD	%RPD LIMIT	QC. LIMITS
Aroclor-1016	167	177	NA	192	182	115	103	5	50	75-122
Aroclor-1260	167	177	NA	192	190	115	107	1	50	78-132

FORM III PCB-2

7CF476.D & 7CF477.D

KATAHDIN ANALYTICAL SERVICES
MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 07/06/09
Report Date: 07/09/2009
Matrix: SOIL

Lab ID: WG65400-3 & WG65400-4
Client ID: L-SD-SD111-000.6MS & L-SD-SD111-000.6MSD
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: RCT
Analysis Method: SW846 8082
Lab Prep Batch: WG65400
Units: ug/Kgdrywt

COMPOUND	MS SPIKE	MSD SPIKE	SAMPLE CONC.	MS CONC.	MSD CONC.	MS %REC.	MSD %REC.	%RPD	%RPD LIMIT	QC. LIMITS
Aroclor-1016	354	354	0.00	791	882	* 223	* 249	11	50	75-122
Aroclor-1260	354	354	0.00	961	1280	* 272	* 362	28	50	78-132

FORM III PCB-2

7CG060.D & 7CG061.D

FORM 6
PCB INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GC07 Calibration Date(s): 06/01/09 06/02/09

Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm) Calibration Time(s): 1706 0610

LAB FILE ID: RF0.05: 7CF024 RF0.1: 7CF025 RF0.25: 7CF026
RF1: 7CF032 RF2.5: 7CF027 RF10: 7CF028

COMPOUND	RF0.05	RF0.1	RF0.25	RF1	RF2.5	RF10	CURVE	COEFF. A1	%RSD OR R^2	MAX %RSD OR R^2	
Aroclor-1016	8040300	7452100	7071900	6331700	6664000	6301500	AVRG	6976932.40	9.797	20.000	
(2)	7274100	6845500	6645500	5843100	6389300	6191300	AVRG	6531465.92	7.725	20.000	
(3)	1e+007	1e+007	1e+007	1e+007	1e+007	1e+007	AVRG	12828645.5	5.327	20.000	
(4)	7538200	7367100	7185100	6345800	7134900	6779200	AVRG	7058393.23	6.121	20.000	
(5)	5158800	5212700	5139900	4606600	5006900	4948400	AVRG	5012206.13	4.431	20.000	
Aroclor-1221				2428600			AVRG	2428608.00	0.000	20.000	<-
(2)				1269200			AVRG	1269191.00	0.000	20.000	<-
(3)				3517700			AVRG	3517683.00	0.000	20.000	<-
(4)				2570000			AVRG	2569988.00	0.000	20.000	<-
Aroclor-1232				5544000			AVRG	5543961.00	0.000	20.000	<-
(2)				3220200			AVRG	3220231.00	0.000	20.000	<-
(3)				3098500			AVRG	3098517.00	0.000	20.000	<-
(4)				6000200			AVRG	6000174.00	0.000	20.000	<-
(5)				2226300			AVRG	2226346.00	0.000	20.000	<-
Aroclor-1242	6342900	6190000	6062600	5501200	5385400	5026200	AVRG	5751390.88	9.074	20.000	
(2)	5806900	5644100	5608000	5184800	5236100	4879000	AVRG	5393156.07	6.491	20.000	
(3)	1e+007	1e+007	1e+007	1.e+007	1.e+007	9833200	AVRG	10462910.5	3.247	20.000	
(4)	6086800	5978700	5936300	5658500	5672600	5353200	AVRG	5781012.27	4.683	20.000	
(5)	4365800	4333100	4343500	3999400	4099200	4034600	AVRG	4195929.77	4.037	20.000	
Aroclor-1248	7649300	7278000	7136600	6762000	6647000	6405800	AVRG	6979758.40	6.564	20.000	
(2)	7720400	7705700	7570700	7312400	7289900	7141400	AVRG	7456761.98	3.244	20.000	
(3)	5367200	5267700	5386400	5132000	5262800	5217300	AVRG	5272244.73	1.796	20.000	
(4)	6450200	6297800	6443200	6089500	6225000	6134000	AVRG	6273306.05	2.431	20.000	
(5)	3772900	3701800	3652500	3572800	3620900	3637300	AVRG	3659707.13	1.901	20.000	
Aroclor-1254	1e+007	1e+007	1e+007	9404900	1e+007	9059700	AVRG	10706801.6	12.669	20.000	
(2)	7962900	7487000	7260800	6352900	7210600	6509600	AVRG	7130645.28	8.492	20.000	
(3)	1e+007	1e+007	1e+007	1e+007	1e+007	1e+007	AVRG	12977457.7	9.438	20.000	
(4)	9589700	8908800	8562600	7540800	8608800	7836000	AVRG	8507795.45	8.686	20.000	
(5)	1.e+007	9530900	8997300	8192500	9440000	8247200	AVRG	9101733.93	8.620	20.000	
Aroclor-1260	8311200	8350700	8233500	7221600	8003300	7729200	AVRG	7974921.05	5.465	20.000	
(2)	1.e+007	1.e+007	9754400	9113500	9716300	9415600	AVRG	9747931.77	4.607	20.000	
(3)	1.e+007	9704400	9809000	9133700	9988200	9930300	AVRG	9777330.72	3.518	20.000	
(4)	1e+007	1e+007	1e+007	1e+007	2e+007	1e+007	AVRG	14398222.1	3.867	20.000	
(5)	8734100	8137000	8110900	7487800	8189000	8390200	AVRG	8174847.10	5.004	20.000	
Tetrachloro-m-xylene	3e+008	3.e+008	3e+008	3e+008	3.e+008	3e+008	AVRG	297147183	5.615	20.000	
Decachlorobiphenyl	1e+008	1e+008	1e+008	1.e+008	1e+008	1e+008	AVRG	115223851	9.729	20.000	

FORM VI PCB

FORM 6
PCB INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GC07 Calibration Date(s): 06/01/09 06/02/09

Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm) Calibration Time(s): 1706 0610

LAB FILE ID: RF0.05: 7CF024 RF0.1: 7CF025 RF0.25: 7CF026
RF1: 7CF032 RF2.5: 7CF027 RF10: 7CF028

COMPOUND	RF0.05	RF0.1	RF0.25	RF1	RF2.5	RF10	CURVE	COEFF. A1	%RSD OR R^2	MAX %RSD OR R^2	
Aroclor-1016	1391400	1234200	1175700	1058400	1128500	1097500	AVRG	1180941.55	10.155	20.000	
(2)	1092900	981740	952150	847080	915720	899150	AVRG	948130.350	8.922	20.000	
(3)	2321600	2137200	2081900	2045900	2203700	2113500	AVRG	2150620.62	4.616	20.000	
(4)	1278400	1139400	1125000	1011700	1090100	1082000	AVRG	1121108.03	7.933	20.000	
(5)	1012900	947400	876210	797140	861350	871650	AVRG	894442.250	8.404	20.000	
Aroclor-1221				133090			AVRG	133093.000	0.000	20.000	<-
(2)				183040			AVRG	183044.000	0.000	20.000	<-
(3)				604260			AVRG	604257.000	0.000	20.000	<-
(4)				425310			AVRG	425308.000	0.000	20.000	<-
Aroclor-1232				933620			AVRG	933616.000	0.000	20.000	<-
(2)				519390			AVRG	519394.000	0.000	20.000	<-
(3)				430680			AVRG	430678.000	0.000	20.000	<-
(4)				958670			AVRG	958672.000	0.000	20.000	<-
(5)				373680			AVRG	373685.000	0.000	20.000	<-
Aroclor-1242	1072600	1014800	999470	903080	925250	876910	AVRG	965361.633	7.811	20.000	
(2)	832920	797900	780400	718100	723440	728360	AVRG	763521.150	6.196	20.000	
(3)	1770200	1701700	1723000	1667100	1753000	1673300	AVRG	1714723.95	2.441	20.000	
(4)	961600	920790	920880	847710	886440	883210	AVRG	903438.817	4.370	20.000	
(5)	783940	758290	749920	687000	709740	707850	AVRG	732789.950	5.036	20.000	
Aroclor-1248	1048600	1013800	961310	954050	971800	987230	AVRG	989465.350	3.631	20.000	
(2)	1334300	1302500	1273500	1236500	1286300	1246800	AVRG	1279973.38	2.823	20.000	
(3)	900140	862930	842040	839440	875080	888820	AVRG	868074.767	2.837	20.000	
(4)	1675600	1582300	1590700	1656600	1705200	1638700	AVRG	1641539.15	2.926	20.000	
(5)	1130600	1088700	1083000	1113400	1163700	1168700	AVRG	1124676.58	3.243	20.000	
Aroclor-1254	2326300	2131700	1932700	1757400	1980200	1743100	AVRG	1978571.10	11.321	20.000	
(2)	1902000	1692800	1553600	1387200	1573500	1404300	AVRG	1585576.40	12.131	20.000	
(3)	1363500	1246000	1126900	1031400	1192800	1100600	AVRG	1176868.13	10.007	20.000	
(4)	2368000	2205200	2070100	1945000	2182700	1894600	AVRG	2110916.58	8.372	20.000	
(5)	1590900	1458200	1386500	1266100	1468800	1332400	AVRG	1417134.28	8.075	20.000	
Aroclor-1260	1515200	1362800	1335200	1229400	1332900	1311700	AVRG	1347877.42	6.955	20.000	
(2)	1698700	1534900	1523500	1376200	1561000	1511200	AVRG	1534256.97	6.736	20.000	
(3)	1478000	1311900	1294500	1172800	1364800	1338700	AVRG	1326790.18	7.495	20.000	
(4)	2435900	2335600	2352200	2227100	2483900	2347900	AVRG	2363757.03	3.760	20.000	
(5)	1336900	1291200	1340100	1357600	1474600	1504600	AVRG	1384167.23	6.147	20.000	
Tetrachloro-m-xylene	5e+007	5e+007	5e+007	5e+007	5e+007	5e+007	AVRG	49641372.5	6.286	20.000	
Decachlorobiphenyl	2e+007	2e+007	2e+007	2e+007	2e+007	2e+007	AVRG	18751230.0	9.130	20.000	

FORM VI PCB

FORM 6
PCB INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GC07 Calibration Date(s): 06/30/09 07/01/09

Column: RTX-CLPESTICIDES ID: 0.53 (mm) Calibration Time(s): 0001 0500

LAB FILE ID: RF0.05: 7CF588 RF0.1: 7CF589 RF0.25: 7CF590
RF1: 7CF594 RF2.5: 7CF591 RF10: 7CF592

COMPOUND	RF0.05	RF0.1	RF0.25	RF1	RF2.5	RF10	CURVE	COEFF. A1	%RSD OR R^2	MAX %RSD OR R^2	
Aroclor-1016	4533300	4960200	4710700	4136200	4019500	3750500	AVRG	4351767.15	10.532	20.000	
(2)	8411400	8685100	8361100	7547100	7317300	6792500	AVRG	7852425.87	9.475	20.000	
(3)	1e+007	1e+007	1e+007	1e+007	1e+007	1e+007	AVRG	13161192.1	3.612	20.000	
(4)	7506900	7855800	7690000	7164200	7149700	6998100	AVRG	7394113.48	4.617	20.000	
(5)	6628400	6944200	6824500	6317300	6333300	6310800	AVRG	6559762.47	4.283	20.000	
Aroclor-1221				1743400			AVRG	1743436.00	0.000	20.000	<-
(2)				691030			AVRG	691031.000	0.000	20.000	<-
(3)				3329500			AVRG	3329466.00	0.000	20.000	<-
(4)				8051500			AVRG	8051533.00	0.000	20.000	<-
Aroclor-1232				4940400			AVRG	4940427.00	0.000	20.000	<-
(2)				3677300			AVRG	3677341.00	0.000	20.000	<-
(3)				1879600			AVRG	1879636.00	0.000	20.000	<-
(4)				6127200			AVRG	6127197.00	0.000	20.000	<-
(5)				3511600			AVRG	3511624.00	0.000	20.000	<-
Aroclor-1242	4178000	4028800	4017000	3553900	3402200	3025900	AVRG	3700965.12	12.093	20.000	
(2)	7259400	7204100	6988200	6290000	6062300	5383700	AVRG	6531275.33	11.430	20.000	
(3)	1e+007	1e+007	1e+007	1e+007	1e+007	9957000	AVRG	10827353.8	4.597	20.000	
(4)	6401200	6455100	6439600	5929900	5929400	5540500	AVRG	6115962.25	6.125	20.000	
(5)	5830100	5845600	5773400	5341600	5357400	5145500	AVRG	5548940.08	5.465	20.000	
Aroclor-1248	6983400	6861600	6670400	6518900	6322800	6109300	AVRG	6577742.62	5.003	20.000	
(2)	8076400	7969000	7632200	7379200	7174400	6747100	AVRG	7496388.85	6.689	20.000	
(3)	9940400	9819200	9527500	9338600	9103600	8630800	AVRG	9393357.70	5.143	20.000	
(4)	1e+007	1e+007	1e+007	1e+007	1e+007	1.e+007	AVRG	10977872.4	3.552	20.000	
(5)	5194800	5159500	5022800	4916300	4811700	4827100	AVRG	4988704.17	3.300	20.000	
Aroclor-1254	1e+007	1e+007	1.e+007	9220900	9863100	8599600	AVRG	10364589.7	14.694	20.000	
(2)	2e+007	2e+007	1e+007	1e+007	1e+007	1e+007	AVRG	14288735.9	14.618	20.000	
(3)	2e+007	2e+007	2e+007	2e+007	2e+007	1e+007	AVRG	17309614.5	12.314	20.000	
(4)	1e+007	1e+007	1e+007	1.e+007	1e+007	1.e+007	AVRG	11653503.5	11.465	20.000	
(5)	1e+007	1e+007	1e+007	1.e+007	1e+007	1.e+007	AVRG	11568012.6	11.836	20.000	
Aroclor-1260	1e+007	1e+007	1e+007	1.e+007	1.e+007	1.e+007	AVRG	10763577.0	3.980	20.000	
(2)	1e+007	1e+007	1e+007	1e+007	1e+007	1e+007	AVRG	13198049.7	3.444	20.000	
(3)	1e+007	1e+007	1e+007	1e+007	1e+007	1e+007	AVRG	11722572.1	2.230	20.000	
(4)	2e+007	2e+007	2e+007	2e+007	2e+007	2e+007	AVRG	17044995.8	1.918	20.000	
(5)	8700000	8424100	8476600	7747500	7958600	8246600	AVRG	8258906.90	4.268	20.000	
Tetrachloro-m-xylene	2e+008	3e+008	3e+008	2e+008	2e+008	2e+008	AVRG	244275450	2.873	20.000	
Decachlorobiphenyl	1e+008	1e+008	1e+008	1e+008	1e+008	1e+008	AVRG	126134903	8.034	20.000	

FORM VI PCB

FORM 6
PCB INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GC07 Calibration Date(s): 06/30/09 07/01/09

Column: RTX-CLPESTICIDES2 ID: 0.53 (mm) Calibration Time(s): 0001 0500

LAB FILE ID: RF0.05: 7CF588 RF0.1: 7CF589 RF0.25: 7CF590
RF1: 7CF594 RF2.5: 7CF591 RF10: 7CF592

COMPOUND	RF0.05	RF0.1	RF0.25	RF1	RF2.5	RF10	CURVE	COEFF. A1	%RSD OR R^2	MAX %RSD OR R^2	
Aroclor-1016	1210500	1070700	896480	800200	794950	796410	AVRG	928199.167	18.815	20.000	
(2)	1373400	1361200	1288000	1164200	1182700	1169400	AVRG	1256487.38	7.729	20.000	
(3)	2433900	2458000	2414900	2344100	2410600	2323300	AVRG	2397473.53	2.192	20.000	
(4)	1497900	1473100	1418000	1323600	1355900	1363900	AVRG	1405404.80	4.948	20.000	
(5)	1240700	1207800	1142100	1047400	1076700	1100600	AVRG	1135871.20	6.678	20.000	
Aroclor-1221				373330			AVRG	373327.000	0.000	20.000	<-
(2)				137290			AVRG	137291.000	0.000	20.000	<-
(3)				641970			AVRG	641970.000	0.000	20.000	<-
(4)				1492700			AVRG	1492701.00	0.000	20.000	<-
Aroclor-1232				923180			AVRG	923183.000	0.000	20.000	<-
(2)				600200			AVRG	600205.000	0.000	20.000	<-
(3)				326320			AVRG	326315.000	0.000	20.000	<-
(4)				1092200			AVRG	1092185.00	0.000	20.000	<-
(5)				638490			AVRG	638488.000	0.000	20.000	<-
Aroclor-1242	1214000	1162900	1093000	973780	980860	949050	AVRG	1062280.10	10.430	20.000	
(2)	673960	649710	602380	525250	526720	524210	AVRG	583704.583	11.634	20.000	
(3)	2082800	2002000	1984200	1892000	1966500	1888400	AVRG	1969314.63	3.712	20.000	
(4)	1292900	1232800	1181900	1079700	1104400	1086700	AVRG	1163061.48	7.524	20.000	
(5)	1069700	1026200	972320	869320	887540	895300	AVRG	953393.767	8.644	20.000	
Aroclor-1248	1478100	1363000	1269700	1201000	1189700	1200700	AVRG	1283698.32	9.004	20.000	
(2)	1772000	1645000	1566800	1543900	1538700	1518700	AVRG	1597522.52	6.018	20.000	
(3)	1508100	1422500	1344900	1332500	1342600	1343900	AVRG	1382415.40	5.051	20.000	
(4)	1810500	1685900	1618300	1628400	1648100	1634000	AVRG	1670868.27	4.329	20.000	
(5)	820800	741270	728950	699110	694270	717620	AVRG	733670.133	6.298	20.000	
Aroclor-1254	2247100	1942800	1741600	1532100	1694700	1528100	AVRG	1781078.05	15.444	20.000	
(2)	2502400	2139600	1910600	1690900	1858700	1659800	AVRG	1960327.43	16.158	20.000	
(3)	3097100	2726400	2507100	2295300	2530200	2225200	AVRG	2563555.12	12.359	20.000	
(4)	2163300	1875100	1698900	1490900	1658800	1476600	AVRG	1727267.93	15.012	20.000	
(5)	1969500	1693900	1545500	1380800	1524000	1400400	AVRG	1585696.25	13.839	20.000	
Aroclor-1260	1650000	1616300	1527700	1438200	1476100	1471200	AVRG	1529921.22	5.596	20.000	
(2)	1867000	1859300	1777600	1668700	1711600	1662100	AVRG	1757722.65	5.205	20.000	
(3)	1552000	1470100	1406000	1340100	1364600	1363600	AVRG	1416098.73	5.708	20.000	
(4)	2588900	2619000	2586200	2545500	2604900	2435000	AVRG	2563256.85	2.635	20.000	
(5)	1332400	1333800	1311400	1253900	1280900	1294700	AVRG	1301179.67	2.389	20.000	
Tetrachloro-m-xylene	5e+007	5e+007	5e+007	4e+007	5e+007	5e+007	AVRG	46706662.5	3.729	20.000	
Decachlorobiphenyl	2e+007	2e+007	2e+007	2e+007	2e+007	2e+007	AVRG	20253961.7	7.585	20.000	

FORM VI PCB

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GC07 Calibration Date: 06/01/09 Time: 1950

Lab File ID: 7CF009 Init. Calib. Date(s): 06/01/09 06/02/09

Init. Calib. Times: 1706 0610

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1016	6976900.0	6429200.0	0.001	-7.85	20.00	AVRG
(2)	6531500.0	6089800.0	0.001	-6.76	20.00	AVRG
(3)	12828000	12250000	0.001	-4.50	20.00	AVRG
(4)	7058400.0	6691900.0	0.001	-5.19	20.00	AVRG
(5)	5012200.0	4693500.0	0.001	-6.36	20.00	AVRG
Average %D: -6.140						

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GC07 Calibration Date: 06/01/09 Time: 1950

Lab File ID: 7CF009 Init. Calib. Date(s): 06/01/09 06/02/09

Init. Calib. Times: 1706 0610

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1016	1181000.0	1066700.0	0.001	-9.68	20.00	AVRG
(2)	948120.00	855740.00	0.001	-9.74	20.00	AVRG
(3)	2150600.0	2035500.0	0.001	-5.35	20.00	AVRG
(4)	1121100.0	1027900.0	0.001	-8.31	20.00	AVRG
(5)	894440.00	807960.00	0.001	-9.67	20.00	AVRG
Average %D: -8.550						

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GC07 Calibration Date: 06/01/09 Time: 2017

Lab File ID: 7CF010 Init. Calib. Date(s): 06/01/09 06/02/09

Init. Calib. Times: 1706 0610

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1260	7974900.0	8215500.0	0.001	3.02	20.00	AVRG
(2)	9748000.0	10018000	0.001	2.77	20.00	AVRG
(3)	9777300.0	10836000	0.001	10.83	20.00	AVRG
(4)	14398000	13362000	0.001	-7.20	20.00	AVRG
(5)	8174800.0	7539400.0	0.001	-7.77	20.00	AVRG
Average %D: 0.3300						

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GC07 Calibration Date: 06/01/09 Time: 2017

Lab File ID: 7CF010 Init. Calib. Date(s): 06/01/09 06/02/09

Init. Calib. Times: 1706 0610

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1260	1347900.0	1335000.0	0.001	-0.96	20.00	AVRG
(2)	1534200.0	1536500.0	0.001	0.15	20.00	AVRG
(3)	1326800.0	1396200.0	0.001	5.23	20.00	AVRG
(4)	2363800.0	2264600.0	0.001	-4.20	20.00	AVRG
(5)	1384200.0	1335100.0	0.001	-3.55	20.00	AVRG
Average %D: -0.660						

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GC07 Calibration Date: 06/25/09 Time: 0919

Lab File ID: 7CF466 Init. Calib. Date(s): 06/01/09 06/01/09

Init. Calib. Times: 1706 1923

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1016	6976900.0	6640800.0	0.001	-4.82	20.00	AVRG
(2)	6531500.0	6374200.0	0.001	-2.41	20.00	AVRG
(3)	12828000	12850000	0.001	0.17	20.00	AVRG
(4)	7058400.0	7067300.0	0.001	0.13	20.00	AVRG
(5)	5012200.0	4613800.0	0.001	-7.95	20.00	AVRG
Average %D: -2.980						
Aroclor-1260	7974900.0	7921800.0	0.001	-0.66	20.00	AVRG
(2)	9748000.0	9438900.0	0.001	-3.17	20.00	AVRG
(3)	9777300.0	9901200.0	0.001	1.27	20.00	AVRG
(4)	14398000	15759000	0.001	9.45	20.00	AVRG
(5)	8174800.0	8582400.0	0.001	4.99	20.00	AVRG
Average %D: 2.3700						
Tetrachloro-m-xylene	297150000	305650000	0.001	2.86	20.00	AVRG
Decachlorobiphenyl	115220000	119190000	0.001	3.44	20.00	AVRG

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GC07 Calibration Date: 06/25/09 Time: 0919

Lab File ID: 7CF466 Init. Calib. Date(s): 06/01/09 06/01/09

Init. Calib. Times: 1706 1923

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1016	1181000.0	1102100.0	0.001	-6.68	20.00	AVRG
(2)	948120.00	878680.00	0.001	-7.32	20.00	AVRG
(3)	2150600.0	2112100.0	0.001	-1.79	20.00	AVRG
(4)	1121100.0	1107400.0	0.001	-1.22	20.00	AVRG
(5)	894440.00	834760.00	0.001	-6.67	20.00	AVRG
Average %D: -4.740						
Aroclor-1260	1347900.0	1315500.0	0.001	-2.40	20.00	AVRG
(2)	1534200.0	1436900.0	0.001	-6.34	20.00	AVRG
(3)	1326800.0	1294200.0	0.001	-2.46	20.00	AVRG
(4)	2363800.0	2467400.0	0.001	4.38	20.00	AVRG
(5)	1384200.0	1498000.0	0.001	8.22	20.00	AVRG
Average %D: 0.2800						
Tetrachloro-m-xylene	49642000	47725000	0.001	-3.86	20.00	AVRG
Decachlorobiphenyl	18751000	18786000	0.001	0.19	20.00	AVRG

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GC07 Calibration Date: 06/25/09 Time: 1715

Lab File ID: 7CF481 Init. Calib. Date(s): 06/01/09 06/01/09

Init. Calib. Times: 1706 1923

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF0.2500 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE	
Aroclor-1016	6976900.0	9276900.0	0.001	32.97	20.00	AVRG	<-
(2)	6531500.0	8500000.0	0.001	30.14	20.00	AVRG	<-
(3)	12828000	16988000	0.001	32.43	20.00	AVRG	<-
(4)	7058400.0	9406900.0	0.001	33.27	20.00	AVRG	<-
(5)	5012200.0	6626700.0	0.001	32.21	20.00	AVRG	<-
Average %D: 32.200							
Aroclor-1260	7974900.0	10333000	0.001	29.57	20.00	AVRG	<-
(2)	9748000.0	12309000	0.001	26.27	20.00	AVRG	<-
(3)	9777300.0	12120000	0.001	23.96	20.00	AVRG	<-
(4)	14398000	17713000	0.001	23.02	20.00	AVRG	<-
(5)	8174800.0	10023000	0.001	22.61	20.00	AVRG	<-
Average %D: 25.080							
Tetrachloro-m-xylene	297150000	407120000	0.001	37.01	20.00	AVRG	<-
Decachlorobiphenyl	115220000	148960000	0.001	29.28	20.00	AVRG	<-

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GC07 Calibration Date: 06/25/09 Time: 1715

Lab File ID: 7CF481 Init. Calib. Date(s): 06/01/09 06/01/09

Init. Calib. Times: 1706 1923

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF0.2500 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1016	1181000.0	1362500.0	0.001	15.37	20.00	AVRG
(2)	948120.00	1102600.0	0.001	16.29	20.00	AVRG
(3)	2150600.0	2494500.0	0.001	15.99	20.00	AVRG
(4)	1121100.0	1300200.0	0.001	15.98	20.00	AVRG
(5)	894440.00	1033400.0	0.001	15.54	20.00	AVRG
Average %D: 15.840						
Aroclor-1260	1347900.0	1520600.0	0.001	12.81	20.00	AVRG
(2)	1534200.0	1770200.0	0.001	15.38	20.00	AVRG
(3)	1326800.0	1486200.0	0.001	12.01	20.00	AVRG
(4)	2363800.0	2689200.0	0.001	13.77	20.00	AVRG
(5)	1384200.0	1530800.0	0.001	10.59	20.00	AVRG
Average %D: 12.920						
Tetrachloro-m-xylene	49642000	55094000	0.001	10.98	20.00	AVRG
Decachlorobiphenyl	18751000	22047000	0.001	17.58	20.00	AVRG

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GC07 Calibration Date: 06/30/09 Time: 1928

Lab File ID: 7CF573 Init. Calib. Date(s): 06/30/09 07/01/09

Init. Calib. Times: 0001 0500

GC Column: RTX-CLPESTICIDES ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1016	4351700.0	4255600.0	0.001	-2.21	20.00	AVRG
(2)	7852400.0	7552300.0	0.001	-3.82	20.00	AVRG
(3)	13161000	12829000	0.001	-2.52	20.00	AVRG
(4)	7394100.0	7106000.0	0.001	-3.90	20.00	AVRG
(5)	6559800.0	6214200.0	0.001	-5.27	20.00	AVRG
Average %D: -3.540						

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GC07 Calibration Date: 06/30/09 Time: 1928

Lab File ID: 7CF573 Init. Calib. Date(s): 06/30/09 07/01/09

Init. Calib. Times: 0001 0500

GC Column: RTX-CLPESTICIDES2 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1016	928210.00	817740.00	0.001	-11.90	20.00	AVRG
(2)	1256500.0	1167200.0	0.001	-7.11	20.00	AVRG
(3)	2397500.0	2300000.0	0.001	-4.07	20.00	AVRG
(4)	1405400.0	1303600.0	0.001	-7.24	20.00	AVRG
(5)	1135900.0	1038000.0	0.001	-8.62	20.00	AVRG
Average %D: -7.790						

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GC07 Calibration Date: 06/30/09 Time: 1955

Lab File ID: 7CF574 Init. Calib. Date(s): 06/30/09 07/01/09

Init. Calib. Times: 0001 0500

GC Column: RTX-CLPESTICIDES ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1260	10764000	10193000	0.001	-5.30	20.00	AVRG
(2)	13198000	12732000	0.001	-3.53	20.00	AVRG
(3)	11722000	12174000	0.001	3.86	20.00	AVRG
(4)	17045000	14625000	0.001	-14.20	20.00	AVRG
(5)	8258900.0	7617700.0	0.001	-7.76	20.00	AVRG
Average %D: -5.390						

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GC07 Calibration Date: 07/01/09 Time: 1028

Lab File ID: 7CF606 Init. Calib. Date(s): 06/30/09 06/30/09

Init. Calib. Times: 1644 1901

GC Column: RTX-CLPESTICIDES ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1016	4351700.0	4721500.0	0.001	8.50	20.00	AVRG
(2)	7852400.0	8095800.0	0.001	3.10	20.00	AVRG
(3)	13161000	14115000	0.001	7.25	20.00	AVRG
(4)	7394100.0	7854100.0	0.001	6.22	20.00	AVRG
(5)	6559800.0	6830300.0	0.001	4.12	20.00	AVRG
Average %D: 5.8400						
Aroclor-1260	10764000	10837000	0.001	0.68	20.00	AVRG
(2)	13198000	13467000	0.001	2.04	20.00	AVRG
(3)	11722000	11978000	0.001	2.18	20.00	AVRG
(4)	17045000	17588000	0.001	3.18	20.00	AVRG
(5)	8258900.0	8132800.0	0.001	-1.53	20.00	AVRG
Average %D: 1.3100						
Tetrachloro-m-xylene	244280000	278410000	0.001	13.97	20.00	AVRG
Decachlorobiphenyl	126140000	128360000	0.001	1.76	20.00	AVRG

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GC07 Calibration Date: 07/01/09 Time: 1028

Lab File ID: 7CF606 Init. Calib. Date(s): 06/30/09 06/30/09

Init. Calib. Times: 1644 1901

GC Column: RTX-CLPESTICIDES2 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1016	928210.00	901220.00	0.001	-2.91	20.00	AVRG
(2)	1256500.0	1286600.0	0.001	2.40	20.00	AVRG
(3)	2397500.0	2554000.0	0.001	6.53	20.00	AVRG
(4)	1405400.0	1437800.0	0.001	2.30	20.00	AVRG
(5)	1135900.0	1138000.0	0.001	0.18	20.00	AVRG
Average %D: 1.7000						
Aroclor-1260	1529900.0	1529900.0	0.001	0.00	20.00	AVRG
(2)	1757700.0	1786400.0	0.001	1.63	20.00	AVRG
(3)	1416100.0	1418000.0	0.001	0.13	20.00	AVRG
(4)	2563200.0	2701900.0	0.001	5.41	20.00	AVRG
(5)	1301200.0	1311300.0	0.001	0.78	20.00	AVRG
Average %D: 1.5900						
Tetrachloro-m-xylene	46706000	51811000	0.001	10.93	20.00	AVRG
Decachlorobiphenyl	20254000	20411000	0.001	0.78	20.00	AVRG

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GC07 Calibration Date: 07/01/09 Time: 1727

Lab File ID: 7CG012 Init. Calib. Date(s): 06/30/09 06/30/09

Init. Calib. Times: 1644 1901

GC Column: RTX-CLPESTICIDES ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF0.2500 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE	
Aroclor-1016	4351700.0	1622600.0	0.001	-62.71	20.00	AVRG	<-
(2)	7852400.0	2726100.0	0.001	-65.28	20.00	AVRG	<-
(3)	13161000	5200800.0	0.001	-60.48	20.00	AVRG	<-
(4)	7394100.0	1473400.0	0.001	-80.07	20.00	AVRG	<-
(5)	6559800.0	1743800.0	0.001	-73.42	20.00	AVRG	<-
Average %D: -68.00							
Aroclor-1260	10764000	2589200.0	0.001	-75.95	20.00	AVRG	<-
(2)	13198000	4339000.0	0.001	-67.12	20.00	AVRG	<-
(3)	11722000	2867300.0	0.001	-75.54	20.00	AVRG	<-
(4)	17045000	3690200.0	0.001	-78.35	20.00	AVRG	<-
(5)	8258900.0	1382600.0	0.001	-83.26	20.00	AVRG	<-
Average %D: -76.00							
Tetrachloro-m-xylene	244280000	91573000	0.001	-62.51	20.00	AVRG	<-
Decachlorobiphenyl	126140000	73552000	0.001	-41.69	20.00	AVRG	<-

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GC07 Calibration Date: 07/01/09 Time: 1727

Lab File ID: 7CG012 Init. Calib. Date(s): 06/30/09 06/30/09

Init. Calib. Times: 1644 1901

GC Column: RTX-CLPESTICIDES2 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF0.2500 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE	
Aroclor-1016	928210.00	402200.00	0.001	-56.67	20.00	AVRG	<-
(2)	1256500.0	646450.00	0.001	-48.55	20.00	AVRG	<-
(3)	2397500.0	1521800.0	0.001	-36.53	20.00	AVRG	<-
(4)	1405400.0	851780.00	0.001	-39.39	20.00	AVRG	<-
(5)	1135900.0	661910.00	0.001	-41.73	20.00	AVRG	<-
Average %D: -44.56							
Aroclor-1260	1529900.0	698000.00	0.001	-54.38	20.00	AVRG	<-
(2)	1757700.0	712870.00	0.001	-59.44	20.00	AVRG	<-
(3)	1416100.0	703580.00	0.001	-50.32	20.00	AVRG	<-
(4)	2563200.0	1088800.0	0.001	-57.52	20.00	AVRG	<-
(5)	1301200.0	507880.00	0.001	-60.97	20.00	AVRG	<-
Average %D: -56.52							
Tetrachloro-m-xylene	46706000	22325000	0.001	-52.20	20.00	AVRG	<-
Decachlorobiphenyl	20254000	10461000	0.001	-48.35	20.00	AVRG	<-

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GC07 Calibration Date: 07/06/09 Time: 0949

Lab File ID: 7CG049 Init. Calib. Date(s): 06/30/09 06/30/09

Init. Calib. Times: 1644 1901

GC Column: RTX-CLPESTICIDES ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE	
Aroclor-1016	4351700.0	4869600.0	0.001	11.90	20.00	AVRG	
(2)	7852400.0	7961400.0	0.001	1.39	20.00	AVRG	
(3)	13161000	13623000	0.001	3.51	20.00	AVRG	
(4)	7394100.0	7615600.0	0.001	3.00	20.00	AVRG	
(5)	6559800.0	6366800.0	0.001	-2.94	20.00	AVRG	
Average %D: 3.3700							
Aroclor-1260	10764000	9974800.0	0.001	-7.33	20.00	AVRG	
(2)	13198000	12394000	0.001	-6.09	20.00	AVRG	
(3)	11722000	10886000	0.001	-7.13	20.00	AVRG	
(4)	17045000	15647000	0.001	-8.20	20.00	AVRG	
(5)	8258900.0	7237600.0	0.001	-12.37	20.00	AVRG	
Average %D: -8.220							
Tetrachloro-m-xylene	244280000	295210000	0.001	20.85	20.00	AVRG	<-
Decachlorobiphenyl	126140000	109250000	0.001	-13.39	20.00	AVRG	

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GC07 Calibration Date: 07/06/09 Time: 0949

Lab File ID: 7CG049 Init. Calib. Date(s): 06/30/09 06/30/09

Init. Calib. Times: 1644 1901

GC Column: RTX-CLPESTICIDES2 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1016	928210.00	835600.00	0.001	-9.98	20.00	AVRG
(2)	1256500.0	1143800.0	0.001	-8.97	20.00	AVRG
(3)	2397500.0	2246800.0	0.001	-6.28	20.00	AVRG
(4)	1405400.0	1267400.0	0.001	-9.82	20.00	AVRG
(5)	1135900.0	1015400.0	0.001	-10.61	20.00	AVRG
Average %D: -9.130						
Aroclor-1260	1529900.0	1339500.0	0.001	-12.44	20.00	AVRG
(2)	1757700.0	1563900.0	0.001	-11.03	20.00	AVRG
(3)	1416100.0	1202800.0	0.001	-15.06	20.00	AVRG
(4)	2563200.0	2350000.0	0.001	-8.32	20.00	AVRG
(5)	1301200.0	1158300.0	0.001	-10.98	20.00	AVRG
Average %D: -11.57						
Tetrachloro-m-xylene	46706000	48870000	0.001	4.63	20.00	AVRG
Decachlorobiphenyl	20254000	17847000	0.001	-11.88	20.00	AVRG

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GC07 Calibration Date: 07/06/09 Time: 1708

Lab File ID: 7CG063 Init. Calib. Date(s): 06/30/09 06/30/09

Init. Calib. Times: 1644 1901

GC Column: RTX-CLPESTICIDES ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF0.2500 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE	
Aroclor-1016	4351700.0	1170200.0	0.001	-73.11	20.00	AVRG	<-
(2)	7852400.0	1959200.0	0.001	-75.05	20.00	AVRG	<-
(3)	13161000	3641000.0	0.001	-72.34	20.00	AVRG	<-
(4)	7394100.0	889620.00	0.001	-87.97	20.00	AVRG	<-
(5)	6559800.0	787650.00	0.001	-87.99	20.00	AVRG	<-
Average %D: -80.00							
Aroclor-1260	10764000	2419800.0	0.001	-77.52	20.00	AVRG	<-
(2)	13198000	2343500.0	0.001	-82.24	20.00	AVRG	<-
(3)	11722000	42572.000	0.001	-99.64	20.00	AVRG	<-
(4)	17045000	1225600.0	0.001	-92.81	20.00	AVRG	<-
(5)	8258900.0	97320.000	0.001	-98.82	20.00	AVRG	<-
Average %D: -92.00							
Tetrachloro-m-xylene	244280000	71859000	0.001	-70.58	20.00	AVRG	<-
Decachlorobiphenyl	126140000	109250000	0.001	-13.39	20.00	AVRG	

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GC07 Calibration Date: 07/06/09 Time: 1708

Lab File ID: 7CG063 Init. Calib. Date(s): 06/30/09 06/30/09

Init. Calib. Times: 1644 1901

GC Column: RTX-CLPESTICIDES2 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF0.2500 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE	
Aroclor-1016	928210.00	300040.00	0.001	-67.68	20.00	AVRG	<-
(2)	1256500.0	483190.00	0.001	-61.54	20.00	AVRG	<-
(3)	2397500.0	1084000.0	0.001	-54.79	20.00	AVRG	<-
(4)	1405400.0	462240.00	0.001	-67.11	20.00	AVRG	<-
(5)	1135900.0	485080.00	0.001	-57.30	20.00	AVRG	<-
Average %D: -60.00							
Aroclor-1260	1529900.0	486560.00	0.001	-68.20	20.00	AVRG	<-
(2)	1757700.0	568040.00	0.001	-67.68	20.00	AVRG	<-
(3)	1416100.0	469210.00	0.001	-66.87	20.00	AVRG	<-
(4)	2563200.0	657940.00	0.001	-74.33	20.00	AVRG	<-
(5)	1301200.0	307240.00	0.001	-76.39	20.00	AVRG	<-
Average %D: -72.00							
Tetrachloro-m-xylene	46706000	16838000	0.001	-63.95	20.00	AVRG	<-
Decachlorobiphenyl	20254000	2817400.0	0.001	-86.09	20.00	AVRG	<-

FORM VII PEST

FORM 8
PCB ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm) Init. Calib. Date(s): 06/01/09 06/02/09

Instrument ID: GC07

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 4.80 DCB: 19.28

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01		AR1660 1.0	06/01/09	1706	4.80	19.28
02		AR1660 0.05	06/01/09	1734	4.80	19.27
03		AR1660 0.1	06/01/09	1801	4.79	19.26
04		AR1660 0.25	06/01/09	1828	4.79	19.27
05		AR1660 2.5	06/01/09	1855	4.79	19.27
06		AR1660 10	06/01/09	1923	4.79	19.28
07		AR1016 1.0	06/01/09	1950		
08		AR1260 1.0	06/01/09	2017		
09		AR1242 1.0	06/01/09	2044		
10		AR1248 1.0	06/01/09	2327		
11		AR1221 1.0	06/02/09	0449		
12		AR1232 1.0	06/02/09	0516		
13		AR1254 1.0	06/05/09	1623		
14						
15						
16						
17						
18						
19						
20						

QC LIMITS
TCX = Tetrachloro-m-xylene (+/- 0.07 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PCB

FORM 8
PCB ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm) Init. Calib. Date(s): 06/01/09 06/05/09

Instrument ID: GC07

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 4.64 DCB: 18.88

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01		AR1660 1.0	06/25/09	0919	4.63	18.87
02	WG65400-BLAN	WG65400-1	06/25/09	1430	4.64	18.88
03	WG65400-LCS	WG65400-2	06/25/09	1457	4.63	18.88
04	WG65400-LCSD	WG65400-5	06/25/09	1525	4.63	18.88
05		AR1660 0.25	06/25/09	1715	4.63	18.88
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

QC LIMITS
TCX = Tetrachloro-m-xylene (+/- 0.07 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PCB

FORM 8
PCB ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm) Init. Calib. Date(s): 06/01/09 06/02/09

Instrument ID: GC07

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 4.67 DCB: 19.37

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01		AR1660 1.0	06/01/09	1706	4.67	19.37
02		AR1660 0.05	06/01/09	1734	4.67	19.36
03		AR1660 0.1	06/01/09	1801	4.66	19.35
04		AR1660 0.25	06/01/09	1828	4.67	19.35
05		AR1660 2.5	06/01/09	1855	4.66	19.36
06		AR1660 10	06/01/09	1923	4.67	19.37
07		AR1016 1.0	06/01/09	1950		
08		AR1260 1.0	06/01/09	2017		
09		AR1242 1.0	06/01/09	2044		
10		AR1248 1.0	06/01/09	2327		
11		AR1221 1.0	06/02/09	0449		
12		AR1232 1.0	06/02/09	0516		
13		AR1254 1.0	06/05/09	1623		
14						
15						
16						
17						
18						
19						
20						

QC LIMITS
TCX = Tetrachloro-m-xylene (+/- 0.07 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PCB

FORM 8
PCB ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm) Init. Calib. Date(s): 06/01/09 06/05/09

Instrument ID: GC07

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 4.51 DCB: 18.99

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01		AR1660 1.0	06/25/09	0919	4.50	18.98
02	WG65400-BLAN	WG65400-1	06/25/09	1430	4.50	18.98
03	WG65400-LCS	WG65400-2	06/25/09	1457	4.51	18.98
04	WG65400-LCSD	WG65400-5	06/25/09	1525	4.51	18.98
05		AR1660 0.25	06/25/09	1715	4.51	18.99
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

QC LIMITS
TCX = Tetrachloro-m-xylene (+/- 0.07 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PCB

FORM 8
PCB ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

GC Column: RTX-CLPESTICIDES ID: 0.53 (mm) Init. Calib. Date(s): 06/30/09 07/01/09

Instrument ID: GC07

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 3.69 DCB: 13.26

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01		AR1660 1.0	06/30/09	1644	3.69	13.27
02		AR1660 0.05	06/30/09	1712	3.69	13.27
03		AR1660 0.1	06/30/09	1739	3.70	13.27
04		AR1660 0.25	06/30/09	1807	3.70	13.27
05		AR1660 2.5	06/30/09	1834	3.69	13.27
06		AR1660 10	06/30/09	1901	3.70	13.27
07		AR1016 1.0	06/30/09	1928		
08		AR1260 1.0	06/30/09	1955		
09		AR1242 1.0	06/30/09	2023		
10		AR1248 1.0	06/30/09	2307		
11		AR1254 1.0	07/01/09	0150		
12		AR1221 1.0	07/01/09	0433		
13		AR1232 1.0	07/01/09	0500		
14	WG65040-BLAN	WG65040-1	07/01/09	0716	3.69	13.26
15	WG65040-LCS	WG65040-2	07/01/09	0744	3.69	13.25
16	WG65040-LCSD	WG65040-3	07/01/09	0811	3.69	13.25
17	WGL-SD-FB01-	SC3122-43	07/01/09	0838	3.69	13.25
18	WGL-SD-RB01-	SC3122-45	07/01/09	0906	3.69	13.25
19		AR1660 1.0	07/01/09	1028	3.69	13.26
20	WG65096-BLAN	WG65096-1	07/01/09	1225	3.70	13.28

QC LIMITS
TCX = Tetrachloro-m-xylene (+/- 0.07 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM 8
PCB ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

GC Column: RTX-CLPESTICIDES ID: 0.53 (mm) Init. Calib. Date(s): 06/30/09 07/01/09

Instrument ID: GC07

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 3.69 DCB: 13.26

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01	WG65096-LCS	WG65096-2	07/01/09	1252	3.70	13.26
02	WG65096-LCSD	WG65096-3	07/01/09	1320	3.70	13.26
03	WGL-SD-SD103	SC3122-2	07/01/09	1347	3.71	13.28
04	WGL-SD-SD102	SC3122-5	07/01/09	1415	3.71	13.30
05	WGL-SD-SD101	SC3122-8	07/01/09	1442	3.72	13.33
06	WGL-SD-DUP01	SC3122-11	07/01/09	1510	3.72	13.31
07	WGL-SD-SD104	SC3122-14	07/01/09	1537	3.72	13.30
08	WGL-SD-SD106	SC3122-17	07/01/09	1605	3.72	13.33
09	WGL-SD-DUP02	SC3122-20	07/01/09	1632	3.72	13.31
10		AR1660 0.25	07/01/09	1727	3.72	13.30
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

QC LIMITS
TCX = Tetrachloro-m-xylene (+/- 0.07 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PCB

FORM 8
PCB ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

GC Column: RTX-CLPESTICIDES ID: 0.53 (mm) Init. Calib. Date(s): 06/30/09 07/01/09

Instrument ID: GC07

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 3.57 DCB: 12.93

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01		AR1660 1.0	07/06/09	0949	3.54	12.93
02	WGL-SD-SD107	SC3122-23	07/06/09	1233	3.57	12.98
03	WGL-SD-SD108	SC3122-26	07/06/09	1300	3.57	12.97
04	WGL-SD-SD105	SC3122-29	07/06/09	1328	3.57	
05	WGL-SD-SD112	SC3122-32	07/06/09	1355	3.57	12.90
06	WGL-SD-SD110	SC3122-35	07/06/09	1423	3.57	12.99
07	WGL-SD-SD109	SC3122-38	07/06/09	1450	3.58	12.88
08	L-SD-SD111-0	SC3122-41	07/06/09	1518	3.57	
09	L-SD-SD111-0	WG65400-3	07/06/09	1545	3.57	
10	L-SD-SD111-0	WG65400-4	07/06/09	1613	3.58	
11		AR1660 0.25	07/06/09	1708	3.57	
12						
13						
14						
15						
16						
17						
18						
19						
20						

QC LIMITS

TCX = Tetrachloro-m-xylene (+/- 0.07 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PCB

FORM 8
PCB ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

GC Column: RTX-CLPESTICIDES2 ID: 0.53 (mm) Init. Calib. Date(s): 06/30/09 07/01/09

Instrument ID: GC07

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 4.18 DCB: 17.14

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01		AR1660 1.0	06/30/09	1644	4.19	17.15
02		AR1660 0.05	06/30/09	1712	4.19	17.15
03		AR1660 0.1	06/30/09	1739	4.19	17.16
04		AR1660 0.25	06/30/09	1807	4.19	17.16
05		AR1660 2.5	06/30/09	1834	4.19	17.15
06		AR1660 10	06/30/09	1901	4.19	17.16
07		AR1016 1.0	06/30/09	1928		
08		AR1260 1.0	06/30/09	1955		
09		AR1242 1.0	06/30/09	2023		
10		AR1248 1.0	06/30/09	2307		
11		AR1254 1.0	07/01/09	0150		
12		AR1221 1.0	07/01/09	0433		
13		AR1232 1.0	07/01/09	0500		
14	WG65040-BLAN	WG65040-1	07/01/09	0716	4.19	17.14
15	WG65040-LCS	WG65040-2	07/01/09	0744	4.18	17.14
16	WG65040-LCSD	WG65040-3	07/01/09	0811	4.18	17.14
17	WGL-SD-FB01-	SC3122-43	07/01/09	0838	4.18	17.14
18	WGL-SD-RB01-	SC3122-45	07/01/09	0906	4.19	17.14
19		AR1660 1.0	07/01/09	1028	4.18	17.14
20	WG65096-BLAN	WG65096-1	07/01/09	1225	4.19	17.14

QC LIMITS
TCX = Tetrachloro-m-xylene (+/- 0.07 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

Sample Data Summary A0000521

FORM 8
PCB ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

GC Column: RTX-CLPESTICIDES2 ID: 0.53 (mm) Init. Calib. Date(s): 06/30/09 07/01/09

Instrument ID: GC07

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 4.18 DCB: 17.14

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01	WG65096-LCS	WG65096-2	07/01/09	1252	4.19	17.14
02	WG65096-LCSD	WG65096-3	07/01/09	1320	4.19	17.14
03	WGL-SD-SD103	SC3122-2	07/01/09	1347	4.19	17.15
04	WGL-SD-SD102	SC3122-5	07/01/09	1415	4.20	17.17
05	WGL-SD-SD101	SC3122-8	07/01/09	1442	4.21	17.18
06	WGL-SD-DUP01	SC3122-11	07/01/09	1510	4.21	17.18
07	WGL-SD-SD104	SC3122-14	07/01/09	1537	4.21	17.17
08	WGL-SD-SD106	SC3122-17	07/01/09	1605	4.21	17.18
09	WGL-SD-DUP02	SC3122-20	07/01/09	1632	4.21	17.18
10		AR1660 0.25	07/01/09	1727	4.21	17.17
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

QC LIMITS
TCX = Tetrachloro-m-xylene (+/- 0.07 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PCB

FORM 8
PCB ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

GC Column: RTX-CLPESTICIDES2 ID: 0.53 (mm) Init. Calib. Date(s): 06/30/09 07/01/09

Instrument ID: GC07

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 4.06 DCB: 16.72

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01		AR1660 1.0	07/06/09	0949	4.03	16.78
02		AR1254 1.0	07/06/09	1111		
03	WGL-SD-SD107	SC3122-23	07/06/09	1233	4.05	
04	WGL-SD-SD108	SC3122-26	07/06/09	1300	4.05	
05	WGL-SD-SD105	SC3122-29	07/06/09	1328	4.05	16.83*
06	WGL-SD-SD112	SC3122-32	07/06/09	1355	4.06	
07	WGL-SD-SD110	SC3122-35	07/06/09	1423	4.06	
08	WGL-SD-SD109	SC3122-38	07/06/09	1450	4.06	
09	L-SD-SD111-0	SC3122-41	07/06/09	1518	4.06	
10	L-SD-SD111-0	WG65400-3	07/06/09	1545	4.06	
11	L-SD-SD111-0	WG65400-4	07/06/09	1613	4.06	
12		AR1660 0.25	07/06/09	1708	4.06	16.72
13						
14						
15						
16						
17						
18						
19						
20						

QC LIMITS
TCX = Tetrachloro-m-xylene (+/- 0.07 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PCB

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 06-JUL-2009 13:23
Report Date: 07/09/2009
Matrix: SOIL
% Solids: 95.6

Lab ID: SC3122-3
Client ID: WGL-SD-SD103-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JCG
Analysis Method: SW846 M8270C
Lab Prep Batch: WG65398
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
91-20-3	Naphthalene	J	4.5	1.0	20	21	1.9
91-57-6	2-Methylnaphthalene	J	5.9	1.0	20	21	2.9
208-96-8	Acenaphthylene	J	18	1.0	20	21	1.4
83-32-9	Acenaphthene	J	6.1	1.0	20	21	1.5
86-73-7	Fluorene	J	11	1.0	20	21	1.7
85-01-8	Phenanthrene		180	1.0	20	21	4.5
120-12-7	Anthracene		31	1.0	20	21	2.7
206-44-0	Fluoranthene	E	480	1.0	20	21	4.2
129-00-0	Pyrene	E	300	1.0	20	21	7.2
56-55-3	Benzo(a)anthracene		160	1.0	20	21	2.6
218-01-9	Chrysene		200	1.0	20	21	2.8
205-99-2	Benzo(b)fluoranthene	E	350	1.0	20	21	2.3
207-08-9	Benzo(k)fluoranthene		84	1.0	20	21	2.0
50-32-8	Benzo(a)pyrene		170	1.0	20	21	2.2
193-39-5	Indeno(1,2,3-cd)pyrene		170	1.0	20	21	4.5
53-70-3	Dibenzo(a,h)anthracene		35	1.0	20	21	3.9
191-24-2	Benzo(g,h,i)perylene		98	1.0	20	21	3.5
321-60-8	2-Methylnaphthalene-D10		48%				
118-79-6	Fluorene-D10		58%				
1718-51-0	Pyrene-D10		47%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 07-JUL-2009 17:12
Report Date: 07/09/2009
Matrix: SOIL
% Solids: 95.6

Lab ID: SC3122-3DL
Client ID: WGL-SD-SD103-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JCG
Analysis Method: SW846 M8270C
Lab Prep Batch: WG65398
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
91-20-3	Naphthalene	U	84	4.0	20	84	7.5
91-57-6	2-Methylnaphthalene	U	84	4.0	20	84	12
208-96-8	Acenaphthylene	J	16	4.0	20	84	5.6
83-32-9	Acenaphthene	U	84	4.0	20	84	6.1
86-73-7	Fluorene	J	13	4.0	20	84	6.9
85-01-8	Phenanthrene		180	4.0	20	84	18
120-12-7	Anthracene	U	84	4.0	20	84	11
206-44-0	Fluoranthene		350	4.0	20	84	17
129-00-0	Pyrene		350	4.0	20	84	29
56-55-3	Benzo(a)anthracene		210	4.0	20	84	10
218-01-9	Chrysene		220	4.0	20	84	11
205-99-2	Benzo(b)fluoranthene		340	4.0	20	84	9.2
207-08-9	Benzo(k)fluoranthene		100	4.0	20	84	7.8
50-32-8	Benzo(a)pyrene		180	4.0	20	84	8.7
193-39-5	Indeno(1,2,3-cd)pyrene		240	4.0	20	84	18
53-70-3	Dibenzo(a,h)anthracene	J	75	4.0	20	84	16
191-24-2	Benzo(g,h,i)perylene		240	4.0	20	84	14
321-60-8	2-Methylnaphthalene-D10		46%				
118-79-6	Fluorene-D10		59%				
1718-51-0	Pyrene-D10		64%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 06-JUL-2009 14:06
Report Date: 07/09/2009
Matrix: SOIL
% Solids: 96.4

Lab ID: SC3122-6
Client ID: WGL-SD-SD102-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JCG
Analysis Method: SW846 M8270C
Lab Prep Batch: WG65398
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
91-20-3	Naphthalene	J	4.1	1.0	20	21	1.8
91-57-6	2-Methylnaphthalene	J	5.1	1.0	20	21	2.9
208-96-8	Acenaphthylene	J	12	1.0	20	21	1.4
83-32-9	Acenaphthene	J	13	1.0	20	21	1.5
86-73-7	Fluorene	J	10	1.0	20	21	1.7
85-01-8	Phenanthrene		160	1.0	20	21	4.4
120-12-7	Anthracene		33	1.0	20	21	2.6
206-44-0	Fluoranthene	E	310	1.0	20	21	4.1
129-00-0	Pyrene		210	1.0	20	21	7.1
56-55-3	Benzo(a)anthracene		120	1.0	20	21	2.6
218-01-9	Chrysene		120	1.0	20	21	2.7
205-99-2	Benzo(b)fluoranthene		250	1.0	20	21	2.3
207-08-9	Benzo(k)fluoranthene		87	1.0	20	21	1.9
50-32-8	Benzo(a)pyrene		130	1.0	20	21	2.1
193-39-5	Indeno(1,2,3-cd)pyrene		130	1.0	20	21	4.5
53-70-3	Dibenzo(a,h)anthracene		26	1.0	20	21	3.9
191-24-2	Benzo(g,h,i)perylene		68	1.0	20	21	3.4
321-60-8	2-Methylnaphthalene-D10		36%				
118-79-6	Fluorene-D10		39%				
1718-51-0	Pyrene-D10		40%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 07-JUL-2009 17:54
Report Date: 07/09/2009
Matrix: SOIL
% Solids: 96.4

Lab ID: SC3122-6DL
Client ID: WGL-SD-SD102-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JCG
Analysis Method: SW846 M8270C
Lab Prep Batch: WG65398
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
91-20-3	Naphthalene	U	41	2.0	20	41	3.7
91-57-6	2-Methylnaphthalene	J	6.0	2.0	20	41	5.7
208-96-8	Acenaphthylene	J	35	2.0	20	41	2.8
83-32-9	Acenaphthene	U	41	2.0	20	41	3.0
86-73-7	Fluorene	J	16	2.0	20	41	3.4
85-01-8	Phenanthrene		180	2.0	20	41	8.9
120-12-7	Anthracene		53	2.0	20	41	5.3
206-44-0	Fluoranthene		340	2.0	20	41	8.3
129-00-0	Pyrene		260	2.0	20	41	14
56-55-3	Benzo(a)anthracene		160	2.0	20	41	5.2
218-01-9	Chrysene		140	2.0	20	41	5.5
205-99-2	Benzo(b)fluoranthene		340	2.0	20	41	4.6
207-08-9	Benzo(k)fluoranthene		91	2.0	20	41	3.9
50-32-8	Benzo(a)pyrene		170	2.0	20	41	4.3
193-39-5	Indeno(1,2,3-cd)pyrene		190	2.0	20	41	9.0
53-70-3	Dibenzo(a,h)anthracene		43	2.0	20	41	7.8
191-24-2	Benzo(g,h,i)perylene		96	2.0	20	41	6.9
321-60-8	2-Methylnaphthalene-D10		46%				
118-79-6	Fluorene-D10		50%				
1718-51-0	Pyrene-D10		59%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 06-JUL-2009 14:48
Report Date: 07/09/2009
Matrix: SOIL
% Solids: 96.1

Lab ID: SC3122-9DL
Client ID: WGL-SD-SD101-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JCG
Analysis Method: SW846 M8270C
Lab Prep Batch: WG65398
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
91-20-3	Naphthalene	U	42	2.0	20	42	3.7
91-57-6	2-Methylnaphthalene	U	42	2.0	20	42	5.7
208-96-8	Acenaphthylene	J	9.2	2.0	20	42	2.8
83-32-9	Acenaphthene	U	42	2.0	20	42	3.0
86-73-7	Fluorene	J	7.0	2.0	20	42	3.4
85-01-8	Phenanthrene		60	2.0	20	42	8.9
120-12-7	Anthracene	U	42	2.0	20	42	5.3
206-44-0	Fluoranthene		64	2.0	20	42	8.3
129-00-0	Pyrene		160	2.0	20	42	14
56-55-3	Benzo(a)anthracene		62	2.0	20	42	5.2
218-01-9	Chrysene		92	2.0	20	42	5.5
205-99-2	Benzo(b)fluoranthene		190	2.0	20	42	4.6
207-08-9	Benzo(k)fluoranthene	J	34	2.0	20	42	3.9
50-32-8	Benzo(a)pyrene		64	2.0	20	42	4.3
193-39-5	Indeno(1,2,3-cd)pyrene		72	2.0	20	42	9.0
53-70-3	Dibenzo(a,h)anthracene	U	42	2.0	20	42	7.8
191-24-2	Benzo(g,h,i)perylene	J	37	2.0	20	42	6.9
321-60-8	2-Methylnaphthalene-D10		* 24%				
118-79-6	Fluorene-D10		* 33%				
1718-51-0	Pyrene-D10		21%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 06-JUL-2009 15:30
Report Date: 07/09/2009
Matrix: SOIL
% Solids: 95.7

Lab ID: SC3122-12
Client ID: WGL-SD-DUP01-061109
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JCG
Analysis Method: SW846 M8270C
Lab Prep Batch: WG65398
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
91-20-3	Naphthalene	J	4.1	1.0	20	21	1.9
91-57-6	2-Methylnaphthalene	J	4.2	1.0	20	21	2.9
208-96-8	Acenaphthylene	J	16	1.0	20	21	1.4
83-32-9	Acenaphthene	U	21	1.0	20	21	1.5
86-73-7	Fluorene	J	8.4	1.0	20	21	1.7
85-01-8	Phenanthrene		130	1.0	20	21	4.5
120-12-7	Anthracene		27	1.0	20	21	2.7
206-44-0	Fluoranthene	E	340	1.0	20	21	4.2
129-00-0	Pyrene		260	1.0	20	21	7.2
56-55-3	Benzo(a)anthracene		130	1.0	20	21	2.6
218-01-9	Chrysene		130	1.0	20	21	2.8
205-99-2	Benzo(b)fluoranthene		250	1.0	20	21	2.3
207-08-9	Benzo(k)fluoranthene		70	1.0	20	21	2.0
50-32-8	Benzo(a)pyrene		120	1.0	20	21	2.2
193-39-5	Indeno(1,2,3-cd)pyrene		110	1.0	20	21	4.5
53-70-3	Dibenzo(a,h)anthracene	J	16	1.0	20	21	3.9
191-24-2	Benzo(g,h,i)perylene		58	1.0	20	21	3.5
321-60-8	2-Methylnaphthalene-D10		38%				
118-79-6	Fluorene-D10		44%				
1718-51-0	Pyrene-D10		52%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 07-JUL-2009 18:37
Report Date: 07/09/2009
Matrix: SOIL
% Solids: 95.7

Lab ID: SC3122-12DL
Client ID: WGL-SD-DUP01-061109
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JCG
Analysis Method: SW846 M8270C
Lab Prep Batch: WG65398
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
91-20-3	Naphthalene	J	4.6	2.0	20	42	3.7
91-57-6	2-Methylnaphthalene	J	7.5	2.0	20	42	5.8
208-96-8	Acenaphthylene		43	2.0	20	42	2.8
83-32-9	Acenaphthene	U	42	2.0	20	42	3.0
86-73-7	Fluorene	J	12	2.0	20	42	3.4
85-01-8	Phenanthrene		140	2.0	20	42	9.0
120-12-7	Anthracene	U	42	2.0	20	42	5.3
206-44-0	Fluoranthene		290	2.0	20	42	8.4
129-00-0	Pyrene		310	2.0	20	42	14
56-55-3	Benzo(a)anthracene		160	2.0	20	42	5.3
218-01-9	Chrysene		150	2.0	20	42	5.5
205-99-2	Benzo(b)fluoranthene		290	2.0	20	42	4.6
207-08-9	Benzo(k)fluoranthene		120	2.0	20	42	3.9
50-32-8	Benzo(a)pyrene		150	2.0	20	42	4.3
193-39-5	Indeno(1,2,3-cd)pyrene		230	2.0	20	42	9.1
53-70-3	Dibenzo(a,h)anthracene	J	41	2.0	20	42	7.8
191-24-2	Benzo(g,h,i)perylene		88	2.0	20	42	6.9
321-60-8	2-Methylnaphthalene-D10		52%				
118-79-6	Fluorene-D10		55%				
1718-51-0	Pyrene-D10		62%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 06-JUL-2009 16:13
Report Date: 07/10/2009
Matrix: SOIL
% Solids: 95.9

Lab ID: SC3122-15
Client ID: WGL-SD-SD104-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JCG
Analysis Method: SW846 M8270C
Lab Prep Batch: WG65398
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
91-20-3	Naphthalene	U	25	1.0	20	25	3.2
91-57-6	2-Methylnaphthalene	U	25	1.0	20	25	2.8
208-96-8	Acenaphthylene	U	25	1.0	20	25	1.5
83-32-9	Acenaphthene	U	25	1.0	20	25	1.9
86-73-7	Fluorene	U	25	1.0	20	25	4.0
85-01-8	Phenanthrene	J	6.9	1.0	20	25	2.2
120-12-7	Anthracene	U	25	1.0	20	25	1.5
206-44-0	Fluoranthene	J	14	1.0	20	25	2.2
129-00-0	Pyrene	J	13	1.0	20	25	2.6
56-55-3	Benzo(a)anthracene	U	25	1.0	20	25	2.4
218-01-9	Chrysene	U	25	1.0	20	25	2.1
205-99-2	Benzo(b)fluoranthene	U	25	1.0	20	25	3.0
207-08-9	Benzo(k)fluoranthene	U	25	1.0	20	25	3.9
50-32-8	Benzo(a)pyrene	U	25	1.0	20	25	4.1
193-39-5	Indeno(1,2,3-cd)pyrene	U	25	1.0	20	25	2.4
53-70-3	Dibenzo(a,h)anthracene	U	25	1.0	20	25	2.2
191-24-2	Benzo(g,h,i)perylene	U	25	1.0	20	25	2.5
321-60-8	2-Methylnaphthalene-D10		33%				
118-79-6	Fluorene-D10		* 49%				
1718-51-0	Pyrene-D10		52%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 06-JUL-2009 16:55
Report Date: 07/09/2009
Matrix: SOIL
% Solids: 94.4

Lab ID: SC3122-18DL
Client ID: WGL-SD-SD106-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JCG
Analysis Method: SW846 M8270C
Lab Prep Batch: WG65398
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
91-20-3	Naphthalene	U	42	2.0	20	42	3.8
91-57-6	2-Methylnaphthalene	U	42	2.0	20	42	5.8
208-96-8	Acenaphthylene	U	42	2.0	20	42	2.8
83-32-9	Acenaphthene	U	42	2.0	20	42	3.1
86-73-7	Fluorene	U	42	2.0	20	42	3.5
85-01-8	Phenanthrene	J	27	2.0	20	42	9.1
120-12-7	Anthracene	J	16	2.0	20	42	5.4
206-44-0	Fluoranthene		81	2.0	20	42	8.5
129-00-0	Pyrene		110	2.0	20	42	14
56-55-3	Benzo(a)anthracene	U	42	2.0	20	42	5.3
218-01-9	Chrysene	U	42	2.0	20	42	5.6
205-99-2	Benzo(b)fluoranthene		75	2.0	20	42	4.6
207-08-9	Benzo(k)fluoranthene	J	25	2.0	20	42	4.0
50-32-8	Benzo(a)pyrene	U	42	2.0	20	42	4.4
193-39-5	Indeno(1,2,3-cd)pyrene		140	2.0	20	42	9.2
53-70-3	Dibenzo(a,h)anthracene	U	42	2.0	20	42	8.0
191-24-2	Benzo(g,h,i)perylene	U	42	2.0	20	42	7.0
321-60-8	2-Methylnaphthalene-D10		32%				
118-79-6	Fluorene-D10		49%				
1718-51-0	Pyrene-D10		40%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 06-JUL-2009 17:37
Report Date: 07/09/2009
Matrix: SOIL
% Solids: 93.8

Lab ID: SC3122-21
Client ID: WGL-SD-DUP02-061109
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JCG
Analysis Method: SW846 M8270C
Lab Prep Batch: WG65398
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
91-20-3	Naphthalene	U	21	1.0	20	21	1.9
91-57-6	2-Methylnaphthalene	U	21	1.0	20	21	2.9
208-96-8	Acenaphthylene	U	21	1.0	20	21	1.4
83-32-9	Acenaphthene	U	21	1.0	20	21	1.6
86-73-7	Fluorene	U	21	1.0	20	21	1.7
85-01-8	Phenanthrene	J	16	1.0	20	21	4.6
120-12-7	Anthracene	U	21	1.0	20	21	2.7
206-44-0	Fluoranthene		52	1.0	20	21	4.3
129-00-0	Pyrene		60	1.0	20	21	7.3
56-55-3	Benzo(a)anthracene	U	21	1.0	20	21	2.7
218-01-9	Chrysene	U	21	1.0	20	21	2.8
205-99-2	Benzo(b)fluoranthene		44	1.0	20	21	2.3
207-08-9	Benzo(k)fluoranthene	J	10	1.0	20	21	2.0
50-32-8	Benzo(a)pyrene	U	21	1.0	20	21	2.2
193-39-5	Indeno(1,2,3-cd)pyrene	U	21	1.0	20	21	4.6
53-70-3	Dibenzo(a,h)anthracene	U	21	1.0	20	21	4.0
191-24-2	Benzo(g,h,i)perylene	U	21	1.0	20	21	3.5
321-60-8	2-Methylnaphthalene-D10		34%				
118-79-6	Fluorene-D10		44%				
1718-51-0	Pyrene-D10		36%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 06-JUL-2009 18:20
Report Date: 07/09/2009
Matrix: SOIL
% Solids: 95.0

Lab ID: SC3122-24DL
Client ID: WGL-SD-SD107-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JCG
Analysis Method: SW846 M8270C
Lab Prep Batch: WG65398
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
91-20-3	Naphthalene	U	42	2.0	20	42	3.8
91-57-6	2-Methylnaphthalene	U	42	2.0	20	42	5.8
208-96-8	Acenaphthylene	U	42	2.0	20	42	2.8
83-32-9	Acenaphthene	U	42	2.0	20	42	3.1
86-73-7	Fluorene	U	42	2.0	20	42	3.4
85-01-8	Phenanthrene	U	42	2.0	20	42	9.0
120-12-7	Anthracene	U	42	2.0	20	42	5.4
206-44-0	Fluoranthene		96	2.0	20	42	8.4
129-00-0	Pyrene		130	2.0	20	42	14
56-55-3	Benzo(a)anthracene	U	42	2.0	20	42	5.3
218-01-9	Chrysene	U	42	2.0	20	42	5.6
205-99-2	Benzo(b)fluoranthene		88	2.0	20	42	4.6
207-08-9	Benzo(k)fluoranthene	J	25	2.0	20	42	3.9
50-32-8	Benzo(a)pyrene	U	42	2.0	20	42	4.4
193-39-5	Indeno(1,2,3-cd)pyrene	U	42	2.0	20	42	9.1
53-70-3	Dibenzo(a,h)anthracene	U	42	2.0	20	42	7.9
191-24-2	Benzo(g,h,i)perylene	U	42	2.0	20	42	7.0
321-60-8	2-Methylnaphthalene-D10		46%				
118-79-6	Fluorene-D10		79%				
1718-51-0	Pyrene-D10		46%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 06-JUL-2009 19:04
Report Date: 07/09/2009
Matrix: SOIL
% Solids: 94.9

Lab ID: SC3122-27
Client ID: WGL-SD-SD108-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JCG
Analysis Method: SW846 M8270C
Lab Prep Batch: WG65398
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
91-20-3	Naphthalene	U	21	1.0	20	21	1.9
91-57-6	2-Methylnaphthalene	U	21	1.0	20	21	2.9
208-96-8	Acenaphthylene	J	6.4	1.0	20	21	1.4
83-32-9	Acenaphthene	U	21	1.0	20	21	1.5
86-73-7	Fluorene	J	4.1	1.0	20	21	1.7
85-01-8	Phenanthrene		48	1.0	20	21	4.5
120-12-7	Anthracene	J	17	1.0	20	21	2.7
206-44-0	Fluoranthene		130	1.0	20	21	4.2
129-00-0	Pyrene		120	1.0	20	21	7.2
56-55-3	Benzo(a)anthracene		43	1.0	20	21	2.6
218-01-9	Chrysene		59	1.0	20	21	2.8
205-99-2	Benzo(b)fluoranthene		100	1.0	20	21	2.3
207-08-9	Benzo(k)fluoranthene		22	1.0	20	21	2.0
50-32-8	Benzo(a)pyrene		38	1.0	20	21	2.2
193-39-5	Indeno(1,2,3-cd)pyrene	U	21	1.0	20	21	4.6
53-70-3	Dibenzo(a,h)anthracene	U	21	1.0	20	21	4.0
191-24-2	Benzo(g,h,i)perylene	U	21	1.0	20	21	3.5
321-60-8	2-Methylnaphthalene-D10		31%				
118-79-6	Fluorene-D10		36%				
1718-51-0	Pyrene-D10		38%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 06-JUL-2009 19:48
Report Date: 07/09/2009
Matrix: SOIL
% Solids: 93.0

Lab ID: SC3122-30
Client ID: WGL-SD-SD105-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JCG
Analysis Method: SW846 M8270C
Lab Prep Batch: WG65398
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
91-20-3	Naphthalene	J	2.6	1.0	20	21	1.9
91-57-6	2-Methylnaphthalene	U	21	1.0	20	21	3.0
208-96-8	Acenaphthylene	J	20	1.0	20	21	1.4
83-32-9	Acenaphthene	U	21	1.0	20	21	1.6
86-73-7	Fluorene	J	9.1	1.0	20	21	1.8
85-01-8	Phenanthrene		110	1.0	20	21	4.6
120-12-7	Anthracene		27	1.0	20	21	2.7
206-44-0	Fluoranthene	E	360	1.0	20	21	4.3
129-00-0	Pyrene		190	1.0	20	21	7.4
56-55-3	Benzo(a)anthracene		100	1.0	20	21	2.7
218-01-9	Chrysene		110	1.0	20	21	2.8
205-99-2	Benzo(b)fluoranthene		180	1.0	20	21	2.4
207-08-9	Benzo(k)fluoranthene		74	1.0	20	21	2.0
50-32-8	Benzo(a)pyrene		93	1.0	20	21	2.2
193-39-5	Indeno(1,2,3-cd)pyrene	U	21	1.0	20	21	4.7
53-70-3	Dibenzo(a,h)anthracene	U	21	1.0	20	21	4.0
191-24-2	Benzo(g,h,i)perylene	U	21	1.0	20	21	3.6
321-60-8	2-Methylnaphthalene-D10		35%				
118-79-6	Fluorene-D10		55%				
1718-51-0	Pyrene-D10		40%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 07-JUL-2009 19:20
Report Date: 07/09/2009
Matrix: SOIL
% Solids: 93.0

Lab ID: SC3122-30DL
Client ID: WGL-SD-SD105-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JCG
Analysis Method: SW846 M8270C
Lab Prep Batch: WG65398
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
91-20-3	Naphthalene	U	43	2.0	20	43	3.8
91-57-6	2-Methylnaphthalene	U	43	2.0	20	43	5.9
208-96-8	Acenaphthylene	U	43	2.0	20	43	2.8
83-32-9	Acenaphthene	U	43	2.0	20	43	3.1
86-73-7	Fluorene	U	43	2.0	20	43	3.5
85-01-8	Phenanthrene		110	2.0	20	43	9.2
120-12-7	Anthracene	U	43	2.0	20	43	5.5
206-44-0	Fluoranthene		260	2.0	20	43	8.6
129-00-0	Pyrene		230	2.0	20	43	15
56-55-3	Benzo(a)anthracene		180	2.0	20	43	5.4
218-01-9	Chrysene		140	2.0	20	43	5.7
205-99-2	Benzo(b)fluoranthene		300	2.0	20	43	4.7
207-08-9	Benzo(k)fluoranthene		85	2.0	20	43	4.0
50-32-8	Benzo(a)pyrene		160	2.0	20	43	4.4
193-39-5	Indeno(1,2,3-cd)pyrene		220	2.0	20	43	9.3
53-70-3	Dibenzo(a,h)anthracene		54	2.0	20	43	8.1
191-24-2	Benzo(g,h,i)perylene		72	2.0	20	43	7.1
321-60-8	2-Methylnaphthalene-D10		* 21%				
118-79-6	Fluorene-D10		59%				
1718-51-0	Pyrene-D10		52%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 06-JUL-2009 20:31
Report Date: 07/09/2009
Matrix: SOIL
% Solids: 94.6

Lab ID: SC3122-33
Client ID: WGL-SD-SD112-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JCG
Analysis Method: SW846 M8270C
Lab Prep Batch: WG65398
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
91-20-3	Naphthalene	J	3.0	1.0	20	21	1.9
91-57-6	2-Methylnaphthalene	U	21	1.0	20	21	2.9
208-96-8	Acenaphthylene	J	13	1.0	20	21	1.4
83-32-9	Acenaphthene	U	21	1.0	20	21	1.5
86-73-7	Fluorene	U	21	1.0	20	21	1.7
85-01-8	Phenanthrene		84	1.0	20	21	4.5
120-12-7	Anthracene	U	21	1.0	20	21	2.7
206-44-0	Fluoranthene		210	1.0	20	21	4.2
129-00-0	Pyrene		200	1.0	20	21	7.2
56-55-3	Benzo(a)anthracene		57	1.0	20	21	2.7
218-01-9	Chrysene		45	1.0	20	21	2.8
205-99-2	Benzo(b)fluoranthene		170	1.0	20	21	2.3
207-08-9	Benzo(k)fluoranthene		52	1.0	20	21	2.0
50-32-8	Benzo(a)pyrene		86	1.0	20	21	2.2
193-39-5	Indeno(1,2,3-cd)pyrene	U	21	1.0	20	21	4.6
53-70-3	Dibenzo(a,h)anthracene	U	21	1.0	20	21	4.0
191-24-2	Benzo(g,h,i)perylene	U	21	1.0	20	21	3.5
321-60-8	2-Methylnaphthalene-D10		47%				
118-79-6	Fluorene-D10		63%				
1718-51-0	Pyrene-D10		47%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 07-JUL-2009 13:43
Report Date: 07/09/2009
Matrix: SOIL
% Solids: 94.6

Lab ID: SC3122-33RA
Client ID: WGL-SD-SD112-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JCG
Analysis Method: SW846 M8270C
Lab Prep Batch: WG65398
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
91-20-3	Naphthalene	J	2.5	1.0	20	21	1.9
91-57-6	2-Methylnaphthalene	U	21	1.0	20	21	2.9
208-96-8	Acenaphthylene	J	17	1.0	20	21	1.4
83-32-9	Acenaphthene	J	20	1.0	20	21	1.5
86-73-7	Fluorene	U	21	1.0	20	21	1.7
85-01-8	Phenanthrene		74	1.0	20	21	4.5
120-12-7	Anthracene	J	16	1.0	20	21	2.7
206-44-0	Fluoranthene		120	1.0	20	21	4.2
129-00-0	Pyrene		150	1.0	20	21	7.2
56-55-3	Benzo(a)anthracene		53	1.0	20	21	2.7
218-01-9	Chrysene		66	1.0	20	21	2.8
205-99-2	Benzo(b)fluoranthene		150	1.0	20	21	2.3
207-08-9	Benzo(k)fluoranthene		48	1.0	20	21	2.0
50-32-8	Benzo(a)pyrene		87	1.0	20	21	2.2
193-39-5	Indeno(1,2,3-cd)pyrene		74	1.0	20	21	4.6
53-70-3	Dibenzo(a,h)anthracene	J	14	1.0	20	21	4.0
191-24-2	Benzo(g,h,i)perylene		37	1.0	20	21	3.5
321-60-8	2-Methylnaphthalene-D10		48%				
118-79-6	Fluorene-D10		72%				
1718-51-0	Pyrene-D10		46%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 06-JUL-2009 21:14
Report Date: 07/09/2009
Matrix: SOIL
% Solids: 92.7

Lab ID: SC3122-36
Client ID: WGL-SD-SD110-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JCG
Analysis Method: SW846 M8270C
Lab Prep Batch: WG65398
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
91-20-3	Naphthalene	J	3.9	1.0	20	26	2.3
91-57-6	2-Methylnaphthalene	J	3.7	1.0	20	26	3.6
208-96-8	Acenaphthylene	J	13	1.0	20	26	1.7
83-32-9	Acenaphthene	U	26	1.0	20	26	1.9
86-73-7	Fluorene	U	26	1.0	20	26	2.1
85-01-8	Phenanthrene		140	1.0	20	26	5.6
120-12-7	Anthracene		35	1.0	20	26	3.3
206-44-0	Fluoranthene	E	370	1.0	20	26	5.2
129-00-0	Pyrene		260	1.0	20	26	8.9
56-55-3	Benzo(a)anthracene		110	1.0	20	26	3.3
218-01-9	Chrysene		120	1.0	20	26	3.4
205-99-2	Benzo(b)fluoranthene		170	1.0	20	26	2.8
207-08-9	Benzo(k)fluoranthene		61	1.0	20	26	2.4
50-32-8	Benzo(a)pyrene		88	1.0	20	26	2.7
193-39-5	Indeno(1,2,3-cd)pyrene	U	26	1.0	20	26	5.6
53-70-3	Dibenzo(a,h)anthracene	U	26	1.0	20	26	4.9
191-24-2	Benzo(g,h,i)perylene	U	26	1.0	20	26	4.3
321-60-8	2-Methylnaphthalene-D10		43%				
118-79-6	Fluorene-D10		53%				
1718-51-0	Pyrene-D10		53%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 07-JUL-2009 20:02
Report Date: 07/09/2009
Matrix: SOIL
% Solids: 92.7

Lab ID: SC3122-36DL
Client ID: WGL-SD-SD110-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JCG
Analysis Method: SW846 M8270C
Lab Prep Batch: WG65398
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
91-20-3	Naphthalene	U	52	2.0	20	52	4.6
91-57-6	2-Methylnaphthalene	U	52	2.0	20	52	7.1
208-96-8	Acenaphthylene	J	23	2.0	20	52	3.4
83-32-9	Acenaphthene	U	52	2.0	20	52	3.8
86-73-7	Fluorene	U	52	2.0	20	52	4.2
85-01-8	Phenanthrene		130	2.0	20	52	11
120-12-7	Anthracene	U	52	2.0	20	52	6.6
206-44-0	Fluoranthene		320	2.0	20	52	10
129-00-0	Pyrene		250	2.0	20	52	18
56-55-3	Benzo(a)anthracene		170	2.0	20	52	6.5
218-01-9	Chrysene		160	2.0	20	52	6.8
205-99-2	Benzo(b)fluoranthene		490	2.0	20	52	5.7
207-08-9	Benzo(k)fluoranthene		120	2.0	20	52	4.8
50-32-8	Benzo(a)pyrene		240	2.0	20	52	5.4
193-39-5	Indeno(1,2,3-cd)pyrene		290	2.0	20	52	11
53-70-3	Dibenzo(a,h)anthracene		130	2.0	20	52	9.7
191-24-2	Benzo(g,h,i)perylene		130	2.0	20	52	8.6
321-60-8	2-Methylnaphthalene-D10		54%				
118-79-6	Fluorene-D10		67%				
1718-51-0	Pyrene-D10		61%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 07-JUL-2009 14:25
Report Date: 07/09/2009
Matrix: SOIL
% Solids: 94.8

Lab ID: SC3122-39
Client ID: WGL-SD-SD109-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JCG
Analysis Method: SW846 M8270C
Lab Prep Batch: WG65398
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
91-20-3	Naphthalene	J	2.8	1.0	20	21	1.9
91-57-6	2-Methylnaphthalene	U	21	1.0	20	21	2.9
208-96-8	Acenaphthylene	U	21	1.0	20	21	1.4
83-32-9	Acenaphthene	U	21	1.0	20	21	1.5
86-73-7	Fluorene	U	21	1.0	20	21	1.7
85-01-8	Phenanthrene		100	1.0	20	21	4.5
120-12-7	Anthracene	U	21	1.0	20	21	2.7
206-44-0	Fluoranthene		200	1.0	20	21	4.2
129-00-0	Pyrene		240	1.0	20	21	7.2
56-55-3	Benzo(a)anthracene		100	1.0	20	21	2.6
218-01-9	Chrysene		89	1.0	20	21	2.8
205-99-2	Benzo(b)fluoranthene		200	1.0	20	21	2.3
207-08-9	Benzo(k)fluoranthene		77	1.0	20	21	2.0
50-32-8	Benzo(a)pyrene		110	1.0	20	21	2.2
193-39-5	Indeno(1,2,3-cd)pyrene		100	1.0	20	21	4.6
53-70-3	Dibenzo(a,h)anthracene	J	18	1.0	20	21	4.0
191-24-2	Benzo(g,h,i)perylene		54	1.0	20	21	3.5
321-60-8	2-Methylnaphthalene-D10		37%				
118-79-6	Fluorene-D10		47%				
1718-51-0	Pyrene-D10		49%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 07-JUL-2009 15:07
Report Date: 07/09/2009
Matrix: SOIL
% Solids: 94.2

Lab ID: SC3122-42
Client ID: L-SD-SD111-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JCG
Analysis Method: SW846 M8270C
Lab Prep Batch: WG65398
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
91-20-3	Naphthalene	J	4.7	1.0	20	21	1.9
91-57-6	2-Methylnaphthalene	J	5.4	1.0	20	21	2.9
208-96-8	Acenaphthylene		26	1.0	20	21	1.4
83-32-9	Acenaphthene	J	16	1.0	20	21	1.6
86-73-7	Fluorene	J	14	1.0	20	21	1.7
85-01-8	Phenanthrene		140	1.0	20	21	4.6
120-12-7	Anthracene		23	1.0	20	21	2.7
206-44-0	Fluoranthene	E	290	1.0	20	21	4.2
129-00-0	Pyrene	E	290	1.0	20	21	7.3
56-55-3	Benzo(a)anthracene		120	1.0	20	21	2.7
218-01-9	Chrysene		130	1.0	20	21	2.8
205-99-2	Benzo(b)fluoranthene	E	350	1.0	20	21	2.3
207-08-9	Benzo(k)fluoranthene		70	1.0	20	21	2.0
50-32-8	Benzo(a)pyrene		150	1.0	20	21	2.2
193-39-5	Indeno(1,2,3-cd)pyrene		150	1.0	20	21	4.6
53-70-3	Dibenzo(a,h)anthracene		27	1.0	20	21	4.0
191-24-2	Benzo(g,h,i)perylene		76	1.0	20	21	3.5
321-60-8	2-Methylnaphthalene-D10		42%				
118-79-6	Fluorene-D10		52%				
1718-51-0	Pyrene-D10		44%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 08-JUL-2009 13:41
Report Date: 07/09/2009
Matrix: SOIL
% Solids: 94.2

Lab ID: SC3122-42DL
Client ID: L-SD-SD111-000.6
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JCG
Analysis Method: SW846 M8270C
Lab Prep Batch: WG65398
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
91-20-3	Naphthalene	J	5.6	2.0	20	42	5.5
91-57-6	2-Methylnaphthalene	J	5.7	2.0	20	42	4.7
208-96-8	Acenaphthylene	J	22	2.0	20	42	2.5
83-32-9	Acenaphthene	J	7.4	2.0	20	42	3.2
86-73-7	Fluorene	J	18	2.0	20	42	6.8
85-01-8	Phenanthrene		170	2.0	20	42	3.8
120-12-7	Anthracene	J	35	2.0	20	42	2.5
206-44-0	Fluoranthene		300	2.0	20	42	3.8
129-00-0	Pyrene		350	2.0	20	42	4.4
56-55-3	Benzo(a)anthracene		260	2.0	20	42	4.0
218-01-9	Chrysene		210	2.0	20	42	3.6
205-99-2	Benzo(b)fluoranthene		300	2.0	20	42	5.1
207-08-9	Benzo(k)fluoranthene		77	2.0	20	42	6.6
50-32-8	Benzo(a)pyrene		140	2.0	20	42	7.0
193-39-5	Indeno(1,2,3-cd)pyrene	J	36	2.0	20	42	4.0
53-70-3	Dibenzo(a,h)anthracene	J	28	2.0	20	42	3.8
191-24-2	Benzo(g,h,i)perylene		78	2.0	20	42	4.2
321-60-8	2-Methylnaphthalene-D10		44%				
118-79-6	Fluorene-D10		61%				
1718-51-0	Pyrene-D10		50%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/15/09
Analysis Date: 23-JUN-2009 16:22
Report Date: 07/09/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3122-44
Client ID: WGL-SD-FB01-061109
SDG: SC3122
Extracted by: KF
Extraction Method: SW846 3510
Analyst: JCG
Analysis Method: SW846 M8270C
Lab Prep Batch: WG64999
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
91-20-3	Naphthalene		0.29	1.0	0.20	0.19	0.060
91-57-6	2-Methylnaphthalene		0.22	1.0	0.20	0.19	0.073
208-96-8	Acenaphthylene	U	0.19	1.0	0.20	0.19	0.051
83-32-9	Acenaphthene	U	0.19	1.0	0.20	0.19	0.060
86-73-7	Fluorene	U	0.19	1.0	0.20	0.19	0.058
85-01-8	Phenanthrene	U	0.19	1.0	0.20	0.19	0.048
120-12-7	Anthracene	U	0.19	1.0	0.20	0.19	0.042
206-44-0	Fluoranthene	U	0.19	1.0	0.20	0.19	0.069
129-00-0	Pyrene	U	0.19	1.0	0.20	0.19	0.056
56-55-3	Benzo(a)anthracene	U	0.19	1.0	0.20	0.19	0.043
218-01-9	Chrysene	U	0.19	1.0	0.20	0.19	0.034
205-99-2	Benzo(b)fluoranthene	U	0.19	1.0	0.20	0.19	0.084
207-08-9	Benzo(k)fluoranthene	U	0.19	1.0	0.20	0.19	0.046
50-32-8	Benzo(a)pyrene	U	0.19	1.0	0.20	0.19	0.062
193-39-5	Indeno(1,2,3-cd)pyrene	U	0.19	1.0	0.20	0.19	0.049
53-70-3	Dibenzo(a,h)anthracene	U	0.19	1.0	0.20	0.19	0.066
191-24-2	Benzo(g,h,i)perylene	U	0.19	1.0	0.20	0.19	0.061
321-60-8	2-Methylnaphthalene-D10		75%				
118-79-6	Fluorene-D10		81%				
1718-51-0	Pyrene-D10		90%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/15/09
Analysis Date: 23-JUN-2009 17:04
Report Date: 07/09/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3122-46
Client ID: WGL-SD-RB01-061109
SDG: SC3122
Extracted by: KF
Extraction Method: SW846 3510
Analyst: JCG
Analysis Method: SW846 M8270C
Lab Prep Batch: WG64999
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
91-20-3	Naphthalene		0.26	1.0	0.20	0.19	0.060
91-57-6	2-Methylnaphthalene		0.22	1.0	0.20	0.19	0.073
208-96-8	Acenaphthylene	U	0.19	1.0	0.20	0.19	0.051
83-32-9	Acenaphthene	U	0.19	1.0	0.20	0.19	0.060
86-73-7	Fluorene	U	0.19	1.0	0.20	0.19	0.058
85-01-8	Phenanthrene	U	0.19	1.0	0.20	0.19	0.048
120-12-7	Anthracene	U	0.19	1.0	0.20	0.19	0.042
206-44-0	Fluoranthene	U	0.19	1.0	0.20	0.19	0.069
129-00-0	Pyrene	U	0.19	1.0	0.20	0.19	0.056
56-55-3	Benzo(a)anthracene	U	0.19	1.0	0.20	0.19	0.043
218-01-9	Chrysene	U	0.19	1.0	0.20	0.19	0.034
205-99-2	Benzo(b)fluoranthene	U	0.19	1.0	0.20	0.19	0.084
207-08-9	Benzo(k)fluoranthene	U	0.19	1.0	0.20	0.19	0.046
50-32-8	Benzo(a)pyrene	U	0.19	1.0	0.20	0.19	0.062
193-39-5	Indeno(1,2,3-cd)pyrene	U	0.19	1.0	0.20	0.19	0.049
53-70-3	Dibenzo(a,h)anthracene	U	0.19	1.0	0.20	0.19	0.066
191-24-2	Benzo(g,h,i)perylene	U	0.19	1.0	0.20	0.19	0.061
321-60-8	2-Methylnaphthalene-D10		69%				
118-79-6	Fluorene-D10		81%				
1718-51-0	Pyrene-D10		74%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client:
Project: CTO 407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date: 06/15/09
Analysis Date: 23-JUN-2009 14:15
Report Date: 07/09/2009
Matrix: WATER
% Solids: NA

Lab ID: WG64999-1
Client ID: WG64999-Blank
SDG: SC3122
Extracted by: KF
Extraction Method: SW846 3510
Analyst: JCG
Analysis Method: SW846 M8270C
Lab Prep Batch: WG64999
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
91-20-3	Naphthalene	U	0.20	1.0	0.20	0.20	0.064
91-57-6	2-Methylnaphthalene	U	0.20	1.0	0.20	0.20	0.077
208-96-8	Acenaphthylene	U	0.20	1.0	0.20	0.20	0.054
83-32-9	Acenaphthene	U	0.20	1.0	0.20	0.20	0.064
86-73-7	Fluorene	U	0.20	1.0	0.20	0.20	0.061
85-01-8	Phenanthrene	U	0.20	1.0	0.20	0.20	0.051
120-12-7	Anthracene	U	0.20	1.0	0.20	0.20	0.044
206-44-0	Fluoranthene	U	0.20	1.0	0.20	0.20	0.073
129-00-0	Pyrene	U	0.20	1.0	0.20	0.20	0.059
56-55-3	Benzo(a)anthracene	U	0.20	1.0	0.20	0.20	0.046
218-01-9	Chrysene	U	0.20	1.0	0.20	0.20	0.036
205-99-2	Benzo(b)fluoranthene	U	0.20	1.0	0.20	0.20	0.089
207-08-9	Benzo(k)fluoranthene	U	0.20	1.0	0.20	0.20	0.049
50-32-8	Benzo(a)pyrene	U	0.20	1.0	0.20	0.20	0.066
193-39-5	Indeno(1,2,3-cd)pyrene	U	0.20	1.0	0.20	0.20	0.052
53-70-3	Dibenzo(a,h)anthracene	U	0.20	1.0	0.20	0.20	0.070
191-24-2	Benzo(g,h,i)perylene	U	0.20	1.0	0.20	0.20	0.065
321-60-8	2-Methylnaphthalene-D10		79%				
118-79-6	Fluorene-D10		81%				
1718-51-0	Pyrene-D10		101%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client:
Project: CTO 407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date: 06/25/09
Analysis Date: 06-JUL-2009 12:41
Report Date: 07/10/2009
Matrix: SOIL
% Solids: 100

Lab ID: WG65398-1RA
Client ID: WG65398-Blank
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JCG
Analysis Method: SW846 M8270C
Lab Prep Batch: WG65398
Units: ug/Kgdrywt

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
91-20-3	Naphthalene	U	20	1.0	20	20	2.6
91-57-6	2-Methylnaphthalene	U	20	1.0	20	20	2.2
208-96-8	Acenaphthylene	U	20	1.0	20	20	1.2
83-32-9	Acenaphthene	U	20	1.0	20	20	1.5
86-73-7	Fluorene	U	20	1.0	20	20	3.2
85-01-8	Phenanthrene	U	20	1.0	20	20	1.8
120-12-7	Anthracene	U	20	1.0	20	20	1.2
206-44-0	Fluoranthene	U	20	1.0	20	20	1.8
129-00-0	Pyrene	U	20	1.0	20	20	2.1
56-55-3	Benzo(a)anthracene	U	20	1.0	20	20	1.9
218-01-9	Chrysene	U	20	1.0	20	20	1.7
205-99-2	Benzo(b)fluoranthene	U	20	1.0	20	20	2.4
207-08-9	Benzo(k)fluoranthene	U	20	1.0	20	20	3.1
50-32-8	Benzo(a)pyrene	U	20	1.0	20	20	3.3
193-39-5	Indeno(1,2,3-cd)pyrene	U	20	1.0	20	20	1.9
53-70-3	Dibenzo(a,h)anthracene	U	20	1.0	20	20	1.8
191-24-2	Benzo(g,h,i)perylene	U	20	1.0	20	20	2.0
321-60-8	2-Methylnaphthalene-D10		41%				
118-79-6	Fluorene-D10		* 43%				
1718-51-0	Pyrene-D10		67%				

FORM 2
SOIL SEMIVOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Level:(low/med) LOW

	CLIENT SAMPLE ID	LAB SAMPLE ID	S1 #	S2 #	S3 #	S4 #	S5 #	S6 #	S7 #	S8 #	TOT OUT
01	WG65398-LCS	WG65398-2RA	40	56	64						0
02	WG65398-BLANK	WG65398-1RA	41	43*	67						1
03	WGL-SD-SD103-000.6	SC3122-3	48	58	47						0
04	WGL-SD-SD102-000.6	SC3122-6	36	39*	40						1
05	WGL-SD-SD101-000.6	SC3122-9DL	24*	33*	21						2
06	WGL-SD-DUP01-061109	SC3122-12	38	44*	52						1
07	WGL-SD-SD104-000.6	SC3122-15	33	49*	52						1
08	WGL-SD-SD106-000.6	SC3122-18DL	32*	49*	40						2
09	WGL-SD-DUP02-061109	SC3122-21	34	44*	36						1
10	WGL-SD-SD107-000.6	SC3122-24DL	46	79	46						0
11	WGL-SD-SD108-000.6	SC3122-27	31*	36*	38						2
12	WGL-SD-SD105-000.6	SC3122-30	35	55	40						0
13	WGL-SD-SD112-000.6	SC3122-33	47	63	47						0
14	WGL-SD-SD110-000.6	SC3122-36	43	53	53						0
15	WGL-SD-SD112-000.6	SC3122-33RA	48	72	46						0
16	WGL-SD-SD109-000.6	SC3122-39	37	47*	49						1
17	L-SD-SD111-000.6	SC3122-42	42	52*	44						1
18	L-SD-SD111-000.6MS	WG65398-3	50	59	43						0
19	L-SD-SD111-000.6MSD	WG65398-4	48	54	47						0
20	WGL-SD-SD103-000.6	SC3122-3DL	46	59	64						0
21	WGL-SD-SD102-000.6	SC3122-6DL	46	50*	59						1
22	WGL-SD-DUP01-061109	SC3122-12DL	52	55	62						0
23	WGL-SD-SD105-000.6	SC3122-30DL	21*	59	52						1
24	WGL-SD-SD110-000.6	SC3122-36DL	54	67	61						0
25	L-SD-SD111-000.6	SC3122-42DL	44	61	50						0
26											
27											
28											

		QC LIMITS
S1	= 2-Methylnaphthalene-D1	(33-125)
S2	= Fluorene-D10	(53-136)
S3	= Pyrene-D10	(16-162)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

FORM 2
WATER SEMIVOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

	CLIENT SAMPLE ID	LAB SAMPLE ID	S1 #	S2 #	S3 #	S4 #	S5 #	S6 #	S7 #	S8 #	TOT OUT
01	WG64999-BLANK	WG64999-1	79	81	101						0
02	WG64999-LCS	WG64999-2	88	94	80						0
03	WG64999-LCSD	WG64999-3	75	67	82						0
04	WGL-SD-FB01-061109	SC3122-44	75	81	90						0
05	WGL-SD-RB01-061109	SC3122-46	69	81	74						0
06											
07											
08											
09											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											
21											
22											
23											
24											
25											
26											
27											
28											

		QC LIMITS
S1	= 2-Methylnaphthalene-D1	(34-110)
S2	= Fluorene-D10	(46-122)
S3	= Pyrene-D10	(36-134)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

KATAHDIN ANALYTICAL SERVICES
LAB CONTROL SAMPLE

Client:
Project: CTO 407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date: 06/15/09
Analysis Date: 06/23/09
Report Date: 07/10/2009
Matrix: WATER

Lab ID: WG64999-2 & WG64999-3
Client ID: WG64999-LCS & WG64999-LCSD
SDG: SC3122
Extracted by: KF
Extraction Method: SW846 3510
Analyst: JCG
Analysis Method: SW846 M8270C
Lab Prep Batch: WG64999
Units: ug/L

COMPOUND	LCS SPIKE	LCSD SPIKE	SAMPLE CONC.	LCS CONC.	LCSD CONC.	LCS %REC.	LCSD %REC.	%RPD	%RPD LIMIT	QC. LIMITS
Naphthalene	2.0	2.0	NA	1.7	1.6	86	81	5	30	42- 91
2-Methylnaphthalene	2.0	2.0	NA	2.0	2.0	99	100	0.5	30	51-125
Acenaphthylene	2.0	2.0	NA	1.7	1.6	84	78	7	30	43- 99
Acenaphthene	2.0	2.0	NA	1.7	1.6	85	78	8	30	44- 93
Fluorene	2.0	2.0	NA	1.9	1.8	93	88	6	30	49-100
Phenanthrene	2.0	2.0	NA	1.8	1.9	92	94	2	30	57-119
Anthracene	2.0	2.0	NA	1.8	1.7	89	85	4	30	50-113
Fluoranthene	2.0	2.0	NA	2.0	2.0	101	98	2	30	60-122
Pyrene	2.0	2.0	NA	1.6	1.7	80	83	4	30	64-121
Benzo(a)anthracene	2.0	2.0	NA	1.6	1.6	79	82	3	30	48-120
Chrysene	2.0	2.0	NA	1.7	1.7	87	86	0.6	30	53-147
Benzo(b)fluoranthene	2.0	2.0	NA	1.9	1.9	94	94	0.0	30	49-104
Benzo(k)fluoranthene	2.0	2.0	NA	1.7	1.7	84	84	0.6	30	57-145
Benzo(a)pyrene	2.0	2.0	NA	1.7	1.7	85	85	0.0	30	63-113
Indeno(1,2,3-cd)pyrene	2.0	2.0	NA	1.9	1.7	94	87	8	30	30-140
Dibenzo(a,h)anthracene	2.0	2.0	NA	1.9	1.8	96	90	7	30	30-136
Benzo(g,h,i)perylene	2.0	2.0	NA	2.0	1.8	98	92	6	30	48-126

FORM III SV-1

G6122.D & G6123.D

KATAHDIN ANALYTICAL SERVICES
LAB CONTROL SAMPLE

Client:
Project: CTO 407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date: 06/25/09
Analysis Date: 07/06/09
Report Date: 07/10/2009
Matrix: SOIL

Lab ID: WG65398-2RA
Client ID: WG65398-LCS
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JCG
Analysis Method: SW846 M8270C
Lab Prep Batch: WG65398
Units: ug/Kgdrywt

COMPOUND	LCS SPIKE	SAMPLE CONC.	LCS CONC.		%REC.	QC. LIMITS
Naphthalene	67	NA	33	*	50	54- 94
2-Methylnaphthalene	67	NA	40	*	60	75-132
Acenaphthylene	67	NA	40		60	51-103
Acenaphthene	67	NA	37	*	55	56- 97
Fluorene	67	NA	40	*	60	61-103
Phenanthrene	67	NA	39		58	58-122
Anthracene	67	NA	49		74	55-113
Fluoranthene	67	NA	54		81	68-126
Pyrene	67	NA	38		57	33-133
Benzo(a)anthracene	67	NA	44		66	50-138
Chrysene	67	NA	48		72	44-132
Benzo(b)fluoranthene	67	NA	50		74	44-119
Benzo(k)fluoranthene	67	NA	37		56	40-120
Benzo(a)pyrene	67	NA	43		64	52-113
Indeno(1,2,3-cd)pyrene	67	NA	58		86	32-134
Dibenzo(a,h)anthracene	67	NA	57		86	30-134
Benzo(g,h,i)perylene	67	NA	46		68	43-121

KATAHDIN ANALYTICAL SERVICES
MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Client: Tetra Tech NUS, Inc
Project: CTO 407 NAS Weymouth
PO No:
Sample Date: 06/11/09
Received Date: 06/12/09
Extraction Date: 06/25/09
Analysis Date: 07/07/09
Report Date: 07/09/2009
Matrix: SOIL

Lab ID: WG65398-3 & WG65398-4
Client ID: L-SD-SD111-000.6MS & L-SD-SD111-000.6MSD
SDG: SC3122
Extracted by: AC
Extraction Method: SW846 3550
Analyst: JCG
Analysis Method: SW846 M8270C
Lab Prep Batch: WG65398
Units: ug/Kgdrywt

COMPOUND	MS SPIKE	MSD SPIKE	SAMPLE CONC.	MS CONC.	MSD CONC.	MS %REC.	MSD %REC.	%RPD	%RPD LIMIT	QC. LIMITS
Naphthalene	142	142	4.7	84	90	56	61	8	50	54- 94
2-Methylnaphthalene	142	142	5.4	189	211	130	* 145	11	50	75-132
Acenaphthylene	142	142	26	103	102	55	54	1.0	50	51-103
Acenaphthene	142	142	16	83	82	* 48	* 47	2	50	56- 97
Fluorene	142	142	14	96	94	* 57	* 56	2	50	61-103
Phenanthrene	142	142	142	236	236	66	66	0.0	50	58-122
Anthracene	142	142	23	146	151	87	90	3	50	55-113
Fluoranthene	142	142	288	439	434	107	103	1	50	68-126
Pyrene	142	142	290	339	384	35	66	12	50	33-133
Benzo(a)anthracene	142	142	123	233	262	78	98	12	50	50-138
Chrysene	142	142	128	193	226	46	69	16	50	44-132
Benzo(b)fluoranthene	142	142	349	404	439	* 39	64	8	50	44-119
Benzo(k)fluoranthene	142	142	70	152	192	58	86	23	50	40-120
Benzo(a)pyrene	142	142	151	206	228	* 39	54	10	50	52-113
Indeno(1,2,3-cd)pyrene	142	142	151	231	262	56	78	12	50	32-134
Dibenzo(a,h)anthracene	142	142	27	104	108	54	57	4	50	30-134
Benzo(g,h,i)perylene	142	142	76	113	140	* 26	45	21	50	43-121

FORM III SV-2

G6280.D & G6281.D

FORM 4
SEMIVOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE ID

WG64999-BLANK

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Lab File ID: G6121 Lab Sample ID: WG64999-1

Instrument ID: GCMS-G Date Extracted: 06/15/09

Matrix: (soil/water) WATER Date Analyzed: 06/23/09

Level:(low/med) LOW Time Analyzed: 1415

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	WG64999-LCS	WG64999-2	G6122	06/23/09	1457
02	WG64999-LCSD	WG64999-3	G6123	06/23/09	1540
03	WGL-SD-FB01-061109	SC3122-44	G6124	06/23/09	1622
04	WGL-SD-RB01-061109	SC3122-46	G6125	06/23/09	1704
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

COMMENTS:

FORM IVSV

FORM 4
SEMIVOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE ID

WG65398-BLANK

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Lab File ID: G6262 Lab Sample ID: WG65398-1RA

Instrument ID: GCMS-G Date Extracted: 06/25/09

Matrix: (soil/water) SOIL Date Analyzed: 07/06/09

Level:(low/med) LOW Time Analyzed: 1241

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	WG65398-LCS	WG65398-2RA	G6261	07/06/09	1159
02	WGL-SD-SD103-000.6	SC3122-3	G6263	07/06/09	1323
03	WGL-SD-SD102-000.6	SC3122-6	G6264	07/06/09	1406
04	WGL-SD-SD101-000.6	SC3122-9DL	G6265	07/06/09	1448
05	WGL-SD-DUP01-061109	SC3122-12	G6266	07/06/09	1530
06	WGL-SD-SD104-000.6	SC3122-15	G6267	07/06/09	1613
07	WGL-SD-SD106-000.6	SC3122-18DL	G6268	07/06/09	1655
08	WGL-SD-DUP02-061109	SC3122-21	G6269	07/06/09	1737
09	WGL-SD-SD107-000.6	SC3122-24DL	G6270	07/06/09	1820
10	WGL-SD-SD108-000.6	SC3122-27	G6271	07/06/09	1904
11	WGL-SD-SD105-000.6	SC3122-30	G6272	07/06/09	1948
12	WGL-SD-SD112-000.6	SC3122-33	G6273	07/06/09	2031
13	WGL-SD-SD110-000.6	SC3122-36	G6274	07/06/09	2114
14	WGL-SD-SD112-000.6	SC3122-33RA	G6277	07/07/09	1343
15	WGL-SD-SD109-000.6	SC3122-39	G6278	07/07/09	1425
16	L-SD-SD111-000.6	SC3122-42	G6279	07/07/09	1507
17	L-SD-SD111-000.6MS	WG65398-3	G6280	07/07/09	1549
18	L-SD-SD111-000.6MSD	WG65398-4	G6281	07/07/09	1631
19	WGL-SD-SD103-000.6	SC3122-3DL	G6282	07/07/09	1712
20	WGL-SD-SD102-000.6	SC3122-6DL	G6283	07/07/09	1754
21	WGL-SD-DUP01-061109	SC3122-12DL	G6284	07/07/09	1837
22	WGL-SD-SD105-000.6	SC3122-30DL	G6285	07/07/09	1920
23	WGL-SD-SD110-000.6	SC3122-36DL	G6286	07/07/09	2002
24	L-SD-SD111-000.6	SC3122-42DL	G6294	07/08/09	1341
25					
26					
27					
28					
29					
30					

COMMENTS:

FORM IVSV

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Lab File ID: GD420 DFTPP Injection Date: 06/09/09

Instrument ID: GCMS-G DFTPP Injection Time: 1142

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	33.6
68	Less than 2.0% of mass 69	0.1 (0.3)1
69	Less than 100.0% of mass 198	33.5
70	Less than 2.0% of mass 69	0.2 (0.6)1
127	40.0 - 60.0% of mass 198	50.3
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.7
275	10.0 - 30.0% of mass 198	24.7
365	1.0 - 100.0% of mass 198	3.5
441	0.0 - 100.0% of mass 443	13.5 (75.8)2
442	40.0 - 100.0% of mass 198	94.4
443	17.0 - 23.0% of mass 442	17.8 (18.9)3

1-Value is % mass 69 2-Value is % mass 443
3-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		SSTD1.00G0609	G5992	06/09/09	1203
02		SSTD8.00G0609	G5993	06/09/09	1246
03		SSTD5.00G0609	G5994	06/09/09	1328
04		SSTD2.00G0609	G5995	06/09/09	1410
05		SSTD0.50G0609	G5997	06/09/09	1534
06		SSTD0.20G0609	G5998	06/09/09	1616
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

FORM V SV

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Lab File ID: GD430 DFTPP Injection Date: 06/23/09

Instrument ID: GCMS-G DFTPP Injection Time: 1314

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	33.5
68	Less than 2.0% of mass 69	0.2 (0.5)1
69	Less than 100.0% of mass 198	35.1
70	Less than 2.0% of mass 69	0.2 (0.6)1
127	40.0 - 60.0% of mass 198	49.4
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.7
275	10.0 - 30.0% of mass 198	24.0
365	1.0 - 100.0% of mass 198	3.4
441	0.0 - 100.0% of mass 443	12.3 (76.9)2
442	40.0 - 100.0% of mass 198	82.9
443	17.0 - 23.0% of mass 442	16.1 (19.4)3

1-Value is % mass 69 2-Value is % mass 443
3-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		SSTD1.00G0623	G6120	06/23/09	1333
02	WG64999-BLANK	WG64999-1	G6121	06/23/09	1415
03	WG64999-LCS	WG64999-2	G6122	06/23/09	1457
04	WG64999-LCSD	WG64999-3	G6123	06/23/09	1540
05	WGL-SD-FB01-061109	SC3122-44	G6124	06/23/09	1622
06	WGL-SD-RB01-061109	SC3122-46	G6125	06/23/09	1704
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

FORM V SV

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Lab File ID: GD435 DFTPP Injection Date: 06/30/09

Instrument ID: GCMS-G DFTPP Injection Time: 1321

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	46.3
68	Less than 2.0% of mass 69	0.6 (1.5)1
69	Less than 100.0% of mass 198	43.6
70	Less than 2.0% of mass 69	0.2 (0.4)1
127	40.0 - 60.0% of mass 198	55.0
197	Less than 1.0% of mass 198	0.1
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.5
275	10.0 - 30.0% of mass 198	21.3
365	1.0 - 100.0% of mass 198	2.8
441	0.0 - 100.0% of mass 443	9.3 (85.4)2
442	40.0 - 100.0% of mass 198	60.7
443	17.0 - 23.0% of mass 442	10.8 (17.9)3

1-Value is % mass 69 2-Value is % mass 443
3-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		SSTD1.00G0630	G6206	06/30/09	1341
02		SSTD8.00G0630	G6207	06/30/09	1437
03		SSTD5.00G0630	G6208	06/30/09	1520
04		SSTD2.00G0630	G6209	06/30/09	1603
05		SSTD0.50G0630	G6211	06/30/09	1729
06		SSTD0.20G0630	G6212	06/30/09	1812
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

FORM V SV

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Lab File ID: GD438 DFTPP Injection Date: 07/06/09

Instrument ID: GCMS-G DFTPP Injection Time: 0930

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	42.6
68	Less than 2.0% of mass 69	0.6 (1.5)1
69	Less than 100.0% of mass 198	41.5
70	Less than 2.0% of mass 69	0.2 (0.6)1
127	40.0 - 60.0% of mass 198	51.7
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.7
275	10.0 - 30.0% of mass 198	22.8
365	1.0 - 100.0% of mass 198	2.9
441	0.0 - 100.0% of mass 443	10.8 (86.5)2
442	40.0 - 100.0% of mass 198	70.4
443	17.0 - 23.0% of mass 442	12.5 (17.7)3

1-Value is % mass 69 2-Value is % mass 443
3-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		SSTD1.00G0706	G6258	07/06/09	0949
02	WG65398-LCS	WG65398-2RA	G6261	07/06/09	1159
03	WG65398-BLANK	WG65398-1RA	G6262	07/06/09	1241
04	WGL-SD-SD103-000.6	SC3122-3	G6263	07/06/09	1323
05	WGL-SD-SD102-000.6	SC3122-6	G6264	07/06/09	1406
06	WGL-SD-SD101-000.6	SC3122-9DL	G6265	07/06/09	1448
07	WGL-SD-DUP01-061109	SC3122-12	G6266	07/06/09	1530
08	WGL-SD-SD104-000.6	SC3122-15	G6267	07/06/09	1613
09	WGL-SD-SD106-000.6	SC3122-18DL	G6268	07/06/09	1655
10	WGL-SD-DUP02-061109	SC3122-21	G6269	07/06/09	1737
11	WGL-SD-SD107-000.6	SC3122-24DL	G6270	07/06/09	1820
12	WGL-SD-SD108-000.6	SC3122-27	G6271	07/06/09	1904
13	WGL-SD-SD105-000.6	SC3122-30	G6272	07/06/09	1948
14	WGL-SD-SD112-000.6	SC3122-33	G6273	07/06/09	2031
15	WGL-SD-SD110-000.6	SC3122-36	G6274	07/06/09	2114
16					
17					
18					
19					
20					

FORM V SV

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Lab File ID: GD439 DFTPP Injection Date: 07/07/09

Instrument ID: GCMS-G DFTPP Injection Time: 1158

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	46.4
68	Less than 2.0% of mass 69	0.3 (0.7)1
69	Less than 100.0% of mass 198	43.3
70	Less than 2.0% of mass 69	0.3 (0.8)1
127	40.0 - 60.0% of mass 198	52.5
197	Less than 1.0% of mass 198	0.2
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.7
275	10.0 - 30.0% of mass 198	23.6
365	1.0 - 100.0% of mass 198	3.1
441	0.0 - 100.0% of mass 443	9.7 (74.8)2
442	40.0 - 100.0% of mass 198	70.3
443	17.0 - 23.0% of mass 442	13.0 (18.5)3

1-Value is % mass 69 2-Value is % mass 443
3-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		SSTD1.00G0707	G6275	07/07/09	1219
02	WGL-SD-SD112-000.6	SC3122-33RA	G6277	07/07/09	1343
03	WGL-SD-SD109-000.6	SC3122-39	G6278	07/07/09	1425
04	L-SD-SD111-000.6	SC3122-42	G6279	07/07/09	1507
05	L-SD-SD111-000.6MS	WG65398-3	G6280	07/07/09	1549
06	L-SD-SD111-000.6MSD	WG65398-4	G6281	07/07/09	1631
07	WGL-SD-SD103-000.6	SC3122-3DL	G6282	07/07/09	1712
08	WGL-SD-SD102-000.6	SC3122-6DL	G6283	07/07/09	1754
09	WGL-SD-DUP01-061109	SC3122-12DL	G6284	07/07/09	1837
10	WGL-SD-SD105-000.6	SC3122-30DL	G6285	07/07/09	1920
11	WGL-SD-SD110-000.6	SC3122-36DL	G6286	07/07/09	2002
12					
13					
14					
15					
16					
17					
18					
19					
20					

FORM V SV

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Lab File ID: GD440 DFTPP Injection Date: 07/08/09

Instrument ID: GCMS-G DFTPP Injection Time: 1234

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	51.6
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Less than 100.0% of mass 198	45.9
70	Less than 2.0% of mass 69	0.2 (0.5)1
127	40.0 - 60.0% of mass 198	56.1
197	Less than 1.0% of mass 198	0.3
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.6
275	10.0 - 30.0% of mass 198	21.9
365	1.0 - 100.0% of mass 198	3.1
441	0.0 - 100.0% of mass 443	8.6 (73.7)2
442	40.0 - 100.0% of mass 198	58.5
443	17.0 - 23.0% of mass 442	11.7 (20.0)3

1-Value is % mass 69 2-Value is % mass 443
3-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		SSTD1.00G0708	G6293	07/08/09	1254
02	L-SD-SD111-000.6	SC3122-42DL	G6294	07/08/09	1341
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

FORM V SV

FORM 6
SEMIVOLATILE INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GCMS-G Calibration Date(s): 06/09/09 06/09/09

Column: DB5-MS ID: 0.25 (mm) Calibration Time(s): 1203 1616

LAB FILE ID: RF0.2: G5998 RF0.5: G5997 RF1: G5992
RF2: G5995 RF5: G5994 RF8: G5993

COMPOUND	RF0.2	RF0.5	RF1	RF2	RF5	RF8	CURVE	COEFFICENTS A0	A1	A2	%RSD OR R^2	MAX %RSD OR R^2
Naphthalene	9143	42814	95418	181260	465920	730220	LINR	-0.1151042	1.48883112		0.99667	0.99000
2-Methylnaphthalene	4276	19944	61439	125780	384480	576870	2ORDR	0.23327640	1.39911307	8.487e-002	0.99605	0.99000
Acenaphthylene	1.362	1.558	1.452	1.535	1.638	1.570	AVRG		1.51898696		6.416	15.000
Acenaphthene	1.215	1.162	0.983	0.995	1.027	0.967	AVRG		1.05825366		9.846	15.000
Fluorene	1.014	1.091	1.017	1.020	1.080	1.043	AVRG		1.04426953		3.238	15.000
Phenanthrene	0.642	0.730	0.748	0.795	0.885	0.928	AVRG		0.78789915		13.389	15.000
Anthracene	1.128	1.179	1.040	1.060	1.028	1.038	AVRG		1.07879612		5.632	15.000
Fluoranthene	0.692	0.821	0.737	0.744	0.815	0.871	AVRG		0.78027978		8.514	15.000
Pyrene	1.534	1.508	1.340	1.396	1.315	1.253	AVRG		1.39099920		7.981	15.000
Benzo(a)anthracene	2802	11426	33555	52152	201790	398650	LINR	0.21908462	1.24952080		0.99727	0.99000
Chrysene	1.377	1.355	1.141	1.133	1.051	0.937	AVRG		1.16566948		14.722	15.000
Benzo(b)fluoranthene	2155	7085	23292	30079	149300	253530	2ORDR	0.25204381	1.14718159	1.401e-002	0.99231	0.99000
Benzo(k)fluoranthene	2.034	1.893	1.560	1.808	1.516	1.496	AVRG		1.71777032		13.114	15.000
Benzo(a)pyrene	1.140	0.872	0.756	0.861	0.874	0.856	AVRG		0.89322157		14.437	15.000
Indeno(1,2,3-cd)pyrene	0.842	0.770	0.663	0.694	0.742	0.759	AVRG		0.74494716		8.399	15.000
Dibenzo(a,h)anthracene	2765	6954	17852	26338	96958	190310	LINR	0.10207017	1.75307739		0.99848	0.99000
Benzo(g,h,i)perylene	0.910	0.860	0.681	0.746	0.748	0.738	AVRG		0.78071073		11.044	15.000
2-Methylnaphthalene-D10	1.079	1.137	0.964	1.064	1.064	0.979	AVRG		1.04783901		6.224	15.000
Fluorene-D10	0.982	1.100	0.994	0.781	0.894	0.871	AVRG		0.93703168		11.928	15.000
Pyrene-D10	1.017	1.008	0.902	0.927	0.882	0.854	AVRG		0.93163622		7.190	15.000

FORM VI SV

FORM 6
SEMIVOLATILE INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GCMS-G Calibration Date(s): 06/30/09 06/30/09

Column: RTX5-MS ID: 0.25 (mm) Calibration Time(s): 1341 1812

LAB FILE ID: RF0.2: G6212 RF0.5: G6211 RF1: G6206
RF2: G6209 RF5: G6208 RF8: G6207

COMPOUND	RF0.2	RF0.5	RF1	RF2	RF5	RF8	CURVE	COEFFICENTS A0	COEFFICENTS A1	%RSD OR R^2	MAX %RSD OR R^2	
Naphthalene	0.822	0.808	0.771	0.781	0.769	0.774	AVRG		0.78742233	2.773	15.000	
2-Methylnaphthalene	0.464	0.496	0.490	0.506	0.536	0.551	AVRG		0.50730315	6.280	15.000	
Acenaphthylene	1.634	1.650	1.641	1.830	1.939	2.108	AVRG		1.80024737	10.847	15.000	
Acenaphthene	1.521	1.289	1.102	1.198	1.238	1.295	AVRG		1.27383998	11.011	15.000	
Fluorene	1.191	1.191	1.206	1.292	1.309	1.375	AVRG		1.26062907	6.043	15.000	
Phenanthrene	1.059	1.134	1.019	1.123	1.153	1.327	AVRG		1.13563166	9.361	15.000	
Anthracene	0.986	0.934	0.726	0.771	0.850	0.861	AVRG		0.85482025	11.360	15.000	
Fluoranthene	0.857	0.860	0.690	0.774	0.826	0.994	AVRG		0.83347524	12.157	15.000	
Pyrene	1.624	1.561	1.392	1.494	1.437	1.521	AVRG		1.50492808	5.572	15.000	
Benzo(a)anthracene	0.705	0.698	0.789	0.763	0.799	0.928	AVRG		0.78054204	10.725	15.000	
Chrysene	4090	10304	17138	32074	92609	135520	LINR	4.905e-002	0.99862276	0.99512	0.99000	
Benzo(b)fluoranthene	0.762	0.735	0.820	0.810	0.884	1.020	AVRG		0.83862302	12.257	15.000	
Benzo(k)fluoranthene	1.676	1.520	1.091	1.297	1.238	1.395	AVRG		1.36961539	15.224	15.000	<-
Benzo(a)pyrene	1.096	0.943	0.757	0.861	0.892	0.971	AVRG		0.91997024	12.410	15.000	
Indeno(1,2,3-cd)pyrene	0.470	0.408	0.504	0.443	0.509	0.570	AVRG		0.48395274	11.760	15.000	
Dibenzo(a,h)anthracene	0.588	0.508	0.552	0.533	0.577	0.624	AVRG		0.56356256	7.336	15.000	
Benzo(g,h,i)perylene	2379	5204	12771	20294	52710	73696	LINR	-7.99e-003	1.26218652	0.99867	0.99000	
2-Methylnaphthalene-D10	1.264	0.988	1.050	1.154	1.172	1.275	AVRG		1.15044161	9.940	15.000	
Fluorene-D10	0.968	0.979	1.010	1.081	1.117	1.155	AVRG		1.05182614	7.349	15.000	
Pyrene-D10	1.015	0.952	0.733	0.830	0.871	1.066	AVRG		0.91134108	13.553	15.000	

FORM VI SV

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GCMS-G Calibration Date: 06/23/09 Time: 1333

Lab File ID: G6120 Init. Calib. Date(s): 06/09/09 06/09/09

Init. Calib. Times: 1203 1616

GC Column: DB5-MS ID: 0.25 (mm)

COMPOUND	RRF or AMOUNT	RRF1.0000 or AMOUNT	CCAL RRF1.0000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
Naphthalene	1.2171000	1.0000000	0.8793300	0.01	21.71	100.00	LINR
2-Methylnaphthalene	0.9676500	1.0000000	0.5364100	0.01	-3.24	100.00	2RDR
Acenaphthylene	1.5190000	1.6235000	1.6235000	0.01	6.88	100.00	AVRG
Acenaphthene	1.0580000	1.1436000	1.1436000	0.01	8.09	20.00	AVRG
Fluorene	1.0440000	1.1611000	1.1611000	0.01	11.22	100.00	AVRG
Phenanthrene	0.7880000	0.9364300	0.9364300	0.01	18.84	100.00	AVRG
Anthracene	1.0790000	1.1013000	1.1013000	0.01	2.07	100.00	AVRG
Fluoranthene	0.7800000	0.9200500	0.9200500	0.01	17.96	20.00	AVRG
Pyrene	1.3910000	1.2865000	1.2865000	0.01	-7.51	100.00	AVRG
Benzo(a)anthracene	1.1503000	1.0000000	0.7803200	0.01	15.03	100.00	LINR
Chrysene	1.1660000	1.2352000	1.2352000	0.01	5.93	100.00	AVRG
Benzo(b)fluoranthene	0.9217300	1.0000000	0.6218000	0.01	-7.83	100.00	2RDR
Benzo(k)fluoranthene	1.7180000	1.9927000	1.9927000	0.01	15.99	100.00	AVRG
Benzo(a)pyrene	0.8930000	0.8087400	0.8087400	0.01	-9.44	20.00	AVRG
Indeno(1,2,3-cd)pyrene	0.7450000	0.7636100	0.7636100	0.01	2.50	100.00	AVRG
Dibenzo(a,h)anthracene	1.0749000	1.0000000	0.5665800	0.01	7.49	100.00	LINR
Benzo(g,h,i)perylene	0.7800000	0.8253000	0.8253000	0.01	5.81	100.00	AVRG
2-Methylnaphthalene-D10	1.0480000	1.0798000	1.0798000	0.01	3.03	100.00	AVRG
Fluorene-D10	0.9370000	0.8157700	0.8157700	0.01	-12.94	100.00	AVRG
Pyrene-D10	0.9320000	0.8137600	0.8137600	0.01	-12.69	100.00	AVRG

FORM VII PEST

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GCMS-G Calibration Date: 07/06/09 Time: 0949

Lab File ID: G6258 Init. Calib. Date(s): 06/30/09 06/30/09

Init. Calib. Times: 1341 1812

GC Column: RTX5-MS ID: 0.25 (mm)

COMPOUND	RRF or AMOUNT	RRF1.0000 or AMOUNT	CCAL RRF1.0000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
Naphthalene	0.7880000	0.7446900	0.7446900	0.01	-5.50	100.00	AVRG
2-Methylnaphthalene	0.5070000	0.3766000	0.3766000	0.01	-25.72	100.00	AVRG
Acenaphthylene	1.8000000	1.7052000	1.7052000	0.01	-5.27	100.00	AVRG
Acenaphthene	1.2740000	1.1259000	1.1259000	0.01	-11.62	20.00	AVRG
Fluorene	1.2610000	1.2843000	1.2843000	0.01	1.85	100.00	AVRG
Phenanthrene	1.1360000	1.0564000	1.0564000	0.01	-7.01	100.00	AVRG
Anthracene	0.8550000	0.9521000	0.9521000	0.01	11.36	100.00	AVRG
Fluoranthene	0.8340000	0.8167800	0.8167800	0.01	-2.06	20.00	AVRG
Pyrene	1.5050000	1.3938000	1.3938000	0.01	-7.39	100.00	AVRG
Benzo(a)anthracene	0.7800000	0.7544200	0.7544200	0.01	-3.28	100.00	AVRG
Chrysene	1.0514000	1.0000000	1.0136000	0.01	5.14	100.00	LINR
Benzo(b)fluoranthene	0.8380000	0.8694600	0.8694600	0.01	3.75	100.00	AVRG
Benzo(k)fluoranthene	1.3700000	1.1255000	1.1255000	0.01	-17.85	100.00	AVRG
Benzo(a)pyrene	0.9200000	0.8779200	0.8779200	0.01	-4.57	20.00	AVRG
Indeno(1,2,3-cd)pyrene	0.4840000	0.5175800	0.5175800	0.01	6.94	100.00	AVRG
Dibenzo(a,h)anthracene	0.5640000	0.6045800	0.6045800	0.01	7.20	100.00	AVRG
Benzo(g,h,i)perylene	0.9081900	1.0000000	0.7246000	0.01	-9.18	100.00	LINR
2-Methylnaphthalene-D10	1.1500000	0.9288300	0.9288300	0.01	-19.23	100.00	AVRG
Fluorene-D10	1.0520000	1.0287000	1.0287000	0.01	-2.21	100.00	AVRG
Pyrene-D10	0.9110000	0.8947300	0.8947300	0.01	-1.78	100.00	AVRG

FORM VII PEST

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GCMS-G Calibration Date: 07/07/09 Time: 1219

Lab File ID: G6275 Init. Calib. Date(s): 06/30/09 06/30/09

Init. Calib. Times: 1341 1812

GC Column: RTX5-MS ID: 0.25 (mm)

COMPOUND	RRF or AMOUNT	RRF1.0000 or AMOUNT	CCAL RRF1.0000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
Naphthalene	0.7880000	0.7667100	0.7667100	0.01	-2.70	100.00	AVRG
2-Methylnaphthalene	0.5070000	0.4590200	0.4590200	0.01	-9.46	100.00	AVRG
Acenaphthylene	1.8000000	1.7243000	1.7243000	0.01	-4.20	100.00	AVRG
Acenaphthene	1.2740000	1.0664000	1.0664000	0.01	-16.30	20.00	AVRG
Fluorene	1.2610000	1.1488000	1.1488000	0.01	-8.90	100.00	AVRG
Phenanthrene	1.1360000	0.8534400	0.8534400	0.01	-24.87	100.00	AVRG
Anthracene	0.8550000	1.0250000	1.0250000	0.01	19.88	100.00	AVRG
Fluoranthene	0.8340000	0.8509800	0.8509800	0.01	2.04	20.00	AVRG
Pyrene	1.5050000	1.2734000	1.2734000	0.01	-15.39	100.00	AVRG
Benzo(a)anthracene	0.7800000	0.8088800	0.8088800	0.01	3.70	100.00	AVRG
Chrysene	1.0312000	1.0000000	0.9933100	0.01	3.12	100.00	LINR
Benzo(b)fluoranthene	0.8380000	0.9354900	0.9354900	0.01	11.63	100.00	AVRG
Benzo(k)fluoranthene	1.3700000	1.0492000	1.0492000	0.01	-23.42	100.00	AVRG
Benzo(a)pyrene	0.9200000	0.9124900	0.9124900	0.01	-0.82	20.00	AVRG
Indeno(1,2,3-cd)pyrene	0.4840000	0.5583400	0.5583400	0.01	15.36	100.00	AVRG
Dibenzo(a,h)anthracene	0.5640000	0.5734300	0.5734300	0.01	1.67	100.00	AVRG
Benzo(g,h,i)perylene	0.9499200	1.0000000	0.7576700	0.01	-5.01	100.00	LINR
2-Methylnaphthalene-D10	1.1500000	1.0464000	1.0464000	0.01	-9.01	100.00	AVRG
Fluorene-D10	1.0520000	0.9325600	0.9325600	0.01	-11.35	100.00	AVRG
Pyrene-D10	0.9110000	0.8443400	0.8443400	0.01	-7.32	100.00	AVRG

FORM VII PEST

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Instrument ID: GCMS-G Calibration Date: 07/08/09 Time: 1254

Lab File ID: G6293 Init. Calib. Date(s): 06/30/09 06/30/09

Init. Calib. Times: 1341 1812

GC Column: RTX5-MS ID: 0.25 (mm)

COMPOUND	RRF or AMOUNT	RRF1.0000 or AMOUNT	CCAL RRF1.0000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
Naphthalene	0.7880000	0.7550000	0.7550000	0.01	-4.19	100.00	AVRG
2-Methylnaphthalene	0.5070000	0.5295100	0.5295100	0.01	4.44	100.00	AVRG
Acenaphthylene	1.8000000	1.7475000	1.7475000	0.01	-2.92	100.00	AVRG
Acenaphthene	1.2740000	1.0900000	1.0900000	0.01	-14.44	20.00	AVRG
Fluorene	1.2610000	1.1572000	1.1572000	0.01	-8.23	100.00	AVRG
Phenanthrene	1.1360000	0.9188200	0.9188200	0.01	-19.12	100.00	AVRG
Anthracene	0.8550000	1.0745000	1.0745000	0.01	25.67	100.00	AVRG
Fluoranthene	0.8340000	0.9023900	0.9023900	0.01	8.20	20.00	AVRG
Pyrene	1.5050000	1.3948000	1.3948000	0.01	-7.32	100.00	AVRG
Benzo(a)anthracene	0.7800000	0.8343500	0.8343500	0.01	6.97	100.00	AVRG
Chrysene	0.9569400	1.0000000	0.9189700	0.01	-4.31	100.00	LINR
Benzo(b)fluoranthene	0.8380000	0.8886200	0.8886200	0.01	6.04	100.00	AVRG
Benzo(k)fluoranthene	1.3700000	1.0602000	1.0602000	0.01	-22.61	100.00	AVRG
Benzo(a)pyrene	0.9200000	0.8697000	0.8697000	0.01	-5.47	20.00	AVRG
Indeno(1,2,3-cd)pyrene	0.4840000	0.6581200	0.6581200	0.01	35.98	100.00	AVRG
Dibenzo(a,h)anthracene	0.5640000	0.6444500	0.6444500	0.01	14.26	100.00	AVRG
Benzo(g,h,i)perylene	0.9850300	1.0000000	0.7854800	0.01	-1.50	100.00	LINR
2-Methylnaphthalene-D10	1.1500000	1.0302000	1.0302000	0.01	-10.42	100.00	AVRG
Fluorene-D10	1.0520000	0.9741300	0.9741300	0.01	-7.40	100.00	AVRG
Pyrene-D10	0.9110000	0.9658000	0.9658000	0.01	6.02	100.00	AVRG

FORM VII PEST

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Lab File ID (Standard): G6120 Date Analyzed: 06/23/09

Instrument ID: GCMS-G Time Analyzed: 1333

	IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
12 HOUR STD	19745	8.59	74383	11.44	34298	15.52
UPPER LIMIT	39490	9.13	148766	11.98	68596	16.06
LOWER LIMIT	9873	8.05	37192	10.90	17149	14.98

	CLIENT SAMPLE ID	LAB SAMPLE ID						
01	WG64999-BLANK	WG64999-1	20262	8.55	69833	11.51	32551	15.55
02	WG64999-LCS	WG64999-2	19510	8.57	78482	11.40	33576	15.52
03	WG64999-LCSD	WG64999-3	19681	8.57	76108	11.40	34859	15.52
04	WGL-SD-FB01-061109	SC3122-44	20270	8.55	74482	11.45	33343	15.53
05	WGL-SD-RB01-061109	SC3122-46	21042	8.55	77020	11.45	34073	15.52
06								
07								
08								
09								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

IS1 (DCB) = 1,4-Dichlorobenzene-D4
IS2 (NPT) = Naphthalene-D8
IS3 (ANT) = Acenaphthene-D10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.54 minutes of internal standard RT
RT LOWER LIMIT = - 0.54 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM VIII SV

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Lab File ID (Standard): G6120 Date Analyzed: 06/23/09

Instrument ID: GCMS-G Time Analyzed: 1333

		IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
12 HOUR STD		53192	18.99	44873	25.28	35767	28.45
UPPER LIMIT		106384	19.53	89746	25.82	71534	28.99
LOWER LIMIT		26596	18.45	22437	24.74	17884	27.91
	CLIENT SAMPLE ID	LAB SAMPLE ID					
01	WG64999-BLANK	WG64999-1	52493	19.05	35135	25.32	25598	28.48
02	WG64999-LCS	WG64999-2	53835	18.99	43806	25.28	32012	28.45
03	WG64999-LCSD	WG64999-3	55949	18.99	42517	25.27	27208	28.45
04	WGL-SD-FB01-061109	SC3122-44	53665	19.04	36699	25.33	23913	28.48
05	WGL-SD-RB01-061109	SC3122-46	58830	18.98	48401	25.28	37359	28.45
06								
07								
08								
09								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

IS4 (PHN) = Phenanthrene-D10
IS5 (CRY) = Chrysene-D12
IS6 (PRY) = Perylene-D12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.54 minutes of internal standard RT
RT LOWER LIMIT = - 0.54 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM VIII SV

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Lab File ID (Standard): G6258 Date Analyzed: 07/06/09

Instrument ID: GCMS-G Time Analyzed: 0949

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
12 HOUR STD		12086	8.60	41179	11.39	17753	15.52
UPPER LIMIT		24172	9.14	82358	11.93	35506	16.06
LOWER LIMIT		6043	8.06	20590	10.85	8877	14.98
CLIENT SAMPLE ID	LAB SAMPLE ID						
01 WG65398-LCS	WG65398-2RA	11728	8.61	41805	11.39	16984	15.52
02 WG65398-BLANK	WG65398-1RA	12474	8.60	41716	11.39	20215	15.53
03 WGL-SD-SD103-000.6	SC3122-3	11389	8.61	40132	11.39	19503	15.54
04 WGL-SD-SD102-000.6	SC3122-6	10865	8.61	40334	11.41	28409	15.55
05 WGL-SD-SD101-000.6	SC3122-9DL	11188	8.61	47878	11.41	23018	15.55
06 WGL-SD-DUP01-061109	SC3122-12	12204	8.61	53322	11.41	32753	15.57
07 WGL-SD-SD104-000.6	SC3122-15	10431	8.61	36288	11.41	19698	15.55
08 WGL-SD-SD106-000.6	SC3122-18DL	9639	8.61	34325	11.41	19560	15.55
09 WGL-SD-DUP02-061109	SC3122-21	10191	8.61	40631	11.41	21509	15.57
10 WGL-SD-SD107-000.6	SC3122-24DL	11032	8.62	37929	11.43	21661	15.57
11 WGL-SD-SD108-000.6	SC3122-27	11546	8.62	38766	11.43	22538	15.57
12 WGL-SD-SD105-000.6	SC3122-30	8424	8.62	29244	11.43	17233	15.57
13 WGL-SD-SD112-000.6	SC3122-33	12591	8.64	46899	11.43	23590	15.58
14 WGL-SD-SD110-000.6	SC3122-36	9505	8.63	31760	11.43	20891	15.60
15							
16							
17							
18							
19							
20							

IS1 (DCB) = 1,4-Dichlorobenzene-D4
IS2 (NPT) = Naphthalene-D8
IS3 (ANT) = Acenaphthene-D10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.54 minutes of internal standard RT
RT LOWER LIMIT = - 0.54 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM VIII SV

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Lab File ID (Standard): G6258 Date Analyzed: 07/06/09

Instrument ID: GCMS-G Time Analyzed: 0949

	IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
12 HOUR STD	29081	19.06	19660	25.37	14271	28.52
UPPER LIMIT	58162	19.60	39320	25.91	28542	29.06
LOWER LIMIT	14541	18.52	9830	24.83	7136	27.98

	CLIENT SAMPLE ID	LAB SAMPLE ID						
01	WG65398-LCS	WG65398-2RA	28487	19.06	22136	25.37	17526	28.52
02	WG65398-BLANK	WG65398-1RA	30872	19.06	21472	25.37	16167	28.52
03	WGL-SD-SD103-000.6	SC3122-3	22406	19.06	19151	25.40	11313	28.56
04	WGL-SD-SD102-000.6	SC3122-6	33466	19.09	26804	25.44	11715	28.57
05	WGL-SD-SD101-000.6	SC3122-9DL	31690	19.09	28038	25.46	11664	28.59
06	WGL-SD-DUP01-061109	SC3122-12	38187	19.12	25495	25.48	11260	28.61
07	WGL-SD-SD104-000.6	SC3122-15	33202	19.09	22350	25.42	13886	28.59
08	WGL-SD-SD106-000.6	SC3122-18DL	26470	19.12	20136	25.44	10255	28.59
09	WGL-SD-DUP02-061109	SC3122-21	34755	19.12	24292	25.48	12495	28.63
10	WGL-SD-SD107-000.6	SC3122-24DL	31171	19.15	22276	25.50	9355	28.63
11	WGL-SD-SD108-000.6	SC3122-27	32842	19.12	20947	25.48	10005	28.65
12	WGL-SD-SD105-000.6	SC3122-30	25922	19.15	23834	25.52	14563	28.67
13	WGL-SD-SD112-000.6	SC3122-33	28958	19.17	18366	25.54	5095*	28.67
14	WGL-SD-SD110-000.6	SC3122-36	23991	19.15	18921	25.52	13599	28.69
15								
16								
17								
18								
19								
20								

IS4 (PHN) = Phenanthrene-D10
IS5 (CRY) = Chrysene-D12
IS6 (PRY) = Perylene-D12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.54 minutes of internal standard RT
RT LOWER LIMIT = - 0.54 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM VIII SV

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Lab File ID (Standard): G6275 Date Analyzed: 07/07/09

Instrument ID: GCMS-G Time Analyzed: 1219

	IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
12 HOUR STD	11022	8.62	39151	11.41	17852	15.55
UPPER LIMIT	22044	9.16	78302	11.95	35704	16.09
LOWER LIMIT	5511	8.08	19576	10.87	8926	15.01

	CLIENT SAMPLE ID	LAB SAMPLE ID						
01	WGL-SD-SD112-000.6	SC3122-33RA	11721	8.62	48477	11.43	21331	15.58
02	WGL-SD-SD109-000.6	SC3122-39	11189	8.62	44307	11.43	26573	15.60
03	L-SD-SD111-000.6	SC3122-42	11654	8.64	42880	11.43	22461	15.60
04	L-SD-SD111-000.6MS	WG65398-3	9508	8.64	29346	11.45	19428	15.58
05	L-SD-SD111-000.6MSD	WG65398-4	9529	8.64	25410	11.45	19298	15.58
06	WGL-SD-SD103-000.6	SC3122-3DL	8507	8.63	9223*	11.45	17785	15.60
07	WGL-SD-SD102-000.6	SC3122-6DL	8998	8.64	22912	11.45	19200	15.60
08	WGL-SD-DUP01-061109	SC3122-12DL	8296	8.64	18892*	11.45	18932	15.60
09	WGL-SD-SD105-000.6	SC3122-30DL	7238	8.64	11907*	11.45	14324	15.60
10	WGL-SD-SD110-000.6	SC3122-36DL	9553	8.64	28520	11.45	18935	15.60
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

IS1 (DCB) = 1,4-Dichlorobenzene-D4
IS2 (NPT) = Naphthalene-D8
IS3 (ANT) = Acenaphthene-D10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.54 minutes of internal standard RT
RT LOWER LIMIT = - 0.54 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM VIII SV

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Lab File ID (Standard): G6275 Date Analyzed: 07/07/09

Instrument ID: GCMS-G Time Analyzed: 1219

	IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
12 HOUR STD	27962	19.12	20729	25.42	16592	28.57
UPPER LIMIT	55924	19.66	41458	25.96	33184	29.11
LOWER LIMIT	13981	18.58	10365	24.88	8296	28.03

	CLIENT SAMPLE ID	LAB SAMPLE ID						
01	WGL-SD-SD112-000.6	SC3122-33RA	34905	19.15	19998	25.52	7188*	28.65
02	WGL-SD-SD109-000.6	SC3122-39	31205	19.15	21769	25.54	9626	28.69
03	L-SD-SD111-000.6	SC3122-42	32694	19.17	22064	25.54	8915	28.69
04	L-SD-SD111-000.6MS	WG65398-3	27823	19.15	20428	25.52	9649	28.69
05	L-SD-SD111-000.6MSD	WG65398-4	26585	19.18	17268	25.52	7922*	28.69
06	WGL-SD-SD103-000.6	SC3122-3DL	25922	19.15	14855	25.48	10312	28.67
07	WGL-SD-SD102-000.6	SC3122-6DL	23083	19.15	15364	25.50	7213*	28.69
08	WGL-SD-DUP01-061109	SC3122-12DL	24518	19.17	14510	25.52	8039*	28.69
09	WGL-SD-SD105-000.6	SC3122-30DL	23512	19.17	15844	25.52	8371	28.71
10	WGL-SD-SD110-000.6	SC3122-36DL	31572	19.17	20050	25.54	7838*	28.73
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

IS4 (PHN) = Phenanthrene-D10
IS5 (CRY) = Chrysene-D12
IS6 (PRY) = Perylene-D12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.54 minutes of internal standard RT
RT LOWER LIMIT = - 0.54 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM VIII SV

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Lab File ID (Standard): G6293 Date Analyzed: 07/08/09

Instrument ID: GCMS-G Time Analyzed: 1254

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
12 HOUR STD		10616	8.61	39378	11.41	17725	15.55
UPPER LIMIT		21232	9.15	78756	11.95	35450	16.09
LOWER LIMIT		5308	8.07	19689	10.87	8863	15.01
CLIENT SAMPLE ID	LAB SAMPLE ID						
01 L-SD-SD111-000.6	SC3122-42DL	9552	8.61	32075	11.41	16275	15.57
02							
03							
04							
05							
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

IS1 (DCB) = 1,4-Dichlorobenzene-D4
IS2 (NPT) = Naphthalene-D8
IS3 (ANT) = Acenaphthene-D10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.54 minutes of internal standard RT
RT LOWER LIMIT = - 0.54 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM VIII SV

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO 407 NAS WEYMOUTH SDG No.: SC3122

Lab File ID (Standard): G6293 Date Analyzed: 07/08/09

Instrument ID: GCMS-G Time Analyzed: 1254

		IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
12 HOUR STD		25370	19.12	16979	25.42	13279	28.59
UPPER LIMIT		50740	19.66	33958	25.96	26558	29.13
LOWER LIMIT		12685	18.58	8490	24.88	6640	28.05
CLIENT SAMPLE ID	LAB SAMPLE ID						
01 L-SD-SD111-000.6	SC3122-42DL	26713	19.12	13772	25.46	9572	28.61
02							
03							
04							
05							
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

IS4 (PHN) = Phenanthrene-D10
IS5 (CRY) = Chrysene-D12
IS6 (PRY) = Perylene-D12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.54 minutes of internal standard RT
RT LOWER LIMIT = - 0.54 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM VIII SV

SAMPLE DATA SUMMARY PACKAGE

KATAHDIN ANALYTICAL SERVICES - ORGANIC DATA QUALIFIERS

The sampled date indicated on the attached Report(s) of Analysis (ROA) is the date for which a grab sample was collected or the date for which a composite sample was completed. Beginning and start times for composite samples can be found on the Chain-of-Custody.

U Indicates the compound was analyzed for but not detected above the laboratory Practical Quantitation Limit.

* Compound recovery outside of quality control limits.

D Indicates the result was obtained from analysis of a diluted sample. Surrogate recoveries may not be calculable.

E Estimated value. This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis.

J Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Practical Quantitation Limit (PQL), but above the Method Detection Limit (MDL).

or

J Used for Pesticide/Aroclor analyte when there is a greater than 40% difference for detected concentrations between the two GC columns.

B Indicates the analyte was detected in the laboratory method blank analyzed concurrently with the sample.

N Presumptive evidence of a compound based on a mass spectral library search.

A Indicates that a tentatively identified compound is a suspected aldol-condensation product.

P Used for Pesticide/Aroclor analyte when there is a greater than 25% difference for detected concentrations between the two GC columns. (for CLP methods only).

KATAHDIN ANALYTICAL SERVICES – INORGANIC DATA QUALIFIERS

(Refer to BOD Qualifiers Page for BOD footnotes)

The sampled date indicated on the attached Report(s) of Analysis (ROA) is the date for which a grab sample was collected or the date for which a composite sample was completed. Beginning and start times for composite samples can be found on the Chain-of-Custody.

U — Indicates the compound was analyzed for but not detected above the laboratory Practical Quantitation Limit.

E — Estimated value. This flag identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis.

J — Estimated value. The analyte was detected in the sample at a concentration less than the laboratory Practical Quantitation Limit (PQL), but above the Method Detection Limit (MDL).

I-7 — The laboratory's Practical Quantitation Level could not be achieved for this parameter due to sample composition, matrix effects, sample volume, or quantity used for analysis.

A-4 — Please refer to cover letter or narrative for further information.

MCL — Maximum Contaminant Level

NL — No limit

NFL — No Free Liquid Present

FLP — Free Liquid Present

NOD — No Odor Detected

TON — Threshold Odor Number

H1 — Please note that the regulatory holding time for pH is "analyze immediately". Ideally, this analysis must be performed in the field at the time of sample collection. pH for this sample was not performed at the time of sample collection. The analysis was performed as soon as possible after receipt by the laboratory.

H2 — Please note that the regulatory holding time for DO is "analyze immediately". Ideally, this analysis must be performed in the field at the time of sample collection. DO for this sample was not performed at the time of sample collection. The analysis was performed as soon as possible after receipt by the laboratory.

H3 — Please note that the regulatory holding time for sulfite is "analyze immediately". Ideally, this analysis must be performed in the field at the time of sample collection. Sulfite for this sample was not performed at the time of sample collection. The analysis was performed as soon as possible after receipt by the laboratory.

H4 — Please note that the regulatory holding time for residual chlorine is "analyze immediately". Ideally, this analysis must be performed in the field at the time of sample collection. Residual chlorine for this sample was not performed at the time of sample collection. The analysis was performed as soon as possible after receipt by the laboratory.

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 05/26/09
Received Date: 07/01/09
Extraction Date:
Analysis Date: 07-JUL-2009 12:35
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-1
Client ID: WGL-GW-TB01-062909
SDG: SC3624
Extracted by:
Extraction Method: SW846 5030
Analyst: TTC
Analysis Method: SW846 8260B
Lab Prep Batch: WG65935
Units: ug/l

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
75-71-8	Dichlorodifluoromethane	U	2	1.0	2	2	0.4
74-87-3	Chloromethane	U	2	1.0	2	2	0.3
75-01-4	Vinyl chloride	U	2	1.0	2	2	0.3
74-83-9	Bromomethane	U	2	1.0	2	2	0.3
75-00-3	Chloroethane	U	2	1.0	2	2	0.3
75-69-4	Trichlorofluoromethane	U	2	1.0	2	2	0.5
75-35-4	1,1-Dichloroethene	U	1	1.0	1	1	0.3
67-64-1	Acetone	U	5	1.0	5	5	2
75-15-0	Carbon Disulfide	U	1	1.0	1	1	0.2
79-20-9	Methyl Acetate	U	1	1.0	1	1	0.8
75-09-2	Methylene Chloride	U	5	1.0	5	5	0.3
156-60-5	trans-1,2-Dichloroethene	U	1	1.0	1	1	0.4
1634-04-4	Methyl tert-butyl ether	U	1	1.0	1	1	0.5
75-34-3	1,1-Dichloroethane	U	1	1.0	1	1	0.2
156-59-2	cis-1,2-Dichloroethene	U	1	1.0	1	1	0.2
78-93-3	2-Butanone	U	5	1.0	5	5	1
67-66-3	Chloroform	U	1	1.0	1	1	0.2
71-55-6	1,1,1-Trichloroethane	U	1	1.0	1	1	0.3
1735-17-7	Cyclohexane	U	1	1.0	1	1	0.4
56-23-5	Carbon Tetrachloride	U	1	1.0	1	1	0.4
71-43-2	Benzene	U	1	1.0	1	1	0.3
107-06-2	1,2-Dichloroethane	U	1	1.0	1	1	0.3
79-01-6	Trichloroethene	U	1	1.0	1	1	0.4
108-87-2	Methylcyclohexane	U	1	1.0	1	1	0.4
78-87-5	1,2-Dichloropropane	U	1	1.0	1	1	0.3
75-27-4	Bromodichloromethane	U	1	1.0	1	1	0.3
10061-01-5	cis-1,3-dichloropropene	U	1	1.0	1	1	0.3
108-10-1	4-methyl-2-pentanone	U	5	1.0	5	5	2
108-88-3	Toluene	U	1	1.0	1	1	0.4
10061-02-6	trans-1,3-Dichloropropene	U	1	1.0	1	1	0.2
79-00-5	1,1,2-Trichloroethane	U	1	1.0	1	1	0.3
127-18-4	Tetrachloroethene	U	1	1.0	1	1	0.4
591-78-6	2-Hexanone	U	5	1.0	5	5	2
124-48-1	Dibromochloromethane	U	1	1.0	1	1	0.3
106-93-4	1,2-Dibromoethane	U	1	1.0	1	1	0.3
108-90-7	Chlorobenzene	U	1	1.0	1	1	0.2
100-41-4	Ethylbenzene	U	1	1.0	1	1	0.3
	m+p-Xylenes	U	2	1.0	2	2	0.7
95-47-6	o-Xylene	U	1	1.0	1	1	0.3
1330-20-7	Xylenes (total)	U	3	1.0	3	3	0.3
100-42-5	Styrene	U	1	1.0	1	1	0.3
75-25-2	Bromoform	U	1	1.0	1	1	0.4
98-82-8	Isopropylbenzene	U	1	1.0	1	1	0.4

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 05/26/09
Received Date: 07/01/09
Extraction Date:
Analysis Date: 07-JUL-2009 12:35
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-1
Client ID: WGL-GW-TB01-062909
SDG: SC3624
Extracted by:
Extraction Method: SW846 5030
Analyst: TTC
Analysis Method: SW846 8260B
Lab Prep Batch: WG65935
Units: ug/l

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
79-34-5	1,1,2,2-Tetrachloroethane	U	1	1.0	1	1	0.3
541-73-1	1,3-Dichlorobenzene	U	1	1.0	1	1	0.3
106-46-7	1,4-Dichlorobenzene	U	1	1.0	1	1	0.3
95-50-1	1,2-Dichlorobenzene	U	1	1.0	1	1	0.3
96-12-8	1,2-Dibromo-3-Chloropropane	U	1	1.0	1	1	0.6
120-82-1	1,2,4-Trichlorobenzene	U	1	1.0	1	1	0.3
1868-53-7	Dibromofluoromethane		104%				
17060-07-0	1,2-Dichloroethane-D4		95%				
2037-26-5	Toluene-D8		97%				
460-00-4	P-Bromofluorobenzene		95%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/29/09
Received Date: 07/01/09
Extraction Date:
Analysis Date: 07-JUL-2009 16:30
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-2
Client ID: WGL-GW-MW101-062909
SDG: SC3624
Extracted by:
Extraction Method: SW846 5030
Analyst: TTC
Analysis Method: SW846 8260B
Lab Prep Batch: WG65935
Units: ug/l

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
75-71-8	Dichlorodifluoromethane	U	2	1.0	2	2	0.4
74-87-3	Chloromethane	U	2	1.0	2	2	0.3
75-01-4	Vinyl chloride	U	2	1.0	2	2	0.3
74-83-9	Bromomethane	U	2	1.0	2	2	0.3
75-00-3	Chloroethane	U	2	1.0	2	2	0.3
75-69-4	Trichlorofluoromethane	U	2	1.0	2	2	0.5
75-35-4	1,1-Dichloroethene	U	1	1.0	1	1	0.3
67-64-1	Acetone		10	1.0	5	5	2
75-15-0	Carbon Disulfide	U	1	1.0	1	1	0.2
79-20-9	Methyl Acetate	U	1	1.0	1	1	0.8
75-09-2	Methylene Chloride	U	5	1.0	5	5	0.3
156-60-5	trans-1,2-Dichloroethene	U	1	1.0	1	1	0.4
1634-04-4	Methyl tert-butyl ether		2	1.0	1	1	0.5
75-34-3	1,1-Dichloroethane	U	1	1.0	1	1	0.2
156-59-2	cis-1,2-Dichloroethene	U	1	1.0	1	1	0.2
78-93-3	2-Butanone	U	5	1.0	5	5	1
67-66-3	Chloroform	J	0.6	1.0	1	1	0.2
71-55-6	1,1,1-Trichloroethane	U	1	1.0	1	1	0.3
1735-17-7	Cyclohexane	U	1	1.0	1	1	0.4
56-23-5	Carbon Tetrachloride	U	1	1.0	1	1	0.4
71-43-2	Benzene	U	1	1.0	1	1	0.3
107-06-2	1,2-Dichloroethane	U	1	1.0	1	1	0.3
79-01-6	Trichloroethene	U	1	1.0	1	1	0.4
108-87-2	Methylcyclohexane	U	1	1.0	1	1	0.4
78-87-5	1,2-Dichloropropane	U	1	1.0	1	1	0.3
75-27-4	Bromodichloromethane	U	1	1.0	1	1	0.3
10061-01-5	cis-1,3-dichloropropene	U	1	1.0	1	1	0.3
108-10-1	4-methyl-2-pentanone	U	5	1.0	5	5	2
108-88-3	Toluene	U	1	1.0	1	1	0.4
10061-02-6	trans-1,3-Dichloropropene	U	1	1.0	1	1	0.2
79-00-5	1,1,2-Trichloroethane	U	1	1.0	1	1	0.3
127-18-4	Tetrachloroethene	U	1	1.0	1	1	0.4
591-78-6	2-Hexanone	U	5	1.0	5	5	2
124-48-1	Dibromochloromethane	U	1	1.0	1	1	0.3
106-93-4	1,2-Dibromoethane	U	1	1.0	1	1	0.3
108-90-7	Chlorobenzene	U	1	1.0	1	1	0.2
100-41-4	Ethylbenzene	U	1	1.0	1	1	0.3
	m+p-Xylenes	U	2	1.0	2	2	0.7
95-47-6	o-Xylene	U	1	1.0	1	1	0.3
1330-20-7	Xylenes (total)	U	3	1.0	3	3	0.3
100-42-5	Styrene	U	1	1.0	1	1	0.3
75-25-2	Bromoform	U	1	1.0	1	1	0.4
98-82-8	Isopropylbenzene	U	1	1.0	1	1	0.4

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/29/09
Received Date: 07/01/09
Extraction Date:
Analysis Date: 07-JUL-2009 16:30
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-2
Client ID: WGL-GW-MW101-062909
SDG: SC3624
Extracted by:
Extraction Method: SW846 5030
Analyst: TTC
Analysis Method: SW846 8260B
Lab Prep Batch: WG65935
Units: ug/l

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
79-34-5	1,1,2,2-Tetrachloroethane	U	1	1.0	1	1	0.3
541-73-1	1,3-Dichlorobenzene	U	1	1.0	1	1	0.3
106-46-7	1,4-Dichlorobenzene	U	1	1.0	1	1	0.3
95-50-1	1,2-Dichlorobenzene	U	1	1.0	1	1	0.3
96-12-8	1,2-Dibromo-3-Chloropropane	U	1	1.0	1	1	0.6
120-82-1	1,2,4-Trichlorobenzene	U	1	1.0	1	1	0.3
1868-53-7	Dibromofluoromethane		102%				
17060-07-0	1,2-Dichloroethane-D4		104%				
2037-26-5	Toluene-D8		93%				
460-00-4	P-Bromofluorobenzene		95%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/29/09
Received Date: 07/01/09
Extraction Date:
Analysis Date: 07-JUL-2009 17:00
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-4
Client ID: WGL-GW-MW3-062909
SDG: SC3624
Extracted by:
Extraction Method: SW846 5030
Analyst: TTC
Analysis Method: SW846 8260B
Lab Prep Batch: WG65935
Units: ug/l

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
75-71-8	Dichlorodifluoromethane	U	2	1.0	2	2	0.4
74-87-3	Chloromethane	U	2	1.0	2	2	0.3
75-01-4	Vinyl chloride	U	2	1.0	2	2	0.3
74-83-9	Bromomethane	U	2	1.0	2	2	0.3
75-00-3	Chloroethane	U	2	1.0	2	2	0.3
75-69-4	Trichlorofluoromethane	U	2	1.0	2	2	0.5
75-35-4	1,1-Dichloroethene	U	1	1.0	1	1	0.3
67-64-1	Acetone	U	5	1.0	5	5	2
75-15-0	Carbon Disulfide	U	1	1.0	1	1	0.2
79-20-9	Methyl Acetate	U	1	1.0	1	1	0.8
75-09-2	Methylene Chloride	U	5	1.0	5	5	0.3
156-60-5	trans-1,2-Dichloroethene	U	1	1.0	1	1	0.4
1634-04-4	Methyl tert-butyl ether	U	1	1.0	1	1	0.5
75-34-3	1,1-Dichloroethane	U	1	1.0	1	1	0.2
156-59-2	cis-1,2-Dichloroethene	U	1	1.0	1	1	0.2
78-93-3	2-Butanone	U	5	1.0	5	5	1
67-66-3	Chloroform	U	1	1.0	1	1	0.2
71-55-6	1,1,1-Trichloroethane	U	1	1.0	1	1	0.3
1735-17-7	Cyclohexane	U	1	1.0	1	1	0.4
56-23-5	Carbon Tetrachloride	U	1	1.0	1	1	0.4
71-43-2	Benzene	U	1	1.0	1	1	0.3
107-06-2	1,2-Dichloroethane	U	1	1.0	1	1	0.3
79-01-6	Trichloroethene	U	1	1.0	1	1	0.4
108-87-2	Methylcyclohexane	U	1	1.0	1	1	0.4
78-87-5	1,2-Dichloropropane	U	1	1.0	1	1	0.3
75-27-4	Bromodichloromethane	U	1	1.0	1	1	0.3
10061-01-5	cis-1,3-dichloropropene	U	1	1.0	1	1	0.3
108-10-1	4-methyl-2-pentanone	U	5	1.0	5	5	2
108-88-3	Toluene	U	1	1.0	1	1	0.4
10061-02-6	trans-1,3-Dichloropropene	U	1	1.0	1	1	0.2
79-00-5	1,1,2-Trichloroethane	U	1	1.0	1	1	0.3
127-18-4	Tetrachloroethene	U	1	1.0	1	1	0.4
591-78-6	2-Hexanone	U	5	1.0	5	5	2
124-48-1	Dibromochloromethane	U	1	1.0	1	1	0.3
106-93-4	1,2-Dibromoethane	U	1	1.0	1	1	0.3
108-90-7	Chlorobenzene	U	1	1.0	1	1	0.2
100-41-4	Ethylbenzene	U	1	1.0	1	1	0.3
	m+p-Xylenes	U	2	1.0	2	2	0.7
95-47-6	o-Xylene	U	1	1.0	1	1	0.3
1330-20-7	Xylenes (total)	U	3	1.0	3	3	0.3
100-42-5	Styrene	U	1	1.0	1	1	0.3
75-25-2	Bromoform	U	1	1.0	1	1	0.4
98-82-8	Isopropylbenzene	U	1	1.0	1	1	0.4

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/29/09
Received Date: 07/01/09
Extraction Date:
Analysis Date: 07-JUL-2009 17:00
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-4
Client ID: WGL-GW-MW3-062909
SDG: SC3624
Extracted by:
Extraction Method: SW846 5030
Analyst: TTC
Analysis Method: SW846 8260B
Lab Prep Batch: WG65935
Units: ug/l

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
79-34-5	1,1,2,2-Tetrachloroethane	U	1	1.0	1	1	0.3
541-73-1	1,3-Dichlorobenzene	U	1	1.0	1	1	0.3
106-46-7	1,4-Dichlorobenzene	U	1	1.0	1	1	0.3
95-50-1	1,2-Dichlorobenzene	U	1	1.0	1	1	0.3
96-12-8	1,2-Dibromo-3-Chloropropane	U	1	1.0	1	1	0.6
120-82-1	1,2,4-Trichlorobenzene	U	1	1.0	1	1	0.3
1868-53-7	Dibromofluoromethane		104%				
17060-07-0	1,2-Dichloroethane-D4		103%				
2037-26-5	Toluene-D8		96%				
460-00-4	P-Bromofluorobenzene		97%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/29/09
Received Date: 07/01/09
Extraction Date:
Analysis Date: 07-JUL-2009 17:31
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-6
Client ID: WGL-GW-MW103-062909
SDG: SC3624
Extracted by:
Extraction Method: SW846 5030
Analyst: TTC
Analysis Method: SW846 8260B
Lab Prep Batch: WG65935
Units: ug/l

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
75-71-8	Dichlorodifluoromethane	U	2	1.0	2	2	0.4
74-87-3	Chloromethane	U	2	1.0	2	2	0.3
75-01-4	Vinyl chloride	U	2	1.0	2	2	0.3
74-83-9	Bromomethane	U	2	1.0	2	2	0.3
75-00-3	Chloroethane	U	2	1.0	2	2	0.3
75-69-4	Trichlorofluoromethane	U	2	1.0	2	2	0.5
75-35-4	1,1-Dichloroethene	U	1	1.0	1	1	0.3
67-64-1	Acetone	U	5	1.0	5	5	2
75-15-0	Carbon Disulfide	U	1	1.0	1	1	0.2
79-20-9	Methyl Acetate	U	1	1.0	1	1	0.8
75-09-2	Methylene Chloride	U	5	1.0	5	5	0.3
156-60-5	trans-1,2-Dichloroethene	U	1	1.0	1	1	0.4
1634-04-4	Methyl tert-butyl ether	J	0.6	1.0	1	1	0.5
75-34-3	1,1-Dichloroethane	U	1	1.0	1	1	0.2
156-59-2	cis-1,2-Dichloroethene	U	1	1.0	1	1	0.2
78-93-3	2-Butanone	U	5	1.0	5	5	1
67-66-3	Chloroform	U	1	1.0	1	1	0.2
71-55-6	1,1,1-Trichloroethane	U	1	1.0	1	1	0.3
1735-17-7	Cyclohexane	U	1	1.0	1	1	0.4
56-23-5	Carbon Tetrachloride	U	1	1.0	1	1	0.4
71-43-2	Benzene	U	1	1.0	1	1	0.3
107-06-2	1,2-Dichloroethane	U	1	1.0	1	1	0.3
79-01-6	Trichloroethene	U	1	1.0	1	1	0.4
108-87-2	Methylcyclohexane	U	1	1.0	1	1	0.4
78-87-5	1,2-Dichloropropane	U	1	1.0	1	1	0.3
75-27-4	Bromodichloromethane	U	1	1.0	1	1	0.3
10061-01-5	cis-1,3-dichloropropene	U	1	1.0	1	1	0.3
108-10-1	4-methyl-2-pentanone	U	5	1.0	5	5	2
108-88-3	Toluene	U	1	1.0	1	1	0.4
10061-02-6	trans-1,3-Dichloropropene	U	1	1.0	1	1	0.2
79-00-5	1,1,2-Trichloroethane	U	1	1.0	1	1	0.3
127-18-4	Tetrachloroethene	U	1	1.0	1	1	0.4
591-78-6	2-Hexanone	U	5	1.0	5	5	2
124-48-1	Dibromochloromethane	U	1	1.0	1	1	0.3
106-93-4	1,2-Dibromoethane	U	1	1.0	1	1	0.3
108-90-7	Chlorobenzene	U	1	1.0	1	1	0.2
100-41-4	Ethylbenzene	U	1	1.0	1	1	0.3
	m+p-Xylenes	U	2	1.0	2	2	0.7
95-47-6	o-Xylene	U	1	1.0	1	1	0.3
1330-20-7	Xylenes (total)	U	3	1.0	3	3	0.3
100-42-5	Styrene	U	1	1.0	1	1	0.3
75-25-2	Bromoform	U	1	1.0	1	1	0.4
98-82-8	Isopropylbenzene	U	1	1.0	1	1	0.4

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/29/09
Received Date: 07/01/09
Extraction Date:
Analysis Date: 07-JUL-2009 17:31
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-6
Client ID: WGL-GW-MW103-062909
SDG: SC3624
Extracted by:
Extraction Method: SW846 5030
Analyst: TTC
Analysis Method: SW846 8260B
Lab Prep Batch: WG65935
Units: ug/l

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
79-34-5	1,1,2,2-Tetrachloroethane	U	1	1.0	1	1	0.3
541-73-1	1,3-Dichlorobenzene	U	1	1.0	1	1	0.3
106-46-7	1,4-Dichlorobenzene	U	1	1.0	1	1	0.3
95-50-1	1,2-Dichlorobenzene	U	1	1.0	1	1	0.3
96-12-8	1,2-Dibromo-3-Chloropropane	U	1	1.0	1	1	0.6
120-82-1	1,2,4-Trichlorobenzene	U	1	1.0	1	1	0.3
1868-53-7	Dibromofluoromethane		102%				
17060-07-0	1,2-Dichloroethane-D4		104%				
2037-26-5	Toluene-D8		96%				
460-00-4	P-Bromofluorobenzene		97%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/29/09
Received Date: 07/01/09
Extraction Date:
Analysis Date: 08-JUL-2009 12:53
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-8
Client ID: WGL-GW-MW102-062909
SDG: SC3624
Extracted by:
Extraction Method: SW846 5030
Analyst: TTC
Analysis Method: SW846 8260B
Lab Prep Batch: WG65987
Units: ug/l

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
75-71-8	Dichlorodifluoromethane	U	2	1.0	2	2	0.4
74-87-3	Chloromethane	U	2	1.0	2	2	0.3
75-01-4	Vinyl chloride	U	2	1.0	2	2	0.3
74-83-9	Bromomethane	U	2	1.0	2	2	0.3
75-00-3	Chloroethane	U	2	1.0	2	2	0.3
75-69-4	Trichlorofluoromethane	U	2	1.0	2	2	0.5
75-35-4	1,1-Dichloroethene	U	1	1.0	1	1	0.3
67-64-1	Acetone	U	5	1.0	5	5	2
75-15-0	Carbon Disulfide	U	1	1.0	1	1	0.2
79-20-9	Methyl Acetate	U	1	1.0	1	1	0.8
75-09-2	Methylene Chloride	U	5	1.0	5	5	0.3
156-60-5	trans-1,2-Dichloroethene	U	1	1.0	1	1	0.4
1634-04-4	Methyl tert-butyl ether	U	1	1.0	1	1	0.5
75-34-3	1,1-Dichloroethane	U	1	1.0	1	1	0.2
156-59-2	cis-1,2-Dichloroethene	U	1	1.0	1	1	0.2
78-93-3	2-Butanone	U	5	1.0	5	5	1
67-66-3	Chloroform	U	1	1.0	1	1	0.2
71-55-6	1,1,1-Trichloroethane	U	1	1.0	1	1	0.3
1735-17-7	Cyclohexane	U	1	1.0	1	1	0.4
56-23-5	Carbon Tetrachloride	U	1	1.0	1	1	0.4
71-43-2	Benzene	U	1	1.0	1	1	0.3
107-06-2	1,2-Dichloroethane	U	1	1.0	1	1	0.3
79-01-6	Trichloroethene	U	1	1.0	1	1	0.4
108-87-2	Methylcyclohexane	U	1	1.0	1	1	0.4
78-87-5	1,2-Dichloropropane	U	1	1.0	1	1	0.3
75-27-4	Bromodichloromethane	U	1	1.0	1	1	0.3
10061-01-5	cis-1,3-dichloropropene	U	1	1.0	1	1	0.3
108-10-1	4-methyl-2-pentanone	U	5	1.0	5	5	2
108-88-3	Toluene	U	1	1.0	1	1	0.4
10061-02-6	trans-1,3-Dichloropropene	U	1	1.0	1	1	0.2
79-00-5	1,1,2-Trichloroethane	U	1	1.0	1	1	0.3
127-18-4	Tetrachloroethene	U	1	1.0	1	1	0.4
591-78-6	2-Hexanone	U	5	1.0	5	5	2
124-48-1	Dibromochloromethane	U	1	1.0	1	1	0.3
106-93-4	1,2-Dibromoethane	U	1	1.0	1	1	0.3
108-90-7	Chlorobenzene	U	1	1.0	1	1	0.2
100-41-4	Ethylbenzene	U	1	1.0	1	1	0.3
	m+p-Xylenes	U	2	1.0	2	2	0.7
95-47-6	o-Xylene	U	1	1.0	1	1	0.3
1330-20-7	Xylenes (total)	U	3	1.0	3	3	0.3
100-42-5	Styrene	U	1	1.0	1	1	0.3
75-25-2	Bromoform	U	1	1.0	1	1	0.4
98-82-8	Isopropylbenzene	U	1	1.0	1	1	0.4

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/29/09
Received Date: 07/01/09
Extraction Date:
Analysis Date: 08-JUL-2009 12:53
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-8
Client ID: WGL-GW-MW102-062909
SDG: SC3624
Extracted by:
Extraction Method: SW846 5030
Analyst: TTC
Analysis Method: SW846 8260B
Lab Prep Batch: WG65987
Units: ug/l

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
79-34-5	1,1,2,2-Tetrachloroethane	U	1	1.0	1	1	0.3
541-73-1	1,3-Dichlorobenzene	U	1	1.0	1	1	0.3
106-46-7	1,4-Dichlorobenzene	U	1	1.0	1	1	0.3
95-50-1	1,2-Dichlorobenzene	U	1	1.0	1	1	0.3
96-12-8	1,2-Dibromo-3-Chloropropane	U	1	1.0	1	1	0.6
120-82-1	1,2,4-Trichlorobenzene	U	1	1.0	1	1	0.3
1868-53-7	Dibromofluoromethane		98%				
17060-07-0	1,2-Dichloroethane-D4		102%				
2037-26-5	Toluene-D8		92%				
460-00-4	P-Bromofluorobenzene		90%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date:
Analysis Date: 08-JUL-2009 13:23
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-10
Client ID: WGL-GW-MW2-063009
SDG: SC3624
Extracted by:
Extraction Method: SW846 5030
Analyst: TTC
Analysis Method: SW846 8260B
Lab Prep Batch: WG65987
Units: ug/l

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
75-71-8	Dichlorodifluoromethane	U	2	1.0	2	2	0.4
74-87-3	Chloromethane	U	2	1.0	2	2	0.3
75-01-4	Vinyl chloride	U	2	1.0	2	2	0.3
74-83-9	Bromomethane	U	2	1.0	2	2	0.3
75-00-3	Chloroethane	U	2	1.0	2	2	0.3
75-69-4	Trichlorofluoromethane	U	2	1.0	2	2	0.5
75-35-4	1,1-Dichloroethene	U	1	1.0	1	1	0.3
67-64-1	Acetone	U	5	1.0	5	5	2
75-15-0	Carbon Disulfide	U	1	1.0	1	1	0.2
79-20-9	Methyl Acetate	U	1	1.0	1	1	0.8
75-09-2	Methylene Chloride	U	5	1.0	5	5	0.3
156-60-5	trans-1,2-Dichloroethene	U	1	1.0	1	1	0.4
1634-04-4	Methyl tert-butyl ether	U	1	1.0	1	1	0.5
75-34-3	1,1-Dichloroethane	U	1	1.0	1	1	0.2
156-59-2	cis-1,2-Dichloroethene	U	1	1.0	1	1	0.2
78-93-3	2-Butanone	U	5	1.0	5	5	1
67-66-3	Chloroform	U	1	1.0	1	1	0.2
71-55-6	1,1,1-Trichloroethane	U	1	1.0	1	1	0.3
1735-17-7	Cyclohexane	U	1	1.0	1	1	0.4
56-23-5	Carbon Tetrachloride	U	1	1.0	1	1	0.4
71-43-2	Benzene	U	1	1.0	1	1	0.3
107-06-2	1,2-Dichloroethane	U	1	1.0	1	1	0.3
79-01-6	Trichloroethene	U	1	1.0	1	1	0.4
108-87-2	Methylcyclohexane	U	1	1.0	1	1	0.4
78-87-5	1,2-Dichloropropane	U	1	1.0	1	1	0.3
75-27-4	Bromodichloromethane	U	1	1.0	1	1	0.3
10061-01-5	cis-1,3-dichloropropene	U	1	1.0	1	1	0.3
108-10-1	4-methyl-2-pentanone	U	5	1.0	5	5	2
108-88-3	Toluene	U	1	1.0	1	1	0.4
10061-02-6	trans-1,3-Dichloropropene	U	1	1.0	1	1	0.2
79-00-5	1,1,2-Trichloroethane	U	1	1.0	1	1	0.3
127-18-4	Tetrachloroethene	U	1	1.0	1	1	0.4
591-78-6	2-Hexanone	U	5	1.0	5	5	2
124-48-1	Dibromochloromethane	U	1	1.0	1	1	0.3
106-93-4	1,2-Dibromoethane	U	1	1.0	1	1	0.3
108-90-7	Chlorobenzene	U	1	1.0	1	1	0.2
100-41-4	Ethylbenzene	U	1	1.0	1	1	0.3
	m+p-Xylenes	U	2	1.0	2	2	0.7
95-47-6	o-Xylene	U	1	1.0	1	1	0.3
1330-20-7	Xylenes (total)	U	3	1.0	3	3	0.3
100-42-5	Styrene	U	1	1.0	1	1	0.3
75-25-2	Bromoform	U	1	1.0	1	1	0.4
98-82-8	Isopropylbenzene	U	1	1.0	1	1	0.4

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date:
Analysis Date: 08-JUL-2009 13:23
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-10
Client ID: WGL-GW-MW2-063009
SDG: SC3624
Extracted by:
Extraction Method: SW846 5030
Analyst: TTC
Analysis Method: SW846 8260B
Lab Prep Batch: WG65987
Units: ug/l

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
79-34-5	1,1,2,2-Tetrachloroethane	U	1	1.0	1	1	0.3
541-73-1	1,3-Dichlorobenzene	U	1	1.0	1	1	0.3
106-46-7	1,4-Dichlorobenzene	U	1	1.0	1	1	0.3
95-50-1	1,2-Dichlorobenzene	U	1	1.0	1	1	0.3
96-12-8	1,2-Dibromo-3-Chloropropane	U	1	1.0	1	1	0.6
120-82-1	1,2,4-Trichlorobenzene	U	1	1.0	1	1	0.3
1868-53-7	Dibromofluoromethane		96%				
17060-07-0	1,2-Dichloroethane-D4		97%				
2037-26-5	Toluene-D8		92%				
460-00-4	P-Bromofluorobenzene		92%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date:
Analysis Date: 08-JUL-2009 13:54
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-12
Client ID: WGL-GW-MW4-063009
SDG: SC3624
Extracted by:
Extraction Method: SW846 5030
Analyst: TTC
Analysis Method: SW846 8260B
Lab Prep Batch: WG65987
Units: ug/l

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
75-71-8	Dichlorodifluoromethane	U	2	1.0	2	2	0.4
74-87-3	Chloromethane	U	2	1.0	2	2	0.3
75-01-4	Vinyl chloride	U	2	1.0	2	2	0.3
74-83-9	Bromomethane	U	2	1.0	2	2	0.3
75-00-3	Chloroethane	U	2	1.0	2	2	0.3
75-69-4	Trichlorofluoromethane	U	2	1.0	2	2	0.5
75-35-4	1,1-Dichloroethene	U	1	1.0	1	1	0.3
67-64-1	Acetone	U	5	1.0	5	5	2
75-15-0	Carbon Disulfide	U	1	1.0	1	1	0.2
79-20-9	Methyl Acetate	U	1	1.0	1	1	0.8
75-09-2	Methylene Chloride	U	5	1.0	5	5	0.3
156-60-5	trans-1,2-Dichloroethene	U	1	1.0	1	1	0.4
1634-04-4	Methyl tert-butyl ether	U	1	1.0	1	1	0.5
75-34-3	1,1-Dichloroethane	U	1	1.0	1	1	0.2
156-59-2	cis-1,2-Dichloroethene	U	1	1.0	1	1	0.2
78-93-3	2-Butanone	U	5	1.0	5	5	1
67-66-3	Chloroform	U	1	1.0	1	1	0.2
71-55-6	1,1,1-Trichloroethane	U	1	1.0	1	1	0.3
1735-17-7	Cyclohexane	U	1	1.0	1	1	0.4
56-23-5	Carbon Tetrachloride	U	1	1.0	1	1	0.4
71-43-2	Benzene	U	1	1.0	1	1	0.3
107-06-2	1,2-Dichloroethane	U	1	1.0	1	1	0.3
79-01-6	Trichloroethene	U	1	1.0	1	1	0.4
108-87-2	Methylcyclohexane	U	1	1.0	1	1	0.4
78-87-5	1,2-Dichloropropane	U	1	1.0	1	1	0.3
75-27-4	Bromodichloromethane	U	1	1.0	1	1	0.3
10061-01-5	cis-1,3-dichloropropene	U	1	1.0	1	1	0.3
108-10-1	4-methyl-2-pentanone	U	5	1.0	5	5	2
108-88-3	Toluene	U	1	1.0	1	1	0.4
10061-02-6	trans-1,3-Dichloropropene	U	1	1.0	1	1	0.2
79-00-5	1,1,2-Trichloroethane	U	1	1.0	1	1	0.3
127-18-4	Tetrachloroethene	U	1	1.0	1	1	0.4
591-78-6	2-Hexanone	U	5	1.0	5	5	2
124-48-1	Dibromochloromethane	U	1	1.0	1	1	0.3
106-93-4	1,2-Dibromoethane	U	1	1.0	1	1	0.3
108-90-7	Chlorobenzene	U	1	1.0	1	1	0.2
100-41-4	Ethylbenzene	U	1	1.0	1	1	0.3
	m+p-Xylenes	U	2	1.0	2	2	0.7
95-47-6	o-Xylene	U	1	1.0	1	1	0.3
1330-20-7	Xylenes (total)	U	3	1.0	3	3	0.3
100-42-5	Styrene	U	1	1.0	1	1	0.3
75-25-2	Bromoform	U	1	1.0	1	1	0.4
98-82-8	Isopropylbenzene	U	1	1.0	1	1	0.4

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date:
Analysis Date: 08-JUL-2009 13:54
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-12
Client ID: WGL-GW-MW4-063009
SDG: SC3624
Extracted by:
Extraction Method: SW846 5030
Analyst: TTC
Analysis Method: SW846 8260B
Lab Prep Batch: WG65987
Units: ug/l

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
79-34-5	1,1,2,2-Tetrachloroethane	U	1	1.0	1	1	0.3
541-73-1	1,3-Dichlorobenzene	U	1	1.0	1	1	0.3
106-46-7	1,4-Dichlorobenzene	U	1	1.0	1	1	0.3
95-50-1	1,2-Dichlorobenzene	U	1	1.0	1	1	0.3
96-12-8	1,2-Dibromo-3-Chloropropane	U	1	1.0	1	1	0.6
120-82-1	1,2,4-Trichlorobenzene	U	1	1.0	1	1	0.3
1868-53-7	Dibromofluoromethane		98%				
17060-07-0	1,2-Dichloroethane-D4		104%				
2037-26-5	Toluene-D8		88%				
460-00-4	P-Bromofluorobenzene		83%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date:
Analysis Date: 08-JUL-2009 14:24
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-14
Client ID: -GW-MW38-063009
SDG: SC3624
Extracted by:
Extraction Method: SW846 5030
Analyst: TTC
Analysis Method: SW846 8260B
Lab Prep Batch: WG65987
Units: ug/l

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
75-71-8	Dichlorodifluoromethane	U	2	1.0	2	2	0.4
74-87-3	Chloromethane	U	2	1.0	2	2	0.3
75-01-4	Vinyl chloride	U	2	1.0	2	2	0.3
74-83-9	Bromomethane	U	2	1.0	2	2	0.3
75-00-3	Chloroethane	U	2	1.0	2	2	0.3
75-69-4	Trichlorofluoromethane	U	2	1.0	2	2	0.5
75-35-4	1,1-Dichloroethene	U	1	1.0	1	1	0.3
67-64-1	Acetone	U	5	1.0	5	5	2
75-15-0	Carbon Disulfide	U	1	1.0	1	1	0.2
79-20-9	Methyl Acetate	U	1	1.0	1	1	0.8
75-09-2	Methylene Chloride	U	5	1.0	5	5	0.3
156-60-5	trans-1,2-Dichloroethene	U	1	1.0	1	1	0.4
1634-04-4	Methyl tert-butyl ether	U	1	1.0	1	1	0.5
75-34-3	1,1-Dichloroethane	U	1	1.0	1	1	0.2
156-59-2	cis-1,2-Dichloroethene	U	1	1.0	1	1	0.2
78-93-3	2-Butanone	U	5	1.0	5	5	1
67-66-3	Chloroform	U	1	1.0	1	1	0.2
71-55-6	1,1,1-Trichloroethane	U	1	1.0	1	1	0.3
1735-17-7	Cyclohexane	U	1	1.0	1	1	0.4
56-23-5	Carbon Tetrachloride	U	1	1.0	1	1	0.4
71-43-2	Benzene	U	1	1.0	1	1	0.3
107-06-2	1,2-Dichloroethane	U	1	1.0	1	1	0.3
79-01-6	Trichloroethene	U	1	1.0	1	1	0.4
108-87-2	Methylcyclohexane	U	1	1.0	1	1	0.4
78-87-5	1,2-Dichloropropane	U	1	1.0	1	1	0.3
75-27-4	Bromodichloromethane	U	1	1.0	1	1	0.3
10061-01-5	cis-1,3-dichloropropene	U	1	1.0	1	1	0.3
108-10-1	4-methyl-2-pentanone	U	5	1.0	5	5	2
108-88-3	Toluene	U	1	1.0	1	1	0.4
10061-02-6	trans-1,3-Dichloropropene	U	1	1.0	1	1	0.2
79-00-5	1,1,2-Trichloroethane	U	1	1.0	1	1	0.3
127-18-4	Tetrachloroethene	U	1	1.0	1	1	0.4
591-78-6	2-Hexanone	U	5	1.0	5	5	2
124-48-1	Dibromochloromethane	U	1	1.0	1	1	0.3
106-93-4	1,2-Dibromoethane	U	1	1.0	1	1	0.3
108-90-7	Chlorobenzene	U	1	1.0	1	1	0.2
100-41-4	Ethylbenzene	U	1	1.0	1	1	0.3
	m+p-Xylenes	U	2	1.0	2	2	0.7
95-47-6	o-Xylene	U	1	1.0	1	1	0.3
1330-20-7	Xylenes (total)	U	3	1.0	3	3	0.3
100-42-5	Styrene	U	1	1.0	1	1	0.3
75-25-2	Bromoform	U	1	1.0	1	1	0.4
98-82-8	Isopropylbenzene	U	1	1.0	1	1	0.4

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date:
Analysis Date: 08-JUL-2009 14:24
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-14
Client ID: -GW-MW38-063009
SDG: SC3624
Extracted by:
Extraction Method: SW846 5030
Analyst: TTC
Analysis Method: SW846 8260B
Lab Prep Batch: WG65987
Units: ug/l

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
79-34-5	1,1,2,2-Tetrachloroethane	U	1	1.0	1	1	0.3
541-73-1	1,3-Dichlorobenzene	U	1	1.0	1	1	0.3
106-46-7	1,4-Dichlorobenzene	U	1	1.0	1	1	0.3
95-50-1	1,2-Dichlorobenzene	U	1	1.0	1	1	0.3
96-12-8	1,2-Dibromo-3-Chloropropane	U	1	1.0	1	1	0.6
120-82-1	1,2,4-Trichlorobenzene	U	1	1.0	1	1	0.3
1868-53-7	Dibromofluoromethane		99%				
17060-07-0	1,2-Dichloroethane-D4		100%				
2037-26-5	Toluene-D8		94%				
460-00-4	P-Bromofluorobenzene		94%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date:
Analysis Date: 08-JUL-2009 14:55
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-16
Client ID: WGL-GW-MW40S-063009
SDG: SC3624
Extracted by:
Extraction Method: SW846 5030
Analyst: TTC
Analysis Method: SW846 8260B
Lab Prep Batch: WG65987
Units: ug/l

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
75-71-8	Dichlorodifluoromethane	U	2	1.0	2	2	0.4
74-87-3	Chloromethane	U	2	1.0	2	2	0.3
75-01-4	Vinyl chloride	U	2	1.0	2	2	0.3
74-83-9	Bromomethane	U	2	1.0	2	2	0.3
75-00-3	Chloroethane	U	2	1.0	2	2	0.3
75-69-4	Trichlorofluoromethane	U	2	1.0	2	2	0.5
75-35-4	1,1-Dichloroethene	U	1	1.0	1	1	0.3
67-64-1	Acetone	U	5	1.0	5	5	2
75-15-0	Carbon Disulfide	U	1	1.0	1	1	0.2
79-20-9	Methyl Acetate	U	1	1.0	1	1	0.8
75-09-2	Methylene Chloride	U	5	1.0	5	5	0.3
156-60-5	trans-1,2-Dichloroethene	U	1	1.0	1	1	0.4
1634-04-4	Methyl tert-butyl ether	U	1	1.0	1	1	0.5
75-34-3	1,1-Dichloroethane	U	1	1.0	1	1	0.2
156-59-2	cis-1,2-Dichloroethene	J	0.8	1.0	1	1	0.2
78-93-3	2-Butanone	U	5	1.0	5	5	1
67-66-3	Chloroform	U	1	1.0	1	1	0.2
71-55-6	1,1,1-Trichloroethane	U	1	1.0	1	1	0.3
1735-17-7	Cyclohexane	U	1	1.0	1	1	0.4
56-23-5	Carbon Tetrachloride	U	1	1.0	1	1	0.4
71-43-2	Benzene	U	1	1.0	1	1	0.3
107-06-2	1,2-Dichloroethane	U	1	1.0	1	1	0.3
79-01-6	Trichloroethene	U	1	1.0	1	1	0.4
108-87-2	Methylcyclohexane	U	1	1.0	1	1	0.4
78-87-5	1,2-Dichloropropane	U	1	1.0	1	1	0.3
75-27-4	Bromodichloromethane	U	1	1.0	1	1	0.3
10061-01-5	cis-1,3-dichloropropene	U	1	1.0	1	1	0.3
108-10-1	4-methyl-2-pentanone	U	5	1.0	5	5	2
108-88-3	Toluene	U	1	1.0	1	1	0.4
10061-02-6	trans-1,3-Dichloropropene	U	1	1.0	1	1	0.2
79-00-5	1,1,2-Trichloroethane	U	1	1.0	1	1	0.3
127-18-4	Tetrachloroethene	U	1	1.0	1	1	0.4
591-78-6	2-Hexanone	U	5	1.0	5	5	2
124-48-1	Dibromochloromethane	U	1	1.0	1	1	0.3
106-93-4	1,2-Dibromoethane	U	1	1.0	1	1	0.3
108-90-7	Chlorobenzene	U	1	1.0	1	1	0.2
100-41-4	Ethylbenzene	U	1	1.0	1	1	0.3
	m+p-Xylenes	U	2	1.0	2	2	0.7
95-47-6	o-Xylene	U	1	1.0	1	1	0.3
1330-20-7	Xylenes (total)	U	3	1.0	3	3	0.3
100-42-5	Styrene	U	1	1.0	1	1	0.3
75-25-2	Bromoform	U	1	1.0	1	1	0.4
98-82-8	Isopropylbenzene	U	1	1.0	1	1	0.4

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date:
Analysis Date: 08-JUL-2009 14:55
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-16
Client ID: WGL-GW-MW40S-063009
SDG: SC3624
Extracted by:
Extraction Method: SW846 5030
Analyst: TTC
Analysis Method: SW846 8260B
Lab Prep Batch: WG65987
Units: ug/l

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
79-34-5	1,1,2,2-Tetrachloroethane	U	1	1.0	1	1	0.3
541-73-1	1,3-Dichlorobenzene	U	1	1.0	1	1	0.3
106-46-7	1,4-Dichlorobenzene	U	1	1.0	1	1	0.3
95-50-1	1,2-Dichlorobenzene	U	1	1.0	1	1	0.3
96-12-8	1,2-Dibromo-3-Chloropropane	U	1	1.0	1	1	0.6
120-82-1	1,2,4-Trichlorobenzene	U	1	1.0	1	1	0.3
1868-53-7	Dibromofluoromethane		94%				
17060-07-0	1,2-Dichloroethane-D4		98%				
2037-26-5	Toluene-D8		93%				
460-00-4	P-Bromofluorobenzene		94%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date:
Analysis Date: 08-JUL-2009 15:25
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-18
Client ID: WGL-GW-DUP01-063009
SDG: SC3624
Extracted by:
Extraction Method: SW846 5030
Analyst: TTC
Analysis Method: SW846 8260B
Lab Prep Batch: WG65987
Units: ug/l

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
75-71-8	Dichlorodifluoromethane	U	2	1.0	2	2	0.4
74-87-3	Chloromethane	U	2	1.0	2	2	0.3
75-01-4	Vinyl chloride	U	2	1.0	2	2	0.3
74-83-9	Bromomethane	U	2	1.0	2	2	0.3
75-00-3	Chloroethane	U	2	1.0	2	2	0.3
75-69-4	Trichlorofluoromethane	U	2	1.0	2	2	0.5
75-35-4	1,1-Dichloroethene	U	1	1.0	1	1	0.3
67-64-1	Acetone	U	5	1.0	5	5	2
75-15-0	Carbon Disulfide	U	1	1.0	1	1	0.2
79-20-9	Methyl Acetate	U	1	1.0	1	1	0.8
75-09-2	Methylene Chloride	U	5	1.0	5	5	0.3
156-60-5	trans-1,2-Dichloroethene	U	1	1.0	1	1	0.4
1634-04-4	Methyl tert-butyl ether	U	1	1.0	1	1	0.5
75-34-3	1,1-Dichloroethane	U	1	1.0	1	1	0.2
156-59-2	cis-1,2-Dichloroethene	U	1	1.0	1	1	0.2
78-93-3	2-Butanone	U	5	1.0	5	5	1
67-66-3	Chloroform	U	1	1.0	1	1	0.2
71-55-6	1,1,1-Trichloroethane	U	1	1.0	1	1	0.3
1735-17-7	Cyclohexane	U	1	1.0	1	1	0.4
56-23-5	Carbon Tetrachloride	U	1	1.0	1	1	0.4
71-43-2	Benzene	U	1	1.0	1	1	0.3
107-06-2	1,2-Dichloroethane	U	1	1.0	1	1	0.3
79-01-6	Trichloroethene	U	1	1.0	1	1	0.4
108-87-2	Methylcyclohexane	U	1	1.0	1	1	0.4
78-87-5	1,2-Dichloropropane	U	1	1.0	1	1	0.3
75-27-4	Bromodichloromethane	U	1	1.0	1	1	0.3
10061-01-5	cis-1,3-dichloropropene	U	1	1.0	1	1	0.3
108-10-1	4-methyl-2-pentanone	U	5	1.0	5	5	2
108-88-3	Toluene	U	1	1.0	1	1	0.4
10061-02-6	trans-1,3-Dichloropropene	U	1	1.0	1	1	0.2
79-00-5	1,1,2-Trichloroethane	U	1	1.0	1	1	0.3
127-18-4	Tetrachloroethene	U	1	1.0	1	1	0.4
591-78-6	2-Hexanone	U	5	1.0	5	5	2
124-48-1	Dibromochloromethane	U	1	1.0	1	1	0.3
106-93-4	1,2-Dibromoethane	U	1	1.0	1	1	0.3
108-90-7	Chlorobenzene	U	1	1.0	1	1	0.2
100-41-4	Ethylbenzene	U	1	1.0	1	1	0.3
	m+p-Xylenes	U	2	1.0	2	2	0.7
95-47-6	o-Xylene	U	1	1.0	1	1	0.3
1330-20-7	Xylenes (total)	U	3	1.0	3	3	0.3
100-42-5	Styrene	U	1	1.0	1	1	0.3
75-25-2	Bromoform	U	1	1.0	1	1	0.4
98-82-8	Isopropylbenzene	U	1	1.0	1	1	0.4

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date:
Analysis Date: 08-JUL-2009 15:25
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-18
Client ID: WGL-GW-DUP01-063009
SDG: SC3624
Extracted by:
Extraction Method: SW846 5030
Analyst: TTC
Analysis Method: SW846 8260B
Lab Prep Batch: WG65987
Units: ug/l

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
79-34-5	1,1,2,2-Tetrachloroethane	U	1	1.0	1	1	0.3
541-73-1	1,3-Dichlorobenzene	U	1	1.0	1	1	0.3
106-46-7	1,4-Dichlorobenzene	U	1	1.0	1	1	0.3
95-50-1	1,2-Dichlorobenzene	U	1	1.0	1	1	0.3
96-12-8	1,2-Dibromo-3-Chloropropane	U	1	1.0	1	1	0.6
120-82-1	1,2,4-Trichlorobenzene	U	1	1.0	1	1	0.3
1868-53-7	Dibromofluoromethane		93%				
17060-07-0	1,2-Dichloroethane-D4		95%				
2037-26-5	Toluene-D8		88%				
460-00-4	P-Bromofluorobenzene		78%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date:
Analysis Date: 08-JUL-2009 15:56
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-20
Client ID: WGL-GW-MW48D-063009
SDG: SC3624
Extracted by:
Extraction Method: SW846 5030
Analyst: TTC
Analysis Method: SW846 8260B
Lab Prep Batch: WG65987
Units: ug/l

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
75-71-8	Dichlorodifluoromethane	U	2	1.0	2	2	0.4
74-87-3	Chloromethane	U	2	1.0	2	2	0.3
75-01-4	Vinyl chloride	U	2	1.0	2	2	0.3
74-83-9	Bromomethane	U	2	1.0	2	2	0.3
75-00-3	Chloroethane	U	2	1.0	2	2	0.3
75-69-4	Trichlorofluoromethane	U	2	1.0	2	2	0.5
75-35-4	1,1-Dichloroethene	U	1	1.0	1	1	0.3
67-64-1	Acetone	U	5	1.0	5	5	2
75-15-0	Carbon Disulfide	U	1	1.0	1	1	0.2
79-20-9	Methyl Acetate	U	1	1.0	1	1	0.8
75-09-2	Methylene Chloride	U	5	1.0	5	5	0.3
156-60-5	trans-1,2-Dichloroethene	U	1	1.0	1	1	0.4
1634-04-4	Methyl tert-butyl ether	U	1	1.0	1	1	0.5
75-34-3	1,1-Dichloroethane	U	1	1.0	1	1	0.2
156-59-2	cis-1,2-Dichloroethene	U	1	1.0	1	1	0.2
78-93-3	2-Butanone	U	5	1.0	5	5	1
67-66-3	Chloroform	U	1	1.0	1	1	0.2
71-55-6	1,1,1-Trichloroethane	U	1	1.0	1	1	0.3
1735-17-7	Cyclohexane	U	1	1.0	1	1	0.4
56-23-5	Carbon Tetrachloride	U	1	1.0	1	1	0.4
71-43-2	Benzene	U	1	1.0	1	1	0.3
107-06-2	1,2-Dichloroethane	U	1	1.0	1	1	0.3
79-01-6	Trichloroethene	U	1	1.0	1	1	0.4
108-87-2	Methylcyclohexane	U	1	1.0	1	1	0.4
78-87-5	1,2-Dichloropropane	U	1	1.0	1	1	0.3
75-27-4	Bromodichloromethane	U	1	1.0	1	1	0.3
10061-01-5	cis-1,3-dichloropropene	U	1	1.0	1	1	0.3
108-10-1	4-methyl-2-pentanone	U	5	1.0	5	5	2
108-88-3	Toluene	U	1	1.0	1	1	0.4
10061-02-6	trans-1,3-Dichloropropene	U	1	1.0	1	1	0.2
79-00-5	1,1,2-Trichloroethane	U	1	1.0	1	1	0.3
127-18-4	Tetrachloroethene	U	1	1.0	1	1	0.4
591-78-6	2-Hexanone	U	5	1.0	5	5	2
124-48-1	Dibromochloromethane	U	1	1.0	1	1	0.3
106-93-4	1,2-Dibromoethane	U	1	1.0	1	1	0.3
108-90-7	Chlorobenzene	U	1	1.0	1	1	0.2
100-41-4	Ethylbenzene	U	1	1.0	1	1	0.3
	m+p-Xylenes	U	2	1.0	2	2	0.7
95-47-6	o-Xylene	U	1	1.0	1	1	0.3
1330-20-7	Xylenes (total)	U	3	1.0	3	3	0.3
100-42-5	Styrene	U	1	1.0	1	1	0.3
75-25-2	Bromoform	U	1	1.0	1	1	0.4
98-82-8	Isopropylbenzene	U	1	1.0	1	1	0.4

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date:
Analysis Date: 08-JUL-2009 15:56
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-20
Client ID: WGL-GW-MW48D-063009
SDG: SC3624
Extracted by:
Extraction Method: SW846 5030
Analyst: TTC
Analysis Method: SW846 8260B
Lab Prep Batch: WG65987
Units: ug/l

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
79-34-5	1,1,2,2-Tetrachloroethane	U	1	1.0	1	1	0.3
541-73-1	1,3-Dichlorobenzene	U	1	1.0	1	1	0.3
106-46-7	1,4-Dichlorobenzene	U	1	1.0	1	1	0.3
95-50-1	1,2-Dichlorobenzene	U	1	1.0	1	1	0.3
96-12-8	1,2-Dibromo-3-Chloropropane	U	1	1.0	1	1	0.6
120-82-1	1,2,4-Trichlorobenzene	U	1	1.0	1	1	0.3
1868-53-7	Dibromofluoromethane		96%				
17060-07-0	1,2-Dichloroethane-D4		101%				
2037-26-5	Toluene-D8		89%				
460-00-4	P-Bromofluorobenzene		92%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date:
Analysis Date: 08-JUL-2009 16:26
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-22
Client ID: WGL-GW-DUP02-063009
SDG: SC3624
Extracted by:
Extraction Method: SW846 5030
Analyst: TTC
Analysis Method: SW846 8260B
Lab Prep Batch: WG65987
Units: ug/l

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
75-71-8	Dichlorodifluoromethane	U	2	1.0	2	2	0.4
74-87-3	Chloromethane	U	2	1.0	2	2	0.3
75-01-4	Vinyl chloride	U	2	1.0	2	2	0.3
74-83-9	Bromomethane	U	2	1.0	2	2	0.3
75-00-3	Chloroethane	U	2	1.0	2	2	0.3
75-69-4	Trichlorofluoromethane	U	2	1.0	2	2	0.5
75-35-4	1,1-Dichloroethene	U	1	1.0	1	1	0.3
67-64-1	Acetone	U	5	1.0	5	5	2
75-15-0	Carbon Disulfide	U	1	1.0	1	1	0.2
79-20-9	Methyl Acetate	U	1	1.0	1	1	0.8
75-09-2	Methylene Chloride	U	5	1.0	5	5	0.3
156-60-5	trans-1,2-Dichloroethene	U	1	1.0	1	1	0.4
1634-04-4	Methyl tert-butyl ether	U	1	1.0	1	1	0.5
75-34-3	1,1-Dichloroethane	U	1	1.0	1	1	0.2
156-59-2	cis-1,2-Dichloroethene	J	0.8	1.0	1	1	0.2
78-93-3	2-Butanone	U	5	1.0	5	5	1
67-66-3	Chloroform	U	1	1.0	1	1	0.2
71-55-6	1,1,1-Trichloroethane	U	1	1.0	1	1	0.3
1735-17-7	Cyclohexane	U	1	1.0	1	1	0.4
56-23-5	Carbon Tetrachloride	U	1	1.0	1	1	0.4
71-43-2	Benzene	U	1	1.0	1	1	0.3
107-06-2	1,2-Dichloroethane	U	1	1.0	1	1	0.3
79-01-6	Trichloroethene	U	1	1.0	1	1	0.4
108-87-2	Methylcyclohexane	U	1	1.0	1	1	0.4
78-87-5	1,2-Dichloropropane	U	1	1.0	1	1	0.3
75-27-4	Bromodichloromethane	U	1	1.0	1	1	0.3
10061-01-5	cis-1,3-dichloropropene	U	1	1.0	1	1	0.3
108-10-1	4-methyl-2-pentanone	U	5	1.0	5	5	2
108-88-3	Toluene	U	1	1.0	1	1	0.4
10061-02-6	trans-1,3-Dichloropropene	U	1	1.0	1	1	0.2
79-00-5	1,1,2-Trichloroethane	U	1	1.0	1	1	0.3
127-18-4	Tetrachloroethene	U	1	1.0	1	1	0.4
591-78-6	2-Hexanone	U	5	1.0	5	5	2
124-48-1	Dibromochloromethane	U	1	1.0	1	1	0.3
106-93-4	1,2-Dibromoethane	U	1	1.0	1	1	0.3
108-90-7	Chlorobenzene	U	1	1.0	1	1	0.2
100-41-4	Ethylbenzene	U	1	1.0	1	1	0.3
	m+p-Xylenes	U	2	1.0	2	2	0.7
95-47-6	o-Xylene	U	1	1.0	1	1	0.3
1330-20-7	Xylenes (total)	U	3	1.0	3	3	0.3
100-42-5	Styrene	U	1	1.0	1	1	0.3
75-25-2	Bromoform	U	1	1.0	1	1	0.4
98-82-8	Isopropylbenzene	U	1	1.0	1	1	0.4

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date:
Analysis Date: 08-JUL-2009 16:26
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-22
Client ID: WGL-GW-DUP02-063009
SDG: SC3624
Extracted by:
Extraction Method: SW846 5030
Analyst: TTC
Analysis Method: SW846 8260B
Lab Prep Batch: WG65987
Units: ug/l

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
79-34-5	1,1,2,2-Tetrachloroethane	U	1	1.0	1	1	0.3
541-73-1	1,3-Dichlorobenzene	U	1	1.0	1	1	0.3
106-46-7	1,4-Dichlorobenzene	U	1	1.0	1	1	0.3
95-50-1	1,2-Dichlorobenzene	U	1	1.0	1	1	0.3
96-12-8	1,2-Dibromo-3-Chloropropane	U	1	1.0	1	1	0.6
120-82-1	1,2,4-Trichlorobenzene	U	1	1.0	1	1	0.3
1868-53-7	Dibromofluoromethane		98%				
17060-07-0	1,2-Dichloroethane-D4		100%				
2037-26-5	Toluene-D8		90%				
460-00-4	P-Bromofluorobenzene		88%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date:
Analysis Date: 08-JUL-2009 16:57
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-24
Client ID: GL-GW-MW48D2-063009
SDG: SC3624
Extracted by:
Extraction Method: SW846 5030
Analyst: TTC
Analysis Method: SW846 8260B
Lab Prep Batch: WG65987
Units: ug/l

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
75-71-8	Dichlorodifluoromethane	U	2	1.0	2	2	0.4
74-87-3	Chloromethane	U	2	1.0	2	2	0.3
75-01-4	Vinyl chloride	U	2	1.0	2	2	0.3
74-83-9	Bromomethane	U	2	1.0	2	2	0.3
75-00-3	Chloroethane	U	2	1.0	2	2	0.3
75-69-4	Trichlorofluoromethane	U	2	1.0	2	2	0.5
75-35-4	1,1-Dichloroethene	U	1	1.0	1	1	0.3
67-64-1	Acetone	U	5	1.0	5	5	2
75-15-0	Carbon Disulfide	U	1	1.0	1	1	0.2
79-20-9	Methyl Acetate	U	1	1.0	1	1	0.8
75-09-2	Methylene Chloride	U	5	1.0	5	5	0.3
156-60-5	trans-1,2-Dichloroethene	U	1	1.0	1	1	0.4
1634-04-4	Methyl tert-butyl ether	U	1	1.0	1	1	0.5
75-34-3	1,1-Dichloroethane	U	1	1.0	1	1	0.2
156-59-2	cis-1,2-Dichloroethene	U	1	1.0	1	1	0.2
78-93-3	2-Butanone	U	5	1.0	5	5	1
67-66-3	Chloroform	U	1	1.0	1	1	0.2
71-55-6	1,1,1-Trichloroethane	U	1	1.0	1	1	0.3
1735-17-7	Cyclohexane	U	1	1.0	1	1	0.4
56-23-5	Carbon Tetrachloride	U	1	1.0	1	1	0.4
71-43-2	Benzene	U	1	1.0	1	1	0.3
107-06-2	1,2-Dichloroethane	U	1	1.0	1	1	0.3
79-01-6	Trichloroethene	U	1	1.0	1	1	0.4
108-87-2	Methylcyclohexane	U	1	1.0	1	1	0.4
78-87-5	1,2-Dichloropropane	U	1	1.0	1	1	0.3
75-27-4	Bromodichloromethane	U	1	1.0	1	1	0.3
10061-01-5	cis-1,3-dichloropropene	U	1	1.0	1	1	0.3
108-10-1	4-methyl-2-pentanone	U	5	1.0	5	5	2
108-88-3	Toluene	U	1	1.0	1	1	0.4
10061-02-6	trans-1,3-Dichloropropene	U	1	1.0	1	1	0.2
79-00-5	1,1,2-Trichloroethane	U	1	1.0	1	1	0.3
127-18-4	Tetrachloroethene	U	1	1.0	1	1	0.4
591-78-6	2-Hexanone	U	5	1.0	5	5	2
124-48-1	Dibromochloromethane	U	1	1.0	1	1	0.3
106-93-4	1,2-Dibromoethane	U	1	1.0	1	1	0.3
108-90-7	Chlorobenzene	U	1	1.0	1	1	0.2
100-41-4	Ethylbenzene	U	1	1.0	1	1	0.3
	m+p-Xylenes	U	2	1.0	2	2	0.7
95-47-6	o-Xylene	U	1	1.0	1	1	0.3
1330-20-7	Xylenes (total)	U	3	1.0	3	3	0.3
100-42-5	Styrene	U	1	1.0	1	1	0.3
75-25-2	Bromoform	U	1	1.0	1	1	0.4
98-82-8	Isopropylbenzene	U	1	1.0	1	1	0.4

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date:
Analysis Date: 08-JUL-2009 16:57
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-24
Client ID: GL-GW-MW48D2-063009
SDG: SC3624
Extracted by:
Extraction Method: SW846 5030
Analyst: TTC
Analysis Method: SW846 8260B
Lab Prep Batch: WG65987
Units: ug/l

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
79-34-5	1,1,2,2-Tetrachloroethane	U	1	1.0	1	1	0.3
541-73-1	1,3-Dichlorobenzene	U	1	1.0	1	1	0.3
106-46-7	1,4-Dichlorobenzene	U	1	1.0	1	1	0.3
95-50-1	1,2-Dichlorobenzene	U	1	1.0	1	1	0.3
96-12-8	1,2-Dibromo-3-Chloropropane	U	1	1.0	1	1	0.6
120-82-1	1,2,4-Trichlorobenzene	U	1	1.0	1	1	0.3
1868-53-7	Dibromofluoromethane		97%				
17060-07-0	1,2-Dichloroethane-D4		98%				
2037-26-5	Toluene-D8		93%				
460-00-4	P-Bromofluorobenzene		90%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date:
Analysis Date: 08-JUL-2009 17:27
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-26
Client ID: WGL-GW-MW39-063009
SDG: SC3624
Extracted by:
Extraction Method: SW846 5030
Analyst: TTC
Analysis Method: SW846 8260B
Lab Prep Batch: WG65987
Units: ug/l

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
75-71-8	Dichlorodifluoromethane	U	2	1.0	2	2	0.4
74-87-3	Chloromethane	U	2	1.0	2	2	0.3
75-01-4	Vinyl chloride	U	2	1.0	2	2	0.3
74-83-9	Bromomethane	U	2	1.0	2	2	0.3
75-00-3	Chloroethane	U	2	1.0	2	2	0.3
75-69-4	Trichlorofluoromethane	U	2	1.0	2	2	0.5
75-35-4	1,1-Dichloroethene	U	1	1.0	1	1	0.3
67-64-1	Acetone	U	5	1.0	5	5	2
75-15-0	Carbon Disulfide	U	1	1.0	1	1	0.2
79-20-9	Methyl Acetate	U	1	1.0	1	1	0.8
75-09-2	Methylene Chloride	U	5	1.0	5	5	0.3
156-60-5	trans-1,2-Dichloroethene	U	1	1.0	1	1	0.4
1634-04-4	Methyl tert-butyl ether	U	1	1.0	1	1	0.5
75-34-3	1,1-Dichloroethane	U	1	1.0	1	1	0.2
156-59-2	cis-1,2-Dichloroethene	U	1	1.0	1	1	0.2
78-93-3	2-Butanone	U	5	1.0	5	5	1
67-66-3	Chloroform	U	1	1.0	1	1	0.2
71-55-6	1,1,1-Trichloroethane	U	1	1.0	1	1	0.3
1735-17-7	Cyclohexane	U	1	1.0	1	1	0.4
56-23-5	Carbon Tetrachloride	U	1	1.0	1	1	0.4
71-43-2	Benzene	U	1	1.0	1	1	0.3
107-06-2	1,2-Dichloroethane	U	1	1.0	1	1	0.3
79-01-6	Trichloroethene	U	1	1.0	1	1	0.4
108-87-2	Methylcyclohexane	U	1	1.0	1	1	0.4
78-87-5	1,2-Dichloropropane	U	1	1.0	1	1	0.3
75-27-4	Bromodichloromethane	U	1	1.0	1	1	0.3
10061-01-5	cis-1,3-dichloropropene	U	1	1.0	1	1	0.3
108-10-1	4-methyl-2-pentanone	U	5	1.0	5	5	2
108-88-3	Toluene	U	1	1.0	1	1	0.4
10061-02-6	trans-1,3-Dichloropropene	U	1	1.0	1	1	0.2
79-00-5	1,1,2-Trichloroethane	U	1	1.0	1	1	0.3
127-18-4	Tetrachloroethene	U	1	1.0	1	1	0.4
591-78-6	2-Hexanone	U	5	1.0	5	5	2
124-48-1	Dibromochloromethane	U	1	1.0	1	1	0.3
106-93-4	1,2-Dibromoethane	U	1	1.0	1	1	0.3
108-90-7	Chlorobenzene	U	1	1.0	1	1	0.2
100-41-4	Ethylbenzene	U	1	1.0	1	1	0.3
	m+p-Xylenes	U	2	1.0	2	2	0.7
95-47-6	o-Xylene	U	1	1.0	1	1	0.3
1330-20-7	Xylenes (total)	U	3	1.0	3	3	0.3
100-42-5	Styrene	U	1	1.0	1	1	0.3
75-25-2	Bromoform	U	1	1.0	1	1	0.4
98-82-8	Isopropylbenzene	U	1	1.0	1	1	0.4

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date:
Analysis Date: 08-JUL-2009 17:27
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-26
Client ID: WGL-GW-MW39-063009
SDG: SC3624
Extracted by:
Extraction Method: SW846 5030
Analyst: TTC
Analysis Method: SW846 8260B
Lab Prep Batch: WG65987
Units: ug/l

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
79-34-5	1,1,2,2-Tetrachloroethane	U	1	1.0	1	1	0.3
541-73-1	1,3-Dichlorobenzene	U	1	1.0	1	1	0.3
106-46-7	1,4-Dichlorobenzene	U	1	1.0	1	1	0.3
95-50-1	1,2-Dichlorobenzene	U	1	1.0	1	1	0.3
96-12-8	1,2-Dibromo-3-Chloropropane	U	1	1.0	1	1	0.6
120-82-1	1,2,4-Trichlorobenzene	U	1	1.0	1	1	0.3
1868-53-7	Dibromofluoromethane		95%				
17060-07-0	1,2-Dichloroethane-D4		98%				
2037-26-5	Toluene-D8		87%				
460-00-4	P-Bromofluorobenzene		88%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 07/01/09
Received Date: 07/01/09
Extraction Date:
Analysis Date: 08-JUL-2009 11:51
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-28
Client ID: WGL-GW-FB01-070109
SDG: SC3624
Extracted by:
Extraction Method: SW846 5030
Analyst: TTC
Analysis Method: SW846 8260B
Lab Prep Batch: WG65987
Units: ug/l

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
75-71-8	Dichlorodifluoromethane	U	2	1.0	2	2	0.4
74-87-3	Chloromethane	U	2	1.0	2	2	0.3
75-01-4	Vinyl chloride	U	2	1.0	2	2	0.3
74-83-9	Bromomethane	U	2	1.0	2	2	0.3
75-00-3	Chloroethane	U	2	1.0	2	2	0.3
75-69-4	Trichlorofluoromethane	U	2	1.0	2	2	0.5
75-35-4	1,1-Dichloroethene	U	1	1.0	1	1	0.3
67-64-1	Acetone	U	5	1.0	5	5	2
75-15-0	Carbon Disulfide	U	1	1.0	1	1	0.2
79-20-9	Methyl Acetate	U	1	1.0	1	1	0.8
75-09-2	Methylene Chloride	U	5	1.0	5	5	0.3
156-60-5	trans-1,2-Dichloroethene	U	1	1.0	1	1	0.4
1634-04-4	Methyl tert-butyl ether	U	1	1.0	1	1	0.5
75-34-3	1,1-Dichloroethane	U	1	1.0	1	1	0.2
156-59-2	cis-1,2-Dichloroethene	U	1	1.0	1	1	0.2
78-93-3	2-Butanone	U	5	1.0	5	5	1
67-66-3	Chloroform	U	1	1.0	1	1	0.2
71-55-6	1,1,1-Trichloroethane	U	1	1.0	1	1	0.3
1735-17-7	Cyclohexane	U	1	1.0	1	1	0.4
56-23-5	Carbon Tetrachloride	U	1	1.0	1	1	0.4
71-43-2	Benzene	U	1	1.0	1	1	0.3
107-06-2	1,2-Dichloroethane	U	1	1.0	1	1	0.3
79-01-6	Trichloroethene	U	1	1.0	1	1	0.4
108-87-2	Methylcyclohexane	U	1	1.0	1	1	0.4
78-87-5	1,2-Dichloropropane	U	1	1.0	1	1	0.3
75-27-4	Bromodichloromethane	U	1	1.0	1	1	0.3
10061-01-5	cis-1,3-dichloropropene	U	1	1.0	1	1	0.3
108-10-1	4-methyl-2-pentanone	U	5	1.0	5	5	2
108-88-3	Toluene	U	1	1.0	1	1	0.4
10061-02-6	trans-1,3-Dichloropropene	U	1	1.0	1	1	0.2
79-00-5	1,1,2-Trichloroethane	U	1	1.0	1	1	0.3
127-18-4	Tetrachloroethene	U	1	1.0	1	1	0.4
591-78-6	2-Hexanone	U	5	1.0	5	5	2
124-48-1	Dibromochloromethane	U	1	1.0	1	1	0.3
106-93-4	1,2-Dibromoethane	U	1	1.0	1	1	0.3
108-90-7	Chlorobenzene	U	1	1.0	1	1	0.2
100-41-4	Ethylbenzene	U	1	1.0	1	1	0.3
	m+p-Xylenes	U	2	1.0	2	2	0.7
95-47-6	o-Xylene	U	1	1.0	1	1	0.3
1330-20-7	Xylenes (total)	U	3	1.0	3	3	0.3
100-42-5	Styrene	U	1	1.0	1	1	0.3
75-25-2	Bromoform	U	1	1.0	1	1	0.4
98-82-8	Isopropylbenzene	U	1	1.0	1	1	0.4

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 07/01/09
Received Date: 07/01/09
Extraction Date:
Analysis Date: 08-JUL-2009 11:51
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-28
Client ID: WGL-GW-FB01-070109
SDG: SC3624
Extracted by:
Extraction Method: SW846 5030
Analyst: TTC
Analysis Method: SW846 8260B
Lab Prep Batch: WG65987
Units: ug/l

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
79-34-5	1,1,2,2-Tetrachloroethane	U	1	1.0	1	1	0.3
541-73-1	1,3-Dichlorobenzene	U	1	1.0	1	1	0.3
106-46-7	1,4-Dichlorobenzene	U	1	1.0	1	1	0.3
95-50-1	1,2-Dichlorobenzene	U	1	1.0	1	1	0.3
96-12-8	1,2-Dibromo-3-Chloropropane	U	1	1.0	1	1	0.6
120-82-1	1,2,4-Trichlorobenzene	U	1	1.0	1	1	0.3
1868-53-7	Dibromofluoromethane		100%				
17060-07-0	1,2-Dichloroethane-D4		104%				
2037-26-5	Toluene-D8		98%				
460-00-4	P-Bromofluorobenzene		97%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 07/01/09
Received Date: 07/01/09
Extraction Date:
Analysis Date: 08-JUL-2009 12:22
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-30
Client ID: WGL-GW-RB01-070109
SDG: SC3624
Extracted by:
Extraction Method: SW846 5030
Analyst: TTC
Analysis Method: SW846 8260B
Lab Prep Batch: WG65987
Units: ug/l

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
75-71-8	Dichlorodifluoromethane	U	2	1.0	2	2	0.4
74-87-3	Chloromethane	U	2	1.0	2	2	0.3
75-01-4	Vinyl chloride	U	2	1.0	2	2	0.3
74-83-9	Bromomethane	U	2	1.0	2	2	0.3
75-00-3	Chloroethane	U	2	1.0	2	2	0.3
75-69-4	Trichlorofluoromethane	U	2	1.0	2	2	0.5
75-35-4	1,1-Dichloroethene	U	1	1.0	1	1	0.3
67-64-1	Acetone	U	5	1.0	5	5	2
75-15-0	Carbon Disulfide	U	1	1.0	1	1	0.2
79-20-9	Methyl Acetate	U	1	1.0	1	1	0.8
75-09-2	Methylene Chloride	U	5	1.0	5	5	0.3
156-60-5	trans-1,2-Dichloroethene	U	1	1.0	1	1	0.4
1634-04-4	Methyl tert-butyl ether	U	1	1.0	1	1	0.5
75-34-3	1,1-Dichloroethane	U	1	1.0	1	1	0.2
156-59-2	cis-1,2-Dichloroethene	U	1	1.0	1	1	0.2
78-93-3	2-Butanone	U	5	1.0	5	5	1
67-66-3	Chloroform	U	1	1.0	1	1	0.2
71-55-6	1,1,1-Trichloroethane	U	1	1.0	1	1	0.3
1735-17-7	Cyclohexane	U	1	1.0	1	1	0.4
56-23-5	Carbon Tetrachloride	U	1	1.0	1	1	0.4
71-43-2	Benzene	U	1	1.0	1	1	0.3
107-06-2	1,2-Dichloroethane	U	1	1.0	1	1	0.3
79-01-6	Trichloroethene	U	1	1.0	1	1	0.4
108-87-2	Methylcyclohexane	U	1	1.0	1	1	0.4
78-87-5	1,2-Dichloropropane	U	1	1.0	1	1	0.3
75-27-4	Bromodichloromethane	U	1	1.0	1	1	0.3
10061-01-5	cis-1,3-dichloropropene	U	1	1.0	1	1	0.3
108-10-1	4-methyl-2-pentanone	U	5	1.0	5	5	2
108-88-3	Toluene	U	1	1.0	1	1	0.4
10061-02-6	trans-1,3-Dichloropropene	U	1	1.0	1	1	0.2
79-00-5	1,1,2-Trichloroethane	U	1	1.0	1	1	0.3
127-18-4	Tetrachloroethene	U	1	1.0	1	1	0.4
591-78-6	2-Hexanone	U	5	1.0	5	5	2
124-48-1	Dibromochloromethane	U	1	1.0	1	1	0.3
106-93-4	1,2-Dibromoethane	U	1	1.0	1	1	0.3
108-90-7	Chlorobenzene	U	1	1.0	1	1	0.2
100-41-4	Ethylbenzene	U	1	1.0	1	1	0.3
	m+p-Xylenes	U	2	1.0	2	2	0.7
95-47-6	o-Xylene	U	1	1.0	1	1	0.3
1330-20-7	Xylenes (total)	U	3	1.0	3	3	0.3
100-42-5	Styrene	U	1	1.0	1	1	0.3
75-25-2	Bromoform	U	1	1.0	1	1	0.4
98-82-8	Isopropylbenzene	U	1	1.0	1	1	0.4

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 07/01/09
Received Date: 07/01/09
Extraction Date:
Analysis Date: 08-JUL-2009 12:22
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-30
Client ID: WGL-GW-RB01-070109
SDG: SC3624
Extracted by:
Extraction Method: SW846 5030
Analyst: TTC
Analysis Method: SW846 8260B
Lab Prep Batch: WG65987
Units: ug/l

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
79-34-5	1,1,2,2-Tetrachloroethane	U	1	1.0	1	1	0.3
541-73-1	1,3-Dichlorobenzene	U	1	1.0	1	1	0.3
106-46-7	1,4-Dichlorobenzene	U	1	1.0	1	1	0.3
95-50-1	1,2-Dichlorobenzene	U	1	1.0	1	1	0.3
96-12-8	1,2-Dibromo-3-Chloropropane	U	1	1.0	1	1	0.6
120-82-1	1,2,4-Trichlorobenzene	U	1	1.0	1	1	0.3
1868-53-7	Dibromofluoromethane		88%				
17060-07-0	1,2-Dichloroethane-D4		92%				
2037-26-5	Toluene-D8		84%				
460-00-4	P-Bromofluorobenzene		84%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client:
Project: CTO407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date:
Analysis Date: 07-JUL-2009 11:35
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: WG65935-2
Client ID: WG65935-Blank
SDG: SC3624
Extracted by:
Extraction Method: SW846 5030
Analyst: TTC
Analysis Method: SW846 8260B
Lab Prep Batch: WG65935
Units: ug/l

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
75-71-8	Dichlorodifluoromethane	U	1	1.0	1	1	0.4
74-87-3	Chloromethane	U	1	1.0	1	1	0.3
75-01-4	Vinyl chloride	U	1	1.0	1	1	0.3
74-83-9	Bromomethane	U	1	1.0	1	1	0.3
75-00-3	Chloroethane	U	1	1.0	1	1	0.3
75-69-4	Trichlorofluoromethane	U	1	1.0	1	1	0.5
75-35-4	1,1-Dichloroethene	U	1	1.0	1	1	0.3
67-64-1	Acetone	U	5	1.0	5	5	2
75-15-0	Carbon Disulfide	U	1	1.0	1	1	0.2
79-20-9	Methyl Acetate	U	1	1.0	1	1	0.8
75-09-2	Methylene Chloride	J	0.8	1.0	5	5	0.3
156-60-5	trans-1,2-Dichloroethene	U	1	1.0	1	1	0.4
1634-04-4	Methyl tert-butyl ether	U	1	1.0	1	1	0.5
75-34-3	1,1-Dichloroethane	U	1	1.0	1	1	0.2
156-59-2	cis-1,2-Dichloroethene	U	1	1.0	1	1	0.2
78-93-3	2-Butanone	U	5	1.0	5	5	1
67-66-3	Chloroform	U	1	1.0	1	1	0.2
71-55-6	1,1,1-Trichloroethane	U	1	1.0	1	1	0.3
1735-17-7	Cyclohexane	U	1	1.0	1	1	0.4
56-23-5	Carbon Tetrachloride	U	1	1.0	1	1	0.4
71-43-2	Benzene	U	1	1.0	1	1	0.3
107-06-2	1,2-Dichloroethane	U	1	1.0	1	1	0.3
79-01-6	Trichloroethene	U	1	1.0	1	1	0.4
108-87-2	Methylcyclohexane	U	1	1.0	1	1	0.4
78-87-5	1,2-Dichloropropane	U	1	1.0	1	1	0.3
75-27-4	Bromodichloromethane	U	1	1.0	1	1	0.3
10061-01-5	cis-1,3-dichloropropene	U	1	1.0	1	1	0.3
108-10-1	4-methyl-2-pentanone	U	5	1.0	5	5	2
108-88-3	Toluene	U	1	1.0	1	1	0.4
10061-02-6	trans-1,3-Dichloropropene	U	1	1.0	1	1	0.2
79-00-5	1,1,2-Trichloroethane	U	1	1.0	1	1	0.3
127-18-4	Tetrachloroethene	U	1	1.0	1	1	0.4
591-78-6	2-Hexanone	U	5	1.0	5	5	2
124-48-1	Dibromochloromethane	U	1	1.0	1	1	0.3
106-93-4	1,2-Dibromoethane	U	1	1.0	1	1	0.3
108-90-7	Chlorobenzene	U	1	1.0	1	1	0.2
100-41-4	Ethylbenzene	U	1	1.0	1	1	0.3
	m+p-Xylenes	U	2	1.0	2	2	0.7
95-47-6	o-Xylene	U	1	1.0	1	1	0.3
1330-20-7	Xylenes (total)	U	3	1.0	3	3	0.3
100-42-5	Styrene	U	1	1.0	1	1	0.3
75-25-2	Bromoform	U	1	1.0	1	1	0.4
98-82-8	Isopropylbenzene	U	1	1.0	1	1	0.4

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client:
Project: CTO407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date:
Analysis Date: 07-JUL-2009 11:35
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: WG65935-2
Client ID: WG65935-Blank
SDG: SC3624
Extracted by:
Extraction Method: SW846 5030
Analyst: TTC
Analysis Method: SW846 8260B
Lab Prep Batch: WG65935
Units: ug/l

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
79-34-5	1,1,2,2-Tetrachloroethane	U	1	1.0	1	1	0.3
541-73-1	1,3-Dichlorobenzene	U	1	1.0	1	1	0.3
106-46-7	1,4-Dichlorobenzene	J	0.3	1.0	1	1	0.3
95-50-1	1,2-Dichlorobenzene	U	1	1.0	1	1	0.3
96-12-8	1,2-Dibromo-3-Chloropropane	U	1	1.0	1	1	0.6
120-82-1	1,2,4-Trichlorobenzene	U	1	1.0	1	1	0.3
1868-53-7	Dibromofluoromethane		97%				
17060-07-0	1,2-Dichloroethane-D4		96%				
2037-26-5	Toluene-D8		98%				
460-00-4	P-Bromofluorobenzene		99%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client:
Project: CTO407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date:
Analysis Date: 08-JUL-2009 11:21
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: WG65987-2
Client ID: WG65987-Blank
SDG: SC3624
Extracted by:
Extraction Method: SW846 5030
Analyst: TTC
Analysis Method: SW846 8260B
Lab Prep Batch: WG65987
Units: ug/l

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
75-71-8	Dichlorodifluoromethane	U	1	1.0	1	1	0.4
74-87-3	Chloromethane	U	1	1.0	1	1	0.3
75-01-4	Vinyl chloride	U	1	1.0	1	1	0.3
74-83-9	Bromomethane	U	1	1.0	1	1	0.3
75-00-3	Chloroethane	U	1	1.0	1	1	0.3
75-69-4	Trichlorofluoromethane	U	1	1.0	1	1	0.5
75-35-4	1,1-Dichloroethene	U	1	1.0	1	1	0.3
67-64-1	Acetone	U	5	1.0	5	5	2
75-15-0	Carbon Disulfide	U	1	1.0	1	1	0.2
79-20-9	Methyl Acetate	U	1	1.0	1	1	0.8
75-09-2	Methylene Chloride	J	0.5	1.0	5	5	0.3
156-60-5	trans-1,2-Dichloroethene	U	1	1.0	1	1	0.4
1634-04-4	Methyl tert-butyl ether	U	1	1.0	1	1	0.5
75-34-3	1,1-Dichloroethane	U	1	1.0	1	1	0.2
156-59-2	cis-1,2-Dichloroethene	U	1	1.0	1	1	0.2
78-93-3	2-Butanone	U	5	1.0	5	5	1
67-66-3	Chloroform	U	1	1.0	1	1	0.2
71-55-6	1,1,1-Trichloroethane	U	1	1.0	1	1	0.3
1735-17-7	Cyclohexane	U	1	1.0	1	1	0.4
56-23-5	Carbon Tetrachloride	U	1	1.0	1	1	0.4
71-43-2	Benzene	U	1	1.0	1	1	0.3
107-06-2	1,2-Dichloroethane	U	1	1.0	1	1	0.3
79-01-6	Trichloroethene	U	1	1.0	1	1	0.4
108-87-2	Methylcyclohexane	U	1	1.0	1	1	0.4
78-87-5	1,2-Dichloropropane	U	1	1.0	1	1	0.3
75-27-4	Bromodichloromethane	U	1	1.0	1	1	0.3
10061-01-5	cis-1,3-dichloropropene	U	1	1.0	1	1	0.3
108-10-1	4-methyl-2-pentanone	U	5	1.0	5	5	2
108-88-3	Toluene	U	1	1.0	1	1	0.4
10061-02-6	trans-1,3-Dichloropropene	U	1	1.0	1	1	0.2
79-00-5	1,1,2-Trichloroethane	U	1	1.0	1	1	0.3
127-18-4	Tetrachloroethene	U	1	1.0	1	1	0.4
591-78-6	2-Hexanone	U	5	1.0	5	5	2
124-48-1	Dibromochloromethane	U	1	1.0	1	1	0.3
106-93-4	1,2-Dibromoethane	U	1	1.0	1	1	0.3
108-90-7	Chlorobenzene	U	1	1.0	1	1	0.2
100-41-4	Ethylbenzene	U	1	1.0	1	1	0.3
	m+p-Xylenes	U	2	1.0	2	2	0.7
95-47-6	o-Xylene	U	1	1.0	1	1	0.3
1330-20-7	Xylenes (total)	U	3	1.0	3	3	0.3
100-42-5	Styrene	U	1	1.0	1	1	0.3
75-25-2	Bromoform	U	1	1.0	1	1	0.4
98-82-8	Isopropylbenzene	U	1	1.0	1	1	0.4

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client:
Project: CTO407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date:
Analysis Date: 08-JUL-2009 11:21
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: WG65987-2
Client ID: WG65987-Blank
SDG: SC3624
Extracted by:
Extraction Method: SW846 5030
Analyst: TTC
Analysis Method: SW846 8260B
Lab Prep Batch: WG65987
Units: ug/l

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
79-34-5	1,1,2,2-Tetrachloroethane	U	1	1.0	1	1	0.3
541-73-1	1,3-Dichlorobenzene	U	1	1.0	1	1	0.3
106-46-7	1,4-Dichlorobenzene	U	1	1.0	1	1	0.3
95-50-1	1,2-Dichlorobenzene	U	1	1.0	1	1	0.3
96-12-8	1,2-Dibromo-3-Chloropropane	U	1	1.0	1	1	0.6
120-82-1	1,2,4-Trichlorobenzene	U	1	1.0	1	1	0.3
1868-53-7	Dibromofluoromethane		98%				
17060-07-0	1,2-Dichloroethane-D4		100%				
2037-26-5	Toluene-D8		96%				
460-00-4	P-Bromofluorobenzene		97%				

FORM 2
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

	CLIENT SAMPLE ID	LAB SAMPLE ID	SMC1 DBF#	SMC2 DCA#	SMC3 TOL#	SMC4 BFB#	TOT OUT
01	WG65935-LCS	WG65935-1	104	100	98	101	0
02	WG65935-BLANK	WG65935-2	97	96	98	99	0
03	WGL-GW-TB01-062909	SC3624-1	104	95	97	95	0
04	WGL-GW-MW101-062909	SC3624-2	102	104	93	95	0
05	WGL-GW-MW3-062909	SC3624-4	104	103	96	97	0
06	WGL-GW-MW103-062909	SC3624-6	102	104	96	97	0
07	WG65987-LCS	WG65987-1	102	103	100	100	0
08	WG65987-BLANK	WG65987-2	98	100	96	97	0
09	WGL-GW-FB01-070109	SC3624-28	100	104	98	97	0
10	WGL-GW-RB01-070109	SC3624-30	88	92	84	84	0
11	WGL-GW-MW102-062909	SC3624-8	98	102	92	90	0
12	WGL-GW-MW2-063009	SC3624-10	96	97	92	92	0
13	WGL-GW-MW4-063009	SC3624-12	98	104	88	83	0
14	-GW-MW38-063009	SC3624-14	99	100	94	94	0
15	WGL-GW-MW40S-063009	SC3624-16	94	98	93	94	0
16	WGL-GW-DUP01-063009	SC3624-18	93	95	88	78	0
17	WGL-GW-MW48D-063009	SC3624-20	96	101	89	92	0
18	WGL-GW-DUP02-063009	SC3624-22	98	100	90	88	0
19	GL-GW-MW48D2-063009	SC3624-24	97	98	93	90	0
20	WGL-GW-MW39-063009	SC3624-26	95	98	87	88	0
21	-GW-MW38-063009MS	WG65987-3	96	98	91	94	0
22	-GW-MW38-063009MSD	WG65987-4	87	94	87	90	0
23							
24							
25							
26							
27							
28							

			QC LIMITS
SMC1	(DBF)	= Dibromofluoromethane	(78-116)
SMC2	(DCA)	= 1,2-Dichloroethane-D4	(70-124)
SMC3	(TOL)	= Toluene-D8	(70-123)
SMC4	(BFB)	= P-Bromofluorobenzene	(69-119)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

KATAHDIN ANALYTICAL SERVICES
MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date:
Analysis Date: 07/08/09
Report Date: 07/22/2009
Matrix: WATER

Lab ID: WG65987-3 & WG65987-4
Client ID: -GW-MW38-063009MS & -GW-MW38-063009MSD
SDG: SC3624
Extracted by:
Extraction Method: SW846 5030
Analyst: TTC
Analysis Method: SW846 8260B
Lab Prep Batch: WG65987
Units: ug/l

COMPOUND	MS SPIKE	MSD SPIKE	SAMPLE CONC.	MS CONC.	MSD CONC.	MS %REC.	MSD %REC.	%RPD	%RPD LIMIT	QC. LIMITS
Dichlorodifluoromethane	50	50	0.00	44	42	88	85	4	20	40-192
Chloromethane	50	50	0.00	40	39	81	78	4	20	47-151
Vinyl chloride	50	50	0.00	45	41	90	82	10	20	63-141
Bromomethane	50	50	0.00	36	42	72	85	16	20	41-169
Chloroethane	50	50	0.00	50	44	100	87	14	20	57-145
Trichlorofluoromethane	50	50	0.00	60	56	120	113	6	20	85-164
1,1-Dichloroethene	50	50	0.00	57	57	114	114	0.4	20	79-126
Acetone	50	50	0.00	54	55	109	109	0.7	20	54-134
Carbon Disulfide	50	50	0.00	45	42	90	83	7	20	72-127
Methyl Acetate	50	50	0.00	48	43	96	86	11	20	62-137
Methylene Chloride	50	50	0.00	50	47	100	94	6	20	70-120
trans-1,2-Dichloroethene	50	50	0.00	51	50	103	100	3	20	76-127
Methyl tert-butyl ether	100	100	0.00	103	103	103	103	0.0	20	78-136
1,1-Dichloroethane	50	50	0.00	54	50	107	100	6	20	80-126
cis-1,2-Dichloroethene	50	50	0.00	58	55	116	110	6	20	80-116
2-Butanone	50	50	0.00	58	54	117	108	8	20	59-125
Chloroform	50	50	0.00	57	55	113	110	3	20	86-124
1,1,1-Trichloroethane	50	50	0.00	60	56	120	113	6	20	88-125
Cyclohexane	50	50	0.00	52	50	104	100	4	20	60-150
Carbon Tetrachloride	50	50	0.00	66	61	132	121	8	20	73-146
Benzene	50	50	0.00	54	50	107	100	7	20	88-115
1,2-Dichloroethane	50	50	0.00	58	56	116	113	2	20	82-125
Trichloroethene	50	50	0.00	56	53	111	106	4	20	84-115
Methylcyclohexane	50	50	0.00	46	46	92	91	1	20	74-128
1,2-Dichloropropane	50	50	0.00	51	49	102	98	4	20	79-121
Bromodichloromethane	50	50	0.00	59	57	* 117	113	3	20	89-113
cis-1,3-dichloropropene	50	50	0.00	50	50	101	101	0.2	20	87-118
4-methyl-2-pentanone	50	50	0.00	55	54	110	108	2	20	70-123
Toluene	50	50	0.00	53	54	106	107	2	20	87-119
trans-1,3-Dichloropropene	50	50	0.00	57	60	115	119	4	20	90-137
1,1,2-Trichloroethane	50	50	0.00	54	54	108	107	0.7	20	80-115
Tetrachloroethene	50	50	0.00	48	46	96	93	4	20	58-147
2-Hexanone	50	50	0.00	57	54	113	109	4	20	66-121
Dibromochloromethane	50	50	0.00	58	58	115	117	1	20	84-122
1,2-Dibromoethane	50	50	0.00	56	55	113	109	3	20	83-116
Chlorobenzene	50	50	0.00	54	54	109	108	1	20	88-112
Ethylbenzene	50	50	0.00	56	55	113	110	3	20	86-116
m+p-Xylenes	100	100	0.00	111	107	111	107	4	20	83-122
o-Xylene	50	50	0.00	54	53	109	107	2	20	82-119
Xylenes (total)	150	150	0.00	166	161	111	107	3	20	84-120
Styrene	50	50	0.00	55	54	109	107	2	20	85-116
Bromoform	50	50	0.00	60	60	120	121	0.2	20	78-127
Isopropylbenzene	50	50	0.00	62	59	124	118	5	20	90-132
1,1,2,2-Tetrachloroethane	50	50	0.00	58	56	116	112	3	20	72-119
1,3-Dichlorobenzene	50	50	0.00	50	50	100	101	0.6	20	82-118

KATAHDIN ANALYTICAL SERVICES
MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date:
Analysis Date: 07/08/09
Report Date: 07/22/2009
Matrix: WATER

Lab ID: WG65987-3 & WG65987-4
Client ID: -GW-MW38-063009MS & -GW-MW38-063009MSD
SDG: SC3624
Extracted by:
Extraction Method: SW846 5030
Analyst: TTC
Analysis Method: SW846 8260B
Lab Prep Batch: WG65987
Units: ug/l

COMPOUND	MS SPIKE	MSD SPIKE	SAMPLE CONC.	MS CONC.	MSD CONC.	MS %REC.	MSD %REC.	%RPD	%RPD LIMIT	QC. LIMITS
1,4-Dichlorobenzene	50	50	0.00	53	52	106	103	3	20	83-113
1,2-Dichlorobenzene	50	50	0.00	54	52	108	104	3	20	83-116
1,2-Dibromo-3-Chloropropane	50	50	0.00	69	62	* 138	* 124	10	20	69-121
1,2,4-Trichlorobenzene	50	50	0.00	74	71	* 148	* 141	4	20	71-127

FORM III VOA-1

T5308.D & T5309.D

KATAHDIN ANALYTICAL SERVICES
LAB CONTROL SAMPLE

Client:
Project: CTO407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date:
Analysis Date: 07/07/09
Report Date: 07/22/2009
Matrix: WATER

Lab ID: WG65935-1
Client ID: WG65935-LCS
SDG: SC3624
Extracted by:
Extraction Method: SW846 5030
Analyst: TTC
Analysis Method: SW846 8260B
Lab Prep Batch: WG65935
Units: ug/l

COMPOUND	LCS SPIKE	SAMPLE CONC.	LCS CONC.	%REC.	QC. LIMITS
Dichlorodifluoromethane	50	NA	40	81	40-192
Chloromethane	50	NA	42	85	47-151
Vinyl chloride	50	NA	43	86	63-141
Bromomethane	50	NA	48	97	41-169
Chloroethane	50	NA	47	95	57-145
Trichlorofluoromethane	50	NA	52	104	85-164
Diethyl Ether	50	NA	57	114	74-132
Tertiary-butyl alcohol	250	NA	293	117	30-162
1,1-Dichloroethene	50	NA	54	108	79-126
Carbon Disulfide	50	NA	44	87	72-127
Freon-113	50	NA	56	112	78-132
Iodomethane	50	NA	36	71	54-181
Acrolein	250	NA	289	116	67-125
Methylene Chloride	50	NA	51	101	70-120
Acetone	50	NA	58	115	54-134
Isobutyl Alcohol	1000	NA	1280	128	28-157
trans-1,2-Dichloroethene	50	NA	51	102	76-127
Allyl Chloride	50	NA	54	108	62-141
Methyl tert-butyl ether	100	NA	109	109	78-136
Acetonitrile	500	NA	417	83	47-143
Di-isopropyl ether	50	NA	57	114	72-129
Chloroprene	50	NA	52	105	74-132
Methacrylonitrile	500	NA	554	111	67-138
Propionitrile	500	NA	583	117	61-136
1,1-Dichloroethane	50	NA	54	108	80-126
Acrylonitrile	250	NA	293	117	63-135
Ethyl tertiary-butyl ether	50	NA	54	107	79-124
Vinyl Acetate	50	NA	47	95	68-135
cis-1,2-Dichloroethene	50	NA	58	116	80-116
1,2-Dichloroethylene (total)	100	NA	109	109	79-121
Methyl Methacrylate	50	NA	54	109	70-133
2,2-Dichloropropane	50	NA	55	110	66-150
Bromochloromethane	50	NA	54	108	90-131
Chloroform	50	NA	55	109	86-124
Carbon Tetrachloride	50	NA	54	108	73-146
Tetrahydrofuran	50	NA	59	118	66-120
1,1,1-Trichloroethane	50	NA	54	108	88-125
1,1-Dichloropropene	50	NA	53	106	84-123
2-Butanone	50	NA	62	125	59-125
Benzene	50	NA	52	105	88-115
Cyclohexane	50	NA	54	108	60-150
Ethyl Methacrylate	50	NA	56	112	76-121
Tertiary-amyl methyl ether	50	NA	53	106	80-122
1,2-Dichloroethane	50	NA	54	108	82-125
Trichloroethene	50	NA	51	101	84-115

KATAHDIN ANALYTICAL SERVICES
LAB CONTROL SAMPLE

Client:
Project: CTO407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date:
Analysis Date: 07/07/09
Report Date: 07/22/2009
Matrix: WATER

Lab ID: WG65935-1
Client ID: WG65935-LCS
SDG: SC3624
Extracted by:
Extraction Method: SW846 5030
Analyst: TTC
Analysis Method: SW846 8260B
Lab Prep Batch: WG65935
Units: ug/l

COMPOUND	LCS SPIKE	SAMPLE CONC.	LCS CONC.	%REC.	QC. LIMITS
Dibromomethane	50	NA	53	105	83-121
1,2-Dichloropropane	50	NA	52	104	79-121
Bromodichloromethane	50	NA	54	108	89-113
cis-1,3-dichloropropene	50	NA	51	102	87-118
1,4-Dioxane	1000	NA	1040	104	10-156
2-Chloroethylvinylether	50	NA	53	106	30-177
Toluene	50	NA	53	106	87-119
4-methyl-2-pentanone	50	NA	56	111	70-123
Tetrachloroethene	50	NA	43	86	58-147
trans-1,3-Dichloropropene	50	NA	57	114	90-137
1,1,2-Trichloroethane	50	NA	53	107	80-115
Dibromochloromethane	50	NA	56	112	84-122
1,3-Dichloropropane	50	NA	52	105	76-118
1,2-Dibromoethane	50	NA	53	107	83-116
2-Hexanone	50	NA	58	115	66-121
Chlorobenzene	50	NA	53	106	88-112
Ethylbenzene	50	NA	53	105	86-116
1,1,1,2-Tetrachloroethane	50	NA	54	108	83-118
Xylenes (total)	150	NA	157	105	84-120
m+p-Xylenes	100	NA	105	105	83-122
o-Xylene	50	NA	52	104	82-119
Styrene	50	NA	53	106	85-116
Bromoform	50	NA	55	111	78-127
Isopropylbenzene	50	NA	59	117	90-132
cis-1,4-Dichloro-2-Butene	50	NA	54	108	70-126
trans-1,4-Dichloro-2-Butene	50	NA	55	111	69-132
Bromobenzene	50	NA	51	103	87-113
N-Propylbenzene	50	NA	52	104	84-121
1,1,2,2-Tetrachloroethane	50	NA	55	110	72-119
1,3,5-Trimethylbenzene	50	NA	50	100	84-121
2-Chlorotoluene	50	NA	51	102	85-114
1,2,3-Trichloropropane	50	NA	53	106	74-114
4-Chlorotoluene	50	NA	52	105	81-120
tert-Butylbenzene	50	NA	53	106	73-132
Pentachloroethane	50	NA	67	134	32-163
1,2,4-Trimethylbenzene	50	NA	51	102	80-116
P-Isopropyltoluene	50	NA	52	104	82-125
1,3-Dichlorobenzene	50	NA	49	99	82-118
1,4-Dichlorobenzene	50	NA	51	103	83-113
N-Butylbenzene	50	NA	52	105	72-128
sec-Butylbenzene	50	NA	56	111	83-120
1,2-Dichlorobenzene	50	NA	52	103	83-116
1,2-Dibromo-3-Chloropropane	50	NA	52	103	69-121
1,3,5-Trichlorobenzene	50	NA	52	104	80-123
Hexachlorobutadiene	50	NA	54	108	61-124

KATAHDIN ANALYTICAL SERVICES
LAB CONTROL SAMPLE

Client:
Project: CTO407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date:
Analysis Date: 07/07/09
Report Date: 07/22/2009
Matrix: WATER

Lab ID: WG65935-1
Client ID: WG65935-LCS
SDG: SC3624
Extracted by:
Extraction Method: SW846 5030
Analyst: TTC
Analysis Method: SW846 8260B
Lab Prep Batch: WG65935
Units: ug/l

COMPOUND	LCS SPIKE	SAMPLE CONC.	LCS CONC.	%REC.	QC. LIMITS
1,2,4-Trichlorobenzene	50	NA	60	120	71-127
1,2,3-Trimethylbenzene	50	NA	51	101	89-115
Naphthalene	50	NA	51	101	57-132
1,2,3-Trichlorobenzene	50	NA	56	113	62-124
Methyl Acetate	50	NA	59	118	62-137
Methylcyclohexane	50	NA	50	101	74-128
1-Chlorohexane	50	NA	50	100	84-118
Total Alkylbenzenes	350	NA	366	104	60-140

KATAHDIN ANALYTICAL SERVICES
LAB CONTROL SAMPLE

Client:
Project: CTO407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date:
Analysis Date: 07/08/09
Report Date: 07/22/2009
Matrix: WATER

Lab ID: WG65987-1
Client ID: WG65987-LCS
SDG: SC3624
Extracted by:
Extraction Method: SW846 5030
Analyst: TTC
Analysis Method: SW846 8260B
Lab Prep Batch: WG65987
Units: ug/l

COMPOUND	LCS SPIKE	SAMPLE CONC.	LCS CONC.	%REC.	QC. LIMITS
Dichlorodifluoromethane	50	NA	38	76	40-192
Chloromethane	50	NA	40	79	47-151
Vinyl chloride	50	NA	40	80	63-141
Bromomethane	50	NA	46	92	41-169
Chloroethane	50	NA	48	96	57-145
Trichlorofluoromethane	50	NA	49	98	85-164
Diethyl Ether	50	NA	45	90	74-132
Tertiary-butyl alcohol	250	NA	259	104	30-162
1,1-Dichloroethene	50	NA	48	96	79-126
Carbon Disulfide	50	NA	39	77	72-127
Freon-113	50	NA	47	95	78-132
Iodomethane	50	NA	36	73	54-181
Acrolein	250	NA	245	98	67-125
Methylene Chloride	50	NA	46	92	70-120
Acetone	50	NA	52	105	54-134
Isobutyl Alcohol	1000	NA	1060	106	28-157
trans-1,2-Dichloroethene	50	NA	46	91	76-127
Allyl Chloride	50	NA	43	86	62-141
Methyl tert-butyl ether	100	NA	100	100	78-136
Acetonitrile	500	NA	326	65	47-143
Di-isopropyl ether	50	NA	44	88	72-129
Chloroprene	50	NA	46	92	74-132
Methacrylonitrile	500	NA	493	99	67-138
Propionitrile	500	NA	516	103	61-136
1,1-Dichloroethane	50	NA	49	98	80-126
Acrylonitrile	250	NA	253	101	63-135
Ethyl tertiary-butyl ether	50	NA	47	93	79-124
Vinyl Acetate	50	NA	42	84	68-135
cis-1,2-Dichloroethene	50	NA	56	112	80-116
1,2-Dichloroethylene (total)	100	NA	101	101	79-121
Methyl Methacrylate	50	NA	50	101	70-133
2,2-Dichloropropane	50	NA	54	107	66-150
Bromochloromethane	50	NA	53	106	90-131
Chloroform	50	NA	54	107	86-124
Carbon Tetrachloride	50	NA	52	104	73-146
Tetrahydrofuran	50	NA	56	112	66-120
1,1,1-Trichloroethane	50	NA	52	104	88-125
1,1-Dichloropropene	50	NA	48	95	84-123
2-Butanone	50	NA	62	124	59-125
Benzene	50	NA	48	96	88-115
Cyclohexane	50	NA	45	90	60-150
Ethyl Methacrylate	50	NA	54	107	76-121
Tertiary-amyl methyl ether	50	NA	48	97	80-122
1,2-Dichloroethane	50	NA	54	107	82-125
Trichloroethene	50	NA	49	99	84-115

KATAHDIN ANALYTICAL SERVICES
LAB CONTROL SAMPLE

Client:
Project: CTO407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date:
Analysis Date: 07/08/09
Report Date: 07/22/2009
Matrix: WATER

Lab ID: WG65987-1
Client ID: WG65987-LCS
SDG: SC3624
Extracted by:
Extraction Method: SW846 5030
Analyst: TTC
Analysis Method: SW846 8260B
Lab Prep Batch: WG65987
Units: ug/l

COMPOUND	LCS SPIKE	SAMPLE CONC.	LCS CONC.	%REC.	QC. LIMITS
Dibromomethane	50	NA	52	105	83-121
1,2-Dichloropropane	50	NA	48	95	79-121
Bromodichloromethane	50	NA	54	107	89-113
cis-1,3-dichloropropene	50	NA	49	99	87-118
1,4-Dioxane	1000	NA	852	85	10-156
2-Chloroethylvinylether	50	NA	53	105	30-177
Toluene	50	NA	51	102	87-119
4-methyl-2-pentanone	50	NA	57	114	70-123
Tetrachloroethene	50	NA	42	83	58-147
trans-1,3-Dichloropropene	50	NA	65	129	90-137
1,1,2-Trichloroethane	50	NA	55	109	80-115
Dibromochloromethane	50	NA	55	111	84-122
1,3-Dichloropropane	50	NA	50	101	76-118
1,2-Dibromoethane	50	NA	58	116	83-116
2-Hexanone	50	NA	52	104	66-121
Chlorobenzene	50	NA	51	102	88-112
Ethylbenzene	50	NA	51	103	86-116
1,1,1,2-Tetrachloroethane	50	NA	55	110	83-118
Xylenes (total)	150	NA	152	101	84-120
m+p-Xylenes	100	NA	102	102	83-122
o-Xylene	50	NA	49	99	82-119
Styrene	50	NA	51	102	85-116
Bromoform	50	NA	56	111	78-127
Isopropylbenzene	50	NA	58	115	90-132
cis-1,4-Dichloro-2-Butene	50	NA	56	112	70-126
trans-1,4-Dichloro-2-Butene	50	NA	54	107	69-132
Bromobenzene	50	NA	52	103	87-113
N-Propylbenzene	50	NA	50	99	84-121
1,1,2,2-Tetrachloroethane	50	NA	55	110	72-119
1,3,5-Trimethylbenzene	50	NA	49	98	84-121
2-Chlorotoluene	50	NA	49	98	85-114
1,2,3-Trichloropropane	50	NA	54	108	74-114
4-Chlorotoluene	50	NA	49	99	81-120
tert-Butylbenzene	50	NA	50	100	73-132
Pentachloroethane	50	NA	62	123	32-163
1,2,4-Trimethylbenzene	50	NA	49	98	80-116
P-Isopropyltoluene	50	NA	49	98	82-125
1,3-Dichlorobenzene	50	NA	48	95	82-118
1,4-Dichlorobenzene	50	NA	50	100	83-113
N-Butylbenzene	50	NA	49	98	72-128
sec-Butylbenzene	50	NA	52	104	83-120
1,2-Dichlorobenzene	50	NA	50	100	83-116
1,2-Dibromo-3-Chloropropane	50	NA	70	* 140	69-121
1,3,5-Trichlorobenzene	50	NA	50	100	80-123
Hexachlorobutadiene	50	NA	55	111	61-124

KATAHDIN ANALYTICAL SERVICES
LAB CONTROL SAMPLE

Client:
Project: CTO407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date:
Analysis Date: 07/08/09
Report Date: 07/22/2009
Matrix: WATER

Lab ID: WG65987-1
Client ID: WG65987-LCS
SDG: SC3624
Extracted by:
Extraction Method: SW846 5030
Analyst: TTC
Analysis Method: SW846 8260B
Lab Prep Batch: WG65987
Units: ug/l

COMPOUND	LCS SPIKE	SAMPLE CONC.	LCS CONC.	%REC.	QC. LIMITS
1,2,4-Trichlorobenzene	50	NA	67	* 135	71-127
1,2,3-Trimethylbenzene	50	NA	46	92	89-115
Naphthalene	50	NA	64	127	57-132
1,2,3-Trichlorobenzene	50	NA	73	* 146	62-124
Methyl Acetate	50	NA	50	99	62-137
Methylcyclohexane	50	NA	43	86	74-128
1-Chlorohexane	50	NA	44	89	84-118
Total Alkylbenzenes	350	NA	348	99	60-140

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE ID

WG65935-BLANK

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Lab File ID: T5265 Lab Sample ID: WG65935-2

Date Analyzed: 07/07/09 Time Analyzed: 1135

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

Instrument ID: GCMS-T

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	WG65935-LCS	WG65935-1	T5262	07/07/09	0956
02	WGL-GW-TB01-062909	SC3624-1	T5267	07/07/09	1235
03	WGL-GW-MW101-062909	SC3624-2	T5272	07/07/09	1630
04	WGL-GW-MW3-062909	SC3624-4	T5273	07/07/09	1700
05	WGL-GW-MW103-062909	SC3624-6	T5274	07/07/09	1731
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

COMMENTS:

FORM IVVOA

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE ID

WG65987-BLANK

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Lab File ID: T5295 Lab Sample ID: WG65987-2

Date Analyzed: 07/08/09 Time Analyzed: 1121

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

Instrument ID: GCMS-T

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	WG65987-LCS	WG65987-1	T5293	07/08/09	1007
02	WGL-GW-FB01-070109	SC3624-28	T5296	07/08/09	1151
03	WGL-GW-RB01-070109	SC3624-30	T5297	07/08/09	1222
04	WGL-GW-MW102-062909	SC3624-8	T5298	07/08/09	1253
05	WGL-GW-MW2-063009	SC3624-10	T5299	07/08/09	1323
06	WGL-GW-MW4-063009	SC3624-12	T5300	07/08/09	1354
07	-GW-MW38-063009	SC3624-14	T5301	07/08/09	1424
08	WGL-GW-MW40S-063009	SC3624-16	T5302	07/08/09	1455
09	WGL-GW-DUP01-063009	SC3624-18	T5303	07/08/09	1525
10	WGL-GW-MW48D-063009	SC3624-20	T5304	07/08/09	1556
11	WGL-GW-DUP02-063009	SC3624-22	T5305	07/08/09	1626
12	GL-GW-MW48D2-063009	SC3624-24	T5306	07/08/09	1657
13	WGL-GW-MW39-063009	SC3624-26	T5307	07/08/09	1727
14	-GW-MW38-063009MS	WG65987-3	T5308	07/08/09	1758
15	-GW-MW38-063009MSD	WG65987-4	T5309	07/08/09	1829
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

COMMENTS:

FORM IVVOA

FORM 5
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Lab File ID: TB892 BFB Injection Date: 07/06/09

Instrument ID: GCMS-T BFB Injection Time: 0906

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	20.3
75	30.0 - 60.0% of mass 95	36.0
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.8
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	90.3
175	5.0 - 9.0% of mass 174	6.7 (7.4)1
176	95.0 - 101.0% of mass 174	89.1 (98.7)1
177	5.0 - 9.0% of mass 176	6.8 (7.6)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		VSTD200T06A	T5250	07/06/09	1153
02		VSTD100T06A	T5251	07/06/09	1224
03		VSTD050T06C	T5252	07/06/09	1255
04		VSTD020T06A	T5253	07/06/09	1326
05		VSTD005T06A	T5254	07/06/09	1356
06		VSTD001T06A	T5255	07/06/09	1427
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

FORM V VOA

FORM 5
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Lab File ID: TB893 BFB Injection Date: 07/07/09

Instrument ID: GCMS-T BFB Injection Time: 0847

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.7
75	30.0 - 60.0% of mass 95	34.9
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.1
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	93.5
175	5.0 - 9.0% of mass 174	7.4 (7.9)1
176	95.0 - 101.0% of mass 174	89.7 (95.9)1
177	5.0 - 9.0% of mass 176	7.3 (8.2)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		VSTD050T07A	T5261	07/07/09	0913
02	WG65935-LCS	WG65935-1	T5262	07/07/09	0956
03	WG65935-BLANK	WG65935-2	T5265	07/07/09	1135
04	WGL-GW-TB01-062909	SC3624-1	T5267	07/07/09	1235
05	WGL-GW-MW101-062909	SC3624-2	T5272	07/07/09	1630
06	WGL-GW-MW3-062909	SC3624-4	T5273	07/07/09	1700
07	WGL-GW-MW103-062909	SC3624-6	T5274	07/07/09	1731
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

FORM V VOA

FORM 5
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Lab File ID: TB894 BFB Injection Date: 07/08/09

Instrument ID: GCMS-T BFB Injection Time: 0859

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.5
75	30.0 - 60.0% of mass 95	34.0
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.6
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	92.0
175	5.0 - 9.0% of mass 174	6.9 (7.5)1
176	95.0 - 101.0% of mass 174	90.2 (98.1)1
177	5.0 - 9.0% of mass 176	7.3 (8.1)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		VSTD050T08A	T5292	07/08/09	0924
02	WG65987-LCS	WG65987-1	T5293	07/08/09	1007
03	WG65987-BLANK	WG65987-2	T5295	07/08/09	1121
04	WGL-GW-FB01-070109	SC3624-28	T5296	07/08/09	1151
05	WGL-GW-RB01-070109	SC3624-30	T5297	07/08/09	1222
06	WGL-GW-MW102-062909	SC3624-8	T5298	07/08/09	1253
07	WGL-GW-MW2-063009	SC3624-10	T5299	07/08/09	1323
08	WGL-GW-MW4-063009	SC3624-12	T5300	07/08/09	1354
09	-GW-MW38-063009	SC3624-14	T5301	07/08/09	1424
10	WGL-GW-MW40S-063009	SC3624-16	T5302	07/08/09	1455
11	WGL-GW-DUP01-063009	SC3624-18	T5303	07/08/09	1525
12	WGL-GW-MW48D-063009	SC3624-20	T5304	07/08/09	1556
13	WGL-GW-DUP02-063009	SC3624-22	T5305	07/08/09	1626
14	GL-GW-MW48D2-063009	SC3624-24	T5306	07/08/09	1657
15	WGL-GW-MW39-063009	SC3624-26	T5307	07/08/09	1727
16	-GW-MW38-063009MS	WG65987-3	T5308	07/08/09	1758
17	-GW-MW38-063009MSD	WG65987-4	T5309	07/08/09	1829
18					
19					
20					
21					
22					

FORM V VOA

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project CTO407 NAS WEYMOUTH SDG No.: SC3624

Instrument ID: GCMS-T Calibration Date(s): 07/06/09 07/06/09

Column: RTX-VMS ID: 0.18 (mm) Calibration Time(s): 1153 1517

LAB FILE ID: RF1: T5255 RF5: T5254 RF20: T5253
RF50: T5252 RF100: T5251 RF200: T5250

COMPOUND	RF1	RF5	RF20	RF50	RF100	RF200	CURVE	COEFFICENTS A0	A1	A2	%RSD OR R^2	MAX %RSD OR R^2
Dichlorodifluoromethane	0.417	0.517	0.555	0.551	0.553	0.591	AVRG		0.53059124		11.394	15.000
Chloromethane	0.748	0.711	0.719	0.652	0.652	0.653	AVRG		0.68934712		6.121	15.000
Vinyl chloride	0.680	0.603	0.634	0.605	0.618	0.652	AVRG		0.63189676		4.696	15.000
Bromomethane	5471	13231	40939	104130	194800	337760	LINR	-7.44e-002	3.39782777		0.99590	0.99000
Chloroethane	1565	8313	28029	69591	121190	205310	2ORDR	-2.86e-004	3.83121455	2.56195941	0.99980	0.99000
Trichlorofluoromethane	0.629	0.676	0.673	0.608	0.535		AVRG		0.62416753		9.251	15.000
1,1-Dichloroethene	0.512	0.494	0.479	0.477	0.492	0.502	AVRG		0.49264172		2.655	15.000
Acetone	0.130	0.141	0.176	0.148	0.156	0.164	AVRG		0.15244670		10.901	15.000
Carbon Disulfide	2.016	1.746	1.650	1.623	1.704	1.604	AVRG		1.72376882		8.853	15.000
Methyl Acetate	902	6991	46066	112510	235010	562100	2ORDR	6.599e-003	2.81902128	-0.3918719	0.99985	0.99000
Methylene Chloride	0.755	0.562	0.546	0.548	0.554	0.560	AVRG		0.58740252		13.986	15.000
trans-1,2-Dichloroethene	0.603	0.547	0.543	0.547	0.568	0.576	AVRG		0.56407917		4.131	15.000
Methyl tert-butyl ether	1.260	1.151	1.278	1.237	1.268	1.385	AVRG		1.26301272		5.960	15.000
1,1-Dichloroethane	0.817	0.894	0.875	0.894	0.908	0.939	AVRG		0.88783988		4.577	15.000
cis-1,2-Dichloroethene	0.513	0.545	0.538	0.529	0.541	0.546	AVRG		0.53530289		2.332	15.000
2-Butanone	2718	25269	142180	318470	655360	1461800	LINR	0.30728261	3.99441245		0.99558	0.99000
Chloroform	0.787	0.826	0.819	0.825	0.881	0.880	AVRG		0.83636724		4.444	15.000
1,1,1-Trichloroethane	0.642	0.682	0.685	0.675	0.694	0.726	AVRG		0.68398129		3.999	15.000
Cyclohexane	0.850	0.839	0.803	0.793	0.839	0.847	AVRG		0.82850183		2.932	15.000
Carbon Tetrachloride	0.311	0.393	0.406	0.398	0.416	0.413	AVRG		0.38966757		10.142	15.000
Benzene	1.202	1.250	1.264	1.209	1.235	1.215	AVRG		1.22904418		1.987	15.000
1,2-Dichloroethane	0.458	0.414	0.444	0.417	0.426	0.432	AVRG		0.43183715		3.829	15.000
Trichloroethene	0.356	0.359	0.366	0.334	0.334	0.324	AVRG		0.34583249		4.853	15.000
Methylcyclohexane	0.982	0.754	0.765	0.747	0.779	0.781	AVRG		0.80121703		11.159	15.000
1,2-Dichloropropane	0.320	0.303	0.328	0.304	0.302	0.293	AVRG		0.30829005		4.264	15.000
Bromodichloromethane	0.419	0.427	0.446	0.426	0.435	0.420	AVRG		0.42860222		2.371	15.000
cis-1,3-dichloropropene	0.567	0.490	0.524	0.467	0.483	0.473	AVRG		0.50069643		7.602	15.000
4-methyl-2-pentanone	0.313	0.289	0.342	0.289	0.277	0.280	AVRG		0.29859353		8.343	15.000
Toluene	0.831	0.771	0.792	0.722	0.701	0.663	AVRG		0.74667295		8.357	15.000
trans-1,3-Dichloropropene	0.432	0.406	0.439	0.372	0.398	0.406	AVRG		0.40864304		5.926	15.000
1,1,2-Trichloroethane	0.237	0.223	0.249	0.224	0.217	0.215	AVRG		0.22741904		5.760	15.000
Tetrachloroethene	0.503	0.551	0.608	0.459	0.487	0.403	AVRG		0.50197761		14.208	15.000
2-Hexanone	0.226	0.217	0.277	0.250	0.249	0.279	AVRG		0.24980627		10.177	15.000
Dibromochloromethane	0.454	0.445	0.469	0.476	0.488	0.505	AVRG		0.47299725		4.591	15.000
1,2-Dibromoethane	0.336	0.323	0.372	0.320	0.326	0.331	AVRG		0.33469522		5.764	15.000
Chlorobenzene	1.102	1.064	1.045	0.997	0.988	0.924	AVRG		1.02014446		6.224	15.000
Ethylbenzene	0.525	0.542	0.541	0.529	0.530	0.522	AVRG		0.53147264		1.537	15.000
m+p-Xylenes	0.692	0.693	0.660	0.630	0.613	0.564	AVRG		0.64234195		7.784	15.000
o-Xylene	0.645	0.692	0.637	0.612	0.620	0.610	AVRG		0.63610617		4.807	15.000
Xylenes (total)							AVRG					0.000
Styrene	1.010	1.072	1.076	1.049	1.058	1.028	AVRG		1.04878707		2.461	15.000
Bromoform	0.301	0.308	0.339	0.315	0.324	0.350	AVRG		0.32286207		5.862	15.000
Isopropylbenzene	3.176	3.210	3.269	2.820	2.763	2.608	AVRG		2.97427228		9.339	15.000
1,1,2,2-Tetrachloroethane	0.861	0.749	0.874	0.771	0.740	0.782	AVRG		0.79615095		7.192	15.000

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project CTO407 NAS WEYMOUTH SDG No.: SC3624

Instrument ID: GCMS-T Calibration Date(s): 07/06/09 07/06/09

Column: RTX-VMS ID: 0.18 (mm) Calibration Time(s): 1153 1517

LAB FILE ID: RF1: T5255 RF5: T5254 RF20: T5253
RF50: T5252 RF100: T5251 RF200: T5250

COMPOUND	RF1	RF5	RF20	RF50	RF100	RF200	CURVE	COEFFICENTS A0	A1	A2	%RSD OR R^2	MAX %RSD OR R^2
1,3-Dichlorobenzene	2.197	1.744	1.722	1.585	1.562	1.502	AVRG		1.71865443		14.693	15.000
1,4-Dichlorobenzene	2.049	1.682	1.613	1.589	1.550	1.484	AVRG		1.66119412		12.115	15.000
1,2-Dichlorobenzene	1.611	1.574	1.552	1.444	1.435	1.379	AVRG		1.49924557		6.154	15.000
1,2-Dibromo-3-Chloropropa	0.127	0.100	0.101	0.107	0.095	0.128	AVRG		0.10972183		12.767	15.000
1,2,4-Trichlorobenzene	0.664	0.555	0.692	0.752	0.768	0.782	AVRG		0.70209808		12.150	15.000
Dibromofluoromethane	0.602	0.587	0.584	0.625	0.618	0.627	AVRG		0.60717548		3.121	15.000
1,2-Dichloroethane-D4	0.552	0.525	0.534	0.527	0.552	0.567	AVRG		0.54308108		3.087	15.000
Toluene-D8	1.183	1.124	1.150	1.131	1.099	1.036	AVRG		1.12044153		4.473	15.000
P-Bromofluorobenzene	0.494	0.415	0.443	0.406	0.402	0.386	AVRG		0.42450050		9.188	15.000

Average %RSD test result.

Calculate Average %RSD: 7.665461540
Maximum Average %RSD: 15.00000000

Note: Passes Average %RSD Test.

FORM VI VOA

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Instrument ID: GCMS-T Calibration Date: 07/07/09 Time: 0913

Lab File ID: T5261 Init. Calib. Date(s): 07/06/09 07/06/09

Init. Calib. Times: 1153 1517

GC Column: RTX-VMS ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
Dichlorodifluoromethane	0.5310000	0.5742700	0.5742700	0.01	8.15		AVRG
Chloromethane	0.6890000	0.6899500	0.6899500	0.1	0.14		AVRG
Vinyl chloride	0.6320000	0.6540900	0.6540900	0.01	3.50	20.00	AVRG
Bromomethane	51.121000	50.000000	0.3223000	0.01	2.24		LINR
Chloroethane	47.135000	50.000000	0.2151700	0.01	-5.73		2RDR
Trichlorofluoromethane	0.6240000	0.6497300	0.6497300	0.01	4.12		AVRG
1,1-Dichloroethene	0.4930000	0.5106000	0.5106000	0.01	3.57	20.00	AVRG
Acetone	0.1520000	0.1666400	0.1666400	0.01	9.63		AVRG
Carbon Disulfide	1.7240000	1.6632000	1.6632000	0.01	-3.53		AVRG
Methyl Acetate	56.566000	50.000000	0.4239600	0.01	13.13		2RDR
Methylene Chloride	0.5880000	0.5717700	0.5717700	0.01	-2.76		AVRG
trans-1,2-Dichloroethene	0.5640000	0.5652600	0.5652600	0.01	0.22		AVRG
Methyl tert-butyl ether	1.2630000	1.3418000	1.3418000	0.01	6.24		AVRG
1,1-Dichloroethane	0.8880000	0.8956700	0.8956700	0.1	0.86		AVRG
cis-1,2-Dichloroethene	0.5350000	0.5511500	0.5511500	0.01	3.02		AVRG
2-Butanone	249.14000	250.00000	0.2341000	0.01	-0.34		LINR
Chloroform	0.8360000	0.8833600	0.8833600	0.01	5.66	20.00	AVRG
1,1,1-Trichloroethane	0.6840000	0.7035600	0.7035600	0.01	2.86		AVRG
Cyclohexane	0.8280000	0.8321400	0.8321400	0.01	0.50		AVRG
Carbon Tetrachloride	0.3900000	0.4094900	0.4094900	0.01	5.00		AVRG
Benzene	1.2290000	1.2543000	1.2543000	0.01	2.06		AVRG
1,2-Dichloroethane	0.4320000	0.4311300	0.4311300	0.01	-0.20		AVRG
Trichloroethene	0.3460000	0.3430700	0.3430700	0.01	-0.85		AVRG
Methylcyclohexane	0.8010000	0.7832300	0.7832300	0.01	-2.22		AVRG
1,2-Dichloropropane	0.3080000	0.3171400	0.3171400	0.01	2.97	20.00	AVRG
Bromodichloromethane	0.4290000	0.4433800	0.4433800	0.01	3.35		AVRG
cis-1,3-dichloropropene	0.5010000	0.5011600	0.5011600	0.01	0.03		AVRG
4-methyl-2-pentanone	0.2980000	0.3077700	0.3077700	0.01	3.28		AVRG
Toluene	0.7470000	0.7536800	0.7536800	0.01	0.89	20.00	AVRG

FORM VII PEST

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Instrument ID: GCMS-T Calibration Date: 07/07/09 Time: 0913

Lab File ID: T5261 Init. Calib. Date(s): 07/06/09 07/06/09

Init. Calib. Times: 1153 1517

GC Column: RTX-VMS ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
trans-1,3-Dichloropropene	0.4090000	0.4178800	0.4178800	0.01	2.17		AVRG	
1,1,2-Trichloroethane	0.2280000	0.2373000	0.2373000	0.01	4.08		AVRG	
Tetrachloroethene	0.5020000	0.4106200	0.4106200	0.01	-18.20		AVRG	
2-Hexanone	0.2500000	0.2696800	0.2696800	0.01	7.87		AVRG	
Dibromochloromethane	0.4730000	0.4870800	0.4870800	0.01	2.98		AVRG	
1,2-Dibromoethane	0.3350000	0.3495400	0.3495400	0.01	4.34		AVRG	
Chlorobenzene	1.0200000	1.0124000	1.0124000	0.3	-0.74		AVRG	
Ethylbenzene	0.5320000	0.5312000	0.5312000	0.01	-0.15	20.00	AVRG	
m+p-Xylenes	0.6420000	0.6314100	0.6314100	0.01	-1.65		AVRG	
o-Xylene	0.6360000	0.6160900	0.6160900	0.01	-3.13		AVRG	
Xylenes (total)	0.0000000	0.6263000	0.6263000	0.01	0.00		AVRG	<-
Styrene	1.0490000	1.0534000	1.0534000	0.01	0.42		AVRG	
Bromoform	0.3230000	0.3279800	0.3279800	0.1	1.54		AVRG	
Isopropylbenzene	2.9740000	2.8550000	2.8550000	0.01	-4.00		AVRG	
1,1,2,2-Tetrachloroethane	0.7960000	0.8151900	0.8151900	0.3	2.41		AVRG	
1,3-Dichlorobenzene	1.7190000	1.5802000	1.5802000	0.01	-8.07		AVRG	
1,4-Dichlorobenzene	1.6610000	1.5942000	1.5942000	0.01	-4.02		AVRG	
1,2-Dichlorobenzene	1.4990000	1.4606000	1.4606000	0.01	-2.56		AVRG	
1,2-Dibromo-3-Chloropropane	0.1100000	0.1071600	0.1071600	0.01	-2.58		AVRG	
1,2,4-Trichlorobenzene	0.7020000	0.7403200	0.7403200	0.01	5.46		AVRG	
Dibromofluoromethane	0.6070000	0.5992700	0.5992700	0.01	-1.27		AVRG	
1,2-Dichloroethane-D4	0.5430000	0.5118600	0.5118600	0.01	-5.73		AVRG	
Toluene-D8	1.1200000	1.0603000	1.0603000	0.01	-5.33		AVRG	
P-Bromofluorobenzene	0.4240000	0.4197700	0.4197700	0.01	-1.00		AVRG	

FORM VII PEST

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Instrument ID: GCMS-T Calibration Date: 07/08/09 Time: 0924

Lab File ID: T5292 Init. Calib. Date(s): 07/06/09 07/06/09

Init. Calib. Times: 1153 1517

GC Column: RTX-VMS ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
Dichlorodifluoromethane	0.5310000	0.6138100	0.6138100	0.01	15.60		AVRG
Chloromethane	0.6890000	0.6379300	0.6379300	0.1	-7.41		AVRG
Vinyl chloride	0.6320000	0.6168800	0.6168800	0.01	-2.39	20.00	AVRG
Bromomethane	43.403000	50.000000	0.2773600	0.01	-13.19		LINR
Chloroethane	54.231000	50.000000	0.2435200	0.01	8.46		2RDR
Trichlorofluoromethane	0.6240000	0.7097200	0.7097200	0.01	13.74		AVRG
1,1-Dichloroethene	0.4930000	0.5115300	0.5115300	0.01	3.76	20.00	AVRG
Acetone	0.1520000	0.1590000	0.1590000	0.01	4.60		AVRG
Carbon Disulfide	1.7240000	1.6306000	1.6306000	0.01	-5.42		AVRG
Methyl Acetate	57.500000	50.000000	0.4314900	0.01	15.00		2RDR
Methylene Chloride	0.5880000	0.5623000	0.5623000	0.01	-4.37		AVRG
trans-1,2-Dichloroethene	0.5640000	0.5816600	0.5816600	0.01	3.13		AVRG
Methyl tert-butyl ether	1.2630000	1.3505000	1.3505000	0.01	6.93		AVRG
1,1-Dichloroethane	0.8880000	0.9068900	0.9068900	0.1	2.13		AVRG
cis-1,2-Dichloroethene	0.5350000	0.5609600	0.5609600	0.01	4.85		AVRG
2-Butanone	247.90000	250.00000	0.2328600	0.01	-0.84		LINR
Chloroform	0.8360000	0.9044200	0.9044200	0.01	8.18	20.00	AVRG
1,1,1-Trichloroethane	0.6840000	0.7685600	0.7685600	0.01	12.36		AVRG
Cyclohexane	0.8280000	0.7947000	0.7947000	0.01	-4.02		AVRG
Carbon Tetrachloride	0.3900000	0.4348600	0.4348600	0.01	11.50		AVRG
Benzene	1.2290000	1.2621000	1.2621000	0.01	2.69		AVRG
1,2-Dichloroethane	0.4320000	0.4717100	0.4717100	0.01	9.19		AVRG
Trichloroethene	0.3460000	0.3462900	0.3462900	0.01	0.08		AVRG
Methylcyclohexane	0.8010000	0.7357800	0.7357800	0.01	-8.14		AVRG
1,2-Dichloropropane	0.3080000	0.3064200	0.3064200	0.01	-0.51	20.00	AVRG
Bromodichloromethane	0.4290000	0.4651900	0.4651900	0.01	8.44		AVRG
cis-1,3-dichloropropene	0.5010000	0.5169200	0.5169200	0.01	3.18		AVRG
4-methyl-2-pentanone	0.2980000	0.3141300	0.3141300	0.01	5.41		AVRG
Toluene	0.7470000	0.7678200	0.7678200	0.01	2.79	20.00	AVRG

FORM VII PEST

FORM 7B
VOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CT0407 NAS WEYMOUTH SDG No.: SC3624

Instrument ID: GCMS-T Calibration Date: 07/08/09 Time: 0924

Lab File ID: T5292 Init. Calib. Date(s): 07/06/09 07/06/09

Init. Calib. Times: 1153 1517

GC Column: RTX-VMS ID: 0.18 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
trans-1,3-Dichloropropene	0.4090000	0.4220100	0.4220100	0.01	3.18		AVRG	
1,1,2-Trichloroethane	0.2280000	0.2346300	0.2346300	0.01	2.91		AVRG	
Tetrachloroethene	0.5020000	0.4555100	0.4555100	0.01	-9.26		AVRG	
2-Hexanone	0.2500000	0.2696000	0.2696000	0.01	7.84		AVRG	
Dibromochloromethane	0.4730000	0.5295400	0.5295400	0.01	11.95		AVRG	
1,2-Dibromoethane	0.3350000	0.3547700	0.3547700	0.01	5.90		AVRG	
Chlorobenzene	1.0200000	1.0723000	1.0723000	0.3	5.13		AVRG	
Ethylbenzene	0.5320000	0.5688800	0.5688800	0.01	6.93	20.00	AVRG	
m+p-Xylenes	0.6420000	0.6585800	0.6585800	0.01	2.58		AVRG	
o-Xylene	0.6360000	0.6602700	0.6602700	0.01	3.82		AVRG	
Xylenes (total)	0.0000000	0.6591500	0.6591500	0.01	0.00		AVRG	<-
Styrene	1.0490000	1.1085000	1.1085000	0.01	5.67		AVRG	
Bromoform	0.3230000	0.3781900	0.3781900	0.1	17.09		AVRG	
Isopropylbenzene	2.9740000	2.8727000	2.8727000	0.01	-3.41		AVRG	
1,1,2,2-Tetrachloroethane	0.7960000	0.8689200	0.8689200	0.3	9.16		AVRG	
1,3-Dichlorobenzene	1.7190000	1.6482000	1.6482000	0.01	-4.12		AVRG	
1,4-Dichlorobenzene	1.6610000	1.6356000	1.6356000	0.01	-1.53		AVRG	
1,2-Dichlorobenzene	1.4990000	1.5388000	1.5388000	0.01	2.66		AVRG	
1,2-Dibromo-3-Chloropropane	0.1100000	0.1467800	0.1467800	0.01	33.44		AVRG	
1,2,4-Trichlorobenzene	0.7020000	0.9223200	0.9223200	0.01	31.38		AVRG	
Dibromofluoromethane	0.6070000	0.6351300	0.6351300	0.01	4.63		AVRG	
1,2-Dichloroethane-D4	0.5430000	0.5709200	0.5709200	0.01	5.14		AVRG	
Toluene-D8	1.1200000	1.0738000	1.0738000	0.01	-4.12		AVRG	
P-Bromofluorobenzene	0.4240000	0.4158400	0.4158400	0.01	-1.92		AVRG	

FORM VII PEST

FORM 8
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Lab File ID (Standard): T5261 Date Analyzed: 07/07/09

Instrument ID: GCMS-T Time Analyzed: 0913

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

	IS1(PFB) AREA #	IS1(PFB) RT #	IS2(DFB) AREA #	IS2(DFB) RT #	IS3(CBZ) AREA #	IS3(CBZ) RT #
12 HOUR STD	289660	8.42	426348	9.27	342446	12.77
UPPER LIMIT	579320	8.92	852696	9.77	684892	13.27
LOWER LIMIT	144830	7.92	213174	8.77	171223	12.27

	CLIENT SAMPLE ID	LAB SAMPLE ID	IS1(PFB) AREA #	IS1(PFB) RT #	IS2(DFB) AREA #	IS2(DFB) RT #	IS3(CBZ) AREA #	IS3(CBZ) RT #
01	WG65935-LCS	WG65935-1	269789	8.42	406713	9.27	324555	12.77
02	WG65935-BLANK	WG65935-2	286847	8.42	425201	9.26	368378	12.77
03	WGL-GW-TB01-062909	SC3624-1	300673	8.43	454512	9.28	364069	12.77
04	WGL-GW-MW101-062909	SC3624-2	272937	8.41	417793	9.26	335096	12.77
05	WGL-GW-MW3-062909	SC3624-4	273903	8.42	408617	9.26	332690	12.77
06	WGL-GW-MW103-062909	SC3624-6	262682	8.42	404655	9.27	329336	12.77
07								
08								
09								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

IS1 (PFB) = Pentafluorobenzene
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

FORM VIII VOA

FORM 8
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Lab File ID (Standard): T5261 Date Analyzed: 07/07/09

Instrument ID: GCMS-T Time Analyzed: 0913

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

	IS4(DCB) AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	167186	15.91				
UPPER LIMIT	334372	16.41				
LOWER LIMIT	83593	15.41				

	CLIENT SAMPLE ID	LAB SAMPLE ID						
01	WG65935-LCS	WG65935-1	159575	15.91				
02	WG65935-BLANK	WG65935-2	149899	15.91				
03	WGL-GW-TB01-062909	SC3624-1	152041	15.91				
04	WGL-GW-MW101-062909	SC3624-2	154889	15.91				
05	WGL-GW-MW3-062909	SC3624-4	148737	15.91				
06	WGL-GW-MW103-062909	SC3624-6	145612	15.90				
07								
08								
09								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

IS4 (DCB) = 1,4-Dichlorobenzene-D4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

FORM VIII VOA

FORM 8
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Lab File ID (Standard): T5292 Date Analyzed: 07/08/09

Instrument ID: GCMS-T Time Analyzed: 0924

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

	IS1(PFB) AREA #	IS1(PFB) RT #	IS2(DFB) AREA #	IS2(DFB) RT #	IS3(CBZ) AREA #	IS3(CBZ) RT #
12 HOUR STD	242114	8.41	352920	9.26	279032	12.77
UPPER LIMIT	484228	8.91	705840	9.76	558064	13.27
LOWER LIMIT	121057	7.91	176460	8.76	139516	12.27

	CLIENT SAMPLE ID	LAB SAMPLE ID	IS1(PFB) AREA #	IS1(PFB) RT #	IS2(DFB) AREA #	IS2(DFB) RT #	IS3(CBZ) AREA #	IS3(CBZ) RT #
01	WG65987-LCS	WG65987-1	236817	8.42	358345	9.27	317102	12.78
02	WG65987-BLANK	WG65987-2	246415	8.41	351231	9.26	288907	12.77
03	WGL-GW-FB01-070109	SC3624-28	242958	8.41	347262	9.26	289601	12.77
04	WGL-GW-RB01-070109	SC3624-30	244543	8.41	354138	9.26	286803	12.77
05	WGL-GW-MW102-062909	SC3624-8	227151	8.41	339974	9.26	277670	12.77
06	WGL-GW-MW2-063009	SC3624-10	234456	8.40	337849	9.26	275289	12.76
07	WGL-GW-MW4-063009	SC3624-12	254531	8.40	378640	9.26	286348	12.77
08	-GW-MW38-063009	SC3624-14	229866	8.41	327550	9.26	277398	12.77
09	WGL-GW-MW40S-063009	SC3624-16	228829	8.40	324099	9.26	276538	12.77
10	WGL-GW-DUP01-063009	SC3624-18	273522	8.40	391991	9.26	293475	12.76
11	WGL-GW-MW48D-063009	SC3624-20	230840	8.41	335688	9.26	280684	12.77
12	WGL-GW-DUP02-063009	SC3624-22	230361	8.41	345280	9.26	283996	12.77
13	GL-GW-MW48D2-063009	SC3624-24	228229	8.40	327108	9.26	267457	12.76
14	WGL-GW-MW39-063009	SC3624-26	241920	8.40	351721	9.26	268828	12.77
15	-GW-MW38-063009MS	WG65987-3	236324	8.40	336418	9.26	271362	12.76
16	-GW-MW38-063009MSD	WG65987-4	241418	8.41	343620	9.25	274147	12.76
17								
18								
19								
20								

IS1 (PFB) = Pentafluorobenzene
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-D5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

FORM VIII VOA

FORM 8
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Lab File ID (Standard): T5292 Date Analyzed: 07/08/09

Instrument ID: GCMS-T Time Analyzed: 0924

GC Column: RTX-VMS ID: 0.18 (mm) Heated Purge: (Y/N) N

	IS4(DCB) AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	145111	15.91				
UPPER LIMIT	290222	16.41				
LOWER LIMIT	72556	15.41				

	CLIENT SAMPLE ID	LAB SAMPLE ID						
01	WG65987-LCS	WG65987-1	149083	15.91				
02	WG65987-BLANK	WG65987-2	136321	15.91				
03	WGL-GW-FB01-070109	SC3624-28	130129	15.91				
04	WGL-GW-RB01-070109	SC3624-30	134455	15.91				
05	WGL-GW-MW102-062909	SC3624-8	129783	15.91				
06	WGL-GW-MW2-063009	SC3624-10	128518	15.90				
07	WGL-GW-MW4-063009	SC3624-12	125387	15.91				
08	-GW-MW38-063009	SC3624-14	128633	15.91				
09	WGL-GW-MW40S-063009	SC3624-16	123862	15.91				
10	WGL-GW-DUP01-063009	SC3624-18	126685	15.90				
11	WGL-GW-MW48D-063009	SC3624-20	124790	15.91				
12	WGL-GW-DUP02-063009	SC3624-22	125574	15.91				
13	GL-GW-MW48D2-063009	SC3624-24	124636	15.90				
14	WGL-GW-MW39-063009	SC3624-26	125945	15.91				
15	-GW-MW38-063009MS	WG65987-3	135957	15.90				
16	-GW-MW38-063009MSD	WG65987-4	140790	15.89				
17								
18								
19								
20								

IS4 (DCB) = 1,4-Dichlorobenzene-D4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

FORM VIII VOA

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/29/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 20-JUL-2009 22:13
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-2
Client ID: WGL-GW-MW101-062909
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: CAM
Analysis Method: SW846 8270C
Lab Prep Batch: WG65862
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
123-91-1	1,4-Dioxane	U	9	1.0	10	9	2
100-52-7	Benzaldehyde	U	9	1.0	10	9	0.9
108-95-2	Phenol	U	9	1.0	10	9	2
111-44-4	Bis(2-Chloroethyl)ether	U	9	1.0	10	9	2
95-57-8	2-Chlorophenol	U	9	1.0	10	9	3
95-48-7	2-Methylphenol	U	9	1.0	10	9	4
108-60-1	2,2'-Oxybis(1-chloropropane)	U	9	1.0	10	9	2
98-86-2	Acetophenone	U	9	1.0	10	9	4
621-64-7	N-Nitroso-di-n-propylamine	U	9	1.0	10	9	2
65794-96-9	3&4-Methylphenol	U	9	1.0	10	9	5
67-72-1	Hexachloroethane	U	9	1.0	10	9	2
98-95-3	Nitrobenzene	U	9	1.0	10	9	3
78-59-1	Isophorone	U	9	1.0	10	9	2
88-75-5	2-Nitrophenol	U	9	1.0	10	9	2
105-67-9	2,4-Dimethylphenol	U	9	1.0	10	9	4
111-91-1	Bis(2-Chloroethoxy)methane	U	9	1.0	10	9	2
120-83-2	2,4-Dichlorophenol	U	9	1.0	10	9	3
91-20-3	Naphthalene	U	9	1.0	10	9	2
106-47-8	4-Chloroaniline	U	9	1.0	10	9	2
87-68-3	Hexachlorobutadiene	U	9	1.0	10	9	2
105-60-2	Caprolactam	U	9	1.0	10	9	0.4
59-50-7	4-Chloro-3-Methylphenol	U	9	1.0	10	9	3
91-57-6	2-Methylnaphthalene	U	9	1.0	10	9	3
77-47-4	Hexachlorocyclopentadiene	U	9	1.0	10	9	1
88-06-2	2,4,6-Trichlorophenol	U	9	1.0	10	9	2
95-95-4	2,4,5-Trichlorophenol	U	24	1.0	25	24	3
91-58-7	2-Chloronaphthalene	U	9	1.0	10	9	3
92-52-4	1,1'-Biphenyl	U	9	1.0	10	9	2
88-74-4	2-Nitroaniline	U	24	1.0	25	24	2
131-11-3	Dimethyl Phthalate	U	9	1.0	10	9	2
606-20-2	2,6-Dinitrotoluene	U	9	1.0	10	9	2
208-96-8	Acenaphthylene	U	9	1.0	10	9	1
99-09-2	3-Nitroaniline	U	24	1.0	25	24	1
83-32-9	Acenaphthene	U	9	1.0	10	9	1
51-28-5	2,4-Dinitrophenol	U	24	1.0	25	24	1
132-64-9	Dibenzofuran	U	9	1.0	10	9	1
100-02-7	4-Nitrophenol	U	24	1.0	25	24	2
121-14-2	2,4-Dinitrotoluene	U	9	1.0	10	9	2
84-66-2	Diethylphthalate	U	9	1.0	10	9	2
86-73-7	Fluorene	U	9	1.0	10	9	2
7005-72-3	4-Chlorophenyl-phenylether	U	9	1.0	10	9	2
100-01-6	4-Nitroaniline	U	24	1.0	25	24	2
534-52-1	4,6-Dinitro-2-Methylphenol	U	24	1.0	25	24	2

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/29/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 20-JUL-2009 22:13
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-2
Client ID: WGL-GW-MW101-062909
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: CAM
Analysis Method: SW846 8270C
Lab Prep Batch: WG65862
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
86-30-6	N-Nitrosodiphenylamine	U	9	1.0	10	9	3
101-55-3	4-Bromophenyl-phenylether	U	9	1.0	10	9	2
118-74-1	Hexachlorobenzene	U	9	1.0	10	9	2
1912-24-9	Atrazine	U	9	1.0	10	9	3
87-86-5	Pentachlorophenol	U	24	1.0	25	24	2
85-01-8	Phenanthrene	U	9	1.0	10	9	2
120-12-7	Anthracene	U	9	1.0	10	9	2
86-74-8	Carbazole	U	9	1.0	10	9	2
84-74-2	Di-n-butylphthalate	U	9	1.0	10	9	2
206-44-0	Fluoranthene	U	9	1.0	10	9	2
129-00-0	Pyrene	U	9	1.0	10	9	2
85-68-7	Butylbenzylphthalate	U	9	1.0	10	9	2
56-55-3	Benzo(a)anthracene	U	9	1.0	10	9	1
91-94-1	3,3'-Dichlorobenzidine	U	9	1.0	10	9	1
218-01-9	Chrysene	U	9	1.0	10	9	2
117-81-7	bis(2-Ethylhexyl)phthalate	U	9	1.0	10	9	2
117-84-0	Di-n-octylphthalate	U	9	1.0	10	9	2
205-99-2	Benzo(b)fluoranthene	U	9	1.0	10	9	1
207-08-9	Benzo(k)fluoranthene	U	9	1.0	10	9	2
50-32-8	Benzo(a)pyrene	U	9	1.0	10	9	1
193-39-5	Indeno(1,2,3-cd)pyrene	U	9	1.0	10	9	2
53-70-3	Dibenzo(a,h)anthracene	U	9	1.0	10	9	2
191-24-2	Benzo(g,h,i)perylene	U	9	1.0	10	9	1
367-12-4	2-Fluorophenol		38%				
13127-88-3	Phenol-D6		21%				
4165-60-0	Nitrobenzene-D5		62%				
321-60-8	2-Fluorobiphenyl		68%				
118-79-6	2,4,6-Tribromophenol		87%				
1718-51-0	Terphenyl-D14		71%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/29/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 20-JUL-2009 22:57
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-4
Client ID: WGL-GW-MW3-062909
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: CAM
Analysis Method: SW846 8270C
Lab Prep Batch: WG65862
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
123-91-1	1,4-Dioxane	U	9	1.0	10	9	2
100-52-7	Benzaldehyde	U	9	1.0	10	9	0.9
108-95-2	Phenol	U	9	1.0	10	9	2
111-44-4	Bis(2-Chloroethyl)ether	U	9	1.0	10	9	2
95-57-8	2-Chlorophenol	U	9	1.0	10	9	3
95-48-7	2-Methylphenol	U	9	1.0	10	9	4
108-60-1	2,2'-Oxybis(1-chloropropane)	U	9	1.0	10	9	2
98-86-2	Acetophenone	U	9	1.0	10	9	4
621-64-7	N-Nitroso-di-n-propylamine	U	9	1.0	10	9	2
65794-96-9	3&4-Methylphenol	U	9	1.0	10	9	5
67-72-1	Hexachloroethane	U	9	1.0	10	9	2
98-95-3	Nitrobenzene	U	9	1.0	10	9	3
78-59-1	Isophorone	U	9	1.0	10	9	2
88-75-5	2-Nitrophenol	U	9	1.0	10	9	2
105-67-9	2,4-Dimethylphenol	U	9	1.0	10	9	4
111-91-1	Bis(2-Chloroethoxy)methane	U	9	1.0	10	9	2
120-83-2	2,4-Dichlorophenol	U	9	1.0	10	9	3
91-20-3	Naphthalene	U	9	1.0	10	9	2
106-47-8	4-Chloroaniline	U	9	1.0	10	9	2
87-68-3	Hexachlorobutadiene	U	9	1.0	10	9	2
105-60-2	Caprolactam	U	9	1.0	10	9	0.4
59-50-7	4-Chloro-3-Methylphenol	U	9	1.0	10	9	3
91-57-6	2-Methylnaphthalene	U	9	1.0	10	9	3
77-47-4	Hexachlorocyclopentadiene	U	9	1.0	10	9	1
88-06-2	2,4,6-Trichlorophenol	U	9	1.0	10	9	2
95-95-4	2,4,5-Trichlorophenol	U	24	1.0	25	24	3
91-58-7	2-Chloronaphthalene	U	9	1.0	10	9	3
92-52-4	1,1'-Biphenyl	U	9	1.0	10	9	2
88-74-4	2-Nitroaniline	U	24	1.0	25	24	2
131-11-3	Dimethyl Phthalate	U	9	1.0	10	9	2
606-20-2	2,6-Dinitrotoluene	U	9	1.0	10	9	2
208-96-8	Acenaphthylene	U	9	1.0	10	9	1
99-09-2	3-Nitroaniline	U	24	1.0	25	24	1
83-32-9	Acenaphthene	U	9	1.0	10	9	1
51-28-5	2,4-Dinitrophenol	U	24	1.0	25	24	1
132-64-9	Dibenzofuran	U	9	1.0	10	9	1
100-02-7	4-Nitrophenol	U	24	1.0	25	24	2
121-14-2	2,4-Dinitrotoluene	U	9	1.0	10	9	2
84-66-2	Diethylphthalate	U	9	1.0	10	9	2
86-73-7	Fluorene	U	9	1.0	10	9	2
7005-72-3	4-Chlorophenyl-phenylether	U	9	1.0	10	9	2
100-01-6	4-Nitroaniline	U	24	1.0	25	24	2
534-52-1	4,6-Dinitro-2-Methylphenol	U	24	1.0	25	24	2

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/29/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 20-JUL-2009 22:57
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-4
Client ID: WGL-GW-MW3-062909
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: CAM
Analysis Method: SW846 8270C
Lab Prep Batch: WG65862
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
86-30-6	N-Nitrosodiphenylamine	U	9	1.0	10	9	3
101-55-3	4-Bromophenyl-phenylether	U	9	1.0	10	9	2
118-74-1	Hexachlorobenzene	U	9	1.0	10	9	2
1912-24-9	Atrazine	U	9	1.0	10	9	3
87-86-5	Pentachlorophenol	U	24	1.0	25	24	2
85-01-8	Phenanthrene	U	9	1.0	10	9	2
120-12-7	Anthracene	U	9	1.0	10	9	2
86-74-8	Carbazole	U	9	1.0	10	9	2
84-74-2	Di-n-butylphthalate	U	9	1.0	10	9	2
206-44-0	Fluoranthene	U	9	1.0	10	9	2
129-00-0	Pyrene	U	9	1.0	10	9	2
85-68-7	Butylbenzylphthalate	U	9	1.0	10	9	2
56-55-3	Benzo(a)anthracene	U	9	1.0	10	9	1
91-94-1	3,3'-Dichlorobenzidine	U	9	1.0	10	9	1
218-01-9	Chrysene	U	9	1.0	10	9	2
117-81-7	bis(2-Ethylhexyl)phthalate	U	9	1.0	10	9	2
117-84-0	Di-n-octylphthalate	U	9	1.0	10	9	2
205-99-2	Benzo(b)fluoranthene	U	9	1.0	10	9	1
207-08-9	Benzo(k)fluoranthene	U	9	1.0	10	9	2
50-32-8	Benzo(a)pyrene	U	9	1.0	10	9	1
193-39-5	Indeno(1,2,3-cd)pyrene	U	9	1.0	10	9	2
53-70-3	Dibenzo(a,h)anthracene	U	9	1.0	10	9	2
191-24-2	Benzo(g,h,i)perylene	U	9	1.0	10	9	1
367-12-4	2-Fluorophenol		22%				
13127-88-3	Phenol-D6		14%				
4165-60-0	Nitrobenzene-D5		48%				
321-60-8	2-Fluorobiphenyl		60%				
118-79-6	2,4,6-Tribromophenol		70%				
1718-51-0	Terphenyl-D14		55%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/29/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 20-JUL-2009 23:40
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-6
Client ID: WGL-GW-MW103-062909
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: CAM
Analysis Method: SW846 8270C
Lab Prep Batch: WG65862
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
123-91-1	1,4-Dioxane	U	11	1.0	10	11	2
100-52-7	Benzaldehyde	U	11	1.0	10	11	1
108-95-2	Phenol	U	11	1.0	10	11	2
111-44-4	Bis(2-Chloroethyl)ether	U	11	1.0	10	11	2
95-57-8	2-Chlorophenol	U	11	1.0	10	11	3
95-48-7	2-Methylphenol	U	11	1.0	10	11	4
108-60-1	2,2'-Oxybis(1-chloropropane)	U	11	1.0	10	11	2
98-86-2	Acetophenone	U	11	1.0	10	11	4
621-64-7	N-Nitroso-di-n-propylamine	U	11	1.0	10	11	2
65794-96-9	3&4-Methylphenol	U	11	1.0	10	11	6
67-72-1	Hexachloroethane	U	11	1.0	10	11	2
98-95-3	Nitrobenzene	U	11	1.0	10	11	3
78-59-1	Isophorone	U	11	1.0	10	11	2
88-75-5	2-Nitrophenol	U	11	1.0	10	11	3
105-67-9	2,4-Dimethylphenol	U	11	1.0	10	11	5
111-91-1	Bis(2-Chloroethoxy)methane	U	11	1.0	10	11	2
120-83-2	2,4-Dichlorophenol	U	11	1.0	10	11	3
91-20-3	Naphthalene	U	11	1.0	10	11	2
106-47-8	4-Chloroaniline	U	11	1.0	10	11	2
87-68-3	Hexachlorobutadiene	U	11	1.0	10	11	2
105-60-2	Caprolactam	U	11	1.0	10	11	0.4
59-50-7	4-Chloro-3-Methylphenol	U	11	1.0	10	11	4
91-57-6	2-Methylnaphthalene	U	11	1.0	10	11	4
77-47-4	Hexachlorocyclopentadiene	U	11	1.0	10	11	1
88-06-2	2,4,6-Trichlorophenol	U	11	1.0	10	11	3
95-95-4	2,4,5-Trichlorophenol	U	27	1.0	25	27	4
91-58-7	2-Chloronaphthalene	U	11	1.0	10	11	3
92-52-4	1,1'-Biphenyl	U	11	1.0	10	11	3
88-74-4	2-Nitroaniline	U	27	1.0	25	27	2
131-11-3	Dimethyl Phthalate	U	11	1.0	10	11	2
606-20-2	2,6-Dinitrotoluene	U	11	1.0	10	11	2
208-96-8	Acenaphthylene	U	11	1.0	10	11	2
99-09-2	3-Nitroaniline	U	27	1.0	25	27	2
83-32-9	Acenaphthene	U	11	1.0	10	11	2
51-28-5	2,4-Dinitrophenol	U	27	1.0	25	27	1
132-64-9	Dibenzofuran	U	11	1.0	10	11	2
100-02-7	4-Nitrophenol	U	27	1.0	25	27	2
121-14-2	2,4-Dinitrotoluene	U	11	1.0	10	11	2
84-66-2	Diethylphthalate	U	11	1.0	10	11	2
86-73-7	Fluorene	U	11	1.0	10	11	2
7005-72-3	4-Chlorophenyl-phenylether	U	11	1.0	10	11	2
100-01-6	4-Nitroaniline	U	27	1.0	25	27	2
534-52-1	4,6-Dinitro-2-Methylphenol	U	27	1.0	25	27	2

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/29/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 20-JUL-2009 23:40
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-6
Client ID: WGL-GW-MW103-062909
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: CAM
Analysis Method: SW846 8270C
Lab Prep Batch: WG65862
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
86-30-6	N-Nitrosodiphenylamine	U	11	1.0	10	11	4
101-55-3	4-Bromophenyl-phenylether	U	11	1.0	10	11	2
118-74-1	Hexachlorobenzene	U	11	1.0	10	11	2
1912-24-9	Atrazine	U	11	1.0	10	11	4
87-86-5	Pentachlorophenol	U	27	1.0	25	27	2
85-01-8	Phenanthrene	U	11	1.0	10	11	2
120-12-7	Anthracene	U	11	1.0	10	11	2
86-74-8	Carbazole	U	11	1.0	10	11	2
84-74-2	Di-n-butylphthalate	U	11	1.0	10	11	3
206-44-0	Fluoranthene	U	11	1.0	10	11	2
129-00-0	Pyrene	U	11	1.0	10	11	2
85-68-7	Butylbenzylphthalate	U	11	1.0	10	11	2
56-55-3	Benzo(a)anthracene	U	11	1.0	10	11	2
91-94-1	3,3'-Dichlorobenzidine	U	11	1.0	10	11	1
218-01-9	Chrysene	U	11	1.0	10	11	2
117-81-7	bis(2-Ethylhexyl)phthalate	U	11	1.0	10	11	2
117-84-0	Di-n-octylphthalate	U	11	1.0	10	11	2
205-99-2	Benzo(b)fluoranthene	U	11	1.0	10	11	1
207-08-9	Benzo(k)fluoranthene	U	11	1.0	10	11	2
50-32-8	Benzo(a)pyrene	U	11	1.0	10	11	1
193-39-5	Indeno(1,2,3-cd)pyrene	U	11	1.0	10	11	2
53-70-3	Dibenzo(a,h)anthracene	U	11	1.0	10	11	2
191-24-2	Benzo(g,h,i)perylene	U	11	1.0	10	11	2
367-12-4	2-Fluorophenol		16%				
13127-88-3	Phenol-D6		12%				
4165-60-0	Nitrobenzene-D5		50%				
321-60-8	2-Fluorobiphenyl		55%				
118-79-6	2,4,6-Tribromophenol		51%				
1718-51-0	Terphenyl-D14		50%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/29/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 21-JUL-2009 00:23
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-8
Client ID: WGL-GW-MW102-062909
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: CAM
Analysis Method: SW846 8270C
Lab Prep Batch: WG65862
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
123-91-1	1,4-Dioxane	U	10	1.0	10	10	2
100-52-7	Benzaldehyde	U	10	1.0	10	10	1.0
108-95-2	Phenol	U	10	1.0	10	10	2
111-44-4	Bis(2-Chloroethyl)ether	U	10	1.0	10	10	2
95-57-8	2-Chlorophenol	U	10	1.0	10	10	3
95-48-7	2-Methylphenol	U	10	1.0	10	10	4
108-60-1	2,2'-Oxybis(1-chloropropane)	U	10	1.0	10	10	2
98-86-2	Acetophenone	U	10	1.0	10	10	4
621-64-7	N-Nitroso-di-n-propylamine	U	10	1.0	10	10	2
65794-96-9	3&4-Methylphenol	U	10	1.0	10	10	6
67-72-1	Hexachloroethane	U	10	1.0	10	10	2
98-95-3	Nitrobenzene	U	10	1.0	10	10	3
78-59-1	Isophorone	U	10	1.0	10	10	2
88-75-5	2-Nitrophenol	U	10	1.0	10	10	3
105-67-9	2,4-Dimethylphenol	U	10	1.0	10	10	4
111-91-1	Bis(2-Chloroethoxy)methane	U	10	1.0	10	10	2
120-83-2	2,4-Dichlorophenol	U	10	1.0	10	10	3
91-20-3	Naphthalene	U	10	1.0	10	10	2
106-47-8	4-Chloroaniline	U	10	1.0	10	10	2
87-68-3	Hexachlorobutadiene	U	10	1.0	10	10	2
105-60-2	Caprolactam	U	10	1.0	10	10	0.4
59-50-7	4-Chloro-3-Methylphenol	U	10	1.0	10	10	4
91-57-6	2-Methylnaphthalene	U	10	1.0	10	10	3
77-47-4	Hexachlorocyclopentadiene	U	10	1.0	10	10	1
88-06-2	2,4,6-Trichlorophenol	U	10	1.0	10	10	3
95-95-4	2,4,5-Trichlorophenol	U	26	1.0	25	26	4
91-58-7	2-Chloronaphthalene	U	10	1.0	10	10	3
92-52-4	1,1'-Biphenyl	U	10	1.0	10	10	3
88-74-4	2-Nitroaniline	U	26	1.0	25	26	2
131-11-3	Dimethyl Phthalate	U	10	1.0	10	10	2
606-20-2	2,6-Dinitrotoluene	U	10	1.0	10	10	2
208-96-8	Acenaphthylene	U	10	1.0	10	10	2
99-09-2	3-Nitroaniline	U	26	1.0	25	26	2
83-32-9	Acenaphthene	U	10	1.0	10	10	2
51-28-5	2,4-Dinitrophenol	U	26	1.0	25	26	1
132-64-9	Dibenzofuran	U	10	1.0	10	10	2
100-02-7	4-Nitrophenol	U	26	1.0	25	26	2
121-14-2	2,4-Dinitrotoluene	U	10	1.0	10	10	2
84-66-2	Diethylphthalate	U	10	1.0	10	10	2
86-73-7	Fluorene	U	10	1.0	10	10	2
7005-72-3	4-Chlorophenyl-phenylether	U	10	1.0	10	10	2
100-01-6	4-Nitroaniline	U	26	1.0	25	26	2
534-52-1	4,6-Dinitro-2-Methylphenol	U	26	1.0	25	26	2

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/29/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 21-JUL-2009 00:23
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-8
Client ID: WGL-GW-MW102-062909
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: CAM
Analysis Method: SW846 8270C
Lab Prep Batch: WG65862
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
86-30-6	N-Nitrosodiphenylamine	U	10	1.0	10	10	4
101-55-3	4-Bromophenyl-phenylether	U	10	1.0	10	10	2
118-74-1	Hexachlorobenzene	U	10	1.0	10	10	2
1912-24-9	Atrazine	U	10	1.0	10	10	3
87-86-5	Pentachlorophenol	U	26	1.0	25	26	2
85-01-8	Phenanthrene	U	10	1.0	10	10	2
120-12-7	Anthracene	U	10	1.0	10	10	2
86-74-8	Carbazole	U	10	1.0	10	10	2
84-74-2	Di-n-butylphthalate	U	10	1.0	10	10	2
206-44-0	Fluoranthene	U	10	1.0	10	10	2
129-00-0	Pyrene	U	10	1.0	10	10	2
85-68-7	Butylbenzylphthalate	U	10	1.0	10	10	2
56-55-3	Benzo(a)anthracene	U	10	1.0	10	10	2
91-94-1	3,3'-Dichlorobenzidine	U	10	1.0	10	10	1
218-01-9	Chrysene	U	10	1.0	10	10	2
117-81-7	bis(2-Ethylhexyl)phthalate	U	10	1.0	10	10	2
117-84-0	Di-n-octylphthalate	U	10	1.0	10	10	2
205-99-2	Benzo(b)fluoranthene	U	10	1.0	10	10	1
207-08-9	Benzo(k)fluoranthene	U	10	1.0	10	10	2
50-32-8	Benzo(a)pyrene	U	10	1.0	10	10	1
193-39-5	Indeno(1,2,3-cd)pyrene	U	10	1.0	10	10	2
53-70-3	Dibenzo(a,h)anthracene	U	10	1.0	10	10	2
191-24-2	Benzo(g,h,i)perylene	U	10	1.0	10	10	2
367-12-4	2-Fluorophenol		33%				
13127-88-3	Phenol-D6		19%				
4165-60-0	Nitrobenzene-D5		54%				
321-60-8	2-Fluorobiphenyl		58%				
118-79-6	2,4,6-Tribromophenol		63%				
1718-51-0	Terphenyl-D14		62%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 21-JUL-2009 01:07
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-10
Client ID: WGL-GW-MW2-063009
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: CAM
Analysis Method: SW846 8270C
Lab Prep Batch: WG65862
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
123-91-1	1,4-Dioxane	U	9	1.0	10	9	2
100-52-7	Benzaldehyde	U	9	1.0	10	9	0.9
108-95-2	Phenol	U	9	1.0	10	9	2
111-44-4	Bis(2-Chloroethyl)ether	U	9	1.0	10	9	2
95-57-8	2-Chlorophenol	U	9	1.0	10	9	3
95-48-7	2-Methylphenol	U	9	1.0	10	9	4
108-60-1	2,2'-Oxybis(1-chloropropane)	U	9	1.0	10	9	2
98-86-2	Acetophenone	U	9	1.0	10	9	4
621-64-7	N-Nitroso-di-n-propylamine	U	9	1.0	10	9	2
65794-96-9	3&4-Methylphenol	U	9	1.0	10	9	5
67-72-1	Hexachloroethane	U	9	1.0	10	9	2
98-95-3	Nitrobenzene	U	9	1.0	10	9	3
78-59-1	Isophorone	U	9	1.0	10	9	2
88-75-5	2-Nitrophenol	U	9	1.0	10	9	2
105-67-9	2,4-Dimethylphenol	U	9	1.0	10	9	4
111-91-1	Bis(2-Chloroethoxy)methane	U	9	1.0	10	9	2
120-83-2	2,4-Dichlorophenol	U	9	1.0	10	9	3
91-20-3	Naphthalene	U	9	1.0	10	9	2
106-47-8	4-Chloroaniline	U	9	1.0	10	9	2
87-68-3	Hexachlorobutadiene	U	9	1.0	10	9	2
105-60-2	Caprolactam	U	9	1.0	10	9	0.4
59-50-7	4-Chloro-3-Methylphenol	U	9	1.0	10	9	3
91-57-6	2-Methylnaphthalene	U	9	1.0	10	9	3
77-47-4	Hexachlorocyclopentadiene	U	9	1.0	10	9	1
88-06-2	2,4,6-Trichlorophenol	U	9	1.0	10	9	2
95-95-4	2,4,5-Trichlorophenol	U	24	1.0	25	24	3
91-58-7	2-Chloronaphthalene	U	9	1.0	10	9	3
92-52-4	1,1'-Biphenyl	U	9	1.0	10	9	2
88-74-4	2-Nitroaniline	U	24	1.0	25	24	2
131-11-3	Dimethyl Phthalate	U	9	1.0	10	9	2
606-20-2	2,6-Dinitrotoluene	U	9	1.0	10	9	2
208-96-8	Acenaphthylene	U	9	1.0	10	9	1
99-09-2	3-Nitroaniline	U	24	1.0	25	24	1
83-32-9	Acenaphthene	U	9	1.0	10	9	1
51-28-5	2,4-Dinitrophenol	U	24	1.0	25	24	1
132-64-9	Dibenzofuran	U	9	1.0	10	9	1
100-02-7	4-Nitrophenol	U	24	1.0	25	24	2
121-14-2	2,4-Dinitrotoluene	U	9	1.0	10	9	2
84-66-2	Diethylphthalate	U	9	1.0	10	9	2
86-73-7	Fluorene	U	9	1.0	10	9	2
7005-72-3	4-Chlorophenyl-phenylether	U	9	1.0	10	9	2
100-01-6	4-Nitroaniline	U	24	1.0	25	24	2
534-52-1	4,6-Dinitro-2-Methylphenol	U	24	1.0	25	24	2

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 21-JUL-2009 01:07
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-10
Client ID: WGL-GW-MW2-063009
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: CAM
Analysis Method: SW846 8270C
Lab Prep Batch: WG65862
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
86-30-6	N-Nitrosodiphenylamine	U	9	1.0	10	9	3
101-55-3	4-Bromophenyl-phenylether	U	9	1.0	10	9	2
118-74-1	Hexachlorobenzene	U	9	1.0	10	9	2
1912-24-9	Atrazine	U	9	1.0	10	9	3
87-86-5	Pentachlorophenol	U	24	1.0	25	24	2
85-01-8	Phenanthrene	U	9	1.0	10	9	2
120-12-7	Anthracene	U	9	1.0	10	9	2
86-74-8	Carbazole	U	9	1.0	10	9	2
84-74-2	Di-n-butylphthalate	U	9	1.0	10	9	2
206-44-0	Fluoranthene	U	9	1.0	10	9	2
129-00-0	Pyrene	U	9	1.0	10	9	2
85-68-7	Butylbenzylphthalate	U	9	1.0	10	9	2
56-55-3	Benzo(a)anthracene	U	9	1.0	10	9	1
91-94-1	3,3'-Dichlorobenzidine	U	9	1.0	10	9	1
218-01-9	Chrysene	U	9	1.0	10	9	2
117-81-7	bis(2-Ethylhexyl)phthalate	U	9	1.0	10	9	2
117-84-0	Di-n-octylphthalate	U	9	1.0	10	9	2
205-99-2	Benzo(b)fluoranthene	U	9	1.0	10	9	1
207-08-9	Benzo(k)fluoranthene	U	9	1.0	10	9	2
50-32-8	Benzo(a)pyrene	U	9	1.0	10	9	1
193-39-5	Indeno(1,2,3-cd)pyrene	U	9	1.0	10	9	2
53-70-3	Dibenzo(a,h)anthracene	U	9	1.0	10	9	2
191-24-2	Benzo(g,h,i)perylene	U	9	1.0	10	9	1
367-12-4	2-Fluorophenol		12%				
13127-88-3	Phenol-D6		11%				
4165-60-0	Nitrobenzene-D5		55%				
321-60-8	2-Fluorobiphenyl		59%				
118-79-6	2,4,6-Tribromophenol		55%				
1718-51-0	Terphenyl-D14		52%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 21-JUL-2009 01:50
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-12
Client ID: WGL-GW-MW4-063009
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: CAM
Analysis Method: SW846 8270C
Lab Prep Batch: WG65862
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
123-91-1	1,4-Dioxane	U	9	1.0	10	9	2
100-52-7	Benzaldehyde	U	9	1.0	10	9	0.9
108-95-2	Phenol	U	9	1.0	10	9	2
111-44-4	Bis(2-Chloroethyl)ether	U	9	1.0	10	9	2
95-57-8	2-Chlorophenol	U	9	1.0	10	9	3
95-48-7	2-Methylphenol	U	9	1.0	10	9	4
108-60-1	2,2'-Oxybis(1-chloropropane)	U	9	1.0	10	9	2
98-86-2	Acetophenone	U	9	1.0	10	9	4
621-64-7	N-Nitroso-di-n-propylamine	U	9	1.0	10	9	2
65794-96-9	3&4-Methylphenol	U	9	1.0	10	9	5
67-72-1	Hexachloroethane	U	9	1.0	10	9	2
98-95-3	Nitrobenzene	U	9	1.0	10	9	3
78-59-1	Isophorone	U	9	1.0	10	9	2
88-75-5	2-Nitrophenol	U	9	1.0	10	9	2
105-67-9	2,4-Dimethylphenol	U	9	1.0	10	9	4
111-91-1	Bis(2-Chloroethoxy)methane	U	9	1.0	10	9	2
120-83-2	2,4-Dichlorophenol	U	9	1.0	10	9	3
91-20-3	Naphthalene	U	9	1.0	10	9	2
106-47-8	4-Chloroaniline	U	9	1.0	10	9	2
87-68-3	Hexachlorobutadiene	U	9	1.0	10	9	2
105-60-2	Caprolactam	U	9	1.0	10	9	0.4
59-50-7	4-Chloro-3-Methylphenol	U	9	1.0	10	9	3
91-57-6	2-Methylnaphthalene	U	9	1.0	10	9	3
77-47-4	Hexachlorocyclopentadiene	U	9	1.0	10	9	1
88-06-2	2,4,6-Trichlorophenol	U	9	1.0	10	9	2
95-95-4	2,4,5-Trichlorophenol	U	24	1.0	25	24	3
91-58-7	2-Chloronaphthalene	U	9	1.0	10	9	3
92-52-4	1,1'-Biphenyl	U	9	1.0	10	9	2
88-74-4	2-Nitroaniline	U	24	1.0	25	24	2
131-11-3	Dimethyl Phthalate	U	9	1.0	10	9	2
606-20-2	2,6-Dinitrotoluene	U	9	1.0	10	9	2
208-96-8	Acenaphthylene	U	9	1.0	10	9	1
99-09-2	3-Nitroaniline	U	24	1.0	25	24	1
83-32-9	Acenaphthene	U	9	1.0	10	9	1
51-28-5	2,4-Dinitrophenol	U	24	1.0	25	24	1
132-64-9	Dibenzofuran	U	9	1.0	10	9	1
100-02-7	4-Nitrophenol	U	24	1.0	25	24	2
121-14-2	2,4-Dinitrotoluene	U	9	1.0	10	9	2
84-66-2	Diethylphthalate	U	9	1.0	10	9	2
86-73-7	Fluorene	U	9	1.0	10	9	2
7005-72-3	4-Chlorophenyl-phenylether	U	9	1.0	10	9	2
100-01-6	4-Nitroaniline	U	24	1.0	25	24	2
534-52-1	4,6-Dinitro-2-Methylphenol	U	24	1.0	25	24	2

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 21-JUL-2009 01:50
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-12
Client ID: WGL-GW-MW4-063009
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: CAM
Analysis Method: SW846 8270C
Lab Prep Batch: WG65862
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
86-30-6	N-Nitrosodiphenylamine	U	9	1.0	10	9	3
101-55-3	4-Bromophenyl-phenylether	U	9	1.0	10	9	2
118-74-1	Hexachlorobenzene	U	9	1.0	10	9	2
1912-24-9	Atrazine	U	9	1.0	10	9	3
87-86-5	Pentachlorophenol	U	24	1.0	25	24	2
85-01-8	Phenanthrene	U	9	1.0	10	9	2
120-12-7	Anthracene	U	9	1.0	10	9	2
86-74-8	Carbazole	U	9	1.0	10	9	2
84-74-2	Di-n-butylphthalate	U	9	1.0	10	9	2
206-44-0	Fluoranthene	U	9	1.0	10	9	2
129-00-0	Pyrene	U	9	1.0	10	9	2
85-68-7	Butylbenzylphthalate	U	9	1.0	10	9	2
56-55-3	Benzo(a)anthracene	U	9	1.0	10	9	1
91-94-1	3,3'-Dichlorobenzidine	U	9	1.0	10	9	1
218-01-9	Chrysene	U	9	1.0	10	9	2
117-81-7	bis(2-Ethylhexyl)phthalate	U	9	1.0	10	9	2
117-84-0	Di-n-octylphthalate	U	9	1.0	10	9	2
205-99-2	Benzo(b)fluoranthene	U	9	1.0	10	9	1
207-08-9	Benzo(k)fluoranthene	U	9	1.0	10	9	2
50-32-8	Benzo(a)pyrene	U	9	1.0	10	9	1
193-39-5	Indeno(1,2,3-cd)pyrene	U	9	1.0	10	9	2
53-70-3	Dibenzo(a,h)anthracene	U	9	1.0	10	9	2
191-24-2	Benzo(g,h,i)perylene	U	9	1.0	10	9	1
367-12-4	2-Fluorophenol		31%				
13127-88-3	Phenol-D6		20%				
4165-60-0	Nitrobenzene-D5		58%				
321-60-8	2-Fluorobiphenyl		67%				
118-79-6	2,4,6-Tribromophenol		52%				
1718-51-0	Terphenyl-D14		66%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 21-JUL-2009 02:33
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-14
Client ID: L-GW-MW38-063009
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: CAM
Analysis Method: SW846 8270C
Lab Prep Batch: WG65862
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
123-91-1	1,4-Dioxane	U	10	1.0	10	10	2
100-52-7	Benzaldehyde	U	10	1.0	10	10	0.9
108-95-2	Phenol	U	10	1.0	10	10	2
111-44-4	Bis(2-Chloroethyl)ether	U	10	1.0	10	10	2
95-57-8	2-Chlorophenol	U	10	1.0	10	10	3
95-48-7	2-Methylphenol	U	10	1.0	10	10	4
108-60-1	2,2'-Oxybis(1-chloropropane)	U	10	1.0	10	10	2
98-86-2	Acetophenone	U	10	1.0	10	10	4
621-64-7	N-Nitroso-di-n-propylamine	U	10	1.0	10	10	2
65794-96-9	3&4-Methylphenol	U	10	1.0	10	10	5
67-72-1	Hexachloroethane	U	10	1.0	10	10	2
98-95-3	Nitrobenzene	U	10	1.0	10	10	3
78-59-1	Isophorone	U	10	1.0	10	10	2
88-75-5	2-Nitrophenol	U	10	1.0	10	10	2
105-67-9	2,4-Dimethylphenol	U	10	1.0	10	10	4
111-91-1	Bis(2-Chloroethoxy)methane	U	10	1.0	10	10	2
120-83-2	2,4-Dichlorophenol	U	10	1.0	10	10	3
91-20-3	Naphthalene	U	10	1.0	10	10	2
106-47-8	4-Chloroaniline	U	10	1.0	10	10	2
87-68-3	Hexachlorobutadiene	U	10	1.0	10	10	2
105-60-2	Caprolactam	U	10	1.0	10	10	0.4
59-50-7	4-Chloro-3-Methylphenol	U	10	1.0	10	10	3
91-57-6	2-Methylnaphthalene	U	10	1.0	10	10	3
77-47-4	Hexachlorocyclopentadiene	U	10	1.0	10	10	1
88-06-2	2,4,6-Trichlorophenol	U	10	1.0	10	10	3
95-95-4	2,4,5-Trichlorophenol	U	24	1.0	25	24	3
91-58-7	2-Chloronaphthalene	U	10	1.0	10	10	3
92-52-4	1,1'-Biphenyl	U	10	1.0	10	10	2
88-74-4	2-Nitroaniline	U	24	1.0	25	24	2
131-11-3	Dimethyl Phthalate	U	10	1.0	10	10	2
606-20-2	2,6-Dinitrotoluene	U	10	1.0	10	10	2
208-96-8	Acenaphthylene	U	10	1.0	10	10	1
99-09-2	3-Nitroaniline	U	24	1.0	25	24	1
83-32-9	Acenaphthene	U	10	1.0	10	10	1
51-28-5	2,4-Dinitrophenol	U	24	1.0	25	24	1
132-64-9	Dibenzofuran	U	10	1.0	10	10	2
100-02-7	4-Nitrophenol	U	24	1.0	25	24	2
121-14-2	2,4-Dinitrotoluene	U	10	1.0	10	10	2
84-66-2	Diethylphthalate	U	10	1.0	10	10	2
86-73-7	Fluorene	U	10	1.0	10	10	2
7005-72-3	4-Chlorophenyl-phenylether	U	10	1.0	10	10	2
100-01-6	4-Nitroaniline	U	24	1.0	25	24	2
534-52-1	4,6-Dinitro-2-Methylphenol	U	24	1.0	25	24	2

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 21-JUL-2009 02:33
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-14
Client ID: L-GW-MW38-063009
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: CAM
Analysis Method: SW846 8270C
Lab Prep Batch: WG65862
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
86-30-6	N-Nitrosodiphenylamine	U	10	1.0	10	10	4
101-55-3	4-Bromophenyl-phenylether	U	10	1.0	10	10	2
118-74-1	Hexachlorobenzene	U	10	1.0	10	10	2
1912-24-9	Atrazine	U	10	1.0	10	10	3
87-86-5	Pentachlorophenol	U	24	1.0	25	24	2
85-01-8	Phenanthrene	U	10	1.0	10	10	2
120-12-7	Anthracene	U	10	1.0	10	10	2
86-74-8	Carbazole	U	10	1.0	10	10	2
84-74-2	Di-n-butylphthalate	U	10	1.0	10	10	2
206-44-0	Fluoranthene	U	10	1.0	10	10	2
129-00-0	Pyrene	U	10	1.0	10	10	2
85-68-7	Butylbenzylphthalate	U	10	1.0	10	10	2
56-55-3	Benzo(a)anthracene	U	10	1.0	10	10	1
91-94-1	3,3'-Dichlorobenzidine	U	10	1.0	10	10	1
218-01-9	Chrysene	U	10	1.0	10	10	2
117-81-7	bis(2-Ethylhexyl)phthalate	U	10	1.0	10	10	2
117-84-0	Di-n-octylphthalate	U	10	1.0	10	10	2
205-99-2	Benzo(b)fluoranthene	U	10	1.0	10	10	1
207-08-9	Benzo(k)fluoranthene	U	10	1.0	10	10	2
50-32-8	Benzo(a)pyrene	U	10	1.0	10	10	1
193-39-5	Indeno(1,2,3-cd)pyrene	U	10	1.0	10	10	2
53-70-3	Dibenzo(a,h)anthracene	U	10	1.0	10	10	2
191-24-2	Benzo(g,h,i)perylene	U	10	1.0	10	10	1
367-12-4	2-Fluorophenol		33%				
13127-88-3	Phenol-D6		19%				
4165-60-0	Nitrobenzene-D5		59%				
321-60-8	2-Fluorobiphenyl		58%				
118-79-6	2,4,6-Tribromophenol		74%				
1718-51-0	Terphenyl-D14		71%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 21-JUL-2009 03:17
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-16
Client ID: WGL-GW-MW40S-063009
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: CAM
Analysis Method: SW846 8270C
Lab Prep Batch: WG65862
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
123-91-1	1,4-Dioxane	U	9	1.0	10	9	2
100-52-7	Benzaldehyde	U	9	1.0	10	9	0.9
108-95-2	Phenol	U	9	1.0	10	9	2
111-44-4	Bis(2-Chloroethyl)ether	U	9	1.0	10	9	2
95-57-8	2-Chlorophenol	U	9	1.0	10	9	3
95-48-7	2-Methylphenol	U	9	1.0	10	9	4
108-60-1	2,2'-Oxybis(1-chloropropane)	U	9	1.0	10	9	2
98-86-2	Acetophenone	U	9	1.0	10	9	4
621-64-7	N-Nitroso-di-n-propylamine	U	9	1.0	10	9	2
65794-96-9	3&4-Methylphenol	U	9	1.0	10	9	5
67-72-1	Hexachloroethane	U	9	1.0	10	9	2
98-95-3	Nitrobenzene	U	9	1.0	10	9	3
78-59-1	Isophorone	U	9	1.0	10	9	2
88-75-5	2-Nitrophenol	U	9	1.0	10	9	2
105-67-9	2,4-Dimethylphenol	U	9	1.0	10	9	4
111-91-1	Bis(2-Chloroethoxy)methane	U	9	1.0	10	9	2
120-83-2	2,4-Dichlorophenol	U	9	1.0	10	9	3
91-20-3	Naphthalene	U	9	1.0	10	9	2
106-47-8	4-Chloroaniline	U	9	1.0	10	9	2
87-68-3	Hexachlorobutadiene	U	9	1.0	10	9	2
105-60-2	Caprolactam	U	9	1.0	10	9	0.4
59-50-7	4-Chloro-3-Methylphenol	U	9	1.0	10	9	3
91-57-6	2-Methylnaphthalene	U	9	1.0	10	9	3
77-47-4	Hexachlorocyclopentadiene	U	9	1.0	10	9	1
88-06-2	2,4,6-Trichlorophenol	U	9	1.0	10	9	2
95-95-4	2,4,5-Trichlorophenol	U	24	1.0	25	24	3
91-58-7	2-Chloronaphthalene	U	9	1.0	10	9	3
92-52-4	1,1'-Biphenyl	U	9	1.0	10	9	2
88-74-4	2-Nitroaniline	U	24	1.0	25	24	2
131-11-3	Dimethyl Phthalate	U	9	1.0	10	9	2
606-20-2	2,6-Dinitrotoluene	U	9	1.0	10	9	2
208-96-8	Acenaphthylene	U	9	1.0	10	9	1
99-09-2	3-Nitroaniline	U	24	1.0	25	24	1
83-32-9	Acenaphthene	U	9	1.0	10	9	1
51-28-5	2,4-Dinitrophenol	U	24	1.0	25	24	1
132-64-9	Dibenzofuran	U	9	1.0	10	9	1
100-02-7	4-Nitrophenol	U	24	1.0	25	24	2
121-14-2	2,4-Dinitrotoluene	U	9	1.0	10	9	2
84-66-2	Diethylphthalate	U	9	1.0	10	9	2
86-73-7	Fluorene	U	9	1.0	10	9	2
7005-72-3	4-Chlorophenyl-phenylether	U	9	1.0	10	9	2
100-01-6	4-Nitroaniline	U	24	1.0	25	24	2
534-52-1	4,6-Dinitro-2-Methylphenol	U	24	1.0	25	24	2

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 21-JUL-2009 03:17
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-16
Client ID: WGL-GW-MW40S-063009
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: CAM
Analysis Method: SW846 8270C
Lab Prep Batch: WG65862
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
86-30-6	N-Nitrosodiphenylamine	U	9	1.0	10	9	3
101-55-3	4-Bromophenyl-phenylether	U	9	1.0	10	9	2
118-74-1	Hexachlorobenzene	U	9	1.0	10	9	2
1912-24-9	Atrazine	U	9	1.0	10	9	3
87-86-5	Pentachlorophenol	U	24	1.0	25	24	2
85-01-8	Phenanthrene	U	9	1.0	10	9	2
120-12-7	Anthracene	U	9	1.0	10	9	2
86-74-8	Carbazole	U	9	1.0	10	9	2
84-74-2	Di-n-butylphthalate	U	9	1.0	10	9	2
206-44-0	Fluoranthene	U	9	1.0	10	9	2
129-00-0	Pyrene	U	9	1.0	10	9	2
85-68-7	Butylbenzylphthalate	U	9	1.0	10	9	2
56-55-3	Benzo(a)anthracene	U	9	1.0	10	9	1
91-94-1	3,3'-Dichlorobenzidine	U	9	1.0	10	9	1
218-01-9	Chrysene	U	9	1.0	10	9	2
117-81-7	bis(2-Ethylhexyl)phthalate	U	9	1.0	10	9	2
117-84-0	Di-n-octylphthalate	U	9	1.0	10	9	2
205-99-2	Benzo(b)fluoranthene	U	9	1.0	10	9	1
207-08-9	Benzo(k)fluoranthene	U	9	1.0	10	9	2
50-32-8	Benzo(a)pyrene	U	9	1.0	10	9	1
193-39-5	Indeno(1,2,3-cd)pyrene	U	9	1.0	10	9	2
53-70-3	Dibenzo(a,h)anthracene	U	9	1.0	10	9	2
191-24-2	Benzo(g,h,i)perylene	U	9	1.0	10	9	1
367-12-4	2-Fluorophenol		35%				
13127-88-3	Phenol-D6		21%				
4165-60-0	Nitrobenzene-D5		54%				
321-60-8	2-Fluorobiphenyl		70%				
118-79-6	2,4,6-Tribromophenol		80%				
1718-51-0	Terphenyl-D14		87%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 21-JUL-2009 04:00
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-18
Client ID: WGL-GW-DUP01-063009
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: CAM
Analysis Method: SW846 8270C
Lab Prep Batch: WG65862
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
123-91-1	1,4-Dioxane	U	10	1.0	10	10	2
100-52-7	Benzaldehyde	U	10	1.0	10	10	0.9
108-95-2	Phenol	U	10	1.0	10	10	2
111-44-4	Bis(2-Chloroethyl)ether	U	10	1.0	10	10	2
95-57-8	2-Chlorophenol	U	10	1.0	10	10	3
95-48-7	2-Methylphenol	U	10	1.0	10	10	4
108-60-1	2,2'-Oxybis(1-chloropropane)	U	10	1.0	10	10	2
98-86-2	Acetophenone	U	10	1.0	10	10	4
621-64-7	N-Nitroso-di-n-propylamine	U	10	1.0	10	10	2
65794-96-9	3&4-Methylphenol	U	10	1.0	10	10	5
67-72-1	Hexachloroethane	U	10	1.0	10	10	2
98-95-3	Nitrobenzene	U	10	1.0	10	10	3
78-59-1	Isophorone	U	10	1.0	10	10	2
88-75-5	2-Nitrophenol	U	10	1.0	10	10	2
105-67-9	2,4-Dimethylphenol	U	10	1.0	10	10	4
111-91-1	Bis(2-Chloroethoxy)methane	U	10	1.0	10	10	2
120-83-2	2,4-Dichlorophenol	U	10	1.0	10	10	3
91-20-3	Naphthalene	U	10	1.0	10	10	2
106-47-8	4-Chloroaniline	U	10	1.0	10	10	2
87-68-3	Hexachlorobutadiene	U	10	1.0	10	10	2
105-60-2	Caprolactam	U	10	1.0	10	10	0.4
59-50-7	4-Chloro-3-Methylphenol	U	10	1.0	10	10	3
91-57-6	2-Methylnaphthalene	U	10	1.0	10	10	3
77-47-4	Hexachlorocyclopentadiene	U	10	1.0	10	10	1
88-06-2	2,4,6-Trichlorophenol	U	10	1.0	10	10	3
95-95-4	2,4,5-Trichlorophenol	U	24	1.0	25	24	3
91-58-7	2-Chloronaphthalene	U	10	1.0	10	10	3
92-52-4	1,1'-Biphenyl	U	10	1.0	10	10	2
88-74-4	2-Nitroaniline	U	24	1.0	25	24	2
131-11-3	Dimethyl Phthalate	U	10	1.0	10	10	2
606-20-2	2,6-Dinitrotoluene	U	10	1.0	10	10	2
208-96-8	Acenaphthylene	U	10	1.0	10	10	1
99-09-2	3-Nitroaniline	U	24	1.0	25	24	1
83-32-9	Acenaphthene	U	10	1.0	10	10	1
51-28-5	2,4-Dinitrophenol	U	24	1.0	25	24	1
132-64-9	Dibenzofuran	U	10	1.0	10	10	2
100-02-7	4-Nitrophenol	U	24	1.0	25	24	2
121-14-2	2,4-Dinitrotoluene	U	10	1.0	10	10	2
84-66-2	Diethylphthalate	U	10	1.0	10	10	2
86-73-7	Fluorene	U	10	1.0	10	10	2
7005-72-3	4-Chlorophenyl-phenylether	U	10	1.0	10	10	2
100-01-6	4-Nitroaniline	U	24	1.0	25	24	2
534-52-1	4,6-Dinitro-2-Methylphenol	U	24	1.0	25	24	2

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 21-JUL-2009 04:00
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-18
Client ID: WGL-GW-DUP01-063009
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: CAM
Analysis Method: SW846 8270C
Lab Prep Batch: WG65862
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
86-30-6	N-Nitrosodiphenylamine	U	10	1.0	10	10	4
101-55-3	4-Bromophenyl-phenylether	U	10	1.0	10	10	2
118-74-1	Hexachlorobenzene	U	10	1.0	10	10	2
1912-24-9	Atrazine	U	10	1.0	10	10	3
87-86-5	Pentachlorophenol	U	24	1.0	25	24	2
85-01-8	Phenanthrene	U	10	1.0	10	10	2
120-12-7	Anthracene	U	10	1.0	10	10	2
86-74-8	Carbazole	U	10	1.0	10	10	2
84-74-2	Di-n-butylphthalate	U	10	1.0	10	10	2
206-44-0	Fluoranthene	U	10	1.0	10	10	2
129-00-0	Pyrene	U	10	1.0	10	10	2
85-68-7	Butylbenzylphthalate	U	10	1.0	10	10	2
56-55-3	Benzo(a)anthracene	U	10	1.0	10	10	2
91-94-1	3,3'-Dichlorobenzidine	U	10	1.0	10	10	1
218-01-9	Chrysene	U	10	1.0	10	10	2
117-81-7	bis(2-Ethylhexyl)phthalate	U	10	1.0	10	10	2
117-84-0	Di-n-octylphthalate	U	10	1.0	10	10	2
205-99-2	Benzo(b)fluoranthene	U	10	1.0	10	10	1
207-08-9	Benzo(k)fluoranthene	U	10	1.0	10	10	2
50-32-8	Benzo(a)pyrene	U	10	1.0	10	10	1
193-39-5	Indeno(1,2,3-cd)pyrene	U	10	1.0	10	10	2
53-70-3	Dibenzo(a,h)anthracene	U	10	1.0	10	10	2
191-24-2	Benzo(g,h,i)perylene	U	10	1.0	10	10	1
367-12-4	2-Fluorophenol		32%				
13127-88-3	Phenol-D6		16%				
4165-60-0	Nitrobenzene-D5		60%				
321-60-8	2-Fluorobiphenyl		64%				
118-79-6	2,4,6-Tribromophenol		72%				
1718-51-0	Terphenyl-D14		74%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 21-JUL-2009 04:44
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-20
Client ID: WGL-GW-MW48D-063009
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: CAM
Analysis Method: SW846 8270C
Lab Prep Batch: WG65862
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
123-91-1	1,4-Dioxane	U	10	1.0	10	10	2
100-52-7	Benzaldehyde	U	10	1.0	10	10	0.9
108-95-2	Phenol	U	10	1.0	10	10	2
111-44-4	Bis(2-Chloroethyl)ether	U	10	1.0	10	10	2
95-57-8	2-Chlorophenol	U	10	1.0	10	10	3
95-48-7	2-Methylphenol	U	10	1.0	10	10	4
108-60-1	2,2'-Oxybis(1-chloropropane)	U	10	1.0	10	10	2
98-86-2	Acetophenone	U	10	1.0	10	10	4
621-64-7	N-Nitroso-di-n-propylamine	U	10	1.0	10	10	2
65794-96-9	3&4-Methylphenol	U	10	1.0	10	10	5
67-72-1	Hexachloroethane	U	10	1.0	10	10	2
98-95-3	Nitrobenzene	U	10	1.0	10	10	3
78-59-1	Isophorone	U	10	1.0	10	10	2
88-75-5	2-Nitrophenol	U	10	1.0	10	10	2
105-67-9	2,4-Dimethylphenol	U	10	1.0	10	10	4
111-91-1	Bis(2-Chloroethoxy)methane	U	10	1.0	10	10	2
120-83-2	2,4-Dichlorophenol	U	10	1.0	10	10	3
91-20-3	Naphthalene	U	10	1.0	10	10	2
106-47-8	4-Chloroaniline	U	10	1.0	10	10	2
87-68-3	Hexachlorobutadiene	U	10	1.0	10	10	2
105-60-2	Caprolactam	U	10	1.0	10	10	0.4
59-50-7	4-Chloro-3-Methylphenol	U	10	1.0	10	10	3
91-57-6	2-Methylnaphthalene	U	10	1.0	10	10	3
77-47-4	Hexachlorocyclopentadiene	U	10	1.0	10	10	1
88-06-2	2,4,6-Trichlorophenol	U	10	1.0	10	10	3
95-95-4	2,4,5-Trichlorophenol	U	24	1.0	25	24	3
91-58-7	2-Chloronaphthalene	U	10	1.0	10	10	3
92-52-4	1,1'-Biphenyl	U	10	1.0	10	10	2
88-74-4	2-Nitroaniline	U	24	1.0	25	24	2
131-11-3	Dimethyl Phthalate	U	10	1.0	10	10	2
606-20-2	2,6-Dinitrotoluene	U	10	1.0	10	10	2
208-96-8	Acenaphthylene	U	10	1.0	10	10	1
99-09-2	3-Nitroaniline	U	24	1.0	25	24	1
83-32-9	Acenaphthene	U	10	1.0	10	10	1
51-28-5	2,4-Dinitrophenol	U	24	1.0	25	24	1
132-64-9	Dibenzofuran	U	10	1.0	10	10	2
100-02-7	4-Nitrophenol	U	24	1.0	25	24	2
121-14-2	2,4-Dinitrotoluene	U	10	1.0	10	10	2
84-66-2	Diethylphthalate	U	10	1.0	10	10	2
86-73-7	Fluorene	U	10	1.0	10	10	2
7005-72-3	4-Chlorophenyl-phenylether	U	10	1.0	10	10	2
100-01-6	4-Nitroaniline	U	24	1.0	25	24	2
534-52-1	4,6-Dinitro-2-Methylphenol	U	24	1.0	25	24	2

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 21-JUL-2009 04:44
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-20
Client ID: WGL-GW-MW48D-063009
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: CAM
Analysis Method: SW846 8270C
Lab Prep Batch: WG65862
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
86-30-6	N-Nitrosodiphenylamine	U	10	1.0	10	10	4
101-55-3	4-Bromophenyl-phenylether	U	10	1.0	10	10	2
118-74-1	Hexachlorobenzene	U	10	1.0	10	10	2
1912-24-9	Atrazine	U	10	1.0	10	10	3
87-86-5	Pentachlorophenol	U	24	1.0	25	24	2
85-01-8	Phenanthrene	U	10	1.0	10	10	2
120-12-7	Anthracene	U	10	1.0	10	10	2
86-74-8	Carbazole	U	10	1.0	10	10	2
84-74-2	Di-n-butylphthalate	U	10	1.0	10	10	2
206-44-0	Fluoranthene	U	10	1.0	10	10	2
129-00-0	Pyrene	U	10	1.0	10	10	2
85-68-7	Butylbenzylphthalate	U	10	1.0	10	10	2
56-55-3	Benzo(a)anthracene	U	10	1.0	10	10	1
91-94-1	3,3'-Dichlorobenzidine	U	10	1.0	10	10	1
218-01-9	Chrysene	U	10	1.0	10	10	2
117-81-7	bis(2-Ethylhexyl)phthalate	U	10	1.0	10	10	2
117-84-0	Di-n-octylphthalate	U	10	1.0	10	10	2
205-99-2	Benzo(b)fluoranthene	U	10	1.0	10	10	1
207-08-9	Benzo(k)fluoranthene	U	10	1.0	10	10	2
50-32-8	Benzo(a)pyrene	U	10	1.0	10	10	1
193-39-5	Indeno(1,2,3-cd)pyrene	U	10	1.0	10	10	2
53-70-3	Dibenzo(a,h)anthracene	U	10	1.0	10	10	2
191-24-2	Benzo(g,h,i)perylene	U	10	1.0	10	10	1
367-12-4	2-Fluorophenol		30%				
13127-88-3	Phenol-D6		11%				
4165-60-0	Nitrobenzene-D5		61%				
321-60-8	2-Fluorobiphenyl		66%				
118-79-6	2,4,6-Tribromophenol		61%				
1718-51-0	Terphenyl-D14		74%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 21-JUL-2009 05:27
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-22
Client ID: WGL-GW-DUP02-063009
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: CAM
Analysis Method: SW846 8270C
Lab Prep Batch: WG65862
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
123-91-1	1,4-Dioxane	U	9	1.0	10	9	2
100-52-7	Benzaldehyde	U	9	1.0	10	9	0.9
108-95-2	Phenol	U	9	1.0	10	9	2
111-44-4	Bis(2-Chloroethyl)ether	U	9	1.0	10	9	2
95-57-8	2-Chlorophenol	U	9	1.0	10	9	3
95-48-7	2-Methylphenol	U	9	1.0	10	9	4
108-60-1	2,2'-Oxybis(1-chloropropane)	U	9	1.0	10	9	2
98-86-2	Acetophenone	U	9	1.0	10	9	4
621-64-7	N-Nitroso-di-n-propylamine	U	9	1.0	10	9	2
65794-96-9	3&4-Methylphenol	U	9	1.0	10	9	5
67-72-1	Hexachloroethane	U	9	1.0	10	9	2
98-95-3	Nitrobenzene	U	9	1.0	10	9	3
78-59-1	Isophorone	U	9	1.0	10	9	2
88-75-5	2-Nitrophenol	U	9	1.0	10	9	2
105-67-9	2,4-Dimethylphenol	U	9	1.0	10	9	4
111-91-1	Bis(2-Chloroethoxy)methane	U	9	1.0	10	9	2
120-83-2	2,4-Dichlorophenol	U	9	1.0	10	9	3
91-20-3	Naphthalene	U	9	1.0	10	9	2
106-47-8	4-Chloroaniline	U	9	1.0	10	9	2
87-68-3	Hexachlorobutadiene	U	9	1.0	10	9	2
105-60-2	Caprolactam	U	9	1.0	10	9	0.4
59-50-7	4-Chloro-3-Methylphenol	U	9	1.0	10	9	3
91-57-6	2-Methylnaphthalene	U	9	1.0	10	9	3
77-47-4	Hexachlorocyclopentadiene	U	9	1.0	10	9	1
88-06-2	2,4,6-Trichlorophenol	U	9	1.0	10	9	2
95-95-4	2,4,5-Trichlorophenol	U	24	1.0	25	24	3
91-58-7	2-Chloronaphthalene	U	9	1.0	10	9	3
92-52-4	1,1'-Biphenyl	U	9	1.0	10	9	2
88-74-4	2-Nitroaniline	U	24	1.0	25	24	2
131-11-3	Dimethyl Phthalate	U	9	1.0	10	9	2
606-20-2	2,6-Dinitrotoluene	U	9	1.0	10	9	2
208-96-8	Acenaphthylene	U	9	1.0	10	9	1
99-09-2	3-Nitroaniline	U	24	1.0	25	24	1
83-32-9	Acenaphthene	U	9	1.0	10	9	1
51-28-5	2,4-Dinitrophenol	U	24	1.0	25	24	1
132-64-9	Dibenzofuran	U	9	1.0	10	9	1
100-02-7	4-Nitrophenol	U	24	1.0	25	24	2
121-14-2	2,4-Dinitrotoluene	U	9	1.0	10	9	2
84-66-2	Diethylphthalate	U	9	1.0	10	9	2
86-73-7	Fluorene	U	9	1.0	10	9	2
7005-72-3	4-Chlorophenyl-phenylether	U	9	1.0	10	9	2
100-01-6	4-Nitroaniline	U	24	1.0	25	24	2
534-52-1	4,6-Dinitro-2-Methylphenol	U	24	1.0	25	24	2

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 21-JUL-2009 05:27
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-22
Client ID: WGL-GW-DUP02-063009
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: CAM
Analysis Method: SW846 8270C
Lab Prep Batch: WG65862
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
86-30-6	N-Nitrosodiphenylamine	U	9	1.0	10	9	3
101-55-3	4-Bromophenyl-phenylether	U	9	1.0	10	9	2
118-74-1	Hexachlorobenzene	U	9	1.0	10	9	2
1912-24-9	Atrazine	U	9	1.0	10	9	3
87-86-5	Pentachlorophenol	U	24	1.0	25	24	2
85-01-8	Phenanthrene	U	9	1.0	10	9	2
120-12-7	Anthracene	U	9	1.0	10	9	2
86-74-8	Carbazole	U	9	1.0	10	9	2
84-74-2	Di-n-butylphthalate	U	9	1.0	10	9	2
206-44-0	Fluoranthene	U	9	1.0	10	9	2
129-00-0	Pyrene	U	9	1.0	10	9	2
85-68-7	Butylbenzylphthalate	U	9	1.0	10	9	2
56-55-3	Benzo(a)anthracene	U	9	1.0	10	9	1
91-94-1	3,3'-Dichlorobenzidine	U	9	1.0	10	9	1
218-01-9	Chrysene	U	9	1.0	10	9	2
117-81-7	bis(2-Ethylhexyl)phthalate	U	9	1.0	10	9	2
117-84-0	Di-n-octylphthalate	U	9	1.0	10	9	2
205-99-2	Benzo(b)fluoranthene	U	9	1.0	10	9	1
207-08-9	Benzo(k)fluoranthene	U	9	1.0	10	9	2
50-32-8	Benzo(a)pyrene	U	9	1.0	10	9	1
193-39-5	Indeno(1,2,3-cd)pyrene	U	9	1.0	10	9	2
53-70-3	Dibenzo(a,h)anthracene	U	9	1.0	10	9	2
191-24-2	Benzo(g,h,i)perylene	U	9	1.0	10	9	1
367-12-4	2-Fluorophenol		38%				
13127-88-3	Phenol-D6		24%				
4165-60-0	Nitrobenzene-D5		70%				
321-60-8	2-Fluorobiphenyl		82%				
118-79-6	2,4,6-Tribromophenol		81%				
1718-51-0	Terphenyl-D14		81%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 21-JUL-2009 06:10
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-24
Client ID: GL-GW-MW48D2-063009
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: CAM
Analysis Method: SW846 8270C
Lab Prep Batch: WG65862
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
123-91-1	1,4-Dioxane	U	10	1.0	10	10	2
100-52-7	Benzaldehyde	U	10	1.0	10	10	1.0
108-95-2	Phenol	U	10	1.0	10	10	2
111-44-4	Bis(2-Chloroethyl)ether	U	10	1.0	10	10	2
95-57-8	2-Chlorophenol	U	10	1.0	10	10	3
95-48-7	2-Methylphenol	U	10	1.0	10	10	4
108-60-1	2,2'-Oxybis(1-chloropropane)	U	10	1.0	10	10	2
98-86-2	Acetophenone	U	10	1.0	10	10	4
621-64-7	N-Nitroso-di-n-propylamine	U	10	1.0	10	10	2
65794-96-9	3&4-Methylphenol	U	10	1.0	10	10	6
67-72-1	Hexachloroethane	U	10	1.0	10	10	2
98-95-3	Nitrobenzene	U	10	1.0	10	10	3
78-59-1	Isophorone	U	10	1.0	10	10	2
88-75-5	2-Nitrophenol	U	10	1.0	10	10	3
105-67-9	2,4-Dimethylphenol	U	10	1.0	10	10	4
111-91-1	Bis(2-Chloroethoxy)methane	U	10	1.0	10	10	2
120-83-2	2,4-Dichlorophenol	U	10	1.0	10	10	3
91-20-3	Naphthalene	U	10	1.0	10	10	2
106-47-8	4-Chloroaniline	U	10	1.0	10	10	2
87-68-3	Hexachlorobutadiene	U	10	1.0	10	10	2
105-60-2	Caprolactam	U	10	1.0	10	10	0.4
59-50-7	4-Chloro-3-Methylphenol	U	10	1.0	10	10	4
91-57-6	2-Methylnaphthalene	U	10	1.0	10	10	3
77-47-4	Hexachlorocyclopentadiene	U	10	1.0	10	10	1
88-06-2	2,4,6-Trichlorophenol	U	10	1.0	10	10	3
95-95-4	2,4,5-Trichlorophenol	U	25	1.0	25	25	4
91-58-7	2-Chloronaphthalene	U	10	1.0	10	10	3
92-52-4	1,1'-Biphenyl	U	10	1.0	10	10	3
88-74-4	2-Nitroaniline	U	25	1.0	25	25	2
131-11-3	Dimethyl Phthalate	U	10	1.0	10	10	2
606-20-2	2,6-Dinitrotoluene	U	10	1.0	10	10	2
208-96-8	Acenaphthylene	U	10	1.0	10	10	1
99-09-2	3-Nitroaniline	U	25	1.0	25	25	2
83-32-9	Acenaphthene	U	10	1.0	10	10	1
51-28-5	2,4-Dinitrophenol	U	25	1.0	25	25	1
132-64-9	Dibenzofuran	U	10	1.0	10	10	2
100-02-7	4-Nitrophenol	U	25	1.0	25	25	2
121-14-2	2,4-Dinitrotoluene	U	10	1.0	10	10	2
84-66-2	Diethylphthalate	U	10	1.0	10	10	2
86-73-7	Fluorene	U	10	1.0	10	10	2
7005-72-3	4-Chlorophenyl-phenylether	U	10	1.0	10	10	2
100-01-6	4-Nitroaniline	U	25	1.0	25	25	2
534-52-1	4,6-Dinitro-2-Methylphenol	U	25	1.0	25	25	2

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 21-JUL-2009 06:10
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-24
Client ID: GL-GW-MW48D2-063009
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: CAM
Analysis Method: SW846 8270C
Lab Prep Batch: WG65862
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
86-30-6	N-Nitrosodiphenylamine	U	10	1.0	10	10	4
101-55-3	4-Bromophenyl-phenylether	U	10	1.0	10	10	2
118-74-1	Hexachlorobenzene	U	10	1.0	10	10	2
1912-24-9	Atrazine	U	10	1.0	10	10	3
87-86-5	Pentachlorophenol	U	25	1.0	25	25	2
85-01-8	Phenanthrene	U	10	1.0	10	10	2
120-12-7	Anthracene	U	10	1.0	10	10	2
86-74-8	Carbazole	U	10	1.0	10	10	2
84-74-2	Di-n-butylphthalate	U	10	1.0	10	10	2
206-44-0	Fluoranthene	U	10	1.0	10	10	2
129-00-0	Pyrene	U	10	1.0	10	10	2
85-68-7	Butylbenzylphthalate	U	10	1.0	10	10	2
56-55-3	Benzo(a)anthracene	U	10	1.0	10	10	2
91-94-1	3,3'-Dichlorobenzidine	U	10	1.0	10	10	1
218-01-9	Chrysene	U	10	1.0	10	10	2
117-81-7	bis(2-Ethylhexyl)phthalate	U	10	1.0	10	10	2
117-84-0	Di-n-octylphthalate	U	10	1.0	10	10	2
205-99-2	Benzo(b)fluoranthene	U	10	1.0	10	10	1
207-08-9	Benzo(k)fluoranthene	U	10	1.0	10	10	2
50-32-8	Benzo(a)pyrene	U	10	1.0	10	10	1
193-39-5	Indeno(1,2,3-cd)pyrene	U	10	1.0	10	10	2
53-70-3	Dibenzo(a,h)anthracene	U	10	1.0	10	10	2
191-24-2	Benzo(g,h,i)perylene	U	10	1.0	10	10	2
367-12-4	2-Fluorophenol		* 0%				
13127-88-3	Phenol-D6		* 0%				
4165-60-0	Nitrobenzene-D5		66%				
321-60-8	2-Fluorobiphenyl		68%				
118-79-6	2,4,6-Tribromophenol		* 23%				
1718-51-0	Terphenyl-D14		69%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/14/09
Analysis Date: 22-JUL-2009 07:23
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-24RE
Client ID: GL-GW-MW48D2-063009
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: CAM
Analysis Method: SW846 8270C
Lab Prep Batch: WG66190
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
123-91-1	1,4-Dioxane	U	10	1.0	10	10	2
100-52-7	Benzaldehyde	U	10	1.0	10	10	1
108-95-2	Phenol	U	10	1.0	10	10	2
111-44-4	Bis(2-Chloroethyl)ether	U	10	1.0	10	10	2
95-57-8	2-Chlorophenol	U	10	1.0	10	10	3
95-48-7	2-Methylphenol	U	10	1.0	10	10	4
108-60-1	2,2'-Oxybis(1-chloropropane)	U	10	1.0	10	10	2
98-86-2	Acetophenone	U	10	1.0	10	10	4
621-64-7	N-Nitroso-di-n-propylamine	U	10	1.0	10	10	2
65794-96-9	3&4-Methylphenol	U	10	1.0	10	10	6
67-72-1	Hexachloroethane	U	10	1.0	10	10	2
98-95-3	Nitrobenzene	U	10	1.0	10	10	3
78-59-1	Isophorone	U	10	1.0	10	10	2
88-75-5	2-Nitrophenol	U	10	1.0	10	10	3
105-67-9	2,4-Dimethylphenol	U	10	1.0	10	10	5
111-91-1	Bis(2-Chloroethoxy)methane	U	10	1.0	10	10	2
120-83-2	2,4-Dichlorophenol	U	10	1.0	10	10	3
91-20-3	Naphthalene	U	10	1.0	10	10	2
106-47-8	4-Chloroaniline	U	10	1.0	10	10	2
87-68-3	Hexachlorobutadiene	U	10	1.0	10	10	2
105-60-2	Caprolactam	U	10	1.0	10	10	0.4
59-50-7	4-Chloro-3-Methylphenol	U	10	1.0	10	10	4
91-57-6	2-Methylnaphthalene	U	10	1.0	10	10	3
77-47-4	Hexachlorocyclopentadiene	U	10	1.0	10	10	1
88-06-2	2,4,6-Trichlorophenol	U	10	1.0	10	10	3
95-95-4	2,4,5-Trichlorophenol	U	26	1.0	25	26	4
91-58-7	2-Chloronaphthalene	U	10	1.0	10	10	3
92-52-4	1,1'-Biphenyl	U	10	1.0	10	10	3
88-74-4	2-Nitroaniline	U	26	1.0	25	26	2
131-11-3	Dimethyl Phthalate	U	10	1.0	10	10	2
606-20-2	2,6-Dinitrotoluene	U	10	1.0	10	10	2
208-96-8	Acenaphthylene	U	10	1.0	10	10	2
99-09-2	3-Nitroaniline	U	26	1.0	25	26	2
83-32-9	Acenaphthene	U	10	1.0	10	10	2
51-28-5	2,4-Dinitrophenol	U	26	1.0	25	26	1
132-64-9	Dibenzofuran	U	10	1.0	10	10	2
100-02-7	4-Nitrophenol	U	26	1.0	25	26	2
121-14-2	2,4-Dinitrotoluene	U	10	1.0	10	10	2
84-66-2	Diethylphthalate	U	10	1.0	10	10	2
86-73-7	Fluorene	U	10	1.0	10	10	2
7005-72-3	4-Chlorophenyl-phenylether	U	10	1.0	10	10	2
100-01-6	4-Nitroaniline	U	26	1.0	25	26	2
534-52-1	4,6-Dinitro-2-Methylphenol	U	26	1.0	25	26	2

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/14/09
Analysis Date: 22-JUL-2009 07:23
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-24RE
Client ID: GL-GW-MW48D2-063009
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: CAM
Analysis Method: SW846 8270C
Lab Prep Batch: WG66190
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
86-30-6	N-Nitrosodiphenylamine	U	10	1.0	10	10	4
101-55-3	4-Bromophenyl-phenylether	U	10	1.0	10	10	2
118-74-1	Hexachlorobenzene	U	10	1.0	10	10	2
1912-24-9	Atrazine	U	10	1.0	10	10	3
87-86-5	Pentachlorophenol	U	26	1.0	25	26	2
85-01-8	Phenanthrene	U	10	1.0	10	10	2
120-12-7	Anthracene	U	10	1.0	10	10	2
86-74-8	Carbazole	U	10	1.0	10	10	2
84-74-2	Di-n-butylphthalate	U	10	1.0	10	10	2
206-44-0	Fluoranthene	U	10	1.0	10	10	2
129-00-0	Pyrene	U	10	1.0	10	10	2
85-68-7	Butylbenzylphthalate	U	10	1.0	10	10	2
56-55-3	Benzo(a)anthracene	U	10	1.0	10	10	2
91-94-1	3,3'-Dichlorobenzidine	U	10	1.0	10	10	1
218-01-9	Chrysene	U	10	1.0	10	10	2
117-81-7	bis(2-Ethylhexyl)phthalate	U	10	1.0	10	10	2
117-84-0	Di-n-octylphthalate	U	10	1.0	10	10	2
205-99-2	Benzo(b)fluoranthene	U	10	1.0	10	10	1
207-08-9	Benzo(k)fluoranthene	U	10	1.0	10	10	2
50-32-8	Benzo(a)pyrene	U	10	1.0	10	10	1
193-39-5	Indeno(1,2,3-cd)pyrene	U	10	1.0	10	10	2
53-70-3	Dibenzo(a,h)anthracene	U	10	1.0	10	10	2
191-24-2	Benzo(g,h,i)perylene	U	10	1.0	10	10	2
367-12-4	2-Fluorophenol		13%				
13127-88-3	Phenol-D6		* 6%				
4165-60-0	Nitrobenzene-D5		54%				
321-60-8	2-Fluorobiphenyl		60%				
118-79-6	2,4,6-Tribromophenol		56%				
1718-51-0	Terphenyl-D14		66%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 22-JUL-2009 00:10
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-26RA
Client ID: WGL-GW-MW39-063009
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: CAM
Analysis Method: SW846 8270C
Lab Prep Batch: WG65862
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
123-91-1	1,4-Dioxane	U	10	1.0	10	10	2
100-52-7	Benzaldehyde	U	10	1.0	10	10	1
108-95-2	Phenol	U	10	1.0	10	10	2
111-44-4	Bis(2-Chloroethyl)ether	U	10	1.0	10	10	2
95-57-8	2-Chlorophenol	U	10	1.0	10	10	3
95-48-7	2-Methylphenol	U	10	1.0	10	10	4
108-60-1	2,2'-Oxybis(1-chloropropane)	U	10	1.0	10	10	2
98-86-2	Acetophenone	U	10	1.0	10	10	4
621-64-7	N-Nitroso-di-n-propylamine	U	10	1.0	10	10	2
65794-96-9	3&4-Methylphenol	U	10	1.0	10	10	6
67-72-1	Hexachloroethane	U	10	1.0	10	10	2
98-95-3	Nitrobenzene	U	10	1.0	10	10	3
78-59-1	Isophorone	U	10	1.0	10	10	2
88-75-5	2-Nitrophenol	U	10	1.0	10	10	3
105-67-9	2,4-Dimethylphenol	U	10	1.0	10	10	5
111-91-1	Bis(2-Chloroethoxy)methane	U	10	1.0	10	10	2
120-83-2	2,4-Dichlorophenol	U	10	1.0	10	10	3
91-20-3	Naphthalene	U	10	1.0	10	10	2
106-47-8	4-Chloroaniline	U	10	1.0	10	10	2
87-68-3	Hexachlorobutadiene	U	10	1.0	10	10	2
105-60-2	Caprolactam	U	10	1.0	10	10	0.4
59-50-7	4-Chloro-3-Methylphenol	U	10	1.0	10	10	4
91-57-6	2-Methylnaphthalene	U	10	1.0	10	10	3
77-47-4	Hexachlorocyclopentadiene	U	10	1.0	10	10	1
88-06-2	2,4,6-Trichlorophenol	U	10	1.0	10	10	3
95-95-4	2,4,5-Trichlorophenol	U	26	1.0	25	26	4
91-58-7	2-Chloronaphthalene	U	10	1.0	10	10	3
92-52-4	1,1'-Biphenyl	U	10	1.0	10	10	3
88-74-4	2-Nitroaniline	U	26	1.0	25	26	2
131-11-3	Dimethyl Phthalate	U	10	1.0	10	10	2
606-20-2	2,6-Dinitrotoluene	U	10	1.0	10	10	2
208-96-8	Acenaphthylene	U	10	1.0	10	10	2
99-09-2	3-Nitroaniline	U	26	1.0	25	26	2
83-32-9	Acenaphthene	U	10	1.0	10	10	2
51-28-5	2,4-Dinitrophenol	U	26	1.0	25	26	1
132-64-9	Dibenzofuran	U	10	1.0	10	10	2
100-02-7	4-Nitrophenol	U	26	1.0	25	26	2
121-14-2	2,4-Dinitrotoluene	U	10	1.0	10	10	2
84-66-2	Diethylphthalate	U	10	1.0	10	10	2
86-73-7	Fluorene	U	10	1.0	10	10	2
7005-72-3	4-Chlorophenyl-phenylether	U	10	1.0	10	10	2
100-01-6	4-Nitroaniline	U	26	1.0	25	26	2
534-52-1	4,6-Dinitro-2-Methylphenol	U	26	1.0	25	26	2

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 22-JUL-2009 00:10
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-26RA
Client ID: WGL-GW-MW39-063009
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: CAM
Analysis Method: SW846 8270C
Lab Prep Batch: WG65862
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
86-30-6	N-Nitrosodiphenylamine	U	10	1.0	10	10	4
101-55-3	4-Bromophenyl-phenylether	U	10	1.0	10	10	2
118-74-1	Hexachlorobenzene	U	10	1.0	10	10	2
1912-24-9	Atrazine	U	10	1.0	10	10	3
87-86-5	Pentachlorophenol	U	26	1.0	25	26	2
85-01-8	Phenanthrene	U	10	1.0	10	10	2
120-12-7	Anthracene	U	10	1.0	10	10	2
86-74-8	Carbazole	U	10	1.0	10	10	2
84-74-2	Di-n-butylphthalate	U	10	1.0	10	10	2
206-44-0	Fluoranthene	U	10	1.0	10	10	2
129-00-0	Pyrene	U	10	1.0	10	10	2
85-68-7	Butylbenzylphthalate	U	10	1.0	10	10	2
56-55-3	Benzo(a)anthracene	U	10	1.0	10	10	2
91-94-1	3,3'-Dichlorobenzidine	U	10	1.0	10	10	1
218-01-9	Chrysene	U	10	1.0	10	10	2
117-81-7	bis(2-Ethylhexyl)phthalate	U	10	1.0	10	10	2
117-84-0	Di-n-octylphthalate	U	10	1.0	10	10	2
205-99-2	Benzo(b)fluoranthene	U	10	1.0	10	10	1
207-08-9	Benzo(k)fluoranthene	U	10	1.0	10	10	2
50-32-8	Benzo(a)pyrene	U	10	1.0	10	10	1
193-39-5	Indeno(1,2,3-cd)pyrene	U	10	1.0	10	10	2
53-70-3	Dibenzo(a,h)anthracene	U	10	1.0	10	10	2
191-24-2	Benzo(g,h,i)perylene	U	10	1.0	10	10	2
367-12-4	2-Fluorophenol		37%				
13127-88-3	Phenol-D6		16%				
4165-60-0	Nitrobenzene-D5		58%				
321-60-8	2-Fluorobiphenyl		67%				
118-79-6	2,4,6-Tribromophenol		83%				
1718-51-0	Terphenyl-D14		75%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 07/01/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 22-JUL-2009 00:53
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-28RA
Client ID: WGL-GW-FB01-070109
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: CAM
Analysis Method: SW846 8270C
Lab Prep Batch: WG65862
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
123-91-1	1,4-Dioxane	U	9	1.0	10	9	2
100-52-7	Benzaldehyde		16	1.0	10	9	0.9
108-95-2	Phenol	U	9	1.0	10	9	2
111-44-4	Bis(2-Chloroethyl)ether	U	9	1.0	10	9	2
95-57-8	2-Chlorophenol	U	9	1.0	10	9	3
95-48-7	2-Methylphenol	U	9	1.0	10	9	4
108-60-1	2,2'-Oxybis(1-chloropropane)	U	9	1.0	10	9	2
98-86-2	Acetophenone	U	9	1.0	10	9	4
621-64-7	N-Nitroso-di-n-propylamine	U	9	1.0	10	9	2
65794-96-9	3&4-Methylphenol	U	9	1.0	10	9	5
67-72-1	Hexachloroethane	U	9	1.0	10	9	2
98-95-3	Nitrobenzene	U	9	1.0	10	9	3
78-59-1	Isophorone	U	9	1.0	10	9	2
88-75-5	2-Nitrophenol	U	9	1.0	10	9	2
105-67-9	2,4-Dimethylphenol	U	9	1.0	10	9	4
111-91-1	Bis(2-Chloroethoxy)methane	U	9	1.0	10	9	2
120-83-2	2,4-Dichlorophenol	U	9	1.0	10	9	3
91-20-3	Naphthalene	U	9	1.0	10	9	2
106-47-8	4-Chloroaniline	U	9	1.0	10	9	2
87-68-3	Hexachlorobutadiene	U	9	1.0	10	9	2
105-60-2	Caprolactam	U	9	1.0	10	9	0.4
59-50-7	4-Chloro-3-Methylphenol	U	9	1.0	10	9	3
91-57-6	2-Methylnaphthalene	U	9	1.0	10	9	3
77-47-4	Hexachlorocyclopentadiene	U	9	1.0	10	9	1
88-06-2	2,4,6-Trichlorophenol	U	9	1.0	10	9	2
95-95-4	2,4,5-Trichlorophenol	U	24	1.0	25	24	3
91-58-7	2-Chloronaphthalene	U	9	1.0	10	9	3
92-52-4	1,1'-Biphenyl	U	9	1.0	10	9	2
88-74-4	2-Nitroaniline	U	24	1.0	25	24	2
131-11-3	Dimethyl Phthalate	U	9	1.0	10	9	2
606-20-2	2,6-Dinitrotoluene	U	9	1.0	10	9	2
208-96-8	Acenaphthylene	U	9	1.0	10	9	1
99-09-2	3-Nitroaniline	U	24	1.0	25	24	1
83-32-9	Acenaphthene	U	9	1.0	10	9	1
51-28-5	2,4-Dinitrophenol	U	24	1.0	25	24	1
132-64-9	Dibenzofuran	U	9	1.0	10	9	1
100-02-7	4-Nitrophenol	U	24	1.0	25	24	2
121-14-2	2,4-Dinitrotoluene	U	9	1.0	10	9	2
84-66-2	Diethylphthalate	U	9	1.0	10	9	2
86-73-7	Fluorene	U	9	1.0	10	9	2
7005-72-3	4-Chlorophenyl-phenylether	U	9	1.0	10	9	2
100-01-6	4-Nitroaniline	U	24	1.0	25	24	2
534-52-1	4,6-Dinitro-2-Methylphenol	U	24	1.0	25	24	2

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 07/01/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 22-JUL-2009 00:53
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-28RA
Client ID: WGL-GW-FB01-070109
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: CAM
Analysis Method: SW846 8270C
Lab Prep Batch: WG65862
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
86-30-6	N-Nitrosodiphenylamine	U	9	1.0	10	9	3
101-55-3	4-Bromophenyl-phenylether	U	9	1.0	10	9	2
118-74-1	Hexachlorobenzene	U	9	1.0	10	9	2
1912-24-9	Atrazine	U	9	1.0	10	9	3
87-86-5	Pentachlorophenol	U	24	1.0	25	24	2
85-01-8	Phenanthrene	U	9	1.0	10	9	2
120-12-7	Anthracene	U	9	1.0	10	9	2
86-74-8	Carbazole	U	9	1.0	10	9	2
84-74-2	Di-n-butylphthalate	U	9	1.0	10	9	2
206-44-0	Fluoranthene	U	9	1.0	10	9	2
129-00-0	Pyrene	U	9	1.0	10	9	2
85-68-7	Butylbenzylphthalate	U	9	1.0	10	9	2
56-55-3	Benzo(a)anthracene	U	9	1.0	10	9	1
91-94-1	3,3'-Dichlorobenzidine	U	9	1.0	10	9	1
218-01-9	Chrysene	U	9	1.0	10	9	2
117-81-7	bis(2-Ethylhexyl)phthalate	U	9	1.0	10	9	2
117-84-0	Di-n-octylphthalate	U	9	1.0	10	9	2
205-99-2	Benzo(b)fluoranthene	U	9	1.0	10	9	1
207-08-9	Benzo(k)fluoranthene	U	9	1.0	10	9	2
50-32-8	Benzo(a)pyrene	U	9	1.0	10	9	1
193-39-5	Indeno(1,2,3-cd)pyrene	U	9	1.0	10	9	2
53-70-3	Dibenzo(a,h)anthracene	U	9	1.0	10	9	2
191-24-2	Benzo(g,h,i)perylene	U	9	1.0	10	9	1
367-12-4	2-Fluorophenol		44%				
13127-88-3	Phenol-D6		33%				
4165-60-0	Nitrobenzene-D5		67%				
321-60-8	2-Fluorobiphenyl		69%				
118-79-6	2,4,6-Tribromophenol		79%				
1718-51-0	Terphenyl-D14		68%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 07/01/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 22-JUL-2009 01:36
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-30RA
Client ID: WGL-GW-RB01-070109
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: CAM
Analysis Method: SW846 8270C
Lab Prep Batch: WG65862
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
123-91-1	1,4-Dioxane	U	9	1.0	10	9	2
100-52-7	Benzaldehyde		17	1.0	10	9	0.9
108-95-2	Phenol	U	9	1.0	10	9	2
111-44-4	Bis(2-Chloroethyl)ether	U	9	1.0	10	9	2
95-57-8	2-Chlorophenol	U	9	1.0	10	9	3
95-48-7	2-Methylphenol	U	9	1.0	10	9	4
108-60-1	2,2'-Oxybis(1-chloropropane)	U	9	1.0	10	9	2
98-86-2	Acetophenone	U	9	1.0	10	9	4
621-64-7	N-Nitroso-di-n-propylamine	U	9	1.0	10	9	2
65794-96-9	3&4-Methylphenol	U	9	1.0	10	9	5
67-72-1	Hexachloroethane	U	9	1.0	10	9	2
98-95-3	Nitrobenzene	U	9	1.0	10	9	3
78-59-1	Isophorone	U	9	1.0	10	9	2
88-75-5	2-Nitrophenol	U	9	1.0	10	9	2
105-67-9	2,4-Dimethylphenol	U	9	1.0	10	9	4
111-91-1	Bis(2-Chloroethoxy)methane	U	9	1.0	10	9	2
120-83-2	2,4-Dichlorophenol	U	9	1.0	10	9	3
91-20-3	Naphthalene	U	9	1.0	10	9	2
106-47-8	4-Chloroaniline	U	9	1.0	10	9	2
87-68-3	Hexachlorobutadiene	U	9	1.0	10	9	2
105-60-2	Caprolactam	U	9	1.0	10	9	0.4
59-50-7	4-Chloro-3-Methylphenol	U	9	1.0	10	9	3
91-57-6	2-Methylnaphthalene	U	9	1.0	10	9	3
77-47-4	Hexachlorocyclopentadiene	U	9	1.0	10	9	1
88-06-2	2,4,6-Trichlorophenol	U	9	1.0	10	9	2
95-95-4	2,4,5-Trichlorophenol	U	24	1.0	25	24	3
91-58-7	2-Chloronaphthalene	U	9	1.0	10	9	3
92-52-4	1,1'-Biphenyl	U	9	1.0	10	9	2
88-74-4	2-Nitroaniline	U	24	1.0	25	24	2
131-11-3	Dimethyl Phthalate	U	9	1.0	10	9	2
606-20-2	2,6-Dinitrotoluene	U	9	1.0	10	9	2
208-96-8	Acenaphthylene	U	9	1.0	10	9	1
99-09-2	3-Nitroaniline	U	24	1.0	25	24	1
83-32-9	Acenaphthene	U	9	1.0	10	9	1
51-28-5	2,4-Dinitrophenol	U	24	1.0	25	24	1
132-64-9	Dibenzofuran	U	9	1.0	10	9	1
100-02-7	4-Nitrophenol	U	24	1.0	25	24	2
121-14-2	2,4-Dinitrotoluene	U	9	1.0	10	9	2
84-66-2	Diethylphthalate	U	9	1.0	10	9	2
86-73-7	Fluorene	U	9	1.0	10	9	2
7005-72-3	4-Chlorophenyl-phenylether	U	9	1.0	10	9	2
100-01-6	4-Nitroaniline	U	24	1.0	25	24	2
534-52-1	4,6-Dinitro-2-Methylphenol	U	24	1.0	25	24	2

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 07/01/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 22-JUL-2009 01:36
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-30RA
Client ID: WGL-GW-RB01-070109
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: CAM
Analysis Method: SW846 8270C
Lab Prep Batch: WG65862
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
86-30-6	N-Nitrosodiphenylamine	U	9	1.0	10	9	3
101-55-3	4-Bromophenyl-phenylether	U	9	1.0	10	9	2
118-74-1	Hexachlorobenzene	U	9	1.0	10	9	2
1912-24-9	Atrazine	U	9	1.0	10	9	3
87-86-5	Pentachlorophenol	U	24	1.0	25	24	2
85-01-8	Phenanthrene	U	9	1.0	10	9	2
120-12-7	Anthracene	U	9	1.0	10	9	2
86-74-8	Carbazole	U	9	1.0	10	9	2
84-74-2	Di-n-butylphthalate	U	9	1.0	10	9	2
206-44-0	Fluoranthene	U	9	1.0	10	9	2
129-00-0	Pyrene	U	9	1.0	10	9	2
85-68-7	Butylbenzylphthalate	U	9	1.0	10	9	2
56-55-3	Benzo(a)anthracene	U	9	1.0	10	9	1
91-94-1	3,3'-Dichlorobenzidine	U	9	1.0	10	9	1
218-01-9	Chrysene	U	9	1.0	10	9	2
117-81-7	bis(2-Ethylhexyl)phthalate	U	9	1.0	10	9	2
117-84-0	Di-n-octylphthalate	U	9	1.0	10	9	2
205-99-2	Benzo(b)fluoranthene	U	9	1.0	10	9	1
207-08-9	Benzo(k)fluoranthene	U	9	1.0	10	9	2
50-32-8	Benzo(a)pyrene	U	9	1.0	10	9	1
193-39-5	Indeno(1,2,3-cd)pyrene	U	9	1.0	10	9	2
53-70-3	Dibenzo(a,h)anthracene	U	9	1.0	10	9	2
191-24-2	Benzo(g,h,i)perylene	U	9	1.0	10	9	1
367-12-4	2-Fluorophenol		38%				
13127-88-3	Phenol-D6		15%				
4165-60-0	Nitrobenzene-D5		66%				
321-60-8	2-Fluorobiphenyl		76%				
118-79-6	2,4,6-Tribromophenol		87%				
1718-51-0	Terphenyl-D14		72%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client:
Project: CTO407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date: 07/06/09
Analysis Date: 22-JUL-2009 02:20
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: WG65862-1
Client ID: WG65862-Blank
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: CAM
Analysis Method: SW846 8270C
Lab Prep Batch: WG65862
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
123-91-1	1,4-Dioxane	U	10	1.0	10	10	2
100-52-7	Benzaldehyde	U	10	1.0	10	10	1.0
108-95-2	Phenol	U	10	1.0	10	10	2
111-44-4	Bis(2-Chloroethyl)ether	U	10	1.0	10	10	2
95-57-8	2-Chlorophenol	U	10	1.0	10	10	3
95-48-7	2-Methylphenol	U	10	1.0	10	10	4
108-60-1	2,2'-Oxybis(1-chloropropane)	U	10	1.0	10	10	2
98-86-2	Acetophenone	U	10	1.0	10	10	4
621-64-7	N-Nitroso-di-n-propylamine	U	10	1.0	10	10	2
65794-96-9	3&4-Methylphenol	U	10	1.0	10	10	6
67-72-1	Hexachloroethane	U	10	1.0	10	10	2
98-95-3	Nitrobenzene	U	10	1.0	10	10	3
78-59-1	Isophorone	U	10	1.0	10	10	2
88-75-5	2-Nitrophenol	U	10	1.0	10	10	3
105-67-9	2,4-Dimethylphenol	U	10	1.0	10	10	4
111-91-1	Bis(2-Chloroethoxy)methane	U	10	1.0	10	10	2
120-83-2	2,4-Dichlorophenol	U	10	1.0	10	10	3
91-20-3	Naphthalene	U	10	1.0	10	10	2
106-47-8	4-Chloroaniline	U	10	1.0	10	10	2
87-68-3	Hexachlorobutadiene	U	10	1.0	10	10	2
105-60-2	Caprolactam	U	10	1.0	10	10	0.4
59-50-7	4-Chloro-3-Methylphenol	U	10	1.0	10	10	4
91-57-6	2-Methylnaphthalene	U	10	1.0	10	10	3
77-47-4	Hexachlorocyclopentadiene	U	10	1.0	10	10	1
88-06-2	2,4,6-Trichlorophenol	U	10	1.0	10	10	3
95-95-4	2,4,5-Trichlorophenol	U	25	1.0	25	25	4
91-58-7	2-Chloronaphthalene	U	10	1.0	10	10	3
92-52-4	1,1'-Biphenyl	U	10	1.0	10	10	3
88-74-4	2-Nitroaniline	U	25	1.0	25	25	2
131-11-3	Dimethyl Phthalate	U	10	1.0	10	10	2
606-20-2	2,6-Dinitrotoluene	U	10	1.0	10	10	2
208-96-8	Acenaphthylene	U	10	1.0	10	10	1
99-09-2	3-Nitroaniline	U	25	1.0	25	25	1
83-32-9	Acenaphthene	U	10	1.0	10	10	1
51-28-5	2,4-Dinitrophenol	U	25	1.0	25	25	1
132-64-9	Dibenzofuran	U	10	1.0	10	10	2
100-02-7	4-Nitrophenol	U	25	1.0	25	25	2
121-14-2	2,4-Dinitrotoluene	U	10	1.0	10	10	2
84-66-2	Diethylphthalate	U	10	1.0	10	10	2
86-73-7	Fluorene	U	10	1.0	10	10	2
7005-72-3	4-Chlorophenyl-phenylether	U	10	1.0	10	10	2
100-01-6	4-Nitroaniline	U	25	1.0	25	25	2
534-52-1	4,6-Dinitro-2-Methylphenol	U	25	1.0	25	25	2

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client:
Project: CTO407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date: 07/06/09
Analysis Date: 22-JUL-2009 02:20
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: WG65862-1
Client ID: WG65862-Blank
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: CAM
Analysis Method: SW846 8270C
Lab Prep Batch: WG65862
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
86-30-6	N-Nitrosodiphenylamine	U	10	1.0	10	10	4
101-55-3	4-Bromophenyl-phenylether	U	10	1.0	10	10	2
118-74-1	Hexachlorobenzene	U	10	1.0	10	10	2
1912-24-9	Atrazine	U	10	1.0	10	10	3
87-86-5	Pentachlorophenol	U	25	1.0	25	25	2
85-01-8	Phenanthrene	U	10	1.0	10	10	2
120-12-7	Anthracene	U	10	1.0	10	10	2
86-74-8	Carbazole	U	10	1.0	10	10	2
84-74-2	Di-n-butylphthalate	U	10	1.0	10	10	2
206-44-0	Fluoranthene	U	10	1.0	10	10	2
129-00-0	Pyrene	U	10	1.0	10	10	2
85-68-7	Butylbenzylphthalate	U	10	1.0	10	10	2
56-55-3	Benzo(a)anthracene	U	10	1.0	10	10	2
91-94-1	3,3'-Dichlorobenzidine	U	10	1.0	10	10	1
218-01-9	Chrysene	U	10	1.0	10	10	2
117-81-7	bis(2-Ethylhexyl)phthalate	U	10	1.0	10	10	2
117-84-0	Di-n-octylphthalate	U	10	1.0	10	10	2
205-99-2	Benzo(b)fluoranthene	U	10	1.0	10	10	1
207-08-9	Benzo(k)fluoranthene	U	10	1.0	10	10	2
50-32-8	Benzo(a)pyrene	U	10	1.0	10	10	1
193-39-5	Indeno(1,2,3-cd)pyrene	U	10	1.0	10	10	2
53-70-3	Dibenzo(a,h)anthracene	U	10	1.0	10	10	2
191-24-2	Benzo(g,h,i)perylene	U	10	1.0	10	10	2
367-12-4	2-Fluorophenol		32%				
13127-88-3	Phenol-D6		13%				
4165-60-0	Nitrobenzene-D5		47%				
321-60-8	2-Fluorobiphenyl		54%				
118-79-6	2,4,6-Tribromophenol		62%				
1718-51-0	Terphenyl-D14		79%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client:
Project: CTO407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date: 07/14/09
Analysis Date: 22-JUL-2009 05:13
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: WG66190-1
Client ID: WG66190-Blank
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: CAM
Analysis Method: SW846 8270C
Lab Prep Batch: WG66190
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
123-91-1	1,4-Dioxane	U	10	1.0	10	10	2
100-52-7	Benzaldehyde	U	10	1.0	10	10	1.0
108-95-2	Phenol	U	10	1.0	10	10	2
111-44-4	Bis(2-Chloroethyl)ether	U	10	1.0	10	10	2
95-57-8	2-Chlorophenol	U	10	1.0	10	10	3
95-48-7	2-Methylphenol	U	10	1.0	10	10	4
108-60-1	2,2'-Oxybis(1-chloropropane)	U	10	1.0	10	10	2
98-86-2	Acetophenone	U	10	1.0	10	10	4
621-64-7	N-Nitroso-di-n-propylamine	U	10	1.0	10	10	2
65794-96-9	3&4-Methylphenol	U	10	1.0	10	10	6
67-72-1	Hexachloroethane	U	10	1.0	10	10	2
98-95-3	Nitrobenzene	U	10	1.0	10	10	3
78-59-1	Isophorone	U	10	1.0	10	10	2
88-75-5	2-Nitrophenol	U	10	1.0	10	10	3
105-67-9	2,4-Dimethylphenol	U	10	1.0	10	10	4
111-91-1	Bis(2-Chloroethoxy)methane	U	10	1.0	10	10	2
120-83-2	2,4-Dichlorophenol	U	10	1.0	10	10	3
91-20-3	Naphthalene	U	10	1.0	10	10	2
106-47-8	4-Chloroaniline	U	10	1.0	10	10	2
87-68-3	Hexachlorobutadiene	U	10	1.0	10	10	2
105-60-2	Caprolactam	U	10	1.0	10	10	0.4
59-50-7	4-Chloro-3-Methylphenol	U	10	1.0	10	10	4
91-57-6	2-Methylnaphthalene	U	10	1.0	10	10	3
77-47-4	Hexachlorocyclopentadiene	U	10	1.0	10	10	1
88-06-2	2,4,6-Trichlorophenol	U	10	1.0	10	10	3
95-95-4	2,4,5-Trichlorophenol	U	25	1.0	25	25	4
91-58-7	2-Chloronaphthalene	U	10	1.0	10	10	3
92-52-4	1,1'-Biphenyl	U	10	1.0	10	10	3
88-74-4	2-Nitroaniline	U	25	1.0	25	25	2
131-11-3	Dimethyl Phthalate	U	10	1.0	10	10	2
606-20-2	2,6-Dinitrotoluene	U	10	1.0	10	10	2
208-96-8	Acenaphthylene	U	10	1.0	10	10	1
99-09-2	3-Nitroaniline	U	25	1.0	25	25	1
83-32-9	Acenaphthene	U	10	1.0	10	10	1
51-28-5	2,4-Dinitrophenol	U	25	1.0	25	25	1
132-64-9	Dibenzofuran	U	10	1.0	10	10	2
100-02-7	4-Nitrophenol	U	25	1.0	25	25	2
121-14-2	2,4-Dinitrotoluene	U	10	1.0	10	10	2
84-66-2	Diethylphthalate	U	10	1.0	10	10	2
86-73-7	Fluorene	U	10	1.0	10	10	2
7005-72-3	4-Chlorophenyl-phenylether	U	10	1.0	10	10	2
100-01-6	4-Nitroaniline	U	25	1.0	25	25	2
534-52-1	4,6-Dinitro-2-Methylphenol	U	25	1.0	25	25	2

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client:
Project: CTO407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date: 07/14/09
Analysis Date: 22-JUL-2009 05:13
Report Date: 07/22/2009
Matrix: WATER
% Solids: NA

Lab ID: WG66190-1
Client ID: WG66190-Blank
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: CAM
Analysis Method: SW846 8270C
Lab Prep Batch: WG66190
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
86-30-6	N-Nitrosodiphenylamine	U	10	1.0	10	10	4
101-55-3	4-Bromophenyl-phenylether	U	10	1.0	10	10	2
118-74-1	Hexachlorobenzene	U	10	1.0	10	10	2
1912-24-9	Atrazine	U	10	1.0	10	10	3
87-86-5	Pentachlorophenol	U	25	1.0	25	25	2
85-01-8	Phenanthrene	U	10	1.0	10	10	2
120-12-7	Anthracene	U	10	1.0	10	10	2
86-74-8	Carbazole	U	10	1.0	10	10	2
84-74-2	Di-n-butylphthalate	U	10	1.0	10	10	2
206-44-0	Fluoranthene	U	10	1.0	10	10	2
129-00-0	Pyrene	U	10	1.0	10	10	2
85-68-7	Butylbenzylphthalate	U	10	1.0	10	10	2
56-55-3	Benzo(a)anthracene	U	10	1.0	10	10	2
91-94-1	3,3'-Dichlorobenzidine	U	10	1.0	10	10	1
218-01-9	Chrysene	U	10	1.0	10	10	2
117-81-7	bis(2-Ethylhexyl)phthalate	U	10	1.0	10	10	2
117-84-0	Di-n-octylphthalate	U	10	1.0	10	10	2
205-99-2	Benzo(b)fluoranthene	U	10	1.0	10	10	1
207-08-9	Benzo(k)fluoranthene	U	10	1.0	10	10	2
50-32-8	Benzo(a)pyrene	U	10	1.0	10	10	1
193-39-5	Indeno(1,2,3-cd)pyrene	U	10	1.0	10	10	2
53-70-3	Dibenzo(a,h)anthracene	U	10	1.0	10	10	2
191-24-2	Benzo(g,h,i)perylene	U	10	1.0	10	10	2
367-12-4	2-Fluorophenol		40%				
13127-88-3	Phenol-D6		26%				
4165-60-0	Nitrobenzene-D5		60%				
321-60-8	2-Fluorobiphenyl		72%				
118-79-6	2,4,6-Tribromophenol		71%				
1718-51-0	Terphenyl-D14		88%				

FORM 2
WATER SEMIVOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

	CLIENT SAMPLE ID	LAB SAMPLE ID	S1 2FP#	S2 PHL#	S3 NBZ#	S4 FBP#	S5 TBP#	S6 TPH#	S7 #	S8 #	TOT OUT
01	WGL-GW-MW101-062909	SC3624-2	38	21	62	68	87	71			0
02	WGL-GW-MW3-062909	SC3624-4	22	14	48	60	70	55			0
03	WGL-GW-MW103-062909	SC3624-6	16	12	50	55	51	50			0
04	WGL-GW-MW102-062909	SC3624-8	33	19	54	58	63	62			0
05	WGL-GW-MW2-063009	SC3624-10	12	11	55	59	55	52			0
06	WGL-GW-MW4-063009	SC3624-12	31	20	58	67	52	66			0
07	L-GW-MW38-063009	SC3624-14	33	19	59	58	74	71			0
08	WGL-GW-MW40S-063009	SC3624-16	35	21	54	70	80	87			0
09	WGL-GW-DUP01-063009	SC3624-18	32	16	60	64	72	74			0
10	WGL-GW-MW48D-063009	SC3624-20	30	11	61	66	61	74			0
11	WGL-GW-DUP02-063009	SC3624-22	38	24	70	82	81	81			0
12	GL-GW-MW48D2-063009	SC3624-24	0*	0*	66	68	23*	69			3
13	WGL-GW-MW39-063009	SC3624-26RA	37	16	58	67	83	75			0
14	WGL-GW-FB01-070109	SC3624-28RA	44	33	67	69	79	68			0
15	WGL-GW-RB01-070109	SC3624-30RA	38	15	66	76	87	72			0
16	WG65862-BLANK	WG65862-1	32	13	47	54	62	79			0
17	WG65862-LCS	WG65862-2	32	19	58	62	85	77			0
18	L-GW-MW38-063009MS	WG65862-3	28	15	54	56	76	74			0
19	L-GW-MW38-063009MSD	WG65862-4	19	15	58	58	78	65			0
20	WG66190-BLANK	WG66190-1	40	26	60	72	71	88			0
21	WG66190-LCS	WG66190-2	43	26	54	56	81	69			0
22	WG66190-LCSD	WG66190-3	41	24	63	67	88	84			0
23	GL-GW-MW48D2-063009	SC3624-24RE	13	6*	54	60	56	66			1
24											
25											
26											
27											
28											

		QC LIMITS
S1 (2FP)	= 2-Fluorophenol	(10- 80)
S2 (PHL)	= Phenol-D6	(10- 90)
S3 (NBZ)	= Nitrobenzene-D5	(41- 91)
S4 (FBP)	= 2-Fluorobiphenyl	(43- 90)
S5 (TBP)	= 2,4,6-Tribromophenol	(37-112)
S6 (TPH)	= Terphenyl-D14	(36-156)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

KATAHDIN ANALYTICAL SERVICES
LAB CONTROL SAMPLE

Client:
Project: CTO407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date: 07/06/09
Analysis Date: 07/22/09
Report Date: 07/22/2009
Matrix: WATER

Lab ID: WG65862-2
Client ID: WG65862-LCS
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: CAM
Analysis Method: SW846 8270C
Lab Prep Batch: WG65862
Units: ug/L

COMPOUND	LCS SPIKE	SAMPLE CONC.	LCS CONC.		%REC.	QC. LIMITS
1,4-Dioxane	50	NA	13	*	27	38- 72
Benzaldehyde	50	NA	413	*	826	10- 77
Phenol	100	NA	23		23	10-115
Bis(2-Chloroethyl)ether	50	NA	32		63	42-101
2-Chlorophenol	100	NA	55		55	47- 99
2-Methylphenol	100	NA	49		49	45- 88
2,2'-Oxybis(1-chloropropane)	50	NA	28	*	57	58- 96
Acetophenone	50	NA	36		72	54-103
N-Nitroso-di-n-propylamine	50	NA	32		65	44- 98
3&4-Methylphenol	100	NA	44		44	41- 80
Hexachloroethane	50	NA	30		60	31- 98
Nitrobenzene	50	NA	32		64	56-105
Isophorone	50	NA	37		73	10-126
2-Nitrophenol	100	NA	63		63	56-105
2,4-Dimethylphenol	100	NA	63		63	51- 93
Bis(2-Chloroethoxy)methane	50	NA	37		73	55-103
2,4-Dichlorophenol	100	NA	73		73	53-103
Naphthalene	50	NA	34		68	40- 99
4-Chloroaniline	50	NA	35		71	30-115
Hexachlorobutadiene	50	NA	31		63	39- 94
Caprolactam	50	NA	8.5		17	15- 35
4-Chloro-3-Methylphenol	100	NA	78		78	62-108
2-Methylnaphthalene	50	NA	42		85	43-112
Hexachlorocyclopentadiene	50	NA	24		47	10-106
2,4,6-Trichlorophenol	100	NA	75		75	59-108
2,4,5-Trichlorophenol	100	NA	84		84	64-111
2-Chloronaphthalene	50	NA	30		60	57-108
1,1'-Biphenyl	50	NA	41		82	49-112
2-Nitroaniline	50	NA	42		83	69-117
Dimethyl Phthalate	50	NA	18		37	10-116
2,6-Dinitrotoluene	50	NA	42		85	66-111
Acenaphthylene	50	NA	38		75	47-118
3-Nitroaniline	50	NA	34		68	51-139
Acenaphthene	50	NA	37		73	60-111
2,4-Dinitrophenol	100	NA	35		35	12-116
Dibenzofuran	50	NA	42		85	57-108
4-Nitrophenol	100	NA	22		22	10-125
2,4-Dinitrotoluene	50	NA	45		89	63-122
Diethylphthalate	50	NA	36		72	50-101
Fluorene	50	NA	43		86	61-112
4-Chlorophenyl-phenylether	50	NA	42		84	60-118
4-Nitroaniline	50	NA	36		71	30-154
4,6-Dinitro-2-Methylphenol	100	NA	52	*	52	57-126
N-Nitrosodiphenylamine	50	NA	32		65	42-104
4-Bromophenyl-phenylether	50	NA	39		77	76-114

KATAHDIN ANALYTICAL SERVICES
LAB CONTROL SAMPLE

Client:
Project: CTO407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date: 07/06/09
Analysis Date: 07/22/09
Report Date: 07/22/2009
Matrix: WATER

Lab ID: WG65862-2
Client ID: WG65862-LCS
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: CAM
Analysis Method: SW846 8270C
Lab Prep Batch: WG65862
Units: ug/L

COMPOUND	LCS SPIKE	SAMPLE CONC.	LCS CONC.	%REC.	QC. LIMITS
Hexachlorobenzene	50	NA	36	* 73	75-109
Atrazine	50	NA	53	107	57-126
Pentachlorophenol	100	NA	70	70	39-156
Phenanthrene	50	NA	39	78	60-120
Anthracene	50	NA	41	81	58-118
Carbazole	50	NA	38	76	45-173
Di-n-butylphthalate	50	NA	38	77	58-112
Fluoranthene	50	NA	41	82	61-134
Pyrene	50	NA	44	89	63-123
Butylbenzylphthalate	50	NA	37	74	36-134
Benzo(a)anthracene	50	NA	37	74	64-122
3,3'-Dichlorobenzidine	50	NA	33	66	32-174
Chrysene	50	NA	42	84	61-119
bis(2-Ethylhexyl)phthalate	50	NA	45	91	32-154
Di-n-octylphthalate	50	NA	50	100	12-175
Benzo(b)fluoranthene	50	NA	40	81	54-121
Benzo(k)fluoranthene	50	NA	43	85	50-126
Benzo(a)pyrene	50	NA	44	87	61-124
Indeno(1,2,3-cd)pyrene	50	NA	44	88	45-153
Dibenzo(a,h)anthracene	50	NA	35	70	60-149
Benzo(g,h,i)perylene	50	NA	32	65	55-144

KATAHDIN ANALYTICAL SERVICES
LAB CONTROL SAMPLE

Client:
Project: CTO407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date: 07/14/09
Analysis Date: 07/22/09
Report Date: 07/22/2009
Matrix: WATER

Lab ID: WG66190-2 & WG66190-3
Client ID: WG66190-LCS & WG66190-LCSD
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: CAM
Analysis Method: SW846 8270C
Lab Prep Batch: WG66190
Units: ug/L

COMPOUND	LCS SPIKE	LCSD SPIKE	SAMPLE CONC.	LCS CONC.	LCSD CONC.	LCS %REC.	LCSD %REC.	%RPD	%RPD LIMIT	QC. LIMITS
1,4-Dioxane	50	50	NA	16	17	* 32	* 34	6	30	38- 72
Benzaldehyde	50	50	NA	385	340	* 770	* 680	12	30	10- 77
Phenol	100	100	NA	28	28	28	28	0.4	30	10-115
Bis(2-Chloroethyl)ether	50	50	NA	26	31	52	62	17	30	42-101
2-Chlorophenol	100	100	NA	61	64	61	64	4	30	47- 99
2-Methylphenol	100	100	NA	56	56	56	56	0.7	30	45- 88
2,2'-Oxybis(1-chloropropane)	50	50	NA	26	32	* 52	64	22	30	58- 96
Acetophenone	50	50	NA	31	34	62	67	8	30	54-103
N-Nitroso-di-n-propylamine	50	50	NA	28	31	56	62	10	30	44- 98
3&4-Methylphenol	100	100	NA	52	55	52	55	6	30	41- 80
Hexachloroethane	50	50	NA	27	31	54	62	13	30	31- 98
Nitrobenzene	50	50	NA	28	34	56	67	19	30	56-105
Isophorone	50	50	NA	32	33	63	66	4	30	10-126
2-Nitrophenol	100	100	NA	66	65	66	65	0.9	30	56-105
2,4-Dimethylphenol	100	100	NA	66	63	66	63	5	30	51- 93
Bis(2-Chloroethoxy)methane	50	50	NA	27	37	* 54	74	* 32	30	55-103
2,4-Dichlorophenol	100	100	NA	69	48	69	* 48	* 35	30	53-103
Naphthalene	50	50	NA	28	34	57	68	18	30	40- 99
4-Chloroaniline	50	50	NA	28	33	57	66	14	30	30-115
Hexachlorobutadiene	50	50	NA	27	31	53	62	14	30	39- 94
Caprolactam	50	50	NA	9.1	9.4	18	19	3	30	15- 35
4-Chloro-3-Methylphenol	100	100	NA	81	74	81	74	9	30	62-108
2-Methylnaphthalene	50	50	NA	38	40	77	81	5	30	43-112
Hexachlorocyclopentadiene	50	50	NA	20	26	39	52	28	30	10-106
2,4,6-Trichlorophenol	100	100	NA	70	75	70	75	6	30	59-108
2,4,5-Trichlorophenol	100	100	NA	81	82	81	82	0.5	30	64-111
2-Chloronaphthalene	50	50	NA	23	30	* 46	61	27	30	57-108
1,1'-Biphenyl	50	50	NA	33	42	66	83	23	30	49-112
2-Nitroaniline	50	50	NA	32	40	* 65	81	22	30	69-117
Dimethyl Phthalate	50	50	NA	24	30	47	59	23	30	10-116
2,6-Dinitrotoluene	50	50	NA	32	40	* 65	80	21	30	66-111
Acenaphthylene	50	50	NA	29	37	58	75	25	30	47-118
3-Nitroaniline	50	50	NA	26	35	52	70	28	30	51-139
Acenaphthene	50	50	NA	31	38	62	76	20	30	60-111
2,4-Dinitrophenol	100	100	NA	70	79	70	79	12	30	12-116
Dibenzofuran	50	50	NA	32	40	65	80	20	30	57-108
4-Nitrophenol	100	100	NA	28	35	28	35	22	30	10-125
2,4-Dinitrotoluene	50	50	NA	33	43	66	87	27	30	63-122
Diethylphthalate	50	50	NA	33	37	65	74	12	30	50-101
Fluorene	50	50	NA	33	39	66	77	15	30	61-112
4-Chlorophenyl-phenylether	50	50	NA	34	42	67	84	21	30	60-118
4-Nitroaniline	50	50	NA	27	34	54	68	23	30	30-154
4,6-Dinitro-2-Methylphenol	100	100	NA	73	75	73	75	2	30	57-126
N-Nitrosodiphenylamine	50	50	NA	29	32	57	64	12	30	42-104
4-Bromophenyl-phenylether	50	50	NA	32	40	* 63	79	22	30	76-114

KATAHDIN ANALYTICAL SERVICES
LAB CONTROL SAMPLE

Client:
Project: CTO407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date: 07/14/09
Analysis Date: 07/22/09
Report Date: 07/22/2009
Matrix: WATER

Lab ID: WG66190-2 & WG66190-3
Client ID: WG66190-LCS & WG66190-LCSD
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: CAM
Analysis Method: SW846 8270C
Lab Prep Batch: WG66190
Units: ug/L

COMPOUND	LCS SPIKE	LCSD SPIKE	SAMPLE CONC.	LCS CONC.	LCSD CONC.	LCS %REC.	LCSD %REC.	%RPD	%RPD LIMIT	QC. LIMITS
Hexachlorobenzene	50	50	NA	33	36	* 66	* 73	10	30	75-109
Atrazine	50	50	NA	47	56	94	111	16	30	57-126
Pentachlorophenol	100	100	NA	84	92	84	92	9	30	39-156
Phenanthrene	50	50	NA	35	38	69	77	11	30	60-120
Anthracene	50	50	NA	36	41	71	82	14	30	58-118
Carbazole	50	50	NA	31	38	63	76	19	30	45-173
Di-n-butylphthalate	50	50	NA	38	39	75	79	5	30	58-112
Fluoranthene	50	50	NA	35	41	71	83	16	30	61-134
Pyrene	50	50	NA	36	42	72	84	16	30	63-123
Butylbenzylphthalate	50	50	NA	33	42	66	84	24	30	36-134
Benzo(a)anthracene	50	50	NA	30	36	* 61	72	17	30	64-122
3,3'-Dichlorobenzidine	50	50	NA	24	30	48	61	24	30	32-174
Chrysene	50	50	NA	32	41	65	81	22	30	61-119
bis(2-Ethylhexyl)phthalate	50	50	NA	37	42	74	83	11	30	32-154
Di-n-octylphthalate	50	50	NA	42	46	84	92	9	30	12-175
Benzo(b)fluoranthene	50	50	NA	29	36	59	72	21	30	54-121
Benzo(k)fluoranthene	50	50	NA	36	41	72	83	14	30	50-126
Benzo(a)pyrene	50	50	NA	36	42	72	84	16	30	61-124
Indeno(1,2,3-cd)pyrene	50	50	NA	40	42	81	85	5	30	45-153
Dibenzo(a,h)anthracene	50	50	NA	31	35	62	70	13	30	60-149
Benzo(g,h,i)perylene	50	50	NA	30	30	59	61	3	30	55-144

FORM III SV-1 U7944.D & U7945.D

KATAHDIN ANALYTICAL SERVICES
MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 07/22/09
Report Date: 07/22/2009
Matrix: WATER

Lab ID: WG65862-3 & WG65862-4
Client ID: GW-MW38-063009MS & GW-MW38-063009MSD
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: CAM
Analysis Method: SW846 8270C
Lab Prep Batch: WG65862
Units: ug/L

COMPOUND	MS SPIKE	MSD SPIKE	SAMPLE CONC.	MS CONC.	MSD CONC.	MS %REC.	MSD %REC.	%RPD	%RPD LIMIT	QC. LIMITS
1,4-Dioxane	47	47	0.00	12	14	* 25	* 29	15	30	38- 72
Benzaldehyde	47	47	0.00	373	394	* 791	* 835	5	30	10- 77
Phenol	94	94	0.00	19	19	20	20	2	30	10-115
Bis(2-Chloroethyl)ether	47	47	0.00	27	28	57	58	1	30	42-101
2-Chlorophenol	94	94	0.00	52	51	55	54	2	30	47- 99
2-Methylphenol	94	94	0.00	39	45	* 41	47	14	30	45- 88
2,2'-Oxybis(1-chloropropane)	47	47	0.00	27	27	* 57	58	2	30	58- 96
Acetophenone	47	47	0.00	31	34	66	72	9	30	54-103
N-Nitroso-di-n-propylamine	47	47	0.00	29	31	62	66	6	30	44- 98
3&4-Methylphenol	94	94	0.00	35	41	* 38	44	16	30	41- 80
Hexachloroethane	47	47	0.00	28	30	60	62	4	30	31- 98
Nitrobenzene	47	47	0.00	27	32	57	67	16	30	56-105
Isophorone	47	47	0.00	27	36	57	77	30	30	10-126
2-Nitrophenol	94	94	0.00	56	64	59	68	14	30	56-105
2,4-Dimethylphenol	94	94	0.00	41	51	* 44	54	21	30	51- 93
Bis(2-Chloroethoxy)methane	47	47	0.00	32	37	67	78	15	30	55-103
2,4-Dichlorophenol	94	94	0.00	60	70	64	74	15	30	53-103
Naphthalene	47	47	0.00	32	33	67	69	3	30	40- 99
4-Chloroaniline	47	47	0.00	31	32	65	68	4	30	30-115
Hexachlorobutadiene	47	47	0.00	28	30	60	64	7	30	39- 94
Caprolactam	47	47	0.00	6.4	7.2	* 14	15	12	30	15- 35
4-Chloro-3-Methylphenol	94	94	0.00	70	80	74	84	13	30	62-108
2-Methylnaphthalene	47	47	0.00	38	42	80	90	12	30	43-112
Hexachlorocyclopentadiene	47	47	0.00	22	23	47	49	6	30	10-106
2,4,6-Trichlorophenol	94	94	0.00	64	73	68	78	13	30	59-108
2,4,5-Trichlorophenol	94	94	0.00	70	74	74	78	6	30	64-111
2-Chloronaphthalene	47	47	0.00	26	29	* 55	62	12	30	57-108
1,1'-Biphenyl	47	47	0.00	36	40	76	85	11	30	49-112
2-Nitroaniline	47	47	0.00	37	39	78	82	5	30	69-117
Dimethyl Phthalate	47	47	0.00	29	31	61	66	7	30	10-116
2,6-Dinitrotoluene	47	47	0.00	38	36	80	76	5	30	66-111
Acenaphthylene	47	47	0.00	32	36	67	76	12	30	47-118
3-Nitroaniline	47	47	0.00	31	33	66	70	4	30	51-139
Acenaphthene	47	47	0.00	34	35	72	75	4	30	60-111
2,4-Dinitrophenol	94	94	0.00	66	73	70	77	10	30	12-116
Dibenzofuran	47	47	0.00	37	39	79	83	6	30	57-108
4-Nitrophenol	94	94	0.00	25	28	27	29	9	30	10-125
2,4-Dinitrotoluene	47	47	0.00	39	36	82	77	6	30	63-122
Diethylphthalate	47	47	0.00	35	34	74	73	1	30	50-101
Fluorene	47	47	0.00	36	39	77	82	6	30	61-112
4-Chlorophenyl-phenylether	47	47	0.00	35	39	75	84	11	30	60-118
4-Nitroaniline	47	47	0.00	30	30	63	64	2	30	30-154
4,6-Dinitro-2-Methylphenol	94	94	0.00	71	74	75	78	4	30	57-126
N-Nitrosodiphenylamine	47	47	0.00	30	32	63	68	8	30	42-104
4-Bromophenyl-phenylether	47	47	0.00	34	37	* 73	78	6	30	76-114

KATAHDIN ANALYTICAL SERVICES
MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 07/22/09
Report Date: 07/22/2009
Matrix: WATER

Lab ID: WG65862-3 & WG65862-4
Client ID: GW-MW38-063009MS & GW-MW38-063009MSD
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: CAM
Analysis Method: SW846 8270C
Lab Prep Batch: WG65862
Units: ug/L

COMPOUND	MS SPIKE	MSD SPIKE	SAMPLE CONC.	MS CONC.	MSD CONC.	MS %REC.	MSD %REC.	%RPD	%RPD LIMIT	QC. LIMITS
Hexachlorobenzene	47	47	0.00	34	31	* 72	* 66	10	30	75-109
Atrazine	47	47	0.00	50	51	106	107	1	30	57-126
Pentachlorophenol	94	94	0.00	76	83	80	88	8	30	39-156
Phenanthrene	47	47	0.00	36	37	75	79	5	30	60-120
Anthracene	47	47	0.00	37	38	79	81	3	30	58-118
Carbazole	47	47	0.00	32	36	69	76	10	30	45-173
Di-n-butylphthalate	47	47	0.00	37	37	78	79	1	30	58-112
Fluoranthene	47	47	0.00	36	40	76	84	10	30	61-134
Pyrene	47	47	0.00	43	42	92	89	3	30	63-123
Butylbenzylphthalate	47	47	0.00	40	39	84	83	2	30	36-134
Benzo(a)anthracene	47	47	0.00	34	36	71	76	7	30	64-122
3,3'-Dichlorobenzidine	47	47	0.00	27	24	57	51	12	30	32-174
Chrysene	47	47	0.00	38	39	81	83	2	30	61-119
bis(2-Ethylhexyl)phthalate	47	47	0.00	41	41	86	86	0.5	30	32-154
Di-n-octylphthalate	47	47	0.00	44	50	94	105	11	30	12-175
Benzo(b)fluoranthene	47	47	0.00	32	35	67	74	10	30	54-121
Benzo(k)fluoranthene	47	47	0.00	40	41	84	87	3	30	50-126
Benzo(a)pyrene	47	47	0.00	38	40	81	84	4	30	61-124
Indeno(1,2,3-cd)pyrene	47	47	0.00	43	42	92	88	4	30	45-153
Dibenzo(a,h)anthracene	47	47	0.00	34	34	72	72	0.3	30	60-149
Benzo(g,h,i)perylene	47	47	0.00	32	30	68	64	7	30	55-144

 FORM III SV-1 U7941.D & U7942.D

FORM 4
SEMIVOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE ID

WG65862-BLANK

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Lab File ID: U7939 Lab Sample ID: WG65862-1

Instrument ID: GCMS-U Date Extracted: 07/06/09

Matrix: (soil/water) WATER Date Analyzed: 07/22/09

Level:(low/med) LOW Time Analyzed: 0220

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	WGL-GW-MW101-062909	SC3624-2	U7902	07/20/09	2213
02	WGL-GW-MW3-062909	SC3624-4	U7903	07/20/09	2257
03	WGL-GW-MW103-062909	SC3624-6	U7904	07/20/09	2340
04	WGL-GW-MW102-062909	SC3624-8	U7905	07/21/09	0023
05	WGL-GW-MW2-063009	SC3624-10	U7906	07/21/09	0107
06	WGL-GW-MW4-063009	SC3624-12	U7907	07/21/09	0150
07	L-GW-MW38-063009	SC3624-14	U7908	07/21/09	0233
08	WGL-GW-MW40S-063009	SC3624-16	U7909	07/21/09	0317
09	WGL-GW-DUP01-063009	SC3624-18	U7910	07/21/09	0400
10	WGL-GW-MW48D-063009	SC3624-20	U7911	07/21/09	0444
11	WGL-GW-DUP02-063009	SC3624-22	U7912	07/21/09	0527
12	GL-GW-MW48D2-063009	SC3624-24	U7913	07/21/09	0610
13	WGL-GW-MW39-063009	SC3624-26RA	U7936	07/22/09	0010
14	WGL-GW-FB01-070109	SC3624-28RA	U7937	07/22/09	0053
15	WGL-GW-RB01-070109	SC3624-30RA	U7938	07/22/09	0136
16	WG65862-LCS	WG65862-2	U7940	07/22/09	0303
17	L-GW-MW38-063009MS	WG65862-3	U7941	07/22/09	0346
18	L-GW-MW38-063009MSD	WG65862-4	U7942	07/22/09	0429
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

COMMENTS:

FORM IVSV

FORM 4
SEMIVOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE ID

WG66190-BLANK

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Lab File ID: U7943 Lab Sample ID: WG66190-1

Instrument ID: GCMS-U Date Extracted: 07/14/09

Matrix: (soil/water) WATER Date Analyzed: 07/22/09

Level:(low/med) LOW Time Analyzed: 0513

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	WG66190-LCS	WG66190-2	U7944	07/22/09	0556
02	WG66190-LCSD	WG66190-3	U7945	07/22/09	0639
03	GL-GW-MW48D2-063009	SC3624-24RE	U7946	07/22/09	0723
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

COMMENTS:

FORM IVSV

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Lab File ID: UD113 DFTPP Injection Date: 07/15/09

Instrument ID: GCMS-U DFTPP Injection Time: 0932

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	34.3
68	Less than 2.0% of mass 69	0.4 (1.0)1
69	Less than 100.0% of mass 198	39.8
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	48.9
197	Less than 1.0% of mass 198	0.3
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.7
275	10.0 - 30.0% of mass 198	23.6
365	1.0 - 100.0% of mass 198	3.4
441	0.0 - 100.0% of mass 443	14.7 (80.6)2
442	40.0 - 100.0% of mass 198	92.2
443	17.0 - 23.0% of mass 442	18.2 (19.8)3

1-Value is % mass 69 2-Value is % mass 443
3-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		SSTD050U0715	U7828	07/15/09	0949
02		SSTD010U0715	U7829	07/15/09	1032
03		SSTD025U0715	U7830	07/15/09	1115
04		SSTD075U0715	U7831	07/15/09	1158
05		SSTD100U0715	U7832	07/15/09	1242
06		SSTD125U0715	U7833	07/15/09	1325
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

FORM V SV

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Lab File ID: UD118 DFTPP Injection Date: 07/20/09

Instrument ID: GCMS-U DFTPP Injection Time: 2112

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	38.6
68	Less than 2.0% of mass 69	0.5 (1.2)1
69	Less than 100.0% of mass 198	44.1
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	54.4
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.9
275	10.0 - 30.0% of mass 198	23.3
365	1.0 - 100.0% of mass 198	3.0
441	0.0 - 100.0% of mass 443	11.9 (80.6)2
442	40.0 - 100.0% of mass 198	76.7
443	17.0 - 23.0% of mass 442	14.8 (19.3)3

1-Value is % mass 69 2-Value is % mass 443
3-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		SSTD050U0720	U7901	07/20/09	2130
02	WGL-GW-MW101-062909	SC3624-2	U7902	07/20/09	2213
03	WGL-GW-MW3-062909	SC3624-4	U7903	07/20/09	2257
04	WGL-GW-MW103-062909	SC3624-6	U7904	07/20/09	2340
05	WGL-GW-MW102-062909	SC3624-8	U7905	07/21/09	0023
06	WGL-GW-MW2-063009	SC3624-10	U7906	07/21/09	0107
07	WGL-GW-MW4-063009	SC3624-12	U7907	07/21/09	0150
08	L-GW-MW38-063009	SC3624-14	U7908	07/21/09	0233
09	WGL-GW-MW40S-063009	SC3624-16	U7909	07/21/09	0317
10	WGL-GW-DUP01-063009	SC3624-18	U7910	07/21/09	0400
11	WGL-GW-MW48D-063009	SC3624-20	U7911	07/21/09	0444
12	WGL-GW-DUP02-063009	SC3624-22	U7912	07/21/09	0527
13	GL-GW-MW48D2-063009	SC3624-24	U7913	07/21/09	0610
14					
15					
16					
17					
18					
19					
20					

FORM V SV

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Lab File ID: UD120 DFTPP Injection Date: 07/21/09

Instrument ID: GCMS-U DFTPP Injection Time: 2309

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	36.1
68	Less than 2.0% of mass 69	0.6 (1.5)1
69	Less than 100.0% of mass 198	39.9
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	51.9
197	Less than 1.0% of mass 198	0.3
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.9
275	10.0 - 30.0% of mass 198	24.0
365	1.0 - 100.0% of mass 198	3.3
441	0.0 - 100.0% of mass 443	13.8 (83.1)2
442	40.0 - 100.0% of mass 198	87.4
443	17.0 - 23.0% of mass 442	16.7 (19.1)3

1-Value is % mass 69 2-Value is % mass 443
3-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		SSTD050U0721B	U7935	07/21/09	2326
02	WGL-GW-MW39-063009	SC3624-26RA	U7936	07/22/09	0010
03	WGL-GW-FB01-070109	SC3624-28RA	U7937	07/22/09	0053
04	WGL-GW-RB01-070109	SC3624-30RA	U7938	07/22/09	0136
05	WG65862-BLANK	WG65862-1	U7939	07/22/09	0220
06	WG65862-LCS	WG65862-2	U7940	07/22/09	0303
07	L-GW-MW38-063009MS	WG65862-3	U7941	07/22/09	0346
08	L-GW-MW38-063009MSD	WG65862-4	U7942	07/22/09	0429
09	WG66190-BLANK	WG66190-1	U7943	07/22/09	0513
10	WG66190-LCS	WG66190-2	U7944	07/22/09	0556
11	WG66190-LCSD	WG66190-3	U7945	07/22/09	0639
12	GL-GW-MW48D2-063009	SC3624-24RE	U7946	07/22/09	0723
13					
14					
15					
16					
17					
18					
19					
20					

FORM V SV

FORM 6
SEMIVOLATILE INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project CTO407 NAS WEYMOUTH SDG No.: SC3624

Instrument ID: GCMS-U Calibration Date(s): 07/15/09 07/15/09

Column: DB5-MS ID: 0.25 (mm) Calibration Time(s): 0949 1325

LAB FILE ID: RF10: U7829 RF25: U7830 RF50: U7828
RF75: U7831 RF100: U7832 RF125: U7833

COMPOUND	RF10	RF25	RF50	RF75	RF100	RF125	CURVE	COEFFICENTS A0	A1	A2	%RSD OR R^2	MAX %RSD OR R^2
1,4-Dioxane	0.340	0.337	0.326	0.343	0.308	0.308	AVRG		0.32700900		4.837	15.000
Benzaldehyde	0.066	0.065	0.059	0.063	0.055	0.055	AVRG		6.032e-002		8.093	15.000
Phenol	1.604	1.528	1.513	1.525	1.436	1.411	AVRG		1.50281078		4.643	15.000
Bis(2-Chloroethyl)ether	1.325	1.226	1.069	1.078	0.975	1.043	AVRG		1.11923869		11.630	15.000
2-Chlorophenol	1.374	1.235	1.323	1.343	1.259	1.218	AVRG		1.29213373		4.912	15.000
2-Methylphenol	1.297	1.096	1.114	1.214	1.194	1.197	AVRG		1.18540428		6.152	15.000
2,2'-Oxybis(1-chloropropa	1.916	1.663	1.666	1.701	1.598	1.609	AVRG		1.69216915		6.866	15.000
Acetophenone	0.426	0.439	0.427	0.446	0.472	0.379	AVRG		0.43139927		7.087	15.000
N-Nitroso-di-n-propylamin	0.943	0.742	0.788	0.743	0.706	0.706	AVRG		0.77135134		11.608	15.000
3&4-Methylphenol	1.252	1.190	1.227	1.217	1.150	1.193	AVRG		1.20467337		2.928	15.000
Hexachloroethane	0.667	0.580	0.559	0.546	0.469	0.466	AVRG		0.54777996		13.762	15.000
Nitrobenzene	0.390	0.373	0.338	0.326	0.352	0.290	AVRG		0.34502247		10.327	15.000
Isophorone	0.558	0.619	0.622	0.642	0.656	0.566	AVRG		0.61042477		6.532	15.000
2-Nitrophenol	0.155	0.182	0.185	0.187	0.209	0.169	AVRG		0.18117714		10.140	15.000
2,4-Dimethylphenol	0.311	0.341	0.322	0.344	0.333	0.296	AVRG		0.32467163		5.783	15.000
Bis(2-Chloroethoxy)methan	0.336	0.360	0.370	0.378	0.372	0.311	AVRG		0.35458368		7.374	15.000
2,4-Dichlorophenol	0.224	0.245	0.261	0.280	0.269	0.238	AVRG		0.25307524		8.140	15.000
Naphthalene	0.913	0.908	0.932	0.922	0.897	0.760	AVRG		0.88875084		7.229	15.000
4-Chloroaniline	0.341	0.404	0.394	0.402	0.393	0.354	AVRG		0.38153801		7.042	15.000
Hexachlorobutadiene	0.176	0.180	0.176	0.184	0.172	0.153	AVRG		0.17353610		6.266	15.000
Caprolactam	0.080	0.091	0.096	0.101	0.109	0.098	AVRG		9.604e-002		10.065	15.000
4-Chloro-3-Methylphenol	0.259	0.272	0.264	0.268	0.270	0.243	AVRG		0.26279008		4.012	15.000
2-Methylnaphthalene	0.536	0.830	0.771	0.774	0.755	0.690	AVRG		0.72603096		14.248	15.000
Hexachlorocyclopentadiene	0.324	0.386	0.410	0.408	0.366	0.341	AVRG		0.37254747		9.492	15.000
2,4,6-Trichlorophenol	0.364	0.387	0.398	0.390	0.332	0.327	AVRG		0.36653282		8.424	15.000
2,4,5-Trichlorophenol	0.379	0.384	0.392	0.397	0.348	0.361	AVRG		0.37678450		5.004	15.000
2-Chloronaphthalene	44638	152910	258120	377700	552480	785380	2ORDR	2.011e-002	2.21705852	0.51313777	0.99779	0.99000
1,1'-Biphenyl	1.434	1.362	1.242	1.167	0.971	0.852	AVRG		1.17145761		19.152	15.000
2-Nitroaniline	0.306	0.330	0.353	0.346	0.318	0.322	AVRG		0.32899291		5.348	15.000
Dimethyl Phthalate	1.277	1.326	1.195	1.207	1.104	1.066	AVRG		1.19574928		8.269	15.000
2,6-Dinitrotoluene	0.267	0.304	0.307	0.302	0.285	0.278	AVRG		0.29053229		5.651	15.000
Acenaphthylene	1.911	1.972	1.878	1.762	1.505	1.444	AVRG		1.74536673		12.686	15.000
3-Nitroaniline	0.255	0.300	0.315	0.316	0.295	0.308	AVRG		0.29811792		7.556	15.000
Acenaphthene	1.185	1.178	1.122	1.088	1.010	0.913	AVRG		1.08274225		9.691	15.000
2,4-Dinitrophenol	8222	39315	87013	140520	225480	329630	LINR	0.11690547	6.46759196		0.99714	0.99000
Dibenzofuran	1.597	1.568	1.528	1.490	1.314	1.208	AVRG		1.45094334		10.684	15.000
4-Nitrophenol	6781	37350	84406	126640	233910	311460	2ORDR	9.611e-002	7.44487601	-1.8678030	0.99475	0.99000
2,4-Dinitrotoluene	0.344	0.384	0.372	0.371	0.373	0.352	AVRG		0.36580172		4.092	15.000
Diethylphthalate	1.375	1.278	1.275	1.173	0.991	0.917	AVRG		1.16832006		15.350	15.000
Fluorene	1.295	1.078	1.256	1.168	1.014	0.941	AVRG		1.12522857		12.331	15.000
4-Chlorophenyl-phenylethe	0.609	0.612	0.575	0.526	0.507	0.503	AVRG		0.55533645		8.979	15.000
4-Nitroaniline	0.212	0.260	0.263	0.274	0.261	0.251	AVRG		0.25340590		8.533	15.000
4,6-Dinitro-2-Methylpheno	18494	71950	136620	210750	322440	447560	2ORDR	8.513e-002	6.20688136	1.84517088	0.99299	0.99000
N-Nitrosodiphenylamine	0.598	0.704	0.614	0.665	0.584	0.564	AVRG		0.62149582		8.568	15.000

FORM VI SV

FORM 6
SEMIVOLATILE INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project CTO407 NAS WEYMOUTH SDG No.: SC3624

Instrument ID: GCMS-U Calibration Date(s): 07/15/09 07/15/09

Column: DB5-MS ID: 0.25 (mm) Calibration Time(s): 0949 1325

LAB FILE ID: RF10: U7829 RF25: U7830 RF50: U7828
RF75: U7831 RF100: U7832 RF125: U7833

COMPOUND	RF10	RF25	RF50	RF75	RF100	RF125	CURVE	COEFFICENTS A0	A1	A2	%RSD OR R^2	MAX %RSD OR R^2
4-Bromophenyl-phenylether	0.222	0.265	0.235	0.251	0.237	0.218	AVRG		0.23785153		7.485	15.000
Hexachlorobenzene	0.273	0.314	0.261	0.285	0.271	0.247	AVRG		0.27526903		8.310	15.000
Atrazine	0.175	0.199	0.171	0.194	0.138	0.105	AVRG		0.16357127		22.031	15.000
Pentachlorophenol	17513	60929	132350	176000	277470	380320	2ORDR	7.9e-002	6.72079910	4.33744636	0.99722	0.99000
Phenanthrene	1.138	1.218	1.073	1.194	1.017	0.930	AVRG		1.09501898		10.060	15.000
Anthracene	1.116	1.276	1.076	1.149	1.006	0.906	AVRG		1.08820561		11.590	15.000
Carbazole	0.888	1.034	0.922	1.047	0.927	0.816	AVRG		0.93902488		9.376	15.000
Di-n-butylphthalate	1.402	1.528	1.303	1.452	1.239	1.067	AVRG		1.33179271		12.451	15.000
Fluoranthene	1.020	1.182	1.012	1.069	0.976	0.810	AVRG		1.01174840		12.049	15.000
Pyrene	1.221	1.266	1.380	1.316	1.128	1.246	AVRG		1.25944154		6.813	15.000
Butylbenzylphthalate	0.591	0.595	0.618	0.607	0.554	0.554	AVRG		0.58650695		4.567	15.000
Benzo(a)anthracene	0.920	0.955	0.958	0.956	0.954	0.915	AVRG		0.94293641		2.100	15.000
3,3'-Dichlorobenzidine	0.245	0.267	0.281	0.279	0.294	0.296	AVRG		0.27702164		6.800	15.000
Chrysene	0.964	0.964	0.890	0.873	0.866	0.915	AVRG		0.91211589		4.780	15.000
bis(2-Ethylhexyl)phthalat	0.766	0.796	0.819	0.770	0.732	0.789	AVRG		0.77892267		3.822	15.000
Di-n-octylphthalate	1.546	1.625	1.506	1.420	1.310	1.293	AVRG		1.44977118		9.152	15.000
Benzo(b)fluoranthene	0.962	1.029	0.933	0.940	0.861	0.904	AVRG		0.93813762		6.012	15.000
Benzo(k)fluoranthene	1.234	1.146	0.999	1.045	0.986	0.875	AVRG		1.04769480		12.101	15.000
Benzo(a)pyrene	0.944	0.980	0.868	0.935	0.816	0.782	AVRG		0.88743563		8.827	15.000
Indeno(1,2,3-cd)pyrene	0.828	0.637	0.642	0.723	0.651	0.566	AVRG		0.67444107		13.411	15.000
Dibenzo(a,h)anthracene	0.606	0.729	0.716	0.757	0.624	0.564	AVRG		0.66609457		11.735	15.000
Benzo(g,h,i)perylene	0.722	0.741	0.784	0.801	0.668	0.654	AVRG		0.72846905		8.191	15.000
2-Fluorophenol	1.095	1.144	1.174	1.206	1.192	1.236	AVRG		1.17453067		4.243	15.000
Phenol-D6	1.458	1.239	1.337	1.342	1.284	1.281	AVRG		1.32363968		5.760	15.000
Nitrobenzene-D5	0.308	0.335	0.343	0.322	0.368	0.318	AVRG		0.33228616		6.429	15.000
2-Fluorobiphenyl	1.357	1.339	1.140	1.231	1.139	1.036	AVRG		1.20703228		10.391	15.000
2,4,6-Tribromophenol	0.209	0.222	0.226	0.224	0.209	0.194	AVRG		0.21395142		5.797	15.000
Terphenyl-D14	0.769	0.805	0.829	0.794	0.721	0.796	AVRG		0.78560102		4.709	15.000

FORM VI SV

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Instrument ID: GCMS-U Calibration Date: 07/20/09 Time: 2130

Lab File ID: U7901 Init. Calib. Date(s): 07/15/09 07/15/09

Init. Calib. Times: 0949 1325

GC Column: DB5-MS ID: 0.25 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
1,4-Dioxane	0.3270000	0.3166700	0.3166700	0.01	-3.16	100.00	AVRG	
Benzaldehyde	6.e-002	0.1756500	0.1756500	0.01	192.75	100.00	AVRG	<-
Phenol	1.5030000	1.4642000	1.4642000	0.01	-2.58	20.00	AVRG	
Bis(2-Chloroethyl)ether	1.1190000	1.1583000	1.1583000	0.01	3.51	100.00	AVRG	
2-Chlorophenol	1.2920000	1.2153000	1.2153000	0.01	-5.94	100.00	AVRG	
2-Methylphenol	1.1850000	1.1020000	1.1020000	0.01	-7.00	100.00	AVRG	
2,2'-Oxybis(1-chloropropane)	1.6920000	1.5915000	1.5915000	0.01	-5.94	100.00	AVRG	
Acetophenone	0.4320000	0.4108700	0.4108700	0.01	-4.89	100.00	AVRG	
N-Nitroso-di-n-propylamine	0.7710000	0.7110300	0.7110300	0.05	-7.78	100.00	AVRG	
3&4-Methylphenol	1.2050000	1.1358000	1.1358000	0.01	-5.74	100.00	AVRG	
Hexachloroethane	0.5480000	0.5460200	0.5460200	0.01	-0.36	100.00	AVRG	
Nitrobenzene	0.3450000	0.3303300	0.3303300	0.01	-4.25	100.00	AVRG	
Isophorone	0.6100000	0.5545100	0.5545100	0.01	-9.10	100.00	AVRG	
2-Nitrophenol	0.1810000	0.1720700	0.1720700	0.01	-4.93	20.00	AVRG	
2,4-Dimethylphenol	0.3240000	0.3042700	0.3042700	0.01	-6.09	100.00	AVRG	
Bis(2-Chloroethoxy)methane	0.3540000	0.3537900	0.3537900	0.01	-0.06	100.00	AVRG	
2,4-Dichlorophenol	0.2530000	0.1490100	0.1490100	0.01	-41.10	20.00	AVRG	<-
Naphthalene	0.8890000	0.8420000	0.8420000	0.01	-5.29	100.00	AVRG	
4-Chloroaniline	0.3810000	0.3510500	0.3510500	0.01	-7.86	100.00	AVRG	
Hexachlorobutadiene	0.1740000	0.1539300	0.1539300	0.01	-11.53	20.00	AVRG	
Caprolactam	9.6e-002	9.42e-002	9.42e-002	0.01	-1.88	100.00	AVRG	
4-Chloro-3-Methylphenol	0.2630000	0.2597000	0.2597000	0.01	-1.25	20.00	AVRG	
2-Methylnaphthalene	0.7260000	0.7409100	0.7409100	0.01	2.05	100.00	AVRG	
Hexachlorocyclopentadiene	0.3720000	0.3759100	0.3759100	0.05	1.05	100.00	AVRG	
2,4,6-Trichlorophenol	0.3660000	0.3724500	0.3724500	0.01	1.76	20.00	AVRG	
2,4,5-Trichlorophenol	0.3770000	0.3444900	0.3444900	0.01	-8.62	100.00	AVRG	
2-Chloronaphthalene	48.359000	50.000000	0.3859000	0.01	-3.28	100.00	2RDR	
1,1'-Biphenyl	1.1710000	1.1646000	1.1646000	0.01	-0.55	100.00	AVRG	
2-Nitroaniline	0.3290000	0.3218500	0.3218500	0.01	-2.17	100.00	AVRG	

FORM VII PEST

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Instrument ID: GCMS-U Calibration Date: 07/20/09 Time: 2130

Lab File ID: U7901 Init. Calib. Date(s): 07/15/09 07/15/09

Init. Calib. Times: 0949 1325

GC Column: DB5-MS ID: 0.25 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
Dimethyl Phthalate	1.1960000	1.1781000	1.1781000	0.01	-1.50	100.00	AVRG
2,6-Dinitrotoluene	0.2900000	0.2924800	0.2924800	0.01	0.86	100.00	AVRG
Acenaphthylene	1.7450000	1.7062000	1.7062000	0.01	-2.22	100.00	AVRG
3-Nitroaniline	0.2980000	0.3079300	0.3079300	0.01	3.33	100.00	AVRG
Acenaphthene	1.0830000	1.0867000	1.0867000	0.01	0.34	20.00	AVRG
2,4-Dinitrophenol	43.082000	50.000000	0.1187600	0.05	-13.84	100.00	LINR
Dibenzofuran	1.4510000	1.4087000	1.4087000	0.01	-2.92	100.00	AVRG
4-Nitrophenol	53.994000	50.000000	0.1409500	0.05	7.99	100.00	2RDR
2,4-Dinitrotoluene	0.3660000	0.3628000	0.3628000	0.01	-0.87	100.00	AVRG
Diethylphthalate	1.1680000	1.1804000	1.1804000	0.01	1.06	100.00	AVRG
Fluorene	1.1250000	1.1532000	1.1532000	0.01	2.51	100.00	AVRG
4-Chlorophenyl-phenylether	0.5550000	0.5912200	0.5912200	0.01	6.53	100.00	AVRG
4-Nitroaniline	0.2540000	0.2432600	0.2432600	0.01	-4.23	100.00	AVRG
4,6-Dinitro-2-Methylphenol	42.237000	50.000000	0.1197900	0.01	-15.53	100.00	2RDR
N-Nitrosodiphenylamine	0.6220000	0.6014000	0.6014000	0.01	-3.31	20.00	AVRG
4-Bromophenyl-phenylether	0.2380000	0.2214300	0.2214300	0.01	-6.96	100.00	AVRG
Hexachlorobenzene	0.2750000	0.2423300	0.2423300	0.01	-11.88	100.00	AVRG
Atrazine	0.1640000	0.1627400	0.1627400	0.01	-0.77	100.00	AVRG
Pentachlorophenol	42.015000	50.000000	0.1064800	0.01	-15.97	20.00	2RDR
Phenanthrene	1.0950000	1.0014000	1.0014000	0.01	-8.55	100.00	AVRG
Anthracene	1.0880000	1.0252000	1.0252000	0.01	-5.77	100.00	AVRG
Carbazole	0.9390000	0.8545100	0.8545100	0.01	-9.00	100.00	AVRG
Di-n-butylphthalate	1.3320000	1.2475000	1.2475000	0.01	-6.34	100.00	AVRG
Fluoranthene	1.0120000	0.9217300	0.9217300	0.01	-8.92	20.00	AVRG
Pyrene	1.2600000	1.2386000	1.2386000	0.01	-1.70	100.00	AVRG
Butylbenzylphthalate	0.5860000	0.5161200	0.5161200	0.01	-11.92	100.00	AVRG
Benzo(a)anthracene	0.9430000	0.8942600	0.8942600	0.01	-5.17	100.00	AVRG
3,3'-Dichlorobenzidine	0.2770000	0.2560900	0.2560900	0.01	-7.55	100.00	AVRG
Chrysene	0.9120000	0.8649100	0.8649100	0.01	-5.16	100.00	AVRG

FORM VII PEST

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Instrument ID: GCMS-U Calibration Date: 07/20/09 Time: 2130

Lab File ID: U7901 Init. Calib. Date(s): 07/15/09 07/15/09

Init. Calib. Times: 0949 1325

GC Column: DB5-MS ID: 0.25 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
bis(2-Ethylhexyl)phthalate	0.7790000	0.7396900	0.7396900	0.01	-5.05	100.00	AVRG
Di-n-octylphthalate	1.4500000	1.2936000	1.2936000	0.01	-10.79	20.00	AVRG
Benzo(b)fluoranthene	0.9380000	0.8516100	0.8516100	0.01	-9.21	100.00	AVRG
Benzo(k)fluoranthene	1.0480000	0.9561400	0.9561400	0.01	-8.76	100.00	AVRG
Benzo(a)pyrene	0.8880000	0.7429800	0.7429800	0.01	-16.33	20.00	AVRG
Indeno(1,2,3-cd)pyrene	0.6740000	0.7210400	0.7210400	0.01	6.98	100.00	AVRG
Dibenzo(a,h)anthracene	0.6660000	0.5878900	0.5878900	0.01	-11.73	100.00	AVRG
Benzo(g,h,i)perylene	0.7280000	0.5843400	0.5843400	0.01	-19.73	100.00	AVRG
2-Fluorophenol	1.1740000	1.0681000	1.0681000	0.01	-9.02	100.00	AVRG
Phenol-D6	1.3240000	1.3361000	1.3361000	0.01	0.91	100.00	AVRG
Nitrobenzene-D5	0.3320000	0.3020000	0.3020000	0.01	-9.04	100.00	AVRG
2-Fluorobiphenyl	1.2070000	1.1013000	1.1013000	0.01	-8.76	100.00	AVRG
2,4,6-Tribromophenol	0.2140000	0.1840800	0.1840800	0.01	-13.98	100.00	AVRG
Terphenyl-D14	0.7860000	0.6599200	0.6599200	0.01	-16.04	100.00	AVRG

FORM VII PEST

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Instrument ID: GCMS-U Calibration Date: 07/21/09 Time: 2326

Lab File ID: U7935 Init. Calib. Date(s): 07/15/09 07/15/09

Init. Calib. Times: 0949 1325

GC Column: DB5-MS ID: 0.25 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
1,4-Dioxane	0.3270000	0.3226300	0.3226300	0.01	-1.34	100.00	AVRG	
Benzaldehyde	6.e-002	0.1534300	0.1534300	0.01	155.72	100.00	AVRG	<-
Phenol	1.5030000	1.3897000	1.3897000	0.01	-7.54	20.00	AVRG	
Bis(2-Chloroethyl)ether	1.1190000	1.0065000	1.0065000	0.01	-10.05	100.00	AVRG	
2-Chlorophenol	1.2920000	1.1184000	1.1184000	0.01	-13.44	100.00	AVRG	
2-Methylphenol	1.1850000	1.0587000	1.0587000	0.01	-10.66	100.00	AVRG	
2,2'-Oxybis(1-chloropropane)	1.6920000	1.4927000	1.4927000	0.01	-11.78	100.00	AVRG	
Acetophenone	0.4320000	0.4049200	0.4049200	0.01	-6.27	100.00	AVRG	
N-Nitroso-di-n-propylamine	0.7710000	0.6682400	0.6682400	0.05	-13.33	100.00	AVRG	
3&4-Methylphenol	1.2050000	1.1125000	1.1125000	0.01	-7.68	100.00	AVRG	
Hexachloroethane	0.5480000	0.5204100	0.5204100	0.01	-5.03	100.00	AVRG	
Nitrobenzene	0.3450000	0.3166900	0.3166900	0.01	-8.20	100.00	AVRG	
Isophorone	0.6100000	0.5427800	0.5427800	0.01	-11.02	100.00	AVRG	
2-Nitrophenol	0.1810000	0.1611400	0.1611400	0.01	-10.97	20.00	AVRG	
2,4-Dimethylphenol	0.3240000	0.3037800	0.3037800	0.01	-6.24	100.00	AVRG	
Bis(2-Chloroethoxy)methane	0.3540000	0.3631100	0.3631100	0.01	2.57	100.00	AVRG	
2,4-Dichlorophenol	0.2530000	0.2320100	0.2320100	0.01	-8.30	20.00	AVRG	
Naphthalene	0.8890000	0.8478100	0.8478100	0.01	-4.63	100.00	AVRG	
4-Chloroaniline	0.3810000	0.3538200	0.3538200	0.01	-7.13	100.00	AVRG	
Hexachlorobutadiene	0.1740000	0.1633700	0.1633700	0.01	-6.11	20.00	AVRG	
Caprolactam	9.6e-002	9.18e-002	9.18e-002	0.01	-4.38	100.00	AVRG	
4-Chloro-3-Methylphenol	0.2630000	0.2481500	0.2481500	0.01	-5.65	20.00	AVRG	
2-Methylnaphthalene	0.7260000	0.7031400	0.7031400	0.01	-3.15	100.00	AVRG	
Hexachlorocyclopentadiene	0.3720000	0.3553000	0.3553000	0.05	-4.49	100.00	AVRG	
2,4,6-Trichlorophenol	0.3660000	0.3310200	0.3310200	0.01	-9.56	20.00	AVRG	
2,4,5-Trichlorophenol	0.3770000	0.3296600	0.3296600	0.01	-12.56	100.00	AVRG	
2-Chloronaphthalene	48.655000	50.000000	0.3880900	0.01	-2.69	100.00	2RDR	
1,1'-Biphenyl	1.1710000	1.0526000	1.0526000	0.01	-10.11	100.00	AVRG	
2-Nitroaniline	0.3290000	0.3093900	0.3093900	0.01	-5.96	100.00	AVRG	

FORM VII PEST

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Instrument ID: GCMS-U Calibration Date: 07/21/09 Time: 2326

Lab File ID: U7935 Init. Calib. Date(s): 07/15/09 07/15/09

Init. Calib. Times: 0949 1325

GC Column: DB5-MS ID: 0.25 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
Dimethyl Phthalate	1.1960000	1.1116000	1.1116000	0.01	-7.06	100.00	AVRG
2,6-Dinitrotoluene	0.2900000	0.2814800	0.2814800	0.01	-2.94	100.00	AVRG
Acenaphthylene	1.7450000	1.6390000	1.6390000	0.01	-6.07	100.00	AVRG
3-Nitroaniline	0.2980000	0.2817500	0.2817500	0.01	-5.45	100.00	AVRG
Acenaphthene	1.0830000	0.9628200	0.9628200	0.01	-11.10	20.00	AVRG
2,4-Dinitrophenol	46.082000	50.000000	0.1280400	0.05	-7.84	100.00	LINR
Dibenzofuran	1.4510000	1.2346000	1.2346000	0.01	-14.91	100.00	AVRG
4-Nitrophenol	26.677000	50.000000	6.26e-002	0.05	-46.65	100.00	2RDR
2,4-Dinitrotoluene	0.3660000	0.3269100	0.3269100	0.01	-10.68	100.00	AVRG
Diethylphthalate	1.1680000	1.0409000	1.0409000	0.01	-10.88	100.00	AVRG
Fluorene	1.1250000	1.0420000	1.0420000	0.01	-7.38	100.00	AVRG
4-Chlorophenyl-phenylether	0.5550000	0.5363800	0.5363800	0.01	-3.36	100.00	AVRG
4-Nitroaniline	0.2540000	0.2330100	0.2330100	0.01	-8.26	100.00	AVRG
4,6-Dinitro-2-Methylphenol	45.409000	50.000000	0.1291500	0.01	-9.18	100.00	2RDR
N-Nitrosodiphenylamine	0.6220000	0.5668400	0.5668400	0.01	-8.87	20.00	AVRG
4-Bromophenyl-phenylether	0.2380000	0.2142400	0.2142400	0.01	-9.98	100.00	AVRG
Hexachlorobenzene	0.2750000	0.2462200	0.2462200	0.01	-10.46	100.00	AVRG
Atrazine	0.1640000	0.1547100	0.1547100	0.01	-5.66	100.00	AVRG
Pentachlorophenol	40.071000	50.000000	0.1015300	0.01	-19.86	20.00	2RDR
Phenanthrene	1.0950000	1.0028000	1.0028000	0.01	-8.42	100.00	AVRG
Anthracene	1.0880000	0.9276900	0.9276900	0.01	-14.73	100.00	AVRG
Carbazole	0.9390000	0.7763800	0.7763800	0.01	-17.32	100.00	AVRG
Di-n-butylphthalate	1.3320000	1.2284000	1.2284000	0.01	-7.78	100.00	AVRG
Fluoranthene	1.0120000	0.9849000	0.9849000	0.01	-2.68	20.00	AVRG
Pyrene	1.2600000	1.2131000	1.2131000	0.01	-3.72	100.00	AVRG
Butylbenzylphthalate	0.5860000	0.5390700	0.5390700	0.01	-8.01	100.00	AVRG
Benzo(a)anthracene	0.9430000	0.8556900	0.8556900	0.01	-9.26	100.00	AVRG
3,3'-Dichlorobenzidine	0.2770000	0.2578900	0.2578900	0.01	-6.90	100.00	AVRG
Chrysene	0.9120000	0.8452600	0.8452600	0.01	-7.32	100.00	AVRG

FORM VII PEST

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Instrument ID: GCMS-U Calibration Date: 07/21/09 Time: 2326

Lab File ID: U7935 Init. Calib. Date(s): 07/15/09 07/15/09

Init. Calib. Times: 0949 1325

GC Column: DB5-MS ID: 0.25 (mm)

COMPOUND	RRF or AMOUNT	RRF50.000 or AMOUNT	CCAL RRF50.000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
bis(2-Ethylhexyl)phthalate	0.7790000	0.7213200	0.7213200	0.01	-7.40	100.00	AVRG
Di-n-octylphthalate	1.4500000	1.4040000	1.4040000	0.01	-3.17	20.00	AVRG
Benzo(b)fluoranthene	0.9380000	0.9038500	0.9038500	0.01	-3.64	100.00	AVRG
Benzo(k)fluoranthene	1.0480000	1.0090000	1.0090000	0.01	-3.72	100.00	AVRG
Benzo(a)pyrene	0.8880000	0.8887000	0.8887000	0.01	0.08	20.00	AVRG
Indeno(1,2,3-cd)pyrene	0.6740000	0.8225600	0.8225600	0.01	22.04	100.00	AVRG
Dibenzo(a,h)anthracene	0.6660000	0.6660300	0.6660300	0.01	0.00	100.00	AVRG
Benzo(g,h,i)perylene	0.7280000	0.6963800	0.6963800	0.01	-4.34	100.00	AVRG
2-Fluorophenol	1.1740000	1.0562000	1.0562000	0.01	-10.03	100.00	AVRG
Phenol-D6	1.3240000	1.0842000	1.0842000	0.01	-18.11	100.00	AVRG
Nitrobenzene-D5	0.3320000	0.2870800	0.2870800	0.01	-13.53	100.00	AVRG
2-Fluorobiphenyl	1.2070000	1.0242000	1.0242000	0.01	-15.14	100.00	AVRG
2,4,6-Tribromophenol	0.2140000	0.1927700	0.1927700	0.01	-9.92	100.00	AVRG
Terphenyl-D14	0.7860000	0.6585300	0.6585300	0.01	-16.22	100.00	AVRG

FORM VII PEST

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Lab File ID (Standard): U7901 Date Analyzed: 07/20/09

Instrument ID: GCMS-U Time Analyzed: 2130

	IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
12 HOUR STD	295599	8.57	1127278	11.64	556128	16.17
UPPER LIMIT	591198	9.07	2254556	12.14	1112256	16.67
LOWER LIMIT	147800	8.07	563639	11.14	278064	15.67

	CLIENT SAMPLE ID	LAB SAMPLE ID						
01	WGL-GW-MW101-062909	SC3624-2	268306	8.57	1040580	11.64	508906	16.18
02	WGL-GW-MW3-062909	SC3624-4	287704	8.57	1024451	11.65	509089	16.18
03	WGL-GW-MW103-062909	SC3624-6	295041	8.57	1185441	11.64	561379	16.18
04	WGL-GW-MW102-062909	SC3624-8	267088	8.57	1044234	11.65	534601	16.18
05	WGL-GW-MW2-063009	SC3624-10	268553	8.57	1025621	11.65	520969	16.18
06	WGL-GW-MW4-063009	SC3624-12	275597	8.57	1078619	11.64	527975	16.19
07	GW-MW38-063009	SC3624-14	272172	8.57	1020558	11.64	513319	16.19
08	WGL-GW-MW40S-063009	SC3624-16	266797	8.57	1011330	11.64	512418	16.18
09	WGL-GW-DUP01-063009	SC3624-18	293298	8.57	1130870	11.64	553140	16.19
10	WGL-GW-MW48D-063009	SC3624-20	299633	8.57	1122918	11.64	582395	16.19
11	WGL-GW-DUP02-063009	SC3624-22	283418	8.57	1101881	11.64	518257	16.18
12	GL-GW-MW48D2-063009	SC3624-24	263928	8.57	1052889	11.64	538588	16.19
13								
14								
15								
16								
17								
18								
19								
20								

IS1 (DCB) = 1,4-Dichlorobenzene-D4
IS2 (NPT) = Naphthalene-D8
IS3 (ANT) = Acenaphthene-D10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM VIII SV

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Lab File ID (Standard): U7901 Date Analyzed: 07/20/09

Instrument ID: GCMS-U Time Analyzed: 2130

	IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
12 HOUR STD	897226	20.07	714371	27.04	605287	30.52
UPPER LIMIT	1794452	20.57	1428742	27.54	1210574	31.02
LOWER LIMIT	448613	19.57	357186	26.54	302644	30.02

	CLIENT SAMPLE ID	LAB SAMPLE ID						
01	WGL-GW-MW101-062909	SC3624-2	881466	20.07	808142	27.04	618872	30.53
02	WGL-GW-MW3-062909	SC3624-4	855019	20.07	752192	27.05	537396	30.54
03	WGL-GW-MW103-062909	SC3624-6	878831	20.08	827193	27.05	573794	30.54
04	WGL-GW-MW102-062909	SC3624-8	894437	20.06	738941	27.05	556222	30.54
05	WGL-GW-MW2-063009	SC3624-10	873396	20.08	684762	27.06	543825	30.54
06	WGL-GW-MW4-063009	SC3624-12	943244	20.07	750781	27.05	524333	30.54
07	GW-MW38-063009	SC3624-14	869621	20.08	711874	27.05	512413	30.54
08	WGL-GW-MW40S-063009	SC3624-16	857756	20.07	713039	27.05	535312	30.54
09	WGL-GW-DUP01-063009	SC3624-18	973413	20.07	787039	27.05	522973	30.53
10	WGL-GW-MW48D-063009	SC3624-20	954145	20.07	833729	27.05	649046	30.54
11	WGL-GW-DUP02-063009	SC3624-22	891175	20.06	817550	27.05	565201	30.54
12	GL-GW-MW48D2-063009	SC3624-24	905482	20.07	748969	27.05	566435	30.54
13								
14								
15								
16								
17								
18								
19								
20								

IS4 (PHN) = Phenanthrene-D10
IS5 (CRY) = Chrysene-D12
IS6 (PRY) = Perylene-D12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM VIII SV

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Lab File ID (Standard): U7935 Date Analyzed: 07/21/09

Instrument ID: GCMS-U Time Analyzed: 2326

	IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
12 HOUR STD	346663	8.55	1277950	11.64	643226	16.17
UPPER LIMIT	693326	9.05	2555900	12.14	1286452	16.67
LOWER LIMIT	173332	8.05	638975	11.14	321613	15.67

	CLIENT SAMPLE ID	LAB SAMPLE ID						
01	WGL-GW-MW39-063009	SC3624-26RA	366829	8.57	1442128	11.63	682008	16.18
02	WGL-GW-FB01-070109	SC3624-28RA	333694	8.57	1282219	11.64	651681	16.17
03	WGL-GW-RB01-070109	SC3624-30RA	332941	8.56	1287184	11.64	630628	16.17
04	WG65862-BLANK	WG65862-1	339790	8.56	1264362	11.64	631045	16.17
05	WG65862-LCS	WG65862-2	344502	8.56	1184517	11.63	627916	16.17
06	L-GW-MW38-063009MS	WG65862-3	341076	8.56	1231560	11.63	654392	16.16
07	L-GW-MW38-063009MSD	WG65862-4	329492	8.55	1143935	11.63	613919	16.16
08	WG66190-BLANK	WG66190-1	343651	8.57	1292669	11.64	616226	16.17
09	WG66190-LCS	WG66190-2	304935	8.56	1150334	11.63	610706	16.16
10	WG66190-LCSD	WG66190-3	319220	8.55	1215228	11.63	601549	16.17
11	GL-GW-MW48D2-063009	SC3624-24RE	373717	8.57	1445029	11.63	711923	16.17
12								
13								
14								
15								
16								
17								
18								
19								
20								

IS1 (DCB) = 1,4-Dichlorobenzene-D4
IS2 (NPT) = Naphthalene-D8
IS3 (ANT) = Acenaphthene-D10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM VIII SV

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Lab File ID (Standard): U7935 Date Analyzed: 07/21/09

Instrument ID: GCMS-U Time Analyzed: 2326

	IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
12 HOUR STD	1023758	20.06	866271	27.04	631086	30.52
UPPER LIMIT	2047516	20.56	1732542	27.54	1262172	31.02
LOWER LIMIT	511879	19.56	433136	26.54	315543	30.02

	CLIENT SAMPLE ID	LAB SAMPLE ID						
01	WGL-GW-MW39-063009	SC3624-26RA	1132999	20.06	924539	27.04	735695	30.53
02	WGL-GW-FB01-070109	SC3624-28RA	1123521	20.05	818096	27.05	593292	30.54
03	WGL-GW-RB01-070109	SC3624-30RA	1056461	20.06	795378	27.05	534582	30.54
04	WG65862-BLANK	WG65862-1	982020	20.06	811076	27.05	523676	30.54
05	WG65862-LCS	WG65862-2	1085830	20.06	836921	27.03	601497	30.53
06	L-GW-MW38-063009MS	WG65862-3	1062901	20.05	769621	27.04	528429	30.53
07	L-GW-MW38-063009MSD	WG65862-4	1002046	20.05	800060	27.03	514048	30.53
08	WG66190-BLANK	WG66190-1	1087814	20.07	787684	27.05	602842	30.54
09	WG66190-LCS	WG66190-2	948994	20.06	818051	27.03	537475	30.53
10	WG66190-LCSD	WG66190-3	1023900	20.05	846008	27.04	574454	30.54
11	GL-GW-MW48D2-063009	SC3624-24RE	1167722	20.05	773900	27.05	565376	30.54
12								
13								
14								
15								
16								
17								
18								
19								
20								

IS4 (PHN) = Phenanthrene-D10
IS5 (CRY) = Chrysene-D12
IS6 (PRY) = Perylene-D12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM VIII SV

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/29/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 13-JUL-2009 21:41
Report Date: 07/16/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-3
Client ID: WGL-GW-MW101-062909
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: JCG
Analysis Method: SW846 M8270C
Lab Prep Batch: WG65863
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
91-20-3	Naphthalene	U	0.19	1.0	0.20	0.19	0.060
91-57-6	2-Methylnaphthalene	U	0.19	1.0	0.20	0.19	0.073
208-96-8	Acenaphthylene	U	0.19	1.0	0.20	0.19	0.051
83-32-9	Acenaphthene	U	0.19	1.0	0.20	0.19	0.060
86-73-7	Fluorene	U	0.19	1.0	0.20	0.19	0.058
85-01-8	Phenanthrene	U	0.19	1.0	0.20	0.19	0.048
120-12-7	Anthracene	U	0.19	1.0	0.20	0.19	0.042
206-44-0	Fluoranthene	U	0.19	1.0	0.20	0.19	0.069
129-00-0	Pyrene	U	0.19	1.0	0.20	0.19	0.056
56-55-3	Benzo(a)anthracene	U	0.19	1.0	0.20	0.19	0.043
218-01-9	Chrysene	U	0.19	1.0	0.20	0.19	0.034
205-99-2	Benzo(b)fluoranthene	U	0.19	1.0	0.20	0.19	0.084
207-08-9	Benzo(k)fluoranthene	U	0.19	1.0	0.20	0.19	0.046
50-32-8	Benzo(a)pyrene	U	0.19	1.0	0.20	0.19	0.062
193-39-5	Indeno(1,2,3-cd)pyrene	U	0.19	1.0	0.20	0.19	0.049
53-70-3	Dibenzo(a,h)anthracene	U	0.19	1.0	0.20	0.19	0.066
191-24-2	Benzo(g,h,i)perylene	U	0.19	1.0	0.20	0.19	0.061
123-91-1	1,4-Dioxane	U	4.7	1.0	5.0	4.7	0.027
118-74-1	Hexachlorobenzene	U	0.19	1.0	0.20	0.19	0.052
87-86-5	Pentachlorophenol	U	0.94	1.0	1.0	0.94	0.31
367-12-4	2,4-Dibromophenol		73%				
321-60-8	2-Methylnaphthalene-D10		64%				
118-79-6	Fluorene-D10		62%				
1718-51-0	Pyrene-D10		92%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/29/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 13-JUL-2009 22:25
Report Date: 07/16/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-5
Client ID: WGL-GW-MW3-062909
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: JCG
Analysis Method: SW846 M8270C
Lab Prep Batch: WG65863
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
91-20-3	Naphthalene	U	0.19	1.0	0.20	0.19	0.060
91-57-6	2-Methylnaphthalene	U	0.19	1.0	0.20	0.19	0.073
208-96-8	Acenaphthylene	U	0.19	1.0	0.20	0.19	0.051
83-32-9	Acenaphthene	U	0.19	1.0	0.20	0.19	0.060
86-73-7	Fluorene	U	0.19	1.0	0.20	0.19	0.058
85-01-8	Phenanthrene	U	0.19	1.0	0.20	0.19	0.048
120-12-7	Anthracene	U	0.19	1.0	0.20	0.19	0.042
206-44-0	Fluoranthene	U	0.19	1.0	0.20	0.19	0.069
129-00-0	Pyrene	U	0.19	1.0	0.20	0.19	0.056
56-55-3	Benzo(a)anthracene	U	0.19	1.0	0.20	0.19	0.043
218-01-9	Chrysene	U	0.19	1.0	0.20	0.19	0.034
205-99-2	Benzo(b)fluoranthene	U	0.19	1.0	0.20	0.19	0.084
207-08-9	Benzo(k)fluoranthene	U	0.19	1.0	0.20	0.19	0.046
50-32-8	Benzo(a)pyrene	U	0.19	1.0	0.20	0.19	0.062
193-39-5	Indeno(1,2,3-cd)pyrene	U	0.19	1.0	0.20	0.19	0.049
53-70-3	Dibenzo(a,h)anthracene	U	0.19	1.0	0.20	0.19	0.066
191-24-2	Benzo(g,h,i)perylene	U	0.19	1.0	0.20	0.19	0.061
123-91-1	1,4-Dioxane	U	4.7	1.0	5.0	4.7	0.027
118-74-1	Hexachlorobenzene	U	0.19	1.0	0.20	0.19	0.052
87-86-5	Pentachlorophenol	U	0.94	1.0	1.0	0.94	0.31
367-12-4	2,4-Dibromophenol		53%				
321-60-8	2-Methylnaphthalene-D10		56%				
118-79-6	Fluorene-D10		58%				
1718-51-0	Pyrene-D10		89%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/29/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 14-JUL-2009 11:15
Report Date: 07/16/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-7
Client ID: WGL-GW-MW103-062909
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: JCG
Analysis Method: SW846 M8270C
Lab Prep Batch: WG65863
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
91-20-3	Naphthalene	U	0.22	1.0	0.20	0.22	0.070
91-57-6	2-Methylnaphthalene	U	0.22	1.0	0.20	0.22	0.084
208-96-8	Acenaphthylene	U	0.22	1.0	0.20	0.22	0.059
83-32-9	Acenaphthene	U	0.22	1.0	0.20	0.22	0.070
86-73-7	Fluorene	U	0.22	1.0	0.20	0.22	0.066
85-01-8	Phenanthrene	U	0.22	1.0	0.20	0.22	0.055
120-12-7	Anthracene	U	0.22	1.0	0.20	0.22	0.048
206-44-0	Fluoranthene	U	0.22	1.0	0.20	0.22	0.079
129-00-0	Pyrene	U	0.22	1.0	0.20	0.22	0.064
56-55-3	Benzo(a)anthracene	U	0.22	1.0	0.20	0.22	0.050
218-01-9	Chrysene	U	0.22	1.0	0.20	0.22	0.039
205-99-2	Benzo(b)fluoranthene	U	0.22	1.0	0.20	0.22	0.097
207-08-9	Benzo(k)fluoranthene	U	0.22	1.0	0.20	0.22	0.053
50-32-8	Benzo(a)pyrene	U	0.22	1.0	0.20	0.22	0.072
193-39-5	Indeno(1,2,3-cd)pyrene	U	0.22	1.0	0.20	0.22	0.056
53-70-3	Dibenzo(a,h)anthracene	U	0.22	1.0	0.20	0.22	0.076
191-24-2	Benzo(g,h,i)perylene	U	0.22	1.0	0.20	0.22	0.071
123-91-1	1,4-Dioxane	U	5.4	1.0	5.0	5.4	0.032
118-74-1	Hexachlorobenzene	U	0.22	1.0	0.20	0.22	0.060
87-86-5	Pentachlorophenol	U	1.1	1.0	1.0	1.1	0.36
367-12-4	2,4-Dibromophenol		49%				
321-60-8	2-Methylnaphthalene-D10		63%				
118-79-6	Fluorene-D10		61%				
1718-51-0	Pyrene-D10		88%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/29/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 14-JUL-2009 11:58
Report Date: 07/16/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-9
Client ID: WGL-GW-MW102-062909
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: JCG
Analysis Method: SW846 M8270C
Lab Prep Batch: WG65863
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
91-20-3	Naphthalene	U	0.20	1.0	0.20	0.20	0.065
91-57-6	2-Methylnaphthalene	U	0.20	1.0	0.20	0.20	0.078
208-96-8	Acenaphthylene	U	0.20	1.0	0.20	0.20	0.055
83-32-9	Acenaphthene	U	0.20	1.0	0.20	0.20	0.065
86-73-7	Fluorene	U	0.20	1.0	0.20	0.20	0.062
85-01-8	Phenanthrene	U	0.20	1.0	0.20	0.20	0.052
120-12-7	Anthracene	U	0.20	1.0	0.20	0.20	0.045
206-44-0	Fluoranthene	U	0.20	1.0	0.20	0.20	0.074
129-00-0	Pyrene	U	0.20	1.0	0.20	0.20	0.060
56-55-3	Benzo(a)anthracene	U	0.20	1.0	0.20	0.20	0.047
218-01-9	Chrysene	U	0.20	1.0	0.20	0.20	0.037
205-99-2	Benzo(b)fluoranthene	U	0.20	1.0	0.20	0.20	0.091
207-08-9	Benzo(k)fluoranthene	U	0.20	1.0	0.20	0.20	0.050
50-32-8	Benzo(a)pyrene	U	0.20	1.0	0.20	0.20	0.067
193-39-5	Indeno(1,2,3-cd)pyrene	U	0.20	1.0	0.20	0.20	0.053
53-70-3	Dibenzo(a,h)anthracene	U	0.20	1.0	0.20	0.20	0.071
191-24-2	Benzo(g,h,i)perylene	U	0.20	1.0	0.20	0.20	0.066
123-91-1	1,4-Dioxane	U	5.1	1.0	5.0	5.1	0.030
118-74-1	Hexachlorobenzene	U	0.20	1.0	0.20	0.20	0.056
87-86-5	Pentachlorophenol	U	1.0	1.0	1.0	1.0	0.34
367-12-4	2,4-Dibromophenol		72%				
321-60-8	2-Methylnaphthalene-D10		61%				
118-79-6	Fluorene-D10		64%				
1718-51-0	Pyrene-D10		76%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 14-JUL-2009 12:40
Report Date: 07/16/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-11
Client ID: WGL-GW-MW2-063009
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: JCG
Analysis Method: SW846 M8270C
Lab Prep Batch: WG65863
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
91-20-3	Naphthalene	U	0.19	1.0	0.20	0.19	0.060
91-57-6	2-Methylnaphthalene	U	0.19	1.0	0.20	0.19	0.073
208-96-8	Acenaphthylene	U	0.19	1.0	0.20	0.19	0.051
83-32-9	Acenaphthene	U	0.19	1.0	0.20	0.19	0.060
86-73-7	Fluorene	U	0.19	1.0	0.20	0.19	0.058
85-01-8	Phenanthrene	U	0.19	1.0	0.20	0.19	0.048
120-12-7	Anthracene	U	0.19	1.0	0.20	0.19	0.042
206-44-0	Fluoranthene	U	0.19	1.0	0.20	0.19	0.069
129-00-0	Pyrene	U	0.19	1.0	0.20	0.19	0.056
56-55-3	Benzo(a)anthracene	U	0.19	1.0	0.20	0.19	0.043
218-01-9	Chrysene	U	0.19	1.0	0.20	0.19	0.034
205-99-2	Benzo(b)fluoranthene	U	0.19	1.0	0.20	0.19	0.084
207-08-9	Benzo(k)fluoranthene	U	0.19	1.0	0.20	0.19	0.046
50-32-8	Benzo(a)pyrene	U	0.19	1.0	0.20	0.19	0.062
193-39-5	Indeno(1,2,3-cd)pyrene	U	0.19	1.0	0.20	0.19	0.049
53-70-3	Dibenzo(a,h)anthracene	U	0.19	1.0	0.20	0.19	0.066
191-24-2	Benzo(g,h,i)perylene	U	0.19	1.0	0.20	0.19	0.061
123-91-1	1,4-Dioxane	U	4.7	1.0	5.0	4.7	0.027
118-74-1	Hexachlorobenzene	U	0.19	1.0	0.20	0.19	0.052
87-86-5	Pentachlorophenol	U	0.94	1.0	1.0	0.94	0.31
367-12-4	2,4-Dibromophenol		50%				
321-60-8	2-Methylnaphthalene-D10		62%				
118-79-6	Fluorene-D10		65%				
1718-51-0	Pyrene-D10		74%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 14-JUL-2009 13:23
Report Date: 07/16/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-13
Client ID: WGL-GW-MW4-063009
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: JCG
Analysis Method: SW846 M8270C
Lab Prep Batch: WG65863
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
91-20-3	Naphthalene	U	0.19	1.0	0.20	0.19	0.060
91-57-6	2-Methylnaphthalene	U	0.19	1.0	0.20	0.19	0.073
208-96-8	Acenaphthylene	U	0.19	1.0	0.20	0.19	0.051
83-32-9	Acenaphthene	U	0.19	1.0	0.20	0.19	0.060
86-73-7	Fluorene	U	0.19	1.0	0.20	0.19	0.058
85-01-8	Phenanthrene	U	0.19	1.0	0.20	0.19	0.048
120-12-7	Anthracene	U	0.19	1.0	0.20	0.19	0.042
206-44-0	Fluoranthene	U	0.19	1.0	0.20	0.19	0.069
129-00-0	Pyrene	U	0.19	1.0	0.20	0.19	0.056
56-55-3	Benzo(a)anthracene	U	0.19	1.0	0.20	0.19	0.043
218-01-9	Chrysene	U	0.19	1.0	0.20	0.19	0.034
205-99-2	Benzo(b)fluoranthene	U	0.19	1.0	0.20	0.19	0.084
207-08-9	Benzo(k)fluoranthene	U	0.19	1.0	0.20	0.19	0.046
50-32-8	Benzo(a)pyrene	U	0.19	1.0	0.20	0.19	0.062
193-39-5	Indeno(1,2,3-cd)pyrene	U	0.19	1.0	0.20	0.19	0.049
53-70-3	Dibenzo(a,h)anthracene	U	0.19	1.0	0.20	0.19	0.066
191-24-2	Benzo(g,h,i)perylene	U	0.19	1.0	0.20	0.19	0.061
123-91-1	1,4-Dioxane	U	4.7	1.0	5.0	4.7	0.027
118-74-1	Hexachlorobenzene	U	0.19	1.0	0.20	0.19	0.052
87-86-5	Pentachlorophenol	U	0.94	1.0	1.0	0.94	0.31
367-12-4	2,4-Dibromophenol		62%				
321-60-8	2-Methylnaphthalene-D10		66%				
118-79-6	Fluorene-D10		66%				
1718-51-0	Pyrene-D10		82%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 14-JUL-2009 14:05
Report Date: 07/16/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-15
Client ID: L-GW-MW38-063009
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: JCG
Analysis Method: SW846 M8270C
Lab Prep Batch: WG65863
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
91-20-3	Naphthalene	U	0.19	1.0	0.20	0.19	0.061
91-57-6	2-Methylnaphthalene	U	0.19	1.0	0.20	0.19	0.073
208-96-8	Acenaphthylene	U	0.19	1.0	0.20	0.19	0.051
83-32-9	Acenaphthene	U	0.19	1.0	0.20	0.19	0.061
86-73-7	Fluorene	U	0.19	1.0	0.20	0.19	0.058
85-01-8	Phenanthrene	U	0.19	1.0	0.20	0.19	0.048
120-12-7	Anthracene	U	0.19	1.0	0.20	0.19	0.042
206-44-0	Fluoranthene	U	0.19	1.0	0.20	0.19	0.070
129-00-0	Pyrene	U	0.19	1.0	0.20	0.19	0.056
56-55-3	Benzo(a)anthracene	U	0.19	1.0	0.20	0.19	0.044
218-01-9	Chrysene	U	0.19	1.0	0.20	0.19	0.034
205-99-2	Benzo(b)fluoranthene	U	0.19	1.0	0.20	0.19	0.085
207-08-9	Benzo(k)fluoranthene	U	0.19	1.0	0.20	0.19	0.047
50-32-8	Benzo(a)pyrene	U	0.19	1.0	0.20	0.19	0.063
193-39-5	Indeno(1,2,3-cd)pyrene	U	0.19	1.0	0.20	0.19	0.050
53-70-3	Dibenzo(a,h)anthracene	U	0.19	1.0	0.20	0.19	0.067
191-24-2	Benzo(g,h,i)perylene	U	0.19	1.0	0.20	0.19	0.062
123-91-1	1,4-Dioxane	U	4.8	1.0	5.0	4.8	0.028
118-74-1	Hexachlorobenzene	U	0.19	1.0	0.20	0.19	0.052
87-86-5	Pentachlorophenol	U	0.95	1.0	1.0	0.95	0.31
367-12-4	2,4-Dibromophenol		66%				
321-60-8	2-Methylnaphthalene-D10		58%				
118-79-6	Fluorene-D10		59%				
1718-51-0	Pyrene-D10		83%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 14-JUL-2009 16:13
Report Date: 07/16/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-17
Client ID: WGL-GW-MW40S-063009
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: JCG
Analysis Method: SW846 M8270C
Lab Prep Batch: WG65863
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
91-20-3	Naphthalene	U	0.19	1.0	0.20	0.19	0.060
91-57-6	2-Methylnaphthalene	U	0.19	1.0	0.20	0.19	0.073
208-96-8	Acenaphthylene	U	0.19	1.0	0.20	0.19	0.051
83-32-9	Acenaphthene	U	0.19	1.0	0.20	0.19	0.060
86-73-7	Fluorene	U	0.19	1.0	0.20	0.19	0.058
85-01-8	Phenanthrene	U	0.19	1.0	0.20	0.19	0.048
120-12-7	Anthracene	U	0.19	1.0	0.20	0.19	0.042
206-44-0	Fluoranthene	U	0.19	1.0	0.20	0.19	0.069
129-00-0	Pyrene	U	0.19	1.0	0.20	0.19	0.056
56-55-3	Benzo(a)anthracene	U	0.19	1.0	0.20	0.19	0.043
218-01-9	Chrysene	U	0.19	1.0	0.20	0.19	0.034
205-99-2	Benzo(b)fluoranthene	U	0.19	1.0	0.20	0.19	0.084
207-08-9	Benzo(k)fluoranthene	U	0.19	1.0	0.20	0.19	0.046
50-32-8	Benzo(a)pyrene	U	0.19	1.0	0.20	0.19	0.062
193-39-5	Indeno(1,2,3-cd)pyrene	U	0.19	1.0	0.20	0.19	0.049
53-70-3	Dibenzo(a,h)anthracene	U	0.19	1.0	0.20	0.19	0.066
191-24-2	Benzo(g,h,i)perylene	U	0.19	1.0	0.20	0.19	0.061
123-91-1	1,4-Dioxane	U	4.7	1.0	5.0	4.7	0.027
118-74-1	Hexachlorobenzene	U	0.19	1.0	0.20	0.19	0.052
87-86-5	Pentachlorophenol	U	0.94	1.0	1.0	0.94	0.31
367-12-4	2,4-Dibromophenol		71%				
321-60-8	2-Methylnaphthalene-D10		64%				
118-79-6	Fluorene-D10		66%				
1718-51-0	Pyrene-D10		80%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 14-JUL-2009 16:56
Report Date: 07/16/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-19
Client ID: WGL-GW-DUP01-063009
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: JCG
Analysis Method: SW846 M8270C
Lab Prep Batch: WG65863
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
91-20-3	Naphthalene	U	0.19	1.0	0.20	0.19	0.062
91-57-6	2-Methylnaphthalene	U	0.19	1.0	0.20	0.19	0.074
208-96-8	Acenaphthylene	U	0.19	1.0	0.20	0.19	0.052
83-32-9	Acenaphthene	U	0.19	1.0	0.20	0.19	0.062
86-73-7	Fluorene	U	0.19	1.0	0.20	0.19	0.059
85-01-8	Phenanthrene	U	0.19	1.0	0.20	0.19	0.049
120-12-7	Anthracene	U	0.19	1.0	0.20	0.19	0.042
206-44-0	Fluoranthene	U	0.19	1.0	0.20	0.19	0.070
129-00-0	Pyrene	U	0.19	1.0	0.20	0.19	0.057
56-55-3	Benzo(a)anthracene	U	0.19	1.0	0.20	0.19	0.044
218-01-9	Chrysene	U	0.19	1.0	0.20	0.19	0.035
205-99-2	Benzo(b)fluoranthene	U	0.19	1.0	0.20	0.19	0.086
207-08-9	Benzo(k)fluoranthene	U	0.19	1.0	0.20	0.19	0.047
50-32-8	Benzo(a)pyrene	U	0.19	1.0	0.20	0.19	0.063
193-39-5	Indeno(1,2,3-cd)pyrene	U	0.19	1.0	0.20	0.19	0.050
53-70-3	Dibenzo(a,h)anthracene	U	0.19	1.0	0.20	0.19	0.067
191-24-2	Benzo(g,h,i)perylene	U	0.19	1.0	0.20	0.19	0.062
123-91-1	1,4-Dioxane	U	4.8	1.0	5.0	4.8	0.028
118-74-1	Hexachlorobenzene	U	0.19	1.0	0.20	0.19	0.053
87-86-5	Pentachlorophenol	U	0.96	1.0	1.0	0.96	0.32
367-12-4	2,4-Dibromophenol		64%				
321-60-8	2-Methylnaphthalene-D10		60%				
118-79-6	Fluorene-D10		62%				
1718-51-0	Pyrene-D10		82%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 14-JUL-2009 17:38
Report Date: 07/16/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-21
Client ID: WGL-GW-MW48D-063009
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: JCG
Analysis Method: SW846 M8270C
Lab Prep Batch: WG65863
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
91-20-3	Naphthalene	U	0.19	1.0	0.20	0.19	0.061
91-57-6	2-Methylnaphthalene	U	0.19	1.0	0.20	0.19	0.073
208-96-8	Acenaphthylene	U	0.19	1.0	0.20	0.19	0.051
83-32-9	Acenaphthene	U	0.19	1.0	0.20	0.19	0.061
86-73-7	Fluorene	U	0.19	1.0	0.20	0.19	0.058
85-01-8	Phenanthrene	U	0.19	1.0	0.20	0.19	0.048
120-12-7	Anthracene	U	0.19	1.0	0.20	0.19	0.042
206-44-0	Fluoranthene	U	0.19	1.0	0.20	0.19	0.070
129-00-0	Pyrene	U	0.19	1.0	0.20	0.19	0.056
56-55-3	Benzo(a)anthracene	U	0.19	1.0	0.20	0.19	0.044
218-01-9	Chrysene	U	0.19	1.0	0.20	0.19	0.034
205-99-2	Benzo(b)fluoranthene	U	0.19	1.0	0.20	0.19	0.085
207-08-9	Benzo(k)fluoranthene	U	0.19	1.0	0.20	0.19	0.047
50-32-8	Benzo(a)pyrene	U	0.19	1.0	0.20	0.19	0.063
193-39-5	Indeno(1,2,3-cd)pyrene	U	0.19	1.0	0.20	0.19	0.050
53-70-3	Dibenzo(a,h)anthracene	U	0.19	1.0	0.20	0.19	0.067
191-24-2	Benzo(g,h,i)perylene	U	0.19	1.0	0.20	0.19	0.062
123-91-1	1,4-Dioxane	U	4.8	1.0	5.0	4.8	0.028
118-74-1	Hexachlorobenzene	U	0.19	1.0	0.20	0.19	0.052
87-86-5	Pentachlorophenol	U	0.95	1.0	1.0	0.95	0.31
367-12-4	2,4-Dibromophenol		62%				
321-60-8	2-Methylnaphthalene-D10		70%				
118-79-6	Fluorene-D10		68%				
1718-51-0	Pyrene-D10		74%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 14-JUL-2009 18:22
Report Date: 07/16/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-23
Client ID: WGL-GW-DUP02-063009
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: JCG
Analysis Method: SW846 M8270C
Lab Prep Batch: WG65863
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
91-20-3	Naphthalene	U	0.19	1.0	0.20	0.19	0.060
91-57-6	2-Methylnaphthalene	U	0.19	1.0	0.20	0.19	0.073
208-96-8	Acenaphthylene	U	0.19	1.0	0.20	0.19	0.051
83-32-9	Acenaphthene	U	0.19	1.0	0.20	0.19	0.060
86-73-7	Fluorene	U	0.19	1.0	0.20	0.19	0.058
85-01-8	Phenanthrene	U	0.19	1.0	0.20	0.19	0.048
120-12-7	Anthracene	U	0.19	1.0	0.20	0.19	0.042
206-44-0	Fluoranthene	U	0.19	1.0	0.20	0.19	0.069
129-00-0	Pyrene	U	0.19	1.0	0.20	0.19	0.056
56-55-3	Benzo(a)anthracene	U	0.19	1.0	0.20	0.19	0.043
218-01-9	Chrysene	U	0.19	1.0	0.20	0.19	0.034
205-99-2	Benzo(b)fluoranthene	U	0.19	1.0	0.20	0.19	0.084
207-08-9	Benzo(k)fluoranthene	U	0.19	1.0	0.20	0.19	0.046
50-32-8	Benzo(a)pyrene	U	0.19	1.0	0.20	0.19	0.062
193-39-5	Indeno(1,2,3-cd)pyrene	U	0.19	1.0	0.20	0.19	0.049
53-70-3	Dibenzo(a,h)anthracene	U	0.19	1.0	0.20	0.19	0.066
191-24-2	Benzo(g,h,i)perylene	U	0.19	1.0	0.20	0.19	0.061
123-91-1	1,4-Dioxane	U	4.7	1.0	5.0	4.7	0.027
118-74-1	Hexachlorobenzene	U	0.19	1.0	0.20	0.19	0.052
87-86-5	Pentachlorophenol	U	0.94	1.0	1.0	0.94	0.31
367-12-4	2,4-Dibromophenol		68%				
321-60-8	2-Methylnaphthalene-D10		66%				
118-79-6	Fluorene-D10		64%				
1718-51-0	Pyrene-D10		76%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 14-JUL-2009 19:05
Report Date: 07/16/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-25
Client ID: GL-GW-MW48D2-063009
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: JCG
Analysis Method: SW846 M8270C
Lab Prep Batch: WG65863
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
91-20-3	Naphthalene	U	0.20	1.0	0.20	0.20	0.065
91-57-6	2-Methylnaphthalene	U	0.20	1.0	0.20	0.20	0.078
208-96-8	Acenaphthylene	U	0.20	1.0	0.20	0.20	0.054
83-32-9	Acenaphthene	U	0.20	1.0	0.20	0.20	0.065
86-73-7	Fluorene	U	0.20	1.0	0.20	0.20	0.062
85-01-8	Phenanthrene	U	0.20	1.0	0.20	0.20	0.052
120-12-7	Anthracene	U	0.20	1.0	0.20	0.20	0.044
206-44-0	Fluoranthene	U	0.20	1.0	0.20	0.20	0.074
129-00-0	Pyrene	U	0.20	1.0	0.20	0.20	0.060
56-55-3	Benzo(a)anthracene	U	0.20	1.0	0.20	0.20	0.046
218-01-9	Chrysene	U	0.20	1.0	0.20	0.20	0.036
205-99-2	Benzo(b)fluoranthene	U	0.20	1.0	0.20	0.20	0.090
207-08-9	Benzo(k)fluoranthene	U	0.20	1.0	0.20	0.20	0.049
50-32-8	Benzo(a)pyrene	U	0.20	1.0	0.20	0.20	0.067
193-39-5	Indeno(1,2,3-cd)pyrene	U	0.20	1.0	0.20	0.20	0.052
53-70-3	Dibenzo(a,h)anthracene	U	0.20	1.0	0.20	0.20	0.071
191-24-2	Benzo(g,h,i)perylene	U	0.20	1.0	0.20	0.20	0.066
123-91-1	1,4-Dioxane	U	5.0	1.0	5.0	5.0	0.029
118-74-1	Hexachlorobenzene	U	0.20	1.0	0.20	0.20	0.056
87-86-5	Pentachlorophenol	U	1.0	1.0	1.0	1.0	0.33
367-12-4	2,4-Dibromophenol		* 20%				
321-60-8	2-Methylnaphthalene-D10		65%				
118-79-6	Fluorene-D10		67%				
1718-51-0	Pyrene-D10		81%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/14/09
Analysis Date: 15-JUL-2009 12:34
Report Date: 07/16/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-25RE
Client ID: GL-GW-MW48D2-063009
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: JCG
Analysis Method: SW846 M8270C
Lab Prep Batch: WG66167
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
91-20-3	Naphthalene	U	0.21	1.0	0.20	0.21	0.067
91-57-6	2-Methylnaphthalene	U	0.21	1.0	0.20	0.21	0.080
208-96-8	Acenaphthylene	U	0.21	1.0	0.20	0.21	0.056
83-32-9	Acenaphthene	U	0.21	1.0	0.20	0.21	0.067
86-73-7	Fluorene	U	0.21	1.0	0.20	0.21	0.064
85-01-8	Phenanthrene	U	0.21	1.0	0.20	0.21	0.053
120-12-7	Anthracene	U	0.21	1.0	0.20	0.21	0.046
206-44-0	Fluoranthene	U	0.21	1.0	0.20	0.21	0.076
129-00-0	Pyrene	U	0.21	1.0	0.20	0.21	0.061
56-55-3	Benzo(a)anthracene	U	0.21	1.0	0.20	0.21	0.048
218-01-9	Chrysene	U	0.21	1.0	0.20	0.21	0.037
205-99-2	Benzo(b)fluoranthene	U	0.21	1.0	0.20	0.21	0.093
207-08-9	Benzo(k)fluoranthene	U	0.21	1.0	0.20	0.21	0.051
50-32-8	Benzo(a)pyrene	U	0.21	1.0	0.20	0.21	0.069
193-39-5	Indeno(1,2,3-cd)pyrene	U	0.21	1.0	0.20	0.21	0.054
53-70-3	Dibenzo(a,h)anthracene	U	0.21	1.0	0.20	0.21	0.073
191-24-2	Benzo(g,h,i)perylene	U	0.21	1.0	0.20	0.21	0.068
123-91-1	1,4-Dioxane	U	5.2	1.0	5.0	5.2	0.030
118-74-1	Hexachlorobenzene	U	0.21	1.0	0.20	0.21	0.057
87-86-5	Pentachlorophenol	U	1.0	1.0	1.0	1.0	0.34
367-12-4	2,4-Dibromophenol		53%				
321-60-8	2-Methylnaphthalene-D10		61%				
118-79-6	Fluorene-D10		68%				
1718-51-0	Pyrene-D10		80%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 14-JUL-2009 19:49
Report Date: 07/16/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-27
Client ID: WGL-GW-MW39-063009
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: JCG
Analysis Method: SW846 M8270C
Lab Prep Batch: WG65863
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
91-20-3	Naphthalene	U	0.21	1.0	0.20	0.21	0.067
91-57-6	2-Methylnaphthalene	U	0.21	1.0	0.20	0.21	0.080
208-96-8	Acenaphthylene	U	0.21	1.0	0.20	0.21	0.056
83-32-9	Acenaphthene	U	0.21	1.0	0.20	0.21	0.067
86-73-7	Fluorene	U	0.21	1.0	0.20	0.21	0.064
85-01-8	Phenanthrene	U	0.21	1.0	0.20	0.21	0.053
120-12-7	Anthracene	U	0.21	1.0	0.20	0.21	0.046
206-44-0	Fluoranthene	U	0.21	1.0	0.20	0.21	0.076
129-00-0	Pyrene	U	0.21	1.0	0.20	0.21	0.061
56-55-3	Benzo(a)anthracene	U	0.21	1.0	0.20	0.21	0.048
218-01-9	Chrysene	U	0.21	1.0	0.20	0.21	0.037
205-99-2	Benzo(b)fluoranthene	U	0.21	1.0	0.20	0.21	0.093
207-08-9	Benzo(k)fluoranthene	U	0.21	1.0	0.20	0.21	0.051
50-32-8	Benzo(a)pyrene	U	0.21	1.0	0.20	0.21	0.069
193-39-5	Indeno(1,2,3-cd)pyrene	U	0.21	1.0	0.20	0.21	0.054
53-70-3	Dibenzo(a,h)anthracene	U	0.21	1.0	0.20	0.21	0.073
191-24-2	Benzo(g,h,i)perylene	U	0.21	1.0	0.20	0.21	0.068
123-91-1	1,4-Dioxane	U	5.2	1.0	5.0	5.2	0.030
118-74-1	Hexachlorobenzene	U	0.21	1.0	0.20	0.21	0.057
87-86-5	Pentachlorophenol	U	1.0	1.0	1.0	1.0	0.34
367-12-4	2,4-Dibromophenol		76%				
321-60-8	2-Methylnaphthalene-D10		58%				
118-79-6	Fluorene-D10		65%				
1718-51-0	Pyrene-D10		79%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 07/01/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 14-JUL-2009 20:32
Report Date: 07/16/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-29
Client ID: WGL-GW-FB01-070109
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: JCG
Analysis Method: SW846 M8270C
Lab Prep Batch: WG65863
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
91-20-3	Naphthalene		0.28	1.0	0.20	0.19	0.060
91-57-6	2-Methylnaphthalene	U	0.19	1.0	0.20	0.19	0.073
208-96-8	Acenaphthylene	U	0.19	1.0	0.20	0.19	0.051
83-32-9	Acenaphthene	U	0.19	1.0	0.20	0.19	0.060
86-73-7	Fluorene	U	0.19	1.0	0.20	0.19	0.058
85-01-8	Phenanthrene	U	0.19	1.0	0.20	0.19	0.048
120-12-7	Anthracene	U	0.19	1.0	0.20	0.19	0.042
206-44-0	Fluoranthene	U	0.19	1.0	0.20	0.19	0.069
129-00-0	Pyrene	U	0.19	1.0	0.20	0.19	0.056
56-55-3	Benzo(a)anthracene	U	0.19	1.0	0.20	0.19	0.043
218-01-9	Chrysene	U	0.19	1.0	0.20	0.19	0.034
205-99-2	Benzo(b)fluoranthene	U	0.19	1.0	0.20	0.19	0.084
207-08-9	Benzo(k)fluoranthene	U	0.19	1.0	0.20	0.19	0.046
50-32-8	Benzo(a)pyrene	U	0.19	1.0	0.20	0.19	0.062
193-39-5	Indeno(1,2,3-cd)pyrene	U	0.19	1.0	0.20	0.19	0.049
53-70-3	Dibenzo(a,h)anthracene	U	0.19	1.0	0.20	0.19	0.066
191-24-2	Benzo(g,h,i)perylene	U	0.19	1.0	0.20	0.19	0.061
123-91-1	1,4-Dioxane	U	4.7	1.0	5.0	4.7	0.027
118-74-1	Hexachlorobenzene	U	0.19	1.0	0.20	0.19	0.052
87-86-5	Pentachlorophenol	U	0.94	1.0	1.0	0.94	0.31
367-12-4	2,4-Dibromophenol		77%				
321-60-8	2-Methylnaphthalene-D10		66%				
118-79-6	Fluorene-D10		66%				
1718-51-0	Pyrene-D10		79%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 07/01/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 14-JUL-2009 21:16
Report Date: 07/16/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-31
Client ID: WGL-GW-RB01-070109
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: JCG
Analysis Method: SW846 M8270C
Lab Prep Batch: WG65863
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
91-20-3	Naphthalene		0.31	1.0	0.20	0.19	0.060
91-57-6	2-Methylnaphthalene	U	0.19	1.0	0.20	0.19	0.073
208-96-8	Acenaphthylene	U	0.19	1.0	0.20	0.19	0.051
83-32-9	Acenaphthene	U	0.19	1.0	0.20	0.19	0.060
86-73-7	Fluorene	U	0.19	1.0	0.20	0.19	0.058
85-01-8	Phenanthrene	U	0.19	1.0	0.20	0.19	0.048
120-12-7	Anthracene	U	0.19	1.0	0.20	0.19	0.042
206-44-0	Fluoranthene	U	0.19	1.0	0.20	0.19	0.069
129-00-0	Pyrene	U	0.19	1.0	0.20	0.19	0.056
56-55-3	Benzo(a)anthracene	U	0.19	1.0	0.20	0.19	0.043
218-01-9	Chrysene	U	0.19	1.0	0.20	0.19	0.034
205-99-2	Benzo(b)fluoranthene	U	0.19	1.0	0.20	0.19	0.084
207-08-9	Benzo(k)fluoranthene	U	0.19	1.0	0.20	0.19	0.046
50-32-8	Benzo(a)pyrene	U	0.19	1.0	0.20	0.19	0.062
193-39-5	Indeno(1,2,3-cd)pyrene	U	0.19	1.0	0.20	0.19	0.049
53-70-3	Dibenzo(a,h)anthracene	U	0.19	1.0	0.20	0.19	0.066
191-24-2	Benzo(g,h,i)perylene	U	0.19	1.0	0.20	0.19	0.061
123-91-1	1,4-Dioxane	U	4.7	1.0	5.0	4.7	0.027
118-74-1	Hexachlorobenzene	U	0.19	1.0	0.20	0.19	0.052
87-86-5	Pentachlorophenol	U	0.94	1.0	1.0	0.94	0.31
367-12-4	2,4-Dibromophenol		83%				
321-60-8	2-Methylnaphthalene-D10		66%				
118-79-6	Fluorene-D10		69%				
1718-51-0	Pyrene-D10		80%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client:
Project: CTO407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date: 07/06/09
Analysis Date: 13-JUL-2009 20:14
Report Date: 07/16/2009
Matrix: WATER
% Solids: NA

Lab ID: WG65863-1
Client ID: WG65863-Blank
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: JCG
Analysis Method: SW846 M8270C
Lab Prep Batch: WG65863
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
91-20-3	Naphthalene	U	0.20	1.0	0.20	0.20	0.064
91-57-6	2-Methylnaphthalene	U	0.20	1.0	0.20	0.20	0.077
208-96-8	Acenaphthylene	U	0.20	1.0	0.20	0.20	0.054
83-32-9	Acenaphthene	U	0.20	1.0	0.20	0.20	0.064
86-73-7	Fluorene	U	0.20	1.0	0.20	0.20	0.061
85-01-8	Phenanthrene	U	0.20	1.0	0.20	0.20	0.051
120-12-7	Anthracene	U	0.20	1.0	0.20	0.20	0.044
206-44-0	Fluoranthene	U	0.20	1.0	0.20	0.20	0.073
129-00-0	Pyrene	U	0.20	1.0	0.20	0.20	0.059
56-55-3	Benzo(a)anthracene	U	0.20	1.0	0.20	0.20	0.046
218-01-9	Chrysene	U	0.20	1.0	0.20	0.20	0.036
205-99-2	Benzo(b)fluoranthene	U	0.20	1.0	0.20	0.20	0.089
207-08-9	Benzo(k)fluoranthene	U	0.20	1.0	0.20	0.20	0.049
50-32-8	Benzo(a)pyrene	U	0.20	1.0	0.20	0.20	0.066
193-39-5	Indeno(1,2,3-cd)pyrene	U	0.20	1.0	0.20	0.20	0.052
53-70-3	Dibenzo(a,h)anthracene	U	0.20	1.0	0.20	0.20	0.070
191-24-2	Benzo(g,h,i)perylene	U	0.20	1.0	0.20	0.20	0.065
123-91-1	1,4-Dioxane	U	5.0	1.0	5.0	5.0	0.029
118-74-1	Hexachlorobenzene	U	0.20	1.0	0.20	0.20	0.055
87-86-5	Pentachlorophenol	U	1.0	1.0	1.0	1.0	0.33
367-12-4	2,4-Dibromophenol		63%				
321-60-8	2-Methylnaphthalene-D10		51%				
118-79-6	Fluorene-D10		55%				
1718-51-0	Pyrene-D10		102%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client:
Project: CTO407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date: 07/14/09
Analysis Date: 15-JUL-2009 11:10
Report Date: 07/16/2009
Matrix: WATER
% Solids: NA

Lab ID: WG66167-1
Client ID: WG66167-Blank
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: JCG
Analysis Method: SW846 M8270C
Lab Prep Batch: WG66167
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
91-20-3	Naphthalene	U	0.20	1.0	0.20	0.20	0.064
91-57-6	2-Methylnaphthalene	U	0.20	1.0	0.20	0.20	0.077
208-96-8	Acenaphthylene	U	0.20	1.0	0.20	0.20	0.054
83-32-9	Acenaphthene	U	0.20	1.0	0.20	0.20	0.064
86-73-7	Fluorene	U	0.20	1.0	0.20	0.20	0.061
85-01-8	Phenanthrene	U	0.20	1.0	0.20	0.20	0.051
120-12-7	Anthracene	U	0.20	1.0	0.20	0.20	0.044
206-44-0	Fluoranthene	U	0.20	1.0	0.20	0.20	0.073
129-00-0	Pyrene	U	0.20	1.0	0.20	0.20	0.059
56-55-3	Benzo(a)anthracene	U	0.20	1.0	0.20	0.20	0.046
218-01-9	Chrysene	U	0.20	1.0	0.20	0.20	0.036
205-99-2	Benzo(b)fluoranthene	U	0.20	1.0	0.20	0.20	0.089
207-08-9	Benzo(k)fluoranthene	U	0.20	1.0	0.20	0.20	0.049
50-32-8	Benzo(a)pyrene	U	0.20	1.0	0.20	0.20	0.066
193-39-5	Indeno(1,2,3-cd)pyrene	U	0.20	1.0	0.20	0.20	0.052
53-70-3	Dibenzo(a,h)anthracene	U	0.20	1.0	0.20	0.20	0.070
191-24-2	Benzo(g,h,i)perylene	U	0.20	1.0	0.20	0.20	0.065
123-91-1	1,4-Dioxane	U	5.0	1.0	5.0	5.0	0.029
118-74-1	Hexachlorobenzene	U	0.20	1.0	0.20	0.20	0.055
87-86-5	Pentachlorophenol	U	1.0	1.0	1.0	1.0	0.33
367-12-4	2,4-Dibromophenol		64%				
321-60-8	2-Methylnaphthalene-D10		50%				
118-79-6	Fluorene-D10		58%				
1718-51-0	Pyrene-D10		92%				

FORM 2
WATER SEMIVOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

	CLIENT SAMPLE ID	LAB SAMPLE ID	S1 #	S2 #	S3 #	S4 #	S5 #	S6 #	S7 #	S8 #	TOT OUT
01	WG65863-BLANK	WG65863-1	63	51	55	102					0
02	WG65863-LCS	WG65863-2	69	67	63	107					0
03	WGL-GW-MW101-062909	SC3624-3	73	64	62	92					0
04	WGL-GW-MW3-062909	SC3624-5	53	56	58	89					0
05	WGL-GW-MW103-062909	SC3624-7	49	63	61	88					0
06	WGL-GW-MW102-062909	SC3624-9	72	61	64	76					0
07	WGL-GW-MW2-063009	SC3624-11	50	62	65	74					0
08	WGL-GW-MW4-063009	SC3624-13	62	66	66	82					0
09	L-GW-MW38-063009	SC3624-15	66	58	59	83					0
10	L-GW-MW38-063009MS	WG65863-3	74	67	74	75					0
11	L-GW-MW38-063009MSD	WG65863-4	75	65	72	90					0
12	WGL-GW-MW40S-063009	SC3624-17	71	64	66	80					0
13	WGL-GW-DUP01-063009	SC3624-19	64	60	62	82					0
14	WGL-GW-MW48D-063009	SC3624-21	62	70	68	74					0
15	WGL-GW-DUP02-063009	SC3624-23	68	66	64	76					0
16	GL-GW-MW48D2-063009	SC3624-25	20*	65	67	81					1
17	WGL-GW-MW39-063009	SC3624-27	76	58	65	79					0
18	WGL-GW-FB01-070109	SC3624-29	77	66	66	79					0
19	WGL-GW-RB01-070109	SC3624-31	83	66	69	80					0
20	WG66167-BLANK	WG66167-1	64	50	58	92					0
21	WG66167-LCS	WG66167-2	73	66	66	80					0
22	GL-GW-MW48D2-063009	SC3624-25RE	53	61	68	80					0
23											
24											
25											
26											
27											
28											

		QC LIMITS
S1	= 2,4-Dibromophenol	(30-150)
S2	= 2-Methylnaphthalene-D1	(34-110)
S3	= Fluorene-D10	(46-122)
S4	= Pyrene-D10	(36-134)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

KATAHDIN ANALYTICAL SERVICES
LAB CONTROL SAMPLE

Client:
Project: CTO407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date: 07/06/09
Analysis Date: 07/13/09
Report Date: 07/16/2009
Matrix: WATER

Lab ID: WG65863-2
Client ID: WG65863-LCS
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: JCG
Analysis Method: SW846 M8270C
Lab Prep Batch: WG65863
Units: ug/L

COMPOUND	LCS SPIKE	SAMPLE CONC.	LCS CONC.	%REC.	QC. LIMITS
Naphthalene	2.0	NA	1.2	62	42- 91
2-Methylnaphthalene	2.0	NA	1.7	84	51-125
Acenaphthylene	2.0	NA	1.3	64	43- 99
Acenaphthene	2.0	NA	1.3	66	44- 93
Fluorene	2.0	NA	1.3	67	49-100
Phenanthrene	2.0	NA	1.6	79	57-119
Anthracene	2.0	NA	1.4	72	50-113
Fluoranthene	2.0	NA	1.8	89	60-122
Pyrene	2.0	NA	1.8	90	64-121
Benzo(a)anthracene	2.0	NA	1.8	88	48-120
Chrysene	2.0	NA	1.8	88	53-147
Benzo(b)fluoranthene	2.0	NA	1.7	83	49-104
Benzo(k)fluoranthene	2.0	NA	1.6	82	57-145
Benzo(a)pyrene	2.0	NA	1.6	81	63-113
Indeno(1,2,3-cd)pyrene	2.0	NA	1.7	83	30-140
Dibenzo(a,h)anthracene	2.0	NA	1.7	84	30-136
Benzo(g,h,i)perylene	2.0	NA	1.8	88	48-126
1,4-Dioxane	2.0	NA	0.65	32	30-150
Hexachlorobenzene	2.0	NA	1.5	75	30-150
Pentachlorophenol	4.0	NA	1.7	42	30-150

KATAHDIN ANALYTICAL SERVICES
LAB CONTROL SAMPLE

Client:
Project: CTO407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date: 07/14/09
Analysis Date: 07/15/09
Report Date: 07/16/2009
Matrix: WATER

Lab ID: WG66167-2
Client ID: WG66167-LCS
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: JCG
Analysis Method: SW846 M8270C
Lab Prep Batch: WG66167
Units: ug/L

COMPOUND	LCS SPIKE	SAMPLE CONC.	LCS CONC.	%REC.	QC. LIMITS
Naphthalene	2.0	NA	1.3	64	42- 91
2-Methylnaphthalene	2.0	NA	1.7	87	51-125
Acenaphthylene	2.0	NA	1.4	70	43- 99
Acenaphthene	2.0	NA	1.4	70	44- 93
Fluorene	2.0	NA	1.4	72	49-100
Phenanthrene	2.0	NA	1.6	80	57-119
Anthracene	2.0	NA	1.8	88	50-113
Fluoranthene	2.0	NA	1.7	85	60-122
Pyrene	2.0	NA	1.8	90	64-121
Benzo(a)anthracene	2.0	NA	1.6	80	48-120
Chrysene	2.0	NA	1.7	84	53-147
Benzo(b)fluoranthene	2.0	NA	1.6	78	49-104
Benzo(k)fluoranthene	2.0	NA	1.7	83	57-145
Benzo(a)pyrene	2.0	NA	1.6	82	63-113
Indeno(1,2,3-cd)pyrene	2.0	NA	2.1	106	30-140
Dibenzo(a,h)anthracene	2.0	NA	1.6	78	30-136
Benzo(g,h,i)perylene	2.0	NA	1.6	78	48-126
1,4-Dioxane	2.0	NA	0.62	31	30-150
Hexachlorobenzene	2.0	NA	1.2	60	30-150
Pentachlorophenol	4.0	NA	3.8	95	30-150

KATAHDIN ANALYTICAL SERVICES
MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 07/14/09
Report Date: 07/16/2009
Matrix: WATER

Lab ID: WG65863-3 & WG65863-4
Client ID: L-GW-MW38-063009MS & L-GW-MW38-063009MSD
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: JCG
Analysis Method: SW846 M8270C
Lab Prep Batch: WG65863
Units: ug/L

COMPOUND	MS SPIKE	MSD SPIKE	SAMPLE CONC.	MS CONC.	MSD CONC.	MS %REC.	MSD %REC.	%RPD	%RPD LIMIT	QC. LIMITS
Naphthalene	1.9	1.9	0.00	1.2	1.2	66	65	2	30	42- 91
2-Methylnaphthalene	1.9	1.9	0.00	1.6	1.4	87	77	12	30	51-125
Acenaphthylene	1.9	1.9	0.00	1.4	1.4	73	72	1	30	43- 99
Acenaphthene	1.9	1.9	0.00	1.4	1.4	73	72	1	30	44- 93
Fluorene	1.9	1.9	0.00	1.5	1.4	78	77	2	30	49-100
Phenanthrene	1.9	1.9	0.00	1.6	1.6	86	83	4	30	57-119
Anthracene	1.9	1.9	0.00	1.8	1.7	93	90	3	30	50-113
Fluoranthene	1.9	1.9	0.00	1.6	1.8	87	93	6	30	60-122
Pyrene	1.9	1.9	0.00	1.7	1.8	88	93	5	30	64-121
Benzo(a)anthracene	1.9	1.9	0.00	1.7	1.8	91	96	6	30	48-120
Chrysene	1.9	1.9	0.00	1.5	1.7	80	92	13	30	53-147
Benzo(b)fluoranthene	1.9	1.9	0.00	1.3	1.4	71	74	4	30	49-104
Benzo(k)fluoranthene	1.9	1.9	0.00	1.5	1.7	82	92	12	30	57-145
Benzo(a)pyrene	1.9	1.9	0.00	1.4	1.5	76	78	3	30	63-113
Indeno(1,2,3-cd)pyrene	1.9	1.9	0.00	1.3	1.2	68	66	3	30	30-140
Dibenzo(a,h)anthracene	1.9	1.9	0.00	1.4	1.4	76	75	2	30	30-136
Benzo(g,h,i)perylene	1.9	1.9	0.00	1.1	1.2	60	65	8	30	48-126
1,4-Dioxane	1.9	1.9	0.00	0.59	0.59	31	31	1	30	30-150
Hexachlorobenzene	1.9	1.9	0.00	1.3	1.2	67	66	2	30	30-150
Pentachlorophenol	3.8	3.8	0.00	3.6	4.0	97	105	9	30	30-150

 FORM III SV-1 G6369.D & G6370.D

FORM 4
SEMIVOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE ID

WG65863-BLANK

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Lab File ID: G6346 Lab Sample ID: WG65863-1

Instrument ID: GCMS-G Date Extracted: 07/06/09

Matrix: (soil/water) WATER Date Analyzed: 07/13/09

Level:(low/med) LOW Time Analyzed: 2014

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	WG65863-LCS	WG65863-2	G6347	07/13/09	2058
02	WGL-GW-MW101-062909	SC3624-3	G6348	07/13/09	2141
03	WGL-GW-MW3-062909	SC3624-5	G6349	07/13/09	2225
04	WGL-GW-MW103-062909	SC3624-7	G6364	07/14/09	1115
05	WGL-GW-MW102-062909	SC3624-9	G6365	07/14/09	1158
06	WGL-GW-MW2-063009	SC3624-11	G6366	07/14/09	1240
07	WGL-GW-MW4-063009	SC3624-13	G6367	07/14/09	1323
08	L-GW-MW38-063009	SC3624-15	G6368	07/14/09	1405
09	L-GW-MW38-063009MS	WG65863-3	G6369	07/14/09	1448
10	L-GW-MW38-063009MSD	WG65863-4	G6370	07/14/09	1531
11	WGL-GW-MW40S-063009	SC3624-17	G6371	07/14/09	1613
12	WGL-GW-DUP01-063009	SC3624-19	G6372	07/14/09	1656
13	WGL-GW-MW48D-063009	SC3624-21	G6373	07/14/09	1738
14	WGL-GW-DUP02-063009	SC3624-23	G6374	07/14/09	1822
15	GL-GW-MW48D2-063009	SC3624-25	G6375	07/14/09	1905
16	WGL-GW-MW39-063009	SC3624-27	G6376	07/14/09	1949
17	WGL-GW-FB01-070109	SC3624-29	G6377	07/14/09	2032
18	WGL-GW-RB01-070109	SC3624-31	G6378	07/14/09	2116
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

COMMENTS:

FORM IVSV

FORM 4
SEMIVOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE ID

WG66167-BLANK

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Lab File ID: G6380 Lab Sample ID: WG66167-1

Instrument ID: GCMS-G Date Extracted: 07/14/09

Matrix: (soil/water) WATER Date Analyzed: 07/15/09

Level:(low/med) LOW Time Analyzed: 1110

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	WG66167-LCS	WG66167-2	G6381	07/15/09	1152
02	GL-GW-MW48D2-063009	SC3624-25RE	G6382	07/15/09	1234
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

COMMENTS:

FORM IVSV

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Lab File ID: GD443 DFTPP Injection Date: 07/13/09

Instrument ID: GCMS-G DFTPP Injection Time: 1029

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	50.2
68	Less than 2.0% of mass 69	0.2 (0.4)1
69	Less than 100.0% of mass 198	44.4
70	Less than 2.0% of mass 69	0.3 (0.7)1
127	40.0 - 60.0% of mass 198	52.4
197	Less than 1.0% of mass 198	0.2
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.3
275	10.0 - 30.0% of mass 198	21.7
365	1.0 - 100.0% of mass 198	2.8
441	0.0 - 100.0% of mass 443	9.6 (78.4)2
442	40.0 - 100.0% of mass 198	62.9
443	17.0 - 23.0% of mass 442	12.2 (19.4)3

1-Value is % mass 69 2-Value is % mass 443
3-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		SSTD1.00G0713	G6333	07/13/09	1048
02		SSTD8.00G0713	G6334	07/13/09	1142
03		SSTD5.00G0713	G6335	07/13/09	1225
04		SSTD2.00G0713	G6336	07/13/09	1307
05		SSTD0.50G0713	G6338	07/13/09	1431
06		SSTD0.20G0713	G6339	07/13/09	1514
07	WG65863-BLANK	WG65863-1	G6346	07/13/09	2014
08	WG65863-LCS	WG65863-2	G6347	07/13/09	2058
09	WGL-GW-MW101-062909	SC3624-3	G6348	07/13/09	2141
10	WGL-GW-MW3-062909	SC3624-5	G6349	07/13/09	2225
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

FORM V SV

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Lab File ID: GD444 DFTPP Injection Date: 07/14/09

Instrument ID: GCMS-G DFTPP Injection Time: 1011

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	51.1
68	Less than 2.0% of mass 69	0.4 (0.9)1
69	Less than 100.0% of mass 198	43.7
70	Less than 2.0% of mass 69	0.1 (0.3)1
127	40.0 - 60.0% of mass 198	54.2
197	Less than 1.0% of mass 198	0.1
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.9
275	10.0 - 30.0% of mass 198	23.6
365	1.0 - 100.0% of mass 198	2.9
441	0.0 - 100.0% of mass 443	10.8 (79.9)2
442	40.0 - 100.0% of mass 198	72.5
443	17.0 - 23.0% of mass 442	13.6 (18.7)3

1-Value is % mass 69 2-Value is % mass 443
3-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		SSTD1.00G0714	G6363	07/14/09	1032
02	WGL-GW-MW103-062909	SC3624-7	G6364	07/14/09	1115
03	WGL-GW-MW102-062909	SC3624-9	G6365	07/14/09	1158
04	WGL-GW-MW2-063009	SC3624-11	G6366	07/14/09	1240
05	WGL-GW-MW4-063009	SC3624-13	G6367	07/14/09	1323
06	L-GW-MW38-063009	SC3624-15	G6368	07/14/09	1405
07	L-GW-MW38-063009MS	WG65863-3	G6369	07/14/09	1448
08	L-GW-MW38-063009MSD	WG65863-4	G6370	07/14/09	1531
09	WGL-GW-MW40S-063009	SC3624-17	G6371	07/14/09	1613
10	WGL-GW-DUP01-063009	SC3624-19	G6372	07/14/09	1656
11	WGL-GW-MW48D-063009	SC3624-21	G6373	07/14/09	1738
12	WGL-GW-DUP02-063009	SC3624-23	G6374	07/14/09	1822
13	GL-GW-MW48D2-063009	SC3624-25	G6375	07/14/09	1905
14	WGL-GW-MW39-063009	SC3624-27	G6376	07/14/09	1949
15	WGL-GW-FB01-070109	SC3624-29	G6377	07/14/09	2032
16	WGL-GW-RB01-070109	SC3624-31	G6378	07/14/09	2116
17					
18					
19					
20					

FORM V SV

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Lab File ID: GD445 DFTPP Injection Date: 07/15/09

Instrument ID: GCMS-G DFTPP Injection Time: 1008

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	47.1
68	Less than 2.0% of mass 69	0.6 (1.3)1
69	Less than 100.0% of mass 198	43.4
70	Less than 2.0% of mass 69	0.2 (0.4)1
127	40.0 - 60.0% of mass 198	51.5
197	Less than 1.0% of mass 198	0.1
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.3
275	10.0 - 30.0% of mass 198	23.9
365	1.0 - 100.0% of mass 198	2.6
441	0.0 - 100.0% of mass 443	12.0 (93.4)2
442	40.0 - 100.0% of mass 198	71.7
443	17.0 - 23.0% of mass 442	12.9 (17.9)3

1-Value is % mass 69 2-Value is % mass 443
3-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01		SSTD1.00G0715	G6379	07/15/09	1027
02	WG66167-BLANK	WG66167-1	G6380	07/15/09	1110
03	WG66167-LCS	WG66167-2	G6381	07/15/09	1152
04	GL-GW-MW48D2-063009	SC3624-25RE	G6382	07/15/09	1234
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

FORM V SV

FORM 6
SEMIVOLATILE INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project CTO407 NAS WEYMOUTH SDG No.: SC3624

Instrument ID: GCMS-G Calibration Date(s): 07/13/09 07/13/09

Column: RTX5-MS ID: 0.25 (mm) Calibration Time(s): 1048 1514

LAB FILE ID: RF0.2: G6339 RF0.5: G6338 RF1: G6333
RF2: G6336 RF5: G6335 RF8: G6334

COMPOUND	RF0.2	RF0.5	RF1	RF2	RF5	RF8	CURVE	COEFFICENTS A0	COEFFICENTS A1	%RSD OR R^2	MAX %RSD OR R^2
Naphthalene	0.865	0.817	0.901	0.811	0.751	0.737	AVRG		0.81365422	7.777	15.000
2-Methylnaphthalene	0.391	0.410	0.457	0.550	0.509	0.462	AVRG		0.46320416	12.853	15.000
Acenaphthylene	1.808	1.770	1.943	1.862	1.892	1.924	AVRG		1.86656693	3.607	15.000
Acenaphthene	1.368	1.176	1.367	1.179	1.173	1.231	AVRG		1.24904435	7.550	15.000
Fluorene	1.260	1.268	1.421	1.244	1.277	1.292	AVRG		1.29371848	4.962	15.000
Phenanthrene	0.928	0.993	1.079	1.150	1.020	1.071	AVRG		1.04014693	7.419	15.000
Anthracene	1.168	1.189	1.134	1.034	0.961	0.966	AVRG		1.07530781	9.442	15.000
Fluoranthene	0.980	0.989	1.050	1.063	1.032	1.085	AVRG		1.03352002	4.012	15.000
Pyrene	1.517	1.611	1.478	1.366	1.264	1.217	AVRG		1.40883029	10.858	15.000
Benzo(a)anthracene	0.696	0.769	0.866	0.841	0.915	0.903	AVRG		0.83170868	10.137	15.000
Chrysene	5144	16282	31842	53951	164180	241560	LINR	-0.1989069	0.99607496	0.99864	0.99000
Benzo(b)fluoranthene	0.987	0.988	0.954	0.979	1.076	1.091	AVRG		1.01269400	5.580	15.000
Benzo(k)fluoranthene	1.501	1.438	1.349	1.231	1.183	1.157	AVRG		1.30978441	10.820	15.000
Benzo(a)pyrene	1.119	1.019	0.980	0.926	0.947	0.956	AVRG		0.99117820	7.069	15.000
Indeno(1,2,3-cd)pyrene	0.674	0.652	0.719	0.712	0.708	0.720	AVRG		0.69770922	3.996	15.000
Dibenzo(a,h)anthracene	0.720	0.698	0.740	0.694	0.703	0.699	AVRG		0.70920996	2.492	15.000
Benzo(g,h,i)perylene	0.872	0.958	0.922	0.885	0.876	0.878	AVRG		0.89843812	3.819	15.000
1,4-Dioxane	0.442	0.351	0.393	0.389	0.414	0.433	AVRG		0.40354674	8.283	15.000
Hexachlorobenzene	0.324	0.445	0.425	0.378	0.354	0.340	AVRG		0.37761098	12.758	15.000
Pentachlorophenol	0.107	0.113	0.138	0.126	0.120	0.143	AVRG		0.12462471	11.176	15.000
2,4-Dibromophenol	826	2559	6169	12424	40631	65338	LINR	0.21729845	1.94700466	0.99767	0.99000
2-Methylnaphthalene-D10	1.010	0.983	1.202	1.052	1.140	1.132	AVRG		1.08650559	7.836	15.000
Fluorene-D10	1.089	1.088	1.092	0.989	1.069	1.038	AVRG		1.06094677	3.824	15.000
Pyrene-D10	0.903	0.958	0.914	0.880	0.848	0.893	AVRG		0.89943168	4.053	15.000

Average %RSD test result.

Calculate Average %RSD: 7.287426472
Maximum Average %RSD: 15.00000000

Note: Passes Average %RSD Test.

FORM VI SV

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Instrument ID: GCMS-G Calibration Date: 07/14/09 Time: 1032

Lab File ID: G6363 Init. Calib. Date(s): 07/13/09 07/13/09

Init. Calib. Times: 1048 1514

GC Column: RTX5-MS ID: 0.25 (mm)

COMPOUND	RRF or AMOUNT	RRF1.0000 or AMOUNT	CCAL RRF1.0000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
Naphthalene	0.8140000	0.8214000	0.8214000	0.01	0.91	100.00	AVRG	
2-Methylnaphthalene	0.4630000	0.4852000	0.4852000	0.01	4.79	100.00	AVRG	
Acenaphthylene	1.8660000	1.9073000	1.9073000	0.01	2.21	100.00	AVRG	
Acenaphthene	1.2490000	1.2932000	1.2932000	0.01	3.54	20.00	AVRG	
Fluorene	1.2940000	1.3894000	1.3894000	0.01	7.37	100.00	AVRG	
Phenanthrene	1.0400000	1.0417000	1.0417000	0.01	0.16	100.00	AVRG	
Anthracene	1.0750000	1.1533000	1.1533000	0.01	7.28	100.00	AVRG	
Fluoranthene	1.0330000	1.1256000	1.1256000	0.01	8.96	20.00	AVRG	
Pyrene	1.4090000	1.3085000	1.3085000	0.01	-7.13	100.00	AVRG	
Benzo(a)anthracene	0.8320000	0.9151900	0.9151900	0.01	10.0	100.00	AVRG	
Chrysene	0.9244000	1.0000000	1.0878000	0.01	-7.56	100.00	LINR	
Benzo(b)fluoranthene	1.0120000	0.8791800	0.8791800	0.01	-13.12	100.00	AVRG	
Benzo(k)fluoranthene	1.3100000	1.3516000	1.3516000	0.01	3.18	100.00	AVRG	
Benzo(a)pyrene	0.9910000	0.9506100	0.9506100	0.01	-4.08	20.00	AVRG	
Indeno(1,2,3-cd)pyrene	0.6980000	0.7098500	0.7098500	0.01	1.70	100.00	AVRG	
Dibenzo(a,h)anthracene	0.7090000	0.7739100	0.7739100	0.01	9.16	100.00	AVRG	
Benzo(g,h,i)perylene	0.8980000	0.9165900	0.9165900	0.01	2.07	100.00	AVRG	
1,4-Dioxane	0.4040000	0.3719700	0.3719700	0.01	-7.93	100.00	AVRG	
Hexachlorobenzene	0.3780000	0.3172600	0.3172600	0.01	-16.07	100.00	AVRG	
Pentachlorophenol	0.1240000	0.1756300	0.1756300	0.01	41.64	20.00	AVRG	<-
2,4-Dibromophenol	0.9859700	1.0000000	0.4171200	0.01	-1.40	100.00	LINR	
2-Methylnaphthalene-D10	1.0860000	1.0657000	1.0657000	0.01	-1.87	100.00	AVRG	
Fluorene-D10	1.0610000	1.0829000	1.0829000	0.01	2.06	100.00	AVRG	
Pyrene-D10	0.8990000	0.7519400	0.7519400	0.01	-16.36	100.00	AVRG	

FORM VII PEST

FORM 7B
SEMIVOLATILE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CT0407 NAS WEYMOUTH SDG No.: SC3624

Instrument ID: GCMS-G Calibration Date: 07/15/09 Time: 1027

Lab File ID: G6379 Init. Calib. Date(s): 07/13/09 07/13/09

Init. Calib. Times: 1048 1514

GC Column: RTX5-MS ID: 0.25 (mm)

COMPOUND	RRF or AMOUNT	RRF1.0000 or AMOUNT	CCAL RRF1.0000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
Naphthalene	0.8140000	0.8125800	0.8125800	0.01	-0.17	100.00	AVRG
2-Methylnaphthalene	0.4630000	0.4524500	0.4524500	0.01	-2.28	100.00	AVRG
Acenaphthylene	1.8660000	1.7948000	1.7948000	0.01	-3.82	100.00	AVRG
Acenaphthene	1.2490000	1.2281000	1.2281000	0.01	-1.67	20.00	AVRG
Fluorene	1.2940000	1.2677000	1.2677000	0.01	-2.03	100.00	AVRG
Phenanthrene	1.0400000	1.0367000	1.0367000	0.01	-0.32	100.00	AVRG
Anthracene	1.0750000	1.2004000	1.2004000	0.01	11.66	100.00	AVRG
Fluoranthene	1.0330000	0.9749000	0.9749000	0.01	-5.62	20.00	AVRG
Pyrene	1.4090000	1.6018000	1.6018000	0.01	13.68	100.00	AVRG
Benzo(a)anthracene	0.8320000	0.8558500	0.8558500	0.01	2.87	100.00	AVRG
Chrysene	0.9862200	1.0000000	1.1498000	0.01	-1.38	100.00	LINR
Benzo(b)fluoranthene	1.0120000	0.8542100	0.8542100	0.01	-15.59	100.00	AVRG
Benzo(k)fluoranthene	1.3100000	1.2892000	1.2892000	0.01	-1.59	100.00	AVRG
Benzo(a)pyrene	0.9910000	0.8711600	0.8711600	0.01	-12.09	20.00	AVRG
Indeno(1,2,3-cd)pyrene	0.6980000	0.5148500	0.5148500	0.01	-26.24	100.00	AVRG
Dibenzo(a,h)anthracene	0.7090000	0.5862200	0.5862200	0.01	-17.32	100.00	AVRG
Benzo(g,h,i)perylene	0.8980000	0.7250600	0.7250600	0.01	-19.26	100.00	AVRG
1,4-Dioxane	0.4040000	0.4199800	0.4199800	0.01	3.96	100.00	AVRG
Hexachlorobenzene	0.3780000	0.2940400	0.2940400	0.01	-22.21	100.00	AVRG
Pentachlorophenol	0.1240000	0.1716900	0.1716900	0.01	38.46	20.00	AVRG
2,4-Dibromophenol	1.0171000	1.0000000	0.4331300	0.01	1.71	100.00	LINR
2-Methylnaphthalene-D10	1.0860000	1.0186000	1.0186000	0.01	-6.21	100.00	AVRG
Fluorene-D10	1.0610000	0.9762100	0.9762100	0.01	-7.99	100.00	AVRG
Pyrene-D10	0.8990000	0.7984600	0.7984600	0.01	-11.18	100.00	AVRG

FORM VII PEST

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CT0407 NAS WEYMOUTH SDG No.: SC3624

Lab File ID (Standard): G6333 Date Analyzed: 07/13/09

Instrument ID: GCMS-G Time Analyzed: 1048

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
12 HOUR STD		12528	8.59	38474	11.41	15133	15.54
UPPER LIMIT		25056	9.13	76948	11.95	30266	16.08
LOWER LIMIT		6264	8.05	19237	10.87	7567	15.00
	CLIENT SAMPLE ID	LAB SAMPLE ID					
01	WG65863-BLANK	WG65863-1	11110	8.60	35439	11.41	15742	15.55
02	WG65863-LCS	WG65863-2	11932	8.59	36829	11.41	16171	15.53
03	WGL-GW-MW101-062909	SC3624-3	11226	8.60	33251	11.41	14960	15.54
04	WGL-GW-MW3-062909	SC3624-5	12284	8.60	37925	11.41	16654	15.55
05								
06								
07								
08								
09								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

IS1 (DCB) = 1,4-Dichlorobenzene-D4
IS2 (NPT) = Naphthalene-D8
IS3 (ANT) = Acenaphthene-D10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.54 minutes of internal standard RT
RT LOWER LIMIT = - 0.54 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM VIII SV

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CT0407 NAS WEYMOUTH SDG No.: SC3624

Lab File ID (Standard): G6333 Date Analyzed: 07/13/09

Instrument ID: GCMS-G Time Analyzed: 1048

	IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
12 HOUR STD	25282	19.09	19.668	25.40	18141	28.57
UPPER LIMIT	50564	19.63	39336	25.94	36282	29.11
LOWER LIMIT	12641	18.55	9834	24.86	9071	28.03

	CLIENT SAMPLE ID	LAB SAMPLE ID						
01	WG65863-BLANK	WG65863-1	23438	19.12	17706	25.42	15238	28.57
02	WG65863-LCS	WG65863-2	26191	19.09	19050	25.40	16409	28.57
03	WGL-GW-MW101-062909	SC3624-3	24053	19.09	18930	25.40	17346	28.55
04	WGL-GW-MW3-062909	SC3624-5	25375	19.12	21072	25.40	17813	28.57
05								
06								
07								
08								
09								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

IS4 (PHN) = Phenanthrene-D10
IS5 (CRY) = Chrysene-D12
IS6 (PRY) = Perylene-D12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.54 minutes of internal standard RT
RT LOWER LIMIT = - 0.54 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM VIII SV

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Lab File ID (Standard): G6363 Date Analyzed: 07/14/09

Instrument ID: GCMS-G Time Analyzed: 1032

	IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
12 HOUR STD	11287	8.59	34587	11.39	14566	15.54
UPPER LIMIT	22574	9.13	69174	11.93	29132	16.08
LOWER LIMIT	5644	8.05	17294	10.85	7283	15.00

	CLIENT SAMPLE ID	LAB SAMPLE ID						
01	WGL-GW-MW103-062909	SC3624-7	10494	8.59	30068	11.41	13234	15.53
02	WGL-GW-MW102-062909	SC3624-9	12096	8.59	37328	11.41	16568	15.54
03	WGL-GW-MW2-063009	SC3624-11	11747	8.59	38409	11.39	15619	15.54
04	WGL-GW-MW4-063009	SC3624-13	10193	8.59	29294	11.41	12934	15.55
05	L-GW-MW38-063009	SC3624-15	12022	8.59	38200	11.39	16920	15.53
06	L-GW-MW38-063009MS	WG65863-3	11498	8.59	35453	11.39	15313	15.53
07	L-GW-MW38-063009MSD	WG65863-4	11188	8.59	36312	11.39	14999	15.53
08	WGL-GW-MW40S-063009	SC3624-17	10724	8.59	33625	11.41	15067	15.53
09	WGL-GW-DUP01-063009	SC3624-19	12631	8.59	38153	11.41	16758	15.54
10	WGL-GW-MW48D-063009	SC3624-21	13553	8.59	41450	11.41	17339	15.53
11	WGL-GW-DUP02-063009	SC3624-23	11853	8.59	37404	11.41	16090	15.54
12	GL-GW-MW48D2-063009	SC3624-25	11898	8.59	38669	11.39	15584	15.53
13	WGL-GW-MW39-063009	SC3624-27	11370	8.59	33079	11.41	15063	15.53
14	WGL-GW-FB01-070109	SC3624-29	12406	8.59	35549	11.39	16217	15.53
15	WGL-GW-RB01-070109	SC3624-31	13367	8.59	39465	11.39	18887	15.53
16								
17								
18								
19								
20								

IS1 (DCB) = 1,4-Dichlorobenzene-D4
IS2 (NPT) = Naphthalene-D8
IS3 (ANT) = Acenaphthene-D10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.54 minutes of internal standard RT
RT LOWER LIMIT = - 0.54 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM VIII SV

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Lab File ID (Standard): G6363 Date Analyzed: 07/14/09

Instrument ID: GCMS-G Time Analyzed: 1032

	IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
12 HOUR STD	24661	19.09	24134	25.40	22904	28.56
UPPER LIMIT	49322	19.63	48268	25.94	45808	29.10
LOWER LIMIT	12331	18.55	12067	24.86	11452	28.02

	CLIENT SAMPLE ID	LAB SAMPLE ID						
01	WGL-GW-MW103-062909	SC3624-7	21599	19.09	16076	25.40	14589	28.56
02	WGL-GW-MW102-062909	SC3624-9	28591	19.09	24679	25.40	23801	28.56
03	WGL-GW-MW2-063009	SC3624-11	26405	19.09	23384	25.40	21810	28.56
04	WGL-GW-MW4-063009	SC3624-13	20913	19.09	16666	25.40	15113	28.56
05	L-GW-MW38-063009	SC3624-15	27759	19.09	21353	25.40	19406	28.55
06	L-GW-MW38-063009MS	WG65863-3	23576	19.09	22435	25.38	20502	28.55
07	L-GW-MW38-063009MSD	WG65863-4	24419	19.09	20812	25.41	19624	28.56
08	WGL-GW-MW40S-063009	SC3624-17	23831	19.09	20884	25.40	18992	28.55
09	WGL-GW-DUP01-063009	SC3624-19	27810	19.09	23504	25.40	22550	28.56
10	WGL-GW-MW48D-063009	SC3624-21	27921	19.09	24310	25.40	22334	28.55
11	WGL-GW-DUP02-063009	SC3624-23	26116	19.09	21898	25.40	20880	28.56
12	GL-GW-MW48D2-063009	SC3624-25	27103	19.09	22164	25.40	20912	28.55
13	WGL-GW-MW39-063009	SC3624-27	24069	19.09	20538	25.40	20372	28.56
14	WGL-GW-FB01-070109	SC3624-29	26338	19.09	22184	25.41	21075	28.58
15	WGL-GW-RB01-070109	SC3624-31	30748	19.09	26660	25.42	23884	28.58
16								
17								
18								
19								
20								

IS4 (PHN) = Phenanthrene-D10
IS5 (CRY) = Chrysene-D12
IS6 (PRY) = Perylene-D12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.54 minutes of internal standard RT
RT LOWER LIMIT = - 0.54 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM VIII SV

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Lab File ID (Standard): G6379 Date Analyzed: 07/15/09

Instrument ID: GCMS-G Time Analyzed: 1027

	IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
12 HOUR STD	14898	8.59	49335	11.39	19944	15.54
UPPER LIMIT	29796	9.13	98670	11.93	39888	16.08
LOWER LIMIT	7449	8.05	24668	10.85	9972	15.00

	CLIENT SAMPLE ID	LAB SAMPLE ID						
01	WG66167-BLANK	WG66167-1	13151	8.59	41388	11.41	18841	15.53
02	WG66167-LCS	WG66167-2	12772	8.59	43350	11.39	17332	15.53
03	GL-GW-MW48D2-063009	SC3624-25RE	13983	8.59	46758	11.39	18183	15.53
04								
05								
06								
07								
08								
09								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

IS1 (DCB) = 1,4-Dichlorobenzene-D4
IS2 (NPT) = Naphthalene-D8
IS3 (ANT) = Acenaphthene-D10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.54 minutes of internal standard RT
RT LOWER LIMIT = - 0.54 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM VIII SV

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Lab File ID (Standard): G6379 Date Analyzed: 07/15/09

Instrument ID: GCMS-G Time Analyzed: 1027

	IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
12 HOUR STD	28867	19.09	22919	25.39	19302	28.56
UPPER LIMIT	57734	19.63	45838	25.93	38604	29.10
LOWER LIMIT	14434	18.55	11460	24.85	9651	28.02

	CLIENT SAMPLE ID	LAB SAMPLE ID						
01	WG66167-BLANK	WG66167-1	29663	19.09	21657	25.40	18511	28.56
02	WG66167-LCS	WG66167-2	26252	19.09	23206	25.39	18546	28.56
03	GL-GW-MW48D2-063009	SC3624-25RE	27002	19.09	22173	25.40	17925	28.56
04								
05								
06								
07								
08								
09								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

IS4 (PHN) = Phenanthrene-D10
IS5 (CRY) = Chrysene-D12
IS6 (PRY) = Perylene-D12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.54 minutes of internal standard RT
RT LOWER LIMIT = - 0.54 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

FORM VIII SV

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** WGL-GW-MW101-062909

Matrix: WATER **SDG Name:** SC3624

Percent Solids: 0.00 **Lab Sample ID:** SC3624-002

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted IDL
7429-90-5	ALUMINUM, TOTAL	204	B		P	1	300	12.50
7440-36-0	ANTIMONY, TOTAL	0.80	B		MS	5	1.0	0.15
7440-38-2	ARSENIC, TOTAL	1.7	B		MS	5	5.0	1.50
7440-39-3	BARIUM, TOTAL	330			P	1	5.0	0.35
7440-41-7	BERYLLIUM, TOTAL	0.05	U		MS	5	1.0	0.05
7440-43-9	CADMIUM, TOTAL	0.05	U		MS	5	1.0	0.05
7440-70-2	CALCIUM, TOTAL	47500			P	1	50	6.84
7440-47-3	CHROMIUM, TOTAL	1.6	B		P	1	15	0.44
7440-48-4	COBALT, TOTAL	0.27	U		P	1	30	0.27
7440-50-8	COPPER, TOTAL	0.70	U		P	1	25	0.70
7439-89-6	IRON, TOTAL	10.4	B		P	1	100	5.17
7439-92-1	LEAD, TOTAL	1.1	B		P	1	5.0	1.02
7439-95-4	MAGNESIUM, TOTAL	5870			P	1	50	9.39
7439-96-5	MANGANESE, TOTAL	15.1			P	1	5.0	0.67
7439-97-6	MERCURY, TOTAL	0.04	B		CV	1	0.20	0.02
7440-02-0	NICKEL, TOTAL	0.24	U		P	1	40	0.24
7440-09-7	POTASSIUM, TOTAL	20600			P	1	1000	95.00
7782-49-2	SELENIUM, TOTAL	3.03	U		P	1	10	3.03
7440-22-4	SILVER, TOTAL	0.79	U		P	1	15	0.79
7440-23-5	SODIUM, TOTAL	53400			P	1	1000	21.70
7440-28-0	THALLIUM, TOTAL	0.10	U		MS	5	2.0	0.10
7440-62-2	VANADIUM, TOTAL	6.8	B		P	1	25	5.12
7440-66-6	ZINC, TOTAL	1.73	U		P	1	25	1.73

Bottle ID: E

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** WGL-GW-MW3-062909

Matrix: WATER **SDG Name:** SC3624

Percent Solids: 0.00 **Lab Sample ID:** SC3624-004

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted IDL
7429-90-5	ALUMINUM, TOTAL	47.3	B		P	1	300	12.50
7440-36-0	ANTIMONY, TOTAL	0.15	U		MS	5	1.0	0.15
7440-38-2	ARSENIC, TOTAL	1.50	U		MS	5	5.0	1.50
7440-39-3	BARIUM, TOTAL	32.9			P	1	5.0	0.35
7440-41-7	BERYLLIUM, TOTAL	0.11	B		MS	5	1.0	0.05
7440-43-9	CADMIUM, TOTAL	0.08	B		MS	5	1.0	0.05
7440-70-2	CALCIUM, TOTAL	13200			P	1	50	6.84
7440-47-3	CHROMIUM, TOTAL	3.3	B		P	1	15	0.44
7440-48-4	COBALT, TOTAL	0.27	U		P	1	30	0.27
7440-50-8	COPPER, TOTAL	0.70	U		P	1	25	0.70
7439-89-6	IRON, TOTAL	44.2	B		P	1	100	5.17
7439-92-1	LEAD, TOTAL	1.0	B		P	1	5.0	1.02
7439-95-4	MAGNESIUM, TOTAL	2660			P	1	50	9.39
7439-96-5	MANGANESE, TOTAL	9.9			P	1	5.0	0.67
7439-97-6	MERCURY, TOTAL	0.04	B		CV	1	0.20	0.02
7440-02-0	NICKEL, TOTAL	0.62	B		P	1	40	0.24
7440-09-7	POTASSIUM, TOTAL	3960			P	1	1000	95.00
7782-49-2	SELENIUM, TOTAL	3.03	U		P	1	10	3.03
7440-22-4	SILVER, TOTAL	0.79	U		P	1	15	0.79
7440-23-5	SODIUM, TOTAL	76300			P	1	1000	21.70
7440-28-0	THALLIUM, TOTAL	0.10	U		MS	5	2.0	0.10
7440-62-2	VANADIUM, TOTAL	5.12	U		P	1	25	5.12
7440-66-6	ZINC, TOTAL	3.2	B		P	1	25	1.73

Bottle ID: E

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** WGL-GW-MW103-062909

Matrix: WATER **SDG Name:** SC3624

Percent Solids: 0.00 **Lab Sample ID:** SC3624-006

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted IDL
7429-90-5	ALUMINUM, TOTAL	141	B		P	1	300	12.50
7440-36-0	ANTIMONY, TOTAL	0.15	U		MS	5	1.0	0.15
7440-38-2	ARSENIC, TOTAL	2.1	B		MS	5	5.0	1.50
7440-39-3	BARIUM, TOTAL	135			P	1	5.0	0.35
7440-41-7	BERYLLIUM, TOTAL	0.05	U		MS	5	1.0	0.05
7440-43-9	CADMIUM, TOTAL	0.05	U		MS	5	1.0	0.05
7440-70-2	CALCIUM, TOTAL	47800			P	1	50	6.84
7440-47-3	CHROMIUM, TOTAL	0.52	B		P	1	15	0.44
7440-48-4	COBALT, TOTAL	0.27	U		P	1	30	0.27
7440-50-8	COPPER, TOTAL	0.70	U		P	1	25	0.70
7439-89-6	IRON, TOTAL	54.6	B		P	1	100	5.17
7439-92-1	LEAD, TOTAL	1.02	U		P	1	5.0	1.02
7439-95-4	MAGNESIUM, TOTAL	9780			P	1	50	9.39
7439-96-5	MANGANESE, TOTAL	662			P	1	5.0	0.67
7439-97-6	MERCURY, TOTAL	0.04	B		CV	1	0.20	0.02
7440-02-0	NICKEL, TOTAL	2.0	B		P	1	40	0.24
7440-09-7	POTASSIUM, TOTAL	5380			P	1	1000	95.00
7782-49-2	SELENIUM, TOTAL	3.03	U		P	1	10	3.03
7440-22-4	SILVER, TOTAL	0.79	U		P	1	15	0.79
7440-23-5	SODIUM, TOTAL	45800			P	1	1000	21.70
7440-28-0	THALLIUM, TOTAL	0.10	U		MS	5	2.0	0.10
7440-62-2	VANADIUM, TOTAL	5.12	U		P	1	25	5.12
7440-66-6	ZINC, TOTAL	1.73	U		P	1	25	1.73

Bottle ID: E

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** WGL-GW-MW102-062909

Matrix: WATER **SDG Name:** SC3624

Percent Solids: 0.00 **Lab Sample ID:** SC3624-008

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted IDL
7429-90-5	ALUMINUM, TOTAL	82.7	B		P	1	300	12.50
7440-36-0	ANTIMONY, TOTAL	0.54	B		MS	5	1.0	0.15
7440-38-2	ARSENIC, TOTAL	1.9	B		MS	5	5.0	1.50
7440-39-3	BARIUM, TOTAL	189			P	1	5.0	0.35
7440-41-7	BERYLLIUM, TOTAL	0.12	B		MS	5	1.0	0.05
7440-43-9	CADMIUM, TOTAL	0.1	B		MS	5	1.0	0.05
7440-70-2	CALCIUM, TOTAL	37000			P	1	50	6.84
7440-47-3	CHROMIUM, TOTAL	0.46	B		P	1	15	0.44
7440-48-4	COBALT, TOTAL	0.27	U		P	1	30	0.27
7440-50-8	COPPER, TOTAL	0.95	B		P	1	25	0.70
7439-89-6	IRON, TOTAL	12.6	B		P	1	100	5.17
7439-92-1	LEAD, TOTAL	1.5	B		P	1	5.0	1.02
7439-95-4	MAGNESIUM, TOTAL	8000			P	1	50	9.39
7439-96-5	MANGANESE, TOTAL	64.3			P	1	5.0	0.67
7439-97-6	MERCURY, TOTAL	0.05	B		CV	1	0.20	0.02
7440-02-0	NICKEL, TOTAL	0.24	U		P	1	40	0.24
7440-09-7	POTASSIUM, TOTAL	5330			P	1	1000	95.00
7782-49-2	SELENIUM, TOTAL	3.03	U		P	1	10	3.03
7440-22-4	SILVER, TOTAL	0.79	U		P	1	15	0.79
7440-23-5	SODIUM, TOTAL	27700			P	1	1000	21.70
7440-28-0	THALLIUM, TOTAL	0.37	B		MS	5	2.0	0.10
7440-62-2	VANADIUM, TOTAL	5.12	U		P	1	25	5.12
7440-66-6	ZINC, TOTAL	1.73	U		P	1	25	1.73

Bottle ID: E

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** WGL-GW-MW2-063009

Matrix: WATER **SDG Name:** SC3624

Percent Solids: 0.00 **Lab Sample ID:** SC3624-010

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted IDL
7429-90-5	ALUMINUM, TOTAL	108	B		P	1	300	12.50
7440-36-0	ANTIMONY, TOTAL	0.17	B		MS	5	1.0	0.15
7440-38-2	ARSENIC, TOTAL	2.1	B		MS	5	5.0	1.50
7440-39-3	BARIUM, TOTAL	94.6			P	1	5.0	0.35
7440-41-7	BERYLLIUM, TOTAL	0.23	B		MS	5	1.0	0.05
7440-43-9	CADMIUM, TOTAL	0.45	B		MS	5	1.0	0.05
7440-70-2	CALCIUM, TOTAL	23900			P	1	50	6.84
7440-47-3	CHROMIUM, TOTAL	0.44	U		P	1	15	0.44
7440-48-4	COBALT, TOTAL	0.27	U		P	1	30	0.27
7440-50-8	COPPER, TOTAL	0.70	U		P	1	25	0.70
7439-89-6	IRON, TOTAL	78.2	B		P	1	100	5.17
7439-92-1	LEAD, TOTAL	1.02	U		P	1	5.0	1.02
7439-95-4	MAGNESIUM, TOTAL	4860			P	1	50	9.39
7439-96-5	MANGANESE, TOTAL	481			P	1	5.0	0.67
7439-97-6	MERCURY, TOTAL	0.06	B		CV	1	0.20	0.02
7440-02-0	NICKEL, TOTAL	2.0	B		P	1	40	0.24
7440-09-7	POTASSIUM, TOTAL	5030			P	1	1000	95.00
7782-49-2	SELENIUM, TOTAL	3.03	U		P	1	10	3.03
7440-22-4	SILVER, TOTAL	0.79	U		P	1	15	0.79
7440-23-5	SODIUM, TOTAL	172000			P	1	1000	21.70
7440-28-0	THALLIUM, TOTAL	0.10	U		MS	5	2.0	0.10
7440-62-2	VANADIUM, TOTAL	5.12	U		P	1	25	5.12
7440-66-6	ZINC, TOTAL	9.7	B		P	1	25	1.73

Bottle ID: E

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** WGL-GW-MW4-063009

Matrix: WATER **SDG Name:** SC3624

Percent Solids: 0.00 **Lab Sample ID:** SC3624-012

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted IDL
7429-90-5	ALUMINUM, TOTAL	679			P	1	300	12.50
7440-36-0	ANTIMONY, TOTAL	0.33	B		MS	5	1.0	0.15
7440-38-2	ARSENIC, TOTAL	3.8	B		MS	5	5.0	1.50
7440-39-3	BARIUM, TOTAL	25.8			P	1	5.0	0.35
7440-41-7	BERYLLIUM, TOTAL	0.28	B		MS	5	1.0	0.05
7440-43-9	CADMIUM, TOTAL	0.22	B		MS	5	1.0	0.05
7440-70-2	CALCIUM, TOTAL	13000			P	1	50	6.84
7440-47-3	CHROMIUM, TOTAL	3.1	B		P	1	15	0.44
7440-48-4	COBALT, TOTAL	2.4	B		P	1	30	0.27
7440-50-8	COPPER, TOTAL	7.0	B		P	1	25	0.70
7439-89-6	IRON, TOTAL	4220			P	1	100	5.17
7439-92-1	LEAD, TOTAL	2.6	B		P	1	5.0	1.02
7439-95-4	MAGNESIUM, TOTAL	2640			P	1	50	9.39
7439-96-5	MANGANESE, TOTAL	41.0			P	1	5.0	0.67
7439-97-6	MERCURY, TOTAL	0.03	B		CV	1	0.20	0.02
7440-02-0	NICKEL, TOTAL	2.4	B		P	1	40	0.24
7440-09-7	POTASSIUM, TOTAL	2820			P	1	1000	95.00
7782-49-2	SELENIUM, TOTAL	3.03	U		P	1	10	3.03
7440-22-4	SILVER, TOTAL	0.79	U		P	1	15	0.79
7440-23-5	SODIUM, TOTAL	56800			P	1	1000	21.70
7440-28-0	THALLIUM, TOTAL	0.38	B		MS	5	2.0	0.10
7440-62-2	VANADIUM, TOTAL	14.6	B		P	1	25	5.12
7440-66-6	ZINC, TOTAL	22.7	B		P	1	25	1.73

Bottle ID: E

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** WGL-GW-MW38-063009

Matrix: WATER **SDG Name:** SC3624

Percent Solids: 0.00 **Lab Sample ID:** SC3624-014

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted IDL
7429-90-5	ALUMINUM, TOTAL	60.7	B		P	1	300	12.50
7440-36-0	ANTIMONY, TOTAL	0.17	B		MS	5	1.0	0.15
7440-38-2	ARSENIC, TOTAL	1.8	B		MS	5	5.0	1.50
7440-39-3	BARIUM, TOTAL	50.9			P	1	5.0	0.35
7440-41-7	BERYLLIUM, TOTAL	0.44	B		MS	5	1.0	0.05
7440-43-9	CADMIUM, TOTAL	0.20	B		MS	5	1.0	0.05
7440-70-2	CALCIUM, TOTAL	6150			P	1	50	6.84
7440-47-3	CHROMIUM, TOTAL	0.44	U		P	1	15	0.44
7440-48-4	COBALT, TOTAL	1.9	B		P	1	30	0.27
7440-50-8	COPPER, TOTAL	0.70	U		P	1	25	0.70
7439-89-6	IRON, TOTAL	14.7	B		P	1	100	5.17
7439-92-1	LEAD, TOTAL	1.02	U		P	1	5.0	1.02
7439-95-4	MAGNESIUM, TOTAL	1200			P	1	50	9.39
7439-96-5	MANGANESE, TOTAL	117			P	1	5.0	0.67
7439-97-6	MERCURY, TOTAL	0.04	B		CV	1	0.20	0.02
7440-02-0	NICKEL, TOTAL	2.1	B		P	1	40	0.24
7440-09-7	POTASSIUM, TOTAL	1130			P	1	1000	95.00
7782-49-2	SELENIUM, TOTAL	3.03	U		P	1	10	3.03
7440-22-4	SILVER, TOTAL	0.79	U		P	1	15	0.79
7440-23-5	SODIUM, TOTAL	34400			P	1	1000	21.70
7440-28-0	THALLIUM, TOTAL	0.10	U		MS	5	2.0	0.10
7440-62-2	VANADIUM, TOTAL	5.12	U		P	1	25	5.12
7440-66-6	ZINC, TOTAL	28.6			P	1	25	1.73

Bottle ID: M

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** WGL-GW-MW40S-063009

Matrix: WATER **SDG Name:** SC3624

Percent Solids: 0.00 **Lab Sample ID:** SC3624-016

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted IDL
7429-90-5	ALUMINUM, TOTAL	213	B		P	1	300	12.50
7440-36-0	ANTIMONY, TOTAL	0.18	B		MS	5	1.0	0.15
7440-38-2	ARSENIC, TOTAL	1.50	U		MS	5	5.0	1.50
7440-39-3	BARIUM, TOTAL	73.7			P	1	5.0	0.35
7440-41-7	BERYLLIUM, TOTAL	0.55	B		MS	5	1.0	0.05
7440-43-9	CADMIUM, TOTAL	0.37	B		MS	5	1.0	0.05
7440-70-2	CALCIUM, TOTAL	17600			P	1	50	6.84
7440-47-3	CHROMIUM, TOTAL	1.8	B		P	1	15	0.44
7440-48-4	COBALT, TOTAL	3.0	B		P	1	30	0.27
7440-50-8	COPPER, TOTAL	12.1	B		P	1	25	0.70
7439-89-6	IRON, TOTAL	436			P	1	100	5.17
7439-92-1	LEAD, TOTAL	1.02	U		P	1	5.0	1.02
7439-95-4	MAGNESIUM, TOTAL	3260			P	1	50	9.39
7439-96-5	MANGANESE, TOTAL	168			P	1	5.0	0.67
7439-97-6	MERCURY, TOTAL	0.08	B		CV	1	0.20	0.02
7440-02-0	NICKEL, TOTAL	4.3	B		P	1	40	0.24
7440-09-7	POTASSIUM, TOTAL	2910			P	1	1000	95.00
7782-49-2	SELENIUM, TOTAL	3.03	U		P	1	10	3.03
7440-22-4	SILVER, TOTAL	0.79	U		P	1	15	0.79
7440-23-5	SODIUM, TOTAL	60000			P	1	1000	21.70
7440-28-0	THALLIUM, TOTAL	0.10	U		MS	5	2.0	0.10
7440-62-2	VANADIUM, TOTAL	5.12	U		P	1	25	5.12
7440-66-6	ZINC, TOTAL	36.2			P	1	25	1.73

Bottle ID: E

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** WGL-GW-DUP01-063009

Matrix: WATER **SDG Name:** SC3624

Percent Solids: 0.00 **Lab Sample ID:** SC3624-018

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted IDL
7429-90-5	ALUMINUM, TOTAL	272	B		P	1	300	12.50
7440-36-0	ANTIMONY, TOTAL	0.15	U		MS	5	1.0	0.15
7440-38-2	ARSENIC, TOTAL	1.6	B		MS	5	5.0	1.50
7440-39-3	BARIUM, TOTAL	52.0			P	1	5.0	0.35
7440-41-7	BERYLLIUM, TOTAL	0.30	B		MS	5	1.0	0.05
7440-43-9	CADMIUM, TOTAL	0.08	B		MS	5	1.0	0.05
7440-70-2	CALCIUM, TOTAL	12100			P	1	50	6.84
7440-47-3	CHROMIUM, TOTAL	1.5	B		P	1	15	0.44
7440-48-4	COBALT, TOTAL	2.7	B		P	1	30	0.27
7440-50-8	COPPER, TOTAL	8.8	B		P	1	25	0.70
7439-89-6	IRON, TOTAL	3440			P	1	100	5.17
7439-92-1	LEAD, TOTAL	1.02	U		P	1	5.0	1.02
7439-95-4	MAGNESIUM, TOTAL	3450			P	1	50	9.39
7439-96-5	MANGANESE, TOTAL	406			P	1	5.0	0.67
7439-97-6	MERCURY, TOTAL	0.05	B		CV	1	0.20	0.02
7440-02-0	NICKEL, TOTAL	2.2	B		P	1	40	0.24
7440-09-7	POTASSIUM, TOTAL	2920			P	1	1000	95.00
7782-49-2	SELENIUM, TOTAL	3.03	U		P	1	10	3.03
7440-22-4	SILVER, TOTAL	0.79	U		P	1	15	0.79
7440-23-5	SODIUM, TOTAL	52700			P	1	1000	21.70
7440-28-0	THALLIUM, TOTAL	0.10	U		MS	5	2.0	0.10
7440-62-2	VANADIUM, TOTAL	5.12	U		P	1	25	5.12
7440-66-6	ZINC, TOTAL	6.7	B		P	1	25	1.73

Bottle ID: E

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** WGL-GW-MW48D-063009

Matrix: WATER **SDG Name:** SC3624

Percent Solids: 0.00 **Lab Sample ID:** SC3624-020

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted IDL
7429-90-5	ALUMINUM, TOTAL	286	B		P	1	300	12.50
7440-36-0	ANTIMONY, TOTAL	0.15	U		MS	5	1.0	0.15
7440-38-2	ARSENIC, TOTAL	1.50	U		MS	5	5.0	1.50
7440-39-3	BARIUM, TOTAL	51.8			P	1	5.0	0.35
7440-41-7	BERYLLIUM, TOTAL	0.23	B		MS	5	1.0	0.05
7440-43-9	CADMIUM, TOTAL	0.07	B		MS	5	1.0	0.05
7440-70-2	CALCIUM, TOTAL	12200			P	1	50	6.84
7440-47-3	CHROMIUM, TOTAL	1.4	B		P	1	15	0.44
7440-48-4	COBALT, TOTAL	2.8	B		P	1	30	0.27
7440-50-8	COPPER, TOTAL	8.7	B		P	1	25	0.70
7439-89-6	IRON, TOTAL	3790			P	1	100	5.17
7439-92-1	LEAD, TOTAL	1.02	U		P	1	5.0	1.02
7439-95-4	MAGNESIUM, TOTAL	3500			P	1	50	9.39
7439-96-5	MANGANESE, TOTAL	446			P	1	5.0	0.67
7439-97-6	MERCURY, TOTAL	0.06	B		CV	1	0.20	0.02
7440-02-0	NICKEL, TOTAL	2.3	B		P	1	40	0.24
7440-09-7	POTASSIUM, TOTAL	2980			P	1	1000	95.00
7782-49-2	SELENIUM, TOTAL	3.03	U		P	1	10	3.03
7440-22-4	SILVER, TOTAL	0.79	U		P	1	15	0.79
7440-23-5	SODIUM, TOTAL	52900			P	1	1000	21.70
7440-28-0	THALLIUM, TOTAL	0.10	U		MS	5	2.0	0.10
7440-62-2	VANADIUM, TOTAL	5.12	U		P	1	25	5.12
7440-66-6	ZINC, TOTAL	6.7	B		P	1	25	1.73

Bottle ID: E

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** WGL-GW-DUP02-063009

Matrix: WATER **SDG Name:** SC3624

Percent Solids: 0.00 **Lab Sample ID:** SC3624-022

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted IDL
7429-90-5	ALUMINUM, TOTAL	194	B		P	1	300	12.50
7440-36-0	ANTIMONY, TOTAL	0.32	B		MS	5	1.0	0.15
7440-38-2	ARSENIC, TOTAL	1.50	U		MS	5	5.0	1.50
7440-39-3	BARIUM, TOTAL	73.5			P	1	5.0	0.35
7440-41-7	BERYLLIUM, TOTAL	0.55	B		MS	5	1.0	0.05
7440-43-9	CADMIUM, TOTAL	0.45	B		MS	5	1.0	0.05
7440-70-2	CALCIUM, TOTAL	17800			P	1	50	6.84
7440-47-3	CHROMIUM, TOTAL	1.6	B		P	1	15	0.44
7440-48-4	COBALT, TOTAL	3.1	B		P	1	30	0.27
7440-50-8	COPPER, TOTAL	12.1	B		P	1	25	0.70
7439-89-6	IRON, TOTAL	440			P	1	100	5.17
7439-92-1	LEAD, TOTAL	1.02	U		P	1	5.0	1.02
7439-95-4	MAGNESIUM, TOTAL	3270			P	1	50	9.39
7439-96-5	MANGANESE, TOTAL	170			P	1	5.0	0.67
7439-97-6	MERCURY, TOTAL	0.1	B		CV	1	0.20	0.02
7440-02-0	NICKEL, TOTAL	4.2	B		P	1	40	0.24
7440-09-7	POTASSIUM, TOTAL	2930			P	1	1000	95.00
7782-49-2	SELENIUM, TOTAL	3.03	U		P	1	10	3.03
7440-22-4	SILVER, TOTAL	0.79	U		P	1	15	0.79
7440-23-5	SODIUM, TOTAL	60100			P	1	1000	21.70
7440-28-0	THALLIUM, TOTAL	0.63	B		MS	5	2.0	0.10
7440-62-2	VANADIUM, TOTAL	5.12	U		P	1	25	5.12
7440-66-6	ZINC, TOTAL	36.7			P	1	25	1.73

Bottle ID: E

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** GL-GW-MW48D2-063009

Matrix: WATER **SDG Name:** SC3624

Percent Solids: 0.00 **Lab Sample ID:** SC3624-024

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted IDL
7429-90-5	ALUMINUM, TOTAL	56.4	B		P	1	300	12.50
7440-36-0	ANTIMONY, TOTAL	0.15	U		MS	5	1.0	0.15
7440-38-2	ARSENIC, TOTAL	1.50	U		MS	5	5.0	1.50
7440-39-3	BARIUM, TOTAL	63.4			P	1	5.0	0.35
7440-41-7	BERYLLIUM, TOTAL	0.05	U		MS	5	1.0	0.05
7440-43-9	CADMIUM, TOTAL	0.14	B		MS	5	1.0	0.05
7440-70-2	CALCIUM, TOTAL	55800			P	1	50	6.84
7440-47-3	CHROMIUM, TOTAL	1.6	B		P	1	15	0.44
7440-48-4	COBALT, TOTAL	0.49	B		P	1	30	0.27
7440-50-8	COPPER, TOTAL	1.9	B		P	1	25	0.70
7439-89-6	IRON, TOTAL	2630			P	1	100	5.17
7439-92-1	LEAD, TOTAL	1.02	U		P	1	5.0	1.02
7439-95-4	MAGNESIUM, TOTAL	9480			P	1	50	9.39
7439-96-5	MANGANESE, TOTAL	2180			P	1	5.0	0.67
7439-97-6	MERCURY, TOTAL	0.06	B		CV	1	0.20	0.02
7440-02-0	NICKEL, TOTAL	0.66	B		P	1	40	0.24
7440-09-7	POTASSIUM, TOTAL	5400			P	1	1000	95.00
7782-49-2	SELENIUM, TOTAL	3.03	U		P	1	10	3.03
7440-22-4	SILVER, TOTAL	0.79	U		P	1	15	0.79
7440-23-5	SODIUM, TOTAL	45700			P	1	1000	21.70
7440-28-0	THALLIUM, TOTAL	0.24	B		MS	5	2.0	0.10
7440-62-2	VANADIUM, TOTAL	5.12	U		P	1	25	5.12
7440-66-6	ZINC, TOTAL	1.73	U		P	1	25	1.73

Bottle ID: E

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** WGL-GW-MW39-063009

Matrix: WATER **SDG Name:** SC3624

Percent Solids: 0.00 **Lab Sample ID:** SC3624-026

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted IDL
7429-90-5	ALUMINUM, TOTAL	342			P	1	300	12.50
7440-36-0	ANTIMONY, TOTAL	0.15	U		MS	5	1.0	0.15
7440-38-2	ARSENIC, TOTAL	1.9	B		MS	5	5.0	1.50
7440-39-3	BARIUM, TOTAL	25.0			P	1	5.0	0.35
7440-41-7	BERYLLIUM, TOTAL	0.09	B		MS	5	1.0	0.05
7440-43-9	CADMIUM, TOTAL	0.05	U		MS	5	1.0	0.05
7440-70-2	CALCIUM, TOTAL	8990			P	1	50	6.84
7440-47-3	CHROMIUM, TOTAL	1.5	B		P	1	15	0.44
7440-48-4	COBALT, TOTAL	0.73	B		P	1	30	0.27
7440-50-8	COPPER, TOTAL	1.3	B		P	1	25	0.70
7439-89-6	IRON, TOTAL	9790			P	1	100	5.17
7439-92-1	LEAD, TOTAL	1.2	B		P	1	5.0	1.02
7439-95-4	MAGNESIUM, TOTAL	1260			P	1	50	9.39
7439-96-5	MANGANESE, TOTAL	356			P	1	5.0	0.67
7439-97-6	MERCURY, TOTAL	0.06	B		CV	1	0.20	0.02
7440-02-0	NICKEL, TOTAL	0.64	B		P	1	40	0.24
7440-09-7	POTASSIUM, TOTAL	1550			P	1	1000	95.00
7782-49-2	SELENIUM, TOTAL	3.03	U		P	1	10	3.03
7440-22-4	SILVER, TOTAL	0.79	U		P	1	15	0.79
7440-23-5	SODIUM, TOTAL	2780			P	1	1000	21.70
7440-28-0	THALLIUM, TOTAL	0.10	U		MS	5	2.0	0.10
7440-62-2	VANADIUM, TOTAL	5.12	U		P	1	25	5.12
7440-66-6	ZINC, TOTAL	17.5	B		P	1	25	1.73

Bottle ID: E

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** WGL-GW-FB01-070109

Matrix: WATER **SDG Name:** SC3624

Percent Solids: 0.00 **Lab Sample ID:** SC3624-028

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted IDL
7429-90-5	ALUMINUM, TOTAL	15.2	B		P	1	300	12.50
7440-36-0	ANTIMONY, TOTAL	0.15	U		MS	5	1.0	0.15
7440-38-2	ARSENIC, TOTAL	1.50	U		MS	5	5.0	1.50
7440-39-3	BARIUM, TOTAL	0.35	U		P	1	5.0	0.35
7440-41-7	BERYLLIUM, TOTAL	0.05	U		MS	5	1.0	0.05
7440-43-9	CADMIUM, TOTAL	0.05	U		MS	5	1.0	0.05
7440-70-2	CALCIUM, TOTAL	7.1	B		P	1	50	6.84
7440-47-3	CHROMIUM, TOTAL	0.44	U		P	1	15	0.44
7440-48-4	COBALT, TOTAL	0.27	U		P	1	30	0.27
7440-50-8	COPPER, TOTAL	0.70	U		P	1	25	0.70
7439-89-6	IRON, TOTAL	6.2	B		P	1	100	5.17
7439-92-1	LEAD, TOTAL	1.02	U		P	1	5.0	1.02
7439-95-4	MAGNESIUM, TOTAL	20.6	B		P	1	50	9.39
7439-96-5	MANGANESE, TOTAL	0.67	U		P	1	5.0	0.67
7439-97-6	MERCURY, TOTAL	0.05	B		CV	1	0.20	0.02
7440-02-0	NICKEL, TOTAL	0.24	U		P	1	40	0.24
7440-09-7	POTASSIUM, TOTAL	95.00	U		P	1	1000	95.00
7782-49-2	SELENIUM, TOTAL	3.03	U		P	1	10	3.03
7440-22-4	SILVER, TOTAL	0.79	U		P	1	15	0.79
7440-23-5	SODIUM, TOTAL	33.0	B		P	1	1000	21.70
7440-28-0	THALLIUM, TOTAL	0.10	U		MS	5	2.0	0.10
7440-62-2	VANADIUM, TOTAL	5.12	U		P	1	25	5.12
7440-66-6	ZINC, TOTAL	1.73	U		P	1	25	1.73

Bottle ID: E

Comments:

INORGANIC ANALYSIS DATA SHEET

Lab Name: Katahdin Analytical Services **Client Field ID:** WGL-GW-RB01-070109

Matrix: WATER **SDG Name:** SC3624

Percent Solids: 0.00 **Lab Sample ID:** SC3624-030

Concentration Units : ug/L

CAS No.	Analyte	Concentration	C	Q	M	DF	Adjusted PQL	Adjusted IDL
7429-90-5	ALUMINUM, TOTAL	12.50	U		P	1	300	12.50
7440-36-0	ANTIMONY, TOTAL	0.15	U		MS	5	1.0	0.15
7440-38-2	ARSENIC, TOTAL	1.50	U		MS	5	5.0	1.50
7440-39-3	BARIUM, TOTAL	0.68	B		P	1	5.0	0.35
7440-41-7	BERYLLIUM, TOTAL	0.05	U		MS	5	1.0	0.05
7440-43-9	CADMIUM, TOTAL	0.05	U		MS	5	1.0	0.05
7440-70-2	CALCIUM, TOTAL	6.84	U		P	1	50	6.84
7440-47-3	CHROMIUM, TOTAL	0.54	B		P	1	15	0.44
7440-48-4	COBALT, TOTAL	0.27	U		P	1	30	0.27
7440-50-8	COPPER, TOTAL	1.7	B		P	1	25	0.70
7439-89-6	IRON, TOTAL	5.17	U		P	1	100	5.17
7439-92-1	LEAD, TOTAL	1.02	U		P	1	5.0	1.02
7439-95-4	MAGNESIUM, TOTAL	19.3	B		P	1	50	9.39
7439-96-5	MANGANESE, TOTAL	0.67	U		P	1	5.0	0.67
7439-97-6	MERCURY, TOTAL	0.06	B		CV	1	0.20	0.02
7440-02-0	NICKEL, TOTAL	0.24	U		P	1	40	0.24
7440-09-7	POTASSIUM, TOTAL	95.00	U		P	1	1000	95.00
7782-49-2	SELENIUM, TOTAL	3.03	U		P	1	10	3.03
7440-22-4	SILVER, TOTAL	0.79	U		P	1	15	0.79
7440-23-5	SODIUM, TOTAL	27.3	B		P	1	1000	21.70
7440-28-0	THALLIUM, TOTAL	0.10	U		MS	5	2.0	0.10
7440-62-2	VANADIUM, TOTAL	5.12	U		P	1	25	5.12
7440-66-6	ZINC, TOTAL	1.73	U		P	1	25	1.73

Bottle ID: E

Comments:

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Concentration Units: ug/L

SAMPLE: ICV

File: HZG20A Jul 20, 2009 11:22

Analyte	True	Found	%R (1)
MERCURY	6.0	6.55	109.2

SAMPLE: CCV

File: HZG20A Jul 20, 2009 11:28

Analyte	True	Found	%R (1)
MERCURY	5.0	5.20	104.0

(1) Control Limits: Mercury 80-120; Other Metals 90-110

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Concentration Units: ug/L

SAMPLE: CCV

File: HZG20A Jul 20, 2009 11:52

Analyte	True	Found	%R (1)
MERCURY	5.0	5.30	106.0

SAMPLE: CCV

File: HZG20A Jul 20, 2009 12:17

Analyte	True	Found	%R (1)
MERCURY	5.0	5.18	103.6

(1) Control Limits: Mercury 80-120; Other Metals 90-110

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Concentration Units: ug/L

SAMPLE: CCV

File: HZG20A Jul 20, 2009 12:43

Analyte	True	Found	%R (1)
MERCURY	5.0	5.28	105.6

(1) Control Limits: Mercury 80-120; Other Metals 90-110

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Concentration Units: ug/L

SAMPLE: ICV

File: IZG07A Jul 07, 2009 17:53

Analyte	True	Found	%R (1)
ALUMINUM	10000.0	10400.00	104.0
BARIUM	400.0	399.70	99.9
CALCIUM	10000.0	9980.00	99.8
CHROMIUM	400.0	404.30	101.1
COBALT	400.0	409.70	102.4
COPPER	400.0	399.80	100.0
IRON	10000.0	10210.00	102.1
LEAD	400.0	414.80	103.7
MAGNESIUM	10000.0	10190.00	101.9
MANGANESE	400.0	404.90	101.2
NICKEL	400.0	406.60	101.6
POTASSIUM	13600.0	13830.00	101.7
SELENIUM	400.0	401.60	100.4
SILVER	400.0	401.90	100.5
SODIUM	10000.0	10100.00	101.0
VANADIUM	400.0	404.70	101.2
ZINC	400.0	405.40	101.3

SAMPLE: CCV

File: IZG07A Jul 07, 2009 18:18

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12660.00	101.3
BARIUM	500.0	496.30	99.3
CALCIUM	12500.0	12920.00	103.4
CHROMIUM	500.0	523.50	104.7
COBALT	500.0	517.70	103.5
COPPER	500.0	501.40	100.3
IRON	12500.0	12830.00	102.6
LEAD	500.0	514.30	102.9
MAGNESIUM	12500.0	12450.00	99.6
MANGANESE	500.0	516.60	103.3
NICKEL	500.0	513.20	102.6
POTASSIUM	12500.0	12530.00	100.2
SELENIUM	500.0	500.40	100.1
SILVER	500.0	515.40	103.1
SODIUM	12500.0	12630.00	101.0
VANADIUM	500.0	510.30	102.1
ZINC	500.0	514.30	102.9

(1) Control Limits: Mercury 80-120; Other Metals 90-110

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Concentration Units: ug/L

SAMPLE: CCV

File: IZG07A Jul 07, 2009 19:18

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12460.00	99.7
BARIUM	500.0	498.80	99.8
CALCIUM	12500.0	12870.00	103.0
CHROMIUM	500.0	508.90	101.8
COBALT	500.0	521.80	104.4
COPPER	500.0	519.30	103.9
IRON	12500.0	12560.00	100.5
LEAD	500.0	500.10	100.0
MAGNESIUM	12500.0	12270.00	98.2
MANGANESE	500.0	515.60	103.1
NICKEL	500.0	508.50	101.7
POTASSIUM	12500.0	12630.00	101.0
SELENIUM	500.0	492.50	98.5
SILVER	500.0	528.30	105.7
SODIUM	12500.0	13220.00	105.8
VANADIUM	500.0	496.80	99.4
ZINC	500.0	513.60	102.7

SAMPLE: CCV

File: IZG07A Jul 07, 2009 20:19

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12440.00	99.5
BARIUM	500.0	499.20	99.8
CALCIUM	12500.0	12700.00	101.6
CHROMIUM	500.0	507.00	101.4
COBALT	500.0	519.70	103.9
COPPER	500.0	519.40	103.9
IRON	12500.0	12570.00	100.6
LEAD	500.0	505.30	101.1
MAGNESIUM	12500.0	12260.00	98.1
MANGANESE	500.0	511.90	102.4
NICKEL	500.0	510.70	102.1
POTASSIUM	12500.0	12860.00	102.9
SELENIUM	500.0	497.10	99.4
SILVER	500.0	524.00	104.8
SODIUM	12500.0	12980.00	103.8
VANADIUM	500.0	499.80	100.0
ZINC	500.0	508.00	101.6

(1) Control Limits: Mercury 80-120; Other Metals 90-110

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Concentration Units: ug/L

SAMPLE: CCV

File: IZG07A Jul 07, 2009 21:19

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12510.00	100.1
BARIUM	500.0	496.80	99.4
CALCIUM	12500.0	12990.00	103.9
CHROMIUM	500.0	514.20	102.8
COBALT	500.0	523.30	104.7
COPPER	500.0	523.30	104.7
IRON	12500.0	12710.00	101.7
LEAD	500.0	500.70	100.1
MAGNESIUM	12500.0	12230.00	97.8
MANGANESE	500.0	519.70	103.9
NICKEL	500.0	510.10	102.0
POTASSIUM	12500.0	12580.00	100.6
SELENIUM	500.0	489.10	97.8
SILVER	500.0	533.10	106.6
SODIUM	12500.0	13100.00	104.8
VANADIUM	500.0	501.80	100.4
ZINC	500.0	517.70	103.5

SAMPLE: CCV

File: IZG07A Jul 07, 2009 22:19

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12470.00	99.8
BARIUM	500.0	492.40	98.5
CALCIUM	12500.0	13250.00	106.0
CHROMIUM	500.0	519.60	103.9
COBALT	500.0	521.10	104.2
COPPER	500.0	511.90	102.4
IRON	12500.0	12800.00	102.4
LEAD	500.0	494.90	99.0
MAGNESIUM	12500.0	12340.00	98.7
MANGANESE	500.0	525.50	105.1
NICKEL	500.0	507.00	101.4
POTASSIUM	12500.0	12550.00	100.4
SELENIUM	500.0	483.70	96.7
SILVER	500.0	531.20	106.2
SODIUM	12500.0	13130.00	105.0
VANADIUM	500.0	501.20	100.2
ZINC	500.0	519.80	104.0

(1) Control Limits: Mercury 80-120; Other Metals 90-110

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Concentration Units: ug/L

SAMPLE: CCV

File: IZG07A Jul 07, 2009 23:19

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12560.00	100.5
BARIUM	500.0	497.00	99.4
CALCIUM	12500.0	12970.00	103.8
CHROMIUM	500.0	519.40	103.9
COBALT	500.0	515.90	103.2
COPPER	500.0	505.30	101.1
IRON	12500.0	12650.00	101.2
LEAD	500.0	505.40	101.1
MAGNESIUM	12500.0	12430.00	99.4
MANGANESE	500.0	512.50	102.5
NICKEL	500.0	508.10	101.6
POTASSIUM	12500.0	12550.00	100.4
SELENIUM	500.0	490.60	98.1
SILVER	500.0	516.40	103.3
SODIUM	12500.0	12750.00	102.0
VANADIUM	500.0	508.30	101.7
ZINC	500.0	520.50	104.1

SAMPLE: CCV

File: IZG07A Jul 08, 2009 0:20

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12510.00	100.1
BARIUM	500.0	488.80	97.8
CALCIUM	12500.0	13350.00	106.8
CHROMIUM	500.0	524.80	105.0
COBALT	500.0	515.80	103.2
COPPER	500.0	500.70	100.1
IRON	12500.0	12790.00	102.3
LEAD	500.0	498.80	99.8
MAGNESIUM	12500.0	12440.00	99.5
MANGANESE	500.0	521.40	104.3
NICKEL	500.0	505.50	101.1
POTASSIUM	12500.0	12590.00	100.7
SELENIUM	500.0	491.50	98.3
SILVER	500.0	522.60	104.5
SODIUM	12500.0	12770.00	102.2
VANADIUM	500.0	506.20	101.2
ZINC	500.0	511.10	102.2

(1) Control Limits: Mercury 80-120; Other Metals 90-110

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Concentration Units: ug/L

SAMPLE: ICV

File: IZG08A Jul 08, 2009 12:05

Analyte	True	Found	%R (1)
ALUMINUM	10000.0	10290.00	102.9
CALCIUM	10000.0	9859.00	98.6
IRON	10000.0	10090.00	100.9
MAGNESIUM	10000.0	10140.00	101.4
POTASSIUM	13600.0	13780.00	101.3

SAMPLE: CCV

File: IZG08A Jul 08, 2009 12:31

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12650.00	101.2
CALCIUM	12500.0	12470.00	99.8
IRON	12500.0	12580.00	100.6
MAGNESIUM	12500.0	12580.00	100.6
POTASSIUM	12500.0	12640.00	101.1

(1) Control Limits: Mercury 80-120; Other Metals 90-110

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Concentration Units: ug/L

SAMPLE: CCV

File: IZG08A Jul 08, 2009 13:30

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12560.00	100.5
CALCIUM	12500.0	12460.00	99.7
IRON	12500.0	12540.00	100.3
MAGNESIUM	12500.0	12510.00	100.1
POTASSIUM	12500.0	12590.00	100.7

SAMPLE: CCV

File: IZG08A Jul 08, 2009 14:30

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12690.00	101.5
CALCIUM	12500.0	12620.00	101.0
IRON	12500.0	12620.00	101.0
MAGNESIUM	12500.0	12610.00	100.9
POTASSIUM	12500.0	12730.00	101.8

(1) Control Limits: Mercury 80-120; Other Metals 90-110

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Concentration Units: ug/L

SAMPLE: CCV

File: IZG08A Jul 08, 2009 15:30

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12650.00	101.2
CALCIUM	12500.0	12520.00	100.2
IRON	12500.0	12610.00	100.9
MAGNESIUM	12500.0	12580.00	100.6
POTASSIUM	12500.0	12750.00	102.0

SAMPLE: CCV

File: IZG08A Jul 08, 2009 16:31

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12630.00	101.0
CALCIUM	12500.0	12730.00	101.8
IRON	12500.0	12730.00	101.8
MAGNESIUM	12500.0	12590.00	100.7
POTASSIUM	12500.0	12740.00	101.9

(1) Control Limits: Mercury 80-120; Other Metals 90-110

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Concentration Units: ug/L

SAMPLE: CCV

File: IZG08A Jul 08, 2009 17:31

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12630.00	101.0
CALCIUM	12500.0	12610.00	100.9
IRON	12500.0	12630.00	101.0
MAGNESIUM	12500.0	12580.00	100.6
POTASSIUM	12500.0	12770.00	102.2

SAMPLE: CCV

File: IZG08A Jul 08, 2009 18:31

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12440.00	99.5
CALCIUM	12500.0	12700.00	101.6
IRON	12500.0	12600.00	100.8
MAGNESIUM	12500.0	12520.00	100.2
POTASSIUM	12500.0	12950.00	103.6

(1) Control Limits: Mercury 80-120; Other Metals 90-110

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Concentration Units: ug/L

SAMPLE: CCV

File: IZG08A Jul 08, 2009 19:32

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12540.00	100.3
CALCIUM	12500.0	13320.00	106.6
IRON	12500.0	12990.00	103.9
MAGNESIUM	12500.0	12600.00	100.8
POTASSIUM	12500.0	12930.00	103.4

SAMPLE: CCV

File: IZG08A Jul 08, 2009 20:32

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12540.00	100.3
CALCIUM	12500.0	13520.00	108.2
IRON	12500.0	13080.00	104.6
MAGNESIUM	12500.0	12620.00	101.0
POTASSIUM	12500.0	13000.00	104.0

(1) Control Limits: Mercury 80-120; Other Metals 90-110

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Concentration Units: ug/L

SAMPLE: CCV

File: IZG08A Jul 08, 2009 21:33

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12500.00	100.0
CALCIUM	12500.0	13720.00	109.8
IRON	12500.0	13160.00	105.3
MAGNESIUM	12500.0	12560.00	100.5
POTASSIUM	12500.0	13040.00	104.3

(1) Control Limits: Mercury 80-120; Other Metals 90-110

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Concentration Units: ug/L

SAMPLE: ICV

File: IZG16A Jul 16, 2009 14:10

Analyte	True	Found	%R (1)
ALUMINUM	10000.0	10240.00	102.4
CALCIUM	10000.0	9906.00	99.1
IRON	10000.0	10170.00	101.7
MAGNESIUM	10000.0	10040.00	100.4
SODIUM	10000.0	10060.00	100.6

SAMPLE: CCV

File: IZG16A Jul 16, 2009 14:35

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12670.00	101.4
CALCIUM	12500.0	12700.00	101.6
IRON	12500.0	12810.00	102.5
MAGNESIUM	12500.0	12630.00	101.0
SODIUM	12500.0	12680.00	101.4

(1) Control Limits: Mercury 80-120; Other Metals 90-110

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Concentration Units: ug/L

SAMPLE: CCV

File: IZG16A Jul 16, 2009 15:36

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	13150.00	105.2
CALCIUM	12500.0	13040.00	104.3
IRON	12500.0	13070.00	104.6
MAGNESIUM	12500.0	12730.00	101.8
SODIUM	12500.0	13020.00	104.2

SAMPLE: CCV

File: IZG16A Jul 16, 2009 16:36

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	13710.00	109.7
CALCIUM	12500.0	13520.00	108.2
IRON	12500.0	13450.00	107.6
MAGNESIUM	12500.0	12760.00	102.1
SODIUM	12500.0	13470.00	107.8

(1) Control Limits: Mercury 80-120; Other Metals 90-110

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Concentration Units: ug/L

SAMPLE: CCV

File: IZG16A Jul 16, 2009 17:37

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	13460.00	107.7
CALCIUM	12500.0	13330.00	106.6
IRON	12500.0	13220.00	105.8
MAGNESIUM	12500.0	12790.00	102.3
SODIUM	12500.0	13240.00	105.9

SAMPLE: CCV

File: IZG16A Jul 16, 2009 18:38

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	14030.00	112.2*
CALCIUM	12500.0	13790.00	110.3
IRON	12500.0	13510.00	108.1
MAGNESIUM	12500.0	12630.00	101.0
SODIUM	12500.0	13680.00	109.4

(1) Control Limits: Mercury 80-120; Other Metals 90-110

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Concentration Units: ug/L

SAMPLE: ICV

File: IZG20B Jul 21, 2009 2:30

Analyte	True	Found	%R (1)
ALUMINUM	10000.0	10290.00	102.9
BARIUM	400.0	400.40	100.1
CALCIUM	10000.0	10040.00	100.4
CHROMIUM	400.0	397.70	99.4
COBALT	400.0	400.80	100.2
COPPER	400.0	398.20	99.5
IRON	10000.0	10160.00	101.6
LEAD	400.0	404.30	101.1
MAGNESIUM	10000.0	10330.00	103.3
MANGANESE	400.0	403.90	101.0
NICKEL	400.0	396.60	99.2
POTASSIUM	13600.0	13550.00	99.6
SELENIUM	400.0	395.90	99.0
SILVER	400.0	398.30	99.6
SODIUM	10000.0	10160.00	101.6
VANADIUM	400.0	393.90	98.5
ZINC	400.0	396.60	99.2

SAMPLE: CCV

File: IZG20B Jul 21, 2009 2:55

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12550.00	100.4
BARIUM	500.0	506.80	101.4
CALCIUM	12500.0	12470.00	99.8
CHROMIUM	500.0	502.20	100.4
COBALT	500.0	508.50	101.7
COPPER	500.0	512.80	102.6
IRON	12500.0	12510.00	100.1
LEAD	500.0	513.10	102.6
MAGNESIUM	12500.0	12570.00	100.6
MANGANESE	500.0	500.90	100.2
NICKEL	500.0	509.80	102.0
POTASSIUM	12500.0	12430.00	99.4
SELENIUM	500.0	501.60	100.3
SILVER	500.0	505.00	101.0
SODIUM	12500.0	12560.00	100.5
VANADIUM	500.0	501.50	100.3
ZINC	500.0	506.60	101.3

(1) Control Limits: Mercury 80-120; Other Metals 90-110

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Concentration Units: ug/L

SAMPLE: CCV

File: IZG20B Jul 21, 2009 3:54

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12550.00	100.4
BARIUM	500.0	508.40	101.7
CALCIUM	12500.0	12500.00	100.0
CHROMIUM	500.0	501.90	100.4
COBALT	500.0	505.40	101.1
COPPER	500.0	507.40	101.5
IRON	12500.0	12460.00	99.7
LEAD	500.0	509.20	101.8
MAGNESIUM	12500.0	12630.00	101.0
MANGANESE	500.0	498.50	99.7
NICKEL	500.0	505.50	101.1
POTASSIUM	12500.0	12580.00	100.6
SELENIUM	500.0	497.80	99.6
SILVER	500.0	503.20	100.6
SODIUM	12500.0	12640.00	101.1
VANADIUM	500.0	499.50	99.9
ZINC	500.0	502.30	100.5

SAMPLE: CCV

File: IZG20B Jul 21, 2009 4:55

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12870.00	103.0
BARIUM	500.0	520.40	104.1
CALCIUM	12500.0	12710.00	101.7
CHROMIUM	500.0	500.30	100.1
COBALT	500.0	507.30	101.5
COPPER	500.0	512.30	102.5
IRON	12500.0	12610.00	100.9
LEAD	500.0	511.00	102.2
MAGNESIUM	12500.0	12830.00	102.6
MANGANESE	500.0	504.50	100.9
NICKEL	500.0	508.80	101.8
POTASSIUM	12500.0	12860.00	102.9
SELENIUM	500.0	500.80	100.2
SILVER	500.0	503.60	100.7
SODIUM	12500.0	12960.00	103.7
VANADIUM	500.0	501.50	100.3
ZINC	500.0	503.90	100.8

(1) Control Limits: Mercury 80-120; Other Metals 90-110

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Concentration Units: ug/L

SAMPLE: CCV

File: IZG20B Jul 21, 2009 5:55

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12570.00	100.6
BARIUM	500.0	509.60	101.9
CALCIUM	12500.0	12360.00	98.9
CHROMIUM	500.0	498.20	99.6
COBALT	500.0	506.90	101.4
COPPER	500.0	505.00	101.0
IRON	12500.0	12330.00	98.6
LEAD	500.0	509.80	102.0
MAGNESIUM	12500.0	12410.00	99.3
MANGANESE	500.0	492.00	98.4
NICKEL	500.0	508.60	101.7
POTASSIUM	12500.0	12500.00	100.0
SELENIUM	500.0	501.80	100.4
SILVER	500.0	498.00	99.6
SODIUM	12500.0	12620.00	101.0
VANADIUM	500.0	500.70	100.1
ZINC	500.0	501.20	100.2

SAMPLE: CCV

File: IZG20B Jul 21, 2009 6:56

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12590.00	100.7
BARIUM	500.0	506.80	101.4
CALCIUM	12500.0	12440.00	99.5
CHROMIUM	500.0	497.50	99.5
COBALT	500.0	508.90	101.8
COPPER	500.0	513.20	102.6
IRON	12500.0	12240.00	97.9
LEAD	500.0	513.60	102.7
MAGNESIUM	12500.0	12490.00	99.9
MANGANESE	500.0	489.80	98.0
NICKEL	500.0	512.90	102.6
POTASSIUM	12500.0	12620.00	101.0
SELENIUM	500.0	500.50	100.1
SILVER	500.0	502.60	100.5
SODIUM	12500.0	12620.00	101.0
VANADIUM	500.0	500.60	100.1
ZINC	500.0	505.00	101.0

(1) Control Limits: Mercury 80-120; Other Metals 90-110

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Concentration Units: ug/L

SAMPLE: CCV

File: IZG20B Jul 21, 2009 7:56

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12570.00	100.6
BARIUM	500.0	510.50	102.1
CALCIUM	12500.0	12540.00	100.3
CHROMIUM	500.0	506.20	101.2
COBALT	500.0	501.40	100.3
COPPER	500.0	505.20	101.0
IRON	12500.0	12400.00	99.2
LEAD	500.0	502.00	100.4
MAGNESIUM	12500.0	12500.00	100.0
MANGANESE	500.0	490.90	98.2
NICKEL	500.0	495.30	99.1
POTASSIUM	12500.0	12610.00	100.9
SELENIUM	500.0	488.30	97.7
SILVER	500.0	504.40	100.9
SODIUM	12500.0	12830.00	102.6
VANADIUM	500.0	499.40	99.9
ZINC	500.0	496.90	99.4

SAMPLE: CCV

File: IZG20B Jul 21, 2009 8:57

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12670.00	101.4
BARIUM	500.0	517.50	103.5
CALCIUM	12500.0	12620.00	101.0
CHROMIUM	500.0	517.10	103.4
COBALT	500.0	496.80	99.4
COPPER	500.0	494.70	98.9
IRON	12500.0	12640.00	101.1
LEAD	500.0	492.20	98.4
MAGNESIUM	12500.0	12380.00	99.0
MANGANESE	500.0	494.10	98.8
NICKEL	500.0	478.10	95.6
POTASSIUM	12500.0	12440.00	99.5
SELENIUM	500.0	479.30	95.9
SILVER	500.0	505.40	101.1
SODIUM	12500.0	12980.00	103.8
VANADIUM	500.0	498.50	99.7
ZINC	500.0	488.80	97.8

(1) Control Limits: Mercury 80-120; Other Metals 90-110

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Concentration Units: ug/L

SAMPLE: CCV

File: IZG20B Jul 21, 2009 9:57

Analyte	True	Found	%R (1)
ALUMINUM	12500.0	12710.00	101.7
BARIUM	500.0	520.40	104.1
CALCIUM	12500.0	12700.00	101.6
CHROMIUM	500.0	523.20	104.6
COBALT	500.0	495.10	99.0
COPPER	500.0	493.50	98.7
IRON	12500.0	12690.00	101.5
LEAD	500.0	490.20	98.0
MAGNESIUM	12500.0	12460.00	99.7
MANGANESE	500.0	494.10	98.8
NICKEL	500.0	473.00	94.6
POTASSIUM	12500.0	12580.00	100.6
SELENIUM	500.0	475.90	95.2
SILVER	500.0	508.90	101.8
SODIUM	12500.0	13110.00	104.9
VANADIUM	500.0	500.30	100.1
ZINC	500.0	488.30	97.7

(1) Control Limits: Mercury 80-120; Other Metals 90-110

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Concentration Units: ug/L

SAMPLE: ICV

File: JZG13A Jul 13, 2009 18:18

Analyte	True	Found	%R (1)
ALUMINUM	400.0	424.90	106.2
ANTIMONY	20.0	19.89	99.5
ARSENIC	20.0	19.81	99.0
BERYLLIUM	20.0	20.48	102.4
CADMIUM	20.0	20.13	100.6
CALCIUM	4000.0	3870.00	96.8
IRON	4000.0	3950.00	98.8
MAGNESIUM	4000.0	4153.00	103.8
MOLYBDENUM	40.0	41.44	103.6
POTASSIUM	4000.0	3999.00	100.0
SODIUM	4000.0	4008.00	100.2
THALLIUM	20.0	19.22	96.1

SAMPLE: CCV

File: JZG13A Jul 13, 2009 19:10

Analyte	True	Found	%R (1)
ALUMINUM	500.0	576.60	115.3•
ANTIMONY	25.0	25.74	103.0
ARSENIC	25.0	25.29	101.2
BERYLLIUM	10.0	10.84	108.4
CADMIUM	10.0	10.47	104.7
CALCIUM	5000.0	5171.00	103.4
IRON	5000.0	5015.00	100.3
MAGNESIUM	5000.0	5380.00	107.6
MOLYBDENUM	25.0	31.06	124.2•
POTASSIUM	5000.0	5126.00	102.5
SODIUM	5000.0	5199.00	104.0
THALLIUM	10.0	9.56	95.6

(1) Control Limits: Mercury 80-120; Other Metals 90-110

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Concentration Units: ug/L

SAMPLE: CCV

File: JZG13A Jul 13, 2009 19:44

Analyte	True	Found	%R (1)
ALUMINUM	500.0	531.90	106.4
ANTIMONY	25.0	26.08	104.3
ARSENIC	25.0	25.48	101.9
BERYLLIUM	10.0	10.77	107.7
CADMIUM	10.0	10.46	104.6
CALCIUM	5000.0	5212.00	104.2
IRON	5000.0	5010.00	100.2
MAGNESIUM	5000.0	5268.00	105.4
MOLYBDENUM	25.0	26.85	107.4
POTASSIUM	5000.0	5144.00	102.9
SODIUM	5000.0	5111.00	102.2
THALLIUM	10.0	9.49	94.9

SAMPLE: CCV

File: JZG13A Jul 13, 2009 21:27

Analyte	True	Found	%R (1)
ALUMINUM	500.0	550.80	110.2
ANTIMONY	25.0	26.31	105.2
ARSENIC	25.0	26.00	104.0
BERYLLIUM	10.0	11.00	110.0
CADMIUM	10.0	10.77	107.7
CALCIUM	5000.0	5269.00	105.4
IRON	5000.0	5177.00	103.5
MAGNESIUM	5000.0	5384.00	107.7
MOLYBDENUM	25.0	26.37	105.5
POTASSIUM	5000.0	5247.00	104.9
SODIUM	5000.0	5274.00	105.5
THALLIUM	10.0	9.39	93.9

(1) Control Limits: Mercury 80-120; Other Metals 90-110

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Concentration Units: ug/L

SAMPLE: CCV

File: JZG13A Jul 13, 2009 23:10

Analyte	True	Found	%R (1)
ALUMINUM	500.0	543.30	108.7
ANTIMONY	25.0	26.17	104.7
ARSENIC	25.0	25.66	102.6
BERYLLIUM	10.0	10.86	108.6
CADMIUM	10.0	10.64	106.4
CALCIUM	5000.0	5195.00	103.9
IRON	5000.0	5094.00	101.9
MAGNESIUM	5000.0	5336.00	106.7
MOLYBDENUM	25.0	26.32	105.3
POTASSIUM	5000.0	5194.00	103.9
SODIUM	5000.0	5197.00	103.9
THALLIUM	10.0	9.40	94.0

SAMPLE: CCV

File: JZG13A Jul 14, 2009 0:10

Analyte	True	Found	%R (1)
ALUMINUM	500.0	529.20	105.8
ANTIMONY	25.0	25.88	103.5
ARSENIC	25.0	25.76	103.0
BERYLLIUM	10.0	10.65	106.5
CADMIUM	10.0	10.69	106.9
CALCIUM	5000.0	5225.00	104.5
IRON	5000.0	5114.00	102.3
MAGNESIUM	5000.0	5294.00	105.9
MOLYBDENUM	25.0	26.26	105.0
POTASSIUM	5000.0	5149.00	103.0
SODIUM	5000.0	5160.00	103.2
THALLIUM	10.0	9.40	94.0

(1) Control Limits: Mercury 80-120; Other Metals 90-110

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Concentration Units: ug/L

SAMPLE: CCV

File: JZG13A Jul 14, 2009 1:54

Analyte	True	Found	%R (1)
ALUMINUM	500.0	530.20	106.0
ANTIMONY	25.0	26.15	104.6
ARSENIC	25.0	25.41	101.6
BERYLLIUM	10.0	10.49	104.9
CADMIUM	10.0	10.70	107.0
CALCIUM	5000.0	5266.00	105.3
IRON	5000.0	5086.00	101.7
MAGNESIUM	5000.0	5228.00	104.6
MOLYBDENUM	25.0	26.28	105.1
POTASSIUM	5000.0	5168.00	103.4
SODIUM	5000.0	5122.00	102.4
THALLIUM	10.0	10.12	101.2

SAMPLE: CCV

File: JZG13A Jul 14, 2009 3:37

Analyte	True	Found	%R (1)
ALUMINUM	500.0	519.00	103.8
ANTIMONY	25.0	25.97	103.9
ARSENIC	25.0	25.62	102.5
BERYLLIUM	10.0	10.39	103.9
CADMIUM	10.0	10.64	106.4
CALCIUM	5000.0	5219.00	104.4
IRON	5000.0	5119.00	102.4
MAGNESIUM	5000.0	5202.00	104.0
MOLYBDENUM	25.0	26.27	105.1
POTASSIUM	5000.0	5113.00	102.3
SODIUM	5000.0	5109.00	102.2
THALLIUM	10.0	9.99	99.9

(1) Control Limits: Mercury 80-120; Other Metals 90-110

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Concentration Units: ug/L

SAMPLE: CCV

File: JZG13A Jul 14, 2009 5:20

Analyte	True	Found	%R (1)
ALUMINUM	500.0	526.60	105.3
ANTIMONY	25.0	26.30	105.2
ARSENIC	25.0	25.09	100.4
BERYLLIUM	10.0	10.18	101.8
CADMIUM	10.0	10.59	105.9
CALCIUM	5000.0	5243.00	104.9
IRON	5000.0	5192.00	103.8
MAGNESIUM	5000.0	5187.00	103.7
MOLYBDENUM	25.0	26.09	104.4
POTASSIUM	5000.0	5181.00	103.6
SODIUM	5000.0	5088.00	101.8
THALLIUM	10.0	9.93	99.3

(1) Control Limits: Mercury 80-120; Other Metals 90-110

2C

PQL STANDARD FOR AA AND ICP

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Concentration Units: ug/L

SAMPLE: PQL

File: HZG20A Jul 20, 2009 11:26

Analyte	TRUE	FOUND	% R
MERCURY	0.2	0.26	130.0

2C

PQL STANDARD FOR AA AND ICP

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Concentration Units: ug/L

SAMPLE: PQL

File: IZG07A Jul 07, 2009 18:03

Analyte	TRUE	FOUND	% R
ALUMINUM	300.0	304.40	101.5
BARIUM	5.0	5.09	101.8
CALCIUM	50.0	51.87	103.7
CHROMIUM	15.0	15.25	101.7
COBALT	30.0	30.93	103.1
COPPER	25.0	24.90	99.6
IRON	100.0	103.40	103.4
LEAD	5.0	5.49	109.8
MAGNESIUM	50.0	51.30	102.6
MANGANESE	5.0	5.10	102.0
NICKEL	40.0	41.35	103.4
POTASSIUM	1000.0	969.00	96.9
SELENIUM	10.0	6.66	66.6•
SILVER	15.0	15.32	102.1
SODIUM	1000.0	1025.00	102.5
VANADIUM	25.0	25.18	100.7
ZINC	25.0	25.74	103.0

SAMPLE: PQL

File: IZG07A Jul 07, 2009 21:04

Analyte	TRUE	FOUND	% R
ALUMINUM	300.0	309.50	103.2
BARIUM	5.0	4.95	99.0
CALCIUM	50.0	52.06	104.1
CHROMIUM	15.0	15.74	104.9
COBALT	30.0	31.27	104.2
COPPER	25.0	26.38	105.5
IRON	100.0	103.60	103.6
LEAD	5.0	5.23	104.6
MAGNESIUM	50.0	52.85	105.7
MANGANESE	5.0	5.35	107.0
NICKEL	40.0	40.74	101.8
POTASSIUM	1000.0	1080.00	108.0
SELENIUM	10.0	6.64	66.4•
SILVER	15.0	16.31	108.7
SODIUM	1000.0	1110.00	111.0
VANADIUM	25.0	25.22	100.9
ZINC	25.0	26.13	104.5

2C

PQL STANDARD FOR AA AND ICP

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Concentration Units: ug/L

SAMPLE: PQL

File: IZG08A Jul 08, 2009 12:15

Analyte	TRUE	FOUND	% R
ALUMINUM	300.0	305.80	101.9
CALCIUM	50.0	49.48	99.0
IRON	100.0	102.60	102.6
MAGNESIUM	50.0	52.52	105.0
POTASSIUM	1000.0	1046.00	104.6

SAMPLE: PQL

File: IZG08A Jul 08, 2009 16:16

Analyte	TRUE	FOUND	% R
ALUMINUM	300.0	311.60	103.9
CALCIUM	50.0	54.32	108.6
IRON	100.0	104.00	104.0
MAGNESIUM	50.0	52.81	105.6
POTASSIUM	1000.0	1110.00	111.0

2C

PQL STANDARD FOR AA AND ICP

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Concentration Units: ug/L

SAMPLE: PQL

File: IZG08A Jul 08, 2009 19:16

Analyte	TRUE	FOUND	% R
ALUMINUM	300.0	313.20	104.4
CALCIUM	50.0	56.03	112.1
IRON	100.0	102.60	102.6
MAGNESIUM	50.0	53.87	107.7
POTASSIUM	1000.0	1176.00	117.6

2C

PQL STANDARD FOR AA AND ICP

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Concentration Units: ug/L

SAMPLE: PQL

File: IZG16A Jul 16, 2009 14:20

Analyte	TRUE	FOUND	% R
ALUMINUM	300.0	319.30	106.4
CALCIUM	50.0	47.34	94.7
IRON	100.0	91.88	91.9
MAGNESIUM	50.0	50.78	101.6
SODIUM	1000.0	1009.00	100.9

SAMPLE: PQL

File: IZG16A Jul 16, 2009 18:23

Analyte	TRUE	FOUND	% R
ALUMINUM	300.0	327.90	109.3
CALCIUM	50.0	56.83	113.7
IRON	100.0	100.20	100.2
MAGNESIUM	50.0	53.82	107.6
SODIUM	1000.0	1106.00	110.6

2C

PQL STANDARD FOR AA AND ICP

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Concentration Units: ug/L

SAMPLE: PQL

File: IZG20B Jul 21, 2009 02:40

Analyte	TRUE	FOUND	% R
ALUMINUM	300.0	304.00	101.3
BARIUM	5.0	5.03	100.6
CALCIUM	50.0	58.03	116.1
CHROMIUM	15.0	15.27	101.8
COBALT	30.0	30.73	102.4
COPPER	25.0	26.14	104.6
IRON	100.0	99.07	99.1
LEAD	5.0	4.92	98.4
MAGNESIUM	50.0	54.46	108.9
MANGANESE	5.0	6.26	125.2
NICKEL	40.0	40.80	102.0
POTASSIUM	1000.0	1020.00	102.0
SELENIUM	10.0	10.19	101.9
SILVER	15.0	15.17	101.1
SODIUM	1000.0	1017.00	101.7
VANADIUM	25.0	24.49	98.0
ZINC	25.0	26.13	104.5

SAMPLE: PQL

File: IZG20B Jul 21, 2009 05:40

Analyte	TRUE	FOUND	% R
ALUMINUM	300.0	302.90	101.0
BARIUM	5.0	4.76	95.2
CALCIUM	50.0	55.95	111.9
CHROMIUM	15.0	15.05	100.3
COBALT	30.0	31.05	103.5
COPPER	25.0	26.60	106.4
IRON	100.0	101.10	101.1
LEAD	5.0	5.11	102.2
MAGNESIUM	50.0	59.27	118.5
MANGANESE	5.0	5.68	113.6
NICKEL	40.0	41.62	104.1
POTASSIUM	1000.0	1016.00	101.6
SELENIUM	10.0	9.20	92.0
SILVER	15.0	15.23	101.5
SODIUM	1000.0	1035.00	103.5
VANADIUM	25.0	24.47	97.9
ZINC	25.0	25.94	103.8

2C

PQL STANDARD FOR AA AND ICP

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Concentration Units: ug/L

SAMPLE: PQL

File: IZG20B Jul 21, 2009 08:42

Analyte	TRUE	FOUND	% R
ALUMINUM	300.0	308.10	102.7
BARIUM	5.0	5.24	104.8
CALCIUM	50.0	59.53	119.1
CHROMIUM	15.0	15.66	104.4
COBALT	30.0	30.54	101.8
COPPER	25.0	26.77	107.1
IRON	100.0	98.14	98.1
LEAD	5.0	4.89	97.8
MAGNESIUM	50.0	55.12	110.2
MANGANESE	5.0	4.77	95.4
NICKEL	40.0	39.44	98.6
POTASSIUM	1000.0	1021.00	102.1
SELENIUM	10.0	9.26	92.6
SILVER	15.0	15.35	102.3
SODIUM	1000.0	1116.00	111.6
VANADIUM	25.0	24.73	98.9
ZINC	25.0	25.72	102.9

2C

PQL STANDARD FOR AA AND ICP

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Concentration Units: ug/L

SAMPLE: PQL

File: JZG13A Jul 13, 2009 18:35

Analyte	TRUE	FOUND	% R
ALUMINUM	60.0	63.26	105.4
ANTIMONY	0.2	0.23	115.0
ARSENIC	1.0	0.97	97.0
BERYLLIUM	0.2	0.22	110.0
CADMIUM	0.2	0.22	110.0
CALCIUM	20.0	19.49	97.4
IRON	20.0	23.26	116.3
MAGNESIUM	20.0	21.63	108.1
MOLYBDENUM	1.0	1.16	116.0
POTASSIUM	200.0	183.20	91.6
SODIUM	200.0	206.00	103.0
THALLIUM	0.4	0.53	132.5•

SAMPLE: PQL

File: JZG13A Jul 14, 2009 00:02

Analyte	TRUE	FOUND	% R
ALUMINUM	60.0	62.87	104.8
ANTIMONY	0.2	0.21	105.0
ARSENIC	1.0	1.04	104.0
BERYLLIUM	0.2	0.21	105.0
CADMIUM	0.2	0.21	105.0
CALCIUM	20.0	19.90	99.5
IRON	20.0	22.75	113.8
MAGNESIUM	20.0	20.67	103.4
MOLYBDENUM	1.0	1.08	108.0
POTASSIUM	200.0	183.70	91.8
SODIUM	200.0	218.80	109.4
THALLIUM	0.4	0.26	65.0•

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Concentration Units: ug/L

SAMPLE: ICB

File: HZG20A Jul 20, 2009 11:24

Analyte	Result	C
MERCURY	0.04	B

SAMPLE: CCB

File: HZG20A Jul 20, 2009 11:30

Analyte	Result	C
MERCURY	0.06	B

SAMPLE: CCB

File: HZG20A Jul 20, 2009 11:54

Analyte	Result	C
MERCURY	0.05	B

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Concentration Units: ug/L

SAMPLE: CCB

File: HZG20A Jul 20, 2009 12:19

Analyte	Result	C
MERCURY	0.04	B

SAMPLE: CCB

File: HZG20A Jul 20, 2009 12:45

Analyte	Result	C
MERCURY	0.04	B

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Concentration Units: ug/L

SAMPLE: ICB

File: IZG07A Jul 07, 2009 17:58

Analyte	Result	C
ALUMINUM	32.00	U
BARIUM	0.57	U
CALCIUM	16.47	B
CHROMIUM	0.62	U
COBALT	0.23	B
COPPER	0.79	U
IRON	5.91	B
LEAD	1.40	U
MAGNESIUM	4.72	B
MANGANESE	1.10	U
NICKEL	0.34	U
POTASSIUM	61.00	U
SELENIUM	2.10	U
SILVER	0.63	U
SODIUM	32.00	U
VANADIUM	0.69	U
ZINC	0.32	U

SAMPLE: CCB

File: IZG07A Jul 07, 2009 18:23

Analyte	Result	C
ALUMINUM	32.00	U
BARIUM	0.57	U
CALCIUM	15.00	U
CHROMIUM	0.62	U
COBALT	0.19	U
COPPER	0.79	U
IRON	6.06	B
LEAD	1.40	U
MAGNESIUM	5.65	B
MANGANESE	1.10	U
NICKEL	0.34	U
POTASSIUM	61.00	U
SELENIUM	2.10	U
SILVER	0.63	U
SODIUM	32.00	U
VANADIUM	0.69	U
ZINC	0.32	U

SAMPLE: CCB

File: IZG07A Jul 07, 2009 19:23

Analyte	Result	C
ALUMINUM	32.00	U
BARIUM	0.57	U
CALCIUM	15.00	U
CHROMIUM	0.62	U
COBALT	0.19	U
COPPER	0.79	U
IRON	7.76	B
LEAD	1.40	U
MAGNESIUM	9.25	B
MANGANESE	1.10	U
NICKEL	0.34	U
POTASSIUM	61.00	U
SELENIUM	2.10	U
SILVER	0.63	U
SODIUM	32.00	U
VANADIUM	0.69	U
ZINC	0.32	U

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Concentration Units: ug/L

SAMPLE: CCB
File: IZG07A Jul 07, 2009 20:23

Analyte	Result	C
ALUMINUM	32.00	U
BARIUM	0.57	U
CALCIUM	15.00	U
CHROMIUM	0.62	U
COBALT	0.19	U
COPPER	0.79	U
IRON	10.19	B
LEAD	1.40	U
MAGNESIUM	9.15	B
MANGANESE	1.10	U
NICKEL	0.34	U
POTASSIUM	146.40	B
SELENIUM	-2.57	B
SILVER	0.63	U
SODIUM	134.80	B
VANADIUM	0.69	U
ZINC	0.32	U

SAMPLE: CCB
File: IZG07A Jul 07, 2009 21:24

Analyte	Result	C
ALUMINUM	32.00	U
BARIUM	0.57	U
CALCIUM	15.00	U
CHROMIUM	0.62	U
COBALT	0.19	U
COPPER	0.79	U
IRON	11.61	B
LEAD	1.40	U
MAGNESIUM	11.33	B
MANGANESE	1.10	U
NICKEL	0.34	U
POTASSIUM	61.00	U
SELENIUM	2.10	U
SILVER	0.63	U
SODIUM	54.66	B
VANADIUM	0.69	U
ZINC	0.32	U

SAMPLE: CCB
File: IZG07A Jul 07, 2009 22:24

Analyte	Result	C
ALUMINUM	32.00	U
BARIUM	0.57	U
CALCIUM	15.00	U
CHROMIUM	0.62	U
COBALT	0.19	U
COPPER	0.79	U
IRON	9.65	B
LEAD	1.40	U
MAGNESIUM	11.42	B
MANGANESE	1.10	U
NICKEL	0.34	U
POTASSIUM	61.00	U
SELENIUM	2.10	U
SILVER	0.63	U
SODIUM	32.00	U
VANADIUM	0.69	U
ZINC	0.32	U

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Concentration Units: ug/L

SAMPLE: CCB

File: IZG07A Jul 07, 2009 23:24

Analyte	Result	C
ALUMINUM	32.00	U
BARIUM	0.57	U
CALCIUM	15.00	U
CHROMIUM	0.62	U
COBALT	0.19	U
COPPER	0.79	U
IRON	13.13	B
LEAD	1.40	U
MAGNESIUM	14.98	B
MANGANESE	1.10	U
NICKEL	0.34	U
POTASSIUM	61.00	U
SELENIUM	2.10	U
SILVER	0.63	U
SODIUM	32.00	U
VANADIUM	0.69	U
ZINC	0.32	U

SAMPLE: CCB

File: IZG07A Jul 08, 2009 0:25

Analyte	Result	C
ALUMINUM	32.00	U
BARIUM	0.57	U
CALCIUM	15.00	U
CHROMIUM	0.62	U
COBALT	0.19	U
COPPER	0.79	U
IRON	12.84	B
LEAD	1.40	U
MAGNESIUM	15.43	B
MANGANESE	1.10	U
NICKEL	0.34	U
POTASSIUM	76.51	B
SELENIUM	2.10	U
SILVER	0.63	U
SODIUM	127.70	B
VANADIUM	0.69	U
ZINC	0.32	U

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Concentration Units: ug/L

SAMPLE: ICB

File: IZG08A Jul 08, 2009 12:10

Analyte	Result	C
ALUMINUM	32.00	U
CALCIUM	15.00	U
IRON	3.80	B
MAGNESIUM	2.20	U
POTASSIUM	61.00	U

SAMPLE: CCB

File: IZG08A Jul 08, 2009 12:36

Analyte	Result	C
ALUMINUM	32.00	U
CALCIUM	15.00	U
IRON	4.38	B
MAGNESIUM	2.20	U
POTASSIUM	61.00	U

SAMPLE: CCB

File: IZG08A Jul 08, 2009 13:35

Analyte	Result	C
ALUMINUM	32.00	U
CALCIUM	15.00	U
IRON	6.89	B
MAGNESIUM	4.99	B
POTASSIUM	61.00	U

Katahdin Analytical Services A0000214

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Concentration Units: ug/L

SAMPLE: CCB
File: IZG08A Jul 08, 2009 14:35

Analyte	Result	C
ALUMINUM	32.00	U
CALCIUM	15.00	U
IRON	9.35	B
MAGNESIUM	4.99	B
POTASSIUM	61.00	U

SAMPLE: CCB
File: IZG08A Jul 08, 2009 15:35

Analyte	Result	C
ALUMINUM	32.00	U
CALCIUM	15.00	U
IRON	10.75	B
MAGNESIUM	7.06	B
POTASSIUM	61.00	U

SAMPLE: CCB
File: IZG08A Jul 08, 2009 16:36

Analyte	Result	C
ALUMINUM	32.00	U
CALCIUM	15.00	U
IRON	10.53	B
MAGNESIUM	9.41	B
POTASSIUM	61.00	U

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Concentration Units: ug/L

SAMPLE: CCB

File: IZG08A Jul 08, 2009 17:36

Analyte	Result	C
ALUMINUM	32.00	U
CALCIUM	15.09	B
IRON	12.99	B
MAGNESIUM	9.40	B
POTASSIUM	87.28	B

SAMPLE: CCB

File: IZG08A Jul 08, 2009 18:36

Analyte	Result	C
ALUMINUM	32.00	U
CALCIUM	15.00	U
IRON	10.48	B
MAGNESIUM	9.08	B
POTASSIUM	148.00	B

SAMPLE: CCB

File: IZG08A Jul 08, 2009 19:37

Analyte	Result	C
ALUMINUM	42.95	B
CALCIUM	34.84	B
IRON	25.04	B
MAGNESIUM	31.11	B
POTASSIUM	75.44	B

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Concentration Units: ug/L

SAMPLE: CCB

File: IZG08A Jul 08, 2009 20:37

Analyte	Result	C
ALUMINUM	32.00	U
CALCIUM	15.00	U
IRON	3.70	U
MAGNESIUM	2.20	U
POTASSIUM	80.02	B

SAMPLE: CCB

File: IZG08A Jul 08, 2009 21:38

Analyte	Result	C
ALUMINUM	32.00	U
CALCIUM	15.00	U
IRON	5.23	B
MAGNESIUM	2.20	U
POTASSIUM	93.60	B

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Concentration Units: ug/L

SAMPLE: ICB

File: IZG16A Jul 16, 2009 14:15

Analyte	Result	C
ALUMINUM	32.00	U
CALCIUM	15.00	U
IRON	3.70	U
MAGNESIUM	2.20	U
SODIUM	32.00	U

SAMPLE: CCB

File: IZG16A Jul 16, 2009 14:40

Analyte	Result	C
ALUMINUM	32.00	U
CALCIUM	15.00	U
IRON	3.70	U
MAGNESIUM	2.20	U
SODIUM	32.00	U

SAMPLE: CCB

File: IZG16A Jul 16, 2009 15:41

Analyte	Result	C
ALUMINUM	32.00	U
CALCIUM	15.00	U
IRON	3.70	U
MAGNESIUM	2.20	U
SODIUM	32.00	U

3A

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Concentration Units: ug/L

SAMPLE: CCB

File: IZG16A Jul 16, 2009 16:41

Analyte	Result	C
ALUMINUM	32.00	U
CALCIUM	15.00	U
IRON	4.66	B
MAGNESIUM	6.30	B
SODIUM	35.40	B

SAMPLE: CCB

File: IZG16A Jul 16, 2009 17:42

Analyte	Result	C
ALUMINUM	32.00	U
CALCIUM	15.00	U
IRON	3.70	U
MAGNESIUM	2.20	U
SODIUM	32.00	U

SAMPLE: CCB

File: IZG16A Jul 16, 2009 18:43

Analyte	Result	C
ALUMINUM	32.00	U
CALCIUM	15.00	U
IRON	8.39	B
MAGNESIUM	8.92	B
SODIUM	32.00	U

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Concentration Units: ug/L

SAMPLE: ICB

File: IZG20B Jul 21, 2009 2:35

Analyte	Result	C
ALUMINUM	32.00	U
BARIUM	0.57	U
CALCIUM	15.00	U
CHROMIUM	0.62	U
COBALT	0.19	U
COPPER	0.79	U
IRON	6.25	B
LEAD	1.40	U
MAGNESIUM	4.49	B
MANGANESE	1.10	U
NICKEL	0.34	U
POTASSIUM	61.00	U
SELENIUM	2.10	U
SILVER	0.63	U
SODIUM	32.00	U
VANADIUM	0.69	U
ZINC	0.32	U

SAMPLE: CCB

File: IZG20B Jul 21, 2009 2:59

Analyte	Result	C
ALUMINUM	32.00	U
BARIUM	0.57	U
CALCIUM	15.00	U
CHROMIUM	0.62	U
COBALT	0.19	U
COPPER	0.79	U
IRON	7.40	B
LEAD	1.40	U
MAGNESIUM	5.75	B
MANGANESE	1.10	U
NICKEL	0.34	U
POTASSIUM	61.00	U
SELENIUM	2.10	U
SILVER	0.63	U
SODIUM	32.00	U
VANADIUM	0.69	U
ZINC	0.32	U

SAMPLE: CCB

File: IZG20B Jul 21, 2009 3:59

Analyte	Result	C
ALUMINUM	32.00	U
BARIUM	0.57	U
CALCIUM	15.00	U
CHROMIUM	0.62	U
COBALT	0.19	U
COPPER	0.79	U
IRON	8.45	B
LEAD	1.40	U
MAGNESIUM	7.19	B
MANGANESE	1.10	U
NICKEL	0.34	U
POTASSIUM	61.00	U
SELENIUM	2.10	U
SILVER	0.63	U
SODIUM	32.00	U
VANADIUM	0.69	U
ZINC	0.32	U

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Concentration Units: ug/L

SAMPLE: CCB
File: IZG20B Jul 21, 2009 5:00

Analyte	Result	C
ALUMINUM	32.00	U
BARIUM	0.57	U
CALCIUM	15.00	U
CHROMIUM	0.62	U
COBALT	0.19	U
COPPER	0.79	U
IRON	3.70	U
LEAD	1.40	U
MAGNESIUM	8.83	B
MANGANESE	1.10	U
NICKEL	0.34	U
POTASSIUM	106.70	B
SELENIUM	2.10	U
SILVER	0.63	U
SODIUM	49.60	B
VANADIUM	0.69	U
ZINC	0.32	U

SAMPLE: CCB
File: IZG20B Jul 21, 2009 6:00

Analyte	Result	C
ALUMINUM	32.00	U
BARIUM	0.57	U
CALCIUM	15.78	B
CHROMIUM	0.62	U
COBALT	0.19	U
COPPER	0.79	U
IRON	12.13	B
LEAD	1.40	U
MAGNESIUM	7.28	B
MANGANESE	1.10	U
NICKEL	0.34	U
POTASSIUM	61.00	U
SELENIUM	2.10	U
SILVER	0.63	U
SODIUM	32.00	U
VANADIUM	0.69	U
ZINC	0.32	U

SAMPLE: CCB
File: IZG20B Jul 21, 2009 7:01

Analyte	Result	C
ALUMINUM	32.00	U
BARIUM	0.57	U
CALCIUM	15.00	U
CHROMIUM	0.62	U
COBALT	0.19	U
COPPER	0.79	U
IRON	9.15	B
LEAD	1.40	U
MAGNESIUM	9.11	B
MANGANESE	1.24	B
NICKEL	0.34	U
POTASSIUM	61.00	U
SELENIUM	2.10	U
SILVER	0.63	U
SODIUM	32.00	U
VANADIUM	0.69	U
ZINC	0.32	U

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Concentration Units: ug/L

SAMPLE: CCB
File: IZG20B Jul 21, 2009 8:01

Analyte	Result	C
ALUMINUM	32.00	U
BARIUM	0.57	U
CALCIUM	15.00	U
CHROMIUM	0.62	U
COBALT	0.19	U
COPPER	0.79	U
IRON	5.45	B
LEAD	1.40	U
MAGNESIUM	9.37	B
MANGANESE	1.10	U
NICKEL	0.34	U
POTASSIUM	61.00	U
SELENIUM	2.10	U
SILVER	0.63	U
SODIUM	35.27	B
VANADIUM	0.69	U
ZINC	0.32	U

SAMPLE: CCB
File: IZG20B Jul 21, 2009 9:02

Analyte	Result	C
ALUMINUM	32.00	U
BARIUM	0.61	B
CALCIUM	15.00	U
CHROMIUM	0.62	U
COBALT	0.19	U
COPPER	0.91	B
IRON	12.44	B
LEAD	1.40	U
MAGNESIUM	9.52	B
MANGANESE	1.10	U
NICKEL	0.34	U
POTASSIUM	61.00	U
SELENIUM	2.10	U
SILVER	0.63	U
SODIUM	35.91	B
VANADIUM	0.69	U
ZINC	0.32	U

SAMPLE: CCB
File: IZG20B Jul 21, 2009 10:02

Analyte	Result	C
ALUMINUM	32.00	U
BARIUM	0.57	U
CALCIUM	15.00	U
CHROMIUM	0.62	U
COBALT	0.19	U
COPPER	1.44	B
IRON	7.73	B
LEAD	1.40	U
MAGNESIUM	11.37	B
MANGANESE	1.10	U
NICKEL	0.34	U
POTASSIUM	61.00	U
SELENIUM	2.10	U
SILVER	0.63	U
SODIUM	32.00	U
VANADIUM	0.69	U
ZINC	0.32	U

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Concentration Units: ug/L

SAMPLE: ICB

File: JZG13A Jul 13, 2009 18:27

Analyte	Result	C
ALUMINUM	44.75	B
ANTIMONY	0.21	
ARSENIC	0.08	U
BERYLLIUM	0.25	
CADMIUM	0.21	
CALCIUM	20.75	B
IRON	72.49	B
MAGNESIUM	25.21	B
MOLYBDENUM	0.83	B
POTASSIUM	17.07	B
SODIUM	26.58	B
THALLIUM	0.72	

SAMPLE: CCB

File: JZG13A Jul 13, 2009 19:19

Analyte	Result	C
ALUMINUM	64.22	B
ANTIMONY	0.03	U
ARSENIC	0.08	U
BERYLLIUM	0.02	B
CADMIUM	0.02	B
CALCIUM	60.76	
IRON	67.83	B
MAGNESIUM	65.89	
MOLYBDENUM	3.73	B
POTASSIUM	78.14	B
SODIUM	74.57	B
THALLIUM	0.24	B

SAMPLE: CCB

File: JZG13A Jul 13, 2009 19:53

Analyte	Result	C
ALUMINUM	7.47	B
ANTIMONY	0.03	U
ARSENIC	-0.08	B
BERYLLIUM	0.02	B
CADMIUM	0.01	B
CALCIUM	6.76	B
IRON	12.95	B
MAGNESIUM	11.95	B
MOLYBDENUM	0.98	B
POTASSIUM	11.97	B
SODIUM	15.84	B
THALLIUM	0.17	B

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Concentration Units: ug/L

SAMPLE: CCB

File: JZG13A Jul 13, 2009 21:36

Analyte	Result	C
ALUMINUM	13.47	B
ANTIMONY	0.03	U
ARSENIC	0.08	U
BERYLLIUM	0.01	U
CADMIUM	0.01	U
CALCIUM	3.90	U
IRON	18.77	B
MAGNESIUM	8.02	B
MOLYBDENUM	0.39	B
POTASSIUM	21.60	B
SODIUM	9.32	B
THALLIUM	0.11	B

SAMPLE: CCB

File: JZG13A Jul 13, 2009 23:19

Analyte	Result	C
ALUMINUM	11.07	B
ANTIMONY	0.07	B
ARSENIC	0.08	U
BERYLLIUM	0.04	B
CADMIUM	0.04	B
CALCIUM	5.74	B
IRON	16.72	B
MAGNESIUM	7.94	B
MOLYBDENUM	0.47	B
POTASSIUM	8.80	U
SODIUM	9.72	B
THALLIUM	0.26	B

SAMPLE: CCB

File: JZG13A Jul 14, 2009 0:19

Analyte	Result	C
ALUMINUM	2.75	B
ANTIMONY	0.03	U
ARSENIC	0.08	U
BERYLLIUM	0.01	U
CADMIUM	0.01	B
CALCIUM	3.90	U
IRON	6.57	B
MAGNESIUM	6.77	B
MOLYBDENUM	0.31	B
POTASSIUM	8.80	U
SODIUM	11.48	B
THALLIUM	0.12	B

INITIAL AND CONTINUING CALIBRATION BLANKS

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Concentration Units: ug/L

SAMPLE: CCB

File: JZG13A Jul 14, 2009 2:02

Analyte	Result	C
ALUMINUM	2.36	B
ANTIMONY	0.05	B
ARSENIC	0.08	U
BERYLLIUM	0.01	U
CADMIUM	0.03	B
CALCIUM	3.90	U
IRON	6.83	B
MAGNESIUM	7.76	B
MOLYBDENUM	0.33	B
POTASSIUM	-20.13	B
SODIUM	12.27	B
THALLIUM	0.37	B

SAMPLE: CCB

File: JZG13A Jul 14, 2009 3:45

Analyte	Result	C
ALUMINUM	4.01	B
ANTIMONY	0.04	B
ARSENIC	0.08	U
BERYLLIUM	0.01	U
CADMIUM	0.02	B
CALCIUM	3.90	U
IRON	6.14	B
MAGNESIUM	7.96	B
MOLYBDENUM	0.32	B
POTASSIUM	-27.16	B
SODIUM	12.74	B
THALLIUM	0.32	B

SAMPLE: CCB

File: JZG13A Jul 14, 2009 5:28

Analyte	Result	C
ALUMINUM	8.53	B
ANTIMONY	0.05	B
ARSENIC	0.08	U
BERYLLIUM	0.03	B
CADMIUM	0.02	B
CALCIUM	26.78	B
IRON	10.14	B
MAGNESIUM	11.41	B
MOLYBDENUM	0.36	B
POTASSIUM	-24.10	B
SODIUM	12.36	B
THALLIUM	0.38	B

3P

PREPARATION BLANKS

Lab Name: Katahdin Analytical Services **Sample ID:** PBWZG06ICW2

Matrix: WATER **SDG Name:** SC3624

QC Batch ID: ZG06ICW2

Concentration Units : ug/L

Analyte	RESULT	C
ALUMINUM	12.500	U
ANTIMONY	0.140	U
ARSENIC	1.480	U
BARIUM	0.350	U
BERYLLIUM	0.060	U
CADMIUM	0.050	U
CALCIUM	17.900	B
CHROMIUM	0.440	U
COBALT	0.270	U
COPPER	0.700	U
IRON	5.170	U
LEAD	1.020	U
MAGNESIUM	17.140	B
MANGANESE	0.670	U
NICKEL	0.423	B
POTASSIUM	101.900	B
SELENIUM	3.030	U
SILVER	0.790	U
SODIUM	21.700	U
THALLIUM	-0.213	B
VANADIUM	5.120	U
ZINC	1.730	U

Katahdin Analytical Services A0000226

3P

PREPARATION BLANKS

Lab Name: Katahdin Analytical Services **Sample ID:** PBWZG09ICW1

Matrix: WATER **SDG Name:** SC3624

QC Batch ID: ZG09ICW1

Concentration Units : ug/L

Analyte	RESULT	C
ALUMINUM	12.500	U
ANTIMONY	0.140	B
ARSENIC	1.480	U
BARIUM	0.350	U
BERYLLIUM	0.060	U
CADMIUM	0.075	B
CALCIUM	15.590	B
CHROMIUM	0.440	U
COBALT	0.270	U
COPPER	0.700	U
IRON	6.901	B
LEAD	1.020	U
MAGNESIUM	21.170	B
MANGANESE	0.670	U
NICKEL	0.240	U
POTASSIUM	95.000	U
SELENIUM	3.030	U
SILVER	0.790	U
SODIUM	21.700	U
THALLIUM	0.768	B
VANADIUM	5.120	U
ZINC	1.730	U

Katahdin Analytical Services A0000227

3P

PREPARATION BLANKS

Lab Name: Katahdin Analytical Services **Sample ID:** PBWZG17HGW2

Matrix: WATER **SDG Name:** SC3624

QC Batch ID: ZG17HGW2

Concentration Units : ug/L

Analyte	RESULT	C
MERCURY	0.046	B

Katahdin Analytical Services A0000228

ICP INTERFERENCE CHECK SAMPLE

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Concentration Units: ug/L

SAMPLE: ICSA

File: IZG07A Jul 07, 2009 18:08

Analyte	TRUE	FOUND	% R
ALUMINUM	500000	532000	106.4
BARIUM	0	0	
CALCIUM	500000	477000	95.4
CHROMIUM	0	1	
COBALT	0	0	
COPPER	0	1	
IRON	200000	188700	94.3
LEAD	0	0	
MAGNESIUM	500000	520100	104.0
MANGANESE	6	6	
NICKEL	0	3	
POTASSIUM	0	-79	
SELENIUM	0	2	
SILVER	0	-2	
SODIUM	0	10	
VANADIUM	0	0	
ZINC	0	6	

SAMPLE: ICSAB

File: IZG07A Jul 07, 2009 18:13

Analyte	TRUE	FOUND	% R
ALUMINUM	500000	509400	101.9
BARIUM	500	494	98.8
CALCIUM	500000	466400	93.3
CHROMIUM	500	474	94.8
COBALT	500	468	93.6
COPPER	500	535	107.0
IRON	200000	189200	94.6
LEAD	50	41	82.0
MAGNESIUM	500000	483000	96.6
MANGANESE	506	484	95.7
NICKEL	1000	906	90.6
POTASSIUM	20000	21090	105.5
SELENIUM	50	51	102.0
SILVER	200	198	99.0
SODIUM	20000	20830	104.2
VANADIUM	500	486	97.2
ZINC	1000	914	91.4

ICP INTERFERENCE CHECK SAMPLE

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Concentration Units: ug/L

SAMPLE: ICSA

File: IZG07A Jul 07, 2009 21:09

Analyte	TRUE	FOUND	% R
ALUMINUM	500000	515800	103.2
BARIUM	0	0	
CALCIUM	500000	491300	98.3
CHROMIUM	0	1	
COBALT	0	0	
COPPER	0	2	
IRON	200000	190400	95.2
LEAD	0	0	
MAGNESIUM	500000	530600	106.1
MANGANESE	6	6	
NICKEL	0	2	
POTASSIUM	0	81	
SELENIUM	0	0	
SILVER	0	2	
SODIUM	0	59	
VANADIUM	0	0	
ZINC	0	6	

SAMPLE: ICSAB

File: IZG07A Jul 07, 2009 21:14

Analyte	TRUE	FOUND	% R
ALUMINUM	500000	511100	102.2
BARIUM	500	492	98.4
CALCIUM	500000	484300	96.9
CHROMIUM	500	490	98.0
COBALT	500	476	95.2
COPPER	500	547	109.4
IRON	200000	188900	94.5
LEAD	50	41	82.0
MAGNESIUM	500000	506300	101.3
MANGANESE	506	493	97.4
NICKEL	1000	906	90.6
POTASSIUM	20000	21040	105.2
SELENIUM	50	43	86.0
SILVER	200	211	105.5
SODIUM	20000	21630	108.1
VANADIUM	500	492	98.4
ZINC	1000	953	95.3

ICP INTERFERENCE CHECK SAMPLE

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Concentration Units: ug/L

SAMPLE: ICSA

File: IZG08A Jul 08, 2009 12:20

Analyte	TRUE	FOUND	% R
ALUMINUM	500000	520200	104.0
CALCIUM	500000	454200	90.8
IRON	200000	187100	93.5
MAGNESIUM	500000	492800	98.6
POTASSIUM	0	58	

SAMPLE: ICSAB

File: IZG08A Jul 08, 2009 12:25

Analyte	TRUE	FOUND	% R
ALUMINUM	500000	522000	104.4
CALCIUM	500000	450100	90.0
IRON	200000	185200	92.6
MAGNESIUM	500000	492900	98.6
POTASSIUM	20000	21070	105.4

ICP INTERFERENCE CHECK SAMPLE

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Concentration Units: ug/L

SAMPLE: ICSA

File: IZG08A Jul 08, 2009 16:21

Analyte	TRUE	FOUND	% R
ALUMINUM	500000	524000	104.8
CALCIUM	500000	473100	94.6
IRON	200000	190600	95.3
MAGNESIUM	500000	503800	100.8
POTASSIUM	0	91	

SAMPLE: ICSAB

File: IZG08A Jul 08, 2009 16:26

Analyte	TRUE	FOUND	% R
ALUMINUM	500000	526100	105.2
CALCIUM	500000	468000	93.6
IRON	200000	189600	94.8
MAGNESIUM	500000	484500	96.9
POTASSIUM	20000	21390	106.9

ICP INTERFERENCE CHECK SAMPLE

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Concentration Units: ug/L

SAMPLE: ICSA

File: IZG08A Jul 08, 2009 19:21

Analyte	TRUE	FOUND	% R
ALUMINUM	500000	512600	102.5
CALCIUM	500000	490600	98.1
IRON	200000	193000	96.5
MAGNESIUM	500000	473300	94.7
POTASSIUM	0	136	

SAMPLE: ICSAB

File: IZG08A Jul 08, 2009 19:27

Analyte	TRUE	FOUND	% R
ALUMINUM	500000	514900	103.0
CALCIUM	500000	483300	96.7
IRON	200000	190800	95.4
MAGNESIUM	500000	461100	92.2
POTASSIUM	20000	21820	109.1

ICP INTERFERENCE CHECK SAMPLE

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Concentration Units: ug/L

SAMPLE: ICSA

File: IZG16A Jul 16, 2009 14:25

Analyte	TRUE	FOUND	% R
ALUMINUM	500000	520700	104.1
CALCIUM	500000	473900	94.8
IRON	200000	194700	97.4
MAGNESIUM	500000	528700	105.7
SODIUM	0	33	

SAMPLE: ICSAB

File: IZG16A Jul 16, 2009 14:30

Analyte	TRUE	FOUND	% R
ALUMINUM	500000	515600	103.1
CALCIUM	500000	466900	93.4
IRON	200000	192500	96.3
MAGNESIUM	500000	508300	101.7
SODIUM	20000	21340	106.7

ICP INTERFERENCE CHECK SAMPLE

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Concentration Units: ug/L

SAMPLE: ICSA

File: IZG16A Jul 16, 2009 18:28

Analyte	TRUE	FOUND	% R
ALUMINUM	500000	546200	109.2
CALCIUM	500000	488800	97.8
IRON	200000	195600	97.8
MAGNESIUM	500000	487400	97.5
SODIUM	0	22	

SAMPLE: ICSAB

File: IZG16A Jul 16, 2009 18:33

Analyte	TRUE	FOUND	% R
ALUMINUM	500000	563000	112.6
CALCIUM	500000	502500	100.5
IRON	200000	201700	100.8
MAGNESIUM	500000	505400	101.1
SODIUM	20000	22930	114.7

ICP INTERFERENCE CHECK SAMPLE

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Concentration Units: ug/L

SAMPLE: ICSA

File: IZG20B Jul 21, 2009 02:45

Analyte	TRUE	FOUND	% R
ALUMINUM	500000	513200	102.6
BARIUM	0	0	
CALCIUM	500000	468700	93.7
CHROMIUM	0	2	
COBALT	0	0	
COPPER	0	4	
IRON	200000	190200	95.1
LEAD	0	-1	
MAGNESIUM	500000	480000	96.0
MANGANESE	6	7	
NICKEL	0	1	
POTASSIUM	0	4	
SELENIUM	0	-2	
SILVER	0	2	
SODIUM	0	27	
VANADIUM	0	-1	
ZINC	0	8	

SAMPLE: ICSAB

File: IZG20B Jul 21, 2009 02:50

Analyte	TRUE	FOUND	% R
ALUMINUM	500000	513100	102.6
BARIUM	500	505	101.0
CALCIUM	500000	467800	93.6
CHROMIUM	500	481	96.2
COBALT	500	461	92.2
COPPER	500	529	105.8
IRON	200000	189600	94.8
LEAD	50	43	86.0
MAGNESIUM	500000	487600	97.5
MANGANESE	506	477	94.3
NICKEL	1000	908	90.8
POTASSIUM	20000	21980	109.9
SELENIUM	50	47	94.0
SILVER	200	212	106.0
SODIUM	20000	21400	107.0
VANADIUM	500	490	98.0
ZINC	1000	915	91.5

ICP INTERFERENCE CHECK SAMPLE

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Concentration Units: ug/L

SAMPLE: ICSA

File: IZG20B Jul 21, 2009 05:45

Analyte	TRUE	FOUND	% R
ALUMINUM	500000	516700	103.3
BARIUM	0	0	
CALCIUM	500000	469200	93.8
CHROMIUM	0	2	
COBALT	0	0	
COPPER	0	5	
IRON	200000	188700	94.3
LEAD	0	-2	
MAGNESIUM	500000	480500	96.1
MANGANESE	6	7	
NICKEL	0	1	
POTASSIUM	0	1	
SELENIUM	0	-7	
SILVER	0	1	
SODIUM	0	82	
VANADIUM	0	-1	
ZINC	0	8	

SAMPLE: ICSAB

File: IZG20B Jul 21, 2009 05:50

Analyte	TRUE	FOUND	% R
ALUMINUM	500000	516900	103.4
BARIUM	500	512	102.4
CALCIUM	500000	467700	93.5
CHROMIUM	500	484	96.8
COBALT	500	462	92.4
COPPER	500	527	105.4
IRON	200000	188800	94.4
LEAD	50	42	84.0
MAGNESIUM	500000	471200	94.2
MANGANESE	506	476	94.1
NICKEL	1000	907	90.7
POTASSIUM	20000	22260	111.3
SELENIUM	50	42	84.0
SILVER	200	211	105.5
SODIUM	20000	21790	108.9
VANADIUM	500	495	99.0
ZINC	1000	917	91.7

ICP INTERFERENCE CHECK SAMPLE

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Concentration Units: ug/L

SAMPLE: ICSA

File: IZG20B Jul 21, 2009 08:47

Analyte	TRUE	FOUND	% R
ALUMINUM	500000	518000	103.6
BARIUM	0	0	
CALCIUM	500000	473100	94.6
CHROMIUM	0	2	
COBALT	0	0	
COPPER	0	5	
IRON	200000	191200	95.6
LEAD	0	1	
MAGNESIUM	500000	487600	97.5
MANGANESE	6	6	
NICKEL	0	1	
POTASSIUM	0	-15	
SELENIUM	0	2	
SILVER	0	0	
SODIUM	0	79	
VANADIUM	0	-1	
ZINC	0	7	

SAMPLE: ICSAB

File: IZG20B Jul 21, 2009 08:52

Analyte	TRUE	FOUND	% R
ALUMINUM	500000	518900	103.8
BARIUM	500	519	103.8
CALCIUM	500000	472700	94.5
CHROMIUM	500	495	99.0
COBALT	500	454	90.8
COPPER	500	514	102.8
IRON	200000	191900	96.0
LEAD	50	44	88.0
MAGNESIUM	500000	464300	92.9
MANGANESE	506	476	94.1
NICKEL	1000	857	85.7
POTASSIUM	20000	22000	110.0
SELENIUM	50	45	90.0
SILVER	200	211	105.5
SODIUM	20000	22170	110.9
VANADIUM	500	491	98.2
ZINC	1000	892	89.2

ICP INTERFERENCE CHECK SAMPLE

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Concentration Units: ug/L

SAMPLE: ICSA

File: JZG13A Jul 13, 2009 18:44

Analyte	TRUE	FOUND	% R
ALUMINUM	100000	95350	95.3
ANTIMONY	0	0	
ARSENIC	0	0	
BERYLLIUM	0	0	
CADMIUM	0	0	
CALCIUM	100000	94300	94.3
IRON	100000	91060	91.1
MAGNESIUM	100000	94150	94.2
MOLYBDENUM	2000	2012	100.6
POTASSIUM	100000	95760	95.8
SODIUM	100000	94380	94.4
THALLIUM	0	0	

SAMPLE: ICSAB

File: JZG13A Jul 13, 2009 18:53

Analyte	TRUE	FOUND	% R
ALUMINUM	100000	101900	101.9
ANTIMONY	20	21	105.0
ARSENIC	20	20	100.0
BERYLLIUM	20	20	100.0
CADMIUM	20	19	95.0
CALCIUM	100000	101500	101.5
IRON	100000	93840	93.8
MAGNESIUM	100000	101400	101.4
MOLYBDENUM	2000	2129	106.5
POTASSIUM	100000	103000	103.0
SODIUM	100000	102000	102.0
THALLIUM	20	21	105.0

5A

SPIKE SAMPLE RECOVERY

Lab Name: Katahdin Analytical Services | **Client Field ID:** WGL-GW-MW2-063009S

Matrix: WATER | **SDG Name:** SC3624

Percent Solids: 0.00 | **Lab Sample ID:** SC3624-010P

Concentration Units : ug/L

Analyte	Spiked Sample Result	C	Sample Result	C	Spike Added	%R	Q	Control Limits (%R) Low	High	M
ALUMINUM, TOTAL	2114.0000		108.4000	B	2000	100.3		75	125	P
ANTIMONY, TOTAL	520.8000		0.1696	B	500	104.1		75	125	MS
ARSENIC, TOTAL	498.5000		2.0605	B	500	99.3		75	125	MS
BARIUM, TOTAL	2054.0000		94.6500		2000	98.0		75	125	P
BERYLLIUM, TOTAL	52.6900		0.2289	B	50	104.9		75	125	MS
CADMIUM, TOTAL	257.5000		0.4504	B	250	102.8		75	125	MS
CALCIUM, TOTAL	25180.0000		23930.0000		2500	50.0		75	125	P
CHROMIUM, TOTAL	208.3000		0.3728	U	200	104.2		75	125	P
COBALT, TOTAL	518.0000		-0.0412	U	500	103.6		75	125	P
COPPER, TOTAL	264.5000		-0.5206	U	250	105.8		75	125	P
IRON, TOTAL	1088.0000		78.2500	B	1000	101.0		75	125	P
LEAD, TOTAL	502.7000		0.9714	U	500	100.5		75	125	P
MAGNESIUM, TOTAL	9454.0000		4860.0000		5000	91.9		75	125	P
MANGANESE, TOTAL	959.3000		481.1000		500	95.6		75	125	P
NICKEL, TOTAL	506.7000		2.0450	B	500	100.9		75	125	P
POTASSIUM, TOTAL	15580.0000		5034.0000		10000	105.5		75	125	P
SELENIUM, TOTAL	506.7000		-2.5630	U	500	101.3		75	125	P
SILVER, TOTAL	53.4700		0.0883	U	50	106.9		75	125	P
SODIUM, TOTAL	161300.0000		172400.0000		7500	-148.0		75	125	P
THALLIUM, TOTAL	484.4000		0.0490	U	500	96.9		75	125	MS
VANADIUM, TOTAL	519.1000		0.0227	U	500	103.8		75	125	P
ZINC, TOTAL	531.8000		9.7100	B	500	104.4		75	125	P

Comments:

5A

SPIKE SAMPLE RECOVERY

Lab Name: Katahdin Analytical Services | **Client Field ID:** WGL-GW-MW2-063009S

Matrix: WATER | **SDG Name:** SC3624

Percent Solids: 0.00 | **Lab Sample ID:** SC3624-010S

Concentration Units : ug/L

Analyte	Spiked Sample Result	C	Sample Result	C	Spike Added	%R	Q	Control Limits (%R) Low	High	M
ALUMINUM, TOTAL	2252.0000		108.4000	B	2000	107.2		75	125	P
ANTIMONY, TOTAL	526.5000		0.1696	B	500	105.3		75	125	MS
ARSENIC, TOTAL	502.9000		2.0605	B	500	100.2		75	125	MS
BARIUM, TOTAL	2201.0000		94.6500		2000	105.3		75	125	P
BERYLLIUM, TOTAL	54.5200		0.2289	B	50	108.6		75	125	MS
CADMIUM, TOTAL	263.2000		0.4504	B	250	105.1		75	125	MS
CALCIUM, TOTAL	25860.0000		23930.0000		2500	77.2		75	125	P
CHROMIUM, TOTAL	215.3000		0.3728	U	200	107.7		75	125	P
COBALT, TOTAL	538.7000		-0.0412	U	500	107.7		75	125	P
COPPER, TOTAL	274.1000		-0.5206	U	250	109.6		75	125	P
IRON, TOTAL	1157.0000		78.2500	B	1000	107.9		75	125	P
LEAD, TOTAL	510.0000		0.9714	U	500	102.0		75	125	P
MAGNESIUM, TOTAL	9778.0000		4860.0000		5000	98.4		75	125	P
MANGANESE, TOTAL	1002.0000		481.1000		500	104.2		75	125	P
NICKEL, TOTAL	526.6000		2.0450	B	500	104.9		75	125	P
POTASSIUM, TOTAL	16960.0000		5034.0000		10000	119.3		75	125	P
SELENIUM, TOTAL	513.6000		-2.5630	U	500	102.7		75	125	P
SILVER, TOTAL	55.3300		0.0883	U	50	110.7		75	125	P
SODIUM, TOTAL	163200.0000		172400.0000		7500	-122.7		75	125	P
THALLIUM, TOTAL	490.0000		0.0490	U	500	98.0		75	125	MS
VANADIUM, TOTAL	537.0000		0.0227	U	500	107.4		75	125	P
ZINC, TOTAL	552.7000		9.7100	B	500	108.6		75	125	P

Comments:

5A

SPIKE SAMPLE RECOVERY

Lab Name: Katahdin Analytical Services

Matrix: WATER

Percent Solids: 0.00

Client Field ID: WGL-GW-MW38-063009S

SDG Name: SC3624

Lab Sample ID: SC3624-014P

Concentration Units : ug/L

Analyte	Spiked Sample Result	C	Sample Result	C	Spike Added	%R	Q	Control Limits (%R) Low	High	M
ALUMINUM, TOTAL	2178.0000		60.7100	B	2000	105.9		75	125	P
ANTIMONY, TOTAL	523.1000		0.1709	B	500	104.6		75	125	MS
ARSENIC, TOTAL	495.2000		1.7705	B	500	98.7		75	125	MS
BARIUM, TOTAL	2198.0000		50.8800		2000	107.4		75	125	P
BERYLLIUM, TOTAL	53.2000		0.4394	B	50	105.5		75	125	MS
CADMIUM, TOTAL	261.2000		0.2019	B	250	104.4		75	125	MS
CALCIUM, TOTAL	8421.0000		6153.0000		2500	90.7		75	125	P
CHROMIUM, TOTAL	211.5000		0.3217	U	200	105.8		75	125	P
COBALT, TOTAL	533.9000		1.9130	B	500	106.4		75	125	P
COPPER, TOTAL	267.9000		-0.2357	U	250	107.2		75	125	P
IRON, TOTAL	1062.0000		14.6900	B	1000	104.7		75	125	P
LEAD, TOTAL	518.3000		-0.2612	U	500	103.7		75	125	P
MAGNESIUM, TOTAL	6217.0000		1203.0000		5000	100.3		75	125	P
MANGANESE, TOTAL	627.7000		116.9000		500	102.2		75	125	P
MERCURY, TOTAL	1.0450		0.0410	B	1	100.4		75	125	CV
NICKEL, TOTAL	530.2000		2.1200	B	500	105.6		75	125	P
POTASSIUM, TOTAL	11390.0000		1132.0000		10000	102.6		75	125	P
SELENIUM, TOTAL	501.8000		-0.5108	U	500	100.4		75	125	P
SILVER, TOTAL	52.3800		-0.1608	U	50	104.8		75	125	P
SODIUM, TOTAL	40420.0000		34360.0000		7500	80.8		75	125	P
THALLIUM, TOTAL	493.0000		0.0705	U	500	98.6		75	125	MS
VANADIUM, TOTAL	531.9000		1.5990	U	500	106.4		75	125	P
ZINC, TOTAL	548.0000		28.6100		500	103.9		75	125	P

Comments:

5A

SPIKE SAMPLE RECOVERY

Lab Name: Katahdin Analytical Services | **Client Field ID:** WGL-GW-MW38-063009S

Matrix: WATER | **SDG Name:** SC3624

Percent Solids: 0.00 | **Lab Sample ID:** SC3624-014S

Concentration Units : ug/L

Analyte	Spiked Sample Result	C	Sample Result	C	Spike Added	%R	Q	Control Limits (%R) Low	High	M
ALUMINUM, TOTAL	2093.0000		60.7100	B	2000	101.6		75	125	P
ANTIMONY, TOTAL	504.1000		0.1709	B	500	100.8		75	125	MS
ARSENIC, TOTAL	482.1000		1.7705	B	500	96.1		75	125	MS
BARIUM, TOTAL	2120.0000		50.8800		2000	103.5		75	125	P
BERYLLIUM, TOTAL	50.5600		0.4394	B	50	100.2		75	125	MS
CADMIUM, TOTAL	251.0000		0.2019	B	250	100.3		75	125	MS
CALCIUM, TOTAL	8566.0000		6153.0000		2500	96.5		75	125	P
CHROMIUM, TOTAL	203.8000		0.3217	U	200	101.9		75	125	P
COBALT, TOTAL	514.3000		1.9130	B	500	102.5		75	125	P
COPPER, TOTAL	263.3000		-0.2357	U	250	105.3		75	125	P
IRON, TOTAL	1019.0000		14.6900	B	1000	100.4		75	125	P
LEAD, TOTAL	518.4000		-0.2612	U	500	103.7		75	125	P
MAGNESIUM, TOTAL	6237.0000		1203.0000		5000	100.7		75	125	P
MANGANESE, TOTAL	608.8000		116.9000		500	98.4		75	125	P
MERCURY, TOTAL	1.0420		0.0410	B	1	100.1		75	125	CV
NICKEL, TOTAL	512.6000		2.1200	B	500	102.1		75	125	P
POTASSIUM, TOTAL	11330.0000		1132.0000		10000	102.0		75	125	P
SELENIUM, TOTAL	503.0000		-0.5108	U	500	100.6		75	125	P
SILVER, TOTAL	51.2700		-0.1608	U	50	102.5		75	125	P
SODIUM, TOTAL	41710.0000		34360.0000		7500	98.0		75	125	P
THALLIUM, TOTAL	459.4000		0.0705	U	500	91.9		75	125	MS
VANADIUM, TOTAL	516.9000		1.5990	U	500	103.4		75	125	P
ZINC, TOTAL	532.3000		28.6100		500	100.7		75	125	P

Comments:

5D

SPIKE DUPLICATES

Lab Name: Katahdin Analytical Services **Client Field ID:** WGL-GW-MW2-063009

Matrix: WATER **SDG Name:** SC3624

Percent Solids: 0.00 **Lab Sample ID:** SC3624-010

Concentration Units : ug/L

Analyte	Control Limits	Spike Result	C	Spike Dup. Result	C	RPD	Q	M
ALUMINUM, TOTAL		2252.0000		2114.0000		6.3		P
ANTIMONY, TOTAL		526.5000		520.8000		1.1		MS
ARSENIC, TOTAL		502.9000		498.5000		0.9		MS
BARIUM, TOTAL		2201.0000		2054.0000		6.9		P
BERYLLIUM, TOTAL		54.5200		52.6900		3.4		MS
CADMIUM, TOTAL		263.2000		257.5000		2.2		MS
CALCIUM, TOTAL		25860.0000		25180.0000		2.7		P
CHROMIUM, TOTAL		215.3000		208.3000		3.3		P
COBALT, TOTAL		538.7000		518.0000		3.9		P
COPPER, TOTAL		274.1000		264.5000		3.6		P
IRON, TOTAL		1157.0000		1088.0000		6.1		P
LEAD, TOTAL		510.0000		502.7000		1.4		P
MAGNESIUM, TOTAL		9778.0000		9454.0000		3.4		P
MANGANESE, TOTAL		1002.0000		959.3000		4.4		P
NICKEL, TOTAL		526.6000		506.7000		3.9		P
POTASSIUM, TOTAL		16960.0000		15580.0000		8.5		P
SELENIUM, TOTAL		513.6000		506.7000		1.4		P
SILVER, TOTAL	15	55.3300		53.4700		3.4		P
SODIUM, TOTAL		163200.0000		161300.0000		1.2		P
THALLIUM, TOTAL		490.0000		484.4000		1.1		MS
VANADIUM, TOTAL		537.0000		519.1000		3.4		P
ZINC, TOTAL		552.7000		531.8000		3.9		P

Comments:

5D

SPIKE DUPLICATES

Lab Name: Katahdin Analytical Services **Client Field ID:** WGL-GW-MW38-063009

Matrix: WATER **SDG Name:** SC3624

Percent Solids: 0.00 **Lab Sample ID:** SC3624-014

Concentration Units : ug/L

Analyte	Control Limits	Spike Result	C	Spike Dup. Result	C	RPD	Q	M
ALUMINUM, TOTAL		2093.0000		2178.0000		4.0		P
ANTIMONY, TOTAL		504.1000		523.1000		3.7		MS
ARSENIC, TOTAL		482.1000		495.2000		2.7		MS
BARIUM, TOTAL		2120.0000		2198.0000		3.6		P
BERYLLIUM, TOTAL		50.5600		53.2000		5.1		MS
CADMIUM, TOTAL		251.0000		261.2000		4.0		MS
CALCIUM, TOTAL		8566.0000		8421.0000		1.7		P
CHROMIUM, TOTAL		203.8000		211.5000		3.7		P
COBALT, TOTAL		514.3000		533.9000		3.7		P
COPPER, TOTAL		263.3000		267.9000		1.7		P
IRON, TOTAL		1019.0000		1062.0000		4.1		P
LEAD, TOTAL		518.4000		518.3000		0.0		P
MAGNESIUM, TOTAL		6237.0000		6217.0000		0.3		P
MANGANESE, TOTAL		608.8000		627.7000		3.1		P
MERCURY, TOTAL		1.0420		1.0450		0.3		CV
NICKEL, TOTAL		512.6000		530.2000		3.4		P
POTASSIUM, TOTAL		11330.0000		11390.0000		0.5		P
SELENIUM, TOTAL		503.0000		501.8000		0.2		P
SILVER, TOTAL	15	51.2700		52.3800		2.1		P
SODIUM, TOTAL		41710.0000		40420.0000		3.1		P
THALLIUM, TOTAL		459.4000		493.0000		7.1		MS
VANADIUM, TOTAL		516.9000		531.9000		2.9		P
ZINC, TOTAL		532.3000		548.0000		2.9		P

Comments:

LABORATORY CONTROL SAMPLES

Lab Name: Katahdin Analytical Services **Sample ID:** LCSWZG06ICW2

Matrix: WATER **SDG Name:** SC3624

QC Batch ID: ZG06ICW2

Concentration Units : ug/L

Analyte	TRUE	FOUND	% R	LIMITS (%)	
ALUMINUM	2000.0	2113.00	105.7	80	120
ANTIMONY	500.0	523.20	104.6	80	120
ARSENIC	500.0	499.20	99.8	80	120
BARIUM	2000.0	2087.00	104.4	80	120
BERYLLIUM	50.0	55.50	111.0	80	120
CADMIUM	250.0	262.80	105.1	80	120
CALCIUM	2500.0	2623.00	104.9	80	120
CHROMIUM	200.0	211.10	105.5	80	120
COBALT	500.0	539.00	107.8	80	120
COPPER	250.0	267.30	106.9	80	120
IRON	1000.0	1065.00	106.5	80	120
LEAD	500.0	519.00	103.8	80	120
MAGNESIUM	5000.0	5062.00	101.2	80	120
MANGANESE	500.0	531.80	106.4	80	120
NICKEL	500.0	529.80	106.0	80	120
POTASSIUM	10000.0	10670.00	106.7	80	120
SELENIUM	500.0	487.50	97.5	80	120
SILVER	50.0	53.00	106.0	80	120
SODIUM	7500.0	7985.00	106.5	80	120
THALLIUM	500.0	468.50	93.7	80	120
VANADIUM	500.0	523.60	104.7	80	120
ZINC	500.0	523.40	104.7	80	120

Katahdin Analytical Services A0000246

LABORATORY CONTROL SAMPLES

Lab Name: Katahdin Analytical Services **Sample ID:** LCSWZG09ICW1

Matrix: WATER **SDG Name:** SC3624

QC Batch ID: ZG09ICW1

Concentration Units : ug/L

Analyte	TRUE	FOUND	% R	LIMITS (%)	
ALUMINUM	2000.0	2055.00	102.8	80	120
ANTIMONY	500.0	513.80	102.8	80	120
ARSENIC	500.0	501.00	100.2	80	120
BARIUM	2000.0	2055.00	102.8	80	120
BERYLLIUM	50.0	50.62	101.2	80	120
CADMIUM	250.0	262.00	104.8	80	120
CALCIUM	2500.0	2567.00	102.7	80	120
CHROMIUM	200.0	197.60	98.8	80	120
COBALT	500.0	514.30	102.9	80	120
COPPER	250.0	262.20	104.9	80	120
IRON	1000.0	994.10	99.4	80	120
LEAD	500.0	540.20	108.0	80	120
MAGNESIUM	5000.0	5244.00	104.9	80	120
MANGANESE	500.0	495.20	99.0	80	120
NICKEL	500.0	520.30	104.1	80	120
POTASSIUM	10000.0	10410.00	104.1	80	120
SELENIUM	500.0	512.40	102.5	80	120
SILVER	50.0	49.80	99.6	80	120
SODIUM	7500.0	7888.00	105.2	80	120
THALLIUM	500.0	464.40	92.9	80	120
VANADIUM	500.0	499.90	100.0	80	120
ZINC	500.0	501.60	100.3	80	120

LABORATORY CONTROL SAMPLES

Lab Name: Katahdin Analytical Services **Sample ID:** LCSWZG17HGW2

Matrix: WATER **SDG Name:** SC3624

QC Batch ID: ZG17HGW2

Concentration Units : ug/L

Analyte	TRUE	FOUND	% R	LIMITS (%)	
MERCURY	5.0	4.73	94.6	80	120

ICP SERIAL DILUTION

Lab Name: Katahdin Analytical Services

Matrix: WATER

Client Field ID: WGL-GW-MW2-063009L

SDG Name: SC3624

Lab Sample ID: SC3624-010L

Concentration Units: ug/L

Analyte	Sample Result	C	Dilution Result	C	% Difference	Q	M
ALUMINUM, TOTAL	108.40	B	124.40	B	14.8		P
ANTIMONY, TOTAL	0.03	B	0.02	U	100.0		MS
ARSENIC, TOTAL	0.41	B	1.00	U	100.0		MS
BARIUM, TOTAL	94.65		91.53		3.3		P
BERYLLIUM, TOTAL	0.05	B	0.05	B	0.0		MS
CADMIUM, TOTAL	0.09	B	0.11	B	22.2		MS
CALCIUM, TOTAL	23930.00		24220.00		1.2		P
CHROMIUM, TOTAL	0.37	U	-1.43	U			P
COBALT, TOTAL	-0.04	U	0.05	U			P
COPPER, TOTAL	-0.52	U	-0.06	U			P
IRON, TOTAL	78.25	B	77.85	B	0.5		P
LEAD, TOTAL	0.97	U	5.86	B			P
MAGNESIUM, TOTAL	4860.00		4839.00		0.4		P
MANGANESE, TOTAL	481.10		479.20		0.4		P
NICKEL, TOTAL	2.04	B	1.55	B	24.0		P
POTASSIUM, TOTAL	5034.00		5392.00		7.1		P
SELENIUM, TOTAL	-2.56	U	-1.27	U			P
SILVER, TOTAL	0.09	U	0.55	U			P
SODIUM, TOTAL	172400.00		168100.00		2.5		P
THALLIUM, TOTAL	0.01	U	-0.32	U			MS
VANADIUM, TOTAL	0.02	U	0.09	U			P
ZINC, TOTAL	9.71	B	12.55	B	29.2		P

ICP SERIAL DILUTION

Lab Name: Katahdin Analytical Services

Matrix: WATER

Client Field ID: WGL-GW-MW38-063009L

SDG Name: SC3624

Lab Sample ID: SC3624-014L

Concentration Units: ug/L

Analyte	Sample Result	C	Dilution Result	C	% Difference	Q	M
ALUMINUM, TOTAL	60.71	B	76.21	B	25.5		P
ANTIMONY, TOTAL	0.03	B	0.03	U	100.0		MS
ARSENIC, TOTAL	0.35	B	0.49	U	100.0		MS
BARIUM, TOTAL	50.88		52.24		2.7		P
BERYLLIUM, TOTAL	0.09	B	0.07	B	22.2		MS
CADMIUM, TOTAL	0.04	B	0.03	U	100.0		MS
CALCIUM, TOTAL	6153.00		6314.00		2.6		P
CHROMIUM, TOTAL	0.32	U	1.11	U			P
COBALT, TOTAL	1.91	B	2.22	B	16.2		P
COPPER, TOTAL	-0.24	U	-0.71	U			P
IRON, TOTAL	14.69	B	31.48	B	114.3		P
LEAD, TOTAL	-0.26	U	0.88	U			P
MAGNESIUM, TOTAL	1203.00		1287.00		7.0		P
MANGANESE, TOTAL	116.90		120.40		3.0		P
MERCURY, TOTAL	0.04	B	0.24	B	500.0		CV
NICKEL, TOTAL	2.12	B	2.15	B	1.4		P
POTASSIUM, TOTAL	1132.00		1312.00	B	15.9		P
SELENIUM, TOTAL	-0.51	U	-0.38	U			P
SILVER, TOTAL	-0.16	U	0.15	U			P
SODIUM, TOTAL	34360.00		35310.00		2.8		P
THALLIUM, TOTAL	0.01	U	-0.19	U			MS
VANADIUM, TOTAL	1.60	U	0.83	U			P
ZINC, TOTAL	28.61		29.88	B	4.4		P

INSTRUMENT DETECTION LIMITS

Lab Name: Katahdin Analytical Services **Instrument Code:** H

Instrument Name: CETAC M6100 **Date:** 3/17/2009

Concentration Units: ug/L

Analyte	CRDL	IDL	M
MERCURY	0.20	0.02	CV

INSTRUMENT DETECTION LIMITS

Lab Name: Katahdin Analytical Services **Instrument Code:** I

Instrument Name: THERMO ICAP 6500 **Date:** 3/6/2009

Concentration Units: ug/L

Analyte	CRDL	IDL	M
ALUMINUM	300	32.00	P
ANTIMONY	0.20	1.70	P
ARSENIC	1.0	1.50	P
BARIUM	5.0	0.57	P
BERYLLIUM	0.20	0.11	P
CADMIUM	0.20	0.07	P
CALCIUM	50	15.00	P
CHROMIUM	15	0.62	P
COBALT	30	0.19	P
COPPER	25	0.79	P
IRON	100	3.70	P
LEAD	5.0	1.40	P
MAGNESIUM	50	2.20	P
MANGANESE	5.0	1.10	P
MOLYBDENUM	10	0.29	P
NICKEL	40	0.34	P
POTASSIUM	1000	61.00	P
SELENIUM	10	2.10	P
SILVER	15	0.63	P
SODIUM	1000	32.00	P
THALLIUM	0.40	1.30	P
VANADIUM	25	0.69	P
ZINC	25	0.32	P

Katahdin Analytical Services A0000252

INSTRUMENT DETECTION LIMITS

Lab Name: Katahdin Analytical Services **Instrument Code:** J

Instrument Name: AGILENT 7500 ICP-MS **Date:** 3/6/2009

Concentration Units: ug/L

Analyte	CRDL	IDL	M
ALUMINUM	300	2.20	MS
ANTIMONY	0.20	0.03	MS
ARSENIC	1.0	0.08	MS
BARIUM	5.0	0.05	MS
BERYLLIUM	0.20	0.01	MS
CADMIUM	0.20	0.01	MS
CALCIUM	50	3.90	MS
CHROMIUM	15	0.08	MS
COBALT	30	0.02	MS
COPPER	25	0.04	MS
IRON	100	3.10	MS
LEAD	5.0	0.02	MS
MAGNESIUM	50	2.00	MS
MANGANESE	5.0	0.03	MS
MOLYBDENUM	10	0.07	MS
NICKEL	40	0.03	MS
POTASSIUM	1000	8.80	MS
SELENIUM	10	0.16	MS
SILVER	15	0.01	MS
SODIUM	1000	6.50	MS
THALLIUM	0.40	0.05	MS
VANADIUM	25	0.08	MS
ZINC	25	0.44	MS

METHOD DETECTION LIMITS

Lab Name: Katahdin Analytical Services **Instrument Code:** H

Instrument Name: CETAC M6100 **Date:** 3/19/2009

Analyte	MDL	Units	M	EPA Prep./Anal. Method
MERCURY	0.02	ug/L	CV	SW846 7470A / SW846 7470A

Katahdin Analytical Services A0000254

METHOD DETECTION LIMITS

Lab Name: Katahdin Analytical Services **Instrument Code:** I

Instrument Name: THERMO ICAP 6500 **Date:** 2/26/2009

Analyte	MDL	Units	M	EPA Prep./Anal. Method
ALUMINUM	12.50	ug/L	P	SW846 3010A / SW846 6010B
BARIUM	0.35	ug/L	P	SW846 3010A / SW846 6010B
CALCIUM	6.84	ug/L	P	SW846 3010A / SW846 6010B
CHROMIUM	0.44	ug/L	P	SW846 3010A / SW846 6010B
COBALT	0.27	ug/L	P	SW846 3010A / SW846 6010B
COPPER	0.70	ug/L	P	SW846 3010A / SW846 6010B
IRON	5.17	ug/L	P	SW846 3010A / SW846 6010B
LEAD	1.02	ug/L	P	SW846 3010A / SW846 6010B
MAGNESIUM	9.39	ug/L	P	SW846 3010A / SW846 6010B
MANGANESE	0.67	ug/L	P	SW846 3010A / SW846 6010B
NICKEL	0.24	ug/L	P	SW846 3010A / SW846 6010B
POTASSIUM	95.00	ug/L	P	SW846 3010A / SW846 6010B
SELENIUM	3.03	ug/L	P	SW846 3010A / SW846 6010B
SILVER	0.79	ug/L	P	SW846 3010A / SW846 6010B
SODIUM	21.70	ug/L	P	SW846 3010A / SW846 6010B
VANADIUM	5.12	ug/L	P	SW846 3010A / SW846 6010B
ZINC	1.73	ug/L	P	SW846 3010A / SW846 6010B

METHOD DETECTION LIMITS

Lab Name: Katahdin Analytical Services **Instrument Code:** J

Instrument Name: AGILENT 7500 ICP-MS **Date:** 2/25/2009

Analyte	MDL	Units	M	EPA Prep./Anal. Method
ANTIMONY	0.03	ug/L	MS	SW846 3010A / SW846 6020
ARSENIC	0.30	ug/L	MS	SW846 3010A / SW846 6020
BERYLLIUM	0.01	ug/L	MS	SW846 3010A / SW846 6020
CADMIUM	0.01	ug/L	MS	SW846 3010A / SW846 6020
THALLIUM	0.02	ug/L	MS	SW846 3010A / SW846 6020

Katahdin Analytical Services A0000256

ICP INTERELEMENT CORRECTION FACTORS

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Instrument Name THERMO ICAP 6500 **Date:** 10/9/2008

Instrument ID: I

Analyte	Wavelength (nm)	Interelement Correction Factors for: Al	Ca	Fe	Mg	Co	Cr	Cu	Mo	Ni	Ti	V
ALUMINUM	396.15	0.0	0.0002050	0.0	0.0	0.0	0.0	0.0	0.0475580	0.0	0.0	0.0
ANTIMONY	206.88	0.0000080	0.0	0.0000260	0.0	0.0	0.0095150	0.0	-0.0026030	-0.0003890	0.0	-0.0019060
ARSENIC	189.04	-0.0000010	0.0	-0.0001440	0.0	0.0	0.0002520	0.0	0.0004800	0.0	0.0	0.0
BARIUM	455.40	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BERYLLIUM	313.04	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0004960	0.0000360
BORON	208.96	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0044509	0.0	0.0	0.0
CADMIUM	226.50	0.0	0.0	0.0000700	0.0	-0.0000220	0.0	0.0	0.0	-0.0000800	0.0000450	0.0
CALCIUM	315.89	0.0	0.0	0.0	0.0	0.0010540	-0.0002580	0.0	0.0	0.0	0.0	0.0
CHROMIUM	267.72	0.0	0.0	-0.0000100	0.0	0.0	0.0	0.0	-0.0000210	0.0	0.0	0.0000720
COBALT	228.62	0.0	0.0	0.0000120	0.0	0.0	0.0000230	0.0	0.0000180	0.0002140	0.0020610	0.0
COPPER	327.40	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0006350	0.0002980
IRON	259.94	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0005620	0.0	0.0	0.0
LEAD	220.35	-0.0001090	0.0	0.0000360	0.0	-0.0001570	0.0	0.0002330	-0.0011960	0.0003810	-0.0002030	0.0
MAGNESIUM	285.21	0.0	0.0	-0.0000080	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANGANESE	257.61	-0.0000090	0.0	-0.0000200	0.0000260	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MOLYBDENUM	202.03	0.0	0.0	0.0	0.0	0.0	0.0001080	0.0	0.0	0.0	0.0	-0.0001440
NICKEL	231.60	0.0	0.0	-0.0000450	0.0	0.0002300	0.0	0.0	0.0024100	0.0	0.0	0.0
POTASSIUM	766.49	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SELENIUM	196.09	0.0000070	0.0	-0.0001320	0.0	-0.0004270	0.0	0.0	0.0	0.0	0.0	0.0000290
SILVER	328.07	0.0	0.0	-0.0002180	0.0	0.0	0.0	0.0	0.0	0.0	-0.0001650	0.0
SODIUM	589.59	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
THALLIUM	190.86	0.0000050	0.0	-0.0000030	0.0	0.0054870	0.0	-0.0000030	-0.0001640	0.0	-0.0011620	-0.0051480
TIN	189.99	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TITANIUM	334.90	0.0	0.0	0.0	0.0	0.0	0.0001290	0.0	0.0015460	0.0	0.0	0.0
VANADIUM	292.40	0.0	0.0	0.0000260	0.0	0.0	-0.0029690	0.0	-0.0080400	0.0	0.0010400	0.0
ZINC	206.20	0.0	0.0	0.0	0.0	0.0	-0.0005230	0.0	0.0	0.0	0.0	0.0

FORM XI - IN

Katahdin Analytical Services A0000257

ICP LINEAR RANGES

Lab Name: Katahdin Analytical Services **Instrument Code:** I

Instrument Name: THERMO ICAP 6500 **Date:** 1/26/2009

Concentration Units: ug/L

Analyte	Integration Time (sec)	Linear Range	M
ALUMINUM	5.00	1000000	P
ANTIMONY	60.00	20000	P
ARSENIC	60.00	20000	P
BARIUM	5.00	20000	P
BERYLLIUM	5.00	20000	P
CADMIUM	60.00	20000	P
CALCIUM	5.00	1000000	P
CHROMIUM	10.00	20000	P
COBALT	60.00	20000	P
COPPER	10.00	20000	P
IRON	5.00	400000	P
LEAD	60.00	20000	P
MAGNESIUM	5.00	500000	P
MANGANESE	5.00	20000	P
MOLYBDENUM	60.00	20000	P
NICKEL	10.00	20000	P
POTASSIUM	5.00	1000000	P
SELENIUM	60.00	20000	P
SILVER	10.00	2000	P
SODIUM	5.00	500000	P
THALLIUM	60.00	20000	P
VANADIUM	10.00	20000	P
ZINC	60.00	20000	P

ICP LINEAR RANGES

Lab Name: Katahdin Analytical Services **Instrument Code:** J

Instrument Name: AGILENT 7500 ICP-MS **Date:** 1/6/2009

Concentration Units: ug/L

Analyte	Integration Time (sec)	Linear Range	M
ALUMINUM	0.01	100000	MS
ANTIMONY	0.10	1000	MS
ARSENIC	0.30	1000	MS
BARIUM	0.10	1000	MS
BERYLLIUM	0.30	1000	MS
CADMIUM	0.10	500	MS
CALCIUM	0.03	100000	MS
CHROMIUM	0.10	1000	MS
COBALT	0.10	500	MS
COPPER	0.10	500	MS
IRON	0.03	100000	MS
LEAD	0.10	1000	MS
MAGNESIUM	0.05	100000	MS
MANGANESE	0.10	500	MS
MOLYBDENUM	0.10	2000	MS
NICKEL	0.10	500	MS
POTASSIUM	0.01	100000	MS
SELENIUM	0.30	500	MS
SILVER	0.10	100	MS
SODIUM	0.01	100000	MS
THALLIUM	0.10	1000	MS
VANADIUM	0.10	1000	MS
ZINC	0.10	250	MS

PREPARATION LOG

Lab Name: Katahdin Analytical Services **QC Batch ID:** ZG06ICW2

Matrix: WATER **SDG Name:** SC3624

Method: P **Prep Date:** 07/06/2009

Client ID	Lab Sample ID	Initial (L)	Final (L)
LCSWZG06ICW2	LCSWZG06ICW2	0.05	0.05
PBWZG06ICW2	PBWZG06ICW2	0.05	0.05
WGL-GW-MW101-062909	SC3624-002	0.05	0.05
WGL-GW-MW3-062909	SC3624-004	0.05	0.05
WGL-GW-MW103-062909	SC3624-006	0.05	0.05
WGL-GW-MW102-062909	SC3624-008	0.05	0.05
WGL-GW-MW2-063009	SC3624-010	0.05	0.05
WGL-GW-MW2-063009P	SC3624-010P	0.05	0.05
WGL-GW-MW2-063009S	SC3624-010S	0.05	0.05

PREPARATION LOG

Lab Name: Katahdin Analytical Services **QC Batch ID:** ZG09ICW1

Matrix: WATER **SDG Name:** SC3624

Method: P **Prep Date:** 07/09/2009

Client ID	Lab Sample ID	Initial (L)	Final (L)
LCSWZG09ICW1	LCSWZG09ICW1	0.05	0.05
PBWZG09ICW1	PBWZG09ICW1	0.05	0.05
WGL-GW-MW4-063009	SC3624-012	0.05	0.05
WGL-GW-MW38-063009	SC3624-014	0.05	0.05
WGL-GW-MW38-063009P	SC3624-014P	0.05	0.05
WGL-GW-MW38-063009S	SC3624-014S	0.05	0.05
WGL-GW-MW40S-063009	SC3624-016	0.05	0.05
WGL-GW-DUP01-063009	SC3624-018	0.05	0.05
WGL-GW-MW48D-063009	SC3624-020	0.05	0.05
WGL-GW-DUP02-063009	SC3624-022	0.05	0.05
GL-GW-MW48D2-063009	SC3624-024	0.05	0.05
WGL-GW-MW39-063009	SC3624-026	0.05	0.05
WGL-GW-FB01-070109	SC3624-028	0.05	0.05
WGL-GW-RB01-070109	SC3624-030	0.05	0.05

Katahdin Analytical Services A0000261

PREPARATION LOG

Lab Name: Katahdin Analytical Services **QC Batch ID:** ZG17HGW2

Matrix: WATER **SDG Name:** SC3624

Method: CV **Prep Date:** 07/17/2009

Client ID	Lab Sample ID	Initial (L)	Final (L)
LCSWZG17HGW2	LCSWZG17HGW2	0.025	0.025
PBWZG17HGW2	PBWZG17HGW2	0.025	0.025
WGL-GW-MW101-062909	SC3624-002	0.025	0.025
WGL-GW-MW3-062909	SC3624-004	0.025	0.025
WGL-GW-MW103-062909	SC3624-006	0.025	0.025
WGL-GW-MW102-062909	SC3624-008	0.025	0.025
WGL-GW-MW2-063009	SC3624-010	0.025	0.025
WGL-GW-MW4-063009	SC3624-012	0.025	0.025
WGL-GW-MW38-063009	SC3624-014	0.025	0.025
WGL-GW-MW38-063009P	SC3624-014P	0.025	0.025
WGL-GW-MW38-063009S	SC3624-014S	0.025	0.025
WGL-GW-MW40S-063009	SC3624-016	0.025	0.025
WGL-GW-DUP01-063009	SC3624-018	0.025	0.025
WGL-GW-MW48D-063009	SC3624-020	0.025	0.025
WGL-GW-DUP02-063009	SC3624-022	0.025	0.025
GL-GW-MW48D2-063009	SC3624-024	0.025	0.025
WGL-GW-MW39-063009	SC3624-026	0.025	0.025
WGL-GW-FB01-070109	SC3624-028	0.025	0.025
WGL-GW-RB01-070109	SC3624-030	0.025	0.025

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Instrument ID: CETAC M6100 **File Name:** HZG20A

Date: 7/20/2009 **Method:** CV

Lab Sample ID	Client ID	D.F.	Time	Elements
Calibration Blank		1	11:07	Hg
Standard #1 (0.2 pp		1	11:09	Hg
Standard #2 (0.5 pp		1	11:11	Hg
Standard #3 (1.0 pp		1	11:13	Hg
Standard #4 (5.0 pp		1	11:15	Hg
Standard #5 (10.0 p		1	11:17	Hg
ICV		1	11:22	HG
ICB		1	11:24	HG
PQL		1	11:26	HG
CCV		1	11:28	HG
CCB		1	11:30	HG
LCSWZG17HGW2		1	11:33	HG
PBWZG17HGW2		1	11:35	HG
ZZZZZZ		1	11:37	
SC3624-002	/GL-GW-MW101-062909	1	11:39	HG
SC3624-004	WGL-GW-MW3-062909	1	11:41	HG
SC3624-006	/GL-GW-MW103-062909	1	11:43	HG
SC3624-008	/GL-GW-MW102-062909	1	11:45	HG
SC3624-010	WGL-GW-MW2-063009	1	11:47	HG
SC3624-012	WGL-GW-MW4-063009	1	11:49	HG
CCV		1	11:52	HG
CCB		1	11:54	HG
SC3624-014	/VGL-GW-MW38-063009	1	11:56	HG
SC3624-014P	'GL-GW-MW38-063009P	1	11:58	HG
SC3624-014S	'GL-GW-MW38-063009S	1	12:00	HG
SC3624-016	'GL-GW-MW40S-063009	1	12:02	HG
SC3624-018	VGL-GW-DUP01-063009	1	12:04	HG
SC3624-020	'GL-GW-MW48D-063009	1	12:06	HG
SC3624-022	VGL-GW-DUP02-063009	1	12:09	HG
SC3624-024	;L-GW-MW48D2-063009	1	12:11	HG
SC3624-026	/VGL-GW-MW39-063009	1	12:13	HG
SC3624-028	WGL-GW-FB01-070109	1	12:15	HG
CCV		1	12:17	HG
CCB		1	12:19	HG
SC3624-030	WGL-GW-RB01-070109	1	12:21	HG
ZZZZZZ		1	12:23	
ZZZZZZ		1	12:26	
ZZZZZZ		1	12:28	
ZZZZZZ		1	12:30	
SC3624-014L	/GL-GW-MW38-063009L	5	12:32	HG
ZZZZZZ		1	12:34	
ZZZZZZ		1	12:36	
ZZZZZZ		1	12:38	
ZZZZZZ		1	12:41	
CCV		1	12:43	HG
CCB		1	12:45	HG

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Instrument ID: THERMO ICAP 6500 **File Name:** IZG07A

Date: 7/7/2009 **Method:** P

Lab Sample ID	Client ID	D.F.	Time	Elements											
Blank		1	17:43	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
Std 1		1	17:48	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
ICV		1	17:53	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
ICB		1	17:58	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
PQL		1	18:03	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
ICSA		1	18:08	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
ICSAB		1	18:13	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
CCV		1	18:18	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
CCB		1	18:23	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
ZZZZZZ		1	18:28																	
ZZZZZZ		1	18:33																	
ZZZZZZ		2	18:38																	
ZZZZZZ		1	18:43																	
ZZZZZZ		5	18:48																	
ZZZZZZ		1	18:53																	
ZZZZZZ		1	18:58																	
ZZZZZZ		1	19:03																	
ZZZZZZ		1	19:08																	
ZZZZZZ		1	19:13																	
CCV		1	19:18	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
CCB		1	19:23	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
ZZZZZZ		1	19:28																	
ZZZZZZ		1	19:33																	
ZZZZZZ		1	19:38																	
ZZZZZZ		1	19:43																	
ZZZZZZ		1	19:49																	
ZZZZZZ		1	19:54																	
ZZZZZZ		1	19:58																	
ZZZZZZ		1	20:03																	
ZZZZZZ		1	20:08																	
ZZZZZZ		1	20:13																	
CCV		1	20:19	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
CCB		1	20:23	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
ZZZZZZ		1	20:28																	
ZZZZZZ		1	20:34																	
ZZZZZZ		1	20:39																	
ZZZZZZ		5	20:44																	
ZZZZZZ		1	20:49																	
ZZZZZZ		1	20:54																	
ZZZZZZ		1	20:59																	
PQL		1	21:04	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
ICSA		1	21:09	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
ICSAB		1	21:14	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
CCV		1	21:19	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
CCB		1	21:24	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
ZZZZZZ		1	21:29																	
ZZZZZZ		1	21:34																	
ZZZZZZ		1	21:39																	
ZZZZZZ		1	21:44																	
ZZZZZZ		1	21:49																	

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Instrument ID: THERMO ICAP 6500 **File Name:** IZG07A

Date: 7/7/2009 **Method:** P

Lab Sample ID	Client ID	D.F.	Time	Elements														
ZZZZZZ		1	21:54															
ZZZZZZ		1	21:59															
ZZZZZZ		1	22:04															
ZZZZZZ		1	22:09															
ZZZZZZ		1	22:14															
CCV		1	22:19	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
CCB		1	22:24	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
ZZZZZZ		5	22:29																	
ZZZZZZ		1	22:35																	
ZZZZZZ		1	22:40																	
ZZZZZZ		1	22:44																	
ZZZZZZ		1	22:49																	
ZZZZZZ		1	22:54																	
PBWZG06ICW2		1	22:59	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI		SE	AG		V	ZN
LCSWZG06ICW2		1	23:04	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI		SE	AG		V	ZN
ZZZZZZ		5	23:09																	
ZZZZZZ		5	23:14																	
CCV		1	23:19	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
CCB		1	23:24	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
ZZZZZZ		5	23:29																	
ZZZZZZ		5	23:34																	
SC3624-002	/GL-GW-MW101-062909	1	23:40	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
SC3624-004	WGL-GW-MW3-062909	1	23:45	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI		SE	AG	NA	V	ZN
SC3624-006	/GL-GW-MW103-062909	1	23:50	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI		SE	AG	NA	V	ZN
SC3624-008	/GL-GW-MW102-062909	1	23:55	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI		SE	AG	NA	V	ZN
SC3624-010	WGL-GW-MW2-063009	1	0:00	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI		SE	AG	NA	V	ZN
SC3624-010L	/VGL-GW-MW2-063009L	5	0:05	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI		SE	AG	NA	V	ZN
SC3624-010S	/VGL-GW-MW2-063009S	1	0:10	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI		SE	AG	NA	V	ZN
SC3624-010P	/VGL-GW-MW2-063009P	1	0:15	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI		SE	AG	NA	V	ZN
CCV		1	0:20	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
CCB		1	0:25	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Instrument ID: THERMO ICAP 6500 **File Name:** IZG08A

Date: 7/8/2009 **Method:** P

Lab Sample ID	Client ID	D.F.	Time	Elements				
Blank		1	11:55	AL	CA	FE	MG	K
Std 1		1	12:00	AL	CA	FE	MG	K
ICV		1	12:05	AL	CA	FE	MG	K
ICB		1	12:10	AL	CA	FE	MG	K
PQL		1	12:15	AL	CA	FE	MG	K
ICSA		1	12:20	AL	CA	FE	MG	K
ICSAB		1	12:25	AL	CA	FE	MG	K
CCV		1	12:31	AL	CA	FE	MG	K
CCB		1	12:36	AL	CA	FE	MG	K
ZZZZZZ		1	12:41					
ZZZZZZ		1	12:46					
ZZZZZZ		1	12:51					
ZZZZZZ		1	12:56					
ZZZZZZ		1	13:01					
ZZZZZZ		1	13:06					
ZZZZZZ		1	13:10					
ZZZZZZ		1	13:15					
ZZZZZZ		1	13:20					
ZZZZZZ		1	13:25					
CCV		1	13:30	AL	CA	FE	MG	K
CCB		1	13:35	AL	CA	FE	MG	K
ZZZZZZ		5	13:40					
ZZZZZZ		1	13:45					
ZZZZZZ		1	13:50					
ZZZZZZ		1	13:56					
ZZZZZZ		2	14:01					
ZZZZZZ		1	14:05					
ZZZZZZ		1	14:10					
ZZZZZZ		1	14:15					
ZZZZZZ		1	14:20					
ZZZZZZ		1	14:25					
CCV		1	14:30	AL	CA	FE	MG	K
CCB		1	14:35	AL	CA	FE	MG	K
ZZZZZZ		1	14:40					
ZZZZZZ		2	14:45					
ZZZZZZ		1	14:50					
ZZZZZZ		1	14:55					
ZZZZZZ		2	15:00					
ZZZZZZ		1	15:05					
ZZZZZZ		1	15:10					
ZZZZZZ		1	15:15					
ZZZZZZ		1	15:20					
ZZZZZZ		1	15:25					
CCV		1	15:30	AL	CA	FE	MG	K
CCB		1	15:35	AL	CA	FE	MG	K
ZZZZZZ		1	15:40					
ZZZZZZ		2	15:45					
ZZZZZZ		1	15:50					
ZZZZZZ		1	15:56					
ZZZZZZ		1	16:01					

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Instrument ID: THERMO ICAP 6500 **File Name:** IZG08A

Date: 7/8/2009 **Method:** P

Lab Sample ID	Client ID	D.F.	Time	Elements				
ZZZZZZ		1	16:06					
ZZZZZZ		1	16:11					
PQL		1	16:16	AL	CA	FE	MG	K
ICSA		1	16:21	AL	CA	FE	MG	K
ICSAB		1	16:26	AL	CA	FE	MG	K
CCV		1	16:31	AL	CA	FE	MG	K
CCB		1	16:36	AL	CA	FE	MG	K
ZZZZZZ		1	16:41					
ZZZZZZ		1	16:46					
ZZZZZZ		1	16:51					
ZZZZZZ		1	16:56					
ZZZZZZ		1	17:01					
ZZZZZZ		1	17:06					
ZZZZZZ		5	17:11					
ZZZZZZ		1	17:16					
ZZZZZZ		1	17:21					
ZZZZZZ		1	17:26					
CCV		1	17:31	AL	CA	FE	MG	K
CCB		1	17:36	AL	CA	FE	MG	K
ZZZZZZ		1	17:41					
ZZZZZZ		1	17:46					
ZZZZZZ		1	17:51					
ZZZZZZ		1	17:56					
ZZZZZZ		1	18:01					
ZZZZZZ		5	18:06					
ZZZZZZ		5	18:11					
ZZZZZZ		1	18:16					
ZZZZZZ		1	18:21					
ZZZZZZ		1	18:26					
CCV		1	18:31	AL	CA	FE	MG	K
CCB		1	18:36	AL	CA	FE	MG	K
ZZZZZZ		1	18:41					
ZZZZZZ		1	18:46					
ZZZZZZ		1	18:51					
ZZZZZZ		1	18:56					
ZZZZZZ		1	19:01					
ZZZZZZ		1	19:06					
ZZZZZZ		5	19:11					
PQL		1	19:16	AL	CA	FE	MG	K
ICSA		1	19:21	AL	CA	FE	MG	K
ICSAB		1	19:27	AL	CA	FE	MG	K
CCV		1	19:32	AL	CA	FE	MG	K
CCB		1	19:37	AL	CA	FE	MG	K
ZZZZZZ		5	19:42					
ZZZZZZ		1	19:47					
ZZZZZZ		1	19:52					
ZZZZZZ		1	19:57					
ZZZZZZ		1	20:02					
ZZZZZZ		1	20:07					
ZZZZZZ		1	20:12					
ZZZZZZ		5	20:18					

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Instrument ID: THERMO ICAP 6500 **File Name:** IZG08A

Date: 7/8/2009 **Method:** P

Lab Sample ID	Client ID	D.F.	Time	Elements				
ZZZZZZ		1	20:23					
ZZZZZZ		1	20:28					
CCV		1	20:32	AL	CA	FE	MG	K
CCB		1	20:37	AL	CA	FE	MG	K
PBWZG06ICW2		1	20:42					K
LCSWZG06ICW2		1	20:47					K
SC3624-004	WGL-GW-MW3-062909	1	20:52					K
SC3624-006	/GL-GW-MW103-062909	1	20:57					K
SC3624-008	/GL-GW-MW102-062909	1	21:02					K
SC3624-010	WGL-GW-MW2-063009	1	21:08					K
SC3624-010L	/VGL-GW-MW2-063009L	5	21:13					K
SC3624-010S	/VGL-GW-MW2-063009S	1	21:18					K
SC3624-010P	/VGL-GW-MW2-063009P	1	21:23					K
ZZZZZZ		1	21:28					
CCV		1	21:33	AL	CA	FE	MG	K
CCB		1	21:38	AL	CA	FE	MG	K

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Instrument ID: THERMO ICAP 6500 **File Name:** IZG16A

Date: 7/16/2009 **Method:** P

Lab Sample ID	Client ID	D.F.	Time	Elements				
Blank		1	14:00	AL	CA	FE	MG	NA
Std 1		1	14:05	AL	CA	FE	MG	NA
ICV		1	14:10	AL	CA	FE	MG	NA
ICB		1	14:15	AL	CA	FE	MG	NA
PQL		1	14:20	AL	CA	FE	MG	NA
ICSA		1	14:25	AL	CA	FE	MG	NA
ICSAB		1	14:30	AL	CA	FE	MG	NA
CCV		1	14:35	AL	CA	FE	MG	NA
CCB		1	14:40	AL	CA	FE	MG	NA
ZZZZZZ		1	14:45					
ZZZZZZ		2	14:50					
ZZZZZZ		2	14:55					
ZZZZZZ		10	15:00					
ZZZZZZ		2	15:06					
ZZZZZZ		2	15:11					
ZZZZZZ		2	15:16					
ZZZZZZ		5	15:20					
ZZZZZZ		2	15:25					
ZZZZZZ		2	15:31					
CCV		1	15:36	AL	CA	FE	MG	NA
CCB		1	15:41	AL	CA	FE	MG	NA
ZZZZZZ		1	15:46					
ZZZZZZ		1	15:51					
ZZZZZZ		1	15:56					
ZZZZZZ		1	16:01					
ZZZZZZ		1	16:06					
ZZZZZZ		5	16:11					
ZZZZZZ		5	16:16					
ZZZZZZ		1	16:21					
ZZZZZZ		1	16:26					
ZZZZZZ		1	16:31					
CCV		1	16:36	AL	CA	FE	MG	NA
CCB		1	16:41	AL	CA	FE	MG	NA
ZZZZZZ		1	16:47					
ZZZZZZ		1	16:52					
ZZZZZZ		1	16:57					
ZZZZZZ		1	17:02					
ZZZZZZ		1	17:07					
ZZZZZZ		1	17:12					
ZZZZZZ		1	17:17					
ZZZZZZ		1	17:22					
ZZZZZZ		1	17:27					
ZZZZZZ		1	17:32					
CCV		1	17:37	AL	CA	FE	MG	NA
CCB		1	17:42	AL	CA	FE	MG	NA
ZZZZZZ		2	17:47					
ZZZZZZ		1	17:52					
LCSWZG06ICW2		1	17:57					NA
PBWZG06ICW2		1	18:02					NA
ZZZZZZ		1	18:08					

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Instrument ID: THERMO ICAP 6500 **File Name:** IZG16A

Date: 7/16/2009 **Method:** P

Lab Sample ID	Client ID	D.F.	Time	Elements				
ZZZZZZ		1	18:13					
ZZZZZZ		1	18:18					
PQL		1	18:23	AL	CA	FE	MG	NA
ICSA		1	18:28	AL	CA	FE	MG	NA
ICSAB		1	18:33	AL	CA	FE	MG	NA
CCV		1	18:38	AL	CA	FE	MG	NA
CCB		1	18:43	AL	CA	FE	MG	NA

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Instrument ID: THERMO ICAP 6500 **File Name:** IZG20B

Date: 7/21/2009 **Method:** P

Lab Sample ID	Client ID	D.F.	Time	Elements											
Blank		1	2:20	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
Std 1		1	2:25	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
ICV		1	2:30	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
ICB		1	2:35	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
PQL		1	2:40	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
ICSA		1	2:45	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
ICSAB		1	2:50	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
CCV		1	2:55	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
CCB		1	2:59	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
ZZZZZZ		1	3:04																	
ZZZZZZ		1	3:09																	
ZZZZZZ		1	3:14																	
ZZZZZZ		1	3:19																	
ZZZZZZ		1	3:24																	
ZZZZZZ		5	3:29																	
ZZZZZZ		1	3:34																	
ZZZZZZ		1	3:39																	
ZZZZZZ		1	3:44																	
ZZZZZZ		1	3:49																	
CCV		1	3:54	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
CCB		1	3:59	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
ZZZZZZ		1	4:04																	
ZZZZZZ		1	4:09																	
ZZZZZZ		1	4:14																	
ZZZZZZ		1	4:20																	
ZZZZZZ		1	4:25																	
ZZZZZZ		1	4:30																	
ZZZZZZ		1	4:35																	
ZZZZZZ		1	4:40																	
ZZZZZZ		1	4:45																	
ZZZZZZ		1	4:50																	
CCV		1	4:55	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
CCB		1	5:00	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
ZZZZZZ		1	5:05																	
ZZZZZZ		5	5:10																	
ZZZZZZ		1	5:15																	
ZZZZZZ		1	5:20																	
ZZZZZZ		1	5:25																	
ZZZZZZ		1	5:30																	
ZZZZZZ		1	5:35																	
PQL		1	5:40	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
ICSA		1	5:45	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
ICSAB		1	5:50	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
CCV		1	5:55	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
CCB		1	6:00	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
ZZZZZZ		1	6:05																	
ZZZZZZ		1	6:10																	
ZZZZZZ		1	6:15																	
ZZZZZZ		1	6:20																	
ZZZZZZ		1	6:25																	

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Instrument ID: THERMO ICAP 6500 **File Name:** IZG20B

Date: 7/21/2009 **Method:** P

Lab Sample ID	Client ID	D.F.	Time	Elements												
ZZZZZZ		1	6:30													
ZZZZZZ		1	6:36													
ZZZZZZ		1	6:41													
ZZZZZZ		1	6:46													
ZZZZZZ		1	6:51													
CCV		1	6:56	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
CCB		1	7:01	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
ZZZZZZ		1	7:06																	
ZZZZZZ		1	7:11																	
ZZZZZZ		1	7:16																	
PBWZG09ICW1		1	7:21	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
LCSWZG09ICW1		1	7:26	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
SC3624-012	WGL-GW-MW4-063009	1	7:31	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
SC3624-014	/VGL-GW-MW38-063009	1	7:36	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
SC3624-014L	/GL-GW-MW38-063009L	5	7:41	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
SC3624-014S	'GL-GW-MW38-063009S	1	7:46	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
SC3624-014P	'GL-GW-MW38-063009P	1	7:51	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
CCV		1	7:56	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
CCB		1	8:01	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
SC3624-016	'GL-GW-MW40S-063009	1	8:06	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
SC3624-018	VGL-GW-DUP01-063009	1	8:11	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
SC3624-020	'GL-GW-MW48D-063009	1	8:16	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
SC3624-022	VGL-GW-DUP02-063009	1	8:21	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
SC3624-024	;L-GW-MW48D2-063009	1	8:27	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
SC3624-026	/VGL-GW-MW39-063009	1	8:32	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
SC3624-028	WGL-GW-FB01-070109	1	8:37	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
PQL		1	8:42	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
ICSA		1	8:47	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
ICSAB		1	8:52	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
CCV		1	8:57	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
CCB		1	9:02	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
SC3624-030	WGL-GW-RB01-070109	1	9:07	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
ZZZZZZ		5	9:12																	
ZZZZZZ		10	9:17																	
ZZZZZZ		1	9:22																	
ZZZZZZ		1	9:27																	
ZZZZZZ		2	9:32																	
ZZZZZZ		2	9:37																	
ZZZZZZ		10	9:42																	
ZZZZZZ		1	9:47																	
ZZZZZZ		1	9:52																	
CCV		1	9:57	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
CCB		1	10:02	AL	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Instrument ID: AGILENT 7500 ICP-MS **File Name:** JZG13A

Date: 7/13/2009 **Method:** MS

Lab Sample ID	Client ID	D.F.	Time	Elements									
6020 TUNE		1	16:29										
Cal Blank		1	17:27	Al	Sb	As	Be	Cd	Ca	Fe	Mg	Mo	K	Na	Tl
Cal Std 1		1	17:35	Al	Sb	As	Be	Cd	Ca	Fe	Mg	Mo	K	Na	Tl
Cal Std 2		1	17:44	Al	Sb	As	Be	Cd	Ca	Fe	Mg	Mo	K	Na	Tl
Cal Std 3		1	17:52	Al	Sb	As	Be	Cd	Ca	Fe	Mg	Mo	K	Na	Tl
Cal Std 4		1	18:01	Al	Sb	As	Be	Cd	Ca	Fe	Mg	Mo	K	Na	Tl
ZZZZZZ		1	18:10												
ICV		1	18:18	Al	Sb	As	Be	Cd	Ca	Fe	Mg	Mo	K	Na	Tl
ICB		1	18:27	Al	Sb	As	Be	Cd	Ca	Fe	Mg	Mo	K	Na	Tl
PQL		1	18:35	Al	Sb	As	Be	Cd	Ca	Fe	Mg	Mo	K	Na	Tl
ICSA		1	18:44	Al	Sb	As	Be	Cd	Ca	Fe	Mg	Mo	K	Na	Tl
ICSAB		1	18:53	Al	Sb	As	Be	Cd	Ca	Fe	Mg	Mo	K	Na	Tl
Blank		1	19:01	Al	Sb	As	Be	Cd	Ca	Fe	Mg	Mo	K	Na	Tl
CCV		1	19:10	Al	Sb	As	Be	Cd	Ca	Fe	Mg	Mo	K	Na	Tl
CCB		1	19:19	Al	Sb	As	Be	Cd	Ca	Fe	Mg	Mo	K	Na	Tl
BLANK		1	19:27	Al	Sb	As	Be	Cd	Ca	Fe	Mg	Mo	K	Na	Tl
BLANK		1	19:36	Al	Sb	As	Be	Cd	Ca	Fe	Mg	Mo	K	Na	Tl
CCV		1	19:44	Al	Sb	As	Be	Cd	Ca	Fe	Mg	Mo	K	Na	Tl
CCB		1	19:53	Al	Sb	As	Be	Cd	Ca	Fe	Mg	Mo	K	Na	Tl
ZZZZZZ		5	20:01												
ZZZZZZ		10	20:10												
ZZZZZZ		20	20:18												
ZZZZZZ		50	20:27												
ZZZZZZ		5	20:36												
ZZZZZZ		100	20:44												
ZZZZZZ		50	20:53												
ZZZZZZ		5	21:01												
ZZZZZZ		5	21:10												
BLANK		1	21:19	Al	Sb	As	Be	Cd	Ca	Fe	Mg	Mo	K	Na	Tl
CCV		1	21:27	Al	Sb	As	Be	Cd	Ca	Fe	Mg	Mo	K	Na	Tl
CCB		1	21:36	Al	Sb	As	Be	Cd	Ca	Fe	Mg	Mo	K	Na	Tl
PBWZG06ICW2		5	21:44		Sb	As	Be	Cd							Tl
SC3624-002	/GL-GW-MW101-062909	5	21:53		Sb	As	Be	Cd							Tl
SC3624-004	WGL-GW-MW3-062909	5	22:02		Sb	As	Be	Cd							Tl
SC3624-006	/GL-GW-MW103-062909	5	22:10		Sb	As	Be	Cd							Tl
ZZZZZZ		5	22:19												
ZZZZZZ		10	22:28												
LCSWZG06ICW2		10	22:36		Sb	As	Be	Cd							Tl
ZZZZZZ		5	22:45												
BLANK		1	22:53	Al	Sb	As	Be	Cd	Ca	Fe	Mg	Mo	K	Na	Tl
BLANK		1	23:02	Al	Sb	As	Be	Cd	Ca	Fe	Mg	Mo	K	Na	Tl
CCV		1	23:10	Al	Sb	As	Be	Cd	Ca	Fe	Mg	Mo	K	Na	Tl
CCB		1	23:19	Al	Sb	As	Be	Cd	Ca	Fe	Mg	Mo	K	Na	Tl
SC3624-008	/GL-GW-MW102-062909	5	23:28		Sb	As	Be	Cd							Tl
SC3624-010	WGL-GW-MW2-063009	5	23:36		Sb	As	Be	Cd							Tl
SC3624-010L	/VGL-GW-MW2-063009L	25	23:45		Sb	As	Be	Cd							Tl
BLANK		1	23:53	Al	Sb	As	Be	Cd	Ca	Fe	Mg	Mo	K	Na	Tl
PQL		1	0:02	Al	Sb	As	Be	Cd	Ca	Fe	Mg	Mo	K	Na	Tl
CCV		1	0:10	Al	Sb	As	Be	Cd	Ca	Fe	Mg	Mo	K	Na	Tl
CCB		1	0:19	Al	Sb	As	Be	Cd	Ca	Fe	Mg	Mo	K	Na	Tl

ANALYSIS RUN LOG

Lab Name: Katahdin Analytical Services **SDG Name:** SC3624

Instrument ID: AGILENT 7500 ICP-MS **File Name:** JZG13A

Date: 7/14/2009 **Method:** MS

Lab Sample ID	Client ID	D.F.	Time	Elements												
ZZZZZZ		5	0:28													
ZZZZZZ		5	0:36													
ZZZZZZ		5	0:45													
ZZZZZZ		5	0:53													
ZZZZZZ		5	1:02													
ZZZZZZ		5	1:11													
LCSWZG09ICW1		10	1:19		Sb	As	Be	Cd								Tl
SC3624-010S	/GL-GW-MW2-063009S	10	1:28		Sb	As	Be	Cd								Tl
SC3624-010P	/GL-GW-MW2-063009P	10	1:36		Sb	As	Be	Cd								Tl
BLANK		1	1:45	Al	Sb	As	Be	Cd	Ca	Fe	Mg	Mo	K	Na		Tl
CCV		1	1:54	Al	Sb	As	Be	Cd	Ca	Fe	Mg	Mo	K	Na		Tl
CCB		1	2:02	Al	Sb	As	Be	Cd	Ca	Fe	Mg	Mo	K	Na		Tl
PBWZG09ICW1		5	2:11		Sb	As	Be	Cd								Tl
SC3624-012	WGL-GW-MW4-063009	5	2:19		Sb	As	Be	Cd								Tl
SC3624-014	/GL-GW-MW38-063009	5	2:28		Sb	As	Be	Cd								Tl
SC3624-014L	/GL-GW-MW38-063009L	25	2:36		Sb	As	Be	Cd								Tl
SC3624-016	'GL-GW-MW40S-063009	5	2:45		Sb	As	Be	Cd								Tl
SC3624-018	VGL-GW-DUP01-063009	5	2:54		Sb	As	Be	Cd								Tl
SC3624-020	'GL-GW-MW48D-063009	5	3:02		Sb	As	Be	Cd								Tl
SC3624-014S	'GL-GW-MW38-063009S	10	3:11		Sb	As	Be	Cd								Tl
SC3624-014P	'GL-GW-MW38-063009P	10	3:20		Sb	As	Be	Cd								Tl
BLANK		1	3:28	Al	Sb	As	Be	Cd	Ca	Fe	Mg	Mo	K	Na		Tl
CCV		1	3:37	Al	Sb	As	Be	Cd	Ca	Fe	Mg	Mo	K	Na		Tl
CCB		1	3:45	Al	Sb	As	Be	Cd	Ca	Fe	Mg	Mo	K	Na		Tl
SC3624-022	VGL-GW-DUP02-063009	5	3:54		Sb	As	Be	Cd								Tl
SC3624-024	;L-GW-MW48D2-063009	5	4:03		Sb	As	Be	Cd								Tl
SC3624-026	/GL-GW-MW39-063009	5	4:11		Sb	As	Be	Cd								Tl
SC3624-028	WGL-GW-FB01-070109	5	4:20		Sb	As	Be	Cd								Tl
SC3624-030	WGL-GW-RB01-070109	5	4:28		Sb	As	Be	Cd								Tl
ZZZZZZ		5	4:37													
ZZZZZZ		25	4:45													
ZZZZZZ		25	4:54													
ZZZZZZ		10	5:03													
BLANK		1	5:11	Al	Sb	As	Be	Cd	Ca	Fe	Mg	Mo	K	Na		Tl
CCV		1	5:20	Al	Sb	As	Be	Cd	Ca	Fe	Mg	Mo	K	Na		Tl
CCB		1	5:28	Al	Sb	As	Be	Cd	Ca	Fe	Mg	Mo	K	Na		Tl

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/29/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 16-JUL-2009 13:37
Report Date: 07/20/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-2
Client ID: WGL-GW-MW101-062909
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: RCT
Analysis Method: SW846 8081A
Lab Prep Batch: WG65885
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
319-84-6	alpha-BHC	U	0.047	1.0	0.050	0.047	0.0058
58-89-9	gamma BHC	U	0.047	1.0	0.050	0.047	0.0055
319-85-7	beta-BHC	U	0.047	1.0	0.050	0.047	0.0074
319-86-8	delta-BHC	U	0.047	1.0	0.050	0.047	0.0042
76-44-8	Heptachlor	U	0.047	1.0	0.050	0.047	0.013
309-00-2	Aldrin	U	0.047	1.0	0.050	0.047	0.014
1024-57-3	Heptachlor Epoxide	U	0.047	1.0	0.050	0.047	0.0060
5103-74-2	gamma-Chlordane	U	0.047	1.0	0.050	0.047	0.0092
5103-71-9	alpha-Chlordane	U	0.047	1.0	0.050	0.047	0.0075
72-55-9	4,4'-DDE	U	0.094	1.0	0.10	0.094	0.0065
959-98-8	Endosulfan I	U	0.047	1.0	0.050	0.047	0.0055
60-57-1	Dieldrin	U	0.094	1.0	0.10	0.094	0.0040
72-20-8	Endrin	U	0.094	1.0	0.10	0.094	0.0031
72-54-8	4,4'-DDD	U	0.094	1.0	0.10	0.094	0.011
33213-65-9	Endosulfan II	U	0.094	1.0	0.10	0.094	0.0060
50-29-3	4,4'-DDT	U	0.094	1.0	0.10	0.094	0.0049
7421-36-3	Endrin Aldehyde	U	0.094	1.0	0.10	0.094	0.0039
72-43-5	Methoxychlor	U	0.47	1.0	0.50	0.47	0.012
1031-07-8	Endosulfan sulfate	U	0.094	1.0	0.10	0.094	0.0034
53494-70-5	Endrin Ketone	U	0.094	1.0	0.10	0.094	0.0023
8001-35-2	Toxaphene	U	0.94	1.0	1.0	0.94	0.055
877-09-8	Tetrachloro-m-Xylene		73%				
2051-24-3	Decachlorobiphenyl		67%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/29/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 16-JUL-2009 13:55
Report Date: 07/20/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-4
Client ID: WGL-GW-MW3-062909
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: RCT
Analysis Method: SW846 8081A
Lab Prep Batch: WG65885
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
319-84-6	alpha-BHC	U	0.047	1.0	0.050	0.047	0.0058
58-89-9	gamma BHC	U	0.047	1.0	0.050	0.047	0.0055
319-85-7	beta-BHC	U	0.047	1.0	0.050	0.047	0.0074
319-86-8	delta-BHC	U	0.047	1.0	0.050	0.047	0.0042
76-44-8	Heptachlor	U	0.047	1.0	0.050	0.047	0.013
309-00-2	Aldrin	U	0.047	1.0	0.050	0.047	0.014
1024-57-3	Heptachlor Epoxide	U	0.047	1.0	0.050	0.047	0.0060
5103-74-2	gamma-Chlordane	U	0.047	1.0	0.050	0.047	0.0092
5103-71-9	alpha-Chlordane	U	0.047	1.0	0.050	0.047	0.0075
72-55-9	4,4'-DDE	U	0.094	1.0	0.10	0.094	0.0065
959-98-8	Endosulfan I	U	0.047	1.0	0.050	0.047	0.0055
60-57-1	Dieldrin	U	0.094	1.0	0.10	0.094	0.0040
72-20-8	Endrin	U	0.094	1.0	0.10	0.094	0.0031
72-54-8	4,4'-DDD	U	0.094	1.0	0.10	0.094	0.011
33213-65-9	Endosulfan II	U	0.094	1.0	0.10	0.094	0.0060
50-29-3	4,4'-DDT	U	0.094	1.0	0.10	0.094	0.0049
7421-36-3	Endrin Aldehyde	U	0.094	1.0	0.10	0.094	0.0039
72-43-5	Methoxychlor	U	0.47	1.0	0.50	0.47	0.012
1031-07-8	Endosulfan sulfate	U	0.094	1.0	0.10	0.094	0.0034
53494-70-5	Endrin Ketone	U	0.094	1.0	0.10	0.094	0.0023
8001-35-2	Toxaphene	U	0.94	1.0	1.0	0.94	0.055
877-09-8	Tetrachloro-m-Xylene		80%				
2051-24-3	Decachlorobiphenyl		84%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/29/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 16-JUL-2009 14:12
Report Date: 07/20/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-6
Client ID: WGL-GW-MW103-062909
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: RCT
Analysis Method: SW846 8081A
Lab Prep Batch: WG65885
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
319-84-6	alpha-BHC	U	0.050	1.0	0.050	0.050	0.0062
58-89-9	gamma BHC	U	0.050	1.0	0.050	0.050	0.0058
319-85-7	beta-BHC	U	0.050	1.0	0.050	0.050	0.0080
319-86-8	delta-BHC	U	0.050	1.0	0.050	0.050	0.0044
76-44-8	Heptachlor	U	0.050	1.0	0.050	0.050	0.014
309-00-2	Aldrin	U	0.050	1.0	0.050	0.050	0.015
1024-57-3	Heptachlor Epoxide	U	0.050	1.0	0.050	0.050	0.0065
5103-74-2	gamma-Chlordane	U	0.050	1.0	0.050	0.050	0.0099
5103-71-9	alpha-Chlordane	U	0.050	1.0	0.050	0.050	0.0081
72-55-9	4,4'-DDE	U	0.10	1.0	0.10	0.10	0.0070
959-98-8	Endosulfan I	U	0.050	1.0	0.050	0.050	0.0058
60-57-1	Dieldrin	U	0.10	1.0	0.10	0.10	0.0042
72-20-8	Endrin	U	0.10	1.0	0.10	0.10	0.0033
72-54-8	4,4'-DDD	U	0.10	1.0	0.10	0.10	0.012
33213-65-9	Endosulfan II	U	0.10	1.0	0.10	0.10	0.0065
50-29-3	4,4'-DDT	U	0.10	1.0	0.10	0.10	0.0052
7421-36-3	Endrin Aldehyde	U	0.10	1.0	0.10	0.10	0.0041
72-43-5	Methoxychlor	U	0.50	1.0	0.50	0.50	0.013
1031-07-8	Endosulfan sulfate	U	0.10	1.0	0.10	0.10	0.0036
53494-70-5	Endrin Ketone	U	0.10	1.0	0.10	0.10	0.0024
8001-35-2	Toxaphene	U	1.0	1.0	1.0	1.0	0.058
877-09-8	Tetrachloro-m-Xylene		80%				
2051-24-3	Decachlorobiphenyl		75%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/29/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 16-JUL-2009 14:30
Report Date: 07/20/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-8
Client ID: WGL-GW-MW102-062909
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: RCT
Analysis Method: SW846 8081A
Lab Prep Batch: WG65885
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
319-84-6	alpha-BHC	U	0.055	1.0	0.050	0.055	0.0067
58-89-9	gamma BHC	U	0.055	1.0	0.050	0.055	0.0064
319-85-7	beta-BHC	U	0.055	1.0	0.050	0.055	0.0087
319-86-8	delta-BHC	U	0.055	1.0	0.050	0.055	0.0048
76-44-8	Heptachlor	U	0.055	1.0	0.050	0.055	0.015
309-00-2	Aldrin	U	0.055	1.0	0.050	0.055	0.016
1024-57-3	Heptachlor Epoxide	U	0.055	1.0	0.050	0.055	0.0070
5103-74-2	gamma-Chlordane	U	0.055	1.0	0.050	0.055	0.011
5103-71-9	alpha-Chlordane	U	0.055	1.0	0.050	0.055	0.0088
72-55-9	4,4'-DDE	U	0.11	1.0	0.10	0.11	0.0076
959-98-8	Endosulfan I	U	0.055	1.0	0.050	0.055	0.0064
60-57-1	Dieldrin	U	0.11	1.0	0.10	0.11	0.0046
72-20-8	Endrin	U	0.11	1.0	0.10	0.11	0.0036
72-54-8	4,4'-DDD	U	0.11	1.0	0.10	0.11	0.013
33213-65-9	Endosulfan II	U	0.11	1.0	0.10	0.11	0.0070
50-29-3	4,4'-DDT	U	0.11	1.0	0.10	0.11	0.0057
7421-36-3	Endrin Aldehyde	U	0.11	1.0	0.10	0.11	0.0045
72-43-5	Methoxychlor	U	0.55	1.0	0.50	0.55	0.014
1031-07-8	Endosulfan sulfate	U	0.11	1.0	0.10	0.11	0.0040
53494-70-5	Endrin Ketone	U	0.11	1.0	0.10	0.11	0.0026
8001-35-2	Toxaphene	U	1.1	1.0	1.0	1.1	0.064
877-09-8	Tetrachloro-m-Xylene		89%				
2051-24-3	Decachlorobiphenyl		73%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 16-JUL-2009 14:47
Report Date: 07/20/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-10
Client ID: WGL-GW-MW2-063009
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: RCT
Analysis Method: SW846 8081A
Lab Prep Batch: WG65885
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
319-84-6	alpha-BHC	U	0.048	1.0	0.050	0.048	0.0058
58-89-9	gamma BHC	U	0.048	1.0	0.050	0.048	0.0055
319-85-7	beta-BHC	U	0.048	1.0	0.050	0.048	0.0075
319-86-8	delta-BHC	U	0.048	1.0	0.050	0.048	0.0042
76-44-8	Heptachlor	U	0.048	1.0	0.050	0.048	0.013
309-00-2	Aldrin	U	0.048	1.0	0.050	0.048	0.014
1024-57-3	Heptachlor Epoxide	U	0.048	1.0	0.050	0.048	0.0061
5103-74-2	gamma-Chlordane	U	0.048	1.0	0.050	0.048	0.0093
5103-71-9	alpha-Chlordane	U	0.048	1.0	0.050	0.048	0.0076
72-55-9	4,4'-DDE	U	0.095	1.0	0.10	0.095	0.0066
959-98-8	Endosulfan I	U	0.048	1.0	0.050	0.048	0.0055
60-57-1	Dieldrin	U	0.095	1.0	0.10	0.095	0.0040
72-20-8	Endrin	U	0.095	1.0	0.10	0.095	0.0031
72-54-8	4,4'-DDD	U	0.095	1.0	0.10	0.095	0.011
33213-65-9	Endosulfan II	U	0.095	1.0	0.10	0.095	0.0061
50-29-3	4,4'-DDT	U	0.095	1.0	0.10	0.095	0.0050
7421-36-3	Endrin Aldehyde	U	0.095	1.0	0.10	0.095	0.0039
72-43-5	Methoxychlor	U	0.48	1.0	0.50	0.48	0.012
1031-07-8	Endosulfan sulfate	U	0.095	1.0	0.10	0.095	0.0034
53494-70-5	Endrin Ketone	U	0.095	1.0	0.10	0.095	0.0023
8001-35-2	Toxaphene	U	0.95	1.0	1.0	0.95	0.055
877-09-8	Tetrachloro-m-Xylene		81%				
2051-24-3	Decachlorobiphenyl		52%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 16-JUL-2009 15:05
Report Date: 07/20/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-12
Client ID: WGL-GW-MW4-063009
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: RCT
Analysis Method: SW846 8081A
Lab Prep Batch: WG65885
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
319-84-6	alpha-BHC	U	0.047	1.0	0.050	0.047	0.0058
58-89-9	gamma BHC	U	0.047	1.0	0.050	0.047	0.0055
319-85-7	beta-BHC	U	0.047	1.0	0.050	0.047	0.0074
319-86-8	delta-BHC	U	0.047	1.0	0.050	0.047	0.0042
76-44-8	Heptachlor	U	0.047	1.0	0.050	0.047	0.013
309-00-2	Aldrin	U	0.047	1.0	0.050	0.047	0.014
1024-57-3	Heptachlor Epoxide	U	0.047	1.0	0.050	0.047	0.0060
5103-74-2	gamma-Chlordane	U	0.047	1.0	0.050	0.047	0.0092
5103-71-9	alpha-Chlordane	U	0.047	1.0	0.050	0.047	0.0075
72-55-9	4,4'-DDE	U	0.094	1.0	0.10	0.094	0.0065
959-98-8	Endosulfan I	U	0.047	1.0	0.050	0.047	0.0055
60-57-1	Dieldrin	U	0.094	1.0	0.10	0.094	0.0040
72-20-8	Endrin	U	0.094	1.0	0.10	0.094	0.0031
72-54-8	4,4'-DDD	U	0.094	1.0	0.10	0.094	0.011
33213-65-9	Endosulfan II	U	0.094	1.0	0.10	0.094	0.0060
50-29-3	4,4'-DDT	U	0.094	1.0	0.10	0.094	0.0049
7421-36-3	Endrin Aldehyde	U	0.094	1.0	0.10	0.094	0.0039
72-43-5	Methoxychlor	U	0.47	1.0	0.50	0.47	0.012
1031-07-8	Endosulfan sulfate	U	0.094	1.0	0.10	0.094	0.0034
53494-70-5	Endrin Ketone	U	0.094	1.0	0.10	0.094	0.0023
8001-35-2	Toxaphene	U	0.94	1.0	1.0	0.94	0.055
877-09-8	Tetrachloro-m-Xylene		62%				
2051-24-3	Decachlorobiphenyl		* 7%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 16-JUL-2009 16:14
Report Date: 07/20/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-14
Client ID: L-GW-MW38-063009
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: RCT
Analysis Method: SW846 8081A
Lab Prep Batch: WG65885
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
319-84-6	alpha-BHC	U	0.047	1.0	0.050	0.047	0.0058
58-89-9	gamma BHC	U	0.047	1.0	0.050	0.047	0.0055
319-85-7	beta-BHC	U	0.047	1.0	0.050	0.047	0.0074
319-86-8	delta-BHC	U	0.047	1.0	0.050	0.047	0.0042
76-44-8	Heptachlor	U	0.047	1.0	0.050	0.047	0.013
309-00-2	Aldrin	U	0.047	1.0	0.050	0.047	0.014
1024-57-3	Heptachlor Epoxide	U	0.047	1.0	0.050	0.047	0.0060
5103-74-2	gamma-Chlordane	U	0.047	1.0	0.050	0.047	0.0092
5103-71-9	alpha-Chlordane	U	0.047	1.0	0.050	0.047	0.0075
72-55-9	4,4'-DDE	U	0.094	1.0	0.10	0.094	0.0065
959-98-8	Endosulfan I	U	0.047	1.0	0.050	0.047	0.0055
60-57-1	Dieldrin	U	0.094	1.0	0.10	0.094	0.0040
72-20-8	Endrin	U	0.094	1.0	0.10	0.094	0.0031
72-54-8	4,4'-DDD	U	0.094	1.0	0.10	0.094	0.011
33213-65-9	Endosulfan II	U	0.094	1.0	0.10	0.094	0.0060
50-29-3	4,4'-DDT	U	0.094	1.0	0.10	0.094	0.0049
7421-36-3	Endrin Aldehyde	U	0.094	1.0	0.10	0.094	0.0039
72-43-5	Methoxychlor	U	0.47	1.0	0.50	0.47	0.012
1031-07-8	Endosulfan sulfate	U	0.094	1.0	0.10	0.094	0.0034
53494-70-5	Endrin Ketone	U	0.094	1.0	0.10	0.094	0.0023
8001-35-2	Toxaphene	U	0.94	1.0	1.0	0.94	0.055
877-09-8	Tetrachloro-m-Xylene		87%				
2051-24-3	Decachlorobiphenyl		84%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 16-JUL-2009 16:32
Report Date: 07/20/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-16
Client ID: WGL-GW-MW40S-063009
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: RCT
Analysis Method: SW846 8081A
Lab Prep Batch: WG65885
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
319-84-6	alpha-BHC	U	0.049	1.0	0.050	0.049	0.0060
58-89-9	gamma BHC	U	0.049	1.0	0.050	0.049	0.0057
319-85-7	beta-BHC	U	0.049	1.0	0.050	0.049	0.0077
319-86-8	delta-BHC	U	0.049	1.0	0.050	0.049	0.0043
76-44-8	Heptachlor	U	0.049	1.0	0.050	0.049	0.014
309-00-2	Aldrin	U	0.049	1.0	0.050	0.049	0.015
1024-57-3	Heptachlor Epoxide	U	0.049	1.0	0.050	0.049	0.0063
5103-74-2	gamma-Chlordane	U	0.049	1.0	0.050	0.049	0.0096
5103-71-9	alpha-Chlordane	U	0.049	1.0	0.050	0.049	0.0078
72-55-9	4,4'-DDE	U	0.098	1.0	0.10	0.098	0.0068
959-98-8	Endosulfan I	U	0.049	1.0	0.050	0.049	0.0057
60-57-1	Dieldrin	U	0.098	1.0	0.10	0.098	0.0041
72-20-8	Endrin	U	0.098	1.0	0.10	0.098	0.0032
72-54-8	4,4'-DDD	U	0.098	1.0	0.10	0.098	0.012
33213-65-9	Endosulfan II	U	0.098	1.0	0.10	0.098	0.0063
50-29-3	4,4'-DDT	U	0.098	1.0	0.10	0.098	0.0051
7421-36-3	Endrin Aldehyde	U	0.098	1.0	0.10	0.098	0.0040
72-43-5	Methoxychlor	U	0.49	1.0	0.50	0.49	0.013
1031-07-8	Endosulfan sulfate	U	0.098	1.0	0.10	0.098	0.0035
53494-70-5	Endrin Ketone	U	0.098	1.0	0.10	0.098	0.0024
8001-35-2	Toxaphene	U	0.98	1.0	1.0	0.98	0.057
877-09-8	Tetrachloro-m-Xylene		61%				
2051-24-3	Decachlorobiphenyl		* 35%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 16-JUL-2009 16:49
Report Date: 07/20/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-18
Client ID: WGL-GW-DUP01-063009
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: RCT
Analysis Method: SW846 8081A
Lab Prep Batch: WG65885
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
319-84-6	alpha-BHC	U	0.048	1.0	0.050	0.048	0.0059
58-89-9	gamma BHC	U	0.048	1.0	0.050	0.048	0.0056
319-85-7	beta-BHC	U	0.048	1.0	0.050	0.048	0.0076
319-86-8	delta-BHC	U	0.048	1.0	0.050	0.048	0.0042
76-44-8	Heptachlor	U	0.048	1.0	0.050	0.048	0.013
309-00-2	Aldrin	U	0.048	1.0	0.050	0.048	0.014
1024-57-3	Heptachlor Epoxide	U	0.048	1.0	0.050	0.048	0.0062
5103-74-2	gamma-Chlordane	U	0.048	1.0	0.050	0.048	0.0094
5103-71-9	alpha-Chlordane	U	0.048	1.0	0.050	0.048	0.0077
72-55-9	4,4'-DDE	U	0.096	1.0	0.10	0.096	0.0066
959-98-8	Endosulfan I	U	0.048	1.0	0.050	0.048	0.0056
60-57-1	Dieldrin	U	0.096	1.0	0.10	0.096	0.0040
72-20-8	Endrin	U	0.096	1.0	0.10	0.096	0.0032
72-54-8	4,4'-DDD	U	0.096	1.0	0.10	0.096	0.012
33213-65-9	Endosulfan II	U	0.096	1.0	0.10	0.096	0.0062
50-29-3	4,4'-DDT	U	0.096	1.0	0.10	0.096	0.0050
7421-36-3	Endrin Aldehyde	U	0.096	1.0	0.10	0.096	0.0039
72-43-5	Methoxychlor	U	0.48	1.0	0.50	0.48	0.012
1031-07-8	Endosulfan sulfate	U	0.096	1.0	0.10	0.096	0.0035
53494-70-5	Endrin Ketone	U	0.096	1.0	0.10	0.096	0.0023
8001-35-2	Toxaphene	U	0.96	1.0	1.0	0.96	0.056
877-09-8	Tetrachloro-m-Xylene		69%				
2051-24-3	Decachlorobiphenyl		* 39%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 16-JUL-2009 17:07
Report Date: 07/20/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-20
Client ID: WGL-GW-MW48D-063009
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: RCT
Analysis Method: SW846 8081A
Lab Prep Batch: WG65885
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
319-84-6	alpha-BHC	U	0.050	1.0	0.050	0.050	0.0062
58-89-9	gamma BHC	U	0.050	1.0	0.050	0.050	0.0058
319-85-7	beta-BHC	U	0.050	1.0	0.050	0.050	0.0080
319-86-8	delta-BHC	U	0.050	1.0	0.050	0.050	0.0044
76-44-8	Heptachlor	U	0.050	1.0	0.050	0.050	0.014
309-00-2	Aldrin	U	0.050	1.0	0.050	0.050	0.015
1024-57-3	Heptachlor Epoxide	U	0.050	1.0	0.050	0.050	0.0065
5103-74-2	gamma-Chlordane	U	0.050	1.0	0.050	0.050	0.0099
5103-71-9	alpha-Chlordane	U	0.050	1.0	0.050	0.050	0.0081
72-55-9	4,4'-DDE	U	0.10	1.0	0.10	0.10	0.0070
959-98-8	Endosulfan I	U	0.050	1.0	0.050	0.050	0.0058
60-57-1	Dieldrin	U	0.10	1.0	0.10	0.10	0.0042
72-20-8	Endrin	U	0.10	1.0	0.10	0.10	0.0033
72-54-8	4,4'-DDD	U	0.10	1.0	0.10	0.10	0.012
33213-65-9	Endosulfan II	U	0.10	1.0	0.10	0.10	0.0065
50-29-3	4,4'-DDT	U	0.10	1.0	0.10	0.10	0.0052
7421-36-3	Endrin Aldehyde	U	0.10	1.0	0.10	0.10	0.0041
72-43-5	Methoxychlor	U	0.50	1.0	0.50	0.50	0.013
1031-07-8	Endosulfan sulfate	U	0.10	1.0	0.10	0.10	0.0036
53494-70-5	Endrin Ketone	U	0.10	1.0	0.10	0.10	0.0024
8001-35-2	Toxaphene	U	1.0	1.0	1.0	1.0	0.058
877-09-8	Tetrachloro-m-Xylene		74%				
2051-24-3	Decachlorobiphenyl		44%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 16-JUL-2009 17:24
Report Date: 07/20/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-22
Client ID: WGL-GW-DUP02-063009
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: RCT
Analysis Method: SW846 8081A
Lab Prep Batch: WG65885
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
319-84-6	alpha-BHC	U	0.050	1.0	0.050	0.050	0.0060
58-89-9	gamma BHC	U	0.050	1.0	0.050	0.050	0.0057
319-85-7	beta-BHC	U	0.050	1.0	0.050	0.050	0.0078
319-86-8	delta-BHC	U	0.050	1.0	0.050	0.050	0.0044
76-44-8	Heptachlor	U	0.050	1.0	0.050	0.050	0.014
309-00-2	Aldrin	U	0.050	1.0	0.050	0.050	0.015
1024-57-3	Heptachlor Epoxide	U	0.050	1.0	0.050	0.050	0.0063
5103-74-2	gamma-Chlordane	U	0.050	1.0	0.050	0.050	0.0097
5103-71-9	alpha-Chlordane	U	0.050	1.0	0.050	0.050	0.0079
72-55-9	4,4'-DDE	U	0.099	1.0	0.10	0.099	0.0068
959-98-8	Endosulfan I	U	0.050	1.0	0.050	0.050	0.0057
60-57-1	Dieldrin	U	0.099	1.0	0.10	0.099	0.0042
72-20-8	Endrin	U	0.099	1.0	0.10	0.099	0.0033
72-54-8	4,4'-DDD	U	0.099	1.0	0.10	0.099	0.012
33213-65-9	Endosulfan II	U	0.099	1.0	0.10	0.099	0.0063
50-29-3	4,4'-DDT	U	0.099	1.0	0.10	0.099	0.0051
7421-36-3	Endrin Aldehyde	U	0.099	1.0	0.10	0.099	0.0040
72-43-5	Methoxychlor	U	0.50	1.0	0.50	0.50	0.013
1031-07-8	Endosulfan sulfate	U	0.099	1.0	0.10	0.099	0.0036
53494-70-5	Endrin Ketone	U	0.099	1.0	0.10	0.099	0.0024
8001-35-2	Toxaphene	U	0.99	1.0	1.0	0.99	0.057
877-09-8	Tetrachloro-m-Xylene		67%				
2051-24-3	Decachlorobiphenyl		* 32%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 16-JUL-2009 17:41
Report Date: 07/20/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-24
Client ID: GL-GW-MW48D2-063009
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: RCT
Analysis Method: SW846 8081A
Lab Prep Batch: WG65885
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
319-84-6	alpha-BHC	U	0.047	1.0	0.050	0.047	0.0058
58-89-9	gamma BHC	U	0.047	1.0	0.050	0.047	0.0055
319-85-7	beta-BHC	U	0.047	1.0	0.050	0.047	0.0074
319-86-8	delta-BHC	U	0.047	1.0	0.050	0.047	0.0042
76-44-8	Heptachlor	U	0.047	1.0	0.050	0.047	0.013
309-00-2	Aldrin	U	0.047	1.0	0.050	0.047	0.014
1024-57-3	Heptachlor Epoxide	U	0.047	1.0	0.050	0.047	0.0060
5103-74-2	gamma-Chlordane	U	0.047	1.0	0.050	0.047	0.0092
5103-71-9	alpha-Chlordane	U	0.047	1.0	0.050	0.047	0.0075
72-55-9	4,4'-DDE	U	0.094	1.0	0.10	0.094	0.0065
959-98-8	Endosulfan I	U	0.047	1.0	0.050	0.047	0.0055
60-57-1	Dieldrin	U	0.094	1.0	0.10	0.094	0.0040
72-20-8	Endrin	U	0.094	1.0	0.10	0.094	0.0031
72-54-8	4,4'-DDD	U	0.094	1.0	0.10	0.094	0.011
33213-65-9	Endosulfan II	U	0.094	1.0	0.10	0.094	0.0060
50-29-3	4,4'-DDT	U	0.094	1.0	0.10	0.094	0.0049
7421-36-3	Endrin Aldehyde	U	0.094	1.0	0.10	0.094	0.0039
72-43-5	Methoxychlor	U	0.47	1.0	0.50	0.47	0.012
1031-07-8	Endosulfan sulfate	U	0.094	1.0	0.10	0.094	0.0034
53494-70-5	Endrin Ketone	U	0.094	1.0	0.10	0.094	0.0023
8001-35-2	Toxaphene	U	0.94	1.0	1.0	0.94	0.055
877-09-8	Tetrachloro-m-Xylene		79%				
2051-24-3	Decachlorobiphenyl		75%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 16-JUL-2009 17:59
Report Date: 07/20/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-26
Client ID: WGL-GW-MW39-063009
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: RCT
Analysis Method: SW846 8081A
Lab Prep Batch: WG65885
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
319-84-6	alpha-BHC	U	0.047	1.0	0.050	0.047	0.0058
58-89-9	gamma BHC	U	0.047	1.0	0.050	0.047	0.0055
319-85-7	beta-BHC	U	0.047	1.0	0.050	0.047	0.0074
319-86-8	delta-BHC	U	0.047	1.0	0.050	0.047	0.0042
76-44-8	Heptachlor	U	0.047	1.0	0.050	0.047	0.013
309-00-2	Aldrin	U	0.047	1.0	0.050	0.047	0.014
1024-57-3	Heptachlor Epoxide	U	0.047	1.0	0.050	0.047	0.0060
5103-74-2	gamma-Chlordane	U	0.047	1.0	0.050	0.047	0.0092
5103-71-9	alpha-Chlordane	U	0.047	1.0	0.050	0.047	0.0075
72-55-9	4,4'-DDE	U	0.094	1.0	0.10	0.094	0.0065
959-98-8	Endosulfan I	U	0.047	1.0	0.050	0.047	0.0055
60-57-1	Dieldrin	U	0.094	1.0	0.10	0.094	0.0040
72-20-8	Endrin	U	0.094	1.0	0.10	0.094	0.0031
72-54-8	4,4'-DDD	U	0.094	1.0	0.10	0.094	0.011
33213-65-9	Endosulfan II	U	0.094	1.0	0.10	0.094	0.0060
50-29-3	4,4'-DDT	U	0.094	1.0	0.10	0.094	0.0049
7421-36-3	Endrin Aldehyde	U	0.094	1.0	0.10	0.094	0.0039
72-43-5	Methoxychlor	U	0.47	1.0	0.50	0.47	0.012
1031-07-8	Endosulfan sulfate	U	0.094	1.0	0.10	0.094	0.0034
53494-70-5	Endrin Ketone	U	0.094	1.0	0.10	0.094	0.0023
8001-35-2	Toxaphene	U	0.94	1.0	1.0	0.94	0.055
877-09-8	Tetrachloro-m-Xylene		76%				
2051-24-3	Decachlorobiphenyl		* 36%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 07/01/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 16-JUL-2009 18:16
Report Date: 07/20/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-28
Client ID: WGL-GW-FB01-070109
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: RCT
Analysis Method: SW846 8081A
Lab Prep Batch: WG65885
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
319-84-6	alpha-BHC	U	0.047	1.0	0.050	0.047	0.0058
58-89-9	gamma BHC	U	0.047	1.0	0.050	0.047	0.0055
319-85-7	beta-BHC	U	0.047	1.0	0.050	0.047	0.0074
319-86-8	delta-BHC	U	0.047	1.0	0.050	0.047	0.0042
76-44-8	Heptachlor	U	0.047	1.0	0.050	0.047	0.013
309-00-2	Aldrin	U	0.047	1.0	0.050	0.047	0.014
1024-57-3	Heptachlor Epoxide	U	0.047	1.0	0.050	0.047	0.0060
5103-74-2	gamma-Chlordane	U	0.047	1.0	0.050	0.047	0.0092
5103-71-9	alpha-Chlordane	U	0.047	1.0	0.050	0.047	0.0075
72-55-9	4,4'-DDE	U	0.094	1.0	0.10	0.094	0.0065
959-98-8	Endosulfan I	U	0.047	1.0	0.050	0.047	0.0055
60-57-1	Dieldrin	U	0.094	1.0	0.10	0.094	0.0040
72-20-8	Endrin	U	0.094	1.0	0.10	0.094	0.0031
72-54-8	4,4'-DDD	U	0.094	1.0	0.10	0.094	0.011
33213-65-9	Endosulfan II	U	0.094	1.0	0.10	0.094	0.0060
50-29-3	4,4'-DDT	U	0.094	1.0	0.10	0.094	0.0049
7421-36-3	Endrin Aldehyde	U	0.094	1.0	0.10	0.094	0.0039
72-43-5	Methoxychlor	U	0.47	1.0	0.50	0.47	0.012
1031-07-8	Endosulfan sulfate	U	0.094	1.0	0.10	0.094	0.0034
53494-70-5	Endrin Ketone	U	0.094	1.0	0.10	0.094	0.0023
8001-35-2	Toxaphene	U	0.94	1.0	1.0	0.94	0.055
877-09-8	Tetrachloro-m-Xylene		92%				
2051-24-3	Decachlorobiphenyl		66%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 07/01/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 16-JUL-2009 18:34
Report Date: 07/20/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-30
Client ID: WGL-GW-RB01-070109
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: RCT
Analysis Method: SW846 8081A
Lab Prep Batch: WG65885
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
319-84-6	alpha-BHC	U	0.050	1.0	0.050	0.050	0.0061
58-89-9	gamma BHC	U	0.050	1.0	0.050	0.050	0.0058
319-85-7	beta-BHC	U	0.050	1.0	0.050	0.050	0.0079
319-86-8	delta-BHC	U	0.050	1.0	0.050	0.050	0.0044
76-44-8	Heptachlor	U	0.050	1.0	0.050	0.050	0.014
309-00-2	Aldrin	U	0.050	1.0	0.050	0.050	0.015
1024-57-3	Heptachlor Epoxide	U	0.050	1.0	0.050	0.050	0.0064
5103-74-2	gamma-Chlordane	U	0.050	1.0	0.050	0.050	0.0098
5103-71-9	alpha-Chlordane	U	0.050	1.0	0.050	0.050	0.0080
72-55-9	4,4'-DDE	U	0.10	1.0	0.10	0.10	0.0069
959-98-8	Endosulfan I	U	0.050	1.0	0.050	0.050	0.0058
60-57-1	Dieldrin	U	0.10	1.0	0.10	0.10	0.0042
72-20-8	Endrin	U	0.10	1.0	0.10	0.10	0.0033
72-54-8	4,4'-DDD	U	0.10	1.0	0.10	0.10	0.012
33213-65-9	Endosulfan II	U	0.10	1.0	0.10	0.10	0.0064
50-29-3	4,4'-DDT	U	0.10	1.0	0.10	0.10	0.0052
7421-36-3	Endrin Aldehyde	U	0.10	1.0	0.10	0.10	0.0041
72-43-5	Methoxychlor	U	0.50	1.0	0.50	0.50	0.013
1031-07-8	Endosulfan sulfate	U	0.10	1.0	0.10	0.10	0.0036
53494-70-5	Endrin Ketone	U	0.10	1.0	0.10	0.10	0.0024
8001-35-2	Toxaphene	U	1.0	1.0	1.0	1.0	0.058
877-09-8	Tetrachloro-m-Xylene		86%				
2051-24-3	Decachlorobiphenyl		43%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client:
Project: CTO407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date: 07/06/09
Analysis Date: 16-JUL-2009 12:28
Report Date: 07/20/2009
Matrix: WATER
% Solids: NA

Lab ID: WG65885-1
Client ID: WG65885-Blank
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: RCT
Analysis Method: SW846 8081A
Lab Prep Batch: WG65885
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
319-84-6	alpha-BHC	U	0.050	1.0	0.050	0.050	0.0061
58-89-9	gamma BHC	U	0.050	1.0	0.050	0.050	0.0058
319-85-7	beta-BHC	U	0.050	1.0	0.050	0.050	0.0079
319-86-8	delta-BHC	U	0.050	1.0	0.050	0.050	0.0044
76-44-8	Heptachlor	U	0.050	1.0	0.050	0.050	0.014
309-00-2	Aldrin	U	0.050	1.0	0.050	0.050	0.015
1024-57-3	Heptachlor Epoxide	U	0.050	1.0	0.050	0.050	0.0064
5103-74-2	gamma-Chlordane	U	0.050	1.0	0.050	0.050	0.0098
5103-71-9	alpha-Chlordane	U	0.050	1.0	0.050	0.050	0.0080
72-55-9	4,4'-DDE	U	0.10	1.0	0.10	0.10	0.0069
959-98-8	Endosulfan I	U	0.050	1.0	0.050	0.050	0.0058
60-57-1	Dieldrin	U	0.10	1.0	0.10	0.10	0.0042
72-20-8	Endrin	U	0.10	1.0	0.10	0.10	0.0033
72-54-8	4,4'-DDD	U	0.10	1.0	0.10	0.10	0.012
33213-65-9	Endosulfan II	U	0.10	1.0	0.10	0.10	0.0064
50-29-3	4,4'-DDT	U	0.10	1.0	0.10	0.10	0.0052
7421-36-3	Endrin Aldehyde	U	0.10	1.0	0.10	0.10	0.0041
72-43-5	Methoxychlor	U	0.50	1.0	0.50	0.50	0.013
1031-07-8	Endosulfan sulfate	U	0.10	1.0	0.10	0.10	0.0036
53494-70-5	Endrin Ketone	U	0.10	1.0	0.10	0.10	0.0024
8001-35-2	Toxaphene	U	1.0	1.0	1.0	1.0	0.058
877-09-8	Tetrachloro-m-Xylene		90%				
2051-24-3	Decachlorobiphenyl		83%				

FORM 2
WATER PESTICIDE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

GC Column(1): ZB-MULTIRESIDUE-1ID: 0.53 (mm)GC Column(2): ZB-MULTIRESIDUE-2ID: 0.53 (mm)

	CLIENT SAMPLE ID	LAB SAMPLE ID	TCX1 REC#	TCX2 REC#	DCB1 REC#	DCB2 REC#	OTHR (1)	OTHR (2)	TOT OUT
01	WG65885-BLANK	WG65885-1	87	90	83	80			0
02	WG65885-LCS	WG65885-2	84	84	69	68			0
03	L-GW-MW38-063009MS	WG65885-3	85	86	79	80			0
04	L-GW-MW38-063009MSD	WG65885-4	72	73	76	76			0
05	WGL-GW-MW101-062909	SC3624-2	71	73	67	66			0
06	WGL-GW-MW3-062909	SC3624-4	79	80	84	84			0
07	WGL-GW-MW103-062909	SC3624-6	79	80	75	74			0
08	WGL-GW-MW102-062909	SC3624-8	87	89	73	73			0
09	WGL-GW-MW2-063009	SC3624-10	80	81	52	52			0
10	WGL-GW-MW4-063009	SC3624-12	61	62	7*	7*			2
11	L-GW-MW38-063009	SC3624-14	86	87	83	84			0
12	WGL-GW-MW40S-063009	SC3624-16	60	61	34*	35*			2
13	WGL-GW-DUP01-063009	SC3624-18	69	69	39*	39*			2
14	WGL-GW-MW48D-063009	SC3624-20	74	74	44	43			0
15	WGL-GW-DUP02-063009	SC3624-22	66	67	32*	32*			2
16	GL-GW-MW48D2-063009	SC3624-24	78	79	75	73			0
17	WGL-GW-MW39-063009	SC3624-26	74	76	36*	35*			2
18	WGL-GW-FB01-070109	SC3624-28	90	92	66	66			0
19	WGL-GW-RB01-070109	SC3624-30	85	86	43	42			0
20									
21									
22									
23									
24									
25									
26									
27									
28									

ADVISORY
QC LIMITS

S1 (TCX) = Tetrachloro-m-Xylene (48-112)
S2 (DCB) = Decachlorobiphenyl (41-131)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out

KATAHDIN ANALYTICAL SERVICES
LAB CONTROL SAMPLE

Client:
Project: CTO407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date: 07/06/09
Analysis Date: 07/16/09
Report Date: 07/20/2009
Matrix: WATER

Lab ID: WG65885-2
Client ID: WG65885-LCS
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: RCT
Analysis Method: SW846 8081A
Lab Prep Batch: WG65885
Units: ug/L

COMPOUND	LCS SPIKE	SAMPLE CONC.	LCS CONC.		%REC.	QC. LIMITS
alpha-BHC	0.50	NA	0.49		97	62-116
gamma BHC	0.50	NA	0.50		101	65-124
beta-BHC	0.50	NA	0.55		110	75-122
delta-BHC	0.50	NA	0.53		105	66-142
Heptachlor	0.50	NA	0.49		98	60-114
Aldrin	0.50	NA	0.47		94	59-116
Heptachlor Epoxide	0.50	NA	0.46		92	64-123
gamma-Chlordane	0.50	NA	0.51		102	68-126
alpha-Chlordane	0.50	NA	0.50		99	66-124
4,4'-DDE	0.50	NA	0.52		105	63-124
Endosulfan I	0.50	NA	0.43		86	56-118
Dieldrin	0.50	NA	0.49		97	66-126
Endrin	0.50	NA	0.54		107	67-119
4,4'-DDD	0.50	NA	0.58		116	60-120
Endosulfan II	0.50	NA	0.46		92	64-118
4,4'-DDT	0.50	NA	0.53		106	68-127
Endrin Aldehyde	0.50	NA	0.52		105	68-120
Methoxychlor	0.50	NA	0.69	*	138	64-129
Endosulfan sulfate	0.50	NA	0.59		117	65-138
Endrin Ketone	0.50	NA	0.54		108	71-131

KATAHDIN ANALYTICAL SERVICES
MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 07/16/09
Report Date: 07/20/2009
Matrix: WATER

Lab ID: WG65885-3 & WG65885-4
Client ID: L-GW-MW38-063009MS & L-GW-MW38-063009MSD
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: RCT
Analysis Method: SW846 8081A
Lab Prep Batch: WG65885
Units: ug/L

COMPOUND	MS SPIKE	MSD SPIKE	SAMPLE CONC.	MS CONC.	MSD CONC.	MS %REC.	MSD %REC.	%RPD	%RPD LIMIT	QC. LIMITS
alpha-BHC	0.47	0.47	0.00	0.49	0.42	104	90	15	30	62-116
gamma BHC	0.47	0.47	0.00	0.48	0.44	101	92	9	30	65-124
beta-BHC	0.47	0.47	0.00	0.51	0.47	107	99	8	30	75-122
delta-BHC	0.47	0.47	0.00	0.51	0.45	107	95	12	30	66-142
Heptachlor	0.47	0.47	0.00	0.47	0.43	100	91	10	30	60-114
Aldrin	0.47	0.47	0.00	0.46	0.42	98	88	10	30	59-116
Heptachlor Epoxide	0.47	0.47	0.00	0.43	0.39	91	84	8	30	64-123
gamma-Chlordane	0.47	0.47	0.00	0.48	0.44	101	92	9	30	68-126
alpha-Chlordane	0.47	0.47	0.00	0.47	0.43	100	91	9	30	66-124
4,4'-DDE	0.47	0.47	0.00	0.49	0.45	105	96	8	30	63-124
Endosulfan I	0.47	0.47	0.00	0.40	0.37	85	78	9	30	56-118
Dieldrin	0.47	0.47	0.00	0.48	0.43	101	90	11	30	66-126
Endrin	0.47	0.47	0.00	0.51	0.47	108	99	9	30	67-119
4,4'-DDD	0.47	0.47	0.00	0.58	0.49	* 122	104	16	30	60-120
Endosulfan II	0.47	0.47	0.00	0.44	0.40	93	85	9	30	64-118
4,4'-DDT	0.47	0.47	0.00	0.52	0.47	111	99	11	30	68-127
Endrin Aldehyde	0.47	0.47	0.00	0.51	0.46	107	97	10	30	68-120
Methoxychlor	0.47	0.47	0.00	0.66	0.58	* 139	123	12	30	64-129
Endosulfan sulfate	0.47	0.47	0.00	0.60	0.54	126	114	10	30	65-138
Endrin Ketone	0.47	0.47	0.00	0.52	0.47	111	99	11	30	71-131

FORM 4
PESTICIDE METHOD BLANK SUMMARY

CLIENT SAMPLE ID

WG65885-BLANK

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Lab Sample ID: WG65885-1 Lab File ID: 1CG00206

Matrix (soil/water) WATER Extraction:(SepF/Cont/Sonc) SW846 3510

Sulfur Cleanup: (Y/N) N Date Extracted: 07/06/09

Date Analyzed (1): 07/16/09 Date Analyzed (2): 07/16/09

Time Analyzed (1): 1228 Time Analyzed (2): 1228

Instrument ID (1): GC01 Instrument ID (2): GC01

GC Column (1): ZB-MULTIRESIDUE-1 ID: 0.53(mm) GC Column (2): ZB-MULTIRESIDUE-2 ID: 0.53(mm

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	WG65885-LCS	WG65885-2	1CG00207	07/16/09	07/16/09
02	L-GW-MW38-063009MS	WG65885-3	1CG00208	07/16/09	07/16/09
03	L-GW-MW38-063009MSD	WG65885-4	1CG00209	07/16/09	07/16/09
04	WGL-GW-MW101-062909	SC3624-2	1CG00210	07/16/09	07/16/09
05	WGL-GW-MW3-062909	SC3624-4	1CG00211	07/16/09	07/16/09
06	WGL-GW-MW103-062909	SC3624-6	1CG00212	07/16/09	07/16/09
07	WGL-GW-MW102-062909	SC3624-8	1CG00213	07/16/09	07/16/09
08	WGL-GW-MW2-063009	SC3624-10	1CG00214	07/16/09	07/16/09
09	WGL-GW-MW4-063009	SC3624-12	1CG00215	07/16/09	07/16/09
10	L-GW-MW38-063009	SC3624-14	1CG00219	07/16/09	07/16/09
11	WGL-GW-MW40S-063009	SC3624-16	1CG00220	07/16/09	07/16/09
12	WGL-GW-DUP01-063009	SC3624-18	1CG00221	07/16/09	07/16/09
13	WGL-GW-MW48D-063009	SC3624-20	1CG00222	07/16/09	07/16/09
14	WGL-GW-DUP02-063009	SC3624-22	1CG00223	07/16/09	07/16/09
15	GL-GW-MW48D2-063009	SC3624-24	1CG00224	07/16/09	07/16/09
16	WGL-GW-MW39-063009	SC3624-26	1CG00225	07/16/09	07/16/09
17	WGL-GW-FB01-070109	SC3624-28	1CG00226	07/16/09	07/16/09
18	WGL-GW-RB01-070109	SC3624-30	1CG00227	07/16/09	07/16/09
19					
20					
21					
22					
23					
24					

COMMENTS: _____

FORM IVPESTICIDE

FORM 6
PESTICIDE INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project CTO407 NAS WEYMOUTH SDG No.: SC3624

Instrument ID: GC01 Calibration Date(s): 07/14/09 07/14/09

Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm) Calibration Time(s): 1234 1453

LAB FILE ID: RF0.005: 1CG00157 RF0.01: 1CG00158 RF0.025: 1CG00159
RF0.05: 1CG00164 RF0.1: 1CG00160 RF0.25: 1CG00161

COMPOUND	RF0.005	RF0.01	RF0.025	RF0.05	RF0.1	RF0.25	CURVE	COEFFICENTS A0	A1	A2	%RSD OR R^2	MAX %RSD OR R^2
alpha-BHC	2923900	6248100	2e+007	4e+007	8e+007	2e+008	2ORDR	1.361e-003	1.299e-009	1.498e-019	0.99990	0.99000
gamma BHC	2607400	5445000	1e+007	3e+007	7e+007	2e+008	2ORDR	1.233e-003	1.523e-009	6.641e-020	0.99992	0.99000
beta-BHC	1150000	2233100	5621400	1e+007	2e+007	6e+007	2ORDR	2.715e-004	4.347e-009	-6.5e-018	0.99999	0.99000
delta-BHC	2152100	4418900	1e+007	3e+007	5e+007	1e+008	2ORDR	1.201e-003	1.852e-009	-6.68e-019	0.99991	0.99000
Heptachlor	2425800	5108500	1e+007	3e+007	6e+007	1e+008	2ORDR	8.216e-004	1.733e-009	5.302e-019	0.99993	0.99000
Aldrin	2162800	4585900	1e+007	3e+007	5e+007	1e+008	2ORDR	1.118e-003	1.824e-009	2.786e-019	0.99994	0.99000
Heptachlor Epoxide	2057800	4269200	1e+007	2e+007	5e+007	1e+008	2ORDR	9.02e-004	2.119e-009	1.022e-018	0.99992	0.99000
gamma-Chlordane	1935400	3932100	1.e+007	2e+007	5e+007	1e+008	2ORDR	9.172e-004	2.272e-009	-1.4e-018	0.99991	0.99000
alpha-Chlordane	1895900	3888800	9983500	2e+007	4e+007	1e+008	2ORDR	1.094e-003	2.293e-009	-6.52e-019	0.99984	0.99000
4,4'-DDE	1359800	2777200	7623800	2e+007	4e+007	1e+008	2ORDR	1.541e-003	2.861e-009	-3.05e-018	0.99986	0.99000
Endosulfan I	1713800	3518800	9205600	2e+007	4.e+007	1.e+008	2ORDR	7.434e-004	2.576e-009	-1.41e-018	0.99996	0.99000
Dieldrin	1725600	3653600	9859000	2e+007	4e+007	1e+008	2ORDR	1.579e-003	2.237e-009	1.526e-019	0.99977	0.99000
Endrin	1556500	3218000	8532100	2e+007	4e+007	1e+008	2ORDR	1.319e-003	2.616e-009	-6.3e-019	0.99987	0.99000
4,4'-DDD	684050	1296100	3696400	9921200	2.e+007	6.e+007	2ORDR	2.122e-003	5.258e-009	-1.87e-017	0.99946	0.99000
Endosulfan II	1364600	2764100	7429500	2e+007	3e+007	9e+007	2ORDR	9.222e-004	3.107e-009	-2.55e-018	0.99994	0.99000
4,4'-DDT	994690	2052900	5357500	1e+007	3e+007	8.e+007	2ORDR	1.559e-003	3.856e-009	-9.3e-018	0.99965	0.99000
Endrin Aldehyde	908880	1745700	4513000	1.e+007	2.e+007	6e+007	2ORDR	4.6e-004	5.235e-009	-1.45e-017	0.99991	0.99000
Methoxychlor	432310	817780	2075700	4646200	9352600	3e+007	2ORDR	5.817e-004	1.114e-008	-5.7e-017	0.99991	0.99000
Endosulfan sulfate	757270	1423600	4142300	1.e+007	2e+007	6e+007	2ORDR	1.823e-003	5.002e-009	-1.76e-017	0.99969	0.99000
Endrin Ketone	1245300	2500800	6541400	2e+007	3.e+007	8e+007	2ORDR	9.107e-004	3.438e-009	-4.86e-018	0.99985	0.99000
Toxaphene				2913200			2ORDR	0.00000000	3.433e-007	0.00000000	1.00000	0.99000
(2)				5439100			2ORDR	0.00000000	1.839e-007	0.00000000	1.00000	0.99000
(3)				8017800			2ORDR	0.00000000	1.247e-007	0.00000000	1.00000	0.99000
(4)				7542400			2ORDR	0.00000000	1.326e-007	0.00000000	1.00000	0.99000
(5)				1.e+007			2ORDR	0.00000000	9.827e-008	0.00000000	1.00000	0.99000
(6)				8212100			2ORDR	0.00000000	1.218e-007	0.00000000	1.00000	0.99000
(7)				5678800			2ORDR	0.00000000	1.761e-007	0.00000000	1.00000	0.99000
(8)				1e+007			2ORDR	0.00000000	7.998e-008	0.00000000	1.00000	0.99000
(9)				6999900			2ORDR	0.00000000	1.429e-007	0.00000000	1.00000	0.99000
(10)				5355200			2ORDR	0.00000000	1.867e-007	0.00000000	1.00000	0.99000
Tetrachloro-m-Xylene	2101500	4404900	1e+007	2e+007	5e+007	1e+008	2ORDR	7.049e-004	2.066e-009	1.025e-021	0.99997	0.99000
Decachlorobiphenyl	942400	1850200	4498000	9308100	2e+007	5e+007	2ORDR	-6.01e-004	5.731e-009	-7.59e-018	0.99986	0.99000

FORM VI PESTICIDE

Report Date: 16-Jul-2009 15:59

Calibration History

Method : \\target_server\gg\chem\gc01.i\GC01CG15.b\PEST019.m
Start Cal Date: 14-JUL-2009 12:34
End Cal Date : 14-JUL-2009 14:53
Last Cal Level: 3
Last Cal Type : Continuing Calibration

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 0.00500		
14-JUL-2009 12:51	ICAL	1CG00157.D
Cal Level: 2 , Cal Amount: 0.01000		
14-JUL-2009 13:08	ICAL	1CG00158.D
Cal Level: 3 , Cal Amount: 0.02500		
14-JUL-2009 13:26	ICAL	1CG00159.D
Cal Level: 4 , Cal Amount: 0.05000		
14-JUL-2009 14:53	TC	1CG00164.D
14-JUL-2009 14:36	Tox	1CG00163.D
14-JUL-2009 12:34	ICAL	1CG00156.D
Cal Level: 5 , Cal Amount: 0.10000		
14-JUL-2009 13:43	ICAL	1CG00160.D
Cal Level: 6 , Cal Amount: 0.25000		
14-JUL-2009 14:01	ICAL	1CG00161.D

Continuing Calibration
Ccal Level Mode: BY SAMPLE

15-JUL-2009 17:18	cv	1CG00202.D
15-JUL-2009 10:36	cv	1CG00191.D

FORM 6
PESTICIDE INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project CTO407 NAS WEYMOUTH SDG No.: SC3624

Instrument ID: GC01 Calibration Date(s): 07/14/09 07/14/09

Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm) Calibration Time(s): 1234 1453

LAB FILE ID: RF0.005: 1CG00157 RF0.01: 1CG00158 RF0.025: 1CG00159
RF0.05: 1CG00164 RF0.1: 1CG00160 RF0.25: 1CG00161

COMPOUND	RF0.005	RF0.01	RF0.025	RF0.05	RF0.1	RF0.25	CURVE	COEFFICENTS A0	A1	A2	%RSD OR R^2	MAX %RSD OR R^2
alpha-BHC	3159200	6769700	2e+007	4e+007	8.e+007	2.e+008	2ORDR	1.17e-003	1.245e-009	-2.61e-020	0.99993	0.99000
gamma BHC	2766800	5916400	2e+007	3e+007	7e+007	2e+008	2ORDR	9.851e-004	1.459e-009	-6.56e-020	0.99996	0.99000
beta-BHC	1313300	2551600	6248900	1e+007	3e+007	7e+007	2ORDR	5.264e-005	3.918e-009	-3.35e-018	0.99999	0.99000
delta-BHC	2493500	5131600	1e+007	3e+007	6e+007	2e+008	2ORDR	1.265e-003	1.593e-009	-3.5e-019	0.99991	0.99000
Heptachlor	2505500	5113800	1e+007	3e+007	6e+007	1e+008	2ORDR	7.091e-004	1.723e-009	7.311e-020	0.99992	0.99000
Aldrin	2234500	4693100	1e+007	3e+007	5e+007	1e+008	2ORDR	1.162e-003	1.815e-009	-2.2e-020	0.99992	0.99000
Heptachlor Epoxide	1996300	4046500	1e+007	2e+007	5e+007	1e+008	2ORDR	8.134e-004	2.207e-009	-6.78e-019	0.99996	0.99000
gamma-Chlordane	1994300	3932400	1.e+007	2e+007	5e+007	1e+008	2ORDR	9.012e-004	2.263e-009	-1.45e-018	0.99993	0.99000
alpha-Chlordane	1880500	3756900	9828200	2e+007	4e+007	1e+008	2ORDR	8.038e-004	2.387e-009	-1.57e-018	0.99995	0.99000
4,4'-DDE	1537300	3231800	8528600	2e+007	4.e+007	1e+008	2ORDR	1.399e-003	2.556e-009	-2.12e-018	0.99987	0.99000
Endosulfan I	1741700	3442200	9070600	2e+007	4.e+007	1.e+008	2ORDR	9.303e-004	2.557e-009	-9.18e-019	0.99992	0.99000
Dieldrin	1786800	3603200	9810800	2e+007	4e+007	1e+008	2ORDR	1.16e-003	2.324e-009	-1.3e-018	0.99992	0.99000
Endrin	1510900	3083500	8253200	2e+007	4e+007	1e+008	2ORDR	8.072e-004	2.819e-009	-2.38e-018	0.99994	0.99000
4,4'-DDD	996010	2024800	5391300	1e+007	3e+007	8e+007	2ORDR	1.677e-003	3.919e-009	-8.21e-018	0.99980	0.99000
Endosulfan II	1393100	2773600	7144800	2e+007	3e+007	9e+007	2ORDR	1.203e-003	3.109e-009	-2.84e-018	0.99987	0.99000
4,4'-DDT	1250000	2398800	6482400	1e+007	3e+007	9e+007	2ORDR	1.565e-003	3.302e-009	-4.93e-018	0.99981	0.99000
Endrin Aldehyde	1104000	2170600	5531800	1e+007	2e+007	6e+007	2ORDR	6.061e-004	4.271e-009	-6.47e-018	0.99996	0.99000
Methoxychlor	568590	1067000	2678600	6090800	1e+007	3e+007	2ORDR	1.38e-004	8.871e-009	-3.89e-017	0.99976	0.99000
Endosulfan sulfate	1010300	1938000	5238900	1e+007	3e+007	7.e+007	2ORDR	1.392e-003	4.208e-009	-9.47e-018	0.99986	0.99000
Endrin Ketone	1445600	2893000	7488800	2e+007	3e+007	9e+007	2ORDR	8.121e-004	3.092e-009	-4.19e-018	0.99995	0.99000
Toxaphene				3133500			2ORDR	0.00000000	3.191e-007	0.00000000	1.00000	0.99000
(2)				2117400			2ORDR	0.00000000	4.723e-007	0.00000000	1.00000	0.99000
(3)				3707900			2ORDR	0.00000000	2.697e-007	0.00000000	1.00000	0.99000
(4)				2761300			2ORDR	0.00000000	3.621e-007	0.00000000	1.00000	0.99000
(5)				7866800			2ORDR	0.00000000	1.271e-007	0.00000000	1.00000	0.99000
(6)				1e+007			2ORDR	0.00000000	8.391e-008	0.00000000	1.00000	0.99000
(7)				5024400			2ORDR	0.00000000	1.99e-007	0.00000000	1.00000	0.99000
(8)				8082100			2ORDR	0.00000000	1.237e-007	0.00000000	1.00000	0.99000
(9)				9504100			2ORDR	0.00000000	1.052e-007	0.00000000	1.00000	0.99000
(10)				5755800			2ORDR	0.00000000	1.737e-007	0.00000000	1.00000	0.99000
Tetrachloro-m-Xylene	2390900	4917300	1e+007	3e+007	5e+007	1e+008	2ORDR	6.905e-004	1.842e-009	-8.4e-020	0.99997	0.99000
Decachlorobiphenyl	942870	1812800	4440400	9101300	2e+007	5e+007	2ORDR	-3.22e-004	5.707e-009	-8.12e-018	0.99997	0.99000

FORM VI PESTICIDE

Report Date: 16-Jul-2009 15:59

Calibration History

Method : \\target_server\gg\chem\gc01.i\GC01CG15.b\PEST019.m\PEST019.m
Start Cal Date: 14-JUL-2009 12:34
End Cal Date : 14-JUL-2009 14:53
Last Cal Level: 2
Last Cal Type : Continuing Calibration

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 0.00500		
14-JUL-2009 12:51	ICAL	1CG00157.D
Cal Level: 2 , Cal Amount: 0.01000		
14-JUL-2009 13:08	ICAL	1CG00158.D
Cal Level: 3 , Cal Amount: 0.02500		
14-JUL-2009 13:26	ICAL	1CG00159.D
Cal Level: 4 , Cal Amount: 0.05000		
14-JUL-2009 14:53	TC	1CG00164.D
14-JUL-2009 14:36	Tox	1CG00163.D
14-JUL-2009 12:34	ICAL	1CG00156.D
Cal Level: 5 , Cal Amount: 0.10000		
14-JUL-2009 13:43	ICAL	1CG00160.D
Cal Level: 6 , Cal Amount: 0.25000		
14-JUL-2009 14:01	ICAL	1CG00161.D

Continuing Calibration
Ccal Level Mode: BY SAMPLE

15-JUL-2009 17:18	cv	1CG00202.D
15-JUL-2009 10:36	cv	1CG00191.D

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm) Init. Calib. Date(s): 07/14/09 07/14/09

Client Sample ID (PEM): Date Analyzed :07/14/09
Lab Sample ID (PEM): EVAL Time Analyzed :1016

LAB SAMPLE ID	FILENAME	% DDT BREAKDOWN	% ENDRIN BREAKDOWN
EVAL	1CG00152.D	0.88	1.89

QC LIMITS:

4,4'-DDT breakdown must be less than or equal to 15.0%
Endrin breakdown must be less than or equal to 15.0%

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm) Init. Calib. Date(s): 07/14/09 07/14/09

Client Sample ID (PEM): Date Analyzed :07/14/09
Lab Sample ID (PEM): EVAL Time Analyzed :1016

LAB SAMPLE ID	FILENAME	% DDT BREAKDOWN	% ENDRIN BREAKDOWN
EVAL	1CG00152.D	0.64	3.10

QC LIMITS:

4,4'-DDT breakdown must be less than or equal to 15.0%
Endrin breakdown must be less than or equal to 15.0%

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Instrument ID: GC01 Calibration Date: 07/14/09 Time: 1418

Lab File ID: 1CG00162 Init. Calib. Date(s): 07/14/09 07/14/09

Init. Calib. Times: 1234 1453

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm)

COMPOUND	RRF or AMOUNT	RRF5e-002 or AMOUNT	CCAL RRF5e-002	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
alpha-BHC	5.26e-002	5.e-002	785170000	0.01	5.20	15.00	2RDR
gamma BHC	5.26e-002	5.e-002	673460000	0.01	5.20	15.00	2RDR
beta-BHC	5.36e-002	5.e-002	250180000	0.01	7.20	15.00	2RDR
delta-BHC	5.19e-002	5.e-002	552560000	0.01	3.80	15.00	2RDR
Heptachlor	5.18e-002	5.e-002	583390000	0.01	3.60	15.00	2RDR
Aldrin	5.13e-002	5.e-002	547770000	0.01	2.60	15.00	2RDR
Heptachlor Epoxide	5.24e-002	5.e-002	480830000	0.01	4.80	15.00	2RDR
gamma-Chlordane	5.33e-002	5.e-002	467880000	0.01	6.60	15.00	2RDR
alpha-Chlordane	5.22e-002	5.e-002	448210000	0.01	4.40	15.00	2RDR
4,4'-DDE	5.07e-002	5.e-002	350050000	0.01	1.40	15.00	2RDR
Endosulfan I	5.22e-002	5.e-002	403960000	0.01	4.40	15.00	2RDR
Dieldrin	5.18e-002	5.e-002	448080000	0.01	3.60	15.00	2RDR
Endrin	5.06e-002	5.e-002	378470000	0.01	1.20	15.00	2RDR
4,4'-DDD	4.42e-002	5.e-002	165070000	0.01	-11.60	15.00	2RDR
Endosulfan II	5.15e-002	5.e-002	330230000	0.01	3.00	15.00	2RDR
4,4'-DDT	4.8e-002	5.e-002	248230000	0.01	-4.00	15.00	2RDR
Endrin Aldehyde	4.91e-002	5.e-002	190760000	0.01	-1.80	15.00	2RDR
Methoxychlor	5.09e-002	5.e-002	92461000	0.01	1.80	15.00	2RDR
Endosulfan sulfate	5.01e-002	5.e-002	200230000	0.01	0.20	15.00	2RDR
Endrin Ketone	5.07e-002	5.e-002	295740000	0.01	1.40	15.00	2RDR

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CT0407 NAS WEYMOUTH SDG No.: SC3624

Instrument ID: GC01 Calibration Date: 07/14/09 Time: 1418

Lab File ID: 1CG00162 Init. Calib. Date(s): 07/14/09 07/14/09

Init. Calib. Times: 1234 1453

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm)

COMPOUND	RRF or AMOUNT	RRF5e-002 or AMOUNT	CCAL RRF5e-002	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
alpha-BHC	5.3e-002	5.e-002	834210000	0.01	6.00	15.00	2RDR
gamma BHC	5.29e-002	5.e-002	712280000	0.01	5.80	15.00	2RDR
beta-BHC	5.37e-002	5.e-002	277380000	0.01	7.40	15.00	2RDR
delta-BHC	5.17e-002	5.e-002	637630000	0.01	3.40	15.00	2RDR
Heptachlor	5.29e-002	5.e-002	605390000	0.01	5.80	15.00	2RDR
Aldrin	5.13e-002	5.e-002	552680000	0.01	2.60	15.00	2RDR
Heptachlor Epoxide	5.16e-002	5.e-002	463680000	0.01	3.20	15.00	2RDR
gamma-Chlordane	5.3e-002	5.e-002	467240000	0.01	6.00	15.00	2RDR
alpha-Chlordane	5.19e-002	5.e-002	434580000	0.01	3.80	15.00	2RDR
4,4'-DDE	4.93e-002	5.e-002	381110000	0.01	-1.40	15.00	2RDR
Endosulfan I	5.23e-002	5.e-002	404790000	0.01	4.60	15.00	2RDR
Dieldrin	5.09e-002	5.e-002	433330000	0.01	1.80	15.00	2RDR
Endrin	5.23e-002	5.e-002	370920000	0.01	4.60	15.00	2RDR
4,4'-DDD	4.72e-002	5.e-002	238350000	0.01	-5.60	15.00	2RDR
Endosulfan II	5.04e-002	5.e-002	321200000	0.01	0.80	15.00	2RDR
4,4'-DDT	4.84e-002	5.e-002	290040000	0.01	-3.20	15.00	2RDR
Endrin Aldehyde	4.82e-002	5.e-002	226840000	0.01	-3.60	15.00	2RDR
Methoxychlor	5.05e-002	5.e-002	116510000	0.01	1.00	15.00	2RDR
Endosulfan sulfate	5.12e-002	5.e-002	243160000	0.01	2.40	15.00	2RDR
Endrin Ketone	5.19e-002	5.e-002	338100000	0.01	3.80	15.00	2RDR

FORM VII PEST

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm) Init. Calib. Date(s): 07/14/09 07/14/09

Client Sample ID (PEM): Date Analyzed :07/16/09
Lab Sample ID (PEM): EVAL Time Analyzed :1125

LAB SAMPLE ID	FILENAME	% DDT BREAKDOWN	% ENDRIN BREAKDOWN
EVAL	1CG00204.D	0.97	1.79

QC LIMITS:

4,4'-DDT breakdown must be less than or equal to 15.0%
Endrin breakdown must be less than or equal to 15.0%

7D

PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm) Init. Calib. Date(s): 07/14/09 07/14/09

Client Sample ID (PEM): Date Analyzed :07/16/09
Lab Sample ID (PEM): EVAL Time Analyzed :1125

LAB SAMPLE ID	FILENAME	% DDT BREAKDOWN	% ENDRIN BREAKDOWN
EVAL	1CG00204.D	0.65	1.90

QC LIMITS:

4,4'-DDT breakdown must be less than or equal to 15.0%
Endrin breakdown must be less than or equal to 15.0%

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CT0407 NAS WEYMOUTH SDG No.: SC3624

Instrument ID: GC01 Calibration Date: 07/16/09 Time: 1142

Lab File ID: 1CG00205 Init. Calib. Date(s): 07/14/09 07/14/09

Init. Calib. Times: 1234 1453

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm)

COMPOUND	RRF or AMOUNT	RRF5e-002 or AMOUNT	CCAL RRF5e-002	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
alpha-BHC	4.91e-002	5.e-002	732150000	0.01	-1.80	15.00	2RDR	
gamma BHC	4.92e-002	5.e-002	628760000	0.01	-1.60	15.00	2RDR	
Heptachlor	4.97e-002	5.e-002	559520000	0.01	-0.60	15.00	2RDR	
beta-BHC	4.94e-002	5.e-002	230080000	0.01	-1.20	15.00	2RDR	
Aldrin	4.95e-002	5.e-002	528460000	0.01	-1.00	15.00	2RDR	
delta-BHC	5.1e-002	5.e-002	543580000	0.01	2.00	15.00	2RDR	
Heptachlor Epoxide	4.78e-002	5.e-002	437570000	0.01	-4.40	15.00	2RDR	
Endosulfan I	4.94e-002	5.e-002	381630000	0.01	-1.20	15.00	2RDR	
4,4'-DDE	5.06e-002	5.e-002	349390000	0.01	1.20	15.00	2RDR	
Dieldrin	4.75e-002	5.e-002	410360000	0.01	-5.00	15.00	2RDR	
Endrin	4.81e-002	5.e-002	359580000	0.01	-3.80	15.00	2RDR	
4,4'-DDD	5.79e-002	5.e-002	220650000	0.01	15.80	15.00	2RDR	<-
Endosulfan II	4.99e-002	5.e-002	319590000	0.01	-0.20	15.00	2RDR	
4,4'-DDT	5.34e-002	5.e-002	278440000	0.01	6.80	15.00	2RDR	
Endrin Aldehyde	5.16e-002	5.e-002	200980000	0.01	3.20	15.00	2RDR	
Endosulfan sulfate	5.65e-002	5.e-002	227550000	0.01	13.00	15.00	2RDR	
Methoxychlor	6.46e-002	5.e-002	118440000	0.01	29.20	15.00	2RDR	<-
alpha-Chlordane	4.78e-002	5.e-002	410100000	0.01	-4.40	15.00	2RDR	
gamma-Chlordane	4.9e-002	5.e-002	428640000	0.01	-2.00	15.00	2RDR	
Endrin Ketone	5.22e-002	5.e-002	305120000	0.01	4.40	15.00	2RDR	
Tetrachloro-m-Xylene	4.83e-002	5.e-002	460250000	0.01	-3.40	15.00	2RDR	
Decachlorobiphenyl	5.16e-002	5.e-002	184280000	0.01	3.20	15.00	2RDR	

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CT0407 NAS WEYMOUTH SDG No.: SC3624

Instrument ID: GC01 Calibration Date: 07/16/09 Time: 1142

Lab File ID: 1CG00205 Init. Calib. Date(s): 07/14/09 07/14/09

Init. Calib. Times: 1234 1453

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm)

COMPOUND	RRF or AMOUNT	RRF5e-002 or AMOUNT	CCAL RRF5e-002	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
alpha-BHC	4.93e-002	5.e-002	773520000	0.01	-1.40	15.00	2RDR
gamma BHC	4.92e-002	5.e-002	662240000	0.01	-1.60	15.00	2RDR
Heptachlor	4.94e-002	5.e-002	564620000	0.01	-1.20	15.00	2RDR
beta-BHC	4.96e-002	5.e-002	255990000	0.01	-0.80	15.00	2RDR
Aldrin	4.87e-002	5.e-002	524460000	0.01	-2.60	15.00	2RDR
delta-BHC	4.96e-002	5.e-002	610880000	0.01	-0.80	15.00	2RDR
Heptachlor Epoxide	4.95e-002	5.e-002	444200000	0.01	-1.00	15.00	2RDR
Endosulfan I	4.89e-002	5.e-002	377860000	0.01	-2.20	15.00	2RDR
4,4'-DDE	5.e-002	5.e-002	386560000	0.01	0.00	15.00	2RDR
Dieldrin	4.81e-002	5.e-002	408620000	0.01	-3.80	15.00	2RDR
Endrin	5.19e-002	5.e-002	368200000	0.01	3.80	15.00	2RDR
4,4'-DDD	5.31e-002	5.e-002	270270000	0.01	6.20	15.00	2RDR
Endosulfan II	5.e-002	5.e-002	318470000	0.01	0.00	15.00	2RDR
4,4'-DDT	5.05e-002	5.e-002	303430000	0.01	1.00	15.00	2RDR
Endrin Aldehyde	4.92e-002	5.e-002	231820000	0.01	-1.60	15.00	2RDR
Endosulfan sulfate	5.29e-002	5.e-002	251740000	0.01	5.80	15.00	2RDR
Methoxychlor	5.65e-002	5.e-002	130920000	0.01	13.00	15.00	2RDR
alpha-Chlordane	4.72e-002	5.e-002	394250000	0.01	-5.60	15.00	2RDR
gamma-Chlordane	4.77e-002	5.e-002	419530000	0.01	-4.60	15.00	2RDR
Endrin Ketone	5.1e-002	5.e-002	332040000	0.01	2.00	15.00	2RDR
Tetrachloro-m-Xylene	4.86e-002	5.e-002	521150000	0.01	-2.80	15.00	2RDR
Decachlorobiphenyl	4.98e-002	5.e-002	177980000	0.01	-0.40	15.00	2RDR

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CT0407 NAS WEYMOUTH SDG No.: SC3624

Instrument ID: GC01 Calibration Date: 07/16/09 Time: 1557

Lab File ID: 1CG00218 Init. Calib. Date(s): 07/14/09 07/14/09

Init. Calib. Times: 1234 1453

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm)

COMPOUND	RRF or AMOUNT	RRF3e-002 or AMOUNT	CCAL RRF3e-002	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
alpha-BHC	2.41e-002	2.5e-002	697600000	0.01	-3.60	15.00	2RDR	
gamma BHC	2.43e-002	2.5e-002	605860000	0.01	-2.80	15.00	2RDR	
Heptachlor	2.42e-002	2.5e-002	536770000	0.01	-3.20	15.00	2RDR	
beta-BHC	2.46e-002	2.5e-002	226180000	0.01	-1.60	15.00	2RDR	
Aldrin	2.47e-002	2.5e-002	516410000	0.01	-1.20	15.00	2RDR	
delta-BHC	2.37e-002	2.5e-002	488930000	0.01	-5.20	15.00	2RDR	
Heptachlor Epoxide	2.47e-002	2.5e-002	447030000	0.01	-1.20	15.00	2RDR	
Endosulfan I	2.48e-002	2.5e-002	376210000	0.01	-0.80	15.00	2RDR	
4,4'-DDE	2.19e-002	2.5e-002	286510000	0.01	-12.40	15.00	2RDR	
Dieldrin	2.38e-002	2.5e-002	396920000	0.01	-4.80	15.00	2RDR	
Endrin	2.35e-002	2.5e-002	339580000	0.01	-6.00	15.00	2RDR	
4,4'-DDD	1.85e-002	2.5e-002	126350000	0.01	-26.00	15.00	2RDR	<-
Endosulfan II	2.34e-002	2.5e-002	291110000	0.01	-6.40	15.00	2RDR	
4,4'-DDT	2.01e-002	2.5e-002	194690000	0.01	-19.60	15.00	2RDR	<-
Endrin Aldehyde	2.29e-002	2.5e-002	173850000	0.01	-8.40	15.00	2RDR	
Endosulfan sulfate	2.11e-002	2.5e-002	156440000	0.01	-15.60	15.00	2RDR	<-
Methoxychlor	2.16e-002	2.5e-002	76258000	0.01	-13.60	15.00	2RDR	
alpha-Chlordane	2.44e-002	2.5e-002	408140000	0.01	-2.40	15.00	2RDR	
gamma-Chlordane	2.47e-002	2.5e-002	421820000	0.01	-1.20	15.00	2RDR	
Endrin Ketone	2.32e-002	2.5e-002	261870000	0.01	-7.20	15.00	2RDR	
Tetrachloro-m-Xylene	2.45e-002	2.5e-002	460300000	0.01	-2.00	15.00	2RDR	
Decachlorobiphenyl	2.31e-002	2.5e-002	166400000	0.01	-7.60	15.00	2RDR	

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CT0407 NAS WEYMOUTH SDG No.: SC3624

Instrument ID: GC01 Calibration Date: 07/16/09 Time: 1557

Lab File ID: 1CG00218 Init. Calib. Date(s): 07/14/09 07/14/09

Init. Calib. Times: 1234 1453

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm)

COMPOUND	RRF or AMOUNT	RRF3e-002 or AMOUNT	CCAL RRF3e-002	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
alpha-BHC	2.43e-002	2.5e-002	742610000	0.01	-2.80	15.00	2RDR	
gamma BHC	2.44e-002	2.5e-002	641610000	0.01	-2.40	15.00	2RDR	
Heptachlor	2.41e-002	2.5e-002	543370000	0.01	-3.60	15.00	2RDR	
beta-BHC	2.43e-002	2.5e-002	249040000	0.01	-2.80	15.00	2RDR	
Aldrin	2.41e-002	2.5e-002	505960000	0.01	-3.60	15.00	2RDR	
delta-BHC	2.38e-002	2.5e-002	568040000	0.01	-4.80	15.00	2RDR	
Heptachlor Epoxide	2.42e-002	2.5e-002	425570000	0.01	-3.20	15.00	2RDR	
Endosulfan I	2.39e-002	2.5e-002	360070000	0.01	-4.40	15.00	2RDR	
4,4'-DDE	2.24e-002	2.5e-002	331380000	0.01	-10.40	15.00	2RDR	
Dieldrin	2.39e-002	2.5e-002	394010000	0.01	-4.40	15.00	2RDR	
Endrin	2.43e-002	2.5e-002	335260000	0.01	-2.80	15.00	2RDR	
4,4'-DDD	2.07e-002	2.5e-002	195960000	0.01	-17.20	15.00	2RDR	<-
Endosulfan II	2.34e-002	2.5e-002	287000000	0.01	-6.40	15.00	2RDR	
4,4'-DDT	2.15e-002	2.5e-002	243940000	0.01	-14.00	15.00	2RDR	
Endrin Aldehyde	2.34e-002	2.5e-002	215200000	0.01	-6.40	15.00	2RDR	
Endosulfan sulfate	2.26e-002	2.5e-002	203920000	0.01	-9.60	15.00	2RDR	
Methoxychlor	2.15e-002	2.5e-002	97501000	0.01	-14.00	15.00	2RDR	
alpha-Chlordane	2.38e-002	2.5e-002	387980000	0.01	-4.80	15.00	2RDR	
gamma-Chlordane	2.41e-002	2.5e-002	412050000	0.01	-3.60	15.00	2RDR	
Endrin Ketone	2.34e-002	2.5e-002	295850000	0.01	-6.40	15.00	2RDR	
Tetrachloro-m-Xylene	2.43e-002	2.5e-002	513770000	0.01	-2.80	15.00	2RDR	
Decachlorobiphenyl	2.45e-002	2.5e-002	174860000	0.01	-2.00	15.00	2RDR	

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CT0407 NAS WEYMOUTH SDG No.: SC3624

Instrument ID: GC01 Calibration Date: 07/16/09 Time: 1943

Lab File ID: 1CG00231 Init. Calib. Date(s): 07/14/09 07/14/09

Init. Calib. Times: 1234 1453

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm)

COMPOUND	RRF or AMOUNT	RRF5e-002 or AMOUNT	CCAL RRF5e-002	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
alpha-BHC	5.18e-002	5.e-002	773540000	0.01	3.60	15.00	2RDR
gamma BHC	5.12e-002	5.e-002	654800000	0.01	2.40	15.00	2RDR
Heptachlor	5.2e-002	5.e-002	585720000	0.01	4.00	15.00	2RDR
beta-BHC	5.14e-002	5.e-002	239460000	0.01	2.80	15.00	2RDR
Aldrin	5.16e-002	5.e-002	550870000	0.01	3.20	15.00	2RDR
delta-BHC	5.19e-002	5.e-002	552440000	0.01	3.80	15.00	2RDR
Heptachlor Epoxide	5.28e-002	5.e-002	483700000	0.01	5.60	15.00	2RDR
Endosulfan I	5.29e-002	5.e-002	409390000	0.01	5.80	15.00	2RDR
4,4'-DDE	5.02e-002	5.e-002	346160000	0.01	0.40	15.00	2RDR
Dieldrin	5.05e-002	5.e-002	436620000	0.01	1.00	15.00	2RDR
Endrin	4.96e-002	5.e-002	371040000	0.01	-0.80	15.00	2RDR
4,4'-DDD	4.7e-002	5.e-002	176380000	0.01	-6.00	15.00	2RDR
Endosulfan II	5.06e-002	5.e-002	323920000	0.01	1.20	15.00	2RDR
4,4'-DDT	4.86e-002	5.e-002	251840000	0.01	-2.80	15.00	2RDR
Endrin Aldehyde	5.05e-002	5.e-002	196490000	0.01	1.00	15.00	2RDR
Endosulfan sulfate	5.07e-002	5.e-002	202520000	0.01	1.40	15.00	2RDR
Methoxychlor	4.64e-002	5.e-002	84013000	0.01	-7.20	15.00	2RDR
alpha-Chlordane	5.16e-002	5.e-002	443380000	0.01	3.20	15.00	2RDR
gamma-Chlordane	5.33e-002	5.e-002	467450000	0.01	6.60	15.00	2RDR
Endrin Ketone	5.04e-002	5.e-002	293780000	0.01	0.80	15.00	2RDR
Tetrachloro-m-Xylene	5.12e-002	5.e-002	489080000	0.01	2.40	15.00	2RDR
Decachlorobiphenyl	5.e-002	5.e-002	178620000	0.01	0.00	15.00	2RDR

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Instrument ID: GC01 Calibration Date: 07/16/09 Time: 1943

Lab File ID: 1CG00231 Init. Calib. Date(s): 07/14/09 07/14/09

Init. Calib. Times: 1234 1453

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm)

COMPOUND	RRF or AMOUNT	RRF5e-002 or AMOUNT	CCAL RRF5e-002	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
alpha-BHC	5.07e-002	5.e-002	796680000	0.01	1.40	15.00	2RDR
gamma BHC	5.11e-002	5.e-002	688630000	0.01	2.20	15.00	2RDR
Heptachlor	5.01e-002	5.e-002	572700000	0.01	0.20	15.00	2RDR
beta-BHC	5.06e-002	5.e-002	260880000	0.01	1.20	15.00	2RDR
Aldrin	5.05e-002	5.e-002	544070000	0.01	1.00	15.00	2RDR
delta-BHC	5.05e-002	5.e-002	621660000	0.01	1.00	15.00	2RDR
Heptachlor Epoxide	5.03e-002	5.e-002	451400000	0.01	0.60	15.00	2RDR
Endosulfan I	5.06e-002	5.e-002	391590000	0.01	1.20	15.00	2RDR
4,4'-DDE	4.92e-002	5.e-002	380100000	0.01	-1.60	15.00	2RDR
Dieldrin	5.01e-002	5.e-002	426170000	0.01	0.20	15.00	2RDR
Endrin	5.06e-002	5.e-002	359000000	0.01	1.20	15.00	2RDR
4,4'-DDD	4.76e-002	5.e-002	240490000	0.01	-4.80	15.00	2RDR
Endosulfan II	4.95e-002	5.e-002	315390000	0.01	-1.00	15.00	2RDR
4,4'-DDT	4.76e-002	5.e-002	284720000	0.01	-4.80	15.00	2RDR
Endrin Aldehyde	5.02e-002	5.e-002	236530000	0.01	0.40	15.00	2RDR
Endosulfan sulfate	5.e-002	5.e-002	237200000	0.01	0.00	15.00	2RDR
Methoxychlor	4.71e-002	5.e-002	108350000	0.01	-5.80	15.00	2RDR
alpha-Chlordane	5.07e-002	5.e-002	424170000	0.01	1.40	15.00	2RDR
gamma-Chlordane	5.07e-002	5.e-002	446110000	0.01	1.40	15.00	2RDR
Endrin Ketone	5.03e-002	5.e-002	327390000	0.01	0.60	15.00	2RDR
Tetrachloro-m-Xylene	5.09e-002	5.e-002	545630000	0.01	1.80	15.00	2RDR
Decachlorobiphenyl	4.99e-002	5.e-002	178210000	0.01	-0.20	15.00	2RDR

FORM VII PEST

FORM 8
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm) Init. Calib. Date(s): 07/14/09 07/14/09

Instrument ID: GC01

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 3.61 DCB: 11.52

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01		EVAL	07/14/09	1016		
02		INDAB 0.05	07/14/09	1234	3.61	11.52
03		INDAB 0.005	07/14/09	1251	3.62	11.52
04		INDAB 0.01	07/14/09	1308	3.61	11.53
05		INDAB 0.025	07/14/09	1326	3.61	11.52
06		INDAB 0.1	07/14/09	1343	3.61	11.52
07		INDAB 0.25	07/14/09	1401	3.61	11.52
08		IND 0.05	07/14/09	1418		
09		TOX 1.0	07/14/09	1436		
10		EVAL	07/16/09	1125		
11		INDAB 0.05	07/16/09	1142	3.61	11.51
12	WG65885-BLAN	WG65885-1	07/16/09	1228	3.62	11.52
13	WG65885-LCS	WG65885-2	07/16/09	1245	3.61	11.51
14	L-GW-MW38-06	WG65885-3	07/16/09	1303	3.61	11.51
15	L-GW-MW38-06	WG65885-4	07/16/09	1320	3.61	11.51
16	WGL-GW-MW101	SC3624-2	07/16/09	1337	3.61	11.51
17	WGL-GW-MW3-0	SC3624-4	07/16/09	1355	3.61	11.51
18	WGL-GW-MW103	SC3624-6	07/16/09	1412	3.61	11.51
19	WGL-GW-MW102	SC3624-8	07/16/09	1430	3.61	11.51
20	WGL-GW-MW2-0	SC3624-10	07/16/09	1447	3.61	11.51

QC LIMITS

TCX = Tetrachloro-m-Xylene (+/- 0.07 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM 8
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm) Init. Calib. Date(s): 07/14/09 07/14/09

Instrument ID: GC01

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 3.61 DCB: 11.52

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01	WGL-GW-MW4-0	SC3624-12	07/16/09	1505	3.61	11.51
02		INDAB 0.025	07/16/09	1557	3.61	11.52
03	L-GW-MW38-06	SC3624-14	07/16/09	1614	3.61	11.51
04	WGL-GW-MW40S	SC3624-16	07/16/09	1632	3.61	11.52
05	WGL-GW-DUP01	SC3624-18	07/16/09	1649	3.61	11.51
06	WGL-GW-MW48D	SC3624-20	07/16/09	1707	3.61	11.51
07	WGL-GW-DUP02	SC3624-22	07/16/09	1724	3.61	11.51
08	GL-GW-MW48D2	SC3624-24	07/16/09	1741	3.61	11.52
09	WGL-GW-MW39-	SC3624-26	07/16/09	1759	3.61	11.51
10	WGL-GW-FB01-	SC3624-28	07/16/09	1816	3.61	11.51
11	WGL-GW-RB01-	SC3624-30	07/16/09	1834	3.61	11.51
12		INDAB 0.05	07/16/09	1943	3.61	11.51
13						
14						
15						
16						
17						
18						
19						
20						

QC LIMITS
TCX = Tetrachloro-m-Xylene (+/- 0.07 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PESTICIDE

FORM 8
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm) Init. Calib. Date(s): 07/14/09 07/14/09

Instrument ID: GC01

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 3.63 DCB: 11.64

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01		EVAL	07/14/09	1016		
02		INDAB 0.05	07/14/09	1234	3.63	11.64
03		INDAB 0.005	07/14/09	1251	3.63	11.65
04		INDAB 0.01	07/14/09	1308	3.63	11.65
05		INDAB 0.025	07/14/09	1326	3.63	11.65
06		INDAB 0.1	07/14/09	1343	3.63	11.64
07		INDAB 0.25	07/14/09	1401	3.63	11.64
08		IND 0.05	07/14/09	1418		
09		TOX 1.0	07/14/09	1436		
10		EVAL	07/16/09	1125		
11		INDAB 0.05	07/16/09	1142	3.62	11.63
12	WG65885-BLAN	WG65885-1	07/16/09	1228	3.61	11.63
13	WG65885-LCS	WG65885-2	07/16/09	1245	3.62	11.63
14	L-GW-MW38-06	WG65885-3	07/16/09	1303	3.62	11.63
15	L-GW-MW38-06	WG65885-4	07/16/09	1320	3.62	11.63
16	WGL-GW-MW101	SC3624-2	07/16/09	1337	3.62	11.64
17	WGL-GW-MW3-0	SC3624-4	07/16/09	1355	3.62	11.63
18	WGL-GW-MW103	SC3624-6	07/16/09	1412	3.62	11.63
19	WGL-GW-MW102	SC3624-8	07/16/09	1430	3.62	11.63
20	WGL-GW-MW2-0	SC3624-10	07/16/09	1447	3.62	11.63

QC LIMITS
TCX = Tetrachloro-m-Xylene (+/- 0.07 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PESTICIDE

FORM 8
PESTICIDE ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm) Init. Calib. Date(s): 07/14/09 07/14/09

Instrument ID: GC01

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 3.63 DCB: 11.64

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01	WGL-GW-MW4-0	SC3624-12	07/16/09	1505	3.62	11.63
02		INDAB 0.025	07/16/09	1557	3.62	11.64
03	L-GW-MW38-06	SC3624-14	07/16/09	1614	3.62	11.63
04	WGL-GW-MW40S	SC3624-16	07/16/09	1632	3.62	11.64
05	WGL-GW-DUP01	SC3624-18	07/16/09	1649	3.62	11.63
06	WGL-GW-MW48D	SC3624-20	07/16/09	1707	3.62	11.63
07	WGL-GW-DUP02	SC3624-22	07/16/09	1724	3.62	11.63
08	GL-GW-MW48D2	SC3624-24	07/16/09	1741	3.62	11.63
09	WGL-GW-MW39-	SC3624-26	07/16/09	1759	3.62	11.63
10	WGL-GW-FB01-	SC3624-28	07/16/09	1816	3.62	11.64
11	WGL-GW-RB01-	SC3624-30	07/16/09	1834	3.62	11.63
12		INDAB 0.05	07/16/09	1943	3.62	11.63
13						
14						
15						
16						
17						
18						
19						
20						

QC LIMITS
TCX = Tetrachloro-m-Xylene (+/- 0.07 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PESTICIDE

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/29/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 16-JUL-2009 20:48
Report Date: 07/24/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-2
Client ID: WGL-GW-MW101-062909
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: RCT
Analysis Method: SW846 8082
Lab Prep Batch: WG65884
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
12674-11-2	Aroclor-1016	U	0.10	1.0	0.50	0.10	0.032
11104-28-2	Aroclor-1221	U	0.10	1.0	0.50	0.10	0.081
11141-16-5	Aroclor-1232	U	0.10	1.0	0.50	0.10	0.024
53469-21-9	Aroclor-1242	U	0.10	1.0	0.50	0.10	0.024
12672-29-6	Aroclor-1248	U	0.10	1.0	0.50	0.10	0.016
11097-69-1	Aroclor-1254	U	0.10	1.0	0.50	0.10	0.018
11096-82-5	Aroclor-1260	U	0.10	1.0	0.50	0.10	0.026
877-09-8	Tetrachloro-m-xylene		65%				
2051-24-3	Decachlorobiphenyl		62%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/29/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 16-JUL-2009 21:13
Report Date: 07/24/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-4
Client ID: WGL-GW-MW3-062909
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: RCT
Analysis Method: SW846 8082
Lab Prep Batch: WG65884
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
12674-11-2	Aroclor-1016	U	0.095	1.0	0.50	0.095	0.030
11104-28-2	Aroclor-1221	U	0.095	1.0	0.50	0.095	0.076
11141-16-5	Aroclor-1232	U	0.095	1.0	0.50	0.095	0.023
53469-21-9	Aroclor-1242	U	0.095	1.0	0.50	0.095	0.023
12672-29-6	Aroclor-1248	U	0.095	1.0	0.50	0.095	0.015
11097-69-1	Aroclor-1254	U	0.095	1.0	0.50	0.095	0.018
11096-82-5	Aroclor-1260	U	0.095	1.0	0.50	0.095	0.025
877-09-8	Tetrachloro-m-xylene		76%				
2051-24-3	Decachlorobiphenyl		76%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/29/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 16-JUL-2009 21:39
Report Date: 07/24/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-6
Client ID: WGL-GW-MW103-062909
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: RCT
Analysis Method: SW846 8082
Lab Prep Batch: WG65884
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
12674-11-2	Aroclor-1016	U	0.095	1.0	0.50	0.095	0.030
11104-28-2	Aroclor-1221	U	0.095	1.0	0.50	0.095	0.076
11141-16-5	Aroclor-1232	U	0.095	1.0	0.50	0.095	0.023
53469-21-9	Aroclor-1242	U	0.095	1.0	0.50	0.095	0.023
12672-29-6	Aroclor-1248	U	0.095	1.0	0.50	0.095	0.015
11097-69-1	Aroclor-1254	U	0.095	1.0	0.50	0.095	0.018
11096-82-5	Aroclor-1260	U	0.095	1.0	0.50	0.095	0.025
877-09-8	Tetrachloro-m-xylene		66%				
2051-24-3	Decachlorobiphenyl		54%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/29/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 16-JUL-2009 22:05
Report Date: 07/24/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-8
Client ID: WGL-GW-MW102-062909
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: RCT
Analysis Method: SW846 8082
Lab Prep Batch: WG65884
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
12674-11-2	Aroclor-1016	U	0.11	1.0	0.50	0.11	0.034
11104-28-2	Aroclor-1221	U	0.11	1.0	0.50	0.11	0.085
11141-16-5	Aroclor-1232	U	0.11	1.0	0.50	0.11	0.026
53469-21-9	Aroclor-1242	U	0.11	1.0	0.50	0.11	0.026
12672-29-6	Aroclor-1248	U	0.11	1.0	0.50	0.11	0.017
11097-69-1	Aroclor-1254	U	0.11	1.0	0.50	0.11	0.020
11096-82-5	Aroclor-1260	U	0.11	1.0	0.50	0.11	0.028
877-09-8	Tetrachloro-m-xylene		67%				
2051-24-3	Decachlorobiphenyl		57%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 16-JUL-2009 22:30
Report Date: 07/24/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-10
Client ID: WGL-GW-MW2-063009
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: RCT
Analysis Method: SW846 8082
Lab Prep Batch: WG65884
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
12674-11-2	Aroclor-1016	U	0.094	1.0	0.50	0.094	0.030
11104-28-2	Aroclor-1221	U	0.094	1.0	0.50	0.094	0.075
11141-16-5	Aroclor-1232	U	0.094	1.0	0.50	0.094	0.023
53469-21-9	Aroclor-1242	U	0.094	1.0	0.50	0.094	0.023
12672-29-6	Aroclor-1248	U	0.094	1.0	0.50	0.094	0.015
11097-69-1	Aroclor-1254	U	0.094	1.0	0.50	0.094	0.017
11096-82-5	Aroclor-1260	U	0.094	1.0	0.50	0.094	0.024
877-09-8	Tetrachloro-m-xylene		67%				
2051-24-3	Decachlorobiphenyl		56%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 16-JUL-2009 22:56
Report Date: 07/24/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-12
Client ID: WGL-GW-MW4-063009
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: RCT
Analysis Method: SW846 8082
Lab Prep Batch: WG65884
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
12674-11-2	Aroclor-1016	U	0.094	1.0	0.50	0.094	0.030
11104-28-2	Aroclor-1221	U	0.094	1.0	0.50	0.094	0.075
11141-16-5	Aroclor-1232	U	0.094	1.0	0.50	0.094	0.023
53469-21-9	Aroclor-1242	U	0.094	1.0	0.50	0.094	0.023
12672-29-6	Aroclor-1248	U	0.094	1.0	0.50	0.094	0.015
11097-69-1	Aroclor-1254	U	0.094	1.0	0.50	0.094	0.017
11096-82-5	Aroclor-1260	U	0.094	1.0	0.50	0.094	0.024
877-09-8	Tetrachloro-m-xylene		* 40%				
2051-24-3	Decachlorobiphenyl		* 4%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/21/09
Analysis Date: 23-JUL-2009 20:33
Report Date: 07/24/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-12RE
Client ID: WGL-GW-MW4-063009
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: RCT
Analysis Method: SW846 8082
Lab Prep Batch: WG66449
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
12674-11-2	Aroclor-1016	U	0.10	1.0	0.50	0.10	0.032
11104-28-2	Aroclor-1221	U	0.10	1.0	0.50	0.10	0.080
11141-16-5	Aroclor-1232	U	0.10	1.0	0.50	0.10	0.024
53469-21-9	Aroclor-1242	U	0.10	1.0	0.50	0.10	0.024
12672-29-6	Aroclor-1248	U	0.10	1.0	0.50	0.10	0.016
11097-69-1	Aroclor-1254	U	0.10	1.0	0.50	0.10	0.018
11096-82-5	Aroclor-1260	U	0.10	1.0	0.50	0.10	0.026
877-09-8	Tetrachloro-m-xylene		77%				
2051-24-3	Decachlorobiphenyl		* 30%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 16-JUL-2009 23:22
Report Date: 07/24/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-14
Client ID: L-GW-MW38-063009
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: RCT
Analysis Method: SW846 8082
Lab Prep Batch: WG65884
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
12674-11-2	Aroclor-1016	U	0.094	1.0	0.50	0.094	0.030
11104-28-2	Aroclor-1221	U	0.094	1.0	0.50	0.094	0.075
11141-16-5	Aroclor-1232	U	0.094	1.0	0.50	0.094	0.023
53469-21-9	Aroclor-1242	U	0.094	1.0	0.50	0.094	0.023
12672-29-6	Aroclor-1248	U	0.094	1.0	0.50	0.094	0.015
11097-69-1	Aroclor-1254	U	0.094	1.0	0.50	0.094	0.017
11096-82-5	Aroclor-1260	U	0.094	1.0	0.50	0.094	0.024
877-09-8	Tetrachloro-m-xylene		90%				
2051-24-3	Decachlorobiphenyl		88%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 17-JUL-2009 16:36
Report Date: 07/24/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-16
Client ID: WGL-GW-MW40S-063009
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: RCT
Analysis Method: SW846 8082
Lab Prep Batch: WG65884
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
12674-11-2	Aroclor-1016	U	0.094	1.0	0.50	0.094	0.030
11104-28-2	Aroclor-1221	U	0.094	1.0	0.50	0.094	0.075
11141-16-5	Aroclor-1232	U	0.094	1.0	0.50	0.094	0.023
53469-21-9	Aroclor-1242	U	0.094	1.0	0.50	0.094	0.023
12672-29-6	Aroclor-1248	U	0.094	1.0	0.50	0.094	0.015
11097-69-1	Aroclor-1254	U	0.094	1.0	0.50	0.094	0.017
11096-82-5	Aroclor-1260	U	0.094	1.0	0.50	0.094	0.024
877-09-8	Tetrachloro-m-xylene		* 58%				
2051-24-3	Decachlorobiphenyl		* 38%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/21/09
Analysis Date: 23-JUL-2009 20:59
Report Date: 07/24/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-16RE
Client ID: WGL-GW-MW40S-063009
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: RCT
Analysis Method: SW846 8082
Lab Prep Batch: WG66449
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
12674-11-2	Aroclor-1016	U	0.094	1.0	0.50	0.094	0.030
11104-28-2	Aroclor-1221	U	0.094	1.0	0.50	0.094	0.075
11141-16-5	Aroclor-1232	U	0.094	1.0	0.50	0.094	0.023
53469-21-9	Aroclor-1242	U	0.094	1.0	0.50	0.094	0.023
12672-29-6	Aroclor-1248	U	0.094	1.0	0.50	0.094	0.015
11097-69-1	Aroclor-1254	U	0.094	1.0	0.50	0.094	0.017
11096-82-5	Aroclor-1260	U	0.094	1.0	0.50	0.094	0.024
877-09-8	Tetrachloro-m-xylene		79%				
2051-24-3	Decachlorobiphenyl		46%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 17-JUL-2009 17:02
Report Date: 07/24/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-18
Client ID: WGL-GW-DUP01-063009
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: RCT
Analysis Method: SW846 8082
Lab Prep Batch: WG65884
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
12674-11-2	Aroclor-1016	U	0.096	1.0	0.50	0.096	0.031
11104-28-2	Aroclor-1221	U	0.096	1.0	0.50	0.096	0.077
11141-16-5	Aroclor-1232	U	0.096	1.0	0.50	0.096	0.023
53469-21-9	Aroclor-1242	U	0.096	1.0	0.50	0.096	0.023
12672-29-6	Aroclor-1248	U	0.096	1.0	0.50	0.096	0.015
11097-69-1	Aroclor-1254	U	0.096	1.0	0.50	0.096	0.018
11096-82-5	Aroclor-1260	U	0.096	1.0	0.50	0.096	0.025
877-09-8	Tetrachloro-m-xylene		* 57%				
2051-24-3	Decachlorobiphenyl		* 33%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/21/09
Analysis Date: 23-JUL-2009 21:25
Report Date: 07/24/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-18RE
Client ID: WGL-GW-DUP01-063009
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: RCT
Analysis Method: SW846 8082
Lab Prep Batch: WG66449
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
12674-11-2	Aroclor-1016	U	0.096	1.0	0.50	0.096	0.031
11104-28-2	Aroclor-1221	U	0.096	1.0	0.50	0.096	0.077
11141-16-5	Aroclor-1232	U	0.096	1.0	0.50	0.096	0.023
53469-21-9	Aroclor-1242	U	0.096	1.0	0.50	0.096	0.023
12672-29-6	Aroclor-1248	U	0.096	1.0	0.50	0.096	0.015
11097-69-1	Aroclor-1254	U	0.096	1.0	0.50	0.096	0.018
11096-82-5	Aroclor-1260	U	0.096	1.0	0.50	0.096	0.025
877-09-8	Tetrachloro-m-xylene		80%				
2051-24-3	Decachlorobiphenyl		52%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 17-JUL-2009 17:28
Report Date: 07/24/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-20
Client ID: WGL-GW-MW48D-063009
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: RCT
Analysis Method: SW846 8082
Lab Prep Batch: WG65884
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
12674-11-2	Aroclor-1016	U	0.098	1.0	0.50	0.098	0.031
11104-28-2	Aroclor-1221	U	0.098	1.0	0.50	0.098	0.078
11141-16-5	Aroclor-1232	U	0.098	1.0	0.50	0.098	0.024
53469-21-9	Aroclor-1242	U	0.098	1.0	0.50	0.098	0.024
12672-29-6	Aroclor-1248	U	0.098	1.0	0.50	0.098	0.016
11097-69-1	Aroclor-1254	U	0.098	1.0	0.50	0.098	0.018
11096-82-5	Aroclor-1260	U	0.098	1.0	0.50	0.098	0.025
877-09-8	Tetrachloro-m-xylene		64%				
2051-24-3	Decachlorobiphenyl		* 42%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/21/09
Analysis Date: 23-JUL-2009 21:50
Report Date: 07/24/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-20RE
Client ID: WGL-GW-MW48D-063009
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: RCT
Analysis Method: SW846 8082
Lab Prep Batch: WG66449
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
12674-11-2	Aroclor-1016	U	0.10	1.0	0.50	0.10	0.033
11104-28-2	Aroclor-1221	U	0.10	1.0	0.50	0.10	0.082
11141-16-5	Aroclor-1232	U	0.10	1.0	0.50	0.10	0.025
53469-21-9	Aroclor-1242	U	0.10	1.0	0.50	0.10	0.025
12672-29-6	Aroclor-1248	U	0.10	1.0	0.50	0.10	0.016
11097-69-1	Aroclor-1254	U	0.10	1.0	0.50	0.10	0.019
11096-82-5	Aroclor-1260	U	0.10	1.0	0.50	0.10	0.027
877-09-8	Tetrachloro-m-xylene		89%				
2051-24-3	Decachlorobiphenyl		46%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 17-JUL-2009 17:53
Report Date: 07/24/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-22
Client ID: WGL-GW-DUP02-063009
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: RCT
Analysis Method: SW846 8082
Lab Prep Batch: WG65884
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
12674-11-2	Aroclor-1016	U	0.094	1.0	0.50	0.094	0.030
11104-28-2	Aroclor-1221	U	0.094	1.0	0.50	0.094	0.075
11141-16-5	Aroclor-1232	U	0.094	1.0	0.50	0.094	0.023
53469-21-9	Aroclor-1242	U	0.094	1.0	0.50	0.094	0.023
12672-29-6	Aroclor-1248	U	0.094	1.0	0.50	0.094	0.015
11097-69-1	Aroclor-1254	U	0.094	1.0	0.50	0.094	0.017
11096-82-5	Aroclor-1260	U	0.094	1.0	0.50	0.094	0.024
877-09-8	Tetrachloro-m-xylene		* 54%				
2051-24-3	Decachlorobiphenyl		* 28%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/21/09
Analysis Date: 23-JUL-2009 22:16
Report Date: 07/24/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-22RE
Client ID: WGL-GW-DUP02-063009
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: RCT
Analysis Method: SW846 8082
Lab Prep Batch: WG66449
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
12674-11-2	Aroclor-1016	U	0.094	1.0	0.50	0.094	0.030
11104-28-2	Aroclor-1221	U	0.094	1.0	0.50	0.094	0.075
11141-16-5	Aroclor-1232	U	0.094	1.0	0.50	0.094	0.023
53469-21-9	Aroclor-1242	U	0.094	1.0	0.50	0.094	0.023
12672-29-6	Aroclor-1248	U	0.094	1.0	0.50	0.094	0.015
11097-69-1	Aroclor-1254	U	0.094	1.0	0.50	0.094	0.017
11096-82-5	Aroclor-1260	U	0.094	1.0	0.50	0.094	0.024
877-09-8	Tetrachloro-m-xylene		84%				
2051-24-3	Decachlorobiphenyl		* 33%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 17-JUL-2009 18:19
Report Date: 07/24/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-24
Client ID: GL-GW-MW48D2-063009
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: RCT
Analysis Method: SW846 8082
Lab Prep Batch: WG65884
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
12674-11-2	Aroclor-1016	U	0.11	1.0	0.50	0.11	0.037
11104-28-2	Aroclor-1221	U	0.11	1.0	0.50	0.11	0.092
11141-16-5	Aroclor-1232	U	0.11	1.0	0.50	0.11	0.028
53469-21-9	Aroclor-1242	U	0.11	1.0	0.50	0.11	0.028
12672-29-6	Aroclor-1248	U	0.11	1.0	0.50	0.11	0.018
11097-69-1	Aroclor-1254	U	0.11	1.0	0.50	0.11	0.021
11096-82-5	Aroclor-1260	U	0.11	1.0	0.50	0.11	0.030
877-09-8	Tetrachloro-m-xylene		79%				
2051-24-3	Decachlorobiphenyl		87%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 17-JUL-2009 18:44
Report Date: 07/24/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-26
Client ID: WGL-GW-MW39-063009
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: RCT
Analysis Method: SW846 8082
Lab Prep Batch: WG65884
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
12674-11-2	Aroclor-1016	U	0.11	1.0	0.50	0.11	0.035
11104-28-2	Aroclor-1221	U	0.11	1.0	0.50	0.11	0.088
11141-16-5	Aroclor-1232	U	0.11	1.0	0.50	0.11	0.026
53469-21-9	Aroclor-1242	U	0.11	1.0	0.50	0.11	0.026
12672-29-6	Aroclor-1248	U	0.11	1.0	0.50	0.11	0.018
11097-69-1	Aroclor-1254	U	0.11	1.0	0.50	0.11	0.020
11096-82-5	Aroclor-1260	U	0.11	1.0	0.50	0.11	0.028
877-09-8	Tetrachloro-m-xylene		* 61%				
2051-24-3	Decachlorobiphenyl		* 33%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/21/09
Analysis Date: 23-JUL-2009 22:42
Report Date: 07/24/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-26RE
Client ID: WGL-GW-MW39-063009
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: RCT
Analysis Method: SW846 8082
Lab Prep Batch: WG66449
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
12674-11-2	Aroclor-1016	U	0.10	1.0	0.50	0.10	0.034
11104-28-2	Aroclor-1221	U	0.10	1.0	0.50	0.10	0.084
11141-16-5	Aroclor-1232	U	0.10	1.0	0.50	0.10	0.025
53469-21-9	Aroclor-1242	U	0.10	1.0	0.50	0.10	0.025
12672-29-6	Aroclor-1248	U	0.10	1.0	0.50	0.10	0.017
11097-69-1	Aroclor-1254	U	0.10	1.0	0.50	0.10	0.019
11096-82-5	Aroclor-1260	U	0.10	1.0	0.50	0.10	0.027
877-09-8	Tetrachloro-m-xylene		71%				
2051-24-3	Decachlorobiphenyl		* 28%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 07/01/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 17-JUL-2009 19:10
Report Date: 07/24/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-28
Client ID: WGL-GW-FB01-070109
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: RCT
Analysis Method: SW846 8082
Lab Prep Batch: WG65884
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
12674-11-2	Aroclor-1016	U	0.096	1.0	0.50	0.096	0.031
11104-28-2	Aroclor-1221	U	0.096	1.0	0.50	0.096	0.077
11141-16-5	Aroclor-1232	U	0.096	1.0	0.50	0.096	0.023
53469-21-9	Aroclor-1242	U	0.096	1.0	0.50	0.096	0.023
12672-29-6	Aroclor-1248	U	0.096	1.0	0.50	0.096	0.015
11097-69-1	Aroclor-1254	U	0.096	1.0	0.50	0.096	0.018
11096-82-5	Aroclor-1260	U	0.096	1.0	0.50	0.096	0.025
877-09-8	Tetrachloro-m-xylene		98%				
2051-24-3	Decachlorobiphenyl		73%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 07/01/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 17-JUL-2009 21:44
Report Date: 07/24/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-30
Client ID: WGL-GW-RB01-070109
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: RCT
Analysis Method: SW846 8082
Lab Prep Batch: WG65884
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
12674-11-2	Aroclor-1016	U	0.10	1.0	0.50	0.10	0.032
11104-28-2	Aroclor-1221	U	0.10	1.0	0.50	0.10	0.081
11141-16-5	Aroclor-1232	U	0.10	1.0	0.50	0.10	0.024
53469-21-9	Aroclor-1242	U	0.10	1.0	0.50	0.10	0.024
12672-29-6	Aroclor-1248	U	0.10	1.0	0.50	0.10	0.016
11097-69-1	Aroclor-1254	U	0.10	1.0	0.50	0.10	0.018
11096-82-5	Aroclor-1260	U	0.10	1.0	0.50	0.10	0.026
877-09-8	Tetrachloro-m-xylene		84%				
2051-24-3	Decachlorobiphenyl		45%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client:
Project: CTO407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date: 07/06/09
Analysis Date: 16-JUL-2009 16:30
Report Date: 07/24/2009
Matrix: WATER
% Solids: NA

Lab ID: WG65884-1
Client ID: WG65884-Blank
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: RCT
Analysis Method: SW846 8082
Lab Prep Batch: WG65884
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
12674-11-2	Aroclor-1016	U	0.10	1.0	0.50	0.10	0.032
11104-28-2	Aroclor-1221	U	0.10	1.0	0.50	0.10	0.080
11141-16-5	Aroclor-1232	U	0.10	1.0	0.50	0.10	0.024
53469-21-9	Aroclor-1242	U	0.10	1.0	0.50	0.10	0.024
12672-29-6	Aroclor-1248	U	0.10	1.0	0.50	0.10	0.016
11097-69-1	Aroclor-1254	U	0.10	1.0	0.50	0.10	0.018
11096-82-5	Aroclor-1260	U	0.10	1.0	0.50	0.10	0.026
877-09-8	Tetrachloro-m-xylene		70%				
2051-24-3	Decachlorobiphenyl		69%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client:
Project: CTO407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date: 07/21/09
Analysis Date: 23-JUL-2009 17:07
Report Date: 07/24/2009
Matrix: WATER
% Solids: NA

Lab ID: WG66449-1
Client ID: WG66449-Blank
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: RCT
Analysis Method: SW846 8082
Lab Prep Batch: WG66449
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
12674-11-2	Aroclor-1016	U	0.10	1.0	0.50	0.10	0.032
11104-28-2	Aroclor-1221	U	0.10	1.0	0.50	0.10	0.080
11141-16-5	Aroclor-1232	U	0.10	1.0	0.50	0.10	0.024
53469-21-9	Aroclor-1242	U	0.10	1.0	0.50	0.10	0.024
12672-29-6	Aroclor-1248	U	0.10	1.0	0.50	0.10	0.016
11097-69-1	Aroclor-1254	U	0.10	1.0	0.50	0.10	0.018
11096-82-5	Aroclor-1260	U	0.10	1.0	0.50	0.10	0.026
877-09-8	Tetrachloro-m-xylene		95%				
2051-24-3	Decachlorobiphenyl		93%				

FORM 2
WATER PCB SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

GC Column(1): RTX-CLPESTICIDESID: 0.53 (mm) GC Column(2): RTX-CLPESTICIDES2ID: 0.53 (mm)

	CLIENT SAMPLE ID	LAB SAMPLE ID	TCX1 REC#	TCX2 REC#	DCB1 REC#	DCB2 REC#	OTHR (1)	OTHR (2)	TOT OUT
01	WG65884-BLANK	WG65884-1	55*	70	69	68			1
02	WG65884-LCS	WG65884-2	55*	70	49	48			1
03	L-GW-MW38-063009MS	WG65884-3	46*	60*	59	59			2
04	L-GW-MW38-063009MSD	WG65884-4	49*	65	69	69			1
05	WGL-GW-MW101-062909	SC3624-2	52*	65	62	61			1
06	WGL-GW-MW3-062909	SC3624-4	59*	76	76	76			1
07	WGL-GW-MW103-062909	SC3624-6	53*	66	54	53			1
08	WGL-GW-MW102-062909	SC3624-8	52*	67	56	57			1
09	WGL-GW-MW2-063009	SC3624-10	54*	67	56	55			1
10	WGL-GW-MW4-063009	SC3624-12	32*	40*	4*	4*			4
11	L-GW-MW38-063009	SC3624-14	69	90	85	88			0
12	WGL-GW-MW40S-063009	SC3624-16	48*	58*	38*	36*			4
13	WGL-GW-DUP01-063009	SC3624-18	46*	57*	33*	32*			4
14	WGL-GW-MW48D-063009	SC3624-20	53*	64	42*	40*			3
15	WGL-GW-DUP02-063009	SC3624-22	43*	54*	28*	27*			4
16	GL-GW-MW48D2-063009	SC3624-24	64	79	87	86			0
17	WGL-GW-MW39-063009	SC3624-26	47*	61*	33*	31*			4
18	WGL-GW-FB01-070109	SC3624-28	64	98	73	70			0
19	WGL-GW-RB01-070109	SC3624-30	56*	84	45	43*			2
20	WG66449-BLANK	WG66449-1	84	95	87	93			0
21	WG66449-LCS	WG66449-2	80	90	82	87			0
22	WG66449-LCSD	WG66449-3	86	98	88	92			0
23	WGL-GW-MW4-063009	SC3624-12RE	69	77	30*	30*			2
24	WGL-GW-MW40S-063009	SC3624-16RE	71	79	43*	46			1
25	WGL-GW-DUP01-063009	SC3624-18RE	72	80	51	52			0
26	WGL-GW-MW48D-063009	SC3624-20RE	80	89	45	46			0
27	WGL-GW-DUP02-063009	SC3624-22RE	79	84	33*	33*			2
28	WGL-GW-MW39-063009	SC3624-26RE	65	71	28*	28*			2

ADVISORY
QC LIMITS

S1 (TCX) = Tetrachloro-m-xylene (62-111)
S2 (DCB) = Decachlorobiphenyl (44-135)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out

KATAHDIN ANALYTICAL SERVICES
LAB CONTROL SAMPLE

Client:
Project: CTO407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date: 07/06/09
Analysis Date: 07/16/09
Report Date: 07/24/2009
Matrix: WATER

Lab ID: WG65884-2
Client ID: WG65884-LCS
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: RCT
Analysis Method: SW846 8082
Lab Prep Batch: WG65884
Units: ug/L

COMPOUND	LCS SPIKE	SAMPLE CONC.	LCS CONC.	%REC.	QC. LIMITS
Aroclor-1016	1.0	NA	1.1	107	82-117
Aroclor-1260	1.0	NA	1.0	102	75-125

KATAHDIN ANALYTICAL SERVICES
LAB CONTROL SAMPLE

Client:
Project: CTO407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date: 07/21/09
Analysis Date: 07/23/09
Report Date: 07/24/2009
Matrix: WATER

Lab ID: WG66449-2 & WG66449-3
Client ID: WG66449-LCS & WG66449-LCSD
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: RCT
Analysis Method: SW846 8082
Lab Prep Batch: WG66449
Units: ug/L

COMPOUND	LCS SPIKE	LCSD SPIKE	SAMPLE CONC.	LCS CONC.	LCSD CONC.	LCS %REC.	LCSD %REC.	%RPD	%RPD LIMIT	QC. LIMITS
Aroclor-1016	1.0	1.0	NA	0.88	0.94	88	94	7	30	82-117
Aroclor-1260	1.0	1.0	NA	0.90	0.96	90	96	6	30	75-125

FORM III PCB-1

7CG350.D & 7CG351.D

KATAHDIN ANALYTICAL SERVICES
MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/06/09
Analysis Date: 07/16/09
Report Date: 07/24/2009
Matrix: WATER

Lab ID: WG65884-3 & WG65884-4
Client ID: L-GW-MW38-063009MS & L-GW-MW38-063009MSD
SDG: SC3624
Extracted by: CB
Extraction Method: SW846 3510
Analyst: RCT
Analysis Method: SW846 8082
Lab Prep Batch: WG65884
Units: ug/L

COMPOUND	MS SPIKE	MSD SPIKE	SAMPLE CONC.	MS CONC.	MSD CONC.	MS %REC.	MSD %REC.	%RPD	%RPD LIMIT	QC. LIMITS
Aroclor-1016	0.94	1.0	0.00	0.90	0.98	95	98	9	30	82-117
Aroclor-1260	0.94	1.0	0.00	0.90	1.0	95	104	14	30	75-125

FORM III PCB-1

7CG233.D & 7CG239.D

FORM 4
PESTICIDE METHOD BLANK SUMMARY

CLIENT SAMPLE ID

WG65884-BLANK

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Lab Sample ID: WG65884-1 Lab File ID: 7CG230

Matrix (soil/water) WATER Extraction:(SepF/Cont/Sonc) SW846 3510

Sulfur Cleanup: (Y/N) N Date Extracted: 07/06/09

Date Analyzed (1): 07/16/09 Date Analyzed (2): 07/16/09

Time Analyzed (1): 1630 Time Analyzed (2): 1630

Instrument ID (1): GC07 Instrument ID (2): GC07

GC Column (1): RTX-CLPESTICIDES ID: 0.53(mm) GC Column (2): RTX-CLPESTICIDES2 ID: 0.53(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	WG65884-LCS	WG65884-2	7CG231	07/16/09	07/16/09
02	L-GW-MW38-063009MS	WG65884-3	7CG233	07/16/09	07/16/09
03	L-GW-MW38-063009MSD	WG65884-4	7CG239	07/16/09	07/16/09
04	WGL-GW-MW101-062909	SC3624-2	7CG240	07/16/09	07/16/09
05	WGL-GW-MW3-062909	SC3624-4	7CG241	07/16/09	07/16/09
06	WGL-GW-MW103-062909	SC3624-6	7CG242	07/16/09	07/16/09
07	WGL-GW-MW102-062909	SC3624-8	7CG243	07/16/09	07/16/09
08	WGL-GW-MW2-063009	SC3624-10	7CG244	07/16/09	07/16/09
09	WGL-GW-MW4-063009	SC3624-12	7CG245	07/16/09	07/16/09
10	L-GW-MW38-063009	SC3624-14	7CG246	07/16/09	07/16/09
11	WGL-GW-MW40S-063009	SC3624-16	7CG262	07/17/09	07/17/09
12	WGL-GW-DUP01-063009	SC3624-18	7CG263	07/17/09	07/17/09
13	WGL-GW-MW48D-063009	SC3624-20	7CG264	07/17/09	07/17/09
14	WGL-GW-DUP02-063009	SC3624-22	7CG265	07/17/09	07/17/09
15	GL-GW-MW48D2-063009	SC3624-24	7CG266	07/17/09	07/17/09
16	WGL-GW-MW39-063009	SC3624-26	7CG267	07/17/09	07/17/09
17	WGL-GW-FB01-070109	SC3624-28	7CG268	07/17/09	07/17/09
18	WGL-GW-RB01-070109	SC3624-30	7CG274	07/17/09	07/17/09
19					
20					
21					
22					
23					
24					

COMMENTS:

FORM IVPCB

FORM 4
PESTICIDE METHOD BLANK SUMMARY

CLIENT SAMPLE ID

WG66449-BLANK

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Lab Sample ID: WG66449-1 Lab File ID: 7CG349

Matrix (soil/water) WATER Extraction:(SepF/Cont/Sonc) SW846 3510

Sulfur Cleanup: (Y/N) N Date Extracted: 07/21/09

Date Analyzed (1): 07/23/09 Date Analyzed (2): 07/23/09

Time Analyzed (1): 1707 Time Analyzed (2): 1707

Instrument ID (1): GC07 Instrument ID (2): GC07

GC Column (1): RTX-CLPESTICIDES ID: 0.53(mm) GC Column (2): RTX-CLPESTICIDES2 ID: 0.53(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	WG66449-LCS	WG66449-2	7CG350	07/23/09	07/23/09
02	WG66449-LCSD	WG66449-3	7CG351	07/23/09	07/23/09
03	WGL-GW-MW4-063009	SC3624-12RE	7CG357	07/23/09	07/23/09
04	WGL-GW-MW40S-063009	SC3624-16RE	7CG358	07/23/09	07/23/09
05	WGL-GW-DUP01-063009	SC3624-18RE	7CG359	07/23/09	07/23/09
06	WGL-GW-MW48D-063009	SC3624-20RE	7CG360	07/23/09	07/23/09
07	WGL-GW-DUP02-063009	SC3624-22RE	7CG361	07/23/09	07/23/09
08	WGL-GW-MW39-063009	SC3624-26RE	7CG362	07/23/09	07/23/09
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					

COMMENTS:

FORM IVPCB

FORM 6
PCB INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project CTO407 NAS WEYMOUTH SDG No.: SC3624

Instrument ID: GC07 Calibration Date(s): 07/08/09 07/09/09

Column: RTX-CLPESTICIDES ID: 0.53 (mm) Calibration Time(s): 1258 0130

LAB FILE ID: RF0.05: 7CG112 RF0.1: 7CG113 RF0.25: 7CG114
RF1: 7CG120 RF2.5: 7CG115 RF10: 7CG116

COMPOUND	RF0.05	RF0.1	RF0.25	RF1	RF2.5	RF10	CURVE	COEFF. A1	%RSD OR R^2	MAX %RSD OR R^2	
Aroclor-1016	8642400	8408400	7937600	6895200	6692400	5933000	AVRG	7418168.70	14.462	20.000	
(2)	4288000	4165300	3950700	3404100	3309800	2997700	AVRG	3685933.30	14.134	20.000	
(3)	1e+007	1e+007	1e+007	1e+007	1e+007	1e+007	AVRG	12596090.7	7.145	20.000	
(4)	7863000	7778600	7540900	6677000	6784100	6324800	AVRG	7161419.37	9.037	20.000	
(5)	6811600	6698500	6423900	5628600	5791100	5542600	AVRG	6149397.87	9.151	20.000	
Aroclor-1221				1840400			AVRG	1840438.00	0.000	20.000	<-
(2)				662850			AVRG	662851.000	0.000	20.000	<-
(3)				3384300			AVRG	3384309.00	0.000	20.000	<-
(4)				1227600			AVRG	1227570.00	0.000	20.000	<-
Aroclor-1232				4587300			AVRG	4587296.00	0.000	20.000	<-
(2)				3263200			AVRG	3263187.00	0.000	20.000	<-
(3)				1639000			AVRG	1638959.00	0.000	20.000	<-
(4)				5445800			AVRG	5445836.00	0.000	20.000	<-
(5)				2524200			AVRG	2524157.00	0.000	20.000	<-
Aroclor-1242	6904300	6767500	6705200	5736100	5491100	4875700	AVRG	6080008.77	13.679	20.000	
(2)	3393400	3363600	3375400	2821700	2739800	2470100	AVRG	3027340.35	13.243	20.000	
(3)	1e+007	1e+007	1e+007	9752400	9871500	9368900	AVRG	10198894.9	5.970	20.000	
(4)	5594300	5058400	4707000	3959300	4029600	3913300	AVRG	4543656.33	15.244	20.000	
(5)	5467400	5599900	5482200	4744800	4787500	4655600	AVRG	5122895.52	8.504	20.000	
Aroclor-1248	7454300	7241900	7011600	6634000	6386700	6135000	AVRG	6810605.67	7.510	20.000	
(2)	9145200	8864800	8721400	8384900	8107800	7723000	AVRG	8491178.47	6.161	20.000	
(3)	5995000	5807000	5752700	5545000	5390300	5249800	AVRG	5623320.60	4.957	20.000	
(4)	1e+007	1.e+007	9912100	9785700	9603100	9411000	AVRG	9908824.15	4.145	20.000	
(5)	5227800	4641200	4551900	4391000	4193200	4224800	AVRG	4538334.85	8.391	20.000	
Aroclor-1254	1e+007	1e+007	1e+007	1e+007	1e+007	1e+007	AVRG	12543870.5	13.516	20.000	
(2)	1.e+007	9868000	8784700	7793400	8342700	7636200	AVRG	8791109.48	12.494	20.000	
(3)	2e+007	2e+007	2e+007	1e+007	1e+007	1e+007	AVRG	15329493.5	10.947	20.000	
(4)	1e+007	1e+007	1.e+007	9353600	1.e+007	9180800	AVRG	10351943.8	10.118	20.000	
(5)	1e+007	1e+007	9794200	8951500	9644900	8849800	AVRG	9882409.18	9.837	20.000	
Aroclor-1260	1.e+007	1.e+007	9807500	8747400	9253000	8989600	AVRG	9559623.93	6.908	20.000	
(2)	1e+007	1e+007	1e+007	1e+007	1e+007	1e+007	AVRG	11723386.4	5.590	20.000	
(3)	1.e+007	1e+007	1.e+007	9394100	1.e+007	9815000	AVRG	10103534.1	4.264	20.000	
(4)	1e+007	1e+007	1e+007	1e+007	2e+007	1e+007	AVRG	14608776.7	3.060	20.000	
(5)	7315900	7249800	7068700	6378400	6846200	6894400	AVRG	6958907.57	4.886	20.000	
Tetrachloro-m-xylene	3e+008	3e+008	3e+008	3e+008	3e+008	3e+008	AVRG	270479483	4.316	20.000	
Decachlorobiphenyl	1e+008	1e+008	1e+008	9e+007	9e+007	9e+007	AVRG	99308566.7	11.512	20.000	

FORM VI PCB

Report Date : 10-Jul-2009 14:51

Katahdin Analytical Services

INITIAL CALIBRATION DATA

Start Cal Date : 08-JUL-2009 12:58
End Cal Date : 09-JUL-2009 01:30
Quant Method : ESTD
Origin : Disabled
Target Version : 4.12
Integrator : Falcon
Method file : \\Target_server\GG\chem\gc07.i\GC07CG08.b\PCB015L.m
Cal Date : 09-Jul-2009 09:47 rthomas
Curve Type : Average

Calibration File Names:
Level 1: \\Target_server\GG\chem\gc07.i\GC07CG08.b\7CG112.D
Level 2: \\Target_server\GG\chem\gc07.i\GC07CG08.b\7CG113.D
Level 3: \\Target_server\GG\chem\gc07.i\GC07CG08.b\7CG114.D
Level 4: \\Target_server\GG\chem\gc07.i\GC07CG08.b\7CG120.D
Level 5: \\Target_server\GG\chem\gc07.i\GC07CG08.b\7CG115.D
Level 6: \\Target_server\GG\chem\gc07.i\GC07CG08.b\7CG116.D

Compound	0.05000 Level 1	0.10000 Level 2	0.25000 Level 3	1.000 Level 4	2.500 Level 5	10.000 Level 6	___ RRF	% RSD
M 1 Total PCBs	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
2 Aroclor-1221(1)	+++++	+++++	+++++	1840438	+++++	+++++	1840438	0.000
(2)	+++++	+++++	+++++	662851	+++++	+++++	662851	0.000
(3)	+++++	+++++	+++++	3384309	+++++	+++++	3384309	0.000
(4)	+++++	+++++	+++++	1227570	+++++	+++++	1227570	0.000
4 Aroclor-1232(1)	+++++	+++++	+++++	4587296	+++++	+++++	4587296	0.000
(2)	+++++	+++++	+++++	3263187	+++++	+++++	3263187	0.000
(3)	+++++	+++++	+++++	1638959	+++++	+++++	1638959	0.000
(4)	+++++	+++++	+++++	5445836	+++++	+++++	5445836	0.000
(5)	+++++	+++++	+++++	2524157	+++++	+++++	2524157	0.000
5 Aroclor-1242(1)	6904320	6767540	6705240	5736144	5491104	4875704	6080009	13.679
(2)	3393400	3363580	3375420	2821692	2739855	2470095	3027340	13.243
(3)	10757520	10719700	10723360	9752383	9871538	9368868	10198895	5.970
(4)	5594340	5058350	4707052	3959283	4029572	3913341	4543656	15.244
(5)	5467360	5599920	5482152	4744808	4787507	4655626	5122896	8.504
6 Aroclor-1016(1)	8642420	8408350	7937600	6895194	6692436	5933012	7418169	14.462
(2)	4288000	4165330	3950736	3404079	3309783	2997672	3685933	14.134
(3)	13422760	13549490	13109372	11921700	12249634	11323588	12596091	7.145
(4)	7863040	7778650	7540944	6677048	6784061	6324773	7161419	9.037
(5)	6811640	6698500	6423936	5628659	5791081	5542571	6149398	9.151
7 Aroclor-1248(1)	7454340	7241940	7011648	6634025	6386668	6135013	6810606	7.510
(2)	9145160	8864780	8721368	8384861	8107854	7723048	8491178	6.161
(3)	5994960	5807040	5752736	5545050	5390304	5249834	5623321	4.957
(4)	10544740	10196320	9912120	9785723	9603076	9410966	9908824	4.145
(5)	5227760	4641230	4551944	4390988	4193247	4224840	4538335	8.391
8 Aroclor-1254(1)	14909260	14119540	12580748	11177986	11950906	10524783	12543870	13.516
(2)	10321580	9868030	8784716	7793368	8342706	7636257	8791109	12.494
(3)	17678080	16843530	15308460	13856853	14950183	13339855	15329494	10.947

Report Date : 10-Jul-2009 14:51

Katahdin Analytical Services

INITIAL CALIBRATION DATA

Start Cal Date : 08-JUL-2009 12:58
End Cal Date : 09-JUL-2009 01:30
Quant Method : ESTD
Origin : Disabled
Target Version : 4.12
Integrator : Falcon
Method file : \\Target_server\GG\chem\gc07.i\GC07CG08.b\PCB015L.m
Cal Date : 09-Jul-2009 09:47 rthomas
Curve Type : Average

Compound	0.05000 Level 1	0.10000 Level 2	0.25000 Level 3	1.000 Level 4	2.500 Level 5	10.000 Level 6	___ RRF	% RSD
(4)	11746220	11402540	10339528	9353617	10088986	9180772	10351944	10.118
(5)	11259220	10794770	9794244	8951484	9644881	8849856	9882409	9.837
9 Aroclor-1260(1)	10314720	10245430	9807500	8747428	9253017	8989649	9559624	6.908
(2)	12351200	12450780	12002640	10884178	11576305	11075215	11723386	5.590
(3)	10373820	10554400	10357660	9394070	10126300	9814955	10103534	4.264
(4)	14243180	14964350	14748352	13911855	15083759	14701165	14608777	3.060
(5)	7315940	7249780	7068680	6378391	6846249	6894405	6958908	4.886
10 Aroclor-1262(1)	+++++	+++++	+++++	7635472	+++++	+++++	7635472	0.000
(2)	+++++	+++++	+++++	9025599	+++++	+++++	9025599	0.000
(3)	+++++	+++++	+++++	10774312	+++++	+++++	10774312	0.000
(4)	+++++	+++++	+++++	8917724	+++++	+++++	8917724	0.000
(5)	+++++	+++++	+++++	6430742	+++++	+++++	6430742	0.000
11 Aroclor-1268(1)	+++++	+++++	+++++	21193293	+++++	+++++	21193293	0.000
(2)	+++++	+++++	+++++	17931726	+++++	+++++	17931726	0.000
(3)	+++++	+++++	+++++	14242203	+++++	+++++	14242203	0.000
(4)	+++++	+++++	+++++	5573309	+++++	+++++	5573309	0.000
(5)	+++++	+++++	+++++	6342162	+++++	+++++	6342162	0.000
$ 3 Tetrachloro-m-xylene	284508000	282125000	271176800	256774500	257807400	270485200	270479483	4.316
$ 12 Decachlorobiphenyl	112203000	109651500	105962800	87549900	94322640	86161560	99308567	11.512

Report Date: 10-Jul-2009 14:51

Calibration History

Method : \\Target_server\GG\chem\gc07.i\GC07CG08.b\PCB015L.m
Start Cal Date: 08-JUL-2009 12:58
End Cal Date : 09-JUL-2009 01:30
Last Cal Level: 3
Last Cal Type : Continuing Calibration

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 0.05000		
08-JUL-2009 22:02	AR1254	7CG112.D
08-JUL-2009 19:27	AR1248	7CG106.D
08-JUL-2009 16:51	AR1242	7CG100.D
08-JUL-2009 13:24	AR1660	7CG092.D

Cal Level: 2 , Cal Amount: 0.10000		
08-JUL-2009 22:29	AR1254	7CG113.D
08-JUL-2009 19:53	AR1248	7CG107.D
08-JUL-2009 17:17	AR1242	7CG101.D
08-JUL-2009 13:50	AR1660	7CG093.D

Cal Level: 3 , Cal Amount: 0.25000		
08-JUL-2009 22:54	AR1254	7CG114.D
08-JUL-2009 20:18	AR1248	7CG108.D
08-JUL-2009 17:43	AR1242	7CG102.D
08-JUL-2009 14:16	AR1660	7CG094.D

Cal Level: 4 , Cal Amount: 1.00000		
09-JUL-2009 01:30	AR1268	7CG120.D
09-JUL-2009 01:04	AR1262	7CG119.D
09-JUL-2009 00:38	AR1232	7CG118.D
09-JUL-2009 00:12	AR1221	7CG117.D
08-JUL-2009 21:36	AR1254	7CG111.D
08-JUL-2009 19:01	AR1248	7CG105.D
08-JUL-2009 16:25	AR1242	7CG099.D
08-JUL-2009 12:58	AR1660	7CG091.D

Cal Level: 5 , Cal Amount: 2.50000		
08-JUL-2009 23:20	AR1254	7CG115.D
08-JUL-2009 20:44	AR1248	7CG109.D
08-JUL-2009 18:09	AR1242	7CG103.D
08-JUL-2009 14:42	AR1660	7CG095.D

Cal Level: 6 , Cal Amount: 10.00000		

08-JUL-2009 23:47	AR1254	7CG116.D
08-JUL-2009 21:11	AR1248	7CG110.D
08-JUL-2009 18:35	AR1242	7CG104.D
08-JUL-2009 15:07	AR1660	7CG096.D

Continuing Calibration
Ccal Level Mode: BY SAMPLE

08-JUL-2009 15:59	AR1260	7CG098.D
08-JUL-2009 15:33	AR1016	7CG097.D
09-JUL-2009 01:30	AR1268	7CG120.D
09-JUL-2009 01:04	AR1262	7CG119.D
09-JUL-2009 00:38	AR1232	7CG118.D
09-JUL-2009 00:12	AR1221	7CG117.D
08-JUL-2009 21:36	AR1254	7CG111.D
08-JUL-2009 19:01	AR1248	7CG105.D
08-JUL-2009 16:25	AR1242	7CG099.D
08-JUL-2009 12:58	AR1660	7CG091.D

FORM 6
PCB INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project CTO407 NAS WEYMOUTH SDG No.: SC3624

Instrument ID: GC07 Calibration Date(s): 07/08/09 07/09/09

Column: RTX-CLPESTICIDES2 ID: 0.53 (mm) Calibration Time(s): 1258 0130

LAB FILE ID: RF0.05: 7CG112 RF0.1: 7CG113 RF0.25: 7CG114
RF1: 7CG120 RF2.5: 7CG115 RF10: 7CG116

COMPOUND	RF0.05	RF0.1	RF0.25	RF1	RF2.5	RF10	CURVE	COEFF. A1	%RSD OR R^2	MAX %RSD OR R^2	
Aroclor-1016	1301400	1259600	1173400	1030000	1062100	1038000	AVRG	1144069.20	10.340	20.000	
(2)	710020	709090	652590	558600	570200	567240	AVRG	627956.383	11.430	20.000	
(3)	2235100	2243300	2159000	2022000	2146000	2046200	AVRG	2141947.95	4.319	20.000	
(4)	1368600	1338000	1268600	1138300	1197900	1174800	AVRG	1247715.58	7.430	20.000	
(5)	1169900	1105000	1036600	901230	956210	946060	AVRG	1019170.13	10.161	20.000	
Aroclor-1221				377360			AVRG	377363.000	0.000	20.000	<-
(2)				121750			AVRG	121752.000	0.000	20.000	<-
(3)				587300			AVRG	587302.000	0.000	20.000	<-
(4)				403160			AVRG	403161.000	0.000	20.000	<-
Aroclor-1232				798320			AVRG	798323.000	0.000	20.000	<-
(2)				508590			AVRG	508593.000	0.000	20.000	<-
(3)				915540			AVRG	915537.000	0.000	20.000	<-
(4)				534400			AVRG	534400.000	0.000	20.000	<-
(5)				408650			AVRG	408652.000	0.000	20.000	<-
Aroclor-1242	1094200	1043200	975210	864380	865080	852440	AVRG	949080.683	10.966	20.000	
(2)	606180	568090	539260	470470	463090	463180	AVRG	518380.017	11.896	20.000	
(3)	1877100	1761100	1734300	1655400	1709000	1685600	AVRG	1737063.42	4.482	20.000	
(4)	1008100	874140	856940	762450	775670	788840	AVRG	844349.200	10.900	20.000	
(5)	1054600	917200	898340	808430	831940	841870	AVRG	892070.883	10.055	20.000	
Aroclor-1248	1126100	1069600	1021800	961510	948360	969500	AVRG	1016149.40	6.923	20.000	
(2)	1498100	1406000	1381600	1338600	1341000	1340500	AVRG	1384282.28	4.489	20.000	
(3)	1292800	1227900	1183800	1150800	1153400	1179000	AVRG	1197965.08	4.521	20.000	
(4)	1713300	1640700	1574800	1558300	1552100	1553500	AVRG	1598775.47	4.084	20.000	
(5)	1493300	1431700	1373500	1389200	1410400	1405100	AVRG	1417188.97	2.976	20.000	
Aroclor-1254	1838600	1646000	1485300	1334900	1439100	1337000	AVRG	1513475.70	12.968	20.000	
(2)	2053700	1818800	1652000	1462200	1595200	1469900	AVRG	1675326.25	13.566	20.000	
(3)	1416000	1261800	1142500	1035000	1130000	1070100	AVRG	1175869.75	11.984	20.000	
(4)	2540100	2300500	2139500	1980800	2185300	1966200	AVRG	2185414.82	9.836	20.000	
(5)	1526800	1390800	1281500	1180200	1280000	1194600	AVRG	1308976.55	9.983	20.000	
Aroclor-1260	1338500	1370200	1338300	1201300	1291100	1254000	AVRG	1298905.93	4.845	20.000	
(2)	1501700	1561400	1507000	1367000	1465400	1398100	AVRG	1466771.52	4.958	20.000	
(3)	1179600	1207600	1185800	1080900	1179400	1159200	AVRG	1165429.57	3.794	20.000	
(4)	2116700	2198100	2206400	2091700	2270000	2076800	AVRG	2159937.78	3.536	20.000	
(5)	1043700	1093200	1098400	1008000	1104300	1084100	AVRG	1071954.57	3.547	20.000	
Tetrachloro-m-xylene	5e+007	5e+007	5e+007	4e+007	5e+007	5e+007	AVRG	47350458.3	5.562	20.000	
Decachlorobiphenyl	2e+007	2e+007	2e+007	1e+007	2e+007	2e+007	AVRG	16612819.2	7.555	20.000	

FORM VI PCB

Report Date : 10-Jul-2009 14:51

Katahdin Analytical Services

INITIAL CALIBRATION DATA

Start Cal Date : 08-JUL-2009 12:58
End Cal Date : 09-JUL-2009 01:30
Quant Method : ESTD
Origin : Disabled
Target Version : 4.12
Integrator : Falcon
Method file : \\Target_server\GG\chem\gc07.i\GC07CG08.b\PCB015L.m\PCB0
Cal Date : 09-Jul-2009 09:47 rthomas
Curve Type : Average

Calibration File Names:
Level 1: \\Target_server\GG\chem\gc07.i\GC07CG08.b\GC07CG08.b\7CG112.D
Level 2: \\Target_server\GG\chem\gc07.i\GC07CG08.b\GC07CG08.b\7CG113.D
Level 3: \\Target_server\GG\chem\gc07.i\GC07CG08.b\GC07CG08.b\7CG114.D
Level 4: \\Target_server\GG\chem\gc07.i\GC07CG08.b\GC07CG08.b\7CG120.D
Level 5: \\Target_server\GG\chem\gc07.i\GC07CG08.b\GC07CG08.b\7CG115.D
Level 6: \\Target_server\GG\chem\gc07.i\GC07CG08.b\GC07CG08.b\7CG116.D

Compound	0.05000 Level 1	0.10000 Level 2	0.25000 Level 3	1.000 Level 4	2.500 Level 5	10.000 Level 6	___ RRF	% RSD
M 1 Total PCBs	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
3 Aroclor-1221 (1)	+++++	+++++	+++++	377363	+++++	+++++	377363	0.000
(2)	+++++	+++++	+++++	121752	+++++	+++++	121752	0.000
(3)	+++++	+++++	+++++	587302	+++++	+++++	587302	0.000
(4)	+++++	+++++	+++++	403161	+++++	+++++	403161	0.000
4 Aroclor-1232 (1)	+++++	+++++	+++++	798323	+++++	+++++	798323	0.000
(2)	+++++	+++++	+++++	508593	+++++	+++++	508593	0.000
(3)	+++++	+++++	+++++	915537	+++++	+++++	915537	0.000
(4)	+++++	+++++	+++++	534400	+++++	+++++	534400	0.000
(5)	+++++	+++++	+++++	408652	+++++	+++++	408652	0.000
5 Aroclor-1016 (1)	1301440	1259600	1173352	1029963	1062080	1037980	1144069	10.340
(2)	710020	709090	652588	558599	570202	567239	627956	11.430
(3)	2235080	2243310	2159012	2022051	2145996	2046239	2141948	4.319
(4)	1368620	1338040	1268604	1138342	1197922	1174766	1247716	7.430
(5)	1169920	1105030	1036564	901230	956215	946062	1019170	10.161
6 Aroclor-1242 (1)	1094180	1043190	975212	864378	865084	852440	949081	10.966
(2)	606180	568090	539264	470473	463090	463183	518380	11.896
(3)	1877080	1761130	1734268	1655358	1708962	1685583	1737063	4.482
(4)	1008060	874140	856936	762447	775672	788840	844349	10.900
(5)	1054640	917200	898344	808431	831940	841871	892071	10.055
7 Aroclor-1248 (1)	1126120	1069630	1021768	961514	948364	969500	1016149	6.923
(2)	1498060	1406010	1381576	1338569	1340961	1340518	1384282	4.489
(3)	1292820	1227920	1183812	1150831	1153354	1179054	1197965	4.521
(4)	1713320	1640690	1574760	1558274	1552094	1553515	1598775	4.085
(5)	1493320	1431730	1373476	1389165	1410366	1405076	1417189	2.976
8 Aroclor-1254 (1)	1838580	1645960	1485296	1334937	1439130	1336951	1513476	12.968
(2)	2053660	1818850	1652044	1462229	1595252	1469923	1675326	13.567
(3)	1415980	1261760	1142460	1034962	1129951	1070105	1175870	11.985

Report Date : 10-Jul-2009 14:51

Katahdin Analytical Services

INITIAL CALIBRATION DATA

Start Cal Date : 08-JUL-2009 12:58
End Cal Date : 09-JUL-2009 01:30
Quant Method : ESTD
Origin : Disabled
Target Version : 4.12
Integrator : Falcon
Method file : \\Target_server\GG\chem\gc07.i\GC07CG08.b\PCB015L.m\PCB0
Cal Date : 09-Jul-2009 09:47 rthomas
Curve Type : Average

Compound	0.05000 Level 1	0.10000 Level 2	0.25000 Level 3	1.000 Level 4	2.500 Level 5	10.000 Level 6	___ RRF	% RSD
(4)	2540100	2300480	2139516	1980856	2185302	1966235	2185415	9.836
(5)	1526760	1390800	1281460	1180248	1280010	1194581	1308977	9.983
9 Aroclor-1260(1)	1338500	1370170	1338332	1201284	1291115	1254035	1298906	4.845
(2)	1501680	1561350	1507024	1367022	1465412	1398141	1466772	4.958
(3)	1179640	1207640	1185768	1080903	1179438	1159189	1165430	3.794
(4)	2116740	2198100	2206376	2091673	2269972	2076766	2159938	3.536
(5)	1043680	1093240	1098416	1008046	1104280	1084065	1071955	3.547
10 Aroclor-1262(1)	+++++	+++++	+++++	1177559	+++++	+++++	1177559	0.000
(2)	+++++	+++++	+++++	1529652	+++++	+++++	1529652	0.000
(3)	+++++	+++++	+++++	1341565	+++++	+++++	1341565	0.000
(4)	+++++	+++++	+++++	1366812	+++++	+++++	1366812	0.000
(5)	+++++	+++++	+++++	877503	+++++	+++++	877503	0.000
11 Aroclor-1268(1)	+++++	+++++	+++++	3316347	+++++	+++++	3316347	0.000
(2)	+++++	+++++	+++++	2824735	+++++	+++++	2824735	0.000
(3)	+++++	+++++	+++++	2284475	+++++	+++++	2284475	0.000
(4)	+++++	+++++	+++++	940045	+++++	+++++	940045	0.000
(5)	+++++	+++++	+++++	1085264	+++++	+++++	1085264	0.000
$ 2 Tetrachloro-m-xylene	51224000	48474000	46625200	43871450	45300000	48608100	47350458	5.562
$ 12 Decachlorobiphenyl	17633000	17978000	17353400	14890200	16397020	15425295	16612819	7.555

Report Date: 10-Jul-2009 14:51

Calibration History

Method : \\Target_server\GG\chem\gc07.i\GC07CG08.b\PCB015L.m\PCB015L.m
Start Cal Date: 08-JUL-2009 12:58
End Cal Date : 09-JUL-2009 01:30
Last Cal Level: 2
Last Cal Type : Continuing Calibration

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 0.05000		
08-JUL-2009 22:02	AR1254	7CG112.D
08-JUL-2009 19:27	AR1248	7CG106.D
08-JUL-2009 16:51	AR1242	7CG100.D
08-JUL-2009 13:24	AR1660	7CG092.D
Cal Level: 2 , Cal Amount: 0.10000		
08-JUL-2009 22:29	AR1254	7CG113.D
08-JUL-2009 19:53	AR1248	7CG107.D
08-JUL-2009 17:17	AR1242	7CG101.D
08-JUL-2009 13:50	AR1660	7CG093.D
Cal Level: 3 , Cal Amount: 0.25000		
08-JUL-2009 22:54	AR1254	7CG114.D
08-JUL-2009 20:18	AR1248	7CG108.D
08-JUL-2009 17:43	AR1242	7CG102.D
08-JUL-2009 14:16	AR1660	7CG094.D
Cal Level: 4 , Cal Amount: 1.00000		
09-JUL-2009 01:30	AR1268	7CG120.D
09-JUL-2009 01:04	AR1262	7CG119.D
09-JUL-2009 00:38	AR1232	7CG118.D
09-JUL-2009 00:12	AR1221	7CG117.D
08-JUL-2009 21:36	AR1254	7CG111.D
08-JUL-2009 19:01	AR1248	7CG105.D
08-JUL-2009 16:25	AR1242	7CG099.D
08-JUL-2009 12:58	AR1660	7CG091.D
Cal Level: 5 , Cal Amount: 2.50000		
08-JUL-2009 23:20	AR1254	7CG115.D
08-JUL-2009 20:44	AR1248	7CG109.D
08-JUL-2009 18:09	AR1242	7CG103.D
08-JUL-2009 14:42	AR1660	7CG095.D
Cal Level: 6 , Cal Amount: 10.00000		

08-JUL-2009 23:47	AR1254	7CG116.D
08-JUL-2009 21:11	AR1248	7CG110.D
08-JUL-2009 18:35	AR1242	7CG104.D
08-JUL-2009 15:07	AR1660	7CG096.D

Continuing Calibration
Ccal Level Mode: BY SAMPLE

08-JUL-2009 15:59	AR1260	7CG098.D
08-JUL-2009 15:33	AR1016	7CG097.D
09-JUL-2009 01:30	AR1268	7CG120.D
09-JUL-2009 01:04	AR1262	7CG119.D
09-JUL-2009 00:38	AR1232	7CG118.D
09-JUL-2009 00:12	AR1221	7CG117.D
08-JUL-2009 21:36	AR1254	7CG111.D
08-JUL-2009 19:01	AR1248	7CG105.D
08-JUL-2009 16:25	AR1242	7CG099.D
08-JUL-2009 12:58	AR1660	7CG091.D

FORM 6
PCB INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project CT0407 NAS WEYMOUTH SDG No.: SC3624

Instrument ID: GC07 Calibration Date(s): 07/22/09 07/23/09

Column: RTX-CLPESTICIDES ID: 0.53 (mm) Calibration Time(s): 0000 0508

LAB FILE ID: RF0.05: 7CG328 RF0.1: 7CG329 RF0.25: 7CG330
RF1: 7CG336 RF2.5: 7CG331 RF10: 7CG332

COMPOUND	RF0.05	RF0.1	RF0.25	RF1	RF2.5	RF10	CURVE	COEFF. A1	%RSD OR R^2	MAX %RSD OR R^2	
Aroclor-1016	8366000	8823200	8099000	7182400	7189900	6545400	AVRG	7700991.35	11.209	20.000	
(2)	3995400	4468700	4065200	3555700	3553900	3292400	AVRG	3821882.20	11.289	20.000	
(3)	1e+007	1e+007	1e+007	1e+007	1e+007	1e+007	AVRG	13287381.0	4.983	20.000	
(4)	7710900	8201100	7868400	7070500	7271800	6909300	AVRG	7505325.73	6.681	20.000	
(5)	6978700	7190600	6916900	6174200	6362300	6174700	AVRG	6632905.83	6.759	20.000	
Aroclor-1221				1890300			AVRG	1890295.00	0.000	20.000	<-
(2)				714880			AVRG	714883.000	0.000	20.000	<-
(3)				3355500			AVRG	3355534.00	0.000	20.000	<-
(4)				1226700			AVRG	1226702.00	0.000	20.000	<-
Aroclor-1232				4808400			AVRG	4808429.00	0.000	20.000	<-
(2)				3474300			AVRG	3474310.00	0.000	20.000	<-
(3)				1801600			AVRG	1801648.00	0.000	20.000	<-
(4)				5902000			AVRG	5901968.00	0.000	20.000	<-
(5)				2810600			AVRG	2810558.00	0.000	20.000	<-
Aroclor-1242	7019200	6691000	6404300	5982900	5848300	5425800	AVRG	6228587.68	9.415	20.000	
(2)	3432200	3298300	3150300	2956000	2885100	2737400	AVRG	3076556.07	8.567	20.000	
(3)	1e+007	1e+007	1e+007	1.e+007	1e+007	1.e+007	AVRG	10674915.1	3.769	20.000	
(4)	6606000	6353200	6017900	5824000	5808000	5682000	AVRG	6048516.90	5.948	20.000	
(5)	6143900	5756900	5470800	5175800	5180200	5184600	AVRG	5485379.48	7.233	20.000	
Aroclor-1248	7827000	7382100	7291100	6942000	6876200	6748000	AVRG	7177728.38	5.598	20.000	
(2)	9666300	9292700	9155400	8895100	8904200	8658900	AVRG	9095422.43	3.920	20.000	
(3)	6385600	5994600	6094400	5914400	5891400	5871800	AVRG	6025373.75	3.230	20.000	
(4)	1e+007	1e+007	1e+007	1e+007	1e+007	1e+007	AVRG	10872099.3	2.806	20.000	
(5)	5405700	4912000	5063500	4815800	4777100	4825900	AVRG	4966681.43	4.795	20.000	
Aroclor-1254	2e+007	2e+007	1e+007	1e+007	1e+007	1e+007	AVRG	14239621.9	13.209	20.000	
(2)	1e+007	1e+007	9698000	8833900	9596100	8708200	AVRG	9942696.80	12.721	20.000	
(3)	2e+007	2e+007	2e+007	2e+007	2e+007	2e+007	AVRG	17405438.3	11.092	20.000	
(4)	1e+007	1e+007	1e+007	1e+007	1e+007	1e+007	AVRG	11938218.5	11.258	20.000	
(5)	1e+007	1e+007	1e+007	1.e+007	1e+007	1.e+007	AVRG	11436806.3	11.280	20.000	
Aroclor-1260	1e+007	1e+007	1e+007	9960800	1.e+007	1.e+007	AVRG	10592615.8	5.022	20.000	
(2)	1e+007	1e+007	1e+007	1e+007	1e+007	1e+007	AVRG	13512722.3	5.194	20.000	
(3)	1e+007	1e+007	1e+007	1e+007	1e+007	1e+007	AVRG	11814486.1	4.062	20.000	
(4)	2e+007	2e+007	2e+007	2e+007	2e+007	2e+007	AVRG	16859802.5	2.269	20.000	
(5)	8237800	8336800	8227900	7670400	7917300	7934600	AVRG	8054132.08	3.161	20.000	
Tetrachloro-m-xylene	2e+008	3e+008	2e+008	2e+008	2e+008	2e+008	AVRG	244388351	3.577	20.000	
Decachlorobiphenyl	1e+008	1e+008	1e+008	1e+008	1e+008	1e+008	AVRG	127281352	11.383	20.000	

FORM VI PCB

Report Date : 24-Jul-2009 11:21

Katahdin Analytical Services

INITIAL CALIBRATION DATA

Start Cal Date : 22-JUL-2009 00:00
End Cal Date : 23-JUL-2009 05:08
Quant Method : ESTD
Origin : Disabled
Target Version : 4.12
Integrator : Falcon
Method file : \\target_server\gg\chem\gc07.i\GC07CG23.b\PCB016L.m
Cal Date : 24-Jul-2009 09:57 kasgc
Curve Type : Average

Calibration File Names:
Level 1: \\target_server\gg\chem\gc07.i\GC07CG22.b\7CG328.D
Level 2: \\target_server\gg\chem\gc07.i\GC07CG22.b\7CG329.D
Level 3: \\target_server\gg\chem\gc07.i\GC07CG22.b\7CG330.D
Level 4: \\target_server\gg\chem\gc07.i\GC07CG22.b\7CG336.D
Level 5: \\target_server\gg\chem\gc07.i\GC07CG22.b\7CG331.D
Level 6: \\target_server\gg\chem\gc07.i\GC07CG22.b\7CG332.D

Compound	0.05000 Level 1	0.10000 Level 2	0.25000 Level 3	1.000 Level 4	2.500 Level 5	10.000 Level 6	___ RRF	% RSD
M 1 Total PCBs	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
2 Aroclor-1221(1)	+++++	+++++	+++++	1890295	+++++	+++++	1890295	0.000
(2)	+++++	+++++	+++++	714883	+++++	+++++	714883	0.000
(3)	+++++	+++++	+++++	3355534	+++++	+++++	3355534	0.000
(4)	+++++	+++++	+++++	1226702	+++++	+++++	1226702	0.000
4 Aroclor-1232(1)	+++++	+++++	+++++	4808429	+++++	+++++	4808429	0.000
(2)	+++++	+++++	+++++	3474310	+++++	+++++	3474310	0.000
(3)	+++++	+++++	+++++	1801648	+++++	+++++	1801648	0.000
(4)	+++++	+++++	+++++	5901968	+++++	+++++	5901968	0.000
(5)	+++++	+++++	+++++	2810558	+++++	+++++	2810558	0.000
5 Aroclor-1242(1)	7019220	6691030	6404304	5982887	5848310	5425775	6228588	9.415
(2)	3432220	3298280	3150304	2956032	2885135	2737366	3076556	8.567
(3)	11332380	10943050	10625948	10378517	10537785	10231811	10674915	3.769
(4)	6605960	6353240	6017896	5823950	5808048	5682007	6048517	5.948
(5)	6143880	5756920	5470852	5175827	5180202	5184596	5485379	7.233
6 Aroclor-1016(1)	8366040	8823180	8098996	7182451	7189872	6545410	7700991	11.209
(2)	3995360	4468730	4065184	3555749	3553908	3292363	3821882	11.289
(3)	13538640	14184720	13725152	12683748	13173350	12418676	13287381	4.983
(4)	7710920	8201090	7868404	7070463	7271805	6909272	7505326	6.681
(5)	6978680	7190610	6916916	6174208	6362296	6174725	6632906	6.759
7 Aroclor-1248(1)	7826960	7382060	7291112	6942002	6876253	6747984	7177728	5.598
(2)	9666320	9292680	9155424	8895061	8904182	8658867	9095422	3.920
(3)	6385620	5994570	6094436	5914431	5891394	5871792	6025374	3.230
(4)	11461960	10835120	10851276	10674905	10806386	10602949	10872099	2.806
(5)	5405700	4912040	5063512	4815824	4777114	4825899	4966681	4.795
8 Aroclor-1254(1)	17309800	15439770	14027772	12686668	13769988	12203734	14239622	13.209
(2)	12026480	10793430	9698048	8833933	9596062	8708228	9942697	12.721
(3)	20511500	18567450	17178028	15823967	17191024	15160660	17405438	11.092

Report Date : 24-Jul-2009 11:21

Katahdin Analytical Services

INITIAL CALIBRATION DATA

Start Cal Date : 22-JUL-2009 00:00
End Cal Date : 23-JUL-2009 05:08
Quant Method : ESTD
Origin : Disabled
Target Version : 4.12
Integrator : Falcon
Method file : \\target_server\gg\chem\gc07.i\GC07CG23.b\PCB016L.m
Cal Date : 24-Jul-2009 09:57 kasgc
Curve Type : Average

Compound	0.05000 Level 1	0.10000 Level 2	0.25000 Level 3	1.000 Level 4	2.500 Level 5	10.000 Level 6	___ RRF	% RSD
(4)	14123260	12754430	11710032	10685949	11816222	10539417	11938218	11.258
(5)	13571740	12233760	11215860	10220253	11180664	10198561	11436806	11.280
9 Aroclor-1260(1)	11021520	11295220	10746304	9960772	10490380	10041499	10592616	5.022
(2)	14142140	14339270	13840592	12715012	13297017	12742303	13512722	5.194
(3)	12217380	12427920	11992204	11298578	11681914	11268921	11814486	4.062
(4)	16747060	17287610	16759980	16259427	17266339	16838399	16859803	2.269
(5)	8237820	8336790	8227924	7670378	7917296	7934584	8054132	3.161
10 Aroclor-1262(1)	+++++	+++++	+++++	8559293	+++++	+++++	8559293	0.000
(2)	+++++	+++++	+++++	10043901	+++++	+++++	10043901	0.000
(3)	+++++	+++++	+++++	12251317	+++++	+++++	12251317	0.000
(4)	+++++	+++++	+++++	9257071	+++++	+++++	9257071	0.000
(5)	+++++	+++++	+++++	7335591	+++++	+++++	7335591	0.000
11 Aroclor-1268(1)	+++++	+++++	+++++	26354825	+++++	+++++	26354825	0.000
(2)	+++++	+++++	+++++	22212732	+++++	+++++	22212732	0.000
(3)	+++++	+++++	+++++	17978782	+++++	+++++	17978782	0.000
(4)	+++++	+++++	+++++	7097013	+++++	+++++	7097013	0.000
(5)	+++++	+++++	+++++	8180065	+++++	+++++	8180065	0.000
$ 3 Tetrachloro-m-xylene	245756000	256789000	248589800	230474950	240493840	244226515	244388351	3.577
$ 12 Decachlorobiphenyl	138167000	147069000	133897400	114731800	118922720	110900190	127281352	11.383

Report Date: 24-Jul-2009 11:22

Calibration History

Method : \\target_server\gg\chem\gc07.i\GC07CG23.b\PCB016L.m
Start Cal Date: 22-JUL-2009 00:00
End Cal Date : 23-JUL-2009 05:08
Last Cal Level: 3
Last Cal Type : Continuing Calibration

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 0.05000		
23-JUL-2009 01:43	AR1254	7CG328.D
22-JUL-2009 23:09	AR1248	7CG322.D
22-JUL-2009 20:35	AR1242	7CG316.D
22-JUL-2009 17:09	AR1660	7CG308.D

Cal Level: 2 , Cal Amount: 0.10000		
23-JUL-2009 02:08	AR1254	7CG329.D
22-JUL-2009 23:34	AR1248	7CG323.D
22-JUL-2009 21:00	AR1242	7CG317.D
22-JUL-2009 17:35	AR1660	7CG309.D

Cal Level: 3 , Cal Amount: 0.25000		
23-JUL-2009 02:34	AR1254	7CG330.D
22-JUL-2009 21:26	AR1242	7CG318.D
22-JUL-2009 18:01	AR1660	7CG310.D
22-JUL-2009 00:00	AR1248	7CG324.D

Cal Level: 4 , Cal Amount: 1.00000		
23-JUL-2009 05:08	AR1268	7CG336.D
23-JUL-2009 04:42	AR1262	7CG335.D
23-JUL-2009 04:16	AR1232	7CG334.D
23-JUL-2009 03:51	AR1221	7CG333.D
23-JUL-2009 01:17	AR1254	7CG327.D
22-JUL-2009 22:43	AR1248	7CG321.D
22-JUL-2009 20:09	AR1242	7CG315.D
22-JUL-2009 16:43	AR1660	7CG307.D

Cal Level: 5 , Cal Amount: 2.50000		
23-JUL-2009 02:59	AR1254	7CG331.D
23-JUL-2009 00:26	AR1248	7CG325.D
22-JUL-2009 21:52	AR1242	7CG319.D
22-JUL-2009 18:26	AR1660	7CG311.D

Cal Level: 6 , Cal Amount: 10.00000		

23-JUL-2009 03:25	AR1254	7CG332.D
23-JUL-2009 00:51	AR1248	7CG326.D
22-JUL-2009 22:17	AR1242	7CG320.D
22-JUL-2009 18:52	AR1660	7CG312.D

Continuing Calibration
Ccal Level Mode: BY SAMPLE

24-JUL-2009 01:42	AR1254	7CG369.D
24-JUL-2009 01:16	AR1248	7CG368.D
24-JUL-2009 00:50	AR1242	7CG367.D
24-JUL-2009 00:25	AR1660	7CG366.D
23-JUL-2009 19:41	AR1248	7CG355.D
23-JUL-2009 20:07	AR1254	7CG356.D
23-JUL-2009 19:16	AR1242	7CG354.D
23-JUL-2009 18:50	AR1660	7CG353.D
23-JUL-2009 11:52	AR1254	7CG341.D
23-JUL-2009 11:26	AR1248	7CG340.D
23-JUL-2009 11:00	AR1242	7CG339.D
23-JUL-2009 10:34	AR1660	7CG338.D

FORM 6
PCB INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project CTO407 NAS WEYMOUTH SDG No.: SC3624

Instrument ID: GC07 Calibration Date(s): 07/22/09 07/23/09

Column: RTX-CLPESTICIDES2 ID: 0.53 (mm) Calibration Time(s): 0000 0508

LAB FILE ID: RF0.05: 7CG328 RF0.1: 7CG329 RF0.25: 7CG330
RF1: 7CG336 RF2.5: 7CG331 RF10: 7CG332

COMPOUND	RF0.05	RF0.1	RF0.25	RF1	RF2.5	RF10	CURVE	COEFF. A1	%RSD OR R^2	MAX %RSD OR R^2	
Aroclor-1016	1404700	1338600	1288800	1165900	1193600	1154400	AVRG	1257689.73	8.134	20.000	
(2)	784620	731570	718080	640340	647700	639040	AVRG	693556.317	8.710	20.000	
(3)	2494500	2511200	2443600	2338100	2436000	2274000	AVRG	2416239.58	3.822	20.000	
(4)	1519700	1473300	1426200	1330600	1365800	1330600	AVRG	1407708.05	5.578	20.000	
(5)	1277400	1193800	1169500	1069200	1095400	1091600	AVRG	1149497.45	6.899	20.000	
Aroclor-1221				391540			AVRG	391543.000	0.000	20.000	<-
(2)				134230			AVRG	134234.000	0.000	20.000	<-
(3)				647380			AVRG	647384.000	0.000	20.000	<-
(4)				441640			AVRG	441640.000	0.000	20.000	<-
Aroclor-1232				892890			AVRG	892891.000	0.000	20.000	<-
(2)				574000			AVRG	574001.000	0.000	20.000	<-
(3)				1043000			AVRG	1042999.00	0.000	20.000	<-
(4)				608400			AVRG	608395.000	0.000	20.000	<-
(5)				464460			AVRG	464461.000	0.000	20.000	<-
Aroclor-1242	1188900	1106700	1050000	971940	979940	957750	AVRG	1042540.47	8.758	20.000	
(2)	674220	624740	579230	532290	529420	531760	AVRG	578609.483	10.378	20.000	
(3)	2123400	2001400	1931000	1902700	1958600	1905000	AVRG	1970352.37	4.242	20.000	
(4)	1303700	1205100	1150400	1078800	1094500	1098600	AVRG	1155197.38	7.475	20.000	
(5)	1140900	1019600	956060	893130	903470	910070	AVRG	970536.350	9.859	20.000	
Aroclor-1248	1232100	1175800	1130600	1076200	1091400	1099800	AVRG	1134335.83	5.245	20.000	
(2)	1674600	1604900	1558100	1536700	1548900	1522600	AVRG	1574305.38	3.593	20.000	
(3)	1415900	1355200	1326100	1305300	1337600	1349800	AVRG	1348305.12	2.789	20.000	
(4)	1914000	1838300	1788900	1762900	1796900	1750900	AVRG	1808670.13	3.311	20.000	
(5)	1671400	1606300	1573100	1577100	1636100	1606200	AVRG	1611694.82	2.306	20.000	
Aroclor-1254	2140300	1852700	1688300	1530700	1677500	1506800	AVRG	1732722.38	13.595	20.000	
(2)	2357500	2077000	1884800	1702700	1877000	1666800	AVRG	1927647.73	13.328	20.000	
(3)	1591000	1394000	1300800	1194000	1322600	1212500	AVRG	1335829.65	10.860	20.000	
(4)	2899800	2615300	2445200	2311300	2540100	2215800	AVRG	2504596.72	9.682	20.000	
(5)	1767500	1546400	1446900	1340000	1497200	1352300	AVRG	1491731.38	10.537	20.000	
Aroclor-1260	1626400	1587100	1541700	1432500	1504200	1460100	AVRG	1525331.08	4.872	20.000	
(2)	1863000	1851100	1779600	1660200	1747300	1652200	AVRG	1758903.75	5.151	20.000	
(3)	1471700	1498200	1390200	1293300	1357400	1333400	AVRG	1390713.40	5.753	20.000	
(4)	2603300	2666000	2624000	2583000	2716700	2451200	AVRG	2607367.73	3.458	20.000	
(5)	1322700	1327500	1304400	1248900	1316600	1288700	AVRG	1301485.35	2.251	20.000	
Tetrachloro-m-xylene	5e+007	5.e+007	5e+007	5e+007	5e+007	5.e+007	AVRG	48016708.3	4.187	20.000	
Decachlorobiphenyl	2e+007	2e+007	2e+007	2e+007	2e+007	2e+007	AVRG	19863567.5	7.396	20.000	

FORM VI PCB

Report Date : 24-Jul-2009 11:22

Katahdin Analytical Services

INITIAL CALIBRATION DATA

Start Cal Date : 22-JUL-2009 00:00
End Cal Date : 23-JUL-2009 05:08
Quant Method : ESTD
Origin : Disabled
Target Version : 4.12
Integrator : Falcon
Method file : \\target_server\gg\chem\gc07.i\GC07CG23.b\PCB016L.m\PCB016
Cal Date : 24-Jul-2009 09:56 kasgc
Curve Type : Average

Calibration File Names:
Level 1: \\target_server\gg\chem\gc07.i\GC07CG22.b\GC07CG22.b\7CG328.D
Level 2: \\target_server\gg\chem\gc07.i\GC07CG22.b\GC07CG22.b\7CG329.D
Level 3: \\target_server\gg\chem\gc07.i\GC07CG22.b\GC07CG22.b\7CG330.D
Level 4: \\target_server\gg\chem\gc07.i\GC07CG22.b\GC07CG22.b\7CG336.D
Level 5: \\target_server\gg\chem\gc07.i\GC07CG22.b\GC07CG22.b\7CG331.D
Level 6: \\target_server\gg\chem\gc07.i\GC07CG22.b\GC07CG22.b\7CG332.D

Compound	0.05000 Level 1	0.10000 Level 2	0.25000 Level 3	1.000 Level 4	2.500 Level 5	10.000 Level 6	___ RRF	% RSD
M 1 Total PCBs	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++
3 Aroclor-1221(1)	+++++	+++++	+++++	391543	+++++	+++++	391543	0.000
(2)	+++++	+++++	+++++	134234	+++++	+++++	134234	0.000
(3)	+++++	+++++	+++++	647384	+++++	+++++	647384	0.000
(4)	+++++	+++++	+++++	441640	+++++	+++++	441640	0.000
4 Aroclor-1232(1)	+++++	+++++	+++++	892891	+++++	+++++	892891	0.000
(2)	+++++	+++++	+++++	574001	+++++	+++++	574001	0.000
(3)	+++++	+++++	+++++	1042999	+++++	+++++	1042999	0.000
(4)	+++++	+++++	+++++	608395	+++++	+++++	608395	0.000
(5)	+++++	+++++	+++++	464461	+++++	+++++	464461	0.000
5 Aroclor-1016(1)	1404700	1338630	1288848	1165949	1193624	1154387	1257690	8.134
(2)	784620	731570	718076	640335	647702	639035	693556	8.710
(3)	2494520	2511210	2443640	2338098	2435997	2273973	2416240	3.822
(4)	1519680	1473300	1426248	1330642	1365826	1330552	1407708	5.578
(5)	1277380	1193840	1169524	1069186	1095410	1091645	1149497	6.899
6 Aroclor-1242(1)	1188900	1106700	1050004	971941	979944	957754	1042540	8.758
(2)	674220	624740	579228	532293	529419	531757	578609	10.378
(3)	2123420	2001400	1930992	1902744	1958607	1904951	1970352	4.242
(4)	1303700	1205120	1150412	1078800	1094514	1098638	1155197	7.475
(5)	1140860	1019630	956060	893130	903469	910069	970536	9.859
7 Aroclor-1248(1)	1232100	1175780	1130648	1076182	1091450	1099855	1134336	5.245
(2)	1674620	1604900	1558080	1536713	1548932	1522588	1574305	3.593
(3)	1415880	1355190	1326068	1305335	1337576	1349782	1348305	2.789
(4)	1914020	1838310	1788932	1762936	1796920	1750902	1808670	3.311
(5)	1671360	1606320	1573084	1577065	1636138	1606202	1611695	2.306
8 Aroclor-1254(1)	2140340	1852740	1688268	1530672	1677482	1506832	1732722	13.595
(2)	2357460	2077030	1884824	1702734	1877000	1666838	1927648	13.329
(3)	1591020	1394030	1300836	1194030	1322551	1212511	1335830	10.860

Report Date : 24-Jul-2009 11:22

Katahdin Analytical Services

INITIAL CALIBRATION DATA

Start Cal Date : 22-JUL-2009 00:00
End Cal Date : 23-JUL-2009 05:08
Quant Method : ESTD
Origin : Disabled
Target Version : 4.12
Integrator : Falcon
Method file : \\target_server\gg\chem\gc07.i\GC07CG23.b\PCB016L.m\PCB016
Cal Date : 24-Jul-2009 09:56 kasgc
Curve Type : Average

Compound	0.05000 Level 1	0.10000 Level 2	0.25000 Level 3	1.000 Level 4	2.500 Level 5	10.000 Level 6	RRF	% RSD
(4)	2899820	2615280	2445200	2311329	2540150	2215802	2504597	9.682
(5)	1767520	1546400	1446868	1340036	1497244	1352320	1491731	10.537
9 Aroclor-1260(1)	1626400	1587120	1541680	1432525	1504155	1460107	1525331	4.872
(2)	1863040	1851080	1779620	1660185	1747325	1652173	1758904	5.151
(3)	1471700	1498240	1390204	1293291	1357397	1333449	1390713	5.753
(4)	2603280	2665990	2624040	2583002	2716678	2451216	2607368	3.458
(5)	1322700	1327530	1304436	1248940	1316620	1288686	1301485	2.251
10 Aroclor-1262(1)	+++++	+++++	+++++	1357600	+++++	+++++	1357600	0.000
(2)	+++++	+++++	+++++	1761008	+++++	+++++	1761008	0.000
(3)	+++++	+++++	+++++	1521496	+++++	+++++	1521496	0.000
(4)	+++++	+++++	+++++	1588239	+++++	+++++	1588239	0.000
(5)	+++++	+++++	+++++	1002244	+++++	+++++	1002244	0.000
11 Aroclor-1268(1)	+++++	+++++	+++++	4210006	+++++	+++++	4210006	0.000
(2)	+++++	+++++	+++++	3621953	+++++	+++++	3621953	0.000
(3)	+++++	+++++	+++++	2927973	+++++	+++++	2927973	0.000
(4)	+++++	+++++	+++++	1159847	+++++	+++++	1159847	0.000
(5)	+++++	+++++	+++++	1346001	+++++	+++++	1346001	0.000
$ 2 Tetrachloro-m-xylene	46153000	50033000	46806200	45856400	48801360	50450290	48016708	4.187
$ 12 Decachlorobiphenyl	21272000	21263500	20948200	18159800	19199740	18338165	19863568	7.396

Report Date: 24-Jul-2009 11:22

Calibration History

Method : \\target_server\gg\chem\gc07.i\GC07CG23.b\PCB016L.m\PCB016L.m
Start Cal Date: 22-JUL-2009 00:00
End Cal Date : 23-JUL-2009 05:08
Last Cal Level: 2
Last Cal Type : Continuing Calibration

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 1 , Cal Amount: 0.05000		
23-JUL-2009 01:43	AR1254	7CG328.D
22-JUL-2009 23:09	AR1248	7CG322.D
22-JUL-2009 20:35	AR1242	7CG316.D
22-JUL-2009 17:09	AR1660	7CG308.D

Cal Level: 2 , Cal Amount: 0.10000		
23-JUL-2009 02:08	AR1254	7CG329.D
22-JUL-2009 23:34	AR1248	7CG323.D
22-JUL-2009 21:00	AR1242	7CG317.D
22-JUL-2009 17:35	AR1660	7CG309.D

Cal Level: 3 , Cal Amount: 0.25000		
23-JUL-2009 02:34	AR1254	7CG330.D
22-JUL-2009 21:26	AR1242	7CG318.D
22-JUL-2009 18:01	AR1660	7CG310.D
22-JUL-2009 00:00	AR1248	7CG324.D

Cal Level: 4 , Cal Amount: 1.00000		
23-JUL-2009 05:08	AR1268	7CG336.D
23-JUL-2009 04:42	AR1262	7CG335.D
23-JUL-2009 04:16	AR1232	7CG334.D
23-JUL-2009 03:51	AR1221	7CG333.D
23-JUL-2009 01:17	AR1254	7CG327.D
22-JUL-2009 22:43	AR1248	7CG321.D
22-JUL-2009 20:09	AR1242	7CG315.D
22-JUL-2009 16:43	AR1660	7CG307.D

Cal Level: 5 , Cal Amount: 2.50000		
23-JUL-2009 02:59	AR1254	7CG331.D
23-JUL-2009 00:26	AR1248	7CG325.D
22-JUL-2009 21:52	AR1242	7CG319.D
22-JUL-2009 18:26	AR1660	7CG311.D

Cal Level: 6 , Cal Amount: 10.00000		

23-JUL-2009 03:25	AR1254	7CG332.D
23-JUL-2009 00:51	AR1248	7CG326.D
22-JUL-2009 22:17	AR1242	7CG320.D
22-JUL-2009 18:52	AR1660	7CG312.D

Continuing Calibration
Ccal Level Mode: BY SAMPLE

24-JUL-2009 01:42	AR1254	7CG369.D
24-JUL-2009 01:16	AR1248	7CG368.D
24-JUL-2009 00:50	AR1242	7CG367.D
24-JUL-2009 00:25	AR1660	7CG366.D
23-JUL-2009 18:50	AR1660	7CG353.D
23-JUL-2009 20:07	AR1254	7CG356.D
23-JUL-2009 19:41	AR1248	7CG355.D
23-JUL-2009 19:16	AR1242	7CG354.D
23-JUL-2009 11:52	AR1254	7CG341.D
23-JUL-2009 11:26	AR1248	7CG340.D
23-JUL-2009 11:00	AR1242	7CG339.D
23-JUL-2009 10:34	AR1660	7CG338.D

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CT0407 NAS WEYMOUTH SDG No.: SC3624

Instrument ID: GC07 Calibration Date: 07/08/09 Time: 1533

Lab File ID: 7CG097 Init. Calib. Date(s): 07/08/09 07/09/09

Init. Calib. Times: 1258 0130

GC Column: RTX-CLPESTICIDES ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1016	7418200.0	6923600.0	0.001	-6.67	20.00	AVRG
(2)	3685900.0	3408800.0	0.001	-7.52	20.00	AVRG
(3)	12596000	12044000	0.001	-4.38	20.00	AVRG
(4)	7161400.0	6728200.0	0.001	-6.05	20.00	AVRG
(5)	6149400.0	5682500.0	0.001	-7.59	20.00	AVRG
Average %D: -6.440						

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Instrument ID: GC07 Calibration Date: 07/08/09 Time: 1533

Lab File ID: 7CG097 Init. Calib. Date(s): 07/08/09 07/09/09

Init. Calib. Times: 1258 0130

GC Column: RTX-CLPESTICIDES2 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1016	1144100.0	1047800.0	0.001	-8.42	20.00	AVRG
(2)	627960.00	573890.00	0.001	-8.61	20.00	AVRG
(3)	2141900.0	2048800.0	0.001	-4.35	20.00	AVRG
(4)	1247700.0	1148200.0	0.001	-7.97	20.00	AVRG
(5)	1019200.0	928200.00	0.001	-8.93	20.00	AVRG
Average %D: -7.650						

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Instrument ID: GC07 Calibration Date: 07/08/09 Time: 1559

Lab File ID: 7CG098 Init. Calib. Date(s): 07/08/09 07/09/09

Init. Calib. Times: 1258 0130

GC Column: RTX-CLPESTICIDES ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1260	9559600.0	8929100.0	0.001	-6.60	20.00	AVRG
(2)	11723000	11293000	0.001	-3.67	20.00	AVRG
(3)	10104000	10578000	0.001	4.69	20.00	AVRG
(4)	14609000	12570000	0.001	-13.96	20.00	AVRG
(5)	6958900.0	6482200.0	0.001	-6.85	20.00	AVRG
Average %D: -5.270						

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Instrument ID: GC07 Calibration Date: 07/08/09 Time: 1559

Lab File ID: 7CG098 Init. Calib. Date(s): 07/08/09 07/09/09

Init. Calib. Times: 1258 0130

GC Column: RTX-CLPESTICIDES2 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1260	1298900.0	1230900.0	0.001	-5.24	20.00	AVRG
(2)	1466800.0	1412400.0	0.001	-3.71	20.00	AVRG
(3)	1165400.0	1239200.0	0.001	6.33	20.00	AVRG
(4)	2160000.0	1903600.0	0.001	-11.87	20.00	AVRG
(5)	1072000.0	981160.00	0.001	-8.47	20.00	AVRG
Average %D: -4.590						

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Instrument ID: GC07 Calibration Date: 07/16/09 Time: 0927

Lab File ID: 7CG220 Init. Calib. Date(s): 07/08/09 07/08/09

Init. Calib. Times: 1258 1507

GC Column: RTX-CLPESTICIDES ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1016	7418200.0	7510700.0	0.001	1.25	20.00	AVRG
(2)	3685900.0	3755500.0	0.001	1.89	20.00	AVRG
(3)	12596000	13146000	0.001	4.37	20.00	AVRG
(4)	7161400.0	7381000.0	0.001	3.07	20.00	AVRG
(5)	6149400.0	6337400.0	0.001	3.06	20.00	AVRG
Average %D: 2.7300						
Aroclor-1260	9559600.0	9809000.0	0.001	2.61	20.00	AVRG
(2)	11723000	12355000	0.001	5.39	20.00	AVRG
(3)	10104000	10729000	0.001	6.18	20.00	AVRG
(4)	14609000	15932000	0.001	9.06	20.00	AVRG
(5)	6958900.0	7503500.0	0.001	7.82	20.00	AVRG
Average %D: 6.2100						
Tetrachloro-m-xylene	270480000	266390000	0.001	-1.51	20.00	AVRG
Decachlorobiphenyl	99308000	102990000	0.001	3.71	20.00	AVRG

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Instrument ID: GC07 Calibration Date: 07/16/09 Time: 0927

Lab File ID: 7CG220 Init. Calib. Date(s): 07/08/09 07/08/09

Init. Calib. Times: 1258 1507

GC Column: RTX-CLPESTICIDES2 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1016	1144100.0	1182000.0	0.001	3.31	20.00	AVRG
(2)	627960.00	634450.00	0.001	1.03	20.00	AVRG
(3)	2141900.0	2272000.0	0.001	6.07	20.00	AVRG
(4)	1247700.0	1288400.0	0.001	3.26	20.00	AVRG
(5)	1019200.0	1037100.0	0.001	1.76	20.00	AVRG
Average %D: 3.0900						
Aroclor-1260	1298900.0	1376400.0	0.001	5.97	20.00	AVRG
(2)	1466800.0	1599100.0	0.001	9.02	20.00	AVRG
(3)	1165400.0	1268700.0	0.001	8.86	20.00	AVRG
(4)	2160000.0	2336800.0	0.001	8.18	20.00	AVRG
(5)	1072000.0	1175600.0	0.001	9.66	20.00	AVRG
Average %D: 8.3400						
Tetrachloro-m-xylene	47350000	50180000	0.001	5.98	20.00	AVRG
Decachlorobiphenyl	16613000	16590000	0.001	-0.14	20.00	AVRG

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Instrument ID: GC07 Calibration Date: 07/16/09 Time: 1839

Lab File ID: 7CG235 Init. Calib. Date(s): 07/08/09 07/08/09

Init. Calib. Times: 1258 1507

GC Column: RTX-CLPESTICIDES ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF0.2500 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE	
Aroclor-1016	7418200.0	8673300.0	0.001	16.92	20.00	AVRG	
(2)	3685900.0	4298100.0	0.001	16.61	20.00	AVRG	
(3)	12596000	14398000	0.001	14.31	20.00	AVRG	
(4)	7161400.0	8250300.0	0.001	15.20	20.00	AVRG	
(5)	6149400.0	7192300.0	0.001	16.96	20.00	AVRG	
Average %D: 16.000							
Aroclor-1260	9559600.0	11286000	0.001	18.06	20.00	AVRG	
(2)	11723000	13857000	0.001	18.20	20.00	AVRG	
(3)	10104000	12019000	0.001	18.95	20.00	AVRG	
(4)	14609000	17423000	0.001	19.26	20.00	AVRG	
(5)	6958900.0	8487900.0	0.001	21.97	20.00	AVRG	<-
Average %D: 19.280							
Tetrachloro-m-xylene	270480000	280700000	0.001	3.78	20.00	AVRG	
Decachlorobiphenyl	99308000	131690000	0.001	32.61	20.00	AVRG	<-

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Instrument ID: GC07 Calibration Date: 07/16/09 Time: 1839

Lab File ID: 7CG235 Init. Calib. Date(s): 07/08/09 07/08/09

Init. Calib. Times: 1258 1507

GC Column: RTX-CLPESTICIDES2 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF0.2500 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE	
Aroclor-1016	1144100.0	1357700.0	0.001	18.67	20.00	AVRG	
(2)	627960.00	765260.00	0.001	21.86	20.00	AVRG	<-
(3)	2141900.0	2009500.0	0.001	-6.18	20.00	AVRG	
(4)	1247700.0	1477900.0	0.001	18.45	20.00	AVRG	
(5)	1019200.0	1214700.0	0.001	19.18	20.00	AVRG	
Average %D: 14.400							
Aroclor-1260	1298900.0	1526400.0	0.001	17.52	20.00	AVRG	
(2)	1466800.0	1777500.0	0.001	21.18	20.00	AVRG	<-
(3)	1165400.0	1411600.0	0.001	21.13	20.00	AVRG	<-
(4)	2160000.0	2571300.0	0.001	19.04	20.00	AVRG	
(5)	1072000.0	1284800.0	0.001	19.85	20.00	AVRG	
Average %D: 19.760							
Tetrachloro-m-xylene	47350000	51817000	0.001	9.43	20.00	AVRG	
Decachlorobiphenyl	16613000	19906000	0.001	19.82	20.00	AVRG	

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Instrument ID: GC07 Calibration Date: 07/17/09 Time: 0104

Lab File ID: 7CG250 Init. Calib. Date(s): 07/08/09 07/08/09

Init. Calib. Times: 1258 1507

GC Column: RTX-CLPESTICIDES ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1016	7418200.0	7643200.0	0.001	3.03	20.00	AVRG
(2)	3685900.0	3747400.0	0.001	1.67	20.00	AVRG
(3)	12596000	13239000	0.001	5.10	20.00	AVRG
(4)	7161400.0	7346100.0	0.001	2.58	20.00	AVRG
(5)	6149400.0	6430900.0	0.001	4.58	20.00	AVRG
Average %D: 3.3900						
Aroclor-1260	9559600.0	10364000	0.001	8.41	20.00	AVRG
(2)	11723000	13078000	0.001	11.56	20.00	AVRG
(3)	10104000	11408000	0.001	12.91	20.00	AVRG
(4)	14609000	16646000	0.001	13.94	20.00	AVRG
(5)	6958900.0	7851200.0	0.001	12.82	20.00	AVRG
Average %D: 11.930						
Tetrachloro-m-xylene	270480000	268020000	0.001	-0.91	20.00	AVRG
Decachlorobiphenyl	99308000	110810000	0.001	11.58	20.00	AVRG

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Instrument ID: GC07 Calibration Date: 07/17/09 Time: 0104

Lab File ID: 7CG250 Init. Calib. Date(s): 07/08/09 07/08/09

Init. Calib. Times: 1258 1507

GC Column: RTX-CLPESTICIDES2 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE	
Aroclor-1016	1144100.0	1249400.0	0.001	9.20	20.00	AVRG	
(2)	627960.00	681000.00	0.001	8.45	20.00	AVRG	
(3)	2141900.0	1927900.0	0.001	-9.99	20.00	AVRG	
(4)	1247700.0	1393200.0	0.001	11.66	20.00	AVRG	
(5)	1019200.0	1129700.0	0.001	10.84	20.00	AVRG	
Average %D: 6.0300							
Aroclor-1260	1298900.0	1455600.0	0.001	12.06	20.00	AVRG	
(2)	1466800.0	1721000.0	0.001	17.33	20.00	AVRG	
(3)	1165400.0	1365400.0	0.001	17.16	20.00	AVRG	
(4)	2160000.0	2648300.0	0.001	22.61	20.00	AVRG	<-
(5)	1072000.0	1282200.0	0.001	19.61	20.00	AVRG	
Average %D: 17.760							
Tetrachloro-m-xylene	47350000	53840000	0.001	13.71	20.00	AVRG	
Decachlorobiphenyl	16613000	17895000	0.001	7.72	20.00	AVRG	

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Instrument ID: GC07 Calibration Date: 07/17/09 Time: 1213

Lab File ID: 7CG255 Init. Calib. Date(s): 07/08/09 07/08/09

Init. Calib. Times: 1258 1507

GC Column: RTX-CLPESTICIDES ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1016	7418200.0	7610700.0	0.001	2.60	20.00	AVRG
(2)	3685900.0	3796500.0	0.001	3.00	20.00	AVRG
(3)	12596000	13557000	0.001	7.63	20.00	AVRG
(4)	7161400.0	7524600.0	0.001	5.07	20.00	AVRG
(5)	6149400.0	6602100.0	0.001	7.36	20.00	AVRG
Average %D: 5.1300						
Aroclor-1260	9559600.0	10460000	0.001	9.42	20.00	AVRG
(2)	11723000	13320000	0.001	13.62	20.00	AVRG
(3)	10104000	11764000	0.001	16.43	20.00	AVRG
(4)	14609000	17167000	0.001	17.51	20.00	AVRG
(5)	6958900.0	8109200.0	0.001	16.53	20.00	AVRG
Average %D: 14.700						
Tetrachloro-m-xylene	270480000	256170000	0.001	-5.29	20.00	AVRG
Decachlorobiphenyl	99308000	117040000	0.001	17.86	20.00	AVRG

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Instrument ID: GC07 Calibration Date: 07/17/09 Time: 1213

Lab File ID: 7CG255 Init. Calib. Date(s): 07/08/09 07/08/09

Init. Calib. Times: 1258 1507

GC Column: RTX-CLPESTICIDES2 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1016	1144100.0	1204200.0	0.001	5.25	20.00	AVRG
(2)	627960.00	663780.00	0.001	5.70	20.00	AVRG
(3)	2141900.0	2395100.0	0.001	11.82	20.00	AVRG
(4)	1247700.0	1363200.0	0.001	9.26	20.00	AVRG
(5)	1019200.0	1087700.0	0.001	6.72	20.00	AVRG
Average %D: 7.7500						
Aroclor-1260	1298900.0	1469500.0	0.001	13.13	20.00	AVRG
(2)	1466800.0	1716800.0	0.001	17.04	20.00	AVRG
(3)	1165400.0	1321600.0	0.001	13.40	20.00	AVRG
(4)	2160000.0	2573000.0	0.001	19.12	20.00	AVRG
(5)	1072000.0	1240600.0	0.001	15.73	20.00	AVRG
Average %D: 15.690						
Tetrachloro-m-xylene	47350000	48361000	0.001	2.14	20.00	AVRG
Decachlorobiphenyl	16613000	18158000	0.001	9.30	20.00	AVRG

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Instrument ID: GC07 Calibration Date: 07/17/09 Time: 2001

Lab File ID: 7CG270 Init. Calib. Date(s): 07/08/09 07/08/09

Init. Calib. Times: 1258 1507

GC Column: RTX-CLPESTICIDES ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF0.2500 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE	
Aroclor-1016	7418200.0	8864700.0	0.001	19.50	20.00	AVRG	
(2)	3685900.0	4435400.0	0.001	20.33	20.00	AVRG	<-
(3)	12596000	15038000	0.001	19.39	20.00	AVRG	
(4)	7161400.0	8604600.0	0.001	20.15	20.00	AVRG	<-
(5)	6149400.0	7547000.0	0.001	22.73	20.00	AVRG	<-
Average %D: 20.400							
Aroclor-1260	9559600.0	12045000	0.001	26.00	20.00	AVRG	<-
(2)	11723000	14887000	0.001	26.99	20.00	AVRG	<-
(3)	10104000	12879000	0.001	27.46	20.00	AVRG	<-
(4)	14609000	18348000	0.001	25.59	20.00	AVRG	<-
(5)	6958900.0	8851900.0	0.001	27.20	20.00	AVRG	<-
Average %D: 26.640							
Tetrachloro-m-xylene	270480000	282860000	0.001	4.58	20.00	AVRG	
Decachlorobiphenyl	99308000	140920000	0.001	41.90	20.00	AVRG	<-

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Instrument ID: GC07 Calibration Date: 07/17/09 Time: 2001

Lab File ID: 7CG270 Init. Calib. Date(s): 07/08/09 07/08/09

Init. Calib. Times: 1258 1507

GC Column: RTX-CLPESTICIDES2 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF0.2500 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE	
Aroclor-1016	1144100.0	1363300.0	0.001	19.16	20.00	AVRG	
(2)	627960.00	761120.00	0.001	21.20	20.00	AVRG	<-
(3)	2141900.0	2545800.0	0.001	18.86	20.00	AVRG	
(4)	1247700.0	1505000.0	0.001	20.62	20.00	AVRG	<-
(5)	1019200.0	1225700.0	0.001	20.26	20.00	AVRG	<-
Average %D: 20.040							
Aroclor-1260	1298900.0	1603200.0	0.001	23.43	20.00	AVRG	<-
(2)	1466800.0	1863100.0	0.001	27.02	20.00	AVRG	<-
(3)	1165400.0	1438000.0	0.001	23.39	20.00	AVRG	<-
(4)	2160000.0	2618700.0	0.001	21.24	20.00	AVRG	<-
(5)	1072000.0	1311400.0	0.001	22.33	20.00	AVRG	<-
Average %D: 23.480							
Tetrachloro-m-xylene	47350000	50686000	0.001	7.04	20.00	AVRG	
Decachlorobiphenyl	16613000	21111000	0.001	27.08	20.00	AVRG	<-

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Instrument ID: GC07 Calibration Date: 07/18/09 Time: 0201

Lab File ID: 7CG284 Init. Calib. Date(s): 07/08/09 07/08/09

Init. Calib. Times: 1258 1507

GC Column: RTX-CLPESTICIDES ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE	
Aroclor-1016	7418200.0	8045800.0	0.001	8.46	20.00	AVRG	
(2)	3685900.0	4010500.0	0.001	8.81	20.00	AVRG	
(3)	12596000	14254000	0.001	13.16	20.00	AVRG	
(4)	7161400.0	7981300.0	0.001	11.45	20.00	AVRG	
(5)	6149400.0	6913000.0	0.001	12.42	20.00	AVRG	
Average %D: 10.860							
Aroclor-1260	9559600.0	11033000	0.001	15.41	20.00	AVRG	
(2)	11723000	13824000	0.001	17.92	20.00	AVRG	
(3)	10104000	12051000	0.001	19.27	20.00	AVRG	
(4)	14609000	18039000	0.001	23.48	20.00	AVRG	<-
(5)	6958900.0	8552300.0	0.001	22.90	20.00	AVRG	<-
Average %D: 19.800							
Tetrachloro-m-xylene	270480000	290770000	0.001	7.50	20.00	AVRG	
Decachlorobiphenyl	99308000	120700000	0.001	21.54	20.00	AVRG	<-

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Instrument ID: GC07 Calibration Date: 07/18/09 Time: 0201

Lab File ID: 7CG284 Init. Calib. Date(s): 07/08/09 07/08/09

Init. Calib. Times: 1258 1507

GC Column: RTX-CLPESTICIDES2 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE	
Aroclor-1016	1144100.0	1260500.0	0.001	10.17	20.00	AVRG	
(2)	627960.00	692480.00	0.001	10.27	20.00	AVRG	
(3)	2141900.0	2499400.0	0.001	16.69	20.00	AVRG	
(4)	1247700.0	1415700.0	0.001	13.46	20.00	AVRG	
(5)	1019200.0	1124800.0	0.001	10.36	20.00	AVRG	
Average %D: 12.190							
Aroclor-1260	1298900.0	1364200.0	0.001	5.03	20.00	AVRG	
(2)	1466800.0	1765900.0	0.001	20.39	20.00	AVRG	<-
(3)	1165400.0	1378300.0	0.001	18.27	20.00	AVRG	
(4)	2160000.0	2654600.0	0.001	22.90	20.00	AVRG	<-
(5)	1072000.0	1290600.0	0.001	20.39	20.00	AVRG	<-
Average %D: 17.400							
Tetrachloro-m-xylene	47350000	53684000	0.001	13.38	20.00	AVRG	
Decachlorobiphenyl	16613000	18757000	0.001	12.91	20.00	AVRG	

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Instrument ID: GC07 Calibration Date: 07/22/09 Time: 1917

Lab File ID: 7CG313 Init. Calib. Date(s): 07/22/09 07/23/09

Init. Calib. Times: 0000 0508

GC Column: RTX-CLPESTICIDES ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1016	7701000.0	7125000.0	0.001	-7.48	20.00	AVRG
(2)	3821900.0	3458900.0	0.001	-9.50	20.00	AVRG
(3)	13288000	12464000	0.001	-6.20	20.00	AVRG
(4)	7505300.0	6949400.0	0.001	-7.41	20.00	AVRG
(5)	6632900.0	6119800.0	0.001	-7.74	20.00	AVRG
Average %D: -7.660						

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CT0407 NAS WEYMOUTH SDG No.: SC3624

Instrument ID: GC07 Calibration Date: 07/22/09 Time: 1917

Lab File ID: 7CG313 Init. Calib. Date(s): 07/22/09 07/23/09

Init. Calib. Times: 0000 0508

GC Column: RTX-CLPESTICIDES2 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1016	1257700.0	1169500.0	0.001	-7.01	20.00	AVRG
(2)	693560.00	639760.00	0.001	-7.76	20.00	AVRG
(3)	2416200.0	2306500.0	0.001	-4.54	20.00	AVRG
(4)	1407700.0	1311500.0	0.001	-6.83	20.00	AVRG
(5)	1149500.0	1059200.0	0.001	-7.86	20.00	AVRG
Average %D: -6.800						

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Instrument ID: GC07 Calibration Date: 07/22/09 Time: 1943

Lab File ID: 7CG314 Init. Calib. Date(s): 07/22/09 07/23/09

Init. Calib. Times: 0000 0508

GC Column: RTX-CLPESTICIDES ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1260	10592000	10004000	0.001	-5.55	20.00	AVRG
(2)	13512000	12814000	0.001	-5.16	20.00	AVRG
(3)	11814000	12161000	0.001	2.94	20.00	AVRG
(4)	16860000	14395000	0.001	-14.62	20.00	AVRG
(5)	8054100.0	7473500.0	0.001	-7.21	20.00	AVRG
Average %D: -5.930						

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Instrument ID: GC07 Calibration Date: 07/22/09 Time: 1943

Lab File ID: 7CG314 Init. Calib. Date(s): 07/22/09 07/23/09

Init. Calib. Times: 0000 0508

GC Column: RTX-CLPESTICIDES2 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1260	1525300.0	1425000.0	0.001	-6.58	20.00	AVRG
(2)	1758900.0	1662500.0	0.001	-5.48	20.00	AVRG
(3)	1390700.0	1433400.0	0.001	3.07	20.00	AVRG
(4)	2607400.0	2284500.0	0.001	-12.38	20.00	AVRG
(5)	1301500.0	1154900.0	0.001	-11.26	20.00	AVRG
Average %D: -6.530						

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Instrument ID: GC07 Calibration Date: 07/23/09 Time: 1034

Lab File ID: 7CG338 Init. Calib. Date(s): 07/22/09 07/22/09

Init. Calib. Times: 1643 1852

GC Column: RTX-CLPESTICIDES ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1016	7701000.0	7415000.0	0.001	-3.71	20.00	AVRG
(2)	3821900.0	3709900.0	0.001	-2.93	20.00	AVRG
(3)	13288000	13178000	0.001	-0.83	20.00	AVRG
(4)	7505300.0	7329400.0	0.001	-2.34	20.00	AVRG
(5)	6632900.0	6409400.0	0.001	-3.37	20.00	AVRG
Average %D: -2.640						
Aroclor-1260	10592000	10749000	0.001	1.48	20.00	AVRG
(2)	13512000	13413000	0.001	-0.73	20.00	AVRG
(3)	11814000	11549000	0.001	-2.24	20.00	AVRG
(4)	16860000	16963000	0.001	0.61	20.00	AVRG
(5)	8054100.0	7906600.0	0.001	-1.83	20.00	AVRG
Average %D: -0.540						
Tetrachloro-m-xylene	244390000	247770000	0.001	1.38	20.00	AVRG
Decachlorobiphenyl	127280000	118610000	0.001	-6.81	20.00	AVRG

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Instrument ID: GC07 Calibration Date: 07/23/09 Time: 1034

Lab File ID: 7CG338 Init. Calib. Date(s): 07/22/09 07/22/09

Init. Calib. Times: 1643 1852

GC Column: RTX-CLPESTICIDES2 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1016	1257700.0	1192200.0	0.001	-5.21	20.00	AVRG
(2)	693560.00	654570.00	0.001	-5.62	20.00	AVRG
(3)	2416200.0	2365400.0	0.001	-2.10	20.00	AVRG
(4)	1407700.0	1329200.0	0.001	-5.58	20.00	AVRG
(5)	1149500.0	1077900.0	0.001	-6.23	20.00	AVRG
Average %D: -4.950						
Aroclor-1260	1525300.0	1474000.0	0.001	-3.36	20.00	AVRG
(2)	1758900.0	1692600.0	0.001	-3.77	20.00	AVRG
(3)	1390700.0	1326200.0	0.001	-4.64	20.00	AVRG
(4)	2607400.0	2596400.0	0.001	-0.42	20.00	AVRG
(5)	1301500.0	1266800.0	0.001	-2.67	20.00	AVRG
Average %D: -2.970						
Tetrachloro-m-xylene	48016000	48020000	0.001	0.01	20.00	AVRG
Decachlorobiphenyl	19864000	18889000	0.001	-4.91	20.00	AVRG

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Instrument ID: GC07 Calibration Date: 07/23/09 Time: 1850

Lab File ID: 7CG353 Init. Calib. Date(s): 07/22/09 07/22/09

Init. Calib. Times: 1643 1852

GC Column: RTX-CLPESTICIDES ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF0.2500 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1016	7701000.0	8428100.0	0.001	9.44	20.00	AVRG
(2)	3821900.0	4162900.0	0.001	8.92	20.00	AVRG
(3)	13288000	14100000	0.001	6.11	20.00	AVRG
(4)	7505300.0	8095200.0	0.001	7.86	20.00	AVRG
(5)	6632900.0	7122600.0	0.001	7.38	20.00	AVRG
Average %D: 7.9600						
Aroclor-1260	10592000	11658000	0.001	10.06	20.00	AVRG
(2)	13512000	14381000	0.001	6.43	20.00	AVRG
(3)	11814000	12482000	0.001	5.65	20.00	AVRG
(4)	16860000	17621000	0.001	4.51	20.00	AVRG
(5)	8054100.0	8504000.0	0.001	5.59	20.00	AVRG
Average %D: 6.4400						
Tetrachloro-m-xylene	244390000	262630000	0.001	7.46	20.00	AVRG
Decachlorobiphenyl	127280000	143460000	0.001	12.71	20.00	AVRG

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CT0407 NAS WEYMOUTH SDG No.: SC3624

Instrument ID: GC07 Calibration Date: 07/23/09 Time: 1850

Lab File ID: 7CG353 Init. Calib. Date(s): 07/22/09 07/22/09

Init. Calib. Times: 1643 1852

GC Column: RTX-CLPESTICIDES2 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF0.2500 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE
Aroclor-1016	1257700.0	1329100.0	0.001	5.68	20.00	AVRG
(2)	693560.00	748650.00	0.001	7.94	20.00	AVRG
(3)	2416200.0	2493000.0	0.001	3.18	20.00	AVRG
(4)	1407700.0	1459200.0	0.001	3.66	20.00	AVRG
(5)	1149500.0	1204500.0	0.001	4.78	20.00	AVRG
Average %D: 5.0400						
Aroclor-1260	1525300.0	1567500.0	0.001	2.77	20.00	AVRG
(2)	1758900.0	1829600.0	0.001	4.02	20.00	AVRG
(3)	1390700.0	1409000.0	0.001	1.32	20.00	AVRG
(4)	2607400.0	2680000.0	0.001	2.78	20.00	AVRG
(5)	1301500.0	1335500.0	0.001	2.61	20.00	AVRG
Average %D: 2.7200						
Tetrachloro-m-xylene	48016000	49044000	0.001	2.14	20.00	AVRG
Decachlorobiphenyl	19864000	21762000	0.001	9.56	20.00	AVRG

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Instrument ID: GC07 Calibration Date: 07/24/09 Time: 0025

Lab File ID: 7CG366 Init. Calib. Date(s): 07/22/09 07/22/09

Init. Calib. Times: 1643 1852

GC Column: RTX-CLPESTICIDES ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE	
Aroclor-1016	7701000.0	3560300.0	0.001	-53.77	20.00	AVRG	<-
(2)	3821900.0	1786000.0	0.001	-53.27	20.00	AVRG	<-
(3)	13288000	5940900.0	0.001	-55.29	20.00	AVRG	<-
(4)	7505300.0	2994100.0	0.001	-60.11	20.00	AVRG	<-
(5)	6632900.0	2640000.0	0.001	-60.20	20.00	AVRG	<-
Average %D: -56.53							
Aroclor-1260	10592000	3984600.0	0.001	-62.38	20.00	AVRG	<-
(2)	13512000	5116400.0	0.001	-62.13	20.00	AVRG	<-
(3)	11814000	4320200.0	0.001	-63.43	20.00	AVRG	<-
(4)	16860000	5853400.0	0.001	-65.28	20.00	AVRG	<-
(5)	8054100.0	2875000.0	0.001	-64.30	20.00	AVRG	<-
Average %D: -63.51							
Tetrachloro-m-xylene	244390000	126350000	0.001	-48.30	20.00	AVRG	<-
Decachlorobiphenyl	127280000	37142000	0.001	-70.82	20.00	AVRG	<-

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Instrument ID: GC07 Calibration Date: 07/24/09 Time: 0025

Lab File ID: 7CG366 Init. Calib. Date(s): 07/22/09 07/22/09

Init. Calib. Times: 1643 1852

GC Column: RTX-CLPESTICIDES2 ID: 0.53 (mm)

COMPOUND	RRF OR AMOUNT	RRF1.0000 OR AMOUNT	MIN RRF	%D OR %DRIFT	MAX %D OR %DRIFT	CURV TYPE	
Aroclor-1016	1257700.0	719040.00	0.001	-42.83	20.00	AVRG	<-
(2)	693560.00	379550.00	0.001	-45.28	20.00	AVRG	<-
(3)	2416200.0	1436900.0	0.001	-40.53	20.00	AVRG	<-
(4)	1407700.0	797550.00	0.001	-43.34	20.00	AVRG	<-
(5)	1149500.0	637790.00	0.001	-44.52	20.00	AVRG	<-
Average %D: -43.30							
Aroclor-1260	1525300.0	853660.00	0.001	-44.03	20.00	AVRG	<-
(2)	1758900.0	981410.00	0.001	-44.20	20.00	AVRG	<-
(3)	1390700.0	808110.00	0.001	-41.89	20.00	AVRG	<-
(4)	2607400.0	1551600.0	0.001	-40.49	20.00	AVRG	<-
(5)	1301500.0	812130.00	0.001	-37.60	20.00	AVRG	<-
Average %D: -41.64							
Tetrachloro-m-xylene	48016000	29111000	0.001	-39.37	20.00	AVRG	<-
Decachlorobiphenyl	19864000	10810000	0.001	-45.58	20.00	AVRG	<-

FORM VII PEST

FORM 8
PCB ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

GC Column: RTX-CLPESTICIDES ID: 0.53 (mm) Init. Calib. Date(s): 07/08/09 07/09/09

Instrument ID: GC07

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 3.84 DCB: 13.85

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01		AR1660 1.0	07/08/09	1258	3.84	13.85
02		AR1660 0.05	07/08/09	1324	3.84	13.85
03		AR1660 0.1	07/08/09	1350	3.84	13.85
04		AR1660 0.25	07/08/09	1416	3.84	13.85
05		AR1660 2.5	07/08/09	1442	3.84	13.84
06		AR1660 10	07/08/09	1507	3.84	13.84
07		AR1016 1.0	07/08/09	1533		
08		AR1260 1.0	07/08/09	1559		
09		AR1242 1.0	07/08/09	1625		
10		AR1248 1.0	07/08/09	1901		
11		AR1254 1.0	07/08/09	2136		
12		AR1221 1.0	07/09/09	0012		
13		AR1232 1.0	07/09/09	0038		
14		AR1660 1.0	07/16/09	0927	3.84	13.88
15	WG65884-BLAN	WG65884-1	07/16/09	1630	3.85	13.88
16	WG65884-LCS	WG65884-2	07/16/09	1656	3.86	13.89
17	L-GW-MW38-06	WG65884-3	07/16/09	1748	3.86	13.89
18		AR1660 0.25	07/16/09	1839	3.86	13.90
19	L-GW-MW38-06	WG65884-4	07/16/09	2022	3.86	13.90
20	WGL-GW-MW101	SC3624-2	07/16/09	2048	3.86	13.89

QC LIMITS
TCX = Tetrachloro-m-xylene (+/- 0.07 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

Katahdin Analytical Services A0000390

FORM 8
PCB ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CT0407 NAS WEYMOUTH SDG No.: SC3624

GC Column: RTX-CLPESTICIDES ID: 0.53 (mm) Init. Calib. Date(s): 07/08/09 07/09/09

Instrument ID: GC07

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 3.84 DCB: 13.85

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01	WGL-GW-MW3-0	SC3624-4	07/16/09	2113	3.86	13.89
02	WGL-GW-MW103	SC3624-6	07/16/09	2139	3.86	13.89
03	WGL-GW-MW102	SC3624-8	07/16/09	2205	3.86	13.89
04	WGL-GW-MW2-0	SC3624-10	07/16/09	2230	3.86	13.89
05	WGL-GW-MW4-0	SC3624-12	07/16/09	2256	3.85	13.89
06	L-GW-MW38-06	SC3624-14	07/16/09	2322	3.86	13.89
07		AR1660 1.0	07/17/09	0104	3.85	13.88
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

QC LIMITS
TCX = Tetrachloro-m-xylene (+/- 0.07 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PCB

Katahdin Analytical Services A0000391

FORM 8
PCB ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

GC Column: RTX-CLPESTICIDES ID: 0.53 (mm) Init. Calib. Date(s): 07/08/09 07/09/09

Instrument ID: GC07

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 3.90 DCB: 13.99

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01		AR1660 1.0	07/17/09	1213	3.89	13.98
02	WGL-GW-MW40S	SC3624-16	07/17/09	1636	3.89	13.98
03	WGL-GW-DUP01	SC3624-18	07/17/09	1702	3.89	13.97
04	WGL-GW-MW48D	SC3624-20	07/17/09	1728	3.89	13.98
05	WGL-GW-DUP02	SC3624-22	07/17/09	1753	3.91	14.01
06	GL-GW-MW48D2	SC3624-24	07/17/09	1819	3.91	14.00
07	WGL-GW-MW39-	SC3624-26	07/17/09	1844	3.90	14.00
08	WGL-GW-FB01-	SC3624-28	07/17/09	1910	3.90	14.00
09		AR1660 0.25	07/17/09	2001	3.90	13.99
10	WGL-GW-RB01-	SC3624-30	07/17/09	2144	3.90	13.99
11		AR1660 1.0	07/18/09	0201	3.90	13.99
12						
13						
14						
15						
16						
17						
18						
19						
20						

QC LIMITS
TCX = Tetrachloro-m-xylene (+/- 0.07 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PCB

FORM 8
PCB ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

GC Column: RTX-CLPESTICIDES ID: 0.53 (mm) Init. Calib. Date(s): 07/22/09 07/23/09

Instrument ID: GC07

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 3.86 DCB: 13.92

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01		AR1660 1.0	07/22/09	1643	3.86	13.92
02		AR1660 0.05	07/22/09	1709	3.86	13.92
03		AR1660 0.1	07/22/09	1735	3.86	13.92
04		AR1660 0.25	07/22/09	1801	3.87	13.92
05		AR1660 2.5	07/22/09	1826	3.87	13.93
06		AR1660 10	07/22/09	1852	3.87	13.93
07		AR1016 1.0	07/22/09	1917		
08		AR1260 1.0	07/22/09	1943		
09		AR1242 1.0	07/22/09	2009		
10		AR1248 1.0	07/22/09	2243		
11		AR1254 1.0	07/23/09	0117		
12		AR1221 1.0	07/23/09	0351		
13		AR1232 1.0	07/23/09	0416		
14		AR1660 1.0	07/23/09	1034	3.86	13.91
15	WG66449-BLAN	WG66449-1	07/23/09	1707	3.87	13.91
16	WG66449-LCS	WG66449-2	07/23/09	1733	3.87	13.92
17	WG66449-LCSD	WG66449-3	07/23/09	1759	3.87	13.93
18		AR1660 0.25	07/23/09	1850	3.87	13.93
19	WGL-GW-MW4-0	SC3624-12RE	07/23/09	2033	3.87	13.92
20	WGL-GW-MW40S	SC3624-16RE	07/23/09	2059	3.87	13.92

QC LIMITS
TCX = Tetrachloro-m-xylene (+/- 0.07 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

Katahdin Analytical Services A0000393

FORM 8
PCB ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

GC Column: RTX-CLPESTICIDES ID: 0.53 (mm) Init. Calib. Date(s): 07/22/09 07/23/09

Instrument ID: GC07

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 3.86 DCB: 13.92

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01	WGL-GW-DUP01	SC3624-18RE	07/23/09	2125	3.87	13.92
02	WGL-GW-MW48D	SC3624-20RE	07/23/09	2150	3.87	13.92
03	WGL-GW-DUP02	SC3624-22RE	07/23/09	2216	3.87	13.92
04	WGL-GW-MW39-	SC3624-26RE	07/23/09	2242	3.87	13.92
05		AR1660 1.0	07/24/09	0025	3.88	13.96
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

QC LIMITS
TCX = Tetrachloro-m-xylene (+/- 0.07 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PCB

FORM 8
PCB ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

GC Column: RTX-CLPESTICIDES2 ID: 0.53 (mm) Init. Calib. Date(s): 07/08/09 07/09/09

Instrument ID: GC07

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 4.37 DCB: 17.78

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01		AR1660 1.0	07/08/09	1258	4.37	17.78
02		AR1660 0.05	07/08/09	1324	4.37	17.78
03		AR1660 0.1	07/08/09	1350	4.37	17.78
04		AR1660 0.25	07/08/09	1416	4.37	17.78
05		AR1660 2.5	07/08/09	1442	4.37	17.77
06		AR1660 10	07/08/09	1507	4.37	17.77
07		AR1016 1.0	07/08/09	1533		
08		AR1260 1.0	07/08/09	1559		
09		AR1242 1.0	07/08/09	1625		
10		AR1248 1.0	07/08/09	1901		
11		AR1254 1.0	07/08/09	2136		
12		AR1221 1.0	07/09/09	0012		
13		AR1232 1.0	07/09/09	0038		
14		AR1660 1.0	07/16/09	0927	4.37	17.79
15	WG65884-BLAN	WG65884-1	07/16/09	1630	4.38	17.81
16	WG65884-LCS	WG65884-2	07/16/09	1656	4.38	17.81
17	L-GW-MW38-06	WG65884-3	07/16/09	1748	4.39	17.82
18		AR1660 0.25	07/16/09	1839	4.38	17.82
19	L-GW-MW38-06	WG65884-4	07/16/09	2022	4.39	17.82
20	WGL-GW-MW101	SC3624-2	07/16/09	2048	4.39	17.82

QC LIMITS
TCX = Tetrachloro-m-xylene (+/- 0.07 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PCB

FORM 8
PCB ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

GC Column: RTX-CLPESTICIDES2 ID: 0.53 (mm) Init. Calib. Date(s): 07/08/09 07/09/09

Instrument ID: GC07

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 4.37 DCB: 17.78

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01	WGL-GW-MW3-0	SC3624-4	07/16/09	2113	4.39	17.82
02	WGL-GW-MW103	SC3624-6	07/16/09	2139	4.39	17.81
03	WGL-GW-MW102	SC3624-8	07/16/09	2205	4.39	17.82
04	WGL-GW-MW2-0	SC3624-10	07/16/09	2230	4.39	17.82
05	WGL-GW-MW4-0	SC3624-12	07/16/09	2256	4.38	17.81
06	L-GW-MW38-06	SC3624-14	07/16/09	2322	4.39	17.82
07		AR1660 1.0	07/17/09	0104	4.38	17.81
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

QC LIMITS
TCX = Tetrachloro-m-xylene (+/- 0.07 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PCB

FORM 8
PCB ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

GC Column: RTX-CLPESTICIDES2 ID: 0.53 (mm) Init. Calib. Date(s): 07/08/09 07/09/09

Instrument ID: GC07

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 4.43 DCB: 17.92

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01		AR1660 1.0	07/17/09	1213	4.43	17.91
02	WGL-GW-MW40S	SC3624-16	07/17/09	1636	4.42	17.91
03	WGL-GW-DUP01	SC3624-18	07/17/09	1702	4.42	17.90
04	WGL-GW-MW48D	SC3624-20	07/17/09	1728	4.43	17.92
05	WGL-GW-DUP02	SC3624-22	07/17/09	1753	4.44	17.95
06	GL-GW-MW48D2	SC3624-24	07/17/09	1819	4.44	17.94
07	WGL-GW-MW39-	SC3624-26	07/17/09	1844	4.44	17.94
08	WGL-GW-FB01-	SC3624-28	07/17/09	1910	4.44	17.93
09		AR1660 0.25	07/17/09	2001	4.43	17.92
10	WGL-GW-RB01-	SC3624-30	07/17/09	2144	4.44	17.93
11		AR1660 1.0	07/18/09	0201	4.43	17.92
12						
13						
14						
15						
16						
17						
18						
19						
20						

QC LIMITS
TCX = Tetrachloro-m-xylene (+/- 0.07 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PCB

FORM 8
PCB ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

GC Column: RTX-CLPESTICIDES2 ID: 0.53 (mm) Init. Calib. Date(s): 07/22/09 07/23/09

Instrument ID: GC07

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 4.39 DCB: 17.84

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01		AR1660 1.0	07/22/09	1643	4.39	17.84
02		AR1660 0.05	07/22/09	1709	4.39	17.84
03		AR1660 0.1	07/22/09	1735	4.39	17.85
04		AR1660 0.25	07/22/09	1801	4.40	17.86
05		AR1660 2.5	07/22/09	1826	4.40	17.85
06		AR1660 10	07/22/09	1852	4.40	17.85
07		AR1016 1.0	07/22/09	1917		
08		AR1260 1.0	07/22/09	1943		
09		AR1242 1.0	07/22/09	2009		
10		AR1248 1.0	07/22/09	2243		
11		AR1254 1.0	07/23/09	0117		
12		AR1221 1.0	07/23/09	0351		
13		AR1232 1.0	07/23/09	0416		
14		AR1660 1.0	07/23/09	1034	4.39	17.82
15	WG66449-BLAN	WG66449-1	07/23/09	1707	4.40	17.83
16	WG66449-LCS	WG66449-2	07/23/09	1733	4.40	17.84
17	WG66449-LCSD	WG66449-3	07/23/09	1759	4.40	17.85
18		AR1660 0.25	07/23/09	1850	4.40	17.85
19	WGL-GW-MW4-0	SC3624-12RE	07/23/09	2033	4.40	17.85
20	WGL-GW-MW40S	SC3624-16RE	07/23/09	2059	4.40	17.85

QC LIMITS
TCX = Tetrachloro-m-xylene (+/- 0.07 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PCB

FORM 8
PCB ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

GC Column: RTX-CLPESTICIDES2 ID: 0.53 (mm) Init. Calib. Date(s): 07/22/09 07/23/09

Instrument ID: GC07

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 4.39 DCB: 17.84

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01	WGL-GW-DUP01	SC3624-18RE	07/23/09	2125	4.40	17.84
02	WGL-GW-MW48D	SC3624-20RE	07/23/09	2150	4.40	17.85
03	WGL-GW-DUP02	SC3624-22RE	07/23/09	2216	4.40	17.84
04	WGL-GW-MW39-	SC3624-26RE	07/23/09	2242	4.40	17.84
05		AR1660 1.0	07/24/09	0025	4.41	17.88
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

QC LIMITS
TCX = Tetrachloro-m-xylene (+/- 0.07 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.07 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII PCB

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/29/09
Received Date: 07/01/09
Extraction Date: 07/10/09
Analysis Date: 10-JUL-2009 20:04
Report Date: 07/21/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-2
Client ID: WGL-GW-MW101-062909
SDG: SC3624
Extracted by: JLP
Extraction Method: EPA 504.1
Analyst: JLP
Analysis Method: EPA 504.1
Lab Prep Batch: WG66038
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
106-93-4	1,2-Dibromoethane	U	0.047	1.0	0.050	0.047	0.010
96-12-8	1,2-Dibromo-3-Chloropropane	U	0.047	1.0	0.050	0.047	0.0045
877-09-8	Tetrachloro-M-Xylene		*170%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/29/09
Received Date: 07/01/09
Extraction Date: 07/10/09
Analysis Date: 10-JUL-2009 20:36
Report Date: 07/21/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-4
Client ID: WGL-GW-MW3-062909
SDG: SC3624
Extracted by: JLP
Extraction Method: EPA 504.1
Analyst: JLP
Analysis Method: EPA 504.1
Lab Prep Batch: WG66038
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
106-93-4	1,2-Dibromoethane	U	0.047	1.0	0.050	0.047	0.010
96-12-8	1,2-Dibromo-3-Chloropropane	U	0.047	1.0	0.050	0.047	0.0045
877-09-8	Tetrachloro-M-Xylene		*148%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/29/09
Received Date: 07/01/09
Extraction Date: 07/10/09
Analysis Date: 10-JUL-2009 21:07
Report Date: 07/21/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-6
Client ID: WGL-GW-MW103-062909
SDG: SC3624
Extracted by: JLP
Extraction Method: EPA 504.1
Analyst: JLP
Analysis Method: EPA 504.1
Lab Prep Batch: WG66038
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
106-93-4	1,2-Dibromoethane	U	0.047	1.0	0.050	0.047	0.010
96-12-8	1,2-Dibromo-3-Chloropropane	U	0.047	1.0	0.050	0.047	0.0045
877-09-8	Tetrachloro-M-Xylene		*141%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/29/09
Received Date: 07/01/09
Extraction Date: 07/10/09
Analysis Date: 10-JUL-2009 21:38
Report Date: 07/21/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-8
Client ID: WGL-GW-MW102-062909
SDG: SC3624
Extracted by: JLP
Extraction Method: EPA 504.1
Analyst: JLP
Analysis Method: EPA 504.1
Lab Prep Batch: WG66038
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
106-93-4	1,2-Dibromoethane	U	0.047	1.0	0.050	0.047	0.010
96-12-8	1,2-Dibromo-3-Chloropropane	U	0.047	1.0	0.050	0.047	0.0045
877-09-8	Tetrachloro-M-Xylene		*162%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/10/09
Analysis Date: 10-JUL-2009 22:09
Report Date: 07/21/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-10
Client ID: WGL-GW-MW2-063009
SDG: SC3624
Extracted by: JLP
Extraction Method: EPA 504.1
Analyst: JLP
Analysis Method: EPA 504.1
Lab Prep Batch: WG66038
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
106-93-4	1,2-Dibromoethane	U	0.047	1.0	0.050	0.047	0.010
96-12-8	1,2-Dibromo-3-Chloropropane	U	0.047	1.0	0.050	0.047	0.0045
877-09-8	Tetrachloro-M-Xylene		*169%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/10/09
Analysis Date: 10-JUL-2009 23:11
Report Date: 07/21/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-12
Client ID: WGL-GW-MW4-063009
SDG: SC3624
Extracted by: JLP
Extraction Method: EPA 504.1
Analyst: JLP
Analysis Method: EPA 504.1
Lab Prep Batch: WG66038
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
106-93-4	1,2-Dibromoethane	U	0.047	1.0	0.050	0.047	0.010
96-12-8	1,2-Dibromo-3-Chloropropane	U	0.047	1.0	0.050	0.047	0.0045
877-09-8	Tetrachloro-M-Xylene		74%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/10/09
Analysis Date: 10-JUL-2009 23:42
Report Date: 07/21/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-14
Client ID: L-GW-MW38-063009
SDG: SC3624
Extracted by: JLP
Extraction Method: EPA 504.1
Analyst: JLP
Analysis Method: EPA 504.1
Lab Prep Batch: WG66038
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
106-93-4	1,2-Dibromoethane	U	0.047	1.0	0.050	0.047	0.010
96-12-8	1,2-Dibromo-3-Chloropropane	U	0.047	1.0	0.050	0.047	0.0045
877-09-8	Tetrachloro-M-Xylene		*181%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/10/09
Analysis Date: 11-JUL-2009 00:13
Report Date: 07/21/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-16
Client ID: WGL-GW-MW40S-063009
SDG: SC3624
Extracted by: JLP
Extraction Method: EPA 504.1
Analyst: JLP
Analysis Method: EPA 504.1
Lab Prep Batch: WG66038
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
106-93-4	1,2-Dibromoethane	U	0.047	1.0	0.050	0.047	0.010
96-12-8	1,2-Dibromo-3-Chloropropane	U	0.047	1.0	0.050	0.047	0.0045
877-09-8	Tetrachloro-M-Xylene		112%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/10/09
Analysis Date: 11-JUL-2009 00:44
Report Date: 07/21/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-18
Client ID: WGL-GW-DUP01-063009
SDG: SC3624
Extracted by: JLP
Extraction Method: EPA 504.1
Analyst: JLP
Analysis Method: EPA 504.1
Lab Prep Batch: WG66038
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
106-93-4	1,2-Dibromoethane	U	0.048	1.0	0.050	0.048	0.010
96-12-8	1,2-Dibromo-3-Chloropropane	U	0.048	1.0	0.050	0.048	0.0046
877-09-8	Tetrachloro-M-Xylene		117%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/10/09
Analysis Date: 11-JUL-2009 01:15
Report Date: 07/21/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-20
Client ID: WGL-GW-MW48D-063009
SDG: SC3624
Extracted by: JLP
Extraction Method: EPA 504.1
Analyst: JLP
Analysis Method: EPA 504.1
Lab Prep Batch: WG66038
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
106-93-4	1,2-Dibromoethane	U	0.048	1.0	0.050	0.048	0.010
96-12-8	1,2-Dibromo-3-Chloropropane	U	0.048	1.0	0.050	0.048	0.0046
877-09-8	Tetrachloro-M-Xylene		109%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/10/09
Analysis Date: 11-JUL-2009 01:47
Report Date: 07/21/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-22
Client ID: WGL-GW-DUP02-063009
SDG: SC3624
Extracted by: JLP
Extraction Method: EPA 504.1
Analyst: JLP
Analysis Method: EPA 504.1
Lab Prep Batch: WG66038
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
106-93-4	1,2-Dibromoethane	U	0.048	1.0	0.050	0.048	0.010
96-12-8	1,2-Dibromo-3-Chloropropane	U	0.048	1.0	0.050	0.048	0.0046
877-09-8	Tetrachloro-M-Xylene		102%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/10/09
Analysis Date: 11-JUL-2009 02:18
Report Date: 07/21/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-24
Client ID: GL-GW-MW48D2-063009
SDG: SC3624
Extracted by: JLP
Extraction Method: EPA 504.1
Analyst: JLP
Analysis Method: EPA 504.1
Lab Prep Batch: WG66038
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
106-93-4	1,2-Dibromoethane	U	0.047	1.0	0.050	0.047	0.010
96-12-8	1,2-Dibromo-3-Chloropropane	U	0.047	1.0	0.050	0.047	0.0045
877-09-8	Tetrachloro-M-Xylene		*181%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/10/09
Analysis Date: 11-JUL-2009 02:48
Report Date: 07/21/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-26
Client ID: WGL-GW-MW39-063009
SDG: SC3624
Extracted by: JLP
Extraction Method: EPA 504.1
Analyst: JLP
Analysis Method: EPA 504.1
Lab Prep Batch: WG66038
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
106-93-4	1,2-Dibromoethane	U	0.047	1.0	0.050	0.047	0.010
96-12-8	1,2-Dibromo-3-Chloropropane	U	0.047	1.0	0.050	0.047	0.0045
877-09-8	Tetrachloro-M-Xylene		*124%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 07/01/09
Received Date: 07/01/09
Extraction Date: 07/10/09
Analysis Date: 11-JUL-2009 03:18
Report Date: 07/21/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-28
Client ID: WGL-GW-FB01-070109
SDG: SC3624
Extracted by: JLP
Extraction Method: EPA 504.1
Analyst: JLP
Analysis Method: EPA 504.1
Lab Prep Batch: WG66038
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
106-93-4	1,2-Dibromoethane	U	0.047	1.0	0.050	0.047	0.010
96-12-8	1,2-Dibromo-3-Chloropropane	U	0.047	1.0	0.050	0.047	0.0045
877-09-8	Tetrachloro-M-Xylene		*191%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 07/01/09
Received Date: 07/01/09
Extraction Date: 07/10/09
Analysis Date: 11-JUL-2009 03:49
Report Date: 07/21/2009
Matrix: WATER
% Solids: NA

Lab ID: SC3624-30
Client ID: WGL-GW-RB01-070109
SDG: SC3624
Extracted by: JLP
Extraction Method: EPA 504.1
Analyst: JLP
Analysis Method: EPA 504.1
Lab Prep Batch: WG66038
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
106-93-4	1,2-Dibromoethane	U	0.047	1.0	0.050	0.047	0.010
96-12-8	1,2-Dibromo-3-Chloropropane	U	0.047	1.0	0.050	0.047	0.0045
877-09-8	Tetrachloro-M-Xylene		*187%				

KATAHDIN ANALYTICAL SERVICES
Report of Analytical Results

Client:
Project: CTO407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date: 07/10/09
Analysis Date: 10-JUL-2009 17:26
Report Date: 07/21/2009
Matrix: WATER
% Solids: NA

Lab ID: WG66038-1
Client ID: WG66038-Blank
SDG: SC3624
Extracted by: JLP
Extraction Method: EPA 504.1
Analyst: JLP
Analysis Method: EPA 504.1
Lab Prep Batch: WG66038
Units: ug/L

CAS#	Compound	Flags	Results	DF	PQL	Adj.PQL	Adj.MDL
106-93-4	1,2-Dibromoethane	U	0.050	1.0	0.050	0.050	0.011
96-12-8	1,2-Dibromo-3-Chloropropane	U	0.050	1.0	0.050	0.050	0.0048
877-09-8	Tetrachloro-M-Xylene		*133%				

FORM 2
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

GC Column(1): ZB-MULTIRESIDUE-1ID: 0.53 (mm)GC Column(2): ZB-MULTIRESIDUE-2ID: 0.53 (mm)

	CLIENT SAMPLE ID	LAB SAMPLE ID	TCX1 REC#	TCX2 REC#	S2 1 REC#	S2 2 REC#	S3 1 REC#	S3 2 REC#	TOT OUT
01	WG66038-BLANK	WG66038-1	130*	133*					2
02	WG66038-LCS	WG66038-2	140*	145*					2
03	WG66038-LCSD	WG66038-3	148*	156*					2
04	L-GW-MW38-063009MS	WG66038-4	139*	145*					2
05	L-GW-MW38-063009MSD	WG66038-5	147*	154*					2
06	WGL-GW-MW101-062909	SC3624-2	159*	170*					2
07	WGL-GW-MW3-062909	SC3624-4	141*	148*					2
08	WGL-GW-MW103-062909	SC3624-6	134*	141*					2
09	WGL-GW-MW102-062909	SC3624-8	153*	162*					2
10	WGL-GW-MW2-063009	SC3624-10	158*	169*					2
11	WGL-GW-MW4-063009	SC3624-12	73	74					0
12	L-GW-MW38-063009	SC3624-14	168*	181*					2
13	WGL-GW-MW40S-063009	SC3624-16	106	112					0
14	WGL-GW-DUP01-063009	SC3624-18	110	117					0
15	WGL-GW-MW48D-063009	SC3624-20	102	109					0
16	WGL-GW-DUP02-063009	SC3624-22	96	102					0
17	GL-GW-MW48D2-063009	SC3624-24	168*	181*					2
18	WGL-GW-MW39-063009	SC3624-26	116	124*					1
19	WGL-GW-FB01-070109	SC3624-28	175*	191*					2
20	WGL-GW-RB01-070109	SC3624-30	174*	187*					2
21									
22									
23									
24									
25									
26									
27									
28									

ADVISORY
QC LIMITS
S1 (TCX) = Tetrachloro-M-Xylene (36-123)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out

KATAHDIN ANALYTICAL SERVICES
LAB CONTROL SAMPLE

Client:
Project: CTO407 NAS Weymouth
PO No:
Sample Date:
Received Date:
Extraction Date: 07/10/09
Analysis Date: 07/10/09
Report Date: 07/21/2009
Matrix: WATER

Lab ID: WG66038-2 & WG66038-3
Client ID: WG66038-LCS & WG66038-LCSD
SDG: SC3624
Extracted by: JLP
Extraction Method: EPA 504.1
Analyst: JLP
Analysis Method: EPA 504.1
Lab Prep Batch: WG66038
Units: ug/L

COMPOUND	LCS SPIKE	LCSD SPIKE	SAMPLE CONC.	LCS CONC.	LCSD CONC.	LCS %REC.	LCSD %REC.	%RPD	%RPD LIMIT	QC. LIMITS
1,2-Dibromoethane	0.25	0.25	NA	0.30	0.31	120	122	2	30	70-130
1,2-Dibromo-3-Chloropropane	0.25	0.25	NA	0.30	0.32	121	126	4	30	70-130

KATAHDIN ANALYTICAL SERVICES
MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Client: Tetra Tech NUS, Inc
Project: CTO407 NAS Weymouth
PO No:
Sample Date: 06/30/09
Received Date: 07/01/09
Extraction Date: 07/10/09
Analysis Date: 07/10/09
Report Date: 07/21/2009
Matrix: WATER

Lab ID: WG66038-4 & WG66038-5
Client ID: L-GW-MW38-063009MS & L-GW-MW38-063009MSD
SDG: SC3624
Extracted by: JLP
Extraction Method: EPA 504.1
Analyst: JLP
Analysis Method: EPA 504.1
Lab Prep Batch: WG66038
Units: ug/L

COMPOUND	MS SPIKE	MSD SPIKE	SAMPLE CONC.	MS CONC.	MSD CONC.	MS %REC.	MSD %REC.	%RPD	%RPD LIMIT	QC. LIMITS
1,2-Dibromoethane	0.23	0.24	0.00	0.20	0.22	87	91	6	30	70-130
1,2-Dibromo-3-Chloropropane	0.23	0.24	0.00	0.22	0.24	94	100	7	30	70-130

FORM 4
PESTICIDE METHOD BLANK SUMMARY

CLIENT SAMPLE ID

WG66038-BLANK

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Lab Sample ID: WG66038-1 Lab File ID: 7CG166

Matrix (soil/water) WATER Extraction:(SepF/Cont/Sonc) EPA 504.1

Sulfur Cleanup: (Y/N) N Date Extracted: 07/10/09

Date Analyzed (1): 07/10/09 Date Analyzed (2): 07/10/09

Time Analyzed (1): 1726 Time Analyzed (2): 1726

Instrument ID (1): GC07 Instrument ID (2): GC07

GC Column (1): ZB-MULTIRESIDUE-1 ID: 0.53(mm) GC Column (2): ZB-MULTIRESIDUE-2 ID: 0.53(mm

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	WG66038-LCS	WG66038-2	7CG167	07/10/09	07/10/09
02	WG66038-LCSD	WG66038-3	7CG168	07/10/09	07/10/09
03	L-GW-MW38-063009MS	WG66038-4	7CG169	07/10/09	07/10/09
04	L-GW-MW38-063009MSD	WG66038-5	7CG170	07/10/09	07/10/09
05	WGL-GW-MW101-062909	SC3624-2	7CG171	07/10/09	07/10/09
06	WGL-GW-MW3-062909	SC3624-4	7CG172	07/10/09	07/10/09
07	WGL-GW-MW103-062909	SC3624-6	7CG173	07/10/09	07/10/09
08	WGL-GW-MW102-062909	SC3624-8	7CG174	07/10/09	07/10/09
09	WGL-GW-MW2-063009	SC3624-10	7CG175	07/10/09	07/10/09
10	WGL-GW-MW4-063009	SC3624-12	7CG177	07/10/09	07/10/09
11	L-GW-MW38-063009	SC3624-14	7CG178	07/10/09	07/10/09
12	WGL-GW-MW40S-063009	SC3624-16	7CG179	07/11/09	07/11/09
13	WGL-GW-DUP01-063009	SC3624-18	7CG180	07/11/09	07/11/09
14	WGL-GW-MW48D-063009	SC3624-20	7CG181	07/11/09	07/11/09
15	WGL-GW-DUP02-063009	SC3624-22	7CG182	07/11/09	07/11/09
16	GL-GW-MW48D2-063009	SC3624-24	7CG183	07/11/09	07/11/09
17	WGL-GW-MW39-063009	SC3624-26	7CG184	07/11/09	07/11/09
18	WGL-GW-FB01-070109	SC3624-28	7CG185	07/11/09	07/11/09
19	WGL-GW-RB01-070109	SC3624-30	7CG186	07/11/09	07/11/09
20					
21					
22					
23					
24					

COMMENTS: _____

FORM IVVOA

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project CT0407 NAS WEYMOUTH SDG No.: SC3624

Instrument ID: GC07 Calibration Date(s): 07/10/09 07/10/09

Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm) Calibration Time(s): 1214 1518

LAB FILE ID: RF0.05: 7CG158 RF0.1: 7CG159 RF0.25: 7CG160
RF0.5: 7CG161 RF1: 7CG162 RF2.5: 7CG157

COMPOUND	RF0.05	RF0.1	RF0.25	RF0.5	RF1	RF2.5	CURVE	COEFFICENTS A0	A1	A2	%RSD OR R^2	MAX %RSD OR R^2
1,2-Dibromoethane	46656	86140	196910	412390	682100	1687700	2ORDR	-1.82e-002	1.373e-006	7.196e-014	0.99868	0.99000
1,2-Dibromo-3-Chloropropa	88938	157030	343570	761760	1303100	3292300	2ORDR	-1.44e-002	7.404e-007	7.364e-015	0.99905	0.99000
Tetrachloro-M-Xylene	1042600	853280	1029600	1629400	3294400	5095500	LINR	-0.1019999	9.886e-007		0.99421	0.99000

FORM VI VOA

Report Date: 21-Jul-2009 11:21

Calibration History

Method : \\target_server\gg\chem\gc07.i\GC07CG10.b\504025.m
Start Cal Date: 10-JUL-2009 12:14
End Cal Date : 10-JUL-2009 15:18
Last Cal Level: 6
Last Cal Type : Continuing Calibration

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 2 , Cal Amount: 0.05000		
10-JUL-2009 13:09	E504^1	7CG158.D
Cal Level: 3 , Cal Amount: 0.10000		
10-JUL-2009 13:42	E504^1	7CG159.D
Cal Level: 4 , Cal Amount: 0.25000		
10-JUL-2009 14:14	E504^1	7CG160.D
Cal Level: 5 , Cal Amount: 0.50000		
10-JUL-2009 14:46	E504^1	7CG161.D
Cal Level: 6 , Cal Amount: 1.00000		
10-JUL-2009 15:18	E504^1	7CG162.D
Cal Level: 7 , Cal Amount: 2.50000		
10-JUL-2009 12:14	E504^1	7CG157.D

Continuing Calibration
Ccal Level Mode: BY SAMPLE

11-JUL-2009 04:19	E504^1	7CG187.D
10-JUL-2009 22:40	E504^1	7CG176.D
10-JUL-2009 16:54	DBCM	7CG165.D
10-JUL-2009 14:46	E504^1	7CG161.D

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project CTO407 NAS WEYMOUTH SDG No.: SC3624

Instrument ID: GC07 Calibration Date(s): 07/10/09 07/10/09

Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm) Calibration Time(s): 1214 1518

LAB FILE ID: RF0.05: 7CG158 RF0.1: 7CG159 RF0.25: 7CG160
RF0.5: 7CG161 RF1: 7CG162 RF2.5: 7CG157

COMPOUND	RF0.05	RF0.1	RF0.25	RF0.5	RF1	RF2.5	CURVE	COEFFICENTS A0	A1	A2	%RSD OR R^2	MAX %RSD OR R^2
1,2-Dibromoethane	8767	15500	36837	81145	133990	340300	2ORDR	-1.38e-002	7.074e-006	9.545e-013	0.99854	0.99000
1,2-Dibromo-3-Chloropropa	17001	31017	68691	151790	265580	689210	2ORDR	-1.3e-002	3.716e-006	-9.63e-014	0.99923	0.99000
Tetrachloro-M-Xylene	199350	154860	191090	309760	643970	984170	LINR	-7.09e-002	5.095e-006		0.99446	0.99000

FORM VI VOA

Report Date: 21-Jul-2009 11:21

Calibration History

Method : \\target_server\gg\chem\gc07.i\GC07CG10.b\504025.m\504025.m
Start Cal Date: 10-JUL-2009 12:14
End Cal Date : 10-JUL-2009 15:18
Last Cal Level: 6
Last Cal Type : Continuing Calibration

Initial Calibration

Injection Date	Sublist	Calibration File
Cal Level: 2 , Cal Amount: 0.05000		
10-JUL-2009 13:09	E504^1	7CG158.D
Cal Level: 3 , Cal Amount: 0.10000		
10-JUL-2009 13:42	E504^1	7CG159.D
Cal Level: 4 , Cal Amount: 0.25000		
10-JUL-2009 14:14	E504^1	7CG160.D
Cal Level: 5 , Cal Amount: 0.50000		
10-JUL-2009 14:46	ICAL	7CG161.D
10-JUL-2009 14:46	E504^1	7CG161.D
Cal Level: 6 , Cal Amount: 1.00000		
10-JUL-2009 15:18	E504^1	7CG162.D
Cal Level: 7 , Cal Amount: 2.50000		
10-JUL-2009 12:14	E504^1	7CG157.D

Continuing Calibration
Ccal Level Mode: BY SAMPLE

11-JUL-2009 04:19	E504^1	7CG187.D
10-JUL-2009 22:40	E504^1	7CG176.D
10-JUL-2009 16:54	DBCM	7CG165.D
10-JUL-2009 14:46	E504^1	7CG161.D
10-JUL-2009 14:46	E504^1	7CG161.D
10-JUL-2009 14:46	E504^1	7CG161.D
10-JUL-2009 14:46	ICAL	7CG161.D
10-JUL-2009 14:46	E504^1	7CG161.D

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Instrument ID: GC07 Calibration Date: 07/10/09 Time: 2240

Lab File ID: 7CG176 Init. Calib. Date(s): 07/10/09 07/10/09

Init. Calib. Times: 1214 1518

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm)

COMPOUND	RRF or AMOUNT	RRF0.5000 or AMOUNT	CCAL RRF0.5000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
1,2-Dibromoethane	0.5392000	0.5000000	795260.00	0.01	7.84	30.00	2RDR
1,2,3-Trichloropropane	0.4402100	0.5000000	194800.00	0.01	-11.96	30.00	2RDR
1,2-Dibromo-3-Chloropropane	0.5763400	0.5000000	1583200.0	0.01	15.27	30.00	2RDR
Tetrachloro-M-Xylene	1.5585000	1.2500000	1343700.0	0.01	24.68	30.00	LINR

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Instrument ID: GC07 Calibration Date: 07/10/09 Time: 2240

Lab File ID: 7CG176 Init. Calib. Date(s): 07/10/09 07/10/09

Init. Calib. Times: 1214 1518

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm)

COMPOUND	RRF or AMOUNT	RRF0.5000 or AMOUNT	CCAL RRF0.5000	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
1,2-Dibromoethane	0.5578200	0.5000000	159900.00	0.01	11.56	30.00	2RDR	
1,2,3-Trichloropropane	0.8110300	0.5000000	9294.0000	0.01	62.21	30.00	2RDR	<-
1,2-Dibromo-3-Chloropropane	0.5756600	0.5000000	318090.00	0.01	15.13	30.00	2RDR	
Tetrachloro-M-Xylene	1.6607000	1.2500000	271910.00	0.01	32.86	30.00	LINR	<-

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Instrument ID: GC07 Calibration Date: 07/11/09 Time: 0419

Lab File ID: 7CG187 Init. Calib. Date(s): 07/10/09 07/10/09

Init. Calib. Times: 1214 1518

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm)

COMPOUND	RRF or AMOUNT	RRF0.2500 or AMOUNT	CCAL RRF0.2500	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE
1,2-Dibromoethane	0.2489900	0.2500000	770470.00	0.01	-0.40	30.00	2RDR
1,2,3-Trichloropropane	0.1977200	0.2500000	275600.00	0.01	-20.91	30.00	2RDR
1,2-Dibromo-3-Chloropropane	0.2511400	0.2500000	1429300.0	0.01	0.46	30.00	2RDR
Tetrachloro-M-Xylene	0.9956900	1.0000000	1110300.0	0.01	-0.43	30.00	LINR

FORM VII PEST

FORM 7B
PESTICIDE CALIBRATION VERIFICATION SUMMARY

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

Instrument ID: GC07 Calibration Date: 07/11/09 Time: 0419

Lab File ID: 7CG187 Init. Calib. Date(s): 07/10/09 07/10/09

Init. Calib. Times: 1214 1518

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm)

COMPOUND	RRF or AMOUNT	RRF0.2500 or AMOUNT	CCAL RRF0.2500	MIN RRF	%D or %DRIFT	MAX %D or %DRIFT	CURV TYPE	
1,2-Dibromoethane	0.2525300	0.2500000	149850.00	0.01	1.01	30.00	2RDR	
1,2,3-Trichloropropane	0.8124700	0.2500000	19140.000	0.01	224.99	30.00	2RDR	<-
1,2-Dibromo-3-Chloropropane	0.2564700	0.2500000	290540.00	0.01	2.59	30.00	2RDR	
Tetrachloro-M-Xylene	1.0513000	1.0000000	220270.00	0.01	5.13	30.00	LINR	

FORM VII PEST

FORM 8
VOLATILE ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CT0407 NAS WEYMOUTH SDG No.: SC3624

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm) Init. Calib. Date(s): 07/10/09 07/10/09

Instrument ID: GC07

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 18.01

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	RT #
01		ICAL 2.5	07/10/09	1214	18.01	
02		ICAL 0.05	07/10/09	1309	18.01	
03		ICAL 0.1	07/10/09	1342	18.01	
04		ICAL 0.25	07/10/09	1414	18.01	
05		ICAL 0.5	07/10/09	1446	18.01	
06		ICAL 1.0	07/10/09	1518	18.01	
07		QC IND 0.25	07/10/09	1550	18.01	
08		MDL 0.05	07/10/09	1622	18.01	
09		DBCM	07/10/09	1654	18.01	
10	WG66038-BLAN	WG66038-1	07/10/09	1726	18.02	
11	WG66038-LCS	WG66038-2	07/10/09	1758	18.03	
12	WG66038-LCSD	WG66038-3	07/10/09	1829	18.03	
13	L-GW-MW38-06	WG66038-4	07/10/09	1901	18.03	
14	L-GW-MW38-06	WG66038-5	07/10/09	1932	18.03	
15	WGL-GW-MW101	SC3624-2	07/10/09	2004	18.03	
16	WGL-GW-MW3-0	SC3624-4	07/10/09	2036	18.02	
17	WGL-GW-MW103	SC3624-6	07/10/09	2107	18.02	
18	WGL-GW-MW102	SC3624-8	07/10/09	2138	18.02	
19	WGL-GW-MW2-0	SC3624-10	07/10/09	2209	18.02	
20		CV 0.5	07/10/09	2240	18.01	

QC LIMITS
TCX = Tetrachloro-M-Xylene (+/- 0.24 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII VOA

FORM 8
VOLATILE ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

GC Column: ZB-MULTIRESIDUE-1 ID: 0.53 (mm) Init. Calib. Date(s): 07/10/09 07/10/09

Instrument ID: GC07

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 18.01

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	RT #
01	WGL-GW-MW4-0	SC3624-12	07/10/09	2311	18.01	
02	L-GW-MW38-06	SC3624-14	07/10/09	2342	18.01	
03	WGL-GW-MW40S	SC3624-16	07/11/09	0013	18.01	
04	WGL-GW-DUP01	SC3624-18	07/11/09	0044	18.02	
05	WGL-GW-MW48D	SC3624-20	07/11/09	0115	18.02	
06	WGL-GW-DUP02	SC3624-22	07/11/09	0147	18.02	
07	GL-GW-MW48D2	SC3624-24	07/11/09	0218	18.02	
08	WGL-GW-MW39-	SC3624-26	07/11/09	0248	18.02	
09	WGL-GW-FB01-	SC3624-28	07/11/09	0318	18.02	
10	WGL-GW-RB01-	SC3624-30	07/11/09	0349	18.02	
11		CV 0.25	07/11/09	0419	18.02	
12						
13						
14						
15						
16						
17						
18						
19						
20						

QC LIMITS
TCX = Tetrachloro-M-Xylene (+/- 0.24 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII VOA

FORM 8
VOLATILE ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm) Init. Calib. Date(s): 07/10/09 07/10/09

Instrument ID: GC07

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 19.88

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	RT #
01		ICAL 2.5	07/10/09	1214	19.88	
02		ICAL 0.05	07/10/09	1309	19.88	
03		ICAL 0.1	07/10/09	1342	19.88	
04		ICAL 0.25	07/10/09	1414	19.88	
05		ICAL 0.5	07/10/09	1446	19.88	
06		ICAL 1.0	07/10/09	1518	19.88	
07		QC IND 0.25	07/10/09	1550	19.88	
08		MDL 0.05	07/10/09	1622	19.88	
09		DBCM	07/10/09	1654	19.88	
10	WG66038-BLAN	WG66038-1	07/10/09	1726	19.89	
11	WG66038-LCS	WG66038-2	07/10/09	1758	19.89	
12	WG66038-LCSD	WG66038-3	07/10/09	1829	19.90	
13	L-GW-MW38-06	WG66038-4	07/10/09	1901	19.90	
14	L-GW-MW38-06	WG66038-5	07/10/09	1932	19.90	
15	WGL-GW-MW101	SC3624-2	07/10/09	2004	19.90	
16	WGL-GW-MW3-0	SC3624-4	07/10/09	2036	19.90	
17	WGL-GW-MW103	SC3624-6	07/10/09	2107	19.89	
18	WGL-GW-MW102	SC3624-8	07/10/09	2138	19.89	
19	WGL-GW-MW2-0	SC3624-10	07/10/09	2209	19.89	
20		CV 0.5	07/10/09	2240	19.88	

QC LIMITS
TCX = Tetrachloro-M-Xylene (+/- 0.24 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII VOA

FORM 8
VOLATILE ANALYTICAL SEQUENCE

Lab Name: KATAHDIN ANALYTICAL SERVICES Lab Code: KAS

Project: CTO407 NAS WEYMOUTH SDG No.: SC3624

GC Column: ZB-MULTIRESIDUE-2 ID: 0.53 (mm) Init. Calib. Date(s): 07/10/09 07/10/09

Instrument ID: GC07

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 19.88

	CLIENT SAMPLE ID	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	RT #
01	WGL-GW-MW4-0	SC3624-12	07/10/09	2311	19.89	
02	L-GW-MW38-06	SC3624-14	07/10/09	2342	19.89	
03	WGL-GW-MW40S	SC3624-16	07/11/09	0013	19.88	
04	WGL-GW-DUP01	SC3624-18	07/11/09	0044	19.89	
05	WGL-GW-MW48D	SC3624-20	07/11/09	0115	19.88	
06	WGL-GW-DUP02	SC3624-22	07/11/09	0147	19.89	
07	GL-GW-MW48D2	SC3624-24	07/11/09	0218	19.89	
08	WGL-GW-MW39-	SC3624-26	07/11/09	0248	19.89	
09	WGL-GW-FB01-	SC3624-28	07/11/09	0318	19.89	
10	WGL-GW-RB01-	SC3624-30	07/11/09	0349	19.89	
11		CV 0.25	07/11/09	0419	19.89	
12						
13						
14						
15						
16						
17						
18						
19						
20						

QC LIMITS
TCX = Tetrachloro-M-Xylene (+/- 0.24 MINUTES)

Column used to flag retention time values with an asterisk.
* Values outside of QC limits.

FORM VIII VOA

TETRA TECH

INTERNAL CORRESPONDENCE

C-NAVY-08-09-3255W

Date: August 3, 2009

c: File G00864-4.10 (w/enc.-original)
D. Seiken (w/o enc.)

To: Phoebe Call (w/o enc.)

From: Paula DiMattei (no copy) pd

Subject: Tier II Inorganic Data Validation, SDG SC3122
SGS NorthAmerica, Inc.
CTO 407, West Gate Landfill, NAS South Weymouth, Weymouth, MA

TAL metals:

12/Sediments/	WGL-SD-DUP01-061109	WGL-SD-DUP02-061109
	WGL-SD-SD101-000.6	WGL-SD-SD102-000.6
	WGL-SD-SD103-000.6	WGL-SD-SD104-000.6
	WGL-SD-SD105-000.6	WGL-SD-SD106-000.6
	WGL-SD-SD107-000.6	WGL-SD-SD108-000.6
	WGL-SD-SD109-000.6	WGL-SD-SD110-000.6
	WGL-SD-SD111-000.6	WGL-SD-SD112-000.6

(Field Duplicates: WGL-SD-SD102-000.6/WGL-SD-DUP01-061109; and WGL-SD-SD106-000.6/WGL-SD-DUP02-061109)

1/Rinsate blank WGL-SD-RB01-061109

1/Field blank WGL-SD-FB01-061109

Tetra Tech NUS, Inc. (TtNUS) performed a Tier II data validation on the TAL metals analytical data for the sediment samples in this SDG. The samples were collected at the West Gate Landfill site at NAS South Weymouth in Weymouth, Massachusetts on June 11, 2009. Sample collection and analysis were performed according to the requirements of the Pre-Design Investigation Quality Assurance Project Plan, West Gate Landfill, dated February 2009.

The TAL metals analysis was performed according to USEPA SW-846 Methods 6010/6020A and 7470A/7471. The Tier II data validation was performed according to the Region I EPA-NE Data Validation Functional Guidelines for Evaluating Environmental Analyses, Part IV, Inorganic Data Validation Functional Guidelines, November 2008.

The sample results, validation qualifiers (Val Qual), and qualifier codes (Qual Code) are presented in the enclosed data summary tables. A list of the qualifier codes, which provide the reasons for the validation qualifiers, is enclosed.

The metals data were evaluated based on the following parameters:

* • Data Completeness
* • Holding Times
* • Calibration Verification

- Laboratory Blank Analyses
- ICP Interference Check Sample Results
- Matrix Spike Recoveries
- * Laboratory Duplicate Results
- * Laboratory Control Sample Results
- * Field Duplicate Precision
- ICP Serial Dilution Results
- * ICP-MS Tune
- * ICP-MS Internal Standards Relative Intensity
- * Reporting Limits

* - All quality control criteria were met for this parameter.

Laboratory Blank Analyses

The following table summarizes the level of blank contamination detected in the laboratory blanks associated with the aqueous field and rinsate blank samples:

Analyte	Maximum Conc. (µg/L)	Action Level (µg/L)	Affected Samples
Aluminum	22.0	110	WGL-SD-FB01-061109, WGL-SD-RB01-061109
Calcium	21.9	110	WGL-SD-FB01-061109
Cobalt	-0.29	1.45	WGL-SD-FB01-061109, WGL-SD-RB01-061109
Magnesium	23.4	117	
Mercury	-0.02	0.10	
Nickel	-0.28	1.40	
Potassium	265	1320	WGL-SD-FB01-061109
Sodium	98.0	490	WGL-SD-FB01-061109, WGL-SD-RB01-061109

The positive results below the blank action levels for aluminum, calcium, magnesium, potassium, and sodium were changed to non-detected values (U) in the affected aqueous samples due to laboratory blank contamination. The nondetect results for cobalt, mercury, and nickel were qualified as estimated (UJ) in the affected aqueous samples due to the negative instrument drift.

Although aluminum, calcium, magnesium, potassium, and sodium contamination was found in the laboratory blank, the project goals with respect to sensitivity are not impacted since the only affected samples are the field and rinsate blanks. The non-detected results in the affected samples are usable as elevated reporting limits. Additionally, accuracy goals are not impacted as a result of negative instrument drift. The non-detected cobalt, mercury, and nickel results are usable as estimated reporting limits that may be biased low.

The following table summarizes the level of blank contamination detected in the laboratory blanks associated with the sediment samples in this SDG:

Analyte	Maximum Conc. (mg/Kg)	Action Level (mg/Kg)	Affected Samples
Antimony	0.16	0.80	All sediment samples except WGL-SD-SD104-000.6
Selenium	0.34	1.7	WGL-SD-SD104-000.6

The positive antimony and selenium results below the blank action level are changed to non-detected valued (U) at elevated reporting limits due to laboratory blank contamination.

The action levels in the table above are based on an assumption of 100 percent solids, 1 g (ICP metals) or 0.6 g (mercury) of sample analyzed. The action level for each sample varies, based on the actual amount of sediment sample analyzed and percent solids for that sample.

Although antimony and selenium contamination was found in the laboratory blank, the project sensitivity goals are not impacted since there are no regulatory limits established for these analytes. The non-detected results in the affected samples are usable as elevated reporting limits.

ICP Interference Check Sample Results

The following results were qualified in the affected sediment sample due to ICP interference attributed to the high concentration of iron in the sample:

Analyte	Action		Bias	Affected Samples
	(+)	ND		
Antimony	UJ		High	WGL-SD-SD108-000.6
Cadmium	J		High	
Silver	J		High	
Thallium		UJ	Low	

The positive results for cadmium and silver were qualified as estimated (J) in the affected sample due to positive ICP interference attributed to iron. These results may be biased high.

The non-detected result for thallium was qualified as estimated (UJ) in the affected sample due to the negative ICP interference attributed to iron. This result may be biased low.

Professional judgment was used to change the positive result for antimony in the affected sample to an estimated, non-detected value (UJ), rather than reject this result because the reported concentration may be due entirely (≥ 90%) to positive iron ICP interference. The positive result may be a false positive.

The project accuracy goal for cadmium may be impacted as a result of the ICP interference attributed to the high concentration of iron in sample WGL-SD-SD108-000.6. However, the project accuracy goals are not impacted for silver or thallium since there are no regulatory limits established for these analytes. The positive results for cadmium and silver in the affected sample are usable as estimated values that may be biased high. The non-detected result for thallium in the affected sample is usable as an estimated reporting limit that may be biased low.

Additionally, the project sensitivity goals for antimony are not impacted as a result of the ICP interference attributed to the high concentration of iron in sample WGL-SD-SD108-000.6 since there is no regulatory limit established for this analyte.

Matrix Spike Recoveries

Matrix spike (MS) and matrix spike duplicate (MSD) analyses were performed for sample WGL-SD-SD111-000.6. The results of the MS/MSD analyses were below the 75% recovery criterion for antimony, arsenic, barium, beryllium, chromium, cobalt, copper, lead, magnesium, mercury, nickel, sodium, and vanadium. The positive results for these analytes were qualified as estimated (J) in all sediment samples due to the low MS/MSD recoveries. The results may be biased low.

The project accuracy goals for arsenic, chromium, lead, mercury, and nickel may be impacted as a result of the low MS/MSD recoveries. However, the project accuracy goals are not impacted for antimony, barium, beryllium, cobalt, copper, magnesium, sodium, and vanadium since there are no regulatory limits established for these analytes. The positive results for the affected analytes in all sediment samples are usable as estimated values that may be biased low.

ICP Serial Dilution Results

The percent difference for potassium was above the 10 percent QC criterion for analyte concentrations greater than 50x MDL before dilution, in the ICP serial dilution analysis of sample WGL-SD-SD111-000.6. The positive results for potassium were qualified as estimated (J) in all sediment samples. Since the initial sample results for this analyte was lower than the diluted sample result, the data may be biased low.

Although the ICP serial dilution percent difference criteria were not met for potassium, the accuracy project goals are not impacted since there is no regulatory limit established for this analyte. The positive results for potassium in the affected samples are usable as estimated values that may be biased low.

Reporting Limits

All results were reported to the method detection limit (MDL). Positive results below the quantitation limit (QL) and above the MDL were estimated (J) due to uncertainty below the QL.

All project action limits were achieved by the laboratory reporting limits.

Data Usability Assessment

The data usability assessment was performed to determine if the data met the project data quality objectives for acceptable accuracy, precision, sensitivity, and completeness; and to determine and define the impact of the exceeded quality control indicators on the technical usability of the data. Please refer to the specific sections in the above validation report for further details.

The project goals with respect to accuracy were met for the TAL metals data set with the following exceptions. The result for cadmium in sample WGL-SD-SD108-000.6 was qualified as estimated due

to the ICP interference attributed to the high concentration of iron. The results for arsenic, chromium, lead, mercury, and nickel in all sediment samples were qualified as estimated due to low MS and/or MSD recoveries. Although specific method criteria were not met in these instances, the affected positive results are usable as estimated values which may have a minor impact on data usability.

The project goals with respect to precision, sensitivity, and completeness were met for the TAL metals data set. Data usability was not impacted with regards to precision and completeness.

Tables: Data Validation Qualifiers and Codes
Data Summary Tables

Enclosures: Data Validation Worksheets

PROJ_NO: 00864	NSAMPLE	WGL-SD-DUP01-061109			WGL-SD-DUP02-061109			WGL-SD-SD101-000.6			WGL-SD-SD102-000.6		
SDG: SC3122	LAB_ID	SC3122-011			SC3122-020			SC3122-008			SC3122-005		
FRACTION: M	SAMP_DATE	6/11/2009			6/11/2009			6/11/2009			6/11/2009		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	95.7			93.8			96.1			96.4		
	DUP_OF	WGL-SD-SD102-000.6			WGL-SD-SD106-000.6								
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ALUMINUM		3030			1610			3260			2860		
ANTIMONY		0.42	UJ	ADP	0.2	UJ	ADP	0.56	UJ	ADP	0.32	UJ	ADP
ARSENIC		5	J	D	3.6	J	D	5.1	J	D	4.6	J	D
BARIUM		68	J	D	81.8	J	D	80.9	J	D	65.3	J	D
BERYLLIUM		2.5	J	D	0.76	J	D	4.6	J	D	2.5	J	D
CADMIUM		0.96	J	P	0.46	J	P	1.8			0.85	J	P
CALCIUM		7360			12200			6280			7080		
CHROMIUM		4.5	J	D	3.2	J	D	5.2	J	D	4.2	J	D
COBALT		1.2	J	D	1.2	J	DP	1	J	DP	1.1	J	DP
COPPER		18.8	J	D	11.8	J	D	137	J	D	17.5	J	D
IRON		3590			5000			7610			3380		
LEAD		55.4	J	D	10.2	J	D	70.6	J	D	53.7	J	D
MAGNESIUM		735	J	D	862	J	D	542	J	D	701	J	D
MANGANESE		14.4			16.6			53.6			13.7		
MERCURY		0.44	J	D	0.2	J	D	0.41	J	D	0.42	J	D
NICKEL		4.1	J	D	3.3	J	DP	5.9	J	D	3.7	J	DP
POTASSIUM		327	J	I	158	J	I	205	J	I	317	J	I
SELENIUM		5.1			1.9			5			5.1		
SILVER		0.38	J	P	0.17	J	P	0.31	J	P	0.34	J	P
SODIUM		924	J	D	745	J	D	572	J	D	855	J	D
THALLIUM		0.09	U		0.09	U		0.09	U		0.09	U	
VANADIUM		26.5	J	D	16.4	J	D	16.6	J	D	25.1	J	D
ZINC		15.8			14.4			68.5			14.8		

PROJ_NO: 00864	NSAMPLE	WGL-SD-SD103-000.6			WGL-SD-SD104-000.6			WGL-SD-SD105-000.6			WGL-SD-SD106-000.6		
SDG: SC3122	LAB_ID	SC3122-002			SC3122-014			SC3122-029			SC3122-017		
FRACTION: M	SAMP_DATE	6/11/2009			6/11/2009			6/11/2009			6/11/2009		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	95.6			95.9			93.1			94.4		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ALUMINUM		3210			1860			2500			1700		
ANTIMONY		0.72	UJ	ADP	0.1	UJ	D	0.75	UJ	ADP	0.15	UJ	ADP
ARSENIC		3.3	J	D	4.4	J	D	3.2	J	D	3.3	J	D
BARIUM		126	J	D	94.8	J	D	93.2	J	D	83.2	J	D
BERYLLIUM		2.1	J	D	1.1	J	D	1.1	J	D	0.77	J	D
CADMIUM		0.71	J	P	0.7	J	P	0.5	J	P	0.5	J	P
CALCIUM		13300			10800			14600			12700		
CHROMIUM		6.3	J	D	4.2	J	D	3.7	J	D	3	J	D
COBALT		1.7	J	DP	2.6	J	DP	1.3	J	DP	1.2	J	DP
COPPER		24.5	J	D	15.3	J	D	25.4	J	D	13.2	J	D
IRON		3920			7710			3070			4540		
LEAD		76.1	J	D	12.5	J	D	50.9	J	D	12.5	J	D
MAGNESIUM		1070	J	D	804	J	D	1020	J	D	892	J	D
MANGANESE		44.1			22.4			13.8			16.8		
MERCURY		0.4	J	D	0.13	J	D	0.38	J	D	0.25	J	D
NICKEL		4.7	J	D	4.3	J	D	3.8	J	DP	3.3	J	DP
POTASSIUM		300	J	I	122	J	I	278	J	I	168	J	I
SELENIUM		4			1.5	U	A	2.6			2.3		
SILVER		0.54	J	P	0.27	J	P	0.8	J	P	0.2	J	P
SODIUM		1160	J	D	1020	J	D	786	J	D	793	J	D
THALLIUM		0.09	U		0.09	U		0.1	U		0.09	U	
VANADIUM		19	J	D	22.4	J	D	23.4	J	D	18	J	D
ZINC		26.8			19.8			14.6			14.7		

PROJ_NO: 00864	NSAMPLE	WGL-SD-SD107-000.6			WGL-SD-SD108-000.6			WGL-SD-SD109-000.6			WGL-SD-SD110-000.6		
SDG: SC3122	LAB_ID	SC3122-023			SC3122-026			SC3122-038			SC3122-035		
FRACTION: M	SAMP_DATE	6/11/2009			6/11/2009			6/11/2009			6/11/2009		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	MG/KG			MG/KG			MG/KG			MG/KG		
	PCT_SOLIDS	95.0			94.9			94.8			92.7		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ALUMINUM		1800			1480			1610			1620		
ANTIMONY		0.45	UJ	ADP	0.11	UJ	ADKP	0.43	UJ	AP	0.69	UJ	ADP
ARSENIC		2.5	J	D	4.6	J	D	2.7	J	D	3.3	J	D
BARIUM		66.8	J	D	59.3	J	D	62.6	J	D	43	J	D
BERYLLIUM		1	J	D	0.78	J	D	0.62	J	D	0.48	J	D
CADMIUM		0.81	J	P	0.63	J	KP	0.54	J	P	0.36	J	P
CALCIUM		6830			6750			7980			6140		
CHROMIUM		3.6	J	D	4.8	J	D	2.8	J	D	2.9	J	D
COBALT		0.83	J	DP	0.66	J	DP	0.77	J	DP	0.83	J	DP
COPPER		25.4	J	D	23.4	J	D	17.6	J	D	15.2	J	D
IRON		5730			8860			4010			2680		
LEAD		44.3	J	D	30.9	J	D	50.2	J	D	30.8	J	D
MAGNESIUM		542	J	D	529	J	D	681	J	D	638	J	D
MANGANESE		23.3			31			21.3			11.7		
MERCURY		0.41	J	D	0.28	J	D	0.37	J	D	0.39	J	D
NICKEL		3.6	J	AP	3.4	J	D	2.9	J	DP	3.1	J	DP
POTASSIUM		235	J	I	166	J	I	265	J	I	328	J	I
SELENIUM		3.6			2.1			2			1.9		
SILVER		0.38	J	P	0.41	J	KP	0.31	J	P	0.3	J	P
SODIUM		674	J	D	514	J	D	721	J	D	701	J	D
THALLIUM		0.09	U		0.08	UJ	K	0.1	U		0.08	U	
VANADIUM		17.7	J	D	21.5	J	D	14.9	J	D	17.8	J	D
ZINC		26.8			17			16.4			22.7		

PROJ_NO: 00864	NSAMPLE	WGL-SD-SD111-000.6			WGL-SD-SD112-000.6		
SDG: SC3122	LAB_ID	SC3122-041			SC3122-032		
FRACTION: M	SAMP_DATE	6/11/2009			6/11/2009		
MEDIA: SEDIMENT	QC_TYPE	NM			NM		
	UNITS	MG/KG			MG/KG		
	PCT_SOLIDS	94.2			94.6		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
ALUMINUM		1810			1580		
ANTIMONY		0.53	UJ	ADP	0.43	UJ	ADP
ARSENIC		2.1	J	D	1.6	J	D
BARIUM		40.6	J	D	42.9	J	D
BERYLLIUM		0.64	J	D	0.48	J	DP
CADMIUM		0.25	J	P	0.24	J	P
CALCIUM		5010			3340		
CHROMIUM		4	J	D	2.8	J	D
COBALT		0.57	J	DP	0.57	J	DP
COPPER		14.3	J	D	11.9	J	D
IRON		2210			3890		
LEAD		55.5	J	D	68.1	J	D
MAGNESIUM		566	J	D	429	J	D
MANGANESE		16.6			15.3		
MERCURY		0.49	J	D	0.37	J	D
NICKEL		3.3	J	DP	2.7	J	DP
POTASSIUM		277	J	I	284	J	I
SELENIUM		2.2			2.4		
SILVER		0.4	J	P	0.29	J	P
SODIUM		574	J	D	461	J	D
THALLIUM		0.12	J	P	0.1	U	
VANADIUM		19.6	J	D	12.7	J	
ZINC		12.5			12.3		

PROJ_NO: 00864	NSAMPLE	WGL-SD-FB01-061109			WGL-SD-RB01-061109		
SDG: SC3122	LAB_ID	SC3122-043			SC3122-045		
FRACTION: M	SAMP_DATE	6/11/2009			6/11/2009		
MEDIA: WATER	QC_TYPE	FB			RB		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
ALUMINUM		23.8	UJ	AP	21.4	UJ	AP
ANTIMONY		1.33	U		1.33	U	
ARSENIC		1.2	U		1.2	U	
BARIUM		0.68	J	P	0.71	J	P
BERYLLIUM		0.09	U		0.09	U	
CADMIUM		0.12	U		0.12	U	
CALCIUM		10.4	UJ	AP	6.84	U	
CHROMIUM		0.44	U		0.44	U	
COBALT		0.27	UJ	O	0.27	UJ	O
COPPER		0.7	U		0.7	U	
IRON		5.17	U		5.17	U	
LEAD		1	J	P	1.02	U	
MAGNESIUM		25.2	UJ	AP	24.1	UJ	AP
MANGANESE		0.67	U		0.67	U	
MERCURY		0.02	UJ	O	0.02	UJ	O
NICKEL		0.24	UJ	O	0.24	UJ	O
POTASSIUM		45.6	UJ	AP	44.65	U	
SELENIUM		3.03	U		3.03	U	
SILVER		0.79	U		0.79	U	
SODIUM		29.5	UJ	AP	33.2	UJ	AP
THALLIUM		0.6	U		0.6	U	
VANADIUM		5.12	U		5.12	U	
ZINC		1.73	U		1.73	U	

Data Validation Qualifiers and Codes

Data Validation Qualifiers:

	=	No qualifier attached to value (positive hit)
J	=	Value is estimated
U	=	Value is not detected
UJ	=	Value is not detected and estimated
R	=	Value (positive hit) is not usable
UR	=	Value was reported as ND but is not usable

Qualifier Codes:

A	=	Lab Blank Contamination
B	=	Field Blank Contamination
C	=	Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01	=	GC/MS Tuning Noncompliance
D	=	MS/MSD Recovery Noncompliance
E	=	LCS/LCSD Recovery Noncompliance
F	=	Lab Duplicate Imprecision
G	=	Field Duplicate Imprecision
H	=	Holding Time Exceedance
I	=	ICP Serial Dilution Noncompliance
J	=	GFAA PDS - GFAA MSA's $r < 0.995$
K	=	ICP Interference - includes ICS % R Noncompliance
L	=	Instrument Calibration Range Exceedance
M	=	Sample Preservation Noncompliance
N	=	Internal Standard Noncompliance
N01	=	Internal Standard Recovery Noncompliance Dioxins
N02	=	Recovery Standard Noncompliance Dioxins
N03	=	Clean-up Standard Noncompliance Dioxins
O	=	Poor Instrument Performance (e.g. base-line drifting)
P	=	Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q	=	Other problems (can encompass a number of issues; e.g. chromatography,interferences, etc.)
R	=	Surrogates Recovery Noncompliance
S	=	Pesticide/PCB Resolution
T	=	% Breakdown Noncompliance for DDT and Endrin
U	=	% Difference between columns/detectors >25% for positive results determined via GC/HPLC
V	=	Non-linear calibrations; correlation coefficient $r < 0.995$
W	=	EMPC result
X	=	Signal to noise response drop
Y	=	Percent solids <30%
Z	=	Uncertainty at 2 sigma deviation is greater than sample activity

TETRA TECH

INTERNAL CORRESPONDENCE

C-NAVY-08-09-3262W

Date: August 6, 2009

c: File G00864-4.10 (w/enc.-original)
D. Seiken (w/o enc.)

To: Phoebe Call (w/o enc.)

From: Paula DiMattei (no copy) (for)

Subject: Tier II Inorganic Data Validation, SDG SC3624
Katahdin Analytical Services
CTO 407, West Gate Landfill, NAS South Weymouth, Weymouth, MA

TAL metals:

13/Groundwaters/	WGL-GW-DUP01-063009	WGL-GW-DUP02-063009
	WGL-GW-MW101-062909	WGL-GW-MW102-062909
	WGL-GW-MW103-062909	WGL-GW-MW2-063009
	WGL-GW-MW3-062909	WGL-GW-MW38-063009
	WGL-GW-MW39-063009	WGL-GW-MW40S-063009
	WGL-GW-MW4-063009	WGL-GW-MW48D-063009
	WGL-GW-MW48D2-063009	

(Field Duplicates: WGL-GW-MW48D-063009/WGL-GW-DUP01-063009;
WGL-GW-MW40S-063009/WGL-GW-DUP02-063009)

1/Rinsate blank WGL-GW-RB01-070109

1/Field blank WGL-GW-FB01-070109

Tetra Tech NUS, Inc. (TtNUS) performed a Tier II data validation on the TAL metals analytical data for the groundwater samples in this SDG. The samples were collected at the West Gate Landfill site at NAS South Weymouth in Weymouth, Massachusetts on June 29, 2009 through July 1, 2009. Sample collection and analysis were performed according to the requirements of the Pre-Design Investigation Quality Assurance Project Plan, West Gate Landfill, dated February 2009.

The TAL metals analysis was performed according to USEPA SW-846 Methods 6010/6020A and 7470A. The Tier II data validation was performed according to the Region I, EPA-NE Laboratory Data Validation Functional Guidelines for Evaluating Inorganic Analyses, November 2008.

The sample results, validation qualifiers (Val Qual), and qualifier codes (Qual Code) are presented in the enclosed data summary tables. A list of the qualifier codes, which provide the reasons for the validation qualifiers, is enclosed.

The metals data were evaluated based on the following parameters:

* • Data Completeness
* • Holding Times
• Calibration Verification

- Laboratory Blank Analyses
- * ICP Interference Check Sample Results
- * Matrix Spike Recoveries
- * Laboratory Duplicate Results
- * Laboratory Control Sample Results
- * Field Duplicate Precision
- * ICP Serial Dilution Results
- * ICP-MS Tune
- ICP-MS Internal Standards Relative Intensity
- * Reporting Limits

* - All quality control criteria were met for this parameter.

Calibration Verification

The following table summarizes the analytes that did not meet the 70-130% recovery criteria in the analysis of a standard at the level of the laboratory Practical Quantitation Limit (PQL):

Analyte	% Recovery	Action		Affected sample
		(+) >2xCRI	NDs	
Selenium	66.4		UJ	WGL-GW-MW101-062909 WGL-GW-MW102-062909 WGL-GW-MW103-062909 WGL-GW-MW2-063009 WGL-GW-MW3-062909
Thallium	132.5	J		WGL-GW-MW102-062909
	65.0	J	UJ	WGL-GW-DUP01-063009 WGL-GW-DUP02-063009 WGL-GW-MW38-063009 WGL-GW-MW39-063009 WGL-GW-MW4-063009 WGL-GW-MW40S-063009 WGL-GW-MW48D-063009 WGL-GW-MW48D2-063009 WGL-GW-FB01-070109 WGL-GW-RB01-070109

Although the low-level calibration check standard criteria were not met for selenium and thallium; the accuracy project goals are not impacted since the affected results are much lower than the project action limits. The positive and non-detected results for selenium and thallium in the affected samples are usable as estimated values and estimated reporting limits.

Laboratory Blank Analyses

The following table summarizes the level of blank contamination detected in the laboratory blanks associated with the groundwater samples:

Analyte	Maximum Conc. (µg/L)	Action Level (µg/L)	Affected Samples
Antimony	0.21	1.05	WGL-GW-DUP02-063009, WGL-GW-MW101-062909, WGL-GW-MW102-062909, WGL-GW-MW2-063009, WGL-GW-MW38-063009, WGL-GW-MW4-063009, WGL-GW-MW40S-063009
Beryllium	0.25	1.25	WGL-GW-DUP01-063009, WGL-GW-DUP02-063009, WGL-GW-MW102-062909, WGL-GW-MW2-063009, WGL-GW-MW3-062909, WGL-GW-MW38-063009, WGL-GW-MW39-063009, WGL-GW-MW4-063009, WGL-GW-MW40S-063009, WGL-GW-MW48D-063009
Cadmium	0.21	1.05	WGL-GW-DUP01-063009, WGL-GW-DUP02-063009, WGL-GW-MW102-062909, WGL-GW-MW2-063009, WGL-GW-MW3-062909, WGL-GW-MW38-063009, WGL-GW-MW4-063009, WGL-GW-MW40S-063009, WGL-GW-MW48D-063009, WGL-GW-MW48D2-063009
Calcium	17.9	89.5	WGL-GW-FB01-070109
Cobalt	0.23	1.15	WGL-GW-MW39-063009, WGL-GW-MW48D2-063009
Copper	1.44	7.20	WGL-GW-MW102-062909, WGL-GW-MW39-063009, WGL-GW-MW4-063009, WGL-GW-MW48D2-063009, WGL-GW-RB01-070109
Iron	13.1	65.6	WGL-GW-FB01-070109, WGL-GW-MW101-062909, WGL-GW-MW102-062909, WGL-GW-MW103-062909, WGL-GW-MW3-062909, WGL-GW-MW38-063009
Magnesium	21.2	106	WGL-GW-FB01-070109, WGL-GW-RB01-070109
Sodium	128	638	
Mercury	0.06	0.30	All samples
Nickel	0.423	2.12	WGL-GW-MW103-062909, WGL-GW-MW2-063009, WGL-GW-MW3-062909, WGL-GW-MW38-063009, WGL-GW-MW39-063009, WGL-GW-MW48D2-063009
Thallium	0.768	3.84	WGL-GW-DUP02-063009, WGL-GW-MW102-062909, WGL-GW-MW4-063009, WGL-GW-MW48D2-063009

The positive results below the blank action levels for antimony, beryllium, cadmium, calcium, cobalt copper, iron, magnesium, mercury, nickel, sodium, and thallium were changed to non-detected values (U) in the affected aqueous samples due to laboratory blank contamination.

Although antimony, beryllium, cadmium, copper, mercury, and thallium contamination was found in the laboratory blanks, the project goals with respect to sensitivity are not impacted since the elevated reporting limits are below the project action limits. The non-detected results in the affected samples are usable as elevated reporting limits.

Although calcium, cobalt, iron, magnesium, nickel, and sodium contamination was found in the laboratory blanks, the project goals with respect to sensitivity are not impacted since there no regulatory limits for these analytes. The non-detected results in the affected samples are usable as elevated reporting limits.

IPC-MS Internal Standards Relative Intensity

The following table summarizes the internal standards that failed to meet the 30-120% relative intensity (RI) criteria. Data validation actions are applied to the associated analyte as noted below:

Sample ID	Internal standard	% RI	Affected analyte	Action	
				(+)	NDs
WGL-GW-RB01-070109	^{6}Lithium	132	Beryllium		UJ

The internal standard associated with beryllium recovered above the upper QC limit; however, project accuracy goals are not impacted since there are no regulatory limits established for the rinsate blank sample. The affected non-detected result in WGL-GW-RB01-070109 is usable as an estimated reporting limit.

Reporting Limits

All results were reported to the method detection limit (MDL). Positive results below the quantitation limit (QL) and above the MDL were estimated (J) due to uncertainty below the QL.

All project action limits were achieved by the laboratory reporting limits.

Data Usability Assessment

The data usability assessment was performed to determine if the data met the project data quality objectives for acceptable accuracy, precision, sensitivity, and completeness; and to determine and define the impact of the exceeded quality control indicators on the technical usability of the data. Please refer to the specific sections in the above validation report for further details.

The project goals with respect to accuracy, precision, sensitivity, and completeness were met for the TAL metals data set. Data usability was not impacted with regards to accuracy, precision, sensitivity, and completeness.

Tables: Data Summary Tables
Data Validation Qualifiers and Codes

Enclosures: Data Validation Worksheets

Data Validation Qualifiers and Codes

Data Validation Qualifiers:

	=	No qualifier attached to value (positive hit)
J	=	Value is estimated
U	=	Value is not detected
UJ	=	Value is not detected and estimated
R	=	Value (positive hit) is not usable
UR	=	Value was reported as ND but is not usable

Qualifier Codes:

A	=	Lab Blank Contamination
B	=	Field Blank Contamination
C	=	Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01	=	GC/MS Tuning Noncompliance
D	=	MS/MSD Recovery Noncompliance
E	=	LCS/LCSD Recovery Noncompliance
F	=	Lab Duplicate Imprecision
G	=	Field Duplicate Imprecision
H	=	Holding Time Exceedance
I	=	ICP Serial Dilution Noncompliance
J	=	GFAA PDS - GFAA MSA's $r < 0.995$
K	=	ICP Interference - includes ICS % R Noncompliance
L	=	Instrument Calibration Range Exceedance
M	=	Sample Preservation Noncompliance
N	=	Internal Standard Noncompliance
N01	=	Internal Standard Recovery Noncompliance Dioxins
N02	=	Recovery Standard Noncompliance Dioxins
N03	=	Clean-up Standard Noncompliance Dioxins
O	=	Poor Instrument Performance (e.g. base-line drifting)
P	=	Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q	=	Other problems (can encompass a number of issues; e.g. chromatography,interferences, etc.)
R	=	Surrogates Recovery Noncompliance
S	=	Pesticide/PCB Resolution
T	=	% Breakdown Noncompliance for DDT and Endrin
U	=	% Difference between columns/detectors >25% for positive results determined via GC/HPLC
V	=	Non-linear calibrations; correlation coefficient $r < 0.995$
W	=	EMPC result
X	=	Signal to noise response drop
Y	=	Percent solids <30%
Z	=	Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 00864	NSAMPLE	WGL-GW-DUP01-063009			WGL-GW-DUP02-063009			WGL-GW-FB01-070109			WGL-GW-MW101-062909		
SDG: SC3624	LAB_ID	SC3624-018			SC3624-022			SC3624-028			SC3624-002		
FRACTION: M	SAMP_DATE	6/30/2009			6/30/2009			7/1/2009			6/29/2009		
MEDIA: WATER	QC_TYPE	NM			NM			FB			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF	WGL-GW-MW48D-063009			WGL-GW-MW40S-063009								
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ALUMINUM		272	J	P	194	J	P	15.2	J	P	204	J	P
ANTIMONY		0.15	U		0.32	UJ	AP	0.15	U		0.8	UJ	AP
ARSENIC		1.6	J	P	1.5	U		1.5	U		1.7	J	P
BARIUM		52			73.5			0.35	U		330		
BERYLLIUM		0.3	UJ	AP	0.55	UJ	AP	0.05	U		0.05	U	
CADMIUM		0.08	UJ	AP	0.45	UJ	AP	0.05	U		0.05	U	
CALCIUM		12100			17800			7.1	UJ	AP	47500		
CHROMIUM		1.5	J	P	1.6	J	P	0.44	U		1.6	J	P
COBALT		2.7	J	P	3.1	J	P	0.27	U		0.27	U	
COPPER		8.8	J	P	12.1	J	P	0.7	U		0.7	U	
IRON		3440			440			6.2	UJ	AP	10.4	UJ	AP
LEAD		1.02	U		1.02	U		1.02	U		1.1	J	P
MAGNESIUM		3450			3270			20.6	UJ	AP	5870		
MANGANESE		406			170			0.67	U		15.1		
MERCURY		0.05	UJ	AP	0.1	UJ	AP	0.05	UJ	AP	0.04	UJ	AP
NICKEL		2.2	J	P	4.2	J	P	0.24	U		0.24	U	
POTASSIUM		2920			2930			95	U		20600		
SELENIUM		3.03	U		3.03	U		3.03	U		3.03	UJ	C
SILVER		0.79	U		0.79	U		0.79	U		0.79	U	
SODIUM		52700			60100			33	UJ	AP	53400		
THALLIUM		0.1	UJ	C	0.63	UJ	ACP	0.1	UJ	C	0.1	UJ	C
VANADIUM		5.12	U		5.12	U		5.12	U		6.8	J	P
ZINC		6.7	J	P	36.7			1.73	U		1.73	U	

PROJ_NO: 00864	NSAMPLE	WGL-GW-MW102-062909			WGL-GW-MW103-062909			WGL-GW-MW2-063009			WGL-GW-MW3-062909		
SDG: SC3624	LAB_ID	SC3624-008			SC3624-006			SC3624-010			SC3624-004		
FRACTION: M	SAMP_DATE	6/29/2009			6/29/2009			6/30/2009			6/29/2009		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ALUMINUM		82.7	J	P	141	J	P	108	J	P	47.3	J	P
ANTIMONY		0.54	UJ	AP	0.15	U		0.17	UJ	AP	0.15	U	
ARSENIC		1.9	J	P	2.1	J	P	2.1	J	P	1.5	U	
BARIUM		189			135			94.6			32.9		
BERYLLIUM		0.12	UJ	AP	0.05	U		0.23	UJ	AP	0.11	UJ	AP
CADMIUM		0.1	UJ	AP	0.05	U		0.45	UJ	AP	0.08	UJ	AP
CALCIUM		37000			47800			23900			13200		
CHROMIUM		0.46	J	P	0.52	J	P	0.44	U		3.3	J	P
COBALT		0.27	U		0.27	U		0.27	U		0.27	U	
COPPER		0.95	UJ	AP	0.7	U		0.7	U		0.7	U	
IRON		12.6	UJ	AP	54.6	UJ	AP	78.2	J	P	44.2	UJ	AP
LEAD		1.5	J	P	1.02	U		1.02	U		1	J	P
MAGNESIUM		8000			9780			4860			2660		
MANGANESE		64.3			662			481			9.9		
MERCURY		0.05	UJ	AP	0.04	UJ	AP	0.06	UJ	AP	0.04	UJ	AP
NICKEL		0.24	U		2	UJ	AP	2	UJ	AP	0.62	UJ	AP
POTASSIUM		5330			5380			5030			3960		
SELENIUM		3.03	UJ	C	3.03	UJ	C	3.03	UJ	C	3.03	UJ	C
SILVER		0.79	U		0.79	U		0.79	U		0.79	U	
SODIUM		27700			45800			172000			76300		
THALLIUM		0.37	UJ	ACP	0.1	UJ	C	0.1	UJ	C	0.1	UJ	C
VANADIUM		5.12	U		5.12	U		5.12	U		5.12	U	
ZINC		1.73	U		1.73	U		9.7	J	P	3.2	J	P

PROJ_NO: 00864	NSAMPLE	WGL-GW-MW38-063009			WGL-GW-MW39-063009			WGL-GW-MW4-063009			WGL-GW-MW40S-063009		
SDG: SC3624	LAB_ID	SC3624-014			SC3624-026			SC3624-012			SC3624-016		
FRACTION: M	SAMP_DATE	6/30/2009			6/30/2009			6/30/2009			6/30/2009		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ALUMINUM		60.7	J	P	342			679			213	J	P
ANTIMONY		0.17	UJ	AP	0.15	U		0.33	UJ	AP	0.18	UJ	AP
ARSENIC		1.8	J	P	1.9	J	P	3.8	J	P	1.5	U	
BARIUM		50.9			25			25.8			73.7		
BERYLLIUM		0.44	UJ	AP	0.09	UJ	AP	0.28	UJ	AP	0.55	UJ	AP
CADMIUM		0.2	UJ	AP	0.05	U		0.22	UJ	AP	0.37	UJ	AP
CALCIUM		6150			8990			13000			17600		
CHROMIUM		0.44	U		1.5	J	P	3.1	J	P	1.8	J	P
COBALT		1.9	J	P	0.73	UJ	AP	2.4	J	P	3	J	P
COPPER		0.7	U		1.3	UJ	AP	7	UJ	AP	12.1	J	P
IRON		14.7	UJ	AP	9790			4220			436		
LEAD		1.02	U		1.2	J	P	2.6	J	P	1.02	U	
MAGNESIUM		1200			1260			2640			3260		
MANGANESE		117			356			41			168		
MERCURY		0.04	UJ	AP	0.06	UJ	AP	0.03	UJ	AP	0.08	UJ	AP
NICKEL		2.1	UJ	AP	0.64	UJ	AP	2.4	J	P	4.3	J	P
POTASSIUM		1130			1550			2820			2910		
SELENIUM		3.03	U		3.03	U		3.03	U		3.03	U	
SILVER		0.79	U		0.79	U		0.79	U		0.79	U	
SODIUM		34400			2780			56800			60000		
THALLIUM		0.1	UJ	C	0.1	UJ	C	0.38	UJ	ACP	0.1	UJ	C
VANADIUM		5.12	U		5.12	U		14.6	J	P	5.12	U	
ZINC		28.6			17.5	J	P	22.7	J	P	36.2		

PROJ_NO: 00864	NSAMPLE	WGL-GW-MW48D-063009			WGL-GW-MW48D2-063009			WGL-GW-RB01-070109		
SDG: SC3624	LAB_ID	SC3624-020			SC3624-024			SC3624-030		
FRACTION: M	SAMP_DATE	6/30/2009			6/30/2009			7/1/2009		
MEDIA: WATER	QC_TYPE	NM			NM			RB		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
ALUMINUM		286	J	P	56.4	J	P	12.5	U	
ANTIMONY		0.15	U		0.15	U		0.15	U	
ARSENIC		1.5	U		1.5	U		1.5	U	
BARIUM		51.8			63.4			0.68	J	P
BERYLLIUM		0.23	UJ	AP	0.05	U		0.05	UJ	N
CADMIUM		0.07	UJ	AP	0.14	UJ	AP	0.05	U	
CALCIUM		12200			55800			6.84	U	
CHROMIUM		1.4	J	P	1.6	J	P	0.54	J	P
COBALT		2.8	J	P	0.49	UJ	AP	0.27	U	
COPPER		8.7	J	P	1.9	UJ	AP	1.7	UJ	AP
IRON		3790			2630			5.17	U	
LEAD		1.02	U		1.02	U		1.02	U	
MAGNESIUM		3500			9480			19.3	UJ	AP
MANGANESE		446			2180			0.67	U	
MERCURY		0.06	UJ	AP	0.06	UJ	AP	0.06	UJ	AP
NICKEL		2.3	J	P	0.66	UJ	AP	0.24	U	
POTASSIUM		2980			5400			95	U	
SELENIUM		3.03	U		3.03	U		3.03	U	
SILVER		0.79	U		0.79	U		0.79	U	
SODIUM		52900			45700			27.3	UJ	AP
THALLIUM		0.1	UJ	C	0.24	UJ	ACP	0.1	UJ	
VANADIUM		5.12	U		5.12	U		5.12	U	
ZINC		6.7	J	P	1.73	U		1.73	U	

TETRA TECH

INTERNAL CORRESPONDENCE

C-NAVY-06-09-3188W

Date: June 16, 2009

c: File G00864-4.10 (w/enc.-original)
D. Seiken (w/o enc.)

To: Phoebe Call (w/o enc.)

From: Jennifer Cardinal (no copy) JF (for)

Subject: Tier II Organic Data Validation, SDG SC2369
Katahdin Analytical
CTO 407, West Gate Landfill, NAS South Weymouth, Weymouth, MA

PCB:

3/Sediments/	WGL-SD-PCB02-0006 WGL-SD-PCB05-00006	WGL-SD-PCB03-0006
3/Soils/	WGL-SO-PCB01-0006 WGL-SO-PCBDUP01	WGL-SO-PCB04-0006

(Field Duplicate Pair:
WGL-SO-PCB01-0006/WGL-SO-PCBDUP01)

Tetra Tech NUS, Inc. (TtNUS) performed a Tier II data validation on the polychlorinated biphenyls (PCB) analytical data for the sediment and soil samples in this SDG. The samples were collected at the West Gate Landfill site at NAS South Weymouth in Weymouth, Massachusetts on May 12, 2009. Sample collection and analysis were performed according to the requirements of the Pre-Design Investigation Quality Assurance Project Plan, West Gate Landfill, dated February 2009.

The PCB analysis was performed according to USEPA SW-846 Method 8082. The PCB validation was performed in accordance with the Region I, EPA-NE Data Validation Functional Guidelines for Evaluating Organic Analyses, Part III, February 2004.

The sample results, validation qualifiers (VQL), and qualifier codes (QLCD) are presented in the enclosed data summary tables. A list of the qualifier codes, which provide the reasons for the validation qualifiers, is enclosed.

The data were evaluated based on the following parameters:

*	•	Data Completeness
*	•	Preservation and Technical Holding Times
	•	Initial and Continuing Calibrations
*	•	Blanks
	•	Surrogate Compounds
	•	Matrix Spike/Matrix Spike Duplicate
*	•	Laboratory Control Sample/Laboratory Control Sample Duplicate
*	•	Field Duplicates
*	•	Analyte Identification/Quantitation

- Percent Solids
- Reporting Limits

* All criteria were met for this parameter.

Initial and Continuing Calibrations

The following table summarizes the Aroclors that failed to meet the continuing calibration (CC) criterion of %D <25:

Compound	%D Column 1	%D Column 2	Action		Affected Sample
			(+)	NDs	
Aroclor-1260	Criteria met	-30.88	J result reported from Col. 2		WGL-SD-PCB02-0006

The %D was outside of the QC limits for Aroclor-1260; therefore, the project accuracy goals may be impacted. The positive result in sample WGL-SD-PCB02-0006 is usable as an estimated value.

Surrogate Compounds

The following samples had surrogate spike recoveries outside of the statistically derived laboratory recovery limits.

Sample	DCB % Recovery Column 1	DCB % Recovery Column 2	QC Limits	Action	
				(+)	NDs
WGL-SD-PCB05-0006	245	Criteria Met	60-125	J	

The surrogate decachlorobiphenyl (DCB) recovered above the upper QC limit on Column 1 for sample WGL-SD-PCB05-0006; therefore, the project accuracy goals may be impacted. The positive Aroclor-1260 result reported from Column 1 is qualified as estimated in sample WGL-SD-PCB05-0006 and the affected result is usable as an estimated value which may be biased high.

Matrix Spike/Matrix Spike Duplicate

The following table summarizes the PCB Aroclor matrix spiking recoveries that did not meet the statistically derived laboratory QC limits in the matrix spike and matrix spike duplicate (MS/MSD) analysis and the qualifications applied to sample WGL-SD-PCB05-0006:

Aroclor	MS/MSD %Recovery	QC Limits	Action	
		%Recovery	(+)	ND
Aroclor-1260	176/254	60-130	J	

The MS/MSD recovery criteria were not met for Aroclor-1260; therefore, the project accuracy goals may be impacted. The positive Aroclor-1260 result in sample WGL-SD-PCB05-0006 is usable as an estimated value which may be biased high.

Reporting Limits

All project action limits were achieved for the soil samples.

Sample WGL-SO-PCB04-0006 was analyzed at dilution since the undiluted sample exceeded the calibration range for Aroclor-1248 and Aroclor-1260, and the pattern was "too busy" to distinguish the peaks. Although the project quantitation limits were elevated due to dilution, the project action limits were achieved.

All project action limits were achieved for the sediment samples with the following exception. Aroclor project action limits were not achieved for sample WGL-SD-PCB03-0006 due to the high moisture content of the sample; however, the high concentration of Aroclor 1260, in this sample, indicates that the analysis is acceptable.

Data Usability Assessment

The data usability assessment was performed to determine if the data met the project data quality objectives for acceptable accuracy, precision, sensitivity, and completeness; and to determine and define the impact of the exceeded quality control indicators on the technical usability of the data. Please refer to the specific sections in the above validation report for further details.

The project goals with respect to accuracy were met for the PCBs data set with the following exceptions. Aroclor-1260 was qualified as estimated in sample WGL-SD-PCB02-0006 due to instrument calibration variability. The positive Aroclor-1260 result was qualified as estimated in sample WGL-SD-PCB05-0006 due to a high surrogate recovery; the affected result may be biased high. The positive Aroclor-1260 result in sample WGL-SD-PCB05-0006 was qualified as estimated due to high MS/MSD recoveries; the affected result may be biased high. Although specific QC criteria were not met in these instances, the affected positive and non-detected results are usable as estimated values and estimated quantitation limits which may have a minor impact on data usability.

The project goals with respect to sensitivity were met for the PCBs data set with the following exceptions. Aroclor project action limits were not achieved for sample WGL-SD-PCB03-0006 due to the high moisture content of the sample; however, the high concentration of Aroclor 1260 in this sample, indicates that the analysis is acceptable.

The project goals with respect to precision and completeness were met for the PCBs data set. Data usability was not impacted with regards to precision and completeness.

Tables: Data Validation Qualifiers and Codes
Data Summary Tables

Enclosures: Data Validation Worksheets

Data Validation Qualifiers and Codes

Data Validation Qualifiers:

= No qualifier attached to value (positive hit)
J = Value is estimated
U = Value is not detected
UJ = Value is not detected and estimated
R = Value (positive hit) is not usable
UR = Value was reported as ND but is not usable

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; e.g. chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 00864	NSAMPLE	WGL-SD-PCB02-0006			WGL-SD-PCB03-0006			WGL-SD-PCB05-0006			WGL-SO-PCB01-0006		
SDG: SC2369	LAB_ID	SC2369-3			SC2369-4			SC2369-6			SC2369-1		
FRACTION: PEST/PCB	SAMP_DATE	5/12/2009			5/12/2009			5/12/2009			5/12/2009		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	57.0			22.0			55.0			81.3		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		30	U		77	U		31	U		21	U	
AROCLOR-1221		30	U		77	U		31	U		21	U	
AROCLOR-1232		30	U		77	U		31	U		21	U	
AROCLOR-1242		30	U		77	U		31	U		21	U	
AROCLOR-1248		30	U		180			31	U		21	U	
AROCLOR-1254		30	U		77	U		31	U		21	U	
AROCLOR-1260		420	J	C	12000			700	J	DR	370		

PROJ_NO: 00864	NSAMPLE	WGL-SO-PCB04-0006DL			WGL-SO-PCBDUP01		
SDG: SC2369	LAB_ID	SC2369-5DL			SC2369-2		
FRACTION: PEST/PCB	SAMP_DATE	5/12/2009			5/12/2009		
MEDIA: SEDIMENT	QC_TYPE	NM			FD		
	UNITS	UG/KG			UG/KG		
	PCT_SOLIDS	65.1			83.4		
	DUP_OF				WGL-SO-PCB01-0006		
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
AROCLOR-1016		260	U		20	U	
AROCLOR-1221		260	U		20	U	
AROCLOR-1232		260	U		20	U	
AROCLOR-1242		260	U		20	U	
AROCLOR-1248		8300			20	U	
AROCLOR-1254		260	U		20	U	
AROCLOR-1260		5800			310		

INTERNAL CORRESPONDENCE

C-NAVY-06-09-3206W

Date: June 25, 2009

c: File G00864-4.10 (w/enc.-original)
D. Seiken (w/o enc.)

To: Phoebe Call (w/o enc.)

From: Jennifer Cardinal (no copy) JC (for)

Subject: Tier II Organic Data Validation, SDG SC2728
Katahdin Analytical
CTO 407, West Gate Landfill, NAS South Weymouth, Weymouth, MA

VOC/SVOC/PCB/TPH:
1/Soil/ WGL-SO-TP112-0406

Tetra Tech NUS, Inc. (TtNUS) performed a Tier II data validation on the volatile organic compound (VOC), semivolatile organic compound (SVOC), polychlorinated biphenyls (PCB), and extractable total petroleum hydrocarbon (TPH) analytical data for the soil sample in this SDG. The sample was collected at the West Gate Landfill site at NAS South Weymouth in Weymouth, Massachusetts on May 28, 2009. Sample collection and analysis were performed according to the requirements of the Pre-Design Investigation Quality Assurance Project Plan, West Gate Landfill, dated February 2009.

The VOC and SVOC analyses were performed according to USEPA SW-846 Methods 8260B and 8270C, respectively. The PCB analysis was performed according to USEPA SW-846 Method 8082. The TPH analysis was performed according to USEPA SW-846 Method 8015. The TPH results includes the hydrocarbons range C_9-C_{36}.

The VOC, SVOC, and TPH data validation was performed in accordance with the Region I EPA-NE Data Validation Functional Guidelines for Evaluating Environmental Analyses, December 1996. The PCB validation was performed in accordance with the Region I, EPA-NE Data Validation Functional Guidelines for Evaluating Organic Analyses, Part III, February 2004.

The sample results, validation qualifiers (VQL), and qualifier codes (QLCD) are presented in the enclosed data summary tables. A list of the qualifier codes, which provide the reasons for the validation qualifiers, is enclosed.

The data were evaluated based on the following parameters:

	• Data Completeness
*	• Preservation and Technical Holding Times
*	• GC/MS Instrument Performance Check (Tune)
	• Initial and Continuing Calibrations
*	• Blanks
*	• Surrogate Compounds
	• Internal Standards
NA	• Matrix Spike/Matrix Spike Duplicate
	• Laboratory Control Sample/Laboratory Control Sample Duplicate

NA • Field Duplicates
* • Analyte Identification/Quantitation
* • Percent Solids
* • Reporting Limits

* All criteria were met for this parameter.
NA Not applicable for this SDG.

Data Completeness

Although the chain of custody lists the analyses for this SDG as SVOCs, EPH, VOCs, and VPH; the laboratory noted that the analyses should be VOCs, SVOCs, PCBs, and TPH per a conversation with D. Seiken (TtNUS) on May 29, 2009.

TPH

The laboratory compared the chromatogram of sample WGL-SO-TP112-0406 to the standard chromatograms from an initial calibration as requested by TtNUS. The initial calibration consists of the following petroleum products: Gasoline, JP-A, JP-4, JP-5, JP-8, Kerosene, Mineral Spirits, Stoddard Solvent, Naphtha, Fuel Oil #1, Fuel Oil #2, Fuel Oil #4, Fuel Oil #6, Weathered Gasoline, Weathered Kerosene, Weathered Fuel Oil #2, and various grades of Motor Oil. The chromatography of the sample does not match or resemble the chromatography of any of the petroleum product standards analyzed during the initial calibration. The sample chromatogram does elute within the retention time window of Fuel Oil #6.

On June 17, 2009 the laboratory explained that the TPH initial calibration verification is provided as a Form 7 on page 6000031.

On June 18, 2009 the laboratory resubmitted the initial calibration Form 8 and the logbook pages for the calibration since they were incorrect or missing from the original data package.

Initial and Continuing Calibrations

Volatiles

The following table summarizes the volatile compounds that failed to meet the initial calibration verification criterion of 75% < %Rec. < 125%:

Compound	%Rec	Action		Affected Sample
		(+)	NDs	
Acetone	65.73	J		WGL-SO-TP112-0406(RA)
Methyl acetate	61.28		UJ	

Although the recoveries were outside of the QC limits for acetone and methyl acetate, the project accuracy goals are not impacted since there are no regulatory limits established for the volatile compounds for the sample in this SDG. The positive and non-detected acetone and methyl acetate results in sample WGL-SO-TP112-0406(RA) are usable as estimated values and estimated quantitation limits.

Semivolatiles

The following table summarizes the semivolatile compounds that failed to meet the initial calibration criterion of %RSD <30 or the continuing calibration criterion of %D <25%:

Compound	%RSD or %D	Action		Affected Sample
		(+)	NDs	
Benzaldehyde	43.57		UJ	WGL-SO-TP112-0406
4-Nitrophenol	33.04		UJ	
2,4-Dinitrophenol	45.82		UJ	
Pentachlorophenol	38.98		UJ	

Although the %D and %RSD were outside of the QC limits for benzaldehyde, 4-nitrophenol, 2,4-dinitrophenol, and pentachlorophenol, the project accuracy goals are not impacted since there are no regulatory limits established for the semivolatile compounds for the sample in this SDG. The non-detected benzaldehyde, 4-nitrophenol, 2,4-dinitrophenol, and pentachlorophenol results in sample WGL-SO-TP112-0406 are usable as estimated quantitation limits.

The following table summarizes the semivolatile compound that failed to meet the initial calibration verification criterion of 75% < %Rec. < 125%:

Compound	%Rec	Action		Affected Sample
		(+)	NDs	
Benzaldehyde	26.63		UJ	WGL-SO-TP112-0406

Although the recovery was outside of the QC limits for benzaldehyde, the project accuracy goals are not impacted since there are no regulatory limits established for the semivolatile compounds for the sample in this SDG. The non-detected benzaldehyde result in sample WGL-SO-TP112-0406 is usable as an estimated quantitation limit.

Internal Standards

Volatiles

The following table summarizes the volatile internal standards that failed to meet the acceptance criteria:

Internal Standard	IS Area	Acceptable Range	Action		Affected Sample
			(+)	NDs	
Chlorobenzene-d5	338098	358394-143357	J	UJ	WGL-SO-TP112-0406(RA)
1,4-Dichlorobenzene-d4	82226	194026-776102			

The internal standard areas of chlorobenzene-d5 and 1,4-dichlorobenzene-d4 failed to meet the acceptable range for sample WGL-SO-TP112-0406(RA). All positive and non-detected results for the associated compounds are estimated (J, UJ) in the affected sample due to poor internal standard performance.

The target compounds associated with chlorobenzene-d5 are tetrachloroethene, dibromochloromethane, chlorobenzene, ethylbenzene, total xylenes, bromoform, styrene, and 2-hexanone. The target compounds associated with 1,4-dichlorobenzene-d4 are 1,1,2,2-tetrachloroethane, isopropylbenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, 1,2-dichlorobenzene, 1,2-dibromo-3-chloropropane, and 1,2,4-trichlorobenzene.

Although the QC criteria were not met for the internal standard areas of chlorobenzene-d5 and 1,4-dichlorobenzene-d4 for sample WGL-SO-TP112-0406(RA); the project accuracy goals are not impacted since there are no regulatory limits established for the volatile compounds for the sample in this SDG. The positive and non-detected results in the affected sample are usable as estimated values and estimated quantitation limits.

Laboratory Control Sample/Laboratory Control Sample Duplicates

Semivolatiles

The following table summarizes the semivolatile compounds that failed to meet the laboratory-derived laboratory control sample/duplicate (LCS/LCSD) recovery limits:

Compound	%Rec.	%Rec. QC Limits	Action		Affected Samples
			(+)	NDs	
2-Methylphenol	58	60-99		UJ	WGL-SO-TP112-0406
Hexachloroethane	57	59-90		UJ	
2,4-Dichlorophenol	61	63-102		UJ	
Hexachlorobutadiene	56	59-90		UJ	
2-Chloronaphthalene	52, 55	68-102		UJ	
4-Bromophenyl-phenylether	64	67-119		UJ	
Hexachlorobenzene	64	65-112		UJ	
Benzo(a)anthrancene	64	65-111		UJ	

Although the LCS/LCSD recovery criteria were not met for the compounds listed above, the project accuracy goals are not impacted since there are no regulatory limits established for the volatile compounds for the sample in this SDG. The affected non-detected results in sample WGL-SO-TP112-0406 are usable as estimated quantitation limits which may be biased low.

PCB

The following table summarizes the Aroclor that failed to meet the laboratory-derived LCS/LCSD recovery limits:

Compound	%Rec.	%Rec. QC Limits	Action		Affected Samples
			(+)	NDs	
Aroclor-1016	70	75-122		UJ	WGL-SO-TP112-0406

Although the LCS/LCSD recovery criteria were not met for Aroclor-1016, the project accuracy goals are not impacted since the project action limit for Aroclor-1016 is much larger than the non-detected value in the affected sample. The affected non-detected result in sample WGL-SO-TP112-0406 is usable as an estimated quantitation limit which may be biased low.

Reporting Limits

The sample in this SDG was unplanned and, therefore, no regulatory limits were established for this sample. The PCB regulatory limits established for other soil samples from West Gate Landfill are applied to the sample in this SDG. The laboratory's reporting limits met these project quantitation limits and project action limits.

Data Usability Assessment

The data usability assessment was performed to determine if the data met the project data quality objectives for acceptable accuracy, precision, sensitivity, and completeness; and to determine and define the impact of the exceeded quality control indicators on the technical usability of the data. Please refer to the specific sections in the above validation report for further details.

Volatiles

The project goals with respect to accuracy were met for the volatiles data set. Acetone and methyl acetate were qualified as estimated due to low initial calibration verification recoveries; the affected results may be biased low. Several compounds were qualified as estimated in sample WGL-SO-TP112-0406(RA) due to poor internal standard performance. Although specific QC criteria were not met in these instances, data usability is not impacted and the affected positive and non-detected results are usable as estimated values and estimated quantitation limits.

The project goals with respect to precision and completeness were met for the volatiles data set. Data usability was not impacted with regards to precision and completeness.

The project goals with respect to sensitivity could not be evaluated for the volatiles data set.

Semivolatiles

The project goals with respect to accuracy were met for the semivolatiles data set. Benzaldehyde, 4-nitrophenol, 2,4-dinitrophenol, and pentachlorophenol were qualified as estimated due to instrument calibration variability. Benzaldehyde was qualified as estimated due to a low initial calibration verification recovery; the affected result may be biased low. Several compounds were qualified as estimated in sample WGL-SO-TP112-0406 due to low LCS/LCSD recoveries; the affected results may be biased low. Although specific QC criteria were not met in these instances, data usability is not impacted and the affected non-detected results are usable as estimated quantitation limits.

The project goals with respect to precision and completeness were met for the semivolatiles data set. Data usability was not impacted with regards to precision and completeness.

The project goals with respect to sensitivity could not be evaluated for the semivolatiles data set.

PCB

The project goals with respect to accuracy were met for the PCB data set. Aroclor-1016 was qualified as estimated in sample WGL-SO-TP112-0406 due a low LCS recovery; the affected result may be biased low. Although specific QC criteria were not met in this instance, data usability is not impacted and the affected non-detected result is usable as an estimated quantitation limit.

The project goals with respect to precision, sensitivity, and completeness were met for the PCB data set. Data usability was not impacted with regards to precision, sensitivity, and completeness.

TPH

The project goals with respect to accuracy, precision, sensitivity, and completeness were met for the TPH data set. Data usability was not impacted with regards to accuracy, precision, sensitivity, and completeness.

Tables:	Data Validation Qualifiers and Codes Data Summary Tables
Enclosures:	Data Validation Worksheets

Data Validation Qualifiers and Codes

Data Validation Qualifiers:

= No qualifier attached to value (positive hit)
J = Value is estimated
U = Value is not detected
UJ = Value is not detected and estimated
R = Value (positive hit) is not usable
UR = Value was reported as ND but is not usable

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; e.g. chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 00864	NSAMPLE	WGL-SO-TP112-0406-A		
SDG: SC2728	LAB_ID	SC2728-1RA		
FRACTION: OV	SAMP_DATE	5/28/2009		
MEDIA: SOIL	QC_TYPE	NM		
	UNITS	UG/KG		
	PCT_SOLIDS	72.4		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		7	U	
1,1,2,2-TETRACHLOROETHANE		7	UJ	N
1,1,2-TRICHLOROETHANE		7	U	
1,1-DICHLOROETHANE		7	U	
1,1-DICHLOROETHENE		7	U	
1,2,4-TRICHLOROBENZENE		7	UJ	N
1,2-DIBROMO-3-CHLOROPROPANE		7	UJ	N
1,2-DIBROMOETHANE		7	U	
1,2-DICHLOROBENZENE		7	UJ	N
1,2-DICHLOROETHANE		7	U	
1,2-DICHLOROPROPANE		7	U	
1,3-DICHLOROBENZENE		7	UJ	N
1,4-DICHLOROBENZENE		7	UJ	N
2-BUTANONE		59		
2-HEXANONE		33	UJ	N
4-METHYL-2-PENTANONE		33	U	
ACETONE		610	J	C
BENZENE		3	J	P
BROMODICHLOROMETHANE		7	U	
BROMOFORM		7	UJ	N
BROMOMETHANE		7	U	
CARBON DISULFIDE		7	U	
CARBON TETRACHLORIDE		7	U	
CHLOROBENZENE		7	UJ	N
CHLORODIBROMOMETHANE		7	UJ	N
CHLOROETHANE		7	U	
CHLOROFORM		7	U	
CHLOROMETHANE		7	U	
CIS-1,2-DICHLOROETHENE		7	U	
CIS-1,3-DICHLOROPROPENE		7	U	
CYCLOHEXANE		7	U	
DICHLORODIFLUOROMETHANE		7	U	
ETHYLBENZENE		3	J	NP
ISOPROPYLBENZENE		10	J	N
M+P-XYLENES		12	J	P

PROJ_NO: 00864	NSAMPLE	WGL-SO-TP112-0406-A		
SDG: SC2728	LAB_ID	SC2728-1RA		
FRACTION: OV	SAMP_DATE	5/28/2009		
MEDIA: SOIL	QC_TYPE	NM		
	UNITS	UG/KG		
	PCT_SOLIDS	72.4		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
METHYL ACETATE		7	UJ	C
METHYL CYCLOHEXANE		6	J	P
METHYL TERT-BUTYL ETHER		7	U	
METHYLENE CHLORIDE		54		
O-XYLENE		22		
STYRENE		7	UJ	N
TETRACHLOROETHENE		7	UJ	N
TOLUENE		5	J	P
TOTAL XYLENES		34	J	N
TRANS-1,2-DICHLOROETHENE		7	U	
TRANS-1,3-DICHLOROPROPENE		7	U	
TRICHLOROETHENE		7	U	
TRICHLOROFLUOROMETHANE		7	U	
VINYL CHLORIDE		7	U	

PROJ_NO: 00864	NSAMPLE	WGL-SO-TP112-0406		
SDG: SC2728	LAB_ID	SC2728-1		
FRACTION: OS	SAMP_DATE	5/28/2009		
MEDIA: SOIL	QC_TYPE	NM		
	UNITS	UG/KG		
	PCT_SOLIDS	72.4		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
1,1-BIPHENYL		460	U	
1,4-DIOXANE		460	U	
2,4,5-TRICHLOROPHENOL		1100	U	
2,4,6-TRICHLOROPHENOL		460	U	
2,4-DICHLOROPHENOL		460	UJ	E
2,4-DIMETHYLPHENOL		460	U	
2,4-DINITROPHENOL		1100	UJ	C
2,4-DINITROTOLUENE		460	U	
2,6-DINITROTOLUENE		460	U	
2-CHLORONAPHTHALENE		460	UJ	E
2-CHLOROPHENOL		460	U	
2-METHYLNAPHTHALENE		460	U	
2-METHYLPHENOL		460	UJ	E
2-NITROANILINE		1100	U	
2-NITROPHENOL		460	U	
3&4-METHYLPHENOL		460	U	
3,3'-DICHLOROBENZIDINE		460	U	
3-NITROANILINE		1100	U	
4,6-DINITRO-2-METHYLPHENOL		1100	U	
4-BROMOPHENYL PHENYL ETHER		460	UJ	E
4-CHLORO-3-METHYLPHENOL		460	U	
4-CHLOROANILINE		460	U	
4-CHLOROPHENYL PHENYL ETHER		460	U	
4-NITROANILINE		1100	U	
4-NITROPHENOL		1100	UJ	C
ACENAPHTHENE		460	U	
ACENAPHTHYLENE		460	U	
ACETOPHENONE		460	U	
ANTHRACENE		460	U	
ATRAZINE		460	U	
BENZALDEHYDE		460	UJ	C
BENZO(A)ANTHRACENE		460	UJ	E
BENZO(A)PYRENE		460	U	
BENZO(B)FLUORANTHENE		460	U	
BENZO(G,H,I)PERYLENE		460	U	

PROJ_NO: 00864	NSAMPLE	WGL-SO-TP112-0406		
SDG: SC2728	LAB_ID	SC2728-1		
FRACTION: OS	SAMP_DATE	5/28/2009		
MEDIA: SOIL	QC_TYPE	NM		
	UNITS	UG/KG		
	PCT_SOLIDS	72.4		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
BENZO(K)FLUORANTHENE		460	U	
BIS(2-CHLOROETHOXY)METHANE		460	U	
BIS(2-CHLOROETHYL)ETHER		460	U	
BIS(2-CHLOROISOPROPYL)ETHER		460	U	
BIS(2-ETHYLHEXYL)PHTHALATE		460	U	
BUTYL BENZYL PHTHALATE		460	U	
CAPROLACTAM		460	U	
CARBAZOLE		460	U	
CHRYSENE		460	U	
DIBENZO(A,H)ANTHRACENE		460	U	
DIBENZOFURAN		460	U	
DIETHYL PHTHALATE		460	U	
DIMETHYL PHTHALATE		460	U	
DI-N-BUTYL PHTHALATE		460	U	
DI-N-OCTYL PHTHALATE		460	U	
FLUORANTHENE		460	U	
FLUORENE		460	U	
HEXACHLOROBENZENE		460	UJ	E
HEXACHLOROBUTADIENE		460	UJ	E
HEXACHLOROCYCLOPENTADIENE		460	U	
HEXACHLOROETHANE		460	UJ	E
INDENO(1,2,3-CD)PYRENE		460	U	
ISOPHORONE		460	U	
NAPHTHALENE		460	U	
NITROBENZENE		460	U	
N-NITROSO-DI-N-PROPYLAMINE		460	U	
N-NITROSODIPHENYLAMINE		460	U	
PENTACHLOROPHENOL		1100	UJ	C
PHENANTHRENE		460	U	
PHENOL		460	U	
PYRENE		460	U	

PROJ_NO: 00864	NSAMPLE	WGL-SO-TP112-0406		
SDG: SC2728	LAB_ID	SC2728-1		
FRACTION: PEST/PCB	SAMP_DATE	5/28/2009		
MEDIA: SOIL	QC_TYPE	NM		
	UNITS	UG/KG		
	PCT_SOLIDS	72.4		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
AROCLOR-1016		23	UJ	E
AROCLOR-1221		23	U	
AROCLOR-1232		23	U	
AROCLOR-1242		23	U	
AROCLOR-1248		23	U	
AROCLOR-1254		23	U	
AROCLOR-1260		23	U	

PROJ_NO: 00864	NSAMPLE	WGL-SO-TP112-0406		
SDG: SC2728	LAB_ID	SC2728-1DL2		
FRACTION: PET	SAMP_DATE	5/28/2009		
MEDIA: SOIL	QC_TYPE	NM		
	UNITS	UG/KG		
	PCT_SOLIDS	72.4		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
TPH (C09-C36)		590		

TETRA TECH

INTERNAL CORRESPONDENCE

C-NAVY-06-09-3252W

Date: July 30, 2009

c: File G00864-4.10 (w/enc.-original)
D. Seiken (w/o enc.)

To: Phoebe Call (w/o enc.)

From: Paula DiMattei (no copy) (for)

Subject: Tier II Organic Data Validation, SDG SC3122
Katahdin Analytical Services, Inc.
CTO 407, West Gate Landfill, NAS South Weymouth, Weymouth, MA

VOC/SVOC/PAH/Pesticides/PCB:

12/Sediments/	WGL-SD-DUP01-061109	WGL-SD-DUP02-061109
	WGL-SD-SD101-000.6	WGL-SD-SD102-000.6
	WGL-SD-SD103-000.6	WGL-SD-SD104-000.6
	WGL-SD-SD105-000.6	WGL-SD-SD106-000.6
	WGL-SD-SD107-000.6	WGL-SD-SD108-000.6
	WGL-SD-SD109-000.6	WGL-SD-SD110-000.6
	WGL-SD-SD111-000.6	WGL-SD-SD112-000.6

(Field Duplicates: WGL-SD-SD102-000.6/WGL-SD-DUP01-061109; and WGL-SD-SD106-000.6/WGL-SD-DUP02-061109)

1/Rinsate blank WGL-SD-RB01-061109

1/Field blank WGL-SD-FB01-061109

VOC:
1/Trip blank WGL-SD-TB01-061109

Tetra Tech NUS, Inc. (TtNUS) performed a Tier II data validation on the volatile (VOC), semivolatile organic compounds (SVOCs), polynuclear aromatic hydrocarbons (PAH), pesticide, and polychlorinated biphenyls (PCB) analytical data for the samples in this SDG. The samples were collected at the West Gate Landfill site at NAS South Weymouth in Weymouth, Massachusetts on June 11, 2009. Sample collection and analysis were performed according to the requirements of the Pre-Design Investigation Quality Assurance Project Plan, West Gate Landfill, dated February 2009.

The VOC and SVOC analyses were performed according to USEPA SW-846 Methods 8260B and 8270C, respectively; and the PAH analysis according to USEPA SW-846 Method 8270C in the selective ion monitoring (SIM) mode. The pesticides and PCB analyses were performed according to USEPA SW-846 Methods 8081 and 8082, respectively.

The VOC, SVOC, and PAH data validation was performed in accordance with the Region I EPA-NE Data Validation Functional Guidelines for Evaluating Environmental Analyses, December 1996. The pesticide and PCB validation was performed in accordance with the Region I, EPA-NE Data Validation Functional Guidelines for Evaluating Organic Analyses, Part III, February 2004.

The sample results, validation qualifiers (VQL), and qualifier codes (QLCD) are presented in the enclosed data summary tables. A list of the qualifier codes, which provide the reasons for the validation qualifiers, is enclosed.

The data were evaluated based on the following parameters:

- Data Completeness
- * Preservation and Technical Holding Times
- * GC/MS Instrument Performance Check (Tuning)
- Initial and Continuing Calibrations
- * Blanks
- Surrogate Compounds
- Internal Standards
- Matrix Spike/Matrix Spike Duplicate
- Laboratory Control Sample/Laboratory Control Sample Duplicate
- Field Duplicates
- Analyte Identification/Quantitation
- Percent Solids
- Compound Quantitation Limits

* All criteria were met for this parameter.

Data Completeness

The following information was requested and received from the laboratory:

- Revision of the case narrative to include the trip blank discrepancy.
- Revision of one ICV summary form for semivolatile analysis performed on 6/25/09.
- Correction of the semivolatile MS/MSD summary form.
- Clarification of the Form 1s provided for sample WGL-SD-SD107-000.6.

Initial and Continuing Calibrations

Volatiles

The following table summarizes the volatile compound that failed to meet the initial calibration verification (ICV) recovery criterion of 75-125%:

Compound	%R	Action		Affected Sample
		(+)	NDs	
Acetone	137	J		WGL-SD-RB01-061109

Although the ICV recovery was outside of the QC limits for acetone, the project accuracy goals were not impacted since there is no regulatory limit for acetone. The positive acetone result in this sample is usable as an estimated value; which may be biased high.

Semivolatiles

The following table summarizes the semivolatile compound that failed to meet the initial calibration (IC) criterion of %RSD <30%:

Compound	%RSD	Action		Affected Samples
		(+)	NDs	
2,4-Dinitrophenol	37.4		UJ	All sediments
Benzaldehyde	43.6		UJ	WGL-SD-RB01-061109, WGL-SD-FB01-061109
4-Nitrophenol	33.0		UJ	

Although the %RSD method criterion was outside of the QC limits for 2,4-dinitrophenol, benzaldehyde and 4-nitrophenol, the project accuracy goals were not impacted since there are no regulatory limits established for these compounds. The non-detected results for 2,4-dinitrophenol, benzaldehyde, and 4-nitrophenol in the affected samples are usable as estimated quantitation limits.

The following table summarizes the semivolatile compound that failed to meet the initial calibration verification (ICV) recovery criterion of 75-125%:

Compound	%R	Action		Affected Sample
		(+)	NDs	
Benzaldehyde	27		UJ	WGL-SD-RB01-061109, WGL-SD-FB01-061109
	67	J		All sediments
Acetophenone	59		UJ	
3,3'-Dichlorobenzidine	49		UJ	

Although the ICV recovery criteria were outside of the QC limits for the compounds listed above, the project accuracy goals are not impacted since there are no regulatory limits established for these compounds. The positive and non-detected results in the affected samples are usable as estimated values and estimated quantitation limits.

The following table summarizes the semivolatile compounds that failed to meet the continuing calibration (CC) criterion of %D <25:

Compound	%D	Action		Affected Samples
		(+)	NDs	
Benzaldehyde	67.8, 30.6, 50.4	J	UJ	All samples
2,4-Dinitrophenol	58.9		UJ	WGL-SD-FB01-061109, WGL-SD-RB01-061109
4,6-Dinitro-2-methylphenol	36.1		UJ	
Pentachlorophenol	41.1		UJ	

Compound	%D	Action		Affected Samples
		(+)	NDs	
Di-n-octyl phthlalate	29.5		UJ	WGL-SD-FB01-061109, WGL-SD-RB01-06110

Although the %D method criteria were outside of the QC limits for the compounds listed above, the project accuracy goals are not impacted since there are no regulatory limits established for these compounds. The positive and non-detected results in the affected samples are usable as estimated values and estimated quantitation limits.

PAH

The following table summarizes the PAH compound that failed to meet the initial calibration verification (ICV) recovery criterion of 75-125%:

Compound	%R	Action		Affected Sample
		(+)	NDs	
2-Methylnapthalene	215	J		WGL-SD-RB01-061109, WGL-SD-FB01-061109

Although the ICV recovery was outside of the QC limits for 2-methylnapthalene, the project accuracy goals were not impacted since there are no regulatory limits established for these compounds. The positive 2-methylnapthalene results in these samples are usable as estimated values which may be biased high.

The following table summarizes the PAH compounds that failed to meet the continuing calibration (CC) criterion of %D <25:

Compound	%D	Action		Affected Samples
		(+)	NDs	
2-Methylnaphthalene	25.7	J	UJ	WGL-SD-DUP01-061109, WGL-SD-DUP02-061109, WGL-SD-SD101-000.6, WGL-SD-SD102-000.6, WGL-SD-SD103-000.6, WGL-SD-SD104-000.6, WGL-SD-SD105-000.6, WGL-SD-SD106-000.6, WGL-SD-SD107-000.6, WGL-SD-SD108-000.6, WGL-SD-SD110-000.6, WGL-SD-SD112-000.6

Although the %D method criterion was outside of the QC limits for 2-methylnaphthalene, the project accuracy goals were not impacted since there is no regulatory limit established for this compound. The positive and non-detected results in the affected samples are usable as estimated values and estimated quantitation limits.

Pesticides

The following table summarizes the pesticide compounds that failed to meet the continuing calibration (CC) criterion of %D <25:

Compound	%D Column 1	%D Column 2	Action		Affected Samples
			(+)	NDs	
delta-BHC	40.4 44.4	37.2 42.8	J	UJ	All sediment samples
Endosulfan sulfate	37.2	41.2 45.6		UJ	All sediment samples
gamma-BHC	31.2	26.4	J	UJ	WGL-SD-DUP02-061109, WGL-SD-SD105-000.6, WGL-SD-SD107-000.6, WGL-SD-SD108-000.6, WGL-SD-SD109-000.6, WGL-SD-SD110-000.6, WGL-SD-SD111-000.6, WGL-SD-SD112-000.6
beta-BHC	32.8	28.4	J	UJ	
Aldrin	31.6	26.0		UJ	

Although the %D method criterion was outside of the QC limits for the compounds listed below, project accuracy goals were not impacted for the following reasons: for gamma-BHC, the instrument calibration variability is below the safety margin of greater than 100% allocated for this compound and, regulatory limits are not established for delta-BHC, endosulfan sulfate, beta-BHC and aldrin. The positive and non-detected results in the affected samples are usable as estimated values and estimated quantitation limits.

PCB

The following table summarizes the Aroclors that failed to meet the continuing calibration (CC) criterion of %D <25:

Compound	Avg. %D Column 1	Avg. %D Column 2	Action		Affected Samples
			(+)	NDs	
Aroclor-1016	68.0 80.0	44.6 60.0		UJ	WGL-SD-DUP01-061109, WGL-SD-DUP02-061109, WGL-SD-SD101-000.6, WGL-SD-SD102-000.6, WGL-SD-SD103-000.6, WGL-SD-SD104-000.6, WGL-SD-SD106-000.6 WGL-SD-SD105-000.6, WGL-SD-SD107-000.6, WGL-SD-SD108-000.6, WGL-SD-SD111-000.6
Aroclor-1260	76.0 92.0	56.5 72.0		UJ	

As specified in the method, Aroclors 1016 and 1260 were analyzed as the CCVs that bracketed all samples since these Aroclors have peaks that are representative to all Aroclors. Therefore, professional judgment was used to apply actions to all target Aroclors as a result of the significant decrease in sensitivity exhibited by these CCVs.

Although the %D method criterion was outside of the QC limits for Aroclor-1016 and Aroclor-1260, the project accuracy goals were not impacted since the instrument calibration variability is below safety margin of greater than 100% allocated for these compounds. The non-detected results in the affected samples are usable as estimated quantitation limits.

Surrogate Compounds

Volatiles

The following samples had surrogate spike recoveries outside of the recovery QC limits:

Sample	Surrogate	% Recovery	QC Limits	Action	
				(+)	NDs
WGL-SD-SD103-000.6	DBF	134	67-118		UJ
	BFB	38	53-122		
WGL-SD-DUP01-061109	DBF	137	67-118	J	UJ
	BFB	50	53-122		
WGL-SD-SD102-000.6	DBF	121	67-118	J	UJ
	BFB	48	53-122		
WGL-SD-SD101-000.6	DBF	127	67-118	J	UJ
	TOL	68	71-102		
	BFB	28	53-122		
WGL-SD-SD104-000.6	DBF	130	67-118	J	UJ
	TOL	63	71-102		
	BFB	23	53-122		
WGL-SD-SD106-000.6	DBF	136	67-118	J	UJ
	TOL	67	71-102		
	BFB	24	53-122		
WGL-DUP02-061109	DBF	136	67-118	J	UJ
	TOL	68	71-102		
	BFB	24	53-122		
WGL-SD-SD108-000.6	DBF	143	67-118	J	UJ
	TOL	63	71-102		
	BFB	24	53-122		
WGL-SD-SD105-000.6	DBF	140	67-118	J	UJ
	TOL	65	71-102		
	BFB	24	53-122		
WGL-SD-SD112-000.6	DBF	138	67-118		UJ
	TOL	42	71-102		
WGL-SD-SD109-000.6	DBF	131	67-118	J	UJ
	BFB	43	53-122		
WGL-SD-SD107-000.6	DBF	133	67-118	J	UJ
	BFB	32	53-122		
WGL-SD-SD110-000.6	DBF	138	67-118	J	UJ
	BFB	29	53-122		

DBF-Dibromofluoromethane TOL-toluene-d_8 BFB-Bromofluorobenzene

Although the surrogate recovery QC criteria were not met for dibromofluoromethane (DBF), toluene-d_8 (TOL), and bromofluorobenzene (BFB), the project accuracy goals are not impacted since there are no established regulatory limits for the target VOCs. The positive and non-detected results are usable as estimated values and estimated quantitation limits. The bias is indeterminate due to the conflicting bias of the high and low surrogate recoveries.

Semivolatiles

The following samples had surrogate spike recoveries outside of the recovery QC limits:

Sample	Surrogate	% Recovery	QC Limits	Action[1]	
				(+)	NDs
WGL-SD-SD102-000.6	2FP	42	43-99		UJ
	PHL	49	53-98		
WGL-SD-SD101-000.6	PHL	52	53-98		UJ
	TBP	35	44-111		
WGL-SD-SD104-000.6	PHL	46	53-98		UJ
	TBP	42	44-111		
WGL-SD-SD106-000.6	2FP	42	43-99		UJ
	PHL	46	53-98		
WGL-SD-DUP02-061109	2FP	38	43-99		UJ
	PHL	41	53-98		
	TBP	38	44-111		
WGL-SD-SD108-000.6	2FP	25	43-99	J	UJ
	PHL	30	53-99		
	NBZ	31	47-100		
	FBP	39	49-114		
	TBP	29	44-111		
WGL-SD-SD105-000.6	2FP	40	43-99		UJ
	PHL	44	53-99		
WGL-SD-SD112-000.6	2FP	38	43-99		UJ
	PHL	39	53-98		
	TBP	42	44-111		
WGL-SD-SD109-000.6	PHL	48	53-98		UJ
	TBP	41	44-111		
WGL-SD-SD111-000.6	2FP	40	43-99		UJ
	PHL	44	53-98		
	TBP	40	44-111		

2FP- 2-fluorophenol PHL- phenol-d_6 NBZ- nitrobenzene-d_5 FBP- 2-fluorobiphenyl
TBP-2,4,6-Tribromophenol

For sample WGL-SD-SD108-000.6, all compounds were qualified based on the noncompliant surrogate recoveries. For the remaining samples listed in this table, only acid compounds required qualification based on the surrogate recovery nonconformances.

.Although the surrogate recovery QC criteria were not met as for the samples listed above, the project accuracy goals are not impacted since there are no regulatory limits for the affected target SVOCs.

The positive and non-detected results in the affected samples are usable as estimated values and estimated quantitation limits which may be biased low.

PAH

The following samples had surrogate spike recoveries outside of the recovery QC limits:

Sample	Surrogate	% Recovery	QC Limits	Action	
				(+)	NDs
WGL-SD-SD101-000.6	2MN	24	33-125	J	UJ
	FLO	33	53-136		
WGL-SD-SD106-000.6	2MN	32	33-125	J	UJ
	FLO	49	53-136		
WGL-SD-SD108-000.6	2MN	31	33-125	J	UJ
	FLO	36	53-136		

2-MN: 2-methylnaphthalene FLO: fluorene-d_{10}

The surrogate recoveries QC criteria were not met for the samples listed above; therefore, the project accuracy goals may be impacted. The positive and non-detected results in the affected samples are usable as estimated values and estimated quantitation limits which may be biased low.

PCBs

The following samples had surrogate spike recoveries outside of the QC recovery limits:

Sample	% Recovery		Action	
	DCB (column1)	DCB (column 2)	(+)	NDs
WGL-SD-SD102-000.6	49	met		UJ
WGL-SD-SD101-000.6	22	33		UJ
WGL-SD-DUP01-061109	29	36		UJ
WGL-SD-SD104-000.6	23	36		UJ
WGL-SD-SD106-000.6	18	33		UJ
WGL-SD-DUP02-061109	20	36		UJ
WGL-SD-SD107-000.6	met	0*		UJ
WGL-SD-SD108-000.6	19	0*		UJ
WGL-SD-SD105-000.6	0*	39		UJ
WGL-SD-SD112-000.6	10	0		R
WGL-SD-SD110-000.6	10	0		R
WGL-SD-SD109-000.6	6	0		R
WGL-SD-SD111-000.6	0**	0**		UJ
QC Limits	59-124	59-124		

*Matrix interferences noted; thus, professional judgment was used to estimate non-detected results rather than reject.
** Professional judgment was used to estimate non-detected results rather than reject since the high MS/MSD recoveries for this associated sample indicate a potential high bias for these sample results.

The non-detected PCB results in samples WGL-SD-SD109-000.6, WGL-SD-SD110-000.6, and WGL-SD-SD112-000.6 are not usable for project decisions as a result of the extremely low surrogate recoveries (<10%), results are rejected (UR).

The surrogate recoveries QC criteria were not met for the remainder samples listed in the above table; therefore, the project accuracy goals may be impacted. The non-detected PCB results for the remaining samples listed above are usable as estimated quantitation limits which may be biased low.

Internal Standards

Volatiles

The following table summarizes the volatile internal standards that failed to meet the QC acceptance criteria:

Sample	Internal Standard	IS Area	Acceptable Range	Action	
				(+)	NDs
WGL-SD-SD103-000.6	1,4-dichlorobenzene-d_4	46695	101446-405784		UJ
WGL-SD-DUP01-061109	1,4-dichlorobenzene-d_4	66459	101446-405784		UJ
WGL-SD-SD102-000.6	1,4-dichlorobenzene-d_4	79791	98842-395368		UJ
WGL-SD-SD101-000.6	chlorobenzene-d_5	146971	182439-729756		UJ
	1,4-dichlorobenzene-d_4	33047	98842-395368		R
WGL-SD-SD104-000.6	chlorobenzene-d_5	109815	182439-729756		UJ
	1,4-dichlorobenzene-d_4	20157	98842-395368		R
WGL-SD-SD106-000.6	chlorobenzene-d_5	120930	182439-729756		UJ
	1,4-dichlorobenzene-d_4	22151	98842-395368		R
WGL-SD-DUP02-061109	chlorobenzene-d_5	98876	182439-729756		UJ
	1,4-dichlorobenzene-d_4	17391	98842-395368		R
WGL-SD-SD108-000.6	chlorobenzene-d_5	120365	182439-729756		UJ
	1,4-dichlorobenzene-d_4	26654	98842-395368		R
WGL-SD-SD105-000.6	chlorobenzene-d_5	133467	182439-729756		UJ
	1,4-dichlorobenzene-d_4	32101	98842-395368		R
WGL-SD-SD112-000.6	chlorobenzene-d_5	160115	182439-729756		UJ
	1,4-dichlorobenzene-d_4	38923	98842-395368		R
WGL-SD-SD109-000.6	1,4-dichlorobenzene-d_4	61490	98842-395368		UJ
WGL-SD-SD107-000.6	chlorobenzene-d_5	173829	179816-719262		UJ
	1,4-dichlorobenzene-d_4	43859	102280-409118		UJ
WGL-SD-SD110-000.6	chlorobenzene-d_5	145157	179816-719262		UJ
	1,4-dichlorobenzene-d_4	33085	102280-409118		R

The target compounds associated with chlorobenzene-d_5 are tetrachloroethene, 2-hexanone, dibromochloromethane, chlorobenzene, ethylbenzene, m,p-xylenes, o-xylene, xylenes (total), styrene, and bromoform. The target compounds associated with 1,4-dichlorobenzene-d_4 are isopropylbenzene,

1,1,2,2-tetrachloroethane, 1,3-dichlorobenzene, 1,4-dichlorobenzene, 1,2-dichlorobenzene, 1,2-dibromo-3-chloropropane, and 1,2,4-trichlorobenzene.

The non-detected results for the target compounds associated with the internal standard 1,4-dichlorobenzene-d_4 in samples WGL-SD-SD101-000.6, WGL-SD-SD104-000.6, WGL-SD-SD106-000.6, WGL-SD-DUP02-061109, WGL-SD-SD108-000.6, WGL-SD-SD105-000.6, WGL-SD-SD112-000.6, and WGL-SD-SD110-000.6 are not usable for project decisions due to the extremely low internal standard areas (*i.e.*, <20% of the associated continuing calibration standard area), these results are rejected (UR).

Although the QC criteria were not met for the internal standard areas of chlorobenzene-d_5 and 1,4-dichlorobenzene-d_4 for the reminder samples listed in the table above, the project accuracy goals are not impacted since there are no regulatory limits established for the affected target VOCs. The non-detected results for the target compounds associated with chlorobenzene-d_5 and 1,4-dichlorobenzene-d_4 in the remaining affected samples are usable as estimated quantitation limits.

Semivolatiles

The following table summarizes the semivolatile internal standards that failed to meet the QC acceptance criteria:

Sample	Internal Standard	IS Area	Acceptable Range	Action	
				(+)	NDs
WGL-SD-SD111-000.6	chrysene-d_{12}	422597	478716-1914862	J	UJ
	perylene-d_{12}	228893	344481-1377924		
WGL-SD-SD103-000.6	chrysene-d_{12}	404372	437561-1750244	J	UJ
	perylene-d_{12}	208785	301189-1204754		
WGL-SD-SD102-000.6	chrysene-d_{12}	315081	437561-1750244	J	UJ
	perylene-d_{12}	143358	301189-1204754		
WGL-SD-SD101-000.6	chrysene-d_{12}	173365	437561-1750244	J	R
	perylene-d_{12}	98389	301189-1204754		
WGL-SD-DUP01-061109	chrysene-d_{12}	269697	437561-1750244	J	UJ
	perylene-d_{12}	131611	301189-1204754		
WGL-SD-SD104-000.6	chrysene-d_{12}	431558	437561-1750244	J	UJ
	perylene-d_{12}	222987	301189-1204754		
WGL-SD-SD106-000.6	chrysene-d_{12}	223043	437561-1750244	J	UJ
	perylene-d_{12}	125888	301189-1204754		
WGL-SD-DUP02-061109	chrysene-d_{12}	305564	437561-1750244	J	UJ
	perylene-d_{12}	155070	301189-1204754		
WGL-SD-SD107-000.6	chrysene-d_{12}	300680	437561-1750244	J	UJ
	perylene-d_{12}	162491	301189-1204754		
WGL-SD-SD108-000.6	chrysene-d_{12}	277707	437561-1750244	J	UJ
	perylene-d_{12}	116474	301189-1204754		R
WGL-SD-SD105-000.6	chrysene-d_{12}	388045	437561-1750244	J	UJ
	perylene-d_{12}	254214	301189-1204754		

Sample	Internal Standard	IS Area	Acceptable Range	Action	
				(+)	NDs
WGL-SD-SD112-000.6	chrysene-d_{12}	264181	437561-1750244	J	UJ
	perylene-d_{12}	182875	301189-1204754		
WGL-SD-SD110-000.6	chrysene-d_{12}	221423	437561-1750244	J	UJ
	perylene-d_{12}	112319	301189-1204754		R
WGL-SD-SD109-000.6	chrysene-d_{12}	209154	437561-1750244	J	UJ
	perylene-d_{12}	90710	301189-1204754		R

The reported target compounds associated with chrysene-d_{12} are butylbenzylphthalate, 3,3'-dichlorobenzidine, and bis(2-ethylhexyl)phthalate. The reported target compound associated with perylene-d_{12} is di-n-octyl phthalate.

The results for the target compounds associated with the internal standards chrysene-d_{12} and perylene-d_{12} in sample WGL-SD-SD101-000.6; and those associated with perylene-d_{12} in samples WGL-SD-SD108-000.6, WGL-SD-SD110-000.6, and WGL-SD-SD109-000.6 are not usable for project decisions due to the extremely low internal standard areas (*i.e.*, <20% of the associated continuing calibration standard area) these results are rejected (UR).

Although the QC criteria were not met for the internal standard areas of chrysene-d_{12} and perylene-d_{12} for the samples remainder samples listed in the above table, the project accuracy goals are not impacted since there are no regulatory limits established for the affected target SVOCs. . The positive and non-detected results for the target compounds associated with chrysene-d_{12} and perylene-d_{12} in the remaining affected samples are usable as estimated values and estimated quantitation limits.

PAH

The following table summarizes the PAH internal standard that failed to meet the QC acceptance criteria:

Sample	Internal Standard	IS Area	Acceptable Range	Action	
				(+)	NDs
WGL-SD-SD112-000.6	perylene-d_{12}	5095	7136-28542	J	UJ

The target compounds associated with perylene-d_{12} are benzo(b)fluoroanthene, benzo(k)fluoroanthene, benzo(a)pyrene, ideno(1,2,3-cd)pyrene, dibenzo(a,h)anthracene, and benzo(g,h,i)perylene.

The QC acceptance criteria were not met for the internal standard area of perylene-d_{12} in sample WGL-SD-SD112-000.6; therefore, project accuracy goals may be impacted. The associated positive and non-detected results in the affected sample are usable as estimated values and estimated quantitation limits.

Matrix Spike/Matrix Spike Duplicate

Volatiles

The majority of the matrix spike/matrix spike duplicate (MS/MSD) results for sample WGL-SD-SD111-000.6 recovered below the compound-specific recovery limits and/or exceeded the RPDs criteria. Professional judgment was used to qualify all positive and non-detected results in this sample as estimated (J and UJ, respectively).

Although the MS/MSD recoveries and or RPDs for most volatile compounds did not meet the QC limits, the project accuracy and precision goals are not impacted since there are no regulatory limits established for the target VOCs. The positive and non-detected VOC results in sample WGL-SD-SD111-000.6 are usable as estimated values and estimated quantitation limits which may be biased low.

Semivolatiles

The following table summarizes the results of the matrix spike and/or matrix spike duplicate (MS/MSD) analyses that were outside of the QC acceptance limits:

WGL-SD-SD111-000.6					
Compound	MS %R	MSD % R	%Rec. QC Limits	Action (+)	Action NDs
1,4-Dioxane	17	16	40-100		UJ
Benzaldehyde	180	174	10-100	J	
4-Chloroaniline	0	0	10-100		R
Caprolactam	-	0	20-100		R
2,4,5-Trichlorophenol	-	9	40-100		R
2-Nitroaniline	23	0	40-100		R
3-Nitroaniline	0	0	20-100		R
4-Nitroaniline	-	0	20-100		R
N-Nitrosodiphenylamine	29	19	40-100		UJ
Atrazine	18	20	40-100		UJ
3,3'-Dichlorobenzidine	0	0	10-100		R
- criterion met					

The results for 4-chloroaniline, caprolactam, 2,4,5-trichlorophenol, 2-nitroaniline, 3-nitroaniline, 4-nitroaniline, and 3,3'-dichlorobenzidine in sample WGL-SD-SD111-000.6 are rejected (UR) not usable for project decisions.

Although the MS and/or MSD percent recovery criteria were not met for1,4-dioxane, benzaldehyde, N-nitrosodiphenylamine, and atrazine the project accuracy goals are not impacted since there are no regulatory limits established for these compounds. The positive and non-detected results for these compounds in this sample are usable as estimated values and estimated quantitation limits. The result for benzaldehyde may be biased high and the results for 1,4-dioxane, N-nitrosodiphenylamine, and atrazine may biased low.

PAHs

The following table summarizes the results of the matrix spike and/or matrix spike duplicate (MS/MSD) analyses that were outside of the QC acceptance limits:

WGL-SD-SD111-000.6					
Compound	MS %R	MSD % R	%Rec. QC Limits	Action (+)	Action NDs
2-Methylnaphthalene	-	145	75-132	J	
Acenaphthene	48	47	56-97	J	
Fluorene	57	56	61-103	J	
Benzo(b)fluoranthene	39	-	44-119	J	
Benzo(a)pyrene	39	-	52-113	J	
Benzo(g,h,i)perylene	26	-	43-121	J	
-criteron met					

Although the MS and/or MSD percent recovery criteria were not met for 2-methylnaphthalene, acenaphthene, benzo(b)fluoranthene and benzo(g,h,i)pyrene the project accuracy goals are not impacted since there are no regulatory limits established for these compounds. The positive results for these compounds in this sample are usable as estimated values. The result for 2-methylnaphthalene in sample WGL-SD-SD111-000.6 may be biased high and the result for the other compounds may be biased low.

The MS/MSD percent recovery criteria were not met for fluorene and benzo(a)pyrene; therefore, the project accuracy goals may be impacted. The positive results for these compounds in sample WGL-SD-SD111-000.6 are usable as estimated values which may be biased low.

Pesticides

The following table summarizes the results of the matrix spike and/or matrix spike duplicate (MS/MSD) analyses that were outside of the QC acceptance limits:

WGL-SD-SD111-000.6					
Compound	MS %R	MSD % R	%Rec. QC Limits	Action (+)	Action NDs
alpha-BHC	56	50	61-108		UJ
gamma-BHC	61	56	67-116		UJ
beta-BHC	60	55	68-124		UJ
delta-BHC	46	38	53-145	J	
Aldrin	-	56	61-117		UJ
Endosulfan II	62	60	63-116	J	
-criteron met					

The MS and/or MSD percent recovery criteria were not met for gamma-BHC; therefore, the project accuracy goals may be impacted. The non-detected gamma-BHC result in sample WGL-SD-SD111-000.6 is usable as estimated values quantitation limits that may be biased low.

Although the MS and/or MSD percent recovery criteria were not met for the other compounds listed in the table above; the project accuracy goals are not impacted since there are no regulatory limits established for these compounds. The positive and non-detected results for these compounds in sample WGL-SD-SD111-000.6 are usable as estimated values and estimated quantitation limits that may be biased low.

Laboratory Control Sample/Laboratory Control Sample Duplicates

Volatiles

The following table summarizes the volatile compounds that failed to meet the LCS recovery limits:

Compound	% Recovery	QC Limits	Action		Affected Samples
			(+)	NDs	
Dichlorodifluoromethane	69	72-196		UJ	WGL-SD-DUP02-061109, WGL-SD-SD101-000.6, WGL-SD-SD102-000.6, WGL-SD-SD104-000.6, WGL-SD-SD105-000.6, WGL-SD-SD106-000.6, WGL-SD-SD108-000.6, WGL-SD-SD109-000.6, WGL-SD-SD111-000.6, WGL-SD-SD112-000.6, WGL-SD-TB01-061109
Methyl acetate	81	85-129		UJ	WGL-SD-SD107-000.6, WGL-SD-SD110-000.6

Although the laboratory control sample recovery criteria were not met for the compounds listed above, the project accuracy goals are not impacted since there are no established regulatory limits for dichlorodifluoromethane or methyl acetate. The non-detected results for these compounds in the affected samples are usable as estimated quantitation limits which may be biased low.

Semivolatiles

The following table summarizes the semivolatile compounds that failed to meet the LCS recovery limits:

Compound	LCS %R	LCSD %R	RPD	QC Limits		Action		Affected Samples
				%R	RPD	(+)	NDs	
1,4-dioxane	22	NA	NA	40-100	NA		UJ	All sediments
Benzaldehyde	-	-	45	-	30		UJ	WGL-SD-FB01-061109
4-Nitrophenol	-	-	62	-	30		UJ	WGL-SD-RB01-061109
NA: Not applicable since an LCSD was not analyzed								

Although the laboratory control sample recovery criterion was not met for 1,4-dioxane, the project accuracy goals are not impacted since there is no established regulatory limit for this compound. The non-detected results for 1,4-dioxane in the affected samples are usable as estimated quantitation limits which may be biased low.

Although the laboratory control sample RPD criteria were not met for benzaldehyde and 4-nitrophenol, the project precision goals are not impacted since there are not regulatory limits for affected compounds. The non-detected results for benzaldehyde and 4-nitrophenol in the affected samples are usable as estimated quantitation limits.

PAHs

The following table summarizes the PAH compounds that failed to meet the LCS recovery limits:

Compound	% Recovery	QC Limits	Action		Affected Samples
			(+)	NDs	
Naphthalene	50	54-94	J	UJ	All sediments
2-Methylnaphthalene	60	75-132	J	UJ	
Acenaphthene	55	56-97	J	UJ	
Fluorene	60	61-101	J	UJ	

Although the laboratory control sample recovery criteria were not met for 2-methylnaphthalene and acenaphthene the project accuracy goals are not impacted since are not impacted since there are not regulatory limits for affected compounds.

The laboratory control sample recovery criteria were not met naphthalene and fluorene; consequently, the project accuracy goals may be impacted. The positive and non-detected results for these compounds in the affected samples are usable as estimated values and estimated quantitation limits which may be biased low.

Pesticides

The following table summarizes the pesticide compounds that failed to meet the LCS recovery limits:

Compound	% Recovery	QC Limits	Action		Affected Samples
			(+)	NDs	
4,4'-DDE	121	69-120	J		All sediments
4,4'-DDD	131	61-127	J		WGL-SD-DUP02-061109, WGL-SD-SD101-000.6, WGL-SD-SD102-000.6, WGL-SD-SD103-000.6, WGL-SD-SD105-000.6, WGL-SD-SD108-000.6, WGL-SD-SD109-000.6, WGL-SD-SD110-000.6

The laboratory control sample recovery criteria were not met for 4,4'-DDE and 4,4'-DDD; therefore, project accuracy goals may be impacted. The positive results for these compounds in the affected samples are usable as estimated values which may be biased high.

Field Duplicates

Volatiles

The following table summarizes the compounds that did not meet the relative percent difference (RPD) field duplicate precision criterion of <50% RPD for the field duplicate pair WGL-SD-SD102-000.6/WGL-SD-DUP01-061109.

Compound	WGL-SD-SD102-000.6 (µg/Kg)	WGL-SD-DUP01-061109 (µg/Kg)	RPD	Action	
				(+)	ND
Acetone	420	1200	96	J	

Although the field duplicate precision criterion was not met for acetone, the project precision goals are not impacted since there is no established regulatory limit for acetone. The positive results for acetone in the affected samples are usable as estimated values for which the bias is undetermined.

Analyte Identification/Quantitation

Pesticides

The %RPD between the results of analytical columns 1 and 2 exceeded the 40% QC criterion for the compounds in the following samples:

Sample	Analyte	%RPD	Action
			(+)
WGL-SD-SD103-000.6	Dieldrin	82	J
WGL-SD-SD102-000.6	Dieldrin	56	J
	4,4'-DDD	41	J
WGL-SD-SD106-000.6	delta-BHC	44	J
	gamma-Chlordane	41	J
WGL-SD-DUP02-061109	Endosulfan II	48	J
WGL-SD-SD107-000.6	gamma-Chlordane	69	J
WGL-SD-SD108-000.6	Endosulfan II	46	J
WGL-SD-SD105-000.6	Endosulfan II	86	J
WGL-SD-SD112-000.6	beta-BHC	55	J
	Dieldrin	57	J
WGL-SD-SD110-000.6	delta-BHC	46	J
	Dieldrin	57	J
WGL-SD-SD109-000.6	delta-BHC	47	J
	Dieldrin	75	J

WGL-SD-SD111-000.6	delta-BHC	62	J
	Dieldrin	80	J
	Endosulfan II	68	J

Although he analyte quantitation relative percent differences were not within QC limits for delta-BHC, endosulfan II, and beta-BHC, the project accuracy goals are not affected since there are not regulatory limits for affected compounds. The positive results in the affected samples are usable as estimated values.

The analyte quantitation relative percent differences were not within QC limits for dieldrin, 4,4-DDD, and gamma chlordane; therefore, the project accuracy goals may be affected due to analytical interferences detected in the dual column analysis. The positive results for dieldrin, 4,4-DDD, and gamma chlordane in the affected samples are usable as estimated values.

Percent Solids

Volatiles

The percent solids content for all sediment samples was >10% but <30% and the sample aliquot was not increased to compensate for the low percent solids content. Therefore, the positive and non-detected VOC results in all sediment samples were qualified as estimated (J and UJ, respectively.

Although the percent solids content was outside of the QC acceptance limits for all sediment samples, the project accuracy goals are not impacted since there are no established regulatory limits for the target VOCs. The positive and non-detected VOC results are usable as estimated values and estimated quantitation limits.

Compound Quantitation Limits

Semivolatiles/PAH

All PAHs were analyzed by full scan as well as SIM mode. The SIM sample results were selected for reporting for all of these samples.

Pesticides

The sample specific PQLs for all pesticide compounds did not meet project quantitation limits due to the required 10-fold dilutions performed on all sediment samples as a result of the matrix interferences and high concentrations of target compounds present in the samples. As a result, the project action limits were not achieved for all compounds except 4,4'-DDE and 4,4'-DDT.

Data Usability Assessment

The data usability assessment was performed to determine if the data met the project data quality objectives for acceptable accuracy, precision, sensitivity, and completeness; and to determine and define the impact of the exceeded quality control indicators on the technical usability of the data. Please refer to the specific sections in the above validation report for further details.

Volatiles

The project goals with respect to accuracy, precision, and sensitivity were met for the volatiles data set. Data usability was not impacted with regards to accuracy, precision, and sensitivity.

The project goals with respect to completeness were met for the volatiles data set with the following exceptions. Select VOC results in some sediment samples were qualified as rejected due to the very low internal standard areas for 1,4-dichlorobenzene-d_4 in the affected samples. These results are not usable for project decisions; thus, data usability with regards to completeness may be impacted.

Semivolatiles

The project goals with respect to accuracy, precision, and sensitivity were met for the semivolatiles data set. Data usability was not impacted with regards to accuracy, precision, and sensitivity.

The project goals with respect to completeness were met for the semivolatiles data set with the following exceptions. The non-detected results for the target compounds associated with the internal standard 1,4-dichlorobenzene-d_4 in samples WGL-SD-SD101-000.6, WGL-SD-SD104-000.6, WGL-SD-SD106-000.6, WGL-SD-DUP02-061109, WGL-SD-SD108-000.6, WGL-SD-SD105-000.6, WGL-SD-SD112-000.6, and WGL-SD-SD110-000.6 were rejected due to the extremely low internal standard areas. Additionally, 4-chloroaniline, caprolactam, 2,4,5-trichlorophenol, 2-nitroaniline, 3-nitroaniline, 4-nitroaniline, and 3,3'-dichlorobenzidine in sample WGL-SD-SD111-000.6 were rejected (UR) due to very low (<10%) matrix spike recoveries. These results are not usable for project decisions; thus, data usability with regards to completeness may be impacted.

PAH

The project goals with respect to accuracy were met for the PAH data set with the following exception. Results for samples WGL-SD-SD101-000.6, WGL-SD-SD106-000.6, and WGL-SD-SD108-000.6 were qualified as estimated due to low surrogate recoveries; results may be biased low. Selected compounds were estimated in sample WGL-SD-SD112-000.6 due to low internal standard areas. Fluorene and benzo(a)pyrenes in sample WGL-SD-SD111-000.6 were estimated due to low matrix spike recoveries; values may be biased low. Naphthalene and flourene results in all sediment samples were qualified as estimated due to low laboratory control sample recoveries. Although specific method criteria were not met in these instances, the affected positive and non-detected results are usable as estimated values and estimated quantitation limits which may have a minor impact on data usability.

The project goals with respect to precision, sensitivity, and completeness were met for the PAH data set. Data usability was not impacted with regards to precision, sensitivity, and completeness.

Pesticides

The project goals with respect to accuracy were met for the pesticides data set with the following exceptions. The non-detected gamma-BHC result in sample WGL-SD-SD111-000.6 was estimated due to low matrix spike recoveries; result may be biased low. Positive results for 4,4'-DDE and 4,4'-DDD in selected samples are estimated due to high laboratory control sample recovery criteria; results may be biased high. In addition, 4,4-DDD and gamma chlordane results were estimated in selected samples

due to analytical interferences detected in the dual column analysis. Although specific method criteria were not met in these instances, the affected positive and non-detected results are usable as estimated values and estimated quantitation limits which may have a minor impact on data usability.

The project goals with respect to precision and completeness were met for the pesticides data set. Data usability was not impacted with regards to precision and completeness.

The project goals with respect to sensitivity were met for the pesticides data set with the following exceptions. The project action limits for all compounds with the exception of 4,4'-DDE and 4,4'-DDT were not achievable as a result of the required 10-fold dilutions performed on these samples.

PCBs

The project goals with respect to accuracy were met for the PCBs data set with the following exceptions. Aroclors were qualified as estimated in selected samples due to low surrogate recoveries. Although specific method criteria were not met in these instances, the affected positive and non-detected results are usable as estimated values and estimated quantitation limits which may have a minor impact on data usability.

The project goals with respect to precision and sensitivity were met for the PCBs data set. Data usability was not impacted with regards to precision and sensitivity.

The project goals with respect to completeness were met for the PCB data set with the following exceptions. All Aroclor results in sediment samples WGL-SD-SD109-000.6, WGL-SD-SD110-000.6, and WGL-SD-SD112-000.6 were qualified as rejected due to the very low (<10%) surrogate recoveries. These results are not usable for project decisions; thus, data usability with regards to completeness may be impacted.

Tables: Data Validation Qualifiers and Codes
Data Summary Tables

Enclosures: Data Validation Worksheets

Data Validation Qualifiers and Codes

Data Validation Qualifiers:

= No qualifier attached to value (positive hit)
J = Value is estimated
U = Value is not detected
UJ = Value is not detected and estimated
R = Value (positive hit) is not usable
UR = Value was reported as ND but is not usable

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; e.g. chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 00864	NSAMPLE	WGL-SD-DUP01-061109			WGL-SD-DUP02-061109			WGL-SD-SD101-000.6			WGL-SD-SD102-000.6		
SDG: SC3122	LAB_ID	SC3122-10			SC3122-19			SC3122-7			SC3122-4RA		
FRACTION: OV	SAMP_DATE	6/11/2009			6/11/2009			6/11/2009			6/11/2009		
MEDIA: SEDIMENT	QC_TYPE	FD			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	18.3			17.2			26.5			18.1		
	DUP_OF	WGL-SD-SD102-000.6			WGL-SD-SD106-000.6								
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		28	UJ	RY	22	UJ	RY	23	UJ	Y	26	UJ	RY
1,1,2,2-TETRACHLOROETHANE		28	UJ	NRY	22	UR	N	23	UJ	Y	26	UJ	NRY
1,1,2-TRICHLOROETHANE		28	UJ	RY	22	UJ	RY	23	UJ	Y	26	UJ	RY
1,1-DICHLOROETHANE		28	UJ	RY	22	UJ	RY	23	UJ	Y	26	UJ	RY
1,1-DICHLOROETHENE		28	UJ	RY	22	UJ	RY	23	UJ	Y	26	UJ	RY
1,2,4-TRICHLOROBENZENE		28	UJ	NRY	22	UR	N	23	UJ	Y	26	UJ	NRY
1,2-DIBROMO-3-CHLOROPROPANE		28	UJ	NRY	22	UR	N	23	UJ	Y	26	UJ	NRY
1,2-DIBROMOETHANE		28	UJ	RY	22	UJ	RY	23	UJ	Y	26	UJ	RY
1,2-DICHLOROBENZENE		28	UJ	NRY	22	UR	N	23	UJ	Y	26	UJ	NRY
1,2-DICHLOROETHANE		28	UJ	RY	22	UJ	RY	23	UJ	Y	26	UJ	RY
1,2-DICHLOROPROPANE		28	UJ	RY	22	UJ	RY	23	UJ	Y	26	UJ	RY
1,3-DICHLOROBENZENE		28	UJ	NRY	22	UR	N	23	UJ	Y	26	UJ	NRY
1,4-DICHLOROBENZENE		28	UJ	NRY	22	UR	N	23	UJ	Y	26	UJ	NRY
2-BUTANONE		120	J	RY	67	J	PRY	110	UJ	Y	130	UJ	RY
2-HEXANONE		140	UJ	RY	110	UJ	NRY	110	UJ	Y	130	UJ	RY
4-METHYL-2-PENTANONE		140	UJ	RY	110	UJ	RY	110	UJ	Y	130	UJ	RY
ACETONE		1200	J	GRY	470	J	RY	110	UJ	Y	420	J	GRY
BENZENE		28	UJ	RY	22	UJ	RY	23	UJ	Y	26	UJ	RY
BROMODICHLOROMETHANE		28	UJ	RY	22	UJ	RY	23	UJ	Y	26	UJ	RY
BROMOFORM		28	UJ	RY	22	UJ	NRY	23	UJ	Y	26	UJ	RY
BROMOMETHANE		28	UJ	RY	22	UJ	RY	23	UJ	Y	26	UJ	RY
CARBON DISULFIDE		28	UJ	RY	22	UJ	RY	23	UJ	Y	26	UJ	RY
CARBON TETRACHLORIDE		28	UJ	RY	22	UJ	RY	23	UJ	Y	26	UJ	RY
CHLOROBENZENE		28	UJ	RY	22	UJ	NRY	23	UJ	Y	26	UJ	RY
CHLORODIBROMOMETHANE		28	UJ	RY	22	UJ	NRY	23	UJ	Y	26	UJ	RY
CHLOROETHANE		28	UJ	RY	22	UJ	RY	23	UJ	Y	26	UJ	RY
CHLOROFORM		28	UJ	RY	22	UJ	RY	23	UJ	Y	26	UJ	RY
CHLOROMETHANE		28	UJ	RY	22	UJ	RY	23	UJ	Y	26	UJ	RY
CIS-1,2-DICHLOROETHENE		28	UJ	RY	22	UJ	RY	23	UJ	Y	26	UJ	RY
CIS-1,3-DICHLOROPROPENE		28	UJ	RY	22	UJ	RY	23	UJ	Y	26	UJ	RY
CYCLOHEXANE		28	UJ	RY	22	UJ	RY	23	UJ	Y	26	UJ	RY
DICHLORODIFLUOROMETHANE		28	UJ	RY	22	UJ	ERY	23	UJ	Y	26	UJ	ERY
ETHYLBENZENE		28	UJ	RY	22	UJ	NRY	23	UJ	Y	26	UJ	RY
ISOPROPYLBENZENE		28	UJ	NRY	22	UR	N	23	UJ	Y	26	UJ	NRY
M+P-XYLENES		56	UJ	RY	44	UJ	NRY	46	UJ	Y	53	UJ	RY

PROJ_NO: 00864	NSAMPLE	WGL-SD-SD103-000.6			WGL-SD-SD104-000.6			WGL-SD-SD105-000.6			WGL-SD-SD106-000.6		
SDG: SC3122	LAB_ID	SC3122-1			SC3122-13RA			SC3122-28			SC3122-16		
FRACTION: OV	SAMP_DATE	6/11/2009			6/11/2009			6/11/2009			6/11/2009		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	17.9			18.0			23.1			17.4		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		42	UJ	RY	20	UJ	RY	31	UJ	RY	35	UJ	RY
1,1,2,2-TETRACHLOROETHANE		42	UJ	NRY	20	UR	N	31	UR	N	35	UR	N
1,1,2-TRICHLOROETHANE		42	UJ	RY	20	UJ	RY	31	UJ	RY	35	UJ	RY
1,1-DICHLOROETHANE		42	UJ	RY	20	UJ	RY	31	UJ	RY	35	UJ	RY
1,1-DICHLOROETHENE		42	UJ	RY	20	UJ	RY	31	UJ	RY	35	UJ	RY
1,2,4-TRICHLOROBENZENE		42	UJ	NRY	20	UR	N	31	UR	N	35	UR	N
1,2-DIBROMO-3-CHLOROPROPANE		42	UJ	NRY	20	UR	N	31	UR	N	35	UR	N
1,2-DIBROMOETHANE		42	UJ	RY	20	UJ	RY	31	UJ	RY	35	UJ	RY
1,2-DICHLOROBENZENE		42	UJ	NRY	20	UR	N	31	UR	N	35	UR	N
1,2-DICHLOROETHANE		42	UJ	RY	20	UJ	RY	31	UJ	RY	35	UJ	RY
1,2-DICHLOROPROPANE		42	UJ	RY	20	UJ	RY	31	UJ	RY	35	UJ	RY
1,3-DICHLOROBENZENE		42	UJ	NRY	20	UR	N	31	UR	N	35	UR	N
1,4-DICHLOROBENZENE		42	UJ	NRY	20	UR	N	31	UR	N	35	UR	N
2-BUTANONE		210	UJ	RY	50	J	PRY	160	UJ	RY	100	J	PRY
2-HEXANONE		210	UJ	RY	100	UJ	NRY	160	UJ	NRY	170	UJ	NRY
4-METHYL-2-PENTANONE		210	UJ	RY	100	UJ	RY	160	UJ	RY	170	UJ	RY
ACETONE		210	UJ	RY	330	J	RY	73	J	PRY	600	J	RY
BENZENE		42	UJ	RY	20	UJ	RY	31	UJ	RY	35	UJ	RY
BROMODICHLOROMETHANE		42	UJ	RY	20	UJ	RY	31	UJ	RY	35	UJ	RY
BROMOFORM		42	UJ	RY	20	UJ	NRY	31	UJ	NRY	35	UJ	NRY
BROMOMETHANE		42	UJ	RY	20	UJ	RY	31	UJ	RY	35	UJ	RY
CARBON DISULFIDE		42	UJ	RY	20	UJ	RY	31	UJ	RY	35	UJ	RY
CARBON TETRACHLORIDE		42	UJ	RY	20	UJ	RY	31	UJ	RY	35	UJ	RY
CHLOROBENZENE		42	UJ	RY	20	UJ	NRY	31	UJ	NRY	35	UJ	NRY
CHLORODIBROMOMETHANE		42	UJ	RY	20	UJ	NRY	31	UJ	NRY	35	UJ	NRY
CHLOROETHANE		42	UJ	RY	20	UJ	RY	31	UJ	RY	35	UJ	RY
CHLOROFORM		42	UJ	RY	20	UJ	RY	31	UJ	RY	35	UJ	RY
CHLOROMETHANE		42	UJ	RY	20	UJ	RY	31	UJ	RY	35	UJ	RY
CIS-1,2-DICHLOROETHENE		42	UJ	RY	20	UJ	RY	31	UJ	RY	35	UJ	RY
CIS-1,3-DICHLOROPROPENE		42	UJ	RY	20	UJ	RY	31	UJ	RY	35	UJ	RY
CYCLOHEXANE		42	UJ	RY	20	UJ	RY	31	UJ	RY	35	UJ	RY
DICHLORODIFLUOROMETHANE		42	UJ	RY	20	UJ	ERY	31	UJ	ERY	35	UJ	ERY
ETHYLBENZENE		42	UJ	RY	20	UJ	NRY	31	UJ	NRY	35	UJ	NRY
ISOPROPYLBENZENE		42	UJ	NRY	20	UR	N	31	UR	N	35	UR	N
M+P-XYLENES		83	UJ	RY	41	UJ	NRY	63	UJ	NRY	70	UJ	NRY

PROJ_NO: 00864	NSAMPLE	WGL-SD-SD107-000.6			WGL-SD-SD108-000.6			WGL-SD-SD109-000.6			WGL-SD-SD110-000.6		
SDG: SC3122	LAB_ID	SC3122-22RA			SC3122-25			SC3122-37			SC3122-34RA		
FRACTION: OV	SAMP_DATE	6/11/2009			6/11/2009			6/11/2009			6/11/2009		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	22.3			25.2			19.5			20.7		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		36	UJ	RY	29	UJ	RY	20	UJ	RY	24	UJ	RY
1,1,2,2-TETRACHLOROETHANE		36	UJ	NRY	29	UR	N	20	UJ	NRY	24	UR	N
1,1,2-TRICHLOROETHANE		36	UJ	RY	29	UJ	RY	20	UJ	RY	24	UJ	RY
1,1-DICHLOROETHANE		36	UJ	RY	29	UJ	RY	20	UJ	RY	24	UJ	RY
1,1-DICHLOROETHENE		36	UJ	RY	29	UJ	RY	20	UJ	RY	24	UJ	RY
1,2,4-TRICHLOROBENZENE		36	UJ	NRY	29	UR	N	20	UJ	NRY	24	UR	N
1,2-DIBROMO-3-CHLOROPROPANE		36	UJ	NRY	29	UR	N	20	UJ	NRY	24	UR	N
1,2-DIBROMOETHANE		36	UJ	RY	29	UJ	RY	20	UJ	RY	24	UJ	RY
1,2-DICHLOROBENZENE		36	UJ	NRY	29	UR	N	20	UJ	NRY	24	UR	N
1,2-DICHLOROETHANE		36	UJ	RY	29	UJ	RY	20	UJ	RY	24	UJ	RY
1,2-DICHLOROPROPANE		36	UJ	RY	29	UJ	RY	20	UJ	RY	24	UJ	RY
1,3-DICHLOROBENZENE		36	UJ	NRY	29	UR	N	20	UJ	NRY	24	UR	N
1,4-DICHLOROBENZENE		36	UJ	NRY	29	UR	N	20	UJ	NRY	24	UR	N
2-BUTANONE		180	UJ	RY	140	UJ	RY	100	UJ	RY	50	J	PRY
2-HEXANONE		180	UJ	NRY	140	UJ	NRY	100	UJ	RY	120	UJ	NRP
4-METHYL-2-PENTANONE		180	UJ	RY	140	UJ	RY	100	UJ	RY	120	UJ	RY
ACETONE		180	UJ	RY	140	UJ	RY	210	J	RY	210	J	RY
BENZENE		36	UJ	RY	29	UJ	RY	20	UJ	RY	24	UJ	RY
BROMODICHLOROMETHANE		36	UJ	RY	29	UJ	RY	20	UJ	RY	24	UJ	RY
BROMOFORM		36	UJ	NRY	29	UJ	NRY	20	UJ	RY	24	UJ	NRY
BROMOMETHANE		36	UJ	RY	29	UJ	RY	20	UJ	RY	24	UJ	RY
CARBON DISULFIDE		36	UJ	RY	29	UJ	RY	20	UJ	RY	24	UJ	RY
CARBON TETRACHLORIDE		36	UJ	RY	29	UJ	RY	20	UJ	RY	24	UJ	RY
CHLOROBENZENE		36	UJ	NRY	29	UJ	NRY	20	UJ	RY	24	UJ	NRY
CHLORODIBROMOMETHANE		36	UJ	NRY	29	UJ	NRY	20	UJ	RY	24	UJ	NRY
CHLOROETHANE		36	UJ	RY	29	UJ	RY	20	UJ	RY	24	UJ	RY
CHLOROFORM		36	UJ	RY	29	UJ	RY	20	UJ	RY	24	UJ	RY
CHLOROMETHANE		36	UJ	RY	29	UJ	RY	20	UJ	RY	24	UJ	RY
CIS-1,2-DICHLOROETHENE		36	UJ	RY	29	UJ	RY	20	UJ	RY	24	UJ	RY
CIS-1,3-DICHLOROPROPENE		36	UJ	RY	29	UJ	RY	20	UJ	RY	24	UJ	RY
CYCLOHEXANE		36	UJ	RY	29	UJ	RY	20	UJ	RY	24	UJ	RY
DICHLORODIFLUOROMETHANE		36	UJ	RY	29	UJ	ERY	20	UJ	ERY	24	UJ	RY
ETHYLBENZENE		36	UJ	NRY	29	UJ	NRY	20	UJ	RY	24	UJ	NRY
ISOPROPYLBENZENE		36	UJ	NRY	29	UR	N	20	UJ	NRY	24	UR	N
M+P-XYLENES		72	UJ	NRY	58	UJ	NRY	41	UJ	RY	49	UJ	NRY

PROJ_NO: 00864	NSAMPLE	WGL-SD-SD111-000.6			WGL-SD-SD112-000.6			WGL-SD-TB01-061109		
SDG: SC3122	LAB_ID	SC3122-40			SC3122-31			SC3122-47		
FRACTION: OV	SAMP_DATE	6/11/2009			6/11/2009			6/11/2009		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			TB		
	UNITS	UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	23.0			22.7			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		18	UJ	DY	14	UJ	R	5	U	
1,1,2,2-TETRACHLOROETHANE		18	UJ	DY	14	UR	N	5	U	
1,1,2-TRICHLOROETHANE		18	UJ	DY	14	UJ	R	5	U	
1,1-DICHLOROETHANE		18	UJ	DY	14	UJ	R	5	U	
1,1-DICHLOROETHENE		18	UJ	DY	14	UJ	R	5	U	
1,2,4-TRICHLOROBENZENE		18	UJ	DY	14	UR	N	5	U	
1,2-DIBROMO-3-CHLOROPROPANE		18	UJ	DY	14	UR	N	5	U	
1,2-DIBROMOETHANE		18	UJ	DY	14	UJ	R	5	U	
1,2-DICHLOROBENZENE		18	UJ	DY	14	UR	N	5	U	
1,2-DICHLOROETHANE		18	UJ	DY	14	UJ	R	5	U	
1,2-DICHLOROPROPANE		18	UJ	DY	14	UJ	R	5	U	
1,3-DICHLOROBENZENE		18	UJ	DY	14	UR	N	5	U	
1,4-DICHLOROBENZENE		18	UJ	DY	14	UR	N	5	U	
2-BUTANONE		88	UJ	DY	70	UJ	R	25	U	
2-HEXANONE		88	UJ	DY	70	UJ	NR	25	U	
4-METHYL-2-PENTANONE		88	UJ	DY	70	UJ	R	25	U	
ACETONE		88	UJ	DY	70	UJ	R	25	U	
BENZENE		18	UJ	DY	14	UJ	R	5	U	
BROMODICHLOROMETHANE		18	UJ	DY	14	UJ	R	5	U	
BROMOFORM		18	UJ	DY	14	UJ	NR	5	U	
BROMOMETHANE		18	UJ	DY	14	UJ	R	5	U	
CARBON DISULFIDE		18	UJ	DY	14	UJ	R	5	U	
CARBON TETRACHLORIDE		18	UJ	DY	14	UJ	R	5	U	
CHLOROBENZENE		18	UJ	DY	14	UJ	NR	5	U	
CHLORODIBROMOMETHANE		18	UJ	DY	14	UJ	NR	5	U	
CHLOROETHANE		18	UJ	DY	14	UJ	R	5	U	
CHLOROFORM		18	UJ	DY	14	UJ	R	5	U	
CHLOROMETHANE		18	UJ	DY	14	UJ	R	5	U	
CIS-1,2-DICHLOROETHENE		18	UJ	DY	14	UJ	R	5	U	
CIS-1,3-DICHLOROPROPENE		18	UJ	DY	14	UJ	R	5	U	
CYCLOHEXANE		18	UJ	DY	14	UJ	R	5	U	
DICHLORODIFLUOROMETHANE		18	UJ	DEY	14	UJ	ER	5	UJ	E
ETHYLBENZENE		18	UJ	DY	14	UJ	NR	5	U	
ISOPROPYLBENZENE		18	UJ	DY	14	UR	N	5	U	
M+P-XYLENES		35	UJ	DY	28	UJ	NR	10	U	

PROJ_NO: 00864	NSAMPLE	WGL-SD-DUP01-061109			WGL-SD-DUP02-061109			WGL-SD-SD101-000.6			WGL-SD-SD102-000.6		
SDG: SC3122	LAB_ID	SC3122-10			SC3122-19			SC3122-7			SC3122-4RA		
FRACTION: OV	SAMP_DATE	6/11/2009			6/11/2009			6/11/2009			6/11/2009		
MEDIA: SEDIMENT	QC_TYPE	FD			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	18.3			17.2			26.5			18.1		
	DUP_OF	WGL-SD-SD102-000.6			WGL-SD-SD106-000.6								
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL ACETATE		28	UJ	RY	22	UJ	RY	23	UJ	Y	26	UJ	RY
METHYL CYCLOHEXANE		28	UJ	RY	22	UJ	RY	23	UJ	Y	26	UJ	RY
METHYL TERT-BUTYL ETHER		28	UJ	RY	22	UJ	RY	23	UJ	Y	26	UJ	RY
METHYLENE CHLORIDE		140	UJ	RY	110	UJ	RY	110	UJ	Y	130	UJ	RY
O-XYLENE		28	UJ	RY	22	UJ	NRY	23	UJ	Y	26	UJ	RY
STYRENE		28	UJ	RY	22	UJ	NRY	23	UJ	Y	26	UJ	RY
TETRACHLOROETHENE		28	UJ	RY	22	UJ	NRY	23	UJ	Y	26	UJ	RY
TOLUENE		28	UJ	RY	22	UJ	RY	23	UJ	Y	26	UJ	RY
TOTAL XYLENES		84	UJ	RY	66	UJ	NRY	68	UJ	Y	79	UJ	RY
TRANS-1,2-DICHLOROETHENE		28	UJ	RY	22	UJ	RY	23	UJ	Y	26	UJ	RY
TRANS-1,3-DICHLOROPROPENE		28	UJ	RY	22	UJ	RY	23	UJ	Y	26	UJ	RY
TRICHLOROETHENE		28	UJ	RY	22	UJ	RY	23	UJ	Y	26	UJ	RY
TRICHLOROFLUOROMETHANE		28	UJ	RY	22	UJ	RY	23	UJ	Y	26	UJ	RY
VINYL CHLORIDE		28	UJ	RY	22	UJ	RY	23	UJ	Y	26	UJ	RY

PROJ_NO: 00864	NSAMPLE	WGL-SD-SD103-000.6			WGL-SD-SD104-000.6			WGL-SD-SD105-000.6			WGL-SD-SD106-000.6		
SDG: SC3122	LAB_ID	SC3122-1			SC3122-13RA			SC3122-28			SC3122-16		
FRACTION: OV	SAMP_DATE	6/11/2009			6/11/2009			6/11/2009			6/11/2009		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	17.9			18.0			23.1			17.4		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL ACETATE		42	UJ	RY	20	UJ	RY	31	UJ	RY	35	UJ	RY
METHYL CYCLOHEXANE		42	UJ	RY	20	UJ	RY	31	UJ	RY	35	UJ	RY
METHYL TERT-BUTYL ETHER		42	UJ	RY	20	UJ	RY	31	UJ	RY	35	UJ	RY
METHYLENE CHLORIDE		210	UJ	RY	100	UJ	RY	160	UJ	RY	170	UJ	RY
O-XYLENE		42	UJ	RY	20	UJ	NRY	31	UJ	NRY	35	UJ	NRY
STYRENE		42	UJ	RY	20	UJ	NRY	31	UJ	NRY	35	UJ	NRY
TETRACHLOROETHENE		42	UJ	RY	20	UJ	NRY	31	UJ	NRY	35	UJ	NRY
TOLUENE		42	UJ	RY	20	UJ	RY	31	UJ	RY	35	UJ	RY
TOTAL XYLENES		120	UJ	RY	62	UJ	NRY	94	UJ	NRY	100	UJ	NRY
TRANS-1,2-DICHLOROETHENE		42	UJ	RY	20	UJ	RY	31	UJ	RY	35	UJ	RY
TRANS-1,3-DICHLOROPROPENE		42	UJ	RY	20	UJ	RY	31	UJ	RY	35	UJ	RY
TRICHLOROETHENE		42	UJ	RY	20	UJ	RY	31	UJ	RY	35	UJ	RY
TRICHLOROFLUOROMETHANE		42	UJ	RY	20	UJ	RY	31	UJ	RY	35	UJ	RY
VINYL CHLORIDE		42	UJ	RY	20	UJ	RY	31	UJ	RY	35	UJ	RY

PROJ_NO: 00864	NSAMPLE	WGL-SD-SD107-000.6			WGL-SD-SD108-000.6			WGL-SD-SD109-000.6			WGL-SD-SD110-000.6		
SDG: SC3122	LAB_ID	SC3122-22RA			SC3122-25			SC3122-37			SC3122-34RA		
FRACTION: OV	SAMP_DATE	6/11/2009			6/11/2009			6/11/2009			6/11/2009		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	22.3			25.2			19.5			20.7		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL ACETATE		36	UJ	ERY	29	UJ	RY	20	UJ	RY	24	UJ	ERY
METHYL CYCLOHEXANE		36	UJ	RY	29	UJ	RY	20	UJ	RY	24	UJ	RY
METHYL TERT-BUTYL ETHER		36	UJ	RY	29	UJ	RY	20	UJ	RY	24	UJ	RY
METHYLENE CHLORIDE		180	UJ	RY	140	UJ	RY	100	UJ	RY	120	UJ	RY
O-XYLENE		36	UJ	NRY	29	UJ	NRY	20	UJ	RY	24	UJ	NRY
STYRENE		36	UJ	NRY	29	UJ	NRY	20	UJ	RY	24	UJ	NRY
TETRACHLOROETHENE		36	UJ	NRY	29	UJ	NRY	20	UJ	RY	24	UJ	NRY
TOLUENE		36	UJ	RY	29	UJ	RY	20	UJ	RY	24	UJ	RY
TOTAL XYLENES		110	UJ	NRY	87	UJ	NRY	62	UJ	RY	74	UJ	NRY
TRANS-1,2-DICHLOROETHENE		36	UJ	RY	29	UJ	RY	20	UJ	RY	24	UJ	RY
TRANS-1,3-DICHLOROPROPENE		36	UJ	RY	29	UJ	RY	20	UJ	RY	24	UJ	RY
TRICHLOROETHENE		36	UJ	RY	29	UJ	RY	20	UJ	RY	24	UJ	RY
TRICHLOROFLUOROMETHANE		36	UJ	RY	29	UJ	RY	20	UJ	RY	24	UJ	RY
VINYL CHLORIDE		36	UJ	RY	29	UJ	RY	20	UJ	RY	24	UJ	RY

PROJ_NO: 00864	NSAMPLE	WGL-SD-SD111-000.6			WGL-SD-SD112-000.6			WGL-SD-TB01-061109		
SDG: SC3122	LAB_ID	SC3122-40			SC3122-31			SC3122-47		
FRACTION: OV	SAMP_DATE	6/11/2009			6/11/2009			6/11/2009		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			TB		
	UNITS	UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	23.0			22.7			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL ACETATE		18	UJ	DY	14	UJ	R	5	U	
METHYL CYCLOHEXANE		18	UJ	DY	14	UJ	R	5	U	
METHYL TERT-BUTYL ETHER		18	UJ	DY	14	UJ	R	5	U	
METHYLENE CHLORIDE		88	UJ	DY	70	UJ	R	25	U	
O-XYLENE		18	UJ	DY	14	UJ	NR	5	U	
STYRENE		18	UJ	DY	14	UJ	NR	5	U	
TETRACHLOROETHENE		18	UJ	DY	14	UJ	NR	5	U	
TOLUENE		18	UJ	DY	14	UJ	R	5	U	
TOTAL XYLENES		52	UJ	DY	42	UJ	NR	15	U	
TRANS-1,2-DICHLOROETHENE		18	UJ	DY	14	UJ	R	5	U	
TRANS-1,3-DICHLOROPROPENE		18	UJ	DY	14	UJ	R	5	U	
TRICHLOROETHENE		18	UJ	DY	14	UJ	R	5	U	
TRICHLOROFLUOROMETHANE		18	UJ	DY	14	UJ	R	5	U	
VINYL CHLORIDE		18	UJ	DY	14	UJ	R	5	U	

PROJ_NO: 00864	NSAMPLE	WGL-SD-FB01-061109			WGL-SD-RB01-061109		
SDG: SC3122	LAB_ID	SC3122-43			SC3122-45		
FRACTION: OV	SAMP_DATE	6/11/2009			6/11/2009		
MEDIA: WATER	QC_TYPE	FB			RB		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		1	U		1	U	
1,1,2,2-TETRACHLOROETHANE		1	U		1	U	
1,1,2-TRICHLOROETHANE		1	U		1	U	
1,1-DICHLOROETHANE		1	U		1	U	
1,1-DICHLOROETHENE		1	U		1	U	
1,2,4-TRICHLOROBENZENE		1	U		1	U	
1,2-DIBROMO-3-CHLOROPROPANE		1	U		1	U	
1,2-DIBROMOETHANE		1	U		1	U	
1,2-DICHLOROBENZENE		1	U		1	U	
1,2-DICHLOROETHANE		1	U		1	U	
1,2-DICHLOROPROPANE		1	U		1	U	
1,3-DICHLOROBENZENE		1	U		1	U	
1,4-DICHLOROBENZENE		1	U		1	U	
2-BUTANONE		5	U		5	U	
2-HEXANONE		5	U		5	U	
4-METHYL-2-PENTANONE		5	U		5	U	
ACETONE		5	U		4	J	CP
BENZENE		1	U		1	U	
BROMODICHLOROMETHANE		1	U		1	U	
BROMOFORM		1	U		1	U	
BROMOMETHANE		2	U		2	U	
CARBON DISULFIDE		1	U		1	U	
CARBON TETRACHLORIDE		1	U		1	U	
CHLOROBENZENE		1	U		1	U	
CHLORODIBROMOMETHANE		1	U		1	U	
CHLOROETHANE		2	U		2	U	
CHLOROFORM		1	U		1	U	
CHLOROMETHANE		2	U		2	U	
CIS-1,2-DICHLOROETHENE		1	U		1	U	
CIS-1,3-DICHLOROPROPENE		1	U		1	U	
CYCLOHEXANE		1	U		1	U	
DICHLORODIFLUOROMETHANE		2	U		2	U	
ETHYLBENZENE		1	U		1	U	
ISOPROPYLBENZENE		1	U		1	U	
M+P-XYLENES		2	U		2	U	

PROJ_NO: 00864	NSAMPLE	WGL-SD-FB01-061109			WGL-SD-RB01-061109		
SDG: SC3122	LAB_ID	SC3122-43			SC3122-45		
FRACTION: OV	SAMP_DATE	6/11/2009			6/11/2009		
MEDIA: WATER	QC_TYPE	FB			RB		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL ACETATE		1	U		1	U	
METHYL CYCLOHEXANE		1	U		1	U	
METHYL TERT-BUTYL ETHER		1	U		1	U	
METHYLENE CHLORIDE		5	U		5	U	
O-XYLENE		1	U		1	U	
STYRENE		1	U		1	U	
TETRACHLOROETHENE		1	U		1	U	
TOLUENE		1	U		1	U	
TOTAL XYLENES		3	U		3	U	
TRANS-1,2-DICHLOROETHENE		1	U		1	U	
TRANS-1,3-DICHLOROPROPENE		1	U		1	U	
TRICHLOROETHENE		1	U		1	U	
TRICHLOROFLUOROMETHANE		2	U		2	U	
VINYL CHLORIDE		2	U		2	U	

PROJ_NO: 00864	NSAMPLE	WGL-SD-DUP01-061109			WGL-SD-DUP02-061109			WGL-SD-SD101-000.6			WGL-SD-SD102-000.6		
SDG: SC3122	LAB_ID	SC3122-11			SC3122-20			SC3122-8			SC3122-5		
FRACTION: OS	SAMP_DATE	6/11/2009			6/11/2009			6/11/2009			6/11/2009		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	95.7			93.8			96.1			96.4		
	DUP_OF	WGL-SD-SD102-000.6			WGL-SD-SD106-000.6								
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1-BIPHENYL		340	U		350	U		340	U		340	U	
1,4-DIOXANE		340	UJ	E	350	UJ	E	340	UJ	E	340	UJ	E
2,4,5-TRICHLOROPHENOL		860	U		870	U		850	UJ	R	850	UJ	R
2,4,6-TRICHLOROPHENOL		340	U		350	U		340	UJ	R	340	UJ	R
2,4-DICHLOROPHENOL		340	U		350	U		340	UJ	R	340	UJ	R
2,4-DIMETHYLPHENOL		340	U		350	U		340	UJ	R	340	UJ	R
2,4-DINITROPHENOL		860	UJ	C	870	UJ	C	850	UJ	CR	850	UJ	CR
2,4-DINITROTOLUENE		340	U		350	U		340	U		340	U	
2,6-DINITROTOLUENE		340	U		350	U		340	U		340	U	
2-CHLORONAPHTHALENE		340	U		350	U		340	U		340	U	
2-CHLOROPHENOL		340	U		350	U		340	UJ	R	340	UJ	R
2-METHYLPHENOL		340	U		350	U		340	UJ	R	340	UJ	R
2-NITROANILINE		860	U		870	U		850	U		850	U	
2-NITROPHENOL		340	U		350	U		340	UJ	R	340	UJ	R
3&4-METHYLPHENOL		340	U		350	U		340	UJ	R	340	UJ	R
3,3'-DICHLOROBENZIDINE		340	UJ	CN	350	UJ	CN	340	UR	N	340	UJ	CN
3-NITROANILINE		860	U		870	U		850	U		850	U	
4,6-DINITRO-2-METHYLPHENOL		860	U		870	U		850	UJ	R	850	UJ	R
4-BROMOPHENYL PHENYL ETHER		340	U		350	U		340	U		340	U	
4-CHLORO-3-METHYLPHENOL		340	U		350	U		340	UJ	R	340	UJ	R
4-CHLOROANILINE		340	U		350	U		340	U		340	U	
4-CHLOROPHENYL PHENYL ETHER		340	U		350	U		340	U		340	U	
4-NITROANILINE		860	U		870	U		850	U		850	U	
4-NITROPHENOL		860	U		870	U		850	UJ	R	850	UJ	R
ACETOPHENONE		340	UJ	C	350	UJ	C	340	UJ	C	340	UJ	C
ATRAZINE		340	U		350	U		340	U		340	U	
BENZALDEHYDE		810	J	C	370	J	C	790	J	C	640	J	C
BIS(2-CHLOROETHOXY)METHANE		340	U		350	U		340	U		340	U	
BIS(2-CHLOROETHYL)ETHER		340	U		350	U		340	U		340	U	
BIS(2-CHLOROISOPROPYL)ETHER		340	U		350	U		340	U		340	U	
BIS(2-ETHYLHEXYL)PHTHALATE		340	UJ	N	350	UJ	N	340	UR	N	340	UJ	N
BUTYL BENZYL PHTHALATE		340	UJ	N	350	UJ	N	340	UR	N	340	UJ	N
CAPROLACTAM		340	U		350	U		340	U		340	U	
CARBAZOLE		340	U		350	U		340	U		340	U	
DIBENZOFURAN		340	U		350	U		340	U		340	U	

PROJ_NO: 00864	NSAMPLE	WGL-SD-SD103-000.6			WGL-SD-SD104-000.6			WGL-SD-SD105-000.6			WGL-SD-SD106-000.6		
SDG: SC3122	LAB_ID	SC3122-2			SC3122-14			SC3122-29			SC3122-17		
FRACTION: OS	SAMP_DATE	6/11/2009			6/11/2009			6/11/2009			6/11/2009		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	95.6			95.9			93.1			94.4		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1-BIPHENYL		340	U		410	U		350	U		350	U	
1,4-DIOXANE		340	UJ	E	410	UJ	E	350	UJ	E	350	UJ	E
2,4,5-TRICHLOROPHENOL		860	U		1000	UJ	R	880	UJ	R	870	UJ	R
2,4,6-TRICHLOROPHENOL		340	U		410	UJ	R	350	UJ	R	350	UJ	R
2,4-DICHLOROPHENOL		340	U		410	UJ	R	350	UJ	R	350	UJ	R
2,4-DIMETHYLPHENOL		340	U		410	UJ	R	350	UJ	R	350	UJ	R
2,4-DINITROPHENOL		860	UJ	C	1000	UJ	CR	880	UJ	CR	870	UJ	CR
2,4-DINITROTOLUENE		340	U		410	U		350	U		350	U	
2,6-DINITROTOLUENE		340	U		410	U		350	U		350	U	
2-CHLORONAPHTHALENE		340	U		410	U		350	U		350	U	
2-CHLOROPHENOL		340	U		410	UJ	R	350	UJ	R	350	UJ	R
2-METHYLPHENOL		340	U		410	UJ	R	350	UJ	R	350	UJ	R
2-NITROANILINE		860	U		1000	U		880	U		870	U	
2-NITROPHENOL		340	U		410	UJ	R	350	UJ	R	350	UJ	R
3&4-METHYLPHENOL		340	U		410	UJ	R	350	UJ	R	350	UJ	R
3,3'-DICHLOROBENZIDINE		340	UJ	CN	410	UJ	CN	350	UJ	CN	350	UJ	CN
3-NITROANILINE		860	U		1000	U		880	U		870	U	
4,6-DINITRO-2-METHYLPHENOL		860	U		1000	UJ	R	880	UJ	R	870	UJ	R
4-BROMOPHENYL PHENYL ETHER		340	U		410	U		350	U		350	U	
4-CHLORO-3-METHYLPHENOL		340	U		410	UJ	R	350	UJ	R	350	UJ	R
4-CHLOROANILINE		340	U		410	U		350	U		350	U	
4-CHLOROPHENYL PHENYL ETHER		340	U		410	U		350	U		350	U	
4-NITROANILINE		860	U		1000	U		880	U		870	U	
4-NITROPHENOL		860	U		1000	UJ	R	880	UJ	R	870	UJ	R
ACETOPHENONE		340	UJ	C	410	UJ	C	350	UJ	C	350	UJ	C
ATRAZINE		340	U		410	U		350	U		350	U	
BENZALDEHYDE		1100	J	C	830	J	C	3800	J	C	400	J	C
BIS(2-CHLOROETHOXY)METHANE		340	U		410	U		350	U		350	U	
BIS(2-CHLOROETHYL)ETHER		340	U		410	U		350	U		350	U	
BIS(2-CHLOROISOPROPYL)ETHER		340	U		410	U		350	U		350	U	
BIS(2-ETHYLHEXYL)PHTHALATE		340	UJ	N	410	UJ	N	350	UJ	N	350	UJ	N
BUTYL BENZYL PHTHALATE		340	UJ	N	410	UJ	N	350	UJ	N	350	UJ	N
CAPROLACTAM		340	U		410	U		350	U		350	U	
CARBAZOLE		340	U		410	U		350	U		350	U	
DIBENZOFURAN		340	U		410	U		350	U		350	U	

PROJ_NO: 00864	NSAMPLE	WGL-SD-SD107-000.6			WGL-SD-SD108-000.6			WGL-SD-SD109-000.6			WGL-SD-SD110-000.6		
SDG: SC3122	LAB_ID	SC3122-23DL			SC3122-26			SC3122-38			SC3122-35		
FRACTION: OS	SAMP_DATE	6/11/2009			6/11/2009			6/11/2009			6/11/2009		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	95.0			94.9			94.8			92.7		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1-BIPHENYL		690	U		350	UJ	R	350	U		430	U	
1,4-DIOXANE		690	UJ	E	350	UJ	ER	350	UJ	E	430	UJ	E
2,4,5-TRICHLOROPHENOL		1700	U		860	UJ	R	860	UJ	R	1100	U	
2,4,6-TRICHLOROPHENOL		690	U		350	UJ	R	350	UJ	R	430	U	
2,4-DICHLOROPHENOL		690	U		350	UJ	R	350	UJ	R	430	U	
2,4-DIMETHYLPHENOL		690	U		350	UJ	R	350	UJ	R	430	U	
2,4-DINITROPHENOL		1700	UJ	C	860	UJ	CR	860	UJ	CR	1100	UJ	C
2,4-DINITROTOLUENE		690	U		350	UJ	R	350	U		430	U	
2,6-DINITROTOLUENE		690	U		350	UJ	R	350	U		430	U	
2-CHLORONAPHTHALENE		690	U		350	UJ	R	350	U		430	U	
2-CHLOROPHENOL		690	U		350	UJ	R	350	UJ	R	430	U	
2-METHYLPHENOL		690	U		350	UJ	R	350	UJ	R	430	U	
2-NITROANILINE		1700	U		860	UJ	R	860	U		1100	U	
2-NITROPHENOL		690	U		350	UJ	R	350	UJ	R	430	U	
3&4-METHYLPHENOL		690	U		350	UJ	R	350	UJ	R	430	U	
3,3'-DICHLOROBENZIDINE		690	UJ	CN	350	UJ	CR	350	UJ	C	430	UJ	C
3-NITROANILINE		1700	U		860	UJ	R	860	U		1100	U	
4,6-DINITRO-2-METHYLPHENOL		1700	U		860	UJ	R	860	UJ	R	1100	U	
4-BROMOPHENYL PHENYL ETHER		690	U		350	UJ	R	350	U		430	U	
4-CHLORO-3-METHYLPHENOL		690	U		350	UJ	R	350	UJ	R	430	U	
4-CHLOROANILINE		690	U		350	UJ	R	350	U		430	U	
4-CHLOROPHENYL PHENYL ETHER		690	U		350	UJ	R	350	U		430	U	
4-NITROANILINE		1700	U		860	UJ	R	860	U		1100	U	
4-NITROPHENOL		1700	U		860	UJ	R	860	UJ	R	1100	U	
ACETOPHENONE		690	UJ	C	350	UJ	CR	350	UJ	C	430	UJ	C
ATRAZINE		690	U		350	UJ	R	350	U		430	U	
BENZALDEHYDE		3800	J	C	370	J	CR	890	J	C	1400	J	C
BIS(2-CHLOROETHOXY)METHANE		690	U		350	UJ	R	350	U		430	U	
BIS(2-CHLOROETHYL)ETHER		690	U		350	UJ	R	350	U		430	U	
BIS(2-CHLOROISOPROPYL)ETHER		690	U		350	UJ	R	350	U		430	U	
BIS(2-ETHYLHEXYL)PHTHALATE		690	UJ	N	350	UJ	R	350	U		430	U	
BUTYL BENZYL PHTHALATE		690	UJ	N	350	UJ	R	350	U		430	U	
CAPROLACTAM		690	U		350	UJ	R	350	U		430	U	
CARBAZOLE		690	U		350	UJ	R	350	U		430	U	
DIBENZOFURAN		690	U		350	UJ	R	350	U		430	U	

PROJ_NO: 00864	NSAMPLE	WGL-SD-SD111-000.6			WGL-SD-SD112-000.6		
SDG: SC3122	LAB_ID	SC3122-41			SC3122-32		
FRACTION: OS	SAMP_DATE	6/11/2009			6/11/2009		
MEDIA: SEDIMENT	QC_TYPE	NM			NM		
	UNITS	UG/KG			UG/KG		
	PCT_SOLIDS	94.2			94.6		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1-BIPHENYL		350	U		350	U	
1,4-DIOXANE		350	UJ	DE	350	UJ	E
2,4,5-TRICHLOROPHENOL		870	UR	D	870	UJ	R
2,4,6-TRICHLOROPHENOL		350	UJ	R	350	UJ	R
2,4-DICHLOROPHENOL		350	UJ	R	350	UJ	R
2,4-DIMETHYLPHENOL		350	UJ	R	350	UJ	R
2,4-DINITROPHENOL		870	UJ	CR	870	UJ	CR
2,4-DINITROTOLUENE		350	U		350	U	
2,6-DINITROTOLUENE		350	U		350	U	
2-CHLORONAPHTHALENE		350	U		350	U	
2-CHLOROPHENOL		350	UJ	R	350	UJ	R
2-METHYLPHENOL		350	UJ	R	350	UJ	R
2-NITROANILINE		870	UR	D	870	U	
2-NITROPHENOL		350	UJ	R	350	UJ	R
3&4-METHYLPHENOL		350	UJ	R	350	UJ	R
3,3'-DICHLOROBENZIDINE		350	UR	D	350	UJ	CN
3-NITROANILINE		870	UR	D	870	U	
4,6-DINITRO-2-METHYLPHENOL		870	UJ	R	870	UJ	R
4-BROMOPHENYL PHENYL ETHER		350	U		350	U	
4-CHLORO-3-METHYLPHENOL		350	UJ	R	350	UJ	R
4-CHLOROANILINE		350	UR	D	350	U	
4-CHLOROPHENYL PHENYL ETHER		350	U		350	U	
4-NITROANILINE		870	UR	D	870	U	
4-NITROPHENOL		870	UJ	R	870	UJ	R
ACETOPHENONE		350	UJ	C	350	UJ	C
ATRAZINE		350	UJ	D	350	U	
BENZALDEHYDE		490	J	CD	1100	J	C
BIS(2-CHLOROETHOXY)METHANE		350	U		350	U	
BIS(2-CHLOROETHYL)ETHER		350	U		350	U	
BIS(2-CHLOROISOPROPYL)ETHER		350	U		350	U	
BIS(2-ETHYLHEXYL)PHTHALATE		350	UJ	N	350	UJ	N
BUTYL BENZYL PHTHALATE		350	UJ	N	350	UJ	N
CAPROLACTAM		350	UR	D	350	U	
CARBAZOLE		350	U		350	U	
DIBENZOFURAN		350	U		350	U	

PROJ_NO: 00864	NSAMPLE	WGL-SD-DUP01-061109			WGL-SD-DUP02-061109			WGL-SD-SD101-000.6			WGL-SD-SD102-000.6		
SDG: SC3122	LAB_ID	SC3122-11			SC3122-20			SC3122-8			SC3122-5		
FRACTION: OS	SAMP_DATE	6/11/2009			6/11/2009			6/11/2009			6/11/2009		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	95.7			93.8			96.1			96.4		
	DUP_OF	WGL-SD-SD102-000.6			WGL-SD-SD106-000.6								
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DIETHYL PHTHALATE		340	U		350	U		340	U		340	U	
DIMETHYL PHTHALATE		340	U		350	U		340	U		340	U	
DI-N-BUTYL PHTHALATE		340	U		350	U		340	U		340	U	
DI-N-OCTYL PHTHALATE		340	UJ	N	350	UJ	N	340	UR	N	340	UJ	N
HEXACHLOROBENZENE		340	U		350	U		340	U		340	U	
HEXACHLOROBUTADIENE		340	U		350	U		340	U		340	U	
HEXACHLOROCYCLOPENTADIENE		340	U		350	U		340	U		340	U	
HEXACHLOROETHANE		340	U		350	U		340	U		340	U	
ISOPHORONE		340	U		350	U		340	U		340	U	
NITROBENZENE		340	U		350	U		340	U		340	U	
N-NITROSO-DI-N-PROPYLAMINE		340	U		350	U		340	U		340	U	
N-NITROSODIPHENYLAMINE		340	U		350	U		340	U		340	U	
PENTACHLOROPHENOL		860	U		870	U		850	UJ	R	850	UJ	R
PHENOL		340	U		350	U		340	UJ	R	340	UJ	R

PROJ_NO: 00864	NSAMPLE	WGL-SD-SD103-000.6			WGL-SD-SD104-000.6			WGL-SD-SD105-000.6			WGL-SD-SD106-000.6		
SDG: SC3122	LAB_ID	SC3122-2			SC3122-14			SC3122-29			SC3122-17		
FRACTION: OS	SAMP_DATE	6/11/2009			6/11/2009			6/11/2009			6/11/2009		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	95.6			95.9			93.1			94.4		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DIETHYL PHTHALATE		340	U		410	U		350	U		350	U	
DIMETHYL PHTHALATE		340	U		410	U		350	U		350	U	
DI-N-BUTYL PHTHALATE		340	U		410	U		350	U		350	U	
DI-N-OCTYL PHTHALATE		340	UJ	N	410	UJ	N	350	UJ	N	350	UJ	N
HEXACHLOROBENZENE		340	U		410	U		350	U		350	U	
HEXACHLOROBUTADIENE		340	U		410	U		350	U		350	U	
HEXACHLOROCYCLOPENTADIENE		340	U		410	U		350	U		350	U	
HEXACHLOROETHANE		340	U		410	U		350	U		350	U	
ISOPHORONE		340	U		410	U		350	U		350	U	
NITROBENZENE		340	U		410	U		350	U		350	U	
N-NITROSO-DI-N-PROPYLAMINE		340	U		410	U		350	U		350	U	
N-NITROSODIPHENYLAMINE		340	U		410	U		350	U		350	U	
PENTACHLOROPHENOL		860	U		1000	UJ	R	880	UJ	R	870	UJ	R
PHENOL		340	U		410	UJ	R	350	UJ	R	350	UJ	R

PROJ_NO: 00864	NSAMPLE	WGL-SD-SD107-000.6			WGL-SD-SD108-000.6			WGL-SD-SD109-000.6			WGL-SD-SD110-000.6		
SDG: SC3122	LAB_ID	SC3122-23DL			SC3122-26			SC3122-38			SC3122-35		
FRACTION: OS	SAMP_DATE	6/11/2009			6/11/2009			6/11/2009			6/11/2009		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	95.0			94.9			94.8			92.7		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DIETHYL PHTHALATE		690	U		350	UJ	R	350	U		430	U	
DIMETHYL PHTHALATE		690	U		350	UJ	R	350	U		430	U	
DI-N-BUTYL PHTHALATE		690	U		350	UJ	R	350	U		430	U	
DI-N-OCTYL PHTHALATE		690	UJ	N	350	UR	N	350	UR	N	430	UR	N
HEXACHLOROBENZENE		690	U		350	UJ	R	350	U		430	U	
HEXACHLOROBUTADIENE		690	U		350	UJ	R	350	U		430	U	
HEXACHLOROCYCLOPENTADIENE		690	U		350	UJ	R	350	U		430	U	
HEXACHLOROETHANE		690	U		350	UJ	R	350	U		430	U	
ISOPHORONE		690	U		350	UJ	R	350	U		430	U	
NITROBENZENE		690	U		350	UJ	R	350	U		430	U	
N-NITROSO-DI-N-PROPYLAMINE		690	U		350	UJ	R	350	U		430	U	
N-NITROSODIPHENYLAMINE		690	U		350	UJ	R	350	U		430	U	
PENTACHLOROPHENOL		1700	U		860	UJ	R	860	UJ	R	1100	U	
PHENOL		690	U		350	UJ	R	350	UJ	R	430	U	

PROJ_NO: 00864	NSAMPLE	WGL-SD-SD111-000.6			WGL-SD-SD112-000.6		
SDG: SC3122	LAB_ID	SC3122-41			SC3122-32		
FRACTION: OS	SAMP_DATE	6/11/2009			6/11/2009		
MEDIA: SEDIMENT	QC_TYPE	NM			NM		
	UNITS	UG/KG			UG/KG		
	PCT_SOLIDS	94.2			94.6		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
DIETHYL PHTHALATE		350	U		350	U	
DIMETHYL PHTHALATE		350	U		350	U	
DI-N-BUTYL PHTHALATE		350	U		350	U	
DI-N-OCTYL PHTHALATE		350	U		350	UJ	N
HEXACHLOROBENZENE		350	U		350	U	
HEXACHLOROBUTADIENE		350	U		350	U	
HEXACHLOROCYCLOPENTADIENE		350	U		350	U	
HEXACHLOROETHANE		350	U		350	U	
ISOPHORONE		350	U		350	U	
NITROBENZENE		350	U		350	U	
N-NITROSO-DI-N-PROPYLAMINE		350	U		350	U	
N-NITROSODIPHENYLAMINE		350	UJ	D	350	U	
PENTACHLOROPHENOL		870	UJ	R	870	UJ	R
PHENOL		350	UJ	R	350	UJ	R

PROJ_NO: 00864	NSAMPLE	WGL-SD-FB01-061109			WGL-SD-RB01-061109		
SDG: SC3122	LAB_ID	SC3122-43			SC3122-45		
FRACTION: OS	SAMP_DATE	6/11/2009			6/11/2009		
MEDIA: WATER	QC_TYPE	FB			RB		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1-BIPHENYL		9	U		9	U	
1,4-DIOXANE		9	U		9	U	
2,4,5-TRICHLOROPHENOL		24	U		24	U	
2,4,6-TRICHLOROPHENOL		9	U		9	U	
2,4-DICHLOROPHENOL		9	U		9	U	
2,4-DIMETHYLPHENOL		9	U		9	U	
2,4-DINITROPHENOL		24	UJ	C	24	UJ	C
2,4-DINITROTOLUENE		9	U		9	U	
2,6-DINITROTOLUENE		9	U		9	U	
2-CHLORONAPHTHALENE		9	U		9	U	
2-CHLOROPHENOL		9	U		9	U	
2-METHYLPHENOL		9	U		9	U	
2-NITROANILINE		24	U		24	U	
2-NITROPHENOL		9	U		9	U	
3&4-METHYLPHENOL		9	U		9	U	
3,3'-DICHLOROBENZIDINE		9	U		9	U	
3-NITROANILINE		24	U		24	U	
4,6-DINITRO-2-METHYLPHENOL		24	UJ	C	24	UJ	C
4-BROMOPHENYL PHENYL ETHER		9	U		9	U	
4-CHLORO-3-METHYLPHENOL		9	U		9	U	
4-CHLOROANILINE		9	U		9	U	
4-CHLOROPHENYL PHENYL ETHER		9	U		9	U	
4-NITROANILINE		24	U		24	U	
4-NITROPHENOL		24	UJ	CE	24	UJ	CE
ACETOPHENONE		9	U		9	U	
ATRAZINE		9	U		9	U	
BENZALDEHYDE		9	UJ	CE	9	UJ	CE
BIS(2-CHLOROETHOXY)METHANE		9	U		9	U	
BIS(2-CHLOROETHYL)ETHER		9	U		9	U	
BIS(2-CHLOROISOPROPYL)ETHER		9	U		9	U	
BIS(2-ETHYLHEXYL)PHTHALATE		9	U		9	U	
BUTYL BENZYL PHTHALATE		9	U		9	U	
CAPROLACTAM		9	U		9	U	
CARBAZOLE		9	U		9	U	
DIBENZOFURAN		9	U		9	U	

PROJ_NO: 00864	NSAMPLE	WGL-SD-FB01-061109			WGL-SD-RB01-061109		
SDG: SC3122	LAB_ID	SC3122-43			SC3122-45		
FRACTION: OS	SAMP_DATE	6/11/2009			6/11/2009		
MEDIA: WATER	QC_TYPE	FB			RB		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
DIETHYL PHTHALATE		9	U		9	U	
DIMETHYL PHTHALATE		9	U		9	U	
DI-N-BUTYL PHTHALATE		9	U		9	U	
DI-N-OCTYL PHTHALATE		9	UJ	C	9	UJ	C
HEXACHLOROBENZENE		9	U		9	U	
HEXACHLOROBUTADIENE		9	U		9	U	
HEXACHLOROCYCLOPENTADIENE		9	U		9	U	
HEXACHLOROETHANE		9	U		9	U	
ISOPHORONE		9	U		9	U	
NITROBENZENE		9	U		9	U	
N-NITROSO-DI-N-PROPYLAMINE		9	U		9	U	
N-NITROSODIPHENYLAMINE		9	U		9	U	
PENTACHLOROPHENOL		24	UJ	C	24	UJ	C
PHENOL		9	U		9	U	

PROJ_NO: 00864	NSAMPLE	WGL-SD-DUP01-061109			WGL-SD-DUP01-061109-DL			WGL-SD-DUP02-061109			WGL-SD-SD101-000.6		
SDG: SC3122	LAB_ID	SC3122-12			SC3122-12DL			SC3122-21			SC3122-9DL		
FRACTION: PAH	SAMP_DATE	6/11/2009			6/11/2009			6/11/2009			6/11/2009		
MEDIA: SEDIMENT	QC_TYPE	FD			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	95.7			95.7			93.8			96.1		
	DUP_OF	WGL-SD-SD102-000.6						WGL-SD-SD106-000.6					
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
2-METHYLNAPHTHALENE		4.2	J	CEP				21	UJ	CE	42	UJ	CER
ACENAPHTHENE		21	UJ	E				21	UJ	E	42	UJ	ER
ACENAPHTHYLENE		16	J	P				21	U		9.2	J	PR
ANTHRACENE		27						21	U		42	UJ	R
BENZO(A)ANTHRACENE		130						21	U		62	J	R
BENZO(A)PYRENE		120						21	U		64	J	R
BENZO(B)FLUORANTHENE		250						44			190	J	R
BENZO(G,H,I)PERYLENE		58						21	U		37	J	PR
BENZO(K)FLUORANTHENE		70						10	J	P	34	J	PR
CHRYSENE		130						21	U		92	J	R
DIBENZO(A,H)ANTHRACENE		16	J	P				21	U		42	UJ	R
FLUORANTHENE					290			52			64	J	R
FLUORENE		8.4	J	EP				21	UJ	E	7	J	EPR
INDENO(1,2,3-CD)PYRENE		110						21	U		72	J	R
NAPHTHALENE		4.1	J	EP				21	UJ	E	42	UJ	ER
PHENANTHRENE		130						16	J	P	60	J	R
PYRENE		260						60			160	J	R

PROJ_NO: 00864	NSAMPLE	WGL-SD-SD102-000.6			WGL-SD-SD102-000.6-DL			WGL-SD-SD103-000.6			WGL-SD-SD103-000.6-DL		
SDG: SC3122	LAB_ID	SC3122-6			SC3122-6DL			SC3122-3			SC3122-3DL		
FRACTION: PAH	SAMP_DATE	6/11/2009			6/11/2009			6/11/2009			6/11/2009		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	96.4			96.4			95.6			95.6		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
2-METHYLNAPHTHALENE		5.1	J	CEP				5.9	J	CEP			
ACENAPHTHENE		13	J	EP				6.1	J	EP			
ACENAPHTHYLENE		12	J	P				18	J	P			
ANTHRACENE		33						31					
BENZO(A)ANTHRACENE		120						160					
BENZO(A)PYRENE		130						170					
BENZO(B)FLUORANTHENE		250									340		
BENZO(G,H,I)PERYLENE		68						98					
BENZO(K)FLUORANTHENE		87						84					
CHRYSENE		120						200					
DIBENZO(A,H)ANTHRACENE		26						35					
FLUORANTHENE					340						350		
FLUORENE		10	J	EP				11	J	EP			
INDENO(1,2,3-CD)PYRENE		130						170					
NAPHTHALENE		4.1	J	EP				4.5	J	EP			
PHENANTHRENE		160						180					
PYRENE		210									350		

PROJ_NO: 00864	NSAMPLE	WGL-SD-SD104-000.6			WGL-SD-SD105-000.6			WGL-SD-SD105-000.6-DL			WGL-SD-SD106-000.6		
SDG: SC3122	LAB_ID	SC3122-15			SC3122-30			SC3122-30DL			SC3122-18DL		
FRACTION: PAH	SAMP_DATE	6/11/2009			6/11/2009			6/11/2009			6/11/2009		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	95.9			93.1			93.1			94.4		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
2-METHYLNAPHTHALENE		25	UJ	CE	21	UJ	CE				42	UJ	CER
ACENAPHTHENE		25	UJ	E	21	UJ	E				42	UJ	ER
ACENAPHTHYLENE		25	U		20	J	P				42	UJ	R
ANTHRACENE		25	U		27						16	J	PR
BENZO(A)ANTHRACENE		25	U		100						42	UJ	R
BENZO(A)PYRENE		25	U		93						42	UJ	R
BENZO(B)FLUORANTHENE		25	U		180						75	J	R
BENZO(G,H,I)PERYLENE		25	U		21	U					42	UJ	R
BENZO(K)FLUORANTHENE		25	U		74						25	J	PR
CHRYSENE		25	U		110						42	UJ	R
DIBENZO(A,H)ANTHRACENE		25	U		21	U					42	UJ	R
FLUORANTHENE		14	J	P				260			81	J	R
FLUORENE		25	UJ	E	9.1	J	EP				42	UJ	ER
INDENO(1,2,3-CD)PYRENE		25	U		21	U					140	J	R
NAPHTHALENE		25	UJ	E	2.6	J	EP				42	UJ	ER
PHENANTHRENE		6.9	J	P	110						27	J	PR
PYRENE		13	J	P	190						110	J	R

PROJ_NO: 00864	NSAMPLE	WGL-SD-SD107-000.6			WGL-SD-SD108-000.6			WGL-SD-SD109-000.6			WGL-SD-SD110-000.6		
SDG: SC3122	LAB_ID	SC3122-24DL			SC3122-27			SC3122-39			SC3122-36		
FRACTION: PAH	SAMP_DATE	6/11/2009			6/11/2009			6/11/2009			6/11/2009		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	95.0			94.9			94.8			92.7		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
2-METHYLNAPHTHALENE		42	UJ	CE	21	UJ	CER	21	UJ	E	3.7	J	CEP
ACENAPHTHENE		42	UJ	E	21	UJ	ER	21	UJ	E	26	UJ	E
ACENAPHTHYLENE		42	U		6.4	J	PR	21	U		13	J	P
ANTHRACENE		42	U		17	J	PR	21	U		35		
BENZO(A)ANTHRACENE		42	U		43	J	R	100			110		
BENZO(A)PYRENE		42	U		38	J	R	110			88		
BENZO(B)FLUORANTHENE		88			100	J	R	200			170		
BENZO(G,H,I)PERYLENE		42	U		21	UJ	R	54			26	U	
BENZO(K)FLUORANTHENE		25	J	P	22	J	R	77			61		
CHRYSENE		42	U		59	J	R	89			120		
DIBENZO(A,H)ANTHRACENE		42	U		21	UJ	R	18	J	P	26	U	
FLUORANTHENE		96			130	J	R	200					
FLUORENE		42	UJ	E	4.1	J	EPR	21	UJ	E	26	UJ	E
INDENO(1,2,3-CD)PYRENE		42	U		21	UJ	R	100			26	U	
NAPHTHALENE		42	UJ	E	21	UJ	ER	2.8	J	EP	3.9	J	EP
PHENANTHRENE		42	U		48	J	R	100			140		
PYRENE		130			120	J	R	240			260		

PROJ_NO: 00864	NSAMPLE	WGL-SD-SD110-000.6-DL			WGL-SD-SD111-000.6			WGL-SD-SD111-000.6-DL			WGL-SD-SD112-000.6		
SDG: SC3122	LAB_ID	SC3122-36DL			SC3122-42			SC3122-42DL			SC3122-33		
FRACTION: PAH	SAMP_DATE	6/11/2009			6/11/2009			6/11/2009			6/11/2009		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	92.7			94.2			94.2			94.6		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
2-METHYLNAPHTHALENE					5.4	J	DEP				21	UJ	CE
ACENAPHTHENE					16	J	DEP				21	UJ	E
ACENAPHTHYLENE					26	J	D				13	J	P
ANTHRACENE					23						21	U	
BENZO(A)ANTHRACENE					120						57		
BENZO(A)PYRENE					150	J	D				86	J	N
BENZO(B)FLUORANTHENE								300			170	J	N
BENZO(G,H,I)PERYLENE					76	J	D				21	UJ	N
BENZO(K)FLUORANTHENE					70						52	J	N
CHRYSENE					130	J	D				45		
DIBENZO(A,H)ANTHRACENE					27						21	UJ	N
FLUORANTHENE		320						300			210		
FLUORENE					14	J	EP				21	UJ	E
INDENO(1,2,3-CD)PYRENE					150						21	UJ	N
NAPHTHALENE					4.7	J	EP				3	J	EP
PHENANTHRENE					140						84		
PYRENE								350			200		

PROJ_NO: 00864	NSAMPLE	WGL-SD-FB01-061109			WGL-SD-RB01-061109		
SDG: SC3122	LAB_ID	SC3122-44			SC3122-46		
FRACTION: PAH	SAMP_DATE	6/11/2009			6/11/2009		
MEDIA: WATER	QC_TYPE	FB			RB		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
2-METHYLNAPHTHALENE		0.22	J	C	0.22	J	C
ACENAPHTHENE		0.19	U		0.19	U	
ACENAPHTHYLENE		0.19	U		0.19	U	
ANTHRACENE		0.19	U		0.19	U	
BENZO(A)ANTHRACENE		0.19	U		0.19	U	
BENZO(A)PYRENE		0.19	U		0.19	U	
BENZO(B)FLUORANTHENE		0.19	U		0.19	U	
BENZO(G,H,I)PERYLENE		0.19	U		0.19	U	
BENZO(K)FLUORANTHENE		0.19	U		0.19	U	
CHRYSENE		0.19	U		0.19	U	
DIBENZO(A,H)ANTHRACENE		0.19	U		0.19	U	
FLUORANTHENE		0.19	U		0.19	U	
FLUORENE		0.19	U		0.19	U	
INDENO(1,2,3-CD)PYRENE		0.19	U		0.19	U	
NAPHTHALENE		0.29			0.26		
PHENANTHRENE		0.19	U		0.19	U	
PYRENE		0.19	U		0.19	U	

PROJ_NO: 00864	NSAMPLE	WGL-SD-DUP01-061109			WGL-SD-DUP02-061109			WGL-SD-SD101-000.6			WGL-SD-SD102-000.6		
SDG: SC3122	LAB_ID	SC3122-11			SC3122-20			SC3122-8			SC3122-5		
FRACTION: PEST/PCB	SAMP_DATE	6/11/2009			6/11/2009			6/11/2009			6/11/2009		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	95.7			93.8			96.1			96.4		
	DUP_OF	WGL-SD-SD102-000.6			WGL-SD-SD106-000.6								
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
4,4'-DDD		6.9	U		5.2	J	EP	12	J	E	6.7	J	EPU
4,4'-DDE		150	J	E	15	J	E	61	J	E	120	J	E
4,4'-DDT		62			42			65			51		
ALDRIN		3.6	U		3.6	UJ	C	3.5	U		3.5	U	
ALPHA-BHC		3.6	U		3.6	U		3.5	U		3.5	U	
ALPHA-CHLORDANE		3.6	U		3.6	U		3.5	U		3.5	U	
AROCLOR-1016		18	U		18	UJ	C	18	UJ	C	18	UJ	C
AROCLOR-1221		18	U		18	UJ	C	18	UJ	C	18	UJ	C
AROCLOR-1232		18	U		18	UJ	C	18	UJ	C	18	UJ	C
AROCLOR-1242		18	U		18	UJ	C	18	UJ	C	18	UJ	C
AROCLOR-1248		18	U		18	UJ	C	18	UJ	C	18	UJ	C
AROCLOR-1254		18	U		18	UJ	C	18	UJ	C	18	UJ	C
AROCLOR-1260		18	U		18	UJ	C	18	UJ		18	UJ	C
BETA-BHC		3.6	U		2.8	J	CP	3.5	U		3.4	J	P
DELTA-BHC		3.6	UJ	C	2.1	J	CP	2.3	J	CP	3.5	UJ	C
DIELDRIN		6.9	U		7	U		6.9	U		4	J	U
ENDOSULFAN I		3.6	U		3.6	U		3.5	U		3.5	U	
ENDOSULFAN II		11			8.8	J	U	19			7.4		
ENDOSULFAN SULFATE		6.9	UJ	C	7	UJ	C	6.9	UJ	C	6.8	UJ	C
ENDRIN		6.9	U		7	U		6.9	U		6.8	U	
ENDRIN ALDEHYDE		6.9	U		7	U		6.9	U		6.8	U	
ENDRIN KETONE		6.9	U		7	U		6.9	U		6.8	U	
GAMMA-BHC (LINDANE)		3.6	U		1.7	J	CP	2.4	J	P	3.5	U	
GAMMA-CHLORDANE		2	J	P	1.7	J	P	2.7	J	P	1.6	J	P
HEPTACHLOR		3.6	U		3.6	U		3.5	U		3.5	U	
HEPTACHLOR EPOXIDE		3.6	U		3.6	U		3.5	U		3.5	U	
METHOXYCHLOR		36	U		36	U		35	U		35	U	
TOXAPHENE		69	U		70	U		69	U		68	U	

PROJ_NO: 00864	NSAMPLE	WGL-SD-SD103-000.6			WGL-SD-SD103-000.6-DL2			WGL-SD-SD104-000.6			WGL-SD-SD105-000.6		
SDG: SC3122	LAB_ID	SC3122-2			SC3122-2DL2			SC3122-14			SC3122-29		
FRACTION: PEST/PCB	SAMP_DATE	6/11/2009			6/11/2009			6/11/2009			6/11/2009		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	95.6			95.6			95.9			93.1		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
4,4'-DDD		15	J	E				8.2	U		41	J	E
4,4'-DDE					280	J	E	9.4	J	E			
4,4'-DDT		130						5	J	P	150		
ALDRIN		3.6	U					4.2	U		3.6	UJ	C
ALPHA-BHC		3.6	U					4.2	U		3.6	U	
ALPHA-CHLORDANE		3.6	U					4.2	U		3.6	U	
AROCLOR-1016		18	UJ	C				21	UJ	C	18	UJ	C
AROCLOR-1221		18	UJ	C				21	UJ	C	18	UJ	C
AROCLOR-1232		18	UJ	C				21	UJ	C	18	UJ	C
AROCLOR-1242		18	UJ	C				21	UJ	C	18	UJ	C
AROCLOR-1248		18	UJ	C				21	UJ	C	18	UJ	C
AROCLOR-1254		18	UJ	C				21	UJ	C	18	UJ	C
AROCLOR-1260		18	UJ	C				21	UJ	C	18	UJ	C
BETA-BHC		3.6	U					4.2	U		3.6	UJ	C
DELTA-BHC		3.6	UJ	C				4.2	UJ	C	3.6	UJ	C
DIELDRIN		5	J	PU				8.2	U		4.2	J	P
ENDOSULFAN I		3.6	U					4.2	U		3.6	U	
ENDOSULFAN II		6.9	U					8.2	U		19	J	PU
ENDOSULFAN SULFATE		6.9	UJ	C				8.2	UJ	C	7.1	UJ	C
ENDRIN		6.9	U					8.2	U		7.1	U	
ENDRIN ALDEHYDE		6.9	U					8.2	U		7.1	U	
ENDRIN KETONE		6.9	U					8.2	U		7.1	U	
GAMMA-BHC (LINDANE)		3.6	U					4.2	U		2.1	J	CP
GAMMA-CHLORDANE		3.6	U					4.2	U		3.1	J	P
HEPTACHLOR		3.6	U					4.2	U		3.6	U	
HEPTACHLOR EPOXIDE		3.6	U					4.2	U		3.6	U	
METHOXYCHLOR		36	U					42	U		36	U	
TOXAPHENE		69	U					82	U		71	U	

PROJ_NO: 00864	NSAMPLE	WGL-SD-SD105-000.6-DL2			WGL-SD-SD106-000.6			WGL-SD-SD107-000.6			WGL-SD-SD108-000.6		
SDG: SC3122	LAB_ID	SC3122-29DL2			SC3122-17			SC3122-23			SC3122-26		
FRACTION: PEST/PCB	SAMP_DATE	6/11/2009			6/11/2009			6/11/2009			6/11/2009		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	93.1			94.4			95.0			94.9		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
4,4'-DDD					7	U		6.9	U		7.5	J	E
4,4'-DDE		210	J	E	22	J	E	120	J	E	48	J	E
4,4'-DDT					43			160			53		
ALDRIN					3.6	U		3.6	UJ	C	3.6	UJ	C
ALPHA-BHC					3.6	U		3.6	U		3.6	U	
ALPHA-CHLORDANE					3.6	U		5.2			3.6	U	
AROCLOR-1016					18	UJ	C	18	UJ	C	18	UJ	C
AROCLOR-1221					18	UJ	C	18	UJ	C	18	UJ	C
AROCLOR-1232					18	UJ	C	18	UJ	C	18	UJ	C
AROCLOR-1242					18	UJ	C	18	UJ	C	18	UJ	C
AROCLOR-1248					18	UJ	C	18	UJ	C	18	UJ	C
AROCLOR-1254					18	UJ	C	18	UJ	C	18	UJ	C
AROCLOR-1260					18	UJ	C	18	UJ	C	18	UJ	C
BETA-BHC					3.6	U		3.6	UJ	C	1.8	J	CP
DELTA-BHC					2.9	J	CPU	6.1	J	C	3.6	UJ	C
DIELDRIN					6	J	P	6.9	U		7	U	
ENDOSULFAN I					3.6	U		3.6	U		3.6	U	
ENDOSULFAN II					7	U		6.9	U		10	J	U
ENDOSULFAN SULFATE					7	UJ	C	6.9	UJ	C	7	UJ	C
ENDRIN					7	U		6.9	U		7	U	
ENDRIN ALDEHYDE					7	U		6.9	U		7	U	
ENDRIN KETONE					7	U		6.9	U		7	U	
GAMMA-BHC (LINDANE)					3.6	U		4.5	J	C	3.6	UJ	C
GAMMA-CHLORDANE					2.3	J	PU	11	J	U	1.8	J	P
HEPTACHLOR					3.6	U		3.6	U		3.6	U	
HEPTACHLOR EPOXIDE					3.6	U		3.6	U		3.6	U	
METHOXYCHLOR					36	U		36	U		36	U	
TOXAPHENE					70	U		69	U		70	U	

PROJ_NO: 00864	NSAMPLE	WGL-SD-SD109-000.6			WGL-SD-SD110-000.6			WGL-SD-SD111-000.6			WGL-SD-SD111-000.6-DL2		
SDG: SC3122	LAB_ID	SC3122-38			SC3122-35			SC3122-41			SC3122-41DL2		
FRACTION: PEST/PCB	SAMP_DATE	6/11/2009			6/11/2009			6/11/2009			6/11/2009		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/KG			UG/KG			UG/KG			UG/KG		
	PCT_SOLIDS	94.8			92.7			94.2			94.2		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
4,4'-DDD		5.2	J	EP	5	J	EP	7	U				
4,4'-DDE		34	J	E	45	J	E				190	J	E
4,4'-DDT		55			69						270		
ALDRIN		3.6	UJ	C	4.4	UJ	C	3.6	UJ	CD			
ALPHA-BHC		3.6	U		4.4	U		3.6	UJ	D			
ALPHA-CHLORDANE		3.6	U		4.4	U		3.6	U				
AROCLOR-1016		18	UR	R	22	UR	R	18	UJ	C			
AROCLOR-1221		18	UR	R	22	UR	R	18	UJ	C			
AROCLOR-1232		18	UR	R	22	UR	R	18	UJ	C			
AROCLOR-1242		18	UR	R	22	UR	R	18	UJ	C			
AROCLOR-1248		18	UR	R	22	UR	R	18	UJ	C			
AROCLOR-1254		18	UR	R	22	UR	R	18	UJ	C			
AROCLOR-1260		18	UR	R	22	UR	R	18	UJ	C			
BETA-BHC		3.6	UJ	C	4.4	UJ	C	3.6	UJ	CD			
DELTA-BHC		3.3	J	CPU	3.7	J	CPU	4.4	J	CDU			
DIELDRIN		7.9	J	U	7.5	J	PU	8	J	U			
ENDOSULFAN I		3.6	U		4.4	U		3.6	U				
ENDOSULFAN II		7	U		8.5	U		18	J	DU			
ENDOSULFAN SULFATE		7	UJ	C	8.5	UJ	C	7	UJ	C			
ENDRIN		7	U		8.5	U		7	U				
ENDRIN ALDEHYDE		7	U		8.5	U		7	U				
ENDRIN KETONE		7	U		8.5	U		7	U				
GAMMA-BHC (LINDANE)		2	J	CP	2.6	J	CP	3.6	UJ	CD			
GAMMA-CHLORDANE		3.6	U		2.6	J	P	3.6	U				
HEPTACHLOR		3.6	U		4.4	U		3.6	U				
HEPTACHLOR EPOXIDE		3.6	U		4.4	U		3.6	U				
METHOXYCHLOR		36	U		44	U		36	U				
TOXAPHENE		70	U		85	U		70	U				

PROJ_NO: 00864	NSAMPLE	WGL-SD-SD112-000.6			WGL-SD-SD112-000.6-DL2		
SDG: SC3122	LAB_ID	SC3122-32			SC3122-32DL2		
FRACTION: PEST/PCB	SAMP_DATE	6/11/2009			6/11/2009		
MEDIA: SEDIMENT	QC_TYPE	NM			NM		
	UNITS	UG/KG			UG/KG		
	PCT_SOLIDS	94.6			94.6		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
4,4'-DDD		7	U				
4,4'-DDE					210	J	E
4,4'-DDT					260		
ALDRIN		3.6	UJ	C			
ALPHA-BHC		3.6	U				
ALPHA-CHLORDANE		3.6	U				
AROCLOR-1016		18	UR	R			
AROCLOR-1221		18	UR	R			
AROCLOR-1232		18	UR	R			
AROCLOR-1242		18	UR	R			
AROCLOR-1248		18	UR	R			
AROCLOR-1254		18	UR	R			
AROCLOR-1260		18	UR	R			
BETA-BHC		7.4	J	CU			
DELTA-BHC		2.4	J	CP			
DIELDRIN		8	J	U			
ENDOSULFAN I		3.6	U				
ENDOSULFAN II		7	U				
ENDOSULFAN SULFATE		7	UJ	C			
ENDRIN		7	U				
ENDRIN ALDEHYDE		7	U				
ENDRIN KETONE		7	U				
GAMMA-BHC (LINDANE)		2.2	J	CP			
GAMMA-CHLORDANE		3	J				
HEPTACHLOR		3.6	U				
HEPTACHLOR EPOXIDE		3.6	U				
METHOXYCHLOR		36	U				
TOXAPHENE		70	U				

PROJ_NO: 00864	NSAMPLE	WGL-SD-FB01-061109			WGL-SD-RB01-061109		
SDG: SC3122	LAB_ID	SC3122-43			SC3122-45		
FRACTION: PEST/PCB	SAMP_DATE	6/11/2009			6/11/2009		
MEDIA: WATER	QC_TYPE	FB			RB		
	UNITS	UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
4,4'-DDD		0.019	U		0.019	U	
4,4'-DDE		0.019	U		0.019	U	
4,4'-DDT		0.019	U		0.019	U	
ALDRIN		0.0094	U		0.0094	U	
ALPHA-BHC		0.0094	U		0.0094	U	
ALPHA-CHLORDANE		0.0094	U		0.0094	U	
AROCLOR-1016		0.47	U		0.48	U	
AROCLOR-1221		0.47	U		0.48	U	
AROCLOR-1232		0.47	U		0.48	U	
AROCLOR-1242		0.47	U		0.48	U	
AROCLOR-1248		0.47	U		0.48	U	
AROCLOR-1254		0.47	U		0.48	U	
AROCLOR-1260		0.47	U		0.48	U	
BETA-BHC		0.0094	U		0.0094	U	
DELTA-BHC		0.0094	U		0.0094	U	
DIELDRIN		0.019	U		0.019	U	
ENDOSULFAN I		0.0094	U		0.0094	U	
ENDOSULFAN II		0.019	U		0.019	U	
ENDOSULFAN SULFATE		0.019	U		0.019	U	
ENDRIN		0.019	U		0.019	U	
ENDRIN ALDEHYDE		0.019	U		0.019	U	
ENDRIN KETONE		0.019	U		0.019	U	
GAMMA-BHC (LINDANE)		0.0094	U		0.0094	U	
GAMMA-CHLORDANE		0.0094	U		0.0094	U	
HEPTACHLOR		0.043			0.034		
HEPTACHLOR EPOXIDE		0.0094	U		0.0094	U	
METHOXYCHLOR		0.094	U		0.094	U	
TOXAPHENE		0.19	U		0.19	U	

TETRA TECH

INTERNAL CORRESPONDENCE

C-NAVY-08-09-3263`W

Date: August 10, 2009

c: File G00864-4.10 (w/enc.-original)
D. Seiken (w/o enc.)

To: Phoebe Call (w/o enc.)

From: Paula DiMattei (no copy) (for)

Subject: Tier II Organic Data Validation, SDG SC3624
Katahdin Analytical Services, Inc.
CTO 407, West Gate Landfill, NAS South Weymouth, Weymouth, MA

VOC/SVOC/PAH/Pesticides/PCB:
13/Groundwaters/ WGL-GW-DUP01-063009 WGL-GW-DUP02-063009
WGL-GW-MW101-062909 WGL-GW-MW102-062909
WGL-GW-MW103-062909 WGL-GW-MW2-063009
WGL-GW-MW3-062909 WGL-GW-MW38-063009
WGL-GW-MW39-063009 WGL-GW-MW40S-063009
WGL-GW-MW4-063009 WGL-GW-MW48D-063009
WGL-GW-MW48D2-063009

(Field Duplicates: WGL-GW-MW48D-063009/WGL-GW-DUP01-63009;
WGL-GW-MW40S-063009/WGL-GW-DUP02-63009)

1/Rinsate blank WGL-GW-RB01-070109

1/Field blank WGL-GW-FB01-070109

VOC:
1/Trip blank WGL-GW-TB01-062909

Tetra Tech NUS, Inc. (TtNUS) performed a Tier II data validation on the volatile (VOC), semivolatile organic compounds (SVOCs), polynuclear aromatic hydrocarbons (PAH), pesticide, and polychlorinated biphenyls (PCB) analytical data for the samples in this SDG. The samples were collected at the West Gate Landfill site at NAS South Weymouth in Weymouth, Massachusetts on June 29, 2009 through July 1, 2009. Sample collection and analysis were performed according to the requirements of the Pre-Design Investigation Quality Assurance Project Plan, West Gate Landfill, dated February 2009.

The VOC and SVOC analyses were performed according to USEPA SW-846 Methods 8260B and 8270C, respectively; and the PAH analysis (which also included analysis for non-PAH compounds 1,4-dioxane, hexachlorobenzene, and pentachlorophenol) were performed according to USEPA SW-846 Method 8270C in the selective ion monitoring (SIM) mode. Additionally, analysis for 1,2-dibromomethane and 1,2-dibromo-3-chloropropane was performed according to EPA Method 504.2. The pesticides and PCB analyses were performed according to USEPA SW-846 Methods 8081 and 8082, respectively.

The VOC, SVOC, and PAH data validation was performed in accordance with the Region I EPA-NE Data Validation Functional Guidelines for Evaluating Environmental Analyses, December 1996. The pesticide

and PCB validation was performed in accordance with the Region I, EPA-NE Data Validation Functional Guidelines for Evaluating Organic Analyses, Part III, February 2004.

The sample results, validation qualifiers (VQL), and qualifier codes (QLCD) are presented in the enclosed data summary tables. A list of the qualifier codes, which provide the reasons for the validation qualifiers, is enclosed.

The data were evaluated based on the following parameters:

* • Data Completeness
  • Preservation and Technical Holding Times
* • GC/MS Instrument Performance Check (Tuning)
  • Initial and Continuing Calibrations
* • Blanks
  • Surrogate Compounds
* • Internal Standards
  • Matrix Spike/Matrix Spike Duplicate
  • Laboratory Control Sample/Laboratory Control Sample Duplicate
* • Field Duplicates
* • Compound Identification
  • Compound Quantitation Limits

* All criteria were met for this parameter.

Preservation and Technical Holding Times

Semivolatiles

Sample WGL-GW-48D2-063009 was re-extracted since all acid surrogate recoveries were very low (<10%) in the original analysis. The re-extracted sample has improved acid surrogate recoveries; however, it was extracted 7 days beyond the holding time criterion. Therefore, the non-detected semivolatile compound results in the re-extracted sample were qualified as estimated (UJ).

Although holding time criteria were exceeded, the project accuracy goals are not impacted since there are not regulatory criteria for the acid compounds (except for pentachlorophenol which was reported from the SIM analysis). The positive and non-detected semivolatile acid compound results in sample WGL-GW-48D2-063009 are usable as estimated quantitation limits.

PCBs

Samples WGL-GW-MW4-063009, WGL-GW-MW40S-063009, WGL-GW-MW48D-063009, WGL-GW-DUP01-063009, WGL-GW-DUP02-063009, and WGL-GW-MW39-063009 were re-extracted since the surrogate recoveries were low in the original analyses. The re-extracted samples have improved surrogate recoveries; however, they were extracted 14 days beyond the holding time criterion. Therefore, the non-detected PCB results in these re-extracted samples were qualified as estimated (UJ).

The project accuracy goals may be impacted due to the exceeded holding time criteria. The non-detected PCB results in the affected samples are usable as estimated quantitation limits.

Initial and Continuing Calibrations

Volatiles

The following table summarizes the volatile compound that failed to meet the initial calibration verification (ICV) recovery criterion of 75-125%:

Compound	%R	Action		Affected Sample
		(+)	NDs	
Dichlorodifluoromethane	68		UJ	All samples

Although the ICV recovery was outside of the QC limits for dichlorodifluoromethane, the project accuracy goals were not impacted since there are no regulatory limits for this compound. The non-detected dichlorodifluoromethane results in all samples are usable as estimated quantitation limits.

The following table summarizes the volatile compounds that failed to meet the continuing calibration (CC) criterion of %D <25:

Compound	%D	Action		Affected Samples
		(+)	NDs	
1,2,4-Trichlorobenzene	31.4		UJ	WGL-GW-FB01-070109, WGL-GW-RB01-070109, WGL-GW-DUP01-063009, WGL-GW-DUP02-063009, WGL-GW-MW102-062909, WGL-GW-MW2-063009, WGL-GW-MW38-063009, WGL-GW-MW39-063009 WGL-GW-MW4-063009, WGL-GW-MW40S-063009, WGL-GW-MW48D-063009, WGL-GW-MW48D2-063009

Although the %D method criterion was outside of the QC limits for 1,2,4-trichlorobenzene, the project accuracy goals are not impacted since the instrument calibration variability is within the safety margin allocated for this compound as indicated by the large difference between the sample quantitation and the project action limit. The non-detected results in the affected samples are usable as estimated quantitation limits.

Semivolatiles

The following table summarizes the semivolatile compound that failed to meet the initial calibration verification (ICV) recovery criterion of 75-125%:

Compound	%R	Action		Affected Sample
		(+)	NDs	
Benzaldehyde	240	J		WGL-GW-RB01-070109, WGL-GW-FB01-070109

Although the ICV recovery criteria were outside of the QC limits for benzaldehyde, the project accuracy goals are not impacted since there are no regulatory limits established for this compound. The positive results in the affected samples are usable as estimated values.

The following table summarizes the semivolatile compounds that failed to meet the continuing calibration (CC) criterion of %D <25:

Compound	%D	Action		Affected Samples
		(+)	NDs	
Benzaldehyde	193, 156	J	UJ	All samples
2,4-Dinitrophenol	-41.1		UJ	WGL-GW-DUP01-063009, WGL-GW-DUP02-063009 WGL-GW-MW101-062909, WGL-GW-MW102-062909, WGL-GW-MW103-062909, WGL-GW-MW2-063009, WGL-GW-MW3-062909, WGL-GW-MW38-063009, WGL-GW-MW4-063009, WGL-GW-MW40S-063009, WGL-GW-MW48D-063009
4-Nitrophenol	-46.6		UJ	WGL-GW-MW39-063009, WGL-GW-MW48D2-063009 WGL-GW-RB01-070109WGL-GW-FB01-070109

Although the %D method criteria were outside of the QC limits for the compounds listed above, the project accuracy goals are not impacted since there are no regulatory limits established for these compounds. The positive and non-detected results in the affected samples are usable as estimated values and estimated quantitation limits.

PAH

The following table summarizes semivolatile-SIM compounds that failed to meet the continuing calibration (CC) criterion of %D <25:

Compound	%D	Action		Affected Samples
		(+)	NDs	
Pentachlorophenol	41.6		UJ	WGL-GW-DUP01-063009, WGL-GW-DUP02-063009 WGL-GW-MW102-062909, WGL-GW-MW103-062909, WGL-GW-MW2-063009, WGL-GW-MW38-063009, WGL-GW-MW39-063009, WGL-GW-MW4-063009, WGL-GW-MW40S-063009, WGL-GW-MW48D-063009, WGL-GW-MW48D2-063009, WGL-GW-FB01-070109, WGL-GW-RB01-070109

The project accuracy goals may be impacted since the %D method criterion was exceeded for pentachlorophenol. The non-detected pentachlorophenol results in the affected samples are usable as estimated quantitation limits.

PCB

The following table summarizes the Aroclors that failed to meet the continuing calibration (CC) criterion of %D <25:

Compound	Avg. %D Column 1	Avg. %D Column 2	Action		Affected Samples
			(+)	NDs	
Aroclor-1016	-56.5	-43.3		UJ	WGL-GW-DUP01-063009, WGL-GW-DUP02-063009 WGL-GW-MW39-063009, WGL-GW-MW4-063009, WGL-GW-MW40S-063009, WGL-GW-MW48D-063009
Aroclor-1260	-63.5	-41.6		UJ	

As specified in the method, Aroclors 1016 and 1260 were analyzed as the CCVs that bracketed all samples since these Aroclors have peaks that are representative to all Aroclors. Therefore, professional judgment was used to apply actions to all target Aroclors as a result of the significant decrease in sensitivity exhibited by these continuing calibration standard for Aroclor-1016 and Aroclor-1260.

Although the continuing calibration criterion was exceed, the project accuracy goals were not impacted since the instrument calibration variability is below the 80% safety margin allocated for these compounds. The non-detected results in the affected samples are usable as estimated quantitation limits.

<u>Surrogate Compounds</u>

Semivolatiles

The following samples had surrogate spike recoveries outside of the recovery QC limits:

Sample	Surrogate	% Recovery	QC Limits	Action[1]	
				(+)	NDs
WGL-GW-MW48D2-063009	Phenol-d_5	0	10-90		R
Note[1]: only acid compounds required qualification based on the surrogate recovery nonconformance.					

Although the surrogate recovery QC criteria were not met for phenol-d_5, the project accuracy goals are not impacted since there are no established regulatory limits for the affected target semivolatile acid compounds. However because the non-detected acid compound results are not usable for project decisions the project completeness goals may be impacted.

PCBs

The following samples had surrogate spike recoveries outside of the QC recovery limits:

Sample	% Recovery		Action	
	DCB (column1)	DCB (column 2)	(+)	NDs
WGL-GW-MW4-063009	30	30		UJ
WGL-GW-DUP02-063009	33	33		UJ
WGL-GW-MW39-063009	28	28		UJ
QC Limits	44-135	44-135		

The surrogate recoveries exceeded the QC criteria as listed above; therefore, the project accuracy goals may be impacted. The non-detected PCB results for the affected samples are usable as estimated quantitation limits which may be biased low.

Matrix Spike/Matrix Spike Duplicate

Semivolatiles

The following table summarizes the results of the matrix spike and/or matrix spike duplicate (MS/MSD) analyses that were outside of the QC acceptance limits:

WGL-GW-MW38-063009					
Compound	MS %R	MSD % R	%Rec. QC Limits	Action	
				(+)	NDs
2-Methylphenol	41	-	45-88		UJ
2,2-oxybis(1-chloropropane)	57	-	58-96		UJ
3 & 4-Methylphenol	38	-	41-80		UJ
2,4-Dimethylphenol	44	-	51-93		UJ
Caprolactam	14	-	15-35		UJ
2-Chloronaphthalene	55	-	57-108		UJ
4-Bromophenyl-phenyl ether	73	-	76-114		UJ
- criterion met					

Although the MS and/or MSD percent recovery criteria were not met for the compounds listed above, the project accuracy goals are not impacted since there are no regulatory limits established for these compounds. The non-detected results for the compounds listed above in sample WGL-GW-MW38-063009 are usable as estimated quantitation limits which may be biased low.

Laboratory Control Sample/Laboratory Control Sample Duplicates

Semivolatiles

The following table summarizes the semivolatile compounds that failed to meet the LCS and/or LCSD recovery and relative percent difference (RPD) QC acceptance limits:

Compound	LCS %R	LCSD %R	RPD	QC Limits		Action		Affected Samples
				%R	RPD	(+)	NDs	
Benzaldehyde	826	NA	NA	10-77	NA	J		WGL-GW-FB01-070109, WGL-GW-RB01-070109
2,2'-oxybis(1-chloropropane)	57	NA	NA	58-96	NA		UJ	All samples except WGL-GW-MW48D2-063009(RE)
4,6-Dinitro-2-methylphenol	52	NA	NA	57-126	NA		UJ	
2,2'-oxybis(1-chloropropane)	52	-	-	58-96	-		UJ	WGL-GW-MW48D2-063009(RE)
Bis(2-chloroethoxy)methane	54	-	32	55-103	30		UJ	
2-Nitroaniline	65	-	-	69-117	-		UJ	
2,6-Dinitrotoluene	65	-	-	66-111	-		UJ	
4-Bromophenyl-phenylether	63	-	-	76-114	-		UJ	
2-Chloronaphthalene	46	-	-	57-108	-		UJ	
-Criterion met NA: Not applicable since an LCSD was not analyzed								

Although the laboratory control sample recovery criteria were not met for the compounds listed above, the project accuracy goals are not impacted since there are no established regulatory limits. The positive benzaldehyde results in affected samples are usable as estimated values that may be biased high. The non-detected results for the remaining compounds listed above in the affected samples are usable as estimated quantitation limits which may be biased low.

Although the laboratory control sample RPD criterion was not met for bis(2-chloroethoxy)methane, the project precision goals are not impacted since there are no established regulatory limits. The non-detected result for this compound in the affected sample is usable as an estimated quantitation limit.

Compound Quantitation Limits

Volatiles

1,2-Dibromomethane and 1,2-dibromo-3-chloropropane were analyzed by methods 8260B and 504.2. The 504.2 sample results were selected for reporting for these compounds.

As noted in the QAPP, 1,2-dibromomethane and 1,2-dibromo-3-chloropropane did not meet project action limits. However, the project action limits were met for all other volatile organic compounds.

Semivolatiles/PAH

All PAHs, 1,4-dioxane, hexachlorobenzene, and pentachlorophenol were analyzed by full scan as well as SIM mode. The SIM sample results were selected for reporting for all of these compounds.

The project action limits were met for all semivolatile compounds, including PAHs, except for the following. As noted in the QAPP, benzo(a)anthracene, benzo(b)fluoranthene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene did not meet project action limits. Additionally, the project action limits were not met for atrazine which was analyzed by full scan analysis only.

Data Usability Assessment

The data usability assessment was performed to determine if the data met the project data quality objectives for acceptable accuracy, precision, sensitivity, and completeness; and to determine and define the impact of the exceeded quality control indicators on the technical usability of the data. Please refer to the specific sections in the above validation report for further details.

Volatiles

The project goals with respect to accuracy were met for the volatiles data set. Data usability was not impacted with regards to accuracy. Select compounds were qualified as estimated due to instrument calibration variability. Although specific method criteria were not met in these instances, the affected non-detected results are usable as estimated quantitation limits.

The project goals with respect to sensitivity were met for the volatiles data set with the following exceptions. The project action limits for 1,2-dibromomethane and 1,2-dibromo-3-chloropropane were not achievable; thus, this may have a minor impact on data usability.

The project goals with respect to precision and completeness were met for the volatiles data set. Data usability was not impacted with regards to precision and completeness.

Semivolatiles/PAH

The project goals with respect to accuracy were met for the semivolatiles/PAH data set with the following exceptions. All semivolatile compound results in sample WGL-GW-MW48D2-063009 were qualified as estimated due to the exceeded extraction holding time criterion. Pentachlorophenol results in select samples were qualified as estimated due to instrument calibration variability. Although specific method criteria were not met in this instance, the affected non-detected results are usable as estimated quantitation limits which may have a minor impact on data usability. Additionally, select compounds were qualified as estimated due to instrument calibration variability, low matrix spike recoveries, and low or high laboratory control sample recoveries. Although specific method criteria were not met in these instances, the affected positive and non-detected results are usable as estimated values and estimated quantitation limits.

The project goals with respect to precision were met for the semivolatiles/PAH data set. Data usability was not impacted with regards to precision. Bis(2-chloroethoxy)methane was qualified as estimated in WGL-GW-MW48D2-063009 due to poor laboratory control sample precision. Although specific method criteria were not met in this instance, the affected non-detected result is usable as an estimated quantitation limit.

The project goals with respect to sensitivity were met for the semivolatile data set with the following exceptions. The project action limits for atrazine, benzo(a)anthracene, benzo(b)fluoranthene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene were not achievable; thus, this may have a minor impact on data usability.

The project goals with respect to completeness were met for the semivolatile/PAH data set with the following exceptions. All acid semivolatile compound results in sample WGL-GW-MW48D2-063009 were qualified as rejected due to the very low (<10%) surrogate recovery. These results are not usable for project decisions; thus, data usability with regards to completeness may be impacted.

Pesticides

The project goals with respect to accuracy, precision, sensitivity, and completeness were met for the pesticides data set. Data usability was not impacted with regards to accuracy, precision, sensitivity, and completeness.

PCBs

The project goals with respect to accuracy were met for the PCBs data set with the following exceptions. All PCB results in samples WGL-GW-MW4-063009, WGL-GW-MW40S-063009, WGL-GW-MW48D-063009, WGL-GW-DUP01-063009, WGL-GW-DUP02-063009, and WGL-GW-MW39-063009 were qualified as estimated due to the exceeded extraction holding time criteria. All PCBs in select samples were qualified as estimated due to low surrogate recoveries. Although specific method criteria were not met in these instances, the affected non-detected results are usable as estimated quantitation limits which may have a minor impact on data usability. Additionally, all PCBs in select samples were qualified as estimated due to instrument calibration variability. Although specific method criteria were not met in these instances, the affected non-detected results are usable as estimated quantitation limits.

The project goals with respect to precision and sensitivity were met for the PCBs data set. Data usability was not impacted with regards to precision and sensitivity.

The project goals with respect to completeness were met for the PCB data set. Data usability was not impacted with regards to completeness.

Tables: Data Validation Qualifiers and Codes
Data Summary Tables

Enclosures: Data Validation Worksheets

Data Validation Qualifiers and Codes

Data Validation Qualifiers:

= No qualifier attached to value (positive hit)
J = Value is estimated
U = Value is not detected
UJ = Value is not detected and estimated
R = Value (positive hit) is not usable
UR = Value was reported as ND but is not usable

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; e.g. chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 00864	NSAMPLE	WGL-GW-DUP01-063009			WGL-GW-DUP02-063009			WGL-GW-FB01-070109			WGL-GW-MW101-062909		
SDG: SC3624	LAB_ID	SC3624-18			SC3624-22			SC3624-28			SC3624-2		
FRACTION: OV	SAMP_DATE	6/30/2009			6/30/2009			7/1/2009			6/29/2009		
MEDIA: WATER	QC_TYPE	FD			FD			FB			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF	WGL-GW-MW48D-063009			WGL-GW-MW40S-063009								
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		1	U		1	U		1	U		1	U	
1,1,2,2-TETRACHLOROETHANE		1	U		1	U		1	U		1	U	
1,1,2-TRICHLOROETHANE		1	U		1	U		1	U		1	U	
1,1-DICHLOROETHANE		1	U		1	U		1	U		1	U	
1,1-DICHLOROETHENE		1	U		1	U		1	U		1	U	
1,2,4-TRICHLOROBENZENE		1	UJ	C	1	UJ	C	1	UJ	C	1	U	
1,2-DICHLOROBENZENE		1	U		1	U		1	U		1	U	
1,2-DICHLOROETHANE		1	U		1	U		1	U		1	U	
1,2-DICHLOROPROPANE		1	U		1	U		1	U		1	U	
1,3-DICHLOROBENZENE		1	U		1	U		1	U		1	U	
1,4-DICHLOROBENZENE		1	U		1	U		1	U		1	U	
2-BUTANONE		5	U		5	U		5	U		5	U	
2-HEXANONE		5	U		5	U		5	U		5	U	
4-METHYL-2-PENTANONE		5	U		5	U		5	U		5	U	
ACETONE		5	U		5	U		5	U		10		
BENZENE		1	U		1	U		1	U		1	U	
BROMODICHLOROMETHANE		1	U		1	U		1	U		1	U	
BROMOFORM		1	U		1	U		1	U		1	U	
BROMOMETHANE		2	U		2	U		2	U		2	U	
CARBON DISULFIDE		1	U		1	U		1	U		1	U	
CARBON TETRACHLORIDE		1	U		1	U		1	U		1	U	
CHLOROBENZENE		1	U		1	U		1	U		1	U	
CHLORODIBROMOMETHANE		1	U		1	U		1	U		1	U	
CHLOROETHANE		2	U		2	U		2	U		2	U	
CHLOROFORM		1	U		1	U		1	U		0.6	J	P
CHLOROMETHANE		2	U		2	U		2	U		2	U	
CIS-1,2-DICHLOROETHENE		1	U		0.8	J	P	1	U		1	U	
CIS-1,3-DICHLOROPROPENE		1	U		1	U		1	U		1	U	
CYCLOHEXANE		1	U		1	U		1	U		1	U	
DICHLORODIFLUOROMETHANE		2	UJ	C	2	UJ	C	2	UJ	C	2	UJ	C
ETHYLBENZENE		1	U		1	U		1	U		1	U	
ISOPROPYLBENZENE		1	U		1	U		1	U		1	U	
M+P-XYLENES		2	U		2	U		2	U		2	U	
METHYL ACETATE		1	U		1	U		1	U		1	U	
METHYL CYCLOHEXANE		1	U		1	U		1	U		1	U	

PROJ_NO: 00864	NSAMPLE	WGL-GW-MW102-062909			WGL-GW-MW103-062909			WGL-GW-MW2-063009			WGL-GW-MW3-062909		
SDG: SC3624	LAB_ID	SC3624-8			SC3624-6			SC3624-10			SC3624-4		
FRACTION: OV	SAMP_DATE	6/29/2009			6/29/2009			6/30/2009			6/29/2009		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		1	U		1	U		1	U		1	U	
1,1,2,2-TETRACHLOROETHANE		1	U		1	U		1	U		1	U	
1,1,2-TRICHLOROETHANE		1	U		1	U		1	U		1	U	
1,1-DICHLOROETHANE		1	U		1	U		1	U		1	U	
1,1-DICHLOROETHENE		1	U		1	U		1	U		1	U	
1,2,4-TRICHLOROBENZENE		1	UJ	C	1	U		1	UJ	C	1	U	
1,2-DICHLOROBENZENE		1	U		1	U		1	U		1	U	
1,2-DICHLOROETHANE		1	U		1	U		1	U		1	U	
1,2-DICHLOROPROPANE		1	U		1	U		1	U		1	U	
1,3-DICHLOROBENZENE		1	U		1	U		1	U		1	U	
1,4-DICHLOROBENZENE		1	U		1	U		1	U		1	U	
2-BUTANONE		5	U		5	U		5	U		5	U	
2-HEXANONE		5	U		5	U		5	U		5	U	
4-METHYL-2-PENTANONE		5	U		5	U		5	U		5	U	
ACETONE		5	U		5	U		5	U		5	U	
BENZENE		1	U		1	U		1	U		1	U	
BROMODICHLOROMETHANE		1	U		1	U		1	U		1	U	
BROMOFORM		1	U		1	U		1	U		1	U	
BROMOMETHANE		2	U		2	U		2	U		2	U	
CARBON DISULFIDE		1	U		1	U		1	U		1	U	
CARBON TETRACHLORIDE		1	U		1	U		1	U		1	U	
CHLOROBENZENE		1	U		1	U		1	U		1	U	
CHLORODIBROMOMETHANE		1	U		1	U		1	U		1	U	
CHLOROETHANE		2	U		2	U		2	U		2	U	
CHLOROFORM		1	U		1	U		1	U		1	U	
CHLOROMETHANE		2	U		2	U		2	U		2	U	
CIS-1,2-DICHLOROETHENE		1	U		1	U		1	U		1	U	
CIS-1,3-DICHLOROPROPENE		1	U		1	U		1	U		1	U	
CYCLOHEXANE		1	U		1	U		1	U		1	U	
DICHLORODIFLUOROMETHANE		2	UJ	C	2	UJ	C	2	UJ	C	2	UJ	C
ETHYLBENZENE		1	U		1	U		1	U		1	U	
ISOPROPYLBENZENE		1	U		1	U		1	U		1	U	
M+P-XYLENES		2	U		2	U		2	U		2	U	
METHYL ACETATE		1	U		1	U		1	U		1	U	
METHYL CYCLOHEXANE		1	U		1	U		1	U		1	U	

PROJ_NO: 00864	NSAMPLE	WGL-GW-MW38-063009			WGL-GW-MW39-063009			WGL-GW-MW4-063009			WGL-GW-MW40S-063009		
SDG: SC3624	LAB_ID	SC3624-14			SC3624-26			SC3624-12			SC3624-16		
FRACTION: OV	SAMP_DATE	6/30/2009			6/30/2009			6/30/2009			6/30/2009		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		1	U		1	U		1	U		1	U	
1,1,2,2-TETRACHLOROETHANE		1	U		1	U		1	U		1	U	
1,1,2-TRICHLOROETHANE		1	U		1	U		1	U		1	U	
1,1-DICHLOROETHANE		1	U		1	U		1	U		1	U	
1,1-DICHLOROETHENE		1	U		1	U		1	U		1	U	
1,2,4-TRICHLOROBENZENE		1	UJ	C	1	UJ	C	1	UJ	C	1	UJ	C
1,2-DICHLOROBENZENE		1	U		1	U		1	U		1	U	
1,2-DICHLOROETHANE		1	U		1	U		1	U		1	U	
1,2-DICHLOROPROPANE		1	U		1	U		1	U		1	U	
1,3-DICHLOROBENZENE		1	U		1	U		1	U		1	U	
1,4-DICHLOROBENZENE		1	U		1	U		1	U		1	U	
2-BUTANONE		5	U		5	U		5	U		5	U	
2-HEXANONE		5	U		5	U		5	U		5	U	
4-METHYL-2-PENTANONE		5	U		5	U		5	U		5	U	
ACETONE		5	U		5	U		5	U		5	U	
BENZENE		1	U		1	U		1	U		1	U	
BROMODICHLOROMETHANE		1	U		1	U		1	U		1	U	
BROMOFORM		1	U		1	U		1	U		1	U	
BROMOMETHANE		2	U		2	U		2	U		2	U	
CARBON DISULFIDE		1	U		1	U		1	U		1	U	
CARBON TETRACHLORIDE		1	U		1	U		1	U		1	U	
CHLOROBENZENE		1	U		1	U		1	U		1	U	
CHLORODIBROMOMETHANE		1	U		1	U		1	U		1	U	
CHLOROETHANE		2	U		2	U		2	U		2	U	
CHLOROFORM		1	U		1	U		1	U		1	U	
CHLOROMETHANE		2	U		2	U		2	U		2	U	
CIS-1,2-DICHLOROETHENE		1	U		1	U		1	U		0.8	J	P
CIS-1,3-DICHLOROPROPENE		1	U		1	U		1	U		1	U	
CYCLOHEXANE		1	U		1	U		1	U		1	U	
DICHLORODIFLUOROMETHANE		2	UJ	C	2	UJ	C	2	UJ	C	2	UJ	C
ETHYLBENZENE		1	U		1	U		1	U		1	U	
ISOPROPYLBENZENE		1	U		1	U		1	U		1	U	
M+P-XYLENES		2	U		2	U		2	U		2	U	
METHYL ACETATE		1	U		1	U		1	U		1	U	
METHYL CYCLOHEXANE		1	U		1	U		1	U		1	U	

PROJ_NO: 00864	NSAMPLE	WGL-GW-MW48D-063009			WGL-GW-MW48D2-063009			WGL-GW-RB01-070109			WGL-GW-TB01-062909		
SDG: SC3624	LAB_ID	SC3624-20			SC3624-24			SC3624-30			SC3624-1		
FRACTION: OV	SAMP_DATE	6/30/2009			6/30/2009			7/1/2009			5/26/2009		
MEDIA: WATER	QC_TYPE	NM			NM			RB			TB		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		1	U		1	U		1	U		1	U	
1,1,2,2-TETRACHLOROETHANE		1	U		1	U		1	U		1	U	
1,1,2-TRICHLOROETHANE		1	U		1	U		1	U		1	U	
1,1-DICHLOROETHANE		1	U		1	U		1	U		1	U	
1,1-DICHLOROETHENE		1	U		1	U		1	U		1	U	
1,2,4-TRICHLOROBENZENE		1	UJ	C	1	UJ	C	1	UJ	C	1	U	
1,2-DICHLOROBENZENE		1	U		1	U		1	U		1	U	
1,2-DICHLOROETHANE		1	U		1	U		1	U		1	U	
1,2-DICHLOROPROPANE		1	U		1	U		1	U		1	U	
1,3-DICHLOROBENZENE		1	U		1	U		1	U		1	U	
1,4-DICHLOROBENZENE		1	U		1	U		1	U		1	U	
2-BUTANONE		5	U		5	U		5	U		5	U	
2-HEXANONE		5	U		5	U		5	U		5	U	
4-METHYL-2-PENTANONE		5	U		5	U		5	U		5	U	
ACETONE		5	U		5	U		5	U		5	U	
BENZENE		1	U		1	U		1	U		1	U	
BROMODICHLOROMETHANE		1	U		1	U		1	U		1	U	
BROMOFORM		1	U		1	U		1	U		1	U	
BROMOMETHANE		2	U		2	U		2	U		2	U	
CARBON DISULFIDE		1	U		1	U		1	U		1	U	
CARBON TETRACHLORIDE		1	U		1	U		1	U		1	U	
CHLOROBENZENE		1	U		1	U		1	U		1	U	
CHLORODIBROMOMETHANE		1	U		1	U		1	U		1	U	
CHLOROETHANE		2	U		2	U		2	U		2	U	
CHLOROFORM		1	U		1	U		1	U		1	U	
CHLOROMETHANE		2	U		2	U		2	U		2	U	
CIS-1,2-DICHLOROETHENE		1	U		1	U		1	U		1	U	
CIS-1,3-DICHLOROPROPENE		1	U		1	U		1	U		1	U	
CYCLOHEXANE		1	U		1	U		1	U		1	U	
DICHLORODIFLUOROMETHANE		2	UJ	C	2	UJ	C	2	UJ	C	2	UJ	C
ETHYLBENZENE		1	U		1	U		1	U		1	U	
ISOPROPYLBENZENE		1	U		1	U		1	U		1	U	
M+P-XYLENES		2	U		2	U		2	U		2	U	
METHYL ACETATE		1	U		1	U		1	U		1	U	
METHYL CYCLOHEXANE		1	U		1	U		1	U		1	U	

PROJ_NO: 00864	NSAMPLE	WGL-GW-DUP01-063009			WGL-GW-DUP02-063009			WGL-GW-FB01-070109			WGL-GW-MW101-062909		
SDG: SC3624	LAB_ID	SC3624-18			SC3624-22			SC3624-28			SC3624-2		
FRACTION: OV	SAMP_DATE	6/30/2009			6/30/2009			7/1/2009			6/29/2009		
MEDIA: WATER	QC_TYPE	FD			FD			FB			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF	WGL-GW-MW48D-063009			WGL-GW-MW40S-063009								
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL TERT-BUTYL ETHER		1	U		1	U		1	U		2		
METHYLENE CHLORIDE		5	U		5	U		5	U		5	U	
O-XYLENE		1	U		1	U		1	U		1	U	
STYRENE		1	U		1	U		1	U		1	U	
TETRACHLOROETHENE		1	U		1	U		1	U		1	U	
TOLUENE		1	U		1	U		1	U		1	U	
TOTAL XYLENES		3	U		3	U		3	U		3	U	
TRANS-1,2-DICHLOROETHENE		1	U		1	U		1	U		1	U	
TRANS-1,3-DICHLOROPROPENE		1	U		1	U		1	U		1	U	
TRICHLOROETHENE		1	U		1	U		1	U		1	U	
TRICHLOROFLUOROMETHANE		2	U		2	U		2	U		2	U	
VINYL CHLORIDE		2	U		2	U		2	U		2	U	

PROJ_NO: 00864	NSAMPLE	WGL-GW-MW102-062909			WGL-GW-MW103-062909			WGL-GW-MW2-063009			WGL-GW-MW3-062909		
SDG: SC3624	LAB_ID	SC3624-8			SC3624-6			SC3624-10			SC3624-4		
FRACTION: OV	SAMP_DATE	6/29/2009			6/29/2009			6/30/2009			6/29/2009		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL TERT-BUTYL ETHER		1	U		0.6	J	P	1	U		1	U	
METHYLENE CHLORIDE		5	U		5	U		5	U		5	U	
O-XYLENE		1	U		1	U		1	U		1	U	
STYRENE		1	U		1	U		1	U		1	U	
TETRACHLOROETHENE		1	U		1	U		1	U		1	U	
TOLUENE		1	U		1	U		1	U		1	U	
TOTAL XYLENES		3	U		3	U		3	U		3	U	
TRANS-1,2-DICHLOROETHENE		1	U		1	U		1	U		1	U	
TRANS-1,3-DICHLOROPROPENE		1	U		1	U		1	U		1	U	
TRICHLOROETHENE		1	U		1	U		1	U		1	U	
TRICHLOROFLUOROMETHANE		2	U		2	U		2	U		2	U	
VINYL CHLORIDE		2	U		2	U		2	U		2	U	

PROJ_NO: 00864	NSAMPLE	WGL-GW-MW38-063009			WGL-GW-MW39-063009			WGL-GW-MW4-063009			WGL-GW-MW40S-063009		
SDG: SC3624	LAB_ID	SC3624-14			SC3624-26			SC3624-12			SC3624-16		
FRACTION: OV	SAMP_DATE	6/30/2009			6/30/2009			6/30/2009			6/30/2009		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL TERT-BUTYL ETHER		1	U		1	U		1	U		1	U	
METHYLENE CHLORIDE		5	U		5	U		5	U		5	U	
O-XYLENE		1	U		1	U		1	U		1	U	
STYRENE		1	U		1	U		1	U		1	U	
TETRACHLOROETHENE		1	U		1	U		1	U		1	U	
TOLUENE		1	U		1	U		1	U		1	U	
TOTAL XYLENES		3	U		3	U		3	U		3	U	
TRANS-1,2-DICHLOROETHENE		1	U		1	U		1	U		1	U	
TRANS-1,3-DICHLOROPROPENE		1	U		1	U		1	U		1	U	
TRICHLOROETHENE		1	U		1	U		1	U		1	U	
TRICHLOROFLUOROMETHANE		2	U		2	U		2	U		2	U	
VINYL CHLORIDE		2	U		2	U		2	U		2	U	

PROJ_NO: 00864	NSAMPLE	WGL-GW-MW48D-063009			WGL-GW-MW48D2-063009			WGL-GW-RB01-070109			WGL-GW-TB01-062909		
SDG: SC3624	LAB_ID	SC3624-20			SC3624-24			SC3624-30			SC3624-1		
FRACTION: OV	SAMP_DATE	6/30/2009			6/30/2009			7/1/2009			5/26/2009		
MEDIA: WATER	QC_TYPE	NM			NM			RB			TB		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
METHYL TERT-BUTYL ETHER		1	U		1	U		1	U		1	U	
METHYLENE CHLORIDE		5	U		5	U		5	U		5	U	
O-XYLENE		1	U		1	U		1	U		1	U	
STYRENE		1	U		1	U		1	U		1	U	
TETRACHLOROETHENE		1	U		1	U		1	U		1	U	
TOLUENE		1	U		1	U		1	U		1	U	
TOTAL XYLENES		3	U		3	U		3	U		3	U	
TRANS-1,2-DICHLOROETHENE		1	U		1	U		1	U		1	U	
TRANS-1,3-DICHLOROPROPENE		1	U		1	U		1	U		1	U	
TRICHLOROETHENE		1	U		1	U		1	U		1	U	
TRICHLOROFLUOROMETHANE		2	U		2	U		2	U		2	U	
VINYL CHLORIDE		2	U		2	U		2	U		2	U	

PROJ_NO: 00864	NSAMPLE	WGL-GW-DUP01-063009			WGL-GW-DUP02-063009			WGL-GW-FB01-070109			WGL-GW-MW101-062909		
SDG: SC3624	LAB_ID	SC3624-18			SC3624-22			SC3624-28			SC3624-2		
FRACTION: LV	SAMP_DATE	6/30/2009			6/30/2009			7/1/2009			6/29/2009		
MEDIA: WATER	QC_TYPE	FD			FD			FB			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF	WGL-GW-MW48D-063009			WGL-GW-MW40S-063009								
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,2-DIBROMO-3-CHLOROPROPANE		0.048	U		0.048	U		0.047	U		0.047	U	
1,2-DIBROMOETHANE		0.048	U		0.048	U		0.047	U		0.047	U	

PROJ_NO: 00864	NSAMPLE	WGL-GW-MW102-062909			WGL-GW-MW103-062909			WGL-GW-MW2-063009			WGL-GW-MW3-062909		
SDG: SC3624	LAB_ID	SC3624-8			SC3624-6			SC3624-10			SC3624-4		
FRACTION: LV	SAMP_DATE	6/29/2009			6/29/2009			6/30/2009			6/29/2009		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,2-DIBROMO-3-CHLOROPROPANE		0.047	U		0.047	U		0.047	U		0.047	U	
1,2-DIBROMOETHANE		0.047	U		0.047	U		0.047	U		0.047	U	

PROJ_NO: 00864	NSAMPLE	WGL-GW-MW38-063009			WGL-GW-MW39-063009			WGL-GW-MW4-063009			WGL-GW-MW40S-063009		
SDG: SC3624	LAB_ID	SC3624-14			SC3624-26			SC3624-12			SC3624-16		
FRACTION: LV	SAMP_DATE	6/30/2009			6/30/2009			6/30/2009			6/30/2009		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,2-DIBROMO-3-CHLOROPROPANE		0.047	U		0.047	U		0.047	U		0.047	U	
1,2-DIBROMOETHANE		0.047	U		0.047	U		0.047	U		0.047	U	

PROJ_NO: 00864	NSAMPLE	WGL-GW-MW48D-063009			WGL-GW-MW48D2-063009			WGL-GW-RB01-070109		
SDG: SC3624	LAB_ID	SC3624-20			SC3624-24			SC3624-30		
FRACTION: LV	SAMP_DATE	6/30/2009			6/30/2009			7/1/2009		
MEDIA: WATER	QC_TYPE	NM			NM			RB		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,2-DIBROMO-3-CHLOROPROPANE		0.048	U		0.047	U		0.047	U	
1,2-DIBROMOETHANE		0.048	U		0.047	U		0.047	U	

PROJ_NO: 00864	NSAMPLE	WGL-GW-DUP01-063009			WGL-GW-DUP02-063009			WGL-GW-FB01-070109			WGL-GW-MW101-062909		
SDG: SC3624	LAB_ID	SC3624-18			SC3624-22			SC3624-28RA			SC3624-2		
FRACTION: OS	SAMP_DATE	6/30/2009			6/30/2009			7/1/2009			6/29/2009		
MEDIA: WATER	QC_TYPE	FD			FD			FB			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF	WGL-GW-MW48D-063009			WGL-GW-MW40S-063009								
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1-BIPHENYL		10	U		9	U		9	U		9	U	
2,4,5-TRICHLOROPHENOL		24	U		24	U		24	U		24	U	
2,4,6-TRICHLOROPHENOL		10	U		9	U		9	U		9	U	
2,4-DICHLOROPHENOL		10	UJ	C	9	UJ	C	9	U		9	UJ	C
2,4-DIMETHYLPHENOL		10	U		9	U		9	U		9	U	
2,4-DINITROPHENOL		24	U		24	U		24	U		24	U	
2,4-DINITROTOLUENE		10	U		9	U		9	U		9	U	
2,6-DINITROTOLUENE		10	U		9	U		9	U		9	U	
2-CHLORONAPHTHALENE		10	U		9	U		9	U		9	U	
2-CHLOROPHENOL		10	U		9	U		9	U		9	U	
2-METHYLPHENOL		10	U		9	U		9	U		9	U	
2-NITROANILINE		24	U		24	U		24	U		24	U	
2-NITROPHENOL		10	U		9	U		9	U		9	U	
3&4-METHYLPHENOL		10	U		9	U		9	U		9	U	
3,3'-DICHLOROBENZIDINE		10	U		9	U		9	U		9	U	
3-NITROANILINE		24	U		24	U		24	U		24	U	
4,6-DINITRO-2-METHYLPHENOL		24	UJ	E	24	UJ	E	24	UJ	E	24	UJ	E
4-BROMOPHENYL PHENYL ETHER		10	U		9	U		9	U		9	U	
4-CHLORO-3-METHYLPHENOL		10	U		9	U		9	U		9	U	
4-CHLOROANILINE		10	U		9	U		9	U		9	U	
4-CHLOROPHENYL PHENYL ETHER		10	U		9	U		9	U		9	U	
4-NITROANILINE		24	U		24	U		24	U		24	U	
4-NITROPHENOL		24	U		24	U		24	UJ	C	24	U	
ACETOPHENONE		10	U		9	U		9	U		9	U	
ATRAZINE		10	U		9	U		9	U		9	U	
BENZALDEHYDE		10	UJ	C	9	UJ	C	16	J	CE	9	UJ	C
BIS(2-CHLOROETHOXY)METHANE		10	U		9	U		9	U		9	U	
BIS(2-CHLOROETHYL)ETHER		10	U		9	U		9	U		9	U	
BIS(2-CHLOROISOPROPYL)ETHER		10	UJ	E	9	UJ	E	9	UJ	E	9	UJ	E
BIS(2-ETHYLHEXYL)PHTHALATE		10	U		9	U		9	U		9	U	
BUTYL BENZYL PHTHALATE		10	U		9	U		9	U		9	U	
CAPROLACTAM		10	U		9	U		9	U		9	U	
CARBAZOLE		10	U		9	U		9	U		9	U	
DIBENZOFURAN		10	U		9	U		9	U		9	U	
DIETHYL PHTHALATE		10	U		9	U		9	U		9	U	

PROJ_NO: 00864	NSAMPLE	WGL-GW-MW102-062909			WGL-GW-MW103-062909			WGL-GW-MW2-063009			WGL-GW-MW3-062909		
SDG: SC3624	LAB_ID	SC3624-8			SC3624-6			SC3624-10			SC3624-4		
FRACTION: OS	SAMP_DATE	6/29/2009			6/29/2009			6/30/2009			6/29/2009		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1-BIPHENYL		10	U		11	U		9	U		9	U	
2,4,5-TRICHLOROPHENOL		26	U		27	U		24	U		24	U	
2,4,6-TRICHLOROPHENOL		10	U		11	U		9	U		9	U	
2,4-DICHLOROPHENOL		10	UJ	C	11	UJ	C	9	UJ	C	9	UJ	C
2,4-DIMETHYLPHENOL		10	U		11	U		9	U		9	U	
2,4-DINITROPHENOL		26	U		27	U		24	U		24	U	
2,4-DINITROTOLUENE		10	U		11	U		9	U		9	U	
2,6-DINITROTOLUENE		10	U		11	U		9	U		9	U	
2-CHLORONAPHTHALENE		10	U		11	U		9	U		9	U	
2-CHLOROPHENOL		10	U		11	U		9	U		9	U	
2-METHYLPHENOL		10	U		11	U		9	U		9	U	
2-NITROANILINE		26	U		27	U		24	U		24	U	
2-NITROPHENOL		10	U		11	U		9	U		9	U	
3&4-METHYLPHENOL		10	U		11	U		9	U		9	U	
3,3'-DICHLOROBENZIDINE		10	U		11	U		9	U		9	U	
3-NITROANILINE		26	U		27	U		24	U		24	U	
4,6-DINITRO-2-METHYLPHENOL		26	UJ	E	27	UJ	E	24	UJ	E	24	UJ	E
4-BROMOPHENYL PHENYL ETHER		10	U		11	U		9	U		9	U	
4-CHLORO-3-METHYLPHENOL		10	U		11	U		9	U		9	U	
4-CHLOROANILINE		10	U		11	U		9	U		9	U	
4-CHLOROPHENYL PHENYL ETHER		10	U		11	U		9	U		9	U	
4-NITROANILINE		26	U		27	U		24	U		24	U	
4-NITROPHENOL		26	U		27	U		24	U		24	U	
ACETOPHENONE		10	U		11	U		9	U		9	U	
ATRAZINE		10	U		11	U		9	U		9	U	
BENZALDEHYDE		10	UJ	C	11	UJ	C	9	UJ	C	9	UJ	C
BIS(2-CHLOROETHOXY)METHANE		10	U		11	U		9	U		9	U	
BIS(2-CHLOROETHYL)ETHER		10	U		11	U		9	U		9	U	
BIS(2-CHLOROISOPROPYL)ETHER		10	UJ	E	11	UJ	E	9	UJ	E	9	UJ	E
BIS(2-ETHYLHEXYL)PHTHALATE		10	U		11	U		9	U		9	U	
BUTYL BENZYL PHTHALATE		10	U		11	U		9	U		9	U	
CAPROLACTAM		10	U		11	U		9	U		9	U	
CARBAZOLE		10	U		11	U		9	U		9	U	
DIBENZOFURAN		10	U		11	U		9	U		9	U	
DIETHYL PHTHALATE		10	U		11	U		9	U		9	U	

PROJ_NO: 00864	NSAMPLE	WGL-GW-MW38-063009			WGL-GW-MW39-063009			WGL-GW-MW4-063009			WGL-GW-MW40S-063009		
SDG: SC3624	LAB_ID	SC3624-14			SC3624-26RA			SC3624-12			SC3624-16		
FRACTION: OS	SAMP_DATE	6/30/2009			6/30/2009			6/30/2009			6/30/2009		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1-BIPHENYL		10	U		10	U		9	U		9	U	
2,4,5-TRICHLOROPHENOL		24	U		26	U		24	U		24	U	
2,4,6-TRICHLOROPHENOL		10	U		10	U		9	U		9	U	
2,4-DICHLOROPHENOL		10	UJ	C	10	U		9	UJ	C	9	UJ	C
2,4-DIMETHYLPHENOL		10	UJ	D	10	U		9	U		9	U	
2,4-DINITROPHENOL		24	U		26	U		24	U		24	U	
2,4-DINITROTOLUENE		10	U		10	U		9	U		9	U	
2,6-DINITROTOLUENE		10	U		10	U		9	U		9	U	
2-CHLORONAPHTHALENE		10	UJ	D	10	U		9	U		9	U	
2-CHLOROPHENOL		10	U		10	U		9	U		9	U	
2-METHYLPHENOL		10	UJ	D	10	U		9	U		9	U	
2-NITROANILINE		24	U		26	U		24	U		24	U	
2-NITROPHENOL		10	U		10	U		9	U		9	U	
3&4-METHYLPHENOL		10	UJ	D	10	U		9	U		9	U	
3,3'-DICHLOROBENZIDINE		10	U		10	U		9	U		9	U	
3-NITROANILINE		24	U		26	U		24	U		24	U	
4,6-DINITRO-2-METHYLPHENOL		24	UJ	E	26	UJ	E	24	UJ	E	24	UJ	E
4-BROMOPHENYL PHENYL ETHER		10	UJ	D	10	U		9	U		9	U	
4-CHLORO-3-METHYLPHENOL		10	U		10	U		9	U		9	U	
4-CHLOROANILINE		10	U		10	U		9	U		9	U	
4-CHLOROPHENYL PHENYL ETHER		10	U		10	U		9	U		9	U	
4-NITROANILINE		24	U		26	U		24	U		24	U	
4-NITROPHENOL		24	U		26	UJ	C	24	U		24	U	
ACETOPHENONE		10	U		10	U		9	U		9	U	
ATRAZINE		10	U		10	U		9	U		9	U	
BENZALDEHYDE		10	UJ	C	10	UJ	C	9	UJ	C	9	UJ	C
BIS(2-CHLOROETHOXY)METHANE		10	U		10	U		9	U		9	U	
BIS(2-CHLOROETHYL)ETHER		10	U		10	U		9	U		9	U	
BIS(2-CHLOROISOPROPYL)ETHER		10	UJ	DE	10	UJ	E	9	UJ	E	9	UJ	E
BIS(2-ETHYLHEXYL)PHTHALATE		10	U		10	U		9	U		9	U	
BUTYL BENZYL PHTHALATE		10	U		10	U		9	U		9	U	
CAPROLACTAM		10	UJ	D	10	U		9	U		9	U	
CARBAZOLE		10	U		10	U		9	U		9	U	
DIBENZOFURAN		10	U		10	U		9	U		9	U	
DIETHYL PHTHALATE		10	U		10	U		9	U		9	U	

PROJ_NO: 00864	NSAMPLE	WGL-GW-MW48D-063009			WGL-GW-MW48D2-063009-A			WGL-GW-RB01-070109		
SDG: SC3624	LAB_ID	SC3624-20			SC3624-24RE			SC3624-30RA		
FRACTION: OS	SAMP_DATE	6/30/2009			6/30/2009			7/1/2009		
MEDIA: WATER	QC_TYPE	NM			NM			RB		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1-BIPHENYL		10	U		10	UJ	H	9	U	
2,4,5-TRICHLOROPHENOL		24	U		26	UR	R	24	U	
2,4,6-TRICHLOROPHENOL		10	U		10	UR	R	9	U	
2,4-DICHLOROPHENOL		10	UJ	C	10	UR	R	9	U	
2,4-DIMETHYLPHENOL		10	U		10	UR	R	9	U	
2,4-DINITROPHENOL		24	U		26	UR	R	24	U	
2,4-DINITROTOLUENE		10	U		10	UJ	H	9	U	
2,6-DINITROTOLUENE		10	U		10	UJ	EH	9	U	
2-CHLORONAPHTHALENE		10	U		10	UJ	EH	9	U	
2-CHLOROPHENOL		10	U		10	UJ	H	9	U	
2-METHYLPHENOL		10	U		10	UR	R	9	U	
2-NITROANILINE		24	U		26	UJ	EH	24	U	
2-NITROPHENOL		10	U		10	UR	R	9	U	
3&4-METHYLPHENOL		10	U		10	UR	R	9	U	
3,3'-DICHLOROBENZIDINE		10	U		10	UJ	H	9	U	
3-NITROANILINE		24	U		26	UJ	H	24	U	
4,6-DINITRO-2-METHYLPHENOL		24	UJ	E	26	UR	R	24	UJ	E
4-BROMOPHENYL PHENYL ETHER		10	U		10	UJ	EH	9	U	
4-CHLORO-3-METHYLPHENOL		10	U		10	UR	R	9	U	
4-CHLOROANILINE		10	U		10	UJ	H	9	U	
4-CHLOROPHENYL PHENYL ETHER		10	U		10	UJ	H	9	U	
4-NITROANILINE		24	U		26	UJ	H	24	U	
4-NITROPHENOL		24	U		26	UR	R	24	UJ	C
ACETOPHENONE		10	U		10	UJ	H	9	U	
ATRAZINE		10	U		10	UJ	H	9	U	
BENZALDEHYDE		10	UJ	C	10	UJ	CH	17	J	CE
BIS(2-CHLOROETHOXY)METHANE		10	U		10	UJ	EH	9	U	
BIS(2-CHLOROETHYL)ETHER		10	U		10	UJ	H	9	U	
BIS(2-CHLOROISOPROPYL)ETHER		10	UJ	E	10	UJ	EH	9	UJ	
BIS(2-ETHYLHEXYL)PHTHALATE		10	U		10	UJ	H	9	U	
BUTYL BENZYL PHTHALATE		10	U		10	UJ	H	9	U	
CAPROLACTAM		10	U		10	UJ	H	9	U	
CARBAZOLE		10	U		10	UJ	H	9	U	
DIBENZOFURAN		10	U		10	UJ	H	9	U	
DIETHYL PHTHALATE		10	U		10	UJ	H	9	U	

PROJ_NO: 00864	NSAMPLE	WGL-GW-DUP01-063009			WGL-GW-DUP02-063009			WGL-GW-FB01-070109			WGL-GW-MW101-062909		
SDG: SC3624	LAB_ID	SC3624-18			SC3624-22			SC3624-28RA			SC3624-2		
FRACTION: OS	SAMP_DATE	6/30/2009			6/30/2009			7/1/2009			6/29/2009		
MEDIA: WATER	QC_TYPE	FD			FD			FB			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF	WGL-GW-MW48D-063009			WGL-GW-MW40S-063009								
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DIMETHYL PHTHALATE		10	U		9	U		9	U		9	U	
DI-N-BUTYL PHTHALATE		10	U		9	U		9	U		9	U	
DI-N-OCTYL PHTHALATE		10	U		9	U		9	U		9	U	
HEXACHLOROBUTADIENE		10	U		9	U		9	U		9	U	
HEXACHLOROCYCLOPENTADIENE		10	U		9	U		9	U		9	U	
HEXACHLOROETHANE		10	U		9	U		9	U		9	U	
ISOPHORONE		10	U		9	U		9	U		9	U	
NITROBENZENE		10	U		9	U		9	U		9	U	
N-NITROSO-DI-N-PROPYLAMINE		10	U		9	U		9	U		9	U	
N-NITROSODIPHENYLAMINE		10	U		9	U		9	U		9	U	
PHENOL		10	U		9	U		9	U		9	U	

PROJ_NO: 00864	NSAMPLE	WGL-GW-MW102-062909			WGL-GW-MW103-062909			WGL-GW-MW2-063009			WGL-GW-MW3-062909		
SDG: SC3624	LAB_ID	SC3624-8			SC3624-6			SC3624-10			SC3624-4		
FRACTION: OS	SAMP_DATE	6/29/2009			6/29/2009			6/30/2009			6/29/2009		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DIMETHYL PHTHALATE		10	U		11	U		9	U		9	U	
DI-N-BUTYL PHTHALATE		10	U		11	U		9	U		9	U	
DI-N-OCTYL PHTHALATE		10	U		11	U		9	U		9	U	
HEXACHLOROBUTADIENE		10	U		11	U		9	U		9	U	
HEXACHLOROCYCLOPENTADIENE		10	U		11	U		9	U		9	U	
HEXACHLOROETHANE		10	U		11	U		9	U		9	U	
ISOPHORONE		10	U		11	U		9	U		9	U	
NITROBENZENE		10	U		11	U		9	U		9	U	
N-NITROSO-DI-N-PROPYLAMINE		10	U		11	U		9	U		9	U	
N-NITROSODIPHENYLAMINE		10	U		11	U		9	U		9	U	
PHENOL		10	U		11	U		9	U		9	U	

PROJ_NO: 00864	NSAMPLE	WGL-GW-MW38-063009			WGL-GW-MW39-063009			WGL-GW-MW4-063009			WGL-GW-MW40S-063009		
SDG: SC3624	LAB_ID	SC3624-14			SC3624-26RA			SC3624-12			SC3624-16		
FRACTION: OS	SAMP_DATE	6/30/2009			6/30/2009			6/30/2009			6/30/2009		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DIMETHYL PHTHALATE		10	U		10	U		9	U		9	U	
DI-N-BUTYL PHTHALATE		10	U		10	U		9	U		9	U	
DI-N-OCTYL PHTHALATE		10	U		10	U		9	U		9	U	
HEXACHLOROBUTADIENE		10	U		10	U		9	U		9	U	
HEXACHLOROCYCLOPENTADIENE		10	U		10	U		9	U		9	U	
HEXACHLOROETHANE		10	U		10	U		9	U		9	U	
ISOPHORONE		10	U		10	U		9	U		9	U	
NITROBENZENE		10	U		10	U		9	U		9	U	
N-NITROSO-DI-N-PROPYLAMINE		10	U		10	U		9	U		9	U	
N-NITROSODIPHENYLAMINE		10	U		10	U		9	U		9	U	
PHENOL		10	U		10	U		9	U		9	U	

PROJ_NO: 00864	NSAMPLE	WGL-GW-MW48D-063009			WGL-GW-MW48D2-063009-A			WGL-GW-RB01-070109		
SDG: SC3624	LAB_ID	SC3624-20			SC3624-24RE			SC3624-30RA		
FRACTION: OS	SAMP_DATE	6/30/2009			6/30/2009			7/1/2009		
MEDIA: WATER	QC_TYPE	NM			NM			RB		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
DIMETHYL PHTHALATE		10	U		10	UJ	H	9	U	
DI-N-BUTYL PHTHALATE		10	U		10	UJ	H	9	U	
DI-N-OCTYL PHTHALATE		10	U		10	UJ	H	9	U	
HEXACHLOROBUTADIENE		10	U		10	UJ	H	9	U	
HEXACHLOROCYCLOPENTADIENE		10	U		10	UJ	H	9	U	
HEXACHLOROETHANE		10	U		10	UJ	H	9	U	
ISOPHORONE		10	U		10	UJ	H	9	U	
NITROBENZENE		10	U		10	UJ	H	9	U	
N-NITROSO-DI-N-PROPYLAMINE		10	U		10	UJ	H	9	U	
N-NITROSODIPHENYLAMINE		10	U		10	UJ	H	9	U	
PHENOL		10	U		10	UR	R	9	U	

PROJ_NO: 00864	NSAMPLE	WGL-GW-DUP01-063009			WGL-GW-DUP02-063009			WGL-GW-FB01-070109			WGL-GW-MW101-062909		
SDG: SC3624	LAB_ID	SC3624-19			SC3624-23			SC3624-29			SC3624-3		
FRACTION: PAH	SAMP_DATE	6/30/2009			6/30/2009			7/1/2009			6/29/2009		
MEDIA: WATER	QC_TYPE	FD			FD			FB			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF	WGL-GW-MW48D-063009			WGL-GW-MW40S-063009								
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		4.8	U		4.7	U		4.7	U		4.7	U	
2-METHYLNAPHTHALENE		0.19	U		0.19	U		0.19	U		0.19	U	
ACENAPHTHENE		0.19	U		0.19	U		0.19	U		0.19	U	
ACENAPHTHYLENE		0.19	U		0.19	U		0.19	U		0.19	U	
ANTHRACENE		0.19	U		0.19	U		0.19	U		0.19	U	
BENZO(A)ANTHRACENE		0.19	U		0.19	U		0.19	U		0.19	U	
BENZO(A)PYRENE		0.19	U		0.19	U		0.19	U		0.19	U	
BENZO(B)FLUORANTHENE		0.19	U		0.19	U		0.19	U		0.19	U	
BENZO(G,H,I)PERYLENE		0.19	U		0.19	U		0.19	U		0.19	U	
BENZO(K)FLUORANTHENE		0.19	U		0.19	U		0.19	U		0.19	U	
CHRYSENE		0.19	U		0.19	U		0.19	U		0.19	U	
DIBENZO(A,H)ANTHRACENE		0.19	U		0.19	U		0.19	U		0.19	U	
FLUORANTHENE		0.19	U		0.19	U		0.19	U		0.19	U	
FLUORENE		0.19	U		0.19	U		0.19	U		0.19	U	
HEXACHLOROBENZENE		0.19	U		0.19	U		0.19	U		0.19	U	
INDENO(1,2,3-CD)PYRENE		0.19	U		0.19	U		0.19	U		0.19	U	
NAPHTHALENE		0.19	U		0.19	U		0.28			0.19	U	
PENTACHLOROPHENOL		0.96	UJ	C	0.94	UJ	C	0.94	UJ	C	0.94	U	
PHENANTHRENE		0.19	U		0.19	U		0.19	U		0.19	U	
PYRENE		0.19	U		0.19	U		0.19	U		0.19	U	

PROJ_NO: 00864	NSAMPLE	WGL-GW-MW102-062909			WGL-GW-MW103-062909			WGL-GW-MW2-063009			WGL-GW-MW3-062909		
SDG: SC3624	LAB_ID	SC3624-9			SC3624-7			SC3624-11			SC3624-5		
FRACTION: PAH	SAMP_DATE	6/29/2009			6/29/2009			6/30/2009			6/29/2009		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		5.1	U		5.4	U		4.7	U		4.7	U	
2-METHYLNAPHTHALENE		0.2	U		0.22	U		0.19	U		0.19	U	
ACENAPHTHENE		0.2	U		0.22	U		0.19	U		0.19	U	
ACENAPHTHYLENE		0.2	U		0.22	U		0.19	U		0.19	U	
ANTHRACENE		0.2	U		0.22	U		0.19	U		0.19	U	
BENZO(A)ANTHRACENE		0.2	U		0.22	U		0.19	U		0.19	U	
BENZO(A)PYRENE		0.2	U		0.22	U		0.19	U		0.19	U	
BENZO(B)FLUORANTHENE		0.2	U		0.22	U		0.19	U		0.19	U	
BENZO(G,H,I)PERYLENE		0.2	U		0.22	U		0.19	U		0.19	U	
BENZO(K)FLUORANTHENE		0.2	U		0.22	U		0.19	U		0.19	U	
CHRYSENE		0.2	U		0.22	U		0.19	U		0.19	U	
DIBENZO(A,H)ANTHRACENE		0.2	U		0.22	U		0.19	U		0.19	U	
FLUORANTHENE		0.2	U		0.22	U		0.19	U		0.19	U	
FLUORENE		0.2	U		0.22	U		0.19	U		0.19	U	
HEXACHLOROBENZENE		0.2	U		0.22	U		0.19	U		0.19	U	
INDENO(1,2,3-CD)PYRENE		0.2	U		0.22	U		0.19	U		0.19	U	
NAPHTHALENE		0.2	U		0.22	U		0.19	U		0.19	U	
PENTACHLOROPHENOL		1	UJ	C	1.1	UJ	C	0.94	UJ	C	0.94	U	
PHENANTHRENE		0.2	U		0.22	U		0.19	U		0.19	U	
PYRENE		0.2	U		0.22	U		0.19	U		0.19	U	

PROJ_NO: 00864	NSAMPLE	WGL-GW-MW38-063009			WGL-GW-MW39-063009			WGL-GW-MW4-063009			WGL-GW-MW40S-063009		
SDG: SC3624	LAB_ID	SC3624-15			SC3624-27			SC3624-13			SC3624-17		
FRACTION: PAH	SAMP_DATE	6/30/2009			6/30/2009			6/30/2009			6/30/2009		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		4.8	U		5.2	U		4.7	U		4.7	U	
2-METHYLNAPHTHALENE		0.19	U		0.21	U		0.19	U		0.19	U	
ACENAPHTHENE		0.19	U		0.21	U		0.19	U		0.19	U	
ACENAPHTHYLENE		0.19	U		0.21	U		0.19	U		0.19	U	
ANTHRACENE		0.19	U		0.21	U		0.19	U		0.19	U	
BENZO(A)ANTHRACENE		0.19	U		0.21	U		0.19	U		0.19	U	
BENZO(A)PYRENE		0.19	U		0.21	U		0.19	U		0.19	U	
BENZO(B)FLUORANTHENE		0.19	U		0.21	U		0.19	U		0.19	U	
BENZO(G,H,I)PERYLENE		0.19	U		0.21	U		0.19	U		0.19	U	
BENZO(K)FLUORANTHENE		0.19	U		0.21	U		0.19	U		0.19	U	
CHRYSENE		0.19	U		0.21	U		0.19	U		0.19	U	
DIBENZO(A,H)ANTHRACENE		0.19	U		0.21	U		0.19	U		0.19	U	
FLUORANTHENE		0.19	U		0.21	U		0.19	U		0.19	U	
FLUORENE		0.19	U		0.21	U		0.19	U		0.19	U	
HEXACHLOROBENZENE		0.19	U		0.21	U		0.19	U		0.19	U	
INDENO(1,2,3-CD)PYRENE		0.19	U		0.21	U		0.19	U		0.19	U	
NAPHTHALENE		0.19	U		0.21	U		0.19	U		0.19	U	
PENTACHLOROPHENOL		0.95	UJ	C	1	UJ	C	0.94	UJ	C	0.94	UJ	C
PHENANTHRENE		0.19	U		0.21	U		0.19	U		0.19	U	
PYRENE		0.19	U		0.21	U		0.19	U		0.19	U	

PROJ_NO: 00864	NSAMPLE	WGL-GW-MW48D-063009			WGL-GW-MW48D2-063009			WGL-GW-RB01-070109		
SDG: SC3624	LAB_ID	SC3624-21			SC3624-25			SC3624-31		
FRACTION: PAH	SAMP_DATE	6/30/2009			6/30/2009			7/1/2009		
MEDIA: WATER	QC_TYPE	NM			NM			RB		
	UNITS	UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,4-DIOXANE		4.8	U		5	U		4.7	U	
2-METHYLNAPHTHALENE		0.19	U		0.2	U		0.19	U	
ACENAPHTHENE		0.19	U		0.2	U		0.19	U	
ACENAPHTHYLENE		0.19	U		0.2	U		0.19	U	
ANTHRACENE		0.19	U		0.2	U		0.19	U	
BENZO(A)ANTHRACENE		0.19	U		0.2	U		0.19	U	
BENZO(A)PYRENE		0.19	U		0.2	U		0.19	U	
BENZO(B)FLUORANTHENE		0.19	U		0.2	U		0.19	U	
BENZO(G,H,I)PERYLENE		0.19	U		0.2	U		0.19	U	
BENZO(K)FLUORANTHENE		0.19	U		0.2	U		0.19	U	
CHRYSENE		0.19	U		0.2	U		0.19	U	
DIBENZO(A,H)ANTHRACENE		0.19	U		0.2	U		0.19	U	
FLUORANTHENE		0.19	U		0.2	U		0.19	U	
FLUORENE		0.19	U		0.2	U		0.19	U	
HEXACHLOROBENZENE		0.19	U		0.2	U		0.19	U	
INDENO(1,2,3-CD)PYRENE		0.19	U		0.2	U		0.19	U	
NAPHTHALENE		0.19	U		0.2	U		0.31		
PENTACHLOROPHENOL		0.95	UJ	C	1	UJ	CR	0.94	UJ	C
PHENANTHRENE		0.19	U		0.2	U		0.19	U	
PYRENE		0.19	U		0.2	U		0.19	U	

PROJ_NO: 00864	NSAMPLE	WGL-GW-DUP01-063009			WGL-GW-DUP01-063009-A			WGL-GW-DUP02-063009			WGL-GW-DUP02-063009-A		
SDG: SC3624	LAB_ID	SC3624-18			SC3624-18RE			SC3624-22			SC3624-22RE		
FRACTION: PEST/PCB	SAMP_DATE	6/30/2009			6/30/2009			6/30/2009			6/30/2009		
MEDIA: WATER	QC_TYPE	FD			FD			FD			FD		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF	WGL-GW-MW48D-063009			WGL-GW-MW48D-063009			WGL-GW-MW40S-063009			WGL-GW-MW40S-063009		
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
4,4'-DDD		0.096	U					0.099	U				
4,4'-DDE		0.096	U					0.099	U				
4,4'-DDT		0.096	U					0.099	U				
ALDRIN		0.048	U					0.05	U				
ALPHA-BHC		0.048	U					0.05	U				
ALPHA-CHLORDANE		0.048	U					0.05	U				
AROCLOR-1016					0.096	UJ	CH				0.094	UJ	CHR
AROCLOR-1221					0.096	UJ	CH				0.094	UJ	CHR
AROCLOR-1232					0.096	UJ	CH				0.094	UJ	CHR
AROCLOR-1242					0.096	UJ	CH				0.094	UJ	CHR
AROCLOR-1248					0.096	UJ	CH				0.094	UJ	CHR
AROCLOR-1254					0.096	UJ	CH				0.094	UJ	CHR
AROCLOR-1260					0.096	UJ	CH				0.094	UJ	CHR
BETA-BHC		0.048	U					0.05	U				
DELTA-BHC		0.048	U					0.05	U				
DIELDRIN		0.096	U					0.099	U				
ENDOSULFAN I		0.048	U					0.05	U				
ENDOSULFAN II		0.096	U					0.099	U				
ENDOSULFAN SULFATE		0.096	U					0.099	U				
ENDRIN		0.096	U					0.099	U				
ENDRIN ALDEHYDE		0.096	U					0.099	U				
ENDRIN KETONE		0.096	U					0.099	U				
GAMMA-BHC (LINDANE)		0.048	U					0.05	U				
GAMMA-CHLORDANE		0.048	U					0.05	U				
HEPTACHLOR		0.048	U					0.05	U				
HEPTACHLOR EPOXIDE		0.048	U					0.05	U				
METHOXYCHLOR		0.48	U					0.5	U				
TOXAPHENE		0.96	U					0.99	U				

PROJ_NO: 00864	NSAMPLE	WGL-GW-FB01-070109			WGL-GW-MW101-062909			WGL-GW-MW102-062909			WGL-GW-MW103-062909		
SDG: SC3624	LAB_ID	SC3624-28			SC3624-2			SC3624-8			SC3624-6		
FRACTION: PEST/PCB	SAMP_DATE	7/1/2009			6/29/2009			6/29/2009			6/29/2009		
MEDIA: WATER	QC_TYPE	FB			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
4,4'-DDD		0.094	U		0.094	U		0.11	U		0.1	U	
4,4'-DDE		0.094	U		0.094	U		0.11	U		0.1	U	
4,4'-DDT		0.094	U		0.094	U		0.11	U		0.1	U	
ALDRIN		0.047	U		0.047	U		0.055	U		0.05	U	
ALPHA-BHC		0.047	U		0.047	U		0.055	U		0.05	U	
ALPHA-CHLORDANE		0.047	U		0.047	U		0.055	U		0.05	U	
AROCLOR-1016		0.096	U		0.1	U		0.11	U		0.095	U	
AROCLOR-1221		0.096	U		0.1	U		0.11	U		0.095	U	
AROCLOR-1232		0.096	U		0.1	U		0.11	U		0.095	U	
AROCLOR-1242		0.096	U		0.1	U		0.11	U		0.095	U	
AROCLOR-1248		0.096	U		0.1	U		0.11	U		0.095	U	
AROCLOR-1254		0.096	U		0.1	U		0.11	U		0.095	U	
AROCLOR-1260		0.096	U		0.1	U		0.11	U		0.095	U	
BETA-BHC		0.047	U		0.047	U		0.055	U		0.05	U	
DELTA-BHC		0.047	U		0.047	U		0.055	U		0.05	U	
DIELDRIN		0.094	U		0.094	U		0.11	U		0.1	U	
ENDOSULFAN I		0.047	U		0.047	U		0.055	U		0.05	U	
ENDOSULFAN II		0.094	U		0.094	U		0.11	U		0.1	U	
ENDOSULFAN SULFATE		0.094	U		0.094	U		0.11	U		0.1	U	
ENDRIN		0.094	U		0.094	U		0.11	U		0.1	U	
ENDRIN ALDEHYDE		0.094	U		0.094	U		0.11	U		0.1	U	
ENDRIN KETONE		0.094	U		0.094	U		0.11	U		0.1	U	
GAMMA-BHC (LINDANE)		0.047	U		0.047	U		0.055	U		0.05	U	
GAMMA-CHLORDANE		0.047	U		0.047	U		0.055	U		0.05	U	
HEPTACHLOR		0.047	U		0.047	U		0.055	U		0.05	U	
HEPTACHLOR EPOXIDE		0.047	U		0.047	U		0.055	U		0.05	U	
METHOXYCHLOR		0.47	U		0.47	U		0.55	U		0.5	U	
TOXAPHENE		0.94	U		0.94	U		1.1	U		1	U	

PROJ_NO: 00864	NSAMPLE	WGL-GW-MW2-063009			WGL-GW-MW3-062909			WGL-GW-MW38-063009			WGL-GW-MW39-063009		
SDG: SC3624	LAB_ID	SC3624-10			SC3624-4			SC3624-14			SC3624-26		
FRACTION: PEST/PCB	SAMP_DATE	6/30/2009			6/29/2009			6/30/2009			6/30/2009		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
4,4'-DDD		0.095	U		0.094	U		0.094	U		0.094	U	
4,4'-DDE		0.095	U		0.094	U		0.094	U		0.094	U	
4,4'-DDT		0.095	U		0.094	U		0.094	U		0.094	U	
ALDRIN		0.048	U		0.047	U		0.047	U		0.047	U	
ALPHA-BHC		0.048	U		0.047	U		0.047	U		0.047	U	
ALPHA-CHLORDANE		0.048	U		0.047	U		0.047	U		0.047	U	
AROCLOR-1016		0.094	U		0.095	U		0.094	U				
AROCLOR-1221		0.094	U		0.095	U		0.094	U				
AROCLOR-1232		0.094	U		0.095	U		0.094	U				
AROCLOR-1242		0.094	U		0.095	U		0.094	U				
AROCLOR-1248		0.094	U		0.095	U		0.094	U				
AROCLOR-1254		0.094	U		0.095	U		0.094	U				
AROCLOR-1260		0.094	U		0.095	U		0.094	U				
BETA-BHC		0.048	U		0.047	U		0.047	U		0.047	U	
DELTA-BHC		0.048	U		0.047	U		0.047	U		0.047	U	
DIELDRIN		0.095	U		0.094	U		0.094	U		0.094	U	
ENDOSULFAN I		0.048	U		0.047	U		0.047	U		0.047	U	
ENDOSULFAN II		0.095	U		0.094	U		0.094	U		0.094	U	
ENDOSULFAN SULFATE		0.095	U		0.094	U		0.094	U		0.094	U	
ENDRIN		0.095	U		0.094	U		0.094	U		0.094	U	
ENDRIN ALDEHYDE		0.095	U		0.094	U		0.094	U		0.094	U	
ENDRIN KETONE		0.095	U		0.094	U		0.094	U		0.094	U	
GAMMA-BHC (LINDANE)		0.048	U		0.047	U		0.047	U		0.047	U	
GAMMA-CHLORDANE		0.048	U		0.047	U		0.047	U		0.047	U	
HEPTACHLOR		0.048	U		0.047	U		0.047	U		0.047	U	
HEPTACHLOR EPOXIDE		0.048	U		0.047	U		0.047	U		0.047	U	
METHOXYCHLOR		0.48	U		0.47	U		0.47	U		0.47	U	
TOXAPHENE		0.95	U		0.94	U		0.94	U		0.94	U	

PROJ_NO: 00864	NSAMPLE	WGL-GW-MW39-063009-A			WGL-GW-MW4-063009			WGL-GW-MW4-063009-A			WGL-GW-MW40S-063009		
SDG: SC3624	LAB_ID	SC3624-26RE			SC3624-12			SC3624-12RE			SC3624-16		
FRACTION: PEST/PCB	SAMP_DATE	6/30/2009			6/30/2009			6/30/2009			6/30/2009		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
4,4'-DDD					0.094	U					0.098	U	
4,4'-DDE					0.094	U					0.098	U	
4,4'-DDT					0.094	U					0.098	U	
ALDRIN					0.047	U					0.049	U	
ALPHA-BHC					0.047	U					0.049	U	
ALPHA-CHLORDANE					0.047	U					0.049	U	
AROCLOR-1016		0.1	UJ	CHR				0.1	UJ	CHR			
AROCLOR-1221		0.1	UJ	CHR				0.1	UJ	CHR			
AROCLOR-1232		0.1	UJ	CHR				0.1	UJ	CHR			
AROCLOR-1242		0.1	UJ	CHR				0.1	UJ	CHR			
AROCLOR-1248		0.1	UJ	CHR				0.1	UJ	CHR			
AROCLOR-1254		0.1	UJ	CHR				0.1	UJ	CHR			
AROCLOR-1260		0.1	UJ	CHR				0.1	UJ	CHR			
BETA-BHC					0.047	U					0.049	U	
DELTA-BHC					0.047	U					0.049	U	
DIELDRIN					0.094	U					0.098	U	
ENDOSULFAN I					0.047	U					0.049	U	
ENDOSULFAN II					0.094	U					0.098	U	
ENDOSULFAN SULFATE					0.094	U					0.098	U	
ENDRIN					0.094	U					0.098	U	
ENDRIN ALDEHYDE					0.094	U					0.098	U	
ENDRIN KETONE					0.094	U					0.098	U	
GAMMA-BHC (LINDANE)					0.047	U					0.049	U	
GAMMA-CHLORDANE					0.047	U					0.049	U	
HEPTACHLOR					0.047	U					0.049	U	
HEPTACHLOR EPOXIDE					0.047	U					0.049	U	
METHOXYCHLOR					0.47	U					0.49	U	
TOXAPHENE					0.94	U					0.98	U	

PROJ_NO: 00864	NSAMPLE	WGL-GW-MW40S-063009-A			WGL-GW-MW48D-063009			WGL-GW-MW48D-063009-A			WGL-GW-MW48D2-063009		
SDG: SC3624	LAB_ID	SC3624-16RE			SC3624-20			SC3624-20RE			SC3624-24		
FRACTION: PEST/PCB	SAMP_DATE	6/30/2009			6/30/2009			6/30/2009			6/30/2009		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/L			UG/L			UG/L			UG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
4,4'-DDD					0.1	U					0.094	U	
4,4'-DDE					0.1	U					0.094	U	
4,4'-DDT					0.1	U					0.094	U	
ALDRIN					0.05	U					0.047	U	
ALPHA-BHC					0.05	U					0.047	U	
ALPHA-CHLORDANE					0.05	U					0.047	U	
AROCLOR-1016		0.094	UJ	CH				0.1	UJ	CH	0.11	U	
AROCLOR-1221		0.094	UJ	CH				0.1	UJ	CH	0.11	U	
AROCLOR-1232		0.094	UJ	CH				0.1	UJ	CH	0.11	U	
AROCLOR-1242		0.094	UJ	CH				0.1	UJ	CH	0.11	U	
AROCLOR-1248		0.094	UJ	CH				0.1	UJ	CH	0.11	U	
AROCLOR-1254		0.094	UJ	CH				0.1	UJ	CH	0.11	U	
AROCLOR-1260		0.094	UJ	CH				0.1	UJ	CH	0.11	U	
BETA-BHC					0.05	U					0.047	U	
DELTA-BHC					0.05	U					0.047	U	
DIELDRIN					0.1	U					0.094	U	
ENDOSULFAN I					0.05	U					0.047	U	
ENDOSULFAN II					0.1	U					0.094	U	
ENDOSULFAN SULFATE					0.1	U					0.094	U	
ENDRIN					0.1	U					0.094	U	
ENDRIN ALDEHYDE					0.1	U					0.094	U	
ENDRIN KETONE					0.1	U					0.094	U	
GAMMA-BHC (LINDANE)					0.05	U					0.047	U	
GAMMA-CHLORDANE					0.05	U					0.047	U	
HEPTACHLOR					0.05	U					0.047	U	
HEPTACHLOR EPOXIDE					0.05	U					0.047	U	
METHOXYCHLOR					0.5	U					0.47	U	
TOXAPHENE					1	U					0.94	U	

PROJ_NO: 00864	NSAMPLE	WGL-GW-RB01-070109		
SDG: SC3624	LAB_ID	SC3624-30		
FRACTION: PEST/PCB	SAMP_DATE	7/1/2009		
MEDIA: WATER	QC_TYPE	RB		
	UNITS	UG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
4,4'-DDD		0.1	U	
4,4'-DDE		0.1	U	
4,4'-DDT		0.1	U	
ALDRIN		0.05	U	
ALPHA-BHC		0.05	U	
ALPHA-CHLORDANE		0.05	U	
AROCLOR-1016		0.1	U	
AROCLOR-1221		0.1	U	
AROCLOR-1232		0.1	U	
AROCLOR-1242		0.1	U	
AROCLOR-1248		0.1	U	
AROCLOR-1254		0.1	U	
AROCLOR-1260		0.1	U	
BETA-BHC		0.05	U	
DELTA-BHC		0.05	U	
DIELDRIN		0.1	U	
ENDOSULFAN I		0.05	U	
ENDOSULFAN II		0.1	U	
ENDOSULFAN SULFATE		0.1	U	
ENDRIN		0.1	U	
ENDRIN ALDEHYDE		0.1	U	
ENDRIN KETONE		0.1	U	
GAMMA-BHC (LINDANE)		0.05	U	
GAMMA-CHLORDANE		0.05	U	
HEPTACHLOR		0.05	U	
HEPTACHLOR EPOXIDE		0.05	U	
METHOXYCHLOR		0.5	U	
TOXAPHENE		1	U	

TETRA TECH

INTERNAL CORRESPONDENCE

C-NAVY-08-09-3256W

Date: August 3, 2009

c: File G00864-4.10 (w/enc.-original)
D. Seiken (w/o enc.)

To: Phoebe Call (w/o enc.)

From: Paula DiMattei (no copy) for (PD)

Subject: Tier II PCDD/PCDF Data Validation, SDG G330-40
SGS NorthAmerica, Inc.
CTO 407, West Gate Landfill, NAS South Weymouth, Weymouth, MA

PCDD/PCDF:

12/Sediments/	WGL-SD-DUP01-061109	WGL-SD-DUP02-061109
	WGL-SD-SD101-000.6	WGL-SD-SD102-000.6
	WGL-SD-SD103-000.6	WGL-SD-SD104-000.6
	WGL-SD-SD105-000.6	WGL-SD-SD106-000.6
	WGL-SD-SD107-000.6	WGL-SD-SD108-000.6
	WGL-SD-SD109-000.6	WGL-SD-SD110-000.6
	WGL-SD-SD111-000.6	WGL-SD-SD112-000.6

(Field Duplicates: WGL-SD-SD102-000.6/WGL-SD-DUP01-061109; and WGL-SD-SD106-000.6/WGL-SD-DUP02-061109)

1/Rinsate blank WGL-SD-RB01-061109

1/Field blank WGL-SD-FB01-061109

Tetra Tech NUS, Inc. (TtNUS) performed a Tier II data validation on the polychlorinated dibenzo-p-dioxins/polychlorinated dibenzofurans (PCDD/PCDF) analytical data for the sediment samples in this SDG. The samples were collected at the West Gate Landfill site at NAS South Weymouth in Weymouth, Massachusetts on June 11, 2009. Sample collection and analysis were performed according to the requirements of the Pre-Design Investigation Quality Assurance Project Plan, West Gate Landfill, dated February 2009.

The PDCC/PCDF analyses were performed according to USEPA SW-846 Method 8290. The PCDD/PCDF data validation was performed in accordance with the Region I EPA Dioxin Data Validation Standard Operating Practices, April 1991.

The sample results, validation qualifiers (Val Qual), and qualifier codes (Qual Code) are presented in the enclosed data summary tables. A list of the qualifier codes, which provide the reasons for the validation qualifiers, is enclosed. The units in the summary data tables are ng/kg which are equal to picogram per gram (pg/g)

The data were evaluated based on the following parameters:

* • Data Completeness
* • Preservation and Technical Holding Times
* • Window Defining Mixture Performance

Tetra Tech NUS, Inc.
55 Jonspin Road, Wilmington, MA 01887-1020
Tel 978.474.8400 Fax 978.474.8499 www.ttnus.com

* • Initial and Continuing Calibrations
• Blanks
• Matrix Spike/Matrix Spike Duplicate
* • Ongoing Precision and Recovery (OPR)
• Labeled Compound Recoveries
* • Field Duplicates
• Target Compound Identification
* • Percent solids
• Compound Quantitation and Reported Quantitation Limits

* All criteria were met for this parameter.

Blanks

The following table summarizes the level of blank contamination detected in the laboratory blanks associated with the sediment samples:

Compound	Maximum Concentration (pg/g)	Affected samples
2,3,7,8-TCDF	0.198	WGL-SD-DUP02-061109, WGL-SD-SD104-000.6, WGL-SD-SD106-000.6

Blank actions were applied to the affected soil samples due to method blank contamination. The positive results in the affected samples were qualified as not detected at the reported concentration (U). In cases where the reported result was identified as an EMPC, the "J" qualifier indicative of the uncertainty in the qualitative identification of this result was retained for an overall qualification of "UJ".

Although 2,3,7,8-TCDF contamination was detected in the method blank; project sensitivity goals are not impacted since there are no established project action limits for this compound. The results in the affected samples are usable as non-detected values.

Matrix Spike/Matrix Spike Duplicate

The following table summarizes the PCDD/PCDF compounds which did not meet QC limits in the matrix spike and matrix spike duplicate (MS/MSD) analyses and the qualifications applied to the affected sample:

WGL-SD-SD111-000.6							
Compound	MS %R	MSD %R	RPD	QC Limits		Actions	
				%R	RPD	(+)	NDs
1,2,3,4,7,8-HxCDD	132	-	-	70-130	20	J	
1,2,3,7,8,9-HxCDF	-	-	26.2	70-130	20	J	

- criterion met

Although the MS recovery for 1,2,3,4,7,8-HxCDD was above the criteria; the accuracy project goals are not impacted since there are no established project action limits for this compound. The positive result for 1,2,3,4,7,8-HxCDD in sample WGL-SD-SD111-000.6 is usable as an estimated value which may be biased high.

Although the MS/MSD relative percent difference (RPD) QC criterion was not met for 1,2,3,7,8,9-HxCDF; the precision project goals are not impacted since there are no established project action limits for this compound. The positive result for 1,2,3,7,8,9-HxCDF in sample WGL-SD-SD111-000.6 is usable as an estimated value for which the bias is indeterminate.

Labeled Compound Recoveries

The following table summarizes the labeled compound recoveries that did not meet the QC limits of 40-135% in the sample analyses:

WGL-SD-SD108-000.6			
Labeled Compound	% Recovery	Actions	
		(+)	NDs
13C-2,3,7,8-TCDD	32	J	UJ
13C-1,2,3,7,8-PeCDD	38	J	
13C-1,2,3,6,7,8-HxCDD	36	J	
13C-1,2,3,4,6,7,8-HpCDD	37	J	
13C-OCDD	33	J	
13C-2,3,7,8-TCDF	34	J	
13C-1,2,3,7,8-PeCDF	38	J	
13C-1,2,3,6,7,8-HxCDF	31	J	
13C-1,2,3,4,6,7,8-HpCDF	35	J	

Although the labeled compound recovery QC criteria were not met for samples listed above; the accuracy project goals are not impacted since there are no established project action limits for these compounds. All positive and non-detected results in sample WGL-SD-SD108-000.6 are usable as estimated values and estimated detection limits.

Target Compound Identification

Several 2378-substituted isomers in many samples were reported as EMPCs. EMPCs are defined as a detected response with a signal to noise ratio of $\geq$ 2.5 for both quantitation ions and having met all identification criteria with the exception of the ion abundance ratio. These EMPC results were qualified as estimated (J).

The following PCDF results in the samples listed were qualified as estimated (J) due to the presence polychlorinated diphenylether (PCDPE) interferences:

WGL-SD-SD101-000.6: 1,2,3,7,8-PeCDF and total PeCDF
WGL-SD-SD102-000.6: 1,2,3,7,8-PeCDF and total PeCDF
WGL-SD-SD103-000.6: 1,2,3,7,8-PeCDF and total PeCDF
WGL-SD-SD108-000.6: total TCDF and total PeCDF
WGL-SD-SD110-000.6: 1,2,3,7,8-PeCDF and total PeCDF
WGL-SD-SD111-000.6: 1,2,3,7,8-PeCDF and total PeCDF
WGL-SD-SD112-000.6: total TCDF and total PeCDF

Although PCDPE interferences were noted for the samples listed above; the accuracy project goals are not impacted since there are no established project action limits for dioxins/furans. The positive results for affected compounds in these samples are usable as estimated values.

Compound Quantitation and Reported Quantitation Limits

The laboratory noted that several compounds in all sediment samples exhibited quantitative interferences. The affected compounds in these samples were qualified as estimated (J).

Although quantitative interferences were noted for all sediment samples; the accuracy project goals are not impacted since there are no established project action limits for dioxins/furans. The positive results for affected compounds in these samples are usable as estimated values.

Data Usability Assessment

The data usability assessment was performed to determine if the data met the project data quality objectives for acceptable accuracy, precision, sensitivity, and completeness; and to determine and define the impact of the exceeded quality control indicators on the technical usability of the data. Please refer to the specific sections in the above validation report for further details.

There are no project action goals established for dioxins and furans. The following accuracy issues were identified: The 1,2,3,4,7,8-HxCDD result in sample WGL-SD-SD111-000.6 was qualified as estimated due to the high MS recovery; the affected result may be biased high. All PCDD/PCDF results in sample WGL-SD-SD108-000.6 were qualified as estimated due to low labeled compound recoveries. Several 2,3,7,8-substituted isomers in many sediment samples were qualified as estimated (J) since these affected compounds were identified as EMPCs. Several PCDF results were qualified as estimated due to polychlorinated diphenylether interferences. In addition, several PCDD/PCDF results in all sediment samples were qualified as estimated as a result of quantitative interferences. Although specific method criteria were not met in these instances, the affected positive and nondetected results are usable as estimated values and estimated detection.

The following precision issued were identified: The 1,2,3,7,8,9-HxCDF result in sample WGL-SD-SD111-000.6 was qualified as estimated due to the exceeded MS/MSD RPD QC criterion. Although specific method criteria were not met in this instance, the affected positive result is usable as an estimated.

No issues regarding sensitivity and completeness were identified for this data set. Data usability is not impacted with regards to sensitivity and completeness.

Tables: Data Summary Tables
Data Summary Tables

Enclosures: Data Validation Worksheets

Data Validation Qualifiers and Codes

Data Validation Qualifiers:

	=	No qualifier attached to value (positive hit)
J	=	Value is estimated
U	=	Value is not detected
UJ	=	Value is not detected and estimated
R	=	Value (positive hit) is not usable
UR	=	Value was reported as ND but is not usable

Qualifier Codes:

A	=	Lab Blank Contamination
B	=	Field Blank Contamination
C	=	Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01	=	GC/MS Tuning Noncompliance
D	=	MS/MSD Recovery Noncompliance
E	=	LCS/LCSD Recovery Noncompliance
F	=	Lab Duplicate Imprecision
G	=	Field Duplicate Imprecision
H	=	Holding Time Exceedance
I	=	ICP Serial Dilution Noncompliance
J	=	GFAA PDS - GFAA MSA's $r < 0.995$
K	=	ICP Interference - includes ICS % R Noncompliance
L	=	Instrument Calibration Range Exceedance
M	=	Sample Preservation Noncompliance
N	=	Internal Standard Noncompliance
N01	=	Internal Standard Recovery Noncompliance Dioxins
N02	=	Recovery Standard Noncompliance Dioxins
N03	=	Clean-up Standard Noncompliance Dioxins
O	=	Poor Instrument Performance (e.g. base-line drifting)
P	=	Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q	=	Other problems (can encompass a number of issues; e.g. chromatography,interferences, etc.)
R	=	Surrogates Recovery Noncompliance
S	=	Pesticide/PCB Resolution
T	=	% Breakdown Noncompliance for DDT and Endrin
U	=	% Difference between columns/detectors >25% for positive results determined via GC/HPLC
V	=	Non-linear calibrations; correlation coefficient $r < 0.995$
W	=	EMPC result
X	=	Signal to noise response drop
Y	=	Percent solids <30%
Z	=	Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 00864	NSAMPLE	WGL-SD-DUP01-061109			WGL-SD-DUP01-061109-A			WGL-SD-DUP02-061109			WGL-SD-SD101-000.6		
SDG: G330-40	LAB_ID	G330-40-4			G330-40-4			G330-40-7			G330-40-3		
FRACTION: DIOX	SAMP_DATE	6/11/2009			6/11/2009			6/11/2009			6/11/2009		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	NG/KG			NG/KG			NG/KG			NG/KG		
	PCT_SOLIDS	19.0			18.0			12.0			21.0		
	DUP_OF	WGL-SD-SD102-000.6						WGL-SD-SD106-000.6					
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,2,3,4,6,7,8,9-OCDD		444						139			574		
1,2,3,4,6,7,8,9-OCDF		39.8						4.99	J	P	32.9	J	P
1,2,3,4,6,7,8-HPCDD		62.6						12.6	J	P	73.6		
1,2,3,4,6,7,8-HPCDF		32.4						3.2	J	P	23.2		
1,2,3,4,7,8,9-HPCDF		1.97	J	P				1.8	U		2.23	U	
1,2,3,4,7,8-HXCDD		2.71	J	P				1.36	U		2.76	J	PW
1,2,3,4,7,8-HXCDF		8.64	J	P				1.54	U		7.06	J	P
1,2,3,6,7,8-HXCDD		5.04	J	P				1.33	U		4.53	J	P
1,2,3,6,7,8-HXCDF		6.05	J	P				0.648	J	PW	4.82	J	P
1,2,3,7,8,9-HXCDD		4.57	J	P				0.879	J	P	4.64	J	P
1,2,3,7,8,9-HXCDF		1.71	J	P				0.959	U		1.88	J	P
1,2,3,7,8-PECDD		2.37	J	P				0.892	U		2.21	J	PW
1,2,3,7,8-PECDF		5.09	J	P				1.02	U		4.62	J	PQ
2,3,4,6,7,8-HXCDF		8.2	J	P				0.99	U		5.78	J	P
2,3,4,7,8-PECDF		11.5						1.1	J	PW	8.21	J	P
2,3,7,8-TCDD		0.751	J	PW				0.382	U		0.472	U	
2,3,7,8-TCDF					4.75			1.56	U	A			
TOTAL HPCDD		127						25.4			146		
TOTAL HPCDF		48.9						4.65			41.7		
TOTAL HXCDD		71.3						14.6			85.4		
TOTAL HXCDF		88.2	J	Q				6.64	J	Q	69.5		
TOTAL PECDD		51.6	J	Q				8.27	J	Q	41.7	J	Q
TOTAL PECDF		139	J	Q				11			99.8	J	Q
TOTAL TCDD		54.2	J	Q				32.5	J	Q	140		
TOTAL TCDF		217	J	Q				50.5	J	Q	381		

PROJ_NO: 00864	NSAMPLE	WGL-SD-SD101-000.6-A			WGL-SD-SD102-000.6			WGL-SD-SD102-000.6-A			WGL-SD-SD103-000.6		
SDG: G330-40	LAB_ID	G330-40-3			G330-40-2			G330-40-2			G330-40-1		
FRACTION: DIOX	SAMP_DATE	6/11/2009			6/11/2009			6/11/2009			6/11/2009		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	NG/KG			NG/KG			NG/KG			NG/KG		
	PCT_SOLIDS	21.0			20.0			20.0			19.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,2,3,4,6,7,8,9-OCDD					540						810		
1,2,3,4,6,7,8,9-OCDF					51.6						63.5		
1,2,3,4,6,7,8-HPCDD					84.4						130		
1,2,3,4,6,7,8-HPCDF					43.3						51.4		
1,2,3,4,7,8,9-HPCDF					3.21	J	P				3.88	J	P
1,2,3,4,7,8-HXCDD					3.89	J	P				4.83	J	PW
1,2,3,4,7,8-HXCDF					12.7						15.1		
1,2,3,6,7,8-HXCDD					6.7	J	P				9.82	J	P
1,2,3,6,7,8-HXCDF					8.44	J	P				9.18	J	P
1,2,3,7,8,9-HXCDD					6.22	J	P				8	J	P
1,2,3,7,8,9-HXCDF					1.89	J	PQW				1.49	J	PQ
1,2,3,7,8-PECDD					4.15	J	P				5.3	J	P
1,2,3,7,8-PECDF					7.31	J	PQ				7.29	J	PQ
2,3,4,6,7,8-HXCDF					11.7						11		
2,3,4,7,8-PECDF					17.2						16.4		
2,3,7,8-TCDD					1.2	J	P				2.43		
2,3,7,8-TCDF		7.36						6.72					
TOTAL HPCDD					172						258		
TOTAL HPCDF					65.1						84.6		
TOTAL HXCDD					112	J	Q				127	J	Q
TOTAL HXCDF					117	J	Q				128	J	Q
TOTAL PECDD					74.4	J	Q				85.7	J	Q
TOTAL PECDF					201	J	Q				213	J	Q
TOTAL TCDD					76.5	J	Q				82.6	J	Q
TOTAL TCDF					268	J	Q				331	J	Q

PROJ_NO: 00864	NSAMPLE	WGL-SD-SD103-000.6-A			WGL-SD-SD104-000.6			WGL-SD-SD105-000.6			WGL-SD-SD105-000.6-A		
SDG: G330-40	LAB_ID	G330-40-1			G330-40-5			G330-40-10			G330-40-10		
FRACTION: DIOX	SAMP_DATE	6/11/2009			6/11/2009			6/11/2009			6/11/2009		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	NG/KG			NG/KG			NG/KG			NG/KG		
	PCT_SOLIDS	19.0			11.0			21.0			21.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,2,3,4,6,7,8,9-OCDD					65.1			1240					
1,2,3,4,6,7,8,9-OCDF					2.87	J	P	31.3					
1,2,3,4,6,7,8-HPCDD					6.68	J	P	101					
1,2,3,4,6,7,8-HPCDF					1.97	U		25.2					
1,2,3,4,7,8,9-HPCDF					1.97	U		1.83	J	P			
1,2,3,4,7,8-HXCDD					1.48	U		3.3	J	P			
1,2,3,4,7,8-HXCDF					1.69	U		7	J	P			
1,2,3,6,7,8-HXCDD					1.45	U		5.36	J	P			
1,2,3,6,7,8-HXCDF					0.482	U		4.85	J	P			
1,2,3,7,8,9-HXCDD					0.93	U		8.2	J	P			
1,2,3,7,8,9-HXCDF					1.05	U		0.893	J	PQ			
1,2,3,7,8-PECDD					0.974	U		3.85	J	P			
1,2,3,7,8-PECDF					1.12	U		4.02	J	P			
2,3,4,6,7,8-HXCDF					1.08	U		5.81	J	P			
2,3,4,7,8-PECDF					1.12	U		9.06	J	P			
2,3,7,8-TCDD					0.418	U		0.765	J	PW			
2,3,7,8-TCDF		12.1			1.23	U	A				4.93		
TOTAL HPCDD					13.8			232					
TOTAL HPCDF					17.5	U		35.7					
TOTAL HXCDD					2.81			80.9					
TOTAL HXCDF					3.23	J	Q	65.4	J	Q			
TOTAL PECDD					1.38			46	J	Q			
TOTAL PECDF					4.56			112	J	Q			
TOTAL TCDD					7.23	J	Q	58.2	J	Q			
TOTAL TCDF					18.2			191	J	Q			

PROJ_NO: 00864	NSAMPLE	WGL-SD-SD106-000.6			WGL-SD-SD107-000.6			WGL-SD-SD108-000.6			WGL-SD-SD108-000.6-A		
SDG: G330-40	LAB_ID	G330-40-6			G330-40-8			G330-40-9			G330-40-9		
FRACTION: DIOX	SAMP_DATE	6/11/2009			6/11/2009			6/11/2009			6/11/2009		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	NG/KG			NG/KG			NG/KG			NG/KG		
	PCT_SOLIDS	14.0			22.0			25.0			25.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,2,3,4,6,7,8,9-OCDD		148			443	J	Q	343	J	N01			
1,2,3,4,6,7,8,9-OCDF		5.08	J	P	21.8			22.4	J	N01			
1,2,3,4,6,7,8-HPCDD		13.5	J	P	54			49.3	J	N01			
1,2,3,4,6,7,8-HPCDF		3.77	J	P	17			19.7	J	N01			
1,2,3,4,7,8,9-HPCDF		1.56	U		1.63	J	P	1.62	J	N01P			
1,2,3,4,7,8-HXCDD		1.18	U		2.22	J	P	1.48	J	N01PW			
1,2,3,4,7,8-HXCDF		1.34	U		4.63	J	P	5.59	J	N01PQ			
1,2,3,6,7,8-HXCDD		1.15	U		3.06	J	P	3.16	J	N01P			
1,2,3,6,7,8-HXCDF		0.674	J	P	3.71	J	P	3.99	J	N01PQ			
1,2,3,7,8,9-HXCDD		1.02	J	PW	3.49	J	P	3.26	J	N01P			
1,2,3,7,8,9-HXCDF		0.832	U		0.632	J	PQW	1.49	J	N01PQ			
1,2,3,7,8-PECDD		0.774	U		2.59	J	P	1.37	J	N01P			
1,2,3,7,8-PECDF		0.888	U		2.9	J	P	3.22	J	N01P			
2,3,4,6,7,8-HXCDF		0.859	U		4.18	J	P	4.67	J	N01P			
2,3,4,7,8-PECDF		1.12	J	P	8.04	J	P	3.74	J	N01P			
2,3,7,8-TCDD		0.332	U		0.22	U		1.57	UJ	N01			
2,3,7,8-TCDF		1.52	UJ	AW	3.38						4.43		
TOTAL HPCDD		26.3			105			103	J	N01			
TOTAL HPCDF		5.07			25.5			31.6	J	N01			
TOTAL HXCDD		16.3			66.9			42.5	J	N01Q			
TOTAL HXCDF		8.29	J	Q	47.8	J	Q	38.2	J	N01Q			
TOTAL PECDD		9.57			54.7	J	Q	32.7	J	N01Q			
TOTAL PECDF		14.2			94.5	J	Q	67.7	J	N01Q			
TOTAL TCDD		38	J	Q	118	J	Q	54.3	J	N01Q			
TOTAL TCDF		64.2	J	Q	253	J	Q	161	J	N01Q			

PROJ_NO: 00864	NSAMPLE	WGL-SD-SD109-000.6			WGL-SD-SD109-000.6-A			WGL-SD-SD110-000.6			WGL-SD-SD110-000.6-A		
SDG: G330-40	LAB_ID	G330-40-13			G330-40-13			G330-40-12			G330-40-12		
FRACTION: DIOX	SAMP_DATE	6/11/2009			6/11/2009			6/11/2009			6/11/2009		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM			NM		
	UNITS	NG/KG			NG/KG			NG/KG			NG/KG		
	PCT_SOLIDS	20.0			20.0			19.0			19.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,2,3,4,6,7,8,9-OCDD		341						399					
1,2,3,4,6,7,8,9-OCDF		28.4						33.3					
1,2,3,4,6,7,8-HPCDD		44.1						59.7					
1,2,3,4,6,7,8-HPCDF		23						28.4					
1,2,3,4,7,8,9-HPCDF		1.51	J	P				2.32	J	P			
1,2,3,4,7,8-HXCDD		1.91	J	P				3.77	J	P			
1,2,3,4,7,8-HXCDF		6.87	J	P				7.25	J	P			
1,2,3,6,7,8-HXCDD		3.39	J	P				5.38	J	P			
1,2,3,6,7,8-HXCDF		4.57	J	P				5.8	J	P			
1,2,3,7,8,9-HXCDD		3.25	J	P				5.68	J	P			
1,2,3,7,8,9-HXCDF		0.796	J	PQW				0.727	J	PQW			
1,2,3,7,8-PECDD		2.2	J	P				3.2	J	P			
1,2,3,7,8-PECDF		4.07	J	P				4.5	J	PQ			
2,3,4,6,7,8-HXCDF		5.89	J	P				6.72	J	P			
2,3,4,7,8-PECDF		8.72	J	P				9.66	J	P			
2,3,7,8-TCDD		0.235	U					0.248	U				
2,3,7,8-TCDF					2.93						2.6		
TOTAL HPCDD		91.4						121					
TOTAL HPCDF		34.9						44.6					
TOTAL HXCDD		54						82.6	J	Q			
TOTAL HXCDF		60.6	J	Q				71.8	J	Q			
TOTAL PECDD		42	J	Q				59.7	J	Q			
TOTAL PECDF		111	J	Q				122	J	Q			
TOTAL TCDD		66.5	J	Q				61.8	J	Q			
TOTAL TCDF		181	J	Q				148	J	Q			

PROJ_NO: 00864	NSAMPLE	WGL-SD-SD111-000.6			WGL-SD-SD111-000.6-A			WGL-SD-SD112-000.6		
SDG: G330-40	LAB_ID	G330-40-14			G330-40-14			G330-40-11		
FRACTION: DIOX	SAMP_DATE	6/11/2009			6/11/2009			6/11/2009		
MEDIA: SEDIMENT	QC_TYPE	NM			NM			NM		
	UNITS	NG/KG			NG/KG			NG/KG		
	PCT_SOLIDS	22.0			22.0			100.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,2,3,4,6,7,8,9-OCDD		560						64.1		
1,2,3,4,6,7,8,9-OCDF		66.6						6.72	J	P
1,2,3,4,6,7,8-HPCDD		92.2						9.67		
1,2,3,4,6,7,8-HPCDF		59.2						5.64		
1,2,3,4,7,8,9-HPCDF		4.03	J	P				0.556	J	PW
1,2,3,4,7,8-HXCDD		5.05	J	DP				0.612	J	PW
1,2,3,4,7,8-HXCDF		17.4						1.9	J	P
1,2,3,6,7,8-HXCDD		8.61	J	P				0.931	J	P
1,2,3,6,7,8-HXCDF		12.2						1.33	J	P
1,2,3,7,8,9-HXCDD		8.36	J	P				0.956	J	P
1,2,3,7,8,9-HXCDF		1.57	J	DPQ				0.431	J	PW
1,2,3,7,8-PECDD		4.02	J	P				0.242	U	
1,2,3,7,8-PECDF		10.1	J	Q				1.02	J	P
2,3,4,6,7,8-HXCDF		14.5						1.57	J	P
2,3,4,7,8-PECDF		19.6						1.96	J	P
2,3,7,8-TCDD		0.698	J	PW				0.104	U	
2,3,7,8-TCDF					5.02			0.685	J	PW
TOTAL HPCDD		189	J	Q				20.8		
TOTAL HPCDF		86.3						8.17		
TOTAL HXCDD		126						12.1		
TOTAL HXCDF		157	J	Q				15.8		
TOTAL PECDD		87.7	J	Q				7.25	J	Q
TOTAL PECDF		239	J	Q				27.5	J	Q
TOTAL TCDD		99.4						9.53		
TOTAL TCDF		317						34.3	DPE	Q

PROJ_NO: 00864	NSAMPLE	WGL-SD-FB01-061109			WGL-SD-RB01-061109		
SDG: G330-40	LAB_ID	G330-40-15			G330-40-16		
FRACTION: DIOX	SAMP_DATE	6/11/2009			6/11/2009		
MEDIA: WATER	QC_TYPE	FB			RB		
	UNITS	NG/L			NG/L		
	PCT_SOLIDS	0.0			0.0		
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,2,3,4,6,7,8,9-OCDD		0.0067	U		0.00657	U	
1,2,3,4,6,7,8,9-OCDF		0.0066	U		0.00652	U	
1,2,3,4,6,7,8-HPCDD		0.00605	U		0.00594	U	
1,2,3,4,6,7,8-HPCDF		0.00243	U		0.00239	U	
1,2,3,4,7,8,9-HPCDF		0.00426	U		0.00418	U	
1,2,3,4,7,8-HXCDD		0.00749	U		0.00736	U	
1,2,3,4,7,8-HXCDF		0.00569	U		0.00558	U	
1,2,3,6,7,8-HXCDD		0.00349	U		0.00343	U	
1,2,3,6,7,8-HXCDF		0.00496	U		0.00486	U	
1,2,3,7,8,9-HXCDD		0.004	U		0.00392	U	
1,2,3,7,8,9-HXCDF		0.00607	U		0.00596	U	
1,2,3,7,8-PECDD		0.00261	U		0.00256	U	
1,2,3,7,8-PECDF		0.00307	U		0.00302	U	
2,3,4,6,7,8-HXCDF		0.00442	U		0.00434	U	
2,3,4,7,8-PECDF		0.00723	U		0.0071	U	
2,3,7,8-TCDD		0.00089	U		0.000872	U	
2,3,7,8-TCDF		0.00156	U		0.00153	U	
TOTAL HPCDD		0.00605	U		0.00594	U	
TOTAL HPCDF		0.00243	U		0.00239	U	
TOTAL HXCDD		0.00349	U		0.00343	U	
TOTAL HXCDF		0.00442	U		0.00434	U	
TOTAL PECDD		0.00261	U		0.00256	U	
TOTAL PECDF		0.00307	U		0.00302	U	
TOTAL TCDD		0.00089	U		0.000872	U	
TOTAL TCDF		0.00156	U		0.00153	U	

TETRA TECH

INTERNAL CORRESPONDENCE

C-NAVY-08-09-3257W

Date: August 3, 2009

c: File G00864-4.10 (w/enc.-original)
D. Seiken (w/o enc.)

To: Phoebe Call (w/o enc.)

From: Paula DiMattei (no copy)

Subject: Tier II PCDD/PCDF Data Validation, SDG G330-41
SGS NorthAmerica, Inc.
CTO 407, West Gate Landfill, NAS South Weymouth, Weymouth, MA

PCDD/PCDF:

13/Groundwaters/	WGL-GW-DUP01-063009	WGL-GW-DUP02-063009
	WGL-GW-MW101-062909	WGL-GW-MW102-062909
	WGL-GW-MW103-062909	WGL-GW-MW2-063009
	WGL-GW-MW3-062909	WGL-GW-MW38-063009
	WGL-GW-MW39-063009	WGL-GW-MW405-063009
	WGL-GW-MW4-063009	WGL-GW-MW48D-063009
	WGL-GW-MW48D2-063009	

(Field Duplicates: WGL-GW-MW48D-063009/WGL-GW-DUP01-063009;
WGL-GW-MW405-063009/WGL-GW-DUP02-063009)

1/Rinsate blank WGL-GW-RB01-070109

1/Field blank WGL-GW-FB01-070109

Tetra Tech NUS, Inc. (TtNUS) performed a Tier II data validation on the polychlorinated dibenzo-p-dioxins/polychlorinated dibenzofurans (PCDD/PCDF) analytical data for the groundwater samples in this SDG. The samples were collected at the West Gate Landfill site at NAS South Weymouth in Weymouth, Massachusetts on June 29, 2009 through July 1, 2009. Sample collection and analysis were performed according to the requirements of the Pre-Design Investigation Quality Assurance Project Plan, West Gate Landfill, dated February 2009.

The PDCC/PCDF analyses were performed according to USEPA SW-846 Method 8290. The PCDD/PCDF data validation was performed in accordance with the Region I EPA Dioxin Data Validation Standard Operating Practices, April 1991.

The sample results, validation qualifiers (Val Qual), and qualifier codes (Qual Code) are presented in the enclosed data summary tables. A list of the qualifier codes, which provide the reasons for the validation qualifiers, is enclosed.

The data were evaluated based on the following parameters:

- Data Completeness
- * Preservation and Technical Holding Times

Tetra Tech NUS, Inc.
55 Jonspin Road, Wilmington, MA 01887-1020
Tel 978.474.8400 Fax 978.474.8499 www.ttnus.com

* • Window Defining Mixture Performance
* • Initial and Continuing Calibrations
* • Blanks
* • Matrix Spike/Matrix Spike Duplicate
* • Ongoing Precision and Recovery (OPR)
* • Labeled Compound Recoveries
* • Field Duplicates
* • Target Compound Identification
* • Percent solids
* • Compound Quantitation and Reported Quantitation Limits

* All criteria were met for this parameter.

Data Completeness

A revised case narrative explaining that the sediment sample (WGL-SD-SD112-000.6) listed in the chain-of-custody form was analyzed and reported as part of other data package SDG G330-40.

Data Usability Assessment

The data usability assessment was performed to determine if the data met the project data quality objectives for acceptable accuracy, precision, sensitivity, and completeness; and to determine and define the impact of the exceeded quality control indicators on the technical usability of the data. Qualification of the groundwater data was not required.

The project goals with respect to accuracy, precision, sensitivity and completeness were met for the PCDD/PCDF data set. Data usability is not impacted with regards to sensitivity and completeness.

Tables: Data Summary Tables
Data validation Qualifiers and Codes

Enclosures: Data Validation Worksheets

Data Validation Qualifiers and Codes

Data Validation Qualifiers:

= No qualifier attached to value (positive hit)
J = Value is estimated
U = Value is not detected
UJ = Value is not detected and estimated
R = Value (positive hit) is not usable
UR = Value was reported as ND but is not usable

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; e.g. chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 00864	NSAMPLE	WGL-GW-DUP01-063009			WGL-GW-DUP02-063009			WGL-GW-FB01-070109			WGL-GW-MW101-062909		
SDG: G330-41	LAB_ID	G330-41-9			G330-41-11			G330-41-14			G330-41-1		
FRACTION: DIOX	SAMP_DATE	6/30/2009			6/30/2009			7/1/2009			6/29/2009		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	NG/L			NG/L			NG/L			NG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF	WGL-GW-MW48D-063009			WGL-GW-MW405-063009								
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,2,3,4,6,7,8,9-OCDD		0.0976	U		0.0218	J	P	0.0948	U		0.0962	U	
1,2,3,4,6,7,8,9-OCDF		0.0976	U		0.104	U		0.0948	U		0.0962	U	
1,2,3,4,6,7,8-HPCDD		0.0488	U		0.0518	U		0.0474	U		0.0481	U	
1,2,3,4,6,7,8-HPCDF		0.0488	U		0.0518	U		0.0474	U		0.0481	U	
1,2,3,4,7,8,9-HPCDF		0.0488	U		0.0518	U		0.0474	U		0.0481	U	
1,2,3,4,7,8-HXCDD		0.0488	U		0.0518	U		0.0474	U		0.0481	U	
1,2,3,4,7,8-HXCDF		0.0488	U		0.0518	U		0.0474	U		0.0481	U	
1,2,3,6,7,8-HXCDD		0.0488	U		0.0518	U		0.0474	U		0.0481	U	
1,2,3,6,7,8-HXCDF		0.0488	U		0.0518	U		0.0474	U		0.0481	U	
1,2,3,7,8,9-HXCDD		0.0488	U		0.0518	U		0.0474	U		0.0481	U	
1,2,3,7,8,9-HXCDF		0.0488	U		0.0518	U		0.0474	U		0.0481	U	
1,2,3,7,8-PECDD		0.0488	U		0.0518	U		0.0474	U		0.0481	U	
1,2,3,7,8-PECDF		0.0488	U		0.0518	U		0.0474	U		0.0481	U	
2,3,4,6,7,8-HXCDF		0.0488	U		0.0518	U		0.0474	U		0.0481	U	
2,3,4,7,8-PECDF		0.0488	U		0.0518	U		0.0474	U		0.0481	U	
2,3,7,8-TCDD		0.00976	U		0.0104	U		0.00948	U		0.00962	U	
2,3,7,8-TCDF		0.00976	U		0.0104	U		0.00948	U		0.00962	U	
TOTAL HPCDD		0.0488	U		0.0518	U		0.0474	U		0.0481	U	
TOTAL HPCDF		0.0488	U		0.0518	U		0.0474	U		0.0481	U	
TOTAL HXCDD		0.0488	U		0.0518	U		0.0474	U		0.0481	U	
TOTAL HXCDF		0.0488	U		0.0518	U		0.0474	U		0.0481	U	
TOTAL PECDD		0.0488	U		0.0518	U		0.0474	U		0.0481	U	
TOTAL PECDF		0.0488	U		0.0518	U		0.0474	U		0.0481	U	
TOTAL TCDD		0.00976	U		0.0104	U		0.00948	U		0.00962	U	
TOTAL TCDF		0.00976	U		0.0104	U		0.00948	U		0.00962	U	

PROJ_NO: 00864	NSAMPLE	WGL-GW-MW102-062909			WGL-GW-MW103-062909			WGL-GW-MW2-063009			WGL-GW-MW3-062909		
SDG: G330-41	LAB_ID	G330-41-4			G330-41-3			G330-41-5			G330-41-2		
FRACTION: DIOX	SAMP_DATE	6/29/2009			6/29/2009			6/30/2009			6/29/2009		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	NG/L			NG/L			NG/L			NG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,2,3,4,6,7,8,9-OCDD		0.104	U		0.109	U		0.00743	J	P	0.0951	U	
1,2,3,4,6,7,8,9-OCDF		0.104	U		0.109	U		0.104	U		0.0951	U	
1,2,3,4,6,7,8-HPCDD		0.0521	U		0.0543	U		0.0522	U		0.0476	U	
1,2,3,4,6,7,8-HPCDF		0.0521	U		0.0543	U		0.0522	U		0.0476	U	
1,2,3,4,7,8,9-HPCDF		0.0521	U		0.0543	U		0.0522	U		0.0476	U	
1,2,3,4,7,8-HXCDD		0.0521	U		0.0543	U		0.0522	U		0.0476	U	
1,2,3,4,7,8-HXCDF		0.0521	U		0.0543	U		0.0522	U		0.0476	U	
1,2,3,6,7,8-HXCDD		0.0521	U		0.0543	U		0.0522	U		0.0476	U	
1,2,3,6,7,8-HXCDF		0.0521	U		0.0543	U		0.0522	U		0.0476	U	
1,2,3,7,8,9-HXCDD		0.0521	U		0.0543	U		0.0522	U		0.0476	U	
1,2,3,7,8,9-HXCDF		0.0521	U		0.0543	U		0.0522	U		0.0476	U	
1,2,3,7,8-PECDD		0.0521	U		0.0543	U		0.0522	U		0.0476	U	
1,2,3,7,8-PECDF		0.0521	U		0.0543	U		0.0522	U		0.0476	U	
2,3,4,6,7,8-HXCDF		0.0521	U		0.0543	U		0.0522	U		0.0476	U	
2,3,4,7,8-PECDF		0.0521	U		0.0543	U		0.0522	U		0.0476	U	
2,3,7,8-TCDD		0.0104	U		0.0109	U		0.0104	U		0.00951	U	
2,3,7,8-TCDF		0.0104	U		0.0109	U		0.0104	U		0.00951	U	
TOTAL HPCDD		0.0521	U		0.0543	U		0.0522	U		0.0476	U	
TOTAL HPCDF		0.0521	U		0.0543	U		0.0522	U		0.0476	U	
TOTAL HXCDD		0.0521	U		0.0543	U		0.0522	U		0.0476	U	
TOTAL HXCDF		0.0521	U		0.0543	U		0.0522	U		0.0476	U	
TOTAL PECDD		0.0521	U		0.0543	U		0.0522	U		0.0476	U	
TOTAL PECDF		0.0521	U		0.0543	U		0.0522	U		0.0476	U	
TOTAL TCDD		0.0104	U		0.0109	U		0.0104	U		0.00951	U	
TOTAL TCDF		0.0104	U		0.0109	U		0.0104	U		0.00951	U	

PROJ_NO: 00864	NSAMPLE	WGL-GW-MW38-063009			WGL-GW-MW39-063009			WGL-GW-MW405-063009			WGL-GW-MW4-063009		
SDG: G330-41	LAB_ID	G330-41-7			G330-41-13			G330-41-8			G330-41-6		
FRACTION: DIOX	SAMP_DATE	6/30/2009			6/30/2009			6/30/2009			6/30/2009		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	NG/L			NG/L			NG/L			NG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,2,3,4,6,7,8,9-OCDD		0.0112	J	P	0.102	U		0.103	U		0.105	U	
1,2,3,4,6,7,8,9-OCDF		0.102	U		0.102	U		0.103	U		0.105	U	
1,2,3,4,6,7,8-HPCDD		0.0511	U		0.0509	U		0.0514	U		0.0524	U	
1,2,3,4,6,7,8-HPCDF		0.0511	U		0.0509	U		0.0514	U		0.0524	U	
1,2,3,4,7,8,9-HPCDF		0.0511	U		0.0509	U		0.0514	U		0.0524	U	
1,2,3,4,7,8-HXCDD		0.0511	U		0.0509	U		0.0514	U		0.0524	U	
1,2,3,4,7,8-HXCDF		0.0511	U		0.0509	U		0.0514	U		0.0524	U	
1,2,3,6,7,8-HXCDD		0.0511	U		0.0509	U		0.0514	U		0.0524	U	
1,2,3,6,7,8-HXCDF		0.0511	U		0.0509	U		0.0514	U		0.0524	U	
1,2,3,7,8,9-HXCDD		0.0511	U		0.0509	U		0.0514	U		0.0524	U	
1,2,3,7,8,9-HXCDF		0.0511	U		0.0509	U		0.0514	U		0.0524	U	
1,2,3,7,8-PECDD		0.0511	U		0.0509	U		0.0514	U		0.0524	U	
1,2,3,7,8-PECDF		0.0511	U		0.0509	U		0.0514	U		0.0524	U	
2,3,4,6,7,8-HXCDF		0.0511	U		0.0509	U		0.0514	U		0.0524	U	
2,3,4,7,8-PECDF		0.0511	U		0.0509	U		0.0514	U		0.0524	U	
2,3,7,8-TCDD		0.0102	U		0.0102	U		0.0103	U		0.0105	U	
2,3,7,8-TCDF		0.0102	U		0.0102	U		0.0103	U		0.0105	U	
TOTAL HPCDD		0.0511	U		0.0509	U		0.0514	U		0.0524	U	
TOTAL HPCDF		0.0511	U		0.0509	U		0.0514	U		0.0524	U	
TOTAL HXCDD		0.0511	U		0.0509	U		0.0514	U		0.0524	U	
TOTAL HXCDF		0.0511	U		0.0509	U		0.0514	U		0.0524	U	
TOTAL PECDD		0.0511	U		0.0509	U		0.0514	U		0.0524	U	
TOTAL PECDF		0.0511	U		0.0509	U		0.0514	U		0.0524	U	
TOTAL TCDD		0.0102	U		0.0102	U		0.0103	U		0.0105	U	
TOTAL TCDF		0.0102	U		0.0102	U		0.0103	U		0.0105	U	

PROJ_NO: 00864	NSAMPLE	WGL-GW-MW48D-063009			WGL-GW-MW48D2-063009			WGL-GW-RB01-070109		
SDG: G330-41	LAB_ID	G330-41-10			G330-41-12			G330-41-15		
FRACTION: DIOX	SAMP_DATE	6/30/2009			6/30/2009			7/1/2009		
MEDIA: WATER	QC_TYPE	NM			NM			RB		
	UNITS	NG/L			NG/L			NG/L		
	PCT_SOLIDS	0.0			0.0			0.0		
	DUP_OF									
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,2,3,4,6,7,8,9-OCDD		0.0973	U		0.0095	J	P	0.102	U	
1,2,3,4,6,7,8,9-OCDF		0.0973	U		0.105	U		0.102	U	
1,2,3,4,6,7,8-HPCDD		0.0486	U		0.0523	U		0.051	U	
1,2,3,4,6,7,8-HPCDF		0.0486	U		0.0523	U		0.051	U	
1,2,3,4,7,8,9-HPCDF		0.0486	U		0.0523	U		0.051	U	
1,2,3,4,7,8-HXCDD		0.0486	U		0.0523	U		0.051	U	
1,2,3,4,7,8-HXCDF		0.0486	U		0.0523	U		0.051	U	
1,2,3,6,7,8-HXCDD		0.0486	U		0.0523	U		0.051	U	
1,2,3,6,7,8-HXCDF		0.0486	U		0.0523	U		0.051	U	
1,2,3,7,8,9-HXCDD		0.0486	U		0.0523	U		0.051	U	
1,2,3,7,8,9-HXCDF		0.0486	U		0.0523	U		0.051	U	
1,2,3,7,8-PECDD		0.0486	U		0.0523	U		0.051	U	
1,2,3,7,8-PECDF		0.0486	U		0.0523	U		0.051	U	
2,3,4,6,7,8-HXCDF		0.0486	U		0.0523	U		0.051	U	
2,3,4,7,8-PECDF		0.0486	U		0.0523	U		0.051	U	
2,3,7,8-TCDD		0.00973	U		0.0105	U		0.0102	U	
2,3,7,8-TCDF		0.00973	U		0.0105	U		0.0102	U	
TOTAL HPCDD		0.0486	U		0.0523	U		0.051	U	
TOTAL HPCDF		0.0486	U		0.0523	U		0.051	U	
TOTAL HXCDD		0.0486	U		0.0523	U		0.051	U	
TOTAL HXCDF		0.0486	U		0.0523	U		0.051	U	
TOTAL PECDD		0.0486	U		0.0523	U		0.051	U	
TOTAL PECDF		0.0486	U		0.0523	U		0.051	U	
TOTAL TCDD		0.00973	U		0.0105	U		0.0102	U	
TOTAL TCDF		0.00973	U		0.0105	U		0.0102	U	

APPENDIX H
GEOTECHNICAL LABORATORY REPORT
SOUTH WEYMOUTH NAS SOUTH GATE LANDFILL
PRE-REMEDIAL DESIGN INVESTIGATION
CTO 407

GeoTesting express
a subsidiary of Geocomp Corporation

Client:	Tetra Tech NUS, Inc.
Project Name:	Westgate Landfill
Project Location:	South Weymouth, MA
GTX #:	9089
Test Date:	06/22/09
Tested By:	mmd
Checked By:	jdt

INDEX TEST SUMMARY

Boring ID	Sample ID	Depth	Moisture Content, %	Organic Content, %	Specific Gravity	USCS Classification		Grain Size			Atterberg Limits			In-Tube Density			CU Triaxial	
						Group Name	Group Symbol	Gravel, %	Sand, %	Fines, %	LL	PL	PI	Bulk Density, pcf	Dry Density, pcf	Moisture Content, %	Cohesion, psi	Friction Angle
---	WGL-SO-SB101-1416	---	20.0	0.1	---	Poorly Graded Sand with Silt	SP-SM	1.9	90.2	7.9	NP	NP	NP	---	---	---	---	---
---	WGL-SO-SB101-1820	---	21.9	0.1	---	Silty Sand	SM	3.4	47.6	49.0	NP	NP	NP	---	---	---	---	---
---	WGL-SO-SB102-0812	---	13.8	0.4	---	Poorly Graded Sand with Gravel	SP	27.5	69.7	2.8	NP	NP	NP	---	---	---	---	---
---	WGL-SO-SB102-2931	---	18.3	0.4	---	Sandy Silt	ML	0.7	46.8	52.5	NP	NP	NP	---	---	---	---	---
---	WGL-SO-SB103-1416	---	12.2	0.4	---	Poorly Graded Sand with Gravel	SP	18.5	78.3	3.2	NP	NP	NP	---	---	---	---	---
---	WGL-SO-SB104-1416	---	18.0	0.2	---	Poorly Graded Sand	SP	7.6	91.8	0.6	NP	NP	NP	---	---	---	---	---
---	WGL-SO-SB104-1921	---	15.9	0.3	---	Silty Sand with Gravel	SM	23.6	58.4	18.0	NP	NP	NP	---	---	---	---	---
---	WGL-SO-SB105-0608	---	8.3	0.4	---	Poorly Graded Gravel with Sand	GP	54.0	44.1	1.9	NP	NP	NP	---	---	---	---	---
---	WGL-SO-SB105-1921	---	20.8	0.3	---	Silty Sand	SM	6.8	44.3	48.9	NP	NP	NP	---	---	---	---	---
---	WGL-SO-SB106-1921	---	20.3	0.2	---	Silty Sand	SM	0.8	55.2	44.0	NP	NP	NP	---	---	---	---	---
---	WGL-SO-SB106-2426	---	8.7	0.2	---	Poorly Graded Sand with Silt and Gravel	SP-SM	37.2	51.8	11.0	NP	NP	NP	---	---	---	---	---
---	WGL-SO-SB107-0608	---	8.5	0.4	---	Silty Sand with Gravel	SM	37.0	50.2	12.8	NP	NP	NP	---	---	---	---	---
---	WGL-SO-SB107-1921	---	12.7	0.3	---	Silty Sand	SM	14.6	46.6	38.8	NP	NP	NP	---	---	---	---	---
---	WGL-SO-SB108-2931	---	19.3	0.1	---	Sandy Silt	ML	1.2	46.6	38.8	NP	NP	NP	---	---	---	---	---
---	WGL-SO-SB109-0810	---	12.2	2.0	---	Poorly Graded Sand with Silt and Gravel	SP-SM	35.9	57.5	6.6	NP	NP	NP	---	---	---	---	---
---	WGL-SO-SB109-1921	---	16.8	0.4	---	Silty Sand	SM	7.3	72.7	20.0	NP	NP	NP	---	---	---	---	---

GeoTesting express
a subsidiary of Geocomp Corporation

Client:	Tetra Tech NUS, Inc.
Project Name:	Westgate Landfill
Project Location:	South Weymouth, MA
GTX #:	9089
Test Date:	06/22/09
Tested By:	mmd
Checked By:	jdt

INDEX TEST SUMMARY

Boring ID	Sample ID	Depth	Moisture Content, %	Organic Content, %	Specific Gravity	USCS Classification		Grain Size			Atterberg Limits			In-Tube Density			CU Triaxial	
						Group Name	Group Symbol	Gravel, %	Sand, %	Fines, %	LL	PL	PI	Bulk Density, pcf	Dry Density, pcf	Moisture Content, %	Cohesion, psi	Friction Angle
---	WGL-SO-SB110-0810	---	11.6	1.1	---	Poorly Graded Gravel with Sand	GP	56.4	39.0	4.6	NP	NP	NP	---	---	---	---	---
---	WGL-SO-SB110-2426	---	14.8	0.2	---	Silty Sand	SM	4.3	47.4	48.3	NP	NP	NP	---	---	---	---	---
---	WGL-SO-SB103-0608	---	371.0	58.4	2.24	Peat	PT	2.7	90.4	6.9	396	266	130	66.0	14.0	379	1.01	38.3
---	WGL-SO-SB108-0911	---	367.0	70.1	1.62	Peat	PT	7.3	87.2	5.5	282	226	56	64.0	13.0	381	0.80	39.4

GeoTesting express
a subsidiary of Geocomp Corporation

Client:	Tetra Tech NUS, Inc.				
Project:	Westgate Landfill				
Location:	South Weymouth, MA			Project No:	GTX-9089
Boring ID: ---		Sample Type: ---		Tested By:	mmd
Sample ID:---		Test Date:	07/08/09	Checked By:	jdt
Depth : ---	.	Sample Id:	---		

Moisture Content of Soil - ASTM D 2216-05

Boring ID	Sample ID	Depth	Description	Moisture Content,%
---	WGL-SO- SB103 -0608	---	Wet, dark brown peat	371
---	WGL-SO- SB108 -0911	---	Wet, dark brown peat	367.1

Samples were primarily composed of organic matter.

Notes: Temperature of Drying : 110° Celsius

printed 7/8/2009 1:49:55 PM

GeoTesting express
a subsidiary of Geocomp Corporation

Client:	Tetra Tech NUS, Inc.				
Project:	Westgate Landfill				
Location:	South Weymouth, MA			Project No:	GTX-9089
Boring ID: ---		Sample Type: ---		Tested By:	mmd
Sample ID:---		Test Date:	07/02/09	Checked By:	jdt
Depth : ---		Test Id:	154448		

Moisture, Ash, and Organic Matter - ASTM D 2974

Boring ID	Sample ID	Depth	Description	Moisture Content,%	Ash Content,%	Organic Matter,%
---	WGL-SO-SB103 -0608	---	Wet, dark brown peat	371	41.6	58.4
---	WGL-SO-SB108 -0911	---	Wet, dark brown peat	367	29.9	70.1

Samples were primarily composed of organic matter.

Notes: Moisture content determined by Method A and reported as a percentage of oven-dried mass;
dried to a constant mass at temperature of 110° C
Ash content and organic matter determined by Method C; dried to constant mass at temperature 440° C

GeoTesting express
a subsidiary of Geocomp Corporation

Client:	Tetra Tech NUS, Inc.				
Project:	Westgate Landfill				
Location:	South Weymouth, MA			Project No:	GTX-9089
Boring ID:	---	Sample Type:	---	Tested By:	ap
Sample ID:	---	Test Date:	07/07/09	Checked By:	jdt
Depth :	---	Test Id:	154516		

Specific Gravity of Soils by ASTM D 854-06

Boring ID	Sample ID	Depth	Visual Description	Specific Gravity
---	WGL-SO-SB103 -0608	---	Wet, dark brown peat	2.24
---	WGL-SO-SB108 -0911	---	Wet, dark brown peat	1.62

Samples were primarily composed of organic matter.

Notes: Specific Gravity performed by using method A (oven dried specimens) of ASTM D 854
Moisture Content determined by ASTM D 2216.

GeoTesting express
a subsidiary of Geocomp Corporation

Client:	Tetra Tech NUS, Inc.
Project Name:	Westgate Landfill
Project Location:	South Weymouth, MA
GTX #:	9089
Test Date:	07/07/09
Tested By:	cam
Checked By:	jdt

USCS Classification - ASTM D 2487

Boring ID	Sample ID	Depth	Group Name	Group Symbol	Gravel, %	Sand, %	Fines, %
---	WGL-SO-SB103-0608	---	Peat	PT	7.3	87.2	5.5
---	WGL-SO-SB108-0911	---	Peat	PT	2.7	90.4	6.9

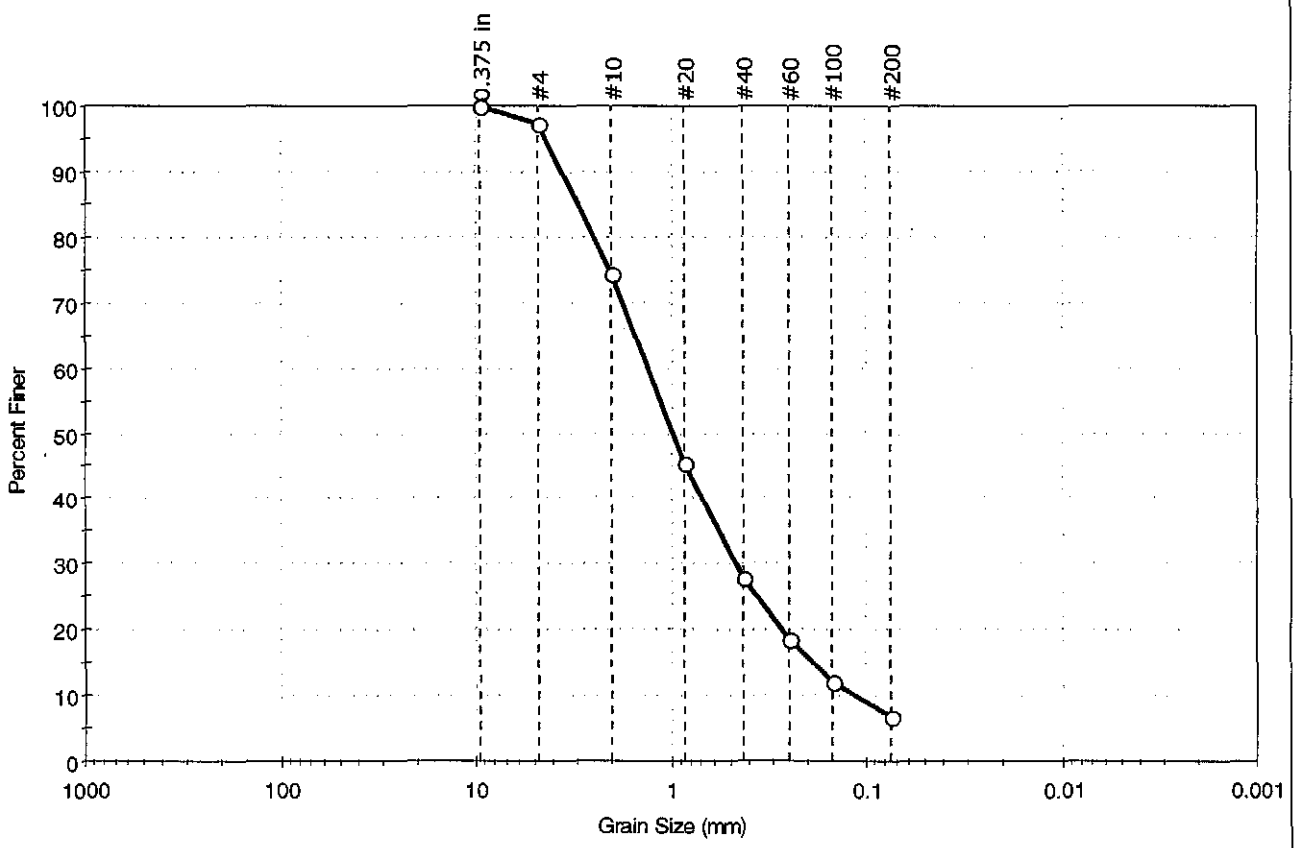
Notes: Samples were primarily composed of organic matter.
Gravel and sand size fractions include organic matter in sample

Remarks: Grain Size Analysis performed by ASTM D 422, results enclosed
Atterberg Limits performed by ASTM D 4318, results enclosed

GeoTesting express
a subsidiary of Geocomp Corporation

Client:	Tetra Tech NUS, Inc.		
Project:	Westgate Landfill		
Location:	South Weymouth, MA	Project No:	GTX-9089
Boring ID: ---	Sample Type: tube	Tested By:	jbr
Sample ID:WGL-SO- SB103 -0608	Test Date: 06/24/09	Checked By:	jdt
Depth : ---	Test Id: 154469		
Test Comment:	Gravel and sand size fractions include organic matter in sample		
Sample Description:	Wet, dark brown peat		
Sample Comment:	Sample was primarily composed of organic matter.		

Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	2.7	90.4	6.9

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.375 in	9.50	100		
#4	4.75	97		
#10	2.00	74		
#20	0.85	46		
#40	0.42	28		
#60	0.25	19		
#100	0.15	12		
#200	0.075	7		

Coefficients

D_{85} = 2.9843 mm	D_{30} = 0.4623 mm
D_{60} = 1.3043 mm	D_{15} = 0.1886 mm
D_{50} = 0.9697 mm	D_{10} = 0.1142 mm
C_u = 11.421	C_c = 1.435

Classification

ASTM: Peat (PT)

Sample/Test Description

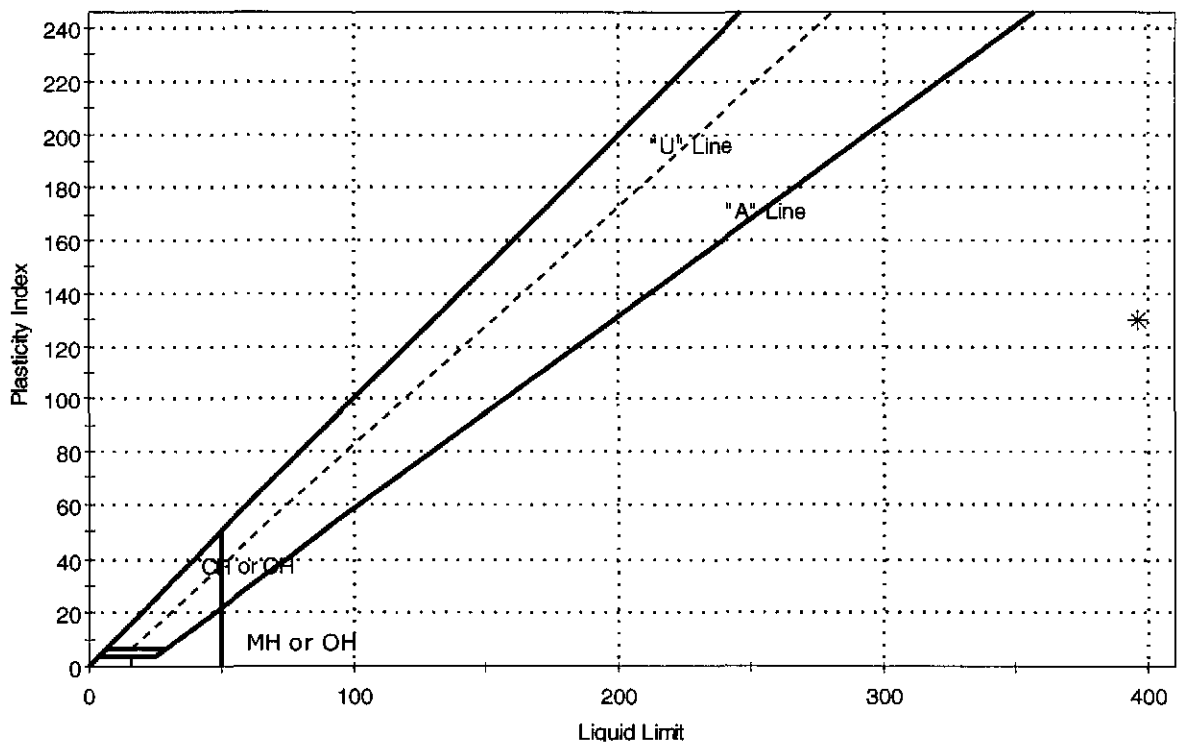
Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

GeoTesting express
a subsidiary of Geocomp Corporation

Client:	Tetra Tech NUS, Inc.		
Project:	Westgate Landfill		
Location:	South Weymouth, MA	Project No:	GTX-9089
Boring ID: ---	Sample Type: tube	Tested By:	cam
Sample ID:WGL-SO- SB103 -0608	Test Date: 06/24/09	Checked By:	jdt
Depth : ---	Test Id: 154509		
Test Comment:	---		
Sample Description:	Wet, dark brown peat		
Sample Comment:	Sample was primarily composed of organic matter.		

Atterberg Limits - ASTM D 4318-05



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
*	WGL-SO- SB103 -0608	---	---	371	396	266	130	1	ASTM: Peat (PT)

Sample Prepared using the WET method
72% Retained on #40 Sieve
Dry Strength: VERY HIGH
Dilentancy: SLOW
Toughness: LOW

printed 7/8/2009 1:48:18 PM

GeoTesting express
a subsidiary of Geocomp Corporation

Client:	Tetra Tech NUS, Inc.				
Project:	Westgate Landfill				
Location:	South Weymouth, MA			Project No:	GTX-9089
Boring ID: ---		Sample Type:	tube	Tested By:	md
Sample ID:WGL-SO- SB103 -0608		Test Date:	07/08/09	Checked By:	jdt
Depth : ---		Test Id:	154515		
Test Comment:	---				
Sample Description:	Wet, dark brown peat				
Sample Comment:	Sample was primarily composed of organic matter.				

Density of Soil In Place by the Drive Cylinder Method - ASTM D 2937-04

Boring ID	Sample ID	Depth	Visual Description	Sample Diameter, in	Sample Height, in	Bulk Density, pcf	Moisture Content, %	Dry Density, pcf
---	WGL-SO-SB103	---	Wet, dark brown peat	2.85	5.71	66.0	379.3	14.0

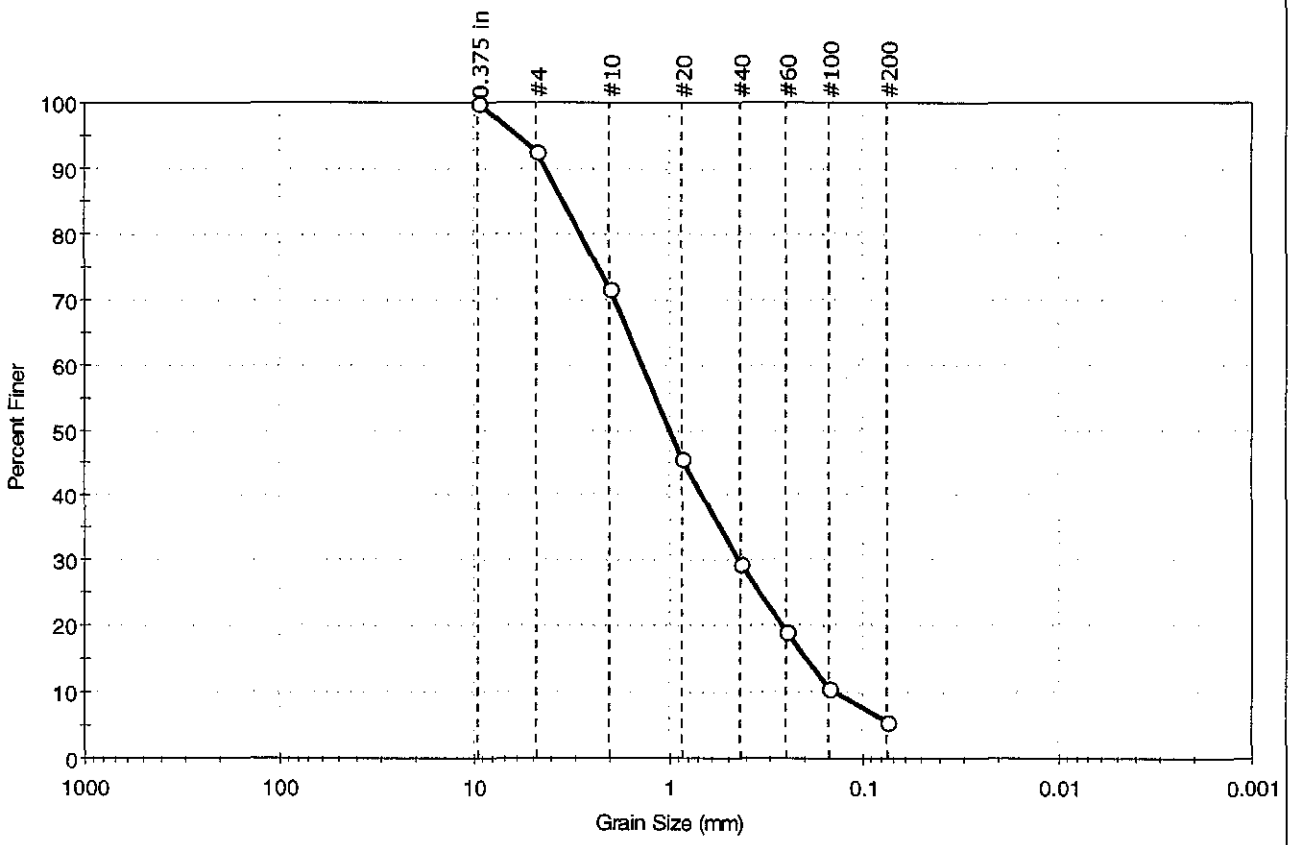
Samples were primarily composed of organic matter.

Notes: Density determined on undisturbed samples provided to GeoTesting Express.
Moisture Content determined by ASTM D 2216.

GeoTesting express
a subsidiary of Geocomp Corporation

Client:	Tetra Tech NUS, Inc.		
Project:	Westgate Landfill		
Location:	South Weymouth, MA	Project No:	GTX-9089
Boring ID: ---	Sample Type: tube	Tested By:	jbr
Sample ID:WGL-SO- SB108 -0911	Test Date: 07/01/09	Checked By:	jdt
Depth : ---	Test Id: 154468		
Test Comment:	Gravel and sand size fractions include organic matter in sample		
Sample Description:	Wet, dark brown peat		
Sample Comment:	Sample was primarily composed of organic matter.		

Particle Size Analysis - ASTM D 422-63 (reapproved 2002)



% Cobble	% Gravel	% Sand	% Silt & Clay Size
–	7.3	87.2	5.5

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.375 in	9.50	100		
#4	4.75	93		
#10	2.00	72		
#20	0.85	46		
#40	0.42	30		
#60	0.25	19		
#100	0.15	11		
#200	0.075	5		

Coefficients

D_{85} = 3.4606 mm	D_{30} = 0.4337 mm
D_{60} = 1.3584 mm	D_{15} = 0.1946 mm
D_{50} = 0.9752 mm	D_{10} = 0.1360 mm
C_u = 9.988	C_c = 1.018

Classification

ASTM: Peat (PT)

Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

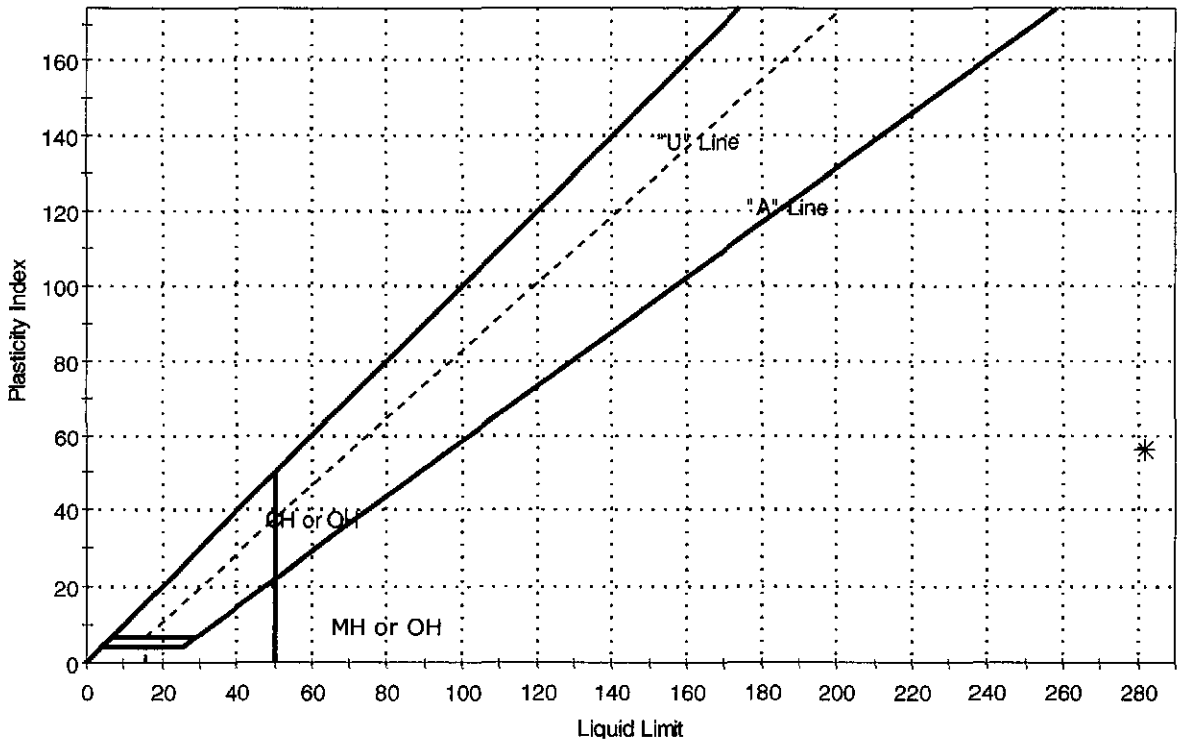
printed 7/8/2009 12:19:07 PM

GeoTesting express
a subsidiary of Geocomp Corporation

Client:	Tetra Tech NUS, Inc.				
Project:	Westgate Landfill				
Location:	South Weymouth, MA			Project No:	GTX-9089
Boring ID:	---	Sample Type:	tube	Tested By:	cam
Sample ID:	WGL-SO- SB108 -0911	Test Date:	06/24/09	Checked By:	jdt
Depth :	---	Test Id:	154508		
Test Comment:	---				
Sample Description:	Wet, dark brown peat				
Sample Comment:	Sample was primarily composed of organic matter.				

Atterberg Limits - ASTM D 4318-05

Plasticity Chart



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
*	WGL-SO- SB108 -0911	---	---	367	282	226	56	3	ASTM: Peat (PT)

Sample Prepared using the WET method
70% Retained on #40 Sieve
Dry Strength: MEDIUM
Dilentancy: SLOW
Toughness: LOW

printed 7/8/2009 1:08:43 PM

GeoTesting express
a subsidiary of Geocomp Corporation

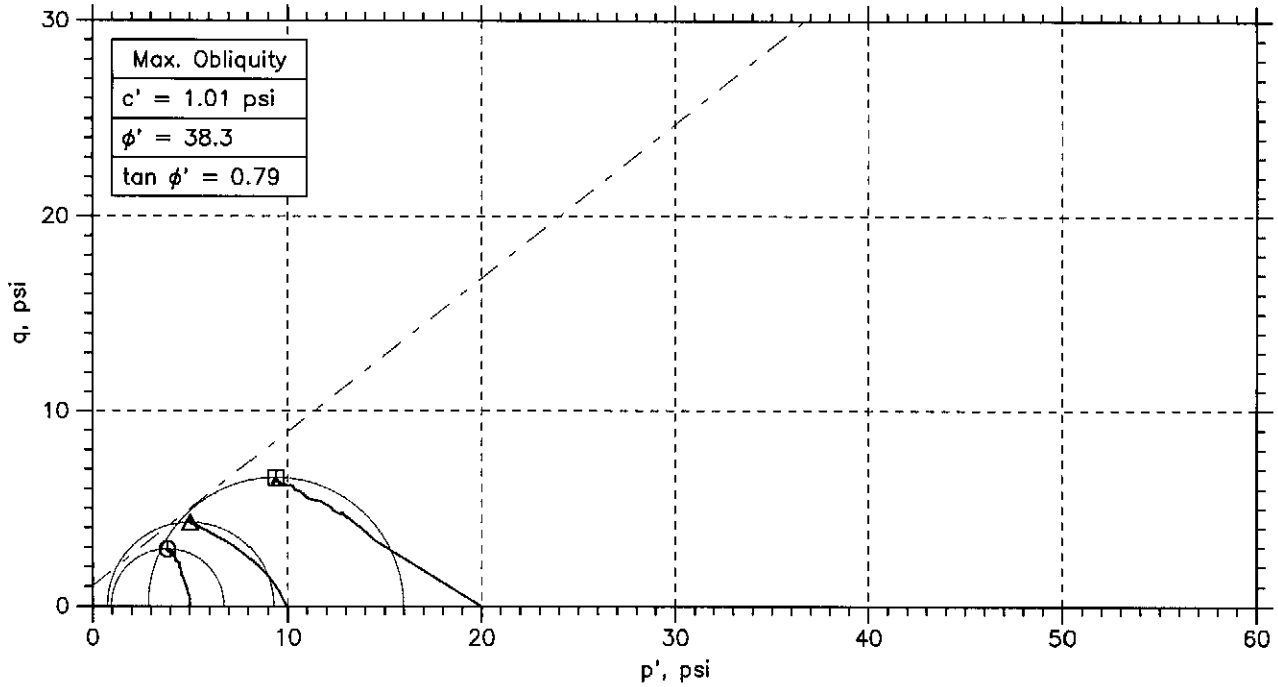
Client:	Tetra Tech NUS, Inc.				
Project:	Westgate Landfill				
Location:	South Weymouth, MA			Project No:	GTX-9089
Boring ID: ---		Sample Type:	tube	Tested By:	md
Sample ID:WGL-SO- SB108 -0911		Test Date:	07/08/09	Checked By:	jdt
Depth : ---		Test Id:	154514		
Test Comment:	---				
Sample Description:	Wet, dark brown peat				
Sample Comment:	Sample was primarily composed of organic matter.				

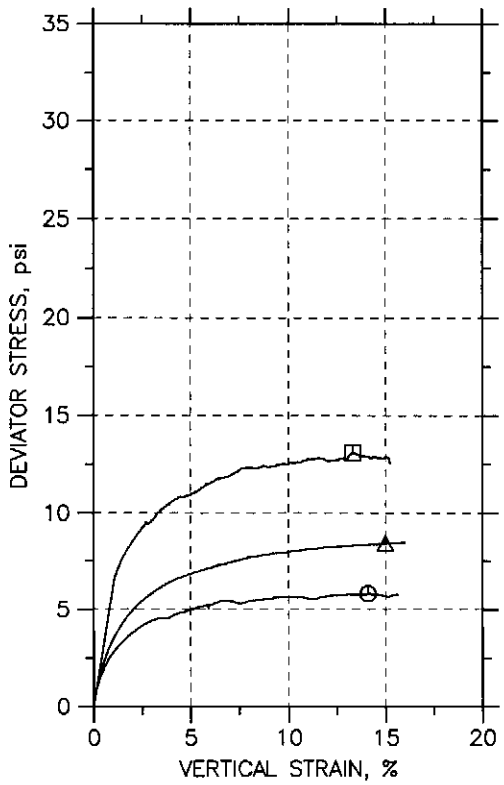
Density of Soil In Place by the Drive Cylinder Method - ASTM D 2937-04

Boring ID	Sample ID	Depth	Visual Description	Sample Diameter, in	Sample Height, in	Bulk Density, pcf	Moisture Content, %	Dry Density, pcf
---	WGL-SO-SB108	---	Wet, dark brown peat	2.86	5.90	64.0	380.8	13.0

Notes: Density determined on undisturbed samples provided to GeoTesting Express.
Moisture Content determined by ASTM D 2216.

CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767

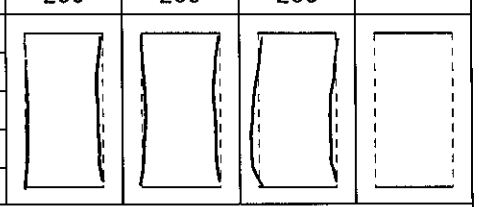




Symbol		⦶	△	⊡	
Sample No.		103-0608	103-0608	103-0608	
Test No.		CU-1-1	CU-1-2	CU-1-3	
Depth		---	---	---	
Initial	Diameter, in	2.86	2.85	2.86	
	Height, in	5.8	5.71	5.76	
	Water Content, %	107.9	379.3	374.7	
	Dry Density, pcf	35.66	13.88	14.27	
	Saturation, %	82.7	93.6	95.4	
	Void Ratio	2.92	9.08	8.8	
Before Shear	Water Content, %	255.8	285.1	212.7	
	Dry Density, pcf	20.78	18.93	24.26	
	Saturation*, %	100.0	100.0	100.0	
	Void Ratio	5.73	6.39	4.76	
	Back Press., psi	27.99	28.	28.03	
Ver. Eff. Cons. Stress, psi		5.	9.996	19.94	
Shear Strength, psi		2.914	4.232	6.556	
Strain at Failure, %		14.1	15	13.3	
Strain Rate, %/min		0.016	0.016	0.016	
B-Value		0.97	1.0	1.0	
Measured Specific Gravity		2.24	2.24	2.24	
Liquid Limit		396	396	396	
Plastic Limit		266	266	266	

GeoTesting express
a subsidiary of Geocomp Corporation

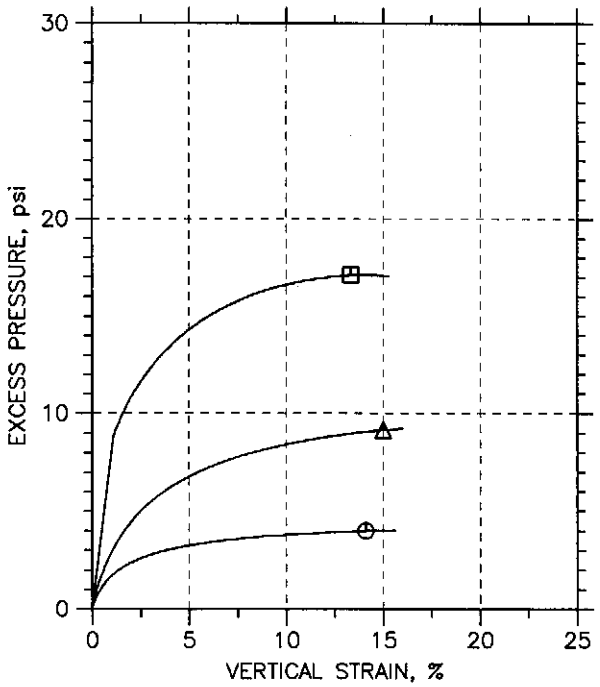
Project: Westgate LF
Location: S Weymouth, MA
Project No.: GTX-9089
Boring No.: WGL-SO-SB
Sample Type: tube
Description: Wet, dark brown peat
Remarks: System U

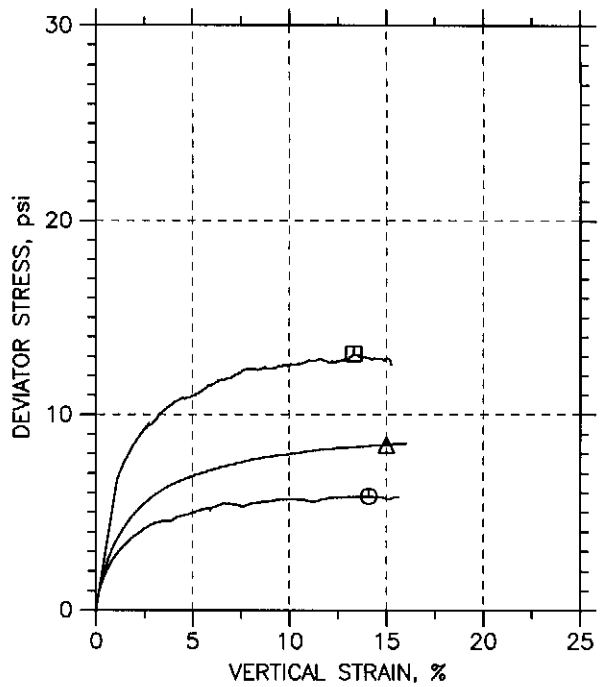


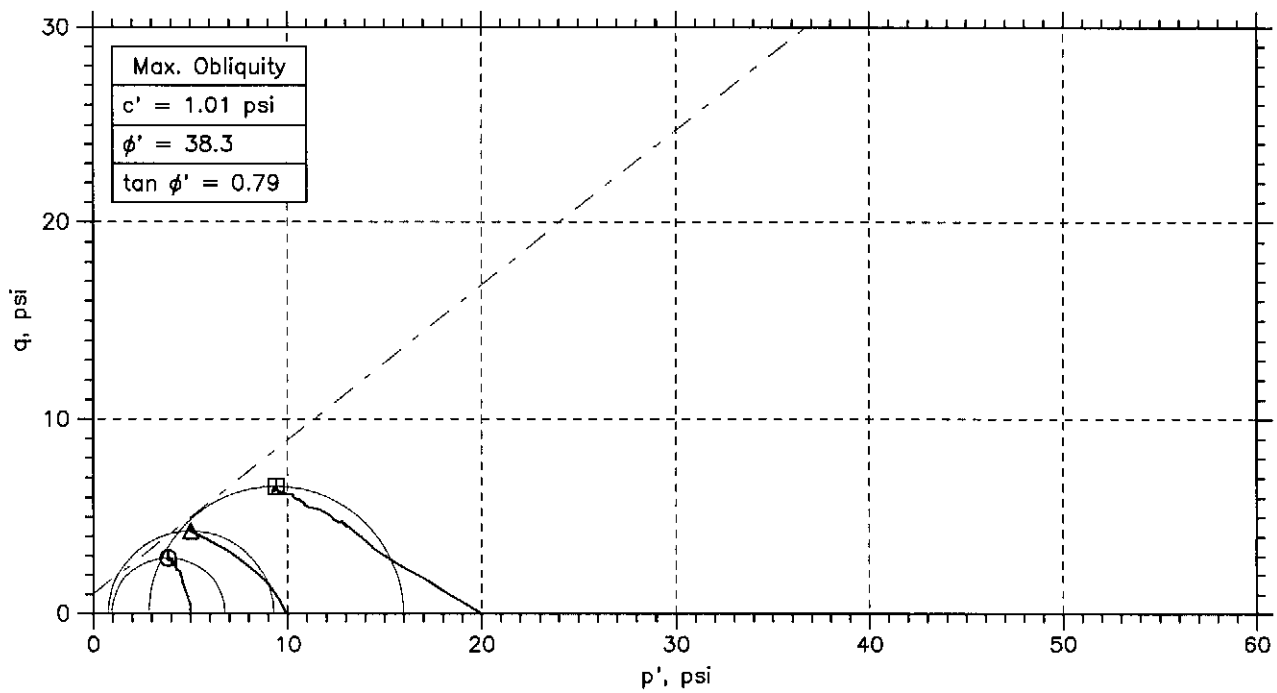
Phase calculations based on start and end of test.
* Saturation is set to 100% for phase calculations.

Tue, 07-JUL-2009 14:28:01

CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767







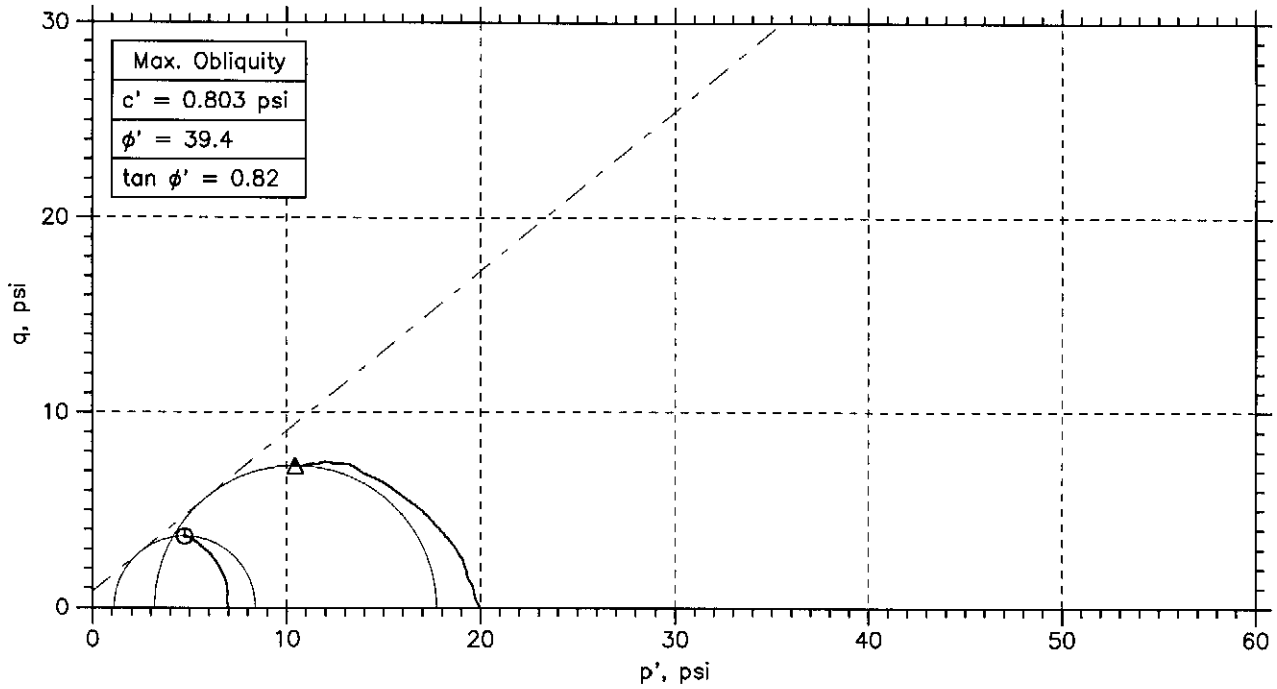
	Sample No.	Test No.	Depth	Tested By	Test Date	Checked By	Check Date	Test File
⊙	103-0608	CU-1-1	---	md	06/29/09	jdt		9089-CU-1-1n.dat
△	103-0608	CU-1-2	---	md	06/29/09	jdt		9089-CU-1-2n.dat
⊡	103-0608	CU-1-3	---	md	06/29/09	jdt		9089-CU-1-3n.dat

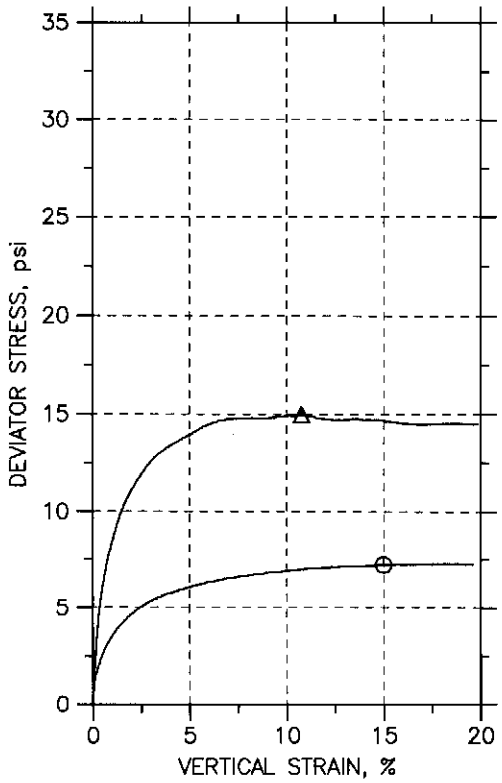
GeoTesting express
a subsidiary of Geocomp Corporation

Project: Westgate LF	Location: S Weymouth, MA	Project No.: GTX-9089
Boring No.: WGL-SO-SB	Sample Type: tube	
Description: Wet, dark brown peat		
Remarks: System U		

Tue, 07-JUL-2009 14:28:19

CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767

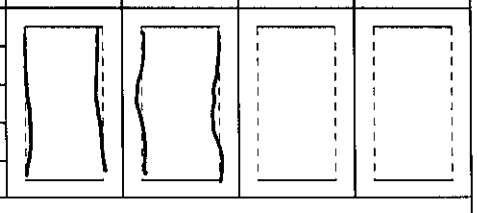




Symbol		⏲	△		
Sample No.		108-0911	108-0911		
Test No.		CU-2-1	CU-2-2		
Depth		---	---		
Initial	Diameter, in	2.86	2.84		
	Height, in	5.9	5.7		
	Water Content, %	380.8	367.1		
	Dry Density, pcf	13.27	14.05		
	Saturation, %	93.2	95.9		
	Void Ratio	6.62	6.2		
Before Shear	Water Content, %	324.5	185.3		
	Dry Density, pcf	16.16	25.27		
	Saturation*, %	100.0	100.0		
	Void Ratio	5.26	3		
	Back Press., psi	28.01	28.01		
Ver. Eff. Cons. Stress, psi		6.985	19.98		
Shear Strength, psi		3.613	7.488		
Strain at Failure, %		15	10.8		
Strain Rate, %/min		0.016	0.016		
B-Value		0.97	1.0		
Measured Specific Gravity		1.62	1.62		
Liquid Limit		282	282		
Plastic Limit		226	226		

GeoTesting express
a subsidiary of Geocomp Corporation

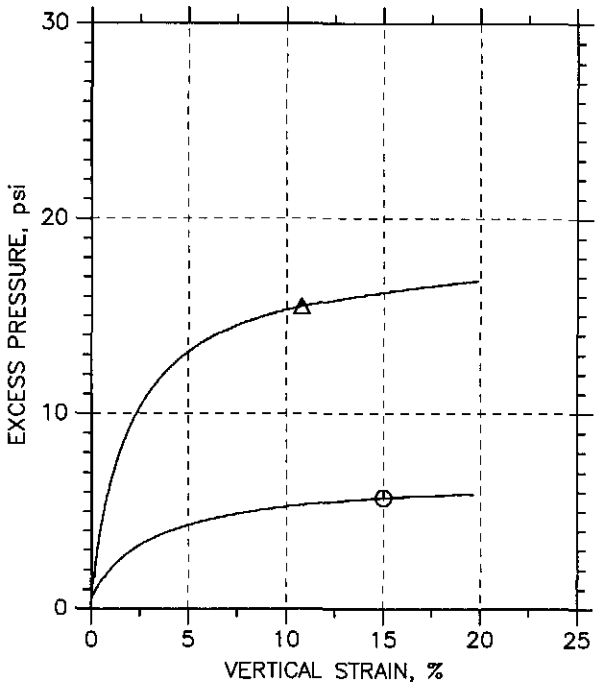
Project: Westgate LF
Location: S Weymouth, MA
Project No.: GTX-9089
Boring No.: WGL-SO-SB
Sample Type: tube
Description: Wet, dark brown peat
Remarks: System S

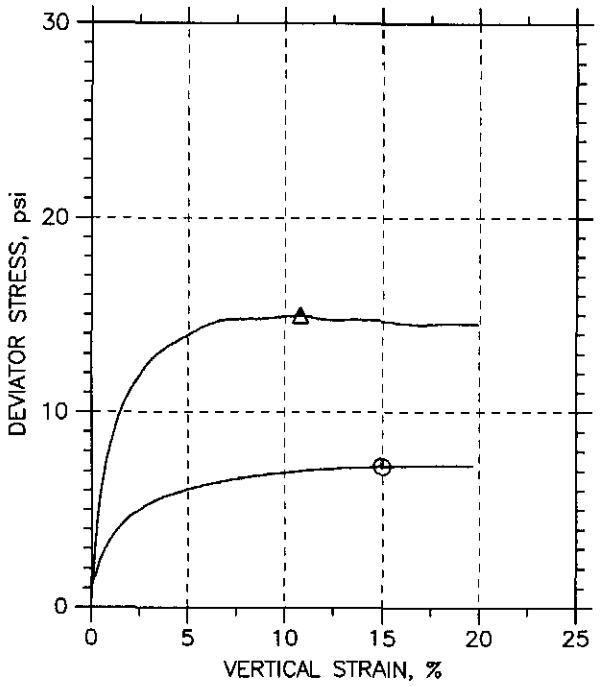


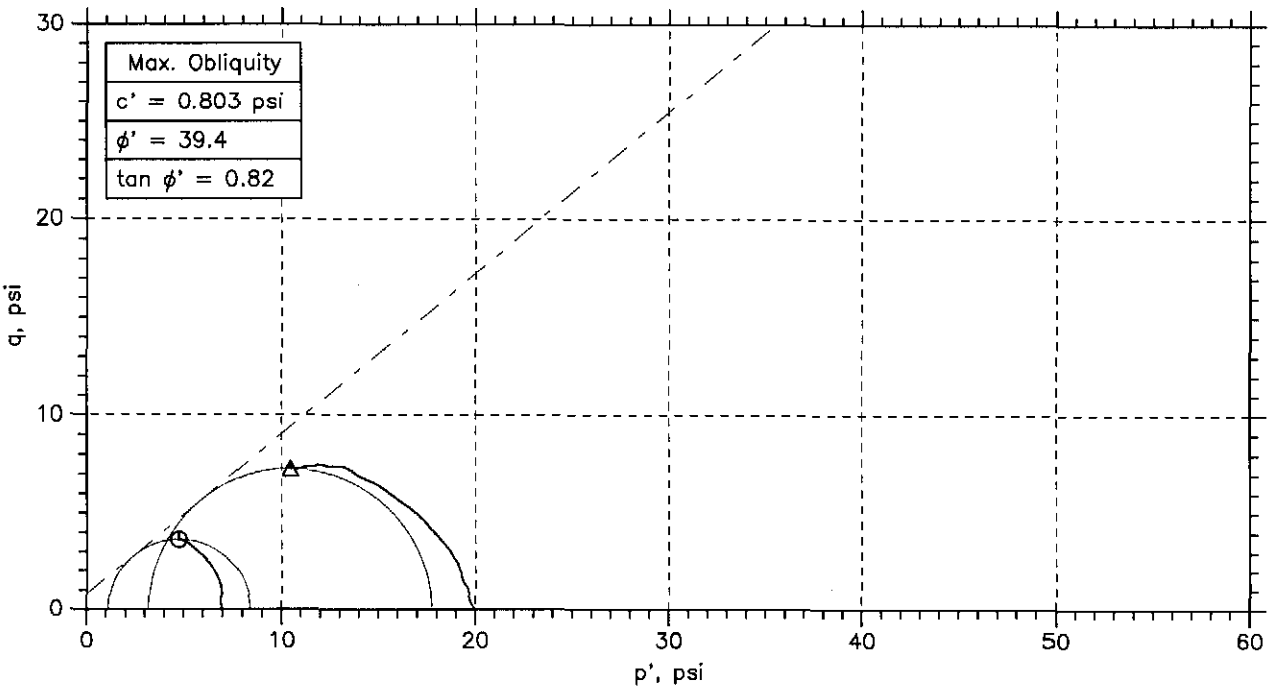
Wed, 08-JUL-2009 09:11:04

Phase calculations based on start and end of test.
* Saturation is set to 100% for phase calculations.

CONSOLIDATED UNDRAINED TRIAXIAL TEST by ASTM D4767







	Sample No.	Test No.	Depth	Tested By	Test Date	Checked By	Check Date	Test File
⊙	108-0911	CU-2-1	---	md	07/01/09	jdt		9089-CU-2-1n.dat
△	108-0911	CU-2-2	---	md	07/01/09	jdt		9089-CU-2-2n.dat

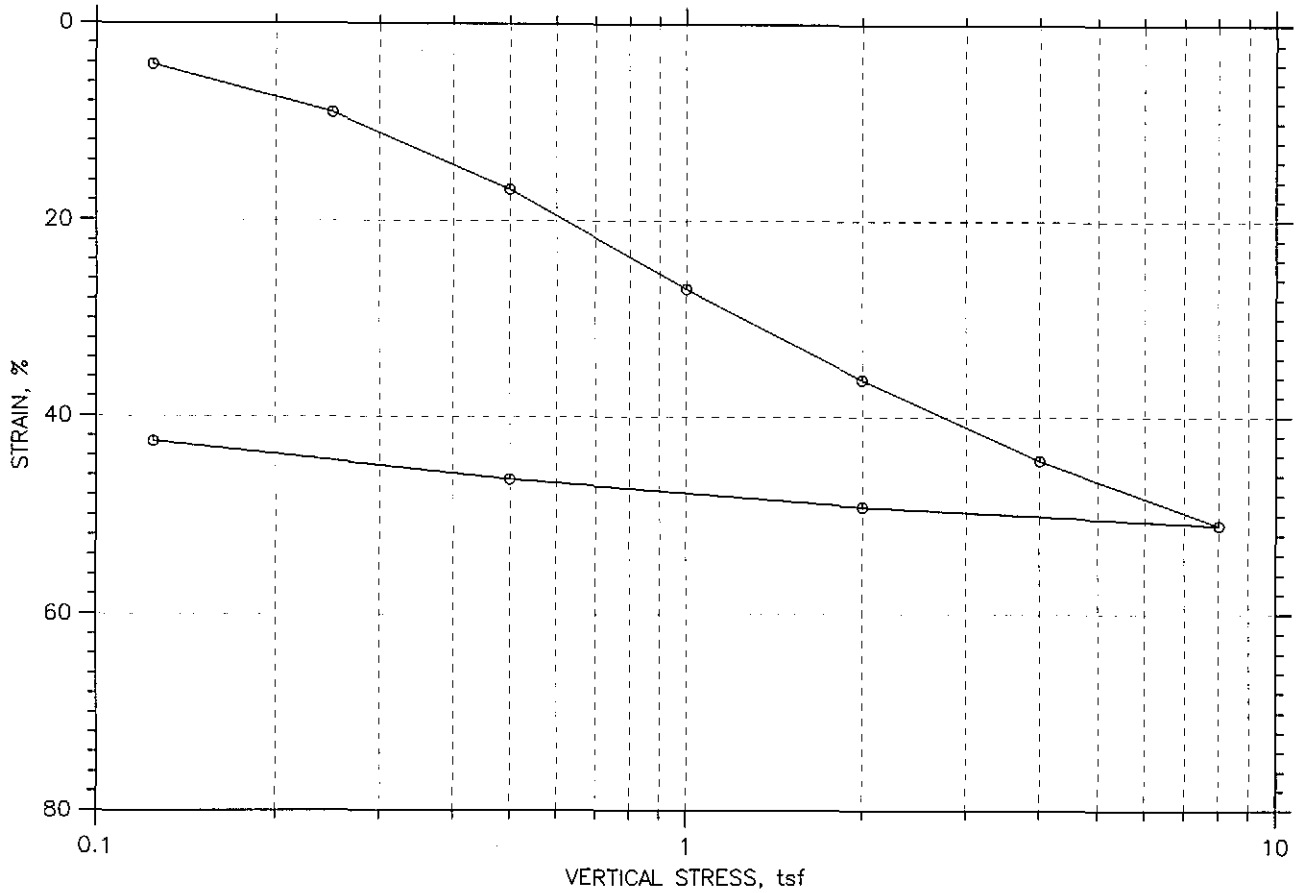
GeoTesting express
a subsidiary of Geocomp Corporation

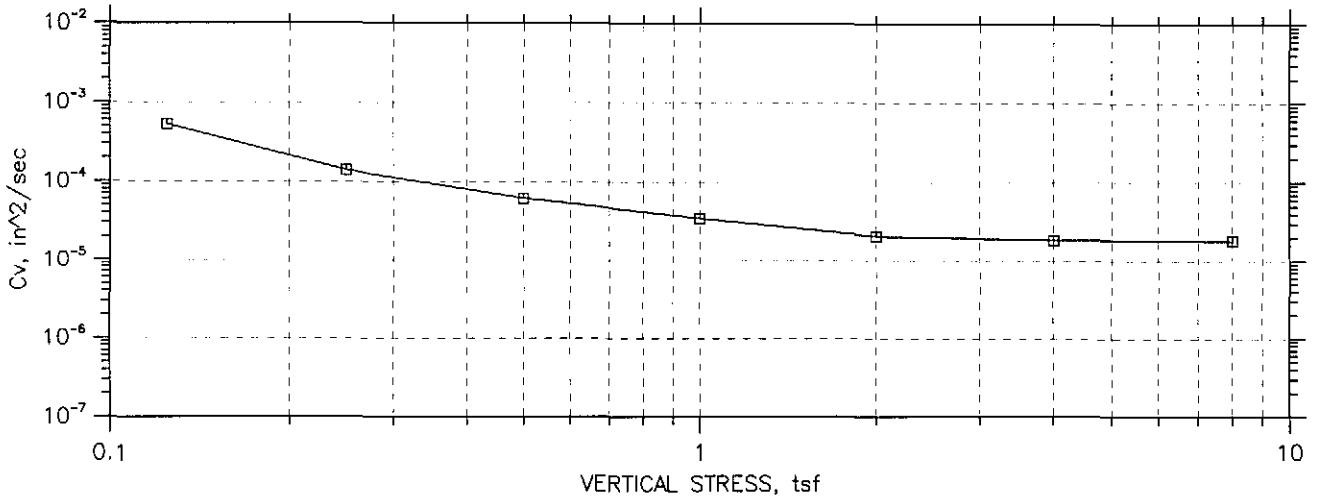
Project: Westgate LF	Location: S Weymouth, MA	Project No.: GTX-9089
Boring No.: WGL-SO-SB	Sample Type: tube	
Description: Wet, dark brown peat		
Remarks: System S		

Wed, 08-JUL-2009 09:11:31

CONSOLIDATION TEST DATA

SUMMARY REPORT



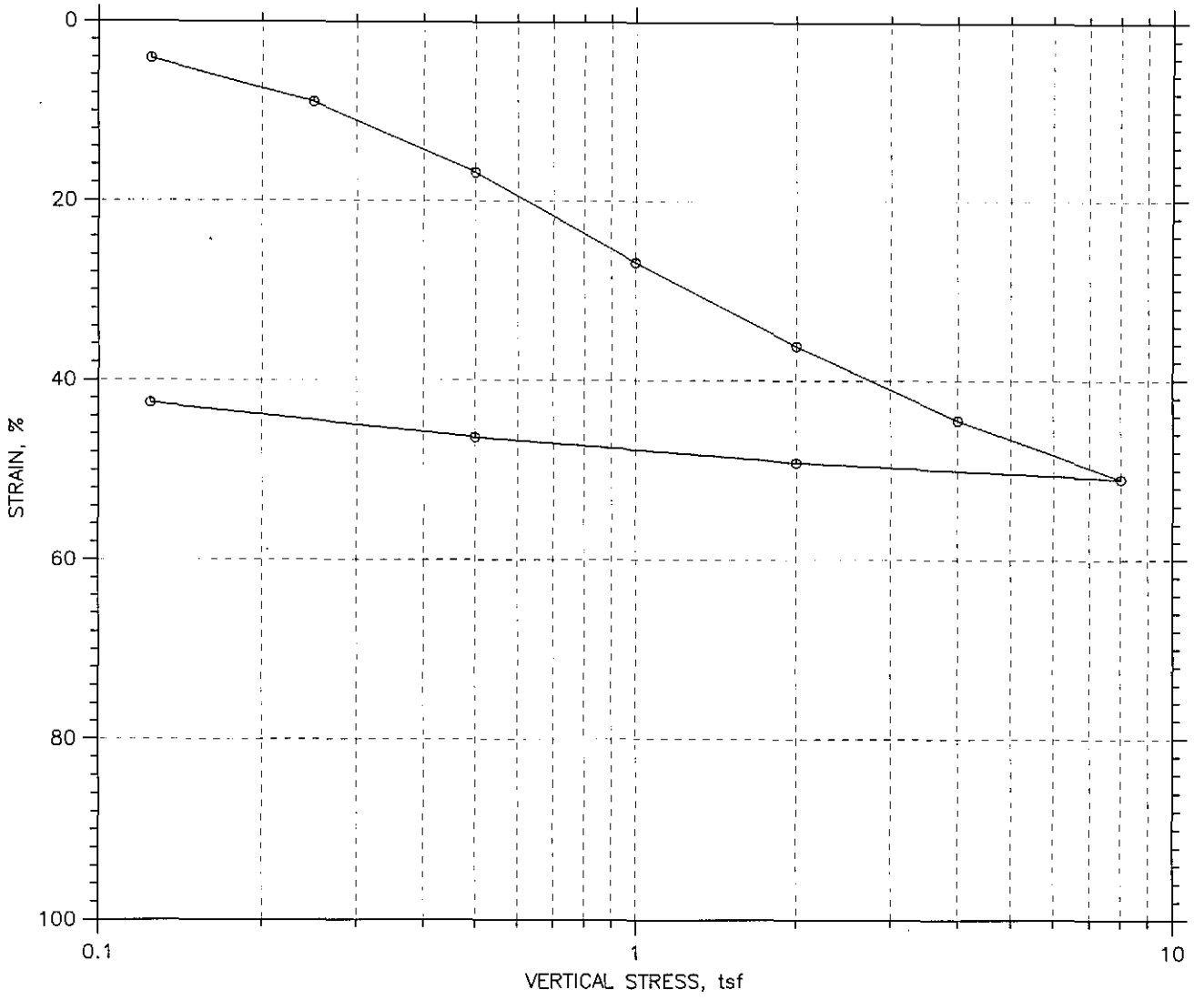


GeoTesting express a subsidiary of Geocomp Corporation	Project: Westgate LF	Location: S Weymouth MA	Project No.: GTX-9089
	Boring No.: WGL-SO-SB	Tested By: md	Checked By: jdt
	Sample No.: 103-0608	Test Date: 06/29/09	Depth: ---
	Test No.: C-2	Sample Type: tube	Elevation: ---
	Description: Wet, dark brown peat		
	Remarks: System G		

Tue, 07-JUL-2009 14:25:59

CONSOLIDATION TEST DATA

SUMMARY REPORT



					Before Test	After Test
Overburden Pressure: ---				Water Content, %	124.31	52.43
Preconsolidation Pressure: ---				Dry Unit Weight, pcf	36.93	64.31
Compression Index: ---				Saturation, %	99.93	99.99
Diameter: 2.5 in		Height: 1 in		Void Ratio	2.79	1.17
LL: 396	PL: 266	PI: 130	GS: 2.24			

GeoTesting express a subsidiary of Geocomp Corporation	Project: Westgate LF	Location: S Weymouth MA	Project No.: GTX-9089
	Boring No.: WGL-SO-SB	Tested By: md	Checked By: jdt
	Sample No.: 103-0608	Test Date: 06/29/09	Depth: ---
	Test No.: C-2	Sample Type: tube	Elevation: ---
	Description: Wet, dark brown peat		
	Remarks: System G		

Tue, 07-JUL-2009 14:25:59

CONSOLIDATION TEST DATA

Project: Westgate LF
Boring No.: WGL-SO-SB
Sample No.: 103-0608
Test No.: C-2

Location: S Weymouth MA
Tested By: md
Test Date: 06/29/09
Sample Type: tube

Project No.: GTX-9089
Checked By: jdt
Depth: ---
Elevation: ---

Soil Description: Wet, dark brown peat
Remarks: System G

Measured Specific Gravity: 2.24
Initial Void Ratio: 2.79
Final Void Ratio: 1.17

Liquid Limit: 396
Plastic Limit: 266
Plasticity Index: 130

Initial Height: 1.00 in
Specimen Diameter: 2.50 in

	Before Consolidation		After Consolidation	
	Trimmings	Specimen+Ring	Specimen+Ring	Trimmings
Container ID	62444	RING		4069
Wt. Container + Wet Soil, gm	143.91	323.51	289.31	85.46
Wt. Container + Dry Soil, gm	74.9	264.36	264.36	58.95
Wt. Container, gm	8.09	216.77	216.77	8.39
Wt. Dry Soil, gm	66.81	47.586	47.586	50.56
Water Content, %	103.29	124.31	52.43	52.43
Void Ratio	---	2.79	1.17	---
Degree of Saturation, %	---	99.93	99.99	---
Dry Unit Weight, pcf	---	36.931	64.306	---

CONSOLIDATION TEST DATA

Project: Westgate LF
Boring No.: WGL-SO-SB
Sample No.: 103-0608
Test No.: C-2

Location: S Weymouth MA
Tested By: md
Test Date: 06/29/09
Sample Type: tube

Project No.: GTX-9089
Checked By: jdt
Depth: ---
Elevation: ---

Soil Description: Wet, dark brown peat
Remarks: System G

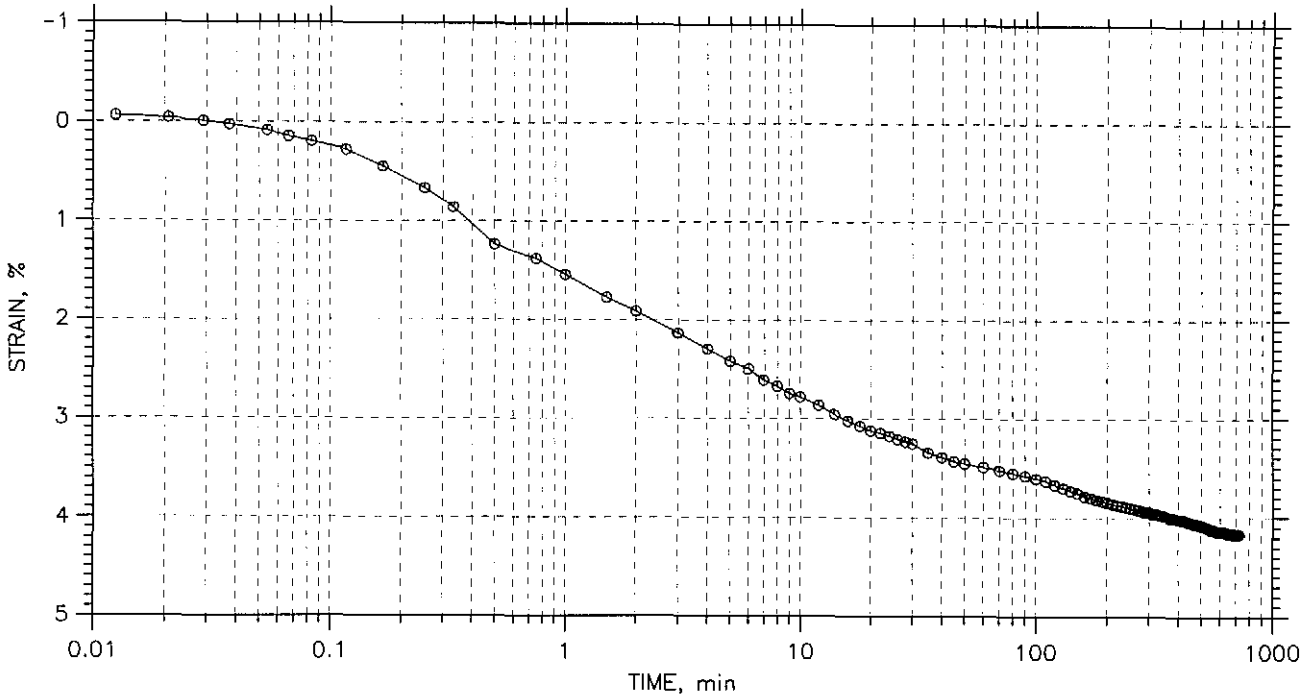
	Applied Stress tsf	Final Displacement in	Void Ratio	Strain at End %	T50 Fitting Sq.Rt. min	T50 Fitting Log min	Coefficient of Consolidation Sq.Rt. in^2/sec	Coefficient of Consolidation Log in^2/sec	Coefficient of Consolidation Ave. in^2/sec
1	0.125	0.04175	2.628	4.17	1.9	1.1	4.23e-004	6.93e-004	5.25e-004
2	0.25	0.09021	2.445	9.02	6.5	3.9	1.10e-004	1.82e-004	1.37e-004
3	0.5	0.1688	2.147	16.88	12.7	7.9	4.91e-005	7.90e-005	6.06e-005
4	1	0.27	1.764	27.00	15.1	14.1	3.31e-005	3.55e-005	3.42e-005
5	2	0.3623	1.415	36.23	17.8	19.5	2.16e-005	1.97e-005	2.06e-005
6	4	0.4444	1.104	44.44	15.7	15.6	1.86e-005	1.87e-005	1.87e-005
7	8	0.51	0.855	51.00	12.9	11.6	1.74e-005	1.94e-005	1.84e-005
8	2	0.4916	0.925	49.16	6.1	5.6	3.38e-005	3.64e-005	3.50e-005
9	0.5	0.4637	1.031	46.37	43.3	61.8	5.18e-006	3.63e-006	4.27e-006
10	0.125	0.4257	1.175	42.57	290.3	0.0	8.73e-007	0.00e+000	8.73e-007

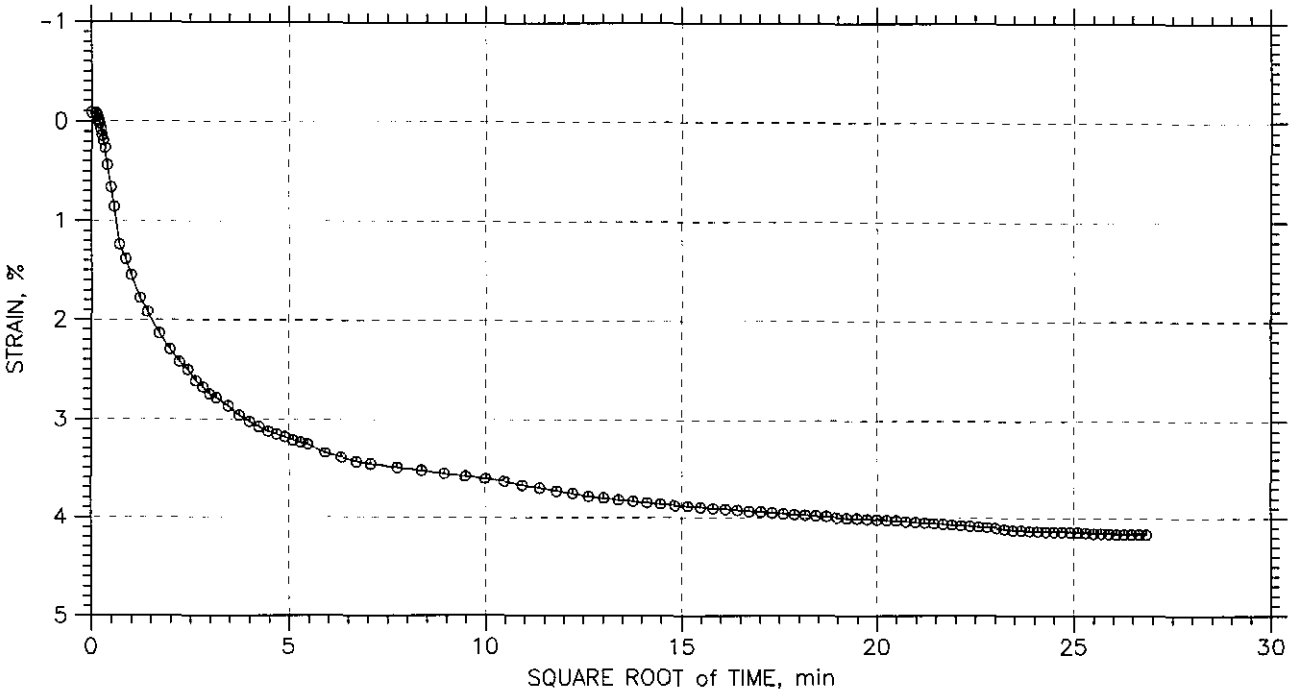
CONSOLIDATION TEST DATA

TIME CURVES

Constant Load Step: 1 of 10

Stress: 0.125 tsf





GeoTesting express a subsidiary of Geocomp Corporation	Project: Westgate LF	Location: S Weymouth MA	Project No.: GTX-9089
	Boring No.: WGL-SO-SB	Tested By: md	Checked By: jdt
	Sample No.: 103-0608	Test Date: 06/29/09	Depth: ---
	Test No.: C-2	Sample Type: tube	Elevation: ---
	Description: Wet, dark brown peat		
	Remarks: System G		

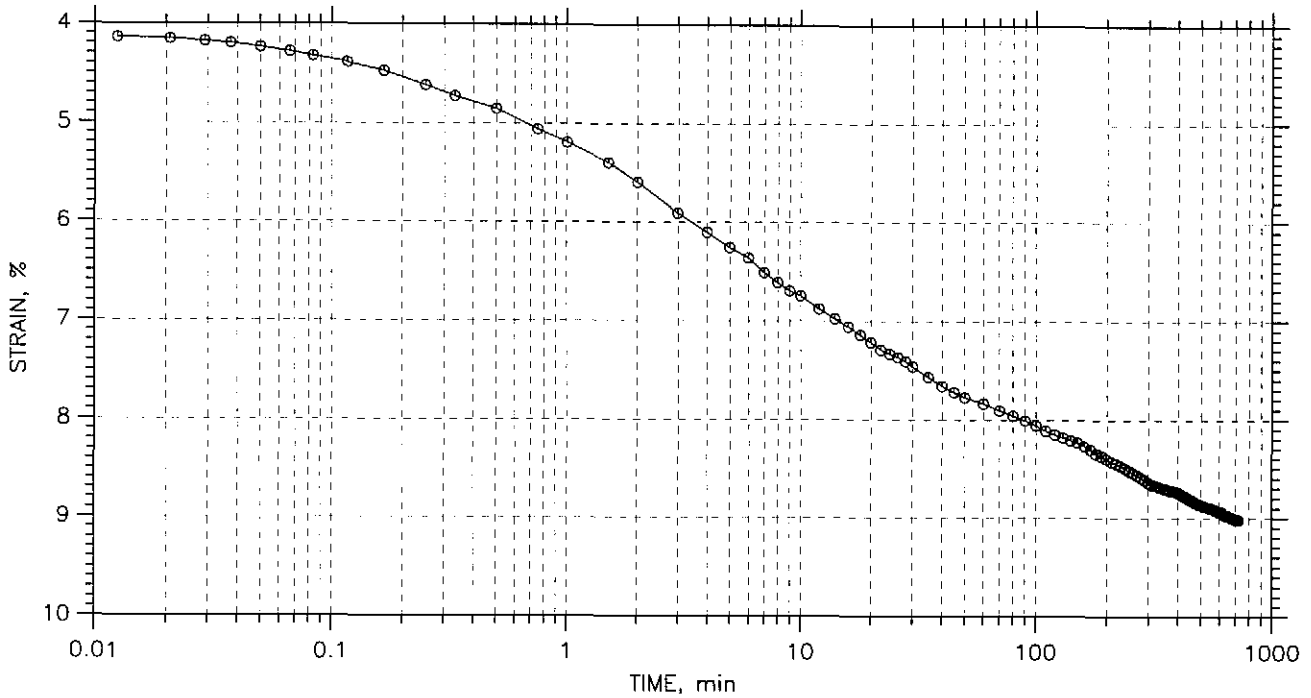
Tue, 07-JUL-2009 14:26:00

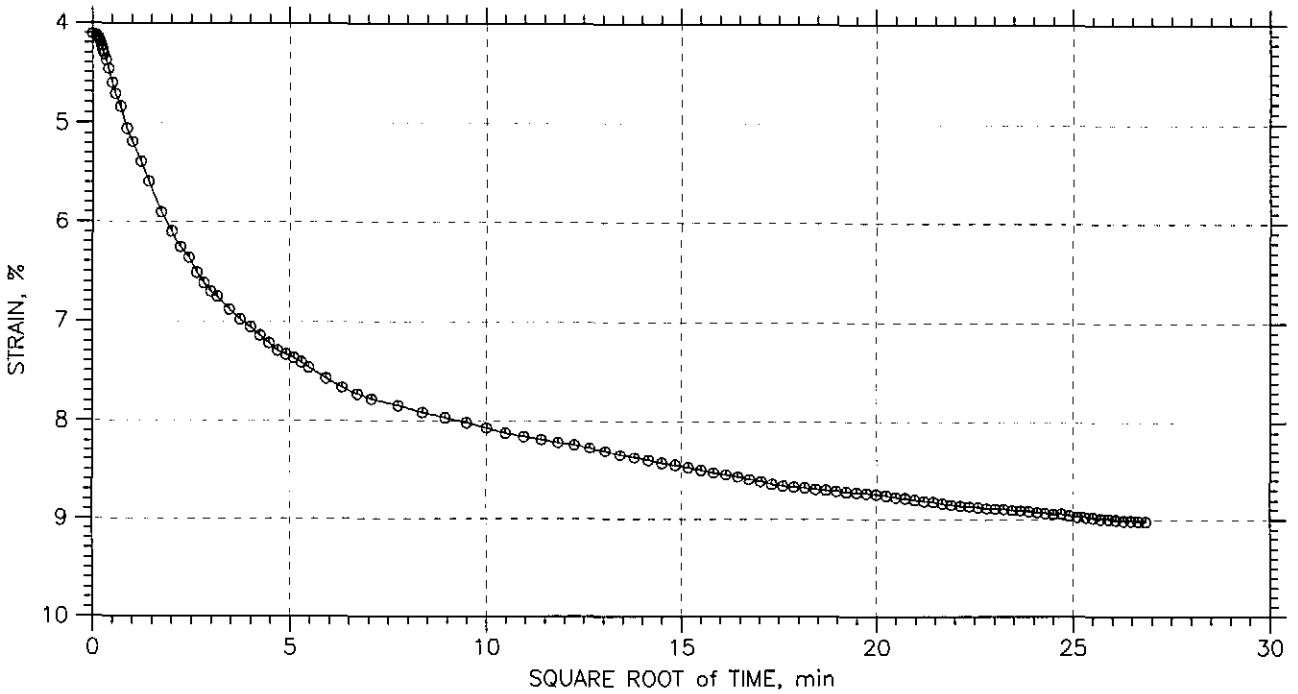
CONSOLIDATION TEST DATA

TIME CURVES

Constant Load Step: 2 of 10

Stress: 0.25 tsf





GeoTesting express a subsidiary of Geocomp Corporation	Project: Westgate LF	Location: S Weymouth MA	Project No.: GTX-9089
	Boring No.: WGL-SO-SB	Tested By: md	Checked By: jdt
	Sample No.: 103-0608	Test Date: 06/29/09	Depth: ---
	Test No.: C-2	Sample Type: tube	Elevation: ---
	Description: Wet, dark brown peat		
	Remarks: System G		

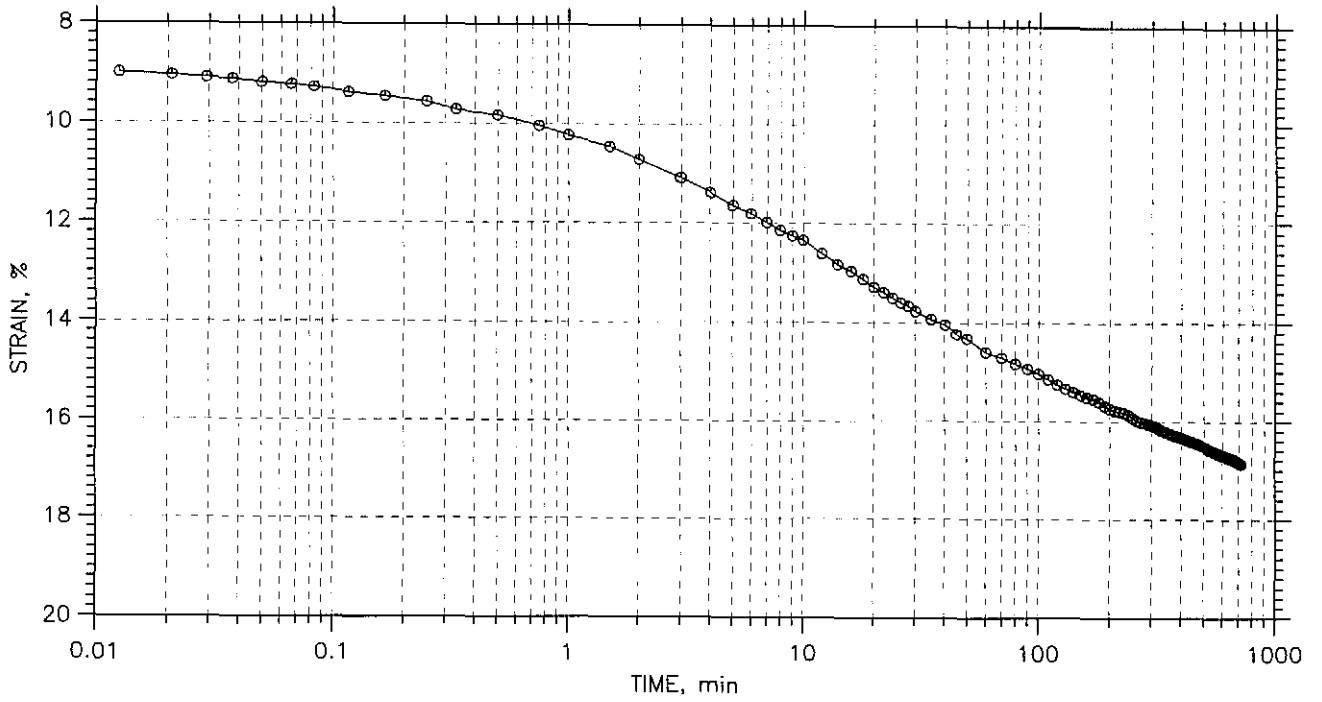
Tue, 07-JUL-2009 14:26:01

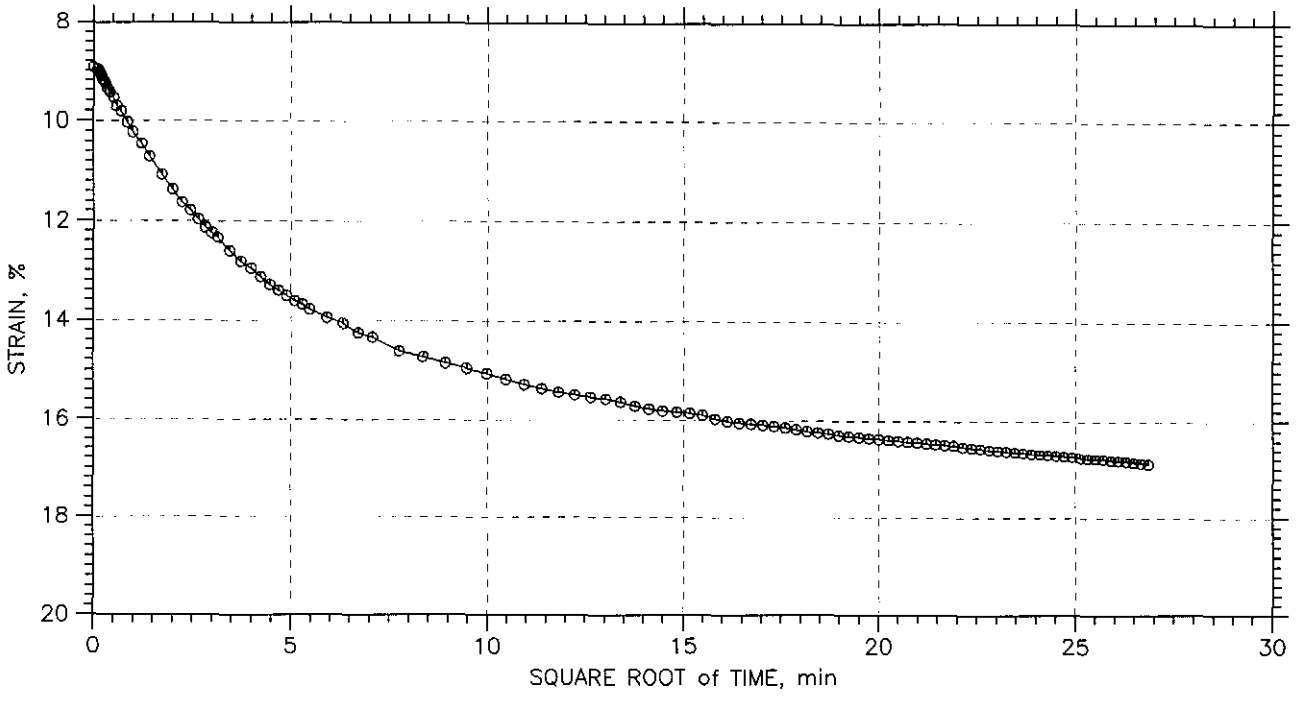
CONSOLIDATION TEST DATA

TIME CURVES

Constant Load Step: 3 of 10

Stress: 0.5 tsf





GeoTesting express a subsidiary of Geocomp Corporation	Project: Westgate LF	Location: S Weymouth MA	Project No.: GTX-9089
	Boring No.: WGL-SO-SB	Tested By: md	Checked By: jdt
	Sample No.: 103-0608	Test Date: 06/29/09	Depth: ---
	Test No.: C-2	Sample Type: tube	Elevation: ---
	Description: Wet, dark brown peat		
	Remarks: System G		

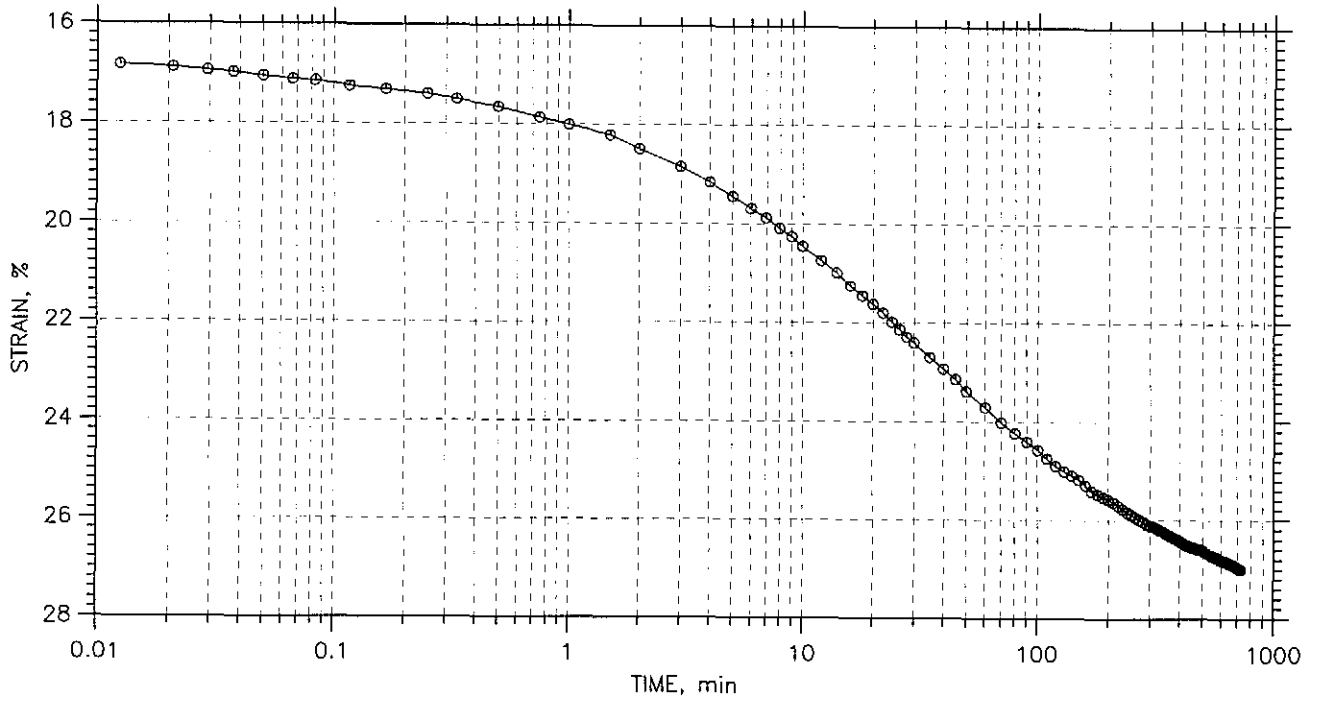
Tue, 07-JUL-2009 14:26:02

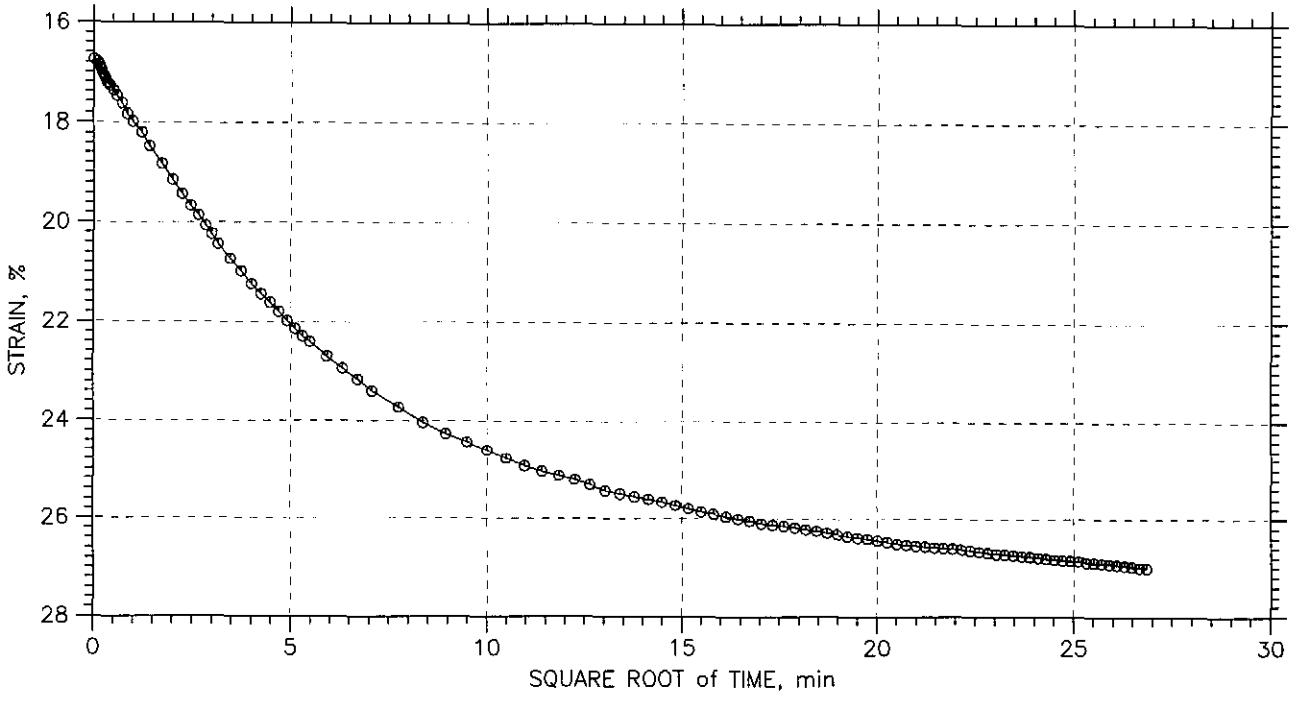
CONSOLIDATION TEST DATA

TIME CURVES

Constant Load Step: 4 of 10

Stress: 1. tsf





GeoTesting express a subsidiary of Geocomp Corporation	Project: Westgate LF	Location: S Weymouth MA	Project No.: GTX-9089
	Boring No.: WGL-SO-SB	Tested By: md	Checked By: jdt
	Sample No.: 103-0608	Test Date: 06/29/09	Depth: ---
	Test No.: C-2	Sample Type: tube	Elevation: ---
	Description: Wet, dark brown peat		
	Remarks: System G		

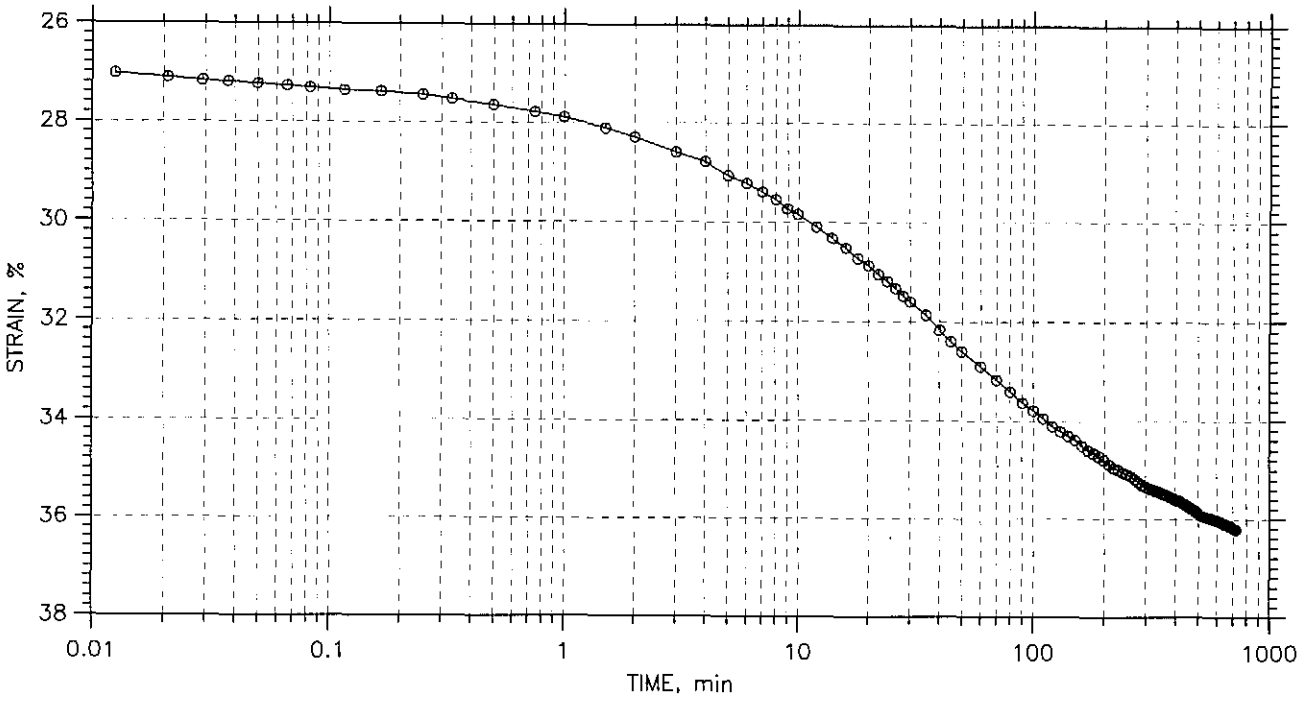
Tue, 07-JUL-2009 14:26:03

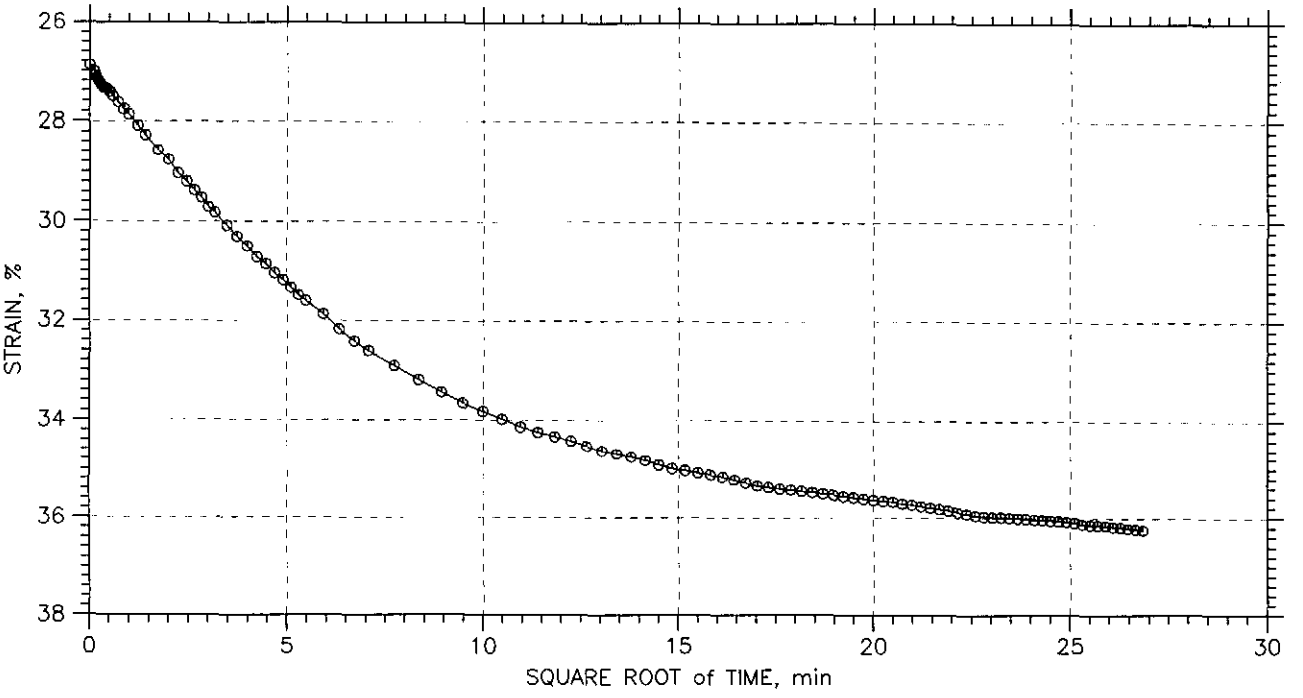
CONSOLIDATION TEST DATA

TIME CURVES

Constant Load Step: 5 of 10

Stress: 2. tsf





GeoTesting express a subsidiary of Geocomp Corporation	Project: Westgate LF	Location: S Weymouth MA	Project No.: GTX-9089
	Boring No.: WGL-SO-SB	Tested By: md	Checked By: jdt
	Sample No.: 103-0608	Test Date: 06/29/09	Depth: ---
	Test No.: C-2	Sample Type: tube	Elevation: ---
	Description: Wet, dark brown peat		
	Remarks: System G		

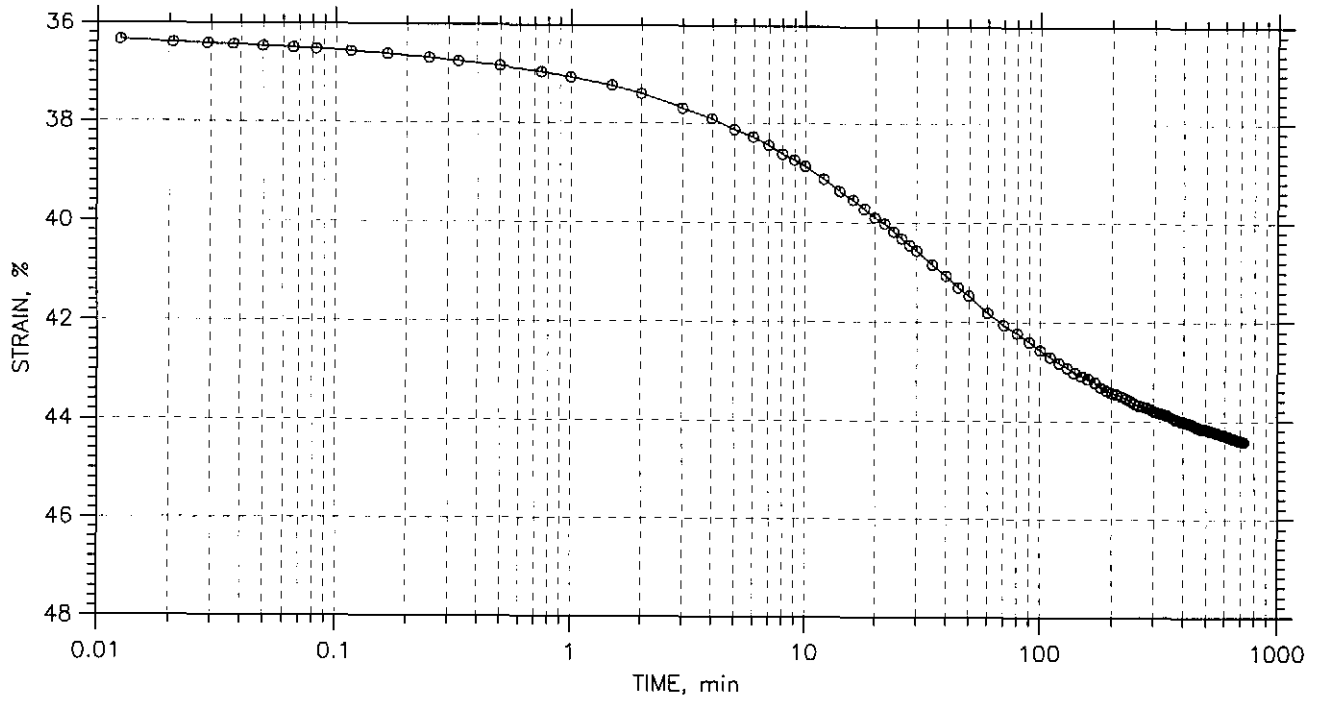
Tue, 07-JUL-2009 14:26:04

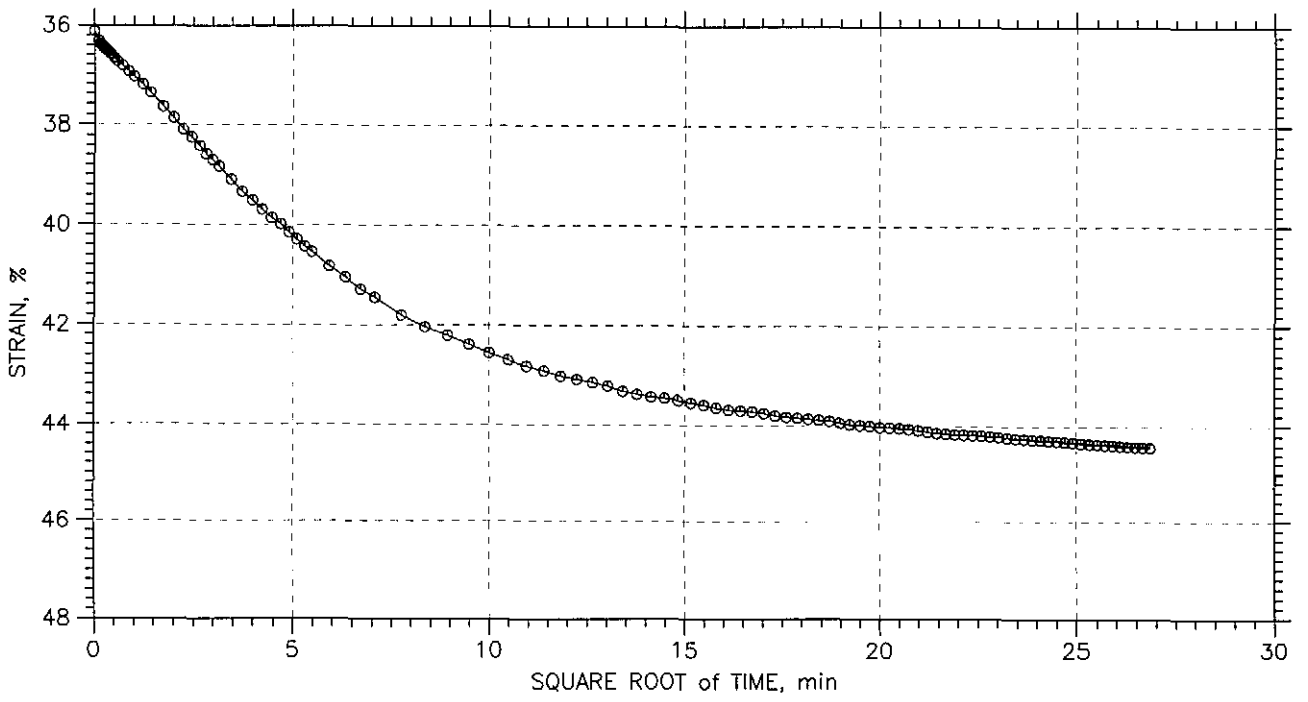
CONSOLIDATION TEST DATA

TIME CURVES

Constant Load Step: 6 of 10

Stress: 4. tsf





GeoTesting express a subsidiary of Geocomp Corporation	Project: Westgate LF	Location: S Weymouth MA	Project No.: GTX-9089
	Boring No.: WGL-SO-SB	Tested By: md	Checked By: jdt
	Sample No.: 103-0608	Test Date: 06/29/09	Depth: ---
	Test No.: C-2	Sample Type: tube	Elevation: ---
	Description: Wet, dark brown peat		
	Remarks: System G		

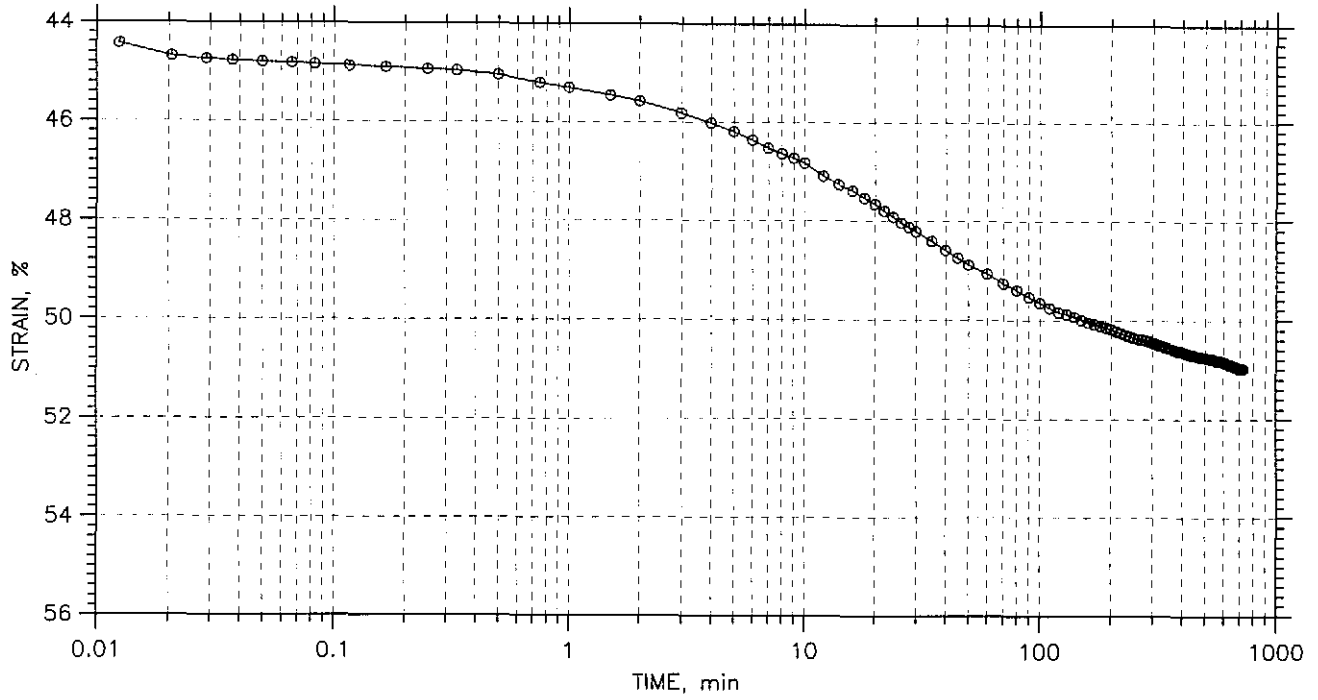
Tue, 07-JUL-2009 14:26:05

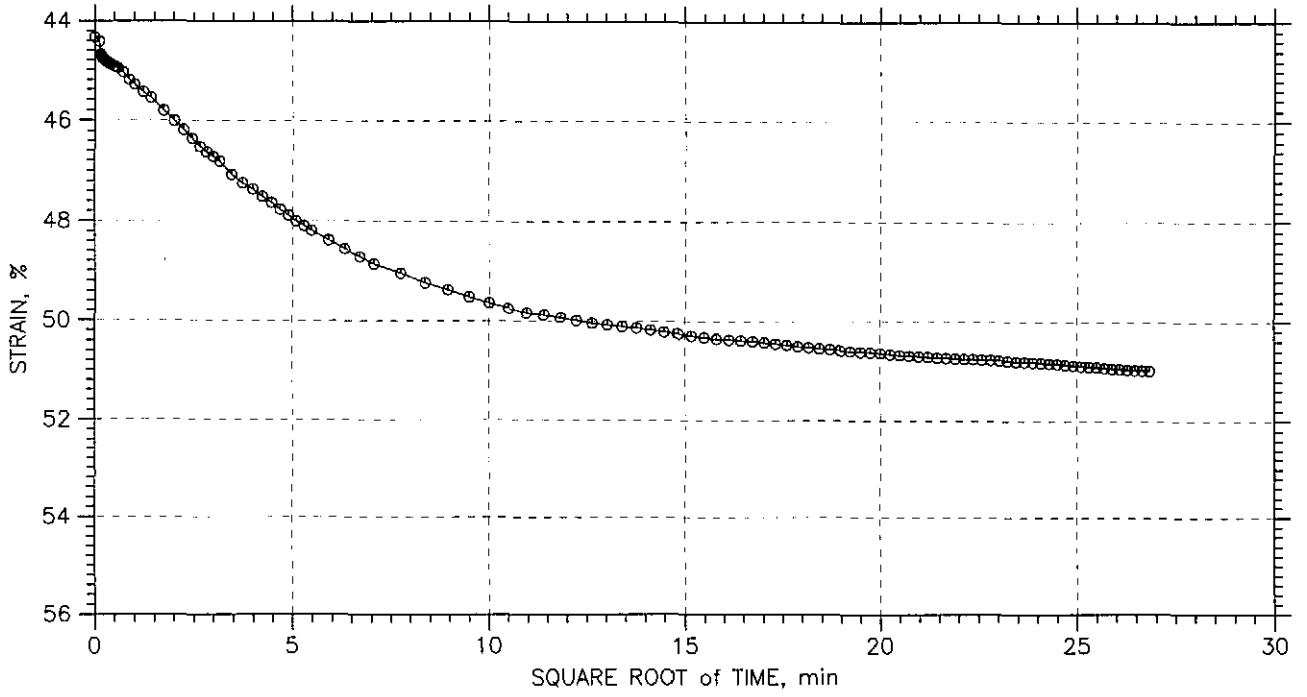
CONSOLIDATION TEST DATA

TIME CURVES

Constant Load Step: 7 of 10

Stress: 8. tsf





GeoTesting express a subsidiary of Geocomp Corporation	Project: Westgate LF	Location: S Weymouth MA	Project No.: GTX-9089
	Boring No.: WGL-SO-SB	Tested By: md	Checked By: jdt
	Sample No.: 103-0608	Test Date: 06/29/09	Depth: ---
	Test No.: C-2	Sample Type: tube	Elevation: ---
	Description: Wet, dark brown peat		
	Remarks: System G		

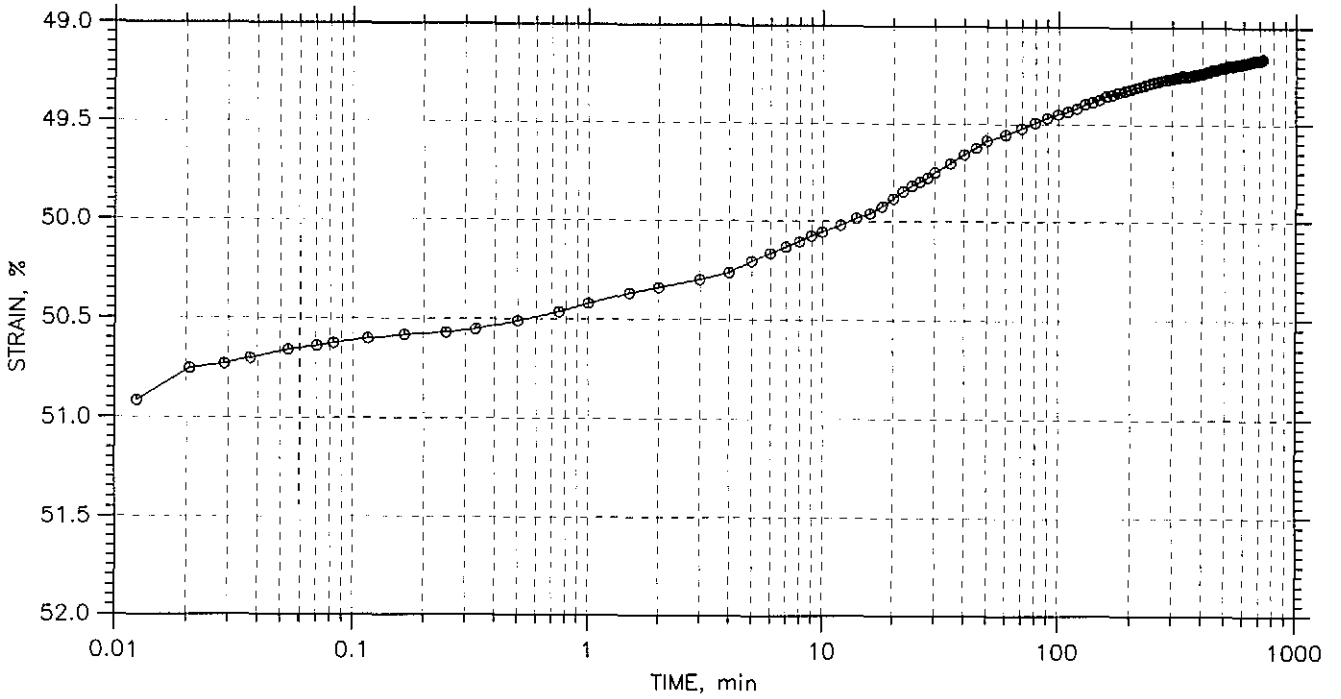
Tue, 07-JUL-2009 14:26:05

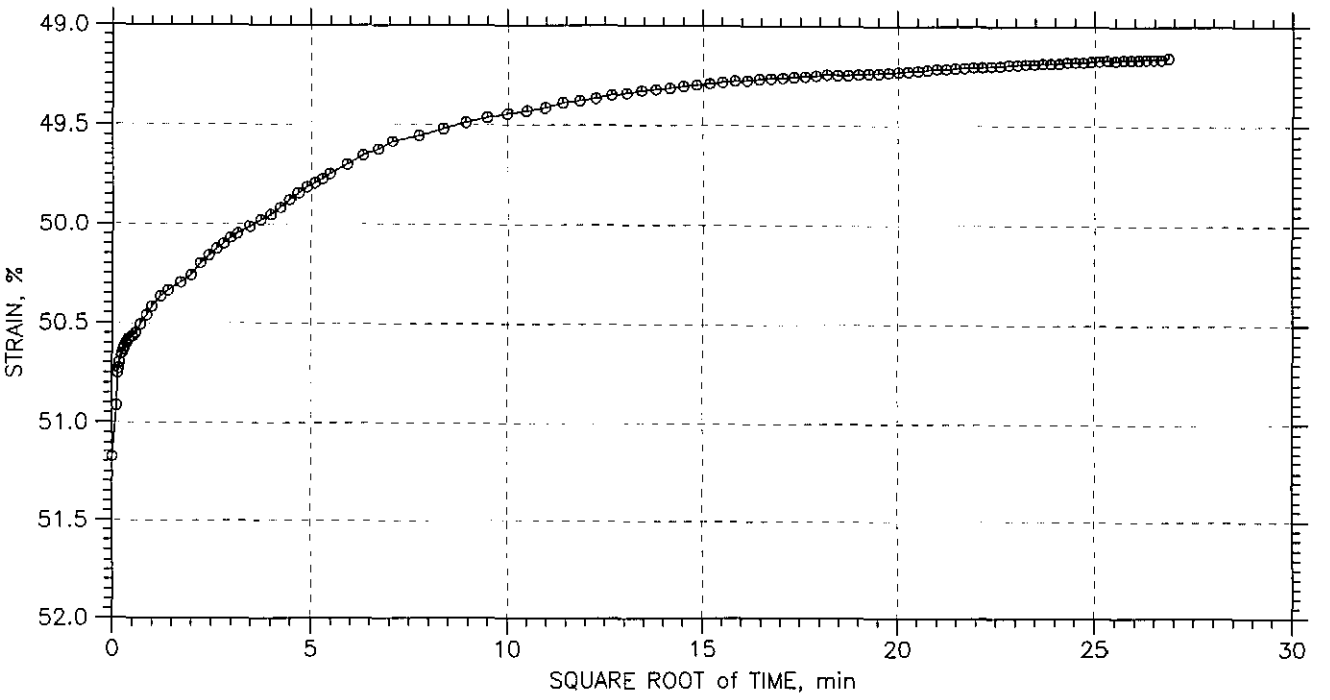
CONSOLIDATION TEST DATA

TIME CURVES

Constant Load Step: 8 of 10

Stress: 2. tsf





GeoTesting express a subsidiary of Geocomp Corporation	Project: Westgate LF	Location: S Weymouth MA	Project No.: GTX-9089
	Boring No.: WGL-SO-SB	Tested By: md	Checked By: jdt
	Sample No.: 103-0608	Test Date: 06/29/09	Depth: ---
	Test No.: C-2	Sample Type: tube	Elevation: ---
	Description: Wet, dark brown peat		
	Remarks: System G		

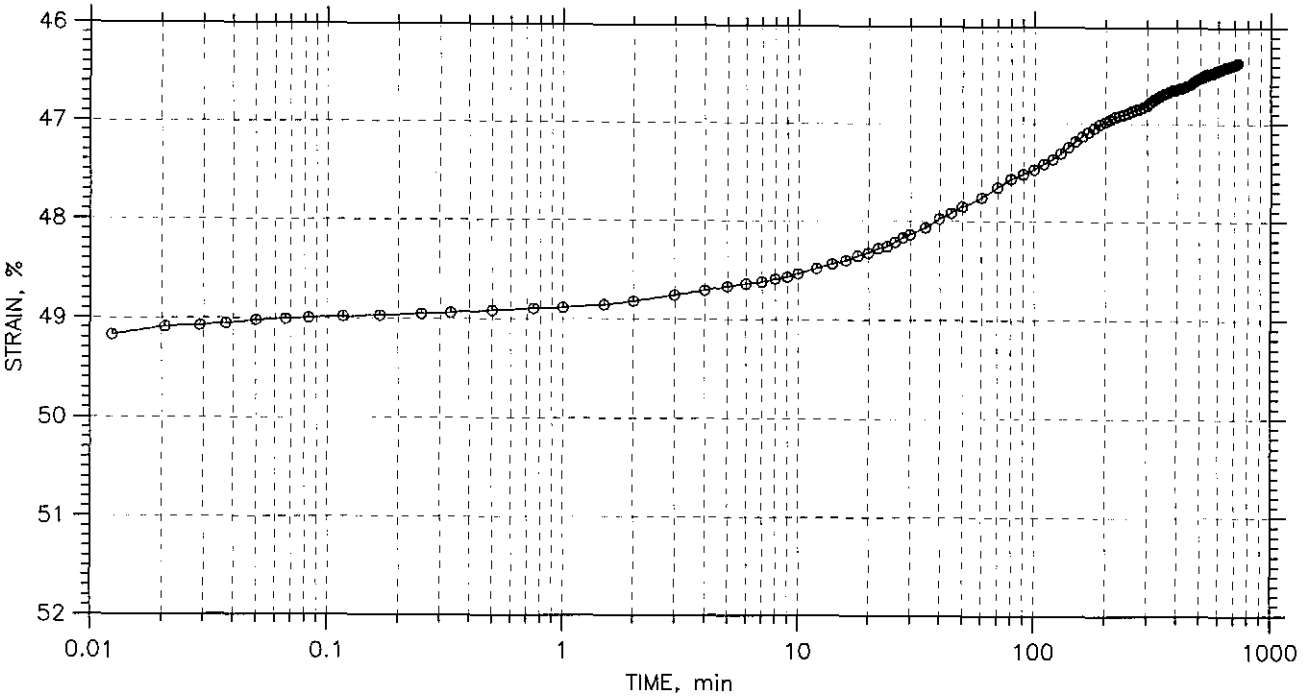
ue, 07-JUL-2009 14:26:06

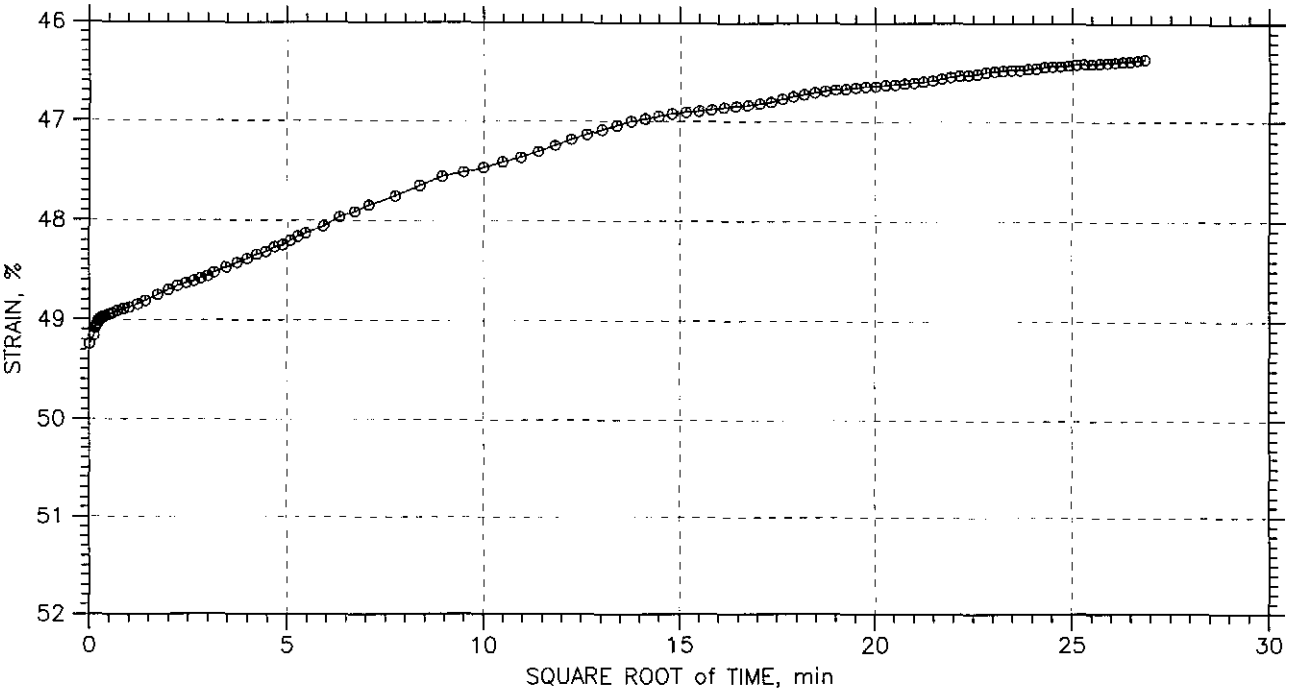
CONSOLIDATION TEST DATA

TIME CURVES

Constant Load Step: 9 of 10

Stress: 0.5 tsf





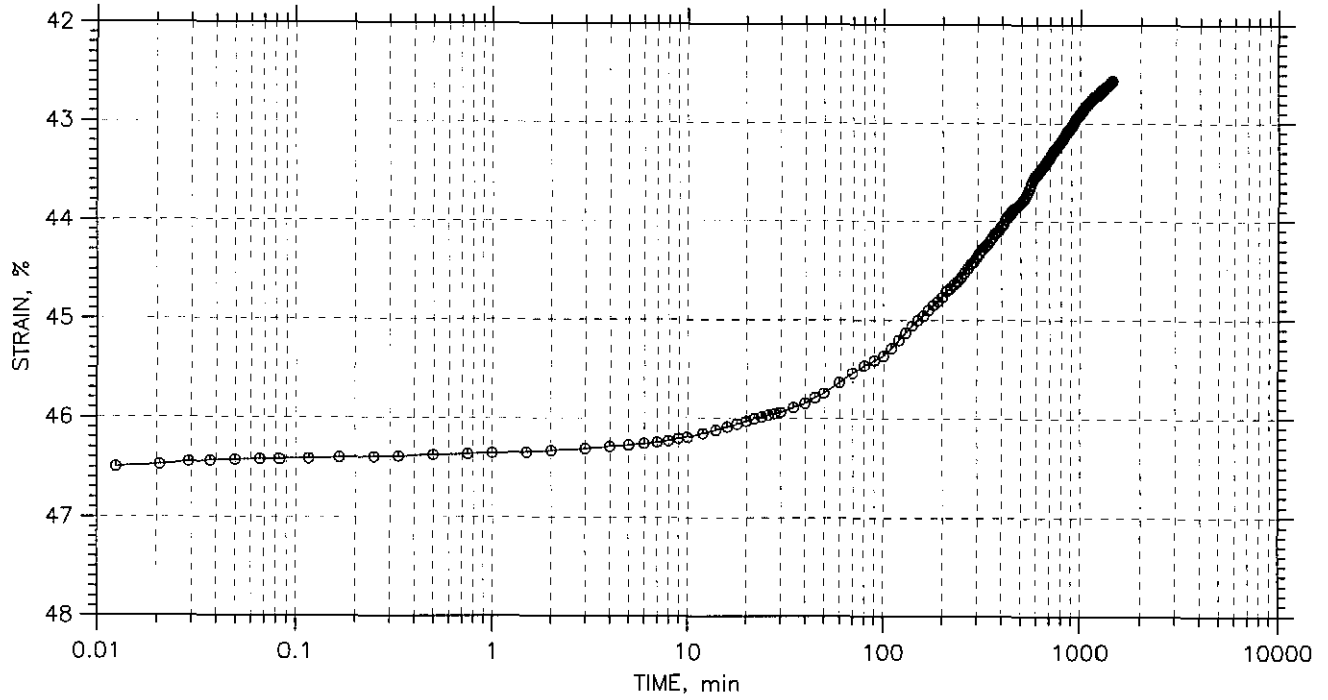
GeoTesting express a subsidiary of Geocomp Corporation	Project: Westgate LF	Location: S Weymouth MA	Project No.: GTX-9089
	Boring No.: WGL-SO-SB	Tested By: md	Checked By: jdt
	Sample No.: 103-0608	Test Date: 06/29/09	Depth: ---
	Test No.: C-2	Sample Type: tube	Elevation: ---
	Description: Wet, dark brown peat		
	Remarks: System G		

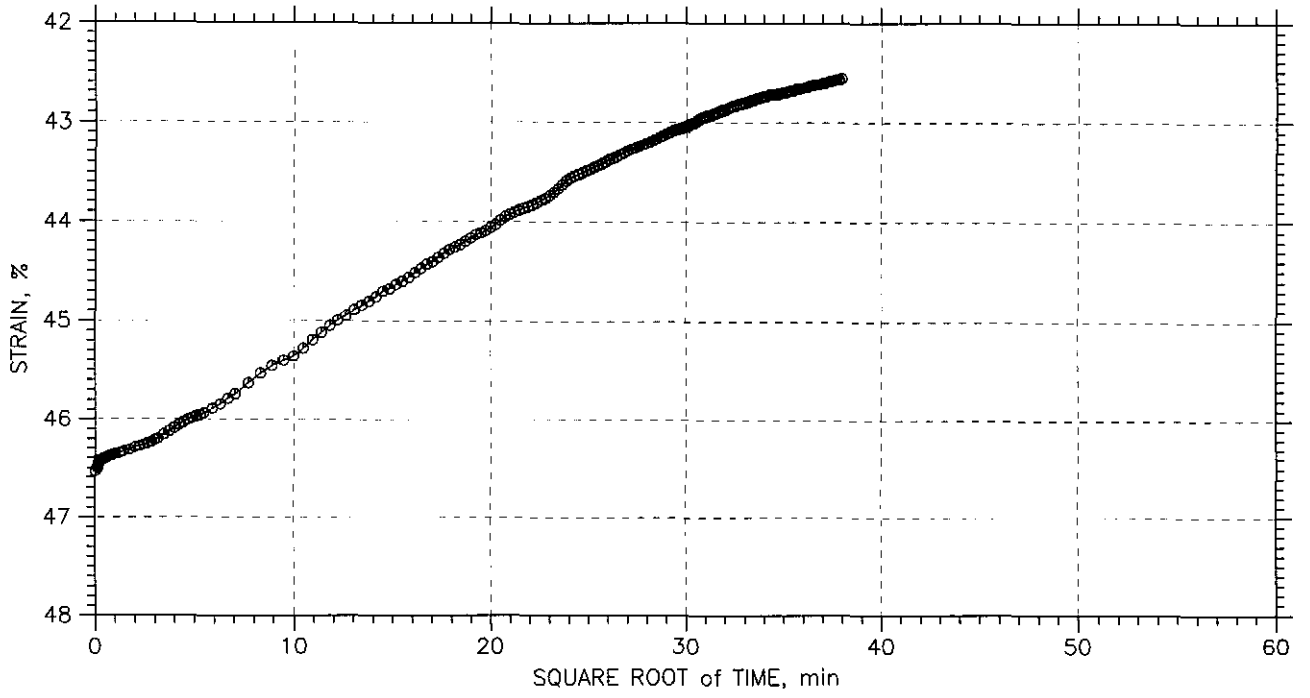
CONSOLIDATION TEST DATA

TIME CURVES

Constant Load Step: 10 of 10

Stress: 0.125 tsf



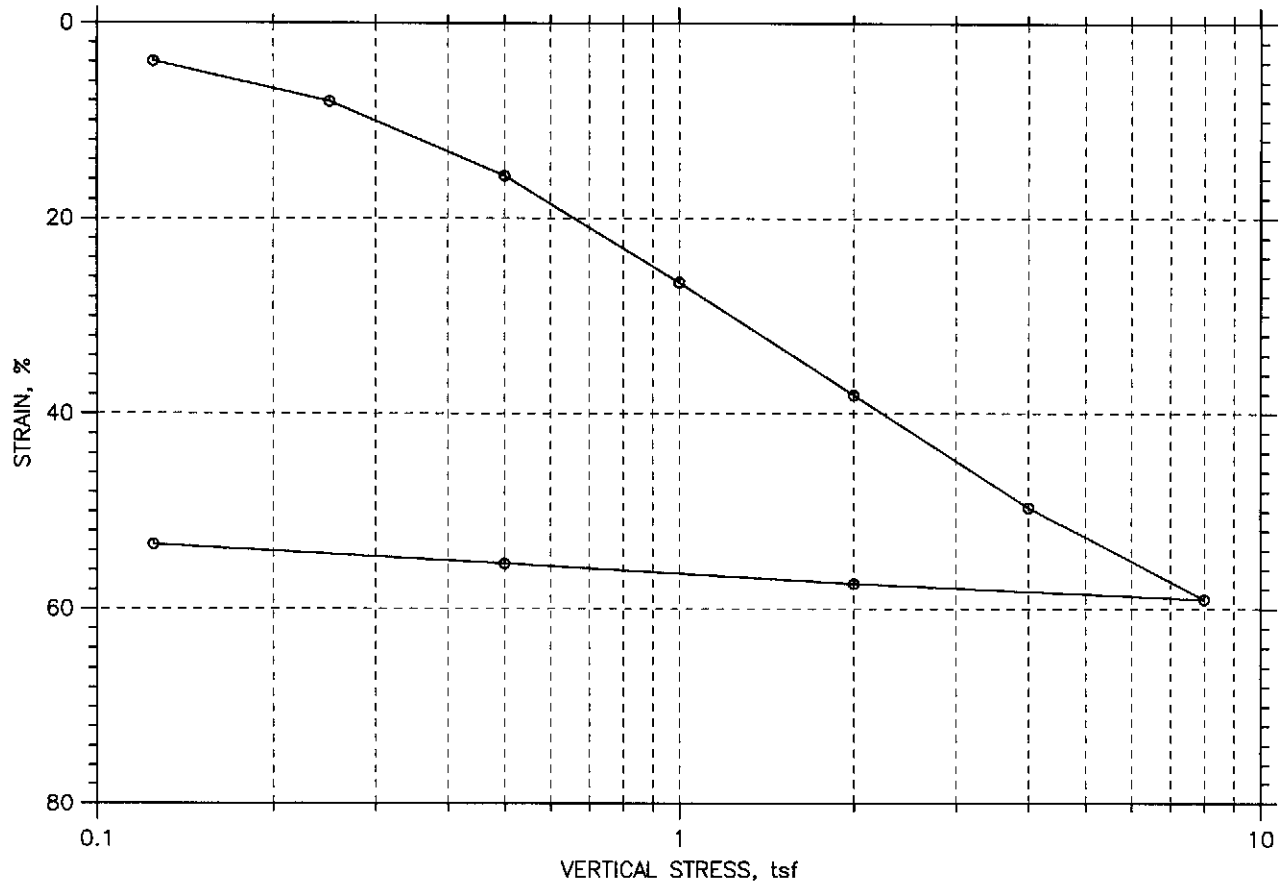


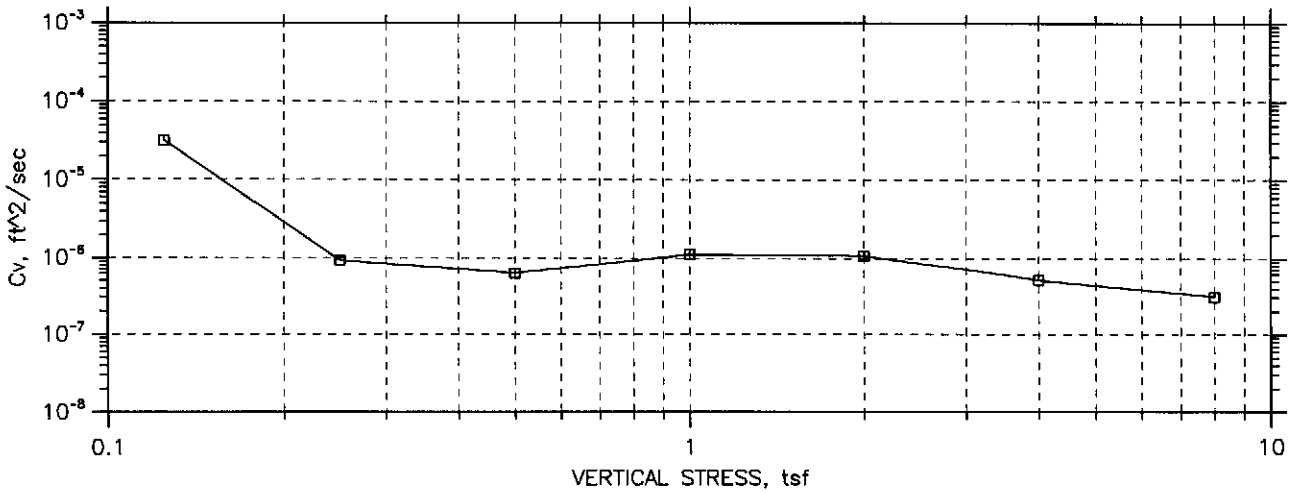
GeoTesting express a subsidiary of Geocomp Corporation	Project: Westgate LF	Location: S Weymouth MA	Project No.: GTX-9089
	Boring No.: WGL-SO-SB	Tested By: md	Checked By: jdt
	Sample No.: 103-0608	Test Date: 06/29/09	Depth: ---
	Test No.: C-2	Sample Type: tube	Elevation: ---
	Description: Wet, dark brown peat		
	Remarks: System G		

ue, 07-JUL-2009 14:26:08

CONSOLIDATION TEST DATA

SUMMARY REPORT



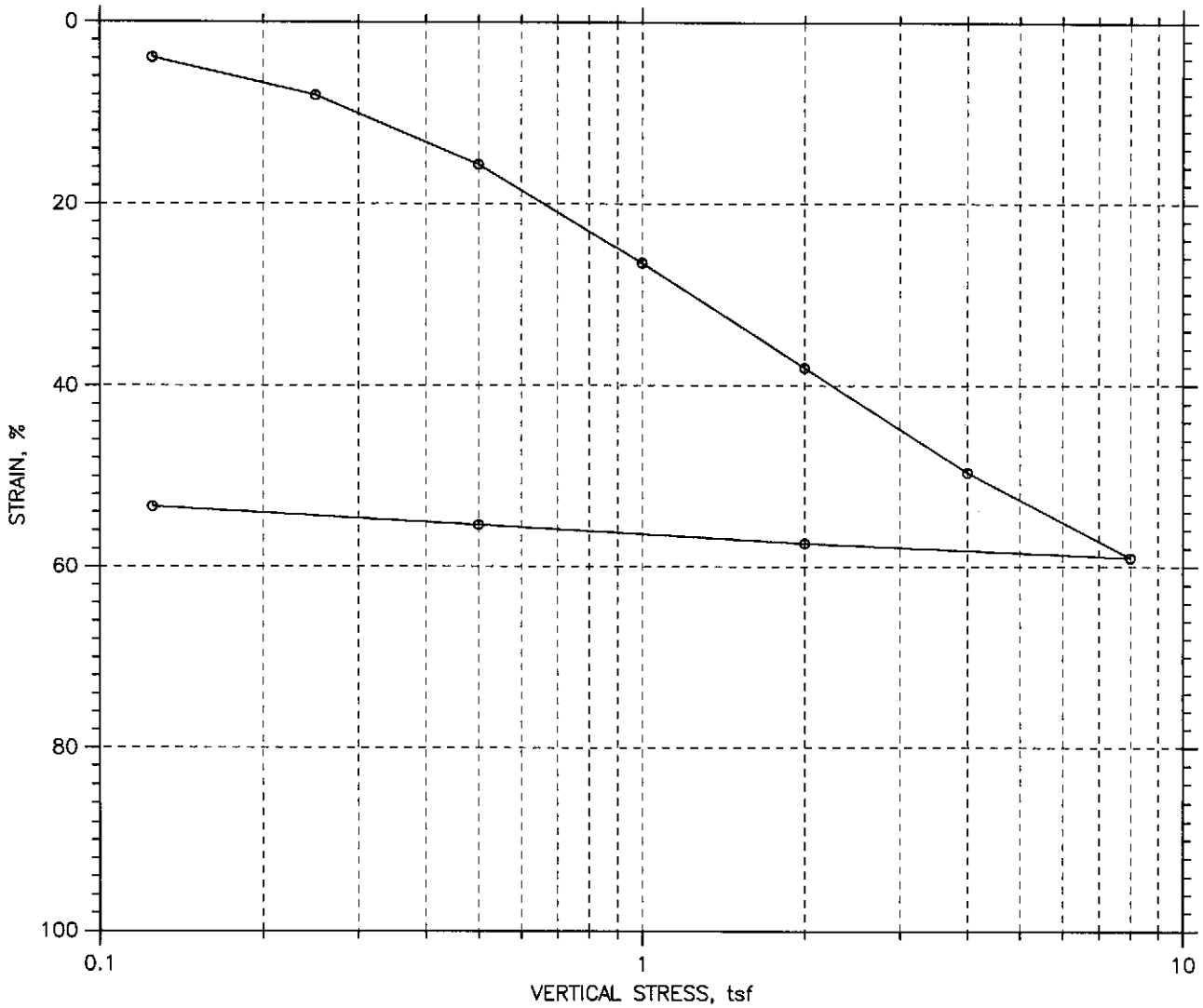


GeoTesting express a subsidiary of Geocomp Corporation	Project: Westgate LF	Location: S Weymouth, MA	Project No.: GTX-9089
	Boring No.: WGL-SO-SB	Tested By: njh	Checked By: jdt
	Sample No.: 108-0911	Test Date: 06/25/09	Depth: ---
	Test No.: C-1	Sample Type: tube	Elevation: ---
	Description: Wet, dark brown peat		
	Remarks: System 0		

Wed, 08-JUL-2009 09:13:13

CONSOLIDATION TEST DATA

SUMMARY REPORT



					Before Test	After Test
Overburden Pressure: ---				Water Content, %	345.13	161.02
Preconsolidation Pressure: ---				Dry Unit Weight, pcf	13.07	28.03
Compression Index: ---				Saturation, %	82.98	100.00
Diameter: 1.9 in		Height: 1.1 in		Void Ratio	6.74	2.61
LL: 282	PL: 226	PI: 56	GS: 1.62			

GeoTesting express a subsidiary of Geocomp Corporation	Project: Westgate LF	Location: S Weymouth, MA	Project No.: GTX-9089
	Boring No.: WGL-SO-SB	Tested By: njh	Checked By: jdt
	Sample No.: 108-0911	Test Date: 06/25/09	Depth: ---
	Test No.: C-1	Sample Type: tube	Elevation: ---
	Description: Wet, dark brown peat		
	Remarks: System 0		

Wed, 08-JUL-2009 09:13:16

CONSOLIDATION TEST DATA

Project: Westgate LF
Boring No.: WGL-SO-SB
Sample No.: 108-0911
Test No.: C-1

Location: S Weymouth, MA
Tested By: njh
Test Date: 06/25/09
Sample Type: tube

Project No.: GTX-9089
Checked By: jdt
Depth: ---
Elevation: ---

Soil Description: Wet, dark brown peat
Remarks: System 0

Measured Specific Gravity: 1.62
Initial Void Ratio: 6.74
Final Void Ratio: 2.61

Liquid Limit: 282
Plastic Limit: 226
Plasticity Index: 56

Initial Height: 1.10 in
Specimen Diameter: 1.90 in

	Before Consolidation		After Consolidation	
	Trimmings	Specimen+Ring	Specimen+Ring	Trimmings
Container ID	3640	RING		3865
Wt. Container + Wet Soil, gm	107.5	368.43	348.73	37.35
Wt. Container + Dry Soil, gm	33.04	331.5	331.5	19.38
Wt. Container, gm	8.23	320.8	320.8	8.22
Wt. Dry Soil, gm	24.81	10.7	10.7	11.16
Water Content, %	300.12	345.13	161.02	161.02
Void Ratio	---	6.74	2.61	---
Degree of Saturation, %	---	82.98	100.00	---
Dry Unit Weight, pcf	---	13.07	28.026	---

CONSOLIDATION TEST DATA

Project: Westgate LF
Boring No.: WGL-SO-SB
Sample No.: 108-0911
Test No.: C-1

Location: S Weymouth, MA
Tested By: njh
Test Date: 06/25/09
Sample Type: tube

Project No.: GTX-9089
Checked By: jdt
Depth: ---
Elevation: ---

Soil Description: Wet, dark brown peat
Remarks: System 0

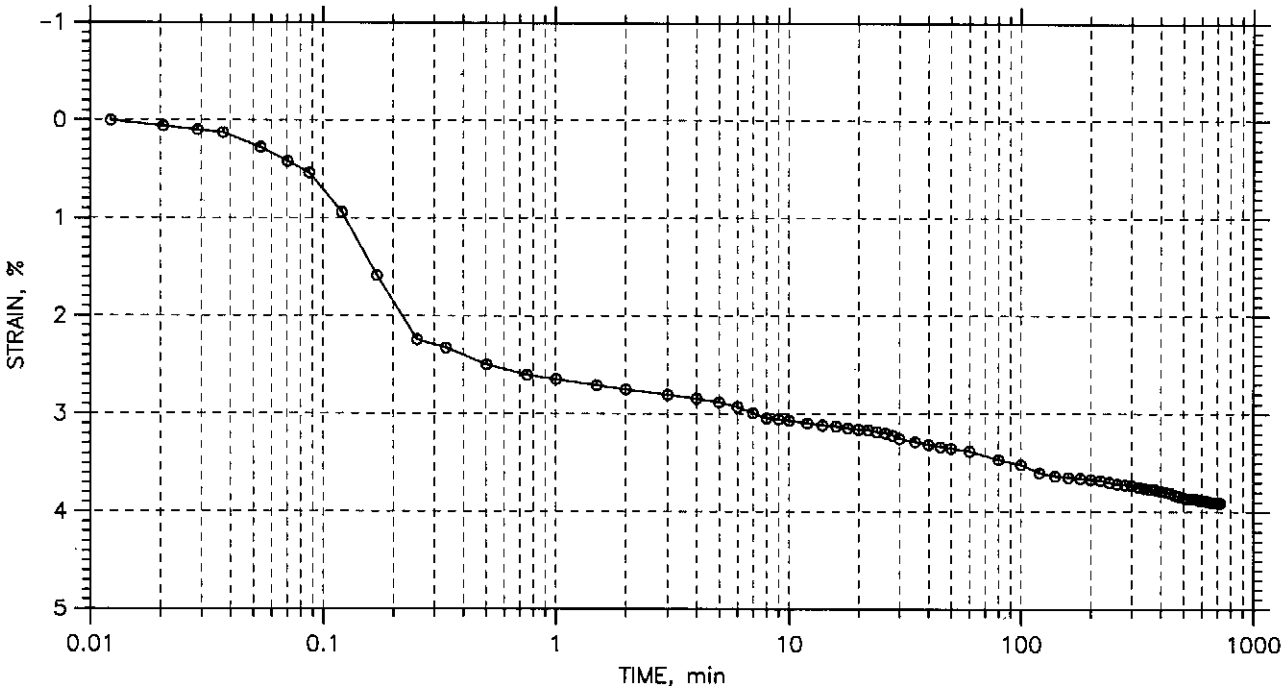
	Applied Stress tsf	Final Displacement in	Void Ratio	Strain at End %	T50 Fitting Sq.Rt. min	T50 Fitting Log min	Coefficient of Consolidation Sq.Rt. ft^2/sec	Coefficient of Consolidation Log ft^2/sec	Coefficient of Consolidation Ave. ft^2/sec
1	0.125	0.04297	6.435	3.91	0.2	0.2	2.70e-005	3.86e-005	3.18e-005
2	0.25	0.08861	6.114	8.06	6.6	0.0	9.31e-007	0.00e+000	9.31e-007
3	0.5	0.1721	5.527	15.65	8.6	0.0	6.21e-007	0.00e+000	6.21e-007
4	1	0.2921	4.683	26.56	6.3	1.3	6.83e-007	3.33e-006	1.13e-006
5	2	0.4188	3.792	38.07	4.4	1.4	7.17e-007	2.24e-006	1.09e-006
6	4	0.5454	2.901	49.58	6.4	2.1	3.42e-007	1.02e-006	5.12e-007
7	8	0.6491	2.172	59.01	6.5	2.8	2.21e-007	5.13e-007	3.09e-007
8	2	0.6318	2.293	57.44	2.7	0.0	4.39e-007	0.00e+000	4.39e-007
9	0.5	0.6091	2.453	55.37	39.8	0.0	3.30e-008	0.00e+000	3.30e-008
10	0.125	0.587	2.609	53.36	120.9	0.0	1.19e-008	0.00e+000	1.19e-008

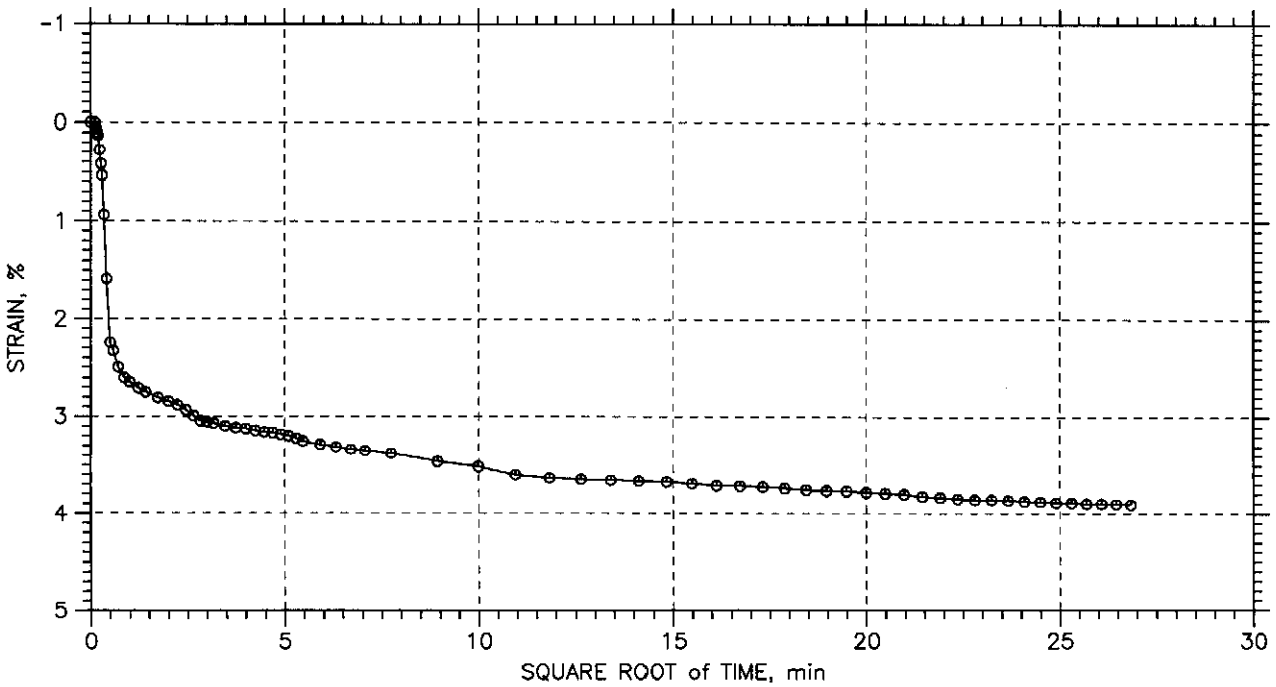
CONSOLIDATION TEST DATA

TIME CURVES

Constant Load Step: 1 of 10

Stress: 0.125 tsf





GeoTesting express a subsidiary of Geocomp Corporation	Project: Westgate LF	Location: S Weymouth, MA	Project No.: GTX-9089
	Boring No.: WGL-SO-SB	Tested By: njh	Checked By: jdt
	Sample No.: 108-0911	Test Date: 06/25/09	Depth: ---
	Test No.: C-1	Sample Type: tube	Elevation: ---
	Description: Wet, dark brown peat		
	Remarks: System 0		

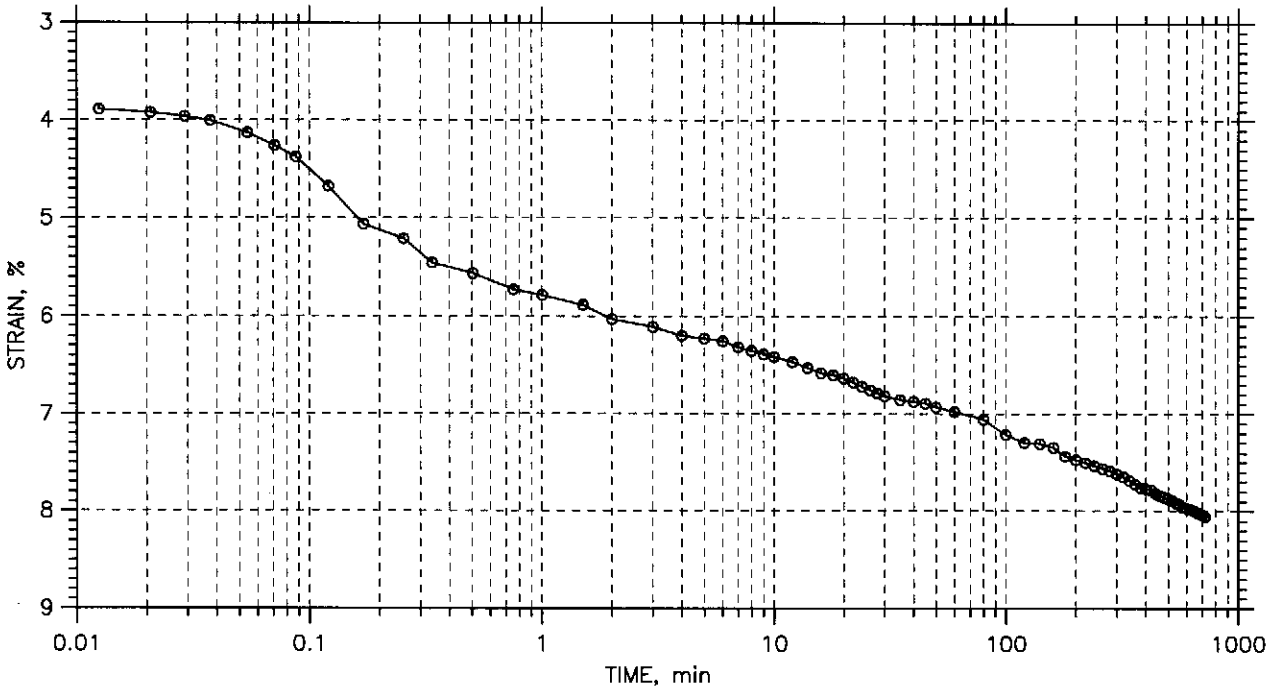
Wed, 08-JUL-2009 09:13:38

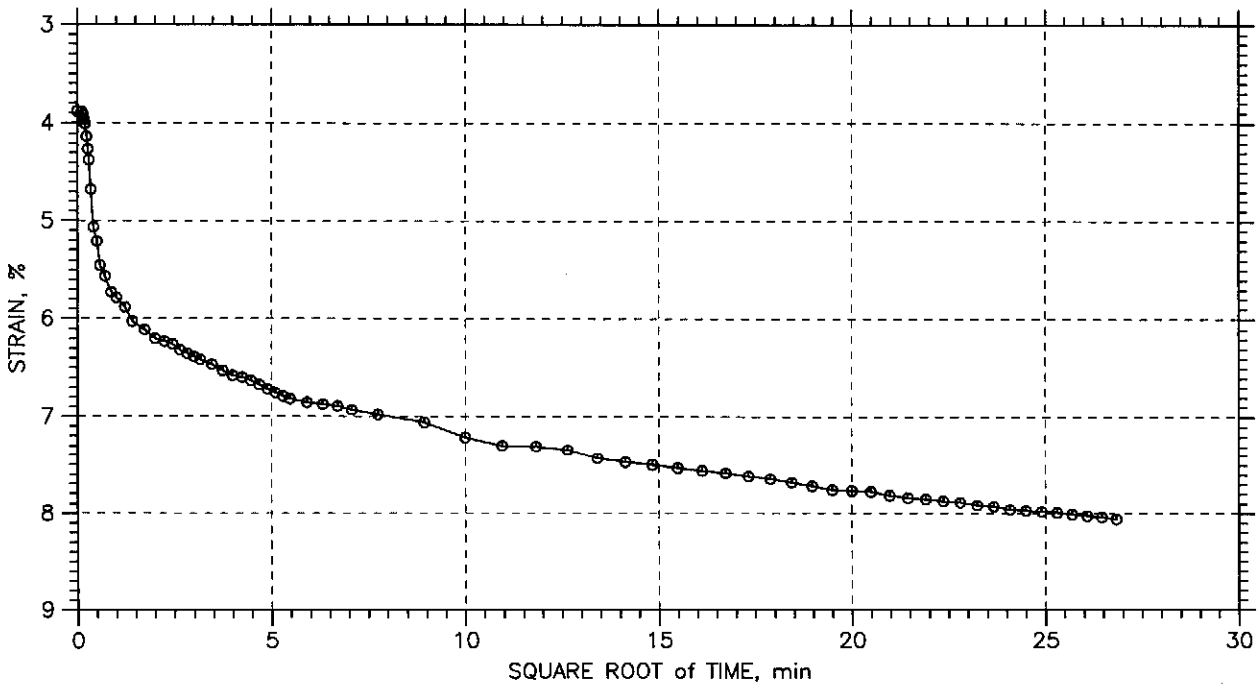
CONSOLIDATION TEST DATA

TIME CURVES

Constant Load Step: 2 of 10

Stress: 0.25 tsf





GeoTesting express a subsidiary of Geocomp Corporation	Project: Westgate LF	Location: S Weymouth, MA	Project No.: GTX-9089
	Boring No.: WGL-SO-SB	Tested By: njh	Checked By: jdt
	Sample No.: 108-0911	Test Date: 06/25/09	Depth: ---
	Test No.: C-1	Sample Type: tube	Elevation: ---
	Description: Wet, dark brown peat		
	Remarks: System 0		

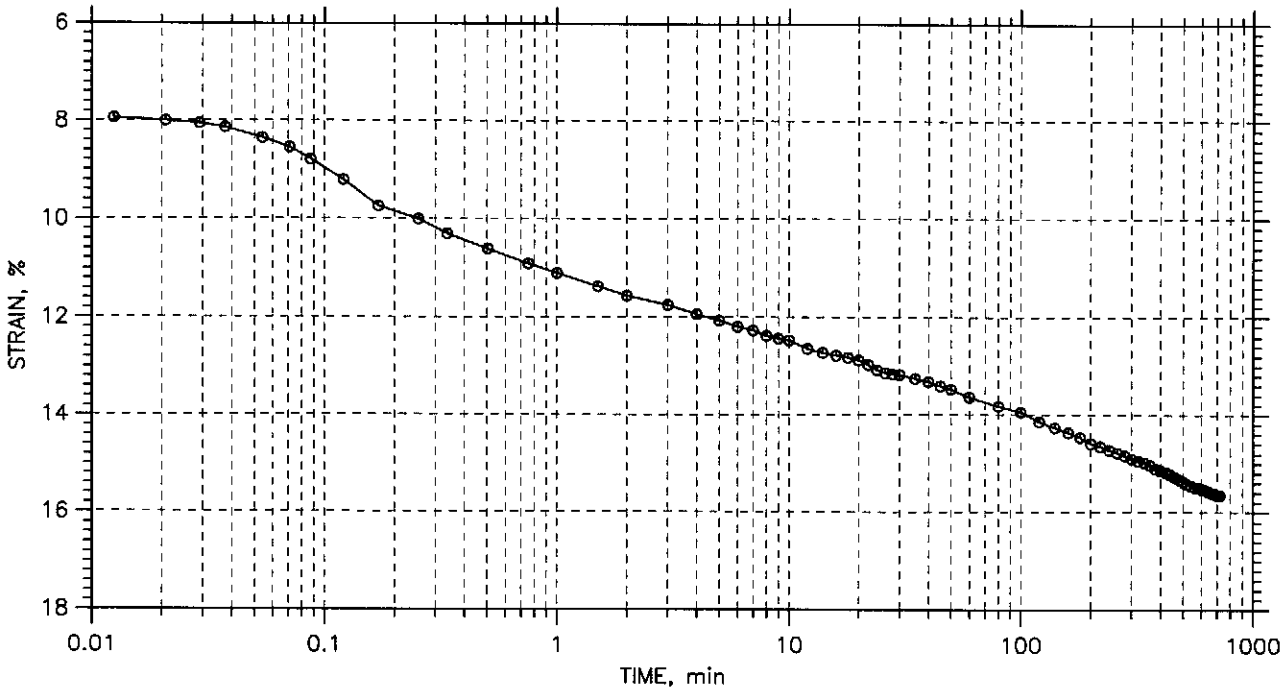
Wed, 08-JUL-2009 09:13:47

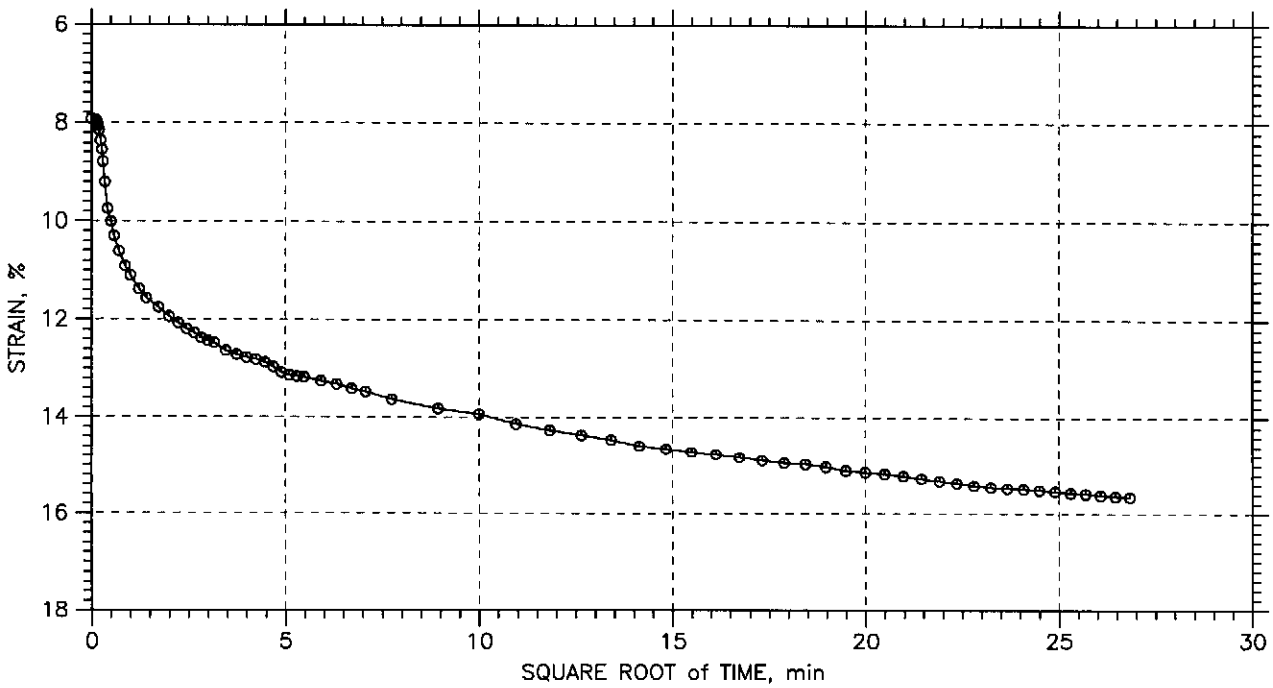
CONSOLIDATION TEST DATA

TIME CURVES

Constant Load Step: 3 of 10

Stress: 0.5 tsf





GeoTesting express a subsidiary of Geocomp Corporation	Project: Westgate LF	Location: S Weymouth, MA	Project No.: GTX-9089
	Boring No.: WGL-SO-SB	Tested By: njh	Checked By: jdt
	Sample No.: 108-0911	Test Date: 06/25/09	Depth: ---
	Test No.: C-1	Sample Type: tube	Elevation: ---
	Description: Wet, dark brown peat		
	Remarks: System 0		

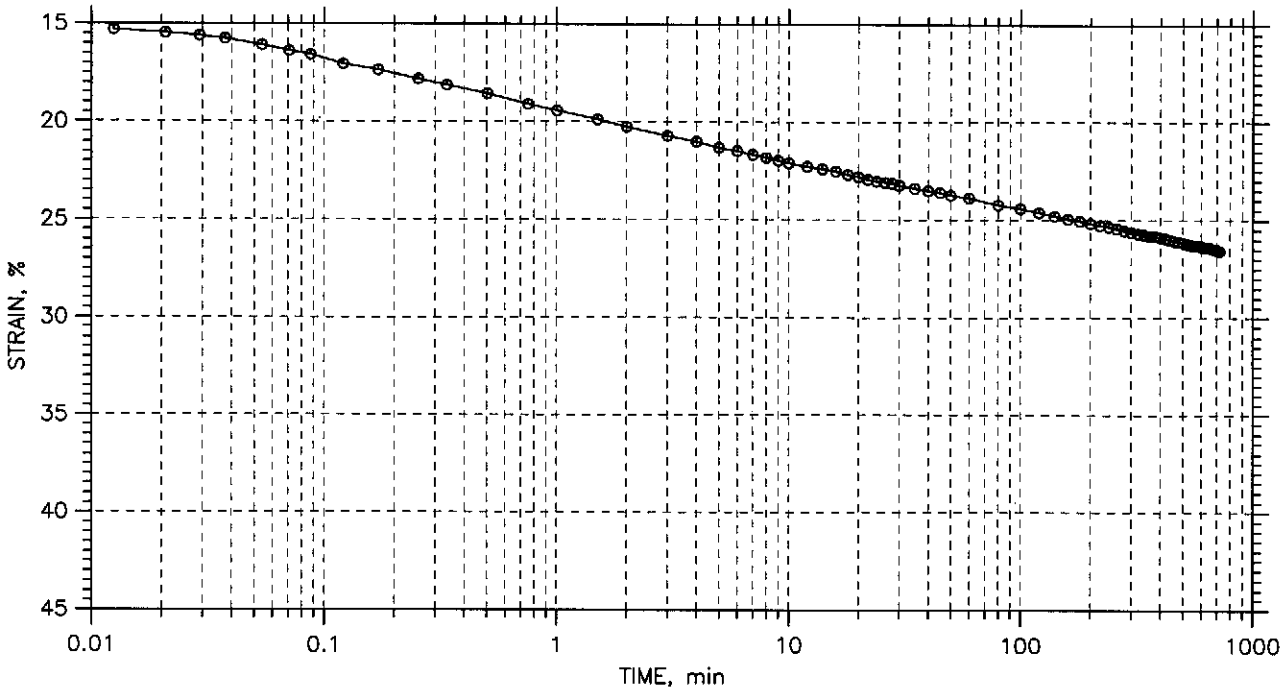
Wed, 08-JUL-2009 09:14:10

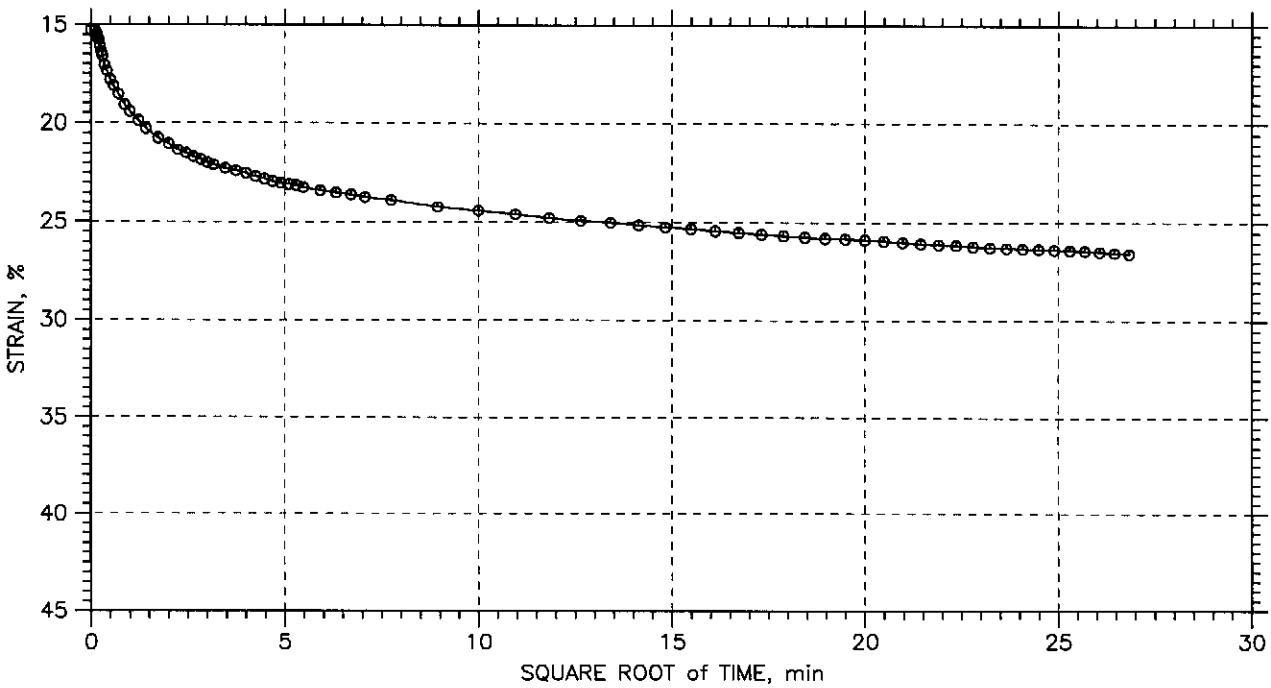
CONSOLIDATION TEST DATA

TIME CURVES

Constant Load Step: 4 of 10

Stress: 1. tsf





GeoTesting express a subsidiary of Geocomp Corporation	Project: Westgate LF	Location: S Weymouth, MA	Project No.: GTX-9089
	Boring No.: WGL-SO-SB	Tested By: njh	Checked By: jdt
	Sample No.: 108-0911	Test Date: 06/25/09	Depth: ---
	Test No.: C-1	Sample Type: tube	Elevation: ---
	Description: Wet, dark brown peat		
	Remarks: System 0		

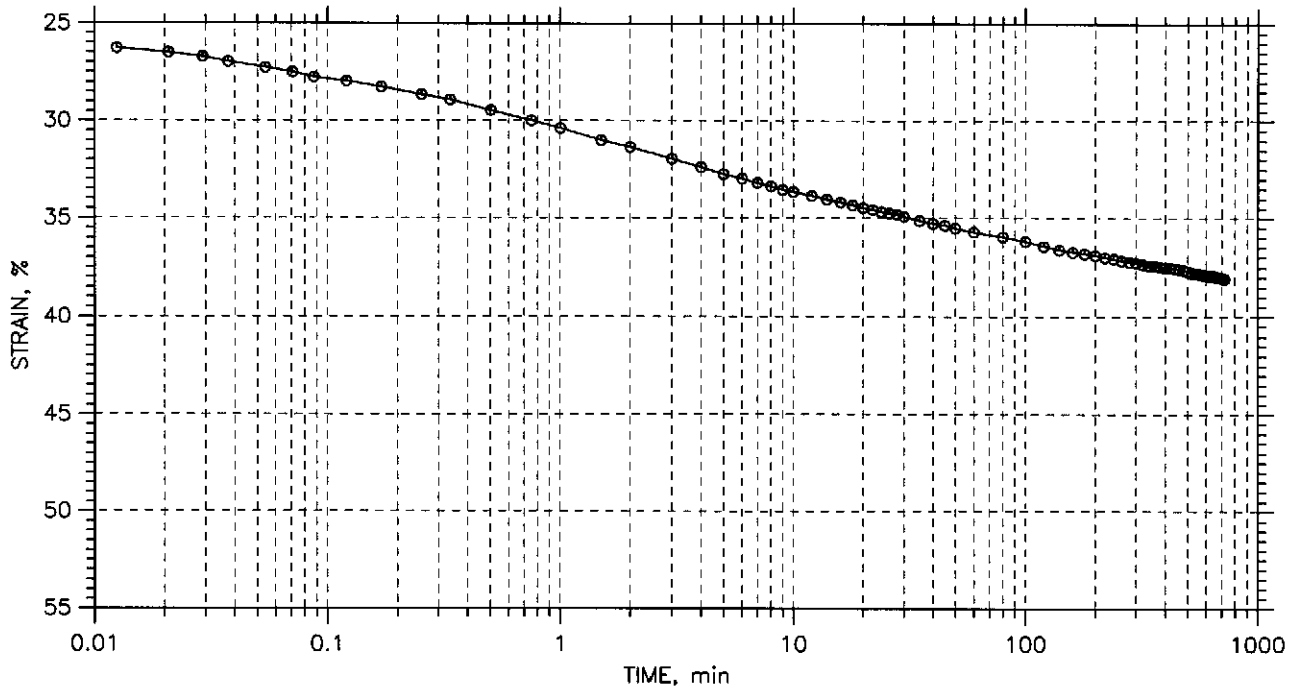
Wed, 08-JUL-2009 09:14:13

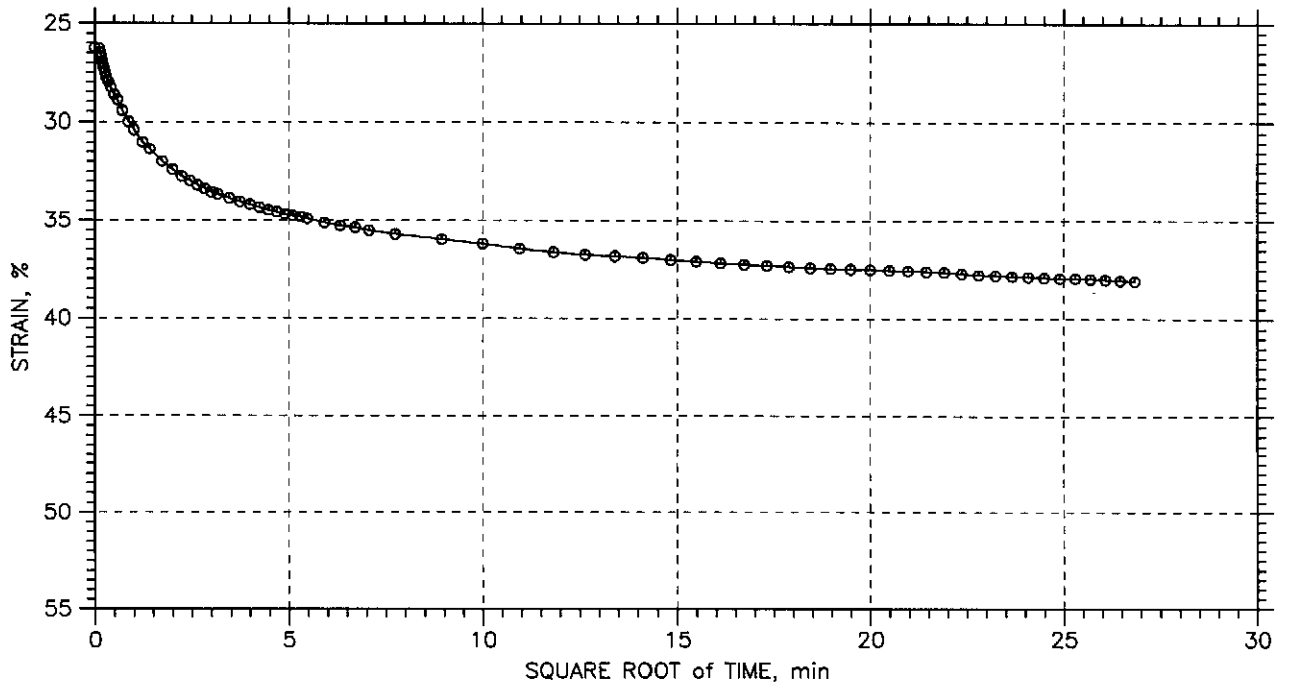
CONSOLIDATION TEST DATA

TIME CURVES

Constant Load Step: 5 of 10

Stress: 2. tsf





GeoTesting express a subsidiary of Geocomp Corporation	Project: Westgate LF	Location: S Weymouth, MA	Project No.: GTX-9089
	Boring No.: WGL-SO-SB	Tested By: njh	Checked By: jdt
	Sample No.: 108-0911	Test Date: 06/25/09	Depth: ---
	Test No.: C-1	Sample Type: tube	Elevation: ---
	Description: Wet, dark brown peat		
	Remarks: System 0		

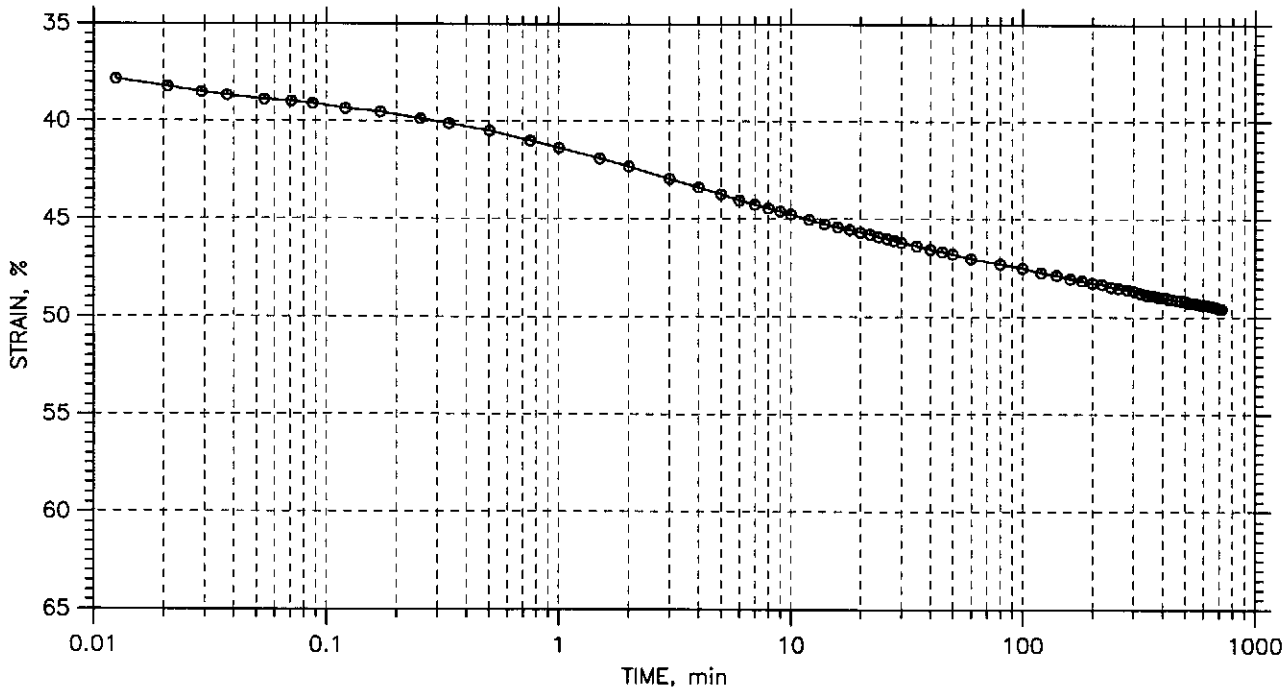
Wed, 08-JUL-2009 09:14:17

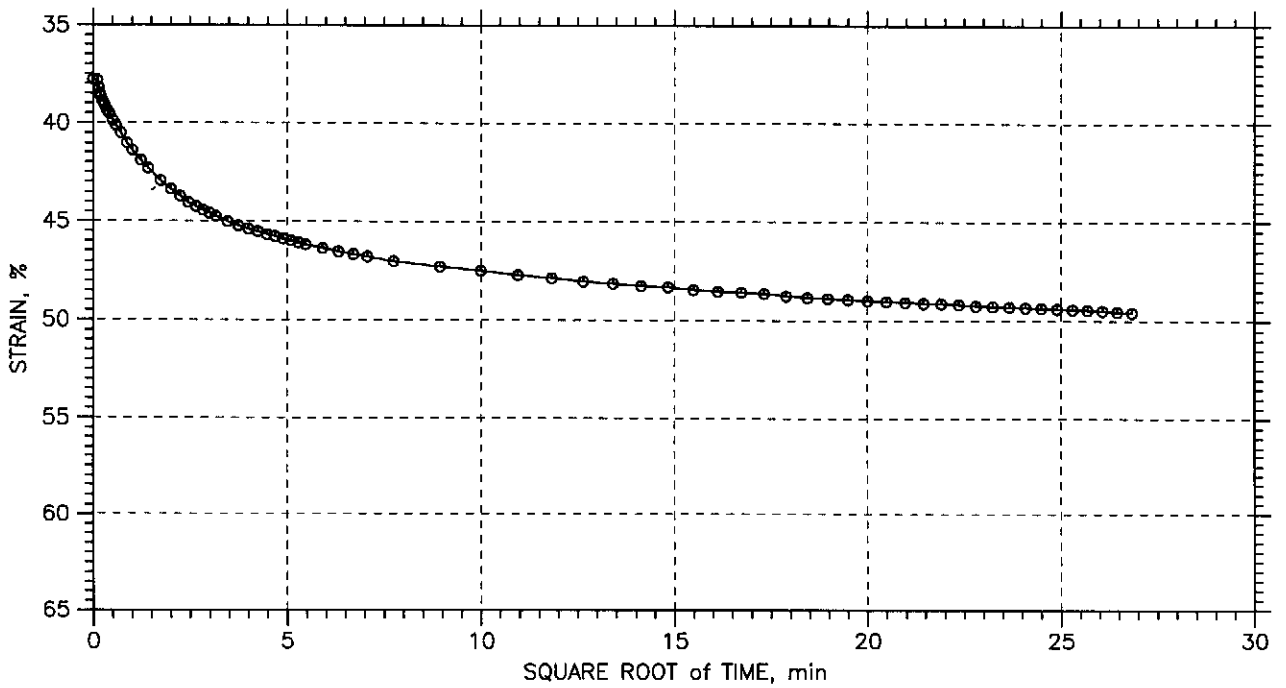
CONSOLIDATION TEST DATA

TIME CURVES

Constant Load Step: 6 of 10

Stress: 4. tsf





GeoTesting express a subsidiary of Geocomp Corporation	Project: Westgate LF	Location: S Weymouth, MA	Project No.: GTX-9089
	Boring No.: WGL-SO-SB	Tested By: njh	Checked By: jdt
	Sample No.: 108-0911	Test Date: 06/25/09	Depth: ---
	Test No.: C-1	Sample Type: tube	Elevation: ---
	Description: Wet, dark brown peat		
	Remarks: System 0		

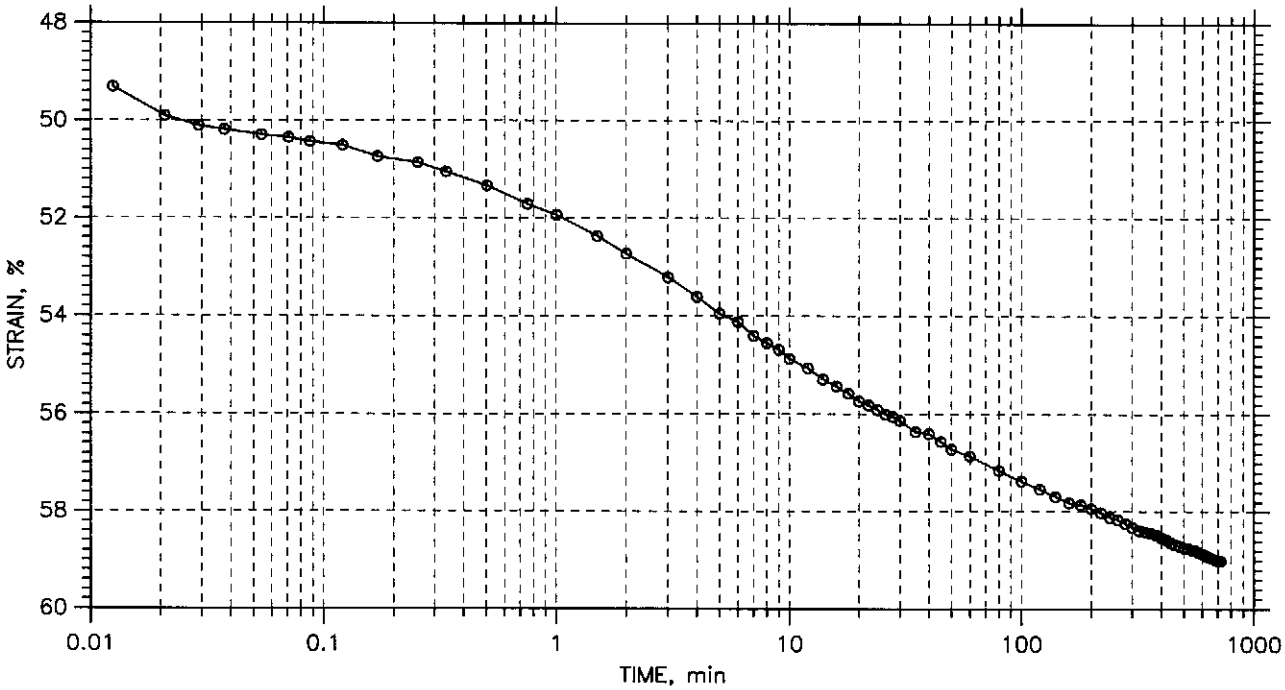
Wed, 08-JUL-2009 09:14:20

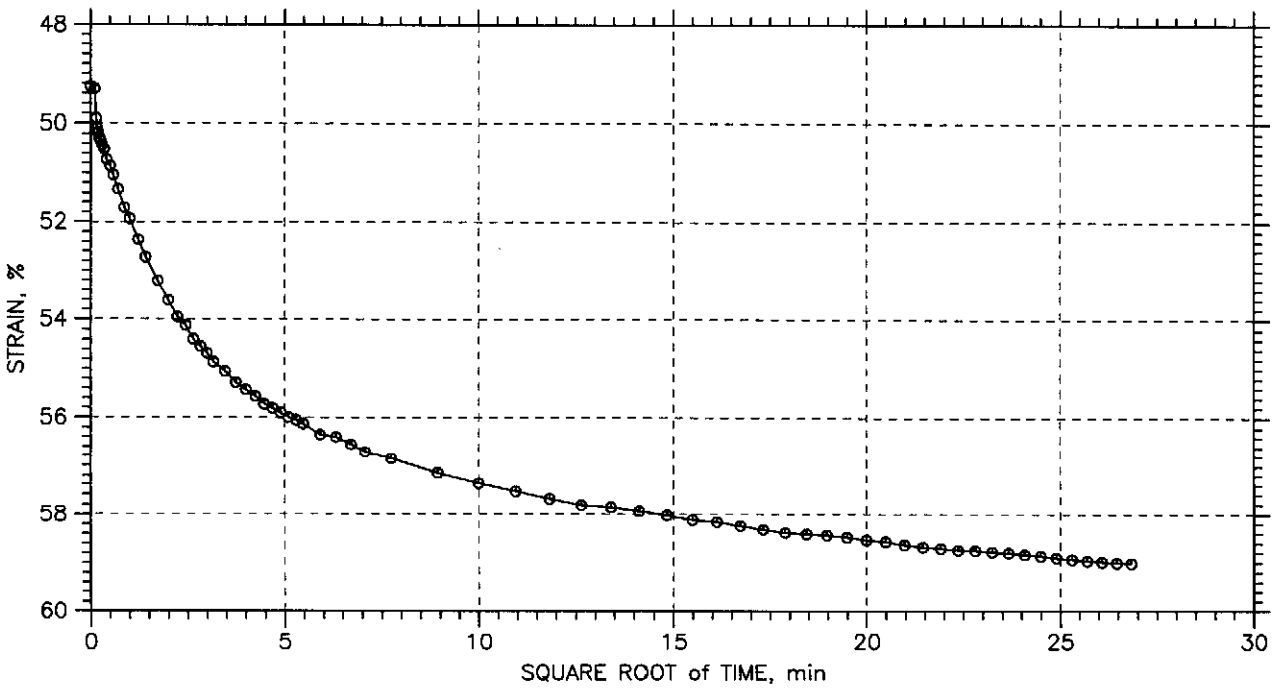
CONSOLIDATION TEST DATA

TIME CURVES

Constant Load Step: 7 of 10

Stress: 8. tsf





GeoTesting express a subsidiary of Geocomp Corporation	Project: Westgate LF	Location: S Weymouth, MA	Project No.: GTX-9089
	Boring No.: WGL-SO-SB	Tested By: njh	Checked By: jdt
	Sample No.: 108-0911	Test Date: 06/25/09	Depth: ---
	Test No.: C-1	Sample Type: tube	Elevation: ---
	Description: Wet, dark brown peat		
	Remarks: System 0		

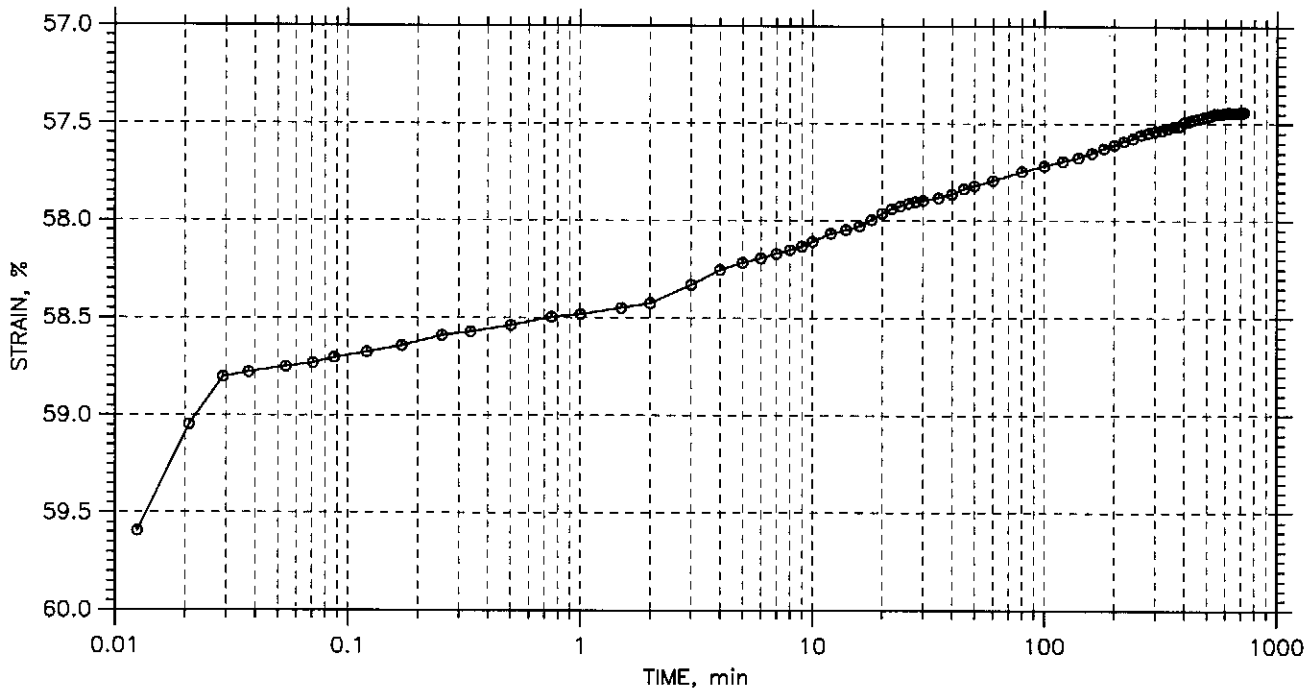
Wed, 08-JUL-2009 09:14:24

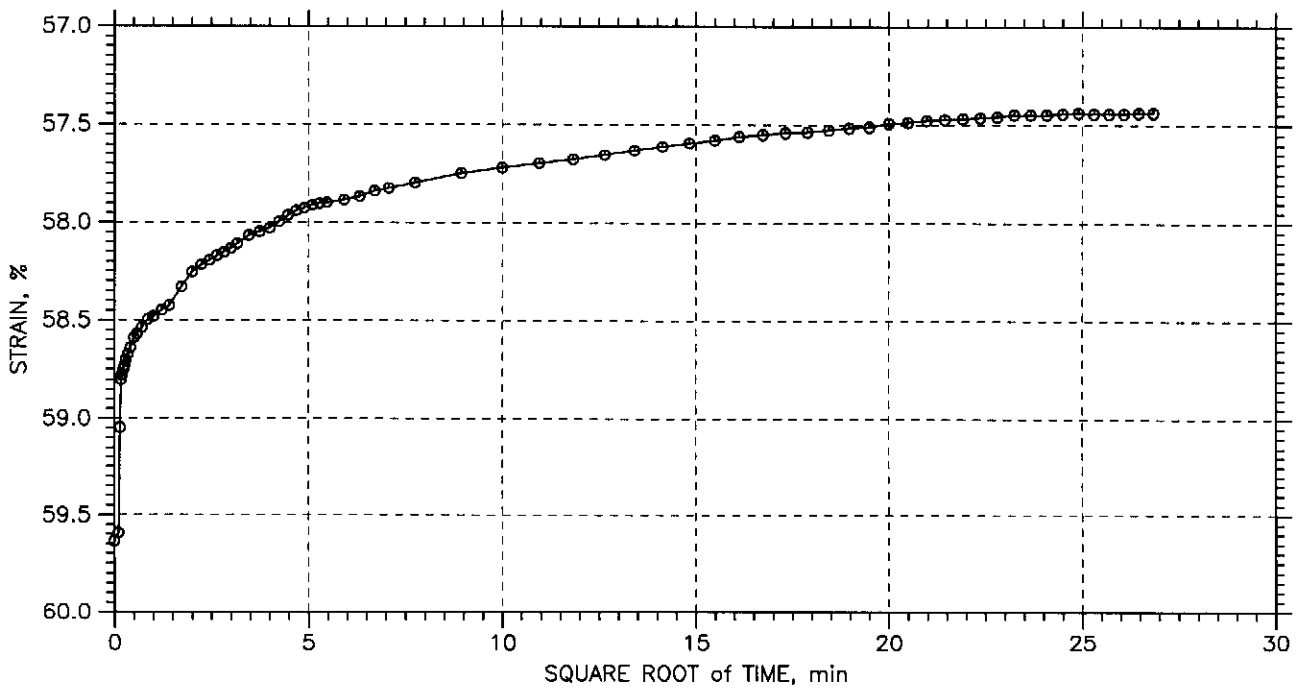
CONSOLIDATION TEST DATA

TIME CURVES

Constant Load Step: 8 of 10

Stress: 2. tsf





GeoTesting express a subsidiary of Geocomp Corporation	Project: Westgate LF	Location: S Weymouth, MA	Project No.: GTX-9089
	Boring No.: WGL-SO-SB	Tested By: njh	Checked By: jdt
	Sample No.: 108-0911	Test Date: 06/25/09	Depth: ---
	Test No.: C-1	Sample Type: tube	Elevation: ---
	Description: Wet, dark brown peat		
	Remarks: System 0		

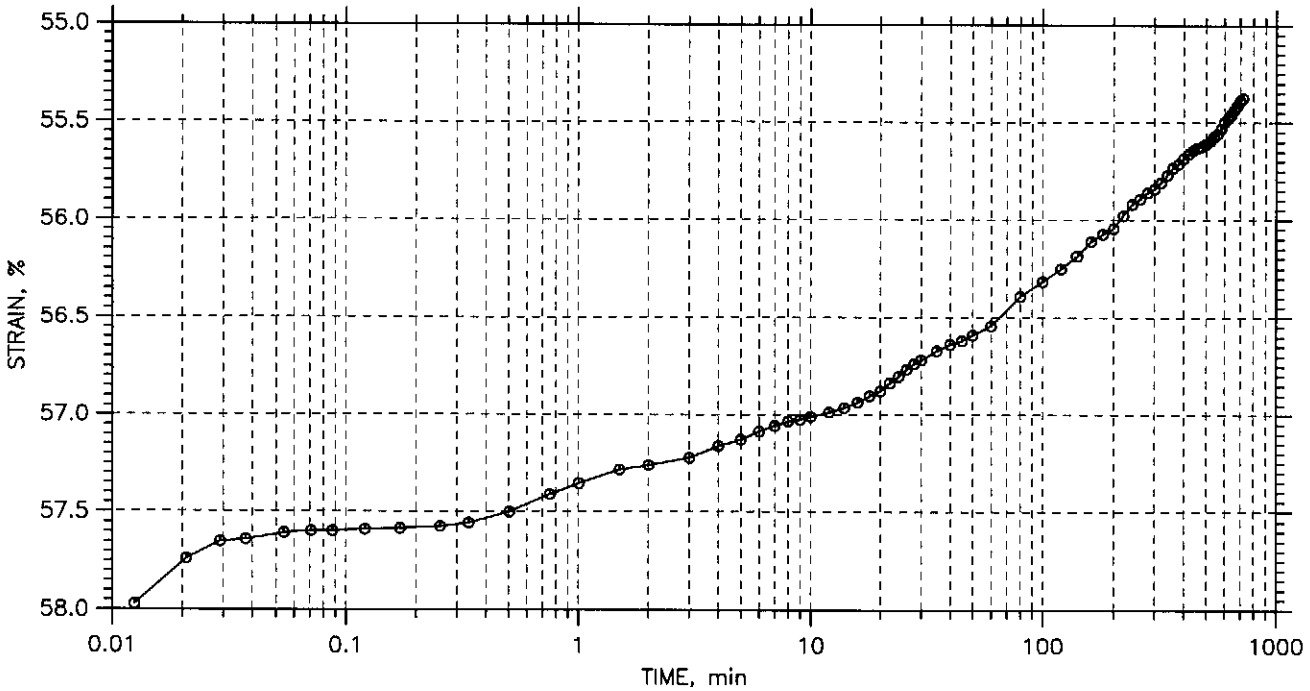
Wed, 08-JUL-2009 09:14:28

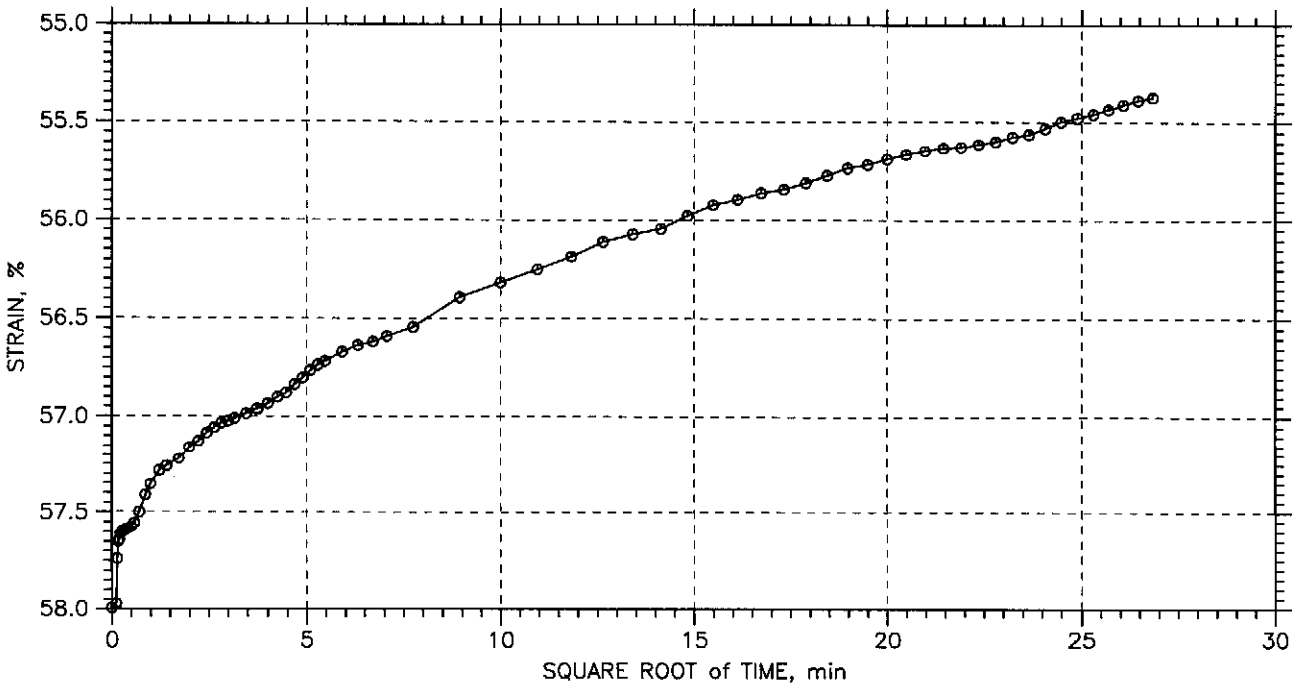
CONSOLIDATION TEST DATA

TIME CURVES

Constant Load Step: 9 of 10

Stress: 0.5 tsf





GeoTesting express a subsidiary of Geocomp Corporation	Project: Westgate LF	Location: S Weymouth, MA	Project No.: GTX-9089
	Boring No.: WGL-SO-SB	Tested By: njh	Checked By: jdt
	Sample No.: 108-0911	Test Date: 06/25/09	Depth: ---
	Test No.: C-1	Sample Type: tube	Elevation: ---
	Description: Wet, dark brown peat		
	Remarks: System 0		

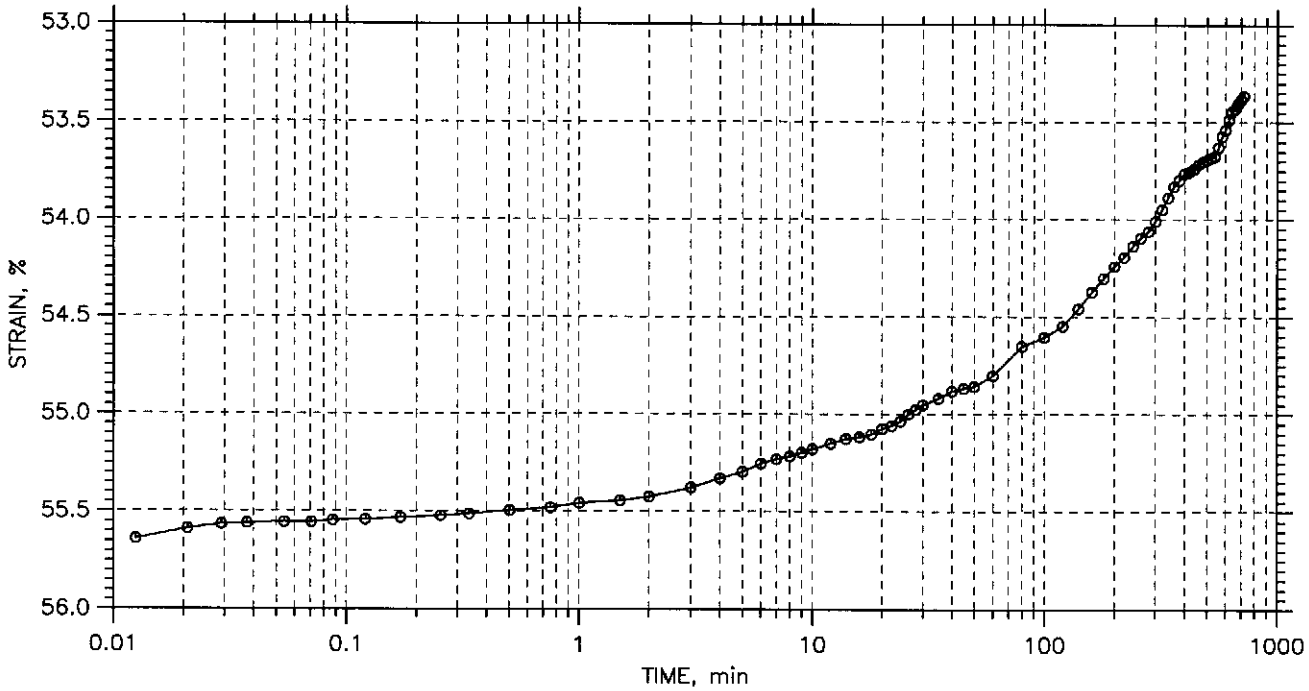
Wed, 08-JUL-2009 09:14:32

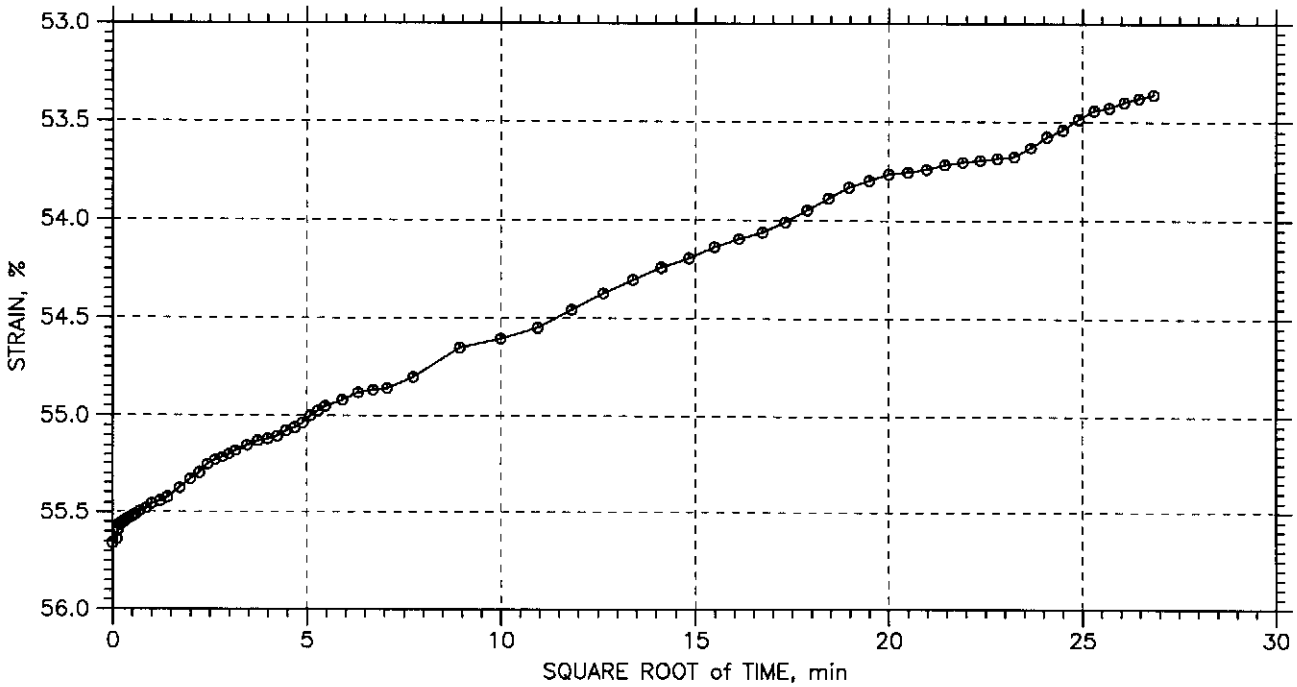
CONSOLIDATION TEST DATA

TIME CURVES

Constant Load Step: 10 of 10

Stress: 0.125 tsf





GeoTesting express a subsidiary of Geocomp Corporation	Project: Westgate LF	Location: S Weymouth, MA	Project No.: GTX-9089
	Boring No.: WGL-SO-SB	Tested By: njh	Checked By: jdt
	Sample No.: 108-0911	Test Date: 06/25/09	Depth: ---
	Test No.: C-1	Sample Type: tube	Elevation: ---
	Description: Wet, dark brown peat		
	Remarks: System 0		

Wed, 08-JUL-2009 09:14:35

APPENDIX I
SITE SPECIFIC PROJECT ACTION LIMITS AND REMEDIAL GOALS
SOUTH WEYMOUTH NAS SOUTH GATE LANDFILL
PRE-REMEDIAL DESIGN INVESTIGATION
CTO 407

APPENDIX I-1
SEDIMENT PROJECT ACTION LIMITS
SITE SPECIFIC PROJECT ACTION LIMITS AND REMEDIAL GOALS
SOUTH WEYMOUTH NAS SOUTH GATE LANDFILL
PRE-REMEDIAL DESIGN INVESTIGATION
CTO 407

I-1
SEDIMENT FIXED LABORATORY PARAMETERS
WEST GATE LANDFILL
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS

Chemical[1]	Method	Project Action Level[2] (mg/Kg)	PQL[3] (mg/Kg)	Fixed Laboratory[4] QL (mg/Kg)
Volatile Organic Compounds				
1,1,1-Trichloroethane	SW846 8260B	--	0.010	0.005
1,1,2,2-Tetrachloroethane	SW846 8260B	--	0.010	0.005
1,1,2-Trichloroethane	SW846 8260B	--	0.010	0.005
1,1-Dichloroethane	SW846 8260B	--	0.010	0.005
1,1-Dichloroethene	SW846 8260B	--	0.010	0.005
1,2,4-Trichlorobenzene	SW846 8260B	--	0.010	0.005
1,2-Dibromo-3-chloropropane (DBCP)	SW846 8260B	--	0.010	0.010
1,2-Dibromoethane (EDB)	SW846 8260B	--	0.010	0.005
1,2-Dichlorobenzene	SW846 8260B	--	0.010	0.005
1,2-Dichloroethane	SW846 8260B	--	0.010	0.005
1,2-Dichloropropane	SW846 8260B	--	0.010	0.005
1,3-Dichlorobenzene	SW846 8260B	--	0.010	0.005
1,4-Dichlorobenzene	SW846 8260B	--	0.010	0.005
2-Butanone	SW846 8260B	--	0.025	0.025
2-Hexanone	SW846 8260B	--	0.025	0.025
4-Methyl-2-pentanone	SW846 8260B	--	0.025	0.025
Acetone	SW846 8260B	--	0.025	0.025
Benzene	SW846 8260B	--	0.010	0.005
Bromodichloromethane	SW846 8260B	--	0.010	0.005
Bromoform	SW846 8260B	--	0.010	0.005
Bromomethane	SW846 8260B	--	0.010	0.010
Carbon disulfide	SW846 8260B	--	0.010	0.005
Carbon tetrachloride	SW846 8260B	--	0.010	0.005
Chlorobenzene	SW846 8260B	--	0.010	0.005
Chloroethane	SW846 8260B	--	0.010	0.010
Chloroform	SW846 8260B	--	0.010	0.005
Chloromethane	SW846 8260B	--	0.010	0.010
cis-1,2-Dichloroethene	SW846 8260B	--	0.010	0.005
cis-1,3-Dichloropropene	SW846 8260B	--	0.010	0.005
Cyclohexane	SW846 8260B	--	0.010	0.005
Dibromochloromethane	SW846 8260B	--	0.010	0.005
Dichlorodifluoromethane	SW846 8260B	--	0.010	0.010
Ethylbenzene	SW846 8260B	--	0.010	0.005
Isopropylbenzene	SW846 8260B	--	0.010	0.005
Methyl acetate	SW846 8260B	--	0.010	0.005
Methylcyclohexane	SW846 8260B	--	0.010	0.005
Methylene chloride	SW846 8260B	--	0.025	0.025
Methyl-tert-butyl ether	SW846 8260B	--	0.010	0.005
Styrene	SW846 8260B	--	0.010	0.005
Tetrachloroethene	SW846 8260B	--	0.010	0.005
Toluene	SW846 8260B	--	0.010	0.005
trans-1,2-Dichloroethene	SW846 8260B	--	0.010	0.005
trans-1,3-Dichloropropene	SW846 8260B	--	0.010	0.005
Trichloroethene	SW846 8260B	--	0.010	0.005
Trichlorofluoromethane	SW846 8260B	--	0.010	0.010
Vinyl chloride	SW846 8260B	--	0.010	0.010
Xylenes (total)	SW846 8260B	--	0.015	0.015
Semivolatile Organic Compounds				
1,4-Dioxane	SW846 8270C	--	0.33	0.33
1,1'-Biphenyl	SW846 8270C	--	0.33	0.33
2,2'-Oxybis(1-chloropropane)	SW846 8270C	--	0.33	0.33
2,4,5-Trichlorophenol	SW846 8270C	--	0.83	0.82
2,4,6-Trichlorophenol	SW846 8270C	--	0.33	0.33

I-1
SEDIMENT FIXED LABORATORY PARAMETERS
WEST GATE LANDFILL
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS

Chemical[1]	Method	Project Action Level[2] (mg/Kg)	PQL[3] (mg/Kg)	Fixed Laboratory[4] QL (mg/Kg)
Semivolatile Organic Compounds (cont.)				
2,4-Dichlorophenol	SW846 8270C	--	0.33	0.33
2,4-Dimethylphenol	SW846 8270C	--	0.33	0.33
2,4-Dinitrophenol	SW846 8270C	--	0.83	0.82
2,4-Dinitrotoluene	SW846 8270C	--	0.33	0.33
2,6-Dinitrotoluene	SW846 8270C	--	0.33	0.33
2-Chloronaphthalene	SW846 8270C	--	0.33	0.33
2-Chlorophenol	SW846 8270C	--	0.33	0.33
2-Methylphenol (o-Cresol)	SW846 8270C	--	0.33	0.33
2-Nitroaniline	SW846 8270C	--	0.83	0.82
2-Nitrophenol	SW846 8270C	--	0.33	0.33
3,3'-Dichlorobenzidine	SW846 8270C	--	0.33	0.33
3-Nitroaniline	SW846 8270C	--	0.83	0.82
4,6-Dinitro-2-methylphenol	SW846 8270C	--	0.83	0.82
4-Bromophenyl phenyl ether	SW846 8270C	--	0.33	0.33
4-Chloro-3-methyl phenol	SW846 8270C	--	0.33	0.33
4-Chloroanaline	SW846 8270C	--	0.33	0.33
4-Chlorophenyl phenyl ether	SW846 8270C	--	0.33	0.33
4-Methylphenol (p-Cresol)	SW846 8270C	--	0.33	0.33
4-Nitroaniline	SW846 8270C	--	0.83	0.82
4-Nitrophenol	SW846 8270C	--	0.83	0.82
Acetophenone	SW846 8270C	--	0.33	0.33
Atrazine	SW846 8270C	--	0.33	0.33
Benzaldehyde	SW846 8270C	--	0.33	0.33
bis(2-Chloroethoxy)methane	SW846 8270C	--	0.33	0.33
bis(2-Chloroethyl)ether	SW846 8270C	--	0.33	0.33
bis(2-Ethylhexyl)phthalate	SW846 8270C	--	0.33	0.33
Butyl benzyl phthalate	SW846 8270C	--	0.33	0.33
Caprolactam	SW846 8270C	--	0.33	0.33
Carbazole	SW846 8270C	--	0.33	0.33
Dibenzofuran	SW846 8270C	--	0.33	0.33
Diethyl phthalate	SW846 8270C	--	0.33	0.33
Dimethyl phthalate	SW846 8270C	--	0.33	0.33
Di-n-Butyl phthalate	SW846 8270C	--	0.33	0.33
Di-n-Octyl phthalate	SW846 8270C	--	0.33	0.33
Hexachlorobenzene	SW846 8270C	--	0.33	0.33
Hexachlorobutadiene	SW846 8270C	--	0.33	0.33
Hexachlorocyclopentadiene	SW846 8270C	--	0.33	0.33
Hexachloroethane	SW846 8270C	--	0.33	0.33
Isophorone	SW846 8270C	--	0.33	0.33
Nitrobenzene	SW846 8270C	--	0.33	0.33
N-Nitrosodi-n-propylamine	SW846 8270C	--	0.33	0.33
N-Nitrosodiphenylamine	SW846 8270C	--	0.33	0.33
Pentachlorophenol	SW846 8270C	--	0.83	0.82
Phenol	SW846 8270C	--	0.33	0.33
Polyaromatic Hydrocarbons				
2-Methylnaphthalene	SW846 8270C SIM	--	0.02	0.02
Acenaphthene	SW846 8270C SIM	--	0.02	0.02
Acenaphthylene	SW846 8270C SIM	--	0.02	0.02
Anthracene	SW846 8270C SIM	0.057	0.02	0.02
Benzo(a)anthracene	SW846 8270C SIM	0.110	0.02	0.02
Benzo(a)pyrene	SW846 8270C SIM	0.150	0.02	0.02
Benzo(b)fluoranthene	SW846 8270C SIM	--	0.02	0.02

I-1
SEDIMENT FIXED LABORATORY PARAMETERS
WEST GATE LANDFILL
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS

Chemical[1]	Method	Project Action Level[2] (mg/Kg)	PQL[3] (mg/Kg)	Fixed Laboratory[4] QL (mg/Kg)
Polyaromatic Hydrocarbons (cont.)				
Benzo(g,h,i)perylene	SW846 8270C SIM	--	0.02	0.02
Benzo(k)fluoranthene	SW846 8270C SIM	--	0.02	0.02
Chrysene	SW846 8270C SIM	0.170	0.02	0.02
Dibenzo(a,h)anthracene	SW846 8270C SIM	0.033	0.02	0.02
Fluoranthene	SW846 8270C SIM	0.420	0.02	0.02
Fluorene	SW846 8270C SIM	0.077	0.02	0.02
Indeno(1,2,3-c,d)pyrene	SW846 8270C	--	0.33	0.33
Naphthalene	SW846 8270C SIM	0.180	0.02	0.02
Phenanthrene	SW846 8270C SIM	0.200	0.02	0.02
Pyrene	SW846 8270C SIM	0.200	0.02	0.02
Metals				
Aluminum	SW846 6010B	--	20	30
Antimony	SW846 6010B	--	6	0.8
Arsenic	SW846 6010B	33	1	0.8
Barium	SW846 6010B	--	20	0.5
Beryllium	SW846 6010B	--	0.5	0.5
Cadmium	SW846 6010B	5.0	0.5	1.0
Calcium	SW846 6010B	--	500	5.0
Chromium	SW846 6010B	110	1	1.5
Cobalt	SW846 6010B	--	5	3.0
Copper	SW846 6010B	150	2.5	2.5
Iron	SW846 6010B	--	10	10
Lead	SW846 6010B	130	1	0.5
Magnesium	SW846 6010B	--	500	5
Manganese	SW846 6010B	--	1.5	0.5
Mercury	SW846 6010B	0.18	0.1	0.04
Nickel	SW846 6010B	49	4	4.0
Potassium	SW846 6010B	--	500	100
Selenium	SW846 6010B	--	3.5	1.0
Silver	SW846 6010B	--	1	1.5
Sodium	SW846 6010B	--	500	100
Thallium	SW846 6010B	--	2.5	1.5
Vanadium	SW846 6010B	--	5	2.5
Zinc	SW846 6010B	460	6	2.5
Pesticides				
4,4' DDE	SW846 8081A	0.0032[(a)]	0.0017	0.00066
4,4'-DDD	SW846 8081A	0.0049[(b)]	0.0017	0.00066
4,4'-DDT	SW846 8081A	0.0042[(c)]	0.0017	0.00066
Aldrin	SW846 8081A	--	0.0009	0.00034
alpha-BHC	SW846 8081A	--	0.0009	0.00034
alpha-Chlordane	SW846 8081A	0.0032[(d)]	0.0009	0.00034
beta-BHC	SW846 8081A	--	0.0009	0.00034
delta-BHC	SW846 8081A	--	0.0009	0.00034
Dieldrin	SW846 8081A	0.0019	0.0017	0.00066
Endosulfan I	SW846 8081A	--	0.0009	0.00034
Endosulfan II	SW846 8081A	--	0.0017	0.00066
Endosulfan sulfate	SW846 8081A	--	0.0017	0.00066
Endrin	SW846 8081A	0.0022	0.0017	0.00066
Endrin aldehyde	SW846 8081A	0.0022[(e)]	0.0017	0.00066
Endrin ketone	SW846 8081A	0.0022[(e)]	0.0017	0.00066
gamma-BHC (Lindane)	SW846 8081A	0.0024	0.0009	0.00034
gamma-Chlordane	SW846 8081A	0.00324[(d)]	0.0009	0.00034
Heptachlor	SW846 8081A	--	0.0009	0.00034
Heptachlor epoxide	SW846 8081A	0.0025	0.0009	0.0003

I-1
SEDIMENT FIXED LABORATORY PARAMETERS
WEST GATE LANDFILL
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS

Chemical[1]	Method	Project Action Level[2] (mg/Kg)	PQL[3] (mg/Kg)	Fixed Laboratory[4] QL (mg/Kg)
Pesticides (cont.)				
Methoxychlor	SW846 8081A	--	0.0085	0.0034
Toxaphene	SW846 8081A	--	0.0850	0.0066
PCB				
Aroclor-1016	SW846 8082	0.060[(f)]	0.0330	0.0170
Aroclor-1221	SW846 8082	0.060[(f)]	0.0330	0.0170
Aroclor-1232	SW846 8082	0.060[(f)]	0.0330	0.0170
Aroclor-1242	SW846 8082	0.060[(f)]	0.0330	0.0170
Aroclor-1248	SW846 8082	0.060[(f)]	0.0330	0.0170
Aroclor-1254	SW846 8082	0.060[(f)]	0.0330	0.0170
Aroclor-1260	SW846 8082	0.060[(f)]	0.0330	0.0170
Total Polychlorinated Biphenyls	SW846 8082	0.060	0.0330	0.0170
Dioxins and Furans				
1,2,3,4,6,7,8,9-OCDD	SW846 8290	--	0.000010	0.000010
1,2,3,4,6,7,8,9-OCDF	SW846 8290	--	0.000010	0.000010
1,2,3,4,6,7,8-HPCDD	SW846 8290	--	0.000005	0.000005
1,2,3,4,6,7,8-HPCDF	SW846 8290	--	0.000005	0.000005
1,2,3,4,7,8,9-HPCDF	SW846 8290	--	0.000005	0.000005
1,2,3,4,7,8-HXCDD	SW846 8290	--	0.000005	0.000005
1,2,3,4,7,8-HXCDF	SW846 8290	--	0.000005	0.000005
1,2,3,6,7,8-HXCDD	SW846 8290	--	0.000005	0.000005
1,2,3,6,7,8-HXCDF	SW846 8290	--	0.000005	0.000005
1,2,3,7,8,9-HXCDD	SW846 8290	--	0.000005	0.000005
1,2,3,7,8,9-HXCDF	SW846 8290	--	0.000005	0.000005
1,2,3,7,8-PECDD	SW846 8290	--	0.000005	0.000005
1,2,3,7,8-PECDF	SW846 8290	--	0.000005	0.000005
2,3,4,6,7,8-HXCDF	SW846 8290	--	0.000005	0.000005
2,3,4,7,8-PECDF	SW846 8290	--	0.000005	0.000005
2,3,7,8-TCDD	SW846 8290	--	0.000001	0.000001
2,3,7,8-TCDF	SW846 8290	--	0.000001	0.000001
TOTAL HPCDD	SW846 8290	--	0.000005	0.000005
TOTAL HPCDF	SW846 8290	--	0.000005	0.000005
TOTAL HXCDD	SW846 8290	--	0.000005	0.000005
TOTAL HXCDF	SW846 8290	--	0.000005	0.000005
TOTAL PECDD	SW846 8290	--	0.000005	0.000005
TOTAL PECDF	SW846 8290	--	0.000005	0.000005
TOTAL TCDD	SW846 8290	--	0.000001	0.000001
TOTAL TCDF	SW846 8290	--	0.000001	0.000001

Notes:

1. There are no chemicals of concern identified for sediment in the feasibility study report (TtNUS, 2003).

2. The project action levels presented for organics and mercury are the consensus-based threshold effect concentrations (TECs) (MacDonald, et al., 2000). The project action levels presented for metals other than mercury are the probable effects concentrations (PECs) developed by the same researchers. These values were all adopted by the Massachusetts Department of Environmental Protection for freshwater sediment screening for risk to benthic organisms. TECs and PECs are only available for those analytes listed. Project action levels were not defined for those analytes for which TECs and PECs are not available.

3. The Project Quantitation Limit (PQL) is selected to meet the project data quality objectives. The PQL is set at a concentration at least three to ten times lower than the project action level, if achievable by available analytical methods and laboratories. If a project action level is not available, the PQL is set at the lowest QL achievable by the laboratory using the most sensitive EPA method commercially available.

4. SGS Environmental Services for dioxins and furans; Katahdin Analytical Services for all other analyses. Laboratory-specific method detection limits (MDLs) must be provided.

-- - not available

QL - Quantitation limit

mg/Kg - milligrams per kilogram

(a) The project action level is the TEC for Sum DDE.
(b) The project action level is the TEC for Sum DDD.
(c) The project action level is the TEC for Sum DDT.
(d) The project action level is the TEC for Chlordane.
(e) The project action level is the TEC for Endrin.
(f) The project action level is the TEC for total PCBs.

Method References:

SW846 - Test Methods for Evaluating Solid Wastes. EPA Office of Solid Waste. Third Edition, including all promulgated revisions.

APPENDIX I-2
SOIL PROJECT ACTION LIMITS
SITE SPECIFIC PROJECT ACTION LIMITS AND REMEDIAL GOALS
SOUTH WEYMOUTH NAS SOUTH GATE LANDFILL
PRE-REMEDIAL DESIGN INVESTIGATION
CTO 407

SOIL FIXED LABORATORY PARAMETERS
WEST GATE LANDFILL
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS

Chemical	Method	Project Action Level[1] (mg/Kg)	PQL[2] (mg/Kg)	Katahdin Analytical Services QL (mg/Kg)
PCB				
Aroclor-1016	SW846 8082	0.669[(a)]	0.0330	0.0170
Aroclor-1221	SW846 8082	0.669[(a)]	0.0330	0.0170
Aroclor-1232	SW846 8082	0.669[(a)]	0.0330	0.0170
Aroclor-1242	SW846 8082	0.669[(a)]	0.0330	0.0170
Aroclor-1248	SW846 8082	0.669[(a)]	0.0330	0.0170
Aroclor-1254	SW846 8082	0.669[(a)]	0.0330	0.0170
Aroclor-1260	SW846 8082	0.669[(a)]	0.0330	0.0170
Total Polychlorinated Biphenyls*	SW846 8082	0.669	0.0330	0.1020

NOTES:

* - Site contaminant of concern

1. The project action level is the Site Preliminary Remediation Goal (PRG) for total PCBs, which is the proposed PRG selected in the FS (TtNUS, 2003). PRGs were not developed for the individual PCB mixtures.

2. The Project Quantitation Limit (PQL) is selected to meet the project data quality objectives. The PQL is set at a concentration at least three to ten times lower than the project action level, if achievable by available analytical methods and laboratories.

3. Laboratory-specific method detection limits (MDLs) must be provided.

(a) Project action level is the Site PRG for total PCBs.

mg/Kg - milligrams per kilogram

PCBs - polychlorinated biphenyls

Method References:

- SW846 - Test Methods for Evaluating Solid Wastes. EPA Office of Solid Waste. Third Edition, including all promulgated revisions.

APPENDIX I-3
GROUNDWATER PROJECT ACTION LIMITS
SITE SPECIFIC PROJECT ACTION LIMITS AND REMEDIAL GOALS
SOUTH WEYMOUTH NAS SOUTH GATE LANDFILL
PRE-REMEDIAL DESIGN INVESTIGATION
CTO 407

GROUNDWATER FIXED LABORATORY PARAMETERS
WEST GATE LANDFILL
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS
PAGE 1 OF 5

Chemical	Method	MADEP MMCL (µg/L)	MCL (µg/L)	Site PRG[1] (µg/L)	Project Action Level[2] (µg/L)	PQL[3] (µg/L)	Katahdin Analytical Services QL (µg/L)
Volatile Organic Compounds							
1,1,1-Trichloroethane	SW846 8260B	200	200	--	200	1	1
1,1,2,2-Tetrachloroethane	SW846 8260B	--	--	--	--	1	1
1,1,2-Trichloroethane	SW846 8260B	5	5	--	5	1	1
1,1-Dichloroethane	SW846 8260B	--	--	--	--	1	1
1,1-Dichloroethene	SW846 8260B	7	7	--	7	1	1
1,2,4-Trichlorobenzene	SW846 8260B	70	70	--	70	1	1
1,2-Dichlorobenzene	SW846 8260B	600	600	--	600	1	1
1,2 Dibromoethane (EDB)	EPA/600/R-95-131 504.1	0.02	0.02	--	0.02	0.02	0.05
1,2-Dibromo-3-chloropropane (DBCP)	EPA/600/R-95-131 504.1	0.2	0.2	--	0.2	0.02	0.05
1,2-Dichloroethane	SW846 8260B	5	5	--	5	1	1
1,2-Dichloropropane	SW846 8260B	5	5	--	5	1	1
1,3-Dichlorobenzene	SW846 8260B	--	--	--	--	1	1
1,4-Dichlorobenzene	SW846 8260B	5	75	--	5	1	1
2-Butanone	SW846 8260B	--	--	--	--	5	5
2-Hexanone	SW846 8260B	--	--	--	--	5	5
4-Methyl-2-pentanone	SW846 8260B	--	--	--	--	5	5
Acetone	SW846 8260B	--	--	--	--	5	5
Benzene	SW846 8260B	5	5	--	5	1	1
Bromodichloromethane	SW846 8260B	--	--	--	--	1	1
Bromoform	SW846 8260B	--	--	--	--	1	1
Bromomethane	SW846 8260B	--	--	--	--	2	2
Carbon disulfide	SW846 8260B	--	--	--	--	1	1
Carbon tetrachloride	SW846 8260B	5	5	--	5	1	1
Chlorobenzene	SW846 8260B	100	100	--	100	1	1
Chloroethane	SW846 8260B	--	--	--	--	2	2
Chloroform	SW846 8260B	--	--	--	--	1	1
Chloromethane	SW846 8260B	--	--	--	--	2	2
cis-1,2-Dichloroethene	SW846 8260B	70	70	--	70	1	1
cis-1,3-Dichloropropene	SW846 8260B	--	--	--	--	1	1
Cyclohexane	SW846 8260B	--	--	--	--	1	1
Dibromochloromethane	SW846 8260B	--	--	--	--	1	1
Dichlorodifluoromethane	SW846 8260B	--	--	--	--	2	2
Ethylbenzene	SW846 8260B	700	700	--	700	1	1
Isopropylbenzene	SW846 8260B	--	--	--	--	1	1
Methyl acetate	SW846 8260B	--	--	--	--	1	1
Methylcyclohexane	SW846 8260B	--	--	--	--	1	1
Methylene chloride	SW846 8260B	5	5	--	5	5	5
Methyl-tert-butyl ether	SW846 8260B	--	--	--	--	2	2
Styrene	SW846 8260B	100	100	--	100	1	1
Tetrachloroethene	SW846 8260B	5	5	--	5	1	1
Toluene	SW846 8260B	1,000	1,000	--	1,000	1	1
trans-1,2-Dichloroethene	SW846 8260B	100	100	--	100	1	1
trans-1,3-Dichloropropene	SW846 8260B	--	--	--	--	1	1
Volatile Organic Compounds (cont.)							

GROUNDWATER FIXED LABORATORY PARAMETERS
WEST GATE LANDFILL
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS
PAGE 2 OF 5

Chemical	Method	MADEP MMCL (µg/L)	MCL (µg/L)	Site PRG[1] (µg/L)	Project Action Level[2] (µg/L)	PQL[3] (µg/L)	Katahdin Analytical Services QL (µg/L)
Trichloroethene	SW846 8260B	5	5	--	5	1	1
Trichlorofluoromethane	SW846 8260B	--	--	--	--	2	2
Vinyl chloride	SW846 8260B	2	2	--	2	2	2
Xylenes (total)	SW846 8260B	10,000	10,000	--	10,000	3	3
Semivolatile Organic Compounds							
1,4-Dioxane*	SW846 8270C/SIM	--	--	6	3	2	2
1,1'-Biphenyl	SW846 8270C	--	--	--	--	10	10
2,2'-Oxybis(1-chloropropane)	SW846 8270C	--	--	--	--	25	25
2,4,5-Trichlorophenol	SW846 8270C	--	--	--	--	10	10
2,4,6-Trichlorophenol	SW846 8270C	--	--	--	--	10	10
2,4-Dichlorophenol	SW846 8270C	--	--	--	--	10	10
2,4-Dimethylphenol	SW846 8270C	--	--	--	--	25	25
2,4-Dinitrophenol	SW846 8270C	--	--	--	--	10	10
2,4-Dinitrotoluene	SW846 8270C	--	--	--	--	10	10
2,6-Dinitrotoluene	SW846 8270C	--	--	--	--	10	10
2-Chloronaphthalene	SW846 8270C	--	--	--	--	10	10
2-Chlorophenol	SW846 8270C	--	--	--	--	10	10
2-Methylphenol (o-Cresol)	SW846 8270C	--	--	--	--	25	25
2-Nitroaniline	SW846 8270C	--	--	--	--	10	10
2-Nitrophenol	SW846 8270C	--	--	--	--	10	10
3,3'-Dichlorobenzidine	SW846 8270C	--	--	--	--	25	25
3-Nitroaniline	SW846 8270C	--	--	--	--	25	25
4,6-Dinitro-2-methylphenol	SW846 8270C	--	--	--	--	10	10
4-Bromophenyl phenyl ether	SW846 8270C	--	--	--	--	10	10
4-Chloro-3-methyl phenol	SW846 8270C	--	--	--	--	10	10
4-Chloroanaline	SW846 8270C	--	--	--	--	10	10
4-Chlorophenyl phenyl ether	SW846 8270C	--	--	--	--	10	10
4-Methylphenol (p-Cresol)	SW846 8270C	--	--	--	--	25	25
4-Nitroaniline	SW846 8270C	--	--	--	--	25	25
4-Nitrophenol	SW846 8270C	--	--	--	--	10	10
Acetophenone	SW846 8270C	--	--	--	--	10	10
Atrazine	SW846 8270C/SIM	3	3	--	3	0.5	0.20
Benzaldehyde	SW846 8270C	--	--	--	--	10	10
Bis(2-chloroethoxy)methane	SW846 8270C	--	--	--	--	10	10
Bis(2-chloroethyl)ether	SW846 8270C	--	--	--	--	10	10
Bis(2-ethylhexyl)phthalate	SW846 8270C	--	--	--	--	10	10
Butyl benzyl phthalate	SW846 8270C	--	--	--	--	10	10
Caprolactam	SW846 8270C	--	--	--	--	10	10
Carbazole	SW846 8270C	--	--	--	--	10	10
Dibenzofuran	SW846 8270C	--	--	--	--	10	10
Diethyl phthalate	SW846 8270C	--	--	--	--	10	10
Dimethyl phthalate	SW846 8270C	--	--	--	--	10	10
Di-n-butyl phthalate	SW846 8270C	--	--	--	--	10	10
Semivolatile Organic Compounds							
Di-n-octyl phthalate	SW846 8270C	--	--	--	--	10	10
Hexachlorobenzene*	SW846 8270C/SIM	1	1	1	1	0.5	0.2

GROUNDWATER FIXED LABORATORY PARAMETERS
WEST GATE LANDFILL
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS
PAGE 3 OF 5

Chemical	Method	MADEP MMCL (µg/L)	MCL (µg/L)	Site PRG[1] (µg/L)	Project Action Level[2] (µg/L)	PQL[3] (µg/L)	Katahdin Analytical Services QL (µg/L)
Hexachlorobutadiene	SW846 8270C	--	--	--	--	10	10
Hexachlorocyclopentadiene	SW846 8270C	50	50	--	50	10	10
Hexachloroethane	SW846 8270C	--	--	--	--	10	10
Isophorone	SW846 8270C	--	--	--	--	10	10
Nitrobenzene	SW846 8270C	--	--	--	--	10	10
N-Nitrosodi-n-propylamine	SW846 8270C	--	--	--	--	10	10
N-Nitrosodiphenylamine	SW846 8270C	--	--	--	--	10	10
Pentachlorophenol	SW846 8270C/SIM	1	1	--	1	1.0	1.0
Phenol	SW846 8270C	--	--	--	--	10	10
Polyaromatic Hydrocarbons							
2-Methylnaphthalene	SW846 8270C/SIM	--	--	--	--	0.20	0.20
Acenaphthene	SW846 8270C/SIM	--	--	--	--	0.20	0.20
Acenaphthylene	SW846 8270C/SIM	--	--	--	--	0.20	0.20
Anthracene	SW846 8270C/SIM	--	--	--	--	0.20	0.20
Benzo(a)anthracene*	SW846 8270C/SIM	--	--	0.09	0.09	0.1	0.20 (0.046)[4]
Benzo(a)pyrene	SW846 8270C/SIM	0.2	0.2	--	0.2	0.2	0.20
Benzo(b)fluoranthene*	SW846 8270C/SIM	--	--	0.09	0.09	0.1	0.20 (0.089)[4]
Benzo(g,h,i)perylene	SW846 8270C/SIM	--	--	--	--	0.20	0.20
Benzo(k)fluoranthene	SW846 8270C/SIM	--	--	--	--	0.20	0.20
Chrysene	SW846 8270C/SIM	--	--	--	--	0.20	0.20
Dibenzo(a,h)anthracene*	SW846 8270C/SIM	--	--	0.009	0.009	0.1	0.20 (0.070)[4]
Fluoranthene	SW846 8270C/SIM	--	--	--	--	0.20	0.20
Fluorene	SW846 8270C/SIM	--	--	--	--	0.20	0.20
Indeno(1,2,3-c,d)pyrene*	SW846 8270C/SIM	--	--	0.09	0.09	0.1	0.20 (0.052)[4]
Naphthalene	SW846 8270C/SIM	--	--	--	--	0.20	0.20
Phenanthrene	SW846 8270C/SIM	--	--	--	--	0.20	0.20
Pyrene	SW846 8270C/SIM	--	--	--	--	0.20	0.20
Metals							
Aluminum	SW846 6010B	--	--	--	--	300	300
Antimony	SW846 6020	6	--	--	6	2	1.0
Arsenic*	SW846 6020	10	10	10	10	5	5.0
Barium	SW846 6010B	2,000	2,000	--	2,000	200	5.0
Beryllium	SW846 6020	4	--	--	4	1	1.0
Cadmium	SW846 6020	5	5	--	5	1	1.0
Calcium	SW846 6010B	--	--	--	--	5,000	50
Chromium*	SW846 6010B	100	100	47[(a)]	47	15	15
Cobalt	SW846 6010B	--	--	--	--	50	30
Copper	SW846 6010B	1,300	1,300	--	1,300	25	25
Iron	SW846 6010B	--	--	--	--	100	100
Metals (continued							
Lead	SW846 6010B	15	15	--	15	5	5.0
Magnesium	SW846 6010B	--	--	--	--	5,000	50
Manganese	SW846 6010B	--	--	--	--	15	5.0

GROUNDWATER FIXED LABORATORY PARAMETERS
WEST GATE LANDFILL
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS
PAGE 4 OF 5

Chemical	Method	MADEP MMCL (µg/L)	MCL (µg/L)	Site PRG[1] (µg/L)	Project Action Level[2] (µg/L)	PQL[3] (µg/L)	Katahdin Analytical Services QL (µg/L)
Mercury	SW846 7470A	2	2	--	2	0.2	0.20
Nickel	SW846 6010B	--	--	--	--	40	40
Potassium	SW846 6010B	--	--	--	--	5,000	1000
Selenium	SW846 6010B	50	50	--	50	17	10
Silver	SW846 6010B	--	--	--	--	15	15
Sodium	SW846 6010B	--	--	--	--	5,000	1000
Thallium	SW846 6020	2	--	--	2	2	2.0
Vanadium	SW846 6010B	--	--	--	--	50	25
Zinc	SW846 6010B	--	--	--	--	60	25
Pesticides							
4,4' DDE	SW846 8081A	--	--	--	--	0.10	0.1
4,4'-DDD	SW846 8081A	--	--	--	--	0.10	0.1
4,4'-DDT	SW846 8081A	--	--	--	--	0.10	0.1
Aldrin	SW846 8081A	--	--	--	--	0.050	0.05
alpha-BHC	SW846 8081A	--	--	--	--	0.050	0.05
alpha-Chlordane	SW846 8081A	2	2	--	2	0.050	0.05
beta-BHC	SW846 8081A	--	--	--	--	0.050	0.05
delta-BHC	SW846 8081A	--	--	--	--	0.050	0.05
Dieldrin	SW846 8081A	--	--	--	--	0.10	0.1
Endosulfan I	SW846 8081A	--	--	--	--	0.050	0.05
Endosulfan II	SW846 8081A	--	--	--	--	0.10	0.1
Endosulfan sulfate	SW846 8081A	--	--	--	--	0.10	0.1
Endrin	SW846 8081A	2	2	--	2	0.10	0.1
Endrin aldehyde	SW846 8081A	2	2	--	2	0.10	0.1
Endrin ketone	SW846 8081A	--	--	--	--	0.10	0.1
gamma-BHC (Lindane)	SW846 8081A	0.2	0.2	--	0.2	0.050	0.05
gamma-Chlordane	SW846 8081A	--	--	--	--	0.050	0.05
Heptachlor	SW846 8081A	0.4	0.4	--	0.4	0.050	0.05
Heptachlor epoxide	SW846 8081A	0.2	0.2	--	0.2	0.050	0.05
Methoxychlor	SW846 8081A	40	40	--	40	0.50	0.5
PCBs							
Aroclor-1016	SW846 8082	0.5	0.5	--	0.5	0.2	0.1
Aroclor-1221	SW846 8082	0.5	0.5	--	0.5	0.2	0.1
Aroclor-1232	SW846 8082	0.5	0.5	--	0.5	0.2	0.1
Aroclor-1242	SW846 8082	0.5	0.5	--	0.5	0.2	0.1
Aroclor-1248	SW846 8082	0.5	0.5	--	0.5	0.2	0.1
Aroclor-1254	SW846 8082	0.5	0.5	--	0.5	0.2	0.1
Aroclor-1260	SW846 8082	0.5	0.5	--	0.5	0.2	0.1
Total Polychlorinated Biphenyls	SW846 8082	0.5	0.5	--	0.5	0.2	0.1

Notes:

* - Site contaminant of concern

1 - The Site PRG is the proposed PRG selected in the FS (TtNUS, 2003).

GROUNDWATER FIXED LABORATORY PARAMETERS
WEST GATE LANDFILL
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS
PAGE 5 OF 5

2 - The project action level (PAL) represents the Site PRG (if available) or the lower of the MADEP MMCL or the MCL. If the pertinent criteria were not available for an analyte, a project action level was not identified.

3 - The PQL is selected to meet the project data quality objectives. The PQL is set at a concentration at least three to ten times lower than the project action level, if achievable by available analytical methods and laboratories. If a project action level is not available, the PQL is set at the lowest QL achievable by the laboratory using the most sensitive EPA method commercially available.

4 - The practical quantitation limit that the laboratory could achieve using the most sensitive EPA method available is higher than the project action level and/or project quantitation limit established for this organic analyte. However, the method detection limit (presented in parenthesis) is lower than the project action level. The PALs for these analytes are met by the MDL values and the laboratory will report all positive detections above the MDL. See Section 2.7 for a discussion of the data assessment process for these analytes.

5 - Laboratory-specific method detection limits (MDLs) must be provided.

a) - PRG for chromium VI.

-- - Not Available
MCL - Maximum Contaminant Level, National Primary Drinking Water Standards, July 2002
MADEP- Massachusetts Department of Environmental Protection
MMCL- Massachusetts Maximum Contaminant Level
SIM - Selected Ion Monitoring
PQL - Project Quantitation Limit
PRG - Preliminary Remediation Goal
QL - Laboratory Practical Quantitation Limit
µg /L - micrograms per liter

SW846 - Test Methods for Evaluating Solid Wastes. EPA Office of Solid Waste. Third Edition, including all promulgated revisions.
EPA/600/R-95-131 504.1 - Methods for the Determination of Organic Compounds in Drinking Water-Supplement III. (EPA/600/R-95-131), Method 504.1, Rev. 1.1.

APPENDIX I-4
REMEDIAL GOALS
SITE SPECIFIC PROJECT ACTION LIMITS AND REMEDIAL GOALS
SOUTH WEYMOUTH NAS SOUTH GATE LANDFILL
PRE-REMEDIAL DESIGN INVESTIGATION
CTO 407

I-4
REMEDIAL GOALS
WEST GATE LANDFILL
NAS SOUTH WEYMOUTH, WEYMOUTH, MASSACHUSETTS

Chemical	Site-Specific RG
Surface Soil	**(mg/Kg)**
Benzo(a)pyrene	0.47
Benzo(a)anthracene	4.73
Dibenzo(a,h)anthracene	0.47
Dieldrin	0.08
Total 2,3,7,8-TCDD TEQ (Dioxins)	0.0000145
Total polychlorinated biphenyls (PCBs)	0.67
Arsenic	1.04
Lead	350
Groundwater	**(µg/L)**
1,4-Dioxane	6
Benzo(a)anthracene	0.09
Benzo(b)fluoranthene	0.09
Dibenzo(a,h)anthracene	0.009
Hexachlorobenzene	1
Indeno(1,2,3-cd)pyrene	0.09
Arsenic	10
Chromium VI	47

Notes:

RG –Remedial Goal
Total 2,3,7,8-TCDD TEQ – Total 2,3,7,8-tetrachlorodibenzodioxin toxicity equivalents
µg/L – micrograms per liter (parts per billion)
mg/Kg – milligrams per kilogram (parts per million)

Source: Feasibility Study, West Gate Landfill, Naval Air Station South Weymouth (TtNUS, 2003)

APPENDIX J
REMEDIAL INVESTIGATION SEDIMENT DATA
SOUTH WEYMOUTH NAS SOUTH GATE LANDFILL
PRE-REMEDIAL DESIGN INVESTIGATION
CTO 407

TABLE 4-4
DETECTED VOCs IN SEDIMENT
WGL
REMEDIAL INVESTIGATION
NAS SOUTH WEYMOUTH, MA

Sample ID	ASD05AA	ASD06AA	ASD06AB	ASD07AA	ASD08AA
Location	ASW/ASD-5	ASW/ASSD-6	ASW/ASSD-6	ASW/ASSD-7	ASW/ASSD-8
Sample Date	6/28/99	7/25/00	7/25/00	7/25/00	7/25/00
2-BUTANONE (MEK)	38	**46 J**	**45 J**	**41 J**	**58 J**
ACETONE	**190 J**	R	**390 J**	**550 J**	**410 J**
CARBON DISULFIDE	9 U	R	R	R	R
METHYLENE CHLORIDE	9 UJ	R	R	R	R
TOLUENE	9 U	R	R	R	R

Removed shown sediments

NOTES:
WGL - West Gate Landfill
All results are reported in micrograms per kilogram (µg/kg).
DUP - duplicate
ID - identification number
J - estimated value
MEK - methyl ethyl ketone
U - non-detect; value shown is sample quantitation limit
UJ - estimated value at or below the sample quantitation limit
VOCs - volatile organic compounds

09-Apr-02

TABLE 4-9
DETECTED SVOCs IN SEDIMENT
WGL
REMEDIAL INVESTIGATION
NAS SOUTH WEYMOUTH, MA

Sample ID	ASD05AA	ASD06AA	ASD06AB	ASD07AA	ASD08AA
Location	ASW/ASD-5	ASW/ASSD-6	ASW/ASSD-6	ASW/ASSD-7	ASW/ASSD-8
Sample Date	6/29/99	7/25/00	7/25/00	7/25/00	7/25/00
BENZO(A)ANTHRACENE	63 J	R	R	R	R
BENZO(A)PYRENE	53 J	R	R	R	R
BENZO(B)FLUORANTHENE	69 J	R	R	R	690 J
BENZO(G,H,I)PERYLENE	180 U	R	R	R	R
BENZO(K)FLUORANTHENE	66 J	R	R	R	R
BENZOIC ACID		1100 J	2200 J	5900 J	2100 J
BIS(2-ETHYLHEXYL)PHTHALATE	200	R	R	R	R
CHRYSENE	85 J	R	R	780 J	660 J
DI-N-BUTYLPHTHALATE	75 J	R	R	R	R
FLUORANTHENE	120 J	R	R	930 J	1100 J
INDENO(1,2,3-CD)PYRENE	38 J	R	R	R	R
PHENANTHRENE	56 J	R	R	R	620 J
PYRENE	150 J	R	R	1100 J	960 J

Frenchs Stream Sediment

NOTES:
WGL - West Gate Landfill
All results are reported in micrograms per kilogram (µg/kg).
ID - identification number
J - estimated value
R - rejected value
SVOCs - semi-volatile organic compounds
U - non-detect; value shown is sample quantitation limit
UJ - estimated value at or below the sample quantitation limit

09-Apr-02

TABLE 4-13
DETECTED PESTICIDES IN SEDIMENT
WGL
REMEDIAL INVESTIGATION
NAS SOUTH WEYMOUTH, MA

Sample ID	ASD05AA	ASD06AA	ASD06AB	ASD07AA	ASD08AA
Location	ASW/ASD-5	ASW/ASSD-6	ASW/ASSD-6	ASW/ASSD-7	ASW/ASSD-8
Sample Date	6/29/99	7/25/00	7/25/00	7/25/00	7/25/00
4,4'-DDD	7.65 J	R	R	16 J	16 J
4,4'-DDE	9.5 J	38 J	84 J	400 J	260 J
4,4'-DDT	7.3 UJ	R	34 J	140 J	58 J
DIELDRIN	7.3 UJ	15 J	R	17 J	R
ENDRIN ALDEHYDE	7.3 UJ	R	R	R	R
GAMMA-CHLORDANE	3.8 UJ	R	R	R	R
HEPTACHLOR EPOXIDE	3.8 UJ	R	17 J	34 J	26 J

NOTES:
WGL - West Gate Landfill
All results are reported in micrograms per kilogram (µg/kg).
DDD - dichlorodiphenyldichloroethane
DDE - dichlorodiphenyldichloroethylene
DDT - dichlorodiphenyltrichloroethane
DUP - duplicate
ID - identification number
J - estimated value
R - rejected value
U - non-detect; value shown is sample quantitation limit
UJ - estimated value at or below the sample quantitation limit

09-Apr-02

TABLE 4-22
DETECTED INORGANICS IN SEDIMENT
WGL
REMEDIAL INVESTIGATION
NAS SOUTH WEYMOUTH, MA

French Stream Sediment

Sample ID	ASD05AA	ASD06AA	ASD06AB	ASD07AA	ASD08AA
Location	ASW/ASD-5	ASW/ASSD-6	ASW/ASSD-6	ASW/ASSD-7	ASW/ASSD-8
Sample Date	6/29/99	7/25/00	7/25/00	7/25/00	7/25/00
ALUMINUM	4310 J	3510 J	3470 J	2920 J	4690 J
ANTIMONY	0.45 U	1 J	0.85 J	0.48 J	0.67 J
ARSENIC	3	5.5 J	5.6 J	6.5 J	6.2 J
BARIUM	24.9	83.8 J	83.5 J	71.6 J	121 J
BERYLLIUM	2.04 U	4.1 J	3.7 J	2 J	4.4 J
CADMIUM	0.31	0.88 J	0.68 J	0.94 J	0.9 J
CALCIUM	1270	5160 J	5230 J	7360 J	12600 J
CHROMIUM	6.8	5.7 J	5.5 J	6.4 J	8.3 J
COBALT	10	R	R	R	R
COPPER	38.6	27.9 J	28.6 J	34.1 J	35 J
IRON	9420	7310 J	7590 J	4980 J	4810 J
LEAD	18.7	104 J	118 J	126 J	115 J
MAGNESIUM	1170	R	R	541 J	712 J
MANGANESE	97.8	15.9 J	16.6 J	14.7 J	33.9 J
MERCURY	0.52	0.43 J	0.39 J	0.41 J	0.45 J
NICKEL	8.4	6.3 J	6.7 J	6.6 J	7.4 J
POTASSIUM	209	325 J	334 J	368 J	383 J
SELENIUM	0.36 U	6.7 J	5.3 J	3.5 J	9.1 J
SILVER	2.4 J	R	R	R	R
SODIUM	99.3	413 J	387 J	553 J	394 J
THALLIUM	0.75 U	0.51 J	R	R	R
VANADIUM	18.5	30.9 J	32.8 J	40.3 J	36.4 J
ZINC	66.7	40.1 J	40.2 J	34 J	41.9 J

NOTES:
WGL - West Gate Landfill
All results are reported in milligrams per kilogram (mg/kg).
DUP - duplicate
ID - identification number
J - estimated value
R - rejected value
U - non-detect; value shown is sample quantitation limit
UJ - estimated value at or below the sample quantitation limit

09-Apr-02