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REMEDIAL ACTION PLAN ADDENDUM SITE 1159 BRONSON FIELD NAS PENSACOLA FL
8/1/2007
CH2MHILL

Remedial Action Plan Addendum
Site 1159 – Outlying Landing Field Bronson

Naval Air Station Pensacola
Pensacola, Florida

Revision No. 02

Contract No. N62467-98-D-0995
Contract Task Order No. 0071

Submitted to

Naval Facilities Engineering Command
Southeast

Prepared by:

CH2MHILL Constructors, Inc.

1000 Abernathy Road
Northpark 400, Suite 1600
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August 2007

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Southeast

August 2007

Prepared/Approved By:

Greg Wilfley, Project Manager — August 10, 2007 Date

Approved By:

Michael Halil, Deputy Program Manager — August 10, 2007 Date

Client Acceptance:

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This Remedial Action Plan Addendum for Naval Air Station Pensacola, Outlying Landing Field Bronson, Site 1159 was prepared under the direction of a Florida Registered Professional Engineer.

Chris Hood, P.E. No. 53927
EXPIRE 28 FEB 09

9 JULY 07
Date

DEP Form # 67-780.900(4)
Form Title: Remedial Action Plan Summary
Effective Date: 4-17-05

Remedial Action Plan Summary

Site Name: Site 1159 OLF Bronson
DEP Site ID No. 179300938
Location: N.A.S. Pensacola, Pensacola FL
Current Date: August 10, 2007
Date of Last GW Analysis: June 1, 2006

CHECK ALL THAT APPLY:

Media Contaminated: ☒ Groundwater ☐ Sediment ☒ Soil ☐ Air

Types(s) of Product(s) Discharged:

☒ Gasoline/Kerosene Analytical Group
☐ Listed Hazardous Waste
☒ Other types of contaminants (solvents, etc.)
List: Lead

Method of Groundwater Disposal:

☒ Infiltration Gallery ☐ Sanitary Sewer
☐ Surface Discharge/NPDES ☐ Injection Well
☐ Other for water from moisture separator(s)

Plume Characteristics:

- Estimated Mass (lbs):
  Groundwater 61 Soil 656,000
- Area of Plume 215,900 (ft^2)
- Depth of Plume 19 (ft)

Groundwater Recovery and Specifications:

- No. of Recovery Wells _____
  ☐ Vertical ☐ Horizontal
- Design Flow Rate/Well _____ (gpm)
- Total Flow Rate _____ (gpm)
- Hydraulic Conductivity _____ (ft/day)
- Recovery Well Screen Interval _____ (ft)
- Depth to Water _____ (ft)

Method of Groundwater Remediation:

☐ Pump-and-Treat:
  ☐ Air Stripper
    ☐ Low Profile ☐ Packed Tower
☐ Diffused Aerator
☐ Activated Carbon
  ☐ Primary Treatment ☐ Polishing
☒ In Situ Air Sparging – Pressure: 25 (psi)
- No. of Sparging Points 31
  ☒ Vertical ☐ Horizontal
- Design Flow Rate/Well 20 (cfm)
- Total Flow Rate 350 (cfm)

☐ Biosparging:
- No. of Sparging Points
  ☐ Vertical ☐ Horizontal
- Design Air Flow Rate/Well _____ (cfm)

☐ Bioremediation:
  ☒ In Situ ☐ Ex Situ
☐ Other _____

Free Product Present: ☒ Yes ☐ No

- Estimated Volume 964 (gal)
- Maximum Thickness 1.35 (in)
- Method of Recovery Monthly manual recovery until system insatllation and startup.

Method of Soil Remediation:

☐ Excavation:
  Volume to be excavated _____ (yd^3)
  ☐ Thermal Treatment ☐ Land Farming On Site
  ☐ Landfill ☐ Bioremediation
  ☐ Other _____
☒ Vapor Extraction System (VES):
- No. of Venting Wells 15
  ☒ Vertical ☐ Horizontal
- VES – Applied Vacuum 100 inches (wg)
- Design Air Flow Rate 600 (cfm)
- Design Radius of Influence 50-ft (ft)
- Air Emissions Treatment
  ☒ Thermal Oxidizer ☒ Catalytic Converter
  ☐ Carbon ☐ Other

☐ Soil Bioventing:
- No. of Venting Wells _____
  ☐ Vertical ☐ Horizontal
- Design Air Flow Rate _____ (cfm)

☐ In Situ Bioremediation
☐ Other _____

Natural Attenuation:

☒ Groundwater ☒ Soil
- Method of Evaluation:
  ☒ Historical Trends
  ☒ Site-Specific Parameters

Estimated Time of Cleanup: 2,190 (days)

- Method of Estimation:
  ☐ Pore Volumes (no. of pore vols. = _____)
  ☐ Exponential Decay (Decay Rate) _____ (day^{-1})
  ☐ Groundwater Transport Model
  ☐ Other _____

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19. ABSTRACT (*Continue on reverse if necessary and identify by block number*)
This Remedial Action Plan Addendum describes system design and defines the Optimization revised system design and proposed system operations at Site 1159, Outlying Landing Field Bronson, NAS Pensacola, Florida.

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Preface

CH2M HILL is pleased to submit Remedial Action Plan (RAP) Addendum, Revision 01 to the *Remedial Action Plan Addendum Site 1159, Outlying Landing Field Bronson, Naval Air Station Pensacola* (CH2M HILL, December 2004). This document has been prepared for the Florida Department of Environmental Protection (FDEP) on behalf of the Department of the Navy, Naval Facilities Engineering Command Southeast (NAVFAC SE) under Response Action Contract (RAC) No. N-62467-98-D-0995, Contract Task Order (CTO) 0071.

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4-1 Proposed Monitoring Well Locations

Acronyms and Abbreviations

AAS	aquifer air sparge
AFB	Air Force Base
AVGAS	aviation gasoline
B	blank contaminated
BDL	below detection limit
Bls	below land surface
BTEX	benzene, toluene, ethylbenzene, and total xylenes
Btoc	below top of casing
CA	contaminant assessment
CAR	Contamination Assessment Report
CARA	Contamination Assessment Report Addendum
CH_4	methane
CO_2	carbon dioxide
COC	contaminant of concern
CTO	Contract Task Order
DBH	diameter breast height
DO	dissolved oxygen
DQE	data quality evaluation
DTP	depth to product
DTW	depth to water
EISOPQAM	Environmental Investigations Standard Operating Procedures and Quality Assurance Manual
FAC	Florida Administrative Code
FDEP	Florida Department of Environmental Protection
FID	flame ionization detector
FL-PRO	Florida Petroleum Residual Organics
FSG	flame safe guard
ft^2	square feet
GCTL	groundwater cleanup target level
HDPE	high density polyethylene
Hp	horse power
HAS	hollow stem auger
ICP	inductively coupled plasma
ID	inside diameter
in. H_2O	inches of water
IRCDQM	Installation Restoration Chemical Data Quality Manual
J	estimated value
JB	estimated value with blank contamination
Kg	kilogram
lb/day	pounds per day
LEL	lower explosive limit
LNAPL	light non-aqueous phase liquid
MCL	maximum contaminant level
µg/L	micrograms per liter
mg/kg	milligram per kilogram

mg/L	milligrams per liter
mg/m^3	milligrams per cubic meter
mL	milliliters
MTBE	methyl tert-butyl ether
NA	natural attenuation; not applicable; not analyzed
NAD	North American Datum
NADC	natural attenuation default concentration
NAIP	natural attenuation indicator parameter
NAS	Naval Air Station
NAVD	North American Vertical Datum
NAVFAC SE	Naval Facilities Engineering Command, Southeast
NC	no criteria; not calculated
NM	not measured
NP	no product
NPWC	Navy Public Works Center
NR	not recorded
NS	not sampled
O&M	operation and maintenance
O_2	oxygen
OLF	Outlying Landing Field
OSHA	Occupational Safety and Health Administration
OVA	organic vapor analyzer
Oz	ounces
Pb	lead
P.E.	Professional Engineer
PAH	polycyclic aromatic hydrocarbon
PID	photoionization detection
PLC	process logic controller
PM	Project Manager
POC	point of compliance
POTW	publicly owned treatment works
Ppm	parts per million
Psig	pounds per square inch-gauge
PVC	polyvinyl chloride
QA	quality assurance
QAPP	Quality Assurance Project Plan
QC	quality control
RAC	Response Action Contract
RAP	Remedial Action Plan
RBCA	risk-based corrective action
RMO	risk management option
ROI	radius of influence
RPO	Remediation Process Optimization
Scfm	standard cubic feet per minute
SCTL	soil cleanup target level
SIM	select ion monitoring
SRCO	Site Rehabilitation Completion Order
SVE	soil vapor extraction
SW	solid waste
SZMP	saturated zone monitoring point

TEL	tetraethyl lead
TM	technical memorandum
TOC	top of casing
TPH	total petroleum hydrocarbon
TPHCWG	total petroleum hydrocarbon criteria working group
TRPH	total recoverable petroleum hydrocarbons
TtNUS	Tetra Tech NUS, Inc.
U	undetected value
UJ	detection limit estimated
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
USGS	U.S. Geological Survey
UST	underground storage tank
VOA	volatile organic aromatic
VOC	volatile organic compound
VZMP	vadose zone monitoring point
^{o}C	degrees Centigrade
^{o}F	degrees Fahrenheit

1.0 Introduction

The purpose of this document is to supplement the overall design and design objectives presented in the *Remedial Action Plan Addendum Site 1159-Outlying Landing Field Bronson, Naval Air Station Pensacola* (CH2M HILL, December 2004), provide an update on site conditions, and summarize full-scale remedial system modifications at Site 1159, Outlying Landing Field (OLF) Bronson, Naval Air Station (NAS) Pensacola, in Pensacola, Florida, per U.S. Navy-required Remediation Process Optimization (RPO) meetings conducted on June 23, 2005 and November 15, 2006.

The outcome of the optimization process includes recommendations for changes to the system design including aggressively treating the source area groundwater/vadose zone light non-aqueous phase liquid (LNAPL) regions using aquifer air sparge (AAS) and soil vapor extraction (SVE) with off-gas treatment, with natural attenuation (NA) in the periphery and the downgradient portions of the dissolved-phase plume. Global Risk Based Corrective Action (RBCA) Risk Management Options (RMOs) will be included as a key element of the exit strategy for the site. A site-specific decision logic was developed outlining the lifecycle alternatives and milestones that could be applicable at the site based on current site knowledge and regulatory requirements (see Section 3).

1.1 Project Objectives

The overall objective for the selected remedial technologies implemented at Site 1159 remains unchanged: protect human health and the environment by remediating soil and groundwater contamination to levels consistent with current and future land use.

The Florida Department of Environmental Protection (FDEP) specifies groundwater cleanup target levels (GCTLs) in Table I, Chapter 62-777, Florida Administrative Code (FAC) and the Florida maximum contaminant levels (MCLs) in Chapter 62-550, FAC**.** Table 1-1 lists GCTLs and groundwater natural attenuation default concentrations (NADCs) for contaminants of concern (COCs) from Table V, Chapter 62-777, FAC.

The COCs in groundwater were identified as benzene, toluene, ethylbenzene, and total xylenes (BTEX), total recoverable petroleum hydrocarbons (TRPH), methyl tert-butyl ether (MTBE), and lead (Pb) (Tetra Tech NUS, Inc. [TtNUS], 2002). These COCs vary from the compounds exceeding GCTLs as of May 2006 (see Section 2). Groundwater monitoring and tree coring activities were conducted during the site evaluation period between January 2005 and November 2006.

TABLE 1-1
Groundwater Cleanup Target Levels
Site 1159, OLF Bronson, NAS Pensacola

Analytes	GCTL (µg/L)	Groundwater NADC (µg/L)
Benzene	1	100
Toluene	40	400
Ethylbenzene	30	300
Total Xylenes	20	200
MTBE	20	500
TRPH	5,000	50,000
Lead	15	150

Source: FDEP, Chapters 62-550 and 62-777, FAC
NADC natural attenuation default criteria
µg/L micrograms per liter

Recognizing the potential difficulty in remediating LNAPL compounds, the soil cleanup target levels (SCTLs) for various fractions of TRPH will also be applied to this site. Table 1-2 presents the FDEP SCTLs in Table II, Chapter 62-777, FAC for site COCs. Industrial SCTLs will be applied at the site.

TABLE 1-2
Soil Cleanup Target Levels
Site 1159, OLF Bronson, NAS Pensacola

	Residential SCTL (mg/kg)	Commercial/Industrial SCTL (mg/kg)	Leachability SCTL (mg/kg)
Benzene[1]	1.2	1.7	0.007
Toluene[1]	7500	60,000	0.5
Ethylbenzene[1]	1,500	9,200	0.6
Total Xylenes[1]	130	700	0.2
TRPH[1]	460	2,700	340
TRPH Fractions[2]			
C_5-C_7 Aromatics	340	1,800	34
C_7-C_8 Aromatics	490	3,700	59
C_8-C_{10} Aromatics	460	2,700	340
C_{10}-C_{12} Aromatics	900	5,900	520
C_{12}-C_{16} Aromatics	1,500	12,000	1,000
C_{16}-C_{21} Aromatics	1,300	11,000	3,200
C_{21}-C_{35} Aromatics	2,300	40,000	25,000
C_5-C_6 Aliphatics	6,200	33,000	470
C_6-C_8 Aliphatics	8,700	46,000	1,300
C_8-C_{10} Aliphatics	850	4,800	7,000
C_{10}-C_{12} Aliphatics	1,700	10,000	51,000
C_{12}-C_{16} Aliphatics	2,900	21,000	*
C_{16}-C_{35} Aliphatics	42,000	280,000	*

Source:
[1]Chapter 62-777, FAC
[2]Development of TPH fraction Cleanup Target Levels for Chapter 62-777, FAC, April 17, 2005 (based on TPHCWG Method).
* Not a health concern for this exposure scenario
mg/kg milligrams per kilogram

1.2 Site Background and History

The general site location is shown in Figure 1-1. Figure 1-2 shows the site location on the U.S. Geological Survey (USGS) quadrangle map of Lillian, Alabama-Florida (USGS, 1987). Site 1159 is located on Bronson Road, OLF Bronson, NAS Pensacola. The 6-acre site formerly consisted of wooded areas and campgrounds; however, the site has been converted into a Frisbee golf course. A site plan depicting monitoring wells and general features for Site 1159 is shown in Figure 1-3.

A closure assessment under the Florida Petroleum Cleanup Program (Chapter 62-770 FAC) was performed in 1994 during the removal of the 500-gallon diesel underground storage tank (UST). The closure assessment identified benzene, total xylenes, and total volatile organic aromatics (VOAs) concentrations in groundwater above FDEP regulatory levels. Concentrations of volatile organic compounds (VOCs) in soil were all reported below laboratory detection limits. No free product was observed during the diesel tank removal.

A contamination assessment (CA) was conducted at the site from 1996 through 2000 to determine the presence and extent of soil and groundwater contamination at the site. During this investigation, the six former aviation gasoline (AVGAS) USTs were identified from an old field diagram. It was determined that these tanks were removed in the 1980s by E. C. Jordan (Navy Public Works Center [NPWC], 1997). As detailed in the CA Report (CAR), VOC and lead concentrations in groundwater were in exceedance of the Florida groundwater criteria. In addition, free product was identified in site wells. Soil samples were analyzed for compounds in the gasoline and kerosene analytical groups; all parameters were below the Florida direct exposure and leachability criteria. TtNUS suggested in the CAR that the primary source of groundwater contamination at Site 1159 was the AVGAS USTs and associated distribution line because of the lack of polycyclic aromatic hydrocarbons (PAHs) found in groundwater around the former diesel UST. In the CAR Addendum (CARA), completed by TtNUS in May 2001, TtNUS estimated that an AVGAS free product plume was present over approximately 107,000 square feet of the site up to a measured thickness of 2.74 feet. The estimated free product mass was 1.56 million pounds. In the CARA, it was recommended that a RAP be completed for free product and contaminated groundwater at Site 1159.

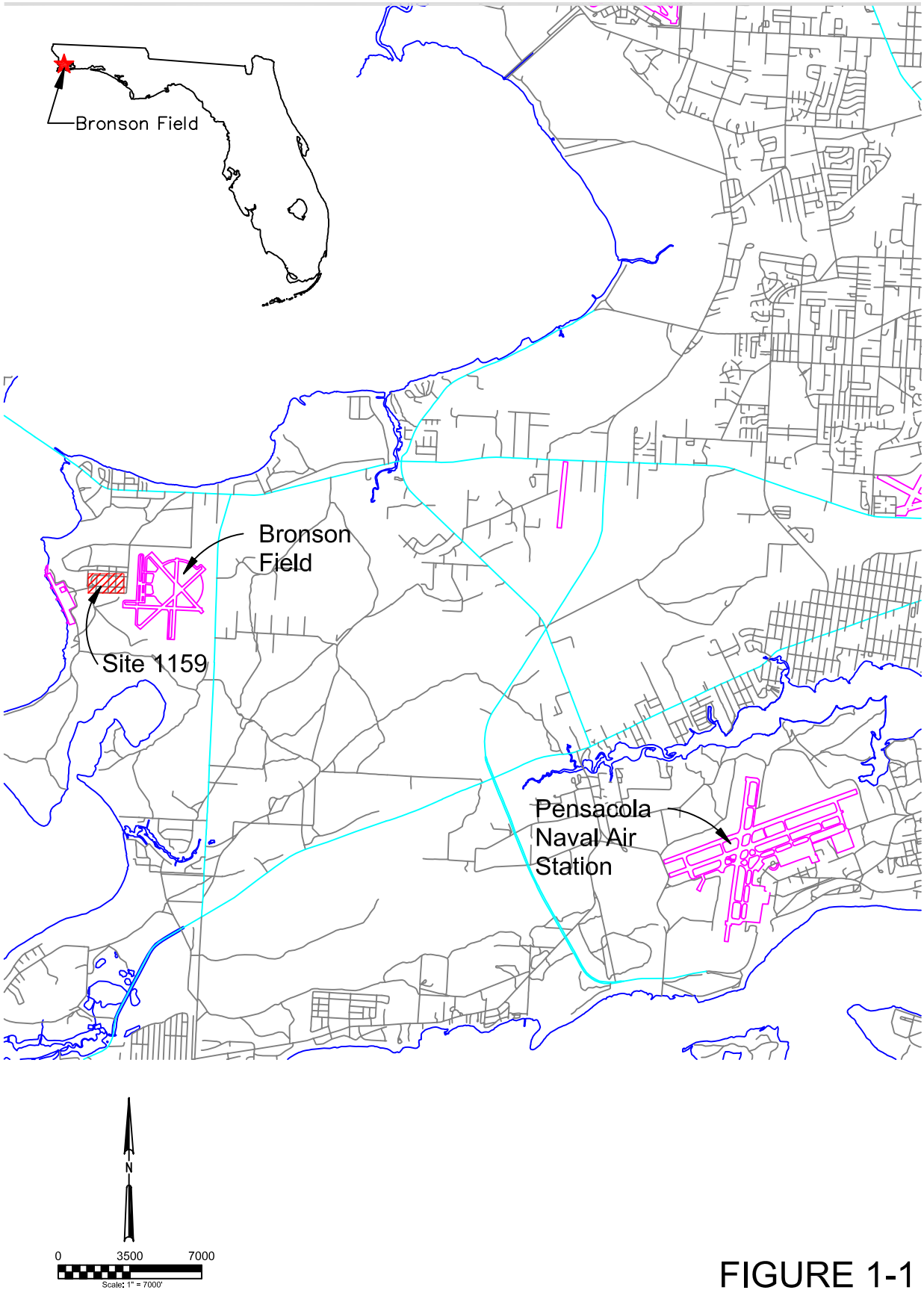

FIGURE 1-1

General Site Location Map

Site 1159, Bronson Field

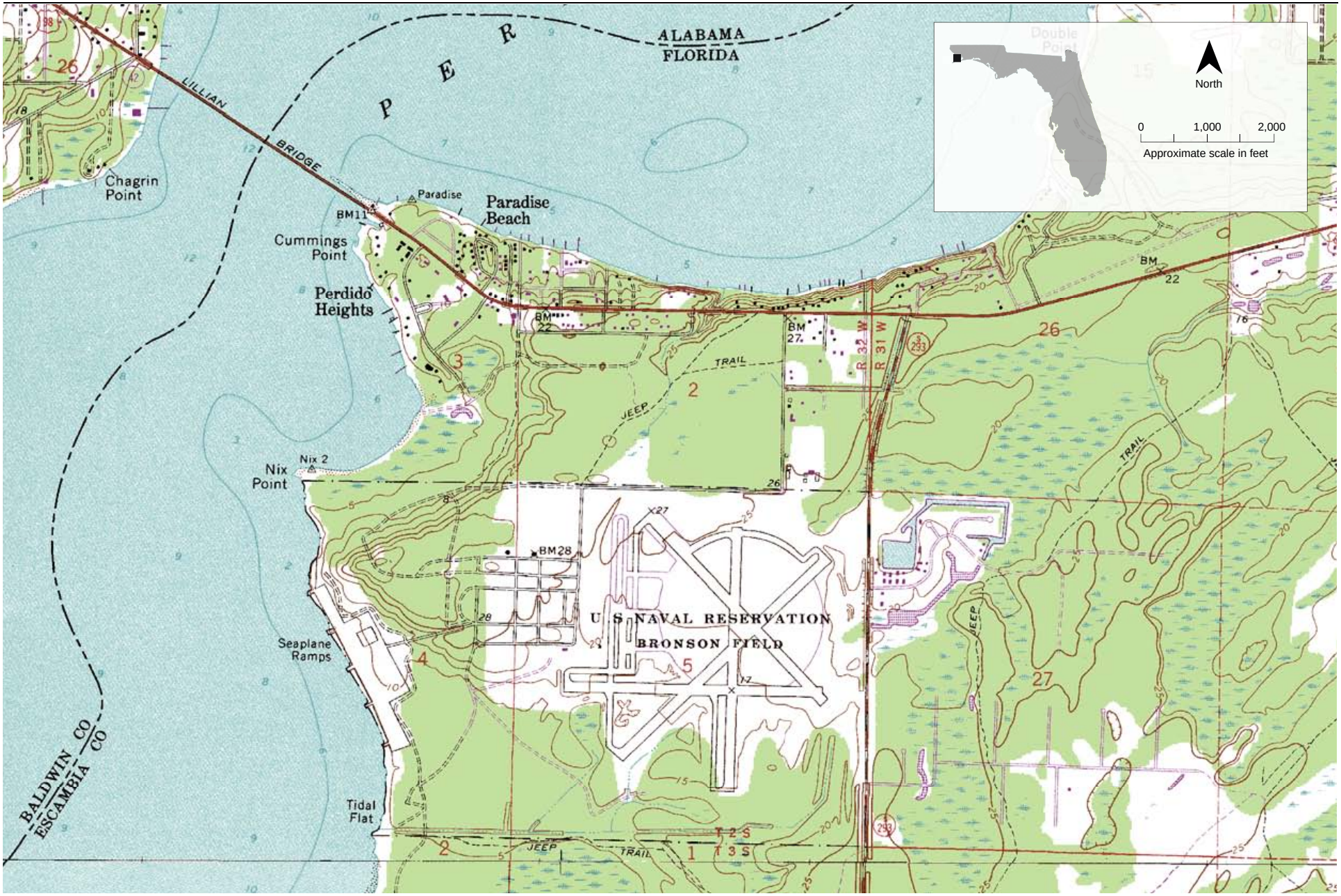

FIGURE 1-2
Site Topographic Map, USGS 7.5 Minute
Quadrangle of Lilian, Alabama-Florida, 1987.

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ES012007009GNV_Bronson_Fig1-2TopoMap

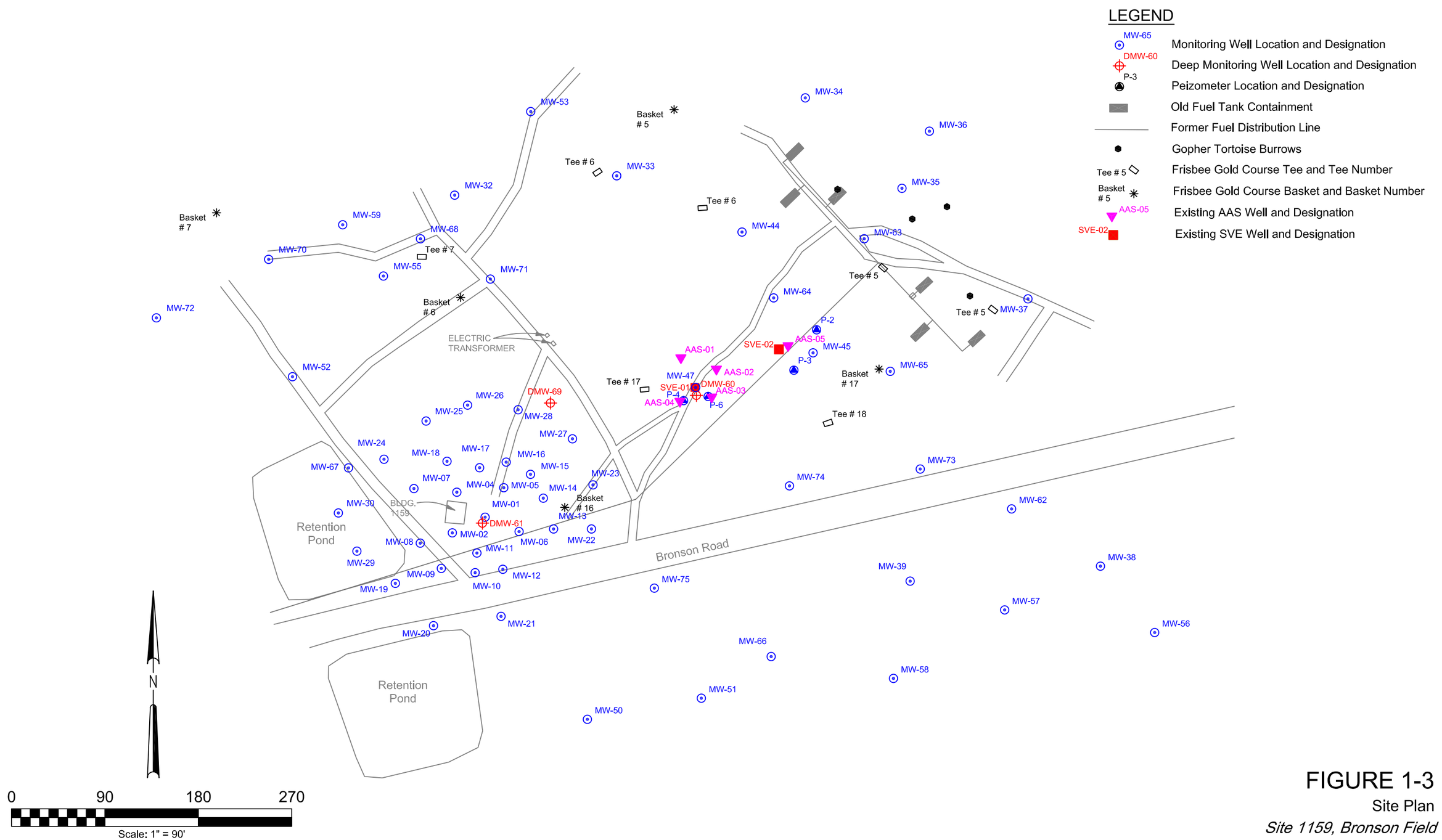

FIGURE 1-3

Site Plan

Site 1159, Bronson Field

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site-1159_figure1-3.dwg
03-Feb-2007

TtNUS completed a Remedial Action Plan (RAP) in September 2002. Based on the remedial technology screening, the remedial alternative selected was free product recovery with bioslurping, groundwater remediation by pump-and-treat, and discharging the water fraction to the publicly owned treatment works (POTW). The RAP provided a preliminary design of the remediation system based on site conditions at that time.

Groundwater levels fluctuated approximately 5.62 feet (ft) (17.94 to 12.32 ft below land surface [bls]) over a 10-year period (1996 to 2005). Over this same period, free product in monitoring well MW-47 ranged from a 2.74-foot column (2000) to a 1.74 column (2001) to non-measurable (2003). Free product was present in MW-45 during this same period, with free product persisting in this well through February 2004. In July 2000, the lowest site groundwater levels since wells were installed in 1996 (17.94 ft bls and 22.88 ft bls) were recorded at MW-47 and MW-45 respectively. Respective product thicknesses were 2.74 ft and 2.54 ft for MW-47 and MW-45.

CH2M HILL conducted a site evaluation at Site 1159 Bronson Field between July 2003 and May 2004. During the site evaluation, free product was measurable in only three wells, MW-45 (0.18 ft), MW-64 (0.16 ft), and MW-65 (0.05 ft). Due to unexpected changes in site conditions at Site 1159, the free product recovery with bioslurping, as recommended in the RAP, would now be ineffective**.** This evaluation is based on the area of observable free product and magnitude of the smear zone.

CH2M HILL proposed that a pilot study be conducted in order to assess the potential effectiveness of AAS and SVE for full-scale remediation at Site 1159 because site conditions at that time indicated that free product recovery with bioslurping would not be an effective remedial alternative. A technical memorandum (TM) was submitted to the Navy and FDEP on July 8, 2004. Comments were received from FDEP in August 2004. That same month, the decision was made to forego the pilot study and move forward with implementation of a full-scale AAS/SVE remediation system based on the observed efficacy of AAS/SVE at similar sites in the Florida panhandle.

In July 2005, average rainfall conditions raised the groundwater table to 12.32 ft bls in monitoring well MW-47 (17.23 ft bls at MW-45). This is the highest groundwater level recorded since well installation took place in 1996, with no measurable free product. Thereafter, the water table levels began decreasing due to below average rainfall in the panhandle area, and free product was rediscovered on October 20, 2006, at near record low water table levels.

Site 1159 was included in the Navy's Optimization program in 2005. This included an optimization meeting in June 2005, during which the system-proposed layout presented in the CH2M HILL RAP Addendum was modified. As a result of the optimization process, the overall system footprint was optimized to meet cleanup objectives. Additional optimization activities occurred in 2006; these included further revision of the remediation system footprint due to changing site conditions and incorporating RMOs per Global RBCA into the overall site exit strategy. These final revisions to the remediation system for Site 1159 are included in this RAP Addendum.

1.3 Overview of Historical Groundwater Analytical Data

The groundwater at Site 1159 has been monitored since 1996. COCs (BTEX, TRPH, and Pb) were detected in groundwater above their respective FDEP criteria, based on the most recent groundwater sampling event conducted in June 2006. The groundwater cleanup criteria for the COCs at Site 1159 are presented in Table 1-1.

Historical groundwater analytical results for BTEX at Site 1159 are summarized in Table 1-3. Historical water levels at the site are provided in Appendix A. Historical groundwater analytical results (all parameters) are provided in Appendix B. The Field Sampling Data Logs from the 2006 groundwater monitoring event are provided in Appendix C.

TABLE 1-3
Previous Groundwater Data (1996 – 2004)
Site 1159,OLF Bronson, NAS Pensacola

Monitoring Well	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylene (µg/L)	TRPH (µg/L)	Total Lead (µg/L)	Dissolved Lead (µg/L)
FDEP Cleanup Target Level:		**1**	**40**	**30**	**20**	**5,000**	**15**	**15**
MW-01	05/22/96	BDL	2	**57**	**260**	680	**33**	NA
	07/10/00	**547**	**1580**	**195**	**909**	1750	**99.1**	NA
	10/03/03	**3.75 J**	3.37 J	21.6 J	**87.7 J**	809	**50**	NA
MW-02	04/24/96	BDL	BDL	11	**38**	1400	**75**	NA
	07/10/00	BDL	BDL	**44.8**	**83**	1210	**97.8**	NA
	10/30/03	0.5 U	5 U	8.58 J	**21.8 J**	727	14 J	NA
MW-04	04/24/96	BDL	4	27	**150**	1300	**55**	NA
	07/10/00	**54.8**	**296**	**52.9**	**262**	3210	**136**	NA
	10/30/03	1 UJ	10 UJ	10 UJ	2.07 J	1090	**95**	NA
MW-05	04/24/96	BDL	4	11	**79**	1700	**64**	NA
	10/30/03	**1.49 J**	8.52 J	12.2 J	**66.4 J**	809	**50**	NA
MW-06	04/24/96	BDL	4	11	**79**	1800	**79**	NA
	10/30/03	0.5 U	5 U	5 U	3.73 J	250	**32**	NA
MW-07	06/04/96	BDL	BDL	BDL	BDL	220	**16**	NA
MW-08	06/04/96	BDL	2	21	**110**	BDL	**20**	NA
	10/30/03	0.5 UJ	5 UJ	2.46 J	3.76 J	93	**18**	NA
MW-09	06/04/96	BDL	BDL	15	**240**	190	**34**	NA
	10/30/03	0.5 U	5 U	**32.4**	**96.1**	579	**15**	NA
MW-10	06/04/96	BDL	BDL	BDL	BDL	220	**33**	NA
MW-11	06/04/96	BDL	BDL	BDL	**20**	210	**26**	NA
MW-12	06/04/96	BDL	BDL	**30**	**100**	140	**35**	NA
	10/30/03	0.5 U	5 U	6.08	8.06 J	256	**23**	NA
MW-13	06/04/96	BDL	BDL	BDL	BDL	2300	**130**	NA
MW-14	06/04/96	BDL	8	**33**	**250**	400	**63**	NA
	10/30/03	0.5 U	5 U	1.35 J	8.28 J	491	**41**	NA
MW-15	06/04/96	BDL	9	8	**120**	BDL	**20**	NA
	10/30/03	0.5 UJ	1.06 J	2.67 J	14.2 J	1810	**110**	NA
	01/27/04	NA	NA	NA	NA	NA	**49**	NA
MW-16	06/04/96	BDL	BDL	8	**220**	470	**365**	NA
	10/30/03	0.5 UJ	5 UJ	5.25 J	17.7 J	2440	**120**	NA
	01/27/04	NA	NA	NA	NA	NA	**86**	NA
MW-17	06/04/96	BDL	19	**50**	**410**	260	**42**	NA
	10/30/03	0.5 UJ	5 UJ	13.6 J	**53.2 J**	1990	**57**	NA
MW-18	05/22/96	BDL	6	15	**93**	280	**45**	NA
	07/11/00	**748**	**5820**	**516**	**3200**	3210	**62.9**	NA
	10/30/03	0.5 UJ	5 UJ	3.69 J	16.9 J	1250	**36**	NA

TABLE 1-3
Previous Groundwater Data (1996 – 2004)
Site 1159,OLF Bronson, NAS Pensacola

Monitoring Well	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylene (µg/L)	TRPH (µg/L)	Total Lead (µg/L)	Dissolved Lead (µg/L)
FDEP Cleanup Target Level:		**1**	**40**	**30**	**20**	**5,000**	**15**	**15**
MW-19	08/14/96	BDL	BDL	BDL	8	360	BDL	NA
	07/11/00	BDL	BDL	BDL	BDL	BDL	BDL	NA
MW-20	08/14/96	BDL	BDL	BDL	5	340	BDL	NA
	07/10/00	0.61 J	4.6	1.2	**21.8**	204 J	BDL	NA
	01/27/04	0.5 U	5 U	5 U	10 U	341 JB	BDL	NA
MW-21	08/14/96	BDL	BDL	17	**69**	BDL	BDL	NA
	07/10/00	BDL	0.94 J	1	**40.3**	BDL	BDL	NA
	10/30/03	0.5 U	5 U	5 U	10 U	171	4.5 J	NA
MW-22	08/14/96	**5**	23	12	**45**	550	**19**	NA
	07/10/00	BDL	5.3	**162**	**512**	1180	**31.6**	NA
	11/04/03	0.5 U	5 U	2.7 J	7.18 J	195 BJ	13 B	NA
MW-23	08/14/96	**880**	**2900**	**300**	**2200**	**6700**	**136**	NA
	07/10/00	**225**	**1750**	**173**	**1040**	1180	**31.6**	NA
	10/30/03	0.5 U	5 U	5 U	1.5 J	244	**100**	NA
	01/27/04	NA	NA	NA	NA	NA	**19**	NA
MW-24	08/14/96	**4**	**66**	**36**	**120**	760	**24**	NA
	11/03/03	**2.23 J**	4.85 J	24.7 J	**96.3 J**	4770	**120 JB**	NA
	01/27/04	NA	NA	NA	NA	NA	**110**	NA
MW-25	08/14/96	BDL	11	**100**	**420**	1800	**40**	NA
	11/03/03	0.5 U	5 UJ	4.54 J	25.5 J	1780	**130 JB**	NA
	01/27/04	NA	NA	NA	NA	NA	**130**	NA
MW-26	08/14/96	BDL	23	**100**	**640**	1900	**103**	NA
MW-27	08/14/96	**100**	**590**	**70**	**830**	4800	**79**	NA
	07/09/00	**483**	**2000**	**223**	**1680**	**7070**	**809**	NA
	11/03/03	0.5 UJ	5 UJ	5 UJ	1.13 J	2650	**59 JB**	NA
MW-28	08/14/96	**38**	**2400**	**300**	**1700**	**6000**	**345**	NA
	07/09/00	BDL	BDL	**238**	**1550**	**5430**	**566**	NA
	11/03/03	0.5 UJ	1.27 J	3.34 J	**36.6 J**	2010	**82 JB**	NA
MW-29	08/22/96	BDL	1.3	3.8	**20**	BDL	BDL	NA
	01/27/04	0.5 U	5 U	5 U	10 U	438 JB	15 U	NA
MW-30	08/22/96	BDL	1.5	1.6	1.5	230	BDL	NA
	07/11/00	1.2	BDL	1.9	BDL	BDL	BDL	NA
	01/27/04	0.5 U	5 U	5 U	5 U	572 JB	3.2 J	NA
MW-31[A]	10/10/96	BDL	6	**130**	**363**	2000	6	NA
	07/10/00	0.61 J	4.6	1.2	**21.8**	204 J	BDL	NA
MW-32	10/10/96	BDL	**670**	**470**	**1600**	4700	**61**	NA
	11/03/03	0.5 U	5 U	1.66 J	4.16 J	325	15 U	NA
MW-33	10/10/96	BDL	BDL	BDL	BDL	4700	**61**	NA
	07/11/00	BDL	BDL	BDL	BDL	BDL	BDL	NA
	11/03/03	0.5 U	5. U	5 U	10 U	87 J	15 U	NA
MW-34	10/10/96	BDL	BDL	BDL	BDL	BDL	BDL	NA
	07/10/00	BDL	BDL	BDL	BDL	BDL	BDL	NA
	11/03/03	0.5 U	5 U	5 U	10 U	100 U	15 U	NA
MW-35	10/10/96	BDL	BDL	BDL	BDL	BDL	BDL	NA
MW-36	10/10/96	BDL	BDL	BDL	BDL	BDL	BDL	NA
	11/03/03	0.5 U	5 U	5 U	10 U	100 U	15 U	NA
MW-37	10/10/96	BDL	BDL	BDL	BDL	BDL	BDL	NA
	11/03/03	0.5 UJ	5 UJ	5 UJ	5 UJ	100 U	15 U	NA

TABLE 1-3
Previous Groundwater Data (1996 – 2004)
Site 1159,OLF Bronson, NAS Pensacola

Monitoring Well	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylene (µg/L)	TRPH (µg/L)	Total Lead (µg/L)	Dissolved Lead (µg/L)
FDEP Cleanup Target Level:		**1**	**40**	**30**	**20**	**5,000**	**15**	**15**
MW-38[B]	10/10/96	BDL	BDL	BDL	BDL	BDL	BDL	NA
	07/11/00	BDL	BDL	BDL	BDL	BDL	BDL	NA
	11/04/03	0.5 U	5 U	5 U	1.69 J	269 BJ	6.8 B	NA
MW-39[B]	10/22/96	BDL	BDL	BDL	BDL	BDL	BDL	NA
	01/28/04	0.5 U	5 U	5 U	10 U	158 JB	15 U	NA
MW-40[A]	10/22/96	BDL	BDL	BDL	BDL	2000	**15**	NA
MW-41[A]	10/22/96	BDL	BDL	16	**50**	440	**18**	NA
MW-42[A]	10/22/96	BDL	BDL	**80**	**220**	570	12	NA
MW-43[A]	10/22/96	BDL	BDL	**46**	**140**	380	11	NA
MW-44	10/22/96	BDL	BDL	BDL	BDL	1100	3	NA
	07/11/00	BDL	BDL	0.77 J	BDL	BDL	BDL	NA
MW-45[C]	10/22/96	BDL	**1500**	**560**	**2500**	11	**39**	NA
	06/01/06	1 U	**171**	**75.5**	**276**	940	**24.8**	NA
MW-46[A]	10/22/96	BDL	**1000**	**720**	**3100**	**65000**	**106**	NA
MW-47[C]	10/22/96	**320**	**1200**	**880**	**4700**	**61000**	**56**	NA
	07/09/00	**301**	**5870**	**574**	**3620**	1670	**46.8**	NA
	11/04/03	25 U	**3980**	**608 J**	**3350**	**19900 B**	**100 B**	NA
MW-48[A]	10/22/96	BDL	**66**	**32**	**98**	1000	7	NA
MW-49[A]	12/13/96	BDL	BDL	BDL	BDL	BDL	BDL	NA
MW-50	12/13/96	BDL	BDL	BDL	BDL	BDL	BDL	NA
MW-51	12/13/96	BDL	BDL	BDL	BDL	BDL	BDL	NA
	07/10/00	BDL	BDL	BDL	BDL	BDL	BDL	NA
	01/28/04	0.5 U	5 U	5 U	10 U	258 JB	15 U	NA
MW-52	12/13/96	BDL	BDL	BDL	BDL	BDL	4	NA
	07/10/00	BDL	BDL	BDL	BDL	BDL	BDL	NA
	01/27/04	0.5 U	5 U	5 U	10 U	468 JB	11 J	NA
MW-53	12/13/96	BDL	BDL	BDL	BDL	BDL	BDL	NA
	07/10/00	BDL	BDL	BDL	BDL	BDL	BDL	NA
	11/03/03	0.5 U	1.65 J	5 U	1.99 J	100 U	1.2 BJ	NA
MW-54[A]	12/13/96	BDL	BDL	BDL	BDL	BDL	BDL	NA
MW-55	12/13/96	BDL	**55**	**310**	**1040**	2000	**19**	NA
	07/11/00	BDL	**403**	**344**	**1300**	1540	**70.1**	NA
	11/03/03	5 U	**49.6 J**	**297**	**1040**	**5020 J**	**51 JB**	NA
MW-56	12/13/96	BDL	BDL	BDL	BDL	BDL	BDL	NA
	01/27/04	0.5 U	5 U	5 U	10 U	290 J	15 U	NA
MW-57	12/13/96	BDL	BDL	BDL	BDL	BDL	BDL	NA
	01/27/04	0.5 U	5 U	5 U	10 U	307 JB	15 U	NA
MW-58[A]	12/13/96	BDL	BDL	BDL	BDL	BDL	BDL	NA
MW-59	12/13/96	BDL	BDL	BDL	BDL	BDL	BDL	NA
	01/27/04	0.5 U	5 U	5 U	10 U	334 BJ	15 U	NA
DMW-60	01/31/97	**24**	**130**	12	**64**	NA	NA	NA
	03/10/97	BDL	BDL	BDL	BDL	BDL	BDL	NA
	06/30/97	NA	NA	NA	NA	NA	BDL	NA
DMW-61	02/26/97	BDL	BDL	BDL	BDL	BDL	BDL	NA
	07/11/00	BDL	BDL	BDL	BDL	BDL	BDL	NA
MW-62	11/04/03	0.5 U	5 U	2.02 J	3.41 J	1630 BJ	**20 B**	NA
MW-63	07/09/00	BDL	BDL	BDL	BDL	BDL	BDL	NA

TABLE 1-3
Previous Groundwater Data (1996 – 2004)
Site 1159,OLF Bronson, NAS Pensacola

Monitoring Well	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylene (µg/L)	TRPH (µg/L)	Total Lead (µg/L)	Dissolved Lead (µg/L)
FDEP Cleanup Target Level:		**1**	**40**	**30**	**20**	**5,000**	**15**	**15**
MW-64[C]	07/09/00	BDL	BDL	14	**32.4**	BDL	BDL	NA
MW-65[C]	11/03/03	0.5 U	5 U	14.8	**61.9**	3480 J	**56 JB**	NA
MW-66	07/11/00	BDL	BDL	BDL	BDL	BDL	BDL	NA
	01/28/04	0.5 U	5 U	5 U	10 U	220 JB	15 U	NA
MW-67	07/11/00	**3.1**	4.8	**42.6**	**140**	945	9.6	NA
MW-68	07/10/00	BDL	BDL	**43.2**	BDL	BDL	BDL	NA
DMW-69	07/10/00	BDL	BDL	BDL	BDL	BDL	BDL	NA
MW-70	05/27/04	1 U	10 U	**34.7**	**59.3**	668 JB	4.8 B	NA
MW-71	05/27/04	2 U	**95 JB**	**223**	**723**	3790 JB	**29 B**	NA
MW-72	05/27/04	0.5 U	5 U	5 U	10 U	148 JB	1 B	NA
MW-73	05/27/04	2 U	20 U	9.15 J	**20.8 J**	1770 B	**24 B**	NA
MW-74	05/27/04	5 U	50 U	**221**	**689**	4260 JB	**24 B**	NA
MW-75	05/27/04	0.5 U	5 U	10	15.6	590 JB	9.6 B	NA

Notes:
Bold text represents exceedances in respective GCTL concentrations
[A] Well could not be located as of 09/2003
[B] Well could not be located as of 03/2006
[C] Product has been observed in this well

B	blank contaminated	TRPH	total recoverable petroleum hydrocarbon
BDL	below detection limit	U	undetected value at detection limit shown
J	estimated value	UJ	values non-detect at estimated value shown
µg/L	micrograms per liter		
NA	not analyzed		

2.0 Additional Investigations

CH2M HILL conducted additional characterization and evaluation activities following the submittal of the *Remedial Action Plan Addendum Site 1159-Outlying Landing Field Bronson, Naval Air Station Pensacola* (CH2M HILL, December 2004). These activities included

- Additional groundwater sampling (May 31 to June 1, 2006) to evaluate groundwater contaminant concentrations, revise the saturated zone mass estimate, and establish data trends
- Groundwater and LNAPL level gauging to track changes in the water table and determine the presence/absence of LNAPL at the site
- Tree core sampling and surveying (July 20 to 21, 2006) to evaluate potential phytoremediation impacts from mature site trees

The site plan is shown in Figure 1-3. The survey report for the tree coring activities is included in Appendix D. The following sections discuss the activities and results for the additional investigations conducted at Site 1159 by CH2M HILL.

2.1 Groundwater Monitoring

CH2M HILL conducted a groundwater sampling event from May 31 to June 1, 2006. Samples were taken with appropriate quality control (QC) from 31 monitoring wells: 1159-MW-01, -04, -09, -18, -20, -22, -24, -25, -28, -32, -33, -35, -44, -45, -47, -52, -55, -59, -60, -61, -62, -64, -65, -67, -69, -70, -71, -72, -73, -74, and -75. Results are presented in Table 2-1.

2.1.1 Groundwater Elevations

Site conditions have changed since the submittal of the *Remedial Action Plan Addendum Site 1159-Outlying Landing Field Bronson, Naval Air Station Pensacola* (CH2M HILL, December 2004). The water table approached a historic high in mid 2005 with a decrease to near historic low water table marks observed in July 2006. LNAPL accumulation in several site monitoring wells occurred due to the depressed water table, which resulted from below average rainfall conditions in the panhandle area during 2006.

Depth to groundwater was measured prior to sampling in all wells set to be sampled during the May 2006 groundwater sampling event. Monitoring wells were gauged on March 25, April 25, June 2, and October 23, 2006, to the nearest 0.01 foot. The groundwater elevations are presented in Table 2-1 and shown in Figures 2-1, 2-2, and 2-3, respectively for the March 25, June 2, and October 23 gauging events. Site groundwater generally flows to the west-southwest and is consistent with previous events. Historical groundwater elevations are included in Appendix A.

TABLE 2-1
Groundwater Level Measurements
Site 1159, OLF Bronson, NAS Pensacola

						3/25/2006				4/25/2006				6/2/2006				10/23/2006			
Well ID	**Alias**	**Total Depth (ft bls)**	**Top of Screen (ft bls)**	**Estimated Bottom of Screen (ft bls)**	**Top of Casing Elevation (ft NAVD)**	**Depth to Water (ft btoc)**	**Depth to Product (ft btoc)**	**Product Thickness (ft)**	**Groundwater Elevation (ft NAVD)**	**Depth to Water (ft btoc)**	**Depth to Product (ft btoc)**	**Product Thickness (ft)**	**Groundwater Elevation (ft NAVD)**	**Depth to Water (ft btoc)**	**Depth to Product (ft btoc)**	**Product Thickness (ft)**	**Groundwater Elevation (ft NAVD)**	**Depth to Water (ft btoc)**	**Depth to Product (ft btoc)**	**Product Thickness (ft)**	**Groundwater Elevation (ft NAVD)**
MW-01	None		5.00	15.00	13.035	10.25	NP	NP	2.79	10.58	NP	NP	2.46	10.22	NP	NP	2.82	10.41	NP	NP	2.63
MW-02	None	13.50	3.00	13.00	10.425	7.67	NP	NP	2.76	7.93	NP	NP	2.50	7.60	NP	NP	2.83	7.80	NP	NP	2.63
MW-04	None	13.50	3.00	13.00	10.01	7.24	NP	NP	2.77	7.51	NP	NP	2.50	7.20	NP	NP	2.81	7.04	NP	NP	2.97
MW-05	None	13.50	3.00	13.00	10.655	7.70	NP	NP	2.96	8.07	NP	NP	2.59	7.75	NP	NP	2.91	7.17	NP	NP	3.49
MW-06	None	13.50	3.00	13.00	10.745	7.90	NP	NP	2.85	8.21	NP	NP	2.54	7.60	NP	NP	3.15	8.08	NP	NP	2.67
MW-07	None	14.50	4.00	14.00	10.175	Destroyed				Destroyed				Destroyed				Destroyed			
MW-08	None	14.50	4.00	14.00	10.595	7.92	NP	NP	2.68	8.19	NP	NP	2.41	7.85	NP	NP	2.75	8.02	NP	NP	2.58
MW-09	None	14.50	4.00	14.00	10.940	8.27	NP	NP	2.67	8.52	NP	NP	2.42	8.20	NP	NP	2.74	5.35	NP	NP	5.59
MW-10	None	14.50	4.00	14.00	11.455	8.64	NP	NP	2.82	8.97	NP	NP	2.49	8.64	NP	NP	2.82	8.82	NP	NP	2.64
MW-11	MW-03	13.50	3.00	13.00	10.725	7.96	NP	NP	2.77	8.25	NP	NP	2.48	7.90	NP	NP	2.83	8.10	NP	NP	2.63
MW-12	MW-11	14.50	4.00	14.00	11.240	8.42	NP	NP	2.82	8.74	NP	NP	2.50	8.38	NP	NP	2.86	8.60	NP	NP	2.64
MW-13	None	14.50	4.00	14.00	11.435	8.55	NP	NP	2.89	8.82	NP	NP	2.62	8.51	NP	NP	2.93	5.73	NP	NP	5.71
MW-14	None	14.50	4.00	14.00	11.515	8.58	NP	NP	2.94	8.89	NP	NP	2.63	8.58	NP	NP	2.94	8.85	NP	NP	2.67
MW-15	None	14.50	4.00	14.00	11.235	8.35	NP	NP	2.89	8.64	NP	NP	2.60	8.28	NP	NP	2.96	8.55	NP	NP	2.69
MW-16	None	14.50	4.00	14.00	10.795	7.93	NP	NP	2.87	8.22	NP	NP	2.58	7.93	NP	NP	2.87	8.17	NP	NP	2.63
MW-17	None	14.50	4.00	14.00	10.525	7.68	NP	NP	2.85	7.96	NP	NP	2.57	7.68	NP	NP	2.85	7.86	NP	NP	2.67
MW-18	None	14.50	4.00	14.00	10.750	7.87	NP	NP	2.88	8.22	NP	NP	2.53	7.88	NP	NP	2.87	8.11	NP	NP	2.64
MW-19	None	14.50	4.00	14.00	11.625	9.01	NP	NP	2.62	9.27	NP	NP	2.36	8.94	NP	NP	2.69	9.11	NP	NP	2.52
MW-20	None	14.50	4.00	14.00	11.565	8.90	NP	NP	2.67	9.13	NP	NP	2.44	8.89	NP	NP	2.68	9.04	NP	NP	2.53
MW-21	None	14.50	4.00	14.00	11.330	8.52	NP	NP	2.81	8.80	NP	NP	2.53	8.50	NP	NP	2.83	8.70	NP	NP	2.63
MW-22	None	14.50	4.00	14.00	11.915	8.95	NP	NP	2.97	9.22	NP	NP	2.70	8.92	NP	NP	3.00	9.16	NP	NP	2.76
MW-23	None	14.50	4.00	14.00	11.725	8.75	NP	NP	2.98	9.07	NP	NP	2.66	8.74	NP	NP	2.99	9.02	NP	NP	2.71
MW-24	None	14.50	4.00	14.00	9.780	7.04	NP	NP	2.74	7.35	NP	NP	2.43	7.05	NP	NP	2.73	7.70	NP	NP	2.08
MW-25	None	14.50	4.00	14.00	10.745	7.98	NP	NP	2.77	8.25	NP	NP	2.50	7.92	NP	NP	2.83	8.16	NP	NP	2.59
MW-26	None	14.50	4.00	14.00	11.320	CNM	CNM	CNM	CNM	CNM	CNM	CNM	CNM	6.72	Roots In Well		4.60	CNM	CNM	CNM	CNM
MW-27	None	14.50	4.00	14.00	12.120	9.13	NP	NP	2.99	9.44	NP	NP	2.68	9.12	NP	NP	3.00	9.40	NP	NP	2.72
MW-28	None	14.50	4.00	14.00	12.190	9.31	NP	NP	2.88	9.62	NP	NP	2.57	9.25	NP	NP	2.94	9.56	NP	NP	2.63
MW-29	None	14.50	4.00	14.00	8.535	5.90	NP	NP	2.64	6.20	NP	NP	2.34	5.89	NP	NP	2.65	6.00	NP	NP	2.54
MW-30	None	14.50	4.00	14.00	8.195	5.55	NP	NP	2.65	5.85	NP	NP	2.35	5.58	NP	NP	2.62	8.97	NP	NP	-0.78
MW-32	None	18.50	8.00	18.00	18.770	15.76	NP	NP	3.01	16.03	NP	NP	2.74	15.83	NP	NP	2.94	16.10	NP	NP	2.67
MW-33	None	29.50	19.00	29.00	24.525	21.29	NP	NP	3.24	21.64	NP	NP	2.89	21.34	NP	NP	3.19	21.68	NP	NP	2.85
MW-34	None	30.50	20.00	30.00	27.940	24.28	NP	NP	3.66	24.68	NP	NP	3.26	24.42	NP	NP	3.52	24.91	NP	NP	3.03
MW-35	None	30.50	20.00	30.00	27.310	23.55	NP	NP	3.76	24.04	NP	NP	3.27	23.70	NP	NP	3.61	24.20	NP	NP	3.11
MW-36	None	30.50	20.00	30.00	27.845	24.01	NP	NP	3.84	24.45	NP	NP	3.40	24.18	NP	NP	3.67	24.70	NP	NP	3.15
MW-37	None	31.50	21.00	31.00	27.315	23.45	NP	NP	3.87	23.93	NP	NP	3.39	23.54	NP	NP	3.78	24.07	NP	NP	3.25
MW-38	None	24.50	14.00	24.00	22.650	CNL	CNL	CNL	CNL	CNL	CNL	CNL	CNL	CNL	CNL	CNL	CNL	CNL	CNL	CNL	CNL
MW-39	None	19.50	9.00	19.00	15.895	CNL	CNL	CNL	CNL	CNL	CNL	CNL	CNL	CNL	CNL	CNL	CNL	CNL	CNL	CNL	CNL
MW-44	None	30.50	20.00	30.00	25.700	22.30	NP	NP	3.40	22.66	NP	NP	3.04	22.35	NP	NP	3.35	22.78	NP	NP	2.92
MW-45	None	27.50	17.00	27.00	22.965	19.51	NP	NP	3.46	19.95	NP	NP	3.02	19.55	NP	NP	3.42	20.91	**19.67**	**1.24**	2.06
MW-47	None	22.50	12.00	22.00	17.770	14.55	NP	NP	3.22	14.94	NP	NP	2.83	14.56	NP	NP	3.21	15.84	**14.58**	**1.26**	1.93
MW-50	None	15.50	5.00	15.00	10.140	7.33	NP	NP	2.81	7.65	NP	NP	2.49	7.29	NP	NP	2.85	7.48	NP	NP	2.66
MW-51	None	15.50	5.00	15.00	10.700	7.61	NP	NP	3.09	8.00	NP	NP	2.70	7.58	NP	NP	3.12	7.88	NP	NP	2.82
MW-52	None	15.50	5.00	15.00	9.955	7.24	NP	NP	2.72	7.49	NP	NP	2.47	7.26	NP	NP	2.70	CNM	CNM	CNM	CNM
MW-53	None	27.50	17.00	27.00	24.045	20.91	NP	NP	3.14	21.24	NP	NP	2.81	20.95	NP	NP	3.10	21.23	NP	NP	2.82
MW-55	None	19.50	9.00	19.00	13.000	10.18	NP	NP	2.82	8.48	NP	NP	4.52	10.18	NP	NP	2.82	10.38	NP	NP	2.62

TABLE 2-1
Groundwater Level Measurements
Site 1159, OLF Bronson, NAS Pensacola

						3/25/2006				4/25/2006				6/2/2006				10/23/2006			
Well ID	**Alias**	**Total Depth (ft bls)**	**Top of Screen (ft bls)**	**Estimated Bottom of Screen (ft bls)**	**Top of Casing Elevation (ft NAVD)**	**Depth to Water (ft btoc)**	**Depth to Product (ft btoc)**	**Product Thickness (ft)**	**Groundwater Elevation (ft NAVD)**	**Depth to Water (ft btoc)**	**Depth to Product (ft btoc)**	**Product Thickness (ft)**	**Groundwater Elevation (ft NAVD)**	**Depth to Water (ft btoc)**	**Depth to Product (ft btoc)**	**Product Thickness (ft)**	**Groundwater Elevation (ft NAVD)**	**Depth to Water (ft btoc)**	**Depth to Product (ft btoc)**	**Product Thickness (ft)**	**Groundwater Elevation (ft NAVD)**
MW-56	None	25.50	15.00	25.00	21.595	17.63	NP	NP	3.97	18.20	NP	NP	3.40	17.75	NP	NP	3.85	18.26	NP	NP	3.34
MW-57	None	22.50	12.00	22.00	18.240	14.57	CNL	CNL	3.67	15.07	NP	NP	CNM	14.63	NP	NP	3.61	CNM	CNM	CNM	CNM
MW-58	None	18.50	8.00	18.00	12.135	5.76	DRY	DRY	6.38	DRY	DRY	DRY	DRY	5.30	NP	NP	6.84	NR	NR	NR	NR
MW-59	None	17.50	7.00	17.00	13.695	10.88	CNL	CNL	2.82	11.20	NP	NP	2.50	10.95	NP	NP	2.75	11.10	NP	NP	2.60
DMW-60	None	40.50	35.00	40.00	17.400	14.22	NP	NP	3.18	14.60	NP	NP	2.80	14.22	NP	NP	3.18	14.56	NP	NP	2.84
DMW-61	None	29.50	24.00	29.00	10.710	7.92	NP	NP	2.79	8.20	NP	NP	2.51	7.87	NP	NP	2.84	8.05	NP	NP	2.66
MW-62	None	No Data	No Data	No Data	21.020	17.25	NP	NP	3.77	17.78	NP	NP	3.24	17.35	NP	NP	3.67	17.87	**17.84**	**0.03**	3.15
MW-63	None	No Data	No Data	No Data	26.355	22.72	NP	NP	3.64	23.11	NP	NP	3.25	22.78	NP	NP	3.58	23.29	NP	NP	3.07
MW-64	None	No Data	No Data	No Data	24.235	20.80	NP	NP	3.44	21.23	NP	NP	3.01	20.85	NP	NP	3.39	21.27	**21.26**	**0.01**	2.97
MW-65	None	No Data	No Data	No Data	24.505	20.90	NP	NP	3.61	21.35	NP	NP	3.16	20.98	NP	NP	3.53	21.46	NP	NP	3.05
MW-66	None	No Data	No Data	No Data	11.075	7.85	NP	NP	3.23	8.24	NP	NP	2.84	7.85	NP	NP	3.23	8.17	NP	NP	2.91
MW-67	None	No Data	No Data	No Data	10.750	8.08	NP	NP	2.67	8.41	NP	NP	2.34	8.10	NP	NP	2.65	8.24	NP	NP	2.51
MW-68	None	No Data	No Data	No Data	15.425	12.54	NP	NP	2.89	12.83	NP	NP	2.60	12.52	NP	NP	2.91	12.74	NP	NP	2.69
DMW-69	None	No Data	No Data	No Data	12.975	10.02	NP	NP	2.96	10.33	NP	NP	2.65	10.00	NP	NP	2.98	10.26	NP	NP	2.72
MW-70	None	15.50	5.00	15.00	10.630	7.97	NP	NP	2.66	8.24	NP	NP	2.39	7.99	NP	NP	2.64	8.11	NP	NP	2.52
MW-71	None	20.50	10.00	20.00	15.990	12.98	NP	NP	3.01	13.35	NP	NP	2.64	13.08	NP	NP	2.91	13.34	**13.30**	**0.04**	2.65
MW-72	None	14.50	4.00	14.00	9.810	7.31	NP	NP	2.50	7.60	NP	NP	2.21	7.31	NP	NP	2.50	7.38	NP	NP	2.43
MW-73	None	16.50	6.00	16.00	17.530	NR	NR	NR	NR	14.37	NR	NR	NR	13.98	NR	NR	NR	12.98	NR	NR	NR
MW-74	None	19.50	9.00	19.00	15.900	12.59	NP	NP	3.31	12.95	NP	NP	2.95	12.58	NP	NP	3.32	12.98	NP	NP	2.92
MW-75	None	16.50	6.00	16.00	12.000	8.98	NP	NP	3.02	CNL	CNL	CNL	CNL	8.90	NP	NP	3.10	9.17	NP	NP	2.83
AAS-01	None	39.50	36.00	39.00	18.080	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
AAS-02	None	40.50	37.00	40.00	18.870	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
AAS-03	None	39.50	36.00	39.00	17.350	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
AAS-04	None	38.50	35.00	38.00	16.760	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
AAS-05	None	60.50	57.00	60.00	22.240	18.8	NM	NM	3.44	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
SVE-01	None	16.50	8.00	16.00	17.610	14.45	NM	NM	3.16	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
SVE-02	None	24.50	14.00	24.00	21.680	18.27	NM	NM	3.41	NM	NM	NM	NM	NM	NM	NM	NM	19.74	**18.39**	**1.35**	1.94

Notes:

bls	below land surface
btoc	below top of casing
ft	feet
NAVD	North American Vertical Datum
CNL	could not locate
CNM	could not measure
NR	not recorded
NM	not measured

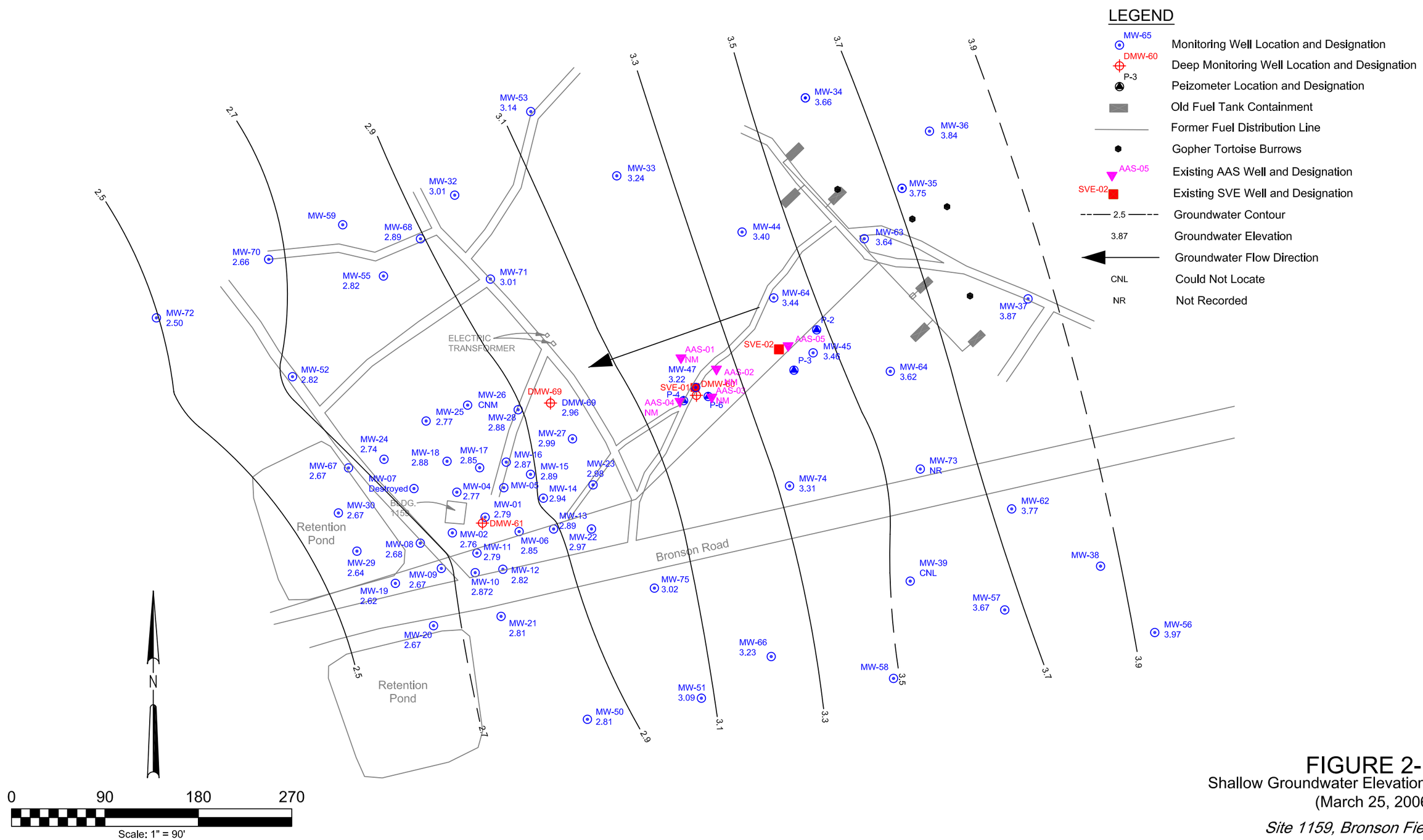


FIGURE 2-1

Shallow Groundwater Elevations
(March 25, 2006)

Site 1159, Bronson Field

CH2MHILL

site-1159_figure2-1.dwg
03-Feb-2007

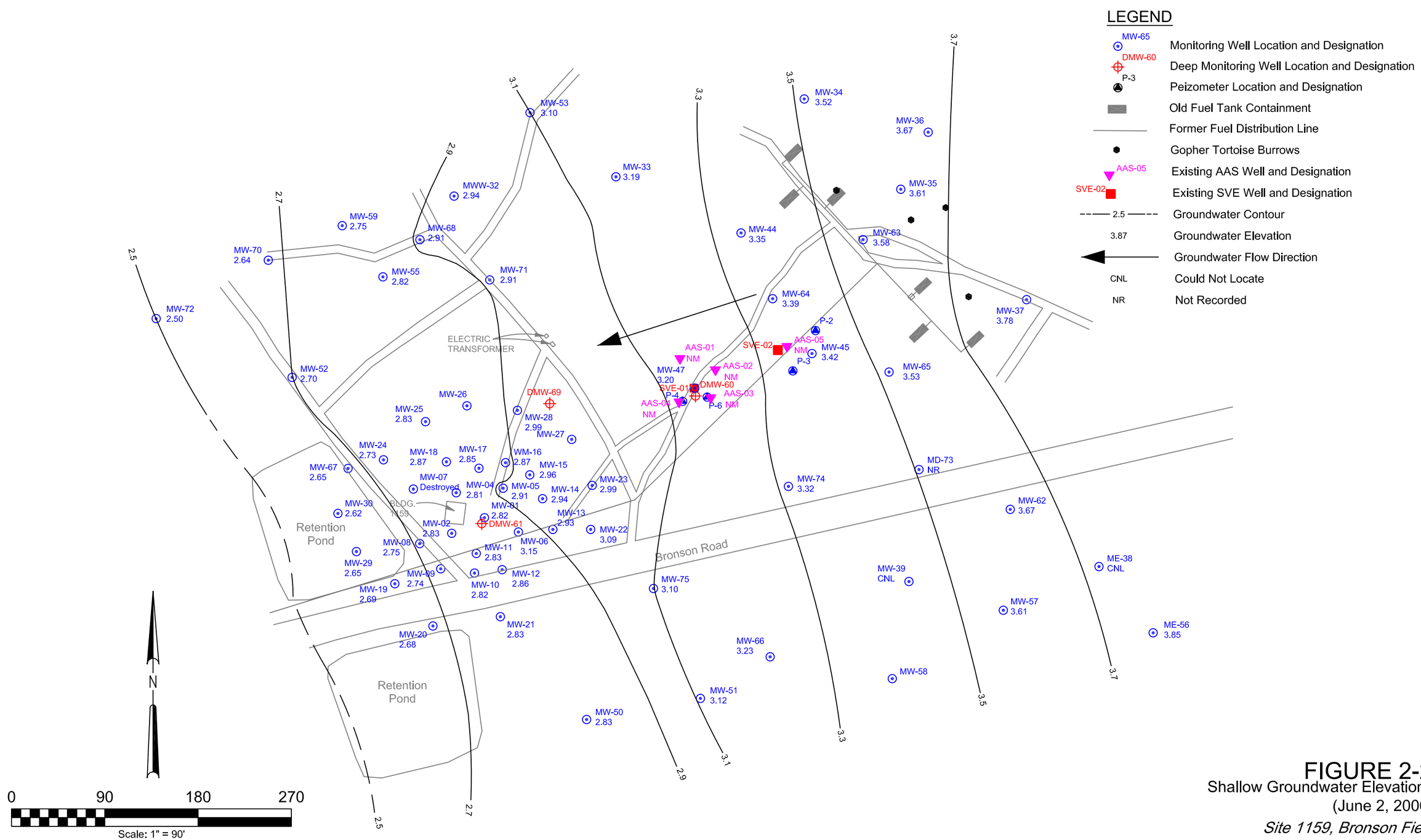


FIGURE 2-2

Shallow Groundwater Elevations
(June 2, 2006)

Site 1159, Bronson Field

CH2MHILL

site-1159_figure2-2.dwg
03-Feb-2007

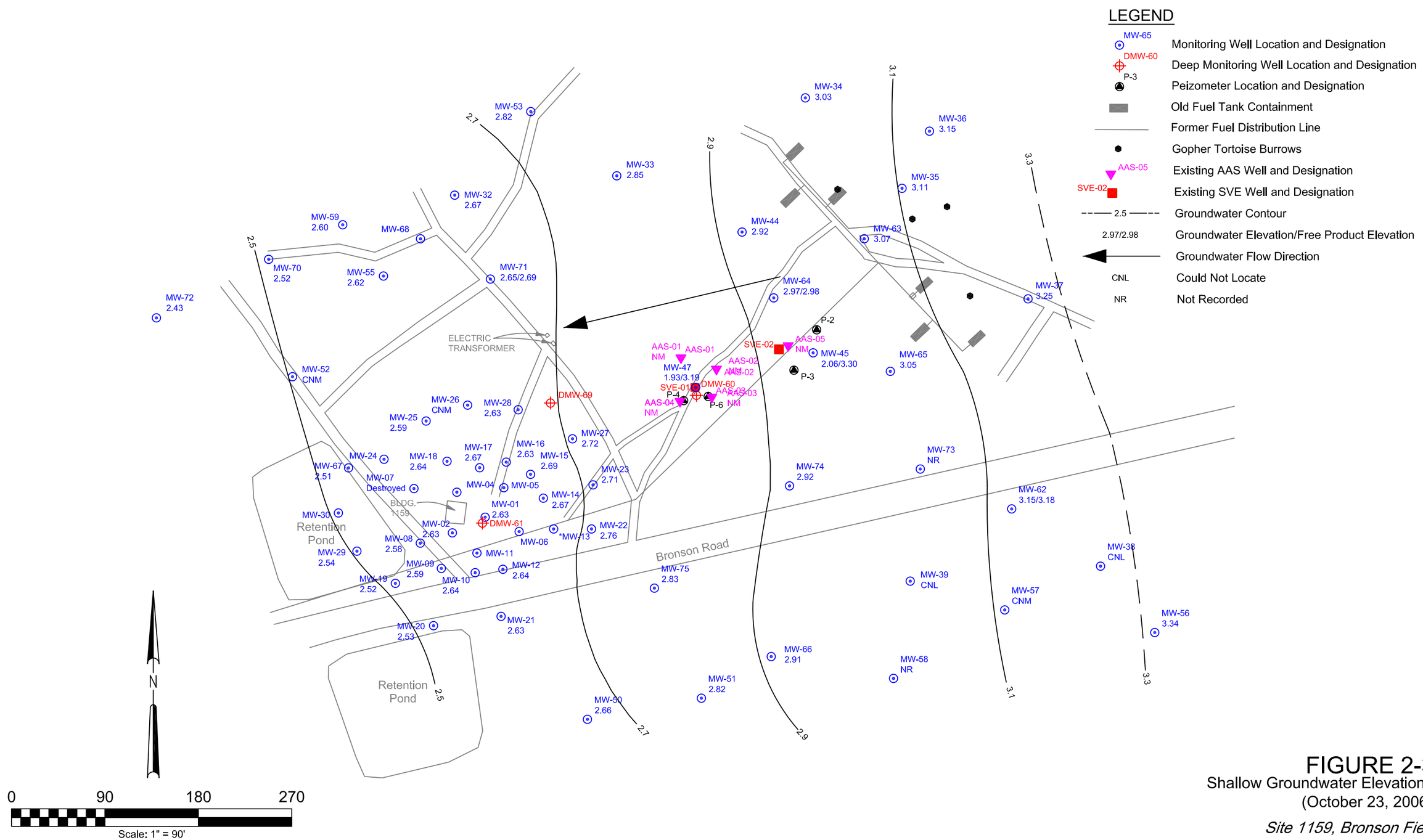


FIGURE 2-3

Shallow Groundwater Elevations
(October 23, 2006)

Site 1159, Bronson Field

CH2MHILL

site-1159_figure2-3.dwg
03-Feb-2007

2.1.2 Groundwater Sampling and Laboratory Analyses

CH2M HILL conducted groundwater monitoring activities from May 31 to June 1, 2006. Figure 1-3 shows the monitoring well locations. All groundwater sampling was conducted by two sampling teams qualified under the *Navy Installation Restoration Chemical Data Quality Manual* (IRCDQM, 1999). All sampling activities were conducted in accordance with the revised *CH2M HILL Sampling and Analysis Plan* (CH2M HILL, 2006). Field Sampling Data Logs for the event are included in Appendix C.

Samples collected during the May-June 2006 event were analyzed for TRPH using the Florida Petroleum Range Organics (FL-PRO) Method; total lead using SW 846 Method 6010B; BTEX and MTBE using SW 846 Method 8260B; and PAHs using SW 846 Method 8270C with select ion monitoring (SIM). Select wells were sampled for dissolved lead using SW 846 Method 6010B; total organic carbon (TOC) using EPA Method 415.1; carbon dioxide (CO_2) using EPA Method 4500-CO_2; and total alkalinity as calcium carbonate ($CaCO_3$) using EPA Method 310.1.

2.1.3 Groundwater Data Quality Evaluation

A groundwater data quality evaluation (DQE) was conducted by CH2M HILL on all analytical samples collected at Site 1159. The DQE is included in Appendix E.

2.1.4 Groundwater Analytical Results

During the May-June 2006 sampling event, benzene, ethylbenzene, toluene, total xylenes, and lead exceeded FDEP GCTLs in several monitoring wells. Three PAHs (benzo(b)fluoranthene, dibenz(a,h)anthracene, and indeno(1,2,3-c,d)pyrene) exceeded their respective GCTLs in one monitoring well. Tables 2-2 and 2-3 summarize the laboratory analytical results for the May-June 2006 groundwater sampling event. Analytical results from the May-June 2006 groundwater sampling event are shown in Figure 2-4. Figure 2-5 shows the estimated extents of the LNAPL, BTEX (NADCs and GCTLs), and lead dissolved-phase plumes.

Benzene exceeded the 1.0 microgram per liter (µg/L) GCTL in four monitoring wells (1159-MW-01, -18, -28, and -47) with overall concentrations ranging from non-detect to 23.8 µg/L. No benzene source MNA criteria (100 µg/L) exceedances were observed.

Toluene exceeded the 40 µg/L GCTL in five monitoring wells (1159-MW-28, -45, -47, -55, and -71) with concentrations ranging from non-detect to 2,100 µg/L. The 400 µg/L source MNA toluene criteria was exceeded at one well (1159-MW-47) at a concentration of 2,100 µg/L.

Ethylbenzene exceeded the 30 µg/L GCTL in eight monitoring wells (1159-MW-01, -28, -45, -47, -55, -70, -71, and -74) with concentrations ranging from non-detect to 422 µg/L. The 300 µg/L source MNA criteria for ethylbenzene was exceeded at two monitoring wells (1159-MW-47 and -55) with respective concentrations of 422 µg/L and 330 µg/L.

Total xylenes exceeded the 20 µg/L GCTL in fourteen wells (1159-MW-01, -09, -24, -25, -28, -45, -47, -55, -62, -64, -65, -70, -71, and -74) with concentrations ranging from non-detect to 2,180 µg/L. The 200 µg/L source MNA criteria was exceeded at seven monitoring wells

(1159-MW-28, -45, -47, -55, -70, -71, and -74) with respective concentrations of 714 µg/L, 276 µg/L, 2,180 µg/L, 1,170 µg/L, 323 µg/L, 935 µg/L, and 364 µg/L.

Total lead exceeded the 15 µg/L GCTL in sixteen monitoring wells (1159-MW-01, -04, -09, -18, -22, -24, -25, -28, 45, -47, -55, -62, -64, -65, -71, and -73) with concentrations ranging from non-detect to 84.3 µg/L. No exceedances in source MNA lead criteria (150 µg/L) were observed during this sampling event. Six of the ten dissolved lead samples exceeded 15 µg/L with concentrations ranging from non-detect to 35.2 µg/L.

No exceedances in PAHs were observed at the site with the exception of benzo(b)-fluoranthene (0.076 µg/L), dibenz(a,h)anthracene (0.078 µg/L), and indeno(1,2,3-c,d)pyrene (0.073 µg/L) at 1159-MW-28. The criteria for these parameters are 0.05 µg/L, 0.005 µg/L, and 0.05 µg/L, respectively.

No TRPH exceedances were observed in any of the sampled wells.

Select natural attenuation indicator parameters (NAIPs) were analyzed. Samples were collected from six monitoring wells (1159-MW-25, -35, -47, -55, -67, and -75). Carbon dioxide readings ranged from 10,900 µg/L to 61,600 µg/L. Alkalinity readings ranged from non-detect to 25,100 µg/L. TOC readings ranged from non-detect to 7,400 µg/L.

TABLE 2-2
Laboratory Analytical Results (May - June 2006)
Site 1159, OLF Bronson, NAS Pensacola

Parameter	Station ID	1159-MW-01	1159-MW-04	1159-MW-09	1159-MW-18	1159-MW-20	1159-MW-22	1159-MW-24	1159-MW-25	1159-MW-28	1159-MW-32	1159-MW-33	1159-MW-35	1159-MW-44	1159-MW-45	1159-MW-47
	Sample ID	071-1159-MW-01-0606	071-1159-MW-04-0606	071-1159-MW-09-0606	071-1159-MW-18-0606	071-1159-MW-20-0606	071-1159-MW-22-0606	071-1159-MW-24-0606	071-1159-MW-25-0606	071-1159-MW-28-0606	071-1159-MW-32-0606	071-1159-MW-33-0606	071-1159-MW-35-0606	071-1159-MW-44-0606	071-1159-MW-45-0606	071-1159-MW-47-0606
	Sample Date	5/31/2006	5/31/2006	5/31/2006	6/1/2006	5/31/2006	5/31/2006	5/31/2006	6/1/2006	5/31/2006	5/31/2006	6/1/2006	6/1/2006	6/1/2006	6/1/2006	6/1/2006
	GCTL[1]															
Carbon Dioxide free	NA								50300 JB				29800 JB			61600 JB
Alkalinity, total (as $CaCO_3$)	NA								16100				1000 U			15200
Total organic carbon	NA								7210 JB				693 JB			7400 JB
Petroleum hydrocarbons	5000	3200	780	650	1100	410	180	180	1600	1100	290	210	210	240	940	4200
Lead	15	**22.2**	**55.6**	**23.5**	**40.6 JB**	9.93	**24.9**	**28.2**	**67.4 JB**	**84.3**	5 U	5 U	2.62 JB	5 U	**24.8 JB**	**47.9 JB**
Lead-Dissolved	15	6.22		8.61				**19.6**	**25.3**							**34.4**
Benzene	1	**2.5**	1 U	0.3 J	**4.2**	1 U	1 U	0.64 J	1 U	**2.8**	1 U	1 U	1 U	1 U	1 U	**23.8**
Ethylbenzene	30	**33.2**	1 U	15.6	4.3	1 U	1.4	21.6	25.2	**139**	1 U	1 U	1 U	1 U	**75.5**	**422**
tert-Butyl Methyl Ether	20	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U
Toluene	40	4.7 JB	1 U	1 U	18.9	1 U	1 U	2.8 JB	3.3	**233 JB**	1 U	1 U	1 U	1 U	**171**	**2100**
Xylenes, total	20	**132**	3 U	**54.5**	14.9	3 U	6.1	**71.6**	**80.3**	**714**	3 U	3 U	3 U	3 U	**276**	**2180**
1-Methylnaphthalene	28	0.055 JB	0.24 JB	0.081 JB	0.21 JB	0.02 U	0.019 JB	0.34 JB	0.56 JB	0.44 JB	0.02 U	0.019 U	0.019 U	0.016 JB	0.042 JB	0.12 JB
2-Methylnaphthalene	28	0.048 JB	0.087 JB	0.12 JB	0.099 JB	0.0098 JB	0.032 JB	0.13 JB	0.22 JB	0.27 JB	0.02 UJ	0.019 U	0.019 U	0.017 JB	0.061 JB	0.18 JB
Acenaphthene	20	0.02 U	0.02 U	0.02 U	0.019 U	0.02 U	0.02 U	0.0077 JB	0.011 J	0.011 JB	0.02 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U
Acenaphthylene	210	0.02 U	0.02 U	0.02 U	0.019 U	0.02 U	0.02 U	0.02 U	0.019 U	0.02 U	0.02 U	0.013 J	0.019 U	0.013 J	0.019 U	0.019 U
Anthracene	2100	0.02 U	0.02 U	0.02 U	0.019 U	0.02 U	0.02 U	0.02 U	0.019 U	0.0042 J	0.02 U	0.019 U	0.0041 J	0.019 U	0.019 U	0.019 U
Benzo(a)anthracene	0.5	0.02 U	0.02 U	0.02 U	0.013 JB	0.02 U	0.02 U	0.02 U	0.012 JB	0.06	0.02 U	0.019 U	0.012 JB	0.013 JB	0.017 JB	0.013 JB
Benzo(a)pyrene	0.2	0.02 U	0.02 U	0.02 U	0.019 U	0.02 U	0.02 U	0.02 U	0.019 U	0.035	0.02 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U
Benzo(b)fluoranthene	0.05	0.02 U	0.02 U	0.02 U	0.019 U	0.02 U	0.02 U	0.02 U	0.019 U	**0.076**	0.02 U	0.019 U	0.019 U	0.019 U	0.0096 J	0.019 U
Benzo(g,h,i)perylene	210	0.02 U	0.02 U	0.02 U	0.019 U	0.02 U	0.02 U	0.02 U	0.019 U	0.062 JB	0.02 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U
Benzo(k)fluoranthene	0.5	0.02 U	0.02 U	0.02 U	0.019 U	0.02 U	0.02 U	0.02 U	0.019 U	0.056	0.02 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U
Chrysene	4.8	0.02 U	0.02 U	0.02 U	0.012 J	0.02 U	0.02 U	0.02 U	0.019 U	0.061	0.02 U	0.019 U	0.011 J	0.013 J	0.017 J	0.012 J
Dibenz(a,h)anthracene	0.005	**0.02 U**	**0.02 U**	**0.02 U**	**0.019 U**	**0.02 U**	**0.02 U**	**0.02 U**	**0.019 U**	**0.078**	**0.02 U**	**0.019 U**	**0.019 U**	**0.019 U**	**0.019 U**	**0.019 U**
Fluoranthene	280	0.02 U	0.01 JB	0.02 U	0.019 U	0.02 U	0.0078 JB	0.02 U	0.019 U	0.035 JB	0.02 U	0.019 U	0.019 U	0.019 U	0.02	0.019 U
Fluorene	280	0.0037 JB	0.0063 JB	0.0035 JB	0.0063 JB	0.0038 JB	0.0043 JB	0.0085 JB	0.01 JB	0.01 JB	0.02 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U
Indeno(1,2,3-c,d)pyrene	0.05	0.02 U	0.02 U	0.02 U	0.019 U	0.02 U	0.02 U	0.02 U	0.019 U	**0.073 JB**	0.02 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U
Naphthalene	14	0.12 JB	0.02 U	0.22 JB	0.12 JB	0.016 JB	0.033 JB	0.19 JB	0.33 JB	0.39 JB	0.02 U	0.019 U	0.019 U	0.019 U	0.18 JB	0.94 JB
Phenanthrene	210	0.02 U	0.02 U	0.02 U	0.019 U	0.02 U	0.02 U	0.02 U	0.019 U	0.02 U	0.02 U	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U
Pyrene	210	0.02 U	0.01 JB	0.02 U	0.019 U	0.02 U	0.0098 JB	0.02 U	0.019 U	0.036 JB	0.02 U	0.019 U	0.019 U	0.019 U	0.015 B	0.019 U

Notes:
All concentrations reported in micrograms per liter (µg/L).
Bold and Shaded indicates concentration exceeds GCTL
Values Bolded are analytes not detected by the lab but are above the GCTL
1 = Chapter 62-777 FAC GCTLs reported in µg/L

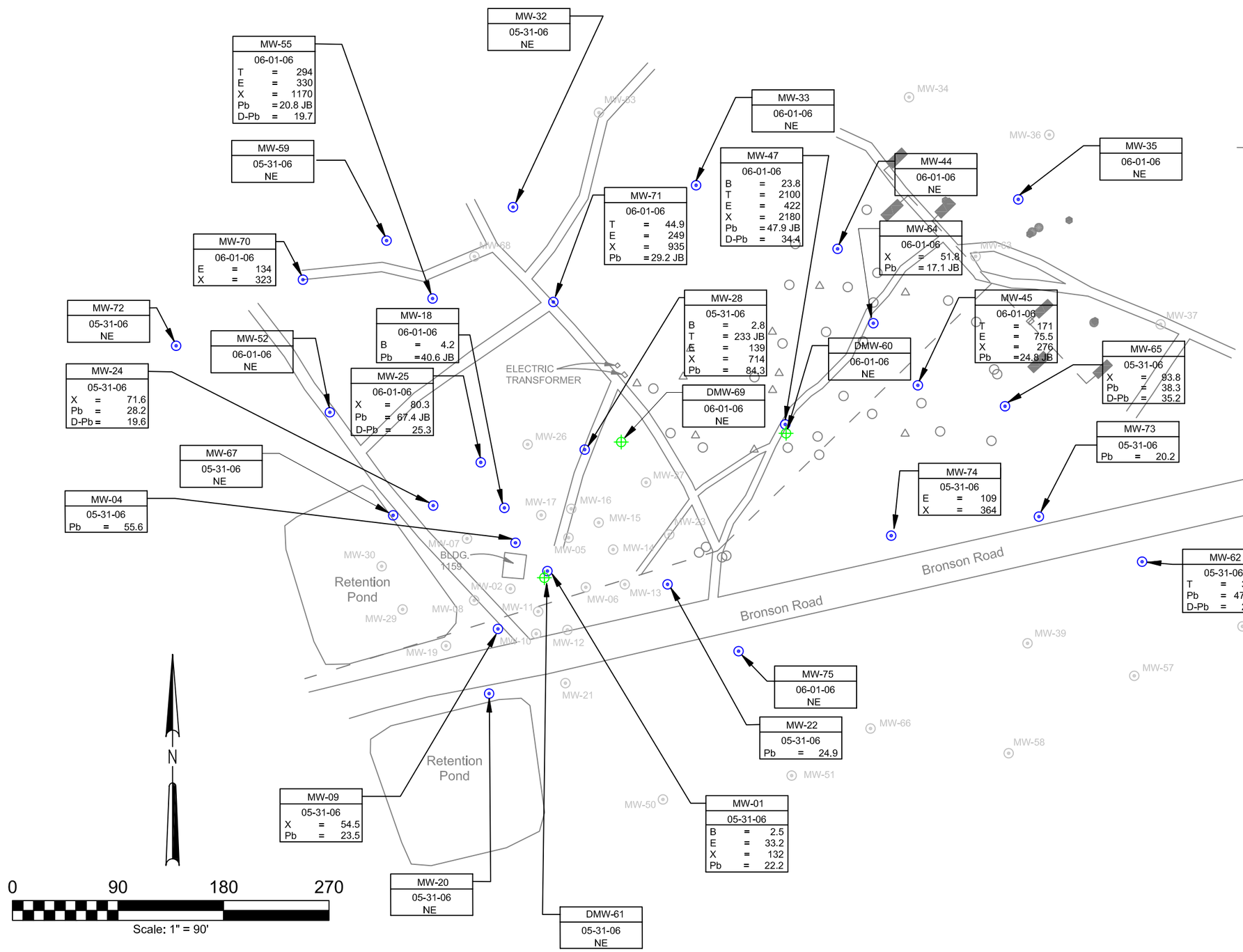
B -The analyte was detected in the associated method and/or calibration blank.
J - estimated value
JB - Estimate value. The analyte was detected in the associated method and/or calibration blank.
NA - Not Available at time of rule adoption
U - The analyte was analyzed for, but not detected.
UJ- Value non-detected estimated.

TABLE 2-2
Laboratory Analytical Results for the May-June 2006
Site 1159, OLF Bronson, NAS Pensacola

Parameter	Station ID	1159-MW-52	1159-MW-55	1159-MW-59	1159-MW-60	1159-MW-61	1159-MW-62	1159-MW-64	1159-MW-65	1159-MW-67	1159-MW-69	1159-MW-70	1159-MW-71	1159-MW-72	1159-MW-73	1159-MW-74	1159-MW-75
	Sample ID	071-1159-MW-52-0606	071-1159-MW-55-0606	071-1159-MW-59-0606	071-1159-MW-60-0606	071-1159-MW-61-0606	071-1159-MW-62-0606	071-1159-MW-64-0606	071-1159-MW-65-0606	071-1159-MW-67-0606	071-1159-MW-69-0606	071-1159-MW-70-0606	071-1159-MW-71-0606	071-1159-MW-72-0606	071-1159-MW-73-0606	071-1159-MW-74-0606	071-1159-MW-75-0606
	Sample Date	6/1/2006	6/1/2006	5/31/2006	6/1/2006	5/31/2006	5/31/2006	6/1/2006	5/31/2006	5/31/2006	5/31/2006	6/1/2006	6/1/2006	5/31/2006	5/31/2006	5/31/2006	6/1/2006
	GCTL[1]																
Carbon Dioxide free	NA		10900 JB							20400							59300 JB
Alkalinity, total (as $CaCO_3$)	NA		2110 J							4690							25100
Total organic carbon	NA		5900 JB							100000 U							7250 JB
Petroleum hydrocarbons	5000	230	2100	490	200	170 U	1600	570	980	550	240	880	2400	250	1600	1400	360
Lead	15	2.71 JB	**20.8 JB**	5 U	5 U	5 U	**47.5 J**	**17.1 JB**	**38.3**	12	5 U	4.18 JB	**29.2 JB**	2.45 J	**20.2**	11.4	5.15 JB
Lead-Dissolved	15		**19.7**				**27.7**		**35.2**					5 U		8.45	
Benzene	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	30	1 U	**330**	1 U	1 U	1 U	27.9	21.5	23.8	2.8	1 U	**134**	**249**	1 U	1.9	**109**	2.8
tert-Butyl Methyl Ether	20	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	40	1 U	**294**	1 U	1 U	1 U	1 U	1 U	1 U	0.27 JB	1 U	0.21 J	**44.9**	1 U	1 U	2 JB	1 U
Xylenes, total	20	3 U	**1170**	3 U	3 U	3 U	**39.2**	**51.8**	**93.8**	10.2	3 U	**323**	**935**	3 U	5.4	**364**	5.4
1-Methylnaphthalene	28	0.019 U	0.09 JB	0.02 U	0.019 U	0.02 U	0.091 JB	0.053 JB	0.035 JB	0.23 JB	0.02 U	0.079 JB	0.078 JB	0.02 U	0.17 JB	0.19 JB	0.029 JB
2-Methylnaphthalene	28	0.019 U	0.12 JB	0.02 UJ	0.019 U	0.02 UJ	0.14 JB	0.063 JB	0.038 JB	0.073 JB	0.02 UJ	0.12 JB	0.057 JB	0.02 UJ	0.22 JB	0.29 JB	0.048 JB
Acenaphthene	20	0.019 U	0.019 U	0.02 U	0.019 U	0.02 U	0.02 U	0.019 U	0.02 U	0.02 U	0.02 U	0.019 U	0.019 U	0.02 U	0.02 U	0.02 U	0.019 U
Acenaphthylene	210	0.019 U	0.019 U	0.02 U	0.019 U	0.02 U	0.02 U	0.019 U	0.02 U	0.02 U	0.02 U	0.019 U	0.019 U	0.02 U	0.02 U	0.02 U	0.019 U
Anthracene	2100	0.019 U	0.019 U	0.02 U	0.019 U	0.02 U	0.02 U	0.019 U	0.02 U	0.02 U	0.02 U	0.019 U	0.019 U	0.02 U	0.02 U	0.02 U	0.019 U
Benzo(a)anthracene	0.5	0.013 JB	0.012 JB	0.02 U	0.015 JB	0.02 U	0.02 U	0.013 JB	0.02 U	0.02 U	0.02 U	0.012 JB	0.013 JB	0.02 U	0.02 U	0.02 U	0.019 U
Benzo(a)pyrene	0.2	0.019 U	0.019 U	0.02 U	0.019 U	0.02 U	0.02 U	0.019 U	0.02 U	0.02 U	0.02 U	0.019 U	0.019 U	0.02 U	0.02 U	0.02 U	0.019 U
Benzo(b)fluoranthene	0.05	0.019 U	0.019 U	0.02 U	0.019 U	0.02 U	0.02 U	0.019 U	0.02 U	0.02 U	0.02 U	0.019 U	0.019 U	0.02 U	0.02 U	0.02 U	0.019 U
Benzo(g,h,i)perylene	210	0.019 U	0.019 U	0.02 U	0.019 U	0.02 U	0.02 U	0.019 U	0.02 U	0.02 U	0.02 U	0.019 U	0.019 U	0.02 U	0.02 U	0.02 U	0.019 U
Benzo(k)fluoranthene	0.5	0.019 U	0.019 U	0.02 U	0.019 U	0.02 U	0.02 U	0.019 U	0.02 U	0.02 U	0.02 U	0.019 U	0.019 U	0.02 U	0.02 U	0.02 U	0.019 U
Chrysene	4.8	0.014 J	0.019 U	0.02 U	0.015 J	0.02 U	0.02 U	0.013 J	0.02 U	0.02 U	0.02 U	0.019 U	0.019 U	0.02 U	0.02 U	0.02 U	0.019 U
Dibenz(a,h)anthracene	0.005	**0.019 U**	**0.019 U**	**0.02 U**	**0.019 U**	**0.02 U**	**0.02 U**	**0.019 U**	**0.02 U**	**0.02 U**	**0.02 U**	**0.019 U**	**0.019 U**	**0.02 U**	**0.02 U**	**0.02 U**	**0.019 U**
Fluoranthene	280	0.019 U	0.019 U	0.02 U	0.019 U	0.02 U	0.02 U	0.019 U	0.02 U	0.02 U	0.02 U	0.019 U	0.019 U	0.02 U	0.02 U	0.02 U	0.019 U
Fluorene	280	0.019 U	0.019 U	0.02 U	0.019 U	0.02 U	0.02 U	0.0034 JB	0.0035 JB	0.0053 JB	0.02 U	0.004 JB	0.0084 JB	0.02 U	0.0044 JB	0.0067 JB	0.019 U
Indeno(1,2,3-c,d)pyrene	0.05	0.019 U	0.019 U	0.02 U	0.019 U	0.02 U	0.02 U	0.019 U	0.02 U	0.02 U	0.02 U	0.019 U	0.019 U	0.02 U	0.02 U	0.02 U	0.019 U
Naphthalene	14	0.019 U	0.68 JB	0.02 U	0.019 U	0.02 U	0.1 JB	0.045 JB	0.048 JB	0.054 JB	0.02 U	0.24 JB	0.27 JB	0.02 U	0.02 U	0.39 JB	0.072 JB
Phenanthrene	210	0.019 U	0.019 U	0.02 U	0.019 U	0.02 U	0.02 U	0.019 U	0.02 U	0.02 U	0.02 U	0.019 U	0.019 U	0.02 U	0.02 U	0.015 JB	0.019 U
Pyrene	210	0.019 U	0.019 U	0.02 U	0.019 U	0.02 U	0.02 U	0.019 U	0.02 U	0.02 U	0.02 U	0.019 U	0.011 B	0.02 U	0.02 U	0.02 U	0.011 B

Notes:
All concentrations reported in µg/L0.
Bold and Shaded indicates concentration exceeds **GCTL**
Values Bolded are analytes not detected by the lab but are above the **GCT**L
1 = Ch 62-777 FAC **GCTLs** reported in µg/L

B -The analyte was detected in the associated method and/or calibration blank.
J - estimated value
JB - Estimate value. The analyte was detected in the associated method and/or calibration blank.
NA - Not Available at time of rule adoption
U - The analyte was analyzed for, but not detected.
UJ- Value non-detected estimated.



LEGEND

MW-65	Monitoring Well Location and Designation
DMW-60	Deep Monitoring Well Location and Designation
	Oak Tree
	Pine Tree
	Old Fuel Tank Containment
	Former Fuel Distribution Line
	Gopher Tortoise Burrows
J	Estimated Value
NA	Not Analyzed
NE	No Exceedances
JB	Estimated Value, the analyte was detected in the associated method and/or calibration blank

Note:

The groundwater cleanup target levels are:

(B) Benzene	1 µg/L
(T) Toluene	40 µg/L
(E) Ethylbenzene	30 µg/L
(X) Total Xylenes	20 µg/L
(TRPH) TRPH	5 mg/L
(Pb) Total Lead	15 µg/L
(D-Pb) Dissolved Lead	15 µg/L

FIGURE 2-4

Exceedances in Groundwater
(May - June 2006)
Site 1159, Bronson Field

CH2MHILL

site-1159_figure2-4.dwg
12-Jun-2007

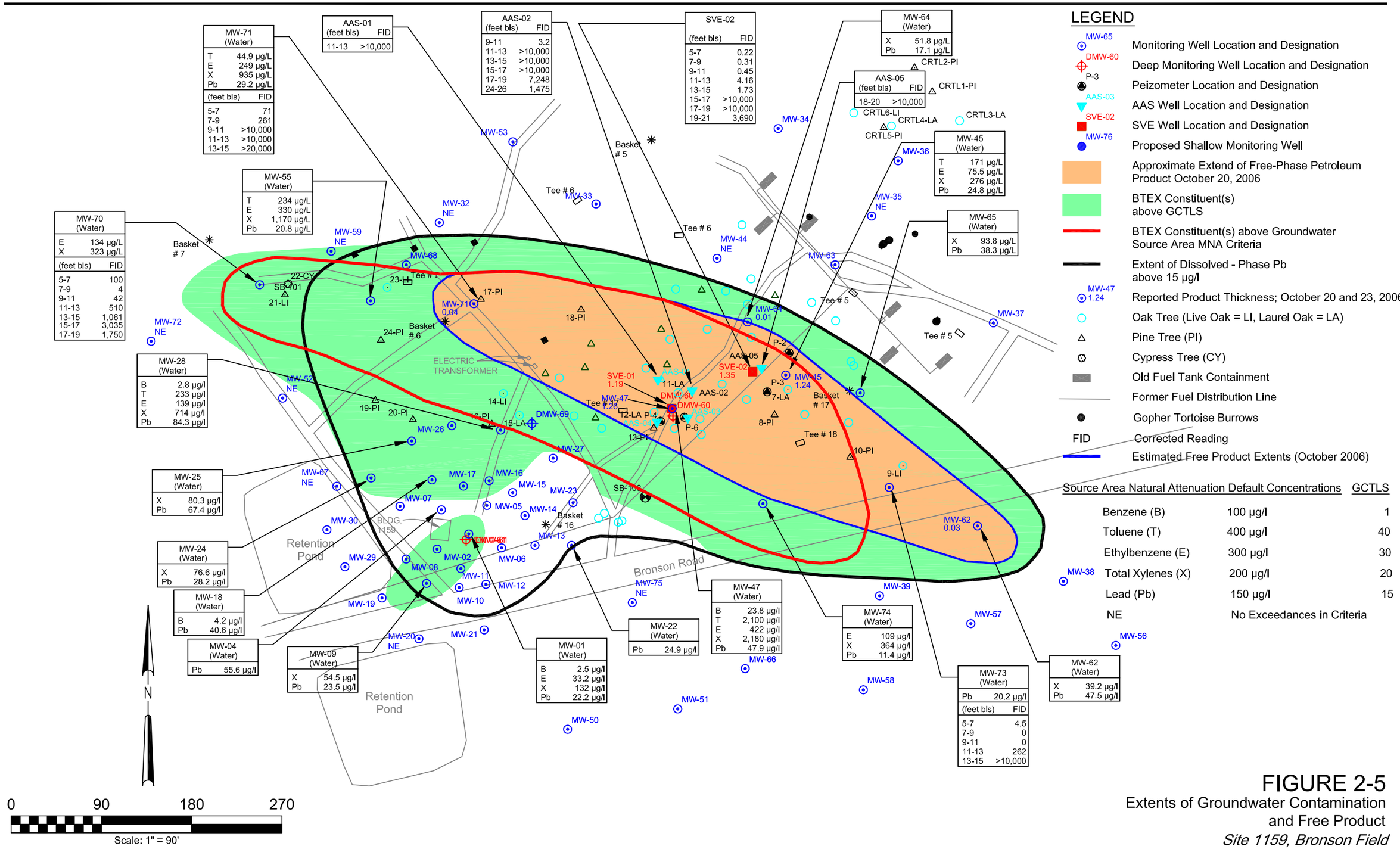


FIGURE 2-5

Extents of Groundwater Contamination and Free Product

Site 1159, Bronson Field

CH2MHILL

site-1159_figure2-5.dwg
04-Feb-2007

2.1.5 Groundwater Trend Analyses

Due to the changing historic groundwater monitoring regimes, limited data points are available to conduct trend analyses for site monitoring wells. The maximum number of data points available for any monitoring well on site is four. Of the 74 monitoring wells listed for the site, 14 wells have four data points, 16 wells have three data points, 27 wells have two data points, and 17 wells have only one data point. Most wells that were sampled exhibited an increase in concentrations in 2000 (corresponding to the historic low observed in the water table). Monitoring wells 1159-MW-23 and -32 show a discernable decreasing trend for most of the site COCs. Figures 2-6 through 2-15 show the analytical trends for monitoring wells MW-01, -04, -18, -22, -23, -27, -28, -32, -47, and -55. The complete file with all monitoring well data trends is in Appendix F.

FIGURE 2-6
Groundwater Contaminant Trends in MW-01
Site 1159, OLF Bronson, NAS Pensacola

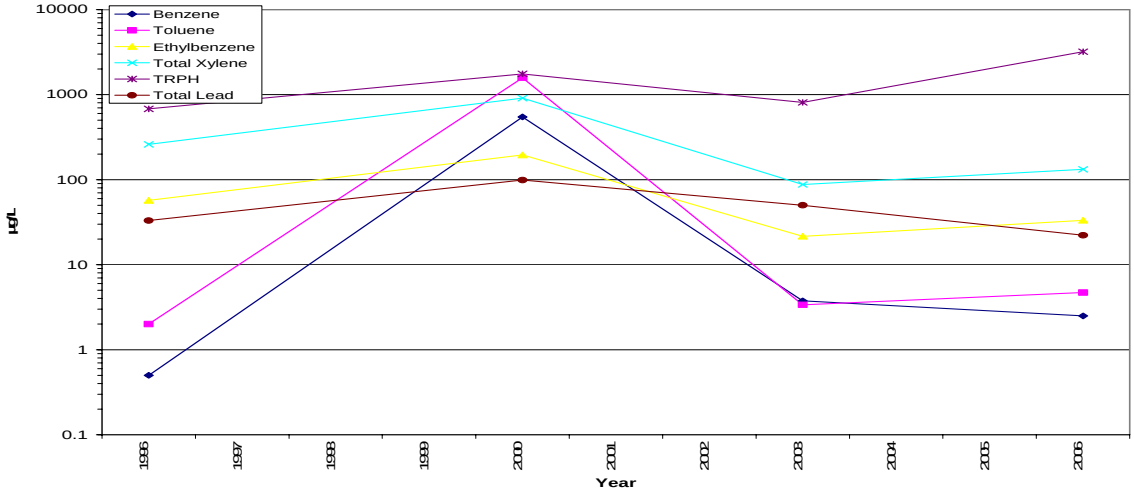


FIGURE 2-7
Groundwater Contaminant Trends in MW-04
Site 1159, OLF Bronson, NAS Pensacola

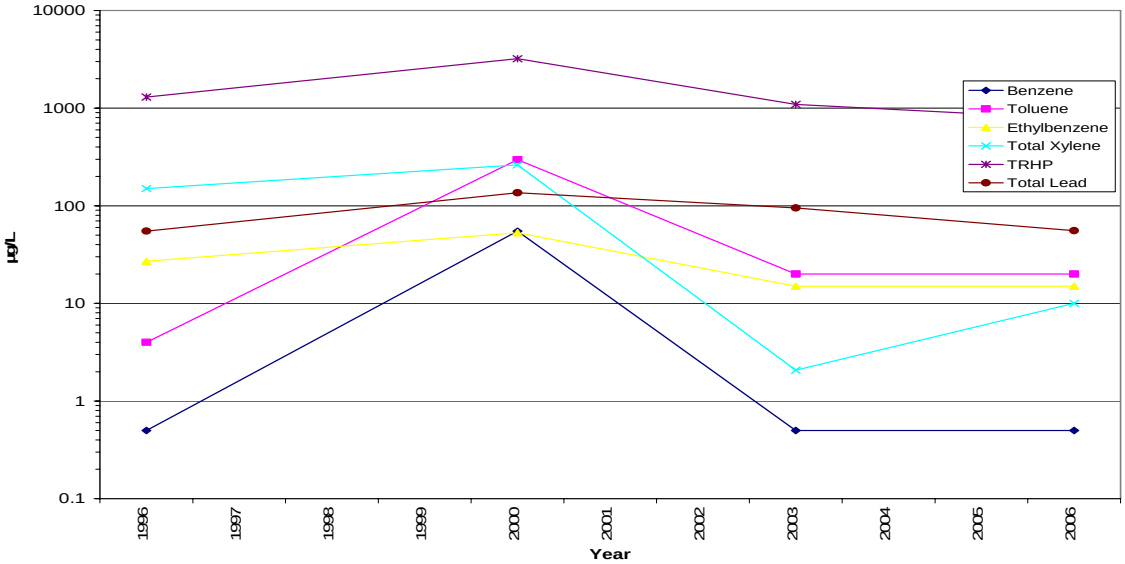


FIGURE 2-8
Groundwater Contaminant Trends in MW-18
Site 1159, OLF Bronson, NAS Pensacola

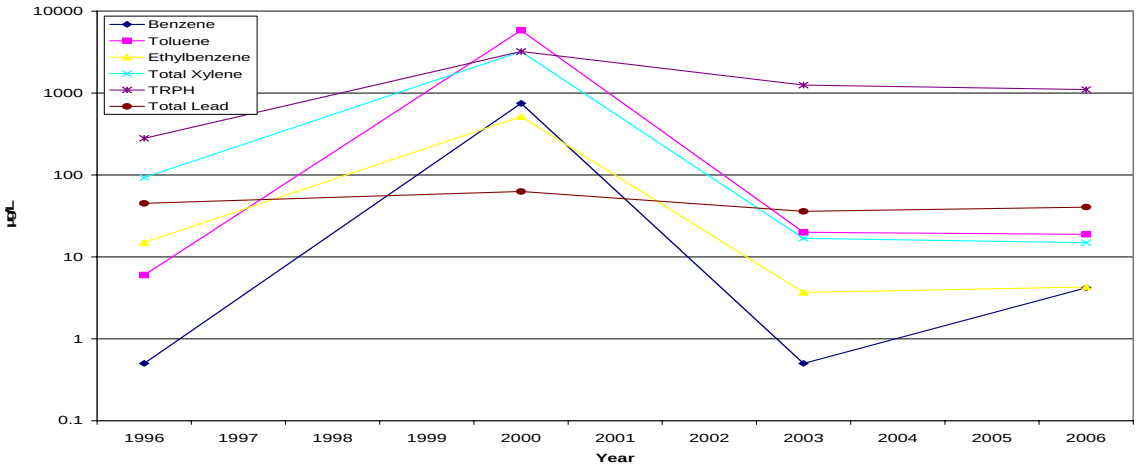


FIGURE 2-9
Groundwater Contaminant Trends in MW-22
Site 1159, OLF Bronson, NAS Pensacola

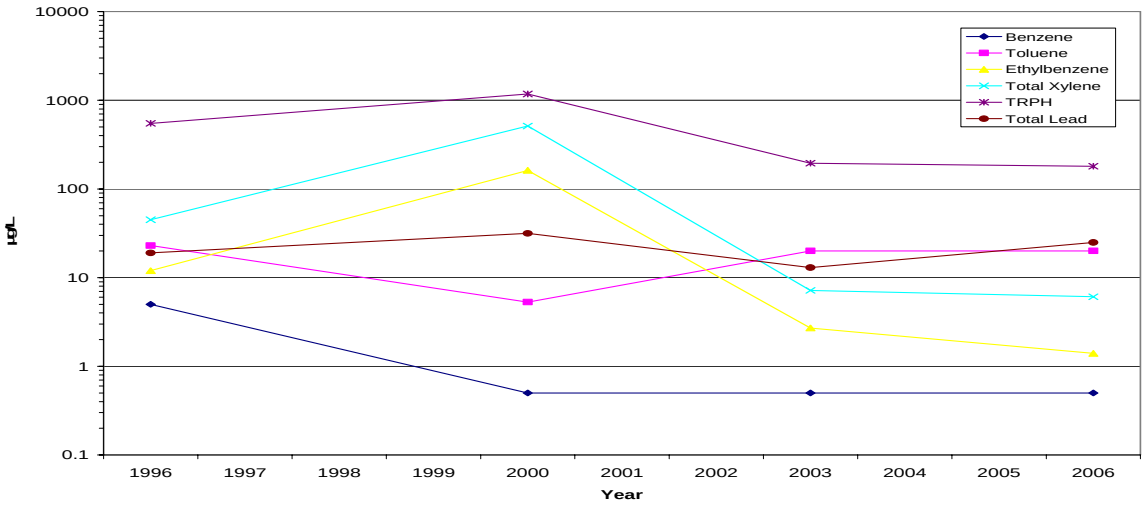


FIGURE 2-10
Groundwater Contaminant Trends in MW-23
Site 1159, OLF Bronson, NAS Pensacola

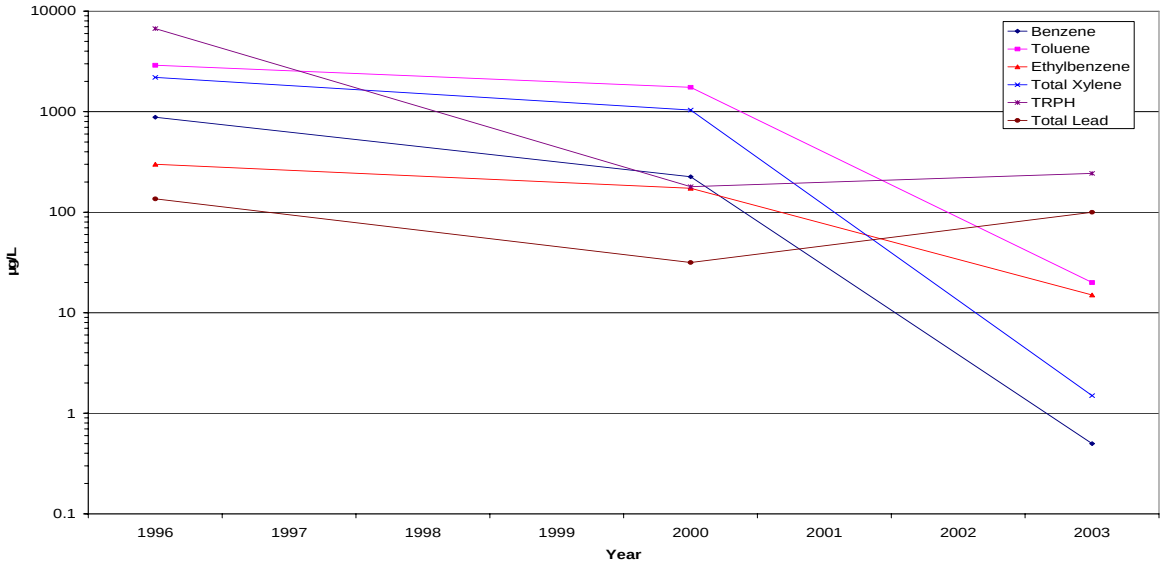


FIGURE 2-11
Groundwater Contaminant Trends in MW-27
Site 1159, OLF Bronson, NAS Pensacola

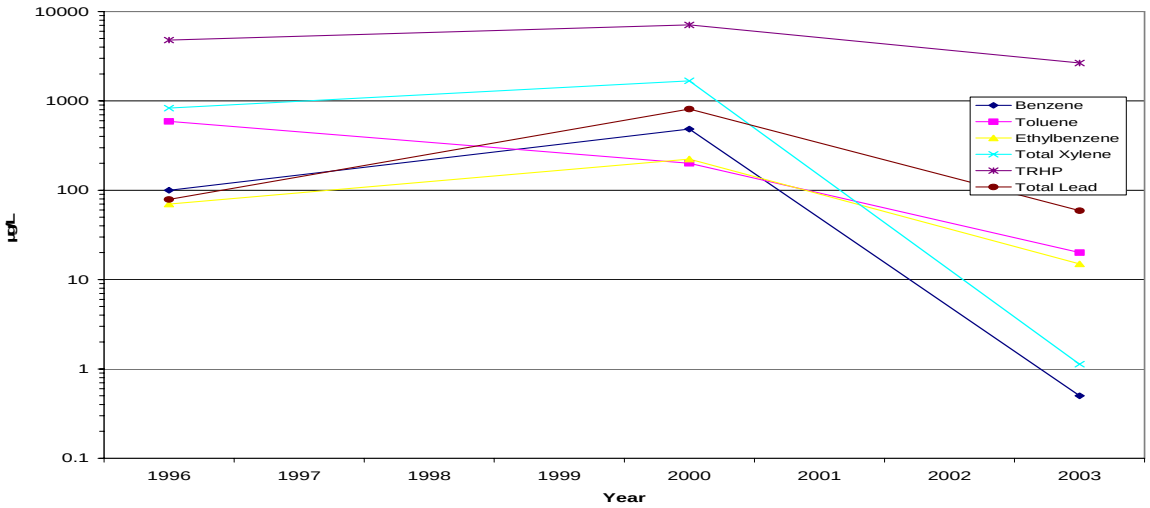


FIGURE 2-12
Groundwater Contaminant Trends in MW-28
Site 1159, OLF Bronson, NAS Pensacola

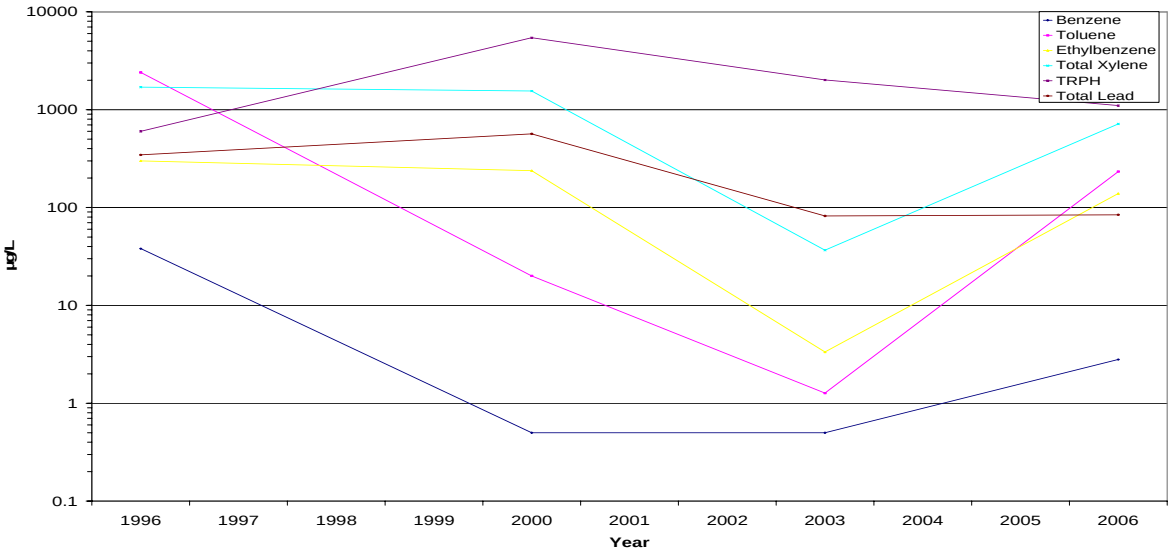


FIGURE 2-13
Groundwater Contaminant Trends in MW-32
Site 1159, OLF Bronson, NAS Pensacola

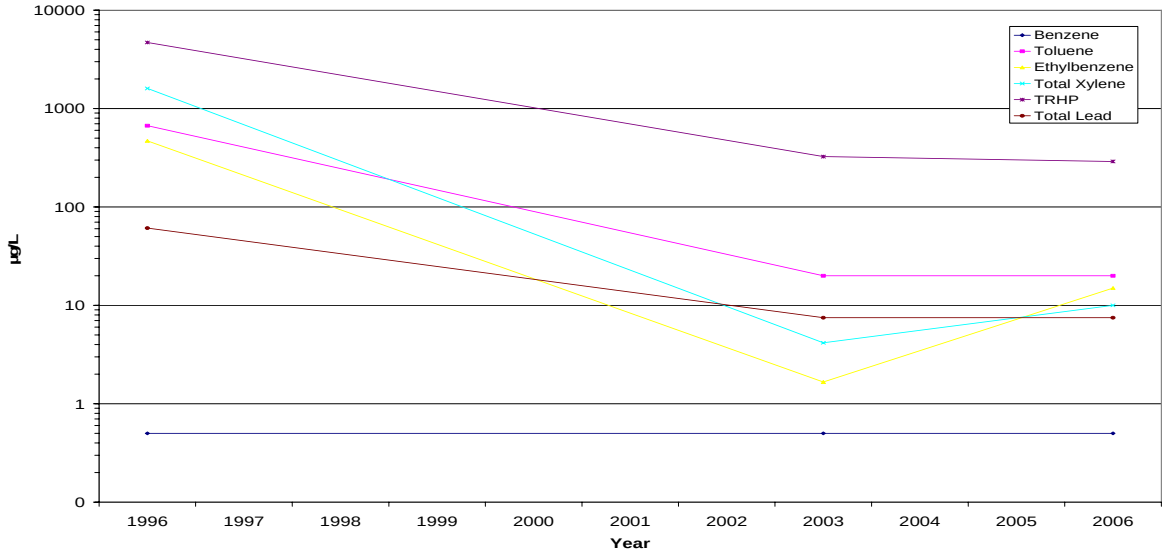


FIGURE 2-14
Groundwater Contaminant Trends in MW-47
Site 1159, OLF Bronson, NAS Pensacola

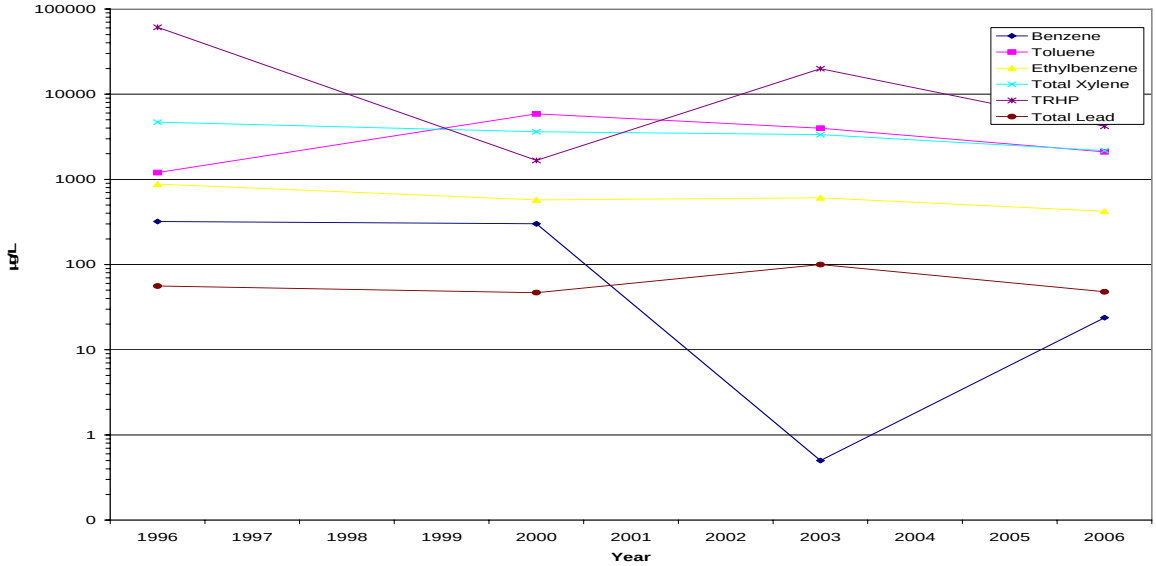
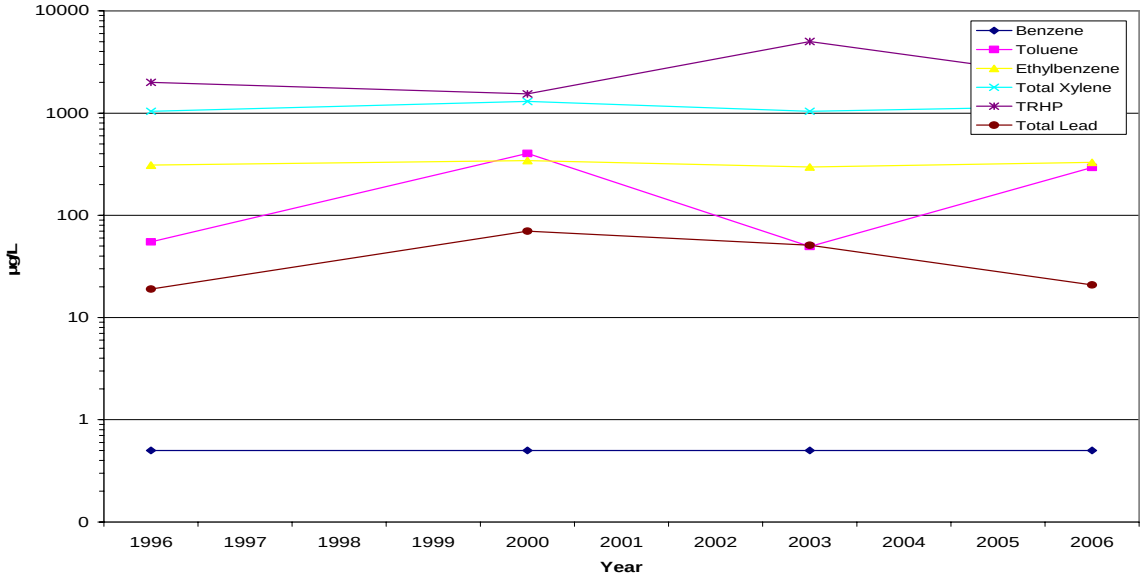


FIGURE 2-15
Groundwater Contaminant Trends in MW-55
Site 1159, OLF Bronson, NAS Pensacola



2.1.6 Groundwater Mass Estimate

CH2M HILL calculated a mass estimate for Site 1159 using the laboratory analytical results from the groundwater sampling event conducted in May-June 2006. The dissolved phase contaminant mass estimate was generated by averaging the total BTEX concentrations in the groundwater plume. The dissolved phase BTEX plume covers approximately 221,093 square feet (ft^2) (5.1 acres). The total dissolved phase contamination for BTEX at the site is estimated to be approximately 60.5 pounds. The dissolved lead plume covers approximately 186,418 ft^2 (4.3 acres). The total dissolved lead contamination in the groundwater is estimated to be approximately 2.4 pounds. Groundwater mass estimate calculations are included in Appendix G.

2.2 Free Product Measurements

Historically, free product has been observed at monitoring wells 1159-MW-45, -46, -47, -62, -64, and -65. With the exception of 1159-MW-62, free product was observed at the same monitoring wells through February 2004. The free product levels present in site monitoring wells decreased through July 2005, when LNAPL was no longer observed at the site. This was a result of the rise in the water table observed through July 2005. Thereafter, the water table began to drop due to below average rainfall in the Florida panhandle. Due to the near record low water table, the smear zone was exposed and LNAPL was rediscovered in four monitoring wells (1159-MW-45, -47, 62, and -64) and two SVE wells (1159-SVE-01 and -02) on October 20, 2006. Additionally, on October 23, 2006, free product was also observed in 1159-MW-71. No free product was observed in 1159-MW-73 or 1159-MW-74. Verbal notification of the free product discovery was provided to FDEP on October 25, 2006. The matter was further discussed with the NAS Pensacola Tier I Partnering Team on November 29, 2006. Table 2-3 summarizes the historic free product measurements.

Figures 2-16, 2-17, 2-18, and 2–19 show the historic free product and groundwater table trends in monitoring wells 1159-MW-45, -47, -64 and -65.

TABLE 2-3
Historical LNAPL Measurements
Site 1159, OLF Bronson, NAS Pensacola

Well ID	Date Measured	Depth to Water (ft btoc)	Depth to Product (ft btoc)	Product Thickness (ft)
MW-45	6/12/1997	19.31	19.27	0.04
	7/25/2000	22.88	20.35	2.53
	2/15/2001	21.44	19.95	1.49
	7/24/2003	14.16	14.02	0.14
	9/30/2003	17.39	17.21	0.18
	2/18/2004	18.37	18.37	Sheen
	7/20/2005	17.23	NP	NP
	3/25/2006	19.51	NP	NP
	4/25/2006	19.95	NP	NP
	6/2/2006	19.55	NP	NP
	7/7/2006	20.39	NP	NP
	10/20/2006	20.95	19.67	1.28
	10/23/2006	20.91	19.67	1.24
	11/27/2006	20.65	19.62	1.03
	12/19/2006	19.83	19.83	Sheen
MW-46	6/12/1997	13.81	MN	NM
	9/10/1997	NR	NR	0
	7/25/2000	17.59	14.97	2.62
		Not Measured. Well could not be located.		
MW-47	6/12/1997	14.18	NR	NR
	9/10/1997	NR	NR	0.52
	7/25/2000	17.94	15.20	2.74
	2/15/2001	16.64	14.90	1.74
	7/27/2003	NR	NR	NR
	9/30/2003	12.43	NP	NP
	2/18/2004	13.37	NP	NP
	7/20/2005	12.32	NP	NP
	3/25/2006	14.55	NP	NP
	4/25/2006	14.94	NP	NP
	6/2/2006	14.56	NP	NP
	7/7/2006	15.36	NP	NP
	10/20/2006	15.84	14.58	1.26
	10/23/2006	15.84	14.58	1.26
	11/27/2006	15.70	14.51	1.19
	12/19/2006	16.22	14.72	1.50
MW-62	7/25/2000	20.39	18.46	1.93
	7/27/2003	11.8	NP	NP
	9/30/2003	14.88	NP	NP
	2/18/2004	15.97	NP	NP
	7/20/2005	14.78	NP	NP
	3/25/2006	17.25	NP	NP
	4/25/2006	17.78	NP	NP

TABLE 2-3
Historical LNAPL Measurements
Site 1159, OLF Bronson, NAS Pensacola

Well ID	Date Measured	Depth to Water (ft btoc)	Depth to Product (ft btoc)	Product Thickness (ft)
	6/2/2006	17.35	NP	NP
	7/7/2006	NM	NM	NM
	10/20/2006	17.91	17.86	0.05
	10/23/2006	17.87	17.84	0.03
	11/27/2006	17.68	NP	NP
	12/19/2006	17.99	NP	NP
MW-64	6/12/1997	NM	NM	NM
	9/10/1997	NM	NP	NP
	7/25/2000	23.36	21.97	1.39
	2/15/2001	NM	NM	NM
	7/27/2003	15.51	15.33	0.18
	9/30/2003	18.7	18.54	0.16
	2/18/2004	19.73	NP	NP
	7/20/2005	18.55	NP	NP
	3/25/2006	20.80	NP	NP
	4/25/2006	21.23	NP	NP
	6/2/2006	20.85	NP	NP
	7/7/2006	21.66	NP	NP
	10/20/2006	21.30	21.29	0.01
	10/23/2006	21.27	21.26	0.01
	11/27/2006	21.20	NP	NP
	12/19/2006	21.47	NP	NP
MW-65	7/25/2000	23.36	22.04	1.32
	7/27/2003	15.27	15.22	0.05
	9/30/2003	18.6	NP	NP
	2/18/2004	19.78	NP	NP
	7/20/2005	18.55	NP	NP
	3/25/2006	20.90	NP	NP
	4/25/2006	21.35	NP	NP
	6/2/2006	20.98	NP	NP
	7/7/2006	21.83	NP	NP
	10/20/2006	21.46	NP	NP
	10/23/2006	21.46	NP	NP
	11/27/2006	NM	NM	NM
	12/19/2006	21.58	NP	NP
MW-71	7/20/2005	CNL	CNL	CNL
	3/25/2006	12.98	NP	NP
	4/25/2006	13.35	NP	NP
	6/2/2006	13.08	NP	NP
	7/7/2006	NM	NM	NM
	10/20/2006	NM	NM	NM
	10/23/2006	13.34	13.30	0.04
	11/27/2006	NM	NM	NM
	12/19/2006	13.66	13.55	0.01

TABLE 2-3
Historical LNAPL Measurements
Site 1159, OLF Bronson, NAS Pensacola

Well ID	Date Measured	Depth to Water (ft btoc)	Depth to Product (ft btoc)	Product Thickness (ft)
SVE-01	7/20/2005	NM	NM	NM
	3/25/2006	14.45	NP	NP
	4/25/2006	NM	NM	NM
	6/2/2006	NM	NM	NM
	7/7/2006	NM	NM	NM
	10/20/2006	15.64	14.45	1.19
	10/23/2006	NM	NM	NM
	11/27/2006	15.52	14.51	1.01
	12/19/2006[A]	14.67	14.67	Residual in Well Point
SVE-02	7/20/2005	NM	NM	NM
	3/25/2006	18.27	NP	NP
	4/25/2006	NM	NM	NM
	6/2/2006	NM	NM	NM
	7/7/2006	NM	NM	NM
	10/20/2006	19.76	18.42	1.34
	10/23/2006	19.74	18.39	1.35
	11/27/2006	19.55	18.36	1.19
	12/19/2006	18.69	18.67	0.02

[A] Well was gauged and it was discovered that the well was dry. Depth to water and Depth to product were at total well depth

btoc below top of casing
NM not measured
NP no product
NR not recorded

FIGURE 2-16
1159-MW-45 Groundwater and Free Product Level Trend Plot
Site 1159, OLF Bronson, NAS Pensacola

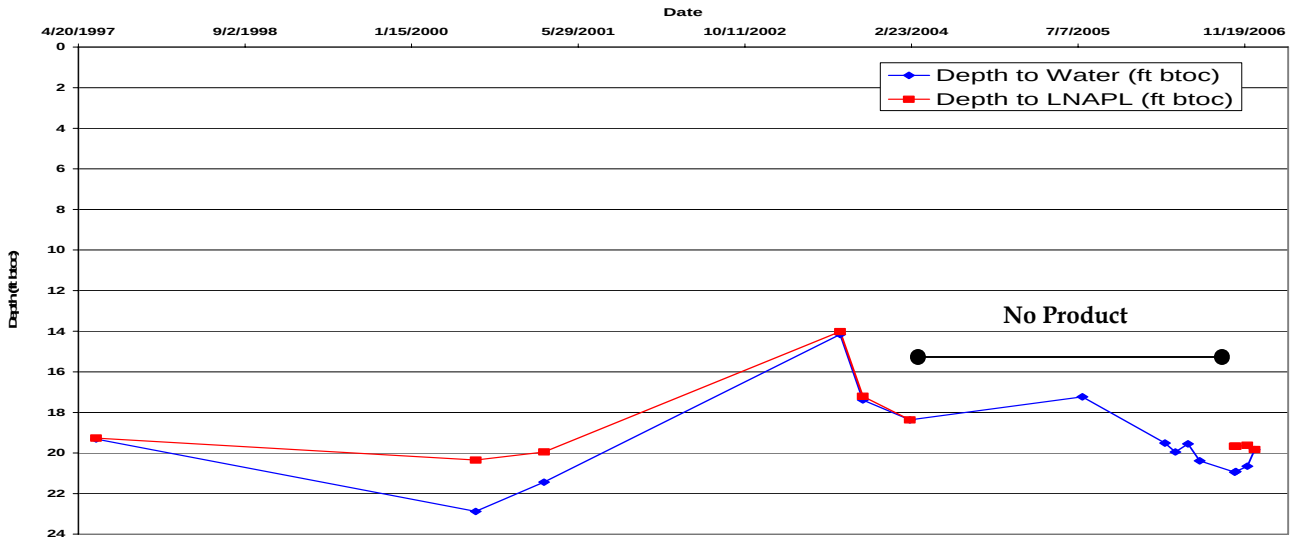


FIGURE 2-17
1159-MW-47 Groundwater and Free Product Level Trend Plot
Site 1159, OLF Bronson, NAS Pensacola

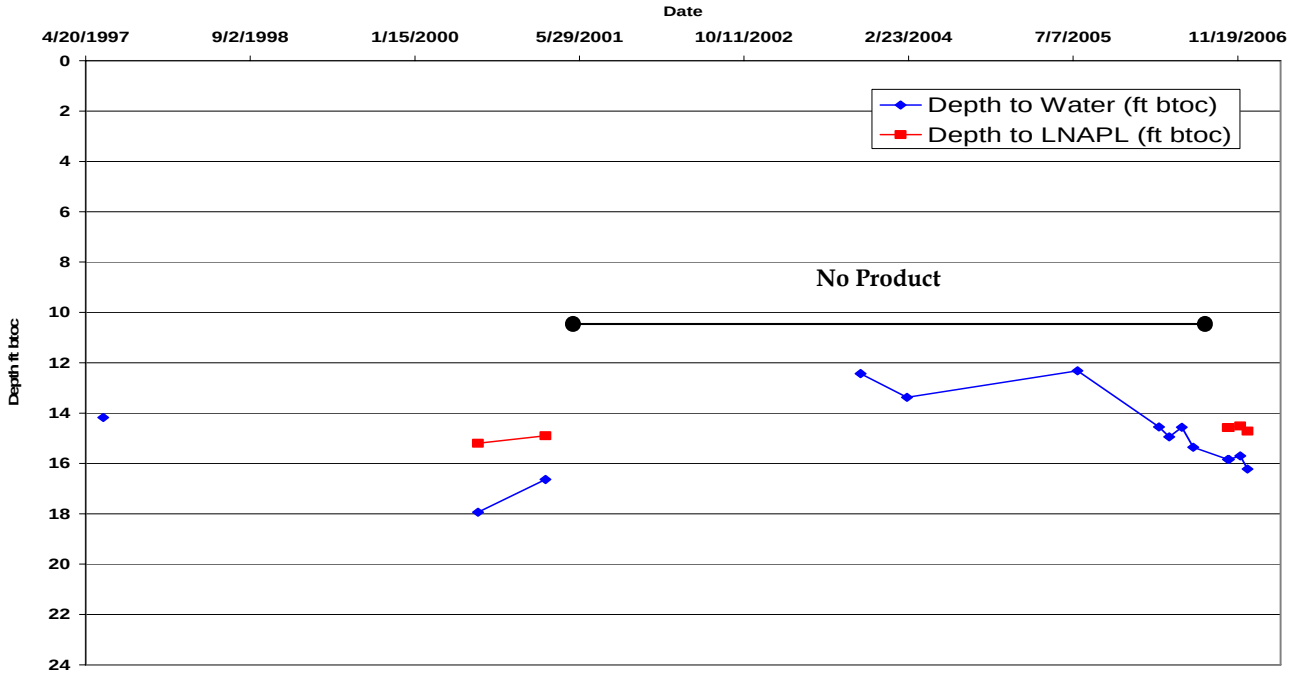


FIGURE 2-18
1159-MW-64 Groundwater and Free Product Level Trend Plot
Site 1159, OLF Bronson, NAS Pensacola

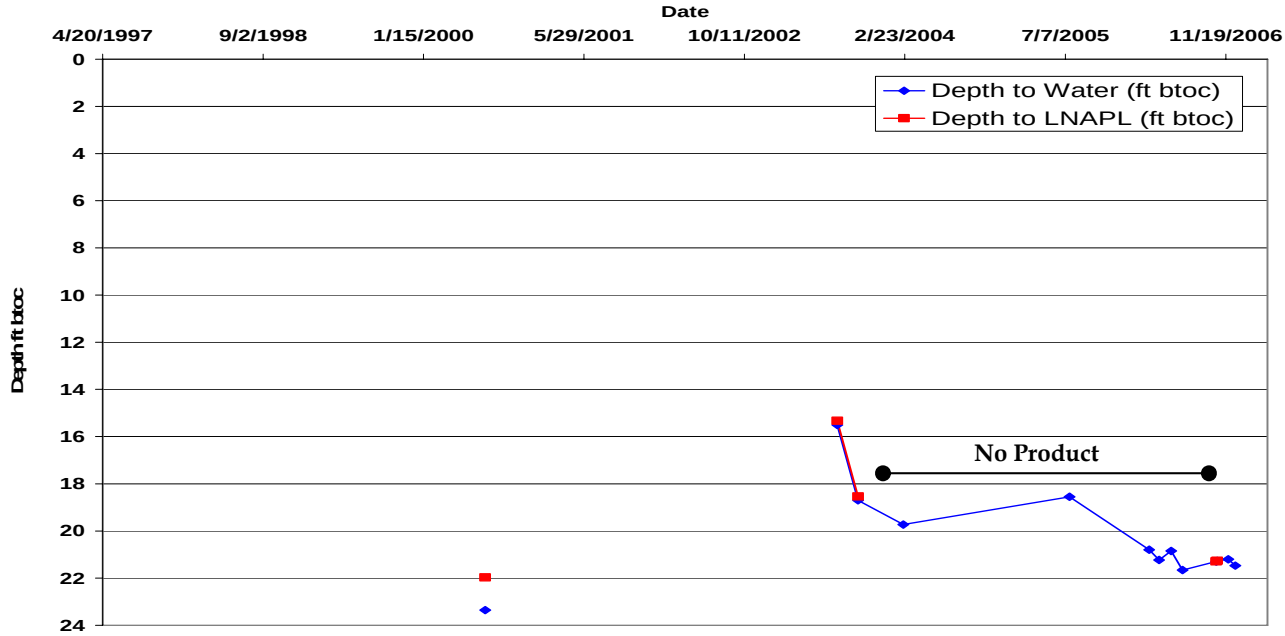
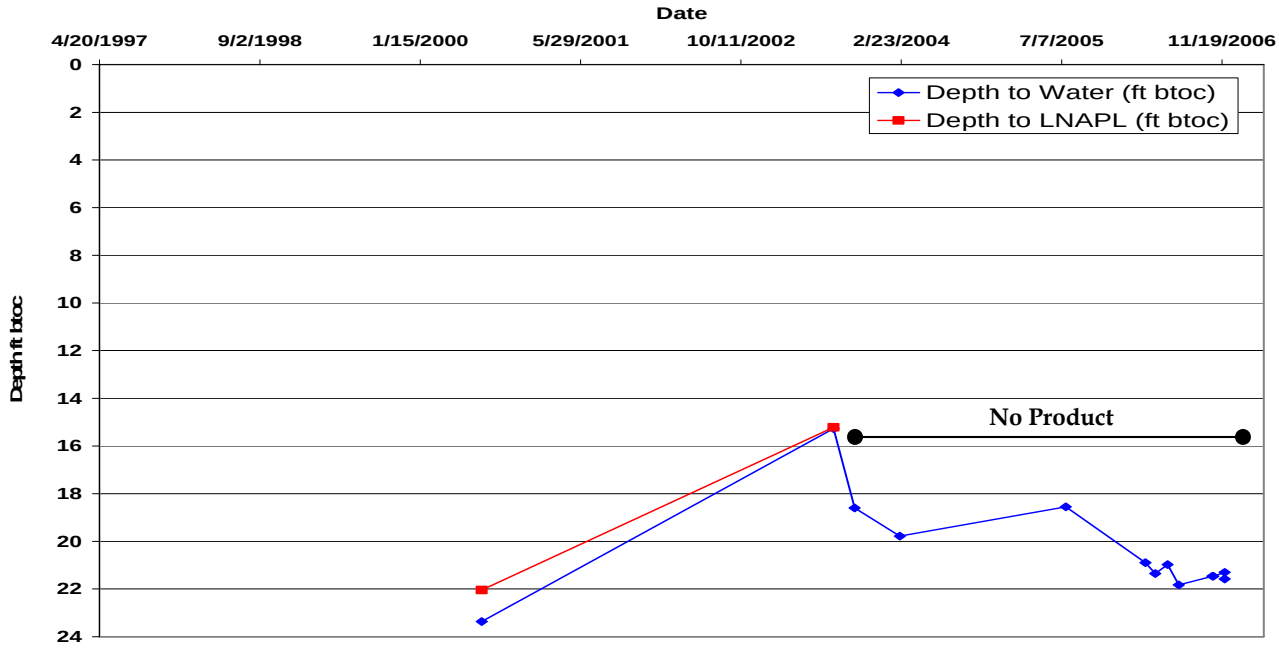


FIGURE 2-19
1159-MW-65 Groundwater and Free Product Level Trend Plot
Site 1159, OLF Bronson, NAS Pensacola



On October 23, 2006, LNAPL recovery was conducted at the site at one 2-inch diameter monitoring well (1159-MW-45) and one 4-inch diameter SVE well (1159-SVE-02). Depth to product (DTP) and depth to water (DTW) levels were measured to calculate the original volume of LNAPL inside the well prior to initiating pumping activities. A passive bailer was installed in 1159-MW-47 (2-inch diameter well) to determine its effectiveness in recovering LNAPL. Wells were pumped using a peristaltic pump, Teflon tubing, and Masterflex tubing. The LNAPL was pumped into a graduated pyrex bowl to track the volume recovered. Depth to product and depth to water measurements were monitored and recorded as the recovery efforts were conducted. Approximately 0.3 gallons of sky blue colored LNAPL were removed from 1159-MW-45 and 4 gallons were removed from 1159-SVE-02. The passive bailer removed approximately 15 milliliters (mL) of LNAPL.

LNAPL recovery efforts were repeated on November 27, 2006, during which a total of 4 gallons of LNAPL were recovered from 1159-SVE-01 and -02. Approximately 0.5 gallons of LNAPL was recovered from 1159-MW-47. A total of 8.8 gallons of LNAPL have been recovered through November 27, 2006. This represents a mass reduction of more than 50 pounds of contamination.

Based on the field observations, the LNAPL recovered from the wells did not appear to be highly weathered. Both the LNAPL and purged water were containerized in a labeled 55-gallon drum for subsequent disposal.

2.3 Tree Core Sampling

On July 20–21, 2006, a CH2M HILL team, consisting of a phytoremediation specialist and an environmental scientist, conducted a site investigation and tree core tissue sampling event in the mature tree stand at Site 1159. The trees were examined by using an increment borer to extract core samples later analyzed for trace amounts of the VOCs, BTEX, and lead. The main objective was to identify whether or not BTEX constituents were being taken up by trees located in the general area of the plume. Ancillary objectives included evaluating whether a BTEX plume could be delineated using core data and whether dissolved lead found in the shallow groundwater could be taken up by trees above the plume.

Soils at this location are typically silty sands with some clayey sand lenses above the water table. Considering the effects of capillary action, tree roots from these mature trees were considered to be within the smear zone where residual BTEX constituents and lead may be present. In the plume area, trees selected for sampling were located near monitoring wells where groundwater exceeded GCTLs and/or NADCs for BTEX and lead during the May-June 2006 groundwater sampling event. Tree core sample locations are presented in Figure 2-20. The tree coring memorandum is included in Appendix I.

A single sampling event collected tree cores from two locations: a non-impacted, upgradient control location (near wells 1159-MW-34 and -36) and from a plume-impacted, down-gradient location (near wells 1159-MW-25, -28, -47, -55, -70, and -73) for comparison.

Work performed during this field study included:

- Inspected the wooded area above the approximate extent of the shallow groundwater plume.
- Evaluated the available mature trees in the vicinity of the original source of BTEX/lead contamination, area upgradient of the source, and area downgradient of the source. Trees selected were a minimum of 12 inches in diameter at breast height (DBH).
- Collected tree core tissue from two live oak trees, two laurel oak trees, and two pine trees for BTEX analysis to represent the upgradient control area. Two cores were removed from each tree and packaged in separate VOA vials.
- Collected tree core tissue from four live oak trees, four laurel oak trees, nine pine trees, and one cypress tree for BTEX analysis to represent the downgradient, impacted area. Two cores were removed from each tree and packaged in separate VOA vials.

Seven cores located near monitoring wells with past positive results for groundwater dissolved lead were selected for lead analysis. No control trees were selected at the time since this analysis and data would not help meet the project objectives. Data were examined to evaluate possible ecological risks by the groundwater-based lead.

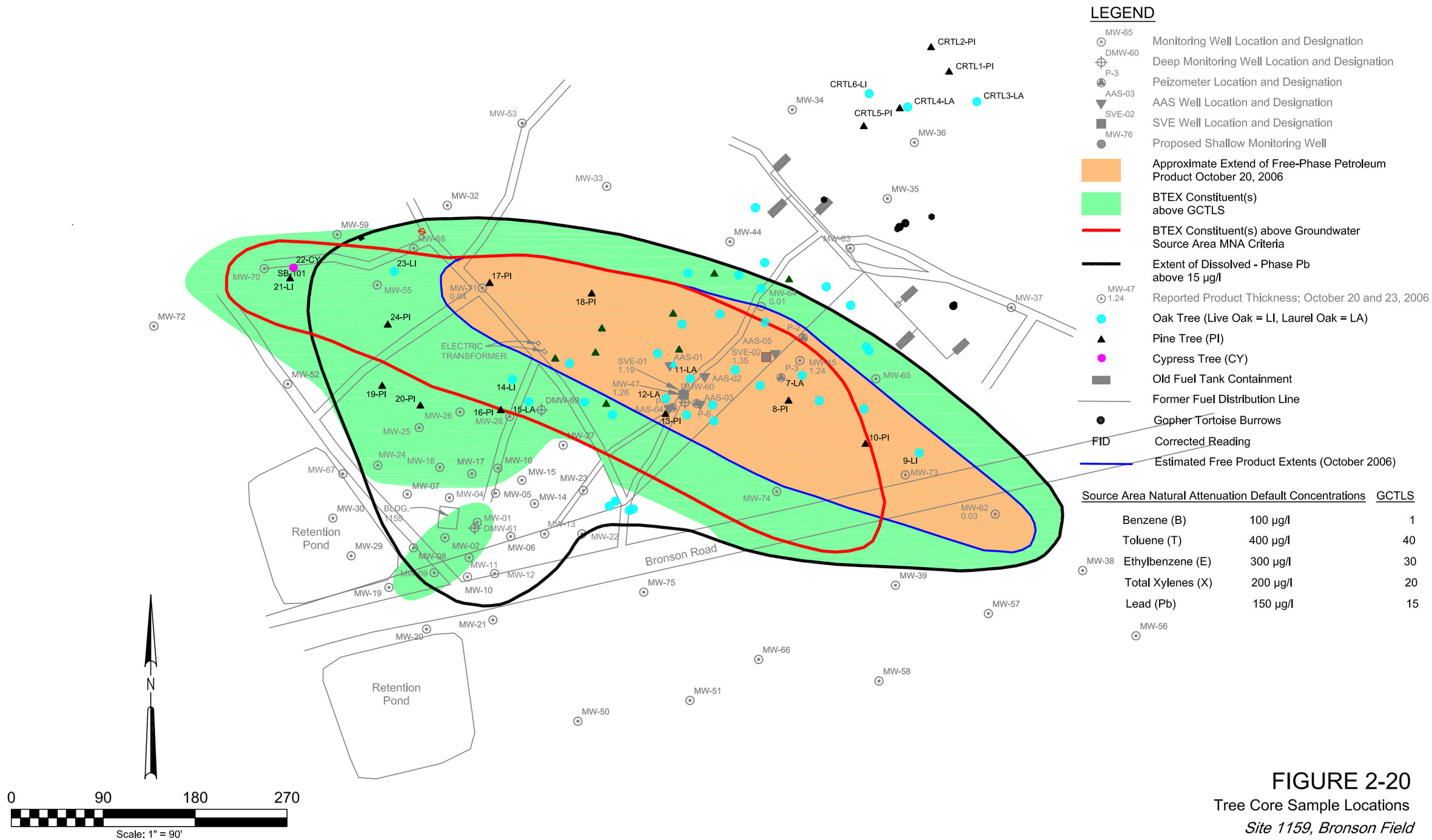


FIGURE 2-20

Tree Core Sample Locations

Site 1159, Bronson Field

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Results from this field study revealed the following key observations:

- Trees sampled in the areas over the BTEX plume had detections for benzene, toluene, ethylbenzene, and xylenes.
- Trees sampled in the control area upgradient of the plume source had minor detections for ethylbenzene, toluene, and xylenes.
- Two of the seven tree cores selected for lead analysis had estimated detections for dissolved lead.

The complete memorandum from the tree coring event is included in Appendix I.

2.4 Soil Mass Estimate

CH2M HILL calculated a mass estimate for Site 1159 using the following: 1) Total Petroleum Hydrocarbon Criteria Working Group (TPHCWG) laboratory analytical results from soil samples collected during the May 2004 mobilization, 2) headspace soil screening conducted during the May 2004 mobilization, and 3) engineering judgment. The 2004 data was presented in the *Remedial Action Plan Addendum Site 1159 – Outlying Landing Field Bronson* (CH2M HILL, December 2004). Due to the large aerial extent and the dynamic of the greater than 5-foot smear zone at Site 1159, a conservative estimate was calculated assuming the water table was at its lowest recorded point (approximately 20 feet bls). The TRPH contaminant mass estimate was generated by adding the individual TPHCWG concentrations. Based on these calculations, the mass of TRPH needing to be remediated at Site 1159 is approximately 298,000 kilograms (kg) (approximately 656,000 pounds or 97,900 gallons).

3.0 Remediation System Design

The overall objective for the selected remedial technologies implemented at Site 1159 remains unchanged: protect human health and the environment by remediating soil and groundwater contamination in the source area to levels consistent with current and future land use.

The following modifications have been made to the overall remediation system design and strategy as a result of the discussions from the Navy Optimization Meetings:

- **Optimized SVE System Design** by reducing the total number of SVE wells to focus treatment on the source area, AAS off-gas capture, and modification of SVE system operating regimes.
- **Optimized AAS System Design** by reducing the total number of AAS wells and total flow rate to focus treatment on the product/source area only and through modification of AAS system operating regimes.
- **Monitored NA Implementation** for the leading edges of the plume and downgradient dissolved-phase plume.

The system was designed based on the performance of similar remediation systems abating petroleum contamination in similar hydrogeologic formations in the Florida panhandle, historic and current soil and groundwater data, and engineering judgment. Active treatment emphasis will be placed on the areas where LNAPL is present and groundwater criteria exceed NADCs specified in Table V, Chapter 62-777 FAC.

3.1 Site Decision Logic

To facilitate decision-making during the remedial installation and implementation phases of the work, CH2M HILL developed a site-specific decision logic for Site 1159. The decision logic outlines the major milestones and respective decision criteria for the site life-cycle and is presented in Figure 3-1 through Figure 3-9. Figure 3-1 outlines the decision logic for Site 1159. The decision logic focuses on the major milestones for the remediation efforts at Site 1159. Figures 3-2 through 3-9 provide the specific decision-making criteria supporting the decision logic.

Figure 3-2 summarizes the decision-making logic for the delineation and system treatment well installation activities, which will be conducted simultaneously. Per Chapter 62-770.200 FAC, the soil will be field screened using a flame ionization detector (FID) and half filled 8-ounce (oz) or 16-oz jars. A field screening decision criteria of 500 ppm (corrected for methane for the gasoline analytical group) will be used to define the extent of excessively contaminated soils. The extent of contamination will be confirmed by laboratory analytical samples.

Once the delineation activities are complete and treatment wells are installed, the site will be divided into three target treatment zones: Source Zone (active treatment), Transitional Zone

(Natural Attenuation Zone), and Point of Compliance Zone. Each zone has defining characteristics and remedial objectives as outlined in Figure 3-3. It should be noted that based on the results of the November 1997 CAR, no surface soil (0 to 2 feet bls) contamination exists at the site. The impacted soils are in subsurface soils, which based on the field screening and soil analytical results from the 2004 investigations begin at 4 feet bls to 9 feet bls, depending on site location. The criteria for defining the three zones are as follows:

1. **Source Zone**: Area where the corrected FID results are higher than 500 ppm per Chapter 62-770 FAC, LNAPL may or may not be present, and where groundwater concentrations are greater than NADCs.
2. **Transition Zone**: Area where no LNAPL is present and where groundwater concentrations are between GCTLs and NADCs. An adequate network of wells is in place to monitor NA trends and plume dynamics to demonstrate plume stability.
3. **Downgradient Compliance Zone**: Point of compliance where GCTLs stated in Chapter 62-777 FAC will be met for all site COCs. A network of monitoring wells is in place to evaluate the plume dynamic from the transition zone and demonstrate plume stability.

Figure 3-4 and Figure 3-5 outline the remediation system startup decision logic. Figure 3-6 through Figure 3-9 outline routine system operations, system optimization, and site exit strategy evaluations which include RBCA RMOs.

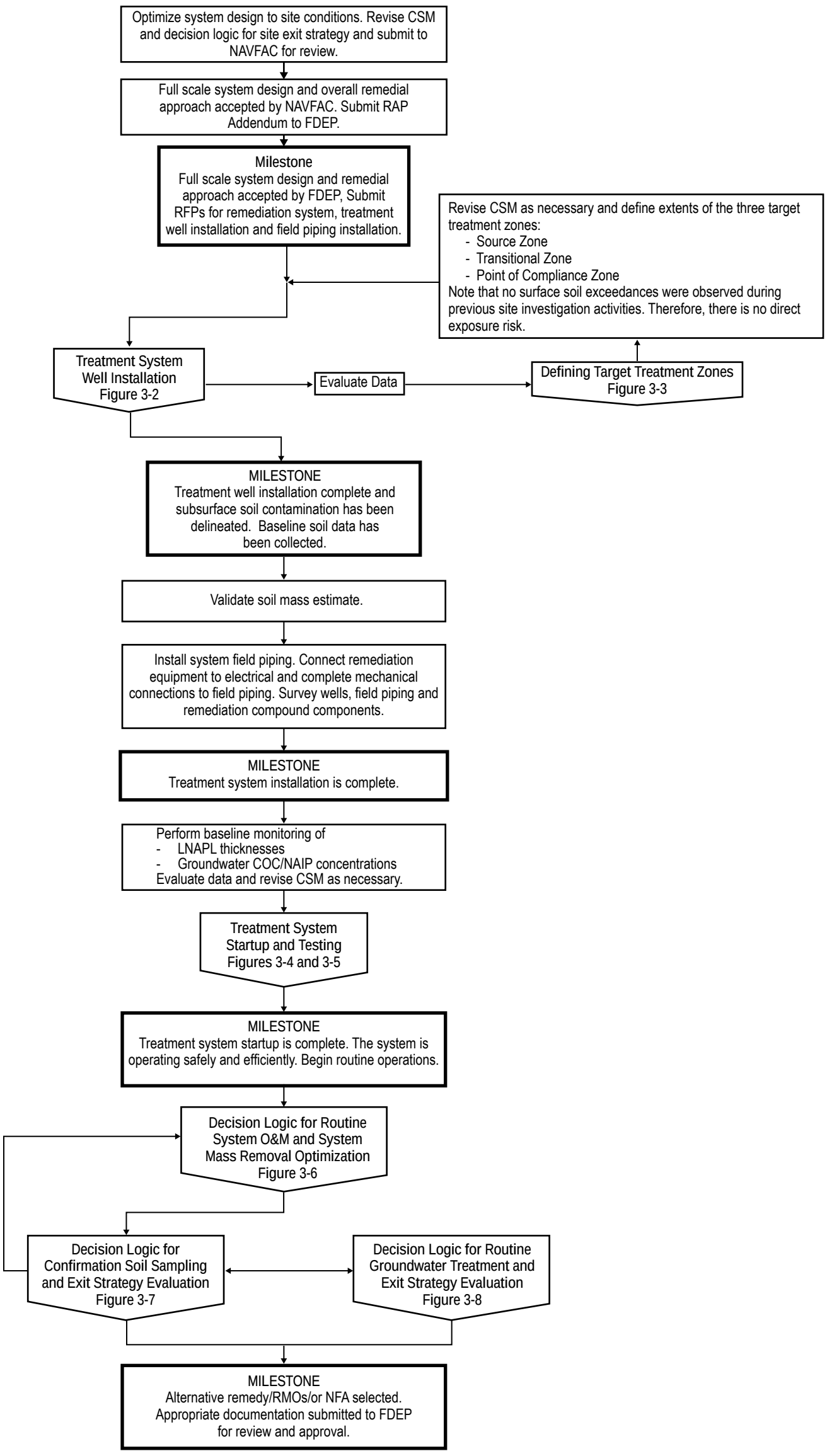

FIGURE 3-1
Main Decision Logic
Site 1159, Bronson Field

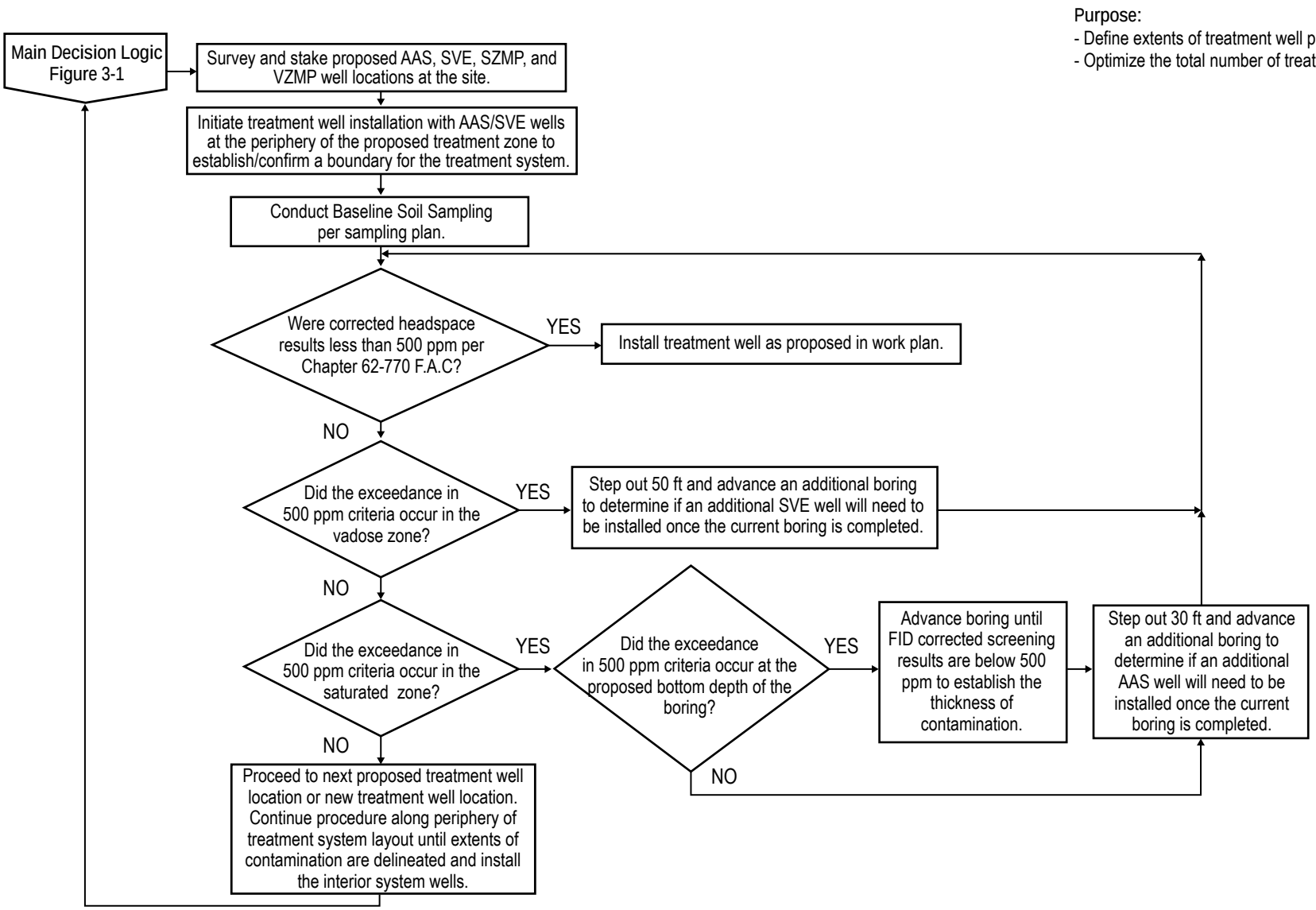

FIGURE 3-2
Decision Logic for Treatment System Well Installation
Site 1159, Bronson Field

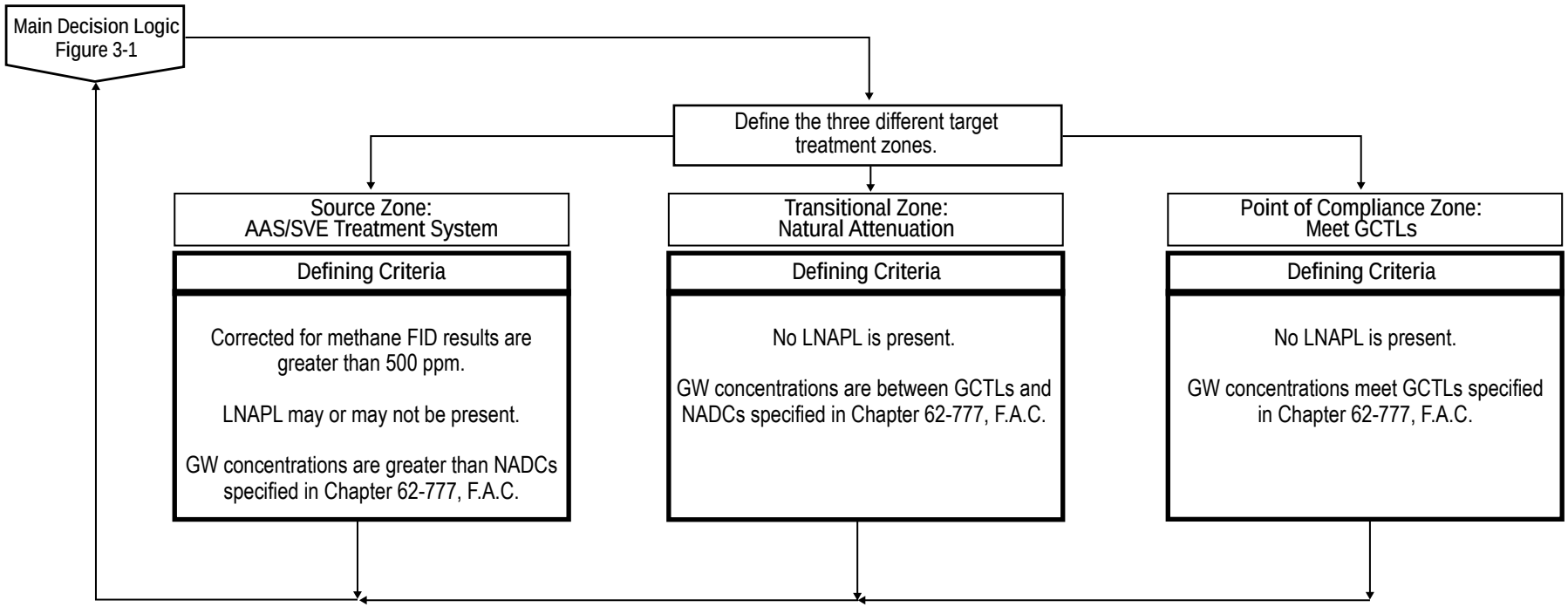

FIGURE 3-3
Decision Logic for Defining Target Treatment Zones
Site 1159, Bronson Field

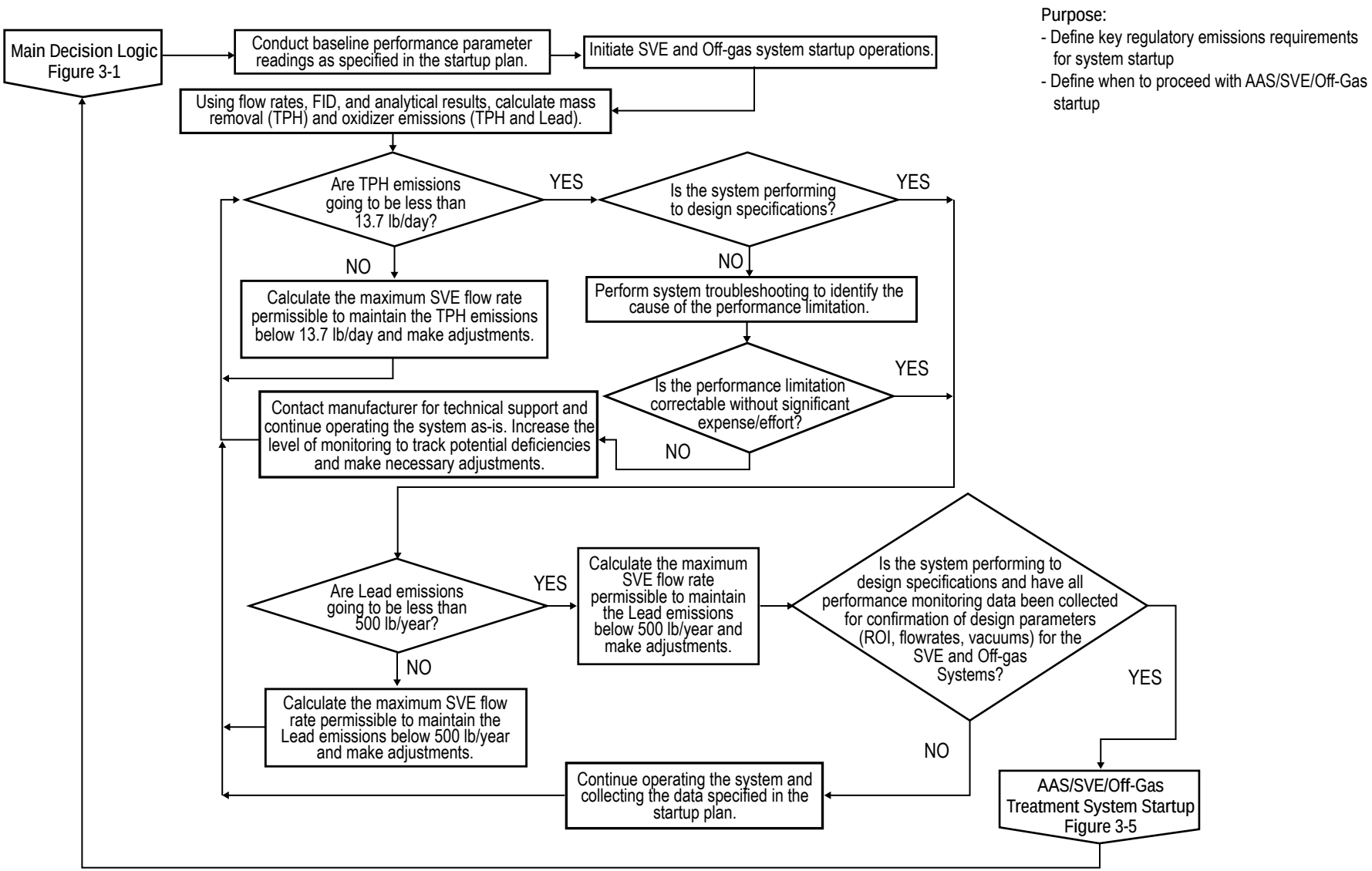

FIGURE 3-4
Decision Logic for SVE/Off-Gas Treatment System Startup
Site 1159, Bronson Field

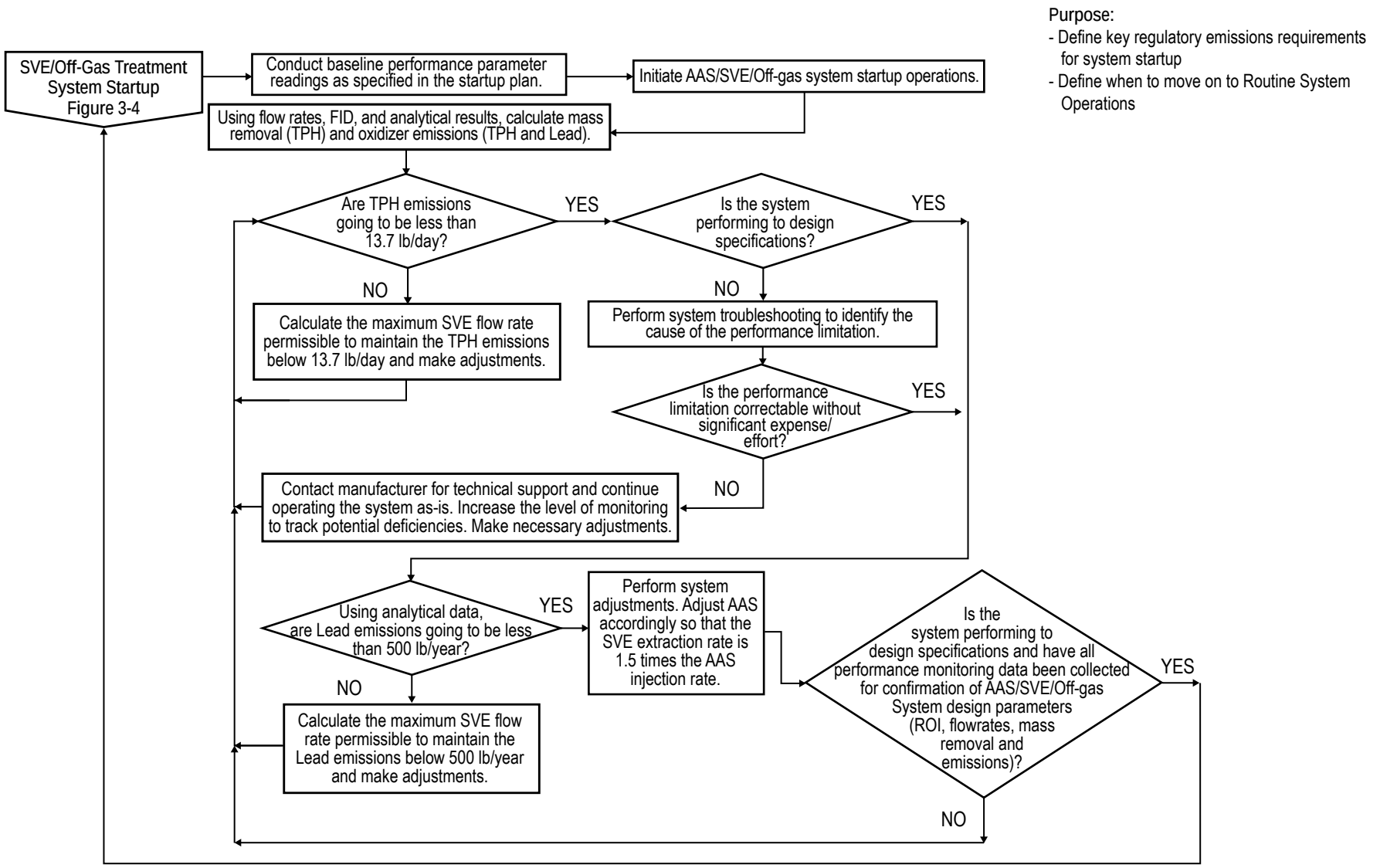

FIGURE 3-5
Decision Logic for AAS/SVE/Off-Gas Treatment System Startup
Site 1159, Bronson Field

Purpose:
- Define key regulatory emissions requirements for routine system operations
- Define specific milestones associated with system optimization
- Define trigger points for alternative operations
- Define trigger points for confirmation soil sampling to evaluate system efficacy and exit strategies

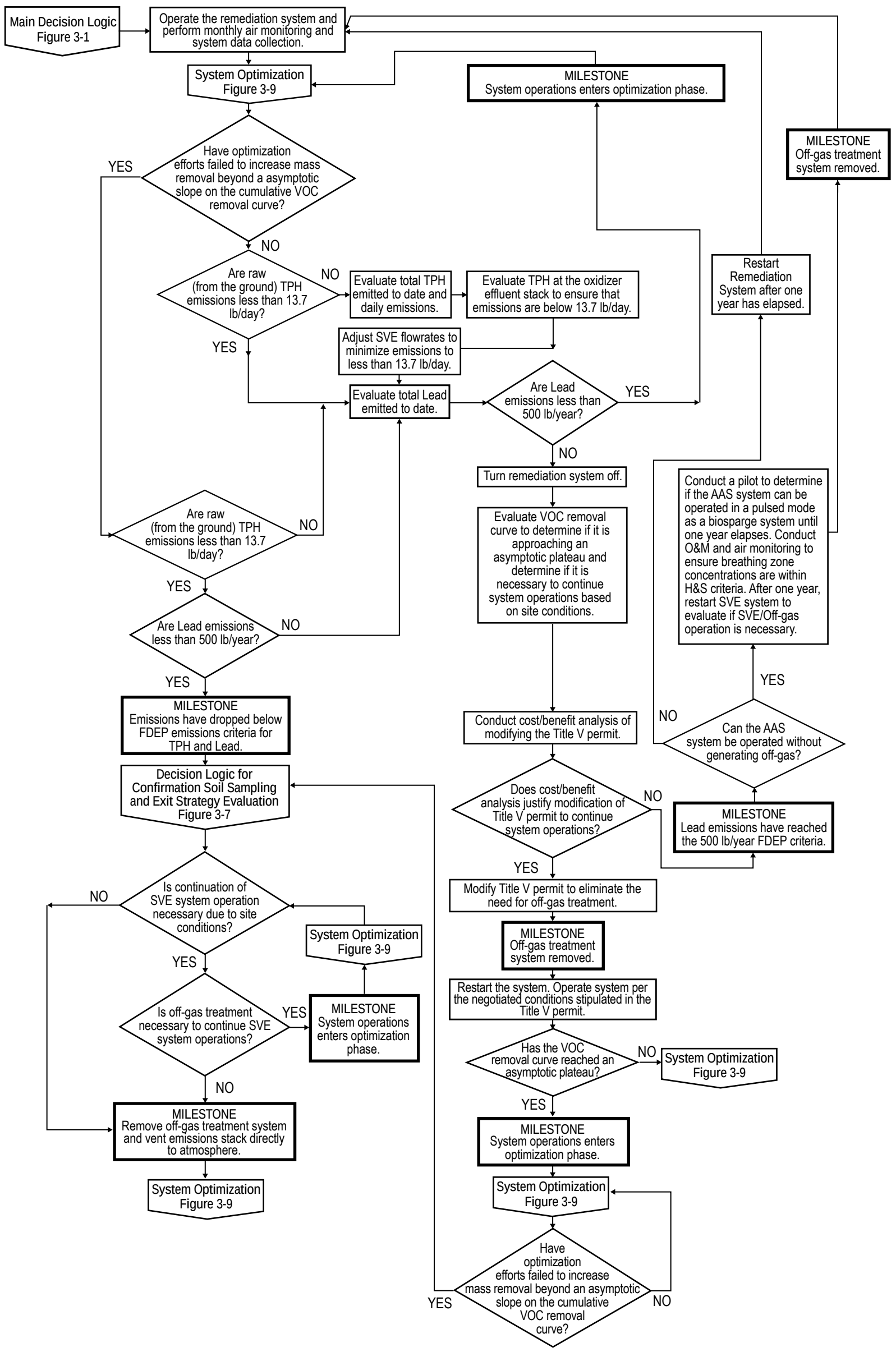

FIGURE 3-6
Decision Logic for Routine System O&M and System Mass Removal Optimization
Site 1159, Bronson Field

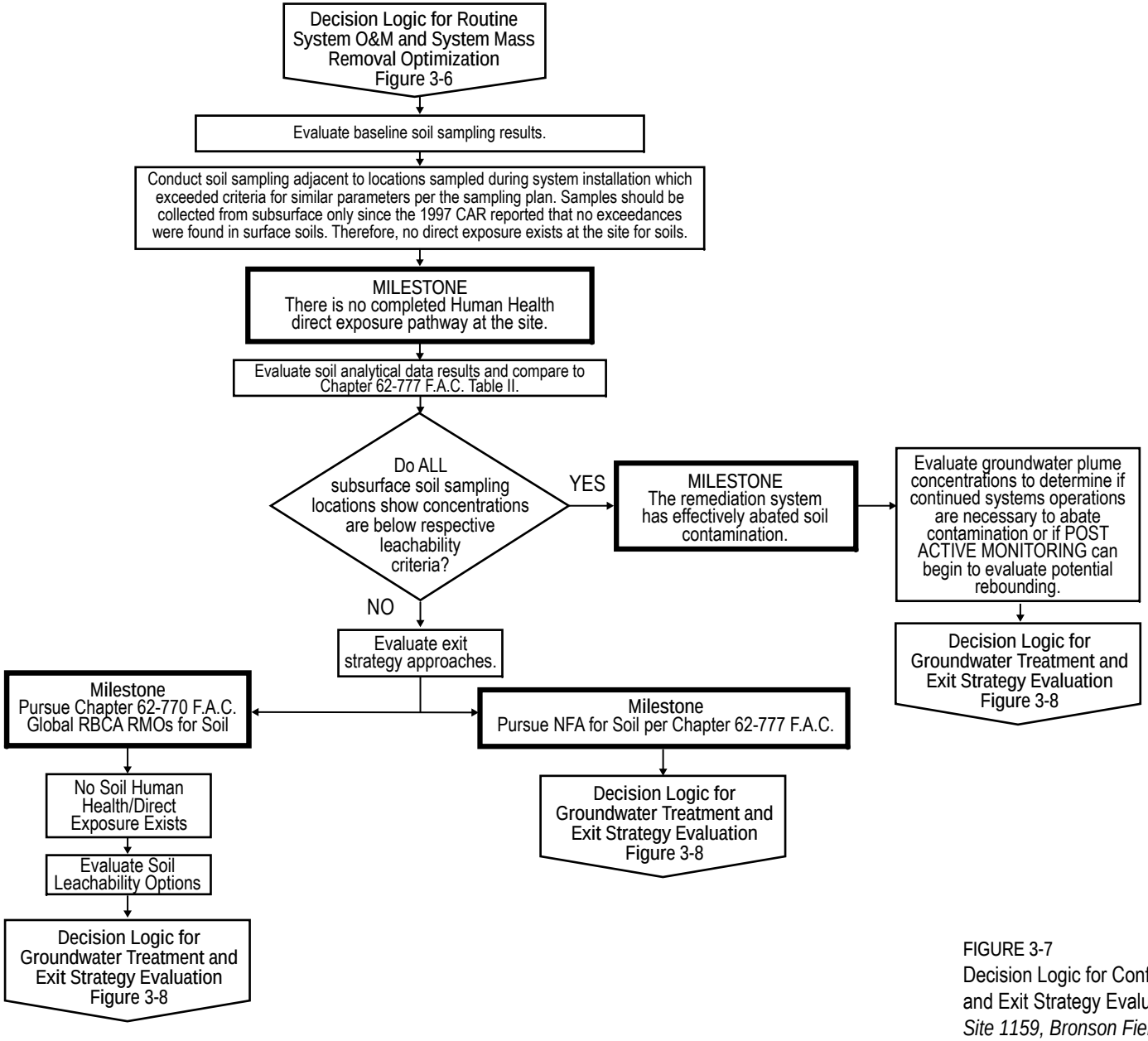

FIGURE 3-7
Decision Logic for Confirmation Soil Sampling and Exit Strategy Evaluation
Site 1159, Bronson Field

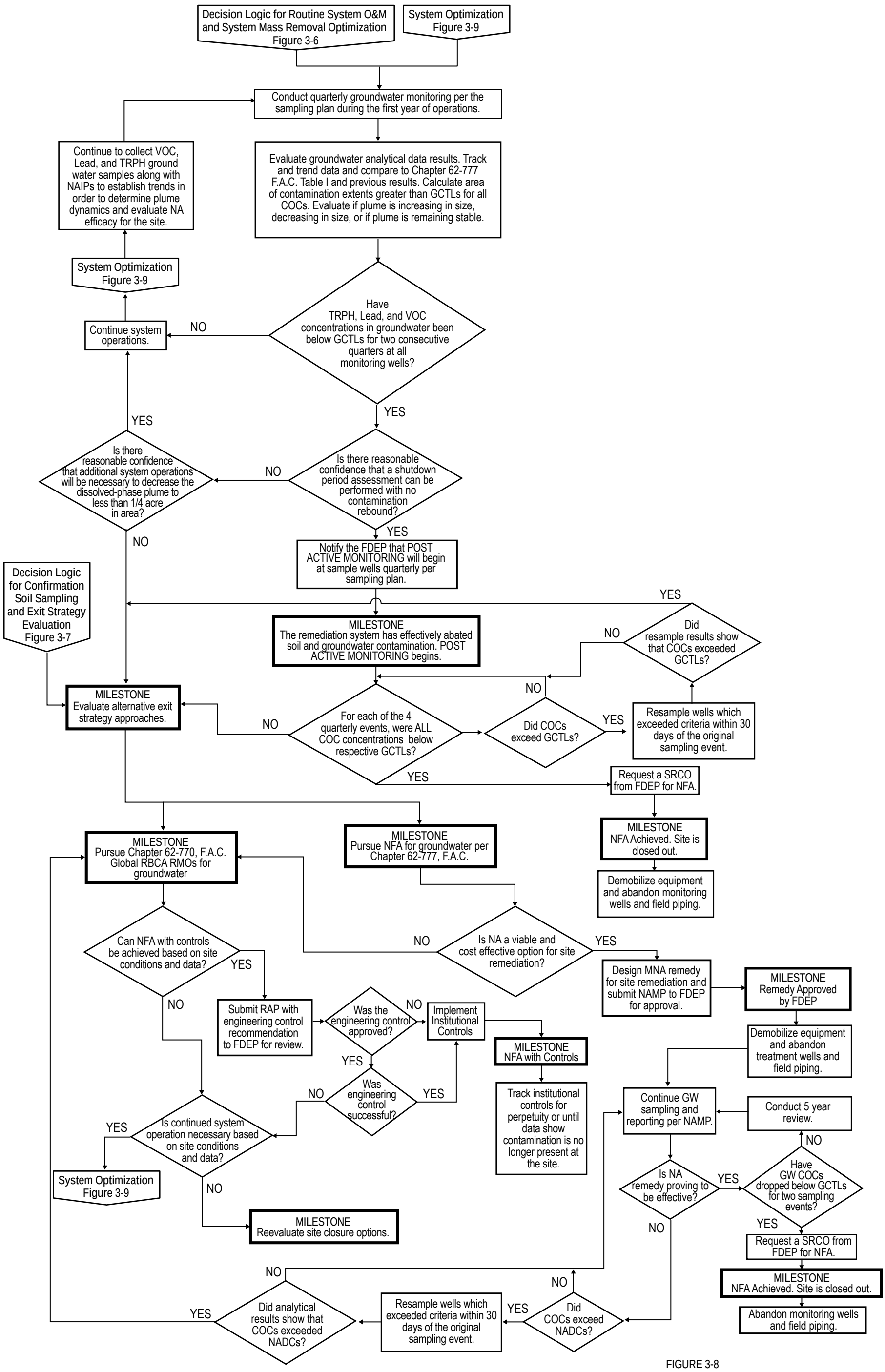

FIGURE 3-8
Decision Logic for Groundwater Treatment and Exit Strategy Evaluation
Site 1159, Bronson Field

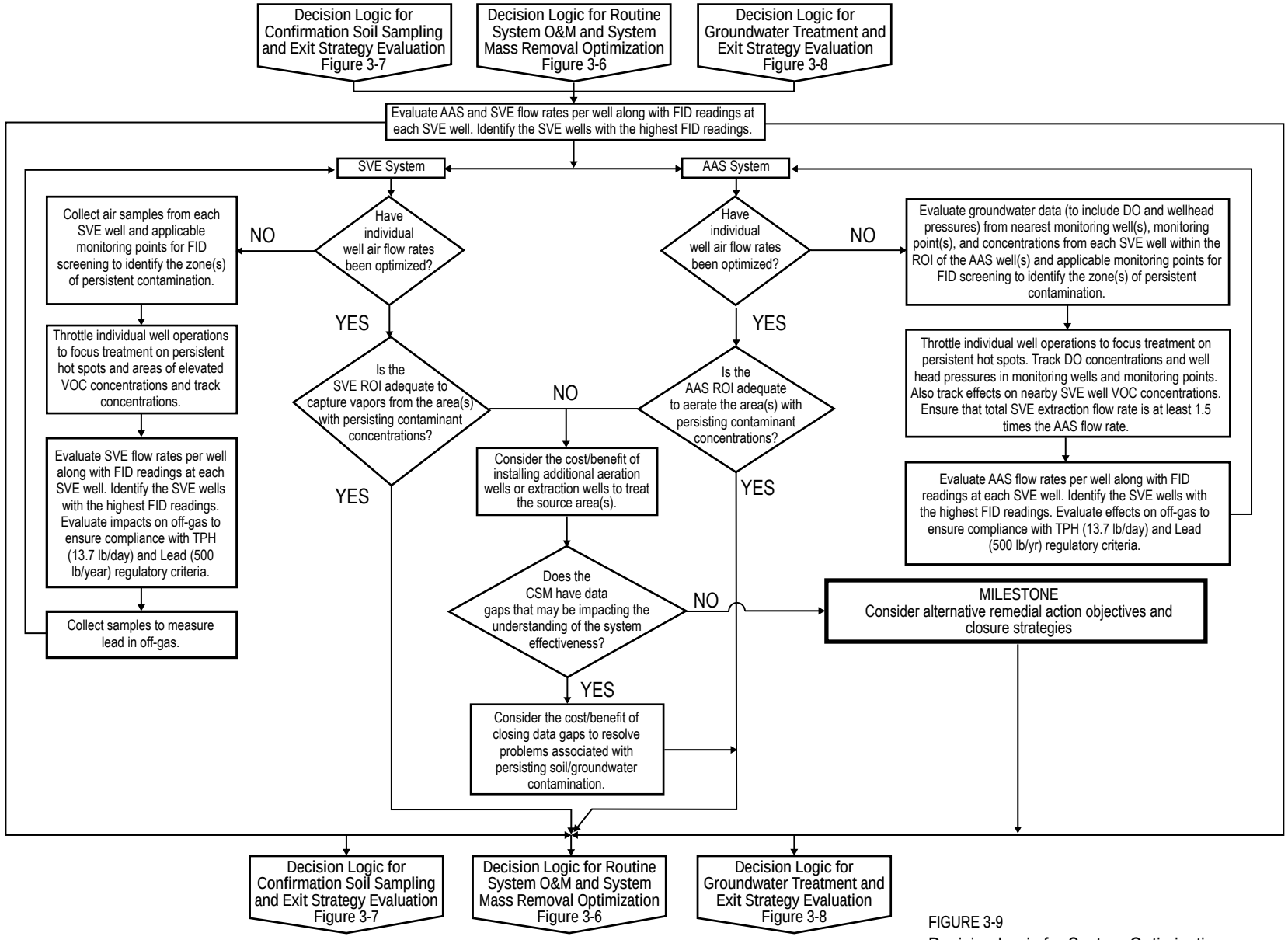

FIGURE 3-9

Decision Logic for System Optimization

Site 1159, Bronson Field

3.2 Treatment Wells and System Field Piping

The following sections describe the treatment system well layout and field piping design.

3.2.1 AAS Wells and Field Piping

The AAS system optimization consisted of a reduction in the total number of AAS wells from 51 to 31 new wells in order to aggressively aerate the source area (where LNAPL has been observed at the site), and where exceedances in SCTLs specified in Table II, Chapter 62-777 FAC, were observed. Figure 2-5 depicts the extents of LNAPL that will be the target treatment zone for the AAS/SVE system.

The 31 AAS wells will be spaced approximately 60 feet on center, with an estimated radius of influence (ROI) of 30 feet. Figure 3-10 depicts the AAS ROI and general field piping layout.

The AAS wells will be installed using Rotasonic drilling techniques. The boring will be continuously cored to terminal depth and the AAS wells will be installed inside the annulus of the drive casing. Due to the varying surface elevations at Site 1159, the AAS wells will be installed to varying depths (measured in feet bls) in order to maintain 30 feet of submergence below the water table across the treatment area. Table 3-1 presents the proposed construction details for the additional AAS wells that will be part of the full-scale remediation system. Actual well locations and construction may change slightly from those shown as a result of field conditions during system installation.

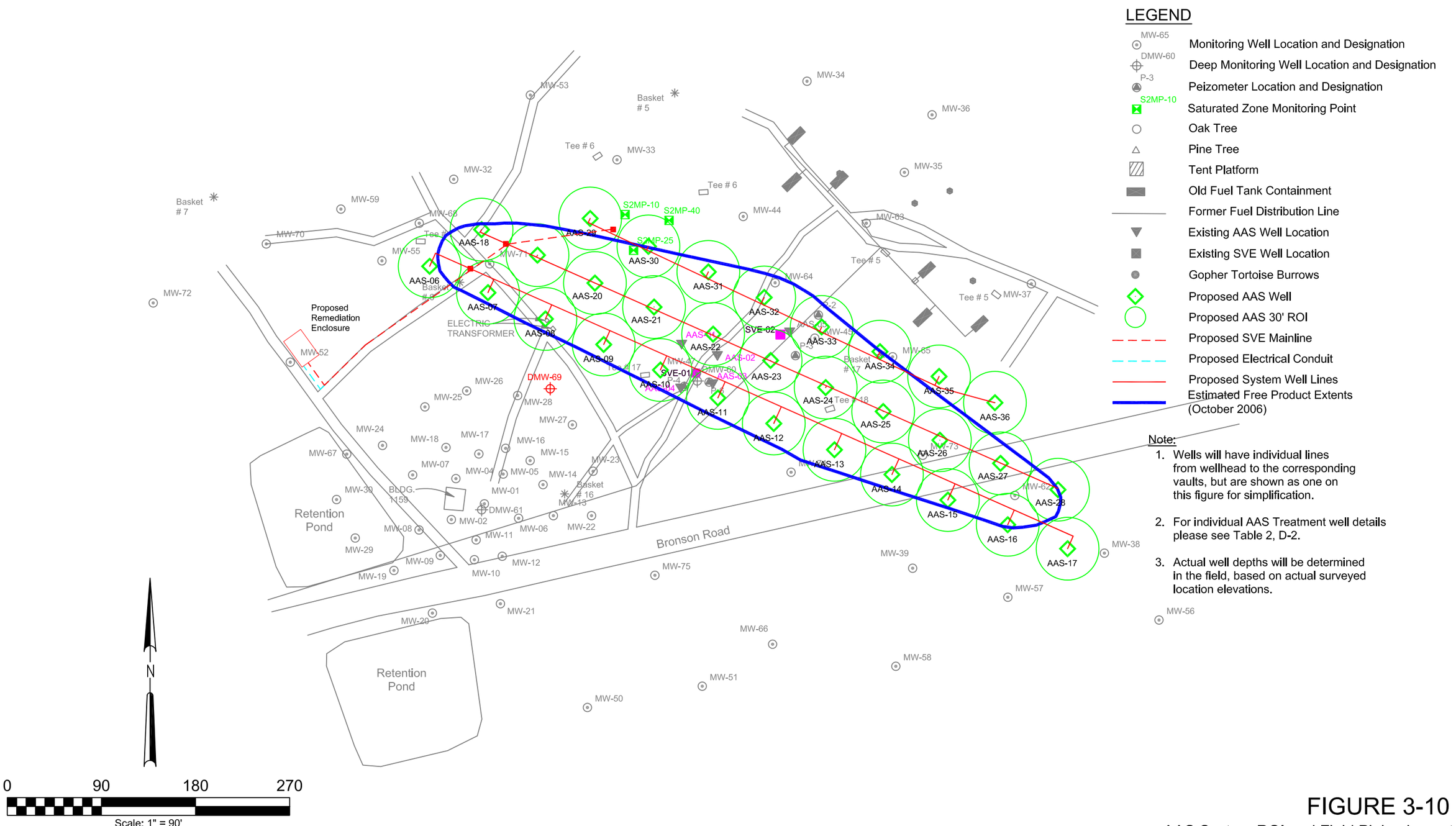

FIGURE 3-10

AAS System ROI and Field Piping Layout

Site 1159, Bronson Field

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TABLE 3-1
Proposed AAS System Treatment Well Characteristics
Site 1159, OLF Bronson, NAS Pensacola

Treatment Well ID	Diameter (inches)	Screened Interval (ft bls)	Screen Size (inches)	Total Depth (ft bls)	System Manifold
1159-AAS-06	2	38-40	0.020	40.5	Leg A1
1159-AAS-07	2	38-40	0.020	40.5	Leg A1
1159-AAS-08	2	40-42	0.020	42.5	Leg A1
1159-AAS-09	2	42-44	0.020	44.5	Leg A1
1159-AAS-10	2	42-44	0.020	44.5	Leg A1
1159-AAS-11	2	44-46	0.020	46.5	Leg A1
1159-AAS-12	2	43-45	0.020	45.5	Leg A1
1159-AAS-13	2	43-45	0.020	45.5	Leg A1
1159-AAS-14	2	46-48	0.020	48.5	Leg A1
1159-AAS-15	2	46-48	0.020	48.5	Leg A1
1159-AAS-16	2	46-48	0.020	50.5	Leg A1
1159-AAS-17	2	46-48	0.020	48.5	Leg A1
1159-AAS-18	2	40-42	0.020	42.5	Leg A2
1159-AAS-19	2	40-42	0.020	42.5	Leg A2
1159-AAS-20	2	42-44	0.020	44.5	Leg A2
1159-AAS-21	2	42-44	0.020	44.5	Leg A2
1159-AAS-22	2	42-44	0.020	44.5	Leg A2
1159-AAS-23	2	42-44	0.020	44.5	Leg A2
1159-AAS-24	2	42-44	0.020	44.5	Leg A2
1159-AAS-25	2	40-42	0.020	42.5	Leg A2
1159-AAS-26	2	40-42	0.020	42.5	Leg A2
1159-AAS-27	2	46-48	0.020	48.5	Leg A2
1159-AAS-28	2	46-48	0.020	48.5	Leg A3
1159-AAS-29	2	52-54	0.020	54.5	Leg A3
1159-AAS-30	2	52-54	0.020	54.5	Leg A3
1159-AAS-31	2	52-54	0.020	54.5	Leg A3
1159-AAS-32	2	52-54	0.020	54.5	Leg A3
1159-AAS-33	2	52-54	0.020	54.5	Leg A3
1159-AAS-34	2	52-54	0.020	54.5	Leg A3
1159-AAS-35	2	52-54	0.020	54.5	Leg A3
1159-AAS-36	2	50-52	0.020	52.5	Leg A3

Note: All wells will be constructed using Schedule 40 polyvinyl chloride risers and well screens.

Each AAS well will be constructed of 2-inch diameter, Schedule 40 polyvinyl chloride (PVC) and will have a 0.020-inch slotted screen. The bottom of each AAS well will be fitted with a threaded well point and will be set at the bottom of the borehole. A 6-20 coarse silica sand pack will then be placed to at least 1 foot above the screen. A bentonite seal will then be placed atop the filter pack. The remainder of the boring will be grouted to approximately 18 inches bls, where a wellhead completion will be assembled, connecting the AAS well to the field piping.

The AAS system field piping will consist of mains, locking manifold enclosures, and individual lines to each wellhead. The AAS wells have been divided into three legs as

depicted in Figure 3-10. Once startup activities have been completed for both systems, the AAS system will operate in a pulsed mode with up to 17 wells operating at a time.

All AAS field piping will be installed below grade to protect the piping and minimize impacts on the facilities located at the site. Depending on the installation technique used, the AAS mains will be constructed from 4-inch DR-21 high density polyethylene (HDPE) or Schedule 40 PVC pipe, and will convey airflow from the AAS compressors to the AAS manifold enclosures. AAS manifold enclosures will be constructed above grade and will be secured in a lockable enclosure. The 4-inch AAS main will manifold to 2-inch, DR-17 HDPE or Schedule 40 PVC lines to each AAS well. Each AAS line housed within the manifold enclosures will have a brass globe valve, Pitot port, thermometer, and pressure gauge. The globe valves will allow for flow control to each wellhead. The Pitot ports, thermometers, and pressure gauges will be used to calculate the flow to each well. Each well line will terminate at an AAS well with a threaded PVC clean-out port for wellhead access, and each wellhead will be finished with a 12-inch diameter steel well vault encased in a 2-foot by 2-foot by 6-inch concrete pad. See Appendix G for design calculations and Appendix H for system design drawings.

3.2.2 SVE Wells and Field Piping

The SVE system optimization includes a reduction in the total number of SVE wells, which reduces the total design extraction air flow rate. The total number of SVE wells has been reduced from 22 to 15 (13 new SVE wells and 2 existing SVE wells) in order to focus vapor capture from the areas where the AAS system is operating, areas where LNAPL persists, and areas where contaminant concentrations exceed the FDEP SCTLs as presented in Chapter 62-770 FAC.

Existing wells 1159-SVE-01 and 1159-SVE-02 will be incorporated into the SVE system. Design air extraction from this system will be 600 standard cubic feet per minute (scfm) at 100 inches of water (in. H_2O) vacuum (approximately 1.7 times the proposed maximum AAS injection rate).

SVE well designs will vary in the areas where the vadose zone is less than 6 feet thick to reduce potential problems associated with excess moisture in the system lines, which has been noted in similar situations. Figure 2-5 depicts the extents of LNAPL that will be the target treatment zone for the remediation system. The 13 new SVE wells will be spaced approximately 100 feet on center; ROI of 50 feet. Figure 3-11 depicts the SVE ROI and general field piping. The SVE wells will be installed using 8.25-inch ID Rotasonic drilling techniques. The boring will be drilled to terminal depth, and the SVE wells will be installed inside the annulus of the drive casing.

Actual well locations may change slightly from those shown due to field conditions during system installation. Changes may include reducing or adding to the total number of SVE wells. Construction details for the revised SVE system, along with the expected design ROI for each well, are summarized in Table 3-2.

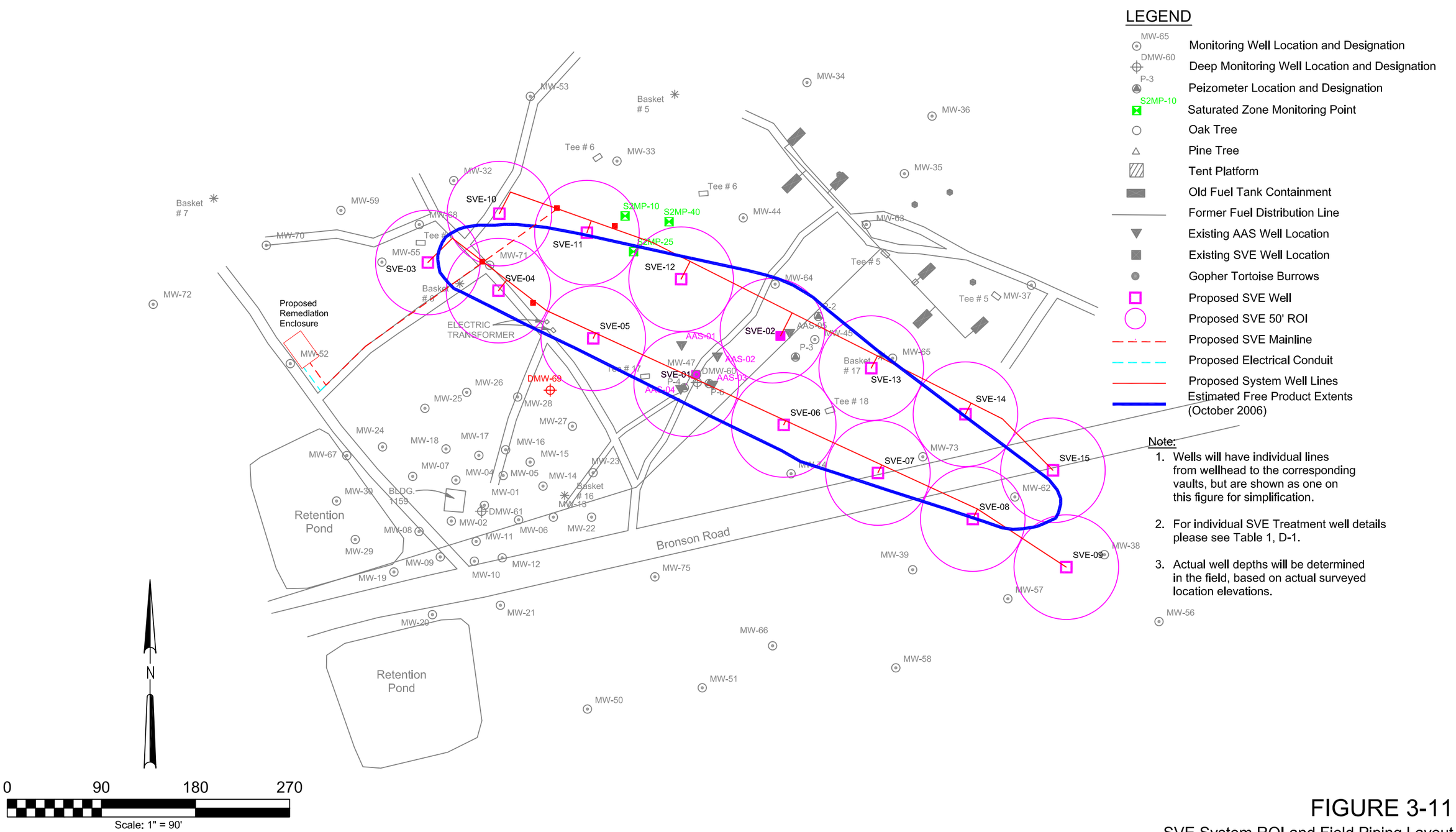

FIGURE 3-11

SVE System ROI and Field Piping Layout

Site 1159, Bronson Field

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TABLE 3-2
Proposed SVE System Treatment Well Design Characteristics
Site 1159, OLF Bronson, NAS Pensacola

Treatment Well ID	Diameter (inches)	Screened Interval (ft bls)	Screen Size (inches)	Total Depth (ft bls)	Expected ROI (ft)	System Manifold
1159-SVE-01*	4	8-16	0.020	17.61	50	Leg S1
1159-SVE-02*	4	14-24	0.020	24.97	50	Leg S2
1159-SVE-03	4	4.5-7.5	0.020	8	40	Leg S1
1159-SVE-04	4	5-8	0.020	8.5	50	Leg S1
1159-SVE-05	4	5-8	0.020	8.5	50	Leg S1
1159-SVE-06	4	7-15	0.020	15.5	50	Leg S1
1159-SVE-07	4	7-10	0.020	10.5	50	Leg S1
1159-SVE-08	4	7-10	0.020	10.5	50	Leg S1
1159-SVE-09	4	7-10	0.020	10.5	50	Leg S1
1159-SVE-10	4	8-12	0.020	12.5	50	Leg S1
1159-SVE-11	4	9-18	0.020	18.5	50	Leg S2
1159-SVE-12	4	9-18	0.020	18.5	50	Leg S2
1159-SVE-13	4	9-18	0.020	18.5	50	Leg S2
1159-SVE-14	4	7-10	0.020	10.5	50	Leg S2
1159-SVE-15	4	7-10	0.020	10.5	50	Leg S2

Notes:
* Existing SVE Wells
All wells will be constructed using Schedule 40 polyvinyl chloride risers and well screens.

SVE wells will be constructed of 4-inch diameter, Schedule 40 PVC, and will have 0.020-inch slotted screens. Depths will vary based upon installation location (see Table 3-2). The bottom of each SVE well will be fitted with a threaded well point and will be set at the bottom of the borehole. A 6-20 coarse silica sand pack will then be placed to at least 1 foot above the screen. A bentonite seal will then be placed atop the filter pack. The remainder of the boring will be grouted to approximately 18 inches bls, where a wellhead completion will be assembled, connecting the SVE well to the field piping.

The SVE system field piping will consist of mains, manifold boxes, and individual lines from each wellhead. The SVE field piping will be installed below grade to protect the piping and minimize the impacts on the facility. The 4-inch DR 21 HDPE or Schedule 40 PVC lines from the SVE wells will be piped to manifold enclosures housing brass gate valves, Pitot ports, thermometers, and vacuum gauges. The gate valves will be used for flow control, and the Pitot ports, thermometers, and vacuum gauges will be used to calculate flow in each line. The individual lines will manifold into 6-inch DR 21 HDPE or Schedule 40 PVC mains, which will carry the extracted off-gas to the SVE system blowers and off-gas treatment. See Appendix G for design calculations and Appendix H for system design drawings.

3.3 AAS System Components

The AAS compressors will be selected to produce design airflow and pressure and will be equipped with variable frequency drive units and motors to allow for maximum

adjustability. The compressor motors and associated electrical equipment will be designed for a non-hazardous atmosphere. AAS design calculations are presented in Appendix G.

The airflow rate to each AAS well has been reduced from 30 scfm to 20 scfm. Based on system cycling, the total air flow from the AAS compressor will be 350 scfm at a maximum pressure of 25 psig. The pressure rating for the AAS system is designed at 25 psig to push the air through the equipment, instruments, field piping, and the approximately 30-foot water column.

To avoid damaging the field piping, compressor discharge will be routed through heat exchangers in order to reduce the compressor discharge air temperature to approximately 100-110 degrees Fahrenheit (°F). In order to extend the durability of the system's mechanical components and minimize the impact of noise pollution on the adjacent campgrounds, the AAS compressors will be housed inside a structurally reinforced and insulated enclosure.

3.4 SVE System Components and Off-Gas Treatment

The SVE vacuum blowers will be selected to extract design airflow and vacuum and will be equipped with VFD drive units and motors to allow for maximum adjustability. The blower motors and associated electrical equipment will be designed for Class 1 Division 1, Group D hazardous atmosphere. It is anticipated that the SVE off-gas will be near 25 percent of the lower explosive level (LEL); therefore, explosion-proof motors and spark-proof blowers will be specified. It is anticipated that multiple vacuum blowers will be necessary to produce the desired design parameters. The use of multiple blowers in conjunction with VFDs will increase the overall operational flexibility of the SVE system. Design calculations are presented in Appendix G.

The SVE system optimization includes a reduction in the total number of SVE wells, which reduces the total design extraction air flow rate. The total number of SVE wells has been reduced to 15 in order to focus vapor capture from the areas where the AAS system is operating, areas where LNAPL persists, and areas where contaminant concentrations exceed the FDEP SCTLs as presented in Chapter 62-770, FAC. Design air extraction from this system will be 600 scfm at 100 in. H_2O vacuum. This is approximately 1.7 times the proposed maximum AAS injection rate. The vacuum rating for the SVE system is designed to extract the off-gas from each soil vapor extraction well, through the field piping, equipment, instruments, and through the off-gas treatment.

Due to the combined effects of the shallow water table at Site 1159 and the suction from the SVE blowers, the possibility exists that excess moisture could enter the system and collect in the SVE moisture separator(s). Collection and disposal of the unknown quantities of water could present significant problems in maintaining system effectiveness. To minimize any potential adverse effects on treatment system operation, moisture separators will be installed between the SVE lines and the blowers to remove water from the off-gas air stream prior to processing through the SVE blowers.

The moisture separators will be equipped with effluent pumps, which will operate using high, medium, and low level float switches installed within each moisture separator. Pumps will activate when water levels inside the moisture separators reach the medium-level switch and will automatically turn off when the low-level switch is triggered. The high-level

switch will be wired to the control panel to turn the entire system off if triggered by a high water level in the moisture separator.

The SVE moisture separator effluent pump discharge lines will be manifolded together, and the water removed from the soil-gas by the SVE system moisture separators will initially be containerized and tested for lead and petroleum constituents to determine the proper disposal method. Potential disposal methods include onsite discharge, approved disposal at an offsite facility, or discharge to the local publicly-owned treatment works.

Initial influent total petroleum hydrocarbon (TPH) concentrations from the SVE systems are expected to exceed the FDEP limit of 13.7 pounds per day (lb/day); therefore, off-gas treatment will be provided using a thermal oxidizer with catalytic option. Due to the presence of tetraethyl lead (TEL) in the AVGAS, it is likely that lead-oxide particulates will be generated during the combustion process inside the thermal oxidizer.

Reported TEL values in AVGAS range from 0.56 to 1.12 grams (g) Pb per liter (L) [0.005 to 0.009 lb TEL(as Pb) per gallon] (Chevron, 2000) to greater than 4 g TEL (as Pb) per gallon (EPA, 2002). Based on the original volume estimate (TtNUS, September 2002) of 242,000 gallons of AVGAS released at Site 1159, potentially 300 to 2,100 pounds of TEL (as Pb) exists in the treatment zone, and could be entrained in the SVE system off-gas and released to the atmosphere.

The site-specific concentrations at which the TEL will be extracted from the vadose zone are unknown at this time; therefore, lead emissions estimates from an AVGAS-contaminated site at Hickam Air Force Base (AFB) in Oahu, Hawaii, were used in conjunction with design flow rates to estimate the approximate off-gas treatment system emissions at OLF Bronson. Lead emissions from the Hickam AFB site were observed to be 2.162 mg/m^3 (CH2M HILL 2000). Using this lead concentration, the estimated annual emissions for OLF Bronson Site 1159 would be between 21 and 135 lb/year, depending on operational flow rates (design flow or maximum flow); this estimate falls below the 500 lb Pb/year limit established in Chapter 62-210 FAC.

The lead emissions may present a potential risk to human health and the environment. As a precaution, additional influent sampling, off-gas sampling, and ambient air monitoring will be conducted during system startup and routine operations (if startup observations show that it is necessary) to determine the actual mass of lead particulates being generated by the off-gas treatment system and to track TPH emissions. Additionally, air modeling may be conducted to determine the extent of lead particulate dispersion and assess potential effects of lead deposition to areas adjacent to the site. If the concentrations of TEL exceed the Occupational Safety and Health Administration (OSHA) general industry permissible exposure limit of 0.075 mg/m^3 as lead, then off-gas treatment system optimization will be performed to reduce the emitted concentrations. If optimization efforts do not successfully reduce the lead concentrations, additional off-gas treatment may be required.

Initial system startup activities will consist of an SVE-only startup during which the SVE and off-gas system operation will be initiated and optimized. Once stable SVE operations have been achieved (i.e., flow rates balanced, TPH off-gas effluent emissions are maintained below 13.7 lb/day, and lead emissions are below 1.37 lb/day or up to 500 lb Pb/yr), the SVE system legs may be cycled based upon field and analytical observations obtained during the

initial startup, including off-gas influent concentrations and emissions. Once startup activities are completed (AAS/SVE/off-gas), the SVE system will continue to operate until the cumulative removal curve approaches an asymptotic slope, or lead emissions reach 500 lb within a one year period.

Once soil gas removal rates fall below 13.7 lb/day as TPH, the off-gas treatment system will be removed and the soil-gas will be vented directly to the atmosphere, with approval from the FDEP. Off-gas sampling and ambient air monitoring (if necessary based on startup observations) will be continued to confirm TPH and lead emissions in order to ensure that human health and the environment are protected and that regulatory emissions criteria are met. The frequency and duration of the continuing off-gas sampling and ambient air monitoring is subject to change (with concurrence from the FDEP) based on the air sampling analytical results.

In order to extend the durability of the system's mechanical components and minimize the impact of noise pollution on the adjacent campgrounds, the SVE vacuum blowers, moisture separators, and components will be housed inside a structurally reinforced and insulated enclosure wired for explosive atmospheres.

3.5 Process Instrumentation and System Controls

The AAS/SVE system at Site 1159 will be equipped with a process logic controller (PLC) and control panel(s) that will be mounted inside the AAS trailer. A process and instrumentation diagram is included in the design drawings in Appendix H.

The remediation system controls for the AAS, SVE, and off-gas treatment systems will have HAND, OFF, and AUTO switches. The remediation system will operate with the AAS, SVE and off-gas systems running in the AUTO mode. Under no circumstances will the AAS system operate in the AUTO mode without the SVE/off-gas systems being operational. The SVE and off-gas systems will startup first, followed by the AAS system, ensuring that the SVE and off-gas systems will be operating and extracting from the vadose zone soils prior to the AAS system starting up. The HAND function will allow for temporary operations of the components for trouble-shooting and short-term operations for conducting system testing.

At a minimum, the system control panel will alarm if the following conditions occur:

- Power failure
- SVE motor failure
- AAS motor failure
- Heat exchanger failure
- LEL shutdown AAS trailer
- LEL shutdown SVE trailer
- Moisture separator high-level shutdown
- SVE compressor high temperature shutdown
- AAS pipe high temperature shutdown (post heat exchanger)
- AAS enclosure high temperature shutdown
- SVE enclosure high temperature shutdown

The thermal/catalytic oxidizer control panel will alarm if the following conditions occur:

- System runs out of fuel
- SVE shutdown
- Power loss shutdown
- Low flow shutdown
- Burner high temperature shutdown
- Catalyst high temperature shutdown (if operating in catalytic mode)
- Catalyst high pressure shutdown (if operating in catalytic mode)
- Flame safe guard (FSG) shutdown
- Combustion blower overload
- Combustion blower failure

The AAS/SVE system controller may be connected to a telemetry unit/auto-dialer device that will allow for system checks from an offsite location. Additionally, if used, the telemetry unit/auto-dialer device will alert the user if system shutdowns have occurred. At a minimum, the following instruments will be wired to the system PLC:

- Temperature gauges on the AAS post heat exchanger discharge
- Pressure gauges on the AAS compressor discharge
- Vacuum gauges on the SVE blower intake
- Level switches on the moisture separators
- AAS compressor motors
- SVE blower motors
- LEL sensors/meters in the AAS and SVE process enclosures
- Oxidizer temperature gauges/sensors
- Oxidizer FSG sensor
- Oxidizer auto dilution valve.

The AAS compressor motor(s), AAS heat exchanger motor(s), SVE blower motors, effluent pump motor(s), and thermal oxidizer combustion blower will all be equipped with hour meters to track actual hours of operation for maintenance purposes, calculating system performance efficiency, and for calculating mass removal.

3.6 System Enclosure

The AAS enclosure, SVE enclosure, and off-gas treatment system will be set up inside a system enclosure in the general location depicted on Figures 3-10 and 3-11. The system enclosures and oxidizer will be grounded and anchored at this location. A minimum 8-foot tall privacy fence will be built around the equipment to protect the system trailers and to further reduce the noise impacts on the adjacent campground.

3.7 Aquifer and Vadose Zone Monitoring System

Saturated Zone Monitoring Points (SZMPs), Vadose Zone Monitoring Points (VZMPs), and existing groundwater monitoring wells will be used in order to assess the effects of the

AAS/SVE system on the saturated zone and vadose zone. Figure 1-3 shows the location for site monitoring wells.

3.7.1 AAS Monitoring System

Three additional SZMPs and select existing groundwater monitoring wells at Site 1159 screened in both the vadose and saturated zones will be used to monitor dissolved oxygen (DO) and water levels. Wells that are entirely screened below the water table will be used to monitor saturated zone pressures. Because only three wells onsite are screened completely below the water table, additional monitoring points (SZMPs) must be installed in order to better evaluate airflow through the saturated zone. Proposed construction details of these monitoring points is included with the design drawings in Appendix H and their proposed locations are shown on Figure 3-10.

3.7.2 SVE Monitoring System

Existing groundwater monitoring wells at Site 1159 screened in the vadose zone will be used to monitor soil gas concentrations (percent oxygen [% O_2], VOCs, percent LEL, percent carbon dioxide [% CO_2], and percent methane [% CH_4]) and pressure/vacuum. Additional VZMPs may be installed to evaluate ROI. Vacuum readings will be used to evaluate SVE influence within the vadose zone. Soil gas monitoring will also be conducted at each SVE well line to evaluate hydrocarbon concentrations in order to optimize system performance.

4.0 Operations and Maintenance Plan

Operations and maintenance (O&M) for the AAS/SVE system at Site 1159 is comprised of three phases of operations: startup operations, long-term operations, and site closure. These phases, along with additional site investigation activities, are discussed in the following sections.

4.1 Startup Operations

Startup includes the period from preconstruction to approximately 1 to 2 months after the system is turned on. The purpose of startup is to thoroughly evaluate baseline soil gas concentrations, determine off-gas treatment effectiveness, and establish optimal system operational parameters (flows per well, maximum extraction vacuums/pressures, and radius of influence). The baseline vapor and soil concentrations will be compared to all system operations data to evaluate the system's effectiveness in addressing the contamination present in both the vadose zone and saturated zone.

4.1.1 Additional Soil Sampling

In order to establish baseline site conditions and better evaluate remediation system performance at Site 1159, additional soil sampling will be conducted from varying depths during treatment well installation. Field screening will be conducted and samples will be collected for laboratory analyses from select locations per, Chapter 62-770.200 FAC. Soil samples will be analyzed for TRPH (FL-PRO), TRPH speciation (TPHCWG), VOCs (SW-846 Method 8260B), lead (SW-846 6010B), and PAHs (SW-846 Method 8310).

A shallow subsurface sample will be collected at each boring location (anticipated to be 6 to 8 feet bls) along with a sample from the zone exhibiting the highest FID response within the vadose zone interval. A third sample may be collected at each boring, from within the saturated zone if the zone of highest FID response occurs beneath the water table.

4.1.2 Former Fuel Pipeline Evaluation

In addition to conducing additional soil sampling activities at the site, CH2M HILL will conduct a literature search to determine if fuel lines were properly abandoned. If no record of fuel line abandonment is found, CH2M HILL will propose an investigation to rule out the existence of a continuing source in the area.

4.1.3 Monitoring Well Abandonment

CH2M HILL recommends that the two monitoring wells, 1159-MW-29 and 1159-MW-30, be abandoned as these wells do not offer representative groundwater samples since they are installed in a retention pond which drains Bronson Road and the adjacent area. The wells are constructed from Schedule 40 PVC and have stick-up surface completions. A new well 1159-MW-77 would replace the wells on the upgradient side of the retention pond between monitoring wells 1159-MW-08 and 1159-MW-67. Table 4-1 shows the construction completion information for these two wells.

TABLE 4-1
Well Completion Details
Site 1159, OLF Bronson, NAS Pensacola

Monitoring Well ID	Northing (NAD)	Easting (NAD)	Well Diameter (inches)	Total Well Depth (ft bls)
1159-MW-29	515261.84	1046428.24	2	14.50
1159-MW-30	515298.63	1046410.39	2	14.50

ID identification
NAD North American Datum

4.1.4 Additional Monitoring Well Installation

CH2M HILL recommends installing four additional shallow monitoring wells (1159-MW-76, -77, -78, and -79). These wells will be installed using Rotasonic drilling techniques in order to:

- Delineate the northwestern extent of groundwater contamination (north of 1159-MW-72)
- Provide better resolution to track the northern extent of the source area plume between 1159-MW-71 and 1159-MW-44
- Provide a POC well upgradient of the retention pond to replace 1159-MW-29 and 1159-MW-30
- Provide a clean, upgradient well to 1159-MW-62

The well borings will be continuously cored and screened using a FID-equipped TVA 1000. The well will be constructed using Schedule 40 PVC with a 10 feet, 0.010-inch slot screen. Screen placement will vary based on well location due to topographic changes at the site. Table 4-2 summarizes the monitoring well construction details. Proposed monitoring well locations are shown on Figure 4-1. Additional monitoring wells or piezometers may be installed based on field observations.

TABLE 4-2
Proposed Monitoring Well Construction Details
Site 1159, OLF Bronson, NAS Pensacola

Monitoring Well ID	Screen Interval (ft bls)	Total Depth (ft bls)
1159-MW-76	6-16	16.5
1159-MW-77	6-16	16.5
1159-MW-78	12-22	22.5
1159-MW-79	8-18	18.5

ID identification

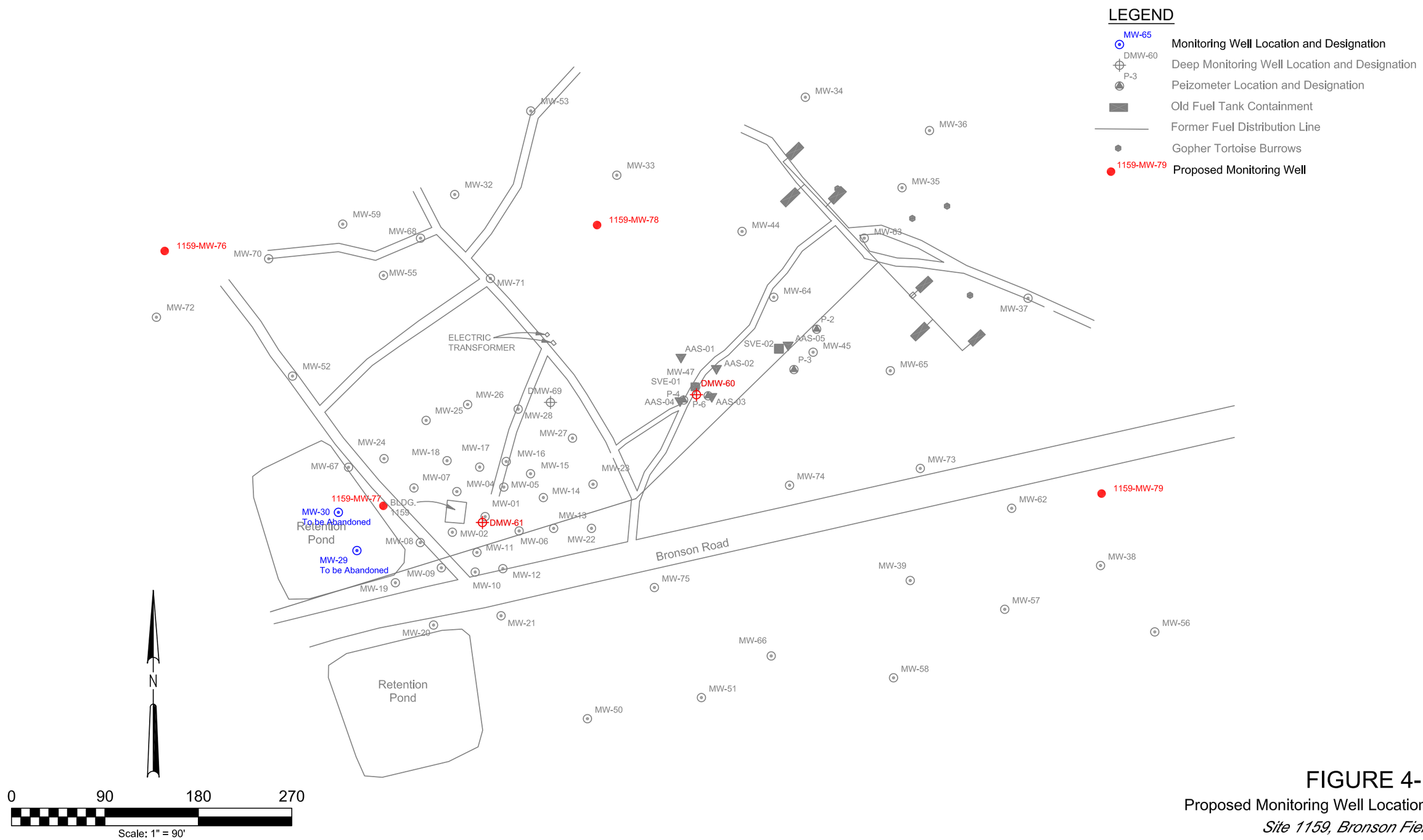

FIGURE 4-1

Proposed Monitoring Well Locations

Site 1159, Bronson Field

CH2MHILL

site-1159_figure4-1.dwg
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4.1.5 Startup Groundwater Sampling

Once the system installation has been completed, groundwater samples will be collected and analyzed to establish baseline dissolved phase contamination conditions and to establish data trends. This data will also be used to monitor the remediation system's effectiveness. The baseline sampling plan is included in Table 4-3. The wells in this table have been classified into the three treatment zones based on historic data, but those classifications may change pending the results of the soil analytical samples collected during treatment well installation activities.

TABLE 4-3
Baseline Groundwater Sampling Plan
Site 1159, OLF Bronson, NAS Pensacola

Location	TRPH (FL-PRO)	VOCs (SW-846 8260B)	PAHs (SW-846 8310)	Lead (SW-846 6010B)	NAIPs
Source Zone Wells					
MW-45	X	X	X	X	X
MW-47	X	X	X	X	X
MW-62	X	X	X	X	X
MW-64	X	X	X	X	
MW-65	X	X	X	X	X
MW-71	X	X	X	X	X
MW-73	X	X	X	X	X
MW-74	X	X	X	X	
Transitional Zone Wells					
MW-01	X	X	X	X	X
MW-16	X	X	X	X	
MW-21	X	X	X	X	
MW-22	X	X	X	X	
MW-28	X	X	X	X	X
MW-38	X	X	X	X	
MW-39	X	X	X	X	
MW-55	X	X	X	X	X
MW-70	X	X	X	X	
MW-75	X	X	X	X	
Point of Compliance Zone Wells					
		Upgradient			
MW-37	X	X	X	X	
MW-38	X	X	X	X	
MW-63	X	X	X	X	X
MW-79[A]	X	X	X	X	X
		Sidegradient			
MW-32	X	X	X	X	
MW-44	X	X	X	X	
MW-59	X	X	X	X	
MW-78[A]	X	X	X	X	

TABLE 4-3
Baseline Groundwater Sampling Plan
Site 1159, OLF Bronson, NAS Pensacola

Location	TRPH (FL-PRO)	VOCs (SW-846 8260B)	PAHs (SW-846 8310)	Lead (SW-846 6010B)	NAIPs
		Downgradient			
MW-19	X	X	X	X	
MW-20	X	X	X	X	
MW-52	X	X	X	X	
MW-67	X	X	X	X	
MW-72	X	X	X	X	
MW-76[A]	X	X	X	X	X
MW-77[A]	X	X	X	X	
DMW-60	X	X	X	X	
DMW-61	X	X	X	X	

Notes:

[A] Proposed new wells

FL-PRO Florida Petroleum Residual Organic
PAHs polycyclic aromatic hydrocarbons
SW solid waste
TRPH total recoverable petroleum hydrocarbons
VOCs volatile organic compounds

4.1.6 System Startup Monitoring

After system installation activities have been completed, the system will be turned on to perform operational tests. The startup sequence will consist of an SVE-only startup (to include off-gas treatment) and an AAS/SVE startup (to include off-gas treatment). An AAS-only startup is not recommended for health and safety reasons, due to the reported historic free product, recently observed quantities of free product, and groundwater contaminant concentrations.

The purpose of the SVE/off-gas treatment evaluation is to conduct system monitoring activities (soil gas field screening, air sampling, and system parameters measurements [flow, vacuum, ROI]) in order to understand and optimize operations. Once the SVE and off-gas treatment systems have been evaluated and optimized, the AAS system will be started in concert with the SVE/off-gas treatment system and optimized in order to maximize treatment of both saturated zone and vadose zone.

SVE-only Startup

During the SVE-only startup phase, the SVE blowers will be turned on (along with the off-gas treatment system) and system parameters will be monitored in order to determine the system effects on the vadose zone, establish baseline removal flow rates, establish and define ROI, quantify mass removal, and assess/define off-gas treatment efficiency. The SVE system will be initially set to process 100 percent ambient air using manual dilution valves. The off-gas treatment system will be started up and SVE blower vacuums, flow rates, operating temperatures, and discharge pressures will be monitored to establish operational capacity under open flow conditions. Once the operational capacity has been defined under

open flow conditions, the manual dilution valves will be closed, and the well lines will be opened in order to begin extracting from the vadose zone. Based on the field observations and analytical results obtained during the August 2004 soil gas field screening, a staged SVE-only startup will be necessary to avoid exceeding the 13.7 lb/day FDEP emissions criteria for TPH. Specific system startup procedures will be pursuant to the manufacturer's instructions and field observations obtained at the time of startup.

Soil gas parameters will be measured at the combined oxidizer influent line and at the oxidizer stack. An FID will be used to screen the samples from the influent line and effluent stack in order to calculate the oxidizer destruction efficiency and respective emissions rates. Air samples will also be collected for laboratory analysis. Representative vadose zone monitoring points will be used to monitor the SVE effects and to determine actual ROI for the system wells. A preliminary list of vadose zone monitoring points (VZMPs) is presented in Table 4-4. VZMPs could include monitoring wells for which well screens are not fully submerged. Flow rates will be adjusted to approximately 40 scfm at each SVE well. Soil gas parameters will be measured at each of the SVE well lines to establish operational trends. Table 4-5 lists the parameters that will be measured and recorded, as well as equipment that will be used for the readings.

TABLE 4-4
Preliminary SVE System Monitoring Locations
Site 1159, OLF Bronson, NAS Pensacola

Monitoring Point ID	Total Depth (ft bls)	Top of Screen (ft bls)	Bottom of Screen (ft bls)	Vacuum/ Pressure	Soil Gas
1159-MW-26	14.50	4.00	14.00	X	X
1159-MW-28	14.50	4.00	14.00	X	X
1159-MW-32	18.50	8.00	18.00	X	X
1159-MW-33	29.50	19.00	29.00	X	X
1159-MW-38	24.50	14.00	24.00	X	X
1159-MW-39	19.50	9.00	19.00	X	X
1159-MW-44	30.50	20.00	30.00	X	X
1159-MW-45	27.50	17.00	27.00	X	X
1159-MW-47	22.50	12.00	22.00	X	X
1159-MW-56	25.50	15.00	25.00	X	X
1159MW-57	22.50	12.00	22.00	X	X
1159-MW-59	17.50	7.00	17.00	X	X
1159-MW-64	No Data	No Data	No Data	X	X
1159-MW-65	No Data	No Data	No Data	X	X
1159-MW-68	No Data	No Data	No Data	X	X
1159-MW-76	16.5	6	16	X	X
1159-MW-77	16.5	6	16	X	X
1159-MW-78	22.5	12	22	X	X
1159-MW-79	18.5	8	18	X	X

Soil Gas readings include VOCs (using an FID) % LEL, %CH_4, %CO_2, and %O_2

TABLE 4-5
SVE System Monitoring Parameters
Site 1159, OLF Bronson, NAS Pensacola

System Parameter	Equipment Used	Measurement Purpose
Mechanical System Parameters		
System Operation Hours	Hour meters	Track system performance, determine system run times, track mass removal, determine dates/times of shutdowns
SVE Blower Vacuum	Vacuum Gauge	Determine blower performance
SVE Blower Discharge Temperature	Bimetal Thermometer	Determine blower performance
SVE Well Temperature/ Extraction Vacuum/ Differential Pressure	Pitot Tube, Magnahelic Gauge Box, Thermometer	Calculate flow rate from each well in order to calculate mass loading rate to the treatment system as well as overall system mass removal
Oxidizer Dilution Blower Flow	Magnahelic Gauge Box/Flow Meter	Track oxidizer dilution air intake for emissions calculations
Oxidizer Operating Temperatures	Thermocouples	Track and establish oxidizer thermal mode operating parameters with influent loading concentrations
Oxidizer Effluent VOCs	Air Sampling Pump, FID/PID	Track oxidizer performance and estimate daily emissions rates
Oxidizer Effluent Lead	Air Sampling Pump, Glass Fiber Filters	Track oxidizer performance and estimate daily emissions rates
Oxidizer Effluent $\%O_2$, $\%CH_4$, $\%CO_2$, %CO, %LEL	Air Sampling Pump, 3L Tedlar Bags, GEM 2000	Track oxidizer performance/destruction efficiency
In-Situ Parameters		
$\%CH_4$, $\%CO_2$, %LEL	Air Sampling Pump, 3L Tedlar Bags, GEM 2000	Track in-situ biological activity in the treatment area and system capture effectiveness
$\%O_2$	Air Sampling Pump, 3L Tedlar Bags, and GEM 2000	Track in-situ biological activity in the treatment area and track system aeration effectiveness
VOCs	FID/PID, Air Sampling Pump, and 3L Tedlar Bags	Track VOC concentrations with time to evaluate system performance
Wellhead Vacuum/Pressure	Magnahelic Gauge Box	Determine SVE/AAS system ROI
Analytical Air Samples	Air Sampling Pump/ 1L Tedlar Bags	Calculate emissions and track system mass removal

PID photoionization detector

Analytical air samples will be collected at select locations and analyzed for BTEX/MTBE/TPH-G by EPA-18 to quantify the mass removal and assess oxidizer treatment efficiency in maintaining emissions below the regulatory limit of 13.7 lb/day. Additionally, lead concentrations will be analyzed using EPA method IO-3.4, Determination of Metals Captured on Glass Fiber Filter, and analyzed by Inductively Coupled Plasma (ICP).

During this initial SVE startup, the system will be inspected for any accumulation of water in the moisture separators. Due to the shallow groundwater table at Site 1159, moisture accumulation could be significant. As described previously, the combined effluent from the moisture separator effluent pumps will be discharged to land surface in the area exhibiting the most elevated levels of groundwater contamination nearest the treatment system enclosure.

The data collected during the SVE-only startup will be evaluated to determine the system performance in extracting vapors from the vadose zone and determine the off-gas treatment system destruction efficiency and lead emissions rates. Once evaluation of the SVE-only startup is complete and the system has been optimized, startup operations will continue.

AAS/SVE Combined Startup

Once the SVE system performance has been evaluated, and operational parameters have been optimized, the AAS system will be started up in a similar manner. With the SVE and off-gas system operational, the AAS system will be brought online with the valves to all the AAS wells closed and the manual by-pass valves 100 percent open. Open flow conditions will be assessed for the AAS compressors and their respective heat exchangers. System pressures, temperatures, and airflow rates will be monitored to determine maximum blower capacities under open flow conditions.

Once open flow conditions have been assessed for the AAS system, the valves to the AAS wells will be opened, and the bypass valves will be slowly closed to force air through the field piping network and into the AAS treatment wells. The pressures and airflow rates will be monitored to ensure that flow is being distributed evenly to all the AAS wells (approximately 20 scfm each) and that airflow is being distributed into the saturated zone. Select monitoring points will be used to monitor AAS system performance. Wellhead pressures, DO, and water levels at each monitoring well will be measured and recorded in order to establish operational ROI for the AAS system wells. Additional adjustments will be made to the AAS well lines in order to attain equal flow to each AAS well.

Once AAS flow rates have been adjusted, the parameters listed in Table 4-6 will be measured and recorded. Note that SVE parameters will also be recorded to determine the effects of the AAS system operating in conjunction with the SVE system. The frequency of these measurements will be determined by the field engineer but, at a minimum, will be monitored on a weekly basis for the first month of operation, and then monthly thereafter.

TABLE 4-6
AAS/SVE System Monitoring Parameters
Site 1159, OLF Bronson, NAS Pensacola

System Parameter	Equipment Used	Measurement Purpose
Mechanical System Parameters		
System Operation Hours	Hour meters	Track system performance, determine system run times, track mass removal, determine dates/times of shutdowns
AAS Compressor Discharge Pressure	Pressure Gauge	Track AAS compressor performance
AAS Compressor Discharge Temperature	Bimetal Thermometer	Track AAS compressor performance
AAS Compressor Discharge Flow rate	Flow Meter	Track AAS compressor performance
AAS Heat Exchanger Discharge Temperature	Bimetal Thermometer	Track heat exchanger efficiency in reducing AAS discharge temperatures to acceptable limits for system field piping
AAS Heat Exchanger Discharge Pressure	Pressure Gauge	Track head loss across the heat exchanger in order to determine if leaks are present and monitor performance
AAS Well Temperature/Injection Pressure/Differential Pressure	Pitot Tube, Magnahelic Gauge Box, Thermometer	Calculate flow rate to each well in order maintain even treatment across the AAS zone of influence
SVE Blower Vacuum	Vacuum Gauge	Determine blower performance
SVE Blower Discharge Temperature	Bimetal Thermometer	Determine blower performance
SVE Well Temperature/Extraction Vacuum/Differential Pressure	Pitot Tube, Magnahelic Gauge Box, Thermometer	Calculate flow rate from each well in order to calculate mass loading rate to the treatment system as well as overall system mass removal
Oxidizer Dilution Blower Flow	Magnahelic Gauge Box/Flow Meter	Track oxidizer dilution air intake for emissions calculations
Oxidizer Operating Temperatures	Thermocouples	Track and establish oxidizer thermal mode operating parameters with influent loading concentrations
Oxidizer Effluent VOCs	Air Sampling Pump, FID/PID	Track oxidizer performance and estimate daily emissions rates
Oxidizer Effluent Lead	Air Sampling Pump, Glass Fiber Filters	Track oxidizer performance and estimate daily emissions rates
Oxidizer Effluent $\%O_2$, $\%CH_4$, $\%CO_2$, %CO, %LEL	Air Sampling Pump, 3L Tedlar Bags, GEM 2000	Track oxidizer performance/destruction efficiency
In-Situ Parameters		
$\%CH_4$, $\%CO_2$, %LEL	Air Sampling Pump, 3L Tedlar Bags, GEM 2000	Track in-situ biological activity in the treatment area and system capture effectiveness
Dissolved Oxygen	Dissolved Oxygen Meter	Track AAS ROI and biological activity

TABLE 4-6
AAS/SVE System Monitoring Parameters
Site 1159, OLF Bronson, NAS Pensacola

System Parameter	Equipment Used	Measurement Purpose
Mechanical System Parameters		
Water Levels	Water Level Indicator	Track AAS system ROI
$\%O_2$	Air Sampling Pump, 3L Tedlar Bags, and GEM 2000	Track in-situ biological activity in the treatment area and track system aeration effectiveness
VOCs	FID/PID, Air Sampling Pump, and 3L Tedlar Bags	Track VOC concentrations with time to evaluate system performance
Wellhead Vacuum/Pressure	Magnahelic Gauge Box	Determine AAS/SVE system ROI
Analytical Air Samples	Air Sampling Pump/ 1L Tedlar Bags	Calculate emissions and track system mass removal

FID flame ionization detector
PID photoionization detector

4.1.7 Environmental Startup Sampling

Startup sampling will be divided into field screening and analytical measurements. The field screening measurements will track soil gas concentrations, off-gas vapor stream concentrations, DO concentrations, and groundwater level measurements. Analytical measurements will measure BTEX/MTBE/TPH-G/Pb concentrations in the system off-gas. Combined oxidizer influent and oxidizer effluent air samples will be collected daily for the first week, weekly for the first month, and monthly thereafter.

4.2 Long-Term Operations and Maintenance

Routine long-term system O&M will involve measuring and recording the AAS/SVE/ off-gas treatment system parameters specified in Table 4-6 weekly for the first month of operations and then monthly thereafter. The main system parameters (flow rates, pressure/vacuum, temperatures, and operational hours) will be measured and recorded on a weekly basis. Additional long-term O&M requirements are listed in Table 4-7.

TABLE 4-7
Long-term O&M Procedures
Site 1159, OLF Bronson, NAS Pensacola

Parameter	Monitoring Frequency	Purpose
Site-Wide Water Level Measurements	Quarterly	Track site-wide water levels
Groundwater Sampling (BTEX, TRPH, PAHs, and Lead)	Quarterly for the first year, semiannually thereafter (pending data evaluation)	Track contaminant concentrations over time to evaluate system performance
Soil Sampling (BTEX, TRPH, TRPH Specification, PAHs, and Lead)	Based on vapor monitoring and groundwater data trends. Subsequent soil sampling will be conducted at locations adjacent to the original baseline boring locations. Frequency will be determined at the time decision criteria have been reached per decision logic.	Track system performance in remediating soil contamination
Main System Parameters (Run-time Hours, Vacuums/Pressures, Temperatures, and Flow Rates)	Weekly	Track system performance, determine time schedules for regular maintenance
AAS/SVE Well Parameters (Flows, Pressures/Vacuums, Temperatures, Off-gas Parameters)	Monthly	Track system performance at all system wells for the first 6 months, operational adjustments may be recommended based upon system treatment progress
Air Sampling From SVE Influent and Oxidizer Effluent (Laboratory Analysis for BTEX/MTBE/TPH-G/Pb)	Monthly	Track mass removal, oxidizer destruction efficiency, and document compliance with max daily emission rates
System Component Maintenance (SVE, AAS, and Off-gas Systems and Components)	According to manufacturer recommendations	Maintain equipment in proper working condition to extend life of mechanical components

Pursuant to Chapter 62-770.700 (4) FAC, quarterly groundwater sampling will be required for the first year of operation to monitor the treatment system effectiveness at reducing the groundwater contaminant concentrations and to track the contaminant plume dynamics. Table 4-8 outlines the groundwater sampling plan for Site 1159. The sampling plan may change based upon changing site conditions and remediation system treatment progress.

Air sampling from the SVE/off-gas system is required to ensure that the system is not emitting more than 13.7 lb/day of TPH and 500 lb/year Pb emissions to the atmosphere. Air sampling also provides information for calculating and tracking total mass removed by the SVE system, as wells as quantifying oxidizer destruction efficiency. Table 4-9 summarizes the proposed air sampling plan.

Periodic maintenance will be required on all system components to ensure that the equipment remains operational.

TABLE 4-8
Routine O&M Sampling Plan
Site 1159, OLF Bronson, NAS Pensacola

Location	Sampling Frequency		TRPH[B] (FL-PRO)	VOCs (SW-846 8260B)	PAHs[B] (SW-846 8310)	Lead (SW-846 6010B)	NAIPs[B]
	Quarterly	Semiannual					
Source Zone Wells							
MW-45	X	X	X	X	X	X	X
MW-47	X	X	X	X	X	X	X
MW-62	X	X	X	X	X	X	X
MW-64	X	X	X	X	X	X	
MW-65	X	X	X	X	X	X	X
MW-71	X	X	X	X	X	X	X
MW-73	X	X	X	X	X	X	X
MW-74	X	X	X	X	X	X	
Transitional Zone Wells							
MW-01		X	X	X	X	X	X
MW-16		X	X	X	X	X	
MW-21		X	X	X	X	X	
MW-22		X	X	X	X	X	
MW-28		X	X	X	X	X	X
MW-38		X	X	X	X	X	
MW-39		X	X	X	X	X	
MW-55	X	X	X	X	X	X	X
MW-70	X	X	X	X	X	X	
MW-75		X	X	X	X	X	
Point of Compliance Zone Wells							
Upgradient							
MW-37		X	X	X	X	X	
MW-38		X	X	X	X	X	
MW-63		X	X	X	X	X	X
MW-79[A]	X	X	X	X	X	X	X
Sidegradient							
MW-32		X	X	X	X	X	
MW-44		X	X	X	X	X	
MW-59		X	X	X	X	X	
MW-78[A]	X	X	X	X	X	X	
Downgradient							
MW-19		X	X	X	X	X	
MW-20		X	X	X	X	X	
MW-52		X	X	X	X	X	
MW-67		X	X	X	X	X	
MW-72		X	X	X	X	X	
MW-76[A]	X	X	X	X	X	X	X
MW-77[A]	X	X	X	X	X	X	

TABLE 4-8
Routine O&M Sampling Plan
Site 1159, OLF Bronson, NAS Pensacola

Location	Sampling Frequency		TRPH[B] (FL-PRO)	VOCs (SW-846 8260B)	PAHs[B] (SW-846 8310)	Lead (SW-846 6010B)	NAIPs[B]
	Quarterly	Semiannual					
Deep							
DMW-60	X	X	X	X	X	X	X
DMW-61		X	X	X	X	X	

[A] Proposed new wells
[B] Parameters will be sampled during semiannually
NAIPS include CO_2, CH_4, Nitrate, Sulfate, Alkalinity, and Ferrous Iron
FL-PRO Florida Petroleum Residual Organic

TABLE 4-9
Air Sampling Plan
Site 1159, OLF Bronson, NAS Pensacola

Station ID	Sampling Frequency	BTEX, MTBE, TPH-G (EPA Method 18)	Lead (EPA Method IO-3.4)
SVE Main Influent Lines 1 and 2 (pre-moisture separator)	Daily (first week) Weekly (first month) Monthly (12 months)	40	-
Oxidizer Influent	Daily (first week) Weekly (first month) Monthly (12 months) [a]	20	20
Oxidizer Effluent	Daily (first week) Weekly (first month) Monthly (12 months) [a]	20	20

Note: Sampling reflects one year (12 Months) of system operation and are calculated assuming the use of one thermal/catalytic oxidizer to treat system off-gas. If two units were used, oxidizer effluent samples would double two.

[a] Sampling frequency will be re-evaluated once trends have been established (6 months minimum).

4.3 Site Closure Plan

The site closure plan for Site 1159 will incorporate Global RBCA RMOs to evaluate the most cost effective and technically feasible option that will protect human health and the environment. The goal is to operate the AAS/SVE system until the contaminated media have reached acceptable concentrations in order to transition the site from active remediation to NA, NFA with controls, or NFA without controls (clean closure). The decision logic (Figures 3-1 though 3-10) describes the potential site closure scenarios, which can be evaluated based on site data and remediation system operational status.

System operations will continue until LNAPL is no longer present and/or SVE mass removal has reached an asymptotic slope. At this point, confirmation soil sampling will be conducted adjacent to the locations of the baseline soil sampling borings. If the soil laboratory analytical results show that the concentrations are below the FDEP SCTLs and the groundwater analytical results are below GCTLs, then the system will be shut down and

post-active remediation monitoring will commence. Post-active remediation groundwater sampling will be conducted for four consecutive quarters following system shutdown to monitor for potential rebounding of groundwater contamination. Once groundwater contaminant concentrations remain below the FDEP cleanup criteria for four consecutive quarters, a request for a Site Rehabilitation Completion Order (SRCO) will be submitted to FDEP for Site 1159.

If confirmation soil samples show that concentrations are above SCTLs, SPLP data and geotechnical information collected during the confirmation sampling will be used to evaluate RBCA RMOs. If the site meets criteria for applicable RMOs, then a RAP Addendum will be submitted to FDEP for review.

4.4 Project Schedule

The anticipated schedule for the implementation of the activities described herein for Site 1159 at OLF Bronson is listed in Table 4-10.

TABLE 4-10
Project Schedule
Site 1159, OLF Bronson, NAS Pensacola

Date	Activity
April 2007	Submit Addendum to RAP Addendum to NAVFAC SE
Late May 2007	Obtain Comments and Approval from NAVFAC SE
Late June 2007	Submit Addendum to RAP Addendum to FDEP
Late July 2007	Obtain FDEP Approval
August-October 2007	Conduct System Installation (note that system delivery could take 8 to 12 weeks). Procure and award Drilling and Equipment Subcontractors
	Revise Work Plan
	Conduct Treatment System Well and Monitoring Well Installation
	Collect Additional/Baseline Soil Data
	Conduct Baseline Groundwater Sampling
November 2007	Conduct System Startup (1.5 months to 2 months due to Pb emissions monitoring)
Late December 2007	Begin Routine System Operations
March 2008	Submit Construction Completion Report and First Quarter Monitoring Report
June 2008	Submit Second Quarter Monitoring Report
September 2008	Submit Third Quarter Monitoring Report
September 2008	Conduct System Confirmation Soil Sampling
Late November 2008	Submit Fourth Quarter Monitoring Report

4.5 Cost Estimate

System installation and one year of operations are estimated to cost approximately $1.807 million dollars. The costs anticipated for Site 1159 remediation efforts are listed in Table 4-11. The net-present worth cost to remediate the site, assuming 5 years of operation

and 1 year of post-active monitoring, is estimated to be $2.9 million dollars. An annually compounded discount rate of 4 percent was assumed.

TABLE 4-11
Construction and O&M Cost Estimate
Site 1159, OLF Bronson, NAS Pensacola

Capital Costs	Cost
Project Management	$45,000
Remediation Equipment	
AAS Equipment Costs	$65,000
SVE Equipment Costs	$85,000
CH2M HILL System Inspection at Manufacturing Facilities (two separate manufacturers for AAS/SVE and Oxidizer)	$7,500
System Installation Oversight Labor	$34,000
System Shipping	$12,000
Oxidizer/Heat Exchanger Rental - Subcontractor	$180,000
Propane Tank Rental - Subcontractor	$2,000
Propane Tank and Supply Line Installation - Subcontractor	$2,800
Treatment Well and Monitoring Well Installation	
AAS Treatment Well Installation- Subcontractor	$155,000
SVE Treatment Well Installation- Subcontractor	$37,000
Monitoring Cluster Installation	$16,000
Monitoring Well Installation	$10,000
Treatment Well Installation Oversight- Labor	$98,000
Treatment Well Installation - Equipment Rental	$7,500
Field Piping Installation	
Field Piping Installation - Subcontractor	$250,000
Field Piping Installation Oversight- Labor	$90,200
Electrical Installation	
Electrical and Mechanical Construction - Miscellaneous I&C	$25,000
Electrical and Mechanical Construction - Gulf Power	$40,000
Total Capital Costs	$1,162,000
O&M Costs (Year One)	
Off-Gas Treatment Operations – Propane	$110,000
Groundwater Baseline Sampling (Q 1)	$43,000
Groundwater Sampling (Q 2)	$23,000
Groundwater Sampling (Q 3)	$39,000
Groundwater Sampling (Q 4)	$23,000
Confirmation Soil Sampling	$45,000
System Startup	$92,000
System O&M	$130,000
Reporting	$140,000
Total for Year One O&M and Reporting	$645,000
Grand Total for Installation and 1 Year of O&M	**$1,807,000**

5.0 References

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Navy Public Works Center. November 1997. Contamination Assessment Report – Site 1159, U.S. Navy Outlying Landing Field Bronson, Pensacola, Florida.

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U.S. Geological Survey. 1987. 7.5-Minute Quadrangle Map for Lillian, Alabama-Florida.

Appendix A

Historical Groundwater Levels

Monitoring Well Construction Details and Water Levels
Site 1159, Bronson Field, NAS Pensacola

											6/12/1997			9/10/1997	7/25/2000				2/15/2001				9/30/2003				2/18/2004			
Well ID	**Alias**	**Date Installed**	**Aquifer Zone**	**Northing (NAD)**	**Easting (NAD)**	**Diameter (inches)**	**Total Depth (ft bls)**	**Top of Screen (ft bls)**	**Bottom of Screen (ft bls)**	**Top of Casing Elevation (ft NAVD)**	**Depth to Water (ft btoc)**	**Depth to Product (ft btoc)**	**Groundwater Elevation (ft NAVD)**	**Product Thickness (feet)**	**Depth to Water (ft btoc)**	**Depth to Product (ft btoc)**	**Product Thickness (feet)**	**Groundwater Elevation (ft NAVD)**	**Depth to Water (ft btoc)**	**Depth to Product (ft btoc)**	**Product Thickness (feet)**	**Groundwater Elevation (ft NAVD)**	**Depth to Water (ft btoc)**	**Depth to Product (ft btoc)**	**Product Thickness (feet)**	**Groundwater Elevation (ft NAVD)**	**Depth to Water (ft btoc)**	**Depth to Product (ft btoc)**	**Product Thickness (feet)**	**Groundwater Elevation (ft NAVD)**
MW-01	none	May-95	Shallow	515294.55	1046551.75	2		5.00	15.00	13.035	6.65	NM	6.39	NP	11.35	NP	NP	1.69	NM	NM	NM	NM	8.30	NP	NP	4.74	9.00	NP	NP	4.04
MW-02	none	Apr-96	Shallow	515279.48	1046520.18	2	13.50	3.00	13.00	10.425	7.08	NM	3.35	NP	8.72	NP	NP	1.71	NM	NM	NM	NM	5.70	NP	NP	4.73	6.43	NP	NP	4.00
MW-04	none	Apr-96	Shallow	515318.64	1046524.51	2	13.50	3.00	13.00	10.01	6.65	NM	3.36	NP	8.32	NP	NP	1.69	NM	NM	NM	NM	5.60	NP	NP	4.41	6.02	NP	NP	3.99
MW-05	none	Apr-96	Shallow	515322.98	1046569.73	2	13.50	3.00	13.00	10.655	7.19	NM	3.47	NP	8.91	NP	NP	1.75	NM	NM	NM	NM	5.80	NP	NP	4.86	6.54	NP	NP	4.12
MW-06	none	Apr-96	Shallow	515280.71	1046584.48	2	13.50	3.00	13.00	10.745	7.31	NM	3.44	NP	9.02	NP	NP	1.73	NM	NM	NM	NM	5.93	NP	NP	4.82	6.65	NP	NP	4.10
MW-07	none	May-96	Shallow	515322.16	1046483.17	2	14.50	4.00	14.00	10.175	6.87	NM	3.31	NP	8.5	NP	NP	1.68	NM	NM	NM	NM	5.53	NP	NP	4.65	6.25	NP	NP	3.93
MW-08	none	May-96	Shallow	515269.54	1046489.28	2	14.50	4.00	14.00	10.595	7.31	NM	3.29	NP	8.93	NP	NP	1.67	NM	NM	NM	NM	5.98	NP	NP	4.62	6.68	NP	NP	3.92
MW-09	none	May-96	Shallow	515245.21	1046509.56	2	14.50	4.00	14.00	10.940	7.66	NM	3.28	NP	9.29	NP	NP	1.65	NM	NM	NM	NM	6.31	NP	NP	4.63	7.00	NP	NP	3.94
MW-10	none	May-96	Shallow	515241.10	1046542.17	2	14.50	4.00	14.00	11.455	7.71	NM	3.75	NP	9.79	NP	NP	1.67	NM	NM	NM	NM	6.76	NP	NP	4.70	7.45	NP	NP	4.01
MW-11	MW-03	May-96	Shallow	515260.01	104543.84	2	13.50	3.00	13.00	10.725	7.36	NM	3.37	NP	9.02	NP	NP	1.71	NM	NM	NM	NM	5.98	NP	NP	4.75	6.69	NP	NP	4.04
MW-12	MW-11	May-96	Shallow	515244.38	1046568.82	2	14.50	4.00	14.00	11.240	7.86	NM	3.38	NP	9.56	NP	NP	1.68	NM	NM	NM	NM	6.48	NP	NP	4.76	7.19	NP	NP	4.05
MW-13	none	May-96	Shallow	515283.20	1046617.72	2	14.50	4.00	14.00	11.435	7.98	NM	3.46	NP	dry	NP	NP	dry	NM	NM	NM	NM	6.50	NP	NP	4.94	7.28	NP	NP	4.16
MW-14	none	May-96	Shallow	515312.88	1046607.82	2	14.50	4.00	14.00	11.515	8.05	NM	3.47	NP	9.78	NP	NP	1.74	NM	NM	NM	NM	6.62	NP	NP	4.90	7.38	NP	NP	4.14
MW-15	none	May-96	Shallow	515335.87	1046595.49	2	14.50	4.00	14.00	11.235	7.75	NM	3.49	NP	9.52	NP	NP	1.72	NM	NM	NM	NM	6.32	NP	NP	4.92	7.10	NP	NP	4.14
MW-16	none	May-96	Shallow	515347.62	1046572.06	2	14.50	4.00	14.00	10.795	7.36	NM	3.44	NP	9.06	NP	NP	1.74	NM	NM	NM	NM	5.93	NP	NP	4.87	6.72	NP	NP	4.08
MW-17	none	May-96	Shallow	515342.24	1046546.46	2	14.50	4.00	14.00	10.525	7.12	NM	3.41	NP	8.8	NP	NP	1.73	NM	NM	NM	NM	5.73	NP	NP	4.80	6.41	NP	NP	4.12
MW-18	none	May-96	Shallow	515348.42	1046515.04	2	14.50	4.00	14.00	10.750	7.39	NM	3.36	NP	9.05	NP	NP	1.70	NM	NM	NM	NM	6.02	NP	NP	4.73	6.78	NP	NP	3.97
MW-19	none	Jul-96	Shallow	515230.81	1046465.28	2	14.50	4.00	14.00	11.625	8.42	NM	3.21	NP	10.01	NP	NP	1.62	NM	NM	NM	NM	7.12	NP	NP	4.51	7.79	NP	NP	3.84
MW-20	none	Jul-96	Shallow	515190.03	1046502.04	2	14.50	4.00	14.00	11.565	8.41	NM	3.16	NP	9.97	NP	NP	1.60	NM	NM	NM	NM	7.00	NP	NP	4.57	7.72	NP	NP	3.85
MW-21	none	Jul-96	Shallow	515199.00	1046567.09	2	14.50	4.00	14.00	11.330	7.97	NM	3.36	NP	9.68	NP	NP	1.65	NM	NM	NM	NM	6.59	NP	NP	4.74	7.30	NP	NP	4.03
MW-22	none	Jul-96	Shallow	515283.22	1046654.22	2	14.50	4.00	14.00	11.915	8.36	NM	3.56	NP	10.13	NP	NP	1.79	NM	NM	NM	NM	6.85	NP	NP	5.07	7.64	NP	NP	4.28
MW-23	none	Jul-96	Shallow	515325.70	1046655.71	2	14.50	4.00	14.00	11.725	8.19	NM	3.54	NP	9.97	NP	NP	1.76	NM	NM	NM	NM	6.71	NP	NP	5.02	7.49	NP	NP	4.24
MW-24	none	Jul-96	Shallow	515350.39	1046454.34	2	14.50	4.00	14.00	9.780	6.51	NM	3.27	NP	8.12	NP	NP	1.66	NM	NM	NM	NM	5.18	NP	NP	4.60	5.89	NP	NP	3.89
MW-25	none	Jul-96	Shallow	515387.24	1046494.89	2	14.50	4.00	14.00	10.745	7.39	NM	3.36	NP	NM	NP	NP	NM	NM	NM	NM	NM	6.03	NP	NP	4.72	6.77	NP	NP	3.98
MW-26	none	Jul-96	Shallow	515402.55	1046534.87	2	14.50	4.00	14.00	11.320	7.91	NM	3.41	NP	9.63	NP	NP	1.69	NM	NM	NM	NM	DRY	DRY	DRY	DRY	NM	NM	NM	NM
MW-27	none	Jul-96	Shallow	515370.10	1046635.91	2	14.50	4.00	14.00	12.120	8.58	NM	3.54	NP	10.35	NP	NP	1.77	NM	NM	NM	NM	7.10	NP	NP	5.02	7.91	NP	NP	4.21
MW-28	none	Jul-96	Shallow	515398.12	1046583.57	2	14.50	4.00	14.00	12.190	8.76	NM	3.43	NP	10.47	NP	NP	1.72	NM	NM	NM	NM	7.30	NP	NP	4.89	8.10	NP	NP	4.09
MW-29	none	Aug-96	Shallow	515261.84	1046428.24	2	14.50	4.00	14.00	8.535	5.37	NM	3.17	NP	6.91	NP	NP	1.63	NM	NM	NM	NM	4.10	NP	NP	4.44	4.76	NP	NP	3.78
MW-30	none	Aug-96	Shallow	515298.63	1046410.39	2	14.50	4.00	14.00	8.195	5.02	NM	3.18	NP	6.56	NP	NP	1.64	NM	NM	NM	NM	3.70	NP	NP	4.50	4.43	NP	NP	3.77
MW-32	none	Sep-96	Shallow	515604.90	1046522.43	2	18.50	8.00	18.00	18.770	12.51	NM	6.26	NP	dry	NP	NP	dry	NM	NM	NM	NM	13.85	NP	NP	4.92	14.76	NP	NP	4.01
MW-33	none	Sep-96	Shallow	515623.52	1046678.57	2	29.50	19.00	29.00	24.525	20.79	NM	3.74	NP	22.62	NP	NP	1.91	NM	NM	NM	NM	19.23	NP	NP	5.30	20.31	NP	NP	4.22
MW-34	none	Sep-96	Shallow	515698.65	1046860.23	2	30.50	20.00	30.00	27.940	23.85	NM	4.09	NP	25.88	NP	NP	2.06	NM	NM	NM	NM	22.12	NP	NP	5.82	23.47	NP	NP	4.47
MW-35	none	Sep-96	Shallow	515611.49	1046953.36	2	30.50	20.00	30.00	27.310	23.09	NM	4.22	NP	dry	NP	NP	dry	NM	NM	NM	NM	21.30	NP	NP	6.01	22.63	NP	NP	4.68
MW-36	none	Sep-96	Shallow	515666.53	1046979.81	2	30.50	20.00	30.00	27.845	23.61	NM	4.24	NP	25.72	NP	NP	2.13	NM	NM	NM	NM	21.77	NP	NP	6.08	23.16	NP	NP	4.69
MW-37	none	Oct-96	Shallow	515504.95	1047074.74	2	31.50	21.00	31.00	27.315	22.97	NM	4.35	NP	25.16	NP	NP	2.16	NM	NM	NM	NM	21.02	NP	NP	6.30	22.38	NP	NP	4.94
MW-38	none	Oct-96	Shallow	515247.37	1047144.58	2	24.50	14.00	24.00	22.650	18.21	NM	4.44	NP	20.48	NP	NP	2.17	NM	NM	NM	NM	16.33	NP	NP	6.32	17.40	NP	NP	5.25
MW-39	none	Oct-96	Shallow	515232.95	1046961.25	2	19.50	9.00	19.00	15.895	11.79	NM	4.11	NP	dry	NP	NP	dry	NM	NM	NM	NM	10.00	NP	NP	5.90	11.00	NP	NP	4.90
MW-44	none	Oct-96	Shallow	515569.33	1046799.26	2	30.50	20.00	30.00	25.700	21.81	NM	3.89	NP	23.74	NP	NP	1.96	NM	NM	NM	NM	20.15	NP	NP	5.55	21.30	NP	NP	4.40
MW-45	none	Oct-96	Shallow	515452.96	1046867.70	2	27.50	17.00	27.00	22.965	19.31	NM	3.66	**0.04**	22.88	**20.35**	**2.53**	0.09	21.44	**19.95**	**1.49**	1.53	17.39	**17.21**	**0.18**	5.58	18.38	**18.37**	**0.01**	4.59
MW-47	none	Oct-96	Shallow	515419.59	1046754.89	2	22.50	12.00	22.00	17.770	14.81	NM	2.96	**0.52**	17.94	**15.20**	**2.74**	-0.17	16.64	**14.90**	**1.74**	1.13	12.43	NP	NP	5.34	13.37	NP	NP	4.40
MW-50	none	Dec-96	Shallow	515099.79	1046650.28	2	15.50	5.00	15.00	10.140	6.73	NM	3.41	NP	8.49	NP	NP	1.65	NM	NM	NM	NM	5.29	NP	NP	4.85	6.00	NP	NP	4.14
MW-51	none	Dec-96	Shallow	515120.13	1046760.08	2	15.50	5.00	15.00	10.700	7.07	NM	3.63	NP	dry	NP	NP	dry	NM	NM	NM	NM	5.52	NP	NP	5.18	6.28	NP	NP	4.42
MW-52	none	Dec-96	Shallow	515429.95	1046366.17	2	15.50	5.00	15.00	9.955	6.74	NM	3.22	NP	dry	NP	NP	dry	NM	NM	NM	NM	5.42	NP	NP	4.54	6.13	NP	NP	3.83
MW-53	none	Dec-96	Shallow	515685.42	1046595.70	2	27.50	17.00	27.00	24.045	20.41	NM	3.64	NP	22.2	NP	NP	1.85	NM	NM	NM	NM	18.93	NP	NP	5.12	19.95	NP	NP	4.10
MW-55	none	Dec-96	Shallow	515526.94	1046453.80	2	19.50	9.00	19.00	13.000	9.65	NM	3.35	NP	11.31	NP	NP	1.69	NM	NM	NM	NM	8.30	NP	NP	4.70	9.03	NP	NP	3.97
MW-56	none	Dec-96	Shallow	515183.43	1047196.82	2	25.50	15.00	25.00	21.595	17.06	NM	4.54	NP	16.4	NP	NP	5.20	NM	NM	NM	NM	15.18	NP	NP	6.42	16.20	NP	NP	5.40
MW-57	none	Dec-96	Shallow	515204.22	1047052.29	2	22.50	12.00	22.00	18.240	13.97	NM	4.27	NP	16.19	NP	NP	2.05	NM	NM	NM	NM	12.34	NP	NP	5.90	13.18	NP	NP	5.06
MW-58	none	Dec-96	Shallow	515139.20	1046945.16	2	18.50	8.00	18.00	12.135	8.09	NM	4.05	NP	dry	NP	NP	dry	NM	NM	NM	NM	6.38	NP	NP	5.76	7.30	NP	NP	4.84
MW-59	none	Dec-96	Shallow	515576.36	1046414.55	2	17.50	7.00	17.00	13.695	10.38	NM	3.32	NP	dry	NP	NP	dry	NM	NM	NM	NM	8.99	NP	NP	4.71	9.82	NP	NP	3.88
DMW-60	none	Jan-97	Shallow	515412.01	1046755.29	2	40.50	35.00	40.00	17.400	NM	NM	NM	NP	15.52	NP	NP	1.88	NM	NM	NM	NM	12.03	NP	NP	5.37	13.02	NP	NP	4.38
DMW-61	none	Feb-97	Shallow	515288.85	1046549.16	2	29.50	24.00	29.00	10.710	NM	NM	NM	NP	8.99	NP	NP	1.72	NM	NM	NM	NM	5.95	NP	NP	4.76	6.68	NP	NP	4.03
MW-62	none	May-98	Shallow	515302.54	1047058.98	2	No Data	No Data	No Data	21.020	NM	NM	NM	NP	20.39	**18.46**	**1.93**	0.63	NM	NM	NM	NM	14.88	NP	NP	6.14	15.97	NP	NP	5.05
MW-63	none	May-98	Shallow	515562.87	1046916.96	2	No Data	No Data	No Data	26.355	NM	NM	NM	NP	24.27	NP	NP	2.09	NM	NM	NM	NM	20.43	NP	NP	5.93	21.72	NP	NP	4.64
MW-64	none	May-98	Shallow	515505.91	1046829.74	2	No Data	No Data	No Data	24.235	NM	NM	NM	NP	23.36	**21.97**	**1.39**	0.88	NM	NM	NM	NM	18.70	**18.54**	**0.16**	5.54	19.73	NP	NP	4.51
MW-65	none	May-98	Shallow	515435.11	1046942.07	2	No Data	No Data	No Data	24.505	NM	NM	NM	NP	NM	**22.04**	***1.32**	NM	NM	NM	NM	NM	18.60	NP	NP	5.91	19.78	NP	NP	4.73
MW-66	none	May-98	Shallow	515160.28	1046827.33	2	No Data	No Data	No Data	11.075	NM	NM	NM	NP	9.23	NP	NP	1.85	NM	NM	NM	NM	5.68	NP	NP	5.40	6.49	NP	NP	4.59
MW-67	none	May-98	Shallow	515342.07	1046420.15	2	No Data	No Data	No Data	10.750	NM	NM	NM	NP	9.12	NP	NP	1.63	NM	NM	NM	NM	6.23	NP	NP	4.52	6.93	NP	NP	3.82
MW-68	none	May-98	Shallow	515562.84	1046489.50	2	No Data	No Data	No Data	15.425	NM	NM	NM	NP	13.68	NP	NP	1.75	NM	NM	NM	NM	10.63	NP	NP	4.80	11.42	NP	NP	4.01
DMW-69	none	May-98	Shallow	515404.56	1046614.69	2	No Data	No Data	No Data	12.975	NM	NM	NM	NP	11.2	NP	NP	1.78	NM	NM	NM	NM	8.00	NP	NP	4.98	8.82	NP	NP	4.16
MW-70	none	May-04	Shallow	515537.96	1046346.42	2	15.50	5.00	15.00	10.630	NM	NM	NM	NP	NM	NP	NP	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
MW-71	none	May-04	Shallow	515531.70	1046558.61	2	20.50	10.00	20.00	15.990	NM	NM	NM	NP	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
MW-72	none	May-04	Shallow	515486.65	1046235.07	2	14.50	4.00	14.00	9.810	NM	NM	NM	NP	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
MW-73	none	May-04	Shallow	515340.97	1046970.95	2	16.50	6.00	16.00	17.530	NM	NM	NM	NP	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
MW-74	none	May-04	Shallow	515324.73	1046845.00	2	19.50	9.00	19.00	15.900	NM	NM	NM	NP	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
MW-75	none	May-04	Shallow	515226.21	1046714.79	2	16.50	6.00	16.00	12.000	NM	NM	NM	NP	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
AAS-01	none	May-04	Shallow	515442.76	1046727.15	2	39.50	36.00	39.00	18.080	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	NM	NM	NM	NM	NM	NM	NM	NM
AAS-02	none	May-04	Shallow	515435.91	1046774.52	2	40.50	37.00	40.00	18.870	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	NM	NM	NM	NM	NM	NM	NM	NM
AAS-03	none	May-04	Shallow	515400.60	1046772.96	2	39.50	36.00	39.00	17.350	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	NM	NM	NM	NM	NM	NM	NM	NM
AAS-04	none	May-04	Shallow	515403.19	1046739.98	2	38.50	35.00	38.00	16.760	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	NM	NM	NM	NM	NM	NM	NM	NM
AAS-05	none	May-04	Shallow	515458.49	1046843.61	2	60.50	57.00	60.00	22.240	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	NM	NM	NM	NM	NM	NM	NM	NM
SVE-01	none	May-04	Shallow	515421.37	1046750.57	4	16.50	8.00	16.00	17.610	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	NM	NM	NM	NM	NM	NM	NM	NM
SVE-02	none	May-04	Shallow	515456.33	1046834.77	4	24.50	14.00	24.00	21.680	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	DNE	NM	NM	NM	NM	NM	NM	NM	NM

bls	below land surface
btoc	below top of casing
DNE	does not exist
ft	feet
NAD	North American Datum
NAVD	North American Vertical Datum, 1988
NGVD	National Geodetic Vertical Datum
NM	not measured
NP	no product

DTW for 06/12/1997, 07/25/2000 and 02/15/200, are assumed to be from TOC

Missing or Destroyed wells as of 09/30/2003: MW-3, -12, -31, -40, -41, -42, -43, -46, -48, -49 and -54

Monitoring Well Construction Details and Water Levels
Site 1159, Bronson Field, NAS Pensacola

Well ID	Alias	Date Installed	Aquifer Zone	Northing (NAD)	Easting (NAD)	Diameter (inches)	Total Depth (ft bls)	Top of Screen (ft bls)	Bottom of Screen (ft bls)	Top of Casing Elevation (ft NAVD)	7/20/2005 Depth to Water (ft btoc)	7/20/2005 Depth to Product (ft btoc)	7/20/2005 Product Thickness (feet)	7/20/2005 Groundwater Elevation (ft NAVD)	3/25/2006 Depth to Water (ft btoc)	3/25/2006 Depth to Product (ft btoc)	3/25/2006 Product Thickness (feet)	3/25/2006 Groundwater Elevation (ft NAVD)	4/25/2006 Depth to Water (ft btoc)	4/25/2006 Depth to Product (ft btoc)	4/25/2006 Product Thickness (feet)	4/25/2006 Groundwater Elevation (ft NAVD)	6/2/2006 Depth to Water (ft btoc)	6/2/2006 Depth to Product (ft btoc)	6/2/2006 Product Thickness (feet)	6/2/2006 Groundwater Elevation (ft NAVD)	7/7/2006 Depth to Water (ft btoc)	7/7/2006 Depth to Product (ft btoc)	7/7/2006 Product Thickness (feet)	7/7/2006 Groundwater Elevation (ft NAVD)	10/20/2006 Depth to Water (ft btoc)	10/20/2006 Depth to Product (ft btoc)	10/20/2006 Product Thickness (feet)	10/20/2006 Groundwater Elevation (ft NAVD)
MW-01	none	May-95	Shallow	515294.55	1046551.75	2		5.00	15.00	13.035	8.12	NP	NP	4.92	10.25	NP	NP	2.79	10.58	NP	NP	2.46	10.22	NP	NP	2.82	NM	NM	NM	NM	NM	NM	NM	NM
MW-02	none	Apr-96	Shallow	515279.48	1046520.18	2	13.50	3.00	13.00	10.425	5.53	NP	NP	4.90	7.67	NP	NP	2.76	7.93	NP	NP	2.50	7.60	NP	NP	2.83	NM	NM	NM	NM	NM	NM	NM	NM
MW-04	none	Apr-96	Shallow	515318.64	1046524.51	2	13.50	3.00	13.00	10.01	5.12	NP	NP	4.89	7.24	NP	NP	2.77	7.51	NP	NP	2.50	7.20	NP	NP	2.81	NM	NM	NM	NM	NM	NM	NM	NM
MW-05	none	Apr-96	Shallow	515322.98	1046569.73	2	13.50	3.00	13.00	10.655	5.62	NP	NP	5.04	7.70	NP	NP	2.96	8.07	NP	NP	2.59	7.75	NP	NP	2.91	NM	NM	NM	NM	NM	NM	NM	NM
MW-06	none	Apr-96	Shallow	515280.71	1046584.48	2	13.50	3.00	13.00	10.745	5.71	NP	NP	5.04	7.90	NP	NP	2.85	8.21	NP	NP	2.54	7.60	NP	NP	3.15	NM	NM	NM	NM	NM	NM	NM	NM
MW-07	none	May-96	Shallow	515322.16	1046483.17	2	14.50	4.00	14.00	10.175	5.35	NP	NP	4.83	Destroyed				Destroyed				Destroyed				Destroyed				Destroyed			
MW-08	none	May-96	Shallow	515269.54	1046489.28	2	14.50	4.00	14.00	10.595	5.80	NP	NP	4.80	7.92	NP	NP	2.68	8.19	NP	NP	2.41	7.85	NP	NP	2.75	NM	NM	NM	NM	NM	NM	NM	NM
MW-09	none	May-96	Shallow	515245.21	1046509.56	2	14.50	4.00	14.00	10.940	6.13	NP	NP	4.81	8.27	NP	NP	2.67	8.52	NP	NP	2.42	8.20	NP	NP	2.74	NM	NM	NM	NM	NM	NM	NM	NM
MW-10	none	May-96	Shallow	515241.10	1046542.17	2	14.50	4.00	14.00	11.455	6.53	NP	NP	4.93	8.64	NP	NP	2.82	8.97	NP	NP	2.49	8.64	NP	NP	2.82	NM	NM	NM	NM	NM	NM	NM	NM
MW-11	MW-03	May-96	Shallow	515260.01	104543.84	2	13.50	3.00	13.00	10.725	5.80	NP	NP	4.93	7.96	NP	NP	2.77	8.25	NP	NP	2.48	7.90	NP	NP	2.83	NM	NM	NM	NM	NM	NM	NM	NM
MW-12	MW-11	May-96	Shallow	515244.38	1046568.82	2	14.50	4.00	14.00	11.240	6.27	NP	NP	4.97	8.42	NP	NP	2.82	8.74	NP	NP	2.50	8.38	NP	NP	2.86	NM	NM	NM	NM	NM	NM	NM	NM
MW-13	none	May-96	Shallow	515283.20	1046617.72	2	14.50	4.00	14.00	11.435	6.36	NP	NP	5.08	8.55	NP	NP	2.89	8.82	NP	NP	2.62	8.51	NP	NP	2.93	NM	NM	NM	NM	NM	NM	NM	NM
MW-14	none	May-96	Shallow	515312.88	1046607.82	2	14.50	4.00	14.00	11.515	6.45	NP	NP	5.07	8.58	NP	NP	2.94	8.89	NP	NP	2.63	8.58	NP	NP	2.94	NM	NM	NM	NM	NM	NM	NM	NM
MW-15	none	May-96	Shallow	515335.87	1046595.49	2	14.50	4.00	14.00	11.235	6.16	NP	NP	5.08	8.35	NP	NP	2.89	8.64	NP	NP	2.60	8.28	NP	NP	2.96	NM	NM	NM	NM	NM	NM	NM	NM
MW-16	none	May-96	Shallow	515347.62	1046572.06	2	14.50	4.00	14.00	10.795	5.79	NP	NP	5.01	7.93	NP	NP	2.87	8.22	NP	NP	2.58	7.93	NP	NP	2.87	NM	NM	NM	NM	NM	NM	NM	NM
MW-17	none	May-96	Shallow	515342.24	1046546.46	2	14.50	4.00	14.00	10.525	5.52	NP	NP	5.01	7.68	NP	NP	2.85	7.96	NP	NP	2.57	7.68	NP	NP	2.85	NM	NM	NM	NM	NM	NM	NM	NM
MW-18	none	May-96	Shallow	515348.42	1046515.04	2	14.50	4.00	14.00	10.750	5.83	NP	NP	4.92	7.87	NP	NP	2.88	8.22	NP	NP	2.53	7.88	NP	NP	2.87	NM	NM	NM	NM	NM	NM	NM	NM
MW-19	none	Jul-96	Shallow	515230.81	1046465.28	2	14.50	4.00	14.00	11.625	6.90	NP	NP	4.73	9.01	NP	NP	2.62	9.27	NP	NP	2.36	8.94	NP	NP	2.69	NM	NM	NM	NM	NM	NM	NM	NM
MW-20	none	Jul-96	Shallow	515190.03	1046502.04	2	14.50	4.00	14.00	11.565	6.85	NP	NP	4.72	8.90	NP	NP	2.67	9.13	NP	NP	2.44	8.89	NP	NP	2.68	NM	NM	NM	NM	NM	NM	NM	NM
MW-21	none	Jul-96	Shallow	515199.00	1046567.09	2	14.50	4.00	14.00	11.330	6.36	NP	NP	4.97	8.52	NP	NP	2.81	8.80	NP	NP	2.53	8.50	NP	NP	2.83	NM	NM	NM	NM	NM	NM	NM	NM
MW-22	none	Jul-96	Shallow	515283.22	1046654.22	2	14.50	4.00	14.00	11.915	6.72	NP	NP	5.20	8.95	NP	NP	2.97	9.22	NP	NP	2.70	8.92	NP	NP	3.00	NM	NM	NM	NM	NM	NM	NM	NM
MW-23	none	Jul-96	Shallow	515325.70	1046655.71	2	14.50	4.00	14.00	11.725	6.55	NP	NP	5.18	8.75	NP	NP	2.98	9.07	NP	NP	2.66	8.74	NP	NP	2.99	NM	NM	NM	NM	8.99	NP	NP	2.74
MW-24	none	Jul-96	Shallow	515350.39	1046454.34	2	14.50	4.00	14.00	9.780	4.98	NP	NP	4.80	7.04	NP	NP	2.74	7.35	NP	NP	2.43	7.05	NP	NP	2.73	NM	NM	NM	NM	NM	NM	NM	NM
MW-25	none	Jul-96	Shallow	515387.24	1046494.89	2	14.50	4.00	14.00	10.745	5.86	NP	NP	4.89	7.98	NP	NP	2.77	8.25	NP	NP	2.50	7.92	NP	NP	2.83	NM	NM	NM	NM	NM	NM	NM	NM
MW-26	none	Jul-96	Shallow	515402.55	1046534.87	2	14.50	4.00	14.00	11.320	DRY	DRY	DRY	DRY	CNM	CNM	CNM	CNM	CNM	CNM	CNM	CNM	6.72	NP	NP	4.60	NM	NM	NM	NM	NM	NM	NM	NM
MW-27	none	Jul-96	Shallow	515370.10	1046635.91	2	14.50	4.00	14.00	12.120	6.94	NP	NP	5.18	9.13	NP	NP	2.99	9.44	NP	NP	2.68	9.12	NP	NP	3.00	NM	NM	NM	NM	9.45	NP	NP	2.67
MW-28	none	Jul-96	Shallow	515398.12	1046583.57	2	14.50	4.00	14.00	12.190	7.18	NP	NP	5.01	9.31	NP	NP	2.88	9.62	NP	NP	2.57	9.25	NP	NP	2.94	NM	NM	NM	NM	NM	NM	NM	NM
MW-29	none	Aug-96	Shallow	515261.84	1046428.24	2	14.50	4.00	14.00	8.535	3.83	NP	NP	4.71	5.90	NP	NP	2.64	6.20	NP	NP	2.34	5.89	NP	NP	2.65	NM	NM	NM	NM	NM	NM	NM	NM
MW-30	none	Aug-96	Shallow	515298.63	1046410.39	2	14.50	4.00	14.00	8.195	3.57	NP	NP	4.63	5.55	NP	NP	2.65	5.85	NP	NP	2.35	5.58	NP	NP	2.62	NM	NM	NM	NM	NM	NM	NM	NM
MW-32	none	Sep-96	Shallow	515604.90	1046522.43	2	18.50	8.00	18.00	18.770	13.75	NP	NP	5.02	15.76	NP	NP	3.01	16.03	NP	NP	2.74	15.83	NP	NP	2.94	NM	NM	NM	NM	NM	NM	NM	NM
MW-33	none	Sep-96	Shallow	515623.52	1046678.57	2	29.50	19.00	29.00	24.525	CNL	CNL	CNL	CNL	21.29	NP	NP	3.24	21.64	NP	NP	2.89	21.34	NP	NP	3.19	NM	NM	NM	NM	NM	NM	NM	NM
MW-34	none	Sep-96	Shallow	515698.65	1046860.23	2	30.50	20.00	30.00	27.940	22.15	NP	NP	5.79	24.28	NP	NP	3.66	24.68	NP	NP	3.26	24.42	NP	NP	3.52	NM	NM	NM	NM	NM	NM	NM	NM
MW-35	none	Sep-96	Shallow	515611.49	1046953.36	2	30.50	20.00	30.00	27.310	21.25	NP	NP	6.06	23.55	NP	NP	3.76	24.04	NP	NP	3.27	23.70	NP	NP	3.61	NM	NM	NM	NM	NM	NM	NM	NM
MW-36	none	Sep-96	Shallow	515666.53	1046979.81	2	30.50	20.00	30.00	27.845	21.78	NP	NP	6.07	24.01	NP	NP	3.84	24.45	NP	NP	3.40	24.18	NP	NP	3.67	NM	NM	NM	NM	NM	NM	NM	NM
MW-37	none	Oct-96	Shallow	515504.95	1047074.74	2	31.50	21.00	31.00	27.315	21.05	NP	NP	6.27	23.45	NP	NP	3.87	23.93	NP	NP	3.39	23.54	NP	NP	3.78	NM	NM	NM	NM	NM	NM	NM	NM
MW-38	none	Oct-96	Shallow	515247.37	1047144.58	2	24.50	14.00	24.00	22.650	CNL	CNL	CNL	CNL	CNL	CNL	CNL	CNL	CNL	CNL	CNL	CNL	CNL	CNL	CNL	CNL	NM	NM	NM	NM	NM	NM	NM	NM
MW-39	none	Oct-96	Shallow	515232.95	1046961.25	2	19.50	9.00	19.00	15.895	CNL	CNL	CNL	CNL	CNL	CNL	CNL	CNL	CNL	CNL	CNL	CNL	CNL	CNL	CNL	CNL	NM	NM	NM	NM	NM	NM	NM	NM
MW-44	none	Oct-96	Shallow	515569.33	1046799.26	2	30.50	20.00	30.00	25.700	20.10	NP	NP	5.60	22.30	NP	NP	3.40	22.66	NP	NP	3.04	22.35	NP	NP	3.35	NM	NM	NM	NM	22.80	NP	NP	2.90
MW-45	none	Oct-96	Shallow	515452.96	1046867.70	2	27.50	17.00	27.00	22.965	17.23	NP	NP	5.74	19.51	NP	NP	3.46	19.95	NP	NP	3.02	19.55	NP	NP	3.42	20.39	NP	NP	2.58	20.95	**19.67**	**1.28**	2.02
MW-47	none	Oct-96	Shallow	515419.59	1046754.89	2	22.50	12.00	22.00	17.770	12.32	NP	NP	5.45	14.55	NP	NP	3.22	14.94	NP	NP	2.83	14.56	NP	NP	3.21	15.36	NP	NP	2.41	15.84	**14.58**	**1.26**	1.93
MW-50	none	Dec-96	Shallow	515099.79	1046650.28	2	15.50	5.00	15.00	10.140	5.12	NP	NP	5.02	7.33	NP	NP	2.81	7.65	NP	NP	2.49	7.29	NP	NP	2.85	NM	NM	NM	NM	NM	NM	NM	NM
MW-51	none	Dec-96	Shallow	515120.13	1046760.08	2	15.50	5.00	15.00	10.700	5.35	NP	NP	5.35	7.61	NP	NP	3.09	8.00	NP	NP	2.70	7.58	NP	NP	3.12	NM	NM	NM	NM	NM	NM	NM	NM
MW-52	none	Dec-96	Shallow	515429.95	1046366.17	2	15.50	5.00	15.00	9.955	CNL	CNL	CNL	CNL	7.24	NP	NP	2.72	7.49	NP	NP	2.47	7.26	NP	NP	2.70	NM	NM	NM	NM	NM	NM	NM	NM
MW-53	none	Dec-96	Shallow	515685.42	1046595.70	2	27.50	17.00	27.00	24.045	18.87	NP	NP	5.18	20.91	NP	NP	3.14	21.24	NP	NP	2.81	20.95	NP	NP	3.10	NM	NM	NM	NM	NM	NM	NM	NM
MW-55	none	Dec-96	Shallow	515526.94	1046453.80	2	19.50	9.00	19.00	13.000	8.16	NP	NP	4.84	10.18	NP	NP	2.82	8.48	NP	NP	4.52	10.18	NP	NP	2.82	NM	NM	NM	NM	NM	NM	NM	NM
MW-56	none	Dec-96	Shallow	515183.43	1047196.82	2	25.50	15.00	25.00	21.595	15.09	NP	NP	6.51	17.63	NP	NP	3.97	18.20	NP	NP	3.40	17.75	NP	NP	3.85	NM	NM	NM	NM	NM	NM	NM	NM
MW-57	none	Dec-96	Shallow	515204.22	1047052.29	2	22.50	12.00	22.00	18.240	CNL	CNL	CNL	CNL	14.57	NP	NP	3.67	15.07	NP	NP	3.17	14.63	NP	NP	3.61	NM	NM	NM	NM	NM	NM	NM	NM
MW-58	none	Dec-96	Shallow	515139.20	1046945.16	2	18.50	8.00	18.00	12.135	DRY	DRY	DRY	DRY	5.76	DRY	DRY	6.38	DRY	DRY	DRY	DRY	5.30	NP	NP	6.84	NM	NM	NM	NM	NM	NM	NM	NM
MW-59	none	Dec-96	Shallow	515576.36	1046414.55	2	17.50	7.00	17.00	13.695	CNL	CNL	CNL	CNL	10.88	NP	NP	2.82	11.20	NP	NP	2.50	10.95	NP	NP	2.75	NM	NM	NM	NM	NM	NM	NM	NM
DMW-60	none	Jan-97	Shallow	515412.01	1046755.29	2	40.50	35.00	40.00	17.400	12.00	NP	NP	5.40	14.22	NP	NP	3.18	14.60	NP	NP	2.80	14.22	NP	NP	3.18	15.00	NP	NP	2.40	14.55	NP	NP	2.85
DMW-61	none	Feb-97	Shallow	515288.85	1046549.16	2	29.50	24.00	29.00	10.710	5.75	NP	NP	4.96	7.92	NP	NP	2.79	8.20	NP	NP	2.51	7.87	NP	NP	2.84	NM	NM	NM	NM	NM	NM	NM	NM
MW-62	none	May-98	Shallow	515302.54	1047058.98	2	No Data	No Data	No Data	21.020	14.78	NP	NP	6.24	17.25	NP	NP	3.77	17.78	NP	NP	3.24	17.35	NP	NP	3.67	NM	NM	NM	NM	17.91	**17.86**	**0.05**	3.11
MW-63	none	May-98	Shallow	515562.87	1046916.96	2	No Data	No Data	No Data	26.355	20.42	NP	NP	5.94	22.72	NP	NP	3.64	23.11	NP	NP	3.25	22.78	NP	NP	3.58	NM	NM	NM	NM	NM	NM	NM	NM
MW-64	none	May-98	Shallow	515505.91	1046829.74	2	No Data	No Data	No Data	24.235	18.55	NP	NP	5.69	20.80	NP	NP	3.44	21.23	NP	NP	3.01	20.85	NP	NP	3.39	21.66	NP	NP	2.58	21.30	**21.29**	**0.01**	2.94
MW-65	none	May-98	Shallow	515435.11	1046942.07	2	No Data	No Data	No Data	24.505	18.55	NP	NP	5.96	20.90	NP	NP	3.61	21.35	NP	NP	3.16	20.98	NP	NP	3.53	21.83	NP	NP	2.68	21.46	NP	NP	3.05
MW-66	none	May-98	Shallow	515160.28	1046827.33	2	No Data	No Data	No Data	11.075	5.52	NP	NP	5.56	7.85	NP	NP	3.23	8.24	NP	NP	2.84	7.85	NP	NP	3.23	NM	NM	NM	NM	NM	NM	NM	NM
MW-67	none	May-98	Shallow	515342.07	1046420.15	2	No Data	No Data	No Data	10.750	6.02	NP	NP	4.73	8.08	NP	NP	2.67	8.41	NP	NP	2.34	8.10	NP	NP	2.65	NM	NM	NM	NM	NM	NM	NM	NM
MW-68	none	May-98	Shallow	515562.84	1046489.50	2	No Data	No Data	No Data	15.425	10.50	NP	NP	4.93	12.54	NP	NP	2.89	12.83	NP	NP	2.60	12.52	NP	NP	2.91	NM	NM	NM	NM	NM	NM	NM	NM
DMW-69	none	May-98	Shallow	515404.56	1046614.69	2	No Data	No Data	No Data	12.975	CNL	CNL	CNL	CNL	10.02	NP	NP	2.96	10.33	NP	NP	2.65	10.00	NP	NP	2.98	NM	NM	NM	NM	NM	NM	NM	NM
MW-70	none	May-04	Shallow	515537.96	1046346.42	2	15.50	5.00	15.00	10.630	Could not access- under a fallen tree				7.97	NP	NP	2.66	8.24	NP	NP	2.39	7.99	NP	NP	2.64	NM	NM	NM	NM	NM	NM	NM	NM
MW-71	none	May-04	Shallow	515531.70	1046558.61	2	20.50	10.00	20.00	15.990	CNL	CNL	CNL	CNL	12.98	NP	NP	3.01	13.35	NP	NP	2.64	13.08	NP	NP	2.91	NM	NM	NM	NM	NM	NM	NM	NM
MW-72	none	May-04	Shallow	515486.65	1046235.07	2	14.50	4.00	14.00	9.810	Could not access- under a fallen tree				7.31	NP	NP	2.50	7.60	NP	NP	2.21	7.31	NP	NP	2.50	NM	NM	NM	NM	NM	NM	NM	NM
MW-73	none	May-04	Shallow	515340.97	1046970.95	2	16.50	6.00	16.00	17.530	11.54	NP	NP	5.99	NR	NR	NR	NR	14.37	NR	NR	NR	13.98	NR	NR	NR	NM	NM	NM	NM	NM	NM	NM	NM
MW-74	none	May-04	Shallow	515324.73	1046845.00	2	19.50	9.00	19.00	15.900	CNL	CNL	CNL	CNL	12.59	NP	NP	3.31	12.95	NP	NP	2.95	12.58	NP	NP	3.32	NM	NM	NM	NM	NM	NM	NM	NM
MW-75	none	May-04	Shallow	515226.21	1046714.79	2	16.50	6.00	16.00	12.000	6.72	NP	NP	5.28	8.98	NP	NP	3.02	CNL	CNL	CNL	CNL	8.90	NP	NP	3.10	NM	NM	NM	NM	NM	NM	NM	NM
AAS-01	none	May-04	Shallow	515442.76	1046727.15	2	39.50	36.00	39.00	18.080	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
AAS-02	none	May-04	Shallow	515435.91	1046774.52	2	40.50	37.00	40.00	18.870	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
AAS-03	none	May-04	Shallow	515400.60	1046772.96	2	39.50	36.00	39.00	17.350	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
AAS-04	none	May-04	Shallow	515403.19	1046739.98	2	38.50	35.00	38.00	16.760	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
AAS-05	none	May-04	Shallow	515458.49	1046843.61	2	60.50	57.00	60.00	22.240	NM	NM	NM	NM	18.8	NM	NM	3.44	NM	NM	NM	NM	NM	NM	NM	NM	21.69	NP	NP	0.55	NM	NM	NM	NM
SVE-01	none	May-04	Shallow	515421.37	1046750.57	4	16.50	8.00	16.00	17.610	NM	NM	NM	NM	14.45	NM	NM	3.16	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	15.64	**14.45**	**1.19**	1.97
SVE-02	none	May-04	Shallow	515456.33	1046834.77	4	24.50	14.00	24.00	21.680	NM	NM	NM	NM	18.27	NM	NM	3.41	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	19.76	**18.42**	**1.34**	1.92

bls	below land surface
btoc	below top of casing
DNE	does not exist
ft	feet
NAD	North American Datum
NAVD	North American Vertical Datum, 1988
NGVD	National Geodetic Vertical Datum
NM	not measured
NP	no product

DTW for 06/12/1997, 07/25/2000 and 02/15/200, are assumed to be from TOC

Missing or Destroyed wells as of 09/30/2003: MW-3, -12, -31, -40, -41, -42, -43, -46, -48, -49 and -54

Monitoring Well Construction Details and Water Levels
Site 1159, Bronson Field, NAS Pensacola

Well ID	Alias	Date Installed	Aquifer Zone	Northing (NAD)	Easting (NAD)	Diameter (inches)	Total Depth (ft bls)	Top of Screen (ft bls)	Bottom of Screen (ft bls)	Top of Casing Elevation (ft NAVD)	10/23/2006 Depth to Water (ft btoc)	Depth to Product (ft btoc)	Product Thickness (feet)	Groundwater Elevation (ft NAVD)
MW-01	none	May-95	Shallow	515294.55	1046551.75	2		5.00	15.00	13.035	10.41	NP	NP	2.63
MW-02	none	Apr-96	Shallow	515279.48	1046520.18	2	13.50	3.00	13.00	10.425	7.80	NP	NP	2.63
MW-04	none	Apr-96	Shallow	515318.64	1046524.51	2	13.50	3.00	13.00	10.01	7.04	NP	NP	2.97
MW-05	none	Apr-96	Shallow	515322.98	1046569.73	2	13.50	3.00	13.00	10.655	7.17	NP	NP	3.49
MW-06	none	Apr-96	Shallow	515280.71	1046584.48	2	13.50	3.00	13.00	10.745	8.08	NP	NP	2.67
MW-07	none	May-96	Shallow	515322.16	1046483.17	2	14.50	4.00	14.00	10.175			Destroyed	
MW-08	none	May-96	Shallow	515269.54	1046489.28	2	14.50	4.00	14.00	10.595	8.02	NP	NP	2.58
MW-09	none	May-96	Shallow	515245.21	1046509.56	2	14.50	4.00	14.00	10.940	5.35	NP	NP	5.59
MW-10	none	May-96	Shallow	515241.10	1046542.17	2	14.50	4.00	14.00	11.455	8.82	NP	NP	2.64
MW-11	MW-03	May-96	Shallow	515260.01	104543.84	2	13.50	3.00	13.00	10.725	8.10	NP	NP	2.63
MW-12	MW-11	May-96	Shallow	515244.38	1046568.82	2	14.50	4.00	14.00	11.240	8.60	NP	NP	2.64
MW-13	none	May-96	Shallow	515283.20	1046617.72	2	14.50	4.00	14.00	11.435	5.73	NP	NP	5.71
MW-14	none	May-96	Shallow	515312.88	1046607.82	2	14.50	4.00	14.00	11.515	8.85	NP	NP	2.67
MW-15	none	May-96	Shallow	515335.87	1046595.49	2	14.50	4.00	14.00	11.235	8.55	NP	NP	2.69
MW-16	none	May-96	Shallow	515347.62	1046572.06	2	14.50	4.00	14.00	10.795	8.17	NP	NP	2.63
MW-17	none	May-96	Shallow	515342.24	1046546.46	2	14.50	4.00	14.00	10.525	7.86	NP	NP	2.67
MW-18	none	May-96	Shallow	515348.42	1046515.04	2	14.50	4.00	14.00	10.750	8.11	NP	NP	2.64
MW-19	none	Jul-96	Shallow	515230.81	1046465.28	2	14.50	4.00	14.00	11.625	9.11	NP	NP	2.52
MW-20	none	Jul-96	Shallow	515190.03	1046502.04	2	14.50	4.00	14.00	11.565	9.04	NP	NP	2.53
MW-21	none	Jul-96	Shallow	515199.00	1046567.09	2	14.50	4.00	14.00	11.330	8.70	NP	NP	2.63
MW-22	none	Jul-96	Shallow	515283.22	1046654.22	2	14.50	4.00	14.00	11.915	9.16	NP	NP	2.76
MW-23	none	Jul-96	Shallow	515325.70	1046655.71	2	14.50	4.00	14.00	11.725	9.02	NP	NP	2.71
MW-24	none	Jul-96	Shallow	515350.39	1046454.34	2	14.50	4.00	14.00	9.780	7.70	NP	NP	2.08
MW-25	none	Jul-96	Shallow	515387.24	1046494.89	2	14.50	4.00	14.00	10.745	8.16	NP	NP	2.59
MW-26	none	Jul-96	Shallow	515402.55	1046534.87	2	14.50	4.00	14.00	11.320	CNM	CNM	CNM	CNM
MW-27	none	Jul-96	Shallow	515370.10	1046635.91	2	14.50	4.00	14.00	12.120	9.40	NP	NP	2.72
MW-28	none	Jul-96	Shallow	515398.12	1046583.57	2	14.50	4.00	14.00	12.190	9.56	NP	NP	2.63
MW-29	none	Aug-96	Shallow	515261.84	1046428.24	2	14.50	4.00	14.00	8.535	6.00	NP	NP	2.54
MW-30	none	Aug-96	Shallow	515298.63	1046410.39	2	14.50	4.00	14.00	8.195	8.97	NP	NP	-0.78
MW-32	none	Sep-96	Shallow	515604.90	1046522.43	2	18.50	8.00	18.00	18.770	16.10	NP	NP	2.67
MW-33	none	Sep-96	Shallow	515623.52	1046678.57	2	29.50	19.00	29.00	24.525	21.68	NP	NP	2.85
MW-34	none	Sep-96	Shallow	515698.65	1046860.23	2	30.50	20.00	30.00	27.940	24.91	NP	NP	3.03
MW-35	none	Sep-96	Shallow	515611.49	1046953.36	2	30.50	20.00	30.00	27.310	24.20	NP	NP	3.11
MW-36	none	Sep-96	Shallow	515666.53	1046979.81	2	30.50	20.00	30.00	27.845	24.70	NP	NP	3.15
MW-37	none	Oct-96	Shallow	515504.95	1047074.74	2	31.50	21.00	31.00	27.315	24.07	NP	NP	3.25
MW-38	none	Oct-96	Shallow	515247.37	1047144.58	2	24.50	14.00	24.00	22.650	CNL	CNL	CNL	CNL
MW-39	none	Oct-96	Shallow	515232.95	1046961.25	2	19.50	9.00	19.00	15.895	CNL	CNL	CNL	CNL
MW-44	none	Oct-96	Shallow	515569.33	1046799.26	2	30.50	20.00	30.00	25.700	22.78	NP	NP	2.92
MW-45	none	Oct-96	Shallow	515452.96	1046867.70	2	27.50	17.00	27.00	22.965	20.91	**19.67**	**1.24**	2.06
MW-47	none	Oct-96	Shallow	515419.59	1046754.89	2	22.50	12.00	22.00	17.770	15.84	**14.58**	**1.26**	1.93
MW-50	none	Dec-96	Shallow	515099.79	1046650.28	2	15.50	5.00	15.00	10.140	7.48	NP	NP	2.66
MW-51	none	Dec-96	Shallow	515120.13	1046760.08	2	15.50	5.00	15.00	10.700	7.88	NP	NP	2.82
MW-52	none	Dec-96	Shallow	515429.95	1046366.17	2	15.50	5.00	15.00	9.955	CNM	CNM	CNM	CNM
MW-53	none	Dec-96	Shallow	515685.42	1046595.70	2	27.50	17.00	27.00	24.045	21.23	NP	NP	2.82
MW-55	none	Dec-96	Shallow	515526.94	1046453.80	2	19.50	9.00	19.00	13.000	10.38	NP	NP	2.62
MW-56	none	Dec-96	Shallow	515183.43	1047196.82	2	25.50	15.00	25.00	21.595	18.26	NP	NP	3.34
MW-57	none	Dec-96	Shallow	515204.22	1047052.29	2	22.50	12.00	22.00	18.240	CNM	CNM	CNM	CNM
MW-58	none	Dec-96	Shallow	515139.20	1046945.16	2	18.50	8.00	18.00	12.135	NR	NR	NR	NR
MW-59	none	Dec-96	Shallow	515576.36	1046414.55	2	17.50	7.00	17.00	13.695	11.10	NP	NP	2.60
DMW-60	none	Jan-97	Shallow	515412.01	1046755.29	2	40.50	35.00	40.00	17.400	14.56	NP	NP	2.84
DMW-61	none	Feb-97	Shallow	515288.85	1046549.16	2	29.50	24.00	29.00	10.710	8.05	NP	NP	2.66
MW-62	none	May-98	Shallow	515302.54	1047058.98	2	No Data	No Data	No Data	21.020	17.87	**17.84**	**0.03**	3.15
MW-63	none	May-98	Shallow	515562.87	1046916.96	2	No Data	No Data	No Data	26.355	23.29	NP	NP	3.07
MW-64	none	May-98	Shallow	515505.91	1046829.74	2	No Data	No Data	No Data	24.235	21.27	**21.26**	**0.01**	2.97
MW-65	none	May-98	Shallow	515435.11	1046942.07	2	No Data	No Data	No Data	24.505	21.46	NP	NP	3.05
MW-66	none	May-98	Shallow	515160.28	1046827.33	2	No Data	No Data	No Data	11.075	8.17	NP	NP	2.91
MW-67	none	May-98	Shallow	515342.07	1046420.15	2	No Data	No Data	No Data	10.750	8.24	NP	NP	2.51
MW-68	none	May-98	Shallow	515562.84	1046489.50	2	No Data	No Data	No Data	15.425	12.74	NP	NP	2.69
DMW-69	none	May-98	Shallow	515404.56	1046614.69	2	No Data	No Data	No Data	12.975	10.26	NP	NP	2.72
MW-70	none	May-04	Shallow	515537.96	1046346.42	2	15.50	5.00	15.00	10.630	8.11	NP	NP	2.52
MW-71	none	May-04	Shallow	515531.70	1046558.61	2	20.50	10.00	20.00	15.990	13.34	**13.30**	**0.04**	2.65
MW-72	none	May-04	Shallow	515486.65	1046235.07	2	14.50	4.00	14.00	9.810	7.38	NP	NP	2.43
MW-73	none	May-04	Shallow	515340.97	1046970.95	2	16.50	6.00	16.00	17.530	12.98	NR	NR	NR
MW-74	none	May-04	Shallow	515324.73	1046845.00	2	19.50	9.00	19.00	15.900	12.98	NP	NP	2.92
MW-75	none	May-04	Shallow	515226.21	1046714.79	2	16.50	6.00	16.00	12.000	9.17	NP	NP	2.83
AAS-01	none	May-04	Shallow	515442.76	1046727.15	2	39.50	36.00	39.00	18.080	NM	NM	NM	NM
AAS-02	none	May-04	Shallow	515435.91	1046774.52	2	40.50	37.00	40.00	18.870	NM	NM	NM	NM
AAS-03	none	May-04	Shallow	515400.60	1046772.96	2	39.50	36.00	39.00	17.350	NM	NM	NM	NM
AAS-04	none	May-04	Shallow	515403.19	1046739.98	2	38.50	35.00	38.00	16.760	NM	NM	NM	NM
AAS-05	none	May-04	Shallow	515458.49	1046843.61	2	60.50	57.00	60.00	22.240	NM	NM	NM	NM
SVE-01	none	May-04	Shallow	515421.37	1046750.57	4	16.50	8.00	16.00	17.610	NM	NM	NM	NM
SVE-02	none	May-04	Shallow	515456.33	1046834.77	4	24.50	14.00	24.00	21.680	19.74	**18.39**	**1.35**	1.94

bls	below land surface
btoc	below top of casing
DNE	does not exist
ft	feet
NAD	North American Datum
NAVD	North American Vertical Datum, 1988
NGVD	National Geodetic Vertical Datum
NM	not measured
NP	no product

DTW for 06/12/1997, 07/25/2000 and 02/15/200, are assumed to be from TOC

Missing or Destroyed wells as of 09/30/2003: MW-3, -12, -31, -40, -41, -42, -43, -46, -48, -49 and -54

Monitoring Well Construction Details and Water Levels
Site 1159, Bronson Field, NAS Pensacola

											11/27/2006			
Well ID	**Alias**	**Date Installed**	**Aquifer Zone**	**Northing (NAD)**	**Easting (NAD)**	**Diameter (inches)**	**Total Depth (ft bls)**	**Top of Screen (ft bls)**	**Bottom of Screen (ft bls)**	**Top of Casing Elevation (ft NAVD)**	**Depth to Water (ft btoc)**	**Depth to Product (ft btoc)**	**Product Thickness (feet)**	**Groundwater Elevation (ft NAVD)**
MW-01	none	May-95	Shallow	515294.55	1046551.75	2		5.00	15.00	13.035	NM	NM	NM	NM
MW-02	none	Apr-96	Shallow	515279.48	1046520.18	2	13.50	3.00	13.00	10.425	NM	NM	NM	NM
MW-04	none	Apr-96	Shallow	515318.64	1046524.51	2	13.50	3.00	13.00	10.01	NM	NM	NM	NM
MW-05	none	Apr-96	Shallow	515322.98	1046569.73	2	13.50	3.00	13.00	10.655	NM	NM	NM	NM
MW-06	none	Apr-96	Shallow	515280.71	1046584.48	2	13.50	3.00	13.00	10.745	NM	NM	NM	NM
MW-07	none	May-96	Shallow	515322.16	1046483.17	2	14.50	4.00	14.00	10.175	Destroyed			
MW-08	none	May-96	Shallow	515269.54	1046489.28	2	14.50	4.00	14.00	10.595	NM	NM	NM	NM
MW-09	none	May-96	Shallow	515245.21	1046509.56	2	14.50	4.00	14.00	10.940	NM	NM	NM	NM
MW-10	none	May-96	Shallow	515241.10	1046542.17	2	14.50	4.00	14.00	11.455	NM	NM	NM	NM
MW-11	MW-03	May-96	Shallow	515260.01	104543.84	2	13.50	3.00	13.00	10.725	NM	NM	NM	NM
MW-12	MW-11	May-96	Shallow	515244.38	1046568.82	2	14.50	4.00	14.00	11.240	NM	NM	NM	NM
MW-13	none	May-96	Shallow	515283.20	1046617.72	2	14.50	4.00	14.00	11.435	NM	NM	NM	NM
MW-14	none	May-96	Shallow	515312.88	1046607.82	2	14.50	4.00	14.00	11.515	NM	NM	NM	NM
MW-15	none	May-96	Shallow	515335.87	1046595.49	2	14.50	4.00	14.00	11.235	NM	NM	NM	NM
MW-16	none	May-96	Shallow	515347.62	1046572.06	2	14.50	4.00	14.00	10.795	NM	NM	NM	NM
MW-17	none	May-96	Shallow	515342.24	1046546.46	2	14.50	4.00	14.00	10.525	NM	NM	NM	NM
MW-18	none	May-96	Shallow	515348.42	1046515.04	2	14.50	4.00	14.00	10.750	NM	NM	NM	NM
MW-19	none	Jul-96	Shallow	515230.81	1046465.28	2	14.50	4.00	14.00	11.625	NM	NM	NM	NM
MW-20	none	Jul-96	Shallow	515190.03	1046502.04	2	14.50	4.00	14.00	11.565	NM	NM	NM	NM
MW-21	none	Jul-96	Shallow	515199.00	1046567.09	2	14.50	4.00	14.00	11.330	NM	NM	NM	NM
MW-22	none	Jul-96	Shallow	515283.22	1046654.22	2	14.50	4.00	14.00	11.915	NM	NM	NM	NM
MW-23	none	Jul-96	Shallow	515325.70	1046655.71	2	14.50	4.00	14.00	11.725	NM	NM	NM	NM
MW-24	none	Jul-96	Shallow	515350.39	1046454.34	2	14.50	4.00	14.00	9.780	NM	NM	NM	NM
MW-25	none	Jul-96	Shallow	515387.24	1046494.89	2	14.50	4.00	14.00	10.745	NM	NM	NM	NM
MW-26	none	Jul-96	Shallow	515402.55	1046534.87	2	14.50	4.00	14.00	11.320	NM	NM	NM	NM
MW-27	none	Jul-96	Shallow	515370.10	1046635.91	2	14.50	4.00	14.00	12.120	NM	NM	NM	NM
MW-28	none	Jul-96	Shallow	515398.12	1046583.57	2	14.50	4.00	14.00	12.190	NM	NM	NM	NM
MW-29	none	Aug-96	Shallow	515261.84	1046428.24	2	14.50	4.00	14.00	8.535	NM	NM	NM	NM
MW-30	none	Aug-96	Shallow	515298.63	1046410.39	2	14.50	4.00	14.00	8.195	NM	NM	NM	NM
MW-32	none	Sep-96	Shallow	515604.90	1046522.43	2	18.50	8.00	18.00	18.770	NM	NM	NM	NM
MW-33	none	Sep-96	Shallow	515623.52	1046678.57	2	29.50	19.00	29.00	24.525	NM	NM	NM	NM
MW-34	none	Sep-96	Shallow	515698.65	1046860.23	2	30.50	20.00	30.00	27.940	NM	NM	NM	NM
MW-35	none	Sep-96	Shallow	515611.49	1046953.36	2	30.50	20.00	30.00	27.310	NM	NM	NM	NM
MW-36	none	Sep-96	Shallow	515666.53	1046979.81	2	30.50	20.00	30.00	27.845	NM	NM	NM	NM
MW-37	none	Oct-96	Shallow	515504.95	1047074.74	2	31.50	21.00	31.00	27.315	NM	NM	NM	NM
MW-38	none	Oct-96	Shallow	515247.37	1047144.58	2	24.50	14.00	24.00	22.650	NM	NM	NM	NM
MW-39	none	Oct-96	Shallow	515232.95	1046961.25	2	19.50	9.00	19.00	15.895	NM	NM	NM	NM
MW-44	none	Oct-96	Shallow	515569.33	1046799.26	2	30.50	20.00	30.00	25.700	NM	NM	NM	NM
MW-45	none	Oct-96	Shallow	515452.96	1046867.70	2	27.50	17.00	27.00	22.965	20.65	**19.62**	**1.03**	2.32
MW-47	none	Oct-96	Shallow	515419.59	1046754.89	2	22.50	12.00	22.00	17.770	15.70	**14.51**	**1.19**	2.07
MW-50	none	Dec-96	Shallow	515099.79	1046650.28	2	15.50	5.00	15.00	10.140	NM	NM	NM	NM
MW-51	none	Dec-96	Shallow	515120.13	1046760.08	2	15.50	5.00	15.00	10.700	NM	NM	NM	NM
MW-52	none	Dec-96	Shallow	515429.95	1046366.17	2	15.50	5.00	15.00	9.955	NM	NM	NM	NM
MW-53	none	Dec-96	Shallow	515685.42	1046595.70	2	27.50	17.00	27.00	24.045	NM	NM	NM	NM
MW-55	none	Dec-96	Shallow	515526.94	1046453.80	2	19.50	9.00	19.00	13.000	NM	NM	NM	NM
MW-56	none	Dec-96	Shallow	515183.43	1047196.82	2	25.50	15.00	25.00	21.595	NM	NM	NM	NM
MW-57	none	Dec-96	Shallow	515204.22	1047052.29	2	22.50	12.00	22.00	18.240	NM	NM	NM	NM
MW-58	none	Dec-96	Shallow	515139.20	1046945.16	2	18.50	8.00	18.00	12.135	NM	NM	NM	NM
MW-59	none	Dec-96	Shallow	515576.36	1046414.55	2	17.50	7.00	17.00	13.695	NM	NM	NM	NM
DMW-60	none	Jan-97	Shallow	515412.01	1046755.29	2	40.50	35.00	40.00	17.400	NM	NM	NM	NM
DMW-61	none	Feb-97	Shallow	515288.85	1046549.16	2	29.50	24.00	29.00	10.710	NM	NM	NM	NM
MW-62	none	May-98	Shallow	515302.54	1047058.98	2	No Data	No Data	No Data	21.020	17.68	NP	NP	3.34
MW-63	none	May-98	Shallow	515562.87	1046916.96	2	No Data	No Data	No Data	26.355	NM	NM	NM	NM
MW-64	none	May-98	Shallow	515505.91	1046829.74	2	No Data	No Data	No Data	24.235	21.20	NP	NP	3.04
MW-65	none	May-98	Shallow	515435.11	1046942.07	2	No Data	No Data	No Data	24.505	NM	NM	NM	NM
MW-66	none	May-98	Shallow	515160.28	1046827.33	2	No Data	No Data	No Data	11.075	NM	NM	NM	NM
MW-67	none	May-98	Shallow	515342.07	1046420.15	2	No Data	No Data	No Data	10.750	NM	NM	NM	NM
MW-68	none	May-98	Shallow	515562.84	1046489.50	2	No Data	No Data	No Data	15.425	NM	NM	NM	NM
DMW-69	none	May-98	Shallow	515404.56	1046614.69	2	No Data	No Data	No Data	12.975	NM	NM	NM	NM
MW-70	none	May-04	Shallow	515537.96	1046346.42	2	15.50	5.00	15.00	10.630	NM	NM	NM	NM
MW-71	none	May-04	Shallow	515531.70	1046558.61	2	20.50	10.00	20.00	15.990	NM	NM	NM	NM
MW-72	none	May-04	Shallow	515486.65	1046235.07	2	14.50	4.00	14.00	9.810	NM	NM	NM	NM
MW-73	none	May-04	Shallow	515340.97	1046970.95	2	16.50	6.00	16.00	17.530	14.32	NR	NR	NR
MW-74	none	May-04	Shallow	515324.73	1046845.00	2	19.50	9.00	19.00	15.900	12.90	NP	NP	3.00
MW-75	none	May-04	Shallow	515226.21	1046714.79	2	16.50	6.00	16.00	12.000	NM	NM	NM	NM
AAS-01	none	May-04	Shallow	515442.76	1046727.15	2	39.50	36.00	39.00	18.080	NM	NM	NM	NM
AAS-02	none	May-04	Shallow	515435.91	1046774.52	2	40.50	37.00	40.00	18.870	NM	NM	NM	NM
AAS-03	none	May-04	Shallow	515400.60	1046772.96	2	39.50	36.00	39.00	17.350	NM	NM	NM	NM
AAS-04	none	May-04	Shallow	515403.19	1046739.98	2	38.50	35.00	38.00	16.760	NM	NM	NM	NM
AAS-05	none	May-04	Shallow	515458.49	1046843.61	2	60.50	57.00	60.00	22.240	NM	NM	NM	NM
SVE-01	none	May-04	Shallow	515421.37	1046750.57	4	16.50	8.00	16.00	17.610	15.52	**14.51**	**1.01**	2.09
SVE-02	none	May-04	Shallow	515456.33	1046834.77	4	24.50	14.00	24.00	21.680	19.55	**18.36**	**1.19**	2.13

bls	below land surface
btoc	below top of casing
DNE	does not exist
ft	feet
NAD	North American Datum
NAVD	North American Vertical Datum, 1988
NGVD	National Geodetic Vertical Datum
NM	not measured
NP	no product

DTW for 06/12/1997, 07/25/2000 and 02/15/200, are assumed to be from TOC

Missing or Destroyed wells as of 09/30/2003: MW-3, -12, -31, -40, -41, -42, -43, -46, -48, -49 and -54

Appendix B

Historical Groundwater Analytical Results

Previous Groundwater Results for MW-01

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	5/22/96	7/10/00	10/30/03	5/31/06
Carbon Dioxide free	NA	µg/L	NA	NA	NA	NA
Alkalinity, total (as CaCO3)	NA	µg/L	NA	NA	NA	NA
Total organic carbon	NA	µg/L	NA	NA	NA	NA
Benzene	1	µg/L	BDL	**547**	**3.75 J**	**2.5**
Ethylbenzene	30	µg/L	**57**	**195**	21.6 J	**33.2**
MTBE	50	µg/L	NA	12.2	5 UJ	1 U
Toluene	40	µg/L	2	**1580**	3.37 J	4.7 JB
Xylene (total)	20	µg/L	**260**	**909**	**87.7 J**	**132**
1-Methylnaphthalene	20	µg/L	BDL	NA	1 U	0.055 JB
2-Methylnaphthalene	20	µg/L	BDL	NA	1 U	0.048 JB
Acenaphthene	20	µg/L	NA	NA	1 U	0.02 U
Acenaphthylene	210	µg/L	NA	NA	1 U	0.02 U
Anthracene	2100	µg/L	NA	NA	0.1 U	0.02 U
Benzo(a)anthracene	0.2	µg/L	NA	NA	0.1 U	0.02 U
Benzo(a)pyrene	0.2	µg/L	NA	NA	0.1 U	0.02 U
Benzo(b)fluoranthene	0.2	µg/L	NA	NA	0.1 U	0.02 U
Benzo(g,h,I)perylene	210	µg/L	NA	NA	0.1 U	0.02 U
Benzo(k)fluoranthene	0.5	µg/L	NA	NA	0.1 U	0.02 U
Chrysene	4.8	µg/L	NA	NA	0.1 U	0.02 U
Dibenz(a,h)anthracene	0.2	µg/L	NA	NA	0.1 U	**0.02 U**
Fluoranthene	280	µg/L	BDL	NA	0.1 U	0.02 U
Fluorene	280	µg/L	NA	NA	0.5 U	0.0037 JB
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA	NA	0.25 U	0.02 U
Naphthalene	20	µg/L	BDL	NA	0.25 U	0.12 JB
Phenanthrene	210	µg/L	BDL	NA	0.1 U	0.02 U
Pyrene	210	µg/L	BDL	NA	0.1 U	0.02 U
EDB	0.02	µg/L	BDL	NA	NA	NA
TRPH	5000	µg/L	680	1750	809	3200
Aluminum	200	µg/L	NA	NA	NA	NA
Arsenic	50	µg/L	NA	NA	NA	NA
Cadmium	5	µg/L	NA	NA	NA	NA
Chromium	100	µg/L	NA	NA	NA	NA
Iron	300	µg/L	NA	NA	NA	NA
Lead	15	µg/L	**33**	**99.1**	**50**	**22.2**
Lead-Dissolved	15	µg/L	NA	NA	NA	6.22
Manganese	50	µg/L	NA	NA	NA	NA

B	blank contaminated
J	estimated value
U	undetected value, at detection limit shown
UJ	Value non-detected estimated
TRPH	total recoverable petroleum hydrocarbons
Bold	Hits over criteria
µg/L	micrograms per liter
NA	not analyzed

Previous Groundwater Results for MW-02

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	4/24/96	7/10/00	10/30/03
Benzene	1	µg/L	BDL	BDL	0.5 UJ
Ethylbenzene	30	µg/L	11	**44.8**	8.58 J
MTBE	50	µg/L	NA	BDL	5 UJ
Toluene	40	µg/L	BDL	BDL	5 UJ
Xylene (total)	20	µg/L	**38**	**83**	**21.8 J**
1-Methylnaphthalene	20	µg/L	BDL	NA	1 U
2-Methylnaphthalene	20	µg/L	BDL	NA	1 U
Acenaphthene	20	µg/L	NA	NA	1 U
Acenaphthylene	210	µg/L	NA	NA	1 U
Anthracene	2100	µg/L	NA	NA	0.1 U
Benzo(a)anthracene	0.2	µg/L	NA	NA	0.1 U
Benzo(a)pyrene	0.2	µg/L	NA	NA	0.1 U
Benzo(b)fluoranthene	0.2	µg/L	NA	NA	0.1 U
Benzo(g,h,I)perylene	210	µg/L	NA	NA	0.1 U
Benzo(k)fluoranthene	0.5	µg/L	NA	NA	0.1 U
Chrysene	4.8	µg/L	NA	NA	0.1 U
Dibenz(a,h)anthracene	0.2	µg/L	NA	NA	0.1 U
Fluoranthene	280	µg/L	BDL	NA	0.1 U
Fluorene	280	µg/L	NA	NA	0.5 U
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA	NA	0.25 U
Naphthalene	20	µg/L	BDL	NA	0.25 U
Phenanthrene	210	µg/L	BDL	NA	0.1 U
Pyrene	210	µg/L	BDL	NA	0.1 U
EDB	0.02	µg/L	BDL	NA	NA
TRPH	5000	µg/L	1400	1210	727
Aluminum	200	µg/L	NA	NA	NA
Arsenic	50	µg/L	NA	NA	NA
Cadmium	5	µg/L	NA	NA	NA
Chromium	100	µg/L	NA	NA	NA
Iron	300	µg/L	NA	NA	NA
Lead	15	µg/L	**75**	**97.8**	14 J
Manganese	50	µg/L	NA	NA	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-04

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	4/24/96	7/10/00	10/30/03	5/31/06
Carbon Dioxide free	NA	µg/L	NA	NA	NA	NA
Alkalinity, total (as CaCO3)	NA	µg/L	NA	NA	NA	NA
Total organic carbon	NA	µg/L	NA	NA	NA	NA
Benzene	1	µg/L	BDL	**54.8**	1 UJ	1 U
Ethylbenzene	30	µg/L	27	**52.9**	10 UJ	1 U
MTBE	50	µg/L	NA	24.1	10 UJ	1 U
Toluene	40	µg/L	4	**296**	10 UJ	1 U
Xylene (total)	20	µg/L	**150**	**262**	2.07 J	3 U
1-Methylnaphthalene	20	µg/L	BDL	NA	1 U	0.24 JB
2-Methylnaphthalene	20	µg/L	BDL	NA	1 U	0.087 JB
Acenaphthene	20	µg/L	NA	NA	1 U	0.02 U
Acenaphthylene	210	µg/L	NA	NA	1 U	0.02 U
Anthracene	2100	µg/L	NA	NA	0.1 U	0.02 U
Benzo(a)anthracene	0.2	µg/L	NA	NA	0.1 U	0.02 U
Benzo(a)pyrene	0.2	µg/L	NA	NA	0.1 U	0.02 U
Benzo(b)fluoranthene	0.2	µg/L	NA	NA	0.1 U	0.02 U
Benzo(g,h,I)perylene	210	µg/L	NA	NA	0.1 U	0.02 U
Benzo(k)fluoranthene	0.5	µg/L	NA	NA	0.1 U	0.02 U
Chrysene	4.8	µg/L	NA	NA	0.1 U	0.02 U
Dibenz(a,h)anthracene	0.2	µg/L	NA	NA	0.1 U	**0.02 U**
Fluoranthene	280	µg/L	BDL	NA	0.1 U	0.01 JB
Fluorene	280	µg/L	NA	NA	0.5 U	0.0063 JB
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA	NA	0.25 U	0.02 U
Naphthalene	20	µg/L	BDL	NA	0.25 U	0.02 U
Phenanthrene	210	µg/L	BDL	NA	0.1 U	0.02 U
Pyrene	210	µg/L	BDL	NA	0.1 U	0.01 JB
EDB	0.02	µg/L	BDL	NA	NA	NA
TRPH	5000	µg/L	1300	3210	1090	780
Aluminum	200	µg/L	NA	NA	NA	NA
Arsenic	50	µg/L	NA	NA	NA	NA
Cadmium	5	µg/L	NA	NA	NA	NA
Chromium	100	µg/L	NA	NA	NA	NA
Iron	300	µg/L	NA	NA	NA	NA
Lead	15	µg/L	**55**	**136**	**95**	**55.6**
Manganese	50	µg/L	NA	NA	NA	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-05

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	4/24/96	10/30/03
Benzene	1	µg/L	BDL	**1.49 J**
Ethylbenzene	30	µg/L	11	12.2 J
MTBE	50	µg/L	NA	5 UJ
Toluene	40	µg/L	4	8.52 J
Xylene (total)	20	µg/L	**79**	**66.4 J**
1-Methylnaphthalene	20	µg/L	BDL	1 U
2-Methylnaphthalene	20	µg/L	BDL	1 U
Acenaphthene	20	µg/L	NA	1 U
Acenaphthylene	210	µg/L	NA	1 U
Anthracene	2100	µg/L	NA	0.1 U
Benzo(a)anthracene	0.2	µg/L	NA	0.1 U
Benzo(a)pyrene	0.2	µg/L	NA	0.1 U
Benzo(b)fluoranthene	0.2	µg/L	NA	0.1 U
Benzo(g,h,I)perylene	210	µg/L	NA	0.1 U
Benzo(k)fluoranthene	0.5	µg/L	NA	0.1 U
Chrysene	4.8	µg/L	NA	0.1 U
Dibenz(a,h)anthracene	0.2	µg/L	NA	0.1 U
Fluoranthene	280	µg/L	BDL	0.1 U
Fluorene	280	µg/L	NA	0.5 U
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA	0.25 U
Naphthalene	20	µg/L	BDL	0.25 U
Phenanthrene	210	µg/L	BDL	0.1 U
Pyrene	210	µg/L	BDL	0.1 U
EDB	0.02	µg/L	BDL	NA
TRPH	5000	µg/L	1700	809
Aluminum	200	µg/L	NA	NA
Arsenic	50	µg/L	NA	NA
Cadmium	5	µg/L	NA	NA
Chromium	100	µg/L	NA	NA
Iron	300	µg/L	NA	NA
Lead	15	µg/L	**64**	**50**
Manganese	50	µg/L	NA	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-06

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	4/24/96	10/30/03
Benzene	1	µg/L	BDL	0.5 U
Ethylbenzene	30	µg/L	11	5 U
MTBE	50	µg/L	NA	5 U
Toluene	40	µg/L	4	5 U
Xylene (total)	20	µg/L	**79**	3.73 J
1-Methylnaphthalene	20	µg/L	BDL	1 U
2-Methylnaphthalene	20	µg/L	BDL	1 U
Acenaphthene	20	µg/L	NA	1 U
Acenaphthylene	210	µg/L	NA	1 U
Anthracene	2100	µg/L	NA	0.1 U
Benzo(a)anthracene	0.2	µg/L	NA	0.1 U
Benzo(a)pyrene	0.2	µg/L	NA	0.1 U
Benzo(b)fluoranthene	0.2	µg/L	NA	0.1 U
Benzo(g,h,I)perylene	210	µg/L	NA	0.1 U
Benzo(k)fluoranthene	0.5	µg/L	NA	0.1 U
Chrysene	4.8	µg/L	NA	0.1 U
Dibenz(a,h)anthracene	0.2	µg/L	NA	0.1 U
Fluoranthene	280	µg/L	BDL	0.1 U
Fluorene	280	µg/L	NA	0.5 U
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA	0.25 U
Naphthalene	20	µg/L	BDL	0.25 U
Phenanthrene	210	µg/L	BDL	0.1 U
Pyrene	210	µg/L	BDL	0.1 U
EDB	0.02	µg/L	BDL	NA
TRPH	5000	µg/L	1800	250
Aluminum	200	µg/L	NA	NA
Arsenic	50	µg/L	NA	NA
Cadmium	5	µg/L	NA	NA
Chromium	100	µg/L	NA	NA
Iron	300	µg/L	NA	NA
Lead	15	µg/L	**79**	**32**
Manganese	50	µg/L	NA	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-07

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	6/4/96
Benzene	1	µg/L	BDL
Ethylbenzene	30	µg/L	BDL
MTBE	50	µg/L	NA
Toluene	40	µg/L	BDL
Xylene (total)	20	µg/L	BDL
1-Methylnaphthalene	20	µg/L	BDL
2-Methylnaphthalene	20	µg/L	BDL
Acenaphthene	20	µg/L	NA
Acenaphthylene	210	µg/L	NA
Anthracene	2100	µg/L	NA
Benzo(a)anthracene	0.2	µg/L	NA
Benzo(a)pyrene	0.2	µg/L	NA
Benzo(b)fluoranthene	0.2	µg/L	NA
Benzo(g,h,I)perylene	210	µg/L	NA
Benzo(k)fluoranthene	0.5	µg/L	NA
Chrysene	4.8	µg/L	NA
Dibenz(a,h)anthracene	0.2	µg/L	NA
Fluoranthene	280	µg/L	BDL
Fluorene	280	µg/L	NA
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA
Naphthalene	20	µg/L	BDL
Phenanthrene	210	µg/L	BDL
Pyrene	210	µg/L	BDL
EDB	0.02	µg/L	BDL
TRPH	5000	µg/L	220
Aluminum	200	µg/L	NA
Arsenic	50	µg/L	NA
Cadmium	5	µg/L	NA
Chromium	100	µg/L	NA
Iron	300	µg/L	NA
Lead	15	µg/L	**16**
Manganese	50	µg/L	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-08

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	6/4/96	10/30/03
Benzene	1	µg/L	BDL	0.5 UJ
Ethylbenzene	30	µg/L	21	2.46 J
MTBE	50	µg/L	NA	5 UJ
Toluene	40	µg/L	2	5 UJ
Xylene (total)	20	µg/L	**110**	3.76 J
1-Methylnaphthalene	20	µg/L	BDL	1.03 U
2-Methylnaphthalene	20	µg/L	BDL	1.03 U
Acenaphthene	20	µg/L	NA	1.03 U
Acenaphthylene	210	µg/L	NA	1.03 U
Anthracene	2100	µg/L	NA	0.103 U
Benzo(a)anthracene	0.2	µg/L	NA	0.103 U
Benzo(a)pyrene	0.2	µg/L	NA	0.103 U
Benzo(b)fluoranthene	0.2	µg/L	NA	0.103 U
Benzo(g,h,I)perylene	210	µg/L	NA	0.103 U
Benzo(k)fluoranthene	0.5	µg/L	NA	0.103 U
Chrysene	4.8	µg/L	NA	0.103 U
Dibenz(a,h)anthracene	0.2	µg/L	NA	0.103 U
Fluoranthene	280	µg/L	BDL	0.103 U
Fluorene	280	µg/L	NA	0.515 U
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA	0.258 U
Naphthalene	20	µg/L	BDL	0.258 U
Phenanthrene	210	µg/L	BDL	0.103 U
Pyrene	210	µg/L	BDL	0.103 U
EDB	0.02	µg/L	BDL	NA
TRPH	5000	µg/L	BDL	93
Aluminum	200	µg/L	NA	NA
Arsenic	50	µg/L	NA	NA
Cadmium	5	µg/L	NA	NA
Chromium	100	µg/L	NA	NA
Iron	300	µg/L	NA	NA
Lead	15	µg/L	**20**	**18**
Manganese	50	µg/L	NA	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-09

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	6/4/96	10/30/03	5/31/06
Carbon Dioxide free	NA	µg/L	NA	NA	NA
Alkalinity, total (as CaCO3)	NA	µg/L	NA	NA	NA
Total organic carbon	NA	µg/L	NA	NA	NA
Benzene	1	µg/L	BDL	0.5 U	0.3 J
Ethylbenzene	30	µg/L	15	**32.4**	15.6
MTBE	50	µg/L	NA	5 U	1 U
Toluene	40	µg/L	BDL	5 U	1 U
Xylene (total)	20	µg/L	**240**	**96.1**	**54.5**
1-Methylnaphthalene	20	µg/L	BDL	1 U	0.081 JB
2-Methylnaphthalene	20	µg/L	BDL	1 U	0.12 JB
Acenaphthene	20	µg/L	NA	1 U	0.02 U
Acenaphthylene	210	µg/L	NA	1 U	0.02 U
Anthracene	2100	µg/L	NA	0.1 U	0.02 U
Benzo(a)anthracene	0.2	µg/L	NA	0.1 U	0.02 U
Benzo(a)pyrene	0.2	µg/L	NA	0.1 U	0.02 U
Benzo(b)fluoranthene	0.2	µg/L	NA	0.1 U	0.02 U
Benzo(g,h,I)perylene	210	µg/L	NA	0.1 U	0.02 U
Benzo(k)fluoranthene	0.5	µg/L	NA	0.1 U	0.02 U
Chrysene	4.8	µg/L	NA	0.1 U	0.02 U
Dibenz(a,h)anthracene	0.2	µg/L	NA	0.1 U	**0.02 U**
Fluoranthene	280	µg/L	BDL	0.1 U	0.02 U
Fluorene	280	µg/L	NA	0.5 U	0.0035 JB
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA	0.25 U	0.02 U
Naphthalene	20	µg/L	BDL	0.25 U	0.22 JB
Phenanthrene	210	µg/L	BDL	0.1 U	0.02 U
Pyrene	210	µg/L	BDL	0.1 U	0.02 U
EDB	0.02	µg/L	BDL	NA	NA
TRPH	5000	µg/L	190	579	650
Aluminum	200	µg/L	NA	NA	NA
Arsenic	50	µg/L	NA	NA	NA
Cadmium	5	µg/L	NA	NA	NA
Chromium	100	µg/L	NA	NA	NA
Iron	300	µg/L	NA	NA	NA
Lead	15	µg/L	**34**	**15**	**23.5**
Lead-Dissolved	15	µg/L	NA	NA	8.61
Manganese	50	µg/L	NA	NA	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-10

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	6/4/96
Benzene	1	µg/L	BDL
Ethylbenzene	30	µg/L	BDL
MTBE	50	µg/L	NA
Toluene	40	µg/L	BDL
Xylene (total)	20	µg/L	BDL
1-Methylnaphthalene	20	µg/L	BDL
2-Methylnaphthalene	20	µg/L	BDL
Acenaphthene	20	µg/L	NA
Acenaphthylene	210	µg/L	NA
Anthracene	2100	µg/L	NA
Benzo(a)anthracene	0.2	µg/L	NA
Benzo(a)pyrene	0.2	µg/L	NA
Benzo(b)fluoranthene	0.2	µg/L	NA
Benzo(g,h,I)perylene	210	µg/L	NA
Benzo(k)fluoranthene	0.5	µg/L	NA
Chrysene	4.8	µg/L	NA
Dibenz(a,h)anthracene	0.2	µg/L	NA
Fluoranthene	280	µg/L	BDL
Fluorene	280	µg/L	NA
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA
Naphthalene	20	µg/L	BDL
Phenanthrene	210	µg/L	BDL
Pyrene	210	µg/L	BDL
EDB	0.02	µg/L	BDL
TRPH	5000	µg/L	220
Aluminum	200	µg/L	NA
Arsenic	50	µg/L	NA
Cadmium	5	µg/L	NA
Chromium	100	µg/L	NA
Iron	300	µg/L	NA
Lead	15	µg/L	**33**
Manganese	50	µg/L	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-11

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	6/4/96
Benzene	1	µg/L	BDL
Ethylbenzene	30	µg/L	BDL
MTBE	50	µg/L	NA
Toluene	40	µg/L	BDL
Xylene (total)	20	µg/L	**20**
1-Methylnaphthalene	20	µg/L	BDL
2-Methylnaphthalene	20	µg/L	BDL
Acenaphthene	20	µg/L	NA
Acenaphthylene	210	µg/L	NA
Anthracene	2100	µg/L	NA
Benzo(a)anthracene	0.2	µg/L	NA
Benzo(a)pyrene	0.2	µg/L	NA
Benzo(b)fluoranthene	0.2	µg/L	NA
Benzo(g,h,I)perylene	210	µg/L	NA
Benzo(k)fluoranthene	0.5	µg/L	NA
Chrysene	4.8	µg/L	NA
Dibenz(a,h)anthracene	0.2	µg/L	NA
Fluoranthene	280	µg/L	BDL
Fluorene	280	µg/L	NA
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA
Naphthalene	20	µg/L	BDL
Phenanthrene	210	µg/L	BDL
Pyrene	210	µg/L	BDL
EDB	0.02	µg/L	BDL
TRPH	5000	µg/L	210
Aluminum	200	µg/L	NA
Arsenic	50	µg/L	NA
Cadmium	5	µg/L	NA
Chromium	100	µg/L	NA
Iron	300	µg/L	NA
Lead	15	µg/L	**26**
Manganese	50	µg/L	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-12

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	6/4/96	10/30/03
Benzene	1	µg/L	BDL	0.5 U
Ethylbenzene	30	µg/L	**30**	6.08
MTBE	50	µg/L	NA	5 U
Toluene	40	µg/L	BDL	5 U
Xylene (total)	20	µg/L	**100**	8.06 J
1-Methylnaphthalene	20	µg/L	BDL	1 U
2-Methylnaphthalene	20	µg/L	BDL	1 U
Acenaphthene	20	µg/L	NA	1 U
Acenaphthylene	210	µg/L	NA	1 U
Anthracene	2100	µg/L	NA	0.1 U
Benzo(a)anthracene	0.2	µg/L	NA	0.1 U
Benzo(a)pyrene	0.2	µg/L	NA	0.1 U
Benzo(b)fluoranthene	0.2	µg/L	NA	0.1 U
Benzo(g,h,I)perylene	210	µg/L	NA	0.1 U
Benzo(k)fluoranthene	0.5	µg/L	NA	0.1 U
Chrysene	4.8	µg/L	NA	0.1 U
Dibenz(a,h)anthracene	0.2	µg/L	NA	0.1 U
Fluoranthene	280	µg/L	BDL	0.1 U
Fluorene	280	µg/L	NA	0.5 U
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA	0.25 U
Naphthalene	20	µg/L	BDL	0.25 U
Phenanthrene	210	µg/L	BDL	0.109
Pyrene	210	µg/L	BDL	0.1 U
EDB	0.02	µg/L	BDL	NA
TRPH	5000	µg/L	140	256
Aluminum	200	µg/L	NA	NA
Arsenic	50	µg/L	NA	NA
Cadmium	5	µg/L	NA	NA
Chromium	100	µg/L	NA	NA
Iron	300	µg/L	NA	NA
Lead	15	µg/L	**35**	**23**
Manganese	50	µg/L	NA	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-13

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	6/4/96
Benzene	1	µg/L	BDL
Ethylbenzene	30	µg/L	BDL
MTBE	50	µg/L	NA
Toluene	40	µg/L	BDL
Xylene (total)	20	µg/L	BDL
1-Methylnaphthalene	20	µg/L	BDL
2-Methylnaphthalene	20	µg/L	BDL
Acenaphthene	20	µg/L	NA
Acenaphthylene	210	µg/L	NA
Anthracene	2100	µg/L	NA
Benzo(a)anthracene	0.2	µg/L	NA
Benzo(a)pyrene	0.2	µg/L	NA
Benzo(b)fluoranthene	0.2	µg/L	NA
Benzo(g,h,I)perylene	210	µg/L	NA
Benzo(k)fluoranthene	0.5	µg/L	NA
Chrysene	4.8	µg/L	NA
Dibenz(a,h)anthracene	0.2	µg/L	NA
Fluoranthene	280	µg/L	BDL
Fluorene	280	µg/L	NA
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA
Naphthalene	20	µg/L	BDL
Phenanthrene	210	µg/L	BDL
Pyrene	210	µg/L	BDL
EDB	0.02	µg/L	BDL
TRPH	5000	µg/L	2300
Aluminum	200	µg/L	NA
Arsenic	50	µg/L	NA
Cadmium	5	µg/L	NA
Chromium	100	µg/L	NA
Iron	300	µg/L	NA
Lead	15	µg/L	**130**
Manganese	50	µg/L	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-14

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	6/4/96	10/30/03
Benzene	1	µg/L	BDL	0.5 U
Ethylbenzene	30	µg/L	**33**	1.35 J
MTBE	50	µg/L	NA	5 U
Toluene	40	µg/L	8	5 U
Xylene (total)	20	µg/L	**250**	8.28 J
1-Methylnaphthalene	20	µg/L	BDL	1 U
2-Methylnaphthalene	20	µg/L	BDL	1 U
Acenaphthene	20	µg/L	NA	1 U
Acenaphthylene	210	µg/L	NA	1 U
Anthracene	2100	µg/L	NA	0.1 U
Benzo(a)anthracene	0.2	µg/L	NA	0.1 U
Benzo(a)pyrene	0.2	µg/L	NA	0.1 U
Benzo(b)fluoranthene	0.2	µg/L	NA	0.1 U
Benzo(g,h,I)perylene	210	µg/L	NA	0.1 U
Benzo(k)fluoranthene	0.5	µg/L	NA	0.1 U
Chrysene	4.8	µg/L	NA	0.1 U
Dibenz(a,h)anthracene	0.2	µg/L	NA	0.1 U
Fluoranthene	280	µg/L	BDL	0.1 U
Fluorene	280	µg/L	NA	0.5 U
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA	0.25 U
Naphthalene	20	µg/L	BDL	0.25 U
Phenanthrene	210	µg/L	BDL	0.1 U
Pyrene	210	µg/L	BDL	0.1 U
EDB	0.02	µg/L	BDL	NA
TRPH	5000	µg/L	400	491
Aluminum	200	µg/L	NA	NA
Arsenic	50	µg/L	NA	NA
Cadmium	5	µg/L	NA	NA
Chromium	100	µg/L	NA	NA
Iron	300	µg/L	NA	NA
Lead	15	µg/L	**63**	**41**
Manganese	50	µg/L	NA	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-15

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	6/4/96	10/30/03	1/27/04
Benzene	1	µg/L	BDL	0.5 UJ	NA
Ethylbenzene	30	µg/L	8	2.67 J	NA
MTBE	50	µg/L	NA	5 UJ	NA
Toluene	40	µg/L	9	1.06 J	NA
Xylene (total)	20	µg/L	**120**	14.2 J	NA
1-Methylnaphthalene	20	µg/L	BDL	1 U	NA
2-Methylnaphthalene	20	µg/L	BDL	1 U	NA
Acenaphthene	20	µg/L	NA	1 U	NA
Acenaphthylene	210	µg/L	NA	1 U	NA
Anthracene	2100	µg/L	NA	0.1 U	NA
Benzo(a)anthracene	0.2	µg/L	NA	0.1 U	NA
Benzo(a)pyrene	0.2	µg/L	NA	0.1 U	NA
Benzo(b)fluoranthene	0.2	µg/L	NA	0.1 U	NA
Benzo(g,h,I)perylene	210	µg/L	NA	0.1 U	NA
Benzo(k)fluoranthene	0.5	µg/L	NA	0.1 U	NA
Chrysene	4.8	µg/L	NA	0.1 U	NA
Dibenz(a,h)anthracene	0.2	µg/L	NA	0.1 U	NA
Fluoranthene	280	µg/L	BDL	0.1 U	NA
Fluorene	280	µg/L	NA	0.5 U	NA
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA	0.25 U	NA
Naphthalene	20	µg/L	BDL	0.25 U	NA
Phenanthrene	210	µg/L	BDL	0.1 U	NA
Pyrene	210	µg/L	BDL	0.1 U	NA
EDB	0.02	µg/L	BDL	NA	NA
TRPH	5000	µg/L	BDL	1810	NA
Aluminum	200	µg/L	NA	NA	NA
Arsenic	50	µg/L	NA	NA	NA
Cadmium	5	µg/L	NA	NA	NA
Chromium	100	µg/L	NA	NA	NA
Iron	300	µg/L	NA	NA	NA
Lead	15	µg/L	**20**	**110**	**49**
Manganese	50	µg/L	NA	NA	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-16

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	6/4/96	10/30/03	1/27/04
Benzene	1	µg/L	BDL	0.5 UJ	NA
Ethylbenzene	30	µg/L	8	5.25 J	NA
MTBE	50	µg/L	NA	5 UJ	NA
Toluene	40	µg/L	BDL	5 UJ	NA
Xylene (total)	20	µg/L	**220**	17.7 J	NA
1-Methylnaphthalene	20	µg/L	BDL	1 U	NA
2-Methylnaphthalene	20	µg/L	BDL	1 U	NA
Acenaphthene	20	µg/L	NA	1 U	NA
Acenaphthylene	210	µg/L	NA	1 U	NA
Anthracene	2100	µg/L	NA	0.1 U	NA
Benzo(a)anthracene	0.2	µg/L	NA	0.1 U	NA
Benzo(a)pyrene	0.2	µg/L	NA	0.1 U	NA
Benzo(b)fluoranthene	0.2	µg/L	NA	0.1 U	NA
Benzo(g,h,I)perylene	210	µg/L	NA	0.1 U	NA
Benzo(k)fluoranthene	0.5	µg/L	NA	0.1 U	NA
Chrysene	4.8	µg/L	NA	0.1 U	NA
Dibenz(a,h)anthracene	0.2	µg/L	NA	0.1 U	NA
Fluoranthene	280	µg/L	BDL	0.1 U	NA
Fluorene	280	µg/L	NA	0.5 U	NA
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA	0.25 U	NA
Naphthalene	20	µg/L	BDL	0.25 U	NA
Phenanthrene	210	µg/L	BDL	0.1 U	NA
Pyrene	210	µg/L	BDL	0.1 U	NA
EDB	0.02	µg/L	BDL	NA	NA
TRPH	5000	µg/L	470	2440	NA
Aluminum	200	µg/L	NA	NA	NA
Arsenic	50	µg/L	NA	NA	NA
Cadmium	5	µg/L	NA	NA	NA
Chromium	100	µg/L	NA	NA	NA
Iron	300	µg/L	NA	NA	NA
Lead	15	µg/L	**365**	**120**	**86**
Manganese	50	µg/L	NA	NA	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-17

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	6/4/96	10/30/03
Benzene	1	µg/L	BDL	0.5 UJ
Ethylbenzene	30	µg/L	**50**	13.6 J
MTBE	50	µg/L	NA	5 UJ
Toluene	40	µg/L	19	5 UJ
Xylene (total)	20	µg/L	**410**	**53.2 J**
1-Methylnaphthalene	20	µg/L	BDL	1.03 U
2-Methylnaphthalene	20	µg/L	BDL	1.03 U
Acenaphthene	20	µg/L	NA	1.03 U
Acenaphthylene	210	µg/L	NA	1.03 U
Anthracene	2100	µg/L	NA	0.103 U
Benzo(a)anthracene	0.2	µg/L	NA	0.103 U
Benzo(a)pyrene	0.2	µg/L	NA	0.103 U
Benzo(b)fluoranthene	0.2	µg/L	NA	0.103 U
Benzo(g,h,I)perylene	210	µg/L	NA	0.103 U
Benzo(k)fluoranthene	0.5	µg/L	NA	0.103 U
Chrysene	4.8	µg/L	NA	0.103 U
Dibenz(a,h)anthracene	0.2	µg/L	NA	0.103 U
Fluoranthene	280	µg/L	BDL	0.103 U
Fluorene	280	µg/L	NA	0.515 U
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA	0.258 U
Naphthalene	20	µg/L	BDL	0.258 U
Phenanthrene	210	µg/L	BDL	0.103 U
Pyrene	210	µg/L	BDL	0.103 U
EDB	0.02	µg/L	BDL	NA
TRPH	5000	µg/L	260	1990
Aluminum	200	µg/L	NA	NA
Arsenic	50	µg/L	NA	NA
Cadmium	5	µg/L	NA	NA
Chromium	100	µg/L	NA	NA
Iron	300	µg/L	NA	NA
Lead	15	µg/L	**42**	**57**
Manganese	50	µg/L	NA	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-18

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	5/22/96	7/11/00	10/30/03	6/1/06
Carbon Dioxide free	NA	µg/L	NA	NA	NA	NA
Alkalinity, total (as CaCO3)	NA	µg/L	NA	NA	NA	NA
Total organic carbon	NA	µg/L	NA	NA	NA	NA
Benzene	1	µg/L	BDL	**748**	0.5 UJ	**4.2**
Ethylbenzene	30	µg/L	15	**516**	3.69 J	4.3
MTBE	50	µg/L	NA	30.2	5 UJ	1 U
Toluene	40	µg/L	6	**5820**	5 UJ	18.9
Xylene (total)	20	µg/L	**93**	**3200**	16.9 J	14.9
1-Methylnaphthalene	20	µg/L	BDL	NA	1 U	0.21 JB
2-Methylnaphthalene	20	µg/L	BDL	NA	1 U	0.099 JB
Acenaphthene	20	µg/L	NA	NA	1 U	0.019 U
Acenaphthylene	210	µg/L	NA	NA	1 U	0.019 U
Anthracene	2100	µg/L	NA	NA	0.1 U	0.019 U
Benzo(a)anthracene	0.2	µg/L	NA	NA	0.1 U	0.013 JB
Benzo(a)pyrene	0.2	µg/L	NA	NA	0.1 U	0.019 U
Benzo(b)fluoranthene	0.2	µg/L	NA	NA	0.1 U	0.019 U
Benzo(g,h,I)perylene	210	µg/L	NA	NA	0.1 U	0.019 U
Benzo(k)fluoranthene	0.5	µg/L	NA	NA	0.1 U	0.019 U
Chrysene	4.8	µg/L	NA	NA	0.1 U	0.012 J
Dibenz(a,h)anthracene	0.2	µg/L	NA	NA	0.1 U	**0.019 U**
Fluoranthene	280	µg/L	BDL	NA	0.1 U	0.019 U
Fluorene	280	µg/L	NA	NA	0.5 U	0.0063 JB
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA	NA	0.25 U	0.019 U
Naphthalene	20	µg/L	BDL	NA	0.25 U	0.12 JB
Phenanthrene	210	µg/L	BDL	NA	0.1 U	0.019 U
Pyrene	210	µg/L	BDL	NA	0.1 U	0.019 U
EDB	0.02	µg/L	BDL	NA	NA	NA
TRPH	5000	µg/L	280	3210	1250	1100
Aluminum	200	µg/L	NA	NA	NA	NA
Arsenic	50	µg/L	NA	NA	NA	NA
Cadmium	5	µg/L	NA	NA	NA	NA
Chromium	100	µg/L	NA	NA	NA	NA
Iron	300	µg/L	NA	NA	NA	NA
Lead	15	µg/L	**45**	**62.9**	**36**	**40.6 JB**
Manganese	50	µg/L	NA	NA	NA	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-19

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	8/14/96	7/11/00
Benzene	1	µg/L	BDL	BDL
Ethylbenzene	30	µg/L	BDL	BDL
MTBE	50	µg/L	NA	BDL
Toluene	40	µg/L	BDL	BDL
Xylene (total)	20	µg/L	8	BDL
1-Methylnaphthalene	20	µg/L	BDL	NA
2-Methylnaphthalene	20	µg/L	BDL	NA
Acenaphthene	20	µg/L	NA	NA
Acenaphthylene	210	µg/L	NA	NA
Anthracene	2100	µg/L	NA	NA
Benzo(a)anthracene	0.2	µg/L	NA	NA
Benzo(a)pyrene	0.2	µg/L	NA	NA
Benzo(b)fluoranthene	0.2	µg/L	NA	NA
Benzo(g,h,I)perylene	210	µg/L	NA	NA
Benzo(k)fluoranthene	0.5	µg/L	NA	NA
Chrysene	4.8	µg/L	NA	NA
Dibenz(a,h)anthracene	0.2	µg/L	NA	NA
Fluoranthene	280	µg/L	BDL	NA
Fluorene	280	µg/L	NA	NA
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA	NA
Naphthalene	20	µg/L	BDL	NA
Phenanthrene	210	µg/L	BDL	NA
Pyrene	210	µg/L	BDL	NA
EDB	0.02	µg/L	BDL	NA
TRPH	5000	µg/L	360	BDL
Aluminum	200	µg/L	NA	NA
Arsenic	50	µg/L	NA	NA
Cadmium	5	µg/L	NA	NA
Chromium	100	µg/L	NA	NA
Iron	300	µg/L	NA	NA
Lead	15	µg/L	BDL	BDL
Manganese	50	µg/L	NA	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-20

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	8/14/96	7/10/00	1/27/04	5/31/06
Carbon Dioxide free	NA	µg/L	NA	NA	NA	NA
Alkalinity, total (as CaCO3)	NA	µg/L	NA	NA	NA	NA
Total organic carbon	NA	µg/L	NA	NA	NA	NA
Benzene	1	µg/L	BDL	0.61 J	0.5 U	1 U
Ethylbenzene	30	µg/L	BDL	1.2	5 U	1 U
MTBE	50	µg/L	NA	BDL	5 U	1 U
Toluene	40	µg/L	BDL	4.6	5 U	1 U
Xylene (total)	20	µg/L	**5**	**21.8**	10 U	3 U
1-Methylnaphthalene	20	µg/L	BDL	NA	1 U	0.02 U
2-Methylnaphthalene	20	µg/L	BDL	NA	1 U	0.0098 JB
Acenaphthene	20	µg/L	NA	NA	1 U	0.02 U
Acenaphthylene	210	µg/L	NA	NA	1 U	0.02 U
Anthracene	2100	µg/L	NA	NA	0.1 U	0.02 U
Benzo(a)anthracene	0.2	µg/L	NA	NA	0.1 U	0.02 U
Benzo(a)pyrene	0.2	µg/L	NA	NA	0.1 U	0.02 U
Benzo(b)fluoranthene	0.2	µg/L	NA	NA	0.1 U	0.02 U
Benzo(g,h,I)perylene	210	µg/L	NA	NA	0.1 U	0.02 U
Benzo(k)fluoranthene	0.5	µg/L	NA	NA	0.1 U	0.02 U
Chrysene	4.8	µg/L	NA	NA	0.1 U	0.02 U
Dibenz(a,h)anthracene	0.2	µg/L	NA	NA	0.1 U	**0.02 U**
Fluoranthene	280	µg/L	BDL	NA	0.1 U	0.02 U
Fluorene	280	µg/L	NA	NA	0.5 U	0.0038 JB
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA	NA	0.25 U	0.02 U
Naphthalene	20	µg/L	BDL	NA	0.25 U	0.016 JB
Phenanthrene	210	µg/L	BDL	NA	0.1 U	0.02 U
Pyrene	210	µg/L	BDL	NA	0.1 U	0.02 U
EDB	0.02	µg/L	BDL	NA	NA	NA
TRPH	5000	µg/L	340	204 J	341 JB	410
Aluminum	200	µg/L	NA	NA	NA	NA
Arsenic	50	µg/L	NA	NA	NA	NA
Cadmium	5	µg/L	NA	NA	NA	NA
Chromium	100	µg/L	NA	NA	NA	NA
Iron	300	µg/L	NA	NA	NA	NA
Lead	15	µg/L	BDL	BDL	BDL	9.93
Manganese	50	µg/L	NA	NA	NA	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-21

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	8/14/96	7/10/00	10/30/03
Benzene	1	µg/L	BDL	BDL	0.5 U
Ethylbenzene	30	µg/L	17	1	5 U
MTBE	50	µg/L	NA	BDL	5 U
Toluene	40	µg/L	BDL	0.94 J	5 U
Xylene (total)	20	µg/L	**69**	**40.3**	10 U
1-Methylnaphthalene	20	µg/L	BDL	NA	1 U
2-Methylnaphthalene	20	µg/L	BDL	NA	1 U
Acenaphthene	20	µg/L	NA	NA	1.67
Acenaphthylene	210	µg/L	NA	NA	1 U
Anthracene	2100	µg/L	NA	NA	0.1 U
Benzo(a)anthracene	0.2	µg/L	NA	NA	0.1 U
Benzo(a)pyrene	0.2	µg/L	NA	NA	0.1 U
Benzo(b)fluoranthene	0.2	µg/L	NA	NA	0.1 U
Benzo(g,h,I)perylene	210	µg/L	NA	NA	0.1 U
Benzo(k)fluoranthene	0.5	µg/L	NA	NA	0.1 U
Chrysene	4.8	µg/L	NA	NA	0.1 U
Dibenz(a,h)anthracene	0.2	µg/L	NA	NA	0.1 U
Fluoranthene	280	µg/L	BDL	NA	0.1 U
Fluorene	280	µg/L	NA	NA	0.5 U
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA	NA	0.25 U
Naphthalene	20	µg/L	BDL	NA	0.25 U
Phenanthrene	210	µg/L	BDL	NA	0.1 U
Pyrene	210	µg/L	BDL	NA	0.1 U
EDB	0.02	µg/L	BDL	NA	NA
TRPH	5000	µg/L	BDL	BDL	171
Aluminum	200	µg/L	NA	NA	NA
Arsenic	50	µg/L	NA	NA	NA
Cadmium	5	µg/L	NA	NA	NA
Chromium	100	µg/L	NA	NA	NA
Iron	300	µg/L	NA	NA	NA
Lead	15	µg/L	BDL	BDL	4.5 J
Manganese	50	µg/L	NA	NA	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-22

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	8/14/96	7/10/00	11/4/03	5/31/06
Carbon Dioxide free	NA	µg/L	NA	NA	NA	NA
Alkalinity, total (as CaCO3)	NA	µg/L	NA	NA	NA	NA
Total organic carbon	NA	µg/L	NA	NA	NA	NA
Benzene	1	µg/L	**5**	BDL	0.5 U	1 U
Ethylbenzene	30	µg/L	12	**162**	2.7 J	1.4
MTBE	50	µg/L	NA	38.6	5 U	1 U
Toluene	40	µg/L	23	5.3	5 U	1 U
Xylene (total)	20	µg/L	**45**	**512**	7.18 J	6.1
1-Methylnaphthalene	20	µg/L	BDL	NA	1 U	0.019 JB
2-Methylnaphthalene	20	µg/L	BDL	NA	1 U	0.032 JB
Acenaphthene	20	µg/L	NA	NA	1 U	0.02 U
Acenaphthylene	210	µg/L	NA	NA	1 U	0.02 U
Anthracene	2100	µg/L	NA	NA	0.1 U	0.02 U
Benzo(a)anthracene	0.2	µg/L	NA	NA	0.1 U	0.02 U
Benzo(a)pyrene	0.2	µg/L	NA	NA	0.1 U	0.02 U
Benzo(b)fluoranthene	0.2	µg/L	NA	NA	0.1 U	0.02 U
Benzo(g,h,I)perylene	210	µg/L	NA	NA	0.1 U	0.02 U
Benzo(k)fluoranthene	0.5	µg/L	NA	NA	0.1 U	0.02 U
Chrysene	4.8	µg/L	NA	NA	0.1 U	0.02 U
Dibenz(a,h)anthracene	0.2	µg/L	NA	NA	0.1 U	**0.02 U**
Fluoranthene	280	µg/L	BDL	NA	0.1 U	0.0078 JB
Fluorene	280	µg/L	NA	NA	0.5 U	0.0043 JB
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA	NA	0.25 U	0.02 U
Naphthalene	20	µg/L	BDL	NA	0.25 U	0.033 JB
Phenanthrene	210	µg/L	BDL	NA	0.1 U	0.02 U
Pyrene	210	µg/L	BDL	NA	0.1 U	0.0098 JB
EDB	0.02	µg/L	BDL	NA	NA	NA
TRPH	5000	µg/L	550	1180	195 BJ	180
Aluminum	200	µg/L	NA	NA	NA	NA
Arsenic	50	µg/L	NA	NA	NA	NA
Cadmium	5	µg/L	NA	NA	NA	NA
Chromium	100	µg/L	NA	NA	NA	NA
Iron	300	µg/L	NA	NA	NA	NA
Lead	15	µg/L	**19**	**31.6**	13 B	**24.9**
Manganese	50	µg/L	NA	NA	NA	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-23

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	8/14/96	7/10/00	10/30/03	1/27/04
Benzene	1	µg/L	**880**	**225**	0.5 U	NA
Ethylbenzene	30	µg/L	**300**	**173**	5 U	NA
MTBE	50	µg/L	NA	BDL	5 U	NA
Toluene	40	µg/L	**2900**	**1750**	5 U	NA
Xylene (total)	20	µg/L	**2200**	**1040**	1.5 J	NA
1-Methylnaphthalene	20	µg/L	BDL	NA	1 U	NA
2-Methylnaphthalene	20	µg/L	BDL	NA	1 U	NA
Acenaphthene	20	µg/L	NA	NA	1 U	NA
Acenaphthylene	210	µg/L	NA	NA	1 U	NA
Anthracene	2100	µg/L	NA	NA	0.1 U	NA
Benzo(a)anthracene	0.2	µg/L	NA	NA	0.1 U	NA
Benzo(a)pyrene	0.2	µg/L	NA	NA	0.1 U	NA
Benzo(b)fluoranthene	0.2	µg/L	NA	NA	0.1 U	NA
Benzo(g,h,I)perylene	210	µg/L	NA	NA	0.1 U	NA
Benzo(k)fluoranthene	0.5	µg/L	NA	NA	0.1 U	NA
Chrysene	4.8	µg/L	NA	NA	0.1 U	NA
Dibenz(a,h)anthracene	0.2	µg/L	NA	NA	0.1 U	NA
Fluoranthene	280	µg/L	BDL	NA	0.1 U	NA
Fluorene	280	µg/L	NA	NA	0.5 U	NA
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA	NA	0.25 U	NA
Naphthalene	20	µg/L	BDL	NA	0.25 U	NA
Phenanthrene	210	µg/L	BDL	NA	0.1 U	NA
Pyrene	210	µg/L	BDL	NA	0.1 U	NA
EDB	0.02	µg/L	**0.19**	NA	NA	NA
TRPH	5000	µg/L	**6700**	1180	244	NA
Aluminum	200	µg/L	NA	NA	NA	NA
Arsenic	50	µg/L	NA	NA	NA	NA
Cadmium	5	µg/L	NA	NA	NA	NA
Chromium	100	µg/L	NA	NA	NA	NA
Iron	300	µg/L	NA	NA	NA	NA
Lead	15	µg/L	**136**	**31.6**	**100**	**19**
Manganese	50	µg/L	NA	NA	NA	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-24

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	8/14/96	11/3/03	1/27/04	5/31/06
Carbon Dioxide free	NA	µg/L	NA	NA	NA	NA
Alkalinity, total (as CaCO3)	NA	µg/L	NA	NA	NA	NA
Total organic carbon	NA	µg/L	NA	NA	NA	NA
Benzene	1	µg/L	**4**	**2.23 J**	NA	0.64 J
Ethylbenzene	30	µg/L	**36**	24.7 J	NA	21.6
MTBE	50	µg/L	NA	5 UJ	NA	1 U
Toluene	40	µg/L	**66**	4.85 J	NA	2.8 JB
Xylene (total)	20	µg/L	**120**	**96.3 J**	NA	**71.6**
1-Methylnaphthalene	20	µg/L	BDL	1 U	NA	0.34 JB
2-Methylnaphthalene	20	µg/L	BDL	1 U	NA	0.13 JB
Acenaphthene	20	µg/L	NA	1 U	NA	0.0077 JB
Acenaphthylene	210	µg/L	NA	1 U	NA	0.02 U
Anthracene	2100	µg/L	NA	0.1 U	NA	0.02 U
Benzo(a)anthracene	0.2	µg/L	NA	0.1 U	NA	0.02 U
Benzo(a)pyrene	0.2	µg/L	NA	0.1 U	NA	0.02 U
Benzo(b)fluoranthene	0.2	µg/L	NA	0.1 U	NA	0.02 U
Benzo(g,h,I)perylene	210	µg/L	NA	0.1 U	NA	0.02 U
Benzo(k)fluoranthene	0.5	µg/L	NA	0.1 U	NA	0.02 U
Chrysene	4.8	µg/L	NA	0.1 U	NA	0.02 U
Dibenz(a,h)anthracene	0.2	µg/L	NA	0.1 U	NA	**0.02 U**
Fluoranthene	280	µg/L	BDL	0.1 U	NA	0.02 U
Fluorene	280	µg/L	NA	0.5 U	NA	0.0085 JB
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA	0.25 U	NA	0.02 U
Naphthalene	20	µg/L	BDL	0.25 U	NA	0.19 JB
Phenanthrene	210	µg/L	BDL	0.1 U	NA	0.02 U
Pyrene	210	µg/L	BDL	0.1 U	NA	0.02 U
EDB	0.02	µg/L	BDL	NA	NA	NA
TRPH	5000	µg/L	760	4770	NA	180
Aluminum	200	µg/L	NA	NA	NA	NA
Arsenic	50	µg/L	NA	NA	NA	NA
Cadmium	5	µg/L	NA	NA	NA	NA
Chromium	100	µg/L	NA	NA	NA	NA
Iron	300	µg/L	NA	NA	NA	NA
Lead	15	µg/L	**24**	**120 B, JB**	**110**	**28.2**
Lead-Dissolved	15	µg/L	**NA**	**NA**	**NA**	**19.6**
Manganese	50	µg/L	NA	NA	NA	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-25

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	8/14/96	11/3/03	1/27/04	6/1/06
Carbon Dioxide free	NA	µg/L	NA	NA	NA	50300 JB
Alkalinity, total (as CaCO3)	NA	µg/L	NA	NA	NA	16100
Total organic carbon	NA	µg/L	NA	NA	NA	7210 JB
Benzene	1	µg/L	BDL	0.5 UJ	NA	1 U
Ethylbenzene	30	µg/L	**100**	4.54 J	NA	25.2
MTBE	50	µg/L	NA	5 UJ	NA	1 U
Toluene	40	µg/L	11	5 UJ	NA	3.3
Xylene (total)	20	µg/L	**420**	**25.5 J**	NA	**80.3**
1-Methylnaphthalene	20	µg/L	BDL	1 U	NA	0.56 JB
2-Methylnaphthalene	20	µg/L	BDL	1 U	NA	0.22 JB
Acenaphthene	20	µg/L	NA	1 U	NA	0.011 J
Acenaphthylene	210	µg/L	NA	1 U	NA	0.019 U
Anthracene	2100	µg/L	NA	0.1 U	NA	0.019 U
Benzo(a)anthracene	0.2	µg/L	NA	0.1 U	NA	0.012 JB
Benzo(a)pyrene	0.2	µg/L	NA	0.1 U	NA	0.019 U
Benzo(b)fluoranthene	0.2	µg/L	NA	0.1 U	NA	0.019 U
Benzo(g,h,I)perylene	210	µg/L	NA	0.1 U	NA	0.019 U
Benzo(k)fluoranthene	0.5	µg/L	NA	0.1 U	NA	0.019 U
Chrysene	4.8	µg/L	NA	0.1 U	NA	0.019 U
Dibenz(a,h)anthracene	0.2	µg/L	NA	0.1 U	NA	**0.019 U**
Fluoranthene	280	µg/L	BDL	0.1 U	NA	0.019 U
Fluorene	280	µg/L	NA	0.5 U	NA	0.01 JB
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA	0.25 U	NA	0.019 U
Naphthalene	20	µg/L	BDL	0.25 U	NA	0.33 JB
Phenanthrene	210	µg/L	BDL	0.1 U	NA	0.019 U
Pyrene	210	µg/L	BDL	0.1 U	NA	0.019 U
EDB	0.02	µg/L	BDL	NA	NA	NA
TRPH	5000	µg/L	1800	1780	NA	1600
Aluminum	200	µg/L	NA	NA	NA	NA
Arsenic	50	µg/L	NA	NA	NA	NA
Cadmium	5	µg/L	NA	NA	NA	NA
Chromium	100	µg/L	NA	NA	NA	NA
Iron	300	µg/L	NA	NA	NA	NA
Lead	15	µg/L	**40**	**130 B, JB**	**130**	**67.4 JB**
Lead-Dissolved	15	µg/L	**NA**	**NA**	**NA**	**25.3**
Manganese	50	µg/L	NA	NA	NA	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-26

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	8/14/96
Benzene	1	µg/L	BDL
Ethylbenzene	30	µg/L	**100**
MTBE	50	µg/L	NA
Toluene	40	µg/L	23
Xylene (total)	20	µg/L	**640**
1-Methylnaphthalene	20	µg/L	BDL
2-Methylnaphthalene	20	µg/L	BDL
Acenaphthene	20	µg/L	NA
Acenaphthylene	210	µg/L	NA
Anthracene	2100	µg/L	NA
Benzo(a)anthracene	0.2	µg/L	NA
Benzo(a)pyrene	0.2	µg/L	NA
Benzo(b)fluoranthene	0.2	µg/L	NA
Benzo(g,h,I)perylene	210	µg/L	NA
Benzo(k)fluoranthene	0.5	µg/L	NA
Chrysene	4.8	µg/L	NA
Dibenz(a,h)anthracene	0.2	µg/L	NA
Fluoranthene	280	µg/L	BDL
Fluorene	280	µg/L	NA
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA
Naphthalene	20	µg/L	BDL
Phenanthrene	210	µg/L	BDL
Pyrene	210	µg/L	BDL
EDB	0.02	µg/L	BDL
TRPH	5000	µg/L	1900
Aluminum	200	µg/L	NA
Arsenic	50	µg/L	NA
Cadmium	5	µg/L	NA
Chromium	100	µg/L	NA
Iron	300	µg/L	NA
Lead	15	µg/L	**103**
Manganese	50	µg/L	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-27

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	8/14/96	7/9/00	11/3/03
Benzene	1	µg/L	**100**	**483**	0.5 UJ
Ethylbenzene	30	µg/L	**70**	**223**	5 UJ
MTBE	50	µg/L	NA	BDL	5 UJ
Toluene	40	µg/L	**590**	**2000 J**	5 UJ
Xylene (total)	20	µg/L	**830**	**1680**	1.13 J
1-Methylnaphthalene	20	µg/L	BDL	NA	1 U
2-Methylnaphthalene	20	µg/L	BDL	NA	1 U
Acenaphthene	20	µg/L	NA	NA	1 U
Acenaphthylene	210	µg/L	NA	NA	1 U
Anthracene	2100	µg/L	NA	NA	0.1 U
Benzo(a)anthracene	0.2	µg/L	NA	NA	0.1 U
Benzo(a)pyrene	0.2	µg/L	NA	NA	0.1 U
Benzo(b)fluoranthene	0.2	µg/L	NA	NA	0.1 U
Benzo(g,h,I)perylene	210	µg/L	NA	NA	0.1 U
Benzo(k)fluoranthene	0.5	µg/L	NA	NA	0.1 U
Chrysene	4.8	µg/L	NA	NA	0.1 U
Dibenz(a,h)anthracene	0.2	µg/L	NA	NA	0.1 U
Fluoranthene	280	µg/L	BDL	NA	0.1 U
Fluorene	280	µg/L	NA	NA	0.5 U
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA	NA	0.25 U
Naphthalene	20	µg/L	BDL	NA	0.25 U
Phenanthrene	210	µg/L	BDL	NA	0.1 U
Pyrene	210	µg/L	BDL	NA	0.1 U
EDB	0.02	µg/L	BDL	NA	NA
TRPH	5000	µg/L	4800	**7070**	2650
Aluminum	200	µg/L	NA	NA	NA
Arsenic	50	µg/L	NA	NA	NA
Cadmium	5	µg/L	NA	NA	NA
Chromium	100	µg/L	NA	NA	NA
Iron	300	µg/L	NA	NA	NA
Lead	15	µg/L	**79**	**809**	**59 B,JB**
Manganese	50	µg/L	NA	NA	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-28

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	8/14/96	7/9/00	11/3/03	5/31/06
Carbon Dioxide free	NA	µg/L	NA	NA	NA	NA
Alkalinity, total (as CaCO3)	NA	µg/L	NA	NA	NA	NA
Total organic carbon	NA	µg/L	NA	NA	NA	NA
Benzene	1	µg/L	**38**	BDL	0.5 UJ	**2.8**
Ethylbenzene	30	µg/L	**300**	**238**	3.34 J	**139**
MTBE	50	µg/L	NA	17.5	5 UJ	1 U
Toluene	40	µg/L	**2400**	BDL	1.27 J	**233 JB**
Xylene (total)	20	µg/L	**1700**	**1550**	**36.6 J**	**714**
1-Methylnaphthalene	20	µg/L	BDL	NA	1 U	0.44 JB
2-Methylnaphthalene	20	µg/L	BDL	NA	1 U	0.27 JB
Acenaphthene	20	µg/L	NA	NA	1 U	0.011 JB
Acenaphthylene	210	µg/L	NA	NA	1 U	0.02 U
Anthracene	2100	µg/L	NA	NA	0.1 U	0.0042 J
Benzo(a)anthracene	0.2	µg/L	NA	NA	0.1 U	0.06
Benzo(a)pyrene	0.2	µg/L	NA	NA	0.1 U	0.035
Benzo(b)fluoranthene	0.2	µg/L	NA	NA	0.1 U	**0.076**
Benzo(g,h,I)perylene	210	µg/L	NA	NA	0.1 U	0.062 JB
Benzo(k)fluoranthene	0.5	µg/L	NA	NA	0.1 U	0.056
Chrysene	4.8	µg/L	NA	NA	0.1 U	0.061
Dibenz(a,h)anthracene	0.2	µg/L	NA	NA	0.1 U	**0.078**
Fluoranthene	280	µg/L	BDL	NA	0.1 U	0.035 JB
Fluorene	280	µg/L	NA	NA	0.5 U	0.01 JB
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA	NA	0.25 U	**0.073 JB**
Naphthalene	20	µg/L	BDL	NA	0.25 U	0.39 JB
Phenanthrene	210	µg/L	BDL	NA	0.1 U	0.02 U
Pyrene	210	µg/L	BDL	NA	0.1 U	0.036 JB
EDB	0.02	µg/L	BDL	NA	NA	NA
TRPH	5000	µg/L	**6000**	**5430**	2010	1100
Aluminum	200	µg/L	NA	NA	NA	NA
Arsenic	50	µg/L	NA	NA	NA	NA
Cadmium	5	µg/L	NA	NA	NA	NA
Chromium	100	µg/L	NA	NA	NA	NA
Iron	300	µg/L	NA	NA	NA	NA
Lead	15	µg/L	**345**	**566**	**82 B, JB**	**84.3**
Manganese	50	µg/L	NA	NA	NA	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-29

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	8/22/96	1/27/04
Benzene	1	µg/L	BDL	0.5 U
Ethylbenzene	30	µg/L	3.8	5 U
MTBE	50	µg/L	NA	5 U
Toluene	40	µg/L	1.3	5 U
Xylene (total)	20	µg/L	**20**	10 U
1-Methylnaphthalene	20	µg/L	BDL	1 U
2-Methylnaphthalene	20	µg/L	BDL	1 U
Acenaphthene	20	µg/L	NA	1 U
Acenaphthylene	210	µg/L	NA	1 U
Anthracene	2100	µg/L	NA	0.1 U
Benzo(a)anthracene	0.2	µg/L	NA	0.1 U
Benzo(a)pyrene	0.2	µg/L	NA	0.1 U
Benzo(b)fluoranthene	0.2	µg/L	NA	0.1 U
Benzo(g,h,I)perylene	210	µg/L	NA	0.1 U
Benzo(k)fluoranthene	0.5	µg/L	NA	0.1 U
Chrysene	4.8	µg/L	NA	0.1 U
Dibenz(a,h)anthracene	0.2	µg/L	NA	0.1 U
Fluoranthene	280	µg/L	BDL	0.1 U
Fluorene	280	µg/L	NA	0.5 U
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA	0.25 U
Naphthalene	20	µg/L	BDL	0.25 U
Phenanthrene	210	µg/L	BDL	0.1 U
Pyrene	210	µg/L	BDL	0.1 U
EDB	0.02	µg/L	BDL	NA
TRPH	5000	µg/L	BDL	438 JB
Aluminum	200	µg/L	NA	NA
Arsenic	50	µg/L	NA	NA
Cadmium	5	µg/L	NA	NA
Chromium	100	µg/L	NA	NA
Iron	300	µg/L	NA	NA
Lead	15	µg/L	BDL	15 U
Manganese	50	µg/L	NA	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-30

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	8/22/96	7/11/00	1/27/04
Benzene	1	µg/L	BDL	1.2	0.5 U
Ethylbenzene	30	µg/L	1.6	1.9	5 U
MTBE	50	µg/L	NA	BDL	5 U
Toluene	40	µg/L	1.5	BDL	5 U
Xylene (total)	20	µg/L	6	4.8	5.57 J
1-Methylnaphthalene	20	µg/L	BDL	NA	1 U
2-Methylnaphthalene	20	µg/L	BDL	NA	1 U
Acenaphthene	20	µg/L	NA	NA	1 U
Acenaphthylene	210	µg/L	NA	NA	1 U
Anthracene	2100	µg/L	NA	NA	0.1 U
Benzo(a)anthracene	0.2	µg/L	NA	NA	0.1 U
Benzo(a)pyrene	0.2	µg/L	NA	NA	0.1 U
Benzo(b)fluoranthene	0.2	µg/L	NA	NA	0.1 U
Benzo(g,h,I)perylene	210	µg/L	NA	NA	0.1 U
Benzo(k)fluoranthene	0.5	µg/L	NA	NA	0.1 U
Chrysene	4.8	µg/L	NA	NA	0.1 U
Dibenz(a,h)anthracene	0.2	µg/L	NA	NA	0.1 U
Fluoranthene	280	µg/L	BDL	NA	0.1 U
Fluorene	280	µg/L	NA	NA	0.5 U
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA	NA	0.25 U
Naphthalene	20	µg/L	BDL	NA	0.25 U
Phenanthrene	210	µg/L	BDL	NA	0.1 U
Pyrene	210	µg/L	BDL	NA	0.1 U
EDB	0.02	µg/L	BDL	NA	NA
TRPH	5000	µg/L	230	BDL	572 JB
Aluminum	200	µg/L	NA	NA	NA
Arsenic	50	µg/L	NA	NA	NA
Cadmium	5	µg/L	NA	NA	NA
Chromium	100	µg/L	NA	NA	NA
Iron	300	µg/L	NA	NA	NA
Lead	15	µg/L	BDL	BDL	3.2 J
Manganese	50	µg/L	NA	NA	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-31

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	10/10/96	7/10/00
Benzene	1	µg/L	BDL	0.61 J
Ethylbenzene	30	µg/L	**130**	1.2
MTBE	50	µg/L	NA	BDL
Toluene	40	µg/L	6	4.6
Xylene (total)	20	µg/L	**363**	**21.8**
1-Methylnaphthalene	20	µg/L	BDL	NA
2-Methylnaphthalene	20	µg/L	BDL	NA
Acenaphthene	20	µg/L	NA	NA
Acenaphthylene	210	µg/L	NA	NA
Anthracene	2100	µg/L	NA	NA
Benzo(a)anthracene	0.2	µg/L	NA	NA
Benzo(a)pyrene	0.2	µg/L	NA	NA
Benzo(b)fluoranthene	0.2	µg/L	NA	NA
Benzo(g,h,I)perylene	210	µg/L	NA	NA
Benzo(k)fluoranthene	0.5	µg/L	NA	NA
Chrysene	4.8	µg/L	NA	NA
Dibenz(a,h)anthracene	0.2	µg/L	NA	NA
Fluoranthene	280	µg/L	BDL	NA
Fluorene	280	µg/L	NA	NA
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA	NA
Naphthalene	20	µg/L	BDL	NA
Phenanthrene	210	µg/L	BDL	NA
Pyrene	210	µg/L	BDL	NA
EDB	0.02	µg/L	BDL	NA
TRPH	5000	µg/L	2000	204 J
Aluminum	200	µg/L	NA	NA
Arsenic	50	µg/L	NA	NA
Cadmium	5	µg/L	NA	NA
Chromium	100	µg/L	NA	NA
Iron	300	µg/L	NA	NA
Lead	15	µg/L	6	BDL
Manganese	50	µg/L	NA	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-32

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	10/10/96	11/3/03	5/31/06
Carbon Dioxide free	NA	µg/L	NA	NA	NA
Alkalinity, total (as CaCO3)	NA	µg/L	NA	NA	NA
Total organic carbon	NA	µg/L	NA	NA	NA
Benzene	1	µg/L	BDL	0.5 U	1 U
Ethylbenzene	30	µg/L	**470**	1.66 J	1 U
MTBE	50	µg/L	NA	5 U	1 U
Toluene	40	µg/L	**670**	5 U	1 U
Xylene (total)	20	µg/L	**1600**	4.16 J	3 U
1-Methylnaphthalene	20	µg/L	BDL	1 U	0.02 U
2-Methylnaphthalene	20	µg/L	BDL	1 U	0.02 UJ
Acenaphthene	20	µg/L	NA	1 U	0.02 U
Acenaphthylene	210	µg/L	NA	1 U	0.02 U
Anthracene	2100	µg/L	NA	0.1 U	0.02 U
Benzo(a)anthracene	0.2	µg/L	NA	0.1 U	0.02 U
Benzo(a)pyrene	0.2	µg/L	NA	0.1 U	0.02 U
Benzo(b)fluoranthene	0.2	µg/L	NA	0.1 U	0.02 U
Benzo(g,h,I)perylene	210	µg/L	NA	0.1 U	0.02 U
Benzo(k)fluoranthene	0.5	µg/L	NA	0.1 U	0.02 U
Chrysene	4.8	µg/L	NA	0.1 U	0.02 U
Dibenz(a,h)anthracene	0.2	µg/L	NA	0.1 U	**0.02 U**
Fluoranthene	280	µg/L	BDL	0.1 U	0.02 U
Fluorene	280	µg/L	NA	0.5 U	0.02 U
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA	0.25 U	0.02 U
Naphthalene	20	µg/L	BDL	0.25 U	0.02 U
Phenanthrene	210	µg/L	BDL	0.1 U	0.02 U
Pyrene	210	µg/L	BDL	0.1 U	0.02 U
EDB	0.02	µg/L	BDL	NA	NA
TRPH	5000	µg/L	4700	325	290
Aluminum	200	µg/L	NA	NA	NA
Arsenic	50	µg/L	NA	NA	NA
Cadmium	5	µg/L	NA	NA	NA
Chromium	100	µg/L	NA	NA	NA
Iron	300	µg/L	NA	NA	NA
Lead	15	µg/L	**61**	15 U	5 U
Manganese	50	µg/L	NA	NA	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-33

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	10/10/96	7/11/00	11/3/03	6/1/06
Carbon Dioxide free	NA	µg/L	NA	NA	NA	NA
Alkalinity, total (as CaCO3)	NA	µg/L	NA	NA	NA	NA
Total organic carbon	NA	µg/L	NA	NA	NA	NA
Benzene	1	µg/L	BDL	BDL	0.5 U	1 U
Ethylbenzene	30	µg/L	BDL	BDL	5 U	1 U
MTBE	50	µg/L	NA	BDL	5 U	1 U
Toluene	40	µg/L	BDL	BDL	5 U	1 U
Xylene (total)	20	µg/L	BDL	BDL	10 U	3 U
1-Methylnaphthalene	20	µg/L	BDL	NA	1 U	0.019 U
2-Methylnaphthalene	20	µg/L	BDL	NA	1 U	0.019 U
Acenaphthene	20	µg/L	NA	NA	1 U	0.019 U
Acenaphthylene	210	µg/L	NA	NA	1 U	0.013 J
Anthracene	2100	µg/L	NA	NA	0.1 U	0.019 U
Benzo(a)anthracene	0.2	µg/L	NA	NA	0.1 U	0.019 U
Benzo(a)pyrene	0.2	µg/L	NA	NA	0.1 U	0.019 U
Benzo(b)fluoranthene	0.2	µg/L	NA	NA	0.1 U	0.019 U
Benzo(g,h,I)perylene	210	µg/L	NA	NA	0.1 U	0.019 U
Benzo(k)fluoranthene	0.5	µg/L	NA	NA	0.1 U	0.019 U
Chrysene	4.8	µg/L	NA	NA	0.1 U	0.019 U
Dibenz(a,h)anthracene	0.2	µg/L	NA	NA	0.1 U	**0.019 U**
Fluoranthene	280	µg/L	BDL	NA	0.1 U	0.019 U
Fluorene	280	µg/L	NA	NA	0.5 U	0.019 U
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA	NA	0.25 U	0.019 U
Naphthalene	20	µg/L	BDL	NA	0.25 U	0.019 U
Phenanthrene	210	µg/L	BDL	NA	0.1 U	0.019 U
Pyrene	210	µg/L	BDL	NA	0.1 U	0.019 U
EDB	0.02	µg/L	BDL	NA	NA	NA
TRPH	5000	µg/L	4700	BDL	87 J	210
Aluminum	200	µg/L	NA	NA	NA	NA
Arsenic	50	µg/L	NA	NA	NA	NA
Cadmium	5	µg/L	NA	NA	NA	NA
Chromium	100	µg/L	NA	NA	NA	NA
Iron	300	µg/L	NA	NA	NA	NA
Lead	15	µg/L	**61**	BDL	15 U	5 U
Manganese	50	µg/L	NA	NA	NA	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-34

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	10/10/96	7/10/00	11/3/03
Benzene	1	µg/L	BDL	BDL	0.5 U
Ethylbenzene	30	µg/L	BDL	BDL	5 U
MTBE	50	µg/L	BDL	BDL	5 U
Toluene	40	µg/L	BDL	BDL	5 U
Xylene (total)	20	µg/L	BDL	BDL	10 U
1-Methylnaphthalene	20	µg/L	BDL	NA	1 U
2-Methylnaphthalene	20	µg/L	BDL	NA	1 U
Acenaphthene	20	µg/L	NA	NA	1 U
Acenaphthylene	210	µg/L	NA	NA	1 U
Anthracene	2100	µg/L	NA	NA	0.1 U
Benzo(a)anthracene	0.2	µg/L	NA	NA	0.1 U
Benzo(a)pyrene	0.2	µg/L	NA	NA	0.1 U
Benzo(b)fluoranthene	0.2	µg/L	NA	NA	0.1 U
Benzo(g,h,I)perylene	210	µg/L	NA	NA	0.1 U
Benzo(k)fluoranthene	0.5	µg/L	NA	NA	0.1 U
Chrysene	4.8	µg/L	NA	NA	0.1 U
Dibenz(a,h)anthracene	0.2	µg/L	NA	NA	0.1 U
Fluoranthene	280	µg/L	BDL	NA	0.1 U
Fluorene	280	µg/L	NA	NA	0.5 U
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA	NA	0.25 U
Naphthalene	20	µg/L	BDL	NA	0.25 U
Phenanthrene	210	µg/L	BDL	NA	0.1 U
Pyrene	210	µg/L	BDL	NA	0.1 U
EDB	0.02	µg/L	BDL	NA	NA
TRPH	5000	µg/L	BDL	BDL	100 U
Aluminum	200	µg/L	NA	NA	NA
Arsenic	50	µg/L	NA	NA	NA
Cadmium	5	µg/L	NA	NA	NA
Chromium	100	µg/L	NA	NA	NA
Iron	300	µg/L	NA	NA	NA
Lead	15	µg/L	BDL	BDL	15 U
Manganese	50	µg/L	NA	NA	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-35

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	10/10/96	6/1/06
Carbon Dioxide free	NA	µg/L	NA	29800 JB
Alkalinity, total (as CaCO3)	NA	µg/L	NA	1000 U
Total organic carbon	NA	µg/L	NA	693 JB
Benzene	1	µg/L	BDL	1 U
Ethylbenzene	30	µg/L	BDL	1 U
MTBE	50	µg/L	NA	1 U
Toluene	40	µg/L	BDL	1 U
Xylene (total)	20	µg/L	BDL	3 U
1-Methylnaphthalene	20	µg/L	BDL	0.019 U
2-Methylnaphthalene	20	µg/L	BDL	0.019 U
Acenaphthene	20	µg/L	NA	0.019 U
Acenaphthylene	210	µg/L	NA	0.019 U
Anthracene	2100	µg/L	NA	0.0041 J
Benzo(a)anthracene	0.2	µg/L	NA	0.012 JB
Benzo(a)pyrene	0.2	µg/L	NA	0.019 U
Benzo(b)fluoranthene	0.2	µg/L	NA	0.019 U
Benzo(g,h,I)perylene	210	µg/L	NA	0.019 U
Benzo(k)fluoranthene	0.5	µg/L	NA	0.019 U
Chrysene	4.8	µg/L	NA	0.011 J
Dibenz(a,h)anthracene	0.2	µg/L	NA	**0.019 U**
Fluoranthene	280	µg/L	BDL	0.019 U
Fluorene	280	µg/L	NA	0.019 U
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA	0.019 U
Naphthalene	20	µg/L	BDL	0.019 U
Phenanthrene	210	µg/L	BDL	0.019 U
Pyrene	210	µg/L	BDL	0.019 U
EDB	0.02	µg/L	BDL	NA
TRPH	5000	µg/L	BDL	210
Aluminum	200	µg/L	NA	NA
Arsenic	50	µg/L	NA	NA
Cadmium	5	µg/L	NA	NA
Chromium	100	µg/L	NA	NA
Iron	300	µg/L	NA	NA
Lead	15	µg/L	BDL	2.62 JB
Manganese	50	µg/L	NA	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-36

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	10/10/96	11/3/03
Benzene	1	µg/L	BDL	0.5 U
Ethylbenzene	30	µg/L	BDL	5 U
MTBE	50	µg/L	NA	5 U
Toluene	40	µg/L	BDL	5 U
Xylene (total)	20	µg/L	BDL	10 U
1-Methylnaphthalene	20	µg/L	BDL	1 U
2-Methylnaphthalene	20	µg/L	BDL	1 U
Acenaphthene	20	µg/L	NA	1 U
Acenaphthylene	210	µg/L	NA	1 U
Anthracene	2100	µg/L	NA	0.1 U
Benzo(a)anthracene	0.2	µg/L	NA	0.1 U
Benzo(a)pyrene	0.2	µg/L	NA	0.1 U
Benzo(b)fluoranthene	0.2	µg/L	NA	0.1 U
Benzo(g,h,I)perylene	210	µg/L	NA	0.1 U
Benzo(k)fluoranthene	0.5	µg/L	NA	0.1 U
Chrysene	4.8	µg/L	NA	0.1 U
Dibenz(a,h)anthracene	0.2	µg/L	NA	0.1 U
Fluoranthene	280	µg/L	BDL	0.1 U
Fluorene	280	µg/L	NA	0.5 U
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA	0.25 U
Naphthalene	20	µg/L	BDL	0.25 U
Phenanthrene	210	µg/L	BDL	0.1 U
Pyrene	210	µg/L	BDL	0.1 U
EDB	0.02	µg/L	BDL	NA
TRPH	5000	µg/L	BDL	100 U
Aluminum	200	µg/L	NA	NA
Arsenic	50	µg/L	NA	NA
Cadmium	5	µg/L	NA	NA
Chromium	100	µg/L	NA	NA
Iron	300	µg/L	NA	NA
Lead	15	µg/L	BDL	15 U
Manganese	50	µg/L	NA	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-37

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	10/10/96	11/3/03
Benzene	1	µg/L	BDL	0.5 UJ
Ethylbenzene	30	µg/L	BDL	5 UJ
MTBE	50	µg/L	NA	5 UJ
Toluene	40	µg/L	BDL	5 UJ
Xylene (total)	20	µg/L	BDL	10 UJ
1-Methylnaphthalene	20	µg/L	BDL	1 U
2-Methylnaphthalene	20	µg/L	BDL	1 U
Acenaphthene	20	µg/L	NA	1 U
Acenaphthylene	210	µg/L	NA	1 U
Anthracene	2100	µg/L	NA	0.1 U
Benzo(a)anthracene	0.2	µg/L	NA	0.1 U
Benzo(a)pyrene	0.2	µg/L	NA	0.1 U
Benzo(b)fluoranthene	0.2	µg/L	NA	0.1 U
Benzo(g,h,I)perylene	210	µg/L	NA	0.1 U
Benzo(k)fluoranthene	0.5	µg/L	NA	0.1 U
Chrysene	4.8	µg/L	NA	0.1 U
Dibenz(a,h)anthracene	0.2	µg/L	NA	0.1 U
Fluoranthene	280	µg/L	BDL	0.1 U
Fluorene	280	µg/L	NA	0.5 U
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA	0.25 U
Naphthalene	20	µg/L	BDL	0.25 U
Phenanthrene	210	µg/L	BDL	0.1 U
Pyrene	210	µg/L	BDL	0.1 U
EDB	0.02	µg/L	BDL	NA
TRPH	5000	µg/L	BDL	100 U
Aluminum	200	µg/L	NA	NA
Arsenic	50	µg/L	NA	NA
Cadmium	5	µg/L	NA	NA
Chromium	100	µg/L	NA	NA
Iron	300	µg/L	NA	NA
Lead	15	µg/L	BDL	15 U
Manganese	50	µg/L	NA	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-38

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	10/10/96	7/11/00	11/4/03
Benzene	1	µg/L	BDL	BDL	0.5 U
Ethylbenzene	30	µg/L	BDL	BDL	5 U
MTBE	50	µg/L	NA	BDL	5 U
Toluene	40	µg/L	BDL	BDL	5 U
Xylene (total)	20	µg/L	BDL	BDL	1.69 J
1-Methylnaphthalene	20	µg/L	BDL	NA	1 U
2-Methylnaphthalene	20	µg/L	BDL	NA	1 U
Acenaphthene	20	µg/L	NA	NA	1 U
Acenaphthylene	210	µg/L	NA	NA	1 U
Anthracene	2100	µg/L	NA	NA	0.1 U
Benzo(a)anthracene	0.2	µg/L	NA	NA	0.1 U
Benzo(a)pyrene	0.2	µg/L	NA	NA	0.1 U
Benzo(b)fluoranthene	0.2	µg/L	NA	NA	0.1 U
Benzo(g,h,I)perylene	210	µg/L	NA	NA	0.1 U
Benzo(k)fluoranthene	0.5	µg/L	NA	NA	0.1 U
Chrysene	4.8	µg/L	NA	NA	0.1 U
Dibenz(a,h)anthracene	0.2	µg/L	NA	NA	0.1 U
Fluoranthene	280	µg/L	BDL	NA	0.1 U
Fluorene	280	µg/L	NA	NA	0.5 U
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA	NA	0.25 U
Naphthalene	20	µg/L	BDL	NA	0.25 U
Phenanthrene	210	µg/L	BDL	NA	0.1 U
Pyrene	210	µg/L	BDL	NA	0.1 U
EDB	0.02	µg/L	**0.16**	NA	NA
TRPH	5000	µg/L	BDL	BDL	269 JB
Aluminum	200	µg/L	NA	NA	NA
Arsenic	50	µg/L	NA	NA	NA
Cadmium	5	µg/L	NA	NA	NA
Chromium	100	µg/L	NA	NA	NA
Iron	300	µg/L	NA	NA	NA
Lead	15	µg/L	BDL	BDL	6.8 B
Manganese	50	µg/L	NA	NA	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-39

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	10/22/96	1/28/04
Benzene	1	µg/L	BDL	0.5 U
Ethylbenzene	30	µg/L	BDL	5 U
MTBE	50	µg/L	NA	5 U
Toluene	40	µg/L	BDL	5 U
Xylene (total)	20	µg/L	1	10 U
1-Methylnaphthalene	20	µg/L	BDL	1 U
2-Methylnaphthalene	20	µg/L	BDL	1 U
Acenaphthene	20	µg/L	NA	1 U
Acenaphthylene	210	µg/L	NA	1 U
Anthracene	2100	µg/L	NA	0.1 U
Benzo(a)anthracene	0.2	µg/L	NA	0.1 U
Benzo(a)pyrene	0.2	µg/L	NA	0.1 U
Benzo(b)fluoranthene	0.2	µg/L	NA	0.1 U
Benzo(g,h,I)perylene	210	µg/L	NA	0.1 U
Benzo(k)fluoranthene	0.5	µg/L	NA	0.1 U
Chrysene	4.8	µg/L	NA	0.1 U
Dibenz(a,h)anthracene	0.2	µg/L	NA	0.1 U
Fluoranthene	280	µg/L	BDL	0.1 U
Fluorene	280	µg/L	NA	0.5 U
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA	0.25 U
Naphthalene	20	µg/L	BDL	0.25 U
Phenanthrene	210	µg/L	BDL	0.1 U
Pyrene	210	µg/L	BDL	0.1 U
EDB	0.02	µg/L	BDL	NA
TRPH	5000	µg/L	BDL	158 JB
Aluminum	200	µg/L	NA	NA
Arsenic	50	µg/L	NA	NA
Cadmium	5	µg/L	NA	NA
Chromium	100	µg/L	NA	NA
Iron	300	µg/L	NA	NA
Lead	15	µg/L	BDL	15 U
Manganese	50	µg/L	NA	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-40

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	10/22/96
Benzene	1	µg/L	BDL
Ethylbenzene	30	µg/L	BDL
MTBE	50	µg/L	NA
Toluene	40	µg/L	BDL
Xylene (total)	20	µg/L	BDL
1-Methylnaphthalene	20	µg/L	BDL
2-Methylnaphthalene	20	µg/L	BDL
Acenaphthene	20	µg/L	NA
Acenaphthylene	210	µg/L	NA
Anthracene	2100	µg/L	NA
Benzo(a)anthracene	0.2	µg/L	NA
Benzo(a)pyrene	0.2	µg/L	NA
Benzo(b)fluoranthene	0.2	µg/L	NA
Benzo(g,h,I)perylene	210	µg/L	NA
Benzo(k)fluoranthene	0.5	µg/L	NA
Chrysene	4.8	µg/L	NA
Dibenz(a,h)anthracene	0.2	µg/L	NA
Fluoranthene	280	µg/L	BDL
Fluorene	280	µg/L	NA
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA
Naphthalene	20	µg/L	BDL
Phenanthrene	210	µg/L	BDL
Pyrene	210	µg/L	BDL
EDB	0.02	µg/L	BDL
TRPH	5000	µg/L	2000
Aluminum	200	µg/L	NA
Arsenic	50	µg/L	NA
Cadmium	5	µg/L	NA
Chromium	100	µg/L	NA
Iron	300	µg/L	NA
Lead	15	µg/L	**15**
Manganese	50	µg/L	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-41

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	10/22/96
Benzene	1	µg/L	BDL
Ethylbenzene	30	µg/L	16
MTBE	50	µg/L	NA
Toluene	40	µg/L	BDL
Xylene (total)	20	µg/L	**50**
1-Methylnaphthalene	20	µg/L	BDL
2-Methylnaphthalene	20	µg/L	BDL
Acenaphthene	20	µg/L	NA
Acenaphthylene	210	µg/L	NA
Anthracene	2100	µg/L	NA
Benzo(a)anthracene	0.2	µg/L	NA
Benzo(a)pyrene	0.2	µg/L	NA
Benzo(b)fluoranthene	0.2	µg/L	NA
Benzo(g,h,I)perylene	210	µg/L	NA
Benzo(k)fluoranthene	0.5	µg/L	NA
Chrysene	4.8	µg/L	NA
Dibenz(a,h)anthracene	0.2	µg/L	NA
Fluoranthene	280	µg/L	BDL
Fluorene	280	µg/L	NA
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA
Naphthalene	20	µg/L	BDL
Phenanthrene	210	µg/L	BDL
Pyrene	210	µg/L	BDL
EDB	0.02	µg/L	BDL
TRPH	5000	µg/L	440
Aluminum	200	µg/L	NA
Arsenic	50	µg/L	NA
Cadmium	5	µg/L	NA
Chromium	100	µg/L	NA
Iron	300	µg/L	NA
Lead	15	µg/L	**18**
Manganese	50	µg/L	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-42

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	10/22/96
Benzene	1	µg/L	BDL
Ethylbenzene	30	µg/L	**80**
MTBE	50	µg/L	NA
Toluene	40	µg/L	BDL
Xylene (total)	20	µg/L	**220**
1-Methylnaphthalene	20	µg/L	BDL
2-Methylnaphthalene	20	µg/L	BDL
Acenaphthene	20	µg/L	NA
Acenaphthylene	210	µg/L	NA
Anthracene	2100	µg/L	NA
Benzo(a)anthracene	0.2	µg/L	NA
Benzo(a)pyrene	0.2	µg/L	NA
Benzo(b)fluoranthene	0.2	µg/L	NA
Benzo(g,h,I)perylene	210	µg/L	NA
Benzo(k)fluoranthene	0.5	µg/L	NA
Chrysene	4.8	µg/L	NA
Dibenz(a,h)anthracene	0.2	µg/L	NA
Fluoranthene	280	µg/L	BDL
Fluorene	280	µg/L	NA
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA
Naphthalene	20	µg/L	BDL
Phenanthrene	210	µg/L	BDL
Pyrene	210	µg/L	BDL
EDB	0.02	µg/L	BDL
TRPH	5000	µg/L	570
Aluminum	200	µg/L	NA
Arsenic	50	µg/L	NA
Cadmium	5	µg/L	NA
Chromium	100	µg/L	NA
Iron	300	µg/L	NA
Lead	15	µg/L	12
Manganese	50	µg/L	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-43

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	10/22/96
Benzene	1	µg/L	BDL
Ethylbenzene	30	µg/L	**46**
MTBE	50	µg/L	NA
Toluene	40	µg/L	BDL
Xylene (total)	20	µg/L	**140**
1-Methylnaphthalene	20	µg/L	BDL
2-Methylnaphthalene	20	µg/L	BDL
Acenaphthene	20	µg/L	NA
Acenaphthylene	210	µg/L	NA
Anthracene	2100	µg/L	NA
Benzo(a)anthracene	0.2	µg/L	NA
Benzo(a)pyrene	0.2	µg/L	NA
Benzo(b)fluoranthene	0.2	µg/L	NA
Benzo(g,h,I)perylene	210	µg/L	NA
Benzo(k)fluoranthene	0.5	µg/L	NA
Chrysene	4.8	µg/L	NA
Dibenz(a,h)anthracene	0.2	µg/L	NA
Fluoranthene	280	µg/L	BDL
Fluorene	280	µg/L	NA
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA
Naphthalene	20	µg/L	BDL
Phenanthrene	210	µg/L	BDL
Pyrene	210	µg/L	BDL
EDB	0.02	µg/L	BDL
TRPH	5000	µg/L	380
Aluminum	200	µg/L	NA
Arsenic	50	µg/L	NA
Cadmium	5	µg/L	NA
Chromium	100	µg/L	NA
Iron	300	µg/L	NA
Lead	15	µg/L	11
Manganese	50	µg/L	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-44

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	10/22/96	7/11/00	6/1/06
Carbon Dioxide free	NA	µg/L	NA	NA	NA
Alkalinity, total (as CaCO3)	NA	µg/L	NA	NA	NA
Total organic carbon	NA	µg/L	NA	NA	NA
Benzene	1	µg/L	BDL	BDL	1 U
Ethylbenzene	30	µg/L	BDL	0.77 J	1 U
MTBE	50	µg/L	NA	5.4	1 U
Toluene	40	µg/L	BDL	BDL	1 U
Xylene (total)	20	µg/L	BDL	BDL	3 U
1-Methylnaphthalene	20	µg/L	BDL	NA	0.016 JB
2-Methylnaphthalene	20	µg/L	BDL	NA	0.017 JB
Acenaphthene	20	µg/L	NA	NA	0.019 U
Acenaphthylene	210	µg/L	NA	NA	0.013 J
Anthracene	2100	µg/L	NA	NA	0.019 U
Benzo(a)anthracene	0.2	µg/L	NA	NA	0.013 JB
Benzo(a)pyrene	0.2	µg/L	NA	NA	0.019 U
Benzo(b)fluoranthene	0.2	µg/L	NA	NA	0.019 U
Benzo(g,h,I)perylene	210	µg/L	NA	NA	0.019 U
Benzo(k)fluoranthene	0.5	µg/L	NA	NA	0.019 U
Chrysene	4.8	µg/L	NA	NA	0.013 J
Dibenz(a,h)anthracene	0.2	µg/L	NA	NA	**0.019 U**
Fluoranthene	280	µg/L	BDL	NA	0.019 U
Fluorene	280	µg/L	NA	NA	0.019 U
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA	NA	0.019 U
Naphthalene	20	µg/L	BDL	NA	0.019 U
Phenanthrene	210	µg/L	BDL	NA	0.019 U
Pyrene	210	µg/L	BDL	NA	0.019 U
EDB	0.02	µg/L	BDL	NA	NA
TRPH	5000	µg/L	1100	BDL	240
Aluminum	200	µg/L	NA	NA	NA
Arsenic	50	µg/L	NA	NA	NA
Cadmium	5	µg/L	NA	NA	NA
Chromium	100	µg/L	NA	NA	NA
Iron	300	µg/L	NA	NA	NA
Lead	15	µg/L	3	BDL	5 U
Manganese	50	µg/L	NA	NA	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-45

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	10/22/96	6/1/06
Carbon Dioxide free	NA	µg/L	NA	NA
Alkalinity, total (as CaCO3)	NA	µg/L	NA	NA
Total organic carbon	NA	µg/L	NA	NA
Benzene	1	µg/L	BDL	1 U
Ethylbenzene	30	µg/L	**560**	**75.5**
MTBE	50	µg/L	NA	1 U
Toluene	40	µg/L	**1500**	**171**
Xylene (total)	20	µg/L	**2500**	**276**
1-Methylnaphthalene	20	µg/L	BDL	0.042 JB
2-Methylnaphthalene	20	µg/L	BDL	0.061 JB
Acenaphthene	20	µg/L	NA	0.019 U
Acenaphthylene	210	µg/L	NA	0.019 U
Anthracene	2100	µg/L	NA	0.019 U
Benzo(a)anthracene	0.2	µg/L	NA	0.017 JB
Benzo(a)pyrene	0.2	µg/L	NA	0.019 U
Benzo(b)fluoranthene	0.2	µg/L	NA	0.0096 J
Benzo(g,h,I)perylene	210	µg/L	NA	0.019 U
Benzo(k)fluoranthene	0.5	µg/L	NA	0.019 U
Chrysene	4.8	µg/L	NA	0.017 J
Dibenz(a,h)anthracene	0.2	µg/L	NA	**0.019 U**
Fluoranthene	280	µg/L	BDL	0.02
Fluorene	280	µg/L	NA	0.019 U
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA	0.019 U
Naphthalene	20	µg/L	BDL	0.18 JB
Phenanthrene	210	µg/L	BDL	0.019 U
Pyrene	210	µg/L	BDL	0.015 B
EDB	0.02	µg/L	BDL	NA
TRPH	5000	µg/L	11	940
Aluminum	200	µg/L	NA	NA
Arsenic	50	µg/L	NA	NA
Cadmium	5	µg/L	NA	NA
Chromium	100	µg/L	NA	NA
Iron	300	µg/L	NA	NA
Lead	15	µg/L	**39**	**24.8 JB**
Manganese	50	µg/L	NA	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-46

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	10/22/96
Benzene	1	µg/L	BDL
Ethylbenzene	30	µg/L	**720**
MTBE	50	µg/L	NA
Toluene	40	µg/L	**1000**
Xylene (total)	20	µg/L	**3100**
1-Methylnaphthalene	20	µg/L	BDL
2-Methylnaphthalene	20	µg/L	BDL
Acenaphthene	20	µg/L	NA
Acenaphthylene	210	µg/L	NA
Anthracene	2100	µg/L	NA
Benzo(a)anthracene	0.2	µg/L	NA
Benzo(a)pyrene	0.2	µg/L	NA
Benzo(b)fluoranthene	0.2	µg/L	NA
Benzo(g,h,I)perylene	210	µg/L	NA
Benzo(k)fluoranthene	0.5	µg/L	NA
Chrysene	4.8	µg/L	NA
Dibenz(a,h)anthracene	0.2	µg/L	NA
Fluoranthene	280	µg/L	BDL
Fluorene	280	µg/L	NA
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA
Naphthalene	20	µg/L	BDL
Phenanthrene	210	µg/L	BDL
Pyrene	210	µg/L	BDL
EDB	0.02	µg/L	BDL
TRPH	5000	µg/L	**65000**
Aluminum	200	µg/L	NA
Arsenic	50	µg/L	NA
Cadmium	5	µg/L	NA
Chromium	100	µg/L	NA
Iron	300	µg/L	NA
Lead	15	µg/L	**106**
Manganese	50	µg/L	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-47

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	10/22/96	7/9/00	11/4/03	6/1/06
Carbon Dioxide free	NA	µg/L	NA	NA	NA	61600 JB
Alkalinity, total (as CaCO3)	NA	µg/L	NA	NA	NA	15200
Total organic carbon	NA	µg/L	NA	NA	NA	7400 JB
Benzene	1	µg/L	**320**	**301**	25 U	**23.8**
Ethylbenzene	30	µg/L	**880**	**574**	**608 J**	**422**
MTBE	50	µg/L	NA	**109**	250 U	5 U
Toluene	40	µg/L	**1200**	**5870**	**3980**	**2100**
Xylene (total)	20	µg/L	**4700**	**3620**	**3350**	**2180**
1-Methylnaphthalene	20	µg/L	BDL	NA	1 U	0.12 JB
2-Methylnaphthalene	20	µg/L	BDL	NA	1 U	0.18 JB
Acenaphthene	20	µg/L	NA	NA	1 U	0.019 U
Acenaphthylene	210	µg/L	NA	NA	1 U	0.019 U
Anthracene	2100	µg/L	NA	NA	0.1 U	0.019 U
Benzo(a)anthracene	0.2	µg/L	NA	NA	0.1 U	0.013 JB
Benzo(a)pyrene	0.2	µg/L	NA	NA	0.1 U	0.019 U
Benzo(b)fluoranthene	0.2	µg/L	NA	NA	0.1 U	0.019 U
Benzo(g,h,I)perylene	210	µg/L	NA	NA	0.1 U	0.019 U
Benzo(k)fluoranthene	0.5	µg/L	NA	NA	0.1 U	0.019 U
Chrysene	4.8	µg/L	NA	NA	0.1 U	0.012 J
Dibenz(a,h)anthracene	0.2	µg/L	NA	NA	0.1 U	**0.019 U**
Fluoranthene	280	µg/L	BDL	NA	0.1 U	0.019 U
Fluorene	280	µg/L	NA	NA	0.5 U	0.019 U
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA	NA	0.25 U	0.019 U
Naphthalene	20	µg/L	BDL	NA	0.25 U	0.94 JB
Phenanthrene	210	µg/L	BDL	NA	0.1 U	0.019 U
Pyrene	210	µg/L	BDL	NA	0.1 U	0.019 U
EDB	0.02	µg/L	BDL	NA	NA	NA
TRPH	5000	µg/L	**61000**	1670	**19900 JB**	4200
Aluminum	200	µg/L	NA	NA	NA	NA
Arsenic	50	µg/L	NA	NA	NA	NA
Cadmium	5	µg/L	NA	NA	NA	NA
Chromium	100	µg/L	NA	NA	NA	NA
Iron	300	µg/L	NA	NA	NA	NA
Lead	15	µg/L	**56**	**46.8**	**100 B**	**47.9 JB**
Lead-Dissolved	15	µg/L	NA	NA	NA	**34.4**
Manganese	50	µg/L	NA	NA	NA	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-48

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	10/22/96
Benzene	1	µg/L	BDL
Ethylbenzene	30	µg/L	**32**
MTBE	50	µg/L	NA
Toluene	40	µg/L	**66**
Xylene (total)	20	µg/L	**98**
1-Methylnaphthalene	20	µg/L	BDL
2-Methylnaphthalene	20	µg/L	BDL
Acenaphthene	20	µg/L	NA
Acenaphthylene	210	µg/L	NA
Anthracene	2100	µg/L	NA
Benzo(a)anthracene	0.2	µg/L	NA
Benzo(a)pyrene	0.2	µg/L	NA
Benzo(b)fluoranthene	0.2	µg/L	NA
Benzo(g,h,I)perylene	210	µg/L	NA
Benzo(k)fluoranthene	0.5	µg/L	NA
Chrysene	4.8	µg/L	NA
Dibenz(a,h)anthracene	0.2	µg/L	NA
Fluoranthene	280	µg/L	BDL
Fluorene	280	µg/L	NA
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA
Naphthalene	20	µg/L	BDL
Phenanthrene	210	µg/L	BDL
Pyrene	210	µg/L	BDL
EDB	0.02	µg/L	BDL
TRPH	5000	µg/L	1000
Aluminum	200	µg/L	NA
Arsenic	50	µg/L	NA
Cadmium	5	µg/L	NA
Chromium	100	µg/L	NA
Iron	300	µg/L	NA
Lead	15	µg/L	7
Manganese	50	µg/L	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-49

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	12/13/96
Benzene	1	µg/L	BDL
Ethylbenzene	30	µg/L	BDL
MTBE	50	µg/L	NA
Toluene	40	µg/L	BDL
Xylene (total)	20	µg/L	BDL
1-Methylnaphthalene	20	µg/L	BDL
2-Methylnaphthalene	20	µg/L	BDL
Acenaphthene	20	µg/L	NA
Acenaphthylene	210	µg/L	NA
Anthracene	2100	µg/L	NA
Benzo(a)anthracene	0.2	µg/L	NA
Benzo(a)pyrene	0.2	µg/L	NA
Benzo(b)fluoranthene	0.2	µg/L	NA
Benzo(g,h,I)perylene	210	µg/L	NA
Benzo(k)fluoranthene	0.5	µg/L	NA
Chrysene	4.8	µg/L	NA
Dibenz(a,h)anthracene	0.2	µg/L	NA
Fluoranthene	280	µg/L	BDL
Fluorene	280	µg/L	NA
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA
Naphthalene	20	µg/L	BDL
Phenanthrene	210	µg/L	BDL
Pyrene	210	µg/L	BDL
EDB	0.02	µg/L	BDL
TRPH	5000	µg/L	BDL
Aluminum	200	µg/L	NA
Arsenic	50	µg/L	NA
Cadmium	5	µg/L	NA
Chromium	100	µg/L	NA
Iron	300	µg/L	NA
Lead	15	µg/L	BDL
Manganese	50	µg/L	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-50

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	12/13/96
Benzene	1	µg/L	BDL
Ethylbenzene	30	µg/L	BDL
MTBE	50	µg/L	NA
Toluene	40	µg/L	BDL
Xylene (total)	20	µg/L	BDL
1-Methylnaphthalene	20	µg/L	BDL
2-Methylnaphthalene	20	µg/L	BDL
Acenaphthene	20	µg/L	NA
Acenaphthylene	210	µg/L	NA
Anthracene	2100	µg/L	NA
Benzo(a)anthracene	0.2	µg/L	NA
Benzo(a)pyrene	0.2	µg/L	NA
Benzo(b)fluoranthene	0.2	µg/L	NA
Benzo(g,h,I)perylene	210	µg/L	NA
Benzo(k)fluoranthene	0.5	µg/L	NA
Chrysene	4.8	µg/L	NA
Dibenz(a,h)anthracene	0.2	µg/L	NA
Fluoranthene	280	µg/L	BDL
Fluorene	280	µg/L	NA
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA
Naphthalene	20	µg/L	BDL
Phenanthrene	210	µg/L	BDL
Pyrene	210	µg/L	BDL
EDB	0.02	µg/L	BDL
TRPH	5000	µg/L	BDL
Aluminum	200	µg/L	NA
Arsenic	50	µg/L	NA
Cadmium	5	µg/L	NA
Chromium	100	µg/L	NA
Iron	300	µg/L	NA
Lead	15	µg/L	BDL
Manganese	50	µg/L	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-51

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	12/13/96	7/10/00	1/28/04
Benzene	1	µg/L	BDL	BDL	0.5 U
Ethylbenzene	30	µg/L	BDL	BDL	5 U
MTBE	50	µg/L	NA	BDL	5 U
Toluene	40	µg/L	BDL	BDL	5 U
Xylene (total)	20	µg/L	BDL	BDL	10 U
1-Methylnaphthalene	20	µg/L	BDL	NA	1 U
2-Methylnaphthalene	20	µg/L	BDL	NA	1 U
Acenaphthene	20	µg/L	NA	NA	1 U
Acenaphthylene	210	µg/L	NA	NA	1 U
Anthracene	2100	µg/L	NA	NA	0.1 U
Benzo(a)anthracene	0.2	µg/L	NA	NA	0.1 U
Benzo(a)pyrene	0.2	µg/L	NA	NA	0.1 U
Benzo(b)fluoranthene	0.2	µg/L	NA	NA	0.1 U
Benzo(g,h,I)perylene	210	µg/L	NA	NA	0.1 U
Benzo(k)fluoranthene	0.5	µg/L	NA	NA	0.1 U
Chrysene	4.8	µg/L	NA	NA	0.1 U
Dibenz(a,h)anthracene	0.2	µg/L	NA	NA	0.1 U
Fluoranthene	280	µg/L	BDL	NA	0.1 U
Fluorene	280	µg/L	NA	NA	0.5 U
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA	NA	0.25 U
Naphthalene	20	µg/L	BDL	NA	0.25 U
Phenanthrene	210	µg/L	BDL	NA	0.1 U
Pyrene	210	µg/L	BDL	NA	0.1 U
EDB	0.02	µg/L	BDL	NA	NA
TRPH	5000	µg/L	BDL	BDL	258 JB
Aluminum	200	µg/L	NA	NA	NA
Arsenic	50	µg/L	NA	NA	NA
Cadmium	5	µg/L	NA	NA	NA
Chromium	100	µg/L	NA	NA	NA
Iron	300	µg/L	NA	NA	NA
Lead	15	µg/L	BDL	BDL	15 U
Manganese	50	µg/L	NA	NA	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-52

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	12/13/96	7/10/00	1/27/04	6/1/06
Carbon Dioxide free	NA	µg/L	NA	NA	NA	NA
Alkalinity, total (as CaCO3)	NA	µg/L	NA	NA	NA	NA
Total organic carbon	NA	µg/L	NA	NA	NA	NA
Benzene	1	µg/L	BDL	BDL	0.5 U	1 U
Ethylbenzene	30	µg/L	BDL	BDL	5 U	1 U
MTBE	50	µg/L	NA	BDL	5 U	1 U
Toluene	40	µg/L	BDL	BDL	5 U	1 U
Xylene (total)	20	µg/L	BDL	BDL	10 U	3 U
1-Methylnaphthalene	20	µg/L	BDL	NA	1 U	0.019 U
2-Methylnaphthalene	20	µg/L	BDL	NA	1 U	0.019 U
Acenaphthene	20	µg/L	NA	NA	1 U	0.019 U
Acenaphthylene	210	µg/L	NA	NA	1 U	0.019 U
Anthracene	2100	µg/L	NA	NA	0.1 U	0.019 U
Benzo(a)anthracene	0.2	µg/L	NA	NA	0.1 U	0.013 JB
Benzo(a)pyrene	0.2	µg/L	NA	NA	0.035 J	0.019 U
Benzo(b)fluoranthene	0.2	µg/L	NA	NA	0.059 J	0.019 U
Benzo(g,h,I)perylene	210	µg/L	NA	NA	0.1 U	0.019 U
Benzo(k)fluoranthene	0.5	µg/L	NA	NA	0.033 J	0.019 U
Chrysene	4.8	µg/L	NA	NA	0.1 U	0.014 J
Dibenz(a,h)anthracene	0.2	µg/L	NA	NA	0.1 U	**0.019 U**
Fluoranthene	280	µg/L	BDL	NA	0.1 U	0.019 U
Fluorene	280	µg/L	NA	NA	0.5 U	0.019 U
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA	NA	0.25 U	0.019 U
Naphthalene	20	µg/L	BDL	NA	0.25 U	0.019 U
Phenanthrene	210	µg/L	BDL	NA	0.1 U	0.019 U
Pyrene	210	µg/L	BDL	NA	0.1 U	0.019 U
EDB	0.02	µg/L	BDL	NA	NA	NA
TRPH	5000	µg/L	BDL	BDL	468 JB	230
Aluminum	200	µg/L	NA	NA	NA	NA
Arsenic	50	µg/L	NA	NA	NA	NA
Cadmium	5	µg/L	NA	NA	NA	NA
Chromium	100	µg/L	NA	NA	NA	NA
Iron	300	µg/L	NA	NA	NA	NA
Lead	15	µg/L	4	BDL	11 J	2.71 JB
Manganese	50	µg/L	NA	NA	NA	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-53

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	12/13/96	7/10/00	11/3/03
Benzene	1	µg/L	BDL	BDL	0.5 U
Ethylbenzene	30	µg/L	BDL	BDL	5 U
MTBE	50	µg/L	NA	BDL	5 U
Toluene	40	µg/L	BDL	BDL	1.65 J
Xylene (total)	20	µg/L	BDL	BDL	1.99 J
1-Methylnaphthalene	20	µg/L	BDL	NA	1 U
2-Methylnaphthalene	20	µg/L	BDL	NA	1 U
Acenaphthene	20	µg/L	NA	NA	1 U
Acenaphthylene	210	µg/L	NA	NA	1 U
Anthracene	2100	µg/L	NA	NA	0.1 U
Benzo(a)anthracene	0.2	µg/L	NA	NA	0.1 U
Benzo(a)pyrene	0.2	µg/L	NA	NA	0.1 U
Benzo(b)fluoranthene	0.2	µg/L	NA	NA	0.1 U
Benzo(g,h,I)perylene	210	µg/L	NA	NA	0.1 U
Benzo(k)fluoranthene	0.5	µg/L	NA	NA	0.1 U
Chrysene	4.8	µg/L	NA	NA	0.1 U
Dibenz(a,h)anthracene	0.2	µg/L	NA	NA	0.1 U
Fluoranthene	280	µg/L	BDL	NA	0.1 U
Fluorene	280	µg/L	NA	NA	0.5 U
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA	NA	0.25 U
Naphthalene	20	µg/L	BDL	NA	0.25 U
Phenanthrene	210	µg/L	BDL	NA	0.1 U
Pyrene	210	µg/L	BDL	NA	0.1 U
EDB	0.02	µg/L	BDL	NA	NA
TRPH	5000	µg/L	BDL	BDL	100 U
Aluminum	200	µg/L	NA	NA	NA
Arsenic	50	µg/L	NA	NA	NA
Cadmium	5	µg/L	NA	NA	NA
Chromium	100	µg/L	NA	NA	NA
Iron	300	µg/L	NA	NA	NA
Lead	15	µg/L	BDL	BDL	1.2 B, JB
Manganese	50	µg/L	NA	NA	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-54

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	12/13/96
Benzene	1	µg/L	BDL
Ethylbenzene	30	µg/L	BDL
MTBE	50	µg/L	NA
Toluene	40	µg/L	BDL
Xylene (total)	20	µg/L	BDL
1-Methylnaphthalene	20	µg/L	BDL
2-Methylnaphthalene	20	µg/L	BDL
Acenaphthene	20	µg/L	NA
Acenaphthylene	210	µg/L	NA
Anthracene	2100	µg/L	NA
Benzo(a)anthracene	0.2	µg/L	NA
Benzo(a)pyrene	0.2	µg/L	NA
Benzo(b)fluoranthene	0.2	µg/L	NA
Benzo(g,h,I)perylene	210	µg/L	NA
Benzo(k)fluoranthene	0.5	µg/L	NA
Chrysene	4.8	µg/L	NA
Dibenz(a,h)anthracene	0.2	µg/L	NA
Fluoranthene	280	µg/L	BDL
Fluorene	280	µg/L	NA
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA
Naphthalene	20	µg/L	BDL
Phenanthrene	210	µg/L	BDL
Pyrene	210	µg/L	BDL
EDB	0.02	µg/L	BDL
TRPH	5000	µg/L	BDL
Aluminum	200	µg/L	NA
Arsenic	50	µg/L	NA
Cadmium	5	µg/L	NA
Chromium	100	µg/L	NA
Iron	300	µg/L	NA
Lead	15	µg/L	BDL
Manganese	50	µg/L	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-55

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	12/13/96	7/11/00	11/3/03	6/1/06
Carbon Dioxide free	NA	µg/L	NA	NA	NA	10900 JB
Alkalinity, total (as CaCO3)	NA	µg/L	NA	NA	NA	2110 J
Total organic carbon	NA	µg/L	NA	NA	NA	5900 JB
Benzene	1	µg/L	BDL	BDL	5 U	1 U
Ethylbenzene	30	µg/L	**310**	**344**	**297**	**330**
MTBE	50	µg/L	NA	**63**	50 U	1 U
Toluene	40	µg/L	**55**	**403**	**49.6 J**	**294**
Xylene (total)	20	µg/L	**1040**	**1300**	**1040**	**1170**
1-Methylnaphthalene	20	µg/L	BDL	NA	1 U	0.09 JB
2-Methylnaphthalene	20	µg/L	BDL	NA	1 U	0.12 JB
Acenaphthene	20	µg/L	NA	NA	1 U	0.019 U
Acenaphthylene	210	µg/L	NA	NA	1 U	0.019 U
Anthracene	2100	µg/L	NA	NA	0.1 U	0.019 U
Benzo(a)anthracene	0.2	µg/L	NA	NA	0.1 U	0.012 JB
Benzo(a)pyrene	0.2	µg/L	NA	NA	0.1 U	0.019 U
Benzo(b)fluoranthene	0.2	µg/L	NA	NA	0.1 U	0.019 U
Benzo(g,h,I)perylene	210	µg/L	NA	NA	0.1 U	0.019 U
Benzo(k)fluoranthene	0.5	µg/L	NA	NA	0.1 U	0.019 U
Chrysene	4.8	µg/L	NA	NA	0.1 U	0.019 U
Dibenz(a,h)anthracene	0.2	µg/L	NA	NA	0.1 U	**0.019 U**
Fluoranthene	280	µg/L	BDL	NA	0.1 U	0.019 U
Fluorene	280	µg/L	NA	NA	0.5 U	0.019 U
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA	NA	0.25 U	0.019 U
Naphthalene	20	µg/L	BDL	NA	0.25 U	0.68 JB
Phenanthrene	210	µg/L	BDL	NA	0.1 U	0.019 U
Pyrene	210	µg/L	BDL	NA	0.1 U	0.019 U
EDB	0.02	µg/L	BDL	NA	NA	NA
TRPH	5000	µg/L	2000	1540	**5020 J**	2100
Aluminum	200	µg/L	NA	NA	NA	NA
Arsenic	50	µg/L	NA	NA	NA	NA
Cadmium	5	µg/L	NA	NA	NA	NA
Chromium	100	µg/L	NA	NA	NA	NA
Iron	300	µg/L	NA	NA	NA	NA
Lead	15	µg/L	**19**	**70.1**	**51 B, JB**	**20.8 JB**
Lead-Dissolved	15	µg/L	**NA**	**NA**	**NA**	**19.7**
Manganese	50	µg/L	NA	NA	NA	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-56

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	12/13/96	1/27/04
Benzene	1	µg/L	BDL	0.5 U
Ethylbenzene	30	µg/L	BDL	5 U
MTBE	50	µg/L	NA	5 U
Toluene	40	µg/L	BDL	5 U
Xylene (total)	20	µg/L	BDL	10 U
1-Methylnaphthalene	20	µg/L	BDL	1 U
2-Methylnaphthalene	20	µg/L	BDL	1 U
Acenaphthene	20	µg/L	NA	1 U
Acenaphthylene	210	µg/L	NA	1 U
Anthracene	2100	µg/L	NA	0.1 U
Benzo(a)anthracene	0.2	µg/L	NA	0.1 U
Benzo(a)pyrene	0.2	µg/L	NA	0.1 U
Benzo(b)fluoranthene	0.2	µg/L	NA	0.1 U
Benzo(g,h,I)perylene	210	µg/L	NA	0.1 U
Benzo(k)fluoranthene	0.5	µg/L	NA	0.1 U
Chrysene	4.8	µg/L	NA	0.1 U
Dibenz(a,h)anthracene	0.2	µg/L	NA	0.1 U
Fluoranthene	280	µg/L	BDL	0.1 U
Fluorene	280	µg/L	NA	0.5 U
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA	0.25 U
Naphthalene	20	µg/L	BDL	0.25 U
Phenanthrene	210	µg/L	BDL	0.1 U
Pyrene	210	µg/L	BDL	0.1 U
EDB	0.02	µg/L	BDL	NA
TRPH	5000	µg/L	BDL	290 J
Aluminum	200	µg/L	NA	NA
Arsenic	50	µg/L	NA	NA
Cadmium	5	µg/L	NA	NA
Chromium	100	µg/L	NA	NA
Iron	300	µg/L	NA	NA
Lead	15	µg/L	BDL	15 U
Manganese	50	µg/L	NA	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-57

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	12/13/96	1/27/04
Benzene	1	µg/L	BDL	0.5 U
Ethylbenzene	30	µg/L	BDL	5 U
MTBE	50	µg/L	NA	5 U
Toluene	40	µg/L	BDL	5 U
Xylene (total)	20	µg/L	BDL	10 U
1-Methylnaphthalene	20	µg/L	BDL	1 U
2-Methylnaphthalene	20	µg/L	BDL	1 U
Acenaphthene	20	µg/L	NA	1 U
Acenaphthylene	210	µg/L	NA	1 U
Anthracene	2100	µg/L	NA	0.1 U
Benzo(a)anthracene	0.2	µg/L	NA	0.1 U
Benzo(a)pyrene	0.2	µg/L	NA	0.1 U
Benzo(b)fluoranthene	0.2	µg/L	NA	0.1 U
Benzo(g,h,I)perylene	210	µg/L	NA	0.1 U
Benzo(k)fluoranthene	0.5	µg/L	NA	0.1 U
Chrysene	4.8	µg/L	NA	0.1 U
Dibenz(a,h)anthracene	0.2	µg/L	NA	0.1 U
Fluoranthene	280	µg/L	BDL	0.1 U
Fluorene	280	µg/L	NA	0.5 U
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA	0.25 U
Naphthalene	20	µg/L	BDL	0.25 U
Phenanthrene	210	µg/L	BDL	0.1 U
Pyrene	210	µg/L	BDL	0.1 U
EDB	0.02	µg/L	BDL	NA
TRPH	5000	µg/L	BDL	307 JB
Aluminum	200	µg/L	NA	NA
Arsenic	50	µg/L	NA	NA
Cadmium	5	µg/L	NA	NA
Chromium	100	µg/L	NA	NA
Iron	300	µg/L	NA	NA
Lead	15	µg/L	BDL	15 U
Manganese	50	µg/L	NA	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-58

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	12/13/96
Benzene	1	µg/L	BDL
Ethylbenzene	30	µg/L	BDL
MTBE	50	µg/L	NA
Toluene	40	µg/L	BDL
Xylene (total)	20	µg/L	BDL
1-Methylnaphthalene	20	µg/L	BDL
2-Methylnaphthalene	20	µg/L	BDL
Acenaphthene	20	µg/L	NA
Acenaphthylene	210	µg/L	NA
Anthracene	2100	µg/L	NA
Benzo(a)anthracene	0.2	µg/L	NA
Benzo(a)pyrene	0.2	µg/L	NA
Benzo(b)fluoranthene	0.2	µg/L	NA
Benzo(g,h,I)perylene	210	µg/L	NA
Benzo(k)fluoranthene	0.5	µg/L	NA
Chrysene	4.8	µg/L	NA
Dibenz(a,h)anthracene	0.2	µg/L	NA
Fluoranthene	280	µg/L	BDL
Fluorene	280	µg/L	NA
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA
Naphthalene	20	µg/L	BDL
Phenanthrene	210	µg/L	BDL
Pyrene	210	µg/L	BDL
EDB	0.02	µg/L	BDL
TRPH	5000	µg/L	BDL
Aluminum	200	µg/L	NA
Arsenic	50	µg/L	NA
Cadmium	5	µg/L	NA
Chromium	100	µg/L	NA
Iron	300	µg/L	NA
Lead	15	µg/L	BDL
Manganese	50	µg/L	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-59

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	12/13/96	1/27/04	5/31/06
Carbon Dioxide free	NA	µg/L	NA	NA	NA
Alkalinity, total (as CaCO3)	NA	µg/L	NA	NA	NA
Total organic carbon	NA	µg/L	NA	NA	NA
Benzene	1	µg/L	BDL	0.5 U	1 U
Ethylbenzene	30	µg/L	BDL	5 U	1 U
MTBE	50	µg/L	NA	5 U	1 U
Toluene	40	µg/L	BDL	5 U	1 U
Xylene (total)	20	µg/L	BDL	10 U	3 U
1-Methylnaphthalene	20	µg/L	BDL	1 U	0.02 U
2-Methylnaphthalene	20	µg/L	BDL	1 U	0.02 UJ
Acenaphthene	20	µg/L	NA	1 U	0.02 U
Acenaphthylene	210	µg/L	NA	1 U	0.02 U
Anthracene	2100	µg/L	NA	0.1 U	0.02 U
Benzo(a)anthracene	0.2	µg/L	NA	0.1 U	0.02 U
Benzo(a)pyrene	0.2	µg/L	NA	0.1 U	0.02 U
Benzo(b)fluoranthene	0.2	µg/L	NA	0.1 U	0.02 U
Benzo(g,h,I)perylene	210	µg/L	NA	0.1 U	0.02 U
Benzo(k)fluoranthene	0.5	µg/L	NA	0.1 U	0.02 U
Chrysene	4.8	µg/L	NA	0.1 U	0.02 U
Dibenz(a,h)anthracene	0.2	µg/L	NA	0.1 U	**0.02 U**
Fluoranthene	280	µg/L	BDL	0.1 U	0.02 U
Fluorene	280	µg/L	NA	0.5 U	0.02 U
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA	0.25 U	0.02 U
Naphthalene	20	µg/L	BDL	0.25 U	0.02 U
Phenanthrene	210	µg/L	BDL	0.1 U	0.02 U
Pyrene	210	µg/L	BDL	0.1 U	0.02 U
EDB	0.02	µg/L	BDL	NA	NA
TRPH	5000	µg/L	BDL	334 JB	490
Aluminum	200	µg/L	NA	NA	NA
Arsenic	50	µg/L	NA	NA	NA
Cadmium	5	µg/L	NA	NA	NA
Chromium	100	µg/L	NA	NA	NA
Iron	300	µg/L	NA	NA	NA
Lead	15	µg/L	BDL	15 U	5 U
Manganese	50	µg/L	NA	NA	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for DMW-60

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	1/31/97	3/10/97	6/30/97	6/1/06
Carbon Dioxide free	NA	µg/L	NA	NA	NA	NA
Alkalinity, total (as CaCO3)	NA	µg/L	NA	NA	NA	NA
Total organic carbon	NA	µg/L	NA	NA	NA	NA
Benzene	1	µg/L	**24**	BDL	NA	1 U
Ethylbenzene	30	µg/L	12	BDL	NA	1 U
MTBE	50	µg/L	NA	BDL	NA	1 U
Toluene	40	µg/L	**130**	BDL	NA	1 U
Xylene (total)	20	µg/L	**64**	BDL	NA	3 U
1-Methylnaphthalene	20	µg/L	BDL	BDL	NA	0.019 U
2-Methylnaphthalene	20	µg/L	BDL	BDL	NA	0.019 U
Acenaphthene	20	µg/L	NA	NA	NA	0.019 U
Acenaphthylene	210	µg/L	NA	NA	NA	0.019 U
Anthracene	2100	µg/L	NA	NA	NA	0.019 U
Benzo(a)anthracene	0.2	µg/L	NA	NA	NA	0.015 JB
Benzo(a)pyrene	0.2	µg/L	NA	NA	NA	0.019 U
Benzo(b)fluoranthene	0.2	µg/L	NA	NA	NA	0.019 U
Benzo(g,h,I)perylene	210	µg/L	NA	NA	NA	0.019 U
Benzo(k)fluoranthene	0.5	µg/L	NA	NA	NA	0.019 U
Chrysene	4.8	µg/L	NA	NA	NA	0.015 J
Dibenz(a,h)anthracene	0.2	µg/L	NA	NA	NA	**0.019 U**
Fluoranthene	280	µg/L	BDL	BDL	NA	0.019 U
Fluorene	280	µg/L	NA	NA	NA	0.019 U
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA	NA	NA	0.019 U
Naphthalene	20	µg/L	BDL	BDL	NA	0.019 U
Phenanthrene	210	µg/L	BDL	BDL	NA	0.019 U
Pyrene	210	µg/L	BDL	BDL	NA	0.019 U
EDB	0.02	µg/L	BDL	BDL	NA	NA
TRPH	5000	µg/L	NA	BDL	NA	200
Aluminum	200	µg/L	NA	NA	NA	NA
Arsenic	50	µg/L	NA	NA	NA	NA
Cadmium	5	µg/L	NA	NA	NA	NA
Chromium	100	µg/L	NA	NA	NA	NA
Iron	300	µg/L	NA	NA	NA	NA
Lead	15	µg/L	NA	NA	BDL	5 U
Manganese	50	µg/L	NA	NA	NA	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for DMW-61

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	2/26/97	7/11/00	5/31/06
Carbon Dioxide free	NA	µg/L	NA	NA	NA
Alkalinity, total (as CaCO3)	NA	µg/L	NA	NA	NA
Total organic carbon	NA	µg/L	NA	NA	NA
Benzene	1	µg/L	BDL	BDL	1 U
Ethylbenzene	30	µg/L	BDL	BDL	1 U
MTBE	50	µg/L	BDL	BDL	1 U
Toluene	40	µg/L	BDL	BDL	1 U
Xylene (total)	20	µg/L	BDL	BDL	3 U
1-Methylnaphthalene	20	µg/L	BDL	NA	0.02 U
2-Methylnaphthalene	20	µg/L	BDL	NA	0.02 UJ
Acenaphthene	20	µg/L	NA	NA	0.02 U
Acenaphthylene	210	µg/L	NA	NA	0.02 U
Anthracene	2100	µg/L	NA	NA	0.02 U
Benzo(a)anthracene	0.2	µg/L	NA	NA	0.02 U
Benzo(a)pyrene	0.2	µg/L	NA	NA	0.02 U
Benzo(b)fluoranthene	0.2	µg/L	NA	NA	0.02 U
Benzo(g,h,I)perylene	210	µg/L	NA	NA	0.02 U
Benzo(k)fluoranthene	0.5	µg/L	NA	NA	0.02 U
Chrysene	4.8	µg/L	NA	NA	0.02 U
Dibenz(a,h)anthracene	0.2	µg/L	NA	NA	**0.02 U**
Fluoranthene	280	µg/L	BDL	NA	0.02 U
Fluorene	280	µg/L	NA	NA	0.02 U
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA	NA	0.02 U
Naphthalene	20	µg/L	BDL	NA	0.02 U
Phenanthrene	210	µg/L	BDL	NA	0.02 U
Pyrene	210	µg/L	BDL	NA	0.02 U
EDB	0.02	µg/L	BDL	NA	NA
TRPH	5000	µg/L	BDL	BDL	170 U
Aluminum	200	µg/L	NA	NA	NA
Arsenic	50	µg/L	NA	NA	NA
Cadmium	5	µg/L	NA	NA	NA
Chromium	100	µg/L	NA	NA	NA
Iron	300	µg/L	NA	NA	NA
Lead	15	µg/L	BDL	BDL	5 U
Manganese	50	µg/L	NA	NA	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-62

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	11/4/03	5/31/06
Carbon Dioxide free	NA	µg/L	NA	NA
Alkalinity, total (as CaCO3)	NA	µg/L	NA	NA
Total organic carbon	NA	µg/L	NA	NA
Benzene	1	µg/L	0.5 U	1 U
Ethylbenzene	30	µg/L	2.02 J	27.9
MTBE	50	µg/L	5 U	1 U
Toluene	40	µg/L	5 U	1 U
Xylene (total)	20	µg/L	3.41 J	**39.2**
1-Methylnaphthalene	20	µg/L	1 U	0.091 JB
2-Methylnaphthalene	20	µg/L	1 U	0.14 JB
Acenaphthene	20	µg/L	1 U	0.02 U
Acenaphthylene	210	µg/L	1 U	0.02 U
Anthracene	2100	µg/L	0.1 U	0.02 U
Benzo(a)anthracene	0.2	µg/L	0.1 U	0.02 U
Benzo(a)pyrene	0.2	µg/L	0.1 U	0.02 U
Benzo(b)fluoranthene	0.2	µg/L	0.1 U	0.02 U
Benzo(g,h,I)perylene	210	µg/L	0.1 U	0.02 U
Benzo(k)fluoranthene	0.5	µg/L	0.1 U	0.02 U
Chrysene	4.8	µg/L	0.1 U	0.02 U
Dibenz(a,h)anthracene	0.2	µg/L	0.1 U	**0.02 U**
Fluoranthene	280	µg/L	0.1 U	0.02 U
Fluorene	280	µg/L	0.5 U	0.02 U
Indeno(1,2,3-cd)pyrene	0.2	µg/L	0.25 U	0.02 U
Naphthalene	20	µg/L	0.25 U	0.1 JB
Phenanthrene	210	µg/L	0.1 U	0.02 U
Pyrene	210	µg/L	0.1 U	0.02 U
EDB	0.02	µg/L	NA	NA
TRPH	5000	µg/L	1630 JB	1600
Aluminum	200	µg/L	NA	NA
Arsenic	50	µg/L	NA	NA
Cadmium	5	µg/L	NA	NA
Chromium	100	µg/L	NA	NA
Iron	300	µg/L	NA	NA
Lead	15	µg/L	**20 B**	**47.5 J**
Lead-Dissolved	15	µg/L	**NA**	**27.7**
Manganese	50	µg/L	NA	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-63

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	7/9/00
Benzene	1	µg/L	BDL
Ethylbenzene	30	µg/L	BDL
MTBE	50	µg/L	BDL
Toluene	40	µg/L	BDL
Xylene (total)	20	µg/L	BDL
1-Methylnaphthalene	20	µg/L	NA
2-Methylnaphthalene	20	µg/L	NA
Acenaphthene	20	µg/L	NA
Acenaphthylene	210	µg/L	NA
Anthracene	2100	µg/L	NA
Benzo(a)anthracene	0.2	µg/L	NA
Benzo(a)pyrene	0.2	µg/L	NA
Benzo(b)fluoranthene	0.2	µg/L	NA
Benzo(g,h,I)perylene	210	µg/L	NA
Benzo(k)fluoranthene	0.5	µg/L	NA
Chrysene	4.8	µg/L	NA
Dibenz(a,h)anthracene	0.2	µg/L	NA
Fluoranthene	280	µg/L	NA
Fluorene	280	µg/L	NA
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA
Naphthalene	20	µg/L	NA
Phenanthrene	210	µg/L	NA
Pyrene	210	µg/L	NA
EDB	0.02	µg/L	NA
TRPH	5000	µg/L	BDL
Aluminum	200	µg/L	NA
Arsenic	50	µg/L	NA
Cadmium	5	µg/L	NA
Chromium	100	µg/L	NA
Iron	300	µg/L	NA
Lead	15	µg/L	BDL
Manganese	50	µg/L	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-64

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	7/9/00	6/1/06
Carbon Dioxide free	NA	µg/L	NA	NA
Alkalinity, total (as CaCO3)	NA	µg/L	NA	NA
Total organic carbon	NA	µg/L	NA	NA
Benzene	1	µg/L	BDL	1 U
Ethylbenzene	30	µg/L	14	21.5
MTBE	50	µg/L	31.1	1 U
Toluene	40	µg/L	BDL	1 U
Xylene (total)	20	µg/L	**32.4**	**51.8**
1-Methylnaphthalene	20	µg/L	NA	0.053 JB
2-Methylnaphthalene	20	µg/L	NA	0.063 JB
Acenaphthene	20	µg/L	NA	0.019 U
Acenaphthylene	210	µg/L	NA	0.019 U
Anthracene	2100	µg/L	NA	0.019 U
Benzo(a)anthracene	0.2	µg/L	NA	0.013 JB
Benzo(a)pyrene	0.2	µg/L	NA	0.019 U
Benzo(b)fluoranthene	0.2	µg/L	NA	0.019 U
Benzo(g,h,I)perylene	210	µg/L	NA	0.019 U
Benzo(k)fluoranthene	0.5	µg/L	NA	0.019 U
Chrysene	4.8	µg/L	NA	0.013 J
Dibenz(a,h)anthracene	0.2	µg/L	NA	**0.019 U**
Fluoranthene	280	µg/L	NA	0.019 U
Fluorene	280	µg/L	NA	0.0034 JB
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA	0.019 U
Naphthalene	20	µg/L	NA	0.045 JB
Phenanthrene	210	µg/L	NA	0.019 U
Pyrene	210	µg/L	NA	0.019 U
EDB	0.02	µg/L	NA	NA
TRPH	5000	µg/L	BDL	570
Aluminum	200	µg/L	NA	NA
Arsenic	50	µg/L	NA	NA
Cadmium	5	µg/L	NA	NA
Chromium	100	µg/L	NA	NA
Iron	300	µg/L	NA	NA
Lead	15	µg/L	BDL	17.1 JB
Manganese	50	µg/L	NA	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-65

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	11/3/03	5/31/06
Carbon Dioxide free	NA	µg/L	NA	NA
Alkalinity, total (as CaCO3)	NA	µg/L	NA	NA
Total organic carbon	NA	µg/L	NA	NA
Benzene	1	µg/L	0.5 U	1 U
Ethylbenzene	30	µg/L	14.8	23.8
MTBE	50	µg/L	5 U	1 U
Toluene	40	µg/L	5 U	1 U
Xylene (total)	20	µg/L	**61.9**	**93.8**
1-Methylnaphthalene	20	µg/L	NA	0.035 JB
2-Methylnaphthalene	20	µg/L	NA	0.038 JB
Acenaphthene	20	µg/L	NA	0.02 U
Acenaphthylene	210	µg/L	NA	0.02 U
Anthracene	2100	µg/L	NA	0.02 U
Benzo(a)anthracene	0.2	µg/L	NA	0.02 U
Benzo(a)pyrene	0.2	µg/L	NA	0.02 U
Benzo(b)fluoranthene	0.2	µg/L	NA	0.02 U
Benzo(g,h,I)perylene	210	µg/L	NA	0.02 U
Benzo(k)fluoranthene	0.5	µg/L	NA	0.02 U
Chrysene	4.8	µg/L	NA	0.02 U
Dibenz(a,h)anthracene	0.2	µg/L	NA	**0.02 U**
Fluoranthene	280	µg/L	NA	0.02 U
Fluorene	280	µg/L	NA	0.0035 JB
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA	0.02 U
Naphthalene	20	µg/L	NA	0.048 JB
Phenanthrene	210	µg/L	NA	0.02 U
Pyrene	210	µg/L	NA	0.02 U
EDB	0.02	µg/L	NA	NA
TRPH	5000	µg/L	3480 J	980
Aluminum	200	µg/L	NA	NA
Arsenic	50	µg/L	NA	NA
Cadmium	5	µg/L	NA	NA
Chromium	100	µg/L	NA	NA
Iron	300	µg/L	NA	NA
Lead	15	µg/L	**56 B, JB**	**38.3**
Lead-Dissolved	15	µg/L	**NA**	**35.2**
Manganese	50	µg/L	NA	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-66

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	7/11/00	1/28/04
Benzene	1	µg/L	BDL	0.5 U
Ethylbenzene	30	µg/L	BDL	5 U
MTBE	50	µg/L	BDL	5 U
Toluene	40	µg/L	BDL	5 U
Xylene (total)	20	µg/L	BDL	10 U
1-Methylnaphthalene	20	µg/L	NA	1 U
2-Methylnaphthalene	20	µg/L	NA	1 U
Acenaphthene	20	µg/L	NA	1 U
Acenaphthylene	210	µg/L	NA	1 U
Anthracene	2100	µg/L	NA	0.1 U
Benzo(a)anthracene	0.2	µg/L	NA	0.1 U
Benzo(a)pyrene	0.2	µg/L	NA	0.1 U
Benzo(b)fluoranthene	0.2	µg/L	NA	0.1 U
Benzo(g,h,I)perylene	210	µg/L	NA	0.1 U
Benzo(k)fluoranthene	0.5	µg/L	NA	0.1 U
Chrysene	4.8	µg/L	NA	0.1 U
Dibenz(a,h)anthracene	0.2	µg/L	NA	0.1 U
Fluoranthene	280	µg/L	NA	0.1 U
Fluorene	280	µg/L	NA	0.5 U
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA	0.25 U
Naphthalene	20	µg/L	NA	0.25 U
Phenanthrene	210	µg/L	NA	0.1 U
Pyrene	210	µg/L	NA	0.1 U
EDB	0.02	µg/L	BDL	NA
TRPH	5000	µg/L	BDL	220 JB
Aluminum	200	µg/L	NA	NA
Arsenic	50	µg/L	NA	NA
Cadmium	5	µg/L	NA	NA
Chromium	100	µg/L	NA	NA
Iron	300	µg/L	NA	NA
Lead	15	µg/L	BDL	15 U
Manganese	50	µg/L	NA	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-67

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	7/10/00	5/31/06
Carbon Dioxide free	NA	µg/L	NA	20400
Alkalinity, total (as CaCO3)	NA	µg/L	NA	4690
Total organic carbon	NA	µg/L	NA	100000 U
Benzene	1	µg/L	**3.1**	1 U
Ethylbenzene	30	µg/L	42.6	2.8
MTBE	50	µg/L	7.7	1 U
Toluene	40	µg/L	4.8	0.27 JB
Xylene (total)	20	µg/L	**140**	10.2
1-Methylnaphthalene	20	µg/L	NA	0.23 JB
2-Methylnaphthalene	20	µg/L	NA	0.073 JB
Acenaphthene	20	µg/L	NA	0.02 U
Acenaphthylene	210	µg/L	NA	0.02 U
Anthracene	2100	µg/L	NA	0.02 U
Benzo(a)anthracene	0.2	µg/L	NA	0.02 U
Benzo(a)pyrene	0.2	µg/L	NA	0.02 U
Benzo(b)fluoranthene	0.2	µg/L	NA	0.02 U
Benzo(g,h,I)perylene	210	µg/L	NA	0.02 U
Benzo(k)fluoranthene	0.5	µg/L	NA	0.02 U
Chrysene	4.8	µg/L	NA	0.02 U
Dibenz(a,h)anthracene	0.2	µg/L	NA	**0.02 U**
Fluoranthene	280	µg/L	NA	0.02 U
Fluorene	280	µg/L	NA	0.0053 JB
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA	0.02 U
Naphthalene	20	µg/L	NA	0.054 JB
Phenanthrene	210	µg/L	NA	0.02 U
Pyrene	210	µg/L	NA	0.02 U
EDB	0.02	µg/L	NA	NA
TRPH	5000	µg/L	945	550
Aluminum	200	µg/L	NA	NA
Arsenic	50	µg/L	NA	NA
Cadmium	5	µg/L	NA	NA
Chromium	100	µg/L	NA	NA
Iron	300	µg/L	NA	NA
Lead	15	µg/L	9.6	12
Manganese	50	µg/L	NA	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-68

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	7/10/00
Benzene	1	µg/L	BDL
Ethylbenzene	30	µg/L	43.2
MTBE	50	µg/L	20.6
Toluene	40	µg/L	BDL
Xylene (total)	20	µg/L	BDL
1-Methylnaphthalene	20	µg/L	NA
2-Methylnaphthalene	20	µg/L	NA
Acenaphthene	20	µg/L	NA
Acenaphthylene	210	µg/L	NA
Anthracene	2100	µg/L	NA
Benzo(a)anthracene	0.2	µg/L	NA
Benzo(a)pyrene	0.2	µg/L	NA
Benzo(b)fluoranthene	0.2	µg/L	NA
Benzo(g,h,I)perylene	210	µg/L	NA
Benzo(k)fluoranthene	0.5	µg/L	NA
Chrysene	4.8	µg/L	NA
Dibenz(a,h)anthracene	0.2	µg/L	NA
Fluoranthene	280	µg/L	NA
Fluorene	280	µg/L	NA
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA
Naphthalene	20	µg/L	NA
Phenanthrene	210	µg/L	NA
Pyrene	210	µg/L	NA
EDB	0.02	µg/L	NA
TRPH	5000	µg/L	BDL
Aluminum	200	µg/L	NA
Arsenic	50	µg/L	NA
Cadmium	5	µg/L	NA
Chromium	100	µg/L	NA
Iron	300	µg/L	NA
Lead	15	µg/L	BDL
Manganese	50	µg/L	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-69

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	7/10/00	5/31/06
Carbon Dioxide free	NA	µg/L	NA	NA
Alkalinity, total (as CaCO3)	NA	µg/L	NA	NA
Total organic carbon	NA	µg/L	NA	NA
Benzene	1	µg/L	BDL	1 U
Ethylbenzene	30	µg/L	BDL	1 U
MTBE	50	µg/L	BDL	1 U
Toluene	40	µg/L	BDL	1 U
Xylene (total)	20	µg/L	BDL	3 U
1-Methylnaphthalene	20	µg/L	NA	0.02 U
2-Methylnaphthalene	20	µg/L	NA	0.02 UJ
Acenaphthene	20	µg/L	NA	0.02 U
Acenaphthylene	210	µg/L	NA	0.02 U
Anthracene	2100	µg/L	NA	0.02 U
Benzo(a)anthracene	0.2	µg/L	NA	0.02 U
Benzo(a)pyrene	0.2	µg/L	NA	0.02 U
Benzo(b)fluoranthene	0.2	µg/L	NA	0.02 U
Benzo(g,h,I)perylene	210	µg/L	NA	0.02 U
Benzo(k)fluoranthene	0.5	µg/L	NA	0.02 U
Chrysene	4.8	µg/L	NA	0.02 U
Dibenz(a,h)anthracene	0.2	µg/L	NA	**0.02 U**
Fluoranthene	280	µg/L	NA	0.02 U
Fluorene	280	µg/L	NA	0.02 U
Indeno(1,2,3-cd)pyrene	0.2	µg/L	NA	0.02 U
Naphthalene	20	µg/L	NA	0.02 U
Phenanthrene	210	µg/L	NA	0.02 U
Pyrene	210	µg/L	NA	0.02 U
EDB	0.02	µg/L	NA	NA
TRPH	5000	µg/L	BDL	240
Aluminum	200	µg/L	NA	NA
Arsenic	50	µg/L	NA	NA
Cadmium	5	µg/L	NA	NA
Chromium	100	µg/L	NA	NA
Iron	300	µg/L	NA	NA
Lead	15	µg/L	BDL	5 U
Manganese	50	µg/L	NA	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-70

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	5/27/04	6/1/06
Carbon Dioxide free	NA	µg/L	NA	NA
Alkalinity, total (as CaCO3)	NA	µg/L	NA	NA
Total organic carbon	NA	µg/L	NA	NA
Benzene	1	µg/L	1 U	1 U
Ethylbenzene	30	µg/L	**34.7 =**	**134**
MTBE	50	µg/L	10 U	1 U
Toluene	40	µg/L	10 U	0.21 J
Xylene (total)	20	µg/L	**59.3 =**	**323**
1-Methylnaphthalene	20	µg/L	1 U	0.079 JB
2-Methylnaphthalene	20	µg/L	1 U	0.12 JB
Acenaphthene	20	µg/L	1 U	0.019 U
Acenaphthylene	210	µg/L	1 U	0.019 U
Anthracene	2100	µg/L	0.1 U	0.019 U
Benzo(a)anthracene	0.2	µg/L	0.1 U	0.012 JB
Benzo(a)pyrene	0.2	µg/L	0.1 U	0.019 U
Benzo(b)fluoranthene	0.2	µg/L	0.1 U	0.019 U
Benzo(g,h,I)perylene	210	µg/L	0.1 U	0.019 U
Benzo(k)fluoranthene	0.5	µg/L	0.1 U	0.019 U
Chrysene	4.8	µg/L	0.1 U	0.019 U
Dibenz(a,h)anthracene	0.2	µg/L	0.1 U	**0.019 U**
Fluoranthene	280	µg/L	0.1 U	0.019 U
Fluorene	280	µg/L	0.5 U	0.004 JB
Indeno(1,2,3-cd)pyrene	0.2	µg/L	0.25 U	0.019 U
Naphthalene	20	µg/L	0.25 U	0.24 JB
Phenanthrene	210	µg/L	0.1 U	0.019 U
Pyrene	210	µg/L	0.1 U	0.019 U
EDB	0.02	µg/L	NA	NA
TRPH	5000	µg/L	668 JB	880
Aluminum	200	µg/L	NA	NA
Arsenic	50	µg/L	NA	NA
Cadmium	5	µg/L	NA	NA
Chromium	100	µg/L	NA	NA
Iron	300	µg/L	NA	NA
Lead	15	µg/L	4.8 B	4.18 JB
Manganese	50	µg/L	NA	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-71

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	5/27/04	6/1/06
Carbon Dioxide free	NA	µg/L	NA	NA
Alkalinity, total (as CaCO3)	NA	µg/L	NA	NA
Total organic carbon	NA	µg/L	NA	NA
Benzene	1	µg/L	2 U	1 U
Ethylbenzene	30	µg/L	**223 =**	**249**
MTBE	50	µg/L	20 U	1 U
Toluene	40	µg/L	**95 JB**	**44.9**
Xylene (total)	20	µg/L	**723 =**	**935**
1-Methylnaphthalene	20	µg/L	1 U	0.078 JB
2-Methylnaphthalene	20	µg/L	1 U	0.057 JB
Acenaphthene	20	µg/L	1 U	0.019 U
Acenaphthylene	210	µg/L	1 U	0.019 U
Anthracene	2100	µg/L	0.1 U	0.019 U
Benzo(a)anthracene	0.2	µg/L	0.1 U	0.013 JB
Benzo(a)pyrene	0.2	µg/L	0.1 U	0.019 U
Benzo(b)fluoranthene	0.2	µg/L	0.1 U	0.019 U
Benzo(g,h,I)perylene	210	µg/L	0.1 U	0.019 U
Benzo(k)fluoranthene	0.5	µg/L	0.1 U	0.019 U
Chrysene	4.8	µg/L	0.1 U	0.019 U
Dibenz(a,h)anthracene	0.2	µg/L	0.1 U	**0.019 U**
Fluoranthene	280	µg/L	0.1 U	0.019 U
Fluorene	280	µg/L	0.5 U	0.0084 JB
Indeno(1,2,3-cd)pyrene	0.2	µg/L	0.25 U	0.019 U
Naphthalene	20	µg/L	0.25 U	0.27 JB
Phenanthrene	210	µg/L	0.1 U	0.019 U
Pyrene	210	µg/L	0.1 U	0.011 B
EDB	0.02	µg/L	NA	NA
TRPH	5000	µg/L	3790 JB	2400
Aluminum	200	µg/L	NA	NA
Arsenic	50	µg/L	NA	NA
Cadmium	5	µg/L	NA	NA
Chromium	100	µg/L	NA	NA
Iron	300	µg/L	NA	NA
Lead	15	µg/L	**29 B**	**29.2 JB**
Manganese	50	µg/L	NA	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-72

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	5/27/04	5/31/06
Carbon Dioxide free	NA	µg/L	NA	NA
Alkalinity, total (as CaCO3)	NA	µg/L	NA	NA
Total organic carbon	NA	µg/L	NA	NA
Benzene	1	µg/L	0.5 U	1 U
Ethylbenzene	30	µg/L	5 U	1 U
MTBE	50	µg/L	5 U	1 U
Toluene	40	µg/L	5 U	1 U
Xylene (total)	20	µg/L	10 U	3 U
1-Methylnaphthalene	20	µg/L	1 U	0.02 U
2-Methylnaphthalene	20	µg/L	1 U	0.02 UJ
Acenaphthene	20	µg/L	1 U	0.02 U
Acenaphthylene	210	µg/L	1 U	0.02 U
Anthracene	2100	µg/L	0.1 U	0.02 U
Benzo(a)anthracene	0.2	µg/L	0.1 U	0.02 U
Benzo(a)pyrene	0.2	µg/L	0.1 U	0.02 U
Benzo(b)fluoranthene	0.2	µg/L	0.1 U	0.02 U
Benzo(g,h,I)perylene	210	µg/L	0.1 U	0.02 U
Benzo(k)fluoranthene	0.5	µg/L	0.1 U	0.02 U
Chrysene	4.8	µg/L	0.1 U	0.02 U
Dibenz(a,h)anthracene	0.2	µg/L	0.1 U	**0.02 U**
Fluoranthene	280	µg/L	0.1 U	0.02 U
Fluorene	280	µg/L	0.5 U	0.02 U
Indeno(1,2,3-cd)pyrene	0.2	µg/L	0.25 U	0.02 U
Naphthalene	20	µg/L	0.25 U	0.02 U
Phenanthrene	210	µg/L	0.1 U	0.02 U
Pyrene	210	µg/L	0.1 U	0.02 U
EDB	0.02	µg/L	NA	NA
TRPH	5000	µg/L	148 JB	250
Aluminum	200	µg/L	NA	NA
Arsenic	50	µg/L	NA	NA
Cadmium	5	µg/L	NA	NA
Chromium	100	µg/L	NA	NA
Iron	300	µg/L	NA	NA
Lead	15	µg/L	1 B	2.45 J
Lead-Dissolved	15	µg/L	**NA**	5 U
Manganese	50	µg/L	NA	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-73

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	5/27/04	5/31/06
Carbon Dioxide free	NA	µg/L	NA	NA
Alkalinity, total (as CaCO3)	NA	µg/L	NA	NA
Total organic carbon	NA	µg/L	NA	NA
Benzene	1	µg/L	2 U	1 U
Ethylbenzene	30	µg/L	9.15 J	1.9
MTBE	50	µg/L	20 U	1 U
Toluene	40	µg/L	20 U	1 U
Xylene (total)	20	µg/L	**20.8 J**	5.4
1-Methylnaphthalene	20	µg/L	1 U	0.17 JB
2-Methylnaphthalene	20	µg/L	1 U	0.22 JB
Acenaphthene	20	µg/L	1 U	0.02 U
Acenaphthylene	210	µg/L	1 U	0.02 U
Anthracene	2100	µg/L	0.1 U	0.02 U
Benzo(a)anthracene	0.2	µg/L	0.1 U	0.02 U
Benzo(a)pyrene	0.2	µg/L	0.1 U	0.02 U
Benzo(b)fluoranthene	0.2	µg/L	0.1 U	0.02 U
Benzo(g,h,I)perylene	210	µg/L	0.1 U	0.02 U
Benzo(k)fluoranthene	0.5	µg/L	0.1 U	0.02 U
Chrysene	4.8	µg/L	0.1 U	0.02 U
Dibenz(a,h)anthracene	0.2	µg/L	0.1 U	**0.02 U**
Fluoranthene	280	µg/L	0.1 U	0.02 U
Fluorene	280	µg/L	0.5 U	0.0044 JB
Indeno(1,2,3-cd)pyrene	0.2	µg/L	0.25 U	0.02 U
Naphthalene	20	µg/L	0.25 U	0.02 U
Phenanthrene	210	µg/L	0.1 U	0.02 U
Pyrene	210	µg/L	0.1 U	0.02 U
EDB	0.02	µg/L	NA	NA
TRPH	5000	µg/L	1770 B	1600
Aluminum	200	µg/L	NA	NA
Arsenic	50	µg/L	NA	NA
Cadmium	5	µg/L	NA	NA
Chromium	100	µg/L	NA	NA
Iron	300	µg/L	NA	NA
Lead	15	µg/L	**24 B**	**20.2**
Manganese	50	µg/L	NA	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-74

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	5/27/04	5/31/06
Carbon Dioxide free	NA	µg/L	NA	NA
Alkalinity, total (as CaCO3)	NA	µg/L	NA	NA
Total organic carbon	NA	µg/L	NA	NA
Benzene	1	µg/L	5 U	1 U
Ethylbenzene	30	µg/L	**221 =**	**109**
MTBE	50	µg/L	50 U	1 U
Toluene	40	µg/L	50 U	2 JB
Xylene (total)	20	µg/L	**689 =**	**364**
1-Methylnaphthalene	20	µg/L	1 U	0.19 JB
2-Methylnaphthalene	20	µg/L	1 U	0.29 JB
Acenaphthene	20	µg/L	1 U	0.02 U
Acenaphthylene	210	µg/L	1 U	0.02 U
Anthracene	2100	µg/L	0.1 U	0.02 U
Benzo(a)anthracene	0.2	µg/L	0.1 U	0.02 U
Benzo(a)pyrene	0.2	µg/L	0.1 U	0.02 U
Benzo(b)fluoranthene	0.2	µg/L	0.1 U	0.02 U
Benzo(g,h,I)perylene	210	µg/L	0.1 U	0.02 U
Benzo(k)fluoranthene	0.5	µg/L	0.1 U	0.02 U
Chrysene	4.8	µg/L	0.1 U	0.02 U
Dibenz(a,h)anthracene	0.2	µg/L	0.1 U	**0.02 U**
Fluoranthene	280	µg/L	0.1 U	0.02 U
Fluorene	280	µg/L	0.5 U	0.0067 JB
Indeno(1,2,3-cd)pyrene	0.2	µg/L	0.25 U	0.02 U
Naphthalene	20	µg/L	0.25 U	0.39 JB
Phenanthrene	210	µg/L	0.1 U	0.015 JB
Pyrene	210	µg/L	0.1 U	0.02 U
EDB	0.02	µg/L	NA	NA
TRPH	5000	µg/L	4260 JB	1400
Aluminum	200	µg/L	NA	NA
Arsenic	50	µg/L	NA	NA
Cadmium	5	µg/L	NA	NA
Chromium	100	µg/L	NA	NA
Iron	300	µg/L	NA	NA
Lead	15	µg/L	**24 B**	11.4
Lead-Dissolved	15	µg/L	**NA**	8.45
Manganese	50	µg/L	NA	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Previous Groundwater Results for MW-75

Site 1159, Bronson Field NAS Pensacola, FL

Analyte	FDEP Cleanup Target Level	Units	5/27/04	6/1/06
Carbon Dioxide free	NA	µg/L	NA	59300 JB
Alkalinity, total (as CaCO3)	NA	µg/L	NA	25100
Total organic carbon	NA	µg/L	NA	7250 JB
Benzene	1	µg/L	0.5 U	1 U
Ethylbenzene	30	µg/L	10 =	2.8
MTBE	50	µg/L	5 U	1 U
Toluene	40	µg/L	5 U	1 U
Xylene (total)	20	µg/L	15.6 =	5.4
1-Methylnaphthalene	20	µg/L	1 U	0.029 JB
2-Methylnaphthalene	20	µg/L	1 U	0.048 JB
Acenaphthene	20	µg/L	1 U	0.019 U
Acenaphthylene	210	µg/L	1 U	0.019 U
Anthracene	2100	µg/L	0.1 U	0.019 U
Benzo(a)anthracene	0.2	µg/L	0.1 U	0.019 U
Benzo(a)pyrene	0.2	µg/L	0.1 U	0.019 U
Benzo(b)fluoranthene	0.2	µg/L	0.1 U	0.019 U
Benzo(g,h,I)perylene	210	µg/L	0.1 U	0.019 U
Benzo(k)fluoranthene	0.5	µg/L	0.1 U	0.019 U
Chrysene	4.8	µg/L	0.1 U	0.019 U
Dibenz(a,h)anthracene	0.2	µg/L	0.1 U	**0.019 U**
Fluoranthene	280	µg/L	0.1 U	0.019 U
Fluorene	280	µg/L	0.5 U	0.019 U
Indeno(1,2,3-cd)pyrene	0.2	µg/L	0.25 U	0.019 U
Naphthalene	20	µg/L	0.25 U	0.072 JB
Phenanthrene	210	µg/L	0.1 U	0.019 U
Pyrene	210	µg/L	0.1 U	0.011 B
EDB	0.02	µg/L	NA	NA
TRPH	5000	µg/L	590 JB	360
Aluminum	200	µg/L	NA	NA
Arsenic	50	µg/L	NA	NA
Cadmium	5	µg/L	NA	NA
Chromium	100	µg/L	NA	NA
Iron	300	µg/L	NA	NA
Lead	15	µg/L	9.6 B	5.15 JB
Manganese	50	µg/L	NA	NA

B	blank contaminated
J	estimated value
µg/L	micrograms per liter
MDL	method detection limit
mg/L	milligrams per liter
NA	not analyzed
NC	no criteria
TRPH	total recoverable petroleum hydrocarbons
U	undetected value, at detection limit shown

Appendix C

Field Data Information Logs for Groundwater Sampling

Field Data Information Log for Groundwater Sampling

Date (mm/dd/yy)	6/1/2006	**Casing Diameter**	2
Field Personnel	Willis, Hayslip, Diamond, Krietz	**Casing Material**	POLYVINYL CHLORIDE (PVC)
Site Name	Site 1159	**Measuring Point Elevation**	17.4
Job Number	266690	**Height of Riser (above land surface)**	
Well ID #	DMW-60	**Land Surface Elevation**	17.63
Weather Conditions	Clear, humid, hot	**Screened Interval**	35 - 40
Air Temperature	92	**Dedicated Pump or Bailer**	Tubing
Total Well Depth (TWD)	38.54	**Steel Guard Pipe Around Casing**	Y
Depth to Groundwater (DGW)	14.2	**Locking Cap**	Y
Length of Water Column (LWC) = TWD - DGW =	24.34	**Protective Post/Abutment**	N
1 Casing Volume = LWC x CasingFactor =	3.97	**Well Integrity Satifactory**	Good
Standard Evacuation Volume	11.90	**Well Yield**	Good
Method of Well Evacuation	Geopump	**Comments**	Purge water clear, no odor detected
Method of Sample Collection	Geopump		
Total Volume of Water Removed (gallons)	12.15		

Time	Volume Purged (gal)	Pumping Rate (gpm)	Depth to Water (ft btoc)	Turbidity (NTU)	Temperature (deg C)	pH	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	ORP	Salinity (%)	Comments
12:45	0	0.15	14.2	125	23.33	4.57	0.036	9.31	102	0	
13:12	4.05	0.15	14.2	14.4	21.65	3.8	0.037	8.15	220	0	
13:39	8.1	0.15	14.2	5.74	21.72	3.87	0.037	7.99	218	0	
14:06	12.15	0.15	14.2	1.35	21.53	3.83	0.037	8.02	207	0	

Sample ID# MW600606 **Sample Time** 14:10

Field Data Information Log for Groundwater Sampling

Date (mm/dd/yy)	5/31/2006	**Casing Diameter**	2
Field Personnel	Willis, Hayslip, Diamond, Krietz	**Casing Material**	POLYVINYL CHLORIDE (PVC)
Site Name	Site 1159	**Measuring Point Elevation**	10.71
Job Number	266690	**Height of Riser (above land surface)**	
Well ID #	DMW-61	**Land Surface Elevation**	11.03
Weather Conditions	clear, humid, light breeze	**Screened Interval**	24 - 29
Air Temperature	84	**Dedicated Pump or Bailer**	Tubing
Total Well Depth (TWD)	29.92	**Steel Guard Pipe Around Casing**	Y
Depth to Groundwater (DGW)	7.8	**Locking Cap**	Y
Length of Water Column (LWC) = TWD - DGW =	22.12	**Protective Post/Abutment**	N
1 Casing Volume = LWC x CasingFactor =	3.61	**Well Integrity Satifactory**	Good
Standard Evacuation Volume	10.82	**Well Yield**	Good
Method of Well Evacuation	Geopump	**Comments**	Slightly turbid at start, cleared up at end of purge. Lt Tan in color with no odor
Method of Sample Collection	Geopump		
Total Volume of Water Removed (gallons)	10.81		

Time	Volume Purged (gal)	Pumping Rate (gpm)	Depth to Water (ft btoc)	Turbidity (NTU)	Temperature (deg C)	pH	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	ORP	Salinity (%)	Comments
9:30	0	0.15	7.8	153	22.38	4.65	0.122	8.05	329	0	
9:54	3.6	0.15	7.82	14	22.03	4.48	0.063	6.37	374	0	
10:18	7.2	0.15	7.84	9.1	22.08	4.7	0.063	6.43	269	0	
10:42	10.81	0.15	7.83	6.1	22.13	4.61	0.063	6.33	250	0	

Sample ID# MW610606 **Sample Time** 10:50

Field Data Information Log for Groundwater Sampling

Date (mm/dd/yy)	5/31/2006	**Casing Diameter**	2
Field Personnel	Willis, Hayslip, Diamond, Krietz	**Casing Material**	POLYVINYL CHLORIDE (PVC)
Site Name	Site 1159	**Measuring Point Elevation**	12.975
Job Number	266690	**Height of Riser (above land surface)**	
Well ID #	DMW-69	**Land Surface Elevation**	13.29
Weather Conditions	clear, humid, light breeze	**Screened Interval**	-
Air Temperature	90	**Dedicated Pump or Bailer**	Tubing
Total Well Depth (TWD)	29.34	**Steel Guard Pipe Around Casing**	Y
Depth to Groundwater (DGW)	9.9	**Locking Cap**	Y
Length of Water Column (LWC) = TWD - DGW =	19.44	**Protective Post/Abutment**	N
1 Casing Volume = LWC x CasingFactor =	3.17	**Well Integrity Satifactory**	Good
Standard Evacuation Volume	9.51	**Well Yield**	Good
Method of Well Evacuation	Geopump	**Comments**	Milky-orange in color at start then clearing at end of purge. No odor detected.
Method of Sample Collection	Geopump		
Total Volume of Water Removed (gallons)	9.9		

Time	Volume Purged (gal)	Pumping Rate (gpm)	Depth to Water (ft btoc)	Turbidity (NTU)	Temperature (deg C)	pH	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	ORP	Salinity (%)	Comments
9:32	0	0.15	9.9	575	21.53	4.15	0.066	7.19	235	0	
9:54	3.3	0.15	9.92	17.8	21.69	3.79	0.065	6.65	83	0	
10:16	6.6	0.15	9.92	9.75	21.39	3.66	0.064	6.62	135	0	
10:38	9.9	0.15	9.92	3.42	21.63	3.63	0.064	6.39	190	0	

Sample ID# MW690606 **Sample Time** 10:40

Field Data Information Log for Groundwater Sampling

Date (mm/dd/yy)	5/31/2006	**Casing Diameter**	2
Field Personnel	Willis, Hayslip, Diamond, Krietz	**Casing Material**	POLYVINYL CHLORIDE (PVC)
Site Name	Site 1159	**Measuring Point Elevation**	13.035
Job Number	266690	**Height of Riser (above land surface)**	
Well ID #	MW-01	**Land Surface Elevation**	10.99
Weather Conditions	clear, humid, light breeze	**Screened Interval**	5 - 15
Air Temperature	83	**Dedicated Pump or Bailer**	Tubing
Total Well Depth (TWD)	16.14	**Steel Guard Pipe Around Casing**	Y
Depth to Groundwater (DGW)	10.15	**Locking Cap**	Y
Length of Water Column (LWC) = TWD - DGW =	5.99	**Protective Post/Abutment**	N
1 Casing Volume = LWC x CasingFactor =	0.98	**Well Integrity Satifactory**	Good
Standard Evacuation Volume	2.93	**Well Yield**	Good
Method of Well Evacuation	Geopump	**Comments**	Muddy, brown in color at start, cleared at end of purge. Old fuel, sulfur like odor
Method of Sample Collection	Geopump		
Total Volume of Water Removed (gallons)	4.9		

Time	Volume Purged (gal)	Pumping Rate (gpm)	Depth to Water (ft btoc)	Turbidity (NTU)	Temperature (deg C)	pH	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	ORP	Salinity (%)	Comments
10:00	0	0.15	10.15	477	23.55	5.74	0.12	4.78	66	0	
10:07	0.98	0.15	10.19	43.2	23.29	6.07	0.113	1.69	-66	0	
10:14	1.96	0.15	10.2	78.1	23.4	6.07	0.109	1.19	-89	0	
10:21	2.94	0.15	10.2	60.4	23.43	6.09	0.107	1.01	-105	0	
10:28	3.92	0.15	10.2	43.2	23.39	6.11	0.106	0.97	-110	0	
10:35	4.9	0.15	10.2	37.9	23.34	6.1	0.106	0.88	-113	0	

Sample ID# MW010606 **Sample Time** 10:35

Field Data Information Log for Groundwater Sampling

Date (mm/dd/yy)	5/31/2006	**Casing Diameter**	2
Field Personnel	Willis, Hayslip, Diamond, Krietz	**Casing Material**	POLYVINYL CHLORIDE (PVC)
Site Name	Site 1159	**Measuring Point Elevation**	10.01
Job Number	266690	**Height of Riser (above land surface)**	
Well ID #	MW-04	**Land Surface Elevation**	10.28
Weather Conditions	clear, humid, light breeze	**Screened Interval**	3 - 13
Air Temperature	92	**Dedicated Pump or Bailer**	Tubing
Total Well Depth (TWD)	12.29	**Steel Guard Pipe Around Casing**	Y
Depth to Groundwater (DGW)	7.12	**Locking Cap**	Y
Length of Water Column (LWC) = TWD - DGW =	5.17	**Protective Post/Abutment**	N
1 Casing Volume = LWC x CasingFactor =	0.84	**Well Integrity Satifactory**	Good
Standard Evacuation Volume	2.53	**Well Yield**	Good
Method of Well Evacuation	Geopump	**Comments**	Purge water clear with a slight HC odor detected
Method of Sample Collection	Geopump		
Total Volume of Water Removed (gallons)	3.6		

Time	Volume Purged (gal)	Pumping Rate (gpm)	Depth to Water (ft btoc)	Turbidity (NTU)	Temperature (deg C)	pH	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	ORP	Salinity (%)	Comments
13:11	0	0.15	7.12	243	23.36	4.81	0.036	0.32	12	0	
13:17	0.9	0.15	7.6	28.5	22.8	4.26	0.028	0	1	0	
13:23	1.8	0.15	7.6	13.4	22.75	4.25	0.029	0	-19	0	
13:29	2.7	0.15	7.6	12.4	22.71	4.27	0.029	0	-30	0	
13:35	3.6	0.15	7.6	9.79	22.78	4.26	0.029	0	-34	0	

Sample ID# MW40606 **Sample Time** 13:38

Field Data Information Log for Groundwater Sampling

Date (mm/dd/yy)	5/31/2006	**Casing Diameter**	2
Field Personnel	Willis, Hayslip, Diamond, Krietz	**Casing Material**	POLYVINYL CHLORIDE (PVC)
Site Name	Site 1159	**Measuring Point Elevation**	10.94
Job Number	266690	**Height of Riser (above land surface)**	
Well ID #	MW-09	**Land Surface Elevation**	11.18
Weather Conditions	clear, humid, light breeze	**Screened Interval**	4 - 14
Air Temperature	86	**Dedicated Pump or Bailer**	Tubing
Total Well Depth (TWD)	13.69	**Steel Guard Pipe Around Casing**	Y
Depth to Groundwater (DGW)	8.11	**Locking Cap**	Y
Length of Water Column (LWC) = TWD - DGW =	5.58	**Protective Post/Abutment**	N
1 Casing Volume = LWC x CasingFactor =	0.91	**Well Integrity Satifactory**	Good
Standard Evacuation Volume	2.73	**Well Yield**	Good
Method of Well Evacuation	Geopump	**Comments**	Muddy, brown in color, turbid to start then cleared a little at end of purge.
Method of Sample Collection	Geopump		
Total Volume of Water Removed (gallons)	4.55		

Time	Volume Purged (gal)	Pumping Rate (gpm)	Depth to Water (ft btoc)	Turbidity (NTU)	Temperature (deg C)	pH	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	ORP	Salinity (%)	Comments
11:08	0	0.15	8.11	999 +	24.5	6.11	0.246	4.01	-117	0.01	
11:14	0.91	0.15	8.41	169	23.41	5.71	0.117	0.42	-107	0	
11:20	1.82	0.15	8.46	98.4	23.35	5.73	0.116	0.38	-108	0	
11:26	2.73	0.15	8.47	65.9	23.35	5.76	0.117	0.37	-111	0	
11:32	3.64	0.15	8.47	60.1	23.38	5.81	0.118	0.38	-114	0	
11:38	4.55	0.15	8.47	71.1	23.37	5.81	0.118	0.38	-114	0	

Sample ID# MW090606 **Sample Time** 11:40

Field Data Information Log for Groundwater Sampling

Date (mm/dd/yy)	6/1/2006	**Casing Diameter**	2
Field Personnel	Willis, Hayslip, Diamond, Krietz	**Casing Material**	POLYVINYL CHLORIDE (PVC)
Site Name	Site 1159	**Measuring Point Elevation**	10.75
Job Number	266690	**Height of Riser (above land surface)**	
Well ID #	MW-18	**Land Surface Elevation**	11.01
Weather Conditions	Clear, humid, hot	**Screened Interval**	4 - 14
Air Temperature	85	**Dedicated Pump or Bailer**	Tubing
Total Well Depth (TWD)	10.25	**Steel Guard Pipe Around Casing**	Y
Depth to Groundwater (DGW)	8.84	**Locking Cap**	Y
Length of Water Column (LWC) = TWD - DGW =	1.41	**Protective Post/Abutment**	N
1 Casing Volume = LWC x CasingFactor =	0.23	**Well Integrity Satifactory**	Good
Standard Evacuation Volume	0.69	**Well Yield**	Good
Method of Well Evacuation	Geopump	**Comments**	Purge water clear with a HC odor detected
Method of Sample Collection	Geopump		
Total Volume of Water Removed (gallons)	1.5		

Time	Volume Purged (gal)	Pumping Rate (gpm)	Depth to Water (ft btoc)	Turbidity (NTU)	Temperature (deg C)	pH	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	ORP	Salinity (%)	Comments
9:06	0	0.1	8.84	56.9	22.8	5.05	0.154	2.22	-53	0	
9:09	0.3	0.1	7.95	63.3	21.56	5.12	0.084	0	-88	0	
9:12	0.6	0.1	7.95	50.5	21.44	5.06	0.093	0	-90	0	
9:15	0.9	0.1	7.95	29.5	21.37	5.07	0.098	0	-97	0	
9:18	1.2	0.1	7.95	26.1	21.33	5.06	0.107	0	-100	0	
9:21	1.5	0.1	7.95	19.9	21.32	5.06	0.113	0	-108	0	

Sample ID# MW180606 **Sample Time** 9:25

Field Data Information Log for Groundwater Sampling

Date (mm/dd/yy)	5/31/2006	**Casing Diameter**	2
Field Personnel	Willis, Hayslip, Diamond, Krietz	**Casing Material**	POLYVINYL CHLORIDE (PVC)
Site Name	Site 1159	**Measuring Point Elevation**	11.565
Job Number	266690	**Height of Riser (above land surface)**	
Well ID #	MW-20	**Land Surface Elevation**	11.84
Weather Conditions	clear, humid, light breeze (S/SE 5-10 mph)	**Screened Interval**	4 - 14
Air Temperature	86	**Dedicated Pump or Bailer**	Tubing
Total Well Depth (TWD)	13.8	**Steel Guard Pipe Around Casing**	Y
Depth to Groundwater (DGW)	8.75	**Locking Cap**	Y
Length of Water Column (LWC) = TWD - DGW =	5.05	**Protective Post/Abutment**	N
1 Casing Volume = LWC x CasingFactor =	0.82	**Well Integrity Satifactory**	Good
Standard Evacuation Volume	2.47	**Well Yield**	Good
Method of Well Evacuation	Geopump	**Comments**	Slightly trubid, light brown in color at start, no odor. Collected MS/MSD
Method of Sample Collection	Geopump		
Total Volume of Water Removed (gallons)	2.47		

Time	Volume Purged (gal)	Pumping Rate (gpm)	Depth to Water (ft btoc)	Turbidity (NTU)	Temperature (deg C)	pH	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	ORP	Salinity (%)	Comments
11:53	0	0.15	8.75	284	24.37	6.18	0.279	2.7	-72	0.01	
11:59	0.82	0.15	8.92	47.6	24.3	6.11	0.251	0.36	-76	0.01	
12:04	1.64	0.15	8.93	22.8	24.27	6.08	0.24	0.29	-77	0.01	
12:10	2.47	0.15	8.93	10.3	24.32	6.1	0.241	0.34	-76	0.01	

Sample ID# MW200606 **Sample Time** 12:15

Field Data Information Log for Groundwater Sampling

Date (mm/dd/yy)	5/31/2006	**Casing Diameter**	2
Field Personnel	Willis, Hayslip, Diamond, Krietz	**Casing Material**	POLYVINYL CHLORIDE (PVC)
Site Name	Site 1159	**Measuring Point Elevation**	11.915
Job Number	266690	**Height of Riser (above land surface)**	
Well ID #	MW-22	**Land Surface Elevation**	12.1
Weather Conditions	clear, humid, light breeze	**Screened Interval**	4 - 14
Air Temperature	87	**Dedicated Pump or Bailer**	Tubing
Total Well Depth (TWD)	13.95	**Steel Guard Pipe Around Casing**	Y
Depth to Groundwater (DGW)	8.82	**Locking Cap**	Y
Length of Water Column (LWC) = TWD - DGW =	5.13	**Protective Post/Abutment**	N
1 Casing Volume = LWC x CasingFactor =	0.84	**Well Integrity Satifactory**	Good
Standard Evacuation Volume	2.51	**Well Yield**	Good
Method of Well Evacuation	Geopump	**Comments**	Slightly turbid at start of purge, cleared at end of purge, no odor detected
Method of Sample Collection	Geopump		
Total Volume of Water Removed (gallons)	2.5		

Time	Volume Purged (gal)	Pumping Rate (gpm)	Depth to Water (ft btoc)	Turbidity (NTU)	Temperature (deg C)	pH	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	ORP	Salinity (%)	Comments
12:23	0	0.15	8.82	355	22.57	6.09	0.112	2.07	-20	0	
12:29	0.84	0.15	8.95	27.2	22.49	5.94	0.109	0.19	-80	0	
12:35	1.68	0.15	8.96	19.6	22.46	6	0.112	0.18	-113	0	
12:41	2.5	0.15	8.96	10.6	22.51	6.05	0.108	0.17	-116	0	

Sample ID# MW220606 **Sample Time** 12:45

Field Data Information Log for Groundwater Sampling

Date (mm/dd/yy)	5/31/2006	**Casing Diameter**	2
Field Personnel	Willis, Hayslip, Diamond, Krietz	**Casing Material**	POLYVINYL CHLORIDE (PVC)
Site Name	Site 1159	**Measuring Point Elevation**	9.78
Job Number	266690	**Height of Riser (above land surface)**	
Well ID #	MW-24	**Land Surface Elevation**	10.01
Weather Conditions	clear, humid, light breeze	**Screened Interval**	4 - 14
Air Temperature	90	**Dedicated Pump or Bailer**	Tubing
Total Well Depth (TWD)	13.55	**Steel Guard Pipe Around Casing**	Y
Depth to Groundwater (DGW)	6.94	**Locking Cap**	Y
Length of Water Column (LWC) = TWD - DGW =	6.61	**Protective Post/Abutment**	N
1 Casing Volume = LWC x CasingFactor =	1.08	**Well Integrity Satifactory**	Good
Standard Evacuation Volume	3.23	**Well Yield**	Good
Method of Well Evacuation	Geopump	**Comments**	Purge water is light brown in color with a slight HC odor detected
Method of Sample Collection	Geopump		
Total Volume of Water Removed (gallons)	6		

Time	Volume Purged (gal)	Pumping Rate (gpm)	Depth to Water (ft btoc)	Turbidity (NTU)	Temperature (deg C)	pH	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	ORP	Salinity (%)	Comments
11:46	0	0.15	6.94	999 +	22.29	5.17	0.26	0.29	-73	0.01	
11:55	1.2	0.15	6.97	48.2	21.41	5.28	0.245	0	-96	0.01	
12:03	2.4	0.15	6.97	16.9	21.45	5.24	0.244	0	-96	0.01	
12:11	3.6	0.15	6.97	13.6	21.39	5.22	0.242	0	-97	0.01	
12:19	4.8	0.15	6.97	10.9	21.4	5.22	0.243	0	-97	0.01	
12:27	6	0.15	6.97	6.94	21.46	5.2	0.24	0	-98	0.01	

Sample ID# MW240606 **Sample Time** 12:30

Field Data Information Log for Groundwater Sampling

Date (mm/dd/yy)	6/1/2006	**Casing Diameter**	2
Field Personnel	Willis, Hayslip, Diamond, Krietz	**Casing Material**	POLYVINYL CHLORIDE (PVC)
Site Name	Site 1159	**Measuring Point Elevation**	10.745
Job Number	266690	**Height of Riser (above land surface)**	
Well ID #	MW-25	**Land Surface Elevation**	11.02
Weather Conditions	Clear, humid, hot	**Screened Interval**	4 - 14
Air Temperature	92	**Dedicated Pump or Bailer**	Tubing
Total Well Depth (TWD)	13.52	**Steel Guard Pipe Around Casing**	Y
Depth to Groundwater (DGW)	7.9	**Locking Cap**	Y
Length of Water Column (LWC) = TWD - DGW =	5.62	**Protective Post/Abutment**	N
1 Casing Volume = LWC x CasingFactor =	0.92	**Well Integrity Satifactory**	Good
Standard Evacuation Volume	2.75	**Well Yield**	Good
Method of Well Evacuation	Geopump	**Comments**	Purge water clear with a slight HC odor detected
Method of Sample Collection	Geopump		
Total Volume of Water Removed (gallons)	5.25		

Time	Volume Purged (gal)	Pumping Rate (gpm)	Depth to Water (ft btoc)	Turbidity (NTU)	Temperature (deg C)	pH	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	ORP	Salinity (%)	Comments
9:37	0	0.15	7.9	610	21.97	5.24	0.089	2.07	-110	0	
9:44	1.05	0.15	7.9	76.7	21.14	5.12	0.088	0	-138	0	
9:51	2.1	0.15	7.9	33.5	21.17	5.26	0.088	0	-155	0	
9:58	3.15	0.15	7.9	22.5	21.16	5.28	0.088	0	-164	0	
10:05	4.2	0.15	7.9	17.4	21.1	5.28	0.088	0	-176	0	
10:12	5.25	0.15	7.9	15.8	21.1	5.32	0.087	0	-187	0	

Sample ID# MW250606 **Sample Time** 10:15

Field Data Information Log for Groundwater Sampling

Date (mm/dd/yy)	5/31/2006	**Casing Diameter**	2
Field Personnel	Willis, Hayslip, Diamond, Krietz	**Casing Material**	POLYVINYL CHLORIDE (PVC)
Site Name	Site 1159	**Measuring Point Elevation**	12.19
Job Number	266690	**Height of Riser (above land surface)**	
Well ID #	MW-28	**Land Surface Elevation**	12.39
Weather Conditions	clear, humid, light breeze	**Screened Interval**	4 - 14
Air Temperature	90	**Dedicated Pump or Bailer**	Tubing
Total Well Depth (TWD)	13.78	**Steel Guard Pipe Around Casing**	Y
Depth to Groundwater (DGW)	9.18	**Locking Cap**	Y
Length of Water Column (LWC) = TWD - DGW =	4.60	**Protective Post/Abutment**	N
1 Casing Volume = LWC x CasingFactor =	0.75	**Well Integrity Satifactory**	Good
Standard Evacuation Volume	2.25	**Well Yield**	Good
Method of Well Evacuation	Geopump	**Comments**	Clear purge water with an HC odor detected
Method of Sample Collection	Geopump		
Total Volume of Water Removed (gallons)	2.25		

Time	Volume Purged (gal)	Pumping Rate (gpm)	Depth to Water (ft btoc)	Turbidity (NTU)	Temperature (deg C)	pH	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	ORP	Salinity (%)	Comments
9:44	0	0.15	9.18	336	21.2	4.44	0.072	1.92	-16	0	
9:49	0.75	0.15	9.31	37.5	21.16	4.7	0.067	0	-57	0	
9:54	1.5	0.15	9.35	22.7	21.34	4.67	0.064	0	-56	0	
9:59	2.25	0.15	9.35	18.9	21.01	4.65	0.062	0	-60	0	

Sample ID# MW280606 **Sample Time** 10:10

Field Data Information Log for Groundwater Sampling

Date (mm/dd/yy)	5/31/2006	**Casing Diameter**	2
Field Personnel	Willis, Hayslip, Diamond, Krietz	**Casing Material**	POLYVINYL CHLORIDE (PVC)
Site Name	Site 1159	**Measuring Point Elevation**	18.77
Job Number	266690	**Height of Riser (above land surface)**	
Well ID #	MW-32	**Land Surface Elevation**	19
Weather Conditions	Clear, humid, hot, light breeze	**Screened Interval**	8 - 18
Air Temperature	90	**Dedicated Pump or Bailer**	Tubing
Total Well Depth (TWD)	20.4	**Steel Guard Pipe Around Casing**	Y
Depth to Groundwater (DGW)	15.75	**Locking Cap**	Y
Length of Water Column (LWC) = TWD - DGW =	4.65	**Protective Post/Abutment**	N
1 Casing Volume = LWC x CasingFactor =	0.76	**Well Integrity Satifactory**	Good
Standard Evacuation Volume	2.27	**Well Yield**	Good
Method of Well Evacuation	Geopump	**Comments**	Murky, orange in color at start, trubidity stayes above 100 NTUs. No odor detected
Method of Sample Collection	Geopump		
Total Volume of Water Removed (gallons)	4.5		

Time	Volume Purged (gal)	Pumping Rate (gpm)	Depth to Water (ft btoc)	Turbidity (NTU)	Temperature (deg C)	pH	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	ORP	Salinity (%)	Comments
17:04	0	0.15	15.75	999 +	21.74	3.45	0.136	0.54	251	0	
17:10	0.9	0.15	15.8	227	21.23	3.63	0.11	0	242	0	
17:16	1.8	0.15	15.8	63.5	21.23	3.76	0.096	0	215	0	
17:24	2.7	0.15	15.8	32	21.2	3.85	0.09	0	195	0	
17:30	3.6	0.15	15.8	16.3	21.15	3.9	0.088	0	181	0	
17:36	4.5	0.15	15.8	7.55	21.15	4.02	0.084	0	161	0	

Sample ID# MW320606 **Sample Time** 17:40

Field Data Information Log for Groundwater Sampling

Date (mm/dd/yy)	6/1/2006	**Casing Diameter**	2
Field Personnel	Willis, Hayslip, Diamond, Krietz	**Casing Material**	POLYVINYL CHLORIDE (PVC)
Site Name	Site 1159	**Measuring Point Elevation**	24.525
Job Number	266690	**Height of Riser (above land surface)**	
Well ID #	MW-33	**Land Surface Elevation**	24.77
Weather Conditions	Clear, humid, hot	**Screened Interval**	19 - 29
Air Temperature	90	**Dedicated Pump or Bailer**	Tubing
Total Well Depth (TWD)	28.68	**Steel Guard Pipe Around Casing**	Y
Depth to Groundwater (DGW)	21.6	**Locking Cap**	Y
Length of Water Column (LWC) = TWD - DGW =	7.08	**Protective Post/Abutment**	N
1 Casing Volume = LWC x CasingFactor =	1.15	**Well Integrity Satifactory**	Good
Standard Evacuation Volume	3.46	**Well Yield**	Good
Method of Well Evacuation	Geopump	**Comments**	Purge water clear with no odor detected
Method of Sample Collection	Geopump		
Total Volume of Water Removed (gallons)	5.8		

Time	Volume Purged (gal)	Pumping Rate (gpm)	Depth to Water (ft btoc)	Turbidity (NTU)	Temperature (deg C)	pH	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	ORP	Salinity (%)	Comments
14:49	0	0.15	21.6	389	22.29	3.58	0.097	2.26	221	0	
14:57	1.2	0.15	21.6	37.9	21.65	4.1	0.095	2.08	186	0	
15:05	2.4	0.15	21.6	13.4	21.6	4.12	0.094	1.72	186	0	
15:13	4.6	0.15	21.6	10.8	21.7	4.16	0.093	1.55	182	0	
15:21	5.8	0.15	21.6	6.89	21.76	4.18	0.092	1.58	182	0	

Sample ID# MW330606 **Sample Time** 15:25

Field Data Information Log for Groundwater Sampling

Date (mm/dd/yy)	6/1/2006	**Casing Diameter**	2
Field Personnel	Willis, Hayslip, Diamond, Krietz	**Casing Material**	POLYVINYL CHLORIDE (PVC)
Site Name	Site 1159	**Measuring Point Elevation**	27.31
Job Number	266690	**Height of Riser (above land surface)**	
Well ID #	MW-35	**Land Surface Elevation**	27.53
Weather Conditions	Clear, humid, hot	**Screened Interval**	20 - 30
Air Temperature	85	**Dedicated Pump or Bailer**	Tubing
Total Well Depth (TWD)	26.2	**Steel Guard Pipe Around Casing**	Y
Depth to Groundwater (DGW)	23.7	**Locking Cap**	Y
Length of Water Column (LWC) = TWD - DGW =	2.50	**Protective Post/Abutment**	N
1 Casing Volume = LWC x CasingFactor =	0.41	**Well Integrity Satifactory**	Good
Standard Evacuation Volume	1.22	**Well Yield**	Good
Method of Well Evacuation	Geopump	**Comments**	Murkey, water tan in color, very turbid at start of purge. Purge water clear at end of purge, no odor detected. Collected MS/MSD
Method of Sample Collection	Geopump		
Total Volume of Water Removed (gallons)	1.2		

Time	Volume Purged (gal)	Pumping Rate (gpm)	Depth to Water (ft btoc)	Turbidity (NTU)	Temperature (deg C)	pH	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	ORP	Salinity (%)	Comments
12:29	0	0.1	23.7	999 +	26.06	5.1	0.087	2.13	157	0	
12:33	0.4	0.1	23.78	21.4	22.91	4.39	0.091	0.66	245	0	
12:37	0.8	0.1	23.78	17.9	22.68	4.38	0.09	0.69	251	0	
12:41	1.2	0.1	23.79	7.8	22.78	4.38	0.091	0.74	262	0	

Sample ID# MW350606 **Sample Time** 12:45

Field Data Information Log for Groundwater Sampling

Date (mm/dd/yy)	6/1/2006	**Casing Diameter**	2
Field Personnel	Willis, Hayslip, Diamond, Krietz	**Casing Material**	POLYVINYL CHLORIDE (PVC)
Site Name	Site 1159	**Measuring Point Elevation**	25.7
Job Number	266690	**Height of Riser (above land surface)**	
Well ID #	MW-44	**Land Surface Elevation**	25.9
Weather Conditions	Clear, humid, hot	**Screened Interval**	20 - 30
Air Temperature	87	**Dedicated Pump or Bailer**	Tubing
Total Well Depth (TWD)	29.35	**Steel Guard Pipe Around Casing**	Y
Depth to Groundwater (DGW)	22.34	**Locking Cap**	Y
Length of Water Column (LWC) = TWD - DGW =	7.01	**Protective Post/Abutment**	N
1 Casing Volume = LWC x CasingFactor =	1.14	**Well Integrity Satifactory**	Good
Standard Evacuation Volume	3.43	**Well Yield**	Good
Method of Well Evacuation	Geopump	**Comments**	Purge water murky and tan in color at start. Cleared at end of purge with no odor detected.
Method of Sample Collection	Geopump		
Total Volume of Water Removed (gallons)	4.47		

Time	Volume Purged (gal)	Pumping Rate (gpm)	Depth to Water (ft btoc)	Turbidity (NTU)	Temperature (deg C)	pH	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	ORP	Salinity (%)	Comments
15:41	0	0.15	22.34	471	22.57	5.53	0.075	2.81	115	0	
15:49	1.14	0.15	22.39	158	22.31	5.58	0.076	1.23	53	0	
15:57	2.28	0.15	22.38	110	22.27	5.6	0.076	1.18	48	0	
16:05	3.43	0.15	22.38	31.1	21.87	5.7	0.08	1.3	34	0	
16:13	4.47	0.15	22.38	9.38	21.87	5.68	0.079	1.31	37	0	

Sample ID# MW440606 **Sample Time** 16:15

Field Data Information Log for Groundwater Sampling

Date (mm/dd/yy)	6/1/2006	**Casing Diameter**	2
Field Personnel	Willis, Hayslip, Diamond, Krietz	**Casing Material**	POLYVINYL CHLORIDE (PVC)
Site Name	Site 1159	**Measuring Point Elevation**	22.965
Job Number	266690	**Height of Riser (above land surface)**	
Well ID #	MW-45	**Land Surface Elevation**	23.16
Weather Conditions	Clear, humid, hot, S/SE breeze 5-10 mph	**Screened Interval**	17 - 27
Air Temperature	88	**Dedicated Pump or Bailer**	Tubing
Total Well Depth (TWD)	28.32	**Steel Guard Pipe Around Casing**	Y
Depth to Groundwater (DGW)	19.55	**Locking Cap**	Y
Length of Water Column (LWC) = TWD - DGW =	8.77	**Protective Post/Abutment**	N
1 Casing Volume = LWC x CasingFactor =	1.43	**Well Integrity Satifactory**	Good
Standard Evacuation Volume	4.29	**Well Yield**	Good
Method of Well Evacuation	Geopump	**Comments**	Soft muddy bottom encountered. Purge water murkey, tan in color. Water cleared at end of purge with a strong HC odor detected
Method of Sample Collection	Geopump		
Total Volume of Water Removed (gallons)	7.15		

Time	Volume Purged (gal)	Pumping Rate (gpm)	Depth to Water (ft btoc)	Turbidity (NTU)	Temperature (deg C)	pH	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	ORP	Salinity (%)	Comments
14:50	0	0.15	19.55	999 +	23.6	6.02	0.102	4.13	-23	0	
15:00	1.43	0.15	19.59	308	22.03	5.46	0.098	0.48	-12	0	
15:10	2.86	0.15	19.59	86.1	21.94	5.62	0.095	0.33	-24	0	
15:20	4.29	0.15	19.6	83	22.01	5.97	0.094	0.34	-44	0	
15:30	5.72	0.15	19.59	40.5	22.01	6.02	0.092	0.36	-46	0	
15:40	7.15	0.15	19.59	34.3	21.99	6.02	0.093	0.38	-44	0	

Sample ID# MW450606 **Sample Time** 15:40

Field Data Information Log for Groundwater Sampling

Date (mm/dd/yy)	6/1/2006	**Casing Diameter**	2
Field Personnel	Willis, Hayslip, Diamond, Krietz	**Casing Material**	POLYVINYL CHLORIDE (PVC)
Site Name	Site 1159	**Measuring Point Elevation**	17.77
Job Number	266690	**Height of Riser (above land surface)**	
Well ID #	MW-47	**Land Surface Elevation**	17.99
Weather Conditions	Clear, humid, hot	**Screened Interval**	12 - 22
Air Temperature	90	**Dedicated Pump or Bailer**	Tubing
Total Well Depth (TWD)	21.7	**Steel Guard Pipe Around Casing**	Y
Depth to Groundwater (DGW)	14.54	**Locking Cap**	Y
Length of Water Column (LWC) = TWD - DGW =	7.16	**Protective Post/Abutment**	N
1 Casing Volume = LWC x CasingFactor =	1.17	**Well Integrity Satifactory**	Good
Standard Evacuation Volume	3.50	**Well Yield**	Good
Method of Well Evacuation	Geopump	**Comments**	Purge water clear with a moderate HC odor detected
Method of Sample Collection	Geopump		
Total Volume of Water Removed (gallons)	6		

Time	Volume Purged (gal)	Pumping Rate (gpm)	Depth to Water (ft btoc)	Turbidity (NTU)	Temperature (deg C)	pH	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	ORP	Salinity (%)	Comments
13:14	0	0.15	14.54	570	21.84	4.57	0.106	2.16	23	0	
13:22	1.2	0.15	14.55	163	21.47	5.06	0.112	0	-22	0	
13:30	2.4	0.15	14.55	45.3	21.62	5.15	0.112	0	-41	0	
13:38	4.6	0.15	1455	20.6	21.71	5.18	0.11	0	-54	0	
13:46	5.8	0.15	14.55	14.5	21.35	5.18	0.111	0	-54	0	
13:54	6	0.15	14.55	10.7	21.32	5.18	0.111	0	-59	0	

Sample ID# MW470606 **Sample Time** 13:55

Field Data Information Log for Groundwater Sampling

Date (mm/dd/yy)	6/1/2006	**Casing Diameter**	2
Field Personnel	Willis, Hayslip, Diamond, Krietz	**Casing Material**	POLYVINYL CHLORIDE (PVC)
Site Name	Site 1159	**Measuring Point Elevation**	9.955
Job Number	266690	**Height of Riser (above land surface)**	
Well ID #	MW-52	**Land Surface Elevation**	10.13
Weather Conditions	Clear, humid, hot	**Screened Interval**	5 - 15
Air Temperature	84	**Dedicated Pump or Bailer**	Tubing
Total Well Depth (TWD)	11.86	**Steel Guard Pipe Around Casing**	Y
Depth to Groundwater (DGW)	7.2	**Locking Cap**	Y
Length of Water Column (LWC) = TWD - DGW =	4.66	**Protective Post/Abutment**	N
1 Casing Volume = LWC x CasingFactor =	0.76	**Well Integrity Satifactory**	Good
Standard Evacuation Volume	2.28	**Well Yield**	Good
Method of Well Evacuation	Geopump	**Comments**	Muddy, brown in color to start. Became less trubid at end of purge but had lots of organics (roots, etc.) floating in water.
Method of Sample Collection	Geopump		
Total Volume of Water Removed (gallons)	3.8		

Time	Volume Purged (gal)	Pumping Rate (gpm)	Depth to Water (ft btoc)	Turbidity (NTU)	Temperature (deg C)	pH	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	ORP	Salinity (%)	Comments
10:35	0	0.15	7.2	999 +	22.9	5.63	0.126	2.03	80	0	
10:40	0.76	0.15	7.52	573	22.2	5.08	0.098	0.7	126	0	
10:46	1.52	0.15	7.52	245	22.09	4.84	0.09	0.9	156	0	
10:51	2.28	0.15	7.52	124	22.09	4.81	0.09	0.87	151	0	
10:56	3.04	0.15	7.51	117	22.12	4.75	0.089	0.91	160	0	
11:01	3.8	0.15	7.5	57.1	22.29	4.72	0.092	0.95	168	0	

Sample ID# MW520606 **Sample Time** 11:05

Field Data Information Log for Groundwater Sampling

Date (mm/dd/yy)	6/1/2006	**Casing Diameter**	2
Field Personnel	Willis, Hayslip, Diamond, Krietz	**Casing Material**	POLYVINYL CHLORIDE (PVC)
Site Name	Site 1159	**Measuring Point Elevation**	13
Job Number	266690	**Height of Riser (above land surface)**	
Well ID #	MW-55	**Land Surface Elevation**	13.2
Weather Conditions	Clear, humid, hot	**Screened Interval**	9 - 19
Air Temperature	87	**Dedicated Pump or Bailer**	Tubing
Total Well Depth (TWD)	14.78	**Steel Guard Pipe Around Casing**	Y
Depth to Groundwater (DGW)	10.14	**Locking Cap**	Y
Length of Water Column (LWC) = TWD - DGW =	4.64	**Protective Post/Abutment**	N
1 Casing Volume = LWC x CasingFactor =	0.76	**Well Integrity Satifactory**	Good
Standard Evacuation Volume	2.27	**Well Yield**	Good
Method of Well Evacuation	Geopump	**Comments**	Purge water clear
Method of Sample Collection	Geopump		
Total Volume of Water Removed (gallons)	2.7		

Time	Volume Purged (gal)	Pumping Rate (gpm)	Depth to Water (ft btoc)	Turbidity (NTU)	Temperature (deg C)	pH	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	ORP	Salinity (%)	Comments
10:56	0	0.15	10.14	88.9	22.83	4.79	0.131	0.86	-28	0	
11:02	0.9	0.15	10.2	9.85	21.15	4.81	0.128	0	-37	0	
11:08	1.8	0.15	10.2	5.25	21.07	4.83	0.13	0	-41	0	
11:14	2.7	0.15	10.2	3.69	21.07	4.85	0.129	0	-44	0	

Sample ID# MW550606 **Sample Time** 11:15

Field Data Information Log for Groundwater Sampling

Date (mm/dd/yy)	5/31/2006	**Casing Diameter**	2
Field Personnel	Willis, Hayslip, Diamond, Krietz	**Casing Material**	POLYVINYL CHLORIDE (PVC)
Site Name	Site 1159	**Measuring Point Elevation**	13.695
Job Number	266690	**Height of Riser (above land surface)**	
Well ID #	MW-59	**Land Surface Elevation**	13.9
Weather Conditions	Clear, humid, hot, light breeze	**Screened Interval**	7 - 17
Air Temperature	90	**Dedicated Pump or Bailer**	Tubing
Total Well Depth (TWD)	14.58	**Steel Guard Pipe Around Casing**	Y
Depth to Groundwater (DGW)	10.85	**Locking Cap**	Y
Length of Water Column (LWC) = TWD - DGW =	3.73	**Protective Post/Abutment**	N
1 Casing Volume = LWC x CasingFactor =	0.61	**Well Integrity Satifactory**	Good
Standard Evacuation Volume	1.82	**Well Yield**	Good
Method of Well Evacuation	Geopump	**Comments**	Purge water clear, no odor detected
Method of Sample Collection	Geopump		
Total Volume of Water Removed (gallons)	3.45		

Time	Volume Purged (gal)	Pumping Rate (gpm)	Depth to Water (ft btoc)	Turbidity (NTU)	Temperature (deg C)	pH	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	ORP	Salinity (%)	Comments
16:18	0	0.15	10.85	187	21.65	3.7	0.112	2.99	165	0	
16:22	0.6	0.15	11.01	444	21.23	3.56	0.153	0.2	195	0.01	
16:26	1.2	0.15	11	614	21.28	3.76	0.146	0.37	185	0.01	
16:31	1.95	0.15	11	364	21.19	3.77	0.147	0.54	187	0.01	
16:36	2.7	0.15	11	124	21.23	3.72	0.145	0.7	196	0.01	
16:41	3.45	0.15	11	48.6	21.22	3.7	0.145	0.71	202	0.01	

Sample ID# MW590606 **Sample Time** 16:45

Field Data Information Log for Groundwater Sampling

Date (mm/dd/yy)	5/31/2006	**Casing Diameter**	2
Field Personnel	Willis, Hayslip, Diamond, Krietz	**Casing Material**	POLYVINYL CHLORIDE (PVC)
Site Name	Site 1159	**Measuring Point Elevation**	21.02
Job Number	266690	**Height of Riser (above land surface)**	
Well ID #	MW-62	**Land Surface Elevation**	21.28
Weather Conditions	clear, humid, light breeze	**Screened Interval**	-
Air Temperature	88	**Dedicated Pump or Bailer**	Tubing
Total Well Depth (TWD)	21.23	**Steel Guard Pipe Around Casing**	Y
Depth to Groundwater (DGW)	17.3	**Locking Cap**	Y
Length of Water Column (LWC) = TWD - DGW =	3.93	**Protective Post/Abutment**	N
1 Casing Volume = LWC x CasingFactor =	0.64	**Well Integrity Satifactory**	Good
Standard Evacuation Volume	1.92	**Well Yield**	Good
Method of Well Evacuation	Geopump	**Comments**	Clear in color, moderate HC odor detected
Method of Sample Collection	Geopump		
Total Volume of Water Removed (gallons)	2.97		

Time	Volume Purged (gal)	Pumping Rate (gpm)	Depth to Water (ft btoc)	Turbidity (NTU)	Temperature (deg C)	pH	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	ORP	Salinity (%)	Comments
14:35	0	0.15	17.3	44.1	22.77	5.44	0.124	1.92	13	0	
14:40	0.64	0.15	17.43	30.7	21.91	5.46	0.098	0.18	-3	0	
14:44	1.28	0.15	17.45	21.6	21.9	5.87	0.097	0.18	-36	0	
14:49	1.92	0.15	17.44	15.8	21.87	5.99	0.095	0.19	-40	0	
14:56	2.97	0.15	17.45	10.2	21.87	6.04	0.095	0.19	-45	0	changed H2O volume purged from 2.52 to 2.97 since pump rate appears constant.

Sample ID# MW620606 **Sample Time** 15:00

Field Data Information Log for Groundwater Sampling

Date (mm/dd/yy)	6/1/2006	**Casing Diameter**	2
Field Personnel	Willis, Hayslip, Diamond, Krietz	**Casing Material**	POLYVINYL CHLORIDE (PVC)
Site Name	Site 1159	**Measuring Point Elevation**	24.235
Job Number	266690	**Height of Riser (above land surface)**	
Well ID #	MW-64	**Land Surface Elevation**	24.56
Weather Conditions	Clear, humid, hot	**Screened Interval**	-
Air Temperature	87	**Dedicated Pump or Bailer**	Tubing
Total Well Depth (TWD)	28.53	**Steel Guard Pipe Around Casing**	Y
Depth to Groundwater (DGW)	20.81	**Locking Cap**	Y
Length of Water Column (LWC) = TWD - DGW =	7.72	**Protective Post/Abutment**	N
1 Casing Volume = LWC x CasingFactor =	1.26	**Well Integrity Satifactory**	Good
Standard Evacuation Volume	3.78	**Well Yield**	Good
Method of Well Evacuation	Geopump	**Comments**	Purge water very turbid @ start; grey/brown in color. Cleared at end of purge with a moderate HC odor detected
Method of Sample Collection	Geopump		
Total Volume of Water Removed (gallons)	3.78		

Time	Volume Purged (gal)	Pumping Rate (gpm)	Depth to Water (ft btoc)	Turbidity (NTU)	Temperature (deg C)	pH	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	ORP	Salinity (%)	Comments
14:00	0	0.15	20.81	999 +	24.23	5.99	0.145	4.51	-48	0	
14:08	1.26	0.15	20.9	80.3	22.16	5.46	0.135	0.47	-62	0	
14:16	2.52	0.15	20.9	33.5	22.13	5.35	0.123	0.43	-53	0	
14:24	3.78	0.15	20.9	5.02	22.14	5.38	0.12	0.42	-52	0	

Sample ID# MW640606 **Sample Time** 14:25

Field Data Information Log for Groundwater Sampling

Date (mm/dd/yy)	5/31/2006	**Casing Diameter**	2
Field Personnel	Willis, Hayslip, Diamond, Krietz	**Casing Material**	POLYVINYL CHLORIDE (PVC)
Site Name	Site 1159	**Measuring Point Elevation**	24.505
Job Number	266690	**Height of Riser (above land surface)**	
Well ID #	MW-65	**Land Surface Elevation**	24.83
Weather Conditions	clear, humid, light breeze	**Screened Interval**	-
Air Temperature	90	**Dedicated Pump or Bailer**	Tubing
Total Well Depth (TWD)	23.3	**Steel Guard Pipe Around Casing**	Y
Depth to Groundwater (DGW)	20.88	**Locking Cap**	Y
Length of Water Column (LWC) = TWD - DGW =	2.42	**Protective Post/Abutment**	N
1 Casing Volume = LWC x CasingFactor =	0.39	**Well Integrity Satifactory**	Good
Standard Evacuation Volume	1.18	**Well Yield**	Good
Method of Well Evacuation	Geopump	**Comments**	Purge water clear with an organic odor detected
Method of Sample Collection	Geopump		
Total Volume of Water Removed (gallons)	1.35		

Time	Volume Purged (gal)	Pumping Rate (gpm)	Depth to Water (ft btoc)	Turbidity (NTU)	Temperature (deg C)	pH	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	ORP	Salinity (%)	Comments
15:09	0	0.15	20.88	127	23.1	5.47	0.239	1.15	-64	0.01	
15:12	0.45	0.15	21.12	7.88	21.66	5.47	0.19	0	-86	0.01	
15:15	0.9	0.15	21.12	6.04	21.54	5.46	0.176	0	-87	0.01	
15:18	1.35	0.15	21.12	4.72	21.49	5.45	0.167	0	-87	0.01	

Sample ID# MW650606 **Sample Time** 15:20

Field Data Information Log for Groundwater Sampling

Date (mm/dd/yy)	5/31/2006	**Casing Diameter**	2
Field Personnel	Willis, Hayslip, Diamond, Krietz	**Casing Material**	POLYVINYL CHLORIDE (PVC)
Site Name	Site 1159	**Measuring Point Elevation**	10.75
Job Number	266690	**Height of Riser (above land surface)**	
Well ID #	MW-67	**Land Surface Elevation**	11.02
Weather Conditions	clear, humid, light breeze	**Screened Interval**	-
Air Temperature	90	**Dedicated Pump or Bailer**	Tubing
Total Well Depth (TWD)	14.92	**Steel Guard Pipe Around Casing**	Y
Depth to Groundwater (DGW)	8	**Locking Cap**	Y
Length of Water Column (LWC) = TWD - DGW =	6.92	**Protective Post/Abutment**	N
1 Casing Volume = LWC x CasingFactor =	1.13	**Well Integrity Satifactory**	Good
Standard Evacuation Volume	3.38	**Well Yield**	Good
Method of Well Evacuation	Geopump	**Comments**	Purge water clear in color with a moderate HC odor detected
Method of Sample Collection	Geopump		
Total Volume of Water Removed (gallons)	3.6		

Time	Volume Purged (gal)	Pumping Rate (gpm)	Depth to Water (ft btoc)	Turbidity (NTU)	Temperature (deg C)	pH	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	ORP	Salinity (%)	Comments
11:10	0	0.15	8	48.5	24.37	4.83	0.17	1.25	65	0.01	
11:18	1.2	0.15	8.06	15.4	23.22	5.66	0.211	0	-57	0.01	
11:26	2.4	0.15	8.06	7.03	23.19	5.67	0.222	0	-68	0.01	
11:34	3.6	0.15	8.06	5.18	23.24	5.63	0.22	0	-62	0.01	

Sample ID# MW670606 **Sample Time** 11:35

Field Data Information Log for Groundwater Sampling

Date (mm/dd/yy)	6/1/2006	**Casing Diameter**	2
Field Personnel	Willis, Hayslip, Diamond, Krietz	**Casing Material**	POLYVINYL CHLORIDE (PVC)
Site Name	Site 1159	**Measuring Point Elevation**	
Job Number	266690	**Height of Riser (above land surface)**	
Well ID #	MW-70	**Land Surface Elevation**	
Weather Conditions	Clear, humid, hot	**Screened Interval**	5 - 15
Air Temperature	85	**Dedicated Pump or Bailer**	Tubing
Total Well Depth (TWD)	14.67	**Steel Guard Pipe Around Casing**	Y
Depth to Groundwater (DGW)	8	**Locking Cap**	Y
Length of Water Column (LWC) = TWD - DGW =	6.67	**Protective Post/Abutment**	N
1 Casing Volume = LWC x CasingFactor =	1.09	**Well Integrity Satifactory**	Good
Standard Evacuation Volume	3.26	**Well Yield**	Good
Method of Well Evacuation	Geopump	**Comments**	Purge water clear at start staying clear through out the purge. Slight HC odor detected
Method of Sample Collection	Geopump		
Total Volume of Water Removed (gallons)	3.3		

Time	Volume Purged (gal)	Pumping Rate (gpm)	Depth to Water (ft btoc)	Turbidity (NTU)	Temperature (deg C)	pH	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	ORP	Salinity (%)	Comments
11:22	0	0.15	8	59.1	23.42	5.65	0.154	6.59	-17	0.01	
11:30	1.1	0.15	8.01	0.8	21.97	5.18	0.141	0.23	5	0.01	
11:37	2.2	0.15	8.01	0.3	22.04	5.16	0.136	0.27	-1	0	
11:45	3.3	0.15	8.01	0	22.04	5.22	0.135	0.33	-9	0	

Sample ID# MW700606 **Sample Time** 11:45

Field Data Information Log for Groundwater Sampling

Date (mm/dd/yy)	6/1/2006	**Casing Diameter**	2
Field Personnel	Willis, Hayslip, Diamond, Krietz	**Casing Material**	POLYVINYL CHLORIDE (PVC)
Site Name	Site 1159	**Measuring Point Elevation**	
Job Number	266690	**Height of Riser (above land surface)**	
Well ID #	MW-71	**Land Surface Elevation**	
Weather Conditions	Clear, humid, hot	**Screened Interval**	10 - 20
Air Temperature	90	**Dedicated Pump or Bailer**	Tubing
Total Well Depth (TWD)	20	**Steel Guard Pipe Around Casing**	Y
Depth to Groundwater (DGW)	13.02	**Locking Cap**	Y
Length of Water Column (LWC) = TWD - DGW =	6.98	**Protective Post/Abutment**	N
1 Casing Volume = LWC x CasingFactor =	1.14	**Well Integrity Satifactory**	Good
Standard Evacuation Volume	3.41	**Well Yield**	Good
Method of Well Evacuation	Geopump	**Comments**	Purge water clear with no odor detected
Method of Sample Collection	Geopump		
Total Volume of Water Removed (gallons)	4.6		

Time	Volume Purged (gal)	Pumping Rate (gpm)	Depth to Water (ft btoc)	Turbidity (NTU)	Temperature (deg C)	pH	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	ORP	Salinity (%)	Comments
11:40	0	0.15	13.02	119	22.55	5.14	0.135	1.65	-8	0	
11:48	1.2	0.15	13.12	26.4	21.37	5.23	0.121	0	-39	0	
11:56	2.4	0.15	13.12	21.4	21.43	5.29	0.119	0	-51	0	
12:07	4.6	0.15	13.12	8.41	21.54	5.3	0.119	0	-60	0	

Sample ID# MW710606 **Sample Time** 12:10

Field Data Information Log for Groundwater Sampling

Date (mm/dd/yy)	5/31/2006	**Casing Diameter**	2
Field Personnel	Willis, Hayslip, Diamond, Krietz	**Casing Material**	PVC Schedule 40
Site Name	Site 1159	**Measuring Point Elevation**	
Job Number	266690	**Height of Riser (above land surface)**	
Well ID #	MW-72	**Land Surface Elevation**	
Weather Conditions	clear, humid, light breeze	**Screened Interval**	4 - 14
Air Temperature	88	**Dedicated Pump or Bailer**	Tubing
Total Well Depth (TWD)	13.94	**Steel Guard Pipe Around Casing**	Y
Depth to Groundwater (DGW)	7.3	**Locking Cap**	Y
Length of Water Column (LWC) = TWD - DGW =	6.64	**Protective Post/Abutment**	N
1 Casing Volume = LWC x CasingFactor =	1.08	**Well Integrity Satifactory**	Good
Standard Evacuation Volume	3.25	**Well Yield**	Good
Method of Well Evacuation	Geopump	**Comments**	Muddy brown very trubid to start, clearing at end of purge time. Tree on well!
Method of Sample Collection	Geopump		
Total Volume of Water Removed (gallons)	3.25		

Time	Volume Purged (gal)	Pumping Rate (gpm)	Depth to Water (ft btoc)	Turbidity (NTU)	Temperature (deg C)	pH	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	ORP	Salinity (%)	Comments
17:07	0	0.15	7.3	999 +	22.88	5.75	0.079	6.56	103	0	
17:14	1.08	0.15	7.35	193	21.33	4.93	0.072	1.01	152	0	
17:21	2.16	0.15	7.36	41.7	21.2	4.88	0.067	0.8	168	0	
17:28	3.25	0.15	7.36	4	21.18	4.89	0.068	0.69	158	0	

Sample ID# MW720606 **Sample Time** 17:30

Field Data Information Log for Groundwater Sampling

Date (mm/dd/yy)	5/31/2006	**Casing Diameter**	2
Field Personnel	Willis, Hayslip, Diamond, Krietz	**Casing Material**	PVC Schedule 40
Site Name	Site 1159	**Measuring Point Elevation**	
Job Number	266690	**Height of Riser (above land surface)**	
Well ID #	MW-73	**Land Surface Elevation**	
Weather Conditions	clear, humid, light breeze	**Screened Interval**	6 - 16
Air Temperature	88	**Dedicated Pump or Bailer**	Tubing
Total Well Depth (TWD)	16.26	**Steel Guard Pipe Around Casing**	Y
Depth to Groundwater (DGW)	13.93	**Locking Cap**	Y
Length of Water Column (LWC) = TWD - DGW =	2.33	**Protective Post/Abutment**	N
1 Casing Volume = LWC x CasingFactor =	0.38	**Well Integrity Satifactory**	Good
Standard Evacuation Volume	1.14	**Well Yield**	Good
Method of Well Evacuation	Geopump	**Comments**	Muddy brown at start then cleared at end of purge. No odor detected
Method of Sample Collection	Geopump		
Total Volume of Water Removed (gallons)	2		

Time	Volume Purged (gal)	Pumping Rate (gpm)	Depth to Water (ft btoc)	Turbidity (NTU)	Temperature (deg C)	pH	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	ORP	Salinity (%)	Comments
14:01	0	0.1	13.93	925	25.83	6.36	0.179	1.95	-92	0.01	
14:05	0.4	0.1	14	101	24.06	5.57	0.119	0.42	-42	0	
14:09	0.8	0.1	14.02	60.3	23.9	5.45	0.115	0.31	-34	0	
14:13	1.2	0.1	14.02	25.2	23.91	5.42	0.116	0.25	-35	0	
14:17	1.6	0.1	14.02	16.7	23.87	5.42	0.117	0.3	-36	0	
14:21	2	0.1	14.02	11.4	23.86	5.42	0.117	0.32	-38	0	

Sample ID# MW730606 **Sample Time** 14:25

Field Data Information Log for Groundwater Sampling

Date (mm/dd/yy)	5/31/2006	**Casing Diameter**	2
Field Personnel	Willis, Hayslip, Diamond, Krietz	**Casing Material**	20/30 Silica Quartz Filter Sand
Site Name	Site 1159	**Measuring Point Elevation**	
Job Number	266690	**Height of Riser (above land surface)**	
Well ID #	MW-74	**Land Surface Elevation**	
Weather Conditions	clear, humid, light breeze	**Screened Interval**	9 - 19
Air Temperature	90	**Dedicated Pump or Bailer**	Tubing
Total Well Depth (TWD)	18.92	**Steel Guard Pipe Around Casing**	Y
Depth to Groundwater (DGW)	12.53	**Locking Cap**	Y
Length of Water Column (LWC) = TWD - DGW =	6.39	**Protective Post/Abutment**	N
1 Casing Volume = LWC x CasingFactor =	1.04	**Well Integrity Satifactory**	Good
Standard Evacuation Volume	3.12	**Well Yield**	Good
Method of Well Evacuation	Geopump	**Comments**	Clear with brown tint and very slight odor detected
Method of Sample Collection	Geopump		
Total Volume of Water Removed (gallons)	3.12		

Time	Volume Purged (gal)	Pumping Rate (gpm)	Depth to Water (ft btoc)	Turbidity (NTU)	Temperature (deg C)	pH	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	ORP	Salinity (%)	Comments
15:42	0	0.15	12.53	113	22.95	5.91	0.129	2.83	7	0	
15:49	1.04	0.15	12.59	21.6	22.26	5.76	0.11	0.33	-12	0	
15:56	2.08	0.15	12.59	15.3	22.19	5.68	0.107	0.18	-16	0	
16:03	3.12	0.15	12.59	9.7	22.19	5.72	0.107	0.18	-23	0	

Sample ID# MW740606 **Sample Time** 16:05

Field Data Information Log for Groundwater Sampling

Date (mm/dd/yy)	6/1/2006	**Casing Diameter**	2
Field Personnel	Willis, Hayslip, Diamond, Krietz	**Casing Material**	PVC Schedule 40
Site Name	Site 1159	**Measuring Point Elevation**	
Job Number	266690	**Height of Riser (above land surface)**	
Well ID #	MW-75	**Land Surface Elevation**	
Weather Conditions	Clear, humid, hot	**Screened Interval**	6 - 16
Air Temperature	82	**Dedicated Pump or Bailer**	Tubing
Total Well Depth (TWD)	16.09	**Steel Guard Pipe Around Casing**	Y
Depth to Groundwater (DGW)	8.79	**Locking Cap**	Y
Length of Water Column (LWC) = TWD - DGW =	7.30	**Protective Post/Abutment**	N
1 Casing Volume = LWC x CasingFactor =	1.19	**Well Integrity Satifactory**	Good
Standard Evacuation Volume	3.57	**Well Yield**	Good
Method of Well Evacuation	Geopump	**Comments**	Murkey, tan in color, clearing at end of purge. Moderate HC odor detected
Method of Sample Collection	Geopump		
Total Volume of Water Removed (gallons)	6		

Time	Volume Purged (gal)	Pumping Rate (gpm)	Depth to Water (ft btoc)	Turbidity (NTU)	Temperature (deg C)	pH	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	ORP	Salinity (%)	Comments
9:19	0	0.15	8.79	448	24.29	5.8	0.258	4.07	-23	0.01	
9:27	1.2	0.15	8.9	176	21.59	5.57	0.199	0.23	-49	0.01	
9:35	2.4	0.15	8.9	45.5	21.59	5.49	0.198	0.21	-52	0.01	
9:43	3.6	0.15	8.91	36.7	21.56	5.51	0.199	0.21	-55	0.01	
9:51	4.8	0.15	8.9	16.4	21.54	5.5	0.199	0.21	-57	0.01	
9:59	6	0.15	8.9	15.2	21.56	5.61	0.195	0.2	-62	0.01	

Sample ID# MW750606 **Sample Time** 10:00

Appendix D

Field Survey Reports

BRONSON FIELD
SITE No. 1159
MONITOR WELLS & SITE PLAN

Project No. 166690.32.01.03.91
Field Surveys Sept. 12/16, 2003

Note: Horizontal Datum id NAD (North American Datum) 83 (1990) SPC Fl. N. US Survey Ft..
Vertical Datum is NAVD (North American Vertical Datum) 88.

Description	North Coord.	East Coord.	------Elevation------ TOC	Conc.
Survey Control Points:				
8 (PK & Washer)	515479.586	1047650.361	-------	27.544
9 (PK & Washer)	515224.519	1046504.599	-------	10.879
10 (10″ Spike)	514908.362	1045781.996	-------	7.571
20 (Re Bar & Cap)	515459.238	1047164.021	-------	28.165
21 (Re Bar & Cap)	515571.562	1046962.633	-------	26.937
22 (Re Bar & Cap)	515533.969	1046786.702	-------	24.613
23 (Re Bar & Cap)	515466.270	1046627.209	-------	15.605
24 (10″ Spike)	515301.058	1046562.594	-------	10.836
25 (10″ Spike)	515562.448	1046482.590	-------	15.263
30 (10″ Spike)	515230.398	1046737.008	-------	12.428
31 (10″ Spike)	515213.020	1046904.004	-------	13.504
32 (10″ Spike)	515262.002	1047140.069	-------	23.308
Monitor Wells:				
6010 **(MW-01)**	515294.55	1046551.75	13.035	10.99
6020 **(MW-02)**	515279.48	1046520.18	10.425	10.70
(MW-03 Not Found)				
6040 **(MW-04)**	515318.64	1046524.51	10.01	10.28
6050 **(MW-05)**	515322.98	1046569.73	10.655	10.94
6060 **(MW-06)**	515280.71	1046584.48	10.745	11.01
6070 **(MW-07)**	515322.16	1046483.17	10.175	10.40
6080 **(MW-08)**	515269.54	1046489.28	10.595	10.86
6090 **(MW-09)**	515245.21	1046509.56	10.94	11.18
6100 **(MW-10)**	515241.10	1046542.17	11.455	11.53
6110 **(MW-11) [Marked MW-03]**	515260.01	1046543.84	10.725	10.99
6120 **(MW-12) [Marked MW-11]**	515244.38	1046568.82	11.24	11.58
6130 **(MW-13)**	515283.20	1046617.72	11.435	11.68
6140 **(MW-14)**	515312.88	1046607.82	11.515	11.77
6150 **(MW-15)**	515335.87	1046595.49	11.235	11.46
6160 **(MW-16)**	515347.62	1046572.06	10.795	11.13
6170 **(MW-17)**	515342.24	1046546.46	10.525	10.85
6180 **(MW-18)**	515348.42	1046515.04	10.75	11.01
6190 **(MW-19)**	515230.81	1046465.28	11.625	11.86
6200 **(MW-20)**	515190.03	1046502.04	11.565	11.84
6210 **(MW-21)**	515199.00	1046567.09	11.33	11.56
6220 **(MW-22)**	515283.22	1046654.22	11.915	12.10
6230 **(MW-23)**	515325.70	1046655.71	11.725	11.93
6240 **(MW-24)**	515350.39	1046454.34	9.78	10.01
6250 **(MW-25)**	515387.24	1046494.89	10.745	11.02

Description	North Coord.	East Coord.	----Elevation----- TOC	Conc.
Monitor Wells Cont.:				
6260 **(MW-26)**	515402.55	1046534.87	11.32	11.57
6270 **(MW-27)**	515370.10	1046635.91	12.12	12.34
6280 **(MW-28)**	515398.12	1046583.57	12.19	12.39
6290 **(MW-29)**	515261.84	1046428.24	8.535	6.83
6300 **(MW-30)**	515298.63	1046410.39	8.195	5.17
(MW-31 Not Found)				
6320 **(MW-32)**	515604.90	1046522.43	18.77	19.00
6330 **(MW-33)**	515623.52	1046678.57	24.525	24.77
6340 **(MW-34)**	515698.65	1046860.23	27.94	28.18
6350 **(MW-35)**	515611.49	1046953.36	27.31	27.53
6360 **(MW-36)**	515666.53	1046979.81	27.845	28.10
6370 **(MW-37)**	515504.95	1047074.74	27.315	27.53
6380 **(MW-38)**	515247.37	1047144.58	22.65	22.88
6390 **(MW-39)**	515232.95	1046961.25	15.895	16.14
(MW-40, 41, 42 & 43 Not Found)				
6440 **(MW-44)**	515569.33	1046799.26	25.70	25.90
6450 **(MW-45)**	515452.96	1046867.70	22.965	23.16
(MW-46 Not Found)				
6470 **(MW-47)**	515419.59	1046754.89	17.77	17.99
(MW-48 & 49 Not Found)				
6500 **(MW-50)**	515099.79	1046650.28	10.14	10.32
6510 **(MW-51)**	515120.13	1046760.08	10.70	10.89
6520 **(MW-52)**	515429.95	1046366.17	9.955	10.13
6530 **(MW-53)**	515685.42	1046595.70	24.045	24.27
(MW-54 Not Found)				
6550 **(MW-55)**	515526.94	1046453.80	13.00	13.20
6560 **(MW-56)**	515183.43	1047196.82	21.595	21.82
6570 **(MW-57)**	515205.22	1047052.29	18.24	18.44
6580 **(MW-58)**	515139.20	1046945.16	12.135	12.34
6590 **(MW-59)**	515576.36	1046414.55	13.695	13.90
6600 **(DMW-60)**	515412.01	1046755.29	17.40	17.63
6610 **(DMW-61)**	515288.85	1046549.16	10.71	11.03
6620 **(MW-62)**	515302.54	1047058.98	21.02	21.28
6630 **(MW-63)**	515562.87	1046916.96	26.355	26.56
6640 **(MW-64)**	515505.91	1046829.74	24.235	24.56
6650 **(MW-65)**	515435.11	1046942.07	24.505	24.83
6660 **(MW-66)**	515160.28	1046827.33	11.075	11.34
6670 **(MW-67)**	515342.07	1046420.15	10.75	11.02
6680 **(MW-68)**	515562.84	1046489.50	15.425	15.77
6690 **(DMW-69)**	515404.56	1046614.69	12.975	13.29
Piezometers:				
(P-1 & 5 Not Found)				
4020 **(P-2)**	515475.12	1046871.12	23.76	23.5
4030 **(P-3)**	515436.23	1046849.23	21.91	21.5
4040 **(P-4)**	515406.86	1046742.90	18.14	17.0
4060 **(P-6)**	515410.93	1046766.60	18.80	18.0

Description	North Coord.	East Coord.	Elevation
Retention Pond N. side of road:			
1001 (PC @ NW Cor.)	515312.96	1046328.69	10.5
1002 (POC)	515333.22	1046327.77	10.6
1003 (PT)	515340.60	1046337.72	10.6
1004 (PC @ NE Cor.)	515361.68	1046381.07	10.0
1005 (POC)	515367.67	1046394.02	10.6
1007 (PT)	515362.78	1046402.81	10.6
1008 (PC @ SE Cor.)	515262.72	1046477.98	11.0
1009 (POC)	515248.28	1046482.42	10.8
1010 (PT)	515238.13	1046463.93	11.1
1011 (PC @ SW Cor.)	515215.33	1046382.51	11.5
1012 (POC)	515214.90	1046362.66	11.3
1013 (Pt. on W. Edge of pond)	515234.42	1046352.57	10.9
Retention Pond S. side of road:			
1031 (PC NW Cor.)	515162.56	1046418.20	11.5
1032 (POC)	515151.19	1046400.92	12.0
1033 (PT)	515139.39	1046400.74	12.0
1034 (PC SW Cor.)	515063.14	1046427.44	11.6
1035 (POC)	515044.68	1046435.61	11.7
1036 (PT)	515043.31	1046452.60	11.2
1037 (PC SE Cor.)	515058.52	1046516.69	11.6
1038 (POC)	515072.61	1046544.97	11.6
1039 (PT)	515088.67	1046549.37	11.7
1040 (PC NE Cor.)	515179.89	1046536.86	11.6
1041 (POC in inlet drain)	515186.11	1046529.34	9.1
1042 (PT)	515184.91	1046510.24	11.6
Face of curb N. side of Bronson Rd.:			
1014	515191.29	1046348.40	9.81
1015	515206.38	1046409.79	10.32
1016 (FC @ W. edge of drain to pond)	515223.83	1046481.84	10.31
1017 (FC @ E. edge of drain to pond)	515226.99	1046495.25	10.39
1018	515252.47	1046609.82	11.84
1019	515278.02	1046722.94	13.03
1020	515303.73	1046838.57	14.64
1021	515330.06	1046955.75	16.39
Face of curb S. side of Bronson Rd.)			
1022	515300.42	1046963.62	16.70
1023	515280.70	1046876.86	15.55
1024	515259.86	1046784.48	14.04
1025	515230.58	1046654.81	12.47
1026 (FC @ E. edge of drain to pond)	515206.71	1046551.58	10.98
1027 (FC @ W. edge of drain to pond)	515203.97	1046536.86	10.82
1028	515187.22	1046449.94	10.58
1029	515176.37	1046407.77	9.98
1030	515168.85	1046382.82	10.05

Description	North Coord.	East Coord.	Elevation
Building #1159:			
1043 (SW Cor.)	515289.28	1046513.17	10.5
1044 (NW Cor.)	515310.42	1046515.37	10.5
1050 (NE Cor.)	515308.12	1046533.91	10.5
1051 (SE Cor.)	515287.91	1046531.38	11.1
C/L 8’ Track Road:			
1052 (C/L)	515315.24	1046561.38	11.2
1054 (C/L @ edge of clearing)	515349.28	1046572.32	11.3
1055 (C/L)	515377.14	1046578.38	12.0
1056 (C/L)	515414.17	1046592.82	12.8
1057 (“T” Intx. Rd’s. S/SW, SE & NW)	515457.10	1046610.62	14.7
C/L 8’ Track Road:			
1061 (C/L)	515725.13	1046640.21	26.1
1062 (C/L)	515680.28	1046599.24	23.4
1063 (C/L)	515613.33	1046582.61	20.3
1064 (C/L)	515569.42	1046554.54	17.4
1065 (“T” Intx. Rd’s. NE, SE & NW)	515543.51	1046533.20	15.9
C/L 8’ Track Road:			
1066 (“T” Intx. Rd’s. NW, SE & SW)	515571.10	1046505.81	16.4
1068 (C/L)	515545.64	1046445.84	13.3
1069 (C/L)	515553.84	1046410.59	12.6
1070 (C/L)	515547.01	1046342.80	10.8
C/L 8’ Track Road:			
1082 (C/L @ edge of clearing)	515301.22	1046695.84	12.5
1083 (“T” Intx. Rd’s. Nly, Sly & NW)	515312.44	1046696.86	12.8
1085 (C/L)	515368.33	1046671.49	12.7
1086 (C/L)	515410.22	1046646.51	13.5
1087 (C/L)	515429.11	1046634.07	14.1
1057 (“T” Intx. Rd’s. NW, SE & SW)	515457.10	1046610.62	14.7
1081 (C/L)	515501.68	1046572.14	15.4
1065 (“T” Intx. Rd’s. NW, SE & NE)	515543.51	1046533.20	16.0
1066 (“T” Intx. Rd’s. NW, SE & SW)	515571.10	1046505.81	16.4
1067 (C/L)	515609.64	1046486.06	17.3
C/L 8’ Track Road:			
1203 (C/L, Connect Ely to loop road)	515579.90	1046890.05	26.4
1204 (C/L)	515619.13	1046854.47	26.6
1205 (C/L)	515656.39	1046825.73	27.0
1206 (C/L)	515668.27	1046799.94	27.6
C/L 10’ Dirt Road:			
1194 (C/L)	515479.91	1047136.72	27.5
1195 (C/L)	515510.00	1047070.65	27.3

Description	North Coord.	East Coord.	Elevation
C/L 10’ Dirt Road continued:			
1196 (“Y” Intx. Rd’s. NW, SE & NW)	515532.82	1047014.01	26.9
1197	515557.01	1046970.40	26.9
1198	515571.34	1046932.97	26.4
1199	515569.13	1046905.60	26.1
1200	515546.85	1046919.53	26.3
1201	515539.82	1046948.04	26.5
1202	515538.90	1046968.32	26.6
1196 (“Y” Intx. POB)	515532.82	1047014.01	26.9
Electric Transformers:			
1073 (S. Cor.)	515459.40	1046617.88	14.9
1074 (W. Cor.)	515462.40	1046615.01	15.0
1075 (N. Cor.)	515464.48	1046617.31	15.3
1076 (E. Cor.)	515461.15	1046620.18	15.2
1077 (S. Cor.)	515467.70	1046611.27	15.4
1078 (W. Cor.)	515469.99	1046609.37	15.6
1079 (N. Cor.)	515472.00	1046611.69	15.8
1080 (E. Cor.)	515469.78	1046613.79	15.6
Trees:			
1088 (14” Pine)	515455.48	1046628.11	16.3
1089 (12” Oak)	515450.24	1046642.09	16.2
1090 (Forked 18” Oak)	515412.19	1046656.77	14.7
1091 (16” Oak)	515315.18	1046687.05	12.9
1092 (20” & 16” Forked Oak)	515310.36	1046681.12	12.9
1093 (18” Oak)	515306.31	1046700.77	12.9
1094 (14” Oak)	515307.64	1046704.35	13.2
1095 (16” Oak)	515399.93	1046684.26	15.0
1096 (14” Pine)	515411.15	1046678.07	15.5
1097 (14” Pine)	515461.29	1046667.55	17.7
1098 (14” Pine)	515485.00	1046673.79	19.0
1101 (30” Oak)	515393.73	1046783.58	18.8
1102 (Center of 2 14” Oaks)	515409.32	1046782.23	18.8
1103 (14” Oak)	515399.77	1046756.77	17.4
1104 (18” Pine)	515399.43	1046735.68	17.1
1105 (15” Pine)	515449.79	1046743.82	19.7
1106 (16” Pine)	515464.26	1046749.39	20.6
1107 (12” Oak)	515459.85	1046728.34	19.2
1108 (18” Oak)	515488.65	1046752.27	22.0
1109 (14” Pine)	515499.54	1046743.62	22.3
1118 (16” Oak)	515538.62	1046758.07	24.5
1119 (18” Oak)	515573.49	1046763.23	25.5
1120 (14” Pine)	515538.63	1046783.95	24.8
1125 (24” Oak)	515602.66	1046824.14	27.4
1126 (18” Oak)	515548.85	1046833.22	26.4
1127 (16” Oak)	515536.75	1046807.91	25.3
1128 (14” Oak)	515523.59	1046829.75	25.6
1129 (16” Pine)	515533.01	1046857.13	26.3
1130 (Forked 18” Oak)	515498.48	1046789.44	23.6

Description	North Coord.	East Coord.	Elevation
Trees Continued:			
1131 (Ctr. of 3 14″ Oaks)	515490.46	1046833.51	24.1
1137 (Forked 14″ & 16″ Oak)	515525.22	1046893.61	26.5
1142 (20″ Oak)	515507.04	1046917.48	26.9
1143 (20″ Oak)	515466.50	1046932.77	26.3
1144 (20″ Oak)	515462.43	1046935.41	26.2
1145 (24″ Oak)	515405.59	1046930.49	23.4
1150 (18″ Oak)	515413.62	1046886.73	22.5
1151 (24″ Oak)	515437.73	1046870.76	23.3
1152 (14″ Pine)	515412.60	1046856.85	21.6
1157 (18″ Oak)	515428.58	1046828.70	21.0
1159 (14″ Oak)	515443.85	1046804.33	21.0
Tent Platforms:			
1110 (W. Cor.)	515501.03	1046757.45	22.2
1111 (S. Cor.)	515491.09	1046764.34	21.9
1112 (E. Cor.)	515498.04	1046774.53	22.3
1113 (N. Cor.)	515508.00	1046767.62	22.7
1114 (E. Cor.)	515543.97	1046744.49	23.7
1115 (S. Cor.)	515540.76	1046733.59	23.0
1116 (W. Cor.)	515553.11	1046730.10	23.8
1117 (N. Cor.)	515555.73	1046741.82	24.2
1121 (E. Cor.)	515587.63	1046809.42	26.3
1122 (S. Cor.)	515581.67	1046798.81	25.9
1123 (W. Cor.)	515592.54	1046792.76	26.1
1124 (N. Cor.)	515598.45	1046803.27	26.4
1132 (S. Cor.)	515532.71	1046846.98	25.8
1133 (E. Cor.)	515538.84	1046857.55	26.2
1134 (N. Cor.)	515549.32	1046850.58	26.3
1135 (W. Cor.)	515542.88	1046840.08	26.0
1138 (W. Cor.)	515486.60	1046904.86	25.3
1139 (S. Cor.)	515477.42	1046912.49	25.6
1140 (E. Cor.)	515485.00	1046922.33	26.1
1141 (N. Cor.)	515493.98	1046914.80	26.1
1146 (E. Cor.)	515427.85	1046917.45	23.4
1147 (S. Cor.)	515416.53	1046911.38	22.9
1148 (W. Cor.)	515422.91	1046900.28	22.9
1149 (N. Cor.)	515433.95	1046906.82	23.4
1153 (N. Cor.)	515406.08	1046861.99	21.2
1154 (E. Cor.)	515394.60	1046865.16	20.5
1155 (S. Cor.)	515390.89	1046853.38	20.1
1156 (W. Cor.)	515402.82	1046850.21	19.9

Description	North Coord.	East Coord.	Elevation
Old Fuel Tank Containment's:			
1166 (S. Cor.)	515510.27	1046971.04	27.8
1167 (W. Cor.)	515515.24	1046966.52	27.8
1168 (N. Cor.)	515526.14	1046978.48	27.3
1169 (E. Cor.)	515521.45	1046983.05	27.6
1174 (W. Cor.)	515468.76	1046961.54	27.8
1175 (N. Cor.)	515481.84	1046974.83	27.7
1176 (E. Cor.)	515476.34	1046980.00	27.2
1177 (S. Cor.)	515463.77	1046966.45	27.5
1178 (S. Cor.)	515595.57	1046887.44	26.7
1179 (W. Cor.)	515600.98	1046882.36	26.6
1180 (N. Cor.)	515612.74	1046894.34	26.9
1181 (E. Cor.)	515607.64	1046899.76	26.9
1183 (N. Cor.)	515611.45	1046850.29	26.7
1184 (E. Cor.)	515606.33	1046855.13	26.8
1185 (S. Cor.)	515592.89	1046841.35	26.9
1186 (W. Cor.)	515598.28	1046836.25	26.8
1187 (S. Cor.)	515638.03	1046846.41	26.7
1188 (W. Cor.)	515643.23	1046841.35	26.9
1189 (N. Cor.)	515655.30	1046853.85	26.9
1190 (E. Cor.)	515650.04	1046858.66	26.9
Valve Pit:			
1170 (S. Cor.)	515504.46	1046963.20	27.6
1171 (E. Cor.)	515507.72	1046966.89	27.6
1172 (N. Cor.)	515511.00	1046963.94	27.7
1173 (W. Cor.)	515507.66	1046960.26	27.6
Gopher Tortoise Burrow's:			
1164 (Adult Burrow in open area)	515506.42	1047017.90	26.1
1165 (Small Burrow @ edge of containment)	515509.37	1046970.40	26.8
1182 (Burrow @ Containment)	515612.17	1046893.07	26.9
1191 (Burrow @ Containment)	515651.80	1046848.75	26.6
1192 (Adult Burrow in open area)	515583.73	1046965.20	27.7
1193 (Burrow, appears to be abandoned)	515587.49	1046970.93	27.5
Temporary Shower:			
1158	515442.01	1046816.35	21.4
Meter Box:			
1160	515436.51	1046802.21	21.0

BRONSON FIELD
SITE NO. 1159
MONITOR, AAS AND SVE WELL TABULATION

Project No.299960.99.22.01.01
Field Surveys July 02, 2004

Note: Horizontal Datum is NAD (North American Datum) 83 (1990) SPC Fl. N. US Survey Ft..
Vertical Datum is NAVD (North American Vertical Datum) 88.

			------Elevation------	
Description	**North Coord.**	**East Coord.**	**TOC**	**F/M Rim**
Survey Control Points:				
9 (PK & Washer)	515224.519	1046504.599	------	10.879
22 (Re Bar & Cap)	515533.969	1046786.702	------	24.613
23 (Re Bar & Cap)	515466.270	1046627.2089	------	15.605
25 (10" Spike)	515562.448	1046482.590	------	15.263
30 (10" Spike)	515230.398	1046737.008	------	12.428
50 (Re Bar & Cap)	515555.619	1046325.018	------	10.962
Monitor Wells:				
6700 **(MW-70)**	515537.96	1046346.42	10.63	10.96
6710 **(MW-71)**	515531.70	1046558.61	15.99	16.29
6720 **(MW-72)**	515486.65	1046235.07	9.81	10.11
6730 **(MW-73)**	515340.97	1046970.95	17.53	17.81
6740 **(MW-74)**	515324.73	1046845.00	15.90	16.22
6750 **(MW-75)**	515226.21	1046714.79	12.00	12.40
AAS Wells:				
3010 **(AAS-01)**	515442.76	1046727.15	18.08	18.34
3020 **(AAS-02)**	515435.91	1046774.52	18.87	19.14
3030 **(AAS-03)**	515400.60	1046772.96	17.35	17.67
3040 **(AAS-04)**	515403.19	1046739.98	16.76	17.10
3050 **(AAS-05)**	515458.49	1046843.61	22.24	22.53
SVE Wells:				
4110 **(SVE-01)**	515421.37	1046750.57	17.61	17.97
4120 **(SVE-02)**	515456.33	1046834.77	21.68	21.97

Appendix E

Data Quality Evaluations

NAS Pensacola

PREPARED FOR: NAS Pensacola / Bronson Field Site 1159

FINAL REVEIWER: Camden Robinson/ Associate Project Chemist/CCI

COPIES: Amy Twitty /Project Manager/CCI

DATE: December 8, 2003

SUBJECT: Quality Assessment for Samples Collected October thru November 2003

This quality assurance memorandum is based upon a review of analytical data generated for water samples and associated field quality control samples collected October thru November 2003 at the Naval Air Station in Pensacola, Florida. The samples were collected as a part of the Bronson Field Site 1159 sampling event conducted at the site. Table 1-1 presents a summary of the CCI sample identification numbers, dates of collection, sample matrices, and the analyses performed.

Gulf Coast Laboratory of Baton Rouge, Louisiana served as the laboratory for this Bronson Field Site 1159 sampling event for the following analyses:

- Benzene, Etylbenzene, Toluene, Total Xylenes, and MTBE (BTEX + MTBE) by SW-846 method 8260B
- Polyaromatic nuclear hydrocarbons (PAH) by HPLC method 8310,
- Total petroleum hydrocarbons (TPH) by method FL-PRO,
- Lead by method SW-846 6010B

Table 1-1 *Summary Sample Data Reviewed*
NAS Pensacola

Sample Number	Lab Sample ID	Date Sampled	Analysis Required
071-1159-MW01-BL	20311031001	10/30/2003	[1], [2], [3], [4]
071-1159-MW02-BL	20311031002	10/30/2003	[1], [2], [3], [4]
071-1159-MW04-BL	20311031003	10/30/2003	[1], [2], [3], [4]
071-1159-MW05-BL	20311031004	10/30/2003	[1], [2], [3], [4]
071-1159-MW06-BL	20311031005	10/30/2003	[1], [2], [3], [4]
071-1159-MW08-BL	20311031006	10/30/2003	[1], [2], [3], [4]
071-1159-MW09-BL	20311031007	10/30/2003	[1], [2], [3], [4]

Sample Number	Lab Sample ID	Date Sampled	Analysis Required
071-1159-MW12-BL	20311031008	10/30/2003	[1], [2], [3], [4]
071-1159-MW14-BL	20311031009	10/30/2003	[1], [2], [3], [4]
071-1159-MW15-BL	20311031010	10/30/2003	[1], [2], [3], [4]
071-1159-DMW61-BL	20311031011	10/30/2003	[1], [2], [3], [4]
071-1159-PREEB-1-BL	20311031015	10/30/2003	[1], [2], [3], [4]
*071-1159-FD-1-BL	20311031016	10/30/2003	[1], [2], [3], [4]
071-1159-TB-1-BL	20311031017	10/30/2003	[1]
071-1159-MW16-BL	20311031018	10/30/2003	[1], [2], [3], [4]
071-1159-MW17-BL	20311031019	10/30/2003	[1], [2], [3], [4]
071-1159-MW18-BL	20311031020	10/30/2003	[1], [2], [3], [4]
071-1159-MW21-BL	20311031021	10/30/2003	[1], [2], [3], [4]
071-1159-MW23-BL	20311031022	10/30/2003	[1], [2], [3], [4]
071-1159-MW01-BL (RE)	20311031023	10/30/2003	[1]
071-1159-MW02-BL (RE)	20311031024	10/30/2003	[1]
071-1159-MW24-BL	20311051101	11/03/2003	[1], [2], [3], [4]
071-1159-MW25-BL	20311051102	11/03/2003	[1], [2], [3], [4]
071-1159-MW27-BL	20311051103	11/03/2003	[1], [2], [3], [4]
071-1159-MW28-BL	20311051104	11/03/2003	[1], [2], [3], [4]
071-1159-MW32-BL	20311051105	11/03/2003	[1], [2], [3], [4]
071-1159-MW33-BL	20311051106	11/03/2003	[1], [2], [3], [4]
071-1159-MW34-BL	20311051107	11/03/2003	[1], [2], [3], [4]
071-1159-MW36-BL	20311051108	11/03/2003	[1], [2], [3], [4]
071-1159-MW37-BL	20311051112	11/03/2003	[1], [2], [3], [4]
071-1159-MW38-BL	20311051113	11/04/2003	[1], [2], [3], [4]
071-1159-MW47-BL	20311051114	11/04/2003	[1], [2], [3], [4]
*071-1159-MW53-BL	20311051115	11/03/2003	[1], [2], [3], [4]

Sample Number	Lab Sample ID	Date Sampled	Analysis Required
071-1159-MW55-BL	20311051116	11/03/2003	[1], [2], [3], [4]
071-1159-MW62-BL	20311051117	11/04/2003	[1], [2], [3], [4]
071-1159-MW65-BL	20311051118	11/03/2003	[1], [2], [3], [4]
071-1159-PREEB-2-BL	20311051119	11/03/2003	[1], [2], [3], [4]
071-1159-PREEB-3-BL	20311051120	11/04/2003	[1], [2], [3], [4]
**071-1159-FD-2-BL	20311051121	11/03/2003	[1], [2], [3], [4]
071-1159-MW22-BL	20311051122	11/04/2003	[1], [2], [3], [4]
***071-1159-FD-3-BL	20311051123	11/04/2003	[1], [2], [3], [4]
071-1159-TB-2-BL	20311051124	11/04/2003	[1]

ANALYSES PERFORMED CODES:
[1] –Benzene, Ethylbenzene, Toluene, Total Xylenes, and MTBE (BTEX + MTBE) by method SW846 8021B,
[2] –Polyaromatic nuclear hydrocarbons (PAH) by HPLC method 8310,
[3] – Total Petroleum Hydrocarbons (TPH) by method FL-PRO,
[4]- Lead by method SW846 6010B
* *071-1159-FD-1-BL blind field duplicate of 071-1159-MW23-BL,*
** *071-1159-FD-2-BL blind field duplicate of 071-1159-MW28-BL,*
*** *071-1159-FD-3-BL blind field duplicate of 071-1159-MW47-BL*

Data for the analyses were reviewed for adherence to the specified analytical protocols in accordance with CCI Sampling Analysis Plan. All analysis results have been validated or qualified according to general guidance provided in the " National Functional Guidelines for Organic and Inorganic Data Review," EPA 540/OR-99/008, October 1999 and EPA 540/R-94/013, February 1994. Additionally, the data were evaluated for adherence to the Department of Defense (DOD) Quality Systems Manual-Version 2 June 2002.

The findings of this quality assurance report are based upon the comprehensive review of the following results summaries reported according to the CCI Level C (CLP-like data deliverables format): chain of custody documentation, holding times, laboratory method and field blank analyses, surrogate compound recoveries, matrix spike compound recoveries and reproducibility, bromofluorobenzene (BFB) mass tuning results, initial and continuing calibration, second source recovery and internal standard area performance summaries, target compound identification, laboratory control sample results, laboratory and blind field duplicate sample results, detection limits/sensitivity, ICP interference check sample results, ICP serial dilution results, metals post digestion spikes, and electronic data deliverables.

The analyses were performed acceptably, but require several qualifying statements; it is recommended that the analytical data be used only with the qualifying statements provided below. Any aspects of the data, which are not discussed in this report, should be considered qualitatively and quantitatively valid as reported, based on the deliverables reviewed. A result summary report presenting the validated and qualified results is presented in Attachment I.

General Data Qualifiers

As required by U.S. EPA protocols, all compounds which were qualitatively identified at concentrations below their respective reporting limits (RL) but above the method detection limit (MDL) have been qualified with "J" qualifiers on the data summary reports to indicate that they are quantitative estimates.

Organic Data Qualifiers

Positive results for total petroleum hydrocarbons reported in the samples listed below are considered estimates due to the levels at which this compounds were present in the associated equipment blank. This has been indicated by placing a "JB" qualifier next to the quantitative results for total petroleum hydrocarbons analysis in the samples listed below on the data summary tables.

Compound	Affected Samples
FL-PRO	071-1159-MW38-BL, 071-1159-MW47-BL, 071-1159-MW62-BL, 071-1159-MW22-BL, and 071-1159-FD-3-BL

Positive results reported for the total petroleum hydrocabons analysis in the samples listed below should be considered quantitative estimates. The associated laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) recoveries were above the established quality control (QC) limit. This has been indicated by placing "J" qualifiers next to the total petroleum hydrocarbons results for the samples listed below on the data summary tables.

Compound	Affected Samples
FL-PRO	071-1159-MW-22-BL and 071-1159-FD-3-BL

The positive results and/or quantitation limits reported for all the volatile organic compounds for the samples listed below should be considered quantitative estimates due to the biased low recoveries reported for two of the four surrogate compounds analyzed. Low surrogate recoveries are indicative of matrix interferences or poor laboratory method performance. Therefore positive results have been marked with "J" qualifiers and the detection limits have been marked with "UJ" qualifiers for the samples listed below to indicate that they are quantitative estimates.

Compound	Affected Samples
4-Bromofluorobenzene	071-1159-MW01-BL, 071-1159-MW15-BL, 071-1159-MW02-BL, 071-1159-MW04-BL, 071-1159-MW05-BL, 071-1159-MW08-BL, 071-1159-MW16-BL, 071-1159-MW17-BL, 071-1159-MW18-BL, 071-1159-MW01-BL (RE), 071-1159-MW02-BL (RE), 071-1159-MW24-BL, 071-1159-MW37-BL, 071-1159-MW25-BL, 071-1159-FD-2-BL, 071-1159-MW27-BL, and 071-1159-MW28-BL
Toluene-d8	071-1159-MW01-BL, 071-1159-MW15-BL, 071-1159-MW02-BL, 071-1159-MW04-BL, 071-1159-MW05-BL, 071-1159-MW08-BL, 071-1159-MW16-BL, 071-1159-MW17-BL, 071-1159-MW18-BL, 071-1159-MW01-BL (RE), 071-1159-MW02-BL (RE), 071-1159-MW24-BL, 071-1159-MW37-BL, 071-1159-MW25-BL, 071-1159-FD-2-BL, 071-1159-MW27-BL, and 071-1159-MW28-BL

The positive results and/or quantitation limits reported for the samples listed below for the volatile organic compounds should be considered estimates and may be lower than reported. The volatile surrogate 1,2-Dichloroethane-d4 recoveries were above the acceptance limits for the analysis of the samples listed below. The high recoveries may be due to matrix interferences during the analyses. The positive results and/or quantitation limits have been marked with a "J" and "UJ" qualifier respectively on the data summary table to indicate that the results are biased high quantitative estimates.

Compound	Affected Samples
1,2-Dichloroethane-d4	071-1159-MW01-BL, 071-1159-MW02-BL, 071-1159-MW17-BL, and 071-1159-MW18-BL, 071-1159-MW24-BL, 071-1159-MW37-BL, 071-1159-MW25-BL, and 071-1159-MW28-BL

The positive results reported for the samples listed below for the total petroleum hydrocarbons analysis should be considered quantitative estimates and may be lower than reported. The total petroleum hydrocarbon surrogate o-terphenyl recoveries were above the acceptance limits for the analysis of the samples listed below. The high recovereis may be due to matrix interferences during the analysis. The positive results for the samples listed below have been marked with a "J" qualifier on the data summary table to indicate that they are biased high quantitative estimates.

Compound	Affected Samples
o-terphenyl	071-1159-MW38-BL, 071-1159-MW55-BL, 071-1159-MW62-BL, 071-1159-MW65-BL, and 071-1159-MW-22-BL

The samples presented below were analyzed or re-analyzed at dilutions for the volatile organic analysis. These dilutions were required to prevent saturation of the instrument and to allow quantitation of the compounds within the linear range of the calibration curve or to reduce the effects of the matrix on the target analyte. Positive results for these compounds in the samples below have been reported from the diluted analyses. All other results and quantitation limits have been reported on the sample report summary from the initial analysis. However, higher quantitation limits have resulted for specific volatile organic compounds, which were not detected, in these samples. This should be noted when assessing these samples for the qualitative absence of specific volatile organic compounds.

Sample ID	Analysis	Dilution Factor
071-1159-MW04-BL	BTEX + MTBE	2x
071-1159-MW01-BL (RE)	BTEX + MTBE	2x
071-1159-MW02-BL (RE)	BTEX + MTBE	2x
071-1159-MW55-BL	BTEX + MTBE	10x
071-1159-FD-3-BL	BTEX + MTBE	40x
071-1159-MW47-BL	BTEX + MTBE	50x

Insufficient sample volume was received for the samples listed below, resulting in elevated detection limits:

Sample ID	Analysis
071-1159-MW01-BL	FLA-PRO
071-1159-MW02-BL	FLA-PRO
071-1159-MW04-BL	FLA-PRO
071-1159-MW05-BL	FLA-PRO
071-1159-MW06-BL	FLA-PRO
071-1159-MW08-BL	PAH by HPLC and FLA-PRO
071-1159-MW09-BL	FLA-PRO
071-1159-MW12-BL	FLA-PRO
071-1159-MW14-BL	FLA-PRO
071-1159-MW15-BL	FLA-PRO

Sample ID	Analysis
071-1159-DMW61-BL	FLA-PRO
071-1159-PREEB-1-BL	PAH by HPLC and FLA-PRO
*071-1159-FD-1-BL	PAH by HPLC and FLA-PRO
071-1159-TB-1-BL	FLA-PRO
071-1159-MW16-BL	FLA-PRO
071-1159-MW17-BL	PAH by HPLC and FLA-PRO
071-1159-MW18-BL	FLA-PRO
071-1159-MW21-BL	FLA-PRO
071-1159-MW23-BL	FLA-PRO

Samples 071-1159-MW23-BL, 071-1159-MW28-BL, and 071-1159-MW47-BL and their blind field duplicate samples 071-1159-FD-1-BL, 071-1159-FD-2-BL, and 071-1159-FD-3-BL were submitted to the laboratory to evaluate sampling and analytical precision for those compounds determined to be confidently detected. All compounds met CCI's blind duplicate precision criteria of 20% for water samples relative percent difference (RPD) for volatile organic analyses and 25% water samples relative percent difference (RPD) for semivolatile organics and metals analyses with the exception of fl-pro, ethylbenzene, xylenes (total), benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene . A "J" qualifier was appended to these compounds for the native samples listed below to indicate that the reported value should be considered quantitative estimates due to the field duplicate RPD exceedances. The RPD was not calculated for the compounds that were not detected in both samples.

Compound	Affected Samples
FL-PRO	071-1159-MW23-BL
Ethylbenzene	071-1159-MW28-BL and 071-1159-MW47-BL
Xylenes (Total)	071-1159-MW28-BL
Benzo(a)anthrancene	071-1159-FD-2-BL
Benzo(a)pyrene	071-1159-FD-2-BL
Benzo(b)fluoranthene	071-1159-FD-2-BL
Benzo(g,h,i)perylene	071-1159-FD-2-BL
Benzo(k)fluoranthene	071-1159-FD-2-BL

Compound	Affected Samples
Chrysene	071-1159-FD-2-BL
Dibenzo(a,h)anthracene	071-1159-FD-2-BL
Indeno(1,2,3-cd)pyrene	071-1159-FD-2-BL

Inorganic Data Qualifiers

Lead results for the samples listed below are considered estimated due to the levels at which the element was present in the associated initial and continuing calibration blanks. This has been indicated by placing a "B" qualifier next to the quantitative results for lead in the samples listed below on the data summary tables.

Analyte	Affected Samples
Lead	071-1159-MW24-BL, 071-1159-MW25-BL, 071-1159-MW27-BL, 071-1159-MW28-BL, 071-1159-MW38-BL, 071-1159-MW47-BL, 071-1159-MW53-BL, 071-1159-MW55-BL, 071-1159-MW62-BL, 071-1159-MW65-BL, 071-1159-FD-2-BL, 071-1159-MW22-BL, and 071-1159-FD-3-BL

Lead results for the samples listed below are considered estimated due to the levels at which the element was present in the associated equipment blanks. This has been indicated by placing a "JB" qualifier next to the quantitative results for lead in the samples listed below on the data summary tables.

Analyte	Affected Samples
Lead	071-1159-MW24-BL, 071-1159-MW25-BL, 071-1159-MW27-BL, 071-1159-MW28-BL, 071-1159-MW53-BL, 071-1159-MW55-BL, 071-1159-MW65-BL, and 071-1159-FD-2-BL

Summary

The organic and inorganic analyses were performed acceptably, but required qualifying statements. This analytical quality assurance report has identified the aspects of the data, which required qualification. These qualifiers are noted on the attached analytical sample summary reports. A support documentation package has been prepared for this quality assurance review and is filed with the NAS Pensacola CTO 71/Bronson Field Site 1159 sampling project file.

Attachment I

VALID QUALIFIERS

QUALIFIER	
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit
J	The analyte was positively identified: the associated numerical value is the approximate concentration of the analyte in the sample.
N	The analysis indicates the presence of an analyte for which there was presumptive evidence to make a "tentative identification."
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
UJ	The analyte was not deemed above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
R	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet the quality control criteria. The presence or absence of the analyte cannot be verified.
B	The analyte was detected in the associated method and/or calibration blank.
JB	The analyte detected in the associated field, equipment, and/or trip blank.

QUALIFICATION CODE REFERENCE

Qualifier	Organics	Inorganics
H	Holding times were exceeded.	Holding times were exceeded.
S	Surrogate recovery was outside QC limits.	The sequence or number of standards used for the calibration was incorrect.
C	Calibration %RSD or %D was noncompliant.	Correlation coefficient is <0.995.
R	Calibration RRF was <0.05.	%R for calibration is not within control limits.
MB	Presumed contamination from preparation (method) blank.	Presumed contamination from preparation (method) blank or calibration blank.
L	Laboratory Blank Spike/Blank Spike Duplicate %R was not within control limits.	Laboratory Control Sample %R was not within control limits.
Q	MS/MSD recovery was poor or RPD high.	MS recovery was poor.
G	Result is over the calibration range. Not other acceptable result was provided.	Result is over the calibration range. Not other acceptable result was provided.
E	Not applicable	Duplicate showed poor agreement.
Z	Duplicates RPD showed poor agreement.	Duplicates RPD showed poor agreement
I	Internal standard performance was unsatisfactory.	ICP ICS results were unsatisfactory.
A	Not applicable.	ICP Serial Dilution %D was not within control limits.
M	Tuning (BFB or DFTPP) was noncompliant.	Not applicable.
T	Presumed contamination from trip blank.	Not applicable.
+	False positive—reported compound was not present.	Not applicable.
-	False negative—compound was present but not reported.	Not applicable.
F	Presumed contamination from FB or ER.	Presumed contamination from FB or ER
$	Reported result or other information was incorrect.	Reported result or other information was incorrect.
?	TIC identity or reported retention time has been changed.	Not applicable.
D	The analysis with this flag should not be used because another more technically sound analysis is available.	The analysis with this flag should not be used because another more technically sound analysis is available.
P	Instrument performance for pesticides was poor.	Poor Digestion Spike recovery was not within control limits.
*#	Unusual problems found with the data that have been described in Section 2, "Data Validation Findings." The number following the asterisk (*) will indicate the subsection where a description of the problem can be found.	Unusual problems found with the data that have been described in Section 2, "Data Validation Findings." The number following the asterisk (*) will indicate the subsection where a description of the problem can be found.
T/D	Not applicable	Total metals results reported were less than the dissolved metals result.

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

071-1159-MW01-BL

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203110310

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL Lab Sample ID: 20311031001

Level: (low/med) LOW Lab File ID: 2031104P/D0644

% Moisture: not dec. Date Collected: 10/30/03 Time: 0815

GC Column: DB-624-30M ID: .53 (mm) Date Received: 11/01/03

Instrument ID: MSV5 Date Analyzed: 11/04/03 Time: 1612

Soil Extract Volume: (µL) Dilution Factor: 1 Analyst: HJL

Soil Aliquot Volume: (µL) Prep Batch: Analytical Batch: 264516

CONCENTRATION UNITS: ug/L Analytical Method: SW-846 8260

CAS NO.	COMPOUND	RESULT	Q	MDL	RL	
71-43-2	Benzene	3.75	J	0.100	0.500	S
100-41-4	Ethylbenzene	21.6	J	0.312	5.00	S
108-88-3	Toluene	3.37	J	0.152	5.00	S
1330-20-7	Xylene (total)	87.7	J	0.507	10.0	S
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U J	0.122	5.00	S

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FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

071-1159-MW02-BL

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203110310

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20311031002

Level: (low/med) LOW

Lab File ID: 2031104P/D0648

% Moisture: not dec.

Date Collected: 10/30/03 Time: 0930

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 11/01/03

Instrument ID: MSV5

Date Analyzed: 11/04/03 Time: 1755

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: HJL

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 264516

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL	
71-43-2	Benzene	0.500	U	0.100	0.500	S
100-41-4	Ethylbenzene	8.58	J	0.312	5.00	S
108-88-3	Toluene	5.00	U J	0.152	5.00	S
1330-20-7	Xylene (total)	21.8	J	0.507	10.0	S
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U J	0.122	5.00	S

C.R

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

071-1159-MW04-BL

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203110310

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20311031003

Level: (low/med) LOW

Lab File ID: 2031104P/D0667

% Moisture: not dec.

Date Collected: 10/30/03 Time: 1000

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 11/01/03

Instrument ID: MSV5

Date Analyzed: 11/05/03 Time: 0129

Soil Extract Volume: (µL)

Dilution Factor: 2 Analyst: CBL

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 264516

CONCENTRATION UNITS: ug/L

Analytical Method: SW-846 8260

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	1.00	U J	0.200	1.00
100-41-4	Ethylbenzene	10.0	U J	0.624	10.0
108-88-3	Toluene	10.0	U J	0.304	10.0
1330-20-7	Xylene (total)	2.07	J	1.01	20.0
1634-04-4	tert-Butyl methyl ether (MTBE)	10.0	U J	0.244	10.0

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C.R

FORM I VOA

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

071-1159-MW05-BL

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203110310

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20311031004

Level: (low/med) LOW

Lab File ID: 2031104P/D0650

% Moisture: not dec.

Date Collected: 10/30/03 Time: 1030

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 11/01/03

Instrument ID: MSV5

Date Analyzed: 11/04/03 Time: 1843

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: HJL

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 264516

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL	
71-43-2	Benzene	1.49	J	0.100	0.500	S
100-41-4	Ethylbenzene	12.2	J	0.312	5.00	
108-88-3	Toluene	8.52	J	0.152	5.00	
1330-20-7	Xylene (total)	66.4	J	0.507	10.0	
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U J	0.122	5.00	

C.L

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

071-1159-MW06-BL

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203110310

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20311031005

Level: (low/med) LOW

Lab File ID: 2031104P/D0651

% Moisture: not dec.

Date Collected: 10/30/03 Time: 1055

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 11/01/03

Instrument ID: MSV5

Date Analyzed: 11/04/03 Time: 1907

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: HJL

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 264516

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.100	0.500
100-41-4	Ethylbenzene	5.00	U	0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	3.73	J	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

C.R

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

071-1159-MW08-BL

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203110310

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20311031006

Level: (low/med) LOW

Lab File ID: 2031104P/D0652

% Moisture: not dec.

Date Collected: 10/30/03 Time: 1125

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 11/01/03

Instrument ID: MSV5

Date Analyzed: 11/04/03 Time: 1931

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: CBL

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 264516

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U J	0.100	0.500
100-41-4	Ethylbenzene	2.46	J	0.312	5.00
108-88-3	Toluene	5.00	U J	0.152	5.00
1330-20-7	Xylene (total)	3.76	J	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U J	0.122	5.00

C.L

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

071-1159-MW09-BL

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203110310

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20311031007

Level: (low/med) LOW

Lab File ID: 2031104P/D0653

% Moisture: not dec.

Date Collected: 10/30/03 Time: 1145

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 11/01/03

Instrument ID: MSV5

Date Analyzed: 11/04/03 Time: 1955

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: CBL

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 264516

CONCENTRATION UNITS: ug/L

Analytical Method: SW-846 8260

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.100	0.500
100-41-4	Ethylbenzene	32.4		0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	96.1		0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

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FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

071-1159-MW12-BL

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203110310

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20311031008

Level: (low/med) LOW

Lab File ID: 2031104P/D0654

% Moisture: not dec.

Date Collected: 10/30/03 Time: 1255

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 11/01/03

Instrument ID: MSV5

Date Analyzed: 11/04/03 Time: 2019

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: CBL

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 264516

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.100	0.500
100-41-4	Ethylbenzene	6.08		0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	8.06	J	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

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FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

071-1159-MW14-BL

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203110310

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20311031009

Level: (low/med) LOW

Lab File ID: 2031104P/D0655

% Moisture: not dec.

Date Collected: 10/30/03 Time: 1320

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 11/01/03

Instrument ID: MSV5

Date Analyzed: 11/04/03 Time: 2043

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: CBL

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 264516

CONCENTRATION UNITS: ug/L

Analytical Method: SW-846 8260

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.100	0.500
100-41-4	Ethylbenzene	1.35	J	0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	8.28	J	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

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FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

071-1159-MW15-BL

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203110310

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL Lab Sample ID: 20311031010

Level: (low/med) LOW Lab File ID: 2031104P/D0656

% Moisture: not dec. Date Collected: 10/30/03 Time: 1355

GC Column: DB-624-30M ID: .53 (mm) Date Received: 11/01/03

Instrument ID: MSV5 Date Analyzed: 11/04/03 Time: 2107

Soil Extract Volume: (µL) Dilution Factor: 1 Analyst: CBL

Soil Aliquot Volume: (µL) Prep Batch: Analytical Batch: 264516

CONCENTRATION UNITS: ug/L Analytical Method: SW-846 8260

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U J	0.100	0.500
100-41-4	Ethylbenzene	2.67	J	0.312	5.00
108-88-3	Toluene	1.06	J	0.152	5.00
1330-20-7	Xylene (total)	14.2	J	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U J	0.122	5.00

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FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

071-1159-DMW61-BL

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203110310

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20311031011

Level: (low/med) LOW

Lab File ID: 2031104P/D0643

% Moisture: not dec.

Date Collected: 10/30/03 Time: 0845

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 11/01/03

Instrument ID: MSV5

Date Analyzed: 11/04/03 Time: 1549

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: KRV

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 264516

CONCENTRATION UNITS: ug/L

Analytical Method: SW-846 8260

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.100	0.500
100-41-4	Ethylbenzene	5.00	U	0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	10.0	U	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

C.R

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

071-1159-PREEB-1-BL

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203110310

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20311031015

Level: (low/med) LOW

Lab File ID: 2031104P/D0657

% Moisture: not dec.

Date Collected: 10/30/03 Time: 0800

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 11/01/03

Instrument ID: MSV5

Date Analyzed: 11/04/03 Time: 2130

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: CBL

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 264516

CONCENTRATION UNITS: ug/L

Analytical Method: SW-846 8260

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.100	0.500
100-41-4	Ethylbenzene	5.00	U	0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	10.0	U	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

C.R

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

071-1159-FD-1-BL

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203110310

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20311031016

Level: (low/med) LOW

Lab File ID: 2031104P/D0658

% Moisture: not dec.

Date Collected: 10/30/03 Time: 0000

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 11/01/03

Instrument ID: MSV5

Date Analyzed: 11/04/03 Time: 2154

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: CBL

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 264516

CONCENTRATION UNITS: ug/L

Analytical Method: SW-846 8260

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.100	0.500
100-41-4	Ethylbenzene	5.00	U	0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	1.57	J	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

071-1159-TB-1-BL

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203110310

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20311031017

Level: (low/med) LOW

Lab File ID: 2031104P/D0659

% Moisture: not dec.

Date Collected: 10/30/03 Time: 0000

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 11/01/03

Instrument ID: MSV5

Date Analyzed: 11/04/03 Time: 2218

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: CBL

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 264516

CONCENTRATION UNITS: ug/L

Analytical Method: SW-846 8260

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.100	0.500
100-41-4	Ethylbenzene	5.00	U	0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	10.0	U	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

O.K

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

071-1159-MW16-BL

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203110310

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20311031018

Level: (low/med) LOW

Lab File ID: 2031104P/D0660

% Moisture: not dec.

Date Collected: 10/30/03 Time: 1425

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 11/01/03

Instrument ID: MSV5

Date Analyzed: 11/04/03 Time: 2242

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: CBL

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 264516

CONCENTRATION UNITS: ug/L

Analytical Method: SW-846 8260

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U J	0.100	0.500
100-41-4	Ethylbenzene	5.25	J	0.312	5.00
108-88-3	Toluene	5.00	U J	0.152	5.00
1330-20-7	Xylene (total)	17.7	J	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U J	0.122	5.00

S

C.R

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

071-1159-MW17-BL

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203110310

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20311031019

Level: (low/med) LOW

Lab File ID: 2031104P/D0661

% Moisture: not dec.

Date Collected: 10/30/03 Time: 1455

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 11/01/03

Instrument ID: MSV5

Date Analyzed: 11/04/03 Time: 2306

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: CBL

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 264516

CONCENTRATION UNITS: ug/L

Analytical Method: SW-846 8260

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U J	0.100	0.500
100-41-4	Ethylbenzene	13.6	J	0.312	5.00
108-88-3	Toluene	5.00	U J	0.152	5.00
1330-20-7	Xylene (total)	53.2	J	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U J	0.122	5.00

S

C.R

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

071-1159-MW18-BL

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203110310

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20311031020

Level: (low/med) LOW

Lab File ID: 2031104P/D0662

% Moisture: not dec.

Date Collected: 10/30/03 Time: 1525

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 11/01/03

Instrument ID: MSV5

Date Analyzed: 11/04/03 Time: 2330

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: CBL

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 264516

CONCENTRATION UNITS: ug/L

Analytical Method: SW-846 8260

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U J	0.100	0.500
100-41-4	Ethylbenzene	3.69	J	0.312	5.00
108-88-3	Toluene	5.00	U J	0.152	5.00
1330-20-7	Xylene (total)	16.9	J	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U J	0.122	5.00

S

C.R

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

071-1159-MW21-BL

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203110310

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20311031021

Level: (low/med) LOW

Lab File ID: 2031104P/D0663

% Moisture: not dec.

Date Collected: 10/30/03 Time: 1605

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 11/01/03

Instrument ID: MSV5

Date Analyzed: 11/04/03 Time: 2354

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: CBL

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 264516

CONCENTRATION UNITS: ug/L

Analytical Method: SW-846 8260

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.100	0.500
100-41-4	Ethylbenzene	5.00	U	0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	10.0	U	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

071-1159-MW23-BL

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203110310

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20311031022

Level: (low/med) LOW

Lab File ID: 2031104P/D0664

% Moisture: not dec.

Date Collected: 10/30/03 Time: 1630

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 11/01/03

Instrument ID: MSV5

Date Analyzed: 11/05/03 Time: 0018

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: CBL

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 264516

CONCENTRATION UNITS: ug/L

Analytical Method: SW-846 8260

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.100	0.500
100-41-4	Ethylbenzene	5.00	U	0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	1.50	J	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

071-1159-MW01-BL(RE)

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203110310

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20311031023

Level: (low/med) LOW

Lab File ID: 2031104P/D0665

% Moisture: not dec.

Date Collected: 10/30/03 Time: 0815

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 11/01/03

Instrument ID: MSV5

Date Analyzed: 11/05/03 Time: 0042

Soil Extract Volume: (µL)

Dilution Factor: 2 Analyst: CBL

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 264516

CONCENTRATION UNITS: ug/L

Analytical Method: SW-846 8260

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	1.00	U J	0.200	1.00
100-41-4	Ethylbenzene	28.0	J	0.624	10.0
108-88-3	Toluene	10.0	U J	0.304	10.0
1330-20-7	Xylene (total)	105	J	1.01	20.0
1634-04-4	tert-Butyl methyl ether (MTBE)	10.0	U J	0.244	10.0

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FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

071-1159-MW02-BL(RE)

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203110310

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20311031024

Level: (low/med) LOW

Lab File ID: 2031104P/D0666

% Moisture: not dec.

Date Collected: 10/30/03 Time: 0930

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 11/01/03

Instrument ID: MSV5

Date Analyzed: 11/05/03 Time: 0106

Soil Extract Volume: (µL)

Dilution Factor: 2 Analyst: CBL

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 264516

CONCENTRATION UNITS: ug/L

Analytical Method: SW-846 8260

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	1.00	U J	0.200	1.00
100-41-4	Ethylbenzene	11.2	J	0.624	10.0
108-88-3	Toluene	10.0	U J	0.304	10.0
1330-20-7	Xylene (total)	28.6	J	1.01	20.0
1634-04-4	tert-Butyl methyl ether (MTBE)	10.0	U J	0.244	10.0

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FORM I VOA

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264574 Analytical Batch: 264601

Sample ID 071-1159-MW01-BL

Contract:

SAS No.: SDG No.: 203110310

Lab Sample ID: 20311031001

Date Collected 10/30/03 Time: 0815

Date Received: 11/01/03

Date Extracted: 11/04/03

Date Analyzed: 11/04/03 Time: 1804

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

CONCENTRATION UNITS: ug/L

Lab File ID: 031104P/H00055

CAS NO.	COMPOUND	RESULT		MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264574 Analytical Batch: 264601

CONCENTRATION UNITS: ug/L

Sample ID 071-1159-MW02-BL

Contract:

SAS No.: SDG No.: 203110310

Lab Sample ID: 20311031002

Date Collected 10/30/03 Time: 0930

Date Received: 11/01/03

Date Extracted: 11/04/03

Date Analyzed: 11/04/03 Time: 1811

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 031104P/H00055

CAS NO.	COMPOUND	RESULT		MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

C.L

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264574 Analytical Batch: 264601

Sample ID 071-1159-MW04-BL

Contract:

SAS No.: SDG No.: 203110310

Lab Sample ID: 20311031003

Date Collected 10/30/03 Time: 1000

Date Received: 11/01/03

Date Extracted: 11/04/03

Date Analyzed: 11/04/03 Time: 1818

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

CONCENTRATION UNITS: ug/L

Lab File ID: 031104P/H00055

CAS NO.	COMPOUND	RESULT		MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264574 Analytical Batch: 264601

Sample ID 071-1159-MW05-BL

Contract:

SAS No.: SDG No.: 203110310

Lab Sample ID: 20311031004

Date Collected 10/30/03 Time: 1030

Date Received: 11/01/03

Date Extracted: 11/04/03

Date Analyzed: 11/04/03 Time: 1825

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

CONCENTRATION UNITS: ug/L

Lab File ID: 031104P/H00055

CAS NO.	COMPOUND	RESULT		MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

C.4

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264574 Analytical Batch: 264601

Sample ID 071-1159-MW06-BL

Contract:

SAS No.: SDG No.: 203110310

Lab Sample ID: 20311031005

Date Collected 10/30/03 Time: 1055

Date Received: 11/01/03

Date Extracted: 11/04/03

Date Analyzed: 11/04/03 Time: 1832

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 031104P/H00055

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT		MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

C.C

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 970 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264574 Analytical Batch: 264601

Sample ID 071-1159-MW08-BL

Contract:

SAS No.: SDG No.: 203110310

Lab Sample ID: 20311031006

Date Collected 10/30/03 Time: 1125

Date Received: 11/01/03

Date Extracted: 11/04/03

Date Analyzed: 11/04/03 Time: 1839

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

CONCENTRATION UNITS: ug/L

Lab File ID: 031104P/H00055

CAS NO.	COMPOUND	RESULT		MDL	RL
90-12-0	1-Methylnaphthalene	1.03	U	0.300	1.03
91-57-6	2-Methylnaphthalene	1.03	U	0.146	1.03
83-32-9	Acenaphthene	1.03	U	0.341	1.03
208-96-8	Acenaphthylene	1.03	U	0.158	1.03
120-12-7	Anthracene	0.103	U	0.025	0.103
56-55-3	Benzo(a)anthracene	0.103	U	0.033	0.103
50-32-8	Benzo(a)pyrene	0.103	U	0.034	0.103
205-99-2	Benzo(b)fluoranthene	0.103	U	0.016	0.103
191-24-2	Benzo(g,h,i)perylene	0.103	U	0.016	0.103
207-08-9	Benzo(k)fluoranthene	0.103	U	0.034	0.103
218-01-9	Chrysene	0.103	U	0.031	0.103
53-70-3	Dibenz(a,h)anthracene	0.103	U	0.030	0.103
206-44-0	Fluoranthene	0.103	U	0.045	0.103
86-73-7	Fluorene	0.515	U	0.102	0.515
193-39-5	Indeno(1,2,3-cd)pyrene	0.258	U	0.042	0.258
91-20-3	Naphthalene	0.258	U	0.128	0.258
85-01-8	Phenanthrene	0.103	U	0.026	0.103
129-00-0	Pyrene	0.103	U	0.035	0.103

C.L

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264574 Analytical Batch: 264601

CONCENTRATION UNITS: ug/L

Sample ID 071-1159-MW09-BL

Contract:

SAS No.: SDG No.: 203110310

Lab Sample ID: 20311031007

Date Collected 10/30/03 Time: 1145

Date Received: 11/01/03

Date Extracted: 11/04/03

Date Analyzed: 11/04/03 Time: 1846

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 031104P/H00055

CAS NO.	COMPOUND	RESULT		MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

C. R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264574 Analytical Batch: 264601

Sample ID 071-1159-MW12-BL

Contract:

SAS No.: SDG No.: 203110310

Lab Sample ID: 20311031008

Date Collected 10/30/03 Time: 1255

Date Received: 11/01/03

Date Extracted: 11/04/03

Date Analyzed: 11/04/03 Time: 1950

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 031104P/H00056

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT		MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.109		0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

C. R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264574 Analytical Batch: 264601

CONCENTRATION UNITS: ug/L

Sample ID 071-1159-MW14-BL

Contract:

SAS No.: SDG No.: 203110310

Lab Sample ID: 20311031009

Date Collected 10/30/03 Time: 1320

Date Received: 11/01/03

Date Extracted: 11/04/03

Date Analyzed: 11/04/03 Time: 1957

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 031104P/H00056

CAS NO.	COMPOUND	RESULT		MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

C.L

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264574 Analytical Batch: 264601

Sample ID 071-1159-MW15-BL

Contract:

SAS No.: SDG No.: 203110310

Lab Sample ID: 20311031010

Date Collected 10/30/03 Time: 1355

Date Received: 11/01/03

Date Extracted: 11/04/03

Date Analyzed: 11/04/03 Time: 2004

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 031104P/H00056

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT		MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

c. 2

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264574 Analytical Batch: 264601

Sample ID 071-1159-DMW61-BL

Contract:

SAS No.: SDG No.: 203110310

Lab Sample ID: 20311031011

Date Collected 10/30/03 Time: 0845

Date Received: 11/01/03

Date Extracted: 11/04/03

Date Analyzed: 11/04/03 Time: 1916

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 031104P/H00055

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT		MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

C.R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 960 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264574 Analytical Batch: 264601

CONCENTRATION UNITS: ug/L

Sample ID 071-1159-PREEB-1-BL

Contract:

SAS No.: SDG No.: 203110310

Lab Sample ID: 20311031015

Date Collected 10/30/03 Time: 0800

Date Received: 11/01/03

Date Extracted: 11/04/03

Date Analyzed: 11/04/03 Time: 2011

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 031104P/H00056

CAS NO.	COMPOUND	RESULT		MDL	RL
90-12-0	1-Methylnaphthalene	1.04	U	0.303	1.04
91-57-6	2-Methylnaphthalene	1.04	U	0.148	1.04
83-32-9	Acenaphthene	1.04	U	0.345	1.04
208-96-8	Acenaphthylene	1.04	U	0.159	1.04
120-12-7	Anthracene	0.104	U	0.025	0.104
56-55-3	Benzo(a)anthracene	0.104	U	0.033	0.104
50-32-8	Benzo(a)pyrene	0.104	U	0.034	0.104
205-99-2	Benzo(b)fluoranthene	0.104	U	0.017	0.104
191-24-2	Benzo(g,h,i)perylene	0.104	U	0.017	0.104
207-08-9	Benzo(k)fluoranthene	0.104	U	0.034	0.104
218-01-9	Chrysene	0.104	U	0.031	0.104
53-70-3	Dibenz(a,h)anthracene	0.104	U	0.030	0.104
206-44-0	Fluoranthene	0.104	U	0.046	0.104
86-73-7	Fluorene	0.521	U	0.103	0.521
193-39-5	Indeno(1,2,3-cd)pyrene	0.260	U	0.043	0.260
91-20-3	Naphthalene	0.260	U	0.129	0.260
85-01-8	Phenanthrene	0.104	U	0.026	0.104
129-00-0	Pyrene	0.104	U	0.035	0.104

C.R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 970 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264574 Analytical Batch: 264601

Sample ID 071-1159-FD-1-BL

Contract:

SAS No.: SDG No.: 203110310

Lab Sample ID: 20311031016

Date Collected 10/30/03 Time: 0000

Date Received: 11/01/03

Date Extracted: 11/04/03

Date Analyzed: 11/04/03 Time: 2018

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

CONCENTRATION UNITS: ug/L

Lab File ID: 031104P/H00056

CAS NO.	COMPOUND	RESULT		MDL	RL
90-12-0	1-Methylnaphthalene	1.03	U	0.300	1.03
91-57-6	2-Methylnaphthalene	1.03	U	0.146	1.03
83-32-9	Acenaphthene	1.03	U	0.341	1.03
208-96-8	Acenaphthylene	1.03	U	0.158	1.03
120-12-7	Anthracene	0.103	U	0.025	0.103
56-55-3	Benzo(a)anthracene	0.103	U	0.033	0.103
50-32-8	Benzo(a)pyrene	0.103	U	0.034	0.103
205-99-2	Benzo(b)fluoranthene	0.103	U	0.016	0.103
191-24-2	Benzo(g,h,i)perylene	0.103	U	0.016	0.103
207-08-9	Benzo(k)fluoranthene	0.103	U	0.034	0.103
218-01-9	Chrysene	0.103	U	0.031	0.103
53-70-3	Dibenz(a,h)anthracene	0.103	U	0.030	0.103
206-44-0	Fluoranthene	0.103	U	0.045	0.103
86-73-7	Fluorene	0.515	U	0.102	0.515
193-39-5	Indeno(1,2,3-cd)pyrene	0.258	U	0.042	0.258
91-20-3	Naphthalene	0.258	U	0.128	0.258
85-01-8	Phenanthrene	0.103	U	0.026	0.103
129-00-0	Pyrene	0.103	U	0.035	0.103

C.L

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264574 Analytical Batch: 264601

Sample ID 071-1159-MW16-BL

Contract:

SAS No.: SDG No.: 203110310

Lab Sample ID: 20311031018

Date Collected 10/30/03 Time: 1425

Date Received: 11/01/03

Date Extracted: 11/04/03

Date Analyzed: 11/04/03 Time: 2025

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

CONCENTRATION UNITS: ug/L

Lab File ID: 031104P/H00056

CAS NO.	COMPOUND	RESULT		MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

C R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 970 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264574 Analytical Batch: 264601

CONCENTRATION UNITS: ug/L

Sample ID 071-1159-MW17-BL

Contract:

SAS No.: SDG No.: 203110310

Lab Sample ID: 20311031019

Date Collected 10/30/03 Time: 1455

Date Received: 11/01/03

Date Extracted: 11/04/03

Date Analyzed: 11/04/03 Time: 2032

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 031104P/H00056

CAS NO.	COMPOUND	RESULT		MDL	RL
90-12-0	1-Methylnaphthalene	1.03	U	0.300	1.03
91-57-6	2-Methylnaphthalene	1.03	U	0.146	1.03
83-32-9	Acenaphthene	1.03	U	0.341	1.03
208-96-8	Acenaphthylene	1.03	U	0.158	1.03
120-12-7	Anthracene	0.103	U	0.025	0.103
56-55-3	Benzo(a)anthracene	0.103	U	0.033	0.103
50-32-8	Benzo(a)pyrene	0.103	U	0.034	0.103
205-99-2	Benzo(b)fluoranthene	0.103	U	0.016	0.103
191-24-2	Benzo(g,h,i)perylene	0.103	U	0.016	0.103
207-08-9	Benzo(k)fluoranthene	0.103	U	0.034	0.103
218-01-9	Chrysene	0.103	U	0.031	0.103
53-70-3	Dibenz(a,h)anthracene	0.103	U	0.030	0.103
206-44-0	Fluoranthene	0.103	U	0.045	0.103
86-73-7	Fluorene	0.515	U	0.102	0.515
193-39-5	Indeno(1,2,3-cd)pyrene	0.258	U	0.042	0.258
91-20-3	Naphthalene	0.258	U	0.128	0.258
85-01-8	Phenanthrene	0.103	U	0.026	0.103
129-00-0	Pyrene	0.103	U	0.035	0.103

c-L

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264574 Analytical Batch: 264601

CONCENTRATION UNITS: ug/L

Sample ID 071-1159-MW18-BL

Contract:

SAS No.: SDG No.: 203110310

Lab Sample ID: 20311031020

Date Collected 10/30/03 Time: 1525

Date Received: 11/01/03

Date Extracted: 11/04/03

Date Analyzed: 11/04/03 Time: 2053

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 031104P/H00056

CAS NO.	COMPOUND	RESULT		MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

C.L

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264574 Analytical Batch: 264601

CONCENTRATION UNITS: ug/L

Sample ID 071-1159-MW21-BL

Contract:

SAS No.: SDG No.: 203110310

Lab Sample ID: 20311031021

Date Collected 10/30/03 Time: 1605

Date Received: 11/01/03

Date Extracted: 11/04/03

Date Analyzed: 11/04/03 Time: 2100

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 031104P/H00056

CAS NO.	COMPOUND	RESULT		MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.67		0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

N.R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264574 Analytical Batch: 264601

CONCENTRATION UNITS: ug/L

Sample ID 071-1159-MW23-BL

Contract:

SAS No.: SDG No.: 203110310

Lab Sample ID: 20311031022

Date Collected 10/30/03 Time: 1630

Date Received: 11/01/03

Date Extracted: 11/04/03

Date Analyzed: 11/04/03 Time: 2107

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 031104P/H00056

CAS NO.	COMPOUND	RESULT		MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 900 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264595 Analytical Batch: 265271

CONCENTRATION UNITS: ug/L

Sample ID: 071-1159-MW01-BL

Contract:

SAS No.: SDG No.: 203110310

Lab Sample ID: 20311031001

Date Collected: 10/30/03 Time: 0815

Date Received: 11/01/03

Date Extracted: 11/04/03

Date Analyzed: 11/11/03 Time: 0322

Dilution Factor: 1 Analyst: TLS

Prep Method: FLORIDA PRO

Analytical Method: FLORIDA PRO

Sulfur Cleanup: (Y/N) N Instrument ID: GCS11A

Lab File ID: 2031110/SV1101

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
FLPRO-01	Petroleum Hydrocarbons	809		45.2	111

C.L

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 900 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264595 Analytical Batch: 265271

CONCENTRATION UNITS: ug/L

Sample ID: 071-1159-MW02-BL

Contract:

SAS No.: SDG No.: 203110310

Lab Sample ID: 20311031002

Date Collected: 10/30/03 Time: 0930

Date Received: 11/01/03

Date Extracted: 11/04/03

Date Analyzed: 11/11/03 Time: 0417

Dilution Factor: 1 Analyst: TLS

Prep Method: FLORIDA PRO

Analytical Method: FLORIDA PRO

Sulfur Cleanup: (Y/N) N Instrument ID: GCS11A

Lab File ID: 2031110/SV1101

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
FLPRO-01	Petroleum Hydrocarbons	727		45.2	111

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 900 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264595 Analytical Batch: 265271

CONCENTRATION UNITS: ug/L

Sample ID: 071-1159-MW04-BL

Contract:

SAS No.: SDG No.: 203110310

Lab Sample ID: 20311031003

Date Collected: 10/30/03 Time: 1000

Date Received: 11/01/03

Date Extracted: 11/04/03

Date Analyzed: 11/11/03 Time: 0511

Dilution Factor: 1 Analyst: TLS

Prep Method: FLORIDA PRO

Analytical Method: FLORIDA PRO

Sulfur Cleanup: (Y/N) N Instrument ID: GCS11A

Lab File ID: 2031110/SV1101

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
FLPRO-01	Petroleum Hydrocarbons	1090		45.2	111

C.f

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 910 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264595 Analytical Batch: 265271

CONCENTRATION UNITS: ug/L

Sample ID: 071-1159-MW05-BL

Contract:

SAS No.: SDG No.: 203110310

Lab Sample ID: 20311031004

Date Collected: 10/30/03 Time: 1030

Date Received: 11/01/03

Date Extracted: 11/04/03

Date Analyzed: 11/11/03 Time: 0605

Dilution Factor: 1 Analyst: TLS

Prep Method: FLORIDA PRO

Analytical Method: FLORIDA PRO

Sulfur Cleanup: (Y/N) N Instrument ID: GCS11A

Lab File ID: 2031110/SV1101

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
FLPRO-01	Petroleum Hydrocarbons	1370		44.7	110

C.R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 930 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264595 Analytical Batch: 265271

CONCENTRATION UNITS: ug/L

Sample ID: 071-1159-MW06-BL

Contract:

SAS No.: SDG No.: 203110310

Lab Sample ID: 20311031005

Date Collected: 10/30/03 Time: 1055

Date Received: 11/01/03

Date Extracted: 11/04/03

Date Analyzed: 11/11/03 Time: 0659

Dilution Factor: 1 Analyst: TLS

Prep Method: FLORIDA PRO

Analytical Method: FLORIDA PRO

Sulfur Cleanup: (Y/N) N Instrument ID: GCS11A

Lab File ID: 2031110/SV1101

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
FLPRO-01	Petroleum Hydrocarbons	250		43.8	108

CR

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 930 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264595 Analytical Batch: 265271

CONCENTRATION UNITS: ug/L

Sample ID: 071-1159-MW08-BL

Contract:

SAS No.: SDG No.: 203110310

Lab Sample ID: 20311031006

Date Collected: 10/30/03 Time: 1125

Date Received: 11/01/03

Date Extracted: 11/04/03

Date Analyzed: 11/11/03 Time: 0754

Dilution Factor: 1 Analyst: TLS

Prep Method: FLORIDA PRO

Analytical Method: FLORIDA PRO

Sulfur Cleanup: (Y/N) N Instrument ID: GCS11A

Lab File ID: 2031110/SV1101

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
FLPRO-01	Petroleum Hydrocarbons	93.0	J	43.8	108

c.R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 900 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264595 Analytical Batch: 265271

CONCENTRATION UNITS: ug/L

Sample ID: 071-1159-MW09-BL

Contract:

SAS No.: SDG No.: 203110310

Lab Sample ID: 20311031007

Date Collected: 10/30/03 Time: 1145

Date Received: 11/01/03

Date Extracted: 11/04/03

Date Analyzed: 11/11/03 Time: 1132

Dilution Factor: 1 Analyst: TLS

Prep Method: FLORIDA PRO

Analytical Method: FLORIDA PRO

Sulfur Cleanup: (Y/N) N Instrument ID: GCS11A

Lab File ID: 2031110/SV1101

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
FLPRO-01	Petroleum Hydrocarbons	579		45.2	111

C L

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 910 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264595 Analytical Batch: 265271

CONCENTRATION UNITS: ug/L

Sample ID: 071-1159-MW12-BL

Contract:

SAS No.: SDG No.: 203110310

Lab Sample ID: 20311031008

Date Collected: 10/30/03 Time: 1255

Date Received: 11/01/03

Date Extracted: 11/04/03

Date Analyzed: 11/11/03 Time: 1226

Dilution Factor: 1 Analyst: TLS

Prep Method: FLORIDA PRO

Analytical Method: FLORIDA PRO

Sulfur Cleanup: (Y/N) N Instrument ID: GCS11A

Lab File ID: 2031110/SV1102

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
FLPRO-01	Petroleum Hydrocarbons	256		44.7	110

C.L

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 920 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264595 Analytical Batch: 265271

Sample ID: 071-1159-MW14-BL

Contract:

SAS No.: SDG No.: 203110310

Lab Sample ID: 20311031009

Date Collected: 10/30/03 Time: 1320

Date Received: 11/01/03

Date Extracted: 11/04/03

Date Analyzed: 11/11/03 Time: 1321

Dilution Factor: 1 Analyst: TLS

Prep Method: FLORIDA PRO

Analytical Method: FLORIDA PRO

Sulfur Cleanup: (Y/N) N Instrument ID: GCS11A

CONCENTRATION UNITS: ug/L

Lab File ID: 2031110/SV1102

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
FLPRO-01	Petroleum Hydrocarbons	491		44.2	109

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 900 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264595 Analytical Batch: 265272

CONCENTRATION UNITS: ug/L

Sample ID: 071-1159-MW15-BL

Contract:

SAS No.: SDG No.: 203110310

Lab Sample ID: 20311031010

Date Collected: 10/30/03 Time: 1355

Date Received: 11/01/03

Date Extracted: 11/04/03

Date Analyzed: 11/11/03 Time: 0241

Dilution Factor: 1 Analyst: TLS

Prep Method: FLORIDA PRO

Analytical Method: FLORIDA PRO

Sulfur Cleanup: (Y/N) N Instrument ID: GCS2A

Lab File ID: 2031108/SV2AD0

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
FLPRO-01	Petroleum Hydrocarbons	1810		45.2	111

CL

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 900 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264595 Analytical Batch: 265272

CONCENTRATION UNITS: ug/L

Sample ID: 071-1159-DMW61-BL

Contract:

SAS No.: SDG No.: 203110310

Lab Sample ID: 20311031011

Date Collected: 10/30/03 Time: 0845

Date Received: 11/01/03

Date Extracted: 11/04/03

Date Analyzed: 11/11/03 Time: 0337

Dilution Factor: 1 Analyst: TLS

Prep Method: FLORIDA PRO

Analytical Method: FLORIDA PRO

Sulfur Cleanup: (Y/N) N Instrument ID: GCS2A

Lab File ID: 2031108/SV2AD0

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
FLPRO-01	Petroleum Hydrocarbons	111	U	45.2	111

C.L

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 880 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264595 Analytical Batch: 265272

CONCENTRATION UNITS: ug/L

Sample ID: 071-1159-PREEB-1-BL

Contract:

SAS No.: SDG No.: 203110310

Lab Sample ID: 20311031015

Date Collected: 10/30/03 Time: 0800

Date Received: 11/01/03

Date Extracted: 11/04/03

Date Analyzed: 11/11/03 Time: 0723

Dilution Factor: 1 Analyst: TLS

Prep Method: FLORIDA PRO

Analytical Method: FLORIDA PRO

Sulfur Cleanup: (Y/N) N Instrument ID: GCS2A

Lab File ID: 2031108/SV2AD0

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
FLPRO-01	Petroleum Hydrocarbons	114	U	46.3	114

C.L

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 910 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264595 Analytical Batch: 265272

Sample ID: 071-1159-FD-1-BL

Contract:

SAS No.: SDG No.: 203110310

Lab Sample ID: 20311031016

Date Collected: 10/30/03 Time: 0000

Date Received: 11/01/03

Date Extracted: 11/04/03

Date Analyzed: 11/11/03 Time: 0819

Dilution Factor: 1 Analyst: TLS

Prep Method: FLORIDA PRO

Analytical Method: FLORIDA PRO

Sulfur Cleanup: (Y/N) N Instrument ID: GCS2A

CONCENTRATION UNITS: ug/L

Lab File ID: 2031108/SV2AD0

CAS NO.	COMPOUND	RESULT	Q	MDL	RL	
FLPRO-01	Petroleum Hydrocarbons	397	J	44.7	110	Z

C.L

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 910 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264595 Analytical Batch: 265272

CONCENTRATION UNITS: ug/L

Sample ID: 071-1159-MW16-BL

Contract:

SAS No.: SDG No.: 203110310

Lab Sample ID: 20311031018

Date Collected: 10/30/03 Time: 1425

Date Received: 11/01/03

Date Extracted: 11/04/03

Date Analyzed: 11/11/03 Time: 0916

Dilution Factor: 1 Analyst: TLS

Prep Method: FLORIDA PRO

Analytical Method: FLORIDA PRO

Sulfur Cleanup: (Y/N) N Instrument ID: GCS2A

Lab File ID: 2031108/SV2AD0

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
FLPRO-01	Petroleum Hydrocarbons	2440		44.7	110

C.R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 900 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264595 Analytical Batch: 265272

CONCENTRATION UNITS: ug/L

Sample ID: 071-1159-MW17-BL

Contract:

SAS No.: SDG No.: 203110310

Lab Sample ID: 20311031019

Date Collected: 10/30/03 Time: 1455

Date Received: 11/01/03

Date Extracted: 11/04/03

Date Analyzed: 11/11/03 Time: 1012

Dilution Factor: 1 Analyst: TLS

Prep Method: FLORIDA PRO

Analytical Method: FLORIDA PRO

Sulfur Cleanup: (Y/N) N Instrument ID: GCS2A

Lab File ID: 2031108/SV2AD0

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
FLPRO-01	Petroleum Hydrocarbons	1990		45.2	111

C.R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 930 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264595 Analytical Batch: 265272

CONCENTRATION UNITS: ug/L

Sample ID: 071-1159-MW18-BL

Contract:

SAS No.: SDG No.: 203110310

Lab Sample ID: 20311031020

Date Collected: 10/30/03 Time: 1525

Date Received: 11/01/03

Date Extracted: 11/04/03

Date Analyzed: 11/11/03 Time: 1109

Dilution Factor: 1 Analyst: TLS

Prep Method: FLORIDA PRO

Analytical Method: FLORIDA PRO

Sulfur Cleanup: (Y/N) N Instrument ID: GCS2A

Lab File ID: 2031108/SV2AD0

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
FLPRO-01	Petroleum Hydrocarbons	1250		43.8	108

C.A

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 930 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264595 Analytical Batch: 265272

CONCENTRATION UNITS: ug/L

Sample ID: 071-1159-MW21-BL

Contract:

SAS No.: SDG No.: 203110310

Lab Sample ID: 20311031021

Date Collected: 10/30/03 Time: 1605

Date Received: 11/01/03

Date Extracted: 11/04/03

Date Analyzed: 11/11/03 Time: 1206

Dilution Factor: 1 Analyst: TLS

Prep Method: FLORIDA PRO

Analytical Method: FLORIDA PRO

Sulfur Cleanup: (Y/N) N Instrument ID: GCS2A

Lab File ID: 2031108/SV2AD0

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
FLPRO-01	Petroleum Hydrocarbons	171		43.8	108

OR

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 920 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264595 Analytical Batch: 265272

CONCENTRATION UNITS: ug/L

Sample ID: 071-1159-MW23-BL

Contract:

SAS No.: SDG No.: 203110310

Lab Sample ID: 20311031022

Date Collected: 10/30/03 Time: 1630

Date Received: 11/01/03

Date Extracted: 11/04/03

Date Analyzed: 11/11/03 Time: 1303

Dilution Factor: 1 Analyst: TLS

Prep Method: FLORIDA PRO

Analytical Method: FLORIDA PRO

Sulfur Cleanup: (Y/N) N Instrument ID: GCS2A

Lab File ID: 2031108/SV2AD0

CAS NO.	COMPOUND	RESULT	Q	MDL	RL	
FLPRO-01	Petroleum Hydrocarbons	244	J	44.2	109	Z

C.R

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL

Sample ID: 071-1159-MW01-BL

Lab Code: LA024 Case No.:

Contract:

Matrix: (soil / water) Water

SAS No.: SDG No.: 203110310

Level: (low / med) % Solids:

Lab Sample ID: 20311031001

Date Received: 11/01/03 Time: 0845

Date Collected: 10/30/03 Time: 0815

Analyte	Concentration	Units	C	MDL	PQL	Method	Type
Lead	0.050	mg/L		0.0010	0.015	SW-846 6010B	P

c.f

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL

Sample ID: 071-1159-MW02-BL

Lab Code: LA024 Case No.:

Contract:

Matrix: (soil / water) Water

SAS No.: SDG No.: 203110310

Level: (low / med) % Solids:

Lab Sample ID: 20311031002

Date Received: 11/01/03 Time: 0845

Date Collected: 10/30/03 Time: 0930

Analyte	Concentration	Units	C	MDL	PQL	Method	Type
Lead	0.014	mg/L	~~B~~ J	0.0010	0.015	SW-846 6010B	P

C.R

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL

Sample ID: 071-1159-MW04-BL

Lab Code: LA024 Case No.:

Contract:

Matrix: (soil / water) Water

SAS No.: SDG No.: 203110310

Level: (low / med) % Solids:

Lab Sample ID: 20311031003

Date Received: 11/01/03 Time: 0845

Date Collected: 10/30/03 Time: 1000

Analyte	Concentration	Units	C	MDL	PQL	Method	Type
Lead	0.095	mg/L		0.0010	0.015	SW-846 6010B	P

C. R

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL

Sample ID: 071-1159-MW05-BL

Lab Code: LA024 Case No.:

Contract:

Matrix: (soil / water) Water

SAS No.: SDG No.: 203110310

Level: (low / med) % Solids:

Lab Sample ID: 20311031004

Date Received: 11/01/03 Time: 0845

Date Collected: 10/30/03 Time: 1030

Analyte	Concentration	Units	C	MDL	PQL	Method	Type
Lead	0.072	mg/L		0.0010	0.015	SW-846 6010B	P

C. L

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL

Sample ID: 071-1159-MW06-BL

Lab Code: LA024 Case No.:

Contract:

Matrix: (soil / water) Water

SAS No.: SDG No.: 203110310

Level: (low / med) % Solids:

Lab Sample ID: 20311031005

Date Received: 11/01/03 Time: 0845

Date Collected: 10/30/03 Time: 1055

Analyte	Concentration	Units	C	MDL	PQL	Method	Type
Lead	0.032	mg/L		0.0010	0.015	SW-846 6010B	P

CR

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL

Sample ID: 071-1159-MW08-BL

Lab Code: LA024 Case No.:

Contract:

Matrix: (soil / water) Water

SAS No.: SDG No.: 203110310

Level: (low / med) % Solids:

Lab Sample ID: 20311031006

Date Received: 11/01/03 Time: 0845

Date Collected: 10/30/03 Time: 1125

Analyte	Concentration	Units	C	MDL	PQL	Method	Type
Lead	0.018	mg/L		0.0010	0.015	SW-846 6010B	P

C.R

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL
Sample ID: 071-1159-MW09-BL
Lab Code: LA024
Case No.:
Contract:
Matrix: (soil / water) Water
SAS No.:
SDG No.: 203110310
Level: (low / med)
% Solids:
Lab Sample ID: 20311031007
Date Received: 11/01/03
Time: 0845
Date Collected: 10/30/03
Time: 1145

Analyte	Concentration	Units	C	MDL	PQL	Method	Type
Lead	0.015	mg/L		0.0010	0.015	SW-846 6010B	P

C L

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL
Sample ID: 071-1159-MW12-BL
Lab Code: LA024
Case No.:
Contract:
Matrix: (soil / water) Water
SAS No.:
SDG No.: 203110310
Level: (low / med)
% Solids:
Lab Sample ID: 20311031008
Date Received: 11/01/03
Time: 0845
Date Collected: 10/30/03
Time: 1255

Analyte	Concentration	Units	C	MDL	PQL	Method	Type
Lead	0.023	mg/L		0.0010	0.015	SW-846 6010B	P

C.L

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL

Sample ID: 071-1159-MW14-BL

Lab Code: LA024 Case No.:

Contract:

Matrix: (soil / water) Water

SAS No.: SDG No.: 203110310

Level: (low / med) % Solids:

Lab Sample ID: 20311031009

Date Received: 11/01/03 Time: 0845

Date Collected: 10/30/03 Time: 1320

Analyte	Concentration	Units	C	MDL	PQL	Method	Type
Lead	0.041	mg/L		0.0010	0.015	SW-846 6010B	P

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL

Sample ID: 071-1159-MW15-BL

Lab Code: LA024 Case No.:

Contract:

Matrix: (soil / water) Water

SAS No.: SDG No.: 203110310

Level: (low / med) % Solids:

Lab Sample ID: 20311031010

Date Received: 11/01/03 Time: 0845

Date Collected: 10/30/03 Time: 1355

Analyte	Concentration	Units	C	MDL	PQL	Method	Type
Lead	0.11	mg/L		0.0010	0.015	SW-846 6010B	P

C-L

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL

Sample ID: 071-1159-DMW61-BL

Lab Code: LA024 Case No.:

Contract:

Matrix: (soil / water) Water

SAS No.: SDG No.: 203110310

Level: (low / med) % Solids:

Lab Sample ID: 20311031011

Date Received: 11/01/03 Time: 0845

Date Collected: 10/30/03 Time: 0845

Analyte	Concentration	Units	C	MDL	PQL	Method	Type
Lead	0.015	mg/L	U	0.0010	0.015	SW-846 6010B	P

C. L

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL

Sample ID: 071-1159-DMW61-BL(DUP)

Lab Code: LA024 Case No.:

Contract:

Matrix: (soil / water) Water

SAS No.: SDG No.: 203110310

Level: (low / med) % Solids:

Lab Sample ID: 20311031014

Date Received: 11/01/03 Time: 0845

Date Collected: 10/30/03 Time: 0845

Analyte	Concentration	Units	C	MDL	PQL	Method	Type
Lead	0.015	mg/L	U	0.0010	0.015	SW-846 6010B	P

C.R

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL

Sample ID: 071-1159-PREEB-1-BL

Lab Code: LA024 Case No.:

Contract:

Matrix: (soil / water) Water

SAS No.: SDG No.: 203110310

Level: (low / med) % Solids:

Lab Sample ID: 20311031015

Date Received: 11/01/03 Time: 0845

Date Collected: 10/30/03 Time: 0800

Analyte	Concentration	Units	C	MDL	PQL	Method	Type
Lead	0.015	mg/L	U	0.0010	0.015	SW-846 6010B	P

C. R

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL
Sample ID: 071-1159-FD-1-BL
Lab Code: LA024
Case No.:
Contract:
Matrix: (soil / water) Water
SAS No.:
SDG No.: 203110310
Level: (low / med)
% Solids:
Lab Sample ID: 20311031016
Date Received: 11/01/03
Time: 0845
Date Collected: 10/30/03
Time: 0000

Analyte	Concentration	Units	C	MDL	PQL	Method	Type
Lead	0.095	mg/L		0.0010	0.015	SW-846 6010B	P

O.R

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL

Sample ID: 071-1159-MW16-BL

Lab Code: LA024 Case No.:

Contract:

Matrix: (soil / water) Water

SAS No.: SDG No.: 203110310

Level: (low / med) % Solids:

Lab Sample ID: 20311031018

Date Received: 11/01/03 Time: 0845

Date Collected: 10/30/03 Time: 1425

Analyte	Concentration	Units	C	MDL	PQL	Method	Type
Lead	0.12	mg/L		0.0010	0.015	SW-846 6010B	P

c.R

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL
Sample ID: 071-1159-MW17-BL
Lab Code: LA024
Case No.:
Contract:
Matrix: (soil / water) Water
SAS No.:
SDG No.: 203110310
Level: (low / med)
% Solids:
Lab Sample ID: 20311031019
Date Received: 11/01/03
Time: 0845
Date Collected: 10/30/03
Time: 1455

Analyte	Concentration	Units	C	MDL	PQL	Method	Type
Lead	0.057	mg/L		0.0010	0.015	SW-846 6010B	P

o R

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL
Sample ID: 071-1159-MW18-BL
Lab Code: LA024
Case No.:
Contract:
Matrix: (soil / water) Water
SAS No.:
SDG No.: 203110310
Level: (low / med)
% Solids:
Lab Sample ID: 20311031020
Date Received: 11/01/03
Time: 0845
Date Collected: 10/30/03
Time: 1525

Analyte	Concentration	Units	C	MDL	PQL	Method	Type
Lead	0.036	mg/L		0.0010	0.015	SW-846 6010B	P

C.R

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL

Sample ID: 071-1159-MW21-BL

Lab Code: LA024 Case No.:

Contract:

Matrix: (soil / water) Water

SAS No.: SDG No.: 203110310

Level: (low / med) % Solids:

Lab Sample ID: 20311031021

Date Received: 11/01/03 Time: 0845

Date Collected: 10/30/03 Time: 1605

Analyte	Concentration	Units	C	MDL	PQL	Method	Type
Lead	0.0045	mg/L	~~B~~ J	0.0010	0.015	SW-846 6010B	P

c f

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL

Sample ID: 071-1159-MW23-BL

Lab Code: LA024 Case No.:

Contract:

Matrix: (soil / water) Water

SAS No.: SDG No.: 203110310

Level: (low / med) % Solids:

Lab Sample ID: 20311031022

Date Received: 11/01/03 Time: 0845

Date Collected: 10/30/03 Time: 1630

Analyte	Concentration	Units	C	MDL	PQL	Method	Type
Lead	0.10	mg/L		0.0010	0.015	SW-846 6010B	P

C R

FORM I - IN

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

071-1159-MW24-BL

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203110511

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20311051101

Level: (low/med) LOW

Lab File ID: 2031105/D0680

% Moisture: not dec.

Date Collected: 11/03/03 Time: 0825

GC Column: DB-624-30M ID: .53 (mm

Date Received: 11/05/03

Instrument ID: MSV5

Date Analyzed: 11/05/03 Time: 1934

Soil Extract Volume: (µL

Dilution Factor: 1 Analyst: CBL

Soil Aliquot Volume: (µL

Prep Batch: Analytical Batch: 264826

CONCENTRATION UNITS: ug/L

Analytical Method: SW-846 8260

CAS NO.	COMPOUND	RESULT		MDL	RL
71-43-2	Benzene	2.23	J	0.100	0.500
100-41-4	Ethylbenzene	24.7	J	0.312	5.00
108-88-3	Toluene	4.85	J	0.152	5.00
1330-20-7	Xylene (total)	96.3	J	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U J	0.122	5.00

S

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

071-1159-MW25-BL

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203110511

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med) LOW

% Moisture: not dec.

GC Column: DB-624-30M ID: .53 (mm

Instrument ID: MSV5

Soil Extract Volume: (µL

Soil Aliquot Volume: (µL

Lab Sample ID: 20311051102

Lab File ID: 2031105/D0681

Date Collected: 11/03/03 Time: 0855

Date Received: 11/05/03

Date Analyzed: 11/05/03 Time: 1958

Dilution Factor: 1 Analyst: CBL

Prep Batch: Analytical Batch: 264826

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT		MDL	RL
71-43-2	Benzene	0.500	U J	0.100	0.500
100-41-4	Ethylbenzene	4.54	J	0.312	5.00
108-88-3	Toluene	5.00	U J	0.152	5.00
1330-20-7	Xylene (total)	25.5	J	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U J	0.122	5.00

S

C.R

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

071-1159-MW27-BL

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203110511

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20311051103

Level: (low/med) LOW

Lab File ID: 2031105/D0682

% Moisture: not dec.

Date Collected: 11/03/03 Time: 1010

GC Column: DB-624-30M ID: .53 (mm

Date Received: 11/05/03

Instrument ID: MSV5

Date Analyzed: 11/05/03 Time: 2021

Soil Extract Volume: (µL

Dilution Factor: 1 Analyst: CBL

Soil Aliquot Volume: (µL

Prep Batch: Analytical Batch: 264826

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT		MDL	RL
71-43-2	Benzene	0.500	U J	0.100	0.500
100-41-4	Ethylbenzene	5.00	U J	0.312	5.00
108-88-3	Toluene	5.00	U J	0.152	5.00
1330-20-7	Xylene (total)	1.13	J	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U J	0.122	5.00

C.L

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

071-1159-MW28-BL

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203110511

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med) LOW

% Moisture: not dec.

GC Column: DB-624-30M ID: .53 (mm

Instrument ID: MSV5

Soil Extract Volume: (µL

Soil Aliquot Volume: (µL

Lab Sample ID: 20311051104

Lab File ID: 2031105/D0683

Date Collected: 11/03/03 Time: 0950

Date Received: 11/05/03

Date Analyzed: 11/05/03 Time: 2045

Dilution Factor: 1 Analyst: CBL

Prep Batch: Analytical Batch: 264826

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT		MDL	RL	
71-43-2	Benzene	0.500	U J	0.100	0.500	S
100-41-4	Ethylbenzene	3.34	J	0.312	5.00	Z, S
108-88-3	Toluene	1.27	J	0.152	5.00	S
1330-20-7	Xylene (total)	36.6	J	0.507	10.0	Z, S
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U J	0.122	5.00	S

O.R

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

071-1159-MW32-BL

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203110511

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20311051105

Level: (low/med) LOW

Lab File ID: 2031105/D0684

% Moisture: not dec.

Date Collected: 11/03/03 Time: 1130

GC Column: DB-624-30M ID: .53 (mm

Date Received: 11/05/03

Instrument ID: MSV5

Date Analyzed: 11/05/03 Time: 2108

Soil Extract Volume: (µL

Dilution Factor: 1 Analyst: CBL

Soil Aliquot Volume: (µL

Prep Batch: Analytical Batch: 264826

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT		MDL	RL
71-43-2	Benzene	0.500	U	0.100	0.500
100-41-4	Ethylbenzene	1.66	J	0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	4.16	J	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

c.r

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

071-1159-MW33-BL

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203110511

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20311051106

Level: (low/med) LOW

Lab File ID: 2031105/D0685

% Moisture: not dec.

Date Collected: 11/03/03 Time: 1220

GC Column: DB-624-30M ID: .53 (mm

Date Received: 11/05/03

Instrument ID: MSV5

Date Analyzed: 11/05/03 Time: 2132

Soil Extract Volume: (µL

Dilution Factor: 1 Analyst: CBL

Soil Aliquot Volume: (µL

Prep Batch: Analytical Batch: 264826

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT		MDL	RL
71-43-2	Benzene	0.500	U	0.100	0.500
100-41-4	Ethylbenzene	5.00	U	0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	10.0	U	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

c R

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

071-1159-MW34-BL

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203110511

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL Lab Sample ID: 20311051107

Level: (low/med) LOW Lab File ID: 2031105/D0686

% Moisture: not dec. Date Collected: 11/03/03 Time: 1340

GC Column: DB-624-30M ID: .53 (mm Date Received: 11/05/03

Instrument ID: MSV5 Date Analyzed: 11/05/03 Time: 2156

Soil Extract Volume: (µL Dilution Factor: 1 Analyst: CBL

Soil Aliquot Volume: (µL Prep Batch: Analytical Batch: 264826

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT		MDL	RL
71-43-2	Benzene	0.500	U	0.100	0.500
100-41-4	Ethylbenzene	5.00	U	0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	10.0	U	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

C.R

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

071-1159-MW36-BL

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203110511

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med) LOW

% Moisture: not dec.

GC Column: DB-624-30M ID: .53 (mm

Instrument ID: MSV5

Soil Extract Volume: (µL

Soil Aliquot Volume: (µL

Lab Sample ID: 20311051108

Lab File ID: 2031105/D0679

Date Collected: 11/03/03 Time: 1400

Date Received: 11/05/03

Date Analyzed: 11/05/03 Time: 1911

Dilution Factor: 1 Analyst: CBL

Prep Batch: Analytical Batch: 264826

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT		MDL	RL
71-43-2	Benzene	0.500	U	0.100	0.500
100-41-4	Ethylbenzene	5.00	U	0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	10.0	U	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

C.L

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

071-1159-MW37-BL

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203110511

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL Lab Sample ID: 20311051112

Level: (low/med) LOW Lab File ID: 2031105/D0688

% Moisture: not dec. Date Collected: 11/03/03 Time: 1435

GC Column: DB-624-30M ID: .53 (mm Date Received: 11/05/03

Instrument ID: MSV5 Date Analyzed: 11/05/03 Time: 2243

Soil Extract Volume: (µL Dilution Factor: 1 Analyst: CBL

Soil Aliquot Volume: (µL Prep Batch: Analytical Batch: 264826

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT		MDL	RL
71-43-2	Benzene	0.500	U J	0.100	0.500
100-41-4	Ethylbenzene	5.00	U J	0.312	5.00
108-88-3	Toluene	5.00	U J	0.152	5.00
1330-20-7	Xylene (total)	10.0	U J	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U J	0.122	5.00

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FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

071-1159-MW38-BL

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203110511

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL Lab Sample ID: 20311051113

Level: (low/med) LOW Lab File ID: 2031105/D0689

% Moisture: not dec. Date Collected: 11/04/03 Time: 0930

GC Column: DB-624-30M ID: .53 (mm Date Received: 11/05/03

Instrument ID: MSV5 Date Analyzed: 11/05/03 Time: 2306

Soil Extract Volume: (µL Dilution Factor: 1 Analyst: CBL

Soil Aliquot Volume: (µL Prep Batch: Analytical Batch: 264826

CONCENTRATION UNITS: ug/L Analytical Method: SW-846 8260

CAS NO.	COMPOUND	RESULT		MDL	RL
71-43-2	Benzene	0.500	U	0.100	0.500
100-41-4	Ethylbenzene	5.00	U	0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	1.69	J	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

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FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

071-1159-MW47-BL

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203110511

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20311051114

Level: (low/med) LOW

Lab File ID: 2031109/S4930

% Moisture: not dec.

Date Collected: 11/04/03 Time: 0800

GC Column: DB-624-30M ID: .53 (mm

Date Received: 11/05/03

Instrument ID: MSV1

Date Analyzed: 11/09/03 Time: 1819

Soil Extract Volume: (µL

Dilution Factor: 50 Analyst: RJO

Soil Aliquot Volume: (µL

Prep Batch: Analytical Batch: 265120

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT		MDL	RL
71-43-2	Benzene	25.0	U	5.00	25.0
100-41-4	Ethylbenzene	608	J	15.6	250
108-88-3	Toluene	3980		7.60	250
1330-20-7	Xylene (total)	3350		25.4	500
1634-04-4	tert-Butyl methyl ether (MTBE)	250	U	6.10	250

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FORM I VOA

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

071-1159-MW53-BL

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203110511

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL Lab Sample ID: 20311051115

Level: (low/med) LOW Lab File ID: 2031107/D0733

% Moisture: not dec. Date Collected: 11/03/03 Time: 1155

GC Column: DB-624-30M ID: .53 (mm Date Received: 11/05/03

Instrument ID: MSV5 Date Analyzed: 11/07/03 Time: 1839

Soil Extract Volume: (µL Dilution Factor: 1 Analyst: KRV

Soil Aliquot Volume: (µL Prep Batch: Analytical Batch: 265032

CONCENTRATION UNITS: ug/L Analytical Method: SW-846 8260

CAS NO.	COMPOUND	RESULT		MDL	RL
71-43-2	Benzene	0.500	U	0.100	0.500
100-41-4	Ethylbenzene	5.00	U	0.312	5.00
108-88-3	Toluene	1.65	J	0.152	5.00
1330-20-7	Xylene (total)	1.99	J	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

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FORM I VOA

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

071-1159-MW55-BL

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203110511

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20311051116

Level: (low/med) LOW

Lab File ID: 2031108/D0756

% Moisture: not dec.

Date Collected: 11/03/03 Time: 1055

GC Column: DB-624-30M ID: .53 (mm

Date Received: 11/05/03

Instrument ID: MSV5

Date Analyzed: 11/08/03 Time: 1747

Soil Extract Volume: (µL

Dilution Factor: 10 Analyst: KRV

Soil Aliquot Volume: (µL

Prep Batch: Analytical Batch: 265100

CONCENTRATION UNITS: ug/L

Analytical Method: SW-846 8260

CAS NO.	COMPOUND	RESULT		MDL	RL
71-43-2	Benzene	5.00	U	1.00	5.00
100-41-4	Ethylbenzene	297		3.12	50.0
108-88-3	Toluene	49.6	J	1.52	50.0
1330-20-7	Xylene (total)	1040		5.07	100
1634-04-4	tert-Butyl methyl ether (MTBE)	50.0	U	1.22	50.0

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FORM I VOA

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

071-1159-MW62-BL

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203110511

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL Lab Sample ID: 20311051117

Level: (low/med) LOW Lab File ID: 2031111/S4999

% Moisture: not dec. Date Collected: 11/04/03 Time: 0910

GC Column: DB-624-30M ID: .53 (mm Date Received: 11/05/03

Instrument ID: MSV1 Date Analyzed: 11/11/03 Time: 1515

Soil Extract Volume: (µL Dilution Factor: 1 Analyst: RJO

Soil Aliquot Volume: (µL Prep Batch: Analytical Batch: 265208

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT		MDL	RL
71-43-2	Benzene	0.500	U	0.100	0.500
100-41-4	Ethylbenzene	2.02	J	0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	3.41	J	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

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FORM I VOA

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

071-1159-MW65-BL

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203110511

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20311051118

Level: (low/med) LOW

Lab File ID: 2031107/D0737

% Moisture: not dec.

Date Collected: 11/03/03 Time: 1530

GC Column: DB-624-30M ID: .53 (mm

Date Received: 11/05/03

Instrument ID: MSV5

Date Analyzed: 11/07/03 Time: 2024

Soil Extract Volume: (µL

Dilution Factor: 1 Analyst: KRV

Soil Aliquot Volume: (µL

Prep Batch: Analytical Batch: 265032

CONCENTRATION UNITS: ug/L

Analytical Method: SW-846 8260

CAS NO.	COMPOUND	RESULT		MDL	RL
71-43-2	Benzene	0.500	U	0.100	0.500
100-41-4	Ethylbenzene	14.8		0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	61.9		0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

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FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

071-1159-PREEB-2-BL

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203110511

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20311051119

Level: (low/med) LOW

Lab File ID: 2031105/D0695

% Moisture: not dec.

Date Collected: 11/03/03 Time: 0730

GC Column: DB-624-30M ID: .53 (mm

Date Received: 11/05/03

Instrument ID: MSV5

Date Analyzed: 11/06/03 Time: 0128

Soil Extract Volume: (µL

Dilution Factor: 1 Analyst: CBL

Soil Aliquot Volume: (µL

Prep Batch: Analytical Batch: 264826

CONCENTRATION UNITS: ug/L

Analytical Method: SW-846 8260

CAS NO.	COMPOUND	RESULT		MDL	RL
71-43-2	Benzene	0.500	U	0.100	0.500
100-41-4	Ethylbenzene	5.00	U	0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	10.0	U	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

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FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

071-1159-PREEB-3-BL

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203110511

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20311051120

Level: (low/med) LOW

Lab File ID: 2031105/D0696

% Moisture: not dec.

Date Collected: 11/04/03 Time: 0710

GC Column: DB-624-30M ID: .53 (mm

Date Received: 11/05/03

Instrument ID: MSV5

Date Analyzed: 11/06/03 Time: 0151

Soil Extract Volume: (µL

Dilution Factor: 1 Analyst: CBL

Soil Aliquot Volume: (µL

Prep Batch: Analytical Batch: 264826

CONCENTRATION UNITS: ug/L

Analytical Method: SW-846 8260

CAS NO.	COMPOUND	RESULT		MDL	RL
71-43-2	Benzene	0.500	U	0.100	0.500
100-41-4	Ethylbenzene	5.00	U	0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	10.0	U	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

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FORM I VOA

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

071-1159-FD-2-BL

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203110511

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL Lab Sample ID: 20311051121

Level: (low/med) LOW Lab File ID: 2031105/D0697

% Moisture: not dec. Date Collected: 11/03/03 Time: 0000

GC Column: DB-624-30M ID: .53 (mm Date Received: 11/05/03

Instrument ID: MSV5 Date Analyzed: 11/06/03 Time: 0215

Soil Extract Volume: (µL Dilution Factor: 1 Analyst: CBL

Soil Aliquot Volume: (µL Prep Batch: Analytical Batch: 264826

CONCENTRATION UNITS: ug/L Analytical Method: SW-846 8260

CAS NO.	COMPOUND	RESULT		MDL	RL	
71-43-2	Benzene	0.500	U J	0.100	0.500	S
100-41-4	Ethylbenzene	2.24	J	0.312	5.00	Z, S
108-88-3	Toluene	1.29	J	0.152	5.00	S
1330-20-7	Xylene (total)	23.3	J	0.507	10.0	Z, S
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U J	0.122	5.00	S

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FORM I VOA

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

071-1159-MW-22-BL

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203110511

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL Lab Sample ID: 20311051122

Level: (low/med) LOW Lab File ID: 2031105/D0698

% Moisture: not dec. Date Collected: 11/04/03 Time: 0825

GC Column: DB-624-30M ID: .53 (mm Date Received: 11/05/03

Instrument ID: MSV5 Date Analyzed: 11/06/03 Time: 0238

Soil Extract Volume: (µL Dilution Factor: 1 Analyst: CBL

Soil Aliquot Volume: (µL Prep Batch: Analytical Batch: 264826

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT		MDL	RL
71-43-2	Benzene	0.500	U	0.100	0.500
100-41-4	Ethylbenzene	2.70	J	0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	7.18	J	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

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FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

071-1159-FD-3-BL

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203110511

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20311051123

Level: (low/med) LOW

Lab File ID: 2031109/S4931

% Moisture: not dec.

Date Collected: 11/04/03 Time: 0000

GC Column: DB-624-30M ID: .53 (mm

Date Received: 11/05/03

Instrument ID: MSV1

Date Analyzed: 11/09/03 Time: 1842

Soil Extract Volume: (µL

Dilution Factor: 40 Analyst: RJO

Soil Aliquot Volume: (µL

Prep Batch: Analytical Batch: 265120

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT		MDL	RL
71-43-2	Benzene	20.0	U	4.00	20.0
100-41-4	Ethylbenzene	200	U	12.5	200
108-88-3	Toluene	4200		6.08	200
1330-20-7	Xylene (total)	3580		20.3	400
1634-04-4	tert-Butyl methyl ether (MTBE)	200	U	4.88	200

C.R

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

071-1159-TB-2-BL

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 203110511

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL Lab Sample ID: 20311051124

Level: (low/med) LOW Lab File ID: 2031107/D0725

% Moisture: not dec. Date Collected: 11/04/03 Time: 0000

GC Column: DB-624-30M ID: .53 (mm Date Received: 11/05/03

Instrument ID: MSV5 Date Analyzed: 11/07/03 Time: 1528

Soil Extract Volume: (µL Dilution Factor: 1 Analyst: KRV

Soil Aliquot Volume: (µL Prep Batch: Analytical Batch: 265032

CONCENTRATION UNITS: ug/L Analytical Method: SW-846 8260

CAS NO.	COMPOUND	RESULT		MDL	RL
71-43-2	Benzene	0.500	U	0.100	0.500
100-41-4	Ethylbenzene	5.00	U	0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	10.0	U	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

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FORM I VOA

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264940 Analytical Batch: 265124

Sample ID 071-1159-MW24-BL

Contract:

SAS No.: SDG No.: 203110511

Lab Sample ID: 20311051101

Date Collected 11/03/03 Time: 0825

Date Received: 11/05/03

Date Extracted: 11/06/03

Date Analyzed: 11/10/03 Time: 1030

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 031110/H000565

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT		MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264940 Analytical Batch: 265124

CONCENTRATION UNITS: ug/L

Sample ID 071-1159-MW25-BL

Contract:

SAS No.: SDG No.: 203110511

Lab Sample ID: 20311051102

Date Collected 11/03/03 Time: 0855

Date Received: 11/05/03

Date Extracted: 11/06/03

Date Analyzed: 11/10/03 Time: 1037

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 031110/H000565

CAS NO.	COMPOUND	RESULT		MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

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1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264940 Analytical Batch: 265124

Sample ID 071-1159-MW27-BL

Contract:

SAS No.: SDG No.: 203110511

Lab Sample ID: 20311051103

Date Collected 11/03/03 Time: 1010

Date Received: 11/05/03

Date Extracted: 11/06/03

Date Analyzed: 11/10/03 Time: 1044

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

CONCENTRATION UNITS: ug/L

Lab File ID: 031110/H000565

CAS NO.	COMPOUND	RESULT		MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

C.2

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264940 Analytical Batch: 265124

CONCENTRATION UNITS: ug/L

Sample ID 071-1159-MW28-BL

Contract:

SAS No.: SDG No.: 203110511

Lab Sample ID: 20311051104

Date Collected 11/03/03 Time: 0950

Date Received: 11/05/03

Date Extracted: 11/06/03

Date Analyzed: 11/10/03 Time: 1051

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 031110/H000565

CAS NO.	COMPOUND	RESULT		MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264940 Analytical Batch: 265124

Sample ID 071-1159-MW32-BL

Contract:

SAS No.: SDG No.: 203110511

Lab Sample ID: 20311051105

Date Collected 11/03/03 Time: 1130

Date Received: 11/05/03

Date Extracted: 11/06/03

Date Analyzed: 11/10/03 Time: 1058

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

CONCENTRATION UNITS: ug/L

Lab File ID: 031110/H000565

CAS NO.	COMPOUND	RESULT		MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

C.R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264940 Analytical Batch: 265124

CONCENTRATION UNITS: ug/L

Sample ID 071-1159-MW33-BL

Contract:

SAS No.: SDG No.: 203110511

Lab Sample ID: 20311051106

Date Collected 11/03/03 Time: 1220

Date Received: 11/05/03

Date Extracted: 11/06/03

Date Analyzed: 11/10/03 Time: 1105

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 031110/H000565

CAS NO.	COMPOUND	RESULT		MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

c R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264940 Analytical Batch: 265124

Sample ID 071-1159-MW34-BL

Contract:

SAS No.: SDG No.: 203110511

Lab Sample ID: 20311051107

Date Collected 11/03/03 Time: 1340

Date Received: 11/05/03

Date Extracted: 11/06/03

Date Analyzed: 11/10/03 Time: 1112

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

CONCENTRATION UNITS: ug/L

Lab File ID: 031110/H000565

CAS NO.	COMPOUND	RESULT		MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

C.R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264940 Analytical Batch: 265124

CONCENTRATION UNITS: ug/L

Sample ID 071-1159-MW36-BL

Contract:

SAS No.: SDG No.: 203110511

Lab Sample ID: 20311051108

Date Collected 11/03/03 Time: 1400

Date Received: 11/05/03

Date Extracted: 11/06/03

Date Analyzed: 11/10/03 Time: 1139

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 031110/H000566

CAS NO.	COMPOUND	RESULT		MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

C.R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264940 Analytical Batch: 265124

CONCENTRATION UNITS: ug/L

Sample ID 071-1159-MW37-BL

Contract:

SAS No.: SDG No.: 203110511

Lab Sample ID: 20311051112

Date Collected 11/03/03 Time: 1435

Date Received: 11/05/03

Date Extracted: 11/06/03

Date Analyzed: 11/10/03 Time: 1220

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 031110/H000566

CAS NO.	COMPOUND	RESULT		MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264940 Analytical Batch: 265124

Sample ID 071-1159-MW38-BL

Contract:

SAS No.: SDG No.: 203110511

Lab Sample ID: 20311051113

Date Collected 11/04/03 Time: 0930

Date Received: 11/05/03

Date Extracted: 11/06/03

Date Analyzed: 11/10/03 Time: 1227

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 031110/H000566

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT		MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264940 Analytical Batch: 265124

Sample ID 071-1159-MW47-BL

Contract:

SAS No.: SDG No.: 203110511

Lab Sample ID: 20311051114

Date Collected 11/04/03 Time: 0800

Date Received: 11/05/03

Date Extracted: 11/06/03

Date Analyzed: 11/10/03 Time: 1234

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

CONCENTRATION UNITS: ug/L

Lab File ID: 031110/H000566

CAS NO.	COMPOUND	RESULT		MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264940 Analytical Batch: 265124

Sample ID 071-1159-MW53-BL

Contract:

SAS No.: SDG No.: 203110511

Lab Sample ID: 20311051115

Date Collected 11/03/03 Time: 1155

Date Received: 11/05/03

Date Extracted: 11/06/03

Date Analyzed: 11/10/03 Time: 1241

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 031110/H000566

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT		MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

C.L

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264940 Analytical Batch: 265124

Sample ID 071-1159-MW55-BL

Contract:

SAS No.: SDG No.: 203110511

Lab Sample ID: 20311051116

Date Collected 11/03/03 Time: 1055

Date Received: 11/05/03

Date Extracted: 11/06/03

Date Analyzed: 11/10/03 Time: 1248

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

CONCENTRATION UNITS: ug/L

Lab File ID: 031110/H000566

CAS NO.	COMPOUND	RESULT		MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

C.L

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ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264940 Analytical Batch: 265124

Sample ID 071-1159-MW62-BL

Contract:

SAS No.: SDG No.: 203110511

Lab Sample ID: 20311051117

Date Collected 11/04/03 Time: 0910

Date Received: 11/05/03

Date Extracted: 11/06/03

Date Analyzed: 11/10/03 Time: 1255

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

CONCENTRATION UNITS: ug/L

Lab File ID: 031110/H000566

CAS NO.	COMPOUND	RESULT		MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

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1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264940 Analytical Batch: 265124

Sample ID 071-1159-PREEB-2-BL

Contract:

SAS No.: SDG No.: 203110511

Lab Sample ID: 20311051119

Date Collected 11/03/03 Time: 0730

Date Received: 11/05/03

Date Extracted: 11/06/03

Date Analyzed: 11/10/03 Time: 1302

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 031110/H000566

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT		MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

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ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264940 Analytical Batch: 265124

Sample ID 071-1159-PREEB-3-BL

Contract:

SAS No.: SDG No.: 203110511

Lab Sample ID: 20311051120

Date Collected 11/04/03 Time: 0710

Date Received: 11/05/03

Date Extracted: 11/06/03

Date Analyzed: 11/10/03 Time: 1323

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

CONCENTRATION UNITS: ug/L

Lab File ID: 031110/H000567

CAS NO.	COMPOUND	RESULT		MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

ok

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ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264940 Analytical Batch: 265124

CONCENTRATION UNITS: ug/L

Sample ID 071-1159-FD-2-BL

Contract:

SAS No.: SDG No.: 203110511

Lab Sample ID: 20311051121

Date Collected 11/03/03 Time: 0000

Date Received: 11/05/03

Date Extracted: 11/06/03

Date Analyzed: 11/10/03 Time: 1330

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 031110/H000567

CAS NO.	COMPOUND	RESULT		MDL	RL	
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00	
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00	
83-32-9	Acenaphthene	1.00	U	0.331	1.00	
208-96-8	Acenaphthylene	1.00	U	0.153	1.00	
120-12-7	Anthracene	0.100	U	0.024	0.100	
56-55-3	Benzo(a)anthracene	0.144	J	0.032	0.100	Z
50-32-8	Benzo(a)pyrene	0.329	J	0.033	0.100	
205-99-2	Benzo(b)fluoranthene	0.307	J	0.016	0.100	
191-24-2	Benzo(g,h,i)perylene	0.277	J	0.016	0.100	
207-08-9	Benzo(k)fluoranthene	0.377	J	0.033	0.100	
218-01-9	Chrysene	0.166	J	0.030	0.100	
53-70-3	Dibenz(a,h)anthracene	0.401	J	0.029	0.100	
206-44-0	Fluoranthene	0.100	U	0.044	0.100	
86-73-7	Fluorene	0.500	U	0.099	0.500	
193-39-5	Indeno(1,2,3-cd)pyrene	0.246	J	0.041	0.250	Z
91-20-3	Naphthalene	0.250	U	0.124	0.250	
85-01-8	Phenanthrene	0.100	U	0.025	0.100	
129-00-0	Pyrene	0.100	U	0.034	0.100	

C.L

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264940 Analytical Batch: 265124

Sample ID 071-1159-MW-22-BL

Contract:

SAS No.: SDG No.: 203110511

Lab Sample ID: 20311051122

Date Collected 11/04/03 Time: 0825

Date Received: 11/05/03

Date Extracted: 11/06/03

Date Analyzed: 11/10/03 Time: 1337

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 031110/H000567

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT		MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

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ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 265029 Analytical Batch: 265125

CONCENTRATION UNITS: ug/L

Sample ID 071-1159-FD-3-BL

Contract:

SAS No.: SDG No.: 203110511

Lab Sample ID: 20311051123

Date Collected 11/04/03 Time: 0000

Date Received: 11/05/03

Date Extracted: 11/08/03

Date Analyzed: 11/10/03 Time: 1538

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 031110P/H00056

CAS NO.	COMPOUND	RESULT		MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

0 2

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264941 Analytical Batch: 265354

CONCENTRATION UNITS: ug/L

Sample ID: 071-1159-MW24-BL

Contract:

SAS No.: SDG No.: 203110511

Lab Sample ID: 20311051101

Date Collected: 11/03/03 Time: 0825

Date Received: 11/05/03

Date Extracted: 11/06/03

Date Analyzed: 11/09/03 Time: 0749

Dilution Factor: 1 Analyst: TLS

Prep Method: FLORIDA PRO

Analytical Method: FLORIDA PRO

Sulfur Cleanup: (Y/N) N Instrument ID: GCS2A

Lab File ID: 2031108/SV2AD0

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
FLPRO-01	Petroleum Hydrocarbons	4770		40.7	100

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ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264941 Analytical Batch: 265354

CONCENTRATION UNITS: ug/L

Sample ID: 071-1159-MW25-BL

Contract:

SAS No.: SDG No.: 203110511

Lab Sample ID: 20311051102

Date Collected: 11/03/03 Time: 0855

Date Received: 11/05/03

Date Extracted: 11/06/03

Date Analyzed: 11/09/03 Time: 0845

Dilution Factor: 1 Analyst: TLS

Prep Method: FLORIDA PRO

Analytical Method: FLORIDA PRO

Sulfur Cleanup: (Y/N) N Instrument ID: GCS2A

Lab File ID: 2031108/SV2AD0

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
FLPRO-01	Petroleum Hydrocarbons	1780		40.7	100

O.L

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264941 Analytical Batch: 265354

CONCENTRATION UNITS: ug/L

Sample ID: 071-1159-MW27-BL

Contract:

SAS No.: SDG No.: 203110511

Lab Sample ID: 20311051103

Date Collected: 11/03/03 Time: 1010

Date Received: 11/05/03

Date Extracted: 11/06/03

Date Analyzed: 11/09/03 Time: 1038

Dilution Factor: 1 Analyst: TLS

Prep Method: FLORIDA PRO

Analytical Method: FLORIDA PRO

Sulfur Cleanup: (Y/N) N Instrument ID: GCS2A

Lab File ID: 2031108/SV2AD0

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
FLPRO-01	Petroleum Hydrocarbons	2650		40.7	100

ok

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264941 Analytical Batch: 265354

CONCENTRATION UNITS: *ug/L*

Sample ID: 071-1159-MW28-BL

Contract:

SAS No.: SDG No.: 203110511

Lab Sample ID: 20311051104

Date Collected: 11/03/03 Time: 0950

Date Received: 11/05/03

Date Extracted: 11/06/03

Date Analyzed: 11/09/03 Time: 1135

Dilution Factor: 1 Analyst: TLS

Prep Method: FLORIDA PRO

Analytical Method: FLORIDA PRO

Sulfur Cleanup: (Y/N) N Instrument ID: GCS2A

Lab File ID: 2031108/SV2AD0

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
FLPRO-01	Petroleum Hydrocarbons	2010		40.7	100

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ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264941 Analytical Batch: 265354

CONCENTRATION UNITS: ug/L

Sample ID: 071-1159-MW32-BL

Contract:

SAS No.: SDG No.: 203110511

Lab Sample ID: 20311051105

Date Collected: 11/03/03 Time: 1130

Date Received: 11/05/03

Date Extracted: 11/06/03

Date Analyzed: 11/09/03 Time: 1232

Dilution Factor: 1 Analyst: TLS

Prep Method: FLORIDA PRO

Analytical Method: FLORIDA PRO

Sulfur Cleanup: (Y/N) N Instrument ID: GCS2A

Lab File ID: 2031108/SV2AD0

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
FLPRO-01	Petroleum Hydrocarbons	325		40.7	100

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ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264941 Analytical Batch: 265354

CONCENTRATION UNITS: ug/L

Sample ID: 071-1159-MW33-BL

Contract:

SAS No.: SDG No.: 203110511

Lab Sample ID: 20311051106

Date Collected: 11/03/03 Time: 1220

Date Received: 11/05/03

Date Extracted: 11/06/03

Date Analyzed: 11/09/03 Time: 1328

Dilution Factor: 1 Analyst: TLS

Prep Method: FLORIDA PRO

Analytical Method: FLORIDA PRO

Sulfur Cleanup: (Y/N) N Instrument ID: GCS2A

Lab File ID: 2031108/SV2AD0

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
FLPRO-01	Petroleum Hydrocarbons	87.0	J	40.7	100

C.R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264941 Analytical Batch: 265354

CONCENTRATION UNITS: ug/L

Sample ID: 071-1159-MW34-BL

Contract:

SAS No.: SDG No.: 203110511

Lab Sample ID: 20311051107

Date Collected: 11/03/03 Time: 1340

Date Received: 11/05/03

Date Extracted: 11/06/03

Date Analyzed: 11/09/03 Time: 1425

Dilution Factor: 1 Analyst: TLS

Prep Method: FLORIDA PRO

Analytical Method: FLORIDA PRO

Sulfur Cleanup: (Y/N) N Instrument ID: GCS2A

Lab File ID: 2031108/SV2AD0

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
FLPRO-01	Petroleum Hydrocarbons	100	U	40.7	100

CL

FORM I ORG-1

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264941 Analytical Batch: 265354

CONCENTRATION UNITS: ug/L

Sample ID: 071-1159-MW36-BL

Contract:

SAS No.: SDG No.: 203110511

Lab Sample ID: 20311051108

Date Collected: 11/03/03 Time: 1400

Date Received: 11/05/03

Date Extracted: 11/06/03

Date Analyzed: 11/09/03 Time: 1522

Dilution Factor: 1 Analyst: TLS

Prep Method: FLORIDA PRO

Analytical Method: FLORIDA PRO

Sulfur Cleanup: (Y/N) N Instrument ID: GCS2A

Lab File ID: 2031108/SV2AD0

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
FLPRO-01	Petroleum Hydrocarbons	100	U	40.7	100

C.R

FORM I ORG-1

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264941 Analytical Batch: 265354

CONCENTRATION UNITS: ug/L

Sample ID: 071-1159-MW37-BL

Contract:

SAS No.: SDG No.: 203110511

Lab Sample ID: 20311051112

Date Collected: 11/03/03 Time: 1435

Date Received: 11/05/03

Date Extracted: 11/06/03

Date Analyzed: 11/09/03 Time: 1938

Dilution Factor: 1 Analyst: TLS

Prep Method: FLORIDA PRO

Analytical Method: FLORIDA PRO

Sulfur Cleanup: (Y/N) N Instrument ID: GCS2A

Lab File ID: 2031108/SV2AD0

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
FLPRO-01	Petroleum Hydrocarbons	100	U	40.7	100

CR

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264941 Analytical Batch: 265354

CONCENTRATION UNITS: ug/L

Sample ID: 071-1159-MW38-BL

Contract:

SAS No.: SDG No.: 203110511

Lab Sample ID: 20311051113

Date Collected: 11/04/03 Time: 0930

Date Received: 11/05/03

Date Extracted: 11/06/03

Date Analyzed: 11/09/03 Time: 2034

Dilution Factor: 1 Analyst: TLS

Prep Method: FLORIDA PRO

Analytical Method: FLORIDA PRO

Sulfur Cleanup: (Y/N) N Instrument ID: GCS2A

Lab File ID: 2031108/SV2AD0

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
FLPRO-01	Petroleum Hydrocarbons	269	JB	40.7	100

F, S

cf

FORM I ORG-1

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264941 Analytical Batch: 265354

CONCENTRATION UNITS: ug/L

Sample ID: 071-1159-MW47-BL

Contract:

SAS No.: SDG No.: 203110511

Lab Sample ID: 20311051114

Date Collected: 11/04/03 Time: 0800

Date Received: 11/05/03

Date Extracted: 11/06/03

Date Analyzed: 11/09/03 Time: 2130

Dilution Factor: 1 Analyst: TLS

Prep Method: FLORIDA PRO

Analytical Method: FLORIDA PRO

Sulfur Cleanup: (Y/N) N Instrument ID: GCS2A

Lab File ID: 2031108/SV2AD0

CAS NO.	COMPOUND	RESULT	Q	MDL	RL	
FLPRO-01	Petroleum Hydrocarbons	19900	JB	40.7	100	F

FORM I ORG-1

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264941 Analytical Batch: 265354

CONCENTRATION UNITS: ug/L

Sample ID: 071-1159-MW53-BL

Contract:

SAS No.: SDG No.: 203110511

Lab Sample ID: 20311051115

Date Collected: 11/03/03 Time: 1155

Date Received: 11/05/03

Date Extracted: 11/06/03

Date Analyzed: 11/09/03 Time: 2226

Dilution Factor: 1 Analyst: TLS

Prep Method: FLORIDA PRO

Analytical Method: FLORIDA PRO

Sulfur Cleanup: (Y/N) N Instrument ID: GCS2A

Lab File ID: 2031108/SV2AD0

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
FLPRO-01	Petroleum Hydrocarbons	100	U	40.7	100

C.R

FORM I ORG-1

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264941 Analytical Batch: 265354

CONCENTRATION UNITS: ug/L

Sample ID: 071-1159-MW55-BL

Contract:

SAS No.: SDG No.: 203110511

Lab Sample ID: 20311051116

Date Collected: 11/03/03 Time: 1055

Date Received: 11/05/03

Date Extracted: 11/06/03

Date Analyzed: 11/09/03 Time: 2323

Dilution Factor: 1 Analyst: TLS

Prep Method: FLORIDA PRO

Analytical Method: FLORIDA PRO

Sulfur Cleanup: (Y/N) N Instrument ID: GCS2A

Lab File ID: 2031108/SV2AD0

CAS NO.	COMPOUND	RESULT	Q	MDL	RL	
FLPRO-01	Petroleum Hydrocarbons	5020	J	40.7	100	J

CR

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264941 Analytical Batch: 265354

CONCENTRATION UNITS: *ug/L*

Sample ID: 071-1159-MW62-BL

Contract:

SAS No.: SDG No.: 203110511

Lab Sample ID: 20311051117

Date Collected: 11/04/03 Time: 0910

Date Received: 11/05/03

Date Extracted: 11/06/03

Date Analyzed: 11/10/03 Time: 0020

Dilution Factor: 1 Analyst: TLS

Prep Method: FLORIDA PRO

Analytical Method: FLORIDA PRO

Sulfur Cleanup: (Y/N) N Instrument ID: GCS2A

Lab File ID: 2031108/SV2AD0

CAS NO.	COMPOUND	RESULT	Q	MDL	RL	
FLPRO-01	Petroleum Hydrocarbons	1630	JB	40.7	100	F, S

C.R

FORM I ORG-1

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264941 Analytical Batch: 265354

CONCENTRATION UNITS: ug/L

Sample ID: 071-1159-MW65-BL

Contract:

SAS No.: SDG No.: 203110511

Lab Sample ID: 20311051118

Date Collected: 11/03/03 Time: 1530

Date Received: 11/05/03

Date Extracted: 11/06/03

Date Analyzed: 11/10/03 Time: 0116

Dilution Factor: 1 Analyst: TLS

Prep Method: FLORIDA PRO

Analytical Method: FLORIDA PRO

Sulfur Cleanup: (Y/N) N Instrument ID: GCS2A

Lab File ID: 2031108/SV2AD0

CAS NO.	COMPOUND	RESULT	Q	MDL	RL	
FLPRO-01	Petroleum Hydrocarbons	3480	J	40.7	100	S

DR

FORM I ORG-1

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264941 Analytical Batch: 265354

CONCENTRATION UNITS: ug/L

Sample ID: 071-1159-PREEB-2-BL

Contract:

SAS No.: SDG No.: 203110511

Lab Sample ID: 20311051119

Date Collected: 11/03/03 Time: 0730

Date Received: 11/05/03

Date Extracted: 11/06/03

Date Analyzed: 11/10/03 Time: 0212

Dilution Factor: 1 Analyst: TLS

Prep Method: FLORIDA PRO

Analytical Method: FLORIDA PRO

Sulfur Cleanup: (Y/N) N Instrument ID: GCS2A

Lab File ID: 2031108/SV2AD0

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
FLPRO-01	Petroleum Hydrocarbons	100	U	40.7	100

C.R

FORM I ORG-1

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264941 Analytical Batch: 265354

CONCENTRATION UNITS: *ug/L*

Sample ID: 071-1159-PREEB-3-BL

Contract:

SAS No.: SDG No.: 203110511

Lab Sample ID: 20311051120

Date Collected: 11/04/03 Time: 0710

Date Received: 11/05/03

Date Extracted: 11/06/03

Date Analyzed: 11/10/03 Time: 0406

Dilution Factor: 1 Analyst: TLS

Prep Method: FLORIDA PRO

Analytical Method: FLORIDA PRO

Sulfur Cleanup: (Y/N) N Instrument ID: GCS2A

Lab File ID: 2031108/SV2AD0

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
FLPRO-01	Petroleum Hydrocarbons	88.0	J	40.7	100

C.R

FORM I ORG-1

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 264941 Analytical Batch: 265354

CONCENTRATION UNITS: ug/L

Sample ID: 071-1159-FD-2-BL

Contract:

SAS No.: SDG No.: 203110511

Lab Sample ID: 20311051121

Date Collected: 11/03/03 Time: 0000

Date Received: 11/05/03

Date Extracted: 11/06/03

Date Analyzed: 11/10/03 Time: 0502

Dilution Factor: 1 Analyst: TLS

Prep Method: FLORIDA PRO

Analytical Method: FLORIDA PRO

Sulfur Cleanup: (Y/N) N Instrument ID: GCS2A

Lab File ID: 2031108/SV2AD0

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
FLPRO-01	Petroleum Hydrocarbons	2060		40.7	100

C.R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 265030 Analytical Batch: 265362

CONCENTRATION UNITS: ug/L

Sample ID: 071-1159-MW-22-BL

Contract:

SAS No.: SDG No.: 203110511

Lab Sample ID: 20311051122

Date Collected: 11/04/03 Time: 0825

Date Received: 11/05/03

Date Extracted: 11/10/03

Date Analyzed: 11/12/03 Time: 1304

Dilution Factor: 1 Analyst: TLS

Prep Method: FLORIDA PRO

Analytical Method: FLORIDA PRO

Sulfur Cleanup: (Y/N) N Instrument ID: GCS2A

Lab File ID: 2031108/SV2AD0

CAS NO.	COMPOUND	RESULT	Q	MDL	RL	
FLPRO-01	Petroleum Hydrocarbons	195	JB	40.7	100	F, L, S

FORM I ORG-1

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 265030 Analytical Batch: 265362

CONCENTRATION UNITS: ug/L

Sample ID: 071-1159-FD-3-BL

Contract:

SAS No.: SDG No.: 203110511

Lab Sample ID: 20311051123

Date Collected: 11/04/03 Time: 0000

Date Received: 11/05/03

Date Extracted: 11/10/03

Date Analyzed: 11/12/03 Time: 1759

Dilution Factor: 1 Analyst: DLB

Prep Method: FLORIDA PRO

Analytical Method: FLORIDA PRO

Sulfur Cleanup: (Y/N) N Instrument ID: GCS2A

Lab File ID: 2031108/SV2AD0

CAS NO.	COMPOUND	RESULT	Q	MDL	RL	
FLPRO-01	Petroleum Hydrocarbons	19300	JB	40.7	100	F, L

FORM I ORG-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL

Sample ID: 071-1159-MW24-BL

Lab Code: LA024 Case No.:

Contract:

Matrix: (soil / water) Water

SAS No.: SDG No.: 203110511

Level: (low / med) % Solids:

Lab Sample ID: 20311051101

Date Received: 11/05/03 Time: 0920

Date Collected: 11/03/03 Time: 0825

Analyte	Concentration	Units	C	MDL	PQL	Method	Type	
Lead	0.12	mg/L	B, JB	0.0010	0.015	SW-846 6010B	P	MB, F

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL

Sample ID: 071-1159-MW25-BL

Lab Code: LA024 Case No.:

Contract:

Matrix: (soil / water) Water

SAS No.: SDG No.: 203110511

Level: (low / med) % Solids:

Lab Sample ID: 20311051102

Date Received: 11/05/03 Time: 0920

Date Collected: 11/03/03 Time: 0855

Analyte	Concentration	Units	C	MDL	PQL	Method	Type	
Lead	0.13	mg/L	B, JB	0.0010	0.015	SW-846 6010B	P	mB, F

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL

Sample ID: 071-1159-MW27-BL

Lab Code: LA024 Case No.:

Contract:

Matrix: (soil / water) Water

SAS No.: SDG No.: 203110511

Level: (low / med) % Solids:

Lab Sample ID: 20311051103

Date Received: 11/05/03 Time: 0920

Date Collected: 11/03/03 Time: 1010

Analyte	Concentration	Units	C	MDL	PQL	Method	Type	
Lead	0.059	mg/L	B, JB	0.0010	0.015	SW-846 6010B	P	mB, F

ok

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL

Sample ID: 071-1159-MW28-BL

Lab Code: LA024 Case No.:

Contract:

Matrix: (soil / water) Water

SAS No.: SDG No.: 203110511

Level: (low / med) % Solids:

Lab Sample ID: 20311051104

Date Received: 11/05/03 Time: 0920

Date Collected: 11/03/03 Time: 0950

Analyte	Concentration	Units	C	MDL	PQL	Method	Type	
Lead	0.082	mg/L	B, JB	0.0010	0.015	SW-846 6010B	P	MB, F

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL

Sample ID: 071-1159-MW32-BL

Lab Code: LA024 Case No.:

Contract:

Matrix: (soil / water) Water

SAS No.: SDG No.: 203110511

Level: (low / med) % Solids:

Lab Sample ID: 20311051105

Date Received: 11/05/03 Time: 0920

Date Collected: 11/03/03 Time: 1130

Analyte	Concentration	Units	C	MDL	PQL	Method	Type
Lead	0.015	mg/L	U	0.0010	0.015	SW-846 6010B	P

C.V

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL

Sample ID: 071-1159-MW33-BL

Lab Code: LA024 Case No.:

Contract:

Matrix: (soil / water) Water

SAS No.: SDG No.: 203110511

Level: (low / med) % Solids:

Lab Sample ID: 20311051106

Date Received: 11/05/03 Time: 0920

Date Collected: 11/03/03 Time: 1220

Analyte	Concentration	Units	C	MDL	PQL	Method	Type
Lead	0.015	mg/L	U	0.0010	0.015	SW-846 6010B	P

C. R

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL

Sample ID: 071-1159-MW34-BL

Lab Code: LA024 Case No.:

Contract:

Matrix: (soil / water) Water

SAS No.: SDG No.: 203110511

Level: (low / med) % Solids:

Lab Sample ID: 20311051107

Date Received: 11/05/03 Time: 0920

Date Collected: 11/03/03 Time: 1340

Analyte	Concentration	Units	C	MDL	PQL	Method	Type
Lead	0.015	mg/L	U	0.0010	0.015	SW-846 6010B	P

FORM I - IN

C.R

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL

Sample ID: 071-1159-MW36-BL

Lab Code: LA024 Case No.:

Contract:

Matrix: (soil / water) Water

SAS No.: SDG No.: 203110511

Level: (low / med) % Solids:

Lab Sample ID: 20311051108

Date Received: 11/05/03 Time: 0920

Date Collected: 11/03/03 Time: 1400

Analyte	Concentration	Units	C	MDL	PQL	Method	Type
Lead	0.015	mg/L	U	0.0010	0.015	SW-846 6010B	P

C.R

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL

Sample ID: 071-1159-MW36-BL(DUP)

Lab Code: LA024 Case No.:

Contract:

Matrix: (soil / water) Water

SAS No.: SDG No.: 203110511

Level: (low / med) % Solids:

Lab Sample ID: 20311051111

Date Received: 11/05/03 Time: 0920

Date Collected: 11/03/03 Time: 1400

Analyte	Concentration	Units	C	MDL	PQL	Method	Type
Lead	0.015	mg/L	U	0.0010	0.015	SW-846 6010B	P

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL

Sample ID: 071-1159-MW37-BL

Lab Code: LA024 Case No.:

Contract:

Matrix: (soil / water) Water

SAS No.: SDG No.: 203110511

Level: (low / med) % Solids:

Lab Sample ID: 20311051112

Date Received: 11/05/03 Time: 0920

Date Collected: 11/03/03 Time: 1435

Analyte	Concentration	Units	C	MDL	PQL	Method	Type
Lead	0.015	mg/L	U	0.0010	0.015	SW-846 6010B	P

C.R

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL

Sample ID: 071-1159-MW38-BL

Lab Code: LA024 Case No.:

Contract:

Matrix: (soil / water) Water

SAS No.: SDG No.: 203110511

Level: (low / med) % Solids:

Lab Sample ID: 20311051113

Date Received: 11/05/03 Time: 0920

Date Collected: 11/04/03 Time: 0930

Analyte	Concentration	Units	C	MDL	PQL	Method	Type	
Lead	0.0068	mg/L	B	0.0010	0.015	SW-846 6010B	P	MB

C.R

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL

Sample ID: 071-1159-MW47-BL

Lab Code: LA024 Case No.:

Contract:

Matrix: (soil / water) Water

SAS No.: SDG No.: 203110511

Level: (low / med) % Solids:

Lab Sample ID: 20311051114

Date Received: 11/05/03 Time: 0920

Date Collected: 11/04/03 Time: 0800

Analyte	Concentration	Units	C	MDL	PQL	Method	Type	
Lead	0.10	mg/L	B	0.0010	0.015	SW-846 6010B	P	mB

C.R

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL

Sample ID: 071-1159-MW53-BL

Lab Code: LA024 Case No.:

Contract:

Matrix: (soil / water) Water

SAS No.: SDG No.: 203110511

Level: (low / med) % Solids:

Lab Sample ID: 20311051115

Date Received: 11/05/03 Time: 0920

Date Collected: 11/03/03 Time: 1155

Analyte	Concentration	Units	C	MDL	PQL	Method	Type	
Lead	0.0012	mg/L	B, ~~U~~	0.0010	0.015	SW-846 6010B	P	MB, F

c.f

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL

Sample ID: 071-1159-MW55-BL

Lab Code: LA024 Case No.:

Contract:

Matrix: (soil / water) Water

SAS No.: SDG No.: 203110511

Level: (low / med) % Solids:

Lab Sample ID: 20311051116

Date Received: 11/05/03 Time: 0920

Date Collected: 11/03/03 Time: 1055

Analyte	Concentration	Units	C	MDL	PQL	Method	Type	
Lead	0.051	mg/L	B, JB	0.0010	0.015	SW-846 6010B	P	MB, F

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL
Sample ID: 071-1159-MW62-BL
Lab Code: LA024
Case No.:
Contract:
Matrix: (soil / water) Water
SAS No.:
SDG No.: 203110511
Level: (low / med)
% Solids:
Lab Sample ID: 20311051117
Date Received: 11/05/03
Time: 0920
Date Collected: 11/04/03
Time: 0910

Analyte	Concentration	Units	C	MDL	PQL	Method	Type	
Lead	0.020	mg/L	B	0.0010	0.015	SW-846 6010B	P	MB

c.f

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL

Sample ID: 071-1159-MW65-BL

Lab Code: LA024 Case No.:

Contract:

Matrix: (soil / water) Water

SAS No.: SDG No.: 203110511

Level: (low / med) % Solids:

Lab Sample ID: 20311051118

Date Received: 11/05/03 Time: 0920

Date Collected: 11/03/03 Time: 1530

Analyte	Concentration	Units	C	MDL	PQL	Method	Type	
Lead	0.056	mg/L	B, JB	0.0010	0.015	SW-846 6010B	P	MB, F

C.R

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL

Sample ID: 071-1159-PREEB-2-BL

Lab Code: LA024 Case No.:

Contract:

Matrix: (soil / water) Water

SAS No.: SDG No.: 203110511

Level: (low / med) % Solids:

Lab Sample ID: 20311051119

Date Received: 11/05/03 Time: 0920

Date Collected: 11/03/03 Time: 0730

Analyte	Concentration	Units	C	MDL	PQL	Method	Type
Lead	0.0013	mg/L	~~B~~ J	0.0010	0.015	SW-846 6010B	P

C.L

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL

Sample ID: 071-1159-PREEB-3-BL

Lab Code: LA024 Case No.:

Contract:

Matrix: (soil / water) Water

SAS No.: SDG No.: 203110511

Level: (low / med) % Solids:

Lab Sample ID: 20311051120

Date Received: 11/05/03 Time: 0920

Date Collected: 11/04/03 Time: 0710

Analyte	Concentration	Units	C	MDL	PQL	Method	Type
Lead	0.015	mg/L	U	0.0010	0.015	SW-846 6010B	P

c.l

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL

Sample ID: 071-1159-FD-2-BL

Lab Code: LA024 Case No.:

Contract:

Matrix: (soil / water) Water

SAS No.: SDG No.: 203110511

Level: (low / med) % Solids:

Lab Sample ID: 20311051121

Date Received: 11/05/03 Time: 0920

Date Collected: 11/03/03 Time: 0000

Analyte	Concentration	Units	C	MDL	PQL	Method	Type	
Lead	0.076	mg/L	B, JB	0.0010	0.015	SW-846 6010B	P	mB, F

C.L

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL

Sample ID: 071-1159-MW-22-BL

Lab Code: LA024 Case No.:

Contract:

Matrix: (soil / water) Water

SAS No.: SDG No.: 203110511

Level: (low / med) % Solids:

Lab Sample ID: 20311051122

Date Received: 11/05/03 Time: 0920

Date Collected: 11/04/03 Time: 0825

Analyte	Concentration	Units	C	MDL	PQL	Method	Type	
Lead	0.013	mg/L	B	0.0010	0.015	SW-846 6010B	P	MB

CR

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL
Sample ID: 071-1159-FD-3-BL
Lab Code: LA024
Case No.:
Contract:
Matrix: (soil / water) Water
SAS No.:
SDG No.: 203110511
Level: (low / med)
% Solids:
Lab Sample ID: 20311051123
Date Received: 11/05/03
Time: 0920
Date Collected: 11/04/03
Time: 0000

Analyte	Concentration	Units	C	MDL	PQL	Method	Type	
Lead	0.098	mg/L	B	0.0010	0.015	SW-846 6010B	P	MB

N.R

FORM I - IN

Preliminary 7500/20 5110 SIV/ Due 11-0-03

CH2MHILL Constructors, Inc.
115 Perimeter Center Place, Suite 700
Atlanta, GA 30346-1278
Tel No: (770) 604-9182
Fax No: (770) 604-9282

CHAIN-OF-CUSTODY RECORD

[1] COC NUMBER: 166690-0310 30 -01

[2] PROJECT NAME:	[5] PROJECT NUMBER:	[8] LAB NAME AND CONTACT:	[11] FAX AND MAIL; COC Reports, Preliminary Data, & EDD TO::	[14] RECIPIENT 1 (Address, Tel No. , and Fax No.):
NAS Pensacola	166690.32.02.05.90	Gulf Coast Analytical, 7979 GSRI Ave., Baton Rouge, LA 70820	Russell Henderson, CH2M Hill, Constructors	115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346 Phone=770-604-9182 Fax=770.604.9181
[3] PROJECT PHASE/SITE/TASK:	[6] CTO OR DO NUMBER:	[9] LAB PO NUMBER:	[12] FAX AND MAIL Preliminary reports TO:: RECIPIENT 2 (Name and Company)	[15] RECIPIENT 2 (Address, Tel No. , and Fax No.):
Bronson Field, Site 1159	CTO-0071	PO # 6331	Phyllis Zerangue, CH2M Hill,Inc.	1766 Sea Lark Lane, Navarre, FL 32566 Phone=850-939-8300
[4] PROJECT CONTACT:	[7] PROJECT TEL NO AND FAX NO:	[10] LAB TEL NO AND FAX NO:	[11] FAX AND MAIL; COC Reports, Preliminary Data, & EDD TO::	[16] RECIPIENT 3 (Address, Tel No. , and Fax No.):
Greg Wilfley	770-604-9095 770-604-9181	225-769-5717	Bonnie Hogue, CH2M Hill, Constructors	115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346 Phone=770-604-9182 Fax=770.604.9181

[25] ANALYSES REQUIRED (Include Method Numbers)

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	BTEX + MTBE by 8020B	PAHs by 8310	TPH by FL-PRO	Total Lead by 6010B		# of bottles	Sample Type	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use)
1	071-1159-MW01-BL	MW-01	W	10/30/03	0815	C	14	2	1	1	2		6	N	-23	1113-01
2	071-1159-MW02-BL	MW-02	W	10/30/03	0930	C	14	2	1	1	2		6	N	-24	-02
3	071-1159-MW04-BL	MW-04	W	10/30/03	1000	C	14	2	1	1	2		6	N		-03
4	071-1159-MW05-BL	MW-05	W	10/30/03	1030	C	14	2	1	1	2		6	N		-04
5	071-1159-MW06-BL	MW-06	W	10/30/03	1055	C	14	2	1	1	2		6	N		-05
6	071-1159-MW08-BL	MW-08	W	10/30/03	1125	C	14	2	1	1	2		6	N		-06
7	071-1159-MW09-BL	MW-09	W	10/30/03	1145	C	14	2	1	1	2		6	N		-07
8	071-1159-MW12-BL	MW-12	W	10/30/03	1255	C	14	2	1	1	2		6	N		-08
9	071-1159-MW14-BL	MW-14	W	10/30/03	1320	C	14	2	1	1	2		6	N		-09
10	071-1159-MW15-BL	MW-15	W	10/30/03	1355	C	14	2	1	1	2		6	N		-10

[29] SAMPLER(S) AND COMPANY: (please print)
Phyllis Zerangue, Ch2M Hill Inc.
Scott Dunbar, CH2M Hill Constructors, Inc.

[30] COURIER AND SHIPPING NUMBER:
FEDEX: 8390 8406 5789

[31] SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use):
6°C Good

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature: Phyllis Zerangue/CH2MHILL	10/31/03	1130	Printed Name and Signature: Dm Dunbar	11-1-03	0845
Printed Name and Signature: Dm Dunbar	10-1-03	0920	Printed Name and Signature: M. Miller Rabon	11-3-03	0723
Printed Name and Signature:			Printed Name and Signature:		

Distribution: [ ] **Original** - Laboratory (To be returned with Analytical Report); [ ] **Copy 1** - Project File; [ ] **Copy 2** - PMO

Form CCI001, Rev 06 00

CH2M HILL 14080120211 0310 / Dec 11-8-03

CH2MHILL Constructors, Inc.

115 Perimeter Center Place, Suite 700
Atlanta, GA 30346-1278
Tel No: (770) 604-9182
Fax No: (770) 604-9282

CHAIN-OF-CUSTODY RECORD

[1] COC NUMBER: **166690-0310___-04**

[2] PROJECT NAME:	[5] PROJECT NUMBER:	[8] LAB NAME AND CONTACT:	[11] FAX AND MAIL; COC Reports, Preliminary Data, & EDD TO::	[14] RECIPIENT 1 (Address, Tel No. , and Fax No.):
NAS Pensacola	166690.32.02.05.90	Gulf Coast Analytical, 7979 GSRI Ave., Baton Rouge, LA 70820	Russell Henderson, CH2M Hill, Constructors	115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346 Phone=770-604-9182 Fax=770.604.9181
[3] PROJECT PHASE/SITE/TASK:	[6] CTO OR DO NUMBER:	[9] LAB PO NUMBER:	[12] FAX AND MAIL Preliminary reports TO:: RECIPIENT 2 (Name and Company)	[15] RECIPIENT 2 (Address, Tel No. , and Fax No.):
Bronson Field, Site 1159	CTO-0071	PO # 6331	Phyllis Zerangue, CH2M Hill,Inc.	1766 Sea Lark Lane, Navarre, FL 32566 Phone=850-939-8300
[4] PROJECT CONTACT:	[7] PROJECT TEL NO AND FAX NO:	[10] LAB TEL NO AND FAX NO:	[11] FAX AND MAIL; COC Reports, Preliminary Data, & EDD TO::	[16] RECIPIENT 3 (Address, Tel No. , and Fax No.):
Greg Wilfley	770-604-9095 770-604-9181	225-769-5717	Bonnie Hogue, CH2M Hill, Constructors	115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346 Phone=770-604-9182 Fax=770.604.9181

[25] ANALYSES REQUIRED (Include Method Numbers)

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	BTEX + MTBE by 8020B	PAHs by 8310	TPH by FL-PRO	Total Lead by 6010B		# of bottles	Sample Type	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use)
															NO SAMPLE	
1	~~071-1159-MW53-BL~~	~~MW-53~~	~~W~~	~~10/ /03~~		C	14	2	1	1	1		5	N		
2	~~071-1159-MW55-BL~~	~~MW-55~~	~~W~~	~~10/ /03~~		C	14	2	1	1	1		5	N		
3	~~071-1159-MW62-BL~~	~~MW-62~~	~~W~~	~~10/ /03~~		C	14	2	1	1	1		5	N		
4	~~071-1159-MW64-BL~~	~~MW-64~~	~~W~~	~~10/ /03~~		C	14	2	1	1	1		5	N		
5	~~071-1159-MW65-BL~~	~~MW-65~~	~~W~~	~~10/ /03~~		C	14	2	1	1	1		5	N		
6	071-1159-DMW61-BL	DMW-61	W	10/30/03	0845	C	14	2	1	1	1		5	N		11/3 -11
7	071-1159-DMW61-BL-MS	DMW-61	W	10/30/03	0845	C	14	2	1	1	1		5	MS		-12
8	071-1159-DMW61-BL-SD	DMW-61	W	10/30/03	0845	C	14	2	1	1	1		5	SD		-13 14
9	071-1159-PreEB-1-BL	Pre-Equipment Blank	W	10/30/03	0800	C	14	2	1	1	1		5	N		-15
10	~~071-1159-PreEB-2-BL~~	~~Pre-Equipment Blank~~	~~W~~	~~10/ /03~~		C	14	2	1	1	1		5	N	NO SAMPLE	

[29] SAMPLER(S) AND COMPANY: (please print)	[30] COURIER AND SHIPPING NUMBER:	[31] SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use):
Phyllis Zerangue, Ch2M Hill Inc. Scott Dunbar, CH2M Hill Constructors, Inc.	FEDEX: 8390 8406 5789	6°C Good

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature: Phyllis Zerangue/CH2MHILL	10/31/03	1130	Printed Name and Signature: Dan Pmlad	11-1-03	0845
Printed Name and Signature: Dan Pmlad	11-1-03	0920	Printed Name and Signature: [illegible]	11-3-03	0727
Printed Name and Signature:			Printed Name and Signature:		

Distribution: [ ] **Original** - Laboratory (To be returned with Analytical Report); [ ] **Copy 1** - Project File; [ ] **Copy 2** - PMO

Form CCI001, Rev 06/00

CH2MHILL Constructors, Inc.

115 Perimeter Center Place, Suite 700
Atlanta, GA 30346-1278
Tel No: (770) 604-9182
Fax No: (770) 604-9282

CHAIN-OF-CUSTODY RECORD

Due 11-8-03

[1] COC NUMBER: 166690-031030-05

[2] PROJECT NAME:	[5] PROJECT NUMBER:	[8] LAB NAME AND CONTACT:	[11] FAX AND MAIL; COC Reports, Preliminary Data, & EDD TO::	[14] RECIPIENT 1 (Address, Tel No. , and Fax No.):
NAS Pensacola	166690.32.02.05.90	Gulf Coast Analytical, 7979 GSRI Ave., Baton Rouge, LA 70820	Russell Henderson, CH2M Hill, Constructors	115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346 Phone=770-604-9182 Fax=770.604.9181
[3] PROJECT PHASE/SITE/TASK:	[6] CTO OR DO NUMBER:	[9] LAB PO NUMBER:	[12] FAX AND MAIL Preliminary reports TO:: RECIPIENT 2 (Name and Company)	[15] RECIPIENT 2 (Address, Tel No. , and Fax No.):
Bronson Field, Site 1159	CTO-0071	PO # 6331	Phyllis Zerangue, CH2M Hill,Inc.	1766 Sea Lark Lane, Navarre, FL 32566 Phone=850-939-8300
[4] PROJECT CONTACT:	[7] PROJECT TEL NO AND FAX NO:	[10] LAB TEL NO AND FAX NO:	[11] FAX AND MAIL; COC Reports, Preliminary Data, & EDD TO::	[16] RECIPIENT 3 (Address, Tel No. , and Fax No.):
Greg Wilfley	770-604-9095 770-604-9181	225-769-5717	Bonnie Hogue, CH2M Hill, Constructors	115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346 Phone=770-604-9182 Fax=770.604.9181

[25] ANALYSES REQUIRED (Include Method Numbers)

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	BTEX + MTBE by 8020B	PAHs by 8310	TPH by FL-PRO	Total Lead by 6010B		# of bottles	Sample Type	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use)
1	~~071-1159-PreEB-3-BL~~	~~Pre-Equipment Blank~~	~~W~~	~~10/ /03~~		C	14	2	1	1	1		5	EB	NO SAMPLE	
2	~~071-1159-PreEB-4-BL~~	~~Pre-Equipment Blank~~	W	~~10/ /03~~		C	14	2	1	1	1		5	EB	NO SAMPLE	
3	071-1159-FD-1-BL	Field Dup	W	10/30/03	BLANK	C	14	2	1	1	1		5	FD		1113-K6
4	~~071-1159-FD-2-BL~~	~~Field Dup~~	W	~~10/ /03~~		C	14	2	1	1	1		5	FD	NO SAMPLE	
5	~~071-1159-FD-3-BL~~	~~Field Dup~~	W	~~10/ /03~~		C	14	2	1	1	1		5	FD	NO SAMPLE	
6	071-1159-TB-1-BL	Trip Blank	W	10/30/03	LAB	C	14	2					2	TB		-17
7	~~071-1159-TB-2-BL~~	~~Trip Blank~~	W	~~10/ /03~~		C	14	2					2	TB	NO SAMPLE	
8	~~071-1159-TB-3-BL~~	~~Trip Blank~~	W	~~10/ /03~~		C	14	2					2	TB	NO SAMPLE	
9	~~071-1159-TB-4-BL~~	~~Trip Blank~~	W	~~10/ /03~~		C	14	2					2	TB	NO SAMPLE	
10																

[29] SAMPLER(S) AND COMPANY: (please print)	[30] COURIER AND SHIPPING NUMBER:	[31] SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use):
Phyllis Zerangue, Ch2M Hill Inc. Scott Dunbar, CH2M Hill Constructors, Inc.	FEDEX: 8390 8406 5789	6°C Good

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature: Phyllis Zerangue/CH2MHILL	10/31/03	1130	Printed Name and Signature: Dm Pmlnd	11-1-03	0845
Printed Name and Signature: Dm Pmlnd	11-1-03	0920	Printed Name and Signature: Michelle Bela	11-3-03	0723
Printed Name and Signature:			Printed Name and Signature:		

Distribution: [ ] **Original** - Laboratory (To be returned with Analytical Report); [ ] **Copy 1** - Project File; [ ] **Copy 2** - PMO

Form CCJ001, Rev 06 00

CHAIN HILL 4 080/20 2110310 / Due 11-8-03

CH2MHILL Constructors, Inc.
115 Perimeter Center Place, Suite 700
Atlanta, GA 30346-1278
Tel No: (770) 604-9182
Fax No: (770) 604-9282

CHAIN-OF-CUSTODY RECORD

[1] COC NUMBER: 166690-031030-02

[2] PROJECT NAME:	[5] PROJECT NUMBER:	[8] LAB NAME AND CONTACT:	[11] FAX AND MAIL; COC Reports, Preliminary Data, & EDD TO::	[14] RECIPIENT 1 (Address, Tel No. , and Fax No.):
NAS Pensacola	166690.32.02.05.90	Gulf Coast Analytical, 7979 GSRI Ave., Baton Rouge, LA 70820	Russell Henderson, CH2M Hill, Constructors	115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346 Phone=770-604-9182 Fax=770.604.9181
[3] PROJECT PHASE/SITE/TASK:	[6] CTO OR DO NUMBER:	[9] LAB PO NUMBER:	[12] FAX AND MAIL Preliminary reports TO:: RECIPIENT 2 (Name and Company)	[15] RECIPIENT 2 (Address, Tel No. , and Fax No.):
Bronson Field, Site 1159	CTO-0071	PO # 6331	Phyllis Zerangue, CH2M Hill,Inc.	1766 Sea Lark Lane, Navarre, FL 32566 Phone=850-939-8300
[4] PROJECT CONTACT:	[7] PROJECT TEL NO AND FAX NO:	[10] LAB TEL NO AND FAX NO:	[11] FAX AND MAIL; COC Reports, Preliminary Data, & EDD TO::	[16] RECIPIENT 3 (Address, Tel No. , and Fax No.):
Greg Wilfley	770-604-9095 770-604-9181	225-769-5717	Bonnie Hogue, CH2M Hill, Constructors	115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346 Phone=770-604-9182 Fax=770.604.9181

[25] ANALYSES REQUIRED (Include Method Numbers)

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	BTEX + MTBE by 8020B	PAHs by 8310	TPH by FL-PRO	Total Lead by 6010B		# of bottles	Sample Type	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use)
1	071-1159-MW16-BL	MW-16	W	10/30/03	1425	C	14	2	1	1	1		5	N		113-18
2	071-1159-MW17-BL	MW-17	W	10/30/03	1455	C	14	2	1	1	1		5	N		-19
3	071-1159-MW18-BL	MW-18	W	10/30/03	1525	C	14	2	1	1	1		5	N		-20
4	071-1159-MW21-BL	MW-21	W	10/30/03	1605	C	14	2	1	1	1		5	N		-21
5	071-1159-MW23-BL	MW-23	W	10/30/03	1630	C	14	2	1	1	1		5	N		-22
6	~~071-1159-MW24-BL~~	~~MW-24~~	W	~~10/ /03~~	—	C	14	2	1	1	1		5	N	No Sample	Next week
7	~~071-1159-MW25-BL~~	~~MW-25~~	W	~~10/ /03~~	—	C	14	2	1	1	1		5	N	No Sample	↓
8	~~071-1159-MW26-BL~~	~~MW-26~~	W	~~10/ /03~~	—	C	14	2	1	1	1		5	N	No Sample	↓
9	~~071-1159-MW27-BL~~	~~MW-27~~	W	~~10/ /03~~	—	C	14	2	1	1	1		5	N	No Sample	↓
10	~~071-1159-MW28-BL~~	~~MW-28~~	W	~~10/ /03~~	—	C	14	2	1	1	1		5	N	No Sample	↓

[29] SAMPLER(S) AND COMPANY: (please print)
Phyllis Zerangue, Ch2M Hill Inc.
Scott Dunbar, CH2M Hill Constructors, Inc.

[30] COURIER AND SHIPPING NUMBER: FEDEX: 8390 8406 5789

[31] SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use): 6°C Good

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
Phyllis Zerangue/CH2MHILL Phyllis Zerangue	10/31/03	1130	Dm Pmlnd	11-1-03	0845
Printed Name and Signature:			Printed Name and Signature:		
Dm Pmlnd	11-1-03	0920	[illegible]	11-3-03	0723
Printed Name and Signature:			Printed Name and Signature:		

Distribution: [ ] **Original** - Laboratory (To be returned with Analytical Report); [ ] **Copy 1** - Project File; [ ] **Copy 2** - PMO

Form CCI001, Rev 06/00

CH2M Hill / 4380 / 2021103 10

CH2MHILL Constructors, Inc.

115 Perimeter Center Place, Suite 700
Atlanta, GA 30346-1278
Tel No: (770) 604-9182
Fax No: (770) 604-9282

CHAIN-OF-CUSTODY RECORD

[1] COC NUMBER: **166690-031030-03**

[2] PROJECT NAME:	[5] PROJECT NUMBER:	[8] LAB NAME AND CONTACT:	[11] FAX AND MAIL; COC Reports, Preliminary Data, & EDD TO::	[14] RECIPIENT 1 (Address, Tel No. , and Fax No.):
NAS Pensacola	166690.32.02.05.90	Gulf Coast Analytical, 7979 GSRI Ave., Baton Rouge, LA 70820	Russell Henderson, CH2M Hill, Constructors	115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346 Phone=770-604-9182 Fax=770.604.9181
[3] PROJECT PHASE/SITE/TASK:	[6] CTO OR DO NUMBER:	[9] LAB PO NUMBER:	[12] FAX AND MAIL Preliminary reports TO:: RECIPIENT 2 (Name and Company)	[15] RECIPIENT 2 (Address, Tel No. , and Fax No.):
Bronson Field, Site 1159	CTO-0071	PO # 6331	Phyllis Zerangue, CH2M Hill,Inc.	1766 Sea Lark Lane, Navarre, FL 32566 Phone=850-939-8300
[4] PROJECT CONTACT:	[7] PROJECT TEL NO AND FAX NO:	[10] LAB TEL NO AND FAX NO:	[11] FAX AND MAIL; COC Reports, Preliminary Data, & EDD TO::	[16] RECIPIENT 3 (Address, Tel No. , and Fax No.):
Greg Wilfley	770-604-9095 770-604-9181	225-769-5717	Bonnie Hogue, CH2M Hill, Constructors	115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346 Phone=770-604-9182 Fax=770.604.9181

[25] ANALYSES REQUIRED (Include Method Numbers)

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	BTEX + MTBE by 8020B	PAHs by 8310	TPH by FL-PRO	Total Lead by 6010B		# of bottles	Sample Type	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use)
1	~~071-1159-MW32-BL~~	~~MW-32~~	~~W~~	~~10/ /03~~		C	14	2	1	1	1		5	N	NO SAMPLE	NEXT WEEK
2	~~071-1159-MW33-BL~~	~~MW-33~~	~~W~~	~~10/ /03~~		C	14	2	1	1	1		5	N		
3	~~071-1159-MW34-BL~~	~~MW-34~~	~~W~~	~~10/ /03~~		C	14	2	1	1	1		5	N		
4	~~071-1159-MW36-BL~~	~~MW-36~~	~~W~~	~~10/ /03~~		C	14	2	1	1	1		5	N		
5	~~071-1159-MW36-BL-MS~~	~~MW-36~~	~~W~~	~~10/ /03~~		C	14	2	1	1	1		5	MS		
6	~~071-1159-MW36-BL-SD~~	~~MW-36~~	~~W~~	~~10/ /03~~		C	14	2	1	1	1		5	SD		
7	~~071-1159-MW37-BL~~	~~MW-37~~	~~W~~	~~10/ /03~~		C	14	2	1	1	1		5	N		
8	~~071-1159-MW38-BL~~	~~MW-38~~	~~W~~	~~10/ /03~~		C	14	2	1	1	1		5	N		
9	~~071-1159-MW45-BL~~	~~MW-45~~	~~W~~	~~10/ /03~~		C	14	2	1	1	1		5	N		
10	~~071-1159-MW47-BL~~	~~MW-47~~	~~W~~	~~10/ /03~~		C	14	2	1	1	1		5	N		

[29] SAMPLER(S) AND COMPANY: (please print)
Phyllis Zerangue, Ch2M Hill Inc.
Scott Dunbar, CH2M Hill Constructors, Inc.

[30] COURIER AND SHIPPING NUMBER:
FEDEX: 8390 8406 5789

[31] SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use):
6°C Good

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature: Phyllis Zerangue/CH2MHILL Phyllis Zerangue	10/31/03	1130	Printed Name and Signature: Dun Pmlnd	11-1-03	0845
Printed Name and Signature: Dun Pmlnd	11-1-03	0920	Printed Name and Signature: Michelle Rabon	11-3-03	0727
Printed Name and Signature:			Printed Name and Signature:		

Distribution: [ ] **Original** - Laboratory (To be returned with Analytical Report); [ ] **Copy 1** - Project File; [ ] **Copy 2** - PMO

Form CCI001, Rev 06/00

CH2MHILL 4284 20311031 11/Due 11-18-03

CH2MHILL Constructors, Inc.
115 Perimeter Center Place, Suite 700
Atlanta, GA 30346-1278
Tel No: (770) 604-9182
Fax No: (770) 604-9282

CHAIN-OF-CUSTODY RECORD

[1] COC NUMBER: 166690-031103-02

[2] PROJECT NAME:	[5] PROJECT NUMBER:	[8] LAB NAME AND CONTACT:	[11] FAX AND MAIL; COC Reports, Preliminary Data, & EDD TO::	[14] RECIPIENT 1 (Address, Tel No. , and Fax No.):
NAS Pensacola	166690.32.02.05.90	Gulf Coast Analytical, 7979 GSRI Ave., Baton Rouge, LA 70820	Russell Henderson, CH2M Hill, Constructors	115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346 Phone=770-604-9182 Fax=770.604.9181
[3] PROJECT PHASE/SITE/TASK:	[6] CTO OR DO NUMBER:	[9] LAB PO NUMBER:	[12] FAX AND MAIL Preliminary reports TO:: RECIPIENT 2 (Name and Company)	[15] RECIPIENT 2 (Address, Tel No. , and Fax No.):
Bronson Field, Site 1159	CTO-0071	PO # 6331	Phyllis Zerangue, CH2M Hill,Inc.	1766 Sea Lark Lane, Navarre, FL 32566 Phone=850-939-8300
[4] PROJECT CONTACT:	[7] PROJECT TEL NO AND FAX NO:	[10] LAB TEL NO AND FAX NO:	[11] FAX AND MAIL; COC Reports, Preliminary Data, & EDD TO::	[16] RECIPIENT 3 (Address, Tel No. , and Fax No.):
Greg Wilfley	770-604-9095 770-604-9181	225-769-5717	Bonnie Hogue, CH2M Hill, Constructors	115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346 Phone=770-604-9182 Fax=770.604.9181

[25] ANALYSES REQUIRED (Include Method Numbers)

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	BTEX + MTBE by 8020B	PAHs by 8310	TPH by FL-PRO	Total Lead by 6010B		# of bottles	Sample Type	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use)
1	071-1159-MW16-BL	MW-16	W	10/30/03		C	14	2	1	1	2		6	N	Sent 10/31	
2	071-1159-MW17-BL	MW-17	W	10/30/03		C	14	2	1	1	2		6	N		
3	071-1159-MW18-BL	MW-18	W	10/30/03		C	14	2	1	1	2		6	N		
4	071-1159-MW21-BL	MW-21	W	10/30/03		C	14	2	1	1	2		6	N		
5	071-1159-MW23-BL	MW-23	W	10/30/03		C	14	2	1	1	2		6	N		
6	071-1159-MW24-BL	MW-24	W	11/03/03	0825	C	14	2	2	2	1		7	N		1145-01
7	071-1159-MW25-BL	MW-25	W	11/03/03	0855	C	14	2	2	2	1		7	N		-02
8	071-1159-MW26-BL	MW-26	W	—	—	C	14	2	2	2	1		7	N	Dry-No SAMPLE	
9	071-1159-MW27-BL	MW-27	W	11/03/03	1010	C	14	2	2	2	1		7	N		-03
10	071-1159-MW28-BL	MW-28	W	11/03/03	0950	C	14	2	2	2	1		7	N		-04

[29] SAMPLER(S) AND COMPANY: (please print)	[30] COURIER AND SHIPPING NUMBER:	[31] SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use):
Phyllis Zerangue, Ch2M Hill Inc. Scott Dunbar, CH2M Hill Constructors, Inc.	FEDEX: 8390 8406 5790	6°C Good

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
Phyllis Zerangue/CH2MHILL Phyllis Zerangue	11/04/03	1400			
Printed Name and Signature:			Printed Name and Signature:		
Fed-Ex.	11-5-03	0920	Daria Haydel Daria Haydel	11-5-03	0920
Printed Name and Signature:			Printed Name and Signature:		

Distribution: [ ] **Original** - Laboratory (To be returned with Analytical Report); [ ] **Copy 1** - Project File; [ ] **Copy 2** - PMO

Form CCI001, Rev 06/00

CH2M Hill / 14380 / 203110511 / due 11-10-03

CH2MHILL Constructors, Inc.
115 Perimeter Center Place, Suite 700
Atlanta, GA 30346-1278
Tel No: (770) 604-9182
Fax No: (770) 604-9282

CHAIN-OF-CUSTODY RECORD

[1] COC NUMBER: 166690-0311 03 -03

[2] PROJECT NAME:	[5] PROJECT NUMBER:	[8] LAB NAME AND CONTACT:	[11] FAX AND MAIL; COC Reports, Preliminary Data, & EDD TO::	[14] RECIPIENT 1 (Address, Tel No. , and Fax No.):
NAS Pensacola	166690.32.02.05.90	Gulf Coast Analytical, 7979 GSRI Ave., Baton Rouge, LA 70820	Russell Henderson, CH2M Hill, Constructors	115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346 Phone=770-604-9182 Fax=770.604.9181
[3] PROJECT PHASE/SITE/TASK:	[6] CTO OR DO NUMBER:	[9] LAB PO NUMBER:	[12] FAX AND MAIL Preliminary reports TO:: RECIPIENT 2 (Name and Company)	[15] RECIPIENT 2 (Address, Tel No. , and Fax No.):
Bronson Field, Site 1159	CTO-0071	PO # 6331	Phyllis Zerangue, CH2M Hill,Inc.	1766 Sea Lark Lane, Navarre, FL 32566 Phone=850-939-8300
[4] PROJECT CONTACT:	[7] PROJECT TEL NO AND FAX NO:	[10] LAB TEL NO AND FAX NO:	[11] FAX AND MAIL; COC Reports, Preliminary Data, & EDD TO::	[16] RECIPIENT 3 (Address, Tel No. , and Fax No.):
Greg Wilfley	770-604-9095 770-604-9181	225-769-5717	Bonnie Hogue, CH2M Hill, Constructors	115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346 Phone=770-604-9182 Fax=770.604.9181

[25] ANALYSES REQUIRED (Include Method Numbers)

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	BTEX + MTBE by 8020B	PAHs by 8310	TPH by FL-PRO	Total Lead by 6010B		# of bottles	Sample Type	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use)
1	071-1159-MW32-BL	MW-32	W	11/03/03	1130	C	14	2	2	2	1		7	N		11/5-05
2	071-1159-MW33-BL	MW-33	W	11/03/03	1220	C	14	2	2	2	1		7	N		-06
3	071-1159-MW34-BL	MW-34	W	11/03/03	1340	C	14	2	2	2	1		7	N		-07
4	071-1159-MW36-BL	MW-36	W	11/03/03	1400	C	14	2	2	2	1		7	N		-08
5	071-1159-MW36-BL-MS	MW-36	W	11/03/03	1400	C	14	2	2	2	1		7	MS		-09
6	071-1159-MW36-BL-SD	MW-36	W	11/03/03	1400	C	14	2	2	2	1		7	SD		10, -11
7	071-1159-MW37-BL	MW-37	W	11/03/03	1435	C	14	2	2	2	1		7	N		-12
8	071-1159-MW38-BL	MW-38	W	11/04/03	0930	C	14	2	2	2	1		7	N		-13
9	071-1159-MW45-BL	MW-45	W	11/03/03	—	C	14	2	2	2	1		7	N	Product-Not Sampled	—
10	071-1159-MW47-BL	MW-47	W	11/04/03	0800	C	14	2	2	2	1		7	N		-14

[29] SAMPLER(S) AND COMPANY: (please print)
Phyllis Zerangue, Ch2M Hill Inc.
Scott Dunbar, CH2M Hill Constructors, Inc.

[30] COURIER AND SHIPPING NUMBER: FEDEX: 8390 8406 5790

[31] SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use): 6°C Good

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
Phyllis Zerangue/CH2MHILL Phyllis Zerangue	11/04/03	1400			
Printed Name and Signature:			Printed Name and Signature:		
Fed Ex.	11-5-03	0920	Daria Haydel Daria Haydel	11-5-03	0920
Printed Name and Signature:			Printed Name and Signature:		

Distribution: [ ] **Original** - Laboratory (To be returned with Analytical Report); [ ] **Copy 1** - Project File; [ ] **Copy 2** - PMO

Form CCI001, Rev 06/00

CH2M Hill/4380/20311051 1/Due 11-10-03

CH2MHILL Constructors, Inc.

115 Perimeter Center Place, Suite 700
Atlanta, GA 30346-1278
Tel No: (770) 604-9182
Fax No: (770) 604-9282

CHAIN-OF-CUSTODY RECORD

[1] COC NUMBER: **166690-0311 03 -04**

[2] PROJECT NAME:	[5] PROJECT NUMBER:	[8] LAB NAME AND CONTACT:	[11] FAX AND MAIL; COC Reports, Preliminary Data, & EDD TO::	[14] RECIPIENT 1 (Address, Tel No., and Fax No.):
NAS Pensacola	166690.32.02.05.90	Gulf Coast Analytical, 7979 GSRI Ave., Baton Rouge, LA 70820	Russell Henderson, CH2M Hill, Constructors	115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346 Phone=770-604-9182 Fax=770.604.9181
[3] PROJECT PHASE/SITE/TASK:	[6] CTO OR DO NUMBER:	[9] LAB PO NUMBER:	[12] FAX AND MAIL Preliminary reports TO:: RECIPIENT 2 (Name and Company)	[15] RECIPIENT 2 (Address, Tel No., and Fax No.):
Bronson Field, Site 1159	CTO-0071	PO # 6331	Phyllis Zerangue, CH2M Hill,Inc.	1766 Sea Lark Lane, Navarre, FL 32566 Phone=850-939-8300
[4] PROJECT CONTACT:	[7] PROJECT TEL NO AND FAX NO:	[10] LAB TEL NO AND FAX NO:	[11] FAX AND MAIL; COC Reports, Preliminary Data, & EDD TO::	[16] RECIPIENT 3 (Address, Tel No., and Fax No.):
Greg Wilfley	770-604-9095 770-604-9181	225-769-5717	Bonnie Hogue, CH2M Hill, Constructors	115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346 Phone=770-604-9182 Fax=770.604.9181

[25] ANALYSES REQUIRED (Include Method Numbers)

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	BTEX + MTBE by 8020B	PAHs by 8310	TPH by FL-PRO	Total Lead by 6010B		# of bottles	Sample Type	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use)
1	071-1159-MW53-BL	MW-53	W	11/03/03	1155	C	14	2	2	2	1		7	N		11/5-15
2	071-1159-MW55-BL	MW-55	W	11/03/03	1055	C	14	2	2	2	1		7	N		-16
3	071-1159-MW62-BL	MW-62	W	11/04/03	0910	C	14	2	2	2	1		7	N		-17
4	071-1159-MW64-BL	MW-64	W	—	—	C	14	2	2	2	1		7	N	Product -No Sample	
5	071-1159-MW65-BL	MW-65	W	11/03	1530	C	14	2	~~2~~ Broken DMM	2	1		7	N		-18
6	071-1159-DMW61-BL	DMW-61	W	10/30/03	—	C	14	2	1	1	2		6	N	Sent 10/31	
7	071-1159-DMW61-BL-MS	DMW-61	W	10/30/03	—	C	14	2	1	1	2		6	MS		
8	071-1159-DMW61-BL-SD	DMW-61	W	10/30/03	—	C	14	2	1	1	2		6	SD		
9	071-1159-PreEB-1-BL	Pre-Equipment Blank	W	10/30/03	—	C	14	2	1	1	2		6	N		
10	071-1159-PreEB-2-BL	Pre-Equipment Blank	W	11/03/03	0730	C	14	2	2	2	1		7	N		-19

[29] SAMPLER(S) AND COMPANY: (please print)	[30] COURIER AND SHIPPING NUMBER:	[31] SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use):
Phyllis Zerangue, Ch2M Hill Inc. Scott Dunbar, CH2M Hill Constructors, Inc.	FEDEX: 8390 8406 5790	6°C Good

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature: Phyllis Zerangue/CH2MHILL Phyllis Zerangue	11/04/03	1400	Printed Name and Signature:		
Printed Name and Signature: Fed. Ex.	11-5-03	0920	Printed Name and Signature: Daria Hayden Daria Hayden	11-5-03	0920
Printed Name and Signature:			Printed Name and Signature:		

Distribution: [ ] **Original** - Laboratory (To be returned with Analytical Report); [ ] **Copy 1** - Project File; [ ] **Copy 2** - PMO

Form CCI001, Rev 06/00

CHRM HILL / 4280 / 2031105 11 / [illegible] 11-18-03

CH2MHILL Constructors, Inc.

115 Perimeter Center Place, Suite 700
Atlanta, GA 30346-1278
Tel No: (770) 604-9182
Fax No: (770) 604-9282

CHAIN-OF-CUSTODY RECORD

[1] COC NUMBER: **166690-0311 03 -05**

[2] PROJECT NAME:	[5] PROJECT NUMBER:	[8] LAB NAME AND CONTACT:	[11] FAX AND MAIL; COC Reports, Preliminary Data, & EDD TO::	[14] RECIPIENT 1 (Address, Tel No. , and Fax No.):
NAS Pensacola	166690.32.02.05.90	Gulf Coast Analytical, 7979 GSRI Ave., Baton Rouge, LA 70820	Russell Henderson, CH2M Hill, Constructors	115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346 Phone=770-604-9182 Fax=770.604.9181
[3] PROJECT PHASE/SITE/TASK:	[6] CTO OR DO NUMBER:	[9] LAB PO NUMBER:	[12] FAX AND MAIL Preliminary reports TO:: RECIPIENT 2 (Name and Company)	[15] RECIPIENT 2 (Address, Tel No. , and Fax No.):
Bronson Field, Site 1159	CTO-0071	PO # 6331	Phyllis Zerangue, CH2M Hill,Inc.	1766 Sea Lark Lane, Navarre, FL 32566 Phone=850-939-8300
[4] PROJECT CONTACT:	[7] PROJECT TEL NO AND FAX NO:	[10] LAB TEL NO AND FAX NO:	[11] FAX AND MAIL; COC Reports, Preliminary Data, & EDD TO::	[16] RECIPIENT 3 (Address, Tel No. , and Fax No.):
Greg Wilfley	770-604-9095 770-604-9181	225-769-5717	Bonnie Hogue, CH2M Hill, Constructors	115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346 Phone=770-604-9182 Fax=770.604.9181

[25] ANALYSES REQUIRED (Include Method Numbers)

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	BTEX + MTBE by 8020B	PAHs by 8310	TPH by FL-PRO	Total Lead by 6010B		# of bottles	Sample Type	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use)
1	071-1159-PreEB-3-BL	Pre-Equipment Blank	W	11/04/03	0710	C	14	2	2	2	1		7	EB		11/5-20
2	~~071-1159-PreEB-4~~-BL	~~Pre-Equipment~~ Blank	~~W~~	—	—	C	14	2	2	2	1		7	EB	Not collected	—
3	071-1159-FD-1-BL	Field Dup	W	10/30/03	—	C	14	2	1	1	2		6	FD	Sent 10/31	
4	071-1159-FD-2-BL	Field Dup	W	11/03/03	—	C	14	2	2	2	1		7	FD		-21
5	071-1159-FD-3-BL	Field Dup	W	11/04/03	—	C	14	2	2	2	1		7	FD		-23
6	071-1159-TB-1-BL	Trip Blank	W	10/30/03	—	C	14	2					2	TB	sent 10/31	
7	071-1159-TB-2-BL	Trip Blank	W	11/04/03	LAB	C	14	2					2	TB		-24
8	~~071-1159-TB-3~~-BL	~~Trip Blank~~	~~W~~	—	—	C	14	2					2	TB	Not Sent	
9	~~071-1159-_____-BL~~	~~Purge Water~~	W	—	—	C	14	2						TB	Not Sent	
10	071-1159-MW-22-BL	MW-22	W	11/04/03	0825	C	14	2	2	2	1		7	N		-22

[29] SAMPLER(S) AND COMPANY: (please print)
Phyllis Zerangue, Ch2M Hill Inc.
Scott Dunbar, CH2M Hill Constructors, Inc.

[30] COURIER AND SHIPPING NUMBER:
FEDEX: 8390 8406 5790

[31] SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use):
6°C Good

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature: Phyllis Zerangue/CH2MHILL [signature]	11/04/03	1400	Printed Name and Signature:		
Printed Name and Signature: Fed Ex.	11-5-03	0920	Printed Name and Signature: Daria Haydel [signature]	11-5-03	0920
Printed Name and Signature:			Printed Name and Signature:		

Distribution: [ ] **Original** - Laboratory (To be returned with Analytical Report); [ ] **Copy 1** - Project File; [ ] **Copy 2** - PMO

Form CCI001, Rev 06/00

CH2MHILL / 4050 / 20311 0311 / DUE 11-10-03

CH2MHILL Constructors, Inc.
115 Perimeter Center Place, Suite 700
Atlanta, GA 30346-1278
Tel No: (770) 604-9182
Fax No: (770) 604-9282

CHAIN-OF-CUSTODY RECORD

[1] COC NUMBER: **166690-031103-01**

[2] PROJECT NAME:	[5] PROJECT NUMBER:	[8] LAB NAME AND CONTACT:	[11] FAX AND MAIL; COC Reports, Preliminary Data, & EDD TO::	[14] RECIPIENT 1 (Address, Tel No. , and Fax No.):
NAS Pensacola	166690.32.02.05.90	Gulf Coast Analytical, 7979 GSRI Ave., Baton Rouge, LA 70820	Russell Henderson, CH2M Hill, Constructors	115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346 Phone=770-604-9182 Fax=770.604.9181
[3] PROJECT PHASE/SITE/TASK:	[6] CTO OR DO NUMBER:	[9] LAB PO NUMBER:	[12] FAX AND MAIL Preliminary reports TO:: RECIPIENT 2 (Name and Company)	[15] RECIPIENT 2 (Address, Tel No. , and Fax No.):
Bronson Field, Site 1159	CTO-0071	PO # 6331	Phyllis Zerangue, CH2M Hill,Inc.	1766 Sea Lark Lane, Navarre, FL 32566 Phone=850-939-8300
[4] PROJECT CONTACT:	[7] PROJECT TEL NO AND FAX NO:	[10] LAB TEL NO AND FAX NO:	[11] FAX AND MAIL; COC Reports, Preliminary Data, & EDD TO::	[16] RECIPIENT 3 (Address, Tel No. , and Fax No.):
Greg Wilfley	770-604-9095 770-604-9181	225-769-5717	Bonnie Hogue, CH2M Hill, Constructors	115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346 Phone=770-604-9182 Fax=770.604.9181

[25] ANALYSES REQUIRED (Include Method Numbers)

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	BTEX + MTBE by 8020B	PAHs by 8310	TPH by FL-PRO	Total Lead by 6010B		# of bottles	Sample Type	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use)
1	071-1159-MW01-BL	MW-01	W	10/30/03		C	14	2	1	1	2		6	N	sent 10/31	
2	071-1159-MW02-BL	MW-02	W	10/30/03		C	14	2	1	1	2		6	N		
3	071-1159-MW04-BL	MW-04	W	10/30/03		C	14	2	1	1	2		6	N		
4	071-1159-MW05-BL	MW-05	W	10/30/03		C	14	2	1	1	2		6	N		
5	071-1159-MW06-BL	MW-06	W	10/30/03		C	14	2	1	1	2		6	N		
6	071-1159-MW08-BL	MW-08	W	10/30/03		C	14	2	1	1	2		6	N		
7	071-1159-MW09-BL	MW-09	W	10/30/03		C	14	2	1	1	2		6	N		
8	071-1159-MW12-BL	MW-12	W	10/30/03		C	14	2	1	1	2		6	N		
9	071-1159-MW14-BL	MW-14	W	10/30/03		C	14	2	1	1	2		6	N		
10	071-1159-MW15-BL	MW-15	W	10/30/03		C	14	2	1	1	2		6	N		

[29] SAMPLER(S) AND COMPANY: (please print)	[30] COURIER AND SHIPPING NUMBER:	[31] SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use):
Phyllis Zerangue, Ch2M Hill Inc. Scott Dunbar, CH2M Hill Constructors, Inc.	FEDEX: 8390 8406 5790	6°C Good

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature: Phyllis Zerangue/CH2MHILL Phyllis Zerangue	11/04/03	1400	Printed Name and Signature:		
Printed Name and Signature: Fed. Ex	11-5-03	0920	Printed Name and Signature: Daria Haydel Daria Haydel	11-5-03	0920
Printed Name and Signature:			Printed Name and Signature:		

Distribution: [ ] **Original** - Laboratory (To be returned with Analytical Report); [ ] **Copy 1** - Project File; [ ] Co 2 - PMO

Form CCI001, Rev 06/00

NAS Pensacola

PREPARED FOR: NAS Pensacola / Bronson Field Site 1159

FINAL REVEIWER: Camden Robinson/ Associate Project Chemist/CCI

COPIES: Greg Wilfley /Project Manager/CCI

DATE: February 18, 2004

SUBJECT: Quality Assessment for Samples Collected January 2004

This quality assurance memorandum is based upon a review of analytical data generated for water samples and associated field quality control samples collected January 2004 at the Naval Air Station in Pensacola, Florida. The samples were collected as a part of the Bronson Field Site 1159 sampling event conducted at the site. Table 1-1 presents a summary of the CCI sample identification numbers, laboratory sample identification numbers, dates of collection, sample matrices, and the analyses performed.

Gulf Coast Laboratory of Baton Rouge, Louisiana served as the laboratory for this Bronson Field Site 1159 sampling event for the following analyses:

- Benzene, Etylbenzene, Toluene, Total Xylenes, and MTBE (BTEX + MTBE) by SW-846 method 8260B
- Polyaromatic nuclear hydrocarbons (PAH) by HPLC method 8310,
- Total petroleum hydrocarbons (TPH) by method FL-PRO,
- Lead by method SW-846 6010B

Table 1-1 ***Summary Sample Data Reviewed NAS Pensacola***

Sample Number	Lab Sample ID	Date Sampled	Matrix	Analysis Required
1159-MW15-BL-0401	20311031001	01/27/2004	Water	[1], [2], [3], [4]
1159-MW16-BL-0401	20311031002	01/27/2004	Water	[1], [2], [3], [4]
1159-MW20-BL-0401	20311031003	01/27/2004	Water	[1], [2], [3], [4]
1159-MW23-BL-0401	20311031004	01/27/2004	Water	[1], [2], [3], [4]
1159-MW24-BL-0401	20311031005	01/27/2004	Water	[1], [2], [3], [4]
1159-MW25-BL-0401	20311031006	01/27/2004	Water	[1], [2], [3], [4]
1159-MW29-BL-0401	20311031007	01/27/2004	Water	[1], [2], [3], [4]

Sample Number	Lab Sample ID	Date Sampled	Matrix	Analysis Required
1159-MW30-BL-0401	20311031008	01/27/2004	Water	[1], [2], [3], [4]
1159-MW39-BL-0401	20311031009	01/27/2004	Water	[1], [2], [3], [4]
1159-MW51-BL-0401	20311031010	01/27/2004	Water	[1], [2], [3], [4]
1159-MW52-BL-0401	20311031011	01/27/2004	Water	[1], [2], [3], [4]
1159-MW56-BL-0401	20311031015	01/27/2004	Water	[1], [2], [3], [4]
1159-MW57-BL-0401	20311031016	01/27/2004	Water	[1], [2], [3], [4]
1159-MW59-BL-0401	20311031017	01/27/2004	Water	[1], [2], [3], [4]
1159-MW66-BL-0401	20311031018	01/27/2004	Water	[1], [2], [3], [4]
1159-PreEB-1-BL-0401	20311031019	01/27/2004	Water	[1], [2], [3], [4]
*1159-FD-1-BL-0401	20311031020	01/27/2004	Water	[1], [2], [3], [4]
**1159-FD-2-BL-0401	20311031021	01/27/2004	Water	[1], [2], [3], [4]
1159-TB-1-0401	20311031022	01/27/2004	Water	[1]

ANALYSES PERFORMED CODES:
[1] –Benzene, Ethylbenzene, Toluene, Total Xylenes, and MTBE (BTEX + MTBE) by method SW846 8021B,
[2] –Polyaromatic nuclear hydrocarbons (PAH) by HPLC method 8310,
[3] – Total Petroleum Hydrocarbons (TPH) by method FL-PRO,
[4]- Lead by method SW846 6010B
** 1159-FD-1-BL-0401 blind field duplicate of 1159-MW39-BL-0401 for the Lead analysis,*
***1159-FD-2-BL-0401 blind field duplicate of 1159-MW39-BL-0401 for the BTEX +MTBE, PAH, and TPH-FL-PRO analyses, and 1159-FD-2-BL-0401 is also the blind field duplicate of 1159-MW24-BL-0401 for the Lead analysis*

Data for the analyses were reviewed for adherence to the specified analytical protocols in accordance with CCI Sampling Analysis Plan. All analysis results have been validated or qualified according to general guidance provided in the " National Functional Guidelines for Organic and Inorganic Data Review," EPA 540/OR-99/008, October 1999 and EPA 540/R-94/013, February 1994. Additionally, the data were evaluated for adherence to the Department of Defense (DOD) Quality Systems Manual-Version 2 June 2002.

The findings of this quality assurance report are based upon the comprehensive review of the following results summaries reported according to the CCI Level C (CLP-like data deliverables format): chain of custody documentation, holding times, laboratory method and field blank analyses, surrogate compound recoveries, matrix spike compound recoveries and reproducibility, bromofluorobenzene (BFB) mass tuning results, initial and continuing calibration, second source recovery and internal standard area performance summaries, target compound identification, laboratory control sample results, laboratory and blind field duplicate sample results, detection limits/sensitivity, ICP interference check sample results, ICP serial dilution results, metals post digestion spikes, and electronic data deliverables.

The analyses were performed acceptably, but require several qualifying statements; it is recommended that the analytical data be used only with the qualifying statements provided below. Any aspects of the data, which are not discussed in this report, should be considered qualitatively and quantitatively valid as reported, based on the deliverables reviewed. A result summary report presenting the validated and qualified results is presented in Attachment I.

General Data Qualifiers

As required by U.S. EPA protocols, all compounds which were qualitatively identified at concentrations below their respective reporting limits (RL) but above the method detection limit (MDL) have been qualified with "J" qualifiers on the data summary reports to indicate that they are quantitative estimates.

Organic Data Qualifiers

Positive results for total petroleum hydrocarbons reported in the samples listed below are considered estimates due to the levels at which this compounds were present in the associated method and equipment blanks. This has been indicated by placing a "JB" qualifier next to the quantitative results for total petroleum hydrocarbons analysis in the samples listed below on the data summary tables.

Compound	Affected Samples
FL-PRO	1159-MW20-BL-0401, 1159-MW29-BL-0401, 1159-MW30-BL-0401, 1159-MW39-BL-0401, 1159-MW51-BL-0401, 1159-MW52-BL-0401, 1159-MW56-BL-0401, 1159-MW57-BL-0401, 1159-MW59-BL-0401, 1159-MW66-BL-0401, and 1159-FD-2-BL-0401

Sample 1159-MW39-BL-0401 and its blind field duplicate sample 1159-FD-2-BL-0401 were submitted to the laboratory to evaluate sampling and analytical precision for those compounds determined to be confidently detected. All compounds met CCI's blind duplicate precision criteria of 20% for water samples relative percent difference (RPD) for volatile organic analyses and 25% water samples relative percent difference (RPD) for semivolatile organics analyses with the exception of fl-pro. A "J" qualifier was appended to these compounds for the native samples listed below to indicate that the reported value should be considered quantitative estimates due to the field duplicate RPD exceedances. The RPD was not calculated for the compounds that were not detected in both samples.

Compound	Affected Samples
FL-PRO	1159-MW39-BL-0401

Inorganic Data Qualifiers

Samples 1159-MW24-BL-0401 and 1159-MW39-BL-0401 and their blind field duplicate samples 1159-FD-2-BL-0401 and 1159-FD-1-BL-0401 were submitted to the laboratory to evaluate sampling and analytical precision for those compounds determined to be confidently detected. All compounds met CCI's blind duplicate precision criteria of 25% water samples relative percent difference (RPD) for metals analyses. The RPD was not calculated for the compounds that were not detected in both samples.

Summary

The organic and inorganic analyses were performed acceptably, but required qualifying statements. This analytical quality assurance report has identified the aspects of the data, which required qualification. These qualifiers are noted on the attached analytical sample summary reports. A support documentation package has been prepared for this quality assurance review and is filed with the NAS Pensacola CTO 71/Bronson Field Site 1159 sampling project file.

Attachment I

VALID QUALIFIERS

QUALIFIER	
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit
J	The analyte was positively identified: the associated numerical value is the approximate concentration of the analyte in the sample.
N	The analysis indicates the presence of an analyte for which there was presumptive evidence to make a "tentative identification."
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
UJ	The analyte was not deemed above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
R	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet the quality control criteria. The presence or absence of the analyte cannot be verified.
UR	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet the quality control criteria. The presence or absence of the analyte cannot be verified.
B	The analyte was detected in the associated method and/or calibration blank.
JB	The analyte detected in the associated field, equipment, and/or trip blank.

QUALIFICATION CODE REFERENCE

Qualifier	Organics	Inorganics
H	Holding times were exceeded.	Holding times were exceeded.
S	Surrogate recovery was outside QC limits.	The sequence or number of standards used for the calibration was incorrect.
C	Calibration %RSD or %D was noncompliant.	Correlation coefficient is <0.995.
R	Calibration RRF was <0.05.	%R for calibration is not within control limits.
MB	Presumed contamination from preparation (method) blank.	Presumed contamination from preparation (method) blank or calibration blank.
L	Laboratory Blank Spike/Blank Spike Duplicate %R was not within control limits.	Laboratory Control Sample %R was not within control limits.
Q	MS/MSD recovery was poor or RPD high.	MS recovery was poor.
G	Result is over the calibration range. Not other acceptable result was provided.	Result is over the calibration range. Not other acceptable result was provided.
E	Not applicable	Laboratory Duplicate showed poor agreement.
Z	Duplicates RPD showed poor agreement.	Field Duplicates RPD showed poor agreement
I	Internal standard performance was unsatisfactory.	ICP ICS results were unsatisfactory.
A	Not applicable.	ICP Serial Dilution %D was not within control limits.
TN	Tuning (BFB or DFTPP) was noncompliant.	Not applicable.
T	Presumed contamination from trip blank.	Not applicable.
+	False positive—reported compound was not present.	Not applicable.
-	False negative—compound was present but not reported.	Not applicable.
F	Presumed contamination from FB or ER.	Presumed contamination from FB or ER
$	Reported result or other information was incorrect.	Reported result or other information was incorrect.
?	TIC identity or reported retention time has been changed.	Not applicable.
D	The analysis with this flag should not be used because another more technically sound analysis is available.	The analysis with this flag should not be used because another more technically sound analysis is available.
P	Confirmation analysis performance exceeded 40%	Poor Digestion Spike recovery was not within control limits.
T/D	Not applicable	Total metals results reported were less than the dissolved metals result.
SD	Not applicable	Seed correction factor was below the acceptable limit

M	**(AIR ANALYSIS ONLY)** The matrix spike/matrix spike duplicate accuracy or precision objectives were not met.	Not applicable

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

1159-MW20-BL-0401

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 204012917

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20401291703

Level: (low/med) LOW

Lab File ID: 2040131/S6195

% Moisture: not dec.

Date Collected: 01/27/04 Time: 1230

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 01/29/04

Instrument ID: MSV1

Date Analyzed: 01/31/04 Time: 1030

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: RJO

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 268903

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.100	0.500
100-41-4	Ethylbenzene	5.00	U	0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	10.0	U	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

C.L.R

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

1159-MW29-BL-0401

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 204012917

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med) LOW

% Moisture: not dec.

GC Column: DB-624-30M ID: .53 (mm)

Instrument ID: MSV1

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 20401291707

Lab File ID: 2040131/S6196

Date Collected: 01/27/04 Time: 1015

Date Received: 01/29/04

Date Analyzed: 01/31/04 Time: 1054

Dilution Factor: 1 Analyst: RJO

Prep Batch: Analytical Batch: 268903

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.100	0.500
100-41-4	Ethylbenzene	5.00	U	0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	10.0	U	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

C.L.R

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

1159-MW30-BL-0401

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 204012917

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med) LOW

% Moisture: not dec.

GC Column: DB-624-30M ID: .53 (mm)

Instrument ID: MSV1

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 20401291708

Lab File ID: 2040131/S6197

Date Collected: 01/27/04 Time: 1045

Date Received: 01/29/04

Date Analyzed: 01/31/04 Time: 1117

Dilution Factor: 1 Analyst: RJO

Prep Batch: Analytical Batch: 268903

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.100	0.500
100-41-4	Ethylbenzene	5.00	U	0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	5.57	J	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

C.L.R

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

1159-MW39-BL-0401

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 204012917

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL Lab Sample ID: 20401291709

Level: (low/med) LOW Lab File ID: 2040131/S6198

% Moisture: not dec. Date Collected: 01/28/04 Time: 0800

GC Column: DB-624-30M ID: .53 (mm) Date Received: 01/29/04

Instrument ID: MSV1 Date Analyzed: 01/31/04 Time: 1140

Soil Extract Volume: (µL) Dilution Factor: 1 Analyst: RJO

Soil Aliquot Volume: (µL) Prep Batch: Analytical Batch: 268903

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.100	0.500
100-41-4	Ethylbenzene	5.00	U	0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	10.0	U	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

C.L.R

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

1159-MW51-BL-0401

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 204012917

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL Lab Sample ID: 20401291710

Level: (low/med) LOW Lab File ID: 2040131/S6199

% Moisture: not dec. Date Collected: 01/28/04 Time: 1000

GC Column: DB-624-30M ID: .53 (mm) Date Received: 01/29/04

Instrument ID: MSV1 Date Analyzed: 01/31/04 Time: 1203

Soil Extract Volume: (µL) Dilution Factor: 1 Analyst: RJO

Soil Aliquot Volume: (µL) Prep Batch: Analytical Batch: 268903

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.100	0.500
100-41-4	Ethylbenzene	5.00	U	0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	10.0	U	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

C.L.R

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

1159-MW52-BL-0401

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 204012917

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20401291711

Level: (low/med) LOW

Lab File ID: 2040131/S6200

% Moisture: not dec.

Date Collected: 01/27/04 Time: 0900

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 01/29/04

Instrument ID: MSV1

Date Analyzed: 01/31/04 Time: 1226

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: RJO

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 268903

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.100	0.500
100-41-4	Ethylbenzene	5.00	U	0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	10.0	U	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

C.L.R

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

1159-MW56-BL-0401

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 204012917

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med) LOW

% Moisture: not dec.

GC Column: DB-624-30M ID: .53 (mm)

Instrument ID: MSV1

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 20401291712

Lab File ID: 2040131/S6201

Date Collected: 01/27/04 Time: 1340

Date Received: 01/29/04

Date Analyzed: 01/31/04 Time: 1249

Dilution Factor: 1 Analyst: RJO

Prep Batch: Analytical Batch: 268903

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.100	0.500
100-41-4	Ethylbenzene	5.00	U	0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	10.0	U	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

C.L.R

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

1159-MW57-BL-0401

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 204012917

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL Lab Sample ID: 20401291713

Level: (low/med) LOW Lab File ID: 2040131/S6202

% Moisture: not dec. Date Collected: 01/27/04 Time: 1420

GC Column: DB-624-30M ID: .53 (mm) Date Received: 01/29/04

Instrument ID: MSV1 Date Analyzed: 01/31/04 Time: 1312

Soil Extract Volume: (µL) Dilution Factor: 1 Analyst: RJO

Soil Aliquot Volume: (µL) Prep Batch: Analytical Batch: 268903

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.100	0.500
100-41-4	Ethylbenzene	5.00	U	0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	10.0	U	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

C.L.R

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

1159-MW59-BL-0401

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 204012917

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med) LOW

% Moisture: not dec.

GC Column: DB-624-30M ID: .53 (mm)

Instrument ID: MSV1

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 20401291714

Lab File ID: 2040131/S6203

Date Collected: 01/27/04 Time: 0820

Date Received: 01/29/04

Date Analyzed: 01/31/04 Time: 1335

Dilution Factor: 1 Analyst: RJO

Prep Batch: Analytical Batch: 268903

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.100	0.500
100-41-4	Ethylbenzene	5.00	U	0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	10.0	U	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

L.R

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

1159-MW66-BL-0401

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 204012917

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Level: (low/med) LOW

% Moisture: not dec.

GC Column: DB-624-30M ID: .53 (mm)

Instrument ID: MSV1

Soil Extract Volume: (µL)

Soil Aliquot Volume: (µL)

Lab Sample ID: 20401291715

Lab File ID: 2040131/S6191

Date Collected: 01/28/04 Time: 0915

Date Received: 01/29/04

Date Analyzed: 01/31/04 Time: 0850

Dilution Factor: 1 Analyst: RJO

Prep Batch: Analytical Batch: 268903

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.100	0.500
100-41-4	Ethylbenzene	5.00	U	0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	10.0	U	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

C.L.R

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

1159-PREB-1-BL-0401

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 204012917

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20401291719

Level: (low/med) LOW

Lab File ID: 2040131/S6204

% Moisture: not dec.

Date Collected: 01/27/04 Time: 0900

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 01/29/04

Instrument ID: MSV1

Date Analyzed: 01/31/04 Time: 1358

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: RSP

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 268903

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.100	0.500
100-41-4	Ethylbenzene	5.00	U	0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	10.0	U	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

C.L.R

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

1159-FD-2-BL-0401

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 204012917

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL Lab Sample ID: 20401291721

Level: (low/med) LOW Lab File ID: 2040131/S6206

% Moisture: not dec. Date Collected: 01/28/04 Time: 0000

GC Column: DB-624-30M ID: .53 (mm) Date Received: 01/29/04

Instrument ID: MSV1 Date Analyzed: 01/31/04 Time: 1421

Soil Extract Volume: (µL) Dilution Factor: 1 Analyst: RSP

Soil Aliquot Volume: (µL) Prep Batch: Analytical Batch: 268903

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.100	0.500
100-41-4	Ethylbenzene	5.00	U	0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	10.0	U	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

C.L.R

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

1159-TB-1-0401

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 204012917

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL Lab Sample ID: 20401291722

Level: (low/med) LOW Lab File ID: 2040131/S6207

% Moisture: not dec. Date Collected: 01/28/04 Time: 0000

GC Column: DB-624-30M ID: .53 (mm) Date Received: 01/29/04

Instrument ID: MSV1 Date Analyzed: 01/31/04 Time: 1444

Soil Extract Volume: (µL) Dilution Factor: 1 Analyst: RJO

Soil Aliquot Volume: (µL) Prep Batch: Analytical Batch: 268903

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.100	0.500
100-41-4	Ethylbenzene	5.00	U	0.312	5.00
108-88-3	Toluene	5.00	U	0.152	5.00
1330-20-7	Xylene (total)	10.0	U	0.507	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.122	5.00

C.L.R

FORM I VOA

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 268821 Analytical Batch: 268984

Sample ID: 1159-MW20-BL-0401

Contract:

SAS No.: SDG No.: 204012917

Lab Sample ID: 20401291703

Date Collected: 01/27/04 Time: 1230

Date Received: 01/29/04

Date Extracted: 01/30/04

Date Analyzed: 02/03/04 Time: 1212

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 040203/H000591

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

C.L.R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 268821 Analytical Batch: 268984

CONCENTRATION UNITS: ug/L

Sample ID: 1159-MW29-BL-0401

Contract:

SAS No.: SDG No.: 204012917

Lab Sample ID: 20401291707

Date Collected: 01/27/04 Time: 1015

Date Received: 01/29/04

Date Extracted: 01/30/04

Date Analyzed: 02/03/04 Time: 1219

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 040203/H000591

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

C.L.R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 268821 Analytical Batch: 268984

Sample ID: 1159-MW30-BL-0401

Contract:

SAS No.: SDG No.: 204012917

Lab Sample ID: 20401291708

Date Collected: 01/27/04 Time: 1045

Date Received: 01/29/04

Date Extracted: 01/30/04

Date Analyzed: 02/03/04 Time: 1226

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 040203/H000592

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

C.L.R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 268821 Analytical Batch: 268984

Sample ID: 1159-MW39-BL-0401

Contract:

SAS No.: SDG No.: 204012917

Lab Sample ID: 20401291709

Date Collected: 01/28/04 Time: 0800

Date Received: 01/29/04

Date Extracted: 01/30/04

Date Analyzed: 02/03/04 Time: 1233

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 040203/H000592

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

C.L.R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 268821 Analytical Batch: 268984

Sample ID: 1159-MW51-BL-0401

Contract:

SAS No.: SDG No.: 204012917

Lab Sample ID: 20401291710

Date Collected: 01/28/04 Time: 1000

Date Received: 01/29/04

Date Extracted: 01/30/04

Date Analyzed: 02/03/04 Time: 1240

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 040203/H000592

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

C.L.R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 268821 Analytical Batch: 268984

Sample ID: 1159-MW52-BL-0401

Contract:

SAS No.: SDG No.: 204012917

Lab Sample ID: 20401291711

Date Collected: 01/27/04 Time: 0900

Date Received: 01/29/04

Date Extracted: 01/30/04

Date Analyzed: 02/03/04 Time: 1247

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 040203/H000592

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.035	J	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.059	J	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.033	J	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

C.L.R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 268821 Analytical Batch: 268984

Sample ID: 1159-MW56-BL-0401

Contract:

SAS No.: SDG No.: 204012917

Lab Sample ID: 20401291712

Date Collected: 01/27/04 Time: 1340

Date Received: 01/29/04

Date Extracted: 01/30/04

Date Analyzed: 02/03/04 Time: 1254

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 040203/H000592

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

C.L.R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 268821 Analytical Batch: 268984

CONCENTRATION UNITS: ug/L

Sample ID: 1159-MW57-BL-0401

Contract:

SAS No.: SDG No.: 204012917

Lab Sample ID: 20401291713

Date Collected: 01/27/04 Time: 1420

Date Received: 01/29/04

Date Extracted: 01/30/04

Date Analyzed: 02/03/04 Time: 1320

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 040203/H000592

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

C.L.R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 268821 Analytical Batch: 268984

Sample ID: 1159-MW59-BL-0401

Contract:

SAS No.: SDG No.: 204012917

Lab Sample ID: 20401291714

Date Collected: 01/27/04 Time: 0820

Date Received: 01/29/04

Date Extracted: 01/30/04

Date Analyzed: 02/03/04 Time: 1327

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

CONCENTRATION UNITS: ug/L

Lab File ID: 040203/H000592

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

C.L.R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 268821 Analytical Batch: 268984

Sample ID: 1159-MW66-BL-0401

Contract:

SAS No.: SDG No.: 204012917

Lab Sample ID: 20401291715

Date Collected: 01/28/04 Time: 0915

Date Received: 01/29/04

Date Extracted: 01/30/04

Date Analyzed: 02/03/04 Time: 1334

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

CONCENTRATION UNITS: ug/L

Lab File ID: 040203/H000592

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

C.L.R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 268821 Analytical Batch: 268984

CONCENTRATION UNITS: ug/L

Sample ID: 1159-PREB-1-BL-0401

Contract:

SAS No.: SDG No.: 204012917

Lab Sample ID: 20401291719

Date Collected: 01/27/04 Time: 0900

Date Received: 01/29/04

Date Extracted: 01/30/04

Date Analyzed: 02/03/04 Time: 1355

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 040203/H000593

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

C.L.R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 268821 Analytical Batch: 268984

Sample ID: 1159-FD-2-BL-0401

Contract:

SAS No.: SDG No.: 204012917

Lab Sample ID: 20401291721

Date Collected: 01/28/04 Time: 0000

Date Received: 01/29/04

Date Extracted: 01/30/04

Date Analyzed: 02/03/04 Time: 1402

Dilution Factor: 1 Analyst: JDT

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

CONCENTRATION UNITS: ug/L

Lab File ID: 040203/H000593

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

C.L.R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 268822 Analytical Batch: 269293

Sample ID: 1159-MW20-BL-0401

Contract:

SAS No.: SDG No.: 204012917

Lab Sample ID: 20401291703

Date Collected: 01/27/04 Time: 1230

Date Received: 01/29/04

Date Extracted: 01/30/04

Date Analyzed: 02/04/04 Time: 1513

Dilution Factor: 1 Analyst: DLB

Prep Method: FLORIDA PRO

Analytical Method: FLORIDA PRO

Sulfur Cleanup: (Y/N) N Instrument ID: GCS2A

Lab File ID: 2040203P/SV2AD

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL	
FLPRO-01	Petroleum Hydrocarbons	341	JB	40.7	100	MB, F

C.L.R

FORM I ORG-1

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 268822 Analytical Batch: 269293

Sample ID: 1159-MW29-BL-0401

Contract:

SAS No.: SDG No.: 204012917

Lab Sample ID: 20401291707

Date Collected: 01/27/04 Time: 1015

Date Received: 01/29/04

Date Extracted: 01/30/04

Date Analyzed: 02/04/04 Time: 1611

Dilution Factor: 1 Analyst: DLB

Prep Method: FLORIDA PRO

Analytical Method: FLORIDA PRO

Sulfur Cleanup: (Y/N) N Instrument ID: GCS2A

Lab File ID: 2040203P/SV2AD

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL	
FLPRO-01	Petroleum Hydrocarbons	438	JB	40.7	100	MB, F

C.L.R

FORM I ORG-1

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 268822 Analytical Batch: 269293

Sample ID: 1159-MW30-BL-0401

Contract:

SAS No.: SDG No.: 204012917

Lab Sample ID: 20401291708

Date Collected: 01/27/04 Time: 1045

Date Received: 01/29/04

Date Extracted: 01/30/04

Date Analyzed: 02/04/04 Time: 1708

Dilution Factor: 1 Analyst: DLB

Prep Method: FLORIDA PRO

Analytical Method: FLORIDA PRO

Sulfur Cleanup: (Y/N) N Instrument ID: GCS2A

Lab File ID: 2040203P/SV2AD

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL	
FLPRO-01	Petroleum Hydrocarbons	572	JB	40.7	100	mB, F

C.L.R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 268822 Analytical Batch: 269293

Sample ID: 1159-MW39-BL-0401

Contract:

SAS No.: SDG No.: 204012917

Lab Sample ID: 20401291709

Date Collected: 01/28/04 Time: 0800

Date Received: 01/29/04

Date Extracted: 01/30/04

Date Analyzed: 02/05/04 Time: 1419

Dilution Factor: 1 Analyst: DLB

Prep Method: FLORIDA PRO

Analytical Method: FLORIDA PRO

Sulfur Cleanup: (Y/N) N Instrument ID: GCS2A

Lab File ID: 2040203P/SV2AD

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL	
FLPRO-01	Petroleum Hydrocarbons	158	JB,J	40.7	100	mB, F, Z

C.L.R.

FORM I ORG-1

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 268822 Analytical Batch: 269293

Sample ID: 1159-MW51-BL-0401

Contract:

SAS No.: SDG No.: 204012917

Lab Sample ID: 20401291710

Date Collected: 01/28/04 Time: 1000

Date Received: 01/29/04

Date Extracted: 01/30/04

Date Analyzed: 02/04/04 Time: 1902

Dilution Factor: 1 Analyst: DLB

Prep Method: FLORIDA PRO

Analytical Method: FLORIDA PRO

Sulfur Cleanup: (Y/N) N Instrument ID: GCS2A

Lab File ID: 2040203P/SV2AD

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL	
FLPRO-01	Petroleum Hydrocarbons	258	JB	40.7	100	MB, F

C.L.R

FORM I ORG-1

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 268822 Analytical Batch: 269293

Sample ID: 1159-MW52-BL-0401

Contract:

SAS No.: SDG No.: 204012917

Lab Sample ID: 20401291711

Date Collected: 01/27/04 Time: 0900

Date Received: 01/29/04

Date Extracted: 01/30/04

Date Analyzed: 02/04/04 Time: 1959

Dilution Factor: 1 Analyst: DLB

Prep Method: FLORIDA PRO

Analytical Method: FLORIDA PRO

Sulfur Cleanup: (Y/N) N Instrument ID: GCS2A

Lab File ID: 2040203P/SV2AD

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL	
FLPRO-01	Petroleum Hydrocarbons	468	JB	40.7	100	MB, F

C.L.R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 268822 Analytical Batch: 269293

Sample ID: 1159-MW56-BL-0401

Contract:

SAS No.: SDG No.: 204012917

Lab Sample ID: 20401291712

Date Collected: 01/27/04 Time: 1340

Date Received: 01/29/04

Date Extracted: 01/30/04

Date Analyzed: 02/04/04 Time: 2057

Dilution Factor: 1 Analyst: DLB

Prep Method: FLORIDA PRO

Analytical Method: FLORIDA PRO

Sulfur Cleanup: (Y/N) N Instrument ID: GCS2A

Lab File ID: 2040203P/SV2AD

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL	
FLPRO-01	Petroleum Hydrocarbons	290	JB	40.7	100	MB, F

C.L.R

FORM I ORG-1

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: DB-5MS-30M ID: .25 (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 268822 Analytical Batch: 269293

CONCENTRATION UNITS: ug/L

Sample ID: 1159-MW57-BL-0401

Contract:

SAS No.: SDG No.: 204012917

Lab Sample ID: 20401291713

Date Collected: 01/27/04 Time: 1420

Date Received: 01/29/04

Date Extracted: 01/30/04

Date Analyzed: 02/04/04 Time: 2251

Dilution Factor: 1 Analyst: DLB

Prep Method: FLORIDA PRO

Analytical Method: FLORIDA PRO

Sulfur Cleanup: (Y/N) N Instrument ID: GCS2A

Lab File ID: 2040203P/SV202

CAS NO.	COMPOUND	RESULT	Q	MDL	RL	
FLPRO-01	Petroleum Hydrocarbons	307	JB	40.7	100	mB, F

C.L.R

FORM I ORG-1

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 268822 Analytical Batch: 269293

Sample ID: 1159-MW59-BL-0401

Contract:

SAS No.: SDG No.: 204012917

Lab Sample ID: 20401291714

Date Collected: 01/27/04 Time: 0820

Date Received: 01/29/04

Date Extracted: 01/30/04

Date Analyzed: 02/04/04 Time: 2349

Dilution Factor: 1 Analyst: DLB

Prep Method: FLORIDA PRO

Analytical Method: FLORIDA PRO

Sulfur Cleanup: (Y/N) N Instrument ID: GCS2A

Lab File ID: 2040203P/SV2AD

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL	
FLPRO-01	Petroleum Hydrocarbons	334	JB	40.7	100	mB, F

C.L.R

FORM I ORG-1

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 268822 Analytical Batch: 269293

Sample ID: 1159-MW66-BL-0401

Contract:

SAS No.: SDG No.: 204012917

Lab Sample ID: 20401291715

Date Collected: 01/28/04 Time: 0915

Date Received: 01/29/04

Date Extracted: 01/30/04

Date Analyzed: 02/05/04 Time: 0047

Dilution Factor: 1 Analyst: DLB

Prep Method: FLORIDA PRO

Analytical Method: FLORIDA PRO

Sulfur Cleanup: (Y/N) N Instrument ID: GCS2A

Lab File ID: 2040203P/SV2AD

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL	
FLPRO-01	Petroleum Hydrocarbons	220	JB	40.7	100	mB, F

C.L.R

FORM I ORG-1

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 268822 Analytical Batch: 269293

Sample ID: 1159-PREB-1-BL-0401

Contract:

SAS No.: SDG No.: 204012917

Lab Sample ID: 20401291719

Date Collected: 01/27/04 Time: 0900

Date Received: 01/29/04

Date Extracted: 01/30/04

Date Analyzed: 02/05/04 Time: 0341

Dilution Factor: 1 Analyst: DLB

Prep Method: FLORIDA PRO

Analytical Method: FLORIDA PRO

Sulfur Cleanup: (Y/N) N Instrument ID: GCS2A

Lab File ID: 2040203P/SV2AD

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
FLPRO-01	Petroleum Hydrocarbons	252		40.7	100

C.L.R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 268822 Analytical Batch: 269293

Sample ID: 1159-FD-2-BL-0401

Contract:

SAS No.: SDG No.: 204012917

Lab Sample ID: 20401291721

Date Collected: 01/28/04 Time: 0000

Date Received: 01/29/04

Date Extracted: 01/30/04

Date Analyzed: 02/05/04 Time: 0440

Dilution Factor: 1 Analyst: DLB

Prep Method: FLORIDA PRO

Analytical Method: FLORIDA PRO

Sulfur Cleanup: (Y/N) N Instrument ID: GCS2A

Lab File ID: 2040203P/SV2AD

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL	
FLPRO-01	Petroleum Hydrocarbons	236	JB, J	40.7	100	MB, F, Z

C.L.R

FORM I ORG-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL
Sample ID: 1159-MW15-BL-0401
Lab Code: LA024
Case No.:
Contract:
Matrix: (soil / water) Water
SAS No.:
SDG No.: 204012917
Level: (low / med)
% Solids:
Lab Sample ID: 20401291701
Date Received: 01/29/04
Time: 1030
Date Collected: 01/27/04
Time: 1140

Analyte	Concentration	Units	C	MDL	PQL	Method	Type
Lead	0.049	mg/L		0.0010	0.015	SW-846 6010B	P

C.L.R

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL

Sample ID: 1159-MW16-BL-0401

Lab Code: LA024 Case No.:

Contract:

Matrix: (soil / water) Water

SAS No.: SDG No.: 204012917

Level: (low / med) % Solids:

Lab Sample ID: 20401291702

Date Received: 01/29/04 Time: 1030

Date Collected: 01/27/04 Time: 1120

Analyte	Concentration	Units	C	MDL	PQL	Method	Type
Lead	0.086	mg/L		0.0010	0.015	SW-846 6010B	P

C.L.R

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL

Sample ID: 1159-MW20-BL-0401

Lab Code: LA024 Case No.:

Contract:

Matrix: (soil / water) Water

SAS No.: SDG No.: 204012917

Level: (low / med) % Solids:

Lab Sample ID: 20401291703

Date Received: 01/29/04 Time: 1030

Date Collected: 01/27/04 Time: 1230

Analyte	Concentration	Units	C	MDL	PQL	Method	Type
Lead	0.015	mg/L	U	0.0010	0.015	SW-846 6010B	P

C.L.R

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL

Sample ID: 1159-MW23-BL-0401

Lab Code: LA024 Case No.:

Contract:

Matrix: (soil / water) Water

SAS No.: SDG No.: 204012917

Level: (low / med) % Solids:

Lab Sample ID: 20401291704

Date Received: 01/29/04 Time: 1030

Date Collected: 01/27/04 Time: 1205

Analyte	Concentration	Units	C	MDL	PQL	Method	Type
Lead	0.019	mg/L		0.0010	0.015	SW-846 6010B	P

C.L.R

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL
Sample ID: 1159-MW24-BL-0401
Lab Code: LA024
Case No.:
Contract:
Matrix: (soil / water) Water
SAS No.:
SDG No.: 204012917
Level: (low / med)
% Solids:
Lab Sample ID: 20401291705
Date Received: 01/29/04
Time: 1030
Date Collected: 01/27/04
Time: 0925

Analyte	Concentration	Units	C	MDL	PQL	Method	Type
Lead	0.11	mg/L		0.0010	0.015	SW-846 6010B	P

C.L.R

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL
Sample ID: 1159-MW25-BL-0401
Lab Code: LA024
Case No.:
Contract:
Matrix: (soil / water) Water
SAS No.:
SDG No.: 204012917
Level: (low / med)
% Solids:
Lab Sample ID: 20401291706
Date Received: 01/29/04
Time: 1030
Date Collected: 01/27/04
Time: 1000

Analyte	Concentration	Units	C	MDL	PQL	Method	Type
Lead	0.13	mg/L		0.0010	0.015	SW-846 6010B	P

C.L.R

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL

Sample ID: 1159-MW29-BL-0401

Lab Code: LA024 Case No.:

Contract:

Matrix: (soil / water) Water

SAS No.: SDG No.: 204012917

Level: (low / med) % Solids:

Lab Sample ID: 20401291707

Date Received: 01/29/04 Time: 1030

Date Collected: 01/27/04 Time: 1015

Analyte	Concentration	Units	C	MDL	PQL	Method	Type
Lead	0.015	mg/L	U	0.0010	0.015	SW-846 6010B	P

C.L.R

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL

Sample ID: 1159-MW30-BL-0401

Lab Code: LA024 Case No.:

Contract:

Matrix: (soil / water) Water

SAS No.: SDG No.: 204012917

Level: (low / med) % Solids:

Lab Sample ID: 20401291708

Date Received: 01/29/04 Time: 1030

Date Collected: 01/27/04 Time: 1045

Analyte	Concentration	Units	C	MDL	PQL	Method	Type
Lead	0.0032	mg/L	B	0.0010	0.015	SW-846 6010B	P

C.L.R

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL

Sample ID: 1159-MW39-BL-0401

Lab Code: LA024 Case No.:

Contract:

Matrix: (soil / water) Water

SAS No.: SDG No.: 204012917

Level: (low / med) % Solids:

Lab Sample ID: 20401291709

Date Received: 01/29/04 Time: 1030

Date Collected: 01/28/04 Time: 0800

Analyte	Concentration	Units	C	MDL	PQL	Method	Type
Lead	0.015	mg/L	U	0.0010	0.015	SW-846 6010B	P

C.L.R

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL

Sample ID: 1159-MW51-BL-0401

Lab Code: LA024 Case No.:

Contract:

Matrix: (soil / water) Water

SAS No.: SDG No.: 204012917

Level: (low / med) % Solids:

Lab Sample ID: 20401291710

Date Received: 01/29/04 Time: 1030

Date Collected: 01/28/04 Time: 1000

Analyte	Concentration	Units	C	MDL	PQL	Method	Type
Lead	0.015	mg/L	U	0.0010	0.015	SW-846 6010B	P

C.L.R

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL

Sample ID: 1159-MW52-BL-0401

Lab Code: LA024 Case No.:

Contract:

Matrix: (soil / water) Water

SAS No.: SDG No.: 204012917

Level: (low / med) % Solids:

Lab Sample ID: 20401291711

Date Received: 01/29/04 Time: 1030

Date Collected: 01/27/04 Time: 0900

Analyte	Concentration	Units	C	MDL	PQL	Method	Type
Lead	0.011	mg/L	B	0.0010	0.015	SW-846 6010B	P

C.L.R

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL

Sample ID: 1159-MW56-BL-0401

Lab Code: LA024 Case No.:

Contract:

Matrix: (soil / water) Water

SAS No.: SDG No.: 204012917

Level: (low / med) % Solids:

Lab Sample ID: 20401291712

Date Received: 01/29/04 Time: 1030

Date Collected: 01/27/04 Time: 1340

Analyte	Concentration	Units	C	MDL	PQL	Method	Type
Lead	0.015	mg/L	U	0.0010	0.015	SW-846 6010B	P

C.L.R

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL
Sample ID: 1159-MW57-BL-0401
Lab Code: LA024
Case No.:
Contract:
Matrix: (soil / water) Water
SAS No.:
SDG No.: 204012917
Level: (low / med)
% Solids:
Lab Sample ID: 20401291713
Date Received: 01/29/04
Time: 1030
Date Collected: 01/27/04
Time: 1420

Analyte	Concentration	Units	C	MDL	PQL	Method	Type
Lead	0.015	mg/L	U	0.0010	0.015	SW-846 6010B	P

C.L.R

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL

Sample ID: 1159-MW59-BL-0401

Lab Code: LA024 Case No.:

Contract:

Matrix: (soil / water) Water

SAS No.: SDG No.: 204012917

Level: (low / med) % Solids:

Lab Sample ID: 20401291714

Date Received: 01/29/04 Time: 1030

Date Collected: 01/27/04 Time: 0820

Analyte	Concentration	Units	C	MDL	PQL	Method	Type
Lead	0.015	mg/L	U	0.0010	0.015	SW-846 6010B	P

C.L.R

FORM I - IN

000486

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL

Sample ID: 1159-MW66-BL-0401

Lab Code: LA024 Case No.:

Contract:

Matrix: (soil / water) Water

SAS No.: SDG No.: 204012917

Level: (low / med) % Solids:

Lab Sample ID: 20401291715

Date Received: 01/29/04 Time: 1030

Date Collected: 01/28/04 Time: 0915

Analyte	Concentration	Units	C	MDL	PQL	Method	Type
Lead	0.015	mg/L	U	0.0010	0.015	SW-846 6010B	P

C.L.R

FORM I - IN

000487

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL
Sample ID: 1159-MW66-BL-0401-DUP
Lab Code: LA024
Case No.:
Contract:
Matrix: (soil / water) Water
SAS No.:
SDG No.: 204012917
Level: (low / med)
% Solids:
Lab Sample ID: 20401291718
Date Received: 01/29/04
Time: 1030
Date Collected: 01/28/04
Time: 0915

Analyte	Concentration	Units	C	MDL	PQL	Method	Type
Lead	0.015	mg/L	U	0.0010	0.015	SW-846 6010B	P

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL

Sample ID: 1159-PREB-1-BL-0401

Lab Code: LA024 Case No.:

Contract:

Matrix: (soil / water) Water

SAS No.: SDG No.: 204012917

Level: (low / med) % Solids:

Lab Sample ID: 20401291719

Date Received: 01/29/04 Time: 1030

Date Collected: 01/27/04 Time: 0900

Analyte	Concentration	Units	C	MDL	PQL	Method	Type
Lead	0.015	mg/L	U	0.0010	0.015	SW-846 6010B	P

C.L.R

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL

Sample ID: 1159-FD-1-BL-0401

Lab Code: LA024 Case No.:

Contract:

Matrix: (soil / water) Water

SAS No.: SDG No.: 204012917

Level: (low / med) % Solids:

Lab Sample ID: 20401291720

Date Received: 01/29/04 Time: 1030

Date Collected: 01/27/04 Time: 0000

Analyte	Concentration	Units	C	MDL	PQL	Method	Type
Lead	0.015	mg/L	U	0.0010	0.015	SW-846 6010B	P

C.L.R

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL

Sample ID: 1159-FD-2-BL-0401

Lab Code: LA024 Case No.:

Contract:

Matrix: (soil / water) Water

SAS No.: SDG No.: 204012917

Level: (low / med) % Solids:

Lab Sample ID: 20401291721

Date Received: 01/29/04 Time: 1030

Date Collected: 01/28/04 Time: 0000

Analyte	Concentration	Units	C	MDL	PQL	Method	Type
Lead	0.13	mg/L		0.0010	0.015	SW-846 6010B	P

C.L.R

FORM I - IN

CH2MHILL Constructors, Inc.
115 Perimeter Center Place, Suite 700
Atlanta, GA 30346-1278
Tel No: (770) 604-9182
Fax No: (770) 604-9282

CHAIN-OF-CUSTODY RECORD

[1] COC NUMBER: 166690-0401 -1

[2] PROJECT NAME:	[5] PROJECT NUMBER:	[8] LAB NAME AND CONTACT:	[11] FAX AND MAIL: COC Reports, Preliminary Data, & EDD TO::	[14] RECIPIENT 1 (Address, Tel No. , and Fax No.):
NAS Pensacola	166690.32.02.05.90	Gulf Coast Analytical, 7979 GSRI Ave., Baton Rouge, LA 70820	Russell Henderson, CH2M Hill, Constructors	115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346 Phone=770-604-9182 Fax=770.604.9181
[3] PROJECT PHASE/SITE/TASK:	[6] CTO OR DO NUMBER:	[9] LAB PO NUMBER:	[12] FAX AND MAIL Preliminary reports TO:: RECIPIENT 2 (Name and Company)	[15] RECIPIENT 2 (Address, Tel No. , and Fax No.):
Bronson Field, Site 1159	CTO-0071	PO # 6331	Phyllis Zerangue, CH2M Hill,Inc.	1766 Sea Lark Lane, Navarre, FL 32566 Phone=850-939-8300
[4] PROJECT CONTACT:	[7] PROJECT TEL NO AND FAX NO:	[10] LAB TEL NO AND FAX NO:	[11] FAX AND MAIL: COC Reports, Preliminary Data, & EDD TO::	[16] RECIPIENT 3 (Address, Tel No. , and Fax No.):
Greg Wilfley	770-604-9095 770-604-9181	225-769-5717	Bonnie Hogue, CH2M Hill, Constructors	115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346 Phone=770-604-9182 Fax=770.604.9181

[25] ANALYSES REQUIRED (Include Method Numbers)

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	BTEX + MTBE by 8020B	PAHs by 8310	TPH by FL-PRO	Total Lead by 6010B		# of bottles	Sample Type	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use)
1	1159-MW15-BL-0401	MW-15	W	1/27	1100	C	14				1		1	N		1
2	1159-MW16-BL-0401	MW-16	W	1/27	1120	C	14				1		1	N		2
3	1159-MW20-BL-0401	MW-20	W	1/27	1330	C	14	3	2	2	1		8	N		3
4	1159-MW23-BL-0401	MW-23	W	1/27	1205	C	14				1		1	N		4
5	1159-MW24-BL-0401	MW-24	W	1/27	1255	C	14				1		1	N		5
6	1159-MW25-BL-0401	MW-25	W	1/27	1000	C	14				1		1	N		6
7	1159-MW29-BL-0401	MW-29	W	1/27	1015	C	14	3	2	2	1		8	N		7
8	1159-MW30-BL-0401	MW-30	W	1/27	1040	C	14	3	2	2	1		8	N		8
9	1159-MW39-BL-0401	MW-39	W	1/27	800	C	14	3	2	2	1		8	N		9
10	1159-MW51-BL-0401	MW-51	W	1/27	1000	C	14	3	2	2	1		8	N		10

[29] SAMPLER(S) AND COMPANY: (please print)
Phyllis Zerangue, Ch2M Hill Inc.
Taj Goodpaster, CH2M Hill, Inc.

[30] COURIER AND SHIPPING NUMBER:
FEDEX:

[31] SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use):
2°C good

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature: Phyllis Zerangue/CH2MHILL			Printed Name and Signature:		
Printed Name and Signature: [illegible]	1/28/04	1200	Printed Name and Signature:		
Printed Name and Signature: FedEx# 1ZE12282 1393283187	1/29/04	1050	Printed Name and Signature: [illegible]	1/29/04	1050

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CH2MHILL Constructors, Inc.
115 Perimeter Center Place, Suite 700
Atlanta, GA 30346-1278
Tel No: (770) 604-9182
Fax No: (770) 604-9282

CHAIN-OF-CUSTODY RECORD

[1] COC NUMBER: 166690-0401___-2

[2] PROJECT NAME:	[5] PROJECT NUMBER:	[8] LAB NAME AND CONTACT:	[11] FAX AND MAIL; COC Reports, Preliminary Data, & EDD TO::	[14] RECIPIENT 1 (Address, Tel No. , and Fax No.):
NAS Pensacola	166690.32.02.05.90	Gulf Coast Analytical, 7979 GSRI Ave., Baton Rouge, LA 70820	Russell Henderson, CH2M Hill, Constructors	115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346 Phone=770-604-9182 Fax=770.604.9181
[3] PROJECT PHASE/SITE/TASK:	[6] CTO OR DO NUMBER:	[9] LAB PO NUMBER:	[12] FAX AND MAIL Preliminary reports TO:: RECIPIENT 2 (Name and Company)	[15] RECIPIENT 2 (Address, Tel No. , and Fax No.):
Bronson Field, Site 1159	CTO-0071	PO # 6331	Phyllis Zerangue, CH2M Hill,Inc.	1766 Sea Lark Lane, Navarre, FL 32566 Phone=850-939-8300
[4] PROJECT CONTACT:	[7] PROJECT TEL NO AND FAX NO:	[10] LAB TEL NO AND FAX NO:	[11] FAX AND MAIL; COC Reports, Preliminary Data, & EDD TO::	[16] RECIPIENT 3 (Address, Tel No. , and Fax No.):
Greg Wilfley	770-604-9095 770-604-9181	225-769-5717	Bonnie Hogue, CH2M Hill, Constructors	115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346 Phone=770-604-9182 Fax=770.604.9181

[25] ANALYSES REQUIRED (Include Method Numbers)

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	BTEX + MTBE by 8020B	PAHs by 8310	TPH by FL-PRO	Total Lead by 6010B		# of bottles	Sample Type	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use)
1	1159-MW52-BL-0401	MW-52	W	1/27	900	C	14	3	2	2	1		8	N		11
2	1159-MW56-BL-0401	MW-56	W	1/27	1340	C	14	3	2	2	1		8	N		12
3	1159-MW57-BL-0401	MW-57	W	1/27	1445	C	14	3	2	2	1		8	N		13
4	1159-MW58-BL-0401	MW-58	W			C	14	3	2	2	1		8	N	No Sample	
5	1159-MW59-BL-0401	MW-59	W	1/27	800	C	14	3	2	2	1		8	N		14
6	1159-MW66-BL-0401	MW-66	W	1/28	915	C	14	3	2	2	1		8	N		15
7	1159-MW66-BL-0401-MS	MW-66	W	1/28	915	C	14	3	2	2	1		8	MS		16
8	1159-MW66-BL-0401-SD	MW-66	W	1/28	915	C	14	3	2	2	1		8	SD	MSD	17 18
9	1159-PreEB-1-BL-0401	Pre-Equipment Blank	W	1/27	900	C	14	3	2	2	1		8	EB		19
10	1159-PreEB-2-BL-0401	Pre-Equipment Blank	W			C	14	3	2	2	1		8	EB	No Sample	

[29] SAMPLER(S) AND COMPANY: (please print)	[30] COURIER AND SHIPPING NUMBER:	[31] SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use):
Phyllis Zerangue, Ch2M Hill Inc. Taj Goodpaster, CH2M Hill, Inc.	FEDEX:	2°C good

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature: Phyllis Zerangue/CH2MHILL			Printed Name and Signature:		
Printed Name and Signature:			Printed Name and Signature:		
Printed Name and Signature:	1/29/04	1100	Printed Name and Signature:		
UPS# 12E72282 13 9328 3177	1/29/04	1150	[signature]	1/29/04	1150

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Form CC1001, Rev 06/00

CH2MHILL Constructors, Inc.
115 Perimeter Center Place, Suite 700
Atlanta, GA 30346-1278
Tel No: (770) 604-9182
Fax No: (770) 604-9282

CHAIN-OF-CUSTODY RECORD

[1] COC NUMBER: 166690-0401 -3

[2] PROJECT NAME:	[5] PROJECT NUMBER:	[8] LAB NAME AND CONTACT:	[11] FAX AND MAIL; COC Reports, Preliminary Data, & EDD TO::	[14] RECIPIENT 1 (Address, Tel No. , and Fax No.):
NAS Pensacola	166690.32.02.05.90	Gulf Coast Analytical, 7979 GSRI Ave., Baton Rouge, LA 70820	Russell Henderson, CH2M Hill, Constructors	115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346 Phone=770-604-9182 Fax=770.604.9181
[3] PROJECT PHASE/SITE/TASK:	[6] CTO OR DO NUMBER:	[9] LAB PO NUMBER:	[12] FAX AND MAIL Preliminary reports TO:: RECIPIENT 2 (Name and Company)	[15] RECIPIENT 2 (Address, Tel No. , and Fax No.):
Bronson Field, Site 1159	CTO-0071	PO # 6331	Phyllis Zerangue, CH2M Hill,Inc.	1766 Sea Lark Lane, Navarre, FL 32566 Phone=850-939-8300
[4] PROJECT CONTACT:	[7] PROJECT TEL NO AND FAX NO:	[10] LAB TEL NO AND FAX NO:	[11] FAX AND MAIL; COC Reports, Preliminary Data, & EDD TO::	[16] RECIPIENT 3 (Address, Tel No. , and Fax No.):
Greg Wilfley	770-604-9095 770-604-9181	225-769-5717	Bonnie Hogue, CH2M Hill, Constructors	115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346 Phone=770-604-9182 Fax=770.604.9181

[25] ANALYSES REQUIRED (Include Method Numbers)

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	BTEX + MTBE by 8020B	PAHs by 8310	TPH by FL-PRO	Total Lead by 6010B		# of bottles	Sample Type	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use)
1	1159-FD-~~1~~-BL-0401	Field Dup	W	1/27	–	C	14				1		1	FD	–	20
2	1159-FD-~~2~~-BL-0401	Field Dup	W	1/28	–	C	14	3	2	2	1		8	FD		21
3	1159-TB-1-0401	Trip Blank	W	1/27	–	C	14	3					3	TB		22
4																
5																
6																
7																
8																
9																
10																

[29] SAMPLER(S) AND COMPANY; (please print)	[30] COURIER AND SHIPPING NUMBER:	[31] SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use):
Phyllis Zerangue, Ch2M Hill Inc. Taj Goodpaster, CH2M Hill, Inc.	FEDEX:	2°C Good

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature: Phyllis Zerangue/CH2MHILL			Printed Name and Signature:		
Printed Name and Signature:	1/28 00	1900	Printed Name and Signature:		
Printed Name and Signature: UPS# 12E72 88 13 9328 3787	1/29/04	1030	Printed Name and Signature:	1/29/04	1630

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Form CC1001, Rev 06/00

00576

NAS Pensacola

PREPARED FOR: NAS Pensacola / Bronson Field Site 1159 Pilot Study Soil Sampling

FINAL REVEIWER: Camden Robinson/ Associate Project Chemist/CCI

COPIES: Amy Twitty /Project Manager/CCI

DATE: June 15, 2004

SUBJECT: Quality Assessment for Samples Collected May 2004

This quality assurance memorandum is based upon a review of analytical data generated for soil samples and associated field quality control samples collected May 2004 at the Naval Air Station in Pensacola, Florida. The samples were collected as a part of the Bronson Field Site 1159 Pilot Study Soil sampling event conducted at the site. Table 1-1 presents a summary of the CCI sample identification numbers, laboratory sample identification numbers, dates of collection, and the analyses performed.

Gulf Coast Laboratory of Baton Rouge, Louisiana served as the laboratory for this Bronson Field Site 1159 Pilot Study Soil sampling event for the following analyses:

- Benzene, Etylbenzene, Toluene, Total Xylenes, and MTBE (BTEX + MTBE) by SW-846 method 8260B,
- Polyaromatic nuclear hydrocarbons (PAH) by HPLC method 8310,
- Total petroleum hydrocarbons (TPH) by method FL-PRO,
- Etractable petroleum hydrocarbons (EPH) by method EPH,
- Volatile petroleum hydrocarbons (EPH) by method VPH

Table 1-1 ***Summary Sample Data Reviewed NAS Pensacola***

Sample Number	Lab Sample ID	Date Sampled	Analysis Required
071-1159-AAS02-S-13-15	20405071301	05/06/2004	[1], [2], [4], [5]
071-1159-AAS04-S-9-11	20405071302	05/06/2004	[1]
071-1159-MW71-S-9-11	20405071303	05/04/2004	[1], [2], [4], [5]
071-1159-PreEB-W	20405071304	05/06/2004	[1], [2], [3]
071-1159-PreEB-W-2	20405071305	05/04/2004	[1], [2], [3]
071-1159-PostEB-W	20405071306	05/04/2004	[1], [2], [3]

Sample Number	Lab Sample ID	Date Sampled	Analysis Required
071-1159-TB-W	20405071307	05/04/2004	[1]
071-1159-POSTEB-W	20405133701	05/06/2004	[1]
071-1159-PreEB-W	20405133702	05/10/2004	[1], [2], [3]
071-1159-SVE02-S-13-15	20405133703	05/10/2004	[1], [2],[4], [5]

ANALYSES PERFORMED CODES:
[1] –Benzene, Ethylbenzene, Toluene, Total Xylenes, and MTBE (BTEX + MTBE) by method SW846 8021B,
[2] –Polyaromatic nuclear hydrocarbons (PAH) by HPLC method 8310,
[3] – Total Petroleum Hydrocarbons (TPH) by method FL-PRO,
[4]- Extractable petroleum hydrocarbons (EPH) by method EPH,
[5]- Volatile petroleum hydrocarbons (VPH) by method VPH

Data for the analyses were reviewed for adherence to the specified analytical protocols in accordance with CCI Sampling Analysis Plan. All analysis results have been validated or qualified according to general guidance provided in the " National Functional Guidelines for Organic and Inorganic Data Review," EPA 540/OR-99/008, October 1999 and EPA 540/R-94/013, February 1994. Additionally, the data were evaluated for adherence to the Department of Defense (DOD) Quality Systems Manual-Version 2 June 2002.

The findings of this quality assurance report are based upon the comprehensive review of the following results summaries reported according to the CCI Level C (CLP-like data deliverables format): chain of custody documentation, holding times, laboratory method and field blank analyses, surrogate compound recoveries, matrix spike compound recoveries and reproducibility, bromofluorobenzene (BFB) mass tuning results, initial and continuing calibration, second source recovery and internal standard area performance summaries, target compound identification, laboratory control sample results, laboratory and blind field duplicate sample results, detection limits/sensitivity, and electronic data deliverables.

The analyses were performed acceptably, but require several qualifying statements; it is recommended that the analytical data be used only with the qualifying statements provided below. Any aspects of the data, which are not discussed in this report, should be considered qualitatively and quantitatively valid as reported, based on the deliverables reviewed. A result summary report presenting the validated and qualified results is presented in Attachment I.

General Data Qualifiers

As required by U.S. EPA protocols, all compounds which were qualitatively identified at concentrations below their respective reporting limits (RL) but above the method detection limit (MDL) have been qualified with "J" qualifiers on the data summary reports to indicate that they are quantitative estimates.

Organic Data Qualifiers

The positive result reported for aliphatic >C8-C10 for sample 071-1159-AAS02-S-13-15 should be considered a biased high quantitative estimate and may be lower than reported. The associated recoveries for the client specific matrix spike (MS) and matrix spike duplicate (MSD) samples were above the established quality control (QC) limit for this analyte. The bias high recoveries for this compound indicate the possible presence of matrix interferences in samples of similar matrix. This has been indicated by placing a "J" qualifier next to aliphatic >C8-C10 for sample 071-1159-AAS02-S-13-15 on the data summary tables.

The samples presented below were analyzed or re-analyzed at dilutions for the volatile organic analysis. These dilutions were required to prevent saturation of the instrument and to allow quantitation of the compounds within the linear range of the calibration curve or to reduce the effects of the matrix on the target analyte. Positive results for these compounds in the samples below have been reported from the diluted analyses. All other results and quantitation limits have been reported on the sample report summary from the initial analysis. However, higher quantitation limits have resulted for specific volatile organic compounds, which were not detected, in these samples. This should be noted when assessing these samples for the qualitative absence of specific volatile organic compounds.

Sample ID	Analysis	Dilution Factor
071-1159-AAS02-S-13-15	BTEX + MTBE	100x
071-1159-MW71-S-9-11	BTEX + MTBE	50x
071-1159-AAS02-S-13-15	VPH	1000x
071-1159-MW71-S-9-11	VPH	1000x
071-1159-SVE02-S-13-15	VPH	1000x

Summary

The organic analyses were performed acceptably, but required qualifying statements. This analytical quality assurance report has identified the aspects of the data, which required qualification. These qualifiers are noted on the attached analytical sample summary reports. A support documentation package has been prepared for this quality assurance review and is filed with the NAS Pensacola CTO 71/Bronson Field Site 1159 Pilot Study Soil sampling project file.

Attachment I

VALID QUALIFIERS

QUALIFIER	
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit
J	The analyte was positively identified: the associated numerical value is the approximate concentration of the analyte in the sample.
N	The analysis indicates the presence of an analyte for which there was presumptive evidence to make a "tentative identification."
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
UJ	The analyte was not deemed above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
R/UR	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet the quality control criteria. The presence or absence of the analyte cannot be verified.
B	The analyte was detected in the associated method and/or calibration blank.
JB	The analyte detected in the associated field, equipment, and/or trip blank.

QUALIFICATION CODE REFERENCE

Qualifier	Organics	Inorganics
H	Holding times were exceeded.	Holding times were exceeded.
S	Surrogate recovery was outside QC limits.	The sequence or number of standards used for the calibration was incorrect.
C	Calibration %RSD or %D was noncompliant.	Correlation coefficient is <0.995.
K	Second source %D was noncompliant.	Second source %D was noncompliant.
R	Calibration RRF was <0.05.	%R for calibration is not within control limits.
MB	Presumed contamination from preparation (method) blank.	Presumed contamination from preparation (method) blank or calibration blank.
L	Laboratory Blank Spike/Blank Spike Duplicate %R was not within control limits.	Laboratory Control Sample %R was not within control limits.
Q	MS/MSD recovery was poor or high RPD.	MS/MSD recovery was poor or high RPD.
G	Result is over the calibration range. No other acceptable result was provided.	Result is over the calibration range. Not other acceptable result was provided.
E	Not applicable.	Lab duplicate RPD showed poor agreement.
Z	Field duplicate RPD showed poor agreement.	Field duplicate RPD showed poor agreement
I	Internal standard performance was unsatisfactory.	ICP ICS results were unsatisfactory.
A	Not applicable.	ICP Serial Dilution %D was not within control limits.
TN	Tuning (BFB or DFTPP) was noncompliant.	Not applicable.
T	Presumed contamination from trip blank.	Not applicable.
+	False positive—reported compound was not present.	Not applicable.
-	False negative—compound was present but not reported.	Not applicable.
F	Presumed contamination from FB or ER.	Presumed contamination from FB or ER.
$	Reported result or other information was incorrect.	Reported result or other information was incorrect.
?	TIC identity or reported retention time has been changed.	Not applicable.
D	The analysis with this flag should not be used because another more technically sound analysis is available.	The analysis with this flag should not be used because another more technically sound analysis is available.
P	Confirmation analysis RPD exceeded 40%.	Post Digestion Spike recovery was not within control limits.
T/D	Not applicable.	Total metals results were less than the dissolved metals result.
SD	Not applicable.	Seed correction factor was below the acceptable limit.
M	Reported values may be biased due to apparent matrix interferences. (AIR ANALYSIS ONLY)	Not applicable

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

071-1159-POSTEB-W

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 204051337

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20405133701

Level: (low/med) LOW

Lab File ID: 2040519/T9751

% Moisture: not dec.

Date Collected: 05/06/04 Time: 1630

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 05/12/04

Instrument ID: MSV1

Date Analyzed: 05/19/04 Time: 1133

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: RJO

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 274023

CONCENTRATION UNITS: ug/L

Analytical Method: SW-846 8260

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.225	0.500
100-41-4	Ethylbenzene	5.00	U	0.227	5.00
108-88-3	Toluene	5.00	U	0.213	5.00
1330-20-7	Xylene (total)	10.0	U	0.509	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.179	5.00

C.L.R

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

071-1159-PREEB-W

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 204051337

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20405133702

Level: (low/med) LOW

Lab File ID: 2040519/T9752

% Moisture: not dec.

Date Collected: 05/10/04 Time: 0830

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 05/12/04

Instrument ID: MSV1

Date Analyzed: 05/19/04 Time: 1157

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: RJO

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 274023

CONCENTRATION UNITS: ug/L

Analytical Method: SW-846 8260

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.225	0.500
100-41-4	Ethylbenzene	5.00	U	0.227	5.00
108-88-3	Toluene	5.00	U	0.213	5.00
1330-20-7	Xylene (total)	10.0	U	0.509	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.179	5.00

C.L.R

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

071-1159-SVE02-S-13-15

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 204051337

Matrix: (soil/water) Soil

Sample wt/vol: 6.11 (g/ml) g

Lab Sample ID: 20405133703

Level: (low/med) LOW

Lab File ID: 2040515/S7905

% Moisture: not dec. 19

Date Collected: 05/10/04 Time: 1020

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 05/12/04

Instrument ID: MSV4

Date Analyzed: 05/15/04 Time: 1359

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: KCB

Soil Aliquot Volume: (µL)

Prep Batch:

Analytical Batch: 274375

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/kg

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	5.08	U	0.106	5.08
100-41-4	Ethylbenzene	5.08	U	0.210	5.08
108-88-3	Toluene	5.08	U	0.559	5.08
1330-20-7	Xylene (total)	1.24	J	0.582	10.2
1634-04-4	tert-Butyl methyl ether (MTBE)	5.08	U	0.075	5.08

C.L.R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 970 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 273799 Analytical Batch: 274420

CONCENTRATION UNITS: ug/L

Sample ID: 071-1159-PREEB-W

Contract:

SAS No.: SDG No.: 204051337

Lab Sample ID: 20405133702

Date Collected: 05/10/04 Time: 0830

Date Received: 05/12/04

Date Extracted: 05/14/04

Date Analyzed: 05/20/04 Time: 0950

Dilution Factor: 1 Analyst: RLW

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 040520/H0006606

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	1.03	U	0.300	1.03
91-57-6	2-Methylnaphthalene	1.03	U	0.146	1.03
83-32-9	Acenaphthene	1.03	U	0.341	1.03
208-96-8	Acenaphthylene	1.03	U	0.158	1.03
120-12-7	Anthracene	0.103	U	0.025	0.103
56-55-3	Benzo(a)anthracene	0.103	U	0.033	0.103
50-32-8	Benzo(a)pyrene	0.103	U	0.034	0.103
205-99-2	Benzo(b)fluoranthene	0.103	U	0.016	0.103
191-24-2	Benzo(g,h,i)perylene	0.103	U	0.016	0.103
207-08-9	Benzo(k)fluoranthene	0.103	U	0.034	0.103
218-01-9	Chrysene	0.103	U	0.031	0.103
53-70-3	Dibenz(a,h)anthracene	0.103	U	0.030	0.103
206-44-0	Fluoranthene	0.103	U	0.045	0.103
86-73-7	Fluorene	0.515	U	0.102	0.515
193-39-5	Indeno(1,2,3-cd)pyrene	0.258	U	0.042	0.258
91-20-3	Naphthalene	0.258	U	0.128	0.258
85-01-8	Phenanthrene	0.103	U	0.026	0.103
129-00-0	Pyrene	0.103	U	0.035	0.103

C.L.R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Soil

Sample wt/vol: 30 Units: g

Level: (low/med) LOW

% Moisture: 19 decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 273845 Analytical Batch: 274420

Sample ID: 071-1159-SVE02-S-13-15

Contract:

SAS No.: SDG No.: 204051337

Lab Sample ID: 20405133703

Date Collected: 05/10/04 Time: 1020

Date Received: 05/12/04

Date Extracted: 05/15/04

Date Analyzed: 05/20/04 Time: 1133

Dilution Factor: 1 Analyst: RLW

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

CONCENTRATION UNITS: ug/kg

Lab File ID: 040520/H0006613

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	41.4	U	11.3	41.4
91-57-6	2-Methylnaphthalene	41.4	U	12.6	41.4
83-32-9	Acenaphthene	41.4	U	12.1	41.4
208-96-8	Acenaphthylene	41.4	U	4.62	41.4
120-12-7	Anthracene	4.10	U	0.585	4.10
56-55-3	Benzo(a)anthracene	4.10	U	1.48	4.10
50-32-8	Benzo(a)pyrene	4.10	U	1.38	4.10
205-99-2	Benzo(b)fluoranthene	4.10	U	0.895	4.10
191-24-2	Benzo(g,h,i)perylene	4.10	U	0.460	4.10
207-08-9	Benzo(k)fluoranthene	4.10	U	1.05	4.10
218-01-9	Chrysene	4.10	U	1.17	4.10
53-70-3	Dibenz(a,h)anthracene	4.10	U	1.10	4.10
206-44-0	Fluoranthene	4.10	U	1.14	4.10
86-73-7	Fluorene	20.8	U	4.36	20.8
193-39-5	Indeno(1,2,3-cd)pyrene	10.3	U	1.13	10.3
91-20-3	Naphthalene	10.3	U	3.83	10.3
85-01-8	Phenanthrene	4.10	U	1.12	4.10
129-00-0	Pyrene	4.10	U	0.592	4.10

C.L.R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 940 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 273800 Analytical Batch: 274199

CONCENTRATION UNITS: ug/L

Sample ID: 071-1159-PREEB-W

Contract:

SAS No.: SDG No.: 204051337

Lab Sample ID: 20405133702

Date Collected: 05/10/04 Time: 0830

Date Received: 05/12/04

Date Extracted: 05/14/04

Date Analyzed: 05/19/04 Time: 0740

Dilution Factor: 1 Analyst: TLS

Prep Method: FLORIDA PRO

Analytical Method: FLORIDA PRO

Sulfur Cleanup: (Y/N) N Instrument ID: GCS2A

Lab File ID: 2040518/SV2AD019S

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
FLPRO-01	Petroleum Hydrocarbons	106	U	43.3	106

C.L.R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Soil

Sample wt/vol: 10 Units: g

Level: (low/med)

% Moisture: 19 decanted: (Y/N)

GC Column: DB-5MS-30M ID: .25 (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 274192 Analytical Batch: 274234

CONCENTRATION UNITS: ug/kg

Sample ID: 071-1159-SVE02-S-13-15

Contract:

SAS No.: SDG No.: 204051337

Lab Sample ID: 20405133703

Date Collected: 05/10/04 Time: 1020

Date Received: 05/12/04

Date Extracted:

Date Analyzed: 05/25/04 Time: 0629

Dilution Factor: 1 Analyst: SAB

Prep Method:

Analytical Method: MASS EPH

Sulfur Cleanup: (Y/N) N Instrument ID: GCS14A

Lab File ID: 2040524/SV14038ARS

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
GCSV-02-1	Aliphatic >C10-C12	6210	U	487	6210
GCSV-02-1	Aliphatic >C12-C16	6210	U	1460	6210
GCSV-02-3	Aliphatic >C16-C35	24900	U	3130	24900
GCSV-02-1	Aromatic >C10-C12	6210	U	487	6210
GCSV-02-1	Aromatic >C12-C16	6210	U	1460	6210
GCSV-02-1	Aromatic >C16-C21	6210	U	3130	6210
GCSV-05-1	Aromatic >C21-C35	24900	U	3130	24900

C.L.R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Soil

Sample wt/vol: 6.45 Units: g

Level: (low/med)

% Moisture: 19 decanted: (Y/N)

GC Column: DB-624-30M ID: .53 (mm)

Concentrated Extract Volume: 5000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: Analytical Batch: 273987

CONCENTRATION UNITS: ug/kg

Sample ID: 071-1159-SVE02-S-13-15

Contract:

SAS No.: SDG No.: 204051337

Lab Sample ID: 20405133703

Date Collected: 05/10/04 Time: 1020

Date Received: 05/12/04

Date Extracted:

Date Analyzed: 05/19/04 Time: 0134

Dilution Factor: 1000 Analyst: JAR

Prep Method:

Analytical Method: MASSVPH

Sulfur Cleanup: (Y/N) N Instrument ID: GCV3A

Lab File ID: V3A009

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
GCSV-05-1	Aliphatic >C6-C8	29800		19300	28900
GCSV-02-1	Aliphatic >C8-C10	28900	U	18300	28900
GCSV-02-6	Aliphatic C5-C6	19300	U	19300	19300
GCSV-02-6	Aromatic >C7-C8	5590	J	3950	19300
GCSV-02-1	Aromatic >C8-C10	28900	U	3950	28900
GCSV-02-6	Aromatic C5-C7	28900	U	3950	28900

C.L.R

FORM I ORG-1

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

071-1159-AAS02-S-13-15

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 204050713

Matrix: (soil/water) Soil

Sample wt/vol: 5.63 (g/ml) g

Lab Sample ID: 20405071301

Level: (low/med) LOW

Lab File ID: 2040510/D5998

% Moisture: not dec. 13

Date Collected: 05/06/04 Time: 1310

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 05/07/04

Instrument ID: MSV5

Date Analyzed: 05/10/04 Time: 1317

Soil Extract Volume: (µL)

Dilution Factor: 100 Analyst: JCK

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 273488

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/kg

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	515	U	10.7	515
100-41-4	Ethylbenzene	1250		21.3	515
108-88-3	Toluene	935		56.6	515
1330-20-7	Xylene (total)	6290		58.9	1030
1634-04-4	tert-Butyl methyl ether (MTBE)	515	U	7.62	515

C.L.R

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

071-1159-AAS04-S-9-11

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 204050713

Matrix: (soil/water) Soil

Sample wt/vol: 6.37 (g/ml) g

Lab Sample ID: 20405071302

Level: (low/med) LOW

Lab File ID: 2040509/T2410

% Moisture: not dec. 15

Date Collected: 05/06/04 Time: 1615

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 05/07/04

Instrument ID: MSV0

Date Analyzed: 05/09/04 Time: 1446

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: RSP

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 273465

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/kg

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	4.66	U	0.097	4.66
100-41-4	Ethylbenzene	4.66	U	0.193	4.66
108-88-3	Toluene	4.66	U	0.513	4.66
1330-20-7	Xylene (total)	1.91	J	0.534	9.33
1634-04-4	tert-Butyl methyl ether (MTBE)	4.66	U	0.069	4.66

C.L.R

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

071-1159-MW71-S-9-11

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 204050713

Matrix: (soil/water) Soil

Sample wt/vol: 4.21 (g/ml) g

Lab Sample ID: 20405071303

Level: (low/med) LOW

Lab File ID: 2040510/D5999

% Moisture: not dec. 10

Date Collected: 05/04/04 Time: 1510

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 05/07/04

Instrument ID: MSV5

Date Analyzed: 05/10/04 Time: 1341

Soil Extract Volume: (µL)

Dilution Factor: 50 Analyst: JCK

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 273488

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/kg

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	331	U	6.89	331
100-41-4	Ethylbenzene	157	J	13.7	331
108-88-3	Toluene	331	U	36.4	331
1330-20-7	Xylene (total)	814		37.9	662
1634-04-4	tert-Butyl methyl ether (MTBE)	331	U	4.90	331

C.L.R

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

071-1159-PREEB-W

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 204050713

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20405071304

Level: (low/med) LOW

Lab File ID: 2040507/T9283

% Moisture: not dec.

Date Collected: 05/06/04 Time: 0900

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 05/07/04

Instrument ID: MSV1

Date Analyzed: 05/07/04 Time: 2012

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: RJO

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 273423

CONCENTRATION UNITS: ug/L

Analytical Method: SW-846 8260

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.225	0.500
100-41-4	Ethylbenzene	5.00	U	0.227	5.00
108-88-3	Toluene	5.00	U	0.213	5.00
1330-20-7	Xylene (total)	10.0	U	0.509	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.179	5.00

C.L.R

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

071-1159-PREEB-W-2

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 204050713

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20405071305

Level: (low/med) LOW

Lab File ID: 2040509/T9338

% Moisture: not dec.

Date Collected: 05/04/04 Time: 0945

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 05/07/04

Instrument ID: MSV1

Date Analyzed: 05/09/04 Time: 1606

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: MEF

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 273464

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.225	0.500
100-41-4	Ethylbenzene	5.00	U	0.227	5.00
108-88-3	Toluene	5.00	U	0.213	5.00
1330-20-7	Xylene (total)	10.0	U	0.509	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.179	5.00

C.L.R

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

071-1159-POSTEB-W

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 204050713

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20405071306

Level: (low/med) LOW

Lab File ID: 2040509/T9339

% Moisture: not dec.

Date Collected: 05/04/04 Time: 1700

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 05/07/04

Instrument ID: MSV1

Date Analyzed: 05/09/04 Time: 1630

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: MEF

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 273464

CONCENTRATION UNITS: ug/L

Analytical Method: SW-846 8260

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.225	0.500
100-41-4	Ethylbenzene	5.00	U	0.227	5.00
108-88-3	Toluene	5.00	U	0.213	5.00
1330-20-7	Xylene (total)	10.0	U	0.509	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.179	5.00

C.L.R

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

071-1159-TB-W

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 204050713

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20405071307

Level: (low/med) LOW

Lab File ID: 2040507/T9284

% Moisture: not dec.

Date Collected: Time:

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 05/07/04

Instrument ID: MSV1

Date Analyzed: 05/07/04 Time: 2035

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: RJO

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 273423

CONCENTRATION UNITS: ug/L

Analytical Method: SW-846 8260

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.225	0.500
100-41-4	Ethylbenzene	5.00	U	0.227	5.00
108-88-3	Toluene	5.00	U	0.213	5.00
1330-20-7	Xylene (total)	10.0	U	0.509	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.179	5.00

C.L.R

FORM I VOA

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Soil

Sample wt/vol: 30 Units: g

Level: (low/med) LOW

% Moisture: 13 decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 273531 Analytical Batch: 273762

Sample ID: 071-1159-AAS02-S-13-15

Contract:

SAS No.: SDG No.: 204050713

Lab Sample ID: 20405071301

Date Collected: 05/06/04 Time: 1310

Date Received: 05/07/04

Date Extracted: 05/11/04

Date Analyzed: 05/13/04 Time: 1155

Dilution Factor: 1 Analyst: RLW

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 040513/H0006545

CONCENTRATION UNITS: ug/kg

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	38.6	U	10.5	38.6
91-57-6	2-Methylnaphthalene	38.6	U	11.7	38.6
83-32-9	Acenaphthene	38.6	U	11.3	38.6
208-96-8	Acenaphthylene	38.6	U	4.31	38.6
120-12-7	Anthracene	3.82	U	0.546	3.82
56-55-3	Benzo(a)anthracene	3.82	U	1.38	3.82
50-32-8	Benzo(a)pyrene	3.82	U	1.29	3.82
205-99-2	Benzo(b)fluoranthene	3.82	U	0.834	3.82
191-24-2	Benzo(g,h,i)perylene	3.82	U	0.429	3.82
207-08-9	Benzo(k)fluoranthene	3.82	U	0.979	3.82
218-01-9	Chrysene	3.82	U	1.09	3.82
53-70-3	Dibenz(a,h)anthracene	3.82	U	1.02	3.82
206-44-0	Fluoranthene	3.82	U	1.06	3.82
86-73-7	Fluorene	19.4	U	4.07	19.4
193-39-5	Indeno(1,2,3-cd)pyrene	9.62	U	1.06	9.62
91-20-3	Naphthalene	9.62	U	3.57	9.62
85-01-8	Phenanthrene	3.82	U	1.04	3.82
129-00-0	Pyrene	3.82	U	0.552	3.82

C.L.R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Soil

Sample wt/vol: 30 Units: g

Level: (low/med) LOW

% Moisture: 10 decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 273531 Analytical Batch: 273762

CONCENTRATION UNITS: ug/kg

Sample ID: 071-1159-MW71-S-9-11

Contract:

SAS No.: SDG No.: 204050713

Lab Sample ID: 20405071303

Date Collected: 05/04/04 Time: 1510

Date Received: 05/07/04

Date Extracted: 05/11/04

Date Analyzed: 05/13/04 Time: 1202

Dilution Factor: 1 Analyst: RLW

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 040513/H0006546

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	37.1	U	10.1	37.1
91-57-6	2-Methylnaphthalene	37.1	U	11.3	37.1
83-32-9	Acenaphthene	37.1	U	10.8	37.1
208-96-8	Acenaphthylene	37.1	U	4.15	37.1
120-12-7	Anthracene	3.68	U	0.525	3.68
56-55-3	Benzo(a)anthracene	3.68	U	1.33	3.68
50-32-8	Benzo(a)pyrene	3.68	U	1.24	3.68
205-99-2	Benzo(b)fluoranthene	3.68	U	0.803	3.68
191-24-2	Benzo(g,h,i)perylene	3.68	U	0.413	3.68
207-08-9	Benzo(k)fluoranthene	3.68	U	0.942	3.68
218-01-9	Chrysene	3.68	U	1.05	3.68
53-70-3	Dibenz(a,h)anthracene	3.68	U	0.983	3.68
206-44-0	Fluoranthene	3.68	U	1.02	3.68
86-73-7	Fluorene	18.6	U	3.91	18.6
193-39-5	Indeno(1,2,3-cd)pyrene	9.25	U	1.02	9.25
91-20-3	Naphthalene	9.25	U	3.43	9.25
85-01-8	Phenanthrene	3.68	U	1.00	3.68
129-00-0	Pyrene	3.68	U	0.531	3.68

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 273489 Analytical Batch: 273749

Sample ID: 071-1159-PREEB-W

Contract:

SAS No.: SDG No.: 204050713

Lab Sample ID: 20405071304

Date Collected: 05/06/04 Time: 0900

Date Received: 05/07/04

Date Extracted: 05/10/04

Date Analyzed: 05/11/04 Time: 1148

Dilution Factor: 1 Analyst: RLW

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

CONCENTRATION UNITS: ug/L

Lab File ID: 040511/H0006507

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

C.L.R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 273489 Analytical Batch: 273749

CONCENTRATION UNITS: ug/L

Sample ID: 071-1159-PREEB-W-2

Contract:

SAS No.: SDG No.: 204050713

Lab Sample ID: 20405071305

Date Collected: 05/04/04 Time: 0945

Date Received: 05/07/04

Date Extracted: 05/10/04

Date Analyzed: 05/11/04 Time: 1155

Dilution Factor: 1 Analyst: RLW

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 040511/H0006508

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

C.L.R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 273489 Analytical Batch: 273749

Sample ID: 071-1159-POSTEB-W

Contract:

SAS No.: SDG No.: 204050713

Lab Sample ID: 20405071306

Date Collected: 05/04/04 Time: 1700

Date Received: 05/07/04

Date Extracted: 05/10/04

Date Analyzed: 05/11/04 Time: 1202

Dilution Factor: 1 Analyst: RLW

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 040511/H0006509

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

C.L.R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 273490 Analytical Batch: 274199

Sample ID: 071-1159-PREEB-W

Contract:

SAS No.: SDG No.: 204050713

Lab Sample ID: 20405071304

Date Collected: 05/06/04 Time: 0900

Date Received: 05/07/04

Date Extracted: 05/10/04

Date Analyzed: 05/19/04 Time: 0154

Dilution Factor: 1 Analyst: TLS

Prep Method: FLORIDA PRO

Analytical Method: FLORIDA PRO

Sulfur Cleanup: (Y/N) N Instrument ID: GCS2A

Lab File ID: 2040518/SV2AD013S

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
FLPRO-01	Petroleum Hydrocarbons	89.0	J	40.7	100

C.L.R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 273490 Analytical Batch: 274199

CONCENTRATION UNITS: *ug/L*

Sample ID: 071-1159-PREEB-W-2

Contract:

SAS No.: SDG No.: 204050713

Lab Sample ID: 20405071305

Date Collected: 05/04/04 Time: 0945

Date Received: 05/07/04

Date Extracted: 05/10/04

Date Analyzed: 05/19/04 Time: 0252

Dilution Factor: 1 Analyst: TLS

Prep Method: FLORIDA PRO

Analytical Method: FLORIDA PRO

Sulfur Cleanup: (Y/N) N Instrument ID: GCS2A

Lab File ID: 2040518/SV2AD014S

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
FLPRO-01	Petroleum Hydrocarbons	81.0	J	40.7	100

C.L.R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 273490 Analytical Batch: 274199

Sample ID: 071-1159-POSTEB-W

Contract:

SAS No.: SDG No.: 204050713

Lab Sample ID: 20405071306

Date Collected: 05/04/04 Time: 1700

Date Received: 05/07/04

Date Extracted: 05/10/04

Date Analyzed: 05/19/04 Time: 0350

Dilution Factor: 1 Analyst: TLS

Prep Method: FLORIDA PRO

Analytical Method: FLORIDA PRO

Sulfur Cleanup: (Y/N) N Instrument ID: GCS2A

Lab File ID: 2040518/SV2AD015S

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
FLPRO-01	Petroleum Hydrocarbons	61.0	J	40.7	100

C.L.R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Soil

Sample wt/vol: 10 Units: g

Level: (low/med)

% Moisture: 13 decanted: (Y/N)

GC Column: DB-5MS-30M ID: .25 (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 273807 Analytical Batch: 274234

Sample ID: 071-1159-AAS02-S-13-15

Contract:

SAS No.: SDG No.: 204050713

Lab Sample ID: 20405071301

Date Collected: 05/06/04 Time: 1310

Date Received: 05/07/04

Date Extracted:

Date Analyzed: 05/24/04 Time: 2108

Dilution Factor: 1 Analyst: TLS

Prep Method:

Analytical Method: MASS EPH

Sulfur Cleanup: (Y/N) N Instrument ID: GCS14A

Lab File ID: 2040524/SV14019ARS

CONCENTRATION UNITS: ug/kg

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
GCSV-02-1	Aliphatic >C10-C12	5790	U	454	5790
GCSV-02-1	Aliphatic >C12-C16	5790	U	1360	5790
GCSV-02-3	Aliphatic >C16-C35	23200	U	2910	23200
GCSV-02-1	Aromatic >C10-C12	5790	U	454	5790
GCSV-02-1	Aromatic >C12-C16	5790	U	1360	5790
GCSV-02-1	Aromatic >C16-C21	5790	U	2910	5790
GCSV-05-1	Aromatic >C21-C35	23200	U	2910	23200

C.L.R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Soil

Sample wt/vol: 10 Units: g

Level: (low/med)

% Moisture: 10 decanted: (Y/N)

GC Column: DB-5MS-30M ID: .25 (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 273807 Analytical Batch: 274234

CONCENTRATION UNITS: ug/kg

Sample ID: 071-1159-MW71-S-9-11

Contract:

SAS No.: SDG No.: 204050713

Lab Sample ID: 20405071303

Date Collected: 05/04/04 Time: 1510

Date Received: 05/07/04

Date Extracted:

Date Analyzed: 05/24/04 Time: 2237

Dilution Factor: 1 Analyst: TLS

Prep Method:

Analytical Method: MASS EPH

Sulfur Cleanup: (Y/N) N Instrument ID: GCS14A

Lab File ID: 2040524/SV14022ARS

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
GCSV-02-1	Aliphatic >C10-C12	5570	U	437	5570
GCSV-02-1	Aliphatic >C12-C16	5570	U	1310	5570
GCSV-02-3	Aliphatic >C16-C35	22300	U	2800	22300
GCSV-02-1	Aromatic >C10-C12	5570	U	437	5570
GCSV-02-1	Aromatic >C12-C16	5570	U	1310	5570
GCSV-02-1	Aromatic >C16-C21	5570	U	2800	5570
GCSV-05-1	Aromatic >C21-C35	22300	U	2800	22300

C.L.R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Soil

Sample wt/vol: 10 Units: g

Level: (low/med)

% Moisture: decanted: (Y/N)

GC Column: DB-5MS-30M ID: .25 (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 273807 Analytical Batch: 274234

Sample ID: MB165885

Contract:

SAS No.: SDG No.: 204050713

Lab Sample ID: 165885

Date Collected: Time:

Date Received:

Date Extracted:

Date Analyzed: 05/24/04 Time: 1936

Dilution Factor: 1 Analyst: TLS

Prep Method:

Analytical Method: MASS EPH

Sulfur Cleanup: (Y/N) N Instrument ID: GCS14A

Lab File ID: 2040519/SV14016RS

CONCENTRATION UNITS: ug/kg

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
GCSV-02-1	Aliphatic >C10-C12	5000	U	392	5000
GCSV-02-1	Aliphatic >C12-C16	5000	U	1180	5000
GCSV-02-3	Aliphatic >C16-C35	20000	U	2520	20000
GCSV-02-1	Aromatic >C10-C12	5000	U	392	5000
GCSV-02-1	Aromatic >C12-C16	5000	U	1180	5000
GCSV-02-1	Aromatic >C16-C21	5000	U	2520	5000
GCSV-05-1	Aromatic >C21-C35	20000	U	2520	20000

C.L.P

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Soil

Sample wt/vol: 5.63 Units: g

Level: (low/med)

% Moisture: 13 decanted: (Y/N)

GC Column: DB-624-30M ID: .53 (mm)

Concentrated Extract Volume: 5000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: Analytical Batch: 273987

CONCENTRATION UNITS: ug/kg

Sample ID: 071-1159-AAS02-S-13-15

Contract:

SAS No.: SDG No.: 204050713

Lab Sample ID: 20405071301

Date Collected: 05/06/04 Time: 1310

Date Received: 05/07/04

Date Extracted:

Date Analyzed: 05/18/04 Time: 2356

Dilution Factor: 1000 Analyst: RLW

Prep Method:

Analytical Method: MASSVPH

Sulfur Cleanup: (Y/N) N Instrument ID: GCV3A

Lab File ID: V3A005

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
GCSV-05-1	Aliphatic >C6-C8	369000		20600	30900
GCSV-02-1	Aliphatic >C8-C10	49600	J	19600	30900
GCSV-02-6	Aliphatic C5-C6	38900		20600	20600
GCSV-02-6	Aromatic >C7-C8	58200		4220	20600
GCSV-02-1	Aromatic >C8-C10	17800	J	4220	30900
GCSV-02-6	Aromatic C5-C7	23900	J	4220	30900

Q

C.L.R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Soil

Sample wt/vol: 4.21 Units: g

Level: (low/med)

% Moisture: 10 decanted: (Y/N)

GC Column: DB-624-30M ID: .53 (mm)

Concentrated Extract Volume: 5000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: Analytical Batch: 273987

Sample ID: 071-1159-MW71-S-9-11

Contract:

SAS No.: SDG No.: 204050713

Lab Sample ID: 20405071303

Date Collected: 05/04/04 Time: 1510

Date Received: 05/07/04

Date Extracted:

Date Analyzed: 05/19/04 Time: 0110

Dilution Factor: 1000 Analyst: JAR

Prep Method:

Analytical Method: MASSVPH

Sulfur Cleanup: (Y/N) N Instrument ID: GCV3A

Lab File ID: V3A008

CONCENTRATION UNITS: ug/kg

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
GCSV-05-1	Aliphatic >C6-C8	71900		26500	39700
GCSV-02-1	Aliphatic >C8-C10	39700	U	25200	39700
GCSV-02-6	Aliphatic C5-C6	26500	U	26500	26500
GCSV-02-6	Aromatic >C7-C8	12700	J	5430	26500
GCSV-02-1	Aromatic >C8-C10	11800	J	5430	39700
GCSV-02-6	Aromatic C5-C7	39700	U	5430	39700

C.L.R

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
20405071301	071-1159-AAS02-S-13-15	Solid	05/06/2004 13:10	05/07/2004 09:45

2540 G Total Moisture - Solid

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			1	05/10/2004 08:40	AEL	273581

CAS#	Parameter	Result	RDL	MDL	Units
WET-037	Total Moisture	13.7	0.010	0.010	%

RESULTS REPORTED ON A DRY WEIGHT BASIS

C.L.R

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
20405071302	071-1159-AAS04-S-9-11	Solid	05/06/2004 16:15	05/07/2004 09:45

2540 G Total Moisture - Solid

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			1	05/10/2004 08:40	AEL	273581

CAS#	Parameter	Result	RDL	MDL	Units
WET-037	Total Moisture	15.8	0.010	0.010	%

RESULTS REPORTED ON A DRY WEIGHT BASIS

C.L.R

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
20405071303	071-1159-MW71-S-9-11	Solid	05/04/2004 15:10	05/07/2004 09:45

2540 G Total Moisture - Solid

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			1	05/10/2004 08:40	AEL	273581

CAS#	Parameter	Result	RDL	MDL	Units
WET-037	Total Moisture	10.3	0.010	0.010	%

RESULTS REPORTED ON A DRY WEIGHT BASIS

C.L.R

CHCUK Hill / 1580 / 204051337 / 1 Due 5/20/04

CH2MHILL Constructors, Inc.
115 Perimeter Center Place, Suite 700
Atlanta, GA 30346-1278
Tel No: (770) 604-9182
Fax No: (770) 604-9282

CHAIN-OF-CUSTODY RECORD

[1] COC NUMBER: **266690-040511-01**

[2] PROJECT NAME:	[5] PROJECT NUMBER:	[8] LAB NAME AND CONTACT:	[11] FAX AND MAIL; COC Reports, Preliminary Data, & EDD TO::	[14] RECIPIENT 1 (Address, Tel No. , and Fax No.):
NAS Pensacola	266690	Gulf Coast Analytical, 7979 GSRI Ave., Baton Rouge, LA 70820	Russell Henderson, CH2M Hill, Constructors	115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346 Phone=770-604-9182 Fax=770.604.9181
[3] PROJECT PHASE/SITE/TASK:	[6] CTO OR DO NUMBER:	[9] LAB PO NUMBER:	[12] FAX AND MAIL Preliminary reports TO:: RECIPIENT 2 (Name and Company)	[15] RECIPIENT 2 (Address, Tel No. , and Fax No.):
Bronson Field, Site 1159	CTO-0071	PO # 6331	Phyllis Zerangue, CH2M Hill,Inc.	1766 Sea Lark Lane, Navarre, FL 32566 Phone=850-939-8300
[4] PROJECT CONTACT:	[7] PROJECT TEL NO AND FAX NO:	[10] LAB TEL NO AND FAX NO:	[11] FAX AND MAIL; COC Reports, Preliminary Data, & EDD TO::	[16] RECIPIENT 3 (Address, Tel No. , and Fax No.):
Bonnie Hogue	770-604-9095 770-604-9182	225-769-4900	Bonnie Hogue, CH2M Hill, Constructors	115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346 Phone=770-604-9182 Fax=770.604.9181

[25] ANALYSES REQUIRED (Include Method Numbers)

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	BTEX + MTBE by 5035/8260B, (3)40 ml vials	PAHs by 8310 TRPH (Speciated) 16oz WM glass	BTEX + MTBE by 5035/8260B, (3)40 ml vials	PAHs by8310 (1) L Amber	TPH (speciated) 1L Amber	Sample Thype	[27] COMMENTS/ SCREENING READINGS 204051337-	[28] LAB ID (for lab's use)
~~1~~	~~071-1159-PostEB-W~~	~~Post Equipment Blank~~	~~W~~	~~05/06/04~~	~~1630~~	~~C~~	~~14~~			~~X~~	~~X~~	~~X~~	~~EB~~		~~-1~~
2	071-1159-PreEB-W	Pre Equipment Blank	W	05/10/04	0830	C	14			X	X	X	EB		2
3	071-1159-SVE02-S-13-15'	SVE-02, 13-15' bls	S	05/10/04	1020	C	14	X	X				N		3
4	~~071-1159-PostEB-W~~	~~Post Equipment Blank~~	~~W~~	~~05/10/04~~	~~1600~~	~~C~~	~~14~~			~~X~~	~~X~~	~~X~~	~~EB~~	NOT SENT.	
5	071-1159-PostEB-W	Post Equipment Blk	W	05/06/04	16:30	C	14			X			EB		1
6															
7															
8															
9															
10															

[29] SAMPLER(S) AND COMPANY: (please print)
Ryan Bitely/CH2MHILL Scott Dunbar/CH2MHILL

[30] COURIER AND SHIPPING NUMBER:
FEDEX:

[31] SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use):
4°C

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature: Scott Dunbar	5-11-04	1630	Printed Name and Signature:		
Printed Name and Signature: Fed Ex # 8470022269891	5/12/04	0930	Printed Name and Signature: Donna Kincher	5/12/04	0930
Printed Name and Signature:			Printed Name and Signature:		

Distribution: [ ] Original - Laboratory (To be returned with Analytical Report); [ ] Copy 1 - Project File; [ ] Copy 2 - PMO

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CH2M Hill / 7580 / 040503113 / Due 5/17/04

CH2MHILL Constructors, Inc.
115 Perimeter Center Place, Suite 700
Atlanta, GA 30346-1278
Tel No: (770) 604-9182
Fax No: (770) 604-9282

CHAIN-OF-CUSTODY RECORD

[1] COC NUMBER: **266690-040504-01**

[2] PROJECT NAME:	[5] PROJECT NUMBER:	[8] LAB NAME AND CONTACT:	[11] FAX AND MAIL; COC Reports, Preliminary Data, & EDD TO::	[14] RECIPIENT 1 (Address, Tel No. , and Fax No.):
NAS Pensacola	266690	Gulf Coast Analytical, 7979 GSRI Ave., Baton Rouge, LA 70820	Russell Henderson, CH2M Hill, Constructors	115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346 Phone=770-604-9182 Fax=770.604.9181
[3] PROJECT PHASE/SITE/TASK:	[6] CTO OR DO NUMBER:	[9] LAB PO NUMBER:	[12] FAX AND MAIL Preliminary reports TO:: RECIPIENT 2 (Name and Company)	[15] RECIPIENT 2 (Address, Tel No. , and Fax No.):
Bronson Field, Site 1159	CTO-0071	PO # 6331	Phyllis Zerangue, CH2M Hill,Inc.	1766 Sea Lark Lane, Navarre, FL 32566 Phone=850-939-8300
[4] PROJECT CONTACT:	[7] PROJECT TEL NO AND FAX NO:	[10] LAB TEL NO AND FAX NO:	[11] FAX AND MAIL; COC Reports, Preliminary Data, & EDD TO::	[16] RECIPIENT 3 (Address, Tel No. , and Fax No.):
Bonnie Hogue	770-604-9095 770-604-9182	225-769-4900	Bonnie Hogue, CH2M Hill, Constructors	115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346 Phone=770-604-9182 Fax=770.604.9181

[25] ANALYSES REQUIRED (Include Method Numbers)

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	BTEX + MTBE by 5035/8260B, (3)40 ml vials	PAHs by 8310 TRPH (Speciated) 16oz WM glass	BTEX + MTBE by 5035/8260B, (3)40 ml vials	PAHs by8310 (1) L Amber	TPH (speciated) 1L Amber	Sample Type	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use)
1	✓ 071-1159-PreEB-W	Pre Equipment Blank	W	05/04/04	0945	C	14			X	X	X	EB	204050713-	5
2	✓ 071-1159-MW71-S-9-11'	MW-71, 9-11' bls	S	05/04/04	1510	C	14	X	X				N		3
3	071-1159-PostEB-W	Post Equipment Blank	~~S~~ W	05/04/04	1700	C	14			X	X	X	EB		6
4	✓ 071-1159-TB-W	Trip Blank	W	lab	none	C	14			X			TB		7
5															
6															
7															
8															
9															
10															

266692 000

[29] SAMPLER(S) AND COMPANY: (please print)	[30] COURIER AND SHIPPING NUMBER:	[31] SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use):
Ryan Bitely/CH2MHILL Scott Dunbar/CH2MHILL	FEDEX: 8451-5482-8050	3°C Good

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
Scott Dunbar	5-6-04	1730			
Printed Name and Signature:			Printed Name and Signature:		
FedEx#847002225848	5/7/04	0945	Anna Kincher	5/7/04	0945
Printed Name and Signature:			Printed Name and Signature:		

Distribution: [ ] Original - Laboratory (To be returned with Analytical Report); [ ] Copy 1 - Project File; [ ] Copy 2 - PMO

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CMCOC Hill / 4580 / 0040506113 / DLR 5/11/04

CH2MHILL Constructors, Inc.

115 Perimeter Center Place, Suite 700
Atlanta, GA 30346-1278
Tel No: (770) 604-9182
Fax No: (770) 604-9282

CHAIN-OF-CUSTODY RECORD

[1] COC NUMBER: **266690-040506-01**

[2] PROJECT NAME:	[5] PROJECT NUMBER:	[8] LAB NAME AND CONTACT:	[11] FAX AND MAIL; COC Reports, Preliminary Data, & EDD TO::	[14] RECIPIENT 1 (Address, Tel No. , and Fax No.):
NAS Pensacola	266690	Gulf Coast Analytical, 7979 GSRI Ave., Baton Rouge, LA 70820	Russell Henderson, CH2M Hill, Constructors	115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346 Phone=770-604-9182 Fax=770.604.9181
[3] PROJECT PHASE/SITE/TASK:	[6] CTO OR DO NUMBER:	[9] LAB PO NUMBER:	[12] FAX AND MAIL Preliminary reports TO:: RECIPIENT 2 (Name and Company)	[15] RECIPIENT 2 (Address, Tel No. , and Fax No.):
Bronson Field, Site 1159	CTO-0071	PO # 6331	Phyllis Zerangue, CH2M Hill,Inc.	1766 Sea Lark Lane, Navarre, FL 32566 Phone=850-939-8300
[4] PROJECT CONTACT:	[7] PROJECT TEL NO AND FAX NO:	[10] LAB TEL NO AND FAX NO:	[11] FAX AND MAIL; COC Reports, Preliminary Data, & EDD TO::	[16] RECIPIENT 3 (Address, Tel No. , and Fax No.):
Bonnie Hogue	770-604-9095 770-604-9182	225-769-4900	Bonnie Hogue, CH2M Hill, Constructors	115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346 Phone=770-604-9182 Fax=770.604.9181

[25] ANALYSES REQUIRED (Include Method Numbers)

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	BTEX + MTBE by 5035/8260B, (3)40 ml vials	PAHs by 8310 TRPH (Speciated) 16oz WM glass	BTEX + MTBE by 5035/8260B, (3)40 ml vials	PAHs by8310 (1) L Amber	TPH (speciated) 1L Amber	Sample Type	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use)
1	✓ 071-1159-PreEB-W-2	Pre Equipment Blank	W	05/06/04	0900	C	14			X	X	X	EB	20405071B-	4
2	✓ 071-1159-AAS02-S-13-15'	AAS-02, 13-15' bls	S	05/06/04	1310	C	14	X	X				N		1
3	✓ 071-1159-AAS04-S-9-11'	AAS-04, 9-11' bls	S	05/06/04	1615	C	14	X					N		2
4	~~071-1159-PostEB-W~~	~~Post Equipment Blank~~	~~W~~	~~05/06/04~~	~~1630~~	~~C~~	~~14~~			~~X~~	~~X~~	~~X~~	~~EB~~	DMM	
5															
6															
7															
8															
9															
10															

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[29] SAMPLER(S) AND COMPANY: (please print)	[30] COURIER AND SHIPPING NUMBER:	[31] SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use):
Ryan Bitely/CH2MHILL Scott Dunbar/CH2MHILL	FEDEX: 8451-5482-8050	3°C Good

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
Scott Dunbar Scott Dunbar	5-6-04	1730	Fed-Ex		
Printed Name and Signature:			Printed Name and Signature:		
Fed Ex # 847002225848	5/7/04	0945	Anna Kirchen Anna Kirchen	5/7/04	0945
Printed Name and Signature:			Printed Name and Signature:		

Distribution: [ ] Original - Laboratory (To be returned with Analytical Report); [ ] Copy 1 - Project File; [ ] Copy 2 - PMO

Form CCI001, Rev 06/00

NAS Pensacola

PREPARED FOR: NAS Pensacola / Bronson Field Site 1159

FINAL REVEIWER: Camden Robinson/ Associate Project Chemist/CCI

COPIES: Greg Wilfley /Project Manager/CCI

DATE: June 28, 2004

SUBJECT: Quality Assessment for Samples Collected May 2004

This quality assurance memorandum is based upon a review of analytical data generated for soil and groundwater samples and associated field quality control samples collected May 2004 at the Naval Air Station in Pensacola, Florida. The samples were collected as a part of the Bronson Field Site 1159 sampling event conducted at the site. Table 1-1 presents a summary of the CCI sample identification numbers, laboratory sample identification numbers, dates of collection, and the analyses performed.

Gulf Coast Laboratory of Baton Rouge, Louisiana served as the laboratory for this Bronson Field Site 1159 sampling event for the following analyses:

- Benzene, Etylbenzene, Toluene, Total Xylenes, and MTBE (BTEX + MTBE) by SW-846 method 8260B,
- Polyaromatic nuclear hydrocarbons (PAH) by HPLC method 8310,
- Total petroleum hydrocarbons (TPH) by method FL-PRO,
- Extractable petroleum hydrocarbons (EPH) by method EPH,
- Volatile petroleum hydrocarbons (VPH) by method VPH,
- Lead by method SW-846 6010B

Table 1-1 ***Summary Sample Data Reviewed***
NAS Pensacola

Sample Number	Lab Sample ID	Date Sampled	Analysis Required
071-1159-PreEB-W-051204	20405134101	05/12/2004	[1], [2], [3]
071-1159-AAS01-S-11-13'	20405134102	05/12/2004	[1], [2], [4], [5]
071-1159-AAS05-S-18-20	20405134103	05/12/2004	[1], [2], [4], [5]
*071-1159-AAS0?-S-Dup	20405134104	05/12/2004	[1], [2], [4], [5]
071-1159-PreEB-W-0405	20405281101	05/27/2004	[1], [2], [3], [6]
071-1159-MW70-W-0405	20405281102	05/27/2004	[1], [2], [3], [6]

Sample Number	Lab Sample ID	Date Sampled	Analysis Required
071-1159-MW71-W-0405	20405281103	05/27/2004	[1], [2], [3], [6]
071-1159-MW72-W-0405	20405281104	05/27/2004	[1], [2], [3], [6]
071-1159-MW73-W-0405	20405281105	05/27/2004	[1], [2], [3], [6]
071-1159-MW74-W-0405	20405281106	05/27/2004	[1], [2], [3], [6]
071-1159-MW75-W-0405	20405281107	05/27/2004	[1], [2], [3], [6]
**071-1159-FD-W-0405	20405281111	05/27/2004	[1], [2], [3], [6]
071-1159-TripBlk-W-0405	20405281112	05/27/2004	[1]

ANALYSES PERFORMED CODES:
[1] –Benzene, Ethylbenzene, Toluene, Total Xylenes, and MTBE (BTEX + MTBE) by method SW846 8021B,
[2] –Polyaromatic nuclear hydrocarbons (PAH) by HPLC method 8310,
[3] – Total Petroleum Hydrocarbons (TPH) by method FL-PRO,
[4]- Extractable petroleum hydrocarbons (EPH) by method EPH,
[5]- Volatile petroleum hydrocarbons (VPH) by method VPH,
[6] – Lead by method SW-846 6010B,
** 071-1159-AAS0?-S-Dup is the blind field duplicate to sample 071-1159-AAS01-S-11-13,*
***071-1159-FD-W-0405 is te blind field duplicate to sample 071-1159-MW71-W-0405*

Data for the analyses were reviewed for adherence to the specified analytical protocols in accordance with CCI Sampling Analysis Plan. All analysis results have been validated or qualified according to general guidance provided in the " National Functional Guidelines for Organic and Inorganic Data Review," EPA 540/OR-99/008, October 1999 and EPA 540/R-94/013, February 1994. Additionally, the data were evaluated for adherence to the Department of Defense (DOD) Quality Systems Manual-Version 2 June 2002.

The findings of this quality assurance report are based upon the comprehensive review of the following results summaries reported according to the CCI Level C (CLP-like data deliverables format): chain of custody documentation, holding times, laboratory method and field blank analyses, surrogate compound recoveries, matrix spike compound recoveries and reproducibility, bromofluorobenzene (BFB) mass tuning results, initial and continuing calibration, second source recovery and internal standard area performance summaries, target compound identification, laboratory control sample results, laboratory and blind field duplicate sample results, detection limits/sensitivity, ICP interference check sample results, ICP serial dilution results, metals post digestion spikes, and electronic data deliverables.

The analyses were performed acceptably, but require several qualifying statements; it is recommended that the analytical data be used only with the qualifying statements provided below. Any aspects of the data, which are not discussed in this report, should be considered qualitatively and quantitatively valid as reported, based on the deliverables reviewed. A result summary report presenting the validated and qualified results is presented in Attachment I.

General Data Qualifiers

As required by U.S. EPA protocols, all compounds which were qualitatively identified at concentrations below their respective reporting limits (RL) but above the method detection limit (MDL) have been qualified with "J" qualifiers on the data summary reports to indicate that they are quantitative estimates.

Organic Data Qualifiers

The positive results reported for the fla-pro analysis in the samples listed below should be considered quantitative estimates. High percent relative standard deviations during the continuing calibrations were reported during the fla-pro analysis. Lack of precision during the continuing calibration indicates instrument instability; therefore a "J" qualifier was appended to the samples listed below to indicate that the reported values are quantitative estimates.

Compound	Affected Samples
FLA-PRO	071-1159-MW70-W-0405, 071-1159-MW71-W-0405, 071-1159-MW72-W-0405, 071-1159-MW73-W-0405, 071-1159-MW74-W-0405, 071-1159-MW75-W-0405, and 071-1159-FD-W-0405

The positive results for toluene and fla-pro reported in the samples listed below are considered estimated due to the level at which these compounds were present in the associated equipment blank. This has been indicated by placing a "JB" qualifier next to the quantitative results for toluene and fla-pro in the samples listed below on the data summary tables.

Compound	Affected Samples
Toluene	071-1159-MW71-W-0405 and 071-1159-FD-W-0405
FLA-PRO	071-1159-MW70-W-0405, 071-1159-MW71-W-0405, 071-1159-MW72-W-0405, 071-1159-MW73-W-0405, 071-1159-MW74-W-0405, 071-1159-MW75-W-0405, and 071-1159-FD-W-0405

The samples presented below were analyzed or re-analyzed at dilutions for the volatile organic analysis. These dilutions were required to prevent saturation of the instrument and to allow quantitation of the compounds within the linear range of the calibration curve or to reduce the effects of the matrix on the target analyte. Positive results for these compounds in the samples below have been reported from the diluted analyses. All other results and quantitation limits have been reported on the sample report summary from the initial analysis. However, higher quantitation limits have resulted for specific volatile organic compounds, which were not detected, in these samples. This should be noted when assessing these samples for the qualitative absence of specific volatile organic compounds.

Sample ID	Analysis	Dilution Factor
071-1159-AAS01-S-11-13	BTEX + MTBE	100x
071-1159-AAS0?-S-DUP	BTEX + MTBE	100x
071-1159-AAS05-S-18-20	BTEX + MTBE	500x
071-1159-AAS01-S-11-13	VPH	40000x
071-1159-AAS05-S-18-20	VPH	40000x
071-1159-AAS0?-S-DUP	VPH	5000x
071-1159-MW70-W-0405	BTEX + MTBE	2x
071-1159-MW71-W-0405	BTEX + MTBE	4x
071-1159-MW73-W-0405	BTEX + MTBE	4x
071-1159-MW74-W-0405	BTEX + MTBE	10x
071-1159-FD-W-0405	BTEX + MTBE	20x

Samples 071-1159-AAS01-S-11-13 and 071-1159-MW71-W-0405 and their blind field duplicate samples 071-1159-AAS0?-S-DUP and 071-1159-FD-W-0405 were submitted to the laboratory to evaluate sampling and analytical precision for those compounds determined to be confidently detected. All compounds met CCI's blind duplicate precision criteria of 30% for water and soil samples relative percent difference (RPD) for volatile organic, polyaromatic hydrocarbon, volatile petroluem hydrocarbons and extractable petroluem hydrocarbon analyses with the exception of total xylenes, ethylbenzene, toluene, aliphatic > C6-C8, aromatic > C7-C8, aliphatic > C8-C10, aliphatic C5-C6, and aromatic >C8-C10. A "J" qualifier was appended to the compound for the native sample listed below to indicate that the reported value should be

considered quantitative estimates due to the field duplicate RPD exceedances. The RPD was not calculated for the compounds that were not detected in both samples.

Compound	Affected Samples
Total Xylenes	071-1159-AAS01-S-11-13
Ethylbenzene	071-1159-AAS01-S-11-13
Toluene	071-1159-AAS01-S-11-13
Aliphatic > C6-C8	071-1159-AAS01-S-11-13
Aromatic > C7-C8	071-1159-AAS01-S-11-13
Aliphatic > C8-C10	071-1159-AAS01-S-11-13
Aliphatic C5-C6	071-1159-AAS01-S-11-13
Aromatic >C8-C10	071-1159-AAS01-S-11-13

Inorganic Data Qualifiers

The positive results for lead reported in the samples listed below are considered estimated due to the level at which this compound was present in the associated method and continuing blanks. This has been indicated by placing a "B" qualifier next to the quantitative results for lead in the samples listed below on the data summary tables.

Compound	Affected Samples
Lead	071-1159-MW70-W-0405, 071-1159-MW71-W-0405, 071-1159-MW72-W-0405, 071-1159-MW73-W-0405, 071-1159-MW74-W-0405, 071-1159-MW75-W-0405, and 071-1159-FD-W-0405

Sample 071-1159-MW71-W-0405 and its blind field duplicate sample 071-1159-FD-W-0405 were submitted to the laboratory to evaluate sampling and analytical precision for those compounds determined to be confidently detected. The element lead meet CCI's blind duplicate precision criteria of 30% for water samples relative percent difference (RPD).

Summary

The organic and inorganic analyses were performed acceptably, but required qualifying statements. This analytical quality assurance report has identified the aspects of the data, which required qualification. These qualifiers are noted on the attached analytical sample summary reports. A support documentation package has been prepared for this quality assurance review and is filed with the NAS Pensacola CTO 71/Bronson Field Site 1159 sampling project file.

Attachment I

VALID QUALIFIERS

QUALIFIER	
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit
J	The analyte was positively identified: the associated numerical value is the approximate concentration of the analyte in the sample.
N	The analysis indicates the presence of an analyte for which there was presumptive evidence to make a "tentative identification."
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
UJ	The analyte was not deemed above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
R/UR	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet the quality control criteria. The presence or absence of the analyte cannot be verified.
B	The analyte was detected in the associated method and/or calibration blank.
JB	The analyte detected in the associated field, equipment, and/or trip blank.

QUALIFICATION CODE REFERENCE

Qualifier	Organics	Inorganics
H	Holding times were exceeded.	Holding times were exceeded.
S	Surrogate recovery was outside QC limits.	The sequence or number of standards used for the calibration was incorrect.
C	Calibration %RSD or %D was noncompliant.	Correlation coefficient is <0.995.
K	Second source %D was noncompliant.	Second source %D was noncompliant.
R	Calibration RRF was <0.05.	%R for calibration is not within control limits.
MB	Presumed contamination from preparation (method) blank.	Presumed contamination from preparation (method) blank or calibration blank.
L	Laboratory Blank Spike/Blank Spike Duplicate %R was not within control limits.	Laboratory Control Sample %R was not within control limits.
Q	MS/MSD recovery was poor or high RPD.	MS/MSD recovery was poor or high RPD.
G	Result is over the calibration range. No other acceptable result was provided.	Result is over the calibration range. Not other acceptable result was provided.
E	Not applicable.	Lab duplicate RPD showed poor agreement.
Z	Field duplicate RPD showed poor agreement.	Field duplicate RPD showed poor agreement
I	Internal standard performance was unsatisfactory.	ICP ICS results were unsatisfactory.
A	Not applicable.	ICP Serial Dilution %D was not within control limits.
TN	Tuning (BFB or DFTPP) was noncompliant.	Not applicable.
T	Presumed contamination from trip blank.	Not applicable.
+	False positive—reported compound was not present.	Not applicable.
-	False negative—compound was present but not reported.	Not applicable.
F	Presumed contamination from FB or ER.	Presumed contamination from FB or ER.
$	Reported result or other information was incorrect.	Reported result or other information was incorrect.
?	TIC identity or reported retention time has been changed.	Not applicable.
D	The analysis with this flag should not be used because another more technically sound analysis is available.	The analysis with this flag should not be used because another more technically sound analysis is available.
P	Confirmation analysis RPD exceeded 40%.	Post Digestion Spike recovery was not within control limits.
T/D	Not applicable.	Total metals results were less than the dissolved metals result.
SD	Not applicable.	Seed correction factor was below the acceptable limit.
M	Reported values may be biased due to apparent matrix interferences. (AIR ANALYSIS ONLY)	Not applicable

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

071-1159-PREEB-W-051204

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 204051341

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20405134101

Level: (low/med) LOW

Lab File ID: 2040523/T9969

% Moisture: not dec.

Date Collected: 05/12/04 Time: 0830

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 05/13/04

Instrument ID: MSV1

Date Analyzed: 05/23/04 Time: 1827

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: RFS

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 274429

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.225	0.500
100-41-4	Ethylbenzene	5.00	U	0.227	5.00
108-88-3	Toluene	5.00	U	0.213	5.00
1330-20-7	Xylene (total)	10.0	U	0.509	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.179	5.00

C.L.R

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

071-1159-AAS01-S-11-13

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 204051341

Matrix: (soil/water) Soil

Sample wt/vol: 5 (g/ml) g

Lab Sample ID: 20405134102

Level: (low/med) LOW

Lab File ID: 2040518/D6402

% Moisture: not dec. 9.

Date Collected: 05/12/04 Time: 1100

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 05/13/04

Instrument ID: MSV5

Date Analyzed: 05/18/04 Time: 1856

Soil Extract Volume: (µL)

Dilution Factor: 100 Analyst: MEF

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 273797

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/kg

CAS NO.	COMPOUND	RESULT	Q	MDL	RL	
71-43-2	Benzene	554	U	11.5	554	
100-41-4	Ethylbenzene	532	J	22.9	554	N
108-88-3	Toluene	171	J	61.0	554	N
1330-20-7	Xylene (total)	2550	J	63.4	1110	N
1634-04-4	tert-Butyl methyl ether (MTBE)	554	U	8.20	554	

C.L.R

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

071-1159-AAS05-S-18-20

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 204051341

Matrix: (soil/water) Soil

Sample wt/vol: 5.25 (g/ml) g

Lab Sample ID: 20405134103

Level: (low/med) LOW

Lab File ID: 2040521/D6553

% Moisture: not dec. 15

Date Collected: 05/12/04 Time: 1445

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 05/13/04

Instrument ID: MSV5

Date Analyzed: 05/21/04 Time: 1539

Soil Extract Volume: (µL)

Dilution Factor: 500 Analyst: MEF

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 274313

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/kg

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	2820	U	58.6	2820
100-41-4	Ethylbenzene	6640		117	2820
108-88-3	Toluene	2820	U	310	2820
1330-20-7	Xylene (total)	30200		322	5640
1634-04-4	tert-Butyl methyl ether (MTBE)	2820	U	41.7	2820

C.L.R

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

071-1159-AASO?-S-DUP

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 204051341

Matrix: (soil/water) Soil

Sample wt/vol: 6.17 (g/ml) g

Lab Sample ID: 20405134104

Level: (low/med) LOW

Lab File ID: 2040523/D6653

% Moisture: not dec. 9.

Date Collected: 05/12/04 Time: 0000

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 05/13/04

Instrument ID: MSV5

Date Analyzed: 05/23/04 Time: 1126

Soil Extract Volume: (µL)

Dilution Factor: 100 Analyst: MEF

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 274419

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/kg

CAS NO.	COMPOUND	RESULT	Q	MDL	RL	
71-43-2	Benzene	446	U	9.27	446	
100-41-4	Ethylbenzene	3080	~~J~~	18.4	446	NA
108-88-3	Toluene	2820	~~J~~	49.0	446	NA
1330-20-7	Xylene (total)	14700	~~J~~	51.0	891	NA
1634-04-4	tert-Butyl methyl ether (MTBE)	446	U	6.59	446	

C.L.R

FORM I VOA

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 980 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 273799 Analytical Batch: 274420

CONCENTRATION UNITS: ug/L

Sample ID: 071-1159-PREEB-W-051204

Contract:

SAS No.: SDG No.: 204051341

Lab Sample ID: 20405134101

Date Collected: 05/12/04 Time: 0830

Date Received: 05/13/04

Date Extracted: 05/14/04

Date Analyzed: 05/20/04 Time: 0957

Dilution Factor: 1 Analyst: RLW

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 040520/H0006607

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	1.02	U	0.297	1.02
91-57-6	2-Methylnaphthalene	1.02	U	0.145	1.02
83-32-9	Acenaphthene	1.02	U	0.338	1.02
208-96-8	Acenaphthylene	1.02	U	0.156	1.02
120-12-7	Anthracene	0.102	U	0.024	0.102
56-55-3	Benzo(a)anthracene	0.102	U	0.033	0.102
50-32-8	Benzo(a)pyrene	0.102	U	0.034	0.102
205-99-2	Benzo(b)fluoranthene	0.102	U	0.016	0.102
191-24-2	Benzo(g,h,i)perylene	0.102	U	0.016	0.102
207-08-9	Benzo(k)fluoranthene	0.102	U	0.034	0.102
218-01-9	Chrysene	0.102	U	0.031	0.102
53-70-3	Dibenz(a,h)anthracene	0.102	U	0.030	0.102
206-44-0	Fluoranthene	0.102	U	0.045	0.102
86-73-7	Fluorene	0.510	U	0.101	0.510
193-39-5	Indeno(1,2,3-cd)pyrene	0.255	U	0.042	0.255
91-20-3	Naphthalene	0.255	U	0.127	0.255
85-01-8	Phenanthrene	0.102	U	0.026	0.102
129-00-0	Pyrene	0.102	U	0.035	0.102

C.L.R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Soil

Sample wt/vol: 30 Units: g

Level: (low/med) LOW

% Moisture: 9. decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 273845 Analytical Batch: 274420

CONCENTRATION UNITS: ug/kg

Sample ID: 071-1159-AAS01-S-11-13

Contract:

SAS No.: SDG No.: 204051341

Lab Sample ID: 20405134102

Date Collected: 05/12/04 Time: 1100

Date Received: 05/13/04

Date Extracted: 05/15/04

Date Analyzed: 05/20/04 Time: 1201

Dilution Factor: 1 Analyst: RLW

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 040520/H0006617

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	36.9	U	10.0	36.9
91-57-6	2-Methylnaphthalene	36.9	U	11.2	36.9
83-32-9	Acenaphthene	36.9	U	10.8	36.9
208-96-8	Acenaphthylene	36.9	U	4.12	36.9
120-12-7	Anthracene	3.66	U	0.522	3.66
56-55-3	Benzo(a)anthracene	3.66	U	1.32	3.66
50-32-8	Benzo(a)pyrene	3.66	U	1.23	3.66
205-99-2	Benzo(b)fluoranthene	3.66	U	0.798	3.66
191-24-2	Benzo(g,h,i)perylene	3.66	U	0.410	3.66
207-08-9	Benzo(k)fluoranthene	3.66	U	0.937	3.66
218-01-9	Chrysene	3.66	U	1.05	3.66
53-70-3	Dibenz(a,h)anthracene	3.66	U	0.978	3.66
206-44-0	Fluoranthene	3.66	U	1.02	3.66
86-73-7	Fluorene	18.5	U	3.89	18.5
193-39-5	Indeno(1,2,3-cd)pyrene	9.20	U	1.01	9.20
91-20-3	Naphthalene	9.20	U	3.41	9.20
85-01-8	Phenanthrene	3.66	U	0.998	3.66
129-00-0	Pyrene	3.66	U	0.528	3.66

C.L.R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Soil

Sample wt/vol: 30 Units: g

Level: (low/med) LOW

% Moisture: 15 decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 273845 Analytical Batch: 274420

Sample ID: 071-1159-AAS05-S-18-20

Contract:

SAS No.: SDG No.: 204051341

Lab Sample ID: 20405134103

Date Collected: 05/12/04 Time: 1445

Date Received: 05/13/04

Date Extracted: 05/15/04

Date Analyzed: 05/20/04 Time: 1208

Dilution Factor: 1 Analyst: RLW

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 040520/H0006618

CONCENTRATION UNITS: ug/kg

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	39.4	U	10.7	39.4
91-57-6	2-Methylnaphthalene	39.4	U	12.0	39.4
83-32-9	Acenaphthene	39.4	U	11.5	39.4
208-96-8	Acenaphthylene	39.4	U	4.40	39.4
120-12-7	Anthracene	3.91	U	0.557	3.91
56-55-3	Benzo(a)anthracene	3.91	U	1.41	3.91
50-32-8	Benzo(a)pyrene	3.91	U	1.31	3.91
205-99-2	Benzo(b)fluoranthene	3.91	U	0.852	3.91
191-24-2	Benzo(g,h,i)perylene	3.91	U	0.438	3.91
207-08-9	Benzo(k)fluoranthene	3.91	U	1.00	3.91
218-01-9	Chrysene	3.91	U	1.12	3.91
53-70-3	Dibenz(a,h)anthracene	3.91	U	1.04	3.91
206-44-0	Fluoranthene	3.91	U	1.08	3.91
86-73-7	Fluorene	19.8	U	4.15	19.8
193-39-5	Indeno(1,2,3-cd)pyrene	9.82	U	1.08	9.82
91-20-3	Naphthalene	9.82	U	3.65	9.82
85-01-8	Phenanthrene	3.91	U	1.07	3.91
129-00-0	Pyrene	3.91	U	0.563	3.91

C.L.R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Soil

Sample wt/vol: 30 Units: g

Level: (low/med) LOW

% Moisture: 9. decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 273845 Analytical Batch: 274420

CONCENTRATION UNITS: ug/kg

Sample ID: 071-1159-AASO?-S-DUP

Contract:

SAS No.: SDG No.: 204051341

Lab Sample ID: 20405134104

Date Collected: 05/12/04 Time: 0000

Date Received: 05/13/04

Date Extracted: 05/15/04

Date Analyzed: 05/20/04 Time: 1215

Dilution Factor: 1 Analyst: RLW

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 040520/H0006619

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	36.6	U	9.96	36.6
91-57-6	2-Methylnaphthalene	36.6	U	11.1	36.6
83-32-9	Acenaphthene	36.6	U	10.7	36.6
208-96-8	Acenaphthylene	36.6	U	4.09	36.6
120-12-7	Anthracene	3.63	U	0.518	3.63
56-55-3	Benzo(a)anthracene	3.63	U	1.31	3.63
50-32-8	Benzo(a)pyrene	3.63	U	1.22	3.63
205-99-2	Benzo(b)fluoranthene	3.63	U	0.792	3.63
191-24-2	Benzo(g,h,i)perylene	3.63	U	0.407	3.63
207-08-9	Benzo(k)fluoranthene	3.63	U	0.929	3.63
218-01-9	Chrysene	3.63	U	1.04	3.63
53-70-3	Dibenz(a,h)anthracene	3.63	U	0.970	3.63
206-44-0	Fluoranthene	3.63	U	1.01	3.63
86-73-7	Fluorene	18.4	U	3.86	18.4
193-39-5	Indeno(1,2,3-cd)pyrene	9.13	U	1.00	9.13
91-20-3	Naphthalene	9.13	U	3.39	9.13
85-01-8	Phenanthrene	3.63	U	0.990	3.63
129-00-0	Pyrene	3.63	U	0.523	3.63

C.L.R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 950 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 273800 Analytical Batch: 274199

CONCENTRATION UNITS: ug/L

Sample ID: 071-1159-PREEB-W-051204

Contract:

SAS No.: SDG No.: 204051341

Lab Sample ID: 20405134101

Date Collected: 05/12/04 Time: 0830

Date Received: 05/13/04

Date Extracted: 05/14/04

Date Analyzed: 05/19/04 Time: 0935

Dilution Factor: 1 Analyst: TLS

Prep Method: FLORIDA PRO

Analytical Method: FLORIDA PRO

Sulfur Cleanup: (Y/N) N Instrument ID: GCS2A

Lab File ID: 2040518/SV2AD021S

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
FLPRO-01	Petroleum Hydrocarbons	78.0	J	42.8	105

C.L.R

FORM I ORG-1

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Soil

Sample wt/vol: 10 Units: g

Level: (low/med)

% Moisture: 9. decanted: (Y/N)

GC Column: DB-5MS-30M ID: .25 (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 273856 Analytical Batch: 274126

Sample ID: 071-1159-AAS01-S-11-13

Contract:

SAS No.: SDG No.: 204051341

Lab Sample ID: 20405134102

Date Collected: 05/12/04 Time: 1100

Date Received: 05/13/04

Date Extracted:

Date Analyzed: 05/18/04 Time: 1959

Dilution Factor: 1 Analyst: TLS

Prep Method:

Analytical Method: MASS EPH

Sulfur Cleanup: (Y/N) N Instrument ID: GCS14A

Lab File ID: 2040517/SV14023ARS

CONCENTRATION UNITS: ug/kg

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
GCSV-02-1	Aliphatic >C10-C12	5540	U	435	5540
GCSV-02-1	Aliphatic >C12-C16	5540	U	1300	5540
GCSV-02-3	Aliphatic >C16-C35	22200	U	2790	22200
GCSV-02-1	Aromatic >C10-C12	5540	U	435	5540
GCSV-02-1	Aromatic >C12-C16	5540	U	1300	5540
GCSV-02-1	Aromatic >C16-C21	5540	U	2790	5540
GCSV-05-1	Aromatic >C21-C35	22200	U	2790	22200

C.L.R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Soil

Sample wt/vol: 10 Units: g

Level: (low/med)

% Moisture: 15 decanted: (Y/N)

GC Column: DB-5MS-30M ID: .25 (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 273856 Analytical Batch: 274126

CONCENTRATION UNITS: ug/kg

Sample ID: 071-1159-AAS05-S-18-20

Contract:

SAS No.: SDG No.: 204051341

Lab Sample ID: 20405134103

Date Collected: 05/12/04 Time: 1445

Date Received: 05/13/04

Date Extracted:

Date Analyzed: 05/18/04 Time: 2131

Dilution Factor: 1 Analyst: TLS

Prep Method:

Analytical Method: MASS EPH

Sulfur Cleanup: (Y/N) N Instrument ID: GCS14A

Lab File ID: 2040517/SV14026ARS

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
GCSV-02-1	Aliphatic >C10-C12	5920	U	464	5920
GCSV-02-1	Aliphatic >C12-C16	5920	U	1390	5920
GCSV-02-3	Aliphatic >C16-C35	23700	U	2980	23700
GCSV-02-1	Aromatic >C10-C12	5920	U	464	5920
GCSV-02-1	Aromatic >C12-C16	5920	U	1390	5920
GCSV-02-1	Aromatic >C16-C21	5920	U	2980	5920
GCSV-05-1	Aromatic >C21-C35	23700	U	2980	23700

C.L.R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Soil

Sample wt/vol: 10 Units: g

Level: (low/med)

% Moisture: 9. decanted: (Y/N)

GC Column: DB-5MS-30M ID: .25 (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 273856 Analytical Batch: 274126

Sample ID: 071-1159-AASO?-S-DUP

Contract:

SAS No.: SDG No.: 204051341

Lab Sample ID: 20405134104

Date Collected: 05/12/04 Time: 0000

Date Received: 05/13/04

Date Extracted:

Date Analyzed: 05/18/04 Time: 2202

Dilution Factor: 1 Analyst: TLS

Prep Method:

Analytical Method: MASS EPH

Sulfur Cleanup: (Y/N) N Instrument ID: GCS14A

Lab File ID: 2040517/SV14027ARS

CONCENTRATION UNITS: ug/kg

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
GCSV-02-1	Aliphatic >C10-C12	5500	U	431	5500
GCSV-02-1	Aliphatic >C12-C16	5500	U	1290	5500
GCSV-02-3	Aliphatic >C16-C35	22000	U	2770	22000
GCSV-02-1	Aromatic >C10-C12	5500	U	431	5500
GCSV-02-1	Aromatic >C12-C16	5500	U	1290	5500
GCSV-02-1	Aromatic >C16-C21	5500	U	2770	5500
GCSV-05-1	Aromatic >C21-C35	22000	U	2770	22000

C.L.R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Soil

Sample wt/vol: 5.58 Units: g

Level: (low/med)

% Moisture: 9. decanted: (Y/N)

GC Column: DB-624-30M ID: .53 (mm)

Concentrated Extract Volume: 5000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: Analytical Batch: 273987

Sample ID: 071-1159-AAS01-S-11-13

Contract:

SAS No.: SDG No.: 204051341

Lab Sample ID: 20405134102

Date Collected: 05/12/04 Time: 1100

Date Received: 05/13/04

Date Extracted:

Date Analyzed: 05/19/04 Time: 0159

Dilution Factor: 40000 Analyst: JAR

Prep Method:

Analytical Method: MASSVPH

Sulfur Cleanup: (Y/N) N Instrument ID: GCV3A

Lab File ID: V3A010

CONCENTRATION UNITS: ug/kg

CAS NO.	COMPOUND	RESULT	Q	MDL	RL	
GCSV-05-1	Aliphatic >C6-C8	4640000	~~J~~	795000	1190000	Z
GCSV-02-1	Aliphatic >C8-C10	1190000	U	755000	1190000	
GCSV-02-6	Aliphatic C5-C6	795000	U	795000	795000	
GCSV-02-6	Aromatic >C7-C8	738000	J	163000	795000	Z
GCSV-02-1	Aromatic >C8-C10	1190000	U	163000	1190000	
GCSV-02-6	Aromatic C5-C7	284000	J	163000	1190000	

C.L.R

FORM I ORG-1

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Soil

Sample wt/vol: 2.82 Units: g

Level: (low/med)

% Moisture: 15 decanted: (Y/N)

GC Column: DB-624-30M ID: .53 (mm)

Concentrated Extract Volume: 5000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: Analytical Batch: 273987

Sample ID: 071-1159-AAS05-S-18-20

Contract:

SAS No.: SDG No.: 204051341

Lab Sample ID: 20405134103

Date Collected: 05/12/04 Time: 1445

Date Received: 05/13/04

Date Extracted:

Date Analyzed: 05/19/04 Time: 0223

Dilution Factor: 40000 Analyst: JAR

Prep Method:

Analytical Method: MASSVPH

Sulfur Cleanup: (Y/N) N Instrument ID: GCV3A

Lab File ID: V3A011

CONCENTRATION UNITS: ug/kg

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
GCSV-05-1	Aliphatic >C6-C8	18600000		1680000	2520000
GCSV-02-1	Aliphatic >C8-C10	2310000	J	1590000	2520000
GCSV-02-6	Aliphatic C5-C6	1680000	U	1680000	1680000
GCSV-02-6	Aromatic >C7-C8	3200000		344000	1680000
GCSV-02-1	Aromatic >C8-C10	2520000	U	344000	2520000
GCSV-02-6	Aromatic C5-C7	953000	J	344000	2520000

C.L.R

FORM I ORG-1

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Soil

Sample wt/vol: 5.55 Units: g

Level: (low/med)

% Moisture: 9. decanted: (Y/N)

GC Column: DB-624-30M ID: .53 (mm)

Concentrated Extract Volume: 5000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: Analytical Batch: 273987

Sample ID: 071-1159-AASO?-S-DUP

Contract:

SAS No.: SDG No.: 204051341

Lab Sample ID: 20405134104

Date Collected: 05/12/04 Time: 0000

Date Received: 05/13/04

Date Extracted:

Date Analyzed: 05/19/04 Time: 0248

Dilution Factor: 5000 Analyst: JAR

Prep Method:

Analytical Method: MASSVPH

Sulfur Cleanup: (Y/N) N Instrument ID: GCV3A

Lab File ID: V3A012

CONCENTRATION UNITS: ug/kg

CAS NO.	COMPOUND	RESULT	Q	MDL	RL	
GCSV-05-1	Aliphatic >C6-C8	3340000	J	99100	149000	Z
GCSV-02-1	Aliphatic >C8-C10	411000	J	94100	149000	Z
GCSV-02-6	Aliphatic C5-C6	370000	J	99100	99100	Z
GCSV-02-6	Aromatic >C7-C8	538000	J	20300	99100	Z
GCSV-02-1	Aromatic >C8-C10	83600	J	20300	149000	Z
GCSV-02-6	Aromatic C5-C7	228000		20300	149000	

C.L.R

FORM I ORG-1

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
20405134102	071-1159-AAS01-S-11-13	Solid	05/12/2004 11:00	05/13/2004 18:18

2540 G Total Moisture - Solid

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			1	05/17/2004 15:15	AEL	273939

CAS#	Parameter	Result	RDL	MDL	Units
WET-037	Total Moisture	9.79	0.010	0.010	%

RESULTS REPORTED ON A DRY WEIGHT BASIS

C.L.R

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
20405134103	071-1159-AAS05-S-18-20	Solid	05/12/2004 14:45	05/13/2004 18:18

2540 G Total Moisture - Solid

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			1	05/17/2004 15:15	AEL	273939

CAS#	Parameter	Result	RDL	MDL	Units
WET-037	Total Moisture	15.5	0.010	0.010	%

RESULTS REPORTED ON A DRY WEIGHT BASIS

C.L.R

GCAL ID	Client ID	Matrix	Collect Date/Time	Receive Date/Time
20405134104	071-1159-AASO?-S-DUP	Solid	05/12/2004 00:00	05/13/2004 18:18

2540 G Total Moisture - Solid

Prep Date	Prep Batch	Prep Method	Dilution	Analyzed	By	Analytical Batch
			1	05/17/2004 15:15	AEL	273939

CAS#	Parameter	Result	RDL	MDL	Units
WET-037	Total Moisture	9.07	0.010	0.010	%

RESULTS REPORTED ON A DRY WEIGHT BASIS

C.L.R

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

071-1159-PREEB-W-0405

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 204052811

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL Lab Sample ID: 20405281101

Level: (low/med) LOW Lab File ID: 2040601/T0327

% Moisture: not dec. Date Collected: 05/27/04 Time: 1024

GC Column: DB-624-30M ID: .53 (mm) Date Received: 05/28/04

Instrument ID: MSV1 Date Analyzed: 06/01/04 Time: 1211

Soil Extract Volume: (µL) Dilution Factor: 1 Analyst: MEF

Soil Aliquot Volume: (µL) Prep Batch: Analytical Batch: 274863

CONCENTRATION UNITS: ug/L Analytical Method: SW-846 8260

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.225	0.500
100-41-4	Ethylbenzene	5.00	U	0.227	5.00
108-88-3	Toluene	1.77	J	0.213	5.00
1330-20-7	Xylene (total)	10.0	U	0.509	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.179	5.00

C.L.R

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

071-1159-MW70-W-0405

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 204052811

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20405281102

Level: (low/med) LOW

Lab File ID: 2040601/T0339

% Moisture: not dec.

Date Collected: 05/27/04 Time: 1105

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 05/28/04

Instrument ID: MSV1

Date Analyzed: 06/01/04 Time: 1744

Soil Extract Volume: (µL)

Dilution Factor: 2 Analyst: MEF

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 274863

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	1.00	U	0.450	1.00
100-41-4	Ethylbenzene	34.7		0.454	10.0
108-88-3	Toluene	10.0	U	0.426	10.0
1330-20-7	Xylene (total)	59.3		1.02	20.0
1634-04-4	tert-Butyl methyl ether (MTBE)	10.0	U	0.358	10.0

C.L.R

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

071-1159-MW71-W-0405

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 204052811

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20405281103

Level: (low/med) LOW

Lab File ID: 2040605/T0503

% Moisture: not dec.

Date Collected: 05/27/04 Time: 1152

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 05/28/04

Instrument ID: MSV1

Date Analyzed: 06/05/04 Time: 1748

Soil Extract Volume: (µL)

Dilution Factor: 4 Analyst: RSP

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 275254

CONCENTRATION UNITS: ug/L

Analytical Method: SW-846 8260

CAS NO.	COMPOUND	RESULT	Q	MDL	RL	
71-43-2	Benzene	2.00	U	0.900	2.00	
100-41-4	Ethylbenzene	223		0.908	20.0	
108-88-3	Toluene	95.0	JB	0.852	20.0	F
1330-20-7	Xylene (total)	723		2.04	40.0	
1634-04-4	tert-Butyl methyl ether (MTBE)	20.0	U	0.716	20.0	

C.L.R

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

071-1159-MW72-W-0405

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 204052811

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20405281104

Level: (low/med) LOW

Lab File ID: 2040601/T0323

% Moisture: not dec.

Date Collected: 05/27/04 Time: 0932

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 05/28/04

Instrument ID: MSV1

Date Analyzed: 06/01/04 Time: 1036

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: MEF

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 274863

CONCENTRATION UNITS: ug/L

Analytical Method: SW-846 8260

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.225	0.500
100-41-4	Ethylbenzene	5.00	U	0.227	5.00
108-88-3	Toluene	5.00	U	0.213	5.00
1330-20-7	Xylene (total)	10.0	U	0.509	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.179	5.00

C.L.R

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

071-1159-MW73-W-0405

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 204052811

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20405281105

Level: (low/med) LOW

Lab File ID: 2040605/T0504

% Moisture: not dec.

Date Collected: 05/27/04 Time: 1505

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 05/28/04

Instrument ID: MSV1

Date Analyzed: 06/05/04 Time: 1812

Soil Extract Volume: (µL)

Dilution Factor: 4 Analyst: RSP

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 275254

CONCENTRATION UNITS: ug/L

Analytical Method: SW-846 8260

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	2.00	U	0.900	2.00
100-41-4	Ethylbenzene	9.15	J	0.908	20.0
108-88-3	Toluene	20.0	U	0.852	20.0
1330-20-7	Xylene (total)	20.8	J	2.04	40.0
1634-04-4	tert-Butyl methyl ether (MTBE)	20.0	U	0.716	20.0

C.L.R

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

071-1159-MW74-W-0405

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 204052811

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20405281106

Level: (low/med) LOW

Lab File ID: 2040601/T0342

% Moisture: not dec.

Date Collected: 05/27/04 Time: 1430

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 05/28/04

Instrument ID: MSV1

Date Analyzed: 06/01/04 Time: 1855

Soil Extract Volume: (µL)

Dilution Factor: 10 Analyst: MEF

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 274863

CONCENTRATION UNITS: ug/L

Analytical Method: SW-846 8260

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	5.00	U	2.25	5.00
100-41-4	Ethylbenzene	221		2.27	50.0
108-88-3	Toluene	50.0	U	2.13	50.0
1330-20-7	Xylene (total)	689		5.09	100
1634-04-4	tert-Butyl methyl ether (MTBE)	50.0	U	1.79	50.0

C.L.R

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

071-1159-MW75-W-0405

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 204052811

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20405281107

Level: (low/med) LOW

Lab File ID: 2040608P/T0608

% Moisture: not dec.

Date Collected: 05/27/04 Time: 1343

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 05/28/04

Instrument ID: MSV1

Date Analyzed: 06/08/04 Time: 1415

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: KCB

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 275373

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.225	0.500
100-41-4	Ethylbenzene	10.0		0.227	5.00
108-88-3	Toluene	5.00	U	0.213	5.00
1330-20-7	Xylene (total)	15.6		0.509	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.179	5.00

C.L.R

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

071-1159-FD-W-0405

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 204052811

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20405281111

Level: (low/med) LOW

Lab File ID: 2040606/T0538

% Moisture: not dec.

Date Collected: 05/27/04 Time: 0000

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 05/28/04

Instrument ID: MSV1

Date Analyzed: 06/06/04 Time: 1949

Soil Extract Volume: (µL)

Dilution Factor: 20 Analyst: JCK

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 275272

CONCENTRATION UNITS: ug/L

Analytical Method: SW-846 8260

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	10.0	U	4.50	10.0
100-41-4	Ethylbenzene	252		4.54	100
108-88-3	Toluene	117	JB	4.26	100
1330-20-7	Xylene (total)	829		10.2	200
1634-04-4	tert-Butyl methyl ether (MTBE)	100	U	3.58	100

F

C.L.R

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

071-1159-TRIPBLK-W-0405

Lab Name: GCAL Contract:

Lab Code: LA024 Case No.: SAS No.: SDG No.: 204052811

Matrix: (soil/water) Water

Sample wt/vol: 5 (g/ml) mL

Lab Sample ID: 20405281112

Level: (low/med) LOW

Lab File ID: 2040601/T0328

% Moisture: not dec.

Date Collected: 05/27/04 Time: 0000

GC Column: DB-624-30M ID: .53 (mm)

Date Received: 05/28/04

Instrument ID: MSV1

Date Analyzed: 06/01/04 Time: 1235

Soil Extract Volume: (µL)

Dilution Factor: 1 Analyst: MEF

Soil Aliquot Volume: (µL)

Prep Batch: Analytical Batch: 274863

Analytical Method: SW-846 8260

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
71-43-2	Benzene	0.500	U	0.225	0.500
100-41-4	Ethylbenzene	5.00	U	0.227	5.00
108-88-3	Toluene	5.00	U	0.213	5.00
1330-20-7	Xylene (total)	10.0	U	0.509	10.0
1634-04-4	tert-Butyl methyl ether (MTBE)	5.00	U	0.179	5.00

C.L.R

FORM I VOA

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 274783 Analytical Batch: 275049

CONCENTRATION UNITS: ug/L

Sample ID: 071-1159-PREEB-W-0405

Contract:

SAS No.: SDG No.: 204052811

Lab Sample ID: 20405281101

Date Collected: 05/27/04 Time: 1024

Date Received: 05/28/04

Date Extracted: 06/01/04

Date Analyzed: 06/02/04 Time: 1010

Dilution Factor: 1 Analyst: RLW

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 040602/H0006771

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

C.L.R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 274783 Analytical Batch: 275049

CONCENTRATION UNITS: ug/L

Sample ID: 071-1159-MW70-W-0405

Contract:

SAS No.: SDG No.: 204052811

Lab Sample ID: 20405281102

Date Collected: 05/27/04 Time: 1105

Date Received: 05/28/04

Date Extracted: 06/01/04

Date Analyzed: 06/02/04 Time: 1017

Dilution Factor: 1 Analyst: RLW

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 040602/H0006772

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

C.L.R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 274783 Analytical Batch: 275049

CONCENTRATION UNITS: ug/L

Sample ID: 071-1159-MW71-W-0405

Contract:

SAS No.: SDG No.: 204052811

Lab Sample ID: 20405281103

Date Collected: 05/27/04 Time: 1152

Date Received: 05/28/04

Date Extracted: 06/01/04

Date Analyzed: 06/02/04 Time: 1023

Dilution Factor: 1 Analyst: RLW

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 040602/H0006773

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

C.L.R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 274783 Analytical Batch: 275049

CONCENTRATION UNITS: ug/L

Sample ID: 071-1159-MW72-W-0405

Contract:

SAS No.: SDG No.: 204052811

Lab Sample ID: 20405281104

Date Collected: 05/27/04 Time: 0932

Date Received: 05/28/04

Date Extracted: 06/01/04

Date Analyzed: 06/02/04 Time: 1030

Dilution Factor: 1 Analyst: RLW

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 040602/H0006774

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

C.L.R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 274783 Analytical Batch: 275049

CONCENTRATION UNITS: ug/L

Sample ID: 071-1159-MW73-W-0405

Contract:

SAS No.: SDG No.: 204052811

Lab Sample ID: 20405281105

Date Collected: 05/27/04 Time: 1505

Date Received: 05/28/04

Date Extracted: 06/01/04

Date Analyzed: 06/02/04 Time: 1037

Dilution Factor: 1 Analyst: RLW

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 040602/H0006775

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

C.L.R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 274783 Analytical Batch: 275049

CONCENTRATION UNITS: ug/L

Sample ID: 071-1159-MW74-W-0405

Contract:

SAS No.: SDG No.: 204052811

Lab Sample ID: 20405281106

Date Collected: 05/27/04 Time: 1430

Date Received: 05/28/04

Date Extracted: 06/01/04

Date Analyzed: 06/02/04 Time: 1044

Dilution Factor: 1 Analyst: RLW

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 040602/H0006776

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

C.L.R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 274783 Analytical Batch: 275049

CONCENTRATION UNITS: ug/L

Sample ID: 071-1159-MW75-W-0405

Contract:

SAS No.: SDG No.: 204052811

Lab Sample ID: 20405281107

Date Collected: 05/27/04 Time: 1343

Date Received: 05/28/04

Date Extracted: 06/01/04

Date Analyzed: 06/02/04 Time: 1051

Dilution Factor: 1 Analyst: RLW

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 040602/H0006777

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

C.L.R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: 201TP-0.15 ID: 2.1 (mm)

Concentrated Extract Volume: 1000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 274783 Analytical Batch: 275049

CONCENTRATION UNITS: ug/L

Sample ID: 071-1159-FD-W-0405

Contract:

SAS No.: SDG No.: 204052811

Lab Sample ID: 20405281111

Date Collected: 05/27/04 Time: 0000

Date Received: 05/28/04

Date Extracted: 06/01/04

Date Analyzed: 06/02/04 Time: 1112

Dilution Factor: 1 Analyst: RLW

Prep Method: SW-846 8310

Analytical Method: SW-846 8310

Sulfur Cleanup: (Y/N) N Instrument ID: HPLC 1

Lab File ID: 040602/H0006780

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
90-12-0	1-Methylnaphthalene	1.00	U	0.291	1.00
91-57-6	2-Methylnaphthalene	1.00	U	0.142	1.00
83-32-9	Acenaphthene	1.00	U	0.331	1.00
208-96-8	Acenaphthylene	1.00	U	0.153	1.00
120-12-7	Anthracene	0.100	U	0.024	0.100
56-55-3	Benzo(a)anthracene	0.100	U	0.032	0.100
50-32-8	Benzo(a)pyrene	0.100	U	0.033	0.100
205-99-2	Benzo(b)fluoranthene	0.100	U	0.016	0.100
191-24-2	Benzo(g,h,i)perylene	0.100	U	0.016	0.100
207-08-9	Benzo(k)fluoranthene	0.100	U	0.033	0.100
218-01-9	Chrysene	0.100	U	0.030	0.100
53-70-3	Dibenz(a,h)anthracene	0.100	U	0.029	0.100
206-44-0	Fluoranthene	0.100	U	0.044	0.100
86-73-7	Fluorene	0.500	U	0.099	0.500
193-39-5	Indeno(1,2,3-cd)pyrene	0.250	U	0.041	0.250
91-20-3	Naphthalene	0.250	U	0.124	0.250
85-01-8	Phenanthrene	0.100	U	0.025	0.100
129-00-0	Pyrene	0.100	U	0.034	0.100

C.L.R

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 274784 Analytical Batch: 275232

CONCENTRATION UNITS: ug/L

Sample ID: 071-1159-PREEB-W-0405

Contract:

SAS No.: SDG No.: 204052811

Lab Sample ID: 20405281101

Date Collected: 05/27/04 Time: 1024

Date Received: 05/28/04

Date Extracted: 05/28/04

Date Analyzed: 06/02/04 Time: 1735

Dilution Factor: 1 Analyst: TLS

Prep Method: FLORIDA PRO

Analytical Method: FLORIDA PRO

Sulfur Cleanup: (Y/N) N Instrument ID: GCS2A

Lab File ID: 2040602/SV2AD006S

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
FLPRO-01	Petroleum Hydrocarbons	104		40.7	100

C.L.R

FORM I ORG-1

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 274784 Analytical Batch: 275232

CONCENTRATION UNITS: ug/L

Sample ID: 071-1159-MW70-W-0405

Contract:

SAS No.: SDG No.: 204052811

Lab Sample ID: 20405281102

Date Collected: 05/27/04 Time: 1105

Date Received: 05/28/04

Date Extracted: 05/28/04

Date Analyzed: 06/02/04 Time: 1834

Dilution Factor: 1 Analyst: TLS

Prep Method: FLORIDA PRO

Analytical Method: FLORIDA PRO

Sulfur Cleanup: (Y/N) N Instrument ID: GCS2A

Lab File ID: 2040602/SV2AD007S

CAS NO.	COMPOUND	RESULT	Q	MDL	RL	
FLPRO-01	Petroleum Hydrocarbons	668	JB	40.7	100	F,C

C.L.R

FORM I ORG-1

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 274784 Analytical Batch: 275232

CONCENTRATION UNITS: ug/L

Sample ID: 071-1159-MW71-W-0405

Contract:

SAS No.: SDG No.: 204052811

Lab Sample ID: 20405281103

Date Collected: 05/27/04 Time: 1152

Date Received: 05/28/04

Date Extracted: 05/28/04

Date Analyzed: 06/02/04 Time: 1932

Dilution Factor: 1 Analyst: TLS

Prep Method: FLORIDA PRO

Analytical Method: FLORIDA PRO

Sulfur Cleanup: (Y/N) N Instrument ID: GCS2A

Lab File ID: 2040602/SV2AD008S

CAS NO.	COMPOUND	RESULT	Q	MDL	RL	
FLPRO-01	Petroleum Hydrocarbons	3790	JB	40.7	100	F,C

C.L.R

FORM I ORG-1

1D
ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL
Sample ID: 071-1159-MW72-W-0405
Lab Code: LA024 Case No.:
Contract:
Matrix: Water
SAS No.: SDG No.: 204052811
Sample wt/vol: 1000 Units: mL
Lab Sample ID: 20405281104
Level: (low/med) LOW
Date Collected: 05/27/04 Time: 0932
% Moisture: decanted: (Y/N)
Date Received: 05/28/04
GC Column: ID: (mm)
Date Extracted: 05/28/04
Concentrated Extract Volume: 2000 (µL)
Date Analyzed: 06/02/04 Time: 2030
Soil Aliquot Volume: (µL)
Dilution Factor: 1 Analyst: TLS
Injection Volume: 1 (µL)
Prep Method: FLORIDA PRO
GPC Cleanup: (Y/N) N pH:
Analytical Method: FLORIDA PRO
Prep Batch: 274784 Analytical Batch: 275232
Sulfur Cleanup: (Y/N) N Instrument ID: GCS2A
CONCENTRATION UNITS: ug/L
Lab File ID: 2040602/SV2AD009S

CAS NO.	COMPOUND	RESULT	Q	MDL	RL	
FLPRO-01	Petroleum Hydrocarbons	148	JB	40.7	100	F, C

C.L.R

FORM I ORG-1

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 274784 Analytical Batch: 275232

CONCENTRATION UNITS: ug/L

Sample ID: 071-1159-MW73-W-0405

Contract:

SAS No.: SDG No.: 204052811

Lab Sample ID: 20405281105

Date Collected: 05/27/04 Time: 1505

Date Received: 05/28/04

Date Extracted: 05/28/04

Date Analyzed: 06/02/04 Time: 2128

Dilution Factor: 1 Analyst: TLS

Prep Method: FLORIDA PRO

Analytical Method: FLORIDA PRO

Sulfur Cleanup: (Y/N) N Instrument ID: GCS2A

Lab File ID: 2040602/SV2AD010S

CAS NO.	COMPOUND	RESULT	Q	MDL	RL	
FLPRO-01	Petroleum Hydrocarbons	1770	JB	40.7	100	F, C

C.L.R

FORM I ORG-1

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 274784 Analytical Batch: 275232

Sample ID: 071-1159-MW74-W-0405

Contract:

SAS No.: SDG No.: 204052811

Lab Sample ID: 20405281106

Date Collected: 05/27/04 Time: 1430

Date Received: 05/28/04

Date Extracted: 05/28/04

Date Analyzed: 06/02/04 Time: 2226

Dilution Factor: 1 Analyst: TLS

Prep Method: FLORIDA PRO

Analytical Method: FLORIDA PRO

Sulfur Cleanup: (Y/N) N Instrument ID: GCS2A

CONCENTRATION UNITS: ug/L

Lab File ID: 2040602/SV2AD011S

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
FLPRO-01	Petroleum Hydrocarbons	4260	JB	40.7	100

F, C

C.L.R

FORM I ORG-1

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 274784 Analytical Batch: 275232

CONCENTRATION UNITS: ug/L

Sample ID: 071-1159-MW75-W-0405

Contract:

SAS No.: SDG No.: 204052811

Lab Sample ID: 20405281107

Date Collected: 05/27/04 Time: 1343

Date Received: 05/28/04

Date Extracted: 05/28/04

Date Analyzed: 06/02/04 Time: 2323

Dilution Factor: 1 Analyst: TLS

Prep Method: FLORIDA PRO

Analytical Method: FLORIDA PRO

Sulfur Cleanup: (Y/N) N Instrument ID: GCS2A

Lab File ID: 2040602/SV2AD012S

CAS NO.	COMPOUND	RESULT	Q	MDL	RL	
FLPRO-01	Petroleum Hydrocarbons	590	JB	40.7	100	F, C

C.L.R

FORM I ORG-1

1D

ORGANICS ANALYSIS DATA SHEET

Lab Name: GCAL

Lab Code: LA024 Case No.:

Matrix: Water

Sample wt/vol: 1000 Units: mL

Level: (low/med) LOW

% Moisture: decanted: (Y/N)

GC Column: ID: (mm)

Concentrated Extract Volume: 2000 (µL)

Soil Aliquot Volume: (µL)

Injection Volume: 1 (µL)

GPC Cleanup: (Y/N) N pH:

Prep Batch: 274784 Analytical Batch: 275232

Sample ID: 071-1159-FD-W-0405

Contract:

SAS No.: SDG No.: 204052811

Lab Sample ID: 20405281111

Date Collected: 05/27/04 Time: 0000

Date Received: 05/28/04

Date Extracted: 05/28/04

Date Analyzed: 06/03/04 Time: 0313

Dilution Factor: 1 Analyst: TLS

Prep Method: FLORIDA PRO

Analytical Method: FLORIDA PRO

Sulfur Cleanup: (Y/N) N Instrument ID: GCS2A

CONCENTRATION UNITS: ug/L

Lab File ID: 2040602/SV2AD016S

CAS NO.	COMPOUND	RESULT	Q	MDL	RL
FLPRO-01	Petroleum Hydrocarbons	5160	JB	40.7	100

F,C

C.L.R

FORM I ORG-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL

Sample ID: 071-1159-PREEB-W-0405

Lab Code: LA024 Case No.:

Contract:

Matrix: (soil / water) Water

SAS No.: SDG No.: 204052811

Level: (low / med) % Solids:

Lab Sample ID: 20405281101

Date Received: 05/28/04 Time: 1010

Date Collected: 05/27/04 Time: 1024

Analyte	Concentration	Units	C	Q	MDL	PQL	Method	Type
Lead	0.015	mg/L	U		0.0010	0.015	SW-846 6010B	P

C.L.R

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL

Sample ID: 071-1159-MW70-W-0405

Lab Code: LA024 Case No.:

Contract:

Matrix: (soil / water) Water

SAS No.: SDG No.: 204052811

Level: (low / med) % Solids:

Lab Sample ID: 20405281102

Date Received: 05/28/04 Time: 1010

Date Collected: 05/27/04 Time: 1105

Analyte	Concentration	Units	C	Q	MDL	PQL	Method	Type	
Lead	0.0048	mg/L	B		0.0010	0.015	SW-846 6010B	P	MB

C.L.R

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL

Sample ID: 071-1159-MW71-W-0405

Lab Code: LA024 Case No.:

Contract:

Matrix: (soil / water) Water

SAS No.: SDG No.: 204052811

Level: (low / med) % Solids:

Lab Sample ID: 20405281103

Date Received: 05/28/04 Time: 1010

Date Collected: 05/27/04 Time: 1152

Analyte	Concentration	Units	C	Q	MDL	PQL	Method	Type	
Lead	0.029	mg/L	B	/	0.0010	0.015	SW-846 6010B	P	MB

C.L.R

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL

Sample ID: 071-1159-MW72-W-0405

Lab Code: LA024 Case No.:

Contract:

Matrix: (soil / water) Water

SAS No.: SDG No.: 204052811

Level: (low / med) % Solids:

Lab Sample ID: 20405281104

Date Received: 05/28/04 Time: 1010

Date Collected: 05/27/04 Time: 0932

Analyte	Concentration	Units	C	Q	MDL	PQL	Method	Type	
Lead	0.0010	mg/L	B	/	0.0010	0.015	SW-846 6010B	P	MB

C.L.R

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL

Sample ID: 071-1159-MW73-W-0405

Lab Code: LA024 Case No.:

Contract:

Matrix: (soil / water) Water

SAS No.: SDG No.: 204052811

Level: (low / med) % Solids:

Lab Sample ID: 20405281105

Date Received: 05/28/04 Time: 1010

Date Collected: 05/27/04 Time: 1505

Analyte	Concentration	Units	C	Q	MDL	PQL	Method	Type	
Lead	0.024	mg/L	B		0.0010	0.015	SW-846 6010B	P	MB

C.L.R

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL

Sample ID: 071-1159-MW74-W-0405

Lab Code: LA024 Case No.:

Contract:

Matrix: (soil / water) Water

SAS No.: SDG No.: 204052811

Level: (low / med) % Solids:

Lab Sample ID: 20405281106

Date Received: 05/28/04 Time: 1010

Date Collected: 05/27/04 Time: 1430

Analyte	Concentration	Units	C	Q	MDL	PQL	Method	Type	
Lead	0.024	mg/L	B		0.0010	0.015	SW-846 6010B	P	MB

C.L.R

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL

Sample ID: 071-1159-MW75-W-0405

Lab Code: LA024 Case No.:

Contract:

Matrix: (soil / water) Water

SAS No.: SDG No.: 204052811

Level: (low / med) % Solids:

Lab Sample ID: 20405281107

Date Received: 05/28/04 Time: 1010

Date Collected: 05/27/04 Time: 1343

Analyte	Concentration	Units	C	Q	MDL	PQL	Method	Type	
Lead	0.0096	mg/L	B		0.0010	0.015	SW-846 6010B	P	MB

C.L.R

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL

Sample ID: 071-1159-MW72-W-DUP-0405

Lab Code: LA024 Case No.:

Contract:

Matrix: (soil / water) Water

SAS No.:

SDG No.: 204052811

Level: (low / med)

% Solids:

Lab Sample ID: 20405281110

Date Received: 05/28/04 Time: 1010

Date Collected: 05/27/04 Time: 0932

Analyte	Concentration	Units	C	Q	MDL	PQL	Method	Type	
Lead	0.0020	mg/L	B		0.0010	0.015	SW-846 6010B	P	MB

C.L.R

FORM I - IN

INORGANIC ANALYSIS DATA SHEET

Lab Name: GCAL

Sample ID: 071-1159-FD-W-0405

Lab Code: LA024 Case No.:

Contract:

Matrix: (soil / water) Water

SAS No.: SDG No.: 204052811

Level: (low / med) % Solids:

Lab Sample ID: 20405281111

Date Received: 05/28/04 Time: 1010

Date Collected: 05/27/04 Time: 0000

Analyte	Concentration	Units	C	Q	MDL	PQL	Method	Type	
Lead	0.031	mg/L	B	/	0.0010	0.015	SW-846 6010B	P	MB

C.L.R

FORM I - IN

CH2MHILL / 1500 / NAS Sigh / Due 5/21/04

CH2MHILL Constructors, Inc.

115 Perimeter Center Place, Suite 700
Atlanta, GA 30346-1278
Tel No: (770) 604-9182
Fax No: (770) 604-9282

CHAIN-OF-CUSTODY RECORD

[1] COC NUMBER: **266690-040512-01**

[2] PROJECT NAME:	[5] PROJECT NUMBER:	[8] LAB NAME AND CONTACT:	[11] FAX AND MAIL; COC Reports, Preliminary Data, & EDD TO::	[14] RECIPIENT 1 (Address, Tel No. , and Fax No.):
NAS Pensacola	266690	Gulf Coast Analytical, 7979 GSRI Ave., Baton Rouge, LA 70820	Russell Henderson, CH2M Hill, Constructors	115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346 Phone=770-604-9182 Fax=770.604.9181
[3] PROJECT PHASE/SITE/TASK:	[6] CTO OR DO NUMBER:	[9] LAB PO NUMBER:	[12] FAX AND MAIL Preliminary reports TO:: RECIPIENT 2 (Name and Company)	[15] RECIPIENT 2 (Address, Tel No. , and Fax No.):
Bronson Field, Site 1159	CTO-0071	PO # 6331	Phyllis Zerangue, CH2M Hill,Inc.	1766 Sea Lark Lane, Navarre, FL 32566 Phone=850-939-8300
[4] PROJECT CONTACT:	[7] PROJECT TEL NO AND FAX NO:	[10] LAB TEL NO AND FAX NO:	[11] FAX AND MAIL; COC Reports, Preliminary Data, & EDD TO::	[16] RECIPIENT 3 (Address, Tel No. , and Fax No.):
Bonnie Hogue	770-604-9095 770-604-9182	225-769-4900	Bonnie Hogue, CH2M Hill, Constructors	115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346 Phone=770-604-9182 Fax=770.604.9181

[23] ANALYSES REQUIRED (Include Method Numbers)

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	BTEX + MTBE by 5035/8260B, (3)40 ml vials	PAHs by 8310 TRPH (Speciated) 16oz WM glass	BTEX + MTBE by 5035/8260B, (3)40 ml vials	PAHs by8310 (1) L Amber	TPH (speciated) 1L Amber	Sample Thype	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use)
														20405134L-	
1	071-1159-PreEB-W-051204	Pre Equipment Blank	W	05/12/04	0830	C	14			X	X	X	EB		-1
2	071-1159-AAS01-S-11-13'	AAS-01, 11-13' bls	S	05/12/04	1100	C	14	X	X				N		2
3	071-1159-AAS05-S-18-20	AAS-05, 18-20' bls	S	05/12/04	1445	C	14	X	X				N		3
4	071-1159-AAS0?-S-Dup	Duplicate	S	05/12/04	N/A	C	14	X	X				FD		4
5															
6															
7															
8															
9															
10															

[29] SAMPLER(S) AND COMPANY: (please print)
Dan Bitely/CH2MHILL
Scott Dunbar/CH2MHILL

[30] COURIER AND SHIPPING NUMBER:
FEDEX:

[31] SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use):
4°

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature: Scott Dunbar	5-12-04	1730	Printed Name and Signature: Fed-Ex		
Printed Name and Signature: FEDEX 847002224657	5-13-04	945	Printed Name and Signature: Michelle Raban	5-13-04	945
Printed Name and Signature:			Printed Name and Signature:		

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Form CC1001, Rev 06/00

CH2MHILL Constructors, Inc.
115 Perimeter Center Place, Suite 700
Atlanta, GA 30346-1278
Tel No: (770) 604-9182
Fax No: (770) 604-9282

CHAIN-OF-CUSTODY RECORD

[1] COC NUMBER: 266690-040527-01

[2] PROJECT NAME:	[5] PROJECT NUMBER:	[8] LAB NAME AND CONTACT: Dana	[11] FAX AND MAIL; COC Reports, Preliminary Data, & EDD TO::	[14] RECIPIENT 1 (Address, Tel No. , and Fax No.):
NAS Pensacola	266690	Gulf Coast Analytical, 7979 GSRI Ave., Baton Rouge, LA 70820	Russell Henderson, CH2M Hill, Constructors	115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346 Phone=770-604-9182 Fax=770.604.9181
[3] PROJECT PHASE/SITE/TASK:	[6] CTO OR DO NUMBER:	[9] LAB PO NUMBER:	[12] FAX AND MAIL Preliminary reports TO:: RECIPIENT 2 (Name and Company)	[15] RECIPIENT 2 (Address, Tel No. , and Fax No.):
Bronson Field, Site 1159	CTO-0071	PO # 6331	Phyllis Zerangue, CH2M Hill,Inc.	1766 Sea Lark Lane, Navarre, FL 32566 Phone=850-939-8300 Cell=850-565-0304
[4] PROJECT CONTACT:	[7] PROJECT TEL NO AND FAX NO:	[10] LAB TEL NO AND FAX NO:	[11] FAX AND MAIL; COC Reports, Preliminary Data, & EDD TO::	[16] RECIPIENT 3 (Address, Tel No. , and Fax No.):
Bonnie Hogue	770-604-9095 770-604-9182	225-769-4900	Bonnie Hogue, CH2M Hill, Constructors	115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346 Phone=770-604-9182 Fax=770.604.9181

[25] ANALYSES REQUIRED (Include Method Numbers)

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	BTEX + MTBE by ~~8020B~~ 8260B	PAHs by 8310	TPH by FL-PRO	Total Lead by 6010B		# of bottles		SAMPLE TYPE	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use)
																20405281-	
1	071-1159-PreEB-W-0405	Pre Equipment Bk	W	05/27/04	1024	C	14	X	X	X	X		8		EB	Please	-1
2	071-1159-MW70-W-0405	MW-70	W	05/27/04	1105	C	14	X	X	X	X		8		N	Preserve	-2
3	071-1159-MW71-W-0405	MW-71	W	05/27/04	1152	C	14	X	X	X	X		8		N	FL-PRO	3
4	071-1159-MW72-W-0405	MW-72	W	05/27/04	0932	C	14	X	X	X	X		8		N	in LAB	4
5	071-1159-MW73-W-0405	MW-73	W	05/27/04	1505	C	14	X	X	X	X		8		N	immediately	-5
6	071-1159-MW74-W-0405	MW-74	W	05/27/04	1430	C	14	X	X	X	X		8		N	P.Z.	-6
7	071-1159-MW75-W-0405	MW-75	W	05/27/04	1343	C	14	X	X	X	X		8		N		-7
8	071-1159-MW72-W-MS-0405	MW-72	W	05/27/04	0932	C	14	X	X	X	X		8		MS		-8
9	071-1159-MW72-W-SD-0405	MW-72	W	05/27/04	0932	C	14	X	X	X	X		8		MSD	MSD-9 dup-	10
10	071-1159-FD-W-0405	Field Dup	W	05/27/04	—	C	14	X	X	X	X		8		FD		-11

[29] SAMPLER(S) AND COMPANY: (please print)	[30] COURIER AND SHIPPING NUMBER:	[31] SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use):
Phyllis Zerangue/CH2MHILL Chrystal Everson/CH2MHILL	FEDEX:	4°C

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature: Phyllis Zerangue	05/27/2004		Printed Name and Signature:		
Printed Name and Signature: FedEx # 825368985335	5/28/04	1010	Printed Name and Signature: Anna Kincaid	5/28/04	1010
Printed Name and Signature:			Printed Name and Signature:		

000615

Distribution: [ ] **Original** - Laboratory (To be returned with Analytical Report); [ ] **Copy 1** - Project File; [ ] **Copy 2** - PMO

Form CCI001, Rev 06/00

CH2MHILL Constructors, Inc.
115 Perimeter Center Place, Suite 700
Atlanta, GA 30346-1278
Tel No: (770) 604-9182
Fax No: (770) 604-9282

CHAIN-OF-CUSTODY RECORD

[1] COC NUMBER: 266690-040527-02

[2] PROJECT NAME:	[5] PROJECT NUMBER:	[8] LAB NAME AND CONTACT: Dana	[11] FAX AND MAIL; COC Reports, Preliminary Data, & EDD TO::	[14] RECIPIENT 1 (Address, Tel No. , and Fax No.):
NAS Pensacola	266690	Gulf Coast Analytical, 7979 GSRI Ave., Baton Rouge, LA 70820	Russell Henderson, CH2M Hill, Constructors	115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346 Phone=770-604-9182 Fax=770.604.9181
[3] PROJECT PHASE/SITE/TASK:	[6] CTO OR DO NUMBER:	[9] LAB PO NUMBER:	[12] FAX AND MAIL Preliminary reports TO:: RECIPIENT 2 (Name and Company)	[15] RECIPIENT 2 (Address, Tel No. , and Fax No.):
Bronson Field, Site 1159	CTO-0071	PO # 6331	Phyllis Zerangue, CH2M Hill,Inc.	1766 Sea Lark Lane, Navarre, FL 32566 Phone=850-939-8300 Cell=850-565-0304
[4] PROJECT CONTACT:	[7] PROJECT TEL NO AND FAX NO:	[10] LAB TEL NO AND FAX NO:	[11] FAX AND MAIL; COC Reports, Preliminary Data, & EDD TO::	[16] RECIPIENT 3 (Address, Tel No. , and Fax No.):
Bonnie Hogue	770-604-9095 770-604-9182	225-769-4900	Bonnie Hogue, CH2M Hill, Constructors	115 Perimeter Center Place, NE, Suite 700, Atlanta, Ga. 30346 Phone=770-604-9182 Fax=770.604.9181

[25] ANALYSES REQUIRED (Include Method Numbers)

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	BTEX + MTBE by 8020B	PAHs by 8310	TPH by FL-PRO	Total Lead by 6010B		# of bottles		SAMPLE TYPE	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use)
1	071-1159-TripBlk-W-0405	Trip Blank	W	05/27/04	BY LAB	C	14	X					3		TB	20405294 -	12
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

[29] SAMPLER(S) AND COMPANY: (please print)	[30] COURIER AND SHIPPING NUMBER:	[31] SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use):
Phyllis Zerangue/CH2MHILL Chrystal Everson/CH2MHILL	FEDEX:	4°C

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
	05/27/2004				
Printed Name and Signature:			Printed Name and Signature:		
FedEx# 825 368 985 335	5/28/04	1010	Anna Kuchen	5/27/04	1010
Printed Name and Signature:			Printed Name and Signature:		

Distribution: [ ] **Original** - Laboratory (To be returned with Analytical Report); [ ] **Copy 1** - Project File; [ ] **Copy 2** - PMO

Form CCI001, Rev 06/00

NAS Pensacola

PREPARED FOR:	NAS Pensacola / Bronson Site 1159 Groundwater Sampling May 2006
FINAL REVIEWER/ INITIAL REVIEWER	Camden Robinson/ Associate Project Chemist/CH2M Hill
COPIES:	Greg Wifley /Project Manager/CCI
DATE:	June 29, 2006
SUBJECT:	Quality Assessment for Samples Collected May 31st, 2006 thru June 01st, 2006

This quality assurance memorandum is based upon a review of analytical data generated for the groundwater samples collected May 31st, 2006 thru June 01st, 2006 at the Naval Air Station in Pensacola, Florida. The samples were collected as a part of the Bronson Site 1159 Groundwater sampling event conducted at the site. Table 1-1 presents a summary of the CCI sample identification numbers, laboratory sample identification numbers, dates of collection, and the analyses performed.

PEL laboratories in Tampa, Florida served as the laboratory for this Bronson Site 1159 Groundwater sampling event. The sample was submitted for Volatile Organic Compounds (VOC) by SW-846 method 8260B, Polyaromatic Hydrocarbons (PAH) by SW-846 method 8270C SIM, Total Petroleum Hydrocarbon (TPH) by method FLA-PRO, Total Lead by SW-846 method 6010B, Dissolved Lead by SW-846 6010B, Alkalinity by EPA method 310.1, Total Organic Carbon (TOC) by EPA method 415.1, and Carbon Dioxide by EPA method 4500CO2.

Data for the analyses were reviewed for adherence to the specified analytical protocols in accordance with CCI Sampling Analysis Plan. All analysis results have been validated or qualified according to general guidance provided in the Department of Defense (DOD) Quality Systems Manual - Version 2 Final (based on NELAP Voted Version 14 – 29 June 2002).

The findings of this quality assurance report are based upon the comprehensive review of the following results summaries reported according to the CCI Level B (CLP-like data deliverables format): chain of custody documentation, holding times, laboratory method and field blank analyses, surrogate compound recoveries, matrix spike compound recoveries and reproducibility, bromofluorobenzene (BFB) mass tuning results, initial and continuing calibration, second source recovery and internal standard area performance summaries, target compound identification, laboratory control sample results, laboratory and blind field duplicate sample results, detection limits/sensitivity, ICP interference check sample results, ICP serial dilution results, metals post digestion spikes, and electronic data deliverables.

The analyses were performed acceptably, but require several qualifying statements; it is recommended that the analytical data be used only with the qualifying statements provided below. Any aspects of the data, which are not discussed in this report, should be considered qualitatively and quantitatively valid as reported, based on the deliverables reviewed. The validated and qualified results are presented in the data summary tables. Attachment A contains a copy of the chain of custody and the validated sample results.

Table 1-1
Summary Sample Data
NAS Pensacola

Sample Number	Reference Sample Number	Lab Sample ID	Date Sampled	Analyses Required
071-1159-MW-01-0606		250398401	05/31/2006	[1], [2], [3], [4], [5]
071-1159-MW-04-0606		250398402	05/31/2006	[1], [2], [3], [4]
071-1159-MW-09-0606		250398403	05/31/2006	[1], [2], [3], [4], [5]
071-1159-MW-20-0606		250398404	05/31/2006	[1], [2], [3], [4]
071-1159-MW-22-0606		250398407	05/31/2006	[1], [2], [3], [4]
071-1159-MW-24-0606		250398408	05/31/2006	[1], [2], [3], [4], [5]
071-1159-MW-28-0606		250398409	05/31/2006	[1], [2], [3], [4]
071-1159-MW-32-0606		250398410	05/31/2006	[1], [2], [3], [4]
071-1159-MW-59-0606		250398411	05/31/2006	[1], [2], [3], [4]
071-1159-MW-61-0606		250398412	05/31/2006	[1], [2], [3], [4]
071-1159-MW-62-0606		250398413	05/31/2006	[1], [2], [3], [4], [5]
071-1159-MW-65-0606		250398414	05/31/2006	[1], [2], [3], [4], [5]
071-1159-MW-67-0606		250398415	05/31/2006	[1], [2], [3], [4], [6], [7],[8]
071-1159-MW-69-0606		250398416	05/31/2006	[1], [2], [3], [4]
071-1159-MW-72-0606		250398417	05/31/2006	[1], [2], [3], [4], [5]
071-1159-MW-73-0606		250398418	05/31/2006	[1], [2], [3], [4]
071-1159-MW-74-0606		250398419	05/31/2006	[1], [2], [3], [4], [5]
071-1159-FD-2-0606	071-1159-MW-62-0606	250398420	05/31/2006	[1], [2], [3], [4], [5]
071-1159-PreEQ-2-0606		250398421	05/31/2006	[1], [2], [3], [4], [5]
071-1159-TB-1-0606		250398422	05/31/2006	[1]
071-1159-MW-18-0606		250398401	06/01/2006	[1], [2], [3], [4]
071-1159-MW-25-0606		250398402	06/01/2006	[1], [2], [3], [4], [5], [6], [7], [8]
071-1159-MW-33-0606		250398403	06/01/2006	[1], [2], [3], [4]
071-1159-MW-35-0606		250398404	06/01/2006	[1], [2], [3], [4], [6], [7], [8]
071-1159-MW-44-0606		250398407	06/01/2006	[1], [2], [3], [4]
071-1159-MW-45-0606		250398408	06/01/2006	[1], [2], [3], [4]
071-1159-MW-47-0606		250398409	06/01/2006	[1], [2], [3], [4], [5], [6], [7], [8]
071-1159-MW-52-0606		250398410	06/01/2006	[1], [2], [3], [4]
071-1159-MW-55-0606		250398411	06/01/2006	[1], [2], [3], [4], [5], [6], [7], [8]
071-1159-MW-60-0606		250398412	06/01/2006	[1], [2], [3], [4]
071-1159-MW-64-0606		250398413	06/01/2006	[1], [2], [3], [4]
071-1159-MW-70-0606		250398414	06/01/2006	[1], [2], [3], [4]
071-1159-MW-71-0606		250398415	06/01/2006	[1], [2], [3], [4]
071-1159-MW-75-0606		250398416	06/01/2006	[1], [2], [3], [4], [6], [7], [8]
071-1159-FD-1-0606	071-1159-MW-47-0606	250398417	06/01/2006	[1], [2], [3], [4], [5], [6], [7], [8]
071-1159-FD-3-0606	071-1159-MW-71-0606	250398418	06/01/2006	[1], [2], [3], [4]
071-1159-PreEQ-2-0606		250398419	06/01/2006	[1], [2], [3], [4], [5], [6], [7], [8]
071-1159-TB-2-0606		250398420	06/01/2006	[1]

ANALYSES PERFORMED CODES:

[1] - Volatile organic compounds (VOC) by SW-846 8260B,

[2] – Polyaromatic Hydrocarbons (PAH) by SW-846 8270C SIM,
[3] – Total Petroleum Hydrocarbon (TPH) by method FLA-PRO,
[4] – Total Lead by SW-846 6010B,
[5] – Dissolved Lead by SW-846 6010B,
[6] – Alkalinity by EPA method 310.1,
[7] – Total Organic Carbon (TOC) by EPA method 415.1,
[8] – Carbon Dioxide by EPA method 4500CO2

General Data Qualifiers

As required by U.S. EPA protocols, all compounds, which were qualitatively identified at concentrations below their respective, reporting limits (RL) but above the method detection limit (MDL) have been qualified with "J" qualifiers on the data summary reports to indicate that they are quantitative estimates.

GROUNDWATER CLEANUP TARGET ACTION LEVEL REGULARTORY LIMITS

All samples collected and analyzed for the month of May 2006 for the volatile organic compounds, polyaromatic hydrocarbon, total petroleum hydrocarbon by fl-pro, total lead, dissolved lead, alkalinity, total organic carbon, and carbon dioxide analyses were less than the action level groundwater cleanup target level regulatory limits with the exception of the analytes listed below:

Analyte (Volatile List)	Affected Sample	Sample Results (ug/l)	Groundwater Cleanup Target Levels (ug/l)
Benzene	071-1159-MW-01-0606	2.5	1
Benzene	071-1159-MW-18-0606	4.2	1
Benzene	071-1159-MW-28-0606	2.8	1
Benzene	071-1159-MW-47-0606	23.8	1
Ethylbenzene	071-1159-MW-01-0606	33.2	30
Ethylbenzene	071-1159-MW-28-0606	139	30
Ethylbenzene	071-1159-MW-45-0606	75.5	30
Ethylbenzene	071-1159-MW-47-0606	422	30
Ethylbenzene	071-1159-MW-55-0606	330	30
Ethylbenzene	071-1159-MW-70-0606	134	30
Ethylbenzene	071-1159-MW-71-0606	249	30
Ethylbenzene	071-1159-MW-74-0606	109	30
Toluene	071-1159-MW-28-0606	233JB	40
Toluene	071-1159-MW-45-0606	171	40
Toluene	071-1159-MW-47-0606	2100	40
Toluene	071-1159-MW-55-0606	294	40
Toluene	071-1159-MW-71-0606	44.9	40
Total Xylenes	071-1159-MW-01-0606	132	20
Total Xylenes	071-1159-MW-09-0606	54.5	20
Total Xylenes	071-1159-MW-24-0606	71.6	20
Total Xylenes	071-1159-MW-25-0606	80.3	20
Total Xylenes	071-1159-MW-28-0606	714	20
Total Xylenes	071-1159-MW-45-0606	276	20
Total Xylenes	071-1159-MW-47-0606	2180	20
Total Xylenes	071-1159-MW-55-0606	1170	20
Total Xylenes	071-1159-MW-62-0606	39.2	20

Analyte (Volatile List)	Affected Sample	Sample Results (ug/l)	Groundwater Cleanup Target Levels (ug/l)
Total Xylenes	071-1159-MW-64-0606	51.8	20
Total Xylenes	071-1159-MW-65-0606	93.8	20
Total Xylenes	071-1159-MW-70-0606	323	20
Total Xylenes	071-1159-MW-71-0606	935	20
Total Xylenes	071-1159-MW-74-0606	364	20

Analyte (PAH List)	Affected Sample	Sample Results (ug/l)	Groundwater Cleanup Target Levels (ug/l)
Benzo(b)fluoranthene	071-1159-MW-28-0606	0.076	0.05
Dibenz(a,h)anthracene	071-1159-MW-28-0606	0.078	0.005
Indeno(1,2,3-cd)pyrene	071-1159-MW-28-0606	0.073JB	0.05

Analyte (Metals List)	Affected Sample	Sample Results (ug/l)	Groundwater Cleanup Target Levels (ug/l)
Total Lead	071-1159-MW-01-0606	2.5	15
Total Lead	071-1159-MW-04-0606	55.6	15
Total Lead	071-1159-MW-09-0606	23.5	15
Total Lead	071-1159-MW-18-0606	40.6JB	15
Total Lead	071-1159-MW-22-0606	24.9	15
Total Lead	071-1159-MW-24-0606	28.2	15
Total Lead	071-1159-MW-25-0606	67.4JB	15
Total Lead	071-1159-MW-28-0606	84.3	15
Total Lead	071-1159-MW-45-0606	24.8JB	15
Total Lead	071-1159-MW-47-0606	47.9JB	15
Total Lead	071-1159-MW-55-0606	20.8JB	15
Total Lead	071-1159-MW-62-0606	47.5J	15
Total Lead	071-1159-MW-64-0606	17.1JB	15
Total Lead	071-1159-MW-65-0606	38.3	15
Total Lead	071-1159-MW-71-0606	29.2JB	15
Total Lead	071-1159-MW-73-0606	20.2	15
Dissolved Lead	071-1159-MW-24-0606	19.6	15
Dissolved Lead	071-1159-MW-25-0606	25.3	15
Dissolved Lead	071-1159-MW-47-0606	34.4	15
Dissolved Lead	071-1159-MW-55-0606	19.7	15
Dissolved Lead	071-1159-MW-62-0606	27.7	15
Dissolved Lead	071-1159-MW-65-0606	35.2	15

Organic Data Qualifiers

The positive results and/or quantitation limits for 2-methylnaphthalene in the sample listed below should be considered a quantitative estimate. The associated laboratory control sample and laboratory control sample duplicate (LCS/LCSD) recoveries for this compound were below the established quality control (QC) limits. This has been indicated by placing "J" qualifier next to the result for this compound in the specified sample on the data summary tables. Please note that the low percent recoveries were the result of an error in the preparation of the spiking solution in which 2-Methylnaphthalene was excluded. However, the compound was within acceptance criteria in the calibration and calibration verifications.

Compound	Affected Samples
2-Methylnaphthalene	071-1159-MW-01-0606, 071-1159-MW-04-0606, 071-1159-MW-09-0606, 071-1159-MW-20-0606, 071-1159-MW-22-0606, 071-1159-MW-24-0606, 071-1159-MW-28-0606, 071-1159-MW-32-0606, 071-1159-MW-59-0606, 071-1159-MW-61-0606, 071-1159-MW-62-0606, 071-1159-MW-65-0606, 071-1159-MW-67-0606, 071-1159-MW-69-0606, 071-1159-MW-72-0606, 071-1159-MW-73-0606, 071-1159-MW-74-0606, and 071-1159-FD-2-0606

The positive result reported for 2-methylnaphthalene for the sample listed below should be considered a biased low quantitative estimate and may be higher than reported. The associated recoveries for the client specific matrix spike (MS) and matrix spike duplicate (MSD) samples were below the established quality control (QC) limit for this compound. The biased low recoveries for this compound may indicate the possible presence of matrix interferences in samples of similar matrix. This has been indicated by appending a "J" qualifier to the 2-methylnaphthalene result for the sample in the data summary tables.

Compound	Affected Samples
2-Methylnaphthalene	071-1159-MW-20-0606

The positive results for volatile organic compound toluene, and polyaromatic hydrocarbons naphthalene, 2-methylnaphthalene, 1-methylnaphthalene, fluorene, indeno(1,2,3-cd)pyrene, benzo(g,h,i)perylene, phenanthrene, acenaphthene, fluoranthene, pyrene, and benzo(a)anthracene reported in the samples listed below are considered quantitative estimates due to the levels at which the compounds were present in the associated method blank and/or equipment blank. This has been indicated in the data summary tables by placing a "JB" qualifier next to the reported values associated with the equipment blank contaminations or "B" qualifier next to the reported values associated with the method blank contamination.

Compound	Affected Samples
Toluene	071-1159-MW-01-0606, 071-1159-MW-24-0606, 071-1159-MW-28-0606, 071-1159-MW-67-0606, and 071-1159-MW-74-0606
Naphthalene	071-1159-MW-01-0606, 071-1159-MW-09-0606, 071-1159-MW-20-0606, 071-1159-MW-22-0606, 071-1159-MW-24-0606,

Compound	Affected Samples
	071-1159-MW-28-0606, 071-1159-MW-62-0606, 071-1159-MW-65-0606, 071-1159-MW-67-0606, 071-1159-MW-74-0606, 071-1159-FD-2-0606, 071-1159-MW-18-0606, 071-1159-MW-25-0606, 071-1159-MW-45-0606, 071-1159-MW-47-0606, 071-1159-MW-55-0606, 071-1159-MW-64-0606, 071-1159-MW-70-0606, 071-1159-MW-71-0606, 071-1159-MW-75-0606, 071-1159-FD-1-0606, and 071-1159-FD-3-0606
2-Methynaphthalene	071-1159-MW-01-0606, 071-1159-MW-04-0606, 071-1159-MW-09-0606, 071-1159-MW-20-0606, 071-1159-MW-22-0606, 071-1159-MW-24-0606, 071-1159-MW-28-0606, 071-1159-MW-62-0606, 071-1159-MW-65-0606, 071-1159-MW-67-0606, 071-1159-MW-73-0606, 071-1159-MW-74-0606, 071-1159-FD-2-0606, 071-1159-MW-18-0606, 071-1159-MW-25-0606, 071-1159-MW-44-0606, 071-1159-MW-45-0606, 071-1159-MW-47-0606, 071-1159-MW-55-0606, 071-1159-MW-64-0606, 071-1159-MW-70-0606, 071-1159-MW-71-0606, 071-1159-MW-75-0606, 071-1159-FD-1-0606, and 071-1159-FD-3-0606
1-Methynaphthalene	071-1159-MW-01-0606, 071-1159-MW-04-0606, 071-1159-MW-09-0606, 071-1159-MW-22-0606, 071-1159-MW-24-0606, 071-1159-MW-28-0606, 071-1159-MW-62-0606, 071-1159-MW-65-0606, 071-1159-MW-67-0606, 071-1159-MW-73-0606, 071-1159-MW-74-0606, 071-1159-FD-2-0606, 071-1159-MW-18-0606, 071-1159-MW-25-0606, 071-1159-MW-44-0606, 071-1159-MW-45-0606, 071-1159-MW-47-0606, 071-1159-MW-55-0606, 071-1159-MW-64-0606, 071-1159-MW-70-0606, 071-1159-MW-71-0606, 071-1159-MW-75-0606, 071-1159-FD-1-0606, and 071-1159-FD-3-0606
Fluorene	071-1159-MW-01-0606, 071-1159-MW-04-0606, 071-1159-MW-09-0606, 071-1159-MW-20-0606, 071-1159-MW-22-0606, 071-1159-MW-24-0606, 071-1159-MW-28-0606, 071-1159-MW-65-0606, 071-1159-MW-67-0606, 071-1159-MW-73-0606, 071-1159-MW-74-0606, 071-1159-FD-2-0606, 071-1159-MW-18-0606, 071-1159-MW-25-0606, 071-1159-MW-64-0606, 071-1159-MW-70-0606, 071-1159-MW-71-0606, 071-1159-FD-1-0606, and 071-1159-FD-3-0606
Indeno(1,2,3-cd)pyrene	071-1159-MW-28-0606
Benzo(g,h,i)perylene	071-1159-MW-28-0606
Phenanthrene	071-1159-MW-74-0606 and 071-1159-FD-3-0606
Acenaphthene	071-1159-MW-24-0606 and 071-1159-MW-28-0606
Fluoranthene	071-1159-MW-04-0606, 071-1159-MW-22-0606, and 071-1159-MW-28-0606
Pyrene	071-1159-MW-04-0606, 071-1159-MW-22-0606, 071-1159-MW-28-0606, 071-1159-MW-45-0606, 071-1159-MW-71-0606,

Compound	Affected Samples
	071-1159-MW-75-0606, and 071-1159-FD-3-0606
Benzo(a)anthracene	071-1159-MW-18-0606, 071-1159-MW-25-0606, 071-1159-MW-35-0606, 071-1159-MW-44-0606, 071-1159-MW-45-0606, 071-1159-MW-47-0606, 071-1159-MW-52-0606, 071-1159-MW-55-0606, 071-1159-MW-60-0606, 071-1159-MW-64-0606, 071-1159-MW-70-0606, 071-1159-MW-71-0606, and 071-1159-FD-3-0606

The samples presented below were analyzed or re-analyzed at dilutions for the analysis indicated. These dilutions were required to prevent saturation of the instrument, to allow quantitation of the compounds within the linear range of the calibration curve, and/or to reduce the effects of the matrix on the target compounds. Positive results for compounds reported above the calibration range in the initial analysis have been reported from the diluted analyses. When possible, results and quantitation limits for all other compounds were reported from the initial analysis. Higher quantitation limits were reported for specific volatile organic compounds and polyaromatic hydrocarbons analyses, which were not detected in the diluted sample. This should be noted when assessing these samples for the qualitative absence of specific volatile organic compounds and polyaromatic hydrocarbons compounds.

Sample ID	Analysis	Dilution Factor
071-1159-MW-28-0606	VOC	10X
071-1159-MW-74-0606	VOC	10X
071-1159-MW-28-0606	PAH	2X
071-1159-MW-45-0606	VOC	5X
071-1159-MW-47-0606	VOC	5X and 50X
071-1159-MW-55-0606	VOC	10X
071-1159-MW-70-0606	VOC	5X
071-1159-MW-71-0606	VOC	10X
071-1159-FD-1-0606	VOC	5X and 50X
071-1159-FD-3-0606	VOC	5X
071-1159-MW-25-0606	PAH	2X
071-1159-MW-47-0606	PAH	2X
071-1159-MW-55-0606	PAH	2X
071-1159-FD-1-0606	PAH	5X
071-1159-FD-3-0606	PAH	2X

Samples 071-1159-MW-62-0606, 071-1159-MW-47-0606, and 071-1159-MW-71-0606 and their blind field duplicate samples 071-1159-FD-2-0606, 071-1159-FD-1-0606, and 071-1159-FD-3-0606 were submitted to the laboratory to evaluate sampling and analytical precision for those compounds determined to be confidently detected. All compounds met CCI's blind duplicate precision criteria of 30% for water samples relative percent difference (RPD) for volatile organic, polyaromatic hydrocarbon, and total petroleum hydrocarbon analyses with the exception of acenaphthylene, naphthalene, 2-methylnaphthalene, 1-methylnaphthalene, and phenanthrene. A "J" qualifier was appended to these compounds for the native samples and field duplicate samples listed below to indicate that the reported values should be considered quantitative estimates due to the field duplicate RPD exceedances. The RPD was not calculated for the compounds that were not detected in both samples.

Compound	Affected Samples
Acenaphthylene	071-1159-FD-2-0606
Naphthalene	071-1159-MW-71-0606 and 071-1159-FD-3-0606
2-Methylnaphthalene	071-1159-MW-71-0606 and 071-1159-FD-3-0606
1-Methynaphthalene	071-1159-MW-71-0606 and 071-1159-FD-3-0606
Phenanthrene	071-1159-FD-3-0606

Inorganic Data Qualifiers

The positive results for total lead reported in the samples listed below are considered quantitative estimates due to the level at which the element was present in the associated equipment blank. This has been indicated in the data summary tables by placing a "JB" qualifier for the sample results associated with equipment blank contamination.

Compound	Affected Samples
Total Lead	071-1159-MW-18-0606, 071-1159-MW-25-0606, 071-1159-MW-35-0606, 071-1159-MW-45-0606, 071-1159-MW-47-0606, 071-1159-MW-52-0606, 071-1159-MW-55-0606, 071-1159-MW-64-0606, 071-1159-MW-70-0606, 071-1159-MW-71-0606, 071-1159-MW-75-0606, 071-1159-FD-1-0606, and 071-1159-FD-3-0606

Samples 071-1159-MW-62-0606, 071-1159-MW-47-0606, and 071-1159-MW-71-0606 and their blind field duplicate samples 071-1159-FD-2-0606, 071-1159-FD-1-0606, and 071-1159-FD-3-0606 were submitted to the laboratory to evaluate sampling and analytical precision for those compounds determined to be confidently detected. All compounds met CCI's blind duplicate precision criteria of 30% for water samples relative percent difference (RPD) for metals analyses with the exception of total lead. A "J" qualifier was appended to the element for the native sample and field duplicate sample listed below to indicate that the reported values should be considered quantitative estimates due to the field duplicate RPD exceedances. The RPD was not calculated for the compounds that were not detected in both samples.

Compound	Affected Samples
Total Lead	071-1159-MW-62-0606 and 071-1159-FD-2-0606

General Chemistry Qualifiers

The positive results for carbon dioxide and total organic carbon (TOC) reported in the samples listed below are considered quantitative estimates due to the levels at which the compounds were present in the associated equipment and/or continuing calibration blanks. This has been indicated in the data summary tables by placing a "JB" qualifier next to the reported values associated with the equipment blank contamination or "B" qualifier next to the reported values associated with the continuing calibration blank contamination.

Compound	Affected Samples
TOC	071-1159-MW-25-0606, 071-1159-MW-35-0606, 071-1159-MW-47-0606, 071-1159-MW-55-0606, 071-1159-MW-75-0606, and 071-1159-FD-1-0606
Carbon Dioxide	071-1159-MW-25-0606, 071-1159-MW-35-0606, 071-1159-MW-47-0606, 071-1159-MW-55-0606, 071-1159-MW-75-0606, 071-1159-FD-1-0606

The samples presented below were analyzed at dilutions for the analysis indicated. These dilutions were required to prevent saturation of the instrument, to allow quantitation of the compounds within the linear range of the calibration curve, and/or to reduce the effects of the matrix on the target compounds. Positive results for compounds reported above the calibration range in the initial analysis have been reported from the diluted analyses.

Sample ID	Analysis	Dilution Factor
071-1159-MW-67-0606	Alkalinity	4X
071-1159-MW-67-0606	TOC	100X
071-1159-MW-25-0606	Alkalinity	4X
071-1159-MW-25-0606	TOC	10X
071-1159-MW-47-0606	Alkalinity	4X
071-1159-MW-47-0606	TOC	10X
071-1159-MW-55-0606	Alkalinity	4X
071-1159-MW-55-0606	TOC	10X
071-1159-MW-75-0606	Alkalinity	4X
071-1159-MW-75-0606	TOC	10X
071-1159-FD-1-0606	Alkalinity	4X
071-1159-FD-1-0606	TOC	10X

Sample 071-1159-MW-47-0606 and its blind field duplicate sample 071-1159-FD-1-0606 were submitted to the laboratory to evaluate sampling and analytical precision for those compounds determined to be confidently detected. All compounds met CCI's blind duplicate precision criteria of 30% for water samples relative percent difference (RPD) for the wet chemistry analyses with the exception of carbon dioxide. A "J" qualifier was appended to the compound for the native sample and field duplicate sample listed below to indicate that the reported values should be considered quantitative estimates due to the field duplicate RPD exceedances. The RPD was not calculated for the compounds that were not detected in both samples.

Compound	Affected Samples
Carbon Dioxide	071-1159-MW-47-0606 and 071-1159-FD-1-0606

Summary

The organic, inorganic, and classical chemistry analyses were performed acceptably, but required qualifying statements. This analytical quality assurance report has identified the aspects of the data, which required qualification. These qualifiers are noted on the attached analytical sample summary reports. A support documentation package has been prepared for this quality assurance review and is filed with the NAS Pensacola / Bronson Site 1159Groundwater Sampling May 2006 project file.

Attachment A

VALID QUALIFIERS

QUALIFIER	
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit
J	The analyte was positively identified: the associated numerical value is the approximate concentration of the analyte in the sample.
N	The analysis indicates the presence of an analyte for which there was presumptive evidence to make a "tentative identification."
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
UJ	The analyte was not deemed above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
R/UR	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet the quality control criteria. The presence or absence of the analyte cannot be verified.
B	The analyte was detected in the associated method and/or calibration blank.
JB	The analyte detected in the associated field, equipment, and/or trip blank.

QUALIFICATION CODE REFERENCE

Qualifier	Organics	Inorganics
H	Holding times were exceeded.	Holding times were exceeded.
S	Surrogate recovery was outside QC limits.	The sequence or number of standards used for the calibration was incorrect.
C	Calibration %RSD or %D was noncompliant.	Correlation coefficient is <0.995.
K	Second source %D was noncompliant.	Second source %D was noncompliant.
R	Calibration RRF was <0.05.	%R for calibration is not within control limits.
MB	Presumed contamination from preparation (method) blank.	Presumed contamination from preparation (method) blank or calibration blank.
L	Laboratory Blank Spike/Blank Spike Duplicate %R was not within control limits.	Laboratory Control Sample %R was not within control limits.
Q	MS/MSD recovery was poor or high RPD.	MS/MSD recovery was poor or high RPD.
G	Result is over the calibration range. No other acceptable result was provided.	Result is over the calibration range. Not other acceptable result was provided.
E	Not applicable.	Lab duplicate RPD showed poor agreement.
Z	Field duplicate RPD showed poor agreement.	Field duplicate RPD showed poor agreement
I	Internal standard performance was unsatisfactory.	ICP ICS results were unsatisfactory.
A	Not applicable.	ICP Serial Dilution %D was not within control limits.
TN	Tuning (BFB or DFTPP) was noncompliant.	Not applicable.
T	Presumed contamination from trip blank.	Not applicable.
+	False positive—reported compound was not present.	Not applicable.
-	False negative—compound was present but not reported.	Not applicable.
F	Presumed contamination from FB or ER.	Presumed contamination from FB or ER.
$	Reported result or other information was incorrect.	Reported result or other information was incorrect.
?	TIC identity or reported retention time has been changed.	Not applicable.
D	The analysis with this flag should not be used because another more technically sound analysis is available.	The analysis with this flag should not be used because another more technically sound analysis is available.
P	Confirmation analysis RPD exceeded 40%.	Post Digestion Spike recovery was not within control limits.
T/D	Not applicable.	Total metals results were less than the dissolved metals result.
SD	Not applicable.	Seed correction factor was below the acceptable limit.
M	Results should be considered estimated due to matrix effects caused by saturation of non-target analytes.	Not applicable
OT	Results should be considered estimated due to sample was analyzed from jar.	Not applicable

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VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-01-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398401 Lab File ID: 98401.D

Sample wt/vol: 5 Units: ML Date Received: 06/01/06

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 06/08/06 Time: 0025

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: MW-01 Method: 8260

GPC Cleanup : (Y/N) pH:

Column(1): DB-624 ID: 0.18 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
71-43-2	Benzene	2.5	
108-88-3	Toluene	4.7	JB-F
100-41-4	Ethylbenzene	33.2	
1330-20-7	Xylene (total)	132	
1634-04-4	MTBE	1	U

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Form I

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VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-04-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398402 Lab File ID: 98402.D

Sample wt/vol: 5 Units: ML Date Received: 06/01/06

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 06/08/06 Time: 0048

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: MW-04 Method: 8260

GPC Cleanup : (Y/N) pH:

Column(1): DB-624 ID: 0.18 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	3	U
1634-04-4	MTBE	1	U

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VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-04-0606RE1

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398402RE1 Lab File ID: 98402R.D

Sample wt/vol: 5 Units: ML Date Received: 06/01/06

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 06/11/06 Time: 1536

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: MW-04 Method: 8260

GPC Cleanup : (Y/N) pH:

Column(1): DB-624 ID: 0.18 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
71-43-2	Benzene	1	U R-D
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	3	U
1634-04-4	MTBE	1	U

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VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-09-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398403 Lab File ID: 98403.D

Sample wt/vol: 5 Units: ML Date Received: 06/01/06

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 06/08/06 Time: 0112

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: MW-09 Method: 8260

GPC Cleanup : (Y/N) pH:

Column(1): DB-624 ID: 0.18 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
71-43-2	Benzene	0.3	J
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	15.6	
1330-20-7	Xylene (total)	54.5	
1634-04-4	MTBE	1	U

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VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-20-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398404 Lab File ID: 98404.D

Sample wt/vol: 5 Units: ML Date Received: 06/01/06

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 06/06/06 Time: 2222

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: MW-20 Method: 8260

GPC Cleanup : (Y/N) pH:

Column(1): DB-624 ID: 0.18 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	3	U
1634-04-4	MTBE	1	U

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VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-22-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398407 Lab File ID: 98407.D

Sample wt/vol: 5 Units: ML Date Received: 06/01/06

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 06/08/06 Time: 0135

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: MW-22 Method: 8260

GPC Cleanup : (Y/N) pH:

Column(1): DB-624 ID: 0.18 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1.4	
1330-20-7	Xylene (total)	6.1	
1634-04-4	MTBE	1	U

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VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-24-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398408 Lab File ID: 98408.D

Sample wt/vol: 5 Units: ML Date Received: 06/01/06

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 06/08/06 Time: 0158

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: MW-24 Method: 8260

GPC Cleanup : (Y/N) pH:

Column(1): DB-624 ID: 0.18 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
71-43-2	Benzene	0.64	J
108-88-3	Toluene	2.8	JB-F
100-41-4	Ethylbenzene	21.6	
1330-20-7	Xylene (total)	71.6	
1634-04-4	MTBE	1	U

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VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-28-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398409 Lab File ID: 98409.D

Sample wt/vol: 5 Units: ML Date Received: 06/01/06

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 06/08/06 Time: 0417

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: MW-28 Method: 8260

GPC Cleanup : (Y/N) pH:

Column(1): DB-624 ID: 0.18 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
71-43-2	Benzene	2.8	
108-88-3	Toluene	190	~~E~~ R-D
100-41-4	Ethylbenzene	117	~~E~~ R-D
1330-20-7	Xylene (total)	553	~~E~~ R-D
1634-04-4	MTBE	1	U

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VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-28-0606DL1

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398409DL1 Lab File ID: 98409D.D

Sample wt/vol: 5 Units: ML Date Received: 06/01/06

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 06/08/06 Time: 0440

PercentSolids: 0 decanted : Dilution Factor: 10

Extraction: PURGETRAP Station ID: MW-28 Method: 8260

GPC Cleanup : (Y/N) pH:

Column(1): DB-624 ID: 0.18 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
71-43-2	Benzene	3.2	~~J~~ R-D
108-88-3	Toluene	233	JB-F
100-41-4	Ethylbenzene	139	=
1330-20-7	Xylene (total)	714	=
1634-04-4	MTBE	10	~~J~~ R-D

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VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-32-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398410 Lab File ID: 98410.D

Sample wt/vol: 5 Units: ML Date Received: 06/01/06

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 06/07/06 Time: 2230

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: MW-32 Method: 8260

GPC Cleanup : (Y/N) pH:

Column(1): DB-624 ID: 0.18 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	3	U
1634-04-4	MTBE	1	U

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VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-59-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398411 Lab File ID: 98411.D

Sample wt/vol: 5 Units: ML Date Received: 06/01/06

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 06/07/06 Time: 2253

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: MW-59 Method: 8260

GPC Cleanup : (Y/N) pH:

Column(1): DB-624 ID: 0.18 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	3	U
1634-04-4	MTBE	1	U

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VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-61-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398412 Lab File ID: 98412.D

Sample wt/vol: 5 Units: ML Date Received: 06/01/06

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 06/07/06 Time: 2316

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: MW-61 Method: 8260

GPC Cleanup : (Y/N) pH:

Column(1): DB-624 ID: 0.18 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	3	U
1634-04-4	MTBE	1	U

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VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-62-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398413 Lab File ID: 98413.D

Sample wt/vol: 5 Units: ML Date Received: 06/01/06

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 06/08/06 Time: 0221

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: MW-62 Method: 8260

GPC Cleanup : (Y/N) pH:

Column(1): DB-624 ID: 0.18 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	27.9	
1330-20-7	Xylene (total)	39.2	
1634-04-4	MTBE	1	U

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VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-65-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398414 Lab File ID: 98414.D

Sample wt/vol: 5 Units: ML Date Received: 06/01/06

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 06/08/06 Time: 0244

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: MW-65 Method: 8260

GPC Cleanup : (Y/N) pH:

Column(1): DB-624 ID: 0.18 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	23.8	
1330-20-7	Xylene (total)	93.8	
1634-04-4	MTBE	1	U

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VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-67-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398415 Lab File ID: 98415.D

Sample wt/vol: 5 Units: ML Date Received: 06/01/06

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 06/08/06 Time: 0307

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: MW-67 Method: 8260

GPC Cleanup : (Y/N) pH:

Column(1): DB-624 ID: 0.18 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
71-43-2	Benzene	1	U
108-88-3	Toluene	0.27	J B-F
100-41-4	Ethylbenzene	2.8	
1330-20-7	Xylene (total)	10.2	
1634-04-4	MTBE	1	U

ok

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Form I

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VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-69-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398416 Lab File ID: 98416.D

Sample wt/vol: 5 Units: ML Date Received: 06/01/06

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 06/07/06 Time: 2339

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: MW-69 Method: 8260

GPC Cleanup : (Y/N) pH:

Column(1): DB-624 ID: 0.18 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	3	U
1634-04-4	MTBE	1	U

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Form I

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VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-72-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398417 Lab File ID: 98417.D

Sample wt/vol: 5 Units: ML Date Received: 06/01/06

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 06/08/06 Time: 0002

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: MW-72 Method: 8260

GPC Cleanup : (Y/N) pH:

Column(1): DB-624 ID: 0.18 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	3	U
1634-04-4	MTBE	1	U

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VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-73-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398418 Lab File ID: 98418.D

Sample wt/vol: 5 Units: ML Date Received: 06/01/06

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 06/08/06 Time: 0331

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: MW-73 Method: 8260

GPC Cleanup : (Y/N) pH:

Column(1): DB-624 ID: 0.18 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1.9	
1330-20-7	Xylene (total)	5.4	
1634-04-4	MTBE	1	U

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VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-74-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398419 Lab File ID: 98419.D

Sample wt/vol: 5 Units: ML Date Received: 06/01/06

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 06/08/06 Time: 0503

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: MW-74 Method: 8260

GPC Cleanup : (Y/N) pH:

Column(1): DB-624 ID: 0.18 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
71-43-2	Benzene	1	U
108-88-3	Toluene	2	JB-F
100-41-4	Ethylbenzene	104	E R-D
1330-20-7	Xylene (total)	321	E R-D
1634-04-4	MTBE	1	U

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VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-74-0606DL1

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398419DL1 Lab File ID: 98419D.D

Sample wt/vol: 5 Units: ML Date Received: 06/01/06

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 06/08/06 Time: 0526

PercentSolids: 0 decanted : Dilution Factor: 10

Extraction: PURGETRAP Station ID: MW-74 Method: 8260

GPC Cleanup : (Y/N) pH:

Column(1): DB-624 ID: 0.18 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
71-43-2	Benzene	10	U R-D
108-88-3	Toluene	6.6	J R-D
100-41-4	Ethylbenzene	109	=
1330-20-7	Xylene (total)	364	=
1634-04-4	MTBE	10	U R-D

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VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-FD-2-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398420 Lab File ID: 98420.D

Sample wt/vol: 5 Units: ML Date Received: 06/01/06

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 06/08/06 Time: 0354

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: FIELD DUP Method: 8260

GPC Cleanup : (Y/N) pH:

Column(1): DB-624 ID: 0.18 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	26	
1330-20-7	Xylene (total)	34.9	
1634-04-4	MTBE	1	U

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VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-PreEQ-1-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398421 Lab File ID: 98421.D

Sample wt/vol: 5 Units: ML Date Received: 06/01/06

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 06/07/06 Time: 2206

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: Pre-Equipment B Method: 8260

GPC Cleanup : (Y/N) pH:

Column(1): DB-624 ID: 0.18 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
71-43-2	Benzene	1	U
108-88-3	Toluene	0.18	J
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	3	U
1634-04-4	MTBE	1	U

c.L

160606 1018

Form I

1

VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-TB-1-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398422 Lab File ID: 98422.D

Sample wt/vol: 5 Units: ML Date Received: 06/01/06

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 06/06/06 Time: 2159

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: Trip Blank Method: 8260

GPC Cleanup : (Y/N) pH:

Column(1): DB-624 ID: 0.18 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	3	U
1634-04-4	MTBE	1	U

160606 1018

Form I

SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-01-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398401 Lab File ID: 984-01.D

Sample wt/vol: 1000 Units: ML Date Received: 06/01/06

Concentrated Extract Volume: 1 Date Extracted: 06/07/06

Level:(low/med) LOW Date Analyzed: 06/09/06 Time: 2120

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: MW-01 Method: 8270 SIM

GPC Cleanup : (Y/N) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
91-20-3	Naphthalene	0.12	JB-F, MB
91-57-6	2-Methylnaphthalene	0.048	JB-L, F, MB
90-12-0	1-Methylnaphthalene	0.055	JB-F
208-96-8	Acenaphthylene	0.02	U
83-32-9	Acenaphthene	0.02	U
86-73-7	Fluorene	0.0037	JB-F
85-01-8	Phenanthrene	0.02	U
120-12-7	Anthracene	0.02	U
206-44-0	Fluoranthene	0.02	U
129-00-0	Pyrene	0.02	U
56-55-3	Benzo(a)anthracene	0.02	U
218-01-9	Chrysene	0.02	U
205-99-2	Benzo(b)fluoranthene	0.02	U
207-08-9	Benzo(k)fluoranthene	0.02	U
50-32-8	Benzo(a)pyrene	0.02	U
193-39-5	Indeno(1,2,3-cd)pyrene	0.02	U
53-70-3	Dibenz(a,h)anthracene	0.02	U
191-24-2	Benzo(g,h,i)perylene	0.02	U

cont

SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-04-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398402 Lab File ID: 984-02.D

Sample wt/vol: 1000 Units: ML Date Received: 06/01/06

Concentrated Extract Volume: 1 Date Extracted: 06/07/06

Level:(low/med) LOW Date Analyzed: 06/09/06 Time: 2250

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: MW-04 Method: 8270 SIM

GPC Cleanup : (Y/N) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
91-20-3	Naphthalene	0.02	U
91-57-6	2-Methylnaphthalene	0.087	JB-L, mB, F
90-12-0	1-Methylnaphthalene	0.24	JB-F
208-96-8	Acenaphthylene	0.02	U
83-32-9	Acenaphthene	0.02	U
86-73-7	Fluorene	0.0063	JB-F, mB
85-01-8	Phenanthrene	0.02	U
120-12-7	Anthracene	0.02	U
206-44-0	Fluoranthene	0.01	JB-F
129-00-0	Pyrene	0.01	JB-F
56-55-3	Benzo(a)anthracene	0.02	U
218-01-9	Chrysene	0.02	U
205-99-2	Benzo(b)fluoranthene	0.02	U
207-08-9	Benzo(k)fluoranthene	0.02	U
50-32-8	Benzo(a)pyrene	0.02	U
193-39-5	Indeno(1,2,3-cd)pyrene	0.02	U
53-70-3	Dibenz(a,h)anthracene	0.02	U
191-24-2	Benzo(g,h,i)perylene	0.02	U

C.F

SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.
071-1159-MW-09-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398403 Lab File ID: 984-03.D

Sample wt/vol: 1000 Units: ML Date Received: 06/01/06

Concentrated Extract Volume: 1 Date Extracted: 06/07/06

Level:(low/med) LOW Date Analyzed: 06/09/06 Time: 2321

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: MW-09 Method: 8270 SIM

GPC Cleanup : (Y/N) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
91-20-3	Naphthalene	0.22	JB-F, mB
91-57-6	2-Methylnaphthalene	0.12	JB-L, mB, F
90-12-0	1-Methylnaphthalene	0.081	JB-F
208-96-8	Acenaphthylene	0.02	U
83-32-9	Acenaphthene	0.02	U
86-73-7	Fluorene	0.0035	J B-F, mB
85-01-8	Phenanthrene	0.02	U
120-12-7	Anthracene	0.02	U
206-44-0	Fluoranthene	0.02	U
129-00-0	Pyrene	0.02	U
56-55-3	Benzo(a)anthracene	0.02	U
218-01-9	Chrysene	0.02	U
205-99-2	Benzo(b)fluoranthene	0.02	U
207-08-9	Benzo(k)fluoranthene	0.02	U
50-32-8	Benzo(a)pyrene	0.02	U
193-39-5	Indeno(1,2,3-cd)pyrene	0.02	U
53-70-3	Dibenz(a,h)anthracene	0.02	U
191-24-2	Benzo(g,h,i)perylene	0.02	U

c.L

SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-20-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398404 Lab File ID: 984-04.D

Sample wt/vol: 1000 Units: ML Date Received: 06/01/06

Concentrated Extract Volume: 1 Date Extracted: 06/07/06

Level:(low/med) LOW Date Analyzed: 06/09/06 Time: 2353

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: MW-20 Method: 8270 SIM

GPC Cleanup : (Y/N) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
91-20-3	Naphthalene	0.016	J B - F, mB
91-57-6	2-Methylnaphthalene	0.0098	JB - L, Q, F, mB
90-12-0	1-Methylnaphthalene	0.02	U
208-96-8	Acenaphthylene	0.02	U
83-32-9	Acenaphthene	0.02	U
86-73-7	Fluorene	0.0038	J B - F, mB
85-01-8	Phenanthrene	0.02	U
120-12-7	Anthracene	0.02	U
206-44-0	Fluoranthene	0.02	U
129-00-0	Pyrene	0.02	U
56-55-3	Benzo(a)anthracene	0.02	U
218-01-9	Chrysene	0.02	U
205-99-2	Benzo(b)fluoranthene	0.02	U
207-08-9	Benzo(k)fluoranthene	0.02	U
50-32-8	Benzo(a)pyrene	0.02	U
193-39-5	Indeno(1,2,3-cd)pyrene	0.02	U
53-70-3	Dibenz(a,h)anthracene	0.02	U
191-24-2	Benzo(g,h,i)perylene	0.02	U

c.t

SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.: 071-1159-MW-22-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code: PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398407 Lab File ID: 984-07.D

Sample wt/vol: 1000 Units: ML Date Received: 06/01/06

Concentrated Extract Volume: 1 Date Extracted: 06/07/06

Level:(low/med) LOW Date Analyzed: 06/10/06 Time: 0128

PercentSolids: 0 decanted: Dilution Factor: 1

Extraction: SEPF Station ID: MW-22 Method: 8270 SIM

GPC Cleanup: (Y/N) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
91-20-3	Naphthalene	0.033	JB-F, MB
91-57-6	2-Methylnaphthalene	0.032	JB-L, F, MB
90-12-0	1-Methylnaphthalene	0.019	JB-F
208-96-8	Acenaphthylene	0.02	U
83-32-9	Acenaphthene	0.02	U
86-73-7	Fluorene	0.0043	JB-F, MB
85-01-8	Phenanthrene	0.02	U
120-12-7	Anthracene	0.02	U
206-44-0	Fluoranthene	0.0078	JB-F
129-00-0	Pyrene	0.0098	JB-F
56-55-3	Benzo(a)anthracene	0.02	U
218-01-9	Chrysene	0.02	U
205-99-2	Benzo(b)fluoranthene	0.02	U
207-08-9	Benzo(k)fluoranthene	0.02	U
50-32-8	Benzo(a)pyrene	0.02	U
193-39-5	Indeno(1,2,3-cd)pyrene	0.02	U
53-70-3	Dibenz(a,h)anthracene	0.02	U
191-24-2	Benzo(g,h,i)perylene	0.02	U

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SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-24-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398408 Lab File ID: 984-08.D

Sample wt/vol: 1000 Units: ML Date Received: 06/01/06

Concentrated Extract Volume: 1 Date Extracted: 06/07/06

Level:(low/med) LOW Date Analyzed: 06/10/06 Time: 0200

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: MW-24 Method: 8270 SIM

GPC Cleanup : (Y/N) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
91-20-3	Naphthalene	0.19	JB-F, MB
91-57-6	2-Methylnaphthalene	0.13	JB-L, F, MB
90-12-0	1-Methylnaphthalene	0.34	JB-F
208-96-8	Acenaphthylene	0.02	U
83-32-9	Acenaphthene	0.0077	J B-F
86-73-7	Fluorene	0.0085	J B-F, MB
85-01-8	Phenanthrene	0.02	U
120-12-7	Anthracene	0.02	U
206-44-0	Fluoranthene	0.02	U
129-00-0	Pyrene	0.02	U
56-55-3	Benzo(a)anthracene	0.02	U
218-01-9	Chrysene	0.02	U
205-99-2	Benzo(b)fluoranthene	0.02	U
207-08-9	Benzo(k)fluoranthene	0.02	U
50-32-8	Benzo(a)pyrene	0.02	U
193-39-5	Indeno(1,2,3-cd)pyrene	0.02	U
53-70-3	Dibenz(a,h)anthracene	0.02	U
191-24-2	Benzo(g,h,i)perylene	0.02	U

C.L

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SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-28-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398409 Lab File ID: 984-09.D

Sample wt/vol: 1000 Units: ML Date Received: 06/01/06

Concentrated Extract Volume: 1 Date Extracted: 06/07/06

Level:(low/med) LOW Date Analyzed: 06/10/06 Time: 0231

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: MW-28 Method: 8270 SIM

GPC Cleanup : (Y/N) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
91-20-3	Naphthalene	0.51	~~E~~ R-D
91-57-6	2-Methylnaphthalene	0.27	JB-L, F, mB
90-12-0	1-Methylnaphthalene	0.59	~~E~~ R-D
208-96-8	Acenaphthylene	0.02	U
83-32-9	Acenaphthene	0.011	J B-F
86-73-7	Fluorene	0.01	J B-F, mB
85-01-8	Phenanthrene	0.02	U
120-12-7	Anthracene	0.0042	J
206-44-0	Fluoranthene	0.035	JB-F
129-00-0	Pyrene	0.036	JB-F
56-55-3	Benzo(a)anthracene	0.06	
218-01-9	Chrysene	0.061	
205-99-2	Benzo(b)fluoranthene	0.076	
207-08-9	Benzo(k)fluoranthene	0.056	
50-32-8	Benzo(a)pyrene	0.035	
193-39-5	Indeno(1,2,3-cd)pyrene	0.073	JB-F
53-70-3	Dibenz(a,h)anthracene	0.078	
191-24-2	Benzo(g,h,i)perylene	0.062	JB-F

n.t

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Form I

SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-28-0606DL

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398409DL Lab File ID: 984-09D2.D

Sample wt/vol: 1000 Units: ML Date Received: 06/01/06

Concentrated Extract Volume: 1 Date Extracted: 06/07/06

Level:(low/med) LOW Date Analyzed: 06/15/06 Time: 1551

PercentSolids: 0 decanted : Dilution Factor: 2

Extraction: SEPF Station ID: MW-28 Method: 8270 SIM

GPC Cleanup : (Y/N) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
91-20-3	Naphthalene	0.39	JB-F, MB
91-57-6	2-Methylnaphthalene	0.2	R-D
90-12-0	1-Methylnaphthalene	0.44	JB-F
208-96-8	Acenaphthylene	0.026	J R-D
83-32-9	Acenaphthene	0.021	J
86-73-7	Fluorene	0.0081	J
85-01-8	Phenanthrene	0.04	U
120-12-7	Anthracene	0.017	J
206-44-0	Fluoranthene	0.03	J
129-00-0	Pyrene	0.032	J
56-55-3	Benzo(a)anthracene	0.062	
218-01-9	Chrysene	0.064	
205-99-2	Benzo(b)fluoranthene	0.048	
207-08-9	Benzo(k)fluoranthene	0.043	
50-32-8	Benzo(a)pyrene	0.03	J
193-39-5	Indeno(1,2,3-cd)pyrene	0.087	
53-70-3	Dibenz(a,h)anthracene	0.078	
191-24-2	Benzo(g,h,i)perylene	0.051	

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Form I

SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-32-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398410 Lab File ID: 984-10.D

Sample wt/vol: 1000 Units: ML Date Received: 06/01/06

Concentrated Extract Volume: 1 Date Extracted: 06/07/06

Level:(low/med) LOW Date Analyzed: 06/10/06 Time: 0302

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: MW-32 Method: 8270 SIM

GPC Cleanup : (Y/N) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
91-20-3	Naphthalene	0.02	U
91-57-6	2-Methylnaphthalene	0.02	U J-L
90-12-0	1-Methylnaphthalene	0.02	U
208-96-8	Acenaphthylene	0.02	U
83-32-9	Acenaphthene	0.02	U
86-73-7	Fluorene	0.02	U
85-01-8	Phenanthrene	0.02	U
120-12-7	Anthracene	0.02	U
206-44-0	Fluoranthene	0.02	U
129-00-0	Pyrene	0.02	U
56-55-3	Benzo(a)anthracene	0.02	U
218-01-9	Chrysene	0.02	U
205-99-2	Benzo(b)fluoranthene	0.02	U
207-08-9	Benzo(k)fluoranthene	0.02	U
50-32-8	Benzo(a)pyrene	0.02	U
193-39-5	Indeno(1,2,3-cd)pyrene	0.02	U
53-70-3	Dibenz(a,h)anthracene	0.02	U
191-24-2	Benzo(g,h,i)perylene	0.02	U

160606 1018

Form I

1

SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-59-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398411 Lab File ID: 984-11.D

Sample wt/vol: 1000 Units: ML Date Received: 06/01/06

Concentrated Extract Volume: 1 Date Extracted: 06/07/06

Level:(low/med) LOW Date Analyzed: 06/10/06 Time: 0333

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: MW-59 Method: 8270 SIM

GPC Cleanup : (Y/N) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
91-20-3	Naphthalene	0.02	U
91-57-6	2-Methylnaphthalene	0.02	U J-L
90-12-0	1-Methylnaphthalene	0.02	U
208-96-8	Acenaphthylene	0.02	U
83-32-9	Acenaphthene	0.02	U
86-73-7	Fluorene	0.02	U
85-01-8	Phenanthrene	0.02	U
120-12-7	Anthracene	0.02	U
206-44-0	Fluoranthene	0.02	U
129-00-0	Pyrene	0.02	U
56-55-3	Benzo(a)anthracene	0.02	U
218-01-9	Chrysene	0.02	U
205-99-2	Benzo(b)fluoranthene	0.02	U
207-08-9	Benzo(k)fluoranthene	0.02	U
50-32-8	Benzo(a)pyrene	0.02	U
193-39-5	Indeno(1,2,3-cd)pyrene	0.02	U
53-70-3	Dibenz(a,h)anthracene	0.02	U
191-24-2	Benzo(g,h,i)perylene	0.02	U

C.L

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Form I

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SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-61-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398412 Lab File ID: 984-12.D

Sample wt/vol: 1000 Units: ML Date Received: 06/01/06

Concentrated Extract Volume: 1 Date Extracted: 06/07/06

Level:(low/med) LOW Date Analyzed: 06/10/06 Time: 0405

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: MW-61 Method: 8270 SIM

GPC Cleanup : (Y/N) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
91-20-3	Naphthalene	0.02	U
91-57-6	2-Methylnaphthalene	0.02	U J-L
90-12-0	1-Methylnaphthalene	0.02	U
208-96-8	Acenaphthylene	0.02	U
83-32-9	Acenaphthene	0.02	U
86-73-7	Fluorene	0.02	U
85-01-8	Phenanthrene	0.02	U
120-12-7	Anthracene	0.02	U
206-44-0	Fluoranthene	0.02	U
129-00-0	Pyrene	0.02	U
56-55-3	Benzo(a)anthracene	0.02	U
218-01-9	Chrysene	0.02	U
205-99-2	Benzo(b)fluoranthene	0.02	U
207-08-9	Benzo(k)fluoranthene	0.02	U
50-32-8	Benzo(a)pyrene	0.02	U
193-39-5	Indeno(1,2,3-cd)pyrene	0.02	U
53-70-3	Dibenz(a,h)anthracene	0.02	U
191-24-2	Benzo(g,h,i)perylene	0.02	U

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Form I

SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-62-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398413 Lab File ID: 984-13.D

Sample wt/vol: 1000 Units: ML Date Received: 06/01/06

Concentrated Extract Volume: 1 Date Extracted: 06/07/06

Level:(low/med) LOW Date Analyzed: 06/10/06 Time: 0437

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: MW-62 Method: 8270 SIM

GPC Cleanup : (Y/N) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
91-20-3	Naphthalene	0.1	JB-F, mB
91-57-6	2-Methylnaphthalene	0.14	JB-L, mB, F
90-12-0	1-Methylnaphthalene	0.091	JB-F
208-96-8	Acenaphthylene	0.02	U
83-32-9	Acenaphthene	0.02	U
86-73-7	Fluorene	0.02	U
85-01-8	Phenanthrene	0.02	U
120-12-7	Anthracene	0.02	U
206-44-0	Fluoranthene	0.02	U
129-00-0	Pyrene	0.02	U
56-55-3	Benzo(a)anthracene	0.02	U
218-01-9	Chrysene	0.02	U
205-99-2	Benzo(b)fluoranthene	0.02	U
207-08-9	Benzo(k)fluoranthene	0.02	U
50-32-8	Benzo(a)pyrene	0.02	U
193-39-5	Indeno(1,2,3-cd)pyrene	0.02	U
53-70-3	Dibenz(a,h)anthracene	0.02	U
191-24-2	Benzo(g,h,i)perylene	0.02	U

160606 1018

Form I

SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-65-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398414 Lab File ID: 984-14.D

Sample wt/vol: 1000 Units: ML Date Received: 06/01/06

Concentrated Extract Volume: 1 Date Extracted: 06/07/06

Level:(low/med) LOW Date Analyzed: 06/10/06 Time: 0508

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: MW-65 Method: 8270 SIM

GPC Cleanup : (Y/N) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
91-20-3	Naphthalene	0.048	JB-F, mB
91-57-6	2-Methylnaphthalene	0.038	JB-L, mB, F
90-12-0	1-Methylnaphthalene	0.035	JB-F
208-96-8	Acenaphthylene	0.02	U
83-32-9	Acenaphthene	0.02	U
86-73-7	Fluorene	0.0035	JB-F, mB
85-01-8	Phenanthrene	0.02	U
120-12-7	Anthracene	0.02	U
206-44-0	Fluoranthene	0.02	U
129-00-0	Pyrene	0.02	U
56-55-3	Benzo(a)anthracene	0.02	U
218-01-9	Chrysene	0.02	U
205-99-2	Benzo(b)fluoranthene	0.02	U
207-08-9	Benzo(k)fluoranthene	0.02	U
50-32-8	Benzo(a)pyrene	0.02	U
193-39-5	Indeno(1,2,3-cd)pyrene	0.02	U
53-70-3	Dibenz(a,h)anthracene	0.02	U
191-24-2	Benzo(g,h,i)perylene	0.02	U

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SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-67-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398415 Lab File ID: 984-15.D

Sample wt/vol: 1000 Units: ML Date Received: 06/01/06

Concentrated Extract Volume: 1 Date Extracted: 06/07/06

Level:(low/med) LOW Date Analyzed: 06/10/06 Time: 0540

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: MW-67 Method: 8270 SIM

GPC Cleanup : (Y/N) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
91-20-3	Naphthalene	0.054	JB-F, MB
91-57-6	2-Methylnaphthalene	0.073	JB-L, F, MB
90-12-0	1-Methylnaphthalene	0.23	JB-F
208-96-8	Acenaphthylene	0.02	U
83-32-9	Acenaphthene	0.02	U
86-73-7	Fluorene	0.0053	JB-F, MB
85-01-8	Phenanthrene	0.02	U
120-12-7	Anthracene	0.02	U
206-44-0	Fluoranthene	0.02	U
129-00-0	Pyrene	0.02	U
56-55-3	Benzo(a)anthracene	0.02	U
218-01-9	Chrysene	0.02	U
205-99-2	Benzo(b)fluoranthene	0.02	U
207-08-9	Benzo(k)fluoranthene	0.02	U
50-32-8	Benzo(a)pyrene	0.02	U
193-39-5	Indeno(1,2,3-cd)pyrene	0.02	U
53-70-3	Dibenz(a,h)anthracene	0.02	U
191-24-2	Benzo(g,h,i)perylene	0.02	U

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Form I

SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-69-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398416 Lab File ID: 984-16.D

Sample wt/vol: 1000 Units: ML Date Received: 06/01/06

Concentrated Extract Volume: 1 Date Extracted: 06/07/06

Level:(low/med) LOW Date Analyzed: 06/10/06 Time: 0611

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: MW-69 Method: 8270 SIM

GPC Cleanup : (Y/N) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
91-20-3	Naphthalene	0.02	U
91-57-6	2-Methylnaphthalene	0.02	U J-L
90-12-0	1-Methylnaphthalene	0.02	U
208-96-8	Acenaphthylene	0.02	U
83-32-9	Acenaphthene	0.02	U
86-73-7	Fluorene	0.02	U
85-01-8	Phenanthrene	0.02	U
120-12-7	Anthracene	0.02	U
206-44-0	Fluoranthene	0.02	U
129-00-0	Pyrene	0.02	U
56-55-3	Benzo(a)anthracene	0.02	U
218-01-9	Chrysene	0.02	U
205-99-2	Benzo(b)fluoranthene	0.02	U
207-08-9	Benzo(k)fluoranthene	0.02	U
50-32-8	Benzo(a)pyrene	0.02	U
193-39-5	Indeno(1,2,3-cd)pyrene	0.02	U
53-70-3	Dibenz(a,h)anthracene	0.02	U
191-24-2	Benzo(g,h,i)perylene	0.02	U

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SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-72-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398417 Lab File ID: 984-17.D

Sample wt/vol: 1000 Units: ML Date Received: 06/01/06

Concentrated Extract Volume: 1 Date Extracted: 06/07/06

Level:(low/med) LOW Date Analyzed: 06/10/06 Time: 0642

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: MW-72 Method: 8270 SIM

GPC Cleanup : (Y/N) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
91-20-3	Naphthalene	0.02	U
91-57-6	2-Methylnaphthalene	0.02	U J-L
90-12-0	1-Methylnaphthalene	0.02	U
208-96-8	Acenaphthylene	0.02	U
83-32-9	Acenaphthene	0.02	U
86-73-7	Fluorene	0.02	U
85-01-8	Phenanthrene	0.02	U
120-12-7	Anthracene	0.02	U
206-44-0	Fluoranthene	0.02	U
129-00-0	Pyrene	0.02	U
56-55-3	Benzo(a)anthracene	0.02	U
218-01-9	Chrysene	0.02	U
205-99-2	Benzo(b)fluoranthene	0.02	U
207-08-9	Benzo(k)fluoranthene	0.02	U
50-32-8	Benzo(a)pyrene	0.02	U
193-39-5	Indeno(1,2,3-cd)pyrene	0.02	U
53-70-3	Dibenz(a,h)anthracene	0.02	U
191-24-2	Benzo(g,h,i)perylene	0.02	U

SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-73-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398418 Lab File ID: 984-18.D

Sample wt/vol: 1000 Units: ML Date Received: 06/01/06

Concentrated Extract Volume: 1 Date Extracted: 06/07/06

Level:(low/med) LOW Date Analyzed: 06/10/06 Time: 0713

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: MW-73 Method: 8270 SIM

GPC Cleanup : (Y/N) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
91-20-3	Naphthalene	0.02	U
91-57-6	2-Methylnaphthalene	0.22	JB-L,F,mB
90-12-0	1-Methylnaphthalene	0.17	JB-F
208-96-8	Acenaphthylene	0.02	U
83-32-9	Acenaphthene	0.02	U
86-73-7	Fluorene	0.0044	JB-F,mB
85-01-8	Phenanthrene	0.02	U
120-12-7	Anthracene	0.02	U
206-44-0	Fluoranthene	0.02	U
129-00-0	Pyrene	0.02	U
56-55-3	Benzo(a)anthracene	0.02	U
218-01-9	Chrysene	0.02	U
205-99-2	Benzo(b)fluoranthene	0.02	U
207-08-9	Benzo(k)fluoranthene	0.02	U
50-32-8	Benzo(a)pyrene	0.02	U
193-39-5	Indeno(1,2,3-cd)pyrene	0.02	U
53-70-3	Dibenz(a,h)anthracene	0.02	U
191-24-2	Benzo(g,h,i)perylene	0.02	U

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SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-74-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398419 Lab File ID: 984-19.D

Sample wt/vol: 1000 Units: ML Date Received: 06/01/06

Concentrated Extract Volume: 1 Date Extracted: 06/07/06

Level:(low/med) LOW Date Analyzed: 06/10/06 Time: 0745

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: MW-74 Method: 8270 SIM

GPC Cleanup : (Y/N) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
91-20-3	Naphthalene	0.39	JB - F, mB
91-57-6	2-Methylnaphthalene	0.29	JB - L, F, mB
90-12-0	1-Methylnaphthalene	0.19	JB - F
208-96-8	Acenaphthylene	0.02	U
83-32-9	Acenaphthene	0.02	U
86-73-7	Fluorene	0.0067	JB - F, mB
85-01-8	Phenanthrene	0.015	JB - F, mB
120-12-7	Anthracene	0.02	U
206-44-0	Fluoranthene	0.02	U
129-00-0	Pyrene	0.02	U
56-55-3	Benzo(a)anthracene	0.02	U
218-01-9	Chrysene	0.02	U
205-99-2	Benzo(b)fluoranthene	0.02	U
207-08-9	Benzo(k)fluoranthene	0.02	U
50-32-8	Benzo(a)pyrene	0.02	U
193-39-5	Indeno(1,2,3-cd)pyrene	0.02	U
53-70-3	Dibenz(a,h)anthracene	0.02	U
191-24-2	Benzo(g,h,i)perylene	0.02	U

c.r

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SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-FD-2-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398420 Lab File ID: 984-20.D

Sample wt/vol: 1000 Units: ML Date Received: 06/01/06

Concentrated Extract Volume: 1 Date Extracted: 06/07/06

Level:(low/med) LOW Date Analyzed: 06/10/06 Time: 0816

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: FIELD DUP Method: 8270 SIM

GPC Cleanup : (Y/N) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
91-20-3	Naphthalene	0.096	JB-F, mB
91-57-6	2-Methylnaphthalene	0.14	JB-L, F, mB
90-12-0	1-Methylnaphthalene	0.098	JB-F
208-96-8	Acenaphthylene	0.023	J-Z
83-32-9	Acenaphthene	0.02	U
86-73-7	Fluorene	0.004	JB-F, mB
85-01-8	Phenanthrene	0.02	U
120-12-7	Anthracene	0.02	U
206-44-0	Fluoranthene	0.02	U
129-00-0	Pyrene	0.02	U
56-55-3	Benzo(a)anthracene	0.02	U
218-01-9	Chrysene	0.02	U
205-99-2	Benzo(b)fluoranthene	0.02	U
207-08-9	Benzo(k)fluoranthene	0.02	U
50-32-8	Benzo(a)pyrene	0.02	U
193-39-5	Indeno(1,2,3-cd)pyrene	0.02	U
53-70-3	Dibenz(a,h)anthracene	0.02	U
191-24-2	Benzo(g,h,i)perylene	0.02	U

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Form I

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SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-PreEQ-1-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398421 Lab File ID: 984-21.D

Sample wt/vol: 1000 Units: ML Date Received: 06/01/06

Concentrated Extract Volume: 1 Date Extracted: 06/07/06

Level:(low/med) LOW Date Analyzed: 06/10/06 Time: 0848

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: Pre-Equipment B Method: 8270 SIM

GPC Cleanup : (Y/N) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
91-20-3	Naphthalene	0.019	J
91-57-6	2-Methylnaphthalene	0.01	J
90-12-0	1-Methylnaphthalene	0.0069	J
208-96-8	Acenaphthylene	0.02	U
83-32-9	Acenaphthene	0.0062	J
86-73-7	Fluorene	0.0054	J
85-01-8	Phenanthrene	0.015	~~JB~~ J
120-12-7	Anthracene	0.02	U
206-44-0	Fluoranthene	0.0089	J
129-00-0	Pyrene	0.0089	J
56-55-3	Benzo(a)anthracene	0.02	U
218-01-9	Chrysene	0.02	U
205-99-2	Benzo(b)fluoranthene	0.02	U
207-08-9	Benzo(k)fluoranthene	0.02	U
50-32-8	Benzo(a)pyrene	0.02	U
193-39-5	Indeno(1,2,3-cd)pyrene	0.0071	J
53-70-3	Dibenz(a,h)anthracene	0.02	U
191-24-2	Benzo(g,h,i)perylene	0.009	J

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Form I

FL-PRO ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-01-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398401 Lab File ID: 984-1.D

Sample wt/vol: 970 Units: ML Date Received: 06/01/06

Concentrated Extract Volume: 2 Date Extracted: 06/07/06

Level:(low/med) LOW Date Analyzed: 06/08/06 Time: 0926

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: MW-01 Method: FL-PRO

GPC Cleanup : (Y/N) N pH:

Column(1): RTX-5 ID: 0.53 (mm)

CONCENTRATION UNITS: MG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
5289290-40-0	TPH	3.2	

n. L

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1

FL-PRO ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-04-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398402 Lab File ID: 984-2.D

Sample wt/vol: 980 Units: ML Date Received: 06/01/06

Concentrated Extract Volume: 2 Date Extracted: 06/07/06

Level:(low/med) LOW Date Analyzed: 06/08/06 Time: 0956

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: MW-04 Method: FL-PRO

GPC Cleanup : (Y/N) N pH:

Column(1): RTX-5 ID: 0.53 (mm)

CONCENTRATION UNITS: MG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
5289290-40-0	TPH	0.78	

C. L

160605 1018

Form I

1

FL-PRO ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-09-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398403 Lab File ID: 984-3.D

Sample wt/vol: 975 Units: ML Date Received: 06/01/06

Concentrated Extract Volume: 2 Date Extracted: 06/07/06

Level:(low/med) LOW Date Analyzed: 06/08/06 Time: 1026

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: MW-09 Method: FL-PRO

GPC Cleanup : (Y/N) N pH:

Column(1): RTX-5 ID: 0.53 (mm)

CONCENTRATION UNITS: MG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
5289290-40-0	TPH	0.65	

n.L

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FL-PRO ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-20-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398404 Lab File ID: 984-4.D

Sample wt/vol: 975 Units: ML Date Received: 06/01/06

Concentrated Extract Volume: 2 Date Extracted: 06/07/06

Level:(low/med) LOW Date Analyzed: 06/08/06 Time: 1056

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: MW-20 Method: FL-PRO

GPC Cleanup : (Y/N) N pH:

Column(1): RTX-5 ID: 0.53 (mm)

CONCENTRATION UNITS: MG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
5289290-40-0	TPH	0.41	

c.h

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FL-PRO ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-22-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398407 Lab File ID: 984-7.D

Sample wt/vol: 970 Units: ML Date Received: 06/01/06

Concentrated Extract Volume: 2 Date Extracted: 06/07/06

Level:(low/med) LOW Date Analyzed: 06/08/06 Time: 1126

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: MW-22 Method: FL-PRO

GPC Cleanup : (Y/N) N pH:

Column(1): RTX-5 ID: 0.53 (mm)

CONCENTRATION UNITS: MG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
5289290-40-0	TPH	0.18	

c. L

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FL-PRO ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-24-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398408 Lab File ID: 984-8.D

Sample wt/vol: 970 Units: ML Date Received: 06/01/06

Concentrated Extract Volume: 2 Date Extracted: 06/07/06

Level:(low/med) LOW Date Analyzed: 06/08/06 Time: 1157

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: MW-24 Method: FL-PRO

GPC Cleanup : (Y/N) N pH:

Column(1): RTX-5 ID: 0.53 (mm)

CONCENTRATION UNITS: MG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
5289290-40-0	TPH	0.18	

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FL-PRO ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-28-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398409 Lab File ID: 984-9.D

Sample wt/vol: 970 Units: ML Date Received: 06/01/06

Concentrated Extract Volume: 2 Date Extracted: 06/07/06

Level:(low/med) LOW Date Analyzed: 06/08/06 Time: 1227

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: MW-28 Method: FL-PRO

GPC Cleanup : (Y/N) N pH:

Column(1): RTX-5 ID: 0.53 (mm)

CONCENTRATION UNITS: MG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
5289290-40-0	TPH	1.1	

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FL-PRO ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-32-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398410 Lab File ID: 984-10.D

Sample wt/vol: 970 Units: ML Date Received: 06/01/06

Concentrated Extract Volume: 2 Date Extracted: 06/07/06

Level:(low/med) LOW Date Analyzed: 06/08/06 Time: 2110

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: MW-32 Method: FL-PRO

GPC Cleanup : (Y/N) N pH:

Column(1): RTX-5 ID: 0.53 (mm)

CONCENTRATION UNITS: MG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
5289290-40-0	TPH	0.29	

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FL-PRO ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-59-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398411 Lab File ID: 984-11.D

Sample wt/vol: 955 Units: ML Date Received: 06/01/06

Concentrated Extract Volume: 2 Date Extracted: 06/07/06

Level:(low/med) LOW Date Analyzed: 06/08/06 Time: 2341

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: MW-59 Method: FL-PRO

GPC Cleanup : (Y/N) N pH:

Column(1): RTX-5 ID: 0.53 (mm)

CONCENTRATION UNITS: MG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
5289290-40-0	TPH	0.49	

N.L

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FL-PRO ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-61-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398412 Lab File ID: 984-12.D

Sample wt/vol: 975 Units: ML Date Received: 06/01/06

Concentrated Extract Volume: 2 Date Extracted: 06/07/06

Level:(low/med) LOW Date Analyzed: 06/09/06 Time: 0012

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: MW-61 Method: FL-PRO

GPC Cleanup : (Y/N) N pH:

Column(1): RTX-5 ID: 0.53 (mm)

CONCENTRATION UNITS: MG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
5289290-40-0	TPH	0.17	U

c.r

160606 1018

Form I

1

FL-PRO ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-62-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398413 Lab File ID: 984-13.D

Sample wt/vol: 975 Units: ML Date Received: 06/01/06

Concentrated Extract Volume: 2 Date Extracted: 06/07/06

Level:(low/med) LOW Date Analyzed: 06/09/06 Time: 0042

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: MW-62 Method: FL-PRO

GPC Cleanup : (Y/N) N pH:

Column(1): RTX-5 ID: 0.53 (mm)

CONCENTRATION UNITS: MG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
5289290-40-0	TPH	1.6	

160606 1018

Form I

1

FL-PRO ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-65-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398414 Lab File ID: 984-14.D

Sample wt/vol: 975 Units: ML Date Received: 06/01/06

Concentrated Extract Volume: 2 Date Extracted: 06/07/06

Level:(low/med) LOW Date Analyzed: 06/09/06 Time: 0112

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: MW-65 Method: FL-PRO

GPC Cleanup : (Y/N) N pH:

Column(1): RTX-5 ID: 0.53 (mm)

CONCENTRATION UNITS: MG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
5289290-40-0	TPH	0.98	

C.L

160606 1018

Form I

1

FL-PRO ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-67-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398415 Lab File ID: 984-15.D

Sample wt/vol: 985 Units: ML Date Received: 06/01/06

Concentrated Extract Volume: 2 Date Extracted: 06/07/06

Level:(low/med) LOW Date Analyzed: 06/09/06 Time: 0313

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: MW-67 Method: FL-PRO

GPC Cleanup : (Y/N) N pH:

Column(1): RTX-5 ID: 0.53 (mm)

CONCENTRATION UNITS: MG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
5289290-40-0	TPH	0.55	

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160606 1018

Form I

FL-PRO ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-69-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398416 Lab File ID: 984-16.D

Sample wt/vol: 960 Units: ML Date Received: 06/01/06

Concentrated Extract Volume: 2 Date Extracted: 06/07/06

Level:(low/med) LOW Date Analyzed: 06/09/06 Time: 0343

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: MW-69 Method: FL-PRO

GPC Cleanup : (Y/N) N pH:

Column(1): RTX-5 ID: 0.53 (mm)

CONCENTRATION UNITS: MG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
5289290-40-0	TPH	0.24	

c.L

160606 1018

Form I

1

FL-PRO ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-72-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398417 Lab File ID: 984-17.D

Sample wt/vol: 970 Units: ML Date Received: 06/01/06

Concentrated Extract Volume: 2 Date Extracted: 06/07/06

Level:(low/med) LOW Date Analyzed: 06/09/06 Time: 0413

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: MW-72 Method: FL-PRO

GPC Cleanup : (Y/N) N pH:

Column(1): RTX-5 ID: 0.53 (mm)

CONCENTRATION UNITS: MG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
5289290-40-0	TPH	0.25	

c-L

160606 1018

Form I

FL-PRO ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-73-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398418 Lab File ID: 984-18.D

Sample wt/vol: 975 Units: ML Date Received: 06/01/06

Concentrated Extract Volume: 2 Date Extracted: 06/07/06

Level:(low/med) LOW Date Analyzed: 06/09/06 Time: 0443

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: MW-73 Method: FL-PRO

GPC Cleanup : (Y/N) N pH:

Column(1): RTX-5 ID: 0.53 (mm)

CONCENTRATION UNITS: MG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
5289290-40-0	TPH	1.6	

C.L

160606 1018

Form I

1

FL-PRO ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-74-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398419 Lab File ID: 984-19.D

Sample wt/vol: 960 Units: ML Date Received: 06/01/06

Concentrated Extract Volume: 2 Date Extracted: 06/07/06

Level:(low/med) LOW Date Analyzed: 06/09/06 Time: 0513

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: MW-74 Method: FL-PRO

GPC Cleanup : (Y/N) N pH:

Column(1): RTX-5 ID: 0.53 (mm)

CONCENTRATION UNITS: MG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
5289290-40-0	TPH	1.4	

C.L

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Form I

FL-PRO ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-FD-2-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398420 Lab File ID: 984-20.D

Sample wt/vol: 970 Units: ML Date Received: 06/01/06

Concentrated Extract Volume: 2 Date Extracted: 06/07/06

Level:(low/med) LOW Date Analyzed: 06/09/06 Time: 0544

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: FIELD DUP Method: FL-PRO

GPC Cleanup : (Y/N) N pH:

Column(1): RTX-5 ID: 0.53 (mm)

CONCENTRATION UNITS: MG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
5289290-40-0	TPH	1.4	

C.L

160606 1018

Form I

FL-PRO ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-PreEQ-1-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398421 Lab File ID: 984-21.D

Sample wt/vol: 955 Units: ML Date Received: 06/01/06

Concentrated Extract Volume: 2 Date Extracted: 06/07/06

Level:(low/med) LOW Date Analyzed: 06/09/06 Time: 0614

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: Pre-Equipment B Method: FL-PRO

GPC Cleanup : (Y/N) N pH:

Column(1): RTX-5 ID: 0.53 (mm)

CONCENTRATION UNITS: MG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
5289290-40-0	TPH	0.18	U

C.L

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-01-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398401

Level:(low/med) LOW Date Received: 6/1/2006

PercentSolids: 0 Station ID: MW-01

CONCENTRATION UNITS: UG/L

CAS NO.	ANALYTE	Concentration	C	Q	M
7439-92-1	Lead	22.2			P

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-04-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398402

Level:(low/med) LOW Date Received: 6/1/2006

PercentSolids: 0 Station ID: MW-04

CONCENTRATION UNITS: UG/L

CAS NO.	ANALYTE	Concentration	C	Q	M
7439-92-1	Lead	55.6			P

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

160606 1019

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-09-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398403

Level:(low/med) LOW Date Received: 6/1/2006

PercentSolids: 0 Station ID: MW-09

CONCENTRATION UNITS: UG/L

CAS NO.	ANALYTE	Concentration	C	Q	M
7439-92-1	Lead	23.5			P

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

C. L

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-20-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398404

Level:(low/med) LOW Date Received: 6/1/2006

PercentSolids: 0 Station ID: MW-20

CONCENTRATION UNITS: UG/L

CAS NO.	ANALYTE	Concentration	C	Q	M
7439-92-1	Lead	9.93			P

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-22-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398407

Level:(low/med) LOW Date Received: 6/1/2006

PercentSolids: 0 Station ID: MW-22

CONCENTRATION UNITS: UG/L

CAS NO.	ANALYTE	Concentration	C	Q	M
7439-92-1	Lead	24.9			P

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-24-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398408

Level:(low/med) LOW Date Received: 6/1/2006

PercentSolids: 0 Station ID: MW-24

CONCENTRATION UNITS: UG/L

CAS NO.	ANALYTE	Concentration	C	Q	M
7439-92-1	Lead	28.2			P

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-28-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398409

Level:(low/med) LOW Date Received: 6/1/2006

PercentSolids: 0 Station ID: MW-28

CONCENTRATION UNITS: UG/L

CAS NO.	ANALYTE	Concentration	C	Q	M
7439-92-1	Lead	84.3			P

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-32-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398410

Level:(low/med) LOW Date Received: 6/1/2006

PercentSolids: 0 Station ID: MW-32

CONCENTRATION UNITS: UG/L

CAS NO.	ANALYTE	Concentration	C	Q	M
7439-92-1	Lead	5	U		P

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-59-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398411

Level:(low/med) LOW Date Received: 6/1/2006

PercentSolids: 0 Station ID: MW-59

CONCENTRATION UNITS: UG/L

CAS NO.	ANALYTE	Concentration	C	Q	M
7439-92-1	Lead	5	U		P

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

160606 1019

A.L

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-61-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398412

Level:(low/med) LOW Date Received: 6/1/2006

PercentSolids: 0 Station ID: MW-61

CONCENTRATION UNITS: UG/L

CAS NO.	ANALYTE	Concentration	C	Q	M
7439-92-1	Lead	5	U		P

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-62-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398413

Level:(low/med) LOW Date Received: 6/1/2006

PercentSolids: 0 Station ID: MW-62

CONCENTRATION UNITS: UG/L

CAS NO.	ANALYTE	Concentration	C	Q	M
7439-92-1	Lead	47.5		J	P

Z

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-65-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398414

Level:(low/med) LOW Date Received: 6/1/2006

PercentSolids: 0 Station ID: MW-65

CONCENTRATION UNITS: UG/L

CAS NO.	ANALYTE	Concentration	C	Q	M
7439-92-1	Lead	38.3			P

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-67-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398415

Level:(low/med) LOW Date Received: 6/1/2006

PercentSolids: 0 Station ID: MW-67

CONCENTRATION UNITS: UG/L

CAS NO.	ANALYTE	Concentration	C	Q	M
7439-92-1	Lead	12			P

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-69-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398416

Level:(low/med) LOW Date Received: 6/1/2006

PercentSolids: 0 Station ID: MW-69

CONCENTRATION UNITS: UG/L

CAS NO.	ANALYTE	Concentration	C	Q	M
7439-92-1	Lead	5	U		P

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

160606 1019

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-72-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398417

Level:(low/med) LOW Date Received: 6/1/2006

PercentSolids: 0 Station ID: MW-72

CONCENTRATION UNITS: UG/L

CAS NO.	ANALYTE	Concentration	C	Q	M
7439-92-1	Lead	2.45	J		P

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-73-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398418

Level:(low/med) LOW Date Received: 6/1/2006

PercentSolids: 0 Station ID: MW-73

CONCENTRATION UNITS: UG/L

CAS NO.	ANALYTE	Concentration	C	Q	M
7439-92-1	Lead	20.2			P

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-74-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398419

Level:(low/med) LOW Date Received: 6/1/2006

PercentSolids: 0 Station ID: MW-74

CONCENTRATION UNITS: UG/L

CAS NO.	ANALYTE	Concentration	C	Q	M
7439-92-1	Lead	11.4			P

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-FD-2-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398420

Level:(low/med) LOW Date Received: 6/1/2006

PercentSolids: 0 Station ID: FIELD DUP

CONCENTRATION UNITS: UG/L

CAS NO.	ANALYTE	Concentration	C	Q	M
7439-92-1	Lead	27.9		J	P

Z

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-PreEQ-1-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398421

Level:(low/med) LOW Date Received: 6/1/2006

PercentSolids: 0 Station ID: Pre-Equipment B

CONCENTRATION UNITS: UG/L

CAS NO.	ANALYTE	Concentration	C	Q	M
7439-92-1	Lead	5	U		P

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-01-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398401

Level:(low/med) LOW Date Received: 6/1/2006

PercentSolids: 0 Station ID: MW-01

Dissolved

CONCENTRATION UNITS: UG/L

CAS NO.	ANALYTE	Concentration	C	Q	M
7439-92-1	Lead	6.22			P

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-09-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398403

Level:(low/med) LOW Date Received: 6/1/2006

PercentSolids: 0 Station ID: MW-09

Dissolved

CONCENTRATION UNITS: UG/L

CAS NO.	ANALYTE	Concentration	C	Q	M
7439-92-1	Lead	8.61			P

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-24-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398408

Level:(low/med) LOW Date Received: 6/1/2006

PercentSolids: 0 Station ID: MW-24

Dissolved

CONCENTRATION UNITS: UG/L

CAS NO.	ANALYTE	Concentration	C	Q	M
7439-92-1	Lead	19.6			P

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-62-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398413

Level:(low/med) LOW Date Received: 6/1/2006

PercentSolids: 0 Station ID: MW-62

Dissolved

CONCENTRATION UNITS: UG/L

CAS NO.	ANALYTE	Concentration	C	Q	M
7439-92-1	Lead	27.7			P

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-65-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398414

Level:(low/med) LOW Date Received: 6/1/2006

PercentSolids: 0 Station ID: MW-65

Dissolved

CONCENTRATION UNITS: UG/L

CAS NO.	ANALYTE	Concentration	C	Q	M
7439-92-1	Lead	35.2			P

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

160606 1019

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-72-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398417

Level:(low/med) LOW Date Received: 6/1/2006

PercentSolids: 0 Station ID: MW-72

Dissolved

CONCENTRATION UNITS: UG/L

CAS NO.	ANALYTE	Concentration	C	Q	M
7439-92-1	Lead	5	U		P

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

160606 1019

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-74-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398419

Level:(low/med) LOW Date Received: 6/1/2006

PercentSolids: 0 Station ID: MW-74

Dissolved

CONCENTRATION UNITS: UG/L

CAS NO.	ANALYTE	Concentration	C	Q	M
7439-92-1	Lead	8.45			P

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

160606 1019

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-FD-2-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398420

Level:(low/med) LOW Date Received: 6/1/2006

PercentSolids: 0 Station ID: FIELD DUP

Dissolved

CONCENTRATION UNITS: UG/L

CAS NO.	ANALYTE	Concentration	C	Q	M
7439-92-1	Lead	21.6			P

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

160606 1019

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-PreEQ-1-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398421

Level:(low/med) LOW Date Received: 6/1/2006

PercentSolids: 0 Station ID: Pre-Equipment B

Dissolved

CONCENTRATION UNITS: UG/L

CAS NO.	ANALYTE	Concentration	C	Q	M
7439-92-1	Lead	5	U		P

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

160606 1019

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U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-67-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503984

Matrix: WATER Lab Sample ID: 250398415

Level:(low/med) LOW Date Received: 6/1/2006

PercentSolids: 0 Station ID: MW-67

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M
47752-0-60-0	Alkalinity (Total)	4.69			IS
124-38-9	Carbon Dioxide	20.4			N/A
1012_5	TOC	100	U		AS

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

160606 1020

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VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-18-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399201 Lab File ID: 99201R.D

Sample wt/vol: 5 Units: ML Date Received: 06/02/06

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 06/07/06 Time: 1750

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: MW-18 Method: 8260

GPC Cleanup : (Y/N) pH:

Column(1): DB-624 ID: 0.18 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
71-43-2	Benzene	4.2	
108-88-3	Toluene	18.9	
100-41-4	Ethylbenzene	4.3	
1330-20-7	Xylene (total)	14.9	
1634-04-4	MTBE	1	U

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200606 1249

Form I

1

VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-25-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399202 Lab File ID: 99202R.D

Sample wt/vol: 5 Units: ML Date Received: 06/02/06

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 06/07/06 Time: 1814

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: MW-25 Method: 8260

GPC Cleanup : (Y/N) pH:

Column(1): DB-624 ID: 0.18 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
71-43-2	Benzene	1	U
108-88-3	Toluene	3.3	
100-41-4	Ethylbenzene	25.2	
1330-20-7	Xylene (total)	80.3	
1634-04-4	MTBE	1	U

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Form I

1

VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-33-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399203 Lab File ID: 99203.D

Sample wt/vol: 5 Units: ML Date Received: 06/02/06

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 06/05/06 Time: 2048

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: MW-33 Method: 8260

GPC Cleanup : (Y/N) pH:

Column(1): DB-624 ID: 0.18 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	3	U
1634-04-4	MTBE	1	U

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Form I

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VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-35-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399204 Lab File ID: 99204.D

Sample wt/vol: 5 Units: ML Date Received: 06/02/06

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 06/05/06 Time: 1851

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: MW-35 Method: 8260

GPC Cleanup : (Y/N) pH:

Column(1): DB-624 ID: 0.18 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	3	U
1634-04-4	MTBE	1	U

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Form I

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VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-44-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399207 Lab File ID: 99207.D

Sample wt/vol: 5 Units: ML Date Received: 06/02/06

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 06/06/06 Time: 2246

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: MW-44 Method: 8260

GPC Cleanup : (Y/N) pH:

Column(1): DB-624 ID: 0.18 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	3	U
1634-04-4	MTBE	1	U

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Form I

1

VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-45-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399208 Lab File ID: 99208.D

Sample wt/vol: 5 Units: ML Date Received: 06/02/06

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 06/05/06 Time: 2135

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: MW-45 Method: 8260

GPC Cleanup : (Y/N) pH:

Column(1): DB-624 ID: 0.18 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
71-43-2	Benzene	1	U
108-88-3	Toluene	173	~~E~~ R-D
100-41-4	Ethylbenzene	75.5	
1330-20-7	Xylene (total)	280	~~E~~ R-D
1634-04-4	MTBE	1	U

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Form I

1

VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-45-0606DL1

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399208DL1 Lab File ID: 99208D.D

Sample wt/vol: 5 Units: ML Date Received: 06/02/06

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 06/06/06 Time: 2309

PercentSolids: 0 decanted : Dilution Factor: 5

Extraction: PURGETRAP Station ID: MW-45 Method: 8260

GPC Cleanup : (Y/N) pH:

Column(1): DB-624 ID: 0.18 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
71-43-2	Benzene	5	U R-D
108-88-3	Toluene	171	=
100-41-4	Ethylbenzene	75.4	R-D
1330-20-7	Xylene (total)	276	=
1634-04-4	MTBE	5	U R-D

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Form I

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VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-47-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399209 Lab File ID: 99209.D

Sample wt/vol: 5 Units: ML Date Received: 06/02/06

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 06/07/06 Time: 0105

PercentSolids: 0 decanted : Dilution Factor: 5

Extraction: PURGETRAP Station ID: MW-47 Method: 8260

GPC Cleanup : (Y/N) pH:

Column(1): DB-624 ID: 0.18 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
71-43-2	Benzene	23.8	
108-88-3	Toluene	1920	~~E~~ R-D
100-41-4	Ethylbenzene	405	~~E~~ R-D
1330-20-7	Xylene (total)	2060	~~E~~ R-D
1634-04-4	MTBE	5	U

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Form I

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VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-47-0606DL1

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399209DL1 Lab File ID: 99209D.D

Sample wt/vol: 5 Units: ML Date Received: 06/02/06

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 06/07/06 Time: 0128

PercentSolids: 0 decanted : Dilution Factor: 50

Extraction: PURGETRAP Station ID: MW-47 Method: 8260

GPC Cleanup : (Y/N) pH:

Column(1): DB-624 ID: 0.18 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
71-43-2	Benzene	24/1	~~J~~ R-D
108-88-3	Toluene	2100	=
100-41-4	Ethylbenzene	422	=
1330-20-7	Xylene (total)	2180	=
1634-04-4	MTBE	~~50~~	~~U~~ R-D

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Form I

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VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-52-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399210 Lab File ID: 99210.D

Sample wt/vol: 5 Units: ML Date Received: 06/02/06

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 06/06/06 Time: 2332

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: MW-52 Method: 8260

GPC Cleanup : (Y/N) pH:

Column(1): DB-624 ID: 0.18 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	3	U
1634-04-4	MTBE	1	U

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Form I

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VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-55-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399211 Lab File ID: 99211.D

Sample wt/vol: 5 Units: ML Date Received: 06/02/06

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 06/05/06 Time: 2158

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: MW-55 Method: 8260

GPC Cleanup : (Y/N) pH:

Column(1): DB-624 ID: 0.18 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
71-43-2	Benzene	1	U
108-88-3	Toluene	283	~~E~~ R-D
100-41-4	Ethylbenzene	315	~~E~~ R-D
1330-20-7	Xylene (total)	1010	~~E~~ R-D
1634-04-4	MTBE	1	U

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Form I

1

VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-55-0606DL1

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399211DL1 Lab File ID: 99211D.D

Sample wt/vol: 5 Units: ML Date Received: 06/02/06

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 06/06/06 Time: 2356

PercentSolids: 0 decanted : Dilution Factor: 10

Extraction: PURGETRAP Station ID: MW-55 Method: 8260

GPC Cleanup : (Y/N) pH:

Column(1): DB-624 ID: 0.18 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
71-43-2	Benzene	10	~~U~~ R-D
108-88-3	Toluene	294	=
100-41-4	Ethylbenzene	330	=
1330-20-7	Xylene (total)	1170	=
1634-04-4	MTBE	10	~~U~~ R-D

C.L

200606 1249

Form I

1

VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-60-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399212 Lab File ID: 99212.D

Sample wt/vol: 5 Units: ML Date Received: 06/02/06

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 06/05/06 Time: 2112

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: MW-60 Method: 8260

GPC Cleanup : (Y/N) pH:

Column(1): DB-624 ID: 0.18 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	3	U
1634-04-4	MTBE	1	U

c.l

200606 1249

Form I

1

VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-64-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399213 Lab File ID: 99213.D

Sample wt/vol: 5 Units: ML Date Received: 06/02/06

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 06/07/06 Time: 0019

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: MW-64 Method: 8260

GPC Cleanup : (Y/N) pH:

Column(1): DB-624 ID: 0.18 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	21.5	
1330-20-7	Xylene (total)	51.8	
1634-04-4	MTBE	1	U

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200606 1249

Form I

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VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-70-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399214 Lab File ID: 99214.D

Sample wt/vol: 5 Units: ML Date Received: 06/02/06

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 06/07/06 Time: 0152

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: MW-70 Method: 8260

GPC Cleanup : (Y/N) pH:

Column(1): DB-624 ID: 0.18 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
71-43-2	Benzene	1	U
108-88-3	Toluene	0.21	J
100-41-4	Ethylbenzene	104	~~E~~ R-D
1330-20-7	Xylene (total)	244	~~E~~ R-D
1634-04-4	MTBE	1	U

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Form I

1

VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-70-0606DL1

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399214DL1 Lab File ID: 99214D.D

Sample wt/vol: 5 Units: ML Date Received: 06/02/06

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 06/07/06 Time: 0215

PercentSolids: 0 decanted : Dilution Factor: 5

Extraction: PURGETRAP Station ID: MW-70 Method: 8260

GPC Cleanup : (Y/N) pH:

Column(1): DB-624 ID: 0.18 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
71-43-2	Benzene	5	U R-D
108-88-3	Toluene	5	U R-D
100-41-4	Ethylbenzene	134	=
1330-20-7	Xylene (total)	323	=
1634-04-4	MTBE	5	U R-P

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200606 1249

Form I

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VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-71-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399215 Lab File ID: 99215.D

Sample wt/vol: 5 Units: ML Date Received: 06/02/06

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 06/07/06 Time: 0238

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: MW-71 Method: 8260

GPC Cleanup : (Y/N) pH:

Column(1): DB-624 ID: 0.18 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
71-43-2	Benzene	1	U
108-88-3	Toluene	44.9	
100-41-4	Ethylbenzene	248	~~E~~ R-D
1330-20-7	Xylene (total)	845	~~E~~ R-D
1634-04-4	MTBE	1	U

c.l

200606 1249

Form I

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VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-71-0606DL1

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399215DL1 Lab File ID: 99215D.D

Sample wt/vol: 5 Units: ML Date Received: 06/02/06

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 06/07/06 Time: 0301

PercentSolids: 0 decanted : Dilution Factor: 10

Extraction: PURGETRAP Station ID: MW-71 Method: 8260

GPC Cleanup : (Y/N) pH:

Column(1): DB-624 ID: 0.18 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
71-43-2	Benzene	10	U R-D
108-88-3	Toluene	42.4	R-D
100-41-4	Ethylbenzene	249	=
1330-20-7	Xylene (total)	935	=
1634-04-4	MTBE	10	U R-D

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Form I

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VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-75-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399216 Lab File ID: 99216.D

Sample wt/vol: 5 Units: ML Date Received: 06/02/06

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 06/07/06 Time: 0042

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: MW-75 Method: 8260

GPC Cleanup : (Y/N) pH:

Column(1): DB-624 ID: 0.18 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	2.8	
1330-20-7	Xylene (total)	5.4	
1634-04-4	MTBE	1	U

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Form I

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VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-FD-1-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399217 Lab File ID: 99217.D

Sample wt/vol: 5 Units: ML Date Received: 06/02/06

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 06/07/06 Time: 0325

PercentSolids: 0 decanted : Dilution Factor: 5

Extraction: PURGETRAP Station ID: FIELD DUP Method: 8260

GPC Cleanup : (Y/N) pH:

Column(1): DB-624 ID: 0.18 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
71-43-2	Benzene	21.7	
108-88-3	Toluene	1860	~~E~~ R-D
100-41-4	Ethylbenzene	405	~~E~~ R-D
1330-20-7	Xylene (total)	2000	~~E~~ R-D
1634-04-4	MTBE	5	U

C.R

200606 1249

Form I

1

VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-FD-1-0606DL1

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399217DL1 Lab File ID: 99217D.D

Sample wt/vol: 5 Units: ML Date Received: 06/02/06

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 06/07/06 Time: 0348

PercentSolids: 0 decanted : Dilution Factor: 50

Extraction: PURGETRAP Station ID: FIELD DUP Method: 8260

GPC Cleanup : (Y/N) pH:

Column(1): DB-624 ID: 0.18 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
71-43-2	Benzene	22.2	~~J~~ R-D
108-88-3	Toluene	2080	=
100-41-4	Ethylbenzene	411	=
1330-20-7	Xylene (total)	2120	=
1634-04-4	MTBE	50	~~J~~ R-D

C.A.

200606 1249

Form I

1

VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-FD-3-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399218 Lab File ID: 99218.D

Sample wt/vol: 5 Units: ML Date Received: 06/02/06

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 06/07/06 Time: 0411

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: FIELD DUP Method: 8260

GPC Cleanup : (Y/N) pH:

Column(1): DB-624 ID: 0.18 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
71-43-2	Benzene	1	U
108-88-3	Toluene	41.5	
100-41-4	Ethylbenzene	230	~~E~~ R-D
1330-20-7	Xylene (total)	775	~~E~~ R-D
1634-04-4	MTBE	1	U

C.L

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Form I

VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-FD-3-0606DL1

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399218DL1 Lab File ID: 99218D.D

Sample wt/vol: 5 Units: ML Date Received: 06/02/06

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 06/07/06 Time: 0434

PercentSolids: 0 decanted : Dilution Factor: 5

Extraction: PURGETRAP Station ID: FIELD DUP Method: 8260

GPC Cleanup : (Y/N) pH:

Column(1): DB-624 ID: 0.18 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
71-43-2	Benzene	~~5~~	U R-D
108-88-3	Toluene	~~40.9~~	R-D
100-41-4	Ethylbenzene	240	=
1330-20-7	Xylene (total)	865	=
1634-04-4	MTBE	~~5~~	U R-D

C.L

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Form I

1

VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-PreEQ-2-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399219 Lab File ID: 99219.D

Sample wt/vol: 5 Units: ML Date Received: 06/02/06

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 06/05/06 Time: 1938

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: Pre-Equipment B Method: 8260

GPC Cleanup : (Y/N) pH:

Column(1): DB-624 ID: 0.18 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	3	U
1634-04-4	MTBE	1	U

ok

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Form I

VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-TB-2-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399220 Lab File ID: 99220.D

Sample wt/vol: 5 Units: ML Date Received: 06/02/06

Concentrated Extract Volume: 5 Date Extracted:

Level:(low/med) LOW Date Analyzed: 06/05/06 Time: 1915

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: PURGETRAP Station ID: Trip Blank Method: 8260

GPC Cleanup : (Y/N) pH:

Column(1): DB-624 ID: 0.18 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
71-43-2	Benzene	1	U
108-88-3	Toluene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	3	U
1634-04-4	MTBE	1	U

C.L

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Form I

SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-18-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399201 Lab File ID: 992-01.D

Sample wt/vol: 1070 Units: ML Date Received: 06/02/06

Concentrated Extract Volume: 1 Date Extracted: 06/08/06

Level:(low/med) LOW Date Analyzed: 06/15/06 Time: 1937

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: MW-18 Method: 8270 SIM

GPC Cleanup : (Y/N) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
91-20-3	Naphthalene	0.12	JB-F
91-57-6	2-Methylnaphthalene	0.099	JB-F
90-12-0	1-Methylnaphthalene	0.21	JB-F
208-96-8	Acenaphthylene	0.019	U
83-32-9	Acenaphthene	0.019	U
86-73-7	Fluorene	0.0063	JB-F
85-01-8	Phenanthrene	0.019	U
120-12-7	Anthracene	0.019	U
206-44-0	Fluoranthene	0.019	U
129-00-0	Pyrene	0.019	U
56-55-3	Benzo(a)anthracene	0.013	JB-F
218-01-9	Chrysene	0.012	J
205-99-2	Benzo(b)fluoranthene	0.019	U
207-08-9	Benzo(k)fluoranthene	0.019	U
50-32-8	Benzo(a)pyrene	0.019	U
193-39-5	Indeno(1,2,3-cd)pyrene	0.019	U
53-70-3	Dibenz(a,h)anthracene	0.019	U
191-24-2	Benzo(g,h,i)perylene	0.019	U

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Form I

SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-25-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399202 Lab File ID: 992-02.D

Sample wt/vol: 1050 Units: ML Date Received: 06/02/06

Concentrated Extract Volume: 1 Date Extracted: 06/08/06

Level:(low/med) LOW Date Analyzed: 06/15/06 Time: 2009

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: MW-25 Method: 8270 SIM

GPC Cleanup : (Y/N) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
91-20-3	Naphthalene	0.33	JB-F
91-57-6	2-Methylnaphthalene	0.22	JB-F
90-12-0	1-Methylnaphthalene	0.6	ER-D
208-96-8	Acenaphthylene	0.019	U
83-32-9	Acenaphthene	0.011	J
86-73-7	Fluorene	0.01	JB-F
85-01-8	Phenanthrene	0.019	U
120-12-7	Anthracene	0.019	U
206-44-0	Fluoranthene	0.019	U
129-00-0	Pyrene	0.019	U
56-55-3	Benzo(a)anthracene	0.012	JB-F
218-01-9	Chrysene	0.019	U
205-99-2	Benzo(b)fluoranthene	0.019	U
207-08-9	Benzo(k)fluoranthene	0.019	U
50-32-8	Benzo(a)pyrene	0.019	U
193-39-5	Indeno(1,2,3-cd)pyrene	0.019	U
53-70-3	Dibenz(a,h)anthracene	0.019	U
191-24-2	Benzo(g,h,i)perylene	0.019	U

C.L

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SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-25-0606DL1

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399202DL1 Lab File ID: 992-02D2.D

Sample wt/vol: 1050 Units: ML Date Received: 06/02/06

Concentrated Extract Volume: 1 Date Extracted: 06/08/06

Level:(low/med) LOW Date Analyzed: 06/16/06 Time: 1233

PercentSolids: 0 decanted : Dilution Factor: 2

Extraction: SEPF Station ID: MW-25 Method: 8270 SIM

GPC Cleanup : (Y/N) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
91-20-3	Naphthalene	~~0.36~~	R-D
91-57-6	2-Methylnaphthalene	~~0.2~~	R-D
90-12-0	1-Methylnaphthalene	0.56	JB-F
208-96-8	Acenaphthylene	0.038	U R-D
83-32-9	Acenaphthene	0.038	U
86-73-7	Fluorene	0.01	J
85-01-8	Phenanthrene	0.038	U
120-12-7	Anthracene	0.038	U
206-44-0	Fluoranthene	0.038	U
129-00-0	Pyrene	0.038	U
56-55-3	Benzo(a)anthracene	0.038	U
218-01-9	Chrysene	0.038	U
205-99-2	Benzo(b)fluoranthene	0.038	U
207-08-9	Benzo(k)fluoranthene	0.038	U
50-32-8	Benzo(a)pyrene	0.038	U
193-39-5	Indeno(1,2,3-cd)pyrene	0.038	U
53-70-3	Dibenz(a,h)anthracene	0.038	U
191-24-2	Benzo(g,h,i)perylene	0.038	U

SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-33-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399203 Lab File ID: 992-03.D

Sample wt/vol: 1050 Units: ML Date Received: 06/02/06

Concentrated Extract Volume: 1 Date Extracted: 06/08/06

Level:(low/med) LOW Date Analyzed: 06/15/06 Time: 2041

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: MW-33 Method: 8270 SIM

GPC Cleanup : (Y/N) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
91-20-3	Naphthalene	0.019	U
91-57-6	2-Methylnaphthalene	0.019	U
90-12-0	1-Methylnaphthalene	0.019	U
208-96-8	Acenaphthylene	0.013	J
83-32-9	Acenaphthene	0.019	U
86-73-7	Fluorene	0.019	U
85-01-8	Phenanthrene	0.019	U
120-12-7	Anthracene	0.019	U
206-44-0	Fluoranthene	0.019	U
129-00-0	Pyrene	0.019	U
56-55-3	Benzo(a)anthracene	0.019	U
218-01-9	Chrysene	0.019	U
205-99-2	Benzo(b)fluoranthene	0.019	U
207-08-9	Benzo(k)fluoranthene	0.019	U
50-32-8	Benzo(a)pyrene	0.019	U
193-39-5	Indeno(1,2,3-cd)pyrene	0.019	U
53-70-3	Dibenz(a,h)anthracene	0.019	U
191-24-2	Benzo(g,h,i)perylene	0.019	U

ok

SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-35-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399204 Lab File ID: 992-04.D

Sample wt/vol: 1060 Units: ML Date Received: 06/02/06

Concentrated Extract Volume: 1 Date Extracted: 06/08/06

Level:(low/med) LOW Date Analyzed: 06/15/06 Time: 2211

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: MW-35 Method: 8270 SIM

GPC Cleanup : (Y/N) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
91-20-3	Naphthalene	0.019	U
91-57-6	2-Methylnaphthalene	0.019	U
90-12-0	1-Methylnaphthalene	0.019	U
208-96-8	Acenaphthylene	0.019	U
83-32-9	Acenaphthene	0.019	U
86-73-7	Fluorene	0.019	U
85-01-8	Phenanthrene	0.019	U
120-12-7	Anthracene	0.0041	J
206-44-0	Fluoranthene	0.019	U
129-00-0	Pyrene	0.019	U
56-55-3	Benzo(a)anthracene	0.012	J B-F
218-01-9	Chrysene	0.011	J
205-99-2	Benzo(b)fluoranthene	0.019	U
207-08-9	Benzo(k)fluoranthene	0.019	U
50-32-8	Benzo(a)pyrene	0.019	U
193-39-5	Indeno(1,2,3-cd)pyrene	0.019	U
53-70-3	Dibenz(a,h)anthracene	0.019	U
191-24-2	Benzo(g,h,i)perylene	0.019	U

a.L

200606 1249

Form I

SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-44-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399207 Lab File ID: 992-07.D

Sample wt/vol: 1050 Units: ML Date Received: 06/02/06

Concentrated Extract Volume: 1 Date Extracted: 06/08/06

Level:(low/med) LOW Date Analyzed: 06/15/06 Time: 2345

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: MW-44 Method: 8270 SIM

GPC Cleanup : (Y/N) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
91-20-3	Naphthalene	0.019	U
91-57-6	2-Methylnaphthalene	0.017	J B-F
90-12-0	1-Methylnaphthalene	0.016	J B-F
208-96-8	Acenaphthylene	0.013	J
83-32-9	Acenaphthene	0.019	U
86-73-7	Fluorene	0.019	U
85-01-8	Phenanthrene	0.019	U
120-12-7	Anthracene	0.019	U
206-44-0	Fluoranthene	0.019	U
129-00-0	Pyrene	0.019	U
56-55-3	Benzo(a)anthracene	0.013	J B-F
218-01-9	Chrysene	0.013	J
205-99-2	Benzo(b)fluoranthene	0.019	U
207-08-9	Benzo(k)fluoranthene	0.019	U
50-32-8	Benzo(a)pyrene	0.019	U
193-39-5	Indeno(1,2,3-cd)pyrene	0.019	U
53-70-3	Dibenz(a,h)anthracene	0.019	U
191-24-2	Benzo(g,h,i)perylene	0.019	U

r.L

SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-45-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399208 Lab File ID: 992-08.D

Sample wt/vol: 1050 Units: ML Date Received: 06/02/06

Concentrated Extract Volume: 1 Date Extracted: 06/08/06

Level:(low/med) LOW Date Analyzed: 06/16/06 Time: 0016

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: MW-45 Method: 8270 SIM

GPC Cleanup : (Y/N) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
91-20-3	Naphthalene	0.18	JB-F
91-57-6	2-Methylnaphthalene	0.061	JB-F
90-12-0	1-Methylnaphthalene	0.042	JB-F
208-96-8	Acenaphthylene	0.019	U
83-32-9	Acenaphthene	0.019	U
86-73-7	Fluorene	0.019	U
85-01-8	Phenanthrene	0.019	U
120-12-7	Anthracene	0.019	U
206-44-0	Fluoranthene	0.02	
129-00-0	Pyrene	0.015	~~JB~~ B-MB
56-55-3	Benzo(a)anthracene	0.017	JB-F
218-01-9	Chrysene	0.017	J
205-99-2	Benzo(b)fluoranthene	0.0096	J
207-08-9	Benzo(k)fluoranthene	0.019	U
50-32-8	Benzo(a)pyrene	0.019	U
193-39-5	Indeno(1,2,3-cd)pyrene	0.019	U
53-70-3	Dibenz(a,h)anthracene	0.019	U
191-24-2	Benzo(g,h,i)perylene	0.019	U

c.h

200606 1249

Form I

SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-47-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399209 Lab File ID: 992-09.D

Sample wt/vol: 1040 Units: ML Date Received: 06/02/06

Concentrated Extract Volume: 1 Date Extracted: 06/08/06

Level:(low/med) LOW Date Analyzed: 06/16/06 Time: 0047

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: MW-47 Method: 8270 SIM

GPC Cleanup : (Y/N) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
91-20-3	Naphthalene	0.85	~~E~~ R-D
91-57-6	2-Methylnaphthalene	0.18	JB-F
90-12-0	1-Methylnaphthalene	0.12	JB-F
208-96-8	Acenaphthylene	0.019	U
83-32-9	Acenaphthene	0.019	U
86-73-7	Fluorene	0.019	U
85-01-8	Phenanthrene	0.019	U
120-12-7	Anthracene	0.019	U
206-44-0	Fluoranthene	0.019	U
129-00-0	Pyrene	0.019	U
56-55-3	Benzo(a)anthracene	0.013	J B-F
218-01-9	Chrysene	0.012	J
205-99-2	Benzo(b)fluoranthene	0.019	U
207-08-9	Benzo(k)fluoranthene	0.019	U
50-32-8	Benzo(a)pyrene	0.019	U
193-39-5	Indeno(1,2,3-cd)pyrene	0.019	U
53-70-3	Dibenz(a,h)anthracene	0.019	U
191-24-2	Benzo(g,h,i)perylene	0.019	U

C.L

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Form I

SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-47-0606DL1

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399209DL1 Lab File ID: 992-09D2.D

Sample wt/vol: 1040 Units: ML Date Received: 06/02/06

Concentrated Extract Volume: 1 Date Extracted: 06/08/06

Level:(low/med) LOW Date Analyzed: 06/16/06 Time: 1304

PercentSolids: 0 decanted : Dilution Factor: 2

Extraction: SEPF Station ID: MW-47 Method: 8270 SIM

GPC Cleanup : (Y/N) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
91-20-3	Naphthalene	0.94	JB-F
91-57-6	2-Methylnaphthalene	0.18	R-D
90-12-0	1-Methylnaphthalene	0.12	R-D
208-96-8	Acenaphthylene	0.038	U R-D
83-32-9	Acenaphthene	0.038	U
86-73-7	Fluorene	0.038	U
85-01-8	Phenanthrene	0.038	U
120-12-7	Anthracene	0.038	U
206-44-0	Fluoranthene	0.038	U
129-00-0	Pyrene	0.038	U
56-55-3	Benzo(a)anthracene	0.038	U
218-01-9	Chrysene	0.038	U
205-99-2	Benzo(b)fluoranthene	0.038	U
207-08-9	Benzo(k)fluoranthene	0.038	U
50-32-8	Benzo(a)pyrene	0.038	U
193-39-5	Indeno(1,2,3-cd)pyrene	0.038	U
53-70-3	Dibenz(a,h)anthracene	0.038	U
191-24-2	Benzo(g,h,i)perylene	0.038	U

a.h

200606 1249

Form I

SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-52-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399210 Lab File ID: 992-10.D

Sample wt/vol: 1050 Units: ML Date Received: 06/02/06

Concentrated Extract Volume: 1 Date Extracted: 06/08/06

Level:(low/med) LOW Date Analyzed: 06/16/06 Time: 0118

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: MW-52 Method: 8270 SIM

GPC Cleanup : (Y/N) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
91-20-3	Naphthalene	0.019	U
91-57-6	2-Methylnaphthalene	0.019	U
90-12-0	1-Methylnaphthalene	0.019	U
208-96-8	Acenaphthylene	0.019	U
83-32-9	Acenaphthene	0.019	U
86-73-7	Fluorene	0.019	U
85-01-8	Phenanthrene	0.019	U
120-12-7	Anthracene	0.019	U
206-44-0	Fluoranthene	0.019	U
129-00-0	Pyrene	0.019	U
56-55-3	Benzo(a)anthracene	0.013	JB-F
218-01-9	Chrysene	0.014	J
205-99-2	Benzo(b)fluoranthene	0.019	U
207-08-9	Benzo(k)fluoranthene	0.019	U
50-32-8	Benzo(a)pyrene	0.019	U
193-39-5	Indeno(1,2,3-cd)pyrene	0.019	U
53-70-3	Dibenz(a,h)anthracene	0.019	U
191-24-2	Benzo(g,h,i)perylene	0.019	U

ch

200606 1249

Form I

SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-55-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399211 Lab File ID: 992-11.D

Sample wt/vol: 1050 Units: ML Date Received: 06/02/06

Concentrated Extract Volume: 1 Date Extracted: 06/08/06

Level:(low/med) LOW Date Analyzed: 06/16/06 Time: 0150

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: MW-55 Method: 8270 SIM

GPC Cleanup : (Y/N) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
91-20-3	Naphthalene	0.63	~~E~~ R-D
91-57-6	2-Methylnaphthalene	0.12	JB-F
90-12-0	1-Methylnaphthalene	0.09	JB-F
208-96-8	Acenaphthylene	0.019	U
83-32-9	Acenaphthene	0.019	U
86-73-7	Fluorene	0.019	U
85-01-8	Phenanthrene	0.019	U
120-12-7	Anthracene	0.019	U
206-44-0	Fluoranthene	0.019	U
129-00-0	Pyrene	0.019	U
56-55-3	Benzo(a)anthracene	0.012	JB-F
218-01-9	Chrysene	0.019	U
205-99-2	Benzo(b)fluoranthene	0.019	U
207-08-9	Benzo(k)fluoranthene	0.019	U
50-32-8	Benzo(a)pyrene	0.019	U
193-39-5	Indeno(1,2,3-cd)pyrene	0.019	U
53-70-3	Dibenz(a,h)anthracene	0.019	U
191-24-2	Benzo(g,h,i)perylene	0.019	U

C.L

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Form I

SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-55-0606DL1

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399211DL1 Lab File ID: 992-11D2.D

Sample wt/vol: 1050 Units: ML Date Received: 06/02/06

Concentrated Extract Volume: 1 Date Extracted: 06/08/06

Level:(low/med) LOW Date Analyzed: 06/16/06 Time: 1336

PercentSolids: 0 decanted : Dilution Factor: 2

Extraction: SEPF Station ID: MW-55 Method: 8270 SIM

GPC Cleanup : (Y/N) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
91-20-3	Naphthalene	0.68	~~J~~B-F
91-57-6	2-Methylnaphthalene	0.14	R-D
90-12-0	1-Methylnaphthalene	0.097	R-D
208-96-8	Acenaphthylene	0.038	U R-D
83-32-9	Acenaphthene	0.038	U
86-73-7	Fluorene	0.038	U
85-01-8	Phenanthrene	0.038	U
120-12-7	Anthracene	0.038	U
206-44-0	Fluoranthene	0.038	U
129-00-0	Pyrene	0.038	U
56-55-3	Benzo(a)anthracene	0.038	U
218-01-9	Chrysene	0.038	U
205-99-2	Benzo(b)fluoranthene	0.038	U
207-08-9	Benzo(k)fluoranthene	0.038	U
50-32-8	Benzo(a)pyrene	0.038	U
193-39-5	Indeno(1,2,3-cd)pyrene	0.038	U
53-70-3	Dibenz(a,h)anthracene	0.038	U
191-24-2	Benzo(g,h,i)perylene	0.038	U

a.h

SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-60-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399212 Lab File ID: 992-12.D

Sample wt/vol: 1060 Units: ML Date Received: 06/02/06

Concentrated Extract Volume: 1 Date Extracted: 06/08/06

Level:(low/med) LOW Date Analyzed: 06/16/06 Time: 0750

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: MW-60 Method: 8270 SIM

GPC Cleanup : (Y/N) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
91-20-3	Naphthalene	0.019	U
91-57-6	2-Methylnaphthalene	0.019	U
90-12-0	1-Methylnaphthalene	0.019	U
208-96-8	Acenaphthylene	0.019	U
83-32-9	Acenaphthene	0.019	U
86-73-7	Fluorene	0.019	U
85-01-8	Phenanthrene	0.019	U
120-12-7	Anthracene	0.019	U
206-44-0	Fluoranthene	0.019	U
129-00-0	Pyrene	0.019	U
56-55-3	Benzo(a)anthracene	0.015	J B-F
218-01-9	Chrysene	0.015	J
205-99-2	Benzo(b)fluoranthene	0.019	U
207-08-9	Benzo(k)fluoranthene	0.019	U
50-32-8	Benzo(a)pyrene	0.019	U
193-39-5	Indeno(1,2,3-cd)pyrene	0.019	U
53-70-3	Dibenz(a,h)anthracene	0.019	U
191-24-2	Benzo(g,h,i)perylene	0.019	U

C. L

SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-64-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399213 Lab File ID: 992-13.D

Sample wt/vol: 1040 Units: ML Date Received: 06/02/06

Concentrated Extract Volume: 1 Date Extracted: 06/08/06

Level:(low/med) LOW Date Analyzed: 06/16/06 Time: 0822

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: MW-64 Method: 8270 SIM

GPC Cleanup : (Y/N) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
91-20-3	Naphthalene	0.045	JB-F
91-57-6	2-Methylnaphthalene	0.063	JB-F
90-12-0	1-Methylnaphthalene	0.053	JB-F
208-96-8	Acenaphthylene	0.019	U
83-32-9	Acenaphthene	0.019	U
86-73-7	Fluorene	0.0034	JB-F
85-01-8	Phenanthrene	0.019	U
120-12-7	Anthracene	0.019	U
206-44-0	Fluoranthene	0.019	U
129-00-0	Pyrene	0.019	U
56-55-3	Benzo(a)anthracene	0.013	JB-F
218-01-9	Chrysene	0.013	J
205-99-2	Benzo(b)fluoranthene	0.019	U
207-08-9	Benzo(k)fluoranthene	0.019	U
50-32-8	Benzo(a)pyrene	0.019	U
193-39-5	Indeno(1,2,3-cd)pyrene	0.019	U
53-70-3	Dibenz(a,h)anthracene	0.019	U
191-24-2	Benzo(g,h,i)perylene	0.019	U

a.l

200606 1249

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SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-70-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399214 Lab File ID: 992-14.D

Sample wt/vol: 1040 Units: ML Date Received: 06/02/06

Concentrated Extract Volume: 1 Date Extracted: 06/08/06

Level:(low/med) LOW Date Analyzed: 06/16/06 Time: 0854

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: MW-70 Method: 8270 SIM

GPC Cleanup : (Y/N) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
91-20-3	Naphthalene	0.24	JB-F
91-57-6	2-Methylnaphthalene	0.12	JB-F
90-12-0	1-Methylnaphthalene	0.079	JB-F
208-96-8	Acenaphthylene	0.019	U
83-32-9	Acenaphthene	0.019	U
86-73-7	Fluorene	0.004	JB-F
85-01-8	Phenanthrene	0.019	U
120-12-7	Anthracene	0.019	U
206-44-0	Fluoranthene	0.019	U
129-00-0	Pyrene	0.019	U
56-55-3	Benzo(a)anthracene	0.012	JB-F
218-01-9	Chrysene	0.019	U
205-99-2	Benzo(b)fluoranthene	0.019	U
207-08-9	Benzo(k)fluoranthene	0.019	U
50-32-8	Benzo(a)pyrene	0.019	U
193-39-5	Indeno(1,2,3-cd)pyrene	0.019	U
53-70-3	Dibenz(a,h)anthracene	0.019	U
191-24-2	Benzo(g,h,i)perylene	0.019	U

a. L

200606 1249

Form I

SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-71-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399215 Lab File ID: 992-15.D

Sample wt/vol: 1050 Units: ML Date Received: 06/02/06

Concentrated Extract Volume: 1 Date Extracted: 06/08/06

Level:(low/med) LOW Date Analyzed: 06/16/06 Time: 0925

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: MW-71 Method: 8270 SIM

GPC Cleanup : (Y/N) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
91-20-3	Naphthalene	0.27	JB-F, Z
91-57-6	2-Methylnaphthalene	0.057	JB-F, Z
90-12-0	1-Methylnaphthalene	0.078	JB-F, Z
208-96-8	Acenaphthylene	0.019	U
83-32-9	Acenaphthene	0.019	U
86-73-7	Fluorene	0.0084	J B-F
85-01-8	Phenanthrene	0.019	U
120-12-7	Anthracene	0.019	U
206-44-0	Fluoranthene	0.019	U
129-00-0	Pyrene	0.011	~~JB~~ B-mB
56-55-3	Benzo(a)anthracene	0.013	J B-F
218-01-9	Chrysene	0.019	U
205-99-2	Benzo(b)fluoranthene	0.019	U
207-08-9	Benzo(k)fluoranthene	0.019	U
50-32-8	Benzo(a)pyrene	0.019	U
193-39-5	Indeno(1,2,3-cd)pyrene	0.019	U
53-70-3	Dibenz(a,h)anthracene	0.019	U
191-24-2	Benzo(g,h,i)perylene	0.019	U

c.L

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SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-75-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399216 Lab File ID: 992-16.D

Sample wt/vol: 1050 Units: ML Date Received: 06/02/06

Concentrated Extract Volume: 1 Date Extracted: 06/08/06

Level:(low/med) LOW Date Analyzed: 06/16/06 Time: 0956

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: MW-75 Method: 8270 SIM

GPC Cleanup : (Y/N) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
91-20-3	Naphthalene	0.072	JB-F
91-57-6	2-Methylnaphthalene	0.048	JB-F
90-12-0	1-Methylnaphthalene	0.029	JB-F
208-96-8	Acenaphthylene	0.019	U
83-32-9	Acenaphthene	0.019	U
86-73-7	Fluorene	0.019	U
85-01-8	Phenanthrene	0.019	U
120-12-7	Anthracene	0.019	U
206-44-0	Fluoranthene	0.019	U
129-00-0	Pyrene	0.011	~~JB~~ B-MB
56-55-3	Benzo(a)anthracene	0.019	U
218-01-9	Chrysene	0.019	U
205-99-2	Benzo(b)fluoranthene	0.019	U
207-08-9	Benzo(k)fluoranthene	0.019	U
50-32-8	Benzo(a)pyrene	0.019	U
193-39-5	Indeno(1,2,3-cd)pyrene	0.019	U
53-70-3	Dibenz(a,h)anthracene	0.019	U
191-24-2	Benzo(g,h,i)perylene	0.019	U

a.L

SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-FD-1-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399217 Lab File ID: 992-17.D

Sample wt/vol: 1040 Units: ML Date Received: 06/02/06

Concentrated Extract Volume: 1 Date Extracted: 06/08/06

Level:(low/med) LOW Date Analyzed: 06/16/06 Time: 1027

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: FIELD DUP Method: 8270 SIM

GPC Cleanup : (Y/N) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
91-20-3	Naphthalene	0.86	~~E~~ R-D
91-57-6	2-Methylnaphthalene	0.17	JB-F
90-12-0	1-Methylnaphthalene	0.12	JB-F
208-96-8	Acenaphthylene	0.019	U
83-32-9	Acenaphthene	0.019	U
86-73-7	Fluorene	0.0037	JB-F
85-01-8	Phenanthrene	0.019	U
120-12-7	Anthracene	0.019	U
206-44-0	Fluoranthene	0.019	U
129-00-0	Pyrene	0.019	U
56-55-3	Benzo(a)anthracene	0.019	U
218-01-9	Chrysene	0.019	U
205-99-2	Benzo(b)fluoranthene	0.019	U
207-08-9	Benzo(k)fluoranthene	0.019	U
50-32-8	Benzo(a)pyrene	0.019	U
193-39-5	Indeno(1,2,3-cd)pyrene	0.019	U
53-70-3	Dibenz(a,h)anthracene	0.019	U
191-24-2	Benzo(g,h,i)perylene	0.019	U

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Form I

SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-FD-1-0606DL1

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399217DL1 Lab File ID: 992-17D5.D

Sample wt/vol: 1040 Units: ML Date Received: 06/02/06

Concentrated Extract Volume: 1 Date Extracted: 06/08/06

Level:(low/med) LOW Date Analyzed: 06/16/06 Time: 1510

PercentSolids: 0 decanted : Dilution Factor: 5

Extraction: SEPF Station ID: FIELD DUP Method: 8270 SIM

GPC Cleanup : (Y/N) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
91-20-3	Naphthalene	1	JB-F
91-57-6	2-Methylnaphthalene	0.22	R-D
90-12-0	1-Methylnaphthalene	0.16	R-D
208-96-8	Acenaphthylene	0.096	U R-D
83-32-9	Acenaphthene	0.096	U
86-73-7	Fluorene	0.096	U
85-01-8	Phenanthrene	0.096	U
120-12-7	Anthracene	0.096	U
206-44-0	Fluoranthene	0.096	U
129-00-0	Pyrene	0.096	U
56-55-3	Benzo(a)anthracene	0.096	U
218-01-9	Chrysene	0.096	U
205-99-2	Benzo(b)fluoranthene	0.096	U
207-08-9	Benzo(k)fluoranthene	0.096	U
50-32-8	Benzo(a)pyrene	0.096	U
193-39-5	Indeno(1,2,3-cd)pyrene	0.096	U
53-70-3	Dibenz(a,h)anthracene	0.096	U
191-24-2	Benzo(g,h,i)perylene	0.096	U

C.L

SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-FD-3-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399218 Lab File ID: 992-18.D

Sample wt/vol: 1070 Units: ML Date Received: 06/02/06

Concentrated Extract Volume: 1 Date Extracted: 06/08/06

Level:(low/med) LOW Date Analyzed: 06/16/06 Time: 1059

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: FIELD DUP Method: 8270 SIM

GPC Cleanup : (Y/N) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
91-20-3	Naphthalene	0.5	~~E~~ R-D
91-57-6	2-Methylnaphthalene	0.14	JB-F, Z
90-12-0	1-Methylnaphthalene	0.11	JB-F, Z
208-96-8	Acenaphthylene	0.019	U
83-32-9	Acenaphthene	0.019	U
86-73-7	Fluorene	0.012	JB-F
85-01-8	Phenanthrene	0.02	J-Z
120-12-7	Anthracene	0.019	U
206-44-0	Fluoranthene	0.019	U
129-00-0	Pyrene	0.011	~~JB~~ B-MB
56-55-3	Benzo(a)anthracene	0.012	JB-F
218-01-9	Chrysene	0.019	U
205-99-2	Benzo(b)fluoranthene	0.019	U
207-08-9	Benzo(k)fluoranthene	0.019	U
50-32-8	Benzo(a)pyrene	0.019	U
193-39-5	Indeno(1,2,3-cd)pyrene	0.019	U
53-70-3	Dibenz(a,h)anthracene	0.019	U
191-24-2	Benzo(g,h,i)perylene	0.019	U

A.K

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Form I

SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-FD-3-0606DL1

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399218DL1 Lab File ID: 992-18D2.D

Sample wt/vol: 1070 Units: ML Date Received: 06/02/06

Concentrated Extract Volume: 1 Date Extracted: 06/08/06

Level:(low/med) LOW Date Analyzed: 06/16/06 Time: 1438

PercentSolids: 0 decanted : Dilution Factor: 2

Extraction: SEPF Station ID: FIELD DUP Method: 8270 SIM

GPC Cleanup : (Y/N) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
91-20-3	Naphthalene	0.53	~~SB~~-F, Z
91-57-6	2-Methylnaphthalene	0.14	R-D
90-12-0	1-Methylnaphthalene	0.11	R-D
208-96-8	Acenaphthylene	0.037	U R-D
83-32-9	Acenaphthene	0.037	U
86-73-7	Fluorene	0.014	J
85-01-8	Phenanthrene	0.037	U
120-12-7	Anthracene	0.037	U
206-44-0	Fluoranthene	0.037	U
129-00-0	Pyrene	0.037	U
56-55-3	Benzo(a)anthracene	0.037	U
218-01-9	Chrysene	0.037	U
205-99-2	Benzo(b)fluoranthene	0.037	U
207-08-9	Benzo(k)fluoranthene	0.037	U
50-32-8	Benzo(a)pyrene	0.037	U
193-39-5	Indeno(1,2,3-cd)pyrene	0.037	U
53-70-3	Dibenz(a,h)anthracene	0.037	U
191-24-2	Benzo(g,h,i)perylene	0.037	U

c.l

SEMI-VOLATILE ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-PreEQ-2-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399219 Lab File ID: 992-19.D

Sample wt/vol: 1050 Units: ML Date Received: 06/02/06

Concentrated Extract Volume: 1 Date Extracted: 06/08/06

Level:(low/med) LOW Date Analyzed: 06/16/06 Time: 1130

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: Pre-Equipment B Method: 8270 SIM

GPC Cleanup : (Y/N) N pH:

Column(1): HPMS-5 ID: 0.25 (mm)

CONCENTRATION UNITS: UG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
91-20-3	Naphthalene	0.016	J
91-57-6	2-Methylnaphthalene	0.022	
90-12-0	1-Methylnaphthalene	0.018	J
208-96-8	Acenaphthylene	0.019	U
83-32-9	Acenaphthene	0.019	U
86-73-7	Fluorene	0.0034	J
85-01-8	Phenanthrene	0.019	U
120-12-7	Anthracene	0.019	U
206-44-0	Fluoranthene	0.019	U
129-00-0	Pyrene	0.019	U
56-55-3	Benzo(a)anthracene	0.012	J
218-01-9	Chrysene	0.019	U
205-99-2	Benzo(b)fluoranthene	0.019	U
207-08-9	Benzo(k)fluoranthene	0.019	U
50-32-8	Benzo(a)pyrene	0.019	U
193-39-5	Indeno(1,2,3-cd)pyrene	0.019	U
53-70-3	Dibenz(a,h)anthracene	0.019	U
191-24-2	Benzo(g,h,i)perylene	0.019	U

ok

FL-PRO ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-18-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399201 Lab File ID: 992-1.D

Sample wt/vol: 960 Units: ML Date Received: 06/02/06

Concentrated Extract Volume: 2 Date Extracted: 06/08/06

Level:(low/med) LOW Date Analyzed: 06/09/06 Time: 1406

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: MW-18 Method: FL-PRO

GPC Cleanup : (Y/N) N pH:

Column(1): RTX-5 ID: 0.53 (mm)

CONCENTRATION UNITS: MG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
5289290-40-0	TPH	1.1	

200606 1250

Form I

FL-PRO ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-25-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399202 Lab File ID: 992-2.D

Sample wt/vol: 975 Units: ML Date Received: 06/02/06

Concentrated Extract Volume: 2 Date Extracted: 06/08/06

Level:(low/med) LOW Date Analyzed: 06/09/06 Time: 1437

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: MW-25 Method: FL-PRO

GPC Cleanup : (Y/N) N pH:

Column(1): RTX-5 ID: 0.53 (mm)

CONCENTRATION UNITS: MG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
5289290-40-0	TPH	1.6	

ok

200606 1250

Form I

FL-PRO ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-33-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399203 Lab File ID: 992-3.D

Sample wt/vol: 970 Units: ML Date Received: 06/02/06

Concentrated Extract Volume: 2 Date Extracted: 06/08/06

Level:(low/med) LOW Date Analyzed: 06/09/06 Time: 1538

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: MW-33 Method: FL-PRO

GPC Cleanup : (Y/N) N pH:

Column(1): RTX-5 ID: 0.53 (mm)

CONCENTRATION UNITS: MG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
5289290-40-0	TPH	0.21	

ok

200606 1250

Form I

1

FL-PRO ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-35-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399204 Lab File ID: 992-4.D

Sample wt/vol: 975 Units: ML Date Received: 06/02/06

Concentrated Extract Volume: 2 Date Extracted: 06/08/06

Level:(low/med) LOW Date Analyzed: 06/09/06 Time: 1235

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: MW-35 Method: FL-PRO

GPC Cleanup : (Y/N) N pH:

Column(1): RTX-5 ID: 0.53 (mm)

CONCENTRATION UNITS: MG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
5289290-40-0	TPH	0.21	

C-L

200606 1250

Form I

FL-PRO ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-44-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399207 Lab File ID: 992-7.D

Sample wt/vol: 1025 Units: ML Date Received: 06/02/06

Concentrated Extract Volume: 2 Date Extracted: 06/08/06

Level:(low/med) LOW Date Analyzed: 06/09/06 Time: 1608

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: MW-44 Method: FL-PRO

GPC Cleanup : (Y/N) N pH:

Column(1): RTX-5 ID: 0.53 (mm)

CONCENTRATION UNITS: MG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
5289290-40-0	TPH	0.24	

ck

200606 1250

Form I

1

FL-PRO ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-45-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399208 Lab File ID: 992-8.D

Sample wt/vol: 1025 Units: ML Date Received: 06/02/06

Concentrated Extract Volume: 2 Date Extracted: 06/08/06

Level:(low/med) LOW Date Analyzed: 06/09/06 Time: 1639

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: MW-45 Method: FL-PRO

GPC Cleanup : (Y/N) N pH:

Column(1): RTX-5 ID: 0.53 (mm)

CONCENTRATION UNITS: MG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
5289290-40-0	TPH	0.94	

N.A

200606 1250

Form I

FL-PRO ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-47-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399209 Lab File ID: 992-9.D

Sample wt/vol: 975 Units: ML Date Received: 06/02/06

Concentrated Extract Volume: 2 Date Extracted: 06/08/06

Level:(low/med) LOW Date Analyzed: 06/09/06 Time: 1710

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: MW-47 Method: FL-PRO

GPC Cleanup : (Y/N) N pH:

Column(1): RTX-5 ID: 0.53 (mm)

CONCENTRATION UNITS: MG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
5289290-40-0	TPH	4.2	

ok

200606 1250

Form I

FL-PRO ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-52-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399210 Lab File ID: 992-10.D

Sample wt/vol: 975 Units: ML Date Received: 06/02/06

Concentrated Extract Volume: 2 Date Extracted: 06/08/06

Level:(low/med) LOW Date Analyzed: 06/09/06 Time: 1740

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: MW-52 Method: FL-PRO

GPC Cleanup : (Y/N) N pH:

Column(1): RTX-5 ID: 0.53 (mm)

CONCENTRATION UNITS: MG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
5289290-40-0	TPH	0.23	

ML

200606 1250

Form I

FL-PRO ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-55-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399211 Lab File ID: 992-11.D

Sample wt/vol: 980 Units: ML Date Received: 06/02/06

Concentrated Extract Volume: 2 Date Extracted: 06/08/06

Level:(low/med) LOW Date Analyzed: 06/09/06 Time: 1911

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: MW-55 Method: FL-PRO

GPC Cleanup : (Y/N) N pH:

Column(1): RTX-5 ID: 0.53 (mm)

CONCENTRATION UNITS: MG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
5289290-40-0	TPH	2.1	

200606 1250

Form I

FL-PRO ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-60-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399212 Lab File ID: 992-12.D

Sample wt/vol: 980 Units: ML Date Received: 06/02/06

Concentrated Extract Volume: 2 Date Extracted: 06/08/06

Level:(low/med) LOW Date Analyzed: 06/09/06 Time: 1941

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: MW-60 Method: FL-PRO

GPC Cleanup : (Y/N) N pH:

Column(1): RTX-5 ID: 0.53 (mm)

CONCENTRATION UNITS: MG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
5289290-40-0	TPH	0.2	

nt

200606 1250

Form I

FL-PRO ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-64-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399213 Lab File ID: 992-13.D

Sample wt/vol: 975 Units: ML Date Received: 06/02/06

Concentrated Extract Volume: 2 Date Extracted: 06/08/06

Level:(low/med) LOW Date Analyzed: 06/09/06 Time: 2012

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: MW-64 Method: FL-PRO

GPC Cleanup : (Y/N) N pH:

Column(1): RTX-5 ID: 0.53 (mm)

CONCENTRATION UNITS: MG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
5289290-40-0	TPH	0.57	

CN

200606 1250

Form I

1

FL-PRO ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-70-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399214 Lab File ID: 992-14.D

Sample wt/vol: 970 Units: ML Date Received: 06/02/06

Concentrated Extract Volume: 2 Date Extracted: 06/08/06

Level:(low/med) LOW Date Analyzed: 06/09/06 Time: 2042

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: MW-70 Method: FL-PRO

GPC Cleanup : (Y/N) N pH:

Column(1): RTX-5 ID: 0.53 (mm)

CONCENTRATION UNITS: MG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
5289290-40-0	TPH	0.88	

ok

200606 1250

Form I

FL-PRO ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-71-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399215 Lab File ID: 992-15.D

Sample wt/vol: 910 Units: ML Date Received: 06/02/06

Concentrated Extract Volume: 2 Date Extracted: 06/08/06

Level:(low/med) LOW Date Analyzed: 06/09/06 Time: 2213

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: MW-71 Method: FL-PRO

GPC Cleanup : (Y/N) N pH:

Column(1): RTX-5 ID: 0.53 (mm)

CONCENTRATION UNITS: MG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
5289290-40-0	TPH	2.4	

ch

200606 1250

Form I

FL-PRO ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-75-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399216 Lab File ID: 992-16.D

Sample wt/vol: 975 Units: ML Date Received: 06/02/06

Concentrated Extract Volume: 2 Date Extracted: 06/08/06

Level:(low/med) LOW Date Analyzed: 06/09/06 Time: 2243

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: MW-75 Method: FL-PRO

GPC Cleanup : (Y/N) N pH:

Column(1): RTX-5 ID: 0.53 (mm)

CONCENTRATION UNITS: MG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
5289290-40-0	TPH	0.36	

N.R

200606 1250

Form I

1

FL-PRO ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-FD-1-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399217 Lab File ID: 992-17.D

Sample wt/vol: 965 Units: ML Date Received: 06/02/06

Concentrated Extract Volume: 2 Date Extracted: 06/08/06

Level:(low/med) LOW Date Analyzed: 06/09/06 Time: 2313

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: FIELD DUP Method: FL-PRO

GPC Cleanup : (Y/N) N pH:

Column(1): RTX-5 ID: 0.53 (mm)

CONCENTRATION UNITS: MG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
5289290-40-0	TPH	3.3	

200606 1250

Form I

FL-PRO ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-FD-3-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399218 Lab File ID: 992-18.D

Sample wt/vol: 975 Units: ML Date Received: 06/02/06

Concentrated Extract Volume: 2 Date Extracted: 06/08/06

Level:(low/med) LOW Date Analyzed: 06/09/06 Time: 2344

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: FIELD DUP Method: FL-PRO

GPC Cleanup : (Y/N) N pH:

Column(1): RTX-5 ID: 0.53 (mm)

CONCENTRATION UNITS: MG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
5289290-40-0	TPH	2.6	

c.L

200606 1250

Form I

FL-PRO ORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-PreEQ-2-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399219 Lab File ID: 992-19.D

Sample wt/vol: 965 Units: ML Date Received: 06/02/06

Concentrated Extract Volume: 2 Date Extracted: 06/08/06

Level:(low/med) LOW Date Analyzed: 06/10/06 Time: 0014

PercentSolids: 0 decanted : Dilution Factor: 1

Extraction: SEPF Station ID: Pre-Equipment B Method: FL-PRO

GPC Cleanup : (Y/N) N pH:

Column(1): RTX-5 ID: 0.53 (mm)

CONCENTRATION UNITS: MG/L

CAS NO.	*ANALYTE*	*RESULT*	*Q*
5289290-40-0	TPH	0.18	U

C.L

200606 1250

Form I

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-18-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399201

Level:(low/med) LOW Date Received: 6/2/2006

PercentSolids: 0 Station ID: MW-18

CONCENTRATION UNITS: UG/L

CAS NO.	ANALYTE	Concentration	C	Q	M
7439-92-1	Lead	40.6		JB	P

F

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

200606 1250

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-25-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399202

Level:(low/med) LOW Date Received: 6/2/2006

PercentSolids: 0 Station ID: MW-25

CONCENTRATION UNITS: UG/L

CAS NO.	ANALYTE	Concentration	C	Q	M
7439-92-1	Lead	67.4		JB	P

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

200606 1250

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-33-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399203

Level:(low/med) LOW Date Received: 6/2/2006

PercentSolids: 0 Station ID: MW-33

CONCENTRATION UNITS: UG/L

CAS NO.	ANALYTE	Concentration	C	Q	M
7439-92-1	Lead	5	U		P

ok

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

200606 1250

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-35-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399204

Level:(low/med) LOW Date Received: 6/2/2006

PercentSolids: 0 Station ID: MW-35

CONCENTRATION UNITS: UG/L

CAS NO.	ANALYTE	Concentration	C	Q	M
7439-92-1	Lead	2.62	J B		P

F

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

200606 1250

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-44-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399207

Level:(low/med) LOW Date Received: 6/2/2006

PercentSolids: 0 Station ID: MW-44

CONCENTRATION UNITS: UG/L

CAS NO.	ANALYTE	Concentration	C	Q	M
7439-92-1	Lead	5	U		P

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

200606 1250

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-45-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399208

Level:(low/med) LOW Date Received: 6/2/2006

PercentSolids: 0 Station ID: MW-45

CONCENTRATION UNITS: UG/L

CAS NO.	ANALYTE	Concentration	C	Q	M
7439-92-1	Lead	24.8		JB	P

f

c.r

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

200608 1250

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-47-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399209

Level:(low/med) LOW Date Received: 6/2/2006

PercentSolids: 0 Station ID: MW-47

CONCENTRATION UNITS: UG/L

CAS NO.	ANALYTE	Concentration	C	Q	M
7439-92-1	Lead	47.9		JB	P

F

C.L

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

200606 1250

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-52-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399210

Level:(low/med) LOW Date Received: 6/2/2006

PercentSolids: 0 Station ID: MW-52

CONCENTRATION UNITS: UG/L

CAS NO.	ANALYTE	Concentration	C	Q	M
7439-92-1	Lead	2.71	J B		P

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

200606 1250

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-55-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399211

Level:(low/med) LOW Date Received: 6/2/2006

PercentSolids: 0 Station ID: MW-55

CONCENTRATION UNITS: UG/L

CAS NO.	ANALYTE	Concentration	C	Q	M
7439-92-1	Lead	20.8		JB	P

F

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

200606 1250

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-60-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399212

Level:(low/med) LOW Date Received: 6/2/2006

PercentSolids: 0 Station ID: MW-60

CONCENTRATION UNITS: UG/L

CAS NO.	ANALYTE	Concentration	C	Q	M
7439-92-1	Lead	5	U		P

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

200606 1250

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-64-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399213

Level:(low/med) LOW Date Received: 6/2/2006

PercentSolids: 0 Station ID: MW-64

CONCENTRATION UNITS: UG/L

CAS NO.	ANALYTE	Concentration	C	Q	M
7439-92-1	Lead	17.1		JB	P

F

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

200606 1250

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-70-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399214

Level:(low/med) LOW Date Received: 6/2/2006

PercentSolids: 0 Station ID: MW-70

CONCENTRATION UNITS: UG/L

CAS NO.	ANALYTE	Concentration	C	Q	M
7439-92-1	Lead	4.18	J B		P

F

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

200606 1250

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-71-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399215

Level:(low/med) LOW Date Received: 6/2/2006

PercentSolids: 0 Station ID: MW-71

CONCENTRATION UNITS: UG/L

CAS NO.	ANALYTE	Concentration	C	Q	M
7439-92-1	Lead	29.2		JB	P

F

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

200606 1250

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1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-75-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399216

Level:(low/med) LOW Date Received: 6/2/2006

PercentSolids: 0 Station ID: MW-75

CONCENTRATION UNITS: UG/L

CAS NO.	ANALYTE	Concentration	C	Q	M
7439-92-1	Lead	5.15		JB	P

F

c.f

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

200606 1250

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-FD-1-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399217

Level:(low/med) LOW Date Received: 6/2/2006

PercentSolids: 0 Station ID: FIELD DUP

CONCENTRATION UNITS: UG/L

CAS NO.	ANALYTE	Concentration	C	Q	M
7439-92-1	Lead	43.7		JB	P

F

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

200606 1250

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-FD-3-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399218

Level:(low/med) LOW Date Received: 6/2/2006

PercentSolids: 0 Station ID: FIELD DUP

CONCENTRATION UNITS: UG/L

CAS NO.	ANALYTE	Concentration	C	Q	M
7439-92-1	Lead	29.3		JB	P

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

200606 1250

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-PreEQ-2-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399219

Level:(low/med) LOW Date Received: 6/2/2006

PercentSolids: 0 Station ID: Pre-Equipment B

CONCENTRATION UNITS: UG/L

CAS NO.	ANALYTE	Concentration	C	Q	M
7439-92-1	Lead	2.8	J		P

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

200606 1250

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-25-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399202

Level:(low/med) LOW Date Received: 6/2/2006

PercentSolids: 0 Station ID: MW-25

Dissolved

CONCENTRATION UNITS: UG/L

CAS NO.	ANALYTE	Concentration	C	Q	M
7439-92-1	Lead	25.3			P

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

200606 1251

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-47-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399209

Level:(low/med) LOW Date Received: 6/2/2006

PercentSolids: 0 Station ID: MW-47

Dissolved

CONCENTRATION UNITS: UG/L

CAS NO.	ANALYTE	Concentration	C	Q	M
7439-92-1	Lead	34.4			P

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

200606 1251

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-55-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399211

Level:(low/med) LOW Date Received: 6/2/2006

PercentSolids: 0 Station ID: MW-55

Dissolved

CONCENTRATION UNITS: UG/L

CAS NO.	ANALYTE	Concentration	C	Q	M
7439-92-1	Lead	19.7			P

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

200606 1251

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-FD-1-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399217

Level:(low/med) LOW Date Received: 6/2/2006

PercentSolids: 0 Station ID: FIELD DUP

Dissolved

CONCENTRATION UNITS: UG/L

CAS NO.	ANALYTE	Concentration	C	Q	M
7439-92-1	Lead	32.1			P

c.k

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

200606 1251

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-PreEQ-2-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399219

Level:(low/med) LOW Date Received: 6/2/2006

PercentSolids: 0 Station ID: Pre-Equipment B

Dissolved

CONCENTRATION UNITS: UG/L

CAS NO.	ANALYTE	Concentration	C	Q	M
7439-92-1	Lead	5	U		P

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

200606 1251

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-25-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399202

Level:(low/med) LOW Date Received: 6/2/2006

PercentSolids: 0 Station ID: MW-25

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M	
47752-0-60-0	Alkalinity (Total)	16.1			IS	
124-38-9	Carbon Dioxide	50.3		JB	N/A	F
1012_5	TOC	7.21	J B		AS	F, MB

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

200606 1252

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-35-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399204

Level:(low/med) LOW Date Received: 6/2/2006

PercentSolids: 0 Station ID: MW-35

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M	
47752-0-60-0	Alkalinity (Total)	1	U		IS	
124-38-9	Carbon Dioxide	29.8		JB	N/A	F
1012_5	TOC	0.693	JB		AS	F, MB

c.t

Color Before: _____ Clarity Before: _____ Texture : _____

Color After : _____ Clarity After: _____ Artifacts: _____

Comments:

200606 1252

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-47-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399209

Level:(low/med) LOW Date Received: 6/2/2006

PercentSolids: 0 Station ID: MW-47

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M	
47752-0-60-0	Alkalinity (Total)	15.2			IS	
124-38-9	Carbon Dioxide	61.6		JB	N/A	F, Z
1012_5	TOC	7.4	JB		AS	F, MB

ok

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

200606 1252

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-55-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399211

Level:(low/med) LOW Date Received: 6/2/2006

PercentSolids: 0 Station ID: MW-55

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M	
47752-0-60-0	Alkalinity (Total)	2.11	J		IS	
124-38-9	Carbon Dioxide	10.9		JB	N/A	F
1012_5	TOC	5.9	J B		AS	F, mB

OL

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

200606 1252

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-MW-75-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399216

Level:(low/med) LOW Date Received: 6/2/2006

PercentSolids: 0 Station ID: MW-75

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M	
47752-0-60-0	Alkalinity (Total)	25.1			IS	
124-38-9	Carbon Dioxide	59.3		JB	N/A	F
1012_5	TOC	7.25	J B		AS	F, mB

c.k

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

200606 1252

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-FD-1-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399217

Level:(low/med) LOW Date Received: 6/2/2006

PercentSolids: 0 Station ID: FIELD DUP

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M	
47752-0-60-0	Alkalinity (Total)	12.7			IS	
124-38-9	Carbon Dioxide	43.9		JB	N/A	F, Z
1012_5	TOC	6.84	JB		AS	F, MB

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

200606 1252

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA Sample No.

071-1159-PreEQ-2-0606

Lab Name: PEL Laboratories, Inc. Contract: Bronson Field, Site 1159

Lab Code : PEL Case No. SAS No: SDG No.: 2503992

Matrix: WATER Lab Sample ID: 250399219

Level:(low/med) LOW Date Received: 6/2/2006

PercentSolids: 0 Station ID: Pre-Equipment B

CONCENTRATION UNITS: MG/L

CAS NO.	ANALYTE	Concentration	C	Q	M
47752-0-60-0	Alkalinity (Total)	1	U		IS
124-38-9	Carbon Dioxide	6.02			N/A
1012_5	TOC	1.05			AS

Color Before: _____ Clarity Before: _____ Texture :_____

Color After : _____ Clarity After: _____ Artifacts:_____

Comments:

200606 1252

LAB

2503984CM

CH2MHILL Constructors, Inc.

1766 Sea Lark Lane
Navarre, FL 32566
Tel No: (850) 939-8300
Fax No: (850) 939-0035

CHAIN-OF-CUSTODY RECORD

[1] COC NUMBER: 266690-0606~~5~~31-1

[2] PROJECT NAME:	[3] PROJECT NUMBER:	[4] LAB NAME AND CONTACT:	[11] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 1 (Name and Company)	[14] RECIPIENT 1 (Address, Tel No. , and Fax No.):
NAS Pensacola	266690.22.01.03.26	PEL, 4420 Pendola Point Road, Tampa, FL 33619	CH2M Hill, Constructors	115 Perimeter Center Place, NE, Suite 700, Atlanta, GA 30346 Phone: (770) 604-9182 Fax: (770) 604-9181
[7] PROJECT PHASE/SITE/TASK:	[6] CTO OR DO NUMBER:	[9] LAB PO NUMBER:	[12] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 2 (Name and Company)	[15] RECIPIENT 2 (Address, Tel No. , and Fax No.):
Bronson Field, Site 1159	CTO-0071	PO#	Phyllis Zerangue, CH2M Hill, Inc.	1766 Sea Lark Lane, Navarre, FL 32566 Phone: (850) 939-8300
[4] PROJECT CONTACT:	[7] PROJECT TEL NO AND FAX NO:	[10] LAB TEL NO AND FAX NO:	[13] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 3 (Name and Company)	[16] RECIPIENT 3 (Address, Tel No. , and Fax No.):
Greg Wilfley	(770) 604-9095 (770) 604-9181	(225) 769-5717	Bethany Garvey, CH2M Hill, Constructors	115 Perimeter Center Place, NE, Suite 700, Atlanta, GA 30346 Phone: (770) 604-9182 Fax: (770) 604-9181

[23] ANALYSES REQUIRED (Include Method Numbers)

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	VOCs: 8260B	PAHs: 8270_SIM	TRPHs: FL-PRO	Total Lead: 6010B	Dissolved Lead: 6010B	CO2: RSK-175	Alkalinity: 310.1/2320B	TOC: 415.1/9060				Total number of bottles	[26] SAMPLE TYPE (see codes on SOP)	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use)
1	071-1159-MW-01-0606	MW-01	W	5/31/06	1035		14	X	X	X	X	X							7	N		01
2	071-1159-MW-04-0606	MW-04	W	5/31/06	1338			X	X	X	X								6	N		02
3	071-1159-MW-09-0606	MW-09	W	5/31/06	1140			X	X	X	X	X							7	N		03
4	071-1159-MW-18-0606	MW-18	W					X	X	X	X								8	N		
5	071-1159-MW-20-0606	MW-20	W	5/31/06	1215		18	X	X	X	X								18	MS/MSD		04,05,06
6	071-1159-MW-22-0606	MW-22	W	5/31/06	1215		6	X	X	X	X								6	N		07
7	071-1159-MW-24-0606	MW-24	W	5/31/06	1230		7	X	X	X	X	X							7	N		08
8	071-1159-MW-25-0606	MW-25	W					X	X	X	X	X	X	X	X				11	N		
9	071-1159-MW-28-0606	MW-28	W	5/31/06	1000			X	X	X	X								6	N		09
10	071-1159-MW-32-0606	MW-32	W	5/31/06	1740		6	X	X	X	X								6	N		10

[29] SAMPLER(S) AND COMPANY: (please print)
~~Phyllis Zerangue~~, CH2M Hill, Inc. Guy Willis

[30] COURIER AND SHIPPING NUMBER:
Fed Ex 8569 3327 6160

[31] SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use):
Rec'd @ 4.4, 4.4, 4.4, 4.4, 4.6, 4.9, 4.9C pH<2 (8260/6010, FLPRO)

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
~~Phyllis Zerangue~~, CH2M Hill, Inc. Guy Willis	5/31/06	1830	[illegible] PEL	6/1/06	1000
Printed Name and Signature:			Printed Name and Signature:		
Printed Name and Signature:			Printed Name and Signature:		

Distribution: [ ] Original - Laboratory (To be returned with Analytical Report); [ ] Copy 1 - Project File; [ ] Copy 2 - PMO

Form CCI001, Rev 06/00

2503984

289

2503984cm

CH2MHILL Constructors, Inc.

1766 Sea Lark Lane
Navarre, FL 32566
Tel No: (850) 939-8300
Fax No: (850) 939-0035

CHAIN-OF-CUSTODY RECORD

[1] COC NUMBER: 266690-0605-31-2

[2] PROJECT NAME:	[3] PROJECT NUMBER:	[5] LAB NAME AND CONTACT:	[11] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 1 (Name and Company)	[14] RECIPIENT 1 (Address, Tel No. , and Fax No.):
NAS Pensacola	266690.22.01.03.26	PEL, 4420 Pendola Point Road, Tampa, FL 33619	CH2M Hill, Constructors	115 Perimeter Center Place, NE, Suite 700, Atlanta, GA 30346 Phone: (770) 604-9182 Fax: (770) 604-9181
[2] PROJECT PHASE/SITE/TASK:	[6] CTO OR DO NUMBER:	[7] LAB PO NUMBER:	[12] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 2 (Name and Company)	[15] RECIPIENT 2 (Address, Tel No. , and Fax No.):
Bronson Field, Site 1159	CTO-0071	PO#	Phyllis Zerangue, CH2M Hill, Inc.	1766 Sea Lark Lane, Navarre, FL 32566 Phone: (850) 939-8300
[4] PROJECT CONTACT:	[7] PROJECT TEL NO AND FAX NO:	[10] LAB TEL NO AND FAX NO:	[13] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 3 (Name and Company)	[16] RECIPIENT 3 (Address, Tel No. , and Fax No.):
Greg Wilfley	(770) 604-9095 (770) 604-9181	(225) 769-5717	Bethany Garvey, CH2M Hill, Constructors	115 Perimeter Center Place, NE, Suite 700, Atlanta, GA 30346 Phone: (770) 604-9182 Fax: (770) 604-9181

[23] ANALYSES REQUIRED (Include Method Numbers)

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	VOCs: 8260B	PAHs: 8270_SIM	TRPHs: FL-PRO	Total Lead: 6010B	Dissolved Lead: 6010B	CO2: RSK-175	Alkalinity: 310.1/2320B	TOC: 415.1/9060				Total number of bottles	[26] SAMPLE TYPE (see codes on SOP)	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use)
11	071-1159-MW-33-0606	MW-33	W					X	X	X	X								8	N		
12	071-1159-MW-35-0606	MW-35	W					X	X	X	X		X	X	X				21	MS/MSD		
13	071-1159-MW-44-0606	MW-44	W					X	X	X	X								8	N		
14	071-1159-MW-45-0606	MW-45	W					X	X	X	X								8	N		
15	071-1159-MW-47-0606	MW-47	W					X	X	X	X	X	X	X	X				16	N		
16	071-1159-MW-52-0606	MW-52	W					X	X	X	X								8	N		
17	071-1159-MW-55-0606	MW-55	W					X	X	X	X	X	X	X	X				16	N		
18	071-1159-MW-59-0606	MW-59	W	5/31/06	1645			X	X	X	X								6	N		11
19	071-1159-MW-60-0606	MW-60	W					X	X	X	X								8	N		
20	071-1159-MW-61-0606	MW-61	W	5/31/06	1050			X	X	X	X								6	N		12

[29] SAMPLER(S) AND COMPANY: (please print)
~~Phyllis Zerangue,~~ CH2M Hill, Inc. Guy Willis

[30] COURIER AND SHIPPING NUMBER:
Fed Ex

[31] SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use):

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
~~Phyllis Zerangue~~, CH2M Hill, Inc. Guy Willis	5/31/06	1830	[signature]	6/1/06	1000
Printed Name and Signature:			Printed Name and Signature:		
Printed Name and Signature:			Printed Name and Signature:		

Distribution: [ ] Original - Laboratory (To be returned with Analytical Report); [ ] Copy 1 - Project File; [ ] Copy 2 - PMO

Form CCI001, Rev 06/00

2503984

290

2503984cm

CH2MHILL Constructors, Inc.

1766 Sea Lark Lane
Navarre, FL 32566
Tel No: (850) 939-8300
Fax No: (850) 939-0035

CHAIN-OF-CUSTODY RECORD

[1] COC NUMBER: 266690-0606 31-3

[2] PROJECT NAME:	[3] PROJECT NUMBER:	[4] LAB NAME AND CONTACT:	[11] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 1 (Name and Company)	[14] RECIPIENT 1 (Address, Tel No. , and Fax No.):
NAS Pensacola	266690.22.01.03.26	PEL, 4420 Pendola Point Road, Tampa, FL 33619	CH2M Hill, Constructors	115 Perimeter Center Place, NE, Suite 700, Atlanta, GA 30346 Phone: (770) 604-9182 Fax: (770) 604-9181
[5] PROJECT PHASE/SITE/TASK:	[6] CTO OR DO NUMBER:	[9] LAB PO NUMBER:	[12] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 2 (Name and Company)	[15] RECIPIENT 2 (Address, Tel No. , and Fax No.):
Bronson Field, Site 1159	CTO-0071	PO#	Phyllis Zerangue, CH2M Hill, Inc.	1766 Sea Lark Lane, Navarre, FL 32566 Phone: (850) 939-8300
[8] PROJECT CONTACT:	[7] PROJECT TEL NO AND FAX NO:	[10] LAB TEL NO AND FAX NO:	[13] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 3 (Name and Company)	[16] RECIPIENT 3 (Address, Tel No. , and Fax No.):
Greg Willey	(770) 604-9095 (770) 604-9181	(225) 769-5717	Bethany Garvey, CH2M Hill, Constructors	115 Perimeter Center Place, NE, Suite 700, Atlanta, GA 30346 Phone: (770) 604-9182 Fax: (770) 604-9181

[23] ANALYSES REQUIRED (Include Method Numbers)

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	VOCs: 8260B	PAHs: 8270_SIM	TRPHs: FL-PRO	Total Lead: 6010B	Dissolved Lead: 6010B	CO2: RSK-175	Alkalinity: 310.1/2320B	TOC: 415.1/9060				Total number of bottles	[26] SAMPLE TYPE (see codes on SOP)	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use)
21	071-1159-MW-62-0606	MW-62	W	5/31/06	1500			X	X	X	X	X							7	N		13
22	071-1159-MW-64-0606	MW-64	W					X	X	X	X								8	N		
23	071-1159-MW-65-0606	MW-65	W	5/31/06	1520			X	X	X	X	X							7	N		14
24	071-1159-MW-67-0606	MW-67	W	5/31/06	1135			X	X	X	X		X	X	X				10	N		15
25	071-1159-MW-69-0606	MW-69	W	5/31/06	1040			X	X	X	X								6	N		16
26	071-1159-MW-70-0606	MW-70	W					X	X	X	X								8	N		
27	071-1159-MW-71-0606	MW-71	W					X	X	X	X								8	N		
28	071-1159-MW-72-0606	MW-72	W	5/31/06	1730			X	X	X	X	X							7	N		17
29	071-1159-MW-73-0606	MW-73	W	5/31/06	1425			X	X	X	X								6	N		18
30	071-1159-MW-74-0606	MW-74	W	5/31/06	1605			X	X	X	X	X							7	N		19

[29] SAMPLER(S) AND COMPANY: (please print)
Gy Willis
~~Phyllis Zerangue~~, CH2M Hill, Inc.

[30] COURIER AND SHIPPING NUMBER:

[31] SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use):

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
Gy Willis ~~Phyllis Zerangue~~, CH2M Hill, Inc. Gy Willis	5/31/06	1830	[signature]	6/1/06	1000
Printed Name and Signature:			Printed Name and Signature:		
Printed Name and Signature:			Printed Name and Signature:		

Distribution: [ ] Original - Laboratory (To be returned with Analytical Report); [ ] Copy 1 - Project File; [ ] Copy 2 - PMO

Form CCI001, Rev 06/00

2503984

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2503984cm

CH2MHILL Constructors, Inc.

1766 Sea Lark Lane
Navarre, FL 32566
Tel No: (850) 939-8300
Fax No: (850) 939-0035

CHAIN-OF-CUSTODY RECORD

[1] COC NUMBER: 266690-060531-4

[2] PROJECT NAME:	[3] PROJECT NUMBER:	[4] LAB NAME AND CONTACT:	[11] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 1 (Name and Company)	[14] RECIPIENT 1 (Address, Tel No. , and Fax No.):
NAS Pensacola	266690.22.01.03.26	PEL, 4420 Pendola Point Road, Tampa, FL 33619	CH2M Hill, Constructors	115 Perimeter Center Place, NE, Suite 700, Atlanta, GA 30346 Phone: (770) 604-9182 Fax: (770) 604-9181
[5] PROJECT PHASE/SITE/TASK:	[6] CTO OR DO NUMBER:	[9] LAB PO NUMBER:	[12] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 2 (Name and Company)	[15] RECIPIENT 2 (Address, Tel No. , and Fax No.):
Bronson Field, Site 1159	CTO-0071	PO#	Phyllis Zerangue, CH2M Hill, Inc.	1766 Sea Lark Lane, Navarre, FL 32566 Phone: (850) 939-8300
[8] PROJECT CONTACT:	[7] PROJECT TEL NO AND FAX NO:	[10] LAB TEL NO AND FAX NO:	[13] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 3 (Name and Company)	[16] RECIPIENT 3 (Address, Tel No. , and Fax No.):
Greg Wilfley	(770) 604-9095 (770) 604-9181	(225) 769-5717	Bethany Garvey, CH2M Hill, Constructors	115 Perimeter Center Place, NE, Suite 700, Atlanta, GA 30346 Phone: (770) 604-9182 Fax: (770) 604-9181

[23] ANALYSES REQUIRED (Include Method Numbers)

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	VOCs: 8260B	PAHs: 8270_SIM	TRPHs: FL-PRO	Total Lead: 6010B	Dissolved Lead: 6010B	CO2: RSK-175	Alkalinity: 310.1/2320B	TOC: 415.1/9060				Total number of bottles	[26] SAMPLE TYPE (see codes on SOP)	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use)
31	071-1159-MW-75-0606	MW-75	W					X	X	X	X		X	X	X				15			
32	071-1159-FD-1-0606	FIELD DUP	W					X	X	X	X	X							9	FD		
33	071-1159-FD-2-0606	FIELD DUP	W	5/31/06				X	X	X	X	X							7	FD		20
34	071-1159-FD-3-0606	FIELD DUP	W					X	X	X	X								8	FD		
35	071-1159-PreEQ-1-0606	Pre-Equipment Blank	W	5/31/06	1615			X	X	X	X	X							7	EB		21
36	071-1159-PreEQ-2-0606	Pre-Equipment Blank	W					X	X	X	X								8	EB		
37	071-1159-PreEQ-3-0606	Pre-Equipment Blank	W					X	X	X	X								8	EB		
38	071-1159-PreEQ-4-0606	Pre-Equipment Blank	W					X	X	X	X								8	EB		
39	071-1159-TB-1-0606	Trip Blank	W	5/31/06	—			X											3	TB		22
40	071-1159-TB-2-0606	Trip Blank	W					X											3	TB		

[29] SAMPLER(S) AND COMPANY: (please print)	[30] COURIER AND SHIPPING NUMBER:	[31] SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use):
Gregwillis ~~Phyllis Zerangue,~~ CH2M Hill, Inc.	Fed Ex	

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
Gregwillis ~~Phyllis Zerangue,~~ CH2M Hill, Inc. Gregwillis	5-31-06	1830	[illegible]	6/1/06	1000
Printed Name and Signature:			Printed Name and Signature:		
Printed Name and Signature:			Printed Name and Signature:		

Distribution: [ ] Original - Laboratory (To be returned with Analytical Report); [ ] Copy 1 - Project File; [ ] Copy 2 - PMO

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CH2MHILL Constructors, Inc.

1766 Sea Lark Lane
Navarre, FL 32566
Tel No: (850) 939-8300
Fax No: (850) 939-0035

CHAIN-OF-CUSTODY RECORD

[1] COC NUMBER: 266690-0606__-5

[2] PROJECT NAME:	[5] PROJECT NUMBER:	[8] LAB NAME AND CONTACT:	[11] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 1 (Name and Company)	[14] RECIPIENT 1 (Address, Tel No. , and Fax No.):
NAS Pensacola	266690.22.01.03.26	PEL, 4420 Pendola Point Road, Tampa, FL 33619	CH2M Hill, Constructors	115 Perimeter Center Place, NE, Suite 700, Atlanta, GA 30346 Phone: (770) 604-9182 Fax: (770) 604-9181
[3] PROJECT PHASE/SITE/TASK:	[6] CTO OR DO NUMBER:	[9] LAB PO NUMBER:	[12] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 2 (Name and Company)	[15] RECIPIENT 2 (Address, Tel No. , and Fax No.):
Bronson Field, Site 1159	CTO-0071	PO#	Phyllis Zerangue, CH2M Hill, Inc.	1766 Sea Lark Lane, Navarre, FL 32566 Phone: (850) 939-8300
[4] PROJECT CONTACT:	[7] PROJECT TEL NO AND FAX NO:	[10] LAB TEL NO AND FAX NO:	[13] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 3 (Name and Company)	[16] RECIPIENT 3 (Address, Tel No. , and Fax No.):
Greg Wilfley	(770) 604-9095 (770) 604-9181	(225) 769-5717	Bethany Garvey, CH2M Hill, Constructors	115 Perimeter Center Place, NE, Suite 700, Atlanta, GA 30346 Phone: (770) 604-9182 Fax: (770) 604-9181

[33] ANALYSES REQUIRED (Include Method Numbers)

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	VOCs: 8260B	PAHs: 8270_SIM	TRPHs: FL-PRO	Total Lead: 6010B	Dissolved Lead: 6010B	CO2: RSK-175	Alkalinity: 310.1/2320B	TOC: 415.1/9060				Total number of bottles	[26] SAMPLE TYPE (see codes on SOP)	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use)
1	071-1159-TB-3-0606	Trip Blank	W					X											3	TB		
2	071-1159-TB-4-0606	Trip Blank	W					X											3	TB		
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						

[29] SAMPLER(S) AND COMPANY: (please print)	[30] COURIER AND SHIPPING NUMBER:	[31] SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use):
Phyllis Zerangue, CH2M Hill, Inc.		

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
Phyllis Zerangue, CH2M Hill, Inc.			[signature]	6/1/06	1000
Printed Name and Signature:			Printed Name and Signature:		
Printed Name and Signature:			Printed Name and Signature:		

Distribution: [ ] Original - Laboratory (To be returned with Analytical Report); [ ] Copy 1 - Project File; [ ] Copy 2 - PMO

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2503984cm

CH2MHILL Constructors, Inc.

1766 Sea Lark Lane
Navarre, FL 32566
Tel No: (850) 939-8300
Fax No: (850) 939-0035

CHAIN-OF-CUSTODY RECORD

[1] COC NUMBER: 266690-0606__-6

[2] PROJECT NAME:	[3] PROJECT NUMBER:	[5] LAB NAME AND CONTACT:	[11] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 1 (Name and Company)	[14] RECIPIENT 1 (Address, Tel No. , and Fax No.):
NAS Pensacola	266690.22.01.03.26	PEL, 4420 Pendola Point Road, Tampa, FL 33619	CH2M Hill, Constructors	115 Perimeter Center Place, NE, Suite 700, Atlanta, GA 30346 Phone: (770) 604-9182 Fax: (770) 604-9181
[3] PROJECT PHASE/SITE/TASK:	[4] CTO OR DO NUMBER:	[7] LAB PO NUMBER:	[12] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 2 (Name and Company)	[15] RECIPIENT 2 (Address, Tel No. , and Fax No.):
Bronson Field, Site 1159	CTO-0071	PO#	Phyllis Zerangue, CH2M Hill, Inc.	1766 Sea Lark Lane, Navarre, FL 32566 Phone: (850) 939-8300
[4] PROJECT CONTACT:	[7] PROJECT TEL NO AND FAX NO:	[10] LAB TEL NO AND FAX NO:	[13] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 3 (Name and Company)	[16] RECIPIENT 3 (Address, Tel No. , and Fax No.):
Greg Wilfley	(770) 604-9095 (770) 604-9181	(225) 769-5717	Bethany Garvey, CH2M Hill, Constructors	115 Perimeter Center Place, NE, Suite 700, Atlanta, GA 30346 Phone: (770) 604-9182 Fax: (770) 604-9181

[23] ANALYSES REQUIRED (Include Method Numbers)

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	TCL Volatiles (8260B)	TCL Semi-volatiles (8270C)	TCL pesticides (8081A)	Herbicides(8151A	PCBs(8082)	TAL Metals (6010B/7470A)	Cyanide/Sulfide (9012A/Ch 7.3.4.2)	Ignitability	Corrosivity			Total number of bottles	[26] SAMPLE TYPE (see codes on SOP)	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use)
1	071-1159-AW-1-0606	Aqueous Waste						3	1	1	1	1	1	2	1	1			12	AW		
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						

[22] SAMPLER(S) AND COMPANY: (please print)	[30] COURIER AND SHIPPING NUMBER:	[31] SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use):
Phyllis Zerangue, CH2M Hill, Inc.		

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
Phyllis Zerangue, CH2M Hill, Inc.			[signature] / PEL	6/1/06	1000
Printed Name and Signature:			Printed Name and Signature:		
Printed Name and Signature:			Printed Name and Signature:		

Distribution: [ ] Original - Laboratory (To be returned with Analytical Report); [ ] Copy 1 - Project File; [ ] Copy 2 - PMO

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2503984

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2503992cm

CH2MHILL Constructors, Inc.

1766 Sea Lark Lane
Navarre, FL 32566
Tel No: (850) 939-8300
Fax No: (850) 939-0035

CHAIN-OF-CUSTODY RECORD

[1] COC NUMBER: 266690-0606 01 -1

[2] PROJECT NAME:	[3] PROJECT NUMBER:	[8] LAB NAME AND CONTACT:	[11] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 1 (Name and Company)	[14] RECIPIENT 1 (Address, Tel No. , and Fax No.):
NAS Pensacola	266690.22.01.03.26	PEL, 4420 Pendola Point Road, Tampa, FL 33619	CH2M Hill, Constructors	115 Perimeter Center Place, NE, Suite 700, Atlanta, GA 30346 Phone: (770) 604-9182 Fax: (770) 604-9181
[5] PROJECT PHASE/SITE/TASK:	[6] CTO OR DO NUMBER:	[9] LAB PO NUMBER:	[12] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 2 (Name and Company)	[15] RECIPIENT 2 (Address, Tel No. , and Fax No.):
Bronson Field, Site 1159	CTO-0071	PO#	Phyllis Zerangue, CH2M Hill, Inc.	1766 Sea Lark Lane, Navarre, FL 32566 Phone: (850) 939-8300
[4] PROJECT CONTACT:	[7] PROJECT TEL NO AND FAX NO:	[10] LAB TEL NO AND FAX NO:	[13] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 3 (Name and Company)	[16] RECIPIENT 3 (Address, Tel No. , and Fax No.):
Greg Wilfley	(770) 604-9095 (770) 604-9181	(225) 769-5717	Bethany Garvey, CH2M Hill, Constructors	115 Perimeter Center Place, NE, Suite 700, Atlanta, GA 30346 Phone: (770) 604-9182 Fax: (770) 604-9181

[23] ANALYSES REQUIRED (Include Method Numbers)

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (See codes on SOP)	[24] TAT (calendar days)	VOCs: 8260B	PAHs: 8270_SIM	TRPHs: FL-PRO	Total Lead: 6010B	Dissolved Lead: 6010B	CO2: RSK-175	Alkalinity: 310.1/2320B	TOC: 415.1/9060				Total number of bottles	[26] SAMPLE TYPE (see codes on SOP)	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use)
1	071-1159-MW-01-0606	MW-01	W				14	X	X	X	X	X							9	N		
2	071-1159-MW-04-0606	MW-04	W					X	X	X	X								8	N		
3	071-1159-MW-09-0606	MW-09	W					X	X	X	X	X							9	N		
4	071-1159-MW-18-0606	MW-18	W	6-1-06	0925			X	X	X	X								6	N		-01
5	071-1159-MW-20-0606	MW-20	W					X	X	X	X								14	MS/MSD		
6	071-1159-MW-22-0606	MW-22	W					X	X	X	X								8	N		
7	071-1159-MW-24-0606	MW-24	W					X	X	X	X	X							9	N		
8	071-1159-MW-25-0606	MW-25	W	6-1-06	1015			X	X	X	X	X	X	X	X				12	N		-02
9	071-1159-MW-28-0606	MW-28	W					X	X	X	X								8	N		
10	071-1159-MW-32-0606	MW-32	W				↓	X	X	X	X								8	N		

[29] SAMPLER(S) AND COMPANY: (please print)
~~Phyllis Zerangue~~, CH2M Hill, Inc.
Gy Willis

[30] COURIER AND SHIPPING NUMBER: Fed Ex

[31] SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use):
IRECO 4.2, 4.5, 4.7, 4.7, 4.8, 5.0, 5.3C
pH>9 (376.1) pH<2 (8260, 6010, 9060, FL-PRO) pH>12 (9012)

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
~~Phyllis Zerangue~~, CH2M Hill, Inc. Gy Willis Gy Willis	6-1-06	1800	PEL	6/2/06	1015
Printed Name and Signature:			Printed Name and Signature:		
Printed Name and Signature:			Printed Name and Signature:		

Distribution: [ ] Original - Laboratory (To be returned with Analytical Report); [ ] Copy 1 - Project File; [ ] Copy 2 - PMO

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2503992

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2503992cm

CH2MHILL Constructors, Inc.

1766 Sea Lark Lane
Navarre, FL 32566
Tel No: (850) 939-8300
Fax No: (850) 939-0035

CHAIN-OF-CUSTODY RECORD

[1] COC NUMBER: 266690-060601 -2

[2] PROJECT NAME:	[3] PROJECT NUMBER:	[4] LAB NAME AND CONTACT:	[11] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 1 (Name and Company)	[14] RECIPIENT 1 (Address, Tel No. , and Fax No.):
NAS Pensacola	266690.22.01.03.26	PEL, 4420 Pendola Point Road, Tampa, FL 33619	CH2M Hill, Constructors	115 Perimeter Center Place, NE, Suite 700, Atlanta, GA 30346 Phone: (770) 604-9182 Fax: (770) 604-9181
[5] PROJECT PHASE/SITE/TASK:	[6] CTO OR DO NUMBER:	[9] LAB PO NUMBER:	[12] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 2 (Name and Company)	[15] RECIPIENT 2 (Address, Tel No. , and Fax No.):
Bronson Field, Site 1159	CTO-0071	PO#	Phyllis Zerangue, CH2M Hill, Inc.	1766 Sea Lark Lane, Navarre, FL 32566 Phone: (850) 939-8300
[8] PROJECT CONTACT:	[7] PROJECT TEL NO AND FAX NO:	[10] LAB TEL NO AND FAX NO:	[13] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 3 (Name and Company)	[16] RECIPIENT 3 (Address, Tel No. , and Fax No.):
Greg Wilfley	(770) 604-9095 (770) 604-9181	(225) 769-5717	Bethany Garvey, CH2M Hill, Constructors	115 Perimeter Center Place, NE, Suite 700, Atlanta, GA 30346 Phone: (770) 604-9182 Fax: (770) 604-9181

[23] ANALYSES REQUIRED (Include Method Numbers)

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (See codes on SOP)	[24] TAT (calendar days)	VOCs: 8260B	PAHs: 8270_SIM	TRPHs: FL-PRO	Total Lead: 6010B	Dissolved Lead: 6010B	CO2: RSK-175	Alkalinity: 310.1/2320B	TOC: 415.1/9060				Total number of bottles	[26] SAMPLE TYPE (see codes on SOP)	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use)
1	071-1159-MW-33-0606	MW-33	W	6-1-06	1525			X	X	X	X								6	N		03
2	071-1159-MW-35-0606	MW-35	W	6-1-06	1245			X	X	X	X		X	X	X				31	MS/MSD		04,05,06
3	071-1159-MW-44-0606	MW-44	W	6-1-06	1615			X	X	X	X								6	N		07
4	071-1159-MW-45-0606	MW-45	W	6-1-06	1540			X	X	X	X								6	N		08
5	071-1159-MW-47-0606	MW-47	W	6-1-06	1355			X	X	X	X	X	X	X	X				12	N		09
6	071-1159-MW-52-0606	MW-52	W	6-1-06	1105			X	X	X	X								6	N		10
7	071-1159-MW-55-0606	MW-55	W	6-1-06	1115			X	X	X	X	X	X	X	X				12	N		11
8	071-1159-MW-59-0606	MW-59	W					X	X	X	X								8	N		
9	071-1159-MW-60-0606	MW-60	W	6-1-06	1410			X	X	X	X								6	N		12
10	071-1159-MW-61-0606	MW-61	W					X	X	X	X								8	N		

[25] SAMPLER(S) AND COMPANY: (please print)
~~Phyllis Zerangue~~, CH2M Hill, Inc.
Gy Willis

[30] COURIER AND SHIPPING NUMBER: Fed Ex

[31] SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use):

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
~~Phyllis Zerangue~~, CH2M Hill, Inc. Gy Willis Gy Willis	6-1-06	1800	[illegible]	6/2/06	10:15
Printed Name and Signature:			Printed Name and Signature:		
Printed Name and Signature:			Printed Name and Signature:		

Distribution: [ ] Original - Laboratory (To be returned with Analytical Report); [ ] Copy 1 - Project File; [ ] Copy 2 - PMO

Form CCI001, Rev 06/00

2503992

2503992 cm

CH2MHILL Constructors, Inc.

1766 Sea Lark Lane
Navarre, FL 32566
Tel No: (850) 939-8300
Fax No: (850) 939-0035

CHAIN-OF-CUSTODY RECORD

[1] COC NUMBER: 266690-0606 01-3

[2] PROJECT NAME:	[3] PROJECT NUMBER:	[8] LAB NAME AND CONTACT:	[11] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 1 (Name and Company)	[14] RECIPIENT 1 (Address, Tel No. , and Fax No.):
NAS Pensacola	266690.22.01.03.26	PEL, 4420 Pendola Point Road, Tampa, FL 33619	CH2M Hill, Constructors	115 Perimeter Center Place, NE, Suite 700, Atlanta, GA 30346 Phone: (770) 604-9182 Fax: (770) 604-9181
[5] PROJECT PHASE/SITE/TASK:	[6] CTO OR DO NUMBER:	[9] LAB PO NUMBER:	[12] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 2 (Name and Company)	[15] RECIPIENT 2 (Address, Tel No. , and Fax No.):
Bronson Field, Site 1159	CTO-0071	PO#	Phyllis Zerangue, CH2M Hill, Inc.	1766 Sea Lark Lane, Navarre, FL 32566 Phone: (850) 939-8300
[4] PROJECT CONTACT:	[7] PROJECT TEL NO AND FAX NO:	[10] LAB TEL NO AND FAX NO:	[13] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 3 (Name and Company)	[16] RECIPIENT 3 (Address, Tel No. , and Fax No.):
Greg Wilfley	(770) 604-9095 (770) 604-9181	(225) 769-5717	Bethany Garvey, CH2M Hill, Constructors	115 Perimeter Center Place, NE, Suite 700, Atlanta, GA 30346 Phone: (770) 604-9182 Fax: (770) 604-9181

[23] ANALYSES REQUIRED (Include Method Numbers)

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	VOCs: 8260B	PAHs: 8270_SIM	TRPHs: FL-PRO	Total Lead: 6010B	Dissolved Lead: 6010B	CO2: RSK-175	Alkalinity: 310.1/2320B	TOC: 415.1/9060				Total number of bottles	[24] SAMPLE TYPE (see codes on SOP)	[17] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use)
1	071-1159-MW-62-0606	MW-62	W					X	X	X	X	X							9	N		
2	071-1159-MW-64-0606	MW-64	W	6·1·06	1425			X	X	X	X								6	N		13
3	071-1159-MW-65-0606	MW-65	W					X	X	X	X	X							9	N		
4	071-1159-MW-67-0606	MW-67	W					X	X	X	X		X	X	X				15	N		
5	071-1159-MW-69-0606	MW-69	W					X	X	X	X								8	N		
6	071-1159-MW-70-0606	MW-70	W	6·1·06	1145			X	X	X	X								6	N		14
7	071-1159-MW-71-0606	MW-71	W	6·1·06	1216			X	X	X	X								6	N		15
8	071-1159-MW-72-0606	MW-72	W					X	X	X	X	X							9	N		
9	071-1159-MW-73-0606	MW-73	W					X	X	X	X								8	N		
10	071-1159-MW-74-0606	MW-74	W					X	X	X	X	X							9	N		

[29] SAMPLER(S) AND COMPANY: (please print)
~~Phyllis Zerangue~~, CH2M Hill, Inc.
Guy Willis

[30] COURIER AND SHIPPING NUMBER: Fed Ex

[31] SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use):

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
~~Phyllis Zerangue~~, CH2M Hill, Inc. Guy Willis Guy Willis	6-1-06	1800	[signature]	6/2/06	1015
Printed Name and Signature:			Printed Name and Signature:		
Printed Name and Signature:			Printed Name and Signature:		

Distribution: [ ] Original - Laboratory (To be returned with Analytical Report); [ ] Copy 1 - Project File; [ ] Copy 2 - PMO

Form CCI001, Rev 06/00

2503992

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CH2MHILL Constructors, Inc.

1766 Sea Lark Lane
Navarre, FL 32566
Tel No: (850) 939-8300
Fax No: (850) 939-0035

CHAIN-OF-CUSTODY RECORD

[1] COC NUMBER: 266690-0606 01 -4

[2] PROJECT NAME:	[3] PROJECT NUMBER:	[8] LAB NAME AND CONTACT:	[11] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 1 (Name and Company)	[14] RECIPIENT 1 (Address, Tel No. , and Fax No.):
NAS Pensacola	266690.22.01.03.26	PEL, 4420 Pendola Point Road, Tampa, FL 33619	CH2M Hill, Constructors	115 Perimeter Center Place, NE, Suite 700, Atlanta, GA 30346 Phone: (770) 604-9182 Fax: (770) 604-9181
[5] PROJECT PHASE/SITE/TASK:	[6] CTO OR DO NUMBER:	[9] LAB PO NUMBER:	[12] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 2 (Name and Company)	[15] RECIPIENT 2 (Address, Tel No. , and Fax No.):
Bronson Field, Site 1159	CTO-0071	PO#	Phyllis Zerangue, CH2M Hill, Inc.	1766 Sea Lark Lane, Navarre, FL 32566 Phone: (850) 939-8300
[4] PROJECT CONTACT:	[7] PROJECT TEL NO AND FAX NO:	[10] LAB TEL NO AND FAX NO:	[13] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 3 (Name and Company)	[16] RECIPIENT 3 (Address, Tel No. , and Fax No.):
Greg Willey	(770) 604-9095 (770) 604-9181	(225) 769-5717	Bethany Garvey, CH2M Hill, Constructors	115 Perimeter Center Place, NE, Suite 700, Atlanta, GA 30346 Phone: (770) 604-9182 Fax: (770) 604-9181

[25] ANALYSES REQUIRED (Include Method Numbers)

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	VOCs: 8260B	PAHs: 8270_SIM	TRPHs: FL-PRO	Total Lead: 6010B	Dissolved Lead: 6010B	CO2: RSK-175	Alkalinity: 310.1/2320B	TOC: 415.1/9060				Total number of bottles	[26] SAMPLE TYPE (see codes on SOP)	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use)
1	071-1159-MW-75-0606	MW-75	W	6.1.06	1000		14	X	X	X	X		X	X	X				11			16
2	071-1159-FD-1-0606	FIELD DUP	W	6.1.06	—			X	X	X	X	X	X	X	X				~~9~~ 12	FD		17
3	071-1159-FD-2-0606	FIELD DUP	W					X	X	X	X	X							9	FD		
4	071-1159-FD-3-0606	FIELD DUP	W	6.1.06	—			X	X	X	X								6	FD		18
5	071-1159-PreEQ-1-0606	Pre-Equipment Blank	W					X	X	X	X								8	EB		
6	071-1159-PreEQ-2-0606	Pre-Equipment Blank	W	6.1.06	1500			X	X	X	X	X	X	X	X				~~8~~ 12	EB		19
7	071-1159-PreEQ-3-0606	Pre-Equipment Blank	W					X	X	X	X								8	EB		
8	071-1159-PreEQ-4-0606	Pre-Equipment Blank	W					X	X	X	X								8	EB		
9	071-1159-TB-1-0606	Trip Blank	W					X											3	TB		
10	071-1159-TB-2-0606	Trip Blank	W	6.1.06	—			X											2	TB		20

[29] SAMPLER(S) AND COMPANY: (please print)
~~Phyllis Zerangue~~, CH2M Hill, Inc.
Gy Willis

[30] COURIER AND SHIPPING NUMBER: Fed Ex

[31] SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use):

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
~~Phyllis Zerangue~~, CH2M Hill, Inc. Gy Willis	6-1-06	1800		6/2/06	1015
Printed Name and Signature:			Printed Name and Signature:		
Printed Name and Signature:			Printed Name and Signature:		

Distribution: [ ] Original - Laboratory (To be returned with Analytical Report); [ ] Copy 1 - Project File; [ ] Copy 2 - PMO

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2503992 cm

CH2MHILL Constructors, Inc.

1766 Sea Lark Lane
Navarre, FL 32566
Tel No: (850) 939-8300
Fax No: (850) 939-0035

CHAIN-OF-CUSTODY RECORD

[1] COC NUMBER: 266690-0606 01 -5

[2] PROJECT NAME:	[3] PROJECT NUMBER:	[8] LAB NAME AND CONTACT:	[11] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 1 (Name and Company)	[14] RECIPIENT 1 (Address, Tel No. , and Fax No.):
NAS Pensacola	266690.22.01.03.26	PEL, 4420 Pendola Point Road, Tampa, FL 33619	CH2M Hill, Constructors	115 Perimeter Center Place, NE, Suite 700, Atlanta, GA 30346 Phone: (770) 604-9182 Fax: (770) 604-9181
[5] PROJECT PHASE/SITE/TASK:	[6] CTO OR DO NUMBER:	[9] LAB PO NUMBER:	[12] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 2 (Name and Company)	[15] RECIPIENT 2 (Address, Tel No. , and Fax No.):
Bronson Field, Site 1159	CTO-0071	PO#	Phyllis Zerangue, CH2M Hill, Inc.	1766 Sea Lark Lane, Navarre, FL 32566 Phone: (850) 939-8300
[4] PROJECT CONTACT:	[7] PROJECT TEL NO AND FAX NO:	[10] LAB TEL NO AND FAX NO:	[13] FAX AND MAIL REPORTS/EDD TO:: RECIPIENT 3 (Name and Company)	[16] RECIPIENT 3 (Address, Tel No. , and Fax No.):
Greg Wilfley	(770) 604-9095 (770) 604-9181	(225) 769-5717	Bethany Garvey, CH2M Hill, Constructors	115 Perimeter Center Place, NE, Suite 700, Atlanta, GA 30346 Phone: (770) 604-9182 Fax: (770) 604-9181

[22] ANALYSES REQUIRED (Include Method Numbers)

[17] ITEM	[18] SAMPLE IDENTIFIER	[19] SAMPLE DESCRIPTION/LOCATION	[20] MATRIX (see codes on SOP)	[21] DATE COLLECTED	[22] TIME COLLECTED	[23] DATA PKG LEVEL (see codes on SOP)	[24] TAT (calendar days)	VOCs: 8260B	PAHs: 8270_SIM	TRPHs: FL-PRO	Total Lead: 6010B	Dissolved Lead: 6010B	CO2: RSK-175	Alkalinity: 310.1/2320B	TOC: 415.1/9060				Total number of bottles	[26] SAMPLE TYPE (see codes on SOP)	[27] COMMENTS/ SCREENING READINGS	[28] LAB ID (for lab's use)
1	071-1159-TB-3-0606	Trip Blank	W					X											3	TB		
2	071-1159-TB-4-0606	Trip Blank	W					X											3	TB		
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						

[29] SAMPLER(S) AND COMPANY: (please print)	[30] COURIER AND SHIPPING NUMBER:	[31] SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use):
Phyllis Zerangue, CH2M Hill, Inc.		

[32] RELINQUISHED BY	DATE	TIME	[33] RECEIVED BY	DATE	TIME
Printed Name and Signature:			Printed Name and Signature:		
Phyllis Zerangue, CH2M Hill, Inc.			[signature]	6/2/06	1045
Printed Name and Signature:			Printed Name and Signature:		
Printed Name and Signature:			Printed Name and Signature:		

Distribution: [ ] Original - Laboratory (To be returned with Analytical Report); [ ] Copy 1 - Project File; [ ] Copy 2 - PMO

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NAS Pensacola

PREPARED FOR:	NAS Pensacola / Bronson Site 1159 Volatile Evaluation Tree Core Sampling July 2006
FINAL REVIEWER/ INITIAL REVIEWER	Camden Robinson/ Associate Project Chemist/CH2M Hill
COPIES:	Greg Wifley /Project Manager/CCI
DATE:	August 29, 2006
SUBJECT:	Quality Assessment for Samples Collected July 20th thru July 21st 2006

This quality assurance memorandum is based upon a review of analytical data generated for the tissue samples collected July 20th, 2006 thru July 21st, 2006 at the Naval Air Station in Pensacola, Florida. The samples were collected as a part of the Bronson Site 1159 volatile evaluation tree core sampling event conducted at the site. Table 1-1 presents a summary of the CCI sample identification numbers, laboratory sample identification numbers, dates of collection, and the analyses performed.

CH2M Hill Applied Sciences Laboratory of Corvallis, Oregon served as the laboratory for this Bronson Site 1159 volatile evaluation tree core sampling event. The samples were submitted for Benzene, Toluene, Ethylbenzene, M, P-Xylene, and O-Xylene (BTEX) by SW-846 method 8260B and Total Lead by SW-846 method 6010B.

Data for the analyses were reviewed for adherence to the specified analytical protocols in accordance with CCI Sampling Analysis Plan. All analysis results have been validated or qualified according to general guidance provided in the Department of Defense (DOD) Quality Systems Manual - Version 2 Final (based on NELAP Voted Version 14 – 29 June 2002).

The findings of this quality assurance report are based upon the comprehensive review of the following results summaries reported according to the CCI Level B (CLP-like data deliverables format): chain of custody documentation, holding times, laboratory method and field blank analyses, surrogate compound recoveries, matrix spike compound recoveries and reproducibility, bromofluorobenzene (BFB) mass tuning results, initial and continuing calibration, second source recovery and internal standard area performance summaries, target compound identification, laboratory control sample results, laboratory and blind field duplicate sample results, detection limits/sensitivity, ICP interference check sample results, ICP serial dilution results, metals post digestion spikes, and electronic data deliverables.

The analyses were performed acceptably, but require several qualifying statements; it is recommended that the analytical data be used only with the qualifying statements provided below. Any aspects of the data, which are not discussed in this report, should be considered qualitatively and quantitatively valid as reported, based on the deliverables reviewed. The validated and qualified results are presented in the data summary tables. Attachment A contains a copy of the chain of custody and the validated sample results.

Table 1-1
Summary Sample Data
NAS Pensacola

Sample Number	Reference Sample Number	Lab Sample ID	Date Sampled	Analyses Required
CTRL1-LI		F217301	07/20/2006	[1]
CTRL2-PI		F217302	07/20/2006	[1]
CTRL3-LA		F217303	07/20/2006	[1]
CTRL4-LA		F217304	07/20/2006	[1]
CTRL5-PI		F217305	07/20/2006	[1]
CTRL6-LI		F217306	07/20/2006	[1]
7-LA		F217307	07/20/2006	[1]
8-PI		F217308	07/20/2006	[1], [2]
9-LI		F217309	07/20/2006	[1]
10-PI		F217310	07/20/2006	[1]
11-LA		F217311	07/20/2006	[1], [2]
12-LA		F217312	07/20/2006	[1], [2]
13-PI		F217313	07/20/2006	[1], [2]
14-LI		F217314	07/21/2006	[1], [2]
15-LA		F217315	07/21/2006	[1], [2]
16-PI		F217316	07/21/2006	[1], [2]
17-PI		F217317	07/21/2006	[1]
18-PI		F217318	07/21/2006	[1]
19-PI		F217319	07/21/2006	[1]
20-PI		F217320	07/21/2006	[1]
21-LI		F217321	07/21/2006	[1]
22-CY		F217322	07/21/2006	[1]
23-LI		F217323	07/21/2006	[1]
24-PI		F217324	07/21/2006	[1]
Trip Blank		F217325	07/20/2006	[1]

ANALYSES PERFORMED CODES:
[1] – Benzene, Toluene, Ethylbenzene, M, P-Xylene, and O-Xylene (BTEX) by SW-846 8260B,
[2] – Total Lead by SW-846 6010B

General Data Qualifiers

As required by U.S. EPA protocols, all compounds, which were qualitatively identified at concentrations below their respective, reporting limits (RL) but above the method detection limit (MDL) have been qualified with "J" qualifiers on the data summary reports to indicate that they are quantitative estimates.

Organic Data Qualifiers

The tissue sample results reported for the BTEX analysis are reported on a wet weight basis.

The positive results for volatile organic compounds benzene, toluene, and m,p-xylene reported in the samples listed below are considered quantitative estimates due to the levels at which the compounds were present in the associated method blank or trip blank. This has been indicated in the data summary tables by placing a "JB" qualifier next to the reported values associated with the trip blank contaminations or "B" qualifier next to the reported values associated with the method blank contamination.

Compound	Affected Samples
Benzene	CTRL1-LI, CTRL2-PI, CRTL3-LA, 8-PI, 9-LI, 10-PI, 11-LA, 13-PI, 14-LI, 15-LA, 16-PI, 17-PI, 18-PI, 19-PI, 20-PI, 21-LI, 23-LI, and 24-PI
Toluene	CTRL1-LI, CTRL2-PI, CRTL3-LA, CTRL4-LA, CTRL5-PI, CTRL6-LI, 7-LA, 8-PI, 9-LI, 10-PI, 11-LA, 12-LA, 13-PI, 14-LI, 15-LA, 16-PI, 17-PI, 18-PI, 19-PI, 20-PI, 21-LI, 22-CY, 23-LI, and 24-PI
M,P-Xylene	CTRL1-LI, CTRL2-PI, CRTL3-LA,, CTRL4-LA, CTRL6-LI, 7-LA, 9-LI, 14-LI, 15-LA, 19-PI, 21-LI, and 22-CY

Inorganic Data Qualifiers

The tissue sample results reported for the Lead analysis are reported on a dry weight basis due to the digestion process for the samples is performed on dried samples. The laboratory has provided the percent solids information so that the data user can convert back to wet weight if desired.

Summary

The organic and inorganic analyses were performed acceptably, but required qualifying statements. This analytical quality assurance report has identified the aspects of the data, which required qualification. These qualifiers are noted on the attached analytical sample summary reports. A support documentation package has been prepared for this quality assurance review and is filed with the NAS Pensacola / Bronson Site 1159 Volatile Evaluation Tree Core Sampling July 2006 project file.

Attachment A

VALID QUALIFIERS

QUALIFIER	
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit
J	The analyte was positively identified: the associated numerical value is the approximate concentration of the analyte in the sample.
N	The analysis indicates the presence of an analyte for which there was presumptive evidence to make a "tentative identification."
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
UJ	The analyte was not deemed above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
R/UR	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet the quality control criteria. The presence or absence of the analyte cannot be verified.
B	The analyte was detected in the associated method and/or calibration blank.
JB	The analyte detected in the associated field, equipment, and/or trip blank.

QUALIFICATION CODE REFERENCE

Qualifier	Organics	Inorganics
H	Holding times were exceeded.	Holding times were exceeded.
S	Surrogate recovery was outside QC limits.	The sequence or number of standards used for the calibration was incorrect.
C	Calibration %RSD or %D was noncompliant.	Correlation coefficient is <0.995.
K	Second source %D was noncompliant.	Second source %D was noncompliant.
R	Calibration RRF was <0.05.	%R for calibration is not within control limits.
MB	Presumed contamination from preparation (method) blank.	Presumed contamination from preparation (method) blank or calibration blank.
L	Laboratory Blank Spike/Blank Spike Duplicate %R was not within control limits.	Laboratory Control Sample %R was not within control limits.
Q	MS/MSD recovery was poor or high RPD.	MS/MSD recovery was poor or high RPD.
G	Result is over the calibration range. No other acceptable result was provided.	Result is over the calibration range. Not other acceptable result was provided.
E	Not applicable.	Lab duplicate RPD showed poor agreement.
Z	Field duplicate RPD showed poor agreement.	Field duplicate RPD showed poor agreement
I	Internal standard performance was unsatisfactory.	ICP ICS results were unsatisfactory.
A	Not applicable.	ICP Serial Dilution %D was not within control limits.
TN	Tuning (BFB or DFTPP) was noncompliant.	Not applicable.
T	Presumed contamination from trip blank.	Not applicable.
+	False positive—reported compound was not present.	Not applicable.
-	False negative—compound was present but not reported.	Not applicable.
F	Presumed contamination from FB or ER.	Presumed contamination from FB or ER.
$	Reported result or other information was incorrect.	Reported result or other information was incorrect.
?	TIC identity or reported retention time has been changed.	Not applicable.
D	The analysis with this flag should not be used because another more technically sound analysis is available.	The analysis with this flag should not be used because another more technically sound analysis is available.
P	Confirmation analysis RPD exceeded 40%.	Post Digestion Spike recovery was not within control limits.
T/D	Not applicable.	Total metals results were less than the dissolved metals result.
SD	Not applicable.	Seed correction factor was below the acceptable limit.
M	Results should be considered estimated due to matrix effects caused by saturation of non-target analytes.	Not applicable
OT	Results should be considered estimated due to sample was analyzed from jar.	Not applicable

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

Field Sample ID:

CTRL1-LI

SDG No.: F2173

Analysis Method: SW8260

Matrix: Tissue

Sample wt/vol: (g/mL) 1.69 G

Level: (low/med) LOW

GC Column: DB-VRX ID: 0.25 (mm)

Instrument Name: MSP

Lab Name: CH2M HILL/LAB/CVO

Lab Sample ID: F217301

Lab File ID: F217301.D

Date Received: 07/22/06

Date Analyzed: 07/28/06

Dilution Factor: 1

CONCENTRATION UNITS: ug/kg

CAS NO.	COMPOUND	MDL	PQL	RESULT	Q
71-43-2	Benzene	0.104	0.296	0.207	J B-T
108-88-3	Toluene	0.120	0.296	1.45	JB-T
100-41-4	Ethylbenzene	0.0837	0.296	0.148	J
108-38-3/1	m,p-Xylene	0.0837	0.296	0.355	B-mB
95-47-6	o-Xylene	0.0454	0.296	0.178	J

MB060816-13:11-F2173-V

FORM I VOA

SW8260

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

Field Sample ID:

CTRL2-PI

SDG No.: F2173

Analysis Method: SW8260

Matrix: Tissue

Sample wt/vol: (g/mL) 1.17 G

Level: (low/med) LOW

GC Column: DB-VRX ID: 0.25 (mm)

Instrument Name: MSP

Lab Name: CH2M HILL/LAB/CVO

Lab Sample ID: F217302

Lab File ID: F217302.D

Date Received: 07/22/06

Date Analyzed: 07/28/06

Dilution Factor: 1

CONCENTRATION UNITS: ug/kg

CAS NO.	COMPOUND	MDL	PQL	RESULT	Q
71-43-2	Benzene	0.150	0.427	0.256	J B -T
108-88-3	Toluene	0.174	0.427	22.6	JB -T
100-41-4	Ethylbenzene	0.121	0.427	0.513	
108-38-3/1	m,p-Xylene	0.121	0.427	1.15	B -mB
95-47-6	o-Xylene	0.0656	0.427	0.427	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

Field Sample ID:

CTRL3-LA

SDG No.: F2173

Analysis Method: SW8260

Matrix: Tissue

Sample wt/vol: (g/mL) 1.58 G

Level: (low/med) LOW

GC Column: DB-VRX ID: 0.25 (mm)

Instrument Name: MSP

Lab Name: CH2M HILL/LAB/CVO

Lab Sample ID: F217303

Lab File ID: F217303.D

Date Received: 07/22/06

Date Analyzed: 07/28/06

Dilution Factor: 1

CONCENTRATION UNITS: ug/kg

CAS NO.	COMPOUND	MDL	PQL	RESULT	Q
71-43-2	Benzene	0.111	0.316	0.127	J B-T
108-88-3	Toluene	0.129	0.316	1.01	JB-T
100-41-4	Ethylbenzene	0.0896	0.316	0.158	J
108-38-3/1	m,p-Xylene	0.0896	0.316	0.443	B-MB
95-47-6	o-Xylene	0.0486	0.316	0.253	J

Cont

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

Field Sample ID:

CTRL4-LA

SDG No.: F2173

Analysis Method: SW8260

Matrix: Tissue

Sample wt/vol: (g/mL) 1.68 G

Level: (low/med) LOW

GC Column: DB-VRX ID: 0.25 (mm)

Instrument Name: MSP

Lab Name: CH2M HILL/LAB/CVO

Lab Sample ID: F217304

Lab File ID: F217304.D

Date Received: 07/22/06

Date Analyzed: 07/28/06

Dilution Factor: 1

CONCENTRATION UNITS: ug/kg

CAS NO.	COMPOUND	MDL	PQL	RESULT	Q
71-43-2	Benzene	0.104	0.298	0.298	U
108-88-3	Toluene	0.121	0.298	0.923	JB-T
100-41-4	Ethylbenzene	0.0842	0.298	0.149	J
108-38-3/1	m,p-Xylene	0.0842	0.298	0.357	B-mB
95-47-6	o-Xylene	0.0457	0.298	0.208	J

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

Field Sample ID:

CTRL5-PI

SDG No.: F2173

Analysis Method: SW8260

Matrix: Tissue

Sample wt/vol: (g/mL) 1.13 G

Level: (low/med) LOW

GC Column: DB-VRX ID: 0.25 (mm)

Instrument Name: MSP

Lab Name: CH2M HILL/LAB/CVO

Lab Sample ID: F217305

Lab File ID: F217305R1.D

Date Received: 07/22/06

Date Analyzed: 07/31/06

Dilution Factor: 1

CONCENTRATION UNITS: ug/kg

CAS NO.	COMPOUND	MDL	PQL	RESULT	Q
71-43-2	Benzene	0.155	0.442	0.442	U
108-88-3	Toluene	0.180	0.442	3.72	JB-T
100-41-4	Ethylbenzene	0.125	0.442	0.442	U
108-38-3/1	m,p-Xylene	0.125	0.442	0.442	U
95-47-6	o-Xylene	0.0679	0.442	0.442	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

Field Sample ID:

CTRL6-LI

SDG No.: F2173

Analysis Method: SW8260

Matrix: Tissue

Sample wt/vol: (g/mL) 1.59 G

Level: (low/med) LOW

GC Column: DB-VRX ID: 0.25 (mm)

Instrument Name: MSP

Lab Name: CH2M HILL/LAB/CVO

Lab Sample ID: F217306

Lab File ID: F217306.D

Date Received: 07/22/06

Date Analyzed: 07/28/06

Dilution Factor: 1

CONCENTRATION UNITS: ug/kg

CAS NO.	COMPOUND	MDL	PQL	RESULT	Q
71-43-2	Benzene	0.110	0.314	0.314	U
108-88-3	Toluene	0.128	0.314	0.503	SB-T
100-41-4	Ethylbenzene	0.0890	0.314	0.126	J
108-38-3/1	m,p-Xylene	0.0890	0.314	0.377	B-MB
95-47-6	o-Xylene	0.0483	0.314	0.220	J

N.A

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

Field Sample ID:

7-LA

SDG No.: F2173

Analysis Method: SW8260

Matrix: Tissue

Sample wt/vol: (g/mL) 1.84 G

Level: (low/med) LOW

GC Column: DB-VRX ID: 0.25 (mm)

Instrument Name: MSP

Lab Name: CH2M HILL/LAB/CVO

Lab Sample ID: F217307

Lab File ID: F217307.D

Date Received: 07/22/06

Date Analyzed: 07/28/06

Dilution Factor: 1

CONCENTRATION UNITS: ug/kg

CAS NO.	COMPOUND	MDL	PQL	RESULT	Q
71-43-2	Benzene	0.0951	0.272	0.272	U
108-88-3	Toluene	0.110	0.272	0.761	JB -T
100-41-4	Ethylbenzene	0.0769	0.272	0.109	J
108-38-3/1	m,p-Xylene	0.0769	0.272	0.299	B-MB
95-47-6	o-Xylene	0.0417	0.272	0.217	J

C.A

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

Field Sample ID: 8-PI

SDG No.: F2173

Analysis Method: SW8260

Matrix: Tissue

Sample wt/vol: (g/mL) 1.17 G

Level: (low/med) LOW

GC Column: DB-VRX ID: 0.25 (mm)

Instrument Name: MSP

Lab Name: CH2M HILL/LAB/CVO

Lab Sample ID: F217308

Lab File ID: F217308.D

Date Received: 07/22/06

Date Analyzed: 07/31/06

Dilution Factor: 1

CONCENTRATION UNITS: ug/kg

CAS NO.	COMPOUND	MDL	PQL	RESULT	Q
71-43-2	Benzene	0.150	0.427	0.214	J B-T
108-88-3	Toluene	0.174	0.427	22.1	JB-T
100-41-4	Ethylbenzene	0.121	0.427	0.427	U
108-38-3/1	m,p-Xylene	0.121	0.427	0.427	U
95-47-6	o-Xylene	0.0656	0.427	0.427	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

Field Sample ID: **9-LI**

SDG No.: F2173

Analysis Method: SW8260

Matrix: Tissue

Sample wt/vol: (g/mL) 2.19 G

Level: (low/med) LOW

GC Column: DB-VRX ID: 0.25 (mm)

Instrument Name: MSP

Lab Name: CH2M HILL/LAB/CVO

Lab Sample ID: F217309

Lab File ID: F217309.D

Date Received: 07/22/06

Date Analyzed: 07/31/06

Dilution Factor: 1

CONCENTRATION UNITS: ug/kg

CAS NO.	COMPOUND	MDL	PQL	RESULT	Q
71-43-2	Benzene	0.0799	0.228	0.0913	J B-T
108-88-3	Toluene	0.0927	0.228	0.639	JB-T
100-41-4	Ethylbenzene	0.0646	0.228	0.114	J
108-38-3/1	m,p-Xylene	0.0646	0.228	0.274	B-MB
95-47-6	o-Xylene	0.0350	0.228	0.114	J

C.K

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

Field Sample ID:

10-PI

SDG No.: F2173

Analysis Method: SW8260

Matrix: Tissue

Sample wt/vol: (g/mL) 1.28 G

Level: (low/med) LOW

GC Column: DB-VRX ID: 0.25 (mm)

Instrument Name: MSP

Lab Name: CH2M HILL/LAB/CVO

Lab Sample ID: F217310

Lab File ID: F217310.D

Date Received: 07/22/06

Date Analyzed: 07/31/06

Dilution Factor: 1

CONCENTRATION UNITS: ug/kg

CAS NO.	COMPOUND	MDL	PQL	RESULT	Q
71-43-2	Benzene	0.137	0.391	0.273	J B-T
108-88-3	Toluene	0.159	0.391	130	JB-T
100-41-4	Ethylbenzene	0.111	0.391	0.391	U
108-38-3/1	m,p-Xylene	0.111	0.391	0.391	U
95-47-6	o-Xylene	0.0600	0.391	0.391	U

A.R

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

Field Sample ID:

11-LA

SDG No.: F2173

Analysis Method: SW8260

Matrix: Tissue

Sample wt/vol: (g/mL) 1.65 G

Level: (low/med) LOW

GC Column: DB-VRX ID: 0.25 (mm)

Instrument Name: MSP

Lab Name: CH2M HILL/LAB/CVO

Lab Sample ID: F217311

Lab File ID: F217311.D

Date Received: 07/22/06

Date Analyzed: 07/31/06

Dilution Factor: 1

CONCENTRATION UNITS: ug/kg

CAS NO.	COMPOUND	MDL	PQL	RESULT	Q
71-43-2	Benzene	0.106	0.303	0.182	JB - T
108-88-3	Toluene	0.123	0.303	4.36	JB - T
100-41-4	Ethylbenzene	0.0858	0.303	0.121	J
108-38-3/1	m,p-Xylene	0.0858	0.303	0.303	U
95-47-6	o-Xylene	0.0465	0.303	0.303	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

Field Sample ID:

12-LA

SDG No.: F2173

Analysis Method: SW8260

Matrix: Tissue

Sample wt/vol: (g/mL) 1.65 G

Level: (low/med) LOW

GC Column: DB-VRX ID: 0.25 (mm)

Instrument Name: MSP

Lab Name: CH2M HILL/LAB/CVO

Lab Sample ID: F217312

Lab File ID: F217312.D

Date Received: 07/22/06

Date Analyzed: 07/31/06

Dilution Factor: 1

CONCENTRATION UNITS: ug/kg

CAS NO.	COMPOUND	MDL	PQL	RESULT	Q
71-43-2	Benzene	0.106	0.303	0.303	U
108-88-3	Toluene	0.123	0.303	1.64	JB-T
100-41-4	Ethylbenzene	0.0858	0.303	0.121	J
108-38-3/1	m,p-Xylene	0.0858	0.303	0.303	U
95-47-6	o-Xylene	0.0465	0.303	0.303	U

P.A

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

Field Sample ID:

13-PI

SDG No.: F2173

Analysis Method: SW8260

Matrix: Tissue

Sample wt/vol: (g/mL) 1.05 G

Level: (low/med) LOW

GC Column: DB-VRX ID: 0.25 (mm)

Instrument Name: MSP

Lab Name: CH2M HILL/LAB/CVO

Lab Sample ID: F217313

Lab File ID: F217313.D

Date Received: 07/22/06

Date Analyzed: 07/31/06

Dilution Factor: 1

CONCENTRATION UNITS: ug/kg

CAS NO.	COMPOUND	MDL	PQL	RESULT	Q
71-43-2	Benzene	0.167	0.476	0.191	J B-T
108-88-3	Toluene	0.193	0.476	5.05	J B-T
100-41-4	Ethylbenzene	0.135	0.476	0.476	U
108-38-3/1	m,p-Xylene	0.135	0.476	0.476	U
95-47-6	o-Xylene	0.0731	0.476	0.476	U

ok

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

Field Sample ID:

14-LI

SDG No.: F2173

Analysis Method: SW8260

Matrix: Tissue

Sample wt/vol: (g/mL) 1.53 G

Level: (low/med) LOW

GC Column: DB-VRX ID: 0.25 (mm)

Instrument Name: MSP

Lab Name: CH2M HILL/LAB/CVO

Lab Sample ID: F217314

Lab File ID: F217314.D

Date Received: 07/22/06

Date Analyzed: 07/31/06

Dilution Factor: 1

CONCENTRATION UNITS: ug/kg

CAS NO.	COMPOUND	MDL	PQL	RESULT	Q
71-43-2	Benzene	0.114	0.327	0.850	JB-T
108-88-3	Toluene	0.133	0.327	3.79	JB-T
100-41-4	Ethylbenzene	0.0925	0.327	0.327	
108-38-3/1	m,p-Xylene	0.0925	0.327	0.882	B-MB
95-47-6	o-Xylene	0.0502	0.327	0.294	J

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

Field Sample ID:

15-LA

SDG No.: F2173

Analysis Method: SW8260

Matrix: Tissue

Sample wt/vol: (g/mL) 2.04 G

Level: (low/med) LOW

GC Column: DB-VRX ID: 0.25 (mm)

Instrument Name: MSP

Lab Name: CH2M HILL/LAB/CVO

Lab Sample ID: F217315

Lab File ID: F217315.D

Date Received: 07/22/06

Date Analyzed: 07/31/06

Dilution Factor: 1

CONCENTRATION UNITS: ug/kg

CAS NO.	COMPOUND	MDL	PQL	RESULT	Q
71-43-2	Benzene	0.0858	0.245	0.686	JB-T
108-88-3	Toluene	0.0995	0.245	2.92	JB-T
100-41-4	Ethylbenzene	0.0694	0.245	0.245	
108-38-3/1	m,p-Xylene	0.0694	0.245	0.588	B-MB
95-47-6	o-Xylene	0.0376	0.245	0.172	J

C.L

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

Field Sample ID:

16-PI

SDG No.: F2173

Analysis Method: SW8260

Matrix: Tissue

Sample wt/vol: (g/mL) 1.39 G

Level: (low/med) LOW

GC Column: DB-VRX ID: 0.25 (mm)

Instrument Name: MSP

Lab Name: CH2M HILL/LAB/CVO

Lab Sample ID: F217316

Lab File ID: F217316.D

Date Received: 07/22/06

Date Analyzed: 07/31/06

Dilution Factor: 1

CONCENTRATION UNITS: ug/kg

CAS NO.	COMPOUND	MDL	PQL	RESULT	Q
71-43-2	Benzene	0.126	0.360	0.216	J B-T
108-88-3	Toluene	0.146	0.360	8.63	J B-T
100-41-4	Ethylbenzene	0.102	0.360	0.360	U
108-38-3/1	m,p-Xylene	0.102	0.360	0.360	U
95-47-6	o-Xylene	0.0552	0.360	0.360	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

Field Sample ID:

17-PI

SDG No.: F2173

Analysis Method: SW8260

Matrix: Tissue

Sample wt/vol: (g/mL) 1.53 G

Level: (low/med) LOW

GC Column: DB-VRX ID: 0.25 (mm)

Instrument Name: MSP

Lab Name: CH2M HILL/LAB/CVO

Lab Sample ID: F217317

Lab File ID: F217317.D

Date Received: 07/22/06

Date Analyzed: 07/31/06

Dilution Factor: 1

CONCENTRATION UNITS: ug/kg

CAS NO.	COMPOUND	MDL	PQL	RESULT	Q
71-43-2	Benzene	0.114	0.327	0.131	J B-T
108-88-3	Toluene	0.133	0.327	7.75	JB-T
100-41-4	Ethylbenzene	0.0925	0.327	0.327	U
108-38-3/1	m,p-Xylene	0.0925	0.327	0.327	U
95-47-6	o-Xylene	0.0502	0.327	0.327	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

Field Sample ID:

18-PI

SDG No.: F2173

Analysis Method: SW8260

Matrix: Tissue

Sample wt/vol: (g/mL) 1.33 G

Level: (low/med) LOW

GC Column: DB-VRX ID: 0.25 (mm)

Instrument Name: MSP

Lab Name: CH2M HILL/LAB/CVO

Lab Sample ID: F217318

Lab File ID: F217318.D

Date Received: 07/22/06

Date Analyzed: 07/31/06

Dilution Factor: 1

CONCENTRATION UNITS: ug/kg

CAS NO.	COMPOUND	MDL	PQL	RESULT	Q
71-43-2	Benzene	0.132	0.376	1.54	JB-T
108-88-3	Toluene	0.153	0.376	14.9	JB-T
100-41-4	Ethylbenzene	0.106	0.376	0.376	U
108-38-3/1	m,p-Xylene	0.106	0.376	0.376	U
95-47-6	o-Xylene	0.0577	0.376	0.376	U

C.k

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

Field Sample ID:

19-PI

SDG No.: F2173

Analysis Method: SW8260

Matrix: Tissue

Sample wt/vol: (g/mL) 1.33 G

Level: (low/med) LOW

GC Column: DB-VRX ID: 0.25 (mm)

Instrument Name: MSP

Lab Name: CH2M HILL/LAB/CVO

Lab Sample ID: F217319

Lab File ID: F217319.D

Date Received: 07/22/06

Date Analyzed: 07/31/06

Dilution Factor: 1

CONCENTRATION UNITS: ug/kg

CAS NO.	COMPOUND	MDL	PQL	RESULT	Q
71-43-2	Benzene	0.132	0.376	0.226	J ~~B~~ -T
108-88-3	Toluene	0.153	0.376	3.95	JB -T
100-41-4	Ethylbenzene	0.106	0.376	6.47	
108-38-3/1	m,p-Xylene	0.106	0.376	75.3	B -MB
95-47-6	o-Xylene	0.0577	0.376	4.29	

ct

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

Field Sample ID:

20-PI

SDG No.: F2173

Analysis Method: SW8260

Matrix: Tissue

Sample wt/vol: (g/mL) 1.35 G

Level: (low/med) LOW

GC Column: DB-VRX ID: 0.25 (mm)

Instrument Name: MSP

Lab Name: CH2M HILL/LAB/CVO

Lab Sample ID: F217320

Lab File ID: F217320.D

Date Received: 07/22/06

Date Analyzed: 07/31/06

Dilution Factor: 1

CONCENTRATION UNITS: ug/kg

CAS NO.	COMPOUND	MDL	PQL	RESULT	Q
71-43-2	Benzene	0.130	0.370	0.296	J B-T
108-88-3	Toluene	0.150	0.370	4.00	J B-T
100-41-4	Ethylbenzene	0.105	0.370	0.370	U
108-38-3/1	m,p-Xylene	0.105	0.370	0.370	U
95-47-6	o-Xylene	0.0569	0.370	0.370	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

Field Sample ID:

21-LI

SDG No.: F2173

Analysis Method: SW8260

Matrix: Tissue

Sample wt/vol: (g/mL) 2.07 G

Level: (low/med) LOW

GC Column: DB-VRX ID: 0.25 (mm)

Instrument Name: MSP

Lab Name: CH2M HILL/LAB/CVO

Lab Sample ID: F217321

Lab File ID: F217321.D

Date Received: 07/22/06

Date Analyzed: 07/31/06

Dilution Factor: 1

CONCENTRATION UNITS: ug/kg

CAS NO.	COMPOUND	MDL	PQL	RESULT	Q
71-43-2	Benzene	0.0846	0.242	0.411	JB -T
108-88-3	Toluene	0.0981	0.242	1.69	JB -T
100-41-4	Ethylbenzene	0.0684	0.242	0.121	J
108-38-3/1	m,p-Xylene	0.0684	0.242	0.314	B-MB
95-47-6	o-Xylene	0.0371	0.242	0.121	J

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

Field Sample ID:

22-CY

SDG No.: F2173

Analysis Method: SW8260

Matrix: Tissue

Sample wt/vol: (g/mL) 1.19 G

Level: (low/med) LOW

GC Column: DB-VRX ID: 0.25 (mm)

Instrument Name: MSP

Lab Name: CH2M HILL/LAB/CVO

Lab Sample ID: F217322

Lab File ID: F217322.D

Date Received: 07/22/06

Date Analyzed: 07/31/06

Dilution Factor: 1

CONCENTRATION UNITS: ug/kg

CAS NO.	COMPOUND	MDL	PQL	RESULT	Q
71-43-2	Benzene	0.147	0.420	0.420	U
108-88-3	Toluene	0.171	0.420	5.00	JB-T
100-41-4	Ethylbenzene	0.119	0.420	0.420	U
108-38-3/1	m,p-Xylene	0.119	0.420	0.630	B-MB
95-47-6	o-Xylene	0.0645	0.420	0.420	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

Field Sample ID:

23-LI

SDG No.: F2173

Analysis Method: SW8260

Matrix: Tissue

Sample wt/vol: (g/mL) 1.94 G

Level: (low/med) LOW

GC Column: DB-VRX ID: 0.25 (mm)

Instrument Name: MSP

Lab Name: CH2M HILL/LAB/CVO

Lab Sample ID: F217323

Lab File ID: F217323.D

Date Received: 07/22/06

Date Analyzed: 07/31/06

Dilution Factor: 1

CONCENTRATION UNITS: ug/kg

CAS NO.	COMPOUND	MDL	PQL	RESULT	Q
71-43-2	Benzene	0.0902	0.258	0.361	JB-T
108-88-3	Toluene	0.105	0.258	1.34	JB-T
100-41-4	Ethylbenzene	0.0729	0.258	0.258	U
108-38-3/1	m,p-Xylene	0.0729	0.258	0.258	U
95-47-6	o-Xylene	0.0396	0.258	0.258	U

n.d

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

Field Sample ID:

24-PI

SDG No.: F2173

Analysis Method: SW8260

Matrix: Tissue

Sample wt/vol: (g/mL) 1.44 G

Level: (low/med) LOW

GC Column: DB-VRX ID: 0.25 (mm)

Instrument Name: MSP

Lab Name: CH2M HILL/LAB/CVO

Lab Sample ID: F217324

Lab File ID: F217324.D

Date Received: 07/22/06

Date Analyzed: 07/31/06

Dilution Factor: 1

CONCENTRATION UNITS: ug/kg

CAS NO.	COMPOUND	MDL	PQL	RESULT	Q
71-43-2	Benzene	0.122	0.347	0.208	JB-T
108-88-3	Toluene	0.141	0.347	18.7	JB-T
100-41-4	Ethylbenzene	0.0983	0.347	0.347	U
108-38-3/1	m,p-Xylene	0.0983	0.347	0.347	U
95-47-6	o-Xylene	0.0533	0.347	0.347	U

C.L

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

Field Sample ID:

Trip Blank

SDG No.: F2173

Analysis Method: SW8260

Matrix: Water

Sample wt/vol: (g/mL) 5 ML

Level: (low/med) LOW

GC Column: ZB-624 ID: 0.25 (mm)

Instrument Name: MSE

Lab Name: CH2M HILL/LAB/CVO

Lab Sample ID: F217325

Lab File ID: 217325.D

Date Received: 07/22/06

Date Analyzed: 07/28/06

Dilution Factor: 1

CONCENTRATION UNITS: ug/L

CAS NO.	COMPOUND	MDL	PQL	RESULT	Q
71-43-2	Benzene	0.109	0.500	0.120	J
108-88-3	Toluene	0.0993	0.500	0.430	J
100-41-4	Ethylbenzene	0.0726	0.500	0.500	U
108-38-3/1	m,p-Xylene	0.114	0.500	0.500	U
95-47-6	o-Xylene	0.125	0.500	0.500	U

C.R

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1A

INORGANICS ANALYSIS DATA SHEET

Field Sample ID:

8-PI

SDG No.: F2173

Lab Name: CH2M HILL/LAB/CVO

Matrix: (soil/water) TISSUE

Lab Sample ID: F217308

Level: (low/med) LOW

Date Received: 07/22/06

% Moisture: 0

Concentration Units: mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7439-92-1	Lead	0.493	U		P

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments: _____

U.S. EPA - CLP
1A
INORGANICS ANALYSIS DATA SHEET

Field Sample ID:
11-LA

SDG No.: F2173

Lab Name: CH2M HILL/LAB/CVO

Matrix: (soil/water) TISSUE

Lab Sample ID: F217311

Level: (low/med) LOW

Date Received: 07/22/06

% Moisture: 0

Concentration Units: mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7439-92-1	Lead	0.333	U		P

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments: _____

U.S. EPA - CLP

1A

INORGANICS ANALYSIS DATA SHEET

Field Sample ID:

12-LA

SDG No.: F2173

Lab Name: CH2M HILL/LAB/CVO

Matrix: (soil/water) TISSUE

Lab Sample ID: F217312

Level: (low/med) LOW

Date Received: 07/22/06

% Moisture: 0

Concentration Units: mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7439-92-1	Lead	0.377	U		P

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments: _____

U.S. EPA - CLP

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INORGANICS ANALYSIS DATA SHEET

Field Sample ID:

13-PI

SDG No.: F2173

Lab Name: CH2M HILL/LAB/CVO

Matrix: (soil/water) TISSUE

Lab Sample ID: F217313

Level: (low/med) LOW

Date Received: 07/22/06

% Moisture: 0

Concentration Units: mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7439-92-1	Lead	0.523	U		P

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments: _____

U.S. EPA - CLP

1A

INORGANICS ANALYSIS DATA SHEET

Field Sample ID:

14-LI

SDG No.: F2173

Lab Name: CH2M HILL/LAB/CVO

Matrix: (soil/water) TISSUE

Lab Sample ID: F217314

Level: (low/med) LOW

Date Received: 07/22/06

% Moisture: 0

Concentration Units: mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7439-92-1	Lead	0.991	B	J	P

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments: _____

U.S. EPA - CLP

1A

INORGANICS ANALYSIS DATA SHEET

Field Sample ID:

15-LA

SDG No.: F2173

Lab Name: CH2M HILL/LAB/CVO

Matrix: (soil/water) TISSUE

Lab Sample ID: F217315

Level: (low/med) LOW

Date Received: 07/22/06

% Moisture: 0

Concentration Units: mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7439-92-1	Lead	0.657	~~B~~	J	P

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments: _____

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INORGANICS ANALYSIS DATA SHEET

Field Sample ID:

16-PI

SDG No.: F2173

Lab Name: CH2M HILL/LAB/CVO

Matrix: (soil/water) TISSUE

Lab Sample ID: F217316

Level: (low/med) LOW

Date Received: 07/22/06

% Moisture: 0

Concentration Units: mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7439-92-1	Lead	0.333	U		P

C.R

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments: _____

CH2MHILL
Applied Sciences Laboratory

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97339-0428
Tel 541.752.4271
Fax 541.752.0276

Percent Moisture For SDG: F2173

Project Number:

Client:

Method: E160.0
Matrix: Soil
Analysis Date/By: 08-04-2006/TAG

Analytical Batch: MST080406 **Balance ID:**

Client Sample ID	Lab Sample ID/Jar	Tare #	Sample Weight (g)	Tare, grams	Dry Samp+Tare (g) Rep 1	Rep 2	RPD	Dry Solids (grams)	Moisture (%)	Solids (%)	Solids Ratio
8-PI	F217308	A	0.821100000	23.1592	23.7315	23.7315	0.0	0.5723	30.3	69.7	1.43474
11-LA	F217311	B	1.3928	23.0857	23.9392	23.9392	0.0	0.8535	38.7	61.3	1.63187
12-LA	F217312	C	1.3952	23.2094	24.1024	24.1024	0.0	0.8930	36.0	64.0	1.56237
13-PI	F217313	D	0.8466	23.0016	23.5564	23.5564	0.0	0.5548	34.5	65.5	1.52596
14-LI	F217314	E	1.0034	23.1520	23.7998	23.7998	0.0	0.6478	35.4	64.6	1.54893
15-LA	F217315	F	1.4165	23.2447	24.0411	24.0411	0.0	0.7964	43.8	56.2	1.77863
16-PI	F217316	G	1.1292	22.9738	23.8084	23.8084	0.0	0.8346	26.1	73.9	1.35298

n.k

CH2MHILL Applied Sciences Lab
CHAIN OF CUSTODY RECORD
AND AGREEMENT TO PERFORM SERVICES

CVO 2300 NW Walnut Boulevard
Corvallis, OR 97330-3538
(541) 752-4271 FAX (541) 752-0276

COC # _____

Project # 266690.32.02.05.90	Purchase Order #
Project Name: Bronson Field, Site 1159	
Company Name: CH2M Hill, Inc.	
Report to: Bethany Garvey	Phone No: 770-604-9182
Requested Completion Date: 14-Day (Standard)	Sample Disposal: Dispose ☒ Return ☐

THIS AREA FOR LAB USE ONLY: Lab # F2173 | Page 1 | of 2

1 of 3 COH

Request: EDD

EPA Tier QC Level: 1 (Screening) 2 (3) 4

Sampling Date	Sampling Time	Type COMP	Type GRAB	Matrix WATER	Matrix SOIL	Matrix AIR	Matrix Other	CLIENT SAMPLE ID (8 CHARACTERS)	LAB QC	TOTAL # OF CONTAINERS	Preservative: None	Requested Analytical Method #: 8260	Lead 6010 B	Alternate Description	Lab ID
7/20	1010				X		X	CTRL1-LI		2	X			OAK	1
7/20	1030				X		X	CTRL2-PI		2	X			PINE	2
7/20	1040				X		X	CTRL3-LA		2	X			OAK	3
7/20	1045				X		X	CTRL4-LA		2	X			OAK	4
7/20	1050				X		X	CTRL5-PI		2	X			PINE	5
7/20	1100				X		X	CTRL6-LI		2	X			OAK	6
7/20	1105				X		X	7-~~LI~~ LA RS 7/27/06		2	X			OAK	7
7/20	1115				X		X	8-PI		2	X	X		PINE	8
7/20	1120				X		X	9-LI		2	X			OAK	9
7/20	1130				X		X	10-PI		2	X			PINE	10
7/20	1145				X		X	11-LA		2	X	X		OAK	11

Relinquished By: Phyllis Zerangue (signature)	Date/Time 7/20 1500	Received By	Date/Time
Sampled By and Title: Phyllis Zerangue (Please sign and print name)	Date/Time 7/20 1500	Relinquished By (Please sign and print name)	Date/Time
Received By: Robert Wong (Please sign and print name)	Date/Time 7/27/06 1420	Relinquished By (Please sign and print name)	Date/Time
Received By (Please sign and print name)	Date/Time	Shipped Via: UPS Fed-Ex Other _____	Shipping #

Special Instructions:

Instructions and Agreement Provisions on Reverse Side

DISTRIBUTION: Original - LAB, Yellow - LAB, Pink - Client
Rev 2/01 Lab form 340

CH2M HILL **Applied Sciences Lab**
CHAIN OF CUSTODY RECORD
AND AGREEMENT TO PERFORM SERVICES

CVO 2300 NW Walnut Boulevard
Corvallis, OR 97330-3538
(541) 752-4271 FAX (541) 752-0276

COC #

Project #	266690.32.02.05.90
Purchase Order #	
Project Name	Bronson Field, Site 1159
Company Name	CH2M Hill
Report to:	Bethany Garvey
Phone No:	770-604-9182
Requested Completion Date:	14-Day (Standard)
Sample Disposal:	Dispose ☒ Return ☐

THIS AREA FOR LAB USE ONLY

Lab #	Page	of
F2173	2	2

2 of 3 DOH

Requested Analytical Method #: 8260; Lead 6010B

Preservative

EPA Tier QC Level: 1 (Screening) 2 3 4

Sampling Date	Sampling Time	Type COMP	Type GRAB	Matrix WATER	Matrix SOIL	Matrix AIR	Matrix Other	CLIENT SAMPLE ID (8 CHARACTERS)	LAB QC	TOTAL # OF CONTAINERS	8260	Lead 6010B	Alternate Description	Lab ID
7/20	1150				X		X	12-LA		2	X	X	OAK	12
7/20	1155				X		X	13-PI		2	X	X	PINE	13

Relinquished By (Please sign and print name)	Date/Time 7/20 1500	Received By	Date/Time
Sampled By and Title (Please sign and print name)	Date/Time 7/20 1500	Relinquished By (Please sign and print name)	Date/Time
Received By (Please sign and print name) Robert Wang	Date/Time 7/21/06 1410	Relinquished By (Please sign and print name)	Date/Time
Received By (Please sign and print name)	Date/Time	Shipped Via UPS Fed-Ex Other ____	Shipping #

Special Instructions:
Request: EDD

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Rev 2/01 Lab form 340

CH2MHILL Applied Sciences Lab
CHAIN OF CUSTODY RECORD
AND AGREEMENT TO PERFORM SERVICES

CVO 2300 NW Walnut Boulevard
Corvallis, OR 97330-3538
(541) 752-4271 FAX (541) 752-0276

COC # _____

Project # 266690.32.02.05.90	Purchase Order #
Project Name: Bronson Field, Site 1159	
Company Name: CHamHill	
Report to: Bethany Garvey	Phone No: 770-604-9182
Requested Completion Date: 14-Day (Standard)	Sample Disposal: Dispose ☒ Return ☐

THIS AREA FOR LAB USE ONLY: Lab # F2173 | Page 1 | of 3 of 3. ODH

EPA Tier QC Level: 1 (Screening) 2 (3) 4

Sampling Date	Sampling Time	Type COMP	Type GRAB	Matrix WATER	Matrix SOIL	Matrix AIR	Matrix Other	CLIENT SAMPLE ID (8 CHARACTERS)	LAB QC	TOTAL # OF CONTAINERS	Requested Analytical Method # 8260	Lead 6010B	Preservative	Alternate Description	Lab ID
7/21	0715			\			X	14-LI		2	X	XX		OAK	14
7/21	0730						X	15-LA		2	X			OAK	15
7/21	0745						X	16-PI		2	X	XX		Pine	16
7/21	0805						X	17-PI		2	X			Pine	17
7/21	0810						X	18-PI		2	X			Pine	18
7/21	0835						X	19-PI		2	X			Pine	19
7/21	0845						X	20-PI		2	X			Pine	20
7/21	0935						X	21-LI		2	X			OAK	21
7/21	0945						X	22-CY		2	X			Cypress	22
7/21	1000						X	23-LI		2	X			OAK	23
7/21	1015						X	24-PI		2	X			Pine	24

Relinquished By: Phyllis Zerangue	Date/Time 7/21/1200	Received By	Date/Time
Sampled By and Title: Phyllis Zerangue (Please sign and print name)	Date/Time 7/21/1200	Relinquished By (Please sign and print name)	Date/Time
Received By: Robert Wong (Please sign and print name)	Date/Time 7/22/06 1420	Relinquished By (Please sign and print name)	Date/Time
Received By (Please sign and print name)	Date/Time	Shipped Via: UPS Fed-Ex Other _____	Shipping #

Special Instructions: Request: EDD / Saturday Delivery

Instructions and Agreement Provisions on Reverse Side

DISTRIBUTION: Original - LAB, Yellow - LAB, Pink - Client
Rev 2/01 Lab form 340

Appendix F

Well Construction Diagrams and Soil Boring Logs

CH2MHILL	PROJECT NUMBER:	BORING ID: AAS-01 — Sheet 1 of 1

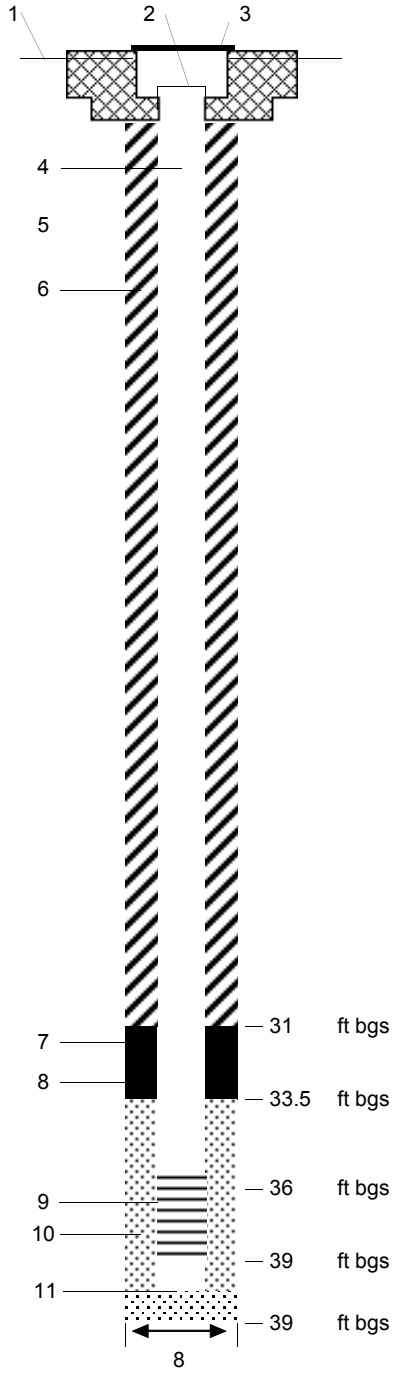
WELL COMPLETION DIAGRAM

PROJECT: LOCATION: Site 1159

ELEVATION: ft NAVD DRILLING CONTRACTOR: Kelly Environmental Drilling

DRILLING METHOD AND EQUIPMENT USED: HS Mobile B-31 Drill Rig mounted on Ram 350 truck

WATER LEVELS: 14 ft START: 05/12/2004 END: 05/12/2004 LOGGER: Ryan Bitely and Scott Dunbar



1- Ground elevation at well: ft NAVD

2- Top of casing elevation: ft NAVD

3- Outer casing elevation: ft NAVD

a)Wellhead protection cover: 8" flush well vault
b) Concrete pad dimensions: 2 x 2 x 6 inches

4- Diameter of well casing: 2 in
Well casing type: PVC Schedule 40

5- Outer Diameter of auger: 8 in

6- Grout:
a) Grout mix used: CEMENT BENTONITE SLURRY
b) Method of placement: tremmie
c) Vol. of surface casing grout:
d) Vol. of well casing grout: 8 bags
e) Comments:

7- Type of seal: BENTONITE
a) Quantity used: 1 50lbs Bag
b) Comments:

8- Transistion sand:
a) Quantity used: 50lbs Bag

9-Type of screen: PVC Schedule 40
a) Slot Size: 0.020 in
b) Comments:

10- Type of gravel pack: 20/30 Silica Quartz Filter Sand
a) Quantity used: 2.5 50lbs Bag

11. Type of end cap: PVC Schedule 40

Development:
a) Method:
b) Duration: hrs
c) PurgeVolume: gal
Comments:

NOTE: NOT TO SCALE

CH2MHILL	PROJECT NUMBER:	BORING ID: AAS-02 — Sheet 1 of 1

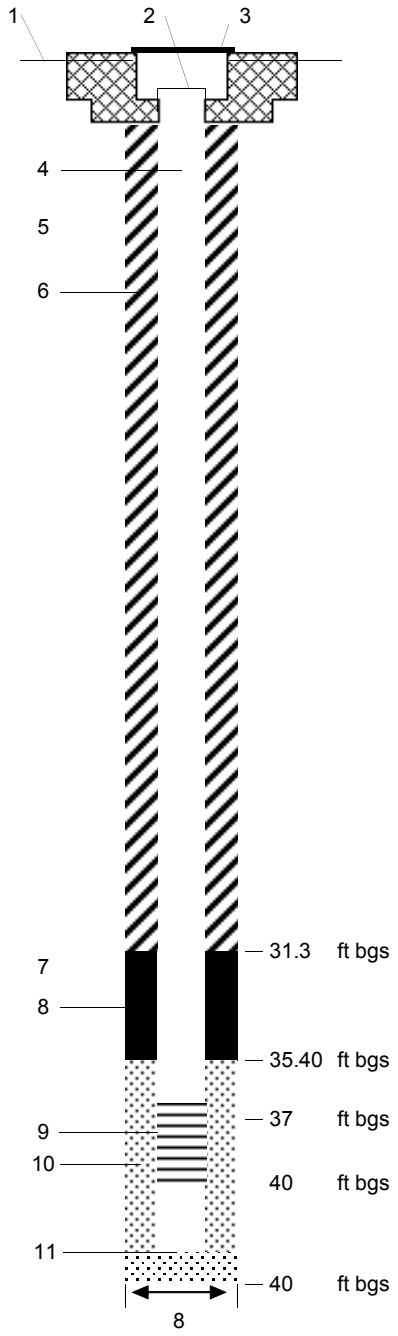
WELL COMPLETION DIAGRAM

PROJECT: LOCATION: Site 1159

ELEVATION: ft NAVD DRILLING CONTRACTOR: Kelly Environmental Drilling

DRILLING METHOD AND EQUIPMENT USED: HS Mobile B-31 Drill Rig mounted on Ram 350 truck

WATER LEVELS: 15 ft START: 05/06/2004 END: 05/11/2004 LOGGER: Ryan Bitely and Scott Dunbar



1- Ground elevation at well: ft NAVD

2- Top of casing elevation: ft NAVD

3- Outer casing elevation: ft NAVD

a)Wellhead protection cover: 8" flush well vault
b) Concrete pad dimensions: 2 x 2 x 0.5 feet

4- Diameter of well casing: 2 in
Well casing type: PVC Schedule 40

5- Outer Diameter of auger: 8 in

6- Grout:
a) Grout mix used: CEMENT BENTONITE SLURRY
b) Method of placement: tremmie
c) Vol. of surface casing grout:
d) Vol. of well casing grout: 8 bags
e) Comments:

7- Type of seal: BENTONITE
a) Quantity used: 1 50lbs Bag
b) Comments:

8- Transistion sand:
a) Quantity used: 50lbs Bag

9-Type of screen: PVC Schedule 40
a) Slot Size: 0.020 in
b) Comments:

10- Type of gravel pack: 20/30 Silica Quartz Filter Sand
a) Quantity used: 2 50lbs Bag

11. Type of end cap: PVC Schedule 40

Development:
a) Method:
b) Duration: hrs
c) PurgeVolume: gal
Comments:

NOTE: NOT TO SCALE

CH2MHILL	PROJECT NUMBER:	BORING ID: **AAS-03** Sheet 1 of 1

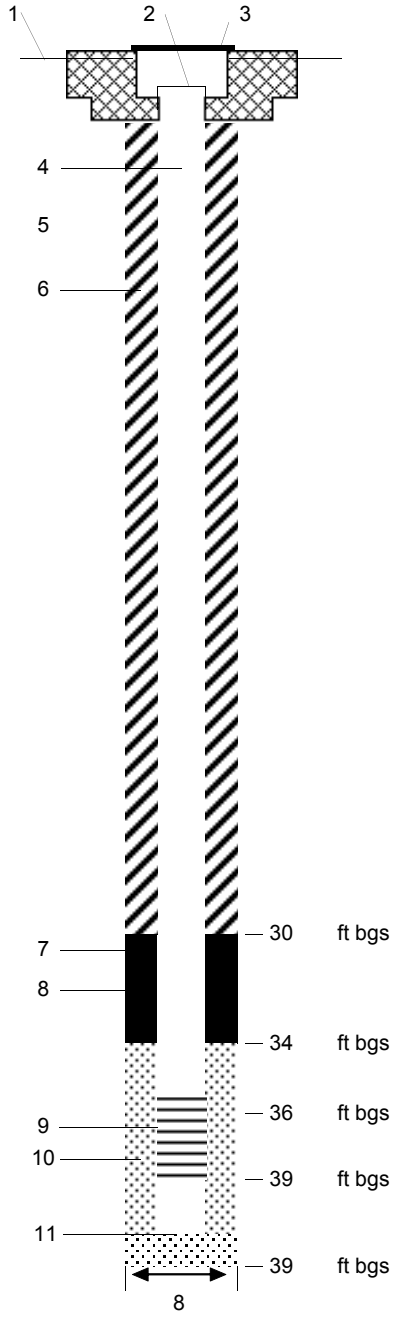
WELL COMPLETION DIAGRAM

PROJECT: LOCATION: Site 1159

ELEVATION: ft NAVD DRILLING CONTRACTOR: Kelly Environmental Drilling

DRILLING METHOD AND EQUIPMENT USED: HS Mobile B-31 Drill rig mounted on Ram 350 truck

WATER LEVELS: 13 ft START: 05/11/2004 END: 05/11/2004 LOGGER: Ryan Bitely and Scott Dunbar



1- Ground elevation at well: ft NAVD

2- Top of casing elevation: ft NAVD

3- Outer casing elevation: ft NAVD

a)Wellhead protection cover: 8" flush well vault
b) Concrete pad dimensions: 2 x 2 x 0.5 feet

4- Diameter of well casing: 2 in
Well casing type: PVC Schedule 40

5- Outer Diameter of auger: 8 in

6- Grout:
a) Grout mix used: CEMENT BENTONITE SLURRY
b) Method of placement: tremmie
c) Vol. of surface casing grout:
d) Vol. of well casing grout: 8 bags
e) Comments:

7- Type of seal: BENTONITE
a) Quantity used: 1 50lbs Bag
b) Comments:

8- Transistion sand:
a) Quantity used: 50lbs Bag

9-Type of screen: PVC Schedule 40
a) Slot Size: 0.020 in
b) Comments:

10- Type of gravel pack: 20/30 Silica Quartz Filter Sand
a) Quantity used: 2 50lbs Bag

11. Type of end cap: PVC Schedule 40

Development:
a) Method:
b) Duration: hrs
c) PurgeVolume: gal
Comments:

NOTE: NOT TO SCALE

CH2MHILL	PROJECT NUMBER:	BORING ID: AAS-04 — Sheet 1 of 1

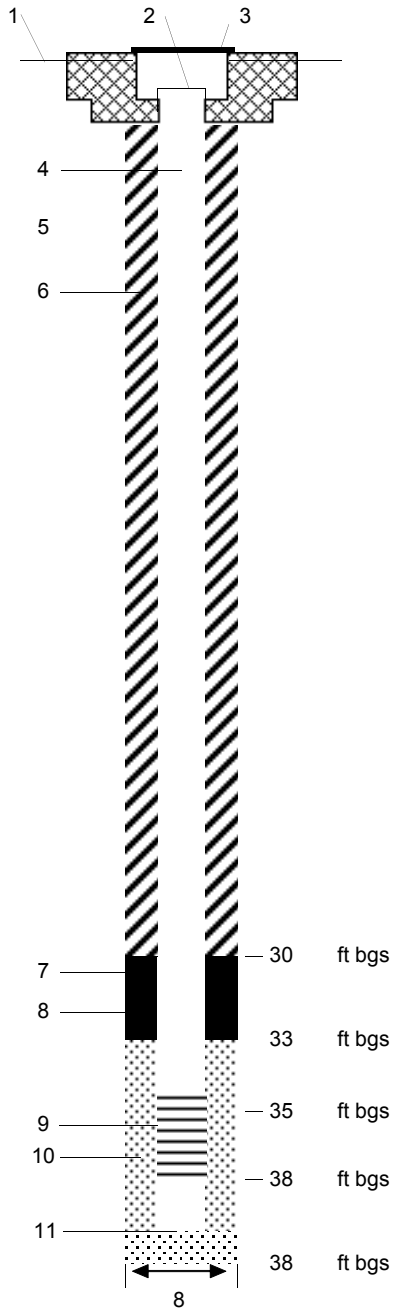
WELL COMPLETION DIAGRAM

PROJECT: LOCATION: Site 1159

ELEVATION: ft NAVD DRILLING CONTRACTOR: Kelly Environmental Drilling

DRILLING METHOD AND EQUIPMENT USED: HS Mobile B-31 Drill Rig mounted on Ram 350 truck

WATER LEVELS: 11 ft START: 05/06/2004 END: 05/11/2004 LOGGER: Ryan Bitely and Scott Dunbar



1- Ground elevation at well: ft NAVD

2- Top of casing elevation: ft NAVD

3- Outer casing elevation: ft NAVD

a)Wellhead protection cover: 8" flush well vault
b) Concrete pad dimensions: 2 x 2 x 0.5 feet

4- Diameter of well casing: 2 in
Well casing type: PVC Schedule 40

5- Outer Diameter of auger: 8 in

6- Grout:
a) Grout mix used: CEMENT BENTONITE SLURRY
b) Method of placement: tremmie
c) Vol. of surface casing grout:
d) Vol. of well casing grout: 8 bags
e) Comments:

7- Type of seal: BENTONITE
a) Quantity used: 1 50lbs Bag
b) Comments:

8- Transistion sand:
a) Quantity used: 50lbs Bag

9-Type of screen: PVC Schedule 40
a) Slot Size: 0.020 in
b) Comments:

10- Type of gravel pack: 20/30 Silica Quartz Filter Sand
a) Quantity used: 2 50lbs Bag

11. Type of end cap: PVC Schedule 40

Development:
a) Method:
b) Duration: hrs
c) PurgeVolume: gal
Comments:

NOTE: NOT TO SCALE

CH2MHILL	PROJECT NUMBER:	BORING ID: **AAS-05** Sheet 1 of 1

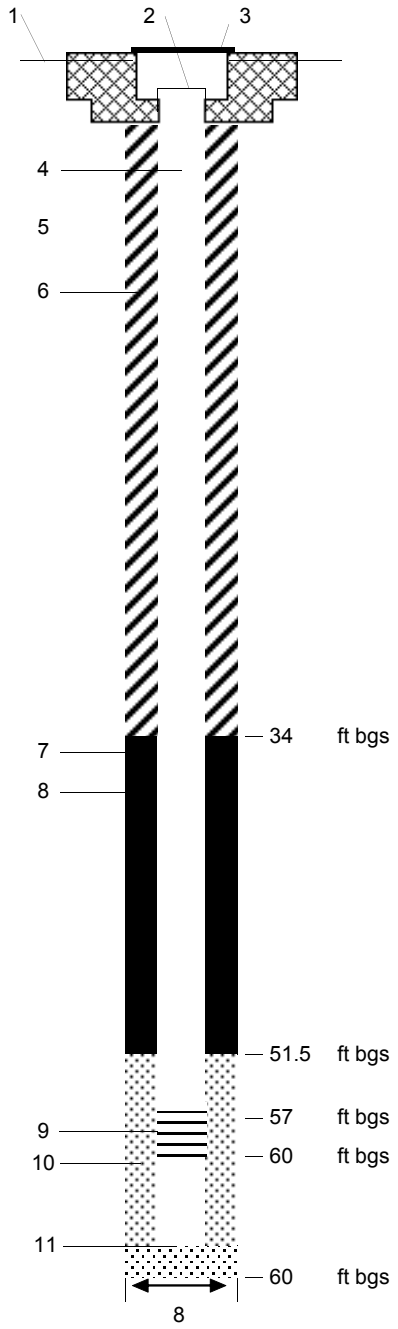
WELL COMPLETION DIAGRAM

PROJECT: LOCATION: Site 1159

ELEVATION: ft NAVD DRILLING CONTRACTOR: Kelly Environmental Drilling

DRILLING METHOD AND EQUIPMENT USED: HS Mobile B-31 Drill Rig mounted on Ram 350 truck

WATER LEVELS: 20 ft START: 05/12/2004 END: 05/12/2004 LOGGER: Ryan Bitely and Scott Dunbar



1- Ground elevation at well: ft NAVD

2- Top of casing elevation: ft NAVD

3- Outer casing elevation: ft NAVD

a)Wellhead protection cover: 8" flush well vault
b) Concrete pad dimensions: 2 x 2 x 0.5 feet

4- Diameter of well casing: 2 in
Well casing type: PVC Schedule 40

5- Outer Diameter of auger: 8 in

6- Grout:
a) Grout mix used: CEMENT BENTONITE SLURRY
b) Method of placement: tremmie
c) Vol. of surface casing grout:
d) Vol. of well casing grout: 4 bags
e) Comments:

7- Type of seal: BENTONITE
a) Quantity used: 3 50lbs Bag
b) Comments:

8- Transistion sand:
a) Quantity used: 50lbs Bag

9-Type of screen: PVC Schedule 40
a) Slot Size: 0.020 in
b) Comments:

10- Type of gravel pack: 20/30 Silica Quartz Filter Sand
a) Quantity used: 2 50lbs Bag

11. Type of end cap: PVC Schedule 40

Development:
a) Method:
b) Duration: hrs
c) PurgeVolume: gal
Comments:

NOTE: NOT TO SCALE

PROJECT NUMBER:	BORING ID:
266690	**MW-70** Sheet 1 of 1

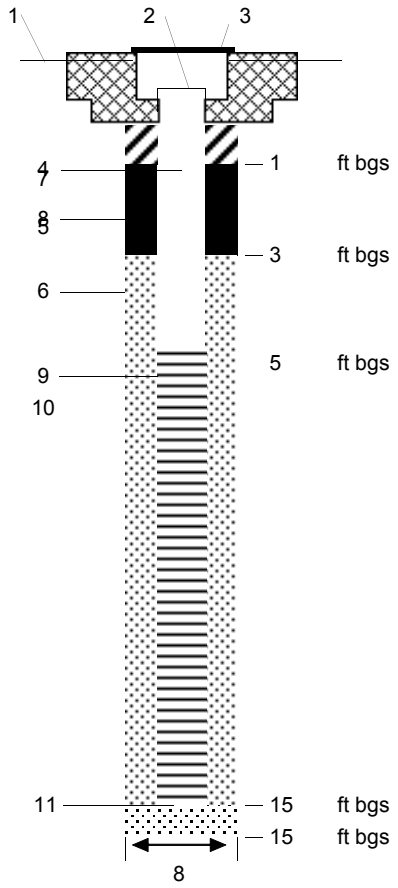
WELL COMPLETION DIAGRAM

PROJECT: NSA Pensacola, Bronson Field LOCATION: Site 1159

ELEVATION: ft NAVD DRILLING CONTRACTOR: Kelly Environmental Drilling

DRILLING METHOD AND EQUIPMENT USED: HS Mobile B-31Drill rig mounted on RAM 350 work truck

WATER LEVELS: 7 ft START: 05/04/2004 END: 05/04/2004 LOGGER: Ryan Bitely and Scott Dunbar



1- Ground elevation at well: ft NAVD

2- Top of casing elevation: ft NAVD

3- Outer casing elevation: ft NAVD

a)Wellhead protection cover: 8" round vault cover

b) Concrete pad dimensions: 2 x 2 x 0.5 feet

4- Diameter of well casing: 2 in

Well casing type: POLYVINYL CHLORIDE (PVC)

5- Outer Diameter of auger: 8 in

6- Grout:

a) Grout mix used: GROUT

b) Method of placement: poured

c) Vol. of surface casing grout:

d) Vol. of well casing grout:

e) Comments:

7- Type of seal: BENTONITE

a) Quantity used: 1 50lbs Bag

b) Comments:

8- Transistion sand:

a) Quantity used: 50lbs Bag

9-Type of screen: POLYVINYL CHLORIDE (PVC)

a) Slot Size: 0.010 in

b) Comments:

10- Type of gravel pack: 20/30 Silica Quartz Filter Sand

a) Quantity used: 9 50lbs Bag

11. Type of end cap: POLYVINYL CHLORIDE (PVC)

Development:

a) Method: Pump and Surge

b) Duration: 1.5 hrs

c) PurgeVolume: 220 gal

Comments:

NOTE: NOT TO SCALE

CH2MHILL	PROJECT NUMBER:	BORING ID: **MW-71** Sheet 1 of 1

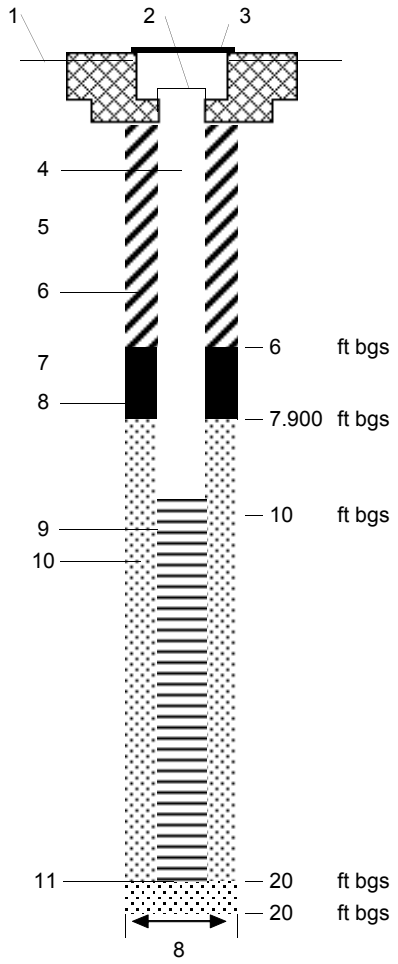
WELL COMPLETION DIAGRAM

PROJECT: LOCATION: Site 1159

ELEVATION: ft NAVD DRILLING CONTRACTOR: Kelly Environmental Drilling

DRILLING METHOD AND EQUIPMENT USED: HS Mobile -31 Drill Rig Mounted on Ram 350 truck base

WATER LEVELS: 12 ft START: 05/04/2004 END: 05/05/2004 LOGGER: Ryan Bitely and Scott Dunbar



1- Ground elevation at well: ft NAVD

2- Top of casing elevation: ft NAVD

3- Outer casing elevation: ft NAVD

a)Wellhead protection cover: 8" flush well vault
b) Concrete pad dimensions: 2 x 2 x 0.5 feet

4- Diameter of well casing: 2 in
Well casing type: POLYVINYL CHLORIDE (PVC)

5- Outer Diameter of auger: 8 in

6- Grout:
a) Grout mix used: CEMENT BENTONITE SLURRY
b) Method of placement: tremmie
c) Vol. of surface casing grout:
d) Vol. of well casing grout:
e) Comments:

7- Type of seal: BENTONITE
a) Quantity used: 1 50lbs Bag
b) Comments:

8- Transistion sand:
a) Quantity used: 50lbs Bag

9-Type of screen: POLYVINYL CHLORIDE (PVC)
a) Slot Size: 0.010 in
b) Comments:

10- Type of gravel pack: 20/30 Silica Quartz Filter Sand
a) Quantity used: 6 50lbs Bag

11. Type of end cap: POLYVINYL CHLORIDE (PVC)

Development:
a) Method:
b) Duration: hrs
c) PurgeVolume: gal
Comments:

NOTE: NOT TO SCALE

CH2MHILL	PROJECT NUMBER:	BORING ID: MW-72 Sheet 1 of 1

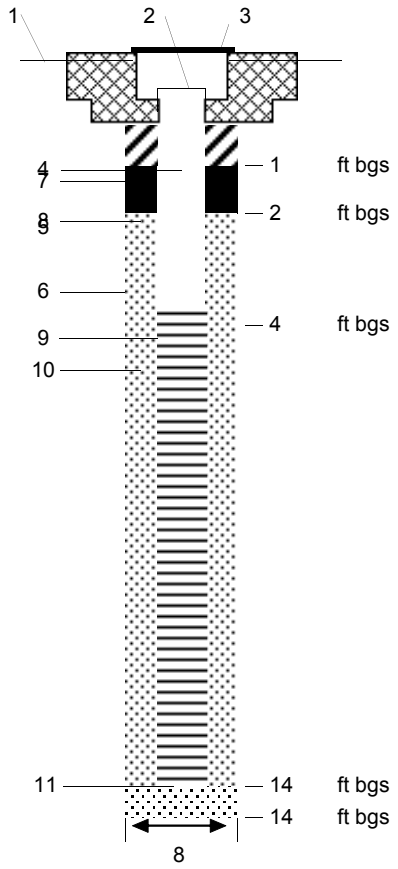
WELL COMPLETION DIAGRAM

PROJECT: LOCATION: Site 1159

ELEVATION: ft NAVD DRILLING CONTRACTOR: Kelly Environmental Drilling

DRILLING METHOD AND EQUIPMENT USED: HS Mobile B-31 Drill Rig Mounted on Ram 350 truck bed

WATER LEVELS: 6.5 ft START: 05/05/2004 END: 05/05/2004 LOGGER: Ryan Bitely and Scott Dunbar



1- Ground elevation at well: ft NAVD

2- Top of casing elevation: ft NAVD

3- Outer casing elevation: ft NAVD

a)Wellhead protection cover: 8" flush well vault

b) Concrete pad dimensions: 2 x 2 x 0.5 feet

4- Diameter of well casing: 2 in

Well casing type: PVC Schedule 40

5- Outer Diameter of auger: 8 in

6- Grout:

a) Grout mix used: CEMENT BENTONITE SLURRY

b) Method of placement: poured

c) Vol. of surface casing grout:

d) Vol. of well casing grout:

e) Comments:

7- Type of seal: BENTONITE

a) Quantity used: 0.5 50lbs Bag

b) Comments:

8- Transistion sand:

a) Quantity used: 50lbs Bag

9-Type of screen: POLYVINYL CHLORIDE (PVC)

a) Slot Size: 0.010 in

b) Comments:

10- Type of gravel pack: 20/30 Silica Quartz Filter Sand

a) Quantity used: 5 50lbs Bag

11. Type of end cap: PVC Schedule 40

Development:

a) Method:

b) Duration: hrs

c) PurgeVolume: gal

Comments:

NOTE: NOT TO SCALE

CH2MHILL	PROJECT NUMBER:	BORING ID: MW-73 — Sheet 1 of 1

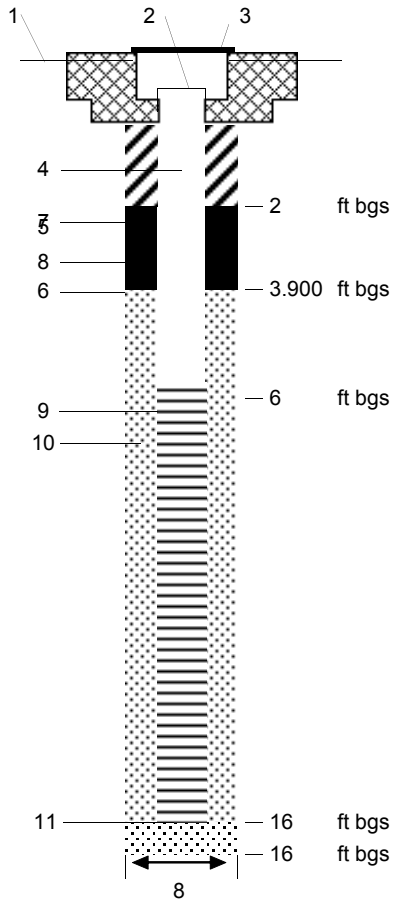
WELL COMPLETION DIAGRAM

PROJECT: LOCATION: Site 1159

ELEVATION: ft NAVD DRILLING CONTRACTOR: Kelly Environmental Drilling

DRILLING METHOD AND EQUIPMENT USED: HS Mobile B-31 Drill Rig mounted on Ram 350 truck

WATER LEVELS: 8 ft START: 05/06/2004 END: 05/06/2004 LOGGER: Ryan Bitely and Scott Dunbar



1- Ground elevation at well: ft NAVD

2- Top of casing elevation: ft NAVD

3- Outer casing elevation: ft NAVD

a)Wellhead protection cover: 8" flush well vault

b) Concrete pad dimensions: 2 x 2 x 0.5 feet

4- Diameter of well casing: 2 in

Well casing type: PVC Schedule 40

5- Outer Diameter of auger: 8 in

6- Grout:

a) Grout mix used: CEMENT BENTONITE SLURRY

b) Method of placement: poured

c) Vol. of surface casing grout:

d) Vol. of well casing grout:

e) Comments:

7- Type of seal: BENTONITE

a) Quantity used: 1 50lbs Bag

b) Comments:

8- Transistion sand:

a) Quantity used: 50lbs Bag

9-Type of screen: PVC Schedule 40

a) Slot Size: 0.010 in

b) Comments:

10- Type of gravel pack: 20/30 Silica Quartz Filter Sand

a) Quantity used: 6 50lbs Bag

11. Type of end cap: PVC Schedule 40

Development:

a) Method:

b) Duration: hrs

c) PurgeVolume: gal

Comments:

NOTE: NOT TO SCALE

CH2MHILL	PROJECT NUMBER:	BORING ID: **MW-74** Sheet 1 of 1

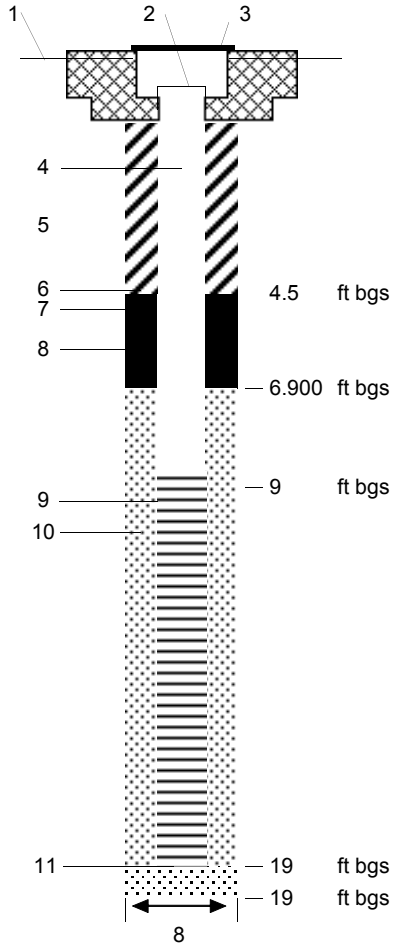
WELL COMPLETION DIAGRAM

PROJECT: LOCATION: Site 1159

ELEVATION: ft NAVD DRILLING CONTRACTOR: Kelly Environmental Drilling

DRILLING METHOD AND EQUIPMENT USED: HS Mobile B-31 Drill Rig mounted on Ram 350 truck bed

WATER LEVELS: 11 ft START: 05/05/2004 END: 05/05/2004 LOGGER: Ryan Bitely and Scott Dunbar



1- Ground elevation at well: ft NAVD

2- Top of casing elevation: ft NAVD

3- Outer casing elevation: ft NAVD

a)Wellhead protection cover: 8" flush well vault

b) Concrete pad dimensions: 2 x 2 x 0.5 feet

4- Diameter of well casing: 2 in

Well casing type: 20/30 Silica Quartz Filter Sand

5- Outer Diameter of auger: 8 in

6- Grout:

a) Grout mix used: CEMENT BENTONITE SLURRY

b) Method of placement: poured

c) Vol. of surface casing grout:

d) Vol. of well casing grout:

e) Comments:

7- Type of seal: BENTONITE

a) Quantity used: 1 50lbs Bag

b) Comments:

8- Transistion sand:

a) Quantity used: 50lbs Bag

9-Type of screen: PVC Schedule 40

a) Slot Size: 0.010 in

b) Comments:

10- Type of gravel pack: 20/30 Silica Quartz Filter Sand

a) Quantity used: 6 50lbs Bag

11. Type of end cap: PVC Schedule 40

Development:

a) Method:

b) Duration: hrs

c) PurgeVolume: gal

Comments:

NOTE: NOT TO SCALE

CH2MHILL	PROJECT NUMBER:	BORING ID: **MW-75** Sheet 1 of 1

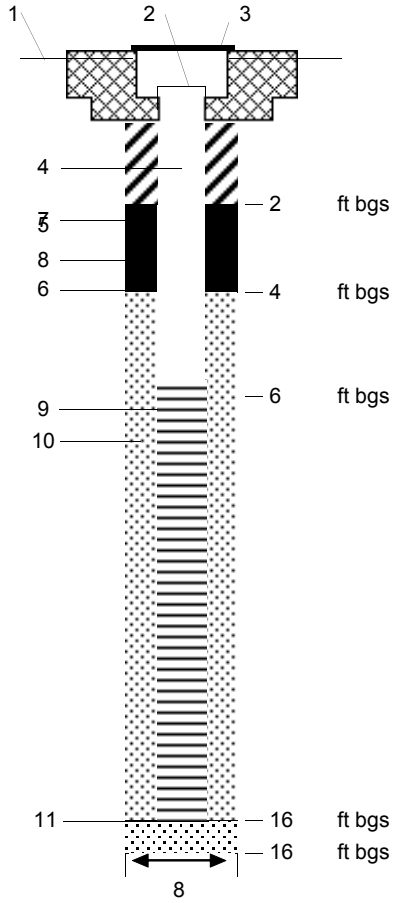
WELL COMPLETION DIAGRAM

PROJECT: LOCATION: Site 1159

ELEVATION: ft NAVD DRILLING CONTRACTOR: Kelly Environmental Drilling

DRILLING METHOD AND EQUIPMENT USED: HS Mobile B-31 Drill Rig Mounted on Ram 350 truck bed

WATER LEVELS: 8 ft START: 05/05/2004 END: 05/05/2004 LOGGER: Ryan Bitely and Scott Dunbar



1- Ground elevation at well: ft NAVD

2- Top of casing elevation: ft NAVD

3- Outer casing elevation: ft NAVD

a)Wellhead protection cover: 8" flsh well vault

b) Concrete pad dimensions: 2 x 2 x 0.5 feet

4- Diameter of well casing: 2 in

Well casing type: PVC Schedule 40

5- Outer Diameter of auger: 8 in

6- Grout:

a) Grout mix used: CEMENT BENTONITE SLURRY

b) Method of placement: poured

c) Vol. of surface casing grout:

d) Vol. of well casing grout:

e) Comments:

7- Type of seal: BENTONITE

a) Quantity used: 1 50lbs Bag

b) Comments:

8- Transistion sand:

a) Quantity used: 50lbs Bag

9-Type of screen: PVC Schedule 40

a) Slot Size: 0.010 in

b) Comments:

10- Type of gravel pack: 20/30 Silica Quartz Filter Sand

a) Quantity used: 7 50lbs Bag

11. Type of end cap: PVC Schedule 40

Development:

a) Method:

b) Duration: hrs

c) PurgeVolume: gal

Comments:

NOTE: NOT TO SCALE

CH2MHILL	PROJECT NUMBER:	BORING ID: SVE-01 — Sheet 1 of 1

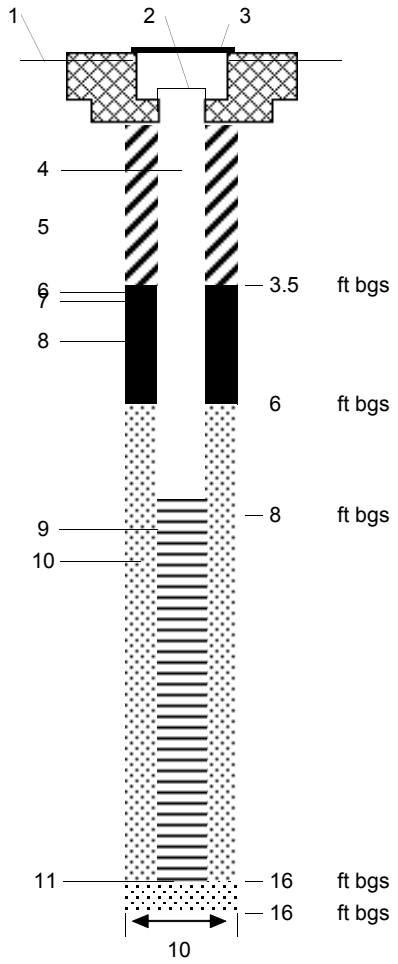
WELL COMPLETION DIAGRAM

PROJECT: LOCATION: Site 1159

ELEVATION: ft NAVD DRILLING CONTRACTOR: Kelly Environmental Drilling

DRILLING METHOD AND EQUIPMENT USED: HS Mobile B-31 Drill Rig mounted on Ram 350 truck

WATER LEVELS: 13 ft START: 05/10/2004 END: 05/10/2004 LOGGER: Ryan Bitely and Scott Dunbar



1- Ground elevation at well: ft NAVD

2- Top of casing elevation: ft NAVD

3- Outer casing elevation: ft NAVD

a)Wellhead protection cover: 8" flush well vault

b) Concrete pad dimensions: 2 x 2 x 0.5 feet

4- Diameter of well casing: 4 in

Well casing type: PVC Schedule 40

5- Outer Diameter of auger: 10 in

6- Grout:

a) Grout mix used: CEMENT BENTONITE SLURRY

b) Method of placement: poured

c) Vol. of surface casing grout:

d) Vol. of well casing grout: 2 bags

e) Comments:

7- Type of seal: BENTONITE

a) Quantity used: 2 50lbs Bag

b) Comments:

8- Transistion sand:

a) Quantity used: 50lbs Bag

9-Type of screen: PVC Schedule 40

a) Slot Size: 0.010 in

b) Comments:

10- Type of gravel pack: 20/30 Silica Quartz Filter Sand

a) Quantity used: 8 50lbs Bag

11. Type of end cap: PVC Schedule 40

Development:

a) Method:

b) Duration: hrs

c) PurgeVolume: gal

Comments:

NOTE: NOT TO SCALE

CH2MHILL	PROJECT NUMBER:	BORING ID: **SVE-02** Sheet 1 of 1

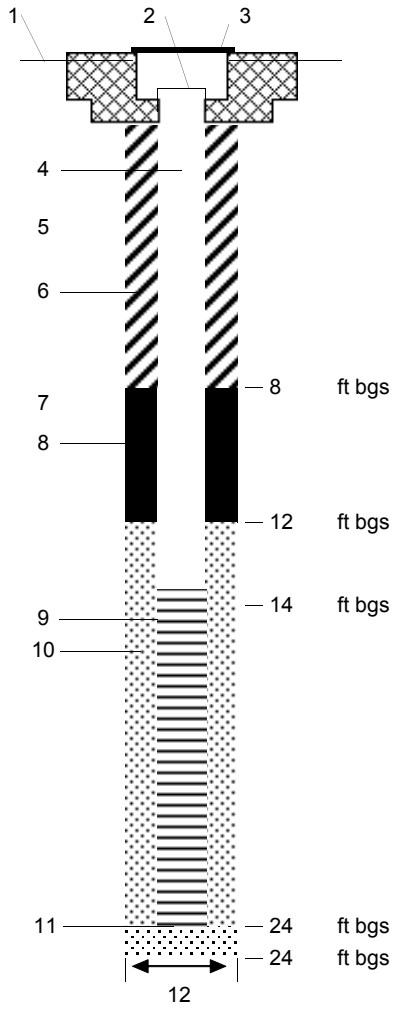
WELL COMPLETION DIAGRAM

PROJECT: LOCATION: Site 1159

ELEVATION: ft NAVD DRILLING CONTRACTOR: Kelly Environmental Drilling

DRILLING METHOD AND EQUIPMENT USED: HS Mobile B-31 Drill Rig mounte on Ram 350 truck base

WATER LEVELS: 19 ft START: 05/10/2004 END: 05/10/2004 LOGGER: Ryan Bitely and Scott Dunbar



1- Ground elevation at well: ft NAVD

2- Top of casing elevation: ft NAVD

3- Outer casing elevation: ft NAVD

a)Wellhead protection cover: 8" flush well vault
b) Concrete pad dimensions: 2 x 2 x 0.5 feet

4- Diameter of well casing: 4 in
Well casing type: PVC Schedule 40

5- Outer Diameter of auger: 12 in

6- Grout:
a) Grout mix used: CEMENT BENTONITE SLURRY
b) Method of placement: tremmie
c) Vol. of surface casing grout:
d) Vol. of well casing grout: 4 bags
e) Comments:

7- Type of seal: BENTONITE
a) Quantity used: 1 50lbs Bag
b) Comments:

8- Transistion sand:
a) Quantity used: 50lbs Bag

9-Type of screen: PVC Schedule 40
a) Slot Size: 0.010 in
b) Comments:

10- Type of gravel pack: 20/30 Silica Quartz Filter Sand
a) Quantity used: 8 50lbs Bag

11. Type of end cap: PVC Schedule 40

Development:
a) Method:
b) Duration: hrs
c) PurgeVolume: gal
Comments:

NOTE: NOT TO SCALE

	PROJECT NUMBER	BORING ID: AAS-05	Sheet 1 of 5

CH2MHILL

SOIL BORING LOG

PROJECT: LOCATION: Site 1159

ELEVATION: ft NAVD DRILLING CONTRACTOR: Kelly Environmental Drilling

DRILLING METHOD AND EQUIPMENT USED: Hollow Stem Auger Mobile B-31 Drill Rig mounted on Ram 350 truck

WATER LEVELS: 20 ft START: 05/12/2004 END: 05/12/2004 LOGGER: Ryan Bitely and Scott Dunbar

DEPTH BGS (ft)	INTERVAL (ft)	RECOVERY (%)	TYPE-# (SS=Split Spoon ST=ShelbyTube)	STANDARD PENETRATION TEST RESULTS (no)	CORE DESCRIPTION: SOIL NAME (USCS GROUP SYMBOL), COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0	* 0-10		H		SDSL brown to light tan slightly silty fine to med sand (SM) , Sand Size: medium, Color: brown to light tan, Consistency: loose, Moisture:dry, quartz	no odor
1				------		
2				------		
3				------		
4				------		
5				------		
6				------		
7				------		
8				------		
9				------		
10	* 10-12.5		H		SDMD white fine to medium sand (SW) , Sand Size: medium, Color: white, Consistency: dense, Moisture:moist, quartz	no odor
11				------		
12				------		
13				------		
14				------		

* denotes beginning of logging interval

	PROJECT NUMBER	BORING ID: AAS-05	Sheet 2 of 5

SOIL BORING LOG

PROJECT: LOCATION: Site 1159

ELEVATION: ft NAVD DRILLING CONTRACTOR: Kelly Environmental Drilling

DRILLING METHOD AND EQUIPMENT USED: Hollow Stem Auger Mobile B-31 Drill Rig mounted on Ram 350 truck

WATER LEVELS: 20 ft START: 05/12/2004 END: 05/12/2004 LOGGER: Ryan Bitely and Scott Dunbar

DEPTH BGS (ft)	INTERVAL (ft)	RECOVERY (%)	TYPE-# (SS=Split Spoon ST=ShelbyTube)	STANDARD PENETRATION TEST RESULTS no	CORE DESCRIPTION: SOIL NAME (USCS GROUP SYMBOL), COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
15				------		
16				------		
17				------		
18	* 18-20		SS		SDSL slight stained slight clay silty fine to med sand (SM) , Sand Size: medium, Color: light gray to white, Consistency: dense, Moisture:moist, quartz and clay	very strong fuel odor OVA: unfiltered =10000 filtered =39.5 corrected=9960.5
19				------		
20	* 20-35		H		SDSL white silty fine sand (SM) , Sand Size: fine, Color: white, Consistency: dense, Moisture:wet, quartz	very strong fuel odor diminishing with depth
21				------		
22				------		
23				------		
24				------		
25				------		
26				------		
27				------		
28				------		
29				------		

* denotes beginning of logging interval

	PROJECT NUMBER	BORING ID: AAS-05	Sheet 3 of 5

SOIL BORING LOG

PROJECT: LOCATION: Site 1159

ELEVATION: ft NAVD DRILLING CONTRACTOR: Kelly Environmental Drilling

DRILLING METHOD AND EQUIPMENT USED: Hollow Stem Auger Mobile B-31 Drill Rig mounted on Ram 350 truck

WATER LEVELS: 20 ft START: 05/12/2004 END: 05/12/2004 LOGGER: Ryan Bitely and Scott Dunbar

DEPTH BGS (ft)	INTERVAL (ft)	RECOVERY (%)	TYPE-# (SS=Split Spoon, ST=ShelbyTube)	STANDARD PENETRATION TEST RESULTS (no)	CORE DESCRIPTION: SOIL NAME (USCS GROUP SYMBOL), COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
30				------		
31				------		
32				------		
33				------		
34				------		
35	* 35-60		H		SDSL tan silty fine sand (SM) , Sand Size: fine, Color: tan, Consistency: dense, Moisture:wet, quartz	markedly stronger odor from 35' to 40' bls; no odor beyond 40' bls
36				------		
37				------		
38				------		
39				------		
40				------		
41				------		
42				------		
43				------		
44				------		

* denotes beginning of logging interval

	PROJECT NUMBER	BORING ID: AAS-05	Sheet 4 of 5

SOIL BORING LOG

PROJECT: LOCATION: Site 1159

ELEVATION: ft NAVD DRILLING CONTRACTOR: Kelly Environmental Drilling

DRILLING METHOD AND EQUIPMENT USED: Hollow Stem Auger Mobile B-31 Drill Rig mounted on Ram 350 truck

WATER LEVELS: 20 ft START: 05/12/2004 END: 05/12/2004 LOGGER: Ryan Bitely and Scott Dunbar

DEPTH BGS (ft)	INTERVAL (ft)	RECOVERY (%)	TYPE-# SS=Split Spoon ST=ShelbyTube	STANDARD PENETRATION TEST RESULTS no	CORE DESCRIPTION: SOIL NAME (USCS GROUP SYMBOL), COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
45				------		
46				------		
47				------		
48				------		
49				------		
50				------		
51				------		
52				------		
53				------		
54				------		
55				------		
56				------		
57				------		
58				------		
59				------		

* denotes beginning of logging interval

	PROJECT NUMBER	BORING ID: AAS-05	Sheet 5 of 5

CH2MHILL

SOIL BORING LOG

PROJECT: LOCATION: Site 1159

ELEVATION: ft NAVD DRILLING CONTRACTOR: Kelly Environmental Drilling

DRILLING METHOD AND EQUIPMENT USED: Hollow Stem Auger Mobile B-31 Drill Rig mounted on Ram 350 truck

WATER LEVELS: 20 ft START: 05/12/2004 END: 05/12/2004 LOGGER: Ryan Bitely and Scott Dunbar

DEPTH BGS (ft)	INTERVAL (ft)	RECOVERY (%)	TYPE-# (SS=Split Spoon, ST=ShelbyTube)	STANDARD PENETRATION TEST RESULTS (no)	CORE DESCRIPTION: SOIL NAME (USCS GROUP SYMBOL), COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
60	* 60-60					End of boring

* denotes beginning of logging interval

CH2MHILL	PROJECT NUMBER	BORING ID: AAS-01	Sheet 1 of 3

SOIL BORING LOG

PROJECT: LOCATION: Site 1159

ELEVATION: ft NAVD DRILLING CONTRACTOR: Kelly Environmental Drilling

DRILLING METHOD AND EQUIPMENT USED: Hollow Stem Auger Mobile B-31 Drill Rig mounted on Ram 350 truck

WATER LEVELS: 14 ft START: 05/12/2004 END: 05/12/2004 LOGGER: Ryan Bitely and Scott Dunbar

DEPTH BGS (ft)	INTERVAL (ft)	RECOVERY (%)	TYPE-# SS=Split Spoon ST=ShelbyTube	STANDARD PENETRATION TEST RESULTS no	CORE DESCRIPTION: SOIL NAME (USCS GROUP SYMBOL), COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0	* 0-7		H		SDSL light tan slightly silty medium sand (SM) , Sand Size: medium, Color: light tan, Consistency: loose, Moisture:dry, quartz	no odor
1				------		
2				------		
3				------		
4				------		
5				------		
6				------		
7	* 7-9		SS		SDCL slightly clayey silty fine to med sand (SM) , Sand Size: medium, Color: reddish brown, Consistency: dense, Moisture:moist, quartz and clay	no odor
8				------		
9	* 9-10		H		SDSL reddish brown slightly clayey silty sand (SM) , Sand Size: medium, Color: reddish brown, Consistency: firm, Moisture:moist, quartz and clay	odor beginning at 10' bls based from auger cuttings
10	10-11		H	------	CLAY strong clay feature based from auger cuttings, Color: tan to reddish brown, Consistency: firm, Moisture:moist, clay	strong fuel odor
11	* 11-13		SS		SDSL slight clayey silty fine to med sand w/ clay lamin (SM) , Sand Size: medium, Color: tan to reddish brown, Consistency: firm, Moisture:moist, quartz and clay	very strong fuel odor OVA: unfiltered =10000 filtered =225 corrected=9775
12				------		
13	* 13-14		H		SDSL multicolored clayey silty sand (SM) , Sand Size: medium, Color: multicolored, Consistency: dense, Moisture:moist, quartz and clay	strong fuel odor
14	* 14-39		H		SDSL light tan to white silty fine sand (SM) , Sand Size: fine, Color: light tan to white, Consistency: dense, Moisture:wet, quartz	odor diminishing with depth

* denotes beginning of logging interval

	PROJECT NUMBER	BORING ID: AAS-01	Sheet 2 of 3

SOIL BORING LOG

PROJECT: LOCATION: Site 1159

ELEVATION: ft NAVD DRILLING CONTRACTOR: Kelly Environmental Drilling

DRILLING METHOD AND EQUIPMENT USED: Hollow Stem Auger Mobile B-31 Drill Rig mounted on Ram 350 truck

WATER LEVELS: 14 ft START: 05/12/2004 END: 05/12/2004 LOGGER: Ryan Bitely and Scott Dunbar

DEPTH BGS (ft)	INTERVAL (ft)	RECOVERY (%)	TYPE-# SS=Split Spoon ST=ShelbyTube	STANDARD PENETRATION TEST RESULTS no	CORE DESCRIPTION: SOIL NAME (USCS GROUP SYMBOL), COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
15				------		
16				------		
17				------		
18				------		
19				------		
20				------		
21				------		
22				------		
23				------		
24				------		
25				------		
26				------		
27				------		
28				------		
29				------		

* denotes beginning of logging interval

	PROJECT NUMBER	BORING ID: AAS-01	Sheet 3 of 3

SOIL BORING LOG

PROJECT: LOCATION: Site 1159

ELEVATION: ft NAVD DRILLING CONTRACTOR: Kelly Environmental Drilling

DRILLING METHOD AND EQUIPMENT USED: Hollow Stem Auger Mobile B-31 Drill Rig mounted on Ram 350 truck

WATER LEVELS: 14 ft START: 05/12/2004 END: 05/12/2004 LOGGER: Ryan Bitely and Scott Dunbar

DEPTH BGS (ft)	INTERVAL (ft)	RECOVERY (%)	TYPE-# SS=Split Spoon ST=ShelbyTube	STANDARD PENETRATION TEST RESULTS no	CORE DESCRIPTION: SOIL NAME (USCS GROUP SYMBOL), COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
30				------		
31				------		
32				------		
33				------		
34				------		
35				------		
36				------		
37				------		
38				------		
39	* 39-39					End of boring

* denotes beginning of logging interval

CH2MHILL	PROJECT NUMBER	BORING ID: AAS-02	Sheet 1 of 2

SOIL BORING LOG

PROJECT: LOCATION: Site 1159

ELEVATION: ft NAVD DRILLING CONTRACTOR: Kelly Environmental Drilling

DRILLING METHOD AND EQUIPMENT USED: Hollow Stem Auger Mobile B-31 Drill Rig mounted on Ram 350 truck

WATER LEVELS: 15 ft START: 05/06/2004 END: 05/11/2004 LOGGER: Ryan Bitely and Scott Dunbar

DEPTH BGS (ft)	INTERVAL (ft)	RECOVERY (%)	TYPE-# (SS=Split Spoon ST=ShelbyTube)	STANDARD PENETRATION TEST RESULTS no	CORE DESCRIPTION: SOIL NAME (USCS GROUP SYMBOL), COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0	* 0-5		HA		SDSL light tan slightly silty medium sand (SM) , Sand Size: medium, Color: light tan, Consistency: loose, Moisture:dry, quartz	no odor
1				------		
2				------		
3				------		
4				------		
5	* 5-7		SS		SDMD light tan fine to medium sand (SW) , Sand Size: medium, Color: light tan, Consistency: loose, Moisture:dry, quartz	no odor OVA: unfiltered =0 filtered =0 corrected=0
6				------		
7	* 7-8.5		SS		SDMD light tan fine to medium sand (SW) , Sand Size: medium, Color: light tan, Consistency: loose, Moisture:dry, quartz	no odor OVA: unfiltered =0 filtered =0 corrected=0
8				------		
9	* 9-11		SS		SLCL multicolored fine sandy silt w/ 3" clay @ 11' bls (ML) , Sand Size: fine, Color: multicolored, Consistency: dense, Moisture:wet, quartz and clays	no odor OVA: unfiltered =3.2 filtered =0 corrected=3.2
10				------		
11	* 11-11.5		SS		SDSL reddish orange fine silty sand (SM) , Sand Size: fine, Color: reddish orange, Consistency: dense, Moisture:wet, quartz	strong fuel odor OVA: unfiltered =10000 filtered =0 corrected=10000
12	12-13		SS	------	SDMD light yellow to white medium to course sands (SW) , Sand Size: medium, Color: light yellow to white, Consistency: loose, Moisture:dry, quartz	strong fuel odor OVA: unfiltered =10000 filtered =0 corrected=10000
13	* 13-15		SS		SDFN white very fine to fine sands (SW) , Sand Size: fine, Color: white, Consistency: firm, Moisture:moist, quartz	strong fuel odor OVA: unfiltered =10000 filtered =1.2 corrected=9998.8 Sample: 071-1159-AAS-02-S-13-15'
14				------		

* denotes beginning of logging interval

CH2MHILL	PROJECT NUMBER	BORING ID: AAS-02	Sheet 2 of 2

SOIL BORING LOG

PROJECT: LOCATION: Site 1159

ELEVATION: ft NAVD DRILLING CONTRACTOR: Kelly Environmental Drilling

DRILLING METHOD AND EQUIPMENT USED: Hollow Stem Auger Mobile B-31 Drill Rig mounted on Ram 350 truck

WATER LEVELS: 15 ft START: 05/06/2004 END: 05/11/2004 LOGGER: Ryan Bitely and Scott Dunbar

DEPTH BGS (ft)	INTERVAL (ft)	RECOVERY (%)	TYPE-# (SS=Split Spoon ST=ShelbyTube)	STANDARD PENETRATION TEST RESULTS no	CORE DESCRIPTION: SOIL NAME (USCS GROUP SYMBOL), COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
15	* 15-17		SS		SD white fine to course sand grading intermittently (SW) , Sand Size: medium, Color: white, Consistency: dense, Moisture:wet, quartz	strong fuel odor OVA: unfiltered =10000 filtered =0 corrected=10000
16				------		
17	* 17-19		SS		SDMD white fine to medium sand (SW) , Sand Size: medium, Color: white, Consistency: dense, Moisture:wet, quartz	very strong fuel odor OVA: unfiltered =7248 filtered =0 corrected=7248
18				------		
19				------		
20				------		
21				------		
22				------		
23				------		
24	* 24-26		SS		SDMD white very fine to medium sand (SM) , Sand Size: medium, Color: white, Consistency: dense, Moisture:wet, quartz	strong fuel odor OVA: unfiltered =1500 filtered =25 corrected=1475
25				------		
26	* 26-26					End of boring

* denotes beginning of logging interval

CH2MHILL	PROJECT NUMBER	BORING ID: AAS-03	Sheet 1 of 3

SOIL BORING LOG

PROJECT: LOCATION: Site 1159

ELEVATION: ft NAVD DRILLING CONTRACTOR: Kelly Environmental Drilling

DRILLING METHOD AND EQUIPMENT USED: Hollow Stem Auger Mobile B-31 Drill rig mounted on Ram 350 truck

WATER LEVELS: 13 ft START: 05/11/2004 END: 05/11/2004 LOGGER: Ryan Bitely and Scott Dunbar

DEPTH BGS (ft)	INTERVAL (ft)	RECOVERY (%)	TYPE-# SS=Split Spoon ST=ShelbyTube	STANDARD PENETRATION TEST RESULTS no	CORE DESCRIPTION: SOIL NAME (USCS GROUP SYMBOL), COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0	* 0-8		H		SDSL light tan slightly silty sand (SM) , Sand Size: medium, Color: light tan, Consistency: loose, Moisture:dry, quartz	no odor
1				------		
2				------		
3				------		
4				------		
5				------		
6				------		
7				------		
8	* 8-13		H		SDCL reddish brown clayey silty sand (SC) , Sand Size: medium, Color: reddish brown, Consistency: firm, Moisture:moist, quartz and clay	strong fuel odor starting at 10' bls; wet at 13' bls
9				------		
10				------		
11				------		
12				------		
13	* 13-39		H		SDSL light tan to white silty sand, Sand Size: medium, Color: light tan to white, Consistency: dense, Moisture:wet, quartz	strong fuel odor from 13' bls diminishing with depth to no odor beyond 25' bls
14				------		

* denotes beginning of logging interval

	PROJECT NUMBER	BORING ID: AAS-03	Sheet 2 of 3

CH2MHILL

SOIL BORING LOG

PROJECT: LOCATION: Site 1159

ELEVATION: ft NAVD DRILLING CONTRACTOR: Kelly Environmental Drilling

DRILLING METHOD AND EQUIPMENT USED: Hollow Stem Auger Mobile B-31 Drill rig mounted on Ram 350 truck

WATER LEVELS: 13 ft START: 05/11/2004 END: 05/11/2004 LOGGER: Ryan Bitely and Scott Dunbar

DEPTH BGS (ft)	INTERVAL (ft)	RECOVERY (%)	TYPE-# SS=Split Spoon ST=ShelbyTube	STANDARD PENETRATION TEST RESULTS no	CORE DESCRIPTION: SOIL NAME (USCS GROUP SYMBOL), COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
15				------		
16				------		
17				------		
18				------		
19				------		
20				------		
21				------		
22				------		
23				------		
24				------		
25				------		
26				------		
27				------		
28				------		
29				------		

* denotes beginning of logging interval

	PROJECT NUMBER	BORING ID: AAS-03	Sheet 3 of 3

SOIL BORING LOG

PROJECT: LOCATION: Site 1159

ELEVATION: ft NAVD DRILLING CONTRACTOR: Kelly Environmental Drilling

DRILLING METHOD AND EQUIPMENT USED: Hollow Stem Auger Mobile B-31 Drill rig mounted on Ram 350 truck

WATER LEVELS: 13 ft START: 05/11/2004 END: 05/11/2004 LOGGER: Ryan Bitely and Scott Dunbar

DEPTH BGS (ft)	INTERVAL (ft)	RECOVERY (%)	TYPE-# SS=Split Spoon ST=ShelbyTube	STANDARD PENETRATION TEST RESULTS no	CORE DESCRIPTION: SOIL NAME (USCS GROUP SYMBOL), COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
30				------		
31				------		
32				------		
33				------		
34				------		
35				------		
36				------		
37				------		
38				------		
39	* 39-39					End of boring

* denotes beginning of logging interval

CH2MHILL	PROJECT NUMBER	BORING ID: AAS-04	Sheet 1 of 1

SOIL BORING LOG

PROJECT: LOCATION: Site 1159

ELEVATION: ft NAVD DRILLING CONTRACTOR: Kelly Environmental Drilling

DRILLING METHOD AND EQUIPMENT USED: Hollow Stem Auger Mobile B-31 Drill Rig mounted on Ram 350 truck

WATER LEVELS: 11 ft START: 05/06/2004 END: 05/11/2004 LOGGER: Ryan Bitely and Scott Dunbar

DEPTH BGS (ft)	INTERVAL (ft)	RECOVERY (%)	TYPE-# (SS=Split Spoon ST=ShelbyTube)	STANDARD PENETRATION TEST RESULTS (no)	CORE DESCRIPTION: SOIL NAME (USCS GROUP SYMBOL), COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0	* 0-5		HA		SDSL tan silty medium sand (SM) , Sand Size: medium, Color: tan, Consistency: loose, Moisture:dry, quartz	no odor
1				------		
2				------		
3				------		
4				------		
5	* 5-7		SS		SDSL tan slightly silty fine to medium sand (SM) , Sand Size: medium, Color: tan, Consistency: loose, Moisture:dry, quartz	no odor OVA: unfiltered =3.25 filtered =0 corrected=3.25
6				------		
7	* 7-9		SS		SDCL tan to red brown clayey silty fine to medium sand (SC) , Sand Size: medium, Color: tan to reddish brown, Consistency: dense, Moisture:moist, quartz and clays	strong fuel odor at bottom of spoon OVA: unfiltered =240 filtered =0 corrected=240
8				------		
9	* 9-9.5		SS		CLSD red and tan multicolored med sandy clay (CL) , Sand Size: medium, Color: red and tan multicolored, Consistency: dense, Moisture:moist, clays and quartz	moderate to strong fuel odor OVA: unfiltered =591 filtered =0 corrected=591 Sample: 071-1159-AAS-04-S-9-11'
10	10-11		SS	------	SDFN white very fine to fine sands (SM) , Sand Size: fine, Color: white, Consistency: firm, Moisture:moist, quartz	strong fuel odor OVA: unfiltered =591 filtered =0 corrected=591
11	* 11-13		SS		SDFN white fine to very fine sand (SM) , Sand Size: fine, Color: white, Consistency: dense, Moisture:wet, quartz	very strong fuel odor
12				------		
13	* 13-13					End of boring

* denotes beginning of logging interval

CH2MHILL	PROJECT NUMBER	BORING ID: MW-70	Sheet 1 of 2

SOIL BORING LOG

PROJECT: LOCATION: Site 1159

ELEVATION: ft NAVD DRILLING CONTRACTOR: Kelly Environmental Drilling

DRILLING METHOD AND EQUIPMENT USED: Hollow Stem Auger Mobile B-31Drill rig mounted on RAM 350 work truck

WATER LEVELS: 7 ft START: 05/04/2004 END: 05/04/2004 LOGGER: Ryan Bitely and Scott Dunbar

DEPTH BGS (ft)	INTERVAL (ft)	RECOVERY (%)	TYPE-# (SS=Split Spoon ST=ShelbyTube)	STANDARD PENETRATION TEST RESULTS no	CORE DESCRIPTION: SOIL NAME (USCS GROUP SYMBOL), COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0	* 0-5		HA		SLSD reddish brown silty medium sand (SM) , Sand Size: medium, Sand Texture: sub-rnded, Color: reddish brown, Consistency: loose, Moisture:dry, quartz sand	no odor
1				------		
2				------		
3				------		
4				------		
5	* 5-7		SS		SDSL reddish tan silty medium sand with trace gravel (SP-SM) , Sand Size: medium, Color: reddish tan, Consistency: loose, Moisture:moist, quartz	no odor OVA: unfiltered =102 filtered =2 corrected=100
6				------		
7	* 7-9		SS		SDCR red brown silty med to course sand w/ trace gravel (SP-SM) , Sand Size: coarse, Color: reddish brown, Consistency: loose, Moisture:wet, quartz	no odor OVA: unfiltered =4 filtered =0 corrected=4
8				------		
9	* 9-11		SS		SDCR lt tan to white med to course sand w/ trace gravel (SW) , Sand Size: coarse, Color: light tan to white, Consistency: firm, Moisture:wet, quartz	no odor OVA: unfiltered =42 filtered =0 corrected=42
10				------		
11	* 11-13		SS		SDMD light tan to white medium to course sand (SW) , Sand Size: medium, Color: light tan to white, Consistency: firm, Moisture:wet, quartz	moderate to very strong fuel odor with very light gray staining slightly perceptible OVA: unfiltered =515 filtered =5.25 corrected=509.75
12				------		
13	* 13-15		SS		SDMD white medium to course sand (SW) , Sand Size: medium, Color: white, Consistency: firm, Moisture:wet, quartz	light to moderate fuel odor; no noticeable staining OVA: unfiltered =1079 filtered =18 corrected=1061
14				------		

* denotes beginning of logging interval

	PROJECT NUMBER	BORING ID: MW-70	Sheet 2 of 2

SOIL BORING LOG

PROJECT:		LOCATION: Site 1159	
ELEVATION: ft NAVD	DRILLING CONTRACTOR: Kelly Environmental Drilling		
DRILLING METHOD AND EQUIPMENT USED: Hollow Stem Auger Mobile B-31Drill rig mounted on RAM 350 work truck			
WATER LEVELS: 7 ft	START: 05/04/2004	END: 05/04/2004	LOGGER: Ryan Bitely and Scott Dunbar

DEPTH BGS (ft)	INTERVAL (ft)	RECOVERY (%)	TYPE-# (SS=Split Spoon, ST=ShelbyTube)	STANDARD PENETRATION TEST RESULTS (no)	CORE DESCRIPTION: SOIL NAME (USCS GROUP SYMBOL), COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
15	* 15-15					End of boring

* denotes beginning of logging interval

CH2MHILL	PROJECT NUMBER	BORING ID: MW-71	Sheet 1 of 2

SOIL BORING LOG

PROJECT: LOCATION: Site 1159

ELEVATION: ft NAVD DRILLING CONTRACTOR: Kelly Environmental Drilling

DRILLING METHOD AND EQUIPMENT USED: Hollow Stem Auger Mobile -31 Drill Rig Mounted on Ram 350 truck base

WATER LEVELS: 12 ft START: 05/04/2004 END: 05/05/2004 LOGGER: Ryan Bitely and Scott Dunbar

DEPTH BGS (ft)	INTERVAL (ft)	RECOVERY (%)	TYPE-# (SS=Split Spoon ST=ShelbyTube)	STANDARD PENETRATION TEST RESULTS (no)	CORE DESCRIPTION: SOIL NAME (USCS GROUP SYMBOL), COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0	* 0-5		HA		SDSL light brown slightly silty medium to fine sand (SM) , Sand Size: fine, Color: light brown, Consistency: loose, Moisture:dry, quartz	no odor
1				------		
2				------		
3				------		
4				------		
5	* 5-7		SS		SDMD light brown medium to fine sand (SW) , Sand Size: medium, Color: light brown, Consistency: loose, Moisture:dry, quartz	no odor OVA: unfiltered =76 filtered =4.8 corrected=71.2
6				------		
7	* 7-8		SS		SDMD light brown medium to fine sand (SW) , Sand Size: medium, Color: light brown, Consistency: firm, Moisture:dry, quartz	no odor OVA: unfiltered =261 filtered =0 corrected=261
8	8-9		SS	------	SDMD reddish brown clayey silty medium sand (SC) , Sand Size: medium, Color: reddish brown, Consistency: dense, Moisture:moist, quartz and clays	moderate fuel like odor OVA: unfiltered =261 filtered =0 corrected=261
9	* 9-11		SS		SDCL red brown to white clayey silty sand (SC) , Sand Size: medium, Color: reddish brown to white, Consistency: dense, Moisture:moist, quartz and clays	soil has white very fine to fine sand interbeds; very strong repulsive chemical odor (not fuel-like) OVA: unfiltered =10000 filtered =0 corrected=10000 Sample: 071-1159-MW71-S-9-11'
10				------		
11	* 11-13		SS		SDCL tan slightly clayey silty medium to fine sand (SC) , Sand Size: medium, Color: tan, Consistency: firm, Moisture:wet, quartz and clays	soil is wet @ 12' bls; very strong degraded fuel odor OVA: unfiltered =10000 filtered =1.3 corrected=9998.7
12				------		
13	* 13-15		SS		SDSL tan slight stained slight silty med to fine sand (SM) , Sand Size: medium, Color: tan slightly stained, Consistency: firm, Moisture:wet, quartz	strong degraded fuel odor OVA: unfiltered =20000 filtered =21 corrected=19979
14				------		

* denotes beginning of logging interval

CH2MHILL	PROJECT NUMBER	BORING ID: MW-71	Sheet 2 of 2

SOIL BORING LOG

PROJECT: LOCATION: Site 1159

ELEVATION: ft NAVD DRILLING CONTRACTOR: Kelly Environmental Drilling

DRILLING METHOD AND EQUIPMENT USED: Hollow Stem Auger Mobile -31 Drill Rig Mounted on Ram 350 truck base

WATER LEVELS: 12 ft START: 05/04/2004 END: 05/05/2004 LOGGER: Ryan Bitely and Scott Dunbar

DEPTH BGS (ft)	INTERVAL (ft)	RECOVERY (%)	TYPE-# (SS=Split Spoon ST=ShelbyTube)	STANDARD PENETRATION TEST RESULTS (no)	CORE DESCRIPTION: SOIL NAME (USCS GROUP SYMBOL), COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
15	* 15-17		SS		SDMD light tan medium to course sand (SW) , Sand Size: medium, Color: light tan, Consistency: firm, Moisture:wet, little to no fuel odor	OVA: unfiltered =3100 filtered =65.5 corrected=3034.5
16				------		
17	* 17-19		SS		SDMD light tan medium to course sand (SW) , Sand Size: medium, Color: light tan, Consistency: firm, Moisture:wet, quartz	trace to no fuel odor OVA: unfiltered =1750 filtered =1 corrected=1749
18				------		
19	* 19-19					End of boring

* denotes beginning of logging interval

CH2MHILL	PROJECT NUMBER	BORING ID: MW-72	Sheet 1 of 1

SOIL BORING LOG

PROJECT: LOCATION: Site 1159

ELEVATION: ft NAVD DRILLING CONTRACTOR: Kelly Environmental Drilling

DRILLING METHOD AND EQUIPMENT USED: Hollow Stem Auger Mobile B-31 Drill Rig Mounted on Ram 350 truck bed

WATER LEVELS: 6.5 ft START: 05/05/2004 END: 05/05/2004 LOGGER: Ryan Bitely and Scott Dunbar

DEPTH BGS (ft)	INTERVAL (ft)	RECOVERY (%)	TYPE-# (SS=Split Spoon ST=ShelbyTube)	STANDARD PENETRATION TEST RESULTS no	CORE DESCRIPTION: SOIL NAME (USCS GROUP SYMBOL), COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0	* 0-5		HA		SDSL tan and gray silty medium sand (SM) , Sand Size: medium, Color: tan and gray, Consistency: loose, Moisture:dry, quartz	no odor
1				------		
2				------		
3				------		
4				------		
5	* 5-7		SS		SDMD white medium sand (SW) , Sand Size: medium, Color: white, Consistency: loose, Moisture:wet, quartz	no odor OVA: unfiltered =0 filtered =0 corrected=0
6				------		
7	* 7-9		SS		SDMD light gray stained medium sand (SW) , Sand Size: medium, Color: light gray, Consistency: firm, Moisture:wet, quartz	no odor OVA: unfiltered =0 filtered =0 corrected=0
8				------		
9	* 9-11		SS		SDMD light tan medium to course sand (SW) , Sand Size: medium, Color: light tan, Consistency: firm, Moisture:wet, quartz	no odor OVA: unfiltered =0 filtered =0 corrected=0
10				------		
11	* 11-12	1feet	SS		wood	remove augers from boring and advance to 11' bls 5' east of boring to recollect 11' - 13' bls sample
12	* 12-13		SS		SDMD white very slightly stained medium sand (SW) , Sand Size: medium, Color: white, Consistency: firm, Moisture:wet, quartz	no odor OVA: unfiltered =2 filtered =0 corrected=2
13	* 13-13					End of Boring

* denotes beginning of logging interval

CH2MHILL	PROJECT NUMBER	BORING ID: MW-73	Sheet 1 of 2

SOIL BORING LOG

PROJECT: LOCATION: Site 1159

ELEVATION: ft NAVD DRILLING CONTRACTOR: Kelly Environmental Drilling

DRILLING METHOD AND EQUIPMENT USED: Hollow Stem Auger Mobile B-31 Drill Rig mounted on Ram 350 truck

WATER LEVELS: 8 ft START: 05/06/2004 END: 05/06/2004 LOGGER: Ryan Bitely and Scott Dunbar

DEPTH BGS (ft)	INTERVAL (ft)	RECOVERY (%)	TYPE-# (SS=Split Spoon ST=ShelbyTube)	STANDARD PENETRATION TEST RESULTS (no)	CORE DESCRIPTION: SOIL NAME (USCS GROUP SYMBOL), COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0	* 0-5		HA		SDSL tan silty medium sand (SM) , Sand Size: medium, Color: tan, Consistency: loose, Moisture:dry, quartz	no odor
1				------		
2				------		
3				------		
4				------		
5	* 5-7		SS		SDMD light tan medium to fine sand (SW) , Sand Size: medium, Color: light tan, Consistency: loose, Moisture:dry, quartz	no odor OVA: unfiltered =4.5 filtered =0 corrected=4.5
6				------		
7	* 7-8		SS		SDMD light tan medium sand (SW) , Sand Size: medium, Color: light tan, Consistency: firm, Moisture:moist, quartz	no odor OVA: unfiltered =0 filtered =0 corrected=0
8	8-9		SS	------	SDSL reddish brown silty fine to medium sand (SM) , Sand Size: medium, Color: reddish brown, Consistency: firm, Moisture:wet, quartz	no odor
9	* 9-11		SS		SDCL silty med sand w/ 6" sandy clay @ 9.5' bls (SC) , Sand Size: medium, Color: reddish brown to light brown, Consistency: dense, Moisture:wet, quartz and clays	no odor OVA: unfiltered =0 filtered =0 corrected=0
10				------		
11	* 11-12		SS		CLSD multicolored clay and course sand/gravel interbeds (SC) , Sand Size: coarse, Color: multicolored, Consistency: loose, Moisture:wet, quartz and clays	light fuel odor OVA: unfiltered =262 filtered =0 corrected=262
12	12-13		SS	------	SDSL silty medium to fine sand (SM) , Sand Size: medium, Color: light tan, Consistency: loose, Moisture:wet, quartz	light fuel odor
13	* 13-15		SS		SDSL light tan slightly silty stained medium sand (SM) , Sand Size: medium, Color: light tan, Consistency: loose, Moisture:wet, quartz	moderate to strong fuel odor OVA: unfiltered =10000 filtered =0 corrected=10000
14				------		

* denotes beginning of logging interval

	PROJECT NUMBER	BORING ID: MW-73	Sheet 2 of 2

SOIL BORING LOG

PROJECT:		LOCATION: Site 1159	
ELEVATION: ft NAVD	DRILLING CONTRACTOR: Kelly Environmental Drilling		
DRILLING METHOD AND EQUIPMENT USED: Hollow Stem Auger Mobile B-31 Drill Rig mounted on Ram 350 truck			
WATER LEVELS: 8 ft	START: 05/06/2004	END: 05/06/2004	LOGGER: Ryan Bitely and Scott Dunbar

DEPTH BGS (ft)	INTERVAL (ft)	RECOVERY (%)	TYPE-# (SS=Split Spoon, ST=ShelbyTube)	STANDARD PENETRATION TEST RESULTS (no)	CORE DESCRIPTION: SOIL NAME (USCS GROUP SYMBOL), COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
15	* 15-15					End of boring

* denotes beginning of logging interval

CH2MHILL	PROJECT NUMBER	BORING ID: MW-74	Sheet 1 of 2

SOIL BORING LOG

PROJECT: LOCATION: Site 1159

ELEVATION: ft NAVD DRILLING CONTRACTOR: Kelly Environmental Drilling

DRILLING METHOD AND EQUIPMENT USED: Hollow Stem Auger Mobile B-31 Drill Rig mounted on Ram 350 truck bed

WATER LEVELS: 11 ft START: 05/05/2004 END: 05/05/2004 LOGGER: Ryan Bitely and Scott Dunbar

DEPTH BGS (ft)	INTERVAL (ft)	RECOVERY (%)	TYPE-# (SS=Split Spoon ST=ShelbyTube)	STANDARD PENETRATION TEST RESULTS no	CORE DESCRIPTION: SOIL NAME (USCS GROUP SYMBOL), COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0	* 0-5		HA		SDSL light reddish tan silty medium to fine sand (SM) , Sand Size: medium, Color: light reddish tan, Consistency: loose, Moisture:dry, quartz	no odor
1				------		
2				------		
3				------		
4				------		
5	* 5-7		SS		SDSL lt red tan silty to slight silty med to fine sand (SM) , Sand Size: medium, Color: light reddish tan, Consistency: loose, Moisture:dry, quartz	no odor OVA: unfiltered =20 filtered =0 corrected=20
6				------		
7	* 7-9		SS		SDCL red brown slightly clayey silty fine to med sand (SC) , Sand Size: medium, Color: reddish brown, Consistency: firm, Moisture:dry, quartz and clays	no odor OVA: unfiltered =8.9 filtered =1.4 corrected=7.5
8				------		
9	* 9-11		SS		SDCL red brown to gray clayey silty fine to med sand (SC) , Sand Size: medium, Color: reddish brown to gray, Consistency: dense, Moisture:moist, quartz and clays	strong fuel odor in 1" sandy clay at 10.5' bls; fuel odor present through entire core OVA: unfiltered =14.5 filtered =0 corrected=14.5
10				------		
11	* 11-13		SS		SLSD lt gray/lt yellow s/stained very fine sandy silt (ML) , Sand Size: v. fine, Color: light gray to light yellow, Consistency: dense, Moisture:wet, quartz	very strong fuel odor OVA: unfiltered =11000 filtered =40 corrected=10960
12				------		
13	* 13-15		SS		SLSD lt gray s/stained very fine sandy silt w/ clay lam (ML) , Sand Size: v. fine, Color: light gray, Consistency: dense, Moisture:wet, quartz and clays	strong fuel odor; thin clay laminations present OVA: unfiltered =24 filtered =18 corrected=6
14				------		

* denotes beginning of logging interval

CH2MHILL	PROJECT NUMBER	BORING ID: MW-74	Sheet 2 of 2

SOIL BORING LOG

PROJECT: LOCATION: Site 1159

ELEVATION: ft NAVD DRILLING CONTRACTOR: Kelly Environmental Drilling

DRILLING METHOD AND EQUIPMENT USED: Hollow Stem Auger Mobile B-31 Drill Rig mounted on Ram 350 truck bed

WATER LEVELS: 11 ft START: 05/05/2004 END: 05/05/2004 LOGGER: Ryan Bitely and Scott Dunbar

DEPTH BGS (ft)	INTERVAL (ft)	RECOVERY (%)	TYPE-# (SS=Split Spoon, ST=ShelbyTube)	STANDARD PENETRATION TEST RESULTS (no)	CORE DESCRIPTION: SOIL NAME (USCS GROUP SYMBOL), COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
15	* 15-15					End of boring

* denotes beginning of logging interval

CH2MHILL	PROJECT NUMBER	BORING ID: MW-75	Sheet 1 of 1

SOIL BORING LOG

PROJECT: LOCATION: Site 1159

ELEVATION: ft NAVD DRILLING CONTRACTOR: Kelly Environmental Drilling

DRILLING METHOD AND EQUIPMENT USED: Hollow Stem Auger Mobile B-31 Drill Rig Mounted on Ram 350 truck bed

WATER LEVELS: 8 ft START: 05/05/2004 END: 05/05/2004 LOGGER: Ryan Bitely and Scott Dunbar

DEPTH BGS (ft)	INTERVAL (ft)	RECOVERY (%)	TYPE-# (SS=Split Spoon, ST=ShelbyTube)	STANDARD PENETRATION TEST RESULTS (no)	CORE DESCRIPTION: SOIL NAME (USCS GROUP SYMBOL), COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0	* 0-3		HA		SDSL light brown silty medium sand (SM) , Sand Size: medium, Color: light brown, Consistency: loose, Moisture:dry, quartz	no odor
1				------		
2				------		
3	3-5		HA	------	SDSL reddish brown silty medium sand (SM) , Sand Size: medium, Color: reddish brown, Consistency: loose, Moisture:dry, quartz	no odor
4				------		
5	* 5-7		SS		SDSL light brown silty medium sand (SM) , Sand Size: medium, Color: light brown, Consistency: loose, Moisture:dry, quartz	no odor OVA: unfiltered =0 filtered =0 corrected=0
6				------		
7	* 7-9		SS		SDMD light tan medium sand (SW) , Sand Size: medium, Color: light tan, Consistency: loose, Moisture:wet, quartz	no odor OVA: unfiltered =3.5 filtered =0.5 corrected=3
8				------		
9	* 9-11		SS		SDSL gray brown silty medium to fine sand w/ organics (SM) , Sand Size: medium, Color: gray brown, Consistency: firm, Moisture:wet, quartz	medium to strong swampy odor OVA: unfiltered =146 filtered =4 corrected=142
10				------		
11	* 11-13		SS		SDSL lt gray silty fine to very fine sand w/ trace wood (SM) , Sand Size: fine, Color: light gray, Consistency: firm, Moisture:wet, quartz	no odor OVA: unfiltered =12 filtered =0 corrected=12
12				------		
13	* 13-13					End of boring

* denotes beginning of logging interval

CH2MHILL	PROJECT NUMBER	BORING ID: SVE-01	Sheet 1 of 2

SOIL BORING LOG

PROJECT: LOCATION: Site 1159

ELEVATION: ft NAVD DRILLING CONTRACTOR: Kelly Environmental Drilling

DRILLING METHOD AND EQUIPMENT USED: Hollow Stem Auger Mobile B-31 Drill Rig mounted on Ram 350 truck

WATER LEVELS: 13 ft START: 05/10/2004 END: 05/10/2004 LOGGER: Ryan Bitely and Scott Dunbar

DEPTH BGS (ft)	INTERVAL (ft)	RECOVERY (%)	TYPE-# (SS=Split Spoon, ST=ShelbyTube)	STANDARD PENETRATION TEST RESULTS (no)	CORE DESCRIPTION: SOIL NAME (USCS GROUP SYMBOL), COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0	* 0-8		H		SDSL tan silty sand (SM) , Sand Size: medium, Color: tan, Consistency: loose, Moisture:dry, quartz	no odor
1				------		
2				------		
3				------		
4				------		
5				------		
6				------		
7				------		
8	* 8-13		H		SDCL reddish brown clayey silty sand (SC) , Sand Size: medium, Color: reddish brown, Consistency: firm, Moisture:moist, quartz and clay	strong fuel odor around 13' bls
9				------		
10				------		
11				------		
12				------		
13	* 13-16		H		SDSL light tan silty sand (SM) , Sand Size: medium, Color: light tan, Consistency: firm, Moisture:wet, quartz	strong fuel odor
14				------		

* denotes beginning of logging interval

	PROJECT NUMBER	BORING ID: SVE-01	Sheet 2 of 2

SOIL BORING LOG

PROJECT: LOCATION: Site 1159

ELEVATION: ft NAVD DRILLING CONTRACTOR: Kelly Environmental Drilling

DRILLING METHOD AND EQUIPMENT USED: Hollow Stem Auger Mobile B-31 Drill Rig mounted on Ram 350 truck

WATER LEVELS: 13 ft START: 05/10/2004 END: 05/10/2004 LOGGER: Ryan Bitely and Scott Dunbar

DEPTH BGS (ft)	INTERVAL (ft)	RECOVERY (%)	TYPE-# SS=Split Spoon ST=ShelbyTube	STANDARD PENETRATION TEST RESULTS no	CORE DESCRIPTION: SOIL NAME (USCS GROUP SYMBOL), COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
15				------		
16	* 16-16					End of boring

* denotes beginning of logging interval

CH2MHILL	PROJECT NUMBER	BORING ID: SVE-02	Sheet 1 of 2

SOIL BORING LOG

PROJECT: LOCATION: Site 1159

ELEVATION: ft NAVD DRILLING CONTRACTOR: Kelly Environmental Drilling

DRILLING METHOD AND EQUIPMENT USED: Hollow Stem Auger Mobile B-31 Drill Rig mounte on Ram 350 truck base

WATER LEVELS: 19 ft START: 05/10/2004 END: 05/10/2004 LOGGER: Ryan Bitely and Scott Dunbar

DEPTH BGS (ft)	INTERVAL (ft)	RECOVERY (%)	TYPE-# (SS=Split Spoon ST=ShelbyTube)	STANDARD PENETRATION TEST RESULTS (no)	CORE DESCRIPTION: SOIL NAME (USCS GROUP SYMBOL), COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0	* 0-5		HA		SDSL brown to tan silty medium sand (SM) , Sand Size: medium, Color: brown and tan, Consistency: loose, Moisture:dry, quartz	no odor
1				------		
2				------		
3				------		
4				------		
5	* 5-7		SS		SDMD light tan slightly silty medium sand, Sand Size: medium, Color: light tan, Consistency: loose, Moisture:dry, quartz	no odor OVA: unfiltered =1.42 filtered =1.2 corrected=0.22
6				------		
7	* 7-9		SS		SDSL tan to white slightly silty medium to fine sand (SM) , Sand Size: medium, Color: tan to white grading with depth, Consistency: loose, Moisture:dry, quartz	no odor OVA: unfiltered =1.36 filtered =1.05 corrected=0.31
8				------		
9	* 9-11		SS		SDMD white fine to medium sand (SW) , Sand Size: medium, Color: white, Consistency: loose, Moisture:dry, quartz	no odor OVA: unfiltered =1.45 filtered =0.8 corrected=0.65
10				------		
11	* 11-13		SS		SDSL silty fine to med sands grade to fine sandy silts (SM) , Sand Size: fine, Color: orange to tan, Consistency: firm, Moisture:moist, quartz	no odor; moist from 12' - 13' bls OVA: unfiltered =4.75 filtered =0.59 corrected=4.16
12				------		
13	* 13-14		SS		SDMD yellowish tan to orange silty medium sand (SM) , Sand Size: medium, Color: yellowish tan to orange, Consistency: dense, Moisture:moist, quartz	fuel odor OVA: unfiltered =17300 filtered =0 corrected=17300
14	14-14.5		SS	------	CLAY reddish tan to orange clay (CH) , Color: reddish tan to orange, Consistency: firm, Moisture:moist, clays	very strong fuel odor OVA: unfiltered =17300 filtered =0 corrected=17300 Sample: 071-SVE-02-S-13-15'

* denotes beginning of logging interval

CH2MHILL	PROJECT NUMBER	BORING ID: SVE-02	Sheet 2 of 2

SOIL BORING LOG

PROJECT: LOCATION: Site 1159

ELEVATION: ft NAVD DRILLING CONTRACTOR: Kelly Environmental Drilling

DRILLING METHOD AND EQUIPMENT USED: Hollow Stem Auger Mobile B-31 Drill Rig mounte on Ram 350 truck base

WATER LEVELS: 19 ft START: 05/10/2004 END: 05/10/2004 LOGGER: Ryan Bitely and Scott Dunbar

DEPTH BGS (ft)		INTERVAL (ft)	RECOVERY (%)	TYPE-# (SS=Split Spoon ST=ShelbyTube)	STANDARD PENETRATION TEST RESULTS (no)	CORE DESCRIPTION: SOIL NAME (USCS GROUP SYMBOL), COLOR, MOISTURE CONTENT, RELATIVE DENSITY, OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
15	*	15-15.5		SS		SDCL multicolored silty fine sand w/ 2" clay @ 15.5' bl (SC) , Sand Size: fine, Color: multicolored, Consistency: firm, Moisture:moist, quartz and clays	strong fuel odor OVA: unfiltered =10000 filtered =10.04 corrected=9989.96
16					------		
17	*	17-18		SS		SDCL orange brown silty fine to med sand w/ 2" clay (SC) , Sand Size: medium, Color: orange brown, Consistency: firm, Moisture:moist, quartz and clay	very strong fuel odor; 2" clay interval occurs @ 17.5' bls OVA: unfiltered =10000 filtered =0 corrected=10000
18		18-19		SS	------	SDCL white silty fine to very fine sands w/ 0.5" clay (SC) , Sand Size: fine, Color: white, Consistency: dense, Moisture:moist, quartz and clay	strong fuel odor; 0.5" clay interval occurs @ 18.5" bls OVA: unfiltered =10000 filtered =0 corrected=10000
19	*	19-19.5		SS		CLSD sandy clay interbed w/ silty fine to med sand (CL) , Sand Size: medium, Color: multicolored, Consistency: dense, Moisture:wet, clay and quartz	strong fule odor OVA: unfiltered =3690 filtered =0 corrected=3690
20					------		
21	*	21-21					End of boring

* denotes beginning of logging interval

Appendix G

Design Calculations

CH2M HILL

Total SVE Lead Emissions Estmate Calculations for Off-Gas Treatment System

Site 1159

OLF Bronson, N.A.S. Pensacola

Estimated Effluent lead concentrations (mg/m^3)	Estimated Effluent lead concentrations (mg/ft^3)	Design Airflow Rate SVE Only (scfm)*	Lead emitted in (kg/day)	Lead emitted (kg/year)	Lead emitted (lb/year)	Lead emitted (lb/day)
2.16	0.06	600	0.05	10	21	0.06

Estimated Effluent lead concentrations (mg/m^3)	Estimated Effluent lead concentrations (mg/ft^3)	Max Airflow Rate (scfm)*	Lead emitted in (kg/day)	Lead emitted (kg/year)	Lead emitted (lb/year)	Lead emitted (lb/day)
2.16	0.06	950	0.08	61	135	0.37

Resulting Effect of Pb emissions on Surface Soil Concentrations

The estimate of lead emissions from the off-gas treatment system operating on the AVGAS vapors is estimated to be approximately 2.16 mg/m^3. Assuming a total of 2 years continuous operation off-gas operation; 24 hours per day for 365 days per year. After off gas treatment has ceased, literature suggests that the TEL present in the airstream should photodegrade in the atmosphere. The corresponding increase in surface soil concentrations for an area 500x500 meters, 2.5 cm in depth and receiving 100% of the estimated emitted lead would be

122	kg Pb
269	lb Pb

Note: lead sample estimated using sample concentrations from Site SS-01, Hickam AFB, Hawaii ICE Exhaust stack sampling results for AVGAS contaminated site.

*Max airflow rate does not include dilution airflow into the off-gas treatment

Total SVE Emissions Calculations

Site 1159

OLF Bronson, N.A.S. Pensacola

Initial Sample Location	Low Influent TPH Concentrations (mg/m^3as Pentane)	Estimated High Influent TPH Concentrations (mg/m^3Pentane)	SVE Airflow Rate (scfm)	Estimated Low VOC Removal (lbs/day)	Estimated High VOC Removal (lbs/day)	Estimated Low Oxidizer emissions lb/day	Estimated High Oxidizer emissions lb/day
SVE-01	33,685	336,850	600	1,813.8	18,138.4	36.3	362.8
SVE-02	13,241	132,412	600	713.0	7,130.0	14.3	142.6
MW-71	3,441	34,413	600	185.3	1,853.0	3.7	37.1
MW-73	6	62	600	0.33	3.3	0.0	0.1
Average TPH Conc.	12,593	125,934	600	678.12	6,781.2	13.6	135.6

Maximum flow 600 scfm

Estimated High-End Total Pounds Removed per Day	6,781.2	135.6	lbs - Based on order of magnitude increase in TPH observed at Site SS-274
Estimated Low-End Total Pounds Removed per Day	678.1	13.6	lbs - Based on lab reported TPH at Site 1159

Assuming carbon can adsorb 0.147lb TPH per pound of carbon the required amount of carbon required for the first 24 hours of operation would be approximately 4,613 to 46,130 pounds of carbon for the first day

This equates to approximately 32,291 to 322,913 pounds of carbon consumed each seven days

Note: TPH expressed as pentane

Assumption that actual emissions will be AT LEAST and order of magnitude higher than those obtained for baseline sampling are based upon observations from similar sampling tests at nearby sites.

AAS SYSTEM DESIGN CALCULATIONS
Site 1159
OLF Bronson at N.A.S. Pensacola

AAS System Design

	Chemical	Henry's Constant (atm-m^3/mol)	(atm)
The COCs are:	Benzene	$5.5x10^{-3}$	230
	Ethylbenzene	$8x10^{-3}$	359
	Toluene	$7x10^{-3}$	217
	Xylene	$6x10^{-3}$	266
	Tetraethyllead	$7x10^{-1}$	4,700

Henry's Constants of all COCs are greater than $1x10^{-5}$ atm-m^3/mol (100 atm); therefore, air sparging is applicable.

The Site 1159 AAS system will be designed to cover the area where current data supports the presence of LNAPL
Refer to AAS well layout desing drawing for location of wells.

The total area to cover is approximately = 68,200 ft^2 Area of LNAPL Extent
The radius of influence of the AAS wells is assumed = 30 ft to be conservative
The aerial coverage of an AAS well = 2,827 ft^2
The number of AAS wells required to cover the area = 24.1 wells, say 31.0 wells based on proposed system operational layout
There will be a total of 31 AAS wells. These wells will be divided into three separate legs.

The depth of contamination = 50 ft below ground surface
The depth to groundwater = 15 ft below ground surface
The depth of groundwater to sparge is = 35 ft
The porosity of the soil = 0.3
The volume of water to be aerated = 716,100 ft^3

Note: Depth to groundwater varies across the site, but a 30-ft submergence will be maintained across the site for GW treatment.

The average flow rate per well is assumed = 20 scfm
The total number of AAS wells in Leg A1 will be 12 AAS Wells
The total flow rate for the AAS system for Leg A-1= 240 scfm
On a daily basis the air:water volumetric ratio = 0.48

AAS Blower Operating Conditions:
Inlet Air Temperature = 100 ^oF = 560 ^oR
Inlet Absolute Air Pressure = 14.6 psia

Outlet Air Pressure = 554 in of H_2O = 20.0 psig
Outlet Absolute Air Pressure = 960 in of H_2O = 34.7 psia
Blower Efficiency = 0.63
Blower Outlet Temperature = 347 ^oF, Equation Ref: Bill Day/CH2M HILL

For headloss calcs, assume a heat exchanger will bring the AAS blower discharge air temperature to 100 ^oF

Conditions of Injected Air
Density of Air at Above Conditions = 0.0708 lb/ft^3 = 0.001134074 gm/cc (per Air Pollution Control pg. 654)
Specific Volume = 14.1 ft^3/lb
Viscosity, μ = 0.0194 centipoise = 0.000194215 gm/cm-sec (poise) = 1.3051E-05 lb/ft-sec (per Air Pollution Control pg. 654)

Highest airflow rate for the 12 wells on Leg A1 240 scfm or 14,400.0 ft^3/hr = 1,019.5 lbs/hr

Required AAS Blower Pressure Estimation
Pressure Drop Through 4" DR 11 HDPE Pipe (drawn tubing). Fittings (assume metal fitting calculations from Crane A-26 to -29)
Pipe Inside Diameter = 3.682 Rinker Materials PolyPipe Division PPI B-1003 Rev 08/03
Velocity, υ = 3246 ft/min or 54.10 ft/sec

where: ΔP = pressure drop (psig)
K = resistance coefficient
W = flow rate (lbs/hr)
V = specific volume (ft^3/lb)
d = inside diameter (inches)

Reynolds Number, $R_e = 394WV/(\nu d)$ where: (Equation Ref: Crane page 3-2)
W = 1,019.5 lbs/hr
V = 14.1 ft^3/lb
ν = 17.1 centistokes
d = 3.682 inches
Calculated R_e = 89,977.5 turbulent flow, R_e>4000
Relative roughness = 0.000015 From Crane A-23 for drawn tubing
Friction Factor, f_T = 0.018 from Moody Diagram Crane A-24

Max Pipe Length = 230 ft
Pipe fittings include: (Equation Ref: Crane pages A-26 through A-29)

$K_{tee} = 60f_T$ (flow through branch) =	1.08 for	3	piece(s) =	3.2
$K_{globe\ valve} = 340f_T$ =	6.12 for	2	piece(s) =	12.2
$K_{contraction} = 0.5*(1-\beta^2)*sqrt(sin(o/2))/\beta^4$ =	3.1 @ 1x =	1	piece(s) =	3.1
$K_{enlargement} = (1-\beta^2)^2/\beta^4$ =	4.4 @ 1x =	0	piece(s) =	0.0
$K_{90oElbow} = 30f_T$ =	0.54 @ 6x =	6	piece(s) =	3.2
$K_{pipe} = f_TL/D$ =				13.5
Total resistance coefficient, K =				35.3

where: β = ratio of small to large diameter, o = angle of convergence

Pressure Drop, $\Delta P = (28x10^{-8}*K*W^2*V)/(d^4)$
(Equation Ref: Crane page 3-4)

Calculated ΔP = 0.79 psig = 21.85 in H_2O

Pressure Drop Through 2" DR 17 HDPE Pipe (drawn tubing). Fittings (assume metal fitting calculations from Crane A-26 to -29)

Pipe Inside Diameter =	2.095	Rinker Materials PolyPipe Division PPI B-1003 Rev 08/03		Max Flow Through 2"	20	scfm	
Velocity, υ =	835	ft/min or	13.92 ft/sec	1,200.0	ft^3/hr =	85.0	lbs/hr

Reynolds Number, $R_e = 394WV/(\nu d)$ where: (Equation Ref: Crane page 3-2)

W =	85.0	lbs/hr
V =	14.1	ft^3/lb
ν =	17.1	centistokes
d =	2.095	inches

Calculated R_e =	13,178	turbulent flow, R_e>4000
Relative roughness =	0.00003	From Crane A-23 for drawn tubing
Friction Factor, f_T =	0.027	from Moody Diagram Crane A-24

Max pipe length = 570 ft

Pipe fittings include: (2) ball valve, (2) 90° elbows (Equation Ref: Crane pages A-26 through A-29)

$K_{tee} = 60f_T$ (flow through branch) =	1.62	for	1	piece(s) =	1.6
$K_{tee} = 20f_T$ (flow through run) =	0.54		5	piece(s) =	2.7
$K_{globe\ valve} = 340f_T$ =	9.18	for	1	piece(s) =	9.2
$K_{contraction} = 0.5*(1-\beta^2)*sqrt(sin(o/2))/\beta^4$ =	-	@ 1x =	0	piece(s) =	0.0
$K_{enlargement} = (1-\beta^2)^2/\beta^4$ =	0	@ 1x =	0	piece(s) =	0.0
$K_{90oElbow} = 30f_T$ =	0.81	@ 6x =	4	piece(s) =	3.2
$K_{pipe} = f_T L/D$ =					88.2
Total resistance coefficient, K =					104.9

where: β = ratio of small to large diameter, o = angle of convergence

Pressure Drop, $\Delta P = (28x10^{-9}*K*W^2*V)/(d^4)$ (Equation Ref: Crane page 3-4)

where:
ΔP = pressure drop (psig)
K = resistance coefficient
W = flow rate (lbs/hr)
V = specific volume (ft^3/lb)
d = inside diameter (inches)

Calculated ΔP = 0.1554 psig = 4.31 in H_2O

Summary of Required AAS Blower Pressure

The required pressure to push a	35 ft of water column =	15.2	psi (at bottom of the screen)
Heat exchanger pressure drop (Operational data from SS-275)		4	psi
Total estimated pressure drop in pipe and fittings =		0.9	psi
Total Required AAS Blower Pressure		20.1	psi

Will scope a 25 psi blower for operation to compensate for water table fluctuations

Bentonite Seal Integrity Check

Thickness of bentonite seal in well =		3	ft	
Thickness of overburden =		38	ft	
Density of bentonite =	80	lbs/ft^3		
Density of overburden =	140	lbs/ft^3		
Pressure of bentonite =	240	lbs/ft^2 or	1.7	psi
Pressure of overburden =	5320	lbs/ft^2 or	37	psi
Total pressure =	5560	lbs/ft^2 or	39	psi

Therefore, the air injection pressure is far below the pressure of the bentonite and overburden and will not cause problems with blowout.

AAS/SVE SYSTEM DESIGN CALCULATIONS
Site 1159
OLF Bronson at N.A.S. Pensacola

AAS System Design

The total area to cover is approximately = 68,200 ft^2
The radius of influence of the AAS wells is assumed = 30 ft to be conservative
The aerial coverage of an AAS well = 2,827 ft^2
The number of AAS wells required to cover the area = 24.1 wells, say 31 wells based on proposed system operational layout
There will be a total of 31 AAS wells. These wells will be divided into three separate legs.

The depth of contamination = 50 ft below ground surface
The depth to groundwater = 15 ft below ground surface
The depth of groundwater to sparge is = 35 ft
The porosity of the soil = 0.3
The volume of water to be aerated = 716,100 ft^3

Note: Depth to groundwater varies across the site, but a 30-ft submergence will be maintained across the site for GW treatment.

The average flow rate per well is assumed = 20 scfm
The total number of wells on Leg 2 = 11 wells.
The total flow rate for the AAS Leg 2 = 220 scfm
On a daily basis the air:water volumetric ratio = 0.44

AAS Blower Operating Conditions:

Inlet Air Temperature = 100 °F = 560 °R
Inlet Absolute Air Pressure = 14.6 psia

Outlet Air Pressure = 554 in of H_2O = 20.0 psig
Outlet Absolute Air Pressure = 960 in of H_2O = 34.7 psia
Blower Efficiency = 0.63
Blower Outlet Temperature = 347 °F, Equation Ref: Bill Day/CH2M HILL

For headloss calcs, assume a heat exchanger will bring the AAS blower discharge air temperature to 100 °F

Conditions of Injected Air

Density of Air at Above Conditions = 0.0708 lb/ft^3 = 0.001134074 gm/cc (per Air Pollution Control pg. 654)
Specific Volume = 14.1 ft^3/lb
Viscosity, μ = 0.0194 centipoise = 0.000194215 gm/cm-sec (poise) = 1.3051E-05 lb/ft-sec (per Air Pollution Control pg. 654)
Highest airflow rate = 220 scfm or 13,200.0 ft^3/hr = 934.6 lbs/hr

Required AAS Blower Pressure Estimation

Pressure Drop Through 4" DR 21 HDPE Pipe (drawn tubing). Fittings (assume metal fitting calculations from Crane A-26 to -29)

Pipe Inside Diameter = 4.072 Rinker Materials PolyPipe Division PPI B-1003 Rev 08/03 where:
Velocity, υ = 2433 ft/min or 40.54 ft/sec

Reynolds Number, $R_e = 394WV/(\nu d)$ where: (Equation Ref: Crane page 3-2)

W = 934.6 lbs/hr
V = 14.1 ft^3/lb
ν = 17.1 centistokes
d = 4.072 inches

ΔP = pressure drop (psig)
K = resistance coefficient
W = flow rate (lbs/hr)
V = specific volume (ft^3/lb)
d = inside diameter (inches)

Calculated R_e = 74,579.8 turbulent flow, R_e>4000
Relative roughness = 0.000015 From Crane A-23 for drawn tubing
Friction Factor, f_T = 0.019 from Moody Diagram Crane A-24

Longest length of pipe = 270 ft
Pipe fittings include:

(Equation Ref: Crane pages A-26 through A-29)

$K_{tee} = 60f_T$ (flow through branch) =	1.14 for	3	piece(s) =	3.4
$K_{globe\ valve} = 340f_T$ =	6.46 for	2	piece(s) =	12.9
$K_{contraction} = 0.5*(1-\beta^2)*sqrt(sin(o/2))/\beta^4$ =	5.0 @ 1x =	1	piece(s) =	5.0
$K_{enlargement} = (1-\beta^2)^2/\beta^4$ =	7.7 @ 1x =	0	piece(s) =	0.0
$K_{90oElbow} = 30f_T$ =	0.57 @ 6x =	6	piece(s) =	3.4
$K_{pipe} = f_TL/D$ =				15.1
Total resistance coefficient, K =				39.8

where: β = ratio of small to large diameter, o = angle of convergence

Pressure Drop, $\Delta P = (28x10^{-9}*K*W^2*V)/(d^4)$
(Equation Ref: Crane page 3-4)

Calculated ΔP = 0.5005 psig = 13.86 in H_2O

Pressure Drop Through 2" DR 17 HDPE Pipe (drawn tubing). Fittings (assume metal fitting calculations from Crane A-26 to -29)

Pipe Inside Diameter =	2.095			Max Flow Through 2"	20	scfm	
Velocity, υ =	835	ft/min or	13.92 ft/sec	1,200.0	ft^3/hr =	85.0	lbs/hr

Reynolds Number, $R_e = 394WV/(\nu d)$ where: (Equation Ref: Crane page 3-2)

W =	85.0	lbs/hr
V =	14.1	ft^3/lb
ν =	17.1	centistokes
d =	2.095	inches

Calculated R_e = 13,178 turbulent flow, R_e>4000

Relative roughness = 0.00003 From Crane A-23 for drawn tubing

Friction Factor, f_T = 0.027 from Moody Diagram Crane A-24

PVC pipe length = 520 ft

Pipe fittings include: (2) ball valve, (2) 90° elbows (Equation Ref: Crane pages A-26 through A-29)

$K_{tee} = 60f_T$ (flow through branch) =	1.62	for	2	piece(s) =	3.2
$K_{tee} = 20f_T$ (flow through run) =	0.54		14	piece(s) =	7.6
$K_{globe\ valve} = 340f_T$ =	9.18	for	1	piece(s) =	9.2
$K_{contraction} = 0.5*(1-\beta^2)*sqrt(sin(o/2))/\beta^4$ =	-	@ 1x =	0	piece(s) =	0.0
$K_{enlargement} = (1-\beta^2)^2/\beta^4$ =	0	@ 1x =	0	piece(s) =	0.0
$K_{90oElbow} = 30f_T$ =	0.81	@ 6x =	5	piece(s) =	4.1
$K_{pipe} = f_TL/D$ =					80.4
Total resistance coefficient, K =					104.5

where: β = ratio of small to large diameter, o = angle of convergence

Pressure Drop, $\Delta P = (28x10^{-9}*K*W^2*V)/(d^4)$ (Equation Ref: Crane page 3-4)

where:
ΔP = pressure drop (psig)
K = resistance coefficient
W = flow rate (lbs/hr)
V = specific volume (ft^3/lb)
d = inside diameter (inches)

Calculated ΔP = 0.1548 psig = 4.29 in H_2O

Summary of Required AAS Blower Pressure

The required pressure to push a	35 ft of water column =	15.2	psi (at bottom of the screen)
Heat exchanger pressure drop (Operational data from SS-275 HX)		3	psi
Total estimated pressure drop in pipe and fittings =		0.7	psi
Total Required AAS Blower Pressure		18.8	psi

Will scope a 25 psi blower for operation

Bentonite Seal Integrity Check

Thickness of bentonite seal in well =		3	ft	
Thickness of overburden =		38	ft	
Density of bentonite =	80	lbs/ft^3		
Density of overburden =	140	lbs/ft^3		
Pressure of bentonite =	240	lbs/ft^2 or	1.7	psi
Pressure of overburden =	5320	lbs/ft^2 or	37	psi
Total pressure =	5560	lbs/ft^2 or	39	psi

Therefore, the air injection pressure is far below the pressure of the bentonite and overburden and will not cause problems with blowout.

SVE System Design

The outer edge of the Site 1159 SVE system will be designed to approx. cover the area of AAS influence.

The total area to cover is approximately =	68,200	ft^2
The porosity of the soil =	0.3	
The thickness of soil to be treated =	15	ft
One volume of air in the target zone =	306,900	ft^3
We desire	5	pore air exchange per day for effective SVE
This translates into a required SVE air flow rate =	1,066	scfm for the total target treatment zone
The factor of safety for the SVE blower =	1.1	
The min design flowrate for the SVE blower based on 5 PE/day=	1,180	scfm for the total target treatment zone

The maximum AAS air flow rate is 350 **scfm**

1.7 times AAS flow rate equals **600** scfm. This will be the chosen flow rate full AAS system operation due to TPH emissions limitations of 13.7 lb/day

To ensure that the SVE system will capture the majority of air from the AAS system, we will compare the flow rates.

The SVE airflow rate is 1.7 times greater than the AAS airflow rate.

Is the SVE flow rate at least 1.25 times the AAS flow rate --> **YES**

The radius of influence of the SVE wells is assumed =	50	ft		
The aerial coverage of an SVE well =	7,854	sf		
The number of SVE wells required to cover the area =	8.7	wells, say	15.0	wells based upon arial coverage of AAS wells

Conditions of Extracted Air

Assume the required vacuum at the wellhead is	45	inches of water vacuum gauge or	1.6	psig	
For headloss calcs, assume a extracted air will be	80	°F			
Density of Air at Above Conditions =	0.0734	lb_m/ft^3 =	0.001175721	gm/cc	(per Air Pollution Control pg. 654)
Specific Volume =	13.6	ft^3/lb			
Viscosity, μ =	0.0186	centipoise =	0.00018595	gm/cm-sec (poise) =	1.2496E-05 lb/ft-sec (per Air Pollution Control pg. 654)
Well airflow rate =	600.0	scfm or	36,000	ft^3/hr =	2,642 lbs/hr

Required SVE Blower Vacuum Estimation

Pressure Drop Through 6" DR 21 HDPE Pipe (drawn tubing). Fittings (assume mettal fitting calculations from Crane A-26 to -29)

This will function as the main trunk line for all SVE Manifolds

Pipe Inside Diameter =	5.995			
Velocity, υ =	3061	ft/min or	51.01	ft/sec

Reynolds Number, $R_e = 394WV/(\nu d)$ where: (Equation Ref: Crane page 3-2)

W =	2,642	lbs/hr
V =	13.6	ft^3/lb
ν =	15.8	centistokes
d =	6.0	inches

Calculated R_e =	149,595	turbulent flow, R_e>4000	Ratio of pipe Diameters	0.66
Relative roughness =	0.000010	From Crane A-23 for drawn tubing		
Friction Factor, f_T =	0.017	from Moody Diagram Crane A-24		

Max Pipe length = 600 ft

Pipe fittings include: (Equation Ref: Crane pages A-26 through A-29)

$K_{tee} = 60f_T$ (flow through branch) =	0.99	for	4	piece(s) =	4.0
$K_{gate\ valve} = 8f_T$ =	0.132	for	2	piece(s) =	0.3
$K_{contraction} = 0.5*(1-\beta^2)*sqrt(sin(o/2))/\beta^4$ =	1.4	@ 1x =	0	piece(s) =	0.0
$K_{enlargement} = (1-\beta^2)^2/\beta^4$ =	1.64	@ 1x =	1	piece(s) =	1.6
$K_{90oElbow} = 30f_T$ =	0.495	@ 6x =	6	piece(s) =	3.0
$K_{pipe} = f_TL/D$ =					19.8
Total resistance coefficient, K =					28.6

where: β = ratio of small to large diameter, o = angle of convergence

Pressure Drop, DP = (28x10-8*K*W2*V)/(d4)
(Equation Ref: Crane page 3-4)

where:
ΔP = pressure drop (psig)
K = resistance coefficient
W = flow rate (lbs/hr)
V = specific volume (ft^3/lb)
d = inside diameter (inches)

Calculated ΔP = 0.59 psig = 16.36 in H_2O

Conditions of Extracted Air

Assume the required vacuum at the wellhead is	45	inches of water vacuum gauge or	1.6	psig	
For headloss calcs, assume a extracted air will be	80	^oF			
Density of Air at Above Conditions =	0.0734	lb_m/ft^3 =	0.001175721	gm/cc	(per Air Pollution Control pg. 654)
Specific Volume =	13.6	ft^3/lb			
Viscosity, μ =	0.0186	centipoise =	0.00018595	gm/cm-sec (poise) =	1.2496E-05 lb/ft-sec (per Air Pollution Control pg. 654)
Well airflow rate =	320.0	scfm or	19,200	cf/hr =	1,409 lbs/hr

The min number of wells required to operate are 8 SVE for the pulsed approach to AAS operations

Required SVE Blower Vacuum Estimation

Pressure Drop Through 4" DR 21 HDPE Pipe (drawn tubing). Fittings (assume metal fitting calculations from Crane A-26-29)

Pipe Inside Diameter =	3.97	Rinker Materials PolyPipe Division PPI B-1003 Rev 08/03		
Velocity, υ =	465	ft/min or	7.76	ft/sec

320
280

Reynolds Number, $R_e = 394WV/(\nu d)$ where: (Equation Ref: Crane page 3-2)

W =	1,409	lbs/hr
V =	13.6	ft^3/lb
ν =	15.8	centistokes
d =	3.970	inches

Calculated R_e =	120,480	turbulent flow, R_e>4000
Relative roughness =	0.000030	From Crane A-23 for drawn tubing
Friction Factor, f_T =	0.023	from Moody Diagram Crane A-24

Pipe length = 8 ft

Pipe fittings include: (Equation Ref: Crane pages A-26 through A-29)

$K_{tee} = 60f_T$ (flow through branch) =	1.38	for	8	piece(s) =	11.0
$K_{gate\ valve} = 8f_T$ =	0.184	for	1	piece(s) =	0.2
$K_{contraction} = 0.5*(1-\beta^2)*sqrt(sin(o/2))/\beta^4$ =	-	@ 1x =	0	piece(s) =	0.0
$K_{enlargement} = (1-\beta^2)^2/\beta^4$ =	0.0	@ 1x =	1	piece(s) =	0.0
$K_{90oElbow} = 30f_T$ =	0.69	@ 6x =	3	piece(s) =	2.1
$K_{pipe} = f_TL/D$ =					0.6
Total resistance coefficient, K =					13.9

where: β = ratio of small to large diameter, o = angle of convergence

Pressure Drop, $\Delta P = (28x10^{-8}*K*W^2*V)/(d^4)$
(Equation Ref: Crane page 3-4)

where:
ΔP = pressure drop (psig)
K = resistance coefficient
W = flow rate (lbs/hr)
V = specific volume (ft^3/lb)
d = inside diameter (inches)

Calculated ΔP = 0.42 psig = 11.70 in H_2O

Conditions of Extracted Air

Assume the required vacuum at the wellhead is			45	inches of water vacuum gauge or		1.6	psig
For headloss calcs, assume a extracted air will be			80	°F			
Density of Air at Above Conditions =			0.0734	lb_m/ft^3 =	0.001175721	gm/cc	(per Air Pollution Control pg. 654)
Specific Volume =	13.6	ft^3/lb					
Viscosity, μ =	0.0186	centipoise =	0.00018595	gm/cm-sec (poise) =	1.2496E-05	lb/ft-sec	(per Air Pollution Control pg. 654)
Well airflow rate =	40.0	scfm or	2,400	cf/hr =	176	lbs/hr	

The min number of wells required to operate are 8 SVE for the pulsed approach to AAS operations

Required SVE Blower Vacuum Estimation

Pressure Drop Through 4" DR 21 HDPE Pipe (drawn tubing). Fittings (assume metal fitting calculations from Crane A-26-29)

Pipe Inside Diameter =	3.97	Rinker Materials PolyPipe Division PPI B-1003 Rev 08/03			
Velocity, υ =	465	ft/min or	7.76	ft/sec	320
					280

Reynolds Number, $R_e = 394WV/(\nu d)$ where: (Equation Ref: Crane page 3-2)

W =	176	lbs/hr
V =	13.6	ft^3/lb
ν =	15.8	centistokes
d =	3.970	inches

Calculated R_e =	15,060	turbulent flow, R_e>4000
Relative roughness =	0.000015	From Crane A-23 for drawn tubing
Friction Factor, f_T =	0.027	from Moody Diagram Crane A-24

Pipe length = 630 ft

Pipe fittings include: (Equation Ref: Crane pages A-26 through A-29)

$K_{tee} = 60f_T$ (flow through branch) =	1.62	for	5	piece(s) =	8.1
$K_{gate\ valve} = 8f_T$ =	0.216	for	1	piece(s) =	0.2
$K_{contraction} = 0.5*(1-\beta^2)*sqrt(sin(o/2))/\beta^4$ =	1.4	@ 1x =	0	piece(s) =	0.0
$K_{enlargement} = (1-\beta^2)^2/\beta^4$ =	1.6	@ 1x =	0	piece(s) =	0.0
$K_{90oElbow} = 30f_T$ =	0.81	@ 6x =	6	piece(s) =	4.9
$K_{pipe} = f_T L/D$ =					51.4
where: β = ratio of small to large diameter, o = angle of convergence					
Total resistance coefficient, K =					64.6

Pressure Drop, $\Delta P = (28x10^{-8}*K*W^2*V)/(d^4)$
(Equation Ref: Crane page 3-4)

where:
- ΔP = pressure drop (psig)
- K = resistance coefficient
- W = flow rate (lbs/hr)
- V = specific volume (ft^3/lb)
- d = inside diameter (inches)

Calculated ΔP = 0.03 psig = 0.85 in H_2O

Summary of Required SVE Blower Vacuum

The required vacuum at the SVE wellhead is	45.0	inches of water
Moisture separator pressure drop (data from other sites)	6	inches of water
Total estimated pressure drop in pipe and fittings =	28.9	inches of water
Additional estimated pressure drop in pipe and fittings inside remediation enclosure (assumed based on former systems) =	20.0	inches of water
Total Required SVE Blower Vacuum	99.9	inches of water

AAS SYSTEM DESIGN CALCULATIONS
Site 1159
OLF Bronson at N.A.S. Pensacola

AAS System Design

The total area to cover is approximately = 68,200 ft^2
The radius of influence of the AAS wells is assumed = 30 ft to be conservative
The aerial coverage of an AAS well = 2,827 ft^2
The number of AAS wells required to cover the area = 24.1 wells, say 31.0 wells based on proposed system operational layout
There will be a total of 31 AAS wells. These wells will be divided into three separate legs.

The depth of contamination = 52 ft below ground surface
The depth to groundwater = 15 ft below ground surface
The depth of groundwater to sparge is = 37 ft
The porosity of the soil = 0.3
The volume of water to be aerated = 757,020 ft^3

Note: Depth to groundwater varies across the site, but a 30-ft submergence will be maintained across the site for GW treatment.

The average flow rate per well is assumed = 20 scfm
The total number of AAS wells in Leg 3 will be 8 AAS wells
The total flow rate for the AAS Leg 3 = 160 scfm
On a daily basis the air:water volumetric ratio = 0.30

AAS Blower Operating Conditions:

Inlet Air Temperature = 100 ^oF = 560 ^oR
Inlet Absolute Air Pressure = 14.6 psia

Outlet Air Pressure = 554 in of H_2O = 20.0 psig
Outlet Absolute Air Pressure = 960 in of H_2O = 34.7 psia
Blower Efficiency = 0.63
Blower Outlet Temperature = 347 ^oF, Equation Ref: Bill Day/CH2M HILL

For headloss calcs, assume a heat exchanger will bring the AAS blower discharge air temperature to 100 ^oF

Conditions of Injected Air

Density of Air at Above Conditions = 0.0708 lb/ft^3 = 0.001134074 gm/cc (per Air Pollution Control pg. 654)
Specific Volume = 14.1 ft^3/lb
Viscosity, μ = 0.0194 centipoise = 0.000194215 gm/cm-sec (poise) = 1.3051E-05 lb/ft-sec (per Air Pollution Control pg. 654)

Highest airflow rate for the 8 wells on Leg A3 160 scfm or 9,600.0 ft^3/hr = 679.7 lbs/hr

Required AAS Blower Pressure Estimation

Pressure Drop Through 4" DR 21 HDPE Pipe (drawn tubing). Fittings (assume metal fitting calculations from Crane A-26 to -29)

Pipe Inside Diameter = 3.97 Rinker Materials PolyPipe Division PPI B-1003 Rev 08/03
Velocity, υ = 1861 ft/min or 31.02 ft/sec

Reynolds Number, $R_e = 394WV/(\nu d)$ where: (Equation Ref: Crane page 3-2)

W = 679.7 lbs/hr
V = 14.1 ft^3/lb
ν = 17.1 centistokes
d = 3.970 inches

where: ΔP = pressure drop (psig)
K = resistance coefficient
W = flow rate (lbs/hr)
V = specific volume (ft^3/lb)
d = inside diameter (inches)

Calculated R_e = 55,633.5 turbulent flow, R_e>4000
Relative roughness = 0.000015 From Crane A-23 for drawn tubing
Friction Factor, f_T = 0.019 from Moody Diagram Crane A-24

Ratio of pipe Diameters 0.53

Max Pipe Length = 325 ft
Pipe fittings include: (Equation Ref: Crane pages A-26 through A-29)

$K_{tee} = 60f_T$ (flow through branch) =	1.1 for	3	piece(s) =	3.4
$K_{globe\ valve} = 340f_T$ =	6.5 for	2	piece(s) =	12.9
$K_{contraction} = 0.5*(1-\beta^2)*sqrt(sin(o/2))/\beta^4$ =	4.4 @ 1x =	1	piece(s) =	4.4
$K_{enlargement} = (1-\beta^2)^2/\beta^4$ =	6.7 @ 1x =	0	piece(s) =	0.0
$K_{90oElbow} = 30f_T$ =	0.6 @ 6x =	6	piece(s) =	3.4
$K_{pipe} = f_TL/D$ =				18.7
Total resistance coefficient, K =				42.8

where: β = ratio of small to large diameter, o = angle of convergence

Pressure Drop, $\Delta P = (28x10^{-8}*K*W^2*V)/(d^4)$
(Equation Ref: Crane page 3-4)

Calculated ΔP = 0.31 psig = 8.72 in H_2O

Pressure Drop Through 2" DR 17 HDPE Pipe (drawn tubing). Fittings (assume metal fitting calculations from Crane A-26 to -29)

Pipe Inside Diameter =	2.095	Rinker Materials PolyPipe Division PPI B-1003 Rev 08/03		Max Flow Through 2"	20	scfm	
Velocity, υ =	835	ft/min or	13.92 ft/sec	1,200.0	ft^3/hr =	85.0	lbs/hr

Reynolds Number, $R_e = 394WV/(\nu d)$ where: (Equation Ref: Crane page 3-2)

W =	85.0	lbs/hr
V =	14.1	ft^3/lb
ν =	17.1	centistokes
d =	2.095	inches

Calculated R_e =	13,178	turbulent flow, R_e>4000
Relative roughness =	0.00003	From Crane A-23 for drawn tubing
Friction Factor, f_T =	0.027	from Moody Diagram Crane A-24

Max pipe length = 410 ft

Pipe fittings include: (2) ball valve, (2) 90° elbows (Equation Ref: Crane pages A-26 through A-29)

$K_{tee} = 60f_T$ (flow through branch) =	1.62	for	1	piece(s) =	1.6
$K_{tee} = 20f_T$ (flow through run) =	0.54		12	piece(s) =	6.5
$K_{globe\ valve} = 340f_T$ =	9.18	for	1	piece(s) =	9.2
$K_{contraction} = 0.5*(1-\beta^2)*sqrt(sin(o/2))/\beta^4$ =	-	@ 1x =	0	piece(s) =	0.0
$K_{enlargement} = (1-\beta^2)^2/\beta^4$ =	0	@ 1x =	0	piece(s) =	0.0
$K_{90oElbow} = 30f_T$ =	0.81	@ 6x =	4	piece(s) =	3.2
$K_{pipe} = f_T L/D$ =					63.4
where: β = ratio of small to large diameter, o = angle of convergence					
Total resistance coefficient, K =					83.9

Pressure Drop, $\Delta P = (28x10^{-8}*K*W^2*V)/(d^4)$
(Equation Ref: Crane page 3-4)

where:
ΔP = pressure drop (psig)
K = resistance coefficient
W = flow rate (lbs/hr)
V = specific volume (ft^3/lb)
d = inside diameter (inches)

Calculated ΔP = 0.1244 psig = 3.45 in H_2O

Summary of Required AAS Blower Pressure

The required pressure to push a	37	ft of water column =	16.0	psi (at bottom of the screen)
Heat exchanger pressure drop (Operational data from SS-275)			4	psi
Total estimated pressure drop in pipe and fittings =			0.4	psi
Total Required AAS Blower Pressure			20.5	psi

Will scope a 25 psi blower for operation to compensate for water table fluctuations

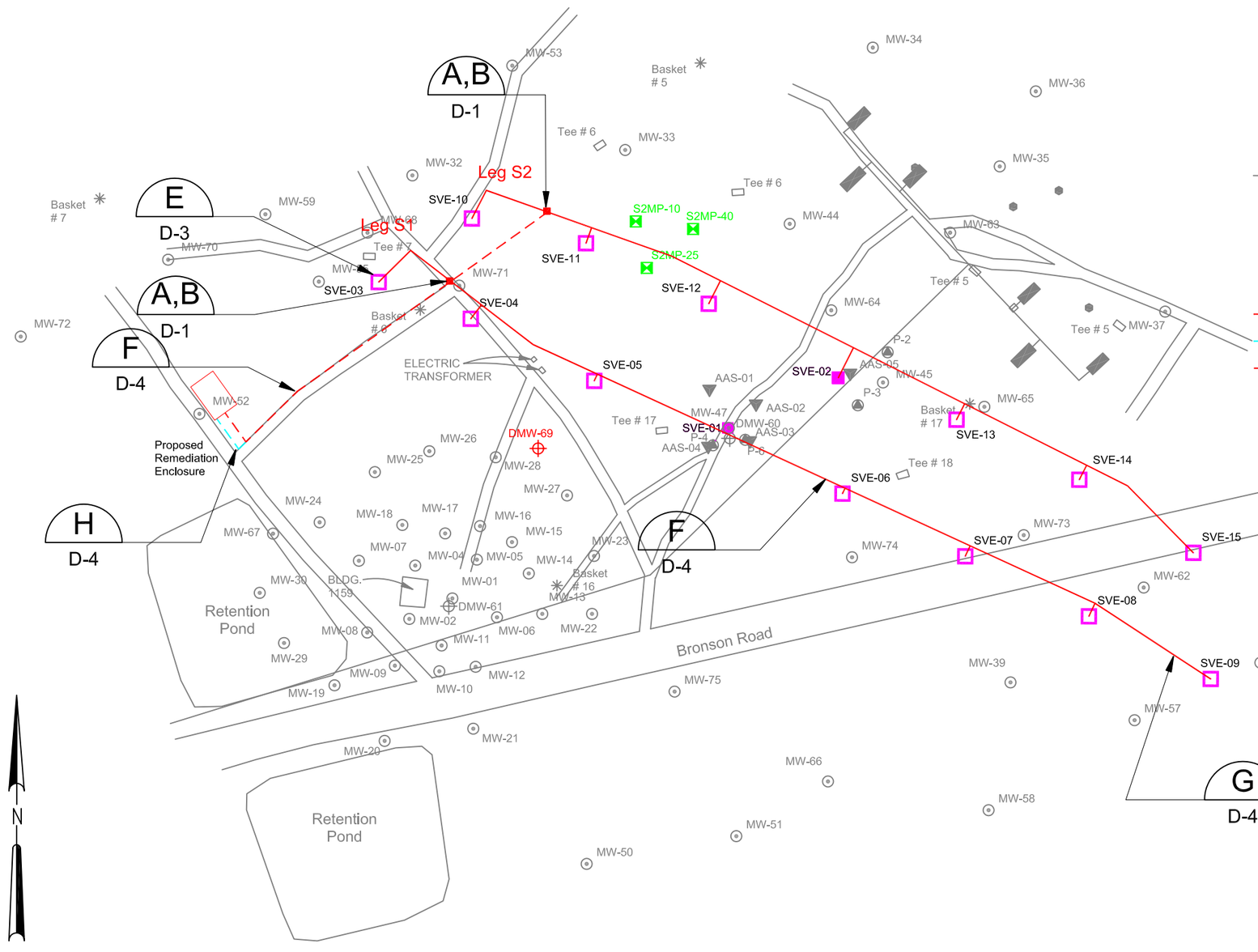
Bentonite Seal Integrity Check

Thickness of bentonite seal in well =		3	ft		
Thickness of overburden =		38	ft		
Density of bentonite =	80	lbs/ft^3			
Density of overburden =	140	lbs/ft^3			
Pressure of bentonite =	240	lbs/ft^2 or	1.7	psi	
Pressure of overburden =	5320	lbs/ft^2 or	37	psi	
Total pressure =	5560	lbs/ft^2 or	39	psi	40

Therefore, the air injection pressure is far below the pressure of the bentonite and overburden and will not cause problems with blowout.

Appendix H

System Design Drawings



LEGEND

- MW-65 — Monitoring Well Location and Designation
- DMW-60 — Deep Monitoring Well Location and Designation
- P-3 — Peizometer Location and Designation
- S2MP-10 — Saturated Zone Monitoring Point
- Oak Tree
- Pine Tree
- Tent Platform
- Old Fuel Tank Containment
- Former Fuel Distribution Line
- Existing AAS Well Location
- Existing SVE Well Location
- Gopher Tortoise Burrows
- Proposed SVE Well
- Proposed SVE Mainline
- Proposed Electrical Conduit
- Proposed System Well Lines

Note:

1. Wells will have inndividual lines from wellhead to the corresponding vaults, but are shown as one on this figure for simplification.
2. For individual SVE Treatment well details please see Table 1, D-1.
3. Actual well depths will be determined in the field, based on actual surveyed location elevations.

DSGN	H.HERNANDEZ						
DR	D.T.HERR						
CHK	H.HERNANDEZ						
APVD	C.HOOD	NO.	DATE	REVISION	BY	APVD	

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OLF BRONSON FIELD SITE 1159
AAS/SVE SYSTEM DESIGN
N.A.S. PENSACOLA, FL.

DESIGN DRAWINGS

SHEET 1
DWG NO. C-1
DATE January 2007
PROJ NO. 266690.20.01.03.26

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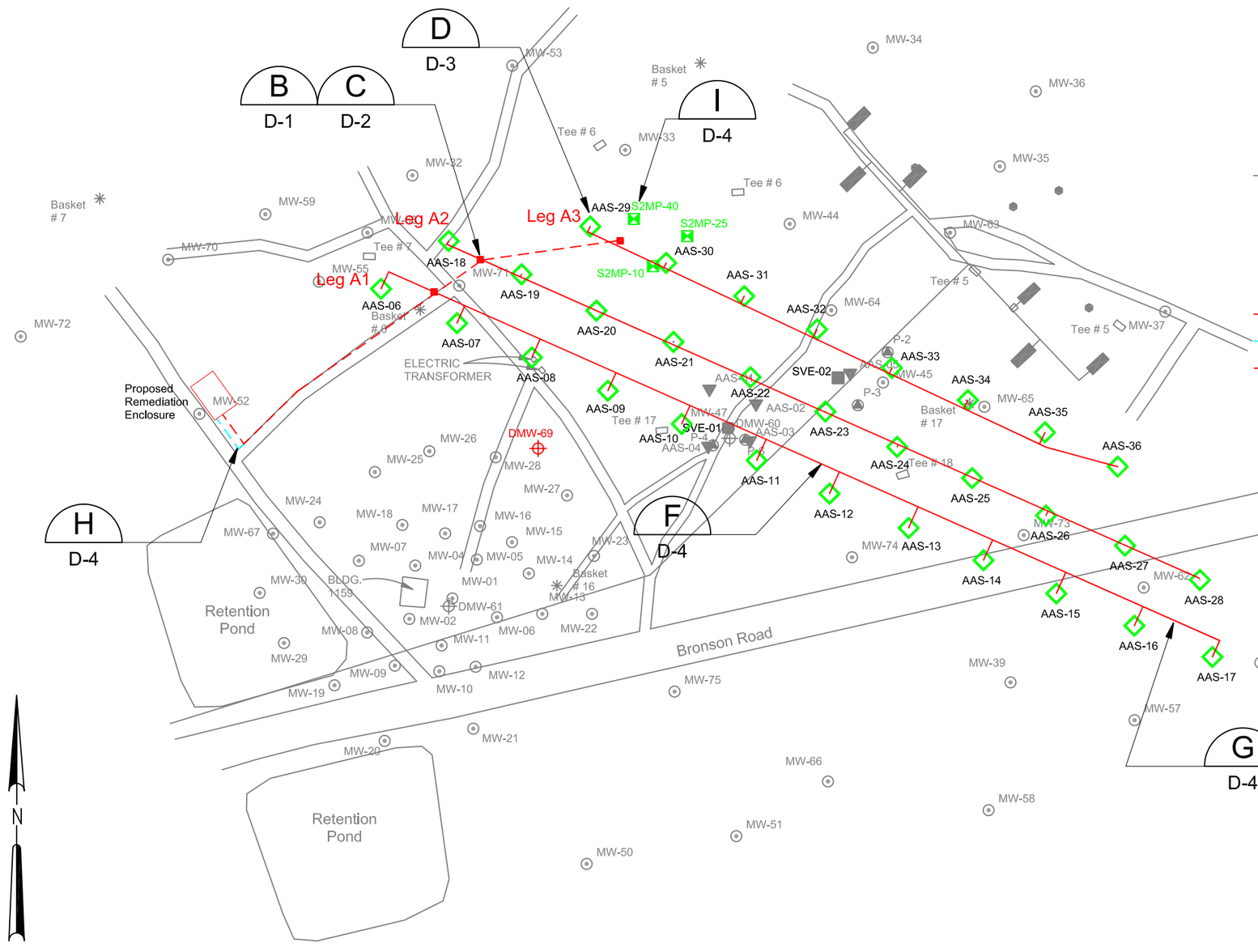

LEGEND

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- Existing SVE Well Location
- Gopher Tortoise Burrows
- Proposed AAS Well
- Proposed SVE Mainline
- Proposed Electrical Conduit
- Proposed System Well Lines

Note:

1. Wells will have inndividual lines from wellhead to the corresponding vaults, but are shown as one on this figure for simplification.
2. For individual AAS Treatment well details please see Table 1, D-2.
3. Actual well depths will be determined in the field, based on actual surveyed location elevations.

0 90 180 270

Scale: 1" = 90'

DSGN	H.HERNANDEZ					
DR	D.T.HERR					
CHK	H.HERNANDEZ					
APVD	C.HOOD	NO.	DATE	REVISION	BY	APVD

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AAS/SVE SYSTEM DESIGN
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DESIGN DRAWINGS

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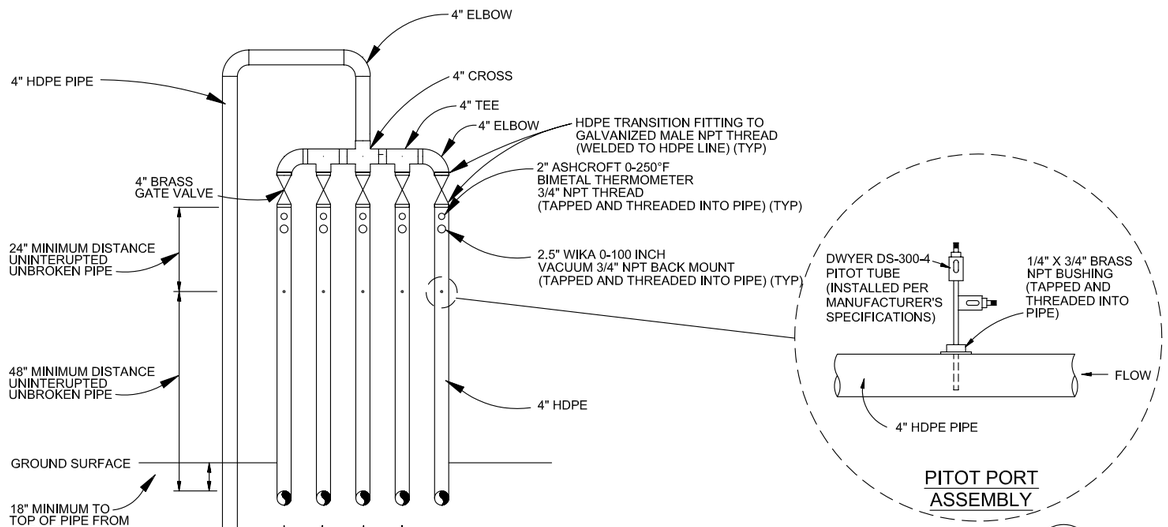
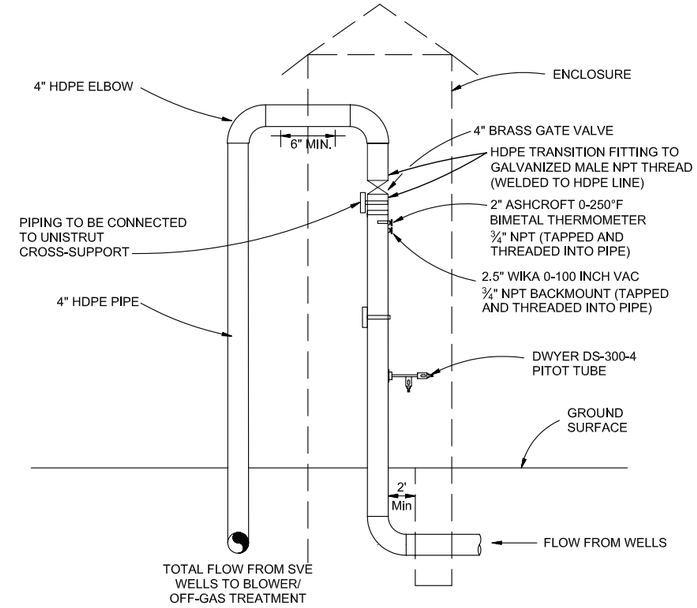


FRONT VIEW

TYPICAL SVE MANIFOLD (A) C-1

NOTE:

1. ALL 4" AND 6" PIPE AND FITTINGS WILL BE DR21 HDPE UNLESS OTHERWISE SPECIFIED. SCHEDULE 40 PVC OR SCHEDULE 80 PVC MAY BE USED DEPENDING ON INSTALLATION TECHNIQUE USED (AS DIRECTED BY CH2M HILL).
2. LEGS S-1 AND S-2 WILL HAVE SEPARTE MAIN LINES TO THE REMEDIATION ENCLOSURE.



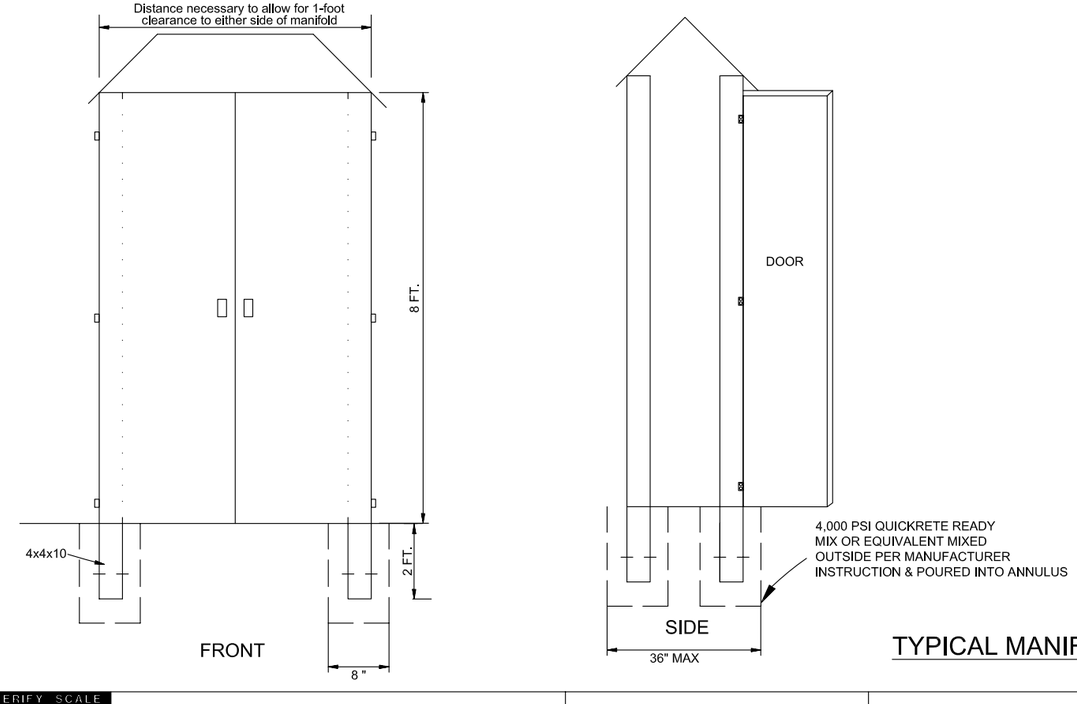
SIDE VIEW

Table 1

Treatment Well ID	Diameter	Screened Interval (ft bls)	Screen Size (inches)	Total Depth (ft bls)	System Manifold Connection
1159-SVE-01*	4	8-16	0.020	50	Leg S1
1159-SVE-02*	4	14-24	0.020	50	Leg S2
1159-SVE-03	4	4.5-7.5	0.020	40	Leg S1
1159-SVE-04	4	5-8	0.020	50	Leg S1
1159-SVE-05	4	5-8	0.020	50	Leg S1
1159-SVE-06	4	7-15	0.020	50	Leg S1
1159-SVE-07	4	7-10	0.020	50	Leg S1
1159-SVE-08	4	7-10	0.020	50	Leg S1
1159-SVE-09	4	7-10	0.020	50	Leg S1
1159-SVE-10	4	8-12	0.020	50	Leg S2
1159-SVE-11	4	9-18	0.020	50	Leg S2
1159-SVE-12	4	9-18	0.020	50	Leg S2
1159-SVE-13	4	9-19	0.020	50	Leg S2
1159-SVE-14	4	7-10	0.020	50	Leg S2
1159-SVE-15	4	7-10	0.020	50	Leg S2

* EXISTING SVE WELL

Note:
All wells will be constructed using flush-threaded, Schedule 40 polyvinyl chloride risers and well screens. Locations will be installed based upon field conditions during system installation.



TYPICAL MANIFOLD ENCLOSURE (B) C-1

DSGN	H.HERNANDEZ					
DR	D.T.HERR					
CHK	H.HERNANDEZ					
APVD	C. HOOD	NO.	DATE	REVISION	BY	APVD

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IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

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DESIGN DRAWINGS

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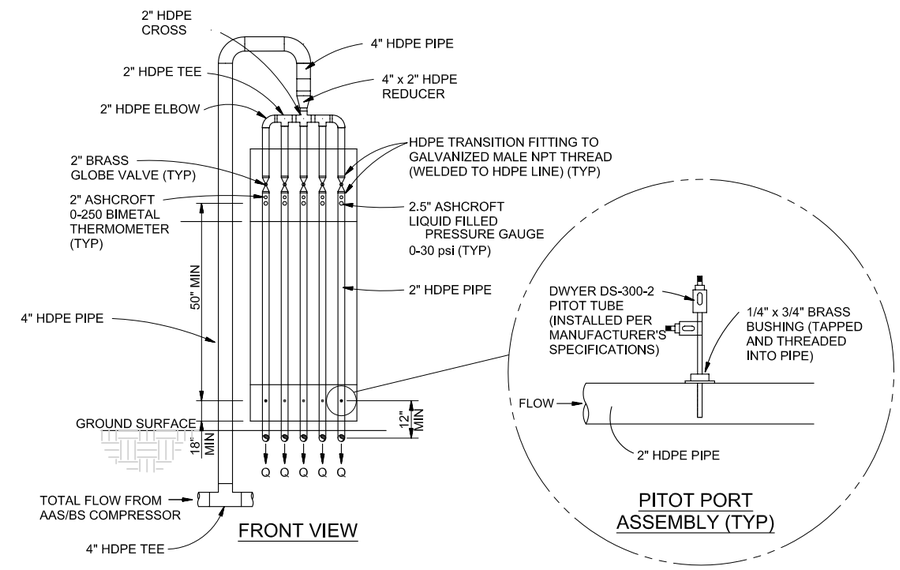
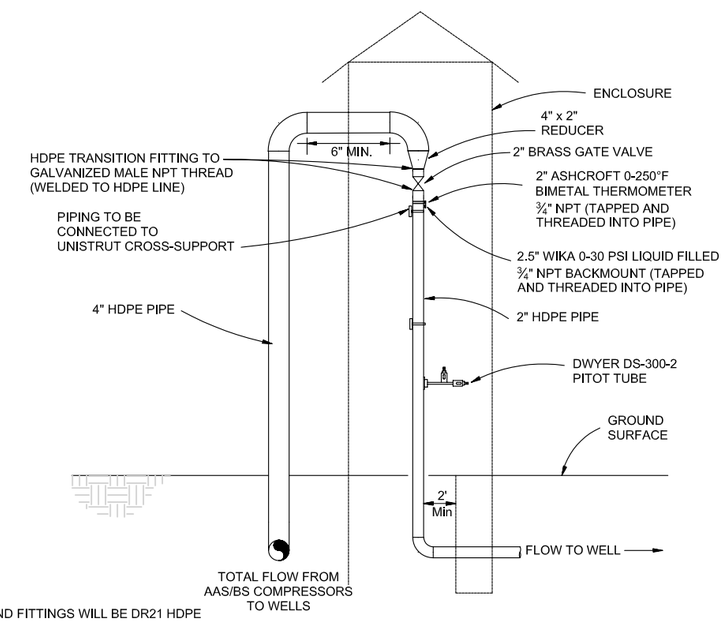
Table 2

Treatment Well ID	Diameter	Screened Interval (ft bls)	Screen Size (inches)	Total Depth (ft bls)	System Manifold Connection
1159-AAS-06	2	38-40	0.020	40.5	Leg A1
1159-AAS-07	2	38-40	0.020	40.5	Leg A1
1159-AAS-08	2	40-42	0.020	42.5	Leg A1
1159-AAS-09	2	42-44	0.020	44.5	Leg A1
1159-AAS-10	2	42-44	0.020	44.5	Leg A1
1159-AAS-11	2	44-46	0.020	46.5	Leg A1
1159-AAS-12	2	43-45	0.020	45.5	Leg A1
1159-AAS-13	2	43-45	0.020	45.5	Leg A1
1159-AAS-14	2	46-48	0.020	48.5	Leg A1
1159-AAS-15	2	46-48	0.020	48.5	Leg A1
1159-AAS-16	2	46-48	0.020	50.5	Leg A1
1159-AAS-17	2	46-48	0.020	48.5	Leg A1
1159-AAS-18	2	40-42	0.020	42.5	Leg A2
1159-AAS-19	2	40-42	0.020	42.5	Leg A2
1159-AAS-20	2	42-44	0.020	44.5	Leg A2
1159-AAS-21	2	42-44	0.020	44.5	Leg A2
1159-AAS-22	2	42-44	0.020	44.5	Leg A2
1159-AAS-23	2	42-44	0.020	44.5	Leg A2
1159-AAS-24	2	42-44	0.020	44.5	Leg A2
1159-AAS-25	2	40-42	0.020	42.5	Leg A2
1159-AAS-26	2	40-42	0.020	42.5	Leg A2
1159-AAS-27	2	46-48	0.020	48.5	Leg A3
1159-AAS-28	2	46-48	0.020	48.5	Leg A2
1159-AAS-29	2	52-54	0.020	54.5	Leg A3
1159-AAS-30	2	52-54	0.020	54.5	Leg A3
1159-AAS-31	2	52-54	0.020	54.5	Leg A3
1159-AAS-32	2	52-54	0.020	54.5	Leg A3
1159-AAS-33	2	52-54	0.020	54.5	Leg A3
1159-AAS-34	2	52-54	0.020	54.5	Leg A3
1159-AAS-35	2	52-54	0.020	54.5	Leg A3
1159-AAS-36	2	50-52	0.020	52.5	Leg A3

Note:
All wells will be constructed using flush-threaded, Schedule 40 polyvinyl chloride risers and well screens. Locations will be installed based upon field conditions during system installation. Existing AAS-04 will be connected to the Leg A3 manifold.





NOTE:
1. 4" PIPE AND FITTINGS WILL BE DR21 HDPE
   2" PIPE AND FITTINGS WILL BE DR17 HDPE
   SCHEDULE 40 PVC OR SCHEDULE 80 PVC MAY BE USED DEPENDING ON INSTALLATION TECHNIQUE USED (AS DIRECTED BY CH2M HILL)
2. ACTUAL NUMBER OF LINES WILL DIFFER PER MANIFOLD

TYPICAL AAS MANIFOLD (C / C-2)

DR H.HERNANDEZ / D.T.HERR						VERIFY SCALE: BAR IS ONE INCH ON ORIGINAL DRAWING. 0 — 1". IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.
CHK H.HERNANDEZ						
APVD C. HOOD	NO.	DATE	REVISION	BY	APVD	

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AAS/SVE SYSTEM DESIGN
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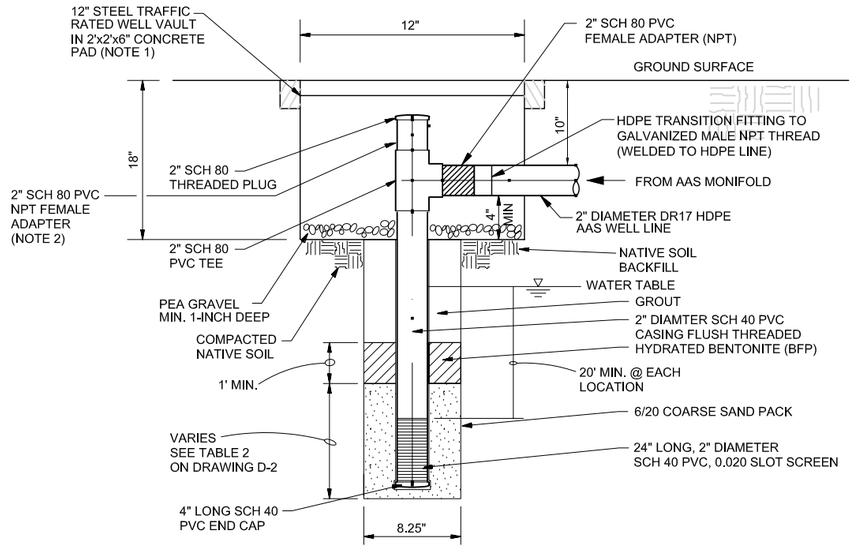
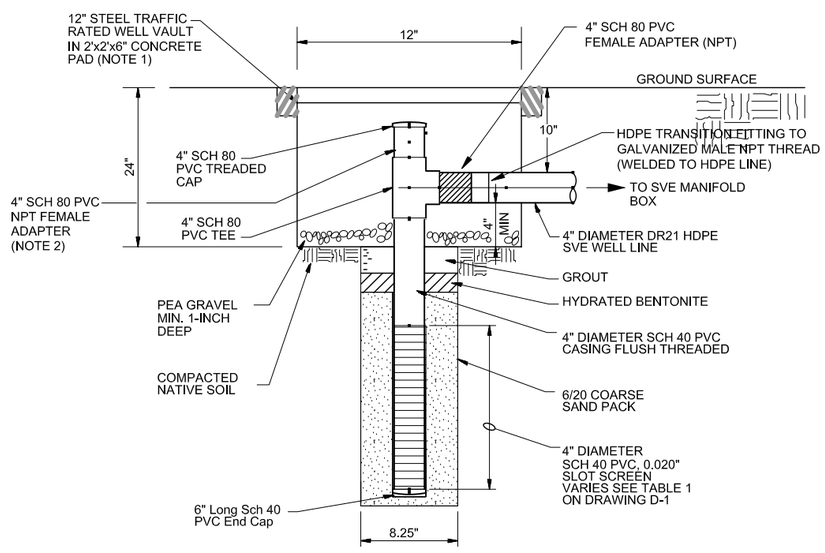


AAS WELL DETAIL (D)

NTS — C-2



4" SVE WELL DETAIL (E)

NTS — C-1

Notes for Details D, E, F AND G:

1. Well vault and cover shall be constructed of a traffic-rated material to be selected by the Subcontractor and approved by the Contractor.
2. Fittings used should allow for 2" unobstructed inside diameter. For AAS/BS wells and 4" unobstructed inside diameter for SVE wells.

DR	H.HERNANDEZ					
CHK	D.T.HERR					
APVD	H.HERNANDEZ					
	C. HOOD	NO.	DATE	REVISION	BY	APVD

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OLF BRONSON FIELD SITE 1159
AAS/SVE SYSTEM DESIGN
N.A.S. PENSACOLA, FL.

DESIGN DRAWINGS

SHEET 5
DWG NO. D-3
DATE January 2007
PROJ NO. 266690.22.01.03.26

266690_design_d-3.dwg 03-Feb-2007

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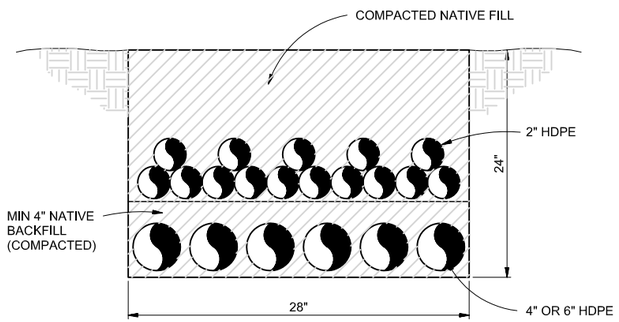
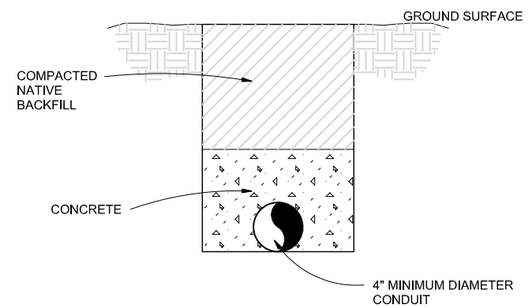


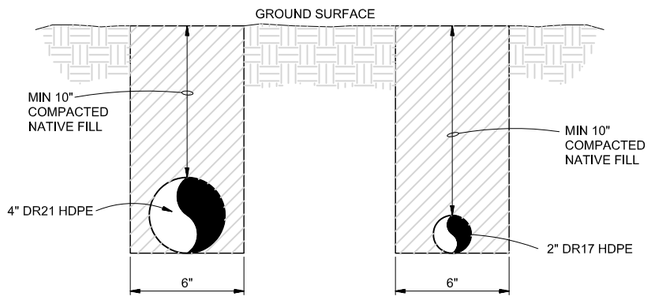
TYPICAL MAIN TRENCH (F) C-1 C-2



ELECTRICAL TRENCH (H) C-1 C-2

NOTE:

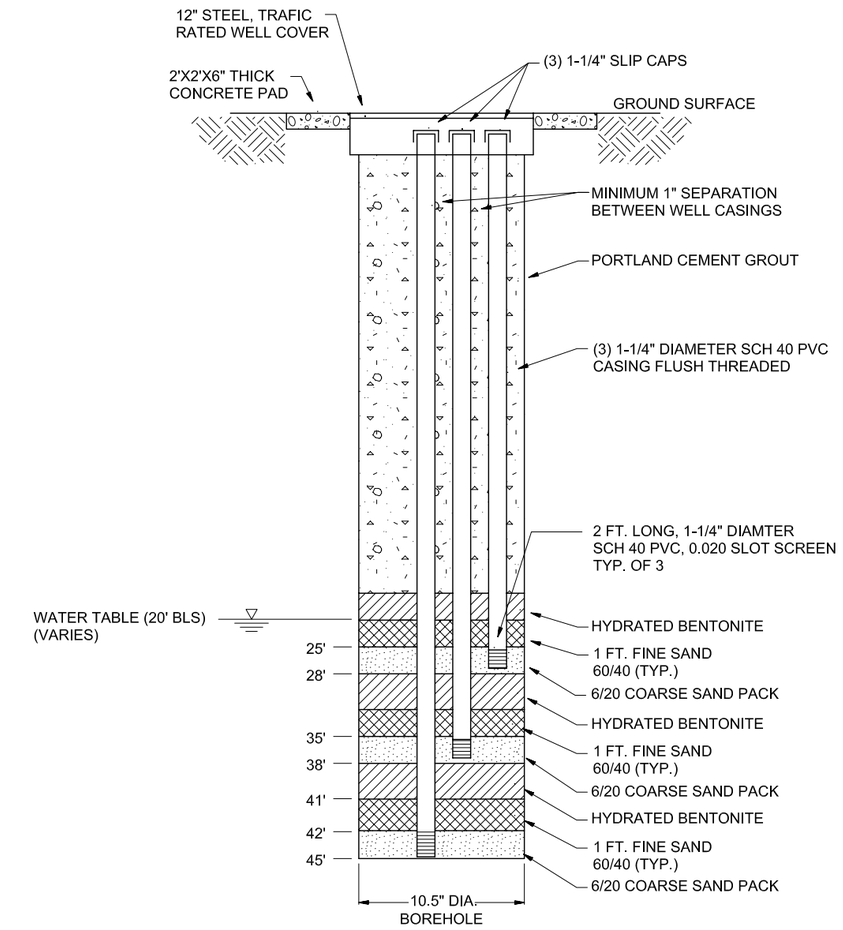
SUBCONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE ELECTRICAL CODES.



SINGLE WELL LINE TRENCH (G) C-1 C-2

NOTE:

1. ALL DEBRIS, ROOTS, ROCKS MUST BE REMOVED FROM BACKFILL MATERIAL PRIOR TO REFILLING COMPACTING TRENCHES.
2. ALL 2" PIPE AND FITTINGS WILL BE DR17 HDPE UNLESS OTHERWISE SPECIFIED.
3. ALL 4" AND 6" PIPE AND FITTINGS WILL BE DR21 HPDE UNLESS OTHERWISE SPECIFIED. SCHEDULE 40 PVC OR SCHEDULE 80 PVC MAY BE USED DEPENDING ON INSTALLATION TECHNIQUE USED (AS DIRECTED BY CH2M HILL).



NESTED SATURATED ZONE MONITORING POINT (SZMP) DETAIL (I) C-2

NTS

NOTE:

WELL VAULT AND COVER SHALL BE CONSTRUCTED OF A TRAFFIC-RATED MATERIAL TO BE SELECTED BY THE SUBCONTRACTOR AND APPROVED BY THE CONTRACTOR.

DSGN H.HERNANDEZ						
DR D.T.HERR						
CHK H.HERNANDEZ						
APVD C. HOOD	NO.	DATE	REVISION	BY	APVD	

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AAS/SVE SYSTEM DESIGN
N.A.S. PENSACOLA, FL.

TRENCH LINE AND SZMP DESIGN DRAWINGS

SHEET 6
DWG NO. D-4
DATE November 2007
PROJ NO. 266690.22.01.03.26

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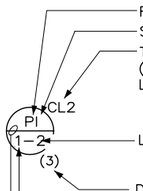
REUSE OF DOCUMENTS:

INSTRUMENT IDENTIFICATION

BUBBLE SYMBOL



- FIRST LETTER(S)
- SUCCEEDING LETTERS
- TYPE, ACTION OR CONTROL (SEE ABBREVIATIONS & LETTER SYMBOLS)
- LOOP NUMBER
- DENOTES NUMBER OF UNITS
- UNIT PROCESS NUMBER
- INSTRUMENT LOCATION. TYPE OR ABSENCE OF LINE DENOTES LOCATION (SEE AT RIGHT)

INSTRUMENT LOCATION SYMBOL

MOUNTED INSTRUMENT

REAR-OF-PANEL MOUNTED INSTRUMENT

PANEL MOUNTED INSTRUMENT

MOTOR CONTROL CENTER MOUNTED INSTRUMENT

DIGITAL LOGIC CONTROL INTEGRAL TO THE DISTRIBUTED CONTROL SYSTEM (FUNCTION NOT NORMALLY ACCESSIBLE TO THE OPERATOR)

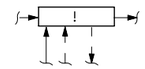
DIGITAL LOGIC CONTROL INTEGRAL TO THE DISTRIBUTED CONTROL SYSTEM (FUNCTION OPERATOR ACCESSIBLE)

INSTRUMENT SOCIETY OF AMERICA TABLE (ISA)

LETTER	FIRST LETTER(S)		SUCCEEDING LETTERS		
	PROCESS OR INITIATING VARIABLE	MODIFIER	READOUT OR PASSIVE FUNCTION	OUTPUT FUNCTION	MODIFIER
A	ANALYSIS (*)		ALARM		
B	BURNER FLAME		USERS CHOICE (*)	USERS CHOICE (*)	USERS CHOICE (*)
C	CONDUCTIVITY			CONTROL	
D	DENSITY (S.G.)	DIFFERENTIAL			
E	VOLTAGE		PRIMARY ELEMENT		
F	FLOW RATE	RATIO			
G	GAUGE		GLASS	GATE	
H	HAND (MANUAL)				HIGH
I	CURRENT		INDICATE		
J	POWER	SCAN			
K	TIME OR SCHEDULE			CONTROL STATION	
L	LEVEL		LIGHT (PILOT)		LOW
M	MOTION				MIDDLE
N	USERS CHOICE (*)		USERS CHOICE (*)	USERS CHOICE (*)	USERS CHOICE (*)
O	USERS CHOICE (*)		ORIFICE		
P	PRESSURE (OR VACUUM)		POINT (TEST CONNECTION)		
Q	QUANTITY OR EVENT (*)	INTEGRATE	INTEGRATE		
R			RECORD OR PRINT		
S	SPEED OR FREQUENCY	SAFETY		SWITCH	
T	TEMPERATURE			TRANSMIT	
U	MULTIVARIABLE (*)		MULTIFUNCTION (*)		
V	VISCOSITY			VALVE	
W	WEIGHT OR FORCE	WELL			
X	UNCLASSIFIED (*)		UNCLASSIFIED (*)	UNCLASSIFIED (*)	UNCLASSIFIED (*)
Y	USERS CHOICE (*)			RELAY OR COMPUTE (*)	
Z	POSITION			DRIVE, ACTUATE OR UNCLASSIFIED FINAL CONTROL ELEMENT	

(*) WHEN USED, EXPLANATION IS SHOWN ADJACENT TO INSTRUMENT SYMBOL. SEE ABBREVIATIONS AND LETTER SYMBOLS.

MISCELLANEOUS SYMBOLS


INTERLOCK

CHECK VALVE

SAMPLE TAP

SILENCER

LEVEL (FLOAT)

AIR FILTER

PUMP

BLOWER

PRESSURE SAFETY VALVE

GATE VALVE

AUTO DILUTION VALVE

120V — EQUIPMENT REQUIRING 120VAC POWER

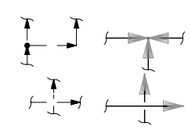
24VDC — EQUIPMENT REQUIRING 24VDC POWER

ABBREVIATIONS AND LETTER SYMBOLS

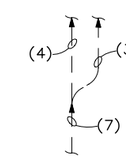
AAH	ANALYZER ALARM HIGH
AAHH	ANALYZER ALARM HIGH HIGH
AAS	AQUIFER AIR SPARGE
AE	ANALYZER ELEMENT
AIT	ANALYZER INDICATING TRANSMITTER
CP	CONTROL PANEL
FI	FLOW INDICATOR
FIT	FLOW INDICATING TRANSMITTER
HOA	HAND OFF AUTO
HS	HAND SWITCH
KM	HOUR METER
LAHH	LEVEL ALARM HIGH HIGH
LIH	LOWER EXPLOSIVE LIMIT ALARM HIGH
LIT	LOWER EXPLOSIVE LIMIT INDICATING TRANSMITTER
LSH	LEVEL SWITCH HIGH
LSHH	LEVEL SWITCH HIGH HIGH
LSL	LEVEL SWITCH LOW
OO	ON OFF
PI	PRESSURE INDICATOR
PIT	PRESSURE INDICATOR TRANSMITTER
QA	EVENT ALARM
QL	EVENT LIGHT
SS	START STOP
SVE	SOIL VAPOR EXTRACTION
TAH	TEMPERATURE ALARM HIGH
TAHH	TEMPERATURE ALARM HIGH HIGH
TSHH	TEMPERATURE SWITCH HIGH HIGH
TI	TEMPERATURE INDICATOR
TIT	TEMPERATURE INDICATING TRANSMITTER
VGAC	VAPOR – PHASE GRANULAR ACTIVATED CARBON

LINE LEGEND

- MAIN PROCESS
- SECONDARY PROCESS
- BY-PASS PROCESS
- DISCRETE SIGNAL (ON/OFF)
- —A— MODULATED SIGNAL (4–20 MADC)
- —P— DIGITAL PULSE SIGNAL


CONNECTING LINES

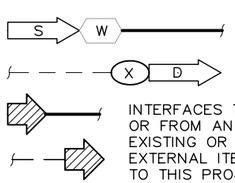
NON-CONNECTING LINES



PARALLELING SIGNAL LINES (PARENTHETICAL NUMBERS INDICATE NUMBER OF SIGNALS)

(1) SIGNAL LINE CONTINUATION POINT WITHIN A DRAWING

INTERFACE SYMBOLS



INTERFACES TO OR FROM AN EXISTING OR EXTERNAL ITEM TO THIS PROJECT.

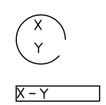
PROCESS INTERFACE

SIGNAL INTERFACE

D DESTINATION DRAWING NO.
S SOURCE DRAWING NO.
W INTERFACE NO.
X INTERFACE LETTER

EQUIPMENT TAG NUMBERS

EQUIPMENT TYPE SYMBOLS
P = PUMP
T = TANK
M = MECHANICAL EQUIPMENT
Y: LOOP NUMBER



GENERAL NOTES

1. ■ – PROVIDED BY FIELD PIPING SUB-CONTRACTOR.
2. ◆ – PROVIDED BY AAS/SVE PROCESS EQUIPMENT SUBCONTRACTOR
3. THIS IS A STANDARD LEGEND SHEET. THEREFORE, NOT ALL THE INFORMATION SHOWN MAY BE USED ON THIS PROJECT.

DSGN	H.HERNANDEZ
DR	D.T.HERR
CHK	H.HERNANDEZ
APVD	C. HOOD

NO.	DATE	REVISION	BY	APVD

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OLF BRONSON SITE 1159
AAS/SVE SYSTEM DESIGN
N.A.S. PENSACOLA, FL.

PROCESS INSTRUMENTATION AND CONTROLS
INSTRUMENTATION AND CONTROL LEGEND

SHEET	7
DWG NO.	I-1
DATE	January 2007
PROJ NO.	266690.20.01.03.13

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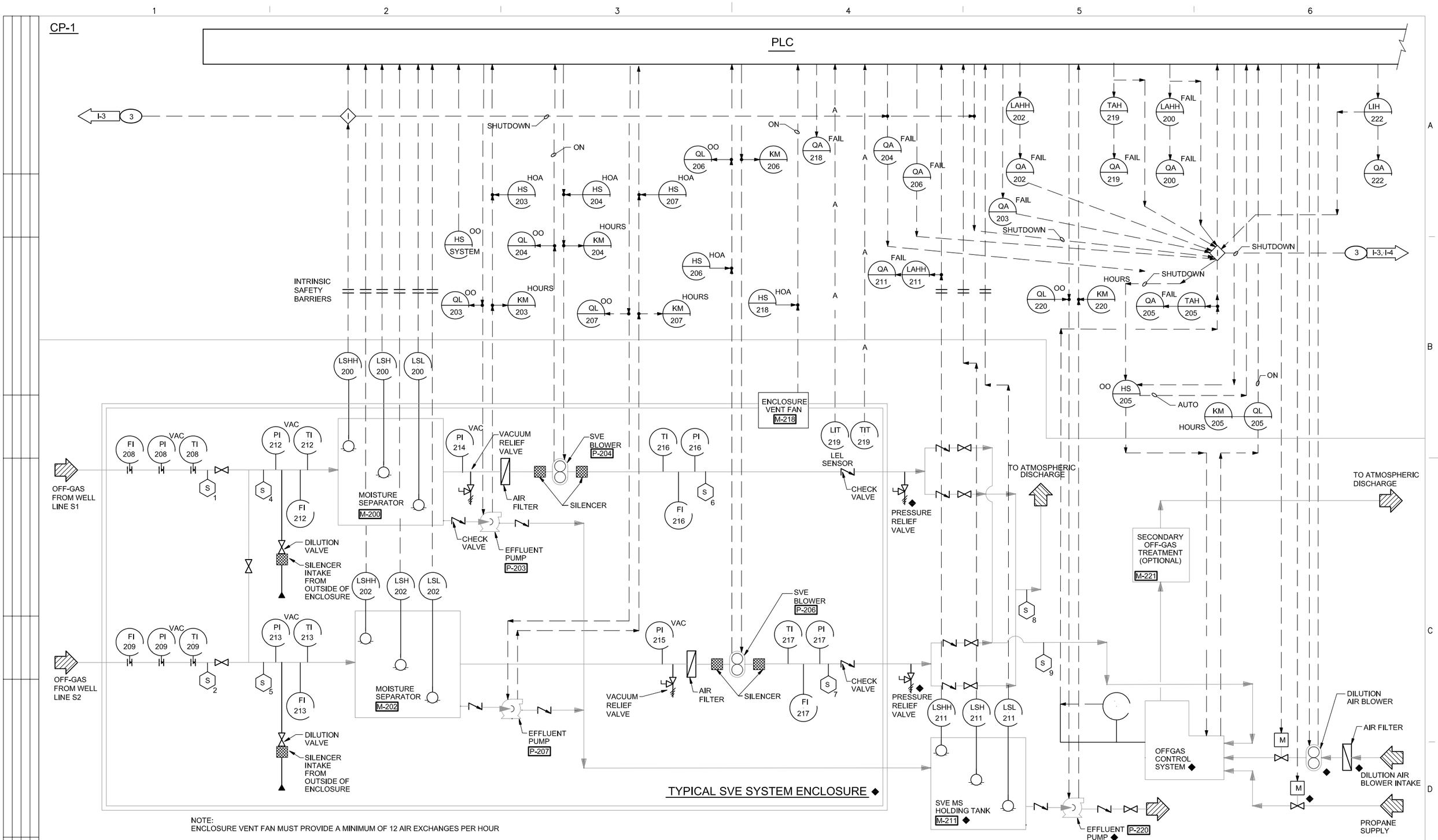

NOTE:
ENCLOSURE VENT FAN MUST PROVIDE A MINIMUM OF 12 AIR EXCHANGES PER HOUR

DSGN	H.HERNANDEZ					
DR	D.T.HERR					
CHK	H.HERNANDEZ					
APVD	C. HOOD	NO.	DATE	REVISION	BY	APVD

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OLF BRONSON FIELD SITE 1159
AAS/SVE SYSTEM DESIGN
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PROCESS INSTRUMENTATION AND CONTROLS
SVE SYSTEM
PROCESS AND INSTRUMENTATION DIAGRAM

SHEET	8
DWG NO.	I-2
DATE	January 2007
PROJ NO.	266690.20.01.03.13

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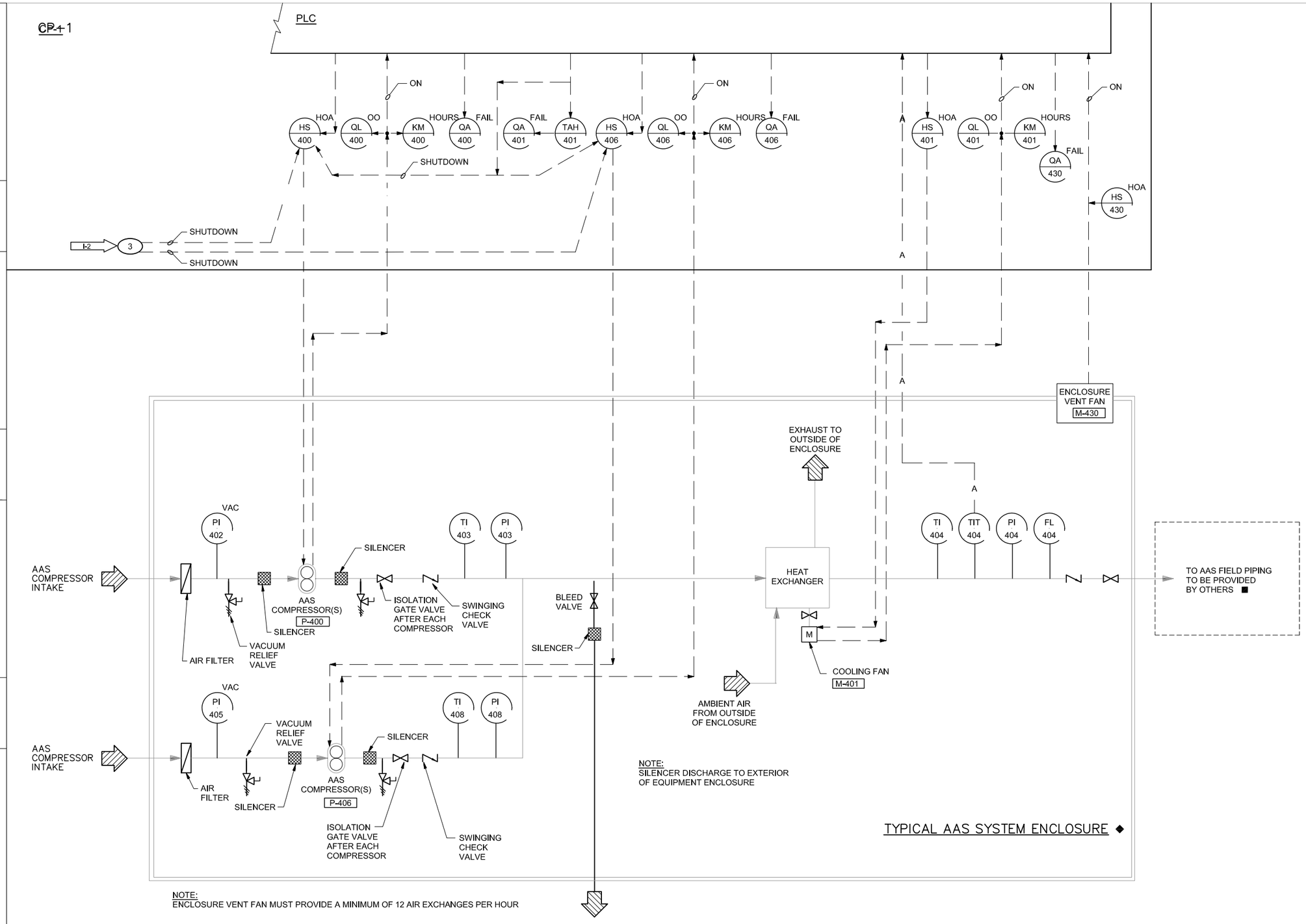

NOTE:
ENCLOSURE VENT FAN MUST PROVIDE A MINIMUM OF 12 AIR EXCHANGES PER HOUR

DSGN	H. HERNANDEZ					
DR	D. T. HERR					
CHK	H. HERNANDEZ					
APVD	C. HOOD	NO.	DATE	REVISION	BY	APVD

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AAS/SVE SYSTEM DESIGN
N.A.S. PENSACOLA, FL.

PROCESS INSTRUMENTATION AND CONTROLS

AAS SYSTEM
PROCESS AND INSTRUMENTATION DIAGRAM

SHEET	9
DWG NO.	I-3
DATE	January 2007
PROJ NO.	266690.20.01.03.13

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Appendix I

Tree Coring Memorandum

Results from the Site 1159, Bronson Field Tree Coring Investigation for Residual BTEX Constituents

TO: Hector Hernandez/NVR

FROM: Thomas Spriggs/TPA

CC: Phyllis Zerangue/NVR

DATE: September 22, 2006

Executive Summary

On July 20 – 21, 2006, CH2M HILL staff, including a phytoremediation specialist and an environmental scientist, conducted a site investigation and tree core tissue sampling event in the mature tree stand at the Blue Angel Naval Recreation Area, Site 1159, Bronson Field near Pensacola, FL. The trees were examined by using an increment borer to extract core samples later analyzed for trace amounts of the volatile organic compounds (VOCs) benzene, toluene, ethylbenzene, and xylenes (BTEX). The shallow aquifer under this tree stand is impacted by a petroleum plume last known to be migrating southwest under a mixed stand of oak and pine trees. The main project objective was to identify whether or not BTEX constituents were being taken up by trees located in the general area of the plume. Ancillary objectives included evaluating whether a BTEX plume could be delineated using core data and whether dissolved lead found in the shallow groundwater could be taken up by trees above the plume.

Recent groundwater measurements place the aquifer approximately 8 feet below ground surface (bgs) although past measurements indicate groundwater as shallow as 4 feet bgs. Soils at this location are typically silty sands with some clayey sand lenses above the water table. Considering the effects of capillary action, tree roots from these mature trees were considered to be within the smear zone where residual BTEX constituents may be present. Trees selected for sampling, in the plume area, were located near monitoring wells where groundwater exceeded groundwater clean-up target levels (GCTLs) and monitored natural attenuation (MNA) criteria for both BTEX and lead during the last groundwater sampling event in June 2006. Tree sample locations are presented on Exhibit **1**. A single sampling event collected tree cores from two locations: a non-impacted, upgradient control location (near wells MW-34 and 36) and from a plume-impacted, downgradient location (near wells MW-25, 28, 47, 55, 70, and 73) for comparison.

Work performed during this field study included:

- Inspected the wooded area above the approximate extent of the shallow groundwater plume;
- Evaluated the available mature trees in the vicinity of the original source of BTEX contamination, area upgradient of the source, and that area downgradient of the

source. Trees were selected to be a minimum of 12 inches in diameter at breast height (DBH);

- Collected tree core tissue from two (2) live oak trees, two (2) laurel oak trees, and two (2) pine trees for BTEX analysis to represent the upgradient control area. Two cores were removed from each tree and packaged in separate VOA vials;
- Collected tree core tissue from four (4) live oak trees, four (4) laurel oak trees, nine (9) pine trees, and one (1) cypress tree for BTEX analysis to represent the downgradient, impacted area. Two cores were removed from each tree and packaged in separate VOA vials; and,
- Seven (7) cores located near monitoring wells with past positive results for groundwater dissolved lead were selected for lead analysis. No control trees were selected at the time since this analysis and data would not help meet the project objectives. Data were examined to evaluate possible ecological risks by the groundwater-based lead.

Results from this field study revealed the following key observations:

- Trees sampled in the areas over the BTEX plume had detections for benzene, toluene, ethylbenzene, and xylenes.
- Trees sampled in the control area upgradient of the plume source, had minor detections for ethylbenzene, toluene, and xylenes.
- Two of the seven tree cores selected for lead analysis had estimated detections for dissolved lead.

Sampling Methodology

Tree Core Tissue Sampling

Sample Collection

At each sampling location, two tree cores were obtained 4 to 6 inches apart on the trunk at approximately 4 feet above the ground surface following sampling techniques demonstrated by Ma and Burken (2002). Samples were obtained from the upgradient side of the tree to groundwater flow, or in the majority of cases, the east side of each tree. Four (4) inch cores were extracted from the trees using a 12 inch long, 0.200 inch diameter, Increment Borer (Forestry Suppliers) and placed within their respective pre-weighed volatile organic analysis (VOA) vials.

Tree core control samples were collected from six mature trees in an area upgradient of the delineated plume (Exhibit 1) with the objective of securing samples from trees growing in soils with no soil contamination. A variety of trees were identified from a site evaluation, so two trees from three species were selected: live oak (*Quercus virginiana*), laurel oak (*Quercus laurifolia*), and slash pine (*Pinus elliotti*) referred to as LI, LA, and PI. Later, tree core tissue was obtained from 17 trees of the three species identified above over the shallow BTEX

plume downgradient from the source area in a mature oak and pine forest. A single pond cypress (*Taxodium ascendens*) was sampled near MW-70.

Laboratory Analyses

Samples were analyzed for BTEX and dissolved lead (Pb) at the CH2M HILL Applied Sciences Laboratory (ASL) in Corvallis, Oregon.

Results

The data discussed below is summarized in Exhibit 2.

Dissolved Lead Analysis

Tree core tissue from two of the seven sample trees had estimated detections for dissolved lead (trees 14-LI and 15-LA). The reporting limit (RL) for both of these samples was 1.00 mg/kg dry weight (DW), indicating that even though the results were estimated, they make a strong case for the presence of lead.

BTEX Analysis

Tree core tissue from all controls had detections for toluene. Some, but not all, control trees had detections for ethylbenzene (CTRL2-PI) and some minor detections of *m,p*-xylenes (CTRL1-4, 6) were noted while estimated detections for benzene (CTRL1-3) and *o*-xylene (CTRL1, 3, 4, & 7) were observed.

Tree core tissue in those trees downgradient from the source area had isolated detections of all BTEX constituents. However, all tree cores indicated the presence of toluene at varying concentrations. The lowest detected concentration of toluene was 0.639 µg/kg fresh weight (FW) in tree 9-LI whereas the highest concentration of 130 µg/kg FW was reported in tree 10-PI. Excluding the controls, pines led laurel and live oak trees with average toluene concentrations of 23.9, 2.42, and 1.86 µg/kg FW, respectively.

Other notable items from this sampling event include benzene and toluene detections in tree 18-PI of 1.54 and 14.9 µg/kg FW, respectively. In tree 19-PI, detections of ethylbenzene, *m,p*-xylene, *o*-xylene, and toluene of 6.47, 75.3, 4.29, and 3.95 µg/kg FW were observed.

Discussion

Dissolved Lead Analysis

The estimated detections of lead in tree samples 14-LI and 15-LA are unique considering the source of contamination present on this sampling site and the physiological uptake pathway lead would take to reach the sample tissue location (found in the trunk). Lead naturally occurs in some isolated areas, though deposition from anthropogenic sources may be a more likely source. Research has found that lead-tetraalkyls found in soils can be quickly converted into water-soluble form lead forms and easily available to plants (Kabata-Pendias and Pendias, 2001). The lead-tetraalkyl contamination found in the groundwater at this site was known to originate from past petroleum spills in the area and considering the fluctuating shallow groundwater aquifer in this area, uptake is possible though at limited levels. The indiscriminate dispersion of low level lead found at this site would require

future evaluation, but at this time, the levels of estimated detections do not appear to be at high enough levels to pose an ecological risk.

BTEX Analysis

Volatile organic compounds from anthropogenic and biogenic sources play an important role in atmospheric chemistry (Schnitzler, et al., 2002). Biogenic volatile organic compounds (BVOCs) refer to a naturally synthesized group of organic atmospheric trace gases (excluding CO_2 and CO) found in the environment.

Other VOCs, specifically toluene investigated here, have natural or biogenic sources. Heiden et al. (1999) found sunflower and pine trees both emitted toluene under stress conditions though no toluene biochemical production pathway could be clearly identified. Low levels of toluene were observed under normal growing conditions during Heiden's study though no direct correlations can be made to our study results to confirm or exclude background or normal toluene levels in pines. Emission rates of 13 ng/g·hr (DW) toluene were reported in their study. Trees are not known to naturally produce benzene, ethylbenzene, or xylene as biogenic VOCs so these contaminants could be examined as markers for uptake. Atmospheric deposition could explain some low level detections if leaf tissue had been evaluated, but levels found in the trunk were more likely to be translocated through the transpiration stream emanating from the roots, not from foliage sources. Though no stress (pathogen, water, or nutrient) was observed or confirmed in the select pine control trees to induce toluene production, it may be possible that low level BTEX contamination has migrated into the upgradient vadose zone since toluene was reported in all controls. This unexplained movement of contaminants has been reported by other field investigators, but not published since the transport mechanism(s) could not be fully described (Newman, 2006). Future sampling near this site could determine the extent of this contamination effect.

The BTEX contaminants found in some core tissue samples and quantified in this sampling event all have log K_{ow} (Octanol/Water Coefficient) values theoretically possible for uptake ($1.0 < K_{ow} < 3.0$; Burken and Schnoor, 1999) into plant tissues under these conditions. The log K_{ow} values for benzene, toluene, ethylbenzene, and xylenes are 2.13, 2.69, 3.15, and 3.12 – 3.20, respectively. The four constituents are slightly soluble and most are either easily degraded by microbial means or readily transfer out of the water phase (EPA, 2006). The proximity of contaminated groundwater via capillary action to root surfaces should be considered. Capillary action of soil pores can cause water to rise above the water table, creating a capillary fringe making is possible for deep rooted plants to extract this water. The extent of the capillary fringe becomes greater with increasing clay content (smaller soil pores) and may extend several feet above the water table. Carsel and Parrish (1988) report a capillary fringe of 5.3 inches for sandy loam, 6.7 inches for sandy clay loam, 20.7 inches for clay loam, and 49.2 inches for clay soils. Oak trees in these sandy or sands with clay lens soil conditions such as those at this site generally do not root much deeper than 4 to 6 feet (personal observation of downed trees onsite) while pine species root deeper with a predominantly coarse root structure. Movement of BTEX to regions near roots for uptake may have occurred over time with fluctuating groundwater levels and the associated capillary action or by volatilization processes in the pore space.

The results indicate the presence of BTEX constituents greater than those trees described as background controls, particularly in trees 10-PI (toluene, 130 µg/kg FW) and 19-PI (xylenes and ethylbenzene, 75.3 and 6.47 µg/kg FW, respectively). Therefore, uptake of bioavailable BTEX constituents is most likely occurring in the root zone of the pine trees. Breakdown of BTEX by microbial processes is likely to occur in the root zone of these species since microbial and mycorrizal colonies adapt and grow on fine root surfaces, cometabolizing the BTEX carbon as an alternate substrate. Uptake will also occur when the smear zone of the petroleum plume rises during elevated groundwater events.

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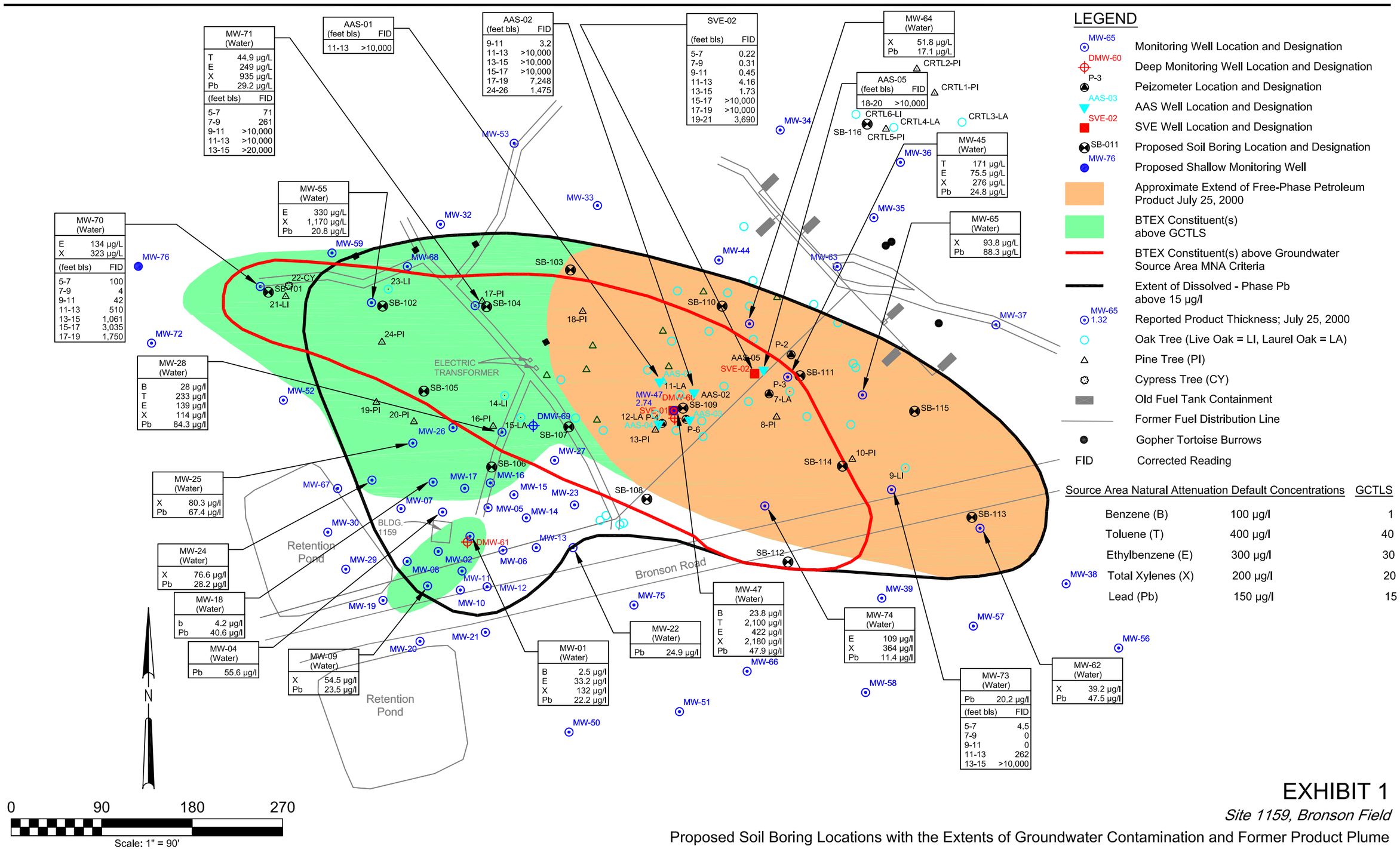

EXHIBIT 1

Site 1159, Bronson Field

Proposed Soil Boring Locations with the Extents of Groundwater Contamination and Former Product Plume

CH2MHILL

266690_proposed-soil.dwg
13-Sep-06

EXHIBIT 2: BTEX & Lead Analyses Results in Tree Core Samples

CTO 71, Bronson Site 1159

Phytoremediation Tree Core Sampling, July 20 - 21, 2006

Bronson Site 1159	Station ID	CTRL1-LI	CTRL2-PI	CTRL3-LA	CTRL4-LA	CTRL5-PI	CTRL6-LI	7-LA	8-PI	9-LI	10-PI	11-LA	12-LA
	Sample ID	CTRL1-LI	CTRL2-PI	CTRL3-LA	CTRL4-LA	CTRL5-PI	CTRL6-LI	7-LA	8-PI	9-LI	10-PI	11-LA	12-LA
	Sample Date	7/20/2006	7/20/2006	7/20/2006	7/20/2006	7/20/2006	7/20/2006	7/20/2006	7/20/2006	7/20/2006	7/20/2006	7/20/2006	7/20/2006
Parameter	**Unit**												
SW6010B													
Lead	MG/KG								0.493 U			0.333 U	0.377 U
SW8260B													
Benzene	UG/KG	**0.207 J**	**0.256 J**	**0.127 J**	0.298 U	0.442 U	0.314 U	0.272 U	**0.214 J**	**0.0913 J**	**0.273 J**	**0.182 J**	0.303 U
Ethylbenzene	UG/KG	**0.148 J**	**0.513**	**0.158 J**	**0.149 J**	0.442 U	**0.126 J**	**0.109 J**	0.427 U	**0.114 J**	0.391 U	**0.121 J**	**0.121 J**
m,p-Xylene (sum of isomers)	UG/KG	**0.355**	**1.15**	**0.443**	**0.357**	0.442 U	**0.377**	**0.299**	0.427 U	**0.274**	0.391 U	0.303 U	0.303 U
o-Xylene (1,2-Dimethylbenzene)	UG/KG	**0.178 J**	0.427 U	**0.253 J**	**0.208 J**	0.442 U	**0.22 J**	**0.217 J**	0.427 U	**0.114 J**	0.391 U	0.303 U	0.303 U
Toluene	UG/KG	**1.45**	**22.6**	**1.01**	**0.923**	**3.72**	**0.503**	**0.761**	**22.1**	**0.639**	**130**	**4.36**	**1.64**

Bronson Site 1159	Station ID	13-PI	14-LI	15-LA	16-PI	17-PI	18-PI	19-PI	20-PI	21-LI	22-CY	23-LI	24-PI
	Sample ID	13-PI	14-LI	15-LA	16-PI	17-PI	18-PI	19-PI	20-PI	21-LI	22-CY	23-LI	24-PI
	Sample Date	7/20/2006	7/21/2006	7/21/2006	7/21/2006	7/21/2006	7/21/2006	7/21/2006	7/21/2006	7/21/2006	7/21/2006	7/21/2006	7/21/2006
Parameter	**Unit**												
SW6010B													
Lead	MG/KG	0.523 U	**0.991 J**	**0.657 J**	0.333 U								
SW8260B													
Benzene	UG/KG	**0.191 J**	**0.85**	**0.686**	**0.216 J**	**0.131 J**	**1.54**	**0.226 J**	**0.296 J**	**0.411**	0.42 U	**0.361**	**0.208 J**
Ethylbenzene	UG/KG	0.476 U	**0.327**	**0.245**	0.36 U	0.327 U	0.376 U	**6.47**	0.37 U	**0.121 J**	0.42 U	0.258 U	0.347 U
m,p-Xylene (sum of isomers)	UG/KG	0.476 U	**0.882**	**0.588**	0.36 U	0.327 U	0.376 U	**75.3**	0.37 U	**0.314**	**0.63**	0.258 U	0.347 U
o-Xylene (1,2-Dimethylbenzene)	UG/KG	0.476 U	**0.294 J**	**0.172 J**	0.36 U	0.327 U	0.376 U	**4.29**	0.37 U	**0.121 J**	0.42 U	0.258 U	0.347 U
Toluene	UG/KG	**5.05**	**3.79**	**2.92**	**8.63**	**7.75**	**14.9**	**3.95**	**4.00**	**1.69**	**5.00**	**1.34**	**18.7**

Notes:	
U - The analyte was analyzed, but not detected.	0.476 U
J - Estimated value	**0.191 J**
Control Tree Sample	**CTRL1-LI**
Bold/Hatched - The analyte was detected in a Control tree	**1.45**
Bold/Shaded - The analyte was detected in a selected field tree	**5.05**