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FINAL AREA OF CONCERN 4 1999 ANNUAL GROUNDWATER REPORT VOLUME 1 OF 2
NAS FORT WORTH TX
7/1/2000
HYDROGEOLOGIC

642 0 File: 17G P.W.

NAVAL AIR STATION FORT WORTH JRB CARSWELL FIELD TEXAS

ADMINISTRATIVE RECORD COVER SHEET

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HYDRO GeoLogic INC.

FINAL AREA OF CONCERN 4
1999 ANNUAL GROUNDWATER REPORT
NAS FORT WORTH JRB, TEXAS

VOLUME I OF II

Prepared for
U.S. Air Force Center for Environmental Excellence
Brooks AFB, Texas

Contract Number F41624-95-D-8005
Delivery Order Number 0016

July 2000

HydroGeoLogic, Inc
1155 Herndon Parkway
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Herndon, Virginia 20170
(703) 478-5186

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS AIR FORCE CENTER FOR ENVIRONMENTAL EXCELLENCE
BROOKS AIR FORCE BASE TEXAS

7 July, 2000

MEMORANDUM FOR DENNIS ROGERS (TNRCC)

FROM: Michael Dodyk, P.E.
HQ AFCEE/ERD
P.O. BOX 27008
Ft Worth, TX 76127-0008

SUBJECT: UST Correspondence
Final 1999 AOC 4 Annual Groundwater Monitoring Report
NAS Fort Worth JRB, Texas (Formerly Carswell AFB)
LPST ID 108711, 108712, 108713, 104484, Bldg. 5153
Facility ID 0009696

Dear Mr. Rogers,

One copy of the Final 1999 Area of Concern 4 (AOC 4) Annual Groundwater Monitoring Report for NAS Fort Worth JRB, Texas is enclosed for your review. The goal for this submittal is to present the most current groundwater conditions at the site along with a proposal for continued monitoring. The annual report follows guidelines as presented in TNRCC Regulatory Guidance RG-43.

Supporting figures and attachments are included with the document.

Should you have any questions regarding this report, please contact me at (817) 782-7167

Sincerely,

Michael R Dodyk

Michael R. Dodyk, P.E.
Restoration Team Chief
ERA Restoration Division

Printed on Recycled Paper

Enclosures

cc:

Mr. Don Ficklen
HQ AFCEE/ERD
3207 North Road
Brooks AFB, TX 78235

Ms. Audrie Medina
UNITEC
2100 Bypass Rd., Building 580
Brooks AFB, TX 78235

RESPONSES TO COMMENTS: DRAFT AREA OF CONCERN 4 1999 ANNUAL GROUNDWATER REPORT NAS FORT WORTH JRB, TEXAS JULY 2000

Responses to UNITEC's Comments

General Comments

Comment 1 *It is recommended that the document be reviewed for spelling, grammar, and clarity. Additionally, it is recommended that the acronyms should be defined when first used in the document.*

Response **HydroGeoLogic concurs and will make the necessary revisions.**

Comment 2 *It is recommended that the delivery order number and project number be included on the title page.*

Response **HydroGeoLogic concurs and the delivery order number will be added to the title page, following the contract number.**

Specific Comments

Comment 1 *Page 1-4, Section 1.2.1.2, Line 8: Light non-aqueous phase liquid (LNAPL) was found in the groundwater greater than 0.01feet in thickness at AOC-4. Please correct.*

Response **HydroGeoLogic concurs and will modify "< 0.01 feet in thickness" to read "> 0.01 feet in thickness".**

Comment 2 *Page 1-6 and I-7, Figures 1.2 and I.3: It is recommended that the actual processes completed for AOC-4 be presented in the flowcharts.*

Response **HydroGeoLogic has moved these figures and will modify the flowcharts in Figures 1.4 and 1.5 to reflect the actual pathways taken verses the alternative pathways.**

Comment 3 *Page 2-5 and 2-6, Table 2.1: The results from the LNAPL measurements should be presented in Section 4.0, Nature and Extent of Contamination. Therefore, it is recommended that this table be presented in Section 4.3.*

Response **HydroGeoLogic concurs and will move Table 2.1 to Section 4.3, making all necessary revisions.**

Comment 4 *Page 2-7, Section 2.1.1.2, Line 3: Table 4.2 should be first referenced in Section 4.0 since it is presented in Section 4.0. It is recommended that reference to the appropriate subsection should be included instead of reference to the table.*

Response **HydroGeoLogic concurs has referenced Section 4.2 in Section 2.1.1.2.**

Comment 5 *Page 2-9, Section 2.1.5, Line 5: It is recommended that the "suite of parameters" be included in these subsections.*

Response **HydroGeoLogic concurs and will reference the following methods, VOCs (SW8260B), SVOCs (SW8270C), total metals (SW6010B), Pest/PCBs (SW8080A), and TPH (TX1005).**

Comment 6 *Page 3-1, Section 3.1.1, Line 2: It is recommended that "40-milliliter" be added before "VOC".*

Response **HydroGeoLogic concurs and will make the necessary revisions.**

Comment 7 *Page 3-1 and 3-2, Section 3.1.2 and 3.1.3, Last paragraphs: It is recommended that the contaminant(s) found are included.*

Response **HydroGeoLogic concurs and has included all contaminants in the QC data affecting each sampling round.**

Comment 8 *Page 3-2, Section 3.1.4, Line 1: The frequency of collection of field duplicates should be 10 percent. Please correct or discuss rationale for deviation from the work plan.*

Response **HydroGeoLogic incorrectly sited the frequency of field duplicate collection as 20 percent and has modified the text to indicate the frequency for field duplicate collection is 10 percent.**

Comment 9 *Page 3-2, Section 3.1.4: The results of the data evaluation should be presented in this subsection. Please include.*

Response **HydroGeoLogic concurs and will make the necessary revisions.**

Comment 10 *Page 4-1, Section 4.1, Last sentence: It is recommended that the well survey and total dissolve solids (TDS) concentrations be included in this section or include reference to the appropriate document.*

Response **HydroGeoLogic concurs and has referenced the appropriate document.**

Comment 11 *Page 4-2, Table 4.1: The Plan A Target concentration for anthracene for the Category III should be 15.6 milligrams per liter. Please correct. Additionally, it is recommended that the reference to Table A-1 be included in the footnote.*

Response **HydroGeoLogic concurs and will modify the concentration for anthracene from 13 mg/L to 15.6 mg/L. In addition, the reference to Table A-1 was added to the footnote in Table 4.1.**

Comment 12 *Page 4-3 and 4-4, Figures 4.1 and 4.2: It is recommended that the actual pathway completed for AOC-4 be presented in the flowcharts.*

Response **HydroGeoLogic has moved these figures and will modify the flowcharts in Figures 1.2 and 1.3 to reflect the actual pathways taken verses the alternative pathways.**

Comment 13 *Page 4-8 and 4-10, Section 4.2.3.2, Second and third paragraphs: It is recommended that the concentrations of methane, chloride, and dissolved oxygen versus time be presented in graphs, if appropriate.*

Response **HydroGeoLogic concurs and will include graphs for the three natural attenuation parameters.**

Comment 14 *Page 4-9, Figure 4.3: The concentration that is reported for benzene detected in the groundwater sample collected in July 1999 from monitoring well WCHMHTA008 is inconsistent with the reported concentration in Table 4.3c. Please correct.*

Response **HydroGeoLogic concurs and will modify the concentration of benzene in WCHMHTA008 from 0.036 mg/L to 0.039 mg/L.**

Comment 15 *Page 5-1, Section 5.0: It is recommended that the recommendations be distinct and clear. Additionally, the recommendations should be in a separate subsection or eliminate Subsection 5.1 heading.*

Response **HydroGeoLogic concurs and will make the necessary revisions.**

TEXAS NATURAL RESOURCE CONSERVATION COMMISSION
PETROLEUM STORAGE TANK DIVISION
CORRESPONDENCE IDENTIFICATION SHEET

Date: July 07, 2000
Site Name: AOC 4, Fuel Hydrant System
Site Address: NAS Fort Worth JRB, Texas 76127

LPST ID No.: 108711, 108712, 108713, 104484, Bldg. 4153
Facility ID No.: 0009696

This checklist **must** accompany all correspondence submitted to the RPR Section and should be affixed to the front of your submittal as a cover page. Please check the appropriate box for the type of correspondence which you have submitted to the RPR Section. Check all boxes that apply if you are submitting more than one type of correspondence. If you cannot find an appropriate category, please complete the "other" section.

PROPOSALS

☐ Initial Abatement (1)	☐ Tank Removal (2)	☐ Excavation (3)
☐ Waste Treatment (4)	☐ Site Assessment (5)	☐ Aquifer Testing (6)
☐ VES/Sparge Testing (7)	☐ Qtrly. GW Monitoring (8)	☐ CAP Prep. (9)
☐ GW Extrac./Treatment (10)	☐ Soil Vapor Extrac. (11)	☐ Operation & Main. (12)
☐ Site Closure (13)	☐ Plan A Risk Ass. (14)	☐ Plan B Risk Ass. (15)
☒ Semi-annual GW Mon. (16)*	☐ Annual GW Mon. (18)	☒ Product Recovery (19)

☐ Other proposal _____

REPORTING FORMS

☐ Assessment Report Form (TNRCC-0562)	☐ LPST Case Questionnaire
☐ Product Recovery Report Form (TNRCC-0016)	☐ Release Report Form (TNRCC-0621)
☐ Site Closure Request Form (TNRCC-0028)	☐ Monitoring Event Summary and Status Report (TNRCC-0013)
☐ Final Site Closure Report Form (TNRCC-0038)	☐ Priority 4 LPST Case Closure Request Form (TNRCC-0461)

☐ Other form _____

REPORTS

☐ Tank Closure/Removal	☐ Plan A Risk Assessment	☒ Annual Groundwater Monitoring
☐ O&M/Performance Mon.	☐ Plan B Risk Assessment	☐ CAP Installation/Modification
☐ Property Divestiture/Phase I ESA	☐ Corrective Action Plan (CAP)	☐ Aquifer/Pilot Test Results

MISCELLANEOUS

☐ Off-site access assistance	☐ Deadline Extension Request
☐ Tank tightness test results	☐ Request for State-Lead
☐ Request for LPST Waste Code	☐ Class V Reinjection Request
☐ Notice to Owner/Operator for CAS Services	☐ Petroleum-Substance Waste Manifest
☐ Notice of Continuation of Groundwater Monitoring	☐ Underground Storage Tank Registration Form
☐ Notice of Continuation of Operation and Maintenance	☐ Aboveground Storage Tank Registration Form

☐ Other (anything that does not fit into one of the categories above) _____

* The proposal for semi-annual monitoring and annual report (Proposal Activity 17) has been discontinued. For semi-annual monitoring, use Proposal Activity 16.

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I attest that all work has been conducted in accordance with accepted industry standards/practices and adhered to TNRCC guidance and rules. I certify that I am aware that misrepresentation of any of the above claims is a violation of 30 TAC 33.4453(b)(1)(E) and that this violation may result in the disciplinary actions set forth in 30 TAC 334.453 and or 334.463 and 334.465.

If a proposal is attached for preapproval, has the proposed work, in part or in whole, already been performed or in progress? ☐ Yes ☐ No

If yes, what work?_____

HydroGeoLogic, Inc.	RCAS00700	6/27/2001
(Registered Corrective Action Specialist)	(RCAS Reg. No.)	(Expiration date)

(Signature) (Date) 7/7/00

512/336-1170	512/336-0178
(Telephone #)	(Fax #)

Brad Nielsen	CAPM01291	2/16/2001
(Project Manager)	(CAPM Reg No.)	(Expiration date)

(Signature) (Date) 7/7/00

512/336-1170	512/336-0178
(Telephone #)	(Fax #)

By siguature below, I certify that documents checked above are included.

Michael Dodyk	AFCEE/ERD
(Name of Responsible Party Contact)	(Company)

(Signature) (Date) 5 July 2000

817/782-7167	817/782-6399
(Telephone #)	(Fax #)

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FINAL AREA OF CONCERN 4
1999 ANNUAL GROUNDWATER REPORT
NAS FORT WORTH JRB, TEXAS

Prepared for

Air Force Center for Environmental Excellence
Brooks AFB, Texas

Contract Number F41624-95-D-8005
Delivery Order Number 0016

Prepared by

HydroGeoLogic, Inc.
1155 Herndon Parkway, Suite 900
Herndon, VA 20170

July 2000

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REPORT DOCUMENTATION PAGE

Form Approved

QMB No 0704-0188

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1 AGENCY USE ONLY *(Leave blank)*	2 REPORT DATE July 2000	3 REPORT TYPE AND DATES COVERED Final
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6. AUTHOR(S) HydroGeoLogic, Inc		
7 PERFORMANCE ORGANIZATION NAMES(S) AND ADDRESS(S) HydroGeoLogic, Inc. 1155 Herndon Parkway, Suite 900 Herndon, VA 20170		8 PERFORMANCE ORGANIZATION REPORT NUMBER AFC001
9 SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(S) AFCEE/ERD Brooks AFB Texas 78235-5328		10 SPONSORING/MONITORING AGENCY REPORT NUMBER
11 SUPPLEMENTARY NOTES		
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3 ABSTRACT (Maximum 200 words)

This document presents the Final Area of Concern 4 Annual Groundwater Report at NAS Fort Worth JRB, Texas.

This report presents detailed results of data collected during the annual groundwater monitoring of the abandoned fuel hydrant lines underlying the South Apron and the Alert Apron.

The purpose of this effort is to provide evidence in support of closure of this unit by the Texas Natural Resource Conservation Commission (TNRCC).

14 SUBJECT TERMS			15 NUMBER OF PAGES 16 PRICE CODE
17 SECURITY CLASSIFICATION OF REPORT	18 SECURITY CLASSIFICATION OF THIS PAGE	19 SECURITY CLASSIFICATION OF ABSTRACT	20 LIMITATION OF ABSTRACT

PREFACE

This document contains the Final Area of Concern 4 1999 Annual Groundwater Report at Naval Air Station (NAS) Fort Worth Joint Reserve Base (JRB). The report is organized by sections consisting of the following: Introduction; Monitoring Activities; Quality Assurance/Quality Control Procedures; Nature and Extent of Contamination; Conclusions and Recommendations; and References.

HydroGeoLogic, Inc. (HydroGeoLogic) prepared this report under contract to the United States (U.S.) Air Force Center for Environmental Excellence (AFCEE), Contract Number F41624-95-D-8005, Delivery Order 0016, in support of the U.S. Air Force Installation Restoration (IRP) Program. The AFCEE Contracting Officer's Representative (COR) is Mr. Don Ficklen.

This report was prepared under the direction of Mr. Todd C. Harrah, HydroGeoLogic's Project Manager.

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DISCLAIMER

This Final Area of Concern (AOC) 4 1999 Annual Groundwater Report at NAS Fort Worth JRB has been prepared for the U.S. Air Force (USAF) by HydroGeoLogic for the purpose of aiding in the implementation of a final remedial action plan under the Air Force Installation Restoration Program (IRP). The limited objectives of this report and the ongoing nature of the IRP, along with the evolving knowledge of site conditions and chemical effects on the environment and health, must be considered in the evaluation of this document since subsequent investigations may make this document premature or inaccurate. Acceptance of this document in performance of the contract under which it was prepared does not mean that the USAF adopts the conclusions, recommendations, or other views expressed herein, which are those of the contractor only and do not necessarily reflect the official position of the USAF.

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LIST OF ACRONYMS AND ABBREVIATIONS

AB	ambient blank
AFB	Air Force Base
AFCEE	Air Force Center for Environmental Excellence
AOC	Area of Concern
ASTM	American Society for Testing and Materials
BTEX	benzene, toluene, ethylbenzene, xylene
°C	degrees Celsius
COC	chain-of-custody
DO	dissolved oxygen
DRO	diesel range organic
EB	equipment blank
EC	electrical conductance
EDD	electronic data deliverable
Eh	oxidation-reduction potential
EPA	U.S. Environmental Protection Agency
ERPIMS	Environmental Resources Program Information Management System
FHS	Fuel Hydrant System
FID	flame ionization detector
GC	gas chromatography
GRO	gasoline range organic
GSAP	groundwater sampling and analysis plan
IDW	Investigation Derived Waste
IRP	Installation Restoration Program
JP-4	Jet Propulsion Fuel, grade 4
JRB	Joint Reserve Base
LNAPL	light non-aqueous phase liquid
LPST	Leaking Petroleum Storage Tank
mg/L	milligrams per Liter
NAS	Naval Air Station
NCP	National Contingency Plan
PAHs	Polynuclear aromatic hydrocarbons
PCBs	polychlorinated biphenyls
PID	photoionization detector

LIST OF ACRONYMS AND ABBREVIATIONS (continued)

ppm	parts per million
PQL	practical quantitation limit
PST	petroleum storage tank
QA/QC	quality assurance/quality control
QAPP	quality assurance project plan
RCRA	Resource Conservation and Recovery Act
RPD	relative percent difference
SI	site investigation
SWMU	Solid Waste Management Unit
SVOC	semivolatile organic compound
TB	trip blank
TCE	trichloroethene
TDS	total dissolved solids
TNRCC	Texas Natural Resource Conservation Commission
TOC	total organic carbon
TPH	total petroleum hydrocarbons
UST	underground storage tank
VOC	volatile organic compound
WG	water-ground

TAB

Section 1

FINAL AREA OF CONCERN 4
1999 ANNUAL GROUNDWATER REPORT
NAS FORT WORTH JRB, TEXAS

1.0 INTRODUCTION

The objective of this Area of Concern (AOC) 4 Former Fuel Hydrant System (FHS) annual groundwater report is to summarize the analytical data obtained during four quarterly groundwater sampling and analysis events performed in 1999. Groundwater sampling events for AOC 4 were performed in conjunction with the 1999 Naval Air Station (NAS) Fort Worth Joint Reserve Base (JRB) basewide long-term groundwater sampling program. Specifically, this report summarizes the results of groundwater sampling events that occurred from January 1999 through October 1999. The investigation at AOC 4 is part of an ongoing Installation Restoration Program (IRP) at NAS Fort Worth JRB, Texas (Figure 1.1) to attain site closure by the Texas Natural Resource Conservation Commission (TNRCC), Petroleum Storage Tank (PST) Division. This report was authorized by, and proposed for the U.S. Air Force Center for Environmental Excellence (AFCEE) Contract No. F41624-95-D-8005, Delivery Order 0016.

1.1 HISTORY OF PAST INSTALLATION RESTORATION PROGRAM (IRP) WORK AT AOC 4

The FHS was constructed in the 1940s and was expanded during the past 50 years due to increased aircraft support activities at the base (AFCEE, 1997). The FHS tanks and associated piping were removed and or abandoned between 1992 and 1995. The system consisted of approximately 20,000 feet of 3-, 6-, and 8-inch diameter steel pipeline and five pumping stations to deliver jet fuel throughout the system. Each pumping station consisted of six 25,000-gallon Underground Storage Tanks (USTs), a filtering system, a delivery pump, and a shelter (Jacobs, 1995). A TNRCC Leaking Petroleum Storage Tank (LPST) number was assigned to the USTs at four of the five pumping stations.

The IRP is designed to identify, characterize, and remediate any contamination discovered at U.S. Air Force installations, consistent with the National Contingency Plan (NCP). The IRP effort at the NAS Fort Worth JRB, Texas was initiated in 1984 by the Air Force. When the U.S. Navy assumed control of the installation, AFCEE retained environmental responsibility of this site. The following IRP investigations have been performed at AOC 4, NAS Fort Worth JRB, Texas:

- U.S. Army Corps of Engineers (USACE)-Fort Worth District, 1988. Jet Fuel Contamination Assessment, Hydrant Fueling System, Carswell Air Force Base (AFB).
- Maxim Engineers, Inc. (Maxim), 1990. Limited Subsurface Investigation, Hydrant Fueling System Spot 35, Carswell AFB, Texas.
- USACE-Fort Worth District, 1992. Spot 35 Contamination Investigation.

- W.C. Environmental Group (WC Environmental), 1994. Petroleum Storage Tank Removal and Site Assessment, Carswell AFB, AFBCA/OHL/Bldg. 1215, Fort Worth, Texas.

- Geo-Marine, Inc. (Geo-Marine), 1995. Phase I and II Report Groundwater Survey and Subsurface Soil Delineation Hydrant Fueling System, Carswell AFB, Fort Worth, Texas.

- Jacobs Engineering Group, Inc. (Jacobs), 1995. Removal/Closure of the Fuel Hydrant System, Final Technical Report, and Appendices A, B, C, and D.

- Law Environmental, Inc. (LAW), 1996. Installation Restoration Program Quarterly Groundwater Monitoring, First Semiannual Report, Vol.1

- CH2M HILL, Inc. (CH2M HILL), 1997a. Draft RCRA Facility Investigation Work Plan for Area of Concern 2, (Trichloroethene Groundwater Plume).

- CH2M HILL, Inc. (CH2M HILL), 1997b. Draft First Quarter (1997) Basewide Groundwater Monitoring Results, NAS Fort Worth JRB, Carswell Field, Texas.

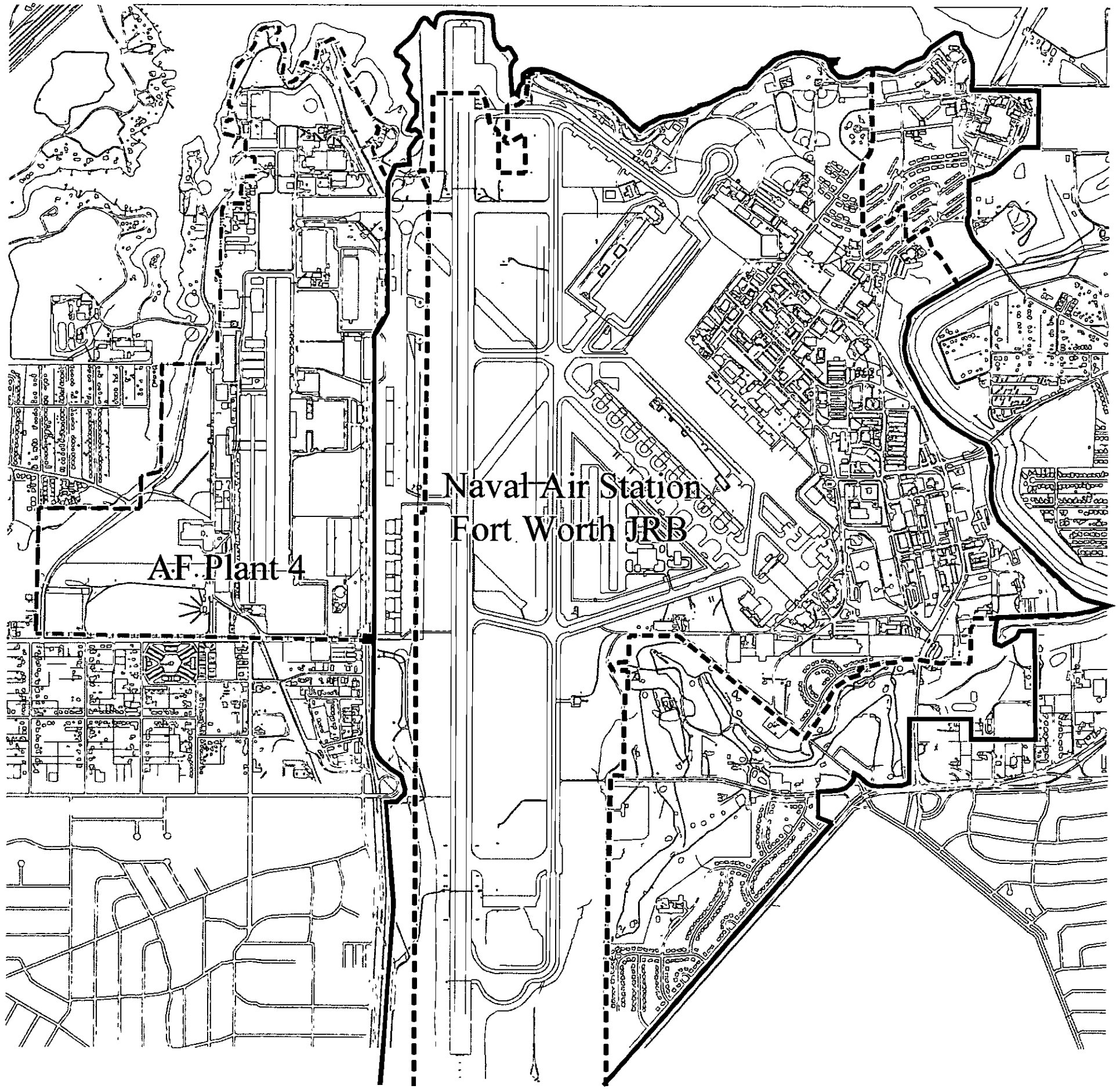
- HydroGeoLogic, Inc. (HydroGeoLogic), 1999a. Final Basewide Groundwater Sampling and Analysis Program, NAS Fort Worth JRB, Texas.

1.2 CURRENT SITE INVESTIGATION

This section provides an overview of the steps involved and results obtained during the AOC 4 site investigation (SI) performed in 1998 by HydroGeoLogic (HydroGeoLogic, 1999f). Previous IRP studies provided enough analytical documentation for HydroGeoLogic to justify using the TNRCC Plan A Category II - Early Exit Criteria (TNRCC, 1997) for the 1998 SI.

1.2.1 Site Evaluation Under Plan A - Early Exit Criteria Process

Previous subsurface investigations at AOC 4 indicated several sample locations exceeded the Plan A-Category II Target Concentrations for both soil and groundwater. Therefore, Category II Target Groundwater Concentrations and the Groundwater Protective Soil Concentrations were used to evaluate groundwater and soil, respectively. It was determined that due to the industrial nature of the base and the use of a municipal water supply, not originating from the affected groundwater zone, an evaluation of the Plan A-Early Exit Criteria process would be the appropriate option to use for site closure. The Plan A-Early Exit Criteria process considers both soil and groundwater pathways, which contain criteria that must be met before the site may be considered for closure. Once the criteria for both the soil and groundwater pathways have been met, a site closure request may be submitted to the TNRCC PST Division for approval.



HydroGeoLogic, Inc
Final AOC 4 1999 Annual Groundwater Report
NAS Fort Worth JRB, Texas

Figure 1.1

NAS Fort Worth JRB / Plant 4
Base Boundaries
NAS Fort Worth JRB, Texas

U.S. Air Force Center
for Environmental Excellence
Brooks AFB, Texas

Legend

Former Property Boundary of Carswell AFB

Approximate NAS Fort Worth JRB Site Boundary

Property Boundary of AF Plant 4

Area of Concern 4 (Fuel Hydrant System)

N

0 500 1000 2000
SCALE IN FEET

Filename X \AFC001\16dc\Report
Plant4_base_boundaries(fig1-1) dwg
Project AFC001-16dc
Created M Lawlor 06/20/97
Revised 06/07/00 ap
Map Source Jacobs, 1996

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1.2.1.1 Soil Pathways

Plan A - Early Exit Criteria for Soils consist of concentrations exceeding the Plan A-Target Concentrations with no measurable (<0.01 feet thickness) light non-aqueous phase liquid (LNAPL) present. If the above criteria are satisfied, three individual soil pathways must be evaluated in order to obtain site closure. Pathways 1, 2, and 3 evaluate the protection of human health, explosive limits, and soil to groundwater concentrations present at the site, respectively (Figure 1.2). During the 1998 SI performed by HydroGeoLogic, the soil to groundwater concentrations exceeded the Plan A target concentrations, however the presence of LNAPL in the groundwater prevented the soil pathway from meeting closure. Despite the presence of LNAPL, HydroGeoLogic continued to evaluate the 3 soil pathways and determined that upon the removal of all LNAPL, soil closure would be possible (HydroGeoLogic, 1999f).

1.2.1.2 Groundwater Pathways

The groundwater pathway is subdivided into two pathways, Pathway A documents groundwater impact and Pathway B is used in addition to Pathway A when the groundwater depth is less than or equal to 15 feet bgs, or within typical construction depth for the area (Figure 1.3). AOC 4 groundwater depth range from approximately 10- to 20-feet bgs, which is conservatively assumed to be less than 15 feet bgs. Groundwater contaminant data has been reported by LAW in 1996, CH2M HILL in 1997, and HydroGeoLogic in 1998. During the 1998 SI conducted by HydroGeoLogic, a review of historical and present SI analytical data suggested that AOC 4 contaminant concentrations were decreasing over time. However, due to the presence of LNAPL (> 0.01 feet thickness) in monitoring wells SPOT35-3 and SPOT35-6, neither groundwater pathways in the Plan A - Early Exit Criteria process could be evaluated for closure (HydroGeoLogic, 1999f).

1.3 DESCRIPTION OF CURRENT STUDY

The objective of the 1999 AOC 4 annual groundwater monitoring was to provide a years worth of analytical data to accurately assess the movement of the plume and to continue to monitor/remove the free-product at AOC 4 in order to fulfill the requirements for closure under the TNRCC's LPST Plan A Risk Evaluation of the Title 30 Texas Administrative Code. The TNRCC Risk-Based Corrective Action Program and the TNRCC Plan A Site Assessment Process are presented in Figures 1.4 and 1.5, respectively. Figure 1.6 identifies the 1999 AOC 4 monitoring well locations.

The following guidance documents provided the results of historical investigations and were used to evaluate AOC 4 for closure.

- Texas Natural Resource Conservation Commission, Petroleum Storage Tank Division, 1996, RG-17: Action Levels for LPST Sites (TNRCC, 1996a).

- Texas Natural Resource Conservation Commission, 1995, RG-175: Guidance for Risk-Based Assessment at LPST Sites in Texas, Emphasizing Initial Investigations and Plan A Evaluation (TNRCC, 1995).

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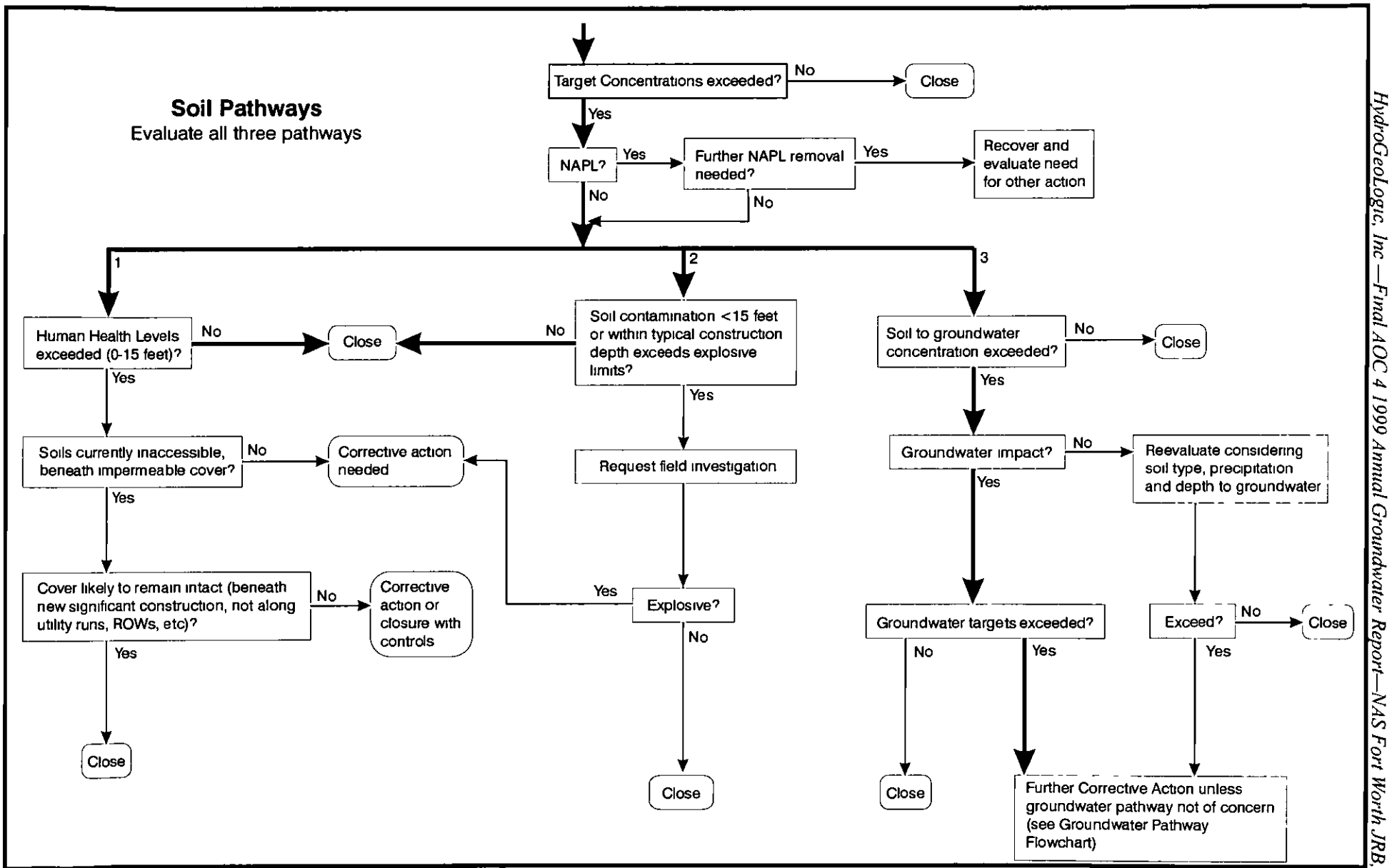

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Project AFC001-16DC
Created by jbelcher 11/24/98
Revised 06 08 00 ap
Source TNRCC

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Figure 1.2 Plan A - Early Exit Criteria Soil Pathways

U.S. Air Force Center for Environmental Excellence
Brooks AFB, Texas

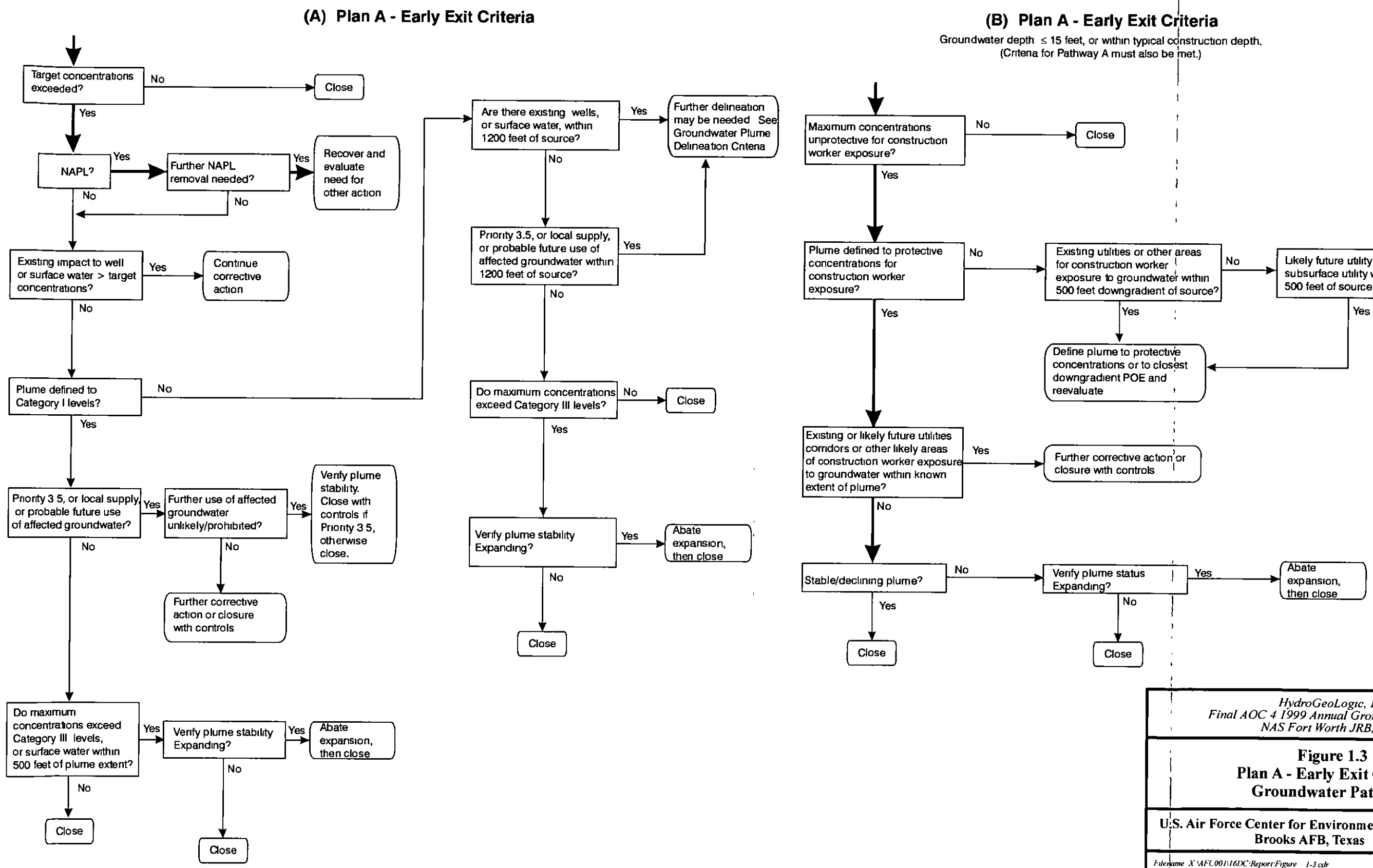

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Figure 1.3
Plan A - Early Exit Criteria
Groundwater Pathways

U.S. Air Force Center for Environmental Excellence
Brooks AFB, Texas

Filename X:\AFC001\16DC\Report\Figure_1-3.cdr
Project AFC001-16DC
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Revised 06 08 00 ap
Source TNRCC

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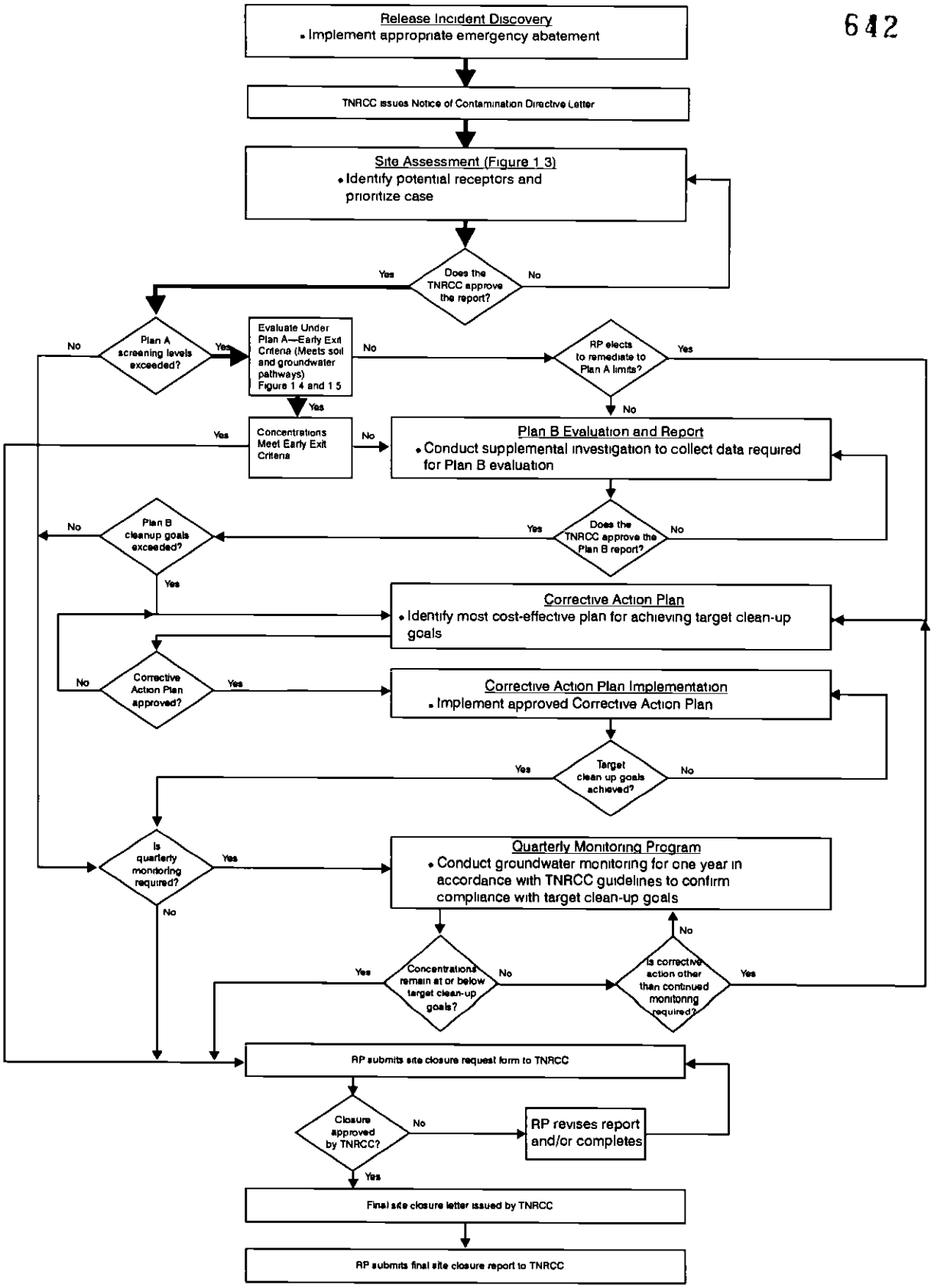
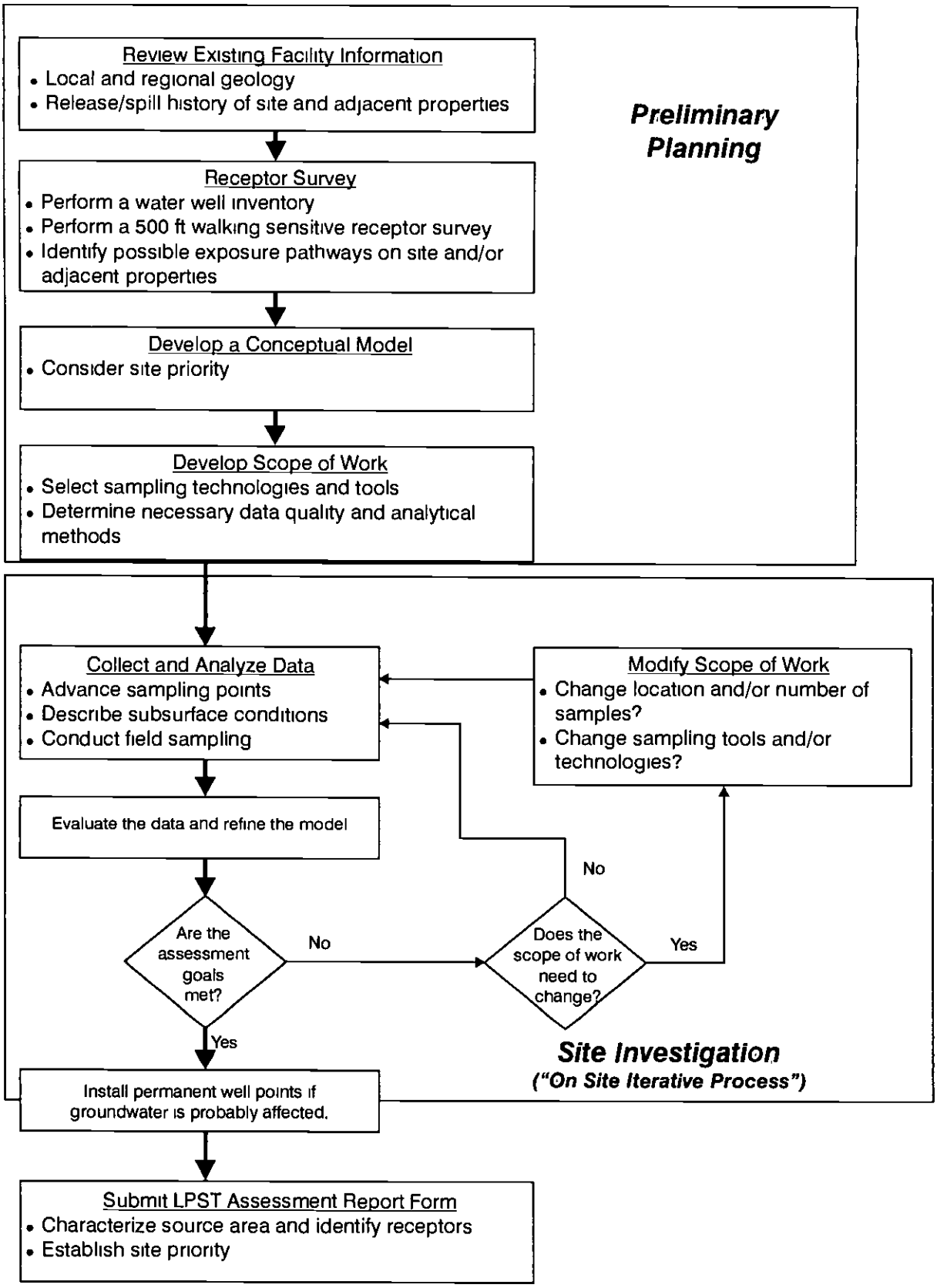


Filename x:\AFC001\161X\Report Figure_1-4.cdr
Created 06/12/97 M Lawlor
Revised 06/08/00 ASP
Source TNRCC, 1995

HYDRO GeoLogic

Figure 1.4
TNRCC Risk-Based Corrective Action Program

642 29



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Created 06/12/97 M Lawlor
Revised 06/08/00 ASP
Source TNRCC 1995

HYDRO GeoLogic

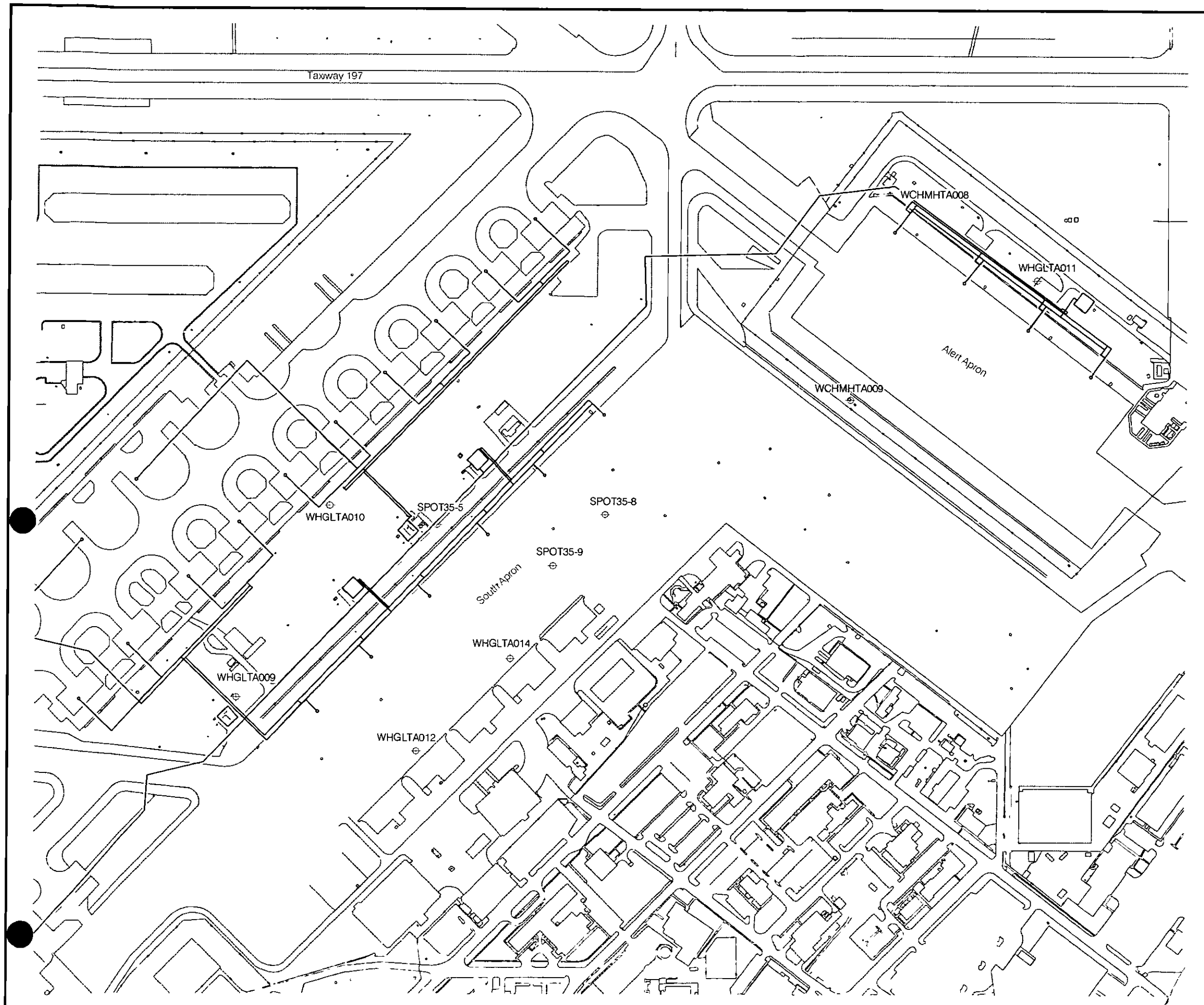
Figure 1.5
Site Assessment Process for TNRCC Risk-Based Corrective Action Program

642 30

Figure 1.6

1999 AOC 4 Monitoring Wells

U.S. Air Force Center
for Environmental Excellence
Brooks AFB, Texas



Legend

Former Fuel Hydrant System

Sampled Monitoring Wells

N

0 200 400 800

SCALE IN FEET

Filename X \Afc001\16dc\Report\AOC4_samp_locs(fig1-6) dwg
Project AFC001-16dc
Created 06/12/97 m lawlor
Revised 06/06/00 ap
Map Source Jacobs, 1995

HYDRO GeoLogic INC.

- Texas Natural Resource Conservation Commission, Leaking Storage Tank Program, 1994, RG-36: Risk-Based Corrective Action for Leaking Storage Tank Sites (TNRCC, 1994).

- Texas Natural Resource Conservation Commission Regulatory Guidance, Petroleum Storage Tank Division, 1996 (rev.), RG-43: Groundwater Monitoring and Reporting (TNRCC, 1996b).

- Texas Natural Resource Conservation Commission Interoffice Memorandum, February 10, 1997: Process for Closure Evaluation for Petroleum Hydrocarbon LPST Sites Exceeding Target Concentrations (TNRCC, 1997).

The objectives of this project were to complete the following tasks:

- Monitor groundwater geochemistry for evidence of degradation.

- Confirm groundwater contamination has stabilized by monitoring concentrations of indicator compounds in groundwater including, benzene, toluene, ethylbenzene, and xylenes (BTEX) and polynuclear aromatic hydrocarbons (PAHs); comparing to Plan A-Category II Target Groundwater Concentrations as defined in TNRCC RG-36 (TNRCC, 1994).

- Monitor for and remove free-product (i.e., LNAPL) identified during the 1998 SI conducted by HydroGeoLogic (HydroGeoLogic, 1999f).

1.4 REPORT ORGANIZATION

The AOC 4 annual groundwater report was designed to contain, at a minimum, all information stated in the TNRCC, PST Division Groundwater Monitoring and Reporting guidance (TNRCC, 1996b). In order to present this information, the remainder of the report is organized as follows:

- Section 2.0 presents monitoring objectives, including water level measurements and field parameters; well purging and sample collection; laboratory and chemical analysis selection; laboratory and field QA/QC analysis; and Investigation Derived Waste (IDW) management.

- Section 3.0 presents a discussion on the quality assurance/quality control (QA/QC) program; including field and laboratory QC samples; sample tracking protocol; and the U.S. Environmental Protection Agency (EPA) approved analytical methods used to extract and analyze the samples.

- Section 4.0 presents the target concentrations; assessment of the nature and extent of groundwater contamination; and analytical findings of the 1999 AOC 4 groundwater monitoring program.

- Section 5.0 presents conclusions and recommendations.
- Section 6.0 provides references used in this document.
- Appendix A Field sampling data sheets, field sampling data reports, and laboratory chains-of-custody (COC).
- Appendix B Copies of all Investigation Derived Waste (IDW) Records.
- Appendix C All AOC 4 monitoring well laboratory results and QC results.
- Appendix D Proposal for Additional Activities.
- Appendix E Signed laboratory summary reports.

TAB

Section 2

2.0 MONITORING ACTIVITIES

This section describes the procedures performed throughout the four AOC 4 groundwater sampling events of 1999. All samples were collected in conjunction with basewide quarterly groundwater sampling events and were performed in accordance with the 1999 Basewide Groundwater Sampling and Analysis Plans (GSAP) (HydroGeoLogic 1999a), and the Basewide Quality Assurance Project Plans (QAPP) (HydroGeoLogic 1998).

2.1 MONITORING OBJECTIVES

The basewide groundwater sampling program was initiated for NAS Fort Worth JRB in April 1995 to address groundwater contamination associated with several Solid Waste Management Units (SWMUs) and AOCs identified on the Base. The focus of this report is on the groundwater monitoring conducted at AOC 4. The 1999 site objectives were established in order to collect the data necessary to attain site closure under the TNRCCs PST Division.

Monitoring activities for each AOC 4 groundwater sampling event included:

- Field Parameters
- Well Purging and Sample Collection
- Laboratory and Chemical Analysis Selection
- Laboratory and Field QA/QC Analysis
- IDW Management

2.1.1 Field Parameters

2.1.1.1 Water Level Measurements

In order to evaluate existing groundwater flow patterns, water level measurements were taken several days after the purging and sampling of the January and July 1999 quarterly sampling events; thus minimizing water column disturbance (Figure 2.1 and Figure 2.2). Following the external inspection of each monitoring well, and immediately after the well cap had been removed, a photoionization detector (PID) was used to measure the level of organic vapors in the background area, breathing zone, and at the top of each well casing (HydroGeoLogic 1999a).

An electronic oil-water interface device was used to determine the presence and depth of any LNAPL and depth to water. Field notes documented whether an odor, sheen, or measurable free-product (>0.01 feet thickness) was present when removed via absorbent pads. Monitoring wells, SPOT35-3 and SPOT35-6 continue to contain free-product at varying thickness' during the four groundwater sampling events of 1999. The presence of LNAPL in groundwater is preventing AOC 4 from meeting the Early Exit criteria under Plan A, therefore the removal of free-product from SPOT35-3 and SPOT35-6 will continue until a measurable amount (< 0.01 feet thickness) is no longer observed.

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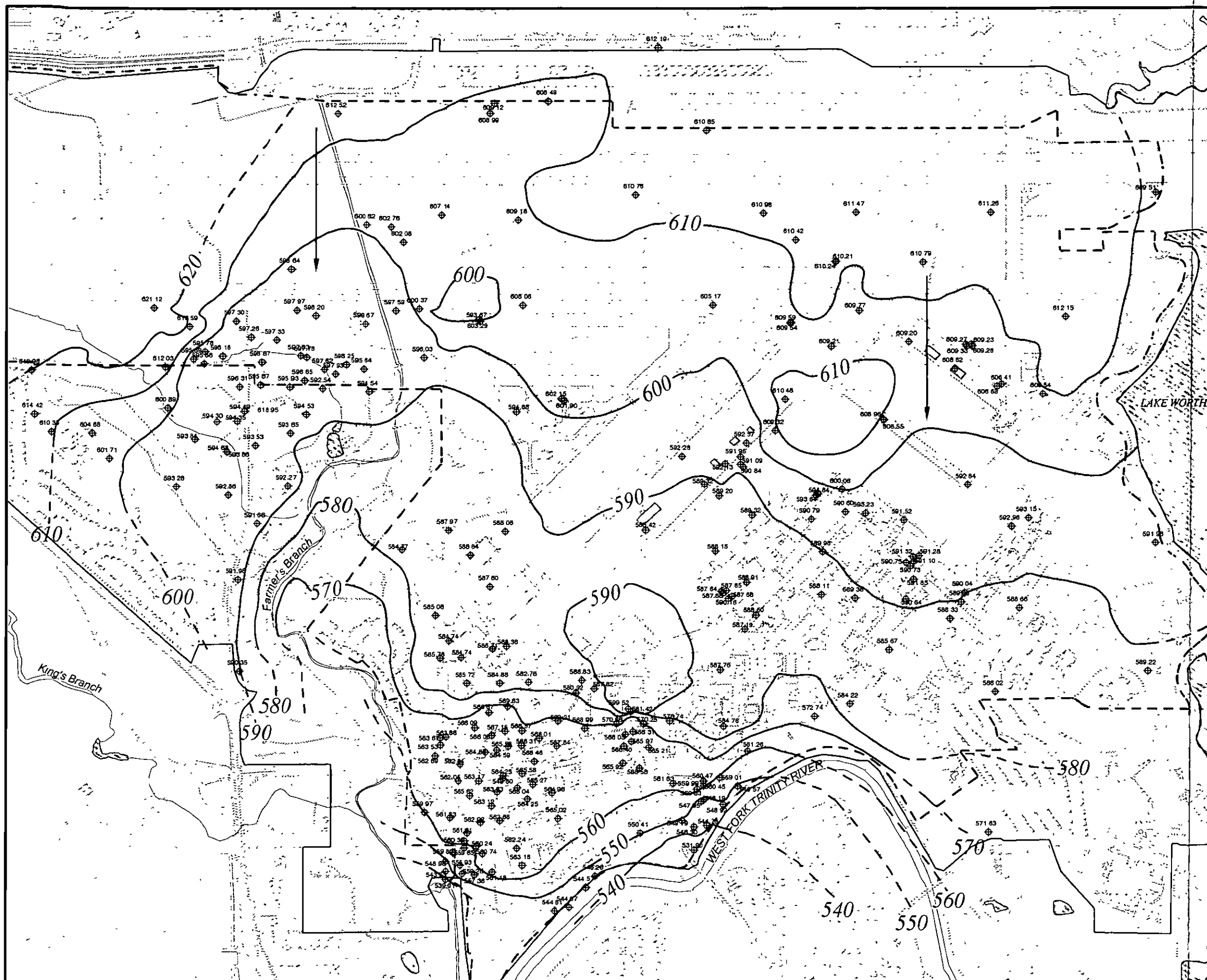

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Figure 2.1

Water Level Elevations
Terrace Alluvium
January 1999

U. S. Air Force Center
for Environmental Excellence
Brooks AFB, Texas

Legend

- - - - NAS Fort Worth JRB (Carswell Field)

——— Former Carswell Air Force Base

-600- Groundwater Elevation Contour (Feet Above Mean Sea Level)

→ Generalized Groundwater Flow

Area of Concern 4 (Fuel Hydrant System)

⊕ Sampled Monitoring Wells

N

0 500 1000 2000

SCALE IN FEET

Filename X \AFC001\16DC\Report\water_level_0199(fig2-1) apr
Created rzehms 03/15/99
Revised 06/06/00 ap
Project AFC001-16DC
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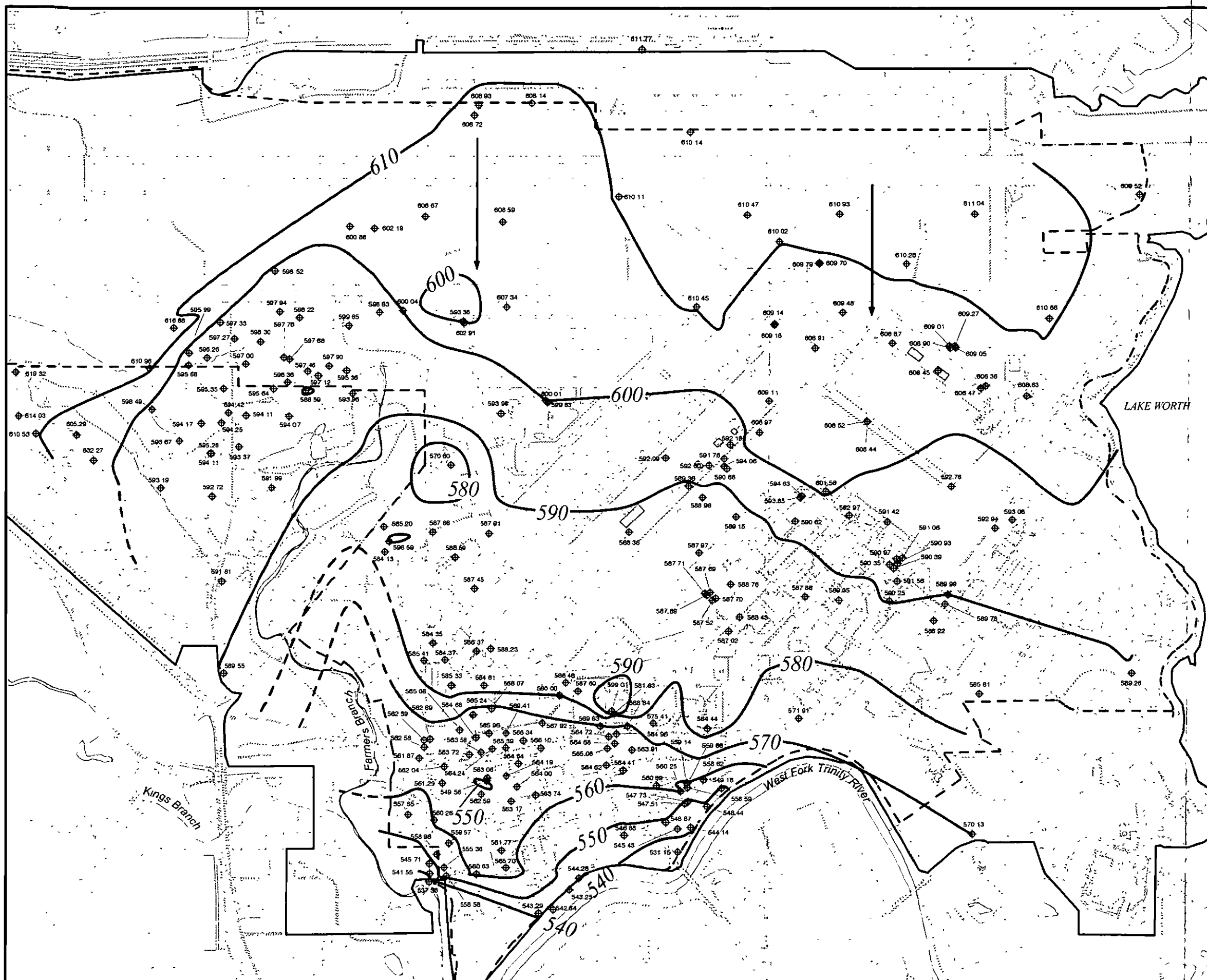
HYDRO GeoLogic INC



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NAS Fort Worth JRB, Texas

Figure 2.2

Water Level Elevations
Terrace Alluvium
July 1999

U.S. Air Force Center
for Environmental Excellence
Brooks AFB, Texas

Legend

- - - - NAS Fort Worth JRB (Carswell Field)

——— Former Carswell Air Force Base

-600- Groundwater Elevation Contour (Feet Above Mean Sea Level)

——→ Generalized Groundwater Flow

Area of Concern 4 (Fuel Hydrant System)

Sampled Monitoring Wells

N

0 500 1000 2000

SCALE IN FEET

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Revised 06/06/00 ap
Source HydroGeoLogic, Inc GIS Database

HYDRO GeoLogic INC

2.1.1.2 Field Stabilization Criteria

During all purging, water quality stabilization criteria (pH, temperature, electrical conductance [EC], dissolved oxygen [DO], oxidation-reduction potential [Eh], and turbidity) were continuously monitored using a flow-thru cell. Section 4.2 provides a summary of 1999s field stabilization parameters at AOC 4 and all field sampling data sheets are presented in Appendix A.1. If the sampled monitoring well was not experiencing significant drawdown while being purged (i.e., the water column did not drop more than 0.33 feet), and the following water quality stabilization parameters were met after three consecutive readings, then a sample was collected.

- Temperature: ± 1.0°C
- pH: ± 0.1 units
- EC: ± 3 percent
- DO: ± 10 percent
- Eh: ± 10 mV, and
- Turbidity: ± 10 percent

2.1.2 Well Purging and Sample Collection

One monitoring well at AOC 4, SPOT35-5 was sampled using a dedicated MicroPurge® Well Wizard® bladder pump. The remaining nine monitoring wells were sampled using non-dedicated stainless steel bladder pumps. The bladder pump is ideal for low-flow purging and can maintain pumping rates between 0.1 to 0.5 liter/minute to minimize turbidity, oxygenation, mixing of chemically distinct zones, and volatilization of volatile organic compounds (VOCs).

Once stabilization of the water quality parameters had been met during the purging process, monitoring wells were sampled for VOCs, PAHs, total petroleum hydrocarbons (TPHs), and natural attenuation parameters (alkalinity, ethane, ethene, methane, chloride, nitrate, sulfate, and total organic carbon (TOC). Samples for VOC analysis were collected first at each monitoring well and the remaining samples were collected based on the approximate order of susceptibility to artificial aeration (i.e., methane, TOC, alkalinity, and anions). Required sample containers, preservation methods, volumes, and holding times are provided in Section 5.0 of the QAPP (HydroGeoLogic, 1998).

2.1.3 Laboratory and Chemical Analysis Selection

Ten monitoring wells were utilized for water level measurements and analytical sampling as proposed in the AOC 4 SI Report (HydroGeoLogic, 1999f). Monitoring wells considered in selecting the ten sampling locations included previous wells with high groundwater contaminant concentrations, and wells at the leading edge of identified groundwater contamination. The analyses selected for groundwater monitoring were based on the TNRCC regulatory guidance document, Groundwater Monitoring and Reporting (TNRCC, 1996b). Table 2.1 includes a list of the monitoring wells selected for each quarterly sampling event at AOC 4 and the analyses performed at each well. Well SPOT35-5 was monitored as part of both the regional trichloroethylene (TCE) plume delineation and AOC 4 groundwater monitoring; therefore VOCs were analyzed for using EPA Method SW8260B. In addition, during the July and October

sampling events, additional AOC 4 monitoring wells were analyzed for VOCs by SW8260B to assist with the basewide plume delineation.

2.1.4 Laboratory and Field QA/QC Analysis

The laboratory and field QA/QC program at NAS Fort Worth JRB included specific procedures regarding sample volumes, container types, and preservation requirements for the collection of groundwater samples as described in the Final Basewide GSAP (HydroGeoLogic 1999a). Sample bottles met EPA requirements for environmentally clean containers. Sample labels were pre-printed to facilitate sample tracking from the field through the laboratory to the final report. Documentation of sample collection is performed in the field to ensure that sample labeling, chain-of-custody (COC), and request for analysis are in agreement and traceable back to the correct field sample. Custody seals were placed on each cooler before shipment by a common carrier. Additional laboratory and field QA/QC information can be found in Section 3.0.

2.1.5 Investigation Derived Waste (IDW) Management

IDW management procedures were followed as outlined in Final IDW Management Plan (HydroGeoLogic 1999d). All wastewater (i.e., purge water, decon water) produced during the groundwater sampling events were transferred to a 1200-gallon polytank located on base in the designated IDW storage area. At the completion of each sampling event, a composite sample was collected from the polytank and analyzed for the appropriate suite of parameters (i.e., VOCs (SW8260B), semivolatile organic compounds (SVOCs) (SW8270C), total metals (SW6010B), Pesticides/Polychlorinated Biphenyls (PCBs) (SW80801), and TPH (TX1005). Final disposal of the wastewater was conducted on base and discharged into the base sanitary sewer system, upon approval by the U.S. Navy Environmental Office. Appendix B contains copies of the IDW disposal log records for the purge and waste water.

All absorbent pads used during the LNAPL removal were disposed of at the U.S. Navy's Hobby Shop in a 55-gallon plastic drum. The U.S. Navy's Waste Management Office accepted responsibility for the disposal of the used absorbent pad waste.

Table 2.1
AOC 4 Monitoring Wells and Analyses

Sampling Event	Monitoring Well	Sample Parameters[1]				
		VOCs	BTEX	TPH	PAH	Natural Attenuation[2]
Jan-99	SPOT35-5[3]	X		X	X	X
	SPOT35-8		X	X	X	X
	SPOT35-9		X	X	X	X
	WCHMHTA008		X	X	X	X
	WCHMHTA009		X	X	X	X
	WHGLTA009		X	X	X	X
	WHGLTA010		X	X	X	X
	WHGLTA011		X	X	X	X
	WHGLTA012		X	X	X	X
	WHGLTA014		X	X	X	X
Apr-99	SPOT35-5[3]	X		X	X	X
	SPOT35-8		X	X	X	X
	SPOT35-9		X	X	X	X
	WCHMHTA008		X	X	X	X
	WCHMHTA009		X	X	X	X
	WHGLTA009		X	X	X	X
	WHGLTA010		X	X	X	X
	WHGLTA011		X	X	X	X
	WHGLTA012		X	X	X	X
	WHGLTA014		X	X	X	X
Jul-99	SPOT35-5[3]	X		X	X	X
	SPOT35-8		X	X	X	X
	SPOT35-9		X	X	X	X
	WCHMHTA008		X	X	X	X
	WCHMHTA009	X		X	X	X
	WHGLTA009	X		X	X	X
	WHGLTA010		X	X	X	X
	WHGLTA011	X		X	X	X
	WHGLTA012		X	X	X	X
	WHGLTA014		X	X	X	X
Oct-99	SPOT35-5[3]	X		X	X	X
	SPOT35-8		X	X	X	X
	SPOT35-9		X	X	X	X
	WCHMHTA008		X	X	X	X

Table 2.1 (continued)
AOC 4 Monitoring Wells and Analyses

Sampling Event	Monitoring Well	Sample Parameters[1]				
		VOCs	BTEX	TPH	PAH	Natural Attenuation[2]
Oct-99 (cont.)	WCHMHTA009		X	X	X	X
	WHGLTA009	X		X	X	X
	WHGLTA010		X	X	X	X
	WHGLTA011	X		X	X	X
	WHGLTA012		X	X	X	X
	WHGLTA014		X	X	X	X

Notes:

[1] All samples were tested for the following standard field parameters: temperature, pH, specific conductivity, DO, Eh, and turbidity.

BTEX - Benzene, toluene, ethylbenzene, total xylenes (EPA Method SW8020 or SW8021)
PAHs - Polynuclear aromatic hydrocarbons (EPA Method SW8310)
TPH - Total petroleum hydrocarbons (TNRCC Texas Method TX1005)
VOCs - Volatile organic compounds (EPA Method SW8260B)

[2] Natural attenuation parameters consisted of common anions (chloride, nitrate, sulfate), TOC, Fe(II), alkalinity, and methane, ethane, and ethene.

[3] SPOT35-5 has been designated as both a regional TCE plume and AOC 4 monitoring well.

TAB

Section 3

3.0 QUALITY ASSURANCE/QUALITY CONTROL PROCEDURES

This section describes the analytical methods and QC procedures used throughout the basewide quarterly monitoring events and AOC 4 groundwater monitoring at NAS Fort Worth JRB, Texas.

3.1 FIELD QUALITY CONTROL

During the 1999 AOC 4 field activities, field QA/QC samples were used to determine the overall quality of the analytical data. The field QA/QC samples collected and evaluated for sampling technique and decontamination, include ambient blanks, equipment blanks, trip blanks, and field duplicates. The validated field QA/QC sample results are summarized in Appendix C.2.

3.1.1 Ambient Blank

Ambient blanks consisted of American Society for Testing and Materials (ASTM) Type II reagent grade water poured into a 40 milliliter VOC sample vial at a sampling site (in the same vicinity as the associate samples). Ambient blanks are used to assess the potential introduction of contaminants from ambient sources (e.g., active runways, engine test cells, gasoline motors in operation, etc.) to the investigative samples during sample collection. Ambient blanks were handled like environmental samples and transported to the laboratory and analyzed for BTEX including methyl *tert*-butyl ether in January 1999 and VOCs during April and July 1999. No ambient blank was collected during the October 1999 sampling event since there were no potential interferences from the above sources.

No ambient source contamination was detected in any of the above field QC.

3.1.2 Equipment Blanks

Equipment blanks consisted of ASTM Type II reagent grade water poured into, over, or pumped through the sampling device; collected in a sample container, and transported to the laboratory for analysis. Equipment blanks were used to assess the effectiveness of the field equipment decontamination procedures. Throughout each of the 1999 AOC 4 groundwater sampling events, one equipment blank was collected from sampling equipment used on each day that equipment decontamination activities occurred. Equipment blanks were collected immediately after the equipment was decontaminated. Each equipment blank was analyzed for all laboratory analyses requested for the environmental samples collected at any associated site on that day.

Nineteen equipment blanks were collected during the four groundwater monitoring events. Diesel Range Organic (DRO) and Gasoline Range Organic (GRO) contamination affected 5 samples and one sample, respectively in January. April had two samples affected by fluorene and methane contamination. No contamination was found in July. October had 5 samples affected by C10-28 contamination, 5 samples by TOC, and one sample by ethane (Appendix E).

3.1.3 Trip Blanks

Trip blanks consisted of 40 milliliter VOC sample vials prepared and provided by the laboratory with ASTM Type II reagent grade water. Trip blanks are transported to the sampling site, handled as an environmental sample, and returned to the laboratory for the analysis of VOCs, BTEX, and/or methane. One trip blank is used per sample cooler to assess the potential introduction of contamination into investigation samples from unrelated sources, such as cross contamination occurring during transportation and storage.

Twenty-one trip blanks were collected during the four groundwater monitoring events. Trip blank contamination affected no samples during January and April 1999. July had one sample affected by methane, ethane, and ethene. October had trip blank contamination of methane in one sample and ethane contamination in two samples (Appendix E).

3.1.4 Field Duplicates

Field duplicates were collected at a frequency of 1 for every 10 environmental samples to assess the precision of the sample collection process. Field duplicate samples were collected at the same time, (or in immediate succession) and location as the environmental sample ("parent" sample). The parent and duplicate sample are treated in an identical manner during transportation, storage, preparation, and analysis. WCHMHTA008 served as the blind laboratory field duplicate collected for each of the four groundwater monitoring events.

January, July, and October had no deviation in results between the field duplicate and parent sample. April had a high relative percent difference (RPD) of methane and therefore both the parent sample and duplicate sample were qualified accordingly.

3.2 SAMPLE TRACKING PROTOCOL

Each field sample was assigned a unique identification number that described where the sample was collected. The number consists of a maximum 12-digit alphanumeric code as follows:

xxxxxxxxxzzaa

where:

xxxxxxxxx	represents the well identification or well name (e.g., SPOT35-5, WHGLTA009)
zz	represents the medium (WG for water-ground)
aa	indicates the sample event number for groundwater (e.g., 01, 02, 03, etc.)

For example, the groundwater sample collected during event four from SPOT35-5 was identified as "SPOT35-5WG04." In order to ensure that field duplicates were analyzed 'blind' by the laboratory, each field duplicate sample was assigned a unique sample identification number, that

did not associate the duplicate with its parent sample (e.g., DUP01, DUP02, etc). Field duplicate locations were determined prior to mobilization. Documentation was maintained in the field sampling log book, and on the sample collection log, to track all field duplicate samples (Appendix A.1 and A.2).

QC samples were identified by use of a similar system of identifiers with a maximum of 10 characters. The QC sampling number system is summarized below:

xxyyyyyy

where:

xx represents the medium (EB for equipment blank, TB for trip blank, AB for ambient blank)

yyyyyy represents the date (month, day, year)

For example, an equipment blank obtained on January 12, 1999, would be identified as EB011299. Documentation was maintained in the field sampling log book, and on the sample collection log, to track all field QC samples (Appendix A.1 and A.2).

The Project Geologist/Field Coordinator maintained a list detailing the connection between each QC sample and specific environmental samples. For instance, each trip blank was correlated with a particular set of samples shipped to the laboratory in the same cooler, and each equipment blank was correlated to those samples collected using a particular set of sampling tools on a specific date.

After the laboratory data were received and prior to validation, the laboratory's electronic data deliverable (EDD) was reviewed to ensure that it was complete, correct, and compliant with the Air Force's Environmental Resources Program Information Management System, (ERPIMS) format. Once the EDD was approved, data entry and QC operations were performed using the validation reports.

3.3 LABORATORY QUALITY CONTROL

The laboratory QC program, including sample handling, laboratory QC elements, and data reporting, is fully documented in the Final Basewide QAPP (HydroGeoLogic 1998). Sample handling includes documentation of sample receipt, placement in storage, controlled sample access, and disposal. Laboratory QC elements consist of instrument calibration and maintenance, laboratory control samples, method blanks, and matrix spike/matrix spike duplicate samples, and method-specific QC checks. Reporting of the laboratory control data was planned prior to the collection of the data, allowing the laboratory to place the appropriate information into each data package so that the data quality evaluation could be performed in a timely manner.

3.4 ANALYTICAL METHODS

This section includes brief descriptions of the methods used and their recommended holding times. The methods were taken from *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods* (U.S. EPA SW-846, Third Edition, and its first and second update), *Methods for Chemical Analysis of Water and Waste* (U.S. EPA 1979), *ASTM Annual Book of Standards* (1993), and from manufacturers' literature. More information regarding each method can be found in the Basewide QAPP (HydroGeoLogic, 1998).

3.4.1 EPA Method SW8020 or SW8021 - Aromatic Volatile Organics

Aromatic volatile organics in water are prepared using method SW5030A and analyzed using method SW8020 or SW8021. This method (also known as the BTEX method since the compounds of interest include benzene, toluene, ethylbenzene, and xylene) is a purge and trap gas chromatography (GC) method. An inert gas is bubbled through a water matrix to transfer the volatile aromatic hydrocarbons from the liquid to the vapor phase. The aromatics are removed from the inert gas by passing the gas through a sorbent trap, which is then back flushed onto a GC column with a PID to separate and quantify the compounds of interest. The maximum recommended sample holding time for this analysis is 14 days for preserved water samples and 7 days if unpreserved by acid. All holding times were met for this analysis.

3.4.2 EPA Method SW8260B - Volatile Organic Compounds

Volatile (or purgeable) organics in water were analyzed using method SW8260B. This method uses a capillary column GC/mass spectrometry technique. Volatile compounds are introduced into the GC by purge and trap (SW5030A). An inert gas is bubbled through the water samples to transfer the purgeable organic compounds from the liquid to vapor phase. The vapor is then swept through a sorbent trap where the purgeable organics are trapped. The trap is back flushed and heated to desorb the purgeable organics onto a capillary GC column where they are separated and then detected with a mass spectrometer. The maximum recommended sample holding time for this analysis is 14 days for preserved water samples and 7 days if unpreserved by acid. All holding times were met for this analysis.

3.4.3 EPA Method SW8310 -- Polynuclear Aromatic Hydrocarbons

Method SW8310 is used to determine the concentration of parts per billion levels of selected PAHs in groundwater. Aqueous samples are prepared using method SW3510B. Samples are analyzed by direct injection. Detection is by ultraviolet and fluorescent detectors.

This method provides for the use of a second GC column of a dissimilar polarity to resolve compounds of interest from interferences that may occur. Alternatively, sample analysis and confirmation may be accomplished in one analytical run with a diode array detector. When second-column analysis is performed, retention times for the analyte must match those established for each column. Otherwise, the chromatographic peaks are considered interferences, and the analyte is not considered to be present in the sample. The maximum recommended sample holding

time for this analysis is 7 days until extraction and 40 days after extraction for water samples. All holding times were met for this analysis.

3.4.4 TNRCC Texas Method 1005 (TX1005) - Total Petroleum Hydrocarbons

This method is a GC method which uses flame ionization as the method of detection. The method reports three TPH concentrations for each sample: C_6-C_{10}, $>C_{10}$-C_{28}, and C_6-C_{28}. One TPH fraction was not analyzed for during the January 1999 AOC 4 groundwater monitoring. The maximum recommended sample holding time for this analysis is 7 days for water samples. All holding times were met for this analysis.

3.4.5 RSK - 175 (Modified) - Methane, Ethane, and Ethene

Determination of methane, ethane, and ethene is performed by displacing a percentage of headspace in the sample vial with helium. The sample in the vial is shaken to equilibrate the hydrocarbons between the sample and helium headspace. A headspace aliquot is withdrawn and analyzed with a GC flame ionization detector (FID) system to determine the concentration of gaseous hydrocarbon present in the headspace. The headspace concentration is related to the starting concentration through use of Henry's law. The maximum recommended sample holding time for this analysis is 14 days for water samples. All holding times were met for this analysis.

3.4.6 EPA Method SW9056 – Common Anions

This method addresses the sequential determination of anions, chloride, nitrate, and sulfate in the water samples. A small volume of the water sample is injected into an ion chromatograph to flush and fill a constant volume sample loop. The sample is then injected into a stream of eluent.

The sample is pumped through three different ion exchange columns and into a conductivity detector. The first two columns, a precolumn (guard column) and a separator column, are packed with a low-capacity, strongly basic anion exchanger. Ions are separated into discrete bands based on their affinity for the exchange sites of the resin. The last column is a suppressor column that reduces the anions in the sample to their corresponding acids. The separated anions in their acid form are measured using an electrical-conductivity cell. Anions are identified based on their retention times compared to known standards. Quantitation is accomplished by measuring the peak height or area and comparing it to a calibration curve generated from known standards. The maximum recommended sample holding time for this analysis is 28 days for chlorides and sulfates and 48 hours for nitrate water samples. All holding times were met for this analysis.

3.4.7 EPA Method 310.1 – Alkalinity

This is a screening method for alkalinity, where an unaltered sample is titrated to an end point of pH 4.5 using hydrochloric or sulfuric acid. The maximum recommended sample holding time for this analysis is 14 days for water samples. All holding times were met for this analysis.

3.4.8 EPA Method 415.1 - Total Organic Carbon

This is a screening method for TOC and is measured using a carbonaceous analyzer. This instrument converts the organic carbon in a sample to carbon dioxide by either catalytic combustion or wet chemical oxidation. The carbon dioxide formed is then either measured directly by an infrared detector or converted to methane and measured by a FID. The amount of carbon dioxide or methane in a sample is directly proportional to the concentration of carbonaceous material in the sample. The maximum recommended sample holding time for this analysis is 28 days for water samples. All holding times were met for this analysis.

TAB

Section 4

4.0 NATURE AND EXTENT OF CONTAMINATION

A total of ten AOC 4 groundwater samples were collected during each of the four 1999 monitoring events and submitted to the contracted laboratory for chemical analysis. Appendix E contains the laboratory summary reports for each sampling event.

4.1 TARGET CONCENTRATIONS

Target concentrations are the maximum allowable contaminant concentrations in the particular contaminated media that are protective of human health and groundwater quality. The values provide the responsible party with a target clean up concentration which is to be used to help restore the site without the use of institutional controls protection of human health.

Five categories of Plan A Target Concentrations have been established by the TNRCC that consider either actual or potential beneficial groundwater usage. Category I, II, III, and IV beneficial usage of groundwater is based on the presence of impacted or threatened water supply sources and the quality of the water present in the affected zone of the aquifer. Category V is used when a beneficial groundwater use cannot be established. This category considers effects on soils only. The impacted or threatened water supply source applies to a drinking water source within the same or connected interval as the affected groundwater zone. The quality of water in the affected zone refers to the potential beneficial use based on the total dissolved solids (TDS) present. The affected groundwater zone at AOC 4 has a Category II beneficial usage based on TDS concentrations less than 3,000 ppm and no beneficial use within 0.5 miles of the site (HydroGeoLogic, 1999f).

4.1.1 TNRCC Plan A Target Concentrations

The Plan A Target Concentrations for groundwater are based on the beneficial groundwater use category. Table 4.1 presents the established groundwater target concentrations for Categories I, II, and III (TNRCC, 1994). In the Plan A Site Assessment planned for AOC 4, a direct comparison of site conditions was made with the appropriate target concentrations to validate the use of Plan A Category II Target Concentrations.

4.1.2 TNRCC Early Exit Criteria Guidance

At sites where the Plan A Target Concentrations are exceeded for any contaminated media during the Plan A assessment activities, it is possible to reevaluate site conditions based on the potential for exposure using early exit criteria for sites where future exposure potential is low (TNRCC, 1997). For example, sites that are located in a predominantly commercial or industrial area that have a municipal water supply not originating from the affected groundwater zone, and sites that have extensive surface cover are eligible for reevaluation of site conditions.

The early exit criteria process is divided into individual pathways for evaluating soil and groundwater which include specific criteria that must be met to obtain site closure. If criteria for both the soil and groundwater pathways have been met, a request for closure of the site may be submitted to the TNRCC for approval.

Table 4.1
Plan A Target Concentrations

Chemical of Concern	Target Groundwater Concentration (mg/L)		
	Category I	Category II	Category III
Benzene	0.005	0.0294	0.14
Ethylbenzene	0.7	3.65	5.21
Toluene	1	7.3	10.4
Xylene	10	73	104
Acenaphthene	2.19	2.19	3.13
Anthracene	11	11	15.6
Benzo[*a*]anthracene	0.000117	0 00117	0 00556
Benzo[*b*]fluoranthene	0.000117	0.00117	0.00556
Benzo[*k*]fluoranthene	0.00117	0.0117	0.0556
Benzo[*a*]pyrene	0.0002	0.000117	0.000556
Chrysene	0.0117	0.117	0.556
Dibenzo[*a,h*]anthracene	0.0000117	0.000117	0.000556
Fluoranthene	1 46	1 46	2.08
Fluorene	1.46	1.46	2 08
Indeno[1,2,3-*cd*]pyrene	0.000117	0.00117	0.00556
Naphthalene	1.46	1.46	2.08
Pyrene	1.1	1 1	1.56

Notes:
Category I, II, and III Target Concentrations taken from Appendix A, Table A-1 of RG-36 (TNRCC, 1994).

The soil pathway is subdivided into three separate exposure pathways. Pathway 1 evaluates the protection of human health, Pathway 2 evaluates the explosive limits, and Pathway 3 evaluates the soil to groundwater concentrations present at the site. A flow chart illustrating the decision making process for the three soil pathways is presented in Figure 1.2.

Groundwater is subdivided into two exposure pathways. Pathway A is to be used when there is documented groundwater impact. Pathway B is to be used in addition to Pathway A when groundwater depth is less than or equal to 15 feet or within typical construction depth for the area. The groundwater depth at AOC 4 ranges from approximately 10- to 20-feet bgs, which is conservatively assumed to be less than 15 feet bgs. A flow chart illustrating the decision making process for groundwater pathways A and B is presented in Figure 1.3.

4.2 NATURE AND EXTENT OF GROUNDWATER CONTAMINATION

The terrace alluvium groundwater underlying AOC 4 has been impacted by jet fuel contamination as the result of a historical Jet Propulsion Fuel, grade 4 (JP-4) release that has originated from the former FHS. The objective for the groundwater investigation was to monitor areas of possible free phase contamination, and to evaluate plume stabilization and natural attenuation processes in the groundwater. In some areas at AOC 4, the groundwater contains dissolved-phase TCE which originates from a release unrelated to AOC 4. As part of the basewide quarterly groundwater investigation, TCE has been detected in several monitoring wells in the vicinity of AOC 4.

4.2.1 Current Investigation

Groundwater samples were collected from ten monitoring wells at AOC 4. Prior to the environmental sample collection, field parameters were monitored until the designated stabilization criteria were obtained for temperature, pH, conductivity, dissolved oxygen, oxidation reduction potential, and turbidity (Table 4.2). Once field parameters stabilized, the environmental samples were collected and analyzed for BTEX, PAH, and TPH, and natural attenuation parameters. BTEX, PAH, and TPH were analyzed using EPA Method SW8020 or SW8021, SW8310, and TNRCC Texas Method 1005 (TX1005), respectively. Natural attenuation parameters included methane (RSK-175 (Modified)), common anions (EPA Method SW9056), alkalinity (E310.1), and TOC (EPA Method 415.1).

Several constituents were detected in AOC 4 groundwater samples, however, only two monitoring wells contained detections that exceeded the Category II target concentrations (Figure 4.1). All analytical results associated with Plan A target compounds can be found in Table 4.3. For a complete list of all results including QC results, refer to Appendix C.1 and C.2.

4.2.2 Previous Investigations

A previous investigation at AOC 4 conducted by Geo-Marine (1994) resulted in the discovery of elevated levels of benzene and TPH in groundwater. Two separate contamination plumes were delineated in the groundwater investigation. Elevated concentrations of benzene and TPH produced one plume along the Alert Apron and a second along the South Apron. Concentrations of benzene exceeded the Plan A Category II Target Groundwater Concentrations in both plumes, however, did not exceed the Health-Based Target Groundwater Concentrations for Construction Worker Exposure. Results from more recent groundwater sampling performed by LAW in 1996, CH2M HILL in 1997, and HydroGeoLogic in 1998 show that the levels of contaminants in the groundwater are decreasing over time. The SI conducted in 1998 by HydroGeoLogic detected several organic constituents in AOC 4 groundwater samples, however, only one of the samples contained concentrations that exceeded the Category II target concentrations (HydroGeoLogic, 1999f). Benzene was detected at 0.053 mg/L in monitoring well WCHMHTA008 in September 1998.

4.2.3 Discussion of Groundwater Impacts

4.2.3.1 Assessment of BTEX, PAH, and TPH Data

HydroGeoLogic verified during the 1998 SI and 1999 AOC 4 Annual Groundwater Monitoring, that one of the two benzene plumes continues to exceed the Plan A Category II Target Groundwater Concentrations, however, it is decreasing in concentration and has remained relatively unchanged in size. During the four 1999 monitoring events, benzene was detected above the practical quantitation limit (PQL) of 0.001 mg/L in the following monitoring wells, SPOT35-8, WCHMHTA008, WHGLTA009, WHGLTA010, WHGLTA012, and WHGLTA014, however, only WCHMHTA008 contained benzene at concentrations exceeding the Category II target concentrations. Throughout the past year, benzene levels have consistently decreased in all monitoring wells, excluding WCHMHTA008.

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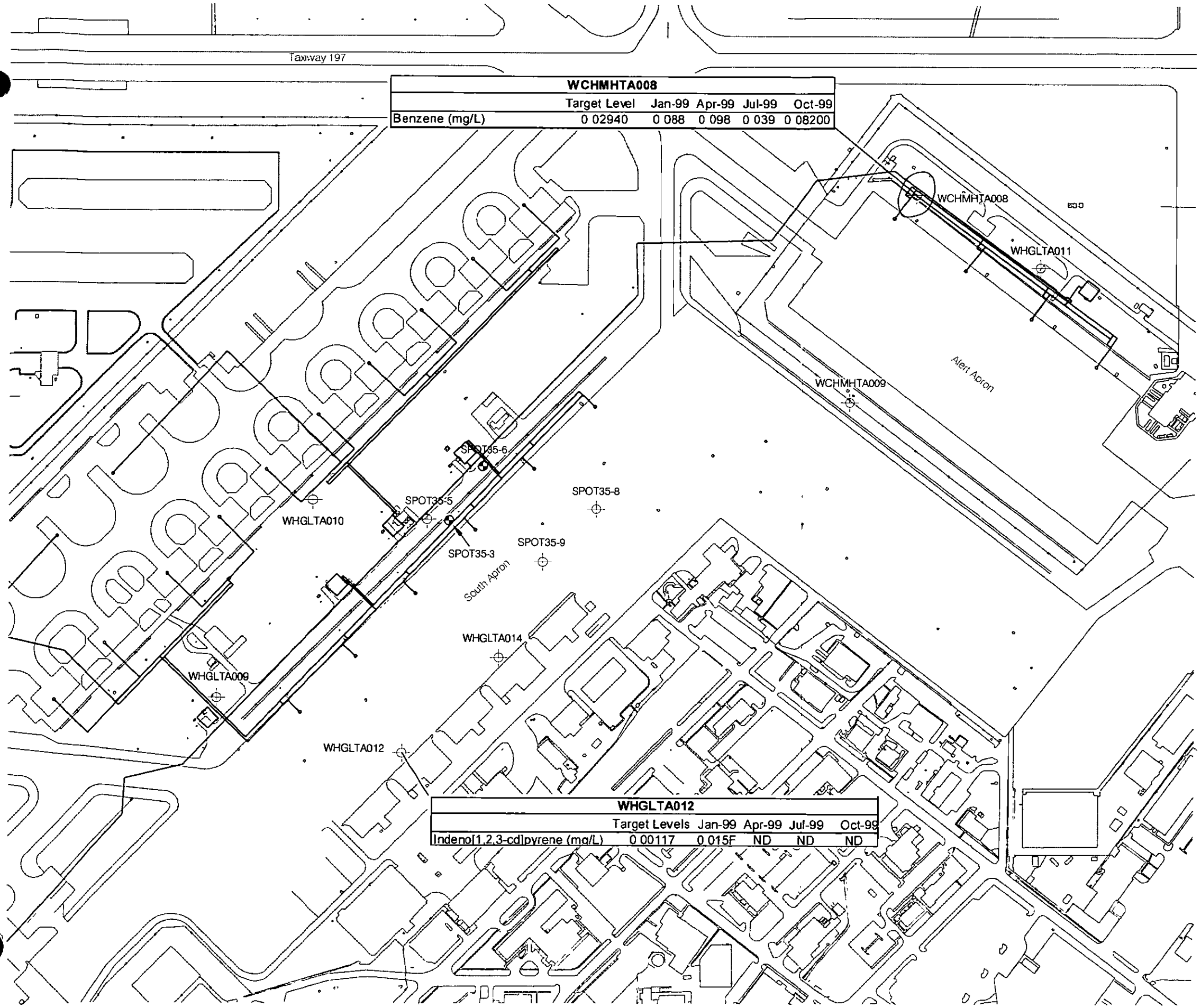
Figure 4.1 612 54
All Concentrations Exceeding the Category II Target Levels in 1999 Groundwater Analytical Data

U.S. Air Force Center
for Environmental Excellence
Brooks AFB, Texas



WCHMHTA008					
	Target Level	Jan-99	Apr-99	Jul-99	Oct-99
Benzene (mg/L)	0 02940	0 088	0 098	0 039	0 08200

WHGLTA012					
	Target Levels	Jan-99	Apr-99	Jul-99	Oct-99
Indeno[1,2,3-cd]pyrene (mg/L)	0 00117	0 015F	ND	ND	ND

Legend

Former Fuel Hydrant System

LNAPL Monitoring Wells

Sampled Monitoring Wells

Benzene Contour (mg/L)

N

0 200 400 800
SCALE IN FEET

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Project AFC001-16DC
Created by mlawlor 06/12/97
Revised 06/07/00 ap
Map Source Jacobs, 1995

HYDRO GeoLogic INC

Table 4.2
1999 AOC 4 Field Parameters

Monitoring Well	pH	Fe^{2+} (mg/L)	Temperature[1] (°C)	Electrical Conductance[2] (µS/cm)	Dissolved Oxygen[3] (mg/L)	Oxygen Reduction Potential[4] (mV)	Turbidity[5] (NTU)
January 1999							
SPOT35-5	6 90	5.96	18.25	1985	1.04	-101.3	9.60
SPOT35-8	6 62	4.24	23.49	7081	1.07	-79.3	2.47
SPOT35-9	6.88	0.59	18.35	1855	1.32	59.9	7.40
WCHMHTA008	6.62	2.76	20.33	315	2.91	-62.4	5.60
WCHMHTA009	6 92	0 42	17.42	1495	0 62	140.1	3.97
WHGLTA009	6.65	3.86	21.06	1849	0.95	-115.7	1.97
WHGLTA010	6.97	4.30	20.56	158	0.98	-132 4	10.20
WHGLTA011	6.98	0 05	19.71	285	1.76	80.4	8.03
WHGLTA012	7.09	2 59	25.18	2318	1.15	-149.4	9.9
WHGLTA014	7.02	0.92	25.13	245	1.84	-134.3	3.5
April 1999							
SPOT35-5	7.40	1.36	25.25	906	1.52	-91 1	9 09
SPOT35-8	7.42	5 35	23.66	1079	1 0	-83.8	3 51
SPOT35-9	7.27	0.35	23 39	619	1 66	-18.0	3 97
WCHMHTA008	7.34	4.14	21 17	1686	0 89	-41.3	5.51
WCHMHTA009	7.17	0 09	21.96	1014	1 03	79.8	9.08
WHGLTA009	6.71	6.85	17.15	834	0*	-101.2	8.57
WHGLTA010	6.91	6.26	21 11	984	0*	-139.9	9 87
WHGLTA011	7.18	0.11	19.87	1475	2 07	60 8	4.97
WHGLTA012	7.59	6 45	22.96	1109	0.61	-133 2	9 76
WHGLTA014	6.88	6.18	22 48	1186	0*	-130.9	7 84
July 1999							
SPOT35-5	7.56	3 5	24.3	1002	0.15	-120 8	13.1
SPOT35-8	6.84	5.76	26.48	971	4.92	-100.1	7 72
SPOT35-9	6 59	0.39	25.72	716	2 89	-11 4	4.33
WCHMHTA008	6 9	4.44	22.24	1357	3.25	-100.5	9.8
WCHMHTA009	7.07	0	30 23	626	1 59	-23	5 04
WHGLTA009	7.11	7 08	22.44	531	2.23	-133 5	9.6
WHGLTA010	7.42	5.85	22.98	604	1 84	-153	5.88
WHGLTA011	6.83	0.03	22.94	1205	2.83	221.3	9.01
WHGLTA012	7 7	8 44	26.08	1121	4 24	-163 1	10.5
WHGLTA014	7.8	6.9	25.04	1046	3.79	-146.6	9.52
October 1999							
SPOT35-5	6.59	6.24	19 44	1074	1 07	-1798	14 48
SPOT35-8	6.59	7.02	26.43	1123	1.00	-75.8	4 82

Table 4.2 (continued)
1999 AOC 4 Field Parameters

Monitoring Well	pH	Fe^{2+} (mg/L)	Temperature[1] (°C)	Electrical Conductance[2] (µS/cm)	Dissolved Oxygen[3] (mg/L)	Oxygen Reduction Potential[4] (mV)	Turbidity[5] (NTU)
SPOT35-9	6.66	ND	25.48	838	1.10	135.7	2.59
WCHMHTA008	6.54	1.45	24.33	2226	16.46	-117.5	9.7
WCHMHTA009	6.81	0.29	30.41	1137	7.45	128.6	8.60
WHGLTA009	6.43	ND	24.25	919	0*	-130.4	5.2
WHGLTA010	6.48	ND	22.37	978	0*	-163.6	6.80
WHGLTA011	6.68	ND	26.07	1998	7.96	80.0	4.11
WHGLTA012	6.96	6.22	26.17	1139	6.99	-138.0	18.86
WHGLTA014	6.81	7.47	26.55	1459	7.59	-115.9	4.96

Notes:
[1] Temperature was measured in degrees Celsius (°C).
[2] Conductance was measured in microSiemens per centimeter (µS/cm)
[3] Dissolved oxygen was measured in milligrams per liter (mg/L).
[4] Oxygen Reduction Potential was measured in millivolts (mV).
[5] Turbidity was measured in nephelometric turbidity units (NTUs).
* Dissolved Oxygen readings were reported as a negative and were therefore not considered a valid measurement.
ND - Fe^{2+} level was not determined.

Ethylbenzene, toluene, and total xylenes were detected below Category II target concentrations during the annual groundwater events in monitoring wells WCHMHTA008, WHGLTA009, and WHGLTA012. The remaining seven monitoring wells were non-detect for ethylbenzene, toluene, and total xylenes. During July and October 1999 groundwater monitoring, ethylbenzene, toluene, and total xylenes were successively reported as non-detects in WHGLTA009 and WHGLTA012. WCHMHTA008 continues to contain ethylbenzene and toluene. Table 4.4 provides an overview of all results.

All TPH concentrations remained below Category II target concentrations and appear to be decreasing over time. WHGLTA012 was the only monitoring well with PAH (Indeno[1,2,3-*cd*]pyrene) concentrations exceeding Category II target levels, which occurred during January 1999. The remaining three groundwater sampling rounds were non-detect.

Several monitoring wells at AOC 4 were also utilized for the basewide TCE plume investigation, therefore, monitoring wells SPOT35-5, WCHMHTA009, WHGLTA009, and WHGLTA011 were monitored for VOCs (SW8260B) in place of BTEX (SW8020 or SW8021). Refer to Table 2.2 for a complete list of monitoring wells and analyses. Monitoring wells SPOT35-5, WCHMHTA009, and WHGLTA011 were free of BTEX compounds. WHGLTA009 contained benzene, ethylbenzene, and total xylenes, in January and April 1999, although, during July and October 1999 all BTEX constituents were reported as non-detect. Appendix C.1 provides an overview of all analytical results.

4.2.3.2 Assessment of Natural Attenuation Data

Natural attenuation was monitored to determine if contaminant concentrations were stabilizing and or decreasing over time. The following natural attenuation parameters were measured to accurately assess the degradation of groundwater contamination at AOC 4: alkalinity, ethane, ethene, methane, common anions (chloride, nitrogen-nitrate, sulfate), and TOC. Natural attenuation is defined as the "degradation, dispersion, dilution, sorption, volatilization, and or chemical and biochemical stabilization of contaminants to effectively reduce contaminant toxicity, mobility, or volume to levels that are protective by human health and the ecosystem" (U.S. EPA Office of Research and Development and Office of Solid Waste and Emergency Response).

Upon reviewing the field parameters and natural attenuation results obtained during the 1999 AOC 4 annual groundwater monitoring events, degradation of benzene appears to be occurring under anaerobic conditions. Substantial evidence obtained during this groundwater monitoring effort suggests BTEX and solvent degradation (TCE) are evident due to the increasing concentrations of methane and chloride over time (Figure 4.2 and 4.3). BTEX degradation in monitoring wells SPOT35-5, WHGLTA009, WHGLTA012, and WHGLTA014 support evidence of natural attenuation due to methanogenesis, a process where benzene and water react to produce carbon dioxide and methane. In addition to the degradation of BTEX constituents, the possibility of chlorinated solvent TCE reacting with the organic solvent benzene is high. Benzene was used as the substrate in the reaction producing increased concentrations of chloride and carbon dioxide.

The following variables were used to confirm that natural attenuation was occurring at AOC 4, dissolved oxygen depletion (Figure 4.4) (Note: Some dissolved oxygen values reported during the April and October 1999 groundwater monitoring were unrealistic and should be regarded invalid due to either an improperly calibrated electrode, bubbles behind the membrane, a fouled/torn membrane, or high dissolved oxygen levels may be associated with readings taken in areas above the screened interval where methane is being produced in the degradation process.); low oxidation reduction potential (normal ORP levels 800 millivolts to -400 millivolts) suggesting a more reducing and anaerobic environment; and increasing methane and chloride concentrations suggesting BTEX and TCE degradation, respectively. Table 4.2 provides a summary of the field parameters measured during 1999 at AOC 4.

4.3 LIGHT NON-AQUEOUS PHASE LIQUIDS

Part of the AOC 4 area has been shown to be impacted by a release of JP-4. Free-product is still present in the non-aqueous phase in two monitoring wells at AOC 4. The JP-4 product is less dense than water and therefore "floats" on top of the groundwater in the saturated and vadose zones. The release occurred in the SPOT-35 area along the South Apron. During the weekly product monitoring and recovery events in 1999, the presence of LNAPL appears to be deceasing. In order to receive site closure, free-product monitoring and removal will continue on a weekly basis until measurable thickness is < 0.01 feet.

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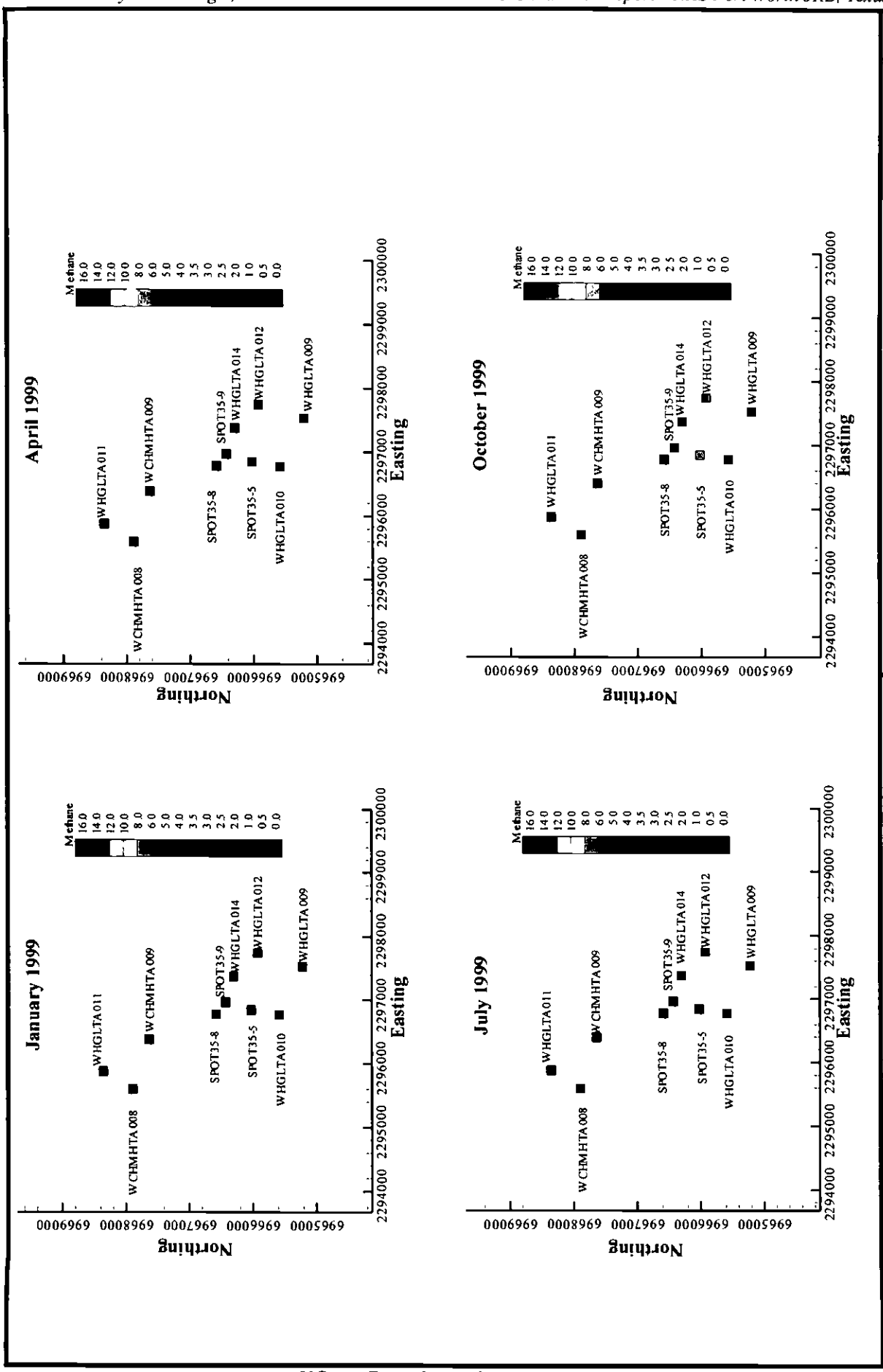

Figure 4.2
Methane Concentrations During 1999

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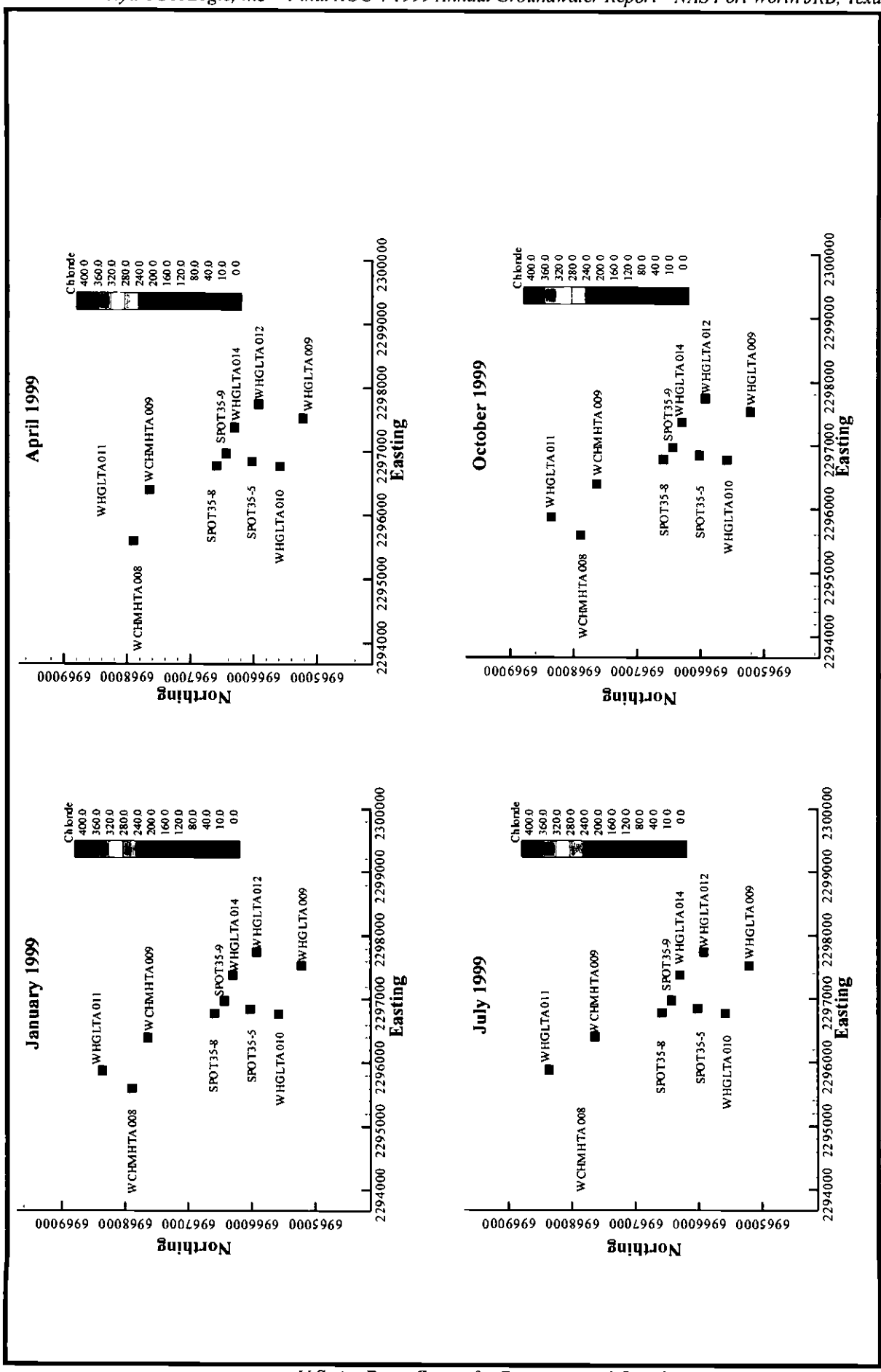

Figure 4.3
Chloride Concentrations During 1999

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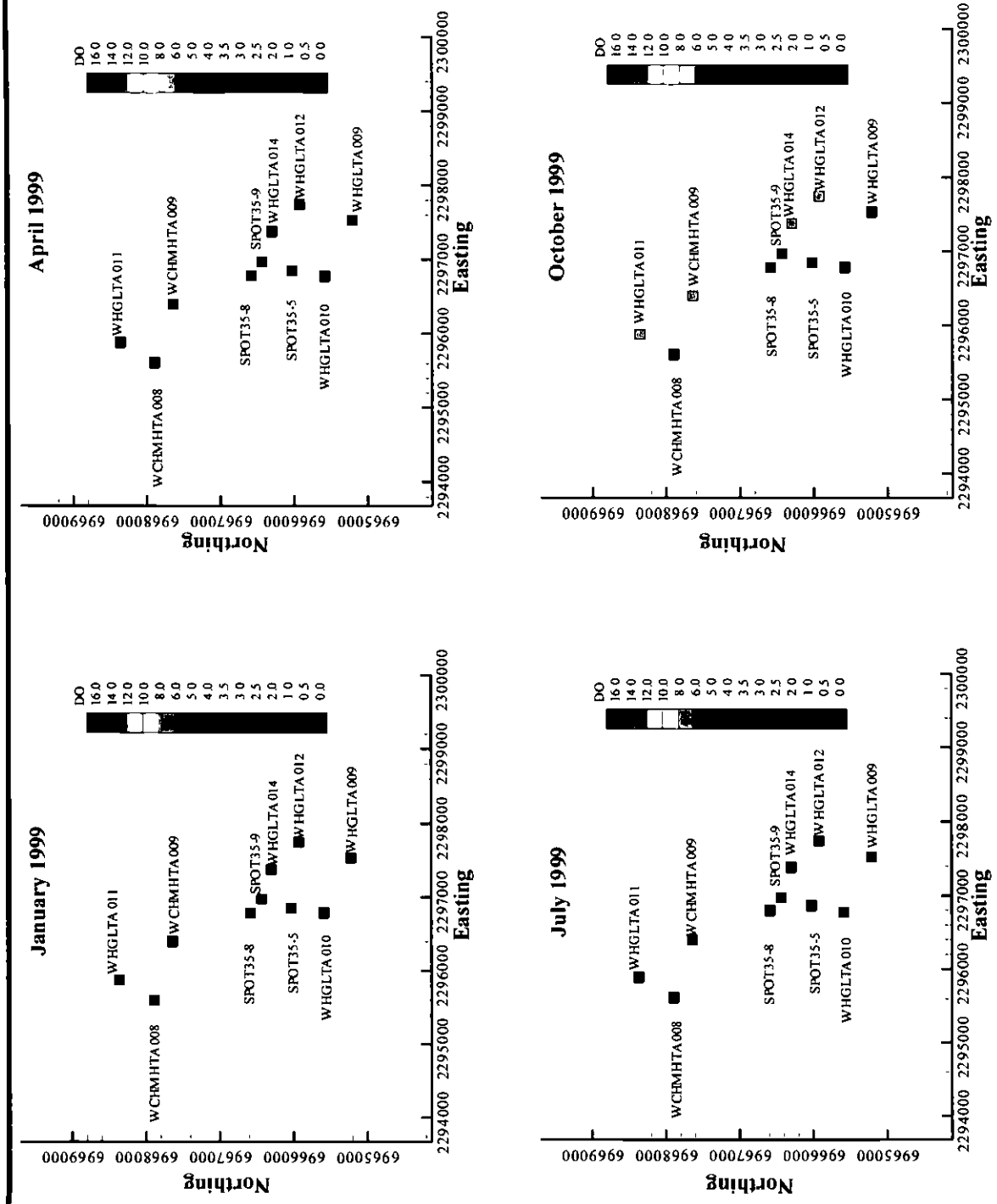

Figure 4.4
Dissolved Oxygen Concentrations During 1999

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Table 4.3
LNAPL Thickness Measurements and Visual Observations at AOC 4
January 1999 through December 1999
NAS Fort Worth JRB, Texas

SPOT35-3[1]						SPOT35-6[2]					
Date	DTP (ftoc)	DTW (ftoc)	Product Thickness (ft)	Groundwater Elevations (ft above msl)	Color Observations	Date	DTP (ftoc)	DTW (ftoc)	Product Thickness (ft)	Groundwater Elevations (ft above msl)	Color Observations
1/7/99	20.06	20.07	0.01	592 63	None	1/7/99	NM	NM	NM	615.68	None
1/14/99	20.16	20.19	0.03	592 51	light yellow	1/14/99	-	23.2	0	592.48	bright yellow
1/22/99	20 18	20.23	0.05	592.47	None	1/22/99	23.24	23.25	0.01	592.43	None
2/1/99	20.2	20.28	0.08	592.42	None	2/1/99	23 21	23.22	0.01	592.46	None
2/10/99	20.19	20.24	0.05	592.46	mostly clear	2/10/99	23.19	23.195	0.005	592.485	bright yellow
2/25/99	20.21	20.3	0.09	592.40	None	2/25/99	-	23.26	0	592.42	None
3/4/99	20 23	20 28	0.05	592 42	light yellow	3/4/99	23.29	23.31	0.02	592.37	bright yellow
3/10/99	20.28	20 285	0.005	592 42	None	3/10/99	23.33	23.335	0.005	592.345	None
3/17/99	20.31	20.33	0.02	592.37	grey	3/17/99	23.32	23.33	0 01	592.35	None
4/14/99	20.21	20.24	0.03	592.46	tan	4/14/99	-	23.2	0	592.48	None
4/16/99	20 33	20.34	0.01	592 36	None	4/16/99	23.32	23.33	0 01	592.35	None
4/27/99	20.4	20.42	0 02	592 28	None	4/27/99	23.45	23.46	0.01	592 22	None
5/6/99	20.43	20.44	0.01	592 26	None	5/6/99	23.49	23.5	0.01	592.18	None
5/13/99	-	20.41	0	592.29	None	5/13/99	23.44	23 45	0 01	592.23	None
6/4/99	20.31	20.33	0.02	592.37	None	6/4/99	-	23.27	0	592.41	None
6/16/99	-	20 27	0	592.43	None	6/16/99	-	23.27	0	592 41	None
7/9/99	20.28	20.3	0.02	592.40	None	7/9/99	-	23.32	0	592.36	None
7/22/99	NR	NR	0.04	612 70	None	7/22/99	NR	NR	0.08	615.68	None
8/10/99	20.44	20.45	0 01	592 25	None	8/10/99	-	23.54	0	592.14	None
9/2/99	-	20.53	0	592.17	None	9/2/99	-	23.56	0	592.12	None
9/27/99	-	20 6	0	592 10	None	9/27/99	-	23.69	0	591.99	None
10/25/99	-	20.77	0	591 93	None	10/25/99	-	23.79	0	591.89	None
11/8/99	-	20.7	0	592 00	None	11/8/99	-	23.78	0	591.9	None
11/15/99	-	20.8	0	591.90	None	11/15/99	-	23.85	0	591.83	None
11/22/99	-	20.79	0	591.91	None	11/22/99	-	23.82	0	591.86	None
11/28/99	-	20.46	0	592.24	None	11/28/99	-	23.95	0	591.73	None

Table 4.3 (continued)
LNAPL Thickness Measurements and Visual Observations at AOC 4
January 1999 through December 1999
NAS Fort Worth JRB, Texas

SPOT35-3[1]						SPOT35-6[2]					
Date	DTP (ftoc)	DTW (ftoc)	Product Thickness (ft)	Groundwater Elevations (ft above msl)	Color Observations	Date	DTP (ftoc)	DTW (ftoc)	Product Thickness (ft)	Groundwater Elevations (ft above msl)	Color Observations
12/6/99	-	20.77	0	591.93	None	12/6/99	-	23.86	0	591.82	None
12/15/99	20.84	20.85	0.01	591.85	None	12/15/99	23.89	23.91	0.02	591.77	None
12/22/99	-	20.91	0	591.79	None	12/22/99	23.95	23.97	0.02	591.71	None

Notes:
[1] The Top of Casing Elevation for SPOT35-3 is 612.70 ft above mean sea level (msl).
[2] The Top of Casing Elevation for SPOT35-6 is 615.68 ft above mean sea level (msl).
DTP - Depth to Product in feet.
DTW - Depth to Water in feet.
NM - Not measured. If the monitoring well did not contain product for one or two consecutive measurements, the frequency of measurements was reduced to bi-weekly.
NR - Not recorded.
- No product was found.
ftoc - Depth from top of well casing.
ft above msl - groundwater elevations in feet above mean sea level.

Product measurements were performed using an oil/water interface probe capable of measuring to 0.01 feet of product. When a trace amount of free-product was recovered, the product thickness was estimated.
All free-product was removed using absorbent pads.
The correction factor was not calculated for these datum since the difference between the apparent thickness and product thickness was negligible.

Table 4.4a
Concentrations of Organic/Inorganic Constituents in Ground Water - AOC 4
January 1999
NAS Fort Worth JRB, Texas

Analytical Parameter (mg/L)	Plan A[1]	Sample Location[2]				
		SPOT35-5	SPOT35-8	SPOT35-9	WCHMHTA008	WCHMHTA009
Aromatic VOCs						
Benzene	0.0294	ND	0.0012J	ND	(0.088)	ND
Ethylbenzene	3.65	ND	ND	ND	0.044	ND
Methyl-*tert*-butyl ether	NE	NA	ND	ND	ND	ND
Toluene	7.3	ND	ND	ND	ND	ND
Xylenes, Total	73	ND	ND	ND	ND	ND
Polynuclear Aromatic Hydrocarbons (PAHs)						
Acenaphthene	2.19	ND	ND	ND	ND	ND
Acenaphthylene	NE	ND	ND	ND	ND	ND
Anthracene	11	ND	ND	ND	ND	ND
Benzo[*a*]anthracene	0.00117	ND	ND	ND	ND	ND
Benzo[*a*]pyrene	0.000117	ND	ND	ND	ND	ND
Benzo[*b*]fluoranthene	0.00117	0.00017R	ND	ND	ND	ND
Benzo[*g,h,i*]perylene	NE	ND	ND	ND	ND	ND
Benzo[*k*]fluoranthene	0.0117	ND	ND	ND	ND	ND
Chrysene	0.117	ND	ND	ND	ND	ND
Dibenzo[*a,h*]anthracene	0.000117	ND	ND	ND	ND	ND
Fluoranthene	1 46	ND	ND	ND	ND	ND
Fluorene	1.46	ND	ND	ND	ND	ND
Indeno[1,2,3-*cd*]pyrene	0.00117	ND	ND	ND	ND	ND
Naphthalene	1 46	0.021	ND	ND	0.03F	ND
Phenanthrene	NE	ND	ND	ND	ND	ND
Pyrene	1.1	ND	ND	ND	ND	ND
Total Petroleum Hydrocarbons (TPHs)						
TPH	NE	NA	NA	NA	NA	NA
Diesel Range Organics	NE	1.2	ND	ND	ND	ND
Gasoline Range Organics	NE	1.2	0.053J	0.058J	0.82	0.13J

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Table 4.4a (continued)
Concentrations of Organic/Inorganic Constituents in Ground Water - AOC 4
January 1999
NAS Fort Worth JRB, Texas

Analytical Parameter (mg/L)	Plan A[1]	Sample Location[2]				
		WHGLTA009	WHGLTA010	WHGLTA011	WHGLTA012	WHGLTA014
Aromatic VOCs						
Benzene	0.0294	0 0018J	0.0025J	ND	0.008J	0.0019
Ethylbenzene	3.65	ND	ND	ND	0.0014J	ND
Methyl-*tert*-butyl ether	NE	0.0032J	ND	ND	ND	ND
Toluene	7.3	ND	ND	ND	0.00052F	ND
Xylenes, Total	73	0.0028	ND	ND	0 0072J	ND
Polynuclear Aromatic Hydrocarbons (PAHs)						
Acenaphthene	2 19	ND	ND	ND	ND	ND
Acenaphthylene	NE	ND	ND	ND	ND	ND
Anthracene	11	ND	ND	ND	ND	ND
Benzo[*a*]anthracene	0 00117	ND	ND	ND	ND	ND
Benzo[*a*]pyrene	0.000117	ND	ND	ND	ND	ND
Benzo[*b*]fluoranthene	0.00117	ND	ND	ND	ND	ND
Benzo[*g,h,i*]perylene	NE	ND	ND	ND	ND	ND
Benzo[*k*]fluoranthene	0 0117	ND	ND	ND	ND	ND
Chrysene	0.117	ND	ND	ND	ND	ND
Dibenzo[*a,h*]anthracene	0.000117	ND	ND	ND	ND	ND
Fluoranthene	1.46	ND	ND	ND	ND	ND
Fluorene	1.46	ND	ND	ND	0.0016F	ND
Indeno[1,2,3-*cd*]pyrene	0 00117	ND	ND	ND	(0.015F)	ND
Naphthalene	1.46	ND	ND	ND	ND	ND
Phenanthrene	NE	ND	ND	ND	ND	ND
Pyrene	1.1	ND	ND	ND	ND	ND
Total Petroleum Hydrocarbons (TPHs)						
TPH	NE	NA	NA	NA	NA	NA
Diesel Range Organics	NE	ND	ND	ND	1.1J	ND
Gasoline Range Organics	NE	0.97	ND	ND	2.7	0.31

Table 4.4a (continued)
Concentrations of Organic/Inorganic Constituents in Ground Water - AOC 4
January 1999
NAS Fort Worth JRB, Texas

Analytical Parameter (mg/L)	Plan A[1]	Sample Location[2]				
		SPOT35-5	SPOT35-8	SPOT35-9	WCHMHTA008	WCHMHTA009
Natural Attenuation						
Alkalinity, Total	NE	404	445	384	466	278
Ethane	NE	NA	ND	ND	ND	ND
Ethene	NE	NA	ND	0.0012F	ND	ND
Methane	NE	NA	0 454	0.129	3.33J	0.0088
Chloride	NE	146	87.4	44.6	439	66 7
Nitrogen, Nitrate	NE	ND	ND	0.68	2.3	8.5
Sulfate	NE	ND	ND	51.4	35.3	36.8
TOC	NE	7	3	6.3	10.6	1.7

Analytical Parameter (mg/L)	Plan A[1]	Sample Location[2]				
		WHGLTA009	WHGLTA010	WHGLTA011	WHGLTA012	WHGLTA014
Natural Attenuation						
Alkalinity, Total	NE	413	458	474	296	427
Ethane	NE	ND	ND	ND	ND	ND
Ethene	NE	ND	ND	ND	ND	ND
Methane	NE	1 63J	1.27J	ND	17.1J	1 79J
Chloride	NE	33 8	23.9	8 8	10.2	89.9
Nitrogen, Nitrate	NE	ND	ND	ND	ND	ND
Sulfate	NE	13.7	36 1	9.1	ND	27
TOC	NE	2	2.1	3	6.1	2.6

Notes.
[1] Plan A Category II Target Groundwater Concentrations
[2] Parentheses ( ) indicate concentrations exceeding Plan A Target Concentrations for Category II sites.
J - Result is detected and the quantitation is an estimation
F - Result is detected but the associated numerical value is below the detection limit.
NA - Not analyzed.
NE - Category II Target Concentration is not available for the constituent.
ND - Non Detect.
R - Result was rejected during data validation due to deficiencies in the QC criteria.

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Table 4.4b
Concentrations of Organic/Inorganic Constituents in Ground Water - AOC 4
April 1999
NAS Fort Worth JRB, Texas

Analytical Parameter (mg/L)	Plan A[1]	Sample Location[2]				
		SPOT35-5	SPOT35-8	SPOT35-9	WCHMHTA008	WCHMHTA009
Aromatic VOCs						
Benzene	0.0294	ND	0.001J	ND	(0.098)	ND
Ethylbenzene	3.65	ND	ND	ND	0.049	ND
Methyl-*tert*-butyl ether	NE	ND	ND	ND	ND	ND
Toluene	7.3	ND	ND	ND	ND	ND
Xylenes, Total	73	ND	ND	ND	0.00059F	ND
Polynuclear Aromatic Hydrocarbons (PAHs)						
Acenaphthene	2.19	ND	ND	ND	ND	ND
Acenaphthylene	NE	ND	ND	ND	ND	ND
Anthracene	11	ND	ND	ND	ND	ND
Benzo[*a*]anthracene	0 00117	ND	ND	ND	ND	ND
Benzo[*a*]pyrene	0.000117	ND	ND	ND	ND	ND
Benzo[*b*]fluoranthene	0 00117	ND	ND	ND	ND	ND
Benzo[*g,h,i*]perylene	NE	ND	ND	ND	ND	ND
Benzo[*k*]fluoranthene	0.0117	ND	ND	ND	ND	ND
Chrysene	0.117	ND	ND	ND	ND	ND
Dibenzo[*a,h*]anthracene	0.000117	ND	ND	ND	ND	ND
Fluoranthene	1.46	ND	ND	ND	ND	ND
Fluorene	1.46	ND	ND	ND	ND	ND
Indeno[1,2,3-*cd*]pyrene	0.00117	ND	ND	ND	ND	ND
Naphthalene	1.46	0.037J	ND	ND	0.03	ND
Phenanthrene	NE	ND	ND	ND	ND	ND
Pyrene	1 1	ND	ND	0 0026R	0.0026R	ND
Total Petroleum Hydrocarbons (TPHs)						
TPH	NE	ND	ND	ND	ND	ND
Diesel Range Organics	NE	ND	ND	ND	ND	ND
Gasoline Range Organics	NE	ND	ND	ND	ND	ND

Table 4.4b (continued)
Concentrations of Organic/Inorganic Constituents in Ground Water - AOC 4
April 1999
NAS Fort Worth JRB, Texas

Analytical Parameter (mg/L)	Plan A[1]	Sample Location[2]				
		WHGLTA009	WHGLTA010	WHGLTA011	WHGLTA012	WHGLTA014
Aromatic VOCs						
Benzene	0.0294	0 0014J	0.0014J	ND	0.0073J	0.0017
Ethylbenzene	3.65	0.00055F	ND	ND	0.00074F	ND
Methyl-*tert*-butyl ether	NE	0.001R	0 001R	ND	ND	0.001R
Toluene	7.3	ND	ND	ND	ND	ND
Xylenes, Total	73	0.0039	ND	ND	0.0056J	ND
Polynuclear Aromatic Hydrocarbons (PAHs)						
Acenaphthene	2.19	ND	ND	ND	ND	ND
Acenaphthylene	NE	ND	ND	ND	ND	ND
Anthracene	11	ND	ND	ND	ND	ND
Benzo[*a*]anthracene	0.00117	ND	ND	ND	ND	ND
Benzo[*a*]pyrene	0.000117	ND	ND	ND	ND	ND
Benzo[*b*]fluoranthene	0.00117	ND	ND	ND	ND	ND
Benzo[*g,h,i*]perylene	NE	ND	ND	ND	ND	ND
Benzo[*k*]fluoranthene	0.0117	ND	ND	ND	ND	ND
Chrysene	0.117	ND	ND	ND	ND	ND
Dibenzo[*a,h*]anthracene	0.000117	ND	ND	ND	ND	ND
Fluoranthene	1.46	0.00012F	ND	ND	ND	ND
Fluorene	1.46	ND	ND	ND	ND	ND
Indeno[1,2,3-*cd*]pyrene	0.00117	ND	ND	ND	ND	ND
Naphthalene	1.46	ND	ND	ND	0.014F	ND
Phenanthrene	NE	ND	ND	ND	ND	ND
Pyrene	1 1	0.0026R	0.0026R	ND	0.0026R	0.0026R
Total Petroleum Hydrocarbons (TPHs)						
TPH	NE	ND	ND	ND	ND	ND
Diesel Range Organics	NE	ND	ND	ND	ND	ND
Gasoline Range Organics	NE	ND	ND	ND	ND	ND

Table 4.4b (continued)
Concentrations of Organic/Inorganic Constituents in Ground Water - AOC 4
April 1999
NAS Fort Worth JRB, Texas

Analytical Parameter (mg/L)	Plan A[1]	Sample Location[2]				
		SPOT35-5	SPOT35-8	SPOT35-9	WCHMHTA008	WCHMHTA009
Natural Attenuation						
Alkalinity, Total	NE	408	446	304	474	300
Ethane	NE	0.011	ND	ND	ND	ND
Ethene	NE	ND	ND	ND	ND	ND
Methane	NE	4.2	0.13	ND	3.1J	0.005
Chloride	NE	91.6J	72.9	33.7J	432J	82.6
Nitrogen, Nitrate	NE	ND	ND	1 3	1.9	11
Sulfate	NE	1 7J	32.9J	36.5J	40.3J	44.5J
TOC	NE	6	2.6	2.4	5.1	1.7

Analytical Parameter (mg/L)	Plan A[1]	Sample Location[2]				
		WHGLTA009	WHGLTA010	WHGLTA011	WHGLTA012	WHGLTA014
Natural Attenuation						
Alkalinity, Total	NE	447	491	488	319	459
Ethane	NE	ND	ND	ND	ND	ND
Ethene	NE	ND	ND	ND	ND	ND
Methane	NE	0.42	1.3	ND	5.1	0.38
Chloride	NE	35.9J	26 5J	288J	189J	101J
Nitrogen, Nitrate	NE	ND	ND	1.8	ND	ND
Sulfate	NE	16 8J	48.9J	125J	ND	29.2J
TOC	NE	1.3	1.7	2.3	6.3	3 4

Notes:
[1] Plan A Category II Target Groundwater Concentrations
[2] Parentheses ( ) indicate concentrations exceeding Plan A Target Concentrations for Category II sites
J - Result is detected and the quantitation is an estimation.
F - Result is detected but the associated numerical value is below the detection limit
NA - Not analyzed
NE - Category II Target Concentration is not available for the constituent.
ND - Non Detect
R - Result was rejected during data validation due to deficiencies in the QC criteria.

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Table 4.4c
Concentrations of Organic/Inorganic Constituents in Ground Water - AOC 4
July 1999
NAS Fort Worth JRB, Texas

Analytical Parameter (mg/L)	Plan A[1]	Sample Location [2]				
		SPOT35-5	SPOT35-8	SPOT35-9	WCHMHTA008	WCHMHTA009
Aromatic VOCs						
Benzene	0.0294	ND	ND	ND	(0.039)	ND
Ethylbenzene	3.65	ND	ND	ND	0.034	ND
Methyl-tert-butyl ether	NE	NA	ND	ND	ND	ND
Toluene	7.3	ND	ND	ND	0.0007F	ND
Xylenes, Total	73	ND	ND	ND	ND	ND
Polynuclear Aromatic Hydrocarbons (PAHs)						
Acenaphthene	2.19	ND	ND	ND	ND	ND
Acenaphthylene	NE	ND	ND	ND	ND	ND
Anthracene	11	0.0066R	ND	ND	ND	ND
Benzo[*a*]anthracene	0 00117	ND	ND	ND	ND	ND
Benzo[*a*]pyrene	0.000117	0.00023R	ND	ND	ND	ND
Benzo[*b*]fluoranthene	0.00117	ND	ND	ND	ND	ND
Benzo[*ghi*]perylene	NE	ND	ND	ND	ND	ND
Benzo[*k*]fluoranthene	0 0117	ND	ND	ND	ND	ND
Chrysene	0.117	ND	ND	ND	ND	ND
Dibenzo[*a,h*]anthracene	0.000117	ND	ND	ND	ND	ND
Fluoranthene	1.46	ND	ND	ND	ND	ND
Fluorene	1.46	0.00024F	ND	ND	0.00015F	ND
Indeno[1,2,3-*cd*]pyrene	0 00117	ND	ND	ND	ND	ND
Naphthalene	1.46	0.016F	ND	ND	0.021	ND
Phenanthrene	NE	0.0003F	ND	ND	0.00015F	ND
Pyrene	1.1	ND	ND	ND	ND	ND
Total Petroleum Hydrocarbons (TPHs)						
TPH	NE	ND	ND	ND	ND	ND
Diesel Range Organics	NE	ND	ND	ND	ND	ND
Gasoline Range Organics	NE	ND	ND	ND	ND	ND

Table 4.4c (continued)
Concentrations of Organic/Inorganic Constituents in Ground Water - AOC 4
July 1999
NAS Fort Worth JRB, Texas

Analytical Parameter (mg/L)	Plan A[1]	Sample Location[2]				
		WHGLTA009	WHGLTA010	WHGLTA011	WHGLTA012	WHGLTA014
Aromatic VOCs						
Benzene	0.0294	ND	0.0009F	ND	0.006J	0.001
Ethylbenzene	3.65	ND	ND	ND	ND	ND
Methyl-tert-butyl ether	NE	NA	NA	ND	ND	ND
Toluene	7.3	ND	ND	ND	ND	ND
Xylenes, Total	73	ND	ND	ND	ND	ND
Polynuclear Aromatic Hydrocarbons (PAHs)						
Acenaphthene	2.19	ND	ND	ND	0 0017F	ND
Acenaphthylene	NE	ND	ND	ND	0.0085F	ND
Anthracene	11	ND	ND	ND	ND	ND
Benzo[*a*]anthracene	0.00117	ND	ND	ND	ND	ND
Benzo[*a*]pyrene	0 000117	ND	ND	ND	ND	ND
Benzo[*b*]fluoranthene	0.00117	ND	ND	ND	ND	ND
Benzo[*ghi*]perylene	NE	ND	ND	ND	ND	ND
Benzo[*k*]fluoranthene	0.0117	ND	ND	ND	ND	ND
Chrysene	0.117	ND	ND	ND	ND	ND
Dibenzo[*a,h*]anthracene	0.000117	ND	ND	ND	ND	ND
Fluoranthene	1.46	0.00014F	ND	ND	0.00025F	ND
Fluorene	1.46	0.0001F	ND	ND	0.00066F	ND
Indeno[1,2,3-*cd*]pyrene	0.00117	ND	ND	ND	ND	ND
Naphthalene	1.46	ND	ND	ND	0.0056F	ND
Phenanthrene	NE	0.000046F	ND	ND	ND	ND
Pyrene	1.1	ND	ND	ND	ND	ND
Total Petroleum Hydrocarbons (TPHs)						
TPH	NE	ND	ND	ND	ND	ND
Diesel Range Organics	NE	ND	ND	ND	ND	ND
Gasoline Range Organics	NE	ND	ND	ND	ND	ND

Table 4.4c (continued)
Concentrations of Organic/Inorganic Constituents in Ground Water - AOC 4
July 1999
NAS Fort Worth JRB, Texas

Analytical Parameter (mg/L)	Plan A[1]	Sample Location[2]				
		SPOT35-5	SPOT35-8	SPOT35-9	WCHMHTA008	WCHMHTA009
Natural Attenuation						
Alkalinity, Total	NE	368	452J	335J	514	299
Ethane	NE	0.002	ND	ND	ND	ND
Ethene	NE	ND	ND	ND	ND	ND
Methane	NE	5.3	0.21	0.4	3.2	ND
Chloride	NE	93	46J	35J	290J	57J
Nitrogen, Nitrate	NE	0.28F	0 019F	0.76F	1.8J	7.7J
Sulfate	NE	0.14F	24J	33J	46J	32
TOC	NE	10.5	8.2	3.3	2.3	1.2

Analytical Parameter (mg/L)	Plan A[1]	Sample Location[2]				
		WHGLTA009	WHGLTA010	WHGLTA011	WHGLTA012	WHGLTA014
Natural Attenuation						
Alkalinity, Total	NE	321J	490J	500	315J	436J
Ethane	NE	ND	ND	ND	ND	ND
Ethene	NE	ND	ND	ND	ND	ND
Methane	NE	1.28	2.3	ND	15	1.1
Chloride	NE	33J	25J	180J	120J	58J
Nitrogen, Nitrate	NE	ND	0 092F	2 1J	0.13F	0.095F
Sulfate	NE	17J	51J	86	0.091F	22J
TOC	NE	1.5	1.6	ND	2.6	1 7

Notes.
[1] Plan A Category II Target Groundwater Concentrations
[2] Parentheses ( ) indicate concentrations exceeding Plan A Target Concentrations for Category II sites.
J - Result is detected and the quantitation is an estimation
F - Result is detected but the associated numerical value is below the detection limit.
NA - Not analyzed
NE - Category II Target Concentration is not available for the constituent.
ND - Non Detect.
R - Result was rejected during data validation due to deficiencies in the QC criteria

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Table 4.4d
Concentration of Organic/Inorganic Constituents in Groundwater - AOC 4
October 1999
NAS Fort Worth JRB, Texas

Analytical Parameter (mg/L)	Plan A[1]	Sample Location[2]				
		SPOT35-5	SPOT35-8	SPOT35-9	WCHMHTA008	WCHMHTA009
Aromatic VOCs						
Benzene	0.0294	ND	ND	ND	(0.082)	ND
Ethylbenzene	3.65	ND	ND	ND	0.069	ND
Methyl *tert*-butyl ether	NE	NA	ND	ND	ND	ND
Toluene	7.3	ND	ND	ND	ND	ND
Xylenes, Total	73	ND	ND	ND	ND	ND
Polynuclear Aromatic Hydrocarbons (PAHs)						
Acenaphthene	2.19	ND	ND	ND	ND	ND
Acenaphthylene	NE	ND	ND	ND	ND	ND
Anthracene	11	ND	ND	ND	ND	ND
Benzo[*a*]anthracene	0.00117	ND	ND	ND	ND	ND
Benzo[*a*]pyrene	0.00012	ND	ND	ND	ND	ND
Benzo[*b*]fluoranthene	0.00117	0.00018R	0 00018R	0.00018R	0.00017R	0.00018R
Benzo[*ghi*]perylene	NE	ND	ND	ND	ND	ND
Benzo[*k*]fluoranthene	0.0117	ND	ND	ND	ND	ND
Chrysene	0.117	ND	ND	ND	ND	ND
Dibenzo[*a,h*]anthracene	0.00012	ND	ND	ND	ND	ND
Fluoranthene	1.46	ND	ND	ND	ND	ND
Fluorene	1.46	ND	ND	ND	ND	ND
Indeno[1,2,3-*cd*]pyrene	0.00117	ND	ND	ND	ND	ND
Naphthalene	1.46	0.046F	ND	ND	0.028F	ND
Phenanthrene	NE	ND	ND	ND	ND	ND
Pyrene	1.1	ND	ND	ND	ND	ND
Total Petroleum Hydrocarbons (TPH)						
TPH	NE	5.41	ND	ND	ND	ND
Diesel Range Organics	NE	1.719F	ND	ND	ND	ND
Gasoline Range Organics	NE	3.691F	ND	ND	ND	ND

Table 4.4d (continued)
Concentration of Organic/Inorganic Constituents in Groundwater - AOC 4
October 1999
NAS Fort Worth JRB, Texas

Analytical Parameter (mg/L)	Plan A[1]	Sample Location[2]				
		WHGLTA009	WHGLTA010	WHGLTA011	WHGLTA012	WHGLTA014
Aromatic VOCs						
Benzene	0.0294	ND	0 0013	ND	0.0059	0.0011J
Ethylbenzene	3.65	ND	ND	ND	ND	ND
Methyl *tert*-butyl ether	NE	NA	ND	NA	0.036J	ND
Toluene	7.3	ND	ND	ND	ND	ND
Xylenes, Total	73	ND	ND	ND	ND	ND
Polynuclear Aromatic Hydrocarbons (PAHs)						
Acenaphthene	2 19	ND	ND	ND	ND	ND
Acenaphthylene	NE	ND	ND	ND	ND	ND
Anthracene	11	ND	ND	ND	ND	ND
Benzo[*a*]anthracene	0.00117	ND	ND	ND	ND	ND
Benzo[*a*]pyrene	0.00012	ND	ND	ND	ND	ND
Benzo[*b*]fluoranthene	0.00117	0.00017R	0 00018R	0.00017R	0.00018R	0.00018R
Benzo[*ghi*]perylene	NE	ND	ND	ND	ND	ND
Benzo[*k*]fluoranthene	0.0117	ND	ND	ND	ND	ND
Chrysene	0.117	ND	ND	ND	ND	ND
Dibenzo[*a,h*]anthracene	0.00012	ND	ND	ND	ND	ND
Fluoranthene	1.46	0 00015F	ND	ND	ND	ND
Fluorene	1.46	ND	ND	ND	0.00081F	ND
Indeno[1,2,3-*cd*]pyrene	0.00117	ND	ND	ND	ND	ND
Naphthalene	1.46	ND	ND	ND	0.0098F	ND
Phenanthrene	NE	ND	ND	ND	ND	ND
Pyrene	1 1	ND	ND	ND	ND	ND
Total Petroleum Hydrocarbons (TPH)						
TPH	NE	ND	ND	ND	ND	ND
Diesel Range Organics	NE	ND	ND	ND	ND	ND
Gasoline Range Organics	NE	ND	ND	ND	ND	ND

Table 4.4d (continued)
Concentration of Organic/Inorganic Constituents in Groundwater - AOC 4
October 1999
NAS Fort Worth JRB, Texas

Analytical Parameter (mg/L)	Plan A[1]	Sample Location[2]				
		SPOT35-5	SPOT35-8	SPOT35-9	WCHMHTA008	WCHMHTA009
Natural Attenuation						
Alkalinity, Total	NE	443	520	341	464	284
Ethane	NE	0 00211	ND	ND	ND	ND
Ethene	NE	0.001	ND	ND	ND	ND
Methane	NE	6.11	0.363	0.33	3.45	0.00394
Chloride	NE	103J	59.1	32.2	381	80.5
Nitrogen, Nitrate	NE	ND	ND	1.1	2.3	8.3
Sulfate	NE	ND	37 1	45.4	40.2	40 2
TOC	NE	5	ND	ND	3.3	ND

Analytical Parameter (mg/L)	Plan A[1]	Sample Location[2]				
		WHGLTA009	WHGLTA010	WHGLTA011	WHGLTA012	WHGLTA014
Natural Attenuation						
Alkalinity, Total	NE	419	442	452	290	448
Ethane	NE	ND	ND	ND	ND	ND
Ethene	NE	ND	ND	ND	ND	ND
Methane	NE	0.87	2.31	ND	12.95	1.47
Chloride	NE	28.7	24.5	225	145	119
Nitrogen, Nitrate	NE	24.5	ND	2.5	ND	ND
Sulfate	NE	17 7	56.9	118	ND	45.5
TOC	NE	ND	ND	2.8	ND	ND

Notes
1 Plan A Category II Target Groundwater Concentrations.
2 Parentheses ( ) indicate concentrations exceeding Plan A Target Concentrations for Category II sites.
J - Result is detected and the quantitation is an estimation.
F - Result is detected but the associated numerical value is below the detection limit.
R - Result was rejected during data validation due to deficiencies in the QC criteria.
NA - Not analyzed.
NE - Category II Target Concentration is not available for the constituent
ND - Non Detect.

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TAB

Section 5

5.0 CONCLUSIONS AND RECOMMENDATIONS

This section includes a summary of the results obtained from the 1999 groundwater monitoring activities at AOC 4. This section also includes a discussion of recommendations for the next appropriate action to be taken in order to proceed toward site closure under TNRCC's PST Division.

Previous investigations, including the 1998 SI conducted by HydroGeoLogic indicated groundwater contamination levels were decreasing over time; although WCHMHTA008 continued to exceed the Plan A Target Concentration criteria, while SPOT35-3 and SPOT35-6 contained free-product. In order to verify plume concentration stabilization, HydroGeoLogic performed annual groundwater monitoring during 1999 while continuing to monitor and remove free-product.

Results obtained during the 1999 AOC 4 annual groundwater monitoring effort, provided evidence of natural attenuation and suggested plume concentrations had begun to stabilize over time. Figures 4.2, 4.3, and 4.4 illustrate natural attenuation of methane, chloride, and dissolved oxygen results during each quarterly monitoring event. During 1999, two monitoring wells exceeded the Plan A-Category II Target Groundwater Concentrations, WCHMHTA008 exceeded benzene target concentrations during all four quarters and WHGLTA012 exceeded Indeno[1,2,3-*cd*]pyrene concentrations in January. The remaining three quarters were non-detect for Indeno[1,2,3-*cd*]pyrene. The presence of LNAPL (> 0.01 feet thickness) is actively monitored and recovered on a weekly basis at SPOT35-3 and SPOT35-6, currently precludes the site from meeting the appropriate closure requirements under the TNRCC PST early exit criteria process.

In order to proceed toward site closure at AOC 4, HydroGeoLogic proposes the continued monitoring and recovery of LNAPL at monitoring wells SPOT35-3 and SPOT35-6. In addition, groundwater at SPOT35-8, WCHMHTA008, WCHMHTA009, WHGLTA009, WHGLTA010, WHGLTA012, and WHGLTA014 will be sampled semiannually and analyzed for BTEX by SW8260B. Figure 5.1 presents the proposed LNAPL monitoring and semiannual groundwater sampling locations at AOC 4.

At the completion of the semiannual groundwater sampling, HydroGeoLogic will evaluate the soil and groundwater conditions at AOC 4 based on the early exit criteria process. If at that time, both soil and groundwater requirements have been satisfied, then a Site Closure Request will be submitted to the TNRCC PST Division for approval.

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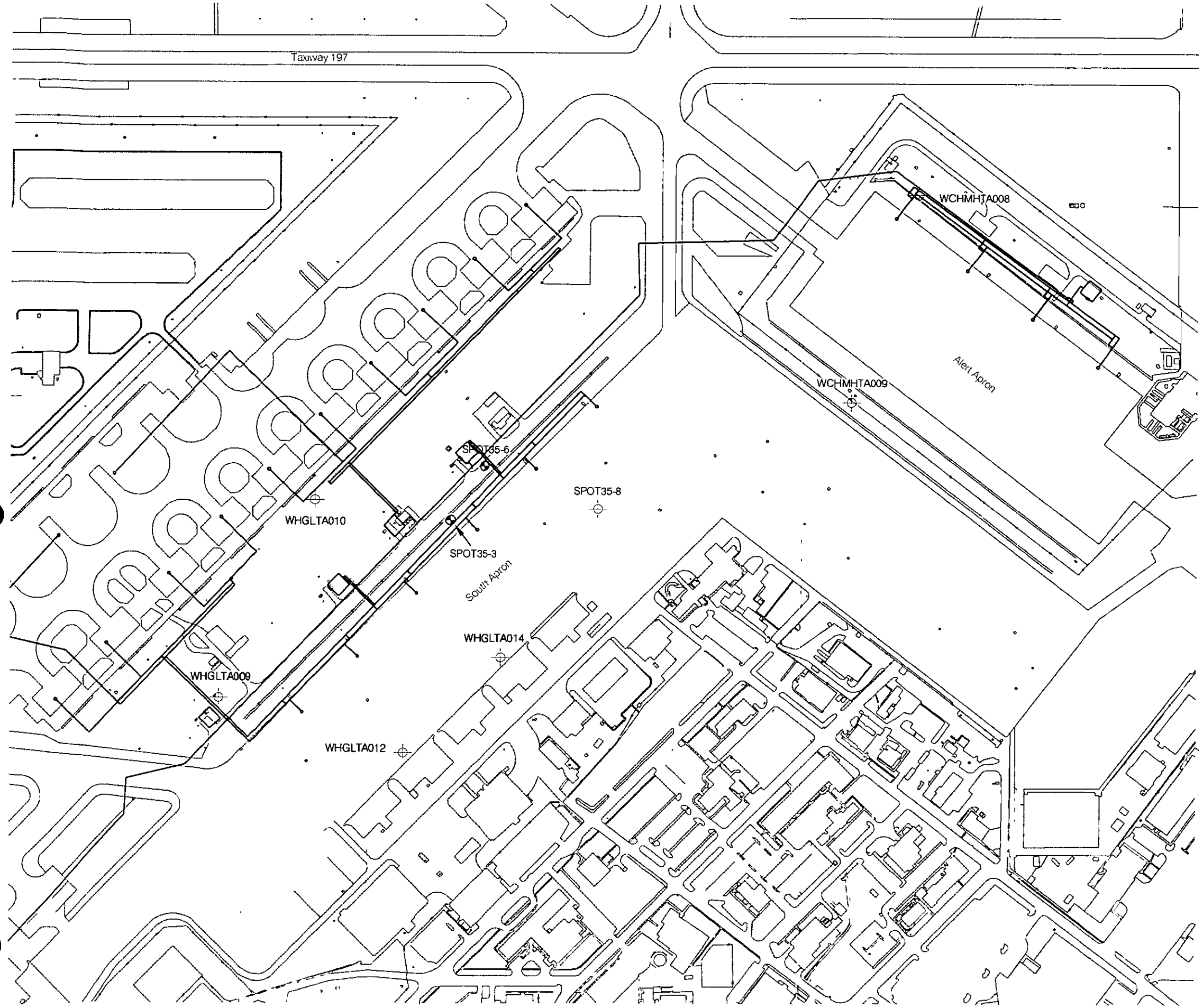
Figure 5.1 642 83

Proposed LNAPL Recovery and Groundwater Sampling Locations

U.S. Air Force Center
for Environmental Excellence
Brooks AFB, Texas



Legend

Former Fuel Hydrant System

LNAPL Monitoring Wells

Sampled Monitoring Wells

N

0 200 400 800
SCALE IN FEET

Filename X \Afc001\16dc\prop_samp_locs(fig5-1) dwg
Project AFC001-16DC
Created by mlawlor 06/12/97
Revised 06/06/00 ap
Map Source Jacobs, 1995

HYDRO GeoLogic INC

TAB

Section 6

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TAB

Appendix A

APPENDIX A.1

GROUNDWATER FIELD SAMPLING DATA SHEETS

GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: SPOT35-5	Site: NASFW January 99 Quarterly GW Sampling
Sampler(s): P D[illegible] T Wilk[illegible]	Project No: AFC-001-15IDA
Well Depth:	Date: 1-22-99 Time: 920
DTW (ft): 22.45 DTP (ft):	Courier: ___FedEx X UPS ___Hand ___Other
MP Ht. Above/Below Ground Surface: 0	Sampling Method (G=grab, B=bailer, SP=submersible pump):
Condition of Bottom of Well:	Type of Pump: Bladder
Screen Interval (ft): 16.6 - 26.6	Weather (sun/clear, overcast/rain, wind direction, ambient temperature):
Well Diameter (in): 4	
Placement of Pump (ft): *	Sunny 65°F

Field Parameters

Time	Depth to Water (ft)	Flow Rate (gpm)	Total Volume (gal)	pH	Temp (C)	Cond (umhos/cm)	ORP	DO (mg/L)	Turb (NTU)	Type, Size, and Amount of Sediment Discharged
0924	22.45	.1	0	6.97	19.39	2.009	-68.5	1.76	12.5	
0927	22.46	.1	.3	6.95	19.37	2.011	-71.9	1.52	10.9	
0930	22.5	.1	.6	6.95	19.24	1.985	-82.4	1.27	10.5	
0933	22.53	.1	.9	6.96	19.26	2.078	-89.3	1.20	11.2	
0936	22.56	.1	1.2	6.89	19.06	2.167	-93.5	1.13	9.24	
0939	22.60	.1	1.5	6.93	18.84	2.199	-98.6	1.07	9.96	
0942	22.65	.1	1.8	6.97	18.37	2.054	-101.3	1.06	9.59	
0945	22.68	.1	2.1	6.90	18.25	1.985	-101.3	1.64	9.66	
950	Collect samples									

Observations

Color: Clear, Other (describe):

Odor: None Low Medium High Very Strong H_2S Fuel-like

Sample Parameters:

Notes: * Unable to [illegible] pump depth (2" pump 4" well)
Fe^{2+} =

Signed/Sampler(s): [illegible]

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GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: SPOT 35-S	Site: NAS Fort Worth JRB
Sampler(s): P Dawson D Jones	Project No.: AFC 001 151DA
Well Depth:	Date: 1-26-99 Time: 915
DTW (ft): DTP (ft): —	Courier: __FedEx __UPS __Hand __Other
MP Ht. Above/Below Ground Surface:	Sampling Method (G=grab, B=bailer, SP=submersible pump):
Condition of Bottom of Well:	Type of Pump: Goundfos 2" submersible
Screen Interval (ft):	Weather (sun/clear, overcast/rain, wind direction, ambient temperature):
Well Diameter (in): 4"	
Placement of Pump (ft):	Cloudy, windy (S) 60°F

Field Parameters

Time	Depth to Water (ft)	Flow Rate (gpm)	Total Volume (gal)	pH	Temp (C)	Cond (umhos/cm)	ORP	D.O. (mg/L)	Turb. (N.T.U.)	Type, Size and Amount of Sediment Discharged
0920	22.4	.150	0	6.06	19.6	2.010	125.2	6.56	11.25	
09:23	22.6	.150	.450	6.13	20.35	2.045	4.5	7.46	10.30	
09:26	22.65	.100	.900	6.17	20.24	2.041	-57.4	6.67	8.26	
09:29	22.65	.100	1.20	6.19	20.01	2.033	-70.0	6.72	8.37	
0932	22.70	.100	1.50	6.20	19.91	2.027	-77.5	6.60	8.23	
09:35	22.70	.100	1.80	6.22	20.20	2.045	-86.6	6.40	7.86	
38	22.70	.100	2.10	6.24	20.90	2.079	-94.0	7.04	7.35	
0941	22.70	.100	2.40	6.26	20.25	2.053	-95.0	6.27	7.30	
09:44	22.70	.100	2.70	6.27	19.67	2.034	-99.4	6.75	7.82	
09.47	22.75	.100	3.00	6.25	19.41	2.030	-100.5	6.51	7.77	
950	Collect		sample							

Observations

Color: Clear Other (describe):

Odor: None Low Medium High Very strong H2S Fuel-like

Sample Parameters:

Notes: Fe^{2+} 2.98 @ 1:1 = 5.96 mg/L

Signed/Sampler(s): [signature]

GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: SPOT35-8	Site: NASFW January 99 Quarterly GW Sampling
Sampler(s): N [illegible]	Project No: AFC-001-15IDA
Well Depth: 26.36	Date: 1-12-99 Time: 1525
DTW (ft): 23.05 DTP (ft):	Courier: ___FedEx X UPS ___Hand ___Other
MP Ht. Above/Below Ground Surface:	Sampling Method (G=grab, B=bailer, SP=submersible pump):
Condition of Bottom of Well:	Type of Pump: Bladder
Screen Interval (ft): 15.8 - 25.8	Weather (sun/clear, overcast/rain, wind direction, ambient temperature):
Well Diameter (in): 4	N 70°F
Placement of Pump (ft): Top 21 31	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (gpm)	Total Volume (liter) (gal)	pH	Temp (C)	Cond (umhos/cm)	ORP	DO (mg/L)	Turb (NTU)	Type, Size and Amount of Sediment Discharged
1525	23.25	.1	.1	6.68	24.21	7.290	-57.8	1.09	3.71	
1528	23.25	.1	.4	6.64	23.63	7.216	-68.7	1.10	2.98	
1531	23.25	.1	.7	6.63	23.62	7.201	-70.8	1.10	2.81	
1534	23.25	.1	1.00	6.63	23.54	7.161	-73.4	1.11	2.54	
1537	23.25	.1	1.03	6.63	23.39	7.087	-74.8	1.09	2.21	
1540	23.25	.1	1.06	6.63	23.42	7.084	-77.5	1.08	2.64	
1543	23.25	.1	1.09	6.62	23.49	7.081	-79.3	1.07	2.47	
1546	collect sample									

Observations

Color: (Clear) Other (describe):

Odor: None Low (Medium) High Very Strong (H2S) Fuel-like

Sample Parameters: Fe^{+2} = 2.12 mg/L dilution 1:1 = 4.24 mg/L

Notes: 3 5/' water

Signed/Sampler(s): [illegible] Jari Wilson

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GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: SPOT35-9	Site: NASFW January 99 Quarterly GW Sampling
Sampler(s): DH TD	Project No: AFC-001-15IDA
Well Depth: 28.3	Date: 1/13/98 Time: 1340
DTW (ft): 22.51 DTP (ft):	Courier: ___FedEx X UPS ___Hand ___Other
MP Ht. Above/Below Ground Surface:	Sampling Method (G=grab, B=bailer, SP=submersible pump):
Condition of Bottom of Well:	Type of Pump: Bladder
Screen Interval (ft): 18.3 - 28.3	Weather (sun/clear, overcast/rain, wind direction, ambient temperature):
Well Diameter (in): 4	N 35°F
Placement of Pump (ft): 21.9 top of pump	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (gpm)	Total Volume (gal)	pH	Temp (C)	Cond. (umhos/cm)	ORP	DO (mg/L)	Turb (NTU)	Type, Size, and Amount of Sediment Discharged
1350	22.8	.2	.2	6.96	20.11	1.908	118.4	1.65	7.98	
1353	22.8	.15	.65	6.93	19.09	1.881	108.5	1.51	7.73	
1356	22.8	.15	1.10	6.91	18.87	1.860	95.4	1.45	7.58	
1359	22.9	.15	1.55	6.89	18.75	1.864	73.6	1.38	7.53	
1402	22.9	.15	2.00	6.88	18.35	1.855	59.9	1.32	7.40	
1407	collect sample									

Observations

Color: Clear Other (describe):	
Odor: None Low Medium High Very Strong H2S Fuel-like	
Sample Parameters: DO = 2.8 ppm	Fe+2 = 0.59 mg/L
Notes:	
Signed/Sampler(s): [illegible]	

GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: WCHMHTA008	Site: NASFW January 99 Quarterly GW Sampling
Sampler(s): NH JW	Project No: AFC-001-15IDA
Well Depth: 24.58'	Date: 1/18/99 Time: 10:16
DTW (ft): 13.79 DTP (ft):	Courier: ___FedEx X UPS ___Hand ___Other
MP Ht. Above/Below Ground Surface: -0.3	Sampling Method (G=grab, B=bailer, SP=submersible pump):
Condition of Bottom of Well:	Type of Pump: Bladder
Screen Interval (ft): 9.7 - 24.7	Weather (sun/clear, overcast/rain, wind direction, ambient temperature):
Well Diameter (in): 2	45°F N
Placement of Pump (ft): 15.69'	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (~~gpm~~ L/min)	Total Volume (~~gal~~ Liters)	pH	Temp (C)	Cond (umhos/cm)	ORP	DO (mg/L)	Turb (NTU)	Type, Size, and Amount of Sediment Discharged
10:16	13.77	0.2	0	6.59	18.01	0.292	137.4	3.11	12.02	
10:19	13.77	0.15	0.6	6.50	18.10	0.295	124.5	3.01	10.30	
10:22	13.77	0.15	1.05	6.48	17.94	0.294	103.5	2.89	9.79	
10:25	13.65	0.15	1.50	6.50	18.10	0.296	80.4	2.88	8.77	
10:28	13.75	0.2	1.95	6.53	18.36	0.298	45.0	2.82	8.77	
10:31	13.75	0.2	2.55	6.54	18.76	0.301	22.7	2.77	8.03	
10:34	13.75	0.2	3.15	6.57	19.50	0.305	-0.9	2.75	7.06	
10:37	13.75	0.2	3.75	6.59	19.89	0.308	-26.8	2.87	6.75	
10:40	13.75	0.2	4.35	6.61	20.08	0.311	-47.2	2.85	6.00	
10:43	13.75	0.2	4.95	6.61	20.21	0.314	-55.7	2.87	5.76	
10:46	13.75	0.2	5.55	6.62	20.33	0.315	-62.4	2.91	5.60	
Total volume = 6.15										
Samples Taken @ 10:46										

Observations

Color: Clear Other (describe):

Odor: None Low Medium High Very Strong H2S Fuel-like

Sample Parameters:

Notes: PID = 33.2 ppm well casing 0 ppm Breathing zone

Fe^{2+} = .46 @ 5:1 = 2.76 mg/L

Signed/Sampler(s): [illegible] [illegible]

642 '94

GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: WCHMHTA009	Site: NASFW January 99 Quarterly GW Sampling
Sampler(s): PD, NH, JW	Project No: AFC-001-15IDA
Well Depth: 11.66	Date: 1/13/99 Time: 1000
DTW (ft): 6.83 DTP (ft):	Courier: ___FedEx X UPS ___Hand ___Other
MP Ht. Above/Below Ground Surface: -0.18	Sampling Method (G=grab, B=bailer, SP=submersible pump):
Condition of Bottom of Well:	Type of Pump: Bladder
Screen Interval (ft): 4.32 - 11.82	Weather (sun/clear/overcast/rain, wind direction, ambient temperature):
Well Diameter (in): 2	NW 40°F
Placement of Pump (ft): NH ~~4.25~~ top of pump 5.75	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (gpm)	Total Volume (Liters) (gal)	pH	Temp. (C)	Cond (umhos/cm)	ORP	DO (mg/L)	Turb (NTU)	Type, Size, and Amount of Sediment Discharged
1005	*	0.1	0.1	6.56	12.65	1.118	162.7	1.29	64.2	
1010		0.1	0.6	6.61	12.18	1.110	162.4	1.21	61.7	
1015		0.1	1.1	6.70	12.69	1.126	160.3	1.12	60.0	
1020		0.1	1.6	6.76	13.63	1.172	157.3	1.08	55.2	
1025		0.2	2.6	6.80	16.47	1.243	152.8	0.84	49.3	
1030		0.2	3.6	6.85	17.40	1.292	148.1	0.72	42.2	
1035		0.2	4.6	6.87	17.56	1.320	145.7	0.69	26.5	
1040		0.2	5.6	6.90	17.51	1.440	142.6	0.64	16.4	
1045		0.2	6.6	6.91	17.51	1.478	140.2	0.63	7.04	
1050		0.2	7.2	6.92	17.42	1.495	140.1	0.62	3.97	
1100	Collect Sample									

Observations

Color: Clear Other (describe):

Odor: None Low Medium High Very Strong H2S Fuel-like

Sample Parameters: Fe^{+2} = 0.42 mg/L

Notes: * Bladder pump in well, cannot take DTW due to the bladder pump.

Signed/Sampler(s): [signature]

GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: WHGLTA009	Site: NASFW January 99 Quarterly GW Sampling
Sampler(s): NH JW	Project No: AFC-001-15IDA
Well Depth: 28.25	Date: 1/19/99 Time: 0935
DTW (ft): 23.64 DTP (ft): NA	Courier: ___FedEx X UPS ___Hand ___Other
MP Ht. Above/Below Ground Surface: 2.75	Sampling Method (G=grab, B=bailer, SP=submersible pump):
Condition of Bottom of Well:	Type of Pump: Bladder
Screen Interval (ft): 17.75 - 27.75	Weather (sun/clear, overcast/rain, wind direction, ambient temperature):
Well Diameter (in): 2	N 50°F
Placement of Pump (ft): 22.45	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (gpm)	Total Volume (gal)	pH	Temp (C)	Cond. (umhos/cm)	ORP	DO (mg/L)	Turb (NTU)	Type, Size, and Amount of Sediment Discharged
0935	*	.3	0	6.66	19.45	1.792	-13.5	1.18	17.34	
0938		.3	.9	6.53	20.42	1.819	-64.9	0.58	12.50	
0941		.3	~~1.2~~ 1.8 NH	6.52	20.56	1.819	-88.3	0.61	8.28	
0944		.3	2.7	6.54	20.77	1.829	-100.5	0.78	6.24	
0947		.3	3.9	6.57	20.95	1.841	-108.4	0.85	4.53	
0950		.3	4.8	6.59	20.93	1.841	-110.7	0.93	3.70	
0953		.3	5.7	6.61	21.02	1.844	-112.1	0.91	2.93	
0956		.3	6.6	6.62	21.03	1.847	-113.1	0.95	2.65	
0959		.3	7.5	6.63	21.06	1.849	-114.1	0.97	2.35	
1002		.3	8.4	6.65	21.06	1.849	-115.7	0.95	1.97	
1005		collect samples								

Observations

Color: Clear Other (describe):

Odor: None Low Medium High Very Strong H2S Fuel-like

Sample Parameters:

Notes: * Water level is below top of pump

Fe^{2+} 1.93 @ 1:1 dilution = 3.86 mg/L

Signed/Sampler(s): [illegible]

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GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: WHGLTA010	Site: NASFW January 99 Quarterly GW Sampling
Sampler(s): NH JCW PD	Project No: AFC-001-15IDA
Well Depth: 30.27	Date: 1/12/99 Time: 15:45
DTW (ft): 25.82 DTP (ft):	Courier: ___FedEx X UPS ___Hand ___Other
MP Ht. Above/Below Ground Surface: 2.5	Sampling Method (G=grab, B=bailer, SP=submersible pump):
Condition of Bottom of Well:	Type of Pump: Bladder
Screen Interval (ft): 20.5 - 30.5	Weather (sun/clear, overcast/rain, wind direction, ambient temperature):
Well Diameter (in): 2	N 70F
Placement of Pump (ft): top of pump 24.55	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/min)	Total Volume (gal) Liters	pH	Temp (C)	Cond (umhos/cm)	ORP	DO (mg/L)	Turb (NTU)	Type, Size, and Amount of Sediment Discharged
15:45	*	0.25	0	7.46	2125	0.160	-100.3	2.40	177.8	
15:48	*	0.2	0.75	7.17	21.43	0.160	-120.6	1.25	148.2	
15:51	*	0.15	1.35	7.10	21.36	0.160	-123.6	1.15	106.5	
15:54	*	0.15	1.80	7.05	21.29	0.160	-124.4	1.11	72.9	
15:57	*	0.15	2.25	7.03	21.29	0.160	-126.8	1.06	86.0	
16:00	*	0.15	2.70	7.01	21.12	0.159	-127.4	1.06	46.7	
16:03	*	0.15	3.15	7.00	21.09	0.159	-125.3	1.02	30.9	
16:06	*	0.15	3.60	6.99	21.05	0.159	-129.8	1.00	23.1	
16:09	*	0.15	4.05	6.99	20.87	0.158	-130.8	0.99	18.64	
16:12	*	0.15	4.50	6.98	20.67	0.158	-131.4	0.98	13.62	
16:15	*	0.15	4.95	6.98	20.60	0.158	-131.9	0.98	11.50	
16:18	*	0.15	5.40	6.97	20.56	0.158	-132.4	0.98	10.20	
Total volume = 5.85										
Samples Collected at 16:20										

Observations

Color: Clear Other (describe): Cloudy

Odor: None Low Medium High Very Strong H2S Fuel-like

Sample Parameters: BTEX+MTBE, METHANE, TPH-GRO, TOC, PAH TPH-DRO, Alkalinity, Anions

Notes: PID reading = 0 ppm

Fe^{2+} = 2.13 mg/L @ 1:1 = 4.30 mg/L

* = Water is below top of pump

Signed/Sampler(s): Jim Wilson

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GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: WHGLTA011	Site: NASFW January 99 Quarterly GW Sampling
Sampler(s): NH JW PD	Project No: AFC-001-15IDA
Well Depth: 17.79	Date: 1/18/99 Time: 14:16
DTW (ft): 11.10 DTP (ft):	Courier: ___FedEx X UPS ___Hand ___Other
MP Ht. Above/Below Ground Surface: 1.93	Sampling Method (G=grab, B=bailer, SP=submersible pump):
Condition of Bottom of Well:	Type of Pump: Bladder
Screen Interval (ft): 5.43 - 16.93	Weather (sun/clear, overcast/rain, wind direction, ambient temperature): N 65°F
Well Diameter (in): 2	
Placement of Pump (ft): *not pump 10.95	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/min) (gpm)	Total Volume (Liters) (gal)	pH	Temp (C)	Cond (umhos/cm)	ORP	DO (mg/L)	Turb (NTU)	Type, Size, and Amount of Sediment Discharged
14:16	*	0.40	0	7.12	19.96	0.294	84.9	1.80	19.04	
14:19	*	0.20	1.2	7.06	19.81	0.293	84.8	1.81	18.27	
14:22	*	0.20	1.8	7.01	19.76	0.291	83.8	1.71	16.00	
14:25	*	0.20	2.4	6.99	19.76	0.289	82.1	1.73	12.56	
14:28	*	0.20	3.0	6.98	19.71	0.285	80.4	1.76	8.03	
Total volume = 3.6										
Samples collected @ 14:32										

Observations

Color: Clear Other (describe):

Odor: None Low Medium High Very Strong H2S Fuel-like

Sample Parameters:

Notes: PID readings = Ø ppm
Fe^{2+} reading = 0.05 mg/L
* = Water level is below top of pump

Signed/Sampler(s): [illegible]

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GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: WHGLTA012	Site: NASFW January 99 Quarterly GW Sampling
Sampler(s): O Dorawola D Sones	Project No: AFC-001-15IDA
Well Depth: 23.49	Date: 1-19-99 Time: 1315
DTW (ft): 18.44 DTP (ft): —	Courier: ___FedEx X UPS ___Hand ___Other
MP Ht. Above/Below Ground Surface: -0.6	Sampling Method (G=grab, B=bailer, SP=submersible pump):
Condition of Bottom of Well:	Type of Pump: Bladder
Screen Interval (ft): 13.1 - 23.1	Weather (sun/clear, overcast/rain, wind direction, ambient temperature):
Well Diameter (in): 2	
Placement of Pump (ft): 17.49'	Sunny, clear 70°F

Field Parameters

Time	Depth to Water (ft)	Flow Rate (gpm)	Total Volume (gal)	pH	Temp. (C)	Cond. (umhos/cm)	ORP	DO (mg/L)	Turb. (NTU)	Type, Size, and Amount of Sediment Discharged
1230	*	.2	1	7.05	25.08	2.292	-126.5	2.61	68.8	
1333		.2	1.6	7.05	25.23	2.313	-132.3	1.37	41.0	
1336		.2	2.2	7.06	25.17	2.306	-133.2	1.35	38.5	
1334		.2	2.8	7.06	25.16	2.308	-134.5	1.23	31.2	
1342		.2	3.4	7.06	25.23	2.316	-137.5	1.24	23.6	
1345		.2	4.0	7.07	25.24	2.317	-139.7	1.20	17.6	
1348		.2	4.6	7.08	25.21	2.316	-143.4	1.17	14.6	
1351		.2	5.2	7.08	25.23	2.317	-143.9	1.16	13.0	
1354		.2	5.8	7.09	25.22	2.319	-145.8	1.17	11.7	
1357		.2	6.4	7.09	25.19	2.320	-148.0	1.15	11.0	
1400		.2	7.0	7.09	25.15	2.318	-149.4	1.15	9.9	
1405	Collected		samples							

Observations

Color: Clear Other (describe): yellow	
Odor: None Low Medium High Very Strong H2S Fuel-like	
Sample Parameters:	
Notes: * Top of pump is above water table	
Very strong fuel odor possible product on tube but no sheen on water	
Fe^{2+} = .34 ppm increment, Fe^{2+} 2.59 mg/L @ 1:1	
Signed/Sampler(s): [signature]	

GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: WHGLTA014	Site: NASFW January 99 Quarterly GW Sampling
Sampler(s): P Darwin D Jone	Project No: AFC-001-15IDA
Well Depth: —	Date: 1-19-99 Time: 1520
DTW (ft): ___ DTP (ft): —	Courier: ___FedEx X UPS ___Hand ___Other
MP Ht. Above/Below Ground Surface: -0.2	Sampling Method (G=grab, B=bailer, SP=submersible pump):
Condition of Bottom of Well:	Type of Pump: Bladder
Screen Interval (ft): 14.8 - 24.8	Weather (sun/clear, overcast/rain, wind direction, ambient temperature):
Well Diameter (in): 2	
Placement of Pump (ft):	Sunny, clear, 70°F

Field Parameters

Time	Depth to Water (ft)	Flow Rate (gpm)	Total Volume (gal)	pH	Temp (C)	Cond (umhos/cm)	ORP	DO (mg/L)	Turb (NTU)	Type, Size and Amount of Sediment Discharged
1525	*	.15	0	7.05	25.39	2.460	-119.8	2.62	12.0	
1528		.15	.45	7.02	25.19	2.440	-125.7	1.80	6.0	
1531		.15	.90	7.02	25.30	2.440	-131.6	1.85	6.1	
1534		.1	1.3	7.02	25.13	2.435	-133.2	1.82	4.0	
1537		.1	1.6	7.02	25.13	2.450 RD	-134.3	1.84	3.5	
1540	Collect sample									

Observations

Color: Clear Other (describe):

Odor: None Low Medium High Very Strong H2S Fuel-like

Sample Parameters:

Notes: * Top of pump is above the water column

Fe^{2+} 0.46 x 1:1 dilution ≈ 0.92

Signed/Sampler(s):

GROUNDWATER FIELD SAMPLING DATA SHEET

Sample ID: SPOT35-5WG08	Site: NASFW April 99 Quarterly GW Sampling
Sampler(s): NH, PD	Project No AFC-001-15IEA
Well Depth: 27.35	Date: 4-22-99 Time: 1220
DTW (ft). 21.93 DTP (ft).	Courier: X FedEx * UPS ___ Hand ___ Other
MP Ht Above/Below Ground Surface:	Sampling Method (G=grab, B=bailer, SP=submersible pump)
Condition of Bottom of Well	Type of Pump Bladder
Screen Interval (ft): 16.6 - 26.6	Weather (sun, clear, overcast/rain, wind direction, ambient temperature). E 85°F
Well Diameter (in): 4"	
Placement of Pump (ft) 27.27 top of pump	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (lpm) (~~gpm~~)	Total Volume (liter) (~~gal~~)	pH	Temp. (C)	Cond. (µmhos/cm) EC	ORP	DO (mg/L)	Turb. (NTU)	Type, Size, and Amount of Sediment Discharged
1220	22.42	0.3	0	7.43	22.63	872.0	-91.2	1.36	8.86	clear
1223	22.43	0.15	0.90	7.39	22.80	884.0	-93.0	1.43	6.78	"
1226	22.43	0.15	1.35	7.36	24.31	891.0	-89.5	1.63	5.19	"
1229	22.45	0.15	1.80	7.35	23.90	884.0	-93.3	1.50	5.69	"
1232	22.46	0.15	2.25	7.34	24.21	887.0	-93.3	1.50	7.18	"
1235	22.49	0.15	2.70	7.34	24.55	892.0	-92.7	1.48	6.59	"
1238	22.52	0.15	3.15	7.33	24.59	895.0	-90.3	1.41	6.16	"
1241	22.55	0.15	3.60	7.38	24.72	897.0	-92.4	1.49	6.54	"
1244	22.59	0.15	4.05	7.40	25.19	904.0	-91.6	1.47	8.10	"
1247	22.63	0.15	4.50	7.40	25.25	906.0	-91.1	1.52	9.09	"
1250	22.75	collect	samples		SPOT35-5WG08					

Observations

Color: Clear Other (describe).

Odor: None Low Medium High Very Strong H2S Fuel-like

Sample Parameters: TPH PAHs VOCs Alk Anions Methane TOC

Notes: Final depth to water 22.73'

Fe^{2+} = 0.34 @ 5:1 = 1.36 mg/L

Signed/Sampler(s): [signature]

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GROUNDWATER FIELD SAMPLING DATA SHEET

Sample ID: SPOT35-8WG08	Site: NASFWApril 99 Quarterly GW Sampling
Sampler(s): NH CW	Project No: AFC-001-15IEA
Well Depth ~~26.6~~ NH 26.58	Date: 4-14-99 Time 1045
DTW (ft) 23.15 DTP (ft) NA	Courier: ___ FedEx X UPS ___ Hand ___ Other
MP Ht. Above/Below Ground Surface	Sampling Method (G=grab, B=bailer, SP=submersible pump)
Condition of Bottom of Well	Type of Pump: Bladder
Screen Interval (ft). ~~15.3 - 25.3~~ 15.5 - 25.3 NH	Weather (sun/clear, overcast/rain, wind direction, ambient temperature): NE 70°F
Well Diameter (in): 4	
Placement of Pump (ft): top 24.5 bottom 24	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (~~gpm~~ lpm)	Total Volume (~~gal~~ liter)	pH	Temp. (C)	~~Cond.~~ EC (µmhos/cm)	ORP (mV)	DO (mg/L)	Turb. (NTU)	Type, Size, and Amount of Sediment Discharged
1045	23.45	.18	0	6.97	23.79	823	5.5	1.44	9.50	clear fuel odor
1048	23.45	.18	.54	6.98	23.73	834	4.2	1.37	9.31	"
1051	23.45	.18	1.08	6.99	23.71	850	3.2	1.36	8.43	"
1054	23.35	.18	~~1.62~~ 1.62	7.05	23.53	909	-6.1	1.48	7.72	"
1057	23.32	.18	2.16	7.12	23.89	965	-20.0	1.26	7.45	"
1100	23.31	.18	2.70	7.23	23.77	1034	-26.6	1.16	6.97	"
1103	23.31	.18	3.24	7.34	23.56	1045	-51.9	1.16	6.65	"
1106	23.31	.14	3.66	7.39	23.71	1063	73.8	1.13	4.85	"
1109	23.31	.14	4.18	7.42	23.60	1072	-79.1	1.04	4.48	"
1112	23.32	.14	4.60	7.42	23.62	1077	-82.2	1.00	3.62	"
1115	23.32	.14	5.02	7.42	23.66	1079	-83.8	1.00	3.51	"
1119	collect Sample				SPOT35-8WG08					

Observations

Color (Clear) Other (describe)

Odor: None Low (Medium) High Very Strong H2S Fuel-like

Sample Parameters: Alk/Anions/Methane, BTEX, MTBE, PAHs, TOC, TPH, Absent Blank

Notes: water level after pump put into well 22.78

Fe^{2+} = 1.07 w/ dilution 1.4 Fe^{2+} = 5.35 mg/L

23.51' fuel depth tape reader

Signed/Sampler(s): [illegible] (Chris [illegible])

GROUNDWATER FIELD SAMPLING DATA SHEET

Sample ID: SPOT35-9WG08	Site: NASFWApril 99 Quarterly GW Sampling
Sampler(s): Nit Cc	Project No. AFC-001-15IEA
Well Depth. 28.47	Date: 4-16-99 Time. 1520
DTW (ft): 22.51 DTP (ft):	Courier ___FedEx X UPS ___Hand ___Other
MP Ht. Above/Below Ground Surface	Sampling Method (G=grab, B=bailer, SP=submersible pump)
Condition of Bottom of Well:	Type of Pump. Bladder
Screen Interval (ft): 15.3 - 28.3	Weather (sun/clear, overcast/rain, wind direction, ambient temperature)
Well Diameter (in). 4	partly cloudy ~~E to NE~~ NH S to SE Strong winds ~~75°F~~ NH 60°F
Placement of Pump (ft): 22.0' top of pump 24.6' bottom of pump	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (lpm) (~~gpm~~)	Total Volume (L) (~~gal~~)	pH	Temp. (C)	Cond. (µmhos/cm) EC	ORP mV	DO (mg/L)	Turb. (NTU)	Type, Size, and Amount of Sediment Discharged
1535	22.75	.2	0	7.30	24.11	550.0	-27.4	2.11	6.63	clear
1538	22.75	.2	.6	7.28	23.54	554.0	-35.6	1.60	6.71	"
1541	22.76	.2	1.2	7.27	23.99	567.0	-49.5	1.08	7.01	"
1544	22.77	.3	2.1	7.27	23.92	567.0	-51.4	0.83	6.78	"
1547	22.77	.3	3.0	7.25	24.02	589.0	-50.4	0.85	6.02	"
1550	22.77	.3	3.9	7.24	23.97	566.0	-45.0	0.87	5.33	"
1553	22.78	.3	4.8	7.24	23.95	576.0	-34.5	1.25	5.28	"
1556	22.78	.25	5.7	7.25	23.90	586.0	-27.0	1.53	4.83	"
1559	22.79	.2	6.45	7.24	23.87	589.0	-24.4	1.62	4.54	"
1602	22.79	.2	7.05	7.25	23.89	593.0	-22.7	1.67	4.33	"
1605	22.78	.2	7.65	7.26	23.92	605.0	-20.9	1.75	4.21	"
1608	22.78	.2	8.25	7.27	23.47	~~578.0~~ NH 613	-20.2	1.73	4.08	"
1611	22.77	2	8.85	7.27	23.59	619	-18.0	1.66	3.97	"
1614	collect samples			SPOT35-9WG08						

Observations

Color. (Clear) Other (describe):

Odor: None (Low) Medium High Very Strong H2S (Fuel-like)

Sample Parameters: Alk, Nitrate, Methane, TOC, TPH, PAHs, BTEX & MTBE

Notes:

Fe^{2+} = 0.35 mg/L

Signed/Sampler(s): [illegible]

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GROUNDWATER FIELD SAMPLING DATA SHEET

Sample ID: WCHMHTA008WG08	Site: NASFWApril 99 Quarterly GW Sampling
Sampler(s): NH, CW	Project No. AFC-001-15IEA
Well Depth: 24.5' (BTOC)	Date: 4-20-99 Time: 1140
DTW (ft): 13.79' DTP (ft): NA	Courier: X FedEx * UPS ___ Hand ___ Other
MP Ht. Above/Below Ground Surface:	Sampling Method (G=grab, B=bailer, SP=submersible pump)
Condition of Bottom of Well:	Type of Pump: Bladder
Screen Interval (ft): 9.7 - 24.7	Weather (sun/clear, overcast/rain, wind direction, ambient temperature): E to NE 80°F
Well Diameter (in): 2	
Placement of Pump (ft): 16.4' top of pump 19.0 bottom	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (~~gpm~~ lpm)	Total Volume (~~gal~~ L)	pH	Temp (C)	Cond. (µmhos/cm) EC	ORP mV	DO (mg/L)	Turb (NTU)	Type, Size, and Amount of Sediment Discharged
1143	13.80	0.2	0	7.27	21.10	1674.0	-10.7	1.99	13.71	clear
1146	13.80	0.2	0.6	7.29	20.85	1665.0	-16.5	1.53	10.77	"
1149	13.82	0.2	1.2	7.31	20.72	1663.0	-23.4	1.36	9.02	"
1152	13.82	0.2	1.8	7.33	20.80	1665.0	-27.8	1.14	8.30	"
1155	13.83	0.2	2.4	7.35	20.72	1664.0	-34.1	1.13	5.84	"
1158	13.83	0.2	3.0	7.36	20.85	1668.0	-36.6	1.01	7.32	"
1201	13.84	0.2	3.6	7.38	20.81	1668.0	-38.0	0.94	6.97	"
1204	13.84	0.2	4.2	7.37	21.03	1677.0	-40.5	0.92	6.91	"
1207	13.84	0.2	4.8	7.34	21.17	1682.0	-41.5	0.91	5.62	"
1210	13.84	0.2	5.4	7.34	21.17	1686.0	-41.3	0.89	5.51	"
1213	collect samples WCHMHTA008WG08									
	and associated Dup. ~~DUP~~ DUP01WG08									

Observations

Color: Clear Other (describe):

Odor: NH None Low Medium High Very Strong H2S Fuel-like

Sample Parameters: TPH, PAHs, methane, TOC, Alk\Anions, MTBE & BTEX

Notes:

Fe^{2+} = 2.07 mg/L dilution 1:1 4.14 mg/L

Signed/Sampler(s): [illegible], Cathrin Willing

GROUNDWATER FIELD SAMPLING DATA SHEET

Sample ID: WCHMHTA009WG08	Site: NASFWApril 99 Quarterly GW Sampling
Sampler(s): NH, CW	Project No: AFC-001-15IEA
Well Depth:	Date: 4-13-99 Time: 1513
DTW (ft): 6.88 BP DTP (ft): NA	Courier: ___FedEx X UPS ___Hand ___Other
MP Ht. Above/Below Ground Surface:	Sampling Method (G=grab, B=bailer, SP=submersible pump)
Condition of Bottom of Well:	Type of Pump: Bladder
Screen Interval (ft): 4.32 - 11.82	Weather (sun/clear, overcast/rain, wind direction, ambient temperature): E 70°F
Well Diameter (in): 2	
Placement of Pump (ft):	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (~~gpm~~ L/m)	Total Volume (~~gal~~ L)	pH	Temp. (C)	~~Cond.~~ (µmhos/cm) EC	ORP (mV)	DO (mg/L)	Turb. (NTU)	Type, Size, and Amount of Sediment Discharged
1513	6.85	.12	0	7.25	21.52	990	56.5	1.32	29.3	clear
1516	6.86	.12	.36	7.19	21.50	1010	71.5	1.22	18.67	"
1519	6.86	.12	.72	7.18	21.86	1014	76.1	1.42	15.23	"
1522	6.86	.12	1.08	7.18	21.84	1014	76.9	1.08	14.08	"
1525	6.86	.12	1.44	7.18	21.83	1013	76.7	1.05	10.02	"
1528	6.85	.12	1.80	7.18	21.89	1012	79.3	1.01	9.41	"
1531	6.85	.12	2.16	7.17	21.96	1014	79.8	1.03	9.08	"
1534	collect samples			WCHMHTA009WG08						

Observations

Color: Clear Other (describe):

Odor: None Low Medium High Very Strong H2S Fuel-like

Sample Parameters: Alk, Anions, Methane, BTEX & MTBE, PAHs, TOC, TPH

Notes: BP - water depth w/o bladder pump

Fe^{2+} = 0.09 mg/L

Signed/Sampler(s): [signature] (C. Willis)

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GROUNDWATER FIELD SAMPLING DATA SHEET

Sample ID: WHGLTA009WG08	Site: NASFWApril 99 Quarterly GW Sampling
Sampler(s): NH CLC	Project No: AFC-001-15IEA
Well Depth: 27.8	Date: 4-15-99 Time: 1100
DTW (ft): 23.79 DTP (ft): NA	Courier: ___FedEx X UPS ___Hand ___Other
MP Ht. Above/Below Ground Surface:	Sampling Method (G=grab, B=bailer, SP=submersible pump)
Condition of Bottom of Well:	Type of Pump: Bladder
Screen Interval (ft): 17.75 - 27.75	Weather (sun/clear, overcast/rain, wind direction, ambient temperature):
Well Diameter (in): 2	5 55°F
Placement of Pump (ft): 23 top of pump 25.5 bottom	extremely windy

Field Parameters

Time	Depth to Water (ft)	Flow Rate (~~gpm~~)	Total Volume (~~gal~~)	pH	Temp (C)	Cond. (µmhos/cm) EC	ORP (mV)	DO (mg/L)	Turb. (NTU)	Type, Size, and Amount of Sediment Discharged
1005	*	0.1	0	6.49	17.67	833	-91.3	0.20	30.1	clear
1008	*	0.1	.3	6.60	17.01	831	-96.4	-.12	26.8	"
1011	*	0.1	.6	6.63	16.86	829	-97.6	-.24	21.3	"
1014	*	0.1	.9	6.65	16.57	824	-98.9	-.33	16.67	"
1017	*	0.1	1.2	6.68	17.02	829	-100.1	-.65	15.01	"
1020	*	0.1	1.5	6.71	17.37	833	-102.1	-.16	12.02	"
1023	*	0.1	1.8	6.71	17.18	836	-101.8	-.81	9.69	"
1026	*	0.1	2.1	6.72	17.11	834	-101.8	-.88	9.21	"
1029	*	0.1	2.4	6.71	17.15	834	-101.2	-.97	8.57	"
1032	*	collect samples for chemical analysis								

Observations

Color: Clear Other (describe):

Odor: None Low Medium High Very Strong H2S Fuel-like

Sample Parameters: Alk/Acids

Notes: * water is below top of pump cannot monitor water level

Fe^{2+} = 1.95 in dilution 1:2 Fe^{2+} = 6.85 mg/L

Signed/Sampler(s): [illegible] (Colin Hellier)

GROUNDWATER FIELD SAMPLING DATA SHEET

Sample ID: WHGLTA010WG08	Site: NASFWApril 99 Quarterly GW Sampling
Sampler(s): [illegible]	Project No: AFC-001-15IEA
Well Depth: 30.8'	Date: 4-15-99 Time: 1435
DTW (ft): 26.07 DTP (ft):	Courier: ___ FedEx X UPS ___ Hand ___ Other
MP Ht. Above/Below Ground Surface:	Sampling Method (G=grab, B=bailer, SP=submersible pump)
Condition of Bottom of Well:	Type of Pump: Bladder
Screen Interval (ft): 20.5 - 30.5	Weather (sun/clear, overcast/rain, wind direction, ambient temperature):
Well Diameter (in): 2	SW 65°F
Placement of Pump (ft). 25.5 top of pump 28 bottom	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (gpm)	Total Volume (gal)	pH	Temp. (C)	Cond. (µmhos/cm) EC	ORP mV	DO (mg/L)	Turb. (NTU)	Type, Size, and Amount of Sediment Discharged
1443	*	.23	0	6.92	20.89	982	-124.8	-1.96	162.9	cloudy white
1446	*	.23	.69	6.91	21.04	984	-131.8	-2.68	149.2	"
1449	*	.23	1.38	6.91	21.04	983	-133.4	-2.78	120.3	"
1452	*	.23	2.07	6.91	21.02	983	-135.8	-2.89	77.0	"
1455	*	.23	2.76	6.91	21.03	983	-136.6	-2.95	57.0	"
1458	*	.23	3.45	6.91	21.14	985	-137.9	-3.06	38.3	"
1501	*	.23	4.14	6.91	21.13	985	-138.6	-3.14	29.6	"
1504	*	.23	4.83	6.91	21.25	987	-139.0	-3.18	18.99	"
1507	*	.23	5.52	6.91	21.22	987	-139.4	-3.26	14.05	"
1510	*	.23	6.21	6.91	21.12	984	-139.6	-3.31	11.33	"
1513	*	.23	6.90	6.91	21.11	984	-139.9	-3.41	9.87	"
1516	*	collect sample								

Observations

Color: Clear Other (describe): cloudy - white

Odor: None Low Medium High Very Strong H2S Fuel-like

Sample Parameters: Alk Nitrate Nitrite [illegible] TOC TDS Phos

Notes: Tx21 - 5.15 mg 1:1 dilution Tx21 = 6.26 mg/L

* [illegible] sample: top of pump

Signed/Sampler(s): [illegible]

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GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: WHGLTA011	Site: NAS Fort Worth JRB
Sampler(s): NH, CW	Project No.: AFC 001-15 IEA
Well Depth: 17.84	Date: 4/20/99 Time: 0935
DTW (ft): 11.18 DTP (ft): NA	Courier: X FedEx __UPS __Hand __Other
MP Ht. Above/Below Ground Surface:	Sampling Method (G=grab, B=bailer, SP=submersible pump):
Condition of Bottom of Well: Good	Type of Pump: ~~Goundfos~~ Bladder 2" submersible
Screen Interval (ft): 5.43 - 16.93	Weather (sun/clear, overcast/rain, wind direction, ambient temperature): E-NE 70°F
Well Diameter (in): 2	
Placement of Pump (ft): 14.49' ~~14.49'~~ 11.89' top of pump bottom NH	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (~~gpm~~) (lpm)	Total Volume (~~gal~~) liter	pH	Temp. (C)	Cond. (µmhos/cm) EC	ORP (mV)	D.O. (mg/L)	Turb. (N.T.U.)	Type, Size, and Amount of Sediment Discharged
0935	11.17	0.15	0	7.00	19.63	1496.0	77.9	2.71	17.36	clear
0938	11.18	0.15	.45	7.04	19.57	1485.0	71.6	1.76	17.21	"
0941	11.18	0.15	.90	7.07	19.51	1476.0	67.5	1.58	13.59	"
0944	11.18	0.15	1.35	7.10	19.43	1472.0	63.1	1.45	13.47	"
0947	11.18	0.15	1.80	7.12	19.41	1468.0	60.8	1.50	12.20	"
0950	11.18	0.15	2.25	7.14	19.45	1466.0	59.7	1.68	9.87	"
0953	11.18	0.15	2.70	7.16	19.58	1470.0	59.1	1.84	8.20	"
0956	11.18	0.15	3.15	7.17	19.77	1474.0	59.9	1.98	5.75	"
0959	11.18	0.10	3.60	7.17	19.83	1476.0	60.5	2.04	5.34	"
1002	11.18	0.10	3.90	7.18	19.87	1475.0	60.8	2.07	4.97	"
1005		collect samples			WHGLTA011		WG08			

Observations

Color: Clear Other (describe):

Odor: None Low Medium High Very strong H2S Fuel-like

Sample Parameters: Alkalinity\Anions, BTEX & MTBE, TOC, Methane, PAHs, TPH

Notes:

Fe^{2+} = 0.11 mg/L

Signed/Sampler(s): [signature], Catherine Williams

GROUNDWATER FIELD SAMPLING DATA SHEET

Sample ID: WHGLTA012WG08	Site: NASFWApril 99 Quarterly GW Sampling
Sampler(s): MH CW	Project No: AFC-001-15IEA
Well Depth: 23' 35'	Date: 4-16-99 Time: 1010
DTW (ft). 18.61' DTP (ft): NA	Courier: ___FedEx X UPS ___Hand ___Other
MP Ht. Above/Below Ground Surface:	Sampling Method (G=grab, B=bailer, (SP)=submersible pump)
Condition of Bottom of Well.	Type of Pump: Bladder
Screen Interval (ft): 13.1 -23.1	Weather (sun/clear, overcast/rain, wind direction, ambient temperature): cloudy 5w wind direction changing 50°F
Well Diameter (in): 2	
Placement of Pump (ft): 18.5 [illegible] 20.5 [illegible]	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (gpm)	Total Volume (gal)	pH	Temp (C)	Cond (umhos/cm) EC	ORP (mV)	DO (mg/L)	Turb (NTU)	Type, Size, and Amount of Sediment Discharged
1020	*	.15	0	7.40	21.36	1063.0	-99.9	1.60	110.6	clear to slightly cloud
1023	*	.10	.45	7.41	21.59	1069.0	-104.6	1.13	95.0	"
1026	*	.10	.75	7.42	21.94	1074.0	-107.2	1.01	84.5	"
1029	*	.10	1.05	7.47	22.16	1080.0	-111.9	0.91	64.6	"
1032	*	.15	1.35	7.49	22.34	1086.0	-117.2	0.83	53.3	"
1035	*	.15	1.60	7.49	22.47	1089.0	-120.2	0.79	43.4	"
1038	*	.15	2.25	7.51	22.65	1094.0	-125.5	0.71	37.4	"
1041	*	.15	2.70	7.52	22.72	1096.0	-126.3	0.69	28.5	"
1044	*	.15	3.15	7.52	22.79	1098.0	-128.3	0.67	22.8	"
1047	*	.15	3.60	7.55	22.67	1098.0	-129.0	0.65	18.40	"
1050	*	.15	4.05	7.55	22.85	1101.0	-129.2	0.65	14.95	"
1053	*	.15	4.50	7.55	22.94	1104.0	-130.3	0.62	13.99	"
1056	*	.15	4.95	7.55	22.95	1106.0	-131.7	0.61	12.42	"
1059	*	.15	5.40	7.57	22.76	1102.0	-133.5	0.58	10.89	"
1102	*	.15	5.85	7.58	22.87	1110.0	-131.6	0.61	9.87	"
1105	*	.15	6.30	7.59	22.96	1109.0	-133.2	0.61	9.76	"

1108 * collect samples WHGLTA012WG08

Observations

Color: Clear (Other) (describe): slightly-cloudy → clear

Odor: None Low Medium (High) Very Strong H2S (Fuel-like)

Sample Parameters: Alk/Anions, Methane, TPH, PAHs, BTX & MTBE, TOC

Notes: * water level is below top of pump

Final DTW = 18.57'

Fe^{2+} = 215 no dilution 1:2 Fe^{2+} = 6.45 mg/L

Signed/Sampler(s): [illegible] (Catherine Willis)

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GROUNDWATER FIELD SAMPLING DATA SHEET

Sample ID: WHGLTA014WG08	Site: NASFWApril 99 Quarterly GW Sampling
Sampler(s): NH CW	Project No: AFC-001-15IEA
Well Depth: 25.26	Date: 4-15-99 Time: 1655
DTW (ft): 20.25 DTP (ft): NA	Courier: ___FedEx X UPS ___Hand ___Other
MP Ht. Above/Below Ground Surface:	Sampling Method (G=grab, B=bailer, SP=submersible pump)
Condition of Bottom of Well:	Type of Pump: Bladder
Screen Interval (ft): 14.8 - 24.8	Weather (sun/clear, overcast/rain, wind direction, ambient temperature): SE to S 70°F
Well Diameter (in): 2	
Placement of Pump (ft): 14' top of pump 21.5' bottom of pump	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (gpm)	Total Volume (gal)	pH	Temp (C)	Cond (µmhos/cm)	ORP (mV)	DO (mg/L)	Turb (NTU)	Type, Size, and Amount of Sediment Discharged
1700	*	.15	0	6.86	21.05	1133	-105.9	-0.23	17.65	clear
1703	*	.15	.45	6.85	21.90	1157	-115.2	-1.61	16.55	"
1706	*	.15	.90	6.86	22.41	1183	-125.2	-2.14	15.28	"
1709	*	.15	1.35	6.86	22.47	1185	-127.4	-2.21	10.41	"
1712	*	.15	1.80	6.87	22.50	1186	-129.0	-2.26	9.20	"
1715	*	.15	2.25	6.88	22.50	1186	-130.1	-2.30	8.74	"
1718	*	.15	2.70	6.88	22.48	1186	-130.9	-2.31	7.84	"
1721	collect Sample. WHGLTA014WG08									

Observations

Color: Clear Other (describe):

Odor: None Low Medium High Very Strong H2S Fuel-like

Sample Parameters: Alk, Anions, Metals, BTEX + MTBE, TPH, PAHs, TOC

Notes: * Water level is below top of pump.

Fe^{2+} = 3.09 w/ dilution 1:1 Fe^{2+} = 6.18 mg/L

Signed/Sampler(s): [illegible], Catherine [illegible]

GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: SPOT35-5	Site: NASFW July 1999 Quarterly Sampling
Sampler(s): N Wade S Stanford	Project No. AFC-001-26 HAA
Well Depth: 27.3	Date. 7-21-99 Time: 829
DTW (ft): 22.3 DTP (ft): NA	Courier: X FedEx * UPS ___ Hand ___ Other
MP Ht. Above/Below Ground Surface: 0	Sampling Method (G=grab, B=bailer, SP=submersible pump)
Condition of Bottom of Well soft	Type of Pump: Bladder
Screen Interval (ft): 16.6 - 26.6	Weather (sun/clear, overcast/rain, wind direction, ambient temperature): N 80°F
Well Diameter (in): 4	
Placement of Pump (ft): 23.6'	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/min) (~~gpm~~)	Total Volume (L) (~~gal~~)	pH	Temp (C)	Cond. (umhos/cm)	ORP	DO (mg/L)	Turb (NTU)	Type, Size, and Amount of Sediment Discharged
831	22.41	0.05	0	7.04	23.30	985	-11.7	0.75	9.98	"
834	22.48	0.05	0.15	7.39	23.49	985	-87.1	0.64	11.8	"
837	22.51	0.05	0.30	7.48	24.12	1002	-103.7	0.84	13.6	"
840	22.52	0.1	0.45	7.52	24.70	1015	-117.2	0.54	13.8	"
843	22.52	0.1	0.75	7.54	24.88	1018	-117.3	0.45	13.6	"
846	22.53	0.1	1.05	7.56	24.95	1019	-119.0	0.37	13.3	"
849	22.54	0.1	1.35	7.56	24.78	1017	-121.1	0.26	13.5	"
852	22.55	0.1	1.65	7.57	24.43	1008	-121.5	0.21	12.8	"
855	22.56	0.1	1.95	7.57	24.21	1002	-121.3	0.17	12.7	"
858	22.57	0.1	2.25	7.56	24.30	1002	-120.8	0.15	13.1	"
901	collect samples									

Observations

Color: Clear Other (describe):

Odor: None Low Medium High Very Strong H2S Fuel-like

Sample Parameters: VOCs, TPH, PAHs, Alkalinity, Anions, TOC

Notes:

Fe^{+2} = 1.75 at 1:1 dilution = 3.50 mg/L

Signed/Sampler(s): [signature]

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GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: SPOT35-8	Site: NASFW July 1999 Quarterly Sampling
Sampler(s): NH, SS	Project No: AFC-001-26 HAA
Well Depth: 26.55	Date: 7-16-99 Time: 1100
DTW (ft): 23.21 DTP (ft): NA	Courier: X FedEx ~~X~~ UPS ___ Hand ___ Other
MP Ht Above/Below Ground Surface:	Sampling Method (G=grab, B=bailer, SP=submersible pump)
Condition of Bottom of Well: ok	Type of Pump: Bladder
Screen Interval (ft): 15.8 - 25.8	Weather (sun/clear, overcast/rain, wind direction, ambient temperature): NE 85°F
Well Diameter (in): 4	
Placement of Pump (ft): ~25' bottom, 22' top	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (cm) (gpm)	Total Volume (L) (gal)	pH	Temp. (C)	Cond. (umhos/cm)	ORP	DO (mg/L)	Turb. (NTU)	Type, Size, and Amount of Sediment Discharged
1103	23.25	0.1	0	6.80	28.17	852	-46.3	5.23	13.6	clear
1106	23.25	0.1	0.3	6.72	28.59	856	-59.3	4.41	12.4	"
1109	23.19	0.1	0.6	6.66	27.92	814	-58.9	3.26	12.8	"
1112	23.19	0.1	0.9	6.64	27.66	816	-59.0	3.36	12.6	"
1115	23.19	0.1	1.2	6.65	26.75	820	-63.3	3.37	12.0	"
1118	23.19	0.1	1.5	6.63	26.90	837	-65.9	3.77	11.8	"
1121	23.19	0.1	1.8	6.65	26.79	854	-71.9	3.91	11.1	"
1124	23.19	0.1	2.1	6.69	26.72	899	-79.9	4.41	10.1	"
1127	23.19	0.1	2.4	6.75	26.65	915	-86.6	4.81	8.84	"
1130	23.19	0.1	2.7	6.78	26.64	939	-91.0	4.60	8.61	"
1133	23.19	0.1	3.0	6.81	26.50	945	-95.6	4.81	8.24	"
1136	23.19	0.1	3.3	6.84	26.48	971	-100.1	4.92	7.72	"
1139	collect samples									

Observations

Color: Clear Other (describe):

Odor: None Low Medium High Very Strong H2S Fuel-like

Sample Parameters: BTEX / MTBE, Methane, TPH, PAHs, Alk, Anions, TOC

Notes:

Fe^{+2} = 1.44 1:3 dilution = 5.76 mg/L

Signed/Sampler(s): [signature]

GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: SPOT 35-8	Site: AOC 4
Sampler(s): P Daruwala	Project No: AFC 001 26 HAA
Well Depth: 26.70	Date: 7-22-99 Time: 1250
DTW (ft): 23 3 DTP (ft): NA	Courier: x FedEx ___UPS ___Hand ___Other
MP Ht Above/Below Ground Surface.	Sampling Method (G=grab, B=bailer, SP=submersible pump)
Condition of Bottom of Well: ok.	Type of Pump: Bladder
Screen Interval (ft): 15.8 — 25.8	Weather (sun/clear, overcast/rain, wind direction, ambient temperature):
Well Diameter (in): 4"	
Placement of Pump (ft): 25.0	Sunny, windy S wind 95°F

Field Parameters

Time	Depth to Water (ft)	Flow Rate ~~(gpm)~~ lpm	Total Volume ~~(gal)~~ l	pH	Temp (C)	Cond (umhos/cm)	ORP	DO (mg/L)	Turb (NTU)	Type, Size, and Amount of Sediment Discharged
1254	23 30	.1	0 6	7.54	30 34	1065	-60.8	1.45	12 70	
1257	23 36	.1	0.3	7 34	27 76	1006	-101 8	0.67	9 26	
1300	23 36	.1	0 6	7 30	27.73	1002	-105 2	0 60	8.27	
1303	23 40	.1	0 9	7 28	27.46	1008	-108.6	0.47	7 91	
1306	23 41	.1	1.2	7.28	27.51	1017	-112.1	0 47	7.32	
1309	23 41	.1	1.5	7 29	27 17	1027	-115 5	0.44	6.97	
1310	Collect		Samples							

Observations

Color: Clear Other (describe):

Odor: None Low Medium High Very Strong H2S Fuel-like

Sample Parameters: BTEX + MTBE

Notes: new 481679

Signed/Sampler(s): [signature]

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GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: SPOT35-9	Site: NASFW July 1999 Quarterly Sampling
Sampler(s): Nik SS	Project No: AFC-001-26 HAA
Well Depth: ~~22.55~~ 28.48	Date: 7-16-99 Time: 905
DTW (ft): 22.55 DTP (ft): NA ~~28.48~~	Courier: X FedEx * UPS ___ Hand ___ Other
MP Ht. Above/Below Ground Surface:	Sampling Method (G=grab, B=bailer, SP=submersible pump)
Condition of Bottom of Well: ok	Type of Pump: Bladder
Screen Interval (ft): 18.3 - 28.3	Weather (sun/clear, overcast/rain, wind direction, ambient temperature): NE 82°F
Well Diameter (in): 4	
Placement of Pump (ft): 25'	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/m) (gpm)	Total Volume (L) (gal)	pH	Temp (C)	Cond (umhos/cm)	ORP	DO (mg/L)	Turb (NTU)	Type, Size, and Amount of Sediment Discharged
908	22.95	0.2	0	6.25	24.04	701	130.5	2.89	4.36	clear
911	23.10	0.2	0.6	6.33	24.57	688	67.3	2.30	3.81	"
914	23.12	0.2	1.2	6.31	24.47	667	47.9	2.30	3.36	"
917	23.16	0.1	1.8	6.36	24.93	665	29.4	2.25	4.25	"
920	23.17	0.1	2.1	6.39	25.18	670	14.3	2.26	4.35	"
923	23.20	0.1	2.4	6.38	25.77	672	5.6	2.39	4.33	"
926	23.21	0.1	2.7	6.56	25.69	679	1.6	2.44	4.39	"
929	23.21	0.1	3.0	6.57	25.64	688	4.3	2.71	4.85	"
932	23.22	0.1	3.3	6.56	25.61	699	-4.6	2.77	4.43	"
935	23.22	0.1	3.6	6.59	25.72	716	-11.4	2.89	4.33	"
938	collect samples									

Observations

Color: Clear Other (describe):

Odor: None Low Medium High Very Strong H2S Fuel-like

Sample Parameters: BTEX, MTBE, PAHs, TPH, TOC, Alkalinity, Anions, Methane

Notes:

Fe^{+2} = 0.39 mg/L

Signed/Sampler(s): [illegible]

GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: SPOT 35-9	Site: NAS Ft. Worth JRB
Sampler(s): [illegible]	Project No: AFC [illegible] 26 HAA
Well Depth: 28.5	Date: 7-22-99 / Time: 1400
DTW (ft): 22.6 / DTP (ft) —	Courier: x FedEx ___UPS ___Hand ___Other
MP Ht. Above/Below Ground Surface: N/A	Sampling Method (G=grab, B=bailer, SP=submersible pump)
Condition of Bottom of Well ok	Type of Pump: Bailer
Screen Interval (ft): 18.3 — 28.3	Weather (sun/clear, overcast/rain, wind direction, ambient temperature):
Well Diameter (in): 4"	
Placement of Pump (ft): 25.55	Sunny, windy, 95°F

Field Parameters

Time	Depth to Water (ft)	Flow Rate (gpm)	Total Volume (L) (~~gal~~)	pH	Temp. (C)	Cond. (umhos/cm)	ORP	DO (mg/L)	Turb. (NTU)	Type, Size, and Amount of Sediment Discharged
1403	22.6	0.1	0.0	7.59	30.46	1625	-26.1	0.94	3.8	
1406	22.6	0.1	0.3	7.39	30.77	1020	-26.2	1.17	4.0	
1409	22.6	0.1	0.6	7.39	29.95	998.0	-29.4	0.63	4.47	
1412	22.6	0.1	0.9	7.36	29.30	979	-27.6	0.49	3.86	
1415	22.6	0.1	1.2	7.33	29.72	984.0	-25.0	0.49	3.64	
1418	22.6	0.1	1.5	7.34	28.71	982.	-25.6	0.47	3.57	
1420	Collect		Samples							

Observations

Color: Clear Other (describe):

Odor: None Low Medium High Very Strong H2S Fuel-like

Sample Parameters: BTEX + MTBE

Notes:

Signed/Sampler(s): [illegible]

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GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: WCHMHTA008	Site: NASFW July 1999 Quarterly Sampling
Sampler(s) SS, NH	Project No: AFC-001-26 HAA
Well Depth: 24.9	Date: 7-13-99 Time: 1120
DTW (ft): 13.95 DTP (ft): NA	Courier: X FedEx * UPS ___ Hand ___ Other
MP Ht. Above/Below Ground Surface: -0.3	Sampling Method (G=grab, B=bailer, SP=submersible pump)
Condition of Bottom of Well: NA	Type of Pump: Bladder
Screen Interval (ft): 9.7 - 24.7	Weather (sun/clear, overcast/rain, wind direction, ambient temperature): N 92°F
Well Diameter (in): 2	
Placement of Pump (ft): 16'	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (lpm/gpm)	Total Volume (L/gal)	pH	Temp. (C)	Cond. (umhos/cm)	ORP	DO (mg/L)	Turb (NTU)	Type, Size, and Amount of Sediment Discharged
1124	13.96	0.1	0	7.17	24.74	1361	-125.1	3.40	46.6	cloudy
1127	13.96	0.1	0.3	7.06	23.60	1366	-113.5	2.86	41.6	clear
1130	13.96	0.1	0.6	7.02	23.15	1360	-108.0	2.83	33.8	"
1133	13.97	0.1	0.9	6.97	22.87	1365	-107.0	3.18	28.6	"
1136	13.97	0.1	1.2	6.94	22.86	1368	-99.2	3.19	22.1	"
1139	13.97	0.1	1.5	6.92	22.63	1367	-97.3	3.25	16.9	"
1142	13.97	0.1	1.8	6.90	22.43	1363	-98.6	3.25	13.9	"
1145	13.97	0.1	2.1	6.90	22.27	1359	-99.9	3.28	11.5	"
1148	13.97	0.1	2.4	6.90	22.24	1357	-100.5	3.25	9.8	"
1151	collect samples									

Observations

Color: Clear Other (describe):

Odor: None Low Medium High Very Strong H2S Fuel-like

Sample Parameters: MTBE/BTEX, TPH, PAHs, TOC, Alk, Anions

Notes:

DUPO4

Fe^{+2} = 1.48 1:2 dilution = 4.44 mg/L

Signed/Sampler(s): [signature]

GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: WCHMHTA009	Site: NASFW July 1999 Quarterly Sampling
Sampler(s): NH SS	Project No: AFC-001-26 HAA
Well Depth: 11.68	Date: 7-13-99 Time: 1432
DTW (ft): 7.02 DTP (ft): NA	Courier: ___FedEx X UPS ___Hand ___Other
MP Ht. Above/Below Ground Surface: -0.18	Sampling Method (G=grab, B=bailer, SP=submersible pump)
Condition of Bottom of Well: NR	Type of Pump. Bladder
Screen Interval (ft): 4.32 - 11.82	Weather (sun/clear, overcast/rain, wind direction, ambient temperature): cloudy NE 92°F
Well Diameter (in): 2	
Placement of Pump (ft): 9'	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (lpm) (~~gpm~~)	Total Volume (L) (~~gal~~)	pH	Temp (C)	Cond (umhos/cm)	ORP	DO (mg/L)	Turb (NTU)	Type, Size, and Amount of Sediment Discharged
1435	*	0.1	0	7.54	29.74	391.0	-30.9	1.56	7.24	clear
1438	*	0.1	0.3	7.40	30.22	449.0	-25.6	1.32	7.28	"
1441	*	0.1	0.6	7.31	30.20	519.0	-20.2	1.31	7.76	"
1444	*	0.1	0.9	7.25	30.07	538.0	-14.1	1.37	7.15	"
1447	*	0.1	1.2	7.20	29.98	578.0	-15.1	1.39	7.34	"
1450	*	0.1	1.5	7.11	29.96	601.0	-19.9	1.41	7.29	"
1453	*	0.1	1.8	7.08	30.12	619.0	-21.7	1.50	7.31	"
1456	*	0.1	2.1	7.08	30.19	622.0	-22.6	1.53	5.96	"
1459	*	0.1	2.4	7.07	30.23	626.0	-23.0	1.59	5.04	"
1502	collect samples									

Observations

Color: (Clear) Other (describe):

Odor: (None) Low Medium High Very Strong H2S Fuel-like

Sample Parameters: PAHs, TPH, MTBE/BTEX, Alk, Anions, TOC

Notes: * water is below top of pump

Fe^{+2} = 0 mg/L

Signed/Sampler(s): [signature]

642 117

GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.. WCHMHTA009	Site: NAS Fort Worth July 1999 Quarterly Sampling
Sampler(s): Brad Nielsen, John Dufford	Project No: AFC-001-26 HAA
Well Depth: 11.68	Date. 7/26/99 Time: 1053
DTW (ft): 7.10 DTP (ft): —	Courier: _X_FedEx ___UPS ___Hand ___Other
MP Ht. Above/Below Ground Surface: ~~1.93~~	Sampling Method (G=grab, B=bailer, SP=submersible pump): SP
Condition of Bottom of Well: good	Type of Pump: Bladder
Screen Interval (ft): ~~5.43 - 16.93~~	Weather (sun/clear, overcast/rain, wind direction, ambient temperature): Sunny, windy (N), 100°F
Well Diameter (in): 2	
Placement of Pump (ft): 9.0'	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/min) (gpm)	Total Volume (L) (gal)	pH	Temp. (C)	Cond. (umhos/cm)	ORP	DO (mg/L)	Turb. (NTU)	Type, Size, and Amount of Sediment Discharged
1053	NA	0.2	0	Begin pumping						
1057	NA	0.2	0.8	7.87	26.67	417	180.8	1.16	9.5	Clear
1100	NA	0.2	1.4	7.65	29.41	426	190.7	0.93	7.4	Clear
1103	NA	0.2	2.0	7.46	29.21	612	202.4	0.74	6.9	Clear
1106	NA	0.2	2.6	7.29	28.95	730	211.6	0.67	6.7	Clear
1109	NA	0.2	3.2	7.20	28.77	781.0	217.4	0.63	5.2	Clear
1112	NA	0.2	3.8	7.14	28.65	802.0	221.9	0.58	4.2	Clear
1115	NA	0.2	4.4	7.10	28.46	808.0	226.2	0.58	3.3	Clear
1118	NA	0.2	5.0	7.07	28.51	816.0	230.4	0.54	2.6	Clear

Observations

Color: Clear Other (describe):

Odor: None Low Medium High Very Strong H2S Fuel-like

Sample Parameters: VOC's

Notes:

Signed/Sampler(s): [signature]

GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: WHGLTA009	Site: NASFW July 1999 Quarterly Sampling
Sampler(s). NJH SS	Project No: AFC-001-26 HAA
Well Depth: 27.82'	Date: 7-14-99 Time: 925
DTW (ft): 23.70 DTP (ft): NA	Courier: X FedEx * UPS ___ Hand ___ Other
MP Ht. Above/Below Ground Surface: 2.75	Sampling Method (G=grab, B=bailer, SP=submersible pump)
Condition of Bottom of Well: NP	Type of Pump: Bladder
Screen Interval (ft). 17.75 - 27.75	Weather (sun/clear, overcast/rain, wind direction, ambient temperature): E 86°F
Well Diameter (in): 2	
Placement of Pump (ft) 24	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (gpm)	Total Volume (gal)	pH	Temp. (C)	Cond. (umhos/cm)	ORP	DO (mg/L)	Turb. (NTU)	Type, Size, and Amount of Sediment Discharged
928	23.80	0.1	0	6.89	25.09	563	-134.1	3.24	55.8	cloudy
930*										
950	23.84	0.2	0	7.27	21.93	528	-127.3	2.71	26.1	cloudy
953	23.84	0.15	.45	7.11	23.94	546	-131.4	2.20	23.7	clearing
956	23.84	0.15	.90	7.13	23.07	538	-131.7	2.18	20.2	"
959	23.84	0.15	1.35	7.14	22.79	535	-131.9	2.24	16.0	"
002	23.84	0.15	1.80	7.13	22.45	532	-132.6	2.28	12.2	"
1005	23.84	0.15	2.25	7.11	22.44	531	-133.5	2.23	9.60	"
1008	collect samples									

Observations

Color: Clear Other (describe):

Odor: None Low Medium High Very Strong H2S Fuel-like

Sample Parameters: VOCs, Methane, TPH, PAHs, Alk, Anions, TOC

Notes:

* controller overheated, let cool down

Fe^{+2} = 2.36 dilution 1:2 = 7.08 mg/L

Signed/Sampler(s): [illegible]

642 119

GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: WHGLTA010	Site: NASFW July 1999 Quarterly Sampling
Sampler(s). NH SS	Project No: AFC-001-26 HAA
Well Depth. 30.3	Date: 7-14-99 Time: 1205
DTW (ft): 26.5 DTP (ft): NA	Courier: X FedEx X UPS ___ Hand ___ Other
MP Ht. Above/Below Ground Surface: 2.5	Sampling Method (G=grab, B=bailer, SP=submersible pump)
Condition of Bottom of Well: NN	Type of Pump: Bladder
Screen Interval (ft): 20.5 - 30.5	Weather (sun/clear, overcast/rain, wind direction, ambient temperature): NE 90°F
Well Diameter (in): 2	
Placement of Pump (ft): 25.15'	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (lpm)	Total Volume (L)	pH	Temp (C)	Cond (umhos/cm)	ORP	DO (mg/L)	Turb (NTU)	Type, Size, and Amount of Sediment Discharged
1213	* ~~25.6~~ NH	0.1	0	7.64	24.22	622	-143.5	2.70	287	cloudy
1218	*	0.1	0.5	7.57	23.94	617	-148.6	2.06	164	"
1223	*	0.1	1.0	7.57	23.82	616	-151.2	1.97	87.6	"
1228	*	0.1	1.5	7.53	23.44	611	-153.3	1.89	42.9	"
1233	*	0.1	2.0	7.50	23.33	610	-153.0	1.80	23.3	"
1238	*	0.1	2.5	7.47	23.16	608	-153.0	1.80	9.56	"
1243	*	0.15	3.0	7.42	22.98	604	-153.0	1.84	5.88	"
1248	*	collect samples								

Observations

Color: Clear Other (describe):

Odor: None Low Medium High Very Strong H2S Fuel-like

Sample Parameters: BTEX, MTBE, Alk, Anions, TOC, Methane, PAHs, TPH

Notes: * water is below pump

Fe^{+2} = 195 x dilution 1:2 = 5.85 mg/L

Signed/Sampler(s): [signature]

GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: WHGLTA011	Site: NASFW July 1999 Quarterly Sampling
Sampler(s): Nil SS	Project No: AFC-001-26 HAA
Well Depth: 17.80	Date: 7-13-99 Time: 900
DTW (ft): * DTP (ft): NA	Courier: ___FedEx X UPS ___Hand ___Other
MP Ht. Above/Below Ground Surface: 1.93	Sampling Method (G=grab, B=bailer, SP=submersible pump)
Condition of Bottom of Well: NM	Type of Pump: Bladder
Screen Interval (ft): 5.43 - 16.93	Weather (sun/clear, overcast/rain, wind direction, ambient temperature): n ,85°
Well Diameter (in): 2	
Placement of Pump (ft): 11'	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (~~gpm~~ LPM)	Total Volume (~~gal~~ L)	pH	Temp (C)	Cond (umhos/cm)	ORP	DO (mg/L)	Turb (NTU)	Type, Size, and Amount of Sediment Discharged
900	*	.15	0	6.72	22.81	1205.00	271.5	3.62	39.7	
903		.15	.45	6.75	22.87	1204.00	263.8	3.37	35.1	
906		.15	.90	6.78	22.85	1202.00	255.5	2.98	31.7	
909		.15	1.35	6.80	22.92	1203.00	238.1	2.78	24.8	
912		.15	1.80	6.82	22.93	1204.00	232.7	2.92	16.73	
915		.15	2.25	6.83	22.86	1203.00	226.2	2.83	11.38	
918		.2	2.85	6.83	22.74	1205.00	221.3	2.83	9.01	
918		Sampled								

Observations

Color: (Clear) Other (describe):

Odor: (None) Low Medium High Very Strong H2S Fuel-like

Sample Parameters: BTEX + MTBE, TPH, PAH, TOC, Alkalinity + Anions, Methane

Notes: Fe^{2+} = 0.01 @ 2:00 = 0.03

* Water Below Top of pump

Signed/Sampler(s): [illegible]

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GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: WHGCTA011	Site: NAS Fort Worth July 1999 Quarterly Sampling
Sampler(s): Brad Nielsen, John Rutford	Project No: AFC-001-26 HAA
Well Depth: 17.	Date: 7/26/99 Time: 0850
DTW (ft): 11.29 DTP (ft): —	Courier: _X_ FedEx ____ UPS ____ Hand ____ Other
MP Ht. Above/Below Ground Surface: 1.93	Sampling Method (G=grab, B=bailer, SP=submersible pump): SP
Condition of Bottom of Well: good	Type of Pump: Bladder
Screen Interval (ft): 5.43 - 16.93	Weather (sun/clear, overcast/rain, wind direction, ambient temperature): Sunny, windy(N), 100°F
Well Diameter (in): 2.0	
Placement of Pump (ft): 14.5	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (gpm)	Total Volume (gal)	pH	Temp. (C)	Cond. (umhos/cm)	ORP (mV)	DO (mg/l)	Turb. (NTU)	Type, Size and Amount of Sediment Discharged
0850	11.29	0.2	0	begin purging						
0854	11.30	0.2	0.8	7.37	24.73	1728	261.4	1.94	37.6	clear
0857	11.30	0.2	1.4	7.02	24.50	1700	253.4	1.39	16.8	clear
0900	11.30	0.2	2.0	6.81	24.41	1691	245.5	1.47	14.7	clear
0903	11.30	0.2	2.6	6.76	24.25	1679	238.6	1.79	10.6	clear
0906	11.30	0.2	3.2	6.74	24.19	1670	232.3	2.02	9.2	clear
0909	11.30	0.2	3.8	6.75	24.02	1661	226.7	2.22	6.6	clear
0912	11.30	0.2	4.4	6.76	24.01	1657	223.1	2.30	5.0	clear
0915	11.30	0.2	5.0	6.78	23.95	1652	219.3	2.36	4.6	clear

Observations

Color: (Clear) Other (describe):

Odor. (None) Low Medium High Very Strong H2S Fuel-like

Sample Parameters: VOCs

Notes:

Signed/Sampler(s): [signature] John E. Rutford

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GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: WHGLTA012	Site: NASFW July 1999 Quarterly Sampling
Sampler(s): NH, SS	Project No: AFC-001-26 HAA
Well Depth: 23.55	Date: 7-15-99 Time: 1102
DTW (ft): 18.59 DTP (ft): NA	Courier: X FedEx * UPS ___ Hand ___ Other
MP Ht. Above/Below Ground Surface: -0.6	Sampling Method (G=grab, B=bailer, SP=submersible pump)
Condition of Bottom of Well: NR	Type of Pump: Bladder
Screen Interval (ft): 13.1 - 23.1	Weather (sun/clear, overcast/rain, wind direction, ambient temperature): NE 88°F
Well Diameter (in): 2	
Placement of Pump (ft): 18'	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (~~gpm~~ L/min)	Total Volume (~~gal~~ L)	pH	Temp. (C)	Cond. (umhos/cm)	ORP	DO (mg/L)	Turb. (NTU)	Type, Size, and Amount of Sediment Discharged
1105	*	0.1	0	7.83	26.21	1107.0	-125.1	4.39	183	cloudy
1110	*	0.1	0.5	8.11	26.68	1122.0	-153.6	3.20	144	"
1115	*	0.1	1.0	8.14	26.67	1120.0	-162.2	3.20	119	"
1120	*	0.1	1.5	7.85	26.55	1124.0	-166.7	3.28	86.6	"
1125	*	0.1	2.0	7.86	26.52	1119.0	-166.8	3.18	67.4	clearing
1130	*	0.1	2.5	7.84	26.60	1119.0	-164.5	3.13	67.0	"
1135	*	0.1	3.0	7.77	26.55	1117.0	-160.7	3.10	44.3	"
1140	*	0.1	3.5	7.76	26.73	1106.0	-160.1	3.14	37.7	"
1145	*	0.1	4.0	7.73	26.65	1104.0	-159.8	3.19	33.5	"
1150	*	0.1	4.5	7.69	26.70	1104.0	-156.9	3.10	31.4	"
1155	*	0.1	5.0	7.68	26.76	1105.0	-156.7	3.19	27.2	"
1200	*	0.1	5.5	7.66	26.63	1104.0	-156.3	3.24	22.8	"
1205	*	0.1	6.0	7.64	26.61	1105.0	-156.5	3.29	21.3	"
1210	*	0.1	6.5	7.63	26.60	1107.0	-157.5	3.34	19.6	"
1215	*	0.1	7.0	7.58	26.75	1128.0	-159.8	3.36	18.5	"
1220	*	0.1	7.5	7.82	26.24	1123.0	-158.2	4.16	24.9	"

Observations

Color: Clear Other (describe): cloudy

Odor: None Low Medium High Very Strong H2S Fuel-like

Sample Parameters: BTEX, MTBE, TOC, TPH, PAHs, Alk, Anions, Methane

Notes: * water below top of pump

Fe^{+2} = 2.11 dilution 1:9 = 8.44 mg/L

Signed/Sampler(s): [signature]

GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: WHGLTA012		Site: NAS Ft Worth	
Sampler(s):		Project No: AFC co, 26 HAA	
Well Depth:		Date: 7-15-99	Time:
DTW (ft):	DTP (ft):	Courier: ___FedEx ___UPS ___Hand ___Other	
MP Ht. Above/Below Ground Surface:		Sampling Method (G=grab, B=bailer, SP=submersible pump)	
Condition of Bottom of Well:		Type of Pump:	
Screen Interval (ft):		Weather (sun/clear, overcast/rain, wind direction, ambient temperature):	
Well Diameter (in):			
Placement of Pump (ft):			

Field Parameters

Time	Depth to Water (ft)	Flow Rate (gpm)	Total Volume (gal)	pH	Temp (C)	Cond (umhos/cm)	ORP	DO (mg/L)	Turb (NTU)	Type, Size, and Amount of Sediment Discharged
1225	*	0.1	80	7.79	26.16	1121	-155.3	4.17	18.4	
1230	|	0.1	85	7.72	26.05	1117	-166.8	4.23	16.3	
1235	|	0.1	90	7.70	26.12	1126	-161.4	4.25	14.4	
1240	—	0.1	95	7.70	26.08	1121	-163.1	4.24	10.5	
1245	Collect samples									

Observations

Color: Clear Other (describe):

Odor: None Low Medium High Very Strong H2S Fuel-like

Sample Parameters:

Notes: * Water table below top of pump

See Page 1 for information

Signed/Sampler(s):

GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: WHGLTA014	Site: NASFW July 1999 Quarterly Sampling
Sampler(s): Nit SS	Project No: AFC-001-26 HAA
Well Depth: 25.23'	Date: 7-15-99 Time: 0905
DTW (ft): 21.06 DTP (ft): NA	Courier: X FedEx * UPS ___ Hand ___ Other
MP Ht. Above/Below Ground Surface: -0.2	Sampling Method (G=grab, B=bailer, SP=submersible pump)
Condition of Bottom of Well: NA	Type of Pump: Bladder
Screen Interval (ft): 14.8 - 24.8	Weather (sun/clear, overcast/rain, wind direction, ambient temperature): NE 82°F
Well Diameter (in): 2	
Placement of Pump (ft): 20'	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (cm) (gpm)	Total Volume (L) (gal)	pH	Temp. (C)	Cond. (umhos/cm)	ORP	DO (mg/L)	Turb. (NTU)	Type, Size, and Amount of Sediment Discharged
909	*	0.05	0	7.56	24.27	1022	-118.9	4.06	23.20	clear
912	*	0.1	0.3	7.64	24.61	1030	-130.3	3.87	27.5	"
915	*	0.1	0.6	7.78	25.44	1057	-136.3	3.73	26.4	"
918	*	0.1	0.9	7.78	25.50	1051	-139.2	3.71	27.3	"
921	*	0.1	1.2	7.83	25.66	1053	-141.1	3.75	24.5	"
924	*	0.1	1.5	7.80	25.59	1056	-142.9	3.70	19.2	"
927	*	0.1	1.8	7.79	25.39	1056	-143.5	3.79	16.1	"
930	*	0.1	2.1	7.78	25.10	1050	-144.4	3.83	14.4	"
933	*	0.1	2.4	7.79	24.98	1048	-145.2	3.79	12.2	"
936	*	0.1	2.7	7.80	25.06	1048	-146.1	3.80	11.3	"
939	*	0.1	3.0	7.80	25.04	1046	-146.6	3.79	9.52	"
942	*	collect samples								

Observations

Color: Clear Other (describe):

Odor: None Low Medium High Very Strong H2S Fuel-like

Sample Parameters: BTEX/MTBE, Anions, Alk, Methane, TOC, TPH, PAHs

Notes: * Water below top of pump

Fe^{+2} = 2.30 at 1:7 dilution = 6.9 mg/L

Signed/Sampler(s): [signature]

GROUNDWATER FIELD SAMPLING DATA SHEET

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No.: SPOT35-5	Location: NAS Fort Worth JRB
Sampler(s): P. Darwala, C Williams	Project Name: Quarterly Basewide Groundwater Sampling
Well Depth: 27 4'	Project #: AFC-001-26HBA Date: 10-18-99 Time: 905
DTW (ft): 22 97' DTP (ft): –	Courier: ✓ FedEx ___ UPS ___ Hand ___ Other
MP Ht. Above/Below Ground Surface: -0.15	Sampling Method: Grab
Condition of Bottom of Well: Slightly Silty	Type of Pump: Bladder Pump
Screen Interval (ft): 16.45 - 26.45	Weather (sun/clear, overcast/rain, wind direction, ambient temperature): From the North 55°
Well Diameter (in): 4"	
Placement of Pump (ft): Unknown	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/m)	Total Volume (L)	pH	Temp. (C)	Cond. (umhos/cm)	ORP (mv)	DO (mg/L)	Turb. (NTU)	Type, Size, and Amount of Sediment Discharged
917	22 97	0.05	0.0	6 46	20.80	1069	-136.1	1 69	46.1	
920	22.95	0 05	0.15	6 51	20.54	1083	-155 6	1 34	27 7	
923	22 95	0.05	0.30	6.52	20.20	1090	-167 6	1 21	19 8	
926	22 95	0.05	0.45	6.54	20.00	1082	-174.5	1 19	16.33	
929	23 10	0.05	0.60	6 56	19.82	1079	-178 8	1.15	14.30	
932	23 10	0.05	0.75	6 56	19.75	1079	-180 1	1.13	14 66	
935	23 15	0 05	0.90	6 59	19 44	1074	-179 8	1 07	14 48	
940	Collect		Sampler							

Observations

Color: Clear Other (describe):

Odor: None Low Medium High Very Strong H2S Fuel-like

Notes: Fe 2+: 6 24 mg/L.

Signed/Sampler(s): C. Williams, P. Darwala

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GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: SPOT35-8	Location: NAS Fort Worth JRB
Sampler(s): C Williams S. Stanford	Project Name: Quarterly Basewide Groundwater Sampling
Well Depth: 26.65	Project #: AFC-001-26HBA Date: 10-8-98 Time: 1424
DTW (ft): 23.43 DTP (ft): NA	Courier: X FedEx ___ UPS ___ Hand ___ Other
MP Ht. Above/Below Ground Surface: -0.25	Sampling Method: Grab
Condition of Bottom of Well: Good	Type of Pump: Bladder Pump
Screen Interval (ft): 15.8 - 25.8	Weather (sun/clear, overcast/rain, wind direction, ambient temperature): Rain East 70°
Well Diameter (in): 4	
Placement of Pump (ft): 22.04	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/m)	Total Volume (L)	pH	Temp. (C)	Cond. (umhos/cm)	ORP (mv)	DO (mg/L)	Turb. (NTU)	Type, Size, and Amount of Sediment Discharged
1424	23.45	.15	0	6.57	26.40	1123.00	-67.8	1.17	5.88	
1427	23.45	.15	0.45	6.59	26.38	1123.00	-71.3	1.07	5.44	
1430	23.45	.2	1.05	6.57	26.38	1123	-73.4	1.03	5.20	
1433	23.55	.15	1.5	6.59	26.43	1123	-75.8	1.00	4.82	
1436	Sampled									

Observations

Color: Clear Other (describe):

Odor: None Low Medium High Very Strong H2S Fuel-like

Notes:

Fe^{2+} = 7.72 mg/L

Signed/Sampler(s): C. Williams

GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: SPOT35-9	Location: NAS Fort Worth JRB
Sampler(s): C. Williams S. Stanford	Project Name: Quarterly Basewide Groundwater Sampling
Well Depth: 28.53	Project #: AFC-001-26HBA Date: 12-8-99 Time: 1017
DTW (ft): 22.57 DTP (ft): NA	Courier: * FedEx ___UPS ___Hand ___Other
MP Ht. Above/Below Ground Surface: -0.35	Sampling Method : Grab
Condition of Bottom of Well: Good	Type of Pump: Bladder Pump
Screen Interval (ft): 18.3 - 28.3	Weather (sun/clear, overcast/rain, wind direction, ambient temperature): Rain, Easterl, 79°F
Well Diameter (in): 4	
Placement of Pump (ft): 22.68	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/m)	Total Volume (L)	pH	Temp. (C)	Cond. (umhos/cm)	ORP (mv)	DO (mg/L)	Turb. (NTU)	Type, Size, and Amount of Sediment Discharged
1017	23.0	.1	0	6.70	25.12	883	152.2	2.08	1.54	
1020	23.15	.1	0.3	6.71	25.51	881	138.7	1.52	2.23	
1023	23.28	.1	0.6	6.70	25.52	872	135.9	1.26	2.54	
[illegible]	23.24	.1	0.9	6.68	25.95	848	130.4	1.27	2.34	
[illegible]	23.24	.1	1.2	6.67	25.20	841	132.7	1.14	2.18	
1032	23.27	.1	1.5	6.66	25.48	838	135.7	1.10	2.59	
1035	Sampled									

Observations

Color: Clear Other (describe):

Odor: None Low Medium High Very Strong H2S Fuel-like

Notes:

Fe^{2+}: ~~2.51~~ ND

Signed/Sampler(s): [illegible], C. Williams

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GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: WCHMHTA008	Location: NAS Fort Worth JRB
Sampler(s): P. Darwwala, C. Williams	Project Name: Quarterly Basewide Groundwater Sampling
Well Depth: 24.54'	Project #: AFC-001-26HBA Date: 10-5-99 Time: 1430
DTW (ft): 14.26' DTP (ft): —	Courier: ✓ FedEx ___ UPS ___ Hand ___ Other
MP Ht. Above/Below Ground Surface: -0.3	Sampling Method: Grab
Condition of Bottom of Well: Some dark silt	Type of Pump: Bladder
Screen Interval (ft): 9.7 - 24.7	Weather (sun/clear, overcast/rain, wind direction, ambient temperature): Clear, 80°
Well Diameter (in). 2"	
Placement of Pump (ft): 19.4'	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/m)	Total Volume (L)	pH	Temp. (C)	Cond. (umhos/cm)	ORP (mv)	DO (mg/L)	Turb. (NTU)	Type, Size, and Amount of Sediment Discharged
1434	14.3	0.1	0.0	6.68	26.08	2261	-102.9	5.81	40.1	
1437	14.3	0.15	0.3	6.65	25.55	2252	-103.5	3.96	29.7	
1440	14.3	0.15	0.8	6.61	25.35	2244	-103.8	9.55	21.1	
1443	14.3	0.15	1.2	6.58	25.07	2248	-107.4	10.71	18.15	
1446	14.3	0.15	1.5	6.58	25.03	2247	-109.8	13.37	18.16	
1449	14.3	0.15	1.9	6.56	24.71	2244	-111.5	14.17	12.04	
1452	14.3	0.15	2.3	6.55	24.58	2242	-114.0	15.88	10.90	
1455	14.3	0.15	2.7	6.54	24.57	2235	-114.6	15.42	10.56	
1458	14.3	0.15	3.1	6.57	24.59	2238	-116.9	15.43	9.66	
1501 ~~1502~~	14.3	0.15	3.5	6.57	24.40	2221	-118.7	17.09	9.70	
1504	14.3	0.15	3.9	6.54	24.33	2226	-117.5	16.46	9.70	
1510	Collect samples									

Observations

Color: (Clear) Other (describe):

Odor: None Low Medium High Very Strong H2S (Fuel-like)

Notes: PID: 36 ppm at wellhead, 0.0 ppm in BZ
Fe^{2+}: 1.45 mg/L

Signed/Sampler(s): C. Williams, Pat. Dar

GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: WCHMHTA009	Location: NAS Fort Worth JRB
Sampler(s): [illegible]	Project Name: Quarterly Basewide Groundwater Sampling
Well Depth: 11.67'	Project #: AFC-001-26HBA Date: 10-27-99 Time: 1457
DTW (ft): 7.4 DTP (ft): ~~11.67~~ NA	Courier: / FedEx ___ UPS ___ Hand ___ Other
MP Ht. Above/Below Ground Surface: -0.18	Sampling Method: Grab
Condition of Bottom of Well: Good	Type of Pump: Bladder Pump
Screen Interval (ft): 4.32 - 11.82	Weather (sun/clear), overcast/rain, wind direction, ambient temperature): Easterly 80°F
Well Diameter (in): 2	
Placement of Pump (ft): [illegible]	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/m)	Total Volume (L)	pH	Temp (C)	Cond. (umhos/cm)	ORP (mv)	DO (mg/L)	Turb (NTU)	Type, Size, and Amount of Sediment Discharged
1455	*	.15	0.45	7.07	30.05	879	102.3	5.77	23.0	Clear
1500	*	.1	0.75	6.92	30.26	972	110.5	5.79	22.7	"
1503	*	.1	[illegible]	[illegible]	[illegible]	[illegible]	111.5	6.34	19.45	"
1506	*	.1	1.35	6.65	30.16	1113	114.6	6.41	17.08	"
[illegible]	*	.1	1.65	[illegible]	30.14	[illegible]	117.2	6.53	14.53	"
1512	*	.1	1.95	6.85	30.23	1124	122.1	[illegible]	10.75	"
1515	*	.1	2.25	6.82	30.30	[illegible]	125.9	7.25	9.75	"
1518	*	.1	2.55	6.81	30.31	1125	126.3	7.28	[illegible]	"
1521	*	[illegible]	2.85	6.81	[illegible]	[illegible]	128.6	7.45	[illegible]	"
1524	[illegible]	[illegible]								

Observations

Color: (Clear) Other (describe):

Odor: (None) Low Medium High Very Strong H2S Fuel-like

Notes:

7. Top of Pump above water level

Fe^{2+} = 0.27 mg/L

Signed/Sampler(s): [illegible], C. Williams

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GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: WHGLTA009	Location: NAS Fort Worth JRB
Sampler(s): P. Daruwala, C. Willi	Project Name: Quarterly Basewide Groundwater Sampling
Well Depth: 27.81'	Project #: AFC-001-26HBA Date: 10-6-99 Time: 1400
DTW (ft): 23.98' DTP (ft): —	Courier: ✓ FedEx ___ UPS ___ Hand ___ Other
MP Ht. Above/Below Ground Surface: 2.75	Sampling Method: Grab
Condition of Bottom of Well: Good	Type of Pump: Bladder
Screen Interval (ft): 17.75 - 27.75	Weather (sun/clear, overcast/rain, wind direction, ambient temperature):
Well Diameter (in): 2"	Clear, 80°, Wind from South
Placement of Pump (ft): 25.9'	

Field Parameters

Time	Depth to Water (ft)*	Flow Rate (L/m)	Total Volume (L)	pH	Temp. (C)	Cond. (umhos/cm)	ORP (mv)	DO (mg/L)	Turb. (NTU)	Type, Size, and Amount of Sediment Discharged
1408	—	0.2	0.0	6.39	24.63	930	-127.6	-7.33	66.7	
1411	—	0.1	0.6	6.44	24.76	935	-133.3	-7.12	28.9	
1414	—	0.1	0.9	6.49	24.97	938	-133.6	-7.01	26.6	
1417	—	0.1	1.2	6.49	25.41	945	-134.8	-7.13	21.5	
1420	—	0.1	1.5	6.44	25.40	945	-133.5	-6.92	17.05	
1423	—	0.1	1.8	6.44	25.23	941	-132.8	-6.54	14.03	
1426	—	0.1	2.1	6.42	24.99	935	-131.0	-6.36	10.67	
1429	—	0.1	2.4	6.44	24.58	927	-130.4	-6.87	8.90	
1432	—	0.1	2.7	6.44	24.45	923	-128.4	-6.58	6.90	
1435	—	0.1	3.0	6.43	24.25	919	-130.4	-6.66	5.20	
1440	Collect samples									

Observations

Color: (Clear) Other (describe):

Odor: None Low Medium High Very Strong H2S (Fuel-like)

Notes: *Unable to measure DTW due to top of pump.

Signed/Sampler(s): C. Williams, P. Daruwala

GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: WHGLTA010	Location: NAS Fort Worth JRB
Sampler(s): P. Darwala, C. Williams	Project Name: Quarterly Basewide Groundwater Sampling
Well Depth: 30.40'	Project #: AFC-001-26HBA Date: 10-6-99 Time: 1030
DTW (ft): 26.29' DTP (ft): —	Courier: ✓ FedEx ___ UPS ___ Hand ___ Other
MP Ht. Above/Below Ground Surface: 2.5	Sampling Method: Grab
Condition of Bottom of Well: Soft, silt	Type of Pump: Bladder
Screen Interval (ft): 20.5 - 30.5	Weather (sun/clear, overcast/rain, wind direction, ambient temperature):
Well Diameter (in): 2"	Clear, 80°
Placement of Pump (ft): 28.3'	

Field Parameters

Time	Depth to Water (ft)*	Flow Rate (L/m)	Total Volume (L)	pH	Temp (C)	Cond (umhos/cm)	ORP (mv)	DO (mg/L)	Turb (NTU)	Type, Size, and Amount of Sediment Discharged
1033	–	.15	0.0	6.20	22.65	990	-88.5	-5.22	62.4	
1036	–	0.15	0.4	6.24	22.63	989	-108.6	-5.75		
1040	Pause purging. Recalibrate DO.									
1050	–	0.2	0.9	6.42	22.44	980	~~-126.4~~ -141.4	-4.17	38.3	
1053	–	0.2	1.5	6.42	22.18	971	-141.8	-5.50	28.1	
1056	–	0.2	2.1	6.43	22.08	968	-146.2	-5.67	33.1	
1059	–	0.1	2.7	6.44	22.25	971	-152.5	-5.81	25.8	
1102	–	0.1	3.0	6.45	22.35	973	-155.6	-5.84	21.8	
1105	–	0.1	3.3	6.46	22.31	971	-157.3	-5.85	17.66	
1108	–	0.1	3.6	6.47	22.31	972	-159.9	-6.12	12.92	
1111	–	0.1	3.9	6.47	22.28	972	-162.0	-6.01	9.43	
1114	–	0.1	4.2	6.48	22.32	973	-163.3	-5.93	6.84	
1117	–	0.1	4.5	6.48	22.37	978	-163.6	-6.20	6.80	
1120	Collect samples.									

Observations

Color: Clear, Other (describe):

Odor: None, Low Medium High Very Strong H2S Fuel-like

Notes: * Unable to measure DTW due to top of pump.

Signed/Sampler(s): C. Williams, P. Darwala

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GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: WHGLTA011	Location: NAS Fort Worth JRB
Sampler(s): P. Daruvala, C Williams	Project Name: Quarterly Basewide Groundwater Sampling
Well Depth: 17.80'	Project #: AFC-001-26HBA Date: 10-5-99 Time: 1215
DTW (ft): 11 55' DTP (ft): —	Courier: ✓ FedEx ___ UPS ___ Hand ___ Other
MP Ht. Above/Below Ground Surface: 1.93	Sampling Method: Grab
Condition of Bottom of Well: Some Silt	Type of Pump: Bladder
Screen Interval (ft): 5.43 - 16.93	Weather (sun/clear, overcast/rain, wind direction, ambient temperature): Clear, 80°
Well Diameter (in): 2"	
Placement of Pump (ft): 14.7'	

Field Parameters

Time	Depth to Water (ft) *	Flow Rate (L/m)	Total Volume (L)	pH	Temp. (C)	Cond. (umhos/cm)	ORP (mv)	DO (mg/L)	Turb. (NTU)	Type, Size, and Amount of Sediment Discharged
1218	—	0.1	0.0	6.67	26.11	1983	102.6	3.11	15.32	
1221	—	0.1	0.3	6.67	26.27	1979	102.5	4.25	14.84	
1224	—	0.1	0.6	6.68	26.40	1980	98.9	3.84	13.62	
1227	—	0.1	0.9	6.68	26.39	1993	94.7	4.02	12.21	
1230	—	0.1	1.2	6.67	26.33	1996	93.4	7.27	11.05	
1233	—	0.1	1.5	6.67	26.16	1999	88.9	6.27	8.72	
1236	—	0.1	1.8	6.67	26.02	1999	83.4	5.59	7.52	
1239	—	0.1	2.1	6.68	25.96	1998	79.3	6.63	6.22	
1242	—	0.1	2.4	6.69	25.98	1995	77.3	6.80	6.30	
1245	—	0.1	2.7	6.67	26.07	1997	80.6	8.53	4.04	
1248	—	0.1	3.0	6.68	26.07	1998	80.0	7.96	4.11	
1250	Collect samples									

Observations

Color: (Clear) Other (describe):

Odor: (None) Low Medium High Very Strong H2S Fuel-like

Notes: * Unable to measure DTW due to top of pump.
PID: 32.8 ppm ; Fe^{2+}: ND

Signed/Sampler(s): C. Williams P. Daruvala

GROUNDWATER FIELD SAMPLING DATA SHEET

W[illegible]o.: WHGLTA012	Location: NAS Fort Worth JRB
Sampler(s): C. Williams, S Stanford	Project Name: Quarterly Basewide Groundwater Sampling
Well Depth: 23.57	Project #: AFC-001-26HBA Date: 10-7-99 Time: 930
DTW (ft): 18.87 DTP (ft): NA	Courier: Y FedEx ___ UPS ___ Hand ___ Other
MP Ht. Above/Below Ground Surface: -0.6	Sampling Method: Grab
Condition of Bottom of Well: silty	Type of Pump: Bladder Pump
Screen Interval (ft): 13.1 - 23.1	Weather (sun/clear, overcast/rain, wind direction, ambient temperature): Cloudy 70°
Well Diameter (in): 2	
Placement of Pump (ft): 18.22	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/m)	Total Volume (L)	pH	Temp (C)	Cond. (umhos/cm)	ORP (mv)	DO (mg/L)	Turb. (NTU)	Type, Size, and Amount of Sediment Discharged
930	*	0.1	0	6.80	25.16	1115	-95.1	4.66	133.1	Cloudy
933	*	0.1	0.3	6.84	25.41	1126	-96.0	6.55	112.6	
936	*	0.1	0.6	6.87	25.45	1118	-108.0	6.75	101.1	
939	*	0.1	0.9	6.90	25.41	1133	-114.2	5.68	75.3	"
[illegible]2	*	0.1	1.2	6.91	25.59	1118	-121.9	5.19	61.1	"
945	*	0.15	1.65	6.93	25.99	1123	-124.4	5.09	47.4	"
948	*	0.15	2.1	6.94	25.78	1139	-127.0	6.45	44.7	"
951	*	0.1	2.4	6.94	25.85	1140	-127.8	6.28	39.1	"
954	*	0.1	2.7	6.95	25.85	1140	-120.3	7.15	33.6	"
957	*	0.1	3.0	6.95	25.93	1142	-120.8	7.45	30.0	"
1000	*	0.1	3.3	6.95	26.11	1145	-122.9	8.45	27.3	
1003	*	0.1	3.6	6.95	26.20	1146	-125.3	7.23	26.4	"
1006	*	0.1	3.9	6.94	26.11	1133	-131.3	7.49	24.1	Clear
1009	*	0.1	4.2	6.95	26.18	1148	-122.0	7.25	21.1	Clear
1012	*	0.1	4.5	6.96	26.17	1139	-138.0	6.99	18.86	clear
1015	Sampled									

Observations

Color: Clear Other (describe):

Odor: None Low Medium High Very Strong H2S Fuel-like

Notes:

Fe^{2+}: 6.72

* top of pump above water level

Signed/Sampler(s): C. Williams

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GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: WHGLTA014	Location: NAS Fort Worth JRB
Sampler(s): C. Willis, S Stanford	Project Name: Quarterly Basewide Groundwater Sampling
Well Depth: 25.25'	Project #: AFC-001-26HBA Date: 10-7-97 Time: 1245
DTW (ft): 21.27 DTP (ft): NA	Courier: X FedEx ___UPS ___Hand ___Other
MP Ht. Above/Below Ground Surface: -0.2	Sampling Method: Grab
Condition of Bottom of Well: Good	Type of Pump: Bladder Pump
Screen Interval (ft): 14.8 - 24.8	Weather (sun/clear, overcast/rain, wind direction, ambient temperature): Easterly 80°F
Well Diameter (in): 2	
Placement of Pump (ft): 20.26'	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/m)	Total Volume (L)	pH	Temp. (C)	Cond. (umhos/cm)	ORP (mv)	DO (mg/L)	Turb. (NTU)	Type, Size, and Amount of Sediment Discharged
1245	*	.1	0	6.80	27.15	1469	-114.1	7.79	7.31	Clear
1248	*	.1	0.3	6.80	27.03	1468	-114.6	7.42	5.45	"
1251	*	.1	0.6	6.80	26.97	1466	-115.7	7.41	4.15	"
1254	*	.15	1.05	6.81	26.55	~~1459~~ 1450	-115.9	7.59	4.96	"
1257	sampled									

Observations

Color: Clear Other (describe):

Odor: None Low Medium High Very Strong H2S Fuel-like

Notes: Fe2+ = 7.47

* Depth of water below top of pump

Signed/Sampler(s): [illegible], C. Willis

APPENDIX A.2

FIELD SAMPLING DATA REPORTS

HYDROGEOLOGIC

FIELD SAMPLING REPORT

LOCATION: NAS Fort Worth JRB, Texas

PROJECT: AFC001-151DA

SITE: AOC-4

SAMPLE INFORMATION

SAMPLE ID: SPOT35-SWG07

DATE: 1-22-99 TIME: 950

MATRIX TYPE: WG

SAMPLING METHOD: Bladder pump

LOT CONTROL #: 0 D 1 A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #:

BEGINNING DEPTH: N/A

END DEPTH: N/A

GRAB (X) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR BLANKS/QC SAMPLES ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS): -

MATRIX SPIKE DUP (SD): -

FIELD DUP (FD): -

AMBIENT BLANK (AB): -

EQUIPMENT BLANK (EB): -

TRIP BLANK (TB): TB012299

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
40 ml	3	HCl		VOC
40 ml	3	HCl		TPH - GRO
1 Amber	1	4°C		DAH

NOTABLE OBSERVATIONS

PID READINGS		SAMPLE CHARACTERISTICS		MISCELLANEOUS
1st	0.8	COLOR:	Clear	
2nd	0	ODOR:	Fuel-like	
		OTHER:		

pH 6.90 Temperature 18.25 Dissolved Oxygen 1.04 Specific Conductivity 1.985

GENERAL INFORMATION

WEATHER: SUN/CLEAR X OVERCAST/RAIN ____ WIND DIRECTION ____ AMBIENT TEMPERATURE 70°F

SHIPMENT VIA: FED-X X HAND DELIVER ____ COURIER ____ OTHER ____

SHIPPED TO: Reliza Lab Net

COMMENTS:

SAMPLER: J. Wilson OBSERVER: P. Perumalla

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BR=BRASS RING	HA=HAND AUGER
HL=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	CS=COMPOSITE SAMPLE	H=HOLLOW STEM AUGER
HS=HAZARDOUS SOLID WASTE	WS=SURFACE WATER	C=CONTINUOUS FLIGHT AUGER	HP=HYDRO PUNCH
SE=SEDIMENT	SW=SWAP/WIPE	DT=DRIVEN TUBE	SS=SPLIT SPOON
		W=SWAB/WIPE	BP=BLADDER PUMP

AFCEE FORM SR.11

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HYDRO Geologic

FIELD SAMPLING REPORT

LOCATION: NAS Fort Worth JRB, Texas

PROJECT: AFC001-151DA

SITE: AOC 4

SAMPLE INFORMATION

SAMPLE ID: SPOT35-SLWG07

DATE: 1-26-99 TIME: 09:50

MATRIX TYPE: WG

SAMPLING METHOD: Bladder pump

LOT CONTROL #: 0 0 1 A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #:

BEGINNING DEPTH: N/A

END DEPTH: N/A

GRAB (X) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR BLANKS/QC SAMPLES ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS): —

MATRIX SPIKE DUP (SD): —

FIELD DUP (FD): —

AMBIENT BLANK (AB): —

EQUIPMENT BLANK (EB): —

TRIP BLANK (TB): TB01269

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
1 L Poly	1	4°C		Alkalinity - Anions
1L Amber	1	4°C		TPH-DRO
40ml	3	HCl		Methane
250ml	1	H2SO4		TOC

NOTABLE OBSERVATIONS

PID READINGS		SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st	0	COLOR:	
2nd	0	ODOR:	
		OTHER:	

pH 6.28 Temperature 19.41 Dissolved Oxygen 6.51 Specific Conductivity 2.030

GENERAL INFORMATION

WEATHER: SUN/CLEAR ____ OVERCAST/RAIN X WIND DIRECTION S AMBIENT TEMPERATURE 60°F

SHIPMENT VIA: FED-X X HAND DELIVER ____ COURIER ____ OTHER ____

SHIPPED TO: RECRA Lab Net

COMMENTS: Fe^{2+} 2.98 @ 1:1 = 5.96 mg/L

SAMPLER: P. Darwwala OBSERVER: D. Jones

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BR=BRASS RING	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	CS=COMPOSITE SAMPLE	H=HOLLOW STEM AUGER
SH=HAZARDOUS SOLID WASTE	WS=SURFACE WATER	C=CONTINUOUS FLIGHT AUGER	HP=HYDRO PUNCH
SE=SEDIMENT	SW=SWAP/WIPE	DT=DRIVEN TUBE	SS=SPLIT SPOON
		W=SWAB/WIPE	BP=BLADDER PUMP

AFCEE FORM SR.11

HYDRO Geologic inc

FIELD SAMPLING REPORT

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LOCATION: NAS Ft Worth PROJECT: AFC 001 15 IDA

SITE:

SAMPLE INFORMATION

SAMPLE ID: TB012299 DATE: 1-22-99 TIME: 830

MATRIX TYPE: WG

SAMPLING METHOD: —

LOT CONTROL #: 001 A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #:

BEGINNING DEPTH:

END DEPTH:

GRAB (X) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS):

MATRIX SPIKE DUP (SD)

FIELD DUP (FD):

AMBIENT BLANK (AB):

EQUIPMENT BLANK (EB).

TRIP BLANK (TB):

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	EXTRACTION METHOD	ANALYTICAL METHOD	ANALYSIS
40 ml	2	HCl		RSK-175	Methane
	2	HCl		8260	VOCs

NOTABLE OBSERVATIONS

PID READINGS	SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st	COLOR:	
2nd	ODOR.	
	OTHER.	

pH _____ Temperature _____ Dissolved Oxygen _____ Specific Conductivity _____

GENERAL INFORMATION

WEATHER: SUN/CLEAR _____ OVERCAST/RAIN _____ WIND DIRECTION _____ AMBIENT TEMPERATURE _____

SHIPMENT VIA: FED-X X HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO: RECRA Lab Not

COMMENTS:

SAMPLER: PD OBSERVER:

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BR=BRASS RING	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	CS=COMPOSITE SAMPLE	H=HOLLOW STEM AUGER
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	C=CONTINUOUS FLIGHT AUGER	HP=HYDRO PUNCH
SE=SEDIMENT	SW=SWAP/WIPE	DT=DRIVEN TUBE	SS=SPLIT SPOON
		W=SWAB/WIPE	SP=SUBMERSIBLE PUMP

AFCEE FORM SR.11

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HYDRO Geologic Inc.

FIELD SAMPLING REPORT

LOCATION: NAS Fort Worth JRB

SITE: _____

PROJECT: January 99 - Quarterly GW Sampling AFC001-15IDA

SAMPLE INFORMATION

SAMPLE ID: TB012699

DATE: 01/26/99 TIME: 1500

MATRIX TYPE: WG

SAMPLING METHOD: NA

LOT CONTROL #: 0 0 1 A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: _____

BEGINNING DEPTH: NA

END DEPTH: NA

GRAB ( ) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS): —

MATRIX SPIKE DUP (SD) —

FIELD DUP (FD): —

AMBIENT BLANK (AB). —

EQUIPMENT BLANK (EB). —

TRIP BLANK (TB): —

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	EXTRACTION METHOD	ANALYTICAL METHOD	ANALYSIS
40ml VOA	2	Cool to 4°C / HCl pH<2	~~RSK-175~~	RSK-175	Methane
40ml VOA	2	Cool to 4°C / HCl pH<2		SW8020	BTEX + MTBE

NOTABLE OBSERVATIONS

PID READINGS	SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st NA	COLOR:	
2nd	ODOR.	
	OTHER.	

pH NA Temperature NA Dissolved Oxygen NA Specific Conductivity NA

GENERAL INFORMATION

WEATHER: SUN/CLEAR X OVERCAST/RAIN _____ WIND DIRECTION S AMBIENT TEMPERATURE 60°F

SHIPMENT VIA: FED-X X HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO RECRA Labnet / Chicago

COMMENTS _____

SAMPLER: BN OBSERVER: _____

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BR=BRASS RING	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	CS=COMPOSITE SAMPLE	H=HOLLOW STEM AUGER
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	C=CONTINUOUS FLIGHT AUGER	HP=HYDRO PUNCH
SE=SEDIMENT	SW=SWAP/WIPE	DT=DRIVEN TUBE	SS=SPLIT SPOON
		W=SWAB/WIPE	SP=SUBMERSIBLE PUMP

AFCEE FORM SR.11

HYDRO Geologic

FIELD SAMPLING REPORT

642 140

LOCATION: NAS Fort Worth JRB, Texas

PROJECT: AFC001-151DA

SITE: AOC 4

SAMPLE INFORMATION

SAMPLE ID: SPOT35-8WG07

DATE: 1-12-99 TIME: 1546

MATRIX TYPE: WG

SAMPLING METHOD: Bladder pump

LOT CONTROL #: 0 1 1 A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #:

BEGINNING DEPTH: N/A

END DEPTH: N/A

GRAB (X) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR BLANKS/QC SAMPLES ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS): SPOT35-8WG06 MS

MATRIX SPIKE DUP (SD): SPOT35-8WG06 MD

FIELD DUP (FD): —

AMBIENT BLANK (AB): —

EQUIPMENT BLANK (EB): EB011299

TRIP BLANK (TB): TB011299

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
40 ml	3	HCl	8020	BTEX + MTBE
40 ml	3	HCl	RSK-175	Methane
40 ml	3	HCl	8015M-GRO	TPH
1 L Amber	1	4°C	8015M-DRO	TPH
1 L Amber	1	4°C	8310	PAH
250 ml	1	H_2SO_4	9060	TOC

NOTABLE OBSERVATIONS

PID READINGS	SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st	COLOR:	
2nd	ODOR:	
	OTHER:	

pH 6.62 Temperature 23.49 Dissolved Oxygen 1.07 Specific Conductivity 0.081

GENERAL INFORMATION

WEATHER: SUN/CLEAR ____ OVERCAST/RAIN ____ WIND DIRECTION ____ AMBIENT TEMPERATURE ____

SHIPMENT VIA: FED-X X HAND DELIVER ____ COURIER ____ OTHER ____

SHIPPED TO: RECRA Lab Net

COMMENTS:

SAMPLER: NH, SW OBSERVER: PD

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BR=BRASS RING	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	CS=COMPOSITE SAMPLE	H=HOLLOW STEM AUGER
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	C=CONTINUOUS FLIGHT AUGER	HP=HYDRO PUNCH
SE=SEDIMENT	SW=SWAP/WIPE	DT=DRIVEN TUBE	SS=SPLIT SPOON
		W=SWAB/WIPE	BP=BLADDER PUMP

1 L Poly 4°C

AFCEE FORM SR.11 E310.1

Alkalinity/Anion

642 141

HYDRO GeoLogic

FIELD SAMPLING REPORT

LOCATION: NAS Fort Worth JRB, Texas

PROJECT: AFC001-15IDA

SITE: AOC 4

SAMPLE INFORMATION

SAMPLE ID: ~~GWG~~ SPOT35-8WG07MS DATE: 1-12-99 TIME: 1546

MATRIX TYPE: WG

SAMPLING METHOD: Bladder pump

LOT CONTROL #: 0 1 1 A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: _____

BEGINNING DEPTH: N/A

END DEPTH: N/A

GRAB (✓) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR BLANKS/QC SAMPLES ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS): _____

MATRIX SPIKE DUP (SD): SPOT35-8WG07MSD

FIELD DUP (FD): —

AMBIENT BLANK (AB): —

EQUIPMENT BLANK (EB): EBG11299

TRIP BLANK (TB): TBG11299

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
40 ml	3	HCl	8020	BTEX + MTBE
40 ml	3	HCl	RSK-175	Methane
40 ml	3	HCl	8015M-GRO	TPH
1 L Amber	1	4°C	8015M-DRO	TPH
1 L Amber	1	4°C	8310	PAH
250 ml	1	H_2SO_4	9060	TOC

NOTABLE OBSERVATIONS

PID READINGS	SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st	COLOR:	
2nd	ODOR:	
	OTHER:	

pH 6.62 Temperature 23.49 Dissolved Oxygen 1.07 Specific Conductivity 7.081

GENERAL INFORMATION

WEATHER: SUN/CLEAR _____ OVERCAST/RAIN _____ WIND DIRECTION N AMBIENT TEMPERATURE 70°F

SHIPMENT VIA: FED-X X HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO: RECRA Lab Net

COMMENTS: Parent Sample SPOT35-8WG07

SAMPLER: NH, SW OBSERVER: PD

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BR=BRASS RING	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	CS=COMPOSITE SAMPLE	H=HOLLOW STEM AUGER
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	C=CONTINUOUS FLIGHT AUGER	HP=HYDRO PUNCH
SE=SEDIMENT	SW=SWAP/WIPE	DT=DRIVEN TUBE	SS=SPLIT SPOON
		W=SWAB/WIPE	BP=BLADDER PUMP

1 L Poly 4°C

AFCEE FORM SR.11 E310.1

Alkalinity/Anion

HYDRO GEOLOGIC

FIELD SAMPLING REPORT

LOCATION: NAS Fort Worth JRB, Texas

PROJECT: AFC001-15IDA

SITE: AOC 4

SAMPLE INFORMATION

SAMPLE ID: 1-SPOT35-8WG07MD

DATE: 1-12-99 TIME: 1546

MATRIX TYPE: WG

SAMPLING METHOD: Bladder pump

LOT CONTROL #: 0 1 1 A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #:

BEGINNING DEPTH: N/A

END DEPTH: N/A

GRAB (X) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR BLANKS/QC SAMPLES ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS): SPOT35-8WG07MS

MATRIX SPIKE DUP (SD): —

FIELD DUP (FD): —

AMBIENT BLANK (AB): —

EQUIPMENT BLANK (EB): EB011299

TRIP BLANK (TB): TB011299

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
40 ml	3	HCl	8020	BTEX + MTBE
40 ml	3	HCl	RSK-175	Methane
40 ml	3	HCl	8015M-GRO	TPH
1 L Amber	1	4°C	8015M-DRO	TPH
1 L Amber	1	4°C	8310	PAH
250 ml	1	H_2SO_4	9060	TOC

NOTABLE OBSERVATIONS

PID READINGS	SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st	COLOR:	
2nd	ODOR:	
	OTHER:	

pH 6.62 Temperature 23.49 Dissolved Oxygen 1.07 Specific Conductivity 7081

GENERAL INFORMATION

WEATHER: SUN/CLEAR ____ OVERCAST/RAIN ____ WIND DIRECTION ____ AMBIENT TEMPERATURE ____

SHIPMENT VIA: FED-X X HAND DELIVER ____ COURIER ____ OTHER ____

SHIPPED TO: RECRA Lab Net

COMMENTS:

SAMPLER: NH, SW OBSERVER: PD

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BR=BRASS RING	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	CS=COMPOSITE SAMPLE	H=HOLLOW STEM AUGER
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	C=CONTINUOUS FLIGHT AUGER	HP=HYDRO PUNCH
SE=SEDIMENT	SW=SWAP/WIPE	DT=DRIVEN TUBE	SS=SPLIT SPOON
		W=SWAB/WIPE	BP=BLADDER PUMP

1 L Poly 4°C

AFCEE FORM SR.11 E310.1

Alkalinity/Anion

642 143

HYDRO GeoLogic

FIELD SAMPLING REPORT

LOCATION: NAS Fort Worth JRB, Texas

PROJECT: AFC001-15IDA

SITE: AOC 4

SAMPLE INFORMATION

SAMPLE ID: SPOT 35-9 WG07

DATE: 1-13-99 TIME: 1407

MATRIX TYPE: WG

SAMPLING METHOD: Bladder pump

LOT CONTROL #: 1 1 1 A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: _____

BEGINNING DEPTH: ____ N/A

END DEPTH: ____ N/A

GRAB (X) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR BLANKS/QC SAMPLES ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS): —

MATRIX SPIKE DUP (SD): —

FIELD DUP (FD): —

AMBIENT BLANK (AB): AB011399

EQUIPMENT BLANK (EB): EB011399

TRIP BLANK (TB): TB011399

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
40 ml	3	HCl	8020	BTEX + MTBE
40 ml	3	HCl	RSK-175	Methane
40 ml	3	HCl	8015M-GRO	TPH
1 L Amber	1	4°C	8015M-DRO	TPH
1 L Amber	1	4°C	8310	PAH
250 ml	1	H_2SO_4	9060	TOC

NOTABLE OBSERVATIONS

PID READINGS	SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st	COLOR:	
2nd	ODOR:	
	OTHER:	

pH 6.88 Temperature 18.35 Dissolved Oxygen 1.32 Specific Conductivity 1.8540

GENERAL INFORMATION

WEATHER: SUN/CLEAR ____ OVERCAST/RAIN ____ WIND DIRECTION N AMBIENT TEMPERATURE 35°F

SHIPMENT VIA: FED-X X HAND DELIVER ____ COURIER ____ OTHER ____

SHIPPED TO: RECRA Lab Net

COMMENTS: Fe^{2+} 0.59 mg/L

SAMPLER: NH OBSERVER: PD SW

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BR=BRASS RING	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	CS=COMPOSITE SAMPLE	H=HOLLOW STEM AUGER
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	C=CONTINUOUS FLIGHT AUGER	HP=HYDRO PUNCH
SE=SEDIMENT	SW=SWAP/WIPE	DT=DRIVEN TUBE	SS=SPLIT SPOON
		W=SWAB/WIPE	BP=BLADDER PUMP

1 L Poly 4°C

AFCEE FORM SR.11 E310.1

Alkalinity/Anion

HYDRO Geologic

FIELD SAMPLING REPORT

642 144

LOCATION: NAS Fort Worth JRB, Texas

PROJECT: AFC001-15IDA

SITE: AOC4

SAMPLE INFORMATION

SAMPLE ID: IWCHMHTA008

DATE: 1-18-99 TIME: 1046

MATRIX TYPE: WG

SAMPLING METHOD: Bladder pump

LOT CONTROL #: 0 1 1 A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: _____

BEGINNING DEPTH: ____ N/A

END DEPTH: ____ N/A

GRAB (X) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR BLANKS/QC SAMPLES ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS): —

MATRIX SPIKE DUP (SD): —

FIELD DUP (FD): DUP01

AMBIENT BLANK (AB): —

EQUIPMENT BLANK (EB): EB011899

TRIP BLANK (TB): TB011899

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
40 ml	3	HCl	8020	BTEX + MTBE
40 ml	3	HCl	RSK-175	Methane
40 ml	3	HCl	8015M-GRO	TPH
1 L Amber	1	4°C	8015M-DRO	TPH
1 L Amber	1	4°C	8310	PAH
250 ml	1	H_2SO_4	9060	TOC

NOTABLE OBSERVATIONS

PID READINGS	SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st 23.2	COLOR: Clear	
2nd 0	ODOR: none	
	OTHER:	

pH 6.62 Temperature 20.33 Dissolved Oxygen 2.91 Specific Conductivity 0.315

GENERAL INFORMATION

WEATHER: SUN/CLEAR X OVERCAST/RAIN ____ WIND DIRECTION N AMBIENT TEMPERATURE 45°F

SHIPMENT VIA: FED-X X HAND DELIVER ____ COURIER ____ OTHER ____

SHIPPED TO: RECRA LabNet

COMMENTS: Fe^{2+} 0.46 @ 5:1 = 2.76 mg/L

SAMPLER: NH OBSERVER: SW, PD

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BR=BRASS RING	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	CS=COMPOSITE SAMPLE	H=HOLLOW STEM AUGER
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	C=CONTINUOUS FLIGHT AUGER	HP=HYDRO PUNCH
SE=SEDIMENT	SW=SWAP/WIPE	DT=DRIVEN TUBE	SS=SPLIT SPOON
		W=SWAB/WIPE	BP=BLADDER PUMP

1 L Poly 4°C

AFCEE FORM SR.11 E310.1

Alkalinity/Anion

642 145

HYDRO GEOLOGIC

FIELD SAMPLING REPORT

LOCATION: NAS Fort Worth JRB, Texas

PROJECT: AFC001-151DA

SITE: AOC 4

SAMPLE INFORMATION

SAMPLE ID: D0P01

DATE: 1-18-99 TIME: 1200 (1046)

MATRIX TYPE: WG

SAMPLING METHOD: Bladder pump

LOT CONTROL #: 0 1 1 A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #:

BEGINNING DEPTH: N/A

END DEPTH: N/A

GRAB (X) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR BLANKS/QC SAMPLES ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS):

MATRIX SPIKE DUP (SD):

FIELD DUP (FD): WCHMMTA008

AMBIENT BLANK (AB): —

EQUIPMENT BLANK (EB): EB011899

TRIP BLANK (TB): TB011899

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
40 ml	3	HCl	8020	BTEX + MTBE
40 ml	3	HCl	RSK-175	Methane
40 ml	3	HCl	8015 M-GRO	TPH
1 L Amber	1	4°C	8015 M-DRO	TPH
1 L Amber	1	4°C	8310	PAH
250 ml	1	H_2SO_4	9060	TOC

NOTABLE OBSERVATIONS

PID READINGS	SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st	COLOR:	
2nd	ODOR:	
	OTHER:	

pH 6.62 Temperature 20.33 Dissolved Oxygen 2.91 Specific Conductivity 0.315

GENERAL INFORMATION

WEATHER: SUN/CLEAR X OVERCAST/RAIN ____ WIND DIRECTION N AMBIENT TEMPERATURE 45°F

SHIPMENT VIA: FED-X X HAND DELIVER ____ COURIER ____ OTHER ____

SHIPPED TO: RECRA Lab Net

COMMENTS:

SAMPLER: NH OBSERVER: PD, SW

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BR=BRASS RING	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	CS=COMPOSITE SAMPLE	H=HOLLOW STEM AUGER
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	C=CONTINUOUS FLIGHT AUGER	HP=HYDRO PUNCH
SE=SEDIMENT	SW=SWAP/WIPE	DT=DRIVEN TUBE	SS=SPLIT SPOON
		W=SWAB/WIPE	BP=BLADDER PUMP

1 L Poly 4°C

AFCEE FORM SR.11 E310.1

Alkalinity/Anion

HYDRO GeoLogic

FIELD SAMPLING REPORT

642 146

LOCATION: NAS Fort Worth JRB, Texas

PROJECT: AFC001-151DA

SITE: AOC 4

SAMPLE INFORMATION

SAMPLE ID: WCHMWTAC09WG07

DATE: 1-13-99 TIME: 1100

MATRIX TYPE: WG

SAMPLING METHOD: Bladder pump

LOT CONTROL #: 0 1 1 A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: _____

BEGINNING DEPTH: ____ N/A

END DEPTH: ____ N/A

GRAB (✓) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR BLANKS/QC SAMPLES ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS): -

MATRIX SPIKE DUP (SD): _____

FIELD DUP (FD): —

AMBIENT BLANK (AB): —

EQUIPMENT BLANK (EB): EB011399

TRIP BLANK (TB): TB011399

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
40 ml	3	HCl	8020	BTEX + MTBE
40 ml	3	HCl	RSK-175	Methane
40 ml	3	HCl	8015 M-GRO	TPH
1 L Amber	1	4°C	8015 M-DRO	TPH
1 L Amber	1	4°C	8310	PAH
250 ml	1	H_2SO_4	9060	TOC

NOTABLE OBSERVATIONS

PID READINGS		SAMPLE CHARACTERISTICS		MISCELLANEOUS
1st	11.3	COLOR:	none	
2nd	0	ODOR:	none	
		OTHER:		

pH 6.92 Temperature 17.42 Dissolved Oxygen 0.62 Specific Conductivity 1.495

GENERAL INFORMATION

WEATHER: SUN/CLEAR ____ OVERCAST/RAIN ____ WIND DIRECTION ____ AMBIENT TEMPERATURE ____

SHIPMENT VIA: FED-X X HAND DELIVER ____ COURIER ____ OTHER ____

SHIPPED TO: RECRA Lab Net

COMMENTS: Fe^{2+} 0.42 mg/L

SAMPLER: NH OBSERVER: PD

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BR=BRASS RING	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	CS=COMPOSITE SAMPLE	H=HOLLOW STEM AUGER
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	C=CONTINUOUS FLIGHT AUGER	HP=HYDRO PUNCH
SE=SEDIMENT	SW=SWAP/WIPE	DT=DRIVEN TUBE	SS=SPLIT SPOON
		W=SWAB/WIPE	BP=BLADDER PUMP

1 L Poly 4°C

AFCEE FORM SR.11 E310.1

Alkalinity/Anion

642 147

HYDRO Geologic

FIELD SAMPLING REPORT

LOCATION: NAS Fort Worth JRB, Texas

PROJECT: AFC001-151DA

SITE: AOC 4

SAMPLE INFORMATION

SAMPLE ID: WHGLTA010WG07

DATE: 1-18-99 TIME: 1620

MATRIX TYPE: WG

SAMPLING METHOD: Bladder pump

LOT CONTROL #: 0 1 1 A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: _____

BEGINNING DEPTH: N/A

END DEPTH: N/A

GRAB (X) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR BLANKS/QC SAMPLES ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS): —

MATRIX SPIKE DUP (SD): —

FIELD DUP (FD): —

AMBIENT BLANK (AB): —

EQUIPMENT BLANK (EB): EB011899

TRIP BLANK (TB): TB011899

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
40 ml	3	HCl	8020	BTEX + MTBE
40 ml	3	HCl	RSK-175	Methane
40 ml	3	HCl	8015 M-GRO	TPH
1 L Amber	1	4°C	8015 M-DRO	TPH
1 L Amber	1	4°C	8310	PAH
250 ml	1	H_2SO_4	9060	TOC

NOTABLE OBSERVATIONS

PID READINGS	SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st	COLOR:	
2nd	ODOR:	
	OTHER:	

pH 6.97 Temperature 20.56 Dissolved Oxygen 0.98 Specific Conductivity 0.158

GENERAL INFORMATION

WEATHER: SUN/CLEAR X OVERCAST/RAIN ____ WIND DIRECTION N AMBIENT TEMPERATURE 70F

SHIPMENT VIA: FED-X X HAND DELIVER ____ COURIER ____ OTHER ____

SHIPPED TO: RECRA Lab Net

COMMENTS: Fe^{2+} 4.30 mg/L

SAMPLER: WH OBSERVER: JW, PD

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BR=BRASS RING	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	CS=COMPOSITE SAMPLE	H=HOLLOW STEM AUGER
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	C=CONTINUOUS FLIGHT AUGER	HP=HYDRO PUNCH
SE=SEDIMENT	SW=SWAP/WIPE	DT=DRIVEN TUBE	SS=SPLIT SPOON
		W=SWAB/WIPE	BP=BLADDER PUMP

1 L Poly 4°C

AFCEE FORM SR.11 E310.1

Alkalinity/Anion

HYDRO GeoLogic

FIELD SAMPLING REPORT

612 148

LOCATION: NAS Fort Worth JRB, Texas

PROJECT: AFC001-15IDA

SITE: AOC 4

SAMPLE INFORMATION

SAMPLE ID: WHGLTA011WG-01

DATE: 1-18-99 TIME: 1432

MATRIX TYPE: WG

SAMPLING METHOD: Bladder pump

LOT CONTROL #: 0 1 1 A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #:

BEGINNING DEPTH: N/A

END DEPTH: N/A

GRAB (✓) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR BLANKS/QC SAMPLES ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS): —

MATRIX SPIKE DUP (SD): —

FIELD DUP (FD): —

AMBIENT BLANK (AB) —

EQUIPMENT BLANK (EB): EB011899

TRIP BLANK (TB): TB011899

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
40 ml	3	HCl	SW8020	BTEX + MTBE
40 ml	3	HCl	RSK-175	Methane
40 ml	3	HCl	8015-M	TPH-GRO
250 ml	1	H_2SO_4	9060	TOC
1L Amber	1	4°C	8310	PAH
1L Amber	1	4°C	8015M	TPH-DRO
1L Poly	1	4°C	E310.1	Alkalinity/Anions

NOTABLE OBSERVATIONS

PID READINGS		SAMPLE CHARACTERISTICS		MISCELLANEOUS
1st	0	COLOR:	clear	
2nd	0	ODOR:	none	
		OTHER:		

pH 6.98 Temperature 19.71 Dissolved Oxygen 1.76 Specific Conductivity 0.285

GENERAL INFORMATION

WEATHER: SUN/CLEAR X OVERCAST/RAIN ____ WIND DIRECTION N AMBIENT TEMPERATURE 65°F

SHIPMENT VIA: FED-X X HAND DELIVER ____ COURIER ____ OTHER ____

SHIPPED TO: RECRA LabNet

COMMENTS: Fe^{2+} 0.05 mg/L

SAMPLER: JW, NM OBSERVER: PD

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BR=BRASS RING	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	CS=COMPOSITE SAMPLE	H=HOLLOW STEM AUGER
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	C=CONTINUOUS FLIGHT AUGER	HP=HYDRO PUNCH
SE=SEDIMENT	SW=SWAP/WIPE	DT=DRIVEN TUBE	SS=SPLIT SPOON
		W=SWAB/WIPE	BP=BLADDER PUMP

AFCEE FORM SR.11

642 149

HYDRO GeoLogic

FIELD SAMPLING REPORT

LOCATION: NAS Fort Worth JRB, Texas

PROJECT: AFC001-151DA

SITE: AOC4

SAMPLE INFORMATION

SAMPLE ID: WHGLTA09WG07

DATE: 1-19-99 TIME: 1005

MATRIX TYPE: WG

SAMPLING METHOD: Bladder pump

LOT CONTROL #: 0 1 1 A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #:

BEGINNING DEPTH: N/A

END DEPTH: N/A

GRAB (X) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR BLANKS/QC SAMPLES ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS): —

MATRIX SPIKE DUP (SD): —

FIELD DUP (FD): —

AMBIENT BLANK (AB): —

EQUIPMENT BLANK (EB): EB

TRIP BLANK (TB): TB011999

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
40 ml	3	HCl	SW8020	BTEX + MTBE
40 ml	3	HCl	RSK-175	Methane
40 ml	3	HCl	8015M	TPH-GRO
1 L Amber	1	4°C	~~9060~~ 8015M	~~TOC~~ TPH-DRO
1 L Amber	1	4°C	8316	PAH
250 ml	1	H_2SO_4	9060 ~~8015M~~	~~TPH-DRO~~ TOC
1 L Poly	1	4°C	E310.1	Alkalinity + Anions

NOTABLE OBSERVATIONS

PID READINGS		SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st	1026	COLOR:	
2nd	0	ODOR:	
		OTHER:	

pH 6.65 Temperature 21.06 Dissolved Oxygen 1.97 Specific Conductivity 1849

GENERAL INFORMATION

WEATHER: SUN/CLEAR X OVERCAST/RAIN ____ WIND DIRECTION N AMBIENT TEMPERATURE 50F

SHIPMENT VIA: FED-X Y HAND DELIVER ____ COURIER ____ OTHER ____

SHIPPED TO: RECRA LabNet

COMMENTS: Fe^{2+} 1.93 @ 1:1 dilution = 3.86 mg/L

SAMPLER: WH OBSERVER: SCW

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BR=BRASS RING	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	CS=COMPOSITE SAMPLE	H=HOLLOW STEM AUGER
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	C=CONTINUOUS FLIGHT AUGER	HP=HYDRO PUNCH
SE=SEDIMENT	SW=SWAP/WIPE	DT=DRIVEN TUBE	SS=SPLIT SPOON
		W=SWAB/WIPE	BP=BLADDER PUMP

AFCEE FORM SR.11

HYDRO GeoLogic

FIELD SAMPLING REPORT

642 150

LOCATION: NAS Fort Worth JRB, Texas

PROJECT: AFC001-151DA

SITE: ASC 4

SAMPLE INFORMATION

SAMPLE ID: WHGLTA012

DATE: 1-19-99 TIME: 1405

MATRIX TYPE: WG

SAMPLING METHOD: Bladder pump

LOT CONTROL #: 0 1 1 A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: _____

BEGINNING DEPTH: ____ N/A

END DEPTH: ____ N/A

GRAB (✓) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR BLANKS/QC SAMPLES ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS): —

MATRIX SPIKE DUP (SD): —

FIELD DUP (FD): —

AMBIENT BLANK (AB) —

EQUIPMENT BLANK (EB): EB01998

TRIP BLANK (TB): TB01998

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
40 ml	3	HCl	SW 8020	BTEX + MTBE
40 ml	3	HCl	RSK-175	Methane
40 ml	3	HCl	8015M	TPH-GRO
1L Amber	1	4°C	8015M	TPH-DRO
1L Amber	1	4°C	8310	PAH
250 ml	1	H_2SO_4	9060	TOC
1L Poly	1	4°C	E310.1	

NOTABLE OBSERVATIONS

PID READINGS	SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st	COLOR:	
2nd	ODOR: Fuel	
	OTHER:	

pH 7.09 Temperature 25.18 Dissolved Oxygen 1.15 Specific Conductivity 2.318

GENERAL INFORMATION

WEATHER: SUN/CLEAR X OVERCAST/RAIN ____ WIND DIRECTION S AMBIENT TEMPERATURE 70°F

SHIPMENT VIA: FED-X ✓ HAND DELIVER ____ COURIER ____ OTHER ____

SHIPPED TO: RECEA Lab Net

COMMENTS: Fe^{2+} 2.59 mg/l @ 1:1 dilution 5.18 mg/l

SAMPLER: PD OBSERVER: DS

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BR=BRASS RING	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	CS=COMPOSITE SAMPLE	H=HOLLOW STEM AUGER
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	C=CONTINUOUS FLIGHT AUGER	HP=HYDRO PUNCH
SE=SEDIMENT	SW=SWAP/WIPE	DT=DRIVEN TUBE	SS=SPLIT SPOON
		W=SWAB/WIPE	BP=BLADDER PUMP

AFCEE FORM SR.11

642 151

HYDRO GeoLogic

FIELD SAMPLING REPORT

LOCATION: NAS Fort Worth JRB, Texas

PROJECT: AFC001-15IDA

SITE: AOC 4

SAMPLE INFORMATION

SAMPLE ID: WHGLTA014WG07

DATE: 1-19-99 TIME: 1540

MATRIX TYPE: WG

SAMPLING METHOD: Bladder pump

LOT CONTROL #: 0 1 1 A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: _____

BEGINNING DEPTH: ____ N/A _____

END DEPTH: ____ N/A _____

GRAB (X) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR BLANKS/QC SAMPLES ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS): —

MATRIX SPIKE DUP (SD): —

FIELD DUP (FD): —

AMBIENT BLANK (AB) —

EQUIPMENT BLANK (EB): EB011999

TRIP BLANK (TB): TB011999

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
40 ml	3	HCl	SW 8020	BTEX + MTBE
40 ml	3	HCl	RSK-175	Methane
40 ml	3	HCl	8015M	TPH-GRO
1 L Amber	1	4°C	8015M	TPH-DRO
1 L Amber	1	4°C	8310	PAH
250 ml	1	4°C + H_2SO_4	9060	TOC
1 L Poly	1	4°C	E310.1	Alkalinity + Anions

NOTABLE OBSERVATIONS

PID READINGS	SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st	COLOR:	
2nd	ODOR:	
	OTHER:	

pH 7.02 Temperature 25.13 Dissolved Oxygen 1.84 Specific Conductivity 2.450

GENERAL INFORMATION

WEATHER: SUN/CLEAR X OVERCAST/RAIN ____ WIND DIRECTION S AMBIENT TEMPERATURE 75°F

SHIPMENT VIA: FED-X X HAND DELIVER ____ COURIER ____ OTHER ____

SHIPPED TO: RECRA Lab Not

COMMENTS: Fe^{2+} ~~0.46~~ PD

SAMPLER: PD OBSERVER: D. Jones

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BR=BRASS RING	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	CS=COMPOSITE SAMPLE	H=HOLLOW STEM AUGER
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	C=CONTINUOUS FLIGHT AUGER	HP=HYDRO PUNCH
SE=SEDIMENT	SW=SWAP/WIPE	DT=DRIVEN TUBE	SS=SPLIT SPOON
		W=SWAB/WIPE	BP=BLADDER PUMP

AFCEE FORM SR.11

HYDRO Geologic

FIELD SAMPLING REPORT

642 152

LOCATION: NAS Fort Worth JRB, Texas

PROJECT: AFC001-151DA

SITE: AOC 4

SAMPLE INFORMATION

SAMPLE ID: EB011299

DATE: 1-12-99 TIME: 1800

MATRIX TYPE: WG

SAMPLING METHOD: Bladder pump

LOT CONTROL #: 0 1 1 A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: _____

BEGINNING DEPTH: ____ N/A

END DEPTH: ____ N/A

GRAB (\) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR BLANKS/QC SAMPLES ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS): _____

MATRIX SPIKE DUP (SD): _____

FIELD DUP (FD): _____

AMBIENT BLANK (AB): _____

EQUIPMENT BLANK (EB): _____

TRIP BLANK (TB): TB011299

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
40 ml	3	HCl	8020	BTEX + MTBE
40 ml	3	HCl	RSK-175	Methane
40 ml	3	HCl	8015M-GRO	TPH
1 L Amber	1	4°C	8015M-DRO	TPH
1 L Amber	1	4°C	8310	PAH
250 ml	1	H_2SO_4	9060	TOC

NOTABLE OBSERVATIONS

PID READINGS	SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st	COLOR:	
2nd	ODOR:	
	OTHER:	

pH _____ Temperature _____ Dissolved Oxygen _____ Specific Conductivity _____

GENERAL INFORMATION

WEATHER: SUN/CLEAR ____ OVERCAST/RAIN ____ WIND DIRECTION ____ AMBIENT TEMPERATURE ____

SHIPMENT VIA: FED-X X HAND DELIVER ____ COURIER ____ OTHER ____

SHIPPED TO: RECRA Lab Net

COMMENTS: _____

SAMPLER: NM OBSERVER: PD, TW

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BR=BRASS RING	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	CS=COMPOSITE SAMPLE	H=HOLLOW STEM AUGER
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	C=CONTINUOUS FLIGHT AUGER	HP=HYDRO PUNCH
SE=SEDIMENT	SW=SWAP/WIPE	DT=DRIVEN TUBE	SS=SPLIT SPOON
		W=SWAB/WIPE	BP=BLADDER PUMP

1 L Poly 4°C

AFCEE FORM SR.11 E310.1

Alkalinity/Anion

642 153

HYDRO Geologic

FIELD SAMPLING REPORT

LOCATION: NAS Fort Worth JRB, Texas

PROJECT: AFC001-151DA

SITE: AOC 4

SAMPLE INFORMATION

SAMPLE ID: EB011399

DATE: 1-13-99 TIME: 1636

MATRIX TYPE: WG

SAMPLING METHOD: Bladder pump

LOT CONTROL #: 0 1 1 A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #:

BEGINNING DEPTH: N/A

END DEPTH: N/A

GRAB (✓) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR BLANKS/QC SAMPLES ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS): —

MATRIX SPIKE DUP (SD): —

FIELD DUP (FD): —

AMBIENT BLANK (AB): —

EQUIPMENT BLANK (EB): —

TRIP BLANK (TB): TB011399

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
40 ml	3	HCl	8020	BTEX + MTBE
40 ml	3	HCl	RSK-175	Methane
40 ml	3	HCl	8015M-GRO	TPH
1 L Amber	1	4°C	8015 M-DRO	TPH
1 L Amber	1	4°C	8310	PAH
250 ml	1	H_2SO_4	9060	TOC

NOTABLE OBSERVATIONS

PID READINGS	SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st	COLOR:	
2nd	ODOR:	
	OTHER:	

pH _____ Temperature _____ Dissolved Oxygen _____ Specific Conductivity _____

GENERAL INFORMATION

WEATHER: SUN/CLEAR ____ OVERCAST/RAIN ____ WIND DIRECTION ____ AMBIENT TEMPERATURE ____

SHIPMENT VIA: FED-X X HAND DELIVER ____ COURIER ____ OTHER ____

SHIPPED TO: BECRA LabNet

COMMENTS:

SAMPLER: OBSERVER:

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BR=BRASS RING	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	CS=COMPOSITE SAMPLE	H=HOLLOW STEM AUGER
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	C=CONTINUOUS FLIGHT AUGER	HP=HYDRO PUNCH
SE=SEDIMENT	SW=SWAP/WIPE	DT=DRIVEN TUBE	SS=SPLIT SPOON
		W=SWAB/WIPE	BP=BLADDER PUMP

1 L Poly 4°C

AFCEE FORM SR.11 E310.1

Alkalinity/Anion

HYDRO GEOLOGIC

FIELD SAMPLING REPORT

642 154

LOCATION: NAS Fort Worth JRB, Texas

PROJECT: AFC001-151DA

SITE: AOC 4

SAMPLE INFORMATION

SAMPLE ID: EB011899

DATE: 1-18-99 TIME: 1800

MATRIX TYPE: WG

SAMPLING METHOD: Bladder pump

LOT CONTROL #: 0 1 1 A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: _____

BEGINNING DEPTH: ____ N/A

END DEPTH: ____ N/A

GRAB (X) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR BLANKS/QC SAMPLES ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS): —

MATRIX SPIKE DUP (SD): —

FIELD DUP (FD): —

AMBIENT BLANK (AB): —

EQUIPMENT BLANK (EB): —

TRIP BLANK (TB): TB011899

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
40 ml	3	HCl	8020	BTEX + MTBE
40 ml	3	HCl	RSK 175	Methane
40 ml	3	HCl	8015m	TPH - GRO
250 ml	1	H_2SO_4	9060	TOC
1 L Amber	1	4°C	8015m	TPH - DRO
1 L Amber	1	4°C	8310	PAH
1 L Poly	1	4°C	E310.1	Alkalinity Anions

NOTABLE OBSERVATIONS

PID READINGS	SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st	COLOR:	
2nd	ODOR:	
	OTHER:	

pH _____ Temperature _____ Dissolved Oxygen _____ Specific Conductivity _____

GENERAL INFORMATION

WEATHER: SUN/CLEAR ____ OVERCAST/RAIN ____ WIND DIRECTION ____ AMBIENT TEMPERATURE ____

SHIPMENT VIA: FED-X X HAND DELIVER ____ COURIER ____ OTHER ____

SHIPPED TO: RECRA

COMMENTS: _____

SAMPLER: NH OBSERVER: TW

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BR=BRASS RING	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	CS=COMPOSITE SAMPLE	H=HOLLOW STEM AUGER
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	C=CONTINUOUS FLIGHT AUGER	HP=HYDRO PUNCH
SE=SEDIMENT	SW=SWAP/WIPE	DT=DRIVEN TUBE	SS=SPLIT SPOON
		W=SWAB/WIPE	BP=BLADDER PUMP

AFCEE FORM SR.11

01/15/99 FRI 15:24 FAX 703 471 4180 HYDRO GEOLOGIC

642 155

HYDRO GeoLogic

FIELD SAMPLING REPORT

LOCATION: NAS Fort Worth JRB, Texas

PROJECT: AFC001-15IDA

SITE: AOC 4

SAMPLE INFORMATION

SAMPLE ID: EB011999

DATE: 1-19-99 TIME: 1130

MATRIX TYPE: WG

SAMPLING METHOD: Bladder pump

LOT CONTROL #: 0 1 1 A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: _____

BEGINNING DEPTH: ____ N/A

END DEPTH: ____ N/A

GRAB (✓) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR BLANKS/QC SAMPLES ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS): —

MATRIX SPIKE DUP (SD): —

FIELD DUP (FD): —

AMBIENT BLANK (AB): —

EQUIPMENT BLANK (EB): —

TRIP BLANK (TB): TB011999

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
40 ml	3	HCl	8620	BTEX + MTBE
40 ml	3	HCl	RSK 175	Methane
40 ml	3	HCl	8015M	TPH-GRO
250 ml	1	H_2SO_4	9066	TOC
1L Amber	1	4°C	8015M	TPH-DRO
1L Amber	1	4°C	8310	PAH
1L Poly	1	4°C	E310.1	Alkalinity + Anions

NOTABLE OBSERVATIONS

PID READINGS	SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st	COLOR:	
2nd	ODOR:	
	OTHER:	

pH _____ Temperature _____ Dissolved Oxygen _____ Specific Conductivity _____

GENERAL INFORMATION

WEATHER: SUN/CLEAR ____ OVERCAST/RAIN ____ WIND DIRECTION ____ AMBIENT TEMPERATURE ____

SHIPMENT VIA: FED-X X HAND DELIVER ____ COURIER ____ OTHER ____

SHIPPED TO: RECRA LabNet

COMMENTS: _____

SAMPLER: NH OBSERVER: PD

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BR=BRASS RING	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	CS=COMPOSITE SAMPLE	H=HOLLOW STEM AUGER
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	C=CONTINUOUS FLIGHT AUGER	HP=HYDRO PUNCH
SE=SEDIMENT	SW=SWAP/WIPE	DT=DRIVEN TUBE	SS=SPLIT SPOON
		W=SWAB/WIPE	BP=BLADDER PUMP

AFCEE FORM SR.11

HYDRO GeoLogic

FIELD SAMPLING REPORT

642 156

LOCATION: NAS Fort Worth JRB, Texas

PROJECT: AFC001-151DA

SITE: SPOT 35-9

SAMPLE INFORMATION

SAMPLE ID: AB011399

DATE: 1-13-99 TIME: 1407

MATRIX TYPE: WG

SAMPLING METHOD: Bladder pump

LOT CONTROL #: 1 1 1 A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: _____

BEGINNING DEPTH: ____ N/A

END DEPTH: ____ N/A

GRAB (X) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR BLANKS/QC SAMPLES ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS): —

MATRIX SPIKE DUP (SD): —

FIELD DUP (FD): —

AMBIENT BLANK (AB) —

EQUIPMENT BLANK (EB): EB011399

TRIP BLANK (TB): TB011399

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
40ml	2	HCl	8020	BTEX + MTBE

NOTABLE OBSERVATIONS

PID READINGS	SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st 0	COLOR:	
2nd	ODOR:	
	OTHER:	

pH _____ Temperature _____ Dissolved Oxygen _____ Specific Conductivity _____

GENERAL INFORMATION

WEATHER: SUN/CLEAR ____ OVERCAST/RAIN ____ WIND DIRECTION N AMBIENT TEMPERATURE 35°F

SHIPMENT VIA: FED-X X HAND DELIVER ____ COURIER ____ OTHER ____

SHIPPED TO: RECRA Labs

COMMENTS: _____

SAMPLER: NH OBSERVER: JW, RD

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BR=BRASS RING	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	CS=COMPOSITE SAMPLE	H=HOLLOW STEM AUGER
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	C=CONTINUOUS FLIGHT AUGER	HP=HYDRO PUNCH
SE=SEDIMENT	SW=SWAP/WIPE	DT=DRIVEN TUBE	SS=SPLIT SPOON
		W=SWAB/WIPE	BP=BLADDER PUMP

AFCEE FORM SR.11

HYDRO GeoLogic INC

FIELD SAMPLING REPORT

642 157

LOCATION NAS Fort Worth JRB, Texas
SITE: AOC 4

PROJECT. April 99- Quarterly GW Sampling
PROJECT NO. AFC001-15IEA

SAMPLE INFORMATION

SAMPLE ID SPOT35-5WG08

DATE: 4-22-99 TIME 1250

MATRIX TYPE: WG

SAMPLING METHOD: BP

LOT CONTROL #: C C 1 A
(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY # _____

BEGINNING DEPTH: N/A
END DEPTH N/A
GRAB (x) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS) —
MATRIX SPIKE DUP (SD) —
FIELD DUP (FD) —
AMBIENT BLANK (AB) —
EQUIPMENT BLANK (EB) —
TRIP BLANK (TB) TB042299

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
1 L Poly	1	Cool to 4C	E310 1/SW9056	Alkalinity/Anions
40 mL VOA	3	Cool to 4C/HCl pH<2	RSK-175	Methane
40 mL VOA	3	Cool to 4C/HCl to pH<2	SW8260B	VOCs
1L Amber	1	cool to 4c/none	SW8310	PAHs
250 mL Poly	1	Cool to 4C/H2SO4 pH<2	SW9060	TOC
1L Amber	2	Cool to 4C/none	TX1005	TPH

NOTABLE OBSERVATIONS

PID READINGS		SAMPLE CHARACTERISTICS		MISCELLANEOUS
1st	165 ppm	COLOR	[illegible]	
2nd	[illegible] ppm	ODOR	[illegible]	
		OTHER		

pH 0.40 Temperature 25.25 Dissolved Oxygen 1.52 Specific Conductivity 906

GENERAL INFORMATION

WEATHER SUN/CLEAR X OVERCAST/RAIN ____ WIND DIRECTION S AMBIENT TEMPERATURE 35°F

SHIPMENT VIA FEDEX x HAND DELIVER ____ COURIER ____ OTHER ____

SHIPPED TO ~~EA~~ ST Laboratories

COMMENTS Fe^{2+} = 0.34 mg/L @ 3:1 = 1.36 mg/L

SAMPLER. D. Dorvan[illegible] OBSERVER N Hodo

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMPLE	HP=HYDRO PUNCH
[illegible]=SEDIMENT	SW=SWAP/WIPE	C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

642 158

HYDRO GeoLogic INC

FIELD SAMPLING REPORT

LOCATION: NAS Fort Worth JRB, Texas

SITE. South Apron

PROJECT. April 99- Quarterly GW Sampling

PROJECT NO· AFC001-15IEA

SAMPLE INFORMATION

SAMPLE ID: SPOT35-8WG08

DATE 4-14-99 TIME· 1119

MATRIX TYPE: WG

SAMPLING METHOD· BP

LOT CONTROL #· 1 1 1 A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #. _____

BEGINNING DEPTH· N/A

END DEPTH· N/A

GRAB (x) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS) —

MATRIX SPIKE DUP (SD) —

FIELD DUP (FD). —

AMBIENT BLANK (AB) AB041499

EQUIPMENT BLANK (EB) EB041499

TRIP BLANK (TB) TB041499

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
1 L Poly	1	Cool to 4C	E310 1/SW9056	Alkalinity/Anions
40 mL VOA	3	Cool to 4C/HCl pH<2	RSK-175	Methane
40 mL VOA	3	Cool to 4C/HCl to pH<2	SW8020	BTEX + MTBE
1L Amber	1	cool to 4c/none	SW8310	PAHs
250 mL Poly	1	Cool to 4C/H2SO4 pH<2	SW9060	TOC
1L Amber	2	Cool to 4C/none	TX1005	TPH

NOTABLE OBSERVATIONS

PID READINGS		SAMPLE CHARACTERISTICS		MISCELLANEOUS
1st	150 ppm	COLOR	clear	
2nd	0 ppm BZ	ODOR	Civil	
		OTHER		

pH 7.42 Temperature 23.66 Dissolved Oxygen 1.00 Specific Conductivity 1079

GENERAL INFORMATION

WEATHER SUN/CLEAR X OVERCAST/RAIN _____ WIND DIRECTION NE AMBIENT TEMPERATURE 70°F

SHIPMENT VIA FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO ~~EA~~ STL Laboratories

COMMENTS Fe^{2+} = 5.35 mg/L

SAMPLER CW OBSERVER NH

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMPLE	HP=HYDRO PUNCH
SE=SEDIMENT	SW=SWAP/WIPE	C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

HYDRO GeoLogic INC

FIELD SAMPLING REPORT

642 159

LOCATION. NAS Fort Worth JRB, Texas

SITE: South Area

PROJECT: April 99- Quarterly GW Sampling

PROJECT NO: AFC001-15IEA

SAMPLE INFORMATION

SAMPLE ID: SPOT35-9WG08

DATE: 4-16-99 TIME. 1614

MATRIX TYPE: WG

SAMPLING METHOD: BP

LOT CONTROL #: 0 1 1 A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #. _____

BEGINNING DEPTH. N/A

END DEPTH: N/A

GRAB (x) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS) —

MATRIX SPIKE DUP (SD). —

FIELD DUP (FD) —

AMBIENT BLANK (AB) —

EQUIPMENT BLANK (EB) EB041699

TRIP BLANK (TB) TB041699

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
1 L Poly	1	Cool to 4C	E310 1/SW9056	Alkalinity/Anions
40 mL VOA	3	Cool to 4C/HCl pH<2	RSK-175	Methane
40 mL VOA	3	Cool to 4C/HCl to pH<2	SW8020	BTEX – MTBE
1L Amber	1	cool to 4c/none	SW8310	PAHs
250 mL Poly	1	Cool to 4C/H2SO4 pH<2	SW9060	TOC
1L Amber	2	Cool to 4C/none	TX1005	TPH

NOTABLE OBSERVATIONS

PID READINGS		SAMPLE CHARACTERISTICS		MISCELLANEOUS
1st	658 ppm	COLOR	clear	
2nd	0 ppm BZ	ODOR	slight fuel odor	
		OTHER	//	

pH 7.27 Temperature 23.39 Dissolved Oxygen 1.66 Specific Conductivity 619

GENERAL INFORMATION

WEATHER SUN/CLEAR few clouds OVERCAST/RAIN _____ WIND DIRECTION SE AMBIENT TEMPERATURE 60°F

SHIPMENT VIA FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO EA Laboratories

COMMENTS Fe2+ = 0.35 mg/L

SAMPLER CW OBSERVER MH

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
H=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMPLE	HP=HYDRO PUNCH
=SEDIMENT	SW=SWAP/WIPE	C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

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HYDRO GeoLogic INC

FIELD SAMPLING REPORT

LOCATION: NAS Fort Worth JRB, Texas

SITE: Alert Apron

PROJECT: April 99- Quarterly GW Sampling

PROJECT NO: AFC001-15IEA

SAMPLE INFORMATION

SAMPLE ID: WCHMHTA008WG08

DATE: 4-20-99 TIME: 1213

MATRIX TYPE: WG

SAMPLING METHOD: BP

LOT CONTROL #. 0 1 1 A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #. _____

BEGINNING DEPTH N/A

END DEPTH: N/A

GRAB (x) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS) —

MATRIX SPIKE DUP (SD) —

FIELD DUP (FD) DUP01WG08

AMBIENT BLANK (AB) —

EQUIPMENT BLANK (EB) EB042099

TRIP BLANK (TB) TB042099

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
1 L Poly	1	Cool to 4C	E310 1/SW9056	Alkalinity/Anions
40 mL VOA	3	Cool to 4C/HCl pH<2	RSK-175	Methane
40 mL VOA	3	Cool to 4C/HCl to pH<2	SW8020	BTEX + MTBE
1L Amber	1	cool to 4c/none	SW8310	PAHs
250 mL Poly	1	Cool to 4C/H2SO4 pH<2	SW9060	TOC
1L Amber	2	Cool to 4C/none	TX1005	TPH

NOTABLE OBSERVATIONS

PID READINGS	SAMPLE CHARACTERISTICS		MISCELLANEOUS
1st 12.9 ppm	COLOR	clear	
2nd 0 ppm BZ	ODOR	Low fuel odor	
	OTHER		

pH 7.34 Temperature 21.17 Dissolved Oxygen 0.89 Specific Conductivity 1686.0

GENERAL INFORMATION

WEATHER SUN/CLEAR X OVERCAST/RAIN _____ WIND DIRECTION E to NE AMBIENT TEMPERATURE 80°F

SHIPMENT VIA FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO ~~EA~~ Laboratories

COMMENTS Fe^{2+} = 4.14 mg/L

SAMPLER CW OBSERVER NH

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMPLE	HP=HYDRO PUNCH
SE=SEDIMENT	SW=SWAP/WIPE	C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

HYDRO GeoLogic INC

FIELD SAMPLING REPORT

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OCATION: NAS Fort Worth JRB, Texas

PROJECT April 99- Quarterly GW Sampling

SITE. West Apron

PROJECT NO: AFC001-15IEA

SAMPLE INFORMATION

SAMPLE ID: DUP01WG08

DATE: 4-20-99 TIME. 1213 aka 1331

MATRIX TYPE. WG

SAMPLING METHOD: BP

LOT CONTROL #: 0 1 1 A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: _____

BEGINNING DEPTH: N/A

END DEPTH. N/A

GRAB (x) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS) —

MATRIX SPIKE DUP (SD) —

FIELD DUP (FD) of WCHMHTA008WG08

AMBIENT BLANK (AB) _____

EQUIPMENT BLANK (EB) EB042099

TRIP BLANK (TB) TB042099

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
1 L Poly	1	Cool to 4C	E310 1/SW9056	Alkalinity/Anions
40 mL VOA	3	Cool to 4C/HCl pH<2	RSK-175	Methane
40 mL VOA	3	Cool to 4C/HCl to pH<2	SW8020	BTEX + MTBE
1L Amber	1	cool to 4c/none	SW8310	PAHs
250 mL Poly	1	Cool to 4C/H2SO4 pH<2	SW9060	TOC
1L Amber	1	Cool to 4C/none	TX1005	TPH

NOTABLE OBSERVATIONS

PID READINGS		SAMPLE CHARACTERISTICS		MISCELLANEOUS
1st	12.9 ppm	COLOR	Clear	
2nd	0 ppm BZ	ODOR	Low fuel odor	
		OTHER		

pH 7.34 Temperature 21.17 Dissolved Oxygen 0.89 Specific Conductivity 1686.0

GENERAL INFORMATION

WEATHER SUN/CLEAR X OVERCAST/RAIN _____ WIND DIRECTION E to NE AMBIENT TEMPERATURE 80°F

SHIPMENT VIA FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO ~~EA~~ SR Laboratories

COMMENTS Fe^{2+} = 4.14 mg/L

SAMPLER. CW OBSERVER NH

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
H=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMPLE	HP=HYDRO PUNCH
E=SEDIMENT	SW=SWAP/WIPE	C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

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HYDRO GeoLogic INC

FIELD SAMPLING REPORT

LOCATION: NAS Fort Worth JRB, Texas

PROJECT. April 99- Quarterly GW Sampling

SITE: North Apron

PROJECT NO: AFC001-15IEA

SAMPLE INFORMATION

SAMPLE ID WCHMHTA009WG08

DATE: 4-13-99 TIME: 1534

MATRIX TYPE: WG

SAMPLING METHOD. BP

LOT CONTROL # 0 1 1 A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: _____

BEGINNING DEPTH. N/A

END DEPTH. N/A

GRAB (x) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS) –

MATRIX SPIKE DUP (SD) –

FIELD DUP (FD) –

AMBIENT BLANK (AB) –

EQUIPMENT BLANK (EB) _____

TRIP BLANK (TB) TB041399

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
1 L Poly	1	Cool to 4C	E310 1/SW9056	Alkalinity/Anions
40 mL VOA	3	Cool to 4C/HCl pH<2	RSK-175	Methane
40 mL VOA	3	Cool to 4C/HCl to pH<2	SW8020	BTEX – MTBE
1L Amber	1	cool to 4c/none	SW8310	PAHs
250 mL Poly	1	Cool to 4C/H2SO4 pH<2	SW9060	TOC
1L Amber	2	Cool to 4C/none	TX1005	TPH

NOTABLE OBSERVATIONS

PID READINGS	SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st 94.6 ppm	COLOR clear	
2nd 0 ppm BZ	ODOR None	
	OTHER	

pH 7.14 Temperature 21.96 Dissolved Oxygen 1.03 Specific Conductivity 1014

GENERAL INFORMATION

WEATHER SUN/CLEAR _____ OVERCAST/RAIN X WIND DIRECTION E AMBIENT TEMPERATURE 70°F

SHIPMENT VIA FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO ~~EA~~ STL Laboratories

COMMENTS Fe^{2+} = 0.09 mg/L

SAMPLER [illegible] OBSERVER NH

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMPLE	HP=HYDRO PUNCH
SE=SEDIMENT	SW=SWAP/WIPE	C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

HYDRO GeoLogic INC

FIELD SAMPLING REPORT

LOCATION: NAS Fort Worth JRB, Texas
SITE SPCT-35

PROJECT: April 99- Quarterly GW Sampling
PROJECT NO: AFC001-15IEA

SAMPLE INFORMATION

SAMPLE ID: WHGLTA009WG08

DATE: 4-15-99 TIME: 1032

MATRIX TYPE: WG

SAMPLING METHOD: BP

LOT CONTROL #: C 1 1 17
(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #:

BEGINNING DEPTH: N/A

END DEPTH: N/A

GRAB (x) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS) –

MATRIX SPIKE DUP (SD). –

FIELD DUP (FD) –

AMBIENT BLANK (AB) –

EQUIPMENT BLANK (EB) EB041599

TRIP BLANK (TB) TB041599

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
1 L Poly	1	Cool to 4C	E310 1/SW9056	Alkalinity/Anions
40 mL VOA	3	Cool to 4C/HCl pH<2	RSK-175	Methane
40 mL VOA	3	Cool to 4C/HCl to pH<2	SW8020	BTEX + MTBE
1L Amber	1	cool to 4c/none	SW8310	PAHs
250 mL Poly	1	Cool to 4C/H2SO4 pH<2	SW9060	TOC
1L Amber	2	Cool to 4C/none	TX1005	TPH

NOTABLE OBSERVATIONS

PID READINGS		SAMPLE CHARACTERISTICS		MISCELLANEOUS
1st	0 ppm	COLOR	Clear	
2nd	0 ppm	ODOR	Slight fuel	
		OTHER		

pH 6.71 Temperature 17.15 Dissolved Oxygen _____ Specific Conductivity 834

GENERAL INFORMATION

WEATHER SUN/CLEAR Cloudy OVERCAST/RAIN _____ WIND DIRECTION S AMBIENT TEMPERATURE 55°F

SHIPMENT VIA FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO ~~EA~~ STL Laboratories

COMMENTS Fe^{2+} = 6.85 mg/L

SAMPLER CW OBSERVER NH

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMPLE	HP=HYDRO PUNCH
SE=SEDIMENT	SW=SWAP/WIPE	C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

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HYDRO GeoLogic INC

FIELD SAMPLING REPORT

LOCATION: NAS Fort Worth JRB, Texas

SITE: SPCT 35

PROJECT. April 99- Quarterly GW Sampling

PROJECT NO: AFC001-15IEA

SAMPLE INFORMATION

SAMPLE ID: WHGLTA010WG08

DATE: 4-15-99 TIME: 1516

MATRIX TYPE: WG

SAMPLING METHOD: BP

LOT CONTROL #. C 1 1 A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: _____

BEGINNING DEPTH: N/A

END DEPTH: N/A

GRAB (x) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS). —

MATRIX SPIKE DUP (SD) —

FIELD DUP (FD). —

AMBIENT BLANK (AB) —

EQUIPMENT BLANK (EB) EB041599

TRIP BLANK (TB) TB041599

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
1 L Poly	1	Cool to 4C	E310 1/SW9056	Alkalinity/Anions
40 mL VOA	3	Cool to 4C/HCl pH<2	RSK-175	Methane
40 mL VOA	3	Cool to 4C/HCl to pH<2	SW8020	BTEX + MTBE
1L Amber	1	cool to 4c/none	SW8310	PAHs
1L Amber	2	Cool to 4C/none	TX1005	TPH
250mL Poly	1	Cool to 4 / H_2SO_4	9060	TOC

NOTABLE OBSERVATIONS

PID READINGS		SAMPLE CHARACTERISTICS		MISCELLANEOUS
1st	0 ppm	COLOR	clear, colorless	
2nd	0 ppm Bz	ODOR	none	
		OTHER		

pH 6.91 Temperature 21.11 Dissolved Oxygen _____ Specific Conductivity 984

GENERAL INFORMATION

WEATHER SUN/CLEAR X OVERCAST/RAIN _____ WIND DIRECTION SW AMBIENT TEMPERATURE 65°F

SHIPMENT VIA FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO ~~EA~~ Laboratories

COMMENTS Fe^{++} = 6.26 mg/L

SAMPLER CW OBSERVER NH

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMPLE	HP=HYDRO PUNCH
SE=SEDIMENT	SW=SWAP/WIPE	C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

HYDRO GeoLogic INC

FIELD SAMPLING REPORT

LOCATION NAS Fort Worth JRB, Texas

PROJECT. April 99- Quarterly GW Sampling

SITE: Alert Apron

PROJECT NO: AFC001-15IEA

SAMPLE INFORMATION

SAMPLE ID: WHGLTA011WG08

DATE: 4-20-99 TIME. 1005

MATRIX TYPE: WG

SAMPLING METHOD: BP

LOT CONTROL #: 0 1 1 A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: _____

BEGINNING DEPTH: N/A

END DEPTH. N/A

GRAB (x) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS) —

MATRIX SPIKE DUP (SD) —

FIELD DUP (FD) —

AMBIENT BLANK (AB) —

EQUIPMENT BLANK (EB) EB042099

TRIP BLANK (TB) TB042099

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
1 L Poly	1	Cool to 4C	E310 1/SW9056	Alkalinity/Anions
40 mL VOA	3	Cool to 4C/HCl pH<2	RSK-175	Methane
40 mL VOA	3	Cool to 4C/HCl to pH<2	SW8020	BTEX + MTBE
1L Amber	1	cool to 4c/none	SW8310	PAHs
1L Amber	2	Cool to 4C/none	TX1005	TPH
250mL Poly	1	" / H_2SO_4	9060	TOC

NOTABLE OBSERVATIONS

PID READINGS		SAMPLE CHARACTERISTICS		MISCELLANEOUS
1st	0 ppm	COLOR	clear	
2nd	0 ppm	ODOR	none	
		OTHER		

pH 7.18 Temperature 19.87 Dissolved Oxygen 2.07 Specific Conductivity 1475.0

GENERAL INFORMATION

WEATHER SUN/CLEAR X OVERCAST/RAIN _____ WIND DIRECTION E to NE AMBIENT TEMPERATURE 70°F

SHIPMENT VIA FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO ~~EA~~ STL Laboratories

COMMENTS Fe^{2+} = 0.11 mg/L

SAMPLER. CW OBSERVER NH

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMPLE	HP=HYDRO PUNCH
SE=SEDIMENT	SW=SWAP/WIPE	C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

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HYDRO GeoLogic INC

FIELD SAMPLING REPORT

LOCATION: NAS Fort Worth JRB, Texas

SITE. South Apron

PROJECT: April 99- Quarterly GW Sampling

PROJECT NO· AFC001-15IEA

SAMPLE INFORMATION

SAMPLE ID: WHGLTA012WG08

DATE: 4-16-99 TIME. 1108

MATRIX TYPE: WG

SAMPLING METHOD: BP

LOT CONTROL #· 0 1 1 A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: _____

BEGINNING DEPTH: N/A

END DEPTH: N/A

GRAB (x) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS) –

MATRIX SPIKE DUP (SD) –

FIELD DUP (FD) –

AMBIENT BLANK (AB). –

EQUIPMENT BLANK (EB) EB041699

TRIP BLANK (TB) TB041699

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
1 L Poly	1	Cool to 4C	E310 1/SW9056	Alkalinity/Anions
40 mL VOA	3	Cool to 4C/HCl pH<2	RSK-175	Methane
40 mL VOA	3	Cool to 4C/HCl to pH<2	SW8020	BTEX + MTBE
1L Amber	1	cool to 4c/none	SW8310	PAHs
1L Amber	2	Cool to 4C/none	TX1005	TPH
250mL Poly	1	Cool to 4C H_2SO_4	9060	TOC

NOTABLE OBSERVATIONS

PID READINGS		SAMPLE CHARACTERISTICS		MISCELLANEOUS
1st	2000 ppm	COLOR	cloudy to clear	
2nd	0.0 ppm	ODOR	Fuel high	
		OTHER		

pH 7.59 Temperature 20.96 Dissolved Oxygen 0.61 Specific Conductivity 1109.0

GENERAL INFORMATION

WEATHER SUN/CLEAR cloudy OVERCAST/RAIN _____ WIND DIRECTION SW AMBIENT TEMPERATURE 50°F

SHIPMENT VIA FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO ~~EA~~ SR Laboratories

COMMENTS Fe^{2+} = 6.45 mg/L

SAMPLER CW OBSERVER NH

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMPLE	HP=HYDRO PUNCH
SE=SEDIMENT	SW=SWAP/WIPE	C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

HYDRO GeoLogic INC.

FIELD SAMPLING REPORT

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LOCATION: NAS Fort Worth JRB, Texas

SITE: South Apron

PROJECT: April 99- Quarterly GW Sampling

PROJECT NO. AFC001-15IEA

SAMPLE INFORMATION

SAMPLE ID: WHGLTA014WG08

DATE: 4-15-99 TIME: 1721

MATRIX TYPE: WG

SAMPLING METHOD: BP

LOT CONTROL #: C 1 1 17

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: _____

BEGINNING DEPTH: N/A

END DEPTH: N/A

GRAB (x) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS): —

MATRIX SPIKE DUP (SD) —

FIELD DUP (FD) —

AMBIENT BLANK (AB) —

EQUIPMENT BLANK (EB). EB041599

TRIP BLANK (TB) TB041599

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
1 L Poly	1	Cool to 4C	E310 1/SW9056	Alkalinity/Anions
40 mL VOA	3	Cool to 4C/HCl pH<2	RSK-175	Methane
40 mL VOA	3	Cool to 4C/HCl to pH<2	SW8020	BTEX + MTBE
1L Amber	1	cool to 4c/none	SW8310	PAHs
1L Amber	2	Cool to 4C/none	TX1005	TPH
250mL Poly	1	Cool 4C / H_2SO_4	9060	TOC

NOTABLE OBSERVATIONS

PID READINGS		SAMPLE CHARACTERISTICS		MISCELLANEOUS
1st	1899 ppm	COLOR	Clear	
2nd	0 ppm BZ	ODOR	none	
		OTHER		

pH 6.88 Temperature 22.48 Dissolved Oxygen _____ Specific Conductivity 1186

GENERAL INFORMATION

WEATHER SUN/CLEAR X OVERCAST/RAIN _____ WIND DIRECTION SE to S AMBIENT TEMPERATURE 70°F

SHIPMENT VIA FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO EA Laboratories

COMMENTS Fe^{2+} = 6.18 mg/L

SAMPLER CW OBSERVER NH

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMPLE	HP=HYDRO PUNCH
E=SEDIMENT	SW=SWAP/WIPE	C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

HYDRO GeoLogic INC

FIELD SAMPLING REPORT

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LOCATION: NAS Fort Worth JRB, Texas

PROJECT: AFC001-05-CDG

SITE: _____

SAMPLE INFORMATION

SAMPLE ID: ETB041399

DATE: 4-13-99 TIME: 1745

MATRIX TYPE: WG

SAMPLING METHOD: Bladder pump

LOT CONTROL #: 0 1 A A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: _____

BEGINNING DEPTH: N/A

END DEPTH: N/A

GRAB ( ) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR BLANKS/QC SAMPLES ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS): –

MATRIX SPIKE DUP (SD): –

FIELD DUP (FD): –

AMBIENT BLANK (AB): –

EQUIPMENT BLANK (EB): ETB041399

TRIP BLANK (TB): TB041399

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
1L Poly	1	Cool to 4°C	E310.1/SW9056	Alkalinity/Anions
40ml VOA	3	Cool to 4°C/HCl pH<2	RSK-175	Methane
40ml VOA	3	Cool to 4°C/HCl pH<2	SW8020	BTEX & MTBE
1L Amber	1	cool to 4°C	SW8310	PAHs
250ml Poly	1	Cool to 4°C/H_2SO_4 pH<2	SW9060	TOC
1L Amber	2	cool to 4°C	TX1005	TPH

NOTABLE OBSERVATIONS

PID READINGS	SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st	COLOR	
2nd	ODOR	
	OTHER.	

pH _____ Temperature _____ Dissolved Oxygen _____ Specific Conductivity _____

GENERAL INFORMATION

WEATHER SUN/CLEAR _____ OVERCAST/RAIN _____ WIND DIRECTION _____ AMBIENT TEMPERATURE _____

SHIPMENT VIA: FED-X X HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO: STL Laboratories

COMMENTS. _____

SAMPLER. N. Herde OBSERVER. L. Morgan

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BR=BRASS RING	HA=HAND AUGER
H=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	CS=COMPOSITE SAMPLE	H=HOLLOW STEM AUGER
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	C=CONTINUOUS FLIGHT AUGER	HP=HYDRO PUNCH
SE=SEDIMENT	SW=SWAP/WIPE	DT=DRIVEN TUBE	SS=SPLIT SPOON
		W=SWAB/WIPE	BP=BLADDER PUMP

AFCEE FORM SR.11

642 169

HYDRO Geologic

FIELD SAMPLING REPORT

LOCATION NAS Ft. Worth PROJECT: AFC 001 IS IEA

SITE:

SAMPLE INFORMATION

MATRIX WG SAMPLE ID: FB041499

SAMPLING METHOD Trip Blank ~~DUP/REP. OF~~: TB041499

BEGINNING DEPTH MATRIX SPIKE/MATRIX SPIKE DUPLICATE YES ( ) NO (X)

END DEPTH

GRAB (X) COMPOSITE ( ) DATE: 4-14-99 TIME: 1330

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	EXTRACTION METHOD	ANALYTICAL METHOD	ANALYSIS
1L Poly	1	Cool to 4°C		E310.1/SW9056	Alkalinity/Anions
40ml VOA	3	Cool to 4°C/HCl pH<2		RSK-175	Methane
40ml VOA	3	Cool to 4°C/HCl pH<2		SW8020	BTEX & MTBE
1L Amber	1	Cool to 4°C		SW8310	PAHs
250ml Poly	1	Cool to 4°C/H_2SO_4 pH<2		SW9060	TOC
1L Amber	2	Cool to 4°C		TX1005	TPH

NOTABLE OBSERVATIONS

PID READINGS	SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st	COLOR:	
2nd	ODOR:	
	OTHER:	

pH _____ Temperature _____ Dissolved oxygen _____ Specific Conductivity _____

GENERAL INFORMATION

WEATHER: SUN/CLEAR ____ OVERCAST/RAIN ____ WIND DIRECTION ____ AMBIENT TEMP ____

SHIPMENT VIA: FED-X ____ HAND DELIVER ____ COURIER ____ OTHER ____

SHIPPED TO: STL

COMMENTS:

SAMPLER: D. Hands OBSERVER: C. Williams

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BR=BRASS RING	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	CS=COMPOSITE SAMPLE	H=HOLLOW STEM AUGER
SH=HAZARDOUS SOLID WASTE	WS=SURFACE WATER	C=CONTINUOUS FLIGHT AUGER	HP=HYDRO PUNCH
SE=SEDIMENT	SW=SWAP\WIPE	DT=DRIVEN TUBE	SS=SPLIT SPOON
		W=SWAB\WIPE	SP=SUBMERSIBLE PUMP

HYDRO Geologic

FIELD SAMPLING REPORT

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LOCATION: NAS Ft. Worth PROJECT: AFC 001 15 IEA

SITE: _____

SAMPLE INFORMATION

MATRIX: WG SAMPLE ID: TB041599

SAMPLING METHOD: - ~~DUP/REP. OF~~ Equipment/Blank: EB041599

BEGINNING DEPTH: - MATRIX SPIKE/MATRIX SPIKE DUPLICATE YES ( ) NO (X)

END DEPTH: -

GRAB (X) COMPOSITE ( ) DATE: 4-15-99 TIME: 0730

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	EXTRACTION METHOD	ANALYTICAL METHOD	ANALYSIS
40ml VOA	2	Cool to 4°C, HCl pH<2		RSK-175	methane
40ml VOA	2	Cool to 4°C, HCl pH<2		SW8260B	VOCs

NOTABLE OBSERVATIONS

PID READINGS	SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st	COLOR:	
2nd	ODOR:	
	OTHER:	

pH _____ Temperature _____ Dissolved oxygen _____ Specific Conductivity _____

GENERAL INFORMATION

WEATHER: SUN/CLEAR ____ OVERCAST/RAIN ____ WIND DIRECTION ____ AMBIENT TEMP ____

SHIPMENT VIA: FED-X X HAND DELIVER ____ COURIER ____ OTHER ____

SHIPPED TO _____

COMMENTS: STL

SAMPLER: N. Hade OBSERVER: C. Williams

MATRIX TYPE CODES

DC=DRILL CUTTINGS
WG=GROUND WATER
LH=HAZARDOUS LIQUID WASTE
SH=HAZARDOUS SOLID WASTE
SE=SEDIMENT
SL=SLUDGE
SO=SOIL
GS=SOIL GAS
WS=SURFACE WATER
SW=SWAP\WIPE

SAMPLING METHOD CODES

B=BAILER
BR=BRASS RING
CS=COMPOSITE SAMPLE
C=CONTINUOUS FLIGHT AUGER
DT=DRIVEN TUBE
W=SWAB\WIPE
G=GRAB
HA=HAND AUGER
H=HOLLOW STEM AUGER
HP=HYDRO PUNCH
SS=SPLIT SPOON
SP=SUBMERSIBLE PUMP

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HYDRO GeoLogic

FIELD SAMPLING REPORT

LOCATION NAS Ft. Worth PROJECT AFC 001 IS IEA

SITE:

SAMPLE INFORMATION

MATRIX LQG SAMPLE ID: TB041699

SAMPLING METHOD — Ambient Blank ~~DUP/REP. OF~~: AB041699

Equipment Blank EB041699

BEGINNING DEPTH — MATRIX SPIKE/MATRIX SPIKE DUPLICATE YES ( ) NO ( )

END DEPTH —

GRAB (X) COMPOSITE ( ) DATE: 4-16-99 TIME 0730

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	EXTRACTION METHOD	ANALYTICAL METHOD	ANALYSIS
40ml VOA	2	Cool to 4°C, HCl pH<2		RSK-175	Methane
40ml VOA	2	Cool to 4°C, HCl pH<2		SW8260B	VOCs

NOTABLE OBSERVATIONS

PID READINGS	SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st	COLOR:	
2nd	ODOR:	
	OTHER:	

pH _____ Temperature _____ Dissolved oxygen _____ Specific Conductivity _____

GENERAL INFORMATION

WEATHER. SUN/CLEAR ____ OVERCAST/RAIN ____ WIND DIRECTION ____ AMBIENT TEMP ____

SHIPMENT VIA FED-X X HAND DELIVER ____ COURIER ____ OTHER ____

SHIPPED TO: STL

COMMENTS:

SAMPLER: D. Hade OBSERVER: C. Williams

MATRIX TYPE CODES

DC=DRILL CUTTINGS
WG=GROUND WATER
LH=HAZARDOUS LIQUID WASTE
SH=HAZARDOUS SOLID WASTE
SE=SEDIMENT
SL=SLUDGE
SO=SOIL
GS=SOIL GAS
WS=SURFACE WATER
SW=SWAB\WIPE

SAMPLING METHOD CODES

B=BAILER
BR=BRASS RING
CS=COMPOSITE SAMPLE
C=CONTINUOUS FLIGHT AUGER
DT=DRIVEN TUBE
W=SWAB\WIPE
G=GRAB
HA=HAND AUGER
H=HOLLOW STEM AUGER
HP=HYDRO PUNCH
SS=SPLIT SPOON
SP=SUBMERSIBLE PUMP

HYDRO GeoLogic

FIELD SAMPLING REPORT

642 172

LOCATION: NAS Ft. Worth PROJECT: AFC 001 IS IEA

SITE: WITCTA010

SAMPLE INFORMATION

MATRIX WG SAMPLE ID: AB041699

SAMPLING METHOD – Trip Blank ~~DUP/REP. OF~~: TB041699

Equipment Blank: EB041699

BEGINNING DEPTH – MATRIX SPIKE/MATRIX SPIKE DUPLICATE

YES ( ) NO (X)

END DEPTH –

GRAB (X) COMPOSITE ( ) DATE: 4-16-99 TIME: 1515

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	EXTRACTION METHOD	ANALYTICAL METHOD	ANALYSIS
40ml VOA	2	Cool to 4°C, HCl pH<2		RSK-175	Methane
40ml VOA	2	Cool to 4°C, HCl pH<2		SW8260B	VOCs

NOTABLE OBSERVATIONS

PID READINGS	SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st	COLOR:	
2nd	ODOR:	
	OTHER:	

pH _____ Temperature _____ Dissolved oxygen _____ Specific Conductivity _____

GENERAL INFORMATION

WEATHER: SUN/CLEAR ____ OVERCAST/RAIN ____ WIND DIRECTION ____ AMBIENT TEMP ____

SHIPMENT VIA: FED-X X HAND DELIVER ____ COURIER ____ OTHER ____

SHIPPED TO STL

COMMENTS:

SAMPLER: Walt E. Dambaugh OBSERVER: S. Stanford

MATRIX TYPE CODES

DC=DRILL CUTTINGS
WG=GROUND WATER
LH=HAZARDOUS LIQUID WASTE
SH=HAZARDOUS SOLID WASTE
SE=SEDIMENT
SL=SLUDGE
SO=SOIL
GS=SOIL GAS
WS=SURFACE WATER
SW=SWAB\WIPE

SAMPLING METHOD CODES

B=BAILER
BR=BRASS RING
CS=COMPOSITE SAMPLE
C=CONTINUOUS FLIGHT AUGER
DT=DRIVEN TUBE
W=SWAB\WIPE
G=GRAB
HA=HAND AUGER
H=HOLLOW STEM AUGER
HP=HYDRO PUNCH
SS=SPLIT SPOON
SP=SUBMERSIBLE PUMP

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HYDRO Geologic

FIELD SAMPLING REPORT

LOCATION: NAS Ft. Worth PROJECT: AFC 001 IS IEA

SITE: _____

SAMPLE INFORMATION

MATRIX: WG SAMPLE ID: EB042099

SAMPLING METHOD: _____ Trip Blank ~~DUP./REP. OF~~: TB042099

BEGINNING DEPTH: _____ MATRIX SPIKE/MATRIX SPIKE DUPLICATE YES ( ) NO (X)

END DEPTH: _____

GRAB (X) COMPOSITE ( ) DATE: 4-20-99 TIME: 1415

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	EXTRACTION METHOD	ANALYTICAL METHOD	ANALYSIS
1L Poly	1	Cool to 4°C		E310.1/SW9056	Alkalinity/Anions
40ml VOA	3	Cool to 4°C/HCl pH<2		RSK-175	Methane
40ml VOA	3	Cool to 4°C/HCl pH<2		SW8020	BTEX & MTBE
1L Amber	1	Cool to 4°C		SW8310	PAHs
250ml Poly	1	Cool to 4°C/H_2SO_4 pH<2		SW9060	TOC
1L Amber	2	Cool to 4°C		TX1005	TPH

NOTABLE OBSERVATIONS

PID READINGS	SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st	COLOR:	
2nd	ODOR:	
	OTHER:	

pH _____ Temperature _____ Dissolved oxygen _____ Specific Conductivity _____

GENERAL INFORMATION

WEATHER: SUN/CLEAR ____ OVERCAST/RAIN ____ WIND DIRECTION ____ AMBIENT TEMP ____

SHIPMENT VIA: FED-X ____ HAND DELIVER ____ COURIER ____ OTHER ____

SHIPPED TO STL

COMMENTS: _____

SAMPLER: D. Hale OBSERVER: C. Williams

MATRIX TYPE CODES	
DC=DRILL CUTTINGS	SL=SLUDGE
WG=GROUND WATER	SO=SOIL
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS
SH=HAZARDOUS SOLID WASTE	WS=SURFACE WATER
SE=SEDIMENT	SW=SWAB\WIPE

SAMPLING METHOD CODES	
B=BAILER	G=GRAB
BR=BRASS RING	HA=HAND AUGER
CS=COMPOSITE SAMPLE	H=HOLLOW STEM AUGER
C=CONTINUOUS FLIGHT AUGER	HP=HYDRO PUNCH
DT=DRIVEN TUBE	SS=SPLIT SPOON
W=SWAB\WIPE	SP=SUBMERSIBLE PUMP

HYDRO Geologic

FIELD SAMPLING REPORT

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LOCATION: NAS Ft. Worth PROJECT: AFC 001 IS IEA

SITE: _____

SAMPLE INFORMATION

MATRIX WG SAMPLE ID: TB042299

SAMPLING METHOD – ~~DUP/REP. OF~~ : _____

BEGINNING DEPTH – MATRIX SPIKE/MATRIX SPIKE DUPLICATE YES ( ) NO (X)

END DEPTH –

GRAB (X) COMPOSITE ( ) DATE: 4-22-99 TIME: 0730

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	EXTRACTION METHOD	ANALYTICAL METHOD	ANALYSIS
40ml VOA	2	Cool to 4°C, HCl pH<2		RSK-175	Methane
40ml VOA	2	Cool to 4°C, HCl pH<2		SW8260B	VOCs

NOTABLE OBSERVATIONS

PID READINGS	SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st	COLOR:	
2nd	ODOR:	
	OTHER:	

pH _____ Temperature _____ Dissolved oxygen _____ Specific Conductivity _____

GENERAL INFORMATION

WEATHER: SUN/CLEAR ____ OVERCAST/RAIN ____ WIND DIRECTION ____ AMBIENT TEMP ____

SHIPMENT VIA FED-X X HAND DELIVER ____ COURIER ____ OTHER ____

SHIPPED TO: SDL

COMMENTS: _____

SAMPLER: D. Hade OBSERVER: E. Dambaugh

MATRIX TYPE CODES

DC=DRILL CUTTINGS
WG=GROUND WATER
LH=HAZARDOUS LIQUID WASTE
SH=HAZARDOUS SOLID WASTE
SD=SEDIMENT
SL=SLUDGE
SO=SOIL
GS=SOIL GAS
WS=SURFACE WATER
SW=SWAB\WIPE

SAMPLING METHOD CODES

B=BAILER
BR=BRASS RING
CS=COMPOSITE SAMPLE
C=CONTINUOUS FLIGHT AUGER
DT=DRIVEN TUBE
W=SWAB\WIPE
G=GRAB
HA=HAND AUGER
H=HOLLOW STEM AUGER
HP=HYDRO PUNCH
SS=SPLIT SPOON
SP=SUBMERSIBLE PUMP

HYDRO GeoLogic INC

FIELD SAMPLING REPORT

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LOCATION: NAS Fort Worth

PROJECT: 1999 Quarterly Groundwater Sampling

SITE: AOC 4

PROJECT NO: AFC001-26 HAA

SAMPLE INFORMATION

SAMPLE ID: SPOT35-5WG09

DATE: 7-21-99 TIME: 901

MATRIX TYPE: WG

SAMPLING METHOD: BP

LOT CONTROL #: 0 0 1 A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #. _____

BEGINNING DEPTH. N/A

END DEPTH. N/A

GRAB (x) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS). -

MATRIX SPIKE DUP (SD) -

FIELD DUP (FD) -

AMBIENT BLANK (AB) -

EQUIPMENT BLANK (EB) -

TRIP BLANK (TB) TB072199

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
40 mL VOA	3	Cool to 4C/HCL to pH<2	8015 Modified	TPH
1 L Poly	1	Cool to 4C	E310 1/SW9056	Alkalinity/Anions
40 mL VOA	3	Cool to 4C/HCl pH<2	RSK-175	Methane
40 mL VOA	3	Cool to 4C/HCl to pH<2	SW8260B	VOCs
1L Amber	1	Cool to 4C	SW8310	PAHs
250 mL Poly	1	Cool to 4C/H2SO4 pH<2	SW9060	TOC

NOTABLE OBSERVATIONS

PID READINGS		SAMPLE CHARACTERISTICS		MISCELLANEOUS
1st	20.00 ppm	COLOR	clear	
2nd	0 ppm BZ	ODOR	med - fuel	
		OTHER		

pH 7.56 Temperature 24.30°C Dissolved Oxygen 0.15 mg/L Specific Conductivity 1002 µmhos/cm

GENERAL INFORMATION

WEATHER SUN/CLEAR _____ OVERCAST/RAIN X WIND DIRECTION N AMBIENT TEMPERATURE 80°F

SHIPMENT VIA FEDEX X HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO Severn Trent Laboratories--~~Chicago~~ MD

COMMENTS Fe^{+2} = 3.50 mg/L

SAMPLER S. Stanford OBSERVER N. Harder

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMPLE	HP=HYDRO PUNCH
SE=SEDIMENT	SW=SWAP/WIPE	C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

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HYDRO GeoLogic INC

FIELD SAMPLING REPORT

LOCATION: NAS Fort Worth
SITE: South Apron - AOC 4

PROJECT: 1999 Quarterly Groundwater Sampling
PROJECT NO: AFC001-26 HAA

SAMPLE INFORMATION

SAMPLE ID: SPOT35-8WG09

DATE: 7-16-99 TIME: 1139

MATRIX TYPE: WG

SAMPLING METHOD: BP

LOT CONTROL #: 0 1 1 A
(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: _____

BEGINNING DEPTH: N/A

END DEPTH: N/A

GRAB (x) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS) –

MATRIX SPIKE DUP (SD) –

FIELD DUP (FD) –

AMBIENT BLANK (AB) –

EQUIPMENT BLANK (EB) EB071699

TRIP BLANK (TB) TB071699

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
40 mL VOA	3	Cool to 4C/HCL to pH < 2	8015 Modified	TPH
1 L Poly	1	Cool to 4C	E310 1/SW9056	Alkalinity/Anions
40 mL VOA	3	Cool to 4C/HCl pH < 2	RSK-175	Methane
40 mL VOA	3	Cool to 4C/HCl to pH < 2	SW8260B	BTEX + MTBE
1L Amber	1	Cool to 4C	SW8310	PAHs
250 mL Poly	1	Cool to 4C/H2SO4 pH < 2	SW9060	TOC

NOTABLE OBSERVATIONS

PID READINGS	SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st 31 ppm	COLOR clear	
2nd 0 ppm BZ	ODOR none	
	OTHER	

pH 6.84 Temperature 26.50°C Dissolved Oxygen 4.92 mg/L Specific Conductivity 971 mg/L

GENERAL INFORMATION

WEATHER SUN/CLEAR X OVERCAST/RAIN ____ WIND DIRECTION NE AMBIENT TEMPERATURE 85°F

SHIPMENT VIA FEDEX X HAND DELIVER ____ COURIER ____ OTHER ____

SHIPPED TO Severn Trent Laboratories--~~Chicago~~ MD

COMMENTS Fe+2 = 5.76 mg/L

SAMPLER S Stanford OBSERVER N. Hade

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMPLE	HP=HYDRO PUNCH
SE=SEDIMENT	SW=SWAP/WIPE	C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

HYDRO GeoLogic INC

FIELD SAMPLING REPORT

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CATION NAS Fort Worth JRB, Texas PROJECT. AFC001-26 HAA

SITE: AOC 4

SAMPLE INFORMATION

SAMPLE ID: SPOT 35-8 WG04 DATE: 7-22-99 TIME: 1316

MATRIX TYPE: WG

SAMPLING METHOD: Bladder pump

LOT CONTROL #: 0 1 1 A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: _____

BEGINNING DEPTH: ____ N/A _____

END DEPTH: ____ N/A _____

GRAB (X) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR BLANKS/QC SAMPLES ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS) —

MATRIX SPIKE DUP (SD) —

FIELD DUP (FD). —

AMBIENT BLANK (AB): —

EQUIPMENT BLANK (EB) EB072299 ~~of AFC 001 05 FAA~~ PD

TRIP BLANK (TB). TB072299

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
40ml	3	HCl + 4°C	8260B	~~VOCs~~ PD BTEX + MTBE
40ml	3	4°C	8260B	~~VOCs~~ PD BTEX + MTBE

NOTABLE OBSERVATIONS

PID READINGS		SAMPLE CHARACTERISTICS		MISCELLANEOUS
1st	666	COLOR	Clear	
2nd	0	ODOR	fuel - like	
		OTHER		

pH 7.29 Temperature 27.17 Dissolved Oxygen 6.44 Specific Conductivity 1027

GENERAL INFORMATION

WEATHER. SUN/CLEAR X OVERCAST/RAIN ____ WIND DIRECTION S AMBIENT TEMPERATURE 95°F

SHIPMENT VIA. FED-X ____ HAND DELIVER ____ COURIER ____ OTHER ____

SHIPPED TO. STL _____

COMMENTS: _____

SAMPLER: P. Darnuda OBSERVER: S Stanford

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
"G=GROUND WATER	SO=SOIL	BR=BRASS RING	HA=HAND AUGER
.=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	CS=COMPOSITE SAMPLE	H=HOLLOW STEM AUGER
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	C=CONTINUOUS FLIGHT AUGER	HP=HYDRO PUNCH
SE=SEDIMENT	SW=SWAB/WIPE	DT=DRIVEN TUBE	SS=SPLIT SPOON
		W=SWAB/WIPE	BP=BLADDER PUMP

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HYDRO GeoLogic INC

FIELD SAMPLING REPORT

LOCATION. NAS Fort Worth

SITE: South Apron - AOC4

PROJECT. 1999 Quarterly Groundwater Sampling

PROJECT NO: AFC001-26 HAA

SAMPLE INFORMATION

SAMPLE ID: SPOT35-9WG09

DATE: 7-16-99 TIME. 938

MATRIX TYPE: WG

SAMPLING METHOD: BP

LOT CONTROL #. 0 1 1 A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: _____

BEGINNING DEPTH: N/A

END DEPTH N/A

GRAB (x) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS): -

MATRIX SPIKE DUP (SD) -

FIELD DUP (FD) -

AMBIENT BLANK (AB) -

EQUIPMENT BLANK (EB) EB071699

TRIP BLANK (TB) TB071699

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
40 mL VOA	3	Cool to 4C/HCL to pH < 2	8015 Modified	TPH
1 L Poly	1	Cool to 4C	E310 1/SW9056	Alkalinity/Anions
40 mL VOA	3	Cool to 4C/HCl pH < 2	RSK-175	Methane
40 mL VOA	3	Cool to 4C/HCl to pH < 2	SW8260B	BTEX + MTBE
1L Amber	1	Cool to 4C	SW8310	PAHs
250 mL Poly	1	Cool to 4C/H2SO4 pH < 2	SW9060	TOC

NOTABLE OBSERVATIONS

PID READINGS		SAMPLE CHARACTERISTICS		MISCELLANEOUS
1st	5.9 ppm	COLOR	clear	
2nd	0 ppm	ODOR	none	
		OTHER		

pH 6.59 Temperature 25.72 °C Dissolved Oxygen 2.89 mg/L Specific Conductivity 716 µmhos

GENERAL INFORMATION

WEATHER SUN/CLEAR X OVERCAST/RAIN _____ WIND DIRECTION NE AMBIENT TEMPERATURE 82°F

SHIPMENT VIA FEDEX X HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO Severn Trent Laboratories--~~Chicago~~ MD

COMMENTS Fe^{+2} = 0.39 mg/L

SAMPLER S Stanford OBSERVER: N. Hede

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMPLE	HP=HYDRO PUNCH
SE=SEDIMENT	SW=SWAP/WIPE	C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

HYDRO GeoLogic INC

FIELD SAMPLING REPORT

642 179

CATION: NAS Fort Worth JRB, Texas

PROJECT AFC001-26 HAA

SITE: AOC 4

SAMPLE INFORMATION

SAMPLE ID: SPOT 35-9WG07

DATE: 7-22-99 TIME: 1420

MATRIX TYPE: WG

SAMPLING METHOD: Bladder pump

LOT CONTROL #: 0 1 1 A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #:

BEGINNING DEPTH: N/A

END DEPTH: N/A

GRAB (X) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR BLANKS/QC SAMPLES ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS): —

MATRIX SPIKE DUP (SD) —

FIELD DUP (FD). —

AMBIENT BLANK (AB): —

EQUIPMENT BLANK (EB) EB072299 ~~AFC001-05~~ PD ~~FAA~~

TRIP BLANK (TB): TB072299

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
40 ml	3	HCl + 4°C	8260B	BTEX + MTBE
40 ml	3	4°C	8260B	BTEX + MTBE

NOTABLE OBSERVATIONS

PID READINGS		SAMPLE CHARACTERISTICS		MISCELLANEOUS
1st	4.0	COLOR	Clear	
2nd		ODOR	none	
		OTHER		

pH 7.34 Temperature 28.71 Dissolved Oxygen 0.47 Specific Conductivity 982

GENERAL INFORMATION

WEATHER SUN/CLEAR X OVERCAST/RAIN ____ WIND DIRECTION S AMBIENT TEMPERATURE 95°F

SHIPMENT VIA. FED-X X HAND DELIVER ____ COURIER ____ OTHER ____

SHIPPED TO: STL MO

COMMENTS:

SAMPLER. P Darnwala OBSERVER: S Stanford

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
GW=GROUND WATER	SO=SOIL	BR=BRASS RING	HA=HAND AUGER
=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	CS=COMPOSITE SAMPLE	H=HOLLOW STEM AUGER
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	C=CONTINUOUS FLIGHT AUGER	HP=HYDRO PUNCH
SE=SEDIMENT	SW=SWAP/WIPE	DT=DRIVEN TUBE	SS=SPLIT SPOON
		W=SWAB/WIPE	BP=BLADDER PUMP

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HYDRO GeoLogic INC

FIELD SAMPLING REPORT

LOCATION: NAS Fort Worth

SITE AOC4

PROJECT: 1999 Quarterly Groundwater Sampling

PROJECT NO: AFC001-26 HAA

SAMPLE INFORMATION

SAMPLE ID: WCHMHTA008WG09

DATE: 7-13-99 TIME: 1151

MATRIX TYPE: WG

SAMPLING METHOD: BP

LOT CONTROL #: 0 1 1 A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #:

BEGINNING DEPTH: N/A

END DEPTH: N/A

GRAB (x) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS): –

MATRIX SPIKE DUP (SD): –

FIELD DUP (FD): DUP04WG09

AMBIENT BLANK (AB): –

EQUIPMENT BLANK (EB): EB071399

TRIP BLANK (TB): TB071399

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
40 mL VOA	3	Cool to 4C/HCL to pH < 2	8015 Modified	TPH
1 L Poly	1	Cool to 4C	E310 1/SW9056	Alkalinity/Anions
40 mL VOA	3	Cool to 4C/HCl pH < 2	RSK-175	Methane
40 mL VOA	3	Cool to 4C/HCl to pH < 2	SW8260B	BTEX + MTBE
1L Amber	1	Cool to 4C	SW8310	PAHs
250 mL Poly	1	Cool to 4C/H2SO4 pH < 2	SW9060	TOC

NOTABLE OBSERVATIONS

PID READINGS	SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st 2000 ppm	COLOR clear	
2nd 0 ppm = BZ	ODOR fuel	
	OTHER	

pH 6.90 Temperature 22.24 Dissolved Oxygen 3.25 Specific Conductivity 1357

GENERAL INFORMATION

WEATHER SUN/CLEAR X OVERCAST/RAIN ____ WIND DIRECTION N AMBIENT TEMPERATURE 92°F

SHIPMENT VIA FEDEX X HAND DELIVER ____ COURIER ____ OTHER ____

SHIPPED TO Severn Trent Laboratories-~~Chicago~~ MD

COMMENTS: Fe^{+2} = 4.44 mg/L

SAMPLER S. Stanford OBSERVER: N. Hade

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMPLE	HP=HYDRO PUNCH
SE=SEDIMENT	SW=SWAP/WIPE	C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

HYDRO GeoLogic INC

FIELD SAMPLING REPORT

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LOCATION. NAS Fort Worth

PROJECT: 1999 Quarterly Groundwater Sampling

SITE: AOC 4

PROJECT NO: AFC001-26 HAA

SAMPLE INFORMATION

SAMPLE ID: DUP04WG09

DATE: 7-13-99 TIME: 1305

MATRIX TYPE: WG

SAMPLING METHOD: BP

LOT CONTROL #: 0 1 1 A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #. _____

BEGINNING DEPTH: N/A

END DEPTH: N/A

GRAB (x) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS). –

MATRIX SPIKE DUP (SD): –

FIELD DUP (FD) of WCHMHTA008WG09

AMBIENT BLANK (AB) –

EQUIPMENT BLANK (EB) EB071399

TRIP BLANK (TB) TB071399

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
40 mL VOA	3	Cool to 4C/HCL to pH<2	8015 Modified	TPH
1 L Poly	1	Cool to 4C	E310 1/SW9056	Alkalinity/Anions
40 mL VOA	3	Cool to 4C/HCl pH<2	RSK-175	Methane
40 mL VOA	3	Cool to 4C/HCl to pH<2	SW8260B	BTEX + MTBE
1L Amber	1	Cool to 4C	SW8310	PAHs
250 mL Poly	1	Cool to 4C/H2SO4 pH<2	SW9060	TOC

NOTABLE OBSERVATIONS

PID READINGS		SAMPLE CHARACTERISTICS		MISCELLANEOUS
1st	2000 ppm	COLOR	clear	
2nd	0 ppm	ODOR	Fuel line	
		OTHER		

pH 6.90 Temperature 22.24 Dissolved Oxygen 3.25 Specific Conductivity 1357

GENERAL INFORMATION

WEATHER SUN/CLEAR X OVERCAST/RAIN ____ WIND DIRECTION N AMBIENT TEMPERATURE 92°F

SHIPMENT VIA FEDEX X HAND DELIVER ____ COURIER ____ OTHER ____

SHIPPED TO. Severn Trent Laboratories--~~Chicago~~ MD

COMMENTS Fe^{+2} = 4.44 mg/L

SAMPLER: S. Stanford OBSERVER N. Hardie

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
TH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMPLE	HP=HYDRO PUNCH
SE=SEDIMENT	SW=SWAP/WIPE	C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

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HYDRO GeoLogic INC

FIELD SAMPLING REPORT

LOCATION. NAS Fort Worth | PROJECT 1999 Quarterly Groundwater Sampling

SITE: AOC4 - North Apron | PROJECT NO: AFC001-26 HAA

SAMPLE INFORMATION

SAMPLE ID: WCHMHTA009WG09 | DATE: 7-13-99 TIME: 1502

MATRIX TYPE: WG

SAMPLING METHOD: BP

LOT CONTROL #: 0 1 1 A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: _____

BEGINNING DEPTH N/A

END DEPTH: N/A

GRAB (x) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS): -

MATRIX SPIKE DUP (SD): -

FIELD DUP (FD) -

AMBIENT BLANK (AB): -

EQUIPMENT BLANK (EB) EB071399

TRIP BLANK (TB) TB071399

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
40 mL VOA	3	Cool to 4C/HCL to pH < 2	8015 Modified	TPH
1 L Poly	1	Cool to 4C	E310 1/SW9056	Alkalinity/Anions
40 mL VOA	3	Cool to 4C/HCl pH < 2	RSK-175	Methane
40 mL VOA	3	Cool to 4C/HCl to pH < 2	SW8260B	BTEX + MTBE
1L Amber	1	Cool to 4C	SW8310	PAHs
250 mL Poly	1	Cool to 4C/H2SO4 pH < 2	SW9060	TOC

NOTABLE OBSERVATIONS

PID READINGS	SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st 2000 ppm	COLOR Clear	
2nd 0 ppm BZ	ODOR none	
	OTHER	

pH 7.07 Temperature 30.23 Dissolved Oxygen 1.59 Specific Conductivity 626

GENERAL INFORMATION

WEATHER SUN/CLEAR Cloudy OVERCAST/RAIN _____ WIND DIRECTION NE AMBIENT TEMPERATURE 92°F

SHIPMENT VIA FEDEX X HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO Severn Trent Laboratories--~~Chicago~~ MD

COMMENTS Fe+2 = 0 mg/L

SAMPLER S. Shafford OBSERVER N Hade

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMPLE	HP=HYDRO PUNCH
SE=SEDIMENT	SW=SWAP/WIPE	C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

HYDRO GeoLogic INC

FIELD SAMPLING REPORT

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LOCATION: NAS Fort Worth

PROJECT: ~~TCE Plume Investigation~~ July Quarterly

SITE: AOC 4

PROJECT NO. AFC001-~~19 CCD~~26 HAA

SAMPLE INFORMATION

SAMPLE ID: WCHMHTA009WG09

DATE: 7/26/99 TIME: 1122

MATRIX TYPE: WG

SAMPLING METHOD: BP

LOT CONTROL #: 0 1 1 1

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: _____

BEGINNING DEPTH: N/A

END DEPTH: N/A

GRAB (x) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS) —

MATRIX SPIKE DUP (SD) —

FIELD DUP (FD) DUP08

AMBIENT BLANK (AB) —

EQUIPMENT BLANK (EB) EB072699

TRIP BLANK (TB) TB072699

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
40 mL VOA	3	Cool to 4C/HCl to pH<2	SW8260B	VOCs
40 ml VOA	3	4°C	SW8260B	VOCs

NOTABLE OBSERVATIONS

PID READINGS		SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st	0	COLOR Clear	
2nd	0	ODOR None	
		OTHER	

pH 7.07 Temperature 28.51°C Dissolved Oxygen 0.54 mg/L Specific Conductivity 816 ohms/cm

GENERAL INFORMATION

WEATHER SUN/CLEAR Y OVERCAST/RAIN _____ WIND DIRECTION N AMBIENT TEMPERATURE 100°F

SHIPMENT VIA FEDEX X HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO Severn Trent Laboratories--~~Chicago~~ MD

COMMENTS

SAMPLER Brad Nielsen OBSERVER

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMPLE	HP=HYDRO PUNCH
SE=SEDIMENT	SW=SWAP/WIPE	C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

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HYDRO GeoLogic INC

FIELD SAMPLING REPORT

LOCATION: NAS Fort Worth

SITE: AOC4

PROJECT: ~~TCE Plume Investigation~~ July Quarterly RN

PROJECT NO: AFC001-~~19 CCD~~ 26HAA BN

SAMPLE INFORMATION

SAMPLE ID. DUP08

DATE: 7/26/99 TIME: 1420 (1120)

MATRIX TYPE: WG

SAMPLING METHOD: BP

LOT CONTROL #: 0 1 1 1

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: _____

BEGINNING DEPTH: N/A

END DEPTH: N/A

GRAB (x) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS) —

MATRIX SPIKE DUP (SD) —

FIELD DUP (FD) ~~WHE~~ WCHMHCACC9

AMBIENT BLANK (AB) —

EQUIPMENT BLANK (EB) EB072699

TRIP BLANK (TB) TB072699

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
40 mL VOA	3	Cool to 4C/HCl to pH<2	SW8260B	VOCs
40 mL VOA	3	4°C	SW8260B	VOCs

NOTABLE OBSERVATIONS

PID READINGS		SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st	0	COLOR Clear	
2nd	0	ODOR None	
		OTHER	

pH 7.07 Temperature 28.51°C Dissolved Oxygen 0.54 mg/L Specific Conductivity 8/6 [illegible]

GENERAL INFORMATION

WEATHER SUN/CLEAR X OVERCAST/RAIN — WIND DIRECTION N AMBIENT TEMPERATURE 100°

SHIPMENT VIA FEDEX X HAND DELIVER ____ COURIER ____ OTHER ____

SHIPPED TO Severn Trent Laboratories--~~Chicago~~ MD

COMMENTS

SAMPLER Brad Kielsey OBSERVER J. Duffield

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMPLE	HP=HYDRO PUNCH
SE=SEDIMENT	SW=SWAP/WIPE	C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

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HYDRO GeoLogic INC

FIELD SAMPLING REPORT

LOCATION: NAS Fort Worth
PROJECT: 1999 Quarterly Groundwater Sampling
SITE: AOC 4 - South Apron
PROJECT NO: AFC001-26 HAA

SAMPLE INFORMATION

SAMPLE ID: WHGLTA009WG09
DATE: 7-14-99 TIME: 1008
MATRIX TYPE: WG
SAMPLING METHOD: BP
LOT CONTROL #: 0 1 1 A
(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)
CHAIN-OF-CUSTODY #: _____
BEGINNING DEPTH. N/A
END DEPTH: N/A
GRAB (x) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:
MATRIX SPIKE (MS): –
MATRIX SPIKE DUP (SD). –
FIELD DUP (FD). –
AMBIENT BLANK (AB) –
EQUIPMENT BLANK (EB) EB071499
TRIP BLANK (TB) TB071499

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
40 mL VOA	3	Cool to 4C/HCL to pH < 2	8015 Modified	TPH
1 L Poly	1	Cool to 4C	E310 1/SW9056	Alkalinity/Anions
40 mL VOA	3	Cool to 4C/HCl pH < 2	RSK-175	Methane
40 mL VOA	3	Cool to 4C/HCl to pH < 2	SW8260B	~~BTEX + MTBE~~ VOC
1L Amber	1	Cool to 4C	SW8310	PAHs
250 mL Poly	1	Cool to 4C/H2SO4 pH < 2	SW9060	TOC

NOTABLE OBSERVATIONS

PID READINGS	SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st 166ppm	COLOR clear	
2nd 0ppm BZ	ODOR full line	
	OTHER	

pH 7.11 Temperature 22.44 Dissolved Oxygen 2.23 Specific Conductivity 531

GENERAL INFORMATION

WEATHER SUN/CLEAR X OVERCAST/RAIN ____ WIND DIRECTION E AMBIENT TEMPERATURE 86°F
SHIPMENT VIA FEDEX X HAND DELIVER ____ COURIER ____ OTHER ____
SHIPPED TO. Severn Trent Laboratories--~~Chicago~~ MD
COMMENTS Fe^{+2} = 7.08 mg/L
SAMPLER S. Stafford OBSERVER N. Hender

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
H=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMPLE	HP=HYDRO PUNCH
SE=SEDIMENT	SW=SWAP/WIPE	C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

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HYDRO GeoLogic INC

FIELD SAMPLING REPORT

LOCATION. NAS Fort Worth

SITE: (South Apron) Fo 24

PROJECT: 1999 Quarterly Groundwater Sampling

PROJECT NO: AFC001-26 HAA

SAMPLE INFORMATION

SAMPLE ID: WHGLTA010WG09

DATE: 7-14-99 TIME: 1448

MATRIX TYPE: WG

SAMPLING METHOD: BP

LOT CONTROL #: 0 1 1 A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: _____

BEGINNING DEPTH: N/A

END DEPTH: N/A

GRAB (x) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS) –

MATRIX SPIKE DUP (SD): –

FIELD DUP (FD): –

AMBIENT BLANK (AB): –

EQUIPMENT BLANK (EB) EB071499

TRIP BLANK (TB) TB071499

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
40 mL VOA	3	Cool to 4C/HCL to pH < 2	8015 Modified	TPH
1 L Poly	1	Cool to 4C	E310 1/SW9056	Alkalinity/Anions
40 mL VOA	3	Cool to 4C/HCl pH < 2	RSK-175	Methane
40 mL VOA	3	Cool to 4C/HCl to pH < 2	SW8260B	BTEX + MTBE
1L Amber	1	Cool to 4C	SW8310	PAHs
250 mL Poly	1	Cool to 4C/H2SO4 pH < 2	SW9060	TOC

NOTABLE OBSERVATIONS

PID READINGS	SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st 0 ppm	COLOR clear	
2nd 0 ppm BZ	ODOR none	
	OTHER	

pH 7.42 Temperature 22.98 Dissolved Oxygen 184 Specific Conductivity 604

GENERAL INFORMATION

WEATHER SUN/CLEAR X OVERCAST/RAIN ____ WIND DIRECTION NE AMBIENT TEMPERATURE 90°F

SHIPMENT VIA FEDEX X HAND DELIVER ____ COURIER ____ OTHER ____

SHIPPED TO Severn Trent Laboratories--~~Chicago~~ MD

COMMENTS Fe^{+2} = 585 mg/L

SAMPLER S Stanford OBSERVER D. Hade

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMPLE	HP=HYDRO PUNCH
SE=SEDIMENT	SW=SWAP/WIPE	C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

HYDRO GeoLogic INC

FIELD SAMPLING REPORT

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LOCATION: NAS Fort Worth
SITE: AOC 4

PROJECT: 1999 Quarterly Groundwater Sampling
PROJECT NO: AFC001-26 HAA

SAMPLE INFORMATION

SAMPLE ID. WHGLTA011WG09
DATE. 7-13-99 TIME: 918

MATRIX TYPE: WG
SAMPLING METHOD: BP
LOT CONTROL #: 1 1 1 A
(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)
CHAIN-OF-CUSTODY #:

BEGINNING DEPTH: N/A
END DEPTH: N/A
GRAB (x) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS) WHGLTA011WG09MS
MATRIX SPIKE DUP (SD) WHGLTA011WG09MD
FIELD DUP (FD) ~~FD~~ –
AMBIENT BLANK (AB) AB071399
EQUIPMENT BLANK (EB) EB071399
TRIP BLANK (TB) TB071399

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
40 mL VOA	3	Cool to 4C/HCL to pH < 2	8015 Modified	TPH
1 L Poly	1	Cool to 4C	E310 1/SW9056	Alkalinity/Anions
40 mL VOA	3	Cool to 4C/HCl pH < 2	RSK-175	Methane
40 mL VOA	3	Cool to 4C/HCl to pH < 2	SW8260B	BTEX + MTBE
1L Amber	1	Cool to 4C	SW8310	PAHs
250 mL Poly	1	Cool to 4C/H2SO4 pH < 2	SW9060	TOC

NOTABLE OBSERVATIONS

PID READINGS		SAMPLE CHARACTERISTICS		MISCELLANEOUS
1st	7.5 ppm	COLOR	clear	
2nd	0 ppm	ODOR	none	
		OTHER		

pH 6.83 Temperature 22.94 Dissolved Oxygen 2.83 Specific Conductivity 1205

GENERAL INFORMATION

WEATHER SUN/CLEAR X OVERCAST/RAIN ____ WIND DIRECTION N AMBIENT TEMPERATURE 85°F

SHIPMENT VIA FEDEX X HAND DELIVER ____ COURIER ____ OTHER ____

SHIPPED TO Severn Trent Laboratories--~~Chicago~~ MO

COMMENTS Fe^{+2} = 0.03 mg/L

SAMPLER N. Herde OBSERVER S. Stafford

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
H=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMPLE	HP=HYDRO PUNCH
SE=SEDIMENT	SW=SWAP/WIPE	C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

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HYDRO GeoLogic INC

FIELD SAMPLING REPORT

LOCATION: NAS Fort Worth

SITE: AOC 4

PROJECT: 1999 Quarterly Groundwater Sampling

PROJECT NO. AFC001-26 HAA

SAMPLE INFORMATION

SAMPLE ID: WHGLTA011WG09MS

DATE: 7-13-99 TIME: 918

MATRIX TYPE: WG

SAMPLING METHOD: BP

LOT CONTROL #: 1 1 1 A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: _____

BEGINNING DEPTH N/A

END DEPTH: N/A

GRAB (x) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS) WHGLTA011WG09

MATRIX SPIKE DUP (SD). WHGLTA011WG09MD

FIELD DUP (FD). –

AMBIENT BLANK (AB) AB071399

EQUIPMENT BLANK (EB) EB071399

TRIP BLANK (TB) TB071399

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
40 mL VOA	3	Cool to 4C/HCL to pH < 2	8015 Modified	TPH
1 L Poly	1	Cool to 4C	E310 1/SW9056	Alkalinity/Anions
40 mL VOA	3	Cool to 4C/HCl pH < 2	RSK-175	Methane
40 mL VOA	3	Cool to 4C/HCl to pH < 2	SW8260B	BTEX + MTBE
1L Amber	1	Cool to 4C	SW8310	PAHs
250 mL Poly	1	Cool to 4C/H2SO4 pH < 2	SW9060	TOC

NOTABLE OBSERVATIONS

PID READINGS		SAMPLE CHARACTERISTICS		MISCELLANEOUS
1st	7.5 ppm	COLOR	clear	
2nd	0 ppm	ODOR	none	
		OTHER		

pH 6.83 Temperature 22.94 Dissolved Oxygen 2.83 Specific Conductivity 1205

GENERAL INFORMATION

WEATHER SUN/CLEAR X OVERCAST/RAIN _____ WIND DIRECTION N AMBIENT TEMPERATURE 85°

SHIPMENT VIA FEDEX X HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO Severn Trent Laboratories--~~Chicago~~ MD

COMMENTS Fe^{+2} = 0.03 mg/L

SAMPLER N. Hinde OBSERVER S Stafford

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMPLE	HP=HYDRO PUNCH
SE=SEDIMENT	SW=SWAP/WIPE	C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

HYDRO GeoLogic INC

FIELD SAMPLING REPORT

642 189

LOCATION: NAS Fort Worth
PROJECT: 1999 Quarterly Groundwater Sampling
SITE: AOC4
PROJECT NO: AFC001-26 HAA

SAMPLE INFORMATION

SAMPLE ID: WHGLTA011WG09MD
DATE: 7-13-99 TIME: 918

MATRIX TYPE: WG
SAMPLING METHOD: BP
LOT CONTROL #: 1 1 1 A
(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)
CHAIN-OF-CUSTODY #:

BEGINNING DEPTH: N/A
END DEPTH: N/A
GRAB (x) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS) WHGLTA011WG09MS
MATRIX SPIKE DUP (MSD):
FIELD DUP (FD) —
AMBIENT BLANK (AB) AB071399
EQUIPMENT BLANK (EB) EB071399
TRIP BLANK (TB) TB071399

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
40 mL VOA	3	Cool to 4C/HCL to pH < 2	8015 Modified	TPH
1 L Poly	1	Cool to 4C	E310 1/SW9056	Alkalinity/Anions
40 mL VOA	3	Cool to 4C/HCl pH < 2	RSK-175	Methane
40 mL VOA	3	Cool to 4C/HCl to pH < 2	SW8260B	BTEX + MTBE
1L Amber	1	Cool to 4C	SW8310	PAHs
250 mL Poly	1	Cool to 4C/H2SO4 pH < 2	SW9060	TOC

NOTABLE OBSERVATIONS

PID READINGS		SAMPLE CHARACTERISTICS		MISCELLANEOUS
1st	7.5 ppm	COLOR	clear	
2nd	0 ppm	ODOR	none	
		OTHER		

pH 6.83 Temperature 22.94 Dissolved Oxygen 2.83 Specific Conductivity 1205

GENERAL INFORMATION

WEATHER SUN/CLEAR X OVERCAST/RAIN ____ WIND DIRECTION N AMBIENT TEMPERATURE 88°F

SHIPMENT VIA FEDEX X HAND DELIVER ____ COURIER ____ OTHER ____

SHIPPED TO Severn Trent Laboratories--~~Chicago~~ MD

COMMENTS Fe^{+2} = 0.03 mg/L

SAMPLER N. Hendr OBSERVER S. Stanford

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMPLE	HP=HYDRO PUNCH
SD=SEDIMENT	SW=SWAP/WIPE	C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

642 190

HYDRO GeoLogic INC

FIELD SAMPLING REPORT

LOCATION: NAS Fort Worth
SITE: AOC 4

PROJECT: ~~TCE Plume Investigation~~ Sully Quarterly
PROJECT NO: AFC001 ~~19 CCD2~~ 6 N/AA (BN)

SAMPLE INFORMATION

SAMPLE ID: WHGLTA011WG09
DATE: 7/26/99 TIME: 0915

MATRIX TYPE: WG
SAMPLING METHOD: BP
LOT CONTROL #: 0 1 1 ~~0~~ 1
(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)
CHAIN-OF-CUSTODY #:

BEGINNING DEPTH: N/A
END DEPTH: N/A
GRAB (x) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS) WHGLTA011WG09MS
MATRIX SPIKE DUP (SD) WHGLTA011WG09MD
FIELD DUP (FD) —
AMBIENT BLANK (AB) —
EQUIPMENT BLANK (EB) EB072699
TRIP BLANK (TB) TB072699

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
40 mL VOA	3	Cool to 4C/HCl to pH<2	SW8260B	VOCs
40 mL Vial	3	4°C	SW8260B	VOCs

NOTABLE OBSERVATIONS

PID READINGS		SAMPLE CHARACTERISTICS		MISCELLANEOUS
1st	0	COLOR	clear	
2nd	0	ODOR	none	
		OTHER		

pH 6.78 Temperature 23.95°C Dissolved Oxygen 2.36 mg/L Specific Conductivity 1652 umhos/cm

GENERAL INFORMATION

WEATHER SUN/CLEAR X OVERCAST/RAIN ____ WIND DIRECTION N AMBIENT TEMPERATURE 100

SHIPMENT VIA FEDEX X HAND DELIVER ____ COURIER ____ OTHER ____

SHIPPED TO Severn Trent Laboratories--~~Chicago~~ IND

COMMENTS

SAMPLER Brad Nielsen OBSERVER J Duffield

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMPLE	HP=HYDRO PUNCH
SE=SEDIMENT	SW=SWAP/WIPE	C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

HYDRO GeoLogic INC

FIELD SAMPLING REPORT

642 191

LOCATION: NAS Fort Worth

SITE: FCC 4

PROJECT: ~~TCE Plume Investigation~~ Sitly Quarterly

PROJECT NO: AFC001-~~19 CCD~~ 26 MAA

SAMPLE INFORMATION

SAMPLE ID: WHGLTA011WG09MD

DATE: 7/26/99 TIME: 0918

MATRIX TYPE: WG

SAMPLING METHOD: BP

LOT CONTROL #: 0 1 L

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #:

BEGINNING DEPTH: N/A

END DEPTH: N/A

GRAB (x) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS) WHGLTA011WG09MS

MATRIX SPIKE DUP (SD)

FIELD DUP (FD) —

AMBIENT BLANK (AB) —

EQUIPMENT BLANK (EB) EB072699

TRIP BLANK (TB) TB072699

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
40 mL VOA	3	Cool to 4C/HCl to pH<2	SW 8260B	VOCs
4C mL VA	3	4°C	SW 8260B	VOCs

NOTABLE OBSERVATIONS

PID READINGS		SAMPLE CHARACTERISTICS		MISCELLANEOUS
1st	0	COLOR	Clear	
2nd	0	ODOR	None	
		OTHER		

pH 6.78 Temperature 23.95°C Dissolved Oxygen 2.36 mg/L Specific Conductivity 1052 umhos/cm

GENERAL INFORMATION

WEATHER SUN/CLEAR X OVERCAST/RAIN ____ WIND DIRECTION ____ AMBIENT TEMPERATURE 100

SHIPMENT VIA FEDEX X HAND DELIVER ____ COURIER ____ OTHER ____

SHIPPED TO Severn Trent Laboratories--~~Chicago~~ MD

COMMENTS

SAMPLER Brad Nielsen OBSERVER J Duffard

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMPLE	HP=HYDRO PUNCH
SE=SEDIMENT	SW=SWAP/WIPE	C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

642 192

HYDRO GeoLogic INC

FIELD SAMPLING REPORT

LOCATION: NAS Fort Worth
SITE: ACC 4

PROJECT: ~~TCE Plume Investigation~~ July Quarter
PROJECT NO. AFC001 ~~19 CCD~~ 26 17MA

SAMPLE INFORMATION

SAMPLE ID: WHGLTA011WG09MS
DATE: 7/26/99 TIME: 0918

MATRIX TYPE: WG
SAMPLING METHOD: BP
LOT CONTROL #: 0 1 1 1
(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)
CHAIN-OF-CUSTODY #:

BEGINNING DEPTH: N/A
END DEPTH: N/A
GRAB (x) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS) —
MATRIX SPIKE DUP (SD) WHGLTA011WG09MD
FIELD DUP (FD) —
AMBIENT BLANK (AB) —
EQUIPMENT BLANK (EB) EB072699
TRIP BLANK (TB) TB072699

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
40 mL VOA	3	Cool to 4C/HCl to pH<2	SW8260B	VOCs
40 ml VOA	3	4°C	SW8260B	VOCs

NOTABLE OBSERVATIONS

PID READINGS		SAMPLE CHARACTERISTICS		MISCELLANEOUS
1st	0	COLOR	clear	
2nd	0	ODOR	none	
		OTHER		

pH 6.78 Temperature 23.25°C Dissolved Oxygen 2.36 mg/L Specific Conductivity 1652 umhos/cm

GENERAL INFORMATION

WEATHER SUN/CLEAR X OVERCAST/RAIN ____ WIND DIRECTION ____ AMBIENT TEMPERATURE 100

SHIPMENT VIA FEDEX X HAND DELIVER ____ COURIER ____ OTHER ____

SHIPPED TO Severn Trent Laboratories--~~Chicago~~ IND

COMMENTS

SAMPLER Brad Nielsen OBSERVER J. Dutter d

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMPLE	HP=HYDRO PUNCH
SE=SEDIMENT	SW=SWAP/WIPE	C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

HYDRO GeoLogic INC

FIELD SAMPLING REPORT

642 193

LOCATION. NAS Fort Worth

SITE: (South Area) AOC 4

PROJECT: 1999 Quarterly Groundwater Sampling

PROJECT NO: AFC001-26 HAA

SAMPLE INFORMATION

SAMPLE ID: WHGLTA012WG09

DATE 7-15-99 TIME: 1245

MATRIX TYPE: WG

SAMPLING METHOD: BP

LOT CONTROL #: 0 1 1 A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #. _____

BEGINNING DEPTH: N/A

END DEPTH: N/A

GRAB (x) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS). –

MATRIX SPIKE DUP (SD) –

FIELD DUP (FD) –

AMBIENT BLANK (AB): –

EQUIPMENT BLANK (EB) EB071599

TRIP BLANK (TB) TB021599

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
40 mL VOA	3	Cool to 4C/HCL to pH<2	8015 Modified	TPH
1 L Poly	1	Cool to 4C	E310.1/SW9056	Alkalinity/Anions
40 mL VOA	3	Cool to 4C/HCl pH<2	RSK-175	Methane
40 mL VOA	3	Cool to 4C/HCl to pH<2	SW8260B	BTEX + MTBE
1L Amber	1	Cool to 4C	SW8310	PAHs
250 mL Poly	1	Cool to 4C/H2SO4 pH<2	SW9060	TOC

NOTABLE OBSERVATIONS

PID READINGS		SAMPLE CHARACTERISTICS		MISCELLANEOUS
1st	492 ppm	COLOR	clear	
2nd	0 ppm BZ	ODOR	slight	
		OTHER		

pH 7.70 Temperature 26.08 Dissolved Oxygen 4.24 Specific Conductivity 1120.0

GENERAL INFORMATION

WEATHER SUN/CLEAR X OVERCAST/RAIN _____ WIND DIRECTION NE AMBIENT TEMPERATURE 88°F

SHIPMENT VIA FEDEX X HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO Severn Trent Laboratories- ~~Chicago~~ MD

COMMENTS: Fe^{+2} = 8.44 mg/L

SAMPLER S. Stanford OBSERVER N. Hede

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
H=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMPLE	HP=HYDRO PUNCH
SE=SEDIMENT	SW=SWAP/WIPE	C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

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HYDRO GeoLogic INC

FIELD SAMPLING REPORT

LOCATION: NAS Fort Worth
SITE: (South Apron) BOC 4

PROJECT. 1999 Quarterly Groundwater Sampling
PROJECT NO: AFC001-26 HAA

SAMPLE INFORMATION

SAMPLE ID: WHGLTA014WG09

DATE: 7-15-99 TIME: 942

MATRIX TYPE: WG

SAMPLING METHOD: BP

LOT CONTROL #: D 1 1 A
(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: _____

BEGINNING DEPTH N/A
END DEPTH: N/A
GRAB (x) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS): –
MATRIX SPIKE DUP (SD): –
FIELD DUP (FD): –
AMBIENT BLANK (AB): –
EQUIPMENT BLANK (EB): EB071519
TRIP BLANK (TB): TB071519

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
40 mL VOA	3	Cool to 4C/HCL to pH<2	8015 Modified	TPH
1 L Poly	1	Cool to 4C	E310 1/SW9056	Alkalinity/Anions
40 mL VOA	3	Cool to 4C/HCl pH<2	RSK-175	Methane
40 mL VOA	3	Cool to 4C/HCl to pH<2	SW8260B	BTEX + MTBE
1L Amber	1	Cool to 4C	SW8310	PAHs
250 mL Poly	1	Cool to 4C/H2SO4 pH<2	SW9060	TOC

NOTABLE OBSERVATIONS

PID READINGS	SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st 1.6 ppm	COLOR clear	
2nd 0 ppm BZ	ODOR slight fuel	
	OTHER	

pH 7.80 Temperature 25.04 Dissolved Oxygen 3.79 Specific Conducuvity .1046

GENERAL INFORMATION

WEATHER SUN/CLEAR X OVERCAST/RAIN ____ WIND DIRECTION NE AMBIENT TEMPERATURE 82°F

SHIPMENT VIA FEDEX X HAND DELIVER ____ COURIER ____ OTHER ____

SHIPPED TO Severn Trent Laboratories--~~Chicago~~ MD

COMMENTS Fe^{+2} = 6.9 mg/L

SAMPLER S. Stanford OBSERVER N. Hinde

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMPLE	HP=HYDRO PUNCH
SE=SEDIMENT	SW=SWAP/WIPE	C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

HYDRO GeoLogic INC

FIELD SAMPLING REPORT

642 195

TION: NAS Fort Worth JRB, Texas PROJECT: AFC001-26 HAA

SITE: AOC 4

SAMPLE INFORMATION

SAMPLE ID: AB071399 DATE: 7-13-99 TIME: 918

MATRIX TYPE: ~~WG~~ W

SAMPLING METHOD: ~~Bladder pump~~ G

LOT CONTROL #: 0 0 1 A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: _____

BEGINNING DEPTH: ____ N/A _____

END DEPTH: ____ N/A _____

GRAB (X) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR BLANKS/QC SAMPLES ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS): —

MATRIX SPIKE DUP (SD): —

FIELD DUP (FD): —

AMBIENT BLANK (AB): —

EQUIPMENT BLANK (EB): EB071399

TRIP BLANK (TB): TBC71399

CONTAINER SIZE TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
40 ml	2	HCl + 4°C	8260B	VOCs

NOTABLE OBSERVATIONS

PID READINGS	SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st	COLOR	
2nd	ODOR	
	OTHER	

pH — Temperature — Dissolved Oxygen — Specific Conductivity —

GENERAL INFORMATION

WEATHER SUN/CLEAR X OVERCAST/RAIN ____ WIND DIRECTION ____ AMBIENT TEMPERATURE 90°F

SHIPMENT VIA. FED-X X HAND DELIVER ____ COURIER ____ OTHER ____

SHIPPED TO STL MO

COMMENTS. _____

SAMPLER: N Hade OBSERVER. S. Stanford

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
G=GROUND WATER	SO=SOIL	BR=BRASS RING	HA=HAND AUGER
H=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	CS=COMPOSITE SAMPLE	H=HOLLOW STEM AUGER
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	C=CONTINUOUS FLIGHT AUGER	HP=HYDRO PUNCH
SE=SEDIMENT	SW=SWAP/WIPE	DT=DRIVEN TUBE	SS=SPLIT SPOON
WD=Deionized water		W=SWAB/WIPE	BP=BLADDER PUMP

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HYDRO GeoLogic INC

FIELD SAMPLING REPORT

LOCATION: NAS Fort Worth

SITE: Plume

PROJECT: 1999 Quarterly Groundwater Sampling

PROJECT NO: AFC001-26 HAA

SAMPLE INFORMATION

SAMPLE ID: TB071399

DATE: 7-13-99 TIME: 770

MATRIX TYPE: ~~WG~~ DW LS

SAMPLING METHOD: ~~BP~~ G

LOT CONTROL #: Ø1 1 1 A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: _____

BEGINNING DEPTH: N/A

END DEPTH: N/A

GRAB (x) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS): -

MATRIX SPIKE DUP (SD): -

FIELD DUP (FD): -

AMBIENT BLANK (AB): -

EQUIPMENT BLANK (EB) EB071399

TRIP BLANK (TB) TB071399

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
40 mL VOA	2	Cool to 4C/HCl to pH < 2	SW8260B	VOCs
40mL VOA	2	Cool to 4°C / HCl to pH<2	RSK-175	Methane

NOTABLE OBSERVATIONS

PID READINGS		SAMPLE CHARACTERISTICS		MISCELLANEOUS
1st	-	COLOR	-	
2nd	-	ODOR	-	
		OTHER		

pH - Temperature - Dissolved Oxygen - Specific Conductivity -

GENERAL INFORMATION

WEATHER SUN/CLEAR _____ OVERCAST/RAIN _____ WIND DIRECTION _____ AMBIENT TEMPERATURE _____

SHIPMENT VIA FEDEX X HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO Severn Trent Laboratories--~~Chicago~~ MN

COMMENTS _____

SAMPLER N. Hade OBSERVER P. Dasuwala

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMPLE	HP=HYDRO PUNCH
SE=SEDIMENT	SW=SWAP/WIPE	C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
LS: Lab prepared		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

AFCEE FORM SR.11

HYDRO GeoLogic INC

FIELD SAMPLING REPORT

642 197

LOCATION: NAS Fort Worth
SITE: Plume

PROJECT: 1999 Quarterly Groundwater Sampling
PROJECT NO: AFC001-26 HAA

SAMPLE INFORMATION

SAMPLE ID: TB071499

DATE: 7-14-99 TIME: 735

MATRIX TYPE: ~~WG~~ LS

SAMPLING METHOD: ~~BP~~ G

LOT CONTROL #: 0 1 1 A
(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: _____

BEGINNING DEPTH: N/A
END DEPTH: N/A
GRAB (x) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS) —
MATRIX SPIKE DUP (SD) —
FIELD DUP (FD). —
AMBIENT BLANK (AB): —
EQUIPMENT BLANK (EB). EB071499
TRIP BLANK (TB) TB071499

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
40 mL VOA	2	Cool to 4C/HCl to pH < 2	SW8260B	VOCs
40 ml VOA	2	Cool to 4C/HCl to pH < 2	RSK-175	Methane

NOTABLE OBSERVATIONS

PID READINGS		SAMPLE CHARACTERISTICS		MISCELLANEOUS
1st	—	COLOR	—	
2nd	—	ODOR	—	
		OTHER		

pH — Temperature — Dissolved Oxygen — Specific Conductivity —

GENERAL INFORMATION

WEATHER SUN/CLEAR X OVERCAST/RAIN ____ WIND DIRECTION N AMBIENT TEMPERATURE 79°F

SHIPMENT VIA FEDEX X HAND DELIVER ____ COURIER ____ OTHER ____

SHIPPED TO Severn Trent Laboratories--~~Chicago~~ MD

COMMENTS _____

SAMPLER N. Hale OBSERVER S. Stanford

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMPLE	HP=HYDRO PUNCH
SE=SEDIMENT	SW=SWAP/WIPE	C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
LS: Lab prepared		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

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HYDRO GeoLogic INC

FIELD SAMPLING REPORT

LOCATION: NAS Fort Worth

SITE: Plume

PROJECT: 1999 Quarterly Groundwater Sampling

PROJECT NO: AFC001-26 HAA

SAMPLE INFORMATION

SAMPLE ID: TB071599

DATE: 7-15-99 TIME: 715

MATRIX TYPE: ~~WG~~ LS

SAMPLING METHOD: ~~BP~~ G

LOT CONTROL #: 0 1 1 A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: _____

BEGINNING DEPTH. N/A

END DEPTH: N/A

GRAB (x) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE.

MATRIX SPIKE (MS). —

MATRIX SPIKE DUP (SD): —

FIELD DUP (FD) —

AMBIENT BLANK (AB) —

EQUIPMENT BLANK (EB) EB071599

TRIP BLANK (TB) TB071599

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
40 mL VOA	2	Cool to 4C/HCl to pH<2	SW8260B	VOCs
40 mL VOA	2	Cool to 4C/HCl to pH<2	RSK-175	Methane

NOTABLE OBSERVATIONS

PID READINGS	SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st --	COLOR --	
2nd --	ODOR --	
	OTHER	

pH — Temperature — Dissolved Oxygen — Specific Conductivity —

GENERAL INFORMATION

WEATHER SUN/CLEAR X OVERCAST/RAIN _____ WIND DIRECTION N AMBIENT TEMPERATURE 75°F

SHIPMENT VIA FEDEX X HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO Severn Trent Laboratories--~~Chicago~~ MD

COMMENTS _____

SAMPLER N Hade OBSERVER: S. Stanford

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMPLE	HP=HYDRO PUNCH
SE=SEDIMENT	SW=SWAP/WIPE	C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
LS = Lab prepared		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

AFCEE FORM SR.11

HYDRO GeoLogic INC

FIELD SAMPLING REPORT

642 199

LOCATION: NAS Fort Worth

PROJECT: 1999 Quarterly Groundwater Sampling

SITE: Plume —

PROJECT NO: AFC001-26 HAA

SAMPLE INFORMATION

SAMPLE ID TB071699

DATE: 7-16-99 TIME: 730

MATRIX TYPE: ~~WG~~ NF LS

SAMPLING METHOD: ~~BP~~ G

LOT CONTROL #: 0 1 1 A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: _____

BEGINNING DEPTH. N/A

END DEPTH: N/A

GRAB (x) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS): —

MATRIX SPIKE DUP (SD) —

FIELD DUP (FD) —

AMBIENT BLANK (AB) —

EQUIPMENT BLANK (EB) EB071699

TRIP BLANK (TB) TB071699

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
40 mL VOA	2	Cool to 4C/HCl to pH<2	SW8260B	VOCs
40ml VOA	2	Cool to 4°C / HCl to pH<2	RSK-175	Methane

NOTABLE OBSERVATIONS

PID READINGS		SAMPLE CHARACTERISTICS		MISCELLANEOUS
1st	—	COLOR	—	
2nd	—	ODOR	—	
		OTHER		

pH — Temperature — Dissolved Oxygen — Specific Conductivity —

GENERAL INFORMATION

WEATHER SUN/CLEAR X OVERCAST/RAIN ____ WIND DIRECTION NE AMBIENT TEMPERATURE 78°F

SHIPMENT VIA FEDEX X HAND DELIVER ____ COURIER ____ OTHER ____

SHIPPED TO Severn Trent Laboratories--~~Chicago~~ MD

COMMENTS _____

SAMPLER N. Harder OBSERVER. P Dacunada

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMPLE	HP=HYDRO PUNCH
SE=SEDIMENT	SW=SWAP/WIPE	C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
LS=Lab prepared		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

642 200

HYDRO GeoLogic INC

FIELD SAMPLING REPORT

LOCATION. NAS Fort Worth

SITE: Plume —

PROJECT. 1999 Quarterly Groundwater Sampling

PROJECT NO: AFC001-26 HAA

SAMPLE INFORMATION

SAMPLE ID: TB072199

DATE: 7-21-99 TIME: 705

MATRIX TYPE: ~~WG~~ L.S.

SAMPLING METHOD: ~~BP~~ G

LOT CONTROL #: 0 1 1 A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: _____

BEGINNING DEPTH: N/A

END DEPTH N/A

GRAB (x) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS). -

MATRIX SPIKE DUP (SD): -

FIELD DUP (FD) -

AMBIENT BLANK (AB): _____

EQUIPMENT BLANK (EB) EB072199

TRIP BLANK (TB) TB072199

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
40 mL VOA	2	Cool to 4C/HCl to pH<2	SW8260B	VOCs
40 mL VOA	2	Cool to 4C/HCl to pH<2	RSK-175	Methane

NOTABLE OBSERVATIONS

PID READINGS		SAMPLE CHARACTERISTICS		MISCELLANEOUS
1st	—	COLOR	—	
2nd	—	ODOR	—	
		OTHER		

pH — Temperature — Dissolved Oxygen — Specific Conductivity —

GENERAL INFORMATION

WEATHER SUN/CLEAR _____ OVERCAST/RAIN X WIND DIRECTION _____ AMBIENT TEMPERATURE 78°F

SHIPMENT VIA FEDEX X HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO Severn Trent Laboratories--~~Chicago~~ MD

COMMENTS _____

SAMPLER N. Hare OBSERVER P. Dewanda

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMPLE	HP=HYDRO PUNCH
SE=SEDIMENT	SW=SWAP/WIPE	C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
LS= Lab prepared		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

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HYDRO GeoLogic INC

FIELD SAMPLING REPORT

LOCATION NAS Fort Worth

SITE: Plume —

PROJECT. 1999 Quarterly Groundwater Sampling

PROJECT NO: AFC001-26 HAA

SAMPLE INFORMATION

SAMPLE ID. TB072299

DATE: 7-22-99 TIME: 705

MATRIX TYPE: ~~WG~~ LS

SAMPLING METHOD: ~~BP~~ G

LOT CONTROL #: 0 1 1 A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: _____

BEGINNING DEPTH. N/A

END DEPTH: N/A

GRAB (x) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS): —

MATRIX SPIKE DUP (SD) —

FIELD DUP (FD) —

AMBIENT BLANK (AB): —

EQUIPMENT BLANK (EB) EB072299 03/AFC 001-05 Ford

TRIP BLANK (TB) —

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
40 mL VOA	2	Cool to 4C/HCl to pH < 2	SW8260B	VOCs
~~40mL VOA~~	~~2~~	~~Cool to 4C/HCl to pH<2~~	~~RSK 175~~	~~Methane~~ PD

NOTABLE OBSERVATIONS

PID READINGS	SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st —	COLOR —	
2nd	ODOR —	
	OTHER	

pH — Temperature — Dissolved Oxygen — Specific Conductivity —

GENERAL INFORMATION

WEATHER SUN/CLEAR X OVERCAST/RAIN _____ WIND DIRECTION N AMBIENT TEMPERATURE 78°F

SHIPMENT VIA FEDEX X HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO. Severn Trent Laboratories--~~Chicago~~ MD

COMMENTS _____

SAMPLER N. Hade OBSERVER P. Darwala

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMPLE	HP=HYDRO PUNCH
SE=SEDIMENT	SW=SWAP/WIPE	C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
LS = Lab prepared		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

AFCEE FORM SR 11

642 202

HYDRO GeoLogic INC

FIELD SAMPLING REPORT

LOCATION: NAS Fort Worth

SITE: Plume

PROJECT: July Quarterly ~~TCE Plume Investigation~~ PU

PROJECT NO: AFC001-~~19 CCD~~ 26 SHAA

SAMPLE INFORMATION

SAMPLE ID: TB072699

DATE: 7/26/99 TIME: 1455

MATRIX TYPE: ~~WG~~ DW LS

SAMPLING METHOD: ~~BP~~ DW G

LOT CONTROL #: 0 / / /

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: _____

BEGINNING DEPTH: N/A

END DEPTH: N/A

GRAB (x) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS): —

MATRIX SPIKE DUP (SD) —

FIELD DUP (FD) —

AMBIENT BLANK (AB). —

EQUIPMENT BLANK (EB) —

TRIP BLANK (TB) —

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
40 mL VOA	3	Cool to 4C/HCl to pH<2	SW8260B	VOCs

NOTABLE OBSERVATIONS

PID READINGS	SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st —	COLOR —	
2nd —	ODOR —	
	OTHER	

pH — Temperature — Dissolved Oxygen — Specific Conductivity —

GENERAL INFORMATION

WEATHER SUN/CLEAR X OVERCAST/RAIN ____ WIND DIRECTION N AMBIENT TEMPERATURE 100°F

SHIPMENT VIA FEDEX X HAND DELIVER ____ COURIER ____ OTHER ____

SHIPPED TO Severn Trent Laboratories-~~Chicago~~ MD

COMMENTS

SAMPLER Brad Nielsen OBSERVER J. Duffrid

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMPLE	HP=HYDRO PUNCH
SE=SEDIMENT	SW=SWAP/WIPE	C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
LS = Lab prepared		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

AFCEE FORM SR 11

HYDRO GeoLogic INC

FIELD SAMPLING REPORT

642 203

LOCATION: NAS Fort Worth JRB, Texas PROJECT AFC001-26 HAA

SITE: Plume - field house

SAMPLE INFORMATION

SAMPLE ID: EB071399 DATE: 7-13-99 TIME: 1630

MATRIX TYPE: WG

SAMPLING METHOD: ~~Bladder pump~~ grab

LOT CONTROL #: 1 1 1 A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: _____

BEGINNING DEPTH: ____ N/A

END DEPTH: ____ N/A

GRAB (X) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR BLANKS/QC SAMPLES ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS): —

MATRIX SPIKE DUP (SD): —

FIELD DUP (FD): —

AMBIENT BLANK (AB): AB071399

EQUIPMENT BLANK (EB): —

TRIP BLANK (TB): TB071399

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
40ml	3	HCl <4°C	8260B	BTEX + MTBE
40ml	3	HCl <4°C	TX1005	TPH
40ml	3	HCl <4°C	RSK 175	Methane
500ml AG	1	4°C + ~~H2SO4~~ HCl	9060C	TOC
1L Poly	1	4°C	E310.1	Alkalinity / Anions
1L Poly	1	4°C	8310	PAH

NOTABLE OBSERVATIONS

PID READINGS		SAMPLE CHARACTERISTICS		MISCELLANEOUS
1st	—	COLOR	—	
2nd	—	ODOR	—	
		OTHER.		

pH — Temperature — Dissolved Oxygen — Specific Conductivity —

GENERAL INFORMATION

WEATHER: SUN/CLEAR X OVERCAST/RAIN ____ WIND DIRECTION ____ AMBIENT TEMPERATURE 95°F

SHIPMENT VIA: FED-X X HAND DELIVER ____ COURIER ____ OTHER ____

SHIPPED TO: STL - MO

COMMENTS: _____

SAMPLER: N. Hade OBSERVER: S Stanford

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
G=GROUND WATER	SO=SOIL	BR=BRASS RING	HA=HAND AUGER
=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	CS=COMPOSITE SAMPLE	H=HOLLOW STEM AUGER
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	C=CONTINUOUS FLIGHT AUGER	HP=HYDRO PUNCH
SE=SEDIMENT	SW=SWAP/WIPE	DT=DRIVEN TUBE	SS=SPLIT SPOON
		W=SWAB/WIPE	BP=BLADDER PUMP

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HYDRO GeoLogic Inc

FIELD SAMPLING REPORT

LOCATION: NAS Fort Worth

SITE: Plume - Field House

PROJECT: 1999 Quarterly Groundwater Sampling

PROJECT NO. AFC001-26 HAA

SAMPLE INFORMATION

SAMPLE ID: EB071499

DATE: 7-14-99 TIME: 1500

MATRIX TYPE. WG

SAMPLING METHOD: ~~BP~~ G

LOT CONTROL #: C 1 1 A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: _____

BEGINNING DEPTH: N/A

END DEPTH. N/A

GRAB (x) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS). —

MATRIX SPIKE DUP (SD) —

FIELD DUP (FD): —

AMBIENT BLANK (AB). —

EQUIPMENT BLANK (EB) EBC71499

TRIP BLANK (TB). TBC71499

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
40 mL VOA	3	Cool to 4C/HCL to pH < 2	8015 Modified	TPH
1 L Poly	1	Cool to 4C	E310 1/SW9056	Alkalinity/Anions
40 mL VOA	3	Cool to 4C/HCl pH < 2	RSK-175	Methane
40 mL VOA	3	Cool to 4C/HCl to pH < 2	SW8260B	BTEX + MTBE
1L Amber	1	Cool to 4C	SW8310	PAHs
250 mL Poly	1	Cool to 4C/H2SO4 pH < 2	SW9060	TOC

NOTABLE OBSERVATIONS

PID READINGS		SAMPLE CHARACTERISTICS		MISCELLANEOUS
1st	—	COLOR	—	
2nd	—	ODOR	—	
		OTHER		

pH — Temperature — Dissolved Oxygen — Specific Conductivity —

GENERAL INFORMATION

WEATHER SUN/CLEAR X OVERCAST/RAIN _____ WIND DIRECTION NE AMBIENT TEMPERATURE 92°F

SHIPMENT VIA FEDEX X HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO Severn Trent Laboratories-~~Chicago~~ MD

COMMENTS _____

SAMPLER N. Hede OBSERVER P. Darwala

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMPLE	HP=HYDRO PUNCH
SE=SEDIMENT	SW=SWAP/WIPE	C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

HYDRO GeoLogic INC

FIELD SAMPLING REPORT

642 205

LOCATION. NAS Fort Worth

SITE: Plume Field House

PROJECT: 1999 Quarterly Groundwater Sampling

PROJECT NO. AFC001-26 HAA

SAMPLE INFORMATION

SAMPLE ID: EB071599

DATE: 7-15-99 TIME: 1545

MATRIX TYPE: WG

SAMPLING METHOD: ~~BP~~ DH G

LOT CONTROL #: 0 1 1 A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: _____

BEGINNING DEPTH: N/A

END DEPTH: N/A

GRAB (x) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS): –

MATRIX SPIKE DUP (SD) –

FIELD DUP (FD): –

AMBIENT BLANK (AB) –

EQUIPMENT BLANK (EB) EB071599

TRIP BLANK (TB) TB071599

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
40 mL VOA	3	Cool to 4C/HCL to pH<2	8015 Modified	TPH
1 L Poly	1	Cool to 4C	E310 1/SW9056	Alkalinity/Anions
40 mL VOA	3	Cool to 4C/HCl pH<2	RSK-175	Methane
40 mL VOA	3	Cool to 4C/HCl to pH<2	SW8260B	BTEX + MTBE
1L Amber	1	Cool to 4C	SW8310	PAHs
250 mL Poly	1	Cool to 4C/H2SO4 pH<2	SW9060	TOC

NOTABLE OBSERVATIONS

PID READINGS		SAMPLE CHARACTERISTICS		MISCELLANEOUS
1st	–	COLOR	–	
2nd	–	ODOR	–	
		OTHER		

pH – Temperature – Dissolved Oxygen – Specific Conductivity –

GENERAL INFORMATION

WEATHER SUN/CLEAR Y OVERCAST/RAIN _____ WIND DIRECTION NE AMBIENT TEMPERATURE 92°F

SHIPMENT VIA FEDEX X HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO Severn Trent Laboratories--~~Chicago~~ MD

COMMENTS _____

SAMPLER. N Hende OBSERVER. P Daruwala

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMPLE	HP=HYDRO PUNCH
SE=SEDIMENT	SW=SWAP/WIPE	C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

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HYDRO GeoLogic INC

FIELD SAMPLING REPORT

LOCATION: NAS Fort Worth

SITE. Plume — Field House

PROJECT: 1999 Quarterly Groundwater Sampling

PROJECT NO: AFC001-26 HAA

SAMPLE INFORMATION

SAMPLE ID: EB071699

DATE: 7-16-99 TIME: 1530

MATRIX TYPE: WG

SAMPLING METHOD: ~~BP~~ G

LOT CONTROL #: 0 1 1 A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: _____

BEGINNING DEPTH. N/A

END DEPTH N/A

GRAB (x) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS). —

MATRIX SPIKE DUP (SD) —

FIELD DUP (FD): —

AMBIENT BLANK (AB) —

EQUIPMENT BLANK (EB) EB071699

TRIP BLANK (TB) TB071699

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
40 mL VOA	3	Cool to 4C/HCL to pH < 2	8015 Modified	TPH
1 L Poly	1	Cool to 4C	E310 1/SW9056	Alkalinity/Anions
40 mL VOA	3	Cool to 4C/HCl pH < 2	RSK-175	Methane
40 mL VOA	3	Cool to 4C/HCl to pH < 2	SW8260B	BTEX + MTBE
1L Amber	1	Cool to 4C	SW8310	PAHs
250 mL Poly	1	Cool to 4C/H2SO4 pH < 2	SW9060	TOC

NOTABLE OBSERVATIONS

PID READINGS		SAMPLE CHARACTERISTICS		MISCELLANEOUS
1st	—	COLOR	—	
2nd	—	ODOR	—	
		OTHER		

pH — Temperature — Dissolved Oxygen — Specific Conductivity —

GENERAL INFORMATION

WEATHER SUN/CLEAR X OVERCAST/RAIN _____ WIND DIRECTION _____ AMBIENT TEMPERATURE _____

SHIPMENT VIA FEDEX X HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO Severn Trent Laboratories--~~Chicago~~ MD

COMMENTS _____

SAMPLER N. Hada OBSERVER P. Darwala

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMPLE	HP=HYDRO PUNCH
SE=SEDIMENT	SW=SWAP/WIPE	C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

HYDRO GeoLogic INC

FIELD SAMPLING REPORT

642 207

LOCATION: NAS Fort Worth JRB, Texas PROJECT AFC001-26 HAA

SITE: Plume - Field House

SAMPLE INFORMATION

SAMPLE ID: EB072199 DATE: 7-21-99 TIME: 1145

MATRIX TYPE: WG

SAMPLING METHOD: ~~Bladder pump~~ NH G

LOT CONTROL #: 0 1 1 A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: _____

BEGINNING DEPTH: ____ N/A _____

END DEPTH: ____ N/A _____

GRAB (X) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR BLANKS/QC SAMPLES ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS): —

MATRIX SPIKE DUP (SD): —

FIELD DUP (FD): —

AMBIENT BLANK (AB): —

EQUIPMENT BLANK (EB) —

TRIP BLANK (TB): TB072199

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
40 ml	3	HCl + 4°C	8260B	VOCs
40 ml	3	HCl + 4°C	RSK-175	Methane
1L Poly	1	4°C	E310.1	Alkalinity + Anions
150 ml	1	4°C + H_2SO_4	9060	TOC
~~40 ml~~	~~3~~	~~4°C~~		~~VOCs~~ PD

NOTABLE OBSERVATIONS

PID READINGS		SAMPLE CHARACTERISTICS		MISCELLANEOUS
1st	—	COLOR	—	
2nd	—	ODOR	—	
		OTHER		

pH — Temperature — Dissolved Oxygen — Specific Conductivity —

GENERAL INFORMATION

WEATHER: SUN/CLEAR X OVERCAST/RAIN ____ WIND DIRECTION ____ AMBIENT TEMPERATURE 95°F

SHIPMENT VIA: FED-X X HAND DELIVER ____ COURIER ____ OTHER ____

SHIPPED TO: STL - MD

COMMENTS: _____

SAMPLER: P. Dannwalson OBSERVER: J Duffield

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
GW=GROUND WATER	SO=SOIL	BR=BRASS RING	HA=HAND AUGER
HA=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	CS=COMPOSITE SAMPLE	H=HOLLOW STEM AUGER
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	C=CONTINUOUS FLIGHT AUGER	HP=HYDRO PUNCH
SE=SEDIMENT	SW=SWAP/WIPE	DT=DRIVEN TUBE	SS=SPLIT SPOON
		W=SWAB/WIPE	BP=BLADDER PUMP

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HYDRO GeoLogic INC

FIELD SAMPLING REPORT

LOCATION. NAS Fort Worth

SITE: Plume - Field House

PROJECT: ~~TCE Plume Investigation~~ July Quarterly QS

PROJECT NO AFC001-~~19 CCD~~ 26HAA

SAMPLE INFORMATION

SAMPLE ID: EB072699

DATE. 7/26/99 TIME: 1450

MATRIX TYPE: WG

SAMPLING METHOD: ~~BP~~ G

LOT CONTROL #: 0 1 1 1

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: _____

BEGINNING DEPTH. N/A

END DEPTH: N/A

GRAB (x) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS) —

MATRIX SPIKE DUP (SD) —

FIELD DUP (FD) —

AMBIENT BLANK (AB) —

EQUIPMENT BLANK (EB) —

TRIP BLANK (TB) —

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
40 mL VOA	3	Cool to 4C/HCl to pH<2	SW8260B	VOCs

NOTABLE OBSERVATIONS

PID READINGS		SAMPLE CHARACTERISTICS		MISCELLANEOUS
1st	—	COLOR	—	
2nd	—	ODOR	—	
		OTHER		

pH — Temperature — Dissolved Oxygen — Specific Conductivity —

GENERAL INFORMATION

WEATHER SUN/CLEAR X OVERCAST/RAIN ____ WIND DIRECTION N AMBIENT TEMPERATURE 100°F

SHIPMENT VIA FEDEX X HAND DELIVER ____ COURIER ____ OTHER ____

SHIPPED TO Severn Trent Laboratories--~~Chicago~~ MD

COMMENTS

SAMPLER Brad Nieken OBSERVER J. Dufford

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMPLE	HP=HYDRO PUNCH
SE=SEDIMENT	SW=SWAP/WIPE	C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

HYDRO GeoLogic INC

FIELD SAMPLING REPORT

642 209

LOCATION. NAS Fort Worth
SITE: Plume - Field House

PROJECT: ~~TCE Plume Investigation~~ 99 July Quarterly
PROJECT NO: AFC001-~~19 CCD~~ 26 HAA

SAMPLE INFORMATION

SAMPLE ID: Material Blank

DATE: 7-26-99 TIME: 1745

MATRIX TYPE: WG

SAMPLING METHOD: ~~BP~~ DT G

LOT CONTROL #: 0 1 1 A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: _____

BEGINNING DEPTH: N/A

END DEPTH: N/A

GRAB (x) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS) —

MATRIX SPIKE DUP (SD) —

FIELD DUP (FD) —

AMBIENT BLANK (AB) —

EQUIPMENT BLANK (EB) EB072699

TRIP BLANK (TB) TB072691

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
40 mL VOA	3	Cool to 4C/HCl to pH<2	SW8260B	VOCs
40 mL VOA	3	Cool to 4C	SW8260B	VOCs

NOTABLE OBSERVATIONS

PID READINGS	SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st 0	COLOR	
2nd —	ODOR	
	OTHER	

pH — Temperature — Dissolved Oxygen — Specific Conductivity —

GENERAL INFORMATION

WEATHER SUN/CLEAR ✓ OVERCAST/RAIN ____ WIND DIRECTION ____ AMBIENT TEMPERATURE 102

SHIPMENT VIA FEDEX X HAND DELIVER ____ COURIER ____ OTHER ____

SHIPPED TO Severn Trent Laboratories--~~Chicago~~ MD

COMMENTS Deionized Water

SAMPLER P Darnwale OBSERVER S. Stanford

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZRDOUS SOLID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMPLE	HP=HYDRO PUNCH
SE=SEDIMENT	SW=SWAP/WIPE	C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

HYDRO GeoLogic INC

FIELD SAMPLING REPORT

642 210

OC[illegible]N:	NAS Fort Worth JRB	PROJECT NAME	Quarterly Basewide Groundwater Sampling
ITE:	Plume incl AOC-4	PROJECT NAME	AFC-001-26HBA

SAMPLE INFORMATION

SAMPLE ID SPOT35-5WG~~09~~ 1 C

DATE: 10-18-99 TIME: 940

MATRIX TYPE: WG

SAMPLING METHOD: BP

LOT CONTROL #: 0 0 1 A

Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: 100003

SAMPLE BEG DEPTH (FT): N/A

SAMPLE END DEPTH (FT) N/A

GRAB (X) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS): —

MATRIX SPIKE DUP (SD): —

FIELD DUP (FD): —

AMBIENT BLANK (AB): —

EQUIPMENT BLANK (EB). —

TRIP BLANK (TB). TB1C1899

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
1 L Poly	1	Cool to 4C	E310 1/SW9056	Alkalinity/Anions
40 mL VOA	3	Cool to 4C/HCl pH<2	RSK-175	Methane
40 ml VOAs	3	Cool to 4C/HCL to pH<2	SW8260B	VOCs
[illegible] Amber	1	Cool to 4C/none	SW8310	PAHs
[illegible]L Poly	1	Cool to 4C/H2SO4 pH<2	SW9060	TOC
40 ml VOA	3	Cool to 4C/HCL pH<2	TX1005	TPH

NOTABLE OBSERVATIONS

PID READINGS	SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st 7.2 ppm, 5 VD, no BZ	COLOR Clear	
2nd —	ODOR Medium Fuel-like Odor	
	OTHER —	

pH 6.59 Temperature 19.14 (C) Dissolved Oxygen 1.67 (mg/L) ~~Specific~~ Conductivity 1174 (umhos/cm)

Iron 6.24 (mg/L) Oxidation/Reduction Potential -179.8 (mv) Turbidity 14.48 (NTU)

GENERAL INFORMATION

WEATHER SUN/CLEAR _____ OVERCAST/RAIN ✓ WIND DIRECTION from NW AMBIENT TEMPERATURE 55°

SHIPMENT VIA FEDEX x HAND DELIVER ____ COURIER ____ OTHER ____

SHIPPED TO STL - Chicago

COMMENTS

SAMPLER: P. Darwinda OBSERVER. C. Williams

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
[illegible]HAZARDOUS SOLID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMPLE	LP=LABORATORY PREP
[illegible]EDIMENT	W=WATER	C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

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HYDRO GeoLogic INC

FIELD SAMPLING REPORT

LOCATION: NAS Fort Worth JRB

PROJECT NAME: Quarterly Basewide Groundwater Sampling

SITE: AOC 4

PROJECT NAME: AFC-001-26HBA

SAMPLE INFORMATION

SAMPLE ID: SPOT35-8WG09 #10

DATE: 10-8-99 TIME: 1436

MATRIX TYPE: WG

SAMPLING METHOD: BP

LOT CONTROL #: 0 1 1 A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: 100003

SAMPLE BEG DEPTH (FT) NA

SAMPLE END DEPTH (FT) NA

GRAB (✓) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS) —

MATRIX SPIKE DUP (SD): —

FIELD DUP (FD). —

AMBIENT BLANK (AB) —

EQUIPMENT BLANK (EB) EB100899

TRIP BLANK (TB) TB100899

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
1 L Poly	1	Cool to 4C	E310 1/SW9056	Alkalinity/Anions
40 mL VOA	3	Cool to 4C/HCl pH<2	RSK-175	Methane
40 ml VOA	3	Cool to 4C/HCL pH<2	SW8260B	BTEX
1L Amber	1	Cool to 4C/none	SW8310	PAHs
1 mL Poly	1	Cool to 4C/H2SO4 pH<2	SW9060	TOC
40 ml VOA	3	Cool to 4C/HCL pH<2	TX1005	TPH

NOTABLE OBSERVATIONS

PID READINGS	SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st 21.3 ppm	COLOR Clear	
2nd BZ=0.0 ppm	ODOR None	
	OTHER	

pH 1.59 Temperature 21.43 (C) Dissolved Oxygen 1.00 (mg/L) Specific Conductivity 11.23 (umhos/cm)

Iron 7.02 (mg/L) Oxidation/Reduction Potential -75.8 (mv) Turbidity 4.82 (NTU)

GENERAL INFORMATION

WEATHER SUN/CLEAR ____ OVERCAST/RAIN ✓ WIND DIRECTION E AMBIENT TEMPERATURE 70°

SHIPMENT VIA: FEDEX x HAND DELIVER ____ COURIER ____ OTHER ____

SHIPPED TO STL - Chicago

COMMENTS Raining

SAMPLER C. Willis OBSERVER: S Stanford

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
HAZARDOUS SOLID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMPLE	LP=LABORATORY PREP
SEDIMENT	W=WATER	C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

HYDRO GeoLogic INC

FIELD SAMPLING REPORT

642 212

LOCATION: NAS Fort Worth JRB | PROJECT NAME: Quarterly Basewide Groundwater Sampling

SITE: AOC 4 | PROJECT NAME: AFC-001-26HBA

SAMPLE INFORMATION

SAMPLE ID: ~~SPOT35-9WG09~~ SPOT35-9WG10 | DATE: 10-8-99 | TIME: 1035

MATRIX TYPE: WG

SAMPLING METHOD: BP

LOT CONTROL #: C 1 1 A

Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: 100003

SAMPLE BEG DEPTH (FT) NA

SAMPLE END DEPTH (FT) NA

GRAB (✓) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS) –

MATRIX SPIKE DUP (SD) –

FIELD DUP (FD) –

AMBIENT BLANK (AB) –

EQUIPMENT BLANK (EB) EB 100899

TRIP BLANK (TB) TB 1028

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
1 L Poly	1	Cool to 4C	E310.1/SW9056	Alkalinity/Anions
40 mL VOA	3	Cool to 4C/HCl pH<2	RSK-175	Methane
40 ml VOA	3	Cool to 4C/HCL pH<2	SW8260B	BTEX
[illegible]mber	1	Cool to 4C/none	SW8310	PAHs
250mL Poly	1	Cool to 4C/H2SO4 pH<2	SW9060	TOC
40 ml VOA	3	Cool to 4C/HCL pH<2	TX1005	TPH

NOTABLE OBSERVATIONS

PID READINGS		SAMPLE CHARACTERISTICS		MISCELLANEOUS
1st	21.2 ppm	COLOR	Clear	
2nd	BZ = 0.0 ppm	ODOR	None	
		OTHER		

pH 7.11 Temperature 25.48 (C) Dissolved Oxygen 1.12 (mg/L) Specific Conductivity 838 (umhos/cm)

Iron NR (mg/L) Oxidation/Reduction Potential 133.7 (mv) Turbidity 2.59 (NTU)

GENERAL INFORMATION

WEATHER SUN/CLEAR ____ OVERCAST/RAIN ✓ WIND DIRECTION E AMBIENT TEMPERATURE 70°

SHIPMENT VIA FEDEX x HAND DELIVER ____ COURIER ____ OTHER ____

SHIPPED TO: STL - Chicago

COMMENTS

SAMPLER: C. Williams OBSERVER: S. Stanford

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZARDOUS SOLID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMPLE	LP=LABORATORY PREP
SE=SEDIMENT	W=WATER	C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

642 213

HYDRO GeoLogic INC

FIELD SAMPLING REPORT

ATION:	NAS Fort Worth JRB	PROJECT NAME	Quarterly Basewide Groundwater Sampling
SITE:	AOC 4	PROJECT NAME	AFC-001-26HBA

SAMPLE INFORMATION

SAMPLE ID WCHMHTA008WG~~09~~ 10

DATE: 10-5-99 TIME: 1510

MATRIX TYPE: WG

SAMPLING METHOD: BP

LOT CONTROL #: 0 1 1 A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: 100000

SAMPLE BEG DEPTH (FT) ~~19.4~~ NA

SAMPLE END DEPTH (FT). N/A

GRAB (✓) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS): —

MATRIX SPIKE DUP (SD) —

FIELD DUP (FD): Dup04 WG09

AMBIENT BLANK (AB) —

EQUIPMENT BLANK (EB). EB100599

TRIP BLANK (TB). TB100599

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
1 L Poly	1	Cool to 4C	E310 1/SW9056	Alkalinity/Anions
40 mL VOA	3	Cool to 4C/HCl pH<2	RSK-175	Methane
40 ml VOA	3	Cool to 4C/HCL pH<2	SW8260B	BTEX
1L Amber	1	Cool to 4C/none	SW8310	PAHs
0 mL Poly	1	Cool to 4C/H2SO4 pH<2	SW9060	TOC
40 ml VOA	3	Cool to 4C/HCL pH<2	TX1005	TPH

NOTABLE OBSERVATIONS

PID READINGS	SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st 36ppm; [illegible]	COLOR Clear	
2nd —	ODOR Fuel-like	
	OTHER —	

pH 6.54 Temperature 24.33 (C) Dissolved Oxygen 16.46 (mg/L) Specific Conductivity 2226 (umhos/cm)

Iron 1.45 (mg/L) Oxidation/Reduction Potential -117.5 (mv) Turbidity 9.70 (NTU)

GENERAL INFORMATION

WEATHER: SUN/CLEAR ✓ OVERCAST/RAIN — WIND DIRECTION — AMBIENT TEMPERATURE 80°

SHIPMENT VIA: FEDEX x HAND DELIVER ___ COURIER ___ OTHER ___

SHIPPED TO STL - Chicago

COMMENTS:

SAMPLER P. Dawson OBSERVER C. Williams

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
HAZARDOUS SOLID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMPLE	LP=LABORATORY PREP
SEDIMENT	W=WATER	C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

HYDRO GeoLogic INC

FIELD SAMPLING REPORT

642 214

LOCATION: NAS Fort Worth JRB
PROJECT NAME Quarterly Basewide Groundwater Sampling
SITE: AOC-4
PROJECT NAME. AFC-001-26HBA

SAMPLE INFORMATION

SAMPLE ID DUP04WG09
DATE: 10-5-99 TIME: 1200 (1510)

MATRIX TYPE: WG
SAMPLING METHOD. BP
LOT CONTROL #: 0 1 1 A
Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)
CHAIN-OF-CUSTODY #: 100000

SAMPLE BEG DEPTH (FT) ~~19.4~~ NA
SAMPLE END DEPTH (FT) N/A
GRAB (✓) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS) —
MATRIX SPIKE DUP (SD): —
FIELD DUP (FD): ✓ (CW)
AMBIENT BLANK (AB). —
EQUIPMENT BLANK (EB) EB100599
TRIP BLANK (TB). TB100599

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
1 L Poly	1	Cool to 4C	E310 1/SW9056	Alkalinity/Anions
40 mL VOA	3	Cool to 4C/HCl pH<2	RSK-175	Methane
40 ml VOA	3	Cool to 4C/HCL pH<2	SW8260B	BTEX
[illegible]mber	1	Cool to 4C/none	SW8310	PAHs
[illegible] mL Poly	1	Cool to 4C/H2SO4 pH<2	SW9060	TOC
40 ml VOA	3	Cool to 4C/HCL pH<2	TX1005	TPH

NOTABLE OBSERVATIONS

PID READINGS	SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st 36 ppm, 0.0 in BZ	COLOR Clear	
2nd —	ODOR Fuel-like	
	OTHER —	

pH 6.54 Temperature 24.33 (C) Dissolved Oxygen 16.46 (mg/L) Specific Conductivity 2226 (umhos/cm)
Iron 1.45 (mg/L) Oxidation/Reduction Potential -117.5 (mv) Turbidity 9.70 (NTU)

GENERAL INFORMATION

WEATHER: SUN/CLEAR ✓ OVERCAST/RAIN — WIND DIRECTION — AMBIENT TEMPERATURE 80°
SHIPMENT VIA. FEDEX x HAND DELIVER ___ COURIER ___ OTHER ___
SHIPPED TO STL - Chicago
COMMENTS Associated with sample ~~WH~~ (CW) WCHMHTA008WG09 taken at 1510 (time)
SAMPLER: P. [illegible] OBSERVER: C. Williams

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZARDOUS SOLID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMPLE	LP=LABORATORY PREP
SE=SEDIMENT	W=WATER	C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

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HYDRO GeoLogic INC

FIELD SAMPLING REPORT

ATION:	NAS Fort Worth JRB	PROJECT NAME	Quarterly Basewide Groundwater Sampling
SITE:	AOC4	PROJECT NAME	AFC-001-26HBA

SAMPLE INFORMATION

SAMPLE ID WCHMHTA009WG~~09~~ 10

DATE: 10-7-99 TIME: 1524

MATRIX TYPE: WG

SAMPLING METHOD: BP

LOT CONTROL #: - 1 1 -

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: 100302

SAMPLE BEG DEPTH (FT) NA

SAMPLE END DEPTH (FT) NA

GRAB (✓) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS): —

MATRIX SPIKE DUP (SD): —

FIELD DUP (FD): —

AMBIENT BLANK (AB): —

EQUIPMENT BLANK (EB): EB100799

TRIP BLANK (TB) TB100799

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
1 L Poly	1	Cool to 4C	E310 1/SW9056	Alkalinity/Anions
40 mL VOA	3	Cool to 4C/HCl pH<2	RSK-175	Methane
40 ml VOA	3	Cool to 4C/HCL pH<2	SW8260B	BTEX
1L Amber	1	Cool to 4C/none	SW8310	PAHs
mL Poly	1	Cool to 4C/H2SO4 pH<2	SW9060	TOC
40 ml VOA	3	Cool to 4C/HCL pH<2	TX1005	TPH

NOTABLE OBSERVATIONS

PID READINGS		SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st	PB: 6 ppm	COLOR Clear	
2nd	PZ: 2.0 ppm	ODOR None	
		OTHER	

pH 6.81 Temperature 32.41 (C) Dissolved Oxygen 7.45 (mg/L) Specific Conductivity 1137 (umhos/cm)

Iron 0.22 (mg/L) Oxidation/Reduction Potential 128.8 (mv) Turbidity 8.10 (NTU)

GENERAL INFORMATION

WEATHER: SUN/CLEAR ✓ OVERCAST/RAIN — WIND DIRECTION E AMBIENT TEMPERATURE 85°

SHIPMENT VIA: FEDEX x HAND DELIVER ___ COURIER ___ OTHER ___

SHIPPED TO STL - Chicago

COMMENTS

SAMPLER. C. Williams OBSERVER S Stanford

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
HAZARDOUS SOLID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMPLE	LP=LABORATORY PREP
SEDIMENT	W=WATER	C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

HYDRO GeoLogic INC

FIELD SAMPLING REPORT

642 216

OC[illegible]ON: NAS Fort Worth JRB

PROJECT NAME Quarterly Basewide Groundwater Sampling

TE: ACC-4

PROJECT NAME: AFC-001-26HBA

SAMPLE INFORMATION

AMPLE ID WHGLTA009~~WG09~~ WG10

DATE: 10-6-99 TIME: 1440

ATRIX TYPE: WG

AMPLING METHOD: BP

OT CONTROL #: 0 1 L A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

HAIN-OF-CUSTODY #: 100001

AMPLE BEG DEPTH (FT) ~~25.4'~~ NA

AMPLE END DEPTH (FT) N/A

RAB (✓) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS). —

MATRIX SPIKE DUP (SD) —

FIELD DUP (FD) —

AMBIENT BLANK (AB) —

EQUIPMENT BLANK (EB) EB100699

TRIP BLANK (TB). TB100699

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
1 L Poly	1	Cool to 4C	E310 1/SW9056	Alkalinity/Anions
40 mL VOA	3	Cool to 4C/HCl pH < 2	RSK-175	Methane
40 ml VOAs	3	Cool to 4C/HCL to pH < 2	SW8260B	VOCs
[illegible]ber	1	Cool to 4C/none	SW8310	PAHs
2[illegible] Poly	1	Cool to 4C/H2SO4 pH < 2	SW9060	TOC
40 ml VOA	3	Cool to 4C/HCL pH < 2	TX1005	TPH

NOTABLE OBSERVATIONS

PID READINGS

1st 1101 ppm, 0.0 in B

2nd 1547 ppm, 0.0 in B

SAMPLE CHARACTERISTICS

COLOR Clear

ODOR fuel-like

OTHER

MISCELLANEOUS

pH 6.43 Temperature 24.25 (C) Dissolved Oxygen -6.66 (mg/L) ~~Specific~~ Conductivity 919 (umhos/cm)

Iron 5.49 (mg/L) Oxidation/Reduction Potential -130.4 (mv) Turbidity 5.20 (NTU)

GENERAL INFORMATION

WEATHER SUN/CLEAR ✓ OVERCAST/RAIN — WIND DIRECTION From the South AMBIENT TEMPERATURE 80°

SHIPMENT VIA FEDEX x HAND DELIVER ___ COURIER ___ OTHER ___

SHIPPED TO STL - Chicago

COMMENTS:

SAMPLER P. Darwin OBSERVER. C. Willim

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH[illegible]ZARDOUS SOLID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMPLE	LP=LABORATORY PREP
SE=SEDIMENT	W=WATER	C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

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HYDRO GeoLogic INC

FIELD SAMPLING REPORT

LOCATION: NAS Fort Worth JRB

PROJECT NAME: Quarterly Basewide Groundwater Sampling

SITE: AOC-4

PROJECT NAME: AFC-001-26HBA

SAMPLE INFORMATION

SAMPLE ID: WHGLTA010~~WG09~~ WG10

DATE: 10-6-99 TIME: 1120

MATRIX TYPE: WG

SAMPLING METHOD: BP

LOT CONTROL #: 0 1 1 A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: 100001

SAMPLE BEG DEPTH (FT) ~~28.3~~ NA

SAMPLE END DEPTH (FT) N/A

GRAB (✓) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS). —

MATRIX SPIKE DUP (SD). —

FIELD DUP (FD). —

AMBIENT BLANK (AB) —

EQUIPMENT BLANK (EB). EB100699

TRIP BLANK (TB). TR100699

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
1 L Poly	1	Cool to 4C	E310.1/SW9056	Alkalinity/Anions
40 mL VOA	3	Cool to 4C/HCl pH<2	RSK-175	Methane
40 ml VOA	3	Cool to 4C/HCL pH<2	SW8260B	BTEX
1L Amber	1	Cool to 4C/none	SW8310	PAHs
0 mL Poly	1	Cool to 4C/H2SO4 pH<2	SW9060	TOC
40 ml VOA	3	Cool to 4C/HCL pH<2	TX1005	TPH

NOTABLE OBSERVATIONS

PID READINGS		SAMPLE CHARACTERISTICS		MISCELLANEOUS
1st	1.0 ppm	COLOR	Clear	
2nd	— ppm	ODOR	None	
		OTHER	—	

pH 6.48 Temperature 22.37 (C) Dissolved Oxygen ~~9.75~~ 6.29 (mg/L) ~~Specific~~ Conductivity 978 (umhos/cm)

Iron 3.39 (mg/L) Oxidation/Reduction Potential -163.6 (mv) Turbidity 6.80 (NTU)

GENERAL INFORMATION

WEATHER SUN/CLEAR ✓ OVERCAST/RAIN — WIND DIRECTION From the South AMBIENT TEMPERATURE 80°

SHIPMENT VIA FEDEX x HAND DELIVER ____ COURIER ____ OTHER ____

SHIPPED TO STL - Chicago

COMMENTS

SAMPLER. R. Dawne OBSERVER C. Williams

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
HAZARDOUS SOLID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMPLE	LP=LABORATORY PREP
SEDIMENT	W=WATER	C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

HYDRO GeoLogic INC

FIELD SAMPLING REPORT

642 218

LOCATION: NAS Fort Worth JRB
PROJECT NAME: Quarterly Basewide Groundwater Sampling
SITE: AOC 4
PROJECT NAME AFC-001-26HBA

SAMPLE INFORMATION

SAMPLE ID WHGLTA011WG09
DATE: 10-5-99 TIME: 1250
MATRIX TYPE: WG
SAMPLING METHOD: BP
LOT CONTROL #: 0 1 1 A
Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)
CHAIN-OF-CUSTODY #: 100000
SAMPLE BEG DEPTH (FT) ~~14.7~~ NA
SAMPLE END DEPTH (FT) N/A
GRAB (✓) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:
MATRIX SPIKE (MS) WHGLTA011WG09MS
MATRIX SPIKE DUP (SD) WHGLTA011WG09MD
FIELD DUP (FD) —
AMBIENT BLANK (AB). —
EQUIPMENT BLANK (EB) EB100599
TRIP BLANK (TB) TB100599

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
1 L Poly	1	Cool to 4C	E310 1/SW9056	Alkalinity/Anions
40 mL VOA	3	Cool to 4C/HCl pH<2	RSK-175	Methane
40 ml VOA	3	Cool to 4C/HCL pH<2	~~SW8260B~~ SW8260B	~~BTEX~~ VOCs
[illegible]mber	1	Cool to 4C/none	SW8310	PAHs
[illegible]mL Poly	1	Cool to 4C/H2SO4 pH<2	SW9060	TOC
40 ml VOA	3	Cool to 4C/HCL pH<2	TX1005	TPH

NOTABLE OBSERVATIONS

PID READINGS		SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st	32.8 ppm	COLOR Clear	
2nd	---	ODOR None	
		OTHER —	

pH 6.68 Temperature 26.07 (C) Dissolved Oxygen 7.96 (mg/L) Specific Conductivity 1998 (umhos/cm)
Iron ND (mg/L) Oxidation/Reduction Potential 80.0 (mv) Turbidity 4.11 (NTU)

GENERAL INFORMATION

WEATHER. SUN/CLEAR ✓ OVERCAST/RAIN — WIND DIRECTION — AMBIENT TEMPERATURE 80°
SHIPMENT VIA: FEDEX x HAND DELIVER ___ COURIER ___ OTHER ___
SHIPPED TO STL - Chicago
COMMENTS:
SAMPLER P. Da[illegible] OBSERVER. C Willem

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
[illegible]AZARDOUS SOLID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMPLE	LP=LABORATORY PREP
SE=SEDIMENT	W=WATER	C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

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HYDRO GeoLogic INC

FIELD SAMPLING REPORT

LOCATION:	NAS Fort Worth JRB	PROJECT NAME	Quarterly Basewide Groundwater Sampling
SITE:	AOC 4	PROJECT NAME	AFC-001-26HBA

SAMPLE INFORMATION

SAMPLE ID WHGLTA011WG09MS

DATE: 10-5-99 TIME: 1250

MATRIX TYPE. WG

SAMPLING METHOD: BP

LOT CONTROL #: 0 1 1 A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: 100000

SAMPLE BEG DEPTH (FT) ~~14.7~~ NA

SAMPLE END DEPTH (FT): N/A

GRAB (✓) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS). ✓

MATRIX SPIKE DUP (SD). WHGLTA011WG09MD

FIELD DUP (FD): —

AMBIENT BLANK (AB) —

EQUIPMENT BLANK (EB): EB100599

TRIP BLANK (TB). TB100599

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
1 L Poly	1	Cool to 4C	E310 1/SW9056	Alkalinity/Anions
40 mL VOA	3	Cool to 4C/HCl pH < 2	RSK-175	Methane
40 ml VOA	3	Cool to 4C/HCL pH < 2	SW8260B	~~BTEX~~ CW VOCs
1L Amber	1	Cool to 4C/none	SW8310	PAHs
0 mL Poly	1	Cool to 4C/H2SO4 pH < 2	SW9060	TOC
40 ml VOA	3	Cool to 4C/HCL pH < 2	TX1005	TPH

NOTABLE OBSERVATIONS

PID READINGS		SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st	32.8 ppm	COLOR	Clear
2nd	—	ODOR	None
		OTHER	—

pH 6.68 Temperature 26.07 (C) Dissolved Oxygen 7.96 (mg/L) Specific Conductivity 1998 (umhos/cm)

Iron ND (mg/L) Oxidation/Reduction Potential 80.0 (mv) Turbidity 4.11 (NTU)

GENERAL INFORMATION

WEATHER: SUN/CLEAR ✓ OVERCAST/RAIN — WIND DIRECTION — AMBIENT TEMPERATURE 80°

SHIPMENT VIA. FEDEX x HAND DELIVER ____ COURIER ____ OTHER ____

SHIPPED TO STL - Chicago

COMMENTS:

SAMPLER P. Donner OBSERVER: C. Williams

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
HAZARDOUS SOLID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMPLE	LP=LABORATORY PREP
SEDIMENT	W=WATER	C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

HYDRO GeoLogic INC

FIELD SAMPLING REPORT

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OCATION: NAS Fort Worth JRB
TE: AOC-4

PROJECT NAME: Quarterly Basewide Groundwater Sampling
PROJECT NAME: AFC-001-26HBA

SAMPLE INFORMATION

AMPLE ID WHGLTA011WG09MD

DATE: 10-5-99 TIME: 1250

ATRIX TYPE: WG

AMPLING METHOD: BP

OT CONTROL #: 0 1 1 A

mbient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

HAIN-OF-CUSTODY #: 100000

AMPLE BEG DEPTH (FT) ~~14.7~~ NA

AMPLE END DEPTH (FT) N/A

RAB (✓) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS): WHGLTA011-WG09MS

MATRIX SPIKE DUP (SD): ✓

FIELD DUP (FD): —

AMBIENT BLANK (AB): —

EQUIPMENT BLANK (EB) EB100599

TRIP BLANK (TB): TB10 05 99

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
1 L Poly	1	Cool to 4C	E310.1/SW9056	Alkalinity/Anions
40 mL VOA	3	Cool to 4C/HCl pH < 2	RSK-175	Methane
40 ml VOA	3	Cool to 4C/HCL pH < 2	~~SW8260B~~ SW8260B	~~BTEX~~ VOCS
[illegible]ber	1	Cool to 4C/none	SW8310	PAHs
25[illegible] Poly	1	Cool to 4C/H2SO4 pH < 2	SW9060	TOC
40 ml VOA	3	Cool to 4C/HCL pH < 2	TX1005	TPH

NOTABLE OBSERVATIONS

PID READINGS		SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st	32.8 ppm	COLOR Clear	
2nd	—	ODOR None	
		OTHER —	

pH 6.68 Temperature 26.07 (C) Dissolved Oxygen 7.96 (mg/L) Specific Conductivity 1998 (umhos/cm)

Iron ND (mg/L) Oxidation/Reduction Potential 80.0 (mv) Turbidity 4.11 (NTU)

GENERAL INFORMATION

WEATHER. SUN/CLEAR ✓ OVERCAST/RAIN — WIND DIRECTION — AMBIENT TEMPERATURE 80°

SHIPMENT VIA FEDEX x HAND DELIVER ___ COURIER ___ OTHER ___

SHIPPED TO STL - Chicago

COMMENTS.

SAMPLER: P. Dam OBSERVER. C. Williams

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZARDOUS SOLID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMPLE	LP=LABORATORY PREP
SE=SEDIMENT	W=WATER	C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

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HYDRO GeoLogic INC

FIELD SAMPLING REPORT

LOCATION: NAS Fort Worth JRB

PROJECT NAME: Quarterly Basewide Groundwater Sampling

SITE: AOC 4

PROJECT NAME: AFC-001-26HBA

SAMPLE INFORMATION

SAMPLE ID: WHGLTA012WG09 1090

DATE: 10-7-99 TIME: 1015

MATRIX TYPE: WG

SAMPLING METHOD: BP

LOT CONTROL #: 2 L 1 L

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: 100002

SAMPLE BEG. DEPTH (FT) NA

SAMPLE END DEPTH (FT) NA

GRAB (✓) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS) —

MATRIX SPIKE DUP (SD). —

FIELD DUP (FD): —

AMBIENT BLANK (AB): —

EQUIPMENT BLANK (EB) ~~EB100799~~ EB100799

TRIP BLANK (TB): TB100799

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
1 L Poly	1	Cool to 4C	E310.1/SW9056	Alkalinity/Anions
40 mL VOA	3	Cool to 4C/HCl pH<2	RSK-175	Methane
40 ml VOA	3	Cool to 4C/HCL pH<2	SW8260B	BTEX
1L Amber	1	Cool to 4C/none	SW8310	PAHs
0 mL Poly	1	Cool to 4C/H2SO4 pH<2	SW9060	TOC
40 ml VOA	3	Cool to 4C/HCL pH<2	TX1005	TPH

NOTABLE OBSERVATIONS

PID READINGS	SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st >2000 ppm	COLOR Clear	
2nd BZ = 0.0 ppm	ODOR fuel-like	
3rd >2000 ppm	OTHER	

pH 6.96 Temperature 26.17 (C) Dissolved Oxygen 6.93 (mg/L) Specific Conductivity 11.39 (umhos/cm)

Iron 6.61 (mg/L) Oxidation/Reduction Potential -136.9 (mv) Turbidity 18.81 (NTU)

GENERAL INFORMATION

WEATHER SUN/CLEAR ✓ OVERCAST/RAIN ____ WIND DIRECTION E AMBIENT TEMPERATURE 80°

SHIPMENT VIA FEDEX x HAND DELIVER ____ COURIER ____ OTHER ____

SHIPPED TO STL - Chicago

COMMENTS

SAMPLER C. Williams OBSERVER S. Stafford

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
HAZARDOUS SOLID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMPLE	LP=LABORATORY PREP
SEDIMENT	W=WATER	C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

HYDRO GeoLogic INC

FIELD SAMPLING REPORT

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LOCATION: NAS Fort Worth JRB

PROJECT NAME Quarterly Basewide Groundwater Sampling

SITE: A064

PROJECT NAME AFC-001-26HBA

SAMPLE INFORMATION

SAMPLE ID WHGLTA014WG~~09~~ 10

DATE: [illegible] TIME: 1257

MATRIX TYPE: WG

SAMPLING METHOD: BP

LOT CONTROL #: 0 1 1 A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: 100002

SAMPLE BEG DEPTH (FT) NA

SAMPLE END DEPTH (FT) NA

GRAB (✓) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS) —

MATRIX SPIKE DUP (SD): —

FIELD DUP (FD): —

AMBIENT BLANK (AB) —

EQUIPMENT BLANK (EB) LB102729

TRIP BLANK (TB): TB102729

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
1 L Poly	1	Cool to 4C	E310 1/SW9056	Alkalinity/Anions
40 mL VOA	3	Cool to 4C/HCl pH<2	RSK-175	Methane
40 ml VOA	3	Cool to 4C/HCL pH<2	SW8260B	BTEX
[illegible] Amber	1	Cool to 4C/none	SW8310	PAHs
[illegible] mL Poly	1	Cool to 4C/H2SO4 pH<2	SW9060	TOC
40 ml VOA	3	Cool to 4C/HCL pH<2	TX1005	TPH

NOTABLE OBSERVATIONS

PID READINGS		SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st [illegible]		COLOR Clear	
2nd [illegible]		ODOR [illegible]	
		OTHER	

pH [illegible] Temperature 26.55 (C) Dissolved Oxygen 7.59 (mg/L) Specific Conductivity 1459 (umhos/cm)

Iron [illegible] (mg/L) Oxidation/Reduction Potential -115.9 (mv) Turbidity 4.96 (NTU)

GENERAL INFORMATION

WEATHER: SUN/CLEAR ✓ OVERCAST/RAIN ____ WIND DIRECTION E AMBIENT TEMPERATURE 80°F

SHIPMENT VIA FEDEX x HAND DELIVER ____ COURIER ____ OTHER ____

SHIPPED TO. STL - Chicago

COMMENTS:

SAMPLER C. Williams OBSERVER: S Stanford

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
[illegible]HAZARDOUS LIQUID WASTE	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
[illegible]HAZARDOUS SOLID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMPLE	LP=LABORATORY PREP
SE=SEDIMENT	W=WATER	C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

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HYDRO GeoLogic INC

FIELD SAMPLING REPORT

LOCATION:	NAS Fort Worth JRB	PROJECT NAME	Quarterly Basewide Groundwater Sampling
SITE:	NA	PROJECT NAME	AFC-001-26HBA

SAMPLE INFORMATION

SAMPLE ID TB100599

DATE: 10-5-99 TIME: 800

MATRIX TYPE: W

SAMPLING METHOD: LP

LOT CONTROL #: 0 1 1 A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: 100000

SAMPLE BEG DEPTH (FT) NA

SAMPLE END DEPTH (FT) NA

GRAB ( ) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS) ~~[illegible]~~ NA

MATRIX SPIKE DUP (SD). ~~[illegible]~~ NA

FIELD DUP (FD): ~~[illegible]~~ PD

AMBIENT BLANK (AB) —

EQUIPMENT BLANK (EB): EB100599

TRIP BLANK (TB): —

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
40 mL VOA	2	Cool to 4C/HCl pH < 2	RSK-175	Methane
40 ml VOAs	2	Cool to 4C/HCL to pH < 2	SW8260B	VOCs

NOTABLE OBSERVATIONS

PID READINGS		SAMPLE CHARACTERISTICS		MISCELLANEOUS
1st	NA	COLOR	clear	
2nd	NA	ODOR	none	
		OTHER.		

pH NA Temperature NA (C) Dissolved Oxygen NA (mg/L) Specific Conductivity NA (umhos/cm)

Iron NA (mg/L) Oxidation/Reduction Potential NA (mv) Turbidity NA (NTU)

GENERAL INFORMATION

WEATHER SUN/CLEAR X OVERCAST/RAIN ____ WIND DIRECTION E AMBIENT TEMPERATURE 74°F

SHIPMENT VIA: FEDEX x HAND DELIVER ____ COURIER ____ OTHER ____

SHIPPED TO STL - Chicago

COMMENTS:

SAMPLER: Nicole Hinde OBSERVER Lynn Morgan

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZARDOUS SOLID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMPLE	LP=LABORATORY PREP
SE=SEDIMENT	W=WATER	C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

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HYDRO GeoLogic INC

FIELD SAMPLING REPORT

[redacted]TION: NAS Fort Worth JRB

PROJECT NAME: Quarterly Basewide Groundwater Sampling

SITE: --

PROJECT NAME: AFC-001-26HBA

SAMPLE INFORMATION

SAMPLE ID: EB100599

DATE: 10-5-99 TIME: 1700

MATRIX TYPE: W

SAMPLING METHOD: GRAB

LOT CONTROL #: 0 1 1 A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: 100000

SAMPLE BEG DEPTH (FT) N/A

SAMPLE END DEPTH (FT) N/A

GRAB (✓) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS): —

MATRIX SPIKE DUP (SD): —

FIELD DUP (FD): —

AMBIENT BLANK (AB): —

EQUIPMENT BLANK (EB): ✓

TRIP BLANK (TB): TB100599

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
1 L Poly	1	Cool to 4C	E310.1/SW9056	Alkalinity/Anions
40 mL VOA	3	Cool to 4C/HCl pH<2	RSK-175	Methane
40 ml VOA	3	Cool to 4C/HCL pH<2	SW8260B	~~BTEX~~ VOCs
[redacted] Amber	1	Cool to 4C/none	SW8310	PAHs
[redacted]mL Poly	1	Cool to 4C/H2SO4 pH<2	SW9060	TOC
40 ml VOA	3	Cool to 4C/HCL pH<2	TX1005	TPH
1L Poly	1	Cool to 4C/HNO3	SW6010A / SW7470A	Total Metals + mercury

NOTABLE OBSERVATIONS

PID READINGS		SAMPLE CHARACTERISTICS		MISCELLANEOUS
1st	N/A	COLOR	Clear	
2nd	N/A	ODOR	None	
		OTHER	—	

pH — Temperature -- (C) Dissolved Oxygen — (mg/L) Specific Conductivity -- (umhos/cm)

Iron — (mg/L) Oxidation/Reduction Potential — (mv) Turbidity — (NTU)

GENERAL INFORMATION

WEATHER SUN/CLEAR ✓ OVERCAST/RAIN — WIND DIRECTION — AMBIENT TEMPERATURE 80°

SHIPMENT VIA. FEDEX x HAND DELIVER ___ COURIER ___ OTHER ___

SHIPPED TO STL - Chicago

COMMENTS.

SAMPLER: P. Darnwala OBSERVER: S. Stafford

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
[redacted]AZARDOUS SOLID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMPLE	LP=LABORATORY PREP
[redacted]EDIMENT	W=WATER	C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

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HYDRO GeoLogic inc

FIELD SAMPLING REPORT

LOCATION: NAS Fort Worth JRB

SITE: NA

PROJECT NAME: Quarterly Basewide Groundwater Sampling

PROJECT NAME: AFC-001-26HBA

SAMPLE INFORMATION

SAMPLE ID TB100699

DATE: 10-6-99 TIME: 710

MATRIX TYPE: W

SAMPLING METHOD: LP

LOT CONTROL #: C 1 1 A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: 100001

SAMPLE BEG DEPTH (FT) NA

SAMPLE END DEPTH (FT). NA

GRAB (X) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS) —

MATRIX SPIKE DUP (SD) —

FIELD DUP (FD) —

AMBIENT BLANK (AB) —

EQUIPMENT BLANK (EB) EB00699

TRIP BLANK (TB) —

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
40 mL VOA	2	Cool to 4C/HCl pH<2	RSK-175	Methane
40 ml VOAs	2	Cool to 4C/HCL to pH<2	SW8260B	VOCs

NOTABLE OBSERVATIONS

PID READINGS		SAMPLE CHARACTERISTICS		MISCELLANEOUS
1st	NA	COLOR	clear	
2nd	NA	ODOR	none	
		OTHER		

pH NA Temperature NA (C) Dissolved Oxygen NA (mg/L) Specific Conductivity NA (umhos/cm)

Iron NA (mg/L) Oxidation/Reduction Potential NA (mv) Turbidity NA (NTU)

GENERAL INFORMATION

WEATHER: SUN/CLEAR X OVERCAST/RAIN ____ WIND DIRECTION E AMBIENT TEMPERATURE 65°F

SHIPMENT VIA: FEDEX x HAND DELIVER ____ COURIER ____ OTHER ____

SHIPPED TO STL - Chicago

COMMENTS:

SAMPLER. Nicole Hendr OBSERVER Lynn Morgan

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZARDOUS SOLID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMPLE	LP=LABORATORY PREP
SE=SEDIMENT	W=WATER	C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

HYDRO GeoLogic INC

FIELD SAMPLING REPORT

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TION: NAS Fort Worth JRB

PROJECT NAME Quarterly Basewide Groundwater Sampling

SITE: AOC 4

PROJECT NAME AFC-001-26HBA

SAMPLE INFORMATION

SAMPLE ID EB100699

DATE: 10-6-99 TIME: 1215

MATRIX TYPE: W

SAMPLING METHOD: Grab

LOT CONTROL #: 0 1 1 A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: 100001

SAMPLE BEG DEPTH (FT) —

SAMPLE END DEPTH (FT) —

GRAB (X) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS) —

MATRIX SPIKE DUP (SD) —

FIELD DUP (FD). —

AMBIENT BLANK (AB) —

EQUIPMENT BLANK (EB) —

TRIP BLANK (TB). TB100699

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
1 L Poly	1	Cool to 4C	E310.1/SW9056	Alkalinity/Anions
40 mL VOA	3	Cool to 4C/HCl pH < 2	RSK-175	Methane
40 ml VOA	3	Cool to 4C/HCL pH < 2	SW8260B	~~BTEX~~ ~~TP~~ VOCs
[illegible] Amber	1	Cool to 4C/none	SW8310	PAHs
[illegible]mL Poly	1	Cool to 4C/H2SO4 pH < 2	SW9060	TOC
40 ml VOA	3	Cool to 4C/HCL pH < 2	TX1005	TPH

NOTABLE OBSERVATIONS

PIO READINGS		SAMPLE CHARACTERISTICS		MISCELLANEOUS
1st	—	COLOR	—	
2nd	—	ODOR	—	
		OTHER		

pH — Temperature — (C) Dissolved Oxygen — (mg/L) Specific Conductivity — (umhos/cm)

Iron — (mg/L) Oxidation/Reduction Potential — (mv) Turbidity — (NTU)

GENERAL INFORMATION

WEATHER: SUN/CLEAR X OVERCAST/RAIN ____ WIND DIRECTION ____ AMBIENT TEMPERATURE ____

SHIPMENT VIA FEDEX x HAND DELIVER ____ COURIER ____ OTHER ____

SHIPPED TO STL - Chicago

COMMENTS.

SAMPLER. P. Daruwala OBSERVER: L. Morgan

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
[illegible]AZARDOUS SOLID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMPLE	LP=LABORATORY PREP
[illegible]EDIMENT	W=WATER	C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

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HYDRO GeoLogic INC

FIELD SAMPLING REPORT

LOCATION:	NAS Fort Worth JRB	PROJECT NAME	Quarterly Basewide Groundwater Sampling
SITE:	—	PROJECT NAME	AFC-001-26HBA

SAMPLE INFORMATION

SAMPLE ID TB100799

DATE: 10-7-99 TIME: 800

MATRIX TYPE: W

SAMPLING METHOD: Grab

LOT CONTROL #: 0 1 1 A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: 100002

SAMPLE BEG DEPTH (FT) N/A

SAMPLE END DEPTH (FT) N/A

GRAB (✓) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS). —

MATRIX SPIKE DUP (SD): —

FIELD DUP (FD): —

AMBIENT BLANK (AB). —

EQUIPMENT BLANK (EB) EB100799

TRIP BLANK (TB) ✓

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
40 mL VOA	2	Cool to 4C/HCl pH<2	RSK-175	Methane
40 ml VOAs	2	Cool to 4C/HCL to pH<2	SW8260B	VOCs

NOTABLE OBSERVATIONS

PID READINGS		SAMPLE CHARACTERISTICS		MISCELLANEOUS
1st	—	COLOR	—	
2nd	—	ODOR	—	
		OTHER		

pH — Temperature — (C) Dissolved Oxygen — (mg/L) Specific Conductivity — (umhos/cm)

Iron — (mg/L) Oxidation/Reduction Potential — (mv) Turbidity — (NTU)

GENERAL INFORMATION

WEATHER SUN/CLEAR — OVERCAST/RAIN — WIND DIRECTION — AMBIENT TEMPERATURE —

SHIPMENT VIA FEDEX x HAND DELIVER ___ COURIER ___ OTHER ___

SHIPPED TO STL - Chicago

COMMENTS

SAMPLER: C Willing OBSERVER P. Daraunda

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZARDOUS SOLID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMPLE	LP=LABORATORY PREP
SE=SEDIMENT	W=WATER	C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

HYDRO GeoLogic INC

FIELD SAMPLING REPORT

642 228

[redacted]TION: NAS Fort Worth JRB

PROJECT NAME Quarterly Basewide Groundwater Sampling

SITE: N/A

PROJECT NAME AFC-001-26HBA

SAMPLE INFORMATION

SAMPLE ID EB100799

DATE: 10-7-99 TIME: 1715

MATRIX TYPE: W

SAMPLING METHOD: G

LOT CONTROL #: 0 1 1 A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: 100002

SAMPLE BEG DEPTH (FT) N/A

SAMPLE END DEPTH (FT) N/A

GRAB (✓) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS): —

MATRIX SPIKE DUP (SD): —

FIELD DUP (FD): —

AMBIENT BLANK (AB) —

EQUIPMENT BLANK (EB) ✓

TRIP BLANK (TB) TB100799

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
1 L Poly	1	Cool to 4C	E310 1/SW9056	Alkalinity/Anions
40 mL VOA	3	Cool to 4C/HCl pH<2	RSK-175	Methane
40 ml VOA	3	Cool to 4C/HCL pH<2	SW8260B	BTEX
[redacted] Amber	1	Cool to 4C/none	SW8310	PAHs
[redacted]mL Poly	1	Cool to 4C/H2SO4 pH<2	SW9060	TOC
40 ml VOA	3	Cool to 4C/HCL pH<2	TX1005	TPH

NOTABLE OBSERVATIONS

PID READINGS		SAMPLE CHARACTERISTICS		MISCELLANEOUS
1st	—	COLOR	—	
2nd	—	ODOR	—	
		OTHER	—	

pH — Temperature — (C) Dissolved Oxygen — (mg/L) Specific Conductivity — (umhos/cm)

Iron — (mg/L) Oxidation/Reduction Potential — (mv) Turbidity — (NTU)

GENERAL INFORMATION

WEATHER. SUN/CLEAR — OVERCAST/RAIN — WIND DIRECTION — AMBIENT TEMPERATURE —

SHIPMENT VIA FEDEX x HAND DELIVER COURIER OTHER

SHIPPED TO STL - Chicago

COMMENTS

SAMPLER: C. Willis OBSERVER: [illegible]

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
[redacted]AZARDOUS SOLID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMPLE	LP=LABORATORY PREP
[redacted]EDIMENT	W=WATER	C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

642 229

FIELD SAMPLING REPORT

HYDRO GeoLogic INC

LOCATION: NAS Fort Worth JRB

SITE: NA

PROJECT NAME Quarterly Basewide Groundwater Sampling

PROJECT NAME AFC-001-26HBA

SAMPLE INFORMATION

SAMPLE ID TB100899

DATE: 10-8-99 TIME: 800

MATRIX TYPE: W

SAMPLING METHOD: LP

LOT CONTROL #: C 1 1 A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: 160003

SAMPLE BEG DEPTH (FT) NA

SAMPLE END DEPTH (FT) NA

GRAB (X) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS) –

MATRIX SPIKE DUP (SD) –

FIELD DUP (FD) –

AMBIENT BLANK (AB) –

EQUIPMENT BLANK (EB) EB100899

TRIP BLANK (TB) TB100899

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
40 mL VOA	2	Cool to 4C/HCl pH<2	RSK-175	Methane
40 ml VOAs	2	Cool to 4C/HCL to pH<2	SW8260B	VOCs

NOTABLE OBSERVATIONS

PID READINGS		SAMPLE CHARACTERISTICS		MISCELLANEOUS
1st	NA	COLOR	NA	
2nd	NA	ODOR	NA	
		OTHER		

pH NA Temperature NA (C) Dissolved Oxygen NA (mg/L) Specific Conductivity NA (umhos/cm)

Iron NA (mg/L) Oxidation/Reduction Potential NA (mv) Turbidity NA (NTU)

GENERAL INFORMATION

WEATHER SUN/CLEAR NA OVERCAST/RAIN NA WIND DIRECTION NA AMBIENT TEMPERATURE NA

SHIPMENT VIA FEDEX x HAND DELIVER ____ COURIER ____ OTHER ____

SHIPPED TO: STL - Chicago

COMMENTS

SAMPLER S Stanford OBSERVER Catherine Williams

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZARDOUS SOLID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMPLE	LP=LABORATORY PREP
SE=SEDIMENT	W=WATER	C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

HYDRO GeoLogic INC

FIELD SAMPLING REPORT

642 230

LOCATION: NAS Fort Worth JRB

PROJECT NAME. Quarterly Basewide Groundwater Sampling

SITE. N/A

PROJECT NAME AFC-001-26HBA

SAMPLE INFORMATION

SAMPLE ID EB100899

DATE: 10 8-99 TIME: 1600

MATRIX TYPE: W

SAMPLING METHOD: G

LOT CONTROL #: 0 1 1 A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: 100003

SAMPLE BEG DEPTH (FT) N/A

SAMPLE END DEPTH (FT) N/A

GRAB (✓) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS): —

MATRIX SPIKE DUP (SD) —

FIELD DUP (FD): —

AMBIENT BLANK (AB). —

EQUIPMENT BLANK (EB). —

TRIP BLANK (TB): TB100899

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
1 L Poly	1	Cool to 4C	E310 1/SW9056	Alkalinity/Anions
40 mL VOA	3	Cool to 4C/HCl pH < 2	RSK-175	Methane
40 ml VOA	3	Cool to 4C/HCL pH < 2	SW8260B	BTEX
[illegible]mber	1	Cool to 4C/none	SW8310	PAHs
[illegible]nL Poly	1	Cool to 4C/H2SO4 pH < 2	SW9060	TOC
40 ml VOA	3	Cool to 4C/HCL pH < 2	TX1005	TPH

NOTABLE OBSERVATIONS

PID READINGS		SAMPLE CHARACTERISTICS		MISCELLANEOUS
1st	NA	COLOR	Clear	
2nd	NA	ODOR	None	
		OTHER	—	

pH — Temperature — (C) Dissolved Oxygen — (mg/L) Specific Conductivity — (umhos/cm)

Iron — (mg/L) Oxidation/Reduction Potential — (mv) Turbidity — (NTU)

GENERAL INFORMATION

WEATHER SUN/CLEAR — OVERCAST/RAIN — WIND DIRECTION — AMBIENT TEMPERATURE —

SHIPMENT VIA: FEDEX x HAND DELIVER ____ COURIER ____ OTHER ____

SHIPPED TO STL - Chicago

COMMENTS

SAMPLER. C. Willing OBSERVER S. Stanford

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
[illegible]AZARDOUS SOLID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMPLE	LP=LABORATORY PREP
[illegible]SEDIMENT	W=WATER	C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

642 231

HYDRO GeoLogic INC

FIELD SAMPLING REPORT

LOCATION: NAS Fort Worth JRB

SITE: N/A

PROJECT NAME: Quarterly Basewide Groundwater Sampling

PROJECT NAME: AFC-001-26HBA

SAMPLE INFORMATION

SAMPLE ID: TB101899

DATE: 10-18-99 TIME: 740

MATRIX TYPE: W

SAMPLING METHOD: ~~BP~~ LP

LOT CONTROL #: 0 0 1 A

(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler #)

CHAIN-OF-CUSTODY #: 100009

SAMPLE BEG DEPTH (FT). N/A

SAMPLE END DEPTH (FT) N/A

GRAB (✓) COMPOSITE ( )

ENTER SAMPLE NUMBERS FOR QC SAMPLES/ BLANKS ASSOCIATED WITH THIS SAMPLE:

MATRIX SPIKE (MS). —

MATRIX SPIKE DUP (SD) —

FIELD DUP (FD) —

AMBIENT BLANK (AB): —

EQUIPMENT BLANK (EB) —

TRIP BLANK (TB) —

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
40 ml VOAs	~~3~~ 2	Cool to 4C/HCL to pH<2	SW8260B	VOCs
40 ml VOAs	~~2~~ 2	Cool to 4C/HCl to pH<2	RSK-175	Methane

NOTABLE OBSERVATIONS

PID READINGS		SAMPLE CHARACTERISTICS		MISCELLANEOUS
1st	N/A	COLOR	Clear	
2nd	N/A	ODOR	None	
		OTHER	—	

pH — Temperature — (C) Dissolved Oxygen — (mg/L) Specific Conductivity — (umhos/cm)

Iron — (mg/L) Oxidation/Reduction Potential — (mv) Turbidity — (NTU)

GENERAL INFORMATION

WEATHER SUN/CLEAR — OVERCAST/RAIN — WIND DIRECTION — AMBIENT TEMPERATURE —

SHIPMENT VIA FEDEX x HAND DELIVER ___ COURIER ___ OTHER ___

SHIPPED TO: STL - Chicago

COMMENTS

SAMPLER: C. Williams OBSERVER: S. Stanford

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDGE	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WASTE	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZARDOUS SOLID WASTE	WS=SURFACE WATER	CS=COMPOSITE SAMPLE	LP=LABORATORY PREP
SE=SEDIMENT	W=WATER	C=CONTINUOUS FLIGHT AUGER	SS=SPLIT SPOON
		DT=DRIVEN TUBE	SP=SUBMERSIBLE PUMP

APPENDIX A.3

LABORATORY CHAIN-OF-CUSTODY'S

RECRA LabNet Use Only

99016922

Custody Transfer Record/Lab Work Request

RECRA Lab

Client: HydroGeologic, Inc
Est. Final Proj. Sampling Date: 2-5-99
Project #: AFC001 15 IDA
Project Contact/Phone #: Lynn MORGAN
RECRA Project Manager: Bosco RAMIREZ
QC: ____ Del: ____ TAT: ____
Date Rec'd: ____ Date Due: ____
Account #: ____

Refrigerator #:
#/Type Container: Liquid / Solid
Volume: Liquid / Solid
Preservatives:

ANALYSES REQUESTED →

MATRIX CODES:
S - Soil
SE - Sediment
SO - Solid
SL - Sludge
W - Water
O - Oil
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	ORGANIC: VOC ~~VOA~~	BNA	Pest/PCB	Herb	BTEX + MTBE	Methane	TPH → GRO	INORG: Metal	CN	TOC	PAH	TPH-DRO	Alkalinity Anions	V-NH
007	WHGLTA009WG07			W	1/19/99	1005					3	3	3			1	1	1	1	
008	TB011999			W	1/19/99	830					2	2								
009	EB011999			W	1/19/99	1130					3	3	3			1	1	1	1	
010	ST14-24WG07			W	1/19/99	1309	3							1						
011	ST14-W31WG07			W	1/19/99	1615	3					3		1		1			1	
012	ST14-29WG07			W	1/19/99	1426					3	3				1			1	
013	WHGLTA012WG07			W	1/19/99	1405					3	3	3			1	1	1	1	
014	WHGLTA014WG07			W	1/19/99	1540					3	3	3			1	1	1	1	

RECRA LabNet Use Only

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions:

DATE/REVISIONS:
1
2
3
4 3.9, 3.2, 2.4, 2.3, 4.0,
5
6

RECRA LabNet Use Only

Samples were:
1) Shipped FX or Hand Delivered ____
Airbill # ____
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was 60740, 60746, 60744, 6985, 7336, 6896
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N
COC Record Present Upon Sample Rec't Y or N

Discrepancies Between Samples Lables and COC Record? Y or N
NOTES

Relinquished by	Received by	Date	Time
[signature]		1/19/99	1815
	[signature]	1/20	1430

Relinquished by	Received by	Date	Time

642 233

Page 1 of 1

RECRA LabNet

Custody Transfer Record/Lab Work Request

RECRA LabNet Use Only: 9901G922

642.234

Client: HydroGeoLogic
Est. Final Proj. Sampling Date: 2-5-99
Project #: AFC001 15 1DA
Project Contact/Phone #: Lynn Morgan
RECRA Project Manager: Bosco Ramirez
QC: Del: TAT:
Date Rec'd: Date Due:
Account #:

Refrigerator #
#/Type Container: Liquid / Solid
Volume: Liquid / Solid
Preservatives

ANALYSES REQUESTED →

MATRIX CODES:	Lab ID	Client ID/Description	Matrix OC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	ORGANIC: VOA	BNA	Pest/PCB	Herb	BTEX+ MTBE	Methane	TPH-GRO	INORG: Metal	CN	TOC	PAH	TPH-DRO	Alkalinity Anions
S - Soil	001	4WHGLTA011WG07			W	1/18/99	1432					3	3	3				1	1	1	1
SE - Sediment	002	4WHGLTA010WG07			W	1/18/99	1620					3	3	3				1	1	1	1
SO - Solid	003	TB011899			W	1/18/99	800					2	2								
SL - Sludge	004	EB011899			W	1/18/99	1800					3	3	3				1	1	1	1
W - Water	005	WCHMHTA008WG07			W	1/18/99	1046					3	3	3				1	1	1	1
O - Oil	006	DUP01			W	1/18/99	1200					3	3	3				1	1	1	1
A - Air																					
DS - Drum Solids																					
DL - Drum Liquids																					
L - EP/TCLP Leachate																					
Wi - Wipe																					
X - Other																					
F - Fish																					

RECRA LabNet Use Only

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions:

DATE/REVISIONS:
1
2
3
4 2.3, 4.0, 3.9, 3, 2, 2.4
5
6

RECRA LabNet Use Only

Samples were: 1) Shipped ___ or Hand Delivered ___ Airbill # ___
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was 60746
1) Present on Outer Package Y or N 60744
2) Unbroken on Outer Package Y or N 7336
3) Present on Sample Y or N 6876
4) Unbroken on Sample Y or N
COC Record Present Upon Sample Rec'd Y or N

Discrepancies Between Samples Lables and COC Record? Y or N
NOTES

Relinquished by	Received by	Date	Time
[illegible]		1/19/99	1745
	K Keizer	1/20	1230

Relinquished by	Received by	Date	Time
	B. Daugher	1/22/99	1125

Page

RECRA LabNet Use Only
9906977

Custody Transfer Record/Lab Work Request

RECRA LabNet

Client: Hydrogeologic
Est. Final Proj. Sampling Date: 2/5/99
Project #: AEC001-15IDA
Project Contact/Phone #: Lynn Morgan
RECRA Project Manager: Bosco Rimerez
QC _____ Del _____ TAT _____
Date Rec'd _____ Date Due _____
Account # _____

Refrigerator #
#/Type Container: Liquid / Solid
Volume: Liquid / Solid
Preservatives

ANALYSES REQUESTED →

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	ORGANIC VOA	BNA	Pest/PCB	Herb	Halogen Aromatics	Methane	BTEX+ MTBE	INORG Metal Hg	CN	TOC	TPH-GRO	PAH
001	SD13-06WG07			W	1/22/99	1805	3				1	3		1		1		
002	STH-28WG07			W	1/22/99	1440					1	3	3			1		
003	SD13-04WG07			W	1/22/99	1115					1	3	3			1		
004	SD0735-6WG07			W	1/22/99	950	3										3	1
005	USPOL-18WG07			W	1/22/99	959	3				1	3				1		
006	TB012299			W	1/22/99	830	2					2						

MATRIX CODES:
S - Soil
SE - Sediment
SO - Solid
SL - Sludge
W - Water
O - Oil
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions:
metals + mercury
SD13-06WG07 - serial dilution

DATE/REVISIONS:
1
2
3 d.3
4.
5
6.

RECRA LabNet Use Only

Samples were 1) Shipped ✓ or Hand Delivered ___
Airbill # _____
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was 1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N
COC Record Present Upon Sample Rec't Y or N

Discrepancies Between Samples Lables and COC Record? Y or N
NOTES.

Relinquished by	Received by	Date	Time
[illegible]		1/22/99	1630
	K Kreiger	1/23/99	

Relinquished by	Received by	Date	Time
	Brian Dougherty	1/26/99	1100

Page 1 of 1

642 235

RECRA LabNet

Custody Transfer Record/Lab Work Requ st

RECRA LabNet Use Only: 99016858

Client: HydroGeologic Inc
Est. Final Proj. Sampling Date: 2-5-99
Project #: AFC 001 1507 CDE
Project Contact/Phone #: Lynn Morgan
RECRA Project Manager: Bosco Ramirez
QC _____ Del _____ TAT _____
Date Rec'd _____ Date Due _____
Account # _____

Refrigerator #
#/Type Container: Liquid / Solid
Volume: Liquid / Solid
Preservatives

ANALYSES REQUESTED →

MATRIX CODES:
S - Soil
SE - Sediment
SO - Solid
SL - Sludge
W - Water
O - Oil
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	ORGANIC VOA	BNA	Pest/PCB	Herb	BTEX MTBE	Methane	TPH-GRO	INORG Metal	CN	TPH DRO	TOC	Alk Anion	PAH	
—	~~ITMW 01TWG07~~			~~W~~	~~1/12/99~~		~~3~~					~~3~~		~~1~~			~~1~~	~~1~~		PD
001	SPOT35-8WG07			W	1/12/99	1546					3	3	3			1	1	1	1	
	SPOT35-8WG07MS	X		W	1/12/99	1546					3	3	3			1	1	1	1	
	SPOT35-8WG07MD		X	W	1/12/99	1546					3	3	3			1	1	1	1	
002	EB011299			W	1/12/99	1800		PD			3	3	3			1	1	1	1	
003	TB011299			W	1/12/99	1800	~~2~~				2	2								

FIELD PERSONNEL COMPLETE ONLY SHADED AREAS

Special Instructions:
~~Total Metals + mercury~~ PD

DATE/REVISIONS.
1
2 ~~0802 2.6 kms~~
3 60750 (0.2, 0.2, 1.3)
4 60752 (0.2, 0.6, 1.0)
5 60752 (0.9, 3.5, 1.3)
6 60738 (1.1, 1.6, 1.7)

RECRA LabNet Use Only

Samples were: 1) Shipped ✓ or Hand Delivered ___ Airbill # ___
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was: 1) Present on Outer Package Y or N 60704
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N
COC Record Present Upon Sample Rec't Y or N

Discrepancies Between Samples Lables and COC Record? Y or N
NOTES

Relinquished by	Received by	Date	Time
[signature]		1/13/99	1600
	[signature]	1/14/99	1350

Relinquished by	Received by	Date	Time

642 236

RECRA LabNet

8

642 237

RECRA LabNet Use Only: 99016858

Custody Transfer R cord/Lab Work Request

Client: HydroGeoLogic Inc
Est. Final Proj. Sampling Date: 2-5-99
Project #: AFC 001 07 CDE
Project Contact/Phone #: Lynn Morgan
RECRA Project Manager: Bosco Ramirez
QC ____ Del ____ TAT ____
Date Rec'd ____ Date Due ____
Account # ____

Refrigerator #
#/Type Container: Liquid / Solid
Volume: Liquid / Solid
Preservatives

ANALYSES REQUESTED →

RECRA LabNet Use Only

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	VOA	BNA	Pest/PCB	Herb	BTEX MTBE	Methane	TPH-GRO	Metal	CN	TOC	PAH	TPH-DRO	Alkalinity Anion
004	SPOT 3 5-9W607			W	1/13/99	1407					3	3	3			1	1	1	1
005	WCHMHTA 009W607			W	1/13/99	1100					3	3	3			1	1	1	1
006	EB011399			W	1/13/99	1630					3	3	3			1	1	1	1
007	AB011399			W	1/13/99	1407					2								
008	TB011399			W	1/13/99	0800					2	2							

MATRIX CODES:
S - Soil
SE - Sediment
SO - Solid
SL - Sludge
W - Water
O - Oil
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

FIELD PERSONNEL. COMPLETE ONLY SHADED AREAS

Special Instructions:

DATE/REVISIONS:
1
2 60750 (0.2, 0.2, 1.3)
3 60754 (0.2, 0.6, 1.0)
4 ~~6962 2.6~~ [illegible]
5. 60752 (0.9, 3.5, 1.3)
6. 60738 (1, 1.6, 1.7)

Relinquished by	Received by	Date	Time
P. Dunk		1/13/99	1700
	K. Nichols	1/14/99	1350

Relinquished by	Received by	Date	Time

Discrepancies Between Samples Lables and COC Record? Y or N
NOTES

RECRA LabNet Use Only

Samples were
1) Shipped FX or Hand Delivered ____
Airbill # ____
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N
COC Record Present Upon Sample Rec't Y or N

Page 1

RECRA L Use Only

9904G981

Custody Transfer Record/Lab Work Request

RECRA LabNet

Client: HydroGeologic, Inc.
Est. Final Proj. Sampling Date: 4-30-99
Project #: AFC001-15IEA
Project Contact/Phone #: Lynn Morgan
RECRA Project Manager: Bosco Ramirez
QC ____ Del ____ TAT ____
Date Rec'd ____ Date Due ____
Account # ____

Refrigerator #																					
#/Type Container	Liquid																				
	Solid																				
Volume	Liquid																				
	Solid																				
Preservatives		HCL								HCL	HCL										
ANALYSES REQUESTED →		ORGANIC											INORG								
		VOA 8260	~~DNA~~ PAHs	Pest/PCB	Herb	Methane RSK-175	BTEX MTBE	TPH	Metal	CN	Alk/Anion	TOC									
		RECRA LabNet Use Only																			

MATRIX CODES:
S - Soil
SE - Sediment
SO - Solid
SL - Sludge
W - Water
O - Oil
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	VOA 8260	~~DNA~~ PAHs	Pest/PCB	Herb	Methane RSK-175	BTEX MTBE	TPH	Metal	CN	Alk/Anion	TOC				
001	WJETA535WG08			WG	4/12/99	1649	3														
002	LF05-19CWG08			WG	4/12/99	1825	3				3					1	1				
003	WCHMHTA009WG08			WG	4/13/99	1534		1			3	3	2			1	1				
004	LF04-4CWG08			WG	4/13/99	1520	3				3					1	1				
005	TB041299			W	4/12/99	1130	2				2										
006	TB041399			W	4/13/99	0800	2				2	2									
007	EB041399			W	4/13/99	1745		1			3	3	2			1	1				

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions:

DATE/REVISIONS
1
2
3 3.8
4
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6

RECRA LabNet Use Only

Samples were:
1) Shipped FX or Hand Delivered
Airbill #
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was: date + signature
1) Present on Outer Package Y or N 62610
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N
COC Record Present Upon Sample Rec't Y or N

Discrepancies Between Samples Labels and COC Record Y or N
NOTES
[illegible] 4/14

Relinquished by	Received by	Date	Time
[illegible]		4/13/99	6:45 pm
	KKuzer	4/14	1110

Relinquished by	Received by	Date	Time

642 238

Page 1 of 1

REC LabNet

Custody Transfer Record/Lab Work Request

RECRA LabNet Use Only: 9904G981

Client: HydroGeologic, Inc.
Est. Final Proj. Sampling Date: 4-30-99
Project #: AFC 001-15IEA
Project Contact/Phone #: LYNN MORGAN
RECRA Project Manager: BOSCO RAMIREZ
QC: [signature] Del: TAT:
Date Rec'd: Date Due:
Account #:

Refrigerator #:
#/Type Container: Liquid / Solid
Volume: Liquid / Solid
Preservatives:

ANALYSES REQUESTED →

MATRIX CODES: S - Soil; SE - Sediment; SO - Solid; SL - Sludge; W - Water; O - Oil; A - Air; DS - Drum Solids; DL - Drum Liquids; L - EP/TCLP Leachate; WI - Wipe; X - Other; F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	ORGANIC VOA VOCs (HCL)	~~BNA~~ PAHs	Pest/PCB	Herb	Methane (HCl)	BTEX/MTBE (HCl)	TPH	INORG Total Metals Mercury (HNO3)	CN	TOC (H2SO4)	Alk/Anions
008	TB041499			W	4/14/99	0800	2				2						
009	AB041499			W	4/14/99	1120	3										
010	SPOT35-8WG08			W	4/14/99	1119		1			3	3	2			1	1
011	EB041499			W	4/14/99	1330		1			3	3	2			1	1
012	WHGLTA003WG08	✓	✓	W	4/14/99	1220	3				3			1		1	1
~~013~~	WHGLTA003WG08MS			W	4/14/99	1220	3				3			1		1	1
~~014~~	WHGLTA003WG08MD			W	4/14/99	1220	3				3			1		1	1
013	SD13-06WG08			W	4/14/99	1550	3				3			1		1	1

RECRA LabNet Use Only

FIELD PERSONNEL COMPLETE ONLY SHADED AREAS

Special Instructions:
Serial dilution on metals for WHGLTA003WG08

DATE/REVISIONS
1
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(1.4, 3.1, 2.0), 3.4

RECRA LabNet Use Only

Samples were: 1) Shipped TX or Hand Delivered Airbill # 2) Ambient or Chilled 3) Received in Good Condition Y or N 4) Labels Indicate Properly Preserved Y or N 5) Received Within Holding Time Y or N

COC Tape was: 1) Present on Outer Package Y or N 2) Unbroken on Outer Package Y or N 3) Present on Sample Y or N 4) Unbroken on Sample Y or N COC Record Present Upon Sample Rec'd Y or N

62036, 61313

Discrepancies Between Samples, Labels and COC Record? Y or N
NOTES

Relinquished by	Received by	Date	Time
[signature]		4/14/99	1830
	K Keizer	4/15	1050

Relinquished by	Received by	Date	Time

Page 1 / 1

642 239

RECRA LabNet Use Only

9904R025

Custody Transfer Record/Lab Work Request

RECRA LabNet

Client: HydroGeologic, Inc
Est. Final Proj. Sampling Date: 4-30-99
Project #: AFC001-15IEA
Project Contact/Phone #: Lynn Morgan
RECRA Project Manager: Bosco Ramirez
QC: ___ Del: ___ TAT: ___
Date Rec'd: ___ Date Due: ___
Account #: ___

Refrigerator #

#/Type Container		VOA	Amber	Amber	Amber	VOA	VOA	Amber	poly	poly	poly	poly	poly	Amber	Amber	Amber
	Liquid															
	Solid															
Volume	Liquid	40ml	1L	1L	1L	40ml	40ml	1L	1L	1L	250ml	1L	1L	1L	1L	1L
	Solid															
Preservatives		HCl				HCl	HCl		HNO3	NaOH	H2SO4		NaOH			

ANALYSES REQUESTED

ORGANIC								INORG							
VOA VOCs	~~BNA~~ PAHs	Pest/ PCB	Herb	Methane	BTEX MTBE	TPH	Metal Metals	CN	TOC	Alkalinity Anions Sulfides	Fecal TEST	SUCCS	Total Dissolved Solids		

RECRA LabNet Use Only

MATRIX CODES:	Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected															
S - Soil	001	WP07-10CWG08			W	4/14/99	1830	3				3					1	1				
SE - Sediment	002	TB041599			W	4/15/99	0730	2					2									
SO - Solid	003	WHGLTA009WG08			W	4/15/99	1032		1			3	3	2			1	1				
SL - Sludge	004	EB041599			W	4/15/99	1230		1			3	3	2			1	1				
W - Water	005	WHGLTA014WG08			W	4/15/99	1721		1			3	3	2			1	1				
O - Oil	006	WHGLTA010WG08			W	4/15/99	1516		1			3	3	2			1	1				
A - Air	007	SD13-07WG08			W	4/15/99	1230	3		2	2	3			1	1	1	1	1	2	2	2
DS - Drum Solids	008	SD13-02WG08			W	4/15/99	1715					3	3				1	1				
DL - Drum Liquids																						
L - EP/TCLP Leachate																						
WI - Wipe																						
X - Other																						
F - Fish																						

FIELD PERSONNEL COMPLETE ONLY SHADED AREAS

Special Instructions

DATE/REVISIONS

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2.7, 2.5, 3.0, 2.4, 3.2

RECRA LabNet Use Only

Relinquished by	Received by	Date	Time
[illegible]		4/15/99	1700
	[illegible]	4/16	1025

Relinquished by	Received by	Date	Time

642 210

RECRA Use Only
9904G038

Custody Transfer Record/Lab Work Request

PRA LabNet

642 241

Client: HydroGeologic, Inc
Est. Final Proj. Sampling Date: 4-30-99
Project #: AFC-001-15 IEA
Project Contact/Phone #: Lynn Morgan 703 4785186
RECRA Project Manager: Bosco R. Amirez
QC: Del: TAT:
Date Rec'd: Date Due:
Account #:

Refrigerator #																	
#/Type Container	Liquid	vial	Amber			vial	vial	Amber			poly	poly					
	Solid																
Volume	Liquid	40ml	1L			40ml	40ml	1L			250ml	1L					
	Solid																
Preservatives		HCl				HCl	HCl				H_2SO_4						
ANALYSES REQUESTED		ORGANIC							INORG								
		VOA VOCs	BNA PAHs	Pest/PCB	Herb	Methane	BTEX MTBE	TPH	Metal	CN	TOC	Alk/Anions					

MATRIX CODES:
S - Soil
SE - Sediment
SO - Solid
SL - Sludge
W - Water
O - Oil
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

RECRA LabNet Use Only

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	VOA VOCs	BNA PAHs	Pest/PCB	Herb	Methane	BTEX MTBE	TPH	Metal	CN	TOC	Alk/Anions
001	TB041699			W	4/16/99	0730	2				2						
002	WHGLTA012WG08			W	4/16/99	1108		1			3	3	2			1	1
003	EB041699			W	4/16/99	1300		1			3	3	2			1	1
004	SPOT35-9WG08			W	4/16/99	1645		1			3	3	2			1	1
005	WHCTA010WG08			W	4/16/99	1515	3				3					1	1
006	AB041699			W	4/16/99	1515	3										
007	SD13-01WG08			W	4/16/99	1710	3				3					1	1

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions:
Shipped for Saturday Delivery

DATE/REVISIONS
1
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3 2.6
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RECRA LabNet Use Only

Samples were
1) Shipped ___ or Hand Delivered ___
Airbill # ___
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was 7332
1) Present on Outer Package Y or N 7335 date & signature
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N
COC Record Present Upon Sample Rec'l Y or N

Discrepancies Between Samples Lables and COC Record? Y or N
NOTES

Relinquished by	Received by	Date	Time
[illegible]		4/16/99	1830
	K Kleizer	4/17	1035

Relinquished by	Received by	Date	Time

Page 1 1

RECRA LabNet Use Only

9904G055

Custody Transfer Record/Lab Work Request

RECRA LabNet

Client: HydroGeoLogic, Inc.
Est. Final Proj. Sampling Date: 4-30-99
Project #: AFC001-15IEA
Project Contact/Phone #: Lynn Morgan 703 736.4557
RECRA Project Manager: Bosco Ramirez
QC: CW EJD Del: _____ TAT: _____
Date Rec'd: _____ Date Due: _____
Account #: _____

Refrigerator #																							
#/Type Container	Liquid	Vial	Amber					Vial	Amber	Vial			Poly	Poly									
	Solid																						
Volume	Liquid	40ml	1L					40ml	1L	40ml			250ml	1L									
	Solid																						
Preservatives		HCl						HCl		HCl			1L										
ANALYSES REQUESTED →		ORGANIC									INORG												
		VOA VOCs	~~BNA~~ PAHs	Pest/PCB	Herb			Methane	TPH	BTEX/MTBE	Metal	CN	TOC	Alk/Anions									

RECRA LabNet Use Only

MATRIX CODES:
S - Soil
SE - Sediment
SO - Solid
SL - Sludge
W - Water
O - Oil
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	VOA VOCs	~~BNA~~ PAHs	Pest/PCB	Herb	Methane	TPH	BTEX/MTBE	Metal	CN	TOC	Alk/Anions
008	TB042099			W	4/20/99	0745	2				2						
009	WHGLTA011WG08			W	4/20/99	1005		1			3	2	3			1	1
010	WCHMHTA008WG08			W	4/20/99	1213		1			3	2	3			1	1
011	DUP01WG08			W	4/20/99	1331		1			3	2	3			1	1
012	EB042099			W	4/20/99	1415		1			3	2	3			1	1
013	LF04-02WG08			W	4/20/99	1602	3				3					1	1
014	DUP04WG08			W	4/20/99	1715	3				3					1	1
015	HM-125WG08			W	4/20/99	1025	3				3					1	1
016	HM-116WG08			W	4/20/99	1225	3				3					1	1
017	HM-123WG08			W	4/20/99	1515	3				3					1	1

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions.
TPH using method TX1005

DATE/REVISIONS.
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QC'd: CW 4/20/99 QC'd: EJD 4/20/99

Relinquished by	Received by	Date	Time
[signature]		4/20/99	1830
	K Kreizer	4/21	1025

Relinquished by	Received by	Date	Time

RECRA LabNet Use Only

Samples were: 1) Shipped FX or Hand Delivered Airbill # _____
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was 62132
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N
COC Record Present Upon Sample Rec'd Y or N

Discrepancies Between Samples Lables and COC Record? Y or N
NOTES

642 242

RECRA LabNet Use Only
9904G094

Custody Transfer Record/Lab Work Request

RECRA LabNet

Client: HydroGeoLogic, Inc.
Est. Final Proj. Sampling Date: 4-30-99
Project #: AFC-001-15IEA
Project Contact/Phone #: Lynn Morgan 703.736.4518
RECRA Project Manager: Bosco Ramirez
QC: EJD Del: TAT:
Date Rec'd: Date Due:
Account #:

Refrigerator #																						
#/Type Container	Liquid	Vial	Amber			Amber	Vial		Poly		Poly	Poly										
	Solid																					
Volume	Liquid	40ml	1L			1L	40ml		1L		250ml	1L										
	Solid																					
Preservatives		HCl					HCl		HNO_3		H_2SO_4											
ANALYSES REQUESTED		ORGANIC: VOA VOCs	~~BNA~~ PAHs	Pest/PCB	Herb	TPH	Methane		INORG: Total Metal Mercury	CN	TOC	Alkalinity Anions	Metals									

RECRA LabNet Use Only

MATRIX CODES:
S - Soil
SE - Sediment
SO - Solid
SL - Sludge
W - Water
O - Oil
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	VOA VOCs	BNA PAHs	Pest/PCB	Herb	TPH	Methane		Total Metal Mercury	CN	TOC	Alkalinity Anions	Metals				
011	TB042299			W	4/22/99	0730	2					2										
012	WHGLTA203WG08			W	4/22/99	1516	3					3				1	1					
013	SPOT35-5WG08			W	4/22/99	1250	3	1			2	3				1	1					
014	ST14-24WG08			W	4/22/99	1020	3							1								
015	ST14-W11WG08			W	4/22/99	1150	3							1								
016	DUP02WG08			W	4/22/99	1020	3							1								
017	MW-53WG08			W	4/22/99	1445	3					3				1	1					

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions:
TPH using TX1005 method.
Serial dilution on metals sample for ST14-24WG08.
QCd EJD 4/22/99 PD 4.22.99

DATE/REVISIONS:
1
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3 2.3, 4.2
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Relinquished by	Received by	Date	Time
[signature]		4/22/99	500pm
	K Keizer	4/23	1040

Relinquished by	Received by	Date	Time

RECRA LabNet Use Only

Samples were: 1) Shipped Y or Hand Delivered ___ Airbill # ___
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was 61386 61389
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N
COC Record Present Upon Sample Rec't Y or N

Discrepancies Between Samples Lables and COC Record? Y or N
NOTES

Page 1 of 1

642 243

10

STL
Committed To Your Success

9907944

Chicago Laboratory
2417 Bond Street
University Park, IL 60466
Phone: 708-534-5200
Fax: 708-534-5211

7/24/99A
21

Report To:
Contact: Lynn Morgan
Company: HydroGeologic
Address: 1155 Herndon Pkwy
Ste 900, Herndon, VA 20170
Phone: (703) 478-5186
Fax: (703) 471-4170
E-Mail:

Bill To:
Contact: SAME
Company:
Address:
Phone:
Fax:
PO#: Quote:

Shaded Areas For Internal Use

Lab Lot #

Package Sealed: Yes No	Samples Sealed: Yes No
Received on Ice: Yes No	Samples Intact: Yes No
Temperature °C of Cooler: 5°C	
Within Hold Time: Yes No	Preserv. Indicated: Yes No NA
pH Check ok: Yes No NA	Res. Cl₂ Check ok: Yes No NA
Sample Labels and COC Agree: Yes No COC not present	

Sampler Name: Nicole Hade
Signature:
Project Name: July Quarterly
Project Number: AFC-001-26HAA
Project Location: NMSF Ft. Worth JRS, TX
Date Required: Hard Copy: __/__/__ Fax: __/__/__
Lab PM: MARY ASPER

Laboratory ID	MS-MSD	Client Sample ID	Sampling Date	Sampling Time	Matrix	Comp/Grab	Alkalinity 310.1	Anions 300.0 (SO4, NO3)	TOC in Dup. 9060	Methane, Ethane, Ethene RSK175	VOCs LST 8260	TPH TX 1005	PAHs 8310	Total mercury CVAA 7470	VOCs 01 SUPLIST 8260	Methane, Ethane, Ethene RSK175
					Refrig #											
					# Cont.		1	1	2	2	2	4	1	2	2	
					Volume		1L	250ml	40ml	40ml	30ml	1L	1L	40ml	40ml	
					Preserv		6	2	1	1	1	6	3	6	6	
9907409		TB072199	7-21-99	705	W	G			2	2						
9907410		WIIGLTA701WG09		1030	W	G	1	1	3	3						
9907411		EB072199		1145	W	G	1	1	3	3						
9907412		SPOT35-5WG09		901	W	G	1	1	3	3	3	1		3	3	
9907413		WITCTHC24WG09		1116	W	G				3				3		
9907414		STH-WIIWG09		1224	W	G				3			1	3		

Additional Analyses / Remarks:
STL-PS-145
Level 4D plus Summary Pkg & IRPIMS 3.0
HC & EDDs due 8/19/99

Analyze samples using pres. VOAs. Unpres. sent as precautionary for bubbles.

1C
3 AIL 3B Leader Hours

0000005552

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Nicole Hade	HydroGeologic	7-21-99	1630	[illegible]	STL-Balto.	7-22-99	0900
Relinquished By				Received By			

Matrix Key
WW = Wastewater
W = Water
S = Soil
SL = Sludge
MS = Miscellaneous
OL = Oil
A = Air
SE = Sediment
SO = Solid
DS = Drum Solid
DL = Drum Liquid
L = Leachate
Wi = Wipe
O = ____

Container Key
1 Plastic
2 VOA Vial
3 Sterile Plastic
4 Amber Glass
5 Widemouth Glass
6 Other ____

Preservative Key
1 HCl, Cool to 4°
2 H2SO4, Cool to 4°
3 HNO3, Cool to 4°
4 NaOH, Cool to 4°
5 NaOH/Zn Acetate, Cool to 4°
6 Cool to 4°
7 None

COMMENTS:
① Extra volume unpreserved
TPH = TX1005

Date Received __/__/__
Courier: Fed-X Hand Delivered ☐
5085189012/9023
Bill of Lading.

JUL-23-1999 12:46 STL-BALTIMORE 642 244 410 771 4407 P.02/05

STL
Committed To Your Success

990956
VOA19

Chicago Laboratory
2417 Bond Street
University Park, IL 60466
Phone: 708-534-5200
Fax: 708-534-5211

Report To:
Contact: Lynn Morgan
Company: HydroGeoLogic
Address: 1155 Herndon Pkwy
Ste 900 Herndon, VA 20170
Phone: 703-478-5186
Fax: 703-471-4180
E-Mail:

Bill To:
Contact: Same
Company:
Address:
Phone:
Fax:
PO#: Quote:

Shaded Areas For Intern... e Only ___ of

Lab Lot #

Package Sealed (Yes) No	Samples Sealed (Yes) No
Received on Ice (Yes) No	Samples Intact (Yes) No
Temperature °C of Cooler: 2	
Within Hold Time (Yes) No	Preserv. Indicate (Yes) No N
pH Check ok Yes No (NA)	Res. Cl_2 Check o Yes No (N)
Sample Labels and COC Agree (Yes) No COC not present	

Sampler Name: N. Hade
Signature:
Project Name: July Quarterly
Project Number: AFC 001 26 HAA
Project Location: NAS Ft. Worth
Date Required Hard Copy: / /
Fax: / /
Lab PM: Mary Asper

Refrg #																
# Cont.							3/2	3/2	3/2	3/2						
Volume							40ml	40ml	40ml	40ml						
Preserv.							1	1	7	7						
Laboratory ID	MS-MSD	Client Sample ID	Sampling Date	Sampling Time	Matrix	Comp/Grab	BTEX + MTBE 8260	QAPP VOCs LIST 8260	BTEX + MTBE 8260	VOCs QAPP LIST 8260						
9907531		TB072299	7-22-99	705	W	G	~~2~~ 2	2								
9907532		SPOT35-8WG09		1316			3		3							
9907533		SPOT35-9WG09		1420			3		3							
9907534		ST14-28WG09		1310			3		3							
9907535		LF05-19CWG09		1149				3		3						
9907536		DUP07		1213				3		3						

Additional Analyses / Remarks

Analyze pres. VOAs only. Unpres. sent as a precaution for bubbles.

STL-PS-145
Level 4D plus Summary Pkg & IRPIMS 3.0
HL & EDDs due 8/20/99

COC000596

32 VOA

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
[signature]	HGL	7-22-99	1730	Sanita Corum	STL-Baltimore	7/23/99	1030

Matrix Key
WW = Wastewater
W = Water
S = Soil
SL = Sludge
MS = Miscellan...
OL = Oil
A = Air
SE = Sediment
SO = Solid
DS = Drum Solid
DL = Drum Liquid
L = Leachate
WI = Wipe
O = ____

Container Key
1 Plastic
2 VOA Vial
3 Sterile Plastic
4 Amber Glass
5 Widemouth Glass
6 Other

Preservative Key
1 HCl, Cool to 4°
2 H2SO4, Cool to 4°
3 HNO3, Cool to 4°
4 NaOH, Cool to 4°
5 NaOH/Zn Acetate, Cool to ...
6 Cool to 4°
7 None

COMMENTS:

Date Received / /
(Courier) FED EX Hand Delivered
Bill of Lading: 5089 42

JUL-23-1999 16:56 642 245 STL-BALTIMORE 410 771 4407 P.02/04

STL
Committed To Your Success

Chicago Laboratory
2417 Bond Street
University Park, IL 60466
Phone: 708-534-5200
Fax: 708-534-5211

990970

Report To:

Contact: Lynn Morgan
Company: HydroGeoLogic Inc
Address: 1155 Herndon Pkwy Ste 900 Herndon, VA 20170
Phone: 703-478-5186
Fax: 703-471-1180
E-Mail:

Contact: Same
Company:
Address:
Phone:
Fax:
PO#: Quote:

Shaded Areas For Internal Use (of

Lab Lot #

Package Sealed: Yes No	Samples Sealed: Yes No
Received on Ice: Yes No	Samples Intact: Yes No
Temperature °C of Cooler: 3°	
Within Hold Time: Yes No	Preserv. Indicated: Yes No NA
pH Check ok: Yes No NA	Res. Cl_2 Check ok: Yes No NA
Sample Labels and COC Agree: Yes No COC not present	

Sampler Name: B Nielsen
Signature:
Project Name: July Quarterly
Project Number: AFC 001 26 HAA
Project Location: NAS Ft. Worth
Date Required Hard Copy: / /
Fax: / /
Lab PM: Mary Asper

Refrg #		
# Cont.	3/2	3/2
Volume	40ml	40ml
Preserv	1	7

Laboratory ID	MS-MSD	Client Sample ID	Sampling Date	Sampling Time	Matrix	Comp/Grab	QAPP VOCs 8260	QAPP VOCs 8260									Additional Analyses / Remarks
9907628		EB072699	7-26-99	1450	W	G	3										Level 4D plus TRPMS
9907629		TB072699		1455			2										3.0 EDD's
9907630		WCHMHTA009WG09		1122			3	3									EAL-FS-145
9907631	✓	WHGLTA011WG09MS		918			3	3									
9907631	✓	WHGLTA011WG09MD		918			3	3									Due 8/24/99
9907631		WHGLTA011WG09		918			3	3									
9907632		DUPO8		1420			3	3									
9907633		Material Blank		1745			23	23	ABC 7/27/99								
																	COC#0/5578
																	38 VOAs 4641

RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME
[signature]	MCL	7-26-99	1800	[signature]	STL	7/27/99	10:00
RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME

Matrix Key
WW = Wastewater
W = Water
S = Soil
SL = Sludge
MS = Miscellaneous
OL = Oil
SE = Sediment
SO = Solid
DS = Drum Solid
DL = Drum Liquid
L = Leachate
WI = Wipe

Container Key
1 Plastic
2 VOA Vial
3 Sterile Plastic
4 Amber Glass
5 Widemouth Glass
6 Other

Preservative Key
1 HCl, Cool to 4°
2 H2SO4, Cool to 4°
3 HNO3, Cool to 4°
4 NaOH, Cool to 4°
5 NaOH/Zn Acetate, Cool to 4°
6 Cool to 4°

COMMENTS:
End of Sample Event for AFC 001 26 HAA

Date Received: 7/27/99
Courier: FEDEX
Hand Delivered:

642 246

SIL 9907116

Committed To Your Success

Chicago Laboratory 7/29/99 16

2417 Bond Street
University Park, IL 60466
Phone: 708-534-5200
Fax: 708-534-5211

Report To:
Contact: Lynn Morgan
Company: HydroGeologic Inc
Address: 1155 Herndon Pkwy
Ste 900 Herndon, VA 20170
Phone: 703-478-5186
Fax: 703-471-4150
E-Mail:

To:
Contact: Same
Company:
Address:
Phone:
Fax:
PO#: Quote:

Shaded Areas For Interp. Page ___ of ___

Lab Lot #

Package Sealed: Yes No
Samples Sealed: Yes No
Received on Ice: Yes No
Samples Intact: Yes No
Temperature °C of Cooler: 5C
Within Hold Time: Yes No
Preserv. Indicate: Yes No N
pH Check ok: Yes No NA
Res. Cl2 Check: Yes No (N
Sample Labels and COC Agree: Yes No COC not present

Sampler Name: Nicole Hale
Signature:
Project Name: July Quarterly
Project Number: AFC 001 26 HAA
Project Location: NAS Ft. Worth
Date Required: Hard Copy ___/___/___ Fax ___/___/___
Lab PM: Mary Asper

Lab ID	MS/MSD	Client Sample ID	Sampling Date	Sampling Time	Matrix	Comp/Grab	Alkalinity 310.1	Anions 300.0	Ethane Ethene Methane	Oxygen	VOCs 8260	TOC 9060	Metals TAL Metals	TPH 1005	PAHs 8260	BTEX/MTBE 8260
Rsing #																
# Cont.							1	2	2		1	1		2	4	2
Volume							1L	1L	40ml		1L	1L		40ml	1L	40ml
Preserv							76	1	1		2	3		1	6	1
9907237		TB071599	7-15-99	815	W	G		2	2							
9907238		WHGLTA012WG09		1245	W	G	1	3			1			3	1	3
9907239		WHGLTA014WG09		942	W	G	1	3			1			3	1	3
9907240		WHGLTA005WG09		910	W	G	1	3	3		1	1				
9907241		WHGLTA007WG09		1050	W	G	1	3	3		1	1				
9907242		SD13-02WG09		1312	W	G	1	3			1	1				3
9907243		SD13-04WG09		1426	W	G	1	3	3		1	1				
9907244		WCHMHTA013WG09		1457	W	G			3			1				
9907245		EB071599		1545	W	G	1	3			1			3	1	3

Additional Analyses / Remarks
SD EAL.15-145
Full Data Package Plus Summary
Package includes Ions 3s
EDD's due 8/13/99
MEA
COC00005524
H6369
SC 7B 3 pest 58 VOAs

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Nicole Hale	HGL	7-15-99	1630	[illegible]		7/16/99	1020
Relinquished By	Company	Date	Time	Received By	Company	Date	Time

Matrix Key
WW = Wastewater
W = Water
S = Soil
SL = Sludge
MS = Miscellaneous
OL = Oil
SE = Sediment
SO = Solid
DS = Drum Solid
DL = Drum Liquid
L = Leachate
Wi = Wipe

Container Key
1 Plastic
2 VOA Vial
3 Sterile Plastic
4 Amber Glass
5 Widemouth Glass
6 Other

Preservative Key
1 HCl, Cool to 4°
2 H2SO4, Cool to 4°
3 HNO3, Cool to 4°
4 NaOH, Cool to 4°
5 NaOH/Zn Acetate, Cool to 4°
6 Cool to 4°
7 None

COMMENTS:

Date Received: 7/16/99
Courier: Fedex Hand Delivered
Bill of Lading: 5085189115 5085189104

JUL-20-1999 13:07 STL-BALTIMORE 642 247 410 771 4407 P.05/08

Shaded Areas For Internal Use Only ___ of ___

642 248

STL Committed To Your Success

Chicago Laboratory
2417 Bond Street
University Park, IL 60466
Phone: 708-534-5200
Fax: 708-534-5211

990921

Report To:
Contact: Lynn Morgan
Company: HydroGeologic
Address: 1155 Herndon Pkwy
SE 900, Herndon, VA 20170
Phone: (703) 478-5786
Fax: (703) 471-4180
E-Mail:

To:
Contact: SAME
Company:
Address:
Phone:
Fax:
PO#: Quote:

Lab Lot #

Package Sealed: (Yes) No	Samples Sealed: (Yes) No
Received on ice: (Yes) No	Samples Intact: (Yes) No
Temperature 4 °C of Cooler	
Within Hold Time: (Yes) No	Preserv. Indicated: (Yes) No NA
pH Check ok: (Yes) No NA	Res. Cl_2 Check ok: Yes No (NA)
Sample Labels and COC Agree: (Yes) No COC not present	

Sampler Name: Nicole Hade
Signature:
Project Name: July Quarterly
Project Number: AFG001-26 HAA
Project Location: NAS Fort Worth JRB, TX
Date Required: Hard Copy ___/___/___ Fax ___/___/___
Lab PM: Mary Asper

Laboratory ID	MS/MSD	Client Sample ID	Sampling Date	Sampling Time	Matrix	Comp/Grab	Alkalinity 310.1	Anions 300.0	TOC 415.1	Methane, Ethane, Ethene RSK-175	VOC 8260	BTEX (Lowe 8021B)	TPH TX1005	PAHs 8310	Metals (TAL 6010A/7000)	Additional Analyses / Remarks
						Refrg #										
						# Cont.	1	1	2	2	2	2	4	1		
						Volume	1L	250ml	40ml	40ml	40ml	30ml	1L	1L		
						Preserv	6	2	1	1	1	1	6	3		
9907269		TB071699	7-16-99	7:30	W	G					2	2				D2/VOA20/Z11
9907270		ST14-29 WG09		920			1	1	3			3			1	STL-PS-145
9907271		ST14-03 WG09		1018			1	1	3			3				Level 4D plus Summary Pkg
9907272		ST14-04 WG09		1125			1	1	3	3						+ IRPIMS 3.0
9907273		GM1-22-06 MWG09		1325			1	1	3			3			1	Hardcopy & EDDS due
9907274		ST14-W21 WG09		1450			1	1	3			3	3	1		8/13/99
9907275		EB071699		1530			1	1	3			3	3	1		L16360
9907276		SPOT35-8WG09		1139			1	1	3			3	3	1		COC#005529
9907277		SPOT35-9WG09		938			1	1	3		3					3PEST, 2C, 8B, 63VOA, 8A
9907278		WITCTA010WG09		1323								3				+ 4 VOA
9907279		MW-11WG09		1428												

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
Nicole Hade	HydroGeologic	7-16-99	1630	Sarita Cowx	STL-Batavia	7/17/99	1030

Matrix Key
WW = Wastewater
W = Water
S = Soil
SL = Sludge
MS = Miscellaneous
SE = Sediment
SO = Solid
DS = Drum Solid
DL = Drum Liquid
L = Leachate
WI = Wipe

Container Key
1. Plastic
2. VOA Vial
3. Sterile Plastic
4. Amber Glass
5. Widemouth Glass
6. Other

Preservative Key
1. HCl, Cool to 4°
2. H_2SO_4, Cool to 4°
3. HNO_3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn Acetate, Cool to 4°
6. Cool to 4°

COMMENTS: TPH by TX1005

Date Received: 7/17/99
Courier: FEDEX Hand Delivered ☐
Bill of Lading: 5085[illegible] 5085[illegible]

JUL-20-1999 13:06 STL-BALTIMORE 642 249 410 771 4407 P.02/08

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Chicago Laboratory
2417 Bond Street
University Park, IL 60466
Phone: 708-534-5200
Fax: 708-534-5211

990908

Report To:
Contact: Lynn Morgan
Company: HydroGeologic Inc
Address: 1155 Herndon Pkwy
900 Ste Herndon VA 20170
Phone: (703) 478-5186
Fax: (703) 471-4180
E Mail:

Bill To:
Contact: Same
Company:
Address:
Phone:
Fax:
PO#: Quote:

Shaded Areas For Internal Use Only ___ of

Lab Lot #

Package Sealed: Yes No
Samples Sealed: Yes No
Received on Ice: Yes No
Samples Intact: Yes No
Temperature 4 °C of Cooler
Within Hold Time: Yes No
Preserv. Indicate: Yes No N
pH Check ok: Yes No NA
Res. Cl_2 Check: Yes No N
Sample Labels and COC Agree: Yes No COC not present

Sampler Name: N Hade
Signature:
Project Name: July Quarterly
Project Number: AFC001-26HAA
Project Location: NAS, Fort Worth JRB
Lab PM: MARY ASPER
Date Required Hard Copy: __/__/__ Fax: __/__/__

Refrig #												
#/Cont.	1	1	2	2	2	2	4	1				
Volume	1L	250ml	40ml	40ml	40ml	40ml	1L	1L				
Preserv	4	2	1	1	1	1	7	3				
Matrix	Comp/Grab	Alkalinity 310.1 Anions 9056	TOC 9060	Methane Ethane, ethene	VOCs, CAPP 8240	BTEX, MTBE 8240	TPH TX 1005	PAHs 8310	Metals + TAL Mercury	6010/7000		

Laboratory ID	MS-MSD	Client Sample ID	Sampling Date	Sampling Time	Matrix	Comp/Grab	Alkalinity 310.1 Anions 9056	TOC 9060	Methane Ethane, ethene	VOCs, CAPP 8240	BTEX, MTBE 8240	TPH TX 1005	PAHs 8310	Metals + TAL Mercury	6010/7000		Additional Analyses / Remarks
9907170		TB071499	7-14-99	735	W	G			2	2							
9907171		EB071499		1500	W	G	1	1	3		3	3	1				VOA16/B7
9907172		WHGLTA009WG09		1008	W	G	1	1	3	3		3	1				
9907173		WHGLTA010W[illegible]		1205	W	G	1	1	3		3	3	1				STL-PS-145
9907174		GMI-22-07MWG09		1423	W	G				3							Level 4D plus Summary
9907175		SD13-07WG09		1410	W	G	1	1	3	3				1			Package IRPMS 3.0
9907176		WHGLTA004WG09		935	W	G	1	1	3	3							EDD
9907177		DUP01WG09		1200	W	G	1	1	3	3				1			Due 8/12/99
9907178		MW-53WG09		1040	W	G	1	1	3	3							COC000 5516
9907179		LF01-1DWG09		1215	W	G								1			
9907180		EB071399	7-13-99	1630	W	G			3								L16349

RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME
Nicole Hade	HydroGeologic	7-14-99	1615	[signature]		7/15/99	1000
RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME

Matrix Key
WW = Wastewater
W = Water
S = Soil
SL = Sludge
MS = Miscellaneous
OL = Oil
A = Air
SE = Sediment
SO = Solid
DS = Drum Solid
DL = Drum Liquid
L = Leachate
WI = Wipe
O = _____

Container Key
1. Plastic
2. VOA Vial
3. Sterile Plastic
4. Amber Glass
5. Widemouth Glass
6. Other

Preservative Key
1. HCl, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn Acetate, Cool to 4°
6. Cool to 4°
7. None

COMMENTS:

Date Received: 7/15/99
Courier: FedEx
Hand Delivered
Bill of Lading: 505 9126

Shaded Areas For Internal Use O: 1 of 2

642 250

STL
Committed To Your Success

Chicago Laboratory
17 Bond Street
University Park, IL 60466
Phone 708-534-5200
Fax 708-534-5211

99089

Report To:
Contact: Lynn Morgan
Company: HydroGeologic
Address: 11555 Herndon Pkwy Ste 900 Herndon, VA 20170
Phone: (703) 478-5186
Fax: (703) 471-4180
E-Mail:

To:
Contact: Same
Company:
Address:
Phone:
Fax:
PO#: Quote:

Lab Lot #

Package Sealed: (Yes) No	Samples Sealed: (Yes) No
Received on Ice: (Yes) No	Samples Intact: (Yes) No
Temperature °C of Cooler: 5	
Within Hold Time: (Yes) No	Preserv. Indicated: (Yes) No NA
pH Check ok: (Yes) No NA	Res. Cl₂ Check ok: Yes No (NA)
Sample Labels and COC Agree: (Yes) No COC not present	

Sampler Name: D. Darnwala
Project Name: July Quarterly
Project Location: VAS Fortworth JRB, TX
Lab PM: Mary Asper
Signature:
Project Number: AFC 00126 HAA
Date Required: Hard Copy: / / Fax: / /

Lab ID	MS-MSD	Client Sample ID	Sampling Date	Sampling Time	Matrix	Comp/Grab	Alkalinity Anions 9250	Metals Extractable GAP	VOCs 8260	TOC 9060	BTEX + MTBE 8260	TPH TX 1005	PH 8330	Additional Analyses / Remarks
907050		HM-116W609	7-13-99	915	W	G	1	3	3	1				Have 4D plus TRPHLS
907051		LF03-3DW609		1035			1	3	3	1				3.0 EDDs
907052		FT09-12CW609		1250			1	3	3	1				due 8/11/99
907053		HMH23W609		1416			1	3	3	1				EM-PS-145
907054		DUP02		1200			1	3	3	1				
	✓	WHGLTA011W609		918			1	3		1	3	3	1	B9/VOA21
907055		WHGLTA011W609MS		918			1	3		1	3	3	1	
		WHGLTA011W609MD		918			1	3		1	3	3	1	COC0005498
907056	/	WC HMHT Rec'd 4609		1151			1	3		1	3	3	1	7PEST, 12A, 12B, 98VOA
907057		DUP04		1305			1	3		1	3	3	1	
907058		TB071399		720				2	2					L163339
907059	X	LCHMHTHC07W609		1502			1	3		1	3	3	1	

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
[signature]	HydroGeologic	7-13-99	1730	[signature]	STL-Baltimore	7/14/99	1000

Matrix Key: WW = Wastewater; W = Water; S = Soil; SL = Sludge; O = Miscellaneous; SE = Sediment; SO = Solid; DS = Drum Solid; DL = Drum Liquid; LE = Leachate; WI = Wipe

Container Key: 1 Plastic; 2 VOA Vial; 3 Sterile Plastic; 4 Amber Glass; 5 Widemouth Glass; 6 Other

Preservative Key: 1 HCl, Cool to 4°; 2 H2SO4, Cool to 4°; 3 HNO3, Cool to 4°; 4 NaOH, Cool to 4°; 5 NaOH/Zn Acetate, Cool to 4°; 6 Cool to 4°

COMMENTS: LF03-3DW609 Bubbles discharge when pumping 7/14/99 am

Date Received: 7/14/99
Courier: FEDEX Hand Delivered
Bill of Lading: 505-5891

STL 100009

Committed To *Your* Success

AFCEE

cut-like Int COC

Chicago Laboratory
2417 Bond Street
University Park, IL 60466
Phone 708-534-5200
Fax 708-534-5211

Report To:
Contact Lynn Morgan
Company HydroGeoLogic
Address 1155 Herndon Pkwy, Suite 900, Herndon, VA 20170
Phone 703-478-5186
Fax 703-471-4180
E-Mail lam@hgl.com

Bill To: Same
Company
Address
Phone
Fax
PO# Quote

Shaded Areas For Internal Use

Lab Lot # 9914[illegible]87

Package Sealed (Yes) No	Samples Sealed Yes (No)
Received on Ice (Yes) No	Samples Intact (Yes) No
Temperature °C of Cooler (1.5, 1.5, 2.0)	
Within Hold Time (Yes) No	Preserv. Indicated (Yes) No NA
pH Check ok Yes No NA	Res. Cl_2 Check ok Yes No NA
Sample Labels and COC Agree Yes No	COC not present

642 251

Sampler Name: Catherine Williams
Signature: [signature]
Project Name: October Quarterly
Project Number: AFC 001 26 HBA
Project Location: NAS Fort Worth JRB
Date Required Hard Copy: 11/12/99
Lab PM: Bosco Ramirez
Fax: / /

Refrg #														
#/Cont.	2	2	1	1	2	1	4	2						
Volume	40ml	40ml	1L	250ml	40ml	1L	1L	40ml						
Preserv	1	1	6	2	1	3	6	1						
Matrix	Comp/Grab	VOCs 8260B	Methane RSK-175	Alkalinity/Anions E310.1/9056	TOC 9060	~~BTEX G 8260B~~	Total Metals + Hg 6010A/7470A	PAHs 8310	TPH TX1005					
011	TB 10 18 99	10-18-99	740	W	G	2	2							
012	WHGLTA005WG10		1106	W	G	3	3	1	1			1		
013	WHGLTA007WG10		1003	W	G	3	3	1	1			1		
014	SPOT35-5WG10		940	W	G	3	3	1	1				1	3
015	HM-125WG10		1050	W	G	3	3	1	1					
016	W-153WG10		1200	W	G	3	3	1	1					
017	ST14-W11WG10		1335	W	G	3						1		
018	HM-116WG10		1340	W	G	3	3	1	1					
019	WHGLTA004WG10		1426	W	G	3	3	1	1					

Additional Analyses / Remarks

RELINQUISHED BY	COMPANY	DATE	TIME
[signature]	HGL	10-18-99	1600
Methane TPH [signature]	STL	10-19-99	1630

RECEIVED BY	COMPANY	DATE	TIME
[signature]	STL	10-19-99	1740
[signature]		10/19/99	1830

Matrix Key
WW = Wastewater
W = Water
S = Soil
SL = Sludge
MS = Miscellaneous
OL = Oil
A = Air
SE = Sediment
SO = Solid
DS = Drum Solid
DL = Drum Liquid
L = Leachate
WI = Wipe
O = _____

Container Key
1 Plastic
2 VOA Vial
3 Sterile Plastic
4 Amber Glass
5 Widemouth Glass
6 Other _____

Preservative Key
1 HCl, Cool to 4°
2 H2SO4, Cool to 4°
3 HNO3, Cool to 4°
4 NaOH Cool to 4°
5 NaOH/Zn Acetate, Cool to 4°
6 Cool to 4°
7 None

COMMENTS.
End of Quarterly Sampling

Date Received 10/19/99
Courier FedEX Hand Delivered ☐
Bill of Lading 8144 2173 8228

STL Chicago Chain of Custody CHI 22 09 231/A 5/99

STL
mitted To Your Success

cago Laboratory
7 Bond Street
versity Park, IL 60466
ne: 708-534-5200
708-534-5211

AICEE/ecl-like
Int COC

Shaded Areas For Internal Use Only 1 of 1

Report To:
Contact: Lynn Morgan
Company: HydroGeologic
Address: 1155 Herndon Pkwy Ste 900 Herndon VA 20170
Phone: (703) 478-5186
Fax: (703) 471-4180
E-Mail:

Bill To:
Contact: Same
Company:
Address:
Phone:
Fax:
PO#: Quote:

Lab Lot # 99 10G3

Package Sealed: Yes (circled) No	Samples Sealed: Yes No (circled)
Received on Ice: Yes (circled) No	Samples Intact: Yes (circled) No
Temperature °C of Cooler: (0.1, 0.3, 0.1) 2.1	
Within Hold Time: Yes (circled) No	Preserv. Indicated: Yes (circled) No NA
pH Check ok: Yes (circled) No NA	Res. Cl2 Check ok: Yes (circled) No NA
Sample Labels and COC Agree: Yes (circled) No COC not present	

pler Name: Therine W. Hurns
Signature: Catherine Williams
ect Name: tober Quarterly
Project Number: AFC 001 26 HGA
ect Location: NAS Fort Worth JRB
Date Required Hard Copy: 11/5/99
Fax: / /
PM: Bosco Ramirez

Refrg #															
# Cont.	3/2	3/2	1/1	1/1	3/2	1/1									
Volume	40ml	40ml	1L	250ml	40ml	1L									
Preserv	1	1	6	2	1	3									

oratory ID	MS-MSD	Client Sample ID	Sampling Date	Sampling Time	Matrix	Comp/Grab	VOCs (8260B)	Methane (RSK-175)	Alkalinity + Anions (300.1)	TOC 9060	BTEX 8260B	PAH (Method 8310) + Hg 8270	CLP	X							Additional Analyses / Remarks
01		TB 101199	10-11-99	800	W	G	2	2						X							
02		ST14-03 WG10		925	W	G		3	1	1	3										
03		WHGLTA008WG10		1036	W	G	3	3	1	1	3	1									
04		ST14-02 WG10		1127	W	G		3	1	1	3	1									
05		SD13-01 WG10		1337	W	G	3	3	1	1		1									

	Company	Date	Time		Company	Date	Time
LINQUISHED BY: Mark Hinder	HydroGeologic	10-11-99	1800	RECEIVED BY: Kathleen Janes	STL	10-12-99	1700
LINQUISHED BY:	COMPANY	DATE	TIME	RECEIVED BY:	COMPANY	DATE	TIME

Matrix Key
W = Wastewater
= Water
= Soil
= Sludge
= Miscellaneous
= Oil
= Air
SE = Sediment
SO = Solid
DS = Drum Solid
DL = Drum Liquid
L = Leachate
Wi = Wipe
O = _____

Container Key
1 Plastic
2 VOA Vial
3 Sterile Plastic
4 Amber Glass
5 Widemouth Glass
6 Other _____

Preservative Key
1 HCl, Cool to 4°
2 H2SO4 Cool to 4°
3 HNO3, Cool to 4°
4 NaOH, Cool to 4°
5 NaOH/Zn Acetate, Cool to 4°
6 Cool to 4°
7 None

COMMENTS
100004

Date Received: 10/12/99
Courier: FedEx Hand Delivered ☐
8144 2173 8170
Bill of Lading

STL Chicago Chain of Custody 22-09 2317A 5/99

642 252

642 253

STL Committed To *Your* Success

Chicago Laboratory
2417 Bond Street
University Park, IL 60466
Phone: 708-534-5200
Fax 708-534-5211

Report To:

Contact: Lynn Morgan
Company: HydroGeologic
Address: 1155 Herndon Pkwy Ste 900
Herndon VA 20170
Phone: 703/478-5186
Fax: 703/471-4170
E-Mail: lam@hgl.com

Contact: SAA
Company:
Address:
Phone:
Fax:
PO#: Quote:

Lab Lot # 9911 28300

Package Sealed: Yes No	Samples Sealed: Yes No
Received on Ice: Yes No	Samples Intact: Yes No
Temperature °C of Cooler: 3.7 (0.6, 0.7, 0.6)	
Within Hold Time: Yes No	Preserv. Indicated: Yes No NA
pH Check ok: Yes No NA	Res. Cl_2 Check ok: Yes No NA
Sample Labels and COC Agree: Yes No	COC not present

Sampler Name: Nicole Hack
Signature: [signature]
Project Name: October Quarterly
Project Number: AFC-001-26HBA
Project Location: Nasft. Worth JRB
Date Required Hard Copy: 11/5/99
Fax: / /
Lab PM: Bosco Ramirez

Refrg #															
#/Cont.	2	2	1	1	2	4	2								
Volume	40ml	40ml	1L	250ml	40ml	1L	30ml								
Preserv	1	1	7	2	1	7	1								
Matrix	Comp/Grab	VOCs SW8260B	Methane RSK-175	Alkalinity/Anions E310.1/SW9056	TOC SW9050	BTEX SW8260B 8021	PAHs SW8310 MPP	TPH TX1005	~~Metals/Mercury~~ ~~Sulfide/Sulfate~~						

Laboratory ID #	MS-MSD	Client Sample ID	Sampling Date	Sampling Time	Matrix	Comp/Grab	VOCs SW8260B	Methane RSK-175	Alkalinity/Anions E310.1/SW9056	TOC SW9050	BTEX SW8260B	PAHs SW8310	TPH TX1005	~~Metals/Mercury~~ ~~Sulfide/Sulfate~~			Additional Analyses / Remarks
011		TB100899	10-8-99	800	W	G	2	2									
012		SPOT35-9WG10		1035	W	G		3	1	1	3	1	3				
013		ST14-29WG10		1513	W	G		3	1	1	3						
014		WITCTA024WG10		1258	W	G	3										
015		DUP02WG10		1200	W	G	3										
016		WITCTA016WG10		1158	W	G	3	3	1	1							
017		GMI-22-06MWG10		1010	W	G	3	3	1	1							
018		EB100899		1600	W	G		3	1	1	3	1	3				
019		SPOT35-8WG10		1436	W	G		3	1	1	3	1	3				

RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME
[signature]	Hydrogeologic	10-8-99	1730	Lynn Biedesman	STL	10-9-99	11:35

Matrix Key
WW = Wastewater
W = Water
S = Soil
SL = Sludge
MS = Miscellaneous
OL = Oil
A = Air
SE = Sediment
SO = Solid
DS = Drum Solid
DL = Drum Liquid
L = Leachate
WI = Wipe
O = _____

Container Key
1 Plastic
2 VOA Vial
3 Sterile Plastic
4 Amber Glass
5 Widemouth Glass
6 Other _____

Preservative Key
1 HCl, Cool to 4°
2 H2SO4 Cool to 4°
3 HNO3, Cool to 4°
4 NaOH, Cool to 4°
5 NaOH/Zn Acetate, Cool to 4°
6 Cool to 4°
7 None

COMMENTS

Date Received: 10/9/99
Courier: FedEX Hand Delivered ☐
8144 2173 8169
Bill of Lading

STL
...mitted To Your Success

...icago Laboratory
...7 Bond Street
...versity Park, IL 60466
...one 708-534-5200
708-534-5211

Report To:
Contact: Lynn Morgan
Company: HydroGeoLogic, Inc.
Address: 1155 Herndon Pkwy, Suite 900
Herndon, VA 20170
Phone: 703-478-5186
Fax: 703-471-4180
E-Mail: lam@hgl.com

Contact: SAA
Company:
Address:
Phone:
Fax:
PO#: Quote:

Lab Lot # 9910G-243

Package Sealed: Yes No
Samples: Yes
Received on Ice: Yes No
Samples Intact: Yes No
Temperature °C of Cooler: (0.1, 1.0, 0.8)(1.0,(1.0,0.8)3
Within Hold Time: Yes No
Preserv. Indicated: Yes No NA
pH Check ok: Yes No NA
Res. Cl2 Check ok: Yes No NA
Sample Labels and COC Agree: Yes No COC not present

...mpler Name: ...therine Williams
Signature: Catherine Williams
...ect Name: ...tober Quarterly
Project Number: AFC 001 26HBA
...ect Location: ...AS Fort Worth JRB, TX
Date Required Hard Copy: 11/5/99
Fax: / /
PM: Bosco Ramirez

Refrg #											
#/Cont.	2	2	1	1	2	4	2	1			
Volume	40mL	40mL	1L	20mL	40mL	1L	40mL	1L			
Preserv	1	1	7	2	1	7	1	3			

Laboratory ID	MS-MSD	Client Sample ID	Sampling Date	Sampling Time	Matrix	Comp/Grab	VOCs SW 8260B	Methane RSK-175 (1 sub)	Alkalinity/Anions E310 SW9056	TOC SW 9060	BTEX SW8260B (826X 8021)	PAHs SW 8310	TPH TX 1005	Total Metals + mercury SW6010/7470			Additional Analyses / Remarks
001		TB100799	10-7-99	800	W	G	2	2									
002		EB100799		1715	W	G		3	1	1	3	1	3				
003		WITCTA010WG10		1020	W	G	3										
004		WITCTA017WG10		936	W	G	3	3	1	1				1			Serial Dilution for Metals
005		GMI-22-04MWG10		1156	W	G	3	3	1	1							
006		LSA1628-3WG10		1350	W	G	3	3	1	1							
007		GMI-22-07MWG10		1308	W	G	3										
008		WHGLTA012WG10		1015	W	G		3	1	1	3	1	3				VOA Vials should all be WHGLTA012WG10
009		WCHMHTA009WG10		1524	W	G		3	1	1	3	1	3				VOA Vials should all be WCHMHTA009WG10
010		WHGLTA014WG10		1257	W	G		3	1	1	3	1	3				VOA Vials should all be WHGLTA014WG10

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
[signature]	HydroGeoLogic	10-7-99	1730	Lynn Biedermann	STL	10-8-99	1500

Matrix Key
W = Wastewater
= Water
= Soil
= Sludge
S = Miscellaneous
= Oil
= Air
SE = Sediment
SO = Solid
DS = Drum Solid
DL = Drum Liquid
L = Leachate
WI = Wipe
O = _____

Container Key
1 Plastic
2 VOA Vial
3 Sterile Plastic
4 Amber Glass
5 Widemouth Glass
6 Other _____

Preservative Key
1 HCl, Cool to 4°
2 H2SO4 Cool to 4°
3 HNO3, Cool to 4°
4 NaOH, Cool to 4°
5 NaOH/Zn Acetate, Cool to 4°
6 Cool to 4°
7 None

COMMENTS

Date Received 10/8/99
Courier FedEx Hand Delivered
8144 2173 8136
Bill of Lading

STL Chicago Chain of Custody CHI 22 09 231/A 5/99

642 254

STL 100PC1

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Custom COC-Like Int COC

Chicago Laboratory
2417 Bond Street
University Park, IL 60466
Phone 708-534-5200
Fax 708-534-5211

Report To:
Contact: Lynn Morgan
Company: HydroGeoLogic Inc
Address: 1155 Herndon Pkwy Ste 900
Herndon VA 20170
Phone: 703 478-5186
Fax: 703-471-4180
E-Mail: lam@hgl.com

Bill To:
Contact: SAA
Company:
Address:
Phone:
Fax:
PO#: Quote:

Shaded Areas For Internal Use Only

Lab Lot # 9910G263

Package Sealed: Yes / No	Samples Sealed: Yes / No
Received on Ice: Yes / No	Samples Intact: Yes / No
Temperature 0.9 °C of Cooler	
Within Hold Time: Yes / No	Preserv. indicated: Yes / No / NA
pH Check ok: Yes / No / NA	Res. Cl_2 Check ok: Yes / No / NA
Sample Labels and COC Agree: Yes / No / COC not present	

642 255

Sampler Name: Nicole Hade
Signature: [signature]
Project Name: October Quarterly
Project Number: AFC-001-26HBA
Project Location: NAS Ft Worth JRB, TX
Date Required Hard Copy: ~~10/29/99~~ 11/12/99
Fax: / /
Lab PM: Bosco Ramirez

Laboratory ID	MS-MSD	Client Sample ID	Sampling Date	Sampling Time	Matrix	Comp/Grab	VOCs SW8260B	Methane RSK-175	Alkalinity/Anions E310.1/SW9056	TOC SW9060	BTEX SW8260B	PAHs SW8310	TPH TX1005	VOCs SW8260B			Additional Analyses / Remarks
		Refrg #															
		#/Cont.					2	2	1	1	2	4	2	2			
		Volume					40ml	40ml	1L	250ml	40ml	1L	40ml	40ml			
		Preserv					1	1	7	2	1	7	1	7			
001		TB100699	10-6-99	710	W	G	2	2									
002		EB100699		1215	W	G	3	3	1	1		1	3				
003		WHGLTA010WG10		1120	W	G		3	1	1	3	1	3				
004		LF04OCWG10		954	W	G	3	3	1	1							
005		WJETAS35WG10		1201	W	G	3										
		~~LF04-4CWG10~~		95													
006		WITCTA044WG10		1418	W	G	3	3	1	1							
007		WHGLTA009WG10		1440	W	G	3	3	1	1		1	3				
008		WP07-10CWG10		1550	W	G	3	3	1	1				3			Preserved VOCs have bubbles
009		DUP06		1555	W	G	3	3	1	1				3			Preserved VOCs have bubbles

Relinquished by	Company	Date	Time	Received by	Company	Date	Time
Cathy Willing	HydroGeologic	10/6/99	1750	Karen McClean	STL	10-7-99	10:10

Matrix Key
WW = Wastewater
W = Water
S = Soil
SL = Sludge
MS = Miscellaneou
OL = Oil
A = Air
SE = Sediment
SO = Solid
DS = Drum Solid
DL = Drum Liquid
L = Leachate
WI = Wipe
O = _____

Container Key
1 Plastic
2 VOA Vial
3 Sterile Plastic
4 Amber Glass
5 Widemouth Glass
6 Other _____

Preservative Key
1 HCl, Cool to 4°
2 H2SO4, Cool to 4°
3 HNO3, Cool to 4°
4 NaOH, Cool to 4°
5 NaOH/Zn Acetate, Cool to 4°
6 Cool to 4°
7 None

COMMENTS
WHGLTA010 samples are to be labeled WHGLTA010WG10

Date Received: 10/7/99
Courier: Fed Ex
Hand Delivered: ☐
Bill of Lading: 8144 2173 8114

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Committed To Your Success

Chicago Laboratory
2417 Bond Street
University Park, IL 60466
Phone: 708-534-5200
Fax 708-534-5211

AAEEE
cel-like
Int COC

Report To:
Contact: Lynn Morgan
Company: HydroGeoLogic
Address: 1155 Herndon Pkwy Ste 900
Herndon, VA 20170
Phone: (703) 478-5786
Fax: (703) 471-4180
E-Mail:

Bill To:
Contact: SAA
Company:
Address:
Phone:
Fax:
PO#: Quote:

Shaded Areas For Internal Use Only — of 2

Lab Lot # 99106[illegible]8

Package Sealed (Yes) No	Samples Sealed (Yes) No
Received on Ice (Yes) No	Samples Intact (Yes) No
Temperature °C of Cooler: see 1 of 2	
Within Hold Time (Yes) No	Preserv. Indicated (Yes) No NA
pH Check ok (Yes) No NA	Res. Cl2 Check ok (Yes) No NA
Sample Labels and COC Agree (Yes) No	COC not present

Sampler Name: Nicole Hade
Signature: Nicole Hade
Project Name: October Quarterly
Project Number: AFC-001-26HBA
Project Location: NAS H. Worth JRB, TX
Date Required Hard Copy: 10/29/99
Lab PM: Bosco Ramirez
Fax: / /

Refrg #	5	8	3	→		5	5	8		
#/Cont.	2	2	1	1	1	2	4	2		
Volume	40ml	40ml	1L	250ml	1L	40ml	1L	30ml		
Preserv	1	1	7	2	3	1	7	1		

Laboratory ID	MS-MSD	Client Sample ID	Sampling Date	Sampling Time	Matrix	Comp/Grab	VOCs SW8260B	Methane RSK-175	Alkalinity Anions E310.1 SW9056	TOC SW9060	Metals + Mercury SW 6010/7410	BTEX SW8260B	PAHs SW8310	TPH TX1005			Additional Analyses / Remarks
012	✓	WHGLTA011WG09MS	10-5-99	1250	W	G	3	3	1	1			1	3			
012	✓	WHGLTA011WG09MD	10-5-99	1250	W	G	3	3	1	1			1	3			
013		ITMW-01TWG09	10-5-99	1000	W	G	3	3	1	1	1						

RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME
Peter Davila	HGL	10-5-99	1830	Jeffrey A. James	STL	10-6-99	1715
RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME

Matrix Key
WW = Wastewater
W = Water
S = Soil
SL = Sludge
MS = Miscellaneous
OL = Oil
A = Air
SE = Sediment
SO = Solid
DS = Drum Solid
DL = Drum Liquid
L = Leachate
WI = Wipe
O =

Container Key
1 Plastic
2 VOA Vial
3 Sterile Plastic
4 Amber Glass
5 Widemouth Glass
6 Other

Preservative Key
1 HCl Cool to 4°
2 H2SO4 Cool to 4°
3 HNO3, Cool to 4°
4 NaOH Cool to 4°
5 NaOH/Zn Acetate Cool to 4°
6 Cool to 4°
7 None

COMMENTS

Date Received: 10/6/99
Courier: Fed EX Hand Delivered ☐
8144 2173 8099
Bill of Lading: see Hached

STL Chicago Chain of Custody CHI 22 09 231/A 5/99

642 256

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AFCEE / CLP-Like Int COC

Chicago Laboratory
2417 Bond Street
University Park, IL 60466
Phone 708-534-5200
Fax 708-534-5211

Report To:
Contact: Lynn Morgan
Company: HydroGeologic
Address: 1155 Herndon Pky Ste 900, Herndon VA 20170
Phone: (703) 478-5186
Fax: (703) 471-4180
E-Mail:

Bill To:
Contact: SAME
Company:
Address:
Phone:
Fax:
PO#: Quote:

Shaded Areas For Internal Use Only 1 of 2

Lab Lot # 99106248

Package Sealed: Yes No 64366 64326 64320
Samples Sealed: Yes No
Received on Ice: Yes No
Samples Intact: Yes No
Temperature °C of Cooler: (0.3, 0.1, 0.1) 4.3, 4.6 (0.9, 1.0)
Within Hold Time: Yes No
Preserv. Indicated: Yes No NA
pH Check ok: Yes No NA
Res. Cl_2 Check ok: Yes No NA
Sample Labels and COC Agree: Yes No COC not present

642 257

Sampler Name: Nicole Hade
Signature: [signature]
Project Name: October Quarterly
Project Number: AFC001-26HBA
Project Location: NAS Ft. Worth JRB, TX
Date Required Hard Copy: 10/29/99
Fax: / /
Lab PM: Bosco Ramirez

Refrg #	3	8	3	→	→	5	3	8
#/Cont.	2	2	1	1	1	2	4	2
Volume	40ml	40ml	1L	250ml	1L	40ml	1L	30ml
Preserv	1	1	7	2	3	1	7	1

Laboratory ID	MS-MSD	Client Sample ID	Sampling Date	Sampling Time	Matrix	Comp/Grab	VOCs SW8260B	Methane RSK-175	Alkalinity/Anions E310.1/SW9056	TOC SW9060	Metals + Mercury SW6010/7410	BTEX SW8260B	PAHs SW8310	TPH TX1005			Additional Analyses / Remarks
001		TB100499	10-4-99	1545	W	G	2	2									
002		LF05-56WG09	10-4-99	1657	W	G	3	3	1	1							
003		LF04-02WG09	10-4-99	1740	W	G	3	3	1	1							
004		DUP01WG09	10-4-99	1200	W	G	3	3	1	1							
005		TB100599	10-5-99	800	W	G	2	2									
006		WHGLTA601WG09	10-5-99	1522	W	G	3	3	1	1							
007		WHGLTA003WG09	10-5-99	1255	W	G	3	3	1	1	1						Serial dilution on metals
008		LF05-19WG09	10-5-99	930	W	G	3	3	1	1							
009		WCHMHTA008WG09	10-5-99	1510	W	G		3	1	1		3	1	3			
010		EB100599	10-5-99	1700	W	G	3	3	1	1	1	~~3~~ NH	1	3			
011		DUP04WG09	10-5-99	1200	W	G		3	1	1		3	1	3			
012		WHGLTA011WG09	10-5-99	1250	W	G	3	3	1	1			1	3			

RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME
Pablo Dardo	HGL	10-5-99	1830	Jeffrey L. James	STL	10-6-99	1715
RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME

Matrix Key
WW = Wastewater
W = Water
S = Soil
SL = Sludge
MS = Miscellaneous
OL = Oil
A = Air
SE = Sediment
SO = Solid
DS = Drum Solid
DL = Drum Liquid
L = Leachate
WI = Wipe
O = _____

Container Key
1 Plastic
2 VOA Vial
3 Sterile Plastic
4 Amber Glass
5 Widemouth Glass
6 Other _____

Preservative Key
1 HCl, Cool to 4°
2 H2SO4 Cool to 4°
3 HNO3, Cool to 4°
4 NaOH, Cool to 4°
5 NaOH/Zn Acetate Cool to 4°
6 Cool to 4°
7 None

COMMENTS
Trip Blanks were made at the field house - Blue Capped VOAs

Date Received: 10/6/99
Courier: Fed Ex
Hand Delivered: ☐
8144 21738099
Bill of Lading: See [illegible] hd

STL Chicago Chain of Custody CHI 22 09 231/A 5/99

642 258

TAB

Appendix B

APPENDIX B

INVESTIGATION DERIVED WASTE RECORDS

14 April 99

MEMO FOR RECORD

From. Les Bowers
To Brad Nielson, HydroGeologic Inc

Subj DISCHARGE OF IDW WATER FROM RCRA FACILITY INVESTIGATION

1. This memo is written to reflect Mr Nielson's request to discharge approximately 1200 gallons of IDW water collected from RCRA Facility Investigations into the base sanitary sewer system

2. After reviewing the analytical results of the above mentioned sampling event and verifying compliance with effluent limitations set forth in the Wastewater Discharge Permit, I have determined the subject water can be disposed of in the base sanitary sewer system

3 This memo will serve as my authorization for Mr Nielson to discharge approximately 1200 gallons of IDW water into the sewer system at Manhole #4 (adjacent to Bldg 1337) In order to complete the City's semi-annual pretreatment report due later this year, request you send me a report of the discharge event which includes exact amount discharged, discharge flowrate date of event and time start/stop

4 Please contact me at (817) 782-6479 for any questions or comments you may have Thank you for your cooperation and assistance

Les Bowers
Interim Water Program Manager

HYDRO GeoLogic INC.

FAX COVER SHEET

Date: **April 23, 1999**

Time: 2:45 PM

Project Number:

Number of Pages: **1**

TO:

Mr. Les Bowers

Of. **Navy Environmental**

Fax Number: 817/ 782-6486

Copy to:

FROM:

Brad Nielsen

Of: **HydroGeoLogic, Inc.**
13740 Research Blvd.
Unit N-5
Austin, Texas 78750
Fax #: (512) 336 - 0178

SPECIAL INSTRUCTIONS: _____ Confidential _____ Urgent
_____ Please Reply _X_ For your information

_____ Transmission Report

MESSAGE: Les, this fax is to notify you of the discharge of 1200 gallons of monitoring well waste water into the Base sanitary sewer manhole number 4 (adjacent to building 1337)which occurred on 4/16/99. Water was discharged at a rate of approximately 33 gallons per minute lasting for 35 minutes from 11:15 a.m. to 11:40 p.m. Thank you very much for your assistance on this project and please let me know if your office requires any additional information.

IF NOT RECEIVED CORRECTLY, PLEASE CALL (512) 336-1170.

1165 Herndon Parkway, Suite 900, Herndon, VA 22070
TEL: (703) 478-5186 FAX: (703) 471-4180

28 Jul 99

MEMO FOR RECORD

From Karen McElroy, NAS JRB Fort Worth Water Program Manager
To Brad Nielsen, HydroGeologic, Inc

Subj: DISCHARGE OF SAMPLING WATER FROM GROUNDWATER MONITORING

1. This memo is written to reflect Mr. Nielsen's request to discharge approximately 1200 gallons of sampling water collected from quarterly ground-water sampling events on the base

2 After reviewing the analytical results of the above mentioned sampling events and verifying compliance with effluent limitations set forth in the Wastewater Discharge Permit, I have determined the subject water can be disposed of in the base sanitary sewer system.

3 This memo will serve as my authorization for Mr Nielsen to discharge approximately 1200 gallons of sampling water into the sewer system at Manhole #4. **In order to complete the City's semi-annual pretreatment report due later this year, request you send me a report of the discharge event which includes exact amount discharged, discharge flowrate, date of event and time start/stop.**

4 Please contact me at (817) 782-6477 for any questions or comments you may have Thank you for your cooperation and assistance

Karen McElroy
Water Program Manager

642 263

HYDRO GeoLogic INC

FAX COVER SHEET

Date **August 6, 1999**

Time 2 30 PM

Project Number

Number of Pages **1**

TO: Ms. Karen McElroy

Of **Navy Environmental**

Fax Number 817/ 782-6486

Copy to

FROM: Brad Nielsen

Of **HydroGeoLogic, Inc.**
13740 Research Blvd
Unit N-5
Austin, Texas 78750

Fax # (512) 336 - 0178

SPECIAL INSTRUCTIONS

_____ Confidential
_____ Urgent
_____ Please Reply
__X__ For your information
_____ Transmission Report

MESSAGE: Karen, this fax is to notify you of the discharge of 1275 gallons of monitoring well waste water into the Base sanitary sewer manhole No 4 which occurred on July 29, 1999 Water was discharged at a rate of 20 gallons per minute lasting for about one hour from 9.00 a m to 10·00 a m Thank you very much for your assistance on this project and please let me know if there is anything else you need from me

IF NOT RECEIVED CORRECTLY, PLEASE CALL (512) 336-1170.

1165 Herndon Parkway, Suite 900, Herndon, VA 22070
TEL: (703) 478-5186 FAX: (703) 471-4180

642 261

10 Sep 99

MEMO FOR RECORD

From Karen McElroy, NAS JRB Fort Worth Water Program Manager
To. Brad Nielsen, HydroGeologic, Inc

Subj: DISCHARGE OF SAMPLING WATER FROM GROUNDWATER MONITORING

1 This memo is written to reflect Mr Nielsen's request to discharge approximately 1200 gallons of sampling water collected from quarterly ground-water sampling events on the base

2 After reviewing the analytical results of the above mentioned sampling events and verifying compliance with effluent limitations set forth in the Wastewater Discharge Permit, I have determined the subject water can be disposed of in the base sanitary sewer system

3 This memo will serve as my authorization for Mr Nielsen to discharge approximately 1200 gallons of sampling water into the sewer system at Manhole #4 **In order to complete the City's semi-annual pretreatment report due later this year, request you send me a report of the discharge event which includes exact amount discharged, discharge flowrate, date of event and time start/stop.**

4 Please contact me at (817) 782-6477 for any questions or comments you may have Thank you for your cooperation and assistance

Karen McElroy
Water Program Manager

HYDRO GeoLogic INC

FAX COVER SHEET

Date: **February 14, 2000**

Time: 11.35 AM

Project Number.

Number of Pages **1**

TO: **Ms. Karen McElroy**

Of: **Navy Environmental**

Fax Number 817/ 782-6486

Copy to

FROM: **Brad Nielsen**

Of **HydroGeoLogic, Inc.**
13740 Research Blvd
Unit N-5
Austin, Texas 78750
Fax # (512) 336 - 0178

SPECIAL INSTRUCTIONS

_____ Confidential
_____ Urgent
_____ Please Reply
__X___ For your information
_____ Transmission Report

MESSAGE Karen, this fax is to notify you of the discharge of 1200 gallons of monitoring well waste water into the Base sanitary sewer manhole No 4 which occurred on September 13, 1999 Approval for this discharge event was given by your office on September 10, 1999. On this date, water was discharged at a rate of 20 gallons per minute lasting for about one and a half hours from 11 00 a.m to 12 30 a m

I apologize for the delay in the notification for this discharge event. Thank you very much for your assistance on this project and please let me know if there is anything else you need from me.

IF NOT RECEIVED CORRECTLY, PLEASE CALL (512) 336-1170.

1165 Herndon Parkway, Suite 900, Herndon, VA 22070
TEL: (703) 478-5186 FAX: (703) 471-4180

NAS F rt Worth JRB
Investigative Derived Waste - Drum Inventory
2 February 1999

IDW No.	Matrix	Well/Boring Locations	Date	Notes
42	Purge/Decon Wate	SPOT35-8, SPOT35-9, WCHMHTA009, MWIT-01, ST14-02, ST14-04, WITCTA010, FL05-19, WP07-106, WHGLTA003, ST14-W21	1/14/99	placed in poly tank (1/99)
43	Purge Water	WHGLTA103	1/20/99	placed in poly tank (1/99)
44	Purge Water	WHGLTA102	1/20/99	placed in poly tank (1/99)
45	Purge Water	WHGLTA101	1/21/99	placed in poly tank (1/99)
46	Purge Water	WHGLTA101	1/21/99	placed in poly tank (1/99)
47	Water			placed in poly tank (1/99)
48	Soil	WHGLTA102	12/15/98	
49	Purge Water	WHGLTA904	1/15/99	placed in poly tank (1/99)
50	Purge Water	WHGLTA102	1/20/99	placed in poly tank (1/99)
51	Purge Water	WHGLTA901	1/18/99	placed in poly tank (1/99)
52	Soil	BHGLTA621, 625, 718, 719	1/22/99	
53	Water	Quarterly Sampling (07)	Jan-99	placed in poly tank (1/99)
54	Water	Quarterly Sampling (07)	Jan-99	placed in poly tank (1/99)
55	Decon Water	LF-03	Jan-99	placed in poly tank (1/99)
56	Decon Trash	LF-01, LF-09	12/98-1/99	decon pad plastic
57	Decon Trash	LF-01, LF-09	12/98-1/99	decon pad plastic

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NAS Fort Worth JRB
Investigative Derived Waste Inventory Sheet

Task Number 05CDE 05FAA ~~14CCA~~

ACCUM. DATE	SWMU/ LANDFILL	BORING/ MONITORING WELL ID	MEDIA	VOLUME GENERATED	STORAGE CONTAINER	IDW #	COMMENTS
6/25/99	LF-1	WH6LTA104	Soil/Cuttings	55 gal	55 gal drum	62	
6/23/99	LF-9	WH6LTA906	Soil/Cuttings	55 gal	55 gal drum	63	
6/23/99	LF9	WH6LTA906	Soil/Cuttings	55 gal	55 gal drum	64	
6/25/99	LF-1	WH6LTA104	Soil/Cuttings	55 gal	55 gal drum	65	
6/25/99	LF-1	WH6LTA104	Soil/Cuttings	55 gal	55 gal drum	66	
6/28/99	DO-19	–	Decon Pad Soil	55 gal	55 gal drum	67	
7/12/99	DO-26 Quarterly	–	Purge water Decon Water	55 gal	55 gal drum	68	Recorded in detail on seperate sheet
6/22/99	DO19	–	Decon Water	55 gal	55 gal drum	69	
6/22/99	DO19	–	Decon Water	55 gal	~~55 gal drum~~	~~70~~	1200 gal Poly AST 7/28/99
6/22/99	DO19	–	Decon Water	55 gal	~~55 gal drum~~	~~71~~	1200 gal poly AST 7/28/99
6/22/99	DO-19	–	Decon Water	55 gal	~~55 gal drum~~	~~72~~	1200 gal Poly AST 7/28/99
7/20/99	Landfill	104	Purge	55 gal	~~55 gal drum~~	~~73~~	Placed into 1200 gal poly AST 7/2
7/27/99	DO-19	WH6LRW015	Purge Water	40 gal	~~55 gal drum~~	~~74~~	1200 gal Poly AST 7/28/99

NAS Fort Worth JRB
Investigative Derived Waste Inventory Sheet

Task Number AFC001264AA/19CD

ACCUM. DATE	SWMU/ LANDFILL	BORING/ MONITORING WELL ID	MEDIA	VOLUME GENERATED	STORAGE CONTAINER	IDW #	COMMENTS
7/26/99	July Quarterly	WH6CTA011 WCHMMHTA009	Purge water	2.5 gal	Tank #2 (500 gal poly)	Tank NA #2 (500 gal)	
7/26/99	July Quarterly	—	Decon Water	15 gal	Tank #2 (500 gal poly)	NA	
7/28/99	DO 19	WH6CRW015	Purge Water	2 gallons	Tank #2 500 gal poly	NA	
7/28/99	DO 19	—	Decon Water	15 gallons	Tank #2 500 gal poly	NA	

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Investigative Derived Waste Inventory Sheet

Task Number AFC001-26HAA

ACCUM. DATE	SWMU/ LANDFILL	BORING/ MONITORING WELL ID	MEDIA	VOLUME GENERATED	STORAGE CONTAINER	IDW #	COMMENTS
July 99	Quarterly sampling	Quarterly sampling	purge water/ decon water	130 gal	130 gal poly tank	-	pump into 1200 gal tank on 9/13/99
July 99	Quarterly sampling	Quarterly sampling	purge/ decon water	130 gal	130 gal poly tank	-	pump into 1200 gal tank on 9/13/99
8/26/99	Landfill 9	WH6LTA004 WH6LRW016 WH6LRW017	purge/ decon water	18 gal	55 gal drum	106 (GW)	pump into 1200 gal tank on 9/13/99
7/12/99	Quarterly sampling	Quarterly sampling	purge/ decon water	6.5 gal	55 gall drum	106	pump into 1200 gal tank on 9/13/99
7/14/99	Off Base TCE Plume	WH6LRW015 ~~WH6LA030~~ (GW)	purge water	2.5 gal	GW system	-	placed into system on 7/15/99
7/14/99	Off Base TCE Plume	WH6LRW019	purge water	2.5 gal	GW system	-	placed into system 7/15/99
7/14/99	Off Base TCE Plume	WH6LTA025	purge water	2.5 gal	GW system	-	placed into system on 7/15/99
7/14/99	Off Base TCE Plume	WH6LRW015 WH6LRW019 WH6LTA025	Decon water	15 gal	GW system	-	placed into system on 7/15/99

NAS Fort Worth JRB
Investigative Derived Waste Inventory Sheet

Task Number AFC-001-26 HBA ~~HAB~~

ACCUM. DATE	SWMU/ LANDFILL	BORING/ MONITORING WELL ID	MEDIA	VOLUME GENERATED	STORAGE CONTAINER	IDW #	COMMENTS
10-4-99	SWMU22	LF05-5G	GW	2L	Groundwater Treatment System		
	SWMU22	LF04-02	GW	2L	"		
10-5-99	Plume	IMW-01T	GW	2L	"		
	Plume	LF05-19	GW	2L	"		
	Plume	WHGLM003	GW	2L	"		
	Plume	WHGLMA001	GW	2L	"		
	AOC4	WCHMHM008	GW	2L	Poly farm Tank		
	AOC4	WHGLMA011	GW	2L	"		
10-6-99	Plume	LF04-4C	GW	2L	Groundwater Treatment System		
	Plume	WITCMA044	GW	2L	"		
	Plume	WJETMS35	GW	2L	"		
	Plume	WP07-10C	GW	2L	"		
	AOC4	WHGLMA009	GW	3L	Poly farm Tank		
	AOC4	WHGLMA010	GW	3L	"		
10-7-99	AOC4	WHGLMA012	GW	3L	"		

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Investigative Derived Waste Inventory Sheet

Task Number AFC 001 [illegible]

ACCUM. DATE	SWMU/ LANDFILL	BORING/ MONITORING WELL ID	MEDIA	VOLUME GENERATED	STORAGE CONTAINER	IDW #	COMMENTS
10-7-99	Plume	WITCTA020	GW	2L	Poly Farm Tank		
	Plume	WITCTA017	GW	2L	"		
	Plume	GMI-22-04m	GW	2L	"		
	Plume	GMI-22-07m	GW	2L	"		
	Plume	LSA1628-3	GW	2L	"		
	AOC 4	WHGLTA014	GW	3L	"		
	AOC 4	WCHMHTA009	GW	3L	"		
10-8-99	Plume	WITCTA016	GW	2L	"		
	Plume	GMI-22 06m	GW	2L	"		
	Plume	WITCTA024	GW	2L	"		
	AOC 7	SP4-29	GW	2L	"		
	AOC 4	SPOT35-8	GW	2L	"		
	AOC 4	SPOT35-9	GW	2L	"		
		decon water	W	15 gal	"		
10-11-99	AOC 7	CW13-01	GW	2L	"		

NAS Fort Worth JRB
Investigative Derived Waste Inventory Sheet

Task Number AFC-001 - 02GHBA

ACCUM. DATE	SWMU/ LANDFILL	BORING/ MONITORING WELL ID	MEDIA	VOLUME GENERATED	STORAGE CONTAINER	IDW #	COMMENTS
10.15.99	Plume	LFO5-01	GW	3.0 L	Poly farm Tank		
	Plume	HM-123	GW	2.75 L	"		
		Decon Water	W	15 gal	"		
10 18.99	Plume	W-153	GW	1.5 L	"		
	Plume	HM-125	GW	1.2 L	"		
	Plume	HM-116	GW	1.5 L	"		
	AOC 4	SPOT35-5	GW	0.90 L	"		
	AOC 7, SWMUs	WHGLTM005	GW	1.65 L	"		
	AOC 7, SWMUs	WHGLTM007	GW	4.05 L	"		
	AOC 7, SWMUs	SITE-W11	GW	3.0 L	"		
	Plume	WHGLTM004	GW	1.8 L	"		

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TAB

Appendix C

APPENDIX C.1

AOC 4 MONITORING WELL LABORATORY ANALYTICAL RESULTS

Appendix C.1 contains the QC results obtained during the four groundwater monitoring events. Below are the data qualifiers used to assess the laboratory data based on sample integrity, completeness, holding times, method preparation/analysis, accuracy/precision, performance criteria, and instrument initial and continuing calibration checks.

Qualifier	Description
J	The analyte was positively identified, the quantitation is an estimation.
U	The analyte was analyzed for, but not detected. The associated numerical value is flagged at the PQL.
F	The analyte was positively identified, but the associated numerical value is below the PQL.
R	The datum is unusable due to serious deficiencies in the ability to meet QC criteria.
UJ	The analyte was not detected; the associated numerical value is flagged at the PQL, which is estimated due to deficiencies in the QC data.
(no qualifier)	The result is a detection with the indicated value and units.

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Table C.1a
AOC 4 January 1999 Monitoring Well Laboratory Results

Analytical Method/Analyte	Reporting Limit	SPOT35-5 N1 01/22/99	SPOT35-5 N1 01/26/99	SPOT35-8 N1 01/12/99	SPOT35-9 N1 01/13/99	WCHMHTA008 FD1 01/18/99	WCHMHTA008 N1 01/18/99
Alkalinity - E310.1 (mg/L)							
Alkalinity, Total (as $CACO_3$)	10	NA	404	445	384	453	466
Total Organic Carbon - E415.1 (mg/L)							
Total Organic Carbon	1	NA	7	3	6.3	5 U	10.6
Determination of Diesel Range Organic in Water, GC/FID- SW8015D (mg/L)							
PHC as Diesel Fuel	0.12	NA	1.2	0.13 U	0.12 U	0.29 U	0.28 U
PHC as Gasoline	0.05	1 2	NA	0.053 J	0.058 J	0 73	0 82
PHC as Heavy/Residual Fuel Oils Fuel Oils #4,#5,#6		NA	NA	NA	NA	NA	NA
Methane, Ethane, and Ethene - SW3810 (µg/L)							
Ethane	0 11	NA	NA	0.11 U	0.11 U	0.36 U	0.36 U
Ethene	0.1	NA	NA	0.1 U	0.12 F	0.36 U	0 36 U
Methane	0 07	NA	NA	454.14	129.3	3332 J	1219.81 J
Aromatic Volatile Organics - SW8020A (µg/L)							
Benzene	1	NA	NA	1.2 J	1 U	88	83
Ethylbenzene	1	NA	NA	1 U	1 U	42	44
Methyl *tert*-butyl ether	1	NA	NA	1 U	1 U	1 U	1 U
Toluene	1	NA	NA	1 U	1 U	1 U	1 U
Xylenes, Total	1	NA	NA	1 U	1 U	1 U	1 U
Volatile Organic Compounds by GC/MS - SW8260B (µg/L)							
1,1,1,2-Tetrachloroethane	0.5	0.5 UJ	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	0.5	0 5 UJ	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	0.5	0 5 UJ	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	0.5	0 5 UJ	NA	NA	NA	NA	NA
1,1-Dichloroethane	0.4	0 4 UJ	NA	NA	NA	NA	NA
1,1-Dichloroethene	0.5	0 5 UJ	NA	NA	NA	NA	NA
1,1-Dichloropropene	0.5	0.5 UJ	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	0.5	0 5 UJ	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	0.5	0 5 UJ	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	0.4	0.4 UJ	NA	NA	NA	NA	NA

Table C.1a (continued)
AOC 4 January 1999 Monitoring Well Laboratory Results

Analytical Method/Analyte	Reporting Limit	SPOT35-5 N1 01/22/99	SPOT35-5 N1 01/26/99	SPOT35-8 N1 01/12/99	SPOT35-9 N1 01/13/99	WCHMHTA008 FD1 01/18/99	WCHMHTA008 N1 01/18/99
1,2,4-Trimethylbenzene	0 5	0.5 UJ	NA	NA	NA	NA	NA
1,2-Dibromo-3-Chloropropane	0 5	0.5 UJ	NA	NA	NA	NA	NA
1,2-Dibromoethane (Ethylene Dibromide)	0.5	0.5 UJ	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	0.3	0.3 UJ	NA	NA	NA	NA	NA
1,2-Dichloroethane	0.5	0.5 UJ	NA	NA	NA	NA	NA
1,2-Dichloropropane	0.4	0 4 UJ	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene (Mesitylene)	0.5	0 5 UJ	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	0.5	0.5 UJ	NA	NA	NA	NA	NA
1,3-Dichloropropane	0 4	0.4 UJ	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	0.3	0.3 UJ	NA	NA	NA	NA	NA
1-Chlorohexane	0.5	2 U	NA	NA	NA	NA	NA
2,2-Dichloropropane	0.5	0.5 UJ	NA	NA	NA	NA	NA
2-Chloro-1,3-Butadiene	0.5	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	0.4	0.4 UJ	NA	NA	NA	NA	NA
2-Hexanone	2	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	0.5	0.5 UJ	NA	NA	NA	NA	NA
Acetone	2	NA	NA	NA	NA	NA	NA
Acetonitrile	40	NA	NA	NA	NA	NA	NA
Acrolein	100	NA	NA	NA	NA	NA	NA
Acrylonitrile	40	NA	NA	NA	NA	NA	NA
Allyl Chloride (3-Chloropropene)	2	NA	NA	NA	NA	NA	NA
Benzene	0.4	0.4 UJ	NA	NA	NA	NA	NA
Bromobenzene	0.3	0.3 UJ	NA	NA	NA	NA	NA
Bromochloromethane	0.4	0.4 UJ	NA	NA	NA	NA	NA
Bromodichloromethane	0.5	0 5 UJ	NA	NA	NA	NA	NA
Bromoform	0.5	0 5 UJ	NA	NA	NA	NA	NA
Bromomethane	0.5	0.5 UJ	NA	NA	NA	NA	NA
Carbon Disulfide	2	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	0.5	0.5 UJ	NA	NA	NA	NA	NA

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Table C.1a (continued)
AOC 4 January 1999 Monitoring Well Laboratory Results

Analytical Method/Analyte	Reporting Limit	SPOT35-5 N1 01/22/99	SPOT35-5 N1 01/26/99	SPOT35-8 N1 01/12/99	SPOT35-9 N1 01/13/99	WCHMHTA008 FD1 01/18/99	WCHMHTA008 N1 01/18/99
Chlorobenzene	0 4	0 4 UJ	NA	NA	NA	NA	NA
Chloroethane	0 5	0.5 UJ	NA	NA	NA	NA	NA
Chloroform	0.3	0.3 UJ	NA	NA	NA	NA	NA
Chloromethane	0 5	0.5 UJ	NA	NA	NA	NA	NA
cis-1,2-Dichloroethylene	0.5	0.5 UJ	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0 5	0.5 UJ	NA	NA	NA	NA	NA
Dibromochloromethane	0 5	0.5 UJ	NA	NA	NA	NA	NA
Dibromomethane	0.5	0.5 UJ	NA	NA	NA	NA	NA
Dichlorodifluoromethane	0 5	0.5 UJ	NA	NA	NA	NA	NA
Ethyl Methacrylate	2	NA	NA	NA	NA	NA	NA
Ethylbenzene	0.5	0.5 UJ	NA	NA	NA	NA	NA
Hexachlorobutadiene	0 5	0.5 UJ	NA	NA	NA	NA	NA
Iodomethane (Methyl Iodide)	2	NA	NA	NA	NA	NA	NA
Isobutanol	100	NA	NA	NA	NA	NA	NA
Isopropylbenzene (Cumene)	0 5	33 J	NA	NA	NA	NA	NA
m,p-Xylene (Sum of Isomers)	0 5	0.5 UJ	NA	NA	NA	NA	NA
Methyl Ethyl Ketone (2-Butanone)	2	NA	NA	NA	NA	NA	NA
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	2	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	2	NA	NA	NA	NA	NA	NA
Methylacrylonitrile	2	NA	NA	NA	NA	NA	NA
Methylene Chloride	0 5	0.5 UJ	NA	NA	NA	NA	NA
n-Butylbenzene	0 5	2 J	NA	NA	NA	NA	NA
n-Propylbenzene	0.4	44	NA	NA	NA	NA	NA
Naphthalene	0 5	84	NA	NA	NA	NA	NA
o-Xylene (1,2-Dimethylbenzene)	0 5	0 5 UJ	NA	NA	NA	NA	NA
p-Cymene (P-Isopropyltoluene)	0 5	0 5 UJ	NA	NA	NA	NA	NA
Pentachloroethane	2	NA	NA	NA	NA	NA	NA
Propane Nitrile (Propionitrile)	20	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	0 5	9 J	NA	NA	NA	NA	NA

Table C.1a (continued)
AOC 4 January 1999 Monitoring Well Laboratory Results

Analytical Method/Analyte	Reporting Limit	SPOT35-5 N1 01/22/99	SPOT35-5 N1 01/26/99	SPOT35-8 N1 01/12/99	SPOT35-9 N1 01/13/99	WCHMHTA008 FD1 01/18/99	WCHMHTA008 N1 01/18/99
Styrene	0 4	0 4 UJ	NA	NA	NA	NA	NA
t-Butylbenzene	0.5	2 J	NA	NA	NA	NA	NA
Tetrachloroethylene (PCE)	0.5	5 J	NA	NA	NA	NA	NA
Toluene	0.5	0.5 UJ	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	0.5	0 5 UJ	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.5	0 5 UJ	NA	NA	NA	NA	NA
trans-1,4-Dichloro-2-Butene	2	NA	NA	NA	NA	NA	NA
Trichloroethylene (TCE)	0.5	0.5 UJ	NA	NA	NA	NA	NA
Trichlorofluoromethane	0.5	0.5 UJ	NA	NA	NA	NA	NA
Vinyl Acetate	2	2 UJ	NA	NA	NA	NA	NA
Vinyl Chloride	0.5	0.5 UJ	NA	NA	NA	NA	NA
Polynuclear Aromatic Hydrocarbons - SW8310 (µg/l)							
Acenaphthene	18	17 U	NA	18 U	18 U	35 U	34 U
Acenaphthylene	23	22 U	NA	23 U	22 U	45 U	44 U
Anthracene	6.6	6.3 U	NA	6.6 U	6 5 U	13 U	12 U
Benzo[*a*]anthracene	0.13	0.12 U	NA	0.13 U	0.13 U	0.25 U	0 25 U
Benzo[*a*]pyrene	0.23	0.22 U	NA	0.23 U	0.22 U	0.45 U	0.44 U
Benzo[*b*]fluoranthene	0.18	0.17 R	NA	0.18 U	0.18 U	0.35 U	0.34 U
Benzo[*ghi*]perylene	0.76	0.72 U	NA	0.76 U	0.74 U	1.5 U	1.4 U
Benzo[*k*]fluoranthene	0 17	0.16 U	NA	0.17 U	0.17 U	0.33 U	0.32 U
Chrysene	1.5	1.4 U	NA	1.5 U	1.5 U	2.9 U	2.8 U
Dibenz[*a,h*]Anthracene	0 3	0.28 U	NA	0 3 U	0.29 U	0.58 U	0.57 U
Fluoranthene	2 1	2 U	NA	2.1 U	2 U	4.1 U	4 U
Fluorene	2.1	2 U	NA	2.1 U	2 U	4.1 U	4 U
Indeno[1,2,3-*cd*]pyrene	0.43	0.41 U	NA	0.43 U	0.42 U	0 83 U	0 82 U
Naphthalene	18	21	NA	18 U	18 U	30 F	28 F
Phenanthrene	6 4	6.1 U	NA	6.4 U	6.3 U	12 U	12 U
Pyrene	2.7	2.6 U	NA	2.7 U	2.6 U	5.2 U	5.1 U
Common Anions - SW9056 (mg/l)							

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Table C.1a (continued)
AOC 4 January 1999 Monitoring Well Laboratory Results

Analytical Method/Analyte	Reporting Limit	SPOT35-5 N1 01/22/99	SPOT35-5 N1 01/26/99	SPOT35-8 N1 01/12/99	SPOT35-9 N1 01/13/99	WCHMHTA008 FD1 01/18/99	WCHMHTA008 N1 01/18/99
Chloride (as Cl)	0.2	NA	146	87.4	44.6	379	439
Nitrogen, Nitrate (as N)	0.1	NA	0.1 U	0.1 U	0.68	2.3	2.3
Sulfate (as SO_4)	0.2	NA	0.2 U	32.5	51.4	35	35.3

Notes:
N1 - original sample analysis
FD1 - Field duplicate analysis

Table C.1a (continued)
AOC 4 January 1999 Monitoring Well Laboratory Results

Analytical Method/Analyte	Reporting Limit	WCHMHTA009 N1 01/13/99	WHGLTA009 N1 01/19/99	WHGLTA010 N1 01/18/99	WHGLTA011 N1 01/18/99	WHGLTA012 N1 01/19/99	WHGLTA014 N1 01/19/99
Alkalinity - E310.1 (mg/L)							
Alkalinity, Total (as $CACO_3$)	10	278	413	458	474	296	427
Total Organic Carbon - E415.1 (mg/L)							
Total Organic Carbon	1	1.7	2	2 1	3	6.1	2.6
Determination of Diesel Range Organic in Water, GC/FID- SW8015D (mg/L)							
PHC as Diesel Fuel	0 12	0.17 U	0.17 U	0.12 U	0.12 U	1.1 J	0.12 U
PHC as Gasoline	0.05	0.13 J	0.97	0 13 U	0.05 U	2.7	0.31
PHC as Heavy/residual Fuel Oils Fuel Oils #4,#5,#6		NA	NA	NA	NA	NA	NA
Methane, Ethane, and Ethene - SW3810 (µg/L)							
Ethane	0.11	0.11 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U
Ethene	0.1	0.1 U	0.36 U	0.36 U	0.36 U	0.36 U	0 36 U
Methane	0.07	8.79	1628.16 J	1270.26 J	1.16 U	17124 34 J	1796.61 J
Aromatic Volatile Organics - SW8020A (µg/L)							
Benzene	1	1 U	1.8 J	2 5 J	1 U	8 J	1 9
Ethylbenzene	1	1 U	1 U	1 U	1 U	1 4 J	1 U
Methyl *tert*-butyl ether	1	1 U	3.2 J	1 U	1 U	1 UJ	1 U
Toluene	1	1 U	1 U	1 U	1 U	0 52 F	1 U
Xylenes, Total	1	1 U	2.8	1 U	1 U	7.2 J	1 U
Volatile Organic Compounds by GC/MS - SW8260B (µg/L)							
1,1,1,2-Tetrachloroethane	0.5	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	0.5	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	0 5	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	0.5	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	0.4	NA	NA	NA	NA	NA	NA
1,1-Dichloroethene	0.5	NA	NA	NA	NA	NA	NA
1,1-Dichloropropene	0.5	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	0.5	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	0.5	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	0.4	NA	NA	NA	NA	NA	NA

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Table C.1a (continued)
AOC 4 January 1999 Monitoring Well Laboratory Results

Analytical Method/Analyte	Reporting Limit	WCHMHTA009 N1 01/13/99	WHGLTA009 N1 01/19/99	WHGLTA010 N1 01/18/99	WHGLTA011 N1 01/18/99	WHGLTA012 N1 01/19/99	WHGLTA014 N1 01/19/99
1,2,4-Trimethylbenzene	0.5	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-Chloropropane	0.5	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane (Ethylene Dibromide)	0.5	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	0.3	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	0 5	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	0.4	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene (Mesitylene)	0.5	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	0.5	NA	NA	NA	NA	NA	NA
1,3-Dichloropropane	0.4	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	0.3	NA	NA	NA	NA	NA	NA
1-Chlorohexane	0.5	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	0.5	NA	NA	NA	NA	NA	NA
2-Chloro-1,3-Butadiene	0.5	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	0.4	NA	NA	NA	NA	NA	NA
2-Hexanone	2	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	0.5	NA	NA	NA	NA	NA	NA
Acetone	2	NA	NA	NA	NA	NA	NA
Acetonitrile	40	NA	NA	NA	NA	NA	NA
Acrolein	100	NA	NA	NA	NA	NA	NA
Acrylonitrile	40	NA	NA	NA	NA	NA	NA
Allyl Chloride (3-Chloropropene)	2	NA	NA	NA	NA	NA	NA
Benzene	0.4	NA	NA	NA	NA	NA	NA
Bromobenzene	0.3	NA	NA	NA	NA	NA	NA
Bromochloromethane	0.4	NA	NA	NA	NA	NA	NA
Bromodichloromethane	0.5	NA	NA	NA	NA	NA	NA
Bromoform	0.5	NA	NA	NA	NA	NA	NA
Bromomethane	0 5	NA	NA	NA	NA	NA	NA
Carbon Disulfide	2	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	0 5	NA	NA	NA	NA	NA	NA

Table C.1a (continued)
AOC 4 January 1999 Monitoring Well Laboratory Results

Analytical Method/Analyte	Reporting Limit	WCHMHTA009 N1 01/13/99	WHGLTA009 N1 01/19/99	WHGLTA010 N1 01/18/99	WHGLTA011 N1 01/18/99	WHGLTA012 N1 01/19/99	WHGLTA014 N1 01/19/99
Chlorobenzene	0.4	NA	NA	NA	NA	NA	NA
Chloroethane	0.5	NA	NA	NA	NA	NA	NA
Chloroform	0.3	NA	NA	NA	NA	NA	NA
Chloromethane	0.5	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethylene	0.5	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	0.5	NA	NA	NA	NA	NA	NA
Dibromochloromethane	0.5	NA	NA	NA	NA	NA	NA
Dibromomethane	0.5	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	0 5	NA	NA	NA	NA	NA	NA
Ethyl Methacrylate	2	NA	NA	NA	NA	NA	NA
Ethylbenzene	0 5	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	0.5	NA	NA	NA	NA	NA	NA
Iodomethane (Methyl Iodide)	2	NA	NA	NA	NA	NA	NA
Isobutanol	100	NA	NA	NA	NA	NA	NA
Isopropylbenzene (Cumene)	0.5	NA	NA	NA	NA	NA	NA
m,p-Xylene (Sum of Isomers)	0.5	NA	NA	NA	NA	NA	NA
Methyl Ethyl Ketone (2-Butanone)	2	NA	NA	NA	NA	NA	NA
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	2	NA	NA	NA	NA	NA	NA
Methyl Methacrylate	2	NA	NA	NA	NA	NA	NA
Methylacrylonitrile	2	NA	NA	NA	NA	NA	NA
Methylene Chloride	0.5	NA	NA	NA	NA	NA	NA
n-Butylbenzene	0.5	NA	NA	NA	NA	NA	NA
n-Propylbenzene	0.4	NA	NA	NA	NA	NA	NA
Naphthalene	0.5	NA	NA	NA	NA	NA	NA
o-Xylene (1,2-Dimethylbenzene)	0.5	NA	NA	NA	NA	NA	NA
p-Cymene (P-Isopropyltoluene)	0 5	NA	NA	NA	NA	NA	NA
Pentachloroethane	2	NA	NA	NA	NA	NA	NA
Propane Nitrile (Propionitrile)	20	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	0.5	NA	NA	NA	NA	NA	NA

Table C.1a (continued)
AOC 4 January 1999 Monitoring Well Laboratory Results

Analytical Method/Analyte	Reporting Limit	WCHMHTA009 N1 01/13/99	WHGLTA009 N1 01/19/99	WHGLTA010 N1 01/18/99	WHGLTA011 N1 01/18/99	WHGLTA012 N1 01/19/99	WHGLTA014 N1 01/19/99
Styrene	0.4	NA	NA	NA	NA	NA	NA
t-Butylbenzene	0.5	NA	NA	NA	NA	NA	NA
Tetrachloroethylene (PCE)	0.5	NA	NA	NA	NA	NA	NA
Toluene	0.5	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	0.5	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.5	NA	NA	NA	NA	NA	NA
trans-1,4-Dichloro-2-Butene	2	NA	NA	NA	NA	NA	NA
Trichloroethylene (TCE)	0.5	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	0.5	NA	NA	NA	NA	NA	NA
Vinyl Acetate	2	NA	NA	NA	NA	NA	NA
Vinyl Chloride	0.5	NA	NA	NA	NA	NA	NA
Polynuclear Aromatic Hydrocarbons - SW8310 (µg/l)							
Acenaphthene	18	18 U	17 U	17 U	17 U	17 U	17 U
Acenaphthylene	23	22 U	22 U	22 U	22 U	22 U	22 U
Anthracene	6 6	6.5 U	6.4 U	6 3 U	6.4 U	6.4 U	6.3 U
Benzo[*a*]anthracene	0.13	0.13 U	0.13 U	0.12 U	0.13 U	0.13 U	0.12 U
Benzo[*a*]pyrene	0.23	0 22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Benzo[*b*]fluoranthene	0.18	0.18 U	0.17 U	0 17 U	0.17 U	0.17 U	0.17 U
Benzo[*ghi*]perylene	0.76	0.74 U	0.74 U	0 72 U	0.74 U	0.74 U	0.72 U
Benzo[*k*]fluoranthene	0.17	0.17 U	0.16 U	0 16 U	0.16 U	0 16 U	0.16 U
Chrysene	1.5	1.5 U	1.4 U	1 4 U	1.4 U	1.4 U	1.4 U
Dibenz[*a,h*]anthracene	0.3	0.29 U	0 29 U	0.28 U	0.29 U	0 29 U	0 28 U
Fluoranthene	2.1	2 U	2 U	2 U	2 U	2 U	2 U
Fluorene	2.1	2 U	2 U	2 U	2 U	1.6 F	2 U
Indeno[1,2,3-*cd*]pyrene	0.43	0.42 U	0 42 U	0.41 U	0.42 U	0.42 U	0.41 U
Naphthalene	18	18 U	17 U	17 U	17 U	15 F	17 U
Phenanthrene	6.4	6 3 U	6.2 U	6.1 U	6.2 U	6.2 U	6.1 U
Pyrene	2.7	2.6 U	2 6 U	2.6 U	2.6 U	2.6 U	2.6 U
Common Anions - SW9056 (mg/l)							

Table C.1a (continued)
AOC 4 January 1999 Monitoring Well Laboratory Results

Analytical Method/Analyte	Reporting Limit	WCHMHTA009 N1 01/13/99	WHGLTA009 N1 01/19/99	WHGLTA010 N1 01/18/99	WHGLTA011 N1 01/18/99	WHGLTA012 N1 01/19/99	WHGLTA014 N1 01/19/99
Chloride (as Cl)	0.2	66.7	33 8	23.9	8.8	10 2	89.9
Nitrogen, Nitrate (as N)	0.1	8.5	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Sulfate (as SO_4)	0.2	36.8	13.7	36.1	9.1	0.2 U	27

Notes:
N1 - original sample analysis

Table C.1b
AOC 4 April 1999 Monitoring Well Laboratory Results

Analytical Method/Analyte	Units	Reporting Limit	SPOT35-5 N1 4/22/99	SPOT35-8 N1 4/14/99	SPOT35-9 N1 4/16/99	WCHMHTA008 FD1 4/20/99	WCHMHTA008 N1 4/20/99
Common Anions - E300							
Chloride (as Cl)	mg/L	0.2	NA	NA	33.7 J	NA	NA
Nitrogen, Nitrate (as N)	mg/L	0.1	NA	NA	1.3	NA	NA
Sulfate (as SO_4)	mg/L	0.2	NA	NA	36.5 J	NA	NA
Alkalinity - E310.1							
Alkalinity, Total (as $CACO_3$)	mg/L	10	408	446	304	461	474
Total Organic Carbon - E415.1							
Total Organic Carbon	mg/L	1	6	2.6	2.4	5	5.1
Determination of Diesel Range Organic in Water, GC/FID- SW8015D							
PHC as Diesel Fuel	mg/L	5	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
PHC as Gasoline	mg/L	5	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
PHC as Heavy/residual Fuel Oils Fuel Oils #4,#5,#6	mg/L	5	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
Nonhalogenated Volatile Organics- SW8015							
Ethane	µg/L	1	11	1 U	1 U	1 U	1 U
Ethene	µg/L	1	1 U	1 U	1 U	1 U	1 U
Methane	µg/L	1	4200	130	25 U	3100 J	2100 J
Aromatic Volatile Organics - SW8020							
Benzene	µg/L	1	NA	1 J	1 U	98	95
Ethylbenzene	µg/L	1	NA	1 U	1 U	49	48
Methyl *tert*-butyl ether	µg/L	1	NA	1 U	1 U	1 U	1 U
Toluene	µg/L	1	NA	1 U	1 U	1 U	1 U
Xylenes, Total	µg/L	1	NA	1 U	1 U	0.58 F	0.59 F
Volatile Organic Compounds by Gas Chromatograph/Mass Spectrometry - SW8260							
1,1,1,2-Tetrachloroethane	µg/L	0 5	0.5 U	NA	NA	NA	NA
1,1,1-Trichloroethane	µg/L	0.5	0.5 U	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	µg/L	0.5	0.5 U	NA	NA	NA	NA
1,1,2-Trichloroethane	µg/L	0.5	0.5 U	NA	NA	NA	NA
1,1-Dichloroethane	µg/L	0.4	0.4 U	NA	NA	NA	NA
1,1-Dichloroethene	µg/L	0 5	0.5 U	NA	NA	NA	NA

Table C.1b (continued)
AOC 4 April 1999 Monitoring Well Laboratory Results

Analytical Method/Analyte	Units	Reporting Limit	SPOT35-5 N1 4/22/99	SPOT35-8 N1 4/14/99	SPOT35-9 N1 4/16/99	WCHMHTA008 FD1 4/20/99	WCHMHTA008 N1 4/20/99
1,1-Dichloropropene	µg/L	0.5	0.5 U	NA	NA	NA	NA
1,2,3-Trichlorobenzene	µg/L	0.5	0.5 U	NA	NA	NA	NA
1,2,3-Trichloropropane	µg/L	0.5	0.5 U	NA	NA	NA	NA
1,2,4-Trichlorobenzene	µg/L	0.4	0.4 U	NA	NA	NA	NA
1,2,4-Trimethylbenzene	µg/L	0.5	0 5 U	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	µg/L	0.5	0.5 U	NA	NA	NA	NA
1,2-Dibromoethane (Ethylene Dibromide)	µg/L	0 5	0.5 U	NA	NA	NA	NA
1,2-Dichlorobenzene	µg/L	0.3	0.3 U	NA	NA	NA	NA
1,2-Dichloroethane	µg/L	0.5	0.5 U	NA	NA	NA	NA
1,2-Dichloropropane	µg/L	0.4	0 4 U	NA	NA	NA	NA
1,3,5-Trimethylbenzene (Mesitylene)	µg/L	0.5	0 5 U	NA	NA	NA	NA
1,3-Dichlorobenzene	µg/L	0.5	0.5 U	NA	NA	NA	NA
1,3-Dichloropropane	µg/L	0 4	0.4 U	NA	NA	NA	NA
1,4-Dichlorobenzene	µg/L	0.3	0.3 U	NA	NA	NA	NA
1-Chlorohexane	µg/L	0.5	0.5 R	NA	NA	NA	NA
2,2-Dichloropropane	µg/L	0.5	0.5 R	NA	NA	NA	NA
2-Chlorotoluene	µg/L	0 4	0 4 U	NA	NA	NA	NA
4-Chlorotoluene	µg/L	0.5	0 5 U	NA	NA	NA	NA
Benzene	µg/L	0.4	0.4 U	NA	NA	NA	NA
Bromobenzene	µg/L	0 3	0.3 U	NA	NA	NA	NA
Bromochloromethane	µg/L	0 4	0.4 U	NA	NA	NA	NA
Bromodichloromethane	µg/L	0.5	0.5 U	NA	NA	NA	NA
Bromoform	µg/L	0.5	0.5 U	NA	NA	NA	NA
Bromomethane	µg/L	0.5	0.5 U	NA	NA	NA	NA
Carbon Tetrachloride	µg/L	0.5	0.5 U	NA	NA	NA	NA
Chlorobenzene	µg/L	0.4	0.4 U	NA	NA	NA	NA
Chloroethane	µg/L	0.5	0.5 U	NA	NA	NA	NA
Chloroform	µg/L	0.3	0.3 U	NA	NA	NA	NA
Chloromethane	µg/L	0.5	0.5 U	NA	NA	NA	NA

Table C.1b (continued)
AOC 4 April 1999 Monitoring Well Laboratory Results

Analytical Method/Analyte	Units	Reporting Limit	SPOT35-5 N1 4/22/99	SPOT35-8 N1 4/14/99	SPOT35-9 N1 4/16/99	WCHMHTA008 FD1 4/20/99	WCHMHTA008 N1 4/20/99
cis-1,2-Dichloroethene	µg/L	0.5	0.5 U	NA	NA	NA	NA
cis-1,3-Dichloropropene	µg/L	0 5	0.5 U	NA	NA	NA	NA
Dibromochloromethane	µg/L	0.5	0.5 U	NA	NA	NA	NA
Dibromomethane	µg/L	0 5	0.5 U	NA	NA	NA	NA
Dichlorodifluoromethane	µg/L	0.5	0.5 R	NA	NA	NA	NA
Ethylbenzene	µg/L	0.5	0 5 U	NA	NA	NA	NA
Hexachlorobutadiene	µg/L	0 5	0.5 U	NA	NA	NA	NA
Isopropylbenzene (Cumene)	µg/L	0 5	20 J	NA	NA	NA	NA
m,p-Xylene (Sum of Isomers)	µg/L	0.5	0.5 U	NA	NA	NA	NA
Methylene Chloride	µg/L	0.5	0.5 U	NA	NA	NA	NA
n-Butylbenzene	µg/L	0 5	0 5 U	NA	NA	NA	NA
n-Propylbenzene	µg/L	0 4	22 J	NA	NA	NA	NA
Naphthalene	µg/L	0.5	37 J	NA	NA	NA	NA
o-Xylene (1,2-Dimethylbenzene)	µg/L	0.5	0.5 U	NA	NA	NA	NA
p-Cymene (P-Isopropyltoluene)	µg/L	0.5	0.5 U	NA	NA	NA	NA
sec-Butylbenzene	µg/L	0 5	8 J	NA	NA	NA	NA
Styrene	µg/L	0.4	0 4 UJ	NA	NA	NA	NA
t-Butylbenzene	µg/L	0 5	2 J	NA	NA	NA	NA
Tetrachloroethene (PCE)	µg/L	0.5	0.5 U	NA	NA	NA	NA
Toluene	µg/L	0.5	0 5 U	NA	NA	NA	NA
trans-1,2-Dichloroethene	µg/L	0 5	0.5 U	NA	NA	NA	NA
trans-1,3-dichloropropene	µg/L	0 5	0.5 U	NA	NA	NA	NA
Trichloroethene (TCE)	µg/L	0.5	0.5 UJ	NA	NA	NA	NA
Trichlorofluoromethane	µg/L	0 5	0.5 U	NA	NA	NA	NA
Vinyl Acetate	µg/L	2	2 U	NA	NA	NA	NA
Vinyl Chloride	µg/L	0.5	0 5 U	NA	NA	NA	NA
Polynuclear Aromatic Hydrocarbons- SW8310							
Acenaphthene	µg/L	18	19 U	17 U	18 U	17 U	17 U
Acenaphthylene	µg/L	23	24 U	22 U	22 U	22 U	22 U

Table C.1b (continued)
AOC 4 April 1999 Monitoring Well Laboratory Results

Analytical Method/Analyte	Units	Reporting Limit	SPOT35-5 N1 4/22/99	SPOT35-8 N1 4/14/99	SPOT35-9 N1 4/16/99	WCHMHTA008 FD1 4/20/99	WCHMHTA008 N1 4/20/99
Anthracene	µg/L	6.6	6.9 U	6.4 U	6.5 U	6.4 U	6.4 U
Benzo[*a*]anthracene	µg/L	0.13	0 14 U	0 13 U	0.13 U	0.13 U	0.13 U
Benzo[*a*]pyrene	µg/L	0.23	0.24 U	0.22 U	0.22 U	0.22 U	0.22 U
Benzo[*b*]fluoranthene	µg/L	0.18	0.19 U	0.17 U	0 18 U	0.17 U	0.17 U
Benzo[*ghi*]perylene	µg/L	0.76	0.8 U	0.74 U	0.74 U	0.74 U	0 74 U
Benzo[*k*]fluoranthene	µg/L	0.17	0.18 U	0.16 U	0.17 U	0.16 U	0.16 U
Chrysene	µg/L	1.5	1.6 U	1.4 U	1 5 U	1.4 U	1.4 U
Dibenz[*a,h*]anthracene	µg/L	0.3	0.32 U	0.29 U	0.29 U	0.29 U	0.29 U
Fluoranthene	µg/L	2.1	2.2 U	2 U	2 U	2 U	2 U
Fluorene	µg/L	2.1	2.2 U	2 U	2 U	2 U	2 U
Indeno[1,2,3-*cd*]pyrene	µg/L	0 43	0 45 U	0.42 U	0.42 U	0.42 U	0.42 U
Naphthalene	µg/L	18	19 U	17 U	18 U	28	30
Phenanthrene	µg/L	6.4	6.7 U	6.2 U	6 3 U	6.2 U	6.2 U
Pyrene	µg/L	2.7	2.8 U	2 6 U	2.6 R	2.6 R	2.6 R
Common Anions - SW9056							
Chloride (as Cl)	mg/L	0.2	91.6 J	72.9	NA	432 J	391 J
Nitrogen, Nitrate (as N)	mg/L	0.1	0.1 U	0.1 U	NA	1.9	1.9
Sulfate (as SO_4)	mg/L	0.2	1 7 J	32.9 J	NA	40 J	40.3 J

Notes:
N1 - original sample analysis
FD1 - Field duplicate analysis

Table C.1b (continued)
AOC 4 April 1999 Monitoring Well Laboratory Results

Analytical Method/Analyte	Units	Reporting Limit	WCHMHTA009 N1 4/13/99	WHGLTA009 N1 4/15/99	WHGLTA010 N1 4/15/99	WHGLTA011 N1 4/20/99	WHGLTA012 N1 4/16/99	WHGLTA014 N1 4/15/99
Common Anions - E300								
Chloride (as Cl)	mg/L	0.2	NA	NA	NA	NA	189 J	NA
Nitrogen, Nitrate (as N)	mg/L	0 1	NA	NA	NA	NA	0.1 U	NA
Sulfate (as SO_4)	mg/L	0.2	NA	NA	NA	NA	0.2 UJ	NA
Alkalinity - E310.1								
Alkalinity, Total (as $CACO_3$)	mg/L	10	300	447	491	488	319	459
Total Organic Carbon - E415.1								
Total Organic Carbon	mg/L	1	1.7	1.3	1.7	2.3	6.3	3.4
Determination of Diesel Range Organic in Water, GC/FID- SW8015D								
PHC as Diesel Fuel	mg/L	5	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
PHC as Gasoline	mg/L	5	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
PHC as Heavy/Residual Fuel Oils Fuel Oils #4,#5,#6	mg/L	5	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ	5 UJ
Nonhalogenated Volatile Organics- SW8015								
Ethane	µg/L	1	1 U	1 U	1 U	1 U	1 U	1 U
Ethene	µg/L	1	1 U	1 U	1 U	1 U	1 U	1 U
Methane	µg/L	1	5	420	1300	5 U	5100	380
Aromatic Volatile Organics - SW8020								
Benzene	µg/L	1	1 U	1.4 J	1.4 J	1 U	7.3 J	1 7
Ethylbenzene	µg/L	1	1 U	0.55 F	1 U	1 U	0.74 F	1 U
Methyl *tert*-butyl ether	µg/L	1	1 U	1 R	1 R	1 U	1 UJ	1 R
Toluene	µg/L	1	1 U	1 U	1 U	1 U	1 UJ	1 U
Xylenes, Total	µg/L	1	1 U	3.9	1 U	1 U	5.6 J	1 U
Volatile Organic Compounds by Gas Chromatograph/Mass Spectrometry - SW8260								
1,1,1,2-Tetrachloroethane	µg/L	0.5	NA	NA	NA	NA	NA	NA
1,1,1-Trichloroethane	µg/L	0.5	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	µg/L	0.5	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	µg/L	0.5	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	µg/L	0.4	NA	NA	NA	NA	NA	NA

Table C.1b (continued)
AOC 4 April 1999 Monitoring Well Laboratory Results

Analytical Method/Analyte	Units	Reporting Limit	WCHMHTA009 N1 4/13/99	WHGLTA009 N1 4/15/99	WHGLTA010 N1 4/15/99	WHGLTA011 N1 4/20/99	WHGLTA012 N1 4/16/99	WHGLTA014 N1 4/15/99
1,1-Dichloroethene	µg/L	0.5	NA	NA	NA	NA	NA	NA
1,1-Dichloropropene	µg/L	0.5	NA	NA	NA	NA	NA	NA
1,2,3-Trichlorobenzene	µg/L	0 5	NA	NA	NA	NA	NA	NA
1,2,3-Trichloropropane	µg/L	0 5	NA	NA	NA	NA	NA	NA
1,2,4-Trichlorobenzene	µg/L	0.4	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	µg/L	0 5	NA	NA	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	µg/L	0.5	NA	NA	NA	NA	NA	NA
1,2-Dibromoethane (Ethylene Dibromide)	µg/L	0.5	NA	NA	NA	NA	NA	NA
1,2-Dichlorobenzene	µg/L	0 3	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	µg/L	0.5	NA	NA	NA	NA	NA	NA
1,2-Dichloropropane	µg/L	0.4	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene (Mesitylene)	µg/L	0 5	NA	NA	NA	NA	NA	NA
1,3-Dichlorobenzene	µg/L	0.5	NA	NA	NA	NA	NA	NA
1,3-Dichloropropane	µg/L	0 4	NA	NA	NA	NA	NA	NA
1,4-Dichlorobenzene	µg/L	0 3	NA	NA	NA	NA	NA	NA
1-Chlorohexane	µg/L	0.5	NA	NA	NA	NA	NA	NA
2,2-Dichloropropane	µg/L	0 5	NA	NA	NA	NA	NA	NA
2-Chlorotoluene	µg/L	0.4	NA	NA	NA	NA	NA	NA
4-Chlorotoluene	µg/L	0.5	NA	NA	NA	NA	NA	NA
Benzene	µg/L	0.4	NA	NA	NA	NA	NA	NA
Bromobenzene	µg/L	0.3	NA	NA	NA	NA	NA	NA
Bromochloromethane	µg/L	0.4	NA	NA	NA	NA	NA	NA
Bromodichloromethane	µg/L	0.5	NA	NA	NA	NA	NA	NA
Bromoform	µg/L	0.5	NA	NA	NA	NA	NA	NA
Bromomethane	µg/L	0 5	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	µg/L	0.5	NA	NA	NA	NA	NA	NA
Chlorobenzene	µg/L	0.4	NA	NA	NA	NA	NA	NA
Chloroethane	µg/L	0.5	NA	NA	NA	NA	NA	NA
Chloroform	µg/L	0.3	NA	NA	NA	NA	NA	NA

Table C.1b (continued)
AOC 4 April 1999 Monitoring Well Laboratory Results

Analytical Method/Analyte	Units	Reporting Limit	WCHMHTA009 N1 4/13/99	WHGLTA009 N1 4/15/99	WHGLTA010 N1 4/15/99	WHGLTA011 N1 4/20/99	WHGLTA012 N1 4/16/99	WHGLTA014 N1 4/15/99
Chloromethane	µg/L	0 5	NA	NA	NA	NA	NA	NA
cis-1,2-Dichloroethene	µg/L	0.5	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	µg/L	0 5	NA	NA	NA	NA	NA	NA
Dibromochloromethane	µg/L	0 5	NA	NA	NA	NA	NA	NA
Dibromomethane	µg/L	0.5	NA	NA	NA	NA	NA	NA
Dichlorodifluoromethane	µg/L	0.5	NA	NA	NA	NA	NA	NA
Ethylbenzene	µg/L	0.5	NA	NA	NA	NA	NA	NA
Hexachlorobutadiene	µg/L	0.5	NA	NA	NA	NA	NA	NA
Isopropylbenzene (Cumene)	µg/L	0.5	NA	NA	NA	NA	NA	NA
m,p-Xylene (Sum of Isomers)	µg/L	0 5	NA	NA	NA	NA	NA	NA
Methylene Chloride	µg/L	0.5	NA	NA	NA	NA	NA	NA
n-Butylbenzene	µg/L	0 5	NA	NA	NA	NA	NA	NA
n-Propylbenzene	µg/L	0 4	NA	NA	NA	NA	NA	NA
Naphthalene	µg/L	0.5	NA	NA	NA	NA	NA	NA
o-Xylene (1,2-Dimethylbenzene)	µg/L	0.5	NA	NA	NA	NA	NA	NA
p-Cymene (P-Isopropyltoluene)	µg/L	0 5	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	µg/L	0 5	NA	NA	NA	NA	NA	NA
Styrene	µg/L	0 4	NA	NA	NA	NA	NA	NA
t-Butylbenzene	µg/L	0.5	NA	NA	NA	NA	NA	NA
Tetrachloroethene (PCE)	µg/L	0 5	NA	NA	NA	NA	NA	NA
Toluene	µg/L	0 5	NA	NA	NA	NA	NA	NA
trans-1,2-Dichloroethene	µg/L	0.5	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	µg/L	0.5	NA	NA	NA	NA	NA	NA
Trichloroethene (TCE)	µg/L	0.5	NA	NA	NA	NA	NA	NA
Trichlorofluoromethane	µg/L	0.5	NA	NA	NA	NA	NA	NA
Vinyl Acetate	µg/L	2	NA	NA	NA	NA	NA	NA
Vinyl Chloride	µg/L	0.5	NA	NA	NA	NA	NA	NA
Polynuclear Aromatic Hydrocarbons- SW8310								
Acenaphthene	µg/L	18	17 U	17 U	17 U	17 U	18 U	17 U

Table C.1b (continued)
AOC 4 April 1999 Monitoring Well Laboratory Results

Analytical Method/Analyte	Units	Reporting Limit	WCHMHTA009 N1 4/13/99	WHGLTA009 N1 4/15/99	WHGLTA010 N1 4/15/99	WHGLTA011 N1 4/20/99	WHGLTA012 N1 4/16/99	WHGLTA014 N1 4/15/99
Acenaphthylene	µg/L	23	22 U	22 U	22 U	22 U	22 U	22 U
Anthracene	µg/L	6 6	6.4 U	6.3 U	6.4 U	6.3 U	6.5 U	6.4 U
Benzo[*a*]anthracene	µg/L	0.13	0 13 U	0.12 U	0.13 U	0.12 U	0.13 U	0.13 U
Benzo[*a*]pyrene	µg/L	0.23	0 22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
Benzo[*b*]fluoranthene	µg/L	0.18	0.17 U	0.17 U	0.17 U	0.17 U	0.18 U	0.17 U
Benzo[*ghi*]perylene	µg/L	0.76	0.74 U	0.73 U	0.74 U	0.73 U	0.74 U	0.74 U
Benzo[*k*]fluoranthene	µg/L	0 17	0.16 U	0.16 U	0.16 U	0.16 U	0.17 U	0.16 U
Chrysene	µg/L	1.5	1.4 U	1 4 U	1 4 U	1.4 U	1.5 U	1.4 U
Dibenz[*a,h*]anthracene	µg/L	0.3	0.29 U	0.29 U	0.29 U	0.29 U	0 29 U	0.29 U
Fluoranthene	µg/L	2.1	2 U	0.12 F	2 U	2 U	2 U	2 U
Fluorene	µg/L	2.1	2 U	2 U	2 U	2 U	2 U	2 U
Indeno[1,2,3-*cd*]pyrene	µg/L	0 43	0.42 U	0.41 U	0 42 U	0.41 U	0.42 U	0.42 U
Naphthalene	µg/L	18	17 U	17 U	17 U	17 U	14 F	17 U
Phenanthrene	µg/L	6.4	6.2 U	6.2 U	6.2 U	6.2 U	6.3 U	6.2 U
Pyrene	µg/L	2.7	2.6 U	2 6 R	2.6 R	2.6 U	2 6 R	2.6 R
Common Anions - SW9056								
Chloride (as Cl)	mg/L	0.2	82.6	35.9 J	26.5 J	288 J	NA	101 J
Nitrogen, Nitrate (as N)	mg/L	0.1	11	0.1 U	0.1 U	1.8	NA	0.1 U
Sulfate (as SO_4)	mg/L	0.2	44.5 J	16.8 J	48.9 J	125 J	NA	29.2 J

Notes:
N1 - original sample analysis

Table C.1c
AOC 4 July 1999 Monitoring Well Laboratory Results

Analytical Method/Analyte	Units	Reporting Limit	SPOT35-5 N 7/21/99	SPOT35-8 N 7/16/99	SPOT35-8 N 7/22/99	SPOT35-9 N 7/16/99
Alkalinity - E310.1						
Alkalinity, Total (AS CA CO_3)	mg/L	1	368	452 J	NA	335 J
Nonhalogenated Volatile Organics- SW8015						
Ethane	µg/L	1	2	1 U	NA	1 U
Ethene	µg/L	1	1 U	1 U	NA	1 U
Methane	µg/L	1	5300	210	NA	400
VOC by GC/MS - SW8260						
1,1,1,2-Tetrachloroethane	µg/L	1	1 U	NA	NA	NA
1,1,1-Trichloroethane	µg/L	1	1 U	NA	NA	NA
1,1,2,2-Tetrachloroethane	µg/L	1	1 U	NA	NA	NA
1,1,2-Trichloroethane	µg/L	1	1 U	NA	NA	NA
1,1-Dichloroethane	µg/L	1	1 U	NA	NA	NA
1,1-Dichloroethene	µg/L	1	1 U	NA	NA	NA
1,1-Dichloropropene	µg/L	1	1 U	NA	NA	NA
1,2,3-Trichlorobenzene	µg/L	2	2 U	NA	NA	NA
1,2,3-Trichloropropane	µg/L	3	3 U	NA	NA	NA
1,2,4-Trichlorobenzene	µg/L	1	1 U	NA	NA	NA
1,2,4-Trimethylbenzene	µg/L	1	1 U	NA	NA	NA
1,2-Dibromo-3-chloropropane	µg/L	3	3 U	NA	NA	NA
1,2-Dibromoethane (Ethylene Dibromide)	µg/L	1	1 U	NA	NA	NA
1,2-Dichlorobenzene	µg/L	1	1 U	NA	NA	NA
1,2-Dichloroethane	µg/L	1	1 U	NA	NA	NA
1,2-Dichloropropane	µg/L	1	1 U	NA	NA	NA
1,3,5-Trimethylbenzene (Mesitylene)	µg/L	1	1 U	NA	NA	NA
1,3-Dichlorobenzene	µg/L	1	1 U	NA	NA	NA
1,3-Dichloropropane	µg/L	1	1 U	NA	NA	NA
1,4-Dichlorobenzene	µg/L	1	1 UJ	NA	NA	NA
1-Chlorohexane	µg/L	1	5 U	NA	NA	NA
2,2-Dichloropropane	µg/L	4	4 U	NA	NA	NA

Table C.1c (continued)
AOC 4 July 1999 Monitoring Well Laboratory Results

Analytical Method/Analyte	Units	Reporting Limit	SPOT35-5 N 7/21/99	SPOT35-8 N 7/16/99	SPOT35-8 N 7/22/99	SPOT35-9 N 7/16/99
2-Chloro-1,3-butadiene	µg/L	10	10 U	NA	NA	NA
2-Chlorotoluene	µg/L	1	1 U	NA	NA	NA
2-Hexanone	µg/L	20	20 U	NA	NA	NA
4-Chlorotoluene	µg/L	1	1 U	NA	NA	NA
Acetone	µg/L	20	20 U	NA	NA	NA
Acetonitrile	µg/L	100	100 U	NA	NA	NA
Acrolein	µg/L	100	100 U	NA	NA	NA
Acrylonitrile	µg/L	100	100 U	NA	NA	NA
Allyl Chloride (3-Chloropropene)	µg/L	10	10 U	NA	NA	NA
Benzene	µg/L	1	1 U	NA	1 U	NA
Bromobenzene	µg/L	1	1 U	NA	NA	NA
Bromochloromethane	µg/L	1	1 U	NA	NA	NA
Bromodichloromethane	µg/L	1	1 U	NA	NA	NA
Bromoform	µg/L	1	1 U	NA	NA	NA
Bromomethane	µg/L	1	1 U	NA	NA	NA
Carbon Disulfide	µg/L	5	5 U	NA	NA	NA
Carbon Tetrachloride	µg/L	2	2 U	NA	NA	NA
Chlorobenzene	µg/L	1	1 U	NA	NA	NA
Chloroethane	µg/L	1	1 U	NA	NA	NA
Chloroform	µg/L	1	1 U	NA	NA	NA
Chloromethane	µg/L	1	1 U	NA	NA	NA
cis-1,2-Dichloroethene	µg/L	1	1 U	NA	NA	NA
cis-1,3-Dichloropropene	µg/L	1	1 U	NA	NA	NA
Dibromochloromethane	µg/L	1	1 U	NA	NA	NA
Dibromomethane	µg/L	2	2 U	NA	NA	NA
Dichlorodifluoromethane	µg/L	1	1 U	NA	NA	NA
Ethyl Methacrylate	µg/L	5	5 U	NA	NA	NA
Ethylbenzene	µg/L	1	1 U	NA	1 U	NA
Hexachlorobutadiene	µg/L	1	1 U	NA	NA	NA

Table C.1c (continued)
AOC 4 July 1999 Monitoring Well Laboratory Results

Analytical Method/Analyte	Units	Reporting Limit	SPOT35-5 N 7/21/99	SPOT35-8 N 7/16/99	SPOT35-8 N 7/22/99	SPOT35-9 N 7/16/99
Iodomethane (Methyl Iodide)	µg/L	5	5 U	NA	NA	NA
Isobutanol	µg/L	200	200 U	NA	NA	NA
Isopropylbenzene (Cumene)	µg/L	1	32	NA	NA	NA
m,p-Xylene (Sum of Isomers)	µg/L	1	1 U	NA	1 U	NA
Methyl Ethyl Ketone (2-Butanone)	µg/L	20	20 U	NA	NA	NA
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	µg/L	20	20 U	NA	NA	NA
Methyl Methacrylate	µg/L	5	5 U	NA	NA	NA
Methylacrylonitrile	µg/L	100	100 U	NA	NA	NA
Methylene Chloride	µg/L	1	1 U	NA	NA	NA
n-Butylbenzene	µg/L	1	1 U	NA	NA	NA
n-Propylbenzene	µg/L	1	32	NA	NA	NA
Naphthalene	µg/L	2	61 [1]	NA	NA	NA
o-Xylene (1,2-Dimethylbenzene)	µg/L	1	1 U	NA	1 U	NA
p-Cymene (P-Isopropyltoluene)	µg/L	1	1 U	NA	NA	NA
Propane Nitrile (Propionitrile)	µg/L	100	100 U	NA	NA	NA
sec-Butylbenzene	µg/L	1	8	NA	NA	NA
Styrene	µg/L	1	1 U	NA	NA	NA
t-Butylbenzene	µg/L	1	2	NA	NA	NA
Methyl *tert*-butyl ether	µg/L		NA	NA	1 U	NA
Tetrachloroethene (PCE)	µg/L	1	1 U	NA	NA	NA
Toluene	µg/L	1	1 U	NA	1 U	NA
trans-1,2-Dichloroethene	µg/L	1	1 U	NA	NA	NA
trans-1,3-Dichloropropene	µg/L	1	1 U	NA	NA	NA
trans-1,4-Dichloro-2-Butene	µg/L	25	25 U	NA	NA	NA
Trichloroethene (TCE)	µg/L	1	1 U	NA	NA	NA
Trichlorofluoromethane	µg/L	1	1 U	NA	NA	NA
Vinyl Acetate	µg/L	10	10 U	NA	NA	NA
Vinyl Chloride	µg/L	1	1 U	NA	NA	NA
Polynuclear Aromatic Hydrocarbons- SW8310						

Table C.1c (continued)
AOC 4 July 1999 Monitoring Well Laboratory Results

Analytical Method/Analyte	Units	Reporting Limit	SPOT35-5 N 7/21/99	SPOT35-8 N 7/16/99	SPOT35-8 N 7/22/99	SPOT35-9 N 7/16/99
Acenaphthene	µg/L	18	18 U	18 U	NA	18 U
Acenaphthylene	µg/L	23	23 U	23 U	NA	23 U
Anthracene	µg/L	6.6	6 6 R	6.6 U	NA	6.6 U
Benzo[*a*]anthracene	µg/L	0.13	0.13 U	0.13 U	NA	0.13 U
Benzo[*a*]pyrene	µg/L	0.23	0.23 R	0.23 U	NA	0.23 U
Benzo[*b*]fluoranthene	µg/L	0.18	0 18 U	0.18 U	NA	0.18 U
Benzo[*ghi*]perylene	µg/L	0.76	0 76 U	0.76 U	NA	0.76 U
Benzo[*k*]fluoranthene	µg/L	0.17	0.17 U	0.17 U	NA	0.17 U
Chrysene	µg/L	1 5	1.5 U	1.5 U	NA	1.5 U
Dibenz[*a,h*]anthracene	µg/L	0.3	0.3 U	0.3 U	NA	0.3 U
Fluoranthene	µg/L	2.1	2.1 U	2.1 U	NA	2.1 U
Fluorene	µg/L	2.1	0.24 F	2 1 U	NA	2.1 U
Indeno[1,2,3-*cd*]pyrene	µg/L	0.43	0.43 U	0.43 U	NA	0.43 U
Naphthalene	µg/L	18	16 F	18 U	NA	18 U
Phenanthrene	µg/L	6.4	0.3 F	6.4 U	NA	6.4 U
Pyrene	µg/L	2.7	2 7 U	2.7 U	NA	2.7 U
Common Anions - SW9056						
Chloride (as Cl)	mg/L	0.011	93 [1]	46 J [1]	NA	35 J [1]
Nitrogen, Nitrate (as N)	mg/L	0.01	0.28 F	0.019 F	NA	0.76 F
Sulfate (as SO_4)	mg/L	0.049	0.14 F	24 J [1]	NA	33 J [1]
Total Organic Carbon - SW9060						
Total Organic Carbon	mg/L	1	10.5	8.2	NA	3.3
Total Petroleum Hydrocarbon - TX1005						
PHC as Diesel Fuel	µg/L	2500	2500 U	2500 U	NA	2500 U
PHC as Gasoline	µg/L	2500	2500 U	2500 U	NA	2500 U
Total Fuel Hydrocarbons	µg/L	5000	5000 U	5000 U	NA	5000 U

Notes:
[1] Re-analysis samples
FD - Field duplicate result N - Original result

Table C.1c (continued)
AOC 4 July 1999 Monitoring Well Laboratory Results

Analytical Method/Analyte	Units	Reporting Limit	SPOT35-9 N 7/22/99	WCHMHTA008 FD 7/13/99	WCHMHTA008 N 7/13/99	WCHMHTA009 FD 7/26/99	WCHMHTA009 N 7/13/99	WCHMHTA009 N 7/26/99
Alkalinity - E310.1								
Alkalinity, Total (AS CA CO_3)	mg/L	1	NA	496	514	NA	299	NA
Nonhalogenated Volatile Organics- SW8015								
Ethane	µg/L	1	NA	1 U	1 U	NA	1 U	NA
Ethene	µg/L	1	NA	1 U	1 U	NA	1 U	NA
Methane	µg/L	1	NA	3000	3200	NA	3 U	NA
VOC by GC/MS - SW8260								
1,1,1,2-Tetrachloroethane	µg/L	1	NA	NA	NA	1 U	NA	1 U
1,1,1-Trichloroethane	µg/L	1	NA	NA	NA	1 U	NA	1 U
1,1,2,2-Tetrachloroethane	µg/L	1	NA	NA	NA	1 U	NA	1 U
1,1,2-Trichloroethane	µg/L	1	NA	NA	NA	1 U	NA	1 U
1,1-Dichloroethane	µg/L	1	NA	NA	NA	1 U	NA	1 U
1,1-Dichloroethene	µg/L	1	NA	NA	NA	1 U	NA	1 U
1,1-Dichloropropene	µg/L	1	NA	NA	NA	1 U	NA	1 U
1,2,3-Trichlorobenzene	µg/L	2	NA	NA	NA	2 U	NA	2 U
1,2,3-Trichloropropane	µg/L	3	NA	NA	NA	3 U	NA	3 U
1,2,4-Trichlorobenzene	µg/L	1	NA	NA	NA	1 U	NA	1 U
1,2,4-Trimethylbenzene	µg/L	1	NA	NA	NA	1 U	NA	1 U
1,2-Dibromo-3-chloropropane	µg/L	3	NA	NA	NA	3 U	NA	3 U
1,2-Dibromoethane (Ethylene Dibromide)	µg/L	1	NA	NA	NA	1 U	NA	1 U
1,2-Dichlorobenzene	µg/L	1	NA	NA	NA	1 U	NA	1 U
1,2-Dichloroethane	µg/L	1	NA	NA	NA	1 U	NA	1 U
1,2-Dichloropropane	µg/L	1	NA	NA	NA	1 U	NA	1 U
1,3,5-Trimethylbenzene (Mesitylene)	µg/L	1	NA	NA	NA	1 U	NA	1 U
1,3-Dichlorobenzene	µg/L	1	NA	NA	NA	1 U	NA	1 U
1,3-Dichloropropane	µg/L	1	NA	NA	NA	1 U	NA	1 U
1,4-Dichlorobenzene	µg/L	1	NA	NA	NA	1 U	NA	1 U
1-Chlorohexane	µg/L	1	NA	NA	NA	1 U	NA	1 U
2,2-Dichloropropane	µg/L	4	NA	NA	NA	4 U	NA	4 U

Table C.1c (continued)
AOC 4 July 1999 Monitoring Well Laboratory Results

Analytical Method/Analyte	Units	Reporting Limit	SPOT35-9 N 7/22/99	WCHMHTA008 FD 7/13/99	WCHMHTA008 N 7/13/99	WCHMHTA009 FD 7/26/99	WCHMHTA009 N 7/13/99	WCHMHTA009 N 7/26/99
2-Chloro-1,3-butadiene	µg/L	10	NA	NA	NA	10 U	NA	10 U
2-Chlorotoluene	µg/L	1	NA	NA	NA	1 U	NA	1 U
2-Hexanone	µg/L	20	NA	NA	NA	20 U	NA	20 U
4-Chlorotoluene	µg/L	1	NA	NA	NA	1 U	NA	1 U
Acetone	µg/L	20	NA	NA	NA	20 U	NA	20 U
Acetonitrile	µg/L	100	NA	NA	NA	100 U	NA	100 U
Acrolein	µg/L	100	NA	NA	NA	100 U	NA	100 U
Acrylonitrile	µg/L	100	NA	NA	NA	100 U	NA	100 U
Allyl Chloride (3-Chloropropene)	µg/L	10	NA	NA	NA	10 U	NA	10 U
Benzene	µg/L	1	1 U	39	39	1 U	NA	1 U
Bromobenzene	µg/L	1	NA	NA	NA	1 U	NA	1 U
Bromochloromethane	µg/L	1	NA	NA	NA	1 U	NA	1 U
Bromodichloromethane	µg/L	1	NA	NA	NA	1 U	NA	1 U
Bromoform	µg/L	1	NA	NA	NA	1 U	NA	1 U
Bromomethane	µg/L	1	NA	NA	NA	1 U	NA	1 U
Carbon Disulfide	µg/L	5	NA	NA	NA	5 U	NA	5 U
Carbon Tetrachloride	µg/L	2	NA	NA	NA	2 U	NA	2 U
Chlorobenzene	µg/L	1	NA	NA	NA	1 U	NA	1 U
Chloroethane	µg/L	1	NA	NA	NA	1 U	NA	1 U
Chloroform	µg/L	1	NA	NA	NA	1 U	NA	1 U
Chloromethane	µg/L	1	NA	NA	NA	1 U	NA	1 U
cis-1,2-Dichloroethene	µg/L	1	NA	NA	NA	5	NA	6
cis-1,3-Dichloropropene	µg/L	1	NA	NA	NA	1 U	NA	1 U
Dibromochloromethane	µg/L	1	NA	NA	NA	1 U	NA	1 U
Dibromomethane	µg/L	2	NA	NA	NA	2 U	NA	2 U
Dichlorodifluoromethane	µg/L	1	NA	NA	NA	1 U	NA	1 U
Ethyl Methacrylate	µg/L	5	NA	NA	NA	5 U	NA	5 U
Ethylbenzene	µg/L	1	1 U	31	34	1 U	NA	1 U
Hexachlorobutadiene	µg/L	1	NA	NA	NA	1 U	NA	1 U

Table C.1c (continued)
AOC 4 July 1999 Monitoring Well Laboratory Results

Analytical Method/Analyte	Units	Reporting Limit	SPOT35-9 N 7/22/99	WCHMHTA008 FD 7/13/99	WCHMHTA008 N 7/13/99	WCHMHTA009 FD 7/26/99	WCHMHTA009 N 7/13/99	WCHMHTA009 N 7/26/99
Iodomethane (Methyl Iodide)	µg/L	5	NA	NA	NA	5 U	NA	5 U
Isobutanol	µg/L	200	NA	NA	NA	200 U	NA	200 U
Isopropylbenzene (Cumene)	µg/L	1	NA	NA	NA	1 U	NA	1 U
m,p-Xylene (Sum of Isomers)	µg/L	1	1 U	1 U	1 U	1 U	NA	1 U
Methyl Ethyl Ketone (2-Butanone)	µg/L	20	NA	NA	NA	20 U	NA	20 U
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	µg/L	20	NA	NA	NA	20 U	NA	20 U
Methyl Methacrylate	µg/L	5	NA	NA	NA	5 U	NA	5 U
Methylacrylonitrile	µg/L	100	NA	NA	NA	100 U	NA	100 U
Methylene Chloride	µg/L	1	NA	NA	NA	1 UJ	NA	1 UJ
-Butylbenzene	µg/L	1	NA	NA	NA	1 U	NA	1 U
n-Propylbenzene	µg/L	1	NA	NA	NA	1 U	NA	1 U
Naphthalene	µg/L	2	NA	NA	NA	2 U	NA	2 U
o-Xylene (1,2-Dimethylbenzene)	µg/L	1	1 U	1 U	1 U	1 U	NA	1 U
p-Cymene (P-Isopropyltoluene)	µg/L	1	NA	NA	NA	1 U	NA	1 U
Propane Nitrile (Propionitrile)	µg/L	100	NA	NA	NA	100 U	NA	100 U
sec-Butylbenzene	µg/L	1	NA	NA	NA	1 U	NA	1 U
Styrene	µg/L	1	NA	NA	NA	1 U	NA	1 U
t-Butylbenzene	µg/L	1	NA	NA	NA	1 U	NA	1 U
Methyl *tert*-butyl ether	µg/L		1 U	1 U	1 U	NA	1 UJ	NA
Tetrachloroethene (PCE)	µg/L	1	NA	NA	NA	2	NA	2
Toluene	µg/L	1	1 U	0.7 F	1 U	1 U	NA	1 U
trans-1,2-Dichloroethene	µg/L	1	NA	NA	NA	1 U	NA	1 U
trans-1,3-Dichloropropene	µg/L	1	NA	NA	NA	1 U	NA	1 U
trans-1,4-Dichloro-2-Butene	µg/L	25	NA	NA	NA	25 U	NA	25 U
Trichloroethene (TCE)	µg/L	1	NA	0.7 F	1 U	330 [1]	NA	330 [1]
Trichlorofluoromethane	µg/L	1	NA	NA	NA	1 U	NA	1 U
Vinyl Acetate	µg/L	10	NA	NA	NA	10 U	NA	10 U
Vinyl Chloride	µg/L	1	NA	NA	NA	1 U	NA	1 U

Table C.1c (continued)
AOC 4 July 1999 Monitoring Well Laboratory Results

Analytical Method/Analyte	Units	Reporting Limit	SPOT35-9 N 7/22/99	WCHMHTA008 FD 7/13/99	WCHMHTA008 N 7/13/99	WCHMHTA009 FD 7/26/99	WCHMHTA009 N 7/13/99	WCHMHTA009 N 7/26/99
Polynuclear Aromatic Hydrocarbons- SW8310								
Acenaphthene	µg/L	18	NA	18 U	18 U	NA	18 U	NA
Acenaphthylene	µg/L	23	NA	23 U	23 U	NA	23 U	NA
Anthracene	µg/L	6.6	NA	6 6 UJ	6.6 UJ	NA	6.6 UJ	NA
Benzo[*a*]anthracene	µg/L	0.13	NA	0.13 U	0.13 U	NA	0.13 U	NA
Benzo[*a*]pyrene	µg/L	0.23	NA	0.23 UJ	0.23 UJ	NA	0.23 UJ	NA
Benzo[*b*]fluoranthene	µg/L	0.18	NA	0.18 U	0 18 U	NA	0.18 U	NA
Benzo[*ghi*]perylene	µg/L	0 76	NA	0.76 U	0.76 U	NA	0 76 U	NA
Benzo[*k*]fluoranthene	µg/L	0 17	NA	0.17 U	0.17 U	NA	0.17 U	NA
Chrysene	µg/L	1 5	NA	1.5 U	1.5 U	NA	1.5 U	NA
Dibenz[*a,h*]anthracene	µg/L	0 3	NA	0 3 U	0.3 U	NA	0 3 U	NA
Fluoranthene	µg/L	2.1	NA	2.1 U	2.1 U	NA	2.1 U	NA
Fluorene	µg/L	2.1	NA	0.15 F	0.15 F	NA	2.1 U	NA
Indeno[1,2,3-*cd*]pyrene	µg/L	0.43	NA	0.43 U	0.43 U	NA	0.43 U	NA
Naphthalene	µg/L	18	NA	21	17 F	NA	18 U	NA
Phenanthrene	µg/L	6.4	NA	0 15 F	0.13 F	NA	6.4 U	NA
Pyrene	µg/L	2.7	NA	2.7 U	2.7 U	NA	2.7 U	NA
Common Anions - SW9056								
Chloride (as Cl)	mg/L	0.011	NA	290 J [1]	290 J [1]	NA	57 J [1]	NA
Nitrogen, Nitrate (as N)	mg/L	0.01	NA	1.8 J	1.8 J	NA	7.7 J	NA
Sulfate (as SO_4)	mg/L	0.049	NA	46 J	45 J	NA	32 [1]	NA
Total Organic Carbon - SW9060								
Total Organic Carbon	mg/L	1	NA	1.5	2.3	NA	1.2	NA
Total Petroleum Hydrocarbon - TX1005								
PHC as Diesel Fuel	µg/L	2500	NA	2500 U	2500 U	NA	2500 U	NA
PHC as Gasoline	µg/L	2500	NA	2500 U	2500 U	NA	2500 U	NA
Total Fuel Hydrocarbons	µg/L	5000	NA	5000 U	5000 U	NA	5000 U	NA

Notes:
[1] Re-analysis samples
N - Original result
FD - Field duplicate result

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Table C.1c (continued)
AOC 4 July 1999 Monitoring Well Laboratory Results

Analytical Method/Analyte	Units	Reporting Limit	WHGLTA009 N 7/14/99	WHGLTA010 N 7/14/99	WHGLTA011 N 7/13/99	WHGLTA011 N 7/26/99	WHGLTA012 N 7/15/99	WHGLTA014 N 7/15/99
Alkalinity - E310.1								
Alkalinity, Total (as $CACO_3$)	mg/L	1	321 J	490 J	500	NA	315 J	436 J
Nonhalogenated Volatile Organics- SW8015								
Ethane	µg/L	1	1 U	1 U	1 U	NA	1 U	1 U
Ethene	µg/L	1	1 U	1 U	1 U	NA	1 U	1 U
Methane	µg/L	1	1280	2300	1 U	NA	15000	1100
VOC by GC/MS - SW8260								
1,1,1,2-Tetrachloroethane	µg/L	1	1 U	NA	NA	1 U	NA	NA
1,1,1-Trichloroethane	µg/L	1	1 U	NA	NA	1 U	NA	NA
1,1,2,2-Tetrachloroethane	µg/L	1	1 U	NA	NA	1 U	NA	NA
1,1,2-Trichloroethane	µg/L	1	1 U	NA	NA	1 U	NA	NA
1,1-Dichloroethane	µg/L	1	1 U	NA	NA	1 U	NA	NA
1,1-Dichloroethene	µg/L	1	1 U	NA	NA	1 U	NA	NA
1,1-Dichloropropene	µg/L	1	1 U	NA	NA	1 U	NA	NA
1,2,3-Trichlorobenzene	µg/L	2	2 U	NA	NA	2 U	NA	NA
1,2,3-Trichloropropane	µg/L	3	3 U	NA	NA	3 U	NA	NA
1,2,4-Trichlorobenzene	µg/L	1	1 U	NA	NA	1 U	NA	NA
1,2,4-Trimethylbenzene	µg/L	1	1 U	NA	NA	1 U	NA	NA
1,2-Dibromo-3-chloropropane	µg/L	3	3 U	NA	NA	3 U	NA	NA
1,2-Dibromoethane (Ethylene Dibromide)	µg/L	1	1 U	NA	NA	1 U	NA	NA
1,2-Dichlorobenzene	µg/L	1	1 U	NA	NA	1 U	NA	NA
1,2-Dichloroethane	µg/L	1	1 U	NA	NA	1 U	NA	NA
1,2-Dichloropropane	µg/L	1	1 U	NA	NA	1 U	NA	NA
1,3,5-Trimethylbenzene (Mesitylene)	µg/L	1	1 U	NA	NA	1 U	NA	NA
1,3-Dichlorobenzene	µg/L	1	1 U	NA	NA	1 U	NA	NA
1,3-Dichloropropane	µg/L	1	1 U	NA	NA	1 U	NA	NA
1,4-Dichlorobenzene	µg/L	1	1 U	NA	NA	1 U	NA	NA
1-Chlorohexane	µg/L	1	1 UJ	NA	NA	1 U	NA	NA

Table C.1c (continued)
AOC 4 July 1999 Monitoring Well Laboratory Results

Analytical Method/Analyte	Units	Reporting Limit	WHGLTA009 N 7/14/99	WHGLTA010 N 7/14/99	WHGLTA011 N 7/13/99	WHGLTA011 N 7/26/99	WHGLTA012 N 7/15/99	WHGLTA014 N 7/15/99
2,2-Dichloropropane	µg/L	4	4 U	NA	NA	4 U	NA	NA
2-Chloro-1,3-butadiene	µg/L	10	10 U	NA	NA	10 U	NA	NA
2-Chlorotoluene	µg/L	1	1 U	NA	NA	1 U	NA	NA
2-Hexanone	µg/L	20	20 U	NA	NA	20 U	NA	NA
4-Chlorotoluene	µg/L	1	1 U	NA	NA	1 U	NA	NA
Acetone	µg/L	20	20 U	NA	NA	20 U	NA	NA
Acetonitrile	µg/L	100	100 U	NA	NA	100 U	NA	NA
Acrolein	µg/L	100	100 U	NA	NA	100 U	NA	NA
Acrylonitrile	µg/L	100	100 U	NA	NA	100 U	NA	NA
Allyl Chloride (3-Chloropropene)	µg/L	10	10 U	NA	NA	10 U	NA	NA
Benzene	µg/L	1	1 U	0.9 F	NA	1 U	6 J[1]	1
Bromobenzene	µg/L	1	1 U	NA	NA	1 U	NA	NA
Bromochloromethane	µg/L	1	1 U	NA	NA	1 U	NA	NA
Bromodichloromethane	µg/L	1	1 U	NA	NA	1 U	NA	NA
Bromoform	µg/L	1	1 U	NA	NA	1 U	NA	NA
Bromomethane	µg/L	1	1 U	NA	NA	1 U	NA	NA
Carbon Disulfide	µg/L	5	5 U	NA	NA	5 U	NA	NA
Carbon Tetrachloride	µg/L	2	2 U	NA	NA	2 U	NA	NA
Chlorobenzene	µg/L	1	1 U	NA	NA	1 U	NA	NA
Chloroethane	µg/L	1	1 U	NA	NA	1 U	NA	NA
Chloroform	µg/L	1	1 U	NA	NA	1 U	NA	NA
Chloromethane	µg/L	1	1 U	NA	NA	1 U	NA	NA
cis-1,2-Dichloroethene	µg/L	1	86[1]	NA	NA	1 U	NA	NA
cis-1,3-Dichloropropene	µg/L	1	1 U	NA	NA	1 U	NA	NA
Dibromochloromethane	µg/L	1	1 U	NA	NA	1 U	NA	NA
Dibromomethane	µg/L	2	2 U	NA	NA	2 U	NA	NA
Dichlorodifluoromethane	µg/L	1	1 U	NA	NA	1 U	NA	NA
Ethyl Methacrylate	µg/L	5	5 U	NA	NA	5 U	NA	NA
Ethylbenzene	µg/L	1	1 U	1 U	NA	1 U	1 U	1 U

Table C.1c (continued)
AOC 4 July 1999 Monitoring Well Laboratory Results

Analytical Method/Analyte	Units	Reporting Limit	WHGLTA009 N 7/14/99	WHGLTA010 N 7/14/99	WHGLTA011 N 7/13/99	WHGLTA011 N 7/26/99	WHGLTA012 N 7/15/99	WHGLTA014 N 7/15/99
Hexachlorobutadiene	µg/L	1	1 U	NA	NA	1 U	NA	NA
Iodomethane (Methyl Iodide)	µg/L	5	5 U	NA	NA	5 U	NA	NA
Isobutanol	µg/L	200	200 U	NA	NA	200 U	NA	NA
Isopropylbenzene (Cumene)	µg/L	1	1 U	NA	NA	1 U	NA	NA
m,p-Xylene (Sum of Isomers)	µg/L	1	1 U	1 U	NA	1 U	2 U	1 U
Methyl Ethyl Ketone (2-Butanone)	µg/L	20	20 U	NA	NA	20 U	NA	NA
Methyl Isobutyl Ketone (4-Methyl-2-Pentanone)	µg/L	20	20 U	NA	NA	20 U	NA	NA
Methyl Methacrylate	µg/L	5	5 U	NA	NA	5 U	NA	NA
Methylacrylonitrile	µg/L	100	100 U	NA	NA	100 U	NA	NA
Methylene Chloride	µg/L	1	1 U	NA	NA	1 UJ	NA	NA
n-Butylbenzene	µg/L	1	1 U	NA	NA	1 U	NA	NA
n-Propylbenzene	µg/L	1	1 U	NA	NA	1 U	NA	NA
Naphthalene	µg/L	2	2 U	NA	NA	2 U	NA	NA
o-Xylene (1,2-dimethylbenzene)	µg/L	1	1 U	1 U	NA	1 U	1 U	1 U
p-Cymene (P-Isopropyltoluene)	µg/L	1	1 U	NA	NA	1 U	NA	NA
Propane Nitrile (Propionitrile)	µg/L	100	100 U	NA	NA	100 U	NA	NA
sec-Butylbenzene	µg/L	1	1 F	NA	NA	1 U	NA	NA
Styrene	µg/L	1	1 U	NA	NA	1 U	NA	NA
t-Butylbenzene	µg/L	1	1 U	NA	NA	1 U	NA	NA
Methyl *tert*-butyl ether	µg/L		NA	1 U	1 UJ	NA	1 U	1 U
Tetrachloroethene (PCE)	µg/L	1	1 U	NA	NA	1 U	NA	NA
Toluene	µg/L	1	1 U	1 U	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	µg/L	1	1	NA	NA	1 U	NA	NA
trans-1,3-Dichloropropene	µg/L	1	1 U	NA	NA	1 U	NA	NA
trans-1,4-Dichloro-2-Butene	µg/L	25	25 U	NA	NA	25 U	NA	NA
Trichloroethene (TCE)	µg/L	1	190	NA	NA	7	NA	NA
Trichlorofluoromethane	µg/L	1	1 U	NA	NA	1 U	NA	NA
Vinyl Acetate	µg/L	10	10 U	NA	NA	10 U	NA	NA
Vinyl Chloride	µg/L	1	1 U	NA	NA	1 U	NA	NA

Table C.1c (continued)
AOC 4 July 1999 Monitoring Well Laboratory Results

Analytical Method/Analyte	Units	Reporting Limit	WHGLTA009 N 7/14/99	WHGLTA010 N 7/14/99	WHGLTA011 N 7/13/99	WHGLTA011 N 7/26/99	WHGLTA012 N 7/15/99	WHGLTA014 N 7/15/99
Polynuclear Aromatic Hydrocarbons- SW8310								
Acenaphthene	µg/L	18	18 UJ	18 UJ	18 U	NA	1.7 F	18 UJ
Acenaphthylene	µg/L	23	23 UJ	23 UJ	23 U	NA	0.85 F	23 UJ
Anthracene	µg/L	6.6	6.6 UJ	6.6 UJ	6.6 UJ	NA	6.6 UJ	6.6 UJ
Benzo[*a*]anthracene	µg/L	0.13	0.13 UJ	0.13 UJ	0.13 U	NA	0.13 UJ	0.13 UJ
Benzo[*a*]pyrene	µg/L	0.23	0.23 UJ	0.23 UJ	0.23 UJ	NA	0.23 UJ	0.23 UJ
Benzo[*b*]fluoranthene	µg/L	0.18	0.18 UJ	0.18 UJ	0.18 U	NA	0.18 UJ	0.18 UJ
Benzo[*ghi*]perylene	µg/L	0.76	0.76 UJ	0.76 UJ	0.76 U	NA	0.76 UJ	0.76 UJ
Benzo[*k*]fluoranthene	µg/L	0.17	0.17 UJ	0.17 UJ	0.17 U	NA	0.17 UJ	0.17 UJ
Chrysene	µg/L	1.5	1.5 UJ	1.5 UJ	1.5 U	NA	1.5 UJ	1.5 UJ
Dibenz[*a,h*]anthracene	µg/L	0.3	0.3 UJ	0.3 UJ	0 3 U	NA	0.3 UJ	0.3 UJ
Fluoranthene	µg/L	2.1	0.14 F	2.1 UJ	2.1 U	NA	0.25 F	2.1 UJ
Fluorene	µg/L	2.1	0 1 F	2.1 UJ	2 1 U	NA	0.66 F	2.1 UJ
Indeno[1,2,3-*cd*]pyrene	µg/L	0 43	0 43 UJ	0.43 UJ	0.43 U	NA	0.43 UJ	0.43 UJ
Naphthalene	µg/L	18	18 UJ	18 UJ	18 U	NA	5.6 F	18 UJ
Phenanthrene	µg/L	6.4	0.046 F	6.4 UJ	6 4 U	NA	6.4 UJ	6.4 UJ
Pyrene	µg/L	2.7	2.7 UJ	2.7 UJ	2.7 U	NA	2.7 UJ	2.7 UJ
Common Anions - SW9056								
Chloride (as Cl)	mg/L	0.011	33 J[1]	25 J[1]	180 J[1]	NA	120 J[1]	58 J[1]
Nitrogen, Nitrate (as N)	mg/L	0 01	1 UJ	0.092 F	2.1 J	NA	0.13 F	0.095 F
Sulfate (as SO_4)	mg/L	0.049	17 J[1]	51 J	86[1]	NA	0.091 F	22 J[1]
Total Organic Carbon - SW9060								
Total Organic Carbon	mg/L	1	1.5	1.6	1 U	NA	2.6	1.7
Total Petroleum Hydrocarbon - TX1005								
PHC as Diesel Fuel	µg/L	2500	2500 U	2500 U	2500 U	NA	2500 U	2500 U
PHC as Gasoline	µg/L	2500	2500 U	2500 U	2500 U	NA	2500 U	2500 U
Total Fuel Hydrocarbons	µg/L	5000	5000 U	5000 U	5000 U	NA	5000 U	5000 U

Notes:
[1] Re-analysis samples FD - Field duplicate result N - Original result

Table C.1d
AOC 4 October 1999 Monitoring Well Laboratory Results

Analytical Method/Analyte	Units	Reporting Limit	SPOT35-5 N 10/15/99	SPOT35-8 N 10/8/99	SPOT35-9 N 10/8/99	WCHMHTA008 N 10/5/99	WCHMHTA008 FD 10/5/99
Alkalinity - E310.1							
Alkalinity, Total (as $CACO_3$)	mg/L	10	443	520	341	464	455
Total Organic Carbon - E415.1							
Total Organic Carbon	mg/L	1	NA	NA	NA	NA	NA
Nonhalogenated Volatile Organics - SW8015							
Ethane	µg/L	1	2.11	1 U	1 U	1 U	1 U
Ethene	µg/L	1	1	1 U	1 U	1 U	1 U
Methane	µg/L	1	6110 08	363 54	329.58	3192.07	3449 13
Aromatic VOCs - SW8021							
Benzene	µg/L	1	NA	1 U	1 U	81	82
Ethylbenzene	µg/L	1	NA	1 U	1 U	68	69
Methyl *tert*-butyl ether	µg/L	1	NA	1 U	1 U	2 U	2 U
Toluene	µg/L	1	NA	1 U	1 U	2 U	2 U
Xylenes, Total	µg/L	1	NA	1 U	1 U	2 U	2 U
VOCs by GC/MS - SW8260							
1,1,1,2-Tetrachloroethane	µg/L	0.5	0 5 U	NA	NA	NA	NA
1,1,1-Trichloroethane	µg/L	0.5	0.5 U	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	µg/L	0.5	0 5 U	NA	NA	NA	NA
1,1,2-Trichloroethane	µg/L	0.5	0.5 U	NA	NA	NA	NA
1,1-Dichloroethane	µg/L	0.4	0.4 U	NA	NA	NA	NA
1,1-Dichloroethene	µg/L	0.5	0 5 U	NA	NA	NA	NA
1,1-Dichloropropene	µg/L	0.5	0 5 U	NA	NA	NA	NA
1,2,3-Trichlorobenzene	µg/L	0.5	0.5 U	NA	NA	NA	NA
1,2,3-Trichloropropane	µg/L	0.5	0.5 U	NA	NA	NA	NA
1,2,4-Trichlorobenzene	µg/L	0 4	0.4 U	NA	NA	NA	NA
1,2,4-Trimethylbenzene	µg/L	0.5	0.5 U	NA	NA	NA	NA
1,2-Dibromo-3-chloropropane	µg/L	0.5	0.5 U	NA	NA	NA	NA

Table C.1d (continued)
AOC 4 October 1999 Monitoring Well Laboratory Results

Analytical Method/Analyte	Units	Reporting Limit	SPOT35-5 N 10/15/99	SPOT35-8 N 10/8/99	SPOT35-9 N 10/8/99	WCHMHTA008 N 10/5/99	WCHMHTA008 FD 10/5/99
1,2-Dibromoethane (Ethylene Dibromide)	µg/L	0.5	0.5 U	NA	NA	NA	NA
1,2-Dichlorobenzene	µg/L	0.3	0.3 U	NA	NA	NA	NA
1,2-Dichloroethane	µg/L	0.5	0.5 U	NA	NA	NA	NA
1,2-Dichloropropane	µg/L	0.4	0 4 U	NA	NA	NA	NA
1,3,5-Trimethylbenzene (Mesitylene)	µg/L	0.5	0.5 U	NA	NA	NA	NA
1,3-Dichlorobenzene	µg/L	0.5	0.5 U	NA	NA	NA	NA
1,3-Dichloropropane	µg/L	0.4	0.4 U	NA	NA	NA	NA
1,4-Dichlorobenzene	µg/L	0.3	0.3 U	NA	NA	NA	NA
1-Chlorohexane	µg/L	0 5	0.5 U	NA	NA	NA	NA
2,2-Dichloropropane	µg/L	0.5	0.5 U	NA	NA	NA	NA
2-Chlorotoluene	µg/L	0.4	0.4 U	NA	NA	NA	NA
4-Chlorotoluene	µg/L	0.5	0.5 U	NA	NA	NA	NA
Benzene	µg/L	0.4	0.4 U	NA	NA	NA	NA
Bromobenzene	µg/L	0.3	0.3 U	NA	NA	NA	NA
Bromochloromethane	µg/L	0 4	0.4 U	NA	NA	NA	NA
Bromodichloromethane	µg/L	0.5	0.5 U	NA	NA	NA	NA
Bromoform	µg/L	0.5	0.5 U	NA	NA	NA	NA
Bromomethane	µg/L	0.5	0.5 U	NA	NA	NA	NA
Carbon Tetrachloride	µg/L	0.5	0.5 U	NA	NA	NA	NA
Chlorobenzene	µg/L	0.4	0.4 U	NA	NA	NA	NA
Chloroethane	µg/L	0.5	0.5 U	NA	NA	NA	NA
Chloroform	µg/L	0.3	0.3 U	NA	NA	NA	NA
Chloromethane	µg/L	0 5	0 5 U	NA	NA	NA	NA
cis-1,2-Dichloroethylene	µg/L	0.5	0.5 U	NA	NA	NA	NA
cis-1,3-Dichloropropene	µg/L	0.5	0.5 U	NA	NA	NA	NA
Dibromochloromethane	µg/L	0.5	0.5 U	NA	NA	NA	NA
Dibromomethane	µg/L	0.5	0.5 U	NA	NA	NA	NA

Table C.1d (continued)
AOC 4 October 1999 Monitoring Well Laboratory Results

Analytical Method/Analyte	Units	Reporting Limit	SPOT35-5 N 10/15/99	SPOT35-8 N 10/8/99	SPOT35-9 N 10/8/99	WCHMHTA008 N 10/5/99	WCHMHTA008 FD 10/5/99
Dichlorodifluoromethane	µg/L	0.5	0.5 U	NA	NA	NA	NA
Ethylbenzene	µg/L	0.5	0.5 U	NA	NA	NA	NA
Hexachlorobutadiene	µg/L	0.5	0.5 U	NA	NA	NA	NA
Isopropylbenzene (Cumene)	µg/L	0.5	29 J	NA	NA	NA	NA
m,p-Xylene (Sum of Isomers)	µg/L	0.5	0.5 U	NA	NA	NA	NA
Methylene Chloride	µg/L	0.5	0.5 U	NA	NA	NA	NA
Naphthalene	µg/L	2	NA	NA	NA	NA	NA
n-Butylbenzene	µg/L	0.5	2 J	NA	NA	NA	NA
n-Propylbenzene	µg/L	2	36 J	NA	NA	NA	NA
o-Xylene (1,2-Dimethylbenzene)	µg/L	0.5	0.5 U	NA	NA	NA	NA
p-Cymene (P-Isopropyltoluene)	µg/L	0 5	0.5 U	NA	NA	NA	NA
sec-Butylbenzene	µg/L	0.5	8 J	NA	NA	NA	NA
Styrene	µg/L	0.4	0.4 U	NA	NA	NA	NA
t-Butylbenzene	µg/L	0.5	2 J	NA	NA	NA	NA
Tetrachloroethylene (PCE)	µg/L	0.5	0.5 U	NA	NA	NA	NA
Toluene	µg/L	0.5	0.5 U	NA	NA	NA	NA
trans-1,2-Dichloroethene	µg/L	0.5	0.5 U	NA	NA	NA	NA
trans-1,3-Dichloropropene	µg/L	0.5	0 5 U	NA	NA	NA	NA
Trichloroethylene (TCE)	µg/L	0.5	0.5 U	NA	NA	NA	NA
Trichlorofluoromethane	µg/L	0.5	0.5 R	NA	NA	NA	NA
Vinyl Acetate	µg/L	2	2 U	NA	NA	NA	NA
Vinyl Chloride	µg/L	0.5	0.5 U	NA	NA	NA	NA
Polynuclear Aromatic Hydrocarbons - SW8310							
Acenaphthene	µg/L	17	18 U	18 U	18 U	17 U	17 U
Acenaphthylene	µg/L	22	23 U	24 U	23 U	22 U	22 U
Anthracene	µg/L	6.3	6.5 U	6.8 U	6.7 U	6.2 U	6 2 U
Benzo[*a*]anthracene	µg/L	0.12	0.13 U	0.13 U	0.13 U	0.12 U	0.12 U

Table C.1d (continued)
AOC 4 October 1999 Monitoring Well Laboratory Results

Analytical Method/Analyte	Units	Reporting Limit	SPOT35-5 N 10/15/99	SPOT35-8 N 10/8/99	SPOT35-9 N 10/8/99	WCHMHTA008 N 10/5/99	WCHMHTA008 FD 10/5/99
Benzo[*a*]pyrene	µg/L	0 22	0.23 U	0.24 U	0.23 U	0.22 U	0.22 U
Benzo[*b*]fluoranthene	µg/L	0.17	0 18 R	0.18 R	0.18 R	0.17 R	0.17 R
Benzo[*ghi*]perylene	µg/L	0.72	0.75 U	0.78 U	0.77 U	0.72 U	0.72 U
Benzo[*k*]fluoranthene	µg/L	0.16	0.17 U	0.18 U	0.17 U	0.16 U	0.16 U
Chrysene	µg/L	1.4	1 5 U	1.5 U	1.5 U	1.4 U	1.4 U
Dibenz[*a,h*]anthracene	µg/L	0.28	0.3 U	0.31 U	0.3 U	0.28 U	0.28 U
Fluoranthene	µg/L	2	2.1 U	2.2 U	2.1 U	2 U	2 U
Fluorene	µg/L	2	2.1 U	2.2 U	2.1 U	2 U	2 U
Indeno[1,2,3-*cd*]pyrene	µg/L	0.41	0.42 U	0.44 U	0.43 U	0.4 U	0.4 U
Naphthalene	µg/L	17	46 F	18 U	18 U	27 F	28 F
Phenanthrene	µg/L	6.1	6.3 U	6.6 U	6.5 U	6 U	6 U
Pyrene	µg/L	2.6	2.7 U	2.8 U	2.7 U	2.5 U	2.5 U
Common Anions - SW9056							
Chloride (as Cl)	mg/L	2	103 J	59 1	32.2	373	381
Nitrogen, Nitrate (as N)	mg/L	0 1	0.1 U	0 1 U	1.1	2.3	2.3
Sulfate (as SO_4)	mg/L	2	0.2 UJ	37.1	45.4	40.2	35 3
Total Organic Carbon - SW9060							
Total Organic Carbon	mg/L	1	5	3.1 U	3.1 U	3.3	3.3
Total Petroleum Hydrocarbon - TX1005							
PHC as Diesel Fuel	mg/L	5	1.719 F	5 UJ	5 723 UJ	6.503 U	5 U
PHC as Gasoline	mg/L	5	3.691 F	5 UJ	5 079 UJ	6 429 U	5.221 U
Petroleum Hydrocarbons	mg/L	5	5.41	5.079 UJ	10.802 UJ	12.932 U	10 138 U

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Table C.1d (continued)
AOC 4 October 1999 Monitoring Well Laboratory Results

Analytical Method/Analyte	Units	Reporting Limit	WCHMHTA009 N 10/7/99	WHGLTA009 N 10/6/99	WHGLTA010 N 10/6/99	WHGLTA011 N 10/5/99	WHGLTA012 N 10/7/99	WHGLTA014 N 10/7/99
Alkalinity - E310.1								
Alkalinity, Total (as $CACO_3$)	mg/L	10	284	419	442	452	290	448
Total Organic Carbon - E415.1								
Total Organic Carbon	mg/L	1	NA	NA	NA	NA	NA	2.7 U
Nonhalogenated Volatile Organics - SW8015								
Ethane	µg/L	1	1 U	1 U	1 U	1 U	1 U	1 U
Ethene	µg/L	1	1 U	1 U	1 U	1 U	1 U	1 U
Methane	µg/L	1	3.94	870.01	2311.73	1 U	12945.88	1468.01
Aromatic VOCs - SW8021								
Benzene	µg/L	1	1 U	NA	1.3	NA	5.9	1.1 J
Ethylbenzene	µg/L	1	1 U	NA	1 U	NA	1 U	1 U
Methyl *tert*-butyl ether	µg/L	1	1 U	NA	1 U	NA	36 J	1 U
Toluene	µg/L	1	1 U	NA	1 U	NA	1 U	1 U
Xylenes, Total	µg/L	1	1 U	NA	1 U	NA	1 U	1 U
VOCs by GC/MS - SW8260								
1,1,1,2-Tetrachloroethane	µg/L	0.5	NA	0.5 U	NA	0.5 U	NA	NA
1,1,1-Trichloroethane	µg/L	0.5	NA	0.5 U	NA	0.5 U	NA	NA
1,1,2,2-Tetrachloroethane	µg/L	0.5	NA	0.5 U	NA	0.5 U	NA	NA
1,1,2-Trichloroethane	µg/L	0.5	NA	0.5 U	NA	0.5 U	NA	NA
1,1-Dichloroethane	µg/L	0.4	NA	0.4 U	NA	0.4 U	NA	NA
1,1-Dichloroethene	µg/L	0.5	NA	0.7	NA	0.5 U	NA	NA
1,1-Dichloropropene	µg/L	0.5	NA	0.5 U	NA	0.5 U	NA	NA
1,2,3-Trichlorobenzene	µg/L	0.5	NA	0 5 U	NA	0.5 U	NA	NA
1,2,3-Trichloropropane	µg/L	0.5	NA	0 5 U	NA	0.5 U	NA	NA
1,2,4-Trichlorobenzene	µg/L	0.4	NA	0.4 U	NA	0.4 U	NA	NA
1,2,4-Trimethylbenzene	µg/L	0.5	NA	0.5 U	NA	0.5 U	NA	NA
1,2-Dibromo-3-Chloropropane	µg/L	0.5	NA	0.5 U	NA	0.5 U	NA	NA

Table C.1d (continued)
AOC 4 October 1999 Monitoring Well Laboratory Results

Analytical Method/Analyte	Units	Reporting Limit	WCHMHTA009 N 10/7/99	WHGLTA009 N 10/6/99	WHGLTA010 N 10/6/99	WHGLTA011 N 10/5/99	WHGLTA012 N 10/7/99	WHGLTA014 N 10/7/99
1,2-Dibromoethane (Ethylene Dibromide)	µg/L	0.5	NA	0.5 U	NA	0.5 U	NA	NA
1,2-Dichlorobenzene	µg/L	0.3	NA	0.3 U	NA	0.3 U	NA	NA
1,2-Dichloroethane	µg/L	0 5	NA	0.5 U	NA	0.5 U	NA	NA
1,2-Dichloropropane	µg/L	0.4	NA	0.4 U	NA	0.4 U	NA	NA
1,3,5-Trimethylbenzene (Mesitylene)	µg/L	0.5	NA	0.5 U	NA	0.5 U	NA	NA
1,3-Dichlorobenzene	µg/L	0.5	NA	0.5 U	NA	0.5 U	NA	NA
1,3-Dichloropropane	µg/L	0 4	NA	0 4 U	NA	0.4 U	NA	NA
1,4-Dichlorobenzene	µg/L	0.3	NA	0.3 U	NA	0.3 U	NA	NA
1-Chlorohexane	µg/L	0.5	NA	0.5 U	NA	0 5 U	NA	NA
2,2-Dichloropropane	µg/L	0.5	NA	0 5 R	NA	0.5 U	NA	NA
2-Chlorotoluene	µg/L	0.4	NA	0 4 U	NA	0.4 U	NA	NA
4-Chlorotoluene	µg/L	0.5	NA	0 5 U	NA	0.5 U	NA	NA
Benzene	µg/L	0.4	NA	0.4 U	NA	0 4 U	NA	NA
Bromobenzene	µg/L	0.3	NA	0.3 U	NA	0.3 U	NA	NA
Bromochloromethane	µg/L	0.4	NA	0.4 U	NA	0.4 U	NA	NA
Bromodichloromethane	µg/L	0.5	NA	0 5 U	NA	0.5 U	NA	NA
Bromoform	µg/L	0.5	NA	0.5 U	NA	0 5 U	NA	NA
Bromomethane	µg/L	0.5	NA	0.5 U	NA	0.5 U	NA	NA
Carbon Tetrachloride	µg/L	0.5	NA	0.5 U	NA	0.5 U	NA	NA
Chlorobenzene	µg/L	0 4	NA	0.4 U	NA	0.4 U	NA	NA
Chloroethane	µg/L	0.5	NA	0.5 U	NA	0 5 U	NA	NA
Chloroform	µg/L	0.3	NA	0 3 U	NA	0.3 U	NA	NA
Chloromethane	µg/L	0.5	NA	0.5 U	NA	1	NA	NA
cis-1,2-Dichloroethylene	µg/L	0.5	NA	120	NA	0 5 U	NA	NA
cis-1,3-Dichloropropene	µg/L	0.5	NA	0.5 U	NA	0.5 U	NA	NA
Dibromochloromethane	µg/L	0 5	NA	0.5 U	NA	0.5 U	NA	NA
Dibromomethane	µg/L	0.5	NA	0.5 U	NA	0.5 U	NA	NA

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Table C.1d (continued)
AOC 4 October 1999 Monitoring Well Laboratory Results

Analytical Method/Analyte	Units	Reporting Limit	WCHMHTA009 N 10/7/99	WHGLTA009 N 10/6/99	WHGLTA010 N 10/6/99	WHGLTA011 N 10/5/99	WHGLTA012 N 10/7/99	WHGLTA014 N 10/7/99
Dichlorodifluoromethane	µg/L	0.5	NA	0.5 U	NA	0.5 U	NA	NA
Ethylbenzene	µg/L	0.5	NA	0.5 U	NA	0.5 U	NA	NA
Hexachlorobutadiene	µg/L	0.5	NA	0.5 U	NA	0.5 U	NA	NA
Isopropylbenzene (Cumene)	µg/L	0.5	NA	1	NA	0.5 U	NA	NA
m,p-Xylene (Sum of Isomers)	µg/L	0.5	NA	0.5 U	NA	0.5 U	NA	NA
Methylene Chloride	µg/L	0.5	NA	0.5 U	NA	0.5 U	NA	NA
Naphthalene	µg/L	2	NA	0.5 U	NA	0.5 R	NA	NA
n-Butylbenzene	µg/L	0.5	NA	0.5 U	NA	0.5 U	NA	NA
n-Propylbenzene	µg/L	2	NA	0.4	NA	0.4 U	NA	NA
o-Xylene (1,2-Dimethylbenzene)	µg/L	0.5	NA	0 5 U	NA	0.5 U	NA	NA
p-Cymene (P-Isopropyltoluene)	µg/L	0.5	NA	0 5 U	NA	0.5 U	NA	NA
sec-Butylbenzene	µg/L	0.5	NA	3	NA	0.5 U	NA	NA
Styrene	µg/L	0.4	NA	0.4 U	NA	0.4 UJ	NA	NA
t-Butylbenzene	µg/L	0.5	NA	1	NA	0.5 U	NA	NA
Tetrachloroethylene (PCE)	µg/L	0.5	NA	0 5 U	NA	0.5 U	NA	NA
Toluene	µg/L	0 5	NA	0.5 U	NA	0.5 U	NA	NA
trans-1,2-Dichloroethene	µg/L	0.5	NA	0.5 U	NA	0.5 U	NA	NA
trans-1,3-Dichloropropene	µg/L	0.5	NA	0 5 U	NA	0.5 U	NA	NA
Trichloroethylene (TCE)	µg/L	0 5	NA	180	NA	6	NA	NA
Trichlorofluoromethane	µg/L	0 5	NA	0 5 U	NA	0.5 R	NA	NA
Vinyl Acetate	µg/L	2	NA	2 U	NA	2 U	NA	NA
Vinyl Chloride	µg/L	0.5	NA	0.5 U	NA	0.5 U	NA	NA
Polynuclear Aromatic Hydrocarbons - SW8310								
Acenaphthene	µg/L	17	18 U	17 U	18 U	17 U	18 U	18 U
Acenaphthylene	µg/L	22	23 U	22 U	24 U	22 U	23 U	23 U
Anthracene	µg/L	6.3	6.7 U	6.4 U	6.8 U	6.3 U	6.7 U	6 7 U
Benzo[*a*]anthracene	µg/L	0.12	0.13 U	0.13 U	0.13 U	0.12 U	0.13 U	0.13 U

Table C.1d (continued)
AOC 4 October 1999 Monitoring Well Laboratory Results

Analytical Method/Analyte	Units	Reporting Limit	WCHMHTA009 N 10/7/99	WHGLTA009 N 10/6/99	WHGLTA010 N 10/6/99	WHGLTA011 N 10/5/99	WHGLTA012 N 10/7/99	WHGLTA014 N 10/7/99
Benzo[*a*]pyrene	µg/L	0.22	0.23 U	0.22 U	0.24 U	0.22 U	0.23 U	0.23 U
Benzo[*b*]fluoranthene	µg/L	0 17	0.18 R	0.17 R	0.18 R	0.17 R	0.18 R	0.18 R
Benzo[*ghi*]perylene	µg/L	0.72	0.77 U	0.74 U	0.78 U	0.73 U	0.77 U	0.78 U
Benzo[*k*]fluoranthene	µg/L	0.16	0.17 U	0.16 U	0 18 U	0.16 U	0.17 U	0.17 U
Chrysene	µg/L	1.4	1 5 U	1.4 U	1.5 U	1.4 U	1.5 U	1.5 U
Dibenz[*a,h*]anthracene	µg/L	0.28	0.3 U	0.29 U	0 31 U	0.29 U	0 3 U	0.31 U
Fluoranthene	µg/L	2	2.1 U	0 15 F	2.2 U	2 U	2.1 U	2 1 U
Fluorene	µg/L	2	2.1 U	2 U	2.2 U	2 U	0.81 F	2.1 U
Indeno[1,2,3-*cd*]pyrene	µg/L	0.41	0.43 U	0.42 U	0.44 U	0.41 U	0 43 U	0 44 U
Naphthalene	µg/L	17	18 U	17 U	18 U	17 U	9.8 F	18 U
Phenanthrene	µg/L	6.1	6.5 U	6.2 U	6.6 U	6.2 U	6.5 U	6.5 U
Pyrene	µg/L	2.6	2.7 U	2 6 U	2.8 U	2.6 U	2.7 U	2.8 U
Common Anions - SW9056								
Chloride (as Cl)	mg/L	2	80 5	28.7	24.5	225	145	119
Nitrogen, Nitrate (as N)	mg/L	0.1	8.3	0.1 U	0.1 U	2.5	0.1 U	0.1 U
Sulfate (as SO_4)	mg/L	2	42 2	17.7	56 9	118	0.2 U	45.5
Total Organic Carbon - SW9060								
Total Organic Carbon	mg/L	1	2.3 U	1.2 U	1 3 U	2.8	4.9 U	NA
Total Petroleum Hydrocarbon - TX1005								
PHC as Diesel Fuel	mg/L	5	5 UJ	5.016 UJ	6.868 UJ	5 U	5.255 UJ	10.067 UJ
PHC as Gasoline	mg/L	5	5 UJ	5 UJ	5.736 UJ	5 U	5 426 UJ	5 UJ
Petroleum Hydrocarbons	mg/L	5	5 584 UJ	9.893 UJ	12 604 UJ	5.319 U	10.681 UJ	5.125 UJ

Notes:
FD - Field duplicate result
N - Original result

APPENDIX C.2

AOC 4 MONITORING WELL LABORATORY QC RESULTS

Table C.2
1999 Quality Control Results for AOC 4

Sample ID	Suite	Analyte	Units	Results
EB011299	Aromatic VOCs	Benzene	mg/L	ND
		Ethylbenzene	mg/L	ND
		Methyl *tert*-butyl ether	mg/L	ND
		Toluene	mg/L	ND
		Xylenes, Total	mg/L	ND
	PAHs	Acenaphthene	mg/L	ND
		Acenaphthylene	mg/L	ND
		Anthracene	mg/L	ND
		Benzo[*a*]anthracene	mg/L	ND
		Benzo[*a*]pyrene	mg/L	ND
		Benzo[*b*]fluoranthene	mg/L	ND
		Benzo[*ghi*]perylene	mg/L	ND
		Benzo[*k*]fluoranthene	mg/L	ND
		Chrysene	mg/L	ND
		Dibenz[*a,h*]anthracene	mg/L	ND
		Fluoranthene	mg/L	ND
		Fluorene	mg/L	ND
		Indeno[1,2,3-*cd*]pyrene	mg/L	ND
		Naphthalene	mg/L	ND
		Phenanthrene	mg/L	ND
		Pyrene	mg/L	ND
	TPH	PHC as Diesel Fuel	mg/L	0.1F
		PHC as Gasoline	mg/L	ND
	Natural Attenuation	Alkalinity, Total (as $CACO_3$)	mg/L	ND
		Total Organic Carbon	mg/L	ND
		Ethane	mg/L	ND
		Ethene	mg/L	ND
		Methane	mg/L	0.00069
		Chloride (as Cl)	mg/L	ND
		Nitrogen, Nitrate (as N)	mg/L	ND
		Sulfate (as SO_4)	mg/L	ND
TB011299	Aromatic VOCs	Benzene	mg/L	ND
		Ethylbenzene	mg/L	ND
		Methyl *tert*-butyl ether	mg/L	ND
		Toluene	mg/L	ND
		Xylenes, Total	mg/L	ND
	Natural Attenuation	Ethane	mg/L	ND
		Ethene	mg/L	ND
		Methane	mg/L	0.00061
AB011399	Aromatic VOCs	Benzene	mg/L	ND

Table C.2 (continued)
1999 Quality Control Results for AOC 4

Sample ID	Suite	Analyte	Units	Results
AB011399 (cont.)	Aromatic VOCs	Ethylbenzene	mg/L	ND
		Methyl *tert*-butyl ether	mg/L	ND
		Toluene	mg/L	ND
		Xylenes, Total	mg/L	ND
EB011399		Benzene	mg/L	ND
		Ethylbenzene	mg/L	ND
		Methyl *tert*-butyl ether	mg/L	ND
		Toluene	mg/L	ND
		Xylenes, Total	mg/L	ND
	PAHs	Acenaphthene	mg/L	ND
		Acenaphthylene	mg/L	ND
		Anthracene	mg/L	ND
		Benzo[*a*]anthracene	mg/L	ND
		Benzo[*a*]pyrene	mg/L	ND
		Benzo[*b*]fluoranthene	mg/L	ND
		Benzo[*ghi*]perylene	mg/L	ND
		Benzo[*k*]fluoranthene	mg/L	ND
		Chrysene	mg/L	ND
		Dibenz[*a,h*]anthracene	mg/L	ND
		Fluoranthene	mg/L	ND
		Fluorene	mg/L	ND
		Indeno[1,2,3-*cd*]pyrene	mg/L	ND
		Naphthalene	mg/L	ND
		Phenanthrene	mg/L	ND
		Pyrene	mg/L	ND
	TPH	PHC as Diesel Fuel	mg/L	0.093F
		PHC as Gasoline	mg/L	ND
	Natural Attenuation	Alkalinity, Total (as $CACO_3$)	mg/L	ND
		Ethane	mg/L	ND
		Ethene	mg/L	ND
		Methane	mg/L	0 00038
		Chloride (as Cl)	mg/L	ND
		Nitrogen, Nitrate (as N)	mg/L	ND
		Sulfate (as SO_4)	mg/L	ND
		Total Organic Carbon	mg/L	ND
TB011399	Aromatic VOCs	Benzene	mg/L	ND
		Ethylbenzene	mg/L	ND
		Methyl *tert*-butyl ether	mg/L	ND
		Toluene	mg/L	ND
		Xylenes, Total	mg/L	ND

Table C.2 (continued)
1999 Quality Control Results for AOC 4

Sample ID	Suite	Analyte	Units	Results
TB011399 (cont.)	Natural Attenuation	Ethane	mg/L	ND
		Ethene	mg/L	ND
		Methane	mg/L	0.00062
EB011899	Aromatic VOCs	Benzene	mg/L	ND
		Ethylbenzene	mg/L	ND
		Methyl *tert*-butyl ether	mg/L	ND
		Toluene	mg/L	ND
		Xylenes, Total	mg/L	ND
	PAHs	Acenaphthene	mg/L	ND
		Acenaphthylene	mg/L	ND
		Anthracene	mg/L	ND
		Benzo[*a*]anthracene	mg/L	ND
		Benzo[*a*]pyrene	mg/L	ND
		Benzo[*b*]fluoranthene	mg/L	ND
		Benzo[*ghi*]perylene	mg/L	ND
		Benzo[*k*]fluoranthene	mg/L	ND
		Chrysene	mg/L	ND
		Dibenz[*a,h*]anthracene	mg/L	ND
		Fluoranthene	mg/L	ND
		Fluorene	mg/L	ND
		Indeno[1,2,3-*cd*]pyrene	mg/L	ND
		Naphthalene	mg/L	ND
		Phenanthrene	mg/L	ND
		Pyrene	mg/L	ND
	TPH	PHC as Diesel Fuel	mg/L	0.12F
		PHC as Gasoline	mg/L	0 029F
	Natural Attenuation	Alkalinity, Total (as $CACO_3$)	mg/L	ND
		Ethane	mg/L	ND
		Ethene	mg/L	ND
		Methane	mg/L	0.00059
		Chloride (as Cl)	mg/L	ND
		Nitrogen, Nitrate (as N)	mg/L	ND
		Sulfate (as SO_4)	mg/L	ND
		Total Organic Carbon	mg/L	ND
TB011899	Aromatic VOCs	Benzene	mg/L	ND
		Ethylbenzene	mg/L	ND
		Methyl *tert*-butyl ether	mg/L	ND
		Toluene	mg/L	ND
		Xylenes, Total	mg/L	ND

Table C.2 (continued)
1999 Quality Control Results for AOC 4

Sample ID	Suite	Analyte	Units	Results
TB011899 (cont.)	Natural Attenuation	Ethane	mg/L	ND
		Ethene	mg/L	ND
		Methane	mg/L	0.00057
EB011999	Aromatic VOCs	Benzene	mg/L	ND
		Ethylbenzene	mg/L	ND
		Methyl *tert*-butyl ether	mg/L	ND
		Toluene	mg/L	ND
		Xylenes, Total	mg/L	ND
	PAHs	Acenaphthene	mg/L	ND
		Acenaphthylene	mg/L	ND
		Anthracene	mg/L	ND
		Benzo[*a*]anthracene	mg/L	ND
		Benzo[*a*]pyrene	mg/L	ND
		Benzo[*b*]fluoranthene	mg/L	ND
		Benzo[*ghi*]perylene	mg/L	ND
		Benzo[*k*]fluoranthene	mg/L	ND
		Chrysene	mg/L	ND
		Dibenz[*a,h*]anthracene	mg/L	ND
		Fluoranthene	mg/L	ND
		Fluorene	mg/L	ND
		Indeno[1,2,3-*cd*]pyrene	mg/L	ND
		Naphthalene	mg/L	ND
		Phenanthrene	mg/L	ND
		Pyrene	mg/L	ND
	TPH	PHC as Gasoline	mg/L	ND
	Natural Attenuation	Alkalinity, Total (as $CACO_3$)	mg/L	ND
		Ethane	mg/L	ND
		Ethene	mg/L	ND
		Methane	mg/L	0.00062
		Chloride (as Cl)	mg/L	ND
		Nitrogen, Nitrate (as N)	mg/L	ND
		Sulfate (as SO_4)	mg/L	ND
		Total Organic Carbon	mg/L	ND
TB011999	Aromatic VOCs	Benzene	mg/L	ND
		Ethylbenzene	mg/L	ND
		Methyl *tert*-butyl ether	mg/L	ND
		Toluene	mg/L	ND
		Xylenes, Total	mg/L	ND
	Natural Attenuation	Ethane	mg/L	ND
		Ethene	mg/L	ND

Table C.2 (continued)
1999 Quality Control Results for AOC 4

Sample ID	Suite	Analyte	Units	Results
TB011999 (cont.)	Natural Attenuation (cont.)	Methane	mg/L	0.00068
TB012299	VOCs	1,1,1,2-Tetrachloroethane	mg/L	ND
		1,1,1-Trichloroethane	mg/L	ND
		1,1,2,2-Tetrachloroethane	mg/L	ND
		1,1,2-Trichloroethane	mg/L	ND
		1,1-Dichloroethane	mg/L	ND
		1,1-Dichloroethene	mg/L	ND
		1,1-Dichloropropene	mg/L	ND
		1,2,3-Trichlorobenzene	mg/L	ND
		1,2,3-Trichloropropane	mg/L	ND
		1,2,4-Trichlorobenzene	mg/L	ND
		1,2,4-Trimethylbenzene	mg/L	ND
		1,2-Dibromo-3-chloropropane	mg/L	ND
		1,2-Dibromoethane (Ethylene Dibromide)	mg/L	ND
		1,2-Dichlorobenzene	mg/L	ND
		1,2-Dichloroethane	mg/L	ND
		1,2-Dichloropropane	mg/L	ND
		1,3,5-Trimethylbenzene (Mesitylene)	mg/L	ND
		1,3-Dichlorobenzene	mg/L	ND
		1,3-Dichloropropane	mg/L	ND
		1,4-Dichlorobenzene	mg/L	ND
		1-Chlorohexane	mg/L	ND
		2,2-Dichloropropane	mg/L	ND
		2-Chlorotoluene	mg/L	ND
		4-Chlorotoluene	mg/L	ND
		Benzene	mg/L	ND
		Bromobenzene	mg/L	ND
		Bromochloromethane	mg/L	ND
		Bromodichloromethane	mg/L	ND
		Bromoform	mg/L	ND
		Bromomethane	mg/L	ND
		Carbon Tetrachloride	mg/L	ND
		Chlorobenzene	mg/L	ND
		Chloroethane	mg/L	ND
		Chloroform	mg/L	ND
		Chloromethane	mg/L	ND
		cis-1,2-Dichloroethylene	mg/L	ND
		cis-1,3-Dichloropropene	mg/L	ND
		Dibromochloromethane	mg/L	ND
		Dibromomethane	mg/L	ND

Table C.2 (continued)
1999 Quality Control Results for AOC 4

Sample ID	Suite	Analyte	Units	Results
TB012299 (cont.)	VOCs (cont.)	Dichlorodifluoromethane	mg/L	ND
		Ethylbenzene	mg/L	ND
		Hexachlorobutadiene	mg/L	ND
		Isopropylbenzene (Cumene)	mg/L	ND
		m,p-Xylene (Sum of Isomers)	mg/L	ND
		Methylene Chloride	mg/L	ND
		Naphthalene	mg/L	ND
		n-Butylbenzene	mg/L	ND
		n-Propylbenzene	mg/L	ND
		o-Xylene (1,2-Dimethylbenzene)	mg/L	ND
		p-Cymene (P-Isopropyltoluene)	mg/L	ND
		sec-Butylbenzene	mg/L	ND
		Styrene	mg/L	ND
		t-Butylbenzene	mg/L	ND
		Tetrachloroethylene (PCE)	mg/L	ND
		Toluene	mg/L	ND
		trans-1,2-Dichloroethene	mg/L	ND
		trans-1,3-Dichloropropene	mg/L	ND
		Trichloroethylene (TCE)	mg/L	ND
		Trichlorofluoromethane	mg/L	ND
		Vinyl Acetate	mg/L	ND
		Vinyl Chloride	mg/L	ND
		Ethane	mg/L	ND
		Ethene	mg/L	ND
		Methane	mg/L	0.00076
EB041399	Aromatic VOCs	Benzene	mg/L	ND
		Ethylbenzene	mg/L	ND
		Methyl *tert*-butyl ether	mg/L	ND
		Toluene	mg/L	ND
		Xylenes, Total	mg/L	ND
	PAHs	Acenaphthene	mg/L	ND
		Acenaphthylene	mg/L	ND
		Anthracene	mg/L	ND
		Benzo[*a*]anthracene	mg/L	ND
		Benzo[*a*]pyrene	mg/L	ND
		Benzo[*b*]fluoranthene	mg/L	ND
		Benzo[*ghi*]perylene	mg/L	ND
		Benzo[*k*]fluoranthene	mg/L	ND
		Chrysene	mg/L	ND
		Dibenz[*a,h*]anthracene	mg/L	ND

Table C.2 (continued)
1999 Quality Control Results for AOC 4

Sample ID	Suite	Analyte	Units	Results
EB041399 (cont.)	PAHs (cont.)	Fluoranthene	mg/L	ND
		Fluorene	mg/L	ND
		Indeno[1,2,3-*cd*]pyrene	mg/L	ND
		Naphthalene	mg/L	ND
		Phenanthrene	mg/L	ND
		Pyrene	mg/L	ND
	TPH	PHC as Diesel Fuel	mg/L	5
		PHC as Gasoline	mg/L	5
		PHC as Heavy/Residual Fuel Oils Fuel Oils #4,#5,#6	mg/L	5
	Natural Attenuation	Alkalinity, Total (as $CACO_3$)	mg/L	2 3F
		Ethane	mg/L	0.001
		Ethene	mg/L	0.001
		Methane	mg/L	0 001
		Chloride (as Cl)	mg/L	ND
		Nitrogen, Nitrate (as N)	mg/L	ND
		Sulfate (as SO_4)	mg/L	ND
		Total Organic Carbon	mg/L	0.73F
TB041399	VOCs	1,1,1,2-Tetrachloroethane	mg/L	ND
		1,1,1-Trichloroethane	mg/L	ND
		1,1,2,2-Tetrachloroethane	mg/L	ND
		1,1,2-Trichloroethane	mg/L	ND
		1,1-Dichloroethane	mg/L	ND
		1,1-Dichloroethene	mg/L	ND
		1,1-Dichloropropene	mg/L	ND
		1,2,3-Trichlorobenzene	mg/L	ND
		1,2,3-Trichloropropane	mg/L	ND
		1,2,4-Trichlorobenzene	mg/L	ND
		1,2,4-Trimethylbenzene	mg/L	ND
		1,2-Dibromo-3-chloropropane	mg/L	ND
		1,2-Dibromoethane (Ethylene Dibromide)	mg/L	ND
		1,2-Dichlorobenzene	mg/L	ND
		1,2-Dichloroethane	mg/L	ND
		1,2-Dichloropropane	mg/L	ND
		1,3,5-Trimethylbenzene (Mesitylene)	mg/L	ND
		1,3-Dichlorobenzene	mg/L	ND
		1,3-Dichloropropane	mg/L	ND
		1,4-Dichlorobenzene	mg/L	ND
		1-Chlorohexane	mg/L	ND
		2,2-Dichloropropane	mg/L	ND
		2-Chlorotoluene	mg/L	ND
		4-Chlorotoluene	mg/L	ND

Table C.2 (continued)
1999 Quality Control Results for AOC 4

Sample ID	Suite	Analyte	Units	Results
TB041399 (cont.)	VOCs (cont.)	Benzene	mg/L	ND
		Bromobenzene	mg/L	ND
		Bromochloromethane	mg/L	ND
		Bromodichloromethane	mg/L	ND
		Bromoform	mg/L	ND
		Bromomethane	mg/L	ND
		Carbon Tetrachloride	mg/L	ND
		Chlorobenzene	mg/L	ND
		Chloroethane	mg/L	ND
		Chloroform	mg/L	ND
		Chloromethane	mg/L	ND
		cis-1,2-Dichloroethylene	mg/L	ND
		cis-1,3-Dichloropropene	mg/L	ND
		Dibromochloromethane	mg/L	ND
		Dibromomethane	mg/L	ND
		Dichlorodifluoromethane	mg/L	ND
		Ethylbenzene	mg/L	ND
		Hexachlorobutadiene	mg/L	ND
		Isopropylbenzene (Cumene)	mg/L	ND
		m,p-Xylene (Sum of Isomers)	mg/L	ND
		Methylene Chloride	mg/L	ND
		Naphthalene	mg/L	ND
		n-Butylbenzene	mg/L	ND
	Natural Attenuation	*n*-Propylbenzene	mg/L	ND
		o-Xylene (1,2-Dimethylbenzene)	mg/L	ND
		p-Cymene (P-Isopropyltoluene)	mg/L	ND
		sec-Butylbenzene	mg/L	ND
		Styrene	mg/L	ND
		t-Butylbenzene	mg/L	ND
		Tetrachloroethylene (PCE)	mg/L	ND
		Toluene	mg/L	ND
		trans-1,2-Dichloroethene	mg/L	ND
		trans-1,3-Dichloropropene	mg/L	ND
		Trichloroethylene (TCE)	mg/L	ND
		Trichlorofluoromethane	mg/L	ND
		Vinyl Acetate	mg/L	ND
		Vinyl Chloride	mg/L	ND
		Ethane	mg/L	0.001
		Ethene	mg/L	0.001
		Methane	mg/L	0.001

Table C.2 (continued)
1999 Quality Control Results for AOC 4

Sample ID	Suite	Analyte	Units	Results
AB041499	VOCs	1,1,1,2-Tetrachloroethane	mg/L	ND
		1,1,1-Trichloroethane	mg/L	ND
		1,1,2,2-Tetrachloroethane	mg/L	ND
		1,1,2-Trichloroethane	mg/L	ND
		1,1-Dichloroethane	mg/L	ND
		1,1-Dichloroethene	mg/L	ND
		1,1-Dichloropropene	mg/L	ND
		1,2,3-Trichlorobenzene	mg/L	ND
		1,2,3-Trichloropropane	mg/L	ND
		1,2,4-Trichlorobenzene	mg/L	ND
		1,2,4-Trimethylbenzene	mg/L	ND
		1,2-Dibromo-3-chloropropane	mg/L	ND
		1,2-Dibromoethane (Ethylene Dibromide)	mg/L	ND
		1,2-Dichlorobenzene	mg/L	ND
		1,2-Dichloroethane	mg/L	ND
		1,2-Dichloropropane	mg/L	ND
		1,3,5-Trimethylbenzene (Mesitylene)	mg/L	ND
		1,3-Dichlorobenzene	mg/L	ND
		1,3-Dichloropropane	mg/L	ND
		1,4-Dichlorobenzene	mg/L	ND
		1-Chlorohexane	mg/L	ND
		2,2-Dichloropropane	mg/L	ND
		2-Chlorotoluene	mg/L	ND
		4-Chlorotoluene	mg/L	ND
		Benzene	mg/L	ND
		Bromobenzene	mg/L	ND
		Bromochloromethane	mg/L	ND
		Bromodichloromethane	mg/L	ND
		Bromoform	mg/L	ND
		Bromomethane	mg/L	ND
		Carbon Tetrachloride	mg/L	ND
		Chlorobenzene	mg/L	ND
		Chloroethane	mg/L	ND
		Chloroform	mg/L	ND
		Chloromethane	mg/L	ND
		cis-1,2-Dichloroethylene	mg/L	ND
		cis-1,3-Dichloropropene	mg/L	ND
		Dibromochloromethane	mg/L	ND
		Dibromomethane	mg/L	ND
		Dichlorodifluoromethane	mg/L	ND
		Ethylbenzene	mg/L	ND

Table C.2 (continued)
1999 Quality Control Results for AOC 4

Sample ID	Suite	Analyte	Units	Results
AB041499 (cont)	VOCs (cont.)	Hexachlorobutadiene	mg/L	ND
		Isopropylbenzene (Cumene)	mg/L	ND
		m,p-xylene (Sum of Isomers)	mg/L	ND
		Methylene Chloride	mg/L	ND
		Naphthalene	mg/L	ND
		n-Butylbenzene	mg/L	ND
		n-Propylbenzene	mg/L	ND
		o-Xylene (1,2-Dimethylbenzene)	mg/L	ND
		p-Cymene (P-Isopropyltoluene)	mg/L	ND
		sec-Butylbenzene	mg/L	ND
		Styrene	mg/L	ND
		t-Butylbenzene	mg/L	ND
		Tetrachloroethylene (PCE)	mg/L	ND
		Toluene	mg/L	ND
		trans-1,2-Dichloroethene	mg/L	ND
		trans-1,3-Dichloropropene	mg/L	ND
		Trichloroethylene (TCE)	mg/L	ND
		Trichlorofluoromethane	mg/L	ND
		Vinyl Acetate	mg/L	ND
		Vinyl Chloride	mg/L	ND
EB041499	Aromatic VOCs	Benzene	mg/L	ND
		Ethylbenzene	mg/L	ND
		Methyl *tert*-butyl ether	mg/L	ND
		Toluene	mg/L	ND
		Xylenes, Total	mg/L	ND
	PAHs	Acenaphthene	mg/L	ND
		Acenaphthylene	mg/L	ND
		Anthracene	mg/L	ND
		Benzo[*a*]anthracene	mg/L	ND
		Benzo[*a*]pyrene	mg/L	ND
		Benzo[*b*]fluoranthene	mg/L	ND
		Benzo[*ghi*]perylene	mg/L	ND
		Benzo[*k*]fluoranthene	mg/L	ND
		Chrysene	mg/L	ND
		Dibenz[*a,h*]anthracene	mg/L	ND
		Fluoranthene	mg/L	ND
		Fluorene	mg/L	ND
		Indeno[1,2,3-*cd*]pyrene	mg/L	ND
		Naphthalene	mg/L	ND
		Phenanthrene	mg/L	ND
		Pyrene	mg/L	ND

Table C.2 (continued)
1999 Quality Control Results for AOC 4

Sample ID	Suite	Analyte	Units	Results
EB041499 (cont.)	TPH	PHC as Diesel Fuel	mg/L	5
		PHC as Gasoline	mg/L	5
		PHC as Heavy/Residual Fuel Oils Fuel Oils #4,#5,#6	mg/L	5
	Natural Attenuation	Alkalinity, Total (as $CACO_3$)	mg/L	9.6F
		Ethane	mg/L	0.001
		Ethene	mg/L	0 001
		Methane	mg/L	0.001
		Chloride (as Cl)	mg/L	ND
		Nitrogen, Nitrate (as N)	mg/L	ND
		Sulfate (as SO_4)	mg/L	ND
		Total Organic Carbon	mg/L	0.74F
TB041499	VOCs	1,1,1,2-Tetrachloroethane	mg/L	ND
		1,1,1-Trichloroethane	mg/L	ND
		1,1,2,2-Tetrachloroethane	mg/L	ND
		1,1,2-Trichloroethane	mg/L	ND
		1,1-Dichloroethane	mg/L	ND
		1,1-Dichloroethene	mg/L	ND
		1,1-Dichloropropene	mg/L	ND
		1,2,3-Trichlorobenzene	mg/L	ND
		1,2,3-Trichloropropane	mg/L	ND
		1,2,4-Trichlorobenzene	mg/L	ND
		1,2,4-Trimethylbenzene	mg/L	ND
		1,2-Dibromo-3-chloropropane	mg/L	ND
		1,2-Dibromoethane (Ethylene Dibromide)	mg/L	ND
		1,2-Dichlorobenzene	mg/L	ND
		1,2-Dichloroethane	mg/L	ND
		1,2-Dichloropropane	mg/L	ND
		1,3,5-Trimethylbenzene (Mesitylene)	mg/L	ND
		1,3-Dichlorobenzene	mg/L	ND
		1,3-Dichloropropane	mg/L	ND
		1,4-Dichlorobenzene	mg/L	ND
		1-Chlorohexane	mg/L	ND
		2,2-Dichloropropane	mg/L	ND
		2-Chlorotoluene	mg/L	ND
		4-Chlorotoluene	mg/L	ND
		Benzene	mg/L	ND
		Bromobenzene	mg/L	ND
		Bromochloromethane	mg/L	ND
		Bromodichloromethane	mg/L	ND
		Bromoform	mg/L	ND
		Bromomethane	mg/L	ND

Table C.2 (continued)
1999 Quality Control Results for AOC 4

Sample ID	Suite	Analyte	Units	Results
TB041499 (cont.)	VOCs (cont.)	Carbon Tetrachloride	mg/L	ND
		Chlorobenzene	mg/L	ND
		Chloroethane	mg/L	ND
		Chloroform	mg/L	ND
		Chloromethane	mg/L	ND
		cis-1,2-Dichloroethylene	mg/L	ND
		cis-1,3-Dichloropropene	mg/L	ND
		Dibromochloromethane	mg/L	ND
		Dibromomethane	mg/L	ND
		Dichlorodifluoromethane	mg/L	ND
		Ethylbenzene	mg/L	ND
		Hexachlorobutadiene	mg/L	ND
		Isopropylbenzene (Cumene)	mg/L	ND
		m,p-Xylene (Sum of Isomers)	mg/L	ND
		Methylene Chloride	mg/L	ND
		Naphthalene	mg/L	0.0008
		n-Butylbenzene	mg/L	ND
		n-Propylbenzene	mg/L	ND
		o-Xylene 1,2-Dimethylbenzene)	mg/L	ND
		p-Cymene (P-Isopropyltoluene)	mg/L	ND
		sec-Butylbenzene	mg/L	ND
		Styrene	mg/L	ND
		t-Butylbenzene	mg/L	ND
		Tetrachloroethylene (PCE)	mg/L	ND
		Toluene	mg/L	ND
		trans-1,2-Dichloroethene	mg/L	ND
		trans-1,3-Dichloropropene	mg/L	ND
		Trichloroethylene (TCE)	mg/L	ND
		Trichlorofluoromethane	mg/L	ND
		Vinyl Acetate	mg/L	ND
		Vinyl Chloride	mg/L	ND
		Ethane	mg/L	0 001
		Ethene	mg/L	0.001
		Methane	mg/L	0.001
EB041599	Aromatic VOCs	Benzene	mg/L	ND
		Ethylbenzene	mg/L	ND
		Methyl *tert*-butyl ether	mg/L	ND
		Toluene	mg/L	ND
		Xylenes, Total	mg/L	ND
	PAHs	Acenaphthene	mg/L	ND
		Acenaphthylene	mg/L	ND

Table C.2 (continued)
1999 Quality Control Results for AOC 4

Sample ID	Suite	Analyte	Units	Results
EB041599 (cont.)	PAHs (cont.)	Anthracene	mg/L	ND
		Benzo[*a*]anthracene	mg/L	ND
		Benzo[*a*]pyrene	mg/L	ND
		Benzo[*b*]fluoranthene	mg/L	ND
		Benzo[*ghi*]perylene	mg/L	ND
		Benzo[*k*]fluoranthene	mg/L	ND
		Chrysene	mg/L	ND
		Dibenz[*a,h*]anthracene	mg/L	ND
		Fluoranthene	mg/L	ND
		Fluorene	mg/L	0.00059F
		Indeno[1,2,3-*cd*]pyrene	mg/L	ND
		Naphthalene	mg/L	ND
		Phenanthrene	mg/L	ND
		Pyrene	mg/L	ND
	TPH	PHC as Diesel Fuel	mg/L	5
		PHC as Gasoline	mg/L	5
		PHC as Heavy/Residual Fuel Oils Fuel Oils #4,#5,#6	mg/L	5
	Natural Attenuation	Alkalinity, Total (as $CACO_3$)	mg/L	ND
		Ethane	mg/L	0 001
		Ethene	mg/L	0.001
		Methane	mg/L	0.0061
		Chloride (as Cl)	mg/L	ND
		Nitrogen, Nitrate (as N)	mg/L	ND
		Sulfate (as SO_4)	mg/L	ND
		Total Organic Carbon	mg/L	1.9
TB041599	VOCs	1,1,1,2-Tetrachloroethane	mg/L	ND
		1,1,1-Trichloroethane	mg/L	ND
		1,1,2,2-Tetrachloroethane	mg/L	ND
		1,1,2-Trichloroethane	mg/L	ND
		1,1-Dichloroethane	mg/L	ND
		1,1-Dichloroethene	mg/L	ND
		1,1-Dichloropropene	mg/L	ND
		1,2,3-Trichlorobenzene	mg/L	ND
		1,2,3-Trichloropropane	mg/L	ND
		1,2,4-Trichlorobenzene	mg/L	ND
		1,2,4-Trimethylbenzene	mg/L	ND
		1,2-Dibromo-3-chloropropane	mg/L	ND
		1,2-Dibromoethane (Ethylene Dibromide)	mg/L	ND
		1,2-Dichlorobenzene	mg/L	ND
		1,2-Dichloroethane	mg/L	ND
		1,2-Dichloropropane	mg/L	ND

Table C.2 (continued)
1999 Quality Control Results for AOC 4

Sample ID	Suite	Analyte	Units	Results
TB041599 (cont.)	VOCs (cont.)	1,3,5-Trimethylbenzene (Mesitylene)	mg/L	ND
		1,3-Dichlorobenzene	mg/L	ND
		1,3-Dichloropropane	mg/L	ND
		1,4-Dichlorobenzene	mg/L	ND
		1-Chlorohexane	mg/L	ND
		2,2-Dichloropropane	mg/L	ND
		2-Chlorotoluene	mg/L	ND
		4-Chlorotoluene	mg/L	ND
		Benzene	mg/L	ND
		Bromobenzene	mg/L	ND
		Bromochloromethane	mg/L	ND
		Bromodichloromethane	mg/L	ND
		Bromoform	mg/L	ND
		Bromomethane	mg/L	ND
		Carbon Tetrachloride	mg/L	ND
		Chlorobenzene	mg/L	ND
		Chloroethane	mg/L	ND
		Chloroform	mg/L	ND
		Chloromethane	mg/L	ND
		cis-1,2-Dichloroethylene	mg/L	ND
		cis-1,3-Dichloropropene	mg/L	ND
		Dibromochloromethane	mg/L	ND
		Dibromomethane	mg/L	ND
		Dichlorodifluoromethane	mg/L	ND
		Ethylbenzene	mg/L	ND
		Hexachlorobutadiene	mg/L	ND
		Isopropylbenzene (Cumene)	mg/L	ND
		m,p-Xylene (Sum of Isomers)	mg/L	ND
		Methylene Chloride	mg/L	ND
		Naphthalene	mg/L	ND
		n-Butylbenzene	mg/L	ND
		n-Propylbenzene	mg/L	ND
		o-Xylene (1,2-Dimethylbenzene)	mg/L	ND
		p-Cymene (P-Isopropyltoluene)	mg/L	ND
		sec-Butylbenzene	mg/L	ND
		Styrene	mg/L	ND
		t-Butylbenzene	mg/L	ND
		Tetrachloroethylene (PCE)	mg/L	ND
		Toluene	mg/L	ND
		trans-1,2-Dichloroethene	mg/L	ND

Table C.2 (continued)
1999 Quality Control Results for AOC 4

Sample ID	Suite	Analyte	Units	Results
TB041599 (cont)	VOCs (cont.)	*trans*-1,3-Dichloropropene	mg/L	ND
		Trichloroethylene (TCE)	mg/L	ND
		Trichlorofluoromethane	mg/L	ND
		Vinyl Acetate	mg/L	ND
		Vinyl Chloride	mg/L	ND
		Ethane	mg/L	0.001
		Ethene	mg/L	0.001
		Methane	mg/L	0.001
AB041699	VOCs	1,1,1,2-Tetrachloroethane	mg/L	ND
		1,1,1-Trichloroethane	mg/L	ND
		1,1,2,2-Tetrachloroethane	mg/L	ND
		1,1,2-Trichloroethane	mg/L	ND
		1,1-Dichloroethane	mg/L	ND
		1,1-Dichloroethene	mg/L	ND
		1,1-Dichloropropene	mg/L	ND
		1,2,3-Trichlorobenzene	mg/L	ND
		1,2,3-Trichloropropane	mg/L	ND
		1,2,4-Trichlorobenzene	mg/L	ND
		1,2,4-Trimethylbenzene	mg/L	ND
		1,2-Dibromo-3-chloropropane	mg/L	ND
		1,2-Dibromoethane (Ethylene Dibromide)	mg/L	ND
		1,2-Dichlorobenzene	mg/L	ND
		1,2-Dichloroethane	mg/L	ND
		1,2-Dichloropropane	mg/L	ND
		1,3,5-Trimethylbenzene (Mesitylene)	mg/L	ND
		1,3-Dichlorobenzene	mg/L	ND
		1,3-Dichloropropane	mg/L	ND
		1,4-Dichlorobenzene	mg/L	ND
		1-Chlorohexane	mg/L	ND
		2,2-Dichloropropane	mg/L	ND
		2-Chlorotoluene	mg/L	ND
		4-Chlorotoluene	mg/L	ND
		Benzene	mg/L	ND
		Bromobenzene	mg/L	ND
		Bromochloromethane	mg/L	ND
		Bromodichloromethane	mg/L	ND
		Bromoform	mg/L	ND
		Bromomethane	mg/L	ND
		Carbon Tetrachloride	mg/L	ND
		Chlorobenzene	mg/L	ND
		Chloroethane	mg/L	ND

Table C.2 (continued)
1999 Quality Control Results for AOC 4

Sample ID	Suite	Analyte	Units	Results
AB041699 (cont.)	VOCs (cont.)	Chloroform	mg/L	ND
		Chloromethane	mg/L	ND
		cis-1,2-Dichloroethylene	mg/L	ND
		cis-1,3-Dichloropropene	mg/L	ND
		Dibromochloromethane	mg/L	ND
		Dibromomethane	mg/L	ND
		Dichlorodifluoromethane	mg/L	ND
		Ethylbenzene	mg/L	ND
		Hexachlorobutadiene	mg/L	ND
		Isopropylbenzene (Cumene)	mg/L	ND
		m,p-Xylene (Sum of Isomers)	mg/L	ND
		Methylene Chloride	mg/L	ND
		Naphthalene	mg/L	ND
		n-Butylbenzene	mg/L	ND
		n-Propylbenzene	mg/L	ND
		o-Xylene 1,2-Dimethylbenzene)	mg/L	ND
		p-Cymene P-Isopropyltoluene)	mg/L	ND
		sec-Butylbenzene	mg/L	ND
		Styrene	mg/L	ND
		t-Butylbenzene	mg/L	ND
		Tetrachloroethylene PCE)	mg/L	ND
		Toluene	mg/L	ND
		trans-1,2-Dichloroethene	mg/L	ND
		trans-1,3-Dichloropropene	mg/L	ND
		Trichloroethylene TCE)	mg/L	ND
		Trichlorofluoromethane	mg/L	ND
		Vinyl Acetate	mg/L	ND
		Vinyl Chloride	mg/L	ND
EB041699	Aromatic VOCs	Benzene	mg/L	ND
		Ethylbenzene	mg/L	ND
		Methyl *tert*-butyl ether	mg/L	ND
		Toluene	mg/L	ND
		Xylenes, Total	mg/L	ND
	PAHs	Acenaphthene	mg/L	ND
		Acenaphthylene	mg/L	ND
		Anthracene	mg/L	ND
		Benzo[*a*]anthracene	mg/L	ND
		Benzo[*a*]pyrene	mg/L	ND
		Benzo[*b*]fluoranthene	mg/L	ND
		Benzo[*ghi*]perylene	mg/L	ND
		Benzo[*k*]fluoranthene	mg/L	ND

Table C.2 (continued)
1999 Quality Control Results for AOC 4

Sample ID	Suite	Analyte	Units	Results
EB041699 (cont.)	PAHs (cont.)	Chrysene	mg/L	ND
		Dibenz[*a,h*]anthracene	mg/L	ND
		Fluoranthene	mg/L	ND
		Fluorene	mg/L	ND
		Indeno[1,2,3-*cd*]pyrene	mg/L	ND
		Naphthalene	mg/L	ND
		Phenanthrene	mg/L	ND
		Pyrene	mg/L	ND
	TPH	PHC as Diesel Fuel	mg/L	5
		PHC as Gasoline	mg/L	5
		PHC as Heavy/Residual Fuel Oils Fuel Oils #4,#5,#6	mg/L	5
	Natural Attenuation	Alkalinity, Total as $CACO_3$)	mg/L	ND
		Ethane	mg/L	0.001
		Ethene	mg/L	0.001
		Methane	mg/L	0 0064
		Chloride (as Cl)	mg/L	ND
		Nitrogen, Nitrate (as N)	mg/L	ND
		Sulfate (as SO_4)	mg/L	ND
		Total Organic Carbon	mg/L	1
TB041699	VOCs	1,1,1,2-Tetrachloroethane	mg/L	ND
		1,1,1-Trichloroethane	mg/L	ND
		1,1,2,2-Tetrachloroethane	mg/L	ND
		1,1,2-Trichloroethane	mg/L	ND
		1,1-Dichloroethane	mg/L	ND
		1,1-Dichloroethene	mg/L	ND
		1,1-Dichloropropene	mg/L	ND
		1,2,3-Trichlorobenzene	mg/L	ND
		1,2,3-Trichloropropane	mg/L	ND
		1,2,4-Trichlorobenzene	mg/L	ND
		1,2,4-Trimethylbenzene	mg/L	ND
		1,2-Dibromo-3-chloropropane	mg/L	ND
		1,2-Dibromoethane (Ethylene Dibromide)	mg/L	ND
		1,2-Dichlorobenzene	mg/L	ND
		1,2-Dichloroethane	mg/L	ND
		1,2-Dichloropropane	mg/L	ND
		1,3,5-Trimethylbenzene (Mesitylene)	mg/L	ND
		1,3-Dichlorobenzene	mg/L	ND
		1,3-Dichloropropane	mg/L	ND
		1,4-Dichlorobenzene	mg/L	ND
		1-Chlorohexane	mg/L	ND
		2,2-Dichloropropane	mg/L	ND

Table C.2 (continued)
1999 Quality Control Results for AOC 4

Sample ID	Suite	Analyte	Units	Results
TB041699 (cont.)	VOCs (cont.)	2-Chlorotoluene	mg/L	ND
		4-Chlorotoluene	mg/L	ND
		Benzene	mg/L	ND
		Bromobenzene	mg/L	ND
		Bromochloromethane	mg/L	ND
		Bromodichloromethane	mg/L	ND
		Bromoform	mg/L	ND
		Bromomethane	mg/L	ND
		Carbon Tetrachloride	mg/L	ND
		Chlorobenzene	mg/L	ND
		Chloroethane	mg/L	ND
		Chloroform	mg/L	ND
		Chloromethane	mg/L	ND
		cis-1,2-Dichloroethylene	mg/L	ND
		cis-1,3-Dichloropropene	mg/L	ND
		Dibromochloromethane	mg/L	ND
		Dibromomethane	mg/L	ND
		Dichlorodifluoromethane	mg/L	ND
		Ethylbenzene	mg/L	ND
		Hexachlorobutadiene	mg/L	ND
		Isopropylbenzene (Cumene)	mg/L	ND
		m,p-Xylene (Sum of Isomers)	mg/L	ND
		Methylene Chloride	mg/L	ND
		Naphthalene	mg/L	ND
		n-Butylbenzene	mg/L	ND
		n-Propylbenzene	mg/L	ND
		o-Xylene (1,2-Dimethylbenzene)	mg/L	ND
		p-Cymene (P-Isopropyltoluene)	mg/L	ND
		sec-Butylbenzene	mg/L	ND
		Styrene	mg/L	ND
		t-Butylbenzene	mg/L	ND
		Tetrachloroethylene (PCE)	mg/L	ND
		Toluene	mg/L	ND
		trans-1,2-Dichloroethene	mg/L	ND
		trans-1,3-Dichloropropene	mg/L	ND
		Trichloroethylene (TCE)	mg/L	ND
		Trichlorofluoromethane	mg/L	ND
		Vinyl Acetate	mg/L	ND
		Vinyl Chloride	mg/L	ND
	Natural Attenuation	Ethane	mg/L	0.001

Table C.2 (continued)
1999 Quality Control Results for AOC 4

Sample ID	Suite	Analyte	Units	Results
TB041699 (cont.)	Natural Attenuation (cont.)	Ethene	mg/L	0.001
		Methane	mg/L	0.001
EB042099	Aromatic VOCs	Benzene	mg/L	ND
		Ethylbenzene	mg/L	ND
		Methyl *tert*-butyl ether	mg/L	ND
		Toluene	mg/L	ND
		Xylenes, Total	mg/L	ND
	PAHs	Acenaphthene	mg/L	ND
		Acenaphthylene	mg/L	ND
		Anthracene	mg/L	ND
		Benzo[*a*]anthracene	mg/L	ND
		Benzo[*a*]pyrene	mg/L	ND
		Benzo[*b*]fluoranthene	mg/L	ND
		Benzo[*ghi*]perylene	mg/L	ND
		Benzo[*k*]fluoranthene	mg/L	ND
		Chrysene	mg/L	ND
		Dibenz[*a,h*]anthracene	mg/L	ND
		Fluoranthene	mg/L	ND
		Fluorene	mg/L	ND
		Indeno[1,2,3-*cd*]pyrene	mg/L	ND
		Naphthalene	mg/L	ND
		Phenanthrene	mg/L	ND
		Pyrene	mg/L	ND
	TPH	PHC as Diesel Fuel	mg/L	5
		PHC as Gasoline	mg/L	5
		PHC as Heavy/Residual Fuel Oils Fuel Oils #4,#5,#6	mg/L	5
	Natural Attenuation	Alkalinity, Total (as $CACO_3$)	mg/L	10.5
		Ethane	mg/L	0 001
		Ethene	mg/L	0.001
		Methane	mg/L	0.0608
		Chloride (as Cl)	mg/L	ND
		Nitrogen, Nitrate (as N)	mg/L	ND
		Sulfate (as SO_4)	mg/L	ND
		Total Organic Carbon	mg/L	1.6
TB042099	VOCs	1,1,1,2-Tetrachloroethane	mg/L	ND
		1,1,1-Trichloroethane	mg/L	ND
		1,1,2,2-Tetrachloroethane	mg/L	ND
		1,1,2-Trichloroethane	mg/L	ND
		1,1-Dichloroethane	mg/L	ND
		1,1-Dichloroethene	mg/L	ND
		1,1-Dichloropropene	mg/L	ND

Table C.2 (continued)
1999 Quality Control Results for AOC 4

Sample ID	Suite	Analyte	Units	Results
TB042099 (cont.)	VOCs (cont.)	1,2,3-Trichlorobenzene	mg/L	ND
		1,2,3-Trichloropropane	mg/L	ND
		1,2,4-Trichlorobenzene	mg/L	ND
		1,2,4-Trimethylbenzene	mg/L	ND
		1,2-Dibromo-3-chloropropane	mg/L	ND
		1,2-Dibromoethane (Ethylene Dibromide)	mg/L	ND
		1,2-Dichlorobenzene	mg/L	ND
		1,2-Dichloroethane	mg/L	ND
		1,2-Dichloropropane	mg/L	ND
		1,3,5-Trimethylbenzene (Mesitylene)	mg/L	ND
		1,3-Dichlorobenzene	mg/L	ND
		1,3-Dichloropropane	mg/L	ND
		1,4-Dichlorobenzene	mg/L	ND
		1-Chlorohexane	mg/L	ND
		2,2-Dichloropropane	mg/L	ND
		2-Chlorotoluene	mg/L	ND
		4-Chlorotoluene	mg/L	ND
		Benzene	mg/L	ND
		Bromobenzene	mg/L	ND
		Bromochloromethane	mg/L	ND
		Bromodichloromethane	mg/L	ND
		Bromoform	mg/L	ND
		Bromomethane	mg/L	ND
		Carbon Tetrachloride	mg/L	ND
		Chlorobenzene	mg/L	ND
		Chloroethane	mg/L	ND
		Chloroform	mg/L	ND
		Chloromethane	mg/L	ND
		cis-1,2-Dichloroethylene	mg/L	ND
		cis-1,3-Dichloropropene	mg/L	ND
		Dibromochloromethane	mg/L	ND
		Dibromomethane	mg/L	ND
		Dichlorodifluoromethane	mg/L	ND
		Ethylbenzene	mg/L	ND
		Hexachlorobutadiene	mg/L	ND
		Isopropylbenzene (Cumene)	mg/L	ND
		m,p-Xylene (Sum of Isomers)	mg/L	ND
		Methylene Chloride	mg/L	ND
		Naphthalene	mg/L	ND
		n-Butylbenzene	mg/L	ND
		n-Propylbenzene	mg/L	ND

Table C.2 (continued)
1999 Quality Control Results for AOC 4

Sample ID	Suite	Analyte	Units	Results
TB042099 (cont.)	VOCs (cont.)	*o*-Xylene (1,2-Dimethylbenzene)	mg/L	ND
		p-Cymene (P-Isopropyltoluene)	mg/L	ND
		sec-Butylbenzene	mg/L	ND
		Styrene	mg/L	ND
		t-Butylbenzene	mg/L	ND
		Tetrachloroethylene (PCE)	mg/L	ND
		Toluene	mg/L	ND
		trans-1,2-Dichloroethene	mg/L	ND
		trans-1,3-Dichloropropene	mg/L	ND
		Trichloroethylene (TCE)	mg/L	ND
		Trichlorofluoromethane	mg/L	ND
		Vinyl Acetate	mg/L	ND
		Vinyl Chloride	mg/L	ND
	Natural Attenuation	Ethane	mg/L	0.001
		Ethene	mg/L	0.001
		Methane	mg/L	0.001
TB042299	VOCs	1,1,1,2-Tetrachloroethane	mg/L	ND
		1,1,1-Trichloroethane	mg/L	ND
		1,1,2,2-Tetrachloroethane	mg/L	ND
		1,1,2-Trichloroethane	mg/L	ND
		1,1-Dichloroethane	mg/L	ND
		1,1-Dichloroethene	mg/L	ND
		1,1-Dichloropropene	mg/L	ND
		1,2,3-Trichlorobenzene	mg/L	ND
		1,2,3-Trichloropropane	mg/L	ND
		1,2,4-Trichlorobenzene	mg/L	ND
		1,2,4-Trimethylbenzene	mg/L	ND
		1,2-Dibromo-3-chloropropane	mg/L	ND
		1,2-Dibromoethane (Ethylene Dibromide)	mg/L	ND
		1,2-Dichlorobenzene	mg/L	ND
		1,2-Dichloroethane	mg/L	ND
		1,2-Dichloropropane	mg/L	ND
		1,3,5-Trimethylbenzene (Mesitylene)	mg/L	ND
		1,3-Dichlorobenzene	mg/L	ND
		1,3-Dichloropropane	mg/L	ND
		1,4-Dichlorobenzene	mg/L	ND
		1-Chlorohexane	mg/L	ND
		2,2-Dichloropropane	mg/L	ND
		2-Chlorotoluene	mg/L	ND
		4-Chlorotoluene	mg/L	ND
		Benzene	mg/L	ND

Table C.2 (continued)
1999 Quality Control Results for AOC 4

Sample ID	Suite	Analyte	Units	Results
TB042299 (cont.)	VOCs (cont.)	Bromobenzene	mg/L	ND
		Bromochloromethane	mg/L	ND
		Bromodichloromethane	mg/L	ND
		Bromoform	mg/L	ND
		Bromomethane	mg/L	ND
		Carbon Tetrachloride	mg/L	ND
		Chlorobenzene	mg/L	ND
		Chloroethane	mg/L	ND
		Chloroform	mg/L	ND
		Chloromethane	mg/L	ND
		cis-1,2-Dichloroethylene	mg/L	ND
		cis-1,3-Dichloropropene	mg/L	ND
		Dibromochloromethane	mg/L	ND
		Dibromomethane	mg/L	ND
		Dichlorodifluoromethane	mg/L	ND
		Ethylbenzene	mg/L	ND
		Hexachlorobutadiene	mg/L	ND
		Isopropylbenzene (Cumene)	mg/L	ND
		m,p-xylene (Sum of Isomers)	mg/L	ND
		Methylene Chloride	mg/L	ND
		Naphthalene	mg/L	ND
		n-Butylbenzene	mg/L	ND
		n-Propylbenzene	mg/L	ND
		o-Xylene (1,2-Dimethylbenzene)	mg/L	ND
		p-Cymene (P-Isopropyltoluene)	mg/L	ND
		sec-Butylbenzene	mg/L	ND
		Styrene	mg/L	ND
		t-Butylbenzene	mg/L	ND
		Tetrachloroethylene (PCE)	mg/L	ND
		Toluene	mg/L	ND
		trans-1,2-Dichloroethene	mg/L	ND
		trans-1,3-Dichloropropene	mg/L	ND
		Trichloroethylene (TCE)	mg/L	ND
		Trichlorofluoromethane	mg/L	ND
		Vinyl Acetate	mg/L	ND
		Vinyl Chloride	mg/L	ND
	Natural Attenuation	Ethane	mg/L	0.001
		Ethene	mg/L	0.001
		Methane	mg/L	0.001

Table C.2 (continued)
1999 Quality Control Results for AOC 4

Sample ID	Suite	Analyte	Units	Results
AB071399	VOCs	1,1,1,2-Tetrachloroethane	mg/L	ND
		1,1,1-Trichloroethane	mg/L	ND
		1,1,2,2-Tetrachloroethane	mg/L	ND
		1,1,2-Trichloroethane	mg/L	ND
		1,1-Dichloroethane	mg/L	ND
		1,1-Dichloroethene	mg/L	ND
		1,1-Dichloropropene	mg/L	ND
		1,2,3-Trichlorobenzene	mg/L	ND
		1,2,3-Trichloropropane	mg/L	ND
		1,2,4-Trichlorobenzene	mg/L	ND
		1,2,4-Trimethylbenzene	mg/L	ND
		1,2-Dibromo-3-chloropropane	mg/L	ND
		1,2-Dibromoethane (Ethylene Dibromide)	mg/L	ND
		1,2-Dichlorobenzene	mg/L	ND
		1,2-Dichloroethane	mg/L	ND
		1,2-Dichloropropane	mg/L	ND
		1,3,5-Trimethylbenzene (Mesitylene)	mg/L	ND
		1,3-Dichlorobenzene	mg/L	ND
		1,3-Dichloropropane	mg/L	ND
		1,4-Dichlorobenzene	mg/L	ND
		1-Chlorohexane	mg/L	ND
		2,2-Dichloropropane	mg/L	ND
		2-Chloro-1,3-Butadiene	mg/L	ND
		2-Chlorotoluene	mg/L	ND
		2-Hexanone	mg/L	ND
		4-Chlorotoluene	mg/L	ND
		Acetone	mg/L	ND
		Acetonitrile	mg/L	ND
		Acrolein	mg/L	ND
		Acrylonitrile	mg/L	ND
		Allyl Chloride (3-Chloropropene)	mg/L	ND
		Benzene	mg/L	ND
		Bromobenzene	mg/L	ND
		Bromochloromethane	mg/L	ND
		Bromodichloromethane	mg/L	ND
		Bromoform	mg/L	ND
		Bromomethane	mg/L	ND
		Carbon Disulfide	mg/L	ND
		Carbon Tetrachloride	mg/L	ND
		Chlorobenzene	mg/L	ND
		Chloroethane	mg/L	ND

Table C.2 (continued)
1999 Quality Control Results for AOC 4

Sample ID	Suite	Analyte	Units	Results
AB071399 (cont.)	VOCs (cont.)	Chloroform	mg/L	ND
		Chloromethane	mg/L	ND
		cis-1,2-Dichloroethylene	mg/L	ND
		cis-1,3-Dichloropropene	mg/L	ND
		Dibromochloromethane	mg/L	ND
		Dibromomethane	mg/L	ND
		Dichlorodifluoromethane	mg/L	ND
		Ethyl Methacrylate	mg/L	ND
		Ethylbenzene	mg/L	ND
		Hexachlorobutadiene	mg/L	ND
		Iodomethane (Methyl Iodide)	mg/L	ND
		Isobutanol	mg/L	ND
		Isopropylbenzene (Cumene)	mg/L	ND
		m,p-Xylene (Sum of Isomers)	mg/L	ND
		Methyl Ethyl Ketone (2-Butanone)	mg/L	ND
		Methyl Isobutyl Ketone (4-methyl-2-pentanone)	mg/L	ND
		Methyl Methacrylate	mg/L	ND
		Methylacrylonitrile	mg/L	ND
		Methylene Chloride	mg/L	ND
		Naphthalene	mg/L	ND
		n-Butylbenzene	mg/L	ND
		n-Propylbenzene	mg/L	ND
		o-Xylene (1,2-Dimethylbenzene)	mg/L	ND
		p-Cymene (P-Isopropyltoluene)	mg/L	ND
		Propane Nitrile (Propionitrile)	mg/L	ND
		sec-Butylbenzene	mg/L	ND
		Styrene	mg/L	ND
		t-Butylbenzene	mg/L	ND
		Tetrachloroethylene (PCE)	mg/L	ND
		Toluene	mg/L	ND
		trans-1,2-Dichloroethene	mg/L	ND
		trans-1,3-Dichloropropene	mg/L	ND
		trans-1,4-Dichloro-2-Butene	mg/L	ND
		Trichloroethylene (TCE)	mg/L	ND
		Trichlorofluoromethane	mg/L	ND
		Vinyl Acetate	mg/L	ND
		Vinyl Chloride	mg/L	ND
EB071399	VOCs	1,1,1,2-Tetrachloroethane	mg/L	ND
		1,1,1-Trichloroethane	mg/L	ND
		1,1,2,2-Tetrachloroethane	mg/L	ND

Table C.2 (continued)
1999 Quality Control Results for AOC 4

Sample ID	Suite	Analyte	Units	Results
EB071399 (cont.)	VOCs (cont)	1,1,2-Trichloroethane	mg/L	ND
		1,1-Dichloroethane	mg/L	ND
		1,1-Dichloroethene	mg/L	ND
		1,1-Dichloropropene	mg/L	ND
		1,2,3-Trichlorobenzene	mg/L	ND
		1,2,3-Trichloropropane	mg/L	ND
		1,2,4-Trichlorobenzene	mg/L	ND
		1,2,4-Trimethylbenzene	mg/L	ND
		1,2-Dibromo-3-chloropropane	mg/L	ND
		1,2-Dibromoethane (Ethylene Dibromide)	mg/L	ND
		1,2-Dichlorobenzene	mg/L	ND
		1,2-Dichloroethane	mg/L	ND
		1,2-Dichloropropane	mg/L	ND
		1,3,5-Trimethylbenzene (Mesitylene)	mg/L	ND
		1,3-Dichlorobenzene	mg/L	ND
		1,3-Dichloropropane	mg/L	ND
		1,4-Dichlorobenzene	mg/L	ND
		1-Chlorohexane	mg/L	ND
		2,2-Dichloropropane	mg/L	ND
		2-Chloro-1,3-Butadiene	mg/L	ND
		2-Chlorotoluene	mg/L	ND
		2-Hexanone	mg/L	ND
		4-Chlorotoluene	mg/L	ND
		Acetone	mg/L	ND
		Acetonitrile	mg/L	ND
		Acrolein	mg/L	ND
		Acrylonitrile	mg/L	ND
		Allyl Chloride (3-Chloropropene)	mg/L	ND
		Benzene	mg/L	ND
		Bromobenzene	mg/L	ND
		Bromochloromethane	mg/L	ND
		Bromodichloromethane	mg/L	ND
		Bromoform	mg/L	ND
		Bromomethane	mg/L	ND
		Carbon Disulfide	mg/L	ND
		Carbon Tetrachloride	mg/L	ND
		Chlorobenzene	mg/L	ND
		Chloroethane	mg/L	ND
		Chloroform	mg/L	ND
		Chloromethane	mg/L	ND

Table C.2 (continued)
1999 Quality Control Results for AOC 4

Sample ID	Suite	Analyte	Units	Results
EB071399 (cont.)	VOCs (cont.)	*cis*-1,2-Dichloroethylene	mg/L	ND
		cis-1,3-Dichloropropene	mg/L	ND
		Dibromochloromethane	mg/L	ND
		Dibromomethane	mg/L	ND
		Dichlorodifluoromethane	mg/L	ND
		Ethyl Methacrylate	mg/L	ND
		Ethylbenzene	mg/L	ND
		Hexachlorobutadiene	mg/L	ND
		Iodomethane (Methyl Iodide)	mg/L	ND
		Isobutanol	mg/L	ND
		Isopropylbenzene (Cumene)	mg/L	ND
		m,p-Xylene (Sum of Isomers)	mg/L	ND
		Methyl Ethyl Ketone (2-Butanone)	mg/L	ND
		Methyl Isobutyl Ketone (4-methyl-2-pentanone)	mg/L	ND
		Methyl Methacrylate	mg/L	ND
		Methylacrylonitrile	mg/L	ND
		Methylene Chloride	mg/L	ND
		Naphthalene	mg/L	ND
		n-Butylbenzene	mg/L	ND
		n-Propylbenzene	mg/L	ND
		o-Xylene (1,2-Dimethylbenzene)	mg/L	ND
		p-Cymene (P-Isopropyltoluene)	mg/L	ND
		Propane Nitrile (Propionitrile)	mg/L	ND
		sec-Butylbenzene	mg/L	ND
		Styrene	mg/L	ND
		t-Butylbenzene	mg/L	ND
		Tetrachloroethylene (PCE)	mg/L	ND
		Toluene	mg/L	ND
		trans-1,2-Dichloroethene	mg/L	ND
		trans-1,3-Dichloropropene	mg/L	ND
		trans-1,4-Dichloro-2-Butene	mg/L	ND
		Trichloroethylene (TCE)	mg/L	ND
		Trichlorofluoromethane	mg/L	ND
		Vinyl Acetate	mg/L	ND
		Vinyl Chloride	mg/L	ND
	PAHs	Acenaphthene	mg/L	ND
		Acenaphthylene	mg/L	ND
		Anthracene	mg/L	ND
		Benzo[*a*]anthracene	mg/L	ND
		Benzo[*a*]pyrene	mg/L	ND

Table C.2 (continued)
1999 Quality Control Results for AOC 4

Sample ID	Suite	Analyte	Units	Results
EB071399 (cont.)	PAHs (cont.)	Benzo[*b*]fluoranthene	mg/L	ND
		Benzo[*ghi*]perylene	mg/L	ND
		Benzo[*k*]fluoranthene	mg/L	ND
		Chrysene	mg/L	ND
		Dibenz[*a,h*]anthracene	mg/L	ND
		Fluoranthene	mg/L	ND
		Fluorene	mg/L	ND
		Indeno[1,2,3-*cd*]pyrene	mg/L	ND
		Naphthalene	mg/L	ND
		Phenanthrene	mg/L	ND
		Pyrene	mg/L	ND
	TPH	PHC as Diesel Fuel	mg/L	ND
		PHC as Gasoline	mg/L	ND
		Total Fuel Hydrocarbons	mg/L	ND
	Natural Attenuation	Alkalinity, Total (as $CACO_3$)	mg/L	2
		Ethane	mg/L	0.001
		Ethene	mg/L	0 001
		Methane	mg/L	0.001
		Chloride (as Cl)	mg/L	ND
		Nitrogen, Nitrate (as N)	mg/L	ND
		Sulfate (as SO_4)	mg/L	ND
		Total Organic Carbon	mg/L	ND
TB071399	VOCs	1,1,1,2-Tetrachloroethane	mg/L	ND
		1,1,1-Trichloroethane	mg/L	ND
		1,1,2,2-Tetrachloroethane	mg/L	ND
		1,1,2-Trichloroethane	mg/L	ND
		1,1-Dichloroethane	mg/L	ND
		1,1-Dichloroethene	mg/L	ND
		1,1-Dichloropropene	mg/L	ND
		1,2,3-Trichlorobenzene	mg/L	ND
		1,2,3-Trichloropropane	mg/L	ND
		1,2,4-Trichlorobenzene	mg/L	ND
		1,2,4-Trimethylbenzene	mg/L	ND
		1,2-Dibromo-3-chloropropane	mg/L	ND
		1,2-Dibromoethane (Ethylene Dibromide)	mg/L	ND
		1,2-Dichlorobenzene	mg/L	ND
		1,2-Dichloroethane	mg/L	ND
		1,2-Dichloropropane	mg/L	ND
		1,3,5-Trimethylbenzene (Mesitylene)	mg/L	ND
		1,3-Dichlorobenzene	mg/L	ND

Table C.2 (continued)
1999 Quality Control Results for AOC 4

Sample ID	Suite	Analyte	Units	Results
TB071399 (cont.)	VOCs (cont.)	1,3-Dichloropropane	mg/L	ND
		1,4-Dichlorobenzene	mg/L	ND
		1-Chlorohexane	mg/L	ND
		2,2-Dichloropropane	mg/L	ND
		2-Chloro-1,3-Butadiene	mg/L	ND
		2-Chlorotoluene	mg/L	ND
		2-Hexanone	mg/L	ND
		4-Chlorotoluene	mg/L	ND
		Acetone	mg/L	ND
		Acetonitrile	mg/L	ND
		Acrolein	mg/L	ND
		Acrylonitrile	mg/L	ND
		Allyl Chloride (3-Chloropropene)	mg/L	ND
		Benzene	mg/L	ND
		Bromobenzene	mg/L	ND
		Bromochloromethane	mg/L	ND
		Bromodichloromethane	mg/L	ND
		Bromoform	mg/L	ND
		Bromomethane	mg/L	ND
		Carbon Disulfide	mg/L	ND
		Carbon Tetrachloride	mg/L	ND
		Chlorobenzene	mg/L	ND
		Chloroethane	mg/L	ND
		Chloroform	mg/L	ND
		Chloromethane	mg/L	ND
		cis-1,2-Dichloroethylene	mg/L	ND
		cis-1,3-Dichloropropene	mg/L	ND
		Dibromochloromethane	mg/L	ND
		Dibromomethane	mg/L	ND
		Dichlorodifluoromethane	mg/L	ND
		Ethyl Methacrylate	mg/L	ND
		Ethylbenzene	mg/L	ND
		Hexachlorobutadiene	mg/L	ND
		Iodomethane (Methyl Iodide)	mg/L	ND
		Isobutanol	mg/L	ND
		Isopropylbenzene Cumene)	mg/L	ND
		m,p-Xylene (Sum of Isomers)	mg/L	ND
		Methyl Ethyl Ketone (2-Butanone)	mg/L	ND
		Methyl Isobutyl Ketone (4-methyl-2-pentanone)	mg/L	ND
		Methyl Methacrylate	mg/L	ND

Table C.2 (continued)
1999 Quality Control Results for AOC 4

Sample ID	Suite	Analyte	Units	Results
TB071399 (cont.)	VOCs (cont.)	Methylacrylonitrile	mg/L	ND
		Methylene Chloride	mg/L	ND
		Naphthalene	mg/L	ND
		n-Butylbenzene	mg/L	ND
		n-Propylbenzene	mg/L	ND
		o-Xylene (1,2-Dimethylbenzene)	mg/L	ND
		p-Cymene (P-Isopropyltoluene)	mg/L	ND
		Propane Nitrile (Propionitrile)	mg/L	ND
		sec-Butylbenzene	mg/L	ND
		Styrene	mg/L	ND
		t-Butylbenzene	mg/L	ND
		Tetrachloroethylene (PCE)	mg/L	ND
		Toluene	mg/L	ND
		trans-1,2-Dichloroethene	mg/L	ND
		trans-1,3-Dichloropropene	mg/L	ND
		trans-1,4-Dichloro-2-Butene	mg/L	ND
		Trichloroethylene (TCE)	mg/L	ND
		Trichlorofluoromethane	mg/L	ND
		Vinyl Acetate	mg/L	ND
		Vinyl Chloride	mg/L	ND
	Natural Attenuation	Ethane	mg/L	0.001
		Ethene	mg/L	0.001
		Methane	mg/L	0.0139
EB071499	Aromatic VOCs	Benzene	mg/L	ND
		Ethylbenzene	mg/L	ND
		m,p-Xylene (Sum of Isomers)	mg/L	ND
		o-Xylene (1,2-Dimethylbenzene)	mg/L	ND
		Toluene	mg/L	ND
	PAHs	Acenaphthene	mg/L	ND
		Acenaphthylene	mg/L	ND
		Anthracene	mg/L	ND
		Benzo[*a*]anthracene	mg/L	ND
		Benzo[*a*]pyrene	mg/L	ND
		Benzo[*b*]fluoranthene	mg/L	ND
		Benzo[*ghi*]perylene	mg/L	ND
		Benzo[*k*]fluoranthene	mg/L	ND
		Chrysene	mg/L	ND
		Dibenz[*a,h*]anthracene	mg/L	ND
		Fluoranthene	mg/L	ND
		Fluorene	mg/L	ND

Table C.2 (continued)
1999 Quality Control Results for AOC 4

Sample ID	Suite	Analyte	Units	Results
EB071499 (cont.)	PAHs (cont.)	Indeno[1,2,3-*cd*]pyrene	mg/L	ND
		Naphthalene	mg/L	ND
		Phenanthrene	mg/L	ND
		Pyrene	mg/L	ND
	TPH	PHC as Diesel Fuel	mg/L	ND
		PHC as Gasoline	mg/L	ND
		Total Fuel Hydrocarbons	mg/L	ND
	Natural Attenuation	Alkalinity, Total (as $CACO_3$)	mg/L	2
		Ethane	mg/L	0.001
		Ethene	mg/L	0 001
		Methane	mg/L	0.008
		Chloride (as Cl)	mg/L	ND
		Nitrogen, Nitrate (as N)	mg/L	ND
		Sulfate (as SO_4)	mg/L	ND
		Total Organic Carbon	mg/L	19.96
TB071499	VOCs	1,1,1,2-Tetrachloroethane	mg/L	ND
		1,1,1-Trichloroethane	mg/L	ND
		1,1,2,2-Tetrachloroethane	mg/L	ND
		1,1,2-Trichloroethane	mg/L	ND
		1,1-Dichloroethane	mg/L	ND
		1,1-Dichloroethene	mg/L	ND
		1,1-Dichloropropene	mg/L	ND
		1,2,3-Trichlorobenzene	mg/L	ND
		1,2,3-Trichloropropane	mg/L	ND
		1,2,4-Trichlorobenzene	mg/L	ND
		1,2,4-Trimethylbenzene	mg/L	ND
		1,2-Dibromo-3-chloropropane	mg/L	ND
		1,2-Dibromoethane (Ethylene Dibromide)	mg/L	ND
		1,2-Dichlorobenzene	mg/L	ND
		1,2-Dichloroethane	mg/L	ND
		1,2-Dichloropropane	mg/L	ND
		1,3,5-Trimethylbenzene (Mesitylene)	mg/L	ND
		1,3-Dichlorobenzene	mg/L	ND
		1,3-Dichloropropane	mg/L	ND
		1,4-Dichlorobenzene	mg/L	ND
		1-Chlorohexane	mg/L	ND
		2,2-Dichloropropane	mg/L	ND
		2-Chloro-1,3-Butadiene	mg/L	ND
		2-Chlorotoluene	mg/L	ND
		2-hexanone	mg/L	ND

Table C.2 (continued)
1999 Quality Control Results for AOC 4

Sample ID	Suite	Analyte	Units	Results
TB071499 (cont.)	VOCs (cont.)	4-Chlorotoluene	mg/L	ND
		Acetone	mg/L	ND
		Acetonitrile	mg/L	ND
		Acrolein	mg/L	ND
		Acrylonitrile	mg/L	ND
		Allyl Chloride (3-Chloropropene)	mg/L	ND
		Benzene	mg/L	ND
		Bromobenzene	mg/L	ND
		Bromochloromethane	mg/L	ND
		Bromodichloromethane	mg/L	ND
		Bromoform	mg/L	ND
		Bromomethane	mg/L	ND
		Carbon Disulfide	mg/L	ND
		Carbon Tetrachloride	mg/L	ND
		Chlorobenzene	mg/L	ND
		Chloroethane	mg/L	ND
		Chloroform	mg/L	ND
		Chloromethane	mg/L	ND
		cis-1,2-Dichloroethylene	mg/L	ND
		cis-1,3-Dichloropropene	mg/L	ND
		Dibromochloromethane	mg/L	ND
		Dibromomethane	mg/L	ND
		Dichlorodifluoromethane	mg/L	ND
		Ethyl Methacrylate	mg/L	ND
		Ethylbenzene	mg/L	ND
		Hexachlorobutadiene	mg/L	ND
		Iodomethane (Methyl Iodide)	mg/L	ND
		Isobutanol	mg/L	ND
		Isopropylbenzene (Cumene)	mg/L	ND
		m,p-Xylene (Sum of Isomers)	mg/L	ND
		Methyl Ethyl Ketone (2-Butanone)	mg/L	ND
		Methyl Isobutyl Ketone (4-methyl-2-pentanone)	mg/L	ND
		Methyl Methacrylate	mg/L	ND
		Methylacrylonitrile	mg/L	ND
		Methylene Chloride	mg/L	ND
		Naphthalene	mg/L	ND
		n-Butylbenzene	mg/L	ND
		n-Propylbenzene	mg/L	ND
		o-Xylene (1,2-Dimethylbenzene)	mg/L	ND
		p-Cymene (P-Isopropyltoluene)	mg/L	ND

Table C.2 (continued)
1999 Quality Control Results for AOC 4

Sample ID	Suite	Analyte	Units	Results
TB071499 (cont.)	VOCs (cont.)	Propane Nitrile (Propionitrile)	mg/L	ND
		sec-Butylbenzene	mg/L	ND
		Styrene	mg/L	ND
		t-Butylbenzene	mg/L	ND
		Tetrachloroethylene (PCE)	mg/L	ND
		Toluene	mg/L	ND
		trans-1,2-Dichloroethene	mg/L	ND
		trans-1,3-Dichloropropene	mg/L	ND
		trans-1,4-Dichloro-2-Butene	mg/L	ND
		Trichloroethylene (TCE)	mg/L	ND
		Trichlorofluoromethane	mg/L	ND
		Vinyl Acetate	mg/L	ND
		Vinyl Chloride	mg/L	ND
	Natural Attenuation	Ethane	mg/L	0 0016
		Ethene	mg/L	0.001
		Methane	mg/L	0.00035F
EB071599	Natural Attenuation	Ethane	mg/L	0.001
		Ethene	mg/L	0.001
		Methane	mg/L	0.0318
TB071599	VOCs	1,1,1,2-Tetrachloroethane	mg/L	ND
		1,1,1-Trichloroethane	mg/L	ND
		1,1,2,2-Tetrachloroethane	mg/L	ND
		1,1,2-Trichloroethane	mg/L	ND
		1,1-Dichloroethane	mg/L	ND
		1,1-Dichloroethene	mg/L	ND
		1,1-Dichloropropene	mg/L	ND
		1,2,3-Trichlorobenzene	mg/L	ND
		1,2,3-Trichloropropane	mg/L	ND
		1,2,4-Trichlorobenzene	mg/L	ND
		1,2,4-Trimethylbenzene	mg/L	ND
		1,2-Dibromo-3-chloropropane	mg/L	ND
		1,2-Dibromoethane (Ethylene Dibromide)	mg/L	ND
		1,2-Dichlorobenzene	mg/L	ND
		1,2-Dichloroethane	mg/L	ND
		1,2-Dichloropropane	mg/L	ND
		1,3,5-Trimethylbenzene (Mesitylene)	mg/L	ND
		1,3-Dichlorobenzene	mg/L	ND
		1,3-Dichloropropane	mg/L	ND
		1,4-Dichlorobenzene	mg/L	ND
		1-Chlorohexane	mg/L	ND

Table C.2 (continued)
1999 Quality Control Results for AOC 4

Sample ID	Suite	Analyte	Units	Results
TB071599 (cont.)	VOCs (cont.)	2,2-Dichloropropane	mg/L	ND
		2-Chloro-1,3-Butadiene	mg/L	ND
		2-Chlorotoluene	mg/L	ND
		2-Hexanone	mg/L	ND
		4-Chlorotoluene	mg/L	ND
		Acetone	mg/L	0.002F
		Acetonitrile	mg/L	0.001F
		Acrolein	mg/L	ND
		Acrylonitrile	mg/L	0.0005F
		Allyl Chloride (3-Chloropropene)	mg/L	ND
		Benzene	mg/L	ND
		Bromobenzene	mg/L	ND
		Bromochloromethane	mg/L	ND
		Bromodichloromethane	mg/L	ND
		Bromoform	mg/L	ND
		Bromomethane	mg/L	ND
		Carbon Disulfide	mg/L	ND
		Carbon Tetrachloride	mg/L	ND
		Chlorobenzene	mg/L	ND
		Chloroethane	mg/L	ND
		Chloroform	mg/L	ND
		Chloromethane	mg/L	ND
		cis-1,2-Dichloroethylene	mg/L	ND
		cis-1,3-Dichloropropene	mg/L	ND
		Dibromochloromethane	mg/L	ND
		Dibromomethane	mg/L	ND
		Dichlorodifluoromethane	mg/L	ND
		Ethyl Methacrylate	mg/L	ND
		Ethylbenzene	mg/L	ND
		Ethylbenzene	mg/L	ND
		Hexachlorobutadiene	mg/L	ND
		Iodomethane (Methyl Iodide)	mg/L	ND
		Isobutanol	mg/L	ND
		Isopropylbenzene (Cumene)	mg/L	ND
		m,p-Xylene (Sum of Isomers)	mg/L	ND
		m,p-Xylene (Sum of Isomers)	mg/L	ND
		Methyl Ethyl Ketone (2-Butanone)	mg/L	ND
		Methyl Isobutyl Ketone (4-methyl-2-pentanone)	mg/L	ND
		Methyl Methacrylate	mg/L	ND
		Methylacrylonitrile	mg/L	ND

Table C.2 (continued)
1999 Quality Control Results for AOC 4

Sample ID	Suite	Analyte	Units	Results
TB071599 (cont.)	VOCs (cont.)	Methylene Chloride	mg/L	ND
		Naphthalene	mg/L	ND
		n-Butylbenzene	mg/L	ND
		n-Propylbenzene	mg/L	ND
		o-Xylene (1,2-Dimethylbenzene)	mg/L	ND
		o-Xylene (1,2-Dimethylbenzene)	mg/L	ND
		p-Cymene (P-Isopropyltoluene)	mg/L	ND
		Propane Nitrile (Propionitrile)	mg/L	ND
		sec-Butylbenzene	mg/L	ND
		Styrene	mg/L	ND
		t-Butylbenzene	mg/L	ND
		Methyl *tert*-butyl ether	mg/L	ND
		Tetrachloroethylene (PCE)	mg/L	ND
		Toluene	mg/L	ND
		Toluene	mg/L	ND
		trans-1,2-Dichloroethene	mg/L	ND
		trans-1,3-Dichloropropene	mg/L	ND
		trans-1,4-Dichloro-2-Butene	mg/L	ND
		Trichloroethylene (TCE)	mg/L	ND
		Trichlorofluoromethane	mg/L	ND
		Vinyl Acetate	mg/L	ND
		Vinyl Chloride	mg/L	ND
	PAHs	Acenaphthene	mg/L	ND
		Acenaphthylene	mg/L	ND
		Anthracene	mg/L	ND
		Benzo[*a*]anthracene	mg/L	ND
		Benzo[*a*]pyrene	mg/L	ND
		Benzo[*b*]fluoranthene	mg/L	ND
		Benzo[*ghi*]perylene	mg/L	ND
		Benzo[*k*]fluoranthene	mg/L	ND
		Chrysene	mg/L	ND
		Dibenz[*a,h*]anthracene	mg/L	ND
		Fluoranthene	mg/L	ND
		Fluorene	mg/L	ND
		Indeno[1,2,3-*cd*]pyrene	mg/L	ND
		Naphthalene	mg/L	ND
		Phenanthrene	mg/L	ND
		Pyrene	mg/L	ND
	TPH	PHC as Diesel Fuel	mg/L	ND
		PHC as Gasoline	mg/L	ND

Table C.2 (continued)
1999 Quality Control Results for AOC 4

Sample ID	Suite	Analyte	Units	Results
TB071599 (cont)	TPH (cont.)	Total Fuel Hydrocarbons	mg/L	ND
	Natural Attenuation	Alkalinity, Total (as $CACO_3$)	mg/L	4.1
		Ethane	mg/L	0.001
		Ethene	mg/L	0.001
		Methane	mg/L	0.001
		Chloride (as Cl)	mg/L	ND
		Nitrogen, Nitrate (as N)	mg/L	ND
		Sulfate (as SO_4)	mg/L	ND
		Total Organic Carbon	mg/L	20.6
EB071699	Aromatic VOCs	Benzene	mg/L	ND
		Ethylbenzene	mg/L	ND
		m,p-Xylene (Sum of Isomers)	mg/L	ND
		o-Xylene (1,2-Dimethylbenzene)	mg/L	ND
		Methyl *tert*-butyl ether	mg/L	ND
		Toluene	mg/L	ND
	PAHs	Acenaphthene	mg/L	ND
		Acenaphthylene	mg/L	ND
		Anthracene	mg/L	ND
		Benzo[*a*]anthracene	mg/L	ND
		Benzo[*a*]pyrene	mg/L	ND
		Benzo[*b*]fluoranthene	mg/L	ND
		Benzo[*ghi*]perylene	mg/L	ND
		Benzo[*k*]fluoranthene	mg/L	ND
		Chrysene	mg/L	ND
		Dibenz[*a,h*]anthracene	mg/L	ND
		Fluoranthene	mg/L	ND
		Fluorene	mg/L	ND
		Indeno[1,2,3-*cd*]pyrene	mg/L	ND
		Naphthalene	mg/L	ND
		Phenanthrene	mg/L	ND
		Pyrene	mg/L	ND
	TPH	PHC as Diesel Fuel	mg/L	ND
		PHC as Gasoline	mg/L	ND
		Total Fuel Hydrocarbons	mg/L	ND
	Natural Attenuation	Alkalinity, Total (as $CACO_3$)	mg/L	ND
		Ethane	mg/L	0 001
		Ethene	mg/L	0 001
		Methane	mg/L	0.0127
		Chloride (as Cl)	mg/L	0.01F
		Nitrogen, Nitrate (as N)	mg/L	ND

Table C.2 (continued)
1999 Quality Control Results for AOC 4

Sample ID	Suite	Analyte	Units	Results
EB071699 (cont.)	Natural Attenuation	Sulfate (as SO_4)	mg/L	ND
		Total Organic Carbon	mg/L	ND
TB071699	VOCs	1,1,1,2-Tetrachloroethane	mg/L	ND
		1,1,1-Trichloroethane	mg/L	ND
		1,1,2,2-Tetrachloroethane	mg/L	ND
		1,1,2-Trichloroethane	mg/L	ND
		1,1-Dichloroethane	mg/L	ND
		1,1-Dichloroethene	mg/L	ND
		1,1-Dichloropropene	mg/L	ND
		1,2,3-Trichlorobenzene	mg/L	ND
		1,2,3-Trichloropropane	mg/L	ND
		1,2,4-Trichlorobenzene	mg/L	ND
		1,2,4-Trimethylbenzene	mg/L	ND
		1,2-Dibromo-3-chloropropane	mg/L	ND
		1,2-Dibromoethane (Ethylene Dibromide)	mg/L	ND
		1,2-Dichlorobenzene	mg/L	ND
		1,2-Dichloroethane	mg/L	ND
		1,2-Dichloropropane	mg/L	ND
		1,3,5-Trimethylbenzene (Mesitylene)	mg/L	ND
		1,3-Dichlorobenzene	mg/L	ND
		1,3-Dichloropropane	mg/L	ND
		1,4-Dichlorobenzene	mg/L	ND
		1-Chlorohexane	mg/L	ND
		2,2-Dichloropropane	mg/L	ND
		2-Chloro-1,3-Butadiene	mg/L	ND
		2-Chlorotoluene	mg/L	ND
		2-Hexanone	mg/L	ND
		4-Chlorotoluene	mg/L	ND
		Acetone	mg/L	ND
		Acetonitrile	mg/L	ND
		Acrolein	mg/L	ND
		Acrylonitrile	mg/L	ND
		Allyl Chloride (3-Chloropropene)	mg/L	ND
		Benzene	mg/L	ND
		Bromobenzene	mg/L	ND
		Bromochloromethane	mg/L	ND
		Bromodichloromethane	mg/L	ND
		Bromoform	mg/L	ND
		Bromomethane	mg/L	ND
		Carbon Disulfide	mg/L	ND

Table C.2 (continued)
1999 Quality Control Results for AOC 4

Sample ID	Suite	Analyte	Units	Results
TB071699 (cont.)	VOCs (cont)	Carbon Tetrachloride	mg/L	ND
		Chlorobenzene	mg/L	ND
		Chloroethane	mg/L	ND
		Chloroform	mg/L	ND
		Chloromethane	mg/L	ND
		cis-1,2-Dichloroethylene	mg/L	ND
		cis-1,3-Dichloropropene	mg/L	ND
		Dibromochloromethane	mg/L	ND
		Dibromomethane	mg/L	ND
		Dichlorodifluoromethane	mg/L	ND
		Ethyl Methacrylate	mg/L	ND
		Ethylbenzene	mg/L	ND
		Hexachlorobutadiene	mg/L	ND
		Iodomethane (Methyl Iodide)	mg/L	ND
		Isobutanol	mg/L	ND
		Isopropylbenzene (Cumene)	mg/L	ND
		m,p-Xylene (Sum of Isomers)	mg/L	ND
		Methyl Ethyl Ketone (2-Butanone)	mg/L	ND
		Methyl Isobutyl Ketone (4-methyl-2-pentanone)	mg/L	ND
		Methyl Methacrylate	mg/L	ND
		Methylacrylonitrile	mg/L	ND
		Methylene Chloride	mg/L	ND
		Naphthalene	mg/L	ND
		n-Butylbenzene	mg/L	ND
		n-Propylbenzene	mg/L	ND
		o-Xylene (1,2-Dimethylbenzene)	mg/L	ND
		p-Cymene (P-Isopropyltoluene)	mg/L	ND
		Propane Nitrile (Propionitrile)	mg/L	ND
		sec-Butylbenzene	mg/L	ND
		Styrene	mg/L	ND
		t-Butylbenzene	mg/L	ND
		Tetrachloroethylene (PCE)	mg/L	ND
		Toluene	mg/L	ND
		trans-1,2-Dichloroethene	mg/L	ND
		trans-1,3-Dichloropropene	mg/L	ND
		trans-1,4-Dichloro-2-Butene	mg/L	ND
		Trichloroethylene (TCE)	mg/L	ND
		Trichlorofluoromethane	mg/L	ND
		Vinyl Acetate	mg/L	ND
		Vinyl Chloride	mg/L	ND

Table C.2 (continued)
1999 Quality Control Results for AOC 4

Sample ID	Suite	Analyte	Units	Results
TB071699 (cont.)	Natural Attenuation	Ethane	mg/L	0 001
		Ethene	mg/L	0 001
		Methane	mg/L	0.00035F
EB072199	VOCs	1,1,1,2-Tetrachloroethane	mg/L	ND
		1,1,1-Trichloroethane	mg/L	ND
		1,1,2,2-Tetrachloroethane	mg/L	ND
		1,1,2-Trichloroethane	mg/L	ND
		1,1-Dichloroethane	mg/L	ND
		1,1-Dichloroethene	mg/L	ND
		1,1-Dichloropropene	mg/L	ND
		1,2,3-Trichlorobenzene	mg/L	ND
		1,2,3-Trichloropropane	mg/L	ND
		1,2,4-Trichlorobenzene	mg/L	ND
		1,2,4-Trimethylbenzene	mg/L	ND
		1,2-Dibromo-3-chloropropane	mg/L	ND
		1,2-Dibromoethane (Ethylene Dibromide)	mg/L	ND
		1,2-Dichlorobenzene	mg/L	ND
		1,2-Dichloroethane	mg/L	ND
		1,2-Dichloropropane	mg/L	ND
		1,3,5-Trimethylbenzene (Mesitylene)	mg/L	ND
		1,3-Dichlorobenzene	mg/L	ND
		1,3-Dichloropropane	mg/L	ND
		1,4-Dichlorobenzene	mg/L	ND
		1-Chlorohexane	mg/L	ND
		2,2-Dichloropropane	mg/L	ND
		2-Chloro-1,3-Butadiene	mg/L	ND
		2-Chlorotoluene	mg/L	ND
		2-Hexanone	mg/L	ND
		4-Chlorotoluene	mg/L	ND
		Acetone	mg/L	ND
		Acetonitrile	mg/L	ND
		Acrolein	mg/L	ND
		Acrylonitrile	mg/L	ND
		Allyl Chloride (3-Chloropropene)	mg/L	ND
		Benzene	mg/L	ND
		Bromobenzene	mg/L	ND
		Bromochloromethane	mg/L	ND
		Bromodichloromethane	mg/L	ND
		Bromoform	mg/L	ND
		Bromomethane	mg/L	ND

Table C.2 (continued)
1999 Quality Control Results for AOC 4

Sample ID	Suite	Analyte	Units	Results
EB072199 (cont.)	VOCs (cont.)	Carbon Disulfide	mg/L	ND
		Carbon Tetrachloride	mg/L	ND
		Chlorobenzene	mg/L	ND
		Chloroethane	mg/L	ND
		Chloroform	mg/L	ND
		Chloromethane	mg/L	ND
		cis-1,2-Dichloroethylene	mg/L	ND
		cis-1,3-Dichloropropene	mg/L	ND
		Dibromochloromethane	mg/L	ND
		Dibromomethane	mg/L	ND
		Dichlorodifluoromethane	mg/L	ND
		Ethyl Methacrylate	mg/L	ND
		Ethylbenzene	mg/L	ND
		Hexachlorobutadiene	mg/L	ND
		Iodomethane (Methyl Iodide)	mg/L	ND
		Isobutanol	mg/L	ND
		Isopropylbenzene Cumene)	mg/L	ND
		m,p-Xylene (Sum of Isomers)	mg/L	ND
		Methyl Ethyl Ketone (2-Butanone)	mg/L	ND
		Methyl Isobutyl Ketone (4-methyl-2-pentanone)	mg/L	ND
		Methyl Methacrylate	mg/L	ND
		Methylacrylonitrile	mg/L	ND
		Methylene Chloride	mg/L	ND
		Naphthalene	mg/L	ND
		n-Butylbenzene	mg/L	ND
		n-Propylbenzene	mg/L	ND
		o-Xylene (1,2-Dimethylbenzene)	mg/L	ND
		p-Cymene (P-Isopropyltoluene)	mg/L	ND
		Propane Nitrile (Propionitrile)	mg/L	ND
		sec-Butylbenzene	mg/L	ND
		Styrene	mg/L	ND
		t-Butylbenzene	mg/L	ND
		Tetrachloroethylene (PCE)	mg/L	ND
		Toluene	mg/L	ND
		trans-1,2-Dichloroethene	mg/L	ND
		trans-1,3-Dichloropropene	mg/L	ND
		trans-1,4-Dichloro-2-Butene	mg/L	ND
		Trichloroethylene (TCE)	mg/L	ND
		Trichlorofluoromethane	mg/L	ND
		Vinyl Acetate	mg/L	ND

Table C.2 (continued)
1999 Quality Control Results for AOC 4

Sample ID	Suite	Analyte	Units	Results
EB072199 (cont.)	VOCs (cont)	Vinyl Chloride	mg/L	ND
	Natural Attenuation	Alkalinity, Total (as $CACO_3$)	mg/L	ND
		Ethane	mg/L	0.001
		Ethene	mg/L	0.001
		Methane	mg/L	0.0054
		Chloride (as Cl)	mg/L	ND
		Nitrogen, Nitrate (as N)	mg/L	ND
		Sulfate (as SO_4)	mg/L	ND
		Total Organic Carbon	mg/L	ND
TB072199	VOCs	1,1,1,2-Tetrachloroethane	mg/L	ND
		1,1,1-Trichloroethane	mg/L	ND
		1,1,2,2-Tetrachloroethane	mg/L	ND
		1,1,2-Trichloroethane	mg/L	ND
		1,1-Dichloroethane	mg/L	ND
		1,1-Dichloroethene	mg/L	ND
		1,1-Dichloropropene	mg/L	ND
		1,2,3-Trichlorobenzene	mg/L	ND
		1,2,3-Trichloropropane	mg/L	ND
		1,2,4-Trichlorobenzene	mg/L	ND
		1,2,4-Trimethylbenzene	mg/L	ND
		1,2-Dibromo-3-chloropropane	mg/L	ND
		1,2-Dibromoethane (Ethylene Dibromide)	mg/L	ND
		1,2-Dichlorobenzene	mg/L	ND
		1,2-Dichloroethane	mg/L	ND
		1,2-Dichloropropane	mg/L	ND
		1,3,5-Trimethylbenzene (Mesitylene)	mg/L	ND
		1,3-Dichlorobenzene	mg/L	ND
		1,3-Dichloropropane	mg/L	ND
		1,4-Dichlorobenzene	mg/L	ND
		1-Chlorohexane	mg/L	ND
		2,2-Dichloropropane	mg/L	ND
		2-Chloro-1,3-Butadiene	mg/L	ND
		2-Chlorotoluene	mg/L	ND
		2-Hexanone	mg/L	ND
		4-Chlorotoluene	mg/L	ND
		Acetone	mg/L	ND
		Acetonitrile	mg/L	ND
		Acrolein	mg/L	ND
		Acrylonitrile	mg/L	ND
		Allyl Chloride (3-Chloropropene)	mg/L	ND

Table C.2 (continued)
1999 Quality Control Results for AOC 4

Sample ID	Suite	Analyte	Units	Results
TB072199 (cont.)	VOCs (cont.)	Benzene	mg/L	ND
		Bromobenzene	mg/L	ND
		Bromochloromethane	mg/L	ND
		Bromodichloromethane	mg/L	ND
		Bromoform	mg/L	ND
		Bromomethane	mg/L	ND
		Carbon Disulfide	mg/L	ND
		Carbon Tetrachloride	mg/L	ND
		Chlorobenzene	mg/L	ND
		Chloroethane	mg/L	ND
		Chloroform	mg/L	ND
		Chloromethane	mg/L	ND
		cis-1,2-Dichloroethylene	mg/L	ND
		cis-1,3-Dichloropropene	mg/L	ND
		Dibromochloromethane	mg/L	ND
		Dibromomethane	mg/L	ND
		Dichlorodifluoromethane	mg/L	ND
		Ethyl Methacrylate	mg/L	ND
		Ethylbenzene	mg/L	ND
		Hexachlorobutadiene	mg/L	ND
		Iodomethane Methyl Iodide)	mg/L	ND
		Isobutanol	mg/L	ND
		Isopropylbenzene (Cumene)	mg/L	ND
		m,p-Xylene (Sum of Isomers)	mg/L	ND
		Methyl Ethyl Ketone (2-Butanone)	mg/L	ND
		Methyl Isobutyl Ketone (4-methyl-2-pentanone)	mg/L	ND
		Methyl Methacrylate	mg/L	ND
		Methylacrylonitrile	mg/L	ND
		Methylene Chloride	mg/L	0.0009F
		Naphthalene	mg/L	ND
		n-Butylbenzene	mg/L	ND
		n-Propylbenzene	mg/L	ND
		o-Xylene (1,2-Dimethylbenzene)	mg/L	ND
		p-Cymene (P-Isopropyltoluene)	mg/L	ND
		Propane Nitrile (Propionitrile)	mg/L	ND
		sec-Butylbenzene	mg/L	ND
		Styrene	mg/L	ND
		t-Butylbenzene	mg/L	ND
		Tetrachloroethylene (PCE)	mg/L	ND
		Toluene	mg/L	ND

Table C.2 (continued)
1999 Quality Control Results for AOC 4

Sample ID	Suite	Analyte	Units	Results
TB072199 (cont.)	VOCs (cont.)	*trans*-1,2-Dichloroethene	mg/L	ND
		trans-1,3-Dichloropropene	mg/L	ND
		trans-1,4-Dichloro-2-Butene	mg/L	ND
		Trichloroethylene (TCE)	mg/L	ND
		Trichlorofluoromethane	mg/L	ND
		Vinyl Acetate	mg/L	ND
		Vinyl Chloride	mg/L	ND
	Natural Attenuation	Ethane	mg/L	0 001
		Ethene	mg/L	0.001
		Methane	mg/L	0.001
TB072299	VOCs	1,1,1,2-Tetrachloroethane	mg/L	ND
		1,1,1-Trichloroethane	mg/L	ND
		1,1,2,2-Tetrachloroethane	mg/L	ND
		1,1,2-Trichloroethane	mg/L	ND
		1,1-Dichloroethane	mg/L	ND
		1,1-Dichloroethene	mg/L	ND
		1,1-Dichloropropene	mg/L	ND
		1,2,3-Trichlorobenzene	mg/L	ND
		1,2,3-Trichloropropane	mg/L	ND
		1,2,4-Trichlorobenzene	mg/L	ND
		1,2,4-Trimethylbenzene	mg/L	ND
		1,2-Dibromo-3-chloropropane	mg/L	ND
		1,2-Dibromoethane (Ethylene Dibromide)	mg/L	ND
		1,2-Dichlorobenzene	mg/L	ND
		1,2-Dichloroethane	mg/L	ND
		1,2-Dichloropropane	mg/L	ND
		1,3,5-Trimethylbenzene (Mesitylene)	mg/L	ND
		1,3-Dichlorobenzene	mg/L	ND
		1,3-Dichloropropane	mg/L	ND
		1,4-Dichlorobenzene	mg/L	ND
		1-Chlorohexane	mg/L	ND
		2,2-Dichloropropane	mg/L	ND
		2-Chloro-1,3-Butadiene	mg/L	ND
		2-Chlorotoluene	mg/L	ND
		2-Hexanone	mg/L	ND
		4-Chlorotoluene	mg/L	ND
		Acetone	mg/L	ND
		Acetonitrile	mg/L	ND
		Acrolein	mg/L	ND
		Acrylonitrile	mg/L	ND

Table C.2 (continued)
1999 Quality Control Results for AOC 4

Sample ID	Suite	Analyte	Units	Results
TB072299 (cont.)	VOCs (cont.)	Allyl Chloride (3-Chloropropene)	mg/L	ND
		Benzene	mg/L	ND
		Bromobenzene	mg/L	ND
		Bromochloromethane	mg/L	ND
		Bromodichloromethane	mg/L	ND
		Bromoform	mg/L	ND
		Bromomethane	mg/L	ND
		Carbon Disulfide	mg/L	ND
		Carbon Tetrachloride	mg/L	ND
		Chlorobenzene	mg/L	ND
		Chloroethane	mg/L	ND
		Chloroform	mg/L	ND
		Chloromethane	mg/L	ND
		cis-1,2-Dichloroethylene	mg/L	ND
		cis-1,3-Dichloropropene	mg/L	ND
		Dibromochloromethane	mg/L	ND
		Dibromomethane	mg/L	ND
		Dichlorodifluoromethane	mg/L	ND
		Ethyl Methacrylate	mg/L	ND
		Ethylbenzene	mg/L	ND
		Hexachlorobutadiene	mg/L	ND
		Iodomethane (Methyl Iodide)	mg/L	ND
		Isobutanol	mg/L	ND
		Isopropylbenzene (Cumene)	mg/L	ND
		m,p-Xylene (Sum of Isomers)	mg/L	ND
		Methyl Ethyl Ketone (2-Butanone)	mg/L	ND
		Methyl Isobutyl Ketone (4-methyl-2-pentanone)	mg/L	ND
		Methyl Methacrylate	mg/L	ND
		Methylacrylonitrile	mg/L	ND
		Methylene Chloride	mg/L	ND
		Naphthalene	mg/L	ND
		n-Butylbenzene	mg/L	ND
		n-Propylbenzene	mg/L	ND
		o-Xylene (1,2-Dimethylbenzene)	mg/L	ND
		p-Cymene (P-Isopropyltoluene)	mg/L	ND
		Propane Nitrile (Propionitrile)	mg/L	ND
		sec-Butylbenzene	mg/L	ND
		Styrene	mg/L	ND
		t-Butylbenzene	mg/L	ND
		Tetrachloroethylene (PCE)	mg/L	ND

Table C.2 (continued)
1999 Quality Control Results for AOC 4

Sample ID	Suite	Analyte	Units	Results
TB072299 (cont.)	VOCs (cont.)	Toluene	mg/L	ND
		trans-1,2-Dichloroethene	mg/L	ND
		trans-1,3-Dichloropropene	mg/L	ND
		trans-1,4-Dichloro-2-Butene	mg/L	ND
		Trichloroethylene (TCE)	mg/L	ND
		Trichlorofluoromethane	mg/L	ND
		Vinyl Acetate	mg/L	ND
		Vinyl Chloride	mg/L	ND
EB072699	VOCs	1,1,1,2-Tetrachloroethane	mg/L	ND
		1,1,1-Trichloroethane	mg/L	ND
		1,1,2,2-Tetrachloroethane	mg/L	ND
		1,1,2-Trichloroethane	mg/L	ND
		1,1-Dichloroethane	mg/L	ND
		1,1-Dichloroethene	mg/L	ND
		1,1-Dichloropropene	mg/L	ND
		1,2,3-Trichlorobenzene	mg/L	ND
		1,2,3-Trichloropropane	mg/L	ND
		1,2,4-Trichlorobenzene	mg/L	ND
		1,2,4-Trimethylbenzene	mg/L	ND
		1,2-Dibromo-3-chloropropane	mg/L	ND
		1,2-Dibromoethane (Ethylene Dibromide)	mg/L	ND
		1,2-Dichlorobenzene	mg/L	ND
		1,2-Dichloroethane	mg/L	ND
		1,2-Dichloropropane	mg/L	ND
		1,3,5-Trimethylbenzene (Mesitylene)	mg/L	ND
		1,3-Dichlorobenzene	mg/L	ND
		1,3-Dichloropropane	mg/L	ND
		1,4-Dichlorobenzene	mg/L	ND
		1-Chlorohexane	mg/L	ND
		2,2-Dichloropropane	mg/L	ND
		2-Chloro-1,3-Butadiene	mg/L	ND
		2-Chlorotoluene	mg/L	ND
		2-Hexanone	mg/L	ND
		4-Chlorotoluene	mg/L	ND
		Acetone	mg/L	ND
		Acetonitrile	mg/L	ND
		Acrolein	mg/L	ND
		Acrylonitrile	mg/L	ND
		Allyl Chloride (3-Chloropropene)	mg/L	ND
		Benzene	mg/L	ND

Table C.2 (continued)
1999 Quality Control Results for AOC 4

Sample ID	Suite	Analyte	Units	Results
EB072699 (cont.)	VOCs (cont.)	Bromobenzene	mg/L	ND
		Bromochloromethane	mg/L	ND
		Bromodichloromethane	mg/L	ND
		Bromoform	mg/L	ND
		Bromomethane	mg/L	ND
		Carbon Disulfide	mg/L	ND
		Carbon Tetrachloride	mg/L	ND
		Chlorobenzene	mg/L	ND
		Chloroethane	mg/L	ND
		Chloroform	mg/L	ND
		Chloromethane	mg/L	ND
		cis-1,2-Dichloroethylene	mg/L	ND
		cis-1,3-Dichloropropene	mg/L	ND
		Dibromochloromethane	mg/L	ND
		Dibromomethane	mg/L	ND
		Dichlorodifluoromethane	mg/L	ND
		Ethyl Methacrylate	mg/L	ND
		Ethylbenzene	mg/L	ND
		Hexachlorobutadiene	mg/L	ND
		Iodomethane (Methyl Iodide)	mg/L	ND
		Isobutanol	mg/L	ND
		Isopropylbenzene (Cumene)	mg/L	ND
		m,p-Xylene (Sum of Isomers)	mg/L	ND
		Methyl Ethyl Ketone (2-Butanone)	mg/L	ND
		Methyl Isobutyl Ketone (4-methyl-2-pentanone)	mg/L	ND
		Methyl Methacrylate	mg/L	ND
		Methylacrylonitrile	mg/L	ND
		Methylene Chloride	mg/L	ND
		Naphthalene	mg/L	ND
		n-Butylbenzene	mg/L	ND
		n-Propylbenzene	mg/L	ND
		o-Xylene (1,2-Dimethylbenzene)	mg/L	ND
		p-Cymene (P-Isopropyltoluene)	mg/L	ND
		Propane Nitrile (Propionitrile)	mg/L	ND
		sec-Butylbenzene	mg/L	ND
		Styrene	mg/L	ND
		t-Butylbenzene	mg/L	ND
		Tetrachloroethylene (PCE)	mg/L	ND
		Toluene	mg/L	ND
		trans-1,2-Dichloroethene	mg/L	ND

Table C.2 (continued)
1999 Quality Control Results for AOC 4

Sample ID	Suite	Analyte	Units	Results
EB072699 (cont.)	VOCs (cont.)	*trans*-1,3-Dichloropropene	mg/L	ND
		trans-1,4-Dichloro-2-Butene	mg/L	ND
		Trichloroethylene (TCE)	mg/L	ND
		Trichlorofluoromethane	mg/L	ND
		Vinyl Acetate	mg/L	ND
		Vinyl Chloride	mg/L	ND
TB072699	VOCs	1,1,1,2-Tetrachloroethane	mg/L	ND
		1,1,1-Trichloroethane	mg/L	ND
		1,1,2,2-Tetrachloroethane	mg/L	ND
		1,1,2-Trichloroethane	mg/L	ND
		1,1-Dichloroethane	mg/L	ND
		1,1-Dichloroethene	mg/L	ND
		1,1-Dichloropropene	mg/L	ND
		1,2,3-Trichlorobenzene	mg/L	ND
		1,2,3-Trichloropropane	mg/L	ND
		1,2,4-Trichlorobenzene	mg/L	ND
		1,2,4-Trimethylbenzene	mg/L	ND
		1,2-Dibromo-3-chloropropane	mg/L	ND
		1,2-Dibromoethane (Ethylene Dibromide)	mg/L	ND
		1,2-Dichlorobenzene	mg/L	ND
		1,2-Dichloroethane	mg/L	ND
		1,2-Dichloropropane	mg/L	ND
		1,3,5-Trimethylbenzene (Mesitylene)	mg/L	ND
		1,3-Dichlorobenzene	mg/L	ND
		1,3-Dichloropropane	mg/L	ND
		1,4-Dichlorobenzene	mg/L	ND
		1-Chlorohexane	mg/L	ND
		2,2-Dichloropropane	mg/L	ND
		2-Chloro-1,3-Butadiene	mg/L	ND
		2-Chlorotoluene	mg/L	ND
		2-Hexanone	mg/L	ND
		4-Chlorotoluene	mg/L	ND
		Acetone	mg/L	ND
		Acetonitrile	mg/L	ND
		Acrolein	mg/L	ND
		Acrylonitrile	mg/L	ND
		Allyl Chloride (3-Chloropropene)	mg/L	ND
		Benzene	mg/L	ND
		Bromobenzene	mg/L	ND
		Bromochloromethane	mg/L	ND

Table C.2 (continued)
1999 Quality Control Results for AOC 4

Sample ID	Suite	Analyte	Units	Results
TB072699 (cont.)	VOCs (cont.)	Bromodichloromethane	mg/L	ND
		Bromoform	mg/L	ND
		Bromomethane	mg/L	ND
		Carbon Disulfide	mg/L	ND
		Carbon Tetrachloride	mg/L	ND
		Chlorobenzene	mg/L	ND
		Chloroethane	mg/L	ND
		Chloroform	mg/L	ND
		Chloromethane	mg/L	ND
		cis-1,2-Dichloroethylene	mg/L	ND
		cis-1,3-Dichloropropene	mg/L	ND
		Dibromochloromethane	mg/L	ND
		Dibromomethane	mg/L	ND
		Dichlorodifluoromethane	mg/L	ND
		Ethyl Methacrylate	mg/L	ND
		Ethylbenzene	mg/L	ND
		Hexachlorobutadiene	mg/L	ND
		Iodomethane (Methyl Iodide)	mg/L	ND
		Isobutanol	mg/L	ND
		Isopropylbenzene (Cumene)	mg/L	ND
		m,p-Xylene (Sum of Isomers)	mg/L	ND
		Methyl Ethyl Ketone (2-Butanone)	mg/L	ND
		Methyl Isobutyl Ketone (4-methyl-2-pentanone)	mg/L	ND
		Methyl Methacrylate	mg/L	ND
		Methylacrylonitrile	mg/L	ND
		Methylene Chloride	mg/L	ND
		Naphthalene	mg/L	ND
		n-Butylbenzene	mg/L	ND
		n-Propylbenzene	mg/L	ND
		o-Xylene (1,2-Dimethylbenzene)	mg/L	ND
		p-Cymene (P-Isopropyltoluene)	mg/L	ND
		Propane Nitrile (Propionitrile)	mg/L	ND
		sec-Butylbenzene	mg/L	ND
		Styrene	mg/L	ND
		t-Butylbenzene	mg/L	ND
		Tetrachloroethylene (PCE)	mg/L	ND
		Toluene	mg/L	ND
		trans-1,2-Dichloroethene	mg/L	ND
		trans-1,3-Dichloropropene	mg/L	ND
		trans-1,4-Dichloro-2-Butene	mg/L	ND

Table C.2 (continued)
1999 Quality Control Results for AOC 4

Sample ID	Suite	Analyte	Units	Results
TB072699 (cont.)	VOCs (cont.)	Trichloroethylene (TCE)	mg/L	ND
		Trichlorofluoromethane	mg/L	ND
		Vinyl Acetate	mg/L	ND
		Vinyl Chloride	mg/L	ND
EB100599	VOCs	1,1,1,2-Tetrachloroethane	mg/L	ND
		1,1,1-Trichloroethane	mg/L	ND
		1,1,2,2-Tetrachloroethane	mg/L	ND
		1,1,2-Trichloroethane	mg/L	ND
		1,1-Dichloroethane	mg/L	ND
		1,1-Dichloroethene	mg/L	ND
		1,1-Dichloropropene	mg/L	ND
		1,2,3-Trichlorobenzene	mg/L	ND
		1,2,3-Trichloropropane	mg/L	ND
		1,2,4-Trichlorobenzene	mg/L	ND
		1,2,4-Trimethylbenzene	mg/L	ND
		1,2-Dibromo-3-chloropropane	mg/L	ND
		1,2-Dibromoethane (Ethylene Dibromide)	mg/L	ND
		1,2-Dichlorobenzene	mg/L	ND
		1,2-Dichloroethane	mg/L	ND
		1,2-Dichloropropane	mg/L	ND
		1,3,5-Trimethylbenzene (Mesitylene)	mg/L	ND
		1,3-Dichlorobenzene	mg/L	ND
		1,3-Dichloropropane	mg/L	ND
		1,4-Dichlorobenzene	mg/L	ND
		1-Chlorohexane	mg/L	ND
		2,2-Dichloropropane	mg/L	ND
		2-Chlorotoluene	mg/L	ND
		4-Chlorotoluene	mg/L	ND
		Benzene	mg/L	ND
		Bromobenzene	mg/L	ND
		Bromochloromethane	mg/L	ND
		Bromodichloromethane	mg/L	ND
		Bromoform	mg/L	ND
		Bromomethane	mg/L	ND
		Carbon Tetrachloride	mg/L	ND
		Chlorobenzene	mg/L	ND
		Chloroethane	mg/L	ND
		Chloroform	mg/L	ND
		Chloromethane	mg/L	ND
		cis-1,2-Dichloroethylene	mg/L	ND

Table C.2 (continued)
1999 Quality Control Results for AOC 4

Sample ID	Suite	Analyte	Units	Results
EB100599 (cont.)	VOCs (cont.)	*cis*-1,3-Dichloropropene	mg/L	ND
		Dibromochloromethane	mg/L	ND
		Dibromomethane	mg/L	ND
		Dichlorodifluoromethane	mg/L	ND
		Ethylbenzene	mg/L	ND
		Hexachlorobutadiene	mg/L	ND
		Isopropylbenzene (Cumene)	mg/L	ND
		m,p-Xylene (Sum of Isomers)	mg/L	ND
		Methylene Chloride	mg/L	ND
		Naphthalene	mg/L	ND
		n-Butylbenzene	mg/L	ND
		n-Propylbenzene	mg/L	ND
		o-Xylene (1,2-Dimethylbenzene)	mg/L	ND
		p-Cymene (P-Isopropyltoluene)	mg/L	ND
		sec-Butylbenzene	mg/L	ND
		Styrene	mg/L	ND
		t-Butylbenzene	mg/L	ND
		Tetrachloroethylene (PCE)	mg/L	ND
		Toluene	mg/L	ND
		trans-1,2-Dichloroethene	mg/L	ND
		trans-1,3-Dichloropropene	mg/L	ND
		Trichloroethylene (TCE)	mg/L	ND
		Trichlorofluoromethane	mg/L	ND
		Vinyl Acetate	mg/L	ND
		Vinyl Chloride	mg/L	ND
	PAHs	Acenaphthene	mg/L	ND
		Acenaphthylene	mg/L	ND
		Anthracene	mg/L	ND
		Benzo[*a*]anthracene	mg/L	ND
		Benzo[*a*]pyrene	mg/L	ND
		Benzo[*b*]fluoranthene	mg/L	ND
		Benzo[*ghi*]perylene	mg/L	ND
		Benzo[*k*]fluoranthene	mg/L	ND
		Chrysene	mg/L	ND
		Dibenz[*a,h*]anthracene	mg/L	ND
		Fluoranthene	mg/L	ND
		Fluorene	mg/L	ND
		Indeno[1,2,3-*cd*]pyrene	mg/L	ND
		Naphthalene	mg/L	ND
		Phenanthrene	mg/L	ND

Table C.2 (continued)
1999 Quality Control Results for AOC 4

Sample ID	Suite	Analyte	Units	Results
EB100599 (cont.)	PAHs (cont)	Pyrene	mg/L	ND
	TPH	Petroleum Hydrocarbons	mg/L	11.694
		PHC as Gasoline	mg/L	5.467
		PHC as Heavy/Residual Fuel Oils Fuel Oils #4,#5,#6	mg/L	6.227
	Natural Attenuation	Alkalinity, Total (as $CACO_3$)	mg/L	ND
		Ethane	mg/L	0.001
		Ethene	mg/L	0.001
		Methane	mg/L	0.001
		Chloride (as Cl)	mg/L	ND
		Nitrogen, Nitrate (as N)	mg/L	ND
		Sulfate (as SO_4)	mg/L	ND
		Total Organic Carbon	mg/L	0.97F
TB100599	VOCs	1,1,1,2-Tetrachloroethane	mg/L	ND
		1,1,1-Trichloroethane	mg/L	ND
		1,1,2,2-Tetrachloroethane	mg/L	ND
		1,1,2-Trichloroethane	mg/L	ND
		1,1-Dichloroethane	mg/L	ND
		1,1-Dichloroethene	mg/L	ND
		1,1-Dichloropropene	mg/L	ND
		1,2,3-Trichlorobenzene	mg/L	ND
		1,2,3-Trichloropropane	mg/L	ND
		1,2,4-Trichlorobenzene	mg/L	ND
		1,2,4-Trimethylbenzene	mg/L	ND
		1,2-Dibromo-3-chloropropane	mg/L	ND
		1,2-Dibromoethane (Ethylene Dibromide)	mg/L	ND
		1,2-Dichlorobenzene	mg/L	ND
		1,2-Dichloroethane	mg/L	ND
		1,2-Dichloropropane	mg/L	ND
		1,3,5-Trimethylbenzene (Mesitylene)	mg/L	ND
		1,3-Dichlorobenzene	mg/L	ND
		1,3-Dichloropropane	mg/L	ND
		1,4-Dichlorobenzene	mg/L	ND
		1-Chlorohexane	mg/L	ND
		2,2-Dichloropropane	mg/L	ND
		2-Chlorotoluene	mg/L	ND
		4-Chlorotoluene	mg/L	ND
		Benzene	mg/L	ND
		Bromobenzene	mg/L	ND
		Bromochloromethane	mg/L	ND
		Bromodichloromethane	mg/L	ND

Table C.2 (continued)
1999 Quality Control Results for AOC 4

Sample ID	Suite	Analyte	Units	Results
TB100599 (cont.)	VOCs (cont.)	Bromoform	mg/L	ND
		Bromomethane	mg/L	ND
		Carbon Tetrachloride	mg/L	ND
		Chlorobenzene	mg/L	ND
		Chloroethane	mg/L	ND
		Chloroform	mg/L	ND
		Chloromethane	mg/L	ND
		cis-1,2-Dichloroethylene	mg/L	ND
		cis-1,3-Dichloropropene	mg/L	ND
		Dibromochloromethane	mg/L	ND
		Dibromomethane	mg/L	ND
		Dichlorodifluoromethane	mg/L	ND
		Ethylbenzene	mg/L	ND
		Hexachlorobutadiene	mg/L	ND
		Isopropylbenzene (Cumene)	mg/L	ND
		m,p-Xylene (Sum of Isomers)	mg/L	ND
		Methylene Chloride	mg/L	ND
		Naphthalene	mg/L	ND
		n-Butylbenzene	mg/L	ND
		n-Propylbenzene	mg/L	ND
		o-Xylene (1,2-Dimethylbenzene)	mg/L	ND
		p-Cymene (P-Isopropyltoluene)	mg/L	ND
		sec-Butylbenzene	mg/L	ND
		Styrene	mg/L	ND
		t-Butylbenzene	mg/L	ND
		Tetrachloroethylene (PCE)	mg/L	ND
		Toluene	mg/L	ND
		trans-1,2-Dichloroethene	mg/L	ND
		trans-1,3-Dichloropropene	mg/L	ND
		Trichloroethylene (TCE)	mg/L	ND
		Trichlorofluoromethane	mg/L	ND
		Vinyl Acetate	mg/L	ND
		Vinyl Chloride	mg/L	ND
	Natural Attenuation	Ethane	mg/L	0 001
		Ethene	mg/L	0.001
		Methane	mg/L	0 001
EB100699	VOCs	1,1,1,2-Tetrachloroethane	mg/L	ND
		1,1,1-Trichloroethane	mg/L	ND
		1,1,2,2-Tetrachloroethane	mg/L	ND
		1,1,2-Trichloroethane	mg/L	ND

Table C.2 (continued)
1999 Quality Control Results for AOC 4

Sample ID	Suite	Analyte	Units	Results
EB100699 (cont.)	VOCs (cont.)	1,1-Dichloroethane	mg/L	ND
		1,1-Dichloroethene	mg/L	ND
		1,1-Dichloropropene	mg/L	ND
		1,2,3-Trichlorobenzene	mg/L	ND
		1,2,3-Trichloropropane	mg/L	ND
		1,2,4-Trichlorobenzene	mg/L	ND
		1,2,4-Trimethylbenzene	mg/L	ND
		1,2-Dibromo-3-chloropropane	mg/L	ND
		1,2-Dibromoethane (Ethylene Dibromide)	mg/L	ND
		1,2-Dichlorobenzene	mg/L	ND
		1,2-Dichloroethane	mg/L	ND
		1,2-Dichloropropane	mg/L	ND
		1,3,5-Trimethylbenzene (Mesitylene)	mg/L	ND
		1,3-Dichlorobenzene	mg/L	ND
		1,3-Dichloropropane	mg/L	ND
		1,4-Dichlorobenzene	mg/L	ND
		1-Chlorohexane	mg/L	ND
		2,2-Dichloropropane	mg/L	ND
		2-Chlorotoluene	mg/L	ND
		4-Chlorotoluene	mg/L	ND
		Benzene	mg/L	ND
		Bromobenzene	mg/L	ND
		Bromochloromethane	mg/L	ND
		Bromodichloromethane	mg/L	ND
		Bromoform	mg/L	ND
		Bromomethane	mg/L	ND
		Carbon Tetrachloride	mg/L	ND
		Chlorobenzene	mg/L	ND
		Chloroethane	mg/L	ND
		Chloroform	mg/L	ND
		Chloromethane	mg/L	ND
		cis-1,2-Dichloroethylene	mg/L	ND
		cis-1,3-Dichloropropene	mg/L	ND
		Dibromochloromethane	mg/L	ND
		Dibromomethane	mg/L	ND
		Dichlorodifluoromethane	mg/L	ND
		Ethylbenzene	mg/L	ND
		Hexachlorobutadiene	mg/L	ND
		Isopropylbenzene (Cumene)	mg/L	ND
		m,p-Xylene (Sum of Isomers)	mg/L	ND

Table C.2 (continued)
1999 Quality Control Results for AOC 4

Sample ID	Suite	Analyte	Units	Results
EB100699 (cont)	VOCs (cont.)	Methylene Chloride	mg/L	ND
		Naphthalene	mg/L	ND
		n-Butylbenzene	mg/L	ND
		n-Propylbenzene	mg/L	ND
		o-Xylene (1,2-Dimethylbenzene)	mg/L	ND
		p-Cymene (P-Isopropyltoluene)	mg/L	ND
		sec-Butylbenzene	mg/L	ND
		Styrene	mg/L	ND
		t-Butylbenzene	mg/L	ND
		Tetrachloroethylene (PCE)	mg/L	ND
		Toluene	mg/L	ND
		trans-1,2-Dichloroethene	mg/L	ND
		trans-1,3-Dichloropropene	mg/L	ND
		Trichloroethylene (TCE)	mg/L	ND
		Trichlorofluoromethane	mg/L	ND
		Vinyl Acetate	mg/L	ND
		Vinyl Chloride	mg/L	ND
	PAHs	Acenaphthene	mg/L	ND
		Acenaphthylene	mg/L	ND
		Anthracene	mg/L	ND
		Benzo[*a*]anthracene	mg/L	ND
		Benzo[*a*]pyrene	mg/L	ND
		Benzo[*b*]fluoranthene	mg/L	ND
		Benzo[*ghi*]perylene	mg/L	ND
		Benzo[*k*]fluoranthene	mg/L	ND
		Chrysene	mg/L	ND
		Dibenz[*a,h*]anthracene	mg/L	ND
		Fluoranthene	mg/L	ND
		Fluorene	mg/L	ND
		Indeno[1,2,3-*cd*]pyrene	mg/L	ND
		Naphthalene	mg/L	ND
		Phenanthrene	mg/L	ND
		Pyrene	mg/L	ND
	TPH	Petroleum Hydrocarbons	mg/L	184.725
		PHC as Gasoline	mg/L	82.89
		PHC as Heavy/Residual Fuel Oils Fuel Oils #4,#5,#6	mg/L	101.835
	Natural Attenuation	Alkalinity, Total (as $CACO_3$)	mg/L	ND
		Ethane	mg/L	0 001
		Ethene	mg/L	0.001
		Methane	mg/L	0.001

Table C.2 (continued)
1999 Quality Control Results for AOC 4

Sample ID	Suite	Analyte	Units	Results
EB100699 (cont.)	Natural Attenuation (cont)	Chloride (as Cl)	mg/L	ND
		Nitrogen, Nitrate (as N)	mg/L	ND
		Sulfate (as SO_4)	mg/L	ND
		Total Organic Carbon	mg/L	11.3
TB100699	VOCs	1,1,1,2-Tetrachloroethane	mg/L	ND
		1,1,1-Trichloroethane	mg/L	ND
		1,1,2,2-Tetrachloroethane	mg/L	ND
		1,1,2-Trichloroethane	mg/L	ND
		1,1-Dichloroethane	mg/L	ND
		1,1-Dichloroethene	mg/L	ND
		1,1-Dichloropropene	mg/L	ND
		1,2,3-Trichlorobenzene	mg/L	ND
		1,2,3-Trichloropropane	mg/L	ND
		1,2,4-Trichlorobenzene	mg/L	ND
		1,2,4-Trimethylbenzene	mg/L	ND
		1,2-Dibromo-3-chloropropane	mg/L	ND
		1,2-Dibromoethane (Ethylene Dibromide)	mg/L	ND
		1,2-Dichlorobenzene	mg/L	ND
		1,2-Dichloroethane	mg/L	ND
		1,2-Dichloropropane	mg/L	ND
		1,3,5-Trimethylbenzene (Mesitylene)	mg/L	ND
		1,3-Dichlorobenzene	mg/L	ND
		1,3-Dichloropropane	mg/L	ND
		1,4-Dichlorobenzene	mg/L	ND
		1-Chlorohexane	mg/L	ND
		2,2-Dichloropropane	mg/L	ND
		2-Chlorotoluene	mg/L	ND
		4-Chlorotoluene	mg/L	ND
		Benzene	mg/L	ND
		Bromobenzene	mg/L	ND
		Bromochloromethane	mg/L	ND
		Bromodichloromethane	mg/L	ND
		Bromoform	mg/L	ND
		Bromomethane	mg/L	ND
		Carbon Tetrachloride	mg/L	ND
		Chlorobenzene	mg/L	ND
		Chloroethane	mg/L	ND
		Chloroform	mg/L	ND
		Chloromethane	mg/L	ND
		cis-1,2-Dichloroethylene	mg/L	ND

Table C.2 (continued)
1999 Quality Control Results for AOC 4

Sample ID	Suite	Analyte	Units	Results
TB100699 (cont.)	VOCs (cont.)	*cis*-1,3-Dichloropropene	mg/L	ND
		Dibromochloromethane	mg/L	ND
		Dibromomethane	mg/L	ND
		Dichlorodifluoromethane	mg/L	ND
		Ethylbenzene	mg/L	ND
		Hexachlorobutadiene	mg/L	ND
		Isopropylbenzene (Cumene)	mg/L	ND
		m,p-Xylene (Sum of Isomers)	mg/L	ND
		Methylene Chloride	mg/L	ND
		Naphthalene	mg/L	ND
		n-Butylbenzene	mg/L	ND
		n-Propylbenzene	mg/L	ND
		o-Xylene (1,2-Dimethylbenzene)	mg/L	ND
		p-Cymene (P-Isopropyltoluene)	mg/L	ND
		sec-Butylbenzene	mg/L	ND
		Styrene	mg/L	ND
		t-Butylbenzene	mg/L	ND
		Tetrachloroethylene (PCE)	mg/L	ND
		Toluene	mg/L	ND
		trans-1,2-Dichloroethene	mg/L	ND
		trans-1,3-Dichloropropene	mg/L	ND
		Trichloroethylene (TCE)	mg/L	ND
		Trichlorofluoromethane	mg/L	ND
		Vinyl Acetate	mg/L	ND
		Vinyl Chloride	mg/L	ND
	Natural Attenuation	Ethane	mg/L	0 001
		Ethene	mg/L	0.001
		Methane	mg/L	0 001
EB100799	Aromatic VOCs	Benzene	mg/L	ND
		Ethylbenzene	mg/L	ND
		Methyl *tert*-butyl ether	mg/L	ND
		Toluene	mg/L	ND
		Xylenes, Total	mg/L	ND
	PAHs	Acenaphthene	mg/L	0 0013F
		Acenaphthylene	mg/L	ND
		Anthracene	mg/L	ND
		Benzo[*a*]anthracene	mg/L	ND
		Benzo[*a*]pyrene	mg/L	ND
		Benzo[*b*]fluoranthene	mg/L	ND
		Benzo[*ghi*]perylene	mg/L	ND

Table C.2 (continued)
1999 Quality Control Results for AOC 4

Sample ID	Suite	Analyte	Units	Results
EB100799 (cont.)	PAHs (cont.)	Benzo[*k*]fluoranthene	mg/L	ND
		Chrysene	mg/L	ND
		Dibenz[*a,h*]anthracene	mg/L	ND
		Fluoranthene	mg/L	ND
		Fluorene	mg/L	0.00016F
		Indeno[1,2,3-*cd*]pyrene	mg/L	ND
		Naphthalene	mg/L	ND
		Phenanthrene	mg/L	ND
		Pyrene	mg/L	ND
	TPH	Petroleum Hydrocarbons	mg/L	6.539
		PHC as Gasoline	mg/L	3.741F
		PHC as Heavy/Residual Fuel Oils Fuel Oils #4,#5,#6	mg/L	2.798F
	Natural Attenuation	Alkalinity, Total (as $CACO_3$)	mg/L	ND
		Ethane	mg/L	0.001
		Ethene	mg/L	0 001
		Methane	mg/L	0.001
		Chloride (as Cl)	mg/L	0.28
		Nitrogen, Nitrate (as N)	mg/L	ND
		Sulfate (as SO_4)	mg/L	0.22
		Total Organic Carbon	mg/L	4.2
TB100799	VOCs	1,1,1,2-Tetrachloroethane	mg/L	ND
		1,1,1-Trichloroethane	mg/L	ND
		1,1,2,2-Tetrachloroethane	mg/L	ND
		1,1,2-Trichloroethane	mg/L	ND
		1,1-Dichloroethane	mg/L	ND
		1,1-Dichloroethene	mg/L	ND
		1,1-Dichloropropene	mg/L	ND
		1,2,3-Trichlorobenzene	mg/L	ND
		1,2,3-Trichloropropane	mg/L	ND
		1,2,4-Trichlorobenzene	mg/L	ND
		1,2,4-Trimethylbenzene	mg/L	ND
		1,2-Dibromo-3-chloropropane	mg/L	ND
		1,2-Dibromoethane (Ethylene Dibromide)	mg/L	ND
		1,2-Dichlorobenzene	mg/L	ND
		1,2-Dichloroethane	mg/L	ND
		1,2-Dichloropropane	mg/L	ND
		1,3,5-Trimethylbenzene (Mesitylene)	mg/L	ND
		1,3-Dichlorobenzene	mg/L	ND
		1,3-Dichloropropane	mg/L	ND
		1,4-Dichlorobenzene	mg/L	ND

Table C.2 (continued)
1999 Quality Control Results for AOC 4

Sample ID	Suite	Analyte	Units	Results
TB100799 (cont.)	VOCs (cont)	1-Chlorohexane	mg/L	ND
		2,2-Dichloropropane	mg/L	ND
		2-Chlorotoluene	mg/L	ND
		4-Chlorotoluene	mg/L	ND
		Benzene	mg/L	ND
		Bromobenzene	mg/L	ND
		Bromochloromethane	mg/L	ND
		Bromodichloromethane	mg/L	ND
		Bromoform	mg/L	ND
		Bromomethane	mg/L	ND
		Carbon Tetrachloride	mg/L	ND
		Chlorobenzene	mg/L	ND
		Chloroethane	mg/L	ND
		Chloroform	mg/L	ND
		Chloromethane	mg/L	ND
		cis-1,2-Dichloroethylene	mg/L	ND
		cis-1,3-Dichloropropene	mg/L	ND
		Dibromochloromethane	mg/L	ND
		Dibromomethane	mg/L	ND
		Dichlorodifluoromethane	mg/L	ND
		Ethylbenzene	mg/L	ND
		Hexachlorobutadiene	mg/L	ND
		Isopropylbenzene (Cumene)	mg/L	ND
		m,p-Xylene (Sum of Isomers)	mg/L	ND
		Methylene Chloride	mg/L	ND
		Naphthalene	mg/L	ND
		n-Butylbenzene	mg/L	ND
		n-Propylbenzene	mg/L	ND
		o-Xylene (1,2-Dimethylbenzene)	mg/L	ND
		p-Cymene (P-Isopropyltoluene)	mg/L	ND
		sec-Butylbenzene	mg/L	ND
		Styrene	mg/L	ND
		t-Butylbenzene	mg/L	ND
		Tetrachloroethylene (PCE)	mg/L	ND
		Toluene	mg/L	ND
		trans-1,2-Dichloroethene	mg/L	ND
		trans-1,3-Dichloropropene	mg/L	ND
		Trichloroethylene (TCE)	mg/L	ND
		Trichlorofluoromethane	mg/L	ND
		Vinyl Acetate	mg/L	ND

Table C.2 (continued)
1999 Quality Control Results for AOC 4

Sample ID	Suite	Analyte	Units	Results
TB100799 (cont.)	VOCs (cont.)	Vinyl Chloride	mg/L	ND
	Natural Attenuation	Ethane	mg/L	0.001
		Ethene	mg/L	0.001
		Methane	mg/L	0.001
EB100899	Aromatic VOCs	Benzene	mg/L	ND
		Ethylbenzene	mg/L	ND
		Methyl *tert*-butyl ether	mg/L	ND
		Toluene	mg/L	ND
		Xylenes, Total	mg/L	ND
	PAHs	Acenaphthene	mg/L	ND
		Acenaphthylene	mg/L	ND
		Anthracene	mg/L	ND
		Benzo[*a*]anthracene	mg/L	ND
		Benzo[*a*]pyrene	mg/L	ND
		Benzo[*b*]fluoranthene	mg/L	ND
		Benzo[*ghi*]perylene	mg/L	ND
		Benzo[*k*]fluoranthene	mg/L	ND
		Chrysene	mg/L	ND
		Dibenz[*a,h*]anthracene	mg/L	ND
		Fluoranthene	mg/L	ND
		Fluorene	mg/L	0.00019F
		Indeno[1,2,3-*cd*]pyrene	mg/L	ND
		Naphthalene	mg/L	ND
		Phenanthrene	mg/L	ND
		Pyrene	mg/L	ND
	TPH	Petroleum Hydrocarbons	mg/L	7.376
		PHC as Gasoline	mg/L	4.161F
		PHC as Heavy/Residual Fuel Oils Fuel Oils #4,#5,#6	mg/L	3.215F
	Natural Attenuation	Alkalinity, Total (as $CACO_3$)	mg/L	ND
		Ethane	mg/L	0.001
		Ethene	mg/L	0.001
		Methane	mg/L	0.00032F
		Chloride (as Cl)	mg/L	ND
		Nitrogen, Nitrate (as N)	mg/L	ND
		Sulfate (as SO_4)	mg/L	ND
		Total Organic Carbon	mg/L	1.1
TB100899	VOCs	1,1,1,2-Tetrachloroethane	mg/L	ND
		1,1,1-Trichloroethane	mg/L	ND
		1,1,2,2-Tetrachloroethane	mg/L	ND
		1,1,2-Trichloroethane	mg/L	ND

Table C.2 (continued)
1999 Quality Control Results for AOC 4

Sample ID	Suite	Analyte	Units	Results
TB100899 (cont.)	VOCs (cont.)	1,1-Dichloroethane	mg/L	ND
		1,1-Dichloroethene	mg/L	ND
		1,1-Dichloropropene	mg/L	ND
		1,2,3-Trichlorobenzene	mg/L	ND
		1,2,3-Trichloropropane	mg/L	ND
		1,2,4-Trichlorobenzene	mg/L	ND
		1,2,4-Trimethylbenzene	mg/L	ND
		1,2-Dibromo-3-chloropropane	mg/L	ND
		1,2-Dibromoethane (Ethylene Dibromide)	mg/L	ND
		1,2-Dichlorobenzene	mg/L	ND
		1,2-Dichloroethane	mg/L	ND
		1,2-Dichloropropane	mg/L	ND
		1,3,5-Trimethylbenzene (Mesitylene)	mg/L	ND
		1,3-Dichlorobenzene	mg/L	ND
		1,3-Dichloropropane	mg/L	ND
		1,4-Dichlorobenzene	mg/L	ND
		1-Chlorohexane	mg/L	ND
		2,2-Dichloropropane	mg/L	ND
		2-Chlorotoluene	mg/L	ND
		4-Chlorotoluene	mg/L	ND
		Benzene	mg/L	ND
		Bromobenzene	mg/L	ND
		Bromochloromethane	mg/L	ND
		Bromodichloromethane	mg/L	ND
		Bromoform	mg/L	ND
		Bromomethane	mg/L	ND
		Carbon Tetrachloride	mg/L	ND
		Chlorobenzene	mg/L	ND
		Chloroethane	mg/L	ND
		Chloroform	mg/L	ND
		Chloromethane	mg/L	ND
		cis-1,2-Dichloroethylene	mg/L	ND
		cis-1,3-Dichloropropene	mg/L	ND
		Dibromochloromethane	mg/L	ND
		Dibromomethane	mg/L	ND
		Dichlorodifluoromethane	mg/L	ND
		Ethylbenzene	mg/L	ND
		Hexachlorobutadiene	mg/L	ND
		Isopropylbenzene (Cumene)	mg/L	ND
		m,p-Xylene (Sum of Isomers)	mg/L	ND

Table C.2 (continued)
1999 Quality Control Results for AOC 4

Sample ID	Suite	Analyte	Units	Results
TB100899 (cont.)	VOCs (cont.)	Methylene Chloride	mg/L	ND
		Naphthalene	mg/L	ND
		n-Butylbenzene	mg/L	ND
		n-Propylbenzene	mg/L	ND
		o-Xylene (1,2-Dimethylbenzene)	mg/L	ND
		p-Cymene (P-Isopropyltoluene)	mg/L	ND
		sec-Butylbenzene	mg/L	ND
		Styrene	mg/L	ND
		t-Butylbenzene	mg/L	ND
		Tetrachloroethylene (PCE)	mg/L	ND
		Toluene	mg/L	ND
		trans-1,2-Dichloroethene	mg/L	ND
		trans-1,3-Dichloropropene	mg/L	ND
		Trichloroethylene (TCE)	mg/L	ND
		Trichlorofluoromethane	mg/L	ND
		Vinyl Acetate	mg/L	ND
		Vinyl Chloride	mg/L	ND
		Ethane	mg/L	0.001
		Ethene	mg/L	0.001
		Methane	mg/L	0.001
TB101899	VOCs	1,1,1,2-Tetrachloroethane	mg/L	ND
		1,1,1-Trichloroethane	mg/L	ND
		1,1,2,2-Tetrachloroethane	mg/L	ND
		1,1,2-Trichloroethane	mg/L	ND
		1,1-Dichloroethane	mg/L	ND
		1,1-Dichloroethene	mg/L	ND
		1,1-Dichloropropene	mg/L	ND
		1,2,3-Trichlorobenzene	mg/L	ND
		1,2,3-Trichloropropane	mg/L	ND
		1,1,1,2-Tetrachloroethane	mg/L	ND
		1,1,1-Trichloroethane	mg/L	ND
		1,1,2,2-Tetrachloroethane	mg/L	ND
		1,1,2-Trichloroethane	mg/L	ND
		1,1-Dichloroethane	mg/L	ND
		1,1-Dichloroethene	mg/L	ND
		1,1-Dichloropropene	mg/L	ND
		1,2,3-Trichlorobenzene	mg/L	ND
		1,2,3-Trichloropropane	mg/L	ND
		1,2,4-Trichlorobenzene	mg/L	ND
		1,2,4-Trimethylbenzene	mg/L	ND

Table C.2 (continued)
1999 Quality Control Results for AOC 4

Sample ID	Suite	Analyte	Units	Results
TB101899 (cont.)	VOCs (cont)	1,2-Dibromo-3-chloropropane	mg/L	ND
		1,2-Dibromoethane (Ethylene Dibromide)	mg/L	ND
		1,2-Dichlorobenzene	mg/L	ND
		1,2-Dichloroethane	mg/L	ND
		1,2-Dichloropropane	mg/L	ND
		1,3,5-Trimethylbenzene (Mesitylene)	mg/L	ND
		1,3-Dichlorobenzene	mg/L	ND
		1,3-Dichloropropane	mg/L	ND
		1,4-Dichlorobenzene	mg/L	ND
		1-Chlorohexane	mg/L	ND
		2,2-Dichloropropane	mg/L	ND
		2-Chlorotoluene	mg/L	ND
		4-Chlorotoluene	mg/L	ND
		Benzene	mg/L	ND
		Bromobenzene	mg/L	ND
		Bromochloromethane	mg/L	ND
		Bromodichloromethane	mg/L	ND
		Bromoform	mg/L	ND
		Bromomethane	mg/L	ND
		Carbon Tetrachloride	mg/L	ND
		Chlorobenzene	mg/L	ND
		Chloroethane	mg/L	ND
		Chloroform	mg/L	ND
		Chloromethane	mg/L	ND
		cis-1,2-Dichloroethylene	mg/L	ND
		cis-1,3-Dichloropropene	mg/L	ND
		Dibromochloromethane	mg/L	ND
		Dibromomethane	mg/L	ND
		Dichlorodifluoromethane	mg/L	ND
		Ethylbenzene	mg/L	ND
		Hexachlorobutadiene	mg/L	ND
		Isopropylbenzene (Cumene)	mg/L	ND
		m,p-Xylene (Sum of Isomers)	mg/L	ND
		Methylene Chloride	mg/L	ND
		Naphthalene	mg/L	ND
		n-Butylbenzene	mg/L	ND
		n-Propylbenzene	mg/L	ND

Table C.2 (continued)
1999 Quality Control Results for AOC 4

Sample ID	Suite	Analyte	Units	Results
TB101899 (cont.)	VOCs (cont.)	*o*-Xylene (1,2-Dimethylbenzene)	mg/L	ND
		p-Cymene (P-Isopropyltoluene)	mg/L	ND
		sec-Butylbenzene	mg/L	ND
		Styrene	mg/L	ND
		t-Butylbenzene	mg/L	ND
		Tetrachloroethylene (PCE)	mg/L	ND
		Toluene	mg/L	ND
		trans-1,2-Dichloroethene	mg/L	ND
		trans-1,3-Dichloropropene	mg/L	ND
		Trichloroethylene (TCE)	mg/L	ND
		Trichlorofluoromethane	mg/L	ND
		Vinyl Acetate	mg/L	ND
		Vinyl Chloride	mg/L	ND
	Natural Attenuation	Ethane	mg/L	0.001
		Ethene	mg/L	0 001
		Methane	mg/L	0.00043F

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TAB

Appendix D

APPENDIX D

PROPOSAL FOR ADDITIONAL ACTIVITIES

PROPOSAL FOR ADDITIONAL AOC 4 ACTIVITIES

LPST ID No.: 108711, 108712, 108713, 104484, and Bldg. 4153
Responsible Party: Mr. Michael Dodyk, AFCEE/ERD
Facility Name: AOC 4, Fuel Hydrant System
Facility Address: NAS Fort Worth JRB, Texas 76127
Facility City: Fort Worth
Facility County: Tarrant
Facility ID No.: 0009696
TNRCC Region: IV
Case Priority: 4.1

Proposed Activities: LNAPL Monitoring and Semiannual Groundwater Monitoring.

Goal of Proposed Activity

Due to the presence of LNAPL in two of the wells at AOC 4, site closure under the TNRCC PST early exit criteria does not pertain. HydroGeoLogic, Inc. (HydroGeoLogic) proposes the continued monitoring and recovery of LNAPL from these wells and semiannual groundwater sampling of selected monitoring wells.

Description of Activities

LNAPL monitoring and recovery will continue to be conducted on a weekly basis in wells, SPOT35-3 and SPOT35-6. Semiannual groundwater monitoring activities will include the sampling of monitoring wells, WCHMHTA008, WCHMHTA009, WHGLTA009, WHGLTA010, WHGLTA012, WHGLTA014, and SPOT35-8. These wells will be analyzed for benzene, toluene, ethylbenzene, and xylene (BTEX) using SW8260B. The sampling and monitoring of the wells will follow the procedures established in HydroGeoLogic Quality Assurance Project Plan.

Reporting Activities

The LNAPL monitoring and semiannual groundwater results will be presented in the 2000 Annual Groundwater Monitoring Report at the completion of the proposed activities. This annual groundwater report will follow guidelines designated in TNRCC's guidance document, RG-43 for evaluating soil and groundwater conditions at AOC 4 based on the early exit criteria process. If at that time, both soil and groundwater requirements have been satisfied for AOC 4, then a Site Closure Request will be submitted to the TNRCC PST Division for approval.

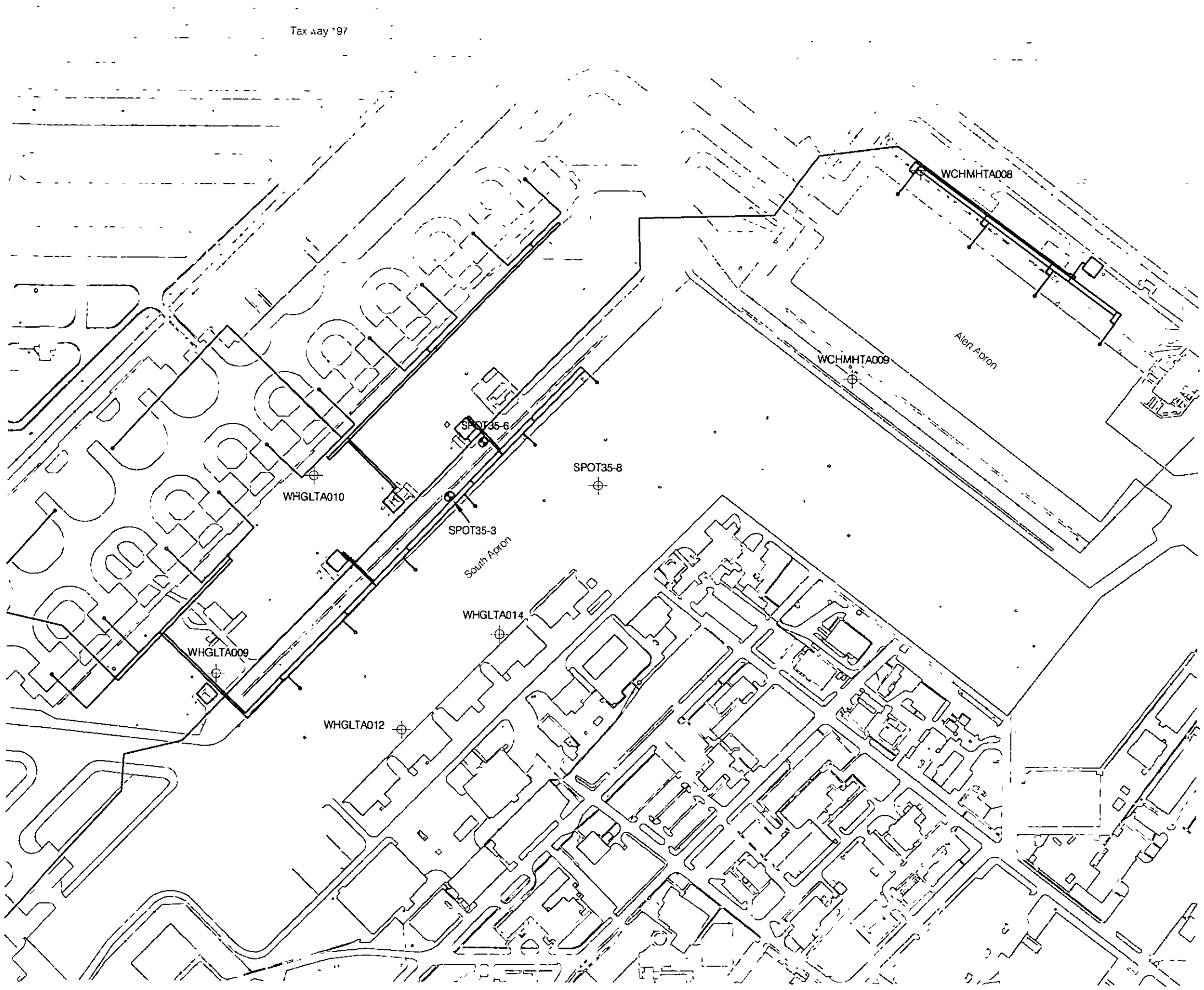
Waste Management

Purge water produced during well sampling will be placed into a 12,000 gallon tank. A composite sample will be collected from the wastewater and analyzed for an appropriate suite of parameters to verify compliance with the effluent limits set in the Navy's Wastewater Discharge Permit.

Approval will then be requested from the Navy Environmental office on-base for the discharge of the wastewater into the NAS Fort Worth JRB sanitary sewer system.

Attachments

A site map of the AOC 4 LNAPL monitoring wells and semiannual groundwater sampling locations are presented in Attachment 1.



HydroGeoLogic, Inc
Final AOC 4 1999 Annual Groundwater Report
NAS Fort Worth JRB, Texas

Attachment 1

Proposed LNAPL Recovery and Groundwater Sampling Locations

U.S. Air Force Center
for Environmental Excellence
Brooks AFB, Texas

Legend

Former Fuel Hydrant System

LNAPL Monitoring Wells

Sampled Monitoring Wells

N

0 200 400 800
SCALE IN FEET

Filename X \Afc001 \16dc\Report\prop_samp_locs(Attchmnt-1) dwg
Project AFC001-16DC
Created by mlawlor 06/12/97
Revised 06/08/00 ap
Map Source. Jacobs, 1995

HYDRO GeoLogic INC.

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ADMINISTRATIVE RECORD

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