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DRAFT FINAL BASEWIDE GROUNDWATER SAMPLING AND ANALYSIS APRIL 2001 SEMI ANNUAL REPORT NAS FORT WORTH TX

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DRAFT FINAL
BASEWIDE GROUNDWATER SAMPLING AND ANALYSIS PROGRAM
APRIL 2001 SEMI-ANNUAL REPORT
NAS FORT WORTH JRB, TEXAS

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

Contract Number F41624-95-D-8005

August 2001

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FEDERAL EXPRESS

August 24, 2001

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Re: Draft Final Basewide Groundwater Sampling and Analysis Program
April 2001 Semi-Annual Report
NAS Fort Worth JRB, Texas
F41624-95-D-8005-0033

Dear Mr. Ficklen

HydroGeoLogic, Inc. is pleased to submit the Draft Final version of the Basewide Groundwater Sampling and Analysis Program, April 2001 Semi-Annual Report for NAS Fort Worth JRB, Texas This report presents the field screening and analytical data for all monitoring activities conducted during the April 2001 sampling event and changes to the sampling scheme for the October 2001 sampling event.

Please call me at (703) 736-4511 should you have any questions or comments concerning this document.

Sincerely,

Miquette Rochford

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13. ABSTRACT (Maximum 200 words)

This document presents the April 2001 Semi-Annual groundwater monitoring results conducted at Naval Air Station Fort Worth JRB (NAS Fort Worth JRB) Carswell Field, Texas as part of the Basewide Groundwater Sampling and Analysis Program.

The objectives of the basewide semi-annual monitoring program are to 1) identify potential impacts to off-site receptors through perimeter monitoring, 2) delineate the contaminant source and the dissolved and non-aqueous phase plumes, and 3) collect data to demonstrate whether natural attenuation of trichloroethene (TCE) is occurring. This report summarizes the results of field screening and analytical results of samples collected during the April 2001 semi-annual event and provides recommendations for adjustments to the basewide program.

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PREFACE

This Groundwater Sampling and Analysis Program April 2001 Semi-Annual Report was prepared for the Air Force Center for Environmental Excellence (AFCEE) to describe the April 2001 monitoring event conducted at Naval Air Station Fort Worth Joint Reserve Base (NAS Fort Worth JRB), Texas. The work has been conducted under Contract Number F41624-95-D-8005, Delivery Order 0033, issued to HydroGeoLogic, Inc. (HydroGeoLogic). The AFCEE Contracting Officer's Representative (COR) is Mr. Don Ficklen. HydroGeoLogic's Project Manager is Ms. Miquette Rochford.

Activities described by the April 2001 Semi-Annual Report were performed in accordance with HydroGeoLogic's Final 2001 Basewide Groundwater Sampling and Analysis Plan (GSAP) (HydroGeoLogic, 2001), the Final Basewide Quality Assurance Project Plan (QAPP) (HydroGeoLogic, 2000a), and AFCEE-approved modifications.

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LIST OF ACRONYMS AND ABBREVIATIONS

AFB	Air Force Base
AFCEE	Air Force Center for Environmental Excellence
AFP 4	Air Force Plant No. 4
AOC	Area of Concern
ASTM	American Society for Testing and Materials
BRAC	Base Realignment and Closure
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
cis-1,2-DCE	*cis*-1,2-dichloroethene
CFR	code of federal regulations
cm/s	centimeters per second
COC	chain of custody
%D	percent difference
DO	dissolved oxygen
DQE	data quality evaluation
EC	electrical conductance
EDD	electronic data deliverable
Eh	oxidation-reduction potential
EPA	U.S. Environmental Protection Agency
ERA	Environmental Restoration Account
ERPIMS	Environmental Resources Program Information Management System
ESE	Environmental Science and Engineering, Inc.
F	data qualifier indicating analyte was detected at a concentration less than MQL but greater than MDL. Value may not be accurate or precise (estimated)
°F	degrees Fahrenheit
FFA	Federal Facilities Agreement
Fe^{2+}	ferrous iron
ft/d	feet per day
ft. above msl	feet above mean sea level
gpd/ft	gallons per day per foot
gpd/ft^2	gallons per day per square foot
GSAP	Groundwater Sampling and Analysis Plan
HydroGeoLogic	HydroGeoLogic, Inc.
IDW	investigative-derived waste
IRP	Installation Restoration Program

LIST OF ACRONYMS AND ABBREVIATIONS (Continued)

J	data qualifier indicating analyte was detected but the quantitation is an estimate
Jacobs	Jacobs Engineering
LCS	laboratory control sample
LNAPL	light non-aqueous phase liquid
LTM	long term monitoring
μg/L	micrograms per liter
MDL	method detection limit
MOU	Memorandum of Understanding
MQL	method quantitation limit
MSC	medium specific concentration
msl	mean sea level
MS/MSD	matrix spike/matrix spike duplicate
mya	million years ago
NAS Fort Worth JRB	Naval Air Station Fort Worth Joint Reserve Base
NCP	National Contingency Plan
NFA	no further action
NGVD	National Geodetic Vertical Datum
NPL	National Priorities List
OPR	office of primary responsibility
Parsons	Parsons Engineering Science, Inc.
PCE	tetrachloroethene
PE	performance evaluation
PID	photoionization detector
POL	petroleum, oil, and lubricant
ppm	parts per million
PQL	practical quantitation limit
QAPP	Quality Assurance Project Plan
QA/QC	quality assurance/quality control
R	The datum is unusable due to serious deficiencies in the ability to meet QC criteria.
%R	percent recovery
Radian	Radian Corporation
RCRA	Resource Conservation and Recovery Act
RFA	RCRA Facility Assessment
RFI	RCRA Facility Investigation

LIST OF ACRONYMS AND ABBREVIATIONS (Continued)

RRR	Risk Reduction Rules
RRS	Risk Reduction Standard
SWMU	solid waste management unit
STL	Severn Trent Laboratories
TAC	Texas Administrative Code
TCE	trichloroethene
TI	tolerance interval
TNRCC	Texas Natural Resource Conservation Commission
TOC	total organic carbon
trans-1,2-DCE	*trans*-1,2-dichloroethene
TWC	Texas Water Commission
U	data qualifier indicating analyte was not detected at the specified quantitation limit
UJ	data qualifier indicating analyte was not detected and the specified quantitation limit is estimated
USGS	U.S. Geological Survey
UTL	upper tolerance limit
VOC	volatile organic compound

TAB

SECTION L.0

DRAFT FINAL
BASEWIDE GROUNDWATER SAMPLING AND ANALYSIS PROGRAM
APRIL 2001 SEMI-ANNUAL REPORT
NAS FORT WORTH JRB, TEXAS

1.0 INTRODUCTION

Groundwater monitoring at Naval Air Station Fort Worth Joint Reserve Base (NAS Fort Worth JRB), Texas (Figure 1.1) has been performed to provide a basis for development and implementation of remedial actions under the Air Force Installation Restoration Program (IRP). This report summarizes the first of two semi-annual groundwater sampling events scheduled for 2001, in accordance with the Final 2001 Basewide Groundwater Sampling and Analysis Plan (GSAP) (HydroGeoLogic, Inc. [HydroGeoLogic], 2001) and the Final 2000 Basewide Quality Assurance Project Plan (QAPP) (HydroGeoLogic, 2000a). Semi-annual groundwater sampling is conducted to monitor the presence and extent of groundwater contamination and potential impacts to surface water.

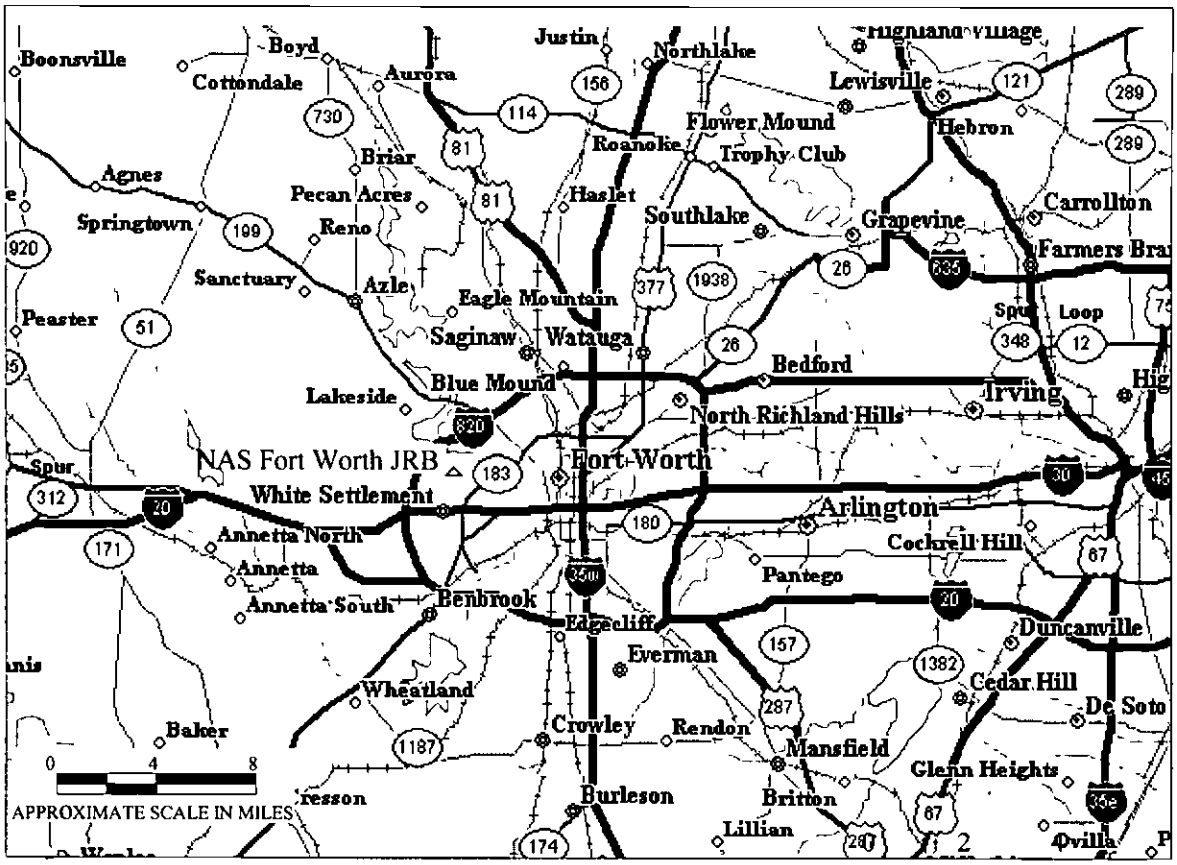
1.1 MONITORING OBJECTIVES

A basewide groundwater sampling and analysis program was initiated at NAS Fort Worth JRB in April 1995 to address groundwater contamination associated with various Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs) identified on the base. Twenty rounds of groundwater sampling have been implemented to date: April 1995, July 1995, October 1995, January 1996, January 1997, April 1997, July 1997, October 1997, January 1998, April 1998, July 1998, October 1998, January 1999, April 1999, July 1999, October 1999, April 2000, July 2000, October 2000, and April 2001.

Below are the 2001 GSAP objectives, which are based on the findings from previous investigations, and a current understanding of the remediation/assessment plans anticipated in the coming year. These objectives may require modification to accommodate new data resulting from ongoing and future investigations/remedial actions at NAS Fort Worth JRB.

- Critical Groundwater Exposure Pathways Evaluation - collect data to investigate: (1) potential exposure to groundwater sources classified as potential drinking water; and (2) on-site and off-site exposure to surface water bodies;

- Additional Source and Plume Delineation - define horizontal or vertical migration of contamination associated with miscellaneous hot spots and potential source areas where data are not currently available; and



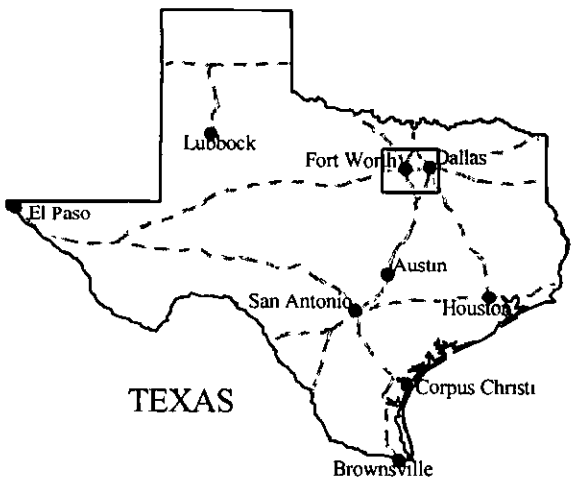


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Figure 1.1

Site Location Map
NAS Fort Worth JRB, Texas

- Natural Attenuation Monitoring - collect data to demonstrate the extent that natural attenuation of trichloroethene (TCE) is occurring.

1.2 GSAP APPROACH

The Final 2001 GSAP was developed to provide a framework to achieve the objectives described in Section 1.1 and describes, in detail, the approach for the current program. This document includes the approach and methodology for the following components:

- Collection of water level measurements;
- Removal of light non-aqueous phase liquids (LNAPL), if necessary;
- Collection and analysis of groundwater quality samples;
- Methods for water quality analyses;
- Well inspection and maintenance;
- Procedures for management and transfer of analytical and field data; and
- Format and objectives of reporting documents.

This framework includes sampling existing monitoring wells, recommendations for sampling monitoring wells recently proposed for installation, and recommendations for chemical parameters to be included in the sampling program. The framework is based on a current understanding of the restoration plans for the SWMUs and AOCs at the base.

1.3 THE U.S. AIR FORCE INSTALLATION RESTORATION PROGRAM

The objectives of the U.S. Air Force IRP are to assess past hazardous waste disposal and spill sites at U.S. Air Force installations and to develop remedial actions consistent with the National Contingency Plan (NCP) for sites that pose a threat to human health and welfare or the environment.

Environmental contamination was identified at U.S. Air Force Plant No. 4 (AFP 4) through site investigations conducted during the 1980s. As a result, AFP 4 was placed on the National Priorities List (NPL) in August 1990. A Federal Facilities Agreement (FFA) was entered into between the Texas Natural Resource Conservation Commission (TNRCC), Environmental Protection Agency (EPA) Region VI, and the U.S. Air Force. Investigation, remediation, and monitoring information can be located in the following documents: Environmental Science and Engineering, Inc. (ESE), 1994; HydroGeoLogic, 1997; Parsons Engineering Science, Inc. (Parsons), 1997; Jacobs Engineering Group Inc. (Jacobs), 1998.

Although the Air Force developed the IRP in response to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), NAS Fort Worth JRB is not listed on the NPL and as such, is not subject to corrective action under CERCLA. The primary regulatory programs that govern the investigation, remediation, and closure of NAS Fort Worth JRB sites are the Resource Conservation and Recovery Act (RCRA) and the TNRCC

Risk Reduction Rules (RRR) Program. The TNRCC is the lead regulatory agency for activities to be conducted at the subject sites.

On February 7, 1991, the former Carswell Air Force Base (AFB) was issued a RCRA hazardous waste permit (HW-50289) by the Texas Water Commission (TWC). This permit requires a RCRA facility investigation of all SWMUs listed in Permit Provision VIII (as well as those SWMUs subsequently added to the list) in order to determine whether hazardous constituents listed in 40 Code of Federal Regulations (CFR) Part 264, Appendix IX, have been released into the environment.

A Memorandum of Understanding (MOU) was signed by the acting Secretaries of the Air Force and Navy on June 8 and 9, 1993. The MOU outlined the general terms under which the Air Force would transfer responsibility for portions of the former Carswell AFB to the Navy. The MOU established a final target date of September 20, 1994 for the transfer of host responsibilities from the Air Force to the Navy. On September 23, 1994, the Navy and Air Force executed another MOU to amend the previous MOU. The Navy assumed "host responsibilities" for NAS Fort Worth JRB, on October 1, 1994, but did not assume several key environmental program responsibilities.

In a letter dated February 26, 1996, the Air Force Deputy Assistant Secretary interpreted and amended the original MOU. This amendment confirmed the Air Force's acceptance of funding and management responsibilities for the final remediation of all environmental restoration requirements attributable to Carswell AFB operations that occurred prior to October 1, 1994. In a MOU dated June 19, 1996, the parties reached agreement regarding the cleanup of NAS Fort Worth JRB. The June 19, 1996 Cleanup MOU will control in the event that it conflicts on cleanup issues with this Compliance MOU (Air Force, 1997).

The primary emphasis of all site investigations is to meet the requirements of Permit Provision VIII of the NAS Fort Worth HW-50289 permit. However, as the IRP, TNRCC RRR, and RCRA rely heavily on guidance documents prepared under CERCLA, the Final 2001 GSAP has been prepared using guidance documents from all four programs.

1.4 SOLID WASTE MANAGEMENT UNITS AND AREAS OF CONCERN

Since 1942, most hazardous waste generated through operations and activities at the base has been disposed of in landfills, reused on base, or processed through the Defense Property Disposal Office for off-base recycling or disposal. Since 1984, many of these sites (which include landfills, fire training areas, oil/water separators, and waste accumulation areas(WAAs)) have been investigated. A total of 68 SWMUs have been identified at the base. Many were addressed as part of a RCRA Facility Assessment (RFA) conducted for what was then Carswell AFB (U.S. Environmental Protection Agency [USEPA], 1989a), with additional SWMUs added later via letters from the TNRCC. Additionally, 16 AOCs were identified in either Permit HW-50289 for Carswell AFB issued by the TNRCC (formerly TWC) on February 13, 1991 (TWC, 1991) or by individual letters from the TNRCC. A number of the

SWMUs and AOCs identified have been determined to require no further action (NFA) and are currently considered closed by the TNRCC (TNRCC, 1995). All SWMUs and AOCs are listed in Table 1.1 and Table 1.2, respectively, and the locations of the active SWMUs and AOCs are shown on Figure 1.2.

Portions of the facility are subject to Air Force Base Realignment and Closure (BRAC) management, while other portions are managed by Air Force Center for Environmental Excellence (AFCEE) under the Environmental Restoration Account (ERA). These management responsibilities are included on Table 1.1 and Table 1.2.

1.5 REPORT ORGANIZATION

Section 2.0 of this report provides a description of the environmental setting, while Section 3.0 includes a description of the monitoring activities performed during April 2001 as part of the basewide groundwater monitoring program. Section 4.0 of this report presents the quality assurance/quality control (QA/QC) program implemented for the project. Section 5.0 presents the analytical results and results of the activities described in Section 3.0. Section 6.0 provides a summary and interpretation of the semi-annual sampling results, while Section 7.0 lists references. Appendix A presents field data, field notes, groundwater field sampling data sheets, field sampling reports, and chains of custody (COCs) for the April 2001 sampling event. Appendix B contains a summary of the analytical data for the April 2001 sampling event, detected analytical results from April 2001 AFP 4 sampling, as well as detected VOCs from additional groundwater investigations.

Table 1.1
Solid Waste Management Units at NAS Fort Worth JRB, Texas

SWMU	Description	OPR
1	Pathological Waste Incinerator (NFA)	BRAC
2	Pathological Waste Storage Shed (NFA)	BRAC
3	Metal Cans (NFA)	BRAC
4	Facility Dumpsters (NFA)	BRAC
5	Building 1627 Waste Accumulation Area for Building 1628	ERA
6	Building 1628 Wash Rack and Drain	ERA
7	Building 1628 Oil/Water Separator (NFA)	ERA
8	Building 1628 Sludge Collection Tank (NFA)	ERA
9	Building 1628 Work Station Waste Accumulation Area (NFA)	ERA
10	Building 1617 Work Station Waste Accumulation Area (NFA)	ERA
11	Building 1618 Waste Accumulation Area for Buildings 1617 and 1619 (NFA)	ERA
12	Building 1602 Former Waste Accumulation Area	ERA
13	Building 1710 Visual Information Center Work Station Former Waste Accumulation Areas (NFA)	ERA
14	Building 1060 Bead Blaster Collection Tray (NFA)	BRAC
15	Building 1060 Paint Booth Vault (NFA)	BRAC
16	Building 1059 Waste Accumulation Area (NFA)	ERA
17	Landfill No. 7	ERA
18	Fire Training Area No. 1 (NFA)	ERA
19	Fire Training Area No. 2	ERA
20	Waste Fuel Storage Tank	ERA
21	Waste Oil Tank	ERA
22	Landfill No. 4 (NFA)	BRAC
23	Landfill No. 5 (NFA)	ERA
24	Waste Burial Area 7 (NFA)	ERA
25	Landfill No. 8 (NFA)	ERA
26	Landfill No. 3	ERA
27	Landfill No. 10 (NFA)	ERA
28	Landfill No. 1	ERA
29	Landfill No. 2	ERA
30	Landfill No. 9	ERA
31	Building 1050 Former Waste Accumulation Area	ERA
32	Building 1415 Waste Accumulation Area for Building 1410 (NFA)	ERA
33	Building 1436 Waste Accumulation Area for Building 1420 (NFA)	ERA
34	Building 1194 Former Waste Accumulation Area (NFA)	ERA
35	Vehicle Refueling Shop (Building 1194) Oil/Water Separation System	ERA
36	Building 1191 Former Waste Accumulation Area (NFA)	ERA
37	Vehicle Maintenance Shop (Building 1191) Oil/Water Separation System	ERA
38	Building 1269 Polychlorinated Biphenyl Transformers Building (NFA)	BRAC
39	Building 1643 Former Waste Accumulation Area (NFA)	ERA
40	Building 1643 Oil/Water Separation System	ERA

Table 1.1 (continued)
Solid Waste Management Units at NAS Fort Worth JRB, Texas

SWMU	Description	OPR
41	Building 1414 Oil/Water Separation System, Field Maintenance Squadron Aerospace Ground Equipment	ERA
42	Building 1414 Former Waste Accumulation Area (NFA)	ERA
43	Building 1414 Non Destructive Inspection Waste Accumulation Point (NFA)	ERA
44	Building 1027 Oil/Water Separation System at the Aircraft Washing Hangar	ERA
45	Building 1027 Waste Oil Tank Vault (NFA)	ERA
46	Building 1027 Waste Accumulation Area (NFA)	ERA
47	Building 1015 Jet Engine Test Cell Oil/Water Separator	ERA
48	Building 1048 Fuel Systems Shop Floor Drains (NFA)	ERA
49	Aircraft Washing Area No. 1	ERA
50	Aircraft Washing Area No. 2	ERA
51	Central Waste Holding Area/Waste Accumulation Areas 1187 and 1189 (NFA)	ERA
52	Building 1190 Oil/Water Separation System	ERA
53	Storm Water Drainage System (NFA)	ERA
54	Storm Water Interceptors	ERA
55	East Gate Oil/Water Separator	ERA
56	Building 1405 Waste Accumulation Area (NFA)	ERA
57	Buildings 1432/1434 Waste Accumulation Area (NFA)	ERA
58	Pesticide Rinse Area (NFA)	BRAC
59	Building 8503 Weapons Storage Area Waste Accumulation Area	BRAC
60	Building 8503 Radioactive Waste Burial Site	BRAC
61	Building 1319 Waste Accumulation Area for Building 1320	ERA
62	Landfill No. 6	ERA
63	Entomology Dry Well (NFA)	ERA
64	French Underdrain System	ERA
65	Weapons Storage Area Disposal Site (NFA)	BRAC
66	Sanitary Sewer System	BRAC
67	Building 1340 Oil/Water Separator	ERA
68	POL Tank Farm	ERA

Notes:
BRAC - Base Realignment and Closure
ERA - Environmental Restoration Account
NFA - No further action
OPR - Office of Primary Responsibility
POL - Petroleum, oil, and lubricant

Table 1.2
Areas of Concern at NAS Fort Worth JRB, Texas

AOC	Description	OPR
1	Former Base Service Station/ Former Base Gas Station	ERA
2	Airfield Groundwater Plume	ERA
3	Waste Oil Dump (NFA)	ERA
4	Fuel Hydrant System	ERA
5	Grounds Maintenance Yard	ERA
6	Recreational Vehicle Storage Area (NFA)	ERA
7	Former Base Refueling Area	ERA
8	Aerospace Museum	BRAC
9	Golf Course Maintenance Yard (NFA)	BRAC
10	Building 1064 Oil/Water Separator	ERA
11	Building 1060 Oil/Water Separator	ERA
12	Building 4210 Oil/Water Separator	ERA
13	Building 1145 Oil/Water Separator	ERA
14	Unnamed Stream	ERA
15	Storage Shed Building 1190 (NFA)	ERA
16	Family Camp (NFA)	BRAC
17	Suspected Former Landfill (NFA)	ERA
18	Suspected Former Fire Training Area A (NFA)	ERA
19	Suspected Former Fire Training Area B	ERA

Notes:
BRAC - Base Realignment and Closure
ERA - Environmental Restoration Account
NFA - No further action
OPR - Office of Primary Responsibility

Areas of Concern (AOC)

1 Former Base Service Station/ Former Base Gas Station
2 Airfield Groundwater (Basewide Coverage)
4 Fuel Hydrant System
5 Grounds Maintenance Yard
6 RV Storage Area
7 Former Base Refueling Area
8 Aerospace Museum
9 Golf Course Maintenance Yard
10 Building 1064 Oil/Water Separator
11 Building 1060 Oil/Water Separator
12 Building 4210 Oil/Water Separator
13 Building 1145 Oil/Water Separator
14 Unnamed Stream
15 Storage Shed
16 Family Camp
17 Suspected Former Landfill
18 Suspected Former Fire Training Area A
19 Suspected Former Fire Training Area B

Solid Waste Management Units (SWMU)

5 Building 1626 Waste Accumulation Area
6 Building 1628 Wash Rack and Drain
7 Building 1628 Oil/Water Separator
8 Building 1628 Sludge Collection Tank
11 Building 1617 Waste Accumulation Area
12 Building 1619 Waste Accumulation Area
13 Building 1710 Visual Information Center Work Station Waste Accumulation Areas
16 Building 1060 Waste Accumulation Area
17 Landfill No 7
18 Fire Training Area No 1
19 Fire Training Area No 2
20 Waste Fuel Storage Tank
21 Waste Oil Tank
22 Landfill No 4
23 Landfill No 5
24 Waste Burial Area
25 Landfill No 8
26 Landfill No 3
27 Landfill No 10
28 Landfill No 1
29 Landfill No 2
30 Landfill No 9
31 Building 1050 Waste Accumulation Area
32 Building 1410 Waste Accumulation Area
33 Building 1420 Waste Accumulation Area
34 Building 1194 Waste Accumulation Area
35 Vehicle Refueling Shop (Building 1194) Oil/Water Separation System
36 Building 1191 Waste Accumulation Area
37 Vehicle Maintenance Shop (Building 1191) Oil/Water Separation System
39 Building 1643 Waste Accumulation Area
40 Building 1643 Oil/Water Separation System
41 Building 1414 Oil/Water Separation System, Field Maintenance Squadron Aerospace Ground Equipment
42 Building 1414 Waste Accumulation Area
44 Building 1027 Oil/Water Separation System at the Aircraft Washing Hangar
45 Building 1027 Waste Oil Tank Vault at the Aircraft Washing Hangar
47 Building 1015 Jet Engine Test Cell Oil/Water Separator
49 Aircraft Washing Area No 1
50 Aircraft Washing Area No 2
51 Building 1190 Central Waste Holding Area
52 Building 1190 Oil/Water Separation System
53 Storm Water Drainage System
54 Storm Water Interceptors
55 East Gate Oil/Water Separator
61 Building 1320 Power Production Maintenance Facility Waste Accumulation Area
62 Landfill No 6
64 French Underdrain System
66 Sanitary Sewer System (Basewide Coverage)
67 Building 1340 Oil/Water Separator
68 POL Tank Farm

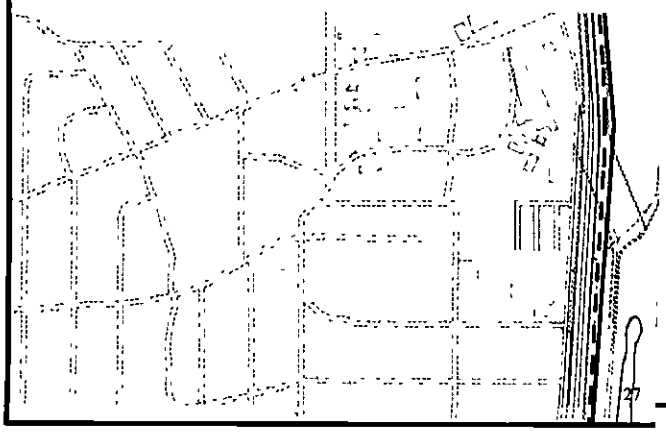

Figure 1.2

SWMU/AOC Location Map

U.S. Air Force Center for Environmental Excellence

Legend

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

——— Former Carswell Air Force Base

1 Area of Concern (AOC)

68 Solid Waste Management Unit (SWMU)

N

500 0 500 1000 1500

SCALE IN FEET

Filename X \AFC001\33daba\Report\SWMU_AOC_loc(1-2) apr
Project AFC001-33daba
Revised 08/17/01 asp
Map Source Jacobs, 1996

HYDRO GeoLogic INC

TAB

SECTION 2.0

2.0 SITE DESCRIPTION

On October 1, 1994, the Air Force transferred the majority of the property that constituted Carswell AFB to the U.S. Navy to become NAS Fort Worth JRB, Carswell Field. NAS Fort Worth JRB is located on 2,264 acres of land in Tarrant County, Texas, 8 miles west of downtown Fort Worth. The base is bordered by Lake Worth to the north; the West Fork Trinity River, River Oaks, and Westworth Village to the east; other urban areas of Fort Worth to the northeast and southeast; White Settlement to the west and southwest; and AFP 4 to the west (Figure 2.1). The area surrounding NAS Fort Worth JRB is mostly suburban. Land use in the immediate vicinity of the base is industrial, commercial, residential, and recreational (A.T. Kearney, 1989).

2.1 PHYSIOGRAPHY

The NAS Fort Worth JRB area is located along the border zone between two physiographic provinces. The southeastern part of the base is situated within the Grand Prairie section of the Central Lowlands Physiographic Province. The Central Lowlands Physiographic Province is characterized by broad, eastward-sloping terrace surfaces that are interrupted by westward-facing escarpments. The land surface is typically grass covered and treeless except for isolated stands of upland timber. The northwestern part of the NAS Fort Worth JRB area is situated within the Western Cross Timbers Physiographic Province, which is characterized by rolling topography and a heavy growth of post and blackjack oaks (Radian Corporation [Radian], 1989). Surface elevations for this region range from about 850 feet above national geodetic vertical datum (NGVD) west of the base, to approximately 550 feet above NGVD, along the eastern side of the base. Figure 2.1 is a portion of the Lake Worth and Benbrook Texas, U.S. Geological Survey (USGS) topographic maps showing the relief of the NAS Fort Worth JRB Area.

2.2 REGIONAL GEOLOGY

The major geologic units of interest for the region, from youngest to oldest, are as follows: (1) the Quaternary Alluvium (including fill material and terrace deposits), (2) the Cretaceous Goodland Limestone, (3) the Cretaceous Walnut Formation, (4) the Cretaceous Paluxy Formation, (5) the Cretaceous Glen Rose Formation, and (6) the Cretaceous Twin Mountains Formation. A generalized cross section of the geology beneath NAS Fort Worth JRB is presented in Figures 2.2 and 2.3 (Radian, 1989). The areal limits of surface exposure of these geologic units at NAS Fort Worth JRB are shown in Figure 2.4. The regional dip of these stratigraphic units beneath NAS Fort Worth JRB is between 35 to 40 feet per mile in an easterly to southeasterly direction. NAS Fort Worth JRB is located on the relatively stable Texas Craton, west of the faults that lie along the Ouachita Structural Belt. No major faults or fracture zones have been mapped near the base.

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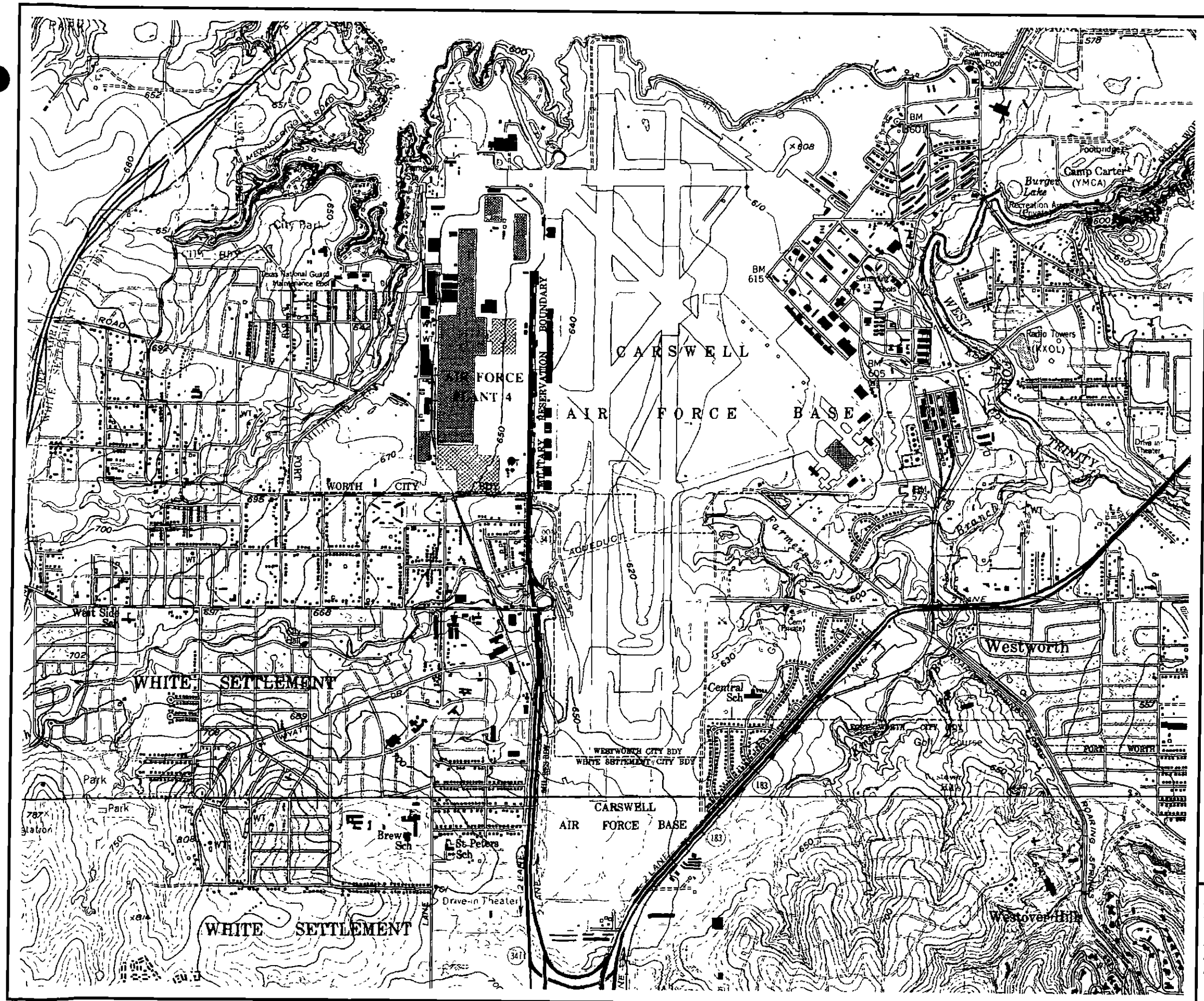
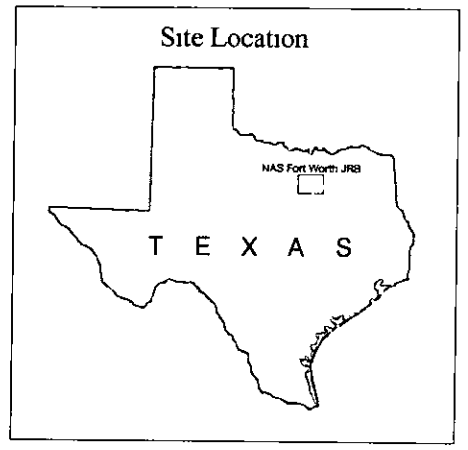
Figure 2.1

NAS Fort Worth JRB
Regional Topographic Map

Air Force Center for Environmental Excellence



Site Location



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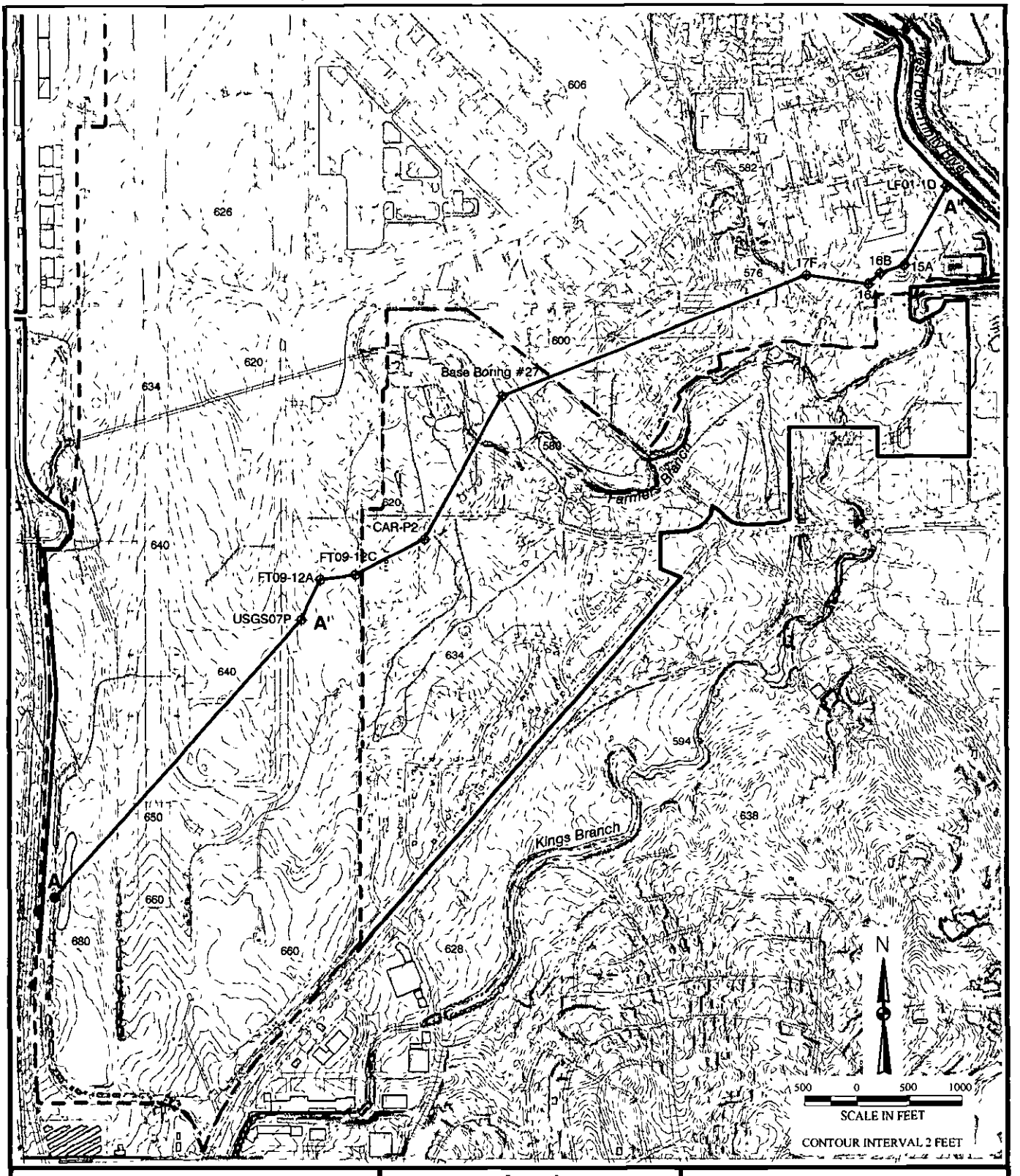
Created by cfarmer 01/17/01
Revised: 08/17/01 asp
Maps. Lake Worth and Benbrook TX
Dates Photorevised 1981, 1982

HYDRO GeoLogic INC



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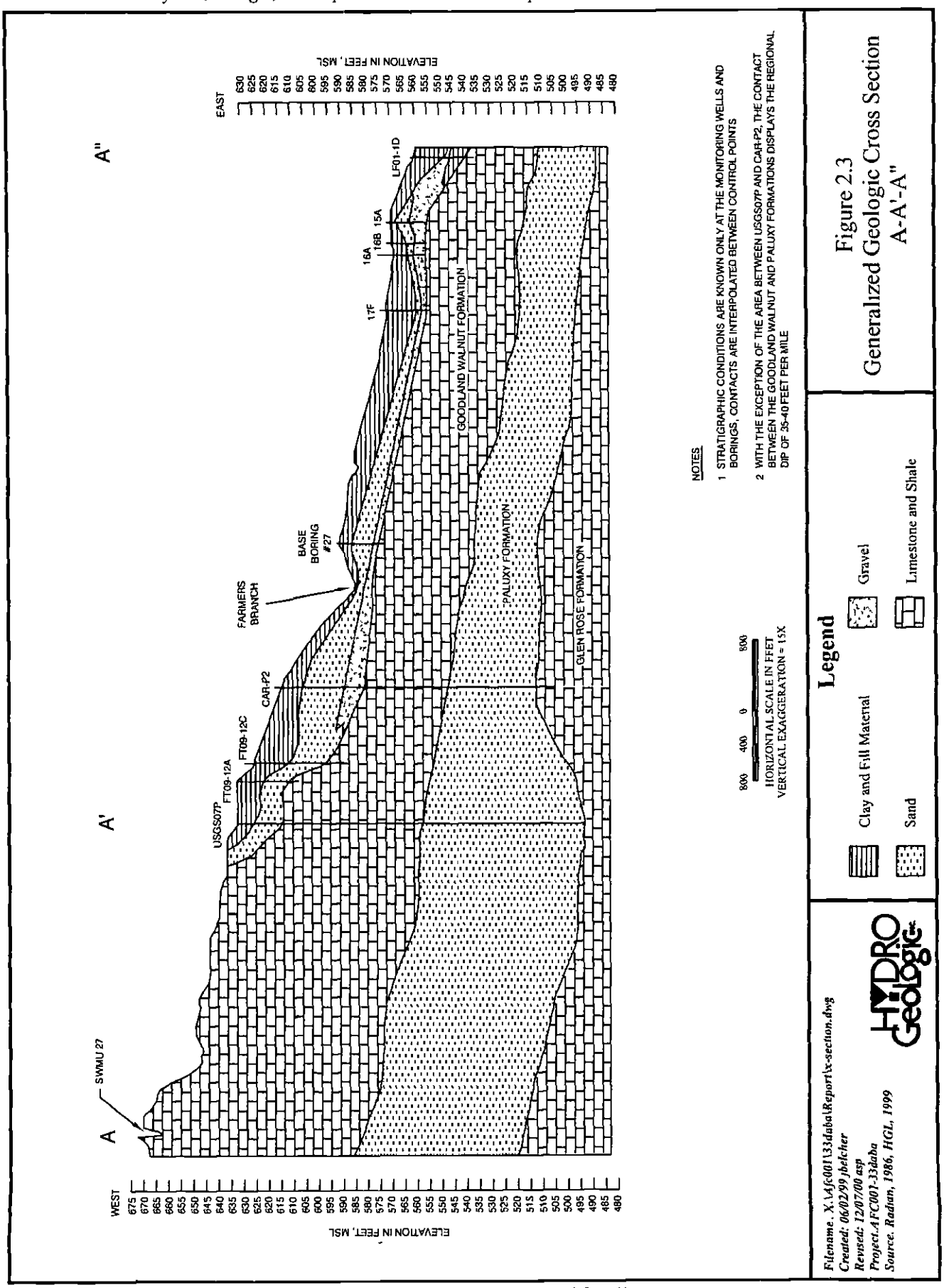
Created 03/11/99 jbelcher
Revised 12/14/01 asp
Source HydroGeoLogic, Inc—GIS Database

HYDRO GeoLogic

Legend

- NAS Fort Worth JRB Boundary
- Former Carswell AFB Boundary
- SWMU 27 Location
- 660 Topographic Contour

Figure 2.2
Cross Section Location
A-A'-A''


A
A'
A"
SWMU 27
WEST
EAST
ELEVATION IN FEET, MSL
USGS07P
FT09-12A
FT09-12C
CAR-P2
FARMERS BRANCH
BASE BORING #27
17F
16A
16B
15A
LF01-1D
GOODLAND WALNUT FORMATION
PALUXY FORMATION
GLEN ROSE FORMATION
HORIZONTAL SCALE IN FEET
VERTICAL EXAGGERATION = 15X
NOTES
1 STRATIGRAPHIC CONDITIONS ARE KNOWN ONLY AT THE MONITORING WELLS AND BORINGS, CONTACTS ARE INTERPOLATED BETWEEN CONTROL POINTS
2 WITH THE EXCEPTION OF THE AREA BETWEEN USGS07P AND CAR-P2, THE CONTACT BETWEEN THE GOODLAND WALNUT AND PALUXY FORMATIONS DISPLAYS THE REGIONAL DIP OF 35-40 FEET PER MILE
Legend
Clay and Fill Material
Gravel
Sand
Limestone and Shale
Figure 2.3
Generalized Geologic Cross Section
A-A'-A"
Filename: X:\AFC001133daba\Report\x-section.dwg
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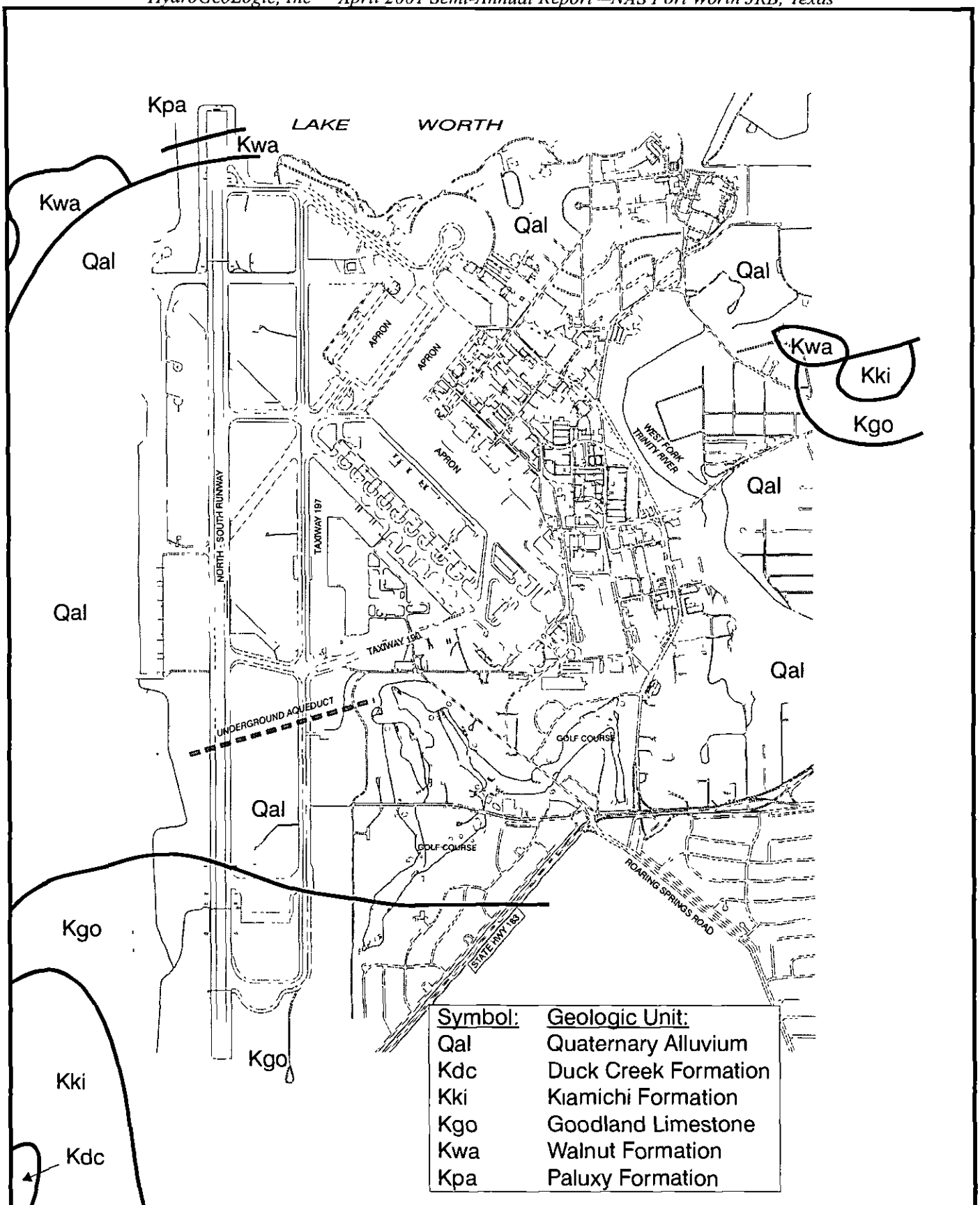
Revised: 12/07/00 asp
Project: AFC001-33daba
Source: Radian, 1986, HGL, 1999
HYDRO Geologic



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Map Source Radian, 1989

HYDRO GeoLogic INC

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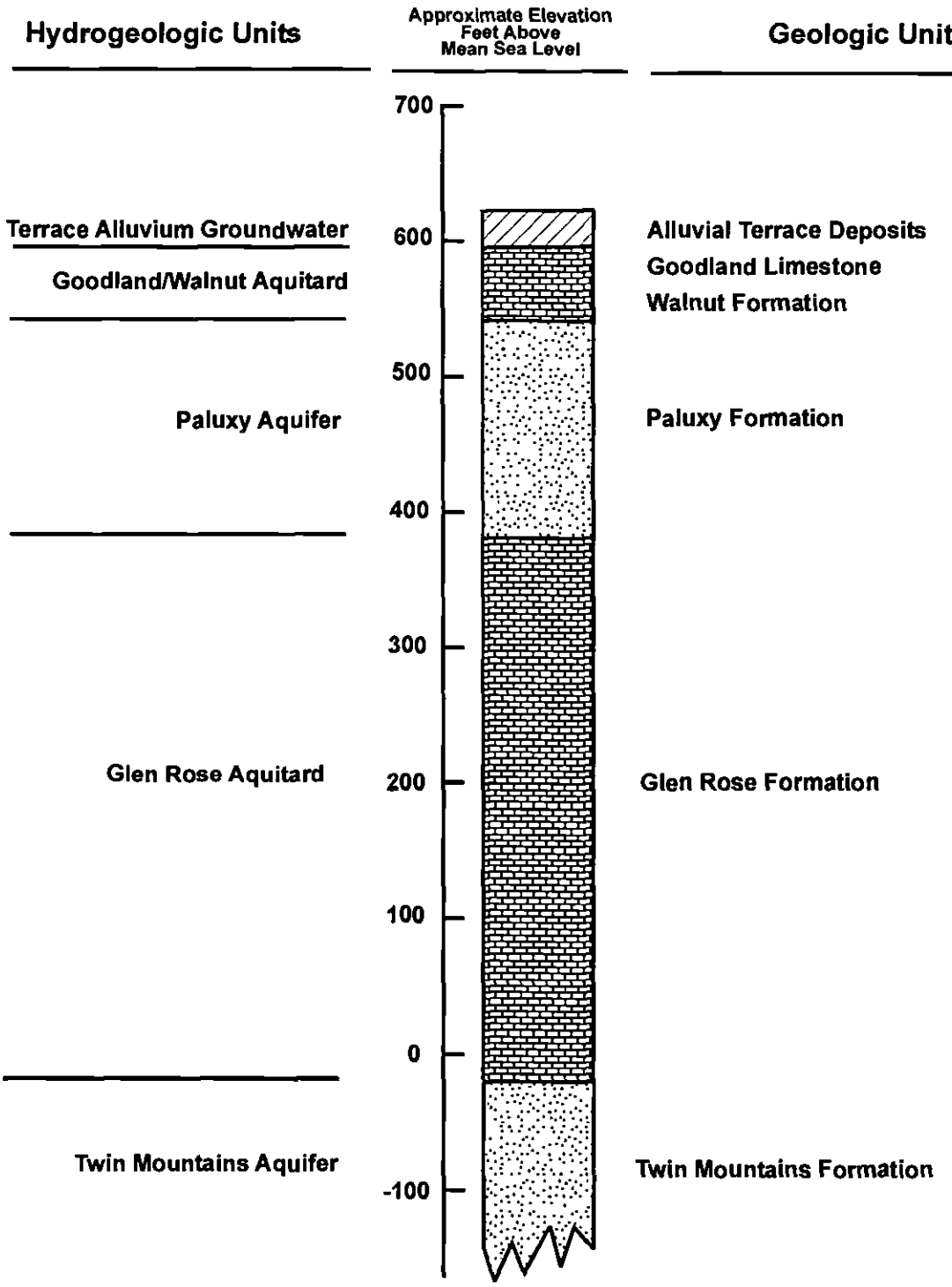
SCALE IN FEET

N

Figure 2.4
Areal Distribution of Geologic Units



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Revised. 12/21/00 cf
Project AFC001-33DABA
Map Source Radian, 1989

HYDRO GeoLogic INC.

Legend

- Alluvium
- Limestone
- Sandstone

Figure 2.5
Stratigraphic Column Correlating Hydrogeologic Units and Geologic Units

2.3 GROUNDWATER

The following five hydrogeologic units, listed from the shallowest to the deepest, located in the NAS Fort Worth JRB area include (Figure 2.5): (1) an upper perched-water zone occurring in the alluvial terrace deposits associated with the Trinity River (Terrace Alluvium), (2) an aquitard of predominantly dry limestone with interbedded fine-grained clay and shale layers of the Goodland and Walnut Formations, (3) an aquifer in the sandstone of the Paluxy Formation, (4) an aquitard of relatively impermeable limestone in the Glen Rose Formation, and (5) a major aquifer in the sandstone of the Twin Mountains Formation. Table 2.1 presents additional information on the stratigraphic units found beneath NAS Fort Worth JRB. Each of the major lithologic units beneath NAS Fort Worth JRB is examined in more detail in the following paragraphs.

2.3.1 Terrace Alluvium Deposits

The uppermost groundwater in the area occurs within the pore space of the grains of silt, clay, sand, and gravels deposited by the Trinity River. In some parts of Tarrant County, primarily in those areas adjacent to the Trinity River, groundwater from the terrace deposits is used for irrigation and residential use. However, groundwater from the terrace deposits is not often used as a source of potable water due to its limited distribution, poor yield, and susceptibility to surface/storm-water pollution (USGS, 1996). TCE concentrations exist up to 2500 micrograms per liter (μg/L) within the Terrace Alluvium at Carswell. No potable water supply wells are completed in the Terrace Alluvium within 0.5 miles of NAS Fort Worth JRB.

Recharge to the water-bearing deposits occurs through infiltration from precipitation and from surface water bodies. Extensive on-site pavement and construction restricts this recharge. Additional recharge, however, comes from leakage in water lines, sewer systems, storm drains, and cooling water systems. This inflow of water to the shallow aquifer locally affects groundwater flow patterns and contamination transport. The estimated hydraulic conductivity of the Terrace Alluvium groundwater is 4.57 gallons per day per square foot (gpd/ft^2) (Radian, 1989).

The primary flow direction of water in the Terrace Alluvium is generally eastward toward the West Fork Trinity River, although localized variations exist across the base. Groundwater flow on the southern side of the Former Carswell AFB is to the northeast. The hydraulic gradient across the base is variable, reflecting variations in the flow direction and localized recharge. Groundwater discharge occurs into surface water on-site, specifically Farmers Branch Creek. Potentiometric maps of NAS Fort Worth JRB Terrace Alluvium groundwater developed from data obtained in previous gauging events show an easterly trend in groundwater flow across the base toward the West Fork Trinity River.

Table 2.1
Stratigraphic Units at NAS Fort Worth JRB, Texas[1]

Era	System	Series/Group	Stratigraphic Unit	Thickness (Feet)[2]	Lithologic Characteristics[3]	Water-Yielding Characteristics
Cenozoic	Quaternary (1.8 mya to present)	Holocene	Fill material	0	Construction debris	Permeability varies; gravels and sands permeable
			Recent alluvial deposits	0-50	Gravel, sand, silt, clay	Permeability varies; gravels and sands permeable
		Pleistocene	Terrace alluvial deposits	0-60	Gravel, sand, silt, clay	Permeability varies; gravels and sands permeable
Mesozoic	Cretaceous (65 to 140 mya)	Comanchean/ Fredericksburg	Goodland limestone	0-40	White fossiliferous limestone, coarsely nodular, resistant, and dense; contains some marl	Impermeable where not weathered; considered confining unit
			Walnut Formation	0.5-30	Medium to dark grey clay and limestone with shell conglomerates, fossiliferous, Gryphaea beds	Very low permeability; considered confining unit
		Comanchean/ Trinity	Paluxy Formation	130-175	Light grey to greenish-grey sandstone and mudstone; fine-grained to coarse-grained sandstone	Considered an aquifer; yields small to moderate quantities of water
			Glen Rose Formation	150, range unknown at AFP 4	Brownish-yellow and gray alternating limestone, marl, shale, and sand	Low permeability; considered confining unit in area of AFP 4
			Twin Mountains Formation[4]	200, range unknown at AFP 4	Fine- to coarse-grained sandstone shale and claystone, basal gravel conglomerate	Coarse sandstones and parts of formation considered aquifer; yields moderate to large quantities of water

Notes:

1. Table adapted from USGS, 1996.
2. Thickness determined from site logs, except for Glen Rose Limestone and Twin Mountains Formation (Baker et al., 1990, Figure 4, as cited in USGS 1996).
3. Lithologic characteristics determined from field observations and from Winton and Adkins, 1919; University of Texas, Bureau of Economic Geology, 1972; U.S. Army Corps of Engineers, 1986; Baker et al., 1990; Environmental Science and Engineering, Inc., 1994, all as cited in USGS 1996.
4. This stratigraphic name does not conform to the usage of the USGS.

mya - million years ago

2.3.2 Goodland/Walnut Aquitard

The groundwater within the terrace deposits is isolated from groundwater within the lower aquifers by the low permeability rocks of the Goodland Limestone and Walnut Formations. The primary inhibitors to vertical groundwater movement within these units are the fine-grained clay and shale layers that are interbedded with layers of limestone. Some groundwater movement does occur between the individual bedding planes of both of these units, but the vertical hydraulic conductivity has been calculated to range between 1.2×10^{-09} centimeters per second (cm/s) to 7.3×10^{-11} cm/s for the NAS Fort Worth JRB and AFP 4 area. This corresponds to a vertical advective velocity rate that ranges between 1.16×10^{-03} feet per day (ft/d) to 5.22×10^{-03} ft/d (ESE, 1994).

At the AFP 4 "window area," the Goodland/Walnut aquitard is breached, and the Alluvial Terrace groundwater is in direct communication with the groundwater in the Paluxy aquifer. A significant number of monitoring wells and borings have been advanced on NAS Fort Worth JRB, and no evidence has been found indicating that a similar window exists on the base property.

During 2000, several data gap investigations were conducted in support of a Risk Assessment/Focused Feasibility Study (HydroGeoLogic, 2000b). As part of the investigations, three monitoring wells were installed and screened in the paluxy upper sands (WHGLPU001, WHGLPU003, and WHGLPU004). When drilling the wells, the Walnut Formation, was observed to be fractured and appeared to have higher hydraulic conductivities than the Upper Paluxy. An additional monitoring well (WHGLWN002) was installed in the Walnut Limestone formation in order to characterize the unit.

2.3.3 Paluxy Aquifer

The Paluxy aquifer is an important source of potable groundwater for the Fort Worth area. Many of the surrounding communities, particularly White Settlement, obtain their municipal water supplies from the Paluxy aquifer. Groundwater from the Paluxy aquifer is also used in some of the surrounding farms and ranches for agricultural purposes. Due to the extensive use of the Paluxy aquifer, water levels have declined significantly over the years. Water levels in the NAS Fort Worth JRB vicinity have not decreased as much as in the Fort Worth area due to its proximity to the Lake Worth recharge area and the fact that the base does not use water from the Paluxy aquifer. Drinking water at the base is supplied by the city of Fort Worth, which uses Lake Worth as its water source. The groundwater of the Paluxy aquifer is contained within the openings created by gaps between bedding planes and cracks and fissures in the sandstones of the Paluxy Formation. Just as the Paluxy Formation is divided into upper and lower sand members, the aquifer is likewise divided into upper and lower aquifers. The upper sand is finer grained and contains a higher percentage of shale than the lower sand. Radian (1989) estimated the hydraulic conductivity and transmissivity to be 130 to 140 gpd/ft^2 and 1,263 to 13,808 gallons per day per foot (gpd/ft), respectively. TCE concentrations in WHGLPU001 ranged from non-detect to 5 μg/L over the three sampling events. No other deep wells at Carswell have contained VOCs.

2.3.4 Glen Rose Aquitard

Below the Paluxy aquifer are the fine-grained limestone, shale, marl, and sandstone beds of the Glen Rose Formation. The thickness of the formation ranges from 250 to 450 feet. Although the sands in the Glen Rose Formation yield small quantities of groundwater in the area, the relatively impermeable limestone acts as an aquitard restricting water movement between the Paluxy aquifer above and the Twin Mountains aquifer below.

2.3.5 Twin Mountains Aquifer

The Twin Mountains Formation is the oldest and deepest water supply source used in the NAS Fort Worth JRB area. The Twin Mountains Formation occurs approximately 600 feet below NAS Fort Worth JRB with a thickness of between 250 to 430 feet. Recharge to the Twin Mountains aquifer occurs west of NAS Fort Worth JRB where the formation crops out. Groundwater movement follows the regional eastward slope of the bedrock. Like the groundwater in the Paluxy aquifer, the Twin Mountains groundwater occurs under unconfined conditions in the recharge area and becomes confined as it moves downdip. Transmissivities in the Twin Mountain aquifer range from 1,950 to 29,700 gpd/ft and average 8,450 gpd/ft in Tarrant County. Permeability's range from 8 to 165 gpd/ft^2 and average 68 gpd/ft^2 in Tarrant County (CH2M HILL, 1984).

2.4 SURFACE WATER

NAS Fort Worth JRB is located within the Trinity River Basin adjacent to Lake Worth. The main surface water features of interest are Lake Worth, the West Fork Trinity River, and Farmers Branch Creek. Lake Worth, which was constructed in 1941 as a source of municipal water for the city of Fort Worth, borders the base to the north of NAS Fort Worth JRB. The surface area of the lake is approximately 2,500 acres. The Paluxy aquifer discharges to Lake Worth near its western extent. However, in the portion of the lake near Bomber Road, the top of the Paluxy aquifer is recharged by Lake Worth. There does not appear to be a hydraulic connection between the Paluxy aquifer and the lake in the eastern portion where the Walnut Formation separates the Paluxy aquifer and Lake Worth. The elevation of the lake is fairly constant at approximately 594 feet above NGVD, the fixed elevation of the dam spillway (USGS, 1996).

The West Fork Trinity River, a major river in north central Texas, defines the eastern boundary of the base. The Trinity River flows southeast towards the Gulf of Mexico. Because the river has been dammed, the 100- and 500-year flood plains downstream of the dam do not extend more than 400 feet from the center of the river or any of its tributaries. Storm water, which enters the NAS Fort Worth storm water drainage system, is discharged directly into Lake Worth. The outfall is permitted under the National Pollutant Discharge Elimination System, and monitoring results document compliance with permit discharge limitations (IT Corporation, 1997).

Storm water that does not enter the drainage system, drains east towards the West Fork Trinity River. A portion of the base is drained by Farmers Branch Creek, a tributary to the West Fork Trinity River. Farmers Branch Creek begins within the community of White Settlement and flows eastward. Most of the flow in the creek is due to surface runoff, with some groundwater recharge from the Terrace Alluvium groundwater. Just south of AFP 4, Farmers Branch flows under the runway within two large culverts identified as an aqueduct. Two unnamed tributaries flow across the Flightline Area and discharge into Farmers Branch Creek. Another unnamed stream (approximately 200 feet long) is located in the SWMU 67 area and discharges to Farmers Branch Creek as well. Most of the base drainage is intercepted by a series of storm drains and culverts, directed to oil/water separators, and discharged to the West Fork Trinity River downstream of Lake Worth. A small portion of the north end of the base drains directly into Lake Worth.

2.5 CLIMATE

The climate in the Fort Worth area is classified as sub-humid with long, hot summers and short, dry winters. Tropical maritime air masses control the weather during much of the year, but the passage of polar cold fronts and continental air masses can create large variations in winter temperatures. Mean annual precipitation recorded at the base is approximately 33.70 inches. The wettest months are May and October, with a secondary maximum in April. The period from November to March is generally dry, with a secondary minimum in August. Snowfall accounts for a small percentage of the total precipitation between November and March. Thunderstorm activity occurs at the base an average of 45 days per year, with the majority of the activity between April and June. Hail may fall 2 to 3 days per year. The maximum precipitation recorded in a 24-hour period is 1.49 inches. On the average, measurable snowfall occurs 2 days per year.

During 2000, the average annual temperature in the area was 65.6 degrees Fahrenheit (°F), and monthly mean temperatures varied from 43.4 °F in January to 85.3 °F in July. The average daily minimum temperature in January was 32.7 °F, and the lowest recorded temperature was 32 °F. The average daily maximum temperature and highest temperature recorded at the base during 2000 were both in July was 96.5 °F, and the highest temperature ever recorded at the base was 98 °F in the month of July. Freezing temperatures occur at NAS Fort Worth JRB an average of 30 days per year. (National Weather Service, 2001).

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TAB

SECTION 3.0

3.0 MONITORING ACTIVITIES

This section describes the procedures performed during the April 2001 semi-annual groundwater sampling event at NAS Fort Worth JRB. All work was performed in accordance with the Final 2001 GSAP (HydroGeoLogic, 2001) and Final 2000 Basewide QAPP (HydroGeoLogic, 2000a).

Monitoring activities included:

- Monitoring well inspection/maintenance
- Water level measurements
- Monitoring well purging and analytical sampling
- Investigative-derived waste (IDW) management
- Laboratory and field analysis

3.1 MONITORING WELL INSPECTION/MAINTENANCE

Inspection and maintenance was performed at 307 of the 312 monitoring wells prior to the April 2001 sampling event. Four of these monitoring wells (MW-13, MW-18, MW-58, and MW-59) are presumed to be covered with a concrete pad and an aboveground diesel fuel tank. The Navy is currently addressing this issue. One monitoring well, MWMTAC-001 was not located during April 2001 and has subsequently been found and abandoned during July 2001. In addition, during July 2001 WHGLTA049 was properly abandoned and a new well was installed. A visual inspection of each monitoring well proposed for sampling was conducted to determine the monitoring well's condition and integrity. As part of the monitoring well inspection procedure, the integrity of the surface features, such as, the concrete pad, security posts, and the manhole cover, were thoroughly examined and the maintenance needs were recorded. The monitoring well casing, cap, and any security features such as locks, monitoring well identification and bolts, were repaired or replaced as appropriate, or noted for future maintenance. Following the visual inspection of each monitoring well, a photoionization detector (PID) was used to measure the levels of organic vapors in the background area, breathing zone, and at the top of each well casing immediately after the well cap had been removed. All well inspection and measurement data were recorded on the monitoring well maintenance forms provided in Appendix A.1 and in the field notes provided in Appendix A.2.

3.2 WATER LEVEL MEASUREMENTS

In order to evaluate existing groundwater flow patterns, 293 monitoring wells located east of AFP 4 were gauged to provide water level measurements during the April 2001 sampling event. The locations of these wells are provided in Figure 3.1. The monitoring wells were inspected, and both depth to water and total depth of the monitoring well were measured. In some monitoring wells, the dedicated pumps do not allow for gauging depth to water or total depth. The dedicated pumps are removed annually to determine if fine materials have accumulated inside the well casing.

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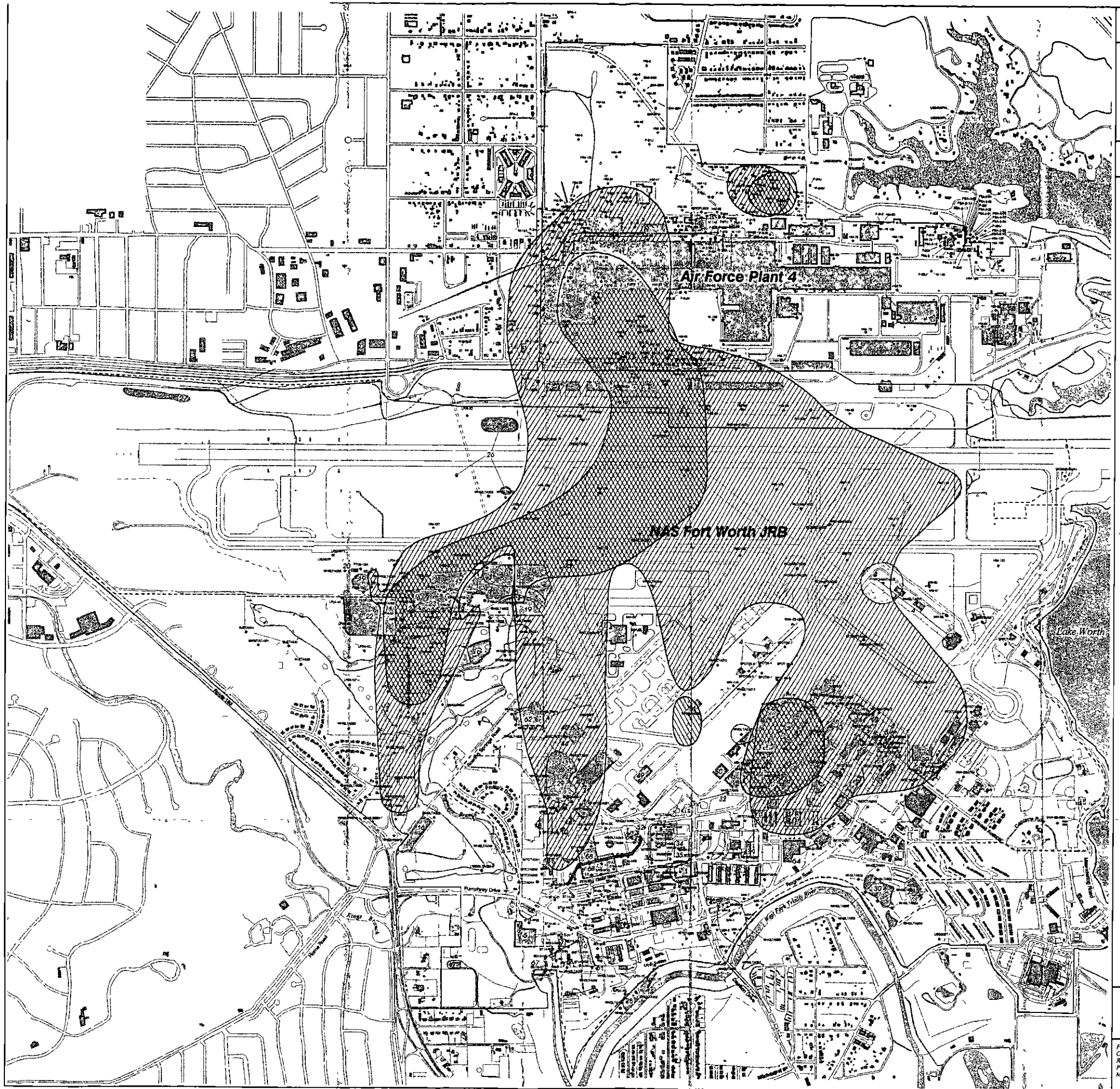

Figure 3.1

Wells Selected for Inspection and Water Level Measurement April 2001

U S Air Force Center For Environmental Excellence

Legend

- NAS Fort Worth JRB (Carswell Field)
- Former Carswell Air Force Base
- Trichloroethene Plume Boundary set at MCL (5 µg/L)
- *cis*-1,2-Dichloroethene Plume Boundary set at MCL (70 µg/L)
- Benzene Plume Boundary set at MCL (5 µg/L)
- USGS041 — NAS Fort Worth JRB Basewide Sampling Wells
- WHGLTA801 — Monitoring Wells Sampled as part of other Groundwater Investigations
- HM 120 — AFP 4 Semi-Annual Monitoring Wells
- WITCTA011 — Other Monitoring Wells

Note Dashed contour indicates interpreted plume boundary

Area of Concern (AOC)

1 Former Base Service Station/Former Base Gas Station
2 Airfield Groundwater (Basewide Coverage)
4 Fuel Hydrant System
5 Grounds Maintenance Yard
6 RV Storage Area
7 Former Base Refueling Area
8 Aerospace Museum
9 Golf Course Maintenance Yard
10 O/W Separator
11 O/W Separator
12 O/W Separator
13 O/W Separator
14 Unnamed Stream
15 Storage Shed
16 Family Camp
17 Former Landfill
18 Suspected Former Fire Training Area A
19 Suspected Former Fire Training Area B

Solid Waste Management Unit (SWMU)

5 Building 1626 Waste Accumulation Area
6 Building 1628 Wash Rack and Drain
7 Building 1629 Oil/Water Separator
8 Building 1629 Sludge Collection Tank
11 Building 1617 Waste Accumulation Area
12 Building 1619 Waste Accumulation Area
15 Building 1710 Visual Information Center Work Station Waste Accumulation Areas
16 Building 1060 Waste Accumulation Area
17 Landfill No.7
18 Fire Training Area No 1
19 Fire Training Area No.2
20 Waste Fuel Storage Tank
21 Waste Oil Tank
22 Landfill No.4
23 Landfill No.5
24 Waste Burial Area
25 Landfill No.6
26 Landfill No.3
27 Landfill No.10
28 Landfill No.1
29 Landfill No.2
30 Landfill No.9
31 Building 1050 Waste Accumulation Area
32 Building 1410 Waste Accumulation Area
33 Building 1420 Waste Accumulation Area
34 Building 1184 Waste Accumulation Area
35 Vehicle Refueling Shop (Building 1184) Oil/Water Separation System
36 Building 1191 Waste Accumulation Area
37 Vehicle Maintenance Shop (Building 1191) Oil/Water Separation System
39 Building 1643 Waste Accumulation Area
40 Building 1643 Oil/Water Separation System
41 Building 1414 Oil/Water Separation System: Field Maintenance Squadron Aerospace Ground Equipment
42 Building 1414 Waste Accumulation Area
44 Building 1027 Oil/Water Separation System at the Aircraft Washing Hangar
45 Building 1027 Waste Oil Tank Vault at the Aircraft Washing Hangar
47 Building 1015 Jet Engine Test Cell Oil/Water Separator
49 Aircraft Washing Area No.1
50 Aircraft Washing Area No.2
51 Building 1190 Central Waste Holding Area
52 Building 1190 Oil/Water Separation System
53 Storm Water Drainage System
54 Storm Water Interceptors
56 East Gate Oil/Water Separator
61 Building 1520 Power Production Maintenance Facility Waste Accumulation Area
62 Landfill No.8
64 French Underdrain System
66 Sanitary Sewer System (Basewide Coverage)
67 Building 1340 Oil/Water Separator
68 POL Tank Farm

N

500 0 500 1000

SCALE IN FEET

HYDRO GeoLogic INC.

Filename X:\afc001 33dabai\Report ice dce hensme_plate-apr2001.apr
Created by jfeldner 06/26/99
Revised 06/24/01 AGP
Project AFC001 33DABA
Map Source HydroGeoLogic GIS Database 2001
Jacobs Engineering 1996

For monitoring wells which have recorded PID readings over 100 parts per million (ppm) or contained free product in the past, an interface probe was used, in accordance with Appendix C of the Final 2001 GSAP (HydroGeoLogic, 2001), to check for free-product (i.e., LNAPL). Field notes documented whether an odor, sheen, or measurable free product (>0.01 feet thickness) was present. If greater than 0.01 feet of free-product was present, it was removed via absorbent pads until no measurable product remained. Free product recovery was not required at any of the 44 GSAP monitoring wells sampled during the April 2001 sampling event. However, free product was identified at monitoring well WHGLTA038, which is sampled as part of AOC 1 regulatory requirements. Monitoring well WHGLTA038 was installed off base in May 2000 along with two additional wells to monitor the potential for off-base contaminant migration into the West Fork Trinity River. Monitoring well WHGLTA038 has been dry during the previous sampling events and therefore has never been sampled. During April 2001 there was 1.5 feet of water in the well. In order to obtain a sample, the pump was placed 6 inches above the bottom of the well. Upon the pumped water reaching the surface, product was identified and purging continued until the well went dry. Monitoring well WHGLTA038 will be monitored for free product recovery and a groundwater remediation investigation will be conducted at AOC 1 during the summer of 2001.

3.3 MONITORING WELL/CHEMICAL ANALYSIS SELECTION

Forty-four monitoring wells were scheduled to be sampled in April 2001 as described in the Final 2001 GSAP (HydroGeoLogic, 2001). These 44 monitoring wells were further divided based on whether the monitoring wells were selected primarily to evaluate plume characteristics, potential off-site migration, and/or to assess natural attenuation. Chemical analysis selection was then assigned based on the monitoring wells sampling objective. Table 3.1 includes a list of the TCE plume monitoring wells sampled during April 2001 and the chemical parameters selected for analysis at each monitoring well. Table 3.2 includes a list of additional monitoring wells sampled during April 2001 as part of other ongoing investigations. The monitoring wells sampled during the April 2001 semi-annual are depicted on Figure 3.1.

Components considered in developing the sampling approach included monitoring well location relative to an area/source of contamination, type of contamination suspected and/or detected, and specified monitoring requirements resulting from ongoing or previous investigations. The analysis proposed for a selected monitoring well reflects the monitoring objective(s) that it supports. For example, when a selected monitoring well supports both the plume delineation objective as well as the natural attenuation objective, the list of analytical tests reflects the analysis needed to fulfill both objectives (i.e., volatile organic compounds [VOCs] and natural attenuation parameters [nitrate, sulfate, chloride; Fe (II); alkalinity; methane, ethane, ethane; and total organic carbon (TOC)]). Six monitoring wells (HM-123, ITMW-01T, LF05-5G, USGS07T, W-153, and WITCTA024) were sampled for natural attenuation.

Table 3.1
TCE Plume Monitoring Wells Selected for
April 2001 Basewide Sampling

Area	Well	Sample Parameters[1]		
		VOCs	Metals	Natural Attenuation[2]
Plume Monitoring Wells	GMI-22-06M	X		
	GMI-22-07M	X		
	HM-114	X		
	HM-116	X	X	
	HM-123	X		X
	HM-126	X		
	ITMW-01T[3]	X	X	X
	LF03-3D[3]	X	X[4]	
	LF04-02	X		
	LF05-01	X		
	LF05-02	X		
	LF05-19	X		
	LF05-5G	X		X
	MW-53	X		
	SPOT35-5	X		
	ST14-03	X		
	USGS04T	X		
	USGS07T	X	X	X
	W-153	X		X
	WCHMHTA006	X		
	WCHMHTA008	X		
	WCHMHTA009	X		
	WHGLRW016	X		
	WHGLRW017	X		
	WHGLTA004	X		
	WHGLTA009[3]	X		
	WHGLTA012	X		
	WHGLTA025	X		
	WHGLTA029[5]	X		
	WHGLTA043	X		
	WHGLTA044	X		
	WHGLTA045	X		
	WHGLTA049[6]	X		
	WHGLTA051	X		
	WHGLTA603	X		

Table 3.1 (Continued)
TCE Plume Monitoring Wells Selected for
April 2001 Basewide Sampling

Area	Well	Sample Parameters[1]		
		VOCs	Metals	Natural Attenuation[2]
	WHGLTA704	X		
	WITCTA003[5]	X		
	WITCTA004	X		
	WITCTA010	X	X	
	WITCTA019	X		
	WITCTA024	X		X
	WITCTA040	X		
	WITCTA041	X		
	WITCTA043	X		

Notes:
1 Samples from all wells were also tested for the following standard field parameters: temperature, pH, specific conductance, dissolved oxygen (DO), oxidation-reduction potential (Eh), and turbidity.
2 Natural attenuation parameters to be sampled are common anions (chloride, nitrate, and sulfate), TOC, Fe (II), alkalinity, methane, ethane, and ethane.
3 Monitoring wells sampled for Jacobs.
4 This well will be sampled for chromium only.
5 These monitoring wells are only to be sampled in April 2001.
6 WHGLTA049 was not sampled during April 2001 due to interference with golf course renovations activities. The well re-installed in July 2001.
VOCs - Volatile organic compounds (EPA Method SW8260B)
Metals - Total metals plus mercury (EPA Methods SW6010B/SW7471A)
Natural Attenuation - sulfate, nitrate, chloride (SW9056); TOC (SW9060); alkalinity (E310.1); methane, ethane, and ethane (Method RSK-175).

Table 3.2
Additional Monitoring Wells Sampled During April 2001

Area	Monitoring Well	Sample Parameters [1]		
		VOCs SW8260B	SVOCs SW8270C	Metals + Hg SW6010B
Paluxy Well	WHGLPU001	X		
AOC 1 Monitoring Wells	BGSMW03	X		
	BGSMW05	X		
	BGSMW06	X		
	MW-6	X		
	MW-10	X		
	SAV-2	X		
	WHGLTA036	X		
	WHGLTA037	X		
	WHGLTA038[2]	X		
SWMUs 19, 20, 21 and AOC 19	WHGLTA053	X	X	X
	WHGLTA054	X	X	X
	WHGLTA055	X	X	X
	WHGLTA056	X	X	X
	FT09-12B	X	X	X
	FT09-12C	X	X	X
	WHGLTA050	X		
	WHGLTA052	X		
	WHGLTA801	X		

Notes:
1 Samples from all monitoring wells were also tested for the following standard field parameters: temperature, pH, electrical conductance (EC), dissolved oxygen (DO), oxidation-reduction potential (Eh), and turbidity.
2 Monitoring well WHGLTA038 was not sampled in April 2001 because LNAPL was identified in the well.

3.3.1 Critical Groundwater Exposure Pathways

Several monitoring wells located near the base boundaries, and/or immediately upgradient of surface water bodies where groundwater discharges to surface water, were selected to monitor the potential for off-site migration. The selected monitoring wells are HM-116, ITMW-01T, USGS07T, and WITCTA010. These monitoring wells were sampled for VOCs by EPA Method SW8260B and total metals plus mercury by EPA Methods SW6010B/SW7470A.

3.3.2 Additional Source and Plume Delineation

A total of 44 existing monitoring wells located within and around the TCE plume were selected to provide additional source and plume delineation in areas that have been evaluated in the past. Monitoring wells selected for plume delineation were analyzed for VOCs using EPA

Method SW8260B. Well WHGLTA049, was not sampled in April 2001 due to extensive damage that occurred during golf course renovations. This well was re-installed in July 2001.

3.3.3 Natural Attenuation Monitoring

Six monitoring wells were sampled for natural attenuation parameters to provide continuous baseline data to determine where biodegradation is acting to reduce contaminant concentrations in groundwater. Natural attenuation parameters include common anions (EPA Method SW9056), methane, ethene, and ethane (Method RSK-175), total organic carbon (EPA Method SW9060), and alkalinity (EPA Method 310.1), as well as several of the standard field parameters (temperature, pH, specific conductance, dissolved oxygen [DO], oxidation-reduction potential [Eh], turbidity, and electrical conductance [EC]) measured at every well. The monitoring wells selected for natural attenuation monitoring are located at the highest TCE concentrations (HM-123, LF05-5G, and W-153), and in the most downgradient well (ITMW-01T). Two monitoring wells along the plume perimeter were also sampled for "background" conditions (WITCTA024 and USGS07T).

3.3.4 Current Regulatory Requirements

A long-term groundwater monitoring program was proposed for AOC 1, the Former Base Service Station/Former Base Gas Station, prior to the 1999 GSAP (TNRCC, 1997). Following the interpretation of the data collected during the year 2000, the TNRCC requested two quarterly groundwater monitoring events be conducted during 2001. Eight of the nine scheduled monitoring wells were sampled for VOCs by EPA Method SW8260B during April 2001 (Figure 3.1). Monitoring well WHGLTA038 was not sampled due to the presence of LNAPL. In July 2001, the same eight of nine monitoring wells were sampled for VOCs and three surface water samples were collected. In addition, three additional monitoring wells and one recovery well was installed during July 2001 and sampled as part of the groundwater remediation investigation to be conducted at AOC 1 in August 2001. The analytical results for both the April and July 2001 sampling efforts will be discussed in a separate report. Appendix Table B.3 contains the detected analytical results from the AOC 1 sampling.

Nine additional monitoring wells were sampled as part of an ongoing RCRA Facility Investigation (RFI) for SWMUs 19, 20, 21 and a Site Investigation (SI) for AOC 19 (Figure 3.1). Monitoring wells WHGLTA053, WHGLTA054, WHGLTA055, WHGLTA056, FT09-12B, and FT09-12C were sampled for Appendix IX VOCs (SW8260B), Appendix IX SVOCs (SW8270C), and total metals (SW6010B/7471). Monitoring wells WHGLTA050, WHGLTA052, and WHGLTA801 were only sampled for TCE. The analytical results from both SWMUs 19, 20, 21 and AOC 19 investigations will be discussed in their respective RFI and SI Reports. Appendix Table B.3 contains the detected analytical results from SWMUs 19, 20, 21, and AOC 19.

3.3.4 Air Force Plant 4 Monitoring

Twenty-four monitoring wells were sampled in April 2001 by Jacobs Engineering (Jacobs) as part of the AFP 4 long-term monitoring (LTM). Of the 24 monitoring wells, 16 are located at AFP 4 and 8 are located at NAS Fort Worth JRB. The sampling protocol for AFP 4 LTM is included in the January 2001 LTM Annual Sampling Report (Jacobs, 2001).

Table 3.3 includes a list of the monitoring wells selected for sampling and the chemical parameters selected for analysis at each well. The analytical data collected by Jacobs for the AFP 4 LTM program are used to supplement groundwater data collected for the NAS Fort Worth JRB GSAP. All analytical results are presented in the figures within Section 5.0 of this report and the Appendix Table B.2 contains the detected analytical results from the April 2001 AFP 4 sampling.

3.4 MONITORING WELL PURGING AND ANALYTICAL SAMPLING

The 43 monitoring wells were sampled utilizing a low-flow purge technique, the procedure recommended for AFCEE projects (AFCEE, 1996). Detailed sampling protocol is included in Appendix C of the Final 2001 GSAP (HydroGeoLogic, 2001).

3.4.1 Purging Procedures

Dedicated MicroPurge® Well Wizard® bladder pumps were used to purge and sample 20 of the 43 monitoring wells designated as TCE plume monitoring wells listed on Table 3.1. A non-dedicated stainless steel bladder pump was used on the remaining 23 monitoring wells. The bladder pump is ideal for low-flow purging and can sustain pumping rates between 0.1 to 0.5 liter/minute minimizing turbidity, oxygenation, mixing of chemically distinct zones, and potential loss of VOCs. Continuity of the groundwater sampling is achieved in the majority of the sampling through using the same dedicated equipment each event and minimizing the disturbance to the water column. With non-dedicated equipment, pumps that are lowered into the monitoring well will cause some mixing of the stagnant and dynamic water zones, and resuspension of solids that have settled in the monitoring well. The dedicated pump system requires no equipment blanks or equipment decontamination.

During all purging, water quality stabilization criteria (pH, temperature, dissolved oxygen [DO], oxidation-reduction potential [Eh], turbidity, and electrical conductance [EC]) were continuously monitored using a flow-thru cell. The measurements were recorded on the groundwater field sampling data sheets (Appendix A.3). The criteria for sample collection was the stabilization of water quality parameters as follows:

Table 3.3
Terrace Alluvium Monitoring Wells Selected for April 2001
Air Force Plant 4 Long Term Monitoring
Sampled by Jacobs Engineering Group

Area	Monitoring Well	VOCs [1]	Chromium [2]
AFP 4 Terrace Alluvium Monitoring Wells	F-209	X	
	F-218	X	X
	HM-31	X	X
	HM-36	X	
	HM-50	X	
	HM-65	X	
	HM-88	X	X
	HM-93	X	X
	HM-95	X	X
	HM-98	X	X
	HM-102	X	
	HM-112	X	X
	MW-5	X	X
	W-135	X	
	W-149	X	X
	W-157	X	X
NAS Fort Worth JRB Terrace Alluvium Monitoring Wells	GMI-22-02M	X	
	GMI-22-03M	X	
	GMI-22-05M	X	
	HM-119	X	
	HM-120	X	
	HM-127	X	
	LF03-3D [3]	X	X
	LF04-10	X	
	ITMW-01T [3]	X	
	USGS06T	X	
	WHGLTA009 [3]	X	
	WHGLTA048	X	

Notes:

1 VOCs were sampled for cis-1,2-dichloroethene, trans-1,2-dichloroethene, TCE, and vinyl chloride by EPA Method SW8260B.

2 Chromium was sampled by EPA Method SW6010B.

3 Monitoring well sampled by HydroGeoLogic, Inc. and results were reported to Jacobs.

- Temperature: +/- 1°C
- pH: +/- 0.1 units
- EC: +/- 3% full scale range
- DO: +/- 0.10 milligrams per liter or 10% of value (whichever is greater)
- Eh: +/- 10 mV
- Turbidity: +/- 10% and less than 10 Nephelometric turbidity units whenever possible

3.4.2 Sampling Procedures

A monitoring well was sampled when the water quality stabilization criteria were met. If the parameters did not stabilize, the sample was collected when a minimum subset of the above parameters stabilized as described in Appendix C of the Final 2001 GSAP (HydroGeoLogic, 2001).

Samples for VOC analysis were collected first at each monitoring well, followed by the samples for metals, TOC, methane, alkalinity, and common anions, when applicable. Required sample containers, preservation methods, volumes, and holding times are provided in Section 5.0 of the Final 2000 Basewide QAPP (HydroGeoLogic, 2000a).

3.5 INVESTIGATION-DERIVED WASTE MANAGEMENT

IDW management procedures were followed as outlined in Section C.9.2 of the Final 2001 GSAP (HydroGeoLogic, 2001). All purge and decontamination water was stored in a poly tank at the IDW storage area. Samples of the purge and decontamination water were collected at the end of July 2001 when the polyethylene tanks were full and submitted to the laboratory for analysis.

3.6 LABORATORY AND FIELD ANALYSIS

The methods selected for the chemical analyses for the April 2001 sampling event are listed on Table 3.1. All samples were delivered by overnight courier to Severn Trent Laboratory (STL) in Chicago, Illinois. Each sample was submitted for analysis of the constituents outlined in Table 3.1, and analyzed according to the specifications in the Final 2000 Basewide QAPP (HydroGeoLogic, 2000a)

TAB

SECTION 4.0

4.0 QUALITY ASSURANCE/QUALITY CONTROL PROGRAM

This section describes the analytical methods and QC program utilized for the basewide monitoring events at NAS Fort Worth JRB and provides a data quality evaluation (DQE) of the April 2001 semi-annual groundwater sampling event. The analytical methods used for the collection of data are described in the QAPP (HydroGeoLogic, 2000a).

4.1 FIELD QUALITY CONTROL

The field QC program for the collection of samples at NAS Fort Worth JRB included specific procedures for the collection of groundwater samples as described in the Final 2001 GSAP (HydroGeoLogic, 2000a). Sample bottles met U.S. Environmental Protection Agency (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, COC, and field sampling reports are in agreement and traceable back to the correct field sample. Custody seals were placed on each cooler before shipment by a common carrier.

Field QC samples were collected to evaluate sampling technique and decontamination procedures. The samples including ambient blanks, equipment blanks, trip blanks, and field duplicates are described below. A summary of the QC samples, including the number of each type collected as part of the April 2001 sampling event, are included in Table 4.1.

4.1.1 Ambient Blanks

Ambient blanks consist of American Society for Testing and Materials (ASTM) Type II reagent grade water poured into a VOC sample vial at a sampling site (in the same vicinity as the associated 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) to the samples during sample collection. Project ambient blanks were handled like environmental samples and transported to the laboratory for analysis.

One ambient blank was collected during the April 2001 sampling event to account for potential interferences due to gasoline motors in operation in a high traffic area. No analyte detections were qualified as artifacts due to ambient blank contamination.

4.1.2 Equipment Blanks

An equipment blank is a sample of ASTM Type II reagent grade water poured into, poured over, or pumped through a sampling device, collected in a sample container, and transported to the laboratory for analysis. Equipment blanks are used to assess the effectiveness of equipment decontamination procedures. On days when only dedicated or disposable equipment is used, equipment blanks are not required as there is no potential for cross-contamination between sampling locations. During the April 2001 sampling event, four equipment blanks were

Table 4.1
Field Quality Control Samples
Collected for April 2001 Basewide Sampling

Type of Sample	Purpose	Frequency	Total Number	Time	Analysis
Ambient Blank	Used to assess the impact of ambient conditions	1 ambient blank/sampling event	1	During normal sample collection conditions	VOCs
Equipment Blank	Used to assess the effectiveness of equipment decontamination procedures	1 equipment blank/day that equipment is decontaminated	4	Immediately after equipment had been decontaminated	All laboratory analyses consistent with daily sampling
Trip Blank	Used to assess the potential contaminants from sample containers or other foreign sources during sample transportation and storage.	1 trip blank/ sample cooler	7	When VOC samples were collected	VOCs
Field Duplicate (blind)	Used to assess sample collection procedures, sample preparation, and improper analytical instrument use.	1 duplicate/10 environmental samples	5	Collected at the same time and location of original sample	Same as original sample

Notes:
VOCs - Volatile organic compounds (EPA Method SW8260B)

collected. One equipment blank was collected for each type of sample 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. Three detections of trichloroethene were qualified as artifacts due to equipment blank contamination.

4.1.3 Trip Blanks

Trip blanks consist of VOC sample vials filled in the laboratory with ASTM Type II reagent grade water, transported to the sampling site, handled as environmental samples, and returned to the laboratory for analysis. Trip blanks are not opened in the field and are submitted only when VOC samples are collected for analysis. Trip blanks are used to assess the potential introduction of contaminants from sample containers, and during sample transportation and storage. For the April 2001 sampling event, a set of trip blanks was included in each sample cooler containing samples requiring VOCs or dissolved gases analysis.

A total of seven trip blanks are associated with the April 2001 sampling event. No analyte detections were qualified as artifacts due to trip blank contamination.

4.1.4 Field Duplicates

A field duplicate is a second sample collected in the same location as a field sample ("parent" sample). Duplicate samples are collected simultaneously, or in immediate succession, to collection of parent sample, using identical recovery techniques. The parent and duplicate are treated in an identical manner during transportation, storage, preparation, and analysis. Five field duplicates are associated with the April 2001 sampling event. Any data qualification required by duplicates not meeting the precision criteria for the April 2001 event are discussed in Section 4.5 of this report.

4.2 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., LF03-3D, WHGLTA025), also referred to as the LOCID
zz	represents the medium (WG for water-ground)
aa	indicates the sampling event number for groundwater, surface water, and soil (e.g., 01, 02, 03, etc.)

For example, the groundwater sample collected during the fourteenth sampling event from LF03-3D would be identified as "LF03-3DWG14."

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. The locations from which field duplicate samples were to be collected were determined prior to mobilization. Documentation was maintained in the field sampling log book, and on the sample collection log, to track these field duplicate samples. For example, a blind duplicate sample would be identified as "DUP01."

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 April 03, 2001, would be identified as EB040301.

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 volatile samples shipped to the laboratory in the same cooler, and each equipment blank was correlated to those samples collected on a specific date using non-dedicated sampling equipment.

After the laboratory data were received and validated, data entry and QC operations were performed on the laboratory's electronic data deliverables (EDDs) to ensure that each EDD was complete, correct, and compliant with the Environmental Resources Program Information Management System (ERPIMS) format. An EDD report in the ERPIMS format will be provided.

For the purpose of this report, samples will be referred to by their LOCIDs and will not contain the suffix "WG14". The suffix of "DL" is applied to indicate a sample result reported from a diluted analysis, and the suffix "RE" indicates a sample result reported from a reanalysis.

4.3 LABORATORY QUALITY CONTROL

The laboratory QC program, including sample handling, laboratory QC elements, and data reporting, is fully documented in the QAPP (HydroGeoLogic, 2000a). 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 (LCSs), method blanks, matrix spike/matrix spike duplicate (MS/MSD) 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 DQE could be performed in a timely manner.

4.4 QUALITY CONTROL ELEMENTS

The basis for assessing each element of data quality (precision, accuracy, representativeness, completeness, and comparability) is discussed in the following subsections.

4.4.1 Precision

Precision measures the reproducibility of measurements. It is strictly defined as the degree of mutual agreement among independent measurements as the result of repeated application of the same process under similar conditions. Analytical precision is the measurement of the variability associated with duplicate (two) or replicate (more than two) analyses. Total precision is the measurement of the variability associated with the entire sampling and analysis process, and is determined by analysis of duplicate or replicate field samples and measures variability introduced by both the laboratory and field operations. Field duplicate samples and MSD samples were analyzed to assess field and analytical precision, and the precision measurement was determined using the relative percent difference between the duplicate sample results. For replicate analyses, the relative standard deviation was determined. Acceptable values for precision for each analyte are listed by analysis method in the QAPP (HydroGeoLogic, 2000a).

4.4.2 Accuracy

Accuracy is a statistical measurement of correctness and includes components of random error (variability due to imprecision) and system error. It therefore reflects the total error associated with a measurement. A measurement was accurate when the value reported did not differ from the true value or known concentration of the spike or standard. Analytical accuracy was measured by comparing the percent recovery (%R) of analytes spiked into an LCS to a control limit. For most organic analytical methods, surrogate compound recoveries were also used to assess accuracy and method performance for each sample analyzed. Analyses of performance evaluation (PE) samples were also used to provide additional information for assessing the accuracy of the analytical data being produced.

Both accuracy and precisión were calculated for each AFCEE analytical batch, and the associated sample results were interpreted by considering these specific measurements. The formula for calculation of accuracy is %R from pure and sample matrices. Acceptable values for %R for each analyte are listed by analytical method in the QAPP (HydroGeoLogic, 2000a). Accuracy and precision for the April 2001 sampling event are discussed in Section 4.5 of this report.

4.4.3 Representativeness

Objectives for representativeness were defined for each sampling and analysis task and were a function of the investigative objectives. Representativeness was achieved through use of the standard field, sampling, and analytical procedures. Representativeness was also determined by appropriate program design with consideration of elements such as proper sampling locations.

The same analytical methods are maintained from quarter to quarter (with the two exceptions cited in Section 4.4.5 below). The dedicated bladder pumps help to ensure representative samples are collected each sampling round.

4.4.4 Completeness

Completeness was calculated for the aggregation of data for each analyte measured for any particular sampling event or other defined set of samples. The number of valid results divided by the number of possible individual analyte results, expressed as a percentage, determines the completeness of the data set. In evaluating sampling event completeness, valid results were all results not qualified with an "R" qualifier (see Table 4.2 for an explanation of qualifiers used). The project requirement for completeness is 95 percent for aqueous samples. For any instances of samples that could not be analyzed for any reason (holding time violations in which resampling and analysis were not possible, samples spilled or broken, etc.), the numerator of this calculation becomes the number of valid results minus the number of possible results not reported.

The formula for calculation of completeness follows:

$$\%\ \text{completeness} = \frac{\text{number of valid (i.e., non} - \text{R qualified) results}}{\text{number of possible results}} \times 100$$

The April 2001 sampling event generated a total of 3,121 data points (from environmental samples and field duplicates); 3,063 of these data points were considered usable. Overall project completeness was calculated to be 98.1 percent, which meets project completeness requirements. Completeness calculated on a per-analyte basis is evaluated in the discussion of individual analytical method subsections in Section 4.5. Monitoring well WHGLTA049 could not be sampled because the well had been destroyed, and the 62 data points for the VOC sample planned for that well could not be obtained. All rejected and missing data points are summarized in Table 4.3.

4.4.5 Comparability

Comparability is the confidence with which one data set can be compared to another data set. The objective for this QC program is to produce data with the greatest possible degree of comparability. The number of matrices that are sampled and the range of field conditions encountered are considered in determining comparability. Comparability is achieved by using standard methods for sampling and analysis, reporting data in standard units, normalizing results to standard conditions and using standard and comprehensive reporting formats. Complete field documentation using standardized data collection forms supports the assessment of comparability.

Analyses of PE samples and reports from audits are used to provide additional information for assessing the comparability of analytical data produced among subcontracting laboratories. Historical comparability is achieved through consistent use of methods and documentation procedures throughout the project. Although some methods have previously been dropped based on past results from the Groundwater Sampling Program, the analytical methods used

Table 4.2
Data Qualifiers

Qualifiers[1]	Positive Results	Negative Results
Qualifiers for Data Within Acceptance Limits (Usable as Reported)		
(no qualifier)	The result is a detection with the indicated value and units. (Use datum without qualification)	(Not applicable)
U	(Not applicable)	The analyte was analyzed for, but not detected. The associated numerical value is at the PQL. (Use datum without qualification.)
Qualifier for Data Within Action Limits (Usable with Qualification)		
F	The analyte was positively identified, but the associated numerical value is below the PQL.	(Not applicable)
J	The analyte was positively identified, the quantitation is an estimation.	(Not applicable)
UJ	(Not applicable)	The analyte was not detected; the associated numerical value is a PQL, which is estimated due to deficiencies in the QC data.
Qualifiers for Data Outside of Action Limits (Unusable)		
R	The datum is unusable due to serious deficiencies in the ability to meet QC criteria.	The datum is unusable due to serious deficiencies in the ability to meet QC criteria.

Notes:

[1] If a combination of QC results suggest contradictory qualifiers, the following hierarchy is used to select the appropriate qualifier to assign:

R > UJ > U > F > J > (no qualifier)

PQL - Practical quantitation limit

QC - Quality control

Table 4.3
Data Quality Evaluation and Result Rejection Summary

Monitoring Well	Bromomethane	Chloromethane	1,2-Dibromo-3-chloropropane	Dichlorodi-fluoromethane	Methylene Chloride	Naphthalene
DUP01				CC	CC	
DUP02		CC	CC	CC	CC, LCS	
DUP03					CC	
DUP04					CC	
DUP05	CC				CC, LCS	
GMI-22-06M	No rejected results					
GMI-22-07M	No rejected results					
HM-114				CC		
HM-116					CC	
HM-123					CC	
HM-126					CC	
ITMW-01T	No rejected results					
LF03-3D	No rejected results					
LF04-02		CC	CC	CC	CC, LCS	
LF05-01	No rejected results					
LF05-02	No rejected results					
LF05-19	No rejected results					
LF05-5G					CC	
MW-53	No rejected results					
SPOT35-5	No rejected results					
ST14-03					CC	
USGS04T				LCS		IC
USGS07T					CC	
W-153					CC	
WCHMTA006					CC	
WCHMTA008				LCS		IC
WCHMTA009					CC	
WHGLRW016	No rejected results					
WHGLRW017	No rejected results					
WHGLTA004		CC	CC	CC	CC, LCS	
WHGLTA009				LCS		IC
WHGLTA012				LCS		IC

Table 4.3 (Continued)
Data Quality Evaluation and Result Rejection Summary

Monitoring Well	Bromomethane	Chloromethane	1,2-Dibromo-3-chloropropane	Dichlorodi-fluoromethane	Methylene Chloride	Naphthalene
WHGLTA025	No rejected results					
WHGLTA029	CC				CC, LCS	
WHGLTA043				CC	CC	
WHGLTA044					CC	
WHGLTA045					CC	
WHGLTA049	Not sampled - well destroyed					
WHGLTA051	CC				CC, LCS	
WHGLTA603	CC				CC, LCS	
WHGLTA704					CC	
WITCTA003				LCS		IC
WITCTA004					CC	
WITCTA010	No rejected results					
WITCTA019				LCS		IC
WITCTA024	No rejected results					
WITCTA040				LCS		IC
WITCTA041				LCS		IC
WITCTA043				LCS		IC
Total Analyses	48	48	48	48	48	48
Rejected Analyses	4	3	3	15	24	9
Percent Complete	91.7	93.8	93.8	68.8	50.0	81.2

Notes:

LCS The designated sample result was rejected because of a low laboratory control sample recovery (%R).

IC The designated sample result was rejected because of failure to meet initial calibration criteria (r > 0.995).

CC The designated sample result was rejected because of high continuing calibration verification values (%D).

during the April 2001 sampling event are the same as those in use since the beginning of the Groundwater Sampling Program, with the exception of dissolved gases.

The original method for dissolved gases was a modification of EPA Method SW8015. Beginning with the April 1999 sampling event, Method RSK-175 has been used. Both methods involve the analysis of headspace by gas chromatography, and have similar detection limits. The control limits required by the QAPP have been used during all rounds of sampling and have remained unchanged.

4.5 DATA QUALITY EVALUATION

This section describes the analytical methods and quality control program utilized for the April 2001 Basewide Groundwater Sampling event at NAS Fort Worth JRB. The analytical methods used for the analysis of the field samples are described in the QAPP (HydroGeoLogic, 2000a).

The objective of the DQE is to provide a professional review of the analytical data packages submitted by the laboratory. The DQE consists of laboratory QC data and field QC data review, to indicate which data are usable, usable with qualification, or unusable. The analytical procedures used to generate field sample data are evaluated in accordance with the general and method specific QC criteria listed in Sections 5.0, 6.0, 7.0, and 8.0 of the QAPP (HydroGeoLogic, 2000a). The DQE for each analytical procedure (or set of procedures) is presented in the subsections below. Each subsection summarizes those results that have been found to be unusable, and those results that are usable with qualification.

Some analytes will have more than one qualifier assigned due to multiple QC issues with that result. In such cases, the qualifier with the highest priority is assigned; the other qualifiers are considered to be overridden and are not discussed in the method DQE. The exceptions to this are those detections that are considered field or laboratory artifacts. These results have a "U" qualifier applied prior to any other qualification; subsequent qualification is applied to the affected results as if they were non-detections.

Note that some samples have more than one analysis, due to reanalysis for dilution or QC issues. Where multiple analyses are available for a sample, the DQE discusses only QC issues affecting the definitive result for each analyte in that sample. The definitive result is determined by evaluating the hierarchy of data qualifiers (with the lower priority qualifier indicating a "better" result), practical quantitation limits (PQLs), and calibrated range.

The following items of laboratory QC data are reviewed:

- Sample integrity
- Sample completeness
- Preparation and analysis holding times
- Laboratory preparation and analysis methods
- Method accuracy and precision (e.g., MS/MSDs, dilution tests)

- Laboratory performance criteria (e.g., blanks, LCS recoveries, surrogates, internal standards)
- Instrument initial and continuing calibration checks

Field QC performance is evaluated through evaluating field duplicates, field blanks, field documentation, and shipping criteria.

4.5.1 Volatile Organic Compounds

A total of 43 groundwater samples, 5 duplicate samples, and 12 field QC samples were analyzed for VOCs by method SW8260B. Of the 2,976 VOC results generated by environmental samples and duplicate samples, 58 were rejected. Overall completeness of the VOC results was calculated to be 98.1 percent; however, rejected data caused six individual analytes, bromomethane (91.7 percent), chloromethane (93.8 percent), 1,2-dibromo-3-chloropropane (93.8 percent), dichlorodifluoromethane (68.8 percent), methylene chloride (50.0 percent), and naphthalene (81.2 percent), to fail to meet the 95 percent completeness goal. The results for the other 56 SW8260B VOC compounds had a completeness of 100%. All data rejections in VOC results were due to failure of initial calibration to meet the linearity requirement of correlation coefficient (r) greater than 0.995, unacceptably high percent difference (%D) values associated with the continuing calibration verifications, or low %R in associated LCS samples. Those rejected data are presented for each sample and each affected analyte in Table 4.3. The remaining data results are usable with qualification as described below.

Benzene and *cis*-1,2-dichloroethene detections have been qualified "J" in samples WHGLTA012 and DUP01 due to poor precision in this field duplicate pair.

Due to contamination in the associated equipment blank, trichloroethene detections have been qualified "U" in samples WITCTA003, WITCTA019, and WHGLTA009.

Due to a low %R for a surrogate compound, all detections in sample HM-123 are qualified "J", with the exceptions of those results reported from the diluted analysis (*cis*-1,2-dichloroethene and trichloroethene) and the result reported below the PQL and qualified "F" (tetrachloroethene). All non-detections in this sample are qualified "UJ" with the exception of methylene chloride, which was rejected and qualified "R".

Due to a high %R for a surrogate compound, all detections in samples WHGLTA009, WHGLTA012, and DUP01 have been qualified "J".

The following non-detections have been qualified "UJ" due to low %R in the associated MS/MSD pair: methylene chloride, styrene, and 1,2,4-trimethylbenzene in sample WHGLTA025; 1-chlorohexane in sample GMI-22-07M; and 1,1-dichloroethene, 1,2,4-trichlorobenzene, and chloromethane in sample WITCTA019.

Detected values for specific analytes have been qualified "F" in several samples due to results between the method detection limit (MDL) and PQL.

4.5.2 Metals

Four groundwater samples were analyzed for metals and one sample (LF03-3D) was analyzed for chromium. The analyses were performed by a combination of method SW6010B and the analyte-specific methods of the SW7000A series. All 97 metals results were found to be usable and overall completeness of the metals results is 100%, as is the completeness for each of the 24 individual analytes.

The following data results are usable with qualification as described below.

Preparation blanks, initial calibration blanks, and continuing calibration blanks exhibited occasional metals contamination. This blank contamination resulted in the following qualifications of detections as laboratory artifacts:

Copper has been qualified "U" in sample WITCTA010.

Copper, iron, manganese, and vanadium have been qualified "U" in sample HM-116.

Preparation blanks, initial calibration blanks, and continuing calibration blanks exhibited occasional negative baseline drift for specific metals. This baseline drift resulted in the following qualifications of non-detections:

Aluminum, cadmium, and nickel have been qualified "UJ" in sample WITCTA010.

Aluminum, arsenic, cadmium, and nickel have been qualified "UJ" in sample ITMW-01T.

Arsenic, cadmium, and nickel have been qualified "UJ" in sample USGS07T.

Aluminum, arsenic, cadmium, cobalt, and nickel have been qualified "UJ" in sample HM-116.

Low MS/MSD %R results for calcium, iron, and selenium caused the detections of calcium and iron to be qualified "J", and the non-detection of selenium to be qualified "UJ" in sample WITCTA010.

Graphite furnace atomic absorption spike recovery results were out of control for specific elements in several samples. This caused the following results to be qualified as described below:

The chromium non-detections were qualified "UJ" in samples LF03-3D and ITMW-01T.

The lead and selenium non-detections were qualified "UJ" in sample USGS07T.

The chromium non-detection was qualified "UJ" in sample WITCTA010.

Detected values for specific analytes have been qualified "F" in several samples due to results between the MDL and PQL.

4.5.3 Natural Attenuation Parameters

A total of six groundwater samples were analyzed for dissolved gases (methane, ethane, and ethene) by method RSK-175. There were no rejections of data for dissolved gases. All 18 dissolved gases results were found to be usable and overall completeness of the dissolved gases results is 100%, as is the completeness for each of the three individual analytes.

The following data results are usable with qualification as described below.

Method blanks and field QC samples exhibited occasional contamination. Blank contamination resulted in the following qualifications:

Methane was qualified "U" in samples USGS07T and W-153.

Those results reported between the MDL and reporting limit were qualified "F."

A total of six groundwater samples were analyzed for anions (chloride, sulfate, and nitrate), TOC, and alkalinity. All 18 anions results, 6 alkalinity results, and 6 TOC results were found to be usable and overall completeness for each of these methods is 100%, as is the completeness for each of the 5 individual analytes. All results from these tests can be used as reported without qualification.

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TAB

SECTION 5.0

5.0 FIELD AND ANALYTICAL RESULTS

Monitoring well inspection observations, water level measurements, and field and laboratory analytical results for the April 2001 semi-annual sampling event are presented in this section.

5.1 FIELD RESULTS

5.1.1 Monitoring Well Inspections

Of the 312 monitoring wells scheduled for inspection, only 307 were actually inspected during the April 2001 semi-annual sampling event. The locations of these monitoring wells are provided in Figure 3.1. Four monitoring wells (MW-13, MW-18, MW-58, and MW-59) are presumed to be covered with a concrete pad and an aboveground diesel fuel tank. The Navy is addressing this issue. One monitoring well, MWMTAC-001 was not located during April 2001 and has subsequently been found and abandoned during July 2001.

5.1.2 Groundwater Elevations

Groundwater elevations were obtained during the April 2001 sampling event for 293 monitoring wells selected for water level measurements and are included in Table 5.1. The groundwater elevations could not be determined for 19 of the 312 monitoring wells for the following reasons: one monitoring well could not be located; one monitoring well was compromised due to golf course renovations; one monitoring well contained a dedicated bladder pump installed by Jacob's Engineering; one monitoring well had a twist off metal cap and the handle was broken off; 4 monitoring wells are presumed to be covered with a concrete pad and aboveground storage tank; and 11 monitoring wells contained dedicated pumps with the depth to water below the top of the pump. These 19 monitoring wells are listed on Table 5.2, along with the monitoring wells that could not be inspected.

Groundwater elevations measured during the April 2001 sampling event from 289 monitoring wells screened in the Terrace Alluvium were used to construct the potentiometric maps presented in Figure 5.1. Monitoring well MW-19 was not gauged with the initial gauging and inspection, and therefore the data was not used to construct the groundwater elevation figure. In general, the regional groundwater flow direction is from west to east. Groundwater elevation varied from 625 feet above NGVD in the southwestern portion of the site to 532 feet NGVD in the eastern portion of the site during April 2001. The head gradients toward the eastern end of the site are considerably higher than those on the western portion. The groundwater gradient ranges from approximately 0.009 to 0.015 feet.

Some local variations in groundwater flow direction are reflected on the potentiometric maps. The groundwater flow direction in the Terrace Alluvium is primarily eastward towards the basin formed by the West Fork Trinity River, however, in the Landfill Area and the southern portion of the East area, groundwater flow is towards Farmers Branch Creek.

Table 5.1
Groundwater Elevations for April 2001

Monitoring Well	Coordinates		Top of Casing Elevation (ft. above msl)	Groundwater Elevation (ft. above msl)
	Easting	Northing		
15B	2301032.08	6963338.74	567.59	560.02
17I	2299626.67	6963642.66	578.13	568.24
17J	2299584.43	6963780.05	579.94	569.84
17K	2299799.21	6963578.34	575.47	566.92
17L	2299741.17	6963812.74	577.32	568.08
17M	2300037.62	6963761.95	574.28	566.00
BGSMW01	2299511.00	6964916.44	578.64	573.63
BGSMW02	2299618.19	6965006.79	577.57	567.73
BGSMW03	2299690.06	6965067.50	576.72	567.49
BGSMW04	2299589.50	6965084.53	578.49	568.07
BGSMW05	2299961.23	6965150.67	571.66	567.09
BGSMW06	2299910.09	6964981.31	576.51	567.45
BGSMW07	2299737.83	6964990.68	574.88	568.53
BSS-A	2300115.43	6965491.10	566.49	562.24
BLDG1040-1	2298699.62	6963528.01	604.27	586.41
FT08-11A	2295876.40	6962318.10	608.15	598.00
FT08-11B	2295928.50	6962030.90	608.05	599.49
FT09-12A	2295439.20	6960549.80	635.38	621.60
FT09-12B	2295697.40	6960709.30	627.36	596.51
FT09-12C	2295771.50	6960590.30	627.86	596.14
FT09-12D	2295743.40	6960887.60	627.26	596.90
FT09-12E	2295821.20	6960701.10	627.34	596.27
GMI-04-01M	2296728.53	6960930.74	613.71	594.41
GMI-22-02M	2296187.40	6966632.90	619.13	608.38
GMI-22-03M	2298539.40	6966219.90	608.03	587.71
GMI-22-04M	2297340.50	6967250.50	610.70	--[1]
GMI-22-05M	2299432.10	6966940.30	584.28	573.09
GMI-22-06M	2298186.60	6967004.50	606.84	588.77
GMI-22-07M	2298322.50	6969018.70	605.66	589.91
GMI-22-08M	2298971.50	6970323.60	606.94	591.86
HM-110	2293163.20	6963667.50	637.33	--[2]
HM-111	2293265.66	6963623.55	636.49	--[3]
HM-112	2293141.65	6964217.56	638.06	611.03
HM-114	2294352.00	6963912.10	627.77	609.83
HM-116	2294283.70	6966411.40	634.06	610.66
HM-117	2294274.30	6967355.40	633.32	611.30
HM-118	2294780.50	6968035.20	626.23	610.35
HM-119	2294271.80	6968726.00	625.04	611.02
HM-120	2295343.20	6969489.00	616.84	614.89
HM-121	2295279.20	6967390.20	627.66	608.74
HM-123	2295272.60	6961638.50	624.85	599.05

Table 5.1 (continued)
Groundwater Elevations for April 2001

Monitoring Well	Coordinates		Top of Casing Elevation (ft. above msl)	Groundwater Elevation (ft. above msl)
	Easting	Northing		
HM-124	2295223.30	6963957.80	623.26	610.07
HM-125	2295220.29	6965893.46	629.37	610.22
HM-126	2294300.20	6963121.00	622.99	609.59
HM-127	2294853.30	6961588.50	624.04	600.53
ITMW-01T	2298967.14	6961062.05	602.77	591.90
LF01-1B	2301057.01	6964700.81	560.18	552.32
LF01-1D	2301412.72	6964288.18	563.91	551.32
LF01-1E	2301174.30	6964606.03	559.40	550.41
LF01-1F	2301376.05	6964438.04	559.41	550.41
LF03-3D	2293269.12	6962056.65	625.25	--[1]
LF04-01	2295382.89	6961027.72	629.16	598.16
LF04-02	2296309.10	6961113.10	623.44	595.00
LF04-04	2297170.07	6960946.90	612.13	593.96
LF04-10	2297078.90	6960411.80	626.47	--[1]
LF04-4A	2295852.98	6960300.48	625.84	616.46
LF04-4B	2296274.34	6960323.91	619.95	601.52
LF04-4C	2296593.50	6960604.00	612.96	594.75
LF04-4D	2296416.39	6960831.59	615.13	595.00
LF04-4E	2296411.00	6961036.04	618.49	594.94
LF04-4F	2296058.77	6961061.85	625.28	596.02
LF04-4G	2296658.93	6961224.13	619.75	594.07
LF05-01	2294577.80	6962728.30	621.88	608.05
LF05-02	2295278.90	6962653.10	622.61	603.41
LF05-18	2297075.40	6961555.60	611.71	592.93
LF05-19	2297461.40	6961239.90	606.05	592.28
LF05-5A	2295580.90	6961438.56	623.00	598.35
LF05-5B	2296078.25	6961901.56	600.40	596.82
LF05-5C	2295993.73	6961720.05	608.56	597.26
LF05-5E	2295550.36	6961177.87	626.70	598.21
LF05-5G	2296536.32	6961581.32	615.28	--[1]
LF05-5H	2296343.46	6961735.72	610.54	594.19
LSA1628-1	2297802.10	6967936.20	601.67	590.94
LSA1628-14	2297896.92	6967908.30	601.60	591.42
LSA1628-15	2297860.79	6967862.87	601.35	591.41
LSA1628-2	2297846.50	6967943.30	601.93	591.65
LSA1628-3	2297791.26	6967993.08	601.73	591.67
MW-10	2300541.58	6965836.20	558.85	549.08
MW-11	2300791.96	6965706.66	558.17	534.55
MW-11A	2297057.28	6965810.34	612.17	589.31
MW-12	2300142.02	6966149.32	559.62	555.70
MW-13	2295736.39	6961035.09	620.83	--[4]

Table 5.1 (continued)
Groundwater Elevations for April 2001

Monitoring Well	Coordinates		Top of Casing Elevation (ft. above msl)	Groundwater Elevation (ft. above msl)
	Easting	Northing		
MW-18	2295389.85	6963519.14	621.19	--[4]
MW-19	2295368.85	6963512.61	611.28	593.86[5]
MW-2	2300555.92	6965704.96	557.55	550.97
MW-3	2299750.34	6965242.67	576.48	566.72
MW-36	2299356.66	6965034.80	604.11	600.04
MW-37	2299384.99	6965061.35	590.53	581.69
MW-38	2298153.08	6965981.09	604.11	588.37
MW-39	2298171.12	6965999.01	604.12	588.41
MW-40	2298224.98	6966053.10	604.16	588.22
MW-42	2298144.90	6966031.04	604.60	588.54
MW-5	2300138.61	6965803.45	563.69	560.71
MW-50	2295621.70	6968528.65	619.27	609.10
MW-51	2295639.96	6968536.47	619.36	609.07
MW-52	2296182.56	6964355.17	616.29	604.68
MW-53	2296200.24	6964378.18	616.75	604.48
MW-56	2296055.93	6968789.53	614.32	606.77
MW-57	2297112.98	6967217.16	613.37	601.81
MW-58	2297175.22	6966950.88	612.94	--[4]
MW-59	2297160.82	6966970.47	613.37	--[4]
MW-6	2300173.70	6965734.92	562.87	561.56
MW-7	2300055.24	6965967.11	567.37	560.58
MW-8	2300491.79	6965584.18	557.04	553.91
MW-9	2300329.17	6966001.96	559.54	554.75
MWMTAC-001	2296520.35	6959115.80	645.04	--[6]
OT-15C	2300947.51	6963316.34	564.25	556.72
SAV-1	2300298.89	6965776.36	560.15	554.21
SAV-2	2300280.42	6965807.58	560.07	553.65
SD13-01	2300621.42	6963391.74	573.09	562.16
SD13-02	2300753.03	6963487.70	573.28	--[1]
SD13-03	2300699.63	6963362.92	571.41	561.52
SD13-04	2300770.96	6963361.52	569.08	--[1]
SD13-05	2300775.29	6963904.28	571.54	563.89
SD13-06	2300907.83	6963164.35	557.90	549.74
SD13-07	2301009.34	6963167.04	556.30	540.12
SPOT35-1	2296878.53	6966202.40	613.59	590.70
SPOT35-3	2296850.62	6966108.75	612.02	591.70
SPOT35-4	2296777.88	6966174.92	612.74	591.82
SPOT35-5	2296846.73	6966020.04	614.09	591.87
SPOT35-6	2296634.63	6966234.61	615.68	592.60
SPOT35-7	2296508.59	6966534.79	616.41	608.26
SPOT35-8	2296970.16	6966428.55	613.55	590.45

Table 5.1 (continued)
Groundwater Elevations for April 2001

Monitoring Well	Coordinates		Top of Casing Elevation (ft. above msl)	Groundwater Elevation (ft. above msl)
	Easting	Northing		
SPOT35-9	2296780.62	6966581.53	614.96	592.29
ST14-01	2300090.80	6963295.30	575.95	563.22
ST14-02	2300091.70	6963511.60	575.51	564.68
ST14-03	2299891.60	6964080.00	576.68	569.18
ST14-04	2300345.30	6963642.70	575.61	564.48
ST14-24	2299084.20	6964017.89	594.14	583.96
ST14-25	2299065.36	6964563.76	592.94	587.56
ST14-27	2300212.35	6964257.94	573.85	566.51
ST14-28	2300495.99	6963728.32	574.45	563.72
ST14-29	2300512.78	6963527.79	571.45	563.20
ST14-30	2300466.18	6963211.53	566.87	561.59
ST14-W05	2299093.85	6963726.06	593.63	585.81
ST14-W06	2299330.79	6963806.56	581.42	573.89
ST14-W07	2299393.81	6963614.61	579.96	569.70
ST14-W08	2299479.59	6964323.98	580.54	572.05
ST14-W09	2299550.10	6963471.69	575.54	568.59
ST14-W10	2299730.13	6963949.34	573.99	569.34
ST14-W11	2299657.97	6964128.60	576.31	571.28
ST14-W12	2299581.06	6963953.27	575.52	571.65
ST14-W13	2299776.44	6963695.16	574.49	567.30
ST14-W15	2299923.11	6963315.79	573 47	563.60
ST14-W16	2300128.30	6964064.61	573.62	566.94
ST14-W18	2300162.47	6963906.73	573.79	566.17
ST14-W19	2300203.61	6963699.80	573.31	565.19
ST14-W20	2300275.36	6964009.08	573.48	565.51
ST14-W21	2300242.02	6963417.82	572.88	563.80
ST14-W22	2301016.39	6963649.64	571.30	562.73
ST14-W23	2300410.37	6962949.06	565.60	561.91
ST14-W31	2300830.86	6963549.67	571.23	--[1]
ST14-W32	2300815.07	6963239.02	564.15	560.56
USGS03T	2300610.00	6968704.70	575.02	572.80
USGS04T	2299177.61	6968758.34	604.97	586.99
USGS06T	2297542.16	6963763.04	606.61	589.33
USGS07T	2295246.50	6960182.50	632.43	624.33
W-153	2294096.20	6965106.30	631.57	610.78
WCHMHTA001	2293437.60	6965828.17	639.08	610.93
WCHMHTA002	2294553.41	6966740.53	631.32	610.01
WCHMHTA003	2294774.14	6967153.88	631.00	609.47
WCHMHTA004	2294776.10	6967144.61	631.25	609.48
WCHMHTA005	2295397.82	6966691.19	626.95	608.52
WCHMHTA006	2295406.97	6966690.11	626.73	608.49

Table 5.1 (continued)
Groundwater Elevations for April 2001

Monitoring Well	Coordinates		Top of Casing Elevation (ft. above msl)	Groundwater Elevation (ft. above msl)
	Easting	Northing		
WCHMHTA007	2295645.39	6967105.89	623.93	608.19
WCHMHTA008	2295597.48	6967889.89	622.85	608.25
WCHMHTA009	2296395.01	6967635.29	615.55	607.75
WCHMHTA010	2296398.80	6967640.08	615.35	607.75
WCHMHTA011	2297063.01	6968490.51	605.80	592.61
WCHMHTA012	2297425.82	6967840.86	605.85	591.71
WCHMHTA013	2299786.18	6966251.26	578.26	563.31
WCHMHTA014	2294072.81	6970403.90	619.11	611.82
WHGLPU001	2296096.76	6961282.67	620.44	544.72
WHGLWN002	2296645.31	6962607.06	591.74	586.48
WHGLPU003	2295286.48	6961976.31	622.61	550.28
WHGLPU004	2296655.89	6962601.66	591.41	547.28
WHGLRW015	2298662.64	6960871.43	604.71	592.33
WHGLRW016	2299201.47	6961034.95	602.47	591.51
WHGLRW017	2299000.59	6960727.11	604.66	591.76
WHGLRW018	2298744.63	6960532.93	608.03	592.53
WHGLRW019	2298620.19	6960684.23	605.34	592.61
WHGLTA002	2296111.39	6962377.91	608.52	596.71
WHGLTA003	2298029.84	6961043.88	614.22	592.88
WHGLTA004	2295760.62	6962943.38	614.35	597.67
WHGLTA005	2301043.78	6963469.85	570.56	561.75
WHGLTA007	2301093.17	6963162.46	552.78	539.47
WHGLTA008	2300016.84	6963955.17	572.37	567.43
WHGLTA009	2297528.70	6965211.65	612.09	588.87
WHGLTA010	2296770.93	6965580.03	618.13	592.12
WHGLTA011	2295873.87	6968356.67	619.71	608.16
WHGLTA012	2297740.00	6965920.84	606.64	588.62
WHGLTA013	2297177.07	6965957.77	611.13	589.31
WHGLTA014	2297373.92	6966295.34	610.26	589.51
WHGLTA020	2299684.95	6962285.83	568.83	558.82
WHGLTA022	2297691.54	6960401.65	614.95	593.84
WHGLTA023	2298565.43	6960492.16	608.42	593.01
WHGLTA025	2298942.63	6961608.26	601.37	586.74
WHGLTA026	2297200.73	6967204.01	612.14	591.22
WHGLTA027	2297658.47	6967636.99	612.00	601.11
WHGLTA028	2297450.94	6967760.51	605.76	592.06
WHGLTA029	2298574.35	6965736.08	603.13	587.89
WHGLTA030	2299155.33	6964327.76	589.07	587.37
WHGLTA031	2299198.98	6964366.12	592.78	587.27
WHGLTA033	2295656.05	6964665.24	581.23	571.86
WHGLTA034	2301060.21	6963889.66	571.42	563.97

Table 5.1 (continued)
Groundwater Elevations for April 2001

Monitoring Well	Coordinates		Top of Casing Elevation (ft. above msl)	Groundwater Elevation (ft. above msl)
	Easting	Northing		
WHGLTA035	2301048.39	6963823.75	571.43	563.72
WHGLTA036	2300458.39	6966001.70	555.45	550.73
WHGLTA037	2300596.51	6965905.87	556.08	545.26
WHGLTA038	2300726.46	6965829.45	556.29	532.26
WHGLTA039	2299277.71	6964408.76	590.21	573.52
WHGLTA040	2297196.85	6967173.21	611.96	591.52
WHGLTA043	2297021.32	6961771.99	602.17	592.58
WHGLTA044	2297347.37	6961721.40	582.93	579.90
WHGLTA045	2298368.80	6961321.90	598.52	590.64
WHGLTA046	2296089.68	6961298.49	620.04	595.94
WHGLTA047	2296103.20	6961250.47	621.04	595.75
WHGLTA048	2298714.83	6960916.20	604.89	592.25
WHGLTA049	2299269.36	6962329.24	574.26	--[4]
WHGLTA050	2296420.09	6963013.36	599.08	594.69
WHGLTA051	2296247.12	6962894.90	598.30	594.29
WHGLTA052	2296098.07	6962769.45	597.00	592.60
WHGLTA053	2295473.82	6960333.99	636.02	621.74
WHGLTA054	2295541.09	6960748.26	631.26	597.44
WHGLTA055	2295662.85	6960809.82	628.49	596.93
WHGLTA056	2295827.62	6960787.36	627.48	596.48
WHGLTA101	2301220.30	6964633.49	559.52	548.77
WHGLTA102	2301388.56	6964448.94	559.88	549.88
WHGLTA103	2301522.24	6964314.53	559.95	541.67
WHGLTA104	2301608.27	6964225.38	560.58	538.23
WHGLTA201	2298660.88	6963198.14	603.21	585.95
WHGLTA202	2298832.59	6963326.21	603.45	585.73
WHGLTA203	2298400.38	6963058.53	600.98	586.36
WHGLTA204	2298104.66	6963625.62	605.57	588.60
WHGLTA302	2294422.27	6962602.64	621.70	605.03
WHGLTA303	2294400.77	6962351.21	622.77	602.74
WHGLTA601	2297473.69	6962697.81	599.92	587.69
WHGLTA602	2297625.01	6962752.66	600.00	587.00
WHGLTA603	2297727.19	6962713.38	600.92	586.67
WHGLTA604	2297530.02	6963195.39	607.43	589.84
WHGLTA701	2295332.86	6961835.73	623.08	599.53
WHGLTA702	2295882.07	6961920.16	609.41	598.61
WHGLTA703	2295741.23	6961680.70	615.07	598.91
WHGLTA704	2295831.51	6962141.07	608.84	599.87
WHGLTA705	2296026.58	6962002.86	599.14	597.30
WHGLTA706	2296030.82	6962146.24	607.53	597.33
WHGLTA707	2295592.35	6962188.16	620.61	599.77

Table 5.1 (continued)
Groundwater Elevations for April 2001

Monitoring Well	Coordinates		Top of Casing Elevation (ft. above msl)	Groundwater Elevation (ft. above msl)
	Easting	Northing		
WHGLTA708	2295647.18	6962019.93	620.22	599.48
WHGLTA709	2295750.93	6961934.71	619.54	599.24
WHGLTA801	2295857.80	6962790.06	601.85	594.26
WHGLTA803	2296040.83	6962524.15	602.54	596.14
WHGLTA901	2299642.88	6967831.58	584.97	576.22
WHGLTA902	2299952.24	6967670.51	558.90	547.91
WHGLTA903	2300086.28	6967830.13	559.37	535.59
WHGLTA904	2300173.98	6968031.10	563.27	542.20
WHGLTA905	2299782.00	6967573.60	562.52	546.17
WHGLTA952	2299956.02	6967676.53	558.90	536.86
WHGLTA953	2300078.45	6967825.90	559.48	536.97
WHGLTA954	2300179.00	6968032.47	563.21	539.56
WITCTA001	2296447.95	6969591.17	609.82	593.94
WITCTA002	2296135.48	6969258.49	613.36	610.21
WITCTA003	2297405.05	6969111.30	607.58	593.30
WITCTA004	2297490.47	6968938.83	606.62	--[1]
WITCTA005	2298166.79	6968458.46	602.81	590.53
WITCTA006	2298261.86	6968425.94	602.76	590.41
WITCTA007	2298432.07	6968309.56	603.03	588.91
WITCTA008	2298030.12	6967939.66	600.62	592.64
WITCTA009	2298232.90	6967860.60	597.15	591.60
WITCTA010	2298752.18	6967693.53	600.31	--[1]
WITCTA011	2297357.31	6967455.26	610.27	593.16
WITCTA012	2298224.39	6967348.77	599.93	590.18
WITCTA013	2297750.98	6967015.62	605.39	--[1]
WITCTA014	2297417.51	6966903.57	611.74	591.26
WITCTA015	2298395.02	6966332.67	606.84	589.21
WITCTA016	2298061.33	6966238.29	607.85	589.47
WITCTA017	2299305.78	6967298.15	592.94	584.02
WITCTA019	2298838.01	6963107.25	600.82	586.85
WITCTA020	2296316.79	6963895.32	616.78	597.55
WITCTA021	2298718.16	6963794.40	604.19	588.93
WITCTA022	2298742.85	6963649.92	604.17	587.51
WITCTA024	2298956.02	6965971.78	604.86	588.28
WITCTA025	2299534.28	6966004.92	595.20	585.31
WITCTA026	2299480.09	6965456.85	584.37	579.74
WITCTA027	2299510.86	6965193.74	581.44	573.30
WITCTA028	2300621.25	6965160.62	558.11	555.36
WITCTA031	2299152.20	6964689.93	592.10	587.40
WITCTA032	2299195.64	6964500.67	587.37	581.66
WITCTA033	2300475.24	6964323.67	574.06	565.14

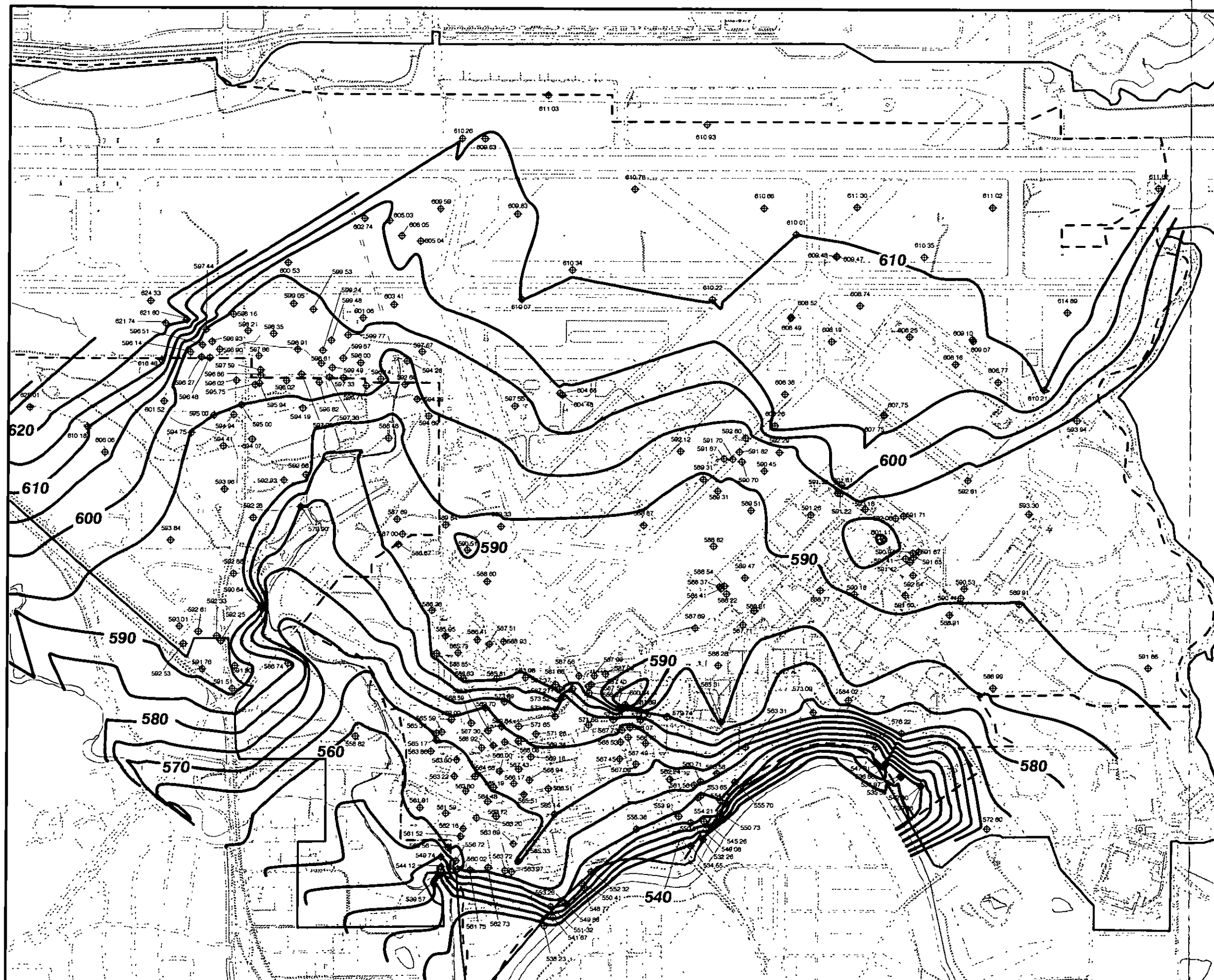
Table 5.1 (continued)
Groundwater Elevations for April 2001

Monitoring Well	Coordinates		Top of Casing Elevation (ft. above msl)	Groundwater Elevation (ft. above msl)
	Easting	Northing		
WITCTA034	2300951.49	6963956.68	571.95	565.33
WITCTA035	2299093.68	6963387.12	599.37	586.63
WITCTA037	2297784.44	6963424.04	604.19	590.51
WITCTA039	2295415.41	6962339.77	619.47	601.08
WITCTA040	2299514.54	6963259.78	579.03	569.00
WITCTA041	2299642.10	6963168.75	577.97	565.59
WITCTA042	2299653.16	6963108.38	576.76	565.37
WITCTA043	2299724.86	6963110.05	576.72	565.17
WITCTA044	2299836.00	6963055.72	575.76	563.86
WITCTA045	2299047.02	6964832.18	590.24	587.90
WITCTA046	2299062.19	6964719.30	590.07	587.99
WITCTA047	2299169.98	6964663.98	589.39	587.50
WITCTA048	2299238.69	6964668.05	589.50	586.57
WITCTA057	2295952.51	6961308.78	624.74	597.59
WITCTA058	2296005.60	6961311.99	624.12	596.86
WJETA530	2296533.87	6959546.93	639.39	610.18
WJETA534	2296341.54	6958941.15	647.38	625.01
WJETA535	2296794.44	6959722.27	634.61	606.06
WP07-10A	2295807.30	6961290.00	626.50	597.86
WP07-10B	2296040.40	6961277.50	624.22	--[1]
WP07-10C	2296062.40	6961575.60	617.18	596.02
WSAICTA002	2294921.60	6964473.10	624.79	610.34
WSAICTA003	2294630.40	6962921.10	621.14	605.04
WSAICTA004	2293586.30	6963343.80	628.40	610.26
WSAICTA005	2293587.30	6963578.00	629.55	609.63

Notes:
1 Groundwater elevation could not be measured; depth to water was below top of dedicated pump.
2 HM-110 was gauged during April 2001, however the value recorded was incorrect and therefore voided. HM-110 will be gauged in October 2001.
3 Monitoring well cap was damaged and not able to remove to gauge water level.
4 Monitoring well was damaged or inaccessible and depth to water was unable to be measured.
5 Monitoring well not gauged with initial well gauging and inspection. Gauging was performed however water level is not included in the groundwater elevations Figure 5.1.
6 Monitoring well could not be located.

Table 5.2
Monitoring Wells Not Gauged in April 2001

Well Condition	Well ID	Action
Monitoring Wells Presumed Destroyed	MW-13	Navy will properly abandon or repair.
	MW-18	
	MW-58	
	MW-59	
Monitoring Well Damaged	WHGLTA049	Well repaired in July 2001.
Unable to Locate Monitoring Well	MWMTAC-001	Well located and was abandoned in July 2001.
Unable to Gauge - Depth to water below top of dedicated pump	GMI-22-04M	Will gauge in October 2001 and April 2002 when dedicated pumps are pulled.
	LF03-3D	
	LF04-10	
	LF05-5G	
	SD13-02	
	SD13-04	
	ST14-W31	
	WITCTA004	
	WITCTA010	
	WITCTA013	
	WP07-10B	



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NAS Fort Worth JRB, Texas

Figure 5.1

Water Level Elevations
Terrace Alluvium
April 2001

U.S. Air Force Center For Environmental Excellence

Legend

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

——— Former Carswell Air Force Base

— 600 — Groundwater Elevation Contour (ft msl)

⊕ Monitoring Well

533 76 Groundwater Elevation (ft msl)

N

0 500 1000 2000

SCALE IN FEET

Filename: X \AFC001\33daba\Report
groundwater elev apr2000 apr
Project AFC001-33DABA
Created 07/05/01 jbelcher
Revised 08/24/01 jb
MapSource. HydroGeoLogic, Inc
ArcView GIS Database, 2001

HYDRO GeoLogic INC.

5.2 CONTAMINANT EVALUATION

To facilitate discussion of contamination at NAS Fort Worth JRB, levels of contamination determined from analytical sampling were compared to several threshold values. The results of metals analyses were compared to established background concentrations (Jacobs, 1998), and the results of the organic analyses were compared to method quantitation limits (MQLs) (see Section 5.2.2). These comparisons identified locations where contamination is likely, and monitoring should be continued to provide further characterization. In addition, all data, both inorganic and organic constituent concentrations, were compared to the TNRCC Risk Reduction Standard 2 (RRS 2) values. Comparison of contaminant concentrations to their respective RRS 2 value provides a basis for risk assessment. Concentrations of contaminants that exceed their respective RRS 2 values indicate areas where continued monitoring or remedial action may be necessary.

5.2.1 Background Concentrations

Background concentrations were determined for 24 inorganic constituents at NAS Fort Worth JRB in December 1996 (Jacobs, 1998). A single groundwater sample was collected from 12 background monitoring wells using a low-stress technique to approximate filtered samples. The groundwater monitoring wells sampled, both newly installed and existing, were located outside of known contaminantion areas both up- and cross-gradient.

The tolerance interval (TI) method suggested by the EPA (USEPA, 1989, 1992) was used to estimate background concentrations for the 24 inorganic constituents for comparison to compliance monitoring wells. TIs are useful for groundwater data analysis because it is important to ensure that, at most, a small fraction of the compliance monitoring wells sampled exceed a specific concentration level (USEPA, 1992). Two coefficients are associated with any TI. One is the proportion of the population the interval is supposed to contain, called the coverage. The second is the degree of confidence with which the interval reaches the specified coverage, known as the tolerance coefficient. The $UTL_{95,95}$ is the upper tolerance limit (UTL) of a TI with a coverage of 95 percent and a tolerance coefficient of 95 percent. The $UTL_{95,95}$ was determined by Jacobs (1998) as the background concentration for comparison to contaminant concentrations. These values are provided in Table 5.3.

5.2.2 Detection and Quantitation Limits

A PQL is the lowest analytical result level that can reasonably be achieved within specified limits of precision and accuracy during routine laboratory conditions. Each PQL value is higher than the associated MDL, which is the minimum concentration of a substance that can be measured and reported with 99-percent confidence the analyte concentration is greater than zero. Both MDLs and PQLs are adjusted for sample-specific conditions such as moisture, subsample mass, and dilution. Sample concentrations falling between the MDL and PQL are assigned an "F" qualifier indicating the variability of the result (HydroGeoLogic, 2000a). In

Table 5.3
Background and Risk Reduction Standard 2
Values for Inorganic Constituents in Groundwater

Metal	Background Value (µg/L)	RRS 2 Value (µg/L)	RRS 2 Value Source[1]
Aluminum	1,332	100,000	TNRCC
Antimony	2	6	TNRCC
Arsenic	4.9	50	TNRCC
Barium	587	2,000	TNRCC
Beryllium	0.3	4	TNRCC
Cadmium	0.5	5	TNRCC
Calcium	226,300	--	Essential Nutrient[2]
Chromium	6	100	TNRCC
Cobalt	8.9	6,100	TNRCC
Copper	2.8	1,300	TNRCC
Iron	224	300	Derived
Lead	1.6	15	TNRCC
Magnesium	37,800	--	Essential Nutrient[2]
Manganese	175	14,000	TNRCC
Mercury	0.1	2	TNRCC
Molybdenum	14.4	510	TNRCC
Nickel	20.4	2,000	TNRCC
Potassium	15,030	--	Essential Nutrient[2]
Selenium	7.7	50	TNRCC
Silver	0.2	510	TNRCC
Sodium	167,000	--	Essential Nutrient[2]
Thallium	63.2	2	TNRCC
Tin[3]	--	61,000	TNRCC
Vanadium	12	720	TNRCC
Zinc	118	31,000	TNRCC

Notes:
1 Source of all values was TNRCC RRS 2 (30 TAC 335). Those noted as "Derived" were derived based on procedures presented in the regulations.
2 Essential Nutrient - no risk values available.
3 Tin was not included in the background study.
-- No value.

July 1998, the TNRCC issued an Interoffice Consistency Memorandum (TNRCC, 1998a), followed in September 1998 by an Erratum Sheet (TNRCC, 1998b). The Consistency Memorandum defined a MQL as the demonstrated lower limit of the linear range for that analyte. As defined, an analyte's MQL is analogous to the PQL reported by the laboratory without adjustment for sample-specific conditions. The Erratum Sheet also defined an analyte sample quantitation limit as that analyte's MDL adjusted for sample specific conditions. Because a background concentration for organic compounds is not appropriate, the MQL is used for comparison purposes.

5.2.3 Risk Reduction Standard 2

RRS 2 values are the chemical-specific cleanup levels for remediation of groundwater contaminated by a release(s) from a SWMU or AOC. These values are established from health-based standards and criteria (Texas and/or Federal) pursuant to TNRCC Regulations, 30 Texas Administrative Code (TAC) 335.551-335.569. If the MQL and/or background concentration for a given chemical is greater than the RRS 2 level, either the MQL or the background value, whichever is greater, is to be used for determining compliance with requirements of the groundwater remediation. If RRS 2 values are not available or do not provide appropriate protection for human health or the environment, cleanup levels based on other numeric criteria, referred to as medium specific concentrations (MSCs), must be established. Formulas to develop MSCs, based on exposure factors and pathways and chemical-specific toxicity, are provided in 30 TAC 335.558 (i.e., MSCs for RRS 2). RRS 2 values for inorganic and organic compounds are provided in Table 5.3 and Table 5.4, respectively.

5.3 ANALYTICAL RESULTS

Of the 44 monitoring wells proposed for analytical sampling in the Final 2001 GSAP, 43 were sampled during the April 2001 event. A complete listing of the analytical results from the April 2001 sampling event is provided in Appendix Table B.1.

5.3.1 Volatile Organic Compounds

The VOCs detected above the PQL in the 43 monitoring wells during this sampling event are presented in Table 5.5. Locations of the monitoring wells are provided in Figure 3.1. Chlorinated solvents and their daughter products were detected in groundwater samples collected from 32 of the 43 monitoring wells sampled during the April 2001 sampling event.

Tetrachloroethene (PCE) was detected in groundwater samples collected from 8 of the 43 monitoring wells. These monitoring wells are identified on Figure 5.2. Positive PCE sample

Table 5.4
Risk Reduction Standard 2 Values
for Volatile Organic Compounds in Groundwater

VOC	RRS 2 Value (µg/L)	RRS 2 Value Source[1]
1,1-Dichloroethane	10,000	TNRCC
1,1-Dichloroethene	7	TNRCC
2-Methylnaphthalene	2,000	TNRCC
Benzene	5	TNRCC
Bis(2-Ethylhexyl)phthalate	6	TNRCC
Chlorobenzene	100	TNRCC
Chloroform	100	TNRCC
cis-1,2-Dichloroethene	70	TNRCC
Ethylbenzene	700	TNRCC
Isopropylbenzene (cumene)	10,000	TNRCC
m-Xylene & *p*-xylene	10,000	Derived
Methyl *tert*-butyl ether	1,000	TNRCC
n-Butylbenzene	4,100	Derived
n-Propylbenzene	4,100	Derived
Naphthalene	2,000	TNRCC
o-Xylene	10,000	TNRCC
Isopropylbenzene	10,000	TNRCC
p-Isopropyltoluene (*p*-cymene)	1,000	Derived
sec-Butylbenzene	4,100	Derived
tert-Butylbenzene	4,100	Derived
Tetrachloroethene (PCE)	5	TNRCC
Toluene	1,000	TNRCC
trans-1,2-Dichloroethene	100	TNRCC
Trichloroethene (TCE)	5	TNRCC
Trichlorofluoromethane	31,000	TNRCC
1,2,4-Trimethylbenzene	5,100	Derived
1,3,5-Trimethylbenzene	5,100	Derived
Vinyl chloride	2	TNRCC

Notes:
[1] Source of all values was TNRCC RRS 2 (30 TAC 335). Those noted as "Derived" were derived based on procedures presented in the regulations.

Table 5.5
Detections of VOCs Above the PQL in TCE Plume Monitoring Wells Using Analytical Method SW8260B

Monitoring Well	Analyte	Result (µg/L)
GMI-22-06M	*cis*-1,2-Dichloroethene	(84 [1])
	Trichloroethene (TCE)	(160 [1])
	Vinyl Chloride	1
HM-114	1,1-Dichloroethene	2
	cis-1,2-Dichloroethene	(80 [1])
	Tetrachloroethene (PCE)	0.8
	trans-1,2-Dichloroethene	1
	Trichloroethene (TCE)	(560 [1])
	Trichlorofluoromethane	1
HM-116	1,1-Dichloroethene	2
	Chloroform	0 4
	cis-1,2-Dichloroethene	48 [1]
	Tetrachloroethene (PCE)	(12)
	trans-1,2-Dichloroethene	0.9
	Trichloroethene (TCE)	(480 [1])
	Trichlorofluoromethane	2
HM-123	1,1-Dichloroethane	0 8 J
	1,1-Dichloroethene	2 J
	Chloroform	0.5 J
	cis-1,2-Dichloroethene	(560)
	trans-1,2-Dichloroethene	12 J
	Trichloroethene (TCE)	(2500)
	Vinyl Chloride	0.9 J
HM-126	*cis*-1,2-Dichloroethene	19
	Trans-1,2-Dichloroethene	3
	Trichloroethene (TCE)	(280 [1])
TMW-01T	*cis*-1,2-Dichloroethene	0 8
	Trichloroethene (TCE)	2
LF04-02	1,1-Dichloroethane	0.6
	1,1-Dichloroethene	3
	Chloroform	0 5
	cis-1,2-Dichloroethene	(450 [1])
	Tetrachloroethene (PCE)	0.7

Table 5.5 (continued)
Detections of VOCs Above the PQL in TCE Plume Monitoring Wells
Using Analytical Method SW8260B

Monitoring Well	Analyte	Result (µg/L)
	trans-1,2-Dichloroethene	38 [1]
	Trichloroethene (TCE)	(1600 [1,2])
	Vinyl Chloride	(12)
LF05-01	*cis*-1,2-Dichloroethene	34
	trans-1,2-Dichloroethene	3
	Trichloroethene (TCE)	(46 [1])
LF05-02	*cis*-1,2-Dichloroethene	2
	Vinyl Chloride	0.9
LF05-19	1,1-Dichloroethane	0.5
	trans-1,2-Dichloroethene	2
	Trichloroethene (TCE)	(130 [1])
LF05-5G	1,1-Dichloroethene	5
	Chlorobenzene	1
	cis-1,2-Dichloroethene	(240)
	trans-1,2-Dichloroethene	18
	Trichloroethene (TCE)	(870)
	Vinyl Chloride	(12)
MW-53	Trichloroethene (TCE)	4
SPOT35-5	Isopropylbenzene (cumene)	14
	Naphthalene	27
	n-Propylbenzene	16
	sec-Butylbenzene	5
	tert-butylbenzene	1
ST14-03	*tert*-butylbenzene	1
USGS07T	Tetrachloroethene (PCE)	1
W-153	Chloroform	0.5
	cis-1,2-Dichloroethene	(130 [1])
	Tetrachloroethene (PCE)	5
	trans-1,2-Dichloroethene	1
	Trichloroethene (TCE)	(830 [1])
	Trichlorofluoromethane	2
WCHMHTA006	1,1-Dichloroethene	0.5
	Chloroform	0.4

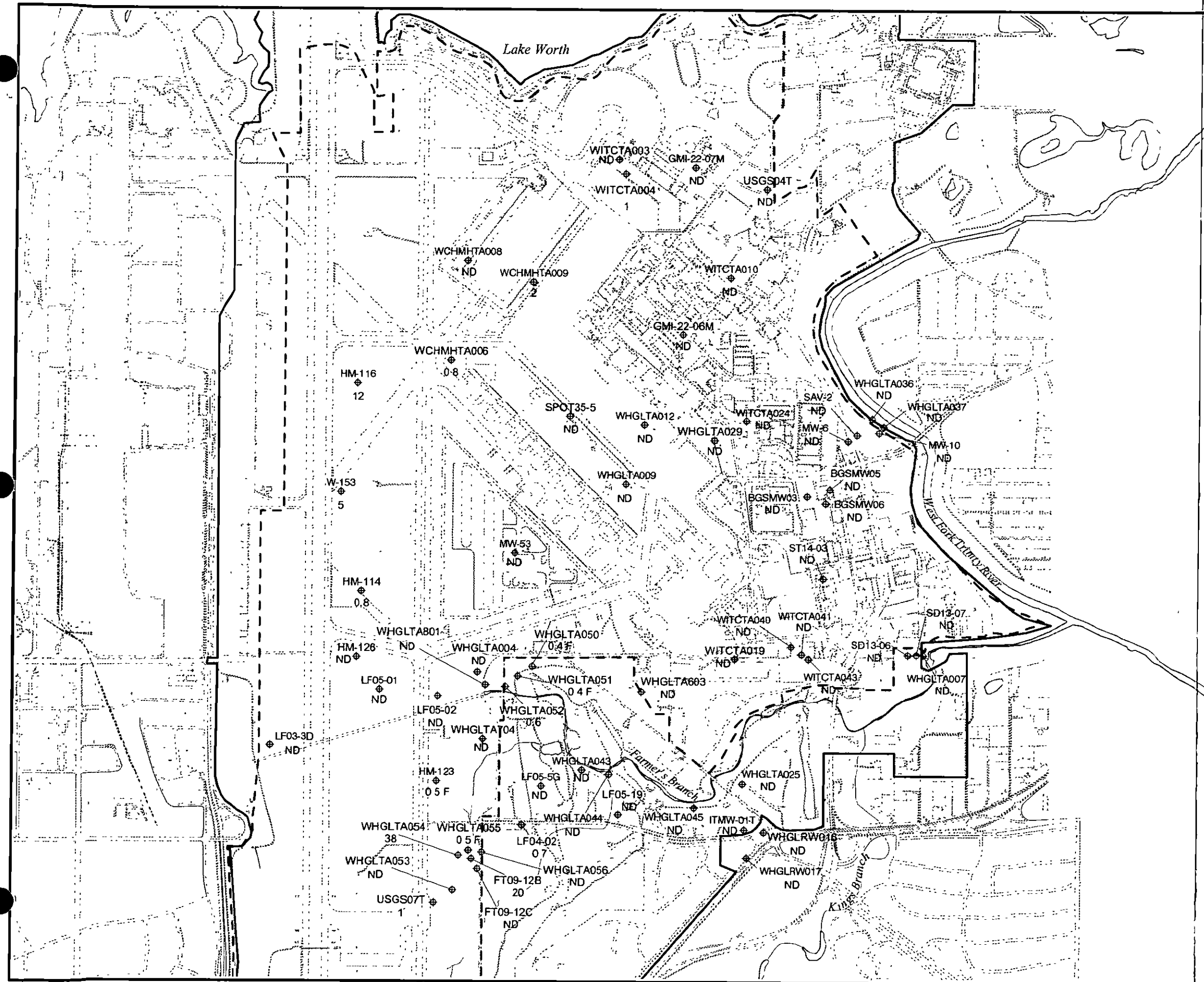
Table 5.5 (continued)
Detections of VOCs Above the PQL in TCE Plume Monitoring Wells
Using Analytical Method SW8260B

Monitoring Well	Analyte	Result (µg/L)
	cis-1,2-Dichloroethene	65 [1]
	Dichlorodifluoromethane	0 5
	Tetrachloroethene (PCE)	0.8
	trans-1,2-Dichloroethene	0.6
	Trichloroethene (TCE)	(380 [1])
	Trichlorofluoromethane	1
WCHMHTA008	1,2,4-Trimethylbenzene	190 [1]
	Benzene	(87 [1])
	Ethylbenzene	160 [1]
	Isopropylbenzene (cumene)	22
	n-Butylbenzene	2
	n-Propylbenzene	28
	p-Cymene (p-Isopropyltoluene)	4
	sec-Butylbenzene	6
	Trichloroethene (TCE)	8
WCHMHTA009	*cis*-1,2-Dichloroethene	3
	Tetrachloroethene (PCE)	2
	Trichloroethene (TCE)	(200 [1])
WHGLTA004	1,1-Dichloroethene	0 9
	cis-1,2-Dichloroethene	64 [1]
	trans-1,2-Dichloroethene	3
	Trichloroethene (TCE)	(450 [1])
WHGLTA009	*cis*-1,2-Dichloroethene	(200 J[1])
	tert-butylbenzene	2 J
WHGLTA012	Benzene	5 J [2]
	cis-1,2-Dichloroethene	12 J [2]
	Isopropylbenzene (cumene)	32 J [2]
	n-Butylbenzene	8 J
	n-Propylbenzene	31 J [2]
	sec-Butylbenzene	16 J [2]
	tert-butylbenzene	4 J
WHGLTA025	Trichloroethene (TCE)	1
WHGLTA029	*cis*-1,2-Dichloroethene	0.9

Table 5.5 (continued)
Detections of VOCs Above the PQL in TCE Plume Monitoring Wells
Using Analytical Method SW8260B

Monitoring Well	Analyte	Result (µg/L)
	Vinyl Chloride	(7)
WHGLTA043	*cis*-1,2-Dichloroethene	4
	Trichloroethene (TCE)	(17)
WHGLTA044	Trichloroethene (TCE)	1
	Vinyl Chloride	(3)
WHGLTA045	*cis*-1,2-Dichloroethene	6
	Trichloroethene (TCE)	(14)
WHGLTA051	Chloroform	0 5
	cis-1,2-Dichloroethene	32
	Trichloroethene (TCE)	(170 [1])
WHGLTA603	*cis*-1,2-Dichloroethene	2
WHGLTA704	Benzene	4
	Isopropylbenzene (cumene)	0.9
	sec-Butylbenzene	2
WITCTA003	1,2,4-Trimethylbenzene	0.8
	Benzene	0.5
	cis-1,2-Dichloroethene	0.9
	Ethylbenzene	0 7
WITCTA004	1,1-Dichloroethene	0.9
	cis-1,2-Dichloroethene	14
	Tetrachloroethene (PCE)	1
	trans-1,2-Dichloroethene	0.6
	Trichloroethene (TCE)	(230 [1])
WITCTA024	*sec*-Butylbenzene	0 7
	tert-butylbenzene	2
	Vinyl Chloride	3
WITCTA040	*cis*-1,2-Dichloroethene	11
	trans-1,2-Dichloroethene	0.8
	Trichloroethene (TCE)	(58 [1])
WITCTA041	1,1-Dichloroethane	0.8

Notes:
[1] Analytical results were taken from the reanalysis of this sample.
[2] The result was taken from the associated field duplicate.
J - The analyte was positively identified, but the quantitation is an estimate.
Results in parentheses represent values detected above RRS 2 levels.
Rejected results are not included within this table.



HydroGeoLogic, Inc.—April 2001 Semi-Annual Report
NAS Fort Worth JRB, Texas

Figure 5.2
Tetrachloroethene Concentrations
Terrace Alluvium
April through July 2001

U.S. Air Force Center For Environmental Excellence

Legend

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

——— Former Carswell Air Force Base

MW-53 ⊕ 89 — NAS Fort Worth JRB Basewide Sampling Well; Tetrachloroethene Concentration (µg/L)

WHGLTA036 ⊕ ND — Monitoring well data collected as part of other investigations during April 2001; Tetrachloroethene Concentration (µg/L)

SD13-07 ⊕ ND — Monitoring well data collected as part of other investigations during July 2001; Tetrachloroethene Concentration (µg/L)

ND = Not Detected at Laboratory Method Detection Limit of 0.5µg/L

F = The analyte was positively indentified, but the associated value is below the PQL

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Map Source HydroGeoLogic, Inc GIS Database, Jacobs Engineering

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results ranged from 0.4 F micrograms per liter (μg/L) to 12 μg/L at HM-116. Monitoring well HM-116 was the only well detected above the RRS 2 value of 5 μg/L.

TCE was detected in groundwater samples collected from 25 of the 43 monitoring, 19 of which contained concentrations above the RRS 2 value of 5 μg/L. The maximum TCE concentration detected was 2,500 μg/L in HM-123 located upgradient of Landfills 5 and 7. The lateral extent of the TCE plume did not change from the October 2000 results, with concentrations of TCE remaining generally the same as in October 2000. The TCE results from the April 2001 semi-annual sampling event are presented in Figure 5.3.

Note: Due to contamination in an associated equipment blank, trichloroethene detections were qualified "U" in samples WHGLTA009, WITCTA003, and WITCTA019, where concentrations of TCE were identified at 2 μg/L, 1 μg/L, and 0.6 μg/L, respectively. It is believed that these may be actual results and not artifacts resulting from equipment blank contamination, however the data was not incorporated into tables or figures.

Cis-1,2-dichloroethene (*cis*-1,2-DCE) was detected in groundwater samples collected from 25 of the 43 monitoring wells, seven of which contained concentrations above the RRS 2 value of 70 μg/L. The maximum detection of 560 μg/L was found in the sample collected from HM-123. *Cis*-1,2-DCE results from the April 2001 semi-annual sampling event are presented in Figure 5.4. Figure 5.5 provides the distribution of the chlorinated solvents at NAS Fort Worth JRB, Texas during April 2001.

Trans-1,2-DCE was detected in groundwater samples from 13 of the 43 monitoring wells sampled. Concentrations of *trans*-1,2-DCE ranged from 0.6 μg/L in WCHMHTA006 to 38 μg/L in LF04-02. There were no detections of *trans*-1,2-DCE above the RRS 2 value of 100 μg/L.

1,1-Dichloroethene was detected in groundwater samples from 10 of the 43 monitoring wells at concentrations ranging from 0.4 F μg/L in GMI-22-06M and HM-126 to 5 μg/L at LF05-5G. There were no detections of 1,1-Dichloroethene above the RRS 2 value of 7 μg/L.

Vinyl chloride was detected in groundwater samples from eight of the 43 monitoring wells. Sample results from five monitoring wells contained concentrations of vinyl chloride above the RRS 2 value of 2 μg/L, with the highest concentration (12 μg/L) of vinyl chloride found in the groundwater samples collected from monitoring wells LF04-02 and LF05-5G. The majority of the vinyl chloride contamination was found in groundwater samples from monitoring wells near the Landfills.

1,1-Dichloroethane was detected in four groundwater samples at concentrations ranging from 0.5 μg/L in LF05-19 to 0.8 J μg/L at HM-123. Chlorobenzene was found in the groundwater sample from monitoring well LF05-5G at a concentration of 1 μg/L. Chloroform was detected in six groundwater samples at concentrations ranging from 0.4 μg/L to 0.5 J μg/L. Dichlorodifluoromethane was detected in monitoring well WCHMHTA006 at 0.5 μg/L.

Trichlorofluoromethane was detected in four groundwater samples at concentrations of 1 μg/L and 2 μg/L. All concentrations of these compounds were detected below their respective RRS 2 values.

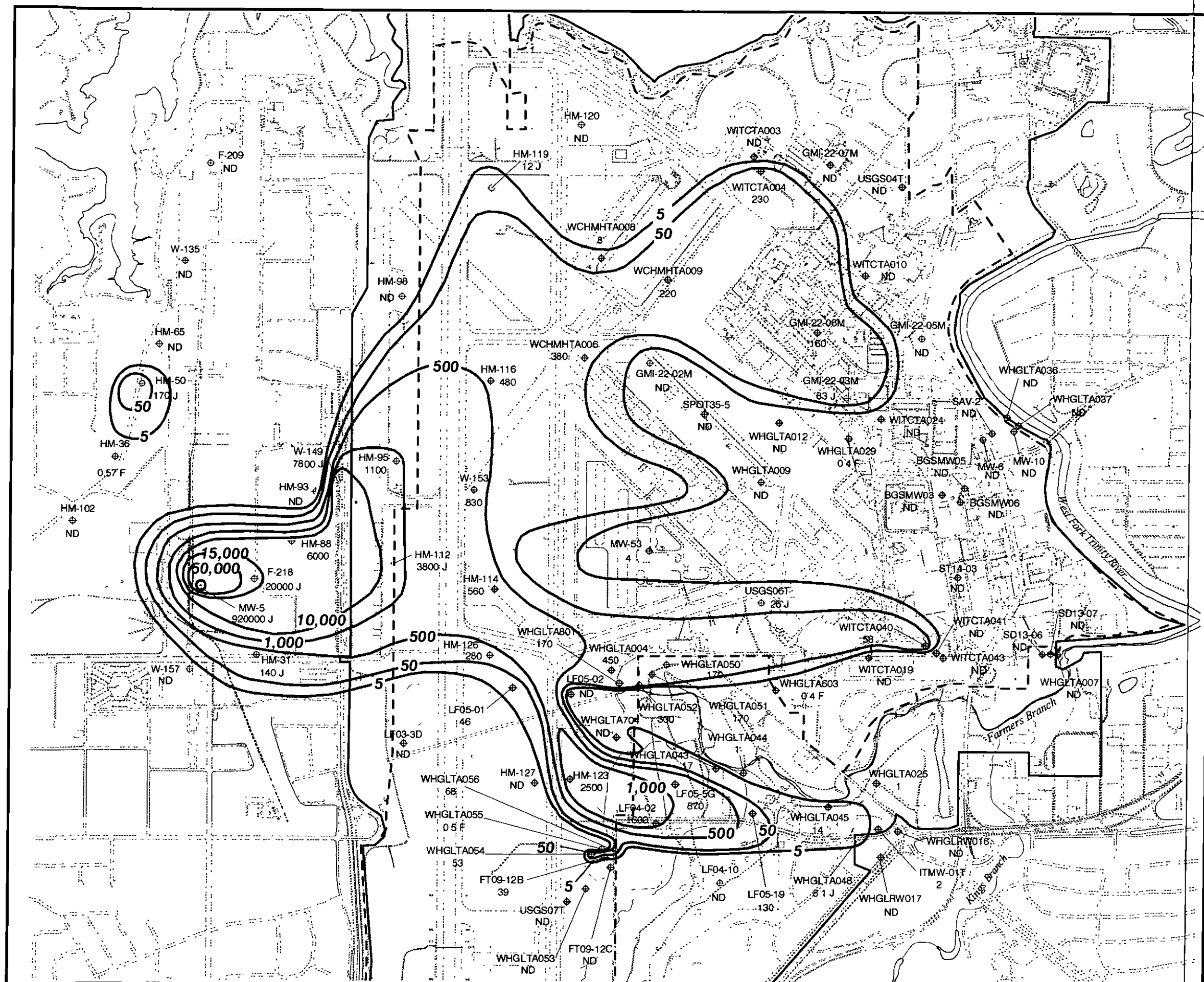
Fuel-related compounds, including benzene; ethylbenzene; 1,2,4-trimethylbenzene; isopropylbenzene (cumene); naphthalene; *n*-butylbenzene; *n*-propylbenzene; *sec*-butylbenzene; and *tert*-butylbenzene were detected in samples collected from the following monitoring wells: SPOT35-5, ST14-03, WCHMHTA008, WHGLTA009, WHGLTA012, WHGLTA704, WITCTA003, and WITCTA024. The specific concentrations of these fuel-related compounds are presented in Table B.1 of Appendix B. Although the concentrations of these fuel-related compounds are above their PQLs, none of these compounds exceed their RRS 2 values. Out of the 43 monitoring wells, benzene was detected in four groundwater samples with concentrations ranging from 0.5 μg/L in WITCTA003 to 87 μg/L in WCHMHTA008 (Figure 5.6).

5.3.2 Metals

Four TCE plume monitoring wells (HM-116, ITMW-01T, USGS07T, and WITCTA010) were sampled for metals during the April 2001 semi-annual sampling event. Sample results were compared to the background levels established for metals (Jacobs, 1998). Detections above background concentrations are provided in Table 5.6, and are depicted in Figure 5.7. Arsenic, chromium, copper, iron, and manganese were detected above background concentrations. All other metals analyzed were detected below their respective background concentrations. Of the metals detected above background, all were below the RRS 2 values except iron at WITCTA010.

5.3.3 Additional Groundwater Investigations

In order to provide the most complete set of data for this semi-annual report, the results of other groundwater investigations performed within the same time frame at the base are used to delineate the contaminants at the site. During this sampling event, two additional groundwater investigations were conducted to meet site specific monitoring objectives. Nine monitoring wells were scheduled to be sampled as part of a long-term groundwater monitoring program at AOC 1. One monitoring well, WHGLTA038 contained free-product and therefore was not sampled. In addition, nine monitoring wells were sampled as part of an RFI for SWMU 19, 20, and 21 as well as an SI for AOC 19. Table 3.2 lists the monitoring wells sampled for both AOC 1 and SWMUs 19, 20, 21, and AOC 19. The detected VOC results used in this report are validated and can be found in Appendix Table B.2.



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NAS Fort Worth JRB, Texas

Figure 5.3
Trichloroethene Concentrations
Terrace Alluvium
April through July 2001

U.S. Air Force Center For Environmental Excellence

Legend

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

——— Former Carswell Air Force Base

— 500 — TCE Concentration Contour (µg/L)

MW-53 ⊕ NAS Fort Worth JRB Basewide Sampling Well
50 TCE Concentration (µg/L)

WHGLTA036 ⊕ Monitoring well data collected as part of other investigations during April 2001.
ND TCE Concentration (µg/L)

HM-119 ⊕ AFP 4 Semi-Annual Monitoring Well
17 TCE Concentration (µg/L)

SD13-07 ⊕ Monitoring well data collected as part of other investigations during July 2001
ND TCE Concentration (µg/L)

ND = Not Detected at Laboratory Method Detection Limit of 0.5µg/L

F = The analyte was positively identified, but the associated value is below the PQL

J = The analyte was positively identified, but the quantitation is an estimation.

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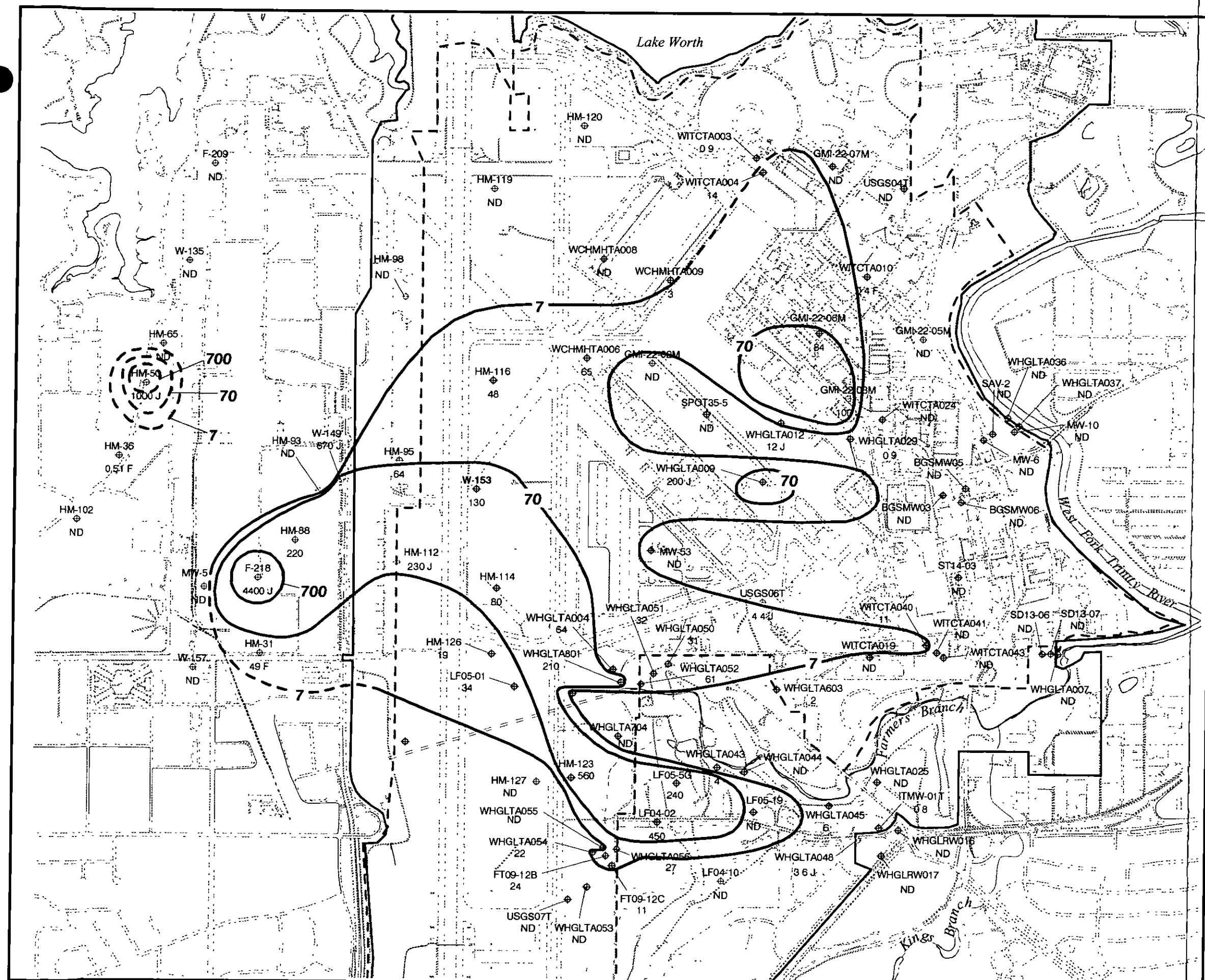

HydroGeoLogic, Inc.—April 2001 Semi-Annual Report
NAS Fort Worth JRB, Texas

Figure 5.4
***cis*-1,2-Dichloroethene Concentrations**
Terrace Alluvium
April through July 2001

U.S. Air Force Center For Environmental Excellence

Legend

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

——— Former Carswell Air Force Base

—70— *cis*-1,2-DCE Concentration Contour (µg/L)

LF05-01 ⊕ 34 — NAS Fort Worth JRB Basewide Sampling Well; *cis*-1,2- DCE Concentration (µg/L)

WHGLTA801 ⊕ 210 — Monitoring well data collected as part of other investigations during April 2001; *cis*-1,2- DCE Concentration (µg/L)

HM-119 ⊕ ND — AFP 4 Semi-Annual Monitoring Well; *cis*-1,2- DCE Concentration (µg/L)

SD13-07 ⊕ ND — Monitoring well data collected as part of other investigations during July 2001; *cis*-1,2- DCE Concentration (µg/L)

ND = Not Detected at Laboratory Method Detection Limit of 0.5µg/L

F = The analyte was positively identified, but the associated value is below the PQL

J = The analyte was positively identified, but the quantitation is an estimation

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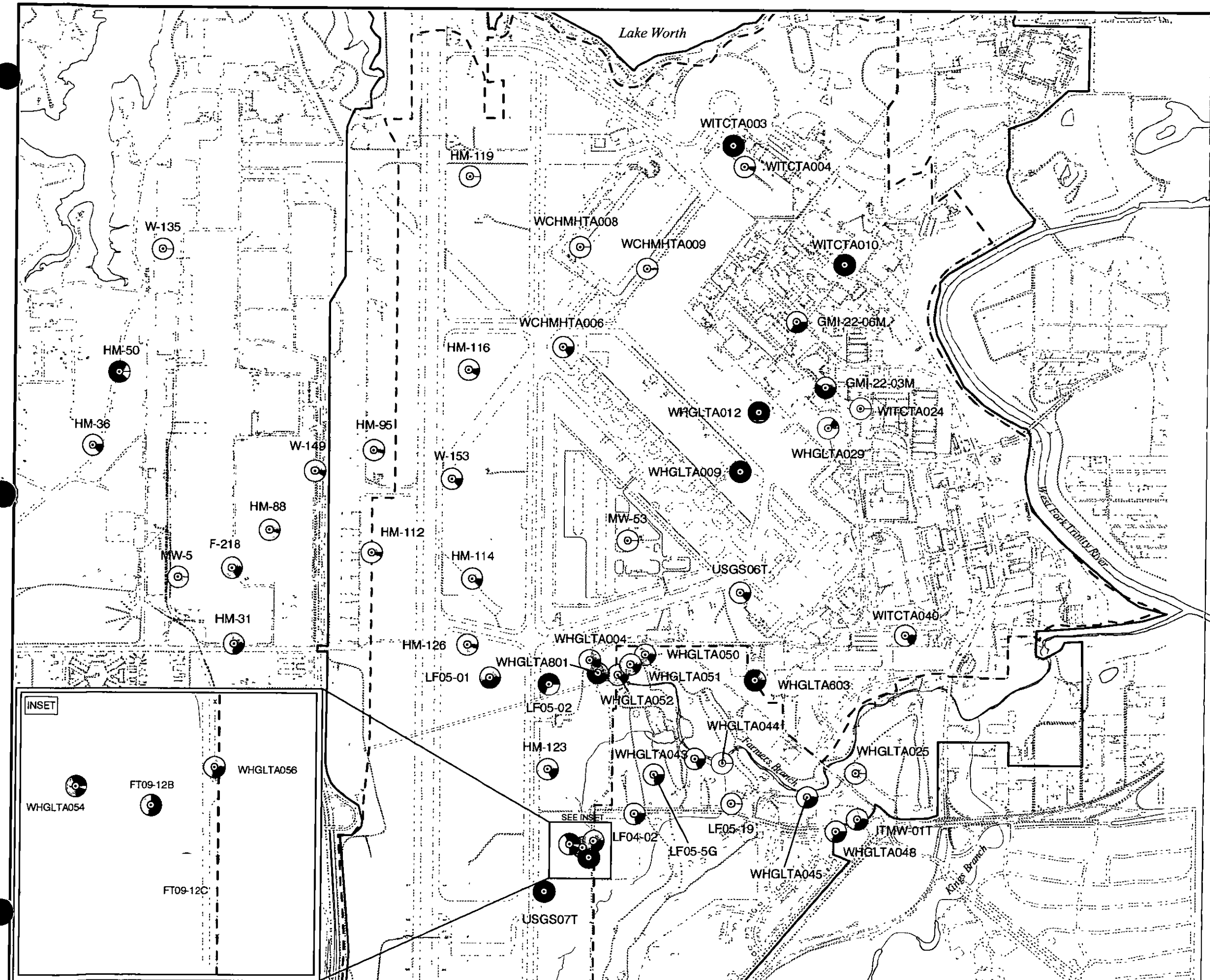

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NAS Fort Worth JRB, Texas

Figure 5.5

Chlorinated Solvent Ratios
April 2001

U.S. Air Force Center For Environmental Excellence

Legend

NAS Fort Worth JRB (Carswell Field)

Former Carswell Air Force Base

Percent of Solvent

Tetrachlorethene (PCE)

Trichloroethene (TCE)

cis-1,2-Dichloroethene (cis-1,2-DCE)

Vinyl Chloride

Note Air Force Plant 4 ratios do not include tetrachloroethene (PCE) as they do not report all EPA Method 8260 compounds

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results ranged from 0.4 F micrograms per liter (μg/L) to 12 μg/L at HM-116. Monitoring well HM-116 was the only well detected above the RRS 2 value of 5 μg/L.

TCE was detected in groundwater samples collected from 25 of the 43 monitoring, 19 of which contained concentrations above the RRS 2 value of 5 μg/L. The maximum TCE concentration detected was 2,500 μg/L in HM-123 located upgradient of Landfills 5 and 7. The lateral extent of the TCE plume did not change from the October 2000 results, with concentrations of TCE remaining generally the same as in October 2000. The TCE results from the April 2001 semi-annual sampling event are presented in Figure 5.3.

Note: Due to contamination in an associated equipment blank, trichloroethene detections were qualified "U" in samples WHGLTA009, WITCTA003, and WITCTA019, where concentrations of TCE were identified at 2 μg/L, 1 μg/L, and 0.6 μg/L, respectively. It is believed that these may be actual results and not artifacts resulting from equipment blank contamination, however the data was not incorporated into tables or figures.

Cis-1,2-dichloroethene (*cis*-1,2-DCE) was detected in groundwater samples collected from 25 of the 43 monitoring wells, seven of which contained concentrations above the RRS 2 value of 70 μg/L. The maximum detection of 560 μg/L was found in the sample collected from HM-123. *Cis*-1,2-DCE results from the April 2001 semi-annual sampling event are presented in Figure 5.4. Figure 5.5 provides the distribution of the chlorinated solvents at NAS Fort Worth JRB, Texas during April 2001.

Trans-1,2-DCE was detected in groundwater samples from 13 of the 43 monitoring wells sampled. Concentrations of *trans*-1,2-DCE ranged from 0.6 μg/L in WCHMHTA006 to 38 μg/L in LF04-02. There were no detections of *trans*-1,2-DCE above the RRS 2 value of 100 μg/L.

1,1-Dichloroethene was detected in groundwater samples from 10 of the 43 monitoring wells at concentrations ranging from 0.4 F μg/L in GMI-22-06M and HM-126 to 5 μg/L at LF05-5G. There were no detections of 1,1-Dichloroethene above the RRS 2 value of 7 μg/L.

Vinyl chloride was detected in groundwater samples from eight of the 43 monitoring wells. Sample results from five monitoring wells contained concentrations of vinyl chloride above the RRS 2 value of 2 μg/L, with the highest concentration (12 μg/L) of vinyl chloride found in the groundwater samples collected from monitoring wells LF04-02 and LF05-5G. The majority of the vinyl chloride contamination was found in groundwater samples from monitoring wells near the Landfills.

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Trichlorofluoromethane was detected in four groundwater samples at concentrations of 1 μg/L and 2 μg/L. All concentrations of these compounds were detected below their respective RRS 2 values.

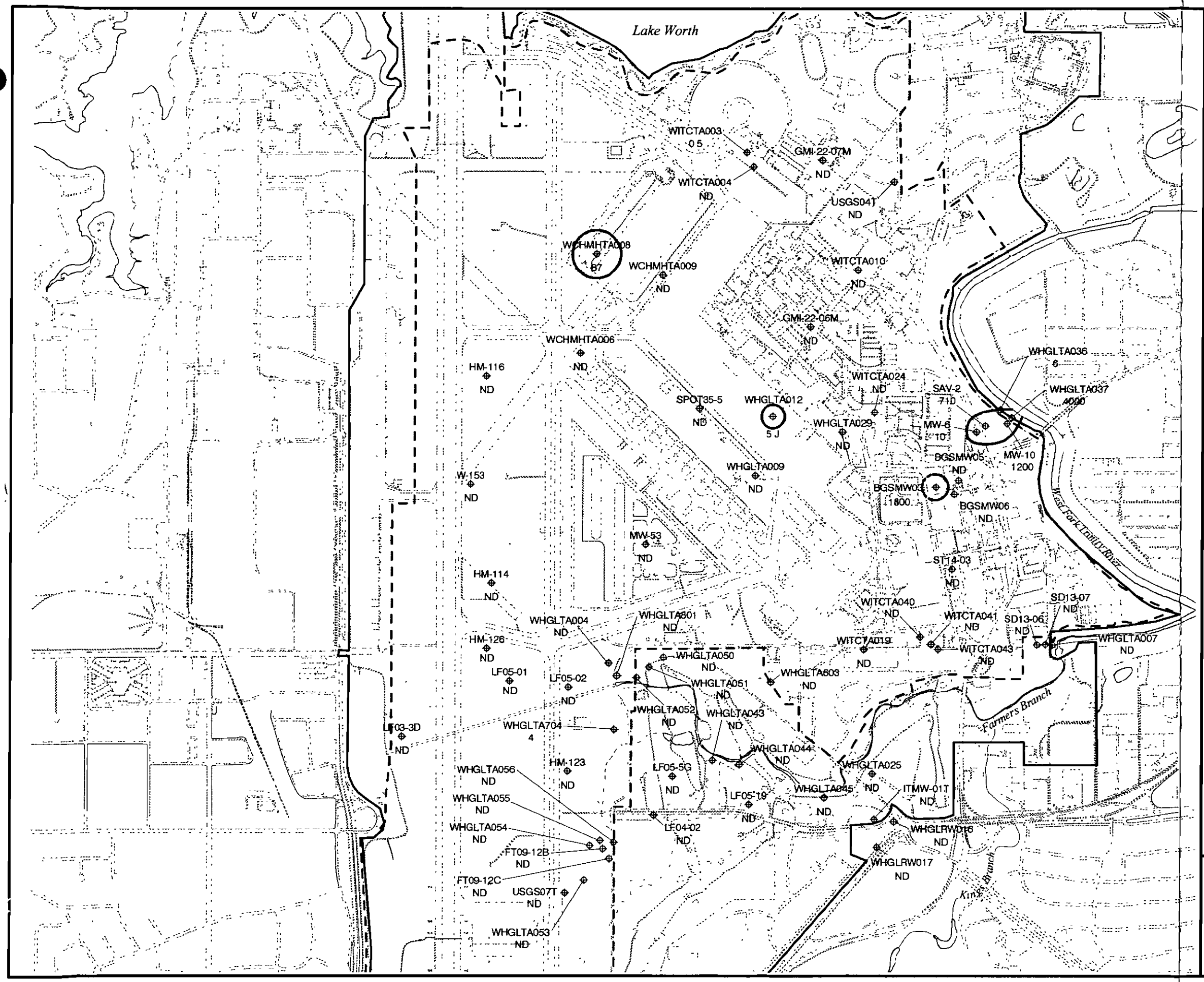
Fuel-related compounds, including benzene; ethylbenzene; 1,2,4-trimethylbenzene; isopropylbenzene (cumene); naphthalene; *n*-butylbenzene; *n*-propylbenzene; *sec*-butylbenzene; and *tert*-butylbenzene were detected in samples collected from the following monitoring wells: SPOT35-5, ST14-03, WCHMHTA008, WHGLTA009, WHGLTA012, WHGLTA704, WITCTA003, and WITCTA024. The specific concentrations of these fuel-related compounds are presented in Table B.1 of Appendix B. Although the concentrations of these fuel-related compounds are above their PQLs, none of these compounds exceed their RRS 2 values. Out of the 43 monitoring wells, benzene was detected in four groundwater samples with concentrations ranging from 0.5 μg/L in WITCTA003 to 87 μg/L in WCHMHTA008 (Figure 5.6).

5.3.2 Metals

Four TCE plume monitoring wells (HM-116, ITMW-01T, USGS07T, and WITCTA010) were sampled for metals during the April 2001 semi-annual sampling event. Sample results were compared to the background levels established for metals (Jacobs, 1998). Detections above background concentrations are provided in Table 5.6, and are depicted in Figure 5.7. Arsenic, chromium, copper, iron, and manganese were detected above background concentrations. All other metals analyzed were detected below their respective background concentrations. Of the metals detected above background, all were below the RRS 2 values except iron at WITCTA010.

5.3.3 Additional Groundwater Investigations

In order to provide the most complete set of data for this semi-annual report, the results of other groundwater investigations performed within the same time frame at the base are used to delineate the contaminants at the site. During this sampling event, two additional groundwater investigations were conducted to meet site specific monitoring objectives. Nine monitoring wells were scheduled to be sampled as part of a long-term groundwater monitoring program at AOC 1. One monitoring well, WHGLTA038 contained free-product and therefore was not sampled. In addition, nine monitoring wells were sampled as part of an RFI for SWMU 19, 20, and 21 as well as an SI for AOC 19. Table 3.2 lists the monitoring wells sampled for both AOC 1 and SWMUs 19, 20, 21, and AOC 19. The detected VOC results used in this report are validated and can be found in Appendix Table B.2.



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NAS Fort Worth JRB, Texas

Figure 5.6
Benzene Concentrations
Terrace Alluvium
April 2001

U.S. Air Force Center For Environmental Excellence

Legend

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

——— Former Carswell Air Force Base

——— Benzene Concentration Contour (5 µg/L)

WITCTA041 ⊕ ND — NAS Fort Worth JRB Basewide Sampling Well; Benzene Concentration (µg/L)

MW-10 ⊕ ND — Monitoring well data collected as part of other investigations during April 2001; Benzene Concentration (µg/L)

SD13-07 ⊕ ND — Monitoring well data collected as part of other investigations during July 2001; Benzene Concentration (µg/L)

ND = Not Detected at Laboratory Method Detection Limit of 0.5µg/L

J = The analyte was positively identified, but the quantitation is an estimation

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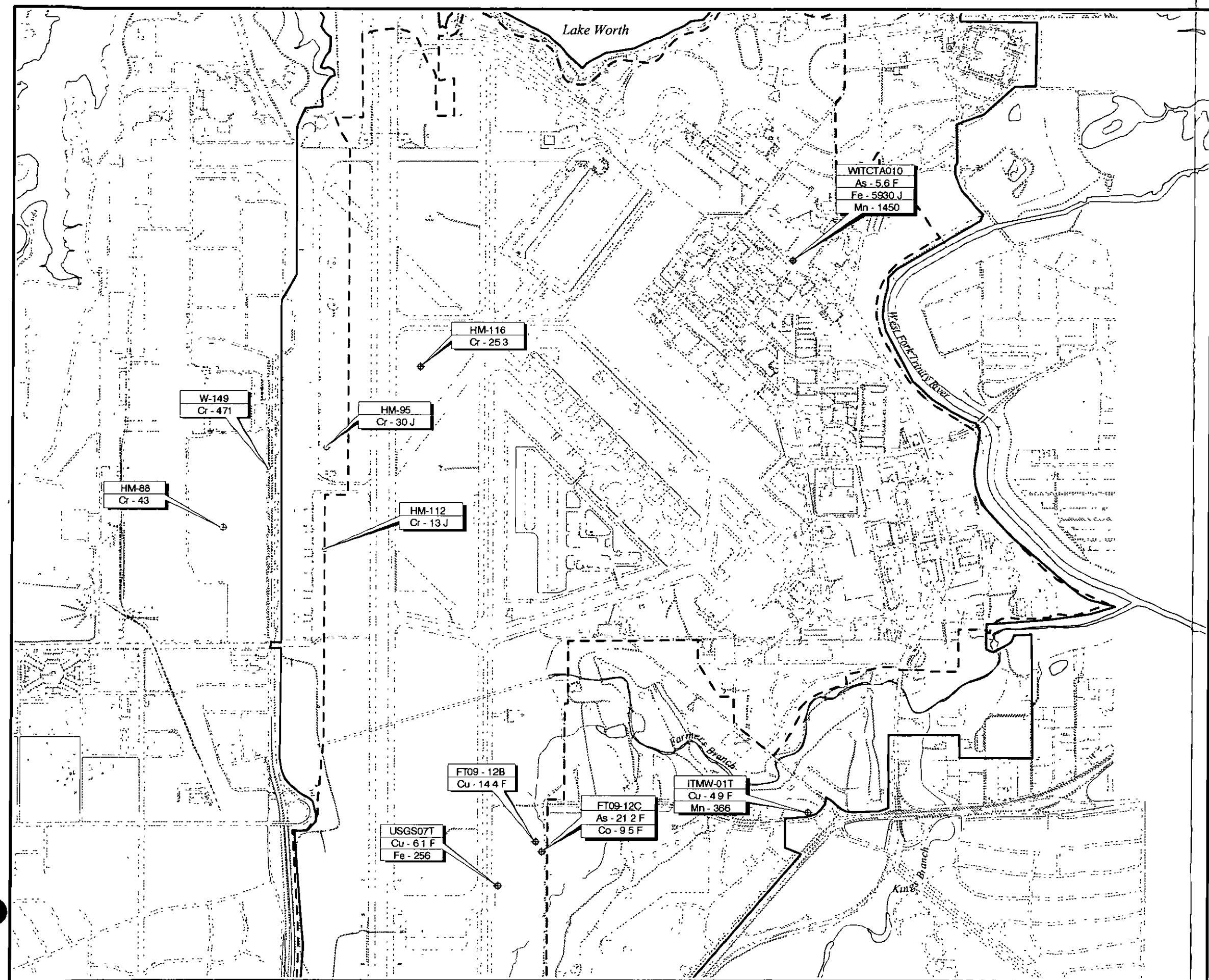

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NAS Fort Worth JRB, Texas

Figure 5.7
Metal Concentrations
Detected Above Background
April 2001

U.S. Air Force Center For Environmental Excellence

Legend

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

——— Former Carswell Air Force Base

HM-116 — NAS Fort Worth JRB Basewide Sampling Well (Sampled for metals)

FT09-12B — Monitoring wells sampled as part of other investigations during April 2001

HM-88 — AFP 4 Semiannual Monitoring Well

Mn - 86 — Metals detected above background

F = The analyte was positively identified, but the associated value is below PQL.

J = The analyte was positively identified, but the quantitation is an estimation.

Note All concentrations in µg/L

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Table 5.6
Detections of Metals Above Background Concentrations in TCE Plume Monitoring Wells

Monitoring Well	Analyte	Background µg/L	RRS 2 µg/L	April 2001 µg/L
HM-116	Chromium, Total	6	100	25.3
ITMW-01T	Copper	2.8	1300	4.9 F
	Manganese	175	14000	366
USGS07T	Copper	2.8	1300	6.1 F
	Iron	224	300	256
WITCTA010	Arsenic	4.9	50	5.6 F
	Iron	224	300	5930 J
	Manganese	175	14000	1450

Notes:
F - The analyte was positively identified, the associated numerical value is between the MDL and PQL.
J - The analyte was positively identified, the quantitation is an estimation.

Underline results represent values detected above RRS 2 levels.

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TAB

SECTION 6.0

6.0 CONCLUSIONS AND RECOMMENDATIONS

Modifications to the sampling protocol are based on the data obtained during the previous sampling event and comparison of the results to the monitoring objectives discussed in Section 1.2 of this document. It is recommended that only a few changes be implemented for the October 2001 sampling at NAS Fort Worth JRB. All changes are described in the following discussion.

6.1 CHANGES IN MONITORING WELLS SELECTED FOR ANALYTICAL SAMPLING

A summary of the wells and analyses to be sampled during the October 2001 semi-annual sampling event is presented in Table 6.1.

During the April 2001 semi-annual event, several monitoring wells were sampled as part of additional investigations. In order to provide the most complete data set, these results were used to better define the TCE plume and delineate the contaminants at the site. Upon review of the recent TCE contours, it is recommended that monitoring wells WHGLTA054, WHGLTA064, WITCTA003, WITCTA025, and WITCTA029 be sampled during the October 2001 sampling event to better define plume characteristics.

Previously, monitoring wells HM-93, HM-120, HM-127, LF04-10, and GMI-22-02M were sampled semi-annually as part of the AFP 4 sampling effort. However during 2001, Jacobs will be sampling these five monitoring wells annually during the Spring. Since four of the five monitoring wells are critical plume delineation wells, it is recommended that HM-120, HM-127, LF04-10, and GMI-22-02M be sampled by HydroGeoLogic during the October 2001 sampling event. Monitoring well HM-93 is located on AFP 4 and will not be sampled during October. All monitoring and analytical data will be shared with Jacobs.

Table 6.1
TCE Plume Monitoring Wells Selected for October 2001 Basewide Sampling

Area	Well	Sample Parameters[1]		
		VOCs	Metals	Natural Attenuation[2]
Plume Monitoring Wells	GMI-22-02M	X [4]		
	GMI-22-06M	X		
	GMI-22-07M	X		
	HM-114	X		
	HM-116	X	X	
	HM-120	X [4]		
	HM-123	X		X
	HM-126	X		
	HM-127	X [4]		
	ITMW-01T	X	X	X
	LF03-3D	X	X [3]	
	LF04-02	X		
	LF04-10	X [4]		
	LF05-01	X		
	LF05-02	X		
	LF05-19	X		
	LF05-5G	X		X
	MW-53	X		
	SPOT35-5	X		
	ST14-03	X		
	USGS04T	X		
	USGS07T	X	X	X
	W-153	X		X
	WCHMHTA006	X		
	WCHMHTA008	X		
	WCHMHTA009	X		
	WHGLRW016	X		
	WHGLRW017	X		
	WHGLTA004	X		
	WHGLTA009	X		
	WHGLTA012	X		
	WHGLTA025	X		
	WHGLTA043	X		
	WHGLTA044	X		
	WHGLTA045	X		

Table 6.1 (Continued)
TCE Plume Monitoring Wells Selected for October 2001 Basewide Sampling

Area	Well	Sample Parameters[1]		
		VOCs	Metals	Natural Attenuation[2]
	WHGLTA049	X		
	WHGLTA051	X		
	WHGLTA054	X		
	WHGLTA064	X		
	WHGLTA603	X		
	WHGLTA704	X		
	WITCTA003	X		
	WITCTA004	X		
	WITCTA010	X	X	
	WITCTA019	X		
	WITCTA024	X		X
	WITCTA025	X		
	WITCTA029	X		
	WITCTA040	X		
	WITCTA041	X		
	WITCTA043	X		
Paluxy Well	WHGLPU001	X		

Notes:
1 Samples from all wells were also tested for the following standard field parameters: temperature, pH, specific conductance, dissolved oxygen (DO), oxidation-reduction potential (Eh), and turbidity.
2 Natural attenuation parameters to be sampled are common anions (chloride, nitrate, and sulfate), TOC, Fe (II), alkalinity, methane, ethane, and ethane.
3 This well will be sampled for chromium only.
4 Monitoring wells will be sampled by HydroGeoLogic during October 2001, since Jacobs will only monitor these wells during the spring each year.

VOCs - Volatile organic compounds (EPA Method SW8260B)
Metals - Total metals plus mercury (EPA Methods SW6010B/SW7471A)
Natural Attenuation – sulfate, nitrate, chloride (SW9056); TOC (SW9060); alkalinity (E310.1); methane, ethane, and ethane (Method RSK-175).

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TAB

SECTION 7.0

7.0 REFERENCES

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TAB

APPENDIX A

APPENDIX A

APRIL 2001 FIELD DATA

APPENDIX A.1

APRIL 2001 WELL GAUGING AND INSPECTION INFORMATION

April 2001
Well Gauging and Inspection Information

WELL ID	Previous Seal	Current Seal	DEPTH TO WATER (FTOC)	TOTAL DEPTH (FTOC)	DATE	TIME	MP HEIGHT ABOVE/ BELOW GROUND ELEVATION (Feet)	CASING DIAMETER (Inches)	PID READINGS (ppm)		WELL CONDITION		ID PLATE	PAD CONDITION	BOLTS	MANHOLE COVER	MANHOLE GASKET	LOCKS	WELL CAP	SAMPLER ID	Ded Pump	COMMENTS
									PID BZ	PID TOC	BUMPER POSTS	SECURITY BOX										
15B	0438816	0026862	7 57	12 42	3/30/01	1114	3 95	2	0	9 7	✓	✓	none	none	NA	NA	NA	✓	✓	KD, AK	none	firm bottom
17I	0438850	0026988	9 89	19 77	3/29/01	0845	2 99	2	0	10 3	✓	✓	none	✓	NA	NA	NA	✓	✓	KD, AK	none	firm bottom
17J	0438849	0026989	10.10	21 04	3/28/01	1825	2 79	2	*	*	none	✓	none	none	NA	NA	NA	✓	✓	KD, AK	none	*PID not functioning, firm bottom
17K	0438841	0026986	8 55	18 58	3/29/01	0848	1 54	2	0	0	✓	✓	none	✓	NA	NA	NA	✓	✓	KD, AK	none	firm bottom
17L	0438681	0026965	9 24	21 04	3/28/01	1755	2 87	2	*	*	✓	✓	none	✓	NA	NA	NA	✓	✓	KD, AK	none	soft bttm, *PID not functioning
17M	0438986	0026944	8 28	17 71	3/28/01	1705	1 68	2	*	*	✓	✓	none	✓	NA	NA	NA	✓	✓	KD, AK	none	*PID not functioning
BGSMW01	0438810	0026991	5 01	22 26	3/29/01	0945	-0 29	4	0	0	NA	NA	✓	✓	✓	✓	✓	none	✓	KD, AK	none	
BGSMW02	0180739	0026963	9 84	20 63	3/28/01	1539	-0 48	4	*	*	NA	NA	✓	✓	✓	✓	✓	none	✓	KD, AK	none	*PID not functioning, odor, firm bttm
BGSMW03	0194331	0026954	9 23	20 43	3/28/01	1525	-0 44	4	*	*	NA	NA	✓	✓	✓	✓	✓	none	✓	KD, AK	none	*PID not functioning, soft bttm, dedicated tubing
BGSMW04	0194485	0026910	10 42	22 53	3/28/01	1550	-0 62	4	*	*	NA	NA	✓	✓	✓	✓	✓	none	✓	KD, AK	none	*PID not functioning, odor
BGSMW05	0194347	0026955	4 57	12 57	3/28/01	1505	-0 32	4	*	*	NA	NA	✓	cracked	✓	✓	✓	none	✓	KD, AK	none	*PID not functioning, firm bttm, dedicated tubing
BGSMW06	0194332	0026956	9 06	17 30	3/28/01	1510	-0 48	4	*	*	NA	NA	✓	✓	✓	✓	✓	none	✓	KD, AK	none	*PID not functioning, firm bttm, dedicated tubing
BGSMW07	0194486	0026957	6 35	17 55	3/28/01	1515	-0 26	4	*	*	NA	NA	✓	✓	✓	✓	✓	none	✓	KD, AK	none	*PID not functioning, firm bttm
BLDG1040-1	0438860	0026858	17 86	19 68	3/30/01	1014	-0 50	4	0	0	NA	NA	none	cracked	✓	✓	✓	none	✓	KD, AK	none	firm bottom
BSS-A	0402355	0026953	4 25	10 13	3/28/01	1455	-0 38	2	*	*	NA	NA	none	none	✓	✓	✓	none	broken	KD, AK	none	*PID not functioning, firm bttm, cap broken-won't lock
FT08-11A	0433004	0026716	10 15	17 54	3/29/01	0911	3 50	2	0	0	✓	✓	none	cracked	NA	NA	NA	✓	✓	JW, CD	none	security post very rusty
FT08-11B	0438726/0438725	0438958/0438962	8 56	17 00	3/29/01	0924	4 55	2	0	0	✓	no hinge	none	cracked	NA	NA	NA	none	✓	JW, CD	none	no hinge for lock, 2 seals used
FT09-12A	0433013	0026800	13 78	27 77	3/29/01	1040	3 90	2	0	0	✓	✓	none	none	NA	NA	NA	✓	✓	JW, CD	none	
FT09-12B	0433012/0433015	0026799/0026796	30 85	37 67	3/29/01	1054	2 03	2	0	0	✓	no hinge	none	none	NA	NA	NA	none	✓	JW, CD	none	no hinge for lock, 2 seals used
FT09-12C	0433045	0026797	31 72	dedicated p	3/29/01	1050	2 63	2	0	0	✓	✓	none	cracked	NA	NA	NA	✓	✓	JW, CD	✓	dedicated pump
FT09-12D	none	0026786	30 36	36 99	3/29/01	1411	2 65	2	0	215	✓	✓	none	slightly cracked	NA	NA	NA	✓	✓	JW, CD	none	no seal
FT09-12E	0438781	0026790	31 07	38 56	3/29/01	1433	2 98	2	0 2	3 1	✓	✓	none	cracked/broken	NA	NA	NA	✓	✓	JW, CD	none	cap wasn't attached, on ground
GMI-04-01M	0433057	0026747	19 30	20 03	4/2/01	1054	2 62	2	*	*	✓	✓	none	✓	NA	NA	NA	✓	✓	KD, AK	none	*PID not functioning, bailer inside
GMI-22-02M	0438898	0026933	10 75	dedicated p	3/29/01	1236	2 70	2	0	0	NA	NA	none	✓	✓	✓	✓	✓	✓	KD, AK	✓	dedicated pump, box full of water
GMI-22-03M	none	0026992	20 32	dedicated p	3/29/01	1034	2 37	2	0	0	✓	✓	✓	✓	NA	NA	NA	✓	✓	KD, AK	✓	dedicated pump
GMI-22-04M	0438766	0026813	below TP	dedicated p	3/29/01	1714	2 28	2	0	0	✓	✓	none	✓	NA	NA	NA	✓	✓	KD, AK	✓	dedicated pump, top @ 19 61'
GMI-22-05M	none	0026977	11 19	dedicated p	3/28/01	1406	2 78	2	*	*	✓	✓	none	✓	NA	NA	NA	✓	✓	KD, AK	✓	*PID not functioning, dedicated pump
GMI-22-06M	0433025	0026938	18 07	dedicated p	3/29/01	1115	2 55	2	0	0	✓	✓	none	✓	NA	NA	NA	✓	✓	KD, AK	✓	dedicated pump
GMI-22-07M	0433048	0026839	15 75	dedicated p	3/29/01	1547	2 75	2	0	0	✓	✓	none	✓	NA	NA	NA	✓	✓	KD, AK	✓	dedicated pump
GMI-22-08M	0402351	0433051	15 08	22 20	3/30/01	1340	2 67	2	0	0	✓	✓	none	✓	NA	NA	NA	✓	✓	KD, AK	none	soft bottom
HM-110	none	none	66 38	dedicated p	3/30/01	1529	-0 57	4	0	0	NA	NA	none	✓	✓	✓	✓	none	✓	JW, CD	✓	no seal due to type of well cap, dedicated pump
HM-111	none	none	*	*	*	*	-0 40	*	*	*	NA	NA	none	✓	✓	✓	*	none	✓	JW, CD	none	*not gauged/twist off cap broken
HM-112	none	none	27 03	48 86	3/30/01	1641	-0 44	4	0	181	NA	NA	✓	none	none	✓	none	✓	✓	JW, CD	none	no seal, well no bolts
HM-114	0194477	0026755	17 94	36 13	3/30/01	1734	-0 23	4	0	6 3	NA	NA	✓	none	NA	✓	✓	✓	✓	JW, CD	none	no tubing
HM-116	0438908	0026882	23 40	dedicated p	3/30/01	1508	-0 43	4	*	*	NA	NA	✓	✓	none	✓	✓	✓	✓	KD, AK	✓	*PID not functioning, dedicated pump, no bolts
HM-117	none	0026874	22 02	38 52	3/30/01	1540	-0 40	4	*	*	NA	NA	✓	none	✓	✓	✓	✓	✓	KD, AK	none	*PID not functioning
HM-118	none	0026743	15 88	26 24	4/2/01	1010	-0 30	4	*	*	NA	NA	✓	✓	✓	✓	✓	✓	✓	KD, AK	none	*PID not functioning/manual pump, soft botm
HM-119	none	0433053	14 02	dedicated p	3/30/01	1604	-0 24	4	*	*	NA	NA	✓	cracked	✓	✓	✓	✓	✓	KD AK	✓	*PID not functioning/dedicated pump
HM-120	0438792	0026871	1 95	dedicated p	3/30/01	1355	-0 54	4	0	0	NA	NA	none	none	1 stripped	✓	✓	✓	✓	KD, AK	✓	*PID not functioning/dedicated pump, bolts stripped
HM-121	none	0026880	18 92	30 35	3/30/01	1407	-0 33	4	*	*	NA	NA	✓	none	2 stripped	✓	✓	✓	✓	KD, AK	none	*PID not functioning/bolts stripped/bailer
HM-123	0433054	0438977	25 80	dedicated p	3/29/01	1624	-1 21	4	0	3 2	NA	NA	none	✓	✓	✓	✓	none	✓	JW, CD	✓	dedicated pump
HM-124	none	0026730	13 19	24 31	3/30/01	1748	-0 22	4	0	0	NA	NA	none	✓	✓	✓	✓	✓	✓	JW, CD	none	no tubing
HM-125	0026889	0026757	19 15	32 87	3/30/01	1714	-0 35	4	0	0	NA	NA	✓	none	✓	✓	✓	none	✓	JW, CD	✓	dedicated pump
HM-126	none	0026774	13 40	35 80	3/29/01	1741	-0 49	4	0	0	NA	NA	none	none	1 stripped	✓	✓	none	✓	JW, CD	none	well not labeled, no seal
HM-127	none	0026772	23 51	dedicated p	3/29/01	1708	-0 32	4	0 2	240	NA	NA	✓	✓	1 stripped	✓	✓	none	✓	JW, CD	✓	dedicated pump
ITMW-01T	none	none	10 87	21 79	3/28/01	0805	-0 30	4	0	0	NA	NA	none	cracked	1 stripped	✓	✓	✓	✓	JW, CD	✓	ded p , no seal due to 4" cap
LF01-1B	0438865	0026907	7 86	19 65	3/28/01	0927	-0 45	2	0	103	none	✓	✓	cracked	NA	NA	NA	✓	poor	KD, AK	none	cap doesn't lock, firm bttm, dedicated tubing
LF01-1D	0481519/0434921	0026912	12 59	dedicated p	3/28/01	1022	3 60	2	*	*	✓	✓	none	none	NA	NA	NA	✓	✓	KD AK	✓	*PID not functioning, dedicated pump
LF01-1E	none	none	8 99	29 15	3/28/01	0841	2 85	2	0	0	none	✓	none	✓	✓	✓	✓	none	PVC	KD, AK	none	PVC cap
LF01-1F	none	none	9 00	29 45	3/28/01	0831	-0 43	2	0	0	none	✓	none	✓	none	✓	✓	none	PVC	KD, AK	none	PVC cap, soft bttm, dedicated tubing
LF03-3D	0433095	0026876	below TP	dedicated p	3/30/01	1644	3 65	2	*	*	✓	✓	✓	✓	NA	NA	NA	✓	✓	KD, AK	✓	*PID not functioning/dedicated pump
LF04-01	0438783	0026792	31 00	41 31	3/29/01	1024	2 74	2	0	0	✓	✓	✓	cracked	NA	NA	NA	✓	✓	JW, CD	none	
LF04-02	0438729	0026707	28 44	dedicated p	3/28/01	1458	2 68	2	0	24 6	✓	✓	✓	✓	NA	NA	NA	✓	✓	JW, CD	✓	dedicated pump

April 2001
Well Gauging and Inspection Information

WELL ID	Previous Seal	Current Seal	DEPTH TO WATER (FTOC)	TOTAL DEPTH (FTOC)	DATE	TIME	MP HEIGHT ABOVE/ BELOW GROUND ELEVATION (Feet)	CASING DIAMETER (Inches)	PID READINGS (ppm)		WELL CONDITION		ID PLATE	PAD CONDITION	BOLTS	MANHOLE COVER	MANHOLE GASKET	LOCKS	WELL CAP	SAMPLER ID	Ded Pump	COMMENTS
									PID BZ	PID TOC	BUMPER POSTS	SECURITY BOX										
LF04-04	none	0026706	18 17	26 72	3/28/01	1553	2 72	2	0	0	✓	✓	none	NA	NA	NA	NA	✓	✓	JW, CD	none	
LF04-10	*	*	*	*	3/28/01	1543	-0 36	2	*	*	✓	NA	none	✓	1 stripped	✓	✓	✓	✓	JW, CD	none	*unable to gauge - Jacobs lock
LF04-4A	0433041	0026709	9 38	24 48	3/28/01	1441	1 19	2	0	0	✓	✓	none	✓	NA	NA	NA	✓	✓	JW, CD	none	
LF04-4B	0180786	0026708	18 43	25 28	3/28/01	1448	1 33	2	0	0	✓	✓	none	✓	NA	NA	NA	✓	✓	JW, CD	none	seal broken/tubing slipped 1
LF04-4C	0180785	0026703	18 21	dedicated p	3/28/01	1511	2 30	2	0	0	✓	✓	none	NA	NA	NA	NA	✓	✓	JW, CD	✓	seal broken, dedicated pump
LF04-4D	none	0026702	20 13	27 93	3/28/01	1505	2 25	2	0	0	✓	✓	none	NA	NA	NA	NA	✓	✓	JW, CD	none	
LF04-4E	none	0026701	23 55	40 43	3/28/01	1501	1 10	2	0	0	✓	✓	none	✓	NA	NA	NA	✓	✓	JW, CD	none	bailer inside well
LF04-4F	no lock or seal	0026710	29 26	36 97	3/28/01	1429	2 56	2	0	24 3	✓	✓	none	✓	NA	NA	NA	✓	✓	JW, CD	none	no lock/seal & lid not closed
LF04-4G	none	0433065	25 68	32 99	3/28/01	1308	0 92	2	0	0	✓	✓	none	✓	NA	NA	NA	✓	✓	JW, CD	none	well cap doesn't seal tightly
LF05-01	0433027	0026779	13 83	dedicated p	3/29/01	1758	2 66	2	0	0	✓	✓	none	✓	NA	NA	NA	✓	✓	JW, CD	✓	dedicated pump
LF05-02	0438991	0026788	19 20	28 85	3/29/01	1533	2 39	2	0	0 1	✓	✓	none	✓	NA	NA	NA	✓	✓	JW, CD	none	
LF05-18	0180797	0433080	18 78	23 77	3/28/01	1228	-0 26	2	0	0	NA	NA	none	✓	1 stripped	✓	✓	✓	✓	JW, CD	none	dolphin lock on cap
LF05-19	0433046	0433086	13 77	dedicated p	3/28/01	1027	-0 22	2	0	0 7	NA	NA	none	✓	✓	✓	✓	✓	✓	JW, CD	✓	dedicated pump
LF05-5A	0438784	0026791	24 65	30 35	3/29/01	1015	3 80	2	0	0	✓	✓	none	none	NA	NA	NA	✓	✓	JW, CD	none	rusty security post
LF05-5B	none	0433059	3 58	12 11	3/28/01	1352	3 30	2	0	0	✓	✓	none	✓	NA	NA	NA	✓	✓	JW, CD	none	no lock or seal
LF05-5C	0438631	0438973	11 30	21 14	3/29/01	0946	2 10	2	0	0	✓	✓	none	none	NA	NA	NA	✓	✓	JW, CD	none	
LF05-5E	none	0026793	28 49	35 50	3/29/01	1019	2 99	2	0	0	✓	✓	none	none	NA	NA	NA	✓	✓	JW, CD	none	unlocked/no seal- PVC cracked 4"
LF05-5G	none	0433070	below TP	dedicated p	3/28/01	1325	3 39	2	0	0	✓	✓	none	✓	NA	NA	NA	✓	✓	JW, CD	✓	DTW below top of dedicated pump
LF05-5H	none	0433060	16 35	16 69	3/28/01	1340	2 03	2	0	0	✓	✓	none	✓	NA	NA	NA	✓	✓	JW, CD	none	
LSA1628-1	0438753	0026836	10 73	16 95	3/29/01	16 34	-0 76	4	0	409	NA	NA	none	cracked	✓	✓	✓	none	✓	KD, AK	none	strong odor
LSA1628-14	0402357	0026811	10 18	15 90	3/29/01	1641	-0 25	2	0	0	NA	NA	✓	✓	✓	✓	✓	none	✓	KD, AK	none	firm bottom, dedicated tubing
LSA1628-15	0402356	0026835	9 94	16 95	3/29/01	1638	-0 25	4	0	0	NA	NA	✓	✓	✓	✓	✓	none	✓	KD, AK	none	
LSA1628-2	0438947	0026842	10 28	19 05	3/30/01	0836	-0 33	4	0	330	NA	NA	✓	✓	✓	✓	✓	none	✓	KD, AK	none	firm bottom
LSA1628-3	0438740	0026812	10 06	dedicated p	3/29/01	1646	-0 92	4	0	0	NA	NA	✓	✓	need 1	✓	✓	none	✓	KD, AK	✓	bail box, need to drill hole for bolt, dedicated pump
MW-10	0194415	0026927	9 77	32 77	3/28/01	1240	-0 68	4	*	*	NA	NA	✓	✓	none	none	none	✓	✓	KD, AK	none	*PID not functioning,curb box damaged, odor
MW-11	0194403	0433026	23 62	32 17	3/28/01	1235	-0 73	4	*	*	NA	NA	none	✓	none	broken	none	✓	✓	KD, AK	none	*PID not working, curb box damaged, manhole cover off
MW-11A	0438899	0026809	22 86	26 10	3/29/01	1324	-0 15	4	0	136	NA	NA	none	none	✓	✓	✓	✓	✓	KD, AK	none	strong odor, firm bottom
MW-12	0180729	0026929	3 92	27 31	3/28/01	1248	-0 76	4	*	*	NA	NA	✓	✓	none	none	none	✓	✓	KD, AK	none	*PID not working, box/manhole damaged, cap off, soft bm
MW-19	0438655	0026653	17 42	19 64	4/26/01	0952	-0 60	4	*	*	NA	NA	none	✓	✓	✓	✓	none	✓	KD	none	*no PID, no odor, firm bottom
MW-2	0180726	0026750	6 58	47 64	4/2/01	0856	-0 49	4	*	*	NA	NA	none	none	none	none	none	✓	✓	CD, KD	none	*PID not working
MW-3	0180724	0026958	9 76	19 64	3/28/01	1535	-0 20	4	*	*	NA	NA	✓	✓	✓	✓	✓	✓	✓	KD, AK	none	firm bottom, dedicated tubing
MW-36	0438802	0026999	4 07	19 71	3/29/01	0956	-0 29	4	0	0	NA	NA	✓	✓	✓	✓	✓	✓	✓	KD, AK	none	water in box, firm bottom
MW-37	0438804	0027000	8 84	19 73	3/29/01	0959	-0 33	4	0	0	NA	NA	✓	✓	✓	✓	✓	✓	✓	KD, AK	none	
MW-38	0438885	0026931	15 74	18 41	3/29/01	1100	-0 30	4	0	602	NA	NA	✓	✓	✓	✓	none	✓	✓	KD, AK	none	dedicated tubing
MW-39	0438886	0026940	15 71	19 04	3/29/01	1102	-0 35	4	0	972	NA	NA	✓	✓	✓	✓	none	✓	✓	KD, AK	none	strong odor
MW-40	0438889	0026939	15 94	19 53	3/29/01	1104	-0 20	4	0	3 7	NA	NA	✓	✓	✓	✓	none	✓	✓	KD, AK	none	firm bottom, dedicated tubing
MW-42	0438871	0026993	16 06	19 47	3/29/01	1055	-0 30	4	0	590	NA	NA	✓	✓	✓	✓	none	✓	✓	KD, AK	none	strong odor
MW-5	0194350	0026960	2 98	7 98	3/28/01	1435	1 58	4	*	*	none	✓	✓	✓	NA	NA	NA	✓	✓	KD, AK	none	*PID not working, firm bottom, odor, dedicated tubing
MW-50	0438795	0026824	10 17	14 35	3/29/01	1414	-0 30	4	0	0	NA	NA	none	✓	✓	✓	✓	✓	✓	KD, AK	none	soft bottom
MW-51	0438796	0026823	10 29	15 00	3/29/01	1412	-0 35	4	0	0	NA	broken	none	cracked	none	none	none	none	✓	KD, AK	none	poor well condition, firm bottom
MW-52	0194080	0026843	11 61	19 13	3/30/01	0900	-0 35	4	0	0	NA	lifted	none	none	✓	✓	✓	none	✓	KD, AK	none	no box - mowers destroyed, soft bottom
MW-53	0433047	0026850	12 27	dedicated p	3/30/01	0854	-0 50	4	0	0	NA	NA	none	cracked	✓	✓	✓	none	✓	KD, AK	✓	dedicated pump
MW-56	0438679	0026830	7 55	19 25	3/29/01	1425	-0 24	4	0	0	NA	NA	none	none	none	none	none	none	none	KD, AK	none	soft bottom, no pad, silt on probe
MW-57	0438778	0026814	11 56	14 22	3/29/01	1735	-0 45	4	0	0	NA	NA	none	✓	✓	✓	✓	none	✓	KD, AK	none	firm bottom, dedicated tubing
MW-6	0402354	0026952	1 31	9 85	3/28/01	1445	-0 42	4	*	*	NA	NA	✓	cracked	1 bolt	✓	✓	✓	✓	KD, AK	none	*PID not working, curb box had water, firm bottom, odor
MW-7	0194492	0026951	6 79	16 54	3/28/01	1440	-0 41	4	*	*	NA	NA	none	✓	none	none	none	✓	✓	KD, AK	none	*PID not working, firm bottom, curb box destroyed
MW-8	0180728	0026902	3 13	26 72	3/28/01	1227	-0 79	4	*	*	NA	NA	✓	✓	none	none	none	✓	✓	KD, AK	none	*PID not working, silty bottom, pump/tubing, missing cover
MW-9	0194496	0026928	4 79	27 68	3/28/01	1245	-0 14	4	*	*	NA	NA	✓	✓	none	none	none	✓	✓	KD, AK	none	*PID not working, bailer, manhole damaged, soft bottom
MWMTAC-001	*	*	*	*	*	*	-0 11	*	*	*	NA	NA	*	*	*	*	*	*	*	JW/CD	none	unable to locate using metal detector
OT-15C	0438814/0438815	0026869/0026870	7 53	15 41	3/30/01	1109	3 70	2	0	9 8	✓	✓	✓	none	NA	NA	NA	none	none	KD, AK	none	firm bottom
SAV-1	0194444	0026924	5 94	18 78	3/28/01	1250	-1 11	4	*	*	NA	NA	none	✓	✓	✓	✓	✓	✓	KD, AK	none	*PID not working, soft bottom, cap doesn't fit, dedicated tubing
SAV-2	0180742	0026923	6 42	18 85	3/28/01	1252	-1 15	4	*	*	NA	NA	✓	✓	✓	✓	✓	✓	✓	KD, AK	none	*PID not working, odor, cap doesn't fit casing well
SD13-01	0438912	0026930	10 93	17 35	3/28/01	1123	2 94	2	*	*	✓	✓	✓	✓	NA	NA	NA	✓	none	KD, AK	none	*PID not working, firm bottom

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WELL ID	Previous Seal	Current Seal	DEPTH TO WATER (FTOC)	TOTAL DEPTH (FTOC)	DATE	TIME	MP HEIGHT ABOVE/ BELOW GROUND ELEVATION (Feet)	CASING DIAMETER (inches)	PID READINGS (ppm)		WELL CONDITION											COMMENTS
									PID BZ	PID TOC	BUMPER POSTS	SECURITY BOX	ID PLATE	PAD CONDITION	BOLTS	MANHOLE COVER	MANHOLE GASKET	LOCKS	WELL CAP	SAMPLER ID	Ded. Pump	
SD13-02	0439765	0026917	below TP	dedicated p	3/28/01	1109	2 64	2	*	*	✓	✓	✓	✓	NA	NA	NA	✓	none	KD, AK	✓	*PID not working, top pump is @ 11 84 , dedicated pump
SD13-03	0438830	0026915	9 89	16 50	3/28/01	1119	2 94	2	*	*	✓	✓	✓	✓	NA	NA	NA	✓	none	KD, AK	none	*PID not working, firm bottom
SD13-04	0438982	0026916	below TP	dedicated p	3/28/01	1116	2 76	2	*	*	✓	✓	✓	covered	NA	NA	NA	✓	none	KD, AK	✓	*PID not working, top pump is @ 7 52', dedicated pump
SD13-05	0438862	0026911	7 65	13 50	3/28/01	0951	-0 19	4	*	*	none	✓	✓	cracked	✓	✓	none	✓	✓	KD, AK	none	*PID not working, firm bottom
SD13-06	none	0026867	8 16	dedicated p	3/30/01	1220	2 06	4	0	0	✓	✓	✓	covered	NA	NA	NA	✓	✓	KD, AK	✓	dedicated pump
SD13-07	0435983	0026863	16 18	21 57	3/30/01	1224	1 78	4	0	183	✓	✓	✓	covered	NA	NA	NA	✓	✓	KD, AK	none	odor, firm bottom
SPOT35-1	0438892	0026810	22 89	26 60	3/29/01	1312	-0 92	2	0	68	NA	NA	none	none	✓	✓	✓	✓	✓	KD, AK	none	firm bottom
SPOT35-3	0438985	0026801	20 32	23 75	3/29/01	1255	-0.66	2	0	189	NA	NA	✓	cracked	2 stripped	✓	✓	✓	✓	KD, AK	none	box filled w/ water, soft bottom, odor
SPOT35-4	0438895	0026802	20 92	24 22	3/29/01	1259	-0 96	2	0	96	NA	NA	✓	cracked	2 stripped	✓	✓	✓	✓	KD, AK	none	dedicated tubing, bolts stripped-threads blocked by broken bolt
SPOT35-5	0433050	0026934	22 22	dedicated p	3/29/01	1244	-0 15	4	0	144	NA	NA	none	none	2 stripped	✓	none	✓	✓	KD, AK	✓	dedicated pump, no ID at well, bolts stripped
SPOT35-6	0438754	0026936	23 08	28 00	3/29/01	1227	-0 35	4	0	240	NA	NA	none	none	2 stripped	✓	none	✓	✓	KD, AK	none	bolts stripped, bailed water, firm bottom
SPOT35-7	0438714	0026803	8 15	20 35	3/29/01	1306	-0 04	4	0	0	NA	NA	none	none	1 stripped	✓	✓	✓	✓	KD, AK	none	bolt stripped, bailed water, firm bottom
SPOT35-8	0438735	0026808	23 10	26 60	3/29/01	1337	-0 16	4	0	28	NA	NA	✓	none	✓	✓	✓	✓	✓	KD, AK	none	firm bottom, dedicated tubing
SPOT35-9	0438720	0026806	22 67	28 50	3/29/01	1343	-0 40	4	0	6	NA	NA	✓	none	✓	✓	✓	✓	✓	KD, AK	none	firm bottom
ST14-01	0402316	0026946	12 73	18 29	3/28/01	1700	2 69	2	*	*	✓	✓	✓	✓	NA	NA	NA	✓	✓	KD, AK	none	*PID not working, possible tubing
ST14-02	0402318	0026943	10 83	dedicated p	3/28/01	1702	2 94	2	*	*	✓	✓	✓	gone	NA	NA	NA	✓	✓	KD, AK	✓	*PID not working, dedicated pump
ST14-03	0438911	0026983	7 50	dedicated p	3/28/01	1737	1 85	2	*	*	✓	✓	✓	✓	NA	NA	NA	✓	✓	KD, AK	✓	*PID not working, dedicated pump
ST14-04	0438840	0026942	11 13	dedicated p	3/28/01	1650	2 71	2	*	*	✓	✓	✓	✓	NA	NA	NA	✓	✓	KD, AK	✓	*PID not working, dedicated pump, id plate loose
ST14-24	0438870	0026855	10 18	dedicated p	3/30/01	1051	-0 30	2	0	317	NA	NA	✓	✓	1 stripped	✓	✓	none	✓	KD, AK	✓	1 bolt stripped, dedicated pump
ST14-25	0438741	0433008	5 38	16 65	3/29/01	0914	-0 65	2	0	0	NA	NA	✓	✓	1 short	✓	✓	✓	✓	KD, AK	none	firm bottom, dedicated tubing, 1 bolt short
ST14-27	0438932	0026949	7 34	15 80	3/28/01	1613	-1 19	2	*	*	NA	NA	✓	✓	✓	✓	✓	✓	✓	KD, AK	none	*PID not working, dedicated tubing, firm bottom
ST14-28	0438917	0026947	10 73	dedicated p	3/28/01	1635	-0 44	2	*	*	NA	NA	✓	✓	✓	✓	✓	✓	✓	KD, AK	✓	*PID not working, dedicated pump
ST14-29	0438818	0026921	8 25	dedicated p	3/28/01	1130	-0 30	2	*	*	NA	NA	✓	✓	✓	✓	✓	✓	✓	KD, AK	✓	*PID not working, dedicated pump
ST14-30	0402320	0433024	5 28	13 89	3/28/01	1218	-0 44	2	*	*	NA	NA	✓	✓	✓	✓	✓	✓	✓	KD, AK	none	*PID not working, firm bottom
ST14-W05	0438691	0026856	7 82	16 00	3/30/01	1044	-0 14	2	0	2 2	NA	NA	✓	✓	✓	✓	✓	none	✓	KD, AK	none	firm bottom
ST14-W06	0438855	0026861	7 53	22 55	3/30/01	1057	-0 26	2	0	1 1	NA	NA	✓	✓	✓	✓	✓	none	✓	KD, AK	none	soft bottom
ST14-W07	0438854	0026987	10 26	24 64	3/29/01	0903	-0 07	2	0	0	NA	NA	✓	✓	✓	✓	✓	✓	✓	KD, AK	none	firm bottom
ST14-W08	0438868	0026997	8 49	24 96	3/29/01	0914	-0 30	2	0	36	NA	NA	none	none	stripped	✓	✓	✓	✓	KD, AK	none	soft bottom, bolts stripped
ST14-W09	0438853	0026968	6 95	20 18	3/29/01	0900	-0 27	2	0	0	NA	NA	✓	✓	✓	✓	✓	none	✓	KD, AK	none	firm bottom
ST14-W10	0438842	0026967	4 65	19 58	3/28/01	1804	-0 04	2	*	*	NA	NA	✓	corner cracked	✓	✓	✓	✓	✓	KD, AK	none	*PID not working, firm bottom
ST14-W11	0438931	0026985	5 03	dedicated p	3/28/01	1815	-0 09	2	*	*	NA	NA	✓	✓	✓	✓	none	✓	✓	KD, AK	✓	*PID not working, dedicated pump
ST14-W12	0438843	0026969	3 87	17 67	3/28/01	1750	-0 17	2	*	*	NA	NA	✓	✓	✓	✓	none	✓	✓	KD, AK	none	*PID not working, water in curb box, firm bottom
ST14-W13	0438681	0026966	7 19	17 08	3/28/01	1800	-0 16	2	*	*	NA	NA	none	✓	✓	✓	none	✓	✓	KD AK	none	*PID not working, firm bottom
ST14-W15	0438847	0026731	9 87	18 55	4/2/01	0842	-0 36	2	*	*	NA	NA	✓	✓	✓	✓	✓	none	✓	KD, AK	none	*PID not working, soft bottom
ST14-W16	0438936	0026981	6 68	dedicated p	3/28/01	1717	-0 37	2	*	*	NA	NA	✓	✓	✓	✓	✓	✓	✓	KD, AK	✓	*PID not working, dedicated pump
ST14-W18	0402319	0026990	7 62	dedicated p	3/28/01	1719	-0 26	2	*	*	NA	NA	✓	none	✓	✓	✓	✓	✓	KD, AK	✓	*PID not working, dedicated pump
ST14-W19	0438834	0026982	8 12	16 68	3/28/01	1721	-0 77	2	*	*	NA	NA	none	none	✓	✓	✓	✓	✓	KD, AK	none	*PID not working, firm bottom, odor
ST14-W20	0438833	0026984	7 97	15 92	3/28/01	1740	-0 03	2	*	*	NA	NA	✓	✓	✓	✓	✓	✓	✓	KD, AK	none	*PID not working, firm bottom
ST14-W21	0433044	0026941	9 08	dedicated p	3/28/01	1640	-0 15	2	*	*	NA	NA	✓	✓	✓	✓	✓	✓	✓	KD, AK	✓	*PID not working, dedicated pump
ST14-W22	0438823	0026919	8 57	10 85	3/28/01	1059	-0 25	2	*	*	NA	NA	✓	cracked	✓	✓	none	✓	✓	KD, AK	none	*PID not working, firm bottom, no tubing
ST14-W23	0438838	0026922	3 69	9 87	3/28/01	1206	-0 14	2	*	*	NA	NA	✓	✓	✓	✓	✓	✓	✓	KD, AK	none	*PID not working, firm bottom, no tubing
ST14-W31	0438821	0026918	below TP	dedicated p	3/28/01	1106	-0 28	2	*	*	NA	NA	✓	cracked	✓	✓	✓	✓	✓	KD, AK	✓	*PID not working, dedicated pump top @ 9 30'
ST14-W32	0438827	0026868	3 59	12 14	3/30/01	1217	2 74	2	0	38	✓	✓	✓	covered	NA	NA	NA	✓	✓	KD, AK	none	firm bottom
USGS03T	none	0026816	2 22	8 68	3/30/01	0805	-0 77	2	0	0	NA	NA	none	none	2 of 3	✓	✓	✓	✓	KD, AK	none	cover loose, 2 bolts missing, firm bottom
USGS04T	0194121	0026841	17 98	19 01	3/30/01	0828	-0 24	2	0	0 2	NA	NA	none	none	✓	✓	✓	none	✓	KD, AK	none	soft bottom
USGS06T	none	0026845	17 28	dedicated p	3/30/01	0936	-0 40	2	0	0	NA	NA	none	✓	✓	✓	✓	none	✓	KD, AK	✓	dedicated pump
USGS07T	0438624	0026783	8 10	dedicated p	3/29/01	1504	-1 34	2	0 1	0 6	NA	NA	none	cracked	✓	✓	none	none	✓	JW/CD	✓	dedicated pump
W-153	0438952	0026754	20 79	dedicated p	3/30/01	1702	-0 13	2	0	25 1	NA	NA	✓	✓	1 stripped	✓	none	none	✓	JW/CD	✓	dedicated pump
WCHMHTA001	0438678	0026753	28 15	45 83	3/30/01	1650	-0 49	2	0	0	NA	NA	✓	✓	1 stripped	✓	✓	✓	✓	JW/CD	none	
WCHMHTA002	0438044	0026888	21 31	42 15	3/30/01	1513	-0 51	2	*	*	NA	NA	✓	✓	✓	✓	✓	✓	✓	KD, AK	none	*PID not working, soft bottom
WCHMHTA003	0438046	0026875	21 53	28 63	3/30/01	1534	-0 69	2	*	*	NA	NA	✓	✓	✓	✓	✓	✓	✓	KD, AK	none	*PID not working, firm bottom, silt on probe
WCHMHTA004	0438045	0026886	21 77	37 65	3/30/01	1525	-0 43	2	*	*	NA	NA	✓	✓	✓	✓	✓	✓	✓	KD, AK	none	*PID not working
WCHMHTA005	none	0026890	18 43	26 78	3/30/01	1443	-0 44	2	*	*	NA	NA	✓	✓	✓	✓	✓	✓	✓	KD, AK	none	*PID not working, full of water, firm bottom

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WELL ID	Previous Seal	Current Seal	DEPTH TO WATER (FTOC)	TOTAL DEPTH (FTOC)	DATE	TIME	MP HEIGHT ABOVE/ BELOW GROUND ELEVATION (Feet)	CASING DIAMETER (Inches)	PID READINGS (ppm)		WELL CONDITION											COMMENTS
									PID BZ	PID TOC	BUMPER POSTS	SECURITY BOX	ID PLATE	PAD CONDITION	BOLTS	MANHOLE COVER	MANHOLE GASKET	LOCKS	WELL CAP	SAMPLER ID	Ded. Pump	
WCHMHTA006	none	0026881	18 24	36 37	3/30/01	1445	-0 49	2	*	*	NA	NA	✓	✓	✓	✓	✓	✓	✓	KD, AK	none	*PID not working, soft bottom
WCHMHTA007	0438669	0026872	15 74	32 06	3/30/01	1435	-0 61	2	*	*	NA	NA	✓	✓	✓	✓	✓	✓	✓	KD, AK	none	*PID not working, silt on probe
WCHMHTA008	0438933	0026826	14 60	24 60	3/29/01	1435	-0 30	2	0	55	NA	NA	✓	✓	✓	✓	✓	✓	✓	KD, AK	none	dedicated tubing, firm bottom
WCHMHTA009	0438688	0026821	7 80	11 70	3/29/01	1352	-0 18	2	0	0	NA	NA	✓	✓	✓	✓	✓	✓	✓	KD, AK	none	dedicated tubing, firm bottom, bailed water from box
WCHMHTA010	0438800	0026823	7 60	24 10	3/29/01	1353	-0 39	2	0	0	NA	NA	✓	✓	✓	✓	✓	✓	✓	KD, AK	none	dedicated tubing, firm bottom, bailed water from box
WCHMHTA011	0438711	0026807	13 19	22 20	3/29/01	1401	-0 52	2	0	0	NA	NA	✓	✓	✓	✓	✓	✓	✓	KD, AK	none	dedicated tubing, soft bottom, bailed water from box
WCHMHTA012	0438904	0026819	14 14	19 01	3/29/01	1658	-0 33	2	0	0	NA	NA	✓	covered	stripped	✓	✓	none	✓	KD, AK	none	stripped bolts
WCHMHTA013	none	0026975	14 95	dedicated p	3/28/01	1411	-0 50	2	*	*	NA	NA	✓	✓	✓	✓	✓	✓	✓	KD, AK	✓	*PID not working, water in curb box, dedicated pump
WCHMHTA014	0438794	0026873	7 29	11 89	3/30/01	1616	-0 32	2	*	*	NA	NA	✓	✓	✓	✓	✓	✓	✓	KD, AK	none	*PID not working, tubing, firm bottom
WHGLPU001	0438927	0433067	75 72	85 82	3/28/01	1413	-0 07	2	0	0	NA	NA	none	✓	✓	✓	✓	✓	✓	JW/CD	none	
WHGLWN002	0438929	0433088	5 26	28 42	3/28/01	1222	-0 10	2	0	0	NA	NA	none	✓	✓	✓	none	✓	✓	JW/CD	none	
WHGLPU003	0438918	0438963	72 33	89 35	3/29/01	1642	0 12	2	0 2	12 4	NA	NA	none	✓	✓	✓	✓	none	✓	JW/CD	none	
WHGLPU004	0438749	0433089	44 13	51 04	3/28/01	1212	-0 17	2	0	0	NA	NA	none	✓	✓	✓	none	✓	✓	JW/CD	none	
WHGLRW015	none	none	12 38	23 73	3/28/01	0833	-0 58	4	0	1 3	NA	NA	none	✓	✓	✓	✓	none	✓	JW/CD	✓	no seal due to 4" cap - dedicated p
WHGLRW016	0438603	0433055	10 96	22 58	3/28/01	0811	-0 50	4	0	0	NA	NA	none	✓	✓	✓	✓	none	✓	JW/CD	none	
WHGLRW017	0438695	0433056	12 90	25 51	3/28/01	0823	-0 40	4	0	0	NA	NA	none	✓	✓	✓	✓	✓	✓	JW/CD	none	well cap leaks allowing water in well
WHGLRW018	0438602	0433100	15 50	27 04	3/28/01	0935	-0 20	4	0	0	NA	NA	none	✓	✓	✓	✓	✓	✓	JW/CD	none	
WHGLRW019	0180799	0026764	12 73	23 92	3/30/01	0800	-0 23	4	0	0	NA	NA	none	✓	✓	✓	✓	✓	✓	JW/CD	none	
WHGLTA002	0180781	0433087	11 81	20 11	3/28/01	1230	-0 20	2	0	0	NA	NA	none	✓	✓	✓	none	✓	✓	JW/CD	none	I-66 lock on well cap
WHGLTA003	0180800	0433099	21 34	dedicated p	3/28/01	1010	-0 25	2	0	0	NA	NA	none	✓	✓	✓	none	✓	✓	JW/CD	✓	seal broken, dedicated pump
WHGLTA004	0433010	0026718	16 68	dedicated p	3/29/01	0901	-0 20	2	0	36	NA	NA	none	✓	✓	✓	none	none	✓	JW/CD	✓	dedicated pump
WHGLTA005	0438811	0026865	8 81	dedicated p	3/30/01	1230	2 98	2	0	28 4	✓	✓	✓	covered	NA	NA	NA	✓	✓	KD, AK	✓	dedicated pump
WHGLTA007	0438934	0026866	13 31	30 01	3/30/01	1226	-0 40	2	0	1771	none	✓	✓	✓	✓	✓	✓	✓	✓	KD, AK	none	odor, soft bottom, silt (grey) on probe
WHGLTA008	0438831	0026945	4 94	dedicated p	3/28/01	1710	-0 38	2	*	*	none	✓	none	✓	✓	✓	✓	✓	✓	KD, AK	✓	dedicated pump
WHGLTA009	0180704	0026805	23 22	27 85	3/29/01	1331	2 75	2	0	1600	✓	✓	✓	✓	NA	NA	NA	✓	✓	KD, AK	none	dedicated tubing, firm bottom
WHGLTA010	0194345	0026935	26 01	30 21	3/29/01	1250	2 26	2	0	2 1	✓	✓	✓	✓	NA	NA	NA	✓	✓	KD, AK	none	dedicated tubing, soft bottom
WHGLTA011	0438797	0026825	11 55	dedicated p	3/29/01	1431	1 94	2	0	0	✓	✓	✓	✓	NA	NA	NA	✓	✓	KD, AK	✓	dedicated pump
WHGLTA012	0438916	0026998	18 02	23 55	3/29/01	1218	-0 60	2	0	170	none	✓	✓	none	✓	✓	✓	✓	✓	KD, AK	none	water in box, soft bottom, dedicated tubing
WHGLTA013	0438897	0026804	21 82	25 95	3/29/01	1318	-0 55	2	0	13	none	✓	✓	none	✓	✓	✓	✓	✓	KD, AK	none	water in box, firm bottom, dedicated tubing
WHGLTA014	0438925	0026932	20 75	26 95	3/29/01	12 07	-0 20	2	0	83 1	none	✓	✓	none	✓	✓	✓	✓	✓	KD, AK	none	firm bottom, dedicated tubing
WHGLTA020	0438671	0026704	10 01	14 78	3/28/01	1635	-0 32	2	0	0	NA	NA	none	✓	1 stripped	✓	✓	✓	✓	JW/CD	none	
WHGLTA022	0180789	0433098	21 11	32 39	3/28/01	1005	-0 24	2	0	0	NA	NA	none	✓	✓	✓	✓	✓	✓	JW/CD	none	
WHGLTA023	0438601	0433097	15 41	21 38	3/28/01	0945	-0 45	2	0	0	NA	NA	none	✓	✓	✓	✓	✓	✓	JW/CD	none	casing cut at angle so cap doesn't seal
WHGLTA025	0433063	0433079	14 63	dedicated p	3/28/01	1605	-0 34	2	0	0	NA	NA	none	✓	✓	✓	✓	✓	✓	JW/CD	✓	dedicated pump
WHGLTA026	0438732	0026776	20 92	27 68	3/30/01	1329	-0 47	2	0	8 3	NA	NA	none	✓	✓	✓	✓	none	✓	JW/CD	none	no tubing
WHGLTA027	0438943	0026818	10 89	18 10	3/29/01	1704	-0 33	2	0	0	none	✓	✓	✓	✓	✓	✓	none	✓	KD/AK	none	soft bottom
WHGLTA028	0438901	0026820	13 70	18 60	3/29/01	1653	-0 36	2	0	0	none	✓	✓	✓	✓	✓	✓	none	✓	KD/AK	none	bail water from box, dedicated tubing
WHGLTA029	0438696	0026996	15 24	20 37	3/29/01	1024	-0 27	2	0	0	none	✓	✓	✓	✓	✓	✓	✓	✓	KD/AK	none	dedicated tubing
WHGLTA030	0438941	0026780	1 70	13 98	3/30/01	1200	-0 48	2	0	0	NA	NA	none	✓	1 stripped	✓	✓	none	✓	JW/CD	none	
WHGLTA031	0438913	0026777	5 51	10 95	3/30/01	1150	-0 52	2	0	0	NA	NA	none	✓	✓	✓	✓	none	✓	JW/CD	none	
WHGLTA033	0026964	0026767	9 37	27 28	3/30/01	1245	-0 52	2	0	0	NA	NA	none	✓	✓	✓	✓	none	✓	JW/CD	none	firm bottom, tubing slipped deep down in well
WHGLTA034	0438906	0026913	7 45	14 50	3/28/01	1050	-0 71	2	*	*	none	✓	✓	✓	✓	✓	✓	✓	✓	KD/AK	none	*PID not working, dedicated tubing, firm bottom
WHGLTA035	0438907	0026914	7 71	14 50	3/28/01	1055	-0 39	2	*	*	none	✓	✓	✓	✓	✓	✓	✓	✓	KD/AK	none	*PID not working, dedicated tubing
WHGLTA036	0194348	0026905	4 72	23 60	3/28/01	0907	-0 52	4	0	0	none	✓	✓	✓	✓	✓	✓	✓	✓	KD/AK	none	dedicated tubing, firm bottom
WHGLTA037	0194333	0026908	10 82	23 20	3/28/01	0900	-0 43	4	0	930	none	✓	✓	✓	✓	✓	✓	✓	✓	KD/AK	none	dedicated tubing, firm bottom
WHGLTA038	0194349	0026904	24 03	25 60	3/28/01	0854	-0 41	4	0	778	none	✓	✓	✓	✓	✓	✓	✓	✓	KD/AK	none	firm bottom, no tubing
WHGLTA039	0438763	0026771	16 69	25 34	3/30/01	1212	-0 53	2	0	0	NA	NA	none	✓	✓	✓	✓	none	✓	JW/CD	none	
WHGLTA040	0438742	0026760	20 44	26 43	3/30/01	1331	-0 37	2	0	3 4	NA	NA	none	✓	✓	✓	✓	none	✓	JW/CD	none	
WHGLTA043	0438981	0433077	9 59	13 90	3/28/01	1253	-0 30	2	0	0	NA	NA	none	✓	✓	✓	✓	✓	✓	JW/CD	none	
WHGLTA044	0438990	0433090	3 03	8 56	3/28/01	1036	-0 06	2	0	0	NA	NA	none	✓	✓	✓	✓	✓	✓	JW/CD	none	
WHGLTA045	0438989	0026765	7 88	13 44	3/30/01	1114	-0 10	2	0	0	NA	NA	none	✓	✓	✓	✓	none	✓	JW/CD	none	
WHGLTA046	none	0433068	24 10	36 83	3/28/01	1405	-0 18	4	0	209	NA	NA	none	✓	✓	✓	✓	none	✓	JW/CD	none	no seals
WHGLTA047	none	0433078	25 29	36 01	3/28/01	1422	-0 12	2	0	0	NA	NA	none	✓	1 stripped	✓	✓	none	✓	JW/CD	none	no seals

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WELL ID	Previous Seal	Current Seal	DEPTH TO WATER (FTOC)	TOTAL DEPTH (FTOC)	DATE	TIME	MP HEIGHT ABOVE/ BELOW GROUND ELEVATION (Feet)	CASING DIAMETER (Inches)	PID READINGS (ppm)		WELL CONDITION		ID PLATE	PAD CONDITION	BOLTS	MANHOLE COVER	MANHOLE GASKET	LOCKS	WELL CAP	SAMPLER ID	Ded. Pump	COMMENTS
									PID BZ	PID TOC	BUMPER POSTS	SECURITY BOX										
WHGLTA048	0438752	0433096	12 64	24 98	3/28/01	0927	-0 26	2	0	0	NA	NA	none	✓	✓	✓	✓	✓	✓	JW/CD	none	
WHGLTA049	0438729	*	*	*	*	*	-0 02	*	*	*	*	*	*	*	*	*	*	*	*	JW/CD	none	*well not gauged/5' above ground level
WHGLTA050	none	0026768	4 39	6 99	3/30/01	1052	-0 11	2	0	0	NA	NA	none	✓	✓	✓	✓	none	✓	JW/CD	none	
WHGLTA051	none	0026770	4 01	6 84	3/30/01	1044	-0 07	2	0	0	NA	NA	none	✓	✓	✓	✓	none	✓	JW/CD	none	
WHGLTA052	0433042	0026769	4 40	6 96	3/30/01	1103	-0 12	2	0	7 5	NA	NA	none	✓	✓	✓	✓	none	✓	JW/CD	none	
WHGLTA053	0433017	0026798	14 28	30 01	3/29/01	1045	3 20	2	0	0	✓	✓	none	✓	NA	NA	NA	none	✓	JW/CD	none	no lock
WHGLTA054	none	0026795	33 82	39 16	3/29/01	1032	3 52	2	0	0	✓	✓	none	✓	NA	NA	NA	none	✓	JW/CD	none	no seal or lock
WHGLTA055	0433039	0026784	31 56	41 45	3/29/01	1405	3 21	2	0	0	✓	✓	none	✓	NA	NA	NA	✓	✓	JW/CD	none	
WHGLTA056	0433020	0026787	31 00	40 29	3/29/01	1418	3 55	2	0 2	6 0	✓	✓	none	✓	NA	NA	NA	none	✓	JW/CD	none	
WHGLTA101	0439665	0026903	10 75	34 78	3/28/01	0835	-0 40	4	0	0	none	✓	✓	✓	✓	✓	✓	broken	✓	KD/AK	none	firm bottom, tubing slipped down well
WHGLTA102	0438661	0026901	10 00	37 75	3/28/01	0826	-0 40	4	0	0	none	✓	✓	✓	✓	✓	✓	✓	✓	KD/AK	none	soft bottom
WHGLTA103	0438662	0026909	18 28	45 60	3/28/01	0820	-0 40	4	0	0	none	✓	✓	✓	✓	✓	✓	✓	✓	KD/AK	✓	soft bottom, dedicated pump
WHGLTA104	0438664	0026910	27 35	45 43	3/28/01	0813	-0 45	4	0	0	none	✓	✓	cracked	✓	✓	✓	✓	✓	KD/AK	✓	silt on probe, dedicated pump
WHGLTA201	0438861	0026860	17 26	22 16	3/30/01	1002	-0 30	2	0	0 1	none	✓	✓	✓	✓	✓	✓	none	✓	KD/AK	none	firm bottom, has tubing
WHGLTA202	0438952	0026859	17 72	21 80	3/30/01	1008	-0 25	2	0	0	none	✓	✓	✓	✓	✓	✓	none	✓	KD/AK	none	
WHGLTA203	0026714	0026851	14 62	dedicated p.	3/30/01	0955	-0 40	2	0	0	none	✓	✓	✓	✓	✓	✓	none	✓	KD/AK	✓	dedicated pump - pulled pump to meas
WHGLTA204	0438654	0026844	16 97	25 32	3/30/01	0948	-0 42	2	0	0	none	✓	✓	none	✓	✓	✓	none	✓	KD/AK	none	box filled with water, silt on probe, dedicated tubing
WHGLTA302	0438994	0026778	16 67	22 75	3/29/01	1734	2 89	2	0	0	✓	✓	none	✓	NA	NA	NA	none	✓	JW/CD	none	no lock
WHGLTA303	0438639	0026773	20 03	27 35	3/29/01	1730	2 95	2	0	0	✓	✓	none	✓	NA	NA	NA	none	✓	JW/CD	none	no lock
WHGLTA601	0438670	0026763	12 23	dedicated p	3/30/01	0824	-0 24	2	0	19	NA	NA	none	✓	1 stripped	✓	✓	none	✓	JW/CD	✓	dedicated pump
WHGLTA602	0438874	0026761	13 00	18 58	3/30/01	0838	-0 22	2	0	1 3	NA	NA	none	✓	1 stripped	✓	bad	none	✓	JW/CD	none	
WHGLTA603	0438876	0026762	14 25	19 96	3/30/01	0832	2 27	2	0	0 4	✓	✓	none	✓	NA	NA	NA	none	✓	JW/CD	none	no lock
WHGLTA604	0026848	0026751	17 59	24 03	3/30/01	1357	-0 22	2	0	0	NA	NA	none	✓	✓	✓	✓	none	✓	JW/CD	none	
WHGLTA701	0438637	0026785	23 55	34 95	3/29/01	1632	-0 23	2	0 2	2 6	NA	NA	none	✓	✓	✓	✓	none	poor	JW/CD	none	well cap has no seal
WHGLTA702	0433014	0438961	10 80	21 55	3/29/01	0927	3 17	2	0	0	✓	✓	none	none	NA	NA	NA	none	✓	JW/CD	none	
WHGLTA703	0433011	0438965	16 16	28 65	3/29/01	1615	2 55	2	0 4	10 4	✓	✓	none	none	NA	NA	NA	none	✓	JW/CD	none	hornets nest inside security post
WHGLTA704	0433023	0026717	8 97	22 30	3/29/01	0918	2 32	2	0	0	✓	✓	none	✓	NA	NA	NA	none	✓	JW/CD	none	
WHGLTA705	0433002	0438956	1 84	10 70	3/29/01	0939	-0 53	2	0	0	NA	NA	none	✓	✓	✓	✓	none	✓	JW/CD	none	
WHGLTA706	0433003	0438957	10 20	18 00	3/29/01	0933	-0 56	2	0	0	NA	NA	none	✓	✓	✓	✓	none	✓	JW/CD	none	
WHGLTA707	none	0438975	20 84	30 45	3/29/01	1550	3 13	2	0	0 9	✓	✓	none	✓	NA	NA	NA	none	✓	JW/CD	none	no seal or lock
WHGLTA708	0433031	0438976	20 74	29 30	3/29/01	1555	2 90	2	0	0 6	✓	✓	none	✓	NA	NA	NA	none	✓	JW/CD	none	no lock
WHGLTA709	0433016	0026782	20 30	30 45	3/29/01	1609	3 44	2	0	0	✓	✓	none	✓	NA	NA	NA	none	✓	JW/CD	none	
WHGLTA801	0438972	0026711	7 59	13 84	3/28/01	1753	0 02	2	0	0	✓	NA	none	✓	✓	✓	✓	✓	✓	JW/CD	none	
WHGLTA803	none	0026705	6 40	12 23	3/28/01	1741	0 11	2	0	0	✓	NA	none	✓	✓	✓	✓	✓	✓	JW/CD	none	
WHGLTA901	0180735	0026925	8 75	21 78	3/28/01	1320	3 30	2	*	*	✓	✓	✓	✓	NA	NA	NA	✓	✓	KD/AK	none	*PID not working, soft bottom, dedicated tubing
WHGLTA902	0180745	0026971	10 99	32 48	3/28/01	1343	3 15	2	*	*	✓	✓	✓	✓	NA	NA	NA	✓	✓	KD/AK	none	*PID not working, soft bottom, dedicated tubing
WHGLTA903	none	0026978	23 78	43 22	3/28/01	1335	2 97	2	*	*	✓	✓	✓	✓	NA	NA	NA	✓	✓	KD/AK	none	*PID not working, soft bottom, dedicated tubing
WHGLTA904	none	0026980	21 07	36 78	3/28/01	1330	2 98	2	*	*	✓	✓	✓	✓	NA	NA	NA	✓	✓	KD/AK	none	*PID not working, firm bottom, dedicated tubing
WHGLTA905	none	0026973	16 35	30 01	3/28/01	1350	2 97	2	*	*	none	✓	✓	✓	NA	NA	NA	✓	✓	KD/AK	none	*PID not working, firm bottom, dedicated tubing
WHGLTA952	0180744	0026972	22 04	57 08	3/28/01	1345	3 12	2	*	*	none	✓	✓	✓	NA	NA	NA	✓	✓	KD/AK	none	*PID not working, soft bottom, dedicated tubing
WHGLTA953	0180746	0026979	22 51	57 12	3/28/01	1335	2 70	2	*	*	none	✓	✓	✓	NA	NA	NA	✓	✓	KD/AK	none	*PID not working, soft bottom, dedicated tubing
WHGLTA954	0180749	0026926	23 65	57 18	3/28/01	1327	2 80	2	*	*	✓	✓	✓	✓	NA	NA	NA	✓	✓	KD/AK	none	*PID not working, firm bottom, dedicated tubing
WITCTA001	none	0026827	15 88	21 06	3/29/01	1457	-0 44	2	0	0	NA	NA	none	✓	✓	✓	✓	✓	✓	KD/AK	none	box filled with water, firm bottom
WITCTA002	0438791	0026829	3 15	7 35	3/29/01	1448	-0 47	2	0	0	NA	NA	✓	cracked	✓	✓	✓	✓	✓	KD/AK	none	box filled with water, firm bottom
WITCTA003	0438793	0026828	14 28	23 50	3/29/01	1515	-0 53	2	0	0	NA	NA	✓	✓	1 stripped	✓	✓	✓	✓	KD/AK	none	box filled with water, firm bottom, 1 bolt stripped
WITCTA004	none	0026831	below TP	dedicated p	3/29/01	1522	-0 35	2	0	0	NA	NA	✓	✓	✓	✓	✓	✓	✓	KD/AK	✓	box filled with water, dedicated pump at 12 44
WITCTA005	0438715	0026840	12 28	18 90	3/29/01	1530	-0 34	2	0	0	NA	NA	✓	cracked	✓	✓	✓	✓	✓	KD/AK	none	firm bottom
WITCTA006	0438713	0026832	12 35	15 58	3/29/01	1536	-0 25	2	0	0	NA	NA	✓	cracked	✓	✓	✓	✓	✓	KD/AK	none	box filled with water, firm bottom
WITCTA007	0402359	0026838	14 12	22 15	3/29/01	1552	2 97	2	0	0	NA	NA	✓	✓	✓	✓	✓	none	✓	KD/AK	none	box filled with water, firm bottom
WITCTA008	0402358	0026834	7 98	14 20	3/29/01	1626	2 16	2	0	0	NA	NA	none	none	✓	✓	✓	none	✓	KD/AK	none	no pad, silt on probe
WITCTA009	0402360	0026837	5 55	12 65	3/29/01	1618	-0 59	2	0	1 6	NA	NA	✓	✓	✓	✓	✓	none	✓	KD/AK	none	box filled with water, firm bottom
WITCTA010	0433028	0026833	below TP	dedicated p	3/29/01	1609	-0 43	2	0	0	NA	NA	✓	✓	✓	✓	✓	✓	✓	KD/AK	✓	box filled with water, dedicated pump at 14 12'
WITCTA011	0402352	0026817	17 11	23 36	3/30/01	0818	-0 64	2	0	0	NA	NA	✓	cracked	1 of 2	✓	✓	✓	✓	KD/AK	none	box filled with water, firm bottom

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									PID BZ	PID TOC	BUMPER POSTS	SECURITY BOX	ID PLATE	PAD CONDITION	BOLTS	MANHOLE COVER	MANHOLE GASKET	LOCKS	WELL CAP	SAMPLER ID	Ded. Pump	
WITCTA012	none	0026792	9 75	17 08	4/2/01	0946	-0 62	2	*	*	NA	NA	none	✓	none	✓	none	none	✓	KD/AK	none	*PID not working
WITCTA013	0438776	0026937	below TP	dedicated p	3/29/01	1127	-0 55	2	0	0	NA	NA	✓	cracked	✓	✓	✓	✓	✓	KD/AK	✓	*PID not working, box filled with water, dedicated pump
WITCTA014	0438779	0026815	20 48	24 37	3/29/01	1745	-0 18	2	0	0 1	NA	NA	✓	cracked	✓	✓	✓	✓	none	KD/AK	none	
WITCTA015	0438801	0026994	17 63	25 19	3/29/01	1044	-0 29	2	0	2 9	NA	NA	✓	✓	✓	✓	✓	✓	✓	KD/AK	none	firm bottom
WITCTA016	0438881	0026748	18 38	dedicated p	4/2/01	0934	-0 38	2	*	*	NA	NA	none	✓	stripped	✓	✓	✓	✓	KD/AK	✓	*PID not working, bolts stripped, dedicated pump
WITCTA017	0438777	0028974	8 92	dedicated p	3/28/01	1400	-0 10	2	*	*	NA	NA	✓	✓	✓	✓	✓	✓	✓	KD/AK	✓	*PID not working, dedicated pump
WITCTA019	0438857	0026715	13 97	19 37	3/29/01	0837	-0 21	2	0	1 1	NA	NA	none	✓	✓	✓	✓	frozen	✓	JW/CD	none	lock frozen, no tubing
WITCTA020	none	0026849	19 23	25 50	3/30/01	0911	-0 06	2	*	*	NA	NA	✓	cracked	✓	✓	✓	✓	✓	KD/AK	none	*PID not working, box filled with water, dedicated tubing
WITCTA021	0438858	0026852	15 26	24 07	3/30/01	1017	-0 60	2	0	3	NA	NA	✓	✓	✓	✓	✓	✓	✓	KD/AK	none	
WITCTA022	0438859	0026853	16 66	23 50	3/30/01	1022	-0 88	2	0	0	NA	NA	✓	cracked	✓	✓	✓	✓	✓	KD/AK	none	firm bottom, dedicated tubing
WITCTA024	0438909	0026995	16 58	dedicated p	3/29/01	1032	-0 47	2	0	43 7	NA	NA	✓	cracked	✓	✓	✓	✓	✓	KD/AK	✓	dedicated pump
WITCTA025	0194387	0026976	9 89	12 17	3/28/01	1417	-1 51	2	*	*	NA	NA	✓	✓	✓	✓	✓	✓	✓	KD/AK	none	*PID not working, box filled with water, firm bottom
WITCTA026	0194494	0026950	4 63	9 47	3/28/01	1425	-0 15	2	*	*	NA	NA	✓	cracked	✓	✓	✓	✓	✓	KD/AK	none	*PID not working, box filled with water, firm bottom, threads are stripped
WITCTA027	0194436	0026962	8 14	22 77	3/28/01	1545	-0 30	2	*	*	NA	NA	none	✓	✓	✓	✓	✓	✓	KD/AK	✓	*PID not working, box filled with water, dedicated pump
WITCTA028	01494459	0026906	2 75	14 80	3/28/01	0937	-0 16	2	0	0	NA	NA	✓	cracked	✓	✓	none	✓	✓	KD/AK	none	soft bottom
WITCTA031	0438803	0433007	4 70	6 93	3/29/01	0935	-0 66	2	0	0	NA	NA	✓	✓	✓	✓	✓	✓	✓	KD/AK	none	firm bottom
WITCTA032	0438869	0438968	5 71	12 40	3/30/01	1222	-0 36	2	0	0	NA	NA	✓	✓	1 stripped	✓	✓	✓	✓	JW/CD	none	
WITCTA033	0438837	0026948	8 92	13 88	3/28/01	1617	-0 57	2	*	*	NA	NA	✓	✓	✓	✓	✓	✓	✓	KD/AK	✓	*PID not working, box filled with water, dedicated pump
WITCTA034	0438692	0026920	6 62	13 00	3/28/01	1029	-0 59	2	*	*	NA	NA	✓	✓	✓	✓	✓	✓	✓	KD/AK	✓	*PID not working, box filled with water, dedicated pump
WITCTA035	0438867	0026857	12 74	18 11	3/30/01	1039	-0 78	2	0	0	NA	NA	✓	✓	✓	✓	✓	none	✓	KD/AK	none	dedicated tubing
WITCTA037	0438653	0026847	13 68	20 86	3/30/01	0929	-0 31	2	0	0	NA	NA	✓	✓	✓	✓	✓	none	✓	KD/AK	none	
WITCTA039	0438635	0026781	18 39	24 55	3/29/01	1539	-1 38	2	0 1	1 9	NA	NA	✓	✓	✓	✓	✓	none	✓	JW/CD	none	
WITCTA040	0194443	0026713	10 03	22 72	3/29/01	0827	-0 39	2	0	0	NA	NA	✓	✓	✓	✓	✓	none	✓	JW/CD	none	
WITCTA041	0180720	0438966	12 38	21 35	3/29/01	1116	-0 46	2	0	0	NA	NA	none	✓	1 stripped	✓	✓	none	✓	JW/CD	none	1 bolt stripped
WITCTA042	0194335	0026720	11 39	19 48	3/29/01	0747	-0 08	2	0	0	NA	NA	none	✓	✓	✓	✓	none	✓	JW/CD	none	
WITCTA043	0194336	0026719	11 55	19 20	3/29/01	0752	-0 11	2	0	0	NA	NA	none	✓	✓	✓	✓	none	✓	JW/CD	none	
WITCTA044	0194344	0026712	11 90	dedicated p	3/29/01	0800	-0 59	2	0	0	NA	NA	none	✓	✓	✓	✓	none	✓	JW/CD	✓	dedicated pump
WITCTA045	none	0026864	2 34	7 14	3/30/01	1320	-0 46	2	0	0	none	✓	✓	✓	✓	✓	✓	✓	✓	KD/AK	none	box filled with water, no seal, firm bottom, silt on probe
WITCTA046	0438809	0433009	2 08	7 38	3/29/01	0924	-0 67	2	0	10 8	NA	NA	✓	✓	✓	✓	✓	✓	✓	KD/AK	none	box filled with water
WITCTA047	none	0026749	1 89	7 07	4/2/01	0912	-0 39	2	*	*	none	✓	none	✓	✓	✓	✓	none	✓	KD/AK	none	*PID not working, firm bottom
WITCTA048	none	0026791	2 93	8 32	4/2/01	0908	-0 41	2	*	*	NA	NA	none	✓	✓	✓	none	none	✓	KD/AK	none	*PID not working, firm bottom
WITCTA057	none	0438959	27 15	42 69	3/29/01	0955	2 69	2	0	0	✓	✓	none	✓	NA	NA	NA	none	✓	JW/CD	none	no seal or lock
WITCTA058	none	0438974	27 26	41 1	3/29/01	0959	2 60	2	0	0	✓	✓	none	✓	NA	NA	NA	none	✓	JW/CD	none	no seal or lock
WJETA530	0438606	0026789	29 21	44 10	3/29/01	1225	-0 23	2	0	0	NA	NA	none	✓	✓	✓	✓	none	✓	JW/CD	none	no tubing
WJETA534	none	none	22 37	39 61	3/29/01	1241	-0 36	2	0	0	NA	NA	none	undermined	✓	✓	✓	✓	✓	JW/CD	none	no tubing, unable to attach seal-dolphin
WJETA535	0438687	0438967	28 55	dedicated p	3/29/01	1213	-0 21	2	0	0	NA	NA	none	cracked	✓	✓	✓	none	✓	JW/CD	✓	debris on well, well may be comprimised, dedicated pump
WP07-10A	0433001	0026794	28 64	37 95	3/29/01	1010	-0 20	2	0	0	✓	✓	none	none	NA	NA	NA	✓	✓	JW/CD	none	
WP07-10B	none	0433058	below TP	dedicated p	3/28/01	1359	3 12	2	0	0	NA	NA	none	✓	✓	✓	✓	✓	✓	JW/CD	✓	dedicated pump
WP07-10C	none	0433069	21 16	33 14	3/28/01	1345	1 78	2	0	0	NA	NA	none	✓	✓	✓	✓	✓	✓	JW/CD	none	
WSAICTA002	0438995	0026756	14 45	24 74	3/30/01	1727	-0 27	2	0	0	NA	NA	✓	✓	✓	✓	✓	none	✓	JW/CD	none	no tubing
WSAICTA003	0438997	0026775	16 10	30 80	3/29/01	1802	-0.28	2	0	0	NA	NA	✓	✓	✓	✓	none	none	✓	JW/CD	none	no tubing
WSAICTA004	0438999	0026752	18 14	42 13	3/30/01	1550	-0 59	2	0	6 2	NA	NA	✓	✓	✓	✓	✓	none	✓	JW/CD	none	
WSAICTA005	0438996	0026758	19 92	35 31	3/30/01	1542	-0 21	2	0	2 9	NA	NA	✓	✓	✓	✓	✓	none	✓	JW/CD	none	

APPENDIX A.2

FIELD NOTES

108 Location NAS FT Worth JRB Date 3/26/01

Project / Client AFCEE/ April 2001 Semi-Annual (AF001-330AA)

0715	Arrive at trailer. Gather tools & equip. for mob. Calibrate equipment.
0900	Health & Safety meeting
0940	make TB032601
1000	Arrive at LF04-02. Set up. PID = 0.0ppm PID_{BZ} = 0.0ppm DTW = 28.62 DT_{pump} = 30.42 no custody seal. - w/ lock
1040	Begin purging well. HAD to go back to trailer for correct size tubing.
1050	Begin collecting parameters.
1120	Collect sample for VOCs - LF04-02WG14 & DUP02WG14 Final DTW = 28.62 Custody seal # 0438729
1130	Break for lunch
1200	Head to LF05-19.
1215	Difficulty locating well.
1230	Arrive at LF05-19. set up. PID = 2.9ppm PID_{BZ} = 0.0ppm Custody seal broken & inside well 0180798. DTW = 13.94 DT_{pump} = 14.4

Location NAS Fort Worth JRB Date 3/26/01

Project / Client April 2001 Semi-Annual
AFC001 - 33DAA

1250 Begin purging well.
1256 Begin collecting parameters.
1310 Collect VOCs for
LF05-19WG14
Final DTW = 13.95
new custody # = 0433046
1330 Pack van.
1355 Arrive at MW-53. set up.
Old custody # 0438731
PID = 0.0 ppm PID$_{BZ}$ = 0.0 ppm
DTW = 13.4 TD = 19.6
(4" well)
(Inlet slightly below desired 16.5 but well sampled & considered w/in range.)
1414 Begin purging well.
1416 Begin collecting parameters.
1445 Collect VOC samples
MW-53WG14
Pack van
new custody #: 0433047
1510 Dispose 5 gallons IDW in IDW area.
1520 Prepare samples to be shipped & 80-1 ambers
1730 Leave site for day. 9 wall

110 Location NAS Fort Worth JRB Date 3/27/01

Project / Client April 2001 - Semi-Annual
AFC001 - 33DAA

0715 Arrive at field house.
Calibrate equipment.
0740 Prepare trip blank TB032701
0745 Health & Safety mtg.
0800 Arrive at T-Line to take Flight Line Test
0830 Arrive at GMI-22-07M.
Set up. old custody # 0438759
PID = 0.0ppm PID_{BZ} = 0.0ppm
DTW = 15.85 $D_{Top\ pump}$ = 16.42
0853 Begin purging well.
0858 Begin collecting parametrs
1025 Collect VOC samples
GMI-22-07MWG14
GMI-22-07MWG14MS
GMI-22-07MWG14MSD
Final DTW = 16.20
new custody # = 0433048
1130 Arrive at SPOT-35-5. SCA
PID = 38.6ppm PID_{BZ} = 0.0ppm
DTW = 22.22 ~~Top pump~~
TD = 27.3 custody # 0438900
1148 Begin purging.
1203 Stop purging: throttle leaking air on controller try to fix.

Location NAS Fort Worth JRB Date 3/27/01 111

Project / Client April 2001 - Semi Annual
AF001 - 33DAA

~~1206~~ 1225 Begin purging again.
4w ~~Begin collect parameters~~
Well Wizard controller not getting air
(new custody # 0433050)
called QED to troubleshoot
Need to send in for repair.
1340 Pack van.
Meet w/ Kent/Adam re. equip.
1420 Discuss problems w/ Todd
1500 Pack samples & prepare
Fedex
1545 Arrive at ~~LSA1628-3~~ ST14-W21 gw
to install tubing pulled
by USGS. old custy = none
new custody = 0433044
PID = 0.0 PID BZ = 0.0
1615 Dump IDW 4 gallons
1630 Unload van.
1645 Leave site for day. Go
pick up Chris Donohue
at airport.
[signature]

112 Location NAS Fort Worth Date 3/28/01

Project / Client AFC001 - 33DAA

April 2001 Semi-Annual

720 Arrive at field house

740 Conduct H&S meeting for well gauging

Well ID	DTW	TD
ITMW-01T	10.87	21.79
WHGLRW016	10.96	22.58
WHGLRW017	12.90	25.51
WHGLTA015	12.38	23.73
WHGLTA048	12.64	24.98
WHGLRW019	come back unable to locate due to mud, water, oil - construct debris	
WHGLRW018	15.50	27.04
WHGLTA023	15.41	21.38
WHGLTA022	21.11	32.39
WHGLTA003 - custody seal broken 01806020	21.34	dedicated
LFU5-19	13.77	dedicated
WHGLTM044	3.03	8.56
WSETA wells P-11	5.81	10.82
WSETA wells P-14	6.00	11.67
P-12	5.66	8.57

1130 Stopped gauging photo wells because most had locks or were not labeled.

Location NAS Fort Worth JRB Date 3/28/01 113

Project / Client AF1001 -33DAA

April 2001 Semi-Annual

11:40	lunch break	
12:10	continue water guaging	
Well ID	DTW	TD
WHGLPA004	44.13	51.04
WHGLPA002	5.26	28.42
WHGLTA002	11.81	20.11
WHGLTA043	9.59	13.90
LF05-18	18.78	23.77
LF04-4G	25.68	32.99
CAR-RW7	24.50	35.03
LF05-5G	DTW below Top of Pump	dedicated
LF05-14	unable to remove cap	
LF05-5H	16.35	16.69
WP07-10C	21.16	33.14
LF05-5B	3.58	12.11
NW of PW001	24.10	36.83
WHGLPW001	75.72	85.82
SE of PW001	25.29	36.01
LF04-4F	29.26	36.97
LF04-4A	9.38	24.48
LF04-4B	18.43	25.28
LF04-U2	28.44	dedicated
LF04-4E	23.55	40.43
LF04-4D	20.13	27.93

114 Location NAS Fort Worth JRB Date 3/28/01

Project / Client APRIL 2001 - Semi-Annual

AFCOU1-33DAA

Well ID	DTW	TD
LF04-4C	18.21	22.58* (dedicated) *may be top of pump
GMI-OH-01M	19.33	19.85
LF04-10	unable to gauge	locked by Jacobs
LF04-04	18.17	26.72
WHGLTA025	14.63	dedicated
WHGLTA049	did not gauge due to excavation & well cap sits ~5' above Grade level (refer to picture)	
WHGLTA020	10.01	14.78
WHGLTA803	6.40	12.23
WHGLTA801	7.59	13.84

1830 end of day

JWall

Location NAS Fort Worth JRB Date 3/29/01 115

Project / Client April 2001 - ~~Apr~~ Semi-Annual
AFC001- 33DAA

0715 Arrive at trailer calibrate PID.
0722 H&Safety mtg.

WELL ID	DTW	TD
WITCTA 042	11.39'	19.48'
WITCTA 043	11.55'	19.20'
WITCTA 044	11.90'	Dedicated pump
WITCTA 040	10.03'	22.72'
WITCTA 019	13.97	19.37
WHGLTA 203	14.59	15.44
WHGLTA 004	16.68'	Dedicated pump
FT08-11A	10.15	17.54
WHGLTA 704	8.97'	22.3'
FT08-11B	8.56'	17.0'
WHGLTA 702	10.80	21.55
WHGLTA 706	10.20	18.00
WHGLTA 705	1.84'	10.70
LF05-5C	11.30'	21.14
WITCTA 057	22.15'	42.69
WITCTA 058	27.26	41.10
WP07-10A	28.64	37.95
LF05-05A	24.65	30.35
LF05-5E	28.49	35.50
LF04-01	31.00	41.31
WHGLTA-054	33.82	39.16

116 Location NAS Fort Worth JRB Date 3/29/01

Project / Client April 2001 - Semi-Annual

AF001 - 33DAA

WELL ID	DTW	Total Depth
FT09-12A	13.78	27.77
WH6LTA-053	14.28	30.01
FT09-12C	31.72	Dedicated pump
FT09-12B	30.85	37.67
WITCTA041	12.38	21.35
WJETA 535	28.55	Dedicated pump well compromised.
WJETA 530	29.21	44.10
WJETA 534	22.37	39.61

~~1000 Broke for lunch 1100~~

Stopped at Home Depot - plastic sheeting, tools

1340 Back on base - picked up visitor Pass for Chris Donohue

1350 Arrived at Airport control picked up airport radio.

WELL ID	DTW	Total Depth
WH6LTA055	31.56	41.45
FT09-12D	30.36	36.99
WH6LTA056	31.00	40.29
FT09-12E	31.07	38.56
US65 07T	8.10	Dedicated pump
LF05-02	19.20	38.55
WITCTA 039	18.39	24.55

Location NAS Fort Worth JRB Date 3/29/01 117

Project / Client April 2001 Semi Annual

AFC001 - 33 DAA

WELL ID	DTW	Total Depth
WHGLTA 707	20.84	30.45
WHGLTA 708	29.74	29.30
WHGLTA 703	16.16	28.65
SE Near HGL 708	20.30	30.45
HM 123	25.80	Dedicated pump
WHGLTA 701	23.55	34.95
WHGLPU003	72.33	89.35
HM 127	23.51	Dedicated pump
WHGLTA 303	20.03	22.35
WHGLTA 302	16.75	22.75
HM-126	13.40	35.80
1505-01	13.83	Dedicated pump
WSA1CT003	16.10 ~~30.80~~	30.80

1830 leave site for day.

JWall

118 Location NAS Fort Worth JRB Date 3/30/01

Project / Client April 2001 - Semi-Annual GW

AFC001 - 33DAA

0715 Arrive at trailer. Calibrate PID. Discuss POA.

0745 H&S Mtg.

Well ID	DTW	TD
WHGLRW019	12.73	23.92
~~WHGLTA066~~ qw WHGLTA601	12.23	dedicated
WHGLTA603	14.25	19.96
WHGLTA602	13.00	18.58
WHGLTA051	4.01	6.84
WHGLTA050	4.39	6.99
WHGLTA052	4.40	6.96
WHGLTA045	7.88	13.44
WHGLTA031	5.51	10.95
TOC = ~~6.3036~~ qw -6.3"		
WHGLTA030	1.70	13.98
TOC = -5.75"		
WHGLTA039	16.69	25.34
WITCTA032	5.71	12.40
WHGLTA033	9.37	27.28
TOC = -6.125"		
WHGLTA029 TOC = -3.25" old seal 0026996		
~~TOC~~ = qw new seal 0026766		
WHGLTA027 = TOC = -4.31" ~~old seal qw~~ ~~new seal qw~~		

Location NAS Fort Worth Date 3/30/01 119

Project / Client April 2000 Semi Annual GW

AFC001 - 33DAA

WHGLTA027 next to tower in parking area - not sure correct locid

DTW = 20.44 TD = 26.83

Marked as possible WHGLTA028

WHGLTA026 or WHGLTA028 East of above well marked as WHGLTA026 on sheets DTW = 20.92 (in grass)

TD = 27.68

WHGLTA604 17.59 24.03

HM-111 not able to gauged well cap broken - twist off

HM-110 DTW = 6638 TD = deducted

WSA1CTA005 DTW = 19.92 TD = 35.31

Well ID	DTW	TD
WSA1CTA004	18.14	42.13
HM-113	27.03	48.86
WCHMHTA001	28.15	45.83
W-153	20.79	deducted
HM-125	19.15	30.87 deducted
HM-124	13.19	24.31
HM-114	17.94	36.13
WSA1CTA002	14.45	24.74

800 End of day [illegible]

120 Location NAS Fort Worth JRB Date 4/2/01

Project / Client April 2001 Semi Annual GW
AFC001 - 33DAA

0715 Arrive at trailer. Calibrate equipment. Load vans.
0815 H&S meeting [TB040201]
0855 Arrive at HM-123.
Old custody = 0438977
PID = 2.9 ppm PID_{BZ} = 0 ppm
DTW = 25.49 $D_{Top\ pump}$ = 38.31
0905 Begin purging well.
0911 Begin collecting parameters
0935 collect samples ~~ITMW-01TGW~~
[HM-123MW14]
Final DTW = 25.50
Fe^{2+} = 0 mg/L
new custody # 0433071
1025 Arrive at ITMW-01T
Set up.
~~Old~~ no custody - 4" cap
PID = 7.4 ppm PID_{BZ} = 0 ppm
DTW = 10.52 ~~$D_{top\ pump}$~~ = gw
1035 Begin purging well.
1041 Collect parameters.
1109 collect samples [ITMW-01TMW14]
Final DTW = 10.54
Fe = 0 mg/L

Location NAS Fort Worth Date 4/2/01 121

Project / Client April 2001 Semi Annual GW
AFC001-33DAA

1141 Arrive at LF05-5G. Set up.
PID = 0.0 PID$_{BZ}$ = ~~0.~~ 0.0 ppm
DTW = below Top of pump
DT$_{pump}$ = 21.5, old custody = 0433[illegible]
1147 Begin purging well.
1152 Begin collecting parameters.
1221 Collect samples
[LF05-5GW14] Fe = 0
New custody # 0026721
1240 Pack van.
1250 Arrive at trailer for more wells, ice, tubing.
1352 Arrive at WITCTA024.
Set up. Old custody 0026995
DTW = 16.64 TD$_{pump}$ = 17.45
PID = 70 ppm PID$_{BZ}$ = 0 ppm
1353 Begin purging well.
1357 Collect parameters
1430 Collect samples
[WITCTA024WG14]
Final DTW = 16.67
Fe^{2+} = 0.51
new custody # 0026722

122 Location NAS Fort Worth JRB Date 4/2/01

Project / Client April 2001 - Semi Annual

AFC001 - 33DAA

1525	Arrive at ST14-03. Set up.
Custody # 0026723	PID = 0.0ppm PID_{BZ} = 0.0ppm
	DTW = 8.24 DT_{pump} = 12.16
1530	Begin purging
1534	Begin collecting parameters
1535	Stop collecting parameters due to large amounts of reddish particles purging from well. Trying to purge items before reconnecting flow cell.
1557	Reconnect flowcell to take parameters.
1559	collect parameters
1648	Collect samples
	ST14-03WG14
	Final DTW = 8.25
	Custody # = 0026729
	Pack van
1715	~~Load~~ pack samples.
1800	Leave site for day
	CWall

Location NAS Fort Worth JRB Date 4/3/01

Project / Client April 2001 - Semi-Annual
AFC001-33DAA

0730 Arrive at trailer calibrate equip
0736 H&S Meeting
0750 TB040301
0810 Pick up radio.
0826 Arrive at SPOT35-5. Set up
old custody # = 0026934
DTW = ~~21.95~~ 22.12 ~~DTPhase~~ TD = 27.3
PID = 24ppm PID$_{BZ}$ = 0
0833 Begin purging
0854 Collect parameters
0857 Stopped purging. Conductivity
readings off. Back to
field house to calibrate.
Spoke to Mr. Dodyk
0935 Begin purging again
New DTW = 22.45
0938 Collect parameters
1025 Collect VOCs
SPOT35-5WG14
Final DTW = 22.95
New custody 0026728
Pack van
1045 Arrive at WITCTA004
Set up

124 Location NAS Fort Worth Date 4/3/01

Project / Client April 2001 - Semi Annual
AFC001-33DAA

Old custody = 0026831
PID = 7 ppm PIDBZ = 0 ppm
DTW = below top pump DTop pump = 12.49
1053 Begin purging well
1059 Begin collecting parameters
1135 Collect VOCs for
WITCTA004W-14 ~~and~~ gw

1145 Collect AB040301 for
this sample only.
Final Chain seal = 0026723
1206 Arrive at USGS07T. Set up.
Old custody #: 0026783
PID = 0.0 ppm PIDBZ = 0.0 ppm
DTW = 8.18 TD = 10.35
gw ~~Top pump~~ inlet = 9.27
Inadvertently pulled pump up effecting sample.
Packed van to move on & sample this well tomorrow.
New seal 0026727
1250 Arrive at W-153. Set up
PID = 3 ppm PIDBZ = 0 ppm
DTW = 28.85 DTop pump = 31.15
old custody = 0026754
1258 Begin purging well

Location NAS Fort Worth Date 4/3/01 125

Project / Client April 2001 - Semi Annual
AFC001 - 33DAA

1306 Begin collecting parameters
1330 Collect samples
[W-153WG14]
Final DTW = 20.85'
new custody # = 0026726
Fe^{2+} = 0.1 mg/L
1400 Arrive at HM-116 Set up.
PID = 0.4ppm PID$_{B2}$ = 0ppm
DTW = 23.15 TD = 31.25'
old custody 0026882
Bottom silt
1408 Begin purging well
1414 Collect parameters
1437 Collect samples
[HM-116WG14]
Final DTW = 23.20
new custody = 0026724
Pack van
1453 Arrive at HM-114 Set up.
PID = ~~5.0ppm~~ 17.97 PID$_{B2}$ = 0.0
DTW = ~~18.97~~ TD 35.65
old custody = 0026755
Unable to sample well, no tubing
Load van & meet w/ Kent to get
new custody 0026725 their samples.

126 Location NAS Fort Worth JRB Date 4/3/01

Project / Client April 2001 - April Semi Ann
AFC001 - 33DAA

1530	Meet w/ Kent/Chris & take samples back to wrap/pack.
1730	Leave site for day.

AWalle

Location NAS Fort Worth JRB Date 4/4/01 127

Project / Client April 2001 April Semi Annual
AFC001-33DAA

0730 Arrive at trailer. Calibrate equipment
0745 H&S Meeting, TB040401
0815 Head out to pick up radio
0825 Head back to trailer. Kent called & having problems w/ flow cell meter.
0900 Have to send flow cell in Key pad loose & unable to fix. QED sending loaner.
0905 Pick up radio.
0910 Arrive at USG507T. Setup.
Old custody = 0026727
PID = 0 ppm PID$_{BZ}$ = 0 ppm
DTW = 8.43 $\Delta_{top\ pump}$ = 10.38
Inlet ≈ 13.38
0945 Begin purging well
0952 Collect parameters
1012 Collect samples
USG507TWG-14
Final DTW = 8.54
Fe^{3+} = 0.07 mg/L
Custody # = 0433081

128 Location NAS Fort Worth JRB Date 4/4/01

Project / Client April 2001 - Semi Annual

AFC001 - 33DAA

1102 Arrive at WIICTA003. Setup

DTW = 14.22 TD = 23.54

PID = 22.2 ppm PIDBZ = 0 ppm

Old custody 0026828

TOP pump = 15.72 Bottom pump = ~~17.2~~ 19.4

Initial DTW = 14.22 (pump = 3.7 feet)

1124 Begin purging well

AW ~~Begin collecting parameters.~~

1140 Purging well but no water below air tube disconnected. Pull pump. Put back

1152 ~~Fin~~ new custody = 0433082

1210 Break for lunch.

1222 Arrive at WCHMHTA009. Set up.

PID = 0 PIDBZ = 0

Old custody # = 0026821

DTW = 8.5 TD = 11.72

Top pump = ~~7.94~~ ~~6.4~~ 6.75

Inlet pump = ~~9.70.4~~ 11.45

1248 Begin purging well.

1254 Begin collecting parameters

1332 Collect VOCs for

DUP04WG14 WCHMHTA009WG14

time noted 1200

Final DTW w/o pump = 8.5

New custody #: 0433083

Decon pump

Location NAS Fort Worth JRB Date 4/4/01 129

Project / Client April 2001 - Semi Annual
AFC001 - 33DAA

1440 Arrive at WCHMHTA006, Setup
Old custody 0026890
PID = 0 ppm PID$_{BZ}$ 0 ppm
DTW = 18.20 TD = 36.46
Top pump = 26
Inlet pump = 29.7
Initial DTW 18.25
1456 Begin purging
1500 Collect parameters
1520 Collect VOC's
WCHMHTA006WG14
Final DTW = 18.26
new custody # = 0433084
Decon pump
1550 Collect EB040401
1600 Head to trailer to pack samples.
Dump IDW total 22 gallons.
1640 Leave site for day.
JWall

130 Location NAS Fort Worth ORB Date 4/5/01

Project / Client April 2001 Semi Annual

AF-001- 33DAA

0720 Arrive at trailer calibrate equip.

0730 H&S Mtg. TB040501

0805 Arrive at WCHMHTA008. Setup

PID=0 PID$_{BZ}$=0

DTW=14.57 TD 24.54

Custody # 0026826

Top pump = 19.5

Inlet = 22.2

Pump was set lower by accident but still w/in screen interval so continued to purge.

0832 Begin purging well.

0840 Collect parameters

0949 Collect VOCs WCHMHTA008WG14

Custody 0433062 Final DTW = 14.60

Decon pump, Pack van.

1036 Arrive at WITCTA003. Set up

Old Custody # 0433082

PID = 350 ppm PID$_{BZ}$ = 0

DTW = 14.16 TD = 23.67

Top pump = 15.5

Inlet = 18.5

Initial DTW = 14.22

1049 Begin purging well

Location North NAS Fort Worth Date 4/5/01 131

Project / Client April 2001 Semi Annual
AF001 - 330AA

1055 Collect parameters
1150 Collect VOAs [WITCTA003WG14]
Final DTW = 14.22
custody # 0433061
Decon pump. Pack van
1215 Break for lunch
1250 Arrive at WHGLTA009. Setup
old custody 0026805
PID = 730 ppm PID$_{BZ}$ = 0 ppm
DTW = 23.17 TD = 27.82
Top pump = 22.0
Inlet pump = 25.42
1304 Begin purging well.
1309 Collect parameters.
1332 Collect VOAs
[WHGLTA009WG14]
Final DTW = 23.35
New Custody = 0433091
Decon pump. load van
1358 Arrive at WHGLTA012. Setup
Old custody = 0026998
PID 137 ppm PID$_{BZ}$ = 0 ppm
DTW = 18.03 TD = 23.5
Top pump = 17
Inlet = 20.75

132 Location NAS Fort Worth Date 4/5/01

Project / Client April 2001 - Semi Annual
AFL001 - 33DAA

1408	Begin purging well
1413	Collect parameters.
1442	Collect VOCs for
	WHGLTA012WG14 & DUP01WG14
	DUP01 marked as collected at 1200.
	Final DTW = 18.03
	New custody = 0433075
	Pack van. Decon pump.
1521	Arrive at USGS04T. Set up
	Old custody # 0026841
	PID = 0ppm PID02 = 0.0ppm
	DTW = 17.89 TD = 19.3
	Top pump = 14.9
	Inlet pump = 18.6
1537	Begin purging well.
1548	Stopped purging well & lowered pump.
	Top pump = 15.0
	Inlet = 18.7
1552	Collect parameters.
1618	Collect VOCs
	USGS04TWG14
	Final DTW = 17.87
	new custody 0433169

Location NAS Fort Worth JRB Date 4/5/01 133

Project / Client April 2001 Semi Annual
AF001 - 33DAA

~~1640~~
~~1440~~ Collect EB040501
1650 Arrive at WHGLTA029. Setup
Old custody #: 0026766 PID = Off
DTW 15.31 TD = 20.36
Top pump = 14
Inlet = 17.75
1705 Begin purging well.
1735 Begin collecting parameters.
1756 Collect VOCs for
~~WHGLTA029WG14~~
Final DTW = 15.31
New custody # 0433074
Pack van, decon pump in morning.
1810 Dump IDW. Charge equipment.
1830 Leave site for day.

134 Location NAS Fort Worth JRB Date 4/6/01

Project / Client April 2001 Semi Annual
AFC001-33DAA

0645 Arrive at trailer. Calibrate equip
0705 Conduct H&S meeting [TD01060]
0735 Arrive at WHGLTA603.
Set up. Decon pump
old custody 0026712 PID = 0 ppm PID$_{BZ}$ = 0 ppm
DTW = 14.68 TD = 20.1
Top pump = 14.85
Inlet pump = 18.55 Initial DTW = 14.85
0749 Begin purging well
0758 Collect parameters
Collect VOCs for
0819 [WHGLTA603WG14] &
[DUP05WG14] Time for Dup.
was noted as ~~for~~ 1200.
Final DTW = 14.69
new custody = 0433073
Decon pump. pack van
0904 Arrive at WHGLTA001. Set up.
PID = 100 ppm PID$_{BZ}$ = 0 ppm
Old custody = 0026711
DTW = 8.03 TD = 13.90
Top pump = 7.4
Inlet pump = 11
0924 Begin purging well.

Location NAS Fort Worth JRB Date 4/6/01 135

Project / Client Phase II RFI QC
AFC001 - 26CE

0936 Begin collecting parameters.
1000 Collect VOAs for
WHGLTA801WG02 &
DUP06WG02. DUP was
marked as collected 1200.
Final DTW = 8.03
New custody = 0433072
1035 Arrive at WHGLTA056. Setup
Old custody = 0026787
PID = 0 ppm PID = 0
DTW = 30.88 TD = 40.35
Top pump = 32.18
Inlet = 35.88
Initial Depth = 30.87
1049 Begin purging well
1107 Begin collecting parameters
1239 Collect samples for
WHGLTA056WG02 &
DUP05WG02. DUP was
recorded as collected at 1300.
Final DTW = 30.85
New custody = 0433094
Decon pump. pack van

Location NAS FW JRB Date 3/26/01 53

Project / Client April 2001 Semi Annual

35CA

700 Leave for field
800 Home Depot for supplies
909 H&S Safety meeting
925 Arrive at HM-123
934 PID - 10.1 ppm
BZ - 0.0 ppm
remove 0433005 tag
DTW - 25.74
953 Begin Collecting Gw from HM-123
80 - 1 Liter Ambers
14, 14, 14, 14
1105 Collected 82 Ambers
0433054 attached tag
1120 Help Jen CF04-3.
1131 Break for Lunch
1217 Arrive at WHGCTA025
PID - 2.2 removed tag 0438757
BZ - 0.0
1222 DTW - 19.75
DTPump - 16.75
1231 Begin pumping well
1241 Begin Collecting parameters
1325 Collect SA samples MS/MSD
1336 Final DTW - 14.95 WHGCTA025

54 Location NAS Pensacola Date 3/23/01

Project / Client April 2001 Semi Annual

1341	0433063	Attach tag #
1347	Leave for	WHGCTA004
1356	Arrive at	WHGCTA004
1405	PID - 5.1 ppm	
	BZ - 0.0 ppm	
	remove 0438969	
14.04	DTW - 17.00'	
	DTpm - 18.20	
	Begin pumping well	
1414	Begin Collecting parameters	
1450	Collect GW Samples at	WHGCTA004
1454	Final DTW - 16.90	
	Attach tag 0433010	
1504	Check on Jen at 053	
1525	Arrive at trailer	
1725	Left trailer for Fedex.	
	8 coolers - Renstin hall	
	1 cooler - Qtrly.	
1804	Leave Fedex	
	END of DAY	

WKG
3/24/01

Location NAS FW JRB Date 3/27/01 55

Project / Client April 2001 Semi Annual

Cloudy, Rainy, 45°F

730 Arrive at Trailer H+S
Briefing, pack supplies
and cal. equip
810 Pick up radio
837 Arrive at LF3-3D
843 0438753 remove tag
846 0.0 PID
0.0 Bz
DTW 12.58
DT Bop - 12.70
850 Begin purging well
0930: CONNECT SAMPLE @ LF3-3D
VOCs + CHROMIUM
DTW = 12.60 AFTER SAMPLING
0935: REPLACE TAG W/ OH33095
954 Arrive at LF05-01
1005: REMOVE TAG # OH38757
0.0 PID
DTW = 18.18
DTP = 19.0
1008: BEGIN PUMPING WELL
WATER IS RUSTY-BROWN COLOR @ BEGINNING
OF PURGE, PURGING LOW-FLOW TILL
WATER CLEARS UP (100 ml/min)

56 Location NASFW JRB Date 3/24/01

Project / Client APRIL 2001 SEMIANNUAL

LOOKS LIKE POSSIBLE BIO-MATERIAL THAT SLOUGHED OFF SCREEN.

1230 DTW = 18.14

SAMPLE LFO5-01 FOR VOCS

NOTE: TURB. DID NOT STABALIZE BELOW 10 NTU, SAMPLED ANYWAY, ALL OTHER PARAMS STABLE

REPLACE TAG W/ # 0433027

1304 Break for lunch

1313 Arrive at WITCTA010

Dr. Ke Seal 0438685

PID 0.0ppm

BZ 0.0ppm

DTW NA

DTP 14.1

1321 Begin pumping well

1329 Begin collecting parameters.

1331 Well wizard dead batteries

1349 Jens well wizard whom

1416 Collect GW at WITCTA010

1427 Attach tag 0433028

1437 Leave for GMI - 22.06M

1445 Arrive at GMI - 22.06M

Location NASFWJRB Date 3/27/01 57

Project / Client April 2001 Semi Annual

Rain, 49°F

1451 PID - 0.0 ppm
Bz 0.0 ppm
DTW 18.15 Break seal
DTP 19.30 0438?07
1454 Begin pumping well
1500 Begin collecting parameters
1613 Collect sample GMI-22-06M
DTW - 18.21
attach tag 0433025
1621 Leave for trailer
1655 Leave for fedex
1717 Leave for hotel

WKD
3/27/01

58 Location NAS FW JRB Date 3/28/01

Project / Client April 2001 Semi Annual

Rain, 41°F, Calm

730	Arrive at trailer				
736	Dump 6 gallons purge water into poly				
747	H+S meeting for well gauging				
755	Leave for wells to gauge				
1022	PID indicates Fault,				
	Discontinue using it.				
1131	Break for Lunch				
1205	Arrive at ST 14-WL23				
1826	Leave for trailer to get				
	shovels for stuck van				
1844	Leaving base for hotel				

WELL ID	DTW
17J	10.10
17L	9.24
17M	8.28
B65MW02	9.84
B65MW03	9.23
B65MW04	10.42
B65MW05	4.57
B65MW06	9.06
B65MW07	6.35
BSS-A	4.25
GMI-28-05M	11.19
LFCI-13	7.86

Location NAS FW JEB Date 3/28/01

Project / Client APRIL 2001 SEMI-ANNUAL

WELL ID	DTW
LF01-1D	12.59
LF01-1E	8.99
LF01-1F	9.00
MW-10	9.77
MW-11	23.62
MW-12	3.92
MW-2	ABANDON
MW-3	9.76
USGS05P	37.53
MW-5	2.98
MW-6	1.31
MW-7	6.79
MW-8	3.13
MW-9	4.79
SAV-1	5.94
SAV-2	6.42
SD13-01	10.93
SD13-02	PUMP @ 11.84
SD13-03	9.89
SD13-04	PUMP @ 7.52
SD13-05	7.65
ST14-01	12.73
ST14-02	10.83

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60 Location NAS FW JRB Date 3/28/01

Project / Client APRIL 2001 SEMI-ANNUAL

WELL ID	DTW		
STIH-03	7.50		
STIH-04	11.13		
STIH-27	7.34		
STIH-28	10.73		
STIH-29	8.25		
STIH-30	5.28		
STIH-W10	4.65		
STIH-W11	5.03		
STIH-W12	3.87		
STIH-W13	7.19		
STIH-W16	6.68		
STIH-W18	7.62		
STIH-W19	8.12		
STIH-W20	7.97		
STIH-W21	9.08		
STIH-W22	8.57		
STIH-W23	3.69		
STIH-W31	pump @ 9.30		
WCHMHTA013	4.95		
WHGHTA008	4.94		
WHGHTA033	9.06		
WHGHTA034	7.45		
WHGHTA035	7.71		

Location NAS FWJ JRB Date 3/28/01 61

Project / Client APRIL 2001 SEMI-ANNUAL

WELL ID	DTW
WHGWTA036	4.72
WHGWTA037	10.82
WHGWTA038	24.03
WHGWTA101	10.75
WHGWTA102	10.0
WHGWTA103	19.28
WHGWTA104	27.35
WHGWTA901	8.75
WHGWTA902	10.99
WHGWTA903	23.79
WHGWTA904	21.07
WHGWTA905	16.25
WHGWTA952	22.04
WHGWTA953	22.57
WHGWTA954	23.65
WITCTA017	8.92 e PUMP
WITCTA025	9.89
WITCTA026	4.63
WITCTA027	8.14
WITCTA028	2.75
WITCTA033	8.92
WITCTA034	6.62

(62 Location WAS FW JRB Date 3/29/01

Project / Client APRIL 2001 SEMI-ANNUAL

COOL, 50°F, LT RAIN, OVERCAST

0730 ONSITE

0800 BEGIN GAUGING WELLS, PID CALIBRATED AND WORKING PROPERLY

K. DOBAN SLIPS WHILE CROSSING SUMMIT 53 DITCH, A.K. + K.D. OFFSITE TO HOTEL FOR DRY CLOTHES + FIRST AID

0845: ONSITE TO CONTINUE GAUGING

1130: BREAK FOR LUNCH

1200: CONTINUE GAUGING

1800: FINISH FOR DAY, OFFSITE TO HOTEL

WELL ID	DTW
17 I	9.89
17 K	8.55
B6SMW01	5.01
GMI-22-02M	10.76
GMI-22-03M	20.32
GMI-22-04M	PUMP @ 19.61
GMI-22-05M	11.19
GMI-22-06M	18.07
GMI-22-07M	15.75
LSA1628-1	10.73
LSA1628-14	10.18
LSA1628-15	9.94
LSA1628-3	10.06

Location Niro FW JRB Date 3/29/01 63

Project / Client APRIL 2001 SEMI-ANNUAL

COOL, 50°F, LT RAIN, OVERCAST

WELL ID	DTW
MW-11A	(AW) ~~23.62~~ 22.86
MW-36	9.76
MW-37	8.84
MW-38	15.74
MW-39	15.71
MW-40	15.94
MW-42	16.06
MW-50	10.17
MW-51	10.29
MW-56	7.55
MW-57	11.56
SPOT 35-1	22.89
SPOT 35-3	20.32
SPOT 35-4	20.92
SPOT 35-5	22.22
SPOT 35-6	23.08
SPOT 35-7	8.15
SPOT 35-8	23.10
SPOT 35-9	22.67
STH-25	5.38
STH-W07	10.26
STH-W08	8.49
STH-W09	6.95

64 Location NAS FW SRB Date 5/29/01

Project / Client APRIL 2001 SEMI-ANNUAL

COOL, 50°F, LT RAIN, OVERCAST

WELL ID		DTW		
WCHMHTA008		14.60		
WCHMHTA009		11.70		
WCHMHTA010		7.60		
WCHMHTA011		13.19		
WCHMHTA012		14.14		
WHGLTA009		23.22		
WHGLTA016		26.01		
WHGLTA011		11.55		
WHGLTA012		18.02		
WHGLTA013		21.82		
WHGLTA027		10.89		
WHGLTA028		13.70		
WHGLTA029		15.24		
WITCA001		15.88		
WITCA002		3.15		
WITCA003		14.28		
WITCA004		PUMP @	12.44	
WITCA005		12.28		
WITCA006		12.35		
WITCA007		14.12		
WITCA008		7.98		
WITCA009		5.55		
WITCA010		PUMP @	14.12	

Location NAS FW JRB Date 3/29/01 65

Project / Client APRIL 2001 SEMI-ANNUAL

COOL, 50°F, LT RAIN, OVERCAST

WELL ID	DTW
WITCTA013	DOMPE ?
WHGHTA014	20.75
WITCTA015	17.63
WITCTA024	16.58
WITCTA031	4.70
WITCTA046	2.08
WITCTA018	20.48

66 Location NAS FTW JRB Date 4/2/01

Project / Client APRIL 2001 SEMI-ANNUAL WATER LEVELS

WELL ID		DTW		
GMI-04-01M		19.30		
HM-118		15.88		
MW-2		6.58		
STH-W15		9.87		
WITCTA012		9.75		
WITCTA016		18.38		
WITCTA048		2.93		
WITCTA047		1.89		

Location NAS FW JRB Date 4/2/01 67

Project / Client April 2001 Semi-annual

Overcast, 50°F

0715 Arrived at field office. Calibrated equipment, loaded vehicles, set up for sampling.

0835 Begin gauging wells

1030 Gauging completed. Returned to field office.

1048 Departed field office for GMI-04-01M.

1052 Arrived GMI-04-01M

1057 Departed GMI-04-01M

1100 Arrived ITMW-01. Met rest of crew.

1108 Arrived WHGLRW01

1111 Remove tag 0433056

DTW - 12.85

TD - 23.61

Water column = 10.72'

Set top of pump = 15.25' from TOC

1125 12.92' DTW with pump

1133 Begin pumping well

1137 Begin collecting parameters

1144 Collect sample (VOC's) at WHGLRW01

1145 tag # 0026740

Attach ↑ Final DTW = 12.85'

616 159

68 Location NAS FW JRB Date 4/2/01

Project / Client April 2001 Semi Annual

1404	Arrive at WHGLRW016
	PID - 0.0
	PID(Bz) - 0.0
	Remove Custody seal 0433055
	DTW - 10.97
	TD - 22.32
	11.35 WC ÷ 2 = 5.6 + 10.97
	16.64 - 3' = 13.64 Depth of pump
1431	Begin pumping well
1441	Begin parameters
1546	Collected samples VOC's
	(WHGLRW106)
1548	Final Depth to water = 10.97'
	New seal installed = 0433043
1603	Leave for new well
1614	Arrive at LF05-2
	DTW 18.90
	TD 28.86
	10 ÷ 2 = 5 + 18.9 = 23.9 - 3 = 20.9'
1635	Depth to water with pump 18.18'
	~~Begins~~ Begin pumping
1640	Begin Collecting Parameters

Location NAS FW JRB Date 4/4/01 69

Project / Client April 2001 Jan - Annual

1721 Final DTW - 19.13
1731 Attach tag 0026601
1736 Leave for tanks
1738 IDW waste - Decon water - 9 gallons
purge water - 9 gallons
1750 Collect CB from pump
1825 Dropped 1 cooler @ Fedex

Chris
4/2/01

616 161

70 Location NAS Fw JRB Date 9/3/01

Project / Client April 2001 Semi Annual

730	Arrive at trailer
809	Have HS safety meeting, Calibrate equip.
910	Arrive at WHGLTA704
926	Remove tag 0326717
942	DTW - 9.29
	TD 22.02
	PID - NA
	water column = 12.73'
	set pump at: 12.66' down from TOC
	DTW = 9.18' (with pump in)
0855	Began pumping well
0901	Parameters taken.
0954	samples taken WHGLTA704
	Final Depth to water = 9.42
	Seal 04 33049
1026	Arrive at WHGLTA043
1037	PID reading 228 at 0 cm
	remove tag 0433077
	DTW - 9.65
	TD - 13.83
	WC = 4.18/2 = 2.09 + 9.65 = 11.74 - 3 = 8.74
1044	Top of pump prohibits gw data collection

Location NAS Fw JAX Date 4/3/01 71

Project / Client April 2001 Semi Annual

1045 Begin Collection pumping well
1056 Begin Collecting parameters
1152 DTW = 11.70'
Cutting Seal 0026620
Attached
1181 Collected Sample at WHGLTA03
1157 Leave to WHGLTA04
old seal = 04330900
DTW = 3.47'
Total Depth = 8.85
water colum = 5.38'
Pump set at = 6.16' (3.16 from TO)
Weather = Overcast, calm, 70.5°F
1219 pump started
1226 started taking parameters.
1320 samples taken [WHGLTA04]
Note = No final Depth to water
Seal # = 0026619
1346 Arrive at WHGLTA04
1348 Remove CS # 0026765
DTW → 7.82'
TD → 15.91
8.09/2 = 4.05 + 7.82 = 11.87 - 3 = 8.87'
Depth of pump = 8.87'

72 Location NAS Fallon IRA Date 4/3/01

Project / Client 2001 April SA

1357 Begin pumping well
DTW 7.85'
1400 Begin Collecting Parameters
1444 Collected QC at ~~[illegible]~~ HGLTA045
QC only
1450 Final Depth 7.63'
1520 TAs attached
~~1620~~ Arrived at HM-126
4/3/01 DTW = 13.77'
Total Depth = 35.88'
Water column = 22.11'
pump set = 24.82' (inlet)
1550 pump started.
DTW (with pump in) = 13.78'
old seal = 0026774
1554 Begin taking parameters
1644 Samples taken. HM-126
Final Depth = 13.76'
New seal = 0026739
1651 Leave for trailer

[illegible]
4/3/01

Location NAJTRS Fw Date 4/4/01

Project / Client April 2001 Semi Annual

730 Arrive at trailer
600 Well witard unopenable. Will proceed to repair broken wells today per Todd H. request
1010 Proceed with French drain measurements
1023 Manhole to Rojas Rd - 95'
1028 Inside RV Grocery and manhole to gate 56'
manhole to French drain (abd) 32'
1032 Manhole inside RV to manhole near IDW 332'
1145 Approx 118' of incoming pipe dra. outgoing pipe - too dark to read tape
1148 Fixed gate to waterfall (lowest fence)
1122 Manhole (IDW) to MW SD13-06 - 275'
1135 SD13-01 to manhole junction 79'
1140 SD13-01 pump installed:
old seal: 002-6930
New seal: 002-6938
1312 Give fail to Joe W/ Compressor
1400 Leave for fed ex
End of Day
Carey
4/4/00

74 Location NAS Fw JRB Date 4/5/01

Project / Client 2001 April Semi Annual

800	Arrive at trailer
901	Arrive at WITCA043
	old seal 0026719
	PID = 0 in hole, 0 in breathing zone.
	DTW = ~~14~~ 12.02'
	Total Depth = 19.08'
	water column = 7.06'
	pump set = 15.55'
	DTW with pump in = 12.04'
919	Began Pumping well
933	Began Collecting Parameters
1107	Collect Gw fr. WITCA043
	Final DTW - ~~12.01~~
	Attach CS 0021733
1110	Leave site for batteries
1143	Arrive at WITCA041 (Hobby Shop)
	DTW 12.90'
	TD 21.18
	Remove tag # 0438966
	WC = 8.28/2 = 4.14 + 12.9 = 17.04 - 3 = 14.04
	TD (with pump) = 12.88'
1207	pump started
1215	started taking parameters
1328	Samples taken WITCA041 (Hobby Shop)

Location NAS Fw SCB Date 4/5/01 75

Project / Client 2001 April Semi Annual

Final Depth to Water = 12.89'
New Seal 0026737
1344 Leave to Cut Weed Mat inside IDW Staging Area to pick up Can
1420 Arrive WITCTA040
old Seal: 0026713
PID - 3.6 ppm
Bz - 0.0 ppm
DTW - 10.84'
TD - ~~20~~ 22.82'
CB 4/5/01

Water column = 11.98
pump inlet = 16.83'
Top of pump = 13.83'
1433 Begin pumping Well
1441 Begin Collecting Parameters
1530 Collect Can at WITCTA040
Final DTW - 13.49'
Attach CS # 0026736
1542 Arrive at WITCA019
Remove tag # - 0026854
Depth to Water = 14.18'
Total Depth = 19.45'

76 Location NAS JRB Fort Worth Date 4/25/01
Project / Client 2001 April Semiannual

Water column = 5.27'
Pump Inlet set at = 16.815'
Pump top = 13.8' below TOC
Depth to water (with pump in): 14.20'
PID = 0 - In well
PID = 0 - Breathing zone
1606 pumping started
1608 Began taking parameters.
1640 Samples taken WITCTA019
Depth to water = 14.18'
New seal = 0026735
1656 Departed WITCTA019 for field office.
1658 Arrived at IDW yard.
1702 Arrived at Field office.
1414 Day 1 Cooler at Fedex
END of Day

WKD
4/25/01

APPENDIX A.3

GROUNDWATER FIELD SAMPLING DATA SHEETS

GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: GMI-22-06M	Location: NAS Fort Worth JRB, Texas
Sampler (s) K. Dixon, A. Karst	Project Name: April 2001 Semi-Annual Sampling
Well Depth. ~~18.77~~ 18.77 NA	Project #. AFC001-33DAA Date: 3/27/01 Time: 1500
DTW (ft): 18.15 DTP (ft): ~~18.70~~ 90 NA	Courier: _X_ FedEx ___ UPS ___ Hand ___ Othe
MP Ht. Above/Below GS: 2.55	Sampling Method : Low Flow
Condition of Bottom of Well NA	Type of Pump: Bladder
Screen Interval (ft): 16.05 - 26.05	Weather (sun/clear, overcast/rain, wind direction, ambient temperature) N/NE 95°F
Well Diameter (in) 2	
Placement of Pump Inlet (ft): 22.13	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/min)	Total Volume (L)	pH	Temp. (C)	Cond. (umhos/cm)	ORP (mv)	DO (mg/L)	Turb. (NTU)	Type, Size, and Amount of Sediment Discharged
1500	18.14	165	0	7.3	17.9	850	27.5	3.07	~~27.5~~ 7.0	
1505	18.14	170	.825	7.3	18.1	852	42.1	2.49	4.1	
1510	18.15	170	1.375	7.2	18.1	853	52.9	2.09	7.4	
1515	18.14	170	1.875	7.2	17.9	849	62.8	1.5	7.2	
1520	18.14	170	2.425	7.2	18.1	852	69.3	1.2	11.2	
1525	18.14	170	3.275	7.2	18.1	853	70.5	1.2	13.1	
1530	18.14	100	3.825	7.2	16.7	810	74.5	0.87	16.9	
1535	18.14	100	4.375	7.2	16.2	800	75.4	0.85	15.4	
1540	18.14	100	4.825	7.2	15.68	790	76.5	0.81	14.3	
1545	18.14	100	5.375	7.2	15.4	785	79.9	0.84	13.5	
1550	18.14	100	5.825	7.2	14.9	775	82.5	0.84	11.2	
1555	18.15	100	6.375	7.2	14.7	773	85.2	0.85	10.4	
1600	18.15	100	6.825	7.2	14.7	772	86.9	0.84	9.9	
1605	18.15	100	7.275	7.2	14.6	770	88.9	0.84	9.40	
1610		100	7.775	7.2	14.5	769	89.9	0.82	9.10	
1613	Collect sample									

Observations

Color: (Clear) Other (describe): clear

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

Notes: Rainy

Signed/Sampler(s). K. Dixon Adam Karst

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GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: GMI-22-07M	Location: NAS Fort Worth JRB, Texas
Sampler (s) J. Wallace	Project Name: April 2001 Semi-Annual Sampling
Well Depth: DTOP pump = 16.42	Project #: AFC001-33DAA Date: 3/27/01 Time: 08:53
DTW (ft): 15.85 DTP (ft). —	Courier: _X_FedEx ____UPS ____Hand ____Othe
MP Ht. Above/Below GS: 2.75	Sampling Method : Low Flow
Condition of Bottom of Well	Type of Pump: Bladder
Screen Interval (ft): 12 75 – 22.75	Weather (sun/clear, overcast/rain, wind direction, ambient temperature): rainy, E, 40°
Well Diameter (in) 2	
Placement of Pump Inlet (ft): 19.1	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/min)	Total Volume (L)	pH	Temp. (C)	Cond (umhos/cm)	ORP (mv)	DO (mg/L)	Turb. (NTU)	Type, Size, and Amount of Sediment Discharged
0858	16.08	0.1	0	6.92	16.41	686	328.1	5.98	16.90	
0901	16.07	0.1	0.3	6.90	15.85	681	330.0	5.96	16.71	
0904	16.06	0.1	0.6	6.89	15.57	675	333.2	5.91	16.57	
0907	16.06	0.1	0.9	6.85	14.90	661	338.4	5.84	19.06	
0910	16.05	0.1	1.2	6.86	15.17	662	338.8	5.61	19.42	
0913	16.05	0.1	1.5	6.88	15.25	663	338.2	5.53	19.62	
0916	16.05	0.1	1.8	6.90	15.25	661	337.2	5.43	19.41	
0919	16.05	0.1	2.1	6.90	15.09	652	337.0	5.40	18.62	
0922	16.05	0.1	2.4	6.90	14.78	646	336.9	5.31	17.89	
0925	16.04	0.1	2.7	6.90	13.91	633	336.9	5.43	17.91	
0928	16.01	0.1	3.0	6.90	13.42	619	337.0	5.44	17.82	
0931	15.98	0.1	3.3	6.90	12.46	611	337.2	5.47	17.71	
0934	15.95	0.1	3.6	6.90	11.73	599	337.2	5.49	17.53	
0937	15.95	0.1	3.9	6.89	12.25	600	334.1	5.30	17.75	
0940	15.95	0.1	4.2	6.88	13.15	605	334.9	5.12	18.01	
0943	15.95	0.1	4.5	6.87	14.23	617	333.3	5.01	18.85	

Observations

Color: (Clear) Other (describe): clear

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

Notes:

Signed/Sampler(s): JWall

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GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: GMI-22-07M	Location: NAS Fort Worth JRB, Texas
Sampler (s) J. Wallace	Project Name: April 2001 Semi-Annual Sampling
Well Depth: D. Top pump = 16.42	Project #: AFC001-33DAA Date: 3/27/01 Time: 0853
DTW (ft): 15.85 DTP (ft): —	Courier: _X_FedEx ___UPS ___Hand ___Othe
MP Ht. Above/Below GS: 2.75	Sampling Method : Low Flow
Condition of Bottom of Well	Type of Pump: Bladder
Screen Interval (ft): 12.75 – 22.75	Weather (sun/clear, overcast/rain, wind direction, ambient temperature): rainy, E, 40°
Well Diameter (in) 2	
Placement of Pump Inlet (ft): 19.1	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/min)	Total Volume (L)	pH	Temp. (C)	Cond. (umhos/cm)	ORP (mv)	DO (mg/L)	Turb. (NTU)	Type, Size, and Amount of Sediment Discharged
0946	16.05	0.1	4.8	6.90	15.61	642	330.1	4.98	16.15	
0949	16.05	0.1	5.1	6.92	17.25	649	329.8	4.89	14.23	
0952	16.10	0.1	5.4	6.97	17.52	680	324.5	4.72	10.67	
0955	16.10	0.1	5.7	6.97	14.01	650	326.1	4.87	10.40	
0958	16.10	0.1	6.0	6.97	13.89	622	328.1	4.84	9.85	
1001	16.15	0.1	6.3	6.95	16.55	664	324.8	4.72	12.98	
1004	16.15	0.1	6.6	6.95	16.15	662	324.2	4.79	12.64	
1007	16.15	0.1	6.9	6.97	16.14	658	324.1	4.74	12.43	
1010	16.15	0.1	7.2	6.98	15.77	648	324.0	4.78	12.41	
1013	16.20	0.1	7.5	6.94	16.35	653	325.1	4.68	11.33	
1016	16.15	0.1	7.8	6.98	14.21	642	326.2	4.71	10.82	
1019	16.10	0.1	8.1	6.98	13.73	611	326.4	4.75	10.37	
1021	16.10	0.1	8.4	6.97	13.53	~~641~~ 644	327.0	4.77		1082
~~1023~~	~~collect samples~~									
1023	16.10	0.1	8.7	6.97	14.14	621	326.4	4.72	10.45	
1025	collect samples									

Observations

Color: (Clear) Other (describe): Clear

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

Notes:

Signed/Sampler(s): J Wallace

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GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: HM-114	Location: NAS Fort Worth JRB, Texas
Sampler (s) A. KARST, K. DURAN	Project Name: April 2001 Semi-Annual Sampling
Well Depth. 35.59	Project #: AFC001-33DAA Date: 4/10/01 Time: 0810
DTW (ft): 18.06 DTP (ft): 23.8	Courier: _X_FedEx ___UPS ___Hand ___Othe
MP Ht. Above/Below GS: -0.23	Sampling Method : Low Flow
Condition of Bottom of Well SOFT	Type of Pump: Bladder
Screen Interval (ft): 16.27 - 36.27	Weather (sun/clear, overcast/rain, wind direction, ambient temperature): OVERCAST, WINDY (S), 70°F
Well Diameter (in) 4	
Placement of Pump Inlet (ft): 26.8	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/min)	Total Volume (L)	pH	Temp. (C)	Cond (~~umhos~~/cm) mS	ORP (mv)	DO (mg/L)	Turb. (NTU)	Type, Size, and Amount of Sediment Discharged
0810	18.07	100	Ø	6.18	20.78	355.00	306.8	5.71	19.1	
0815	18.07	100	.1	6.22	20.95	357.00	308.1	5.55	15.1	
0820	18.07	100	.2	6.34	21.22	359.00	307.6	5.88	14.7	
0825	18.07	100	.3	6.38	20.46	353.00	310.4	5.67	17.5	
0830	18.07	100	.4	6.44	20.87	355.00	310.3	5.77	16.3	
0835	18.07	100	.5	6.48	20.74	354.00	312.1	5.69	16.4	
0840	18.07	100	.6	6.50	20.78	355.00	312.0	5.58	15.9	
0845	18.07	100	.7	6.51	20.66	354.00	313.6	5.49	15.6	
0850	18.07	100	.8	6.55	20.75	354.00	313.1	5.58	12.5	
0855	18.07	100	.9	6.57	20.79	355.00	313.1	5.49	10.4	
0900	18.07	100	1.0	6.59	20.93	356.00	312.7	5.57	10.2	
0905	18.07	100	1.1	6.61	21.07	357.00	312.1	5.60	9.8	
0910	18.07	100	1.2	6.62	21.14	357.00	311.7	5.56	8.5	
0915	18.07	100	1.3	6.63	21.15	357.00	312.1	5.60	8.2	
0918	SAMPLE									

Observations

Color: (Clear) Other (describe): CLEAR

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

Notes.

Signed/Sampler(s): Andrew Karst Kent Duran

GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: HM-116	Location: NAS Fort Worth JRB, Texas
Sampler (s) A. Karst, J. Wallace	Project Name: April 2001 Semi-Annual Sampling
Well Depth: 31.25	Project #: AFC001-33DAA Date: 4/3/01 Time: 1405
DTW (ft): 23.15 DTP (ft): —	Courier. _X_FedEx ___UPS ___Hand ___Othe
MP Ht. Above/Below GS: -0.43	Sampling Method · Low Flow
Condition of Bottom of Well Soft	Type of Pump: Bladder
Screen Interval (ft): 22.57 – 32.57	Weather (sun/clear, overcast/rain, wind direction, ambient temperature):
Well Diameter (in) 4	Overcast, S, 70°
Placement of Pump Inlet (ft): 27	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/min)	Total Volume (L)	pH	Temp (C)	Cond (umhos/cm)	ORP (mv)	DO (mg/L)	Turb (NTU)	Type, Size, and Amount of Sediment Discharged
1414	23.20	0.1	0	6.75	21.01	331	197.8	4.96	3.86	
1417	23.20	0.1	0.3	6.72	21.13	332	199.6	4.79	2.51	
1420	23.17	0.1	0.6	6.71	21.27	333	200.9	4.73	1.86	
1423	23.17	0.1	0.9	6.70	21.52	335	202.5	4.56	1.54	
1426	23.17	0.1	1.20	6.68	21.67	337	203.0	4.45	1.46	
1429	23.17	0.1	1.50	6.68	21.74	337	203.4	4.36	1.42	
1432	23.17	0.1	1.80	6.67	21.75	338	204.1	4.23	1.35	
1435	23.17	0.1	2.10	6.65	21.84	338	204.2	4.12	1.84	
1437	collect	samples								

Observations

Color: Clear Other (describe): Clear

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

Notes:

Signed/Sampler(s): J Wallace, [illegible]

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GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: HM-123	Location: NAS Fort Worth JRB, Texas
Sampler (s) A. Karst, J. Wallace	Project Name: April 2001 Semi-Annual Sampling
Well Depth: TOP Pump 38.31	Project #: AFC001-33DAA Date: 4/2/01 Time: 0905
DTW (ft): 25.49 DTP (ft): —	Courier: X FedEx ___ UPS ___ Hand ___ Other
MP Ht. Above/Below GS: -0.41	Sampling Method : Low Flow
Condition of Bottom of Well	Type of Pump: Bladder
Screen Interval (ft): 20.09 – 40.09	Weather (sun/clear, overcast/rain, wind direction, ambient temperature): overcast, S, 65°
Well Diameter (in) 4	
Placement of Pump Inlet (ft): 31.5	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/min)	Total Volume (L)	pH	Temp. (C)	Cond. (umhos/cm)	ORP (mv)	DO (mg/L)	Turb. (NTU)	Type, Size, and Amount of Sediment Discharged
0911	25.51	0.1	0	6.26	19.87	447	267.8	2.76	1.64	
0914	25.50	0.1	0.3	6.33	19.65	445	266.1	1.96	1.63	
0917	25.50	0.25	0.6	6.39	20.09	448	261.2	1.12	1.64	
0920	25.50	0.1	1.35	6.45	20.15	449	258.2	1.30	1.65	
0923	25.50	0.1	1.65	6.47	19.69	443	255.8	1.32	1.23	
0926	25.50	0.1	1.95	6.49	19.74	443	253.0	1.25	1.24	
0930	25.50	0.1	2.25	6.51	19.79	444	250.2	1.39	1.22	
0935	collect	samples								

Observations

Color: (Clear) Other (describe): clear

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

Notes.

Signed/Sampler(s): J. Wall — Allen Karst

GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: HM-126	Location: NAS Fort Worth JRB, Texas
Sampler (s) C. Donohue, K. Duran	Project Name: April 2001 Semi-Annual Sampling
Well Depth: 35.88'	Project #: AFC001-33DAA Date: 4/3/01 Time: 1644
DTW (ft): 13.81' DTP (ft): ___	Courier: _X_FedEx ___UPS ___Hand ___Other
MP Ht. Above/Below GS: -0.49	Sampling Method: Low Flow
Condition of Bottom of Well	Type of Pump: Bladder
Screen Interval (ft): 16.51 – 36.51	Weather (sun/clear, overcast/rain, wind direction, ambient temperature).
Well Diameter (in) 4	partly sunny, south wind, high 70's F
Placement of Pump Inlet (ft): 24.82	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (mL/min)	Total Volume (L)	pH	Temp. (C)	Cond. (umhos/cm)	ORP (mv)	DO (mg/L)	Turb. (NTU)	Type, Size, and Amount of Sediment Discharged
1554	13.79	150	0.15	6.91	20.84	295	221.1	4.41	4.6	
1559	13.77	150	0.80	6.52	20.34	291	244.0	3.60	1.9	
1604	13.78	150	1.45	6.47	20.35	290	251.4	3.52	2.1	
1609	13.77	150	2.1	6.46	20.39	290	255.6	3.35	2.0	
1614	13.75	150	2.75	6.46	20.28	289	258.2	3.21	1.6	
1619	13.76	150	3.4	6.49	20.30	289	259.7	3.46	1.3	
1624	13.73	150	4.05	6.45	20.18	288	260.7	2.78	0.9	
1629	13.74	150	4.7	6.47	20.40	289	259.8	3.31	0.9	
1634	13.75	150	5.35	6.47	20.45	290	260.2	2.83	0.9	
1639	13.74	150	6.0	6.47	20.59	291	259.6	3.21	—	
1644	samples taken									

Observations

Color: (Clear) Other (describe): Clear

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

Notes Samples taken when D.O. out – bubble in DO meter membrane making D.O. unstable.

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

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GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: ITMW-01T	Location: NAS Fort Worth JRB, Texas
Sampler (s) A. Karst	Project Name: April 2001 Semi-Annual Sampling
Well Depth: 21.59	Project #: AFC001-33DAA Date: 4/2/01 Time: 1035
DTW (ft): 10.52 DTP (ft): —	Courier. _X_FedEx ___UPS ___Hand ___Othe
MP Ht. Above/Below GS. -0.3	Sampling Method : Low Flow
Condition of Bottom of Well Firm	Type of Pump. Bladder
Screen Interval (ft): - 21	Weather (sun/clear, overcast/rain, wind direction, ambient temperature):
Well Diameter (in) 4	overcast, S, 70°
Placement of Pump Inlet (ft): 17.1	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/min)	Total Volume (L)	pH	Temp. (C)	Cond. (un hos/cm)	ORP (mv)	DO (mg/L)	Turb. (NTU)	Type, Size, and Amount of Sediment Discharged
1041	10.52	0.1	0	6.47	19.20	660	253.2	1.96	1.73	
1044	10.53	0.1	0.3	6.47	19.21	670	242.5	1.67	2.30	
1047	10.54	0.1	0.6	6.45	19.25	676	235.3	1.81	2.41	
1050	10.54	0.1	0.9	6.46	19.18	676	229.0	1.79	2.97	
1053	10.54	0.1	1.20	6.45	19.21	679	222.0	1.82	2.51	
1056	10.54	0.1	1.50	6.46	19.19	680	216.7	1.70	2.30	
1059	10.54	0.1	1.80	6.46	19.12	680	210.0	1.93	2.65	
1102	10.53	0.1	2.10	6.46	19.09	679	205.2	2.20	2.41	
1105	10.53	0.1	2.40	6.46	19.05	679	202.6	2.20	2.21	
1109	Collect		samples.							

Observations

Color: Clear Other (describe): Clear

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

Notes:

Signed/Sampler(s): [illegible]

GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: LF03-3D	Location: NAS Fort Worth JRB, Texas
Sampler (s) A. KAMST, K. DURAN	Project Name: April 2001 Semi-Annual Sampling
Well Depth: UNKNOWN	Project #: AFC001-33DAA Date. 3/29/01 Time: 0855
DTW (ft): 12.58 DTP (ft): 12.70	Courier: _X_FedEx ____UPS ____Hand ____Othe
MP Ht. Above/Below GS: 3.65	Sampling Method : Low Flow
Condition of Bottom of Well UNKNOWN	Type of Pump: Bladder
Screen Interval (ft): 11.15 – 18.05	Weather (sun/clear, overcast/rain, wind direction, ambient temperature): OVERCAST, LT. RAIN, COLD → 40°F
Well Diameter (in) 2	
Placement of Pump Inlet (ft): 15.55	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/min)	Total Volume (L)	pH	Temp. (C)	Cond. (~~umhos~~/cm) mS	ORP (mv)	DO (mg/L)	Turb. (NTU)	Type, Size, and Amount of Sediment Discharged
0855	12.61	150	Ø	6.85	15.15	838.0	325.5	5.15	14.13	
0900	12.60	200	.75	6.90	15.17	969.0	320.5	3.16	8.4	
0905	12.60	200	1.75	6.93	15.13	985.0	316.0	2.94	9.4	
0910	12.60	200	2.75	6.94	15.0	985.0	314.9	2.88	4.5	
0915	12.60	200	3.75	6.95	14.99	991.00	312.8	2.82	3.4	
0920	12.60	200	4.75	6.97	14.80	989.00	311.7	2.81	2.8	
0925	12.60	200	5.75	6.98	14.80	989.00	310.0	2.80	2.6	
0930	COLLECT SAMPLE									

Observations

Color: (Clear) Other (describe): Clear

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

Notes:

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

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GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: LF04-02	Location. NAS Fort Worth JRB, Texas
Sampler (s) J. Wallace	Project Name April 2001 Semi-Annual Sampling
Well Depth: Top pump – 30.42	Project #: AFC001-33DAA Date: 3-26-01 ~~10/10~~ Time: 1040
DTW (ft). 28.62 DTP (ft): —	Courier: _X_FedEx ____UPS ____Hand ____Othe
MP Ht. Above/Below GS: 2.68	Sampling Method : Low Flow
Condition of Bottom of Well —	Type of Pump: Bladder
Screen Interval (ft): 25 78 – 40.13	Weather (sun/clear, overcast/rain, wind direction, ambient temperature): overcast, wind-N, 45°
Well Diameter (in) 2	
Placement of Pump Inlet (ft): 33.5	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/min)	Total Volume (L)	pH	Temp. (C)	Cond. (umhos/cm)	ORP (mv)	DO (mg/L)	Turb. (NTU)	Type, Size, and Amount of Sediment Discharged
1050	28.62	0.1	0	7.11	18.67	476	286.3	1.95	1.14	
1053	28.63	0.1	0.3	7.08	18.42	476	280.8	2.19	0.65	
1056	28.63	0.2	0.6	7.05	19.37	487	275.6	1.58	0.70	
1059	28.64	0.1	1.2	7.05	19.09	482	271.0	1.32	0.67	
1102	28.64	0.1	1.5	7.03	19.89	491	267.8	1.19	0.63	
1105	28.64	0.1	1.8	7.06	19.19	482	264.3	1.13	0.65	
1108	28.62	0.1	2.1	7.07	18.03	469	260.5	1.16	0.69	
1111	28.62	0.1	2.4	7.07	18.02	469	256.2	1.26	0.61	
1114	28.62	0.1	2.7	7.08	17.84	466	253.2	1.27	0.62	
1117	28.62	0.1	3.0	7.08	17.15	458	250.3	1.31	0.66	
1120	collect samples									

Observations

Color: (Clear) Other (describe): clear

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

Notes.

Signed/Sampler(s): JWall

GROUNDWATER FIELD SAMPLING DATA SHEET

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Well No : LF05-01	Location: NAS Fort Worth JRB, Texas
Sampler (s) A. KARST, K. DURAN	Project Name: April 2001 Semi-Annual Sampling
Well Depth: UNKNOWN	Project #: AFC001-33DAA Date: 3/27/01 Time. 1025
DTW (ft): 18.18 DTP (ft): ~~19.09~~ NA	Courier: _X_ FedEx ____ UPS ____ Hand ____ Othe
MP Ht. Above/Below GS: 2.66	Sampling Method : Low Flow
Condition of Bottom of Well UNKNOWN	Type of Pump: Bladder
Screen Interval (ft): 17.61 - 27.36	Weather (sun/clear, overcast/rain, wind direction, ambient temperature). OVERCAST + RAIN COLD, 45° F
Well Diameter (in) 2	
Placement of Pump Inlet (ft): 22	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/min)	Total Volume (L)	pH	Temp (C)	Cond. (umhos/cm)	ORP (mv)	DO (mg/L)	Turb. (NTU)	Type, Size, and Amount of Sediment Discharged
1025	18.20	100	Ø	7.08	15.74	971.00	-24.3	2.89	80.0	
1030	18.20	100	.5	7.07	15.80	958.00	-45.3	2.06	44.0	
1035	18.20	100	1.0	7.08	15.91	947.00	-55.2	1.87	35.0	
1040	18.20	100	1.5	7.09	15.74	933.00	-61.0	1.72	32.0	
1045	18.20	100	2.0	7.10	15.18	916.00	-63.9	1.64	22.0	
1050	18.20	100	2.5	7.10	15.05	910.00	-65.6	1.62	30.0	
1055	18.20	100	3.0	7.11	15.40	911.00	-70.0	1.49	26.0	
1100	18.20	100	3.5	7.12	15.19	902.00	-73.1	1.40	22.0	
1105	18.20	100	4.0	7.12	15.29	903.00	-74.6	1.31	20.0	
1110	18.20	100	4.5	7.13	15.16	896.00	-76.4	1.25	18.4	
1115	18.20	100	5.0	7.13	15.03	889.00	-77.7	1.20	16.5	
1120	18.20	100	5.5	7.13	14.90	884.00	-78.1	1.16	14.7	
1125	18.20	100	6.0	7.13	15.25	889.00	-79.1	1.12	15.8	
1130	18.20	100	6.5	7.13	15.82	899.00	-81.4	1.05	14.7	
1135	18.20	100	7.0	7.14	15.98	899.00	-83.1	1.01	14.3	
1140	18.20	100	7.5	7.13	15.98	896.00	-84.1	0.98	13.5	

Observations

Color: Clear Other (describe): Clear

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

Notes:

Signed/Sampler(s): Karst Duran

GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: LF05-01	Location: NAS Fort Worth JRB, Texas
Sampler (s) A. Karst, K. Duran	Project Name: April 2001 Semi-Annual Sampling
Well Depth:	Project #: AFC001-33DAA Date: 3/27/01 Time: 1025
DTW (ft): 18.18 DTP (ft): —	Courier: _X_FedEx ___UPS ___Hand ___Othe
MP Ht. Above/Below GS: 2.66	Sampling Method : Low Flow
Condition of Bottom of Well	Type of Pump: Bladder
Screen Interval (ft): 17.61 - 27.36	Weather (sun/clear, overcast/rain, wind direction, ambient temperature): overcast/rain, cold, 48°
Well Diameter (in) 2	
Placement of Pump Inlet (ft): 22	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/min)	Total Volume (L)	pH	Temp. (C)	Cond (umhos/cm)	ORP (mv)	DO (mg/L)	Turb. (NTU)	Type, Size, and Amount of Sediment Discharged
1145	18.20	100	8.0	7.14	16.02	893.00	-85.5	0.93	12.9	
1150	18.20	100	8.5	7.15	15.80	887.00	-86.7	0.91	11.8	
1155	18.20	100	9.0	7.15	15.94	885.00	-88.0	0.86	11.7	
1200	18.20	100	9.5	7.15	15.93	880.00	-89.8	0.82	10.2	
1205	18.20	100	10.0	7.15	15.63	876.00	-89.3	0.92	16.1	COMPRESSOR STOPPED WORKING
1210	18.20	100	10.5	7.15	13.99	871.00	-86.1	0.94	37.0	
1215	18.20	100	11.0	7.17	14.62	854.00	-87.4	0.72	30.5	
1220	18.20	100	11.5	7.16	14.59	853.00	-87.8	0.70	24.2	
1225	18.20	100	12.0	7.17	14.89	857.00	-88.3	0.67	14.8	
1230	COLLECT SAMPLES									

Observations

Color: Clear Other (describe):

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

Notes: DUE TO NOT SAMPLING FOR METALS + ERRATIC TURB., ALL OTHER PARAMS STABLE SO SAMPLING ANYWAY

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

GROUNDWATER FIELD SAMPLING DATA SHEET

616 181

Well No.: LF05-02	Location: NAS Fort Worth JRB, Texas
Sampler (s) K. Duran C Dowlen	Project Name: April 2001 Semi-Annual Sampling
Well Depth: 28.36	Project #: AFC001-33DAA Date: 4/2/01 Time: 1640
DTW (ft): 19.18 DTP (ft):	Courier: _X_FedEx ____UPS ____Hand ____Othe
MP Ht. Above/Below GS: 2.39	Sampling Method : Low Flow
Condition of Bottom of Well	Type of Pump: Bladder
Screen Interval (ft): 19.34 – 29.09	Weather (sun/clear, overcast/rain, wind direction, ambient temperature): S/SE 75°F
Well Diameter (in) 2	
Placement of Pump Inlet (ft): 20.9'	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/min)	Total Volume (L)	pH	Temp. (C)	Cond. (umhos/cm)	ORP (mv)	DO (mg/L)	Turb. (NTU)	Type, Size, and Amount of Sediment Discharged
1640	19.18	.090	0	6.4	20.3	566	-57	1.79	15.8	
1645	19.15	.09	.45	6.1	21.5	580	-62	1.63	12.9	
1650	19.15	.09	.9	6.2	22.2	549	-69	1.44	10.8	
1655	19.17	.08	1.35	6.2	22.0	586	-72	1.17	3.5	
1700	19.27	.09	1.75	6.1	21.7	582	-72	1.04	3.9	
1705	19.27	.08	2.3	6.1	21.8	582	-72	1.03	3.9	
1710	19.31	.08	2.7	6.2	22.0	595	-74	1.02	4.0	
1714	Collect Sample									

Observations

Color: (Clear) Other (describe): clear

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

Notes:

Signed/Sampler(s): [illegible]

616 182

GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: LF05-19	Location: NAS Fort Worth JRB, Texas
Sampler (s) J. Wallace	Project Name: April 2001 Semi-Annual Sampling
Well Depth: (TOP OF PUMP) 14.4	Project #: AFC001-33DAA Date: 3/26/01 Time: 1250
DTW (ft): 13.94 DTP (ft): —	Courier: _X_FedEx ___UPS ___Hand ___Othe
MP Ht. Above/Below GS: -0.22	Sampling Method : Low Flow
Condition of Bottom of Well —	Type of Pump: Bladder
Screen Interval (ft): 10.03 - 19.78	Weather (sun/clear, overcast/rain, wind direction, ambient temperature):
Well Diameter (in) 3	Overcast, N, 50°
Placement of Pump Inlet (ft): 17.45	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/min)	Total Volume (L)	pH	Temp. (C)	Cond. (umhos/cm)	ORP (mv)	DO (mg/L)	Turb. (NTU)	Type, Size, and Amount of Sediment Discharged
1256	13.95	0.15	0	7.43	17.96	502	252.7	7.12	11.52	
1259	13.94	0.1	0.45	7.37	18.26	506	250.0	6.99	8.32	
1302	13.94	0.1	0.75	7.33	17.79	502	249.0	7.01	6.25	
1305	13.95	0.1	1.05	7.32	18.10	506	248.2	6.98	3.46	
1308	13.93	0.1	1.35	7.30	18.32	509	246.4	6.90	3.21	
1310	Collect samples									

Observations

Color: Clear Other (describe): clear w/ some rust particles initially

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

Notes:

Signed/Sampler(s): JWallace

GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: LF05-5G	Location: NAS Fort Worth JRB, Texas
Sampler (s) A. Karst, J. Wallace	Project Name: April 2001 Semi-Annual Sampling
Well Depth: top pump = 21.5	Project #: AFC001-33DAA Date: 4/2/01 Time: 1147
DTW (ft): below top pump DTP (ft): —	Courier: __X__FedEx ____UPS ____Hand ____Other
MP Ht Above/Below GS: 3.39	Sampling Method : Low Flow
Condition of Bottom of Well —	Type of Pump: Bladder
Screen Interval (ft): 17.64 - 29.39	Weather (sun/clear, overcast/rain, wind direction, ambient temperature): overcast, S, 70°
Well Diameter (in) 2	
Placement of Pump Inlet (ft). 24.5	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/min)	Total Volume (L)	pH	Temp. (C)	Cond. (umhos/cm)	ORP (mv)	DO (mg/L)	Turb. (NTU)	Type, Size, and Amount of Sediment Discharged
1152	*	0.1	0	6.63	19.83	527	261.4	5.60	1.71	
1155		0.1	0.3	6.59	20.05	531	260.7	5.44	1.57	
1158		0.1	0.6	6.58	20.09	535	259.0	5.58	1.27	
1201		0.1	0.9	6.57	19.80	536	255.0	4.96	0.68	
1204		0.1	1.2	6.58	19.88	545	245.5	5.03	0.70	
1207		0.1	1.5	6.60	19.88	548	238.6	5.07	0.78	
1210		0.1	1.8	6.59	19.91	551	227.6	4.75	0.71	
1213		0.1	2.1	6.60	19.95	553	218.9	4.67	0.80	
1216		0.1	2.4	6.61	20.00	553	213.2	4.93	0.85	
1219		0.1	2.7	6.60	20.00	555	209.1	4.64	0.78	
1221	collect samples									

Observations

Color: Clear Other (describe): clear

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

Notes: * below top of pump

Signed/Sampler(s): [signature]

616 184

GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: MW-53	Location: NAS Fort Worth JRB, Texas
Sampler (s) J. Wallace	Project Name: April 2001 Semi-Annual Sampling
Well Depth: 19.6	Project #: AFC001-33DAA Date: 3/26/01 Time: 1414
DTW (ft): 13.4 DTP (ft): —	Courier: X FedEx ___UPS ___Hand ___Othe
MP Ht. Above/Below GS: -0.5	Sampling Method: Low Flow
Condition of Bottom of Well	Type of Pump: Bladder
Screen Interval (ft): 9.54 - assumed 19.6	Weather (sun/clear, overcast/rain, wind direction, ambient temperature). overcast, N, 50°
Well Diameter (in) 4	
Placement of Pump Inlet (ft). 17.88	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/min)	Total Volume (L)	pH	Temp. (C)	Cond. (umhos/cm)	ORP (mv)	DO (mg/L)	Turb. (NTU)	Type, Size, and Amount of Sediment Discharged
1416	13.43	0.3	0	7.89	16.45	443	233.3	7.51	1.74	
1419	13.49	0.1	0.9	7.81	17.10	433	234.1	6.42	1.81	
1422	13.49	0.1	1.2	7.70	18.20	425	235.0	5.69	1.99	
1425	13.53	0.1	1.5	7.64	17.82	425	235.3	5.70	3.74	
1428	13.59	0.1	1.8	7.64	17.51	417	235.1	5.53	3.41	
1431	13.65	0.05	~~2.75~~ 2.1	7.61	15.85	402	234.8	5.62	2.99	
1434	13.70	0.05	2.25	7.61	15.12	395	235.2	5.63	2.79	
1437	13.75	0.1	2.40	7.60	14.95	391	235.2	5.61	2.81	
1440	13.75	0.1	2.70	7.59	14.97	395	234.1	5.60	2.73	
1443	13.75	0.1	3.0	7.59	15.86	400	233.4	5.58	2.61	
1445	collect samples.									

Observations

Color: Clear Other (describe): Clear

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

Notes:

Signed/Sampler(s): J Wall

GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: SPOT35-5	Location: NAS Fort Worth JRB, Texas
Sampler (s) A. Karst, J. Wallace	Project Name: April 2001 Semi-Annual Sampling
Well Depth: 27.3	Project #: AFC001-33DAA Date: 4/3/01 Time: 0935
DTW (ft): 22.45 DTP (ft): —	Courier: _X_FedEx ___UPS ___Hand ___Othe
MP Ht. Above/Below GS: -0.15	Sampling Method : Low Flow
Condition of Bottom of Well soft	Type of Pump: Bladder
Screen Interval (ft): 16.45 - 26.45	Weather (sun/clear, overcast/rain, wind direction, ambient temperature): overcast, S, 70°
Well Diameter (in) 4	
Placement of Pump Inlet (ft): 24.33	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/min)	Total Volume (L)	pH	Temp (C)	Cond (umhos/cm)	ORP (mv)	DO (mg/L)	Turb (NTU)	Type, Size, and Amount of Sediment Discharged
0938	22.55	0.05	0	6.40	20.55	576	-109.3	1.33	13.7	
0941	22.60	0.1	0.45	6.38	20.77	576	-114.4	1.22	11.2	
0944	22.65	0.1	0.75	6.38	20.98	576	-117.8	1.19	11.1	
0947	26.70	0.1	1.05	6.39	20.97	574	-117.7	1.17	10.9	
0950	26.72	0.1	1.35	6.38	21.04	574	-118.6	1.13	10.9	
0953	26.75	0.1	1.65	6.41	21.13	571	-119.7	1.04	~~10.9~~ 10.85	
0956	26.80	0.1	1.95	6.40	21.15	573	-120.7	0.99	10.5	
0959	26.81	0.1	2.25	6.40	21.18	573	-120.1	0.95	10.6	
1002	26.83	0.1	2.55	6.41	21.20	572	-120.9	0.94	10.5	
1005	26.90	0.1	2.85	6.41	21.27	572	-121.9	0.93	10.8	
1008	26.91	0.1	3.15	6.42	21.23	571	-122.9	0.89	10.08	
1011	26.91	0.1	3.45	6.41	21.21	572	-122.9	0.87	10.01	
1014	26.92	0.1	3.75	6.42	21.42	573	-123.2	0.87	9.50	
1017	26.93	0.1	4.05	6.41	21.56	574	-123.7	0.86	9.88	
1020	26.93	0.1	4.35	6.43	21.56	572	-124.1	0.85	9.18	
1025	collect		samples.							

Observations

Color: Clear Other (describe): slightly cloudy

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

Notes: Well draws down a lot.

Signed/Sampler(s): J. Wallace Adam Karst

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GROUNDWATER FIELD SAMPLING DATA SHEET

Well No : ST14-03	Location: NAS Fort Worth JRB, Texas
Sampler (s) J. Wallace, A. Karst	Project Name: April 2001 Semi-Annual Sampling
Well Depth: Top pump = 12.16	Project #: AFC001-33DAA Date: 4/2/01 Time: 1557
DTW (ft): 8.24 DTP (ft): —	Courier: _X_ FedEx ___ UPS ___ Hand ___ Othe
MP Ht. Above/Below GS: 1.85	Sampling Method : Low Flow
Condition of Bottom of Well —	Type of Pump: Bladder
Screen Interval (ft): 9.7 - 19.5	Weather (sun/clear, overcast/rain, wind direction, ambient temperature): overcast sunny, S, 80°
Well Diameter (in) 2	
Placement of Pump Inlet (ft): 15.35	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/min)	Total Volume (L)	pH	Temp (C)	Cond (umhos/cm)	ORP (mv)	DO (mg/L)	Turb. (NTU)	Type, Size, and Amount of Sediment Discharged
1559	8.26	0.1	0	6.96	21.53	353	-113.5	3.99	34.8	
1602	8.26	0.1	0.3	6.88	21.20	353	-115.5	3.64	31.2	
1605	8.28	0.1	0.6	6.85	21.05	353	-115.6	3.38	28.5	
1608	8.28	0.1	0.9	6.83	21.09	354	-115.7	3.27	26.0	
1611	8.30	0.1	1.2	6.80	20.86	354	-116.4	2.93	24.2	
1614	8.30	0.1	1.5	6.80	20.80	353	-116.5	2.84	23.7	
1617	8.30	0.1	1.8	6.80	20.88	354	-116.6	2.73	23.5	
1620	8.30	0.1	2.1	6.79	21.11	357	-116.9	2.69	22.5	
1623	8.30	0.1	2.4	6.79	21.13	357	-117.4	2.72	22.0	
1626	8.30	0.1	2.7	6.78	21.11	359	-118.9	2.52	21.5	
1629	8.30	0.1	3.0	6.78	21.08	358	-118.9	2.42	22.4	
1632	8.30	0.1	3.3	6.78	21.04	359	-118.6	2.39	21.2	
1635	8.30	0.1	3.6	6.78	21.01	358	-118.5	2.34	21.1	
1638	8.30	0.1	3.9	6.78	21.04	358	-118.4	2.31	20.2	
1641	8.30	0.1	4.2	6.77	21.02	359	-118.8	2.35	20.4	
1644	8.30	0.1	4.5	6.78	21.09	358	-120.5	2.37	20.8	

1648 collect samples.

Observations

Color: Clear Other (describe): initial purge was full of reddish biological particles

Odor. None Low Medium High Very Strong H2S Fuel-like slight petroleum odor

Notes: The initial purging contained lots of particles, purging was performed without flow cell & then the flow cell was reconnected for the above parameters.

Signed/Sampler(s): J. Wallace A. Karst

GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: USGS04T	Location: NAS Fort Worth JRB, Texas
Sampler (s) A. Kaist, J. Wallen	Project Name. April 2001 Semi-Annual Sampling
Well Depth: 19.3	Project #: AFC001-33DAA Date: 4/5/01 Time: 1548
DTW (ft). 17.89 DTP (ft): —	Courier: _X_ FedEx ___ UPS ___ Hand ___ Othe
MP Ht. Above/Below GS: -0.24	Sampling Method : Low Flow
Condition of Bottom of Well very soft	Type of Pump: Bladder
Screen Interval (ft): 15.5 - 25.5	Weather (sun/clear, overcast/rain, wind direction, ambient temperature):
Well Diameter (in) 2	overcast, S, 85°
Placement of Pump Inlet (ft) 18.7	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/min)	Total Volume (L)	pH	Temp. (C)	Cond. (umhos/cm)	ORP (mv)	DO (mg/L)	Turb. (NTU)	Type, Size, and Amount of Sediment Discharged
1552	*	0.2	0	6.75	19.63	447	18.6	1.06	5.11	
1555		0.2	0.6	6.75	19.62	450	-44.3	0.85	2.04	
1558		0.3	1.2	6.78	19.25	447	-57.1	0.81	1.98	
1601		0.3	2.1	6.79	19.19	449	-72.6	0.71	1.27	
1604		0.1	3.0	6.80	19.02	450	-79.0	0.66	1.30	
1607		0.1	3.3	6.81	19.21	452	-83.2	0.66	1.39	
1610		0.2	3.6	6.81	18.91	450	-86.5	0.62	1.25	
1613		0.2	4.2	6.82	18.88	451	-90.0	0.58	1.80	
1616		0.2	4.8	6.83	18.85	451	-92.0	0.57	1.83	
1618	collect	samples.								

Observations

Color. (Clear) Other (describe): clear

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

Notes: * DTW below top of pump

Signed/Sampler(s): [signature]

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GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.. USGS07T	Location: NAS Fort Worth JRB, Texas
Sampler (s) A. Kerst, J. Wallace	Project Name: April 2001 Semi-Annual Sampling
Well Depth: Top pump = 10.38	Project #: AFC001-33DAA Date: 4/4/01 Time: 0945
DTW (ft): 8.43 ~~DTP (ft):~~ —	Courier: _X_FedEx ___UPS ___Hand ___Othe
MP Ht. Above/Below GS: -1 34	Sampling Method : Low Flow
Condition of Bottom of Well —	Type of Pump: Bladder
Screen Interval (ft): 10 16 - 15.16	Weather (sun/clear, overcast/rain, wind direction, ambient temperature). overcast, S, 70°, very humid/hazy
Well Diameter (in) 2	
Placement of Pump Inlet (ft): ≈13.38	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/min)	Total Volume (L)	pH	Temp. (C)	Cond. (umhos/cm)	ORP (mv)	DO (mg/L)	Turb. (NTU)	Type, Size, and Amount of Sediment Discharged
0952	8.52	0.2	0	7.98	18.79	222	282.4	7.22	14.6	
0955	8.51	0.1	0.6	8.02	18.95	223	280.5	7.25	10.56	
0958	8.51	0.1	0.9	8.04	19.06	223	277.8	7.27	7.91	
1001	8.50	0.1	1.2	8.03	19.25	224	275.6	7.17	6.12	
1004	8.50	0.1	1.5	8.03	19.02	223	271.1	7.15	5.22	
1007	8.50	0.1	1.8	8.02	18.67	226	271.9	7.21	5.03	
1010	8.50	0.1	2.1	8.04	18.52	220	271.1	7.18	4.06	
1012	collect	samples.								

Observations

Color: Clear Other (describe): clear

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

Notes:

Signed/Sampler(s). A. Wall Adam Kerst

GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: W-153	Location: NAS Fort Worth JRB, Texas
Sampler (s) A. Karst, T. Walker	Project Name: April 2001 Semi-Annual Sampling
Well Depth: TOP pump = 31.15	Project #: AFC001-33DAA Date: 4/3/01 Time: 1258
DTW (ft): 20.85 DTP (ft): —	Courier: _X_ FedEx ___ UPS ___ Hand ___ Othe
MP Ht. Above/Below GS: -0.13	Sampling Method : Low Flow
Condition of Bottom of Well —	Type of Pump: Bladder
Screen Interval (ft): 29.77 – 39.27	Weather (sun/clear, overcast/rain, wind direction, ambient temperature): overcast, S, 70°
Well Diameter (in) 2	
Placement of Pump Inlet (ft): 34	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/min)	Total Volume (L)	pH	Temp. (C)	Cond. (umhos/cm)	ORP (mv)	DO (mg/L)	Turb. (NTU)	Type, Size, and Amount of Sediment Discharged
1306	20.85	0.2	0	6.79	21.45	316	142.9	5.18	12.24	
1309	20.85	0.2	0.6	6.61	22.05	329	152.6	4.38	11.16	
1312	20.85	0.2	1.2	6.57	21.62	330	154.6	4.02	11.21	
1315	20.85	0.1	1.8	6.56	22.08	334	158.0	3.78	11.43	
1318	20.85	0.1	2.1	6.53	22.21	319	162.2	3.86	9.01	
1321	20.85	0.1	2.4	6.54	21.98	318	167.0	3.92	8.25	
1324	20.85	0.1	2.7	6.54	21.81	316	169.0	3.93	8.32	
1327	20.85	0.1	3.0	6.54	21.68	317	173.2	3.96	8.65	
1330	collect	samples								

Observations

Color: Clear Other (describe): clear

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

Notes:

Signed/Sampler(s).

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GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: WCHMHTA006	Location: NAS Fort Worth JRB, Texas
Sampler (s) A. Karst, J. Wallac	Project Name: April 2001 Semi-Annual Sampling
Well Depth: 36.46	Project #. AFC001-33DAA Date: 4/4/01 Time: 1456
DTW (ft): 18.20 DTP (ft): —	Courier: _X_FedEx ____UPS ____Hand ____Othe
MP Ht. Above/Below GS: -0.49	Sampling Method : Low Flow
Condition of Bottom of Well soft	Type of Pump: Bladder
Screen Interval (ft). 26.01 - 36.01	Weather (sun/clear, overcast/rain, wind direction, ambient temperature): overcast, S, 85°
Well Diameter (in) 2	
Placement of Pump Inlet (ft): 29.7	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/min)	Total Volume (L)	pH	Temp (C)	Cond (umhos/cm)	ORP (mv)	DO (mg/L)	Turb. (NTU)	Type, Size, and Amount of Sediment Discharged
1500	18.25	0.15	0	8.05	23.59	292	199.0	5.30	4.65	
1503	18.25	0.15	0.45	7.91	23.18	289	206.4	4.94	4.21	
1506	18.25	0.15	0.90	7.83	23.34	289	210.4	4.80	3.77	
1509	18.25	0.15	1.35	7.76	23.18	288	213.7	4.71	8.42	
1512	18.26	0.15	1.80	7.72	23.02	288	218.4	4.62	7.82	
1515	18.26	0.15	2.25	7.71	22.99	287	219.7	4.60	6.63	
1518	18.26	0.15	2.70	7.69	23.16	287	220.7	4.57	5.79	
1520	collect samples									

Observations

Color: Clear Other (describe): clear

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

Notes:

Signed/Sampler(s): JWall [illegible]

GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: WCHMHTA008	Location: NAS Fort Worth JRB, Texas
Sampler (s) A. Karst, J. Wallace	Project Name: April 2001 Semi-Annual Sampling
Well Depth: 24.54	Project #: AFC001-33DAA Date: 4/5/01 Time: 0852
DTW (ft): 14.57 DTP (ft): —	Courier: _X_FedEx ____UPS ____Hand ____Othe
MP Ht. Above/Below GS: -0.3	Sampling Method : Low Flow
Condition of Bottom of Well Soft	Type of Pump: Bladder
Screen Interval (ft): 9.7 - 24.7	Weather (sun/clear, overcast/rain, wind direction, ambient temperature): overcast, S, 75°
Well Diameter (in) 2	
Placement of Pump Inlet (ft): 22.2	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/min)	Total Volume (L)	pH	Temp. (C)	Cond. (umhos/cm)	ORP (mv)	DO (mg/L)	Turb. (NTU)	Type, Size, and Amount of Sediment Discharged
0840	14.60	0.1	0	6.33	19.84	968	-69.7	1.09	25	
0843	14.60	0.1	0.3	6.41	19.64	966	-86.7	0.95	24.5	
0846	14.60	0.1	0.6	6.45	19.63	966	-93.0	0.93	22.6	
0849	14.60	0.1	0.9	6.49	19.56	967	-98.9	0.90	20.7	
0852	14.60	0.1	1.20	6.52	19.55	969	-101.8	0.88	18.8	
0855	14.60	0.1	1.50	6.54	19.54	971	-103.8	0.87	18.7	
0858	14.60	0.1	1.80	6.57	19.49	975	-106.7	0.86	18.3	
0901	14.60	0.1	2.10	6.58	19.48	977	-107.8	0.85	16.2	
0904	14.60	0.1	2.40	6.60	19.50	982	-109.6	0.84	16.6	
0907	14.60	0.1	2.70	6.60	19.50	982	-109.7	0.84	16.8	
0910	14.60	0.1	3.0	6.62	19.48	988	-110.9	0.81	16.8	
0913	14.60	0.1	3.3	6.64	19.57	994	-112.4	0.81	15.5	
0916	14.60	0.1	3.6	6.64	19.54	997	-112.2	0.79	15.7	
0919	14.60	0.1	3.9	6.65	19.54	1000	-113.0	0.79	14.4	
0922	14.60	0.1	4.2	6.66	19.49	1005	-113.2	0.80	12.6	
0925	14.60	0.1	4.5	6.66	19.58	1006	-113.3	0.81	12.6	

Observations

Color: Clear Other (describe): clear

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

Notes:

Signed/Sampler(s): [signature]

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GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: WCHMHTA008	Location: NAS Fort Worth JRB, Texas
Sampler (s) A. Karst, J. Wallace	Project Name: April 2001 Semi-Annual Sampling
Well Depth: 24.54	Project #: AFC001-33DAA Date: 4/5/01 Time: 0832
DTW (ft): 14.57 DTP (ft): —	Courier: __X__FedEx ____UPS ____Hand ____Othe
MP Ht. Above/Below GS: -0.3	Sampling Method : Low Flow
Condition of Bottom of Well Soft	Type of Pump: Bladder
Screen Interval (ft): 9.7 - 24.7	Weather (sun/clear, overcast/rain, wind direction, ambient temperature):
Well Diameter (in) 2	overcast, S, 75°
Placement of Pump Inlet (ft): 22.2	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/min)	Total Volume (L)	pH	Temp. (C)	Cond. (umhos/cm)	ORP (mv)	DO (mg/L)	Turb. (NTU)	Type, Size, and Amount of Sediment Discharged
0928	14.60	0.1	4.8	6.67	19.43	1008	-113.2	0.81	12.5	
0931	14.60	0.1	5.1	6.68	19.51	1014	-113.6	0.81	11.5	
0934	14.60	0.1	5.4	6.69	19.50	1014	-114.1	0.81	11.1	
0937	14.60	0.1	5.7	6.69	19.49	1015	-114.1	0.81	11.0	
0940	14.60	0.1	6.0	6.69	19.50	1016	-114.2	0.82	9.8	
0943	14.60	0.1	6.3	6.70	19.47	1017	-114.0	0.83	9.8	
0946	14.60	0.1	6.6	6.70	19.45	1017	-114.1	0.83	9.7	
0949	collect samples									

Observations

Color: Clear Other (describe): Clear

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

Notes:

Signed/Sampler(s). J Wall [illegible]

GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: WCHMHTA009	Location: NAS Fort Worth JRB, Texas
Sampler (s) A. Karst, J. Wallace	Project Name: April 2001 Semi-Annual Sampling
Well Depth: 11.72	Project #: AFC001-33DAA Date: 4/4/01 Time: 1248
DTW (ft): 8.5 DTP (ft): —	Courier: _X_FedEx ___UPS ___Hand ___Othe
MP Ht. Above/Below GS: -0.18	Sampling Method : Low Flow
Condition of Bottom of Well firm	Type of Pump: Bladder
Screen Interval (ft): 4.32 - 11.82	Weather (sun/clear, overcast/rain, wind direction, ambient temperature):
Well Diameter (in) 2	overcast, S, 80°
Placement of Pump Inlet (ft): 11.45	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/min)	Total Volume (L)	pH	Temp (C)	Cond. (umhos/cm)	ORP (mv)	DO (mg/L)	Turb (NTU)	Type, Size, and Amount of Sediment Discharged
1254	*	0.1	0	8.40	21.48	230	164.3	2.45	7.11	
1257		0.1	0.3	8.26	20.78	225	164.7	1.96	5.71	
1300		0.1	0.6	8.14	20.64	228	163.8	1.65	5.31	
1303		0.1	0.9	8.04	20.25	239	164.8	1.29	4.18	
1306		0.1	1.2	7.95	20.00	253	165.7	1.06	3.10	
1309		0.1	1.5	7.90	19.62	265	166.0	0.91	2.25	
1312		0.1	1.8	7.88	19.59	268	164.9	0.91	3.01	
1315		0.1	2.1	7.80	19.41	271	160.2	0.89	3.02	
1318		0.1	2.4	7.81	19.32	280	159.1	0.87	2.98	
1321		0.1	2.7	7.77	19.29	285	157.0	0.83	2.83	
1324		0.1	3.0	7.76	19.56	278	155.6	0.76	2.02	
1327		0.1	3.3	7.74	19.57	281	155.2	0.74	1.79	
1330		0.1	3.6	7.72	19.58	282	154.9	0.73	1.64	
1332	collect	samples								

Observations

Color: (Clear) Other (describe): clear

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

Notes: * DTW below top of pump.

Signed/Sampler(s): JWall — Adam Karst

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GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: WHGLPU001	Location. NAS Fort Worth JRB, Texas
Sampler (s) C. Donahue, K. Duran	Project Name: April 2001 Semi-Annual Sampling
Well Depth: 85.92	Project #. AFC001-33DAA Date: 4/6/01 Time: 846
DTW (ft): 75.81 DTP (ft): NA	Courier: _X_FedEx ___UPS ___Hand ___Othe
MP Ht. Above/Below GS: -0.07	Sampling Method : Low Flow
Condition of Bottom of Well too deep to tell	Type of Pump: Bladder
Screen Interval (ft): 74.2 - 89.2	Weather (sun/clear, overcast/rain, wind direction, ambient temperature): S/SE 75°
Well Diameter (in) 2	
Placement of Pump Inlet (ft): 80.86'	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/min)	Total Volume (L)	pH	Temp (C)	Cond (umhos/cm)	ORP (mv)	DO (mg/L)	Turb (NTU)	Type, Size, and Amount of Sediment Discharged
848	76.04	.07	0	7.4	20.3	362	273	5.85	7.3	
853	76.04	.07	.35	7.7	20.7	379	250	4.52	6.2	
858	76.04	.07	.7	7.9	20.9	377	238	3.83	5.3	
903	76.04	.07	1.05	8.0	21.1	378	226	3.37	4.9	
908	75.97	.07	1.4	8.1	21.3	379	216	3.12	5.0	
913	75.97	.06	1.75	8.1	21.5	380	211	3.00	5.1	
918	75.90	.04	2.05	8.2	21.8	383	204	3.09	5.5	
923	75.84	.05	2.25	8.2	21.9	385	200	3.19	4.9	
927	Collect sample									

Observations

Color: Clear Other (describe): Clear

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

Notes:

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

GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: WHGLRW016	Location: NAS Fort Worth JRB, Texas
Sampler (s) C. Donohue, K. Duran	Project Name: April 2001 Semi-Annual Sampling
Well Depth: 22.32 4/2/01	Project #: AFC001-33DAA Date: 4/2/01 Time: 1431
DTW (ft): 10.97 DTP (ft): —	Courier: _X_FedEx ___UPS ___Hand ___Othe
MP Ht. Above/Below GS: -0.5	Sampling Method : Low Flow
Condition of Bottom of Well	Type of Pump: Bladder
Screen Interval (ft): 12.5 - 22.5	Weather (sun/clear, overcast/rain, wind direction, ambient temperature):
Well Diameter (in) 4	partly sunny, humid, upper 70's °F
Placement of Pump Inlet (ft): 13.64	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/min)	Total Volume (L)	pH	Temp (C)	Cond (umhos/cm)	ORP (mv)	DO (mg/L)	Turb (NTU)	Type, Size, and Amount of Sediment Discharged
1441	11.00	300	1.5	6.55	21.08	544	272.1	4.67	18.1	
1446	10.95	150	2.15	6.33	20.95	536	283.6	3.80	12.9	
1451	10.97	150	2.70	6.31	21.29	540	282.1	3.74	11.6	
1456	10.98	150	3.35	6.29	21.19	581	281.7	3.66	11.9	
1501	—	150	4.0	6.29	21.14	538	281.7	3.64	13.1	
1506	10.95	150	4.65	6.29	21.19	538	282.0	3.59	12.8	
1511	—	150	5.3	6.36	21.30	539	277.3	3.93	11.7	
1516	10.97	150	5.95	6.32	21.39	539	279.6	3.98	11.4	
1521	10.97	150	6.5	6.32	21.24	579	280.6	3.75	11.1	
1526	—	150	7.15	6.34	21.42	578	4/2/01 279.9	3.70	9.8	
1531	10.96	150	7.7	6.31	21.35	538	279.8	3.61	9.2	
1536	10.95	150	8.35	6.36	21.37	538	277.1	[illegible]	9.9	
1541	10.96	150	9.0	6.33	21.21	536	279.4	4.09	7.8	
1546	collect	samples								
						4/2/01				

Observations

Color: (Clear) Other (describe): clear

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

Notes:

Signed/Sampler(s): [illegible]

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GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: WHGLRW017	Location: NAS Fort Worth JRB, Texas
Sampler (s) K. Duran, C. Donohue	Project Name: April 2001 Semi-Annual Sampling
Well Depth: 23.61	Project #: AFC001-33DAA Date: 4/2/01 Time: 1137
DTW (ft): 12.92 DTP (ft): NA	Courier: _X_FedEx ___UPS ___Hand ___Othe
MP Ht. Above/Below GS: -0.4	Sampling Method : Low Flow
Condition of Bottom of Well Silty	Type of Pump: Bladder
Screen Interval (ft): 13.9 - 23.9	Weather (sun/clear, overcast/rain, wind direction, ambient temperature):
Well Diameter (in) 4	SSE 70°F
Placement of Pump Inlet (ft). 15.25'	10 mph

Field Parameters

Time	Depth to Water (ft)	Flow Rate (mL/min)	Total Volume (L)	pH	Temp (C)	Cond (umhos/cm)	ORP (mv)	DO (mg/L)	Turb (NTU)	Type, Size, and Amount of Sediment Discharged
1137	12.85	.170	0	5.88	19.0	549	348	2.44	15.3	
1142	12.89	.170	.85	5.9	18.8	542	350	1.96	58.2	
1147	12.89	.07	1.7	5.9	18.9	542	348	1.78	48.2	
1152	12.88	0.06	2.05	6.0	18.7	540	345	1.81	44.6	
1157	12.88	0.06	2.35	6.1	19.1	545	341	1.87	39.5	
1202	12.88	.06	2.65	6.1	19.2	545	340	1.90	37	
1207	12.88	.06	2.95	6.1	19.1	544	338	1.89	35	
1212	12.89	.06	3.25	6.1	19.4	547	335	1.93	33	
1217	12.89	.07	3.35	6.1	19.5	549	331	1.98	34	
1222	12.85	.07	3.7	6.2	19.3	548	324	2.06	32	
1227	12.90	.140	4.05	6.1	19.3	546	325	1.91	31	
1232	12.90	.140	4.75	6.2	19.3	546	323	1.89	30	
1237	12.89	.140	5.45	6.2	19.3	546	319	1.85	29	
1242	12.88	.120	6.15	6.2	19.5	548	314	1.83	28	
1247	12.89	.140	6.75	6.2	19.9	551	308	1.84	29	
1252	12.88	.150	7.45	6.2	19.9	553	305	1.85	28	

Observations

Color: Clear Other (describe):

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

Notes.

Signed/Sampler(s): Kent Duran

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GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: WHGLRW017	Location: NAS Fort Worth JRB, Texas
Sampler (s) K. Duran, C. Donahoe	Project Name: April 2001 Semi-Annual Sampling
Well Depth: 23.61	Project #: AFC001-33DAA Date: 4/2/01 Time: 1137
DTW (ft): 12.92 DTP (ft): —	Courier: _X_FedEx ___UPS ___Hand ___Othe
MP Ht. Above/Below GS: -0.4	Sampling Method : Low Flow
Condition of Bottom of Well Silty	Type of Pump: Bladder
Screen Interval (ft): 13.9 - 23.9	Weather (sun/clear, overcast/rain, wind direction, ambient temperature): S/SE 70°F
Well Diameter (in) 4	
Placement of Pump Inlet (ft): 15.25'	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/min)	Total Volume (ft)	pH	Temp (C)	Cond (umhos/cm)	ORP (mv)	DO (mg/L)	Turb (NTU)	Type, Size, and Amount of Sediment Discharged
1257	12.88	.150	8.2	6.2	20.0	553	303	1.85	27	
1302	12.88	.150	8.95	6.2	19.6	548	303	1.82	26	
1307	12.88	.150	9.70	6.2	19.6	550	301	1.81	27	
1312	12.88	.150	10.45	6.2	19.3	546	302	1.78	25	
1317	12.88	.150	11.2	6.2	19.3	545	302	1.78	24	
1322	12.88	.150	11.95	6.2	19.4	546	299	1.76	24	
1327	12.88	.150	12.7	6.2	19.7	550	296	1.79	24.1	
1332	12.89	.150	13.45	6.2	19.6	549	295	1.79	23.9	
1337	12.89	.150	14.20	6.2	19.7	549	293	1.79	23.8	
1344	Collect	Sample								

Observations

Color: Clear Other (describe): Clear

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

Notes:

Signed/Sampler(s): [illegible]

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GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: WHGLTA004	Location: NAS Fort Worth JRB, Texas
Sampler (s) K. Duran, A. Karst	Project Name: April 2001 Semi-Annual Sampling
Well Depth: NA	Project #: AFC001-33DAA Date: 3/26/01 Time: 1408
DTW (ft): 17.0 DTP (ft): 18.20 page	Courier: _X_FedEx ___UPS ___Hand ___Othe
MP Ht. Above/Below GS: -0.2	Sampling Method : Low Flow
Condition of Bottom of Well NA	Type of Pump: Bladder
Screen Interval (ft): 13.3 - 23.3	Weather (sun/clear, overcast/rain, wind direction, ambient temperature): N/NE 54°
Well Diameter (in) 2	
Placement of Pump Inlet (ft): 21	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (mL/min)	Total Volume (L)	pH	Temp. (C)	Cond. (umhos/cm)	ORP (mv)	DO (mg/L)	Turb. (NTU)	Type, Size, and Amount of Sediment Discharged
1414	17.02	150	0	7.0	18.9	495	264	241	6.9	clear
1419	17.03	100	.45	6.9	19.19	505	265	2.24	6.8	
1424	17.03	100	.95	6.8	19.3	507	265	2.1	6.7	
1429	17.03	100	1.45	6.8	19.2	507	266	2.05	5.1	
1434	17.02	100	1.95	6.8	19.2	507	267	2.02	5.5	
1439	17.02	100	2.45	6.8	19.4	509	267	2.0	4.2	
1444	17.02	100	2.95	6.8	19.7	512	265	2.0	3.4	
1450	Collect	Sample								

Observations

Color: Clear Other (describe): clear

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

Notes:

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

GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: WHGLTA009	Location: NAS Fort Worth JRB, Texas
Sampler (s) A.Karst, J.Wallace	Project Name: April 2001 Semi-Annual Sampling
Well Depth: 27.82	Project #: AFC001-33DAA Date: 4/5/01 Time: 1304
DTW (ft): 23.17 DTP (ft): —	Courier: _X_FedEx ___UPS ___Hand ___Othe
MP Ht. Above/Below GS: 2.75	Sampling Method : Low Flow
Condition of Bottom of Well firm	Type of Pump: Bladder
Screen Interval (ft): 17.75 - 27.75	Weather (sun/clear, overcast/rain, wind direction, ambient temperature):
Well Diameter (in) 2	overcast, S, 80°
Placement of Pump Inlet (ft): 22	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/min)	Total Volume (L)	pH	Temp (C)	Cond (umhos/cm)	ORP (mv)	DO (mg/L)	Turb (NTU)	Type, Size, and Amount of Sediment Discharged
1309	*	0.1	0	6.62	20.94	568	-43.6	1.23	4.15	
1312		0.1	0.3	6.59	20.72	566	-55.9	1.04	5.47	
1315		0.1	0.6	6.58	20.66	564	-67.4	0.91	6.22	
1318		0.1	0.9	6.59	20.63	563	-73.2	0.84	5.85	
1321		0.1	1.2	6.61	20.63	562	-78.5	0.80	4.92	
1324		0.1	1.5	6.61	20.62	563	-80.5	0.78	3.87	
1327		0.1	1.8	6.62	20.68	564	-83.3	0.77	3.19	
1330		0.1	2.1	6.62	20.66	563	-84.8	0.75	2.78	
1332	collect sample									

Observations

Color: Clear Other (describe): clear

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

Notes: * Below top of pump

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

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GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: WHGLTA012	Location: NAS Fort Worth JRB, Texas
Sampler (s) A. Karst, J. Wallace	Project Name: April 2001 Semi-Annual Sampling
Well Depth: 23.5	Project #: AFC001-33DAA Date: 4/5/01 Time: 1408
DTW (ft): 18.03 DTP (ft): —	Courier: _X_FedEx ___UPS ___Hand ___Othe
MP Ht. Above/Below GS: -0.6	Sampling Method : Low Flow
Condition of Bottom of Well firm	Type of Pump: Bladder
Screen Interval (ft): 13.1 - 23.1	Weather (sun/clear, overcast/rain, wind direction, ambient temperature): Overcast, S, 85°
Well Diameter (in) 2	
Placement of Pump Inlet (ft): 20.75	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/min)	Total Volume (L)	pH	Temp (C)	Cond (umhos/cm)	ORP (mv)	DO (mg/L)	Turb (NTU)	Type, Size, and Amount of Sediment Discharged
1413	*	0.1	0	6.87	23.84	591	-91.4	1.37	10.47	
1416		0.1	0.3	6.84	23.77	592	-104.5	1.01	13.9	
1419		0.1	0.6	6.84	23.80	592	-111.9	0.89	14.59	
1422		0.1	0.9	6.87	23.87	594	-121.7	0.81	13.40	
1425		0.1	1.20	6.87	23.86	594	-123.2	0.79	12.08	
1428		0.1	1.50	6.87	23.75	594	-126.6	0.74	10.36	
1431		0.1	1.80	6.87	23.71	594	-128.7	0.70	9.8	
1434		0.1	2.10	6.87	23.70	595	-129.8	0.68	9.7	
1437		0.1	2.40	6.88	23.68	596	-131.0	0.66	9.5	
1440		0.1	2.70	6.88	23.65	596	-132.0	0.65	9.23	
1442	collect samples									

Observations

Color: Clear Other (describe): clear

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

Notes: *below top of pump

Signed/Sampler(s): J. Wallace

GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: WHGLTA025	Location: NAS Fort Worth JRB, Texas
Sampler (s) A. Kurst, K. Duran	Project Name: April 2001 Semi-Annual Sampling
Well Depth: Ded. Pump	Project #: AFC001-33DAA Date: 3/26/01 Time: 1241
DTW (ft): 14.75 DTP (ft): pump 16.75	Courier: _X_ FedEx ___ UPS ___ Hand ___ Othe
MP Ht. Above/Below GS: -0.25	Sampling Method : Low Flow
Condition of Bottom of Well NA	Type of Pump: Bladder
Screen Interval (ft): 10.5 - 20.5	Weather (sun/clear, overcast/rain, wind direction, ambient temperature): S/SE 54
Well Diameter (in) 2	
Placement of Pump Inlet (ft): 18.4	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/min)	Total Volume (L)	pH	Temp (C)	Cond (umhos/cm)	ORP (mv)	DO (mg/L)	Turb (NTU)	Type, Size, and Amount of Sediment Discharged
1241	14.8	60	0	7.21	17.21	516	343	6.63	17.6	clear
1246	14.81	60	.18	7.0	17.9	546	331	4.93	19.5	
1251	14.43	80	.36	6.9	17.9	555	319	4.34	15.7	
1256	14.83	80	.76	6.9	18.8	566	303	4.05	18.3	
1301	14.63	80	1.16	6.9	18.3	560	299	3.92	15.9	
1306	14.83	80	1.56	6.9	18.4	564	293	3.76	15.7	
1311	14.83	80	1.96	7.0	18.9	566	287	3.63	12.4	
1316	14.83	80	2.36	6.9	18.7	555	285	3.44	8.65	
1321	14.93	80	2.76	6.9	18.6	554	283	3.4	7.6	
1326	14.93	80	3.16	7.0	18.4	557	279	3.41	6.8	
1329	Collect Samples									

Observations

Color: (Clear) Other (describe): clear

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

Notes:

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

616 202

GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: WHGLTA029	Location: NAS Fort Worth JRB, Texas
Sampler (s) A. Karst, J. Wallace	Project Name: April 2001 Semi-Annual Sampling
Well Depth: 20.36	Project #: AFC001-33DAA Date: 4/5/01 Time: 1705
DTW (ft): 15.31 DTP (ft): —	Courier: _X_ FedEx ___ UPS ___ Hand ___ Othe
MP Ht. Above/Below GS: 0	Sampling Method : Low Flow
Condition of Bottom of Well soft	Type of Pump: Bladder
Screen Interval (ft): 11 - 21	Weather (sun/clear, overcast/rain, wind direction, ambient temperature):
Well Diameter (in) 2	overcast, S, 80°
Placement of Pump Inlet (ft). 17.75	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/min)	Total Volume (L)	pH	Temp. (C)	Cond. (umhos/cm)	ORP (mv)	DO (mg/L)	Turb. (NTU)	Type, Size, and Amount of Sediment Discharged
1736	*	0.1	0	6.81	21.99	555	-119.1	0.68	14.90	
1739		0.1	0.3	6.83	21.95	553	-121.2	0.69	13.27	
1742		0.1	0.6	6.81	22.18	558	-121.6	0.69	12.20	
1745		0.1	0.9	6.81	21.98	555	-121.6	0.67	10.86	
1748		0.1	1.20	6.81	21.96	554	-122.1	0.66	9.77	
1751		0.1	1.50	6.81	21.99	554	-122.9	0.65	6.45	
1754		0.1	1.80	6.82	22.01	553	-123.8	0.64	4.05	
1756	collect	samples.								

Observations

Color: Clear Other (describe): Cloudy

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

Notes: * Below top of pump

Signed/Sampler(s). J. Wallace [illegible]

GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: WHGLTA043	Location: NAS Fort Worth JRB, Texas
Sampler (s) K. Duran, C. Donald	Project Name: April 2001 Semi-Annual Sampling
Well Depth: 13.83	Project #: AFC001-33DAA Date: 4/3/01 Time: 1056
DTW (ft): 9.65 DTP (ft): NA	Courier: _X_ FedEx ___ UPS ___ Hand ___ Othe
MP Ht. Above/Below GS: -0.3	Sampling Method : Low Flow
Condition of Bottom of Well Soft	Type of Pump: Bladder
Screen Interval (ft): 8.5 - 14.0	Weather (sun/clear, overcast/rain, wind direction, ambient temperature): S/SE 70°F
Well Diameter (in) 2	
Placement of Pump Inlet (ft): 8.74	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/min)	Total Volume (L)	pH	Temp (C)	Cond (umhos/cm)	ORP (mv)	DO (mg/L)	Turb (NTU)	Type, Size, and Amount of Sediment Discharged
1056	See Below	.04	0	7.32	21.0	247	258	8.22	6.9	
1101		.04	.2	7.0	20.6	242	279	7.39	2.3	
1106		.04	.4	7.0	20.9	241	283	7.37	1.7	
1111		.04	.6	7.1	21.1	243	282	7.34	1.7	
1116		.04	.8	7.3	21.6	282	282	7.4	1.3	
1121		.04	1.0	7.4	22.2	249	280	7.4	1.5	
1126		.04	1.2	7.1	22.3	249	281	7.3	1.7	
1131		.04	1.4	7.1	22.2	248	282	7.3	1.9	
1136		.04	1.6	7.1	21.9	246	285	7.3	1.6	
1141	Collect Sample									

Observations

Color: Clear Other (describe): Clear

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

Notes: top of pump above water table
Therefore, Low flow was conducted.

Signed/Sampler(s): [illegible]

616 204

GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: WHGLTA044	Location: NAS Fort Worth JRB, Texas
Sampler (s) C. Donohue, K. Dunn	Project Name: April 2001 Semi-Annual Sampling
Well Depth: 8.85'	Project #: AFC001-33DAA Date: 4/3/01 Time: 1226
DTW (ft): 3.47' DTP (ft): —	Courier: _X_FedEx ___UPS ___Hand ___Other
MP Ht. Above/Below GS: 0.06	Sampling Method : Low Flow
Condition of Bottom of Well	Type of Pump: Bladder
Screen Interval (ft): 3.5 - 8.5	Weather (sun/clear, overcast/rain, wind direction, ambient temperature):
Well Diameter (in) 2	Overcast, calm
Placement of Pump Inlet (ft): 6.16'	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/min)	Total Volume (L)	pH	Temp. (C)	Cond. (umhos/cm)	ORP (mv)	DO (mg/L)	Turb. (NTU)	Type, Size, and Amount of Sediment Discharged
1226	see below — *	400	0.400	7.25	18.77	345.0	257.9	3.48	107	cloudy
1231	—	100	0.90	6.79	17.21	329.0	42.2	1.35	5.2	clear
1236	—	100	1.4	6.88	17.91	336	-46.8	1.09	26.4	
1241	—	100	1.9	6.86	17.49	332	-59.5	1.00	23.5	
1246	—	200	2.9	6.82	16.57	325	-63.5	0.94	20.3	
1251	—	200	3.9	6.84	17.33	329	-70.3	0.92	16.7	
1256	—	200	4.9	6.82	16.97	326	-73.0	0.89	12.8	
1301	—	200	5.9	6.81	16.68	323	-75.7	0.84	10.8	
1306	—	200	6.9	6.82	16.65	323	-78.0	0.81	8.8	
1311	—	200	7.9	6.83	16.34	320	-80.1	0.79	7.8	
1316	—	200	8.9	6.83	16.57	322	-82.1	0.80	7.3	
1320	samples taken									

* = pump above water level.

Observations

Color: Clear Other (describe):

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

Notes: Pump above water level.

Signed/Sampler(s): [illegible]

GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: WHGLTA045	Location: NAS Fort Worth JRB, Texas
Sampler (s) C. Donohue, K. Durr	Project Name: April 2001 Semi-Annual Sampling
Well Depth: 15.91	Project #: AFC001-33DAA Date: 4/3/01 Time: 1357
DTW (ft): 7.82' DTP (ft): ~4	Courier: _X_FedEx ____UPS ____Hand ____Other
MP Ht. Above/Below GS: -0.1	Sampling Method : Low Flow
Condition of Bottom of Well Solid	Type of Pump: Bladder
Screen Interval (ft): 5.6 - 15.6	Weather (sun/clear, overcast/rain, wind direction, ambient temperature): S/SE 80°
Well Diameter (in) 2	
Placement of Pump Inlet (ft): 8.47'	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/min)	Total Volume (L)	pH	Temp (C)	Cond. (umhos/cm)	ORP (mv)	DO (mg/L)	Turb (NTU)	Type, Size, and Amount of Sediment Discharged
1400	7.85	~~7.85~~ .210	0	7.1	21.1	337	205	7.7	26.5	
1405	7.85	.21	1.05	6.7	17.7	311	244	6.54	24.5	
1410	7.87	.14	2.1	6.7	18.5	319	256	6.67	19.7	
1415	7.87	.14	2.8	6.7	19.7	323	264	6.7	16.3	
1420	7.85	0.14	3.5	6.7	18.9	327	274	6.82	11.2	
1425	7.85	0.14	4.2	6.7	19.2	331	277	6.86	10.2	
1430	7.87	0.14	4.9	6.7	19.4	337	280	6.95	9.8	
1435	7.87	0.14	5.6	6.7	19.6	340	283	6.99	8.8	
1440	7.87	0.14	6.3	6.7	19.8	346	285	7.06	7.81	
1444	Collect		Sample							

Observations

Color: (Clear) Other (describe): Clear

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

Notes:

Signed/Sampler(s): [illegible]

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GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: WHGLTA051	Location: NAS Fort Worth JRB, Texas
Sampler (s) C. Donohue, K. Duran	Project Name: April 2001 Semi-Annual Sampling
Well Depth: 6.93'	Project #: AFC001-33DAA Date: 4/6/01 Time: 1017
DTW (ft): 4.25' DTP (ft): —	Courier: _X_ FedEx ___ UPS ___ Hand ___ Other
MP Ht. Above/Below GS: -0.071	Sampling Method : Low Flow
Condition of Bottom of Well	Type of Pump: Bladder
Screen Interval (ft): ~~1.92~~ 2 – 7	Weather (sun/clear, overcast/rain, wind direction, ambient temperature):
Well Diameter (in) 2	partly sunny, humid, south wind, 70's F
Placement of Pump Inlet (ft): 5.59'	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/min)	Total Volume (L)	pH	Temp (C)	Cond. (umhos/cm)	ORP (mv)	DO (mg/L)	Turb. (NTU)	Type, Size, and Amount of Sediment Discharged
1021	—*	0.110	0	7.20	19.65	446	177.6	6.52	112	
1026	—	0.110	0.55	7.08	19.01	351	180.8	5.32	138	
1031	—	0.110	1.1	6.99	18.96	329	185.9	4.45	108	
1036	—	0.110	1.65	6.87	19.33	364	190.8	3.56	69	
1041	—	0.110	2.2	6.78	19.94	399	192.6	2.83	49	
1046	—	0.110	2.75	6.73	20.29	424	193.7	2.46	32	
1051	—	0.110	3.3	6.70	20.44	440	194.9	2.12	21.9	
1056	—	0.110	3.85	6.67	20.37	447	196.2	1.84	18.1	
1101	—	0.110	4.4	6.63	20.34	508	202.3	1.69	15.5	
1106	—	0.110	4.95	6.65	19.42	447	198.3	1.35	10.6	
1111	—	0.110	5.5	6.64	19.56	441	197.1	1.21	9.8	
1116	—	0.110	6.05	6.64	20.10	455	197.0	1.22	6.7	
1121	—	0.110	6.6	6.64	20.41	458	197.2	1.24	6.0	
1125	samples taken									

Observations

Color: Clear Other (describe):

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

Notes: * can't measure depth to water – pump sticks up above waterline.

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

GROUNDWATER FIELD SAMPLING DATA SHEET

Well No : WHGLTA603	Location: NAS Fort Worth JRB, Texas
Sampler (s) A. Karst, J. Wallace	Project Name: April 2001 Semi-Annual Sampling
Well Depth: 20.10	Project #: AFC001-33DAA Date: 4/6/01 Time: 0749
DTW (ft): 14.68 DTP (ft): —	Courier: _X_FedEx ____UPS ____Hand ____Othe
MP Ht. Above/Below GS: 2.27	Sampling Method : Low Flow
Condition of Bottom of Well firm	Type of Pump: Bladder
Screen Interval (ft): -	Weather (sun/clear, overcast/rain, wind direction, ambient temperature):
Well Diameter (in) 2	Overcast, S, 70°
Placement of Pump Inlet (ft): 18.55	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/min)	Total Volume (L)	pH	Temp (C)	Cond (umhos/cm)	ORP (mv)	DO (mg/L)	Turb (NTU)	Type, Size, and Amount of Sediment Discharged
0758	14.70	0.1	0	6.10	18.78	692	314.7	2.23	7.3	
0801	14.70	0.1	0.3	6.12	18.94	694	311.6	2.35	6.8	
0804	14.69	0.1	0.6	6.16	19.06	699	307.2	2.35	6.32	
0807	14.69	0.1	0.9	6.19	19.16	704	303.9	2.30	6.22	
0810	14.69	0.1	1.2	6.21	19.24	707	302.3	2.26	6.15	
0813	14.68	0.1	1.5	6.22	19.28	709	300.9	2.24	5.65	
0816	14.68	0.1	1.8	6.24	19.35	712	299.0	2.30	5.41	
0819	collect samples									

Observations

Color: Clear Other (describe): clear

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

Notes:

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

616 208

GROUNDWATER FIELD SAMPLING DATA SHEET

WHGLTA704	Location: NAS Fort Worth JRB, Texas
Sampler (s) Christopher Donohue	Project Name: April 2001 Semi-Annual Sampling
Well Depth: 22.02'	Project #: AFC001-33DAA Date: 4/3/01 Time: 0901
DTW (ft): 9.18' DTP (ft): —	Courier: _X_ FedEx ___ UPS ___ Hand ___ Othe
MP Ht. Above/Below GS: 2.32	Sampling Method : Low Flow
Condition of Bottom of Well	Type of Pump: Bladder
Screen Interval (ft): 8.02 - 20.52	Weather (sun/clear, overcast/rain, wind direction, ambient temperature):
Well Diameter (in) 2	overcast, light wind from South, 70's F
Placement of Pump Inlet (ft): 15.66'	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/min)	Total Volume (L)	pH	Temp (C)	Cond (umhos/cm)	ORP (mv)	DO (mg/L)	Turb (NTU)	Type, Size, and Amount of Sediment Discharged
0901	9.36'	200	0.2	6.13	18.61	510,223	335.2	0.01	14.0	clear
0906	9.45'	200	1.2	6.18	18.91	513,126	333.0	0.00	10.8	
0911	9.49'	150	1.85	6.16	18.98	515,394	319.9	0.00	9.7	
0916	9.55'	150	2.5	6.24	19.15	519,811	273.4	0.00	7.6	
0921	9.49'	100	3.0	6.26	19.29	521,807	251.1	0.00	4.2	
0926	9.47	100	3.5	6.31	19.57	525,910	222.5	0.00	6.0	
0931	9.43	100	4.0	6.33	19.69	527,585	188.3	0.00	5.9	
0936	9.42	100	4.5	6.34	19.77	528,484	171.9	0.00	5.2	
0941	9.45	100	5.0	6.34	19.65	526,882	149.8	0.00	4.8	
0946	9.49	100	5.5	6.34	19.22	552,613	135.8	0.00	5.5	
0951	9.49	100	6.0	6.35	19.48	525,710	123.2	0.00	5.2	
0954	samples		taken							

Observations

Color: Clear Other (describe): clear

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

Notes:

Signed/Sampler(s): [illegible]

GROUNDWATER FIELD SAMPLING DATA SHEET

616 209

Well No.: WITCTA003	Location: NAS Fort Worth JRB, Texas
Sampler (s) A. Karst, J. Wallace	Project Name: April 2001 Semi-Annual Sampling
Well Depth: 23.67	Project #: AFC001-33DAA Date: 4/5/01 Time: 1049
DTW (ft): 14.16 DTP (ft): —	Courier: _X_FedEx ___UPS ____Hand ____Othe
MP Ht. Above/Below GS: -0.53	Sampling Method : Low Flow
Condition of Bottom of Well firm	Type of Pump: Bladder
Screen Interval (ft): 13.47 – 23.22	Weather (sun/clear, overcast/rain, wind direction, ambient temperature):
Well Diameter (in) 2	Overcast, S, 75°
Placement of Pump Inlet (ft): ~~5~~ 18.5	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/min)	Total Volume (L)	pH	Temp. (C)	Cond. (umhos/cm)	ORP (mv)	DO (mg/L)	Turb. (NTU)	Type, Size, and Amount of Sediment Discharged
1055	14.22	0.1	0	6.91	21.64	450	221.5	7.95	45.3	
1058	14.22	0.1	0.3	6.86	21.37	448	228.6	7.67	42.6	
1101	14.22	0.1	0.6	6.84	20.31	440	234.0	6.04	40.2	
1104	14.22	0.1	0.9	6.79	20.26	445	238.8	5.39	34.9	
1107	14.22	0.1	1.2	6.78	20.80	455	241.2	5.23	29.9	
1110	14.22	0.1	1.5	6.77	20.74	461	244.9	5.06	26.6	
1113	14.22	0.1	1.8	6.76	20.72	463	247.2	4.97	25.4	
1116	14.22	0.1	2.1	6.74	20.64	466	250.3	4.81	23.1	
1119	14.22	0.1	2.4	6.73	20.62	468	252.9	4.69	20.5	
1122	14.22	0.1	2.7	6.72	20.61	469	255.0	4.63	19.8	
1125	14.22	0.1	3.0	6.72	20.57	469	257.2	4.56	17.82	
1128	14.22	0.1	3.3	6.71	20.63	471	258.7	4.50	16.39	
1131	14.22	0.1	3.6	6.70	20.65	473	261.1	4.40	15.75	
1134	14.22	0.1	3.9	6.69	20.11	468	263.7	4.36	13.65	
1137	14.22	0.1	4.2	6.68	19.98	473	266.0	4.19	10.27	
1140	14.22	0.1	4.5	6.69	20.41	478	266.2	4.17	9.18	

Observations

Color: Clear Other (describe): clear

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

Notes:

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

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Page II of II

GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: WITCTA003	Location: NAS Fort Worth JRB, Texas
Sampler (s) A. Karst, J. Wallace	Project Name: April 2001 Semi-Annual Sampling
Well Depth: ~~23.54~~ 23.67	Project #: AFC001-33DAA Date: 4/5/01 Time: ~~1124~~ 1049
DTW (ft): ~~14.22~~ DTP (ft): —	Courier: _X_FedEx ____UPS ____Hand ____Othe
MP Ht. Above/Below GS: -0.53	Sampling Method : Low Flow
Condition of Bottom of Well firm	Type of Pump: Bladder
Screen Interval (ft): 13.47 – 23.22	Weather (sun/clear, overcast/rain, wind direction, ambient temperature).
Well Diameter (in) 2	overcast, S, 70°
Placement of Pump Inlet (ft): 18.5	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/min)	Total Volume (L)	pH	Temp (C)	Cond (umhos/cm)	ORP (mv)	DO (mg/L)	Turb (NTU)	Type, Size, and Amount of Sediment Discharged
1143	14.22	0.1	4.8	6.69	20.51	491	269.2	3.91	8.09	
1146	14.22	0.1	5.1	6.69	20.53	491	269.5	3.92	7.66	
1150	Collect		samples							

Observations

Color: Clear Other (describe): clear

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

Notes:

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

GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: WITCTA004	Location: NAS Fort Worth JRB, Texas
Sampler (s) A. Karst, J. Wallace	Project Name: April 2001 Semi-Annual Sampling
Well Depth: Top pump = 12.49	Project #: AFC001-33DAA Date: 4/3/01 Time: 1053
DTW (ft): * DTP (ft): —	Courier: _X_ FedEx ___ UPS ___ Hand ___ Other
MP Ht. Above/Below GS: -0.35	Sampling Method : Low Flow
Condition of Bottom of Well	Type of Pump: Bladder
Screen Interval (ft): 10.95 – 18.2	Weather (sun/clear, overcast/rain, wind direction, ambient temperature):
Well Diameter (in) 2	Overcast, S, 70°
Placement of Pump Inlet (ft): 14.26	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/min)	Total Volume (L)	pH	Temp (C)	Cond. (umhos/cm)	ORP (mv)	DO (mg/L)	Turb. (NTU)	Type, Size, and Amount of Sediment Discharged
1059	*	0.1	0	6.36	21.08	494	51.6	3.53	32.4	
1102		0.1	0.3	6.30	21.15	504	33.7	2.99	24.7	
1105		0.1	0.6	6.29	21.17	533	-24.5	2.51	19.2	
1108		0.1	0.9	6.31	21.18	550	-43.5	2.24	16.98	
1111		0.1	1.2	6.32	20.64	557	-55.0	2.14	15.82	
1114		0.1	1.5	6.33	20.29	569	-67.6	2.66	13.49	
1117		0.1	1.8	6.33	20.25	571	-72.1	1.96	10.61	
1120		0.1	2.1	6.34	20.41	573	-74.4	1.56	9.18	
1123		0.1	2.4	6.35	20.63	578	-77.1	1.37	7.74	
1126		0.1	2.7	6.34	20.67	580	-79.6	1.18	5.75	
1129		0.1	3.0	6.35	20.67	580	-80.0	1.16	6.21	
1132		0.1	3.3	6.35	20.73	581	-81.4	1.08	4.98	
1135		Collected samples								

Observations

Color: Clear Other (describe): clear

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

Notes: * Below top pump

Signed/Sampler(s): [illegible]

616 212

GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: WITCTA010	Location: NAS Fort Worth JRB, Texas
Sampler (s) A. Karst, K. Dura	Project Name: April 2001 Semi-Annual Sampling
Well Depth: N/A	Project #: AFC001-33DAA Date: 3/27/01 Time: 1349
DTW (ft): * DTP (ft): —	Courier: _X_FedEx ____UPS ____Hand ____Othe
MP Ht. Above/Below GS: -0.43	Sampling Method : Low Flow
Condition of Bottom of Well —	Type of Pump: Bladder
Screen Interval (ft): 10.97 – 18.22	Weather (sun/clear, overcast/rain, wind direction, ambient temperature): E 49°
Well Diameter (in) 2	
Placement of Pump Inlet (ft): 16.66	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/min)	Total Volume (L)	pH	Temp. (C)	Cond. (umhos/cm)	ORP (mv)	DO (mg/L)	Turb. (NTU)	Type, Size, and Amount of Sediment Discharged
1349	*N/A	100	0	7.6	14.8	380	0.89	-146	6.1	
1354		90	.50	7.5	15.4	397	-154	0.39	1.3	
1359		90	.95	7.5	16.2	407	-163	0.25	1.9	
1404		90	1.4	7.5	16.1	407	-165	0.23	.8	
1409		90	1.85	7.5	16.2	408	-167	.22	.8	
1414		90	2.3	7.5	16.0	407	-167	.21	.8	
1416	Collect SA sple									

Observations

Color: (Clear) Other (describe): clear

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

Notes: *Depth to water not measureable due to pump above water level

Signed/Sampler(s): [signature]

GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: WITCTA019	Location: NAS Fort Worth JRB, Texas
Sampler (s) C-Donohue, K-Duran	Project Name: April 2001 Semi-Annual Sampling
Well Depth: 19.45'	Project #: AFC001-33DAA Date: 4/5/01 Time: 1605
DTW (ft): 14.20' DTP (ft): —	Courier: _X_ FedEx ___ UPS ___ Hand ___ Other
MP Ht. Above/Below GS: -0.21	Sampling Method : Low Flow
Condition of Bottom of Well	Type of Pump: Bladder
Screen Interval (ft): 9.69 - 19.44	Weather (sun/clear, overcast/rain, wind direction, ambient temperature):
Well Diameter (in) 2	overcast, South wind, 70.5°F
Placement of Pump Inlet (ft): 16.81'	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/min)	Total Volume (L)	pH	Temp. (C)	Cond. (umhos/cm)	ORP (mv)	DO (mg/L)	Turb. (NTU)	Type, Size, and Amount of Sediment Discharged
1608	14.21	0.145	0	7.17	21.63	343	187.2	5.87	5.7	
1613	14.19	0.145	0.72	7.00	20.91	339	197.3	5.09	6.0	
1618	14.20	0.145	1.44	6.95	20.71	341	201.8	5.20	5.3	
1623	14.19	0.145	2.16	6.89	20.66	341	208.1	4.74	5.1	
1628	14.19	0.145	2.88	6.88	20.45	341	211.9	4.80	3.9	
1633	14.19	0.145	3.60	6.85	20.58	344	219.1	4.57	3.2	
1638	14.18	0.145	4.32	6.87	20.48	344	220.6	4.79	2.6	
1640	Sampler taken									

Observations

Color: (Clear) Other (describe): clear

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

Notes:

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

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GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: WITCTA024	Location: NAS Fort Worth JRB, Texas
Sampler (s) A. Karst, J. Wallace	Project Name: April 2001 Semi-Annual Sampling
Well Depth: Top pump = 17.45	Project #: AFC001-33DAA Date: 4/2/01 Time: 1353
DTW (ft): 16.64 DTP (ft): —	Courier: _X_ FedEx ___ UPS ___ Hand ___ Othe
MP Ht Above/Below GS: -0.47	Sampling Method : Low Flow
Condition of Bottom of Well —	Type of Pump: Bladder
Screen Interval (ft): 12.76 - 22.51	Weather (sun/clear, overcast/rain, wind direction, ambient temperature): overcast, S, 75°
Well Diameter (in) 2	
Placement of Pump Inlet (ft): 20.45?	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/min)	Total Volume (L)	pH	Temp (C)	Cond. (umhos/cm)	ORP (mv)	DO (mg/L)	Turb (NTU)	Type, Size, and Amount of Sediment Discharged
1357	16.69	0.1	0	6.77	22.74	620	-47.6	1.86	11.72	
1400	16.69	0.1	0.3	6.78	22.67	620	-57.7	1.91	14.12	
1403	16.70	0.1	0.6	6.76	22.75	620	-62.8	1.56	12.42	
1406	16.70	0.1	0.9	6.76	22.78	621	-66.9	1.81	11.99	
1409	16.70	0.1	1.20	6.77	22.55	618	-72.5	1.31	10.11	
1412	16.70	0.1	1.50	6.78	22.56	620	-75.9	2.99	8.65	
1415	16.70	0.1	1.80	6.78	22.60	620	-79.5	2.12	8.10	
1418	16.70	0.1	2.10	6.78	22.47	619	-84.6	1.74	5.87	
1421	16.70	0.1	2.40	6.79	22.38	618	-86.4	1.57	4.55	
1424	16.70	0.1	2.70	6.79	22.38	618	-88.8	1.59	4.31	
1427	16.70	0.1	3.0	6.79	22.36	618	-89.4	1.69	3.48	
1430	Collect		sampled							

Observations

Color: (Clear) Other (describe): Clear

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

Notes:

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

616 215

GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: WITCTA040	Location: NAS Fort Worth JRB, Texas
Sampler (s) C. Donohue, K. Duran	Project Name: April 2001 Semi-Annual Sampling
Well Depth: 22.82	Project #: AFC001-33DAA Date: 4/5/01 Time: 1441
DTW (ft): 10.50 DTP (ft): NA	Courier: _X_ FedEx ___ UPS ___ Hand ___ Othe
MP Ht. Above/Below GS: -0.39	Sampling Method : Low Flow
Condition of Bottom of Well Soft	Type of Pump: Bladder
Screen Interval (ft): 13.11 - 23.11	Weather (sun/clear, overcast/rain, wind direction, ambient temperature): S/SE 80°F
Well Diameter (in) 2	
Placement of Pump Inlet (ft): 16.83	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/min)	Total Volume (L)	pH	Temp. °C (C)	Cond. (umhos/cm)	ORP (mv)	DO (mg/L)	Turb (NTU)	Type, Size, and Amount of Sediment Discharged
1441	10.57	.28	0	6.8	21.7	461	35	4.27	22.8	
1446	10.52	.140	1.4	6.7	21.9	488	-17	1.60	39.4	
1451	10.52	.14	2.10	6.6	22.1	451	-20	2.08	27.1	
1456	10.53	.14	2.8	6.6	22.1	444	-20	1.42	18.9	
1501	10.52	.14	3.5	6.6	22.1	444	-20	0.88	15.3	
1506	10.52	.14	4.2	6.6	22.0	442	-19	0.84	9.8	
1511	10.52	.14	4.9	6.6	22.1	442	-16	1.25	8.7	
1516	10.52	.14	5.6	6.6	22.1	447	-17	0.94	6.9	
1521	10.52	.14	6.3	6.6	22.0	440	-17	0.78	6.8	
1526	10.53	.14	7.0	6.6	22.0	440	-16	0.78	6.2	
1530	Collect	sAmple								

Observations

Color: Clear Other (describe): Clear

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

Notes:

Signed/Sampler(s): [illegible]

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GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: WITCTA041	Location: NAS Fort Worth JRB, Texas
Sampler (s) C. Donohue, K. Duran	Project Name: April 2001 Semi-Annual Sampling
Well Depth: 21.18	Project #: AFC001-33DAA Date: 4/5/01 Time: 1215
DTW (ft): 12.88' DTP (ft): —	Courier: _X_FedEx ___UPS ___Hand ___Other
MP Ht. Above/Below GS: -0.46	Sampling Method : Low Flow
Condition of Bottom of Well	Type of Pump: Bladder
Screen Interval (ft): 6.5 - 21.5	Weather (sun/clear, overcast/rain, wind direction, ambient temperature):
Well Diameter (in) 2"	Overcast, south wind, 70.5°F
Placement of Pump Inlet (ft): 17.04'	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/min)	Total Volume (L)	pH	Temp (C)	Cond. (umhos/cm)	ORP (mv)	DO (mg/L)	Turb. (NTU)	Type, Size, and Amount of Sediment Discharged
1215	12.89	0.115	0	6.74	22.03	446	293.7	3.70	5.7	
1220	12.88	0.115	0.575	6.64	22.02	445	280.1	2.16	4.5	
1225	12.88	0.125	1.2	6.64	21.87	443	263.2	1.86	2.8	
1230	12.89	0.125	1.82	6.60	21.75	442	243.8	1.73	3.2	
1235	12.90	0.125	2.64	6.59	21.85	444	210.3	1.91	3.0	
1240	12.90	0.125	3.26	6.59	21.96	446	165.0	1.85	2.8	
1245	12.91	0.125	3.88	6.59	22.01	447	131.4	1.98	2.7	
1250	12.91	0.125	4.50	6.58	22.01	447	108.9	1.69	2.6	
1255	12.91	0.125	5.12	6.58	22.03	448	95.2	1.85	2.3	
1300	12.90	0.125	5.74	6.59	21.94	446	84.2	2.00	2.4	
1305	12.91	0.125	6.36	6.61	21.80	445	76.3	1.78	3.4	
1310	12.92	0.125	6.98	6.59	21.88	446	69.3	2.06	2.6	
1315	12.90	0.125	7.60	6.57	21.98	447	65.9	1.72	2.2	
1320	12.89	0.125	8.22	6.60	22.18	449	61.4	1.70	2.7	
1325	12.89	0.125	8.84	6.59	22.34	451	58.3	1.88	2.6	
1328	samples taken									

Observations

Color: (Clear) Other (describe): Clear

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

Notes:

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

GROUNDWATER FIELD SAMPLING DATA SHEET

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Well No : WITCTA043	Location: NAS Fort Worth JRB, Texas
Sampler (s) K. Duran, C. Donahue	Project Name: April 2001 Semi-Annual Sampling
Well Depth: 19.08	Project #: AFC001-33DAA · Date: 4/5/01, Time: 933
DTW (ft): 12.02 DTP (ft): NA	Courier: _X_FedEx ___UPS ___Hand ___Othe
MP Ht. Above/Below GS: -0.11	Sampling Method : Low Flow
Condition of Bottom of Well	Type of Pump: Bladder
Screen Interval (ft): 9.5 - 19.5	Weather (sun/clear, overcast/rain, wind direction, ambient temperature): Calm 75°
Well Diameter (in) 2	
Placement of Pump Inlet (ft): 15.55'	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/min)	Total Volume (L)	pH	Temp (C)	Cond (umhos/cm)	ORP (mv)	DO (mg/L)	Turb (NTU)	Type, Size, and Amount of Sediment Discharged
933	12.03	.06	0	6.35	20.9	536	317	0.01	11.8	
938	12.03	.06	.30	6.5	20.5	537	309	0.01	13.7	
943	12.00	0.08	0.70	6.6	20.9	537	303	.01	17.3	
948	12.00	.08	1.1	6.6	20.6	538	301	.01	21.3	
953	11.98	.08	1.5	6.6	20.6	538	300	.01	21.2	
958	11.98	.11	1.9	6.6	20.6	538	299	.01	21.4	
1003	11.98	.11	2.45	6.6	20.6	537	297	.01	19.6	
1008	11.98	.11	3.0	6.6	20.6	539	296	.01	19.1	
1013	11.98	.11	3.55	6.6	20.7	540	295	.01	16.7	
1018	11.99	.11	4.1	6.7	20.8	541	293	.01	15.6	
1023	11.99	.11	4.65	6.7	21.7	544	290	.01	14.2	
1028	11.99	.11	5.2	6.7	21.2	546	288	.01	13.7	
1033	11.99	.11	5.75	6.7	21.2	546	286	.01	13.4	
1038	11.99	.11	6.3	6.7	21.5	549	285	.01	11.9	
1043	11.99	.11	6.85	6.7	21.8	555	282	0.01	10.9	
1048	11.99	.11	7.4	6.6	22.0	555	282	01	10.2	

Observations

Color: Clear Other (describe): Clear

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

Notes: D.O. may be erroneous due to high cond. values (well W/stand low battery power - rental unit from QED).

Signed/Sampler(s): [illegible]

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GROUNDWATER FIELD SAMPLING DATA SHEET

Well No.: WITCTA043	Location: NAS Fort Worth JRB, Texas
Sampler (s) K. Orr, C. Drake	Project Name: April 2001 Semi-Annual Sampling
Well Depth: 19.08	Project #: AFC001-33DAA Date: 4/3/01 Time: 933
DTW (ft): 12.02 DTP (ft): NA	Courier: _X_FedEx ___UPS ___Hand ___Other
MP Ht. Above/Below GS: -0.11	Sampling Method : Low Flow
Condition of Bottom of Well	Type of Pump: Bladder
Screen Interval (ft): 9.5 - 19.5	Weather (sun/clear, overcast/rain, wind direction, ambient temperature): Calm 75°F
Well Diameter (in) 2	
Placement of Pump Inlet (ft): 15.5'	

Field Parameters

Time	Depth to Water (ft)	Flow Rate (L/min)	Total Volume (L)	pH	Temp (C)	Cond (umhos/cm)	ORP (mv)	DO (mg/L)	Turb (NTU)	Type, Size, and Amount of Sediment Discharged
1053	11.99	.11	7.95	6.7	21.8	555	276	.01	9.9	
1058	11.99	.11	8.5	6.7	22.0	556	272	.01	7.5	
1103	11.99	.11	9.05	6.7	22.0	556	274	.01	7.8	
1107	Collect	sample								

Observations

Color: Clear Other (describe): Clear

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

Notes:

Signed/Sampler(s): [illegible]

APPENDIX A.4

FIELD SAMPLING REPORTS

HYDRO GeoLogic INC

FIELD SAMPLING REPORT

616 2·20

LOCATION: NAS Fort Worth JRB, Texas

PROJECT NAME: April 2001 Semi-Annual Sampling

SITE: _____

PROJECT NAME: AFC001-33DAA

SAMPLE INFORMATION

SAMPLE ID GMI-22-06MWG14

DATE: 3/27/01 TIME: 1613

MATRIX TYPE: WG

SAMPLING METHOD: Low Flow

LOT CONTROL #: 0 0 1 A

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

CHAIN-OF-CUSTODY #:

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): TB032701

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	0.0	COLOR: Clear	
2nd	D	ODOR: None	
		OTHER:	

pH 7.2 Temperature 14.5 (C) Dissolved Oxygen 0.82 (mg/L) Conductivity 769 (umhos/cm)

Iron NA (mg/L) Oxidation/Reduction Potential 89.9 (mv) Turbidity 9.10 (NTU)

GENERAL INFORMATION

WEATHER SUN/CLEAR _____ OVERCAST/RAIN ✓ WIND DIRECTION E AMBIENT TEMPERATURE 49°F

SHIPMENT VIA FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO. STL -Chicago

COMMENTS

SAMPLER. A. Kurst OBSERVER. K. Duran

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDG	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WAST	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZARDOUS SOLID WAST	WS=SURFACE WATE	CS=COMPOSITE SAMPLE	HP=HYDRO PUNC
SE=SEDIMENT	SW=SWAB/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: _____

PROJECT NAME: April 2001 Semi-Annual Sampling

PROJECT NAME. AFC001-33DAA

SAMPLE INFORMATION

SAMPLE ID GMI-22-07MWG14

DATE: 3-27-01 TIME: 1025

MATRIX TYPE: WG

SAMPLING METHOD: Low Flow

LOT CONTROL #: 0 0 1 A

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

CHAIN-OF-CUSTODY #:

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): GMI-22-07MWG14MS

MATRIX SPIKE DUP (SD) GMI-22-07MWG14MSD

FIELD DUP (FD): —

AMBIENT BLANK (AB): —

EQUIPMENT BLANK (EB): —

TRIP BLANK (TB): TB032701

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 0.0 ppm	COLOR: Clear	
2nd 0.0 ppm	ODOR: none	
	OTHER.	

pH 6.97 Temperature 14.14 (C) Dissolved Oxygen 4.72 (mg/L) Conductivity 621 (umhos/cm)

Iron N/A (mg/L) Oxidation/Reduction Potential 326.4 (mv) Turbidity 10.45 (NTU)

GENERAL INFORMATION

WEATHER SUN/CLEAR _____ OVERCAST/RAIN X WIND DIRECTION E AMBIENT TEMPERATURE 40°

SHIPMENT VIA. FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO: STL -Chicago

COMMENTS

SAMPLER J. Wallace OBSERVER _____

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

AFCEE FORM SR 11

HYDRO GeoLogic INC

FIELD SAMPLING REPORT

LOCATION: NAS Fort Worth JRB, Texas
PROJECT NAME: April 2001 Semi-Annual Sampling
SITE: _____
PROJECT NAME: AFC001-33DAA

SAMPLE INFORMATION

SAMPLE ID GMI-22-07MWG14MS
DATE: 3-27-01 TIME: 1025

MATRIX TYPE: WG
SAMPLING METHOD. Low Flow
LOT CONTROL #: 0 2 1 A
(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler
CHAIN-OF-CUSTODY #:

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) GMI-22-07m
MATRIX SPIKE DUP (SD) GMI-22-07m
FIELD DUP (FD) —
AMBIENT BLANK (AB) —
EQUIPMENT BLANK (EB) —
TRIP BLANK (TB) TB032701

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
1st 0.0 ppm
2nd 0.0 ppm

SAMPLE CHARACTERISTICS
COLOR: clear
ODOR: none
OTHER

MISCELLANEOUS

pH 6.97 Temperature 14.14 (C) Dissolved Oxygen 4.72 (mg/L) Conductivity 621 (umhos/cm)
Iron N/A (mg/L) Oxidation/Reduction Potential 326.4 (mv) Turbidity 10.45 (NTU)

GENERAL INFORMATION

WEATHER SUN/CLEAR _____ OVERCAST/RAIN X WIND DIRECTION E AMBIENT TEMPERATURE 40°
SHIPMENT VIA FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____
SHIPPED TO: STL -Chicago
COMMENTS
SAMPLER: J. Wallau OBSERVER _____

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDG	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WAST	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZARDOUS SOLID WAST	WS=SURFACE WATE	CS=COMPOSITE SAMPLE	HP=HYDRO PUNC
SE=SEDIMENT	SW=SWAB/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 NAME: April 2001 Semi-Annual Sampling

SITE: _____

PROJECT NAME: AFC001-33DAA

SAMPLE INFORMATION

SAMPLE ID GMI-22-07MWG14MSD

DATE: 3-27-01 TIME: 1025

MATRIX TYPE. WG

SAMPLING METHOD: Low Flow

LOT CONTROL #: 0 0 1 A

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

CHAIN-OF-CUSTODY #:

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) GMI-22-07m

MATRIX SPIKE DUP (SD) GMI-22-07m

FIELD DUP (FD) —

AMBIENT BLANK (AB) —

EQUIPMENT BLANK (EB) —

TRIP BLANK (TB) TB032701

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

1st 0.0ppm

2nd 0.0ppm

SAMPLE CHARACTERISTICS

COLOR: clear

ODOR: none

OTHER:

MISCELLANEOUS

pH 6.97 Temperature 14.14 (C) Dissolved Oxygen 4.72 (mg/L) Conductivity 621 (umhos/cm)

Iron N/A (mg/L) Oxidation/Reduction Potential 326.4 (mv) Turbidity 10.45 (NTU)

GENERAL INFORMATION

WEATHER SUN/CLEAR _____ OVERCAST/RAIN x WIND DIRECTION E AMBIENT TEMPERATURE 40°

SHIPMENT VIA. FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO STL -Chicago

COMMENTS

SAMPLER J. WALLACE OBSERVER _____

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDG	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WAST	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZARDOUS SOLID WAST	WS=SURFACE WATE	CS=COMPOSITE SAMPLE	HP=HYDRO PUNC
SE=SEDIMENT	SW=SWAB/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 NAME April 2001 Semi-Annual Sampling

SITE: _____

PROJECT NAME: AFC001-33DAA

SAMPLE INFORMATION

SAMPLE ID HM-114WG14

DATE: 4/10/01 TIME: 0918

MATRIX TYPE: WG

SAMPLING METHOD: Low Flow

LOT CONTROL #: 0 1 1 A

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

CHAIN-OF-CUSTODY #:

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) EB041001

TRIP BLANK (TB): TB041001

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	0.0	COLOR.	CLEAR	
2nd	0.0	ODOR	NONE	
		OTHER:		

pH 6.63 Temperature 21.15 (C) Dissolved Oxygen 5.60 (mg/L) Conductivity 357.00 (~~umhos~~ mS/cm)

Iron NA (mg/L) Oxidation/Reduction Potential 312.1 (mv) Turbidity 8.2 (NTU)

GENERAL INFORMATION

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

SHIPMENT VIA: FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO: STL -Chicago

COMMENTS.

SAMPLER AT KENT DURAN OBSERVER. ADAM KARST

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDG	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WAST	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZARDOUS SOLID WAST	WS=SURFACE WATE	CS=COMPOSITE SAMPLE	HP=HYDRO PUNC
SE=SEDIMENT	SW=SWAB/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: _____
PROJECT NAME: April 2001 Semi-Annual Sampling
PROJECT NAME. AFC001-33DAA

SAMPLE INFORMATION

SAMPLE ID HM-116WG14
DATE: 4/3/01 TIME: 1437
MATRIX TYPE: WG
SAMPLING METHOD: Low Flow
LOT CONTROL #: 0 0 L A
(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler
CHAIN-OF-CUSTODY #:
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) TB040301

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
1 L poly	1	Cool to 4C/HNO3 pH<2	SW6010B/SW7471	Total Metals + Hg
40 mL VOA	3	Cool to 4C/HCl to pH<2	SW8260B	VOCs

NOTABLE OBSERVATIONS

PID READINGS
1st 0.4 ppm
2nd 0 ppm

SAMPLE CHARACTERISTICS
COLOR: clear
ODOR. none
OTHER.

MISCELLANEOUS

pH 6.65 Temperature 21.84 (C) Dissolved Oxygen 4.12 (mg/L) Conductivity 338 (umhos/cm)
Iron N/A (mg/L) Oxidation/Reduction Potential 204.2 (mv) Turbidity 1.84 (NTU)

GENERAL INFORMATION

WEATHER SUN/CLEAR ____ OVERCAST/RAIN ✓ WIND DIRECTION S AMBIENT TEMPERATURE 70°
SHIPMENT VIA. FEDEX x HAND DELIVER ____ COURIER ____ OTHER ____
SHIPPED TO STL -Chicago
COMMENTS
SAMPLER A. Karst OBSERVER: J. Wallace

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

AFCEE FORM SR 11

HYDRO GeoLogic INC

FIELD SAMPLING REPORT

LOCATION: NAS Fort Worth JRB, Texas
PROJECT NAME: April 2001 Semi-Annual Sampling
SITE: _____
PROJECT NAME: AFC001-33DAA

SAMPLE INFORMATION

SAMPLE ID HM-123WG14
DATE: 4/2/01 TIME: 0935
MATRIX TYPE: WG
SAMPLING METHOD: Low Flow
LOT CONTROL #: 0 0 1 A
(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler
CHAIN-OF-CUSTODY #:
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). TB040201

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, Ethene, Ethane
40 mL VOA	3	Cool to 4C/HCl to pH<2	SW8260B	VOCs
00 mL poly	1	Cool to 4C/H2SO4	SW9060	TOC

NOTABLE OBSERVATIONS

PID READINGS	SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st 2.9 ppm	COLOR: Clear	
2nd 0 ppm	ODOR: none	
	OTHER:	

pH 6.51 Temperature 19.79 (C) Dissolved Oxygen 1.39 (mg/L) Conductivity 444 (umhos/cm)
Iron 0 (mg/L) Oxidation/Reduction Potential 250.2 (mv) Turbidity 1.22 (NTU)

GENERAL INFORMATION

WEATHER. SUN/CLEAR _____ OVERCAST/RAIN X WIND DIRECTION S AMBIENT TEMPERATURE 65°
SHIPMENT VIA: FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____
SHIPPED TO STL -Chicago
COMMENTS
SAMPLER: A. Karst OBSERVER J. Wallace

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDG	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WAST	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZARDOUS SOLID WAST	WS=SURFACE WATE	CS=COMPOSITE SAMPLE	HP=HYDRO PUNC
SE=SEDIMENT	SW=SWAB/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 NAME: April 2001 Semi-Annual Sampling

SITE: _____

PROJECT NAME: AFC001-33DAA

SAMPLE INFORMATION

SAMPLE ID HM-126WG14

DATE: 4/3/01 TIME: 1644

MATRIX TYPE: WG

SAMPLING METHOD: Low Flow

LOT CONTROL #: 0 1 1 A

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

CHAIN-OF-CUSTODY #:

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): EB040301

TRIP BLANK (TB): TB040301

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: Clear	
2nd	ODOR: none	
	OTHER:	

pH 6.47 Temperature 26.59 (C) Dissolved Oxygen 3.21 (mg/L) Conductivity 291 (umhos/cm)

Iron N/A (mg/L) Oxidation/Reduction Potential 259.6 (mv) Turbidity _____ (NTU)

GENERAL INFORMATION

WEATHER: (SUN)/CLEAR Partly sunny OVERCAST/RAIN _____ WIND DIRECTION South AMBIENT TEMPERATURE

SHIPMENT VIA FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO STL -Chicago

COMMENTS

SAMPLER: Kent Duran OBSERVER C. Donohue

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDG	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WAST	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZARDOUS SOLID WAST	WS=SURFACE WATE	CS=COMPOSITE SAMPLE	HP=HYDRO PUNC
SE=SEDIMENT	SW=SWAB/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 NAME: April 2001 Semi-Annual Sampling

SITE: _____

PROJECT NAME: AFC001-33DAA

SAMPLE INFORMATION

SAMPLE ID ITMW-01TWG14

DATE: 4/2/01 TIME: 1109

MATRIX TYPE: WG

SAMPLING METHOD: Low Flow

LOT CONTROL #: 0 0 1 A

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

CHAIN-OF-CUSTODY #.

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) TB040201

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, Ethene, Ethane
1 L poly	1	Cool to 4C/HNO3 pH<2	SW6010B/SW7471	Total Metals + Hg
40 mL VOA	3	Cool to 4C/HCl to pH<2	SW8260B	VOCs
500 mL poly	1	Cool to 4C/H2SO4	SW9060	TOC

NOTABLE OBSERVATIONS

PID READINGS	SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st 7.4 ppm	COLOR: clear	
2nd 0.0 ppm	ODOR: none	
	OTHER	

pH 6.46 Temperature 19.05 (C) Dissolved Oxygen 2.20 (mg/L) Conductivity 679 (umhos/cm)

Iron 0 (mg/L) Oxidation/Reduction Potential 202.6 (mv) Turbidity 2.21 (NTU)

GENERAL INFORMATION

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

SHIPMENT VIA FEDEX x HAND DELIVER ____ COURIER ____ OTHER ____

SHIPPED TO STL -Chicago

COMMENTS

SAMPLER: A. Karst OBSERVER J. Wallace

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDG	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WAST	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZARDOUS SOLID WAST	WS=SURFACE WATE	CS=COMPOSITE SAMPLE	HP=HYDRO PUNC
=SEDIMENT	SW=SWAB/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 NAME: April 2001 Semi-Annual Sampling

SITE: _____

PROJECT NAME: AFC001-33DAA

SAMPLE INFORMATION

SAMPLE ID LF03-3DWG14

DATE: 3/27/01 TIME: 0930

MATRIX TYPE: WG

SAMPLING METHOD: Low Flow

LOT CONTROL #. 0 0 1 A

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

CHAIN-OF-CUSTODY #:

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) TB032701

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
1 L poly	1	Cool to 4C/HNO3 pH<2	SW6010B	Chromium
40 mL VOA	3	Cool to 4C/HCl to pH<2	SW8260B	VOCs

NOTABLE OBSERVATIONS

PID READINGS		SAMPLE CHARACTERISTICS		MISCELLANEOUS
1st	0.0	COLOR	CLEAR	
2nd		ODOR.	NONE	
		OTHER.		

pH 6.98 Temperature 14.80 (C) Dissolved Oxygen 2.80 (mg/L) Conductivity 989.0 (~~umhos~~ mS/cm)

Iron NA (mg/L) Oxidation/Reduction Potential 310.0 (mv) Turbidity 2.6 (NTU)

GENERAL INFORMATION

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

SHIPMENT VIA FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO STL -Chicago

COMMENTS

SAMPLER ADAM KARST OBSERVER. K. Duran

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDG	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WAST	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZARDOUS SOLID WAST	WS=SURFACE WATE	CS=COMPOSITE SAMPLE	HP=HYDRO PUNC
SE=SEDIMENT	SW=SWAB/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 NAME: April 2001 Semi-Annual Sampling

SITE: _____

PROJECT NAME: AFC001-33DAA

SAMPLE INFORMATION

SAMPLE ID LF04-02WG14

DATE: 8/26/01 TIME: ~~3/26/01~~ 1120

MATRIX TYPE: WG

SAMPLING METHOD: Low Flow

LOT CONTROL #: 0 0 1 A

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

CHAIN-OF-CUSTODY #:

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) DUP02

AMBIENT BLANK (AB) —

EQUIPMENT BLANK (EB) —

TRIP BLANK (TB) TB032601

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 0.0 ppm	COLOR: clear	
2nd 0.0 ppm	ODOR: none	
	OTHER.	

pH 7.08 Temperature 17.15 (C) Dissolved Oxygen 1.31 (mg/L) Conductivity 458 (umhos/cm)

Iron N/A (mg/L) Oxidation/Reduction Potential 250.3 (mv) Turbidity 0.66 (NTU)

GENERAL INFORMATION

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

SHIPMENT VIA. FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO STL -Chicago

COMMENTS.

SAMPLER: J. Wallace OBSERVER _____

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDG	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WAST	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZARDOUS SOLID WAST	WS=SURFACE WATE	CS=COMPOSITE SAMPLE	HP=HYDRO PUNC
SE=SEDIMENT	SW=SWAB/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 NAME: April 2001 Semi-Annual Sampling

SITE. _____ PROJECT NAME: AFC001-33DAA

SAMPLE INFORMATION

SAMPLE ID DUP02WG14 DATE. 3/26/01 TIME: 1200

MATRIX TYPE: WG

SAMPLING METHOD: Low Flow

LOT CONTROL #: 0 0 1 A

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

CHAIN-OF-CUSTODY #:

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) LF04-02WG14

AMBIENT BLANK (AB). —

EQUIPMENT BLANK (EB) —

TRIP BLANK (TB) TB032601

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 7.08 Temperature 17.15 (C) Dissolved Oxygen 1.31 (mg/L) Conductivity 458 (umhos/cm)

Iron — (mg/L) Oxidation/Reduction Potential 282.3 (mv) Turbidity 0.66 (NTU)

GENERAL INFORMATION

WEATHER SUN/CLEAR _____ OVERCAST/RAIN X WIND DIRECTION N AMBIENT TEMPERATURE 45°

SHIPMENT VIA. FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO STL -Chicago

COMMENTS

SAMPLER J. Wallace OBSERVER _____

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

HYDRO GeoLogic INC

FIELD SAMPLING REPORT

616 232

LOCATION: NAS Fort Worth JRB, Texas

PROJECT NAME: April 2001 Semi-Annual Sampling

SITE: _____

PROJECT NAME: AFC001-33DAA

SAMPLE INFORMATION

SAMPLE ID LF05-01WG14

DATE: 8/20/01 TIME: 1230

MATRIX TYPE: WG

SAMPLING METHOD: Low Flow

LOT CONTROL #: 0 1 1 A

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

CHAIN-OF-CUSTODY #.

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) TB032701

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	0.0	COLOR: CLEAR	
2nd		ODOR. NONE	
		OTHER:	

pH 7.17 Temperature 14.89 (C) Dissolved Oxygen 0.67 (mg/L) Conductivity 867.00 (umhos/cm) NS

Iron NA (mg/L) Oxidation/Reduction Potential 88.5 (mv) Turbidity 14.8 (NTU)

GENERAL INFORMATION

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

SHIPMENT VIA. FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO STL -Chicago

COMMENTS

SAMPLER ADAM KARST OBSERVER. [signature]

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDG	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WAST	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZARDOUS SOLID WAST	WS=SURFACE WATE	CS=COMPOSITE SAMPLE	HP=HYDRO PUNC
SE=SEDIMENT	SW=SWAB/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 NAME: April 2001 Semi-Annual Sampling

SITE: _____

PROJECT NAME: AFC001-33DAA

SAMPLE INFORMATION

SAMPLE ID LF05-02WG14

DATE: 4/2/01 TIME: 1714

MATRIX TYPE: WG

SAMPLING METHOD: Low Flow

LOT CONTROL #: 0 1 1 4

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

CHAIN-OF-CUSTODY #:

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). EB040201

TRIP BLANK (TB) TB040201

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	0.0	COLOR.	
2nd		ODOR:	
		OTHER:	

pH 6.2 Temperature 22.0(C) Dissolved Oxygen 1.02 (mg/L) Conductivity 565 (umhos/cm)

Iron — (mg/L) Oxidation/Reduction Potential -74 (mv) Turbidity 4.0 (NTU)

GENERAL INFORMATION

WEATHER SUN/CLEAR ✓ OVERCAST/RAIN _____ WIND DIRECTION S/SE AMBIENT TEMPERATURE 80°F

SHIPMENT VIA FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO STL -Chicago

COMMENTS

SAMPLER C. Donohue OBSERVER K. Duran

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

HYDRO GeoLogic INC

FIELD SAMPLING REPORT

616 234

LOCATION: NAS Fort Worth JRB, Texas

PROJECT NAME: April 2001 Semi-Annual Sampling

SITE: _____

PROJECT NAME: AFC001-33DAA

SAMPLE INFORMATION

SAMPLE ID LF05-19WG14

DATE: 3/26/01 TIME: 1310

MATRIX TYPE: WG

SAMPLING METHOD: Low Flow

LOT CONTROL #. 0 0 1 A

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

CHAIN-OF-CUSTODY #:

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) TB032601

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 2.9 ppm	COLOR: clear	
2nd 0.0 ppm	ODOR none	
	OTHER.	

pH 7.30 Temperature 18.32 (C) Dissolved Oxygen 6.90 (mg/L) Conductivity 509 (umhos/cm)

Iron N/A (mg/L) Oxidation/Reduction Potential 246.4 (mv) Turbidity 3.21 (NTU)

GENERAL INFORMATION

WEATHER. SUN/CLEAR _____ OVERCAST/RAIN x WIND DIRECTION N AMBIENT TEMPERATURE 58°

SHIPMENT VIA FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO. STL -Chicago

COMMENTS

SAMPLER J. Wallace OBSERVER: _____

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDG	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WAST	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZARDOUS SOLID WAST	WS=SURFACE WATE	CS=COMPOSITE SAMPLE	HP=HYDRO PUNC
SE=SEDIMENT	SW=SWAB/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 NAME: April 2001 Semi-Annual Sampling
SITE: _____
PROJECT NAME: AFC001-33DAA

SAMPLE INFORMATION

SAMPLE ID LF05-5GWG14
DATE: 4/2/01 TIME: 1221

MATRIX TYPE: WG
SAMPLING METHOD: Low Flow
LOT CONTROL #: 0 0 1 A
(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler
CHAIN-OF-CUSTODY #:
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) TB040201

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, Ethene, Ethane
40 mL VOA	3	Cool to 4C/HCl to pH<2	SW8260B	VOCs
500 mL poly	1	Cool to 4C/H2SO4	SW9060	TOC

NOTABLE OBSERVATIONS

PID READINGS
1st 0.0 ppm
2nd 0.0 ppm

SAMPLE CHARACTERISTICS
COLOR: clear
ODOR: none
OTHER:

MISCELLANEOUS

pH 6.60 Temperature 20.00 (C) Dissolved Oxygen 4.64 (mg/L) Conductivity 555 (umhos/cm)
Iron D (mg/L) Oxidation/Reduction Potential 209.1 (mv) Turbidity 0.78 (NTU)

GENERAL INFORMATION

WEATHER. SUN/CLEAR _____ OVERCAST/RAIN X WIND DIRECTION S AMBIENT TEMPERATURE 70°
SHIPMENT VIA FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____
SHIPPED TO STL -Chicago
COMMENTS.
SAMPLER A. Karst OBSERVER J. Wallace

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

HYDRO GeoLogic INC

FIELD SAMPLING REPORT

616 236

LOCATION: NAS Fort Worth JRB, Texas

PROJECT NAME: April 2001 Semi-Annual Sampling

SITE: _____

PROJECT NAME: AFC001-33DAA

SAMPLE INFORMATION

SAMPLE ID MW-53WG14

DATE: 3/26/01 TIME: 1445

MATRIX TYPE: WG

SAMPLING METHOD: Low Flow

LOT CONTROL #: 0 0 1 A

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

CHAIN-OF-CUSTODY #:

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) TB032601

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	0.0 ppm	COLOR:	clear	
2nd	0.0 ppm	ODOR:	none	
		OTHER:		

pH 7.59 Temperature 15.86 (C) Dissolved Oxygen 5.58 (mg/L) Conductivity 400 (umhos/cm)

Iron N/A (mg/L) Oxidation/Reduction Potential 233.4 (mv) Turbidity 2.61 (NTU)

GENERAL INFORMATION

WEATHER: SUN/CLEAR _____ OVERCAST/RAIN X WIND DIRECTION N AMBIENT TEMPERATURE 50°

SHIPMENT VIA FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO. STL -Chicago

COMMENTS:

SAMPLER J. Wallace OBSERVER. _____

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDG	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WAST	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZARDOUS SOLID WAST	WS=SURFACE WATE	CS=COMPOSITE SAMPLE	HP=HYDRO PUNC
SE=SEDIMENT	SW=SWAB/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: _____

PROJECT NAME April 2001 Semi-Annual Sampling

PROJECT NAME. AFC001-33DAA

SAMPLE INFORMATION

SAMPLE ID SPOT35-5WG14

DATE: 4/3/01 TIME: 1025

MATRIX TYPE: WG

SAMPLING METHOD: Low Flow

LOT CONTROL #: 0 0 1 A

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

CHAIN-OF-CUSTODY #:

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): TB040301

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 24	COLOR slightly cloudy	
2nd 0	ODOR slight petroleum	
	OTHER:	

pH 6.43 Temperature 21.56 (C) Dissolved Oxygen 0.85 (mg/L) Conductivity 572 (umhos/cm)

Iron N/A (mg/L) Oxidation/Reduction Potential -124.1 (mv) Turbidity 9.18 (NTU)

GENERAL INFORMATION

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

SHIPMENT VIA FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO STL -Chicago

COMMENTS

SAMPLER A. Karst OBSERVER J. Wallace

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

HYDRO GeoLogic INC

FIELD SAMPLING REPORT

616 238

LOCATION: NAS Fort Worth JRB, Texas

PROJECT NAME. April 2001 Semi-Annual Sampling

SITE: _____

PROJECT NAME· AFC001-33DAA

SAMPLE INFORMATION

SAMPLE ID ST14-03WG14

DATE: 4/2/01 TIME: 1648

MATRIX TYPE: WG

SAMPLING METHOD: Low Flow

LOT CONTROL #. D O L A

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

CHAIN-OF-CUSTODY #:

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) TB0Y0201

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	0	COLOR. reddish particles	
2nd	0	ODOR. ~~none~~ slight petroleum	
		OTHER.	

pH 6.78 Temperature 26.09 (C) Dissolved Oxygen 2.37 (mg/L) Conductivity .358 (umhos/cm)

Iron N/A (mg/L) Oxidation/Reduction Potential 120.5 (mv) Turbidity 20.8 (NTU)

GENERAL INFORMATION

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

SHIPMENT VIA FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO· STL -Chicago

COMMENTS

SAMPLER. A. Karst OBSERVER· J. Wallace

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDG	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WAST	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZARDOUS SOLID WAST	WS=SURFACE WATE	CS=COMPOSITE SAMPLE	HP=HYDRO PUNC
SE=SEDIMENT	SW=SWAB/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 NAME: April 2001 Semi-Annual Sampling
SITE: _____
PROJECT NAME: AFC001-33DAA

SAMPLE INFORMATION

SAMPLE ID USGS04TWG14
DATE: 4/5/01 TIME: 1618

MATRIX TYPE: WG

SAMPLING METHOD: Low Flow

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

CHAIN-OF-CUSTODY #:

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) EB040501
TRIP BLANK (TB) TB040501

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
1st 0
2nd 0

SAMPLE CHARACTERISTICS
COLOR: clear
ODOR: low sulfur
OTHER.

MISCELLANEOUS

pH 6.83 Temperature 18.85 (C) Dissolved Oxygen 0.57 (mg/L) Conductivity 451 (umhos/cm)
Iron N/A (mg/L) Oxidation/Reduction Potential -92 (mv) Turbidity 1.83 (NTU)

GENERAL INFORMATION

WEATHER SUN/CLEAR _____ OVERCAST/RAIN X WIND DIRECTION S AMBIENT TEMPERATURE 85°

SHIPMENT VIA. FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO. STL -Chicago

COMMENTS
SAMPLER. A. Karst OBSERVER J. Wallau

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

HYDRO GeoLogic INC

FIELD SAMPLING REPORT

616 240

LOCATION: NAS Fort Worth JRB, Texas

PROJECT NAME: April 2001 Semi-Annual Sampling

SITE: _____

PROJECT NAME: AFC001-33DAA

SAMPLE INFORMATION

SAMPLE ID USGS07TWG14

DATE: 4/4/01 TIME: 1012

MATRIX TYPE: WG

SAMPLING METHOD. Low Flow

LOT CONTROL #. 0 0 1 A

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

CHAIN-OF-CUSTODY #:

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). TB040401

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, Ethene, Ethane
1 L poly	1	Cool to 4C/HNO3 pH<2	SW6010B/SW7471	Total Metals + Hg (serial dilution)
40 mL VOA	3	Cool to 4C/HCl to pH<2	SW8260B	VOCs
500 mL poly	1	Cool to 4C/H2SO4	SW9060	TOC

NOTABLE OBSERVATIONS

PID READINGS

1st 0 ppm

2nd 0 ppm

SAMPLE CHARACTERISTICS

COLOR: Clear

ODOR: none

OTHER.

MISCELLANEOUS

pH 8.04 Temperature 18.52 (C) Dissolved Oxygen 7.18 (mg/L) Conductivity 220 (umhos/cm)

Iron _____ (mg/L) Oxidation/Reduction Potential 276.8 (mv) Turbidity 4.06 (NTU)

GENERAL INFORMATION

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

SHIPMENT VIA FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO STL -Chicago

COMMENTS

SAMPLER: A. Karst OBSERVER: J. Wallace

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDG	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WAST	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZARDOUS SOLID WAST	WS=SURFACE WATE	CS=COMPOSITE SAMPLE	HP=HYDRO PUNC
SEDIMENT	SW=SWAB/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 NAME: April 2001 Semi-Annual Sampling
SITE: _____
PROJECT NAME: AFC001-33DAA

SAMPLE INFORMATION

SAMPLE ID W-153WG14
DATE: 4/3/01 TIME: 1330
MATRIX TYPE: WG
SAMPLING METHOD: Low Flow
LOT CONTROL #: 0 0 1 A
(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler
CHAIN-OF-CUSTODY #:
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) TB040301

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, Ethene, Ethane
40 mL VOA	3	Cool to 4C/HCl to pH<2	SW8260B	VOCs
500 mL poly	1	Cool to 4C/H2SO4	SW9060	TOC

NOTABLE OBSERVATIONS

PID READINGS	SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st 3 ppm	COLOR Clear	
2nd 0.0 ppm	ODOR None	
	OTHER.	

pH 6.54 Temperature 21.68 (C) Dissolved Oxygen 3.96 (mg/L) Conductivity 317 (umhos/cm)
Iron _____ (mg/L) Oxidation/Reduction Potential 173.2 (mv) Turbidity 8.65 (NTU)

GENERAL INFORMATION

WEATHER SUN/CLEAR _____ OVERCAST/RAIN X WIND DIRECTION S AMBIENT TEMPERATURE 70°
SHIPMENT VIA FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____
SHIPPED TO STL -Chicago
COMMENTS
SAMPLER A. Karst OBSERVER J. Wallace

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

AFCEE FORM SR.11

HYDRO GeoLogic INC

FIELD SAMPLING REPORT

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LOCATION: NAS Fort Worth JRB, Texas
PROJECT NAME: April 2001 Semi-Annual Sampling
SITE: _____
PROJECT NAME: AFC001-33DAA

SAMPLE INFORMATION

SAMPLE ID WCHMHTA006WG14
DATE: 4/4/01 TIME: 1520

MATRIX TYPE: WG

SAMPLING METHOD: Low Flow

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

CHAIN-OF-CUSTODY #:

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) EB040401
TRIP BLANK (TB) TB040401

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 0 ppm	COLOR: clear	
2nd 0 ppm	ODOR: none	
	OTHER:	

pH 7.69 Temperature 23.16 (C) Dissolved Oxygen 4.57 (mg/L) Conductivity 287 (umhos/cm)
Iron N/A (mg/L) Oxidation/Reduction Potential 220.7 (mv) Turbidity 5.79 (NTU)

GENERAL INFORMATION

WEATHER: SUN/CLEAR _____ OVERCAST/RAIN X WIND DIRECTION S AMBIENT TEMPERATURE 85°

SHIPMENT VIA. FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO: STL -Chicago

COMMENTS
SAMPLER. A. Karst OBSERVER. J. Wallace

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDG	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WAST	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZARDOUS SOLID WAST	WS=SURFACE WATE	CS=COMPOSITE SAMPLE	HP=HYDRO PUNC
SE=SEDIMENT	SW=SWAB/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 NAME: April 2001 Semi-Annual Sampling
SITE: _____
PROJECT NAME: AFC001-33DAA

SAMPLE INFORMATION

SAMPLE ID WCHMHTA008WG14
DATE: 4/5/01 TIME: 0949

MATRIX TYPE: WG

SAMPLING METHOD: Low Flow

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

CHAIN-OF-CUSTODY #:

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). EB040501
TRIP BLANK (TB) TB040501

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 0 ppm	COLOR: clear	
2nd 0 ppm	ODOR: medium hydrocarbon	
	OTHER:	

pH 6.70 Temperature 19.45 (C) Dissolved Oxygen 0.83 (mg/L) Conductivity 1017 (umhos/cm)

Iron N/A (mg/L) Oxidation/Reduction Potential 114.1 (mv) Turbidity 9.7 (NTU)

GENERAL INFORMATION

WEATHER SUN/CLEAR _____ OVERCAST/RAIN X WIND DIRECTION S AMBIENT TEMPERATURE 75

SHIPMENT VIA FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO: STL -Chicago

COMMENTS:

SAMPLER: A. Karst OBSERVER J. Wallace

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDG	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WAST	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZARDOUS SOLID WAST	WS=SURFACE WATE	CS=COMPOSITE SAMPLE	HP=HYDRO PUNC
SE=SEDIMENT	SW=SWAB/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 NAME: April 2001 Semi-Annual Sampling

SITE: _____

PROJECT NAME: AFC001-33DAA

SAMPLE INFORMATION

SAMPLE ID WCHMHTA009WG14

DATE: 4/4/01 TIME: 1332

MATRIX TYPE: WG

SAMPLING METHOD: Low Flow

LOT CONTROL #: 0 1 1 A

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

CHAIN-OF-CUSTODY #:

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): DUP04WG14

AMBIENT BLANK (AB): —

EQUIPMENT BLANK (EB). EB040401

TRIP BLANK (TB) TB040401

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	0	COLOR: clear	
2nd	0	ODOR. none	
		OTHER:	

pH 7.72 Temperature 19.58 (C) Dissolved Oxygen 6.73 (mg/L) Conductivity 282 (umhos/cm)

Iron N/A (mg/L) Oxidation/Reduction Potential 154.9 (mv) Turbidity 1.64 (NTU)

GENERAL INFORMATION

WEATHER. SUN/CLEAR _____ OVERCAST/RAIN X WIND DIRECTION S AMBIENT TEMPERATURE 80°

SHIPMENT VIA. FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO: STL -Chicago

COMMENTS.

SAMPLER A. Karst OBSERVER J. Wallace

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

AFCEE FORM SR.11

616 245

HYDRO GeoLogic INC

FIELD SAMPLING REPORT

LOCATION: NAS Fort Worth JRB, Texas

PROJECT NAME: April 2001 Semi-Annual Sampling

SITE: _____

PROJECT NAME: AFC001-33DAA

SAMPLE INFORMATION

SAMPLE ID DUP04WG14

DATE: 4/4/01 TIME: 1200 on COC (actual time = 1332)

MATRIX TYPE: WG

SAMPLING METHOD: Low Flow

LOT CONTROL #: 0 1 1 A

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

CHAIN-OF-CUSTODY #:

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) WCHMHTA009WG14

AMBIENT BLANK (AB): —

EQUIPMENT BLANK (EB) EB040401

TRIP BLANK (TB) TB040401

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	0	COLOR: Clear	
2nd	0	ODOR: None	
		OTHER:	

pH 7.72 Temperature 19.58 (C) Dissolved Oxygen 0.73 (mg/L) Conductivity 282 (umhos/cm)

Iron N/A (mg/L) Oxidation/Reduction Potential 154.9 (mv) Turbidity 1.64 (NTU)

GENERAL INFORMATION

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

SHIPMENT VIA FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO: STL -Chicago

COMMENTS

SAMPLER A. Karst OBSERVER J. Wallace

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

HYDRO GeoLogic INC

FIELD SAMPLING REPORT

616 246

LOCATION: NAS Fort Worth JRB, Texas

PROJECT NAME: April 2001 Semi-Annual Sampling

SITE: _____

PROJECT NAME: AFC001-33DAA

SAMPLE INFORMATION

SAMPLE ID WHGLPU001WG14

DATE: 4/6/01 TIME: 927

MATRIX TYPE: WG

SAMPLING METHOD: Low Flow

LOT CONTROL #: 0 0 1 A

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

CHAIN-OF-CUSTODY #:

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) EB 040601

TRIP BLANK (TB) TB 040601

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	0.0	COLOR:	clear	
2nd		ODOR.	none	
		OTHER:		

pH 8.2 Temperature 21.9 (C) Dissolved Oxygen 3.19 (mg/L) Conductivity 385 (umhos/cm)

Iron — (mg/L) Oxidation/Reduction Potential 200 (mv) Turbidity 4.9 (NTU)

GENERAL INFORMATION

WEATHER· SUN/CLEAR _____ OVERCAST/RAIN ✓ WIND DIRECTION S/SE AMBIENT TEMPERATURE 75°F

SHIPMENT VIA FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO. STL -Chicago

COMMENTS

SAMPLER· C. Donahue OBSERVER K. Duran

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

616 247

HYDRO GeoLogic INC

FIELD SAMPLING REPORT

LOCATION: NAS Fort Worth JRB, Texas ck 4/2/01

SITE: ~~WHG~~

PROJECT NAME: April 2001 Semi-Annual Sampling

PROJECT NAME: AFC001-33DAA

SAMPLE INFORMATION

SAMPLE ID WHGLRW016WG14

DATE: 4/2/01 TIME: 1546

MATRIX TYPE: WG

SAMPLING METHOD: Low Flow

LOT CONTROL #: 0 0 1 A

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

CHAIN-OF-CUSTODY #:

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) EB040201

TRIP BLANK (TB). TB040201

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	0	COLOR:	clear	
2nd	0	ODOR:	none	
		OTHER:		

pH 6.33 Temperature 21.21 (C) Dissolved Oxygen 4.09 (mg/L) Conductivity 536 (umhos/cm)

Iron — (mg/L) Oxidation/Reduction Potential 279.4 (mv) Turbidity 78 (NTU)

GENERAL INFORMATION

WEATHER (SUN) CLEAR partly sunny OVERCAST/RAIN ____ WIND DIRECTION South AMBIENT TEMPERATURE 70's

SHIPMENT VIA: FEDEX x HAND DELIVER ____ COURIER ____ OTHER ____

SHIPPED TO: STL -Chicago

COMMENTS:

SAMPLER. K. Duran OBSERVER C. Donohue

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

HYDRO GeoLogic INC.

FIELD SAMPLING REPORT

616 248

LOCATION: NAS Fort Worth JRB, Texas

PROJECT NAME: April 2001 Semi-Annual Sampling

SITE: _____

PROJECT NAME: AFC001-33DAA

SAMPLE INFORMATION

SAMPLE ID WHGLRW017WG14

DATE: 4/02/01 TIME: 1344

MATRIX TYPE: WG

SAMPLING METHOD: Low Flow

LOT CONTROL #: 0 0 1 A

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

CHAIN-OF-CUSTODY #:

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): EB040201

TRIP BLANK (TB): TB040201

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	NA	COLOR: Clear	
2nd		ODOR:	
		OTHER:	

pH 6.2 Temperature 19.7 (C) Dissolved Oxygen 1.79 (mg/L) Conductivity 549 (umhos/cm)

Iron NA (mg/L) Oxidation/Reduction Potential 293 (mv) Turbidity 23.8 (NTU)

GENERAL INFORMATION

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

SHIPMENT VIA. FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO STL -Chicago

COMMENTS

SAMPLER: C. Donohue OBSERVER: K. Duran

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDG	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WAST	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZARDOUS SOLID WAST	WS=SURFACE WATE	CS=COMPOSITE SAMPLE	HP=HYDRO PUNC
SE=SEDIMENT	SW=SWAB/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 NAME: April 2001 Semi-Annual Sampling

SITE: _____

PROJECT NAME: AFC001-33DAA

SAMPLE INFORMATION

SAMPLE ID WHGLTA004WG14

DATE: 3/26/01 TIME: 1450

MATRIX TYPE: WG

SAMPLING METHOD: Low Flow

LOT CONTROL #: 0 0 1 A

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

CHAIN-OF-CUSTODY #:

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) TB032601

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 5.1	COLOR: clear	
2nd	ODOR. none	
	OTHER:	

pH 6.9 Temperature 19.7 (C) Dissolved Oxygen 2.0 (mg/L) Conductivity 512 (umhos/cm)

Iron NA (mg/L) Oxidation/Reduction Potential 265 (mv) Turbidity 3.4 (NTU)

GENERAL INFORMATION

WEATHER. SUN/CLEAR _____ OVERCAST/RAIN ✓ WIND DIRECTION N/NE AMBIENT TEMPERATURE 50F

SHIPMENT VIA. FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO STL -Chicago

COMMENTS

SAMPLER A. Karst OBSERVER K. Duran

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDG	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WAST	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZARDOUS SOLID WAST	WS=SURFACE WATE	CS=COMPOSITE SAMPLE	HP=HYDRO PUNC
SE=SEDIMENT	SW=SWAB/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 NAME: April 2001 Semi-Annual Sampling
SITE: _____
PROJECT NAME: AFC001-33DAA

SAMPLE INFORMATION

SAMPLE ID WHGLTA009WG14
DATE: 4/5/01 TIME: 1332
MATRIX TYPE: WG
SAMPLING METHOD: Low Flow
LOT CONTROL #: 0 1 1 A
(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler
CHAIN-OF-CUSTODY #:
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). EB040501
TRIP BLANK (TB) TB040501

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
1st 730 ppm
2nd 0 ppm

SAMPLE CHARACTERISTICS
COLOR. clear
ODOR: medium hydrocarbon
OTHER:

MISCELLANEOUS

pH 6.62 Temperature 20.66 (C) Dissolved Oxygen 0.75 (mg/L) Conductivity 563 (umhos/cm)
Iron N/A (mg/L) Oxidation/Reduction Potential -84.8 (mv) Turbidity 2.78 (NTU)

GENERAL INFORMATION

WEATHER. SUN/CLEAR _____ OVERCAST/RAIN X WIND DIRECTION S AMBIENT TEMPERATURE 80°
SHIPMENT VIA. FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____
SHIPPED TO. STL -Chicago
COMMENTS
SAMPLER. A. Karst OBSERVER J. Wallace

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDG	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WAST	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZARDOUS SOLID WAST	WS=SURFACE WATE	CS=COMPOSITE SAMPLE	HP=HYDRO PUNC
SE=SEDIMENT	SW=SWAB/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 NAME: April 2001 Semi-Annual Sampling

SITE: _____

PROJECT NAME: AFC001-33DAA

SAMPLE INFORMATION

SAMPLE ID WHGLTA012WG14

DATE: 4/5/01 TIME: 1442

MATRIX TYPE: WG

SAMPLING METHOD: Low Flow

LOT CONTROL #: 0 1 1 A

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

CHAIN-OF-CUSTODY #:

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). DUP01

AMBIENT BLANK (AB). —

EQUIPMENT BLANK (EB) EB040501

TRIP BLANK (TB). TB040501

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

1st 137 ppm

2nd 0 ppm

SAMPLE CHARACTERISTICS

COLOR. Clear

ODOR: slight hydrocarbon

OTHER:

MISCELLANEOUS

pH 6.88 Temperature 23.65 (C) Dissolved Oxygen 0.65 (mg/L) Conductivity 596 (umhos/cm)

Iron N/A (mg/L) Oxidation/Reduction Potential -132.0 (mv) Turbidity 9.23 (NTU)

GENERAL INFORMATION

WEATHER SUN/CLEAR _____ OVERCAST/RAIN X WIND DIRECTION S AMBIENT TEMPERATURE 85°

SHIPMENT VIA: FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO. STL -Chicago

COMMENTS

SAMPLER: A. Karst OBSERVER J. Wallace

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDG	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WAST	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZARDOUS SOLID WAST	WS=SURFACE WATE	CS=COMPOSITE SAMPLE	HP=HYDRO PUNC
SE=SEDIMENT	SW=SWAB/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 NAME: April 2001 Semi-Annual Sampling
SITE: _____
PROJECT NAME: AFC001-33DAA

SAMPLE INFORMATION

SAMPLE ID DUP01WG14
DATE: 4/5/01 TIME: 1200 listed (Actual time 144
MATRIX TYPE: WG
SAMPLING METHOD: Low Flow
LOT CONTROL #: 0 1 1 A
(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler
CHAIN-OF-CUSTODY #:
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). WHGLTA012WG14
AMBIENT BLANK (AB). —
EQUIPMENT BLANK (EB) EB040501
TRIP BLANK (TB). TB040501

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
1st 137 ppm
2nd 0 ppm

SAMPLE CHARACTERISTICS
COLOR: Clear
ODOR: Slight hydrocarbon
OTHER:

MISCELLANEOUS

pH 6.88 Temperature 23.65 (C) Dissolved Oxygen 0.65 (mg/L) Conductivity 596 (umhos/cm)
Iron N/A (mg/L) Oxidation/Reduction Potential -132.0 (mv) Turbidity 9.23 (NTU)

GENERAL INFORMATION

WEATHER SUN/CLEAR _____ OVERCAST/RAIN X WIND DIRECTION S AMBIENT TEMPERATURE 85°
SHIPMENT VIA FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____
SHIPPED TO: STL -Chicago
COMMENTS:
SAMPLER. A. Karst OBSERVER. J. Wallace

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDG	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WAST	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZARDOUS SOLID WAST	WS=SURFACE WATE	CS=COMPOSITE SAMPLE	HP=HYDRO PUNC
SE=SEDIMENT	SW=SWAB/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 NAME: April 2001 Semi-Annual Sampling

SITE: _____

PROJECT NAME: AFC001-33DAA

SAMPLE INFORMATION

SAMPLE ID WHGLTA025WG14

DATE: 3/26/01 TIME: 1329

MATRIX TYPE: WG

SAMPLING METHOD: Low Flow

LOT CONTROL #: 0 0 1 A

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

CHAIN-OF-CUSTODY #:

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): WHGLTA025

MATRIX SPIKE DUP (SD): WHGLTA025

FIELD DUP (FD). —

AMBIENT BLANK (AB): —

EQUIPMENT BLANK (EB) —

TRIP BLANK (TB): TB032601

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

1st 2.2

2nd 0.0

SAMPLE CHARACTERISTICS

COLOR: clear

ODOR: none

OTHER:

MISCELLANEOUS

pH 7.0 Temperature 18.8 (C) Dissolved Oxygen 3.41 (mg/L) Conductivity 557 (umhos/cm)

Iron N/A (mg/L) Oxidation/Reduction Potential 279 (mv) Turbidity 6.8 (NTU)

GENERAL INFORMATION

WEATHER. SUN/CLEAR X OVERCAST/RAIN _____ WIND DIRECTION N/NE AMBIENT TEMPERATURE 54°

SHIPMENT VIA FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO: STL -Chicago

COMMENTS

SAMPLER A. Karst OBSERVER: K. Duran

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDG	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WAST	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZARDOUS SOLID WAST	WS=SURFACE WATE	CS=COMPOSITE SAMPLE	HP=HYDRO PUNC
SE=SEDIMENT	SW=SWAB/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 NAME: April 2001 Semi-Annual Sampling
SITE: _____
PROJECT NAME: AFC001-33DAA

SAMPLE INFORMATION

SAMPLE ID WHGLTA025WG14MS
DATE: 3/26/01 TIME: 1329

MATRIX TYPE: WG
SAMPLING METHOD: Low Flow
LOT CONTROL #: 0 0 1 A
(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler
CHAIN-OF-CUSTODY #:

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): WHGLTA025
MATRIX SPIKE DUP (SD) WHGLTA025
FIELD DUP (FD) —
AMBIENT BLANK (AB): —
EQUIPMENT BLANK (EB): —
TRIP BLANK (TB) TB032601

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	2.2	COLOR: clear	
2nd	0.0	ODOR: none	
		OTHER:	

pH 7.0 Temperature 18.8 (C) Dissolved Oxygen 3.41 (mg/L) Conductivity 557 (umhos/cm)
Iron N/A (mg/L) Oxidation/Reduction Potential 279 (mv) Turbidity 6.8 (NTU)

GENERAL INFORMATION

WEATHER: SUN/CLEAR X OVERCAST/RAIN _____ WIND DIRECTION N/NE AMBIENT TEMPERATURE 54°
SHIPMENT VIA: FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____
SHIPPED TO: STL -Chicago
COMMENTS
SAMPLER: A. Karst OBSERVER: K-Duran

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDG	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WAST	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZARDOUS SOLID WAST	WS=SURFACE WATE	CS=COMPOSITE SAMPLE	HP=HYDRO PUNC
SE=SEDIMENT	SW=SWAB/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 NAME: April 2001 Semi-Annual Sampling

SITE: _____

PROJECT NAME: AFC001-33DAA

SAMPLE INFORMATION

SAMPLE ID WHGLTA025WG14MSD

DATE: 3/26/01 TIME: 1325

MATRIX TYPE: WG

SAMPLING METHOD: Low Flow

LOT CONTROL #: 0 D 1 A

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

CHAIN-OF-CUSTODY #:

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). ✓ MS

MATRIX SPIKE DUP (SD): ✓ MSD

FIELD DUP (FD) —

AMBIENT BLANK (AB) —

EQUIPMENT BLANK (EB): —

TRIP BLANK (TB) TB092601

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	2.2	COLOR:	Clear	
2nd	0.0	ODOR.	None	
		OTHER:		

pH 7.0 Temperature 18.8 (C) Dissolved Oxygen 3.41 (mg/L) Conductivity 557 (umhos/cm)

Iron — (mg/L) Oxidation/Reduction Potential 275 (mv) Turbidity 6.8 (NTU)

GENERAL INFORMATION

WEATHER SUN/CLEAR ✓ OVERCAST/RAIN _____ WIND DIRECTION N/NE AMBIENT TEMPERATURE 57°

SHIPMENT VIA. FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO. STL -Chicago

COMMENTS.

SAMPLER. A Karst OBSERVER: K. Doran

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

AFCEE FORM SR.11

HYDRO GeoLogic INC.

FIELD SAMPLING REPORT

LOCATION: NAS Fort Worth JRB, Texas
PROJECT NAME: April 2001 Semi-Annual Sampling
SITE: _____
PROJECT NAME: AFC001-33DAA

SAMPLE INFORMATION

SAMPLE ID WHGLTA029WG14
DATE: 4/5/01 TIME: 1756
MATRIX TYPE: WG
SAMPLING METHOD: Low Flow
LOT CONTROL #: 0 1 1 A
(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler
CHAIN-OF-CUSTODY #:
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) EB040501
TRIP BLANK (TB) TB040501

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
1st 0
2nd 0

SAMPLE CHARACTERISTICS
COLOR. Cloudy
ODOR: none
OTHER.

MISCELLANEOUS

pH 6.88 Temperature 22.01 (C) Dissolved Oxygen 0.64 (mg/L) Conductivity 553 (umhos/cm)
Iron N/A (mg/L) Oxidation/Reduction Potential -123.8 (mv) Turbidity 4.05 (NTU)

GENERAL INFORMATION

WEATHER. SUN/CLEAR _____ OVERCAST/RAIN X WIND DIRECTION S AMBIENT TEMPERATURE 80°
SHIPMENT VIA: FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____
SHIPPED TO. STL -Chicago
COMMENTS
SAMPLER. A. Karst OBSERVER J. Wallace

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDG	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WAST	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZARDOUS SOLID WAST	WS=SURFACE WATE	CS=COMPOSITE SAMPLE	HP=HYDRO PUNC
SE=SEDIMENT	SW=SWAB/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 NAME: April 2001 Semi-Annual Sampling

SITE: _____

PROJECT NAME: AFC001-33DAA

SAMPLE INFORMATION

SAMPLE ID WHGLTA043WG14

DATE: 4/3/01 TIME: 1141

MATRIX TYPE: WG

SAMPLING METHOD: Low Flow

LOT CONTROL #: 0 0 1 A

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

CHAIN-OF-CUSTODY #:

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) FDUP03WG14

AMBIENT BLANK (AB). —

EQUIPMENT BLANK (EB) EB040301

TRIP BLANK (TB) TB040301

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	NA	COLOR:	Clear	
2nd		ODOR:	None	
		OTHER:		

pH 7.1 Temperature 21.9 (C) Dissolved Oxygen 7.3 (mg/L) Conductivity 246 (umhos/cm)

Iron — (mg/L) Oxidation/Reduction Potential 285 (mv) Turbidity 1.6 (NTU)

GENERAL INFORMATION

WEATHER. SUN/CLEAR _____ OVERCAST/RAIN ✓ WIND DIRECTION S/SE AMBIENT TEMPERATURE 75°

SHIPMENT VIA FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO: STL -Chicago

COMMENTS:

SAMPLER. C. Donohue OBSERVER Kent Dorsey

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDG	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WAST	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZARDOUS SOLID WAST	WS=SURFACE WATE	CS=COMPOSITE SAMPLE	HP=HYDRO PUNC
SE=SEDIMENT	SW=SWAB/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: _____
PROJECT NAME: April 2001 Semi-Annual Sampling
PROJECT NAME. AFC001-33DAA

SAMPLE INFORMATION

SAMPLE ID DUP03WG14
DATE: 4/3/01 TIME: 1191

MATRIX TYPE: WG
SAMPLING METHOD: Low Flow
LOT CONTROL #: 0 0 1 4
(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler
CHAIN-OF-CUSTODY #:
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): ~~DUP03WG14~~ WHGLTA043
AMBIENT BLANK (AB). —
EQUIPMENT BLANK (EB). EB040301
TRIP BLANK (TB): TB040301

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	NA	COLOR: Clear	
2nd		ODOR: None	
		OTHER.	

pH 7.1 Temperature 21.9 (C) Dissolved Oxygen 7.8 (mg/L) Conductivity 296 (umhos/cm)
Iron — (mg/L) Oxidation/Reduction Potential 285 (mv) Turbidity 1.6 (NTU)

GENERAL INFORMATION

WEATHER. SUN/CLEAR _____ OVERCAST/RAIN ✓ WIND DIRECTION S/SE AMBIENT TEMPERATURE 75°F
SHIPMENT VIA FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____
SHIPPED TO. STL -Chicago
COMMENTS
SAMPLER. C. Donohue OBSERVER: K. Duran

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDG	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WAST	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZARDOUS SOLID WAST	WS=SURFACE WATE	CS=COMPOSITE SAMPLE	HP=HYDRO PUNC
SE=SEDIMENT	SW=SWAB/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 NAME: April 2001 Semi-Annual Sampling

SITE: _____

PROJECT NAME: AFC001-33DAA

SAMPLE INFORMATION

SAMPLE ID WHGLTA044WG14

DATE: 4/3/01 TIME: 1320

MATRIX TYPE: WG

SAMPLING METHOD: Low Flow

LOT CONTROL #: 0 1 1 A

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

CHAIN-OF-CUSTODY #:

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): WHGLTA044WG14MS

MATRIX SPIKE DUP (SD): WHGLTA044WG14MSD

FIELD DUP (FD): —

AMBIENT BLANK (AB): —

EQUIPMENT BLANK (EB): EB040301

TRIP BLANK (TB) TB040301

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	4/3/01 SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st	COLOR: ~~Non~~ clear	
2nd	ODOR: None	
	OTHER:	

pH 6.83 Temperature 16.57 (C) Dissolved Oxygen 0.80 (mg/L) Conductivity 322 (umhos/cm)

Iron — (mg/L) Oxidation/Reduction Potential -82.1 (mv) Turbidity 7.3 (NTU)

GENERAL INFORMATION

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

SHIPMENT VIA FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO: STL -Chicago

COMMENTS.

SAMPLER Donohue OBSERVER Duran

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

AFCEE FORM SR.11

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HYDRO GeoLogic INC

FIELD SAMPLING REPORT

LOCATION: NAS Fort Worth JRB, Texas

PROJECT NAME: April 2001 Semi-Annual Sampling

SITE: _____

PROJECT NAME: AFC001-33DAA

SAMPLE INFORMATION

SAMPLE ID WHGLTA044WG14MS

DATE: 4/3/01 TIME: 1320

MATRIX TYPE: WG

SAMPLING METHOD: Low Flow

LOT CONTROL #: 0 1 1 A

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

CHAIN-OF-CUSTODY #:

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): WHGLTA044WG14MS

MATRIX SPIKE DUP (SD): WHGLTA044WG14MSD

FIELD DUP (FD): —

AMBIENT BLANK (AB): —

EQUIPMENT BLANK (EB): EB040301

TRIP BLANK (TB): TB040301

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: Clear	
2nd	ODOR. None	
	OTHER:	

pH 6.83 Temperature 16.57 (C) Dissolved Oxygen 0.80 (mg/L) Conductivity 322 (umhos/cm)

Iron — (mg/L) Oxidation/Reduction Potential -82.1 (mv) Turbidity 7.3 (NTU)

GENERAL INFORMATION

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

SHIPMENT VIA. FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO: STL -Chicago

COMMENTS

SAMPLER Donohue OBSERVER Duran

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDG	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WAST	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZARDOUS SOLID WAST	WS=SURFACE WATE	CS=COMPOSITE SAMPLE	HP=HYDRO PUNC
SE=SEDIMENT	SW=SWAB/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 NAME: April 2001 Semi-Annual Sampling
SITE: _____
PROJECT NAME: AFC001-33DAA

SAMPLE INFORMATION

SAMPLE ID WHGLTA044WG14MSD
DATE: 4/3/01 TIME: 1320

MATRIX TYPE: WG
SAMPLING METHOD: Low Flow
LOT CONTROL #: 0 1 1 A
(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler
CHAIN-OF-CUSTODY #:
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): WHGLTA044WG14MS
MATRIX SPIKE DUP (SD). WHGLTA044WG14MSD
FIELD DUP (FD): —
AMBIENT BLANK (AB): —
EQUIPMENT BLANK (EB) EB040301
TRIP BLANK (TB). TB040301

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: clear	
2nd	ODOR: None	
	OTHER.	

pH 6.83 Temperature 16.57 (C) Dissolved Oxygen 0.80 (mg/L) Conductivity 322 (umhos/cm)
Iron — (mg/L) Oxidation/Reduction Potential -82.1 (mv) Turbidity 7.3 (NTU)

GENERAL INFORMATION

WEATHER SUN/CLEAR _____ OVERCAST/RAIN _____ WIND DIRECTION calm AMBIENT TEMPERATURE
SHIPMENT VIA FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____
SHIPPED TO. STL -Chicago
COMMENTS
SAMPLER: Donohue OBSERVER Duran

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

AFCEE FORM SR 11

HYDRO GeoLogic INC

FIELD SAMPLING REPORT

LOCATION: NAS Fort Worth JRB, Texas
PROJECT NAME: April 2001 Semi-Annual Sampling
SITE: _____
PROJECT NAME: AFC001-33DAA

SAMPLE INFORMATION

SAMPLE ID WHGLTA045WG14
DATE: 4/3/01 TIME: 1444
MATRIX TYPE: WG
SAMPLING METHOD: Low Flow
LOT CONTROL #: 0 0 1 A
(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler
CHAIN-OF-CUSTODY #:
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): EB040301
TRIP BLANK (TB): TB040301

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	NA	COLOR: Clear	
2nd		ODOR: None	
		OTHER:	

pH 6.7 Temperature 19.8 (C) Dissolved Oxygen 7.06 (mg/L) Conductivity 346 (umhos/cm)
Iron — (mg/L) Oxidation/Reduction Potential 285 (mv) Turbidity 7.81 (NTU)

GENERAL INFORMATION

WEATHER SUN/CLEAR _____ OVERCAST/RAIN _____ WIND DIRECTION S/SE AMBIENT TEMPERATURE 60°F
SHIPMENT VIA: FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____
SHIPPED TO STL -Chicago
COMMENTS
SAMPLER: C. Dorohue OBSERVER Kent Duran

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDG	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WAST	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZARDOUS SOLID WAST	WS=SURFACE WATE	CS=COMPOSITE SAMPLE	HP=HYDRO PUNC
SE=SEDIMENT	SW=SWAB/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 NAME: April 2001 Semi-Annual Sampling
SITE: _____
PROJECT NAME: AFC001-33DAA

SAMPLE INFORMATION

SAMPLE ID WHGLTA051WG14
DATE: 4/6/01 TIME: 1125

MATRIX TYPE: WG
SAMPLING METHOD: Low Flow
LOT CONTROL #: 0 0 1 A
(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler
CHAIN-OF-CUSTODY #:
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) EB 040601
TRIP BLANK (TB): TB 040601

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	0	COLOR: clear	
2nd	0	ODOR. None	
		OTHER:	

pH 6.64 Temperature ~~11.65~~ 20.41 (C) Dissolved Oxygen ~~6.52~~ 18.24 (mg/L) Conductivity ~~476~~ 458 (umhos/cm)
Iron — (mg/L) Oxidation/Reduction Potential ~~77.6~~ 197.2 (mv) Turbidity 6.0 (NTU)

GENERAL INFORMATION

WEATHER. (SUN/CLEAR) _____ OVERCAST/RAIN _____ WIND DIRECTION South AMBIENT TEMPERATURE 70's °F
SHIPMENT VIA FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____
SHIPPED TO STL -Chicago
COMMENTS.
SAMPLER. C. Donohue OBSERVER R. Duran

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

AFCEE FORM SR.11

HYDRO GeoLogic INC

FIELD SAMPLING REPORT

LOCATION: NAS Fort Worth JRB, Texas
PROJECT NAME: April 2001 Semi-Annual Sampling
SITE: _____
PROJECT NAME: AFC001-33DAA

SAMPLE INFORMATION

SAMPLE ID WHGLTA603WG14
DATE: 4/6/01 TIME: 0819

MATRIX TYPE: WG

SAMPLING METHOD: Low Flow

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

CHAIN-OF-CUSTODY #:

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) DUP05WG14
AMBIENT BLANK (AB) —
EQUIPMENT BLANK (EB) EB040601
TRIP BLANK (TB) TB040601

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 0	COLOR: clear	
2nd 0	ODOR: none	
	OTHER.	

pH 6.24 Temperature 19.35 (C) Dissolved Oxygen 2.30 (mg/L) Conductivity 712 (umhos/cm)
Iron N/A (mg/L) Oxidation/Reduction Potential 299 (mv) Turbidity 5.41 (NTU)

GENERAL INFORMATION

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

SHIPMENT VIA FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO STL -Chicago

COMMENTS
SAMPLER: A. Karst OBSERVER J. Wallace

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDG	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WAST	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZARDOUS SOLID WAST	WS=SURFACE WATE	CS=COMPOSITE SAMPLE	HP=HYDRO PUNC
SE=SEDIMENT	SW=SWAB/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 NAME: April 2001 Semi-Annual Sampling

SITE: _____

PROJECT NAME: AFC001-33DAA

SAMPLE INFORMATION

SAMPLE ID DUP05WG14

DATE: 4/6/01 TIME: 1200 (actual time 0819)

MATRIX TYPE: WG

SAMPLING METHOD: Low Flow

LOT CONTROL #: O I L A

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

CHAIN-OF-CUSTODY #:

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) LWHGLTA603WG14

AMBIENT BLANK (AB) —

EQUIPMENT BLANK (EB) EB040601

TRIP BLANK (TB) TB040601

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 0 ppm	COLOR: clear	
2nd 0 ppm	ODOR: none	
	OTHER:	

pH 6.24 Temperature 19.35 (C) Dissolved Oxygen 2.30 (mg/L) Conductivity 712 (umhos/cm)

Iron N/A (mg/L) Oxidation/Reduction Potential 299.0 (mv) Turbidity 5.41 (NTU)

GENERAL INFORMATION

WEATHER SUN/CLEAR _____ OVERCAST/RAIN x WIND DIRECTION S AMBIENT TEMPERATURE 70°

SHIPMENT VIA FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO. STL -Chicago

COMMENTS:

SAMPLER A. Karst OBSERVER J. Wallace

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDG	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WAST	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZARDOUS SOLID WAST	WS=SURFACE WATE	CS=COMPOSITE SAMPLE	HP=HYDRO PUNC
SE=SEDIMENT	SW=SWAB/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: _____
PROJECT NAME: April 2001 Semi-Annual Sampling
PROJECT NAME: AFC001-33DAA

SAMPLE INFORMATION

SAMPLE ID WHGLTA704WG14
DATE: 4/3/01 TIME: 0954
MATRIX TYPE: WG
SAMPLING METHOD: Low Flow
LOT CONTROL #: 0 1 1 A
(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler
CHAIN-OF-CUSTODY #:
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): EB040301
TRIP BLANK (TB): TB040301

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: clear	
2nd	ODOR: None	
	OTHER:	

pH 6.35 Temperature 19.48 (C) Dissolved Oxygen 2.00 (mg/L) Conductivity 525.710 (umhos/cm)
Iron — (mg/L) Oxidation/Reduction Potential 123.2 (mv) Turbidity 5.2 (NTU)

GENERAL INFORMATION

WEATHER SUN/CLEAR ____ OVERCAST/RAIN ____ WIND DIRECTION South AMBIENT TEMPERATURE 70's
SHIPMENT VIA: FEDEX x HAND DELIVER ____ COURIER ____ OTHER ____
SHIPPED TO. STL -Chicago
COMMENTS:
SAMPLER: K. Duran OBSERVER. C. Donohue

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDG	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WAST	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZARDOUS SOLID WAST	WS=SURFACE WATE	CS=COMPOSITE SAMPLE	HP=HYDRO PUNC
SE=SEDIMENT	SW=SWAB/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 NAME: April 2001 Semi-Annual Sampling
SITE: _____
PROJECT NAME: AFC001-33DAA

SAMPLE INFORMATION

SAMPLE ID WITCTA003WG14
DATE: 4/5/01 TIME: 1150

MATRIX TYPE: WG

SAMPLING METHOD: Low Flow

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

CHAIN-OF-CUSTODY #:

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) EB040501
TRIP BLANK (TB) TB040501

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 350 ppm	COLOR: clear	
2nd 0 ppm	ODOR: none	
	OTHER:	

pH 6.69 Temperature 20.53 (C) Dissolved Oxygen 3.92 (mg/L) Conductivity 491 (umhos/cm)
Iron N/A (mg/L) Oxidation/Reduction Potential 269.5 (mv) Turbidity 7.66 (NTU)

GENERAL INFORMATION

WEATHER SUN/CLEAR _____ OVERCAST/RAIN x WIND DIRECTION S AMBIENT TEMPERATURE 75°

SHIPMENT VIA. FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO: STL -Chicago

COMMENTS:
SAMPLER A. Karst OBSERVER J. Wallace

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

HYDRO GeoLogic

FIELD SAMPLING REPORT

LOCATION: NAS Fort Worth JRB, Texas
PROJECT NAME: April 2001 Semi-Annual Sampling
SITE: _____
PROJECT NAME: AFC001-33DAA

SAMPLE INFORMATION

SAMPLE ID WITCTA004WG14
DATE: 4/3/01 TIME: 1135
MATRIX TYPE: WG
SAMPLING METHOD: Low Flow
LOT CONTROL #: 0 0 1 A
(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler
CHAIN-OF-CUSTODY #:
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): AB040301
EQUIPMENT BLANK (EB): —
TRIP BLANK (TB) TB040301

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	7 ppm	COLOR: clear	
2nd	0 ppm	ODOR: none	
		OTHER:	

pH 6.35 Temperature 20.73 (C) Dissolved Oxygen 1.08 (mg/L) Conductivity 581 (umhos/cm)
Iron N/A (mg/L) Oxidation/Reduction Potential -81.4 (mv) Turbidity 4.98 (NTU)

GENERAL INFORMATION

WEATHER. SUN/CLEAR _____ OVERCAST/RAIN X WIND DIRECTION S AMBIENT TEMPERATURE 70°
SHIPMENT VIA. FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____
SHIPPED TO: STL -Chicago
COMMENTS:
SAMPLER. A. Kerst OBSERVER J. Wallace

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDG	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WAST	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZARDOUS SOLID WAST	WS=SURFACE WATE	CS=COMPOSITE SAMPLE	HP=HYDRO PUNC
SE=SEDIMENT	SW=SWAB/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 NAME: April 2001 Semi-Annual Sampling

SITE: _____

PROJECT NAME: AFC001-33DAA

SAMPLE INFORMATION

SAMPLE ID WITCTA010WG14

DATE: 8/27/01 TIME: 1416

MATRIX TYPE: WG

SAMPLING METHOD: Low Flow

LOT CONTROL #: 0 0 1 A

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

CHAIN-OF-CUSTODY #:

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) TB032701

CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
1 L poly	1	Cool to 4C/HNO3 pH<2	SW6010B/SW7471	Total Metals + Hg
40 mL VOA	3	Cool to 4C/HCl to pH<2	SW8260B	VOCs

NOTABLE OBSERVATIONS

PID READINGS		SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st	0.0	COLOR: clear	
2nd	0	ODOR. none	
		OTHER:	

pH 7.5 Temperature 16.0 (C) Dissolved Oxygen .21 (mg/L) Conductivity 407 (umhos/cm)

Iron NA (mg/L) Oxidation/Reduction Potential -167 (mv) Turbidity .8 (NTU)

GENERAL INFORMATION

WEATHER SUN/CLEAR _____ OVERCAST (RAIN) ✓ WIND DIRECTION E AMBIENT TEMPERATURE 49°F

SHIPMENT VIA. FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO STL -Chicago

COMMENTS:

SAMPLER [signature] OBSERVER [signature]

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDG	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WAST	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZARDOUS SOLID WAST	WS=SURFACE WATE	CS=COMPOSITE SAMPLE	HP=HYDRO PUNC
SE=SEDIMENT	SW=SWAB/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 NAME: April 2001 Semi-Annual Sampling

SITE: _____

PROJECT NAME: AFC001-33DAA

SAMPLE INFORMATION

SAMPLE ID WITCTA019WG14

DATE: 4/5/01 TIME: 1640

MATRIX TYPE: WG

SAMPLING METHOD: Low Flow

LOT CONTROL #: 0 1 1 A

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

CHAIN-OF-CUSTODY #:

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): EB040501

TRIP BLANK (TB) TB040501

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	0	COLOR: Clear	
2nd	0	ODOR: none	
		OTHER:	

pH 6.87 Temperature 20.78 (C) Dissolved Oxygen 4.79 (mg/L) Conductivity 344 (umhos/cm)

Iron — (mg/L) Oxidation/Reduction Potential 220.6 (mv) Turbidity 2.6 (NTU)

GENERAL INFORMATION

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

SHIPMENT VIA FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO: STL -Chicago

COMMENTS

SAMPLER. Donohue OBSERVER Duran

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDG	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WAST	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZARDOUS SOLID WAST	WS=SURFACE WATE	CS=COMPOSITE SAMPLE	HP=HYDRO PUNC
SE=SEDIMENT	SW=SWAB/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 NAME: April 2001 Semi-Annual Sampling

SITE: _____

PROJECT NAME: AFC001-33DAA

SAMPLE INFORMATION

SAMPLE ID WITCTA024WG14

DATE: 4/2/01 TIME: 1430

MATRIX TYPE: WG

SAMPLING METHOD: Low Flow

LOT CONTROL #: 0 0 1 A

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

CHAIN-OF-CUSTODY #:

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): TB040201

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, Ethene, Ethane
40 mL VOA	3	Cool to 4C/HCl to pH<2	SW8260B	VOCs
500 mL poly	1	Cool to 4C/H2SO4	SW9060	TOC

NOTABLE OBSERVATIONS

PID READINGS	SAMPLE CHARACTERISTICS	MISCELLANEOUS
1st 70 ppm	COLOR Clear	
2nd 0.0 ppm	ODOR: none	
	OTHER:	

pH 6.79 Temperature 22.36 (C) Dissolved Oxygen 1.69 (mg/L) Conductivity 618 (umhos/cm)

Iron 0.51 (mg/L) Oxidation/Reduction Potential -89.4 (mv) Turbidity 3.48 (NTU)

GENERAL INFORMATION

WEATHER. SUN/CLEAR _____ OVERCAST/RAIN X WIND DIRECTION S AMBIENT TEMPERATURE 75°

SHIPMENT VIA FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO STL -Chicago

COMMENTS.

SAMPLER: A. Karst OBSERVER J. Wallace

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDG	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WAST	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZARDOUS SOLID WAST	WS=SURFACE WATE	CS=COMPOSITE SAMPLE	HP=HYDRO PUNC
SE=SEDIMENT	SW=SWAB/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: _____
PROJECT NAME: April 2001 Semi-Annual Sampling
PROJECT NAME. AFC001-33DAA

SAMPLE INFORMATION

SAMPLE ID WITCTA040WG14
DATE: 4/5/01 TIME: 1530
MATRIX TYPE: WG
SAMPLING METHOD: Low Flow
LOT CONTROL #: 0 1 1 A
(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler
CHAIN-OF-CUSTODY #:
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) EB040501
TRIP BLANK (TB) TB040501

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 3.6	COLOR: Clear	
2nd	ODOR· None	
	OTHER.	

pH 6.6 Temperature 22.0 (C) Dissolved Oxygen 0.78 (mg/L) Conductivity 440 (umhos/cm)
Iron — (mg/L) Oxidation/Reduction Potential -16 (mv) Turbidity 6.2 (NTU)

GENERAL INFORMATION

WEATHER SUN/CLEAR _____ OVERCAST/RAIN ✓ WIND DIRECTION S/SE AMBIENT TEMPERATURE 60°F
SHIPMENT VIA: FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____
SHIPPED TO STL -Chicago
COMMENTS
SAMPLER C. Donohue OBSERVER· K. Dunn

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDG	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WAST	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZARDOUS SOLID WAST	WS=SURFACE WATE	CS=COMPOSITE SAMPLE	HP=HYDRO PUNC
SE=SEDIMENT	SW=SWAB/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 NAME: April 2001 Semi-Annual Sampling

SITE: _____

PROJECT NAME: AFC001-33DAA

SAMPLE INFORMATION

SAMPLE ID WITCTA041WG14

DATE: 4/5/01 TIME: 1328

MATRIX TYPE: WG

SAMPLING METHOD: Low Flow

LOT CONTROL #: 0 1 1 A

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

CHAIN-OF-CUSTODY #:

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) EB040501

TRIP BLANK (TB): TB040501

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	0	COLOR: clear	
2nd	0	ODOR: none	
		OTHER:	

pH 6.59 Temperature 22.3 (C) Dissolved Oxygen 1.88 (mg/L) Conductivity 451 (umhos/cm)

Iron — (mg/L) Oxidation/Reduction Potential 58.3 (mv) Turbidity 2.6 (NTU)

GENERAL INFORMATION

WEATHER. SUN/CLEAR _____ OVERCAST/RAIN _____ WIND DIRECTION South AMBIENT TEMPERATURE 70°F

SHIPMENT VIA FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO. STL -Chicago

COMMENTS:

SAMPLER Duran OBSERVER: Donohue

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDG	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WAST	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZARDOUS SOLID WAST	WS=SURFACE WATE	CS=COMPOSITE SAMPLE	HP=HYDRO PUNC
SE=SEDIMENT	SW=SWAB/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 NAME: April 2001 Semi-Annual Sampling
SITE: _____
PROJECT NAME: AFC001-33DAA

SAMPLE INFORMATION

SAMPLE ID WITCTA043WG14
DATE: 4/5/01 TIME: 1107

MATRIX TYPE: WG
SAMPLING METHOD: Low Flow
LOT CONTROL #: 0 0 1 A
(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler
CHAIN-OF-CUSTODY #:

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): EB040501
TRIP BLANK (TB) TB040501

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	0.0	COLOR: Clear	
2nd	0.0	ODOR: none	
		OTHER:	

pH 6.7 Temperature 22.0 (C) Dissolved Oxygen 0.01 (mg/L) Conductivity 556 (umhos/cm)
Iron — (mg/L) Oxidation/Reduction Potential 274 (mv) Turbidity 7.8 (NTU)

GENERAL INFORMATION

WEATHER SUN/CLEAR _____ OVERCAST/RAIN _____ WIND DIRECTION Calm AMBIENT TEMPERATURE 75°F
SHIPMENT VIA FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____
SHIPPED TO STL -Chicago
COMMENTS
SAMPLER. C-Donohue OBSERVER K.Dixon

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDG	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WAST	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZARDOUS SOLID WAST	WS=SURFACE WATE	CS=COMPOSITE SAMPLE	HP=HYDRO PUNC
SE=SEDIMENT	SW=SWAB/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 NAME: April 2001 Semi-Annual Sampling
SITE: _____
PROJECT NAME: AFC001-33DAA

SAMPLE INFORMATION

SAMPLE ID ~~FB04_01~~ TB032601
DATE: 3/26/01 TIME: 0910

MATRIX TYPE: WG
SAMPLING METHOD: Low Flow
LOT CONTROL #: 0 0 1 A
(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler
CHAIN-OF-CUSTODY #:
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) TB032601

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 — (C) Dissolved Oxygen — (mg/L) Conductivity — (umhos/cm)
Iron — (mg/L) Oxidation/Reduction Potential — (mv) Turbidity — (NTU)

GENERAL INFORMATION

WEATHER: SUN/CLEAR _____ OVERCAST/RAIN X WIND DIRECTION N AMBIENT TEMPERATURE 40°
SHIPMENT VIA: FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____
SHIPPED TO: STL -Chicago
COMMENTS:
SAMPLER: J. Wallace OBSERVER K. Duran

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

616 276

HYDRO GeoLogic INC

FIELD SAMPLING REPORT

LOCATION: NAS Fort Worth JRB, Texas

PROJECT NAME: April 2001 Semi-Annual Sampling

SITE: _____

PROJECT NAME: AFC001-33DAA

SAMPLE INFORMATION

SAMPLE ID ~~TB04~~ TW 01 TB032701

DATE: 3/27/01 TIME: 0740

MATRIX TYPE: WG

SAMPLING METHOD: Low Flow

LOT CONTROL #: 0 0 1 A

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

CHAIN-OF-CUSTODY #:

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) TB032701

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 — (C) Dissolved Oxygen — (mg/L) Conductivity — (umhos/cm)

Iron — (mg/L) Oxidation/Reduction Potential — (mv) Turbidity — (NTU)

GENERAL INFORMATION

WEATHER. SUN/CLEAR _____ OVERCAST/RAIN X WIND DIRECTION E AMBIENT TEMPERATURE 40°

SHIPMENT VIA. FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO: STL -Chicago

COMMENTS.

SAMPLER: J. Wallau OBSERVER. K. Duran

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

616 277

HYDRO GeoLogic INC

FIELD SAMPLING REPORT

LOCATION: NAS Fort Worth JRB, Texas

PROJECT NAME: April 2001 Semi-Annual Sampling

SITE: _____

PROJECT NAME: AFC001-33DAA

SAMPLE INFORMATION

SAMPLE ID TB040201

DATE: 4/2/01 TIME: 0815

MATRIX TYPE: WG

SAMPLING METHOD: Low Flow

LOT CONTROL #: 0 0 1 A

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

CHAIN-OF-CUSTODY #:

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) TB040201

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 ___(C) Dissolved Oxygen — (mg/L) Conductivity — (umhos/cm)

Iron — (mg/L) Oxidation/Reduction Potential — (mv) Turbidity — (NTU)

GENERAL INFORMATION

WEATHER SUN/CLEAR ___ OVERCAST/RAIN X WIND DIRECTION S AMBIENT TEMPERATURE 65°

SHIPMENT VIA FEDEX x HAND DELIVER ___ COURIER ___ OTHER ___

SHIPPED TO: STL -Chicago

COMMENTS.

SAMPLER. J. Wallace OBSERVER. K. Duran

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

AFCEE FORM SR.11

616 278

HYDRO GeoLogic INC

FIELD SAMPLING REPORT

LOCATION: NAS Fort Worth JRB, Texas

PROJECT NAME: April 2001 Semi-Annual Sampling

SITE: _____

PROJECT NAME: AFC001-33DAA

SAMPLE INFORMATION

SAMPLE ID EB040201

DATE: 4/2/01 TIME: 1750

MATRIX TYPE: WG

SAMPLING METHOD: Low Flow

LOT CONTROL #: 0 0 1 A

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

CHAIN-OF-CUSTODY #:

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) EB040201

TRIP BLANK (TB): TB040201

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, Ethene, Ethane~~
~~1 L poly~~	~~1~~	~~Cool to 4C/HNO3 pH<2~~	~~SW6010B/SW7471~~	~~Total Metals + Hg~~
40 mL VOA	3	Cool to 4C/HCl to pH<2	SW8260B	VOCs
~~500 mL poly~~	~~1~~	~~Cool to 4C/H2SO4~~	~~SW9060~~	~~TOC~~

NOTABLE OBSERVATIONS

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

pH — Temperature — (C) Dissolved Oxygen — (mg/L) Conductivity — (umhos/cm)

Iron — (mg/L) Oxidation/Reduction Potential — (mv) Turbidity _____ (NTU)

GENERAL INFORMATION

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

SHIPMENT VIA FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO. STL -Chicago

COMMENTS.

SAMPLER: K. Durham OBSERVER C. Donohue

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDG	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WAST	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZARDOUS SOLID WAST	WS=SURFACE WATE	CS=COMPOSITE SAMPLE	HP=HYDRO PUNC
SE=SEDIMENT	SW=SWAB/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 NAME: April 2001 Semi-Annual Sampling
SITE: _____
PROJECT NAME: AFC001-33DAA

SAMPLE INFORMATION

SAMPLE ID TB04B01
DATE: 4/3/01 TIME: 0750
MATRIX TYPE: WG
SAMPLING METHOD: Low Flow
LOT CONTROL #: 0 0 1 A
(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler
CHAIN-OF-CUSTODY #:
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): 0750

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 — (C) Dissolved Oxygen — (mg/L) Conductivity — (umhos/cm)
Iron — (mg/L) Oxidation/Reduction Potential — (mv) Turbidity — (NTU)

GENERAL INFORMATION

WEATHER SUN/CLEAR ____ OVERCAST/RAIN X WIND DIRECTION S AMBIENT TEMPERATURE 70°
SHIPMENT VIA: FEDEX x HAND DELIVER ____ COURIER ____ OTHER ____
SHIPPED TO. STL -Chicago
COMMENTS.
SAMPLER. J. Wallace OBSERVER: K. Duran

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDG	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WAST	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZARDOUS SOLID WAST	WS=SURFACE WATE	CS=COMPOSITE SAMPLE	HP=HYDRO PUNC
SE=SEDIMENT	SW=SWAB/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 NAME: April 2001 Semi-Annual Sampling

SITE: _____

PROJECT NAME: AFC001-33DAA

SAMPLE INFORMATION

SAMPLE ID EB040301

DATE: 4/3/01 TIME: 1712

MATRIX TYPE: WG

SAMPLING METHOD: Low Flow

LOT CONTROL #: 0 1 1 A

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

CHAIN-OF-CUSTODY #:

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). EB040301

TRIP BLANK (TB): TB040301

	CONTAINER SIZE/TYPE	#	PRESERVATIVE/ PREPARATION	ANALYTICAL METHOD	ANALYSIS
gw	~~1 L Poly~~	~~1~~	~~Cool to 4C~~	~~E310.1/SW9056~~	~~Alkalinity/Anions~~
gw	~~40 mL VOA~~	~~3~~	~~Cool to 4C/HCl pH<2~~	RSK-175	Methane, Ethene, Ethane
gw	1 L poly	1	Cool to 4C/HNO3 pH<2	~~SW6010B/SW7471~~	~~Total Metals + Hg~~
	40 mL VOA	3	Cool to 4C/HCl to pH<2	SW8260B	VOCs
gw	~~500 mL poly~~	~~1~~	~~Cool to 4C/H2SO4~~	~~SW9060~~	TOC

NOTABLE OBSERVATIONS

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

pH — Temperature — (C) Dissolved Oxygen — (mg/L) Conductivity — (umhos/cm)

Iron — (mg/L) Oxidation/Reduction Potential — (mv) Turbidity — (NTU)

GENERAL INFORMATION

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

SHIPMENT VIA FEDEX x HAND DELIVER ____ COURIER ____ OTHER ____

SHIPPED TO. STL -Chicago

COMMENTS.

SAMPLER: K. Duran OBSERVER Chris Donohue

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDG	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WAST	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZARDOUS SOLID WAST	WS=SURFACE WATE	CS=COMPOSITE SAMPLE	HP=HYDRO PUNC
SE=SEDIMENT	SW=SWAB/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 NAME: April 2001 Semi-Annual Sampling
SITE: _____
PROJECT NAME: AFC001-33DAA

SAMPLE INFORMATION

SAMPLE ID TB04Y01
DATE: 4/4/01 TIME: 0745

MATRIX TYPE: WG

SAMPLING METHOD: Low Flow

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

CHAIN-OF-CUSTODY #:

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). EB04Y01
TRIP BLANK (TB). TB04Y01

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 — (C) Dissolved Oxygen — (mg/L) Conductivity — (umhos/cm)
Iron — (mg/L) Oxidation/Reduction Potential — (mv) Turbidity — (NTU)

GENERAL INFORMATION

WEATHER SUN/CLEAR _____ OVERCAST/RAIN X WIND DIRECTION S AMBIENT TEMPERATURE ~~80~~ 70

SHIPMENT VIA. FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO: STL -Chicago

COMMENTS
SAMPLER: J. Wallace OBSERVER: K. Duran

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDG	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WAST	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZARDOUS SOLID WAST	WS=SURFACE WATE	CS=COMPOSITE SAMPLE	HP=HYDRO PUNC
SE=SEDIMENT	SW=SWAB/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 NAME: April 2001 Semi-Annual Sampling

SITE: _____

PROJECT NAME: AFC001-33DAA

SAMPLE INFORMATION

SAMPLE ID EB04~~0~~01

DATE: 4/4/01 TIME: 1550

MATRIX TYPE: WG

SAMPLING METHOD: Low Flow

LOT CONTROL #: 0 1 1 A

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

CHAIN-OF-CUSTODY #:

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): EB040401

TRIP BLANK (TB): TB040401

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, Ethene, Ethane~~
~~1 L poly~~	~~1~~	~~Cool to 4C/HNO3 pH<2~~	~~SW6010B/SW7471~~	~~Total Metals + Hg~~
40 mL VOA	3	Cool to 4C/HCl to pH<2	SW8260B	VOCs
~~500 mL poly~~	~~1~~	~~Cool to 4C/H2SO4~~	~~SW9060~~	~~TOC~~

NOTABLE OBSERVATIONS

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

pH — Temperature — (C) Dissolved Oxygen — (mg/L) Conductivity — (umhos/cm)

Iron — (mg/L) Oxidation/Reduction Potential — (mv) Turbidity — (NTU)

GENERAL INFORMATION

WEATHER: SUN/CLEAR _____ OVERCAST/RAIN X WIND DIRECTION S AMBIENT TEMPERATURE 80°

SHIPMENT VIA: FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO: STL -Chicago

COMMENTS

SAMPLER J. Wallace OBSERVER: A. Karst

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDG	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WAST	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZARDOUS SOLID WAST	WS=SURFACE WATE	CS=COMPOSITE SAMPLE	HP=HYDRO PUNC
SE=SEDIMENT	SW=SWAB/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 NAME: April 2001 Semi-Annual Sampling
SITE: _____
PROJECT NAME: AFC001-33DAA

SAMPLE INFORMATION

SAMPLE ID TB04~~15~~01
DATE: 4/5/01 TIME: 0730

MATRIX TYPE: WG
SAMPLING METHOD: Low Flow
LOT CONTROL #: 0 1 1 A
(Ambient Blank # - Equipment Blank # - Trip Blank # - Cooler
CHAIN-OF-CUSTODY #:

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): ~~EB0473004~~ EB040501
TRIP BLANK (TB): TB040501

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 — (C) Dissolved Oxygen — (mg/L) Conductivity — (umhos/cm)
Iron — (mg/L) Oxidation/Reduction Potential — (mv) Turbidity — (NTU)

GENERAL INFORMATION

WEATHER. SUN/CLEAR _____ OVERCAST/RAIN X WIND DIRECTION S AMBIENT TEMPERATURE 75°

SHIPMENT VIA: FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO: STL -Chicago

COMMENTS:
SAMPLER: J. Wallace OBSERVER: A. Karst

MATRIX TYPE CODES		SAMPLING METHOD CODES	
DC=DRILL CUTTINGS	SL=SLUDG	B=BAILER	G=GRAB
WG=GROUND WATER	SO=SOIL	BP=BLADDER PUMP	HA=HAND AUGER
LH=HAZARDOUS LIQUID WAST	GS=SOIL GAS	BR=BRASS RING	H=HOLLOW STEM AUGER
SH=HAZARDOUS SOLID WAST	WS=SURFACE WATE	CS=COMPOSITE SAMPLE	HP=HYDRO PUNC
SE=SEDIMENT	SW=SWAB/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 NAME: April 2001 Semi-Annual Sampling

SITE: _____

PROJECT NAME: AFC001-33DAA

SAMPLE INFORMATION

SAMPLE ID EB04~~05~~01

DATE: 4/5/01 TIME: 1640

MATRIX TYPE: WG

SAMPLING METHOD: Low Flow

LOT CONTROL #: 0 1 1 A

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

CHAIN-OF-CUSTODY #:

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). EB040501

TRIP BLANK (TB). TB040501

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, Ethene, Ethane~~
~~1 L poly~~	~~1~~	~~Cool to 4C/HNO3 pH<2~~	~~SW6010B/SW7471~~	Total Metals + Hg
40 mL VOA	3	Cool to 4C/HCl to pH<2	SW8260B	VOCs
~~500 mL poly~~	~~1~~	~~Cool to 4C/H2SO4~~	~~SW9060~~	~~TOC~~

NOTABLE OBSERVATIONS

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

pH — Temperature — (C) Dissolved Oxygen — (mg/L) Conductivity — (umhos/cm)

Iron — (mg/L) Oxidation/Reduction Potential — (mv) Turbidity — (NTU)

GENERAL INFORMATION

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

SHIPMENT VIA: FEDEX x HAND DELIVER _____ COURIER _____ OTHER _____

SHIPPED TO. STL -Chicago

COMMENTS:

SAMPLER: J. Wallace OBSERVER. A. Karst

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

APPENDIX A.5

CHAINS OF CUSTODY

SEVERN TRENT SERVICES

STL Chicago
2417 Bond Street
University Park, IL 60466
Phone 708-534-5200
Fax. 708-534-5211

Report To:
Contact: Lin Evans
Company: Hydrogeologic, Inc
Address: 155 Herndon Pkwy Ste 900
Herndon VA 20170
Phone: [illegible]
Fax: 703-471-4120
E-Mail: [illegible]

Bill To:
Contact: Lin Evans
Company: (same)
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 °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: Kyni Duran
Signature: Ka Duran
Project Name: APRIL 2001 Semi-Annual
Project Number: AP2001 33DAA
Project Location: NAS FW JRB
Date Required: Hard Copy: __/__/__ Fax: __/__/__
Lab PM: Donna Ingersoll

Refrg #	
# / Cont.	3
Volume	40mL
Preserv	1

Laboratory ID	MS-MSD	Client Sample ID	Sampling Date	Sampling Time	Matrix	Comp/Grab	Volatiles (SW8260B)	Additional Analyses / Remarks
		WHGLTA004WG14	3/26/01	1450	W	G	3	
		MW-53WG14	3/26/01	1445	W	G	3	
		LF04-02WG14	3/26/01	1120	W	G	3	
		DUP02WG14	3/26/01	1200	W	G	3	
		WHGLTA025WG14	3/26/01	1329	W	G	3	
	X	WHGLTA025WG14MS	3/26/01	1329	W	G	3	
	X	WHGLTA025WG14MSD	3/26/01	1329	W	G	3	
		LF05-19WG14	3/26/01	1310	W	G	3	
		TB032601	3/26/01	0910	W	G	2	

RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME
[illegible]	Hydrogeologic	3/26/01	1645				
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, Cool to 4°
6 Cool to 4°
7 None

COMMENTS

Date Received __/__/__
Courier:
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616 286

SEVERN TRENT SERVICES

STL Chicago
2417 Bond Street
University Park, IL 60466
Phone: 708-534-5200
Fax: 708-534-5211

Report To:
Contact: Kim Evers
Company: HydroEcologic Inc
Address: [illegible]
Phone: [illegible]
Fax: [illegible]
E-Mail: [illegible]

Bill To:
Contact: Kim Evers
Company: (same)
Address:
Phone:
Fax:
PO#: Quote:

Shaded Areas For Internal Use Only ____ of ____

Lab Lot#

Package Sealed	Samples Sealed
Yes No	Yes No
Received on Ice	**Samples Intact**
Yes No	Yes No

Temperature °C of Cooler

Within Hold Time	Preserv. Indicated
Yes No	Yes No NA
pH Check OK	**Res Cl_2 Check OK**
Yes No NA	Yes No NA

Sample Labels and COC Agree
Yes No COC not present

Additional Analyses / Remarks

616 287

Sampler Name: Kent Duran
Signature: Kent Duran
Project Name: April 2001 - Semi-Annual
Project Number: AFC001 - 33DAA
Project Location: [illegible]
Date Required Hard Copy: __/__/__ Fax: __/__/__
Lab PM: Donna Ingersoll

Refrg #														
# / Cont.	2	1	1											
Volume	40mL	1L	1L											
Preserv	1	3	3											

Laboratory ID	MS-MSD	Client Sample ID	Sampling Date	Sampling Time	Matrix	Comp/Grab	Volatiles (SW8260B)	Chromium (SW6010B)	Metals + Hg (SW6010B)	Additional Analyses / Remarks
		GMI-22-07MWG14	3/27/01	1025	W	G	3			
	X	GMI-22-07MWG14MS	3/27/01	1025	W	G	3			
	X	GMI-22-07MWG14MSD	3/27/01	1025	W	G	3			
		LF03-3DWG14	3/27/01	0930	W	G	3	1		
		WITCTAD10WG14	3/27/01	1416	W	G	3		1	
		LF05-01WG14	3/27/01	1613	W	G	3			
		TB032701	3/27/01	0740	W		2			
		GMI-22-06MWG14	3/27/01	1613	W	G	3			

RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME
Kent Duran	HEC	3/27/01	1632				
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, Cool to 4°
6 Cool to 4°
7 None

COMMENTS

Date Received __/__/__
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SEVERN TRENT SERVICES

STL Chicago
2417 Bond Street
University Park, IL 60466
Phone. 708-534-5200
Fax 708-534-5211

Shaded Areas For Internal Use Only ____ of ____

Report To:
Contact: Kim Evers
Company: HydroGeologic, Inc.
Address: 1155 Herndon Pkwy Suite 900, Herndon VA 20170
Phone: 703-478-5186
Fax: 703-471-4180
E-Mail: kevers@ngl.com

Bill To:
Contact:
Company: (same)
Address:
Phone:
Fax:
PO#: Quote:

Lab L t#

Package Sealed Yes No	Samples Sealed Yes No
Received on Ice Yes No	Samples Intact Yes No
Temperature °C of Cooler	

Sampler Name: Adam Karst
Signature:
Project Name: April 2001 Semi Annual
Project Number: AFC001 - 33DAA
Project Location: NAS Fort Worth JRB, TX
Date Required: Hard Copy: __/__/__ Fax: __/__/__
Lab PM: Donna Ingersol

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

Laboratory ID	MS-MSD	Client Sample ID	Sampling Date	Sampling Time	Matrix	Comp/Grab	Volatiles SW8260B	Metals + Hg SW6010/7471	Nitrate, nitrite, phosphate, Cl, SO4 E300.0	Alkalinity/Anions E310.1/SW9056	TOC SW9060						Additional Analyses / Remarks
						# / Cont.	2	1	2	1	1						
						Volume	40mL	1L	40mL	1L	500mL						
						Preserv.	1	3	1	7	2						
		HM-123WG14	4/2/01	0935	W	G	3		3	1	1						
		ITMW-01TWG14	4/2/01	1109	W	G	3	1	3	1	1						
		LF05-5GWG14	4/2/01	1221	W	G	3		3	1	1						
		WITCTA024WG14	4/2/01	1430	W	G	3		3	1	1						
		ST14-03WG14	4/2/01	1648	W	G	3										
		TB040201	4/2/01	0815	W	G	2										
		WHGLRW017WG14	4/2/01	1344	W	G	3										
		WHGLRW016WG14	4/2/01	1546	W	G	3										
		LF05-02WG14	4/2/01	~~1640~~ 1714	W	G	3										
		EB040201	4/2/01	1750	W	G	3										

RELINQUISHED BY: [signature]	COMPANY: Hydrologic	DATE: 4/2/01	TIME: 1800	RECEIVED BY	COMPANY	DATE	TIME
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, Cool to 4°
6 Cool to 4°
7 None

COMMENTS
Associate EB040201 to unique WHGLRW016, WHGLRW017, & LF05-02.

Date Received __/__/__
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616 288

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University Park, IL 60466
Phone: 708-534-5200
Fax. 708-534-5211

Shaded Areas For Internal Use Only ____ of ____

Report To:
Contact: Kim Evers
Company: HydroGeologic Inc
Address: 11535 Hunter Ridge Rd Ste 400
Herndon VA 20170
Phone: 703 478-5186
Fax: 703-471-4180
E-Mail: kevers@hgi.com

Bill To:
Contact: Kim Evers
Company: (same)
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	

616 289

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: Adam Karst
Signature:
Project Name: April 2001 - Semi Annual
Project Number: AFCC01-33DAA
Project Location: Wright JRB
Date Required Hard Copy: __/__/__ Fax: __/__/__
Lab PM: Diane Ingersoll

Laboratory ID	MS-MSD	Client Sample ID	Sampling Date	Sampling Time	Matrix	Comp/Grab	Volatiles SW8260B	Metals + Hg SW6010B/7471	Methane, Ethane, Ethene RSK-175	Alkalinity/Anions E310.1/SW9056	TOC SW9060	Additional Analyses / Remarks
Refrg #												
# / Cont.							2	1	2	1	1	
Volume							40mL	1L	40mL	1L	500mL	
Preserv							1	3	1	7	2	
		TB040301	4/3/01	0750	W	G	2					
		EB040301		1712	W	G	3					
		AB040301		1145	W	G	3					
		SPOT35-5WG14		1025	W	G	3					
		WITCTA004WG14		1135	W	G	3					
		W-153WG14		1330	W	G	3		3	1	1	
		HM-116WG14		1437	W	G	3	1				
		WHGLTA043WG14		1141	W	G	3					
		DUP03WG14		1200	W	G	3					
		WHGLTA044WG14		1320	W	G	3					
	X	WHGLTA044WG14MS		1320	W	G	3					
	X	WHGLTA044WG14MSD		1320	W	G	3					

RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME
Jennifer Wallace	HydroGeologic	4/3/01	1730				
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, Cool to 4°
6. Cool to 4°
7 None

COMMENTS
* EB associated only w/ WHGLTA043, WHGLTA044, WHGLTA045, WHGLTA004, HM-126 only.
* [redacted] associated only w/ WITCTA004.

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Fax: 708-534-5211

Shaded Areas For Internal Use Only ____ of ____

Report To:
Contact: Kim Evers
Company: Hydro EcoLogic, Inc.
Address: 1155 Herndon Pkwy Ste 900
Herndon VA 20170
Phone: 703-478-0186
Fax: 703-471-4180
E-Mail: kevers@hyl.com

To:
Contact: Kim Evers
Company: (same)
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:	
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: Adam Karst
Signature: [signature]
Project Name: April 2001 - Semi Annual
Project Number: AFC001 - 33DAA
Project Location: WIS FW JRB
Date Required: Hard Copy: __/__/__ Fax: __/__/__
Lab PM: Donna Ingersoll

Laboratory ID	MS-MSD	Client Sample ID	Sampling Date	Sampling Time	Matrix	Comp/Grab	Refrg #	# / Cont.	Volume	Preserv	Volatiles SW8260B	Additional Analyses / Remarks
		WHGLTA045WG14	4/3/01	1444	W	G		2	40mL	1	3	
		WHGLTA704WG14	↓	0954	W	G					3	
		HM-126WW14	↓	~~1717~~ 1730	W	G					3	

RELINQUISHED BY: Jennifer Wallace	COMPANY: Hydrobiologic	DATE: 4/3/01	TIME: 1730	RECEIVED BY	COMPANY	DATE	TIME
RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME

Matrix Key
WW = Wastewater
W = Water
S = Soil
SL = Sludge
MS = Miscellaneous
Oil = 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, Cool to 4°
6. Cool to 4°

COMMENTS
*EB040301 associated w/ these samples.

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616 290

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2417 Bond Street
University Park, IL 60466
Phone: 708-534-5200
Fax 708-534-5211

Shaded Areas For Internal Use Only _____ of _____

Report To:
Contact: Kim Evers
Company: Hydro Geologic, Inc.
Address: 155 Herndon Parkway STE 900
Herndon VA 20170
Phone: 703 471 1100
Fax: 703 471 4130
E-Mail: kevers@hgi.com

Bill To:
Contact: Kim Evers
Company: (same)
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	

616 291

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: [illegible]
Signature: [illegible]
Project Name: April 2001 Semi Annual
Project Number: [illegible] 33DAA
Project Location: [illegible]
Lab PM: Lorna Tarsell
Date Required — Hard Copy: __/__/__ Fax: __/__/__

Laboratory ID	MS-MSD	Client Sample ID	Sampling Date	Sampling Time	Matrix	Comp/Grab	Volatiles (SW8260B)	Metals + Hg Sulfide/7471	Nitrate, Chlorides, Sulfate (SW-375)	Alkalinity/Anions Ethyl/Sulfide	TOC SW9010	Additional Analyses / Remarks
						Refrg #						
						# / Cont.	2	1	2	1	1	
						Volume	40ml	1L	40ml	1L	500ml	
						Preserv	1	3	1	7	2	
		USGS07TWG14	4-4-01	1012	W	G	3	1	3	1	1	
		WCHMHTA009WG14		1332	W	G	3					
		DUP04WG14		1200	W	G	3					
		WCHMHTA006WG14		1520	W	G	3					
		EB040401		1550	W	G	3					
		TB040401		0745	W	G	2					

RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME
[illegible]	Hydrogeologic	4/4/01	1700				
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, Cool to 4°
6. Cool to 4°
7. None

COMMENTS
EB's associated w/ only WCHMHTA006 & WCHMHTA009

Date Received / /
Courier:
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SEVERN TRENT SERVICES

STL Chicago
2417 Bond Street
University Park, IL 60466
Phone: 708-534-5200
Fax: 708-534-5211

Shaded Areas For Internal Use Only ____ of ____

Report To:
Contact: Kim Evers
Company: HydroGeologic
Address: 1155 Herndon Pkwy Ste 900
Herndon VA 20170
Phone: 703 471-5176
Fax: 703 471-4170
E-Mail: kevers@hgi.com

Bill To:
Contact: Kim Evers
Company: (same)
Address:
Phone:
Fax:
PO#: ____ Quote: ____

Lab Lot#

Package Sealed	Samples Sealed
Yes No	Yes No
Received on Ice	**Samples Intact**
Yes No	Yes No

Temperature °C of Cooler

Within Hold Time	Preserv. Indicated
Yes No	Yes No NA
pH Check OK	**Res Cl_2 Check OK**
Yes No NA	Yes No NA

Sample Labels and COC Agree
Yes No COC not present

Sampler Name: Adam Kurst
Signature: [signature]
Project Name: April 2001 Sampling
Project Number: 11-001-23DAIA
Project Location: NAS FW JRB
Date Required Hard Copy: __/__/__ Fax: __/__/__
Lab PM: Donna Hyselell

Refrg #	
# / Cont.	2
Volume	40ml
Preserv	1

Laboratory ID	MS-MSD	Client Sample ID	Sampling Date	Sampling Time	Matrix	Comp/Grab	Volatiles (SW8260B)	Additional Analyses / Remarks
	-	TB040501	4-5-01	0730	W	G	2	
	-	WCHMITA008WG14		0949	W	G	3	
	-	WITCTA003WG14		1150	W	G	3	
	-	WHGLTA009WG14		1332	W	G	3	
	-	WHGLTA012WG14		1442	W	G	3	
	-	DUP01WG14		1200	W	G	3	
	-	USGS04TWG14		1618	W	G	3	
	-	EB040501		1640	W	G	3	
	-	WITCTA043WG14	4/5/01	1107 ~~0933~~	W	G	3	
	-	WITCTA041WG14	4/5/01	1328	W	G	3	
	-	WITCTA040WG14	4/5/01	1530	W	G	3	
	-	WITCTA019WG14	4/5/01	1640	W	G	3	

RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME
[signature]	HGL	4/5/01	1733				
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, Cool to 4°
6 Cool to 4°
7 None

COMMENTS

Date Received __/__/__
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616 292

SEVERN TRENT SERVICES

STL Chicago
2417 Bond Street
University Park, IL 60466
Phone: 708-534-5200
Fax: 708-534-5211

Shaded Areas For Internal Use Only ____ of ____

Report To:
Contact: Kim Evers
Company: HydroGeologic
Address: 1155 Herndon Pkwy Ste. 900 Herndon VA 20170
Phone: 703-471-5186
Fax: 703-471-4180
E-Mail: kevers@hgi.com

Bill To:
Contact: Kim Evers (Same)
Company:
Address:
Phone:
Fax:
PO#: Quote:

Lab Lot#

Package Sealed	Samples Sealed
Yes No	Yes No
Received on Ice	**Samples Intact**
Yes No	Yes No

Temperature °C of Cooler

Within Hold Time	Preserv. Indicated
Yes No	Yes No NA
pH Check OK	**Res Cl_2 Check OK**
Yes No NA	Yes No NA

Sample Labels and COC Agree: Yes No COC not present

Additional Analyses / Remarks

616 293

Sampler Name: Adam Karst
Signature:
Project Name: April 2001 Semi Annual
Project Number: AF001-33DAA
Project Location: NAS FW JRB Texas
Date Required: Hard Copy: __/__/__ Fax: __/__/__
Lab PM: Donna Ingersoll

Laboratory ID	MS-MSD	Client Sample ID	Sampling Date	Sampling Time	Matrix	Comp/Grab	Refrg # / # / Cont. / Volume / Preserv: Volatiles (SW8260B)
		TB040601	4-6-01	0705	W	G	2
		~~EB040601~~ 4W					
		WHGLTA603WG14		0819	W	G	3
		WHGLPU001WG14			W	G	3
		DUP05WG14		1200	W	G	3
		WHGLTA051WG14		1125	W	G	3
		~~WHGLPU001WG14~~		~~927~~	~~W~~	~~G~~	~~3~~
		WHGLTA029WG14	4/5/01	1756	W	G	3

RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME
[signature]	HGL	4/5/01	4/6/01				
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, Cool to 4°
6. Cool to 4°
7. None

COMMENTS
*EB040601 associated w/ samples collected for project 26CE.

Date Received / /
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Bill of Lading

STL-8208 (0600)

SEVERN TRENT SERVICES

STL Chicago
2417 Bond Street
University Park, IL 60466
Phone. 708-534-5200
Fax: 708-534-5211

Shaded Areas For Internal Use Only ____ of ____

Report To:
Contact: Kim Evers
Company: HydroGeologic Inc.
Address: 1155 Herndon Pkwy Ste 900, Herndon VA 20170
Phone: 703-478-5186
Fax: 703-471-4180
E-Mail: Kevers@hgi.com

To:
Contact: Kim Evers
Company: (same)
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	
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: Adam Karst
Signature: Kent Dunn for Adam Karst
Project Name: April 2001 Semi Annual
Project Number: AF001-33DAA
Project Location: NAS Fort Worth JRB
Date Required — Hard Copy: __/__/__ Fax: __/__/__
Lab PM: Donna Ingersoll

Laboratory ID	MS-MSD	Client Sample ID	Sampling Date	Sampling Time	Matrix	Comp/Grab	Refrg #	# / Cont.	Volume	Preserv	Volatiles (SW8260B)	Additional Analyses / Remarks
		HM-114WG14	4/10/01	0918	W	G		2	40ml	1	3	

RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME
Christopher Walla	Hydrogeologic	4/10/01	1800				
RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME

Matrix Key
WW = Wastewater
W = Water
S = Soil
SL = Sludge
MS = Miscellaneous
SE = Sediment
SO = Solid
DS = Drum Solid
DL = Drum Liquid
L = Leachate
W = 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, Cool to 4°
6 Cool to 4°

COMMENTS
*TB041001 & EB041001 are w/ project AF001-26CE.

Date Received __/__/__
Courier:
Hand Delivered ☐
Bill of Lading

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TAB

APPENDIX B

APPENDIX B

APRIL 2001 ANALYTICAL RESULTS

APPENDIX B.1

TCE PLUME MONITORING WELL LABORATORY RESULTS
APRIL 2001

Table B.1
TCE Plume Monitoring Well
Laboratory Results April 2001
NAS Fort Worth JRB, Texas

Analytical Method/Analyte	Units	GMI-22-06M N 3/27/01	GMI-22-07M N 3/27/01	HM-114 N 4/10/01	HM-116 N 4/3/01	HM-123 N 4/2/01	HM-126 N 4/3/01
Alkalinity - E310.1							
Alkalinity, Total (as CaCO3)	µg/L	NA	NA	NA	NA	323000	NA
Nonhalogenated Volatile Organics - RSK-175							
Ethane	µg/L	NA	NA	NA	NA	0.55	NA
Ethene	µg/L	NA	NA	NA	NA	0.5 U	NA
Methane	µg/L	NA	NA	NA	NA	120	NA
Trace Elements (Metals) by ICP Plasma Emissions Spectrometry - SW6010B							
Aluminum	µg/L	NA	NA	NA	20.3 UJ	NA	NA
Antimony	µg/L	NA	NA	NA	10 U	NA	NA
Arsenic	µg/L	NA	NA	NA	3.7 UJ	NA	NA
Barium	µg/L	NA	NA	NA	116 F	NA	NA
Beryllium	µg/L	NA	NA	NA	3 U	NA	NA
Cadmium	µg/L	NA	NA	NA	0.32 UJ	NA	NA
Calcium	µg/L	NA	NA	NA	106000	NA	NA
Cobalt	µg/L	NA	NA	NA	2 UJ	NA	NA
Copper	µg/L	NA	NA	NA	100 U	NA	NA
Iron	µg/L	NA	NA	NA	70 U	NA	NA
Magnesium	µg/L	NA	NA	NA	3140	NA	NA
Manganese	µg/L	NA	NA	NA	20 U	NA	NA
Molybdenum	µg/L	NA	NA	NA	10 U	NA	NA
Nickel	µg/L	NA	NA	NA	1.6 UJ	NA	NA
Potassium	µg/L	NA	NA	NA	1910 F	NA	NA
Silver	µg/L	NA	NA	NA	5 U	NA	NA
Sodium	µg/L	NA	NA	NA	60900	NA	NA
Thallium	µg/L	NA	NA	NA	50 U	NA	NA
Vandadium	µg/L	NA	NA	NA	10 U	NA	NA

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Table B.1 (Continued)
TCE Plume Monitoring Well
Laboratory Results April 2001
NAS Fort Worth JRB, Texas

Analytical Method/Analyte	Units	GMI-22-06M N 3/27/01	GMI-22-07M N 3/27/01	HM-114 N 4/10/01	HM-116 N 4/3/01	HM-123 N 4/2/01	HM-126 N 4/3/01
Zinc	µg/L	NA	NA	NA	100 U	NA	NA
Chromium - SW7191							
Chromium, Total	µg/L	NA	NA	NA	25.3	NA	NA
Lead by Graphite Furnace AA Technique - SW7421							
Lead	µg/L	NA	NA	NA	2 U	NA	NA
Mercury in Liquid Waste - SW7470							
Mercury	µg/L	NA	NA	NA	0.2 U	NA	NA
Selenium by Graphite Furnace AA Technique - SW7740							
Selenium	µg/L	NA	NA	NA	5 U	NA	NA
Volatile Organic Compounds - SW8260B							
1,1,1,2-Tetrachloroethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.2 UJ	0.5 U
1,1,1-Trichloroethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.3 UJ	0.5 U
1,1,2,2-Tetrachloroethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.2 UJ	0.5 U
1,1,2-Trichloroethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.4 UJ	0.5 U
1,1-Dichloroethane	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0.8 J	0.4 U
1,1-Dichloroethene	µg/L	0.4 F	0.5 U	2	2	2 J	0.4 F
1,1-Dichloropropene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.4 UJ	0.5 U
1,2,3-Trichlorobenzene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.2 UJ	0.5 U
1,2,3-Trichloropropane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.3 UJ	0.5 U
1,2,4-Trichlorobenzene	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0.2 UJ	0.4 U
1,2,4-Trimethylbenzene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.4 UJ	0.5 U
1,2-Dibromo-3-Chloropropane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 UJ	0.5 U
1,2-Dibromoethane (Ethylene Dibromide)	µg/L	0 5 U	0.5 U	0.5 U	0.5 U	0.3 UJ	0.5 U
1,2-Dichlorobenzene	µg/L	0.3 U	0.3 U	0.3 U	0.3 U	0.3 UJ	0.3 U
1,2-Dichloroethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.2 UJ	0.5 U
1,2-Dichloropropane	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0.2 UJ	0.4 U

Table B.1 (Continued)
TCE Plume Monitoring Well
Laboratory Results April 2001
NAS Fort Worth JRB, Texas

Analytical Method/Analyte	Units	GMI-22-06M N 3/27/01	GMI-22-07M N 3/27/01	HM-114 N 4/10/01	HM-116 N 4/3/01	HM-123 N 4/2/01	HM-126 N 4/3/01
1,3,5-Trimethylbenzene (Mesitylene)	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.2 UJ	0.5 U
1,3-Dichlorobenzene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.3 UJ	0 5 U
1,3-Dichloropropane	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0.2 UJ	0.4 U
1,4-Dichlorobenzene	µg/L	0.3 U	0.3 U	0.3 U	0.3 U	0.2 UJ	0.3 U
1-Chlorohexane	µg/L	0.5 U	0.3 UJ	0.5 U	0.5 U	0.3 UJ	0.5 U
2,2-Dichloropropane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.3 UJ	0.5 U
2-Chlorotoluene	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0.2 UJ	0.4 U
4-Chlorotoluene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.2 UJ	0.5 U
Benzene	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0.2 UJ	0.4 U
Bromobenzene	µg/L	0.3 U	0.3 U	0.3 U	0.3 U	0.2 UJ	0.3 U
Bromochloromethane	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 UJ	0.4 U
Bromodichloromethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.2 UJ	0.5 U
Bromoform	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.2 UJ	0.5 U
Bromomethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.4 UJ	0.5 U
Carbon Tetrachloride	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.3 UJ	0.5 U
Chlorobenzene	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0.2 UJ	0.4 U
Chloroethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.3 UJ	0 5 U
Chloroform	µg/L	0.3 U	0.3 U	0.3 U	0.4	0.5 J	0.3 U
Chloromethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.4 UJ	0.5 U
cis-1,2-Dichloroethene	µg/L	84	0.5 U	80	48	560	19
cis-1,3-Dichloropropene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.3 UJ	0.5 U
Dibromochloromethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.2 UJ	0.5 U
Dibromomethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.2 UJ	0.5 U
Dichlorodifluoromethane	µg/L	0.5 U	0.5 U	0.4 R	0.5 U	0.4 UJ	0.5 U
Ethylbenzene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.2 UJ	0 5 U
Hexachlorobutadiene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.4 UJ	0.5 U

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Table B.1 (Continued)
TCE Plume Monitoring Well
Laboratory Results April 2001
NAS Fort Worth JRB, Texas

Analytical Method/Analyte	Units	GMI-22-06M N 3/27/01	GMI-22-07M N 3/27/01	HM-114 N 4/10/01	HM-116 N 4/3/01	HM-123 N 4/2/01	HM-126 N 4/3/01
Isopropylbenzene (cumene)	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.2 UJ	0.5 U
m, p -Xylene (Sum of Isomers)	µg/L	1 U	1 U	1 U	1 U	0.5 UJ	1 U
Methylene Chloride	µg/L	0.5 U	0.5 U	0.5 U	0.3 R	0.3 R	0.3 R
Naphthalene	µg/L	2 U	2 U	2 U	2 U	1 UJ	2 U
n-Butylbenzene	µg/L	0 5 U	0.5 U	0.5 U	0.5 U	0.2 UJ	0.5 U
n-Propylbenzene	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0.2 UJ	0.4 U
o-Xylene (1,2-Dimethylbenzene)	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.2 UJ	0.5 U
p-Cymene (p-Isopropyltoluene)	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.2 UJ	0.5 U
sec-Butylbenzene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.3 UJ	0 5 U
Styrene	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0.2 UJ	0.4 U
tert-Butylbenzene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.3 UJ	0.5 U
tert-Butyl Methyl Ether	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.3 UJ	0.5 U
Tetrachloroethene (PCE)	µg/L	0.5 U	0.5 U	0.8	12	0.5 F	0.5 U
Toluene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.2 UJ	0.5 U
trans-1,2-Dichloroethene	µg/L	0.5 U	0.5 U	1	0.9	12 J	3
trans-1,3-Dichloropropene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.2 UJ	0.5 U
Trichloroethene (TCE)	µg/L	160	0.5 U	560	480	2500	280
Trichlorofluoromethane	µg/L	0.5 U	0.5 U	1	2	0.4 UJ	0.5 U
Vinyl Acetate	µg/L	2 U	2 U	2 U	2 U	0.8 UJ	2 U
Vinyl Chloride	µg/L	1	0.5 U	0.5 U	0.5 U	0.9 J	0.5 U
Common Anions - SW9056							
Chloride (as Cl)	µg/L	NA	NA	NA	NA	19500	NA
Nitrogen, Nitrate (as N)	µg/L	NA	NA	NA	NA	3460	NA
Sulfate (as SO4)	µg/L	NA	NA	NA	NA	71200	NA
Total Organic Carbon - SW9060							
Total Organic Carbon	µg/L	NA	NA	NA	NA	1000	NA

Table B.1 (Continued)
TCE Plume Monitoring Well
Laboratory Results April 2001
NAS Fort Worth JRB, Texas

Analytical Method/Analyte	Units	GMI-22-06M N 3/27/01	ITMW-01T N 4/2/01	LF03-3D N 3/27/01	LF04-02 N 3/26/01	LF04-02 FD 3/26/01	LF05-01 N 3/27/01	LF05-02 N 4/2/01
Alkalinity - E310.1								
Alkalinity, Total (as CaCO3)	µg/L	NA	412000	NA	NA	NA	NA	NA
Nonhalogenated Volatile Organics - RSK-175								
Ethane	µg/L	NA	0.5 U	NA	NA	NA	NA	NA
Ethene	µg/L	NA	0.5 U	NA	NA	NA	NA	NA
Methane	µg/L	NA	1.6	NA	NA	NA	NA	NA
Trace Elements (Metals) by ICP Plasma Emissions Spectrometry - SW6010B								
Aluminum	µg/L	NA	20.3 UJ	NA	NA	NA	NA	NA
Antimony	µg/L	NA	10 U	NA	NA	NA	NA	NA
Arsenic	µg/L	NA	3.7 UJ	NA	NA	NA	NA	NA
Barium	µg/L	NA	94.5 F	NA	NA	NA	NA	NA
Beryllium	µg/L	NA	3 U	NA	NA	NA	NA	NA
Cadmium	µg/L	NA	0.32 UJ	NA	NA	NA	NA	NA
Calcium	µg/L	NA	180000	NA	NA	NA	NA	NA
Cobalt	µg/L	NA	10 U	NA	NA	NA	NA	NA
Copper	µg/L	NA	4.9 F	NA	NA	NA	NA	NA
Iron	µg/L	NA	111	NA	NA	NA	NA	NA
Magnesium	µg/L	NA	12900	NA	NA	NA	NA	NA
Manganese	µg/L	NA	366	NA	NA	NA	NA	NA
Molybdenum	µg/L	NA	10 U	NA	NA	NA	NA	NA
Nickel	µg/L	NA	1.6 UJ	NA	NA	NA	NA	NA
Potassium	µg/L	NA	1690 F	NA	NA	NA	NA	NA
Silver	µg/L	NA	5 U	NA	NA	NA	NA	NA
Sodium	µg/L	NA	82000	NA	NA	NA	NA	NA
Thallium	µg/L	NA	50 U	NA	NA	NA	NA	NA
Vandadium	µg/L	NA	10 U	NA	NA	NA	NA	NA

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Table B.1 (Continued)
TCE Plume Monitoring Well
Laboratory Results April 2001
NAS Fort Worth JRB, Texas

Analytical Method/Analyte	Units	GMI-22-06M N 3/27/01	ITMW-01T N 4/2/01	LF03-3D N 3/27/01	LF04-02 N 3/26/01	LF04-02 FD 3/26/01	LF05-01 N 3/27/01	LF05-02 N 4/2/01
Zinc	µg/L	NA	100 U	NA	NA	NA	NA	NA
Chromium - SW7191								
Chromium, Total	µg/L	NA	2 UJ	2 UJ	NA	NA	NA	NA
Lead by Graphite Furnace AA Technique - SW7421								
Lead	µg/L	NA	2 U	NA	NA	NA	NA	NA
Mercury in Liquid Waste - SW7470								
Mercury	µg/L	NA	0.2 U	NA	NA	NA	NA	NA
Selenium by Graphite Furnace AA Technique - SW7740								
Selenium	µg/L	NA	3 F	NA	NA	NA	NA	NA
Volatile Organic Compounds - SW8260B								
1,1,1,2-Tetrachloroethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,1-Trichloroethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0 5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane	µg/L	0.4 U	0.4 U	0.4 U	0.6	0.6	0.4 U	0.4 U
1,1-Dichloroethene	µg/L	0.4 F	0.5 U	0.5 U	3	2	0.5 U	0.5 U
1,1-Dichloropropene	µg/L	0 5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichloropropane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,4-Trichlorobenzene	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
1,2,4-Trimethylbenzene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dibromo-3-Chloropropane	µg/L	0.5 U	0.5 U	0.5 U	0.5 R	0.5 R	0.5 U	0.5 U
1,2-Dibromoethane (Ethylene Dibromide)	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichlorobenzene	µg/L	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,2-Dichloroethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
1,[illegible]rimethylbenzene (Mesitylene)	µg/L	0 5 U	[illegible]0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0[illegible]

Table B.1 (Continued)
TCE Plume Monitoring Well
Laboratory Results April 2001
NAS Fort Worth JRB, Texas

Analytical Method/Analyte	Units	GMI-22-06M N 3/27/01	ITMW-01T N 4/2/01	LF03-3D N 3/27/01	LF04-02 N 3/26/01	LF04-02 FD 3/26/01	LF05-01 N 3/27/01	LF05-02 N 4/2/01
1,3-Dichlorobenzene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3-Dichloropropane	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
1,4-Dichlorobenzene	µg/L	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1-Chlorohexane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2,2-Dichloropropane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Chlorotoluene	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
4-Chlorotoluene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Benzene	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Bromobenzene	µg/L	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Bromochloromethane	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Bromodichloromethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromomethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon Tetrachloride	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Chloroethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform	µg/L	0.3 U	0.3 U	0.3 U	0.5	0.5	0.3 U	0.3 U
Chloromethane	µg/L	0.5 U	0.5 U	0.5 U	0.4 R	0.4 R	0.5 U	0.5 U
cis-1,2-Dichloroethene	µg/L	84	0.8	0.5 U	450	450	34	2
cis-1,3-Dichloropropene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromomethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dichlorodifluoromethane	µg/L	0.5 U	0.5 U	0.5 U	0.4 R	0.4 R	0.5 U	0.5 U
Ethylbenzene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Hexachlorobutadiene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Isopropylbenzene (cumene)	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

Table B.1 (Continued)
TCE Plume Monitoring Well
Laboratory Results April 2001
NAS Fort Worth JRB, Texas

Analytical Method/Analyte	Units	GMI-22-06M N 3/27/01	ITMW-01T N 4/2/01	LF03-3D N 3/27/01	LF04-02 N 3/26/01	LF04-02 FD 3/26/01	LF05-01 N 3/27/01	LF05-02 N 4/2/01
m, p -Xylene (Sum of Isomers)	µg/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methylene Chloride	µg/L	0.5 U	0.5 U	0.5 U	0.3 R	0.3 R	0.5 U	0.5 U
Naphthalene	µg/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U
n-Butylbenzene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
n-Propylbenzene	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
o-Xylene (1,2-Dimethylbenzene)	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
p-Cymene (p-Isopropyltoluene)	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
sec-Butylbenzene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Styrene	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
tert-Butylbenzene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
tert-Butyl Methyl Ether	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Tetrachloroethene (PCE)	µg/L	0.5 U	0.5 U	0.5 U	0.7	0.7	0.5 U	0.5 U
Toluene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,2-Dichloroethene	µg/L	0.5 U	0.5 U	0.5 U	38	38	3	0.5 U
trans-1,3-Dichloropropene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene (TCE)	µg/L	160	2	0.5 U	1300	1600	46	0.5 U
Trichlorofluoromethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Vinyl Acetate	µg/L	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Vinyl Chloride	µg/L	1	0.5 U	0.5 U	12	12	0.5 U	0.9
Common Anions - SW9056								
Chloride (as Cl)	µg/L		54600	NA	NA	NA	NA	NA
Nitrogen, Nitrate (as N)	µg/L		1290	NA	NA	NA	NA	NA
Sulfate (as SO4)	µg/L		184000	NA	NA	NA	NA	NA
Total Organic Carbon - SW9060								
Total Organic Carbon	µg/L		1500	NA	NA	NA	NA	NA

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Table B.1 (Continued)
TCE Plume Monitoring Well
Laboratory Results April 2001
NAS Fort Worth JRB, Texas

Analytical Method/Analyte	Units	LF05-19 N 3/26/01	LF05-5G N 4/2/01	MW-53 N 3/26/01	SPOT35-5 N 4/3/01	ST14-03 N 4/2/01	USGS04T N 4/5/01
Alkalinity - E310.1							
Alkalinity, Total (as CaCO3)	µg/L	NA	357000	NA	NA	NA	NA
Nonhalogenated Volatile Organics - RSK-175							
Ethane	µg/L	NA	0.47 F	NA	NA	NA	NA
Ethene	µg/L	NA	0.5 U	NA	NA	NA	NA
Methane	µg/L	NA	210	NA	NA	NA	NA
Trace Elements (Metals) by ICP Plasma Emissions Spectrometry - SW6010B							
Aluminum	µg/L	NA	NA	NA	NA	NA	NA
Antimony	µg/L	NA	NA	NA	NA	NA	NA
Arsenic	µg/L	NA	NA	NA	NA	NA	NA
Barium	µg/L	NA	NA	NA	NA	NA	NA
Beryllium	µg/L	NA	NA	NA	NA	NA	NA
Cadmium	µg/L	NA	NA	NA	NA	NA	NA
Calcium	µg/L	NA	NA	NA	NA	NA	NA
Cobalt	µg/L	NA	NA	NA	NA	NA	NA
Copper	µg/L	NA	NA	NA	NA	NA	NA
Iron	µg/L	NA	NA	NA	NA	NA	NA
Magnesium	µg/L	NA	NA	NA	NA	NA	NA
Manganese	µg/L	NA	NA	NA	NA	NA	NA
Molybdenum	µg/L	NA	NA	NA	NA	NA	NA
Nickel	µg/L	NA	NA	NA	NA	NA	NA
Potassium	µg/L	NA	NA	NA	NA	NA	NA
Silver	µg/L	NA	NA	NA	NA	NA	NA
Sodium	µg/L	NA	NA	NA	NA	NA	NA
Thallium	µg/L	NA	NA	NA	NA	NA	NA
Vandadium	µg/L	NA	NA	NA	NA	NA	NA
Zinc	µg/L	NA	NA	NA	NA	NA	NA
Chromium - SW7191							

Table B.1 (Continued)
TCE Plume Monitoring Well
Laboratory Results April 2001
NAS Fort Worth JRB, Texas

Analytical Method/Analyte	Units	LF05-19 N 3/26/01	LF05-5G N 4/2/01	MW-53 N 3/26/01	SPOT35-5 N 4/3/01	ST14-03 N 4/2/01	USGS04T N 4/5/01
Chromium, Total	µg/L	NA	NA	NA	NA	NA	NA
Lead by Graphite Furnace AA Technique - SW7421							
Lead	µg/L	NA	NA	NA	NA	NA	NA
Mercury in Liquid Waste - SW7470							
Mercury	µg/L	NA	NA	NA	NA	NA	NA
Selenium by Graphite Furnace AA Technique - SW7740							
Selenium	µg/L	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds - SW8260B							
1,1,1,2-Tetrachloroethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,1-Trichloroethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane	µg/L	0.5	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
1,1-Dichloroethene	µg/L	0.5 U	5	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloropropene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichloropropane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,4-Trichlorobenzene	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
1,2,4-Trimethylbenzene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dibromo-3-Chloropropane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dibromoethane (Ethylene Dibromide)	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichlorobenzene	µg/L	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,2-Dichloroethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
1,3,5-Trimethylbenzene (Mesitylene)	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3-Dichlorobenzene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3-Dichloropropane	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
1,4-Dichlorobenzene	µg/L	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U

Table B.1 (Continued)
TCE Plume Monitoring Well
Laboratory Results April 2001
NAS Fort Worth JRB, Texas

Analytical Method/Analyte	Units	LF05-19 N 3/26/01	LF05-5G N 4/2/01	MW-53 N 3/26/01	SPOT35-5 N 4/3/01	ST14-03 N 4/2/01	USGS04T N 4/5/01
1-Chlorohexane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2,2-Dichloropropane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Chlorotoluene	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
4-Chlorotoluene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Benzene	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Bromobenzene	µg/L	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Bromochloromethane	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Bromodichloromethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromomethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon Tetrachloride	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	µg/L	0.4 U	1	0.4 U	0.4 U	0.4 U	0.4 U
Chloroethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform	µg/L	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Chloromethane	µg/L	0.5 U	0 5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,2-Dichloroethene	µg/L	0.5 U	240	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,3-Dichloropropene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromomethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dichlorodifluoromethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.4 R
Ethylbenzene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Hexachlorobutadiene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Isopropylbenzene (cumene)	µg/L	0.5 U	0.5 U	0.5 U	14	0.5 U	0.5 U
m, p -Xylene (Sum of Isomers)	µg/L	1 U	1 U	1 U	1 U	1 U	1 U
Methylene Chloride	µg/L	0.5 U	0.3 R	0.5 U	0.5 U	0.3 R	0.5 U
Naphthalene	µg/L	2 U	2 U	2 U	27	2 U	1 R
n-Butylbenzene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
n-Propylbenzene	µg/L	0.4 U	0.4 U	0.4 U	16	0.4 U	0.4 U

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Table B.1 (Continued)
TCE Plume Monitoring Well
Laboratory Results April 2001
NAS Fort Worth JRB, Texas

Analytical Method/Analyte	Units	LF05-19 N 3/26/01	LF05-5G N 4/2/01	MW-53 N 3/26/01	SPOT35-5 N 4/3/01	ST14-03 N 4/2/01	USGS04T N 4/5/01
o-Xylene (1,2-Dimethylbenzene)	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
p-Cymene (p-Isopropyltoluene)	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
sec-Butylbenzene	µg/L	0.5 U	0.5 U	0.5 U	5	0.5 U	0.5 U
Styrene	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
tert-Butylbenzene	µg/L	0.5 U	0.5 U	0.5 U	1	1	0.5 U
tert-Butyl Methyl Ether	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Tetrachloroethene (PCE)	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,2-Dichloroethene	µg/L	2	18	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,3-Dichloropropene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene (TCE)	µg/L	130	870	4	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Vinyl Acetate	µg/L	2 U	2 U	2 U	2 U	2 U	2 U
Vinyl Chloride	µg/L	0.5 U	12	0.5 U	0.5 U	0.5 U	0.5 U
Common Anions - SW9056							
Chloride (as Cl)	µg/L	NA	71900	NA	NA	NA	NA
Nitrogen, Nitrate (as N)	µg/L	NA	288	NA	NA	NA	NA
Sulfate (as SO4)	µg/L	NA	66700	NA	NA	NA	NA
Total Organic Carbon - SW9060							
Total Organic Carbon	µg/L	NA	3400	NA	NA	NA	NA

Table B.1 (Continued)
TCE Plume Monitoring Well
Laboratory Results April 2001
NAS Fort Worth JRB, Texas

Analytical Method/Analyte	Units	USGS07T N 4/4/01	W-153 N 4/3/01	WCHMHTA006 N 4/4/01	WCHMHTA008 N 4/5/01	WCHMHTA009 N 4/4/01	WCHMHTA009 FD 4/4/01
Alkalinity - E310.1							
Alkalinity, Total (as CaCO3)	µg/L	247000	309000	NA	NA	NA	NA
Nonhalogenated Volatile Organics - RSK-175							
Ethane	µg/L	0.5 U	0.5 U	NA	NA	NA	NA
Ethene	µg/L	0.5 U	0.5 U	NA	NA	NA	NA
Methane	µg/L	0.5 U	0.5 U	NA	NA	NA	NA
Trace Elements (Metals) by ICP Plasma Emissions Spectrometry - SW6010B							
Aluminum	µg/L	402 F	NA	NA	NA	NA	NA
Antimony	µg/L	10 U	NA	NA	NA	NA	NA
Arsenic	µg/L	3.7 UJ	NA	NA	NA	NA	NA
Barium	µg/L	78 F	NA	NA	NA	NA	NA
Beryllium	µg/L	3 U	NA	NA	NA	NA	NA
Cadmium	µg/L	0.32 UJ	NA	NA	NA	NA	NA
Calcium	µg/L	90900	NA	NA	NA	NA	NA
Cobalt	µg/L	10 U	NA	NA	NA	NA	NA
Copper	µg/L	6.1 F	NA	NA	NA	NA	NA
Iron	µg/L	256	NA	NA	NA	NA	NA
Magnesium	µg/L	4400	NA	NA	NA	NA	NA
Manganese	µg/L	4.8 F	NA	NA	NA	NA	NA
Molybdenum	µg/L	10 U	NA	NA	NA	NA	NA
Nickel	µg/L	1.6 UJ	NA	NA	NA	NA	NA
Potassium	µg/L	833 F	NA	NA	NA	NA	NA
Silver	µg/L	5 U	NA	NA	NA	NA	NA
Sodium	µg/L	31600	NA	NA	NA	NA	NA
Thallium	µg/L	50 U	NA	NA	NA	NA	NA
Vandadium	µg/L	1.6 F	NA	NA	NA	NA	NA
Zinc	µg/L	100 U	NA	NA	NA	NA	NA
Chromium - SW7191							

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Table B.1 (Continued)
TCE Plume Monitoring Well
Laboratory Results April 2001
NAS Fort Worth JRB, Texas

Analytical Method/Analyte	Units	USGS07T N 4/4/01	W-153 N 4/3/01	WCHMHTA006 N 4/4/01	WCHMHTA008 N 4/5/01	WCHMHTA009 N 4/4/01	WCHMHTA009 FD 4/4/01
Chromium, Total	µg/L	5 U	NA	NA	NA	NA	NA
Lead by Graphite Furnace AA Technique - SW7421							
Lead	µg/L	2 UJ	NA	NA	NA	NA	NA
Mercury in Liquid Waste - SW7470							
Mercury	µg/L	0.2 U	NA	NA	NA	NA	NA
Selenium by Graphite Furnace AA Technique - SW7740							
Selenium	µg/L	1.8 UJ	NA	NA	NA	NA	NA
Volatile Organic Compounds - SW8260B							
1,1,1,2-Tetrachloroethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,1-Trichloroethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
1,1-Dichloroethene	µg/L	0.5 U	0.5 U	0.5	0.5 U	0.5 U	0.5 U
1,1-Dichloropropene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichloropropane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0 5 U
1,2,4-Trichlorobenzene	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
1,2,4-Trimethylbenzene	µg/L	0.5 U	0.5 U	0.5 U	190	0.5 U	0.5 U
1,2-Dibromo-3-Chloropropane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dibromoethane (Ethylene Dibromide)	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichlorobenzene	µg/L	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,2-Dichloroethane	µg/L	0.5 U	0 5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
1,3,5-Trimethylbenzene (Mesitylene)	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3-Dichlorobenzene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3-Dichloropropane	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
1,4-Dichlorobenzene	µg/L	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U

Table B.1 (Continued)
TCE Plume Monitoring Well
Laboratory Results April 2001
NAS Fort Worth JRB, Texas

Analytical Method/Analyte	Units	USGS07T N 4/4/01	W-153 N 4/3/01	WCHMHTA006 N 4/4/01	WCHMHTA008 N 4/5/01	WCHMHTA009 N 4/4/01	WCHMHTA009 FD 4/4/01
1-Chlorohexane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2,2-Dichloropropane	µg/L	0 5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Chlorotoluene	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0:4 U	0.4 U
4-Chlorotoluene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Benzene	µg/L	0 4 U	0.4 U	0.4 U	87	0.4 U	0.4 U
Bromobenzene	µg/L	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Bromochloromethane	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Bromodichloromethane	µg/L	0.5 U	0 5 U	0 5 U	0.5 U	0.5 U	0.5 U
Bromoform	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromomethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon Tetrachloride	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Chloroethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform	µg/L	0.3 U	0.5	0.4	0.3 U	0.3 U	0.3 U
Chloromethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,2-Dichloroethene	µg/L	0.5 U	130	65	0.5 U	3	3
cis-1,3-Dichloropropene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromomethane	µg/L	0 5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dichlorodifluoromethane	µg/L	0.5 U	0.5 U	0.5	0.4 R	0.5 U	0.5 U
Ethylbenzene	µg/L	0.5 U	0.5 U	0.5 U	160	0.5 U	0.5 U
Hexachlorobutadiene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Isopropylbenzene (cumene)	µg/L	0 5 U	0.5 U	0.5 U	22	0.5 U	0.5 U
m, p -Xylene (Sum of Isomers)	µg/L	1 U	1 U	1 U	1 U	1 U	1 U
Methylene Chloride	µg/L	0.3 R	0.3 R	0.3 R	0.5 U	0.3 R	0.3 R
Naphthalene	µg/L	2 U	2 U	2 U	80 R	2 U	2 U
n-Butylbenzene	µg/L	0.5 U	0.5 U	0.5 U	2	0.5 U	0.5 U
n-Propylbenzene	µg/L	0.4 U	0.4 U	0.4 U	28	0.4 U	0.4 U

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Table B.1 (Continued)
TCE Plume Monitoring Well
Laboratory Results April 2001
NAS Fort Worth JRB, Texas

Analytical Method/Analyte	Units	USGS07T N 4/4/01	W-153 N 4/3/01	WCHMHTA006 N 4/4/01	WCHMHTA008 N 4/5/01	WCHMHTA009 N 4/4/01	WCHMHTA009 FD 4/4/01
o-Xylene (1,2-Dimethylbenzene)	µg/L	0 5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
p-Cymene (p-Isopropyltoluene)	µg/L	0.5 U	0.5 U	0.5 U	4	0.5 U	0.5 U
sec-Butylbenzene	µg/L	0.5 U	0.5 U	0.5 U	6	0.5 U	0.5 U
Styrene	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
tert-Butylbenzene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
tert-Butyl Methyl Ether	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Tetrachloroethene (PCE)	µg/L	1	5	0.8	0.5 U	2	2
Toluene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,2-Dichloroethene	µg/L	0.5 U	1	0.6	0.5 U	0.5 U	0.5 U
trans-1,3-Dichloropropene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene (TCE)	µg/L	0.5 U	830	380	8	200	220
Trichlorofluoromethane	µg/L	0.5 U	2	1	0.5 U	0.5 U	0.5 U
Vinyl Acetate	µg/L	2 U	2 U	2 U	2 U	2 U	2 U
Vinyl Chloride	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Common Anions - SW9056							
Chloride (as Cl)	µg/L	11100	34400	NA	NA	NA	NA
Nitrogen, Nitrate (as N)	µg/L	1550	8090	NA	NA	NA	NA
Sulfate (as SO4)	µg/L	61600	21200	NA	NA	NA	NA
Total Organic Carbon - SW9060							
Total Organic Carbon	µg/L	1000	880 F	NA	NA	NA	NA

Table B.1 (Continued)
TCE Plume Monitoring Well
Laboratory Results April 2001
NAS Fort Worth JRB, Texas

Analytical Method/Analyte	Units	WHGLRW016 N 4/2/01	WHGLRW017 N 4/2/01	WHGLTA004 N 3/26/01	WHGLTA009 N 4/5/01	WHGLTA012 N 4/5/01	WHGLTA012 FD 4/5/01
Alkalinity - E310.1							
Alkalinity, Total (as CaCO3)	µg/L	NA	NA	NA	NA	NA	NA
Nonhalogenated Volatile Organics - RSK-175							
Ethane	µg/L	NA	NA	NA	NA	NA	NA
Ethene	µg/L	NA	NA	NA	NA	NA	NA
Methane	µg/L	NA	NA	NA	NA	NA	NA
Trace Elements (Metals) by ICP Plasma Emissions Spectrometry - SW6010B							
Aluminum	µg/L	NA	NA	NA	NA	NA	NA
Antimony	µg/L	NA	NA	NA	NA	NA	NA
Arsenic	µg/L	NA	NA	NA	NA	NA	NA
Barium	µg/L	NA	NA	NA	NA	NA	NA
Beryllium	µg/L	NA	NA	NA	NA	NA	NA
Cadmium	µg/L	NA	NA	NA	NA	NA	NA
Calcium	µg/L	NA	NA	NA	NA	NA	NA
Cobalt	µg/L	NA	NA	NA	NA	NA	NA
Copper	µg/L	NA	NA	NA	NA	NA	NA
Iron	µg/L	NA	NA	NA	NA	NA	NA
Magnesium	µg/L	NA	NA	NA	NA	NA	NA
Manganese	µg/L	NA	NA	NA	NA	NA	NA
Molybdenum	µg/L	NA	NA	NA	NA	NA	NA
Nickel	µg/L	NA	NA	NA	NA	NA	NA
Potassium	µg/L	NA	NA	NA	NA	NA	NA
Silver	µg/L	NA	NA	NA	NA	NA	NA
Sodium	µg/L	NA	NA	NA	NA	NA	NA
Thallium	µg/L	NA	NA	NA	NA	NA	NA
Vandadium	µg/L	NA	NA	NA	NA	NA	NA
Zinc	µg/L	NA	NA	NA	NA	NA	NA
Chromium - SW7191							

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Table B.1 (Continued)
TCE Plume Monitoring Well
Laboratory Results April 2001
NAS Fort Worth JRB, Texas

Analytical Method/Analyte	Units	WHGLRW016 N 4/2/01	WHGLRW017 N 4/2/01	WHGLTA004 N 3/26/01	WHGLTA009 N 4/5/01	WHGLTA012 N 4/5/01	WHGLTA012 FD 4/5/01
Chromium, Total	µg/L	NA	NA	NA	NA	NA	NA
Lead by Graphite Furnace AA Technique - SW7421							
Lead	µg/L	NA	NA	NA	NA	NA	NA
Mercury in Liquid Waste - SW7470							
Mercury	µg/L	NA	NA	NA	NA	NA	NA
Selenium by Graphite Furnace AA Technique - SW7740							
Selenium	µg/L	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds - SW8260B							
1,1,1,2-Tetrachloroethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,1-Trichloroethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
1,1-Dichloroethene	µg/L	0.5 U	0.5 U	0.9	0.5 U	0.5 U	0.5 U
1,1-Dichloropropene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichloropropane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,4-Trichlorobenzene	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
1,2,4-Trimethylbenzene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dibromo-3-Chloropropane	µg/L	0.5 U	0.5 U	0.5 R	0.5 U	0.5 U	0.5 U
1,2-Dibromoethane (Ethylene Dibromide)	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichlorobenzene	µg/L	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,2-Dichloroethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
1,3,5-Trimethylbenzene (Mesitylene)	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0 5 U
1,3-Dichlorobenzene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3-Dichloropropane	µg/L	0 4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
1,4-Dichlorobenzene	µg/L	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U

Table B.1 (Continued)
TCE Plume Monitoring Well
Laboratory Results April 2001
NAS Fort Worth JRB, Texas

Analytical Method/Analyte	Units	WHGLRW016 N 4/2/01	WHGLRW017 N 4/2/01	WHGLTA004 N 3/26/01	WHGLTA009 N 4/5/01	WHGLTA012 N 4/5/01	WHGLTA012 FD 4/5/01
1-Chlorohexane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2,2-Dichloropropane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Chlorotoluene	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
4-Chlorotoluene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Benzene	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	4 J	5 J
Bromobenzene	µg/L	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Bromochloromethane	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Bromodichloromethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0 5 U	0.5 U
Bromoform	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromomethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon Tetrachloride	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Chloroethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0 5 U
Chloroform	µg/L	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Chloromethane	µg/L	0.5 U	0.5 U	0.4 R	0.5 U	0.5 U	0.5 U
cis-1,2-Dichloroethene	µg/L	0.5 U	0.5 U	64	200 J	9 J	12 J
cis-1,3-Dichloropropene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromomethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dichlorodifluoromethane	µg/L	0.5 U	0.5 U	0.4 R	0.4 R	0.4 R	0.4 R
Ethylbenzene	µg/L	0.5 U	0 5 U	0.5 U	0.5 U	0.5 U	0.5 U
Hexachlorobutadiene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Isopropylbenzene (cumene)	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	30 J	32 J
m, p -Xylene (Sum of Isomers)	µg/L	1 U	1 U	1 U	1 U	1 U	1 U
Methylene Chloride	µg/L	0.5 U	0.5 U	0.3 R	0.5 U	0.5 U	0.3 R
Naphthalene	µg/L	2 U	2 U	2 U	1 R	1 R	2 U
n-Butylbenzene	µg/L	0.5 U	0 5 U	0.5 U	0.5 U	8 J	8 J
n-Propylbenzene	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	29 J	31 J

Table B.1 (Continued)
TCE Plume Monitoring Well
Laboratory Results April 2001
NAS Fort Worth JRB, Texas

Analytical Method/Analyte	Units	WHGLRW016 N 4/2/01	WHGLRW017 N 4/2/01	WHGLTA004 N 3/26/01	WHGLTA009 N 4/5/01	WHGLTA012 N 4/5/01	WHGLTA012 FD 4/5/01
o-Xylene (1,2-Dimethylbenzene)	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
p-Cymene (p-Isopropyltoluene)	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
sec-Butylbenzene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	14 J	16 J
Styrene	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
tert-Butylbenzene	µg/L	0.5 U	0.5 U	0.5 U	2 J	4 J	4 J
tert-Butyl Methyl Ether	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Tetrachloroethene (PCE)	µg/L	0 5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,2-Dichloroethene	µg/L	0.5 U	0.5 U	3	0.5 U	0.5 U	0.5 U
trans-1,3-Dichloropropene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene (TCE)	µg/L	0.5 U	0.5 U	450	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Vinyl Acetate	µg/L	2 U	2 U	2 U	2 U	2 U	2 U
Vinyl Chloride	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Common Anions - SW9056							
Chloride (as Cl)	µg/L	NA	NA	NA	NA	NA	NA
Nitrogen, Nitrate (as N)	µg/L	NA	NA	NA	NA	NA	NA
Sulfate (as SO4)	µg/L	NA	NA	NA	NA	NA	NA
Total Organic Carbon - SW9060							
Total Organic Carbon	µg/L	NA	NA	NA	NA	NA	NA

Table B.1 (Continued)
TCE Plume Monitoring Well
Laboratory Results April 2001
NAS Fort Worth JRB, Texas

Analytical Method/Analyte	Units	WHGLTA025 N 3/26/01	WHGLTA029 N 4/5/01	WHGLTA043 N 4/3/01	WHGLTA043 FD 4/3/01	WHGLTA044 N 4/3/01	WHGLTA045 N 4/3/01
Alkalinity - E310.1							
Alkalinity, Total (as CaCO3)	µg/L	NA	NA	NA	NA	NA	NA
Nonhalogenated Volatile Organics - RSK-175							
Ethane	µg/L	NA	NA	NA	NA	NA	NA
Ethene	µg/L	NA	NA	NA	NA	NA	NA
Methane	µg/L	NA	NA	NA	NA	NA	NA
Trace Elements (Metals) by ICP Plasma Emissions Spectrometry - SW6010B							
Aluminum	µg/L	NA	NA	NA	NA	NA	NA
Antimony	µg/L	NA	NA	NA	NA	NA	NA
Arsenic	µg/L	NA	NA	NA	NA	NA	NA
Barium	µg/L	NA	NA	NA	NA	NA	NA
Beryllium	µg/L	NA	NA	NA	NA	NA	NA
Cadmium	µg/L	NA	NA	NA	NA	NA	NA
Calcium	µg/L	NA	NA	NA	NA	NA	NA
Cobalt	µg/L	NA	NA	NA	NA	NA	NA
Copper	µg/L	NA	NA	NA	NA	NA	NA
Iron	µg/L	NA	NA	NA	NA	NA	NA
Magnesium	µg/L	NA	NA	NA	NA	NA	NA
Manganese	µg/L	NA	NA	NA	NA	NA	NA
Molybdenum	µg/L	NA	NA	NA	NA	NA	NA
Nickel	µg/L	NA	NA	NA	NA	NA	NA
Potassium	µg/L	NA	NA	NA	NA	NA	NA
Silver	µg/L	NA	NA	NA	NA	NA	NA
Sodium	µg/L	NA	NA	NA	NA	NA	NA
Thallium	µg/L	NA	NA	NA	NA	NA	NA
Vandadium	µg/L	NA	NA	NA	NA	NA	NA
Zinc	µg/L	NA	NA	NA	NA	NA	NA

Table B.1 (Continued)
TCE Plume Monitoring Well
Laboratory Results April 2001
NAS Fort Worth JRB, Texas

Analytical Method/Analyte	Units	WHGLTA025 N 3/26/01	WHGLTA029 N 4/5/01	WHGLTA043 N 4/3/01	WHGLTA043 FD 4/3/01	WHGLTA044 N 4/3/01	WHGLTA045 N 4/3/01
Chromium - SW7191							
Chromium, Total	µg/L	NA	NA	NA	NA	NA	NA
Lead by Graphite Furnace AA Technique - SW7421							
Lead	µg/L	NA	NA	NA	NA	NA	NA
Mercury in Liquid Waste - SW7470							
Mercury	µg/L	NA	NA	NA	NA	NA	NA
Selenium by Graphite Furnace AA Technique - SW7740							
Selenium	µg/L	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds - SW8260B							
1,1,1,2-Tetrachloroethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,1-Trichloroethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
1,1-Dichloroethene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloropropene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichloropropane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,4-Trichlorobenzene	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
1,2,4-Trimethylbenzene	µg/L	0.4 UJ	0 5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dibromo-3-Chloropropane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dibromoethane (Ethylene Dibromide)	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichlorobenzene	µg/L	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,2-Dichloroethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
1,3,5-Trimethylbenzene (Mesitylene)	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3-Dichlorobenzene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3[illegible]hloropropane	µg/L	0.4 U	[illegible]4 U	0.4 U	0.4 U	0.4 U	0.4 [illegible]

Table B.1 (Continued)
TCE Plume Monitoring Well
Laboratory Results April 2001
NAS Fort Worth JRB, Texas

Analytical Method/Analyte	Units	WHGLTA025 N 3/26/01	WHGLTA029 N 4/5/01	WHGLTA043 N 4/3/01	WHGLTA043 FD 4/3/01	WHGLTA044 N 4/3/01	WHGLTA045 N 4/3/01
1,4-Dichlorobenzene	µg/L	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1-Chlorohexane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2,2-Dichloropropane	µg/L	0.5 U	0 5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Chlorotoluene	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
4-Chlorotoluene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Benzene	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Bromobenzene	µg/L	0.3 U	0.3 U	0.3 U	0 3 U	0.3 U	0.3 U
Bromochloromethane	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0 4 U
Bromodichloromethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0 5 U
Bromoform	µg/L	0 5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromomethane	µg/L	0.5 U	0.4 R	0.5 U	0.5 U	0.5 U	0.5 U
Carbon Tetrachloride	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Chloroethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform	µg/L	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Chloromethane	µg/L	0 5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,2-Dichloroethene	µg/L	0.5 U	0.9	4	4	0.5 U	6
cis-1,3-Dichloropropene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromomethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dichlorodifluoromethane	µg/L	0.5 U	0.5 U	0.4 R	0.5 U	0.5 U	0.5 U
Ethylbenzene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Hexachlorobutadiene	µg/L	0.5 U	0.5 U	0 5 U	0.5 U	0.5 U	0.5 U
Isopropylbenzene (cumene)	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
m, p -Xylene (Sum of Isomers)	µg/L	1 U	1 U	1 U	1 U	1 U	1 U
Methylene Chloride	µg/L	0.3 UJ	0.3 R	0.3 R	0.3 R	0.3 R	0.3 R
Naphthalene	µg/L	2 U	2 U	2 U	2 U	2 U	2 U
n-Butylbenzene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

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Table B.1 (Continued)
TCE Plume Monitoring Well
Laboratory Results April 2001
NAS Fort Worth JRB, Texas

Analytical Method/Analyte	Units	WHGLTA025 N 3/26/01	WHGLTA029 N 4/5/01	WHGLTA043 N 4/3/01	WHGLTA043 FD 4/3/01	WHGLTA044 N 4/3/01	WHGLTA045 N 4/3/01
n-Propylbenzene	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
o-Xylene (1,2-Dimethylbenzene)	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
p-Cymene (p-Isopropyltoluene)	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
sec-Butylbenzene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Styrene	µg/L	0.2 UJ	0.4 U	0 4 U	0.4 U	0.4 U	0.4 U
tert-Butylbenzene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
tert-Butyl Methyl Ether	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Tetrachloroethene (PCE)	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,2-Dichloroethene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,3-Dichloropropene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene (TCE)	µg/L	1	0.4 F	17	15	1	14
Trichlorofluoromethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Vinyl Acetate	µg/L	2 U	2 U	2 U	2 U	2 U	2 U
Vinyl Chloride	µg/L	0.5 U	7	0.5 U	0.5 U	3	0.5 U
Common Anions - SW9056							
Chloride (as Cl)	µg/L	NA	NA	NA	NA	NA	NA
Nitrogen, Nitrate (as N)	µg/L	NA	NA	NA	NA	NA	NA
Sulfate (as SO4)	µg/L	NA	NA	NA	NA	NA	NA
Total Organic Carbon - SW9060							
Total Organic Carbon	µg/L	NA	NA	NA	NA	NA	NA

Table B.1 (Continued)
TCE Plume Monitoring Well
Laboratory Results April 2001
NAS Fort Worth JRB, Texas

Analytical Method/Analyte	Units	WHGLTA051 N 4/6/01	WHGLTA603 N 4/6/01	WHGLTA603 FD 4/6/01	WHGLTA704 N 4/3/01	WITCTA003 N 4/5/01	WITCTA004 N 4/3/01
Alkalinity - E310.1							
Alkalinity, Total (as CaCO3)	µg/L	NA	NA	NA	NA	NA	NA
Nonhalogenated Volatile Organics - RSK-175							
Ethane	µg/L	NA	NA	NA	NA	NA	NA
Ethene	µg/L	NA	NA	NA	NA	NA	NA
Methane	µg/L	NA	NA	NA	NA	NA	NA
Trace Elements (Metals) by ICP Plasma Emissions Spectrometry - SW6010B							
Aluminum	µg/L	NA	NA	NA	NA	NA	NA
Antimony	µg/L	NA	NA	NA	NA	NA	NA
Arsenic	µg/L	NA	NA	NA	NA	NA	NA
Barium	µg/L	NA	NA	NA	NA	NA	NA
Beryllium	µg/L	NA	NA	NA	NA	NA	NA
Cadmium	µg/L	NA	NA	NA	NA	NA	NA
Calcium	µg/L	NA	NA	NA	NA	NA	NA
Cobalt	µg/L	NA	NA	NA	NA	NA	NA
Copper	µg/L	NA	NA	NA	NA	NA	NA
Iron	µg/L	NA	NA	NA	NA	NA	NA
Magnesium	µg/L	NA	NA	NA	NA	NA	NA
Manganese	µg/L	NA	NA	NA	NA	NA	NA
Molybdenum	µg/L	NA	NA	NA	NA	NA	NA
Nickel	µg/L	NA	NA	NA	NA	NA	NA
Potassium	µg/L	NA	NA	NA	NA	NA	NA
Silver	µg/L	NA	NA	NA	NA	NA	NA
Sodium	µg/L	NA	NA	NA	NA	NA	NA
Thallium	µg/L	NA	NA	NA	NA	NA	NA
Vandadium	µg/L	NA	NA	NA	NA	NA	NA
Zinc	µg/L	NA	NA	NA	NA	NA	NA

Table B.1 (Continued)
TCE Plume Monitoring Well
Laboratory Results April 2001
NAS Fort Worth JRB, Texas

Analytical Method/Analyte	Units	WHGLTA051 N 4/6/01	WHGLTA603 N 4/6/01	WHGLTA603 FD 4/6/01	WHGLTA704 N 4/3/01	WITCTA003 N 4/5/01	WITCTA004 N 4/3/01
Chromium - SW7191							
Chromium, Total	µg/L	NA	NA	NA	NA	NA	NA
Lead by Graphite Furnace AA Technique - SW7421							
Lead	µg/L	NA	NA	NA	NA	NA	NA
Mercury in Liquid Waste - SW7470							
Mercury	µg/L	NA	NA	NA	NA	NA	NA
Selenium by Graphite Furnace AA Technique - SW7740							
Selenium	µg/L	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds - SW8260B							
1,1,1,2-Tetrachloroethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,1-Trichloroethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
1,1-Dichloroethene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.9
1,1-Dichloropropene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0 5 U
1,2,3-Trichloropropane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,4-Trichlorobenzene	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
1,2,4-Trimethylbenzene	µg/L	0.5 U	0 5 U	0.5 U	0.5 U	0.8	0.5 U
1,2-Dibromo-3-Chloropropane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dibromoethane (Ethylene Dibromide)	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichlorobenzene	µg/L	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,2-Dichloroethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0 5 U
1,2-Dichloropropane	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0 4 U
1,3,5-Trimethylbenzene (Mesitylene)	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3-Dichlorobenzene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5

Table B.1 (Continued)
TCE Plume Monitoring Well
Laboratory Results April 2001
NAS Fort Worth JRB, Texas

Analytical Method/Analyte	Units	WHGLTA051 N 4/6/01	WHGLTA603 N 4/6/01	WHGLTA603 FD 4/6/01	WHGLTA704 N 4/3/01	WITCTA003 N 4/5/01	WITCTA004 N 4/3/01
1,3-Dichloropropane	µg/L	0 4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
1,4-Dichlorobenzene	µg/L	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1-Chlorohexane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2,2-Dichloropropane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Chlorotoluene	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
4-Chlorotoluene	µg/L	0 5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Benzene	µg/L	0.4 U	0.4 U	0.4 U	4	0.5	0.4 U
Bromobenzene	µg/L	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Bromochloromethane	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Bromodichloromethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromomethane	µg/L	0.4 R	0.4 R	0.4 R	0.5 U	0.5 U	0.5 U
Carbon Tetrachloride	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Chloroethane	µg/L	0 5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform	µg/L	0.5	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Chloromethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,2-Dichloroethene	µg/L	32	2	2	0.5 U	0.9	14
cis-1,3-Dichloropropene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromomethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dichlorodifluoromethane	µg/L	0 5 U	0.5 U	0.5 U	0.5 U	0.4 R	0.5 U
Ethylbenzene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.7	0 5 U
Hexachlorobutadiene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Isopropylbenzene (cumene)	µg/L	0.5 U	0.5 U	0.5 U	0 9	0.5 U	0.5 U
m, p -Xylene (Sum of Isomers)	µg/L	1 U	1 U	1 U	1 U	1 U	1 U
Methylene Chloride	µg/L	0.3 R	0.3 R	0.3 R	0.3 R	0.5 U	0.3 R
Naphthalene	µg/L	2 U	2 U	2 U	2 U	1 R	2 U

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Table B.1 (Continued)
TCE Plume Monitoring Well
Laboratory Results April 2001
NAS Fort Worth JRB, Texas

Analytical Method/Analyte	Units	WHGLTA051 N 4/6/01	WHGLTA603 N 4/6/01	WHGLTA603 FD 4/6/01	WHGLTA704 N 4/3/01	WITCTA003 N 4/5/01	WITCTA004 N 4/3/01
n-Butylbenzene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
n-Propylbenzene	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
o-Xylene (1,2-Dimethylbenzene)	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
p-Cymene (p-Isopropyltoluene)	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
sec-Butylbenzene	µg/L	0.5 U	0.5 U	0.5 U	2	0.5 U	0.5 U
Styrene	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
tert-Butylbenzene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
tert-Butyl Methyl Ether	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Tetrachloroethene (PCE)	µg/L	0.4 F	0.5 U	0.5 U	0.5 U	0.5 U	1
Toluene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,2-Dichloroethene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.6
trans-1,3-Dichloropropene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene (TCE)	µg/L	170	0.5 U	0.4 F	0.5 U	0.5 U	230
Trichlorofluoromethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Vinyl Acetate	µg/L	2 U	2 U	2 U	2 U	2 U	2 U
Vinyl Chloride	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Common Anions - SW9056							
Chloride (as Cl)	µg/L	NA	NA	NA	NA	NA	NA
Nitrogen, Nitrate (as N)	µg/L	NA	NA	NA	NA	NA	NA
Sulfate (as SO4)	µg/L	NA	NA	NA	NA	NA	NA
Total Organic Carbon - SW9060							
Total Organic Carbon	µg/L	NA	NA	NA	NA	NA	NA

Table B.1 (Continued)
TCE Plume Monitoring Well
Laboratory Results April 2001
NAS Fort Worth JRB, Texas

Analytical Method/Analyte	Units	WITCTA010 N 3/27/01	WITCTA019 N 4/5/01	WITCTA024 N 4/2/01	WITCTA040 N 4/5/01	WITCTA041 N 4/5/01	WITCTA043 N 4/5/01
Alkalinity - E310.1							
Alkalinity, Total (as CaCO3)	µg/L	NA	NA	328000	NA	NA	NA
Nonhalogenated Volatile Organics - RSK-175							
Ethane	µg/L	NA	NA	1.4	NA	NA	NA
Ethene	µg/L	NA	NA	0.25 F	NA	NA	NA
Methane	µg/L	NA	NA	1500	NA	NA	NA
Trace Elements (Metals) by ICP Plasma Emissions Spectrometry - SW6010B							
Aluminum	µg/L	20.3 UJ	NA	NA	NA	NA	NA
Antimony	µg/L	10 U	NA	NA	NA	NA	NA
Arsenic	µg/L	5.6 F	NA	NA	NA	NA	NA
Barium	µg/L	123 F	NA	NA	NA	NA	NA
Beryllium	µg/L	3 U	NA	NA	NA	NA	NA
Cadmium	µg/L	0.32 UJ	NA	NA	NA	NA	NA
Calcium	µg/L	82300 J	NA	NA	NA	NA	NA
Cobalt	µg/L	10 U	NA	NA	NA	NA	NA
Copper	µg/L	100 U	NA	NA	NA	NA	NA
Iron	µg/L	5930 J	NA	NA	NA	NA	NA
Magnesium	µg/L	9760	NA	NA	NA	NA	NA
Manganese	µg/L	1450	NA	NA	NA	NA	NA
Molybdenum	µg/L	7.2 F	NA	NA	NA	NA	NA
Nickel	µg/L	1.6 UJ	NA	NA	NA	NA	NA
Potassium	µg/L	4530 F	NA	NA	NA	NA	NA
Silver	µg/L	5 U	NA	NA	NA	NA	NA
Sodium	µg/L	31800	NA	NA	NA	NA	NA
Thallium	µg/L	50 U	NA	NA	NA	NA	NA
Vandadium	µg/L	10 U	NA	NA	NA	NA	NA
Zinc	µg/L	100 U	NA	NA	NA	NA	NA

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Table B.1 (Continued)
TCE Plume Monitoring Well
Laboratory Results April 2001
NAS Fort Worth JRB, Texas

Analytical Method/Analyte	Units	WITCTA010 N 3/27/01	WITCTA019 N 4/5/01	WITCTA024 N 4/2/01	WITCTA040 N 4/5/01	WITCTA041 N 4/5/01	WITCTA043 N 4/5/01
Chromium - SW7191							
Chromium, Total	µg/L	2 UJ	NA	NA	NA	NA	NA
Lead by Graphite Furnace AA Technique - SW7421							
Lead	µg/L	2 U	NA	NA	NA	NA	NA
Mercury in Liquid Waste - SW7470							
Mercury	µg/L	0.2 U	NA	NA	NA	NA	NA
Selenium by Graphite Furnace AA Technique - SW7740							
Selenium	µg/L	1.8 UJ	NA	NA	NA	NA	NA
Volatile Organic Compounds - SW8260B							
1,1,1,2-Tetrachloroethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,1-Trichloroethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0.8	0.4 U
1,1-Dichloroethene	µg/L	0.5 U	0.3 UJ	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloropropene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichloropropane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,4-Trichlorobenzene	µg/L	0.4 U	0.2 UJ	0.4 U	0.4 U	0.4 U	0.4 U
1,2,4-Trimethylbenzene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dibromo-3-Chloropropane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dibromoethane (Ethylene Dibromide)	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichlorobenzene	µg/L	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,2-Dichloroethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	µg/L	0.4 U	0 4 U	0.4 U	0.4 U	0.4 U	0.4 U
1,3,5-Trimethylbenzene (Mesitylene)	µg/L	0 5 U	0.5 U	0.5 U	0.5 U	0 5 U	0.5 U
1,3[illegible]hlorobenzene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5[illegible]

Table B.1 (Continued)
TCE Plume Monitoring Well
Laboratory Results April 2001
NAS Fort Worth JRB, Texas

Analytical Method/Analyte	Units	WITCTA010 N 3/27/01	WITCTA019 N 4/5/01	WITCTA024 N 4/2/01	WITCTA040 N 4/5/01	WITCTA041 N 4/5/01	WITCTA043 N 4/5/01
1,3-Dichloropropane	µg/L	0.4 U	0.4 U	0 4 U	0.4 U	0.4 U	0.4 U
1,4-Dichlorobenzene	µg/L	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1-Chlorohexane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2,2-Dichloropropane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0 5 U
2-Chlorotoluene	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
4-Chlorotoluene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Benzene	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Bromobenzene	µg/L	0.3 U	0 3 U	0.3 U	0.3 U	0.3 U	0.3 U
Bromochloromethane	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Bromodichloromethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromomethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon Tetrachloride	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Chloroethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0 5 U
Chloroform	µg/L	0.3 U	0 3 U	0.3 U	0.3 U	0.3 U	0.3 U
Chloromethane	µg/L	0.5 U	0.4 UJ	0.5 U	0.5 U	0.5 U	0 5 U
cis-1,2-Dichloroethene	µg/L	0.4 F	0.5 U	0.5 U	11	0.5 U	0.5 U
cis-1,3-Dichloropropene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromomethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dichlorodifluoromethane	µg/L	0.5 U	0.4 R	0.5 U	0.4 R	0.4 R	0.4 R
Ethylbenzene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Hexachlorobutadiene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Isopropylbenzene (cumene)	µg/L	0.5 U	0.5 U	0.3 F	0.5 U	0 5 U	0.5 U
m, p -Xylene (Sum of Isomers)	µg/L	1 U	1 U	1 U	1 U	1 U	1 U
Methylene Chloride	µg/L	0.5 U	0 5 U	0.5 U	0 5 U	0.5 U	0.5 U
Naphthalene	µg/L	2 U	1 R	2 U	1 R	1 R	1 R

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Table B.1 (Continued)
TCE Plume Monitoring Well
Laboratory Results April 2001
NAS Fort Worth JRB, Texas

Analytical Method/Analyte	Units	WITCTA010 N 3/27/01	WITCTA019 N 4/5/01	WITCTA024 N 4/2/01	WITCTA040 N 4/5/01	WITCTA041 N 4/5/01	WITCTA043 N 4/5/01
n-Butylbenzene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
n-Propylbenzene	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
o-Xylene (1,2-Dimethylbenzene)	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
p-Cymene (p-Isopropyltoluene)	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
sec-Butylbenzene	µg/L	0.5 U	0.5 U	0.7	0.5 U	0.5 U	0.5 U
Styrene	µg/L	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
tert-Butylbenzene	µg/L	0.5 U	0.5 U	2	0.5 U	0.5 U	0.5 U
tert-Butyl Methyl Ether	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Tetrachloroethene (PCE)	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,2-Dichloroethene	µg/L	0.5 U	0.5 U	0.5 U	0.8	0.5 U	0.5 U
trans-1,3-Dichloropropene	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene (TCE)	µg/L	0.5 U	0.5 U	0.5 U	58	0.5 U	0.5 U
Trichlorofluoromethane	µg/L	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Vinyl Acetate	µg/L	2 U	2 U	2 U	2 U	2 U	2 U
Vinyl Chloride	µg/L	0.5 U	0.5 U	3	0.5 U	0.5 U	0 5 U
Common Anions - SW9056							
Chloride (as Cl)	µg/L	NA	NA	149000	NA	NA	NA
Nitrogen, Nitrate (as N)	µg/L	NA	NA	100 U	NA	NA	NA
Sulfate (as SO4)	µg/L	NA	NA	2610	NA	NA	NA
Total Organic Carbon - SW9060							
Total Organic Carbon	µg/L	NA	NA	2500	NA	NA	NA

APPENDIX B.2

DETECTED ANALYTICAL RESULTS FROM APRIL 2001 AFP 4 SAMPLING

Table B.2
Detected Analytical Results from April 2001 AFP 4 Sampling

Area	Well Identification	Method	Analyte	Result (ug/L)
Air Force Plant 4 Terrace Alluvium Wells	F-218	SW8260B	*cis*-1,2-Dichloroethelene	(4400 J[1])
			trans-1,2-Dichloroethene	36 F[1]
			Trichloroethene (TCE)	(20000 J[1])
	HM-112	SW6010B	Chromium, Total	13 J
		SW8260B	*cis*-1,2-Dichloroethelene	(230 J[1])
			Trichloroethene (TCE)	(3800 J[1])
	HM-31	SW8260B	*cis*-1,2-Dichloroethelene	49 F[1]
			Trichloroethene (TCE)	(140 J[1])
	HM-36	SW8260B	*cis*-1,2-Dichloroethelene	0.51 F
			Trichloroethene (TCE)	0.57 F
	HM-50	SW8260B	*cis*-1,2-Dichloroethelene	(1000 J[1])
			trans-1,2-Dichloroethene	6.2 J
			Trichloroethene (TCE)	(170 J)
			Vinyl Chloride	(170 J[1])
	HM-88	SW6010B	Chromium, Total	43
		SW8260B	*cis*-1,2-Dichloroethelene	(220 [1])
			Trichloroethene (TCE)	(6000 [1])
	HM-95	SW6010B	Chromium, Total	30 J
		SW8260B	*cis*-1,2-Dichloroethelene	64 [1]
			Trichloroethene (TCE)	(1100 [1])
	MW-5	SW8260B	Trichloroethene (TCE)	(920000 J[1])
	W-149	SW6010B	Chromium, Total	(471 [2])
		SW8260B	*cis*-1,2-Dichloroethelene	(670 J[1])
			Trichloroethene (TCE)	(7800 J[1])
NAS Fort Worth JRB Terrace Alluvium Wells	GMI-22-03M	SW8260B	*cis*-1,2-Dichloroethelene	(100 J[1])
			trans-1,2-Dichloroethene	33 J[1]
			Trichloroethene (TCE)	(83 J[1])
	HM-119	SW8260B	Trichloroethene (TCE)	(12 J)
	USGS06T	SW8260B	*cis*-1,2-Dichloroethelene	4.4 J
			Trichloroethene (TCE)	(26 J)
	WHGLTA048	SW8260B	*cis*-1,2-Dichloroethelene	3.6 J
			Trichloroethene (TCE)	(8.1 J)

Notes
[1] Analytical results were taken from the reanalysis of this sample.
[2] Analytical results were taken from the associated field duplicate.
F - The analyte was positively identified, but the associated value is below the PQL.
J - The analyte was positively identified, the quantitation is an estimate.
Results in parentheses represent values detected above RRS 2 levels
Analytical results were obtained from Jacobs Engineering Group, Inc.

APPENDIX B.3

DETECTED ANALYTICAL RESULTS FROM ADDITIONAL APRIL 2001 GROUNDWATER INVESTIGATIONS

Table B.3
Detected Analytical Results From Additional April 2001 Groundwater Investigations

Groundwater Investigation	Monitoring Well	Analytical Method	Analyte	April 2001 Result (µg/L)
Paluxy Well	WHGLPU001	SW8260B	Trichloroethene (TCE)	1
Groundwater Sampling at AOC 1	BGSMW03	SW8260B	1,2,4-trimethylbenzene	75 [1]
			1,3,5-trimethylbenzene (mesitylene)	26
			Benzene	(1800 [1])
			Chloroform	2
			Ethylbenzene	99 [1]
			Isopropylbenzene (cumene)	28
			m,p-Xylene (sum of isomers)	150 [1]
			Naphthalene	360 [1]
			n-propylbenzene	87 [1]
			o-Xylene (1,2-Dimethylbenzene)	4
			p-cymene (p-Isopropyltoluene)	1
			sec-butylbenzene	4
			tert-butyl methyl ether	12
			Toluene	20
	MW-6		1,2,4-trimethylbenzene	3
			1,3,5-trimethylbenzene (mesitylene)	0.8
			Benzene	(10)
			Ethylbenzene	2
			Isopropylbenzene (cumene)	20
			m,p-Xylene (sum of isomers)	0.5 F
			Naphthalene	8
			n-butylbenzene	4
			n-propylbenzene	28
			o-Xylene (1,2-Dimethylbenzene)	3
			sec-butylbenzene	3
			tert-butyl methyl ether	68 [1]
	MW-10		1,2,4-trimethylbenzene	1800
			1,3,5-trimethylbenzene (mesitylene)	1900
			Benzene	(1200)
			Ethylbenzene	(4000)
			Isopropylbenzene (cumene)	190
			m,p-Xylene (sum of isomers)	5900
			Naphthalene	940
			n-propylbenzene	310
			o-Xylene (1,2-Dimethylbenzene)	1800
			Toluene	500
	SAV-2		1,2,4-trimethylbenzene	540
			1,3,5-trimethylbenzene (mesitylene)	300

Table B.3 (Continued)
Detected Analytical Results From Additional
April 2001 Groundwater Investigations

Groundwater Investigation	Monitoring Well	Analytical Method	Analyte	April 2001 Result (µg/L)
			Benzene	(710)
			Ethylbenzene	590
			Isopropylbenzene (cumene)	130
			m,p-Xylene (sum of isomers)	550
			Naphthalene	510
			n-butylbenzene	53
			n-propylbenzene	400
			sec-butylbenzene	30
			Toluene	51
	WHGLTA036		1,2,4-trimethylbenzene	17
			1,3,5-trimethylbenzene (mesitylene)	25
			Benzene	(6)
			Ethylbenzene	16
			Isopropylbenzene (cumene)	3
			m,p-Xylene (sum of isomers)	38
			Naphthalene	6
			n-propylbenzene	4
			o-Xylene (1,2-Dimethylbenzene)	12
			p-cymene (p-Isopropyltoluene)	0.7
			sec-butylbenzene	0.6
			Toluene	90 [1]
	WHGLTA037		1,2,4-trimethylbenzene	2000 J[1,2]
			1,3,5-trimethylbenzene (mesitylene)	2600 J[1,2]
			Benzene	(4000 [1,2])
			Ethylbenzene	(3900 [1,2])
			Isopropylbenzene (cumene)	150 J[1,2]
			m,p-Xylene (sum of isomers)	7700 [1,2]
			Naphthalene	1600 J[1]
			n-propylbenzene	220 [1,2]
			o-Xylene (1,2-Dimethylbenzene)	3400 [1,2]
			p-cymene (p-Isopropyltoluene)	28 [2]
			tert-butyl methyl ether	590 [1,2]
			Toluene	(4000 [1,2])
Phase II RFI at SWMUs 19, 20, 21, and SI at AOC 19	FT09-12B	SW6010B	Barium	120 F
			Cobalt	2.1 F
			Copper	14.4 F
		SW8260B	cis-1,2-Dichloroethene	24
			Tetrachloroethene (PCE)	(20)
			trans-1,2-Dichloroethene	2

Table B.3 (Continued)
Detected Analytical Results From Additional
April 2001 Groundwater Investigations

Groundwater Investigation	Monitoring Well	Analytical Method	Analyte	April 2001 Result (µg/L)
			Trichloroethene (TCE)	(39)
		SW8270C	4-Methylphenol (p-cresol)	13
	FT09-12C	SW6010B	Arsenic	21.2 F
			Barium	221
			Cobalt	9.5 F
		SW8260B	1,1-Dichloroethane	0.4
			cis-1,2-Dichloroethene	11
		SW8270C	4-Methylphenol (p-cresol)	43
			Bis(2-ethylhexyl) phthalate	(28)
	WHGLTA050	SW8260B	1,1-Dichloroethene	0.5 F
			cis-1,2-Dichloroethene	31 [1]
			Tetrachloroethene (PCE)	0.4 F
			trans-1,2-Dichloroethene	0.6
			Trichloroethene (TCE)	(170 [1])
	WHGLTA052	SW8260B	1,1-Dichloroethene	0.9
			cis-1,2-Dichloroethene	61 [1]
			Tetrachloroethene (PCE)	0.6
			trans-1,2-Dichloroethene	2
			Trichloroethene (TCE)	(300 [1])
			Trichlorofluoromethane	0.6
	WHGLTA053	SW6010B	Barium	97.2 F
			Vanadiuim	1 F
	WHGLTA054	SW6010B	Barium	88.6 F
			Vanadiuim	1.2 F
		SW8260B	1,1-Dichloroethene	0.5
			cis-1,2-Dichloroethene	22
			Tetrachloroethene (PCE)	(38)
			trans-1,2-Dichloroethene	24
			Trichloroethene (TCE)	(53 [1])
			Vinyl chloride	(7)
	WHGLTA055	SW6010B	Barium	93.6 F
		SW8260B	Tetrachloroethene (PCE)	0.5 F
			Trichloroethene (TCE)	0.5 F
	WHGLTA056	SW6010B	Barium	124 F
		SW8260B	cis-1,2-Dichloroethene	27
			trans-1,2-Dichloroethene	1
			Trichloroethene (TCE)	(68 [1])
	WHGLTA801	SW8260B	1,1-Dichloroethene	1
			cis-1,2-Dichloroethene	(210 [1,2])
			trans-1,2-Dichloroethene	29

Table B.3 (Continued)
Detected Analytical Results From Additional April 2001 Groundwater Investigations

Groundwater Investigation	Monitoring Well	Analytical Method	Analyte	April 2001 Result (µg/L)
			Trichloroethene (TCE)	(170 [1,2])
			Vinyl chloride	(6 [2])

Notes:
[1] Analytical results were taken from the reanalysis of this sample.
[2] The results were taken from the associated field duplicate.
F - The analyte was positively identified, the quantitation was below the PQL.
J - The analyte was positively identified, but the quantitation is an estimation.
Results in parentheses represent values detected above RRS 2 levels.

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ADMINISTRATIVE RECORD

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