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MARCH 2012 SEMIANNUAL MONITORING REPORT FOR OPERABLE UNIT 2 (OU 2)
MCCOY ANNEX NTC ORLANDO FL
6/1/2012
BFA ENVIRONMENTAL CONSULTANTS

March 2012 Semiannual Monitoring Report
Operable Unit 2 - McCoy Annex
Former Naval Training Center
Orlando, Florida

Prepared for:

Department of the Navy
Naval Facilities Engineering Command Southeast
BRAC Program Management Office Southeast
Contract No. N62467-03-G-0297-0002

Prepared by:

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June 2012

March 2012 Semiannual Monitoring Report
Operable Unit 2 - McCoy Annex
Former Naval Training Center
Orlando, Florida

Prepared for:

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Prepared under:

Long Term Monitoring and O & M at Former NTC Orlando, Florida

Contract No. N62467-03-G-0297

Contract Task Order 0002

June, 2012

BFA certifies that the fieldwork and the preparation of this report were done in accordance with Florida Rules Regulations and Industry guidance. As a registered Engineering and Geological services firm our senior professionals are authorized by the rules that govern this work including Chapters 492 or 471, Florida Statutes. We certify that the work was performed under the guidance of appropriately credentialed and licensed professionals.

To the best of our knowledge, the information and laboratory data included herein are true, accurate, complete, and in accordance with applicable Florida state and federal rules and regulations.

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7/2/12
Date

Certification Page

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Acronyms

AMSL	Above Mean Sea Level
BFA	Barnes, Ferland and Associates, Inc.
BGS	Below Ground Surface
°C	Degrees Celsius
Cis-1, 2-DCE	Cis-1, 2-dichloroethene
CTO	Contract Task Order
DO	Dissolved Oxygen
EPA	Environmental Protection Agency
ft.	Feet
FDEP	Florida Department of Environmental Protection
FL-PRO	Florida Petroleum Residual Organic
gal	gallons
GCTL	Groundwater Cleanup Target Levels
in	Inches
µg/L	Micrograms per liter
µS/cm	Micro Siemens per centimeter
mg/L	Milligrams per liter
MEE	Methane, Ethane, and Ethene
mL/min	Milliliters per minute
mV	Millivolts
NA	Not Available
NADC	Natural Attenuation Default Concentration
NM	Not Measured
NTC	Naval Training Center
NTU	Nephelometric Turbidity Units
OPT	Orlando Partnering Team
ORP	Oxidation-Reduction Potential
PAH	Polynuclear Aromatic Hydrocarbons
PCE	Tetrachloroethene
SA	Study Area
SI	Site Investigation
SU	Standard Unit
TCE	Trichloroethene
TOC	Top of Casing
TPH	Total Petroleum Hydrocarbon
VOC	Volatile Organic Compound

Section 1 - Background

The following report presents results of the March 2012 groundwater sampling round at the Operable Unit 2 (OU2) site - formerly McCoy Annex Landfill in Orlando, Florida. Section 1 is intended to provide background information for understanding the site conditions at OU2.

1.1 NTC Orlando's Environmental Program

Environmental studies and cleanup actions are currently underway at the former NTC, Orlando as part of the Department of Defense's Installation Restoration (IR) Program. Through this program, areas of known or suspected contamination from past practices and operations are being monitored, evaluated, and, if necessary, cleaned up.

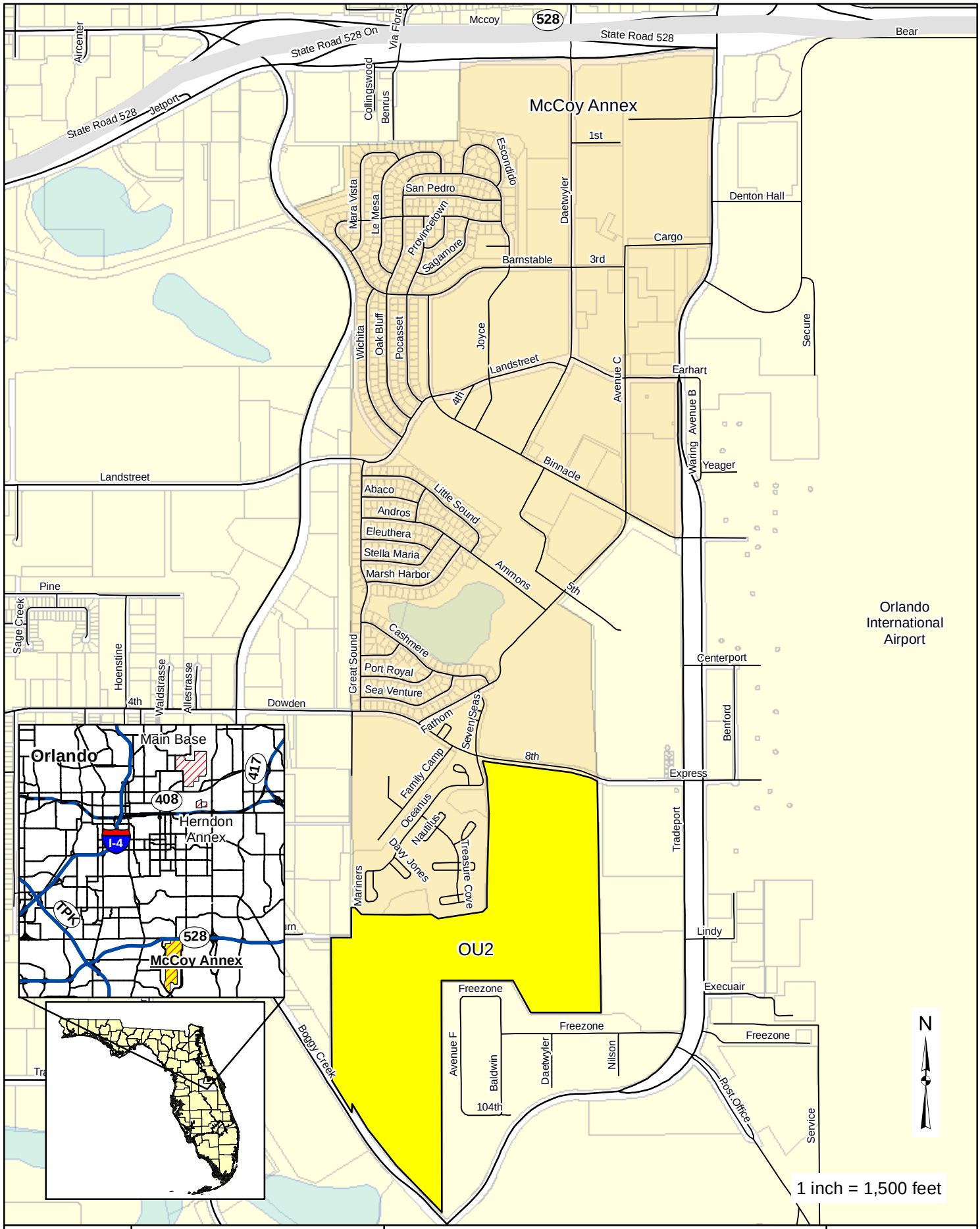
1.2 Description and History of Operable Unit 2

McCoy Annex (1940-1947, 1951-1975) is a former US Army Airfield (Pinecastle Army Airfield) and United States Air Force base (McCoy Air Force Base) located 10 miles south of Orlando, Florida. It was a training base during World War II. After the war it became a Front-Line Strategic Air Command (SAC) base during the Vietnam War and the Cold War. With McCoy's closure as an active Air Force installation in 1975, the site was redeveloped with the military retaining most of the land, with the exception of the airfield (which became Orlando International Airport).

The OU2 site is located immediately west of the Orlando International Airport and Greater Orlando Airport Authority (GOAA) property as shown on Figure 1. OU2 is an inactive landfill located in the southern part of McCoy Annex. The landfill occupies approximately 114 acres, and its relatively flat topography slopes from north to south. A nine hole golf course now occupies the northern half of the site. The southern half of the site was wooded, but the trees have been removed and the area was covered with clean soil as part of an Interim Remedial Action (IRA). A portion of the area is currently being used as a paintball field.

The western portion of the site was used as a landfill by the Air Force from about 1960 to 1972, while the eastern portion was used as a landfill by the Air Force and the Navy from 1972 until about 1978. Landfill operations consisted of excavating ditches (100 to 200 feet long by 20 to 25 feet wide by 10 to 15 feet deep) into which trucks disposed wastes. Occasional burning of the wastes took place in the ditches. Trenches were filled with waste to within 3 or 4 feet of the ground surface and then backfilled with soil and seeded.

The estimated volume of waste is more than 1,000,000 cubic yards (yd^3). Landfill wastes reportedly included hospital wastes, paint and paint thinner, automobile batteries, airplane parts, and asbestos.



Location Map of Operable Unit 2
McCoy Annex

Figure 1

A Remedial Investigation (RI) was conducted at the site from May 1997 to March 2001. The RI indicated that: the landfill covers approximately 114 acres; the surface soil was contaminated with landfill material in the southern portion of the golf course and in the wooded area in the south portion of OU2; surface water and sediment were not contaminated, but groundwater could cross contaminant these media in the future; and two contaminant plume areas (north and south) exist at the site.

Two IRAs were conducted at OU2. One of these actions included the removal of 2,000 yd^3 of contaminated surface soil in the northern portion of OU2 and the other involved placement of additional soil cover in the southern portion of OU2.

1.3 Nature and Extent of Contamination

The principal contaminants of concern were benzene, iron, and manganese in the northern plume area, and benzene and chlorinated solvents (such as vinyl chloride, PCE and TCE) in the southern plume area. The Orlando Partnering Team proposed the following plan to address the potential risk from landfill material and groundwater contamination. For the *northern groundwater plume*, additional cover was placed over the landfill, where needed, to prevent direct human contact with landfill materials. Land use controls are implemented to control exposure to contaminants of concern. Land use controls include site restrictions to prohibit unauthorized intrusive activity within the landfill boundary and to prohibit the use of groundwater for any purpose other than for groundwater investigation without written authorization from the Navy and Florida Department of Environmental Protection. Signs are posted to alert users of the property about the presence of a landfill and monitoring of groundwater and surface water were implemented to assess the progress of natural attenuation.

For the *southern groundwater plume*, enhanced biodegradation, land use controls, and monitoring have been implemented to address the contamination. Enhanced biodegradation involves injecting a bio-stimulant within the plume to enhance ongoing natural biodegradation of chlorinated compounds. Site conditions, as demonstrated by the ongoing groundwater monitoring program, indicate that natural attenuation has successfully reduced the extent of the contaminated groundwater plume. Land use controls are implemented to control exposure to contaminants of concern. Land use controls include site restrictions to prohibit residential use, to prohibit unauthorized intrusive activity within the landfill boundary, and to prohibit using groundwater as a drinking water supply. Signs are posted to alert users of the property about the presence of the landfill. Monitoring involves both groundwater and surface water to assess the progress of natural attenuation.

1.4 Reductive Dechlorination Treatment at OU2

Previous activities at the site have involved Phase I and II pilot studies, conducted by AGVIQ/CH2M HILL JV II, which included groundwater monitoring along a permeable reactive biobarrier (PRB) system created by injecting an emulsified oil substrate (EOS®) to intercept contaminant migration from OU2

southern plume area to the neighboring Greater Orlando Airport Authority (GOAA) property. The substrate promotes enhanced reductive dechlorination (ERD) of the chlorinated volatile organic compounds (CVOCs) as contaminated groundwater passes through the PRB.

In July 2010, Solutions-IES was contracted directly by the Naval Facilities Engineering Command Southeast (NAVFAC SE) to plan an enhanced remediation of the treatment area to address residual CVOCs in groundwater at the OU2 site. Utilizing lessons learned from the previous successful ERD approach, Solutions-IES proposed continuing with *in situ* bioremediation and enhancing the remedial design by implementing the injection of a combination of two emulsified oil products, and a bioaugmentation culture. The Sampling and Analysis Plan and Quality Assurance Project Plan (UFP-SAP/QAPP) for this project was submitted under separate cover and titled: *Solutions-IES, May 2011. Final Sampling and Analysis Plan, Revision No. 2, Injection of Emulsified Oil Substrate (EOS® and AquaBupH™) for In-Situ Bioremediation at Operable Unit 2 (OU2) Former Naval Training Center Orlando, Orlando, Florida.* The UFP-SAP/QAPP was approved by the FDEP in July 2011. This Work Plan is prepared to guide the implementation of the expanded ERD groundwater remedy at OU2 with referral to the UFPSAP/QAPP, as necessary.

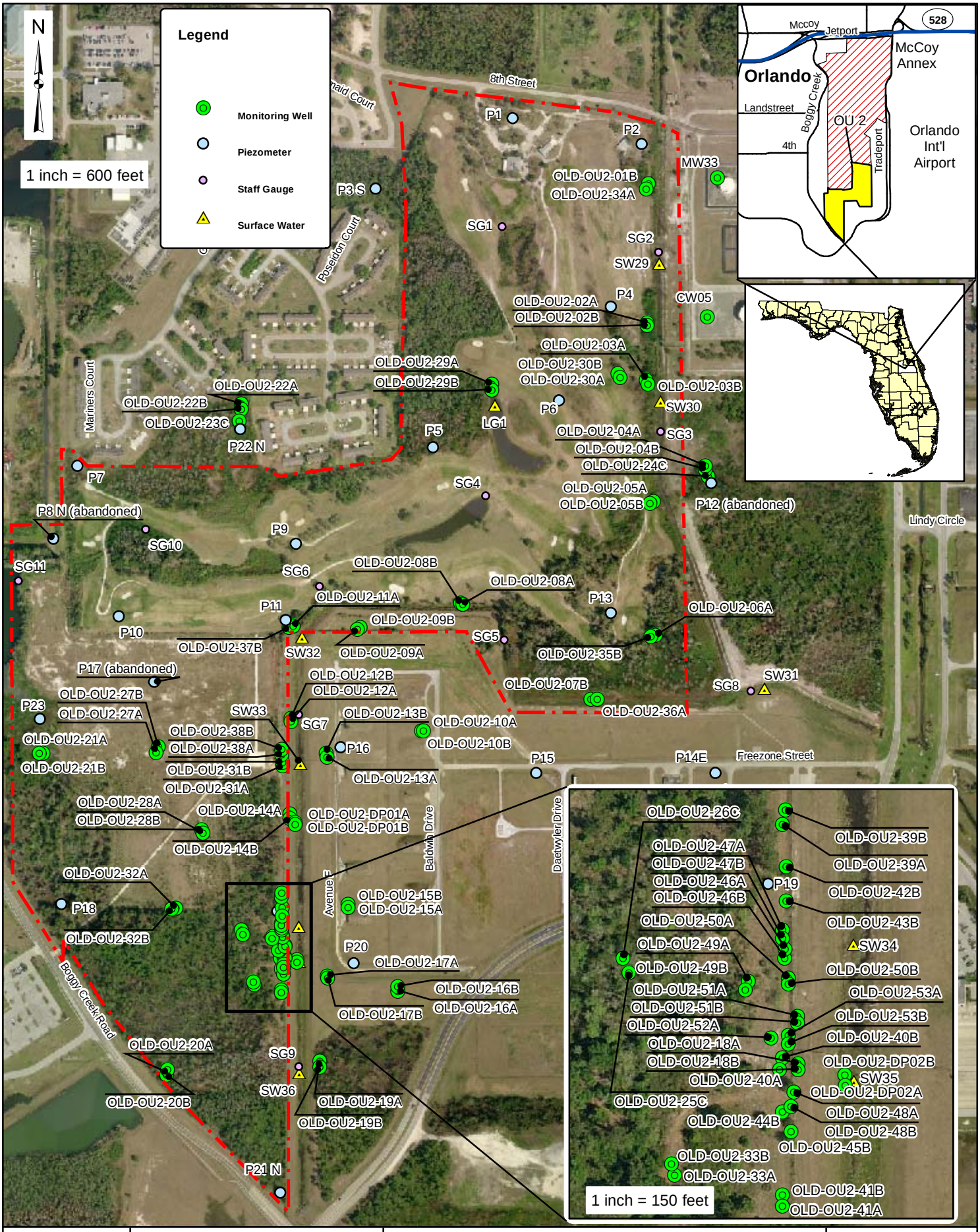
A subsequent Work Plan was prepared by Solutions-IES titled: *Work Plan, In-Situ Bioremediation of Chlorinated Solvents in Groundwater at OU2 Former Naval Training Center, Orlando, Florida, during December 2011.* This Work Plan was prepared to describe the in-situ remedial design and methods to inject organic substrates and performance monitoring. The injections were scheduled for late February, 2012 at OU2 in the vicinity of monitor wells MW-49 through MW-54 (Target Treatment Injection Zone - Figure 2). Post-injection results are not available at this time.

1.5 Continued Groundwater Network Monitoring

Numerous groundwater monitoring wells currently exist at OU2, which are used for monitoring of groundwater conditions (Figure 2). Barnes, Ferland and Associates, Inc. (BFA) began sampling the OU2 monitor wells semiannually in October, 2008. BFA has performed a total of eight sampling events at OU2. All sampling and testing procedures are performed in accordance with the Work Plan titled, *Long Term Monitoring Services Work Plan, Former Naval Training Center, Orlando, Florida (BFA, June 2008).*

1.6 Regulatory Framework

This project is being conducted as part of the US Navy Base Realignment and Closure Act (US Navy BRAC). The US Environmental Protection Agency (USEPA) works closely with other federal agencies, state and local governments to develop and enforce regulations under existing environmental laws. A number of Federal statutes provide USEPA with the authority to prevent and control sources of groundwater contamination, as well as cleanup of existing contaminated sites. The Comprehensive Environmental Response Compensation Liability Act (CERCLA) regulations, governing the treatment and



BFA

OU 2 Monitor Well and Surface Water Sampling Location Map

Figure 2

handling of wastes, are applied at OU2. USEPA is responsible for researching and setting national standards for a variety of environmental programs and delegates to states the responsibility for issuing permits, and monitoring and enforcing compliance. Chapter 403, *FS* establishes the Florida Department of Environmental Protection (FDEP) as the primary agency responsible for the protection of the groundwater supply. The FDEP has promulgated a number of different regulations under title 62 of the Florida Administrative Code (*F.A.C.),* which function to regulate several types of activities with potential impacts on groundwater. Applicable *F.A.C.* Chapter 62 regulations are also followed in the performance of the scope of work, as detailed in the site Work Plan (BFA, June 2008). Key project decisions are made by the Orlando Partnering Team (OPT) including members of USEPA, FDEP, US Navy BRAC and Tetra Tech, Inc.

Section 2 - Field Sampling Activities and Results

The sampling schedule for Operable Unit 2 (OU2) is semi-annual during March and September. For the March 2012 sampling round, monitor wells and surface water sites were sampled as shown in Table 1, as provided by the Orlando Partnering Team (OPT). All field sampling and laboratory testing activities were performed in accordance with the Work Plan titled: *Long Term Monitoring Services Former Naval Training Center, Orlando, Florida (BFA June, 2008)* and the OU2 specific sampling matrix for March, 2012. Groundwater samples were collected by Barnes, Ferland and Associate, Inc. (BFA) and laboratory analysis was performed by Accutest Laboratories, Southeast. The following section provides a summary of BFA field activities and laboratory results.

2.1 Water Level Measurements

Prior to groundwater sample collection, water levels were measured in OU2 monitor wells, as described in the facility Work Plan and in compliance with FDEP SOP 01-01 (Version March 31, 2008). Groundwater level measurements were collected from 36 monitoring wells on March 26, 2012. At the OU2 site, monitor wells are screened in two surficial aquifer zones below land surface (bls) as follows: shallow Zone A (3.4-17.4 ft bls) and intermediate Zone B (23-39 ft bls). Table 2 identifies the approximate depths for these well screened zones and the calculated groundwater elevations. Groundwater elevations are captured by the electronic program/database ADESSO. Potentiometric surface maps are produced by aid of Golden Software's Surfer program. At the northern and southern plume areas, the groundwater flow patterns in both Zones A & B appear to be toward the east-southeast and generally toward the onsite canal/ditch (Figures 3 and 4). There was insufficient data to provide a potentiometric surface map for the deeper zone.

2.2 Groundwater Sampling

Groundwater sampling of 36 monitor wells and 9 surface water sites was conducted at the OU2 site during the period March 27 to April 10, 2012. Groundwater sampling consists of purging and sampling the monitor wells using the low-flow methods (peristaltic pump) as described in the Work Plan. In accordance with the Work Plan, purge waters are collected in a 125-gallon tank mounted on one of the BFA sampling trucks. The purge water is containerized in drums until analyses results are received. The purge water is then disposed of appropriately by a hazardous waste handler. The purging of wells consists of removing groundwater at a flow rate less than or equal to the groundwater recharge rate until field parameters (temperature, pH, conductivity, turbidity, Dissolved Oxygen [DO], and Oxidation-Reduction Potential [ORP]) have stabilized (Appendix B). Water levels in the wells are continuously monitored to maintain drawdown at less than 0.3 feet. The default pumping rate used is 0.1 GPM for 2-inch diameter wells. This rate is varied as necessary for individual well characteristics.

Table 1 - Operable Unit 2 March 2012 Sampling Plan

OPERABLE UNIT 2 WELL IDS	Water Levels	*VOCs	Iron	Manganese	Alkalinity	Nitrate	Nitrite	Ammonium	Chloride	Ortho-phosphate	Sulfate	Dissolved Organic Carbon	**biogenic gases	CO_2	DO	Ferrous Iron	Total Sulfide	Hydrogen Sulfide
OLD-OU2-02A	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
OLD-OU2-02B	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
OLD-OU2-03A	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
OLD-OU2-03B	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
OLD-OU2-12B	x																	
OLD-OU2-18B	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
OLD-OU2-21A	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
OLD-OU2-21B	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
OLD-OU2-27A	x	x	x	x														
OLD-OU2-27B	x	x	x	x														
OLD-OU2-28B	x																	
OLD-OU2-29A	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
OLD-OU2-29B	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
OLD-OU2-30A	x	x	x	x														
OLD-OU2-30B	x	x	x	x														
OLD-OU2-31A	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
****OLD-OU2-31B**	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
OLD-OU2-32A	x	x	x	x														
OLD-OU2-32B	x	x	x	x														
OLD-OU2-33A	x	x	x	x														
OLD-OU2-33B	x	x	x	x														
OLD-OU2-37B	x	x																
OLD-OU2-41B	x	x									x	x	x	x	x	x		
OLD-OU2-42B	x	x									x	x	x	x	x	x		
OLD-OU2-43B	x	x									x	x	x	x	x	x		
OLD-OU2-44B	x	x									x	x	x	x	x	x		
OLD-OU2-45B	x	x									x	x	x	x	x	x		
OLD-OU2-46B	x	x									x	x	x	x	x	x		
OLD-OU2-47B	x	x									x	x	x	x	x	x		
OLD-OU2-48B	x	x									x	x	x	x	x	x		
OLD-OU2-49B	x	x									x	x	x	x	x	x		
OLD-OU2-50B	x	x									x	x	x	x	x	x		
OLD-OU2-51B	x	x									x	x	x	x	x	x		
OLD-OU2-53B	x	x									x	x	x	x	x	x		
OLD-OU2-DP01A	x	x																
****OLD-OU2-DP02A**	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
OLD-OU2-LG1	x	x	x															
OLD-OU2-SW29	x	x	x															
OLD-OU2-SW30	x	x	x															
OLD-OU2-SW31	x	x	x															
OLD-OU2-SW32	x	x	x															
OLD-OU2-SW33	x	x	x															
OLD-OU2-SW34	x	x	x															
OLD-OU2-SW35	x	x	x															
OLD-OU2-SW36	x	x	x															
TOTAL	**45**	**45**	**28**	**20**	**12**	**12**	**12**	**12**	**12**	**12**	**24**	**24**	**24**	**24**	**24**	**24**	**12**	**12**

The following field parameters are run during purge and prior to sampling - pH, temperature, condutivity, DO, ORP, turbidity.

*VOCs - Laboratory will run 8260 but only the following analytes are reported - Benzene, Cis-1,2-DCE, Isopropylbenzene, Methylene Chloride, Tetrachloroethylene, Trichloroethylene, Vinyl chloride

** Biogenic gasses - DO, CO2, N2, ethene, ethane, methane

***Two duplicate samples for VOCs, iron and manganese only. Also 2 blanks and 1 MS.

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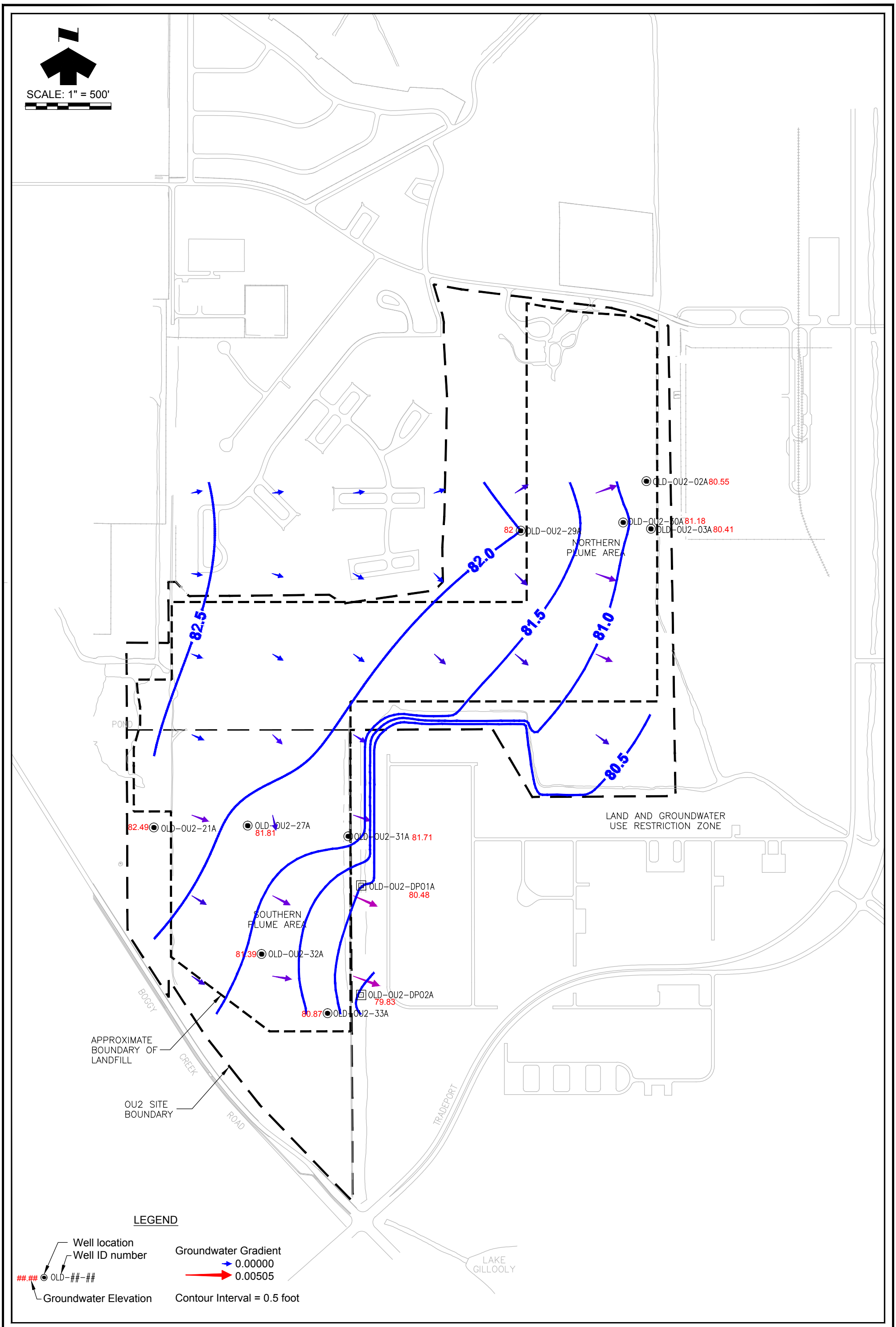

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Potentiometric Surface Map - Zone A

FIGURE 3

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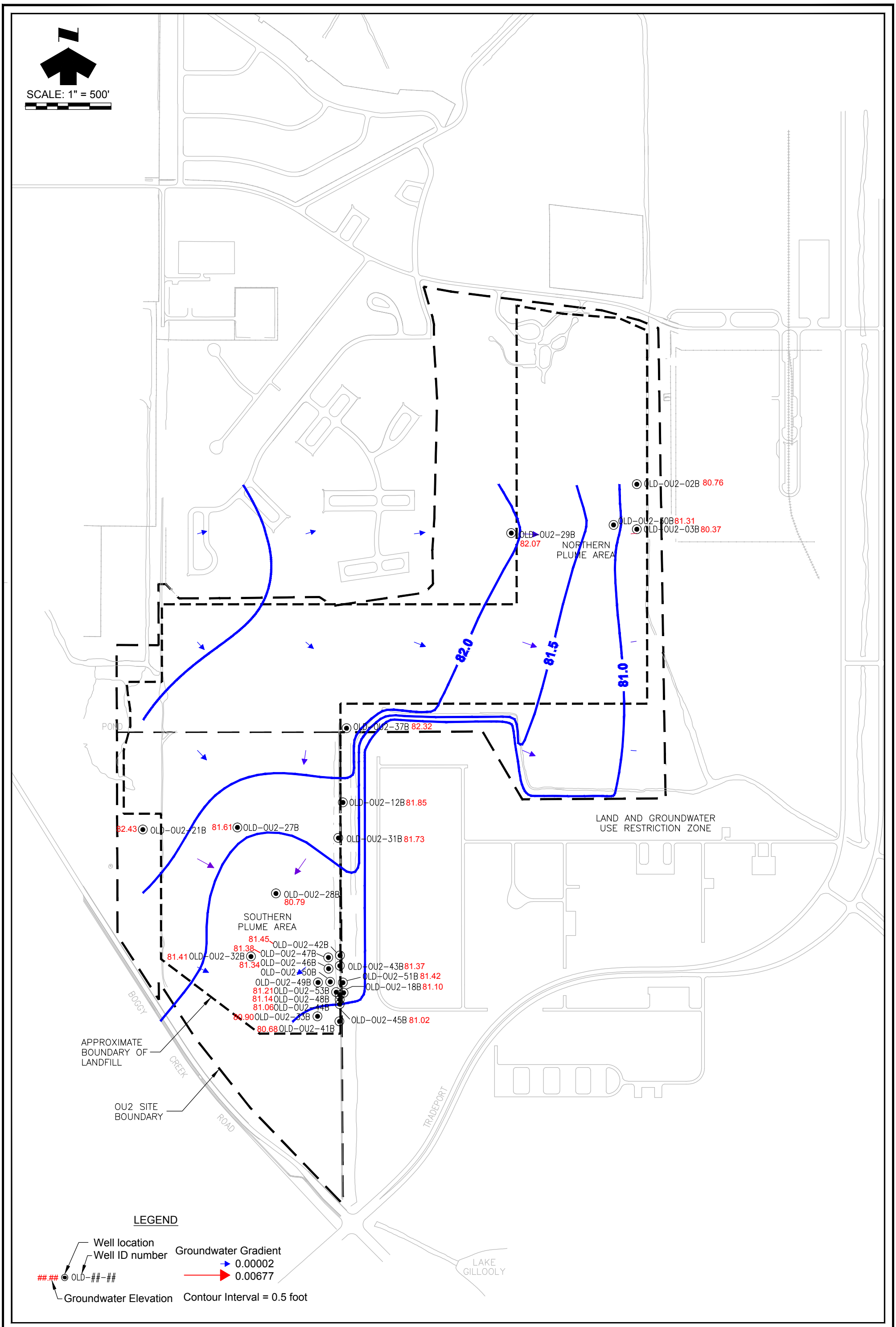

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Potentiometric Surface Map - Zone B

FIGURE 4

Table 2 - OU2 Monitor well information and March 26, 2012 groundwater elevations

Well ID	Well Diameter (inches)	Screened Interval (ft. BLS)	TOC Elevation (ft. NGVD)	Depth to Water Level (ft. BTOC)	Groundwater Elevation (ft. NGVD)
OLD-OU2-02A	2”	7.4 – 17.4	91.55	11.00	80.55
OLD-OU2-02B	2”	27 – 32	91.76	11.00	80.76
OLD-OU2-03A	2”	7.5 – 17.5	89.21	8.80	80.41
OLD-OU2-03B	2”	27.5 – 32.5	89.17	8.80	80.37
OLD-OU2-12B	2”	29 – 35	90.40	8.55	81.85
OLD-OU2-18B	2”	28.5 – 33.5	89.89	8.79	81.10
OLD-OU2-21A	2”	7 – 17	93.79	11.30	82.49
OLD-OU2-21B	2”	27.5 – 32.5	93.93	11.50	82.43
OLD-OU2-27A	2”	6 – 16	95.31	13.50	81.81
OLD-OU2-27B	2”	27 – 32	95.31	13.70	81.61
OLD-OU2-28B	2”	27 – 32	94.49	13.70	80.79
OLD-OU2-29A	1”	5 – 15	86.99	4.99	82.00
OLD-OU2-29B	1”	25 – 30	86.79	4.72	82.07
OLD-OU2-30A	1”	5 – 15	88.68	7.50	81.18
OLD-OU2-30B	1”	25 – 30	88.31	7.00	81.31
OLD-OU2-31A	1”	5 – 15	93.81	12.10	81.71
OLD-OU2-31B	1”	25 – 30	93.53	11.80	81.73
OLD-OU2-32A	1”	5 – 15	93.94	12.55	81.39
OLD-OU2-32B	1”	25 – 30	94.06	12.65	81.41
OLD-OU2-33A	1”	5 – 15	93.70	12.83	80.87
OLD-OU2-33B	1”	25 – 30	93.42	12.52	80.90
OLD-OU2-37B	1”	25 – 30	92.67	10.35	82.32
OLD-OU2-41B	2”	30 – 35	89.49	8.81	80.68
OLD-OU2-42B	2”	34 – 39	89.60	8.15	81.45
OLD-OU2-43B	2”	29.5 – 34.5	89.37	8.00	81.37
OLD-OU2-44B	2”	28.5 – 33.5	89.39	8.33	81.06
OLD-OU2-45B	2”	29.8 – 34.5	89.38	8.36	81.02
OLD-OU2-46B	2”	30 – 35	89.23	7.89	81.34
OLD-OU2-47B	2”	30 – 35	89.58	8.20	81.38
OLD-OU2-48B	2”	23 – 28	89.64	8.50	81.14
OLD-OU2-49B	2”	25 – 35	89.62	6.60	83.02
OLD-OU2-50B	2”	23 – 33	87.57	8.80	78.77
OLD-OU2-51B	2”	24 – 34	90.72	9.30	81.42
OLD-OU2-53B	2”	25 – 35	88.31	7.10	81.21
OLD-OU2-DP01A	1.25”	3.5 – 7.5	82.68	2.20	80.48
OLD-OU2-DP02A	1.25”	3.5 – 7.5	82.53	2.70	79.83

Notes:
BLS - Below land surface
TOC - Top of casing
NGVD - National Geodetic Vertical Datum
BTOC - Below top of casing

The calibration of field testing equipment is checked daily according to the Work Plan (Appendix C). The equipment is calibrated as required according to the manufacturer's instructions. ADESSO is used as the field electronic capture program and relational database for field related data. All data are captured in the field electronically and uploaded to the database and is accessible to interested Navy and OPT members near real time.

Table 3 presents the field parameters taken with a multi-parameter water quality meter at stabilization after the completion of well purging. Table 4 includes parameters tested with field test kits. As in the past, the natural pH of groundwater at this site is on the acidic side which can inhibit reductive dechlorination. As has been documented in the past sampling rounds, turbidity continues to be above 20 NTU in six of the wells at OU2. Turbidity may be due to the elevated iron concentrations found within the surficial aquifer or fine grained sediments/suspended solids entering wells through the filter pack/screen. Most of the wells with the higher turbidity values were sampled because even at the very low purge rate, turbidity continued to increase with each equipment volume removed. Other wells were sampled when the field screening parameters (including turbidity) stabilized even though in some cases the turbidity was over the 20 NTU goal. When possible and practical, samplers endeavored to continue purging until values were stable and lower than historical values. These six wells were typically purged up to 3 hours prior to sampling (Appendix B).

Table 3 - OU2 March 2012 multi-parameter probe field sampling parameters

Well ID	Date	Temp °C	Sp. Cond. µS/cm	DO mg/L	pH	ORP mV	Turbidity NTU
OLD-OU2-02A	03/27/2012	23.6	1120.0	0.90	6.28	-	5.30
OLD-OU2-02B	03/27/2012	25.1	219.00	0.17	5.38	-77.00	6.20
OLD-OU2-03A	03/27/2012	22.6	790.00	0.22	6.09	-49.00	7.20
OLD-OU2-03B	03/27/2012	23.2	371.00	0.22	5.56	-82.00	**43.70**
OLD-OU2-12B	04/03/2012	23.7	104.00	0.97	5.23	110.00	1.15
OLD-OU2-18B	04/06/2012	23.6	113.00	1.14	5.20	-	3.36
OLD-OU2-21A	04/06/2012	26.7	109.10	0.59	4.25	0.21	0.40
OLD-OU2-21B	04/06/2012	28.3	186.50	0.17	6.14	-0.39	13.30
OLD-OU2-27A	04/02/2012	25.0	202.90	0.35	5.38	95.00	12.20
OLD-OU2-27B	04/02/2012	24.4	157.00	0.75	4.63	-	5.64
OLD-OU2-28B	03/29/2012	24.4	124.50	0.91	4.35	-3.00	2.40
OLD-OU2-29A	03/28/2012	23.1	112.00	0.00	5.72	-	**88.80**
OLD-OU2-29B	03/28/2012	23.5	123.00	0.22	5.51	-	**24.90**
OLD-OU2-30A	03/28/2012	24.6	183.60	3.44	5.50	-30.00	**578.70**
OLD-OU2-30B	03/28/2012	23.5	664.00	0.10	6.07	-97.00	0.50
OLD-OU2-31A	04/03/2012	24.2	44.27	0.19	4.81	200.00	3.20
OLD-OU2-31B	04/03/2012	25.6	165.00	0.24	4.78	-84.00	9.80
OLD-OU2-32A	03/29/2012	23.0	52.60	1.99	4.68	32.00	**66.90**

Well ID	Date	Temp °C	Sp. Cond. µS/cm	DO mg/L	pH	ORP mV	Turbidity NTU
OLD-OU2-32B	03/29/2012	23.9	116.70	0.30	5.14	-97.00	2.10
OLD-OU2-33A	04/05/2012	24.2	87.00	5.84	4.57	-40.40	2.76
OLD-OU2-33B	04/05/2012	23.4	134.00	0.72	4.83	-	2.39
OLD-OU2-37B	03/29/2012	24.4	153.20	0.14	4.95	-85.00	9.10
OLD-OU2-41B	04/09/2012	23.2	99.00	1.17	5.05	-	1.47
OLD-OU2-42B	04/06/2012	23.7	89.00	1.03	5.02	-	1.81
OLD-OU2-43B	04/09/2012	24.2	124.00	0.84	5.03	-	7.82
OLD-OU2-44B	04/10/2012	23.4	85.00	1.41	5.11	-	10.70
OLD-OU2-45B	04/09/2012	23.7	101.00	1.50	5.03	-	19.50
OLD-OU2-46B	04/09/2012	24.0	101.00	0.73	5.24	-	2.49
OLD-OU2-47B	04/09/2012	24.1	119.00	0.87	5.09	-	5.20
OLD-OU2-48B	04/09/2012	24.2	184.00	1.32	5.43	-	2.35
OLD-OU2-49B	04/09/2012	23.1	120.00	0.73	5.42	-	19.90
OLD-OU2-50B	04/10/2012	25.0	99.00	0.68	5.23	-	**55.80**
OLD-OU2-51B	04/06/2012	23.7	124.00	0.65	4.77	-	5.54
OLD-OU2-53B	04/10/2012	24.0	115.00	1.14	4.99	-	8.90
OLD-OU2-DP01A	04/03/2012	33.4	253.00	4.59	5.05	-	0.80
OLD-OU2-DP02A	04/05/2012	29.8	132.00	5.24	4.72	-	2.43
OLD-OU2-LG1	03/28/2012	30.9	182.90	8.76	7.42	121.00	13.90
OLD-OU2-SW29	03/28/2012	26.8	223.90	7.98	6.58	105.00	**32.80**
OLD-OU2-SW30	03/28/2012	25.8	190.70	7.55	6.90	112.00	**25.40**
OLD-OU2-SW31	03/28/2012	27.0	169.60	7.67	7.07	100.00	**77.90**
OLD-OU2-SW32	03/28/2012	35.0	106.90	5.93	5.60	128.00	**247.10**
OLD-OU2-SW33	03/28/2012	34.9	157.70	5.44	5.26	151.00	**92.20**
OLD-OU2-SW34	03/28/2012	25.0	248.80	2.68	6.13	15.00	**148.60**
OLD-OU2-SW35	03/28/2012	29.5	171.30	5.55	6.21	105.00	**58.70**
OLD-OU2-SW36	03/28/2012	34.9	216.50	7.00	6.91	52.00	**123.60**

Notes: mg/L-milligrams per liter; µS/cm-micro siemens per centimeter; mV-millivolts; NTU-Nephelometric Turbidity Units

Table 4 - OU2 March 2012 field test kit analytical parameters

Well ID	Date	DO mg/L	CO_2 mg/L	Ferrous Iron mg/L	Hydrogen Sulfide mg/L	Total Sulfide mg/L
OLD-OU2-02A	03/27/2012	0.47	163.00	2.00	0.05	0.05
OLD-OU2-02B	03/27/2012	1.22	29.00	2.60	0.11	0.10
OLD-OU2-03A	03/27/2012	0.00	108.00	7.00	0.00	0.00
OLD-OU2-03B	03/27/2012	0.26	79.00	4.40	0.04	0.04
OLD-OU2-18B	04/06/2012	0.64	25.00	0.60	1.06	1.00
OLD-OU2-21A	04/06/2012	1.69	49.00	1.20	0.00	0.00
OLD-OU2-21B	04/06/2012	0.00	101.00	0.90	1.15	1.22
OLD-OU2-29A	03/28/2012	1.39	44.00	1.20	0.00	0.00
OLD-OU2-29B	03/28/2012	0.24	25.00	2.20	0.22	0.20

Well ID	Date	DO mg/L	CO_2 mg/L	Ferrous Iron mg/L	Hydrogen Sulfide mg/L	Total Sulfide mg/L
OLD-OU2-31A	04/03/2012	1.24	27.00	0.00	0.00	0.00
OLD-OU2-31B	04/03/2012	0.00	165.00	2.00	1.85	1.75
OLD-OU2-41B	04/09/2012	0.40	130.00	1.00	-	-
OLD-OU2-42B	04/06/2012	0.82	141.00	1.30	-	-
OLD-OU2-43B	04/09/2012	0.22	62.00	1.00	-	-
OLD-OU2-44B	04/10/2012	0.00	104.00	0.90	-	-
OLD-OU2-45B	04/09/2012	0.00	92.00	0.80	-	-
OLD-OU2-46B	04/09/2012	0.69	57.00	2.00	-	-
OLD-OU2-47B	04/09/2012	0.23	22.00	2.20	-	-
OLD-OU2-48B	04/09/2012	0.00	163.00	1.00	-	-
OLD-OU2-49B	04/09/2012	0.00	61.00	2.80	-	-
OLD-OU2-50B	04/10/2012	0.00	74.00	1.60	-	-
OLD-OU2-51B	04/06/2012	0.00	32.00	2.00	-	-
OLD-OU2-53B	04/10/2012	0.00	102.00	0.90	-	-
OLD-OU2-DP02A	04/05/2012	0.47	74.00	2.60	1.48	1.40

For all laboratory analytes, the screening criterion is the Florida Department of Environmental Protection (FDEP) Maximum Contamination Level (MCLs) as given in the Drinking Water Standards (*F.A.C.* 62-550 Table 1, MCLs for Volatile Organic Compounds), *F.A.C.* 62-777 Table 1 Groundwater and Surface Water Cleanup Target Levels, and *F.A.C.* 62-777 Table V Natural Attenuation Default Concentrations (NADC). For metals, the Background Screening Values (BGSV) from the Background Sampling Report, NTC, Orlando, May, 1995 are used as the primary standard where measurements are above the 62-777 Groundwater Cleanup Target Levels (GCTLs).

Table 5 provides a summary of the OU2 groundwater analyte detections and GCTL exceedances for the March 2012 sampling round. Bolded values within Table 5 indicate detected analyte concentrations. Yellow highlights indicate results above the site specific GCTL, FDEP MCL and/or FAC 62-777 GCTL. Orange highlighted values indicate concentrations in excess of FDEP NADC, if appropriate.

Figure 5 shows the concentrations of the contaminants of concern (COC) from the surface water sampling sites and the shallow Zone A monitor wells at OU2. For the surface water sites, there were no analytical detections of any COC above their quantitation limits, with the exception of high iron. Zone A monitor wells are screened between depths of about 3.5 to 17.5 feet below land surface (BLS). At the northern plume area, concentrations of COCs were mostly below GCTLs, with exception of iron which is above the GCTL in all wells sampled. At well OLD-OU2-DP01A, within the southern plume area, concentrations of benzene (1.7 µg/L)and vinyl chloride(3.7 µg/L) slightly exceeded GCTLs. Iron was above the GCTL at most sites and manganese was highest above GCTL at well OLD-OU2-03A at 777 µg/L.

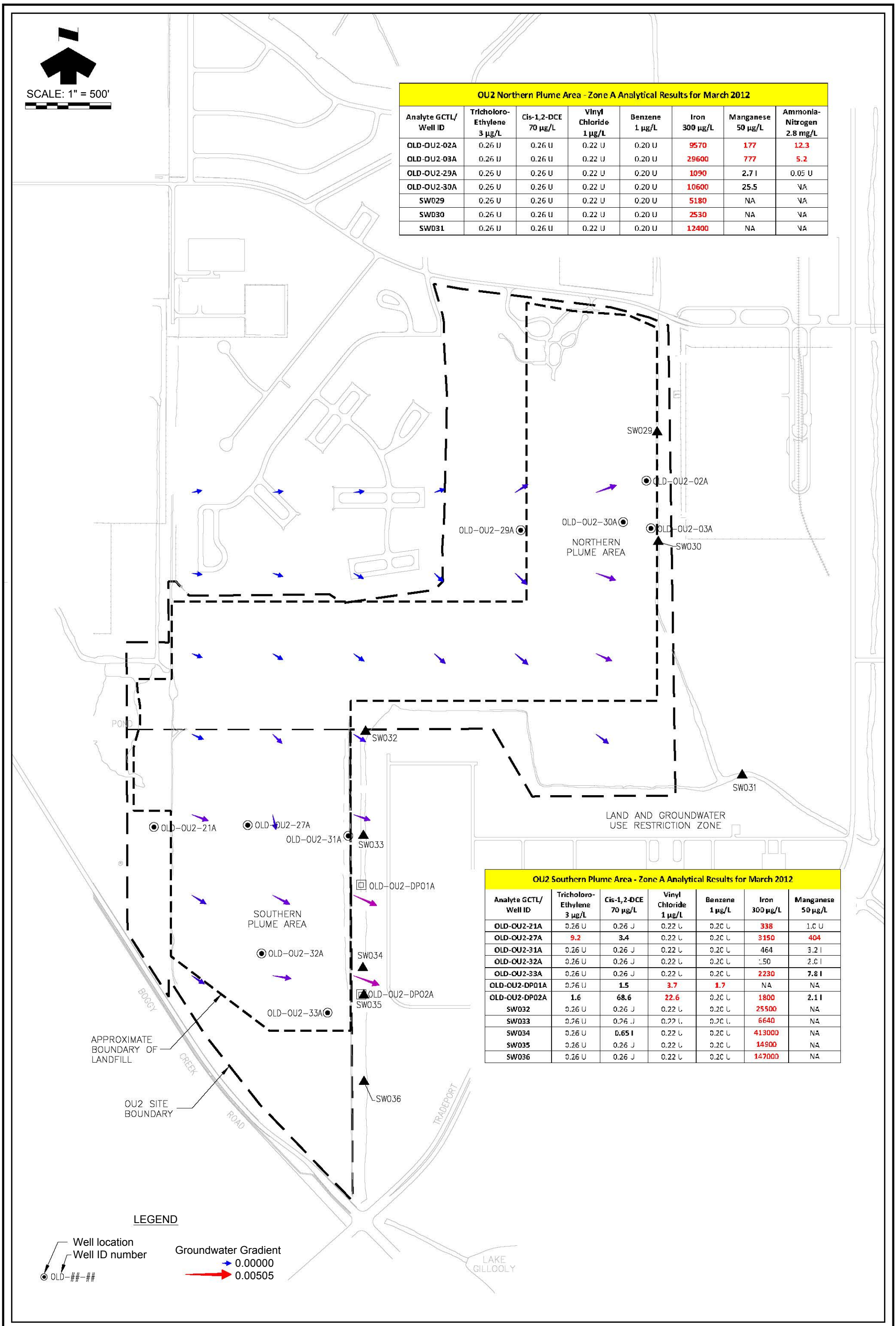
Figure 6 shows the concentrations of the COC from the deeper Zone B monitor wells at OU2, which are screened between depths of about 23 to 39 feet BLS. At the northern plume area, concentrations of COC were below GCTLs, with exception of iron that is above the GCTL in all wells sampled. At well OLD-

Table 5 - Operable Unit 2 March 2012 Semiannual Analytical Detections

Operable Unit 2 Analytical Results March 2012		Chemical Name	GC/MS Volatiles (SW846 8260B)								Metals Analysis		Biogenic Gases							General Chemistry							
			Benzene	cis-1,2-Dichloroethylene	Isopropylbenzene	Methylene chloride	Tetrachloroethylene	Trichloroethylene	Vinyl chloride		Iron	Manganese	Methane	Ethane	Ethene	Carbon Dioxide	Oxygen	Nitrogen	Hydrogen	Alkalinity, Total as $CaCO_3$	Chloride	Nitrogen, Ammonia	Nitrogen, Nitrate	Nitrogen, Nitrite	Orthophosphate	Sulfate	Disolved Organic Carbon
		CAS-RN	71-43-2	156-59-2	98-82-8	75-09-2	127-18-4	79-01-6	75-01-4		7439-89-6	7439-96-5	74-82-8	74-84-0	74-85-1	124-38-9	7782-44-7	17778-88-0	1333-74-0	E1640192	16887-00-6	E966655	14797-55-8	14797-65-0	14265-44-2	14808-79-8	E701250
		Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L		µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	nM	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		GCTL	1	70	0.8	5	3	3	1		300	50	-	-	-	-	-	-	-	-	250	2.8	10	1	-	250	-
		NADSC	10	700	8	500	300	30	10		3000	500	-	-	-	-	-	-	-	-	2500	28	1000	100	-	25000	-
Well ID	Lab ID	BGSV	-	-	-	-	-	-	-		1227	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OLD-OU2-02A	F91589-1	03/27/2012	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U		9570	177	730	0.01	0.034	230	3.8	15	NA	487	35.9	12.3	0.31	0.10 U	0.22	50	159
OLD-OU2-02B	F91589-2	03/27/2012	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U		2140	9.4 I	930	0.016	0.052	130	1.8	14	NA	28.7	43.7	0.41	0.050 U	0.050 U	0.83	3.4	20.4
OLD-OU2-03A	F91589-3	03/27/2012	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U		29600	777	840	0.023	0.056	180	3.3	18	NA	261	49.3	5.2	0.46	0.050 U	0.021 I	47.3	41.2
OLD-OU2-03B	F91589-4	03/27/2012	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U		8470	16.3	780	0.095	0.054	180	2.8	14	NA	57	51.7	3.1	0.050 U	0.050 U	0.64	28.4	26.9
OLD-OU2-12B	F91853-11	04/03/2012	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.33 I	0.22 U		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
OLD-OU2-18B	F91966-2	04/06/2012	0.20 U	104	0.20 U	2.0 U	0.25 U	1.4	313		370	23.5	9500	0.032	58	160	1.4	9	NA	17.4	12.6	0.38	0.050 U	0.050 U	0.86	16.7	8.3
OLD-OU2-21A	F91966-1	04/06/2012	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U		338	1.0 U	120	0.0071	0.067	100	3.6	20	NA	2.5 U	27.8	0.050 U	0.050 U	0.050 U	0.030 I	5.5	3
OLD-OU2-21B	F91966-4	04/06/2012	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U		853	12.8 I	2400	0.088	0.022	230	2.9	13	NA	32.4	38.3	0.050 U	0.050 U	0.050 U	0.77	1.0 U	15.9
OLD-OU2-27A	F91853-5	04/02/2012	0.20 U	3.4	0.20 U	2.0 U	0.25 U	9.2	0.50 I		3150	404	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
OLD-OU2-27B	F91853-6	04/02/2012	2.3	0.51 I	0.33 I	2.0 U	0.25 U	0.26 U	0.22 U		969	6.3 I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
OLD-OU2-28B	F91853-2	03/29/2012	2.6	0.85 I	0.20 U	2.0 U	0.25 U	0.26 U	3.3		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
OLD-OU2-29A	F91634-5	03/28/2012	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U		1090	2.7 I	28.8	0.32 U	0.43 U	58	4	20	NA	34.7	5.7	0.050 U	0.11	0.050 U	0.17	10.7	29.5
OLD-OU2-29B	F91634-11	03/28/2012	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U		2170	14.3 I	1180	0.46 I	0.43 U	83	2.3	16	NA	30.5	17.6	0.42	0.050 U	0.050 U	1.8	1.3 I	23.3
OLD-OU2-30A	F91634-13	03/28/2012	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U		10600	25.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
OLD-OU2-30B	F91634-12	03/28/2012	0.46 I	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U		29700	133	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
OLD-OU2-31A	F91853-7	04/03/2012	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U		464	3.2 I	44.3	0.32 U	0.43 U	36	3.9	17	NA	2.5 U	5.5	0.050 U	0.050 U	0.050 U	0.023 I	9.9	4.7
OLD-OU2-31B	F91853-10	04/03/2012	13.9	1.3	0.20 U	2.0 U	1.7	0.50 I	1.9		932	7.9 I	1080	0.77 I	0.43 U	320	3.6	15	NA	8.8	20.8	0.050 U	0.050 U	0.050 U	1.1	28.8	19.2
	F91967-5	Duplicate	13.2	1.5	0.28 I	2.0 U	1.4	0.48 I	1.3		1720	6.3 I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
OLD-OU2-32A	F91853-4	03/29/2012	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U		150 I	2.0 I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
OLD-OU2-32B	F91853-3	03/29/2012	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U		1210	10.4 I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
OLD-OU2-33A	F91967-1	04/05/2012	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U		2230	7.8 I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
OLD-OU2-33B	F91967-2	04/05/2012	0.20 U	0.85 I	0.20 U	2.0 U	0.70 I	11.3	0.22 U		1650	7.4 I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
OLD-OU2-37B	F91853-1	03/29/2012	0.79 I	0.45 I	0.20 U	2.0 U	0.25 U	0.26 U	0.56 I		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
OLD-OU2-41B	F91968-1	04/09/2012	1.9	2.7	0.20 U	2.0 U	0.25 U	24.9	0.22 U		NA	NA	1700	0.078	0.28	180	2.8	14	NA	NA	NA	NA	NA	NA	NA	1.0 I	10.8
OLD-OU2-42B	F91966-5	04/06/2012	0.59 I	661	0.20 U	2.0 U	2.5	3530	29.6		NA	NA	2200	0.43	7.3	200	2.6	16	NA	NA	NA	NA	NA	NA	NA	1.0 U	12.2
OLD-OU2-43B	F91968-2	04/09/2012	0.25 I	291	0.20 U	2.0 U	29.7	5150	36.9		NA	NA	850	0.57	8.8	180	5.1	14	NA	NA	NA	NA	NA	NA	NA	20.2	8.4
OLD-OU2-44B	F92066-1	04/10/2012	4.0 U	436	4.0 U	40 U	5.7 I	1030	11.7 I		NA	NA	1400	0.13	1.2	100	4.4	12	NA	NA	NA	NA	NA	NA	NA	11.2	6.8
OLD-OU2-45B	F91968-4	04/09/2012	0.92 I	708	0.20 U	2.0 U	0.25 U	2.2	7.3		NA	NA	13000	0.025 U	1.5	240	1.4	9.3	NA	NA	NA	NA	NA	NA	NA	1.1 I	14.2
OLD-OU2-46B	F91968-5	04/09/2012	0.26 I	913	0.20 U	2.0 U	36.2	5020	47.6		NA	NA	1300	0.64	8.6	140	5	16	NA	NA	NA	NA	NA	NA	NA	11.5	8.7
OLD-OU2-47B	F91968-3	04/09/2012	0.20 U	169	0.20 U	2.0 U	39.7	2830	25.9		NA	NA	750	0.42	5.7	150	5.2	15	NA	NA	NA	NA	NA	NA	NA	27.1	12
OLD-OU2-48B	F91968-6	04/09/2012	0.79 I	1010	0.20 U	2.0 U	0.25 U	1.1	543		NA	NA	18000	0.025 U	36	300	1.7	6.6	NA	NA	NA	NA	NA	NA	NA	1.0 U	26.2
OLD-OU2-49B	F91968-7	04/09/2012	0.22 I	53.5	0.20 U	2.0 U	3.2	61.8	3.4		NA	NA	300	0.057	1.6	130	4.9	18	NA	NA	NA	NA	NA	NA	NA	17.1	25.3
OLD-OU2-50B	F92066-3	04/10/2012	0.22 I	40.6	0.20 U	2.0 U	0.25 U	0.27 I	80.5		NA	NA	9400	0.1	8.8	120	7.8	15	NA	NA	NA	NA	NA	NA	NA	1.0 U	18.7
OLD-OU2-51B	F91966-3	04/06/2012	0.20 U	108	0.20 U	2.0 U	0.25 U	0.26 U	12.5		NA	NA	14000	0.15	2.9	150	2.5	9.2	NA	NA	NA	NA	NA	NA	NA	1.0 U	11.4
OLD-OU2-53B	F92066-2	04/10/2012	1.0 U	316	1.0 U	10 U	2.7 I	39.8	237		NA	NA	6800	0.06	23	180	6	15	NA	NA	NA	NA	NA	NA	NA	20.7	17
OLD-OU2-DP01A	F91853-12	04/03/2012	1.7	1.5	0.20 U	2.0 U	0.25 U	0.26 U	3.7		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
OLD-OU2-DP02A	F91967-3	04/05/2012	0.20 U	67.3	0.20 U	2.0 U	0.25 U	1.6	22.6		1770	2.0 I	2800	0.015	1.2	110	2.7	9.9	NA	2.9 I	27.5	0.051 I	0.079 I	0.050 U	0.090 I	13	20.1
	F91967-4	Duplicate	0.20 U	68.6	0.20 U	2.0 U	0.25 U	1.6	22.6		1800	2.1 I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

NOTES:
µg/L - micrograms per liter
U - indicates result less than method detection limit
I - indicates result greater than or equal to method detection limit but less than practical quantitation limit
GCTL - groundwater cleanup target level
NADC - natural attenuation default concentration

F:\HYDRO\PROJECTS\2008\2008-10 NAVFAC Long-Term Monitoring Orlando\Data\Maps&Pictures\drawings\OU2\2012-03\2008-10 OU2 Figure 5 OU2 Contam A.dwg



OU2 Northern Plume Area - Zone A Analytical Results for March 2012

Analyte GCTL/ Well ID	Tricholoro-Ethylene 3 µg/L	Cis-1,2-DCE 70 µg/L	Vinyl Chloride 1 µg/L	Benzene 1 µg/L	Iron 300 µg/L	Manganese 50 µg/L	Ammonia-Nitrogen 2.8 mg/L
OLD-OU2-02A	0.26 U	0.26 U	0.22 U	0.20 U	9570	177	12.3
OLD-OU2-03A	0.26 U	0.26 U	0.22 U	0.20 U	29600	777	5.2
OLD-OU2-29A	0.26 U	0.26 U	0.22 U	0.20 U	1090	2.7 I	0.05 U
OLD-OU2-30A	0.26 U	0.26 U	0.22 U	0.20 U	10600	25.5	NA
SW029	0.26 U	0.26 U	0.22 U	0.20 U	5180	NA	NA
SW030	0.26 U	0.26 U	0.22 U	0.20 U	2530	NA	NA
SW031	0.26 U	0.26 U	0.22 U	0.20 U	12400	NA	NA

OU2 Southern Plume Area - Zone A Analytical Results for March 2012

Analyte GCTL/ Well ID	Tricholoro-Ethylene 3 µg/L	Cis-1,2-DCE 70 µg/L	Vinyl Chloride 1 µg/L	Benzene 1 µg/L	Iron 300 µg/L	Manganese 50 µg/L
OLD-OU2-21A	0.26 U	0.26 U	0.22 U	0.20 U	338	1.0 U
OLD-OU2-27A	9.2	3.4	0.22 U	0.20 U	3150	404
OLD-OU2-31A	0.26 U	0.26 U	0.22 U	0.20 U	464	3.2 I
OLD-OU2-32A	0.26 U	0.26 U	0.22 U	0.20 U	150	2.0 I
OLD-OU2-33A	0.26 U	0.26 U	0.22 U	0.20 U	2230	7.8 I
OLD-OU2-DP01A	0.26 U	1.5	3.7	1.7	NA	NA
OLD-OU2-DP02A	1.6	68.6	22.6	0.20 U	1800	2.1 I
SW032	0.26 U	0.26 U	0.22 U	0.20 U	25500	NA
SW033	0.26 U	0.26 U	0.22 U	0.20 U	6640	NA
SW034	0.26 U	0.65 I	0.22 U	0.20 U	413000	NA
SW035	0.26 U	0.26 U	0.22 U	0.20 U	14900	NA
SW036	0.26 U	0.26 U	0.22 U	0.20 U	147000	NA

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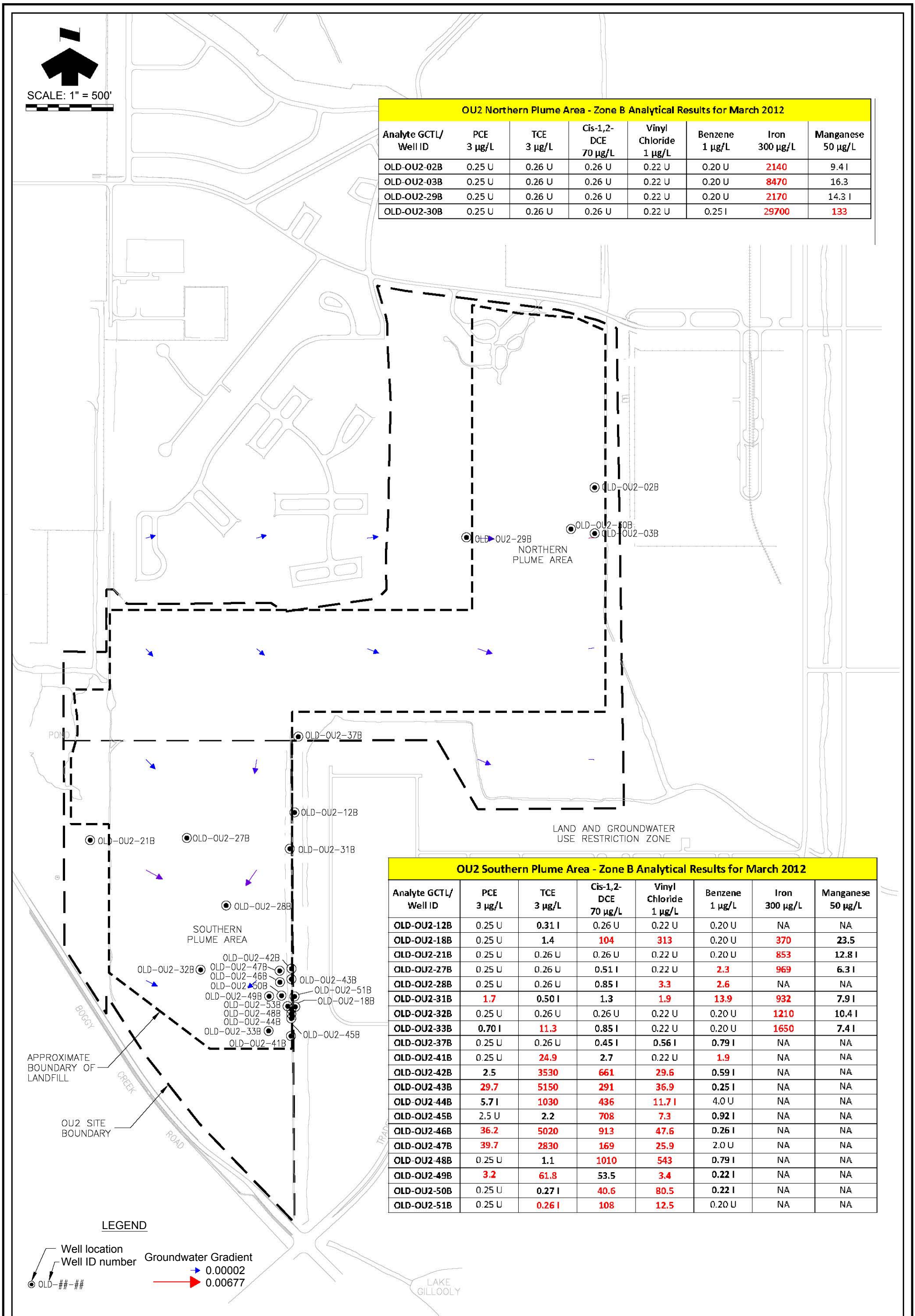
Analytical Results of Contaminants of Concern for Zone A Monitoring Wells

FIGURE 5

F:\HYDRO\PROJECTS\2008\2008-10 NAVFAC Long-Term Monitoring Orlando\Data\Maps&Pictures\drawings\OU2\2012-03\2008-10 OU2 Figure 6 OU2 Contam B.dwg



OU2 Northern Plume Area - Zone B Analytical Results for March 2012

Analyte GCTL/ Well ID	PCE 3 µg/L	TCE 3 µg/L	Cis-1,2-DCE 70 µg/L	Vinyl Chloride 1 µg/L	Benzene 1 µg/L	Iron 300 µg/L	Manganese 50 µg/L
OLD-OU2-02B	0.25 U	0.26 U	0.26 U	0.22 U	0.20 U	2140	9.4 I
OLD-OU2-03B	0.25 U	0.26 U	0.26 U	0.22 U	0.20 U	8470	16.3
OLD-OU2-29B	0.25 U	0.26 U	0.26 U	0.22 U	0.20 U	2170	14.3 I
OLD-OU2-30B	0.25 U	0.26 U	0.26 U	0.22 U	0.25 I	29700	133

OU2 Southern Plume Area - Zone B Analytical Results for March 2012

Analyte GCTL/ Well ID	PCE 3 µg/L	TCE 3 µg/L	Cis-1,2-DCE 70 µg/L	Vinyl Chloride 1 µg/L	Benzene 1 µg/L	Iron 300 µg/L	Manganese 50 µg/L
OLD-OU2-12B	0.25 U	0.31 I	0.26 U	0.22 U	0.20 U	NA	NA
OLD-OU2-18B	0.25 U	1.4	104	313	0.20 U	370	23.5
OLD-OU2-21B	0.25 U	0.26 U	0.26 U	0.22 U	0.20 U	853	12.8 I
OLD-OU2-27B	0.25 U	0.26 U	0.51 I	0.22 U	2.3	969	6.3 I
OLD-OU2-28B	0.25 U	0.26 U	0.85 I	3.3	2.6	NA	NA
OLD-OU2-31B	1.7	0.50 I	1.3	1.9	13.9	932	7.9 I
OLD-OU2-32B	0.25 U	0.26 U	0.26 U	0.22 U	0.20 U	1210	10.4 I
OLD-OU2-33B	0.70 I	11.3	0.85 I	0.22 U	0.20 U	1650	7.4 I
OLD-OU2-37B	0.25 U	0.26 U	0.45 I	0.56 I	0.79 I	NA	NA
OLD-OU2-41B	0.25 U	24.9	2.7	0.22 U	1.9	NA	NA
OLD-OU2-42B	2.5	3530	661	29.6	0.59 I	NA	NA
OLD-OU2-43B	29.7	5150	291	36.9	0.25 I	NA	NA
OLD-OU2-44B	5.7 I	1030	436	11.7 I	4.0 U	NA	NA
OLD-OU2-45B	2.5 U	2.2	708	7.3	0.92 I	NA	NA
OLD-OU2-46B	36.2	5020	913	47.6	0.26 I	NA	NA
OLD-OU2-47B	39.7	2830	169	25.9	2.0 U	NA	NA
OLD-OU2-48B	0.25 U	1.1	1010	543	0.79 I	NA	NA
OLD-OU2-49B	3.2	61.8	53.5	3.4	0.22 I	NA	NA
OLD-OU2-50B	0.25 U	0.27 I	40.6	80.5	0.22 I	NA	NA
OLD-OU2-51B	0.25 U	0.26 I	108	12.5	0.20 U	NA	NA

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Analytical Results of Contaminants of Concern for Zone B Monitoring Wells

FIGURE 6

OU2-030B, concentration of iron is highest (29,700 µg/L) from all monitor sites and the concentration of manganese was 133 µg/L. The COCs have significantly higher concentrations in Zone B at the southern plume area (between Wells OLD-OU2-41B and OLD-OU2-42B), particularly the chlorinated solvents parameters. Iron was high in all Zone B wells sampled, however manganese did not exceed the GCTL in groundwater sampled from any of the Zone B wells. Figures 7 a,b show a slight decrease in PCE and TCE concentrations at source well OLD-OU2-43B. Figures 8 a,b,c show concentrations of chlorinated solvents for a few *compliance wells* at OU2. It should be noted that well OLD-OU2-53B shows an apparent increasing trend in TCE concentrations during the past year (Figure 7b). Vinyl chloride increased to from 0.61 I in September 2011 to 22.6 µg/L in March 2012.

2.3 Selected Well Concentration Trend Analysis

Evidence for reductive dechlorination will be further reduction of trichloroethene (TCE), and both the formation and reduction of biodegradation daughter products/end products *cis*-1,2-dichloroethene (cDCE) and vinyl chloride (VC). Both Mann-Kendall and Linear Regression trend analyses were performed using statistical tools found in the Monitoring and Remediation Optimization System (MAROS) software (AFCEE, 2003), resulting in plume stability information. Documentation/details are provided at: http://www.gsi-net.com/software/MAROS_V2_1Manual.pdf . Individual well concentration trends were calculated for priority COCs and methane for the time period 12-2008 to 3-2012 (Appendix A). For this evaluation, a decision matrix developed by Groundwater Services, Inc. is used to determine the "Concentration Trend" category (plume stability) for selected wells. Depending on statistical indicators, the concentration trend is classified into six categories: Decreasing (D); Probably Decreasing (PD); Stable (S); No Trend (NT); Probably Increasing (PI); Increasing (I).

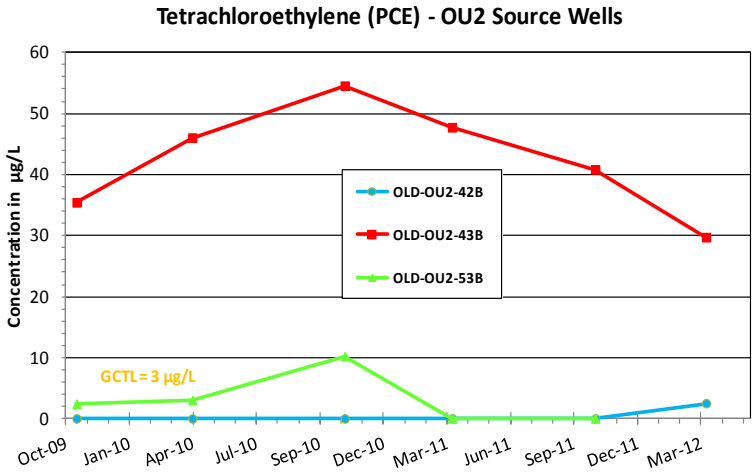
Appendix E and Table 6 below provides a summary of concentration trends for selected analytes and the higher concentration monitor wells at OU-2. Concentration trends at these selected wells suggest that the groundwater plume at OU-2 is largely stable.

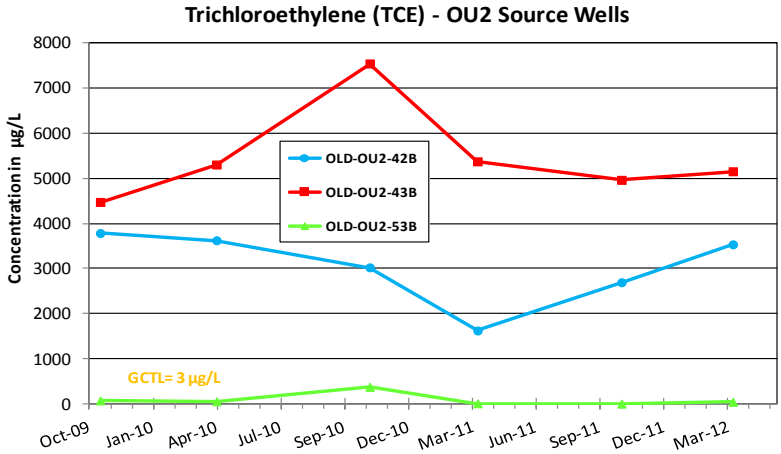
Table 6 - Summary of Concentration Trends

Selected Wells/COCs	Trichloroethylene		Benzene	
	M-K	L-R	M-K	L-R
OLD-OU2-31B	---	---	S	PD
OLD-OU2-41B	S	S	NT	NT
OLD-OU2-42B	S	S	---	---
OLD-OU2-43B	NT	NT	---	---

M-K - Mann-Kendall Trend
L-R - Linear Regression Trend
D = Decreasing; PD = Probably Decreasing; S = Stable; PI = Probably Increasing; I = Increasing; NT = No Trend.

Figure 7 a, b, c - Graphs of COC concentrations for selected source wells at OU2





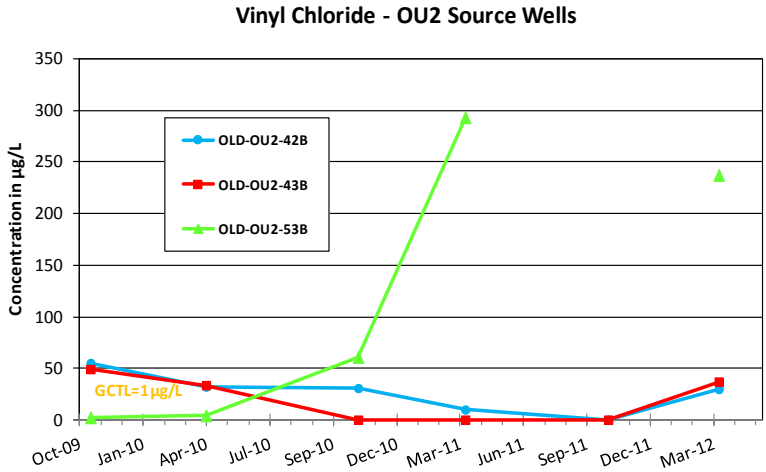
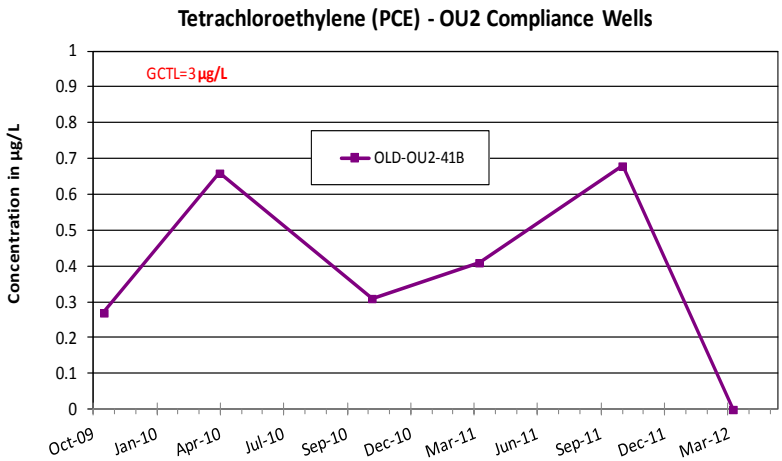
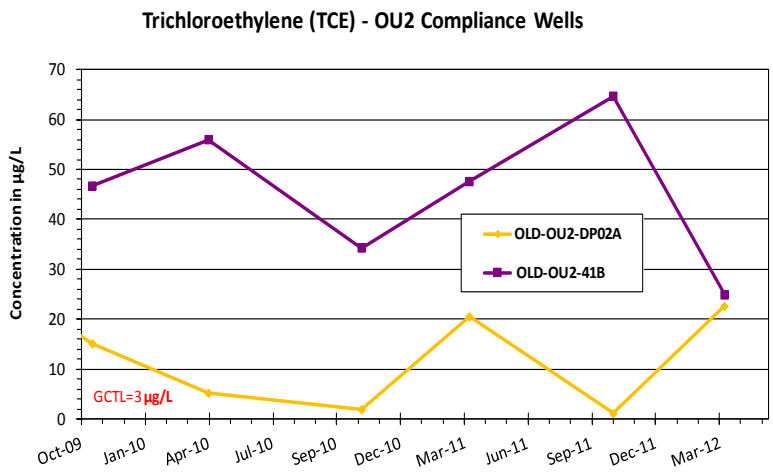
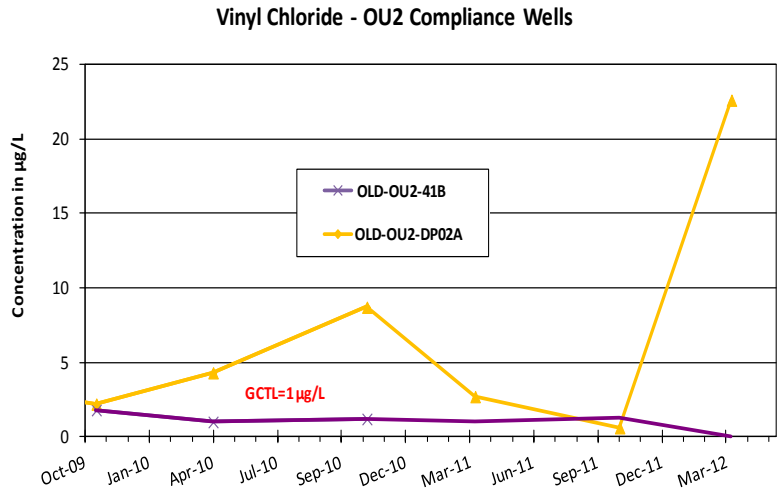


Figure 8 a, b, c - Graphs of COC concentrations for selected compliance wells at OU2







Section 3 - Conclusions and Recommendations

This report presents the field sampling and laboratory analytical results for the March 2012 groundwater sampling event performed at Operable Unit 2 (OU2) - McCoy Annex, which included 36 monitor wells and 8 surface water sampling sites. The following is a summary of the data interpretations and main conclusions and recommendations.

3.1 Conclusions

1. Groundwater level measurements were collected from 36 monitoring wells during the period March 27 to April 10, 2012. At the OU2 site, monitor wells are screened in two surficial aquifer zones below land surface (bls) as follows: shallow Zone A (3.4-17.4 ft bls) and intermediate Zone B (23-39 ft bls). Two contaminant plume areas (north and south) exist at the OU2 site. At the northern and southern plume areas, the groundwater flow patterns in both Zones A and B appear to be toward the east-southeast and generally towards the onsite ditch/canal. (Figures 3 and 4).

2. The principal contaminants of concern (COC) are benzene, iron, and manganese in the northern plume area, and benzene and chlorinated solvents (such as PCE, TCE and vinyl chloride) in the southern plume area. The COC have significantly higher concentrations of chlorinated solvents in Zone B at the southern plume area particularly between Wells OLD-OU2-41B and OLD-OU2-42B (Table 5). It should be noted that well OLD-OU2-53B shows an apparent increasing trend in TCE concentrations during the past year (Figure 7b). Vinyl chloride increased to from 0.61 I in September 2011 to 22.6 µg/L in March 2012.

3. Table 3 contains the field parameters taken at stabilization after the completion of well purging. As in the past, the natural pH of groundwater at the site is on the acidic side which can inhibit reductive dechlorination. However, the low O_2 readings, mostly negative ORP, production of methane and the presence of ethane and ethane in the monitor wells is conducive for reductive dechlorination of TCE.

4. Iron is above cleanup target levels in all of the surface water sampling sites and most upper surficial groundwater wells. Iron is a common analyte found in Florida waters naturally, and is also a normal constituent of landfill leachate. It is often the product of the breakdown of marine clays in an acidic groundwater environment.

5. Benzene and trichloroethylene concentration trend analysis was performed on historical data on four selected wells at OU-2 (OLD-OU2-31B, 41B, 42B, 43B). Both Mann-Kendall and Linear Regression trend analyses were performed using statistical tools found in the Monitoring and

Remediation Optimization System (MAROS) software (AFCEE, 2003), resulting in plume stability information (Appendix E). Concentration trends at these selected wells suggest that the groundwater plume at OU-2 is largely decreasing to stable.

3.2 Recommendations

1. Continued semi-annual sampling and analysis is recommended for the monitor wells and parameters identified in the current sampling matrix for OU-2 (Table 1). The objective remains to monitor site-wide water quality, monitor the effectiveness of remediation efforts and monitor groundwater for biological activities to support natural attenuation.

Section 4 - Selected References

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APPENDIX A
Previous Analytical Results (2008-2012)

Appendix A Operable Unit 2 Analytical Results 10-2008 to 03-2012		Chemical Name	Benzene	cis-1,2-Dichloroethylene	Isopropylbenzene	Methylene chloride	Tetrachloroethylene	Trichloroethylene	Vinyl chloride	Iron	Manganese	Methane	Ethane	Ethene	Carbon Dioxide	Oxygen	Nitrogen	Hydrogen	Alkalinity, Total as CaCO3	Chloride	Nitrogen, Ammonia	Nitrogen, Nitrate	Nitrogen, Nitrite	Orthophosphate	Sulfate	Disolved Organic Carbon
		CAS-RN	71-43-2	156-59-2	98-82-8	75-09-2	127-18-4	79-01-6	75-01-4	7439-89-6	7439-96-5	74-82-8	74-84-0	74-85-1	124-38-9	7782-44-7	17778-88-0	1333-74-0	E1640192	16887-00-6	E966655	14797-55-8	14797-65-0	14265-44-2	14808-79-8	E701250
		Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	nM	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		GCTL	1	70	0.8	5	3	3	1	300	50	-	-	-	-	-	-	-	-	250	2.8	10	1	-	250	-
		NADSC	10	700	8	500	300	30	10	3000	500	-	-	-	-	-	-	-	-	2500	28	1000	100	-	25000	-
Well ID	Lab ID	BGSV	-	-	-	-	-	-	-	1227	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OLD-OU2-02A	F60667-3	10/06/2008	0.40 U	0.20 U	NA	1.0 U	0.22 U	0.32 U	0.30 U	24300	72.2	NA	NA	NA	NA	2.4	NA	1.2	16	0.050 U	12	12.4	0.080 I	269	NA	23.9
	F64318-18	03/31/2009	0.40 U	0.20 U	0.20 U	1.0 U	0.22 U	0.32 U	0.30 U	34300	209	2010	0.32 U	0.43 U	NA	3.1	NA	1.3	620	24.4	51.7	0.050 U	0.050 U	0.040 U	1.0 U	73.4
	F68804-6	10/14/2009	0.40 U	0.20 U	0.20 U	1.0 U	0.22 U	0.32 U	0.30 U	7520	64.6	1060	0.32 U	0.43 U	NA	3.4	NA	3.1	215	24.1	14.5	0.050 U	0.050 U	0.23	8	0.22 U
	F72702-3	04/05/2010	0.21 U	0.32 U	0.20 U	2.0 U	0.44 U	0.24 U	0.28 U	22500	153	1020	0.32 U	0.43 U	NA	NA	NA	7.3	374	24.9	20.4	1	0.050 U	0.020 U	6.3	55.6
	F77624-1	10/28/2010	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	11200	62.6	1330	0.32 U	0.43 U	NA	1.11	NA	NA	201	31.4	9.7	0.050 U	0.050 U	11.7	12.8	26.7
	F81361-1	04/06/2011	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	9250	35.1	1600	0.015 J	0.026	220	2.1	12	NA	148	30	4.9	0.050 U	0.050 U	0.24	4.2	40.1
	F87010-1	10/19/2011	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	13900	70.4	294	1.8	2.2	190	6	17	NA	359	18.5	2.3	5	6.7	0.15	58.8	48.6
	F91589-1	03/27/2012	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	9570	177	730	0.01	0.034	230	3.8	15	NA	487	35.9	12.3	0.31	0.10 U	0.22	50	159
OLD-OU2-02B	F60666-2	10/07/2008	0.40 U	0.20 U	0.20 U	1.0 U	0.22 U	0.32 U	0.30 U	3870	16.7	77.3	0.32 U	0.43 U	170	1.4	17	0.92	11.8	0.050 U	0.11	27	0.1	12.4	NA	59.1
	F64318-19	03/31/2009	0.40 U	0.20 U	0.20 U	1.0 U	0.22 U	0.32 U	0.30 U	2660	14.9 I	114	0.32 U	0.43 U	NA	4.8	NA	1.3	26.4	47.8	0.050 U	0.11	0.050 U	0.15	19.3	9.9
	F68804-7	10/14/2009	0.40 U	0.20 U	0.20 U	1.0 U	0.22 U	0.32 U	0.30 U	2980	22.7	153	0.32 U	0.43 U	NA	3.7	NA	2	27.2	46.8	0.44	0.050 U	0.050 U	1.1	14	0.22 U
	F72702-1	04/05/2010	0.21 U	0.32 U	0.20 U	2.0 U	0.44 U	0.24 U	0.28 U	7900	13.6 I	235	0.32 U	0.43 U	NA	NA	NA	6.1	14.9	48	0.34	0.050 U	0.050 U	1.3	13.5	9.8
	F77624-2	10/28/2010	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	2850	14.3 I	327	0.32 U	0.43 U	NA	0.79	NA	NA	26.9	51.2	0.38	0.050 U	0.050 U	0.45	12.1	8.8
	F81361-3	04/06/2011	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	2790	12.7 I	570	0.009 J	0.015 J	160	1.5	12	NA	20.9	51.1	0.44	0.056 I	0.050 U	0.77	13.4	19.1
	F87010-2	10/19/2011	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	2080	10.6 I	448	0.32 U	0.43 U	140	6	16	NA	21.8	48.4	0.2	0.069 I	0.050 U	1.4	4.9	12.3
	F91589-2	03/27/2012	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	2140	9.4 I	930	0.016	0.052	130	1.8	14	NA	28.7	43.7	0.41	0.050 U	0.050 U	0.83	3.4	20.4
OLD-OU2-03A	F60666-1	10/07/2008	8.8	1.4	NA	1.0 U	0.22 U	0.32 I	2.9	12600	66.5	4130	0.32 U	0.43 U	NA	2.4	NA	1.7	55.1	0.050 U	0.83	8	0.090 I	37.3	NA	62.7
	F64318-16	03/31/2009	0.71	0.20 U	0.20 U	1.1	0.22 U	0.32 U	0.30 U	6100	337	3490	0.32 U	0.43 U	NA	4.4	NA	1.1	203	70.6	4.3	0.13	0.050 U	0.20 U	15.2	30.1
	F68838-16	10/15/2009	7.6	1.2	0.20 U	1.0 U	0.22 U	0.32 U	3.4	9440	53.7	2460	0.32 U	0.43 U	NA	3.3	NA	5.5	65.5	64.7	0.98	0.050 U	0.050 U	0.16	1.0 U	21.3
	F72652-1	04/02/2010	0.21 U	0.32 U	0.20 U	2.0 U	0.44 U	0.24 U	0.28 U	6080	477	322	0.32 U	0.43 U	NA	NA	NA	4.3	106	14.2	0.86	0.070 I	0.050 U	0.036 I	39	22.2
	F77624-3	10/28/2010	9.6	1.2	0.22 I	2.0 U	0.25 U	0.26 U	3	9600	52.5	2700	0.32 U	0.43 U	NA	1.19	NA	NA	54.1	71.7	0.72	0.050 U	0.050 U	0.077 I	1.7 I	14.6
	F81361-5	04/06/2011	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	6420	647	170	0.016 J	0.018 J	210	1.5	12	NA	80.8	41.9	1.7	0.5	0.050 U	0.082 I	89.3	30.9
	F87053-1	10/20/2011	6	0.99 I	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	8340	43.1	3360	0.32 U	0.43 U	370	4.1	10	NA	49.5	68.6	0.56	0.050 U	0.050 U	0.16	1.0 U	16.4
	F91589-3	03/27/2012	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	29600	777	840	0.023	0.056	180	3.3	18	NA	261	49.3	5.2	0.46	0.050 U	0.021 I	47.3	41.2
OLD-OU2-03B	F60665-4	10/06/2008	0.40 U	0.20 U	NA	1.0 U	0.22 U	4.4	0.30 U	14500	23.2	315	0.32 U	0.43 U	NA	0.83	NA	NA	39.9	0.050 U	7.3	24.4	0.050 U	61.5	NA	61
	F64318-17	03/31/2009	0.40 U	0.20 U	0.20 U	1.0 U	0.22 U	0.32 U	0.30 U	9060	21.5	351	0.32 U	0.43 U	NA	5.4	NA	7.7	72.1	64.6	6.3	0.11	0.050 U	0.26	18.1	10.9
	F68838-17	10/15/2009	0.40 U	0.20 U	0.20 U	1.0 U	0.22 U	0.32 U	0.30 U	12700	20.3	437	0.32 U	0.43 U	NA	4.4	NA	2.5	72.4	59.2	5.8	0.050 U	0.050 U	0.20 U	15.1	14.9
	F72652-2	04/02/2010	0.21 U	0.32 U	0.20 U	2.0 U	0.44 U	0.24 U	0.28 U	9190	15.3	241	0.32 U	0.43 U	NA	NA	NA	6	61	53.1	4.6	0.050 U	0.050 U	1	13.7	14.2
	F77624-4	10/28/2010	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	7850	19.3	321	0.32 U	0.43 U	NA	0.51	NA	NA	47.9	55.4	3.7	0.050 U	0.050 U	0.020 U	12.6	10.4
	F81361-6	04/06/2011	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	8340	16	240	0.032	0.028	190	1.8	16	NA	41.6	56.4	3.9	0.065 I	0.050 U	1	22.8	13.9
	F87053-3	10/20/2011	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	8250	14.3 I	751	0.32 U	0.43 U	180	6	16	NA	49.1	54.8	NA	0.050 U	0.050 U	0.86	18.8	29.7
	F91589-4	03/27/2012	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	8470	16.3	780	0.095	0.054	180	2.8	14	NA	57	51.7	3.1	0.050 U	0.050 U	0.64	28.4	26.9
OLD-OU2-12B	F60665-3	10/06/2008	0.96 I	1.8	NA	1.0 U	0.22 U	0.57 I	0.70 I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F64242-1	03/26/2009	0.40 U	0.35	0.20 U	1.0 U	0.22 U	0.32 U	0.30 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F68838-21	10/16/2009	0.45	0.47	0.20 U	1.0 U	0.22 U	0.32 U	0.30 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F72703-3	04/06/2010	2.3	2.4	0.20 U	2.0 U	0.44 U	0.71 I	0.84 I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F77711-13	11/01/2010	4.4	5.2	0.20 U	2.0 U	0.25 U	0.55 I	1.4	NA	NA	NA	NA	NA	NA	0.26	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F81422-5	04/07/2011	NA	2.4	NA	NA	0.25 U	0.88 I	0.22 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F86928-1	10/15/2011	3.2	4.5	0.20 U	2.0 U	0.25 U	0.76 I	0.94 I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F91853-11	04/03/2012	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.33 I	0.22 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
OLD-OU2-18B	F60665-5	10/06/2008	20 U	174	NA	76.4 I	21.5 I	3380	33.5 I	1260	8.7 I	585	0.42 I	3.43	NA	2.1	NA	2.1	6.8	0.050 U	0.050 U	19.2	0.050 U	9.4	NA	15.9
	F64242-2	03/26/2009	8.0 U	1640	0.20 U	39.7	4.4 U	6.4 U	48.1	2650	19.5	2650	0.62	6.52	NA	3	NA	14	30.8	13.8	0.050 U	0.050 U	0.080 I	0.18	1.0 U	84.1
	F68882-6	10/19/2009	8.0 U	1120	4.0 U	20 U	4.4 U	6.4 U	703	2720	73	5290	0.32 U	21	NA	NA	NA	12	86.6	13.6	0.050 U	0.050 U	0.14	0.25	1.0 U	134
	F72703-4	04/06/2010	0.30 I	1470	0.20 U	2.0 U	0.44 U	7.5	453	1210	25.8	6430	0.32 U	24.5	NA	NA	NA	8.3	26.2	15.5	0.050 U	0.050 U	0.050 U	1.4	13.6	8.3
	F77795-9	11/03/2010	1.0 U	333	1.0 U	10 U	1.3 U	3.4 I	904	1150	22	13200	0.32 U	138	NA	0.11	NA	NA	44.8	13.6	0.050 U	0.1	0.050 U	1.2	1.0 U	7.9
	F81422-9	04/07/2011	1.0 U	218	1.0 U	10 U	1.3 U	4.1 I	281	815	19.3	13000	0.025	100	200	0.95	6.5	NA	11.5	12	0.11	0.050 U	0.050 U	1.3	12.5	26.8
	F87208-11	10/25/2011	0.41 I	1220	0.20 U	2.0 U	0.25 U	0.26 U	1430	1100	18	9900	0.32 U	77.5	280	4.8	10	NA	40	17.2	0.13	0.050 U	0.050 U	0.42	1.0 U	10.1
	F91966-2	04/06/2012	0.20 U	104	0.20 U	2.0 U	0.25 U	1.4	313	370	23.5	9500	0.032	58	160	1.4	9	NA	17.4	12.6	0.38	0.050 U	0.050 U	0.86	16.7	8.3
OLD-OU2-21A	F60667-1	10/06/2008	0.40 U	0.20 U	NA	1.0 U	0.22 U	0.32 U	0.30 U	1310	1.0 U	NA	NA	NA	NA	1.2	NA	1.4	8.1	0.050 U	0.050 U	10.2	0.050 U	2.5 U	NA	8
	F64318-12	03/31/2009	0.40 U	0.20 U	0.20 U	1.0 U	0.22 U	0.32 U	0.30 U	74.1 I	8.5 I	1.49	0.32 U	0.43 U	NA	4.5	NA	1.2	2.5 U	7.4	0.050 U	0.050 U	0.050 U	0.020 U	7.9	2.9
	F68838-18	10/15/2009	0.40 U	0.20 U	0.20 U	1.0 U	0.22 U	0.32 U	0.30 U	465	1.0 U	84.4	0.32 U	0.43 U	NA	4.8	NA	2.8	2.5 U	12.7	0.050 U	0.050 U	0.050 U	0.020 U	4.6	7.6
	F72703-2	04/06/2010	0.21 U	0.32 U	0.20 U	2.0 U	0.44 U	0.24 U	0.28 U	60.9 I	1.0 I	6.44	0.32 U	0.43 U	NA	NA	NA	3.6	2.5 U	4.2	0.050 U	0.060 I	0.050 U	0.024 I	5.8	3.3
	F77795-4	11/05/2010	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	477	1.1 I	69.7	0.32 U	0.43 U	NA	0.76	NA	NA	2.5 U	14.9	0.050 U	0.050 U	0.050 U	0.024 I	7	7.7
	F81494-4	04/08/2011	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	45.8 I	1.0 U	10	0.006 J	0.024 J	100	4.3	15	NA	2.5 U	8.3	0.050 U	NA	NA	NA	5.6	24.3
	F87208-5	10/25/2011	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	457	3.4 I	36.8	0.32 U	0.43 U	59	6.1	18	NA	2.5 U	6.1	0.050 U	0.050 U	0.050 U	0.020 U	2.8	9.2
	F91966-1	04/06/2012	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	338	1.0 U	120	0.0071	0.067	100	3.6	20	NA	2.5 U	27.8	0.050 U	0.050 U	0.050 U	0.030 I	5.5	3
OLD-OU2-21B	F60667-2	10/06/2008	0.40 U	0.98 I	NA	1.0 U	0.22 U	0.32 U	0.30 U	1160	13.8 I	1040	0.32 U	0.43 U	NA	1.3	NA	1.1	17.5	0.050 U	0.050 U	17.5	0.050 U	24.5	NA	25.3
	F64318-11	03/31/2009	0.40 U	0.88	0.20 U	1.0 U	0.22 U	0.32 U	0.30 U	1450	19.6	658	0.32 U	0.43 U	NA	3.8	NA	3.4	34.8	24.4	0.050 U	0.050 U	0.050 U	1.5	20.9	7.5
	F68838-19	10/15/2009	0.40 U	0.7	0.20 U	1.0 U	0.22 U	0.32 U	0.30 U	1510	14.2	837	0.32 U	0.43 U	NA	4.3	NA	2.8	33.2	24.6	0.1	0.050 U	0.050 U	0.25	7.1	12.5
	F72703-1	04/06/2010	0.21 U	0.76 I	0.20 U	2.0 U	0.44 U	0.24 U	0.28 U	1060	12.9 I	364	0.32 U	0.43 U	NA	NA	NA	28	30.1	24.7	0.050 U	0.050 U	0.050 U	0.15	12.4	7.9
	F77795-5	11/05/2010	0.22 I	0.53 I	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	1200	15.6	564	0.32 U	0.43 U	NA	0.47	NA	NA	43.9	28.6	0.12	0.050 U	0.050 U	0.23	13.2	8.5
	F81494-2	04/08/2011	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	876	13.7 I	710	0.093	0.027	270	1.6	11	NA	29.7	29.7	0.050 U	NA	NA	NA	21.1	11.5
	F87208-3	10/25/2011	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	699	9.8 I	1930	0.32 U	0.43 U	230	4.9	13	NA	38.6	30.6	0.074 I	0.050 U	0.050 U	0.72	1.0 U	9.2
	F91966-4	04/06/2012	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	853	12.8 I	2400	0.088	0.022	230	2.9	13	NA	32.4	38.3	0.050 U	0.050 U	0.050 U	0.77	1.0 U	15.9

Appendix A Operable Unit 2 Analytical Results 10-2008 to 03-2012		Chemical Name	Benzene	cis-1,2-Dichloroethylene	Isopropylbenzene	Methylene chloride	Tetrachloroethylene	Trichloroethylene	Vinyl chloride	Iron	Manganese	Methane	Ethane	Ethene	Carbon Dioxide	Oxygen	Nitrogen	Hydrogen	Alkalinity, Total as CaCO3	Chloride	Nitrogen, Ammonia	Nitrogen, Nitrate	Nitrogen, Nitrite	Orthophosphate	Sulfate	Disolved Organic Carbon
		CAS-RN	71-43-2	156-59-2	98-82-8	75-09-2	127-18-4	79-01-6	75-01-4	7439-89-6	7439-96-5	74-82-8	74-84-0	74-85-1	124-38-9	7782-44-7	17778-88-0	1333-74-0	E1640192	16887-00-6	E966655	14797-55-8	14797-65-0	14265-44-2	14808-79-8	E701250
		Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	nM	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		GCTL	1	70	0.8	5	3	3	1	300	50	-	-	-	-	-	-	-	-	250	2.8	10	1	-	250	-
		NADSC	10	700	8	500	300	30	10	3000	500	-	-	-	-	-	-	-	-	2500	28	1000	100	-	25000	-
Well ID	Lab ID	BGSV	-	-	-	-	-	-	-	1227	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OLD-OU2-27A	F60562-15	10/02/2008	0.40 U	0.57 I	NA	1.0 U	0.22 U	0.32 U	0.30 U	8520	922	75.2	0.32 U	0.43 U	NA	1.2	NA	1.2	21.1	0.050 U	3	49	0.050 U	42.8	NA	14.4
	F64242-18	03/27/2009	0.40 U	0.20 U	0.20 U	1.0 U	0.22 U	0.32 U	0.30 U	5740	388	74.8	0.32 U	0.43 U	NA	7.3	NA	4.4	27.6	11.3	2.1	0.050 U	0.050 U	0.024 I	33.4	17.2
	F68838-13	10/15/2009	0.40 U	0.20 U	0.20 U	1.0 U	0.22 U	0.32 U	0.30 U	11300	525	42.2	0.32 U	0.43 U	NA	4	NA	2.4	49	10.2	2.2	0.050 U	0.050 U	0.07	47.2	15.2
	F72702-9	04/05/2010	0.31 I	1	0.20 U	2.0 U	0.44 U	0.24 U	8.6	4530	343	399	10.7	6.39	NA	NA	NA	5.3	24.9	19.1	1.2	0.050 U	0.050 U	0.020 U	21.4	16.9
	F77934-1	11/08/2010	0.20 U	1.4	0.20 U	2.0 U	0.25 U	0.26 U	3.5	4430	285	NA	NA	NA	NA	0.45	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F81309-1	04/01/2011	0.42 I	3	0.20 U	2.0 U	0.25 U	0.36 I	4.3	3840	228	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F86928-3	10/15/2011	0.20 U	26.4	0.20 U	2.0 U	0.25 U	16.2	0.22 U	11000	885	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F91853-5	04/02/2012	0.20 U	3.4	0.20 U	2.0 U	0.25 U	9.2	0.50 I	3150	404	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
OLD-OU2-27B	F60562-16	10/02/2008	12	0.54 I	NA	1.0 U	0.22 U	0.32 U	0.30 U	1070	3.8 I	2570	0.39 I	0.43 U	NA	1.5	NA	1.7	15.6	0.050 U	1.1	16.4	0.050 U	6.1		28.1
	F64242-17	03/27/2009	7.4	1	0.24	1.0 U	0.22 U	0.32 U	0.30 U	888	5.0 I	1990	0.35	0.43 U	NA	3.6	NA	2.2	5.5	30.1	1.2	0.050 U	0.050 U	0.52	7.6	14.3
	F68838-12	10/15/2009	4	0.68	0.28	1.0 U	0.22 U	0.32 U	2.3	1470	4.5	838	0.46	0.73	NA	2.5	NA	2.8	7.1	21.8	1.1	0.050 U	0.050 U	0.11	26.4	14.2
	F72702-10	04/05/2010	2.8	0.58 I	0.20 U	2.0 U	0.44 U	0.24 U	0.28 U	1190	7.4 I	1290	0.32 U	0.43 U	NA	NA	NA	6	2.6 I	24.8	0.39	0.050 U	0.050 U	0.1	30.3	12.6
	F77934-2	11/08/2010	3.2	1.3	0.39 I	2.0 U	0.25 U	0.26 U	0.71 I	1490	5.4 I	NA	NA	NA	NA	0.32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F81309-2	04/01/2011	3	0.77 I	0.68 I	2.0 U	0.25 U	0.26 U	0.32 I	973	7.4 I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F86928-2	10/15/2011	4.3	1.2	0.84 I	2.0 U	0.25 U	0.26 U	0.61 I	1400	5.1 I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F91853-6	04/02/2012	2.3	0.51 I	0.33 I	2.0 U	0.25 U	0.26 U	0.22 U	969	6.3 I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
OLD-OU2-28B	F60499-3	10/01/2008	0.60 I	0.29 I	NA	1.0 U	0.22 U	0.32 U	0.76 I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F64242-16	03/27/2009	0.40 U	0.29 I	0.20 U	1.0 U	0.22 U	0.32 U	0.30 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F68804-3	10/14/2009	0.40 U	0.20 U	0.20 U	1.0 U	0.22 U	0.32 U	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F72702-8	04/05/2010	0.21 U	0.32 U	0.20 U	2.0 U	0.44 U	0.24 U	0.28 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F77934-5	11/08/2010	0.54 I	0.44 I	0.20 U	2.0 U	0.25 U	0.26 U	2.2	NA	NA	NA	NA	NA	NA	0.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F81309-4	04/01/2011	2.2	0.86 I	0.20 U	2.0 U	0.25 U	0.26 U	2.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F87147-7	10/24/2011	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F91853-2	03/29/2012	2.6	0.85 I	0.20 U	2.0 U	0.25 U	0.26 U	3.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
OLD-OU2-29A	F60562-9	10/03/2008	0.40 U	0.20 U	NA	1.0 U	0.22 U	0.32 U	0.30 U	6350	4.9 I	127	0.32 U	0.43 U	NA	0.38	NA	1.2	37.3	0.050 U	0.24	35.6	0.050 U	12.9	NA	32.8
	F64318-2	03/30/2009	0.40 U	0.20 U	0.20 U	1.0 U	0.22 U	0.32 U	0.30 U	5240	3.7 I	187	0.32 U	0.43 U	NA	4	NA	8	5.3	22.4	0.25	0.050 U	0.050 U	0.42	13.7	12.2
	F68838-14	10/15/2009	0.40 U	0.20 U	0.20 U	1.0 U	0.22 U	0.32 U	0.30 U	1990	3.5	40.9	0.32 U	0.43 U	NA	3.3	NA	2.7	29	13.7	0.050 U	0.1	0.050 U	0.020 U	12.4	18
	F72632-16	04/01/2010	0.21 U	0.32 U	0.20 U	2.0 U	0.44 U	0.24 U	0.28 U	4790	3.6 I	75	0.32 U	0.43 U	NA	NA	NA	2.3	8.9	21.9	0.26	0.1	0.050 U	0.27	30.3	25.3
	F77624-5	10/28/2010	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	3970	3.5 I	84	0.32 U	0.43 U	NA	0.39	NA	NA	15.7	14.5	0.21	0.050 U	0.050 U	0.071 I	13.9	22.7
	F81361-2	04/06/2011	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	1960	2.8 I	82	0.025 U	0.024 J	81	3.4	18	NA	23.1	11.5	0.050 U	0.094 I	0.050 U	0.63	11.2	14
	F87053-2	10/20/2011	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	3230	5.5 I	85.3	0.32 U	0.43 U	100	5.5	18	NA	13.7	15.9	0.21	0.19	0.050 U	0.22	13.7	21.6
	F91634-5	03/28/2012	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	1090	2.7 I	28.8	0.32 U	0.43 U	58	4	20	NA	34.7	5.7	0.050 U	0.11	0.050 U	0.17	10.7	29.5
OLD-OU2-29B	F60562-10	10/03/2008	0.40 U	0.20 U	NA	1.0 U	0.22 U	0.32 U	0.30 U	3470	11.2 I	311	0.32 U	0.43 U	NA	2.7	NA	1.8	9.3	0.050 U	0.17	10	0.050 U	13.9	NA	18.1
	F64318-13	03/31/2009	0.40 U	0.20 U	0.20 U	1.0 U	0.22 U	0.32 U	0.30 U	2290	6.9 I	475	0.32 U	0.43 U	NA	0.13	NA	0.73	20.3	15.6	0.085 I	0.050 U	0.050 U	5.6	1.6 I	4.7
	F68838-3	10/16/2009	0.40 U	0.20 U	0.20 U	1.0 U	0.22 U	0.32 U	0.30 U	3470	13	376	0.32 U	0.43 U	NA	2.1	NA	26	22.4	12.5	0.27	0.050 U	0.050 U	4.6	1.0 U	7
	F72632-15	04/01/2010	0.21 U	0.32 U	0.20 U	2.0 U	0.44 U	0.24 U	0.28 U	2120	5.6 I	385	0.32 U	0.43 U	NA	NA	NA	3.2	23.2	16.9	0.17	0.050 U	0.050 U	1.4	1.5 I	5.1
	F77624-6	10/28/2010	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	1890	8.2 I	634	0.32 U	0.43 U	NA	0.32	NA	NA	18.6	16	0.3	0.050 U	0.050 U	2.3	1.3 I	5.7
	F81361-4	04/06/2011	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	2260	10.7 I	800	0.23	0.03	95	1.8	14	NA	21.3	17.1	0.3	0.050 U	0.050 U	1.3	1.0 U	10.4
	F87053-4	10/20/2011	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	2510	10.0 I	396	0.32 U	0.43 U	99	5.4	18	NA	17	16.1	0.14	0.050 U	0.050 U	1.7	1.0 U	10.9
	F91634-11	03/28/2012	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	2170	14.3 I	1180	0.46 I	0.43 U	83	2.3	16	NA	30.5	17.6	0.42	0.050 U	0.050 U	1.8	1.3 I	23.3
OLD-OU2-30A	F60562-11	10/03/2008	0.40 U	0.20 U	NA	1.0 U	0.22 U	0.32 U	0.30 U	11400	50.8	722	0.32 U	0.43 U	NA	0.020 U	NA	3.3	52.3	0.050 U	0.67	9.4	0.050 U	59.3	NA	6.5
	F64318-14	03/31/2009	0.40 U	0.20 U	0.20 U	1.0 U	0.22 U	0.32 U	0.30 U	24200	47.7	105	0.32 U	0.43 U	NA	NA	NA	NA	48.3	19.3	0.58	0.050 U	0.050 U	3.1 I	1.6 I	32
	F68882-4	10/19/2009	0.40 U	0.20 U	0.20 U	1.0 U	0.22 U	0.32 U	0.30 U	6860	19.6	1240	0.32 U	0.43 U	NA	NA	NA	2.6	52.3	6.8	0.35	0.13	0.050 U	0.020 U	1.0 U	40
	F72652-3	04/02/2010	0.35 I	0.32 U	0.20 U	2.0 U	0.44 U	0.24 U	0.28 U	38500	171	4050	0.32 U	0.43 U	NA	NA	NA	9.8	89.4	8.9	4.1	0.050 U	0.050 U	0.078 I	1.2 I	37.1
	F77624-7	10/28/2010	0.26 I	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	16600	86.1	NA	NA	NA	NA	0.42	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F81361-7	04/06/2011	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	9240	26.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F87208-2	10/25/2011	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	7930	26.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F91634-13	03/28/2012	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	10600	25.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
OLD-OU2-30B	F60562-12	10/03/2008	0.45 I	0.20 U	NA	1.0 U	0.22 U	0.32 U	0.30 U	21300	121	1660	0.32 U	0.43 U	NA	0.21	NA	1.5	47.9	0.050 U	2.1	8.6	0.050 U	163	NA	30.2
	F64318-15	03/31/2009	0.40 U	0.20 U	0.20 U	1.0 U	0.22 U	0.32 U	0.30 U	31100	134	3680	0.32 U	0.43 U	NA	4.3	NA	1.1	241	63.5	2.8	0.050 U	0.050 U	0.020 U	3.5	43.9
	F68882-5	10/19/2009	0.40 U	0.20 U	0.20 U	1.0 U	0.22 U	0.32 U	0.30 U	30700	138	1730	0.32 U	0.43 U	NA	NA	NA	1.8	236	40.3	2.2	0.12	0.050 U	0.046	1.7	40.5
	F72702-5	04/05/2010	0.21 U	0.32 U	0.20 U	2.0 U	0.44 U	0.24 U	0.28 U	13100	72.8	1360	0.32 U	0.43 U	NA	NA	NA	6.6	167	19.9	1.3	0.050 U	0.050 U	0.020 U	4.3	30.3
	F77624-8	10/28/2010	0.39 I	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	24100	106	NA	NA	NA	NA	0.08	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F81361-8	04/06/2011	0.36 I	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	22300	82.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F87208-1	10/25/2011	0.25 I	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	20800	109	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F91634-12	03/28/2012	0.46 I	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	29700	133	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
OLD-OU2-31A	F60562-7	10/03/2008	0.40 U	0.20 U	NA	1.0 U	0.22 U	0.32 U	0.30 U	228 I	2.5 I	8.07	0.32 U	0.43 U	NA	0.020 U	NA	0.98	6.1	0.050 U	0.050 U	11.2	0.1	19.7	NA	5.9
	F64242-14	03/27/2009	0.40 U	0.20 U	0.20 U	1.0 U	0.22 U	0.32 U	0.30 U	382	3.7 I	5.97	0.32 U	0.43 U	NA	5	NA	1	2.5 U	4.5	0.050 U	0.1	0.050 U	0.046 I	4.9	3
	F68804-5	10/14/2009	0.40 U	0.20 U	0.20 U	1.0 U	0.22 U	0.32 U	0.30 U	580	2.8	8.72	0.32 U	0.43 U	NA	7.3	NA	2.1	2.5 U	4.3	0.050 U	0.050 U	0.050 U	0.029	4.1	NA
	F72652-5	04/02/2010	0.21 U	0.32 U	0.20 U	2.0 U	0.44 U	0.24 U	0.28 U	302	6.7 I	0.25 I	0.32 U	0.43 U	NA	NA	NA	5.6	2.8 I	4.6	0.050 U	0.080 I	0.050 U	0.15	4.6	6.9
	F77795-6	11/05/2010	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	1030	6.7 I	44	0.32 U	0.43 U	NA	0.31	NA	NA	2.5 U	2.4	0.050 U	0.050 U	0.050 U	0.030 I	5.6	10.6
	F81494-1	04/08/2011	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	105 I	5.6 I	30	0.025 U	0.031	71	2.7	17	NA	2.5 U	3.7	0.050 U	NA	NA	NA	5.2	6.1
	F87147-6	10/24/2011	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	190 I	1.7 I	0.7	0.32 U	0.43 U	32	8.9	19	NA	2.7 I	3.2	0.050 U	0.050 U	0.050 U	0.020 U	3.9	8.5
	F91853-7	04/03/2012	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	464	3.2 I	44.3	0.32 U	0.43 U	36	3.9	17	NA	2.5 U	5.5	0.050 U	0.050 U	0.050 U	0.023 I	9.9	4.7
OLD-OU2-31B	F60562-8	10/03/2008	20.6	5.9		1.0 U	4.7	3.4	6.4	2030	7.2 I	1190	0.60 I	0.45 I	NA	1.1	NA	1.5	12.4	0.050 U	0.050 I	29.4	0.050 U	9.2	NA	19.9
	F64242-15	03/27/2009	27.3	2.7	0.20 U	1.0 U	2.6	1.4	4.2	1830	6.5 I	2590	1.1	0.59	NA	3.7	NA	1.2	3.3 I	22.7	0.050 U	0.1	0.050 U	2.6	11.8	9.7
	F68804-4	10/14/2009	33.5	2.1	0.36	1.0 U	3.1	1.1	4.4	1720	6.2	1910	1.5	0.43 U	NA	3.3	NA	2.6	10	25.3	0.050U	0.050 U	0.050 U	1.4	8.2	NA
	F72652-4	04/02/2010	27.6	1.6	0.24 I	2.0 U	2.4	1	3.3	1690	6.3 I	1770	1.2	0.43 U	NA	NA	NA	3.6	3.8 I	26.8	0.050 U	0.050 U	0.050 U	1.2	11.8	10.4
	F77795-7	11/05/2010	29	1.5	0.54 I	2.0 U	2.8	0.60 I	2.1	1820	6.6 I	1730	1	2.1	NA	0.56	NA	NA	8.4	26.7	0.050 U	0.050 U	0.050 U	0.2	15.7	10
	F81494-3	04/08/2011	27.9	1.7	0.69 I	2.0 U	3.5	0.80 I	2.2	1690	6.6 I	2300	1.3	0.29	410	1.3	9.9	NA	5	25.1	0.050 U	NA	NA	NA	17.4	24.2
	F87147-4	10/24/2011	15.1	1.5	0.43 I	2.0 U	3.1	0.62 I	1.3	1750	7.4 I	1100	0.79 I	0	290	6.2	15	NA	8.1	22	0.076 I	0.050 U	0.050 U	0.76	27.2	16.1
	F91853-10	04/03/2012	13.9	1.3	0.20 U	2.0 U	1.7	0.50 I	1.9	932	7.9 I	1080	0.77 I	0.43 U	320	3.6	15	NA	8.8	20.8	0.050 U	0.050 U	0.050 U	1.1	28.8	19.2

GC/MS Volatiles (SW846 8260B)

Metals Analysis

Biogenic Gases

General Chemistry

Appendix A Operable Unit 2 Analytical Results 10-2008 to 03-2012		Chemical Name	Benzene	cis-1,2-Dichloroethylene	Isopropylbenzene	Methylene chloride	Tetrachloroethylene	Trichloroethylene	Vinyl chloride	Iron	Manganese	Methane	Ethane	Ethene	Carbon Dioxide	Oxygen	Nitrogen	Hydrogen	Alkalinity, Total as CaCO3	Chloride	Nitrogen, Ammonia	Nitrogen, Nitrate	Nitrogen, Nitrite	Orthophosphate	Sulfate	Disolved Organic Carbon
		CAS-RN	71-43-2	156-59-2	98-82-8	75-09-2	127-18-4	79-01-6	75-01-4	7439-89-6	7439-96-5	74-82-8	74-84-0	74-85-1	124-38-9	7782-44-7	17778-88-0	1333-74-0	E1640192	16887-00-6	E966655	14797-55-8	14797-65-0	14265-44-2	14808-79-8	E701250
		Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	nM	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		GCTL	1	70	0.8	5	3	3	1	300	50	-	-	-	-	-	-	-	-	250	2.8	10	1	-	250	-
		NADSC	10	700	8	500	300	30	10	3000	500	-	-	-	-	-	-	-	-	2500	28	1000	100	-	25000	-
Well ID	Lab ID	BGSV	-	-	-	-	-	-	-	1227	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OLD-OU2-32A	F60499-1	10/01/2008	0.40 U	0.20 U	NA	1.0 U	0.22 U	0.32 U	0.30 U	105 I	1.0 U	1.7	0.32 U	0.43 U	NA	4	NA	2.2	10.9	5.1	0.050 U	0.14	0.050 U	0.040 U	8.7	22.3
	F64242-10	03/26/2009	0.40 U	0.20 U	0.20 U	1.0 U	0.22 U	0.32 U	0.30 U	289 I	2.5 I	214	0.32 U	0.43 U	NA	7.8	NA	0.8	3.4 I	5	0.050 U	0.12	0.050 U	0.020 U	7.1	18.8
	F68804-2	10/14/2009	0.40 U	0.20 U	0.20 U	1.0 U	0.22 U	0.32 U	0.30 U	296	1.2	77	0.32 U	0.43 U	NA	3.4	NA	2.3	2.5 U	4.3	0.050 U	0.050 U	0.050 U	0.020 U	4	NA
	F72652-6	04/02/2010	0.21 U	0.32 U	0.20 U	2.0 U	0.44 U	0.24 U	0.28 U	248 I	1.0 I	0.25 I	0.32 U	0.43 U	NA	NA	NA	6.3	3.3 I	3.1	0.050 U	0.11	0.050 U	0.58	3	18
	F77934-3	11/08/2010	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	674	1.9 I	NA	NA	NA	NA	1.46	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F81309-7	04/01/2011	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	66.2 I	2.1 I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F87208-7	10/25/2011	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	288 I	1.0 I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F91853-4	03/29/2012	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	150 I	2.0 I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
OLD-OU2-32B	F64242-11	03/26/2009	0.40 U	0.20 U	0.20 U	1.0 U	0.22 U	0.32 U	0.30 U	921	7.2 I	339	0.32 U	0.43 U	NA	2.7	NA	3	10.3	9.3	0.050 U	0.11	0.050 U	3.3	1.5 I	4.7
	F68804-1	10/14/2009	0.40 U	0.20 U	0.20 U	1.0 U	0.22 U	0.32 U	0.30 U	973	7.5	174	0.32 U	0.43 U	NA	2.9	NA	2.8	15.1	6.6	0.050U	0.050 U	0.050 U	0.23	3.2	NA
	F72702-7	04/05/2010	0.21 U	0.32 U	0.20 U	2.0 U	0.44 U	0.24 U	0.28 U	1120	9.1 I	191	3.12	3.67	NA	NA	NA	8.3	5.6	5.8	0.050 U	0.060 I	0.050 U	2.3	14.7	4.8
	F77934-4	11/08/2010	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	1300	10.3 I	NA	NA	NA	NA	0.45	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F81309-8	04/01/2011	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	1240	10.4 I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F87208-6	10/25/2011	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	1250	9.7 I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F91853-3	03/29/2012	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	1210	10.4 I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
OLD-OU2-33A	F60668-2	10/07/2008	0.40 U	0.20 U	NA	1.0 U	0.22 U	0.32 U	0.30 U	1100	6.9 I	2.58	0.32 U	0.43 U	NA	4.4	NA	1.1	7.5	0.050 U	0.050 U	14.1	2.1	2.5 U	NA	11.7
	F64242-13	03/27/2009	0.40 U	0.20 U	0.20 U	1.0 U	0.22 U	0.32 U	0.30 U	2160	10.0 I	560	0.32 U	0.43 U	NA	0.13	NA	0.73	2.5 U	16.6	0.050 U	0.050 U	0.050 U	0.020 U	7.5	9
	F68882-7	10/19/2009	0.40 U	0.41	0.20 U	1.0 U	0.22 U	0.43	0.30 U	926	3.7	127	0.32 U	0.43 U	NA	NA	NA	11	2.5 U	6.8	0.050 U	0.11	0.050 U	0.020 U	8.3	8.7
	F72632-1	04/01/2010	0.21 U	0.32 U	0.20 U	2.0 U	0.44 U	0.24 U	0.28 U	226 I	3.5 I	0.47 I	0.32 U	0.43 U	NA	NA	NA	5.5	2.5 U	6.3	0.050 U	4.3	0.050 U	0.038 I	12.3	6.5
	F77795-11	11/03/2010	0.48 I	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	1310	9.6 I	NA	NA	NA	NA	3.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F81309-3	04/01/2011	0.54 I	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	1800	9.2 I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F86928-4	10/15/2011	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	346	2.7 I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F91967-1	04/05/2012	0.20 U	0.26 U	0.20 U	2.0 U	0.25 U	0.26 U	0.22 U	2230	7.8 I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
OLD-OU2-33B	F60668-1	10/07/2008	0.40 U	1.8	NA	1.0 U	0.54 I	10.8	0.30 U	1850	8.7 I	166	0.32 U	0.43 U	NA	2.3	NA	1.1	10.7	0.050 U	0.050 U	32.6	0.050 U	2.9 I	NA	16.1
	F64242-12	03/27/2009	0.40 U	1.1	0.20 U	1.0 U	0.69	16.5	0.30 U	1810	12.1 I	314	0.32 U	0.43 U	NA	3.8	NA	1.1	2.5 I	13.4	0.051 I	0.050 U	0.050 U	0.66	22.5	5.5
	F68882-8	10/19/2009	0.40 U	0.99	0.20 U	1.0 U	0.37	7.6	0.37	1770	9	110	0.32 U	0.43 U	NA	NA	NA	16	7.2	12.3	0.1	0.050 U	0.050 U	0.22	27.6	6.2
	F72632-2	04/01/2010	0.21 U	0.49 I	0.20 U	2.0 U	0.50 I	8.9	0.28 U	1660	17.5	72.6	0.32 U	0.43 U	NA	NA	NA	3.9	5	12	0.15	0.050 U	0.050 U	0.34	29.9	5.8
	F77795-12	11/03/2010	0.20 U	1.2	0.20 U	2.0 U	0.43 I	8.3	0.22 U	1840	12.3 I	NA	NA	NA	NA	0.46	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F81309-5	04/01/2011	0.20 U	0.38 I	0.20 U	2.0 U	0.59 I	12.3	0.22 U	1460	9.0 I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F86928-5	10/15/2011	0.20 U	0.31 I	0.20 U	2.0 U	0.59 I	11.2	0.22 U	1510	6.5 I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F91967-2	04/05/2012	0.20 U	0.85 I	0.20 U	2.0 U	0.70 I	11.3	0.22 U	1650	7.4 I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
OLD-OU2-37B	F60562-13	10/03/2008	1.2	1.3	NA	1.0 U	0.22 U	0.32 U	1.5	NA	NA	2120	0.36 I	0.51 I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F64318-1	03/30/2009	1.2	1.8	0.20 U	1.0 U	0.22 U	0.32 U	1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F68838-1	10/16/2009	0.99	1	0.20 U	1.0 U	0.22 U	0.32 U	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F72702-6	04/05/2010	1.2	1.4	0.20 U	2.0 U	0.44 U	0.24 U	1.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F77934-6	11/08/2010	0.76 I	0.78 I	0.20 U	2.0 U	0.25 U	0.26 U	0.59 I	NA	NA	NA	NA	NA	NA	0.41	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F81309-6	04/01/2011	1.5	1.2	0.20 U	2.0 U	0.25 U	0.26 U	0.90 I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F87208-4	10/25/2011	0.90 I	0.75 I	0.20 U	2.0 U	0.25 U	0.26 U	0.50 I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F91853-1	03/29/2012	0.79 I	0.45 I	0.20 U	2.0 U	0.25 U	0.26 U	0.56 I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
OLD-OU2-41B	F68882-11	10/19/2009	2.1	2.1	0.20 U	1.0 U	0.27	42.7	1.7	1010	7.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F72632-3	04/01/2010	1.7	2.3	0.20 U	2.0 U	0.66 I	56	1	604	7.9 I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F77795-3	11/04/2010	2	2.4	0.20 U	2.0 U	0.31 I	34.3	1.2	NA	NA	1620	0.32 U	1.1	NA	0.48	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	6.8
	F81308-5	04/04/2011	1.8	2.5	0.20 U	2.0 U	0.41 I	47.6	0.99 I	NA	NA	500	0.01 J	0.25	130	4.7	12	NA	NA	NA	NA	NA	NA	NA	8.5	5.3
	F87147-1	10/24/2011	2.5	4.6	0.20 U	2.0 U	0.68 I	64.7	1.3	NA	NA	1500	0.32 U	0.43 U	200	3.9	17	NA	NA	NA	NA	NA	NA	NA	2.7	8.9
	F91968-1	04/09/2012	1.9	2.7	0.20 U	2.0 U	0.25 U	24.9	0.22 U	NA	NA	1700	0.078	0.28	180	2.8	14	NA	NA	NA	NA	NA	NA	NA	1.0 I	10.8
OLD-OU2-42B	F68882-2	10/19/2009	20 U	413	10 U	50 U	11 U	3780	54.9	879	6.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F72632-4	04/01/2010	11 U	440	10 U	100 U	22 U	3620	32.0 I	737	6.3 I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F77711-1	11/01/2010	10 U	599	10 U	100 U	13 U	3020	30.6 I	NA	NA	1440	0.32 U	3.89	NA	0.4	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	7.4
	F81422-1	04/07/2011	4.0 U	454	4.0 U	40 U	5.0 U	1620	9.8 I	NA	NA	1100	0.17	2.7	160	2	14	NA	NA	NA	NA	NA	NA	NA	2.1	6.4
	F87077-1	10/21/2011	10 U	627	10 U	100 U	13 U	2690	11 U	NA	NA	1290	0.37 I	4.02	170	6.7	17	NA	NA	NA	NA	NA	NA	NA	1.0 U	6.7
	F91966-5	04/06/2012	0.59 I	661	0.20 U	2.0 U	2.5	3530	29.6	NA	NA	2200	0.43	7.3	200	2.6	16	NA	NA	NA	NA	NA	NA	NA	1.0 U	12.2
OLD-OU2-43B	F68882-3	10/19/2009	20 U	123	10 U	50 U	35.4	4470	49	982	7.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F72632-5	04/01/2010	11 U	143	10 U	100 U	46.0 I	5300	33.5 I	819	6.6 I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F77711-2	11/01/2010	20 U	236	20 U	232 I	54.5 I	7540	22 U	NA	NA	794	0.49 I	6.79	NA	0.4	NA	NA	NA	NA	NA	NA	NA	NA	22.7	7.7
	F81422-2	04/07/2011	20 U	168	20 U	200 U	47.7 I	5370	22 U	NA	NA	840	0.43	6.3	180	1.7	14	NA	NA	NA	NA	NA	NA	NA	20.5	24.8
	F87077-3	10/21/2011	20 U	154	20 U	200 U	40.8 I	4960	22 U	NA	NA	769	0.40 I	5.1	190	5.8	15	NA	NA	NA	NA	NA	NA	NA	21	12.2
	F91968-2	04/09/2012	0.25 I	291	0.20 U	2.0 U	29.7	5150	36.9	NA	NA	850	0.57	8.8	180	5.1	14	NA	NA	NA	NA	NA	NA	NA	20.2	8.4
OLD-OU2-44B	F77795-2	11/04/2010	2.0 U	142	2.0 U	23.4 I	13	1590	12.3	NA	NA	1660	0.32 U	2.2	NA	0.51	NA	NA	NA	NA	NA	NA	NA	NA	12.6	6.9
	F81308-2	04/04/2011	4.0 U	1610	4.0 U	40 U	6.0 I	771	15.8 I	NA	NA	1600	0.018 J	0.72	97	3.9	9.5	NA	NA	NA	NA	NA	NA	NA	12.9	5.6
	F87147-5	10/24/2011	4.0 U	1080	4.0 U	40 U	5.0 U	453	8.9 I	NA	NA	5950	0.32 U	1.9	200	4.4	12	NA	NA	NA	NA	NA	NA	NA	1.0 U	9.6
	F92066-1	04/10/2012	4.0 U	436	4.0 U	40 U	5.7 I	1030	11.7 I	NA	NA	1400	0.13	1.2	100	4.4	12	NA	NA	NA	NA	NA	NA	NA	11.2	6.8
OLD-OU2-45B	F77711-3	11/01/2010	2.0 U	715	2.0 U	30.6 I	2.5 U	174	2.2 U	NA	NA	5670	0.45 I	3.17	NA	0.34	NA	NA	NA	NA	NA	NA	NA	NA	2.5	6.1
	F81308-3	04/04/2011	2.0 U	852	2.0 U	20 U	2.5 U	58.2	7.2 I	NA	NA	4500	0.044	0.98	220	3.1	8.9	NA	NA	NA	NA	NA	NA	NA	7.2	6.3
	F87147-3	10/24/2011	2.0 U	594	2.0 U	20 U	2.5 U	5.1 I	6.9 I	NA	NA	8550	0.32 U	0.43 U	260	5	14	NA	NA	NA	NA	NA	NA	NA	1.0 U	10.7
	F91968-4	04/09/2012	0.92 I	708	0.20 U	2.0 U	0.25 U	2.2	7.3	NA	NA	13000	0.025 U	1.5	240	1.4	9.3	NA	NA	NA	NA	NA	NA	NA	1.1 I	14.2
OLD-OU2-46B	F77795-14	11/03/2010	10 U	1650	10 U	102 I	17.3 I	4250	64.9	NA	NA	1620	0.71 I	8.18	NA	0.38	NA	NA	NA	NA	NA	NA	NA	NA	7.9	11
	F81308-6	04/04/2011	10 U	1550	10 U	100 U	16.7 I	3840	31.8 I	NA	NA	1500	0.36	5	140	2	12	NA	NA	NA	NA	NA	NA	NA	10.5	25.8
	F87147-2	10/24/2011	20 U	826	20 U	200 U	35.6 I	4410	22 U	NA	NA	1740	0.60 I	6.35	110	9.4	18	NA	NA	NA	NA	NA	NA	NA	12.2	6.6
	F91968-5	04/09/2012	0.26 I	913	0.20 U	2.0 U	36.2	5020	47.6	NA	NA	1300	0.64	8.6	140	5	16	NA	NA	NA	NA	NA	NA	NA	11.5	8.7

Appendix A Operable Unit 2 Analytical Results 10-2008 to 03-2012		Chemical Name	Benzene	cis-1,2-Dichloroethylene	Isopropylbenzene	Methylene chloride	Tetrachloroethylene	Trichloroethylene	Vinyl chloride	Iron	Manganese	Methane	Ethane	Ethene	Carbon Dioxide	Oxygen	Nitrogen	Hydrogen	Alkalinity, Total as CaCO3	Chloride	Nitrogen, Ammonia	Nitrogen, Nitrate	Nitrogen, Nitrite	Orthophosphate	Sulfate	Disolved Organic Carbon
		CAS-RN	71-43-2	156-59-2	98-82-8	75-09-2	127-18-4	79-01-6	75-01-4	7439-89-6	7439-96-5	74-82-8	74-84-0	74-85-1	124-38-9	7782-44-7	17778-88-0	1333-74-0	E1640192	16887-00-6	E966655	14797-55-8	14797-65-0	14265-44-2	14808-79-8	E701250
		Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	nM	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
		GCTL	1	70	0.8	5	3	3	1	300	50	-	-	-	-	-	-	-	-	250	2.8	10	1	-	250	-
		NADSC	10	700	8	500	300	30	10	3000	500	-	-	-	-	-	-	-	-	2500	28	1000	100	-	25000	-
Well ID	Lab ID	BGSV	-	-	-	-	-	-	-	1227	17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OLD-OU2-47B	F77795-15	11/03/2010	10 U	141	10 U	20 U	37.0 I	4140	32.7 I	NA	NA	839	0.49 I	6.76	NA	0.44	NA	NA	NA	NA	NA	NA	NA	NA	27	7
	F81422-4	04/07/2011	10 U	179	10 U	100 U	33.3 I	3810	12.5 I	NA	NA	380	0.056	0.66	170	1.6	14	NA	NA	NA	NA	NA	NA	NA	19.9	28.2
	F87077-5	10/21/2011	20 U	210	20 U	200 U	47.2 I	6110	22 U	NA	NA	763	0.36 I	4.5	160	6.4	16	NA	NA	NA	NA	NA	NA	NA	9.4	12
	F91968-3	04/09/2012	0.20 U	169	0.20 U	2.0 U	39.7	2830	25.9	NA	NA	750	0.42	5.7	150	5.2	15	NA	NA	NA	NA	NA	NA	NA	27.1	12
OLD-OU2-48B	F77795-1	11/04/2010	2.0 U	1730	2.0 U	113 I	2.5 U	2.6 U	20.6	NA	NA	8460	0.32 U	3.94	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.0 U	22.5
	F81308-1	04/04/2011	4.0 U	1810	4.0 U	40 U	5.0 U	5.2 U	17.8 I	NA	NA	15000	0.12	2.3	290	1.4	6.4	NA	NA	NA	NA	NA	NA	NA	6.9	16.8
	F87077-6	10/21/2011	4.0 U	2400	4.0 U	40 U	5.0 U	5.2 U	28.6	NA	NA	6890	0.32 U	0.93 I	330	3.7	8.4	NA	NA	NA	NA	NA	NA	NA	1.0 U	9.6
	F91968-6	04/09/2012	0.79 I	1010	0.20 U	2.0 U	0.25 U	1.1	543	NA	NA	18000	0.025 U	36	300	1.7	6.6	NA	NA	NA	NA	NA	NA	NA	1.0 U	26.2
OLD-OU2-49B	F77795-17	11/03/2010	0.20 U	1.8	0.20 U	2.0 U	1.5	35.6	0.53 I	NA	NA	141	0.32 U	0.43 U	NA	0.52	NA	NA	NA	NA	NA	NA	NA	NA	18.8	8.3
	F81422-7	04/07/2011	0.21 I	10.6	0.20 U	2.0 U	5.5	178	1.4	NA	NA	320	0.14	1.9	110	3.6	14	NA	NA	NA	NA	NA	NA	NA	21.4	25
	F87077-4	10/21/2011	0.20 U	4.8	0.20 U	2.0 U	1.2	33.7	0.22 U	NA	NA	98.4	0.32 U	0.65 I	79	7.3	18	NA	NA	NA	NA	NA	NA	NA	9.8	53.1
	F91968-7	04/09/2012	0.22 I	53.5	0.20 U	2.0 U	3.2	61.8	3.4	NA	NA	300	0.057	1.6	130	4.9	18	NA	NA	NA	NA	NA	NA	NA	17.1	25.3
OLD-OU2-50B	F68882-13	10/19/2009	2.0 U	632	1.0 U	12.4	1.1 U	2.3	8.5	3350	20.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F72632-6	04/01/2010	2.1 I	375	1.0 U	10 U	2.2 U	1.2 U	4.5 I	1310	6.1 I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F77795-18	11/03/2010	1.0 U	293	1.0 U	10 U	1.3 U	2.8 I	5.7	NA	NA	10100	0.32 U	2	NA	1.21	NA	NA	NA	NA	NA	NA	NA	NA	6.9	8.4
	F81308-4	04/04/2011	2.0 U	648	2.0 U	20 U	2.5 U	4.8 I	6.5 I	NA	NA	12000	0.12	2.2	230	1.7	9.5	NA	NA	NA	NA	NA	NA	NA	19.2	24.8
	F87077-2	10/21/2011	0.20 U	212	0.20 U	2.0 U	0.25 U	1.3	5.4	NA	NA	4620	0.32 U	0.72 I	120	4.7	15	NA	NA	NA	NA	NA	NA	NA	1.0 U	29.6
	F92066-3	04/10/2012	0.22 I	40.6	0.20 U	2.0 U	0.25 U	0.27 I	80.5	NA	NA	9400	0.1	8.8	120	7.8	15	NA	NA	NA	NA	NA	NA	NA	1.0 U	18.7
OLD-OU2-51B	F68838-22	10/16/2009	2.0 U	257	1.0 U	7.8	1.1 U	1.6 U	4	2140	10.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F72632-13	04/01/2010	1.1 U	218	1.0 U	10 U	2.2 U	1.2 U	3.5 I	1270	5.9 I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F77795-10	11/03/2010	1.0 U	277	1.0 U	10 U	1.3 U	1.3 U	7.9	NA	NA	11900	0.32 U	2.2	NA	0.12	NA	NA	NA	NA	NA	NA	NA	NA	2.5	6.6
	F81422-10	04/07/2011	0.40 U	168	0.40 U	4.0 U	0.50 U	0.56 I	7	NA	NA	17000	0.14	3.4	290	1.1	5.3	NA	NA	NA	NA	NA	NA	NA	1.3 I	23.6
	F87208-9	10/25/2011	0.20 U	99.2	0.20 U	2.0 U	0.25 U	11	2.7	NA	NA	10300	0.32 U	0.43 U	230	2.8	6.7	NA	NA	NA	NA	NA	NA	NA	3.3	11
	F91966-3	04/06/2012	0.20 U	108	0.20 U	2.0 U	0.25 U	0.26 U	12.5	NA	NA	14000	0.15	2.9	150	2.5	9.2	NA	NA	NA	NA	NA	NA	NA	1.0 U	11.4
OLD-OU2-53B	F68882-12	10/19/2009	0.80 U	166	0.40 U	2.0 U	2.4	70.2	2.3	694	5.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F72632-7	04/01/2010	0.42 U	388	0.40 U	4.0 U	3	51.2	4.2	798	5.9 I	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F77795-8	11/05/2010	2.0 U	797	2.0 U	20 U	10.2	371	60.8	NA	NA	4610	0.32 U	11.6	NA	0.43	NA	NA	NA	NA	NA	NA	NA	NA	8.2	7.7
	F81308-7	04/04/2011	2.0 U	614	2.0 U	20 U	2.5 U	6.0 I	293	NA	NA	4300	0.025 J	12	170	2.8	8.2	NA	NA	NA	NA	NA	NA	NA	7.7	7.2
	F92066-2	04/10/2012	1.0 U	316	1.0 U	10 U	2.7 I	39.8	237	NA	NA	6800	0.06	23	180	6	15	NA	NA	NA	NA	NA	NA	NA	20.7	17
OLD-OU2-DP01A	F60665-2	10/06/2008	1.8	1.2	NA	1.0 U	0.22 U	0.32 U	3.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F64242-3	03/26/2009	0.40 U	0.20 U	0.20 U	1.0 U	0.22 U	0.32 U	0.32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F68838-20	10/16/2009	1.5	1.1	0.20 U	1.0 U	0.22 U	0.32 U	4.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F72632-12	04/01/2010	1.1	1.1	0.20 U	2.0 U	0.44 U	1.9	1.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F77795-13	11/03/2010	0.69 I	0.60 I	0.20 U	2.0 U	0.25 U	0.33 I	1	NA	NA	NA	NA	NA	NA	4.19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F81422-8	04/07/2011	3.1	2	0.20 U	2.0 U	0.25 U	0.26 U	3.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F87208-8	10/25/2011	2.1	1.5	0.20 U	2.0 U	0.25 U	0.26 U	2.9	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	F91853-12	04/03/2012	1.7	1.5	0.20 U	2.0 U	0.25 U	0.26 U	3.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
OLD-OU2-DP02A	F60665-1	10/06/2008	0.40 U	21.6	NA	1.0 U	0.35 I	4.4	0.42 I	3130	3.1 I	38.5	0.32 U	0.43 U	NA	5.3	NA	1.3	11.7	0.050 U	0.050 U	26	0.050 U	2.5 U	NA	42.4
	F64242-4	03/26/2009	0.40 U	218	0.20 U	1.0 U	0.22 U	35.1	3.7	1950	1.9 I	429	0.32 U	0.43 U	NA	8.1	NA	1.3	43.9	23.5	0.050 U	0.050 U	0.050 U	0.038 I	14.7	4.7
	F68882-9	10/19/2009	0.40 U	135	0.20 U	1.0 U	0.22 U	15.1	2.2	1230	1.4	173	0.32 U	0.43 U	NA	NA	NA	7.2	42.1	21.8	0.068	0.050 U	0.050 U	0.022	13.5	5.9
	F72632-14	04/01/2010	1.1 U	475	1.0 U	10 U	2.2 U	5.2	4.3 I	1990	1.2 I	3780	0.32 U	0.43 U	NA	NA	NA	4.4	14.1	15.6	0.050 U	0.050 U	0.050 U	0.13	2.6	10.3
	F77795-16	11/03/2010	1.0 U	301	1.0 U	10 U	1.3 U	1.9 I	8.7	1130	1.0 I	1780	0.32 U	0.43 U	NA	2.99	NA	NA	2.7 I	29.5	0.050 U	0.089 I	0.050 U	0.22	10.9	7
	F81422-11	04/07/2011	1.0 U	242	1.0 U	10 U	1.3 U	20.5	2.7 I	523	1.0 U	2100	0.025	0.14	150	2	15	NA	6.7	18.8	0.050 U	0.096 I	0.050 U	0.058 I	4.9	12.1
	F87208-10	10/25/2011	0.20 U	64.2	0.20 U	2.0 U	0.25 U	1.1	0.61 I	2110	1.4 I	708	0.32 U	0.43 U	130	6.8	15	NA	2.5 U	33.4	0.058 I	0.050 U	0.050 U	0.028 I	23.3	17.5
	F91967-3	04/05/2012	0.20 U	67.3	0.20 U	2.0 U	0.25 U	1.6	22.6	1770	2.0 I	2800	0.015	1.2	110	2.7	9.9	NA	2.9 I	27.5	0.051 I	0.079 I	0.050 U	0.090 I	13	20.1

Notes:

ug/L - micrograms per liter

U - indicates result less than method detection limit

I - indicates result greater than or equal to method detection limit but less than practical quantitation limit

NA - not analyzed

GCTL- groundwater cleanup target level

NADSC - natural attenuation default concentration

APPENDIX B
Monitor Well Purge Forms

BFA Environmental Consultants

GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-02A	SAMPLE ID: DA639EA9F9F6467C8C03F906539A35FB		DATE: 03/27/2012

PURGING DATA

WELL DIAMETER (inches): 2.00	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH (feet): 7.4-17.4	STATIC DEPTH TO WATER (feet): 11.60	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (20.35 feet – 11.60 feet) X 0.16 gallons/foot = 1.43 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 31.00 feet)+ 0.15 gallon = 0.23 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 27.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 27.00	PURGING INITIATED AT: 13:18	PURGING ENDED AT: 13:46	TOTAL VOLUME PURGED (gallons): 1.90

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
13:18		0.10	0.146	11.63	5.92	23.84	601.00	1.16	4.00	-97.00	clear	none
13:21	0.20	0.30	0.075	11.63	6.03	23.97	688.00	0.59	5.30	-101.00	clear	none
13:24	0.20	0.50	0.069	11.63	6.08	23.94	719.00	0.47	6.40	-106.00	clear	none
13:34	0.50	1.00	0.062	11.63	6.22	23.78	825.00	0.41	4.50	-107.00	clear	none
13:37	0.20	1.20	0.063	23.74	6.27	23.74	1,066.00	0.04	5.60	-107.00	clear	none
13:41	0.30	1.50	0.064	11.63	6.26	23.74	1,109.00	0.36	4.90	-109.00	clear	none
13:44	0.30	1.80	0.068	11.63	6.29	23.76	1,103.00	0.09	5.50	-110.00	clear	none

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): .9	TEMP.(°C): 23.6	DO: .47	CO2: 163	DO High Range:	DO Low Range:
SEC(uS/cm) 1120	pH: 6.28	Alkalinity:	Ferrous Iron: 2	CO2 High Range:	CO2 Low Range:
ORP(mV): -109	TURB(NTU): 5.3	H2S: .053	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide: .05	Ferrous Iron: 2	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Damian Allen	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 13:46	SAMPLING ENDED AT: 14:23
PUMP OR TUBING DEPTH IN WELL (feet): 27.00	SAMPLE PUMP FLOW RATE (mL per minute): 256.87	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N
FIELD-FILTERED: ☑ Y ☐ N
Filtration Equipment Type:
FILTER SIZE: NA
DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-02A	12	AG;CG;PE	ml;500 ml;	ICL;HNO3;Ot	40 ml;500 ml;1 L	6.28	Ammonium	APP

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other

NOTES:
1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. Stabilization Criteria for range of variation of last three consecutive readings (see FS 2212, section 3)
pH: + 0.2 units Temperature: + 0.2 oC Specific Conductance: + 5% Dissolved Oxygen: all readings < 20% saturation (see Table FS 2200-2); optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

BFA Environmental Consultants

GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-02B	SAMPLE ID: F5C4F7955E18475D89E3A63A8F9DEA57	DATE: 03/27/2012	

PURGING DATA

WELL DIAMETER (inches): 2.00	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH (feet): 27.1-32.1	STATIC DEPTH TO WATER (feet): 11.25	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (32.50 feet – 11.25 feet) X 0.16 gallons/foot = 3.47 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 23.00 feet)+ 0.15 gallon = 0.21 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 19.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 19.00	PURGING INITIATED AT: 14:29	PURGING ENDED AT: 14:39	TOTAL VOLUME PURGED (gallons): 1.00

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
14:32		0.30	0.104	11.38	5.47	25.20	223.00	0.35	9.20	-43.00	clear	none
14:35	0.30	0.60	0.085	11.40	5.49	25.19	222.00	0.16	6.40	-68.00	clear	none
14:38	0.30	0.90	0.096	11.40	5.44	25.17	220.00	0.00	6.10	-75.00	clear	none

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): .17	TEMP.(°C): 25.15	DO: 1.22	CO2: 29	DO High Range:	DO Low Range:
SEC(uS/cm) 219	pH: 5.38	Alkalinity:	Ferrous Iron: 2.6	CO2 High Range:	CO2 Low Range:
ORP(mV): -77	TURB(NTU): 6.2	H2S: .11	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide: .1	Ferrous Iron: 2.6	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Damian Allen	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 14:39	SAMPLING ENDED AT: 15:05
PUMP OR TUBING DEPTH IN WELL (feet): 19.00	SAMPLE PUMP FLOW RATE (mL per minute): 378.54	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N
FIELD-FILTERED: ☑ Y ☐ N
Filtration Equipment Type:
FILTER SIZE: NA
DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-02B	12	AG;CG;PE	ml;500 ml;	ICL;HNO3;Ot	40 ml;500 ml;1 L	5.38	Alkalinity, Chloride, Nitrate/Nitrite, Orthophosphate, Sul	APP

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other

NOTES:
1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. Stabilization Criteria for range of variation of last three consecutive readings (see FS 2212, section 3)
pH: + 0.2 units Temperature: + 0.2 oC Specific Conductance: + 5% Dissolved Oxygen: all readings < 20% saturation (see Table FS 2200-2); optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

BFA Environmental Consultants

GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-03A	SAMPLE ID: 5B90291AB3474599A6E5A3238B5C0654		DATE: 03/27/2012

PURGING DATA

WELL DIAMETER (inches): 2.00	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH (feet): 7.5-17.5	STATIC DEPTH TO WATER (feet): 8.80	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (20.50 feet – 8.80 feet) X 0.16 gallons/foot = 1.91 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 21.00 feet)+ 0.15 gallon = 0.20 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 17.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 17.00	PURGING INITIATED AT: 15:45	PURGING ENDED AT: 16:05	TOTAL VOLUME PURGED (gallons): 2.20

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
15:47		0.30	0.250	9.10	6.21	23.36	889.00	1.14	69.60	-35.00	turbid	none
15:50	0.30	0.60	0.131	9.10	6.19	22.72	908.00	0.25	47.90	-44.00	turbid	none
15:53	0.30	0.90	0.125	9.10	6.09	22.52	763.00	0.25	25.50	-31.00	turbid	none
15:56	0.30	1.20	0.118	9.10	6.07	22.52	738.00	0.22	16.30	-39.00	turbid	none
15:59	0.30	1.50	0.114	9.10	6.12	22.47	761.00	0.20	14.20	-50.00	clear	none
16:02	0.30	1.80	0.112	9.10	6.10	22.53	779.00	0.21	8.00	-51.00	clear	none
16:05	0.30	2.10	0.109	9.10	6.14	22.63	787.00	0.23	6.80	-49.00	clear	none

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): .22	TEMP.(°C): 22.63	DO: 0	CO2: 108	DO High Range:	DO Low Range:
SEC(uS/cm) 790	pH: 6.09	Alkalinity:	Ferrous Iron: 7	CO2 High Range:	CO2 Low Range:
ORP(mV): -49	TURB(NTU): 7.2	H2S: 0	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide: 0	Ferrous Iron: 7	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Damian Allen	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 16:05	SAMPLING ENDED AT: 16:33
PUMP OR TUBING DEPTH IN WELL (feet): 17.00	SAMPLE PUMP FLOW RATE (mL per minute): 416.40	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☑ Y ☐ N
FIELD-FILTERED: ☐ Y ☑ N
Filtration Equipment Type:
FILTER SIZE: NA
DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-03A	12	AG;CG;PE	ml;500 ml;	ICL;HNO3;Ot	40 ml;500 ml;1 L	6.09	Alkalinity, Chloride, Nitrate/Nitrite, Orthophosphate, Sul	APP

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other

NOTES:
1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. Stabilization Criteria for range of variation of last three consecutive readings (see FS 2212, section 3)

pH: + 0.2 units Temperature: + 0.2 oC Specific Conductance: + 5% Dissolved Oxygen: all readings < 20% saturation (see Table FS 2200-2); optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

BFA Environmental Consultants

GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-03B	SAMPLE ID: D67C7203FCEC47CA9BE7E6FD8425BCC1	DATE: 03/27/2012	

PURGING DATA

WELL DIAMETER (inches): 2.00	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH (feet): 27.4-32.4	STATIC DEPTH TO WATER (feet): 8.85	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (35.50 feet – 8.85 feet) X 0.16 gallons/foot = 4.35 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 36.00 feet)+ 0.15 gallon = 0.24 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 32.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 32.00	PURGING INITIATED AT: 16:38	PURGING ENDED AT: 18:32	TOTAL VOLUME PURGED (gallons): 5.40

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
16:41		0.30	0.086	8.85	5.65	23.50	395.00	0.94	150.00	8.00	milky	none
16:51	0.70	1.00	0.076	8.85	5.53	23.14	395.00	0.32	134.80	-22.00	milky	none
17:01	1.00	2.00	0.084	8.85	5.54	23.13	385.00	0.21	333.80	-52.00	milky	none
17:12	1.00	3.00	0.091	8.85	5.54	23.52	381.00	0.21	396.30	-60.00	milky	none
17:21	0.30	3.30	0.036	8.85	5.54	23.46	378.00	0.26	351.40	-68.00	milky	none
17:31	0.30	3.60	0.080	8.85	5.54	23.49	377.00	0.00	269.10	-68.00	milky	none
17:41	0.20	3.80	0.075	8.85	5.54	23.50	373.00	0.27	190.90	-76.00	milky	none
17:51	0.20	4.00	0.055	8.85	5.53	23.45	371.00	0.27	141.40	-78.00	milky	none
18:01	0.20	4.20	0.050	8.85	5.56	23.37	374.00	0.26	95.50	-77.00	milky	none
18:11	0.20	4.40	0.047	8.85	5.57	23.31	375.00	0.24	57.80	-78.00	milky	none
18:21	0.20	4.60	0.045	8.85	5.56	23.30	372.00	0.23	50.80	-80.00	milky	none
18:25	0.20	4.80	0.045	8.85	5.54	23.27	371.00	0.21	47.80	-80.00	milky	none
18:28	0.30	5.10	0.046	8.85	5.56	23.27	371.00	0.21	43.10	-81.00	milky	none
18:31	0.20	5.30	0.047	8.85	5.55	23.26	371.00	0.21	46.40	-82.00	milky	none

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): .22	TEMP.(°C): 23.24	DO: .26	CO2: 79	DO High Range:	DO Low Range:
SEC(uS/cm) 371	pH: 5.56	Alkalinity:	Ferrous Iron: 4.4	CO2 High Range:	CO2 Low Range:
ORP(mV): -82	TURB(NTU): 43.7	H2S: .04	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide: .04	Ferrous Iron: 4.4	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Damian Allen	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 18:32	SAMPLING ENDED AT: 19:03
PUMP OR TUBING DEPTH IN WELL (feet): 32.00	SAMPLE PUMP FLOW RATE (mL per minute): 179.31	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N
FIELD-FILTERED: ☑ Y ☐ N
Filtration Equipment Type:
FILTER SIZE: NA
DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-03B	12	AG;CG;PE	ml;500 ml;	ICL;HNO3;Ot	40 ml;500 ml;1 L	5.56	Alkalinity, Chloride, Nitrate/Nitrite, Orthophosphate, Sul	APP

BFA Environmental Consultants

GROUNDWATER SAMPLING LOG

SITE NAME:	Operable Unit 2		SITE LOCATION:	Orlando	
WELL NO:	OLD-OU2-03B	SAMPLE ID:	D67C7203FCEC47CA9BE7E6FD8425BCC1	DATE:	03/27/2012

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other

NOTES:

1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. Stabilization Criteria for range of variation of last three consecutive readings (see FS 2212, section 3)

pH: + 0.2 units Temperature: + 0.2 oC Specific Conductance: + 5% Dissolved Oxygen: all readings < 20% saturation (see Table FS 2200-2); optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

BFA Environmental Consultants

GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-12B	SAMPLE ID: DF3E9EE616F240B88ED1EB24036B8B14		DATE: 04/03/2012

PURGING DATA

WELL DIAMETER (inches): 2.00	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH (feet): 29.8-34.8	STATIC DEPTH TO WATER (feet): 8.80	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (34.92 feet – 8.80 feet) X 0.16 gallons/foot = 4.26 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 35.00 feet)+ 0.15 gallon = 0.24 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 31.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 31.00	PURGING INITIATED AT: 14:06	PURGING ENDED AT: 14:28	TOTAL VOLUME PURGED (gallons): 1.90

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
14:10		0.30	0.079	8.95	5.03	23.67	131.00	2.42	3.10	135.80	clear	
14:12	0.30	0.60	0.093	8.95	5.05	23.73	105.00	1.85	1.66	132.50	clear	
14:20	0.60	1.20	0.084	8.95	5.18	23.58	103.00	1.33	1.12	120.00	clear	
14:24	0.30	1.50	0.084	8.95	5.18	23.66	104.00	1.17	1.80	117.40	clear	
14:28	0.30	1.80	0.082	8.95	5.22	23.71	103.00	0.98	1.15	111.50	clear	

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): .97	TEMP.(°C): 23.72	DO:	CO2:	DO High Range:	DO Low Range:
SEC(uS/cm) 104	pH: 5.23	Alkalinity:	Ferrous Iron:	CO2 High Range:	CO2 Low Range:
ORP(mV): 110	TURB(NTU): 1.15	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide:	Ferrous Iron:	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Damian Allen	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 14:28	SAMPLING ENDED AT: 14:41
PUMP OR TUBING DEPTH IN WELL (feet): 31.00	SAMPLE PUMP FLOW RATE (mL per minute): 326.92	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N	FIELD-FILTERED: ☐ Y ☑ N Filtration Equipment Type:	FILTER SIZE: NA	DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-12B	3	CG	40 ml	HCL	40 ml	5.23	VOCs	SM

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other

NOTES:
1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. Stabilization Criteria for range of variation of last three consecutive readings (see FS 2212, section 3)
pH: + 0.2 units Temperature: + 0.2 oC Specific Conductance: + 5% Dissolved Oxygen: all readings < 20% saturation (see Table FS 2200-2); optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

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GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-18B	SAMPLE ID: 7232618A808C4F32AC75BCF16C856BDA		DATE: 04/06/2012

PURGING DATA

WELL DIAMETER (inches): 2.00	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH (feet): 28.6-33.6	STATIC DEPTH TO WATER (feet): 8.80	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (33.63 feet – 8.80 feet) X 0.16 gallons/foot = 4.05 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 24.00 feet)+ 0.15 gallon = 0.21 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 20.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 20.00	PURGING INITIATED AT: 12:55	PURGING ENDED AT: 13:11	TOTAL VOLUME PURGED (gallons): 1.40

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
12:59		0.30	0.079	10.45	5.10	23.30	112.00	3.10	4.29	-186.00	clear	
13:02	0.30	0.60	0.095	10.80	5.10	23.41	111.00	2.13	3.49	-184.40	clear	
13:05	0.30	0.90	0.093	11.05	5.14	23.41	111.00	1.60	3.60	-190.40	clear	
13:08	0.20	1.10	0.090	11.05	5.18	23.43	114.00	1.29	4.49	-204.90	clear	
13:11	0.20	1.30	0.085	11.05	5.19	23.59	113.00	1.18	3.36	-208.70	clear	

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): 1.14	TEMP.(°C): 23.68	DO: 0.64	CO2: 25	DO High Range:	DO Low Range:
SEC(uS/cm) 113	pH: 5.2	Alkalinity:	Ferrous Iron: .6	CO2 High Range:	CO2 Low Range:
ORP(mV): -208.9	TURB(NTU): 3.36	H2S: 1.06	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide: 1	Ferrous Iron: .6	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Damian Allen	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 13:11	SAMPLING ENDED AT: 14:07
PUMP OR TUBING DEPTH IN WELL (feet): 20.00	SAMPLE PUMP FLOW RATE (mL per minute): 331.22	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N
FIELD-FILTERED: ☑ Y ☐ N FILTER SIZE: 0.45 um
Filtration Equipment Type: AcroCap w/Super Membrane
DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-18B	12	AG;CG;PE	ml;500 ml;	ICL;HNO3;Ot	40 ml;500 ml;1 L	5.2	Alkalinity, Chloride, Nitrate/Nitrite, Orthophosphate, Sul	Grab

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other

NOTES:
1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. Stabilization Criteria for range of variation of last three consecutive readings (see FS 2212, section 3)
pH: + 0.2 units Temperature: + 0.2 oC Specific Conductance: + 5% Dissolved Oxygen: all readings < 20% saturation (see Table FS 2200-2); optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

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GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-21A	SAMPLE ID: 62297F22055E46E19B06F814D6EB5F2C		DATE: 04/03/2012

PURGING DATA

WELL DIAMETER (inches): 2.00	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH (feet): 6.8-16.8	STATIC DEPTH TO WATER (feet): 11.60	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (17.22 feet – 11.60 feet) X 0.16 gallons/foot = 0.92 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 18.00 feet)+ 0.15 gallon = 0.19 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 14.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 14.00	PURGING INITIATED AT: 14:53	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
15:07		0.50	0.036	11.90		30.45	140.50	0.47				

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L):	TEMP.(°C):	DO:	CO2:	DO High Range:	DO Low Range:
SEC(uS/cm)	pH:	Alkalinity:	Ferrous Iron:	CO2 High Range:	CO2 Low Range:
ORP(mV):	TURB(NTU):	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide:	Ferrous Iron:	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Katie Ballew	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
PUMP OR TUBING DEPTH IN WELL (feet): 14.00	SAMPLE PUMP FLOW RATE (mL per minute): 0.00	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☑ Y ☐ N	FIELD-FILTERED: ☐ Y ☑ N Filtration Equipment Type:	FILTER SIZE: NA	DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other

NOTES:
1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. Stabilization Criteria for range of variation of last three consecutive readings (see FS 2212, section 3)
pH: + 0.2 units Temperature: + 0.2 oC Specific Conductance: + 5% Dissolved Oxygen: all readings < 20% saturation (see Table FS 2200-2); optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

BFA Environmental Consultants

GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-21A	SAMPLE ID: 4342221E6EF74FD591236F1BEE293E52		DATE: 04/06/2012

PURGING DATA

WELL DIAMETER (inches): 2.00	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH (feet): 6.8-16.8	STATIC DEPTH TO WATER (feet): 11.60	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (17.22 feet – 11.60 feet) X 0.16 gallons/foot = 0.92 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 20.00 feet)+ 0.15 gallon = 0.20 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 16.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 16.00	PURGING INITIATED AT: 12:47	PURGING ENDED AT: 13:10	TOTAL VOLUME PURGED (gallons): 1.80

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
12:58		0.50	0.047	12.00	4.27	26.60	112.50	1.03	1.50	0.21	clear	none
13:00	0.30	0.80	0.059	12.00	4.24	27.09	112.70	0.95	0.80	0.21	clear	none
13:03	0.30	1.10	0.068	12.00	4.25	26.52	109.40	0.85	1.20	0.21	clear	none
13:06	0.30	1.40	0.111	12.00	4.25	26.35	109.20	0.77	0.90	0.21	clear	none
13:09	0.30	1.70	0.089	12.00	4.25	26.41	109.80	0.68	0.90	0.21	clear	none

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): .59	TEMP.(°C): 26.75	DO: 169	CO2: 49	DO High Range:	DO Low Range:
SEC(uS/cm) 109.1	pH: 4.25	Alkalinity:	Ferrous Iron: 1.2	CO2 High Range:	CO2 Low Range:
ORP(mV): .21	TURB(NTU): .4	H2S: 0	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide: 0	Ferrous Iron: 1.2	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Katie Ballew	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 13:10	SAMPLING ENDED AT: 13:48
PUMP OR TUBING DEPTH IN WELL (feet): 16.00	SAMPLE PUMP FLOW RATE (mL per minute): 296.25	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N
FIELD-FILTERED: ☑ Y ☐ N FILTER SIZE: NA
Filtration Equipment Type:
DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-21A	12	AG;CG;PE	ml;500 ml;	ICL;HNO3;Ot	40 ml;500 ml;1 L	4.25	Alkalinity, Chloride, Nitrate/Nitrite, Orthophosphate, Sul	APP

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other

NOTES:
1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. Stabilization Criteria for range of variation of last three consecutive readings (see FS 2212, section 3)
pH: + 0.2 units Temperature: + 0.2 oC Specific Conductance: + 5% Dissolved Oxygen: all readings < 20% saturation (see Table FS 2200-2); optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

BFA Environmental Consultants

GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-21B	SAMPLE ID: DBDA247E6E5741D698047E46B9B8B5F4		DATE: 04/06/2012

PURGING DATA

WELL DIAMETER (inches): 2.00	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH (feet): 27.5-32.5	STATIC DEPTH TO WATER (feet): 11.80	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (32.70 feet – 11.80 feet) X 0.16 gallons/foot = 3.41 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 33.00 feet)+ 0.15 gallon = 0.23 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 29.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 29.00	PURGING INITIATED AT: 14:14	PURGING ENDED AT: 14:44	TOTAL VOLUME PURGED (gallons): 2.00

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
14:23		0.10	0.011	12.20	6.14	30.53	210.30	1.72	42.90	-0.33	milky	none
14:27	0.30	0.40	0.030	12.25	6.14	28.36	199.20	0.53	38.20	-0.36	milky	none
14:31	0.30	0.70	0.042	12.25	6.14	27.88	191.70	0.37	28.70	-0.38	milky	none
14:34	0.30	1.00	0.050	12.30	6.14	27.89	190.20	0.32	24.30	-0.38	milky	none
14:37	0.30	1.30	0.100	12.30	6.14	27.94	189.10	0.22	19.10	-0.38	clear	none
14:40	0.30	1.60	0.062	12.30	6.14	28.07	188.80	0.18	17.90	-0.39	clear	none
14:43	0.30	1.90	0.108	12.30	6.14	28.10	187.20	0.17	14.40	-0.39	clear	none

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): .17	TEMP.(°C): 28.34	DO: 0	CO2: 101	DO High Range:	DO Low Range:
SEC(uS/cm) 186.5	pH: 6.14	Alkalinity:	Ferrous Iron: .9	CO2 High Range:	CO2 Low Range:
ORP(mV): -.39	TURB(NTU): 13.3	H2S: 1.15	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide: 1.22	Ferrous Iron: .9	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Katie Ballew	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 14:44	SAMPLING ENDED AT: 15:09
PUMP OR TUBING DEPTH IN WELL (feet): 29.00	SAMPLE PUMP FLOW RATE (mL per minute): 252.36	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N
FIELD-FILTERED: ☑ Y ☐ N FILTER SIZE: NA DUPLICATE: ☐ Y ☑ N
Filtration Equipment Type:

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-21B	12	AG;CG;PE	ml;500 ml;	ICL;HNO3;Ot	40 ml;500 ml;1 L	6.14	Alkalinity, Chloride, Nitrate/Nitrite, Orthophosphate, Sul	APP

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other

NOTES:
1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. Stabilization Criteria for range of variation of last three consecutive readings (see FS 2212, section 3)

pH: + 0.2 units Temperature: + 0.2 oC Specific Conductance: + 5% Dissolved Oxygen: all readings < 20% saturation (see Table FS 2200-2); optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

BFA Environmental Consultants

GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-27A	SAMPLE ID: 7B3B5C5CB9EE4E288806573CF58C00E5		DATE: 04/02/2012

PURGING DATA

WELL DIAMETER (inches): 2.00	TUBING DIAMETER (inches): 0.13	WELL SCREEN INTERVAL DEPTH (feet): 6.01-16	STATIC DEPTH TO WATER (feet): 13.63	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (19.43 feet – 13.63 feet) X 0.16 gallons/foot = 0.95 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 21.00 feet)+ 0.15 gallon = 0.16 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 17.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 17.00	PURGING INITIATED AT: 16:25	PURGING ENDED AT: 16:47	TOTAL VOLUME PURGED (gallons): 1.00

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
16:34		0.10	0.011	13.85	5.40	25.63	209.40	0.49	11.30	121.00	clear	none
16:37	0.20	0.30	0.024	13.84	5.39	25.37	208.60	0.35	8.30	119.00	clear	none
16:40	0.20	0.50	0.082	13.84	5.39	25.24	207.10	0.33	7.00	115.00	clear	none
16:43	0.20	0.70	0.063	13.84	5.39	25.09	204.60	0.27	9.20	112.00	clear	none
16:46	0.20	0.90	0.063	13.84	5.39	25.07	202.80	0.27	8.20	103.00	clear	none

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): .35	TEMP.(°C): 25.01	DO:	CO2:	DO High Range:	DO Low Range:
SEC(uS/cm) 202.9	pH: 5.38	Alkalinity:	Ferrous Iron:	CO2 High Range:	CO2 Low Range:
ORP(mV): 95	TURB(NTU): 12.2	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide:	Ferrous Iron:	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Katie Ballew	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 16:47	SAMPLING ENDED AT: 16:59
PUMP OR TUBING DEPTH IN WELL (feet): 17.00	SAMPLE PUMP FLOW RATE (mL per minute): 172.06	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N
FIELD-FILTERED: ☐ Y ☑ N FILTER SIZE: NA
Filtration Equipment Type:
DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-27A	5	CG;PE	0 ml;500 m	HCL;HNO3	40 ml;500 ml	5.38	Fe/Mn	APP

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other

NOTES:
1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. Stabilization Criteria for range of variation of last three consecutive readings (see FS 2212, section 3)
pH: + 0.2 units Temperature: + 0.2 oC Specific Conductance: + 5% Dissolved Oxygen: all readings < 20% saturation (see Table FS 2200-2); optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

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GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-27B	SAMPLE ID: C84DEB11A3D14B448FA08145271BFBFA		DATE: 03/29/2012

PURGING DATA

WELL DIAMETER (inches): 2.00	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH (feet): 27-32	STATIC DEPTH TO WATER (feet): 14.25	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (35.27 feet – 14.25 feet) X 0.16 gallons/foot = 3.43 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 34.00 feet)+ 0.15 gallon = 0.23 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 30.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 30.00	PURGING INITIATED AT: 13:57	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
14:01		0.30	0.091	14.10	4.80	25.51	164.00	0.12	0.00	-58.00	clear	
14:04	0.30	0.60	0.092	14.10	4.80	25.59	162.00	0.11	0.20	-65.00	clear	
14:07	0.30	0.90	0.090	14.10	4.79	25.28	162.00	0.08	0.30	-72.00	clear	
14:10	0.30	1.20	0.097	14.10	4.78	25.21	163.00	0.12	1.60	-78.00	clear	

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L):	TEMP.(°C):	DO:	CO2:	DO High Range:	DO Low Range:
SEC(uS/cm)	pH:	Alkalinity:	Ferrous Iron:	CO2 High Range:	CO2 Low Range:
ORP(mV):	TURB(NTU):	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide:	Ferrous Iron:	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Damian Allen	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
PUMP OR TUBING DEPTH IN WELL (feet): 30.00	SAMPLE PUMP FLOW RATE (mL per minute): 0.00	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☑ Y ☐ N
FIELD-FILTERED: ☐ Y ☑ N
Filtration Equipment Type:
FILTER SIZE: NA
DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other

NOTES:
1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. Stabilization Criteria for range of variation of last three consecutive readings (see FS 2212, section 3)
pH: + 0.2 units Temperature: + 0.2 oC Specific Conductance: + 5% Dissolved Oxygen: all readings < 20% saturation (see Table FS 2200-2); optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

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GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-27B	SAMPLE ID: 3F115CB232D640EB935760ACFBDFA322		DATE: 04/02/2012

PURGING DATA

WELL DIAMETER (inches): 2.00	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH (feet): 27-32	STATIC DEPTH TO WATER (feet): 13.30	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (35.27 feet – 13.30 feet) X 0.16 gallons/foot = 3.59 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 35.00 feet)+ 0.15 gallon = 0.24 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 31.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 31.00	PURGING INITIATED AT: 16:39	PURGING ENDED AT: 16:50	TOTAL VOLUME PURGED (gallons): 1.00

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
16:42		0.30	0.113	13.30	4.60	24.44	161.00	1.30	2.48	-157.80	clear	
16:45	0.30	0.60	0.108	14.30	4.61	24.45	157.00	0.98	4.43	-167.00	clear	
16:49	0.30	0.90	0.093	14.30	4.62	24.42	156.00	0.83	5.64	-172.20	clear	

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): .75	TEMP.(°C): 24.41	DO:	CO2:	DO High Range:	DO Low Range:
SEC(uS/cm) 157	pH: 4.63	Alkalinity:	Ferrous Iron:	CO2 High Range:	CO2 Low Range:
ORP(mV): -173.9	TURB(NTU): 5.64	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide:	Ferrous Iron:	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Damian Allen	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 16:50	SAMPLING ENDED AT: 17:07
PUMP OR TUBING DEPTH IN WELL (feet): 31.00	SAMPLE PUMP FLOW RATE (mL per minute): 344.13	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N
FIELD-FILTERED: ☐ Y ☑ N FILTER SIZE: NA DUPLICATE: ☐ Y ☑ N
Filtration Equipment Type:

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-27B	5	CG;PE	0 ml;500 m	HNO3	40 ml;500 ml	4.63	Fe/Mn	Grab

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other

NOTES:
1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. Stabilization Criteria for range of variation of last three consecutive readings (see FS 2212, section 3)
pH: + 0.2 units Temperature: + 0.2 oC Specific Conductance: + 5% Dissolved Oxygen: all readings < 20% saturation (see Table FS 2200-2); optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

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GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-28B	SAMPLE ID: BD4F54B1DBF04AB0950DD6AFAEB6DE8C	DATE: 03/29/2012	

PURGING DATA

WELL DIAMETER (inches): 2.00	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH (feet): 27-32	STATIC DEPTH TO WATER (feet): 13.30	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (35.29 feet – 13.30 feet) X 0.16 gallons/foot = 3.59 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 33.00 feet)+ 0.15 gallon = 0.23 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 29.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 29.00	PURGING INITIATED AT: 14:41	PURGING ENDED AT: 14:59	TOTAL VOLUME PURGED (gallons): 1.90

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
14:44		0.30	0.100	14.00	4.33	25.15	121.90	3.14	3.80	122.00	clear	none
14:47	0.30	0.60	0.090	14.00	4.27	24.72	123.10	1.98	3.50	110.00	clear	none
14:50	0.30	0.90	0.099	14.00	4.28	24.63	123.30	1.81	3.20	76.00	clear	none
14:53	0.30	1.20	0.100	14.00	4.29	24.48	123.80	1.53	2.90	38.00	clear	none
14:56	0.30	1.50	0.098	14.00	4.32	24.49	124.20	1.18	2.50	15.00	clear	none
14:59	0.30	1.80	0.100	14.00	4.35	24.49	124.50	0.94	1.90	-2.00	clear	none

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): .91	TEMP.(°C): 24.46	DO:	CO2:	DO High Range:	DO Low Range:
SEC(uS/cm) 124.5	pH: 4.35	Alkalinity:	Ferrous Iron:	CO2 High Range:	CO2 Low Range:
ORP(mV): -3	TURB(NTU): 2.4	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide:	Ferrous Iron:	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Katie Ballew	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 14:59	SAMPLING ENDED AT: 15:04
PUMP OR TUBING DEPTH IN WELL (feet): 29.00	SAMPLE PUMP FLOW RATE (mL per minute): 399.57	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N
FIELD-FILTERED: ☐ Y ☑ N
Filtration Equipment Type:
FILTER SIZE: NA
DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-28B	3	CG	40 ml	HCL	40 ml	4.35	VOCs	SM

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other

NOTES:
1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. Stabilization Criteria for range of variation of last three consecutive readings (see FS 2212, section 3)
pH: + 0.2 units Temperature: + 0.2 oC Specific Conductance: + 5% Dissolved Oxygen: all readings < 20% saturation (see Table FS 2200-2); optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

BFA Environmental Consultants

GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-29A	SAMPLE ID: 896DD4724FC545A7BE87D312FD17D47D		DATE: 03/28/2012

PURGING DATA

WELL DIAMETER (inches): 1.00	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH (feet): 5.01-15	STATIC DEPTH TO WATER (feet): 5.00	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (14.26 feet – 5.00 feet) X 0.04 gallons/foot = 0.38 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 15.00 feet)+ 0.15 gallon = 0.18 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 11.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 11.00	PURGING INITIATED AT: 12:20	PURGING ENDED AT: 13:25	TOTAL VOLUME PURGED (gallons): 4.40

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
12:30		0.30	0.032	5.07	5.78	22.99	96.00	0.38	92.70	-23.00	milky	none
12:34	0.20	0.50	0.044	5.05	5.78	23.20	95.00	0.25	97.60	-44.00	milky	
12:37	0.20	0.70	0.041	5.05	5.67	23.22	94.00	0.20	96.90	-62.00	milky	
12:40	0.20	0.90	0.046	5.05	5.72	23.18	94.00	0.19	99.50	-72.00	milky	
12:43	0.20	1.10	0.048	5.05	5.65	22.82	95.00	0.50	102.90	-81.00	milky	
12:46	0.30	1.40	0.055	5.05	5.78	22.75	95.00	0.05	102.70	-86.00	milky	
12:50	0.30	1.70	0.057	5.10	5.81	22.85	96.00	0.00	126.10	-97.00	orange	
12:53	0.30	2.00	0.061	5.10	5.78	22.96	96.00	0.00	145.80	-100.00	orange	
13:06	0.70	2.70	0.059	5.10	5.74	22.87	102.00	0.00	89.80	-103.00	orange	
13:11	0.30	3.00	0.058	5.10	5.68	22.61	105.00	0.00	90.80	-106.00	orange	
13:21	1.00	4.00	0.065	5.10	5.65	22.86	110.00	0.00	130.00	-109.00	orange	
13:24	0.30	4.30	0.067	5.10	5.65	23.08	111.00	0.00	155.50	-109.00	orange	

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): 0	TEMP.(°C): 23.11	DO: 1.39	CO2: 44	DO High Range:	DO Low Range:
SEC(uS/cm) 112	pH: 5.72	Alkalinity:	Ferrous Iron: 1.2	CO2 High Range:	CO2 Low Range:
ORP(mV): -109	TURB(NTU): 88.8	H2S: 0	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide: 0	Ferrous Iron: 1.2	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Damian Allen	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 13:25	SAMPLING ENDED AT: 14:30
PUMP OR TUBING DEPTH IN WELL (feet): 11.00	SAMPLE PUMP FLOW RATE (mL per minute): 256.24	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N
FIELD-FILTERED: ☑ Y ☐ N FILTER SIZE: 0.45 um
Filtration Equipment Type: AcroCap w/Super Membrane
DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-29A	12	AG;CG	ml;500 ml;	ICL;HNO3;Ot	40 ml;500 ml;1 L	5.72	Alkalinity, Chloride, Nitrate/Nitrite, Orthophosphate, Sul	Grab

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GROUNDWATER SAMPLING LOG

SITE NAME:	Operable Unit 2		SITE LOCATION:	Orlando	
WELL NO:	OLD-OU2-29A	SAMPLE ID:	896DD4724FC545A7BE87D312FD17D47D	DATE:	03/28/2012

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other

NOTES:

1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. Stabilization Criteria for range of variation of last three consecutive readings (see FS 2212, section 3)

pH: + 0.2 units Temperature: + 0.2 oC Specific Conductance: + 5% Dissolved Oxygen: all readings < 20% saturation (see Table FS 2200-2); optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

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GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-29B	SAMPLE ID: 4755A862ACAA48B18D3E3E310E10D669		DATE: 03/28/2012

PURGING DATA

WELL DIAMETER (inches): 1.00	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH (feet): 25-30	STATIC DEPTH TO WATER (feet): 6.30	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (28.95 feet – 6.30 feet) X 0.04 gallons/foot = 0.92 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 29.00 feet)+ 0.15 gallon = 0.22 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 25.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 25.00	PURGING INITIATED AT: 14:42	PURGING ENDED AT: 15:13	TOTAL VOLUME PURGED (gallons): 1.70

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
14:46		0.30	0.081	7.20	5.69	23.99	136.00	0.29	33.40	-147.00	clear	
15:02	0.70	1.00	0.050	7.30	5.56	23.68	125.00	0.41	17.50	-147.00	clear	
15:05	0.30	1.30	0.057	7.30	5.53	23.60	124.00	0.39	18.20	-147.00	clear	
15:09	0.30	1.60	0.059	7.30	5.52	23.58	124.00	0.33	19.80	-148.00	clear	

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): .22	TEMP.(°C): 23.52	DO: .24	CO2: 25	DO High Range:	DO Low Range:
SEC(uS/cm) 123	pH: 5.51	Alkalinity:	Ferrous Iron: 2.2	CO2 High Range:	CO2 Low Range:
ORP(mV): -148	TURB(NTU): 24.9	H2S: .22	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide: .2	Ferrous Iron: 2.2	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Damian Allen	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 15:13	SAMPLING ENDED AT: 16:14
PUMP OR TUBING DEPTH IN WELL (feet): 25.00	SAMPLE PUMP FLOW RATE (mL per minute): 207.59	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N
FIELD-FILTERED: ☑ Y ☐ N FILTER SIZE: 0.45 um
Filtration Equipment Type: AcroCap w/Super Membrane
DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-29B	12	AG;CG;PE	ml;500 ml;	ICL;HNO3;Ot	40 ml;500 ml;1 L	5.51	Alkalinity, Chloride, Nitrate/Nitrite, Orthophosphate, Sul	Grab

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other

NOTES:
1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. Stabilization Criteria for range of variation of last three consecutive readings (see FS 2212, section 3)
pH: + 0.2 units Temperature: + 0.2 oC Specific Conductance: + 5% Dissolved Oxygen: all readings < 20% saturation (see Table FS 2200-2); optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

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GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-30A	SAMPLE ID: A8CFC97EE4E24A3EBA52953F268C2BDE	DATE: 03/28/2012	

PURGING DATA

WELL DIAMETER (inches): 1.00	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH (feet): 5.01-15	STATIC DEPTH TO WATER (feet): 12.00	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (14.50 feet – 12.00 feet) X 0.04 gallons/foot = 0.10 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 17.00 feet)+ 0.15 gallon = 0.19 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 13.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 13.00	PURGING INITIATED AT: 15:55	PURGING ENDED AT: 17:34	TOTAL VOLUME PURGED (gallons): 1.70

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
15:59		0.10	0.027	12.00	5.47	24.98	197.20	1.29	130.30	-27.00	turbid	none
16:02	0.20	0.30	0.082	12.00	5.51	24.45	184.10	0.32	68.40	-26.00	turbid	none
16:06	0.20	0.50	0.044	12.00	5.52	23.56	164.80	0.17	26.00	-28.00	clear	none
16:09	0.20	0.70	0.078	12.00	5.53	23.45	162.30	0.17	25.90	-32.00	clear	none
16:12	0.20	0.90	0.032	12.00	5.55	23.41	160.70	0.18	39.40	-38.00	clear	none
16:17	0.20	1.10	0.000	12.00	5.54	23.57	163.70	0.20	150.10	-43.00	turbid	none
16:29	0.20	1.30	0.000	12.00	5.60	24.02	173.50	3.95	366.50	-34.00	turbid	none
16:39	0.20	1.50	0.021	12.00	5.56	24.36	182.10	1.72	303.00	-37.00	turbid	none
16:47	0.10	1.60	0.031	12.00	5.54	23.83	183.20	1.53	514.20	-42.00	turbid	none
17:33	0.10	1.70	0.017	12.00	5.51	24.50	182.80	3.94	575.30	-30.00	turbid	none

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): 3.44	TEMP.(°C): 24.61	DO:	CO2:	DO High Range:	DO Low Range:
SEC(uS/cm) 183.6	pH: 5.50	Alkalinity:	Ferrous Iron:	CO2 High Range:	CO2 Low Range:
ORP(mV): -30	TURB(NTU): 578.7	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide:	Ferrous Iron:	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Katie Ballew	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 17:34	SAMPLING ENDED AT: 17:48
PUMP OR TUBING DEPTH IN WELL (feet): 13.00	SAMPLE PUMP FLOW RATE (mL per minute): 65.00	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N
FIELD-FILTERED: ☐ Y ☑ N FILTER SIZE: NA
Filtration Equipment Type:
DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-30A	5	CG;PE	0 ml;500 m	HCL;HNO3	40 ml;500 ml	5.50	Fe	Grab

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GROUNDWATER SAMPLING LOG

SITE NAME:	Operable Unit 2		SITE LOCATION:	Orlando	
WELL NO:	OLD-OU2-30A	SAMPLE ID:	A8CFC97EE4E24A3EBA52953F268C2BDE	DATE:	03/28/2012

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other

NOTES:

1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. Stabilization Criteria for range of variation of last three consecutive readings (see FS 2212, section 3)

pH: + 0.2 units Temperature: + 0.2 oC Specific Conductance: + 5% Dissolved Oxygen: all readings < 20% saturation (see Table FS 2200-2); optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

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GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-30B	SAMPLE ID: 408429890EC246168713AB24BACBDA96		DATE: 03/28/2012

PURGING DATA

WELL DIAMETER (inches): 1.00	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH (feet): 25-30	STATIC DEPTH TO WATER (feet): 8.05	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (28.80 feet – 8.05 feet) X 0.04 gallons/foot = 0.85 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 28.00 feet)+ 0.15 gallon = 0.22 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 24.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 24.00	PURGING INITIATED AT: 17:10	PURGING ENDED AT: 17:22	TOTAL VOLUME PURGED (gallons): 1.00

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
17:15		0.30	0.067	8.05	6.07	23.57	664.00	0.16	1.90	-106.00	clear	
17:18	0.30	0.60	0.079	8.05	6.09	23.56	667.00	0.11	0.50	-99.00	clear	
17:21	0.30	0.90	0.079	8.05	6.06	23.57	666.00	0.11	0.60	-97.00	clear	

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): .1	TEMP.(°C): 23.57	DO:	CO2:	DO High Range:	DO Low Range:
SEC(uS/cm) 664	pH: 6.07	Alkalinity:	Ferrous Iron:	CO2 High Range:	CO2 Low Range:
ORP(mV): -97	TURB(NTU): .5	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide:	Ferrous Iron:	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Damian Allen	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 17:22	SAMPLING ENDED AT: 17:36
PUMP OR TUBING DEPTH IN WELL (feet): 24.00	SAMPLE PUMP FLOW RATE (mL per minute): 315.45	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N
FIELD-FILTERED: ☐ Y ☑ N FILTER SIZE: NA DUPLICATE: ☐ Y ☑ N
Filtration Equipment Type:

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-30B	5	CG;PE	0 ml;500 m	HCL;HNO3	40 ml;500 ml	6.07	Fe/Mn	Grab

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other

NOTES:
1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. Stabilization Criteria for range of variation of last three consecutive readings (see FS 2212, section 3)
pH: + 0.2 units Temperature: + 0.2 oC Specific Conductance: + 5% Dissolved Oxygen: all readings < 20% saturation (see Table FS 2200-2); optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

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GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-31A	SAMPLE ID: 94C0923E26FD4E05A9777F6836678A8A		DATE: 04/03/2012

PURGING DATA

WELL DIAMETER (inches): 1.00	TUBING DIAMETER (inches): 0.13	WELL SCREEN INTERVAL DEPTH (feet): 5.01-15	STATIC DEPTH TO WATER (feet): 12.25	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (17.75 feet – 12.25 feet) X 0.04 gallons/foot = 0.22 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 18.00 feet)+ 0.15 gallon = 0.16 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 14.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 14.00	PURGING INITIATED AT: 10:43	PURGING ENDED AT: 11:10	TOTAL VOLUME PURGED (gallons): 1.60

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
11:00		0.90	0.054	15.10	4.82	23.78	44.27	0.24	5.00	205.00	clear	none
11:04	0.20	1.10	0.053	15.10	4.80	24.04	44.59	0.20	4.20	203.00	clear	none
11:07	0.20	1.30	0.054	15.10	4.82	24.20	44.55	0.20	2.80	200.00	clear	none
11:10	0.20	1.50	0.056	15.10	4.80	24.21	44.26	0.19	3.40	200.00	clear	none

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): .19	TEMP.(°C): 24.22	DO: 124	CO2: 27	DO High Range:	DO Low Range:
SEC(uS/cm) 44.27	pH: 4.81	Alkalinity:	Ferrous Iron: 0	CO2 High Range:	CO2 Low Range:
ORP(mV): 200	TURB(NTU): 3.2	H2S: 0	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide: 0	Ferrous Iron: 0	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Katie Ballew	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 11:10	SAMPLING ENDED AT: 11:54
PUMP OR TUBING DEPTH IN WELL (feet): 14.00	SAMPLE PUMP FLOW RATE (mL per minute): 224.32	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N	FIELD-FILTERED: ☐ Y ☑ N Filtration Equipment Type:	FILTER SIZE: NA	DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-31A	12	AG;CG;PE	ml;500 ml;	ICL;HNO3;Ot	40 ml;500 ml;1 L	4.81	Alkalinity, Chloride, Nitrate/Nitrite, Orthophosphate, Sul	APP

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other

NOTES:
1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. Stabilization Criteria for range of variation of last three consecutive readings (see FS 2212, section 3)
pH: + 0.2 units Temperature: + 0.2 oC Specific Conductance: + 5% Dissolved Oxygen: all readings < 20% saturation (see Table FS 2200-2); optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

BFA Environmental Consultants

GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-31B	SAMPLE ID: F68BA616A5F34FC28B2735E472371E3E		DATE: 04/03/2012

PURGING DATA

WELL DIAMETER (inches): 1.00	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH (feet): 25-30	STATIC DEPTH TO WATER (feet): 11.90	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (32.80 feet – 11.90 feet) X 0.04 gallons/foot = 0.85 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 33.00 feet)+ 0.15 gallon = 0.23 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 29.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 29.00	PURGING INITIATED AT: 12:30	PURGING ENDED AT: 12:46	TOTAL VOLUME PURGED (gallons): 1.40

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
12:33		0.10	0.039	12.00	4.82	26.97	171.30	2.51	59.80	-87.00	milky	none
12:36	0.30	0.40	0.073	12.00	4.78	25.89	166.10	0.81	24.90	-92.00	clear	none
12:39	0.30	0.70	0.085	12.00	4.77	25.75	165.70	0.64	15.40	-94.00	clear	none
12:42	0.30	1.00	0.090	12.00	4.77	25.66	165.50	0.40	10.70	-96.00	clear	none
12:45	0.30	1.30	0.088	12.00	4.78	25.58	165.20	0.25	9.80	-84.00	clear	none

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): .24	TEMP.(°C): 25.61	DO: 0	CO2: 165	DO High Range:	DO Low Range:
SEC(uS/cm) 165	pH: 4.78	Alkalinity:	Ferrous Iron: 2	CO2 High Range:	CO2 Low Range:
ORP(mV): -84	TURB(NTU): 9.8	H2S: 1.85	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide: 1.75	Ferrous Iron: 2	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Katie Ballew	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 12:46	SAMPLING ENDED AT:
PUMP OR TUBING DEPTH IN WELL (feet): 29.00	SAMPLE PUMP FLOW RATE (mL per minute): 331.22	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☑ Y ☐ N	FIELD-FILTERED: ☐ Y ☑ N Filtration Equipment Type:	FILTER SIZE: NA	DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-31B	12	AG;CG;PE	ml;500 ml;	ICL;HNO3;Ot	40 ml;500 ml;1 L	4.78	Alkalinity, Chloride, Nitrate/Nitrite, Orthophosphate, Sul	APP

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other

NOTES:
1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. Stabilization Criteria for range of variation of last three consecutive readings (see FS 2212, section 3)
pH: + 0.2 units Temperature: + 0.2 oC Specific Conductance: + 5% Dissolved Oxygen: all readings < 20% saturation (see Table FS 2200-2); optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

BFA Environmental Consultants

GROUNDWATER SAMPLING LOG

SITE NAME:	Operable Unit 2	SITE LOCATION:	Orlando
WELL NO:	OLD-OU2-32A	SAMPLE ID: DB08A6212F164AA2B614E9F0361F47C8	DATE: 03/29/2012

PURGING DATA

WELL DIAMETER (inches): 1.00	TUBING DIAMETER (inches): 0.13	WELL SCREEN INTERVAL DEPTH (feet): 5.01-15	STATIC DEPTH TO WATER (feet): 12.60	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (17.62 feet – 12.60 feet) X 0.04 gallons/foot = 0.20 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 20.00 feet)+ 0.15 gallon = 0.16 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 16.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 16.00	PURGING INITIATED AT: 15:57	PURGING ENDED AT: 17:36	TOTAL VOLUME PURGED (gallons): 3.00

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
16:19		0.50	0.023	14.80	4.77	23.28	36.30	0.32	66.40	87.00	yellow	none
16:29	0.30	0.80	0.025	15.20	4.76	23.20	36.78	0.18	227.60	100.00	dark orange	none
16:41	0.30	1.10	0.025	15.60	4.76	23.01	37.22	0.19	176.30	93.00	dark orange	none
16:50	0.30	1.40	0.027	15.85	4.74	22.84	38.63	0.17	114.40	67.00	yellow	none
17:00	0.30	1.70	0.029	16.00	4.72	22.86	45.62	0.22	79.50	55.00	yellow	none
17:09	0.30	2.00	0.028	16.08	4.70	22.78	47.75	0.14	68.40	42.00	orange	
17:20	0.30	2.30	0.028	16.40	4.70	22.76	49.49	2.08	35.00	38.00	clear	
17:32	0.30	2.60	0.027	15.00	4.71	23.35	49.06	5.41	41.50	37.00	milky	
17:35	0.30	2.90	0.030	15.60	4.68	23.17	52.99	2.90	61.30	34.00	milky	

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): 1.99	TEMP.(°C): 23	DO:	CO2:	DO High Range:	DO Low Range:
SEC(uS/cm) 52.6	pH: 4.68	Alkalinity:	Ferrous Iron:	CO2 High Range:	CO2 Low Range:
ORP(mV): 32	TURB(NTU): 66.9	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide:	Ferrous Iron:	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Katie Ballew	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 17:36	SAMPLING ENDED AT: 17:42
PUMP OR TUBING DEPTH IN WELL (feet): 16.00	SAMPLE PUMP FLOW RATE (mL per minute): 114.71	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N
FIELD-FILTERED: ☐ Y ☑ N
Filtration Equipment Type:
FILTER SIZE: NA
DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-32A	5	CG;PE	0 ml;500 m	HCL;HNO3	40 ml;500 ml	4.68	Fe/Mn	APP

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other

NOTES:
1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. Stabilization Criteria for range of variation of last three consecutive readings (see FS 2212, section 3)
pH: + 0.2 units Temperature: + 0.2 oC Specific Conductance: + 5% Dissolved Oxygen: all readings < 20% saturation (see Table FS 2200-2); optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

BFA Environmental Consultants

GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-32B	SAMPLE ID: FDBFDC15058649028B04B85FD53A1D2C		DATE: 03/29/2012

PURGING DATA

WELL DIAMETER (inches): 1.00	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH (feet): 25-30	STATIC DEPTH TO WATER (feet): 12.98	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (33.30 feet – 12.98 feet) X 0.04 gallons/foot = 0.83 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 34.00 feet)+ 0.15 gallon = 0.23 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 30.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 30.00	PURGING INITIATED AT: 15:24	PURGING ENDED AT: 15:40	TOTAL VOLUME PURGED (gallons): 1.30

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
15:27		0.10	0.042	13.00	5.00	25.11	121.50	2.68	3.40	-63.00	clear	none
15:30	0.20	0.30	0.053	13.00	5.12	24.45	118.60	0.91	3.00	-86.00	clear	none
15:33	0.30	0.60	0.070	13.00	5.12	24.21	117.60	0.57	1.50	-92.00	clear	none
15:36	0.30	0.90	0.079	13.00	5.13	24.06	117.00	0.39	2.40	-95.00	clear	none
15:39	0.30	1.20	0.095	13.00	5.13	24.01	116.70	0.31	2.70	-96.00	clear	none

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): .3	TEMP.(°C): 23.97	DO:	CO2:	DO High Range:	DO Low Range:
SEC(uS/cm) 116.7	pH: 5.14	Alkalinity:	Ferrous Iron:	CO2 High Range:	CO2 Low Range:
ORP(mV): -97	TURB(NTU): 2.1	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide:	Ferrous Iron:	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Katie Ballew	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 15:40	SAMPLING ENDED AT: 15:45
PUMP OR TUBING DEPTH IN WELL (feet): 30.00	SAMPLE PUMP FLOW RATE (mL per minute): 307.56	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N
FIELD-FILTERED: ☐ Y ☑ N FILTER SIZE: NA
Filtration Equipment Type:
DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-32B	5	CG;PE	0 ml;500 m	HCL;HNO3	40 ml;500 ml	5.14	Fe/Mn	APP

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other

NOTES:
1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. Stabilization Criteria for range of variation of last three consecutive readings (see FS 2212, section 3)
pH: + 0.2 units Temperature: + 0.2 oC Specific Conductance: + 5% Dissolved Oxygen: all readings < 20% saturation (see Table FS 2200-2); optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

BFA Environmental Consultants

GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-33A	SAMPLE ID: D1B7089BCC414B248CE44BA4F40BD9EA		DATE: 04/05/2012

PURGING DATA

WELL DIAMETER (inches): 1.00	TUBING DIAMETER (inches): 0.13	WELL SCREEN INTERVAL DEPTH (feet): 5.01-15	STATIC DEPTH TO WATER (feet): 15.00	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (17.60 feet – 15.00 feet) X 0.04 gallons/foot = 0. 11 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 20.00 feet)+ 0.15 gallon = 0.16 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 16.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 16.00	PURGING INITIATED AT: 12:53	PURGING ENDED AT: 13:27	TOTAL VOLUME PURGED (gallons): 1.30

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
12:56		0.20	0.055	15.60	4.53	23.83	83.00	5.27	93.10	132.30	yellow	
13:00	0.20	0.40	0.053	16.70	4.54	24.12	82.00	5.60	67.00	122.10	yellow	
13:03	0.20	0.60	0.058	16.80	4.57	24.07	84.00	6.06	41.60	99.50	yellow	
13:06	0.10	0.70	0.052	16.80	4.56	24.08	85.00	6.40	26.80	72.20	clear	
13:09	0.10	0.80	0.048	16.80	4.56	24.04	85.00	6.59	15.70	33.90	clear	
13:13	0.10	0.90	0.045	16.80	4.56	24.18	85.00	6.41	14.90	1.80	clear	
13:17	0.10	1.00	0.042	16.80	4.58	24.26	85.00	6.10	5.47	-15.40	clear	
13:20	0.10	1.10	0.041	16.80	4.54	23.99	86.00	6.04	4.85	-27.90	clear	
13:22	0.10	1.20	0.040	16.80	4.53	23.97	86.00	6.10	4.64	-30.00	clear	
13:26	0.00	1.20	0.036	16.80	4.54	24.16	86.00	5.96	2.76	-36.00	clear	

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): 5.84	TEMP.(°C): 24.24	DO:	CO2:	DO High Range:	DO Low Range:
SEC(uS/cm) 87	pH: 4.57	Alkalinity:	Ferrous Iron:	CO2 High Range:	CO2 Low Range:
ORP(mV): -40.4	TURB(NTU): 2.76	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide:	Ferrous Iron:	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Damian Allen	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 13:27	SAMPLING ENDED AT: 13:45
PUMP OR TUBING DEPTH IN WELL (feet): 16.00	SAMPLE PUMP FLOW RATE (mL per minute): 144.74	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N
FIELD-FILTERED: ☐ Y ☑ N FILTER SIZE: NA
Filtration Equipment Type:
DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-33A	5	CG;PE	0 ml;500 m	HCL;HNO3	40 ml;500 ml	4.57	Fe/Mn	Grab

BFA Environmental Consultants

GROUNDWATER SAMPLING LOG

SITE NAME:	Operable Unit 2		SITE LOCATION:	Orlando	
WELL NO:	OLD-OU2-33A	SAMPLE ID:	D1B7089BCC414B248CE44BA4F40BD9EA	DATE:	04/05/2012

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other

NOTES:

1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. Stabilization Criteria for range of variation of last three consecutive readings (see FS 2212, section 3)

pH: + 0.2 units Temperature: + 0.2 oC Specific Conductance: + 5% Dissolved Oxygen: all readings < 20% saturation (see Table FS 2200-2); optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

BFA Environmental Consultants

GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-33B	SAMPLE ID: 7793B63BCC8D4C0E89363539F134BAC0		DATE: 04/05/2012

PURGING DATA

WELL DIAMETER (inches): 1.00	TUBING DIAMETER (inches): 0.13	WELL SCREEN INTERVAL DEPTH (feet): 25-30	STATIC DEPTH TO WATER (feet): 16.80	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (33.35 feet – 16.80 feet) X 0.04 gallons/foot = 0.68 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 33.00 feet)+ 0.15 gallon = 0.17 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 29.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 29.00	PURGING INITIATED AT: 13:52	PURGING ENDED AT: 14:16	TOTAL VOLUME PURGED (gallons): 1.90

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
13:55		0.30	0.113	16.80	4.69	23.44	129.00	4.20	4.49	-174.80	clear	
13:58	0.30	0.60	0.102	16.80	4.72	23.06	132.00	2.42	3.38	-195.40	clear	
14:03	0.30	0.90	0.079	16.80	4.76	23.10	133.00	1.26	2.93	-213.00	clear	
14:09	0.30	1.20	0.072	16.80	4.81	23.34	133.00	0.88	2.56	-216.80	clear	
14:12	0.30	1.50	0.077	16.80	4.83	23.41	132.00	0.86	2.40	-221.00	clear	
14:15	0.30	1.80	0.098	16.80	4.84	23.38	133.00	0.88	2.39	-222.60	clear	

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): .72	TEMP.(°C): 23.48	DO:	CO2:	DO High Range:	DO Low Range:
SEC(uS/cm) 134	pH: 4.83	Alkalinity:	Ferrous Iron:	CO2 High Range:	CO2 Low Range:
ORP(mV): -224.6	TURB(NTU): 2.39	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide:	Ferrous Iron:	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Damian Allen	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 14:16	SAMPLING ENDED AT: 14:25
PUMP OR TUBING DEPTH IN WELL (feet): 29.00	SAMPLE PUMP FLOW RATE (mL per minute): 299.68	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N	FIELD-FILTERED: ☐ Y ☑ N Filtration Equipment Type:	FILTER SIZE: NA	DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-33B	5	CG;PE	0 ml;500 m	HCL;HNO3	40 ml;500 ml	4.83	Fe/Mn	Grab

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other

NOTES:
1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. Stabilization Criteria for range of variation of last three consecutive readings (see FS 2212, section 3)
pH: + 0.2 units Temperature: + 0.2 oC Specific Conductance: + 5% Dissolved Oxygen: all readings < 20% saturation (see Table FS 2200-2); optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

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GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-37B	SAMPLE ID: CA8A1787CA82428F81A67DE6B8A8CAD2		DATE: 03/29/2012

PURGING DATA

WELL DIAMETER (inches): 1.00	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH (feet): 25-30	STATIC DEPTH TO WATER (feet): 10.40	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (33.20 feet – 10.40 feet) X 0.04 gallons/foot = 0.93 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 34.00 feet)+ 0.15 gallon = 0.23 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 30.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 30.00	PURGING INITIATED AT: 13:47	PURGING ENDED AT: 14:14	TOTAL VOLUME PURGED (gallons): 1.60

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
13:50		0.10	0.030	11.65	5.10	25.69	165.90	2.24	40.50	-79.00	milky	none
13:53	0.20	0.30	0.051	11.35	5.04	25.30	159.00	0.88	64.20	-79.00	milky	none
13:56	0.20	0.50	0.057	11.50	4.97	24.79	154.20	0.37	60.30	-80.00	milky	none
13:59	0.20	0.70	0.056	11.40	4.97	24.71	154.30	0.27	34.20	-82.00	milky	none
14:02	0.20	0.90	0.060	11.50	4.96	24.68	154.00	0.23	25.20	-82.00	milky	none
14:07	0.20	1.10	0.042	11.40	4.96	24.55	153.50	0.16	16.40	-84.00	clear	none
14:10	0.20	1.30	0.057	11.40	4.96	24.58	153.60	0.14	13.30	-85.00	clear	none
14:13	0.20	1.50	0.058	11.40	4.95	24.45	153.30	0.14	9.50	-85.00	clear	none

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): .14	TEMP.(°C): 24.44	DO:	CO2:	DO High Range:	DO Low Range:
SEC(uS/cm) 153.2	pH: 4.95	Alkalinity:	Ferrous Iron:	CO2 High Range:	CO2 Low Range:
ORP(mV): -85	TURB(NTU): 9.1	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide:	Ferrous Iron:	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Katie Ballew	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 14:14	SAMPLING ENDED AT: 14:19
PUMP OR TUBING DEPTH IN WELL (feet): 30.00	SAMPLE PUMP FLOW RATE (mL per minute): 224.32	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☑ Y ☐ N
FIELD-FILTERED: ☐ Y ☑ N FILTER SIZE: NA
Filtration Equipment Type:
DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-37B	3	CG	40 ml	HCL	40 ml	4.95	VOCs	SM

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other

NOTES:
1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. Stabilization Criteria for range of variation of last three consecutive readings (see FS 2212, section 3)
pH: + 0.2 units Temperature: + 0.2 oC Specific Conductance: + 5% Dissolved Oxygen: all readings < 20% saturation (see Table FS 2200-2); optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

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GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-41B	SAMPLE ID: 291F0106115B4C64BA415D390AC799A5		DATE: 04/09/2012

PURGING DATA

WELL DIAMETER (inches): 2.00	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH (feet): 30-35	STATIC DEPTH TO WATER (feet): 8.90	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (35.00 feet – 8.90 feet) X 0.16 gallons/foot = 4.26 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 36.00 feet)+ 0.15 gallon = 0.24 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 32.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 32.00	PURGING INITIATED AT: 13:20	PURGING ENDED AT: 13:45	TOTAL VOLUME PURGED (gallons): 1.30

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
13:23		0.10	0.040	9.10	5.09	23.45	109.00	3.40	1.28	-181.10	clear	none
13:30	0.20	0.30	0.029	9.20	5.02	23.61	102.00	1.97	1.72	-217.70	clear	none
13:35	0.40	0.70	0.048	9.20	5.02	23.52	99.00	1.58	1.96	-228.10	clear	none
13:39	0.20	0.90	0.049	9.20	5.05	23.46	100.00	1.29	0.98	-233.20	clear	none
13:43	0.30	1.20	0.068	9.20	5.05	23.37	98.00	0.16	1.53	-234.90	clear	none

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): 1.17	TEMP.(°C): 23.26	DO: .40	CO2: 130	DO High Range:	DO Low Range:
SEC(uS/cm) 99	pH: 5.05	Alkalinity:	Ferrous Iron: 1	CO2 High Range:	CO2 Low Range:
ORP(mV): -236	TURB(NTU): 1.47	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide:	Ferrous Iron: 1	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Katie Ballew	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 13:45	SAMPLING ENDED AT: 14:01
PUMP OR TUBING DEPTH IN WELL (feet): 32.00	SAMPLE PUMP FLOW RATE (mL per minute): 196.84	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N
FIELD-FILTERED: ☑ Y ☐ N FILTER SIZE: NA
Filtration Equipment Type:
DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-41B	8	AG;CG;PE	0 ml;500 m	CL;Other;Nor	40 ml;500 ml	5.05	Biogenic Gases	APP

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other

NOTES:
1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. Stabilization Criteria for range of variation of last three consecutive readings (see FS 2212, section 3)
pH: + 0.2 units Temperature: + 0.2 oC Specific Conductance: + 5% Dissolved Oxygen: all readings < 20% saturation (see Table FS 2200-2); optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

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GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-42B	SAMPLE ID: 556D2CAB4E404E6697F37EB97AA6CF67		DATE: 04/06/2012

PURGING DATA

WELL DIAMETER (inches): 2.00	TUBING DIAMETER (inches): 0.13	WELL SCREEN INTERVAL DEPTH (feet): 34-39	STATIC DEPTH TO WATER (feet): 8.50	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (39.50 feet – 8.50 feet) X 0.16 gallons/foot = 5.06 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 40.00 feet)+ 0.15 gallon = 0.17 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 36.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 36.00	PURGING INITIATED AT: 16:57	PURGING ENDED AT: 17:17	TOTAL VOLUME PURGED (gallons): 1.90

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
17:01		0.30	0.096	8.70	4.86	23.81	90.00	1.96	4.94	-214.00	clear	
17:04	0.30	0.60	0.095	8.70	4.88	23.76	90.00	1.62	4.38	-215.00	clear	
17:07	0.30	0.90	0.099	8.70	4.92	23.74	93.00	1.28	4.17	-221.40	clear	
17:10	0.30	1.20	0.095	8.70	4.97	23.75	87.00	1.17	4.14	-230.40	clear	
17:13	0.30	1.50	0.099	8.70	5.01	23.74	89.00	1.18	2.62	-229.00	clear	
17:16	0.30	1.80	0.099	8.70	5.02	23.76	90.00	1.08	1.81	-222.10	clear	

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): 1.03	TEMP.(°C): 23.79	DO: .82	CO2: 141	DO High Range:	DO Low Range:
SEC(uS/cm) 89	pH: 5.02	Alkalinity:	Ferrous Iron: 1.3	CO2 High Range:	CO2 Low Range:
ORP(mV): -218.6	TURB(NTU): 1.81	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide:	Ferrous Iron: 1.3	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Damian Allen	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 17:17	SAMPLING ENDED AT: 17:43
PUMP OR TUBING DEPTH IN WELL (feet): 36.00	SAMPLE PUMP FLOW RATE (mL per minute): 359.61	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N
FIELD-FILTERED: ☑ Y ☐ N FILTER SIZE: 0.45 um
Filtration Equipment Type: AcroCap w/Super Membrane
DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-42B	8	AG;CG;PE	0 ml;500 m	CL;Other;Nor	40 ml;500 ml	5.02	Biogenic Gases	Grab

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other

NOTES:
1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. Stabilization Criteria for range of variation of last three consecutive readings (see FS 2212, section 3)
pH: + 0.2 units Temperature: + 0.2 oC Specific Conductance: + 5% Dissolved Oxygen: all readings < 20% saturation (see Table FS 2200-2); optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

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GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-43B	SAMPLE ID: 53E3EF53578745DFBD60051FAFD2117F		DATE: 04/09/2012

PURGING DATA

WELL DIAMETER (inches): 2.00	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH (feet): 29.5-34.5	STATIC DEPTH TO WATER (feet): 8.35	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (35.00 feet – 8.35 feet) X 0.16 gallons/foot = 4.35 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 35.00 feet)+ 0.13 gallon = 0.22 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 31.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 31.00	PURGING INITIATED AT: 13:25	PURGING ENDED AT: 13:47	TOTAL VOLUME PURGED (gallons): 1.60

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
13:34		0.30	0.035	8.45	5.01	24.88	125.00	1.62	15.70	-114.70	clear	
13:38	0.30	0.60	0.047	8.40	5.01	24.35	124.00	1.18	13.80	-119.70	clear	
13:41	0.30	0.90	0.057	8.40	5.02	24.47	123.00	1.06	8.80	-124.40	clear	
13:44	0.30	1.20	0.065	8.40	5.02	24.21	124.00	0.96	8.24	-127.10	clear	
13:47	0.30	1.50	0.069	8.40	5.03	24.08	125.00	0.88	7.90	-128.10	clear	

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): .84	TEMP.(°C): 24.21	DO: 0.22	CO2: 62	DO High Range:	DO Low Range:
SEC(uS/cm) 124	pH: 5.03	Alkalinity:	Ferrous Iron: 1	CO2 High Range:	CO2 Low Range:
ORP(mV): -128.6	TURB(NTU): 7.82	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide:	Ferrous Iron: 1	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Damian Allen	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 13:47	SAMPLING ENDED AT: 14:32
PUMP OR TUBING DEPTH IN WELL (feet): 31.00	SAMPLE PUMP FLOW RATE (mL per minute): 275.30	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N
FIELD-FILTERED: ☑ Y ☐ N FILTER SIZE: 0.45 um
Filtration Equipment Type: AcroCap w/Super Membrane
DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-43B	8	AG;CG;PE	0 ml;500 m	CL;Other;Nor	40 ml;500 ml	5.03	Biogenic Gases	Grab

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other

NOTES:
1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. Stabilization Criteria for range of variation of last three consecutive readings (see FS 2212, section 3)
pH: + 0.2 units Temperature: + 0.2 oC Specific Conductance: + 5% Dissolved Oxygen: all readings < 20% saturation (see Table FS 2200-2); optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

BFA Environmental Consultants

GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-44B	SAMPLE ID: A611D9D15F3D44CE84F462AA0735B6F7		DATE: 04/10/2012

PURGING DATA

WELL DIAMETER (inches): 2.00	TUBING DIAMETER (inches): 0.13	WELL SCREEN INTERVAL DEPTH (feet): 28.5-33.5	STATIC DEPTH TO WATER (feet): 8.80	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (34.50 feet – 8.80 feet) X 0.16 gallons/foot = 4.19 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 35.00 feet)+ 0.15 gallon = 0.17 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 31.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 31.00	PURGING INITIATED AT: 11:17	PURGING ENDED AT: 11:35	TOTAL VOLUME PURGED (gallons): 1.20

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
11:18		0.10	0.061	8.82	5.10	23.33	89.00	3.51	24.20	-220.20	milky	none
11:21	0.20	0.30	0.064	8.85	5.08	23.30	88.00	2.51	11.70	-229.80	clear	none
11:24	0.20	0.50	0.071	8.82	5.09	23.36	85.00	1.97	12.40	-237.20	clear	none
11:27	0.20	0.70	0.069	8.82	5.11	23.37	86.00	1.64	11.50	-245.50	clear	none
11:30	0.20	0.90	0.067	8.85	5.11	23.35	84.00	1.49	15.30	-250.10	clear	none
11:33	0.20	1.10	0.075	8.85	5.11	23.42	84.00	1.41	10.70	-254.10	clear	none

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): 1.41	TEMP.(°C): 23.47	DO: 0	CO2: 104	DO High Range:	DO Low Range:
SEC(uS/cm) 85	pH: 5.11	Alkalinity:	Ferrous Iron: .9	CO2 High Range:	CO2 Low Range:
ORP(mV): -254.7	TURB(NTU): 10.7	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide:	Ferrous Iron: .9	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Katie Ballew	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 11:35	SAMPLING ENDED AT: 11:57
PUMP OR TUBING DEPTH IN WELL (feet): 31.00	SAMPLE PUMP FLOW RATE (mL per minute): 252.36	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N	FIELD-FILTERED: ☑ Y ☐ N Filtration Equipment Type:	FILTER SIZE: NA	DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-44B	8	AG;CG;PE	0 ml;500 m	CL;Other;Nor	40 ml;500 ml	5.11	Biogenic Gasses	APP

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other

NOTES:
1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. Stabilization Criteria for range of variation of last three consecutive readings (see FS 2212, section 3)
pH: + 0.2 units Temperature: + 0.2 oC Specific Conductance: + 5% Dissolved Oxygen: all readings < 20% saturation (see Table FS 2200-2); optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

BFA Environmental Consultants

GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-45B	SAMPLE ID: A6FB3C38ECAE4B11A22C749B9BF3851D		DATE: 04/09/2012

PURGING DATA

WELL DIAMETER (inches):	TUBING DIAMETER (inches): 0.13	WELL SCREEN INTERVAL DEPTH (feet):	STATIC DEPTH TO WATER (feet): 8.50	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (feet – 8.50 feet) X 0.00 gallons/foot = 0.00 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 36.00 feet)+ 0.15 gallon = 0.17 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 32.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 32.00	PURGING INITIATED AT: 14:40	PURGING ENDED AT: 14:59	TOTAL VOLUME PURGED (gallons): 1.30

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
14:42		0.10	0.042	8.80	5.27	23.75	102.00	4.47	6.13	-205.80	clear	none
14:47	0.20	0.30	0.045	8.85	4.93	23.57	102.00	2.07	12.60	-219.70	clear	none
14:51	0.30	0.60	0.078	8.80	4.97	23.60	99.00	1.59	17.10	-236.30	clear	none
14:54	0.30	0.90	0.095	8.80	4.99	23.69	100.00	1.35	19.50	-247.40	clear	none
14:58	0.30	1.20	0.076	8.80	5.02	23.78	100.00	1.52	19.60	-250.80	clear	none

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): 1.5	TEMP.(°C): 23.76	DO: 0	CO2: 92	DO High Range:	DO Low Range:
SEC(uS/cm) 101	pH: 5.03	Alkalinity:	Ferrous Iron: .8	CO2 High Range:	CO2 Low Range:
ORP(mV): -254.2	TURB(NTU): 19.5	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide:	Ferrous Iron: .8	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Katie Ballew	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 14:59	SAMPLING ENDED AT: 15:29
PUMP OR TUBING DEPTH IN WELL (feet): 32.00	SAMPLE PUMP FLOW RATE (mL per minute): 259.00	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N
FIELD-FILTERED: ☑ Y ☐ N FILTER SIZE: NA
Filtration Equipment Type:
DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-45B	8	AG;CG;PE	0 ml;500 m	CL;Other;Nor	40 ml;500 ml	5.03	Biogenic Gases	APP

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other

NOTES:
1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. Stabilization Criteria for range of variation of last three consecutive readings (see FS 2212, section 3)
pH: + 0.2 units Temperature: + 0.2 oC Specific Conductance: + 5% Dissolved Oxygen: all readings < 20% saturation (see Table FS 2200-2); optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

BFA Environmental Consultants

GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-46B	SAMPLE ID: 7B9D956D00454F2BA0D95FBE4C78D4BD		DATE: 04/09/2012

PURGING DATA

WELL DIAMETER (inches): 2.00	TUBING DIAMETER (inches): 0.13	WELL SCREEN INTERVAL DEPTH (feet): 30-35	STATIC DEPTH TO WATER (feet): 8.70	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (35.45 feet – 8.70 feet) X 0.16 gallons/foot = 4.37 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 35.00 feet)+ 0.13 gallon = 0.16 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 31.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 31.00	PURGING INITIATED AT: 15:44	PURGING ENDED AT: 15:57	TOTAL VOLUME PURGED (gallons): 1.30

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
15:47		0.30	0.110	8.60	5.34	24.40	98.00	1.53	3.14	-116.40	clear	
15:50	0.30	0.60	0.106	8.60	5.31	24.05	99.00	1.24	2.70	-121.10	clear	
15:53	0.30	0.90	0.097	8.60	5.24	24.09	100.00	0.88	2.56	-134.30	clear	
15:56	0.30	1.20	0.098	8.60	5.24	24.05	100.00	0.76	2.49	-135.30	clear	

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): .73	TEMP.(°C): 24.06	DO: 0.69	CO2: 57	DO High Range:	DO Low Range:
SEC(uS/cm) 101	pH: 5.24	Alkalinity:	Ferrous Iron: 2	CO2 High Range:	CO2 Low Range:
ORP(mV): -134.6	TURB(NTU): 2.49	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide:	Ferrous Iron: 2	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Damian Allen	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 15:57	SAMPLING ENDED AT: 16:34
PUMP OR TUBING DEPTH IN WELL (feet): 31.00	SAMPLE PUMP FLOW RATE (mL per minute): 378.54	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N
FIELD-FILTERED: ☑ Y ☐ N FILTER SIZE: 0.45 um
Filtration Equipment Type: AcroCap w/Super Membrane
DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-46B	8	AG;CG;PE	0 ml;500 m	CL;Other;Nor	40 ml;500 ml	5.24	Biogenic Gases	Grab

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other

NOTES:
1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. Stabilization Criteria for range of variation of last three consecutive readings (see FS 2212, section 3)
pH: + 0.2 units Temperature: + 0.2 oC Specific Conductance: + 5% Dissolved Oxygen: all readings < 20% saturation (see Table FS 2200-2); optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

BFA Environmental Consultants

GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-47B	SAMPLE ID: BF58E185F46D42A7A8D28CF1DF9FB685		DATE: 04/09/2012

PURGING DATA

WELL DIAMETER (inches): 2.00	TUBING DIAMETER (inches): 0.13	WELL SCREEN INTERVAL DEPTH (feet): 30-35	STATIC DEPTH TO WATER (feet): 8.60	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (35.00 feet – 8.60 feet) X 0.16 gallons/foot = 4.31 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 36.00 feet)+ 0.13 gallon = 0.16 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 32.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 32.00	PURGING INITIATED AT: 14:43	PURGING ENDED AT: 14:59	TOTAL VOLUME PURGED (gallons): 1.60

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
14:46		0.30	0.093	8.70	5.25	24.21	108.00	2.30	7.16	-93.60	clear	
14:49	0.30	0.60	0.105	8.70	5.18	24.12	112.00	1.66	6.98	-111.00	clear	
14:53	0.30	0.90	0.093	8.70	5.10	24.02	118.00	1.33	6.58	-116.60	clear	
14:55	0.30	1.20	0.103	8.70	5.09	23.98	118.00	1.05	6.46	-119.50	clear	
14:58	0.30	1.50	0.102	8.70	5.09	24.10	118.00	0.91	5.20	-122.80	clear	

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): 0.87	TEMP.(°C): 24.18	DO: 0.23	CO2: 22	DO High Range:	DO Low Range:
SEC(uS/cm) 119	pH: 5.09	Alkalinity:	Ferrous Iron: 2.2	CO2 High Range:	CO2 Low Range:
ORP(mV): -123.7	TURB(NTU): 5.2	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide:	Ferrous Iron: 2.2	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Damian Allen	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 14:59	SAMPLING ENDED AT: 15:33
PUMP OR TUBING DEPTH IN WELL (feet): 32.00	SAMPLE PUMP FLOW RATE (mL per minute): 378.54	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N
FIELD-FILTERED: ☑ Y ☐ N FILTER SIZE: 0.45 um
Filtration Equipment Type: AcroCap w/Super Membrane
DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-47B	8	AG;CG;PE	0 ml;500 m	CL;Other;Nor	40 ml;500 ml	5.09	Biogenic Gases	Grab

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other

NOTES:
1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. Stabilization Criteria for range of variation of last three consecutive readings (see FS 2212, section 3)
pH: + 0.2 units Temperature: + 0.2 oC Specific Conductance: + 5% Dissolved Oxygen: all readings < 20% saturation (see Table FS 2200-2); optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

BFA Environmental Consultants

GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-48B	SAMPLE ID: 1D38353C845A4C75B002083933A5E05C		DATE: 04/09/2012

PURGING DATA

WELL DIAMETER (inches): 2.00	TUBING DIAMETER (inches): 0.13	WELL SCREEN INTERVAL DEPTH (feet):	STATIC DEPTH TO WATER (feet): 8.70	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (38.20 feet – 8.70 feet) X 0.16 gallons/foot = 4.81 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 39.00 feet)+ 0.15 gallon = 0.17 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 35.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 35.00	PURGING INITIATED AT: 16:03	PURGING ENDED AT: 16:21	TOTAL VOLUME PURGED (gallons): 1.00

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
16:06		0.10	0.037	9.30	5.43	24.89	187.00	2.87	2.52	-228.20	clear	none
16:12	0.20	0.30	0.034	9.40	5.45	24.90	187.00	1.60	2.18	-239.40	clear	none
16:15	0.20	0.50	0.042	9.60	5.46	24.32	187.00	1.50	2.44	-244.10	clear	none
16:18	0.20	0.70	0.069	9.60	5.46	24.41	186.00	1.36	2.57	-247.90	clear	none
16:21	0.20	0.90	0.052	9.60	5.44	24.39	183.00	1.33	2.38	-251.00	clear	none

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): 1.32	TEMP.(°C): 24.28	DO: 0	CO2: 163	DO High Range:	DO Low Range:
SEC(uS/cm) 184	pH: 5.43	Alkalinity:	Ferrous Iron: 1	CO2 High Range:	CO2 Low Range:
ORP(mV): -251.3	TURB(NTU): 2.35	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide:	Ferrous Iron: 1	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Katie Ballew	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 16:21	SAMPLING ENDED AT: 16:44
PUMP OR TUBING DEPTH IN WELL (feet): 35.00	SAMPLE PUMP FLOW RATE (mL per minute): 210.30	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N
FIELD-FILTERED: ☑ Y ☐ N FILTER SIZE: NA
Filtration Equipment Type:
DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-48B	8	AG;CG;PE	0 ml;500 m	HCL;None	40 ml;500 ml	5.43	Biogenic Gases	APP

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other

NOTES:
1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. Stabilization Criteria for range of variation of last three consecutive readings (see FS 2212, section 3)
pH: + 0.2 units Temperature: + 0.2 oC Specific Conductance: + 5% Dissolved Oxygen: all readings < 20% saturation (see Table FS 2200-2); optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

BFA Environmental Consultants

GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-49B	SAMPLE ID: 9E6CCD60D75D471EA7E40E1B08107527	DATE: 04/09/2012	

PURGING DATA

WELL DIAMETER (inches): 2.00	TUBING DIAMETER (inches): 0.13	WELL SCREEN INTERVAL DEPTH (feet): 25-35	STATIC DEPTH TO WATER (feet): 7.80	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (35.00 feet – 7.80 feet) X 0.16 gallons/foot = 4.44 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 35.00 feet)+ 0.13 gallon = 0.16 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 31.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 31.00	PURGING INITIATED AT: 16:51	PURGING ENDED AT: 17:03	TOTAL VOLUME PURGED (gallons): 1.00

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
16:56		0.30	0.061	7.80	5.42	23.16	121.00	1.09	18.50	-157.70	yellow	
17:00	0.30	0.60	0.066	7.80	5.41	23.09	122.00	0.84	17.80	-157.90	yellow	
17:02	0.30	0.90	0.082	7.80	5.42	23.12	120.00	0.74	19.90	-160.10	yellow	

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): .73	TEMP.(°C): 23.14	DO: 0	CO2: 61	DO High Range:	DO Low Range:
SEC(uS/cm) 120	pH: 5.42	Alkalinity:	Ferrous Iron: 2.8	CO2 High Range:	CO2 Low Range:
ORP(mV): -160	TURB(NTU): 19.9	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide:	Ferrous Iron: 2.8	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Damian Allen	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 17:03	SAMPLING ENDED AT: 17:40
PUMP OR TUBING DEPTH IN WELL (feet): 31.00	SAMPLE PUMP FLOW RATE (mL per minute): 315.45	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N
FIELD-FILTERED: ☑ Y ☐ N FILTER SIZE: 0.45 um
Filtration Equipment Type: AcroCap w/Super Membrane
DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-49B	8	AG;CG;PE	0 ml;500 m	CL;Other;Nor	40 ml;500 ml	5.42	Biogenic Gases	Grab

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other

NOTES:
1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. Stabilization Criteria for range of variation of last three consecutive readings (see FS 2212, section 3)
pH: + 0.2 units Temperature: + 0.2 oC Specific Conductance: + 5% Dissolved Oxygen: all readings < 20% saturation (see Table FS 2200-2); optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

BFA Environmental Consultants

GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-50B	SAMPLE ID: C40FFAF4E48042498AA93458584DB6C2		DATE: 04/10/2012

PURGING DATA

WELL DIAMETER (inches): 2.00	TUBING DIAMETER (inches): 0.13	WELL SCREEN INTERVAL DEPTH (feet): 23-33	STATIC DEPTH TO WATER (feet): 6.30	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (33.00 feet – 6.30 feet) X 0.16 gallons/foot = 4.36 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 34.00 feet)+ 0.13 gallon = 0.15 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 30.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 30.00	PURGING INITIATED AT: 12:44	PURGING ENDED AT: 13:55	TOTAL VOLUME PURGED (gallons): 3.60

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
12:47		0.30	0.081	7.40	5.22	23.58	112.00	1.65	67.40	-189.70	milky	
12:50	0.30	0.60	0.092	6.40	5.19	23.53	110.00	1.55	66.00	-188.20	milky	
12:54	0.30	0.90	0.089	6.40	5.20	23.53	104.00	1.20	71.80	-189.30	milky	
12:59	0.30	1.20	0.077	6.40	5.25	23.52	101.00	0.95	80.10	-190.60	clear	
13:06	0.30	1.50	0.066	6.40	5.28	23.70	102.00	0.79	89.10	-189.60	milky	
13:17	1.00	2.50	0.074	6.40	5.23	24.03	100.00	0.74	56.20	-187.50	milky	
13:20	0.30	2.80	0.078	6.40	5.23	23.92	100.00	0.72	51.60	-186.00	milky	
13:24	0.30	3.10	0.076	6.40	5.22	23.78	101.00	0.71	59.50	-189.50	milky	
13:30	0.30	3.40	0.073	6.40	5.22	24.79	99.00	0.74	56.10	-189.50	milky	
13:34	0.10	3.50	0.070	6.40	5.23	25.08	99.00	0.68	55.80	-188.00	milky	

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): .68	TEMP.(°C): 25.08	DO: 0	CO2: 74	DO High Range:	DO Low Range:
SEC(uS/cm) 99	pH: 5.23	Alkalinity:	Ferrous Iron: 1.6	CO2 High Range:	CO2 Low Range:
ORP(mV): -188	TURB(NTU): 55.8	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide:	Ferrous Iron: 1.6	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Damian Allen	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 13:55	SAMPLING ENDED AT: 14:00
PUMP OR TUBING DEPTH IN WELL (feet): 30.00	SAMPLE PUMP FLOW RATE (mL per minute): 191.94	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N
FIELD-FILTERED: ☑ Y ☐ N FILTER SIZE: 0.45 um
Filtration Equipment Type: AcroCap w/Super Membrane
DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-50B	8	AG;CG;PE	0 ml;500 m	CL;Other;Nor	40 ml;500 ml	5.23	Biogenic Gases	Grab

BFA Environmental Consultants

GROUNDWATER SAMPLING LOG

SITE NAME:	Operable Unit 2		SITE LOCATION:	Orlando	
WELL NO:	OLD-OU2-50B	SAMPLE ID:	C40FFAF4E48042498AA93458584DB6C2	DATE:	04/10/2012

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other

NOTES:

1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. Stabilization Criteria for range of variation of last three consecutive readings (see FS 2212, section 3)

pH: + 0.2 units Temperature: + 0.2 oC Specific Conductance: + 5% Dissolved Oxygen: all readings < 20% saturation (see Table FS 2200-2); optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

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GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-51B	SAMPLE ID: 9671EE86C2E948E08DD95CA3C266D09C		DATE: 04/06/2012

PURGING DATA

WELL DIAMETER (inches): 2.00	TUBING DIAMETER (inches): 0.13	WELL SCREEN INTERVAL DEPTH (feet): 24-34	STATIC DEPTH TO WATER (feet): 9.70	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (34.00 feet – 9.70 feet) X 0.16 gallons/foot = 3.97 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 34.00 feet)+ 0.15 gallon = 0.17 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 30.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 30.00	PURGING INITIATED AT: 14:33	PURGING ENDED AT: 14:43	TOTAL VOLUME PURGED (gallons): 1.00

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
14:36		0.30	0.104	9.85	4.84	23.79	123.00	1.17	6.92	-243.00	clear	
14:39	0.30	0.60	0.103	9.95	4.74	23.75	123.00	0.83	7.15	-241.30	clear	
14:42	0.30	0.90	0.098	10.05	4.77	23.75	123.00	0.67	5.54	-246.30	clear	

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): .65	TEMP.(°C): 23.73	DO: 0	CO2: 32	DO High Range:	DO Low Range:
SEC(uS/cm) 124	pH: 4.77	Alkalinity:	Ferrous Iron: 2	CO2 High Range:	CO2 Low Range:
ORP(mV): -247	TURB(NTU): 5.54	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide:	Ferrous Iron: 2	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Damian Allen	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 14:43	SAMPLING ENDED AT: 15:35
PUMP OR TUBING DEPTH IN WELL (feet): 30.00	SAMPLE PUMP FLOW RATE (mL per minute): 378.54	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N
FIELD-FILTERED: ☑ Y ☐ N FILTER SIZE: 0.45 um
Filtration Equipment Type: AcroCap w/Super Membrane
DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-51B	8	AG;CG;PE	0 ml;500 m	CL;Other;Nor	40 ml;500 ml	4.77	Biogenic Gases	Grab

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other

NOTES:
1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. Stabilization Criteria for range of variation of last three consecutive readings (see FS 2212, section 3)
pH: + 0.2 units Temperature: + 0.2 oC Specific Conductance: + 5% Dissolved Oxygen: all readings < 20% saturation (see Table FS 2200-2); optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

BFA Environmental Consultants

GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-53B	SAMPLE ID: BE5E0D2A11AC41FFA48CAA84409D74F0		DATE: 04/10/2012

PURGING DATA

WELL DIAMETER (inches): 2.00	TUBING DIAMETER (inches): 0.13	WELL SCREEN INTERVAL DEPTH (feet): 25-35	STATIC DEPTH TO WATER (feet): 7.20	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (35.00 feet – 7.20 feet) X 0.16 gallons/foot = 4.54 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 36.00 feet)+ 0.15 gallon = 0.17 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 32.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 32.00	PURGING INITIATED AT: 12:07	PURGING ENDED AT:	TOTAL VOLUME PURGED (gallons):

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
12:09		0.10	0.052	8.00	5.56	24.81	115.00	2.99	1,000.00	-215.30	milky	none
12:30	0.80	0.90	0.041	11.30	5.52	24.20	109.00	1.67	1,000.00	-219.10	milky	none
12:42	0.60	1.50	0.044	12.70	5.60	24.56	108.00	1.60	1,000.00	-224.80	milky	none
12:51	0.50	2.00	0.045	13.20	5.55	24.67	106.00	1.71	1,000.00	-225.40	milky	none

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L):	TEMP.(°C):	DO:	CO2:	DO High Range:	DO Low Range:
SEC(uS/cm)	pH:	Alkalinity:	Ferrous Iron:	CO2 High Range:	CO2 Low Range:
ORP(mV):	TURB(NTU):	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide:	Ferrous Iron:	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Katie Ballew	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT:	SAMPLING ENDED AT:
PUMP OR TUBING DEPTH IN WELL (feet): 32.00	SAMPLE PUMP FLOW RATE (mL per minute): 0.00	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☑ Y ☐ N
FIELD-FILTERED: ☐ Y ☑ N
Filtration Equipment Type:
FILTER SIZE: NA
DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other

NOTES:
1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. Stabilization Criteria for range of variation of last three consecutive readings (see FS 2212, section 3)
pH: + 0.2 units Temperature: + 0.2 oC Specific Conductance: + 5% Dissolved Oxygen: all readings < 20% saturation (see Table FS 2200-2); optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

BFA Environmental Consultants

GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-53B	SAMPLE ID: D2C5CF53135D4B54824DB411B1766D29		DATE: 04/10/2012

PURGING DATA

WELL DIAMETER (inches): 2.00	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH (feet): 25-35	STATIC DEPTH TO WATER (feet): 7.35	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (35.00 feet – 7.35 feet) X 0.16 gallons/foot = 4.51 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 36.00 feet)+ 0.13 gallon = 0.13 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 32.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 32.00	PURGING INITIATED AT: 13:26	PURGING ENDED AT: 13:39	TOTAL VOLUME PURGED (gallons): 1.00

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
13:29		0.10	0.029	7.65	4.98	24.36	115.00	2.56	18.60	-224.70	clear	none
13:32	0.20	0.30	0.047	7.65	4.94	24.27	114.00	1.67	12.40	-229.80	clear	none
13:35	0.30	0.60	0.064	7.70	4.95	24.15	115.00	1.36	9.39	-237.00	clear	none
13:38	0.30	0.90	0.072	7.70	4.98	24.15	115.00	1.18	8.95	-240.90	clear	none

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): 1.14	TEMP.(°C): 24.09	DO: 0	CO2: 102	DO High Range:	DO Low Range:
SEC(uS/cm) 115	pH: 4.99	Alkalinity:	Ferrous Iron: .9	CO2 High Range:	CO2 Low Range:
ORP(mV): -242.1	TURB(NTU): 8.9	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide:	Ferrous Iron: .9	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Katie Ballew	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 13:39	SAMPLING ENDED AT: 13:51
PUMP OR TUBING DEPTH IN WELL (feet): 32.00	SAMPLE PUMP FLOW RATE (mL per minute): 291.19	TUBING MATERIAL CODE:	

FIELD DECONTAMINATION: ☐ Y ☑ N
FIELD-FILTERED: ☑ Y ☐ N FILTER SIZE: NA
Filtration Equipment Type:
DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-53B	8	AG;CG;PE	0 ml;500 m	CL;Other;Nor	40 ml;500 ml	4.99	BiogenicGases	APP

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other

NOTES:
1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. Stabilization Criteria for range of variation of last three consecutive readings (see FS 2212, section 3)
pH: + 0.2 units Temperature: + 0.2 oC Specific Conductance: + 5% Dissolved Oxygen: all readings < 20% saturation (see Table FS 2200-2); optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

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GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-DP01A	SAMPLE ID: 1E5480370FB54C94B65705C557C78AAB		DATE: 04/03/2012

PURGING DATA

WELL DIAMETER (inches): 1.00	TUBING DIAMETER (inches): 0.13	WELL SCREEN INTERVAL DEPTH (feet): 3.5-7.5	STATIC DEPTH TO WATER (feet): 2.80	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (7.44 feet – 2.80 feet) X 0.04 gallons/foot = 0.19 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 9.00 feet)+ 0.15 gallon = 0.15 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 5.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 5.00	PURGING INITIATED AT: 15:10	PURGING ENDED AT: 15:23	TOTAL VOLUME PURGED (gallons): 0.60

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
15:13		0.20	0.057	2.80	5.02	33.44	254.00	4.49	0.84	-185.20	clear	
15:16	0.20	0.40	0.059	2.80	5.04	33.45	254.00	4.55	0.84	-186.50	clear	
15:21	0.10	0.50	0.046	2.80	5.05	33.42	253.00	4.59	0.84	-188.10	clear	

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): 4.59	TEMP.(°C): 33.41	DO:	CO2:	DO High Range:	DO Low Range:
SEC(uS/cm) 253	pH: 5.05	Alkalinity:	Ferrous Iron:	CO2 High Range:	CO2 Low Range:
ORP(mV): -188	TURB(NTU): .8	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide:	Ferrous Iron:	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Damian Allen	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 15:23	SAMPLING ENDED AT: 15:31
PUMP OR TUBING DEPTH IN WELL (feet): 5.00	SAMPLE PUMP FLOW RATE (mL per minute): 174.71	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☑ Y ☐ N
FIELD-FILTERED: ☐ Y ☑ N
Filtration Equipment Type:
FILTER SIZE: NA
DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-DP01A	3	CG	40 ml	HCL	40 ml	5.05	VOCs	SM

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other

NOTES:
1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. Stabilization Criteria for range of variation of last three consecutive readings (see FS 2212, section 3)
pH: + 0.2 units Temperature: + 0.2 oC Specific Conductance: + 5% Dissolved Oxygen: all readings < 20% saturation (see Table FS 2200-2); optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

BFA Environmental Consultants

GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-DP02A	SAMPLE ID: 43921C2B70DF4042BBAA8B2182663EA3		DATE: 04/05/2012

PURGING DATA

WELL DIAMETER (inches): 1.00	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH (feet): 3.5-7.5	STATIC DEPTH TO WATER (feet): 2.75	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (8.70 feet – 2.75 feet) X 0.04 gallons/foot = 0.24 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 9.00 feet)+ 0.15 gallon = 0.17 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 5.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 5.00	PURGING INITIATED AT: 15:28	PURGING ENDED AT: 15:51	TOTAL VOLUME PURGED (gallons): 1.40

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
15:31		0.30	0.108	2.75	4.44	27.42	151.00	4.55	3.02	-160.00	clear	
15:34	0.30	0.60	0.107	2.75	4.44	27.05	150.00	3.99	3.02	-178.00	clear	
15:37	0.30	0.90	0.097	2.75	4.60	27.92	129.00	4.85	1.68	-191.10	clear	
15:40	0.10	1.00	0.087	2.75	4.70	28.53	127.00	5.49	1.99	-194.10	clear	
15:44	0.10	1.10	0.070	2.75	4.81	29.52	128.00	5.38	2.76	-200.70	clear	
15:47	0.10	1.20	0.065	2.75	4.75	29.63	128.00	5.55	2.78	-197.80	clear	
15:50	0.10	1.30	0.061	2.75	4.74	29.87	130.00	5.36	2.43	-197.70	clear	

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): 5.24	TEMP.(°C): 29.88	DO: 0.47	CO2: 74	DO High Range:	DO Low Range:
SEC(uS/cm) 132	pH: 4.72	Alkalinity:	Ferrous Iron: 2.6	CO2 High Range:	CO2 Low Range:
ORP(mV): -197.6	TURB(NTU): 2.43	H2S: 1.484	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide: 1.4	Ferrous Iron: 2.6	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Damian Allen	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 15:51	SAMPLING ENDED AT: 17:19
PUMP OR TUBING DEPTH IN WELL (feet): 5.00	SAMPLE PUMP FLOW RATE (mL per minute): 230.42	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N
FIELD-FILTERED: ☐ Y ☑ N FILTER SIZE: NA
Filtration Equipment Type:
DUPLICATE: ☑ Y ☐ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-DP02A	12	AG;CG;PE	ml;500 ml;	ICL;HNO3;Ot	40 ml;500 ml;1 L	4.72	Alkalinity, Chloride, Nitrate/Nitrite, Orthophosphate, Sul	Grab

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other

NOTES:
1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. Stabilization Criteria for range of variation of last three consecutive readings (see FS 2212, section 3)

pH: + 0.2 units Temperature: + 0.2 oC Specific Conductance: + 5% Dissolved Oxygen: all readings < 20% saturation (see Table FS 2200-2); optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

BFA Environmental Consultants

GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-LG1	SAMPLE ID: 36B492E65ADA40079BDDDEC24D66214C		DATE: 03/28/2012

PURGING DATA

WELL DIAMETER (inches): 0.00	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH (feet):	STATIC DEPTH TO WATER (feet): 0.00	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (0.00 feet – 0.00 feet) X 0.00 gallons/foot = 0.00 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons+(0.00 gallons/foot X 4.00 feet)+ 0.00 gallon = 0.00 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT: 13:06	PURGING ENDED AT: 13:07	TOTAL VOLUME PURGED (gallons): 0.00

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
13:06		0.10	0.667	0.00	7.42	30.96	182.90	8.76	13.90	121.00	clear	none

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L):	TEMP.(°C):	DO:	CO2:	DO High Range:	DO Low Range:
SEC(uS/cm)	pH:	Alkalinity:	Ferrous Iron:	CO2 High Range:	CO2 Low Range:
ORP(mV):	TURB(NTU):	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide:	Ferrous Iron:	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Katie Ballew	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 13:07	SAMPLING ENDED AT: 13:08
PUMP OR TUBING DEPTH IN WELL (feet):	SAMPLE PUMP FLOW RATE (mL per minute): 0.00	TUBING MATERIAL CODE:	

FIELD DECONTAMINATION: ☐ Y ☑ N
FIELD-FILTERED: ☐ Y ☑ N FILTER SIZE: NA
Filtration Equipment Type:
DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-LG1	3	CG	40 ml	HCL	40 ml		VOCs	Grab

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other

NOTES:
1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. Stabilization Criteria for range of variation of last three consecutive readings (see FS 2212, section 3)
pH: + 0.2 units Temperature: + 0.2 oC Specific Conductance: + 5% Dissolved Oxygen: all readings < 20% saturation (see Table FS 2200-2); optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

BFA Environmental Consultants

GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-SW29	SAMPLE ID: 6FF617503ADB419ABE38FC3012208E45		DATE: 03/28/2012

PURGING DATA

WELL DIAMETER (inches): 0.00	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH (feet):	STATIC DEPTH TO WATER (feet): 0.00	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (0.00 feet – 0.00 feet) X 0.00 gallons/foot = 0.00 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons+(0.00 gallons/foot X 4.00 feet)+ 0.00 gallon = 0.00 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT: 11:56	PURGING ENDED AT: 12:02	TOTAL VOLUME PURGED (gallons): 0.10

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
11:57			0.000	0.00	6.58	26.86	223.90	7.98	32.80	105.00	clear	none

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L):	TEMP.(°C):	DO:	CO2:	DO High Range:	DO Low Range:
SEC(uS/cm)	pH:	Alkalinity:	Ferrous Iron:	CO2 High Range:	CO2 Low Range:
ORP(mV):	TURB(NTU):	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide:	Ferrous Iron:	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Katie Ballew	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 12:02	SAMPLING ENDED AT:
PUMP OR TUBING DEPTH IN WELL (feet):	SAMPLE PUMP FLOW RATE (mL per minute): 63.09	TUBING MATERIAL CODE:	

FIELD DECONTAMINATION: ☐ Y ☑ N	FIELD-FILTERED: ☐ Y ☑ N Filtration Equipment Type:	FILTER SIZE: NA	DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-SW29	4	CG;PE	0 ml;500 m	HCL;HNO3	40 ml;500 ml		Fe	Grab

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other

NOTES:
1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. Stabilization Criteria for range of variation of last three consecutive readings (see FS 2212, section 3)
pH: + 0.2 units Temperature: + 0.2 oC Specific Conductance: + 5% Dissolved Oxygen: all readings < 20% saturation (see Table FS 2200-2); optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

BFA Environmental Consultants

GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-SW30	SAMPLE ID: 401183D7F2E6497281DE580C8FBCA695		DATE: 03/28/2012

PURGING DATA

WELL DIAMETER (inches): 0.00	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH (feet):	STATIC DEPTH TO WATER (feet): 0.00	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (0.00 feet – 0.00 feet) X 0.00 gallons/foot = 0.00 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons+(0.00 gallons/foot X 4.00 feet)+ 0.00 gallon = 0.00 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT: 12:13	PURGING ENDED AT: 12:16	TOTAL VOLUME PURGED (gallons): 0.00

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
12:15			0.000	0.00	6.90	25.87	190.70	7.55	25.40	112.00	clear	none

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L):	TEMP.(°C):	DO:	CO2:	DO High Range:	DO Low Range:
SEC(uS/cm)	pH:	Alkalinity:	Ferrous Iron:	CO2 High Range:	CO2 Low Range:
ORP(mV):	TURB(NTU):	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide:	Ferrous Iron:	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Katie Ballew	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 12:16	SAMPLING ENDED AT: 12:17
PUMP OR TUBING DEPTH IN WELL (feet):	SAMPLE PUMP FLOW RATE (mL per minute): 0.00	TUBING MATERIAL CODE:	

FIELD DECONTAMINATION: ☑ Y ☐ N | FIELD-FILTERED: ☐ Y ☑ N | FILTER SIZE: NA | DUPLICATE: ☐ Y ☑ N
Filtration Equipment Type:

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-SW30	4	CG;PE	0 ml;500 m	HCL;HNO3	40 ml;500 ml		Fe	Grab

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other

NOTES:
1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. Stabilization Criteria for range of variation of last three consecutive readings (see FS 2212, section 3)
pH: + 0.2 units Temperature: + 0.2 oC Specific Conductance: + 5% Dissolved Oxygen: all readings < 20% saturation (see Table FS 2200-2); optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

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GROUNDWATER SAMPLING LOG

SITE NAME:	Operable Unit 2		SITE LOCATION:	Orlando	
WELL NO:	OLD-OU2-SW31	SAMPLE ID:	B96A98E861BE46918CA95F4AA2270171	DATE:	03/28/2012

PURGING DATA

WELL DIAMETER (inches): 0.00	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH (feet):	STATIC DEPTH TO WATER (feet): 0.00	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (0.00 feet – 0.00 feet) X 0.00 gallons/foot = 0.00 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons+(0.00 gallons/foot X 4.00 feet)+ 0.00 gallon = 0.00 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT: 12:30	PURGING ENDED AT: 12:33	TOTAL VOLUME PURGED (gallons): 0.00

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
12:32		0.10	0.046	0.00	7.07	27.06	169.60	7.67	77.90	100.00	turbid	none

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L):	TEMP.(°C):	DO:	CO2:	DO High Range:	DO Low Range:
SEC(uS/cm)	pH:	Alkalinity:	Ferrous Iron:	CO2 High Range:	CO2 Low Range:
ORP(mV):	TURB(NTU):	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide:	Ferrous Iron:	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Katie Ballew	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 12:33	SAMPLING ENDED AT: 12:34
PUMP OR TUBING DEPTH IN WELL (feet):	SAMPLE PUMP FLOW RATE (mL per minute): 0.00	TUBING MATERIAL CODE:	

FIELD DECONTAMINATION: ☑ Y ☐ N	FIELD-FILTERED: ☐ Y ☑ N Filtration Equipment Type:	FILTER SIZE: NA	DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-SW31	4	CG;PE	0 ml;500 m	HCL;HNO3	40 ml;500 ml		Fe	Grab

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other

NOTES:
1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. Stabilization Criteria for range of variation of last three consecutive readings (see FS 2212, section 3)
pH: + 0.2 units Temperature: + 0.2 oC Specific Conductance: + 5% Dissolved Oxygen: all readings < 20% saturation (see Table FS 2200-2); optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

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GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-SW32	SAMPLE ID: BFB1D54FAB5A4800BBA55148B58B31BB		DATE: 03/28/2012

PURGING DATA

WELL DIAMETER (inches): 0.00	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH (feet):	STATIC DEPTH TO WATER (feet): 0.00	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (0.00 feet – 0.00 feet) X 0.00 gallons/foot = 0.00 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons+(0.00 gallons/foot X 4.00 feet)+ 0.00 gallon = 0.00 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT: 14:48	PURGING ENDED AT: 14:51	TOTAL VOLUME PURGED (gallons): 0.00

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
14:51			0.000	0.00	5.60	35.03	106.90	5.93	247.10	128.00	turbid	none

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L):	TEMP.(°C):	DO:	CO2:	DO High Range:	DO Low Range:
SEC(uS/cm)	pH:	Alkalinity:	Ferrous Iron:	CO2 High Range:	CO2 Low Range:
ORP(mV):	TURB(NTU):	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide:	Ferrous Iron:	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Katie Ballew	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 14:51	SAMPLING ENDED AT: 14:52
PUMP OR TUBING DEPTH IN WELL (feet):	SAMPLE PUMP FLOW RATE (mL per minute): 0.00	TUBING MATERIAL CODE:	

FIELD DECONTAMINATION: ☑ Y ☐ N
FIELD-FILTERED: ☐ Y ☑ N
Filtration Equipment Type:
FILTER SIZE: NA
DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-SW32	4	CG;PE	0 ml;500 m	HCL;HNO3	40 ml;500 ml		Fe	Grab

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other

NOTES:
1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. Stabilization Criteria for range of variation of last three consecutive readings (see FS 2212, section 3)
pH: + 0.2 units Temperature: + 0.2 oC Specific Conductance: + 5% Dissolved Oxygen: all readings < 20% saturation (see Table FS 2200-2); optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

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GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-SW33	SAMPLE ID: 21CC66B567114160B3056437259F589C		DATE: 03/28/2012

PURGING DATA

WELL DIAMETER (inches): 0.00	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH (feet):	STATIC DEPTH TO WATER (feet): 0.00	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (0.00 feet – 0.00 feet) X 0.00 gallons/foot = 0.00 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons+(0.00 gallons/foot X 4.00 feet)+ 0.00 gallon = 0.00 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT: 14:30	PURGING ENDED AT: 14:33	TOTAL VOLUME PURGED (gallons): 0.00

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
14:33			0.000	0.00	5.26	34.93	157.70	5.44	92.20	151.00	turbid	none

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L):	TEMP.(°C):	DO:	CO2:	DO High Range:	DO Low Range:
SEC(uS/cm)	pH:	Alkalinity:	Ferrous Iron:	CO2 High Range:	CO2 Low Range:
ORP(mV):	TURB(NTU):	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide:	Ferrous Iron:	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Katie Ballew	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 14:33	SAMPLING ENDED AT: 14:36
PUMP OR TUBING DEPTH IN WELL (feet):	SAMPLE PUMP FLOW RATE (mL per minute): 0.00	TUBING MATERIAL CODE:	

FIELD DECONTAMINATION: ☑ Y ☐ N
FIELD-FILTERED: ☐ Y ☑ N
Filtration Equipment Type:
FILTER SIZE: NA
DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-SW33	4	CG;PE	0 ml;500 m	HCL;HNO3	40 ml;500 ml		Fe	Grab

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other

NOTES:
1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. Stabilization Criteria for range of variation of last three consecutive readings (see FS 2212, section 3)
pH: + 0.2 units Temperature: + 0.2 oC Specific Conductance: + 5% Dissolved Oxygen: all readings < 20% saturation (see Table FS 2200-2); optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

BFA Environmental Consultants

GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-SW34	SAMPLE ID: 1699C0E368964E0E9F1B3732C55AE79A		DATE: 03/28/2012

PURGING DATA

WELL DIAMETER (inches): 0.00	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH (feet):	STATIC DEPTH TO WATER (feet): 0.00	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (0.00 feet – 0.00 feet) X 0.00 gallons/foot = 0.00 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons+(0.00 gallons/foot X 4.00 feet)+ 0.00 gallon = 0.00 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT: 14:12	PURGING ENDED AT: 14:15	TOTAL VOLUME PURGED (gallons): 0.00

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
14:15			0.000	0.00	6.13	25.00	248.80	2.68	148.60	15.00	turbid	none

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L):	TEMP.(°C):	DO:	CO2:	DO High Range:	DO Low Range:
SEC(uS/cm)	pH:	Alkalinity:	Ferrous Iron:	CO2 High Range:	CO2 Low Range:
ORP(mV):	TURB(NTU):	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide:	Ferrous Iron:	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Katie Ballew	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 14:15	SAMPLING ENDED AT: 14:17
PUMP OR TUBING DEPTH IN WELL (feet):	SAMPLE PUMP FLOW RATE (mL per minute): 0.00	TUBING MATERIAL CODE:	

FIELD DECONTAMINATION: ☑ Y ☐ N
FIELD-FILTERED: ☐ Y ☑ N
Filtration Equipment Type:
FILTER SIZE: NA
DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-SW34	4	CG;PE	0 ml;500 m	HCL;HNO3	40 ml;500 ml		Fe	Grab

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other

NOTES:
1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. Stabilization Criteria for range of variation of last three consecutive readings (see FS 2212, section 3)
pH: + 0.2 units Temperature: + 0.2 oC Specific Conductance: + 5% Dissolved Oxygen: all readings < 20% saturation (see Table FS 2200-2); optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

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GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-SW35	SAMPLE ID: 1DECF880416C443681268344A2F33B78		DATE: 03/28/2012

PURGING DATA

WELL DIAMETER (inches): 0.00	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH (feet):	STATIC DEPTH TO WATER (feet): 0.00	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (0.00 feet – 0.00 feet) X 0.00 gallons/foot = 0.00 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons+(0.00 gallons/foot X 4.00 feet)+ 0.00 gallon = 0.00 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT: 13:58	PURGING ENDED AT: 14:00	TOTAL VOLUME PURGED (gallons): 0.00

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
13:58			0.000	0.00	6.21	29.53	171.30	5.55	58.70	105.00	turbid	none

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L):	TEMP.(°C):	DO:	CO2:	DO High Range:	DO Low Range:
SEC(uS/cm)	pH:	Alkalinity:	Ferrous Iron:	CO2 High Range:	CO2 Low Range:
ORP(mV):	TURB(NTU):	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide:	Ferrous Iron:	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Katie Ballew	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 14:00	SAMPLING ENDED AT: 14:00
PUMP OR TUBING DEPTH IN WELL (feet):	SAMPLE PUMP FLOW RATE (mL per minute): 0.00	TUBING MATERIAL CODE:	

FIELD DECONTAMINATION: ☑ Y ☐ N	FIELD-FILTERED: ☐ Y ☑ N Filtration Equipment Type:	FILTER SIZE: NA	DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-SW35	4	CG;PE	0 ml;500 m	HCL;HNO3	40 ml;500 ml		Fe	Grab

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other

NOTES:
1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. Stabilization Criteria for range of variation of last three consecutive readings (see FS 2212, section 3)
pH: + 0.2 units Temperature: + 0.2 oC Specific Conductance: + 5% Dissolved Oxygen: all readings < 20% saturation (see Table FS 2200-2); optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

BFA Environmental Consultants

GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-SW36	SAMPLE ID: 64A6DB33A8EF45B2AB49FA675E9BA1BA		DATE: 03/28/2012

PURGING DATA

WELL DIAMETER (inches): 0.00	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH (feet):	STATIC DEPTH TO WATER (feet): 0.00	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (0.00 feet – 0.00 feet) X 0.00 gallons/foot = 0.00 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons+(0.00 gallons/foot X 4.00 feet)+ 0.00 gallon = 0.00 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT: 13:36	PURGING ENDED AT: 13:36	TOTAL VOLUME PURGED (gallons): 0.00

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
13:37		0.10	0.500	0.00	6.91	34.98	216.50	7.00	123.60	52.00	turbid	none

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L):	TEMP.(°C):	DO:	CO2:	DO High Range:	DO Low Range:
SEC(uS/cm)	pH:	Alkalinity:	Ferrous Iron:	CO2 High Range:	CO2 Low Range:
ORP(mV):	TURB(NTU):	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide:	Ferrous Iron:	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Katie Ballew	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 13:36	SAMPLING ENDED AT: 13:41
PUMP OR TUBING DEPTH IN WELL (feet):	SAMPLE PUMP FLOW RATE (mL per minute): 0.00	TUBING MATERIAL CODE:	

FIELD DECONTAMINATION: ☑ Y ☐ N
FIELD-FILTERED: ☐ Y ☑ N
Filtration Equipment Type:
FILTER SIZE: NA
DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-SW36	4	CG;PE	0 ml;500 m	HCL;HNO3	40 ml;500 ml		Fe	Grab

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other

NOTES:
1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. Stabilization Criteria for range of variation of last three consecutive readings (see FS 2212, section 3)
pH: + 0.2 units Temperature: + 0.2 oC Specific Conductance: + 5% Dissolved Oxygen: all readings < 20% saturation (see Table FS 2200-2); optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

BFA Environmental Consultants

GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-18B	SAMPLE ID: 832AEC753CC544458511876896FB5745		DATE: 04/23/2012

PURGING DATA

WELL DIAMETER (inches): 2.00	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH (feet): 28.6-33.6	STATIC DEPTH TO WATER (feet): 9.50	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (33.63 feet – 9.50 feet) X 0.16 gallons/foot = 3.94 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 34.00 feet)+ 0.13 gallon = 0.22 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 30.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 30.00	PURGING INITIATED AT: 13:10	PURGING ENDED AT: 14:24	TOTAL VOLUME PURGED (gallons): 4.60

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
13:13		0.30	0.095	9.55	5.27	24.42	104.00	0.59	495.00	-120.00	clear	
13:16	0.30	0.60	0.094	9.55	5.27	24.33	102.00	0.21	278.50	-129.00	milky	
13:19	0.30	0.90	0.097	9.55	5.21	24.49	102.00	0.16	329.00	-134.00	milky	
13:42	0.60	1.50	0.046	9.55	5.38	24.42	100.00	0.04	117.60	-153.00	milky	
13:58	1.00	2.50	0.051	9.55	5.30	24.27	102.00	0.09	63.90	-160.00	milky	
14:24	2.00	4.50	0.061	9.55	5.36	24.31	100.00	0.10	18.70	-162.00	milky	

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L):	TEMP.(°C):	DO:	CO2:	DO High Range:	DO Low Range:
SEC(uS/cm)	pH:	Alkalinity:	Ferrous Iron:	CO2 High Range:	CO2 Low Range:
ORP(mV):	TURB(NTU):	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide:	Ferrous Iron:	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Damian Allen	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 14:24	SAMPLING ENDED AT: 14:32
PUMP OR TUBING DEPTH IN WELL (feet): 30.00	SAMPLE PUMP FLOW RATE (mL per minute): 235.31	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N	FIELD-FILTERED: ☐ Y ☑ N Filtration Equipment Type:	FILTER SIZE: NA	DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-18B	1	PE	1 L	None	1 L		Alkalinity, Chloride, Nitrate/Nitrite, Orthophosphate, Sul	APP

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other

NOTES:
1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. Stabilization Criteria for range of variation of last three consecutive readings (see FS 2212, section 3)
pH: + 0.2 units Temperature: + 0.2 oC Specific Conductance: + 5% Dissolved Oxygen: all readings < 20% saturation (see Table FS 2200-2); optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

BFA Environmental Consultants

GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-21A	SAMPLE ID: 23AFEFA73E6D49478E6947F433861A52	DATE: 04/23/2012	

PURGING DATA

WELL DIAMETER (inches): 2.00	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH (feet): 6.8-16.8	STATIC DEPTH TO WATER (feet): 10.50	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (17.22 feet – 10.50 feet) X 0.16 gallons/foot = 1.10 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 19.00 feet)+ 0.13 gallon = 0.18 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 15.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 15.00	PURGING INITIATED AT: 15:43	PURGING ENDED AT: 15:52	TOTAL VOLUME PURGED (gallons): 1.00

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
15:46		0.30	0.118	10.50	4.29	24.79	69.00	1.35	1.90	68.00	clear	
15:49	0.30	0.60	0.100	10.50	4.26	24.55	69.00	0.99	2.00	89.00	clear	
15:52	0.30	0.90	0.106	10.50	4.25	24.53	70.00	1.03	1.90	100.00	clear	

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L):	TEMP.(°C):	DO:	CO2:	DO High Range:	DO Low Range:
SEC(uS/cm)	pH:	Alkalinity:	Ferrous Iron:	CO2 High Range:	CO2 Low Range:
ORP(mV):	TURB(NTU):	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide:	Ferrous Iron:	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Damian Allen	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 15:52	SAMPLING ENDED AT: 15:54
PUMP OR TUBING DEPTH IN WELL (feet): 15.00	SAMPLE PUMP FLOW RATE (mL per minute): 420.60	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N
FIELD-FILTERED: ☐ Y ☑ N FILTER SIZE: NA
Filtration Equipment Type:
DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-21A	1	PE	1 L	None	1 L		Alkalinity, Chloride, Nitrate/Nitrite, Orthophosphate, Sul	APP

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other

NOTES:
1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. Stabilization Criteria for range of variation of last three consecutive readings (see FS 2212, section 3)
pH: + 0.2 units Temperature: + 0.2 oC Specific Conductance: + 5% Dissolved Oxygen: all readings < 20% saturation (see Table FS 2200-2); optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

BFA Environmental Consultants

GROUNDWATER SAMPLING LOG

SITE NAME: Operable Unit 2		SITE LOCATION: Orlando	
WELL NO: OLD-OU2-21B	SAMPLE ID: 51615754FF6F40319B56436ABEAE26EA		DATE: 04/23/2012

PURGING DATA

WELL DIAMETER (inches): 2.00	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH (feet): 27.5-32.5	STATIC DEPTH TO WATER (feet): 10.50	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (32.70 feet – 10.50 feet) X 0.16 gallons/foot = 3.62 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 33.00 feet)+ 0.13 gallon = 0.22 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 29.00	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 29.00	PURGING INITIATED AT: 15:18	PURGING ENDED AT: 15:27	TOTAL VOLUME PURGED (gallons): 1.00

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
15:21		0.30	0.094	10.50	5.20	25.96	173.00	1.06	13.90	-98.00	clear	
15:24	0.30	0.60	0.103	10.50	5.25	25.89	171.00	0.79	9.70	-104.00	clear	
15:27	0.30	0.90	0.102	10.50	5.13	25.64	168.00	0.63	9.00	-108.00	clear	

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L):	TEMP.(°C):	DO:	CO2:	DO High Range:	DO Low Range:
SEC(uS/cm)	pH:	Alkalinity:	Ferrous Iron:	CO2 High Range:	CO2 Low Range:
ORP(mV):	TURB(NTU):	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide:	Ferrous Iron:	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Damian Allen	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 15:27	SAMPLING ENDED AT: 15:35
PUMP OR TUBING DEPTH IN WELL (feet): 29.00	SAMPLE PUMP FLOW RATE (mL per minute): 420.60	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N
FIELD-FILTERED: ☐ Y ☑ N FILTER SIZE: NA
Filtration Equipment Type:
DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-21B	1	PE	1 L	None	1 L		Alkalinity, Chloride, Nitrate/Nitrite, Orthophosphate, Sul	APP

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other

NOTES:
1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. Stabilization Criteria for range of variation of last three consecutive readings (see FS 2212, section 3)
pH: + 0.2 units Temperature: + 0.2 oC Specific Conductance: + 5% Dissolved Oxygen: all readings < 20% saturation (see Table FS 2200-2); optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

BFA Environmental Consultants

GROUNDWATER SAMPLING LOG

SITE NAME:	Operable Unit 2		SITE LOCATION:	Orlando	
WELL NO:	OLD-OU2-DP02A	SAMPLE ID:	EA6FD738E5EA44E8B7EDFE664701C7BD	DATE:	04/23/2012

PURGING DATA

WELL DIAMETER (inches): 1.00	TUBING DIAMETER (inches): 0.25	WELL SCREEN INTERVAL DEPTH (feet): 3.5-7.5	STATIC DEPTH TO WATER (feet): 5.20	PURGE PUMP TYPE OR SAMPLER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
= (8.70 feet – 5.20 feet) X 0.04 gallons/foot = 0.14 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= 0.00 gallons+(0.00 gallons/foot X 11.50 feet)+ 0.13 gallon = 0.16 gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 7.50	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 7.50	PURGING INITIATED AT: 12:39	PURGING ENDED AT: 12:48	TOTAL VOLUME PURGED (gallons): 1.00

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	SEC (uS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	ORP Reading	COLOR (describe)	ODOR (describe)
12:43		0.30	0.083	7.50	4.41	26.41	126.00	1.58	7.60	4.00	clear	
12:45	0.30	0.60	0.094	7.50	4.49	26.52	127.00	1.66	8.70	-9.00	clear	
12:48	0.30	0.90	0.132	7.50	4.57	26.58	136.00	1.66	8.30	-18.00	clear	

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

FIELD/TEST KIT

Final Purge Readings		Hach Field Data(mg/L)		CHEMetrics Field Data(mg/L)	
DO(mg/L): 1.62	TEMP.(°C): 26.65	DO:	CO2:	DO High Range:	DO Low Range:
SEC(uS/cm) 140	pH: 4.52	Alkalinity:	Ferrous Iron:	CO2 High Range:	CO2 Low Range:
ORP(mV): -20	TURB(NTU): 8.3	H2S:	Maganese:	Alkalinity High Range:	Alkalinity Low Range:
Salinity:		Sulfate:	Sulfide:	Ferrous Iron:	
		Nitrate:			

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Damian Allen	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 12:48	SAMPLING ENDED AT: 12:58
PUMP OR TUBING DEPTH IN WELL (feet): 7.50	SAMPLE PUMP FLOW RATE (mL per minute): 420.60	TUBING MATERIAL CODE: PPE	

FIELD DECONTAMINATION: ☐ Y ☑ N
FIELD-FILTERED: ☐ Y ☑ N FILTER SIZE: NA
Filtration Equipment Type:
DUPLICATE: ☐ Y ☑ N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	NO. OF CONTAIN.	MAT CODE	VOL	PRESERV USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
OLD-OU2-DP02A	1	PE	1 L	None	1 L	4.52	Alkalinity, Chloride, Nitrate/Nitrite, Orthophosphate, Sul	APP

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other

NOTES:
1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. Stabilization Criteria for range of variation of last three consecutive readings (see FS 2212, section 3)
pH: + 0.2 units Temperature: + 0.2 oC Specific Conductance: + 5% Dissolved Oxygen: all readings < 20% saturation (see Table FS 2200-2); optionally, + 0.2 mg/L or + 10% (whichever is greater) Turbidity: all readings < 20 NTU; optionally + 5 NTU or + 10% (whichever is greater)

APPENDIX C
Field Instrument Calibration Reports

Form FD 9000-8: Field Instrument Calibration Records			
INSTRUMENT (MAKE/MODEL#)	Hydrolab DS-5	INSTRUMENT #	SN 090600047993

STANDARDS: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased]*

Standard	Type	Value	Origin	Date Purchased	Expiration Date
Standard A	Saturated Water	100%	DIW from Accutest	NA	NA
Standard B	pH	4.01	Oakton	03/2012	08/2013
Standard C	pH	7	Oakton	03/2012	09/2013
Standard D	pH	10.01	Oakton	03/2012	12/2012
Standard E	Turbidity	40NTU	HACH StablCal	x	x
Standard F	Turbidity	0	DIW from Accutest	NA	NA
Standard G	Turbidity	200NTU	HACH StablCal	03/2011	06/2012
Standard H	Conductance	447 µS/cm	Oakton	03/2012	06/2012
Standard I	Conductance	84 µS/cm	Oakton	03/2012	11/2012
Standard J	ORP	240mv	Vital Sine	07/2010	11/2013
Standard K	ORP	470	Hanna	03/2011	09/2015
Standard L	1) pH	4.01	Autocal	x	x
	2) Turbidity	0			
	3) Conductance	4.49ms/cm			

DATE (yy/mm/dd)	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	RECALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
12/03/16	10:43	B	4.01	3.94		N	I	DA
		G	200	191.3		N	I	DA
		H	447	475		N	I	DA
		K	470	472		N	I	DA
		A	100	102		N	I	DA
12/03/19	09:54	B	4.01	4.04		N	C	DA
		G	200	190.6		N	C	DA
		H	447	467		N	C	DA
		A	100	98.2		N	C	DA
12/03/20	09:55	C	7	7.11		N	C	DA
		G	200	198.6		N	C	DA
		H	447	469		N	C	DA
		A	100	100.6		N	C	DA
12/03/21	10:22	C	7	7.15		Y	C	DA
		G	200	193.1		N	C	DA
		H	447	472		Y	C	DA
		A	100	100.8		N	C	DA
12/03/23	10:24	C	7	7.02		N	C	DA
		G	200	185.5		N	C	DA
		H	447	464		N	C	DA
		A	100	98.5		N	C	DA
12/03/27	10:39	B	4.01	4.06		N	C	KB
		G	200	185.3		N	C	KB
		H	447	477		N	C	KB
		A	100	98.6		N	C	KB
12/03/28	10:28	C	7	7.01		N	C	DA
		G	200	178.5		Y	C	DA
		H	447	487		Y	C	DA
		A	100	95.6		N	C	DA
12/03/29	12:00	C	7	7.03		N	C	DA
		G	200	192.3		N	C	DA
		H	467	466		N	C	DA
		A	100	95		N	C	DA
12/04/11	10:45	C	7	6.93		N	I	DA

Form FD 9000-8: Field Instrument Calibration Records								
INSTRUMENT (MAKE/MODEL#)		Hydrolab DS-5			INSTRUMENT #		SN 090600047993	
STANDARDS: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased]*								
Standard	Type	Value	Origin		Date Purchased		Expiration Date	
Standard A	Saturated Water	100%	DIW from Accutest		NA		NA	
Standard B	pH	4.01	Oakton		03/2012		08/2013	
Standard C	pH	7	Oakton		03/2012		09/2013	
Standard D	pH	10.01	Oakton		03/2012		12/2012	
Standard E	Turbidity	40NTU	HACH StablCal		x		x	
Standard F	Turbidity	0	DIW from Accutest		NA		NA	
Standard G	Turbidity	200NTU	HACH StablCal		03/2011		06/2012	
Standard H	Conductance	447 µS/cm	Oakton		03/2012		06/2012	
Standard I	Conductance	84 µS/cm	Oakton		03/2012		11/2012	
Standard J	ORP	240mv	Vital Sine		07/2010		11/2013	
Standard K	ORP	470	Hanna		03/2011		09/2015	
Standard L	1) pH	4.01	Autocal		x		x	
	2) Turbidity	0						
	3) Conductance	4.49ms/cm						
DATE	TIME	STD	STD	INSTRUMENT	% DEV	RECALIBRATED	TYPE	SAMPLER
(yy/mm/dd)	(hr:min)	(A, B, C)	VALUE	RESPONSE		(YES, NO)	(INIT, CONT)	INITIALS
		G	200	165		Y	I	DA
		H	477	523		Y	I	DA
		A	100	120		Y	I	DA
12/04/12	11:00	C	7	7.08		N	C	DA
		G	200	133.7		Y	C	DA
		H	472	478		N	C	DA
		A	100	101		N	C	DA
12/04/13	11:00	C	7	7.01		N	C	DA
		G	200	209.5		N	C	DA
		H	468	479		N	C	DA
		A	100	100.1		N	C	DA
12/04/16	11:00	C	7	7.1		N	C	DA
		G	200	207.9		N	C	DA
		H	466	500		Y	C	DA
		A	100	101.6		N	C	DA
12/04/18	07:30	C	7	6.93		N	I	DA
		G	200	172.6		Y	I	DA
		H	464	610		Y	I	DA
		A	100	124		Y	I	DA
		K	470	628		Y	I	DA
12/04/19	11:50	C	7	7.02		N	C	DA
		G	200	140		Y	C	DA
		I	84	70		N	C	DA
		A	100	100.4		N	C	DA

Form FD 9000-8: Field Instrument Calibration Records

INSTRUMENT (MAKE/MODEL#)	InSitu Troll 9500XT	INSTRUMENT #	47616

STANDARDS: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased]*

Standard	Type	Value	Origin	Date Purchased	Expiration Date
Standard A	Saturated Water	100%	DIW from Accutest	NA	NA
Standard B	pH	4	HACH	03/2012	08/2013
Standard C	pH	7	HACH	03/2012	09/2013
Standard D	pH	10	HACH	03/2012	12/2012
Standard E	Turbidity	40NTU	HACH StablCal	x	x
Standard F	Turbidity	0	DIW from Accutest	NA	NA
Standard G	Turbidity	200NTU	HACH StablCal	03/2011	06/2012
Standard H	Conductance	447 µS/cm	Oakton	03/2012	06/2012
Standard I	Conductance	84 µS/cm	Oakton	03/2012	11/2012
Standard J	ORP	240mv	Vital Sine	07/2010	11/2013
Standard K	ORP	470	Hanna	03/2011	09/2015
Standard L	1) pH	4.01	Autocal	x	x
	2) Turbidity	0			
	3) Conductance	4.49ms/cm			

DATE (yy/mm/dd)	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	RECALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
12/03/14	09:54	B	4.01	3.42		y	init	KB
		F	0	1.9		n	init	KB
		3	447	474.2		y	init	KB
		A	100	97.2		n	init	KB
		J	470	470		n	init	KB
12/03/19	09:15	1	4.01	4.71		y	cont	KB
		2	0	0.7		n	cont	KB
		3	447	461.2		n	cont	KB
		A	100	98.6		n	cont	KB
12/03/20	09:57	1	4.01	4.01		n	cont	KB
		2	0	1.8		n	cont	KB
		3	447	455.9		n	cont	KB
		A	100	98		n	cont	KB
12/03/21	10:25	1	4.01	3.98		n	cont	KB
		2	0	2.4		n	cont	KB
		3	447	462.1		y	cont	KB
		A	100	98.7		n	cont	KB
12/03/23	10:02	1	4.01	4.02		n	cont	KB
		2	0	1.8		n	cont	KB
		3	447	466.8		y	cont	KB
		A	100	98.6		n	cont	KB
12/03/26	10:30	1	4.01	4.01		n	cont	KB
		2	0	1.3		n	cont	KB
		3	467	468.6		n	cont	KB
		A	100	99.7		n	cont	KB
12/03/28	10:27	1	4.01	4		n	cont	KB
		2	200	191.9		n	cont	KB
		3	467	486		y	cont	KB
		A	100	99.2		n	cont	KB
12/03/29	11:23	1	4.01	4.01		n	cont	KB
		2	200	183		n	cont	KB
		3	467	469.9		n	cont	KB
		A	100	98.3		n	cont	KB
12/04/02	11:19	1	4.01	3.98		n	cont	KB

Form FD 9000-8: Field Instrument Calibration Records

INSTRUMENT (MAKE/MODEL#)	InSitu Troll 9500XT	INSTRUMENT #	47616

STANDARDS: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased]*

Standard	Type	Value	Origin	Date Purchased	Expiration Date
Standard A	Saturated Water	100%	DIW from Accutest	NA	NA
Standard B	pH	4	HACH	03/2012	08/2013
Standard C	pH	7	HACH	03/2012	09/2013
Standard D	pH	10	HACH	03/2012	12/2012
Standard E	Turbidity	40NTU	HACH StablCal	x	x
Standard F	Turbidity	0	DIW from Accutest	NA	NA
Standard G	Turbidity	200NTU	HACH StablCal	03/2011	06/2012
Standard H	Conductance	447 µS/cm	Oakton	03/2012	06/2012
Standard I	Conductance	84 µS/cm	Oakton	03/2012	11/2012
Standard J	ORP	240mv	Vital Sine	07/2010	11/2013
Standard K	ORP	470	Hanna	03/2011	09/2015
Standard L	1) pH	4.01	Autocal	x	x
	2) Turbidity	0			
	3) Conductance	4.49ms/cm			

DATE (yy/mm/dd)	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	RECALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
		2	200	169		n	cont	KB
		3	467	500.1		y	cont	KB
		A	100	98.7		n	cont	KB
12/04/03	09:09	1	4.01	4		n	cont	KB
		2	200	195.5		n	cont	KB
		3	467	469.4		n	cont	KB
		A	100	99.2		n	cont	KB
12/04/06	10:00	1	4.01	4.02		n	cont	KB
		2	200	188		n	cont	KB
		3	477	506		n	cont	KB
		A	100	102.7		n	cont	KB
12/04/09	11:47	1	4.01	4.03		n	cont	KB
		2	15	15		n	cont	KB
		3	457	482		y	cont	KB
12/04/10	09:32	1	4.01	4.01		n	cont	KB
		2	15	15		n	cont	KB
		3	457	455		n	cont	KB
12/04/10	09:42	1	4.01	4.01		n	cont	KB
		2	15	15		n	cont	KB
		3	457	463		n	cont	KB
12/04/11	09:30	1	4.01	4		n	cont	KB
		2	15	15		n	cont	KB
		3	467	462		n	cont	KB
12/04/12	09:25	1	4.01	3.99		n	cont	KB
		2	15	15		n	cont	KB
		3	467	465		n	cont	KB
		A	100	100		n	cont	KB
12/04/13	11:47	1	4.01	4		n	cont	KB
		2	15	15		n	cont	KB
		3	467	461		n	cont	KB
		A	100	84.6		y	cont	KB
12/04/16	11:16	1	4.01	4		n	cont	KB
		2	15	15		n	cont	KB
		3	467	503		y	cont	KB

Form FD 9000-8: Field Instrument Calibration Records			
INSTRUMENT (MAKE/MODEL#)	InSitu Troll 9500XT	INSTRUMENT #	47616

STANDARDS: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased]*

Standard	Type	Value	Origin	Date Purchased	Expiration Date
Standard A	Saturated Water	100%	DIW from Accutest	NA	NA
Standard B	pH	4	HACH	03/2012	08/2013
Standard C	pH	7	HACH	03/2012	09/2013
Standard D	pH	10	HACH	03/2012	12/2012
Standard E	Turbidity	40NTU	HACH StablCal	x	x
Standard F	Turbidity	0	DIW from Accutest	NA	NA
Standard G	Turbidity	200NTU	HACH StablCal	03/2011	06/2012
Standard H	Conductance	447 µS/cm	Oakton	03/2012	06/2012
Standard I	Conductance	84 µS/cm	Oakton	03/2012	11/2012
Standard J	ORP	240mv	Vital Sine	07/2010	11/2013
Standard K	ORP	470	Hanna	03/2011	09/2015
Standard L	1) pH	4.01	Autocal	x	x
	2) Turbidity	0			
	3) Conductance	4.49ms/cm			

DATE	TIME	STD	STD	INSTRUMENT	% DEV	RECALIBRATED	TYPE	SAMPLER
(yy/mm/dd)	(hr:min)	(A, B, C)	VALUE	RESPONSE		(YES, NO)	(INIT, CONT)	INITIALS
		A	100	103.5		n	cont	KB
12/04/19	11:41	1	4.01	4.05		n	cont	KB
		2	15	15		n	cont	KB
		3	467	466		n	cont	KB
		A	100	114.5		y	cont	KB

Form FD 9000-8: Field Instrument Calibration Records

INSTRUMENT (MAKE/MODEL#)	YSI	INSTRUMENT #	

STANDARDS: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased]*

Standard	Type	Value	Origin	Date Purchased	Expiration Date
Standard A	Saturated Water	100%	DIW from Accutest	NA	NA
Standard B	pH	4.01	Oakton	03/2012	08/2013
Standard C	pH	7	Oakton	03/2012	09/2013
Standard D	pH	10.01	Oakton	03/2012	12/2012
Standard E	Turbidity	40NTU	HACH StablCal	x	x
Standard F	Turbidity	0	DIW from Accutest	NA	NA
Standard G	Turbidity	200NTU	HACH StablCal	03/2011	06/2012
Standard H	Conductance	447 µS/cm	Oakton	03/2012	06/2012
Standard I	Conductance	84 µS/cm	Oakton	03/2012	11/2012
Standard J	ORP	240mv	Vital Sine	07/2010	11/2013
Standard K	ORP	470	Hanna	03/2011	09/2015
Standard L	1) pH	4.01	Autocal	x	x
	2) Turbidity	0			
	3) Conductance	4.49ms/cm			

DATE	TIME	STD	STD	INSTRUMENT	% DEV	RECALIBRATED	TYPE	SAMPLER
(yy/mm/dd)	(hr:min)	(A, B, C)	VALUE	RESPONSE		(YES, NO)	(INIT, CONT)	INITIALS
12/04/05	11:00	C	7	7.1		N	I	DA
		I	84	88		N	I	DA
		A	100	65.5		Y	I	DA
12/04/06	10:15	C	7	7.11		N	C	DA
		G	447	502.0		Y	C	DA
		A	100	78.6		Y	C	DA

APPENDIX D
March 2012 Laboratory Analytical Reports (Included on CD)

Southeast ACCUTEST LABORATORIES

04/11/12

04/11/12

Technical Report for

BFA Environmental Consultants

NTC Orlando, Orlando, FL

07-71009/2

Accutest Job Number: F91589

Sampling Date: 03/27/12

Report to:

BFA Environmental Consultants
1230 Hillcrest Street Suite 100
Orlando, FL 32803
jwatson@bfaenvironmental.com

ATTN: John Watson

Total number of pages in report: **41**

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Harry Behzadi, Ph.D.
Laboratory Director

Client Service contact: Jean Dent-Smith 407-425-6700

Certifications: FL (E83510), LA (03051), KS (E-10327), IA (366), IL (200063), NC (573), NJ (FL002), SC (96038001) DoD ELAP (L-A-B L2229), CA (04226CA), TX (T104704404), AK, AR, GA, KY, MA, NV, OK, UT, VA, WA, WI

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Test results relate only to samples analyzed.

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Accutest Laboratories

Sample Summary

BFA Environmental Consultants

Job No: F91589

NTC Orlando, Orlando, FL
Project No: 07-71009/2

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
F91589-1	03/27/12	13:46	JW	03/28/12	AQ	Ground Water	OLD-OU2-02A
F91589-1F	03/27/12	13:46	JW	03/28/12	AQ	Groundwater Filtered	OLD-OU2-02A
F91589-2	03/27/12	14:39	JW	03/28/12	AQ	Ground Water	OLD-OU2-02B
F91589-2F	03/27/12	14:39	JW	03/28/12	AQ	Groundwater Filtered	OLD-OU2-02B
F91589-3	03/27/12	16:05	JW	03/28/12	AQ	Ground Water	OLD-OU2-03A
F91589-3F	03/27/12	16:05	JW	03/28/12	AQ	Groundwater Filtered	OLD-OU2-03A
F91589-4	03/27/12	18:32	JW	03/28/12	AQ	Ground Water	OLD-OU2-03B
F91589-4F	03/27/12	18:32	JW	03/28/12	AQ	Groundwater Filtered	OLD-OU2-03B

Accutest Laboratories
Southeast

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-02A		
Lab Sample ID:	F91589-1	**Date Sampled:**	03/27/12
Matrix:	AQ - Ground Water	**Date Received:**	03/28/12
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N0058650.D	1	04/07/12	RB	n/a	n/a	VN2427
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	0.20 U	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.26 U	1.0	0.26	ug/l	
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	0.25 U	1.0	0.25	ug/l	
79-01-6	Trichloroethylene	0.26 U	1.0	0.26	ug/l	
75-01-4	Vinyl chloride	0.22 U	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		87-116%
17060-07-0	1,2-Dichloroethane-D4	100%		76-127%
2037-26-5	Toluene-D8	99%		86-112%
460-00-4	4-Bromofluorobenzene	108%		84-120%

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-02A		
Lab Sample ID:	F91589-1	**Date Sampled:**	03/27/12
Matrix:	AQ - Ground Water	**Date Received:**	03/28/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	9570	300	35	ug/l	1	04/03/12	04/03/12	DM	SW846 6010C [1]	SW846 3010A [2]
Manganese	177	15	1.0	ug/l	1	04/03/12	04/03/12	DM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA9688
(2) Prep QC Batch: MP22523

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-02A		
Lab Sample ID:	F91589-1	**Date Sampled:**	03/27/12
Matrix:	AQ - Ground Water	**Date Received:**	03/28/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	487	5.0	2.5	mg/l	1	04/05/12	AC	SM19 2320B
Chloride	35.9	4.0	2.0	mg/l	2	03/29/12 01:23	TC	EPA 300/SW846 9056A
Nitrogen, Ammonia	12.3	0.20	0.10	mg/l	2	03/31/12 21:19	LT	EPA 350.1
Nitrogen, Nitrate	0.31	0.20	0.10	mg/l	2	03/29/12 01:23	TC	EPA 300/SW846 9056A
Nitrogen, Nitrite [a]	0.10 U	0.20	0.10	mg/l	2	03/29/12 01:23	TC	EPA 300/SW846 9056A
Phosphate, Ortho	0.22	0.10	0.020	mg/l	1	03/28/12 17:30	LT	EPA 365.3
Sulfate	50.0	4.0	2.0	mg/l	2	03/29/12 01:23	TC	EPA 300/SW846 9056A

(a) Dilution required due to matrix interference.

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-02A		
Lab Sample ID:	F91589-1F	**Date Sampled:**	03/27/12
Matrix:	AQ - Groundwater Filtered	**Date Received:**	03/28/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Total Organic Carbon	159	7.0	1.8	mg/l	7	03/29/12 11:57	FN	SM19 5310B/SW 9060A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-02B		
Lab Sample ID:	F91589-2	**Date Sampled:**	03/27/12
Matrix:	AQ - Ground Water	**Date Received:**	03/28/12
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N0058651.D	1	04/07/12	RB	n/a	n/a	VN2427
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	0.20 U	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.26 U	1.0	0.26	ug/l	
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	0.25 U	1.0	0.25	ug/l	
79-01-6	Trichloroethylene	0.26 U	1.0	0.26	ug/l	
75-01-4	Vinyl chloride	0.22 U	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		87-116%
17060-07-0	1,2-Dichloroethane-D4	100%		76-127%
2037-26-5	Toluene-D8	101%		86-112%
460-00-4	4-Bromofluorobenzene	110%		84-120%

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-02B		
Lab Sample ID:	F91589-2	**Date Sampled:**	03/27/12
Matrix:	AQ - Ground Water	**Date Received:**	03/28/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	2140	300	35	ug/l	1	04/03/12	04/03/12	DM	SW846 6010C [1]	SW846 3010A [2]
Manganese	9.4 I	15	1.0	ug/l	1	04/03/12	04/03/12	DM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA9688
(2) Prep QC Batch: MP22523

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-02B		
Lab Sample ID:	F91589-2	**Date Sampled:**	03/27/12
Matrix:	AQ - Ground Water	**Date Received:**	03/28/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	28.7	5.0	2.5	mg/l	1	04/05/12	AC	SM19 2320B
Chloride	43.7	2.0	1.0	mg/l	1	03/29/12 01:40	TC	EPA 300/SW846 9056A
Nitrogen, Ammonia	0.41	0.10	0.050	mg/l	1	03/31/12 21:04	LT	EPA 350.1
Nitrogen, Nitrate	0.050 U	0.10	0.050	mg/l	1	03/29/12 01:40	TC	EPA 300/SW846 9056A
Nitrogen, Nitrite	0.050 U	0.10	0.050	mg/l	1	03/29/12 01:40	TC	EPA 300/SW846 9056A
Phosphate, Ortho	0.83	0.20	0.040	mg/l	2	03/28/12 17:30	LT	EPA 365.3
Sulfate	3.4	2.0	1.0	mg/l	1	03/29/12 01:40	TC	EPA 300/SW846 9056A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-02B		
Lab Sample ID:	F91589-2F	**Date Sampled:**	03/27/12
Matrix:	AQ - Groundwater Filtered	**Date Received:**	03/28/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Total Organic Carbon	20.4	1.0	0.26	mg/l	1	03/29/12 12:28	FN	SM19 5310B/SW 9060A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-03A		
Lab Sample ID:	F91589-3	**Date Sampled:**	03/27/12
Matrix:	AQ - Ground Water	**Date Received:**	03/28/12
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N0058652.D	1	04/07/12	RB	n/a	n/a	VN2427
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	0.20 U	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.26 U	1.0	0.26	ug/l	
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	0.25 U	1.0	0.25	ug/l	
79-01-6	Trichloroethylene	0.26 U	1.0	0.26	ug/l	
75-01-4	Vinyl chloride	0.22 U	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		87-116%
17060-07-0	1,2-Dichloroethane-D4	101%		76-127%
2037-26-5	Toluene-D8	100%		86-112%
460-00-4	4-Bromofluorobenzene	108%		84-120%

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-03A		
Lab Sample ID:	F91589-3	**Date Sampled:**	03/27/12
Matrix:	AQ - Ground Water	**Date Received:**	03/28/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	29600	300	35	ug/l	1	04/03/12	04/03/12	DM	SW846 6010C [1]	SW846 3010A [2]
Manganese	777	15	1.0	ug/l	1	04/03/12	04/03/12	DM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA9688
(2) Prep QC Batch: MP22523

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-03A		
Lab Sample ID:	F91589-3	**Date Sampled:**	03/27/12
Matrix:	AQ - Ground Water	**Date Received:**	03/28/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	261	5.0	2.5	mg/l	1	04/05/12	AC	SM19 2320B
Chloride	49.3	2.0	1.0	mg/l	1	03/29/12 01:57	TC	EPA 300/SW846 9056A
Nitrogen, Ammonia	5.2	0.10	0.050	mg/l	1	03/31/12 21:05	LT	EPA 350.1
Nitrogen, Nitrate	0.46	0.10	0.050	mg/l	1	03/29/12 01:57	TC	EPA 300/SW846 9056A
Nitrogen, Nitrite	0.050 U	0.10	0.050	mg/l	1	03/29/12 01:57	TC	EPA 300/SW846 9056A
Phosphate, Ortho	0.021 I	0.10	0.020	mg/l	1	03/28/12 17:30	LT	EPA 365.3
Sulfate	47.3	2.0	1.0	mg/l	1	03/29/12 01:57	TC	EPA 300/SW846 9056A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-03A		
Lab Sample ID:	F91589-3F	**Date Sampled:**	03/27/12
Matrix:	AQ - Groundwater Filtered	**Date Received:**	03/28/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Total Organic Carbon	41.2	1.7	0.45	mg/l	1.7	03/29/12 12:43	FN	SM19 5310B/SW 9060A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-03B		
Lab Sample ID:	F91589-4	**Date Sampled:**	03/27/12
Matrix:	AQ - Ground Water	**Date Received:**	03/28/12
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N0058653.D	1	04/07/12	RB	n/a	n/a	VN2427
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	0.20 U	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.26 U	1.0	0.26	ug/l	
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	0.25 U	1.0	0.25	ug/l	
79-01-6	Trichloroethylene	0.26 U	1.0	0.26	ug/l	
75-01-4	Vinyl chloride	0.22 U	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		87-116%
17060-07-0	1,2-Dichloroethane-D4	100%		76-127%
2037-26-5	Toluene-D8	97%		86-112%
460-00-4	4-Bromofluorobenzene	108%		84-120%

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-03B		
Lab Sample ID:	F91589-4	**Date Sampled:**	03/27/12
Matrix:	AQ - Ground Water	**Date Received:**	03/28/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	8470	300	35	ug/l	1	04/03/12	04/03/12	DM	SW846 6010C [1]	SW846 3010A [2]
Manganese	16.3	15	1.0	ug/l	1	04/03/12	04/03/12	DM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA9688
(2) Prep QC Batch: MP22523

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-03B		
Lab Sample ID:	F91589-4	**Date Sampled:**	03/27/12
Matrix:	AQ - Ground Water	**Date Received:**	03/28/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	57.0	5.0	2.5	mg/l	1	04/05/12	AC	SM19 2320B
Chloride	51.7	2.0	1.0	mg/l	1	03/29/12 02:14	TC	EPA 300/SW846 9056A
Nitrogen, Ammonia	3.1	0.10	0.050	mg/l	1	03/31/12 21:08	LT	EPA 350.1
Nitrogen, Nitrate	0.050 U	0.10	0.050	mg/l	1	03/29/12 02:14	TC	EPA 300/SW846 9056A
Nitrogen, Nitrite	0.050 U	0.10	0.050	mg/l	1	03/29/12 02:14	TC	EPA 300/SW846 9056A
Phosphate, Ortho	0.64	0.20	0.040	mg/l	2	03/28/12 17:30	LT	EPA 365.3
Sulfate	28.4	2.0	1.0	mg/l	1	03/29/12 02:14	TC	EPA 300/SW846 9056A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-03B		
Lab Sample ID:	F91589-4F	**Date Sampled:**	03/27/12
Matrix:	AQ - Groundwater Filtered	**Date Received:**	03/28/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Total Organic Carbon	26.9	1.0	0.26	mg/l	1	03/29/12 13:02	FN	SM19 5310B/SW 9060A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories
Southeast

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Certification Exceptions
- Certification Exceptions (FL)
- Chain of Custody

BFA Environmental Consultants

CHAIN OF CUSTODY F91589

Analytical Request Document

Client Information	Project Information	Lab Information	COC Number
BFA Orlando, FL Report Copy to: John Watson E-mail Report to: jwatson@bfaenvironmental.com 4078988608	Operable Unit 2 Orlando, FL 32813 Lab Quote No: Ref. No: Project No: 07-71009/2 Invoice to:	Accutest Laboratories Southeast 4405 Vineland Road Suite C-15 Orlando, FL 32811	07-71009/2_3/27/12 Shipped By: Courier Tracking #:

	Sample ID	Date	Time	Matrix	Method(s)	# Cont	Cont. Type	Cont. Size	Preservatives	TAT	Lab ID No.
1	OLD-OU2-02A	03/27/2012	01:46 pm	WG	Ammonium Biogenic Gases DOC Fe/Mn Orthophosphate, Alkalinity, Chloride, Nitrate/Nitrite, Sulfate VOCs	12	AG;CG;PE	40 ml;500 ml;1 L	H2SO4;HCL;HNO3;Other;None	2 week	
2	OLD-OU2-02B	03/27/2012	02:39 pm	WG	Alkalinity, Chloride, Nitrate/Nitrite, Orthophosphate, Sulfate Ammonium Biogenic Gases DOC Fe/Mn VOCs	12	AG;CG;PE	40 ml;500 ml;1 L	H2SO4;HCL;HNO3;Other;None	2 week	
3	OLD-OU2-03A	03/27/2012	04:05 pm	WG	Alkalinity, Chloride, Nitrate/Nitrite, Orthophosphate, Sulfate Ammonium Biogenic Gases DOC Fe/Mn VOCs	12	AG;CG;PE	40 ml;500 ml;1 L	H2SO4;HCL;HNO3;Other;None	2 week	
4	OLD-OU2-03B	03/27/2012	06:32 pm	WG	Alkalinity, Chloride, Nitrate/Nitrite, Orthophosphate, Sulfate Ammonium Biogenic Gases DOC Fe/Mn VOCs	12	AG;CG;PE	40 ml;500 ml;1 L	H2SO4;HCL;HNO3;Other;None	2 week	

Client Comments / Instructions	Lab Comments / Receipt Conditions

Relinquished By	Date	Time	Accepted By	Date	Time
[signature]	3-28-12	14:20	[signature] (AKSE)	3/28/12	14:20
[signature] (AKSE)			[signature] AKSE	3-28-12	1500

Sampler Name: Damian Allen

2.6

Date Signed: 03/28/2012

Sampler Signature: [signature]

3.1 3

F91589: Chain of Custody

Page 1 of 3

ACCUTEST LABORATORIES

F91589

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: F91589 CLIENT: BFA PROJECT: Operable Unit 2

DATE/TIME RECEIVED: 03-28-12 1500 {MM/DD/YY 24:00} NIMBER OF COOLERS RECEIVED: 1

METHOD OF DELIVERY: FEDEX UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER

AIRBILL NUMBERS:

COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET
- [ ] WET ICE PRESENT

TRIP BLANK INFORMATION

- [x] TRIP BLANK PROVIDED
- [ ] TRIP BLANK NOT PROVIDED
- [x] TRIP BLANK NOT ON COC
- [x] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [x] RECEIVED WATER TRIP BLANK (4)
- [ ] RECEIVED SOIL TRIP BLANK

MISC. INFORMATION

NUMBER OF ENCORES ? 25-GRAM_____ 5-GRAM_____

NUMBER OF 5035 FIELD KITS ? _____

NUMBER OF LAB FILTERED METALS ? _____

TEMPERATURE INFORMATION

- [ ] IR THERM ID 1 CORR. FACTOR -0.2
- [ ] OBSERVED TEMPS: 2.8
- [ ] CORRECTED TEMPS: 2.6

SAMPLE INFORMATION

- [ ] SAMPLE LABELS PRESENT ON ALL BOTTLES
- [ ] INCORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- [ ] ID'S ON COC DO NOT MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] 5035 FIELD KIT FROZEN WITHIN 48 HOUR'S
- [ ] RESIDUAL CHLORINE PRESENT

{APPICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS}

SUMMARY OF COMMENTS:

TECHNICIAN SIGNATURE/DATE [signature] 03-28-12 REVIEWER SIGNATURE/DATE [signature] 03-28-12

NF 12/10 receipt confirmation 122910.xls

F91589: Chain of Custody

Page 2 of 3

Job Change Order: F91589_4/3/2012

Requested Date:	4/3/2012	**Received Date:**	3/28/2012
Account Name:	BFA Environmental Consultants	**Due Date:**	4/11/2012
Project Description:	NTC Orlando, Orlando, FL	**Deliverable:**	COMMB
CSR:	JDS	**TAT (Days):**	1

Sample #:
F91589-3X, 4X

Change: Please remove MISC SUB codes form these samples. Client must recollect for Dissolved Gases. Thank you.

Above Changes CSR **Date:** 4/3/2012

To Client: This Change Order is confirmation of the revisions, previously discussed with the Accutest Client Service Representative.

Page 1 of 1

F91589: Chain of Custody
Page 3 of 3

Accutest Laboratories Southeast

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: F91589
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VN2427-MB	N0058644.D	1	04/07/12	RB	n/a	n/a	VN2427

The QC reported here applies to the following samples: **Method:** SW846 8260B

F91589-1, F91589-2, F91589-3, F91589-4

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.26	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.25	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.26	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	97%	87-116%
17060-07-0	1,2-Dichloroethane-D4	95%	76-127%
2037-26-5	Toluene-D8	100%	86-112%
460-00-4	4-Bromofluorobenzene	108%	84-120%

Blank Spike Summary

Job Number: F91589
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VN2427-BS	N0058643.D	1	04/07/12	RB	n/a	n/a	VN2427

The QC reported here applies to the following samples: **Method:** SW846 8260B

F91589-1, F91589-2, F91589-3, F91589-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	25	22.5	90	83-124
156-59-2	cis-1,2-Dichloroethylene	25	22.3	89	81-114
98-82-8	Isopropylbenzene	25	27.6	110	87-131
75-09-2	Methylene chloride	25	22.0	88	69-125
127-18-4	Tetrachloroethylene	25	23.2	93	80-131
79-01-6	Trichloroethylene	25	23.1	92	85-124
75-01-4	Vinyl chloride	25	22.0	88	57-153

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	100%	87-116%
17060-07-0	1,2-Dichloroethane-D4	92%	76-127%
2037-26-5	Toluene-D8	102%	86-112%
460-00-4	4-Bromofluorobenzene	102%	84-120%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F91589
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F91597-3MS	N0058666.D	10	04/07/12	RB	n/a	n/a	VN2427
F91597-3MSD	N0058667.D	10	04/07/12	RB	n/a	n/a	VN2427
F91597-3	N0058656.D	10	04/07/12	RB	n/a	n/a	VN2427

The QC reported here applies to the following samples: **Method:** SW846 8260B

F91589-1, F91589-2, F91589-3, F91589-4

CAS No.	Compound	F91597-3 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	10 U		250	245	98	232	93	5	83-124/11
156-59-2	cis-1,2-Dichloroethylene	724		250	1020	118* [a]	970	98	5	81-114/10
98-82-8	Isopropylbenzene	10 U		250	278	111	269	108	3	87-131/10
75-09-2	Methylene chloride	50 U		250	251	100	235	94	7	69-125/11
127-18-4	Tetrachloroethylene	10 U		250	242	97	241	96	0	80-131/12
79-01-6	Trichloroethylene	10 U		250	247	99	237	95	4	85-124/10
75-01-4	Vinyl chloride	1010	L	250	1400	156* [a]	1310	120	7	57-153/22

CAS No.	Surrogate Recoveries	MS	MSD	F91597-3	Limits
1868-53-7	Dibromofluoromethane	103%	104%	102%	87-116%
17060-07-0	1,2-Dichloroethane-D4	103%	97%	101%	76-127%
2037-26-5	Toluene-D8	98%	103%	101%	86-112%
460-00-4	4-Bromofluorobenzene	107%	107%	109%	84-120%

(a) Outside control limits due to high level in sample relative to spike amount.

Accutest Laboratories Southeast

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Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: F91589
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP22523
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 04/03/12

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	24	25		
Antimony	6.0	1	2		
Arsenic	10	1	2		
Barium	200	4	5		
Beryllium	4.0	.1	1		
Cadmium	5.0	.1	1		
Calcium	1000	50	100		
Chromium	10	1	1		
Cobalt	50	1	1		
Copper	25	1	2		
Iron	300	23	35	-6.0	<300
Lead	5.0	1	1		
Magnesium	5000	50	100		
Manganese	15	1	1	0.10	<15
Molybdenum	50	1	2		
Nickel	40	1	2		
Potassium	10000	50	500		
Selenium	10	2	2		
Silver	10	1	1		
Sodium	10000	850	1900		
Strontium	10	1	1		
Thallium	10	1.5	1.9		
Tin	50	1	1		
Titanium	10	1	2		
Vanadium	50	1	1		
Zinc	20	1	5		

Associated samples MP22523: F91589-1, F91589-2, F91589-3, F91589-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F91589
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP22523
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:			04/03/12					04/03/12	
Metal	F91629-15 Original	DUP	RPD	QC Limits	F91629-15 Original	MS	Spikelot MPFLICP1	% Rec	QC Limits
Aluminum									
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium									
Cadmium	anr								
Calcium									
Chromium									
Cobalt									
Copper	anr								
Iron	46300	47000	1.5	0-20	46300	69100	26000	87.7	80-120
Lead	anr								
Magnesium									
Manganese	3230	3280	1.5	0-20	3230	3590	500	72.0 (a)	80-120
Molybdenum									
Nickel	anr								
Potassium									
Selenium									
Silver									
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc									

Associated samples MP22523: F91589-1, F91589-2, F91589-3, F91589-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested
(a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F91589
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP22523 Methods: SW846 6010C
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 04/03/12

Metal	F91629-15 Original	MSD	Spikelot MPFLICP1	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony	anr					
Arsenic	anr					
Barium	anr					
Beryllium						
Cadmium	anr					
Calcium						
Chromium						
Cobalt						
Copper	anr					
Iron	46300	70700	26000	93.8	2.3	20
Lead	anr					
Magnesium						
Manganese	3230	3660	500	86.0	1.9	20
Molybdenum						
Nickel	anr					
Potassium						
Selenium						
Silver						
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc						

Associated samples MP22523: F91589-1, F91589-2, F91589-3, F91589-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: F91589
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP22523
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 04/03/12

Metal	BSP Result	Spikelot MPFLICP1	% Rec	QC Limits
Aluminum				
Antimony	anr			
Arsenic	anr			
Barium	anr			
Beryllium				
Cadmium	anr			
Calcium				
Chromium				
Cobalt				
Copper	anr			
Iron	26100	26000	100.4	80-120
Lead	anr			
Magnesium				
Manganese	505	500	101.0	80-120
Molybdenum				
Nickel	anr			
Potassium				
Selenium				
Silver				
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP22523: F91589-1, F91589-2, F91589-3, F91589-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: F91589
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP22523
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date:			04/03/12				04/03/12	
Metal	F91629-15 Original	SDL 1:5	%DIF	QC Limits	F91629-15F Original	SDL 1:5	%DIF	QC Limits
Aluminum								
Antimony	anr							
Arsenic	anr							
Barium	anr							
Beryllium								
Cadmium	anr							
Calcium								
Chromium								
Cobalt								
Copper	anr							
Iron	46300	47300	2.3	0-10	67100	70300	4.7	0-10
Lead	anr							
Magnesium								
Manganese	3230	3390	4.8	0-10	3360	3590	7.0	0-10
Molybdenum								
Nickel	anr							
Potassium								
Selenium								
Silver								
Sodium								
Strontium								
Thallium								
Tin								
Titanium								
Vanadium								
Zinc								

Associated samples MP22523: F91589-1, F91589-2, F91589-3, F91589-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

POST DIGESTATE SPIKE SUMMARY

Login Number: F91589
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP22523
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 04/03/12

Metal	Sample ml	Final ml	F91629-15 Raw	Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum										
Antimony										
Arsenic										
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium										
Cobalt										
Copper										
Iron	9.8	10	46270	45344.6	48110	0.2	150	3000	92.2	80-120
Lead										
Magnesium										
Manganese	9.8	10	3232	3167.36	3238	0.2	2.5	50	141.3*(a	80-120
Molybdenum										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Strontium										
Thallium										
Tin										
Titanium										
Vanadium										
Zinc										

Associated samples MP22523: F91589-1, F91589-2, F91589-3, F91589-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested
(a) Spike recovery indicates matrix interference and/or outside control limits due to high level in sample relative to spike amount.

POST DIGESTATE SPIKE SUMMARY

Login Number: F91589
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP22523
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 04/03/12

Metal	Sample ml	Final ml	F91629-15F Raw	Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum										
Antimony										
Arsenic										
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium										
Cobalt										
Copper										
Iron	9.8	10	67120	65777.6	68760	0.2	150	3000	99.4	80-120
Lead										
Magnesium										
Manganese	9.8	10	3359	3291.82	3347	0.2	2.5	50	110.4	80-120
Molybdenum										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Strontium										
Thallium										
Tin										
Titanium										
Vanadium										
Zinc										

Associated samples MP22523: F91589-1, F91589-2, F91589-3, F91589-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested

Accutest Laboratories Southeast

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F91589
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Alkalinity, Total as CaCO3	GN49215	5.0	0.0	mg/l	250	250	99.9	90-113%
Chloride	GP18926/GN49111	2.0	0.0	mg/l	50	51.6	103.2	90-110%
Fluoride	GP18926/GN49111	0.20	0.0	mg/l	2.5	2.37	94.8	90-110%
Nitrogen, Ammonia	GP18947/GN49148	0.10	0.0	mg/l	2.5	2.49	99.6	90-110%
Nitrogen, Nitrate	GP18926/GN49111	0.10	0.0	mg/l	2.5	2.43	97.2	90-110%
Nitrogen, Nitrite	GP18926/GN49111	0.10	0.0	mg/l	2.5	2.31	92.4	90-110%
Phosphate, Ortho	GP18931/GN49116	0.10	0.0	mg/l	0.300	0.28	91.8	83-116%
Sulfate	GP18926/GN49111	2.0	0.0	mg/l	50	53.4	106.8	90-110%
Total Organic Carbon	GP18939/GN49126	1.0	0.0	mg/l	15	15.8	105.3	90-110%

Associated Samples:
Batch GN49215: F91589-1, F91589-2, F91589-3, F91589-4
Batch GP18926: F91589-1, F91589-2, F91589-3, F91589-4
Batch GP18931: F91589-1, F91589-2, F91589-3, F91589-4
Batch GP18939: F91589-1F, F91589-2F, F91589-3F, F91589-4F
Batch GP18947: F91589-1, F91589-2, F91589-3, F91589-4
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F91589
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Alkalinity, Total as CaCO3	GN49215	F91589-2	mg/l	28.7	27.6	3.9	0-20%
Alkalinity, Total as CaCO3	GN49215	F91589-4	mg/l	57.0	57.2	0.3	0-20%
Chloride	GP18926/GN49111	F91565-1	mg/l	8.9	8.9	0.0	0-20%
Fluoride	GP18926/GN49111	F91565-1	mg/l	0.33	0.33	0.0	0-20%
Nitrogen, Ammonia	GP18947/GN49148	F91661-5	mg/l	0.050 U	0.0	0.0	0-20%
Nitrogen, Nitrate	GP18926/GN49111	F91565-1	mg/l	0.24	0.21	13.3	0-20%
Nitrogen, Nitrite	GP18926/GN49111	F91565-1	mg/l	0.050 U	0.0	0.0	0-20%
Phosphate, Ortho	GP18931/GN49116	F91589-4	mg/l	0.64	0.62	3.8	0-26%
Sulfate	GP18926/GN49111	F91565-1	mg/l	19.6	19.8	1.0	0-20%
Total Organic Carbon	GP18939/GN49126	F91589-1F	mg/l	159	164	3.1	0-20%

Associated Samples:
Batch GN49215: F91589-1, F91589-2, F91589-3, F91589-4
Batch GP18926: F91589-1, F91589-2, F91589-3, F91589-4
Batch GP18931: F91589-1, F91589-2, F91589-3, F91589-4
Batch GP18939: F91589-1F, F91589-2F, F91589-3F, F91589-4F
Batch GP18947: F91589-1, F91589-2, F91589-3, F91589-4
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F91589
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Alkalinity, Total as CaCO3	GN49215	F91589-2	mg/l	28.7	250	280	100.0	90-113%
Alkalinity, Total as CaCO3	GN49215	F91589-4	mg/l	57.0	250	303	98.5	90-113%
Chloride	GP18926/GN49111	F91565-1	mg/l	8.9	50	58.5	99.2	90-110%
Fluoride	GP18926/GN49111	F91565-1	mg/l	0.33	2.5	2.3	78.8N(a)	90-110%
Nitrogen, Ammonia	GP18947/GN49148	F91661-5	mg/l	0.050 U	2.5	2.3	92.0	90-110%
Nitrogen, Nitrate	GP18926/GN49111	F91565-1	mg/l	0.24	2.5	2.3	82.4N(a)	90-110%
Nitrogen, Nitrite	GP18926/GN49111	F91565-1	mg/l	0.050 U	2.5	2.4	96.0	90-110%
Phosphate, Ortho	GP18931/GN49116	F91589-4	mg/l	0.64	0.300	1.2	172.0*(a)	83-116%
Sulfate	GP18926/GN49111	F91565-1	mg/l	19.6	50	63.5	87.8N(a)	90-110%
Total Organic Carbon	GP18939/GN49126	F91589-1F	mg/l	159	15	55.7	0.0(b)	90-110%

Associated Samples:
Batch GN49215: F91589-1, F91589-2, F91589-3, F91589-4
Batch GP18926: F91589-1, F91589-2, F91589-3, F91589-4
Batch GP18931: F91589-1, F91589-2, F91589-3, F91589-4
Batch GP18939: F91589-1F, F91589-2F, F91589-3F, F91589-4F
Batch GP18947: F91589-1, F91589-2, F91589-3, F91589-4
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(a) Spike recovery indicates possible matrix interference.
(b) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

MATRIX SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F91589
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Nitrogen, Ammonia	GP18947/GN49148	F91661-5	mg/l	0.050 U	2.5	2.4	4.3	20%

Associated Samples:
Batch GP18947: F91589-1, F91589-2, F91589-3, F91589-4
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

Microseeps, Inc
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

April 12, 2012

Muna Mohammed
Accutest Laboratories
4405 Vineland St.
Suite C-15
Orlando, FL 32811

RE: **F91589X**

Microseeps Workorder: 4724

Dear Muna Mohammed:

Enclosed are the analytical results for sample(s) received by the laboratory on Saturday, March 31, 2012. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Julianne C. Sproull

Julianne Sproull 04/12/2012
jsproull@microseeps.com

Enclosures

As a valued client we would appreciate your comments on our service.
Please email Info@microseeps.com.

Total Number of Pages 14

CERTIFICATE OF ANALYSIS

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Microseeps, Inc
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Phone: (412) 826-5245
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LABORATORY ACCREDITATIONS & CERTIFICATIONS

Accreditor:	Pennsylvania Department of Environmental Protection, Bureau of Laboratories
Accreditation ID:	02-00538
Scope:	NELAP Non-Potable Water and Solid & Hazardous Waste
Accreditor:	NELAP: State of Florida, Department of Health, Bureau of Laboratories
Accreditation ID:	E87832
Scope:	Clean Water Act (CWA) Resource Conservation and Recovery Act (RCRA)
Accreditor:	South Carolina Department of Health and Environmental Control, Office of Environmental Laboratory Certification
Accreditation ID:	89009003
Scope:	Clean Water Act (CWA); Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: State of Louisiana, Department of Environmental Quality
Accreditation ID:	04104
Scope:	Solid and Chemical Materials; Non-Potable Water
Accreditor:	NELAP: New Jersey, Department of Environmental Protection
Accreditation ID:	PA026
Scope:	Non-Potable Water; Solid and Chemical Materials
Accreditor:	NELAP: New York, Department of Health Wadsworth Center
Accreditation ID:	11815
Scope:	Non-Potable Water; Solid and Hazardous Waste
Accreditor:	State of Connecticut, Department of Public Health, Division of Environmental Health
Accreditation ID:	PH-0263
Scope:	Clean Water Act (CWA) Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: Texas, Commission on Environmental Quality
Accreditation ID:	T104704453-09-TX
Scope:	Non-Potable Water
Accreditor:	State of New Hampshire
Accreditation ID:	299409
Scope:	Non-potable water
Accreditor:	State of Georgia
Accreditation ID:	Chapter 391-3-26
Scope:	As per the Georgia EPD Rules and Regulations for Commercial Laboratories, Microseeps is accredited by the Pennsylvania Department of Environmental Protection Bureau of Laboratories under the National Environmental Laboratory Approval Program (NELAC).

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SAMPLE SUMMARY

Workorder: 4724 F91589X

Lab ID	Sample ID	Matrix	Date Collected	Date Received
47240001	1X	Water	3/28/2012 13:46	3/31/2012 12:00
47240002	2X	Water	3/28/2012 14:39	3/31/2012 12:00

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ANALYTICAL RESULTS

Workorder: 4724 F91589X

Lab ID: **47240001** Date Received: 3/31/2012 12:00 Matrix: Water
Sample ID: **1X** Date Collected: 3/28/2012 13:46

Parameters	Results	Units	RDL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**730**	ug/l	0.10	0.015	1			4/10/2012 08:42	GT	
Ethane	**0.010J**	ug/l	0.025	0.0010	1			4/10/2012 08:42	GT	
Ethene	**0.034**	ug/l	0.025	0.0060	1			4/10/2012 08:42	GT	
Carbon Dioxide	**230**	mg/l	5.0	0.070	1			4/10/2012 08:42	GT	
Oxygen	**3.8**	mg/l	0.50	0.063	1			4/10/2012 08:42	GT	
Nitrogen	**15**	mg/l	0.50	0.13	1			4/10/2012 08:42	GT	

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ANALYTICAL RESULTS

Workorder: 4724 F91589X

Lab ID: **47240002** Date Received: 3/31/2012 12:00 Matrix: Water
Sample ID: **2X** Date Collected: 3/28/2012 14:39

Parameters	Results	Units	RDL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**930**	ug/l	0.10	0.015	1			4/10/2012 08:55	GT	
Ethane	**0.016J**	ug/l	0.025	0.0010	1			4/10/2012 08:55	GT	
Ethene	**0.052**	ug/l	0.025	0.0060	1			4/10/2012 08:55	GT	
Carbon Dioxide	**130**	mg/l	5.0	0.070	1			4/10/2012 08:55	GT	
Oxygen	**1.8**	mg/l	0.50	0.063	1			4/10/2012 08:55	GT	
Nitrogen	**14**	mg/l	0.50	0.13	1			4/10/2012 08:55	GT	

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ANALYTICAL RESULTS QUALIFIERS

Workorder: 4724 F91589X

PARAMETER QUALIFIERS

U	Indicates the compound was analyzed for, but not detected.
J	Estimated concentration greater than the set method detection limit (MDL) and less than the set reporting limit (RDL).

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QUALITY CONTROL DATA

Workorder: 4724 F91589X

QC Batch: DISG/2030 Analysis Method: AM20GAX

QC Batch Method: AM20GAX

Associated Lab Samples: 47240001, 47240002

METHOD BLANK: 10179

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Methane	ug/l	0.10 U	0.10	
Ethane	ug/l	0.025 U	0.025	
Ethene	ug/l	0.025 U	0.025	

METHOD BLANK: 10180

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Carbon Dioxide	mg/l	5.0 U	5.0	
Oxygen	mg/l	0.50 U	0.50	
Nitrogen	mg/l	0.50 U	0.50	

LABORATORY CONTROL SAMPLE & LCSD: 10181 10183

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK										
Methane	ug/l	820	880	870	106	106	80-120	0	20	
Ethane	ug/l	45	45	46	101	103	80-120	2	20	
Ethene	ug/l	41	41	42	102	104	80-120	1.9	20	

LABORATORY CONTROL SAMPLE & LCSD: 10182 10184

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK										
Carbon Dioxide	mg/l	130	120	130	97	100	80-120	3	20	
Oxygen	mg/l		19	18						
Nitrogen	mg/l		150	140						

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Microseeps, Inc
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 4724 F91589X

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
47240001	1X			AM20GAX	DISG/2030
47240002	2X			AM20GAX	DISG/2030

CERTIFICATE OF ANALYSIS

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4724

ACCUTEST Laboratories

Accutest Laboratories Southeast
Subcontract Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL 407-425-6700 FAX: 407-425-0707
www.accutest.com

Client / Reporting Information

Company Name: Accutest Laboratories
Address: 4405 Vineland Rd.
City: Orlando State: FL Zip: 32811
Phone #: (407) 425-6700 Fax#: (407) 425-0707

Project Information

Project Name: F91589X
Please send report to dawnd@accutest.com
For any other issues contact munam@accutest.com

Analytical Information

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe

Lab ID #	Sample ID	COLLECTION DATE	TIME	SAMPLED BY	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NaOH+ZNAC	DI WATER	MEOH	DO,CO2,N2,MEE										LAB USE ONLY
1X	OLD-OU2-02A	03/28/12	13:46		GW	2	BAK									X										
2X	OLD-OU2-02B	03/28/12	14:39		GW	2	BAK									X										
3X	OLD-OU2-03A	03/28/12	16:05		GW	2	BAK									X										
4X	OLD-OU2-03B	03/28/12	18:32		GW	2	BAK									X										

Turnaround Time (Business days)

Std. 10 Business Days
7 Day *RUSH*
5 Day *RUSH*
3 Day *EMERGENCY*
2 Day *EMERGENCY*
1 Day *EMERGENCY*
Other

Approved By: / Date/Rush Code:
04/13/12

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [x] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULLT1 (EPA LEVEL 4)
- [ ] EDD'S

Comments / Remarks

Ship to Laboratory - MICROSEEPS
Approved by - [signature] ASE

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
[signature] ASE	3-30-12 1700	2 FX	3 FX		4 [signature] MS 3/31/12 12:0
Relinquished by/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
5		6	7		8

Lab Use Only : Custody Seal in Place (Y) N Temp Blank Provided: Y N Preserved Where Applicable: Y N Total # of Coolers: 01 Cooler Temperature (s) Celsius: 6°C

NON-CONFORMANCE FORM

Microseeps Project Number: 4724

Date: 3-31-12 Time of Receipt: 12:00 Receiver: H. Dan Young

Client: Accutest

REASON FOR NON-CONFORMANCE:

The last 2 samples (3X and 4X) were preserved with TSP → not appropriate for the requested analysis.

The first 2 samples (1X & 2X) were properly preserved with BAK.

ACTION TAKEN:

Client name: Muna M. Date: ~~Ø~~ JS 4-2-12 4-2-12 Time: 11:45

Emailed client.

As per attached email only analyze samples 3x & 4x for MEE.

4-2-12 As per attached email cancel samples 3x & 4x. Client will resample.

Customer Service Initials: JS Date: 4-2-12

Julianne Sproull

From: Muna Mohammed <MunaM@accutest.com>
Sent: Monday, April 02, 2012 6:25 PM
To: Julianne Sproull
Subject: Re: F91589X

Yes proceed with the first two samples. Tks

From: Julianne Sproull [mailto:jsproull@microseeps.com]
Sent: Monday, April 02, 2012 02:45 PM
To: Muna Mohammed
Subject: RE: F91589X

No problem, I will cancel those samples. We are still analyzing the first two samples correct?

Juli Sproull

Microseeps, Inc.
220 William Pitt Way
Pittsburgh PA 15238
412-826-5245 (Phone)
412-826-5420 (Fax)

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From: Muna Mohammed [mailto:MunaM@accutest.com]
Sent: Monday, April 02, 2012 2:41 PM
To: Julianne Sproull
Subject: RE: F91589X
Importance: High

Julianne,

Please do not run the MEE's on samples 3 and 4. The client is going to re-collect.

From: Julianne Sproull [mailto:jsproull@microseeps.com]
Sent: Monday, April 02, 2012 1:20 PM
To: Muna Mohammed
Subject: RE: F91589X

Muna,

Sorry if I confused you. We can only analyze for the light hydrocarbons of Methane, Ethane, and Ethene. We cannot analyze for Oxygen, Carbon Dioxide, or Nitrogen (Permanent Gasses).

Juli Sproull

Microseeps, Inc.
220 William Pitt Way
Pittsburgh, PA 15238
412-826-5245 (Phone)
412-826-3433 (Fax)

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From: Muna Mohammed [mailto:MunaM@accutest.com]
Sent: Monday, April 02, 2012 1:17 PM
To: Julianne Sproull
Subject: RE: F91589X

So will you be able to get the CO2, DO and N2?

From: Julianne Sproull [mailto:jsproull@microseeps.com]
Sent: Monday, April 02, 2012 1:12 PM
To: Muna Mohammed
Subject: RE: F91589X

Yes, we can analyze for light hydrocarbons from TSP preserved vials.

Juli Sproull

Microseeps, Inc.
220 William Pitt Way
Pittsburgh, PA 15238
412-826-5245 (Phone)
412-826-3433 (Fax)

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From: Muna Mohammed [mailto:MunaM@accutest.com]
Sent: Monday, April 02, 2012 1:11 PM
To: Julianne Sproull
Subject: RE: F91589X

Hi Julianne,

You absolutely can analyze the dissolved gases?

From: Julianne Sproull [mailto:jsproull@microseeps.com]
Sent: Monday, April 02, 2012 11:43 AM
To: Muna Mohammed
Subject: F91589X

Hi Muna,

We received your samples for the above project and I wanted to inform you that samples 3x (OLD-OU2-03A) and 4x (OLD-OU2-03B) were preserved with TSP. We cannot analyze for Dissolved Oxygen, Carbon Dioxide or Nitrogen from TSP preserved vials (we can analyze for Methane, Ethane, and Ethene).

Samples 1x and 2x were correctly preserved with BAK.

Please advise how you would like us to proceed.

Jill Sproull

Microseeps, Inc.
250 William Pitt Way
Pittsburgh PA 15238
412-826-5045 (Phone)
412-826-3433 (Fax)

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Cooler Receipt Form

Client Name: Accutest **Project:** F91589X **Lab Work Order:** 4724

A. Shipping/Container Information (circle appropriate response)

Courier: (FedEx) UPS USPS Client Other:_____ **Air bill Present:** (Yes) No

Tracking Number: 7934 0269 0303

Custody Seal on Cooler/Box Present: (Yes) No **Seals Intact:** (Yes) No

Cooler/Box Packing Material: (Bubble Wrap) Absorbent Foam Other:_____

Type of Ice: (Wet) Blue None **Ice Intact:** (Yes) Melted

HLY 3/31/12

Cooler Temperature: 6°C **Radiation Screened:** ~~(Yes)~~ (No) **Chain of Custody Present:** (Yes) No

Comments:_____

B. Laboratory Assignment/Log-in (check appropriate response)

	YES	NO	N/A	Comment Reference non-Conformance
Chain of Custody properly filled out	✓			
Chain of Custody relinquished	✓			
Sampler Name & Signature on COC		✓		
Containers intact	✓			
Were samples in separate bags	✓			
Sample container labels match COC Sample name/date and time collected	✓			
Sufficient volume provided	✓			
Microseeps containers used	✓			
Are containers properly preserved for the requested testing? (as labeled)		✓		
If an unknown preservation state, were containers checked? Exception: VOA's coliform			✓	
Was volume for dissolved testing field filtered, as noted on the COC? Was volume received in a preserved container?			✓	

Comments:_____

Cooler contents examined/received by : HLY **Date:** 3-31-12

Project Manager Review : JS **Date:** 4-2-12

Southeast ACCUTEST LABORATORIES

04/12/12

04/12/12

Technical Report for

BFA Environmental Consultants

NTC Orlando, Orlando, FL

07-71009/2

Accutest Job Number: F91634

Sampling Date: 03/28/12

Report to:

BFA Environmental Consultants
1230 Hillcrest Street Suite 100
Orlando, FL 32803
jwatson@bfaenvironmental.com

ATTN: John Watson

Total number of pages in report: **62**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Harry Behzadi, Ph.D.
Laboratory Director

Client Service contact: Jean Dent-Smith 407-425-6700

Certifications: FL (E83510), LA (03051), KS (E-10327), IA (366), IL (200063), NC (573), NJ (FL002), SC (96038001) DoD ELAP (L-A-B L2229), CA (04226CA), TX (T104704404), AK, AR, GA, KY, MA, NV, OK, UT, VA, WA, WI

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Test results relate only to samples analyzed.

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Accutest Laboratories

Sample Summary

BFA Environmental Consultants

Job No: F91634

NTC Orlando, Orlando, FL
Project No: 07-71009/2

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
F91634-1	03/28/12	12:02	KB	03/29/12	AQ	Ground Water	OLD-OU2-SW29
F91634-2	03/28/12	12:16	KB	03/29/12	AQ	Ground Water	OLD-OU2-SW30
F91634-3	03/28/12	12:33	KB	03/29/12	AQ	Ground Water	OLD-OU2-SW31
F91634-4	03/28/12	13:07	KB	03/29/12	AQ	Ground Water	OLD-OU2-LG1
F91634-5	03/28/12	13:25	KB	03/29/12	AQ	Ground Water	OLD-OU2-29A
F91634-5F	03/28/12	13:25	KB	03/29/12	AQ	Groundwater Filtered	OLD-OU2-29A
F91634-6	03/28/12	13:36	KB	03/29/12	AQ	Ground Water	OLD-OU2-SW36
F91634-7	03/28/12	14:00	KB	03/29/12	AQ	Ground Water	OLD-OU2-SW35
F91634-8	03/28/12	14:15	KB	03/29/12	AQ	Ground Water	OLD-OU2-SW34
F91634-9	03/28/12	14:33	KB	03/29/12	AQ	Ground Water	OLD-OU2-SW33
F91634-10	03/28/12	14:51	KB	03/29/12	AQ	Ground Water	OLD-OU2-SW32
F91634-11	03/28/12	15:13	KB	03/29/12	AQ	Ground Water	OLD-OU2-29B
F91634-11F	03/28/12	15:13	KB	03/29/12	AQ	Groundwater Filtered	OLD-OU2-29B

Accutest Laboratories

Sample Summary
(continued)

BFA Environmental Consultants

Job No: F91634

NTC Orlando, Orlando, FL
Project No: 07-71009/2

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
F91634-12	03/28/12	17:22	KB	03/29/12	AQ	Ground Water	OLD-OU2-30B
F91634-13	03/28/12	17:34	KB	03/29/12	AQ	Ground Water	OLD-OU2-30A

Accutest Laboratories
Southeast

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-SW29		
Lab Sample ID:	F91634-1	**Date Sampled:**	03/28/12
Matrix:	AQ - Ground Water	**Date Received:**	03/29/12
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A0172405.D	1	04/05/12	TD	n/a	n/a	VA1004
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	0.20 U	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.26 U	1.0	0.26	ug/l	
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	0.25 U	1.0	0.25	ug/l	
79-01-6	Trichloroethylene	0.26 U	1.0	0.26	ug/l	
75-01-4	Vinyl chloride	0.22 U	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	87%		87-116%
17060-07-0	1,2-Dichloroethane-D4	82%		76-127%
2037-26-5	Toluene-D8	90%		86-112%
460-00-4	4-Bromofluorobenzene	94%		84-120%

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-SW29		
Lab Sample ID:	F91634-1	**Date Sampled:**	03/28/12
Matrix:	AQ - Ground Water	**Date Received:**	03/29/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	5180	300	35	ug/l	1	04/06/12	04/06/12	DM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA9699
(2) Prep QC Batch: MP22539

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-SW30		
Lab Sample ID:	F91634-2	**Date Sampled:**	03/28/12
Matrix:	AQ - Ground Water	**Date Received:**	03/29/12
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A0172406.D	1	04/05/12	TD	n/a	n/a	VA1004
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	0.20 U	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.26 U	1.0	0.26	ug/l	
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	0.25 U	1.0	0.25	ug/l	
79-01-6	Trichloroethylene	0.26 U	1.0	0.26	ug/l	
75-01-4	Vinyl chloride	0.22 U	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	88%		87-116%
17060-07-0	1,2-Dichloroethane-D4	83%		76-127%
2037-26-5	Toluene-D8	89%		86-112%
460-00-4	4-Bromofluorobenzene	90%		84-120%

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-SW30		
Lab Sample ID:	F91634-2	**Date Sampled:**	03/28/12
Matrix:	AQ - Ground Water	**Date Received:**	03/29/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	2530	300	35	ug/l	1	04/06/12	04/06/12	DM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA9699
(2) Prep QC Batch: MP22539

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-SW31		
Lab Sample ID:	F91634-3	**Date Sampled:**	03/28/12
Matrix:	AQ - Ground Water	**Date Received:**	03/29/12
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A0172407.D	1	04/05/12	TD	n/a	n/a	VA1004
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	0.20 U	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.26 U	1.0	0.26	ug/l	
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	0.25 U	1.0	0.25	ug/l	
79-01-6	Trichloroethylene	0.26 U	1.0	0.26	ug/l	
75-01-4	Vinyl chloride	0.22 U	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	89%		87-116%
17060-07-0	1,2-Dichloroethane-D4	83%		76-127%
2037-26-5	Toluene-D8	87%		86-112%
460-00-4	4-Bromofluorobenzene	93%		84-120%

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-SW31		
Lab Sample ID:	F91634-3	**Date Sampled:**	03/28/12
Matrix:	AQ - Ground Water	**Date Received:**	03/29/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	12400	300	35	ug/l	1	04/06/12	04/06/12	DM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA9699
(2) Prep QC Batch: MP22539

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-LG1		
Lab Sample ID:	F91634-4	**Date Sampled:**	03/28/12
Matrix:	AQ - Ground Water	**Date Received:**	03/29/12
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A0172408.D	1	04/05/12	TD	n/a	n/a	VA1004
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	0.20 U	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.26 U	1.0	0.26	ug/l	
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	0.25 U	1.0	0.25	ug/l	
79-01-6	Trichloroethylene	0.26 U	1.0	0.26	ug/l	
75-01-4	Vinyl chloride	0.22 U	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	88%		87-116%
17060-07-0	1,2-Dichloroethane-D4	82%		76-127%
2037-26-5	Toluene-D8	91%		86-112%
460-00-4	4-Bromofluorobenzene	94%		84-120%

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-29A		
Lab Sample ID:	F91634-5	**Date Sampled:**	03/28/12
Matrix:	AQ - Ground Water	**Date Received:**	03/29/12
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	M0058247.D	1	04/11/12	RB	n/a	n/a	VM2369
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	0.20 U	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.26 U	1.0	0.26	ug/l	
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	0.25 U	1.0	0.25	ug/l	
79-01-6	Trichloroethylene	0.26 U	1.0	0.26	ug/l	
75-01-4	Vinyl chloride	0.22 U	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		87-116%
17060-07-0	1,2-Dichloroethane-D4	103%		76-127%
2037-26-5	Toluene-D8	106%		86-112%
460-00-4	4-Bromofluorobenzene	103%		84-120%

(a) Sample was not preserved to a pH < 2; reported results are considered minimum values.

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-29A		
Lab Sample ID:	F91634-5	**Date Sampled:**	03/28/12
Matrix:	AQ - Ground Water	**Date Received:**	03/29/12
Method:	RSKSOP-147/175	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FF15436.D	1	04/03/12	MM	n/a	n/a	GFF645
Run #2							

CAS No.	Compound	Result	PQL	MDL	Units	Q
74-82-8	Methane	28.8	0.50	0.16	ug/l	
74-84-0	Ethane	0.32 U	1.0	0.32	ug/l	
74-85-1	Ethene	0.43 U	1.0	0.43	ug/l	

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-29A		
Lab Sample ID:	F91634-5	**Date Sampled:**	03/28/12
Matrix:	AQ - Ground Water	**Date Received:**	03/29/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	1090	300	35	ug/l	1	04/06/12	04/06/12	DM	SW846 6010C [1]	SW846 3010A [2]
Manganese	2.7 I	15	1.0	ug/l	1	04/06/12	04/06/12	DM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA9699
(2) Prep QC Batch: MP22539

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-29A		
Lab Sample ID:	F91634-5	**Date Sampled:**	03/28/12
Matrix:	AQ - Ground Water	**Date Received:**	03/29/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	34.7	5.0	2.5	mg/l	1	04/06/12	LE	SM19 2320B
Chloride	5.7	2.0	1.0	mg/l	1	03/30/12 09:37	TC	EPA 300/SW846 9056A
Nitrogen, Ammonia	0.050 U	0.10	0.050	mg/l	1	03/31/12 21:11	LT	EPA 350.1
Nitrogen, Nitrate	0.11	0.10	0.050	mg/l	1	03/30/12 09:37	TC	EPA 300/SW846 9056A
Nitrogen, Nitrite	0.050 U	0.10	0.050	mg/l	1	03/30/12 09:37	TC	EPA 300/SW846 9056A
Phosphate, Ortho [a]	0.17	0.10	0.020	mg/l	1	03/31/12 14:08	FN	EPA 365.3
Sulfate	10.7	2.0	1.0	mg/l	1	03/30/12 09:37	TC	EPA 300/SW846 9056A

(a) Exceeded holding time.

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-29A		
Lab Sample ID:	F91634-5F	**Date Sampled:**	03/28/12
Matrix:	AQ - Groundwater Filtered	**Date Received:**	03/29/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Total Organic Carbon	29.5	1.0	0.26	mg/l	1	03/30/12 22:26	FN	SM19 5310B/SW 9060A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-SW36		
Lab Sample ID:	F91634-6	**Date Sampled:**	03/28/12
Matrix:	AQ - Ground Water	**Date Received:**	03/29/12
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A0172409.D	1	04/05/12	TD	n/a	n/a	VA1004
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	0.20 U	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.26 U	1.0	0.26	ug/l	
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	0.25 U	1.0	0.25	ug/l	
79-01-6	Trichloroethylene	0.26 U	1.0	0.26	ug/l	
75-01-4	Vinyl chloride	0.22 U	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	89%		87-116%
17060-07-0	1,2-Dichloroethane-D4	84%		76-127%
2037-26-5	Toluene-D8	90%		86-112%
460-00-4	4-Bromofluorobenzene	94%		84-120%

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-SW36		
Lab Sample ID:	F91634-6	**Date Sampled:**	03/28/12
Matrix:	AQ - Ground Water	**Date Received:**	03/29/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	147000	300	35	ug/l	1	04/06/12	04/06/12	DM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA9699
(2) Prep QC Batch: MP22539

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-SW35		
Lab Sample ID:	F91634-7	**Date Sampled:**	03/28/12
Matrix:	AQ - Ground Water	**Date Received:**	03/29/12
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A0172410.D	1	04/05/12	TD	n/a	n/a	VA1004
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	0.20 U	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.26 U	1.0	0.26	ug/l	
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	0.25 U	1.0	0.25	ug/l	
79-01-6	Trichloroethylene	0.26 U	1.0	0.26	ug/l	
75-01-4	Vinyl chloride	0.22 U	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	88%		87-116%
17060-07-0	1,2-Dichloroethane-D4	84%		76-127%
2037-26-5	Toluene-D8	90%		86-112%
460-00-4	4-Bromofluorobenzene	93%		84-120%

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-SW35		
Lab Sample ID:	F91634-7	**Date Sampled:**	03/28/12
Matrix:	AQ - Ground Water	**Date Received:**	03/29/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	14900	300	35	ug/l	1	04/06/12	04/06/12	DM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA9699
(2) Prep QC Batch: MP22539

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-SW34		
Lab Sample ID:	F91634-8	**Date Sampled:**	03/28/12
Matrix:	AQ - Ground Water	**Date Received:**	03/29/12
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A0172411.D	1	04/05/12	TD	n/a	n/a	VA1004
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	0.20 U	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.65	1.0	0.26	ug/l	I
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	0.25 U	1.0	0.25	ug/l	
79-01-6	Trichloroethylene	0.26 U	1.0	0.26	ug/l	
75-01-4	Vinyl chloride	0.22 U	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	88%		87-116%
17060-07-0	1,2-Dichloroethane-D4	84%		76-127%
2037-26-5	Toluene-D8	92%		86-112%
460-00-4	4-Bromofluorobenzene	92%		84-120%

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-SW34		
Lab Sample ID:	F91634-8	**Date Sampled:**	03/28/12
Matrix:	AQ - Ground Water	**Date Received:**	03/29/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	413000	300	35	ug/l	1	04/06/12	04/06/12	DM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA9699
(2) Prep QC Batch: MP22539

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-SW33		
Lab Sample ID:	F91634-9	**Date Sampled:**	03/28/12
Matrix:	AQ - Ground Water	**Date Received:**	03/29/12
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A0172412.D	1	04/05/12	TD	n/a	n/a	VA1004
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	0.20 U	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.26 U	1.0	0.26	ug/l	
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	0.25 U	1.0	0.25	ug/l	
79-01-6	Trichloroethylene	0.26 U	1.0	0.26	ug/l	
75-01-4	Vinyl chloride	0.22 U	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	88%		87-116%
17060-07-0	1,2-Dichloroethane-D4	83%		76-127%
2037-26-5	Toluene-D8	90%		86-112%
460-00-4	4-Bromofluorobenzene	94%		84-120%

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-SW33		
Lab Sample ID:	F91634-9	**Date Sampled:**	03/28/12
Matrix:	AQ - Ground Water	**Date Received:**	03/29/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	6640	300	35	ug/l	1	04/06/12	04/06/12	DM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA9699
(2) Prep QC Batch: MP22539

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-SW32		
Lab Sample ID:	F91634-10	**Date Sampled:**	03/28/12
Matrix:	AQ - Ground Water	**Date Received:**	03/29/12
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A0172413.D	1	04/05/12	TD	n/a	n/a	VA1004
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	0.20 U	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.26 U	1.0	0.26	ug/l	
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	0.25 U	1.0	0.25	ug/l	
79-01-6	Trichloroethylene	0.26 U	1.0	0.26	ug/l	
75-01-4	Vinyl chloride	0.22 U	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	89%		87-116%
17060-07-0	1,2-Dichloroethane-D4	84%		76-127%
2037-26-5	Toluene-D8	89%		86-112%
460-00-4	4-Bromofluorobenzene	94%		84-120%

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-SW32		
Lab Sample ID:	F91634-10	**Date Sampled:**	03/28/12
Matrix:	AQ - Ground Water	**Date Received:**	03/29/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	25500	300	35	ug/l	1	04/06/12	04/06/12	DM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA9699
(2) Prep QC Batch: MP22539

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-29B		
Lab Sample ID:	F91634-11	**Date Sampled:**	03/28/12
Matrix:	AQ - Ground Water	**Date Received:**	03/29/12
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	M0058248.D	1	04/11/12	RB	n/a	n/a	VM2369
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	0.20 U	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.26 U	1.0	0.26	ug/l	
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	0.25 U	1.0	0.25	ug/l	
79-01-6	Trichloroethylene	0.26 U	1.0	0.26	ug/l	
75-01-4	Vinyl chloride	0.22 U	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		87-116%
17060-07-0	1,2-Dichloroethane-D4	104%		76-127%
2037-26-5	Toluene-D8	104%		86-112%
460-00-4	4-Bromofluorobenzene	105%		84-120%

(a) Sample was not preserved to a pH < 2; reported results are considered minimum values.

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-29B		
Lab Sample ID:	F91634-11	**Date Sampled:**	03/28/12
Matrix:	AQ - Ground Water	**Date Received:**	03/29/12
Method:	RSKSOP-147/175	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FF15437.D	1	04/03/12	MM	n/a	n/a	GFF645
Run #2	FF15445.D	5	04/03/12	MM	n/a	n/a	GFF645

CAS No.	Compound	Result	PQL	MDL	Units	Q
74-82-8	Methane	1180 [a]	2.5	0.80	ug/l	
74-84-0	Ethane	0.46	1.0	0.32	ug/l	I
74-85-1	Ethene	0.43 U	1.0	0.43	ug/l	

(a) Result is from Run# 2

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-29B		
Lab Sample ID:	F91634-11	**Date Sampled:**	03/28/12
Matrix:	AQ - Ground Water	**Date Received:**	03/29/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	2170	300	35	ug/l	1	04/06/12	04/06/12	DM	SW846 6010C [1]	SW846 3010A [2]
Manganese	14.3 I	15	1.0	ug/l	1	04/06/12	04/06/12	DM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA9699
(2) Prep QC Batch: MP22539

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-29B		
Lab Sample ID:	F91634-11	**Date Sampled:**	03/28/12
Matrix:	AQ - Ground Water	**Date Received:**	03/29/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	30.5	5.0	2.5	mg/l	1	04/06/12	LE	SM19 2320B
Chloride	17.6	2.0	1.0	mg/l	1	03/30/12 09:53	TC	EPA 300/SW846 9056A
Nitrogen, Ammonia	0.42	0.10	0.050	mg/l	1	03/31/12 21:12	LT	EPA 350.1
Nitrogen, Nitrate	0.050 U	0.10	0.050	mg/l	1	03/30/12 09:53	TC	EPA 300/SW846 9056A
Nitrogen, Nitrite	0.050 U	0.10	0.050	mg/l	1	03/30/12 09:53	TC	EPA 300/SW846 9056A
Phosphate, Ortho [a]	1.8	0.50	0.10	mg/l	5	03/31/12 14:08	FN	EPA 365.3
Sulfate	1.3 I	2.0	1.0	mg/l	1	03/30/12 09:53	TC	EPA 300/SW846 9056A

(a) Exceeded holding time.

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-29B		
Lab Sample ID:	F91634-11F	**Date Sampled:**	03/28/12
Matrix:	AQ - Groundwater Filtered	**Date Received:**	03/29/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Total Organic Carbon	23.3	1.0	0.26	mg/l	1	03/30/12 22:41	FN	SM19 5310B/SW 9060A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-30B		
Lab Sample ID:	F91634-12	**Date Sampled:**	03/28/12
Matrix:	AQ - Ground Water	**Date Received:**	03/29/12
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A0172414.D	1	04/05/12	TD	n/a	n/a	VA1004
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	0.46	1.0	0.20	ug/l	I
156-59-2	cis-1,2-Dichloroethylene	0.26 U	1.0	0.26	ug/l	
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	0.25 U	1.0	0.25	ug/l	
79-01-6	Trichloroethylene	0.26 U	1.0	0.26	ug/l	
75-01-4	Vinyl chloride	0.22 U	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	89%		87-116%
17060-07-0	1,2-Dichloroethane-D4	86%		76-127%
2037-26-5	Toluene-D8	90%		86-112%
460-00-4	4-Bromofluorobenzene	94%		84-120%

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-30B		
Lab Sample ID:	F91634-12	**Date Sampled:**	03/28/12
Matrix:	AQ - Ground Water	**Date Received:**	03/29/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	29700	300	35	ug/l	1	04/06/12	04/06/12	DM	SW846 6010C [1]	SW846 3010A [2]
Manganese	133	15	1.0	ug/l	1	04/06/12	04/06/12	DM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA9699
(2) Prep QC Batch: MP22539

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-30A		
Lab Sample ID:	F91634-13	**Date Sampled:**	03/28/12
Matrix:	AQ - Ground Water	**Date Received:**	03/29/12
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A0172415.D	1	04/05/12	TD	n/a	n/a	VA1004
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	0.20 U	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.26 U	1.0	0.26	ug/l	
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	0.25 U	1.0	0.25	ug/l	
79-01-6	Trichloroethylene	0.26 U	1.0	0.26	ug/l	
75-01-4	Vinyl chloride	0.22 U	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	90%		87-116%
17060-07-0	1,2-Dichloroethane-D4	85%		76-127%
2037-26-5	Toluene-D8	91%		86-112%
460-00-4	4-Bromofluorobenzene	94%		84-120%

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-30A		
Lab Sample ID:	F91634-13	**Date Sampled:**	03/28/12
Matrix:	AQ - Ground Water	**Date Received:**	03/29/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	10600	300	35	ug/l	1	04/06/12	04/06/12	DM	SW846 6010C [1]	SW846 3010A [2]
Manganese	25.5	15	1.0	ug/l	1	04/06/12	04/06/12	DM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA9699
(2) Prep QC Batch: MP22539

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories
Southeast

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Certification Exceptions
- Certification Exceptions (FL)
- Chain of Custody

BFA Environmental Consultants

CHAIN OF CUSTODY
Analytical Request Document

F91634

Client Information	Project Information	Lab Information	COC Number
BFA Orlando, FL Report Copy to: John Watson E-mail Report to: jwatson@bfaenvironmental.com	Operable Unit 2 Orlando, FL 32813 Lab Quote No: Ref. No: Project No: 07-71009/2 Invoice to:	Accutest Laboratories Southeast 4405 Vineland Road Suite C-15 Orlando, FL 32811	07-71009/2_3/28/12 Shipped By: Courier Tracking #:

	Sample ID	Date	Time	Matrix	Method(s)	# Cont	Cont. Type	Cont. Size	Preservatives	TAT	Lab ID No.
1	OLD-OU2-SW29	03/28/2012	12:02 pm	WG	Fe VOCs	4	CG;PE	40 ml;500 ml	HCL;HNO3	2 week	
2	OLD-OU2-SW30	03/28/2012	12:16 pm	WG	Fe VOCs	4	CG;PE	40 ml;500 ml	HCL;HNO3	2 week	
3	OLD-OU2-SW31	03/28/2012	12:33 pm	WG	Fe VOCs	4	CG;PE	40 ml;500 ml	HCL;HNO3	2 week	
4	OLD-OU2-LG1	03/28/2012	01:07 pm	WG	VOCs	3	CG	40 ml	HCL	2 week	
5	OLD-OU2-29A	03/28/2012	01:25 pm	WG	Alkalinity, Chloride, Nitrate/Nitrite, Orthophosphate, Sulfate Ammonium Biogenic Gases DOC Fe/Mn Methane/ethane/ethene VOCs	12	AG;CG	40 ml;500 ml;1 L	H2SO4;HCL;HNO3;Other;None	2 week	
6	OLD-OU2-SW36	03/28/2012	01:36 pm	WG	Fe VOCs	4	CG;PE	40 ml;500 ml	HCL;HNO3	2 week	
7	OLD-OU2-SW35	03/28/2012	02:00 pm	WG	Fe VOCs	4	CG;PE	40 ml;500 ml	HCL;HNO3	2 week	
8	OLD-OU2-SW34	03/28/2012	02:15 pm	WG	Fe VOCs	4	CG;PE	40 ml;500 ml	HCL;HNO3	2 week	
9	OLD-OU2-SW33	03/28/2012	02:33 pm	WG	Fe VOCs	4	CG;PE	40 ml;500 ml	HCL;HNO3	2 week	
10	OLD-OU2-SW32	03/28/2012	02:51 pm	WG	Fe VOCs	4	CG;PE	40 ml;500 ml	HCL;HNO3	2 week	
11	OLD-OU2-29B	03/28/2012	03:13 pm	WG	Alkalinity, Chloride, Nitrate/Nitrite, Orthophosphate, Sulfate Ammonium Biogenic Gases DOC Fe/Mn Methane/ethane/ethene VOCs	12	AG;CG;PE	40 ml;500 ml;1 L	H2SO4;HCL;HNO3;Other;None	2 week	
12	OLD-OU2-30B	03/28/2012	05:22 pm	WG	Fe/Mn VOCs	5	CG;PE	40 ml;500 ml	HCL;HNO3	2 week	
13	OLD-OU2-30A	03/28/2012	05:34 pm	WG	Fe VOCs Mn	5	CG;PE	40 ml;500 ml	HCL;HNO3	2 week	

Client Comments / Instructions	Lab Comments / Receipt Conditions
	3.2c

Relinquished By	Date	Time	Accepted By	Date	Time
[signature]	3/29/12	14 38	[signature]	3/29/12	14 38
[signature]	3/29/12	1502	[signature] ALSE	3/29/12	1502

Sampler Name: Katie Ballew

Sampler Signature: Katie Ballew

Date Signed: 03/29/2012

3.1 3

F91634: Chain of Custody
Page 1 of 2

ACCUTEST LABORATORIES

F91634

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: F91634 CLIENT: BFA PROJECT: OPERABLE UNIT #2

DATE/TIME RECEIVED: 03/29/12 15:02 {MM/DD/YY 24:00} NIMBER OF COOLERS RECEIVED: 1

METHOD OF DELIVERY: FEDEX UPS (ACCUTEST COURIER) GREYHOUND DELIVERY OTHER

AIRBILL NUMBERS:

COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET
- [ ] WET ICE PRESENT

TRIP BLANK INFORMATION

- [ ] TRIP BLANK PROVIDED
- [x] TRIP BLANK NOT PROVIDED
- [x] TRIP BLANK NOT ON COC
- [ ] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [ ] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

MISC. INFORMATION

NUMBER OF ENCORES ? 25-GRAM_____ 5-GRAM_____

NUMBER OF 5035 FIELD KITS ? _____

NUMBER OF LAB FILTERED METALS ? _____

TEMPERATURE INFORMATION

- [ ] IR THERM ID #1 CORR. FACTOR -0.2
- [ ] OBSERVED TEMPS: 3.4
- [ ] CORRECTED TEMPS: 3.2

SAMPLE INFORMATION

- [ ] SAMPLE LABELS PRESENT ON ALL BOTTLES
- [ ] INCORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- [ ] ID'S ON COC DO NOT MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] 5035 FIELD KIT FROZEN WITHIN 48 HOUR'S
- [ ] RESIDUAL CHLORINE PRESENT

{APPICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS}

SUMMARY OF COMMENTS: NOTE: (DOC) VIALS FOR SAMPLES 5 AND 11 ARE UNPRESERVED.

TECHNICIAN SIGNATURE/DATE [signature] 03/29/12 REVIEWER SIGNATURE/DATE [signature] 03/29/12

NF 12/10

receipt confirmation 122910.xls

F91634: Chain of Custody

Page 2 of 2

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: F91634
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VA1004-MB	A0172404.D	1	04/05/12	TD	n/a	n/a	VA1004

The QC reported here applies to the following samples: **Method:** SW846 8260B

F91634-1, F91634-2, F91634-3, F91634-4, F91634-6, F91634-7, F91634-8, F91634-9, F91634-10, F91634-12, F91634-13

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.26	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.25	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.26	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	87%	87-116%
17060-07-0	1,2-Dichloroethane-D4	82%	76-127%
2037-26-5	Toluene-D8	92%	86-112%
460-00-4	4-Bromofluorobenzene	94%	84-120%

Method Blank Summary

Job Number: F91634
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VM2369-MB	M0058237.D	1	04/11/12	RB	n/a	n/a	VM2369

The QC reported here applies to the following samples: **Method:** SW846 8260B

F91634-5, F91634-11

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.26	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.25	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.26	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	100%	87-116%
17060-07-0	1,2-Dichloroethane-D4	97%	76-127%
2037-26-5	Toluene-D8	104%	86-112%
460-00-4	4-Bromofluorobenzene	105%	84-120%

Blank Spike Summary

Job Number: F91634
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VA1004-BS	A0172402.D	1	04/05/12	TD	n/a	n/a	VA1004

The QC reported here applies to the following samples: **Method:** SW846 8260B

F91634-1, F91634-2, F91634-3, F91634-4, F91634-6, F91634-7, F91634-8, F91634-9, F91634-10, F91634-12, F91634-13

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	25	28.8	115	83-124
156-59-2	cis-1,2-Dichloroethylene	25	27.7	111	81-114
98-82-8	Isopropylbenzene	25	32.5	130	87-131
75-09-2	Methylene chloride	25	28.2	113	69-125
127-18-4	Tetrachloroethylene	25	29.5	118	80-131
79-01-6	Trichloroethylene	25	30.8	123	85-124
75-01-4	Vinyl chloride	25	25.7	103	57-153

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	88%	87-116%
17060-07-0	1,2-Dichloroethane-D4	85%	76-127%
2037-26-5	Toluene-D8	93%	86-112%
460-00-4	4-Bromofluorobenzene	91%	84-120%

Blank Spike Summary

Job Number: F91634
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VM2369-BS	M0058235.D	1	04/11/12	RB	n/a	n/a	VM2369

The QC reported here applies to the following samples: **Method:** SW846 8260B

F91634-5, F91634-11

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	25	23.6	94	83-124
156-59-2	cis-1,2-Dichloroethylene	25	24.1	96	81-114
98-82-8	Isopropylbenzene	25	28.1	112	87-131
75-09-2	Methylene chloride	25	22.2	89	69-125
127-18-4	Tetrachloroethylene	25	24.3	97	80-131
79-01-6	Trichloroethylene	25	23.9	96	85-124
75-01-4	Vinyl chloride	25	18.4	74	57-153

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	99%	87-116%
17060-07-0	1,2-Dichloroethane-D4	94%	76-127%
2037-26-5	Toluene-D8	103%	86-112%
460-00-4	4-Bromofluorobenzene	99%	84-120%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F91634
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F91634-1MS	A0172416.D	1	04/05/12	TD	n/a	n/a	VA1004
F91634-1MSD	A0172417.D	1	04/05/12	TD	n/a	n/a	VA1004
F91634-1	A0172405.D	1	04/05/12	TD	n/a	n/a	VA1004

The QC reported here applies to the following samples: **Method:** SW846 8260B

F91634-1, F91634-2, F91634-3, F91634-4, F91634-6, F91634-7, F91634-8, F91634-9, F91634-10, F91634-12, F91634-13

CAS No.	Compound	F91634-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	1.0	U	25	27.1	108	24.3	97	11	83-124/11
156-59-2	cis-1,2-Dichloroethylene	1.0	U	25	26.1	104	23.1	92	12*	81-114/10
98-82-8	Isopropylbenzene	1.0	U	25	28.4	114	25.5	102	11*	87-131/10
75-09-2	Methylene chloride	5.0	U	25	27.3	109	24.8	99	10	69-125/11
127-18-4	Tetrachloroethylene	1.0	U	25	26.4	106	23.9	96	10	80-131/12
79-01-6	Trichloroethylene	1.0	U	25	28.9	116	25.6	102	12*	85-124/10
75-01-4	Vinyl chloride	1.0	U	25	32.1	128	29.0	116	10	57-153/22

CAS No.	Surrogate Recoveries	MS	MSD	F91634-1	Limits
1868-53-7	Dibromofluoromethane	90%	89%	87%	87-116%
17060-07-0	1,2-Dichloroethane-D4	89%	87%	82%	76-127%
2037-26-5	Toluene-D8	91%	91%	90%	86-112%
460-00-4	4-Bromofluorobenzene	90%	91%	94%	84-120%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F91634
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F91840-3MS	M0058249.D	1	04/11/12	RB	n/a	n/a	VM2369
F91840-3MSD	M0058250.D	1	04/11/12	RB	n/a	n/a	VM2369
F91840-3	M0058242.D	1	04/11/12	RB	n/a	n/a	VM2369

The QC reported here applies to the following samples: **Method:** SW846 8260B

F91634-5, F91634-11

CAS No.	Compound	F91840-3 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	0.76		25	25.2	98	25.0	97	1	83-124/11
156-59-2	cis-1,2-Dichloroethylene	ND		25	24.0	96	24.4	98	2	81-114/10
98-82-8	Isopropylbenzene	ND		25	27.5	110	27.6	110	0	87-131/10
75-09-2	Methylene chloride	ND		25	23.9	96	23.3	93	3	69-125/11
127-18-4	Tetrachloroethylene	ND		25	24.9	100	23.5	94	6	80-131/12
79-01-6	Trichloroethylene	ND		25	24.7	99	24.3	97	2	85-124/10
75-01-4	Vinyl chloride	ND		25	25.1	100	23.3	93	7	57-153/22

CAS No.	Surrogate Recoveries	MS	MSD	F91840-3	Limits
1868-53-7	Dibromofluoromethane	104%	105%	103%	87-116%
17060-07-0	1,2-Dichloroethane-D4	106%	107%	102%	76-127%
2037-26-5	Toluene-D8	99%	101%	106%	86-112%
460-00-4	4-Bromofluorobenzene	97%	100%	102%	84-120%

Accutest Laboratories
Southeast

GC Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: F91634
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GFF645-MB	FF15432.D	1	04/03/12	MM	n/a	n/a	GFF645

The QC reported here applies to the following samples: **Method:** RSKSOP-147/175

F91634-5, F91634-11

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	ND	0.50	0.16	ug/l	
74-84-0	Ethane	ND	1.0	0.32	ug/l	
74-85-1	Ethene	ND	1.0	0.43	ug/l	

Blank Spike Summary

Job Number: F91634
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GFF645-BS	FF15434.D	1	04/03/12	MM	n/a	n/a	GFF645

The QC reported here applies to the following samples: **Method:** RSKSOP-147/175

F91634-5, F91634-11

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
74-82-8	Methane	108	118	109	54-149
74-84-0	Ethane	219	247	113	57-143
74-85-1	Ethene	290	326	112	57-143

Matrix Spike Summary

Job Number: F91634
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F91709-1MS	FF15440.D	1	04/03/12	MM	n/a	n/a	GFF645
F91709-1	FF15438.D	1	04/03/12	MM	n/a	n/a	GFF645

The QC reported here applies to the following samples: **Method:** RSKSOP-147/175

F91634-5, F91634-11

CAS No.	Compound	F91709-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Limits
74-82-8	Methane	0.25	I	108	121	112	54-149
74-84-0	Ethane	1.0 U		219	253	116	57-143
74-85-1	Ethene	1.0 U		290	335	116	57-143

Accutest Laboratories Southeast

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: F91634
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP22539
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 04/06/12

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	20	25		
Antimony	6.0	1	2		
Arsenic	10	1	2		
Barium	200	1	5		
Beryllium	4.0	.1	1		
Cadmium	5.0	.1	1		
Calcium	1000	50	100		
Chromium	10	1	1		
Cobalt	50	1	1		
Copper	25	1	2		
Iron	300	34	35	-2.4	<300
Lead	5.0	1	1		
Magnesium	5000	50	100		
Manganese	15	1	1	0.10	<15
Molybdenum	50	1	2		
Nickel	40	1	2		
Potassium	10000	50	500		
Selenium	10	2	2		
Silver	10	1	1		
Sodium	10000	750	1900		
Strontium	10	1	1		
Thallium	10	1	1.9		
Tin	50	1	1		
Titanium	10	1.1	2		
Vanadium	50	1	1		
Zinc	20	1	5		

Associated samples MP22539: F91634-1, F91634-2, F91634-3, F91634-5, F91634-6, F91634-7, F91634-8, F91634-9, F91634-10, F91634-11, F91634-12, F91634-13

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F91634
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP22539 | Methods: SW846 6010C
Matrix Type: AQUEOUS | Units: ug/l

Prep Date:			04/06/12					04/06/12	
Metal	F91634-1 Original	DUP	RPD	QC Limits	F91634-1 Original	MS	Spikelot MPFLICP1	% Rec	QC Limits
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron	5180	5280	1.9	0-20	5180	31100	26000	99.7	80-120
Lead									
Magnesium									
Manganese	6.9	7.3	5.6	0-20	6.9	509	500	100.4	80-120
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc									

Associated samples MP22539: F91634-1, F91634-2, F91634-3, F91634-5, F91634-6, F91634-7, F91634-8, F91634-9, F91634-10, F91634-11, F91634-12, F91634-13

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F91634
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP22539 Methods: SW846 6010C
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 04/06/12

Metal	F91634-1 Original	MSD	Spikelot MPFLICP1	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic						
Barium						
Beryllium						
Cadmium						
Calcium						
Chromium						
Cobalt						
Copper						
Iron	5180	32100	26000	103.5	3.2	20
Lead						
Magnesium						
Manganese	6.9	510	500	100.6	0.2	20
Molybdenum						
Nickel						
Potassium						
Selenium						
Silver						
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc						

Associated samples MP22539: F91634-1, F91634-2, F91634-3, F91634-5, F91634-6, F91634-7, F91634-8, F91634-9, F91634-10, F91634-11, F91634-12, F91634-13

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: F91634
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP22539
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 04/06/12

Metal	BSP Result	Spikelot MPFLICP1	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron	27500	26000	105.8	80-120
Lead				
Magnesium				
Manganese	522	500	104.4	80-120
Molybdenum				
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP22539: F91634-1, F91634-2, F91634-3, F91634-5, F91634-6, F91634-7, F91634-8, F91634-9, F91634-10, F91634-11, F91634-12, F91634-13

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: F91634
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP22539 Methods: SW846 6010C
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 04/06/12

Metal	F91634-1 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron	5180	5250	1.2	0-10
Lead				
Magnesium				
Manganese	6.90	7.70	11.6 (a)	0-10
Molybdenum				
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP22539: F91634-1, F91634-2, F91634-3, F91634-5, F91634-6, F91634-7, F91634-8, F91634-9, F91634-10, F91634-11, F91634-12, F91634-13

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

POST DIGESTATE SPIKE SUMMARY

Login Number: F91634
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP22539
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 04/06/12

Metal	Sample ml	Final ml	F91634-1 Raw	Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum										
Antimony										
Arsenic										
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium										
Cobalt										
Copper										
Iron	9.8	10	5184	5080.32	8159	0.2	150	3000	102.6	80-120
Lead										
Magnesium										
Manganese	9.8	10	6.9	6.762	58.9	0.2	2.5	50	104.3	80-120
Molybdenum										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Strontium										
Thallium										
Tin										
Titanium										
Vanadium										
Zinc										

Associated samples MP22539: F91634-1, F91634-2, F91634-3, F91634-5, F91634-6, F91634-7, F91634-8, F91634-9, F91634-10, F91634-11, F91634-12, F91634-13

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested

Accutest Laboratories Southeast

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F91634
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Alkalinity, Total as CaCO3	GN49237	5.0	0.0	mg/l	250	254	102.0	90-113%
Chloride	GP18944/GN49145	2.0	0.0	mg/l	50	53.1	106.2	90-110%
Fluoride	GP18944/GN49145	0.20	0.0	mg/l	2.5	2.52	100.8	90-110%
Nitrogen, Ammonia	GP18947/GN49148	0.10	0.0	mg/l	2.5	2.49	99.6	90-110%
Nitrogen, Nitrate	GP18944/GN49145	0.10	0.0	mg/l	2.5	2.51	100.4	90-110%
Nitrogen, Nitrite	GP18944/GN49145	0.10	0.0	mg/l	2.5	2.35	94.0	90-110%
Phosphate, Ortho	GP18949/GN49141	0.10	0.0	mg/l	0.300	0.29	97.2	83-116%
Sulfate	GP18944/GN49145	2.0	0.0	mg/l	50	53.7	107.4	90-110%
Total Organic Carbon	GP18941/GN49135	1.0	0.0	mg/l	15	15.7	104.7	90-110%

Associated Samples:
Batch GN49237: F91634-11, F91634-5
Batch GP18941: F91634-11F, F91634-5F
Batch GP18944: F91634-11, F91634-5
Batch GP18947: F91634-11, F91634-5
Batch GP18949: F91634-11, F91634-5
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F91634
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Alkalinity, Total as CaCO3	GN49237	F91663-11	mg/l	221	217	1.8	0-20%
Chloride	GP18944/GN49145	F91634-5	mg/l	5.7	5.5	3.6	0-20%
Fluoride	GP18944/GN49145	F91634-5	mg/l	0.096	0.10	4.1	0-20%
Nitrogen, Ammonia	GP18947/GN49148	F91661-5	mg/l	0.050 U	0.0	0.0	0-20%
Nitrogen, Nitrate	GP18944/GN49145	F91634-5	mg/l	0.11	0.071	43.1(a)	0-20%
Nitrogen, Nitrite	GP18944/GN49145	F91634-5	mg/l	0.050 U	0.0	0.0	0-20%
Phosphate, Ortho	GP18949/GN49141	F91634-5	mg/l	0.17	0.16	3.7	0-26%
Sulfate	GP18944/GN49145	F91634-5	mg/l	10.7	10.6	0.9	0-20%
Total Organic Carbon	GP18941/GN49135	F91651-1	mg/l	0.26 U	0.0	0.0	0-20%

Associated Samples:
Batch GN49237: F91634-11, F91634-5
Batch GP18941: F91634-11F, F91634-5F
Batch GP18944: F91634-11, F91634-5
Batch GP18947: F91634-11, F91634-5
Batch GP18949: F91634-11, F91634-5
(*) Outside of QC limits
(a) RPD acceptable due to low duplicate and sample concentrations.

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F91634
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Alkalinity, Total as CaCO3	GN49237	F91663-11	mg/l	221	250	450	91.6	90-113%
Chloride	GP18944/GN49145	F91634-5	mg/l	5.7	50	56.0	100.6	90-110%
Fluoride	GP18944/GN49145	F91634-5	mg/l	0.096	2.5	2.2	84.2N(a)	90-110%
Nitrogen, Ammonia	GP18947/GN49148	F91661-5	mg/l	0.050 U	2.5	2.3	92.0	90-110%
Nitrogen, Nitrate	GP18944/GN49145	F91634-5	mg/l	0.11	2.5	2.2	83.6N(a)	90-110%
Nitrogen, Nitrite	GP18944/GN49145	F91634-5	mg/l	0.050 U	2.5	2.4	96.0	90-110%
Phosphate, Ortho	GP18949/GN49141	F91634-5	mg/l	0.17	0.300	0.42	84.1	83-116%
Sulfate	GP18944/GN49145	F91634-5	mg/l	10.7	50	55.4	89.4N(a)	90-110%
Total Organic Carbon	GP18941/GN49135	F91651-1	mg/l	0.26 U	15	15.8	105.3	90-110%

Associated Samples:
Batch GN49237: F91634-11, F91634-5
Batch GP18941: F91634-11F, F91634-5F
Batch GP18944: F91634-11, F91634-5
Batch GP18947: F91634-11, F91634-5
Batch GP18949: F91634-11, F91634-5
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(a) Spike recovery indicates possible matrix interference.

MATRIX SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F91634
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Nitrogen, Ammonia	GP18947/GN49148	F91661-5	mg/l	0.050 U	2.5	2.4	4.3	20%

Associated Samples:
Batch GP18947: F91634-11, F91634-5
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

Microseeps, Inc
220 William Pitt Way
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Fax: (412) 826-3433

April 12, 2012

Muna Mohammed
Accutest Laboratories
4405 Vineland St.
Suite C-15
Orlando, FL 32811

RE: **F91634X**

Microseeps Workorder: 4722

Dear Muna Mohammed:

Enclosed are the analytical results for sample(s) received by the laboratory on Saturday, March 31, 2012. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Julianne C. Sproull

Julianne Sproull 04/12/2012
jsproull@microseeps.com

Enclosures

As a valued client we would appreciate your comments on our service.
Please email info@microseeps.com.

Total Number of Pages ____

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LABORATORY ACCREDITATIONS & CERTIFICATIONS

Accreditor:	Pennsylvania Department of Environmental Protection, Bureau of Laboratories
Accreditation ID:	02-00538
Scope:	NELAP Non-Potable Water and Solid & Hazardous Waste
Accreditor:	NELAP: State of Florida, Department of Health, Bureau of Laboratories
Accreditation ID:	E87832
Scope:	Clean Water Act (CWA) Resource Conservation and Recovery Act (RCRA)
Accreditor:	South Carolina Department of Health and Environmental Control, Office of Environmental Laboratory Certification
Accreditation ID:	89009003
Scope:	Clean Water Act (CWA); Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: State of Louisiana, Department of Environmental Quality
Accreditation ID:	04104
Scope:	Solid and Chemical Materials; Non-Potable Water
Accreditor:	NELAP: New Jersey, Department of Environmental Protection
Accreditation ID:	PA026
Scope:	Non-Potable Water; Solid and Chemical Materials
Accreditor:	NELAP: New York, Department of Health Wadsworth Center
Accreditation ID:	11815
Scope:	Non-Potable Water; Solid and Hazardous Waste
Accreditor:	State of Connecticut, Department of Public Health, Division of Environmental Health
Accreditation ID:	PH-0263
Scope:	Clean Water Act (CWA) Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: Texas, Commission on Environmental Quality
Accreditation ID:	T104704453-09-TX
Scope:	Non-Potable Water
Accreditor:	State of New Hampshire
Accreditation ID:	299409
Scope:	Non-potable water
Accreditor:	State of Georgia
Accreditation ID:	Chapter 391-3-26
Scope:	As per the Georgia EPD Rules and Regulations for Commercial Laboratories, Microseeps is accredited by the Pennsylvania Department of Environmental Protection Bureau of Laboratories under the National Environmental Laboratory Approval Program (NELAC).

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SAMPLE SUMMARY

Workorder: 4722 F91634X

Lab ID	Sample ID	Matrix	Date Collected	Date Received
47220001	5X	Water	3/28/2012 13:25	3/31/2012 12:00
47220002	11X	Water	3/28/2012 15:13	3/31/2012 12:00

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Fax: (412) 826-3433

PROJECT SUMMARY

Workorder: 4722 F91634X

Workorder Comments

This report is being re-issued following corrections made to remove the methane, ethane and ethene analytes; 04/12/2012.

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ANALYTICAL RESULTS

Workorder: 4722 F91634X

Lab ID: **47220001** Date Received: 3/31/2012 12:00 Matrix: Water
Sample ID: **5X** Date Collected: 3/28/2012 13:25

Parameters	Results	Units	RDL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Carbon Dioxide	**58**	mg/l	5.0	0.070	1			4/10/2012 08:17	GT	
Oxygen	**4.0**	mg/l	0.50	0.063	1			4/10/2012 08:17	GT	
Nitrogen	**20**	mg/l	0.50	0.13	1			4/10/2012 08:17	GT	

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ANALYTICAL RESULTS

Workorder: 4722 F91634X

Lab ID: **47220002** Date Received: 3/31/2012 12:00 Matrix: Water
Sample ID: **11X** Date Collected: 3/28/2012 15:13

Parameters	Results	Units	RDL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Carbon Dioxide	**83**	mg/l	5.0	0.070	1			4/10/2012 08:29	GT	
Oxygen	**2.3**	mg/l	0.50	0.063	1			4/10/2012 08:29	GT	
Nitrogen	**16**	mg/l	0.50	0.13	1			4/10/2012 08:29	GT	

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ANALYTICAL RESULTS QUALIFIERS

Workorder: 4722 F91634X

PARAMETER QUALIFIERS

U	Indicates the compound was analyzed for, but not detected.
J	Estimated concentration greater than the set method detection limit (MDL) and less than the set reporting limit (RDL).

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3004.1.0.0

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QUALITY CONTROL DATA

Workorder: 4722 F91634X

QC Batch: DISG/2030 Analysis Method: AM20GAX

QC Batch Method: AM20GAX

Associated Lab Samples: 47220001, 47220002

METHOD BLANK: 10180

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Carbon Dioxide	mg/l	5.0 U	5.0	
Oxygen	mg/l	0.50 U	0.50	
Nitrogen	mg/l	0.50 U	0.50	

LABORATORY CONTROL SAMPLE & LCSD: 10182 10184

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK										
Carbon Dioxide	mg/l	130	120	130	97	100	80-120	3	20	
Oxygen	mg/l		19	18						
Nitrogen	mg/l		150	140						

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 4722 F91634X

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
47220001	5X			AM20GAX	DISG/2030
47220002	11X			AM20GAX	DISG/2030

CERTIFICATE OF ANALYSIS

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4722

Accutest Laboratories Southeast
Subcontract Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.accutest.com

Client / Reporting Information

Company Name: Accutest Laboratories
Address: 4405 Vineland Rd.
City: Orlando State: FL Zip: 32811
Phone #: (407) 425-6700 Fax#: (407) 425-0707

Project Information

Project Name: F91634X
Please send report to dawnd@accutest.com
For any other issues contact munam@accutest.com

Analytical Information

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe

Lab ID #	Sample ID	COLLECTION DATE	TIME	SAMPLED BY:	CONTAINER INFORMATION MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NaOH+ZnAc	DI WATER	MEOH	DO,CO2,N2,MEE	LAB USE ONLY
5X	OLD-OU2-29A	03/28/12	13:25		GW	2	BAK									X	
11X	OLD-OU2-29B	03/28/12	15:13		GW	2	BAK									X	

Turnaround Time (Business days)

Std. 10 Business Days
7 Day *RUSH*
5 Day *RUSH*
3 Day *EMERGENCY*
2 Day *EMERGENCY*
1 Day *EMERGENCY*
Other

Approved By: / Date/Rush Code: 04/12/12

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [x] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULLT1 (EPA LEVEL 4)
- [ ] EDD'S

Comments / Remarks

Ship to Laboratory - MICROSEEPS
Approved by - ALSE

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
ALSE	3-30-12 (7:00)	2 FX	3 FX		4 MAS 3/31/12 1200
Relinquished by/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
5		6	7		8

Lab Use Only : Custody Seal in Place: Y N Temp Blank Provided: Y N Preserved Where Applicable: Y N Total # of Coolers: 01 Cooler Temperature (s) Celsius: 6°C

Mark Mikesell

From: Julianne Sproull
Sent: Wednesday, April 11, 2012 4:43 PM
To: Mark Mikesell
Subject: FW: MEE results

From: Muna Mohammed [mailto:MunaM@accutest.com]
Sent: Wednesday, April 11, 2012 4:43 PM
To: Julianne Sproull
Subject: RE: MEE results

Yes,

Please cancel ONLY the MEE analysis on F91853-7 and 10. W/O 4818. done. 041112

Bill us for the MEE on F91634-5 and 11, but do not report. W/O 4722. done 041212

Thanks! Let me know if you have any questions.

From: Julianne Sproull [mailto:jsproull@microseeps.com]
Sent: Wednesday, April 11, 2012 4:39 PM
To: Muna Mohammed
Subject: RE: MEE results

Muna,

We have not analyzed for MEE on the 2nd project. We can cancel that analysis if you would like.

Juli Sproull

Microseeps, Inc.
220 William Pitt Way
Pittsburgh PA 15238
412-826-5245 (Phone)
412-826-3433 (Fax)

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From: Muna Mohammed [mailto:MunaM@accutest.com]
Sent: Wednesday, April 11, 2012 4:19 PM
To: Julianne Sproull
Subject: RE: MEE results

That's fine. You can bill us for it, but we do not want the MEE reported.

From: Julianne Sproull [mailto:jsproull@microseeps.com]
Sent: Wednesday, April 11, 2012 4:17 PM
To: Muna Mohammed
Subject: RE: MEE results

Hi Muna,

We have already analyzed for MEE on project F91853 samples 5X and 11X. I am checking now to see if we have ran MEE for project F91853 7X and 10X.

Juli Sproull

Microseeps, Inc.
220 William Pitt Way
Pittsburgh PA 15238
412-826-5245 (Phone)
412-826-3433 (Fax)

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From: Robbin Robl
Sent: Wednesday, April 11, 2012 4:11 PM
To: Julianne Sproull
Subject: FW: MEE results

From: Muna Mohammed [mailto:MunaM@accutest.com]
Sent: Wednesday, April 11, 2012 4:09 PM
To: Robbin Robl
Subject: MEE results

Hi Robbin,

For jobs **F91634-5X & 11X** and **F91853-7X & 10X** we inadvertently ran MEE here. Have you guys analyzed the MEE already?

Muna Mohammed
Project Manager
Accutest Laboratories
4405 Vineland Rd
Orlando, FL 32811
Office-407-425-6700
Cell-- 321-200-6835
Fax-407-425-0707
munam@accutest.com

Cooler Receipt Form

Client Name: Accutest **Project:** F91634 X **Lab Work Order:** 4722

A. Shipping/Container Information (circle appropriate response)

Courier: (FedEx) UPS USPS Client Other:_____ **Air bill Present:** (Yes) No

Tracking Number: 7934 0269 0303

Custody Seal on Cooler/Box Present: (Yes) No **Seals Intact:** (Yes) No

Cooler/Box Packing Material: (Bubble Wrap) Absorbent Foam Other:_____

Type of Ice: (Wet) Blue None **Ice Intact:** (Yes) Melted

Cooler Temperature: 6°C **Radiation Screened:** Yes (No) **Chain of Custody Present:** (Yes) No

Comments:_____

B. Laboratory Assignment/Log-in (check appropriate response)

	YES	NO	N/A	Comment Reference non-Conformance
Chain of Custody properly filled out	✓			
Chain of Custody relinquished	✓			
Sampler Name & Signature on COC		✓		
Containers intact	✓			
Were samples in separate bags	✓			
Sample container labels match COC Sample name/date and time collected	✓			
Sufficient volume provided	✓			
Microseeps containers used	✓			
Are containers properly preserved for the requested testing? (as labeled)	✓			
If an unknown preservation state, were containers checked? Exception: VOA's coliform			✓	
Was volume for dissolved testing field filtered, as noted on the COC? Was volume received in a preserved container?			✓	

Comments:_____

Cooler contents examined/received by : HLY **Date:** 3-31-12

Project Manager Review : JS **Date:** 4-2-12

Southeast ACCUTEST LABORATORIES

04/17/12

04/17/12

Technical Report for

BFA Environmental Consultants

NTC Orlando, Orlando, FL

07-71009/2

Accutest Job Number: F91853

Sampling Dates: 03/29/12 - 04/03/12

Report to:

BFA Environmental Consultants
1230 Hillcrest Street Suite 100
Orlando, FL 32803
jwatson@bfaenvironmental.com

ATTN: John Watson

Total number of pages in report: **55**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Harry Behzadi, Ph.D.
Laboratory Director

Client Service contact: Jean Dent-Smith 407-425-6700

Certifications: FL (E83510), LA (03051), KS (E-10327), IA (366), IL (200063), NC (573), NJ (FL002), SC (96038001) DoD ELAP (L-A-B L2229), CA (04226CA), TX (T104704404), AK, AR, GA, KY, MA, NV, OK, UT, VA, WA, WI

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Test results relate only to samples analyzed.

Accutest Laboratories is the sole authority for authorizing edits or modifications to this document. Unauthorized modification of this report is strictly prohibited.

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Sample Summary

BFA Environmental Consultants

Job No: F91853

NTC Orlando, Orlando, FL
Project No: 07-71009/2

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
F91853-1	03/29/12	14:14	DAKB	04/05/12	AQ	Ground Water	OLD-OU2-37B
F91853-2	03/29/12	14:59	DAKB	04/05/12	AQ	Ground Water	OLD-OU2-28B
F91853-3	03/29/12	15:40	DAKB	04/05/12	AQ	Ground Water	OLD-OU2-32B
F91853-4	03/29/12	17:36	DAKB	04/05/12	AQ	Ground Water	OLD-OU2-32A
F91853-5	04/02/12	16:47	DAKB	04/05/12	AQ	Ground Water	OLD-OU2-27A
F91853-6	04/02/12	16:50	DAKB	04/05/12	AQ	Ground Water	OLD-OU2-27B
F91853-7	04/03/12	11:10	DAKB	04/05/12	AQ	Ground Water	OLD-OU2-31A
F91853-7F	04/03/12	11:10	DAKB	04/05/12	AQ	Groundwater Filtered	OLD-OU2-31A
F91853-8	04/03/12	12:20	DAKB	04/05/12	AQ	Ground Water	OLD-OU2-03B
F91853-9	04/03/12	12:45	DAKB	04/05/12	AQ	Ground Water	OLD-OU2-03A
F91853-10	04/03/12	12:46	DAKB	04/05/12	AQ	Ground Water	OLD-OU2-31B
F91853-10F	04/03/12	12:46	DAKB	04/05/12	AQ	Groundwater Filtered	OLD-OU2-31B
F91853-11	04/03/12	14:28	DAKB	04/05/12	AQ	Ground Water	OLD-OU2-12B

Accutest Laboratories

Sample Summary
(continued)

BFA Environmental Consultants

Job No: F91853

NTC Orlando, Orlando, FL
Project No: 07-71009/2

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
F91853-12	04/03/12	15:23	DAKB	04/05/12	AQ	Ground Water	OLD-OU2-DP01A

Accutest Laboratories
Southeast

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-37B		
Lab Sample ID:	F91853-1	**Date Sampled:**	03/29/12
Matrix:	AQ - Ground Water	**Date Received:**	04/05/12
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A0172510.D	1	04/10/12	TD	n/a	n/a	VA1007
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	0.79	1.0	0.20	ug/l	I
156-59-2	cis-1,2-Dichloroethylene	0.45	1.0	0.26	ug/l	I
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	0.25 U	1.0	0.25	ug/l	
79-01-6	Trichloroethylene	0.26 U	1.0	0.26	ug/l	
75-01-4	Vinyl chloride	0.56	1.0	0.22	ug/l	I

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	90%		87-116%
17060-07-0	1,2-Dichloroethane-D4	87%		76-127%
2037-26-5	Toluene-D8	91%		86-112%
460-00-4	4-Bromofluorobenzene	92%		84-120%

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-28B		
Lab Sample ID:	F91853-2	**Date Sampled:**	03/29/12
Matrix:	AQ - Ground Water	**Date Received:**	04/05/12
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A0172511.D	1	04/10/12	TD	n/a	n/a	VA1007
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	2.6	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.85	1.0	0.26	ug/l	I
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	0.25 U	1.0	0.25	ug/l	
79-01-6	Trichloroethylene	0.26 U	1.0	0.26	ug/l	
75-01-4	Vinyl chloride	3.3	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	90%		87-116%
17060-07-0	1,2-Dichloroethane-D4	86%		76-127%
2037-26-5	Toluene-D8	91%		86-112%
460-00-4	4-Bromofluorobenzene	93%		84-120%

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-32B		
Lab Sample ID:	F91853-3	**Date Sampled:**	03/29/12
Matrix:	AQ - Ground Water	**Date Received:**	04/05/12
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A0172512.D	1	04/10/12	TD	n/a	n/a	VA1007
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	0.20 U	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.26 U	1.0	0.26	ug/l	
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	0.25 U	1.0	0.25	ug/l	
79-01-6	Trichloroethylene	0.26 U	1.0	0.26	ug/l	
75-01-4	Vinyl chloride	0.22 U	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	90%		87-116%
17060-07-0	1,2-Dichloroethane-D4	88%		76-127%
2037-26-5	Toluene-D8	91%		86-112%
460-00-4	4-Bromofluorobenzene	93%		84-120%

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-32B		
Lab Sample ID:	F91853-3	**Date Sampled:**	03/29/12
Matrix:	AQ - Ground Water	**Date Received:**	04/05/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	1210	300	35	ug/l	1	04/13/12	04/13/12	LM	SW846 6010C [1]	SW846 3010A [2]
Manganese	10.4 I	15	1.0	ug/l	1	04/13/12	04/13/12	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA9710
(2) Prep QC Batch: MP22589

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-32A		
Lab Sample ID:	F91853-4	**Date Sampled:**	03/29/12
Matrix:	AQ - Ground Water	**Date Received:**	04/05/12
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A0172513.D	1	04/10/12	TD	n/a	n/a	VA1007
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	0.20 U	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.26 U	1.0	0.26	ug/l	
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	0.25 U	1.0	0.25	ug/l	
79-01-6	Trichloroethylene	0.26 U	1.0	0.26	ug/l	
75-01-4	Vinyl chloride	0.22 U	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	90%		87-116%
17060-07-0	1,2-Dichloroethane-D4	88%		76-127%
2037-26-5	Toluene-D8	93%		86-112%
460-00-4	4-Bromofluorobenzene	93%		84-120%

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-32A		
Lab Sample ID:	F91853-4	**Date Sampled:**	03/29/12
Matrix:	AQ - Ground Water	**Date Received:**	04/05/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	150 I	300	35	ug/l	1	04/13/12	04/13/12	LM	SW846 6010C [1]	SW846 3010A [2]
Manganese	2.0 I	15	1.0	ug/l	1	04/13/12	04/13/12	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA9710
(2) Prep QC Batch: MP22589

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-27A		
Lab Sample ID:	F91853-5	**Date Sampled:**	04/02/12
Matrix:	AQ - Ground Water	**Date Received:**	04/05/12
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A0172514.D	1	04/10/12	TD	n/a	n/a	VA1007
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	0.20 U	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	3.4	1.0	0.26	ug/l	
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	0.25 U	1.0	0.25	ug/l	
79-01-6	Trichloroethylene	9.2	1.0	0.26	ug/l	
75-01-4	Vinyl chloride	0.50	1.0	0.22	ug/l	I

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	92%		87-116%
17060-07-0	1,2-Dichloroethane-D4	89%		76-127%
2037-26-5	Toluene-D8	91%		86-112%
460-00-4	4-Bromofluorobenzene	92%		84-120%

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-27A		
Lab Sample ID:	F91853-5	**Date Sampled:**	04/02/12
Matrix:	AQ - Ground Water	**Date Received:**	04/05/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	3150	300	35	ug/l	1	04/13/12	04/13/12	LM	SW846 6010C [1]	SW846 3010A [2]
Manganese	404	15	1.0	ug/l	1	04/13/12	04/13/12	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA9710
(2) Prep QC Batch: MP22589

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-27B		
Lab Sample ID:	F91853-6	**Date Sampled:**	04/02/12
Matrix:	AQ - Ground Water	**Date Received:**	04/05/12
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A0172515.D	1	04/10/12	TD	n/a	n/a	VA1007
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	2.3	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.51	1.0	0.26	ug/l	I
98-82-8	Isopropylbenzene	0.33	1.0	0.20	ug/l	I
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	0.25 U	1.0	0.25	ug/l	
79-01-6	Trichloroethylene	0.26 U	1.0	0.26	ug/l	
75-01-4	Vinyl chloride	0.22 U	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	90%		87-116%
17060-07-0	1,2-Dichloroethane-D4	88%		76-127%
2037-26-5	Toluene-D8	91%		86-112%
460-00-4	4-Bromofluorobenzene	90%		84-120%

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-27B		
Lab Sample ID:	F91853-6	**Date Sampled:**	04/02/12
Matrix:	AQ - Ground Water	**Date Received:**	04/05/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	969	300	35	ug/l	1	04/13/12	04/13/12	LM	SW846 6010C [1]	SW846 3010A [2]
Manganese	6.3 I	15	1.0	ug/l	1	04/13/12	04/13/12	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA9710
(2) Prep QC Batch: MP22589

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-31A		
Lab Sample ID:	F91853-7	**Date Sampled:**	04/03/12
Matrix:	AQ - Ground Water	**Date Received:**	04/05/12
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A0172516.D	1	04/10/12	TD	n/a	n/a	VA1007
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	0.20 U	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.26 U	1.0	0.26	ug/l	
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	0.25 U	1.0	0.25	ug/l	
79-01-6	Trichloroethylene	0.26 U	1.0	0.26	ug/l	
75-01-4	Vinyl chloride	0.22 U	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	90%		87-116%
17060-07-0	1,2-Dichloroethane-D4	87%		76-127%
2037-26-5	Toluene-D8	91%		86-112%
460-00-4	4-Bromofluorobenzene	93%		84-120%

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-31A		
Lab Sample ID:	F91853-7	**Date Sampled:**	04/03/12
Matrix:	AQ - Ground Water	**Date Received:**	04/05/12
Method:	RSKSOP-147/175	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FF15490.D	1	04/06/12	MM	n/a	n/a	GFF647
Run #2							

CAS No.	Compound	Result	PQL	MDL	Units	Q
74-82-8	Methane	44.3	0.50	0.16	ug/l	
74-84-0	Ethane	0.32 U	1.0	0.32	ug/l	
74-85-1	Ethene	0.43 U	1.0	0.43	ug/l	

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-31A		
Lab Sample ID:	F91853-7	**Date Sampled:**	04/03/12
Matrix:	AQ - Ground Water	**Date Received:**	04/05/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	464	300	35	ug/l	1	04/13/12	04/13/12	LM	SW846 6010C [1]	SW846 3010A [2]
Manganese	3.2 I	15	1.0	ug/l	1	04/13/12	04/13/12	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA9710
(2) Prep QC Batch: MP22589

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-31A		
Lab Sample ID:	F91853-7	**Date Sampled:**	04/03/12
Matrix:	AQ - Ground Water	**Date Received:**	04/05/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	2.5 U	5.0	2.5	mg/l	1	04/12/12	AC	SM19 2320B
Chloride	5.5	2.0	1.0	mg/l	1	04/05/12 13:41	TC	EPA 300/SW846 9056A
Nitrogen, Ammonia	0.050 U	0.10	0.050	mg/l	1	04/12/12 13:36	VK	EPA 350.1
Nitrogen, Nitrate [a]	0.050 U	0.10	0.050	mg/l	1	04/05/12 13:41	TC	EPA 300/SW846 9056A
Nitrogen, Nitrite [a]	0.050 U	0.10	0.050	mg/l	1	04/05/12 13:41	TC	EPA 300/SW846 9056A
Phosphate, Ortho [b]	0.023 I	0.10	0.020	mg/l	1	04/05/12 14:35	FN	EPA 365.3
Sulfate	9.9	2.0	1.0	mg/l	1	04/05/12 13:41	TC	EPA 300/SW846 9056A

(a) Received out of hold.
(b) Exceeded holding time.

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-31A		
Lab Sample ID:	F91853-7F	**Date Sampled:**	04/03/12
Matrix:	AQ - Groundwater Filtered	**Date Received:**	04/05/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Total Organic Carbon	4.7	1.0	0.26	mg/l	1	04/07/12 16:19	FN	SM19 5310B/SW 9060A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-31B		
Lab Sample ID:	F91853-10	**Date Sampled:**	04/03/12
Matrix:	AQ - Ground Water	**Date Received:**	04/05/12
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A0172531.D	1	04/11/12	TD	n/a	n/a	VA1008
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	13.9	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	1.3	1.0	0.26	ug/l	
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	1.7	1.0	0.25	ug/l	
79-01-6	Trichloroethylene	0.50	1.0	0.26	ug/l	I
75-01-4	Vinyl chloride	1.9	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	89%		87-116%
17060-07-0	1,2-Dichloroethane-D4	86%		76-127%
2037-26-5	Toluene-D8	91%		86-112%
460-00-4	4-Bromofluorobenzene	93%		84-120%

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-31B		
Lab Sample ID:	F91853-10	**Date Sampled:**	04/03/12
Matrix:	AQ - Ground Water	**Date Received:**	04/05/12
Method:	RSKSOP-147/175	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FF15491.D	1	04/06/12	MM	n/a	n/a	GFF647
Run #2							

CAS No.	Compound	Result	PQL	MDL	Units	Q
74-82-8	Methane	1080	0.50	0.16	ug/l	
74-84-0	Ethane	0.77	1.0	0.32	ug/l	I
74-85-1	Ethene	0.43 U	1.0	0.43	ug/l	

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-31B		
Lab Sample ID:	F91853-10	**Date Sampled:**	04/03/12
Matrix:	AQ - Ground Water	**Date Received:**	04/05/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	932	300	35	ug/l	1	04/13/12	04/13/12	LM	SW846 6010C [1]	SW846 3010A [2]
Manganese	7.9 I	15	1.0	ug/l	1	04/13/12	04/13/12	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA9710
(2) Prep QC Batch: MP22589

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-31B		
Lab Sample ID:	F91853-10	**Date Sampled:**	04/03/12
Matrix:	AQ - Ground Water	**Date Received:**	04/05/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	8.8	5.0	2.5	mg/l	1	04/12/12	AC	SM19 2320B
Chloride	20.8	2.0	1.0	mg/l	1	04/05/12 13:58	TC	EPA 300/SW846 9056A
Nitrogen, Ammonia	0.050 U	0.10	0.050	mg/l	1	04/12/12 13:37	VK	EPA 350.1
Nitrogen, Nitrate [a]	0.050 U	0.10	0.050	mg/l	1	04/05/12 13:58	TC	EPA 300/SW846 9056A
Nitrogen, Nitrite [a]	0.050 U	0.10	0.050	mg/l	1	04/05/12 13:58	TC	EPA 300/SW846 9056A
Phosphate, Ortho [b]	1.1	0.50	0.020	mg/l	5	04/05/12 14:35	FN	EPA 365.3
Sulfate	28.8	2.0	1.0	mg/l	1	04/05/12 13:58	TC	EPA 300/SW846 9056A

(a) Received out of hold.
(b) Exceeded holding time.

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-31B		
Lab Sample ID:	F91853-10F	**Date Sampled:**	04/03/12
Matrix:	AQ - Groundwater Filtered	**Date Received:**	04/05/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Total Organic Carbon	19.2	1.0	0.26	mg/l	1	04/07/12 16:36	FN	SM19 5310B/SW 9060A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-12B		
Lab Sample ID:	F91853-11	**Date Sampled:**	04/03/12
Matrix:	AQ - Ground Water	**Date Received:**	04/05/12
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A0172532.D	1	04/11/12	TD	n/a	n/a	VA1008
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	0.20 U	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.26 U	1.0	0.26	ug/l	
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	0.25 U	1.0	0.25	ug/l	
79-01-6	Trichloroethylene	0.33	1.0	0.26	ug/l	I
75-01-4	Vinyl chloride	0.22 U	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	89%		87-116%
17060-07-0	1,2-Dichloroethane-D4	87%		76-127%
2037-26-5	Toluene-D8	91%		86-112%
460-00-4	4-Bromofluorobenzene	95%		84-120%

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-DP01A		
Lab Sample ID:	F91853-12	**Date Sampled:**	04/03/12
Matrix:	AQ - Ground Water	**Date Received:**	04/05/12
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A0172533.D	1	04/11/12	TD	n/a	n/a	VA1008
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	1.7	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	1.5	1.0	0.26	ug/l	
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	0.25 U	1.0	0.25	ug/l	
79-01-6	Trichloroethylene	0.26 U	1.0	0.26	ug/l	
75-01-4	Vinyl chloride	3.7	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	90%		87-116%
17060-07-0	1,2-Dichloroethane-D4	87%		76-127%
2037-26-5	Toluene-D8	90%		86-112%
460-00-4	4-Bromofluorobenzene	94%		84-120%

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories
Southeast

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Certification Exceptions
- Certification Exceptions (FL)
- Chain of Custody

F91853

BFA Environmental Consultants

CHAIN OF CUSTODY
Analytical Request Document

Client Information	Project Information	Lab Information	COC Number
BFA Orlando, FL Report Copy to: John Watson E-mail Report to: jwatson@bfaenvironmental.com 4078968608	Operable Unit 2 Orlando, FL 32813 Lab Quote No: Ref. No: Project No: 07-71009/2 Invoice to:	Accutest Laboratories Southeast 4405 Vineland Road Suite C-15 Orlando, FL 32811	07-71009/2_3/29/12 Shipped By: Courier Tracking #:

Sample ID	Date	Time	Matrix	Method(s)	# Cont	Cont. Type	Cont. Size	Preservatives	TAT	Lab ID No.
OLD-OU2-37B	03/29/2012	02:14 pm	WG	VOCs	3	CG	40 ml	HCL	2 week	1
OLD-OU2-28B	03/29/2012	02:59 pm	WG	VOCs	3	CG	40 ml	HCL	2 week	2
OLD-OU2-32B	03/29/2012	03:40 pm	WG	Fe/Mn VOCs	5	CG;PE	40 ml;500 ml	HCL;HNO3	2 week	3
OLD-OU2-32A	03/29/2012	05:36 pm	WG	Fe/Mn VOCs	5	CG;PE	40 ml;500 ml	HCL;HNO3	2 week	4

Client Comments / Instructions	Lab Comments / Receipt Conditions

Relinquished By	Date	Time	Accepted By	Date	Time
[signature]	4-5-12	12:00	[signature] HCSE	04-05-12	1208
[signature] HCSE	4-5-12	1230	[signature]	4-5-12	1230

Sampler Name: Damian Allen

Sampler Signature: [signature]

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Date Signed: 04/02/2012

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F91853: Chain of Custody
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BFA Environmental Consultants

CHAIN OF CUSTODY
Analytical Request Document

F91853

Client Information	Project Information	Lab Information	COC Number
BFA Orlando, FL Report Copy to: John Watson E-mail Report to: jwatson@bfaenvironmental.com	Operable Unit 2 Orlando, FL 32813 Lab Quote No: Ref. No: Project No: 07-71009/2 Invoice to:	Accutest Laboratories Southeast 4405 Vineland Road Suite C-15 Orlando, FL 32811	07-71009/2_4/2/12 Shipped By: Courier Tracking #:

Sample ID	Date	Time	Matrix	Method(s)	# Cont	Cont. Type	Cont. Size	Preservatives	TAT	Lab ID No.
OLD-OU2-27A	04/02/2012	04:47 pm	WG	Fe/Mn VOCs	5	CG;PE	40 ml;500 ml	HCL;HNO3	2 week	5
OLD-OU2-27B	04/02/2012	04:50 pm	WG	Fe/Mn VOCs	5	CG;PE	40 ml;500 ml	HNO3	2 week	6

Client Comments / Instructions	Lab Comments / Receipt Conditions

Relinquished By	Date	Time	Accepted By	Date	Time
[signature]	4-5-12	12:01	[signature] ALSE	04-05-12	1200
[signature] ALSE	4-5-12	1230	[signature] ALSE	04-05-12	1230

Sampler Name: Katie Ballew

Date Signed: 04/03/2012

Sampler Signature: Katie Ballew

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F91853: Chain of Custody
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BFA Environmental Consultants

CHAIN OF CUSTODY F91853

Analytical Request Document

Client Information	Project Information		Lab Information	COC Number
BFA Orlando, FL Report Copy to: John Watson E-mail Report to: jwatson@bfaenvironmental.com 4078968608	Operable Unit 2 Orlando, FL 32813	Lab Quote No: Ref. No: Project No: 07-71009/2 Invoice to:	Accutest Laboratories Southeast 4405 Vineland Road Suite C-15 Orlando, FL 32811	07-71009/2_4/3/12 Shipped By: Courier Tracking #:

Sample ID	Date	Time	Matrix	Method(s)	# Cont	Cont. Type	Cont. Size	Preservatives	TAT	Lab ID No.
OLD-OU2-31A✓	04/03/2012	11:10 am	WG	Alkalinity, Chloride, Nitrate/Nitrite, Orthophosphate, Sulfate Ammonium Biogenic Gases DOC Fe/Mn Methane/ethane/ethene VOCs	12	AG;CG;PE	40 ml;500 ml;1 L	H2SO4;HCL;HNO 3;Other;None	2 week	7
OLD-OU2-03B	04/03/2012	12:20 pm	WG	Biogenic Gases	2	AG	40 ml	Other	2 week	8
OLD-OU2-03A	04/03/2012	12:45 pm	WG	Biogenic Gases	2	AG	40 ml	Other	2 week	9
OLD-OU2-31B	04/03/2012	12:46 pm	WG	Alkalinity, Chloride, Nitrate/Nitrite, Orthophosphate, Sulfate Ammonium Biogenic Gases DOC Fe/Mn Methane/ethane/ethene VOCs	12	AG;CG;PE	40 ml;500 ml;1 L	H2SO4;HCL;HNO 3;Other;None	2 week	10
OLD-OU2-12B✓	04/03/2012	02:28 pm	WG	VOCs	3	CG	40 ml	HCL	2 week	~~10~~ 11
OLD-OU2-DP01A✓	04/03/2012	03:23 pm	WG	VOCs	3	CG	40 ml	HCL	2 week	~~11~~ 12

Client Comments / Instructions	Lab Comments / Receipt Conditions

Relinquished By	Date	Time	Accepted By	Date	Time
[signature]	4-5-12	12:00	[signature] MSE	04-05-12	1200
[signature] MSE	4-5-12	1230	[signature] MSE	04-05-12	1230

Sampler Name: Damian Allen

Date Signed: 04/05/2012

Sampler Signature: [signature]

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F91853: Chain of Custody

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ACCUTEST LABORATORIES

F91853

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: F91853 CLIENT: BFA PROJECT: Operable Unit 2

DATE/TIME RECEIVED: 04-05-12 1230 {MM/DD/YY 24:00} NIMBER OF COOLERS RECEIVED: 1

METHOD OF DELIVERY: FEDEX UPS (ACCUTEST COURIER) GREYHOUND DELIVERY OTHER

AIRBILL NUMBERS:

COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET
- [ ] WET ICE PRESENT

TRIP BLANK INFORMATION

- [ ] TRIP BLANK PROVIDED
- [x] TRIP BLANK NOT PROVIDED
- [x] TRIP BLANK NOT ON COC
- [ ] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [ ] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

MISC. INFORMATION

NUMBER OF ENCORES ? 25-GRAM_____ 5-GRAM_____

NUMBER OF 5035 FIELD KITS ? _____

NUMBER OF LAB FILTERED METALS ? _____

TEMPERATURE INFORMATION

- [ ] IR THERM ID 1 CORR. FACTOR -0.2
- [ ] OBSERVED TEMPS: 3.8
- [ ] CORRECTED TEMPS: 3.6

SAMPLE INFORMATION

- [ ] SAMPLE LABELS PRESENT ON ALL BOTTLES
- [ ] INCORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- [ ] ID'S ON COC DO NOT MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] 5035 FIELD KIT FROZEN WITHIN 48 HOUR'S
- [ ] RESIDUAL CHLORINE PRESENT

{APPICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS}

SUMMARY OF COMMENTS: Received Samples 7, 10 out of Hold time, ~~Received 2 vials~~ 2 vials

TECHNICIAN SIGNATURE/DATE R. Wilk 04-05-12 REVIEWER SIGNATURE/DATE 04/05/12

NF 12/10 receipt confirmation 122910.xls

F91853: Chain of Custody

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GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: F91853
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VA1007-MB	A0172495.D	1	04/10/12	TD	n/a	n/a	VA1007

The QC reported here applies to the following samples: **Method:** SW846 8260B

F91853-1, F91853-2, F91853-3, F91853-4, F91853-5, F91853-6, F91853-7

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.26	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.25	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.26	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	87%	87-116%
17060-07-0	1,2-Dichloroethane-D4	83%	76-127%
2037-26-5	Toluene-D8	92%	86-112%
460-00-4	4-Bromofluorobenzene	95%	84-120%

Method Blank Summary

Job Number: F91853
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VA1008-MB	A0172530.D	1	04/11/12	TD	n/a	n/a	VA1008

The QC reported here applies to the following samples: **Method:** SW846 8260B

F91853-10, F91853-11, F91853-12

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.26	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.25	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.26	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	89%	87-116%
17060-07-0	1,2-Dichloroethane-D4	85%	76-127%
2037-26-5	Toluene-D8	92%	86-112%
460-00-4	4-Bromofluorobenzene	94%	84-120%

Blank Spike Summary

Job Number: F91853
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VA1007-BS	A0172493.D	1	04/10/12	TD	n/a	n/a	VA1007

The QC reported here applies to the following samples: **Method:** SW846 8260B

F91853-1, F91853-2, F91853-3, F91853-4, F91853-5, F91853-6, F91853-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	25	25.3	101	83-124
156-59-2	cis-1,2-Dichloroethylene	25	24.4	98	81-114
98-82-8	Isopropylbenzene	25	26.9	108	87-131
75-09-2	Methylene chloride	25	25.3	101	69-125
127-18-4	Tetrachloroethylene	25	24.7	99	80-131
79-01-6	Trichloroethylene	25	27.1	108	85-124
75-01-4	Vinyl chloride	25	32.8	131	57-153

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	88%	87-116%
17060-07-0	1,2-Dichloroethane-D4	86%	76-127%
2037-26-5	Toluene-D8	92%	86-112%
460-00-4	4-Bromofluorobenzene	91%	84-120%

Blank Spike Summary

Job Number: F91853
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VA1008-BS	A0172528.D	1	04/11/12	TD	n/a	n/a	VA1008

The QC reported here applies to the following samples: **Method:** SW846 8260B

F91853-10, F91853-11, F91853-12

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	25	25.4	102	83-124
156-59-2	cis-1,2-Dichloroethylene	25	24.1	96	81-114
98-82-8	Isopropylbenzene	25	26.6	106	87-131
75-09-2	Methylene chloride	25	26.0	104	69-125
127-18-4	Tetrachloroethylene	25	24.3	97	80-131
79-01-6	Trichloroethylene	25	27.1	108	85-124
75-01-4	Vinyl chloride	25	26.7	107	57-153

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	90%	87-116%
17060-07-0	1,2-Dichloroethane-D4	89%	76-127%
2037-26-5	Toluene-D8	91%	86-112%
460-00-4	4-Bromofluorobenzene	91%	84-120%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F91853
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F91725-4MS	A0172522.D	5000	04/10/12	TD	n/a	n/a	VA1007
F91725-4MSD	A0172523.D	5000	04/10/12	TD	n/a	n/a	VA1007
F91725-4	A0172505.D	500	04/10/12	TD	n/a	n/a	VA1007
F91725-4	A0172520.D	5000	04/10/12	TD	n/a	n/a	VA1007

The QC reported here applies to the following samples: **Method:** SW846 8260B

F91853-1, F91853-2, F91853-3, F91853-4, F91853-5, F91853-6, F91853-7

CAS No.	Compound	F91725-4 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	500	U	125000	126000	101	125000	100	1	83-124/11
156-59-2	cis-1,2-Dichloroethylene	267000	a	125000	391000	99	387000	96	1	81-114/10
98-82-8	Isopropylbenzene	500	U	125000	129000	103	130000	104	1	87-131/10
75-09-2	Methylene chloride	2500	U	125000	135000	108	134000	107	1	69-125/11
127-18-4	Tetrachloroethylene	2650		125000	122000	95	123000	96	1	80-131/12
79-01-6	Trichloroethylene	288000	a	125000	432000	115	421000	106	3	85-124/10
75-01-4	Vinyl chloride	26100		125000	209000	146	214000	150	2	57-153/22

CAS No.	Surrogate Recoveries	MS	MSD	F91725-4	F91725-4	Limits
1868-53-7	Dibromofluoromethane	91%	91%	91%	92%	87-116%
17060-07-0	1,2-Dichloroethane-D4	92%	91%	88%	89%	76-127%
2037-26-5	Toluene-D8	90%	91%	92%	93%	86-112%
460-00-4	4-Bromofluorobenzene	88%	88%	93%	93%	84-120%

(a) Result is from Run #2.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F91853
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F91806-1MS	A0172548.D	1	04/11/12	TD	n/a	n/a	VA1008
F91806-1MSD	A0172549.D	1	04/11/12	TD	n/a	n/a	VA1008
F91806-1	A0172543.D	1	04/11/12	TD	n/a	n/a	VA1008

The QC reported here applies to the following samples: **Method:** SW846 8260B

F91853-10, F91853-11, F91853-12

CAS No.	Compound	F91806-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	1.0	U	25	26.2	105	25.5	102	3	83-124/11
156-59-2	cis-1,2-Dichloroethylene	1.0	U	25	24.1	96	24.0	96	0	81-114/10
98-82-8	Isopropylbenzene	1.0	U	25	26.7	107	26.2	105	2	87-131/10
75-09-2	Methylene chloride	5.0	U	25	26.9	108	26.4	106	2	69-125/11
127-18-4	Tetrachloroethylene	1.0	U	25	24.6	98	23.9	96	3	80-131/12
79-01-6	Trichloroethylene	18.2		25	46.9	115	45.2	108	4	85-124/10
75-01-4	Vinyl chloride	1.0	U	25	31.9	128	32.3	129	1	57-153/22

CAS No.	Surrogate Recoveries	MS	MSD	F91806-1	Limits
1868-53-7	Dibromofluoromethane	92%	91%	91%	87-116%
17060-07-0	1,2-Dichloroethane-D4	92%	91%	89%	76-127%
2037-26-5	Toluene-D8	89%	90%	90%	86-112%
460-00-4	4-Bromofluorobenzene	90%	91%	94%	84-120%

Accutest Laboratories
Southeast

GC Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: F91853
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GFF647-MB	FF15477.D	1	04/06/12	MM	n/a	n/a	GFF647

The QC reported here applies to the following samples: **Method:** RSKSOP-147/175

F91853-7, F91853-10

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	ND	0.50	0.16	ug/l	
74-84-0	Ethane	ND	1.0	0.32	ug/l	
74-85-1	Ethene	ND	1.0	0.43	ug/l	

Blank Spike Summary

Job Number: F91853
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GFF647-BS	FF15478.D	1	04/06/12	MM	n/a	n/a	GFF647

The QC reported here applies to the following samples: **Method:** RSKSOP-147/175

F91853-7, F91853-10

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
74-82-8	Methane	108	112	104	54-149
74-84-0	Ethane	219	236	108	57-143
74-85-1	Ethene	290	312	108	57-143

Matrix Spike Summary

Job Number: F91853
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F91814-4MS	FF15485.D	1	04/06/12	MM	n/a	n/a	GFF647
F91814-4	FF15481.D	1	04/06/12	MM	n/a	n/a	GFF647

The QC reported here applies to the following samples: **Method:** RSKSOP-147/175

F91853-7, F91853-10

CAS No.	Compound	F91814-4 ug/l	Q	Spike ug/l	MS ug/l	MS %	Limits
74-82-8	Methane	631		108	674	40* [a]	54-149
74-84-0	Ethane	0.40	I	219	253	115	57-143
74-85-1	Ethene	1.0 U		290	332	114	57-143

(a) Outside control limits due to high level in sample relative to spike amount.

Duplicate Summary

Job Number: F91853
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F91814-1DUP	FF15484.D	1	04/06/12	MM	n/a	n/a	GFF647
F91814-1	FF15480.D	1	04/06/12	MM	n/a	n/a	GFF647

The QC reported here applies to the following samples: **Method:** RSKSOP-147/175

F91853-7, F91853-10

CAS No.	Compound	F91814-1 ug/l	Q	DUP ug/l	Q	RPD	Limits
74-82-8	Methane	7.17		6.50		10	24
74-84-0	Ethane	1.0 U		ND		nc	23
74-85-1	Ethene	1.0 U		ND		nc	10

Accutest Laboratories Southeast

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: F91853
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP22589
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 04/13/12

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	20	25		
Antimony	6.0	1	2		
Arsenic	10	1	2		
Barium	200	1	5		
Beryllium	4.0	.1	1		
Cadmium	5.0	.1	1		
Calcium	1000	50	100		
Chromium	10	1	1		
Cobalt	50	1	1		
Copper	25	1	2		
Iron	300	34	35	-0.70	<300
Lead	5.0	1	1		
Magnesium	5000	50	100		
Manganese	15	1	1	0.30	<15
Molybdenum	50	1	2		
Nickel	40	1	2		
Potassium	10000	50	500		
Selenium	10	2	2		
Silver	10	1	1		
Sodium	10000	750	1900		
Strontium	10	1	1		
Thallium	10	1	1.9		
Tin	50	1	1		
Titanium	10	1.1	2		
Vanadium	50	1	1		
Zinc	20	1	5		

Associated samples MP22589: F91853-3, F91853-4, F91853-5, F91853-6, F91853-7, F91853-10

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F91853
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP22589
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Metal	F91853-3 Original	DUP	RPD	QC Limits	F91853-3 Original	MS	Spikelot MPFLICP1	% Rec	QC Limits
Prep Date:			04/13/12					04/13/12	
Aluminum									
Antimony	anr								
Arsenic	anr								
Barium	anr								
Beryllium	anr								
Cadmium	anr								
Calcium									
Chromium	anr								
Cobalt									
Copper									
Iron	1210	1200	0.8	0-20	1210	25300	26000	92.7	80-120
Lead	anr								
Magnesium									
Manganese	10.4	10.7	2.8	0-20	10.4	523	500	102.5	80-120
Molybdenum									
Nickel									
Potassium									
Selenium	anr								
Silver	anr								
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc									

Associated samples MP22589: F91853-3, F91853-4, F91853-5, F91853-6, F91853-7, F91853-10

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F91853
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP22589 | Methods: SW846 6010C
Matrix Type: AQUEOUS | Units: ug/l

Prep Date: 04/13/12

Metal	F91853-3 Original	MSD	Spikelot MPFLICP1	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony	anr					
Arsenic	anr					
Barium	anr					
Beryllium	anr					
Cadmium	anr					
Calcium						
Chromium	anr					
Cobalt						
Copper						
Iron	1210	24900	26000	91.1	1.6	20
Lead	anr					
Magnesium						
Manganese	10.4	504	500	98.7	3.7	20
Molybdenum						
Nickel						
Potassium						
Selenium	anr					
Silver	anr					
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc						

Associated samples MP22589: F91853-3, F91853-4, F91853-5, F91853-6, F91853-7, F91853-10

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: F91853
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP22589
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 04/13/12

Metal	BSP Result	Spikelot MPFLICP1	% Rec	QC Limits
Aluminum				
Antimony	anr			
Arsenic	anr			
Barium	anr			
Beryllium	anr			
Cadmium	anr			
Calcium				
Chromium	anr			
Cobalt				
Copper				
Iron	24200	26000	93.1	80-120
Lead	anr			
Magnesium				
Manganese	503	500	100.6	80-120
Molybdenum				
Nickel				
Potassium				
Selenium	anr			
Silver	anr			
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP22589: F91853-3, F91853-4, F91853-5, F91853-6, F91853-7, F91853-10

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: F91853
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP22589
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 04/13/12

Metal	F91853-3 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony	anr			
Arsenic	anr			
Barium	anr			
Beryllium	anr			
Cadmium	anr			
Calcium				
Chromium	anr			
Cobalt				
Copper				
Iron	1210	1170	2.9	0-10
Lead	anr			
Magnesium				
Manganese	10.4	9.80	5.8	0-10
Molybdenum				
Nickel				
Potassium				
Selenium	anr			
Silver	anr			
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP22589: F91853-3, F91853-4, F91853-5, F91853-6, F91853-7, F91853-10

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

POST DIGESTATE SPIKE SUMMARY

Login Number: F91853
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP22589
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 04/13/12

Metal	Sample ml	Final ml	F91853-3 Raw	Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum										
Antimony										
Arsenic										
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium										
Cobalt										
Copper										
Iron	9.8	10	1208	1183.84	4018	0.2	150	3000	94.5	80-120
Lead										
Magnesium										
Manganese	9.8	10	10.4	10.192	63.2	0.2	2.5	50	106.0	80-120
Molybdenum										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Strontium										
Thallium										
Tin										
Titanium										
Vanadium										
Zinc										

Associated samples MP22589: F91853-3, F91853-4, F91853-5, F91853-6, F91853-7, F91853-10

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested

Accutest Laboratories Southeast

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F91853
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Alkalinity, Total as CaCO3	GN49325	5.0	0.0	mg/l	250	241	96.4	90-113%
Chloride	GP18985/GN49226	2.0	0.0	mg/l	50	52.8	105.6	90-110%
Nitrogen, Ammonia	GP19020/GN49323	0.10	0.0	mg/l	2.5	2.46	98.4	90-110%
Nitrogen, Nitrate	GP18985/GN49226	0.10	0.0	mg/l	2.5	2.50	100.0	90-110%
Nitrogen, Nitrite	GP18985/GN49226	0.10	0.0	mg/l	2.5	2.35	94.0	90-110%
Phosphate, Ortho	GP18983/GN49218	0.10	0.0	mg/l	0.300	0.30	101.0	83-116%
Sulfate	GP18985/GN49226	2.0	0.0	mg/l	50	53.9	107.8	90-110%
Total Organic Carbon	GP18992/GN49246	1.0	0.0	mg/l	15	16.0	106.7	90-110%

Associated Samples:
Batch GN49325: F91853-10, F91853-7
Batch GP18983: F91853-10, F91853-7
Batch GP18985: F91853-10, F91853-7
Batch GP18992: F91853-10F, F91853-7F
Batch GP19020: F91853-10, F91853-7
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F91853
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Alkalinity, Total as CaCO3	GN49325	F91853-10	mg/l	8.8	6.1	36.2(a)	0-20%
Chloride	GP18985/GN49226	F91814-1	mg/l	17.7	18.1	2.2	0-20%
Nitrogen, Ammonia	GP19020/GN49323	F91847-1	mg/l	0.050 U	0.0	0.0	0-20%
Nitrogen, Nitrate	GP18985/GN49226	F91814-1	mg/l	0.050 U	0.0	0.0	0-20%
Nitrogen, Nitrite	GP18985/GN49226	F91814-1	mg/l	0.050 U	0.0	0.0	0-20%
Phosphate, Ortho	GP18983/GN49218	F91853-7	mg/l	0.023	0.021	9.2	0-26%
Sulfate	GP18985/GN49226	F91814-1	mg/l	48.9	50.4	3.0	0-20%
Total Organic Carbon	GP18992/GN49246	F91898-7	mg/l	7.6	7.9	3.9	0-20%

Associated Samples:
Batch GN49325: F91853-10, F91853-7
Batch GP18983: F91853-10, F91853-7
Batch GP18985: F91853-10, F91853-7
Batch GP18992: F91853-10F, F91853-7F
Batch GP19020: F91853-10, F91853-7
(*) Outside of QC limits
(a) RPD acceptable due to low duplicate and sample concentrations.

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F91853
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Alkalinity, Total as CaCO3	GN49325	F91853-10	mg/l	8.8	250	254	98.2	90-113%
Chloride	GP18985/GN49226	F91814-1	mg/l	17.7	50	69.4	103.4	90-110%
Nitrogen, Ammonia	GP19020/GN49323	F91847-1	mg/l	0.050 U	2.5	2.4	96.0	90-110%
Nitrogen, Nitrate	GP18985/GN49226	F91814-1	mg/l	0.050 U	2.5	2.3	92.0	90-110%
Nitrogen, Nitrite	GP18985/GN49226	F91814-1	mg/l	0.050 U	2.5	2.5	100.0	90-110%
Phosphate, Ortho	GP18983/GN49218	F91853-7	mg/l	0.023	0.300	0.33	104.0	83-116%
Sulfate	GP18985/GN49226	F91814-1	mg/l	48.9	50	89.6	81.4N(a)	90-110%
Total Organic Carbon	GP18992/GN49246	F91898-7	mg/l	7.6	15	23.1	103.3	90-110%

Associated Samples:
Batch GN49325: F91853-10, F91853-7
Batch GP18983: F91853-10, F91853-7
Batch GP18985: F91853-10, F91853-7
Batch GP18992: F91853-10F, F91853-7F
Batch GP19020: F91853-10, F91853-7
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(a) Spike recovery outside of acceptable QC criteria.

Microseeps, Inc
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

May 8, 2012

Muna Mohammed
Accutest Laboratories
4405 Vineland St.
Suite C-15
Orlando, FL 32811

RE: **F91853X**
Microseeps Workorder: 4819

Dear Muna Mohammed:

Enclosed are the analytical results for sample(s) received by the laboratory on Saturday, April 07, 2012. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Julianne C. Sproull (KA) 5/8/12

Julianne Sproull 05/08/2012
jsproull@microseeps.com

Enclosures

As a valued client we would appreciate your comments on our service.
Please email info@microseeps.com.

Total Number of Pages 11

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Phone: (412) 826-5245
Fax: (412) 826-3433

LABORATORY ACCREDITATIONS & CERTIFICATIONS

Accreditor:	Pennsylvania Department of Environmental Protection, Bureau of Laboratories
Accreditation ID:	02-00538
Scope:	NELAP Non-Potable Water and Solid & Hazardous Waste
Accreditor:	NELAP: State of Florida, Department of Health, Bureau of Laboratories
Accreditation ID:	E87832
Scope:	Clean Water Act (CWA) Resource Conservation and Recovery Act (RCRA)
Accreditor:	South Carolina Department of Health and Environmental Control, Office of Environmental Laboratory Certification
Accreditation ID:	89009003
Scope:	Clean Water Act (CWA); Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: State of Louisiana, Department of Environmental Quality
Accreditation ID:	04104
Scope:	Solid and Chemical Materials; Non-Potable Water
Accreditor:	NELAP: New Jersey, Department of Environmental Protection
Accreditation ID:	PA026
Scope:	Non-Potable Water; Solid and Chemical Materials
Accreditor:	NELAP: New York, Department of Health Wadsworth Center
Accreditation ID:	11815
Scope:	Non-Potable Water; Solid and Hazardous Waste
Accreditor:	State of Connecticut, Department of Public Health, Division of Environmental Health
Accreditation ID:	PH-0263
Scope:	Clean Water Act (CWA) Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: Texas, Commission on Environmental Quality
Accreditation ID:	T104704453-09-TX
Scope:	Non-Potable Water
Accreditor:	State of New Hampshire
Accreditation ID:	299409
Scope:	Non-potable water
Accreditor:	State of Georgia
Accreditation ID:	Chapter 391-3-26
Scope:	As per the Georgia EPD Rules and Regulations for Commercial Laboratories, Microseeps is accredited by the Pennsylvania Department of Environmental Protection Bureau of Laboratories under the National Environmental Laboratory Approval Program (NELAC).

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Fax: (412) 826-3433

SAMPLE SUMMARY

Workorder: 4819 F91853X

Lab ID	Sample ID	Matrix	Date Collected	Date Received
48190001	F91853-7X	Water	4/3/2012 11:10	4/7/2012 12:00
48190002	F91853-8X	Water	4/3/2012 12:20	4/7/2012 12:00
48190003	F91853-9X	Water	4/3/2012 12:45	4/7/2012 12:00
48190004	F91853-10X	Water	4/3/2012 12:46	4/7/2012 12:00

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PROJECT SUMMARY

Workorder: 4819 F91853X

Workorder Comments

This report is being re-issued following corrections made to incorporate additional analyses; 05/08/2012.

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ANALYTICAL RESULTS

Workorder: 4819 F91853X

Lab ID: **48190001** Date Received: 4/7/2012 12:00 Matrix: Water

Sample ID: **F91853-7X** Date Collected: 4/3/2012 11:10

Parameters	Results	Units	RDL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Carbon Dioxide	**36**	mg/l	5.0	0.070	1			4/17/2012 10:02	GT	
Oxygen	**3.9**	mg/l	0.50	0.063	1			4/17/2012 10:02	GT	
Nitrogen	**17**	mg/l	0.50	0.13	1			4/17/2012 10:02	GT	

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ANALYTICAL RESULTS

Workorder: 4819 F91853X

Lab ID: **48190002** Date Received: 4/7/2012 12:00 Matrix: Water

Sample ID: **F91853-8X** Date Collected: 4/3/2012 12:20

Parameters	Results	Units	RDL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**780**	ug/l	0.10	0.015	1			4/17/2012 10:14	GT	
Ethane	**0.095**	ug/l	0.025	0.0010	1			4/17/2012 10:14	GT	
Ethene	**0.054**	ug/l	0.025	0.0060	1			4/17/2012 10:14	GT	
Carbon Dioxide	**180**	mg/l	5.0	0.070	1			4/17/2012 10:14	GT	
Oxygen	**2.8**	mg/l	0.50	0.063	1			4/17/2012 10:14	GT	
Nitrogen	**14**	mg/l	0.50	0.13	1			4/17/2012 10:14	GT	

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ANALYTICAL RESULTS

Workorder: 4819 F91853X

Lab ID: **48190003** Date Received: 4/7/2012 12:00 Matrix: Water

Sample ID: **F91853-9X** Date Collected: 4/3/2012 12:45

Parameters	Results	Units	RDL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**840**	ug/l	0.10	0.015	1			4/17/2012 10:28	GT	
Ethane	**0.023J**	ug/l	0.025	0.0010	1			4/17/2012 10:28	GT	
Ethene	**0.056**	ug/l	0.025	0.0060	1			4/17/2012 10:28	GT	
Carbon Dioxide	**180**	mg/l	5.0	0.070	1			4/17/2012 10:28	GT	
Oxygen	**3.3**	mg/l	0.50	0.063	1			4/17/2012 10:28	GT	
Nitrogen	**18**	mg/l	0.50	0.13	1			4/17/2012 10:28	GT	

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ANALYTICAL RESULTS

Workorder: 4819 F91853X

Lab ID: **48190004** Date Received: 4/7/2012 12:00 Matrix: Water

Sample ID: **F91853-10X** Date Collected: 4/3/2012 12:46

Parameters	Results	Units	RDL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Carbon Dioxide	**320**	mg/l	5.0	0.070	1			4/17/2012 10:40	GT	
Oxygen	**3.6**	mg/l	0.50	0.063	1			4/17/2012 10:40	GT	
Nitrogen	**15**	mg/l	0.50	0.13	1			4/17/2012 10:40	GT	

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ANALYTICAL RESULTS QUALIFIERS

Workorder: 4819 F91853X

PARAMETER QUALIFIERS

U	Indicates the compound was analyzed for, but not detected.
J	Estimated concentration greater than the set method detection limit (MDL) and less than the set reporting limit (RDL).

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QUALITY CONTROL DATA

Workorder: 4819 F91853X

QC Batch: DISG/2055 Analysis Method: AM20GAX

QC Batch Method: AM20GAX

Associated Lab Samples: 48190001, 48190002, 48190003, 48190004

METHOD BLANK: 10402

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Methane	ug/l	0.10 U	0.10	
Ethane	ug/l	0.025 U	0.025	
Ethene	ug/l	0.025 U	0.025	

METHOD BLANK: 10403

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Carbon Dioxide	mg/l	5.0 U	5.0	
Oxygen	mg/l	0.50 U	0.50	
Nitrogen	mg/l	0.50 U	0.50	

LABORATORY CONTROL SAMPLE & LCSD: 10404 10406

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK										
Methane	ug/l	820	900	820	110	100	80-120	9.5	20	
Ethane	ug/l	45	51	46	114	102	80-120	11	20	
Ethene	ug/l	41	47	42	115	102	80-120	12	20	

LABORATORY CONTROL SAMPLE & LCSD: 10405 10407

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK										
Carbon Dioxide	mg/l	130	150	130	115	103	80-120	11	20	
Oxygen	mg/l		10	20						
Nitrogen	mg/l		130	150						

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 4819 F91853X

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
48190001	F91853-7X			AM20GAX	DISG/2055
48190002	F91853-8X			AM20GAX	DISG/2055
48190003	F91853-9X			AM20GAX	DISG/2055
48190004	F91853-10X			AM20GAX	DISG/2055

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4819

ACCUTEST Laboratories

Accutest Laboratories Southeast
Subcontract Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL 407-425-6700 FAX: 407-425-0707
www.accutest.com

Client / Reporting Information

Company Name: Accutest Laboratories
Address: 4405 Vineland Rd.
City: Orlando State: FL Zip: 32811
Phone #: (407) 425-6700 Fax#: (407) 425-0707

Project Information

Project Name: F91853X
Please send report to dawnd@accutest.com
For any other issues contact munam@accutest.com

Analytical Information

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe

Lab ID #	Sample ID	COLLECTION DATE	TIME	SAMPLED BY	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NaOH+ZnAc	DI WATER	MeOH	biogenic Gases	LAB USE ONLY
7X	OLD-OU2-31A	04/03/12	11:10		GW	2	x									X	
8X	OLD-OU2-03B	04/03/12	12:20		GW	2	x									X	
9X	OLD-OU2-03A	04/03/12	12:45		GW	2	x									X	
10X	OLD-OU2-31B	04/03/12	12:46		GW	2	x									X	

Turnaround Time (Business days)

Std. 10 Business Days
7 Day *RUSH*
5 Day *RUSH*
3 Day *EMERGENCY*
2 Day *EMERGENCY*
1 Day *EMERGENCY*
Other

Approved By: / Date/Rush Code:
04-19-12.

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [x] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULLT1 (EPA LEVEL 4)
- [ ] EDD'S

4.6°C

Comments / Remarks

Ship to Laboratory - Microseeps
Approved by - Muna M.

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1 [signature]	4-6-12 1700	2 FX	3 FX		4 [signature] 4/7/12 12:00
Relinquished by/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
5		6	7		8

Lab Use Only : Custody Seal in Place: Y N Temp Blank Provided: Y N Preserved Where Applicable: Y N Total # of Coolers: ____ Cooler Temperature (s) Celsius: 4.6°C

4819

Robbin Robl

From: Muna Mohammed [MunaM@accutest.com]
Sent: Monday, April 09, 2012 3:53 PM
To: Robbin Robl
Subject: RE: F91853X

Carbon Dioxide, Oxygen, Nitrogen, and MEE.

From: Robbin Robl [mailto:rrobl@microseeps.com]
Sent: Monday, April 09, 2012 3:36 PM
To: Muna Mohammed
Subject: F91853X

Hi Muna,

We received samples for your project F91853X on Saturday. The COC only indicates biogenic gases. Can you please tell me which gases you are looking for?

Thank you!
Robbin

Robbin Robl
Microseeps, Inc.
220 William Pitt Way
Pittsburgh, PA 15238
Phone: 412-826-5245
Fax: 412-826-3433

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Mark Mikesell

From: Robbin Robl
Sent: Tuesday, May 08, 2012 1:09 PM
To: Mark Mikesell
Subject: FW: MEE results

Can you please help?

THANK YOU!

R

From: Muna Mohammed [mailto:MunaM@accutest.com]
Sent: Tuesday, May 08, 2012 1:08 PM
To: Robbin Robl
Cc: Julianne Sproull
Subject: FW: MEE results

Hi Robbin,

I received Julianne's out of office. Can you help me? See below.

From: Muna Mohammed
Sent: Tuesday, May 08, 2012 1:05 PM
To: 'Julianne Sproull'
Subject: FW: MEE results

Run DI56/2055

Hi Julianne,

W/O 4819.

We received the report for F91853X. We are missing the MEE data on sample 8 and 9. The MEE analysis was canceled on 7 and 10. See below. Please let me know.

INV# 5252.

From: Muna Mohammed
Sent: Wednesday, April 11, 2012 4:43 PM
To: 'Julianne Sproull'
Subject: RE: MEE results

Yes,

Please cancel ONLY the MEE analysis on F91853-7 and 10.

Bill us for the MEE on F91634-5 and 11, but do not report.

Thanks! Let me know if you have any questions.

From: Julianne Sproull [mailto:jsproull@microseeps.com]
Sent: Wednesday, April 11, 2012 4:39 PM
To: Muna Mohammed
Subject: RE: MEE results

Muna,

We have not analyzed for MEE on the 2nd project. We can cancel that analysis if you would like.

Juli Sproull

Microseeps, Inc.
220 William Pitt Way
Pittsburgh PA 15238
412-826-5245 (Phone)
412-826-3433 (Fax)

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From: Muna Mohammed [mailto:MunaM@accutest.com]
Sent: Wednesday, April 11, 2012 4:19 PM
To: Julianne Sproull
Subject: RE: MEE results

That's fine. You can bill us for it, but we do not want the MEE reported.

From: Julianne Sproull [mailto:jsproull@microseeps.com]
Sent: Wednesday, April 11, 2012 4:17 PM
To: Muna Mohammed
Subject: RE: MEE results

Hi Muna,

We have already analyzed for MEE on project F91853 samples 5X and 11X. I am checking now to see if we have ran MEE for project F91853 7X and 10X.

Juli Sproull

Microseeps, Inc.
220 William Pitt Way
Pittsburgh PA 15238
412-826-5245 (Phone)
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From: Robbin Robl
Sent: Wednesday, April 11, 2012 4:11 PM

To: Julianne Sproull
Subject: FW: MEE results

From: Muna Mohammed [mailto:MunaM@accutest.com]
Sent: Wednesday, April 11, 2012 4:09 PM
To: Robbin Robl
Subject: MEE results

Hi Robbin,

For jobs **F91634-5X & 11X** and **F91853-7X & 10X** we inadvertently ran MEE here. Have you guys analyzed the MEE already?

Muna Mohammed
Project Manager
Accutest Laboratories
4405 Vineland Rd
Orlando, FL 32811
Office-407-425-6700
Cell-- 321-200-6835
Fax-407-425-0707
munam@accutest.com

Accutest- "The national Testing Laboratory with Total Performance you can count on"

Cooler Receipt Form

Client Name: Accutest **Project:** F91853X **Lab Work Order:** 4819

A. **Shipping/Container Information** (circle appropriate response)

Courier: FedEx UPS USPS Client Other:_____ **Air bill Present:** Yes No

Tracking Number: 7934 2810 1867

Custody Seal on Cooler/Box Present: Yes No **Seals Intact:** Yes No

Cooler/Box Packing Material: Bubble Wrap Absorbent Foam Other:_____

Type of Ice: Wet Blue None **Ice Intact:** Yes Melted

Cooler Temperature: 4.6°C **Radiation Screened:** Yes No **Chain of Custody Present:** Yes No

Comments:_____

B. **Laboratory Assignment/Log-in** (check appropriate response)

	YES	NO	N/A	Comment Reference non-Conformance
Chain of Custody properly filled out	✓			
Chain of Custody relinquished	✓			
Sampler Name & Signature on COC		✓		
Containers intact	✓			
Were samples in separate bags	✓			
Sample container labels match COC Sample name/date and time collected	✓			
Sufficient volume provided	✓			
Microseeps containers used	✓			
Are containers properly preserved for the requested testing? (as labeled)	✓			
If an unknown preservation state, were containers checked? Exception: VOA's coliform			✓	
Was volume for dissolved testing field filtered, as noted on the COC? Was volume received in a preserved container?			✓	

Comments:_____

Cooler contents examined/received by : HLY **Date:** 4/9/12

Project Manager Review : JS **Date:** 4/10/12

Southeast ACCUTEST LABORATORIES

04/24/12

04/24/12

Technical Report for

BFA Environmental Consultants

NTC Orlando, Orlando, FL

07-71009/2

Accutest Job Number: F91966

Sampling Date: 04/06/12

Report to:

BFA Environmental Consultants
1230 Hillcrest Street Suite 100
Orlando, FL 32803
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Total number of pages in report: **42**

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Harry Behzadi, Ph.D.
Laboratory Director

Client Service contact: Jean Dent-Smith 407-425-6700

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Sample Summary

BFA Environmental Consultants

Job No: F91966

NTC Orlando, Orlando, FL
Project No: 07-71009/2

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
F91966-1	04/06/12	13:10	JW	04/10/12	AQ	Ground Water	OLD-OU2-21A
F91966-1F	04/06/12	13:10	JW	04/10/12	AQ	Groundwater Filtered	OLD-OU2-21A
F91966-2	04/06/12	13:11	JW	04/10/12	AQ	Ground Water	OLD-OU2-18B
F91966-2F	04/06/12	13:11	JW	04/10/12	AQ	Groundwater Filtered	OLD-OU2-18B
F91966-3	04/06/12	14:43	JW	04/10/12	AQ	Ground Water	OLD-OU2-51B
F91966-3F	04/06/12	14:43	JW	04/10/12	AQ	Groundwater Filtered	OLD-OU2-51B
F91966-4	04/06/12	14:44	JW	04/10/12	AQ	Ground Water	OLD-OU2-21B
F91966-4F	04/06/12	14:44	JW	04/10/12	AQ	Groundwater Filtered	OLD-OU2-21B
F91966-5	04/06/12	17:17	JW	04/10/12	AQ	Ground Water	OLD-OU2-42B
F91966-5F	04/06/12	17:17	JW	04/10/12	AQ	Groundwater Filtered	OLD-OU2-42B

Accutest Laboratories
Southeast

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-21A		
Lab Sample ID:	F91966-1	**Date Sampled:**	04/06/12
Matrix:	AQ - Ground Water	**Date Received:**	04/10/12
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C086673.D	1	04/19/12	WV	n/a	n/a	VC3455
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	0.20 U	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.26 U	1.0	0.26	ug/l	
98-82-8	Isopropylbenzene [a]	0.20 U	1.0	0.20	ug/l	
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	0.25 U	1.0	0.25	ug/l	
79-01-6	Trichloroethylene	0.26 U	1.0	0.26	ug/l	
75-01-4	Vinyl chloride	0.22 U	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		87-116%
17060-07-0	1,2-Dichloroethane-D4	103%		76-127%
2037-26-5	Toluene-D8	107%		86-112%
460-00-4	4-Bromofluorobenzene	111%		84-120%

(a) Associated BS recovery outside DOD QSM control limits.

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-21A		
Lab Sample ID:	F91966-1	**Date Sampled:**	04/06/12
Matrix:	AQ - Ground Water	**Date Received:**	04/10/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	338	300	35	ug/l	1	04/18/12	04/18/12	LM	SW846 6010C [1]	SW846 3010A [2]
Manganese	1.0 U	15	1.0	ug/l	1	04/18/12	04/18/12	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA9719
(2) Prep QC Batch: MP22617

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-21A		
Lab Sample ID:	F91966-1	**Date Sampled:**	04/06/12
Matrix:	AQ - Ground Water	**Date Received:**	04/10/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	2.5 U	5.0	2.5	mg/l	1	04/12/12	AC	SM19 2320B
Chloride	27.8	2.0	1.0	mg/l	1	04/10/12 15:44	TC	EPA 300/SW846 9056A
Nitrogen, Ammonia	0.050 U	0.10	0.050	mg/l	1	04/12/12 13:40	VK	EPA 350.1
Sulfate	5.5	2.0	1.0	mg/l	1	04/10/12 15:44	TC	EPA 300/SW846 9056A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-21A		
Lab Sample ID:	F91966-1F	**Date Sampled:**	04/06/12
Matrix:	AQ - Groundwater Filtered	**Date Received:**	04/10/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Total Organic Carbon [a]	3.0	1.0	0.26	mg/l	1	04/12/12 16:18	FN	SM19 5310B/SW 9060A

(a) Sample received without proper preservation. Sample result considered minimum values.

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-18B		
Lab Sample ID:	F91966-2	**Date Sampled:**	04/06/12
Matrix:	AQ - Ground Water	**Date Received:**	04/10/12
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C086674.D	1	04/19/12	WV	n/a	n/a	VC3455
Run #2	C086680.D	10	04/19/12	WV	n/a	n/a	VC3455

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	0.20 U	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	104 [a]	10	2.6	ug/l	
98-82-8	Isopropylbenzene [b]	0.20 U	1.0	0.20	ug/l	
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	0.25 U	1.0	0.25	ug/l	
79-01-6	Trichloroethylene	1.4	1.0	0.26	ug/l	
75-01-4	Vinyl chloride	313 [a]	10	2.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%	109%	87-116%
17060-07-0	1,2-Dichloroethane-D4	105%	116%	76-127%
2037-26-5	Toluene-D8	109%	105%	86-112%
460-00-4	4-Bromofluorobenzene	111%	114%	84-120%

(a) Result is from Run# 2
(b) Associated BS recovery outside DOD QSM control limits.

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-18B		
Lab Sample ID:	F91966-2	**Date Sampled:**	04/06/12
Matrix:	AQ - Ground Water	**Date Received:**	04/10/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	370	300	35	ug/l	1	04/18/12	04/18/12	LM	SW846 6010C [1]	SW846 3010A [2]
Manganese	23.5	15	1.0	ug/l	1	04/18/12	04/18/12	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA9719
(2) Prep QC Batch: MP22617

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-18B		
Lab Sample ID:	F91966-2	**Date Sampled:**	04/06/12
Matrix:	AQ - Ground Water	**Date Received:**	04/10/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	17.4	5.0	2.5	mg/l	1	04/12/12	AC	SM19 2320B
Chloride	12.6	2.0	1.0	mg/l	1	04/10/12 16:00	TC	EPA 300/SW846 9056A
Nitrogen, Ammonia	0.38	0.10	0.050	mg/l	1	04/12/12 13:41	VK	EPA 350.1
Sulfate	16.7	2.0	1.0	mg/l	1	04/10/12 16:00	TC	EPA 300/SW846 9056A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-18B		
Lab Sample ID:	F91966-2F	**Date Sampled:**	04/06/12
Matrix:	AQ - Groundwater Filtered	**Date Received:**	04/10/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Total Organic Carbon [a]	8.3	1.0	0.26	mg/l	1	04/12/12 16:33	FN	SM19 5310B/SW 9060A

(a) Sample received without proper preservation. Sample result considered minimum values.

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-51B		
Lab Sample ID:	F91966-3	**Date Sampled:**	04/06/12
Matrix:	AQ - Ground Water	**Date Received:**	04/10/12
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C086675.D	1	04/19/12	WV	n/a	n/a	VC3455
Run #2	C086681.D	5	04/19/12	WV	n/a	n/a	VC3455

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	0.20 U	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	108 [a]	5.0	1.3	ug/l	
98-82-8	Isopropylbenzene [b]	0.20 U	1.0	0.20	ug/l	
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	0.25 U	1.0	0.25	ug/l	
79-01-6	Trichloroethylene	0.26 U	1.0	0.26	ug/l	
75-01-4	Vinyl chloride	12.5	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%	109%	87-116%
17060-07-0	1,2-Dichloroethane-D4	109%	118%	76-127%
2037-26-5	Toluene-D8	107%	107%	86-112%
460-00-4	4-Bromofluorobenzene	114%	116%	84-120%

(a) Result is from Run# 2
(b) Associated BS recovery outside DOD QSM control limits.

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-51B		
Lab Sample ID:	F91966-3	**Date Sampled:**	04/06/12
Matrix:	AQ - Ground Water	**Date Received:**	04/10/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Sulfate	1.0 U	2.0	1.0	mg/l	1	04/11/12 11:37	TC	EPA 300/SW846 9056A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-51B		
Lab Sample ID:	F91966-3F	**Date Sampled:**	04/06/12
Matrix:	AQ - Groundwater Filtered	**Date Received:**	04/10/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Total Organic Carbon [a]	11.4	1.0	0.26	mg/l	1	04/12/12 16:50	FN	SM19 5310B/SW 9060A

(a) Sample received without proper preservation. Sample result considered minimum values.

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-21B		
Lab Sample ID:	F91966-4	**Date Sampled:**	04/06/12
Matrix:	AQ - Ground Water	**Date Received:**	04/10/12
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C086676.D	1	04/19/12	WV	n/a	n/a	VC3455
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	0.20 U	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.26 U	1.0	0.26	ug/l	
98-82-8	Isopropylbenzene [a]	0.20 U	1.0	0.20	ug/l	
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	0.25 U	1.0	0.25	ug/l	
79-01-6	Trichloroethylene	0.26 U	1.0	0.26	ug/l	
75-01-4	Vinyl chloride	0.22 U	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%		87-116%
17060-07-0	1,2-Dichloroethane-D4	111%		76-127%
2037-26-5	Toluene-D8	107%		86-112%
460-00-4	4-Bromofluorobenzene	114%		84-120%

(a) Associated BS recovery outside DOD QSM control limits.

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-21B		
Lab Sample ID:	F91966-4	**Date Sampled:**	04/06/12
Matrix:	AQ - Ground Water	**Date Received:**	04/10/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	853	300	35	ug/l	1	04/18/12	04/18/12	LM	SW846 6010C [1]	SW846 3010A [2]
Manganese	12.8 I	15	1.0	ug/l	1	04/18/12	04/18/12	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA9719
(2) Prep QC Batch: MP22617

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-21B		
Lab Sample ID:	F91966-4	**Date Sampled:**	04/06/12
Matrix:	AQ - Ground Water	**Date Received:**	04/10/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	32.4	5.0	2.5	mg/l	1	04/12/12	AC	SM19 2320B
Chloride	38.3	2.0	1.0	mg/l	1	04/10/12 16:16	TC	EPA 300/SW846 9056A
Nitrogen, Ammonia	0.050 U	0.10	0.050	mg/l	1	04/12/12 13:42	VK	EPA 350.1
Sulfate	1.0 U	2.0	1.0	mg/l	1	04/10/12 16:16	TC	EPA 300/SW846 9056A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-21B		
Lab Sample ID:	F91966-4F	**Date Sampled:**	04/06/12
Matrix:	AQ - Groundwater Filtered	**Date Received:**	04/10/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Total Organic Carbon [a]	15.9	1.0	0.26	mg/l	1	04/12/12 17:05	FN	SM19 5310B/SW 9060A

(a) Sample received without proper preservation. Sample result considered minimum values.

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-42B		
Lab Sample ID:	F91966-5	**Date Sampled:**	04/06/12
Matrix:	AQ - Ground Water	**Date Received:**	04/10/12
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C086677.D	1	04/19/12	WV	n/a	n/a	VC3455
Run #2	C086682.D	100	04/19/12	WV	n/a	n/a	VC3455

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	0.59	1.0	0.20	ug/l	I
156-59-2	cis-1,2-Dichloroethylene	661 [a]	100	26	ug/l	
98-82-8	Isopropylbenzene [b]	0.20 U	1.0	0.20	ug/l	
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	2.5	1.0	0.25	ug/l	
79-01-6	Trichloroethylene	3530 [a]	100	26	ug/l	
75-01-4	Vinyl chloride	29.6	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%	111%	87-116%
17060-07-0	1,2-Dichloroethane-D4	111%	121%	76-127%
2037-26-5	Toluene-D8	106%	106%	86-112%
460-00-4	4-Bromofluorobenzene	115%	115%	84-120%

(a) Result is from Run# 2
(b) Associated BS recovery outside DOD QSM control limits.

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-42B		
Lab Sample ID:	F91966-5	**Date Sampled:**	04/06/12
Matrix:	AQ - Ground Water	**Date Received:**	04/10/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Sulfate	1.0 U	2.0	1.0	mg/l	1	04/11/12 11:53	TC	EPA 300/SW846 9056A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-42B		
Lab Sample ID:	F91966-5F	**Date Sampled:**	04/06/12
Matrix:	AQ - Groundwater Filtered	**Date Received:**	04/10/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Total Organic Carbon [a]	12.2	1.0	0.26	mg/l	1	04/12/12 17:21	FN	SM19 5310B/SW 9060A

(a) Sample received without proper preservation. Sample result considered minimum values.

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories
Southeast

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Certification Exceptions
- Certification Exceptions (FL)
- Chain of Custody

BFA Environmental Consultants

CHAIN OF CUSTODY F91966

Analytical Request Document

Client Information	Project Information	Lab Information	COC Number
BFA Orlando, FL Report Copy to: John Watson E-mail Report to: jwatson@bfaenvironmental.com 4078968608	Operable Unit 2 Orlando, FL 32813 Lab Quote No: Ref. No: Project No: 07-71009/2 Invoice to:	Accutest Laboratories Southeast 4405 Vineland Road Suite C-15 Orlando, FL 32811	07-71009/2_4/6/12 Shipped By: Courier Tracking #:

	Sample ID	Date	Time	Matrix	Method(s)	# Cont	Cont. Type	Cont. Size	Preservatives	TAT	Lab ID No.
1	OLD-OU2-21A	04/06/2012	01:10 pm	WG	Alkalinity, Chloride, Nitrate/Nitrite, Orthophosphate, Sulfate Ammonium Biogenic Gases DOC Fe/Mn Methane/ethane/ethene VOCs	12	AG;CG;PE	40 ml;500 ml;1 L	H2SO4;HCL;HNO 3;Other;None	2 week	
2	OLD-OU2-18B	04/06/2012	01:11 pm	WG	Alkalinity, Chloride, Nitrate/Nitrite, Orthophosphate, Sulfate Ammonium Biogenic Gases DOC Fe/Mn Methane/ethane/ethene VOCs	12	AG;CG;PE	40 ml;500 ml;1 L	H2SO4;HCL;HNO 3;Other;None	2 week	
3	OLD-OU2-51B	04/06/2012	02:43 pm	WG	Biogenic Gases DOC Methane/ethane/ethene Sulfate VOCs	8	AG;CG;PE	40 ml;500 ml	HCL;Other;None	2 week	
4	OLD-OU2-21B	04/06/2012	02:44 pm	WG	Alkalinity, Chloride Nitrate/Nitrite, Orthophosphate, Sulfate Ammonium Biogenic Gases DOC Fe/Mn Methane/ethane/ethene VOCs	12	AG;CG;PE	40 ml;500 ml;1 L	H2SO4;HCL;HNO 3;Other;None	2 week	
5	OLD-OU2-42B	04/06/2012	05:17 pm	WG	Biogenic Gases DOC Methane/ethane/ethene Sulfate VOCs	8	AG;CG;PE	40 ml;500 ml	HCL;Other;None	2 week	

Client Comments / Instructions	Lab Comments / Receipt Conditions
	3.2c 4.2c

Relinquished By	Date	Time	Accepted By	Date	Time
[signature]	4-10-12	11:41	[signature]	04/10/12	11:41
[signature]	04/10/12	12:19	[signature] ALSE	4/10/12	12:19

Sampler Name: Damian Allen

Date Signed: 04/06/2012

Sampler Signature: [signature]

3.1 3

F91966: Chain of Custody

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ACCUTEST LABORATORIES

F91966

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: F91966 CLIENT: BFA PROJECT: OPERABLE UNIT 2

DATE/TIME RECEIVED: 04/10/12 12:19 {MM/DD/YY 24:00} NIMBER OF COOLERS RECEIVED: 2

METHOD OF DELIVERY: FEDEX UPS (ACCUTEST COURIER) GREYHOUND DELIVERY OTHER

AIRBILL NUMBERS:

COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET
- [ ] WET ICE PRESENT

TRIP BLANK INFORMATION

- [x] TRIP BLANK PROVIDED
- [ ] TRIP BLANK NOT PROVIDED
- [x] TRIP BLANK NOT ON COC
- [x] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [x] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

MISC. INFORMATION

NUMBER OF ENCORES ? 25-GRAM_____ 5-GRAM_____

NUMBER OF 5035 FIELD KITS ? _____

NUMBER OF LAB FILTERED METALS ? _____

TEMPERATURE INFORMATION

- [ ] IR THERM ID #1 CORR. FACTOR -0.2
- [ ] OBSERVED TEMPS: 3.4 4.4
- [ ] CORRECTED TEMPS: 3.2 4.2

SAMPLE INFORMATION

- [ ] SAMPLE LABELS PRESENT ON ALL BOTTLES
- [ ] INCORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- [ ] ID'S ON COC DO NOT MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] 5035 FIELD KIT FROZEN WITHIN 48 HOUR'S
- [ ] RESIDUAL CHLORINE PRESENT

{APPICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS}

SUMMARY OF COMMENTS: SAMPLES RECEIVED OUT OF HOLD

TECHNICIAN SIGNATURE/DATE Seth Hill 04/10/12 REVIEWER SIGNATURE/DATE JC 4-10-12

NF 12/10 receipt confirmation 122910.xls

F91966: Chain of Custody
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BFA Environmental Consultants

CHAIN OF CUSTODY
Analytical Request Document

F91966

Client Information	Project Information	Lab Information	COC Number
BFA Orlando, FL Report Copy to: John Watson E-mail Report to: jwatson@bfaenvironmental.com 4078968608	Operable Unit 2 Orlando, FL 32813 Lab Quote No: Ref. No: Project No: 07-71009/2 Invoice to:	Accutest Laboratories Southeast 4405 Vineland Road Suite C-15 Orlando, FL 32811	07-71009/2_4/6/12 Shipped By: Courier Tracking #:

	Sample ID	Date	Time	Matrix	Method(s)	# Cont	Cont. Type	Cont. Size	Preservatives	TAT	Lab ID No.
1	OLD-OU2-21A	04/06/2012	01:10 pm	WG	Alkalinity, Chloride, Nitrate/Nitrite, Orthophosphate, Sulfate Ammonium Biogenic Gases DOC Fe/Mn Methane/ethane/ethene VOCs	12	AG;CG;PE	40 ml;500 ml;1 L	H2SO4;HCL;HNO 3;Other;None	2 week	
2	OLD-OU2-18B	04/06/2012	01:11 pm	WG	Alkalinity, Chloride, Nitrate/Nitrite, Orthophosphate, Sulfate Ammonium Biogenic Gases DOC Fe/Mn Methane/ethane/ethene VOCs	12	AG;CG;PE	40 ml;500 ml;1 L	H2SO4;HCL;HNO 3;Other;None	2 week	
3	OLD-OU2-51B	04/06/2012	02:43 pm	WG	Biogenic Gases DOC Methane/ethane/ethene Sulfate VOCs	8	AG;CG;PE	40 ml;500 ml	HCL;Other;None	2 week	
4	OLD-OU2-21B	04/06/2012	02:44 pm	WG	Alkalinity, Chloride Nitrate/Nitrite, Orthophosphate, Sulfate Ammonium Biogenic Gases DOC Fe/Mn Methane/ethane/ethene VOCs	12	AG;CG;PE	40 ml;500 ml;1 L	H2SO4;HCL;HNO 3;Other;None	2 week	
5	OLD-OU2-42B	04/06/2012	05:17 pm	WG	Biogenic Gases DOC Methane/ethane/ethene Sulfate VOCs	8	AG;CG;PE	40 ml;500 ml	HCL;Other;None	2 week	

Client Comments / Instructions	Lab Comments / Receipt Conditions
	3.2c 4.2c

Relinquished By	Date	Time	Accepted By	Date	Time
[signature]	4-10-12	11:41	[signature]	04/10/12	11:41
[signature]	04/10/12	12:19	[signature] ALSE	4/10/12	12:19

Sampler Name: Damian Allen

Date Signed: 04/06/2012

Sampler Signature: [signature]

F91966: Chain of Custody
Page 3 of 4

Job Change Order: F91966_4/16/2012

Requested Date:	4/16/2012	**Received Date:**	4/10/2012
Account Name:	BFA Environmental Consultants	**Due Date:**	4/24/2012
Project Description:	NTC Orlando, Orlando, FL	**Deliverable:**	COMMB
CSR:	JDS	**TAT (Days):**	1

Sample #:
F91966-1-4

Change: Please remove results for NO2, NO3, OPO4. Samples received out of hold, client would like to recollect. Thank you.

Above Changes client, John Watson via e-mail request **Date:** 4/16/2012

To Client: This Change Order is confirmation of the revisions, previously discussed with the Accutest Client Service Representative.

Page 1 of 1

F91966: Chain of Custody
Page 4 of 4

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: F91966
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VC3455-MB	C086671.D	1	04/19/12	WV	n/a	n/a	VC3455

The QC reported here applies to the following samples: **Method:** SW846 8260B

F91966-1, F91966-2, F91966-3, F91966-4, F91966-5

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.26	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.25	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.26	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	100%	87-116%
17060-07-0	1,2-Dichloroethane-D4	98%	76-127%
2037-26-5	Toluene-D8	107%	86-112%
460-00-4	4-Bromofluorobenzene	111%	84-120%

Blank Spike Summary

Job Number: F91966
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VC3455-BS	C086670.D	1	04/19/12	WV	n/a	n/a	VC3455

The QC reported here applies to the following samples: **Method:** SW846 8260B

F91966-1, F91966-2, F91966-3, F91966-4, F91966-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	25	26.4	106	83-124
156-59-2	cis-1,2-Dichloroethylene	25	26.0	104	81-114
98-82-8	Isopropylbenzene	25	31.5	126	87-131
75-09-2	Methylene chloride	25	21.1	84	69-125
127-18-4	Tetrachloroethylene	25	27.8	111	80-131
79-01-6	Trichloroethylene	25	27.6	110	85-124
75-01-4	Vinyl chloride	25	23.3	93	57-153

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	101%	87-116%
17060-07-0	1,2-Dichloroethane-D4	100%	76-127%
2037-26-5	Toluene-D8	108%	86-112%
460-00-4	4-Bromofluorobenzene	112%	84-120%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F91966
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F91966-2MS	C086678.D	10	04/19/12	WV	n/a	n/a	VC3455
F91966-2MSD	C086679.D	10	04/19/12	WV	n/a	n/a	VC3455
F91966-2	C086674.D	1	04/19/12	WV	n/a	n/a	VC3455
F91966-2	C086680.D	10	04/19/12	WV	n/a	n/a	VC3455

The QC reported here applies to the following samples: **Method:** SW846 8260B

F91966-1, F91966-2, F91966-3, F91966-4, F91966-5

CAS No.	Compound	F91966-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	1.0 U		250	254	102	255	102	0	83-124/11
156-59-2	cis-1,2-Dichloroethylene	104 [a]		250	351	94	358	96	2	81-114/10
98-82-8	Isopropylbenzene	1.0 U		250	318	127	314	126	1	87-131/10
75-09-2	Methylene chloride	5.0 U		250	223	89	225	90	1	69-125/11
127-18-4	Tetrachloroethylene	1.0 U		250	278	111	271	108	3	80-131/12
79-01-6	Trichloroethylene	1.4		250	309	123	295	117	5	85-124/10
75-01-4	Vinyl chloride	313 [a]		250	488	35*	483	33*	1	57-153/22

CAS No.	Surrogate Recoveries	MS	MSD	F91966-2	F91966-2	Limits
1868-53-7	Dibromofluoromethane	109%	112%	105%	109%	87-116%
17060-07-0	1,2-Dichloroethane-D4	117%	115%	105%	116%	76-127%
2037-26-5	Toluene-D8	107%	106%	109%	105%	86-112%
460-00-4	4-Bromofluorobenzene	114%	113%	111%	114%	84-120%

(a) Result is from Run #2.

Accutest Laboratories
Southeast

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Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: F91966
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP22617
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 04/18/12

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	20	25		
Antimony	6.0	1	2		
Arsenic	10	1	2		
Barium	200	1	5		
Beryllium	4.0	.1	1		
Cadmium	5.0	.1	1		
Calcium	1000	50	100		
Chromium	10	1	1		
Cobalt	50	1	1		
Copper	25	1	2		
Iron	300	34	35	1.4	<300
Lead	5.0	1	1		
Magnesium	5000	50	100		
Manganese	15	1	1	0.20	<15
Molybdenum	50	1	2		
Nickel	40	1	2		
Potassium	10000	50	500		
Selenium	10	2	2		
Silver	10	1	1		
Sodium	10000	750	1900		
Strontium	10	1	1		
Thallium	10	1	1.9		
Tin	50	1	1		
Titanium	10	1.1	2		
Vanadium	50	1	1		
Zinc	20	1	5		

Associated samples MP22617: F91966-1, F91966-2, F91966-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F91966
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP22617
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Metal	F91966-1 Original	DUP	RPD	QC Limits	F91966-1 Original	MS	Spikelot MPFLICP1	% Rec	QC Limits
Prep Date:			04/18/12					04/18/12	
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron	338	339	0.3	0-20	338	26100	26000	99.1	80-120
Lead									
Magnesium									
Manganese	0.0	0.0	NC	0-20	0.0	498	500	99.6	80-120
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc									

Associated samples MP22617: F91966-1, F91966-2, F91966-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F91966
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP22617
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 04/18/12

Metal	F91966-1 Original	MSD	Spikelot MPFLICP1	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic						
Barium						
Beryllium						
Cadmium						
Calcium						
Chromium						
Cobalt						
Copper						
Iron	338	26100	26000	99.1	0.0	20
Lead						
Magnesium						
Manganese	0.0	495	500	99.0	0.6	20
Molybdenum						
Nickel						
Potassium						
Selenium						
Silver						
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc						

Associated samples MP22617: F91966-1, F91966-2, F91966-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: F91966
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP22617
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 04/18/12

Metal	BSP Result	Spikelot MPFLICP1	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron	25600	26000	98.5	80-120
Lead				
Magnesium				
Manganese	491	500	98.2	80-120
Molybdenum				
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP22617: F91966-1, F91966-2, F91966-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: F91966
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP22617
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 04/18/12

Metal	F91966-1 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron	338	299	11.6 (a)	0-10
Lead				
Magnesium				
Manganese	0.00	0.00	NC	0-10
Molybdenum				
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP22617: F91966-1, F91966-2, F91966-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

POST DIGESTATE SPIKE SUMMARY

Login Number: F91966
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP22617
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 04/18/12

Metal	Sample ml	Final ml	F91966-1 Raw	Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum										
Antimony										
Arsenic										
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium										
Cobalt										
Copper										
Iron	9.8	10	337.9	331.142	3414	0.2	150	3000	102.8	80-120
Lead										
Magnesium										
Manganese	9.8	10	0	0	53.6	0.2	2.5	50	107.2	80-120
Molybdenum										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Strontium										
Thallium										
Tin										
Titanium										
Vanadium										
Zinc										

Associated samples MP22617: F91966-1, F91966-2, F91966-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested

Accutest Laboratories
Southeast

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F91966
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Alkalinity, Total as CaCO3	GN49325	5.0	0.0	mg/l	250	241	96.4	90-113%
Chloride	GP19015/GN49297	2.0	0.0	mg/l	50	49.7	99.4	90-110%
Chloride	GP19022/GN49314	2.0	0.0	mg/l	50	52.4	104.8	90-110%
Nitrogen, Ammonia	GP19020/GN49323	0.10	0.0	mg/l	2.5	2.46	98.4	90-110%
Nitrogen, Nitrate	GP19015/GN49297	0.10	0.0	mg/l	2.5	2.53	101.2	90-110%
Nitrogen, Nitrate	GP19022/GN49314	0.10	0.0	mg/l	2.5	2.65	106.0	90-110%
Nitrogen, Nitrite	GP19015/GN49297	0.10	0.0	mg/l	2.5	2.52	100.8	90-110%
Nitrogen, Nitrite	GP19022/GN49314	0.10	0.0	mg/l	2.5	2.64	105.6	90-110%
Sulfate	GP19015/GN49297	2.0	0.0	mg/l	50	50.2	100.4	90-110%
Sulfate	GP19022/GN49314	2.0	0.0	mg/l	50	52.6	105.2	90-110%
Total Organic Carbon	GP19026/GN49329	1.0	0.0	mg/l	15	15.1	100.7	90-110%

Associated Samples:
Batch GN49325: F91966-1, F91966-2, F91966-4
Batch GP19015: F91966-1, F91966-2, F91966-4
Batch GP19020: F91966-1, F91966-2, F91966-4
Batch GP19022: F91966-3, F91966-5
Batch GP19026: F91966-1F, F91966-2F, F91966-3F, F91966-4F, F91966-5F
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F91966
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Alkalinity, Total as CaCO3	GN49325	F91966-4	mg/l	32.4	31.8	1.9	0-20%
Chloride	GP19015/GN49297	F91939-3	mg/l	5.4	5.4	0.0	0-20%
Chloride	GP19022/GN49314	F91968-1	mg/l	14.3	14.2	0.7	0-20%
Nitrogen, Ammonia	GP19020/GN49323	F91847-1	mg/l	0.050 U	0.0	0.0	0-20%
Nitrogen, Nitrate	GP19015/GN49297	F91939-3	mg/l	0.10	0.085	16.2	0-20%
Nitrogen, Nitrate	GP19022/GN49330	F91968-1	mg/l	0.050 U	0.58	200.0*(a)	0-20%
Nitrogen, Nitrite	GP19015/GN49297	F91939-3	mg/l	0.050 U	0.0	0.0	0-20%
Nitrogen, Nitrite	GP19022/GN49314	F91968-1	mg/l	0.050 U	0.0	0.0	0-20%
Sulfate	GP19015/GN49297	F91939-3	mg/l	1.0	0.0	200.0(b)	0-20%
Sulfate	GP19022/GN49314	F91968-1	mg/l	1.0	1.1	9.5	0-20%
Total Organic Carbon	GP19026/GN49329	F91982-2	mg/l	1.3	1.2	8.0	0-20%

Associated Samples:
Batch GN49325: F91966-1, F91966-2, F91966-4
Batch GP19015: F91966-1, F91966-2, F91966-4
Batch GP19020: F91966-1, F91966-2, F91966-4
Batch GP19022: F91966-3, F91966-5
Batch GP19026: F91966-1F, F91966-2F, F91966-3F, F91966-4F, F91966-5F
(*) Outside of QC limits
(a) High RPD due to possible sample non-homogeneity and/or matrix interference.
(b) RPD acceptable due to low duplicate and sample concentrations.

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F91966
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Alkalinity, Total as CaCO3	GN49325	F91966-4	mg/l	32.4	250	282	99.7	90-113%
Chloride	GP19015/GN49297	F91939-3	mg/l	5.4	50	55.0	99.2	90-110%
Chloride	GP19022/GN49314	F91968-1	mg/l	14.3	50	59.7	90.8	90-110%
Nitrogen, Ammonia	GP19020/GN49323	F91847-1	mg/l	0.050 U	2.5	2.4	96.0	90-110%
Nitrogen, Nitrate	GP19015/GN49297	F91939-3	mg/l	0.10	2.5	2.6	100.0	90-110%
Nitrogen, Nitrate	GP19022/GN49330	F91968-1	mg/l	0.050 U	2.5	3.1	124.0N(a)	90-110%
Nitrogen, Nitrite	GP19015/GN49297	F91939-3	mg/l	0.050 U	2.5	2.6	104.0	90-110%
Nitrogen, Nitrite	GP19022/GN49314	F91968-1	mg/l	0.050 U	2.5	2.4	96.0	90-110%
Sulfate	GP19015/GN49297	F91939-3	mg/l	1.0	50	50.4	98.8	90-110%
Sulfate	GP19022/GN49314	F91968-1	mg/l	1.0	50	46.9	91.8	90-110%
Total Organic Carbon	GP19026/GN49329	F91982-2	mg/l	1.3	15	16.7	102.7	90-110%

Associated Samples:
Batch GN49325: F91966-1, F91966-2, F91966-4
Batch GP19015: F91966-1, F91966-2, F91966-4
Batch GP19020: F91966-1, F91966-2, F91966-4
Batch GP19022: F91966-3, F91966-5
Batch GP19026: F91966-1F, F91966-2F, F91966-3F, F91966-4F, F91966-5F
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(a) Spike recovery indicates possible matrix interference.

Microseeps, Inc
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
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April 20, 2012

Muna Mohammed
Accutest Laboratories
4405 Vineland St
Suite C-15
Orlando, FL 32811

RE: **F91966X**

Microseeps Workorder: 4870

Dear Muna Mohammed:

Enclosed are the analytical results for sample(s) received by the laboratory on Thursday, April 12, 2012. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Julianne C. Sproull

Julianne Sproull 04/20/2012
jsproull@microseeps com

Enclosures

As a valued client we would appreciate your comments on our service
Please email info@microseeps com

Total Number of Pages 12

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LABORATORY ACCREDITATIONS & CERTIFICATIONS

Accreditor:	Pennsylvania Department of Environmental Protection, Bureau of Laboratories
Accreditation ID:	02-00538
Scope:	NELAP Non-Potable Water and Solid & Hazardous Waste
Accreditor:	NELAP: State of Florida, Department of Health, Bureau of Laboratories
Accreditation ID:	E87832
Scope:	Clean Water Act (CWA) Resource Conservation and Recovery Act (RCRA)
Accreditor:	South Carolina Department of Health and Environmental Control, Office of Environmental Laboratory Certification
Accreditation ID:	89009003
Scope:	Clean Water Act (CWA); Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: State of Louisiana, Department of Environmental Quality
Accreditation ID:	04104
Scope:	Solid and Chemical Materials; Non-Potable Water
Accreditor:	NELAP: New Jersey, Department of Environmental Protection
Accreditation ID:	PA026
Scope:	Non-Potable Water; Solid and Chemical Materials
Accreditor:	NELAP: New York, Department of Health Wadsworth Center
Accreditation ID:	11815
Scope:	Non-Potable Water; Solid and Hazardous Waste
Accreditor:	State of Connecticut, Department of Public Health, Division of Environmental Health
Accreditation ID:	PH-0263
Scope:	Clean Water Act (CWA) Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: Texas, Commission on Environmental Quality
Accreditation ID:	T104704453-09-TX
Scope:	Non-Potable Water
Accreditor:	State of New Hampshire
Accreditation ID:	299409
Scope:	Non-potable water
Accreditor:	State of Georgia
Accreditation ID:	Chapter 391-3-26
Scope:	As per the Georgia EPD Rules and Regulations for Commercial Laboratories, Microseeps is accredited by the Pennsylvania Department of Environmental Protection Bureau of Laboratories under the National Environmental Laboratory Approval Program (NELAC).

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SAMPLE SUMMARY

Workorder: 4870 F91966X

Lab ID	Sample ID	Matrix	Date Collected	Date Received
48700001	F91966-1X	Water	4/6/2012 13:10	4/12/2012 11:00
48700002	F91966-2X	Water	4/6/2012 13:11	4/12/2012 11:00
48700003	F91966-3X	Water	4/6/2012 14:43	4/12/2012 11:00
48700004	F91966-4X	Water	4/6/2012 14:44	4/12/2012 11:00
48700005	F91966-5X	Water	4/6/2012 17:17	4/12/2012 11:00

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ANALYTICAL RESULTS

Workorder: 4870 F91966X

Lab ID: 48700001 Date Received: 4/12/2012 11:00 Matrix: Water
Sample ID: F91966-1X Date Collected: 4/6/2012 13:10

Parameters	Results	Units	RDL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**120**	ug/l	0.10	0.015	1			4/19/2012 11:13	GT	
Ethane	**0.0071J**	ug/l	0.025	0.0010	1			4/19/2012 11:13	GT	
Ethene	**0.067**	ug/l	0.025	0.0060	1			4/19/2012 11:13	GT	
Carbon Dioxide	**100**	mg/l	5.0	0.070	1			4/19/2012 11:13	GT	
Oxygen	**3.6**	mg/l	0.50	0.063	1			4/19/2012 11:13	GT	
Nitrogen	**20**	mg/l	0.50	0.13	1			4/19/2012 11:13	GT	

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ANALYTICAL RESULTS

Workorder: 4870 F91966X

Lab ID: 48700002 Date Received: 4/12/2012 11:00 Matrix: Water

Sample ID: F91966-2X Date Collected: 4/6/2012 13:11

Parameters	Results	Units	RDL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**9500**	ug/l	0 10	0 015	1			4/19/2012 11:29	GT	
Ethane	**0.032**	ug/l	0 025	0.0010	1			4/19/2012 11:29	GT	
Ethene	**58**	ug/l	0 025	0.0060	1			4/19/2012 11:29	GT	
Carbon Dioxide	**160**	mg/l	5 0	0 070	1			4/19/2012 11:29	GT	
Oxygen	**1.4**	mg/l	0 50	0 063	1			4/19/2012 11:29	GT	
Nitrogen	**9.0**	mg/l	0 50	0.13	1			4/19/2012 11:29	GT	

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ANALYTICAL RESULTS

Workorder: 4870 F91966X

Lab ID: 48700003 Date Received: 4/12/2012 11:00 Matrix: Water
Sample ID: F91966-3X Date Collected: 4/6/2012 14:43

Parameters	Results	Units	RDL	MDL	DF Prepared	By	Analyzed	By	Qual
RISK - MICR									
Analysis Desc: AM20GAX			Analytical Method: AM20GAX						
Methane	14000	ug/l	0 10	0 015	1		4/19/2012 11:41	GT	
Ethane	0.15	ug/l	0.025	0 0010	1		4/19/2012 11:41	GT	
Ethene	2.9	ug/l	0 025	0 0060	1		4/19/2012 11:41	GT	
Carbon Dioxide	160	mg/l	5 0	0 070	1		4/19/2012 11:41	GT	
Oxygen	2.5	mg/l	0.50	0 063	1		4/19/2012 11:41	GT	
Nitrogen	9.2	mg/l	0.50	0 13	1		4/19/2012 11:41	GT	

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ANALYTICAL RESULTS

Workorder: 4870 F91966X

Lab ID: 48700004 Date Received: 4/12/2012 11:00 Matrix: Water

Sample ID: F91966-4X Date Collected: 4/6/2012 14:44

Parameters	Results	Units	RDL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**2400**	ug/l	0.10	0.015	1			4/19/2012 12:31	GT	
Ethane	**0.088**	ug/l	0.025	0.0010	1			4/19/2012 12:31	GT	
Ethene	**0.022J**	ug/l	0.025	0.0060	1			4/19/2012 12:31	GT	
Carbon Dioxide	**230**	mg/l	5.0	0.070	1			4/19/2012 12:31	GT	
Oxygen	**2.9**	mg/l	0.50	0.063	1			4/19/2012 12:31	GT	
Nitrogen	**13**	mg/l	0.50	0.13	1			4/19/2012 12:31	GT	

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ANALYTICAL RESULTS

Workorder: 4870 F91966X

Lab ID: 48700005 Date Received: 4/12/2012 11:00 Matrix: Water
Sample ID: F91966-5X Date Collected: 4/6/2012 17:17

Parameters	Results	Units	RDL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**2200**	ug/l	0.10	0.015	1			4/19/2012 12:44	GT	
Ethane	**0.43**	ug/l	0.025	0.0010	1			4/19/2012 12:44	GT	
Ethene	**7.3**	ug/l	0.025	0.0060	1			4/19/2012 12:44	GT	
Carbon Dioxide	**200**	mg/l	5.0	0.070	1			4/19/2012 12:44	GT	
Oxygen	**2.6**	mg/l	0.50	0.063	1			4/19/2012 12:44	GT	
Nitrogen	**16**	mg/l	0.50	0.13	1			4/19/2012 12:44	GT	

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ANALYTICAL RESULTS QUALIFIERS

Workorder: 4870 F91966X

PARAMETER QUALIFIERS

U	Indicates the compound was analyzed for, but not detected
J	Estimated concentration greater than the set method detection limit (MDL) and less than the set reporting limit (RDL)

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QUALITY CONTROL DATA

Workorder: 4870 F91966X

QC Batch: DISG/2068 Analysis Method: AM20GAX

QC Batch Method: AM20GAX

Associated Lab Samples: 48700001, 48700002, 48700003, 48700004, 48700005

METHOD BLANK: 10495

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Methane	ug/l	0.10 U	0.10	
Ethane	ug/l	0.025 U	0.025	
Ethene	ug/l	0.025 U	0.025	

METHOD BLANK: 10496

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Carbon Dioxide	mg/l	5.0 U	5.0	
Oxygen	mg/l	0.50 U	0.50	
Nitrogen	mg/l	0.50 U	0.50	

LABORATORY CONTROL SAMPLE & LCSD: 10497 10499

Parameter	Units	Spike Conc	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK										
Methane	ug/l	820	910	870	110	105	80-120	4.7	20	
Ethane	ug/l	45	50	51	112	114	80-120	1.8	20	
Ethene	ug/l	41	46	47	113	116	80-120	2.6	20	

LABORATORY CONTROL SAMPLE & LCSD: 10498 10500

Parameter	Units	Spike Conc	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK										
Carbon Dioxide	mg/l	130	140	140	110	112	80-120	1.8	20	
Oxygen	mg/l		14	12						
Nitrogen	mg/l		140	130						

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 4870 F91966X

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
48700001	F91966-1X			AM20GAX	DISG/2068
48700002	F91966-2X			AM20GAX	DISG/2068
48700003	F91966-3X			AM20GAX	DISG/2068
48700004	F91966-4X			AM20GAX	DISG/2068
48700005	F91966-5X			AM20GAX	DISG/2068

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Accutest Laboratories Southeast
Subcontract Chain of Custody

4870

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.accutest.com

Client / Reporting Information

Company Name: Accutest Laboratories
Address: 4405 Vineland Rd.
City: Orlando State: FL Zip: 32811
Phone #: (407) 425-6700 Fax#: (407) 425-0707

Project Information

Project Name: F91966X
Please send report to dawnd@accutest.com
For any other issues contact munam@accutest.com

Analytical Information

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe

Lab ID #	Sample ID	COLLECTION DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NaOH+ZnAc	DI WATER	MEOH	N2, O2, CO2, MEB										LAB USE ONLY
1X	OLD-OU2-21A	04/06/12	13:10		GW	2	X									X										
2X	OLD-OU2-18B	04/06/12	13:11		GW	2	X									X										
3X	OLD-OU2-51B	04/06/12	14:43		GW	2	X									X										
4X	OLD-OU2-21B	04/06/12	14:44		GW	2	X									X										
5X	OLD-OU2-42B	04/06/12	17:17		GW	2	X									X										

Turnaround Time (Business days)

Std. 10 Business Days
7 Day *RUSH*
5 Day *RUSH*
3 Day *EMERGENCY*
2 Day *EMERGENCY*
1 Day *EMERGENCY*
Other

Approved By: / Date/Rush Code:
04-24-12

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [x] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULLT1 (EPA LEVEL 4)
- [ ] EDD'S

Comments / Remarks

Ship to Laboratory - Microcerps
Approved by - Muna m

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by/Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1 Scott Hill ASE	4/11/12 1700	2 FED EX	3 FED EX		4 Hauzox MS 4/12/12 1100
Relinquished by/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
5		6	7		8

Lab Use Only : Custody Seal in Place: Y N Temp Blank Provided: Y N Preserved Where Applicable: Y N Total # of Coolers:____ Cooler Temperature (s) Celsius:____

Southeast ACCUTEST LABORATORIES

04/19/12

04/19/12

Technical Report for

BFA Environmental Consultants

NTC Orlando, Orlando, FL

07-71009/2

Accutest Job Number: F91967

Sampling Date: 04/05/12

Report to:

BFA Environmental Consultants
1230 Hillcrest Street Suite 100
Orlando, FL 32803
jwatson@bfaenvironmental.com

ATTN: John Watson

Total number of pages in report: **35**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Harry Behzadi, Ph.D.
Laboratory Director

Client Service contact: Jean Dent-Smith 407-425-6700

Certifications: FL (E83510), LA (03051), KS (E-10327), IA (366), IL (200063), NC (573), NJ (FL002), SC (96038001) DoD ELAP (L-A-B L2229), CA (04226CA), TX (T104704404), AK, AR, GA, KY, MA, NV, OK, UT, VA, WA, WI

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Test results relate only to samples analyzed.

Accutest Laboratories is the sole authority for authorizing edits or modifications to this document. Unauthorized modification of this report is strictly prohibited.

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Accutest Laboratories

Sample Summary

BFA Environmental Consultants

Job No: F91967

NTC Orlando, Orlando, FL
Project No: 07-71009/2

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
F91967-1	04/05/12	13:27	JW	04/10/12	AQ	Ground Water	OLD-OU2-33A
F91967-2	04/05/12	14:16	JW	04/10/12	AQ	Ground Water	OLD-OU2-33B
F91967-3	04/05/12	15:51	JW	04/10/12	AQ	Ground Water	OLD-OU2-DP02A
F91967-3F	04/05/12	15:51	JW	04/10/12	AQ	Groundwater Filtered	OLD-OU2-DP02A
F91967-4	04/05/12	18:22	JW	04/10/12	AQ	Ground Water	DUPLICATE 2
F91967-5	04/05/12	12:46	JW	04/10/12	AQ	Ground Water	DUPLICATE 1

Accutest Laboratories
Southeast

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-33A		
Lab Sample ID:	F91967-1	**Date Sampled:**	04/05/12
Matrix:	AQ - Ground Water	**Date Received:**	04/10/12
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P6700.D	1	04/16/12	EG	n/a	n/a	VP277
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	0.20 U	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.26 U	1.0	0.26	ug/l	
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	0.25 U	1.0	0.25	ug/l	
79-01-6	Trichloroethylene	0.26 U	1.0	0.26	ug/l	
75-01-4	Vinyl chloride	0.22 U	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		87-116%
17060-07-0	1,2-Dichloroethane-D4	109%		76-127%
2037-26-5	Toluene-D8	97%		86-112%
460-00-4	4-Bromofluorobenzene	101%		84-120%

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-33A		
Lab Sample ID:	F91967-1	**Date Sampled:**	04/05/12
Matrix:	AQ - Ground Water	**Date Received:**	04/10/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	2230	300	35	ug/l	1	04/18/12	04/18/12	LM	SW846 6010C [1]	SW846 3010A [2]
Manganese	7.8 I	15	1.0	ug/l	1	04/18/12	04/18/12	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA9719
(2) Prep QC Batch: MP22617

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-33B		
Lab Sample ID:	F91967-2	**Date Sampled:**	04/05/12
Matrix:	AQ - Ground Water	**Date Received:**	04/10/12
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P6701.D	1	04/16/12	EG	n/a	n/a	VP277
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	0.20 U	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.85	1.0	0.26	ug/l	I
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	0.70	1.0	0.25	ug/l	I
79-01-6	Trichloroethylene	11.3	1.0	0.26	ug/l	
75-01-4	Vinyl chloride	0.22 U	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		87-116%
17060-07-0	1,2-Dichloroethane-D4	112%		76-127%
2037-26-5	Toluene-D8	100%		86-112%
460-00-4	4-Bromofluorobenzene	99%		84-120%

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-33B		
Lab Sample ID:	F91967-2	**Date Sampled:**	04/05/12
Matrix:	AQ - Ground Water	**Date Received:**	04/10/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	1650	300	35	ug/l	1	04/18/12	04/18/12	LM	SW846 6010C [1]	SW846 3010A [2]
Manganese	7.4 I	15	1.0	ug/l	1	04/18/12	04/18/12	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA9719
(2) Prep QC Batch: MP22617

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-DP02A		
Lab Sample ID:	F91967-3	**Date Sampled:**	04/05/12
Matrix:	AQ - Ground Water	**Date Received:**	04/10/12
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P6702.D	1	04/16/12	EG	n/a	n/a	VP277
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	0.20 U	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	67.3	1.0	0.26	ug/l	
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	0.25 U	1.0	0.25	ug/l	
79-01-6	Trichloroethylene	1.6	1.0	0.26	ug/l	
75-01-4	Vinyl chloride	22.6	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		87-116%
17060-07-0	1,2-Dichloroethane-D4	113%		76-127%
2037-26-5	Toluene-D8	96%		86-112%
460-00-4	4-Bromofluorobenzene	99%		84-120%

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-DP02A		
Lab Sample ID:	F91967-3	**Date Sampled:**	04/05/12
Matrix:	AQ - Ground Water	**Date Received:**	04/10/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	1770	300	35	ug/l	1	04/18/12	04/18/12	LM	SW846 6010C [1]	SW846 3010A [2]
Manganese	2.0 I	15	1.0	ug/l	1	04/18/12	04/18/12	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA9719
(2) Prep QC Batch: MP22617

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-DP02A		
Lab Sample ID:	F91967-3	**Date Sampled:**	04/05/12
Matrix:	AQ - Ground Water	**Date Received:**	04/10/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	2.9 I	5.0	2.5	mg/l	1	04/12/12	AC	SM19 2320B
Chloride	27.5	2.0	1.0	mg/l	1	04/10/12 16:32	TC	EPA 300/SW846 9056A
Nitrogen, Ammonia	0.051 I	0.10	0.050	mg/l	1	04/12/12 13:43	VK	EPA 350.1
Sulfate	13.0	2.0	1.0	mg/l	1	04/10/12 16:32	TC	EPA 300/SW846 9056A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-DP02A		
Lab Sample ID:	F91967-3F	**Date Sampled:**	04/05/12
Matrix:	AQ - Groundwater Filtered	**Date Received:**	04/10/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Total Organic Carbon [a]	20.1	1.0	0.26	mg/l	1	04/12/12 22:06	FN	SM19 5310B/SW 9060A

(a) Sample received without proper preservation. Sample result considered minimum values.

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	DUPLICATE 2		
Lab Sample ID:	F91967-4	**Date Sampled:**	04/05/12
Matrix:	AQ - Ground Water	**Date Received:**	04/10/12
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P6685.D	1	04/16/12	EG	n/a	n/a	VP277
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	0.20 U	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	68.6	1.0	0.26	ug/l	
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	0.25 U	1.0	0.25	ug/l	
79-01-6	Trichloroethylene	1.6	1.0	0.26	ug/l	
75-01-4	Vinyl chloride	22.6	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		87-116%
17060-07-0	1,2-Dichloroethane-D4	107%		76-127%
2037-26-5	Toluene-D8	99%		86-112%
460-00-4	4-Bromofluorobenzene	99%		84-120%

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	DUPLICATE 2		
Lab Sample ID:	F91967-4	**Date Sampled:**	04/05/12
Matrix:	AQ - Ground Water	**Date Received:**	04/10/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	1800	300	35	ug/l	1	04/18/12	04/18/12	LM	SW846 6010C [1]	SW846 3010A [2]
Manganese	2.1 I	15	1.0	ug/l	1	04/18/12	04/18/12	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA9719
(2) Prep QC Batch: MP22617

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	DUPLICATE 1		
Lab Sample ID:	F91967-5	**Date Sampled:**	04/05/12
Matrix:	AQ - Ground Water	**Date Received:**	04/10/12
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P6686.D	1	04/16/12	EG	n/a	n/a	VP277
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	13.2	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	1.5	1.0	0.26	ug/l	
98-82-8	Isopropylbenzene	0.28	1.0	0.20	ug/l	I
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	1.4	1.0	0.25	ug/l	
79-01-6	Trichloroethylene	0.48	1.0	0.26	ug/l	I
75-01-4	Vinyl chloride	1.3	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		87-116%
17060-07-0	1,2-Dichloroethane-D4	108%		76-127%
2037-26-5	Toluene-D8	100%		86-112%
460-00-4	4-Bromofluorobenzene	101%		84-120%

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range

I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	DUPLICATE 1		
Lab Sample ID:	F91967-5	**Date Sampled:**	04/05/12
Matrix:	AQ - Ground Water	**Date Received:**	04/10/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

Total Metals Analysis

Analyte	Result	PQL	MDL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	1720	300	35	ug/l	1	04/18/12	04/18/12	LM	SW846 6010C [1]	SW846 3010A [2]
Manganese	6.3 I	15	1.0	ug/l	1	04/18/12	04/18/12	LM	SW846 6010C [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA9719
(2) Prep QC Batch: MP22617

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories
Southeast

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Certification Exceptions
- Certification Exceptions (FL)
- Chain of Custody

BFA Environmental Consultants

CHAIN OF CUSTODY
Analytical Request Document

F91967

Client Information	Project Information	Lab Information	COC Number
BFA Orlando, FL Report Copy to: John Watson E-mail Report to: jwatson@bfaenvironmental.com 4078968608	Operable Unit 2 Orlando, FL 32813 Lab Quote No: Ref. No: Project No: 07-71009/2 Invoice to:	Accutest Laboratories Southeast 4405 Vineland Road Suite C-15 Orlando, FL 32811	07-71009/2_4/5/12 Shipped By: Courier Tracking #:

	Sample ID	Date	Time	Matrix	Method(s)	# Cont.	Cont. Type	Cont. Size	Preservatives	TAT	Lab ID No.
1	OLD-OU2-33A	04/05/2012	01:27 pm	WG	Fe/Mn VOCs	5	CG;PE	40 ml;500 ml	HCL;HNO3	2 week	
2	OLD-OU2-33B	04/05/2012	02:16 pm	WG	Fe/Mn VOCs	5	CG;PE	40 ml;500 ml	HCL;HNO3	2 week	
3	OLD-OU2-DP02A	04/05/2012	03:51 pm	WG	Alkalinity, Chloride, Nitrate/Nitrite, Orthophosphate, Sulfate Ammonium Biogenic Gases DOC Fe/Mn Methane/ethane/ethene VOCs	12	AG;CG;PE	40 ml;500 ml;1 L	H2SO4;HCL;HNO3;Other;None	2 week	
4	DUPLICATE2	04/05/2012	06:22 pm	WG	Fe/Mn VOCs	5	CG;PE	40 ml;500 ml	HCL;HNO3	2 week	

Client Comments / Instructions	Lab Comments / Receipt Conditions
	3.2c 4.2c

Relinquished By	Date	Time	Accepted By	Date	Time
[signature]	4-10-12	11:41	[signature]	04/10/12	11:41
[signature]	04/10/12	12:19			

Sampler Name: Damian Allen

Date Signed: 04/05/2012

Sampler Signature: [signature]

3.1 3

F91967: Chain of Custody
Page 1 of 3

ACCUTEST LABORATORIES
F91967

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: F91967 CLIENT: BFA PROJECT: OPERABLE UNIT 2

DATE/TIME RECEIVED: 4-10-12 12:19 {MM/DD/YY 24:00} NIMBER OF COOLERS RECEIVED: 2

METHOD OF DELIVERY: FEDEX UPS (ACCUTEST COURIER) GREYHOUND DELIVERY OTHER

AIRBILL NUMBERS:

COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [X] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET
- [ ] WET ICE PRESENT

TRIP BLANK INFORMATION

- [ ] TRIP BLANK PROVIDED
- [X] TRIP BLANK NOT PROVIDED
- [X] TRIP BLANK NOT ON COC
- [ ] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [ ] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

MISC. INFORMATION

NUMBER OF ENCORES ? 25-GRAM_____ 5-GRAM_____

NUMBER OF 5035 FIELD KITS ? _____

NUMBER OF LAB FILTERED METALS ? _____

TEMPERATURE INFORMATION

- [ ] IR THERM ID 1 CORR. FACTOR -0.2
- [ ] OBSERVED TEMPS: 3.4 4.4
- [ ] CORRECTED TEMPS: 3.2 4.2

SAMPLE INFORMATION

- [ ] SAMPLE LABELS PRESENT ON ALL BOTTLES
- [ ] INCORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- [ ] ID'S ON COC DO NOT MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [X] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] 5035 FIELD KIT FROZEN WITHIN 48 HOUR'S
- [ ] RESIDUAL CHLORINE PRESENT

{APPICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS}

SUMMARY OF COMMENTS: RECEIVED 3 VIALS (8260) and 2 METALS BOTTLES WITH ID DUPLICATE / NOT REQUESTED ON COC; WILL BE SAMPLE #5 4-3-12 NO TIME ON METALS VIALS read 12:16, NO3, NO2 OPOA BOTTLE RECEIVED OUT OF HOLD

TECHNICIAN SIGNATURE/DATE JC 4-10-12 REVIEWER SIGNATURE/DATE [signature] 04/10/12

NF 12/10

receipt confirmation 122910.xls

F91967: Chain of Custody
Page 2 of 3

Job Change Order: F91967_4/16/2012

Requested Date:	4/16/2012	**Received Date:**	4/10/2012
Account Name:	BFA Environmental Consultants	**Due Date:**	4/24/2012
Project Description:	NTC Orlando, Orlando, FL	**Deliverable:**	COMMB
CSR:	JDS	**TAT (Days):**	1

Sample #:
F91967-3

Change: Please remove results for NO2, NO3, OPO4. Sample received out of hold, client would like to recollect. Thank you.

OLD-OU2-DP02A

Above Changes Client, John Watson via e-mail request **Date:** 4/16/2012

To Client: This Change Order is confirmation of the revisions, previously discussed with the Accutest Client Service Representative.

Page 1 of 1

F91967: Chain of Custody
Page 3 of 3

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: F91967
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VP277-MB	P6681.D	1	04/16/12	EG	n/a	n/a	VP277

The QC reported here applies to the following samples: **Method:** SW846 8260B

F91967-1, F91967-2, F91967-3, F91967-4, F91967-5

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.26	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.25	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.26	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	103%	87-116%
17060-07-0	1,2-Dichloroethane-D4	107%	76-127%
2037-26-5	Toluene-D8	103%	86-112%
460-00-4	4-Bromofluorobenzene	100%	84-120%

Blank Spike Summary

Job Number: F91967
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VP277-BS	P6679.D	1	04/16/12	EG	n/a	n/a	VP277

The QC reported here applies to the following samples: **Method:** SW846 8260B

F91967-1, F91967-2, F91967-3, F91967-4, F91967-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	25	24.6	98	83-124
156-59-2	cis-1,2-Dichloroethylene	25	24.2	97	81-114
98-82-8	Isopropylbenzene	25	30.6	122	87-131
75-09-2	Methylene chloride	25	23.7	95	69-125
127-18-4	Tetrachloroethylene	25	26.7	107	80-131
79-01-6	Trichloroethylene	25	26.4	106	85-124
75-01-4	Vinyl chloride	25	18.3	73	57-153

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	104%	87-116%
17060-07-0	1,2-Dichloroethane-D4	109%	76-127%
2037-26-5	Toluene-D8	103%	86-112%
460-00-4	4-Bromofluorobenzene	96%	84-120%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F91967
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F91916-1MS	P6689.D	1000	04/16/12	EG	n/a	n/a	VP277
F91916-1MSD	P6690.D	1000	04/16/12	EG	n/a	n/a	VP277
F91916-1	P6688.D	1000	04/16/12	EG	n/a	n/a	VP277

The QC reported here applies to the following samples: **Method:** SW846 8260B

F91967-1, F91967-2, F91967-3, F91967-4, F91967-5

CAS No.	Compound	F91916-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	1000	U	25000	25500	102	24700	99	3	83-124/11
156-59-2	cis-1,2-Dichloroethylene	65400		25000	87300	88	83900	74* [a]	4	81-114/10
98-82-8	Isopropylbenzene	1000	U	25000	30400	122	30400	122	0	87-131/10
75-09-2	Methylene chloride	5000	U	25000	25100	100	25600	102	2	69-125/11
127-18-4	Tetrachloroethylene	1070		25000	28000	108	27600	106	1	80-131/12
79-01-6	Trichloroethylene	78600		25000	103000	98	97400	75* [a]	6	85-124/10
75-01-4	Vinyl chloride	1000	U	25000	16900	68	17100	68	1	57-153/22

CAS No.	Surrogate Recoveries	MS	MSD	F91916-1	Limits
1868-53-7	Dibromofluoromethane	102%	99%	100%	87-116%
17060-07-0	1,2-Dichloroethane-D4	111%	108%	108%	76-127%
2037-26-5	Toluene-D8	101%	102%	102%	86-112%
460-00-4	4-Bromofluorobenzene	96%	95%	99%	84-120%

(a) Outside control limits due to high level in sample relative to spike amount.

Accutest Laboratories
Southeast

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Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: F91967
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP22617
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 04/18/12

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	20	25		
Antimony	6.0	1	2		
Arsenic	10	1	2		
Barium	200	1	5		
Beryllium	4.0	.1	1		
Cadmium	5.0	.1	1		
Calcium	1000	50	100		
Chromium	10	1	1		
Cobalt	50	1	1		
Copper	25	1	2		
Iron	300	34	35	1.4	<300
Lead	5.0	1	1		
Magnesium	5000	50	100		
Manganese	15	1	1	0.20	<15
Molybdenum	50	1	2		
Nickel	40	1	2		
Potassium	10000	50	500		
Selenium	10	2	2		
Silver	10	1	1		
Sodium	10000	750	1900		
Strontium	10	1	1		
Thallium	10	1	1.9		
Tin	50	1	1		
Titanium	10	1.1	2		
Vanadium	50	1	1		
Zinc	20	1	5		

Associated samples MP22617: F91967-1, F91967-2, F91967-3, F91967-4, F91967-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F91967
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP22617
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Metal	F91966-1 Original	DUP	RPD	QC Limits	F91966-1 Original	MS	Spikelot MPFLICP1	% Rec	QC Limits
Prep Date:			04/18/12					04/18/12	
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron	338	339	0.3	0-20	338	26100	26000	99.1	80-120
Lead									
Magnesium									
Manganese	0.0	0.0	NC	0-20	0.0	498	500	99.6	80-120
Molybdenum									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Vanadium									
Zinc									

Associated samples MP22617: F91967-1, F91967-2, F91967-3, F91967-4, F91967-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: F91967
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP22617 Methods: SW846 6010C
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 04/18/12

Metal	F91966-1 Original	MSD	Spikelot MPFLICP1	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic						
Barium						
Beryllium						
Cadmium						
Calcium						
Chromium						
Cobalt						
Copper						
Iron	338	26100	26000	99.1	0.0	20
Lead						
Magnesium						
Manganese	0.0	495	500	99.0	0.6	20
Molybdenum						
Nickel						
Potassium						
Selenium						
Silver						
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc						

Associated samples MP22617: F91967-1, F91967-2, F91967-3, F91967-4, F91967-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: F91967
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP22617
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 04/18/12

Metal	BSP Result	Spikelot MPFLICP1	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron	25600	26000	98.5	80-120
Lead				
Magnesium				
Manganese	491	500	98.2	80-120
Molybdenum				
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP22617: F91967-1, F91967-2, F91967-3, F91967-4, F91967-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: F91967
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP22617
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 04/18/12

Metal	F91966-1 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron	338	299	11.6 (a)	0-10
Lead				
Magnesium				
Manganese	0.00	0.00	NC	0-10
Molybdenum				
Nickel				
Potassium				
Selenium				
Silver				
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP22617: F91967-1, F91967-2, F91967-3, F91967-4, F91967-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

POST DIGESTATE SPIKE SUMMARY

Login Number: F91967
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

QC Batch ID: MP22617
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 04/18/12

Metal	Sample ml	Final ml	F91966-1 Raw	Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum										
Antimony										
Arsenic										
Barium										
Beryllium										
Cadmium										
Calcium										
Chromium										
Cobalt										
Copper										
Iron	9.8	10	337.9	331.142	3414	0.2	150	3000	102.8	80-120
Lead										
Magnesium										
Manganese	9.8	10	0	0	53.6	0.2	2.5	50	107.2	80-120
Molybdenum										
Nickel										
Potassium										
Selenium										
Silver										
Sodium										
Strontium										
Thallium										
Tin										
Titanium										
Vanadium										
Zinc										

Associated samples MP22617: F91967-1, F91967-2, F91967-3, F91967-4, F91967-5

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested

Accutest Laboratories Southeast

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F91967
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Alkalinity, Total as CaCO3	GN49325	5.0	0.0	mg/l	250	241	96.4	90-113%
Chloride	GP19015/GN49297	2.0	0.0	mg/l	50	49.7	99.4	90-110%
Nitrogen, Ammonia	GP19020/GN49323	0.10	0.0	mg/l	2.5	2.46	98.4	90-110%
Nitrogen, Nitrate	GP19015/GN49297	0.10	0.0	mg/l	2.5	2.53	101.2	90-110%
Nitrogen, Nitrite	GP19015/GN49297	0.10	0.0	mg/l	2.5	2.52	100.8	90-110%
Sulfate	GP19015/GN49297	2.0	0.0	mg/l	50	50.2	100.4	90-110%
Total Organic Carbon	GP19027/GN49329	1.0	0.0	mg/l	15	14.7	98.0	90-110%

Associated Samples:
Batch GN49325: F91967-3
Batch GP19015: F91967-3
Batch GP19020: F91967-3
Batch GP19027: F91967-3F
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F91967
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Alkalinity, Total as CaCO3	GN49325	F91853-10	mg/l	8.8	6.1	36.2(a)	0-20%
Chloride	GP19015/GN49297	F91939-3	mg/l	5.4	5.4	0.0	0-20%
Nitrogen, Ammonia	GP19020/GN49323	F91847-1	mg/l	0.050 U	0.0	0.0	0-20%
Nitrogen, Nitrate	GP19015/GN49297	F91939-3	mg/l	0.10	0.085	16.2	0-20%
Nitrogen, Nitrite	GP19015/GN49297	F91939-3	mg/l	0.050 U	0.0	0.0	0-20%
Sulfate	GP19015/GN49297	F91939-3	mg/l	1.0	0.0	200.0(b)	0-20%
Total Organic Carbon	GP19027/GN49329	F91968-1F	mg/l	10.8	10.6	1.9	0-20%

Associated Samples:
Batch GN49325: F91967-3
Batch GP19015: F91967-3
Batch GP19020: F91967-3
Batch GP19027: F91967-3F
(*) Outside of QC limits
(a) RPD acceptable due to low duplicate and sample concentrations.
(b) RPD acceptable due to low duplicate and sample concentrations.

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F91967
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Alkalinity, Total as CaCO3	GN49325	F91853-10	mg/l	8.8	250	254	98.2	90-113%
Chloride	GP19015/GN49297	F91939-3	mg/l	5.4	50	55.0	99.2	90-110%
Nitrogen, Ammonia	GP19020/GN49323	F91847-1	mg/l	0.050 U	2.5	2.4	96.0	90-110%
Nitrogen, Nitrate	GP19015/GN49297	F91939-3	mg/l	0.10	2.5	2.6	100.0	90-110%
Nitrogen, Nitrite	GP19015/GN49297	F91939-3	mg/l	0.050 U	2.5	2.6	104.0	90-110%
Sulfate	GP19015/GN49297	F91939-3	mg/l	1.0	50	50.4	98.8	90-110%
Total Organic Carbon	GP19027/GN49329	F91968-1F	mg/l	10.8	15	23.7	86.0N(a)	90-110%

Associated Samples:
Batch GN49325: F91967-3
Batch GP19015: F91967-3
Batch GP19020: F91967-3
Batch GP19027: F91967-3F
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(a) Spike recovery indicates possible matrix interference.

Microseeps, Inc
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

April 20, 2012

Muna Mohammed
Accutest Laboratories
4405 Vineland St.
Suite C-15
Orlando, FL 32811

RE: **F91967X**
Microseeps Workorder: 4871

Dear Muna Mohammed:

Enclosed are the analytical results for sample(s) received by the laboratory on Thursday, April 12, 2012. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Julianne C. Sproull

Julianne Sproull 04/20/2012
jsproull@microseeps.com

Enclosures

As a valued client we would appreciate your comments on our service.
Please email info@microseeps.com

Total Number of Pages 6

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220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

LABORATORY ACCREDITATIONS & CERTIFICATIONS

Accreditor:	Pennsylvania Department of Environmental Protection, Bureau of Laboratories
Accreditation ID:	02-00538
Scope:	NELAP Non-Potable Water and Solid & Hazardous Waste
Accreditor:	NELAP: State of Florida, Department of Health, Bureau of Laboratories
Accreditation ID:	E87832
Scope:	Clean Water Act (CWA) Resource Conservation and Recovery Act (RCRA)
Accreditor:	South Carolina Department of Health and Environmental Control, Office of Environmental Laboratory Certification
Accreditation ID:	89009003
Scope:	Clean Water Act (CWA); Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: State of Louisiana, Department of Environmental Quality
Accreditation ID:	04104
Scope:	Solid and Chemical Materials; Non-Potable Water
Accreditor:	NELAP: New Jersey, Department of Environmental Protection
Accreditation ID:	PA026
Scope:	Non-Potable Water; Solid and Chemical Materials
Accreditor:	NELAP: New York, Department of Health Wadsworth Center
Accreditation ID:	11815
Scope:	Non-Potable Water; Solid and Hazardous Waste
Accreditor:	State of Connecticut, Department of Public Health, Division of Environmental Health
Accreditation ID:	PH-0263
Scope:	Clean Water Act (CWA) Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: Texas, Commission on Environmental Quality
Accreditation ID:	T104704453-09-TX
Scope:	Non-Potable Water
Accreditor:	State of New Hampshire
Accreditation ID:	299409
Scope:	Non-potable water
Accreditor:	State of Georgia
Accreditation ID:	Chapter 391-3-26
Scope:	As per the Georgia EPD Rules and Regulations for Commercial Laboratories, Microseeps is accredited by the Pennsylvania Department of Environmental Protection Bureau of Laboratories under the National Environmental Laboratory Approval Program (NELAC).

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220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

SAMPLE SUMMARY

Workorder: 4871 F91967X

Lab ID	Sample ID	Matrix	Date Collected	Date Received
48710001	F91967-3X	Water	4/5/2012 15:51	4/12/2012 11:00

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ANALYTICAL RESULTS

Workorder: 4871 F91967X

Lab ID: 48710001 Date Received: 4/12/2012 11:00 Matrix: Water
Sample ID: F91967-3X Date Collected: 4/5/2012 15:51

Parameters	Results	Units	RDL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	2800	ug/l	0.10	0.015	1			4/18/2012 17:24	SL	
Ethane	0.015J	ug/l	0.025	0.0010	1			4/18/2012 17:24	SL	
Ethene	1.2	ug/l	0.025	0.0060	1			4/18/2012 17:24	SL	
Carbon Dioxide	110	mg/l	5.0	0.070	1			4/18/2012 17:24	SL	
Oxygen	2.7	mg/l	0.50	0.063	1			4/18/2012 17:24	SL	
Nitrogen	9.9	mg/l	0.50	0.13	1			4/18/2012 17:24	SL	

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ANALYTICAL RESULTS QUALIFIERS

Workorder: 4871 F91967X

PARAMETER QUALIFIERS

U	Indicates the compound was analyzed for, but not detected
J	Estimated concentration greater than the set method detection limit (MDL) and less than the set reporting limit (RDL).

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220 William Pitt Way
Pittsburgh, PA 15238
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Fax: (412) 826-3433

QUALITY CONTROL DATA

Workorder: 4871 F91987X

QC Batch: DISG/2065 Analysis Method: AM20GAX
QC Batch Method: AM20GAX
Associated Lab Samples: 48710001

METHOD BLANK: 10481

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Methane	ug/l	0 10 U	0 10	
Ethane	ug/l	0 025 U	0 025	
Ethene	ug/l	0 025 U	0 025	

METHOD BLANK: 10482

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Carbon Dioxide	mg/l	5 0 U	5 0	
Oxygen	mg/l	0 50 U	0 50	
Nitrogen	mg/l	0 50 U	0 50	

LABORATORY CONTROL SAMPLE & LCSD: 10483 10485

Parameter	Units	Spike Conc	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK										
Methane	ug/l	820	820	790	99	96	80-120	3.1	20	
Ethane	ug/l	45	46	45	102	101	80-120	0 99	20	
Ethene	ug/l	41	43	42	105	103	80-120	1 9	20	

LABORATORY CONTROL SAMPLE & LCSD: 10484 10486

Parameter	Units	Spike Conc	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK										
Carbon Dioxide	mg/l	130	140	130	106	104	80-120	1 9	20	
Oxygen	mg/l		9 8	9 8						
Nitrogen	mg/l		120	120						

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Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 4871 F91967X

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
48710001	F91967-3X			AM20GAX	DISG/2065

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4871

Accutest Laboratories Southeast
Subcontract Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL 407-425-6700 FAX: 407-425-0707
www.accutest.com

PAGE 1 OF 1

Client / Reporting Information

Company Name: Accutest Laboratories
Address: 4405 Vineland Rd.
City: Orlando State: FL Zip: 32811
Phone #: (407) 425-6700 Fax#: (407) 425-0707

Project Information

Project Name: F91967X
Please send report to dawnd@accutest.com
For any other issues contact munam@accutest.com

Analytical Information

N_2, O_2, CO_2, MEG

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe

Lab ID #	Sample ID	COLLECTION DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NaOH+ZNAC	DI WATER	MEOH	N_2, O_2, CO_2, MEG	LAB USE ONLY
3X	OLD-OU2-DP02A	04/05/12	15:51		GW	2	X									X	

Turnaround Time (Business days)

Std. 10 Business Days
7 Day *RUSH*
5 Day *RUSH*
3 Day *EMERGENCY*
2 Day *EMERGENCY*
1 Day *EMERGENCY*
Other

Approved By: / Date/Rush Code:
04-24-12

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [x] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULLT1 (EPA LEVEL 4)
- [ ] EDD'S

Comments / Remarks

Ship to Laboratory - Microseeps
Approved by - Muna M

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by/Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1 Scott Hill RISE	4/11/12 1700	2 FED EX	3 FED EX		4 Hamilton 4-12-12 11.00
5		6	7		8

Lab Use Only : Custody Seal In Place: Y N Temp Blank Provided: Y N Preserved Where Applicable: Y N Total # of Coolers:____ Cooler Temperature (s) Celsius:____

Southeast ACCUTEST LABORATORIES

04/26/12

04/26/12

Technical Report for

BFA Environmental Consultants

NTC Orlando, Orlando, FL

07-71009/2

Accutest Job Number: F91968

Sampling Date: 04/09/12

Report to:

BFA Environmental Consultants
1230 Hillcrest Street Suite 100
Orlando, FL 32803
jwatson@bfaenvironmental.com

ATTN: John Watson

Total number of pages in report: **41**

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Harry Behzadi, Ph.D.
Laboratory Director

Client Service contact: Jean Dent-Smith 407-425-6700

Certifications: FL (E83510), LA (03051), KS (E-10327), IA (366), IL (200063), NC (573), NJ (FL002), SC (96038001) DoD ELAP (L-A-B L2229), CA (04226CA), TX (T104704404), AK, AR, GA, KY, MA, NV, OK, UT, VA, WA, WI

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Test results relate only to samples analyzed.

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Accutest Laboratories

Sample Summary

BFA Environmental Consultants

Job No: F91968

NTC Orlando, Orlando, FL
Project No: 07-71009/2

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
F91968-1	04/09/12	13:45	JW	04/10/12	AQ	Ground Water	OLD-OU2-41B
F91968-1F	04/09/12	13:45	JW	04/10/12	AQ	Groundwater Filtered	OLD-OU2-41B
F91968-2	04/09/12	13:47	JW	04/10/12	AQ	Ground Water	OLD-OU2-43B
F91968-2F	04/09/12	13:47	JW	04/10/12	AQ	Groundwater Filtered	OLD-OU2-43B
F91968-3	04/09/12	14:59	JW	04/10/12	AQ	Ground Water	OLD-OU2-47B
F91968-3F	04/09/12	14:59	JW	04/10/12	AQ	Groundwater Filtered	OLD-OU2-47B
F91968-4	04/09/12	14:59	JW	04/10/12	AQ	Ground Water	OLD-OU2-45B
F91968-4F	04/09/12	14:59	JW	04/10/12	AQ	Groundwater Filtered	OLD-OU2-45B
F91968-5	04/09/12	15:57	JW	04/10/12	AQ	Ground Water	OLD-OU2-46B
F91968-5F	04/09/12	15:57	JW	04/10/12	AQ	Groundwater Filtered	OLD-OU2-46B
F91968-6	04/09/12	16:21	JW	04/10/12	AQ	Ground Water	OLD-OU2-48B
F91968-6F	04/09/12	16:21	JW	04/10/12	AQ	Groundwater Filtered	OLD-OU2-48B
F91968-7	04/09/12	17:03	JW	04/10/12	AQ	Ground Water	OLD-OU2-49B

Accutest Laboratories

Sample Summary
(continued)

BFA Environmental Consultants

Job No: F91968

NTC Orlando, Orlando, FL
Project No: 07-71009/2

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
F91968-7F	04/09/12	17:03	JW	04/10/12	AQ	Groundwater Filtered	OLD-OU2-49B

Accutest Laboratories
Southeast

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-41B		
Lab Sample ID:	F91968-1	**Date Sampled:**	04/09/12
Matrix:	AQ - Ground Water	**Date Received:**	04/10/12
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P6827.D	1	04/20/12	EG	n/a	n/a	VP281
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	1.9	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	2.7	1.0	0.26	ug/l	
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	0.25 U	1.0	0.25	ug/l	
79-01-6	Trichloroethylene	24.9	1.0	0.26	ug/l	
75-01-4	Vinyl chloride	0.22 U	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		87-116%
17060-07-0	1,2-Dichloroethane-D4	101%		76-127%
2037-26-5	Toluene-D8	99%		86-112%
460-00-4	4-Bromofluorobenzene	99%		84-120%

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-41B		
Lab Sample ID:	F91968-1	**Date Sampled:**	04/09/12
Matrix:	AQ - Ground Water	**Date Received:**	04/10/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Sulfate	1.0 I	2.0	1.0	mg/l	1	04/11/12 14:06	TC	EPA 300/SW846 9056A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-41B		
Lab Sample ID:	F91968-1F	**Date Sampled:**	04/09/12
Matrix:	AQ - Groundwater Filtered	**Date Received:**	04/10/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Total Organic Carbon [a]	10.8	1.0	0.26	mg/l	1	04/12/12 19:43	FN	SM19 5310B/SW 9060A

(a) Sample received without proper preservation. Sample result considered minimum values.

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-43B		
Lab Sample ID:	F91968-2	**Date Sampled:**	04/09/12
Matrix:	AQ - Ground Water	**Date Received:**	04/10/12
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P6828.D	1	04/20/12	EG	n/a	n/a	VP281
Run #2	P6854.D	100	04/23/12	EG	n/a	n/a	VP282

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	0.25	1.0	0.20	ug/l	I
156-59-2	cis-1,2-Dichloroethylene	291 [a]	100	26	ug/l	
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	29.7	1.0	0.25	ug/l	
79-01-6	Trichloroethylene	5150 [a]	100	26	ug/l	
75-01-4	Vinyl chloride	36.9	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%	105%	87-116%
17060-07-0	1,2-Dichloroethane-D4	101%	101%	76-127%
2037-26-5	Toluene-D8	99%	103%	86-112%
460-00-4	4-Bromofluorobenzene	98%	98%	84-120%

(a) Result is from Run# 2

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-43B		
Lab Sample ID:	F91968-2	**Date Sampled:**	04/09/12
Matrix:	AQ - Ground Water	**Date Received:**	04/10/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Sulfate	20.2	2.0	1.0	mg/l	1	04/11/12 14:22	TC	EPA 300/SW846 9056A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-43B		
Lab Sample ID:	F91968-2F	**Date Sampled:**	04/09/12
Matrix:	AQ - Groundwater Filtered	**Date Received:**	04/10/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Total Organic Carbon [a]	8.4	1.0	0.26	mg/l	1	04/12/12 19:58	FN	SM19 5310B/SW 9060A

(a) Sample received without proper preservation. Sample result considered minimum values.

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-47B		
Lab Sample ID:	F91968-3	**Date Sampled:**	04/09/12
Matrix:	AQ - Ground Water	**Date Received:**	04/10/12
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	P6829.D	1	04/20/12	EG	n/a	n/a	VP281
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	0.20 U	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	169	1.0	0.26	ug/l	L
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	39.7	1.0	0.25	ug/l	
79-01-6	Trichloroethylene	2830	1.0	0.26	ug/l	L
75-01-4	Vinyl chloride	25.9	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		87-116%
17060-07-0	1,2-Dichloroethane-D4	99%		76-127%
2037-26-5	Toluene-D8	101%		86-112%
460-00-4	4-Bromofluorobenzene	97%		84-120%

(a) Insufficient sample available for reanalysis.

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-47B		
Lab Sample ID:	F91968-3	**Date Sampled:**	04/09/12
Matrix:	AQ - Ground Water	**Date Received:**	04/10/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Sulfate	27.1	2.0	1.0	mg/l	1	04/11/12 14:38	TC	EPA 300/SW846 9056A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-47B		
Lab Sample ID:	F91968-3F	**Date Sampled:**	04/09/12
Matrix:	AQ - Groundwater Filtered	**Date Received:**	04/10/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Total Organic Carbon [a]	12.0	1.0	0.26	mg/l	1	04/12/12 20:16	FN	SM19 5310B/SW 9060A

(a) Sample received without proper preservation. Sample result considered minimum values.

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-45B		
Lab Sample ID:	F91968-4	**Date Sampled:**	04/09/12
Matrix:	AQ - Ground Water	**Date Received:**	04/10/12
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	P6830.D	1	04/20/12	EG	n/a	n/a	VP281
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	0.92	1.0	0.20	ug/l	I
156-59-2	cis-1,2-Dichloroethylene	708	1.0	0.26	ug/l	L
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	0.25 U	1.0	0.25	ug/l	
79-01-6	Trichloroethylene	2.2	1.0	0.26	ug/l	
75-01-4	Vinyl chloride	7.3	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		87-116%
17060-07-0	1,2-Dichloroethane-D4	101%		76-127%
2037-26-5	Toluene-D8	99%		86-112%
460-00-4	4-Bromofluorobenzene	95%		84-120%

(a) Insufficient sample available for reanalysis.

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-45B		
Lab Sample ID:	F91968-4	**Date Sampled:**	04/09/12
Matrix:	AQ - Ground Water	**Date Received:**	04/10/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Sulfate	1.1 I	2.0	1.0	mg/l	1	04/11/12 14:54	TC	EPA 300/SW846 9056A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-45B		
Lab Sample ID:	F91968-4F	**Date Sampled:**	04/09/12
Matrix:	AQ - Groundwater Filtered	**Date Received:**	04/10/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Total Organic Carbon [a]	14.2	1.0	0.26	mg/l	1	04/12/12 20:31	FN	SM19 5310B/SW 9060A

(a) Sample received without proper preservation. Sample result considered minimum values.

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-46B		
Lab Sample ID:	F91968-5	**Date Sampled:**	04/09/12
Matrix:	AQ - Ground Water	**Date Received:**	04/10/12
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P6831.D	1	04/20/12	EG	n/a	n/a	VP281
Run #2	P6855.D	100	04/23/12	EG	n/a	n/a	VP282

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	0.26	1.0	0.20	ug/l	I
156-59-2	cis-1,2-Dichloroethylene	913 [a]	100	26	ug/l	
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	36.2	1.0	0.25	ug/l	
79-01-6	Trichloroethylene	5020 [a]	100	26	ug/l	
75-01-4	Vinyl chloride	47.6	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%	101%	87-116%
17060-07-0	1,2-Dichloroethane-D4	101%	99%	76-127%
2037-26-5	Toluene-D8	102%	102%	86-112%
460-00-4	4-Bromofluorobenzene	95%	100%	84-120%

(a) Result is from Run# 2

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-46B		
Lab Sample ID:	F91968-5	**Date Sampled:**	04/09/12
Matrix:	AQ - Ground Water	**Date Received:**	04/10/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Sulfate	11.5	2.0	1.0	mg/l	1	04/11/12 15:10	TC	EPA 300/SW846 9056A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-46B		
Lab Sample ID:	F91968-5F	**Date Sampled:**	04/09/12
Matrix:	AQ - Groundwater Filtered	**Date Received:**	04/10/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Total Organic Carbon [a]	8.7	1.0	0.26	mg/l	1	04/12/12 21:19	FN	SM19 5310B/SW 9060A

(a) Sample received without proper preservation. Sample result considered minimum values.

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-48B		
Lab Sample ID:	F91968-6	**Date Sampled:**	04/09/12
Matrix:	AQ - Ground Water	**Date Received:**	04/10/12
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	P6832.D	1	04/20/12	EG	n/a	n/a	VP281
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	0.79	1.0	0.20	ug/l	I
156-59-2	cis-1,2-Dichloroethylene	1010	1.0	0.26	ug/l	L
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	0.25 U	1.0	0.25	ug/l	
79-01-6	Trichloroethylene	1.1	1.0	0.26	ug/l	
75-01-4	Vinyl chloride	543	1.0	0.22	ug/l	L

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		87-116%
17060-07-0	1,2-Dichloroethane-D4	103%		76-127%
2037-26-5	Toluene-D8	101%		86-112%
460-00-4	4-Bromofluorobenzene	98%		84-120%

(a) Insufficient sample available for reanalysis.

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-48B		
Lab Sample ID:	F91968-6	**Date Sampled:**	04/09/12
Matrix:	AQ - Ground Water	**Date Received:**	04/10/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Sulfate	1.0 U	2.0	1.0	mg/l	1	04/11/12 15:26	TC	EPA 300/SW846 9056A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-48B		
Lab Sample ID:	F91968-6F	**Date Sampled:**	04/09/12
Matrix:	AQ - Groundwater Filtered	**Date Received:**	04/10/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Total Organic Carbon [a]	26.2	1.0	0.26	mg/l	1	04/12/12 21:35	FN	SM19 5310B/SW 9060A

(a) Sample received without proper preservation. Sample result considered minimum values.

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-49B		
Lab Sample ID:	F91968-7	**Date Sampled:**	04/09/12
Matrix:	AQ - Ground Water	**Date Received:**	04/10/12
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P6842.D	1	04/23/12	EG	n/a	n/a	VP282
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	0.22	1.0	0.20	ug/l	I
156-59-2	cis-1,2-Dichloroethylene	53.5	1.0	0.26	ug/l	
98-82-8	Isopropylbenzene	0.20 U	1.0	0.20	ug/l	
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	3.2	1.0	0.25	ug/l	
79-01-6	Trichloroethylene	61.8	1.0	0.26	ug/l	
75-01-4	Vinyl chloride	3.4	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		87-116%
17060-07-0	1,2-Dichloroethane-D4	102%		76-127%
2037-26-5	Toluene-D8	101%		86-112%
460-00-4	4-Bromofluorobenzene	98%		84-120%

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-49B		
Lab Sample ID:	F91968-7	**Date Sampled:**	04/09/12
Matrix:	AQ - Ground Water	**Date Received:**	04/10/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Sulfate	17.1	2.0	1.0	mg/l	1	04/11/12 15:42	TC	EPA 300/SW846 9056A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-49B		
Lab Sample ID:	F91968-7F	**Date Sampled:**	04/09/12
Matrix:	AQ - Groundwater Filtered	**Date Received:**	04/10/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Total Organic Carbon [a]	25.3	1.0	0.26	mg/l	1	04/12/12 21:51	FN	SM19 5310B/SW 9060A

(a) Sample received without proper preservation. Sample result considered minimum values.

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories
Southeast

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Certification Exceptions
- Certification Exceptions (FL)
- Chain of Custody

BFA Environmental Consultants

CHAIN OF CUSTODY F91968

Analytical Request Document

Client Information	Project Information	Lab Information	COC Number
BFA Orlando, FL Report Copy to: John Watson E-mail Report to: jwatson@bfaenvironmental.com	Operable Unit 2 Orlando, FL 32813 Lab Quote No: Ref. No: Project No: 07-71009/2 Invoice to:	Accutest Laboratories Southeast 4405 Vineland Road Suite C-15 Orlando, FL 32811	07-71009/2_4/9/12 Shipped By: Courier Tracking #:

	Sample ID	Date	Time	Matrix	Method(s)	# Cont	Cont. Type	Cont. Size	Preservatives	TAT	Lab ID No.
1	OLD-OU2-41B	04/09/2012	01:45 pm	WG	Biogenic Gases DOC Methane/ethane/ethene Sulfate VOC	8	AG;CG;PE	40 ml;500 ml	HCL;Other;None	2 week	
2	OLD-OU2-43B	04/09/2012	01:47 pm	WG	Biogenic Gases DOC Methane/ethane/ethene Sulfate VOCs	8	AG;CG;PE	40 ml;500 ml	HCL;Other;None	2 week	
3	OLD-OU2-47B	04/09/2012	02:59 pm	WG	Biogenic Gases DOC Methane/ethane/ethene Sulfate VOCs	8	AG;CG;PE	40 ml;500 ml	HCL;Other;None	2 week	
4	OLD-OU2-45B	04/09/2012	02:59 pm	WG	Biogenic Gases DOC Methane/ethane/ethene So4 Voc	8	AG;CG;PE	40 ml;500 ml	HCL;Other;None	2 week	
5	OLD-OU2-46B	04/09/2012	03:57 pm	WG	Biogenic Gases DOC Methane/ethane/ethene Sulfate VOCs	8	AG;CG;PE	40 ml;500 ml	HCL;Other;None	2 week	
6	OLD-OU2-48B	04/09/2012	04:21 pm	WG	Biogenic Gases DOC Methane/ethane/ethene Sulfate VOCs	8	AG;CG;PE	40 ml;500 ml	HCL;None	2 week	
7	OLD-OU2-49B	04/09/2012	05:03 pm	WG	Biogenic Gases DOC Methane/ethane/ethene Sulfate VOCs	8	AG;CG;PE	40 ml;500 ml	HCL;Other;None	2 week	

Client Comments / Instructions	Lab Comments / Receipt Conditions
	32c 4.2c

Relinquished By	Date	Time	Accepted By	Date	Time
[signature]	4-10-12	11:41	[signature]	04/10/12	11:41
[signature]	04/10/12	12:19	[signature] ALSE	04/10/12	12:19

Sampler Name: Katie Ballew

Sampler Signature: Katie Ballew

Date Signed: 04/10/2012

F91968: Chain of Custody
Page 1 of 3

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: F91968 CLIENT: BFA PROJECT: OPERABLE UNIT 2

DATE/TIME RECEIVED: 04/10/12 12:19 {MM/DD/YY 24:00} NIMBER OF COOLERS RECEIVED: 2

METHOD OF DELIVERY: FEDEX UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER

AIRBILL NUMBERS:

COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET
- [ ] WET ICE PRESENT

TRIP BLANK INFORMATION

- [x] TRIP BLANK PROVIDED
- [ ] TRIP BLANK NOT PROVIDED
- [x] TRIP BLANK NOT ON COC
- [x] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [x] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

MISC. INFORMATION

NUMBER OF ENCORES ? 25-GRAM_____ 5-GRAM_____

NUMBER OF 5035 FIELD KITS ? _____

NUMBER OF LAB FILTERED METALS ? _____

TEMPERATURE INFORMATION

- [ ] IR THERM ID #1 CORR. FACTOR -0.2
- [ ] OBSERVED TEMPS: 3.4 4.4
- [ ] CORRECTED TEMPS: 3.2 4.2

SAMPLE INFORMATION

- [ ] SAMPLE LABELS PRESENT ON ALL BOTTLES
- [ ] INCORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- [ ] ID'S ON COC DO NOT MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] 5035 FIELD KIT FROZEN WITHIN 48 HOUR'S
- [ ] RESIDUAL CHLORINE PRESENT

{APPICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS}

SUMMARY OF COMMENTS:

TECHNICIAN SIGNATURE/DATE [signature] 04/10/12 REVIEWER SIGNATURE/DATE JC 4-10-12

NF 12/10 receipt confirmation 122910.xls

F91968: Chain of Custody
Page 2 of 3

BFA Environmental Consultants

CHAIN OF CUSTODY F91968

Analytical Request Document

Client Information	Project Information	Lab Information	COC Number
BFA Orlando, FL Report Copy to: John Watson E-mail Report to: jwatson@bfaenvironmental.com	Operable Unit 2 Orlando, FL 32813 Lab Quote No: Ref. No: Project No: 07-71009/2 Invoice to:	Accutest Laboratories Southeast 4405 Vineland Road Suite C-15 Orlando, FL 32811	07-71009/2_4/9/12 Shipped By: Courier Tracking #:

	Sample ID	Date	Time	Matrix	Method(s)	# Cont	Cont. Type	Cont. Size	Preservatives	TAT	Lab ID No.
1	OLD-OU2-41B	04/09/2012	01:45 pm	WG	Biogenic Gases DOC Methane/ethane/ethene Sulfate VOC	8	AG;CG;PE	40 ml;500 ml	HCL;Other;None	2 week	
2	OLD-OU2-43B	04/09/2012	01:47 pm	WG	Biogenic Gases DOC Methane/ethane/ethene Sulfate VOCs	8	AG;CG;PE	40 ml;500 ml	HCL;Other;None	2 week	
3	OLD-OU2-47B	04/09/2012	02:59 pm	WG	Biogenic Gases DOC Methane/ethane/ethene Sulfate VOCs	8	AG;CG;PE	40 ml;500 ml	HCL;Other;None	2 week	
4	OLD-OU2-45B	04/09/2012	02:59 pm	WG	Biogenic Gases DOC Methane/ethane/ethene So4 Voc	8	AG;CG;PE	40 ml;500 ml	HCL;Other;None	2 week	
5	OLD-OU2-46B	04/09/2012	03:57 pm	WG	Biogenic Gases DOC Methane/ethane/ethene Sulfate VOCs	8	AG;CG;PE	40 ml;500 ml	HCL;Other;None	2 week	
6	OLD-OU2-48B	04/09/2012	04:21 pm	WG	Biogenic Gases DOC Methane/ethane/ethene Sulfate VOCs	8	AG;CG;PE	40 ml;500 ml	HCL;None	2 week	
7	OLD-OU2-49B	04/09/2012	05:03 pm	WG	Biogenic Gases DOC Methane/ethane/ethene Sulfate VOCs	8	AG;CG;PE	40 ml;500 ml	HCL;Other;None	2 week	

Client Comments / Instructions	Lab Comments / Receipt Conditions
	3.2c 4.2c

Relinquished By	Date	Time	Accepted By	Date	Time
[signature]	4-10-12	11:41	[signature]	04/10/12	11:41
[signature]	04/10/12	12:19	[signature] ASE	04/10/12	12:19

Sampler Name: Katie Ballew

Sampler Signature: Katie Ballew

Date Signed: 04/10/2012

F91968: Chain of Custody
Page 3 of 3

Accutest Laboratories Southeast

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: F91968
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VP281-MB	P6811.D	1	04/20/12	EG	n/a	n/a	VP281

The QC reported here applies to the following samples: **Method:** SW846 8260B

F91968-1, F91968-2, F91968-3, F91968-4, F91968-5, F91968-6

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.26	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.25	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.26	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	100%	87-116%
17060-07-0	1,2-Dichloroethane-D4	85%	76-127%
2037-26-5	Toluene-D8	101%	86-112%
460-00-4	4-Bromofluorobenzene	100%	84-120%

Method Blank Summary

Job Number: F91968
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VP282-MB	P6841.D	1	04/23/12	EG	n/a	n/a	VP282

The QC reported here applies to the following samples: **Method:** SW846 8260B

F91968-2, F91968-5, F91968-7

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.26	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.25	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.26	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	98%	87-116%
17060-07-0	1,2-Dichloroethane-D4	104%	76-127%
2037-26-5	Toluene-D8	101%	86-112%
460-00-4	4-Bromofluorobenzene	98%	84-120%

Blank Spike Summary

Job Number: F91968
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VP281-BS	P6809.D	1	04/20/12	EG	n/a	n/a	VP281

The QC reported here applies to the following samples: **Method:** SW846 8260B

F91968-1, F91968-2, F91968-3, F91968-4, F91968-5, F91968-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	25	25.7	103	83-124
156-59-2	cis-1,2-Dichloroethylene	25	25.7	103	81-114
98-82-8	Isopropylbenzene	25	29.3	117	87-131
75-09-2	Methylene chloride	25	23.7	95	69-125
127-18-4	Tetrachloroethylene	25	26.9	108	80-131
79-01-6	Trichloroethylene	25	25.7	103	85-124
75-01-4	Vinyl chloride	25	22.6	90	57-153

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	99%	87-116%
17060-07-0	1,2-Dichloroethane-D4	83%	76-127%
2037-26-5	Toluene-D8	104%	86-112%
460-00-4	4-Bromofluorobenzene	100%	84-120%

Blank Spike Summary

Job Number: F91968
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VP282-BS	P6839.D	1	04/23/12	EG	n/a	n/a	VP282

The QC reported here applies to the following samples: **Method:** SW846 8260B

F91968-2, F91968-5, F91968-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	25	24.7	99	83-124
156-59-2	cis-1,2-Dichloroethylene	25	24.5	98	81-114
98-82-8	Isopropylbenzene	25	31.1	124	87-131
75-09-2	Methylene chloride	25	23.3	93	69-125
127-18-4	Tetrachloroethylene	25	28.3	113	80-131
79-01-6	Trichloroethylene	25	26.4	106	85-124
75-01-4	Vinyl chloride	25	23.9	96	57-153

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	101%	87-116%
17060-07-0	1,2-Dichloroethane-D4	104%	76-127%
2037-26-5	Toluene-D8	101%	86-112%
460-00-4	4-Bromofluorobenzene	94%	84-120%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F91968
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F92124-3MS	P6818.D	10	04/20/12	EG	n/a	n/a	VP281
F92124-3MSD	P6819.D	10	04/20/12	EG	n/a	n/a	VP281
F92124-3	P6813.D	10	04/20/12	EG	n/a	n/a	VP281

The QC reported here applies to the following samples: **Method:** SW846 8260B

F91968-1, F91968-2, F91968-3, F91968-4, F91968-5, F91968-6

CAS No.	Compound	F92124-3 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	2.6	I	250	259	103	249	99	4	83-124/11
156-59-2	cis-1,2-Dichloroethylene	158		250	427	108	404	98	6	81-114/10
98-82-8	Isopropylbenzene	10 U		250	291	116	285	114	2	87-131/10
75-09-2	Methylene chloride	50 U		250	242	97	232	93	4	69-125/11
127-18-4	Tetrachloroethylene	10 U		250	267	107	265	106	1	80-131/12
79-01-6	Trichloroethylene	933		250	1220	115	1180	99	3	85-124/10
75-01-4	Vinyl chloride	69.1		250	276	83	260	76	6	57-153/22

CAS No.	Surrogate Recoveries	MS	MSD	F92124-3	Limits
1868-53-7	Dibromofluoromethane	102%	103%	99%	87-116%
17060-07-0	1,2-Dichloroethane-D4	97%	95%	88%	76-127%
2037-26-5	Toluene-D8	99%	101%	100%	86-112%
460-00-4	4-Bromofluorobenzene	99%	96%	101%	84-120%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F91968
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F92034-28MS	P6849.D	1	04/23/12	EG	n/a	n/a	VP282
F92034-28MSD	P6850.D	1	04/23/12	EG	n/a	n/a	VP282
F92034-28	P6845.D	1	04/23/12	EG	n/a	n/a	VP282

The QC reported here applies to the following samples: **Method:** SW846 8260B

F91968-2, F91968-5, F91968-7

CAS No.	Compound	F92034-28 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	1.0	U	25	25.5	102	25.4	102	0	83-124/11
156-59-2	cis-1,2-Dichloroethylene	1.0	U	25	24.8	99	25.7	103	4	81-114/10
98-82-8	Isopropylbenzene	1.0	U	25	30.7	123	30.9	124	1	87-131/10
75-09-2	Methylene chloride	5.0	U	25	23.0	92	22.8	91	1	69-125/11
127-18-4	Tetrachloroethylene	1.0	U	25	28.7	115	28.3	113	1	80-131/12
79-01-6	Trichloroethylene	1.0	U	25	27.0	108	27.2	109	1	85-124/10
75-01-4	Vinyl chloride	1.0	U	25	21.1	84	21.6	86	2	57-153/22

CAS No.	Surrogate Recoveries	MS	MSD	F92034-28	Limits
1868-53-7	Dibromofluoromethane	101%	104%	103%	87-116%
17060-07-0	1,2-Dichloroethane-D4	109%	110%	105%	76-127%
2037-26-5	Toluene-D8	101%	102%	105%	86-112%
460-00-4	4-Bromofluorobenzene	95%	94%	96%	84-120%

Accutest Laboratories
Southeast

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F91968
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Chloride	GP19022/GN49314	2.0	0.0	mg/l	50	52.4	104.8	90-110%
Nitrogen, Nitrate	GP19022/GN49314	0.10	0.0	mg/l	2.5	2.65	106.0	90-110%
Nitrogen, Nitrite	GP19022/GN49314	0.10	0.0	mg/l	2.5	2.64	105.6	90-110%
Sulfate	GP19022/GN49314	2.0	0.0	mg/l	50	52.6	105.2	90-110%
Total Organic Carbon	GP19027/GN49329	1.0	0.0	mg/l	15	14.7	98.0	90-110%

Associated Samples:
Batch GP19022: F91968-1, F91968-2, F91968-3, F91968-4, F91968-5, F91968-6, F91968-7
Batch GP19027: F91968-1F, F91968-2F, F91968-3F, F91968-4F, F91968-5F, F91968-6F, F91968-7F
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F91968
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Chloride	GP19022/GN49314	F91968-1	mg/l	14.3	14.2	0.7	0-20%
Nitrogen, Nitrate	GP19022/GN49330	F91968-1	mg/l	0.050 U	0.58	200.0*(a)	0-20%
Nitrogen, Nitrite	GP19022/GN49314	F91968-1	mg/l	0.050 U	0.0	0.0	0-20%
Sulfate	GP19022/GN49314	F91968-1	mg/l	1.0	1.1	9.5	0-20%
Total Organic Carbon	GP19027/GN49329	F91968-1F	mg/l	10.8	10.6	1.9	0-20%

Associated Samples:
Batch GP19022: F91968-1, F91968-2, F91968-3, F91968-4, F91968-5, F91968-6, F91968-7
Batch GP19027: F91968-1F, F91968-2F, F91968-3F, F91968-4F, F91968-5F, F91968-6F, F91968-7F
(*) Outside of QC limits
(a) High RPD due to possible sample non-homogeneity and/or matrix interference.

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F91968
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Chloride	GP19022/GN49314	F91968-1	mg/l	14.3	50	59.7	90.8	90-110%
Nitrogen, Nitrate	GP19022/GN49330	F91968-1	mg/l	0.050 U	2.5	3.1	124.0N(a)	90-110%
Nitrogen, Nitrite	GP19022/GN49314	F91968-1	mg/l	0.050 U	2.5	2.4	96.0	90-110%
Sulfate	GP19022/GN49314	F91968-1	mg/l	1.0	50	46.9	91.8	90-110%
Total Organic Carbon	GP19027/GN49329	F91968-1F	mg/l	10.8	15	23.7	86.0N(a)	90-110%

Associated Samples:
Batch GP19022: F91968-1, F91968-2, F91968-3, F91968-4, F91968-5, F91968-6, F91968-7
Batch GP19027: F91968-1F, F91968-2F, F91968-3F, F91968-4F, F91968-5F, F91968-6F, F91968-7F
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(a) Spike recovery indicates possible matrix interference.

Microseeps, Inc
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

April 20, 2012

Muna Mohammed
Accutest Laboratories
4405 Vineland St.
Suite C-15
Orlando, FL 32811

RE: **F91968X**

Microseeps Workorder: 4869

Dear Muna Mohammed:

Enclosed are the analytical results for sample(s) received by the laboratory on Thursday, April 12, 2012. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Julianne C. Sproull

Julianne Sproull 04/20/2012
jsproull@microseeps.com

Enclosures

As a valued client we would appreciate your comments on our service.
Please email info@microseeps.com

Total Number of Pages 16

CERTIFICATE OF ANALYSIS
This report shall not be reproduced, except in full, without the written consent of Microseeps, Inc

3004 1 0 0

Microseeps, Inc
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

LABORATORY ACCREDITATIONS & CERTIFICATIONS

Accreditor:	Pennsylvania Department of Environmental Protection, Bureau of Laboratories
Accreditation ID:	02-00538
Scope:	NELAP Non-Potable Water and Solid & Hazardous Waste
Accreditor:	NELAP: State of Florida, Department of Health, Bureau of Laboratories
Accreditation ID:	E87832
Scope:	Clean Water Act (CWA) Resource Conservation and Recovery Act (RCRA)
Accreditor:	South Carolina Department of Health and Environmental Control, Office of Environmental Laboratory Certification
Accreditation ID:	89009003
Scope:	Clean Water Act (CWA); Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: State of Louisiana, Department of Environmental Quality
Accreditation ID:	04104
Scope:	Solid and Chemical Materials; Non-Potable Water
Accreditor:	NELAP: New Jersey, Department of Environmental Protection
Accreditation ID:	PA026
Scope:	Non-Potable Water; Solid and Chemical Materials
Accreditor:	NELAP: New York, Department of Health Wadsworth Center
Accreditation ID:	11815
Scope:	Non-Potable Water; Solid and Hazardous Waste
Accreditor:	State of Connecticut, Department of Public Health, Division of Environmental Health
Accreditation ID:	PH-0263
Scope:	Clean Water Act (CWA) Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: Texas, Commission on Environmental Quality
Accreditation ID:	T104704453-09-TX
Scope:	Non-Potable Water
Accreditor:	State of New Hampshire
Accreditation ID:	299409
Scope:	Non-potable water
Accreditor:	State of Georgia
Accreditation ID:	Chapter 391-3-26
Scope:	As per the Georgia EPD Rules and Regulations for Commercial Laboratories, Microseeps is accredited by the Pennsylvania Department of Environmental Protection Bureau of Laboratories under the National Environmental Laboratory Approval Program (NELAC).

CERTIFICATE OF ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Microseeps, Inc

Microseeps, Inc
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

SAMPLE SUMMARY

Workorder: 4869 F91968X

Lab ID	Sample ID	Matrix	Date Collected	Date Received
48690001	F91968-1X	Water	4/9/2012 13:45	4/12/2012 16:29
48690002	F91968-2X	Water	4/9/2012 13:47	4/12/2012 16:29
48690003	F91968-3X	Water	4/9/2012 14:59	4/12/2012 16:29
48690004	F91968-4X	Water	4/9/2012 14:59	4/12/2012 16:29
48690005	F91968-5X	Water	4/9/2012 15:57	4/12/2012 16:29
48690006	F91968-6X	Water	4/9/2012 16:21	4/12/2012 16:29
48690007	F91968-7X	Water	4/9/2012 17:03	4/12/2012 16:29

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Fax: (412) 826-3433

ANALYTICAL RESULTS

Workorder: 4869 F91968X

Lab ID: 48690001 Date Received: 4/12/2012 16:29 Matrix: Water

Sample ID: F91968-1X Date Collected: 4/9/2012 13:45

Parameters	Results	Units	RDL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	1700	ug/l	0 10	0.015	1			4/19/2012 09:47	GT	
Ethane	0.078	ug/l	0 025	0.0010	1			4/19/2012 09:47	GT	
Ethene	0.28	ug/l	0 025	0.0060	1			4/19/2012 09:47	GT	
Carbon Dioxide	180	mg/l	5 0	0.070	1			4/19/2012 09:47	GT	
Oxygen	2.8	mg/l	0 50	0 063	1			4/19/2012 09:47	GT	
Nitrogen	14	mg/l	0 50	0 13	1			4/19/2012 09:47	GT	

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nelac

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ANALYTICAL RESULTS

Workorder: 4869 F91968X

Lab ID: 48690002 Date Received: 4/12/2012 16:29 Matrix: Water
Sample ID: F91968-2X Date Collected: 4/9/2012 13:47

Parameters	Results	Units	RDL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	850	ug/l	0.10	0.015	1			4/19/2012 09:59	GT	
Ethane	0.57	ug/l	0.025	0.0010	1			4/19/2012 09:59	GT	
Ethene	8.8	ug/l	0.025	0.0060	1			4/19/2012 09:59	GT	
Carbon Dioxide	180	mg/l	5.0	0.070	1			4/19/2012 09:59	GT	
Oxygen	5.1	mg/l	0.50	0.063	1			4/19/2012 09:59	GT	
Nitrogen	14	mg/l	0.50	0.13	1			4/19/2012 09:59	GT	

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ANALYTICAL RESULTS

Workorder: 4869 F91968X

Lab ID: 48690003 Date Received: 4/12/2012 16:29 Matrix: Water
Sample ID: F91968-3X Date Collected: 4/9/2012 14:59

Parameters	Results	Units	RDL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	750	ug/l	0.10	0.015	1			4/19/2012 10:11	GT	
Ethane	0.42	ug/l	0.025	0.0010	1			4/19/2012 10:11	GT	
Ethene	5.7	ug/l	0.025	0.0060	1			4/19/2012 10:11	GT	
Carbon Dioxide	150	mg/l	5.0	0.070	1			4/19/2012 10:11	GT	
Oxygen	5.2	mg/l	0.50	0.063	1			4/19/2012 10:11	GT	
Nitrogen	15	mg/l	0.50	0.13	1			4/19/2012 10:11	GT	

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ANALYTICAL RESULTS

Workorder: 4869 F91968X

Lab ID: 48690004 Date Received: 4/12/2012 16:29 Matrix: Water
Sample ID: F91968-4X Date Collected: 4/9/2012 14:59

Parameters	Results	Units	RDL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	13000	ug/l	0.10	0 015	1			4/19/2012 10:24	GT	
Ethane	0.025 U	ug/l	0 025	0 0010	1			4/19/2012 10:24	GT	
Ethene	1.5	ug/l	0 025	0.0060	1			4/19/2012 10:24	GT	
Carbon Dioxide	240	mg/l	5 0	0 070	1			4/19/2012 10:24	GT	
Oxygen	1.4	mg/l	0 50	0.063	1			4/19/2012 10:24	GT	
Nitrogen	9.3	mg/l	0 50	0 13	1			4/19/2012 10:24	GT	

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ANALYTICAL RESULTS

Workorder: 4869 F91968X

Lab ID: 48690005 Date Received: 4/12/2012 16:29 Matrix: Water

Sample ID: F91968-5X Date Collected: 4/9/2012 15:57

Parameters	Results	Units	RDL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	1300	ug/l	0.10	0.015	1			4/19/2012 10:36	GT	
Ethane	0.64	ug/l	0.025	0.0010	1			4/19/2012 10:36	GT	
Ethene	8.6	ug/l	0.025	0.0060	1			4/19/2012 10:36	GT	
Carbon Dioxide	140	mg/l	5.0	0.070	1			4/19/2012 10:36	GT	
Oxygen	5.0	mg/l	0.50	0.063	1			4/19/2012 10:36	GT	
Nitrogen	16	mg/l	0.50	0.13	1			4/19/2012 10:36	GT	

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ANALYTICAL RESULTS

Workorder: 4869 F91968X

Lab ID: 48690006 Date Received: 4/12/2012 16:29 Matrix: Water
Sample ID: F91968-6X Date Collected: 4/9/2012 16:21

Parameters	Results	Units	RDL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	18000	ug/l	0 10	0 015	1			4/19/2012 10:49	GT	
Ethane	0.025 U	ug/l	0 025	0.0010	1			4/19/2012 10:49	GT	
Ethene	36	ug/l	0 025	0.0060	1			4/19/2012 10:49	GT	
Carbon Dioxide	300	mg/l	5 0	0.070	1			4/19/2012 10:49	GT	
Oxygen	1.7	mg/l	0.50	0 063	1			4/19/2012 10:49	GT	
Nitrogen	6.6	mg/l	0.50	0 13	1			4/19/2012 10:49	GT	

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ANALYTICAL RESULTS

Workorder: 4869 F91968X

Lab ID: 48690007 Date Received: 4/12/2012 16:29 Matrix: Water
Sample ID: F91968-7X Date Collected: 4/9/2012 17:03

Parameters	Results	Units	RDL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	300	ug/l	0.10	0.015	1			4/19/2012 11:01	GT	
Ethane	0.057	ug/l	0.025	0.0010	1			4/19/2012 11:01	GT	
Ethene	1.6	ug/l	0.025	0.0060	1			4/19/2012 11:01	GT	
Carbon Dioxide	130	mg/l	5.0	0.070	1			4/19/2012 11:01	GT	
Oxygen	4.9	mg/l	0.50	0.063	1			4/19/2012 11:01	GT	
Nitrogen	18	mg/l	0.50	0.13	1			4/19/2012 11:01	GT	

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ANALYTICAL RESULTS QUALIFIERS

Workorder: 4869 F91968X

PARAMETER QUALIFIERS

U	Indicates the compound was analyzed for, but not detected
J	Estimated concentration greater than the set method detection limit (MDL) and less than the set reporting limit (RDL).

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QUALITY CONTROL DATA

Workorder: 4869 F91968X

QC Batch: DISG/2068 Analysis Method: AM20GAX

QC Batch Method: AM20GAX

Associated Lab Samples: 48690001, 48690002, 48690003, 48690004, 48690005, 48690006, 48690007

METHOD BLANK: 10495

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Methane	ug/l	0 10 U	0.10	
Ethane	ug/l	0 025 U	0.025	
Ethene	ug/l	0 025 U	0 025	

METHOD BLANK: 10496

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Carbon Dioxide	mg/l	5 0 U	5 0	
Oxygen	mg/l	0 50 U	0 50	
Nitrogen	mg/l	0 50 U	0 50	

LABORATORY CONTROL SAMPLE & LCSD: 10497 10499

Parameter	Units	Spike Conc	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK										
Methane	ug/l	820	910	870	110	105	80-120	4 7	20	
Ethane	ug/l	45	50	51	112	114	80-120	1 8	20	
Ethene	ug/l	41	46	47	113	116	80-120	2 6	20	

LABORATORY CONTROL SAMPLE & LCSD: 10498 10500

Parameter	Units	Spike Conc	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK										
Carbon Dioxide	mg/l	130	140	140	110	112	80-120	1 8	20	
Oxygen	mg/l		14	12						
Nitrogen	mg/l		140	130						

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 4869 F91968X

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
48690001	F91968-1X			AM20GAX	DISG/2068
48690002	F91968-2X			AM20GAX	DISG/2068
48690003	F91968-3X			AM20GAX	DISG/2068
48690004	F91968-4X			AM20GAX	DISG/2068
48690005	F91968-5X			AM20GAX	DISG/2068
48690006	F91968-6X			AM20GAX	DISG/2068
48690007	F91968-7X			AM20GAX	DISG/2068

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3004 1 0.0

4869

Accutest Laboratories Southeast
Subcontract Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL. 407-425-6700 FAX: 407-425-0707
www.accutest.com

PAGE 1 OF 1

Client / Reporting Information

Company Name: Accutest Laboratories
Address: 4405 Vineland Rd.
City: Orlando State: FL Zip: 32811
Phone #: (407) 425-6700 Fax#: (407) 425-0707

Project Information

Project Name: F91968X
Please send report to dawnd@accutest.com
For any other issues contact munam@accutest.com

Analytical Information: N_2, O_2, CO_2, MEE

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL- Sludge; OI - Oil; LIQ - Other Liquid; AIR - Air; SOL - Other Solid; WP - Wipe

Lab ID #	Sample ID	Collection Date	Collection Time	Sampled By:	Matrix	Total # of Bottles	Other	None	HCl	NaOH	HNO3	H2SO4	NaOH+ZnAc	DI Water	MeOH	N_2, O_2, CO_2, MEE	Lab Use Only
1X	OLD-OU2-41B	04/09/12	13:45		GW	2	X									X	
2X	OLD-OU2-43B	04/09/12	13:47		GW	2	X									X	
3X	OLD-OU2-47B	04/09/12	14:59		GW	2	X									X	
4X	OLD-OU2-45B	04/09/12	14:59		GW	2	X									X	
5X	OLD-OU2-46B	04/09/12	15:57		GW	2	X									X	
6X	OLD-OU2-48B	04/09/12	16:21		GW	2	X									X	
7X	OLD-OU2-49B	04/09/12	17:03		GW	2	X									X	

Turnaround Time (Business days)

Std. 10 Business Days
7 Day *RUSH*
5 Day *RUSH*
3 Day *EMERGENCY*
2 Day *EMERGENCY*
1 Day *EMERGENCY*
Other

Approved By: / Date/Rush Code: 04-24-12

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [x] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULLT1 (EPA LEVEL 4)
- [ ] EDD'S

Comments / Remarks

Ship to Laboratory - Microseeps
Approved by - Muna M

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by/Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1 [signature] ASE	4/11/12 1700	2 FED EX	3 FED EX		4 [signature] 4/12/12 11 00
Relinquished by/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
5		6	7		8

Lab Use Only : Custody Seal In Place: Y N Temp Blank Provided: Y N Preserved Where Applicable: Y N Total # of Coolers:____ Cooler Temperature (s) Celsius:____

NON-CONFORMANCE REPORT

Microseeps Project Number: 4869

Date: 4-12-12 Time of Receipt: 11:00 Receiver: H. Dan Young

Client: Accutest

REASON FOR NON-CONFORMANCE:

All samples were correctly preserved w/ BAK for the requested analysis of N_2, O_2, CO_2 & MEF. However, samples 2X, 3X, 5X and 7X were with incorrect clear septa.

ACTION TAKEN:

Client name: Muna M. Date: 4-13-12 Time: 10:15

Emailed client to inform.

OK to proceed.

Customer Service Initials: JS Date: 4-13-12

Julianne Sproull

From: Julianne Sproull
Sent: Friday, April 13, 2012 10:14 AM
To: 'Muna Mohammed'
Subject: F91968X

Hello,

We received your samples for the above project and they were all correctly preserved. However, samples 2x, 3x,5x, and 7x all had the incorrect clear septa.

We can still proceed with the analysis.

Thank you!

Juli Sproull

Microscops Inc.
220 William Pitt Way
Pittsburgh PA 15238
412-826-5245 (Phone)
412-826-3435 (Fax)

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Southeast ACCUTEST LABORATORIES

04/24/12

04/24/12

Technical Report for

BFA Environmental Consultants

NTC Orlando, Orlando, FL

07-71009/2

Accutest Job Number: F92066

Sampling Date: 04/10/12

Report to:

BFA Environmental Consultants
1230 Hillcrest Street Suite 100
Orlando, FL 32803
jwatson@bfaenvironmental.com

ATTN: John Watson

Total number of pages in report: **24**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Harry Behzadi, Ph.D.
Laboratory Director

Client Service contact: Jean Dent-Smith 407-425-6700

Certifications: FL (E83510), LA (03051), KS (E-10327), IA (366), IL (200063), NC (573), NJ (FL002), SC (96038001) DoD ELAP (L-A-B L2229), CA (04226CA), TX (T104704404), AK, AR, GA, KY, MA, NV, OK, UT, VA, WA, WI

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Test results relate only to samples analyzed.

Accutest Laboratories is the sole authority for authorizing edits or modifications to this document. Unauthorized modification of this report is strictly prohibited.

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Accutest Laboratories

Sample Summary

BFA Environmental Consultants

Job No: F92066

NTC Orlando, Orlando, FL
Project No: 07-71009/2

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
F92066-1	04/10/12	11:35	KB	04/13/12	AQ	Ground Water	OLD-OU2-44B
F92066-1F	04/10/12	11:35	KB	04/13/12	AQ	Groundwater Filtered	OLD-OU2-44B
F92066-2	04/10/12	13:39	KB	04/13/12	AQ	Ground Water	OLD-OU2-53B
F92066-2F	04/10/12	13:39	KB	04/13/12	AQ	Groundwater Filtered	OLD-OU2-53B
F92066-3	04/10/12	13:55	KB	04/13/12	AQ	Ground Water	OLD-OU2-50B
F92066-3F	04/10/12	13:55	KB	04/13/12	AQ	Groundwater Filtered	OLD-OU2-50B

Accutest Laboratories
Southeast

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-44B		
Lab Sample ID:	F92066-1	**Date Sampled:**	04/10/12
Matrix:	AQ - Ground Water	**Date Received:**	04/13/12
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z5612.D	20	04/21/12	KW	n/a	n/a	VZ263
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	4.0 U	20	4.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	436	20	5.2	ug/l	
98-82-8	Isopropylbenzene [a]	4.0 U	20	4.0	ug/l	
75-09-2	Methylene chloride	40 U	100	40	ug/l	
127-18-4	Tetrachloroethylene	5.7	20	5.0	ug/l	I
79-01-6	Trichloroethylene	1030	20	5.2	ug/l	
75-01-4	Vinyl chloride	11.7	20	4.4	ug/l	I

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		87-116%
17060-07-0	1,2-Dichloroethane-D4	105%		76-127%
2037-26-5	Toluene-D8	102%		86-112%
460-00-4	4-Bromofluorobenzene	95%		84-120%

(a) Associated BS recovery outside DOD QSM control limits.

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-44B		
Lab Sample ID:	F92066-1	**Date Sampled:**	04/10/12
Matrix:	AQ - Ground Water	**Date Received:**	04/13/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Sulfate	11.2	2.0	1.0	mg/l	1	04/17/12 15:29	TC	EPA 300/SW846 9056A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-44B		
Lab Sample ID:	F92066-1F	**Date Sampled:**	04/10/12
Matrix:	AQ - Groundwater Filtered	**Date Received:**	04/13/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Total Organic Carbon	6.8	1.0	0.26	mg/l	1	04/20/12 07:53	FN	SM19 5310B/SW 9060A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-53B		
Lab Sample ID:	F92066-2	**Date Sampled:**	04/10/12
Matrix:	AQ - Ground Water	**Date Received:**	04/13/12
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z5613.D	5	04/21/12	KW	n/a	n/a	VZ263
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	1.0 U	5.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	316	5.0	1.3	ug/l	
98-82-8	Isopropylbenzene [a]	1.0 U	5.0	1.0	ug/l	
75-09-2	Methylene chloride	10 U	25	10	ug/l	
127-18-4	Tetrachloroethylene	2.7	5.0	1.3	ug/l	I
79-01-6	Trichloroethylene	39.8	5.0	1.3	ug/l	
75-01-4	Vinyl chloride	237	5.0	1.1	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		87-116%
17060-07-0	1,2-Dichloroethane-D4	108%		76-127%
2037-26-5	Toluene-D8	102%		86-112%
460-00-4	4-Bromofluorobenzene	94%		84-120%

(a) Associated BS recovery outside DOD QSM control limits.

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-53B		
Lab Sample ID:	F92066-2	**Date Sampled:**	04/10/12
Matrix:	AQ - Ground Water	**Date Received:**	04/13/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Sulfate	20.7	2.0	1.0	mg/l	1	04/17/12 15:45	TC	EPA 300/SW846 9056A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-53B		
Lab Sample ID:	F92066-2F	**Date Sampled:**	04/10/12
Matrix:	AQ - Groundwater Filtered	**Date Received:**	04/13/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Total Organic Carbon	17.0	1.0	0.26	mg/l	1	04/20/12 08:11	FN	SM19 5310B/SW 9060A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-50B		
Lab Sample ID:	F92066-3	**Date Sampled:**	04/10/12
Matrix:	AQ - Ground Water	**Date Received:**	04/13/12
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	NTC Orlando, Orlando, FL		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z5614.D	1	04/21/12	KW	n/a	n/a	VZ263
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	PQL	MDL	Units	Q
71-43-2	Benzene	0.22	1.0	0.20	ug/l	I
156-59-2	cis-1,2-Dichloroethylene	40.6	1.0	0.26	ug/l	
98-82-8	Isopropylbenzene [a]	0.20 U	1.0	0.20	ug/l	
75-09-2	Methylene chloride	2.0 U	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	0.25 U	1.0	0.25	ug/l	
79-01-6	Trichloroethylene	0.27	1.0	0.26	ug/l	I
75-01-4	Vinyl chloride	80.5	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%		87-116%
17060-07-0	1,2-Dichloroethane-D4	107%		76-127%
2037-26-5	Toluene-D8	101%		86-112%
460-00-4	4-Bromofluorobenzene	95%		84-120%

(a) Associated BS recovery outside DOD QSM control limits.

U = Not detected MDL - Method Detection Limit
PQL = Practical Quantitation Limit
L = Indicates value exceeds calibration range
I = Result > = MDL but < PQL J = Estimated value
V = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-50B		
Lab Sample ID:	F92066-3	**Date Sampled:**	04/10/12
Matrix:	AQ - Ground Water	**Date Received:**	04/13/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Sulfate	1.0 U	2.0	1.0	mg/l	1	04/17/12 16:32	TC	EPA 300/SW846 9056A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-50B		
Lab Sample ID:	F92066-3F	**Date Sampled:**	04/10/12
Matrix:	AQ - Groundwater Filtered	**Date Received:**	04/13/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Total Organic Carbon	18.7	1.0	0.26	mg/l	1	04/20/12 08:27	FN	SM19 5310B/SW 9060A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories
Southeast

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Certification Exceptions
- Certification Exceptions (FL)
- Chain of Custody

F92066

BFA Environmental Consultants

CHAIN OF CUSTODY
Analytical Request Document

Client Information	Project Information	Lab Information	COC Number
BFA Orlando, FL Report Copy to: John Watson E-mail Report to: jwatson@bfaenvironmental.com	Operable Unit 2 Orlando, FL 32813 Lab Quote No: Ref. No: Project No: 07-71009/2 Invoice to:	Accutest Laboratories Southeast 4405 Vineland Road Suite C-15 Orlando, FL 32811	07-71009/2_4/10/12 Shipped By: Courier Tracking #:

	Sample ID	Date	Time	Matrix	Method(s)	# Cont	Cont. Type	Cont. Size	Preservatives	TAT	Lab ID No.
1	OLD-OU2-44B	04/10/2012	11:35 am	WG	Biogenic Gasses DOC Methane/ethane/ethene Sulfate Voc	8	AG;CG;PE	40 ml;500 ml	HCL;Other;None	2 week	
2	OLD-OU2-53B	04/10/2012	01:39 pm	WG	BiogenicGases DOC Sulphate Voc	8	AG;CG;PE	40 ml;500 ml	HCL;Other;None	2 week	
3	OLD-OU2-50B	04/10/2012	01:55 pm	WG	Biogenic Gases DOC Methane/ethane/ethene Sulfate VOCs	8	AG;CG;PE	40 ml;500 ml	HCL;Other;None	2 week	

Client Comments / Instructions	Lab Comments / Receipt Conditions

Relinquished By	Date	Time	Accepted By	Date	Time
[signature]	4-12-12		[signature]	4/12/12	1617
[signature]	4/12/12	1648	[signature] ACSE	04-13-12	0800

Sampler Name: Katie Ballew

2-8

Date Signed: 04/11/2012

Sampler Signature: Katie Ballew

3.1 3

F92066: Chain of Custody
Page 1 of 2

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: F92066 CLIENT: BFA PROJECT: Operable Unit 2

DATE/TIME RECEIVED: 04-13-12 0800 {MM/DD/YY 24:00} NIMBER OF COOLERS RECEIVED: 1

METHOD OF DELIVERY: FEDEX UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER

AIRBILL NUMBERS:

COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET
- [ ] WET ICE PRESENT

TRIP BLANK INFORMATION

- [x] TRIP BLANK PROVIDED
- [ ] TRIP BLANK NOT PROVIDED
- [x] TRIP BLANK NOT ON COC
- [x] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [x] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

MISC. INFORMATION

NUMBER OF ENCORES ? 25-GRAM_____ 5-GRAM_____

NUMBER OF 5035 FIELD KITS ? _____

NUMBER OF LAB FILTERED METALS ? _____

TEMPERATURE INFORMATION

- [ ] IR THERM ID 1 CORR. FACTOR -0.2
- [ ] OBSERVED TEMPS: 3.0
- [ ] CORRECTED TEMPS: 2.8

SAMPLE INFORMATION

- [ ] SAMPLE LABELS PRESENT ON ALL BOTTLES
- [ ] INCORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- [ ] ID'S ON COC DO NOT MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] 5035 FIELD KIT FROZEN WITHIN 48 HOUR'S
- [ ] RESIDUAL CHLORINE PRESENT

{APPICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS}

SUMMARY OF COMMENTS:

TECHNICIAN SIGNATURE/DATE R. Williams 04-13-12 REVIEWER SIGNATURE/DATE [illegible] 4-13-12

NF 12/10

receipt confirmation 122910.xls

F92066: Chain of Custody

Page 2 of 2

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: F92066
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VZ263-MB	Z5586.D	1	04/21/12	KW	n/a	n/a	VZ263

The QC reported here applies to the following samples: **Method:** SW846 8260B

F92066-1, F92066-2, F92066-3

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.26	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
75-09-2	Methylene chloride	ND	5.0	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.25	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.26	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	103%	87-116%
17060-07-0	1,2-Dichloroethane-D4	102%	76-127%
2037-26-5	Toluene-D8	100%	86-112%
460-00-4	4-Bromofluorobenzene	97%	84-120%

Blank Spike Summary

Job Number: F92066
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VZ263-BS	Z5585.D	1	04/21/12	KW	n/a	n/a	VZ263

The QC reported here applies to the following samples: **Method:** SW846 8260B

F92066-1, F92066-2, F92066-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	25	26.7	107	83-124
156-59-2	cis-1,2-Dichloroethylene	25	25.8	103	81-114
98-82-8	Isopropylbenzene	25	32.0	128	87-131
75-09-2	Methylene chloride	25	27.8	111	69-125
127-18-4	Tetrachloroethylene	25	28.8	115	80-131
79-01-6	Trichloroethylene	25	27.3	109	85-124
75-01-4	Vinyl chloride	25	34.3	137	57-153

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	104%	87-116%
17060-07-0	1,2-Dichloroethane-D4	101%	76-127%
2037-26-5	Toluene-D8	101%	86-112%
460-00-4	4-Bromofluorobenzene	97%	84-120%

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: F92066
Account: BFACFLO BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
F91963-20MS	Z5606.D	20	04/21/12	KW	n/a	n/a	VZ263
F91963-20MSD	Z5607.D	20	04/21/12	KW	n/a	n/a	VZ263
F91963-20	Z5605.D	20	04/21/12	KW	n/a	n/a	VZ263

The QC reported here applies to the following samples: **Method:** SW846 8260B

F92066-1, F92066-2, F92066-3

CAS No.	Compound	F91963-20 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	20	U	500	516	103	518	104	0	83-124/11
156-59-2	cis-1,2-Dichloroethylene	1110		500	1570	92	1560	90	1	81-114/10
98-82-8	Isopropylbenzene	20	U	500	623	125	615	123	1	87-131/10
75-09-2	Methylene chloride	100	U	500	556	111	552	110	1	69-125/11
127-18-4	Tetrachloroethylene	20	U	500	560	112	553	111	1	80-131/12
79-01-6	Trichloroethylene	251		500	766	103	769	104	0	85-124/10
75-01-4	Vinyl chloride	20	U	500	608	122	633	127	4	57-153/22

CAS No.	Surrogate Recoveries	MS	MSD	F91963-20	Limits
1868-53-7	Dibromofluoromethane	102%	105%	104%	87-116%
17060-07-0	1,2-Dichloroethane-D4	102%	105%	104%	76-127%
2037-26-5	Toluene-D8	102%	101%	100%	86-112%
460-00-4	4-Bromofluorobenzene	94%	94%	94%	84-120%

Accutest Laboratories Southeast

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General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F92066
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Chloride	GP19054/GN49399	2.0	0.0	mg/l	50	52.2	104.4	90-110%
Fluoride	GP19054/GN49399	0.20	0.0	mg/l	2.5	2.60	104.0	90-110%
Nitrogen, Nitrate	GP19054/GN49399	0.10	0.0	mg/l	2.5	2.49	99.6	90-110%
Nitrogen, Nitrite	GP19054/GN49399	0.10	0.0	mg/l	2.5	2.59	103.6	90-110%
Sulfate	GP19054/GN49399	2.0	0.0	mg/l	50	50.7	101.4	90-110%
Total Organic Carbon	GP19073/GN49429	1.0	0.0	mg/l	15	14.6	97.3	90-110%

Associated Samples:
Batch GP19054: F92066-1, F92066-2, F92066-3
Batch GP19073: F92066-1F, F92066-2F, F92066-3F
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F92066
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Chloride	GP19054/GN49399	F92066-1	mg/l	10.4	10.6	1.9	0-20%
Fluoride	GP19054/GN49399	F92066-1	mg/l	0.23	0.24	4.3	0-20%
Nitrogen, Nitrate	GP19054/GN49399	F92066-1	mg/l	0.13	0.079	48.8(a)	0-20%
Nitrogen, Nitrite	GP19054/GN49399	F92066-1	mg/l	0.050 U	0.0	0.0	0-20%
Sulfate	GP19054/GN49399	F92066-1	mg/l	11.2	11.1	0.9	0-20%
Total Organic Carbon	GP19073/GN49429	F92100-21	mg/l	0.0	0.0	0.0	0-20%

Associated Samples:
Batch GP19054: F92066-1, F92066-2, F92066-3
Batch GP19073: F92066-1F, F92066-2F, F92066-3F
(*) Outside of QC limits
(a) RPD acceptable due to low duplicate and sample concentrations.

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F92066
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Chloride	GP19054/GN49399	F92066-1	mg/l	10.4	50	57.5	94.2	90-110%
Fluoride	GP19054/GN49399	F92066-1	mg/l	0.23	2.5	2.5	90.8	90-110%
Nitrogen, Nitrate	GP19054/GN49399	F92066-1	mg/l	0.13	2.5	2.3	86.8N(a)	90-110%
Nitrogen, Nitrite	GP19054/GN49399	F92066-1	mg/l	0.050 U	2.5	2.7	108.0	90-110%
Sulfate	GP19054/GN49399	F92066-1	mg/l	11.2	50	57.0	91.6	90-110%
Total Organic Carbon	GP19073/GN49429	F92100-21	mg/l	0.0	15	16.1	107.3	90-110%

Associated Samples:
Batch GP19054: F92066-1, F92066-2, F92066-3
Batch GP19073: F92066-1F, F92066-2F, F92066-3F
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(a) Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.

Microseeps, Inc
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

April 26, 2012

Muna Mohammed
Accutest Laboratories
4405 Vineland St.
Suite C-15
Orlando, FL 32811

RE: **F92066X**

Microseeps Workorder: 4926

Dear Muna Mohammed:

Enclosed are the analytical results for sample(s) received by the laboratory on Tuesday, April 17, 2012. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Julianne C. Sproull

Julianne Sproull 04/26/2012
jsproull@microseeps.com

Enclosures

As a valued client we would appreciate your comments on our service.
Please email info@microseeps.com.

Total Number of Pages 12

CERTIFICATE OF ANALYSIS

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3004 1.0.0

Microseeps, Inc
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

LABORATORY ACCREDITATIONS & CERTIFICATIONS

Accreditor:	Pennsylvania Department of Environmental Protection, Bureau of Laboratories
Accreditation ID:	02-00538
Scope:	NELAP Non-Potable Water and Solid & Hazardous Waste
Accreditor:	NELAP: State of Florida, Department of Health, Bureau of Laboratories
Accreditation ID:	E87832
Scope:	Clean Water Act (CWA) Resource Conservation and Recovery Act (RCRA)
Accreditor:	South Carolina Department of Health and Environmental Control, Office of Environmental Laboratory Certification
Accreditation ID:	89009003
Scope:	Clean Water Act (CWA); Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: State of Louisiana, Department of Environmental Quality
Accreditation ID:	04104
Scope:	Solid and Chemical Materials; Non-Potable Water
Accreditor:	NELAP: New Jersey, Department of Environmental Protection
Accreditation ID:	PA026
Scope:	Non-Potable Water; Solid and Chemical Materials
Accreditor:	NELAP: New York, Department of Health Wadsworth Center
Accreditation ID:	11815
Scope:	Non-Potable Water; Solid and Hazardous Waste
Accreditor:	State of Connecticut, Department of Public Health, Division of Environmental Health
Accreditation ID:	PH-0263
Scope:	Clean Water Act (CWA) Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: Texas, Commission on Environmental Quality
Accreditation ID:	T104704453-09-TX
Scope:	Non-Potable Water
Accreditor:	State of New Hampshire
Accreditation ID:	299409
Scope:	Non-potable water
Accreditor:	State of Georgia
Accreditation ID:	Chapter 391-3-26
Scope:	As per the Georgia EPD Rules and Regulations for Commercial Laboratories, Microseeps is accredited by the Pennsylvania Department of Environmental Protection Bureau of Laboratories under the National Environmental Laboratory Approval Program (NELAC).

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Microseeps, Inc
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

SAMPLE SUMMARY

Workorder: 4926 F92066X

Lab ID	Sample ID	Matrix	Date Collected	Date Received
49260001	F92066-1X	Water	4/10/2012 11:35	4/17/2012 12:00
49260002	F92066-2X	Water	4/10/2012 13:39	4/17/2012 12:00
49260003	F92066-3X	Water	4/10/2012 13:55	4/17/2012 12:00

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Pittsburgh, PA 15238
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Fax: (412) 826-3433

ANALYTICAL RESULTS

Workorder: 4926 F92066X

Lab ID: 49260001 Date Received: 4/17/2012 12:00 Matrix: Water
Sample ID: F92066-1X Date Collected: 4/10/2012 11:35

Parameters	Results	Units	RDL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**1400**	ug/l	0.10	0.015	1			4/24/2012 12:41	GT	
Ethane	**0.13**	ug/l	0.025	0.0010	1			4/24/2012 12:41	GT	
Ethene	**1.2**	ug/l	0.025	0.0060	1			4/24/2012 12:41	GT	
Carbon Dioxide	**100**	mg/l	5.0	0.070	1			4/24/2012 12:41	GT	
Oxygen	**4.4**	mg/l	0.50	0.063	1			4/24/2012 12:41	GT	
Nitrogen	**12**	mg/l	0.50	0.13	1			4/24/2012 12:41	GT	

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Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

ANALYTICAL RESULTS

Workorder: 4926 F92066X

Lab ID: **49260002** Date Received: 4/17/2012 12:00 Matrix: Water

Sample ID: **F92066-2X** Date Collected: 4/10/2012 13:39

Parameters	Results	Units	RDL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	**6800**	ug/l	0.10	0.015	1			4/24/2012 12:53	GT	
Ethane	**0.060**	ug/l	0.025	0.0010	1			4/24/2012 12:53	GT	
Ethene	**23**	ug/l	0.025	0.0060	1			4/24/2012 12:53	GT	
Carbon Dioxide	**180**	mg/l	5.0	0.070	1			4/24/2012 12:53	GT	
Oxygen	**6.0**	mg/l	0.50	0.063	1			4/24/2012 12:53	GT	
Nitrogen	**15**	mg/l	0.50	0.13	1			4/24/2012 12:53	GT	

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3004.1.0.0

Microseeps, Inc
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

ANALYTICAL RESULTS

Workorder: 4926 F92066X

Lab ID: 49260003 Date Received: 4/17/2012 12:00 Matrix: Water

Sample ID: F92066-3X Date Collected: 4/10/2012 13:55

Parameters	Results	Units	RDL	MDL	DF	Prepared	By	Analyzed	By	Qual
RISK - MICR										
Analysis Desc: AM20GAX			Analytical Method: AM20GAX							
Methane	9400	ug/l	0.10	0.015	1			4/24/2012 13:05	GT	
Ethane	0.10	ug/l	0.025	0.0010	1			4/24/2012 13:05	GT	
Ethene	8.8	ug/l	0.025	0.0060	1			4/24/2012 13:05	GT	
Carbon Dioxide	120	mg/l	5.0	0.070	1			4/24/2012 13:05	GT	
Oxygen	7.8	mg/l	0.50	0.063	1			4/24/2012 13:05	GT	
Nitrogen	15	mg/l	0.50	0.13	1			4/24/2012 13:05	GT	

CERTIFICATE OF ANALYSIS

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Microseeps, Inc
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

ANALYTICAL RESULTS QUALIFIERS

Workorder: 4926 F92066X

PARAMETER QUALIFIERS

U	Indicates the compound was analyzed for, but not detected.
J	Estimated concentration greater than the set method detection limit (MDL) and less than the set reporting limit (RDL).

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220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

QUALITY CONTROL DATA

Workorder: 4926 F92066X

QC Batch: DISG/2083 Analysis Method: AM20GAX

QC Batch Method: AM20GAX

Associated Lab Samples: 49260001, 49260002, 49260003

METHOD BLANK: 10619

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Methane	ug/l	0.10 U	0.10	
Ethane	ug/l	0.025 U	0.025	
Ethene	ug/l	0.025 U	0.025	

METHOD BLANK: 10620

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Carbon Dioxide	mg/l	5.0 U	5.0	
Oxygen	mg/l	0.50 U	0.50	
Nitrogen	mg/l	0.50 U	0.50	

LABORATORY CONTROL SAMPLE & LCSD: 10621 10623

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK										
Methane	ug/l	820	910	850	110	103	80-120	6.6	20	
Ethane	ug/l	45	51	49	114	110	80-120	3.6	20	
Ethene	ug/l	41	47	46	115	112	80-120	2.6	20	

LABORATORY CONTROL SAMPLE & LCSD: 10622 10624

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK										
Carbon Dioxide	mg/l	130	120	120	95	97	80-120	2.1	20	
Oxygen	mg/l		16	19						
Nitrogen	mg/l		140	140						

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3004.1 0.0

Microseeps, Inc
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 4926 F92066X

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
49260001	F92066-1X			AM20GAX	DISG/2083
49260002	F92066-2X			AM20GAX	DISG/2083
49260003	F92066-3X			AM20GAX	DISG/2083

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4926

Accutest Laboratories Southeast
Subcontract Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL 407-425-6700 FAX: 407-425-0707
www.accutest.com

Client / Reporting Information

Company Name: Accutest Laboratories
Address: 4405 Vineland Rd.
City: Orlando State: FL Zip: 32811
Phone #: (407) 425-6700 Fax#: (407) 425-0707

Project Information

Project Name: F92066X
Please send report to dawnd@accutest.com
For any other issues contact munam@accutest.com

Analytical Information

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe

Lab ID #	Sample ID	COLLECTION DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NaOH+ZNAC	DI WATER	MEOH	DO, CO2, N2, MEE										LAB USE ONLY
1X	OLD-OU2-44B	04/10/12	11:35		GW	2	X									X										
2X	OLD-OU2-53B	04/10/12	13:39		GW	2	X									X										
3X	OLD-OU2-50B	04/10/12	13:55		GW	2	X									X										

Turnaround Time (Business days)

Std. 10 Business Days
7 Day *RUSH*
5 Day *RUSH*
3 Day *EMERGENCY*
2 Day *EMERGENCY*
1 Day *EMERGENCY*
Other

Approved By: / Date/Rush Code:
04-21-12

Data Deliverable Information

- [ ] COMMERCIAL "A" (RESULTS ONLY)
- [x] COMMERCIAL "B" (RESULTS PLUS QC)
- [ ] REDT1 (EPA LEVEL 3)
- [ ] FULLT1 (EPA LEVEL 4)
- [ ] EDD'S

5°C

Comments / Remarks

Ship to Laboratory - Microseeps
Approved by - Muna M.

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1 RSE	4/16/12 1100	2 FED EX	3 FED EX		4 H Kaufman 4-17-12 1200
Relinquished by/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
5		6	7		8

Lab Use Only : Custody Seal in Place: Y N Temp Blank Provided: Y N Preserved Where Applicable: Y N Total # of Coolers:____ Cooler Temperature (s) Celsius:_____

NON-CONFORMANCE FORM

Microseeps Project Number: 4926

Date: 4-17-12 Time of Receipt: 12:00 Receiver: H LanYoung

Client: Accutest

REASON FOR NON-CONFORMANCE:

Requested DO, CO_2, N_2 & MEE analyses
Samples were correctly preserved w/ BAK
but with incorrect clear septa.

ACTION TAKEN:

Client name: Muna M Date: 4-18-12 Time: 16:30

Emailed client to inform
OK to proceed.

Customer Service Initials: JS Date: 4-18-12

Cooler Receipt Form

Client Name: Acutest Project: F92066X Lab Work Order: 4926

A. **Shipping/Container Information** (circle appropriate response)

Courier: (FedEx) UPS USPS Client Other:_____ Air bill Present: (Yes) No

Tracking Number: 798290795457

Custody Seal on Cooler/Box Present: (Yes) No Seals Intact: (Yes) No

Cooler/Box Packing Material: (Bubble Wrap) Absorbent Foam Other:_____

Type of Ice: (Wet) Blue None Ice Intact: (Yes) Melted

Cooler Temperature: 5°C Radiation Screened: Yes (No) Chain of Custody Present: (Yes) No

Comments:_____

B. **Laboratory Assignment/Log-in** (check appropriate response)

	YES	NO	N/A	Comment Reference non-Conformance
Chain of Custody properly filled out	✓			
Chain of Custody relinquished	✓			
Sampler Name & Signature on COC		✓		
Containers intact	✓			
Were samples in separate bags	✓			
Sample container labels match COC Sample name/date and time collected	✓			
Sufficient volume provided	✓			
Microseeps containers used	✓			
Are containers properly preserved for the requested testing? (as labeled)	✓			clear septa.
If an unknown preservation state, were containers checked? Exception: VOA's coliform			✓	
Was volume for dissolved testing field filtered, as noted on the COC? Was volume received in a preserved container?			✓	

Comments:_____

Cooler contents examined/received by: HLY Date: 4/17/12

Project Manager Review: JS Date: 4/18/12

Southeast ACCUTEST LABORATORIES

05/01/12

05/01/12

Technical Report for

BFA Environmental Consultants

NTC Orlando, Orlando, FL

07-71009/2

Accutest Job Number: F92378

Sampling Date: 04/23/12

Report to:

BFA Environmental Consultants
1230 Hillcrest Street Suite 100
Orlando, FL 32803
jwatson@bfaenvironmental.com

ATTN: John Watson

Total number of pages in report: **16**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Harry Behzadi, Ph.D.
Laboratory Director

Client Service contact: Jean Dent-Smith 407-425-6700

Certifications: FL (E83510), LA (03051), KS (E-10327), IA (366), IL (200063), NC (573), NJ (FL002), SC (96038001) DoD ELAP (L-A-B L2229), CA (04226CA), TX (T104704404), AK, AR, GA, KY, MA, NV, OK, UT, VA, WA, WI

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Test results relate only to samples analyzed.

Accutest Laboratories is the sole authority for authorizing edits or modifications to this document. Unauthorized modification of this report is strictly prohibited.

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Accutest Laboratories

Sample Summary

BFA Environmental Consultants

Job No: F92378

NTC Orlando, Orlando, FL
Project No: 07-71009/2

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
F92378-1	04/23/12	12:48	DA	04/23/12	AQ	Ground Water	OLD-OU2-DP02A
F92378-2	04/23/12	14:24	DA	04/23/12	AQ	Ground Water	OLD-OU2-18B
F92378-3	04/23/12	15:27	DA	04/23/12	AQ	Ground Water	OLD-OU2-21B
F92378-4	04/23/12	15:52	DA	04/23/12	AQ	Ground Water	OLD-OU2-21A

Accutest Laboratories
Southeast

Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-DP02A		
Lab Sample ID:	F92378-1	**Date Sampled:**	04/23/12
Matrix:	AQ - Ground Water	**Date Received:**	04/23/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	2.5 U	5.0	2.5	mg/l	1	04/26/12	TC	SM19 2320B
Chloride	36.0	2.0	1.0	mg/l	1	04/24/12 09:42	TC	EPA 300/SW846 9056A
Nitrogen, Nitrate	0.079 I	0.10	0.050	mg/l	1	04/24/12 09:42	TC	EPA 300/SW846 9056A
Nitrogen, Nitrite	0.050 U	0.10	0.050	mg/l	1	04/24/12 09:42	TC	EPA 300/SW846 9056A
Phosphate, Ortho	0.090 I	0.10	0.020	mg/l	1	04/24/12 10:15	LE	EPA 365.3
Sulfate	31.5	2.0	1.0	mg/l	1	04/24/12 09:42	TC	EPA 300/SW846 9056A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-18B		
Lab Sample ID:	F92378-2	**Date Sampled:**	04/23/12
Matrix:	AQ - Ground Water	**Date Received:**	04/23/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	39.4	5.0	2.5	mg/l	1	04/26/12	TC	SM19 2320B
Chloride	14.5	2.0	1.0	mg/l	1	04/24/12 09:58	TC	EPA 300/SW846 9056A
Nitrogen, Nitrate	0.050 U	0.10	0.050	mg/l	1	04/24/12 09:58	TC	EPA 300/SW846 9056A
Nitrogen, Nitrite	0.050 U	0.10	0.050	mg/l	1	04/24/12 09:58	TC	EPA 300/SW846 9056A
Phosphate, Ortho	0.86	0.20	0.040	mg/l	2	04/24/12 10:15	LE	EPA 365.3
Sulfate	1.0 U	2.0	1.0	mg/l	1	04/24/12 09:58	TC	EPA 300/SW846 9056A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-21B		
Lab Sample ID:	F92378-3	**Date Sampled:**	04/23/12
Matrix:	AQ - Ground Water	**Date Received:**	04/23/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	29.2	5.0	2.5	mg/l	1	04/26/12	TC	SM19 2320B
Chloride	37.9	2.0	1.0	mg/l	1	04/24/12 10:14	TC	EPA 300/SW846 9056A
Nitrogen, Nitrate	0.050 U	0.10	0.050	mg/l	1	04/24/12 10:14	TC	EPA 300/SW846 9056A
Nitrogen, Nitrite	0.050 U	0.10	0.050	mg/l	1	04/24/12 10:14	TC	EPA 300/SW846 9056A
Phosphate, Ortho	0.77	0.20	0.040	mg/l	2	04/24/12 10:15	LE	EPA 365.3
Sulfate	1.0 U	2.0	1.0	mg/l	1	04/24/12 10:14	TC	EPA 300/SW846 9056A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories

Report of Analysis

Client Sample ID:	OLD-OU2-21A		
Lab Sample ID:	F92378-4	**Date Sampled:**	04/23/12
Matrix:	AQ - Ground Water	**Date Received:**	04/23/12
		Percent Solids:	n/a
Project:	NTC Orlando, Orlando, FL		

General Chemistry

Analyte	Result	PQL	MDL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	2.5 U	5.0	2.5	mg/l	1	04/26/12	TC	SM19 2320B
Chloride	19.7	2.0	1.0	mg/l	1	04/24/12 10:30	TC	EPA 300/SW846 9056A
Nitrogen, Nitrate	0.050 U	0.10	0.050	mg/l	1	04/24/12 10:30	TC	EPA 300/SW846 9056A
Nitrogen, Nitrite	0.050 U	0.10	0.050	mg/l	1	04/24/12 10:30	TC	EPA 300/SW846 9056A
Phosphate, Ortho	0.030 I	0.10	0.020	mg/l	1	04/24/12 10:15	LE	EPA 365.3
Sulfate	3.4	2.0	1.0	mg/l	1	04/24/12 10:30	TC	EPA 300/SW846 9056A

PQL = Practical Quantitation Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
I = Indicates a result > = MDL but < PQL

Accutest Laboratories
Southeast

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Certification Exceptions
- Certification Exceptions (FL)
- Chain of Custody

BFA Environmental Consultants

CHAIN OF CUSTODY F92378
Analytical Request Document

Client Information	Project Information		Lab Information	COC Number
BFA Orlando, FL Report Copy to: John Watson E-mail Report to: jwatson@bfaenvironmental.com 4078968608	Operable Unit 2 Orlando, FL 32813	Lab Quote No: Ref. No: Project No: 07-71009/2 Invoice to:	Accutest Laboratories Southeast 4405 Vineland Road Suite C-15 Orlando, FL 32811	07-71009/2_4/23/12 Shipped By: Courier Tracking #:

	Sample ID	Date	Time	Matrix	Method(s)	# Cont	Cont. Type	Cont. Size	Preservatives	TAT	Lab ID No.
1	OLD-OU2-DP02A	04/23/2012	12:48 pm	WG	Alkalinity, Chloride, Nitrate/Nitrite, Orthophosphate, Sulfate	1	PE	1 L	None	2 week	
2	OLD-OU2-18B	04/23/2012	02:24 pm	WG	Alkalinity, Chloride, Nitrate/Nitrite, Orthophosphate, Sulfate	1	PE	1 L	None	2 week	
3	OLD-OU2-21B	04/23/2012	03:27 pm	WG	Alkalinity, Chloride, Nitrate/Nitrite, Orthophosphate, Sulfate	1	PE	1 L	None	2 week	
4	OLD-OU2-21A	04/23/2012	03:52 pm	WG	Alkalinity, Chloride, Nitrate/Nitrite, Orthophosphate, Sulfate	1	PE	1 L	None	2 week	

Client Comments / Instructions	Lab Comments / Receipt Conditions

22.2 c

Relinquished By	Date	Time	Accepted By	Date	Time
[signature]	4-23-12	1652	[signature]	4/23/12	1652
[signature]	4/23/12	1710	[signature] FLSE	04/23/12	1710

Sampler Name: Damian Allen

Date Signed: 04/23/2012

Sampler Signature: [signature]

F92378: Chain of Custody
Page 1 of 2

ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: F92378 CLIENT: BFA PROJECT: OPERABLE UNIT 2.

DATE/TIME RECEIVED: 04/23/12 1710 {MM/DD/YY 24:00} NIMBER OF COOLERS RECEIVED: 1

METHOD OF DELIVERY: FEDEX UPS (ACCUTEST COURIER) GREYHOUND DELIVERY OTHER

AIRBILL NUMBERS:

COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [x] TEMPERATURE CRITERIA NOT MET
- [ ] WET ICE PRESENT

TRIP BLANK INFORMATION

- [ ] TRIP BLANK PROVIDED
- [x] TRIP BLANK NOT PROVIDED
- [x] TRIP BLANK NOT ON COC
- [ ] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [ ] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

MISC. INFORMATION

NUMBER OF ENCORES ? 25-GRAM_____ 5-GRAM_____

NUMBER OF 5035 FIELD KITS ? _____

NUMBER OF LAB FILTERED METALS ? _____

TEMPERATURE INFORMATION

- [ ] IR THERM ID #1 CORR. FACTOR -0.2
- [ ] OBSERVED TEMPS: 22.4
- [ ] CORRECTED TEMPS: 22.2

SAMPLE INFORMATION

- [ ] SAMPLE LABELS PRESENT ON ALL BOTTLES
- [ ] INCORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- [ ] ID'S ON COC DO NOT MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] 5035 FIELD KIT FROZEN WITHIN 48 HOUR'S
- [ ] RESIDUAL CHLORINE PRESENT

{APPICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS}

SUMMARY OF COMMENTS: SAMPLES RECEIVED FROM THE FIELD, DID NOT HAVE TIME TO CHILL ON WAY TO LAB.

TECHNICIAN SIGNATURE/DATE Scott Hill 04/23/12 REVIEWER SIGNATURE/DATE R. Willi 04-23-12

NF 12/10 receipt confirmation 122910.xls

F92378: Chain of Custody
Page 2 of 2

Accutest Laboratories Southeast

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F92378
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Alkalinity, Total as CaCO3	GN49565	5.0	0.0	mg/l	250	252	101.0	90-113%
Chloride	GP19101/GN49523	2.0	0.0	mg/l	50	52.5	105.0	90-110%
Nitrogen, Nitrate	GP19101/GN49523	0.10	0.0	mg/l	2.5	2.43	97.2	90-110%
Nitrogen, Nitrite	GP19101/GN49523	0.10	0.0	mg/l	2.5	2.52	100.8	90-110%
Phosphate, Ortho	GP19100/GN49513	0.10	0.0	mg/l	.300	0.31	104.0	83-116%
Sulfate	GP19101/GN49523	2.0	0.0	mg/l	50	51.0	102.0	90-110%

Associated Samples:
Batch GN49565: F92378-1, F92378-2, F92378-3, F92378-4
Batch GP19100: F92378-1, F92378-2, F92378-3, F92378-4
Batch GP19101: F92378-1, F92378-2, F92378-3, F92378-4
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F92378
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Alkalinity, Total as CaCO3	GN49565	F92378-2	mg/l	39.4	39.7	0.8	0-20%
Chloride	GP19101/GN49523	F92378-2	mg/l	14.5	14.2	2.1	0-20%
Nitrogen, Nitrate	GP19101/GN49534	F92378-2	mg/l	0.050 U	0.0	0.0	0-20%
Nitrogen, Nitrite	GP19101/GN49523	F92378-2	mg/l	0.050 U	0.0	0.0	0-20%
Phosphate, Ortho	GP19100/GN49513	F92378-4	mg/l	0.030	0.032	6.4	0-26%
Sulfate	GP19101/GN49523	F92378-2	mg/l	1.0 U	0.0	0.0	0-20%

Associated Samples:
Batch GN49565: F92378-1, F92378-2, F92378-3, F92378-4
Batch GP19100: F92378-1, F92378-2, F92378-3, F92378-4
Batch GP19101: F92378-1, F92378-2, F92378-3, F92378-4
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F92378
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Alkalinity, Total as CaCO3	GN49565	F92378-2	mg/l	39.4	250	288	99.3	90-113%
Chloride	GP19101/GN49523	F92378-2	mg/l	14.5	50	63.8	98.6	90-110%
Nitrogen, Nitrate	GP19101/GN49534	F92378-2	mg/l	0.050 U	2.5	2.2	88.0N(a)	90-110%
Nitrogen, Nitrite	GP19101/GN49523	F92378-2	mg/l	0.050 U	2.5	2.6	104.0	90-110%
Phosphate, Ortho	GP19100/GN49513	F92378-4	mg/l	0.030	.300	0.30	90.9	83-116%
Sulfate	GP19101/GN49523	F92378-2	mg/l	1.0 U	50	51.7	103.4	90-110%

Associated Samples:
Batch GN49565: F92378-1, F92378-2, F92378-3, F92378-4
Batch GP19100: F92378-1, F92378-2, F92378-3, F92378-4
Batch GP19101: F92378-1, F92378-2, F92378-3, F92378-4
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(a) Spike recovery indicates possible matrix interference and/or sample nonhomogeneity.

MATRIX SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: F92378
Account: BFACFLO - BFA Environmental Consultants
Project: NTC Orlando, Orlando, FL

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Phosphate, Ortho	GP19100/GN49513	F92378-4	mg/l	0.030	.300	0.298	1.4	26%

Associated Samples:
Batch GP19100: F92378-1, F92378-2, F92378-3, F92378-4
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

APPENDIX E
Concentration Trend Analysis for Selected Wells

MAROS Statistical Trend Analysis Summary

Project: Orlando NTC OU-2

Location: Orlando

User Name: BFA

State: Florida

Time Period: 10/3/2008 **to** 4/9/2012

Consolidation Period: No Time Consolidation

Consolidation Type: Average

Duplicate Consolidation: Average

ND Values: Detection Limit

J Flag Values : Actual Value

Well	Source/ Tail	Number of Samples	Number of Detects	Average Conc. (mg/L)	Median Conc. (mg/L)	All Samples "ND" ?	Mann-Kendall Trend	Linear Regression Trend
BENZENE								
OLD-OU2-31B	S	8	8	2.4E-02	2.7E-02	No	S	PD
OLD-OU2-41B	T	6	6	2.0E-03	2.0E-03	No	NT	NT
TRICHLOROETHYLENE (TCE)								
OLD-OU2-41B	T	6	6	4.5E-02	4.5E-02	No	S	S
OLD-OU2-42B	T	6	6	3.0E+00	3.3E+00	No	S	S
OLD-OU2-43B	T	6	6	5.5E+00	5.2E+00	No	NT	NT

Note: Increasing (I); Probably Increasing (PI); Stable (S); Probably Decreasing (PD); Decreasing (D); No Trend (NT); Not Applicable (N/A); Not Applicable (N/A) - Due to insufficient Data (< 4 sampling events); No Detectable Concentration (NDC)

The Number of Samples and Number of Detects shown above are post-consolidation values.

MAROS Mann-Kendall Statistics Summary

Project: Orlando NTC OU-2 **User Name:** BFA

Location: Orlando **State:** Florida

Time Period: 10/3/2008 **to** 4/9/2012
Consolidation Period: No Time Consolidation
Consolidation Type: Average
Duplicate Consolidation: Average
ND Values: Detection Limit
J Flag Values : Actual Value

Well	Source/ Tail	Number of Samples	Number of Detects	Coefficient of Variation	Mann-Kendall Statistic	Confidence in Trend	All Samples "ND" ?	Concentration Trend
BENZENE								
OLD-OU2-31B	S	8	8	0.29	-6	72.6%	No	S
OLD-OU2-41B	T	6	6	0.14	1	50.0%	No	NT
TRICHLOROETHYLENE (TCE)								
OLD-OU2-41B	T	6	6	0.32	-1	50.0%	No	S
OLD-OU2-42B	T	6	6	0.27	-7	86.4%	No	S
OLD-OU2-43B	T	6	6	0.20	1	50.0%	No	NT

Note: Increasing (I); Probably Increasing (PI); Stable (S); Probably Decreasing (PD); Decreasing (D); No Trend (NT); Not Applicable (N/A)- Due to insufficient Data (< 4 sampling events); Source/Tail (S/T)

The Number of Samples and Number of Detects shown above are post-consolidation values.

MAROS Linear Regression Statistics Summary

Project: Orlando NTC OU-2

User Name: BFA

Location: Orlando

State: Florida

Time Period: 10/3/2008 **to** 4/9/2012
Consolidation Period: No Time Consolidation
Consolidation Type: Average
Duplicate Consolidation: Average
ND Values: Detection Limit
J Flag Values : Actual Value

Well	Source/ Tail	Average Conc (mg/L)	Median Conc (mg/L)	Standard Deviation	All Samples "ND" ?	Ln Slope	Coefficient of Variation	Confidence in Trend	Concentration Trend
BENZENE									
OLD-OU2-31B	S	2.4E-02	2.7E-02	7.0E-03	No	-4.0E-04	0.29	92.2%	PD
OLD-OU2-41B	T	2.0E-03	2.0E-03	2.8E-04	No	9.7E-05	0.14	67.9%	NT
TRICHLOROETHYLENE (TCE)									
OLD-OU2-41B	T	4.5E-02	4.5E-02	1.4E-02	No	-3.1E-04	0.32	72.1%	S
OLD-OU2-42B	T	3.0E+00	3.3E+00	8.1E-01	No	-2.9E-04	0.27	72.6%	S
OLD-OU2-43B	T	5.5E+00	5.2E+00	1.1E+00	No	3.5E-05	0.20	55.1%	NT

Note: Increasing (I); Probably Increasing (PI); Stable (S); Probably Decreasing (PD); Decreasing (D); No Trend (NT); Non-detect (ND); Not Applicable (N/A) - Due to insufficient Data (< 4 sampling events); COV = Coefficient of Variation