

Revision 1
CAP PART B Addendum

**AAFES Car Care Center,
Former Underground Storage Tank No. 257-261
Facility Identification Number #9-089118
Fort Stewart, Georgia**

Contract No.: W912HN-12-D-0022
Delivery Order No.: 0008

Submitted to:



U.S. Army Corps of Engineers
Savannah District
100 W. Oglethorpe Blvd.
Savannah, GA 31402

Submitted by:

Seneca J2 Environmental Joint Venture

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February 2013


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Revision 1
CAP PART B ADDENDUM (FSP)

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List of Acronyms

AAFES	Army and Air Force Exchange Service	MSL	Mean Sea Level
ACLs	Alternative Cleanup Levels	N/A	Not applicable
ALS	ALS Environmental	NFA	No Further Action
AS	Air Sparge	NGVD	National Geodetic Vertical Datum
ATLs	Alternative Threshold Limits	NTU	Nephelometric Turbidity Unit
bgs	below ground surface	J2	J2 Engineering, Inc.
BTEX	Benzene, Toluene, Ethylbenzene, and Xylenes	ORC [®] - Adv	Oxygen Release Compound [®] - Advanced
CAP	Corrective Action Plan	ORP	Oxidation-Reduction Potential
CDI	CDI Group USA	OSHA	Occupational Safety and Health Administration
DO	Dissolved Oxygen	PAHs	Polycyclic Aromatic Hydrocarbons
DPT	Direct Push Technology	PVC	Polyvinyl Chloride
EM	Engineering Manual	QA	Quality Assurance
EPA	Environmental Protection Agency	QC	Quality Control
ft	feet	SAIC	Science Applications International Corporation
ft ²	square feet	Seneca-J2	Seneca/J2 Environmental Joint Venture
ft/day	feet per day	SVE	Soil Vapor Extraction
GAEPD	Georgia Environmental Protection Division	SVOCs	Semi-volatile Organic Compounds
GUST	Georgia Underground Storage Tanks	TAL	Target Analyte List
HTRW	Hazardous, Toxic and Radioactive Wastes	UPC	Utilities Protection Center
IDW	Investigation-Derived Waste	USACE	United States Army Corps of Engineers
ISCO	In Situ Chemical Oxidation	USGS	United States Geological Survey
L/min	Liters per minute	UST	Underground Storage Tank
µg/kg	Micrograms per Kilogram	VOC	Volatile Organic Compounds
µg/L	micrograms per liter	WP	Work Plan
mg/L	Milligrams per Liter	Zebra	Zebra Environmental Corp
MNA	Monitored Natural Attenuations	yd ³	Cubic yards

CAP PART B ADDENDUM (CAP)

1.0 Plan Certification by UST Owner/Operator

I hereby certify that the information, contained in this plan and all attachments, is true, accurate, and complete, and the plan satisfies all the criteria and requirements of Rule 391-3-15-.09 of the Rules for Underground Storage Tank Management.

Printed Name (Owner/Operator)

Signature (Owner/Operator)

2.0 Site Investigation Plan

The site is located at the Army and Air Force Exchange Service (AAFES) Car Care Center located on Hero Road at Fort Stewart, Georgia (**Figure 2-1 and 2-2**). Detailed site history can be found in the February 2009 report prepared by J2 Engineering, Inc (J2) titled, "Final Ninth Semi-Annual Remedial Monitoring Report for the Corrective Action at Underground Storage Tanks 257-261, Facility Identification Number #9-089118, Building 430, Fort Stewart, Georgia."

2.1 Local and Site Hydrology

The Corrective Action Plan – Part B (CAP B) submitted by SAIC in January 2000, contains the local and site hydrogeology for this site (pages 14-18). The updated potentiometric flow map for November 2012 is displayed on **Figure 2-3**. The general direction of groundwater flow is toward the east to northeast. **Table 2-1** portrays the historic groundwater elevation data.

2.2 Extent of Contamination

The baseline assessment data can be found in the CAP B submitted by SAIC from January 2000 (pages 8-14). Currently, benzene is the only contaminant of concern above site Alternative Cleanup Levels (ACLs). The ACL for groundwater at the site is 713 µg/L for benzene. **Figure 2-4** displays the benzene contamination plume for the November 2012 sampling event. **Table 2-2** summarizes the historical groundwater quality results from May 2010 thru November 2012. The general extent of benzene groundwater quality contamination onsite has significantly reduced since the baseline sampling event in March 2002, however persistent concentrations of benzene have been detected near the locations of wells MW76-19, MW76-21, and MW76-43 through the monitoring period. A review of groundwater data collected during November 2012 indicates the maximum dissolved benzene concentrations detected were 820 µg/L in MW76-19, 3,400 µg/L in MW76-21, and 4,900 µg/L in MW76-43. Due to persistent benzene concentrations remaining above ACLs, additional field work and remedial efforts are necessary to ensure an optimal remedial strategy for site closeout.

3.0 Remedial Action Plan

3.1 Corrective Action Completed

The CAP B submitted by SAIC in January 2000 contains the previous corrective action completed for the AAFES Car Care Center site (page 19). Onsite remedial activities commenced on September 9, 2002 after completion of site remedial construction activities and the receipt of a GAEPD discharge permit. The Groundwater Pump and Treat, Air Sparge (AS), and Soil

Vapor Extraction (SVE) remedial systems employed onsite were designed to mitigate groundwater and soil quality contamination related to historical petroleum releases. J2 commenced with active remedial system operation on September 9, 2002 and discontinued active remedial efforts on August 2, 2007. After the completion of active remedial efforts, quarterly monitored natural attenuation was initiated at the site. A Revised CAP Part B was submitted in February 2010 by J2.

To expedite efforts to achieve the CAP Part B objectives, subsequent remedial technologies were implemented to address residual contamination within the soil and groundwater. A task order was awarded to perform sodium persulfate injection cleanup in order to address the residual benzene contamination in the soil smear zone near the water table interface at the site. After two injection events conducted during May and August of 2010, the effectiveness of this remediation approach displayed diminished expectations, requiring re-evaluation and optimization of a new technical strategy to closeout this site. Vertical profile soil borings and subsequent soil sampling were completed as part of the previous task order to further define site conditions. Additional groundwater monitoring was also conducted to further assess the extent of the residual benzene plume. Data collected during this phase of the supplemental assessment activities was used to formulate a revised remedial approach for the site.

3.2 Objectives of Corrective Action

The ACL for benzene in groundwater was set at 713 µg/L during the original CAP B investigation. Currently, benzene remains above the ACL; therefore, active remediation of the groundwater at the site is required. As previously stated, MNA and ISCO injection activities did not yield favorable remedial performance results. The objectives of the revised corrective action are as follows:

- Perform soil sampling to fully delineate the vertical and horizontal extent of soil contamination upon which the limits of the soil excavation will be set.
- Perform the soil excavation, which will be preceded by the demo of the canopy structure and abandoning wells within excavation boundaries.
- Perform groundwater monitoring after the monitoring wells have been re-installed to assess the site for regulatory closure.

3.2.1 Supplemental Soil Delineation

Soil sampling efforts were conducted from January 2-5, 2013 to fully delineate the petroleum plume in the groundwater (**Figure 2-4**) and soil associated with the former USTs and pump islands at the AAFES facility. Seneca-J2 performed a soil investigation around Building 430 near the location of the persistent groundwater contaminant plume (**Figures 3-2 and 3-3**). As part of this supplemental assessment, sixteen (16) soil borings were advanced to 15 ft below ground surface (bgs) at the locations presented on **Figures 3-2 and 3-3**. The sixteen (16) soil borings were advanced using direct push technology (DPT) with a GeoProbe operated by Zebra Environmental Corporation (Zebra), a Georgia certified drilling company. Two (2) soil samples were collected at each boring location to determine the extents of contamination. All of the soil samples were screened in the field with a flame-activated MicroFID to detect organic vapors, and these readings can be found on **Table 3-1**. Soil samples were analyzed for VOCs per EPA Method 8260B, PAHs per EPA Method 8270C, and TAL Metals per EPA Method 6010B by ALS Environmental (ALS) in Jacksonville, FL. The soil boring logs are presented in **Appendix A**.

Upon review of the soil boring logs, the area beneath the canopy is capped with concrete pavements, and the remainder of the site is capped with asphalt pavements. Beneath the surface pavements, fine sand and clayey sands are encountered, which are most likely imported fill materials. Beneath the upper fill materials, fine to very fine-grained well graded sands are encountered from seven (7) to ten (10) ft bgs. These soils were slightly damp to dry, and they are encountered above the local water table interface. Beneath the upper fine-grained deposits, very dark silty fine sands were encountered from roughly thirteen (13) to over fourteen (14) ft bgs. Soils within this zone displayed wet to very saturated moisture contents, and these soils comprise the localized shallow aquifer and smear zone. Below these deposits, a very hard partially-cemented medium to fairly coarse-grained reddish-brown sand layer was encountered, which displayed significantly reduced moisture contents. The contact between the upper smear zone deposits and the underlying deposits (hardpan) was observed to be very sharp and distinct at all soil boring locations. Due to the extreme variability related with the moisture of the sediments, it is highly likely that the shallow groundwater encountered at the site is perched above the local hardpan deposits. In general, field screening results sharply decreased or were not present within the underlying hardpan deposits suggesting that these sediments may have limited the vertical migration of the contaminants of concern to the upper smear zone deposits. Soil Boring Logs for all of the supplemental soil boring locations are presented in **Appendix A**.

3.2.2 Supplemental Soil Sampling Analyses

Seneca-J2 collected soil samples for laboratory analyses from depths ranging from 4 ft to 15 ft bgs. The results were compared to the GAEPD GUST Table A Standards for Average or Higher Groundwater Pollution Susceptibility Area per GUST Rule 391-3-15-09(3) and six (6) of the soil borings exceeded the standards for BTEX concentrations. The allowable standards for benzene, toluene, ethylbenzene, and xylenes are 5 micrograms per kilogram ($\mu\text{g/kg}$), 400 $\mu\text{g/kg}$, 370 $\mu\text{g/kg}$, and 20,000 $\mu\text{g/kg}$, respectively. There are no standards for SVOCs or TAL Metals.

The following discussion of soil samples reference only those that displayed concentrations of BTEX over the soil standards set forth in GAEPD GUST Table A. Soil sample B430-B-3 (5'-7.5') contained concentrations of benzene (10.4 $\mu\text{g/kg}$), and B430-B-3 (7.5'-10') contained concentrations of benzene (340 $\mu\text{g/kg}$), toluene (2,810 $\mu\text{g/kg}$), ethylbenzene (834 $\mu\text{g/kg}$), and xylenes (33,700 $\mu\text{g/kg}$). Soil sample B430-B-4 (10'-12.5') displayed concentrations of benzene (857 $\mu\text{g/kg}$), toluene (1,270 $\mu\text{g/kg}$), and ethylbenzene (1,090 $\mu\text{g/kg}$). Soil sample B430-B-6 (12.5'-15') exhibited concentrations of benzene (16.4 $\mu\text{g/kg}$). Soil sample B430-B-7 (7.5'-10') contained concentrations of benzene (183 $\mu\text{g/kg}$), toluene (4,380 $\mu\text{g/kg}$), ethylbenzene (1,320 $\mu\text{g/kg}$), and xylenes (89,500 $\mu\text{g/kg}$). Soil sample B430-B-11 (7.5'-10') demonstrated concentrations of benzene (18.8 $\mu\text{g/kg}$) and ethylbenzene (541 $\mu\text{g/kg}$), and B430-B-11 (10'-12.5') demonstrated concentrations of ethylbenzene (1,200 $\mu\text{g/kg}$). Soil sample B430-B-12 (12.5'-15') exhibited concentrations of benzene (579 $\mu\text{g/kg}$) and ethylbenzene (865 $\mu\text{g/kg}$). Benzene concentration maps for the soils above the water table and below the water table are shown in **Figures 3-2** and **3-3**. The soil analytical results are provided on **Table 3-2**, and the hardcopy analytical data can be found in **Appendix B**. The data validation was performed by HSW Engineering, and the Quality Control Summary Checklist is presented in **Appendix C**.

3.2.3 Abandoned Monitoring Wells and AS/SVE Points

Prior to excavation activities, all wells within the excavation area will be abandoned with ¼ inch bentonite pellets. The following monitoring wells were abandoned during January 2013:

MW76-32, MW76-19, MW76-33, MW76-42, MW76-43, MW76-44, and MW76-18. The following air sparge/extraction well/soil vapor extraction points were abandoned in January 2013: 76-AS1, 76-EX1, 76-SV1, 76-AS3, 76-AS9, and 76-AS8. In addition to these wells all of the chemical injection points were abandoned and filled with bentonite. During February 2013, MW76-45 will be abandoned, along with the following list of air sparge/extraction well/soil vapor extraction points: 76-AS2, 76-EX2, 76-EX3, 76-AS5, 76-SV2, 76-AS4, 76-AS6, 76-EX4, 76-AS7, 76-AS10, 76-EX5, 76-SV3, 76-AS11, and 76-AS12. **Figure 3-4** presents the locations of all of the above-referenced points.

3.3 Corrective Action In Progress

3.3.1 Canopy Removal

Upon approval of this CAP B Addendum, Seneca-J2 will contract CDI Group USA (CDI) of Fort Pierce, Florida to demolish the canopy located over the proposed excavation area and properly dispose of the debris. After contacting Georgia Utilities Protection Center (UPC) for the clearing/marketing of utilities, Seneca-J2 will perform or arrange for these additional activities:

- Locate all utility services and lines that may need to be shut off and capped or relocated temporarily or permanently depending on the nature of the job.
- Locate all overhead power lines that may interfere with heavy equipment operations.
- De-energize electrical service to canopy.
- Turn off water service to canopy, or conduct outage to allow Seneca-J2 to cap service, if valves are unavailable.
- Remove all underground utilities to the canopy.
- Post the telephone numbers of the local police, ambulance, and fire departments onsite.

Prior to the start of all demolition projects, OSHA Standard 1926.850(a) requires that a competent person will conduct an engineering survey of the structure to determine the condition of the framing and walls so that measures can be taken, if necessary, to prevent premature collapse of any portion of the structure. During the course of the physical demolition efforts, all work areas and passageways in and around each of the buildings shall be kept clear of debris. Demolition materials shall be stored in an orderly manner. All materials will be live loaded into dumpsters or into dump trucks and hauled offsite for disposal. The essential elements of good housekeeping are as follows:

- Orderly placement of materials, tools, and equipment.
- Placing receptacles at appropriate locations for the disposal of miscellaneous rubbish and debris.
- Prompt removal and disposal of trash and waste materials.

Any materials that can be recycled, such as concrete or piping, will be segregated. Seneca-J2 will recycle material only if there are no hazardous materials or if the materials can be safely separated from the remainder of the debris and disposed of properly. As much of the demolition as possible will be performed mechanically. Lights and ballast (if PCB impacted) removed from the canopy will be properly containerized, disposed offsite at an approved facility licensed to accept such wastes, and manifested.

3.3.2 Soil Excavation

The apparent source of benzene contamination in the groundwater is due to the residual soil contamination associated with the former fuel dispenser islands and former product transmission lines beneath the overhead canopy structure. The chosen remedial action is removal of contaminated soils in order to restore groundwater to original conditions. After the canopy is removed, CDI will install temporary sheet piling near the southwestern perimeter of Building 430 to prevent undermining of the building structure during excavation. The remaining contaminated soil will be excavated and live loaded into dump trucks for transport to Broadhurst Environmental Landfill (Solid Waste Permit #151-014D (SL)) located in Screven, Georgia.

Confirmatory samples will be collected from the wall and base of the excavation pit on twenty (20) ft centers to ensure that all of the contaminated soil is removed. Data collected from the supplementary soil boring assessment activities will be used as a guide to outline the proposed excavation area (**Figures 3-2 and 3-3**). Seneca-J2 and their subcontractors will supply the equipment, material, and labor to perform the excavation of a total area of 6,400 ft² of contaminated soils from ground surface to approximately fifteen (15) ft bgs. An area of approximately 10,000 ft² of concrete/asphalt surface will be removed and disposed of properly. The upper five (5) ft of soil shall be excavated and stored onsite for re-use as clean backfill, which will be tested on a 24-hr turnaround time basis from ALS in Jacksonville, FL. A total of approximately 2,378 yd³ of contaminated soils shall be transported offsite and disposed of as non-hazardous waste. Excavation sides that are not shored will be sloped and benched at a minimum of one and half feet horizontal slope to one foot vertical to ensure stability

Prior to and during soil excavation and backfilling efforts, a groundwater extraction system consisting of up to thirty-six (36) 1-inch diameter wells installed to twenty (20) ft bgs will be installed to remove the groundwater from the excavation area. Groundwater pumped from the excavation pit will be routed to two (2) frac tanks that will be located near the existing remedial equipment shed onsite. Water containerized within the frac tanks will be routed through a series of high capacity bag filters to remove suspended sediments before going through the existing groundwater treatment system. The existing remedial treatment system is equipped with supplemental bag filtration and a 30 gallon per minute (gpm) air stripper. GAEPD has reactivated the former underground injection permit for temporary operation of the system (UIC Permit #R-156 presented in **Appendix D**). After water is processed through the air stripper, it will be routed through two (2) 1,000-pound activated carbon vessels in series and then to the local reinfiltration gallery for disposal. During operation of the water treatment system, samples of the following will be collected for every 20,000 gallons: the gross influent, after the air stripper, between the carbon banks, and the effluent. These system samples will be analyzed for BTEX and PAH compounds.

At the end of the excavation activities, 1,600 lbs of ORC[®]-Adv pellets will be spread at the bottom of the excavation pit. Backfill material will be dependent on site conditions and groundwater recharge rates. If feasible, the excavation will be filled with clean backfill material in 12-inch lifts to 95% bulk density compaction. Otherwise, the bottom 5 ft of the excavation may be backfilled with gravel, followed by clean backfill material compacted in 12-inch lifts. After all of the 12-inch backfill lifts are verified as receiving 95% compaction, the surface of this excavation backfill will be crowned to provide positive drainage. The surface will be finished with a minimum of six (6) inches of crusher run limestone base (compacted to Georgia DOT

specification density for heavy pavement) and 1.5 – 2.0 inches of bituminous asphalt pavement (E, or F mix).

Table 3-3 presents the preliminary field schedule and sequence of field events provided by CDI for the recommended remedial efforts following GAEPD concurrence with the CAP Addendum and issuance of the reinstated injection permit for the existing groundwater treatment system.

After excavation, backfilling, and site restoration efforts have been completed, Zebra will install up to five (5) replacement monitoring wells of equivalent depth, location, screening, and material as the original monitor wells within the excavation area. All monitoring wells will be installed as 2-inch diameter PVC wells with 10 ft of 0.010 slot screen to bracket the water table ten (10) ft bgs. All of the wells will be installed with a silica sand pack, a bentonite seal, grouted to the surface, and set in sealed flush mounted protectors.

3.3.3 Performance Monitoring

Performance monitoring will involve up to fifteen (15) monitoring wells to be sampled on a quarterly basis for one (1) year. All quarterly samples will be analyzed for BTEX using EPA Method 8260B. During sampling events, groundwater depths will be collected from all of the monitoring wells and used to calculate purge volumes and evaluate local groundwater flow conditions. During well purging, groundwater parameters will be collected including water depth, pH, temperature, conductivity, DO, ORP, iron, and/or sulfate. These parameters will be measured to evaluate on-going chemical oxidation processes and to assess monitored natural attenuation of the plume. The parameters will be measured in the field with down hole multi-parameter meters and field test kits

Following each of the four (4) quarterly sampling events, the data will be presented in a Corrective Action Progress Report. After one year of quarterly monitoring, twelve (12) monitoring wells will be sampled on a semi-annual basis for one (1) year. All semi-annual samples will be analyzed for BTEX using EPA Method 8260B and PAHs per EPA Method 8270C. Following each of the two (2) sampling events, the data will be presented in a Corrective Action Progress Report. All wells onsite will be abandoned following site closure with regulatory approval

3.3.4 Progress Reporting

The findings from each monitoring event will be summarized in a monitoring report prepared in general accordance with the GAEPD CAP B Progress Report Template. Updated potentiometric surface maps, BTEX plume maps, and relevant tables will be included within each report. Concentration versus time graphs will also be provided if helpful in determining seasonal contaminant fluctuation versus migration. Each monitoring report will be submitted approximately 60 days from the date of the sampling event.

A description of the groundwater parameters and the results of the confirmatory sampling will be summarized in the completion report for this site.

3.3.5 Completion Criteria

If during the two (2) years of monitoring, the existing concentration of benzene detected at MW76-21 and the concentration of benzene in the immediate down gradient well remains below the ACL (713 µg/L), then GAEPD and Fort Stewart should evaluate the site for closure.

Within 30 days of submitting the final progress/completion report, the following certification will be submitted to GAEPD:

I hereby certify that the Corrective Action Plan-Part B dated _____ for Fort Stewart USTs 257-261 site, Facility ID #9-089118, including any and all certified amendments thereto, has been implemented in accordance with the schedules, specifications, sampling programs, and conditions contained therein, and that the plan's stated objective have been met.

Signature (Owner/Operator)

Upon receipt of an agreement from GAEPD for NFA at this site, all wells onsite will be decommissioned/closed.

3.4 Public Notification

Public notification requirements were addressed in the CAP B submitted by SAIC dated January 2000 for the AAFES Car Care Center site (page 32).

4.0 Claim for Reimbursement

Application for Georgia UST Trust Fund reimbursement is not being pursued at this time.

5.0 References

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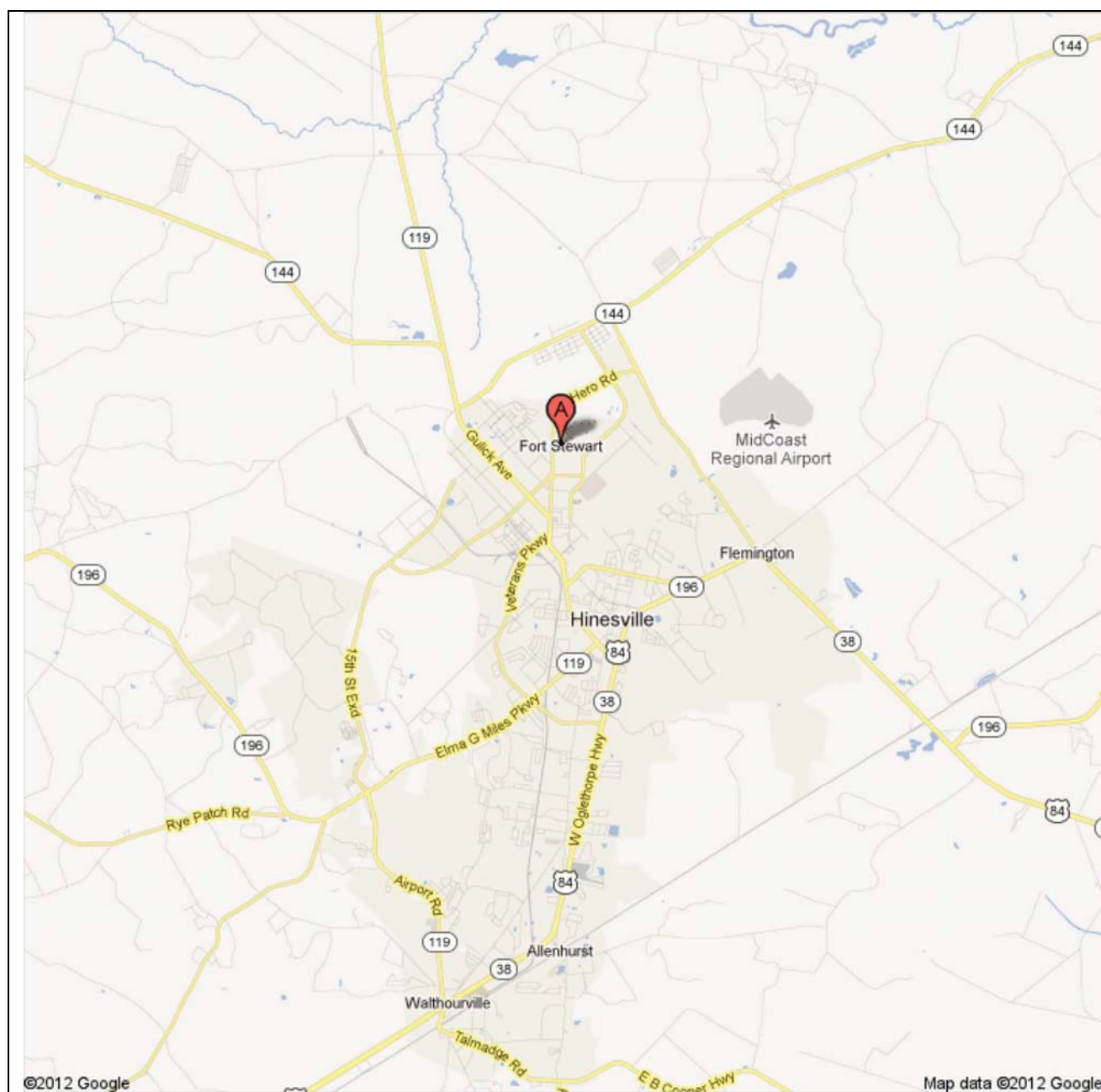
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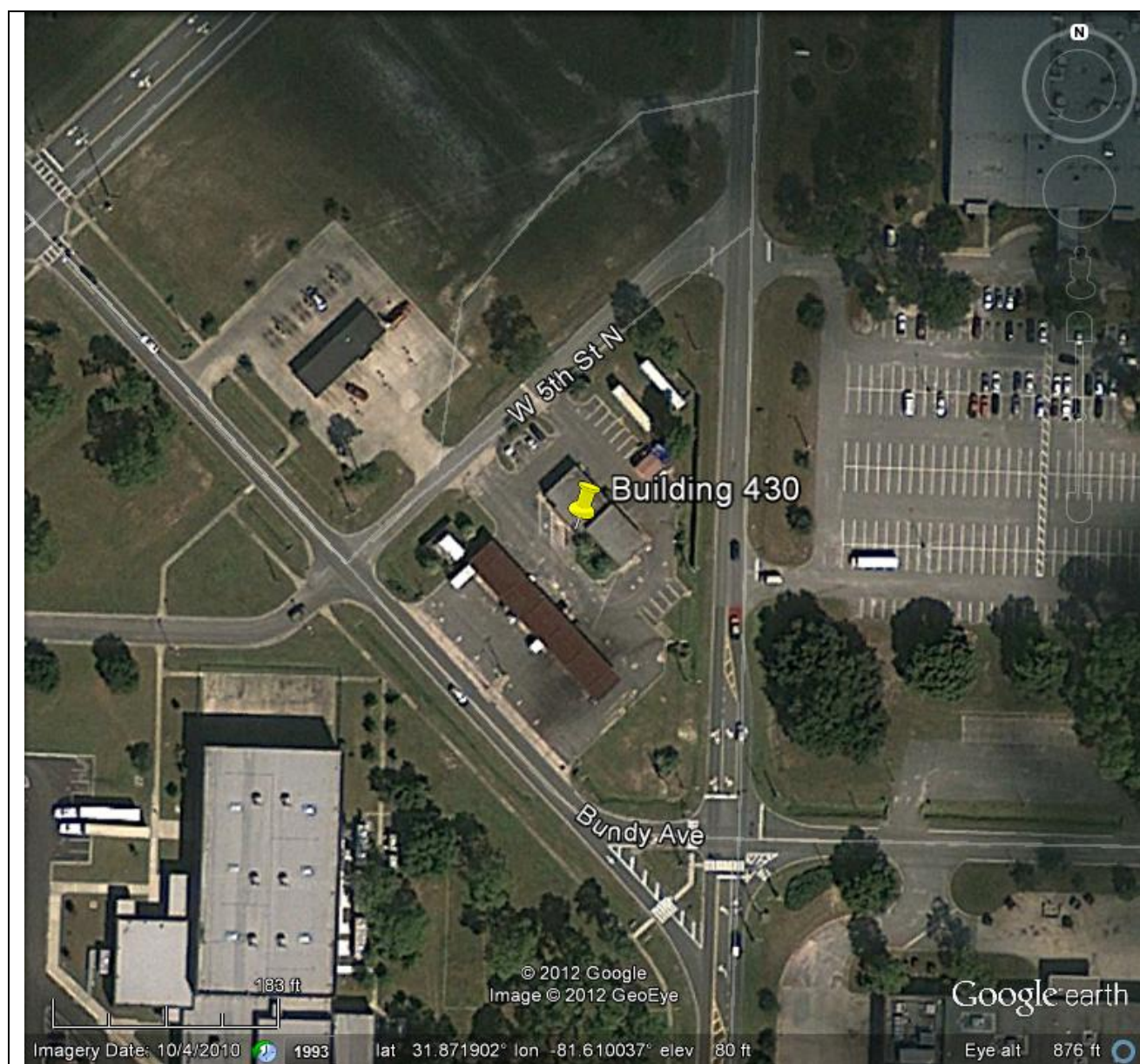
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FIGURES



Seneca J2 Environmental JV 23 Thomas Indian School Drive Irving NY 14081 (716) 532-0137 (716) 532-4036 (Fax)	Regional Map AAFES Car Care Center Ft. Stewart, Georgia	
	FIGURE 2-1	W912HN-12-D-0022 Task Order: 0008
	Project No: 12-052	AAFES Car Care Center Former Underground Storage Tank 257-26 in Ft. Stewart, GA



Seneca J2 Environmental JV

23 Thomas Indian School Drive
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Site Location Map AAFES Car Care Center Ft. Stewart, Georgia

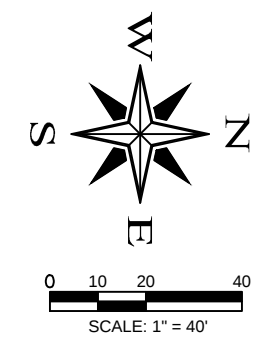
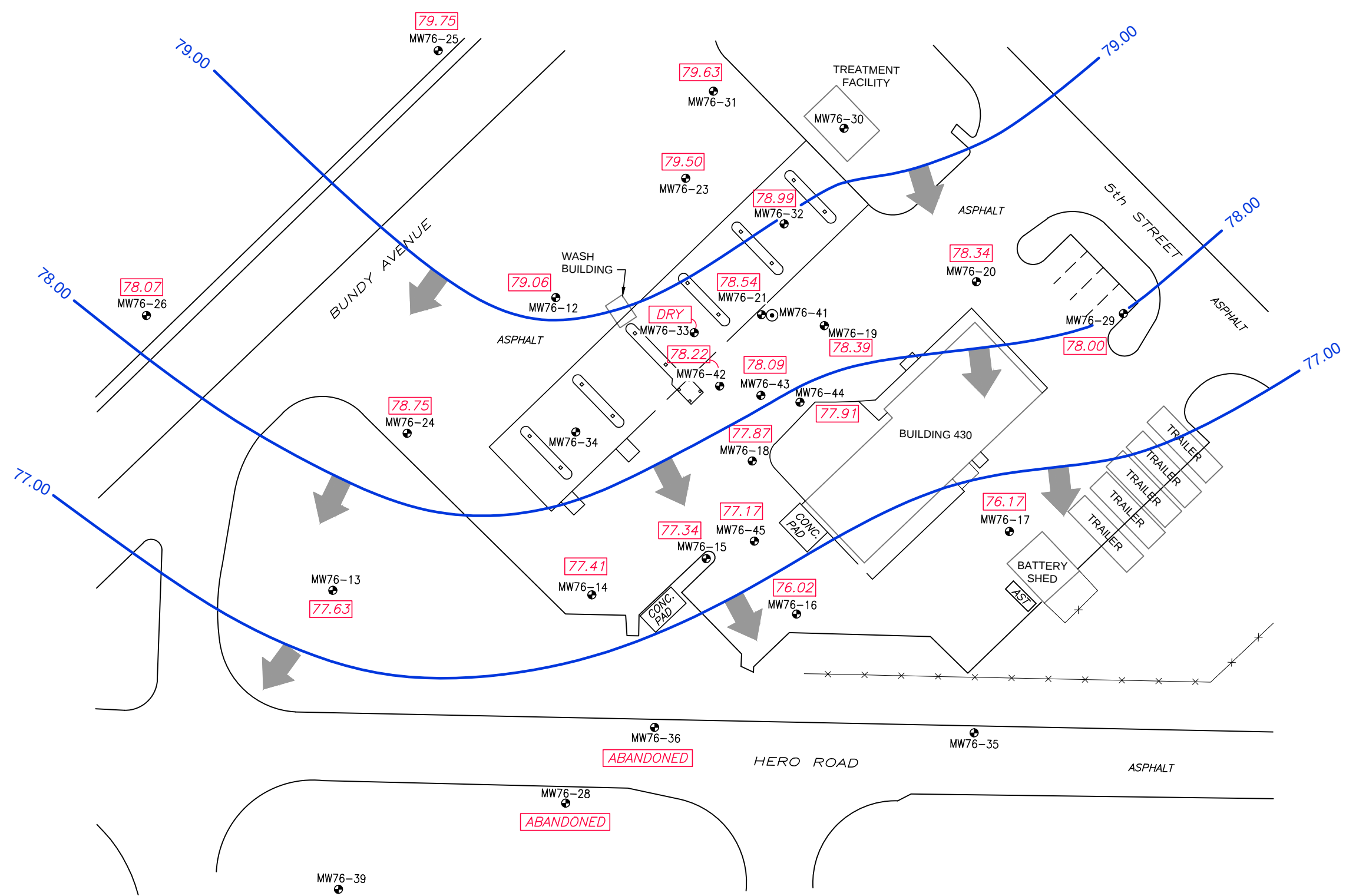
FIGURE 2-2

Project No:
12-052

W912HN-12-D-0022
Task Order: 0008

AAFES Car Care Center
Former Underground Storage Tank 257-26
in Ft. Stewart, GA

Drawing file: 12-052 Figures_1-22-13.dwg Jan 25, 2013 - 12:09pm



LEGEND

- MONITORING WELL
- ⊙ DEEP MONITORING WELL
- x-x- FENCE
- 77.00 — GROUNDWATER ELEVATION CONTOUR LINE (FT.)
- 78.00 GROUNDWATER ELEVATION (FT.)
- ↓ DIRECTION OF GROUNDWATER FLOW

NOTE: DRAWING IN COLOR.

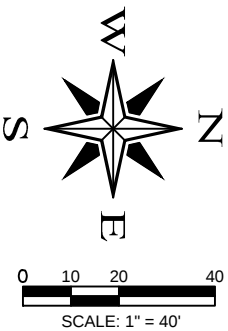
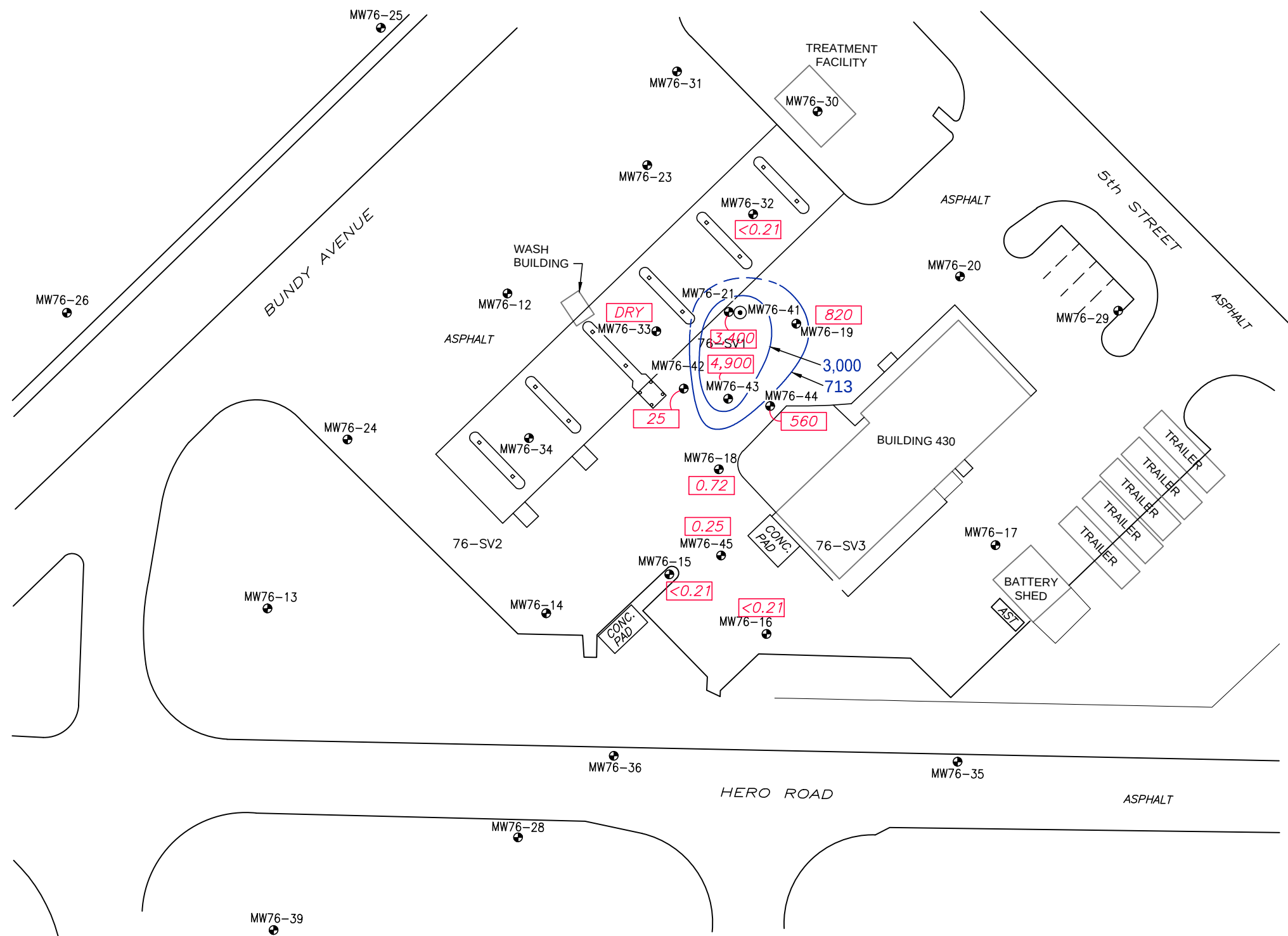
Figure
2-3

POTENTIOMETRIC SURFACE MAP
NOVEMBER 5, 2012
UST's 257-261, BUILDING 430
FACILITY ID # 9-089118
FORT STEWART, GEORGIA

J2 Engineering, 2013

Scale: 1" = 40'
Date: 1/25/13
Project No.: 12-052
Drawn By: KT
Checked By: M. Senoussi
Approved By: F. Portofe
Filename: 12-052 Figures_1-22-13.dwg

Seneca J2 Environmental JV



LEGEND

- MONITORING WELL
- ⊙ DEEP MONITORING WELL
- 183 BENZENE CONCENTRATION (µg/L)
- 100 — BENZENE CONCENTRATION CONTOUR LINE (µg/L)
- FENCE

NOTE: DRAWING IN COLOR.

Figure
2-4

GROUNDWATER QUALITY MAP (BENZENE)
NOVEMBER 2012
UST's 257-261, BUILDING 430
FACILITY ID # 9-089118
FORT STEWART, GEORGIA

J2 Engineering, 2013

Scale: 1" = 40'
Date: 1/25/13
Project No.: 12-052
Drawn By: KT
Checked By: M. Senoussi
Approved By: F. Portofe
Filename: 12-052 Figures_1-22-13.dwg

Seneca J2 Environmental JV

Drawing file: 12-052 Figures_1-22-13.dwg Jan 29, 2013 - 4:25pm

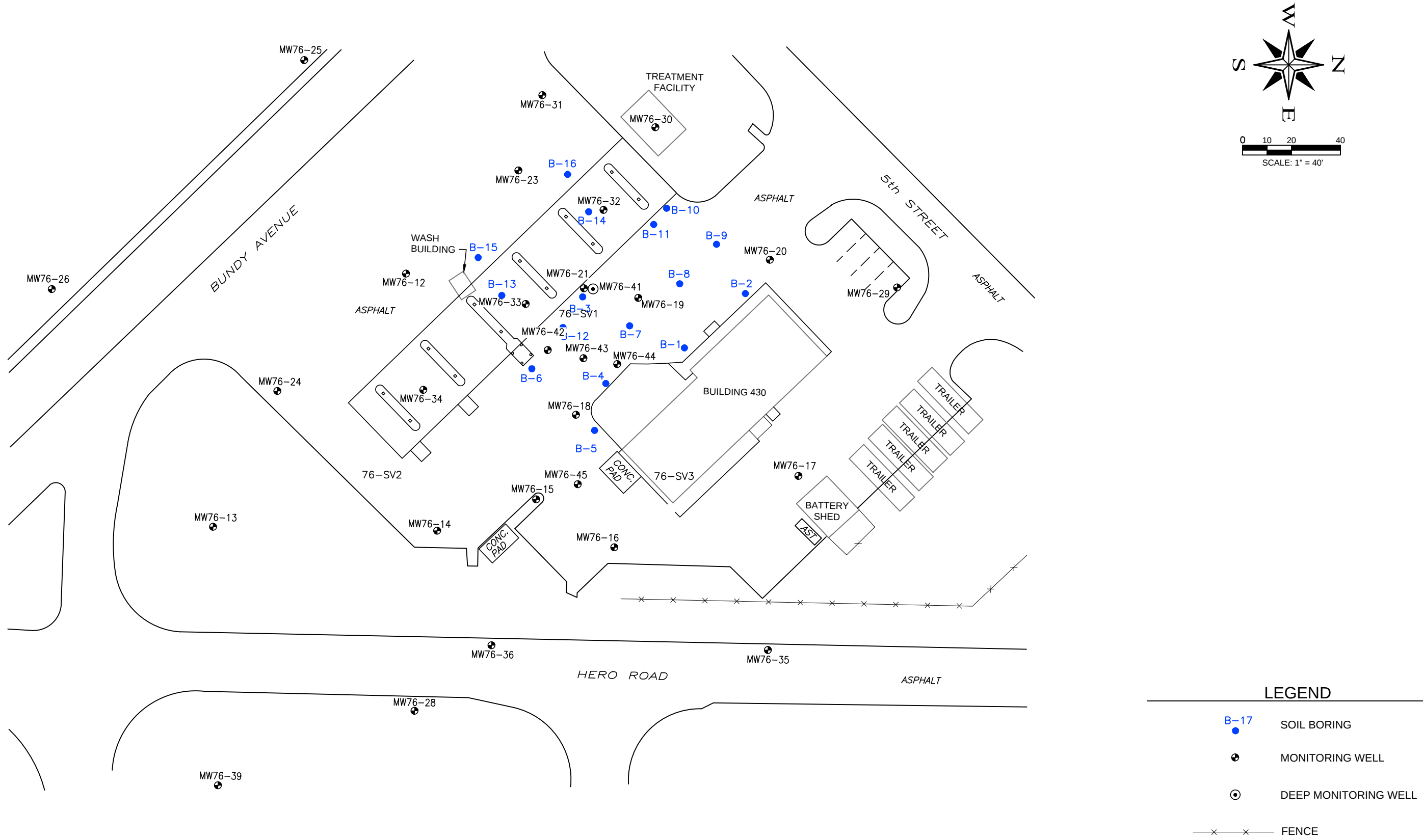


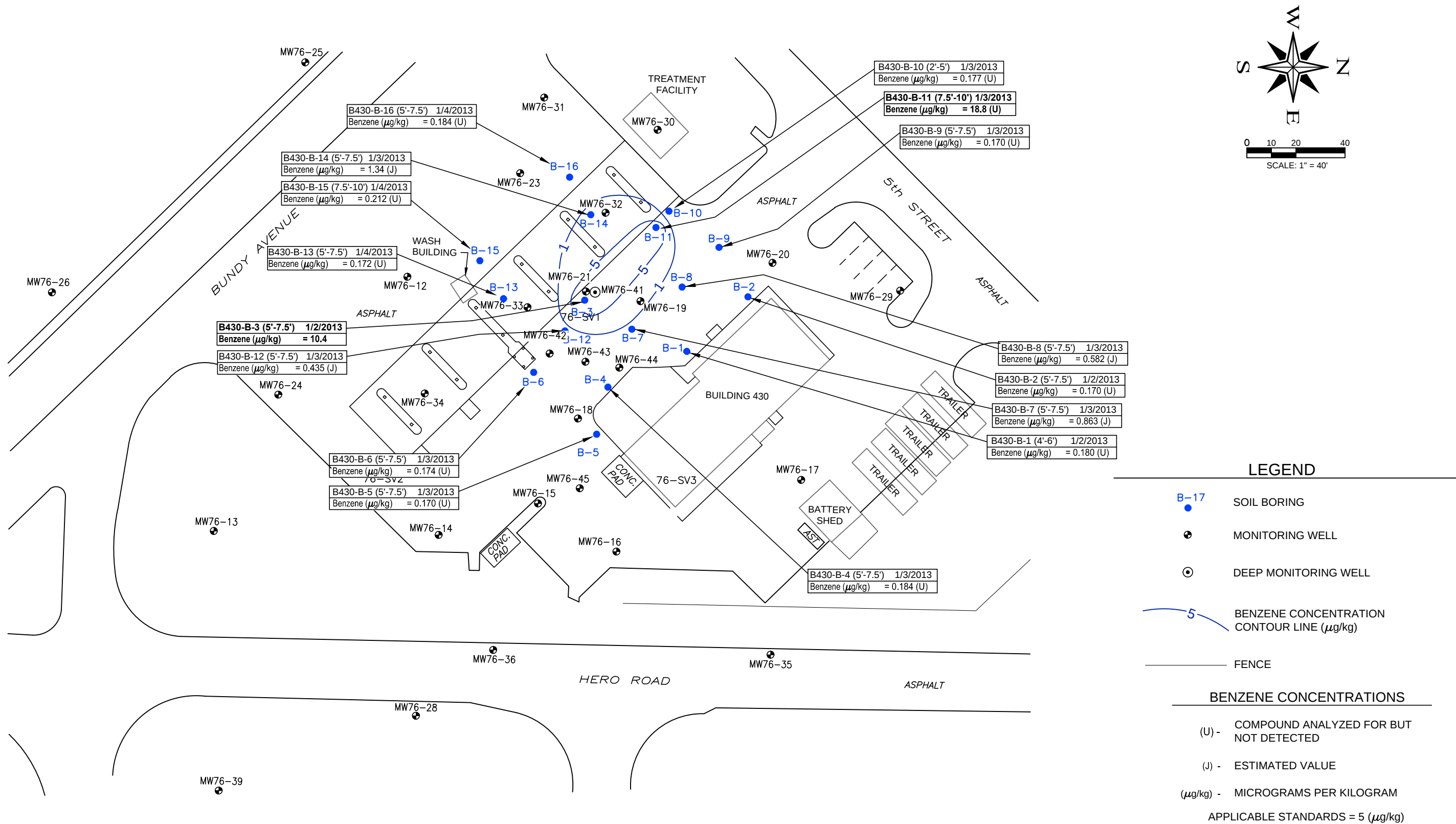
Figure
3-1

SOIL BORING LOCATIONS
JANUARY 2013
UST's 257-261, BUILDING 430
FACILITY ID # 9-089118
FORT STEWART, GEORGIA

J2 Engineering, 2013

Scale: 1" = 40'
Date: 1/29/13
Project No.: 12-052
Drawn By: KT
Checked By: M. Senoussi
Approved By: F. Portofe
Filename: 12-052 Figures_1-22-13.dwg

Seneca J2 Environmental JV



NOTE: DRAWING IN COLOR.

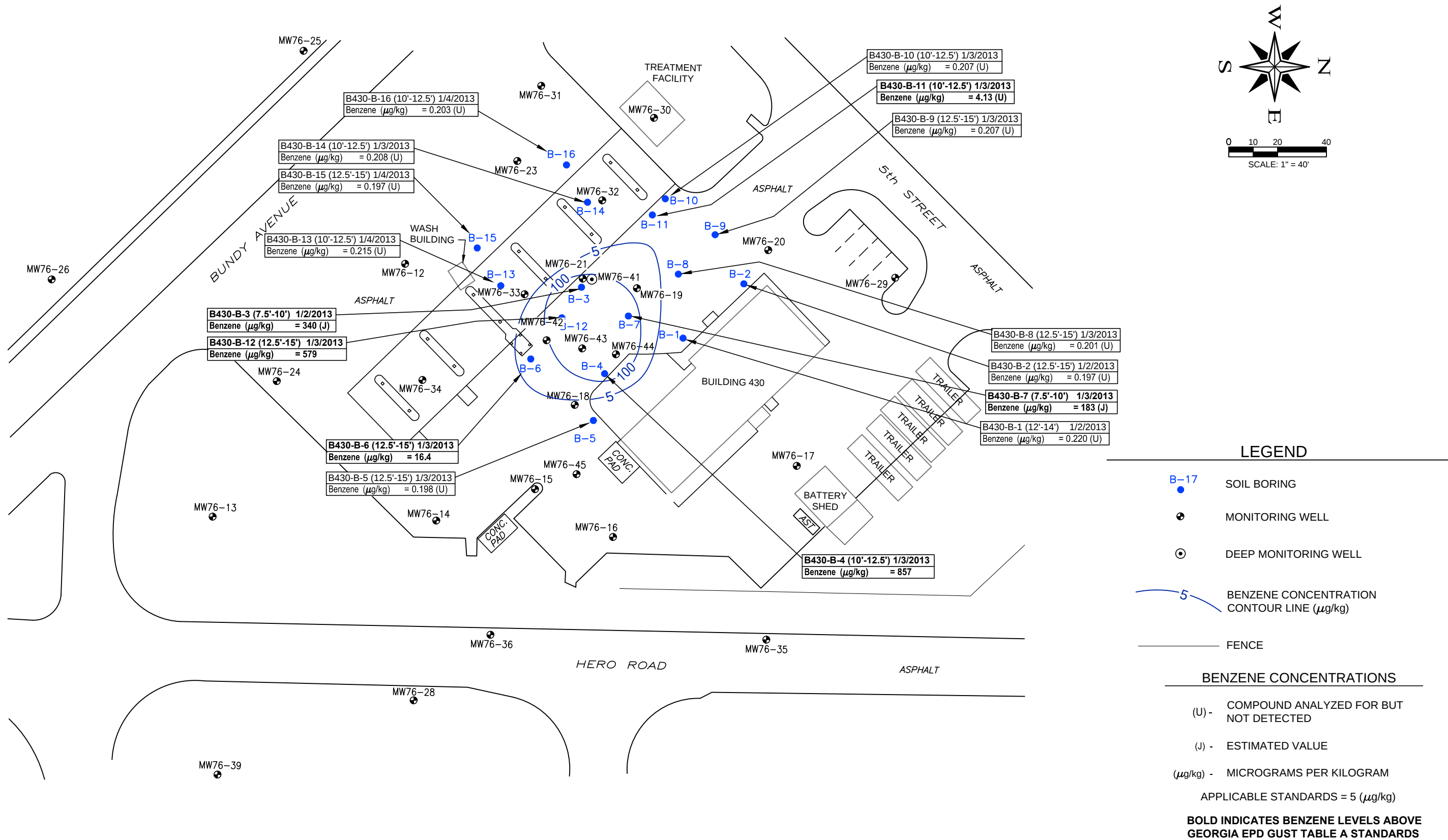
Figure 3-2

SOIL BENZENE CONCENTRATIONS (ABOVE WATER TABLE)
JANUARY 2013
UST's 257-261, BUILDING 430
FACILITY ID # 9-089118
FORT STEWART, GEORGIA

J2 Engineering, 2013

Scale: 1" = 40'
Date: 1/25/13
Project No.: 12-052
Drawn By: KT
Checked By: M. Senoussi
Approved By: F. Portofe
Filename: 12-052 Figures_1-22-13.dwg

Seneca J2 Environmental JV



NOTE: DRAWING IN COLOR.

Figure
3-3

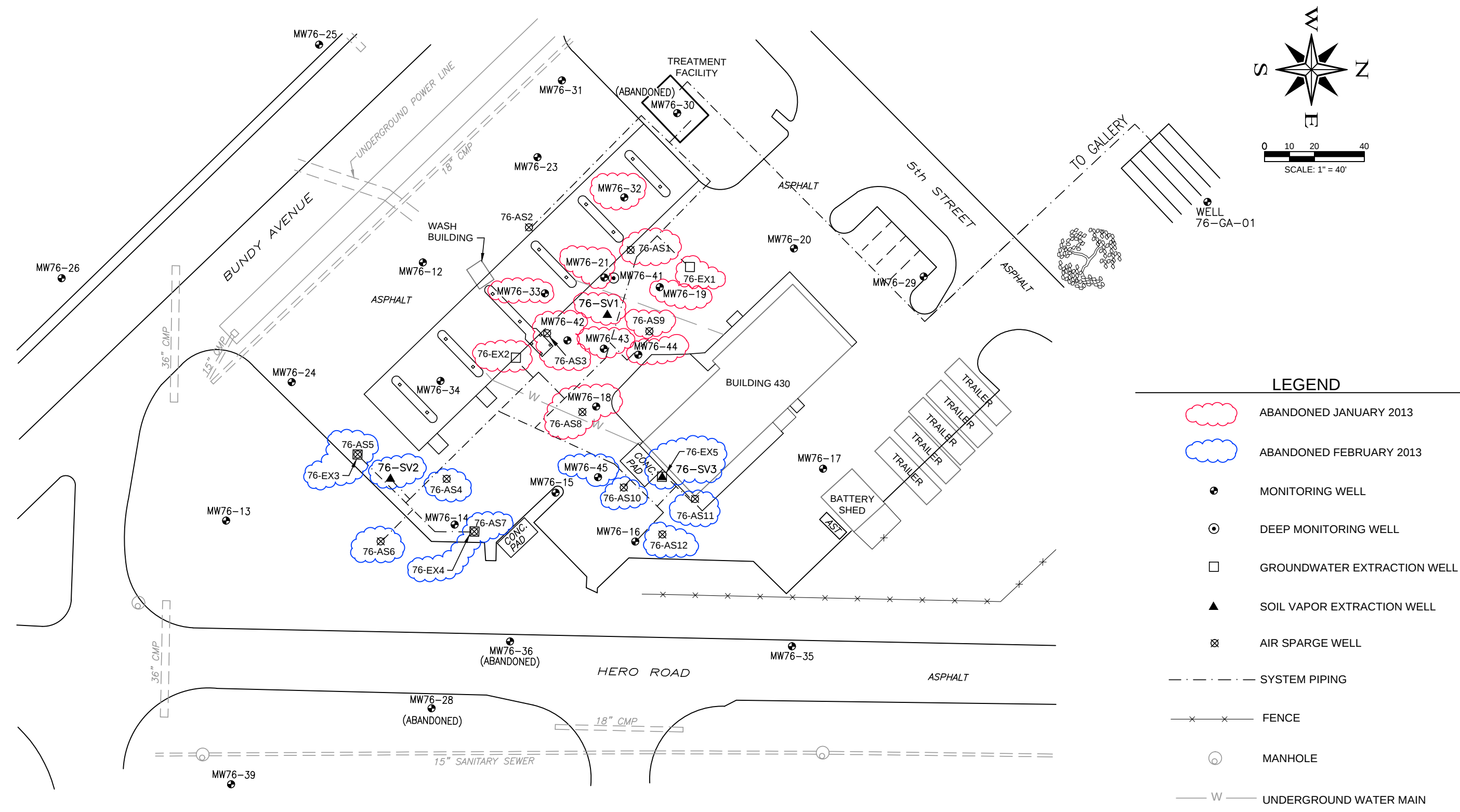
SOIL BENZENE CONCENTRATIONS (BELOW WATER TABLE)
JANUARY 2013
UST's 257-261, BUILDING 430
FACILITY ID # 9-089118
FORT STEWART, GEORGIA

J2 Engineering, 2013

Scale: 1" = 40'
Date: 1/25/13
Project No.: 12-052
Drawn By: KT
Checked By: M. Senoussi
Approved By: F. Portofe
Filename: 12-052 Figures_1-22-13.dwg

Seneca J2 Environmental JV

Drawing file: 12-052 Figure 3-4_2-27-13.dwg Feb 27, 2013 - 3:41pm



NOTE: DRAWING IN COLOR.

Figure 3-4

ABANDONED MONITORING WELLS AND AS/SVE POINTS
UST's 257-261, BUILDING 430
FACILITY ID # 9-089118
FORT STEWART, GEORGIA

J2 Engineering, 2013

Scale: 1" = 40'
Date: 2/27/13
Project No.: 12-052
Drawn By: KT
Checked By: M. Senoussi
Approved By: F. Portofe
Filename: 12-052 Figures_2-27-13.dwg

Seneca J2 Environmental JV

TABLES

AAFES Car Care Center
Former Underground Storage Tank
Installations Numbers 257-261
Ft. Stewart, Georgia

TABLE 2-1: GROUNDWATER ELEVATIONS

Well Number	Date of Measurement	Ground Surface Elevation (ft)	Top of Casing (ft)	Screened Interval (ft)	Water Depth (ft)	Groundwater Elev. (ft)
MW76-11	5/5/2010	N/A	85.82	2.71-12.71	3.43	82.39
MW76-12	5/5/2010	N/A	86.64	4.25-14.25	5.10	81.54
MW76-13	5/5/2010	N/A	84.81	4.20-14.20	4.76	80.05
MW76-14	5/5/2010	N/A	86.08	4.0-14.0	6.42	79.66
MW76-15	5/5/2010	N/A	86.56	4.0-14.0	6.87	79.69
MW76-16	5/5/2010	N/A	86.05	4.0-14.0	7.08	78.97
MW76-17	5/5/2010	N/A	86.43	4.03-14.03	7.34	79.09
MW76-18	5/5/2010	N/A	87.06	4.0-14.0	6.87	80.19
MW76-19	5/5/2010	N/A	87.01	9.0-19.0	6.06	80.95
MW76-20	5/5/2010	N/A	86.97	3.41-13.41	6.02	80.95
MW76-21	5/5/2010	N/A	87.16	4.0-14.0	6.15	81.01
MW76-23	5/5/2010	N/A	86.89	3.83-13.83	4.69	82.20
MW76-24	5/5/2010	N/A	86.59	4.8-14.8	5.35	81.24
MW76-25	5/5/2010	N/A	85.52	2.0-12.0	4.58	80.94
MW76-26	5/5/2010	N/A	84.48	4.45-14.45	2.80	81.68
MW76-29	5/5/2010	N/A	86.29	1.16-11.16	5.73	80.56
MW76-31	5/5/2010	N/A	86.58	2.17-12.17	3.91	82.67
MW76-32	5/5/2010	N/A	87.54	4.90-14.90	5.80	81.74
MW76-33	5/5/2010	N/A	87.65	0.67-10.67	6.52	81.13
MW76-34	5/5/2010	N/A	87.77	3.68-13.68	6.72	81.05
MW76-35	5/5/2010	N/A	84.33	N/A	5.43	78.90
MW76-41	5/5/2010	N/A	87.54	35.0-45.0	6.97	80.57
MW76-42	5/5/2010	N/A	87.06	3.0-13.0	6.52	80.54
MW76-43	5/5/2010	N/A	87.16	3.0-13.0	6.73	80.43
MW76-44	5/5/2010	N/A	87.06	3.0-13.0	6.73	80.33
MW76-45	5/5/2010	N/A	86.34	3.0-13.0	6.79	79.55
MW76-11	6/15/2010	N/A	85.82	2.71-12.71	4.35	81.47
MW76-12	6/15/2010	N/A	86.64	4.25-14.25	6.74	79.90
MW76-13	6/15/2010	N/A	84.81	4.20-14.20	5.50	79.31
MW76-14	6/15/2010	N/A	86.08	4.0-14.0	6.93	79.15
MW76-15	6/15/2010	N/A	86.56	4.0-14.0	7.42	79.14
MW76-16	6/15/2010	N/A	86.05	4.0-14.0	7.93	78.12
MW76-17	6/15/2010	N/A	86.43	4.03-14.03	8.06	78.37
MW76-18	6/15/2010	N/A	87.06	4.0-14.0	7.38	79.68
MW76-19	6/15/2010	N/A	87.01	9.0-19.0	6.69	80.32
MW76-20	6/15/2010	N/A	86.97	3.41-13.41	6.62	80.35
MW76-21	6/15/2010	N/A	87.16	4.0-14.0	6.73	80.43
MW76-23	6/15/2010	N/A	86.89	3.83-13.83	5.42	81.47
MW76-24	6/15/2010	N/A	86.59	4.8-14.8	6.97	79.62
MW76-25	6/15/2010	N/A	85.52	2.0-12.0	3.92	81.60
MW76-26	6/15/2010	N/A	84.48	4.45-14.45	4.94	79.54
MW76-29	6/15/2010	N/A	86.29	1.16-11.16	6.31	79.98
MW76-31	6/15/2010	N/A	86.58	2.17-12.17	4.75	81.83
MW76-32	6/15/2010	N/A	87.54	4.90-14.90	6.44	81.10
MW76-33	6/15/2010	N/A	87.65	0.67-10.67	7.15	80.50
MW76-34	6/15/2010	N/A	87.77	3.68-13.68	7.37	80.40
MW76-35	6/15/2010	N/A	84.33	N/A	N/A	N/A
MW76-41	6/15/2010	N/A	87.54	35.0-45.0	7.12	80.42
MW76-42	6/15/2010	N/A	87.06	3.0-13.0	7.03	80.03
MW76-43	6/15/2010	N/A	87.16	3.0-13.0	7.25	79.91
MW76-44	6/15/2010	N/A	87.06	3.0-13.0	7.27	79.79
MW76-45	6/15/2010	N/A	86.34	3.0-13.0	7.35	78.99

AAFES Car Care Center
Former Underground Storage Tank
Installations Numbers 257-261
Ft. Stewart, Georgia

TABLE 2-1: GROUNDWATER ELEVATIONS

Well Number	Date of Measurement	Ground Surface Elevation (ft)	Top of Casing (ft)	Screened Interval (ft)	Water Depth (ft)	Groundwater Elev. (ft)
MW76-11	7/13/2010	N/A	85.82	2.71-12.71	5.12	80.70
MW76-12	7/13/2010	N/A	86.64	4.25-14.25	6.45	80.19
MW76-13	7/13/2010	N/A	84.81	4.20-14.20	6.22	78.59
MW76-14	7/13/2010	N/A	86.08	4.0-14.0	7.61	78.47
MW76-15	7/13/2010	N/A	86.56	4.0-14.0	8.12	78.44
MW76-16	7/13/2010	N/A	86.05	4.0-14.0	8.78	77.27
MW76-17	7/13/2010	N/A	86.43	4.03-14.03	8.88	77.55
MW76-18	7/13/2010	N/A	87.06	4.0-14.0	8.02	79.04
MW76-19	7/13/2010	N/A	87.01	9.0-19.0	7.41	79.60
MW76-20	7/13/2010	N/A	86.97	3.41-13.41	7.31	79.66
MW76-21	7/13/2010	N/A	87.16	4.0-14.0	7.42	79.74
MW76-23	7/13/2010	N/A	86.89	3.83-13.83	6.18	80.71
MW76-24	7/13/2010	N/A	86.59	4.8-14.8	6.78	79.81
MW76-25	7/13/2010	N/A	85.52	2.0-12.0	4.53	80.99
MW76-26	7/13/2010	N/A	84.48	4.45-14.45	5.65	78.83
MW76-29	7/13/2010	N/A	86.29	1.16-11.16	6.83	79.46
MW76-31	7/13/2010	N/A	86.58	2.17-12.17	5.47	81.11
MW76-32	7/13/2010	N/A	87.54	4.90-14.90	6.97	80.57
MW76-33	7/13/2010	N/A	87.65	0.67-10.67	7.59	80.06
MW76-34	7/13/2010	N/A	87.77	3.68-13.68	7.81	79.96
MW76-35	7/13/2010	N/A	84.33	N/A	N/A	N/A
MW76-41	7/13/2010	N/A	87.54	35.0-45.0	7.80	79.74
MW76-42	7/13/2010	N/A	87.06	3.0-13.0	7.70	79.36
MW76-43	7/13/2010	N/A	87.16	3.0-13.0	7.90	79.26
MW76-44	7/13/2010	N/A	87.06	3.0-13.0	7.94	79.12
MW76-45	7/13/2010	N/A	86.34	3.0-13.0	8.05	78.29
MW76-11	8/16/2010	N/A	85.82	2.71-12.71	NM	NM
MW76-12	8/16/2010	N/A	86.64	4.25-14.25	7.27	79.37
MW76-13	8/16/2010	N/A	84.81	4.20-14.20	6.48	78.33
MW76-14	8/16/2010	N/A	86.08	4.0-14.0	8.67	77.41
MW76-15	8/16/2010	N/A	86.56	4.0-14.0	9.24	77.32
MW76-16	8/16/2010	N/A	86.05	4.0-14.0	9.85	76.20
MW76-17	8/16/2010	N/A	86.43	4.03-14.03	10.17	76.26
MW76-18	8/16/2010	N/A	87.06	4.0-14.0	9.20	77.86
MW76-19	8/16/2010	N/A	87.01	9.0-19.0	8.55	78.46
MW76-20	8/16/2010	N/A	86.97	3.41-13.41	8.59	78.38
MW76-21	8/16/2010	N/A	87.16	4.0-14.0	8.53	78.63
MW76-23	8/16/2010	N/A	86.89	3.83-13.83	7.02	79.87
MW76-24	8/16/2010	N/A	86.59	4.8-14.8	7.31	79.28
MW76-25	8/16/2010	N/A	85.52	2.0-12.0	5.07	80.45
MW76-26	8/16/2010	N/A	84.48	4.45-14.45	6.30	78.18
MW76-29	8/16/2010	N/A	86.29	1.16-11.16	8.17	78.12
MW76-31	8/16/2010	N/A	86.58	2.17-12.17	6.25	80.33
MW76-32	8/16/2010	N/A	87.54	4.90-14.90	8.05	79.49
MW76-33	8/16/2010	N/A	87.65	0.67-10.67	8.62	79.03
MW76-34	8/16/2010	N/A	87.77	3.68-13.68	8.74	79.03
MW76-35	8/16/2010	N/A	84.33	N/A	N/A	N/A
MW76-41	8/16/2010	N/A	87.54	35.0-45.0	8.90	78.64
MW76-42	8/16/2010	N/A	87.06	3.0-13.0	8.82	78.24
MW76-43	8/16/2010	N/A	87.16	3.0-13.0	9.07	78.09
MW76-44	8/16/2010	N/A	87.06	3.0-13.0	9.20	77.86
MW76-45	8/16/2010	N/A	86.34	3.0-13.0	9.18	77.16

AAFES Car Care Center
Former Underground Storage Tank
Installations Numbers 257-261
Ft. Stewart, Georgia

TABLE 2-1: GROUNDWATER ELEVATIONS

Well Number	Date of Measurement	Ground Surface Elevation (ft)	Top of Casing (ft)	Screened Interval (ft)	Water Depth (ft)	Groundwater Elev. (ft)
MW76-11	9/20/2010	N/A	85.82	2.71-12.71	6.14	79.68
MW76-12	9/20/2010	N/A	86.64	4.25-14.25	7.30	79.34
MW76-13	9/20/2010	N/A	84.81	4.20-14.20	6.78	78.03
MW76-14	9/20/2010	N/A	86.08	4.0-14.0	8.32	77.76
MW76-15	9/20/2010	N/A	86.56	4.0-14.0	8.87	77.69
MW76-16	9/20/2010	N/A	86.05	4.0-14.0	9.55	76.50
MW76-17	9/20/2010	N/A	86.43	4.03-14.03	9.71	76.72
MW76-18	9/20/2010	N/A	87.06	4.0-14.0	8.81	78.25
MW76-19	9/20/2010	N/A	87.01	9.0-19.0	8.25	78.76
MW76-20	9/20/2010	N/A	86.97	3.41-13.41	8.21	78.76
MW76-21	9/20/2010	N/A	87.16	4.0-14.0	8.28	78.88
MW76-23	9/20/2010	N/A	86.89	3.83-13.83	7.09	79.80
MW76-24	9/20/2010	N/A	86.59	4.8-14.8	7.56	79.03
MW76-25	9/20/2010	N/A	85.52	2.0-12.0	5.60	79.92
MW76-26	9/20/2010	N/A	84.48	4.45-14.45	6.15	78.33
MW76-29	9/20/2010	N/A	86.29	1.16-11.16	7.85	78.44
MW76-31	9/20/2010	N/A	86.58	2.17-12.17	6.55	80.03
MW76-32	9/20/2010	N/A	87.54	4.90-14.90	8.04	79.50
MW76-33	9/20/2010	N/A	87.65	0.67-10.67	8.31	79.34
MW76-34	9/20/2010	N/A	87.77	3.68-13.68	8.72	79.05
MW76-35	9/20/2010	N/A	84.33	N/A	N/A	N/A
MW76-41	9/20/2010	N/A	87.54	35.0-45.0	N/A	N/A
MW76-42	9/20/2010	N/A	87.06	3.0-13.0	8.49	78.57
MW76-43	9/20/2010	N/A	87.16	3.0-13.0	8.71	78.45
MW76-44	9/20/2010	N/A	87.06	3.0-13.0	8.75	78.31
MW76-45	9/20/2010	N/A	86.34	3.0-13.0	8.80	77.54
MW76-11	10/18/2010	N/A	85.82	2.71-12.71	6.60	79.22
MW76-12	10/18/2010	N/A	86.64	4.25-14.25	7.67	78.97
MW76-13	10/18/2010	N/A	84.81	4.20-14.20	7.06	77.75
MW76-14	10/18/2010	N/A	86.08	4.0-14.0	8.76	77.32
MW76-15	10/18/2010	N/A	86.56	4.0-14.0	9.30	77.26
MW76-16	10/18/2010	N/A	86.05	4.0-14.0	10.03	76.02
MW76-17	10/18/2010	N/A	86.43	4.03-14.03	10.26	76.17
MW76-18	10/18/2010	N/A	87.06	4.0-14.0	9.28	77.78
MW76-19	10/18/2010	N/A	87.01	9.0-19.0	8.73	78.28
MW76-20	10/18/2010	N/A	86.97	3.41-13.41	8.74	78.23
MW76-21	10/18/2010	N/A	87.16	4.0-14.0	8.74	78.42
MW76-23	10/18/2010	N/A	86.89	3.83-13.83	7.48	79.41
MW76-24	10/18/2010	N/A	86.59	4.8-14.8	7.90	78.69
MW76-25	10/18/2010	N/A	85.52	2.0-12.0	5.83	79.69
MW76-26	10/18/2010	N/A	84.48	4.45-14.45	6.17	78.31
MW76-29	10/18/2010	N/A	86.29	1.16-11.16	8.37	77.92
MW76-31	10/18/2010	N/A	86.58	2.17-12.17	6.77	79.81
MW76-32	10/18/2010	N/A	87.54	4.90-14.90	8.45	79.09
MW76-33	10/18/2010	N/A	87.65	0.67-10.67	8.82	78.83
MW76-34	10/18/2010	N/A	87.77	3.68-13.68	9.15	78.62
MW76-35	10/18/2010	N/A	84.33	N/A	N/A	N/A
MW76-41	10/18/2010	N/A	87.54	35.0-45.0	N/A	N/A
MW76-42	10/18/2010	N/A	87.06	3.0-13.0	8.95	78.11
MW76-43	10/18/2010	N/A	87.16	3.0-13.0	9.20	77.96
MW76-44	10/18/2010	N/A	87.06	3.0-13.0	9.25	77.81
MW76-45	10/18/2010	N/A	86.34	3.0-13.0	9.27	77.07

AAFES Car Care Center
Former Underground Storage Tank
Installations Numbers 257-261
Ft. Stewart, Georgia

TABLE 2-1: GROUNDWATER ELEVATIONS

Well Number	Date of Measurement	Ground Surface Elevation (ft)	Top of Casing (ft)	Screened Interval (ft)	Water Depth (ft)	Groundwater Elev. (ft)
MW76-11	11/17/2010	N/A	85.82	2.71-12.71	7.45	78.37
MW76-12	11/17/2010	N/A	86.64	4.25-14.25	8.47	78.17
MW76-13	11/17/2010	N/A	84.81	4.20-14.20	7.74	77.07
MW76-14	11/17/2010	N/A	86.08	4.0-14.0	9.52	76.56
MW76-15	11/17/2010	N/A	86.56	4.0-14.0	10.09	76.47
MW76-16	11/17/2010	N/A	86.05	4.0-14.0	10.80	75.25
MW76-17	11/17/2010	N/A	86.43	4.03-14.03	11.03	75.40
MW76-18	11/17/2010	N/A	87.06	4.0-14.0	10.12	76.94
MW76-19	11/17/2010	N/A	87.01	9.0-19.0	9.59	77.42
MW76-20	11/17/2010	N/A	86.97	3.41-13.41	8.61	78.36
MW76-21	11/17/2010	N/A	87.16	4.0-14.0	9.61	77.55
MW76-23	11/17/2010	N/A	86.89	3.83-13.83	8.28	78.61
MW76-24	11/17/2010	N/A	86.59	4.8-14.8	8.66	77.93
MW76-25	11/17/2010	N/A	85.52	2.0-12.0	7.53	77.99
MW76-26	11/17/2010	N/A	84.48	4.45-14.45	7.72	76.76
MW76-29	11/17/2010	N/A	86.29	1.16-11.16	9.03	77.26
MW76-31	11/17/2010	N/A	86.58	2.17-12.17	7.59	78.99
MW76-32	11/17/2010	N/A	87.54	4.90-14.90	9.17	78.37
MW76-33	11/17/2010	N/A	87.65	0.67-10.67	9.68	77.97
MW76-34	11/17/2010	N/A	87.77	3.68-13.68	9.81	77.96
MW76-35	11/17/2010	N/A	84.33	N/A	N/A	N/A
MW76-41	11/17/2010	N/A	87.54	35.0-45.0	9.98	77.56
MW76-42	11/17/2010	N/A	87.06	3.0-13.0	9.80	77.26
MW76-43	11/17/2010	N/A	87.16	3.0-13.0	10.04	77.12
MW76-44	11/17/2010	N/A	87.06	3.0-13.0	10.11	76.95
MW76-45	11/17/2010	N/A	86.34	3.0-13.0	10.04	76.30
MW76-11	3/1/2011	N/A	85.82	2.71-12.71	5.77	80.05
MW76-12	3/1/2011	N/A	86.64	4.25-14.25	6.94	79.70
MW76-13	3/1/2011	N/A	84.81	4.20-14.20	6.09	78.72
MW76-14	3/1/2011	N/A	86.08	4.0-14.0	8.02	78.06
MW76-15	3/1/2011	N/A	86.56	4.0-14.0	8.55	78.01
MW76-16	3/1/2011	N/A	86.05	4.0-14.0	9.03	77.02
MW76-17	3/1/2011	N/A	86.43	4.03-14.03	9.32	77.11
MW76-18	3/1/2011	N/A	87.06	4.0-14.0	8.62	78.44
MW76-19	3/1/2011	N/A	87.01	9.0-19.0	7.98	79.03
MW76-20	3/1/2011	N/A	86.97	3.41-13.41	7.98	78.99
MW76-21	3/1/2011	N/A	87.16	4.0-14.0	8.04	79.12
MW76-23	3/1/2011	N/A	86.89	3.83-13.83	6.72	80.17
MW76-24	3/1/2011	N/A	86.59	4.8-14.8	6.94	79.65
MW76-25	3/1/2011	N/A	85.52	2.0-12.0	4.85	80.67
MW76-26	3/1/2011	N/A	84.48	4.45-14.45	5.43	79.05
MW76-29	3/1/2011	N/A	86.29	1.16-11.16	7.57	78.72
MW76-31	3/1/2011	N/A	86.58	2.17-12.17	5.98	80.60
MW76-32	3/1/2011	N/A	87.54	4.90-14.90	7.74	79.80
MW76-33	3/1/2011	N/A	87.65	0.67-10.67	8.15	79.50
MW76-34	3/1/2011	N/A	87.77	3.68-13.68	8.41	79.36
MW76-35	3/1/2011	N/A	84.33	N/A	N/A	N/A
MW76-41	3/1/2011	N/A	87.54	35.0-45.0	8.34	79.20
MW76-42	3/1/2011	N/A	87.06	3.0-13.0	8.28	78.78
MW76-43	3/1/2011	N/A	87.16	3.0-13.0	8.50	78.66
MW76-44	3/1/2011	N/A	87.06	3.0-13.0	8.55	78.51
MW76-45	3/1/2011	N/A	86.34	3.0-13.0	8.51	77.83

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TABLE 2-1: GROUNDWATER ELEVATIONS

Well Number	Date of Measurement	Ground Surface Elevation (ft)	Top of Casing (ft)	Screened Interval (ft)	Water Depth (ft)	Groundwater Elev. (ft)
MW76-11	5/24/2011	N/A	85.82	2.71-12.71	6.97	78.85
MW76-12	5/24/2011	N/A	86.64	4.25-14.25	8.00	78.64
MW76-13	5/24/2011	N/A	84.81	4.20-14.20	7.48	77.33
MW76-14	5/24/2011	N/A	86.08	4.0-14.0	9.06	77.02
MW76-15	5/24/2011	N/A	86.56	4.0-14.0	9.62	76.94
MW76-16	5/24/2011	N/A	86.05	4.0-14.0	10.35	75.70
MW76-17	5/24/2011	N/A	86.43	4.03-14.03	10.58	75.85
MW76-18	5/24/2011	N/A	87.06	4.0-14.0	9.63	77.43
MW76-19	5/24/2011	N/A	87.01	9.0-19.0	9.07	77.94
MW76-20	5/24/2011	N/A	86.97	3.41-13.41	9.12	77.85
MW76-21	5/24/2011	N/A	87.16	4.0-14.0	9.11	78.05
MW76-23	5/24/2011	N/A	86.89	3.83-13.83	7.81	79.08
MW76-24	5/24/2011	N/A	86.59	4.8-14.8	9.23	77.36
MW76-25	5/24/2011	N/A	85.52	2.0-12.0	6.12	79.40
MW76-26	5/24/2011	N/A	84.48	4.45-14.45	6.59	77.89
MW76-29	5/24/2011	N/A	86.29	1.16-11.16	8.77	77.52
MW76-31	5/24/2011	N/A	86.58	2.17-12.17	7.10	79.48
MW76-32	5/24/2011	N/A	87.54	4.90-14.90	8.83	78.71
MW76-33	5/24/2011	N/A	87.65	0.67-10.67	9.25	78.40
MW76-34	5/24/2011	N/A	87.77	3.68-13.68	9.51	78.26
MW76-35	5/24/2011	N/A	84.33	N/A	N/A	N/A
MW76-41	5/24/2011	N/A	87.54	35.0-45.0	9.46	78.08
MW76-42	5/24/2011	N/A	87.06	3.0-13.0	9.28	77.78
MW76-43	5/24/2011	N/A	87.16	3.0-13.0	9.53	77.63
MW76-44	5/24/2011	N/A	87.06	3.0-13.0	9.61	77.45
MW76-45	5/24/2011	N/A	86.34	3.0-13.0	9.58	76.76
MW76-11	8/22/2011	N/A	85.82	2.71-12.71	8.44	77.38
MW76-12	8/22/2011	N/A	86.64	4.25-14.25	9.15	77.49
MW76-13	8/22/2011	N/A	84.81	4.20-14.20	8.21	76.60
MW76-14	8/22/2011	N/A	86.08	4.0-14.0	10.19	75.89
MW76-15	8/22/2011	N/A	86.56	4.0-14.0	10.77	75.79
MW76-16	8/22/2011	N/A	86.05	4.0-14.0	11.60	74.45
MW76-17	8/22/2011	N/A	86.43	4.03-14.03	11.92	74.51
MW76-18	8/22/2011	N/A	87.06	4.0-14.0	10.87	76.19
MW76-19	8/22/2011	N/A	87.01	9.0-19.0	10.32	76.69
MW76-20	8/22/2011	N/A	86.97	3.41-13.41	10.50	76.47
MW76-21	8/22/2011	N/A	87.16	4.0-14.0	10.32	76.84
MW76-23	8/22/2011	N/A	86.89	3.83-13.83	9.09	77.80
MW76-24	8/22/2011	N/A	86.59	4.8-14.8	8.24	78.35
MW76-25	8/22/2011	N/A	85.52	2.0-12.0	7.12	78.40
MW76-26	8/22/2011	N/A	84.48	4.45-14.45	7.03	77.45
MW76-29	8/22/2011	N/A	86.29	1.16-11.16	10.16	76.13
MW76-31	8/22/2011	N/A	86.58	2.17-12.17	8.44	78.14
MW76-32	8/22/2011	N/A	87.54	4.90-14.90	10.18	77.36
MW76-33	8/22/2011	N/A	87.65	0.67-10.67	DRY	DRY
MW76-34	8/22/2011	N/A	87.77	3.68-13.68	10.64	77.13
MW76-35	8/22/2011	N/A	84.33	N/A	N/A	N/A
MW76-41	8/22/2011	N/A	87.54	35.0-45.0	10.74	76.80
MW76-42	8/22/2011	N/A	87.06	3.0-13.0	10.53	76.53
MW76-43	8/22/2011	N/A	87.16	3.0-13.0	10.81	76.35
MW76-44	8/22/2011	N/A	87.06	3.0-13.0	10.93	76.13
MW76-45	8/22/2011	N/A	86.34	3.0-13.0	10.75	75.59

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TABLE 2-1: GROUNDWATER ELEVATIONS

Well Number	Date of Measurement	Ground Surface Elevation (ft)	Top of Casing (ft)	Screened Interval (ft)	Water Depth (ft)	Groundwater Elev. (ft)
MW76-11	11/7/2011	N/A	85.82	2.71-12.71	7.71	78.11
MW76-12	11/7/2011	N/A	86.64	4.25-14.25	8.50	78.14
MW76-13	11/7/2011	N/A	84.81	4.20-14.20	7.61	77.20
MW76-14	11/7/2011	N/A	86.08	4.0-14.0	10.98	75.10
MW76-15	11/7/2011	N/A	86.56	4.0-14.0	10.19	76.37
MW76-16	11/7/2011	N/A	86.05	4.0-14.0	11.00	75.05
MW76-17	11/7/2011	N/A	86.43	4.03-14.03	11.40	75.03
MW76-18	11/7/2011	N/A	87.06	4.0-14.0	10.24	76.82
MW76-19	11/7/2011	N/A	87.01	9.0-19.0	9.68	77.33
MW76-20	11/7/2011	N/A	86.97	3.41-13.41	9.81	77.16
MW76-21	11/7/2011	N/A	87.16	4.0-14.0	9.68	77.48
MW76-23	11/7/2011	N/A	86.89	3.83-13.83	8.40	78.49
MW76-24	11/7/2011	N/A	86.59	4.8-14.8	8.59	78.00
MW76-25	11/7/2011	N/A	85.52	2.0-12.0	6.43	79.09
MW76-26	11/7/2011	N/A	84.48	4.45-14.45	6.31	78.17
MW76-29	11/7/2011	N/A	86.29	1.16-11.16	9.48	76.81
MW76-31	11/7/2011	N/A	86.58	2.17-12.17	8.28	78.30
MW76-32	11/7/2011	N/A	87.54	4.90-14.90	9.51	78.03
MW76-33	11/7/2011	N/A	87.65	0.67-10.67	10.01	77.64
MW76-34	11/7/2011	N/A	87.77	3.68-13.68	10.05	77.72
MW76-35	11/7/2011	N/A	84.33	N/A	N/A	N/A
MW76-41	11/7/2011	N/A	87.54	35.0-45.0	10.03	77.51
MW76-42	11/7/2011	N/A	87.06	3.0-13.0	9.91	77.15
MW76-43	11/7/2011	N/A	87.16	3.0-13.0	10.18	76.98
MW76-44	11/7/2011	N/A	87.06	3.0-13.0	10.29	76.77
MW76-45	11/7/2011	N/A	86.34	3.0-13.0	10.19	76.15
MW76-11	2/14/2012	N/A	85.82	2.71-12.71	8.75	77.07
MW76-12	2/14/2012	N/A	86.64	4.25-14.25	9.60	77.04
MW76-13	2/14/2012	N/A	84.81	4.20-14.20	8.55	76.26
MW76-14	2/14/2012	N/A	86.08	4.0-14.0	10.41	75.67
MW76-15	2/14/2012	N/A	86.56	4.0-14.0	10.99	75.57
MW76-16	2/14/2012	N/A	86.05	4.0-14.0	11.63	74.42
MW76-17	2/14/2012	N/A	86.43	4.03-14.03	12.04	74.39
MW76-18	2/14/2012	N/A	87.06	4.0-14.0	11.15	75.91
MW76-19	2/14/2012	N/A	87.01	9.0-19.0	10.64	76.37
MW76-20	2/14/2012	N/A	86.97	3.41-13.41	10.77	76.20
MW76-21	2/14/2012	N/A	87.16	4.0-14.0	10.68	76.48
MW76-23	2/14/2012	N/A	86.89	3.83-13.83	9.55	77.34
MW76-24	2/14/2012	N/A	86.59	4.8-14.8	9.63	76.96
MW76-25	2/14/2012	N/A	85.52	2.0-12.0	7.69	77.83
MW76-26	2/14/2012	N/A	84.48	4.45-14.45	7.46	77.02
MW76-29	2/14/2012	N/A	86.29	1.16-11.16	10.39	75.90
MW76-31	2/14/2012	N/A	86.58	2.17-12.17	9.06	77.52
MW76-32	2/14/2012	N/A	87.54	4.90-14.90	10.59	76.95
MW76-33	2/14/2012	N/A	87.65	0.67-10.67	DRY	DRY
MW76-34	2/14/2012	N/A	87.77	3.68-13.68	10.05	77.72
MW76-35	2/14/2012	N/A	84.33	N/A	N/A	N/A
MW76-41	2/14/2012	N/A	87.54	35.0-45.0	11.09	76.45
MW76-42	2/14/2012	N/A	87.06	3.0-13.0	10.87	76.19
MW76-43	2/14/2012	N/A	87.16	3.0-13.0	11.13	76.03
MW76-44	2/14/2012	N/A	87.06	3.0-13.0	11.21	75.85
MW76-45	2/14/2012	N/A	86.34	3.0-13.0	10.96	75.38

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TABLE 2-1: GROUNDWATER ELEVATIONS

Well Number	Date of Measurement	Ground Surface Elevation (ft)	Top of Casing (ft)	Screened Interval (ft)	Water Depth (ft)	Groundwater Elev. (ft)
MW76-11	5/2/2012	N/A	85.82	2.71-12.71	7.23	78.59
MW76-12	5/2/2012	N/A	86.64	4.25-14.25	8.26	78.38
MW76-13	5/2/2012	N/A	84.81	4.20-14.20	7.62	77.19
MW76-14	5/2/2012	N/A	86.08	4.0-14.0	9.10	76.98
MW76-15	5/2/2012	N/A	86.56	4.0-14.0	9.65	76.91
MW76-16	5/2/2012	N/A	86.05	4.0-14.0	10.30	75.75
MW76-17	5/2/2012	N/A	86.43	4.03-14.03	10.59	75.84
MW76-18	5/2/2012	N/A	87.06	4.0-14.0	9.70	77.36
MW76-19	5/2/2012	N/A	87.01	9.0-19.0	9.21	77.80
MW76-20	5/2/2012	N/A	86.97	3.41-13.41	9.22	77.75
MW76-21	5/2/2012	N/A	87.16	4.0-14.0	9.25	77.91
MW76-23	5/2/2012	N/A	86.89	3.83-13.83	8.11	78.78
MW76-24	5/2/2012	N/A	86.59	4.8-14.8	8.45	78.14
MW76-25	5/2/2012	N/A	85.52	2.0-12.0	6.55	78.97
MW76-26	5/2/2012	N/A	84.48	4.45-14.45	7.03	77.45
MW76-29	5/2/2012	N/A	86.29	1.16-11.16	8.78	77.51
MW76-31	5/2/2012	N/A	86.58	2.17-12.17	7.58	79.00
MW76-32	5/2/2012	N/A	87.54	4.90-14.90	9.05	78.49
MW76-33	5/2/2012	N/A	87.65	0.67-10.67	9.55	78.10
MW76-34	5/2/2012	N/A	87.77	3.68-13.68	9.69	78.08
MW76-35	5/2/2012	N/A	84.33	N/A	N/A	N/A
MW76-41	5/2/2012	N/A	87.54	35.0-45.0	9.63	77.91
MW76-42	5/2/2012	N/A	87.06	3.0-13.0	9.40	77.66
MW76-43	5/2/2012	N/A	87.16	3.0-13.0	9.64	77.52
MW76-44	5/2/2012	N/A	87.06	3.0-13.0	9.70	77.36
MW76-45	5/2/2012	N/A	86.34	3.0-13.0	9.59	76.75
MW76-11	8/14/2012	N/A	85.82	2.71-12.71	5.84	79.98
MW76-12	8/14/2012	N/A	86.64	4.25-14.25	6.90	79.74
MW76-13	8/14/2012	N/A	84.81	4.20-14.20	6.08	78.73
MW76-14	8/14/2012	N/A	86.08	4.0-14.0	8.06	78.02
MW76-15	8/14/2012	N/A	86.56	4.0-14.0	8.67	77.89
MW76-16	8/14/2012	N/A	86.05	4.0-14.0	9.20	76.85
MW76-17	8/14/2012	N/A	86.43	4.03-14.03	9.47	76.96
MW76-18	8/14/2012	N/A	87.06	4.0-14.0	8.91	78.15
MW76-19	8/14/2012	N/A	87.01	9.0-19.0	8.15	78.86
MW76-20	8/14/2012	N/A	86.97	3.41-13.41	8.18	78.79
MW76-21	8/14/2012	N/A	87.16	4.0-14.0	8.16	79.00
MW76-23	8/14/2012	N/A	86.89	3.83-13.83	6.65	80.24
MW76-24	8/14/2012	N/A	86.59	4.8-14.8	6.95	79.64
MW76-25	8/14/2012	N/A	85.52	2.0-12.0	4.51	81.01
MW76-26	8/14/2012	N/A	84.48	4.45-14.45	4.86	79.62
MW76-29	8/14/2012	N/A	86.29	1.16-11.16	7.75	78.54
MW76-31	8/14/2012	N/A	86.58	2.17-12.17	5.88	80.70
MW76-32	8/14/2012	N/A	87.54	4.90-14.90	7.80	79.74
MW76-33	8/14/2012	N/A	87.65	0.67-10.67	8.47	79.18
MW76-34	8/14/2012	N/A	87.77	3.68-13.68	8.54	79.23
MW76-35	8/14/2012	N/A	84.33	N/A	N/A	N/A
MW76-41	8/14/2012	N/A	87.54	35.0-45.0	8.48	79.06
MW76-42	8/14/2012	N/A	87.06	3.0-13.0	8.58	78.48
MW76-43	8/14/2012	N/A	87.16	3.0-13.0	8.81	78.35
MW76-44	8/14/2012	N/A	87.06	3.0-13.0	8.85	78.21
MW76-45	8/14/2012	N/A	86.34	3.0-13.0	8.65	77.69

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TABLE 2-1: GROUNDWATER ELEVATIONS

Well Number	Date of Measurement	Ground Surface Elevation (ft)	Top of Casing (ft)	Screened Interval (ft)	Water Depth (ft)	Groundwater Elev. (ft)
MW76-11	11/5/2012	N/A	85.82	2.71-12.71	6.50	79.32
MW76-12	11/5/2012	N/A	86.64	4.25-14.25	7.58	79.06
MW76-13	11/5/2012	N/A	84.81	4.20-14.20	7.18	77.63
MW76-14	11/5/2012	N/A	86.08	4.0-14.0	8.67	77.41
MW76-15	11/5/2012	N/A	86.56	4.0-14.0	9.22	77.34
MW76-16	11/5/2012	N/A	86.05	4.0-14.0	10.03	76.02
MW76-17	11/5/2012	N/A	86.43	4.03-14.03	10.26	76.17
MW76-18	11/5/2012	N/A	87.06	4.0-14.0	9.19	77.87
MW76-19	11/5/2012	N/A	87.01	9.0-19.0	8.62	78.39
MW76-20	11/5/2012	N/A	86.97	3.41-13.41	8.63	78.34
MW76-21	11/5/2012	N/A	87.16	4.0-14.0	8.62	78.54
MW76-23	11/5/2012	N/A	86.89	3.83-13.83	7.39	79.50
MW76-24	11/5/2012	N/A	86.59	4.8-14.8	7.84	78.75
MW76-25	11/5/2012	N/A	85.52	2.0-12.0	5.77	79.75
MW76-26	11/5/2012	N/A	84.48	4.45-14.45	6.41	78.07
MW76-29	11/5/2012	N/A	86.29	1.16-11.16	8.29	78.00
MW76-31	11/5/2012	N/A	86.58	2.17-12.17	6.95	79.63
MW76-32	11/5/2012	N/A	87.54	4.90-14.90	8.55	78.99
MW76-33	11/5/2012	N/A	87.65	0.67-10.67	DRY	DRY
MW76-34	11/5/2012	N/A	87.77	3.68-13.68	9.16	78.61
MW76-35	11/5/2012	N/A	84.33	N/A	N/A	N/A
MW76-41	11/5/2012	N/A	87.54	35.0-45.0	9.03	78.51
MW76-42	11/5/2012	N/A	87.06	3.0-13.0	8.84	78.22
MW76-43	11/5/2012	N/A	87.16	3.0-13.0	9.07	78.09
MW76-44	11/5/2012	N/A	87.06	3.0-13.0	9.15	77.91
MW76-45	11/5/2012	N/A	86.34	3.0-13.0	9.17	77.17

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TABLE 2-2: GROUNDWATER ANALYTICAL RESULTS

Well Number	Date Sampled	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	Total BTEX (ug/L)	Sodium Persulfate (mL)
MW76-15	5/5/2010	<0.066 (U)	<0.47 (U)	<0.52 (U)	<1.59 (U)	<2.65 (U)	NS
MW76-16	5/5/2010	<0.066 (U)	<0.47 (U)	<0.52 (U)	<1.59 (U)	<2.65 (U)	NS
MW76-18	5/5/2010	6.8	<0.47 (U)	<0.52 (U)	<1.59 (U)	6.8	NS
MW76-19	5/5/2010	7.3	28	25	129	189	NS
MW76-21	5/5/2010	5,000 (D)	9,400 (D)	870 (D)	13,000 (D)	28,270 (D)	NS
MW76-32	5/4/2010	<0.066 (U)	<0.47 (U)	<0.52 (U)	<1.59 (U)	<2.65 (U)	NS
MW76-33	5/4/2010	1.0	110	720 (D)	2920 (D)	3,751 (D)	NS
MW76-42	5/5/2010	62	86	94	3100 (D)	3,342 (D)	NS
MW76-43	5/5/2010	2,700 (D)	8,700 (D)	700 (D)	21,100 (D)	33,200 (D)	NS
MW76-44	5/5/2010	980 (D)	67	8.3	6,700 (D)	7,755 (D)	NS
MW76-45	5/5/2010	<0.066 (U)	<0.47 (U)	<0.52 (U)	<1.59 (U)	<2.65 (U)	NS
MW76-15	6/16/2010	<0.21 (U)	<0.19 (U)	<0.52 (U)	<1.24 (U)	<2.16 (U)	0
MW76-16	6/15/2010	<0.21 (U)	0.76 (J)	5.1	21.10	26.20	0
MW76-18	6/16/2010	18	1.10	1.6	2.40	23.10	0.0
MW76-19	6/16/2010	21	69	33	360	483	0.0
MW76-21	6/16/2010	5,700 (D)	12,000 (D)	590 (D)	8,200 (D)	26,490 (D)	52
MW76-32	6/16/2010	<0.21 (U)	0.68 (J)	<0.52 (U)	7.5	7.50	0.0
MW76-33	6/15/2010	0.72 (J)	82	610 (D)	2430 (D)	3,122.70 (DJ)	0
MW76-42	6/16/2010	42	31	38	1,150	1,261	0
MW76-43	6/16/2010	3,800 (D)	8,200 (D)	700 (D)	1,300 (D)	14,000 (D)	0.0
MW76-44	6/16/2010	650 (D)	42.00	6	5,600 (D)	6,298 (D)	0.0
MW76-45	6/16/2010	<0.21 (U)	<0.19 (U)	<0.52 (U)	0.39 (J)	0.39 (J)	0.0
MW76-15	7/13/2010	<0.21 (U)	<0.19 (U)	<0.52 (U)	<1.24 (U)	<2.16 (U)	5
MW76-16	7/13/2010	<0.21 (U)	<0.19 (U)	<0.52 (U)	<1.24 (U)	<2.16 (U)	0
MW76-18	7/13/2010	17	<0.19 (U)	1.1	<1.24 (U)	18.1	10.9
MW76-19	7/13/2010	170	870 (D)	250 (D)	6,000 (D)	7,290 (D)	0
MW76-21	7/14/2010	7,200 (D)	18,000 (D)	1,100 (D)	14,800 (D)	41,100 (D)	0
MW76-32	7/13/2010	<0.21 (U)	<0.19 (U)	<0.52 (U)	<1.24 (U)	<2.16 (U)	0
MW76-33	7/13/2010	0.87 (J)	98	770 (D)	3,200 (D)	4,068.87 (DJ)	0.0
MW76-42	7/13/2010	22	10	25	520	577	10.9
MW76-43	7/13/2010	3,700 (D)	9,000 (D)	750 (D)	17,900 (D)	31,350 (D)	0.0
MW76-44	7/13/2010	900 (D)	84	13	6,700 (D)	7,697 (D)	0
MW76-45	7/13/2010	<0.21 (U)	<0.19 (U)	<0.52 (U)	<1.24 (U)	<2.16 (U)	0
MW76-15	8/17/2010	<0.210 (U)	<0.190 (U)	<0.519 (U)	<1.18 (U)	<2.01 (U)	0
MW76-16	8/17/2010	<0.210 (U)	<0.190 (U)	<0.519 (U)	<1.18 (U)	<2.01 (U)	0
MW76-18	8/17/2010	162	2.73	16.0	9.74	190	0
MW76-19	8/17/2010	219	1,200	305	4,080	5,804	0
MW76-21	8/17/2010	10,900	31,100	1,690	16,900	60,590	0
MW76-32	8/16/2010	<0.210 (U)	<0.190 (U)	<0.519 (U)	<1.18 (U)	<2.01 (U)	0
MW76-33	8/17/2010	<4.20 (U)	96.4	838	3,410	4,344	0
MW76-42	8/17/2010	156	140	67.1	1,888	2,251	0
MW76-43	8/17/2010	6,700	14,400	1,230	18,610	40,940	0
MW76-44	8/17/2010	1,750	226	<26.0 (U)	10740	12,716	0
MW76-45	8/17/2010	<0.210 (U)	<0.190 (U)	<0.519 (U)	<1.18 (U)	<2.01 (U)	0
Applicable Standards		713 (ug/L)	120,000 (ug/L)	287,180 (ug/L)	2,000,000 (ug/L)	2,407,893 (ug/L)	

D - sample analyzed at dilution

J - value between method detection limit and method reporting limit

U - analyte was analyzed for but not detected

ug/L - micrograms per liter

NS - Not sampled

AAFES Car Care Center
Former Underground Storage Tank
Installations Numbers 257-261
Ft. Stewart, Georgia

TABLE 2-2: GROUNDWATER ANALYTICAL RESULTS

Well Number	Date Sampled	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	Total BTEX (ug/L)	Sodium Persulfate (mL)
MW76-15	9/21/2010	<0.210 (U)	<0.190 (U)	<0.519 (U)	<1.18 (U)	<2.099	0
MW76-16	9/21/2010	<0.210 (U)	<0.190 (U)	<0.519 (U)	<1.18 (U)	<2.099	0
MW76-18	9/21/2010	82.8	1.87	6.41	11.45	102.5	0
MW76-19	9/21/2010	196	1,510	294	2,970	4,970	0
MW76-21	9/21/2010	9,260	24,600	1,490	15,880	51,230	0
MW76-32	9/21/2010	<0.210 (U)	<0.190 (U)	<0.519 (U)	<1.18 (U)	<2.099	0
MW76-33	9/21/2010	<0.210 (U)	78.0	620	2,638	3,336	0
MW76-42	9/21/2010	72.8	55.4	46.5	995	1,169.7	0
MW76-43	9/21/2010	4,950	13,400	868	19,050	38,268	0
MW76-44	9/21/2010	1060	149	13.7	8370	9,592.7	0
MW76-45	9/21/2010	<0.210 (U)	<0.190 (U)	<0.519 (U)	<1.18	<2.099	0
MW76-15	10/19/2010	<0.210 (U)	<0.190 (U)	<0.210 (U)	<0.55 (U)	<1.16	0
MW76-16	10/19/2010	<0.210 (U)	<0.190 (U)	<0.210 (U)	<0.55 (U)	<1.16	0
MW76-18	10/19/2010	64.6	1.04	5.41	2.63 (J)	73.68	0
MW76-19	10/19/2010	125	2,050	311	2,189	4,675	0
MW76-21	10/19/2010	9,100	23,700	1,550	16,380	50,730	0
MW76-32	10/19/2010	<0.210 (U)	<0.190 (U)	<0.210 (U)	<0.55 (U)	<2.099	0
MW76-33	10/19/2010	<0.210 (U)	78.7	757	3,200	4,035	0
MW76-42	10/19/2010	629	578	101	4100	5408	0
MW76-43	10/19/2010	6,210	14,000	1,070	15,720	37,000	0
MW76-44	10/19/2010	1810	315	16.2	8930	11,071.2	0
MW76-45	10/19/2010	<0.210 (U)	<0.190 (U)	0.270 (J)	<0.55 (U)	<1.16	0
MW76-15	11/18/2010	<0.210 (U)	<0.190 (U)	<0.210 (U)	<0.55 (U)	<1.16	0
MW76-16	11/18/2010	<0.210 (U)	<0.190 (U)	<0.210 (U)	<0.55 (U)	<1.16	0
MW76-18	11/18/2010	196	2.67	13.5	6.97	219.14	0
MW76-19	11/18/2010	227	3,370	508	3,400	7,505	0
MW76-21	11/18/2010	12,600	30,500	2,170	16,400	61,670	0
MW76-32	11/18/2010	<0.210 (U)	<0.190 (U)	<0.210 (U)	<0.55 (U)	<1.16	0
MW76-33	11/18/2010	<4.20	142	1,100	4,970	6,212	0
MW76-42	11/18/2010	480	516	116	2,450	3,562	0
MW76-43	11/18/2010	2,890	4,930	625	12,250	20,695	0
MW76-44	11/18/2010	3500	802	86.5	1,160	5,548.5	0
MW76-45	11/18/2010	<0.210 (U)	<0.190 (U)	0.310 (J)	<0.55 (U)	1.26	0
MW76-15	3/1/2011	<0.220 (U)	<0.190 (U)	<0.210	<0.610 (U)	<1.23	0
MW76-16	3/1/2011	<0.220 (U)	<0.190 (U)	<0.210	<0.610 (U)	<1.23	0
MW76-18	3/2/2011	1.23	<0.190 (U)	0.460 (J)	2.09 (J)	3.7	0
MW76-19	3/2/2011	59	1,040	194	1,727	3,020	0
MW76-21	3/2/2011	7,590	12,900	1,290	10,870	32,650	0
MW76-32	3/1/2011	<0.220 (U)	<0.190 (U)	<0.210	<0.610 (U)	<1.23	0
MW76-33	3/1/2011	0.420 (J)	61.5	267	1,280	1,609	0
MW76-42	3/2/2011	87.9	151.0	35.6	591	865.5	0
MW76-43	3/2/2011	6,250	11,500	846	16,680	35,276	0
MW76-44	3/2/2011	1,010	233	29	1,720	2,992.0	0
MW76-45	3/1/2011	<0.220 (U)	<0.190 (U)	<0.210	<0.610 (U)	<1.23	0
Applicable Standards		713 (ug/L)	120,000 (ug/L)	287,180 (ug/L)	2,000,000 (ug/L)	2,407,893 (ug/L)	

D - sample analyzed at dilution

J - value between method detection limit and method reporting limit

U - analyte was analyzed for but not detected

ug/L - micrograms per liter

NS - Not sampled

AAFES Car Care Center
Former Underground Storage Tank
Installations Numbers 257-261
Ft. Stewart, Georgia

TABLE 2-2: GROUNDWATER ANALYTICAL RESULTS

Well Number	Date Sampled	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	Total BTEX (ug/L)	Sodium Persulfate (mL)
MW76-15	5/24/2011	<0.210 (U)	<0.190 (U)	<0.210 (U)	<0.45 (U)	<1.06 (U)	NS
MW76-16	5/24/2011	<0.210 (U)	<0.190 (U)	<0.210 (U)	<0.45 (U)	<1.06 (U)	NS
MW76-18	5/25/2011	8.05	0.510 (J)	5.66	9.74	23.96	NS
MW76-19	5/25/2011	47.9	158	133	876	1,215	NS
MW76-21	5/25/2011	6,650	11,500	667	6,220	25,037	NS
MW76-32	5/24/2011	<0.210 (U)	<0.190 (U)	<0.210 (U)	<0.45 (U)	<1.06 (U)	NS
MW76-33	5/25/2011	<0.210 (U)	83.7	804	3,079	3,966.7	NS
MW76-42	5/25/2011	218	687	80.6	1355	2,340.6	NS
MW76-43	5/25/2011	6,760	11,000	997	7,810	26,567	NS
MW76-44	5/25/2011	1,350	281	60.3	2,350	4,041.3	NS
MW76-45	5/25/2011	0.550 (J)	<0.190 (U)	0.300 (J)	<0.45 (U)	0.85	NS
MW76-15	8/23/2011	<0.210 (U)	<0.190 (U)	<0.210 (U)	<0.450 (U)	<1.06 (U)	NS
MW76-16	8/23/2011	<0.210 (U)	<0.190 (U)	<0.210 (U)	<0.450 (U)	<1.06 (U)	NS
MW76-18	8/23/2011	2.94	1.91	10.4	14.24	29.49	NS
MW76-19	8/23/2011	68.2	633	338	2,370	3,409.20	NS
MW76-21	8/24/2011	7,850	19,900	1,880	14,340	43,970	NS
MW76-32	8/23/2011	<0.210 (U)	<0.190 (U)	<0.210 (U)	<0.450 (U)	<1.06 (U)	NS
MW76-33	8/23/2011	DRY	DRY	DRY	DRY	DRY	NS
MW76-42	8/24/2011	541	3,390	199	3,560	7690	NS
MW76-43	8/24/2011	2,830	4,360	523	9,410	17,123.0	NS
MW76-44	8/23/2011	2,880	33.4	118	1,993	5,024.40	NS
MW76-45	8/23/2011	<0.210 (U)	<0.190 (U)	1.69	<0.450 (U)	1.69	NS
MW76-15	11/8/2011	<0.210 (U)	0.200 (J)	<0.210 (U)	<0.450 (U)	0.200	NS
MW76-16	11/8/2011	<0.210 (U)	0.330 (J)	<0.210 (U)	<0.450 (U)	0.330	NS
MW76-18	11/8/2011	0.930 (J)	0.530 (J)	2.45	<0.450 (U)	3.91	NS
MW76-19	11/8/2011	237	13.6 (J)	34.0	137	408.0	NS
MW76-21	11/9/2011	5,880	19,300	1,780	11,820	38,780	NS
MW76-32	11/8/2011	<0.210 (U)	0.200 (J)	<0.210 (U)	<0.450 (U)	0.200	NS
MW76-33	11/8/2011	26.0	43.6	325	1804	2198.6	NS
MW76-42	11/9/2011	193	1,540	161	2,670	4564	NS
MW76-43	11/9/2011	2,750	3,380	320	5,730	12,180	NS
MW76-44	11/8/2011	1,710	14.0 (J)	74.5	1,610	3,408.50	NS
MW76-45	11/8/2011	<0.210 (U)	0.510 (J)	<0.210 (U)	<0.450 (U)	0.510	NS
MW76-15	2/15/2012	<0.210 (U)	<0.190 (J)	<0.210 (U)	<0.450 (U)	<1.06 (U)	NS
MW76-16	2/15/2012	<0.210 (U)	<0.190 (U)	<0.210 (U)	<0.450 (U)	<1.06 (U)	NS
MW76-18	2/15/2012	0.290 (J)	<0.190 (J)	2.05	3.11	5.45	NS
MW76-19	2/15/2012	986	14.2 (J)	95.4	765	1846.4	NS
MW76-21	2/15/2012	6,900	23,700	1,910	8,260	40,770	NS
MW76-32	2/15/2012	<0.210 (U)	0.250 (J)	<0.210 (U)	<0.450 (U)	0.250	NS
MW76-33	2/15/2012	DRY	DRY	DRY	DRY	DRY	NS
MW76-42	2/16/2012	70.8	693	117	1,597	2,478	NS
MW76-43	2/16/2012	1,390	2,140	273	5,190	8,993	NS
MW76-44	2/15/2012	6,320	9.50 (J)	274	1,245	3,408.50	NS
MW76-45	2/15/2012	<0.210 (U)	<0.190 (U)	<0.210 (U)	<0.450 (U)	<1.06 (U)	NS
Applicable Standards		713 (ug/L)	120,000 (ug/L)	287,180 (ug/L)	2,000,000 (ug/L)	2,407,893 (ug/L)	

D - sample analyzed at dilution

J - value between method detection limit and method reporting limit

U - analyte was analyzed for but not detected

ug/L - micrograms per liter

NS - Not sampled

AAFES Car Care Center
Former Underground Storage Tank
Installations Numbers 257-261
Ft. Stewart, Georgia

TABLE 2-2: GROUNDWATER ANALYTICAL RESULTS

Well Number	Date Sampled	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	Total BTEX (ug/L)	Sodium Persulfate (mL)
MW76-15	5/4/2012	<0.210 (U)	<0.190 (J)	<0.210 (U)	<0.450 (U)	<1.06 (U)	NS
MW76-16	5/4/2012	<0.210 (U)	<0.190 (U)	<0.210 (U)	<0.450 (U)	<1.06 (U)	NS
MW76-18	5/4/2012	0.27 (J)	<0.190 (U)	0.61 (J)	1.59 (J)	2.20	NS
MW76-19	5/4/2012	783	2.85 (J)	62.1	205.3	1,053.25	NS
MW76-21	5/4/2012	3,110	12,800	901	6,810	23,621	NS
MW76-32	5/4/2012	<0.210 (U)	<0.190 (U)	<0.210 (U)	<0.450 (U)	<1.06 (U)	NS
MW76-33	5/4/2012	<0.210 (U)	32.9	316	2,150	2,498.9	NS
MW76-42	5/4/2012	43.6	528	101	1,745	2,418	NS
MW76-43	5/4/2012	4,790	7,640	653	7,540	20,623	NS
MW76-44	5/4/2012	577	1.65 (J)	25.6	1,261	1,865.25	NS
MW76-45	5/4/2012	<0.210 (U)	<0.190 (U)	<0.210 (U)	<0.450 (U)	<1.06 (U)	NS
MW76-15	8/16/2012	<0.210 (U)	<0.190 (U)	<0.210 (U)	<0.450 (U)	<1.06 (U)	NS
MW76-16	8/16/2012	<0.210 (U)	<0.190 (U)	<0.210 (U)	<0.450 (U)	<1.06 (U)	NS
MW76-18	8/16/2012	0.80 (J)	<0.190 (U)	1.09	3.83 (J)	5.91	NS
MW76-19	8/16/2012	947	43	297	825	2,112	NS
MW76-21	8/16/2012	3,810	14,600	1,700	7,330	27,440	NS
MW76-32	8/16/2012	<0.210 (U)	<0.190 (U)	<0.210 (U)	<0.450 (U)	<1.06 (U)	NS
MW76-33	8/16/2012	<0.210 (U)	19.3	262	1,407	1,751.5	NS
MW76-42	8/16/2012	21.3	205	55	686	967.3	NS
MW76-43	8/16/2012	5,050	9,340	800	9,720	24,910	NS
MW76-44	8/16/2012	2,410	1.70 (J)	262	477	3,150.7	NS
MW76-45	8/16/2012	<0.210 (U)	<0.190 (U)	<0.210 (U)	<0.450 (U)	<1.06 (U)	NS
MW76-15	11/7/2012	<0.21 (U)	<0.19 (U)	<0.21 (U)	0.73 (J)	1.34 (UJ)	NS
MW76-16	11/7/2012	0.21 (J)	0.80 (J)	<0.21 (U)	1.6 (J)	2.23 (UJ)	NS
MW76-18	11/7/2012	0.72 (J)	<0.19 (U)	0.25 (J)	0.82 (J)	1.98 (UJ)	NS
MW76-19	11/7/2012	820	240	260	840	2,160	NS
MW76-21	11/7/2012	3,400	15,000	940	8,300	27,640	NS
MW76-32	11/7/2012	<0.21 (U)	<0.19 (U)	<0.21 (U)	<0.45 (U)	<1.06 (U)	NS
MW76-33	11/7/2012	DRY	DRY	DRY	DRY	DRY	NS
MW76-42	11/7/2012	25	290	89	940	1,344	NS
MW76-43	11/7/2012	4,900	11,000	1,300	11,600	28,800	NS
MW76-44	11/7/2012	560	7.8	50	1,070	1,687.8	NS
MW76-45	11/7/2012	0.25 (J)	0.92 (J)	0.34 (J)	1.49 (J)	2.99 (J)	NS
Applicable Standards		713 (ug/L)	120,000 (ug/L)	287,180 (ug/L)	2,000,000 (ug/L)	2,407,893 (ug/L)	

D - sample analyzed at dilution

J - value between method detection limit and method reporting limit

U - analyte was analyzed for but not detected

ug/L - micrograms per liter

NS - Not sampled

AAFES Car Care Center
Former Underground Storage Tank
Installations Numbers 257-261
Ft. Stewart, Georgia

TABLE 3-1: Organic Vapor Measurements

Sample Location	B-430-B-1	B-430-B-2	B-430-B-3	B-430-B-4	B-430-B-5	B-430-B-6	B-430-B-7	B-430-B-8
Date Sampled	01/02/13	01/02/13	01/02/13	01/02/13	01/03/13	01/03/13	01/03/13	01/03/13
Depth (Ft.)	FID Readings (ppm)							
0 to 2.5	0.0	0.0	0.0	0.0	0.0	0.0	8.0	0.0
2.5 to 5.0	0.0*	0.0	42.2	1.3	0.0	0.1	0.0	0.0
5.0 to 7.5	0.0*	0.0	32.0	0.0	0.2	0.7	23.3	0.0
7.5 to 10.0	0.0	0.0	332.5	20.7	0.4	2.1	101.7	0.4
10.0 to 12.5	0.0	0.0	239.6	345.4	2.6	1.4	78.8	6.4
12.5 to 15.0	0.0*	0.0	117.9	168.8	16.4	2.5	15.6	9.1
Sample Location	B-430-B-9	B-430-B-10	B-430-B-11	B-430-B-12	B-430-B-13	B-430-B-14	B-430-B-15	B-430-B-16
Date Sampled	01/03/13	01/03/13	01/03/13	01/03/13	01/04/13	01/03/13	01/04/13	01/04/13
Depth (Ft.)	FID Readings (ppm)							
0 to 2.5	0.1	0.1	0.0	0.2	0.0	0.0	1.7	0.0
2.5 to 5.0	0.2	0.2	0.2	1.7	0.0	8.8	0.0	0.0
5.0 to 7.5	2.2	0.3	29.2	3.8	0.0	145.1	0.0	0.0
7.5 to 10.0	1.8	0.4	414.0	29.9	0.0	16.9	1.0	0.0
10.0 to 12.5	1.4	2.6	500.2	271.7	3.6	10.3	0.0	0.1
12.5 to 15.0	2.3	2.8	489.9	1267.4	5.3	5.9	0.9	0.0

* Samples from Boring B-430-B-1 were collected from 4.0 to 6.0 and 12.0 to 14.0 ft Below Grade

Soil Samples submitted for VOC's, PAH's and Metals Analyses

AAFES Car Care Center
Former Underground Storage Tank
Installations Numbers 257-261
Ft. Stewart, Georgia

TABLE 3-2: SOIL ANALYTICAL RESULTS

Sample ID	Date Sampled	Benzene (µg/kg)		Toluene (µg/kg)		Ethylbenzene (µg/kg)		Xylenes (µg/kg)		Total BTEX (µg/kg)	
B430-B-1 (4'-6')	1/2/2013	0.180	U	0.286	U	0.127	U	0.391	U	0.984	U
B430-B-1 (12'-14')	1/2/2013	0.220	U	0.440	J	0.156	U	0.480	U	1.296	UJ
B430-B-2 (5'-7.5')	1/2/2013	0.170	U	0.270	U	0.120	U	0.370	U	0.930	U
B430-B-2 (12.5'-15')	1/2/2013	0.197	U	0.312	U	0.139	U	0.439	UJ	1.087	UJ
B430-B-3 (5'-7.5')	1/2/2013	10.4		43.4		66.1		727		847	
B430-B-3 (7.5'-10')	1/2/2013	340	J	2,810		834		33,700		37,684	J
B430-B-4 (5'-7.5')	1/3/2013	0.184	U	0.292	U	0.130	U	0.400	U	1.006	U
B430-B-4 (10'-12.5')	1/3/2013	857		1,270		1,090		12,460		15,677	
B430-B-5 (5'-7.5')	1/3/2013	0.170	U	0.270	U	0.120	U	0.370	U	0.930	U
B430-B-5 (12.5'-15')	1/3/2013	0.198	U	0.315	U	0.652	J	4.180	J	5.345	UJ
B430-B-6 (5'-7.5')	1/3/2013	0.174	U	0.276	U	0.123	U	0.379	U	0.952	U
B430-B-6 (12.5'-15')	1/3/2013	16.4		0.325	U	0.145	U	0.446	U	17.316	U
B430-B-7 (5'-7.5')	1/3/2013	0.863	J	6.41		5.16		105.0		117.433	J
B430-B-7 (7.5'-10')	1/3/2013	183	J	4,380		1,320		89,500		95,383	J
B430-B-8 (5'-7.5')	1/3/2013	0.582	J	1.580	J	0.561	J	1.891	J	4.614	J
B430-B-8 (12.5'-15')	1/3/2013	0.201	U	1.67	J	0.945	J	61.81	J	64.626	UJ
B430-B-9 (5'-7.5')	1/3/2013	0.170	U	1.41	J	0.248	J	1.250	J	3.078	UJ
B430-B-9 (12.5'-15')	1/3/2013	0.207	U	1.67	J	0.279	J	1.188	J	3.344	UJ
B430-B-10 (2'-5')	1/3/2013	0.177	U	1.32	J	0.249	J	1.049	J	2.795	UJ
B430-B-10 (10'-12.5')	1/3/2013	0.207	U	1.01	J	0.195	J	0.888	J	2.300	UJ
B430-B-11 (7.5'-10')	1/3/2013	18.8	U	137	J	541	J	6,220		6,916.8	UJ
B430-B-11 (10'-12.5')	1/3/2013	4.13	U	399		1,200		15,790		17,393.13	U
B430-B-12 (5'-7.5')	1/3/2013	0.435	J	1.52	J	1.18	J	6.42	J	9.555	J
B430-B-12 (12.5'-15')	1/3/2013	579		223	J	865		6,190		7,857	J
B430-B-13 (5'-7.5')	1/4/2013	0.172	U	0.273	U	0.122	U	0.919	J	1.486	UJ
B430-B-13 (10'-12.5')	1/4/2013	0.215	U	0.341	U	0.152	U	0.580	UJ	1.288	UJ
B430-B-14 (5'-7.5')	1/3/2013	1.34	J	3.58	J	93.8		255.5		354.22	J
B430-B-14 (10'-12.5')	1/3/2013	0.208	UJ	1.46	J	0.756	J	3.138	J	5.562	J
B430-B-15 (7.5'-10')	1/4/2013	0.212	U	0.337	U	0.150	U	0.462	U	1.161	U
B430-B-15 (12.5'-15')	1/4/2013	0.197	U	0.313	U	0.139	U	0.428	U	1.077	U
B430-B-16 (5'-7.5')	1/4/2013	0.184	U	0.292	U	0.130	U	0.402	U	1.008	U
B430-B-16 (10'-12.5')	1/4/2013	0.203	U	0.322	U	0.144	U	0.442	U	1.111	U
Applicable Standards (µg/kg)		5		400		370		20,000		20,775	

J - value between method detection limit and method reporting limit

U - analyte was analyzed for but not detected

ug/L - micrograms per liter

AAFES Car Care Center
Former Underground Storage Tank
Installations Numbers 257-261
Ft. Stewart, Georgia

TABLE 3-2: SOIL ANALYTICAL RESULTS

Sample ID	Date Sampled	1-Methyl naphthalene (µg/kg)		2-Methyl naphthalene (µg/kg)		Acena-phthene (µg/kg)		Acena-phthylene (µg/kg)		Anthracene (µg/kg)		Benzo(a) anthracene (µg/kg)		Benzo(a) pyrene (µg/kg)		Benzo(b) fluoranthene (µg/kg)		Benzo(g,h,i) perylene (µg/kg)		Benzo(k) fluoranthene (µg/kg)		Chysene (µg/kg)		Dibenz(a,h) anthracene (µg/kg)		Fluoran-thene (µg/kg)		Fluorene (µg/kg)		Indeno(1, 2, 3-c, d) pyrene (µg/kg)		Naphtha-lene (µg/kg)		Phenan-threne (µg/kg)		Pyrene (µg/kg)	
B430-B-1 (4'-6')	1/2/2013	2.70	U	2.30	U	3.10	U	2.20	U	1.60	U	5.98		19.8		15.9		2.55	J	2.40	U	5.51		2.70	U	7.36		2.20	U	2.20	U	3.10	U	3.18	J	9.28	
B430-B-1 (12'-14')	1/2/2013	3.07	U	2.62	U	3.53	U	2.50	U	1.82	U	2.16	U	1.14	U	2.28	U	2.50	U	2.73	U	2.16	U	3.07	U	2.28	U	2.50	U	2.50	U	7.66		1.94	U	2.28	U
B430-B-2 (5'-7.5')	1/2/2013	2.70	U	2.30	U	3.10	U	2.20	U	1.60	U	26.2		29.4		40.0		16.2		9.49	J	23.7		2.70	U	30.5		2.20	U	23.9	J+	3.10	U	6.48		41.3	
B430-B-2 (12.5'-15')	1/2/2013	3.15	U	2.68	U	3.62	U	2.57	U	1.87	U	2.22	U	1.17	U	2.33	U	2.57	U	2.80	U	2.22	U	3.15	U	2.33	U	2.57	U	2.57	U	3.62	U	1.98	U	2.33	U
B430-B-3 (5'-7.5')	1/2/2013	126		208		3.11	U	2.21	U	1.61	U	9.76		20.7		19.3		11.6		2.69	J	9.74		2.71	U	15.9		5.17		2.21	U	122		12.7		20.1	
B430-B-3 (7.5'-10')	1/2/2013	4,260		7,330		36.4		2.36	U	1.72	U	10.4		1.08	U	2.15	U	2.36	U	2.58	U	4.49		2.90	U	20.0		81.9		2.36	U	4,980		122		21.8	
B430-B-4 (5'-7.5')	1/3/2013	3.04	U	2.59	U	3.49	U	2.48	U	1.80	U	2.14	U	1.13	U	2.25	U	2.48	U	2.70	U	2.14	U	3.04	U	2.25	U	2.48	U	2.48	U	3.49	U	6.65	J	2.25	U
B430-B-4 (10'-12.5')	1/3/2013	498		839		3.99	U	2.83	U	2.06	U	2.45	U	1.29	U	2.57	U	2.83	U	3.09	U	2.45	U	3.47	U	3.60	J	8.49		2.83	U	801		12.1		2.57	U
B430-B-5 (5'-7.5')	1/3/2013	2.78	U	2.37	U	3.20	U	2.80	J	1.65	U	10.8		26.0		23.7		20.6		6.20		12.8		2.78	U	13.1		2.27	U	26.9		3.20	U	8.89		17.3	
B430-B-5 (12.5'-15')	1/3/2013	25.0		43.7		3.83	U	2.72	U	1.98	U	2.35	U	6.17	U	12.4	U	13.6	U	14.8	U	2.35	U	16.7	U	2.47	U	2.72	U	13.6	U	113		2.10	U	2.47	U
B430-B-6 (5'-7.5')	1/3/2013	2.83	U	2.41	U	3.25	U	2.31	U	1.68	U	21.2		33.3		35.2		21.8		9.16		22.7		2.83	U	28.7		2.31	U	31.0		3.25	U	9.88		41.0	
B430-B-6 (12.5'-15')	1/3/2013	3.39	U	2.89	U	3.89	U	2.76	U	2.01	U	2.39	U	1.26	U	2.51	U	2.76	U	3.01	U	2.39	U	3.39	U	5.73		2.76	U	2.76	U	3.89	U	5.70	J	4.73	
B430-B-7 (5'-7.5')	1/3/2013	68.2		106		3.42	U	6.24	J	5.71		130		97.6		155	J+	61.7	J+	45.6		130	J+	15.1		162	J+	8.79		101	J+	68.5		66.3		241	J+
B430-B-7 (7.5'-10')	1/3/2013	4,820		8,820		27.9		16.6		13.2		2.13	U	1.12	U	2.24	U	2.47	U	2.69	U	2.13	U	3.03	U	2.24	U	75.2		2.47	U	7,560		44.4		4.43	
B430-B-8 (5'-7.5')	1/3/2013	3.10	U	2.64	U	3.55	U	2.52	U	1.84	U	20.1		18.8		32.3		20.2		10.5		26.1		3.10	U	24.7		3.18	J	29.3		3.55	J	16.4		45.6	
B430-B-8 (12.5'-15')	1/3/2013	3.26	U	2.78	U	3.74	U	2.66	U	1.93	U	2.29	U	1.21	U	2.41	U	2.66	U	2.90	U	2.29	U	3.26	U	2.41	U	2.66	U	2.66	U	3.74	U	2.05	U	2.41	U
B430-B-9 (5'-7.5')	1/3/2013	3.22	U	2.74	U	3.69	U	2.62	U	1.91	U	2.26	U	1.19	U	2.38	U	2.62	U	2.86	U	2.26	U	3.22	U	2.38	U	2.62	U	2.62	U	3.69	U	2.03	U	2.38	U
B430-B-9 (12.5'-15')	1/3/2013	3.17	U	2.70	J	3.64	U	2.58	U	1.88	U	11.2	U	1.18	U	2.35	U	2.58	U	2.82	U	11.2	U	3.17	U	2.40	J	2.58	U	2.58	U	3.64	U	4.07	J	11.8	U
B430-B-10 (2'-5')	1/3/2013	2.97	U	2.53	U	3.40	U	6.38	J	4.68		50.9		47.4		88.4		33.7		34.3		61.8		16.2		84.7		7.11		56.0		3.40	U	45.2		106	
B430-B-10 (10'-12.5')	1/3/2013	3.64	U	3.10	U	4.17	U	2.96	U	2.16	U	12.8	U	1.35	U	2.69	U	2.96	U	3.23	U	12.8	U	3.64	U	2.69	U	2.96	U	2.96	U	4.17	U	2.29	U	13.5	U
B430-B-11 (7.5'-10')	1/3/2013	534	U	1,140	U	3.50	U	2.48	U	1.81	U	2.14	U	1.13	U	2.26	U	2.48	U	2.71	U	2.14	U	3.05	U	3.54	JB	7.45		2.48	U	1,330		11.5	JB	3.51	J
B430-B-11 (10'-12.5')	1/3/2013	230		366		4.24	U	3.01	U	2.19	U	2.60	U	9.53		4.10	J	3.01	U	3.28	U	2.60	U	3.69	U	2.74	U	5.92		3.01	U	376		5.13	J	2.74	J
B430-B-12 (5'-7.5')	1/3/2013	40.3		49.9		3.10	U	2.20	U	1.60	U	9.50	U	5.00	U	10.0	U	11.0	U	12.0	U	9.50	U	13.5	U	2.00	U	2.20	U	11.0	U	8.28		1.70	U	10.0	U
B430-B-12 (12.5'-15')	1/3/2013	3.78	U	4.36	J	4.34	U	3.08	U	2.24	U	2.66	U	1.40	U	2.80	U	3.08	U	3.36	U	2.66	U	3.78	U	2.80	U	3.08	U	3.08	U	56.0		2.38	U	2.80	U
B430-B-13 (5'-7.5')	1/4/2013	2.93	J	5.43		3.13	U	2.22	U	1.62	U	1.92	U	1.01	U	2.02	U	2.22	U	2.42	U	1.92	U	2.73	U	2.02	U	2.22	U	2.22	U	5.06		1.72	U	2.02	U
B430-B-13 (10'-12.5')	1/4/2013	3.40	U	2.90	U	3.91	U	2.77	U	2.26	J	2.40	U	1.26	U	2.52	U	2.77	U	3.03	U	2.40	U	3.40	U	2.52	U	2.87	J	2.77	U	3.91	U	11.3		2.52	U
B430-B-14 (5'-7.5')	1/3/2013	1,330		1,390		14.8		8.52		13.9		2.45	J	1.14	U	2.28	U	2.51	U	2.73	U	2.71	J	3.07	U	9.10		136		2.51	U	230		33.6		8.39	
B430-B-14 (10'-12.5')	1/3/2013	3.19	U	3.77	J	3.66	U	2.60	U	1.89	U	2.25	U	1.19	U	2.37	U	2.60	U	2.84	U	2.25	U	3.19	U	2.37	U	2.60	U	2.60	U	3.66	U	2.01	U	2.72	J
B430-B-15 (7.5'-10')	1/4/2013	3.57	U	3.04	U	4.10	U	2.91	U	2.12	U	2.51	U	1.33	U	2.65	U	2.91	U	3.17	U	2.51	U	3.57	U	2.65	U	2.91	U	2.91	U	4.10	U	2.25	U	2.69	J
B430-B-15 (12.5'-15')	1/4/2013	3.40	U	2.90	U	3.90	U	2.77	U	2.02	U	2.39	U	1.26	U	2.52	U	2.77	U	3.02	U	2.39	U	3.40	U	2.52	U	2.77	U	2.77	U	3.90	U	2.14	U	5.24	
B430-B-16 (5'-7.5')	1/4/2013	3.22	U	2.75	U	3.70	U	2.63	U	1.91	U	2.27	U	1.20	U	2.39	U	2.63	U	2.87	U	2.27	U	3.22	U	2.39	U	2.63	U	2.63	U	3.70	U	2.03	U	2.39	U
B430-B-16 (10'-12.5')	1/4/2013	3.53	U	3.00	U	4.05	U	2.87	U	2.09	U	2.48	U	1.31	U	2.61	U	2.87	U	3.13	U	2.48	U	3.53	U	2.61	U	2.87	U	2.87	U	4.05	U	3.22	U	2.61	U
Applicable Standards (µg/kg)														660		820				1,600		660		1,500						660							

B - analyte found in the associated method blank as well as in the sample
J - value between method detection limit and method reporting limit
J+ - recovery of the analyte in the MSD performed using this sample exceeds the upper control limit
U - analyte was analyzed for but not detected
ug/L - micrograms per liter

AAFES Car Care Center
Underground Storage Tank No. 257-261
Fort Stewart, Georgia
Contractor: Seneca J2 Environmental Joint Venture
Contract No. W912HN-12-D-0022-0008
Contract Period: September 27, 2012 through July 18, 2016

Table 3-3 Proposed Schedule

Activity	Day of work
Mobilize crew and equipment to job site.	Day 1
Install fence and saw-cut pavement.	Day 2
Demo canopy and cut into pieces for scrap dealer. Hot work permit will be needed.	Day 3
Load pavement for C&D disposal. Excavate 5 ft trench for sheeting, move water line behind sheeting, and begin to drive sheeting.	Day 4
Finish installing sheeting and begin the install of the dewatering system.	Day 5
Install piping to frac tanks, carbon polishing system, and infiltration gallery.	Day 6
Start dewatering system and excavate 5 ft of soil from the hot zone.	Day 7
Excavate, load, transport, and dispose of contaminated soil.	Day 8
Continue soil excavation.	Day 9
Backfill excavation to 95% standard Proctor using remote controlled compactor.	Day 10
Continue backfilling operation and stop dewatering system.	Day 11
move sheeting and dewatering system, finish backfill operation, and fine grade for new pavement.	Day 12
Begin asphalt pavement installation.	Day 13
Finish asphalt pavement installation.	Day 14
Demobilize equipment and fencing.	Day 15
Float day scheduled for weather and/or unforeseen complications.	Day 16

APPENDIX A

		Soil Boring Log				Seneca-J2 Environmental JV							
Contract Number W912HN-12-D-0022-0008		1. Hole No. B-430-B-1		2. Drilling Subcontractor Zebra Environmental		Page 1 of 1							
3. Project AAFES Car Care Center, Building 430, Hero Road, Fort Stewart, Georgia				4. Location Near Front Door of the Store (N31.87186 W081.61005)									
5. Name of Driller				6. Manufacturers Designation of Drill Geoprobe									
7. Sizes and Types of Drilling and Sampling Equipment		Geoprobe MacroCore Sampling		8. Hole Location B-430-B-1									
		Field Screening with FID		9. Surface Elevation									
		Soil Sample Collection		10. Date Started 1/2/2013									
				11. Date Completed 1/2/2013									
12. Overburden Thickness 6" of Asphalt				15. Depth Ground Water Encountered 8 to 9 feet									
13. Depth Drilled into Rock NA				16. Depth to Water and Elapsed Time after Drilling Completed 8 to 9 feet									
14. Total Depth of Hole 15.0 Feet BLS				17. Other Water Level Measurements (Specify) NA									
18. Geotechnical Samples		NA		19. Total Number of Core Boxes									
20. Samples for Chemical Analysis		BTEX PAH TAL Metals		Other (Specify)		Other (Specify)		Other (Specify)					
								21. Total Core 100% Recovery					
22. Disposition of Hole		Backfilled/Bentonite/Asphalt Patch		Monitoring Well		Other (Specify)		23. Signature of Inspector					
		NA											
Lith Logs a	Depth b	Descriptions of Materials		Field Screening Results d	Geo-Tech Sample or Core Box No. e	Analytical Sample No. f	Blow Counts g	Remarks h					
	0	0' to 0.5' Asphalt Pavement		NA	B-430-B-1 (4-6)								
	2	6' to 2.5' Moderate Brown Clayey Sand, SM, Well Graded, Well Sorted, Fill Material, Moist to Dry No Odor		0.0				No Odor					
		2.5' to 3.5' Grey to Dark Brown Mottled Fine Sand with Silt, SP, Native Formation, Dry to Slightly Moist No Odor		0.0				No Odor					
	4	3.5' to 6.0' Light Brown Fine Sand, SW, Well Graded, Well Sorted, Dry to Slightly Damp, No Odor		0.0				No Odor					
	6	6.0' to 8.0' Dark Brown to Black Fine Sand with Silt and Peat (Organics), SP/SM, Well Sorted, Well Graded, Harder than above soils, Lacustrine Deposits, Musty Odor to No Odor, Dry		0.0				No Odor					
	8	8.0' to 10.0' As above, Very Damp to Wet, No Odor		0.0				No Odor					
	10	10.0' to 14.5' As above, Musty Odor (Methane-Like), Wet, Very Consolidated, Uniformly Graded and sorted		0.0				Musty Odor					
	12			0.0				Musty Odor					
	14	14.5' to 15.0' Reddish Brown Silty Fine Sand, Medium Grained, SW, Very Hard Drilling, Sharp Contact, Dry, No water saturation, Possible Hardpan, Faint Musty Odor (Methane) EOB @ 15.0'		0.0				Musty Odor					
	16												
	18												
	20												
	Project		AAFES Car Car Center, Building 430, Fort Stewart, Georgia						Hole No. B-430-B-1				

		Soil Boring Log				Seneca-J2 Environmental JV							
Contract Number W912HN-12-D-0022-0008		1. Hole No. B-430-B-2		2. Drilling Subcontractor Zebra Environmental		Page 1 of 1							
3. Project AAFES Car Care Center, Building 430, Hero Road, Fort Stewart, Georgia				4. Location Northwest Corner Near the Building Foundation (N31.87201 W081.61015)									
5. Name of Driller				6. Manufacturers Designation of Drill Geoprobe									
7. Sizes and Types of Drilling and Sampling Equipment		Geoprobe MacroCore Sampling		8. Hole Location B-430-B-2									
		Field Screening with FID		9. Surface Elevation									
		Soil Sample Collection		10. Date Started 1/2/2013									
				11. Date Completed 1/2/2013									
12. Overburden Thickness 6" of Asphalt				15. Depth Ground Water Encountered 10 feet									
13. Depth Drilled into Rock NA				16. Depth to Water and Elapsed Time after Drilling Completed 10 feet									
14. Total Depth of Hole 15.0 Feet BLS				17. Other Water Level Measurements (Specify) NA									
18. Geotechnical Samples		NA		19. Total Number of Core Boxes									
20. Samples for Chemical Analysis		BTEX PAH TAL Metals		Other (Specify)		Other (Specify)		Other (Specify)					
								21. Total Core 100% Recovery					
22. Disposition of Hole		Backfilled/Bentonite/Asphalt Patch		Monitoring Well NA		Other (Specify)		23. Signature of Inspector					
Lith Logs a	Depth b	Descriptions of Materials		Field Screening Results d	Geo-Tech Sample or Core Box No. e	Analytical Sample No. f	Blow Counts g	Remarks h					
	0	0' to 0.5' Asphalt Pavement		NA	B-430-B-2 (5-7.5)	B-430-B-2 (12.5-15)							
	2	0.5' to 2.5' Light Brown Fine Sand with Clay, Stiff, Well Graded, Poorly Sorted, Fill Material, Dry No Odor		0.0				No Odor					
	4	2.5' to 3.0' Dark Brown Mottled Fine Sand with Silt, SP, Native Formation, Dry to Slightly Moist Musty Odor		0.0				Musty Odor					
	6	3.0' to 5.0' Light Brown Fine Sand, SW, Well Graded, Well Sorted, Dry, No Odor		0.0				No Odor					
	8	5.0' to 6.5' As Above, Clean, Well Graded Sand, Dry, No Odor, Unconsolidated, Very Fine Grained		0.0				No Odor					
	10	6.5' to 10.0' Dark Brown to Black Fine Sand with Silt and Organics, SP/SM, Well Sorted, Well Graded, Harder than above soils, Lacustrine Deposits, Musty Odor to No Odor, Dry to Slightly Moist at 10.0'		0.0				No Odor					
	12	10.0' to 14.0' As above, Musty Odor (Methane-Like), Wet, Very Consolidated, Uniformly Graded and Poorly Sorted		0.0				Musty Odor					
	14	14.0' to 15.0' Dark Brown Silty Fine Sand, Medium Grained, SW, Very Hard Drilling, Sharp Contact, Dry to Slightly Moist, Possible Hardpan, Faint Musty Odor (Methane) EOB @ 15.0'		0.0				Musty Odor					
	16												
	18												
	20												
	Project		AAFES Car Car Center, Building 430, Fort Stewart, Georgia						Hole No. B-430-B-2				

		Soil Boring Log				Seneca-J2 Environmental JV							
Contract Number W912HN-12-D-0022-0008		1. Hole No. B-430-B-3		2. Drilling Subcontractor Zebra Environmental		Page 1 of 1							
3. Project AAFES Car Care Center, Building 430, Hero Road, Fort Stewart, Georgia				4. Location Near Existing Well MW-76-21, SE of Islands 2 and 3 (N31.87186)									
5. Name of Driller				6. Manufacturers Designation of Drill Geoprobe									
7. Sizes and Types of Drilling and Sampling Equipment		Geoprobe MacroCore Sampling		8. Hole Location B-430-B-3									
		Field Screening with FID		9. Surface Elevation									
		Soil Sample Collection		10. Date Started 1/2/2013									
				11. Date Completed 1/2/2013									
12. Overburden Thickness 6" of Asphalt				15. Depth Ground Water Encountered 10 feet									
13. Depth Drilled into Rock NA				16. Depth to Water and Elapsed Time after Drilling Completed 10 feet									
14. Total Depth of Hole 15.0 Feet BLS				17. Other Water Level Measurements (Specify) NA									
18. Geotechnical Samples		NA		19. Total Number of Core Boxes									
20. Samples for Chemical Analysis		BTEX PAH TAL Metals		Other (Specify)		Other (Specify)		Other (Specify)					
22. Disposition of Hole		Backfilled/Bentonite/Asphalt Patch		Monitoring Well NA		Other (Specify)		21. Total Core 100% Recovery					
								23. Signature of Inspector					
Lith Logs a	Depth b	Descriptions of Materials		Field Screening Results d	Geo-Tech Sample or Core Box No. e	Analytical Sample No. f	Blow Counts g	Remarks h					
	0	0' to 0.5' Asphalt Pavement		NA									
	2	0.5' to 1.5' Brown Clayey Fine Sand, Stiff, Well Graded, Poorly Sorted, Fill Material, Damp to Dry Musty Odor		0.0				Musty Odor					
	4	1.5' to 5.0' Dark Brown Mottled Fine Sand with Silt, SP, Native Formation, Damp to Dry Petroleum Odor, Strong in lower section of the Spoon		42.2				Petroleum Odor					
	6	5.0' to 8.0' Dark Brown to Black Silty Fine Sand, Very Strong Petroleum Odor, SP, Unconsolidated Moist to Dry, Dense, Well Graded, Well Sorted Moist to Wet in the Lower Section of the Spoon, Well Graded, Poorly Sorted (Pebbles)		32.0				B-430-B-3 (5-7.5)	Petroleum Odor				
	8	8.0' to 10.0' Black Fine Silty Sand, SM, Well Sorted, Poorly Graded, Very Strong Petroleum Odor Very Silty with Zones of Fine Sand Stringers, Moist to Wet, Wet at 10.0'		332.5				B-430-B-3 (7.5-10)	Petroleum Odor				
	10	10.0' to 15.0' Black Fine Silty Sand, SM, Well Sorted, Poorly Graded, Very Strong Petroleum Odor Very Silty with Zones of Fine Sand Stringers, Wet at 10.0', Bottom of the Spoon Brown to Dark Brown Silty Sand, Wet, SP		239.6					Petroleum Odor				
	12			117.9					Petroleum Odor				
	14								Petroleum Odor				
	16												
	18												
	20	EOB @ 15.0'											
	Project		AAFES Car Car Center, Building 430, Fort Stewart, Georgia						Hole No. B-430-B-3				

			Soil Boring Log				Seneca-J2 Environmental JV					
Contract Number W912HN-12-D-0022-0008			1. Hole No. B-430-B-4		2. Drilling Subcontractor Zebra Environmental		Page 1 of 1					
3. Project AAFES Car Care Center, Building 430, Hero Road, Fort Stewart, Georgia					4. Location West of Planter near Southern Corner of the Building in Parking Lot (N31.87186 W081.61004)							
5. Name of Driller					6. Manufacturer's Designation of Drill Geoprobe							
7. Sizes and Types of Drilling and Sampling Equipment			Geoprobe MacroCore Sampling			8. Hole Location B-430-B-4						
			Field Screening with FID			9. Surface Elevation						
			Soil Sample Collection									
12. Overburden Thickness 2" of Asphalt					15. Depth Ground Water Encountered 10 feet							
13. Depth Drilled into Rock NA					16. Depth to Water and Elapsed Time after Drilling Completed 10 feet							
14. Total Depth of Hole 15.0 Feet BLS					17. Other Water Level Measurements (Specify) NA							
18. Geotechnical Samples NA					19. Total Number of Core Boxes							
20. Samples for Chemical Analysis BTEX PAH TAL Metals					Other (Specify)		Other (Specify)		Other (Specify)		21. Total Core 100% Recovery	
22. Disposition of Hole Backfilled/Bentonite/Asphalt Patch			Monitoring Well NA		Other (Specify)		23. Signature of Inspector					
Lith Logs a	Depth b	Descriptions of Materials			Field Screening Results d	Geo-Tech Sample or Core Box No. e	Analytical Sample No. f	Blow Counts g	Remarks h			
	0	0' to 2" Asphalt Pavement			NA							
	2	2" to 2.5' Moderate Brown Silty Fine Sand with Clay (Fill), SP, Moist to Damp, Well Graded, Well Sorted No Odor			0.0							
	4	2.5' to 3.5' Brown to Dark Brown Fine Sand, Dry, No Odor, SW, Well Graded, Well Sorted			1.3							
	6	3.5' to 6.0' Light Brown Very Fine Sand, Dry to Slightly Damp, No Silt, SW, Well Graded, Well Sorted No Odor			0.0							
	8	6.0' to 15.0' Dark Brown Silty Fine Sand, SM-SP, Trace of Organics, Harder than sections above, Very Silty with Zones of Fine Sand Stringers, Wet at 10.0', Bottom of the Spoon Brown Hardpan (Course Grained Sands-Very Hard Drilling), Faint Petroleum Odor			20.7		B-430-B-4 (5-7.5)		Musty Petroleum Odor			
	10				345.4							
	12											
	14											
	16	EOB @ 15.0'			168.8		B-430-B-4 (10-12.5)		Petroleum Odor			
	18											
	20											
	22											
	Project AAFES Car Car Center, Building 430, Fort Stewart, Georgia					Hole No. B-430-B-4						

		Soil Boring Log				Seneca-J2 Environmental JV				
Contract Number W912HN-12-D-0022-0008		1. Hole No. B-430-B-5		2. Drilling Subcontractor Zebra Environmental		Page 1 of 1				
3. Project AAFES Car Care Center, Building 430, Hero Road, Fort Stewart, Georgia				4. Location Southern Corner of the Building in Parking Lot, Near Water Line (N31.87182 W081.60997)						
5. Name of Driller				6. Manufacturers Designation of Drill Geoprobe						
7. Sizes and Types of Drilling and Sampling Equipment		Geoprobe MacroCore Sampling		8. Hole Location B-430-B-5						
		Field Screening with FID		9. Surface Elevation						
		Soil Sample Collection		10. Date Started 1/3/2013						
				11. Date Completed 1/3/2013						
12. Overburden Thickness 2" of Asphalt				15. Depth Ground Water Encountered 10 feet						
13. Depth Drilled into Rock NA				16. Depth to Water and Elapsed Time after Drilling Completed 10 feet						
14. Total Depth of Hole 15.0 Feet BLS				17. Other Water Level Measurements (Specify) NA						
18. Geotechnical Samples		NA		19. Total Number of Core Boxes						
20. Samples for Chemical Analysis		BTEX PAH TAL Metals		Other (Specify)		21. Total Core 100% Recovery				
22. Disposition of Hole		Backfilled/Bentonite/Asphalt Patch		Monitoring Well NA		23. Signature of Inspector				
Lith Logs a	Depth b	Descriptions of Materials		Field Screening Results d	Geo-Tech Sample or Core Box No. e	Analytical Sample No. f	Blow Counts g			
							Remarks h			
	0	0' to 2" Asphalt Pavement		NA	B-430-B-5 (5-7.5)	B-430-B-5 (10-12.5)				
	2	2" to 2.5' Moderate Brown Clayey Silty Fine Sand, SP, Dry, Well Graded, Well Sorted No Odor (Fill Possible)		0.0			No Odor			
		2.5' to 4.0' Dark Brown to Gray Silty Fine Sand, Dry, No Odor, SW, Well Graded, Well Sorted		0.0				No Odor		
	4	4.0' to 5.0' Light Brown to Tan Fine Sand, SW, Dry Well Graded, Well Sorted, Unconsolidated, SW No Odor		0.2				No Odor		
	6			0.4				Very Faint Methane Odor		
	8	6.0' to 10.0' Dark Brown Silty Fine Sand, SM-SP, Trace of Organics, Harder than sections above, Very Silty with Zones of Fine Sand Stringers, Wet at 10.0', Bottom of the Spoon Brown Hardpan (Course Grained Sands-Very Hard Drilling), Faint Musty (Methane) Odor		2.6				Very Faint Methane Odor		
	10			16.4				Very Faint Methane Odor		
	12									
	14									
	16	EOB @ 15.0'								
	18									
	20									
	Project		AAFES Car Car Center, Building 430, Fort Stewart, Georgia				Hole No. B-430-B-5			

		Soil Boring Log				Seneca-J2 Environmental JV							
Contract Number W912HN-12-D-0022-0008		1. Hole No. B-430-B-6		2. Drilling Subcontractor Zebra Environmental		Page 1 of 1							
3. Project AAFES Car Care Center, Building 430, Hero Road, Fort Stewart, Georgia				4. Location East of Bollards near Island 4 (N31.87173 W081.61007)									
5. Name of Driller				6. Manufacturers Designation of Drill Geoprobe									
7. Sizes and Types of Drilling and Sampling Equipment		Geoprobe MacroCore Sampling		8. Hole Location B-430-B-6									
		Field Screening with FID		9. Surface Elevation									
		Soil Sample Collection		10. Date Started 1/3/2013									
				11. Date Completed 1/3/2013									
12. Overburden Thickness 2" of Asphalt				15. Depth Ground Water Encountered 10 feet									
13. Depth Drilled into Rock NA				16. Depth to Water and Elapsed Time after Drilling Completed 10 feet									
14. Total Depth of Hole 15.0 Feet BLS				17. Other Water Level Measurements (Specify) NA									
18. Geotechnical Samples		NA		19. Total Number of Core Boxes									
20. Samples for Chemical Analysis		BTEX PAH TAL Metals		Other (Specify)		Other (Specify)		Other (Specify)					
								21. Total Core 100% Recovery					
22. Disposition of Hole		Backfilled/Bentonite/Asphalt Patch		Monitoring Well NA		Other (Specify)		23. Signature of Inspector					
Lith Logs a	Depth b	Descriptions of Materials		Field Screening Results d	Geo-Tech Sample or Core Box No. e	Analytical Sample No. f	Blow Counts g	Remarks h					
	0	0' to 2" Asphalt Pavement		NA	B-430-B-6 (5-7.5)								
	2	2" to 2.5' Moderate Brown Clayey Silty Fine Sand, SP, Dry, Well Graded, Well Sorted No Odor (Fill Possible)		0.0				No Odor					
	4	2.5' to 4.0' Dark Brown to Gray Silty Fine Sand, Dry, No Odor, SW, Well Graded, Well Sorted (at 3.5' Sediments are slightly Cemented in 1/4 inch layers)		0.0				No Odor					
	6	4.0' to 5.0' Light Brown to Tan Fine Sand, SW, Dry Well Graded, Well Sorted, Unconsolidated, SW No Odor		0.2				No Odor					
	8	6.0' to 10.0' Dark Brown Silty Fine Sand, SM-SP, Trace of Organics, Harder than sections above, Very Silty with Zones of Fine Sand Stringers, Wet at 10.0', Well Graded, Poorly Sorted No Odor		0.4				No Odor					
	10	10.0' to 14.0' Dark Brown to Black Silty Fine Sand, SM-SP, Well Graded, Well Sorted, Wet to Moist Slight Methane Odor		2.6				Very Faint Methane Odor					
	12	14.0' to 15.0' Reddish Brown to Dark Brown Silty Sand, Wet to Moist, Well Graded, Well Sorted, Course to Medium Grained, Very Hard Drilling (Hardpan Materials) Musty Odor		16.4				Musty Odor					
	14	EOB @ 15.0'											
	16												
	18												
	20												
	Project		AAFES Car Car Center, Building 430, Fort Stewart, Georgia						Hole No. B-430-B-6				

		Soil Boring Log				Seneca-J2 Environmental JV							
Contract Number W912HN-12-D-0022-0008		1. Hole No. B-430-B-7		2. Drilling Subcontractor Zebra Environmental		Page 1 of 1							
3. Project AAFES Car Care Center, Building 430, Hero Road, Fort Stewart, Georgia				4. Location Center of Parking Lot in Front of the Building East of Islands 2 and 3 (N31.87185 W081.61010)									
5. Name of Driller				6. Manufacturers Designation of Drill Geoprobe									
7. Sizes and Types of Drilling and Sampling Equipment		Geoprobe MacroCore Sampling		8. Hole Location B-430-B-7									
		Field Screening with FID		9. Surface Elevation									
		Soil Sample Collection											
12. Overburden Thickness 6" of Asphalt				15. Depth Ground Water Encountered 10 feet									
13. Depth Drilled into Rock NA				16. Depth to Water and Elapsed Time after Drilling Completed 10 feet									
14. Total Depth of Hole 15.0 Feet BLS				17. Other Water Level Measurements (Specify) NA									
18. Geotechnical Samples		NA		19. Total Number of Core Boxes									
20. Samples for Chemical Analysis		BTEX PAH TAL Metals		Other (Specify)		Other (Specify)		Other (Specify)		21. Total Core 100% Recovery			
22. Disposition of Hole		Backfilled/Bentonite/Asphalt Patch		Monitoring Well NA		Other (Specify)		23. Signature of Inspector					
Lith Logs a	Depth b	Descriptions of Materials		Field Screening Results d	Geo-Tech Sample or Core Box No. e	Analytical Sample No. f	Blow Counts g	Remarks h					
	0	0' to 0.5' Asphalt Pavement		NA									
	2	6" to 2.5' Moderate Brown Clayey Sand, SM, Well Graded, Well Sorted, Fill Material, Moist to Dry No Odor		8.0				No Odor					
	4	2.5' to 3.5' Grey to Dark Brown Mottled Fine Sand with Silt, SP, Native Formation, Dry but moist from 2.0' to 3.0', No Odor		0.0				No Odor					
	6	3.5' to 6.0' Light Brown Fine Sand, SW, Well Graded, Well Sorted, Dry, No Odor						No Odor					
	8	6.0' to 8.0' Dark Brown to Black Fine Sand with Silt and Peat (Organics), SP/SM, Well Sorted, Well Graded, Harder than above soils, Lacustrine Deposits, Petroluem Odor, Dry		23.3				B-430-B-7 (5.0-7.5)	Petroleum Odor				
	10	8.0' to 10.0' As above, Very Damp to Wet at 10.0', Strong Petroleum Odor		101.7				B-430-B-7 (7.5-10.0)	Strong Petroleum Odor				
	12	10.0' to 14.5' As above, Slight Petroleum Odor, Wet, Very Consolidated, Uniformly Graded and Sorted		78.8					Petroleum Odor				
	14	14.5' to 15.0' Reddish Brown Silty Fine Sand, Medium Grained, SW, Very Hard Drilling, Sharp Contact, Dry, No water saturation, Possible Hardpan, Petroleum Odor EOB @ 15.0'		15.6					Slight Petroleum Odor				
	16								Petroluem Odor				
	18												
	20												
	Project		AAFES Car Car Center, Building 430, Fort Stewart, Georgia						Hole No. B-430-B-7				

		Soil Boring Log				Seneca-J2 Environmental JV					
Contract Number W912HN-12-D-0022-0008		1. Hole No. B-430-B-8		2. Drilling Subcontractor Zebra Environmental		Page 1 of 1					
3. Project AAFES Car Care Center, Building 430, Hero Road, Fort Stewart, Georgia				4. Location 30 Feet West of Front Door of the Building 430 (N31.87193 W081.61018)							
5. Name of Driller				6. Manufacturers Designation of Drill Geoprobe							
7. Sizes and Types of Drilling and Sampling Equipment		Geoprobe MacroCore Sampling		8. Hole Location B-430-B-8							
		Field Screening with FID		9. Surface Elevation							
		Soil Sample Collection		10. Date Started 1/2/2013				11. Date Completed 1/2/2013			
12. Overburden Thickness 4" of Asphalt				15. Depth Ground Water Encountered 10 feet							
13. Depth Drilled into Rock NA				16. Depth to Water and Elapsed Time after Drilling Completed 10 feet							
14. Total Depth of Hole 15.0 Feet BLS				17. Other Water Level Measurements (Specify) NA							
18. Geotechnical Samples		NA		19. Total Number of Core Boxes							
20. Samples for Chemical Analysis		BTEX PAH TAL Metals		Other (Specify)		Other (Specify)		Other (Specify)		21.Total Core 100% Recovery	
22. Disposition of Hole		Backfilled/Bentonite/Asphalt Patch		Monitoring Well NA		Other (Specify)		23. Signature of Inspector			
Lith Logs a	Depth b	Descriptions of Materials		Field Screening Results d	Geo-Tech Sample or Core Box No. e	Analytical Sample No. f	Blow Counts g	Remarks h			
	0	0' to 4" Asphalt Pavement		NA				No Odor			
	2	4" to 2.5' Brown Clayey Sand, SM, Well Graded, Well Sorted, Fill Material, Slightly Moist to Dry		0.0							
		No Odor		0.0				No Odor			
		2.5' to 4.0' Dark Brown Mottled Fine Sand with Silt, SP, Native Formation, Dry									
		Well Graded, Well Sorted, No Odor		0.0				No Odor			
	4	4.0' to 6.0' Tan Fine Sand, SW, Well Graded, Well Sorted, Dry, Musty Odor									
				0.0				No Odor			
	6	6.0' to 8.0' Reddish Gray Silty Fine Sand, SP, Well Sorted, Well, No Odor, Dry									
				0.4				No Odor			
	8	8.0' to 10.0' Dark Grey to Black Silty Sand, Musty Odor, Damp to Moist, Well Graded, SP									
		Well Sorted		6.4				Musty Odor			
	10	10.0' to 14.5' As above, Slight Petroleum Odor/Methane, Wet, Very Consolidated, Uniformly Graded and Sorted									
				9.1				Musty Odor			
	12										
				9.1				No Odor			
	14	14.5' to 15.0' Reddish Brown Silty Fine Sand, Medium Grained, SW, Very Hard Drilling, Sharp Contact, Slightly Damp, No water saturation, Possible Hardpan, No Odor									
		EOB @ 15.0'									
	16										
	18										
20											
Project		AAFES Car Car Center, Building 430, Fort Stewart, Georgia					Hole No. B-430-B-8				

		Soil Boring Log				Seneca-J2 Environmental JV				
Contract Number W912HN-12-D-0022-0008		1. Hole No. B-430-B-9		2. Drilling Subcontractor Zebra Environmental		Page 1 of 1				
3. Project AAFES Car Care Center, Building 430, Hero Road, Fort Stewart, Georgia				4. Location 30 Feet West of the NW Corner of the Building within Apron near 5th Street (N31.87198 W081.61024)						
5. Name of Driller				6. Manufacturers Designation of Drill Geoprobe						
7. Sizes and Types of Drilling and Sampling Equipment		Geoprobe MacroCore Sampling		8. Hole Location B-430-B-9						
		Field Screening with FID		9. Surface Elevation						
		Soil Sample Collection								
				10. Date Started 1/2/2013		11. Date Completed 1/2/2013				
12. Overburden Thickness 4" of Asphalt				15. Depth Ground Water Encountered 10 feet						
13. Depth Drilled into Rock NA				16. Depth to Water and Elapsed Time after Drilling Completed 10 feet						
14. Total Depth of Hole 15.0 Feet BLS				17. Other Water Level Measurements (Specify) NA						
18. Geotechnical Samples NA				19. Total Number of Core Boxes						
20. Samples for Chemical Analysis BTX PAH TAL Metals				Other (Specify)		Other (Specify)		Other (Specify)		
								21. Total Core 100% Recovery		
22. Disposition of Hole Backfilled/Bentonite/Asphalt Patch		Monitoring Well NA		Other (Specify)		23. Signature of Inspector				
Lith Logs a	Depth b	Descriptions of Materials		Field Screening Results d	Geo-Tech Sample or Core Box No. e	Analytical Sample No. f	Blow Counts g	Remarks h		
	0	0' to 4" Asphalt Pavement		NA						
	2	4" to 2.5' Brown Clayey Sand, SM, Well Graded, Well Sorted, Fill Material, Slightly Moist to Dry No Odor, Trace Gravel in the Upper Foot		0.1				No Odor		
	4	2.5' to 5.0' Dark Brown Mottled Fine Sand with Silt, SP, Native Formation, Dry Well Graded, Well Sorted, No Odor		0.2				No Odor		
	6	5.0' to 7.0' Reddish Gray Silty Fine Sand, SP, Well Sorted, Well, No Odor, Dry		2.2				B-430-B-9 (5.0-7.5)	No Odor	
	8	7.0' to 10.0' Dark Grey to Black Silty Sand, No Odor, Damp to Moist, Wet at 8.0', Well Graded, SP Well Sorted		1.8					No Odor	
	10	10.0' to 14.5' As above, No Odor, Wet, Very Consolidated, Uniformly Graded and Sorted		1.4					No Odor	
	12								No Odor	
	14	13.0' to 15.0' Reddish Brown Silty Fine Sand, Medium Grained, SW, Very Hard Drilling, Sharp Contact, Slightly Damp, No water saturation, Possible Hardpan, No Odor EOB @ 15.0'		2.3				B-430-B-9 (12.5-15.0)	No Odor	
	16									
	18									
	20									

Project AAFES Car Car Center, Building 430, Fort Stewart, Georgia		Hole No. B-430-B-9
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		Soil Boring Log				Seneca-J2 Environmental JV							
Contract Number W912HN-12-D-0022-0008		1. Hole No. B-430-B-10		2. Drilling Subcontractor Zebra Environmental		Page 1 of 1							
3. Project AAFES Car Care Center, Building 430, Hero Road, Fort Stewart, Georgia				4. Location East of Island 1 in Parking Lot, Not under the Canopy (N31.87189)									
5. Name of Driller				6. Manufacturers Designation of Drill Geoprobe									
7. Sizes and Types of Drilling and Sampling Equipment		Geoprobe MacroCore Sampling		8. Hole Location B-430-B-10									
		Field Screening with FID		9. Surface Elevation									
		Soil Sample Collection		10. Date Started 1/2/2013				11. Date Completed 1/2/2013					
12. Overburden Thickness 3" of Asphalt				15. Depth Ground Water Encountered 10 feet									
13. Depth Drilled into Rock NA				16. Depth to Water and Elapsed Time after Drilling Completed 10 feet									
14. Total Depth of Hole 15.0 Feet BLS				17. Other Water Level Measurements (Specify) NA									
18. Geotechnical Samples		NA		19. Total Number of Core Boxes									
20. Samples for Chemical Analysis		BTEX PAH TAL Metals		Other (Specify)		Other (Specify)		Other (Specify)		21. Total Core 100% Recovery			
22. Disposition of Hole		Backfilled/Bentonite/Asphalt Patch		Monitoring Well NA		Other (Specify)		23. Signature of Inspector					
Lith Logs a	Depth b	Descriptions of Materials		Field Screening Results d	Geo-Tech Sample or Core Box No. e	Analytical Sample No. f	Blow Counts g	Remarks h					
	0	0' to 3" Asphalt Pavement		NA	B-430-B-10 (2.5-5.0)								
	2	3' to 0.75' Moderate Brown Fine Sand with Silty, SP, Well Graded, Well Sorted, Fill Material No Odor, Dry		0.1				No Odor					
	2	0.75' to 2.0' Brown Clayey Fine Sand with Silt, SM, Well Graded, Well Sorted, Dry to Damp, Stiff No Odor		0.2				No Odor					
	4	2.0' to 3.5' Moderate Brown to Dark Brown Silty Sand with Reddish Brown Sand Pellets, Fine Grained Well sorted, Dry, No Odor, SP						No Odor					
	4	3.5' to 6.0' Tan Fine Sand, SW, Dry, No Odor, Unconsolidated, Well Graded, Well Sorted.		0.3				No Odor					
	6							Musty Odor					
	6			0.4				Musty Odor					
	8	6.0' to 13.0' Black Fine Sand with Organics and Possible Peat (Swamp Materials), Musty Odor, Wet at 8.0', Dense and well packed., Well Graded, Well Sorted Saturated from 10.0' to 13.0'						Musty Odor					
	10			2.6				Musty Odor					
	12							Musty Odor					
	14			2.8				Faint Musty Odor					
	16	13.0' to 15.0' Reddish Brown Silty Fine Sand, Medium Grained, SW, Very Hard Drilling, Sharp Contact, Slightly Damp to Somewhat Moist, No water saturation, Possible Hardpan, Faint Musty Odor											
	18	EOB @ 15.0'											
	20												
	Project		AAFES Car Car Center, Building 430, Fort Stewart, Georgia						Hole No. B-430-B-10				

		Soil Boring Log				Seneca-J2 Environmental JV				
Contract Number W912HN-12-D-0022-0008		1. Hole No. B-430-B-11		2. Drilling Subcontractor Zebra Environmental		Page 1 of 1				
3. Project AAFES Car Care Center, Building 430, Hero Road, Fort Stewart, Georgia				4. Location Parking lot in Front of Building East of Island 2 (N31.87185 W081.61021)						
5. Name of Driller				6. Manufacturers Designation of Drill Geoprobe						
7. Sizes and Types of Drilling and Sampling Equipment		Geoprobe MacroCore Sampling		8. Hole Location B-430-B-11						
		Field Screening with FID		9. Surface Elevation						
		Soil Sample Collection		10. Date Started 1/2/2013				11. Date Completed 1/2/2013		
12. Overburden Thickness 3" of Asphalt		15. Depth Ground Water Encountered 10 feet								
13. Depth Drilled into Rock NA		16. Depth to Water and Elapsed Time after Drilling Completed 10 feet								
14. Total Depth of Hole 15.0 Feet BLS		17. Other Water Level Measurements (Specify) NA								
18. Geotechnical Samples NA				19. Total Number of Core Boxes						
20. Samples for Chemical Analysis BTEX PAH TAL Metals				Other (Specify)		Other (Specify)		Other (Specify)		21. Total Core 100% Recovery
22. Disposition of Hole Backfilled/Bentonite/Asphalt Patch		Monitoring Well NA		Other (Specify)		23. Signature of Inspector				
Lith Logs a	Depth b	Descriptions of Materials		Field Screening Results d	Geo-Tech Sample or Core Box No. e	Analytical Sample No. f	Blow Counts g	Remarks h		
	0	0' to 3" Asphalt Pavement		NA						
	2	3" to 0.75' Moderate Brown Fine Sand with Silty, SP, Well Graded, Well Sorted, Fill Material No Odor, Dry		0.0				No Odor		
	2	0.75' to 2.0' Brown Clayey Fine Sand with Silt, SM, Well Graded, Well Sorted, Dry to Damp, Stiff No Odor		0.2				No Odor		
	4	2.0' to 3.5' Moderate Brown to Dark Brown Silty Sand with Reddish Brown Sand Pellets, Fine Grained Well sorted, Dry, No Odor, SP						No Odor		
	4	3.5' to 6.0' Tan Fine Sand, SW, Dry, No Odor, Unconsolidated, Well Graded, Well Sorted.						No Odor		
	6			29.2				No Odor		
	6							Petroleum Odor		
	8							No Odor		
	8	6.0' to 13.0' Black Fine Sand with Organics and Possible Peat (Swamp Materials), Petroleum Odor, Wet at 8.0', Dense and well packed., Well Graded, Well Sorted Saturated from 10.0' to 14.0'		414.0				B-430-B-11 (7.5-10.0)	Petroleum Odor	
	10			No Odor						
	12			500.2				B-430-B-10 (10.0-12.5)	Petroleum Odor	
	12								No Odor	
	14								No Odor	
	14	14.0' to 15.0' Reddish Brown Silty Fine Sand, Medium Grained, SW, Very Hard Drilling, Sharp Contact, Slightly Damp to Somewhat Moist, No water saturation, Possible Hardpan, No Odor		489.9					No Odor	
	16	EOB @ 15.0'								
	18									
	18									
	18									
	18									
	18									
20										
Project AAFES Car Car Center, Building 430, Fort Stewart, Georgia		Hole No. B-430-B-11								

		Soil Boring Log				Seneca-J2 Environmental JV			
Contract Number W912HN-12-D-0022-0008		1. Hole No. B-430-B-12		2. Drilling Subcontractor Zebra Environmental		Page 1 of 1			
3. Project AAFES Car Care Center, Building 430, Hero Road, Fort Stewart, Georgia				4. Location In Parking Lot in Front of the Store East of Island 3 (N31.87175 W081.61009)					
5. Name of Driller				6. Manufacturers Designation of Drill Geoprobe					
7. Sizes and Types of Drilling and Sampling Equipment		Geoprobe MacroCore Sampling		8. Hole Location B-430-B-12					
		Field Screening with FID		9. Surface Elevation					
		Soil Sample Collection		10. Date Started 1/2/2013					
				11. Date Completed 1/2/2013					
12. Overburden Thickness 4" of Asphalt				15. Depth Ground Water Encountered 10 feet					
13. Depth Drilled into Rock NA				16. Depth to Water and Elapsed Time after Drilling Completed 10 feet					
14. Total Depth of Hole 15.0 Feet BLS				17. Other Water Level Measurements (Specify) NA					
18. Geotechnical Samples NA				19. Total Number of Core Boxes					
20. Samples for Chemical Analysis		BTEX PAH TAL Metals		Other (Specify)		Other (Specify)		Other (Specify)	
22. Disposition of Hole Backfilled/Bentonite/Asphalt Patch		Monitoring Well NA		Other (Specify)		21. Total Core 100% Recovery			
						23. Signature of Inspector			
Lith Logs a	Depth b	Descriptions of Materials		Field Screening Results d	Geo-Tech Sample or Core Box No. e	Analytical Sample No. f	Blow Counts g	Remarks h	
	0	0' to 4" Asphalt Pavement		NA					
	2	4' to 1.0' Blackish Brown Silty Sand with Gravel Fragments, (Fill Materials), Poorly Graded, Poorly Sorted, Moist to Damp, No Odor		0.2				No Odor	
	4	1.0' to 3.0' Brown Silty Sand with Gravel and Clay, SM-R, Damp to Moist, Fill Materials Possible, Poorly Graded, Poorly sorted, Damp, Trace of CH materials (Clay)		1.7				No Odor	
	6	3.0' to 4.0' Light Brown Fine Sand, Hard Cemented, Dry, Petroleum Odor, Well Sorted Well Graded		3.8				Faint Petroleum Odor	
	8	4.0' to 5.0' As above, Dry, Faint Petroleum Odor		29.9				Petroleum Odor	
	10	5.0' to 7.0' As Above, Petroleum Odor, Dry		271.7				Strong Petroleum Odor	
	12	7.0' to 13.5' Black Fine Sand with Organics and Possible Peat (Swamp Materials), Petroluem Odor, Wet at 8.0', Dense and well packed., Well Graded, Well Sorted Saturated from 10.0' to 13.5'		1267.4				Strong Petroleum Odor Strong Petroleum Odor	
	14	(Sample upper interval 13.0'-13.5')*						Faint Musty Odor	
	16	13.5' to 15.0' Reddish Brown Silty Fine Sand, Medium Grained, SW, Very Hard Drilling, Sharp Contact, Slightly Damp to Somewhat Moist, No water saturation, Possible Hardpan, Faint Musty Odor							
	18	EOB @ 15.0'							
	20								
	Project AAFES Car Car Center, Building 430, Fort Stewart, Georgia		Hole No. B-430-B-12						

		Soil Boring Log				Seneca-J2 Environmental JV				
Contract Number W912HN-12-D-0022-0008		1. Hole No. B-430-B-13		2. Drilling Subcontractor Zebra Environmental		Page 1 of 1				
3. Project AAFES Car Care Center, Building 430, Hero Road, Fort Stewart, Georgia				4. Location Under Canopy Between Islands 3 and 4 (N31.87171 W081.61014)						
5. Name of Driller				6. Manufacturers Designation of Drill Geoprobe						
7. Sizes and Types of Drilling and Sampling Equipment		Geoprobe MacroCore Sampling		8. Hole Location B-430-B-13						
		Field Screening with FID		9. Surface Elevation						
		Soil Sample Collection		10. Date Started 1/4/2012						
				11. Date Completed 1/4/2013						
12. Overburden Thickness 4" of Concrete		15. Depth Ground Water Encountered 10 feet		16. Depth to Water and Elapsed Time after Drilling Completed 10 feet						
13. Depth Drilled into Rock NA		17. Other Water Level Measurements (Specify) NA		18. Geotechnical Samples NA						
14. Total Depth of Hole 15.0 Feet BLS		19. Total Number of Core Boxes		20. Samples for Chemical Analysis BTEX PAH TAL Metals						
22. Disposition of Hole Backfilled/Bentonite/Asphalt Patch		Monitoring Well NA		Other (Specify)		Other (Specify)		Other (Specify)		
								21. Total Core 100% Recovery		
								23. Signature of Inspector		
Lith Logs a	Depth b	Descriptions of Materials		Field Screening Results d	Geo-Tech Sample or Core Box No. e	Analytical Sample No. f	Blow Counts g	Remarks h		
	0	0' to 4" Concrete Pavement		NA						
		0.4" to 2.0' Brown Clayey Sand, No Oder, Dry, Well Graded, Well Sorted						No Odor		
	2	2.0' to 3.0' Dark Brown Silty Sands , Dry, Well Graded, Well sorted, Dry, No Odor		0.0				No Odor		
								No Odor		
	4	3.0' to 5.0' Light Brown Fine Sand, Dry, Petroleum Odor, Well Sorted		0.0				No Odor		
		Well Graded						No Odor		
		4.0' to 5.0' As above, Dry, No Odor						No Odor		
	6	5.0' to 8.0' As Above, Petroleum Odor, Dry		0.0				B-430-B-13 (5.0-7.5)	No Odor	
									No Odor	
	8	8.0' to 13.5' Black Fine Sand with Organics and Possible Peat (Swamp Materials), Musty Odor, Wet at 10.0', Dense and well packed, Well Graded, Well Sorted		0.0					Musty Odor	
		Saturated from 10.0' to 13.0'							Musty Odor	
	10	10.0' to 13.0' Methane/Musty Odor, As above lithology, Wet							Musty Odor	
				3.6				B-430-B-13 (10.0-12.5)	Musty Odor	
									Musty Odor	
	14	13.0' to 15.0' Reddish Brown Silty Fine Sand, Medium Grained, SW, Very Hard Drilling, Sharp Contact, Slightly Damp to Somewhat Moist, No water saturation, Possible Hardpan, Faint Musty Odor		5.3					Faint Musty Odor	
	16	EOB @ 15.0'								
	18									
20										
Project		AAFES Car Car Center, Building 430, Fort Stewart, Georgia						Hole No. B-430-B-13		

		Soil Boring Log				Seneca-J2 Environmental JV					
Contract Number W912HN-12-D-0022-0008		1. Hole No. B-430-B-14		2. Drilling Subcontractor Zebra Environmental		Page 1 of 1					
3. Project AAFES Car Care Center, Building 430, Hero Road, Fort Stewart, Georgia				4. Location Under Canopy Between Islands 1 and 2 (N3'.87193 W081.61028)							
5. Name of Driller				6. Manufacturers Designation of Drill Geoprobe							
7. Sizes and Types of Drilling and Sampling Equipment		Geoprobe MacroCore Sampling		8. Hole Location B-430-B-14							
		Field Screening with FID		9. Surface Elevation							
		Soil Sample Collection		10. Date Started 1/3/2013							
				11. Date Completed 1/3/2013							
12. Overburden Thickness 4" of Concrete				15. Depth Ground Water Encountered 10 feet							
13. Depth Drilled into Rock NA				16. Depth to Water and Elapsed Time after Drilling Completed 10 feet							
14. Total Depth of Hole 15.0 Feet BLS				17. Other Water Level Measurements (Specify) NA							
18. Geotechnical Samples		NA		19. Total Number of Core Boxes							
20. Samples for Chemical Analysis		BTEX PAH TAL Metals		Other (Specify)		Other (Specify)		Other (Specify)			
								21. Total Core 100% Recovery			
22. Disposition of Hole		Backfilled/Bentonite/Asphalt Patch		Monitoring Well		Other (Specify)		23. Signature of Inspector			
		NA									
Lith Logs a	Depth b	Descriptions of Materials		Field Screening Results d	Geo-Tech Sample or Core Box No. e	Analytical Sample No. f	Blow Counts g	Remarks h			
	0	0' to 4" Concrete Pavement		NA							
		0.4" to 2.5' Brown Clayey Sand, No Oder, Damp, Well Graded, Well Sorted						No Odor			
	2			0.0							
		2.0' to 3.5' Dark Grey Silty Sands , SP, Dry, Well Graded, Well sorted, Dry, Faint Odor						No Odor			
	4			8.8							
		3.5' to 5.0' Tan Fine Sand trace of Silt, Dry, Petroleum Odor (moderate), Well Sorted						Petroleum Odor			
		Well Graded									
		5.0' to 7.0' Grey Fine Sand with Silt, SP, Unconsolidated, Dry, Well Graded, Well Sorted,									
		Petroleum Odor									
	6			145.1				B-430-B-14 (5.0-7.5)		Petroleum Odor	
	8			16.9						Petroleum Odor	
		7.0' to 13.5' Black Fine Sand with Organics and Possible Peat (Swamp Materials), Petroleum Odor,									
		Wet at 10.0', Dense and well packed, Well Graded, Well Sorted									
		Saturated from 10.0' to 13.0', Hard Drilling, Very Dense									
	10			10.3				B-430-B-14 (10.0-12.5)		Petroleum Odor	
		10.0' to 13.0' As above lithology, Wet, Petroleum Odor									
										Petroleum Odor	
	12			5.9							
14											
	12.5' to 15.0' Reddish Brown Silty Fine Sand, Medium Grained, SW, Very Hard Drilling, Sharp Contact,					Faint Musty Odor					
	Slightly Damp to Somewhat Moist, No water saturation, Possible Hardpan,										
	Faint Musty Odor										
16											
	EOB @ 15.0'										
18											
20											
Project		AAFES Car Car Center, Building 430, Fort Stewart, Georgia						Hole No. B-430-B-14			

		Soil Boring Log				Seneca-J2 Environmental JV		
Contract Number W912HN-12-D-0022-0008		1. Hole No. B-430-B-15		2. Drilling Subcontractor Zebra Environmental		Page 1 of 1		
3. Project AAFES Car Care Center, Building 430, Hero Road, Fort Stewart, Georgia				4. Location Far Southwest Parking Area Near Wash Building Outside the Canopy (N31.87172 W081.61025)				
5. Name of Driller				6. Manufacturers Designation of Drill Geoprobe				
7. Sizes and Types of Drilling and Sampling Equipment		Geoprobe MacroCore Sampling			8. Hole Location B-430-B-15			
		Field Screening with FID			9. Surface Elevation			
		Soil Sample Collection			10. Date Started 1/4/2013			
					11. Date Completed 1/4/2013			
12. Overburden Thickness 3" of Asphalt				15. Depth Ground Water Encountered 10 feet				
13. Depth Drilled into Rock NA				16. Depth to Water and Elapsed Time after Drilling Completed 10 feet				
14. Total Depth of Hole 15.0 Feet BLS				17. Other Water Level Measurements (Specify) NA				
18. Geotechnical Samples		NA			19. Total Number of Core Boxes			
20. Samples for Chemical Analysis		BTEX PAH TAL Metals			Other (Specify)		Other (Specify)	Other (Specify)
22. Disposition of Hole		Backfilled/Bentonite/Asphalt Patch			Monitoring Well		21. Total Core Recovery 100% Recovery	
		NA			Other (Specify)		23. Signature of Inspector	
Lith Logs a	Depth b	Descriptions of Materials			Field Screening Results d	Geo-Tech Sample or Core Box No. e	Analytical Sample No. f	Blow Counts g
	0	0' to 3" Asphalt Pavement			NA			
		0.4" to 1.5' Light Grey to Light Brown Silty Sand, No Odor, Damp, Well Graded, Well Sorted						
	2	1.5' to 2.0' Brown Clayey Sand, Fine Grained, Stiff, Dry to Moist, Well Graded, Well Sorted, No Odor			1.7			
		2.0' to 3.5' Dark Grey Silty Sands, SP, Dry, Well Graded, Well sorted, Dry, Faint Odor						
	4	3.5' to 8.0' Brown Fine Sand trace of Silt, Dry, No Odor to Musty Odor, Well Graded, Well Sorted			0.0			
		Well Graded						
	6				0.0			
	8				1.0			
		8.0' to 13.5' Black Fine Sand with Organics and Possible Peat (Swamp Materials), Musty Odor,						
		Wet at 10.0', Dense and well packed, Well Graded, Well Sorted						
	10	Saturated from 10.0' to 13.0', Hard Drilling, Very Dense						
		10.0' to 13.0' As above lithology, Wet, Petroleum Odor			0.0			
	12							
	14	13.0' to 15.0' Reddish Brown Silty Fine Sand, Medium Grained, SW, Very Hard Drilling, Sharp Contact,			0.9			
		Slightly Damp to Somewhat Moist, No water saturation, Possible Hardpan,						
		Musty Odor						
	16	EOB @ 15.0'						
	18							
20								
Project		AAFES Car Car Center, Building 430, Fort Stewart, Georgia					Hole No. B-430-B-15	

		Soil Boring Log				Seneca-J2 Environmental JV					
Contract Number W912HN-12-D-0022-0008		1. Hole No. B-430-B-16		2. Drilling Subcontractor Zebra Environmental		Page 1 of 1					
3. Project AAFES Car Care Center, Building 430, Hero Road, Fort Stewart, Georgia				4. Location Far Southwest Parking Area Near Island 1 and 2 Outside the Canopy (N31.87178 W081.61034)							
5. Name of Driller				6. Manufacturers Designation of Drill Geoprobe							
7. Sizes and Types of Drilling and Sampling Equipment		Geoprobe MacroCore Sampling			8. Hole Location B-430-B-16						
		Field Screening with FID			9. Surface Elevation						
		Soil Sample Collection			10. Date Started 1/4/2013						
					11. Date Completed 1/4/2013						
12. Overburden Thickness 3" of Asphalt				15. Depth Ground Water Encountered 10 feet							
13. Depth Drilled into Rock NA				16. Depth to Water and Elapsed Time after Drilling Completed 10 feet							
14. Total Depth of Hole 15.0 Feet BLS				17. Other Water Level Measurements (Specify) NA							
18. Geotechnical Samples		NA			19. Total Number of Core Boxes						
20. Samples for Chemical Analysis		BTEX PAH TAL Metals			Other (Specify)		Other (Specify)	Other (Specify)			
22. Disposition of Hole		Backfilled/Bentonite/Asphalt Patch			Monitoring Well		23. Signature of Inspector				
		NA			Other (Specify)						
Lith Logs a	Depth b	Descriptions of Materials			Field Screening Results d	Geo-Tech Sample or Core Box No. e	Analytical Sample No. f	Blow Counts g			
	0	0' to 3" Asphalt Pavement			NA						
		0.4" to 1.5' Light Grey to Light Brown Silty Sand, No Odor, Damp, Well Graded, Well Sorted									
	2	1.5' to 2.5' Brown Clayey Sand, Fine Grained, Stiff, Dry to Moist, Well Graded, Well Sorted, No Odor			0.0						No Odor
		2.05' to 4.0' Dark Grey Silty Sands, SP, Dry, Well Graded, Well sorted, Dry, No Odor									No Odor
	4	4.0' to 5.5' Light Grey to tan Fine Sand, Dry No. Odor, SW, Well Graded, Well Sorted, Unconsolidated			0.0			No Odor			
	6				0.0	B-430-B-16 (5.0-7.5)		No Odor			
	8	5.5' to 13.0' Black Fine Sand with Organics and Possible Peat (Swamp Materials), Musty Odor, Wet at 10.0', Dense and well packed, Well Graded, Well Sorted Saturated from 10.0' to 13.0', Hard Drilling, Very Dense			0.0			Musty Odor			
	10				0.1	B-430-B-16 (10.0-12.5)		Musty Odor			
	12				0.0			Musty Odor			
	14	13.0' to 15.0' Reddish Brown Silty Fine Sand, Medium Grained, SW, Very Hard Drilling, Sharp Contact, Slightly Damp to Somewhat Moist, No water saturation, Possible Hardpan, Musty Odor						Musty Odor			
	16	EOB @ 15.0'									
	18										
	20										
	Project		AAFES Car Car Center, Building 430, Fort Stewart, Georgia					Hole No. B-430-B-16			

APPENDIX B



January 15, 2013

Service Request No:J1300077

Fred Portofe
J2 Engineering
6921 Pistol Range Road
Suite 101
Tampa, FL 33635

Laboratory Results for: AAFES Ft. Stewart

Dear Fred,

Enclosed are the results of the sample(s) submitted to our laboratory January 04, 2013
For your reference, these analyses have been assigned our service request number **J1300077**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. In accordance to the NELAC 2003 Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Please contact me if you have any questions. My extension is 4409. You may also contact me via email at Craig.Myers@alsglobal.com.

Respectfully submitted,

Columbia Analytical Services, Inc. dba ALS Enviromental

Craig Myers
Project Manager

ADDRESS 9143 Philips Highway, Suite 200, Jacksonville, FL 32256

PHONE +1 904 739 2277 | FAX +1 904 739 2011

Columbia Analytical Services, Inc.

Part of the ALS Group A Campbell Brothers Limited Company

State Certifications, Accreditations, and Licenses

Agency	Number	Expire Date
Florida Department of Health	E82502	6/30/2013
Louisiana Department of Environmental Quality	02086	6/30/2013
Georgia Department of Natural Resources	958	6/30/2013
Kentucky Division of Waste Management	63	7/5/2013
South Carolina Department of Health and Environmental Control	96021001	6/30/2013
Texas Commision on Environmental Quality	T104704197-09-TX	5/31/2013
Maine Department of Health and Human Services	2011006	2/3/2013
Department of Defense	66206	5/31/2013

Data Qualifiers

CAS Standard

- + Possible Tedlar bag artifact.
- A TIC is a suspected aldol-condensation product
- B Analyte found in the associated method blank as well as in the sample.
- BC Reported results are not blank corrected.
- BH The back section of the tube yielded higher results than the front.
- BT Results indicated possible breakthrough; back section $\geq 10\%$ front section.
- C Result identification confirmed.
- D Compound identified in an analysis at a secondary dilution factor
- D Spike was diluted out
- DE Reported results are corrected for desorption efficiency.
- E Estimated value. Concentration above calibration range
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- H1 Sample analysis performed past holding time. See case narrative.
- H2 Initial analysis within holding time. Reanalysis for the required dilution was past holding time.
- H3 Sample was received and analyzed past holding time.
- H4 Sample was extracted past required extraction holding time, but analyzed within analysis holding time. See case narrative.
- I Internal standard not within the specified limits. See case narrative.
- J Estimated Value. Concentration found below MRL.
- K A deflection in the QC ion may indicate interference with the quantitation of this ion. The concentration of this analyte should be considered as an estimate.
- K Analyte was detected above the method reporting limit prior to normalization.
- L1 Laboratory control sample recovery outside the specified limits; results may be biased high.
- L2 Laboratory control sample recovery outside the specified limits; results may be biased low.
- L3 Laboratory control sample recovery outside the specified limits.
- M Matrix interference; results may be biased high.
- M The duplicate injection precision not met.
- M1 Matrix interference due to coelution with a non-target compound; results may be biased high.
- N Presumptive evidence of a compound for TICs that have been identified based on a mass spectral library search.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- P Indicates chlorodiphenyl ether interference present at the retention time of the target compound.
- P Pesticide/Aroclor target analyte $> 40\%$ difference for detected concentrations between GC columns
- Q Indicates as estimated value because the P and P + 2 theoretical abundance ratio does not meet method criteria.
- R Duplicate Precision not met.
- R1 Duplicate precision not within the specified limits; however, the results are below the MRL and considered estimated.
- S Surrogate recovery not within specified limits.

Data Qualifiers

CAS Standard

- S The reported value was determined by the Method of Standard Additions (MSA).
- T Analyte is a tentatively identified compound, result is estimated.
- U Compound was analyzed for, but was not detected (ND).
- V1 The continuing calibration verification standard was outside (biased high) the specified limits for this compound.
- V2 The continuing calibration verification standard was outside (biased low) the specified limits for this compound.
- W Result quantified, but the corresponding peak was detected outside the generated retention time window.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
- X See case narrative.
- Y Recovery outside limits
- Y The chromatogram resembles a petroleum product but does not match the calibration standard.
- Z The chromatogram does not resemble a petroleum product.
- i The MRL/MDL has been elevated due to a matrix interference.

ALS Laboratory Group

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052

Service Request:J1300077

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
J1300077-001	B430-B-1 (4-6)	1/2/2013	1715
J1300077-002	B430-B-1 (12-14)	1/2/2013	1720
J1300077-003	B430-B-2 (5-7.5)	1/2/2013	1730
J1300077-004	B430-B-2 (12.5-15)	1/2/2013	1735
J1300077-005	B430-B-3 (5-7.5)	1/2/2013	1815
J1300077-006	B430-B-3 (7.5-10)	1/2/2013	1820
J1300077-007	Trip Blank	1/2/2013	0000

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300077
Date Collected: 01/02/13 17:15
Date Received: 01/04/13 16:14

Sample Name: B430-B-1 (4-6)
Lab Code: J1300077-001

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260B
Prep Method: EPA 5035

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Benzene	0.180 U	5.28	0.180	1	01/07/13 12:22	1/7/13	
Ethylbenzene	0.127 U	5.28	0.127	1	01/07/13 12:22	1/7/13	
m,p-Xylenes	0.222 U	10.6	0.222	1	01/07/13 12:22	1/7/13	
o-Xylene	0.169 U	5.28	0.169	1	01/07/13 12:22	1/7/13	
Toluene	0.286 U	5.28	0.286	1	01/07/13 12:22	1/7/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	104	80 - 120	01/07/13 12:22	
4-Bromofluorobenzene	98	64 - 135	01/07/13 12:22	
Dibromofluoromethane	101	74 - 125	01/07/13 12:22	
Toluene-d8	101	46 - 156	01/07/13 12:22	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300077
Date Collected: 01/02/13 17:15
Date Received: 01/04/13 16:14

Sample Name: B430-B-1 (4-6)
Lab Code: J1300077-001

Units: ug/Kg
Basis: Dry

Base Neutral Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270C SIM
Prep Method: EPA 3550C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1-Methylnaphthalene	2.70 U	3.39	2.70	1	01/08/13 06:58	1/7/13	
2-Methylnaphthalene	2.30 U	3.39	2.30	1	01/08/13 06:58	1/7/13	
Acenaphthene	3.10 U	6.78	3.10	1	01/08/13 06:58	1/7/13	
Acenaphthylene	2.20 U	6.78	2.20	1	01/08/13 06:58	1/7/13	
Anthracene	1.60 U	3.39	1.60	1	01/08/13 06:58	1/7/13	
Benz(a)anthracene	5.98	3.39	1.90	1	01/08/13 06:58	1/7/13	
Benzo(a)pyrene	19.8	3.39	1.00	1	01/08/13 06:58	1/7/13	
Benzo(b)fluoranthene	15.9	3.39	2.00	1	01/08/13 06:58	1/7/13	
Benzo(g,h,i)perylene	2.55 J	3.39	2.20	1	01/08/13 06:58	1/7/13	
Benzo(k)fluoranthene	2.40 U	3.39	2.40	1	01/08/13 06:58	1/7/13	
Chrysene	5.51	3.39	1.90	1	01/08/13 06:58	1/7/13	
Dibenz(a,h)anthracene	2.70 U	3.39	2.70	1	01/08/13 06:58	1/7/13	
Fluoranthene	7.36	3.39	2.00	1	01/08/13 06:58	1/7/13	
Fluorene	2.20 U	3.39	2.20	1	01/08/13 06:58	1/7/13	
Indeno(1,2,3-cd)pyrene	2.20 U	3.39	2.20	1	01/08/13 06:58	1/7/13	
Naphthalene	3.10 U	3.39	3.10	1	01/08/13 06:58	1/7/13	
Phenanthrene	3.18 J	6.78	1.70	1	01/08/13 06:58	1/7/13	
Pyrene	9.28	3.39	2.00	1	01/08/13 06:58	1/7/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	70	30 - 118	01/08/13 06:58	
p-Terphenyl-d14	84	41 - 146	01/08/13 06:58	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300077
Date Collected: 01/02/13 17:15
Date Received: 01/04/13 16:14

Sample Name: B430-B-1 (4-6)
Lab Code: J1300077-001

Basis: Dry

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total Recoverable	6010B	5700	mg/Kg	5.4	0.9	1	01/08/13 19:05	1/8/13	
Antimony, Total Recoverable	6010B	0.32 J	mg/Kg	0.54	0.08	1	01/08/13 19:06	1/8/13	
Arsenic, Total Recoverable	6010B	0.48 J	mg/Kg	0.54	0.13	1	01/08/13 19:06	1/8/13	
Barium, Total Recoverable	6010B	3.69	mg/Kg	0.54	0.03	1	01/08/13 19:06	1/8/13	
Beryllium, Total Recoverable	6010B	0.11 J	mg/Kg	0.21	0.009	1	01/08/13 19:06	1/8/13	
Cadmium, Total Recoverable	6010B	0.05 J	mg/Kg	0.27	0.008	1	01/08/13 19:06	1/8/13	
Calcium, Total Recoverable	6010B	103	mg/Kg	5.4	1.2	1	01/08/13 19:05	1/8/13	
Chromium, Total Recoverable	6010B	8.77	mg/Kg	0.54	0.03	1	01/08/13 19:06	1/8/13	
Cobalt, Total Recoverable	6010B	0.11 J	mg/Kg	0.54	0.05	1	01/08/13 19:06	1/8/13	
Copper, Total Recoverable	6010B	1.98	mg/Kg	0.54	0.07	1	01/08/13 19:06	1/8/13	
Iron, Total Recoverable	6010B	1080	mg/Kg	5.4	0.7	1	01/08/13 19:05	1/8/13	
Lead, Total Recoverable	6010B	4.39	mg/Kg	0.54	0.14	1	01/08/13 19:06	1/8/13	
Magnesium, Total Recoverable	6010B	85.9	mg/Kg	5.4	0.7	1	01/08/13 19:05	1/8/13	
Manganese, Total Recoverable	6010B	4.98	mg/Kg	0.54	0.009	1	01/08/13 19:06	1/8/13	
Mercury	7471A	0.126	mg/Kg	0.0071	0.0011	1	01/08/13 11:40	1/7/13	
Nickel, Total Recoverable	6010B	0.91	mg/Kg	0.54	0.04	1	01/08/13 19:06	1/8/13	
Potassium, Total Recoverable	6010B	50 J	mg/Kg	110	4	1	01/08/13 19:05	1/8/13	
Selenium, Total Recoverable	6010B	0.29 U	mg/Kg	0.54	0.29	1	01/08/13 19:06	1/8/13	
Silver, Total Recoverable	6010B	0.05 U	mg/Kg	0.54	0.05	1	01/08/13 19:06	1/8/13	
Sodium, Total Recoverable	6010B	15 J	mg/Kg	27	2	1	01/08/13 19:05	1/8/13	
Thallium, Total Recoverable	6010B	0.12 U	mg/Kg	0.54	0.12	1	01/08/13 19:06	1/8/13	
Vanadium, Total Recoverable	6010B	5.8	mg/Kg	1.1	0.2	1	01/08/13 19:06	1/8/13	
Zinc, Total Recoverable	6010B	1.2	mg/Kg	1.1	0.2	1	01/08/13 19:06	1/8/13	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300077
Date Collected: 01/02/13 17:20
Date Received: 01/04/13 16:14

Sample Name: B430-B-1 (12-14)
Lab Code: J1300077-002

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260B
Prep Method: EPA 5035

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Benzene	0.220 U	6.47	0.220	1	01/07/13 12:51	1/7/13	
Ethylbenzene	0.156 U	6.47	0.156	1	01/07/13 12:51	1/7/13	
m,p-Xylenes	0.272 U	12.9	0.272	1	01/07/13 12:51	1/7/13	
o-Xylene	0.208 U	6.47	0.208	1	01/07/13 12:51	1/7/13	
Toluene	0.440 J	6.47	0.350	1	01/07/13 12:51	1/7/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	103	80 - 120	01/07/13 12:51	
4-Bromofluorobenzene	100	64 - 135	01/07/13 12:51	
Dibromofluoromethane	100	74 - 125	01/07/13 12:51	
Toluene-d8	101	46 - 156	01/07/13 12:51	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300077
Date Collected: 01/02/13 17:20
Date Received: 01/04/13 16:14

Sample Name: B430-B-1 (12-14)
Lab Code: J1300077-002

Units: ug/Kg
Basis: Dry

Base Neutral Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270C SIM
Prep Method: EPA 3550C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1-Methylnaphthalene	3.07 U	3.86	3.07	1	01/08/13 08:07	1/7/13	
2-Methylnaphthalene	2.62 U	3.86	2.62	1	01/08/13 08:07	1/7/13	
Acenaphthene	3.53 U	7.73	3.53	1	01/08/13 08:07	1/7/13	
Acenaphthylene	2.50 U	7.73	2.50	1	01/08/13 08:07	1/7/13	
Anthracene	1.82 U	3.86	1.82	1	01/08/13 08:07	1/7/13	
Benz(a)anthracene	2.16 U	3.86	2.16	1	01/08/13 08:07	1/7/13	
Benzo(a)pyrene	1.14 U	3.86	1.14	1	01/08/13 08:07	1/7/13	
Benzo(b)fluoranthene	2.28 U	3.86	2.28	1	01/08/13 08:07	1/7/13	
Benzo(g,h,i)perylene	2.50 U	3.86	2.50	1	01/08/13 08:07	1/7/13	
Benzo(k)fluoranthene	2.73 U	3.86	2.73	1	01/08/13 08:07	1/7/13	
Chrysene	2.16 U	3.86	2.16	1	01/08/13 08:07	1/7/13	
Dibenz(a,h)anthracene	3.07 U	3.86	3.07	1	01/08/13 08:07	1/7/13	
Fluoranthene	2.28 U	3.86	2.28	1	01/08/13 08:07	1/7/13	
Fluorene	2.50 U	3.86	2.50	1	01/08/13 08:07	1/7/13	
Indeno(1,2,3-cd)pyrene	2.50 U	3.86	2.50	1	01/08/13 08:07	1/7/13	
Naphthalene	7.66	3.86	3.53	1	01/08/13 08:07	1/7/13	
Phenanthrene	1.94 U	7.73	1.94	1	01/08/13 08:07	1/7/13	
Pyrene	2.28 U	3.86	2.28	1	01/08/13 08:07	1/7/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	51	30 - 118	01/08/13 08:07	
p-Terphenyl-d14	63	41 - 146	01/08/13 08:07	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300077
Date Collected: 01/02/13 17:20
Date Received: 01/04/13 16:14

Sample Name: B430-B-1 (12-14)
Lab Code: J1300077-002

Basis: Dry

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total Recoverable	6010B	5690	mg/Kg	5.9	1.0	1	01/08/13 19:25	1/8/13	
Antimony, Total Recoverable	6010B	0.36 J	mg/Kg	0.59	0.09	1	01/08/13 19:27	1/8/13	
Arsenic, Total Recoverable	6010B	0.14 U	mg/Kg	0.59	0.14	1	01/08/13 19:27	1/8/13	
Barium, Total Recoverable	6010B	1.31	mg/Kg	0.59	0.04	1	01/08/13 19:27	1/8/13	
Beryllium, Total Recoverable	6010B	0.010 U	mg/Kg	0.24	0.010	1	01/08/13 19:26	1/8/13	
Cadmium, Total Recoverable	6010B	0.18 J	mg/Kg	0.30	0.009	1	01/08/13 19:27	1/8/13	
Calcium, Total Recoverable	6010B	30.6	mg/Kg	5.9	1.3	1	01/08/13 19:25	1/8/13	
Chromium, Total Recoverable	6010B	3.56	mg/Kg	0.59	0.03	1	01/08/13 19:27	1/8/13	
Cobalt, Total Recoverable	6010B	0.05 U	mg/Kg	0.59	0.05	1	01/08/13 19:27	1/8/13	
Copper, Total Recoverable	6010B	1.84	mg/Kg	0.59	0.08	1	01/08/13 19:26	1/8/13	
Iron, Total Recoverable	6010B	61.1	mg/Kg	5.9	0.7	1	01/08/13 19:25	1/8/13	
Lead, Total Recoverable	6010B	8.31	mg/Kg	0.59	0.16	1	01/08/13 19:27	1/8/13	
Magnesium, Total Recoverable	6010B	20.5	mg/Kg	5.9	0.8	1	01/08/13 19:25	1/8/13	
Manganese, Total Recoverable	6010B	0.65	mg/Kg	0.59	0.010	1	01/08/13 19:27	1/8/13	
Mercury	7471A	0.0379	mg/Kg	0.0079	0.0012	1	01/08/13 11:51	1/7/13	
Nickel, Total Recoverable	6010B	0.24 J	mg/Kg	0.59	0.04	1	01/08/13 19:27	1/8/13	
Potassium, Total Recoverable	6010B	40 J	mg/Kg	120	5	1	01/08/13 19:25	1/8/13	
Selenium, Total Recoverable	6010B	2.14	mg/Kg	0.59	0.33	1	01/08/13 19:27	1/8/13	
Silver, Total Recoverable	6010B	0.06 U	mg/Kg	0.59	0.06	1	01/08/13 19:26	1/8/13	
Sodium, Total Recoverable	6010B	12 J	mg/Kg	30	2	1	01/08/13 19:25	1/8/13	
Thallium, Total Recoverable	6010B	0.13 U	mg/Kg	0.59	0.13	1	01/08/13 19:27	1/8/13	
Vanadium, Total Recoverable	6010B	6.9	mg/Kg	1.2	0.2	1	01/08/13 19:26	1/8/13	
Zinc, Total Recoverable	6010B	0.4 J	mg/Kg	1.2	0.2	1	01/08/13 19:27	1/8/13	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300077
Date Collected: 01/02/13 17:30
Date Received: 01/04/13 16:14

Sample Name: B430-B-2 (5-7.5)
Lab Code: J1300077-003

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260B
Prep Method: EPA 5035

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Benzene	0.170 U	4.80	0.170	1	01/07/13 13:20	1/7/13	
Ethylbenzene	0.120 U	4.80	0.120	1	01/07/13 13:20	1/7/13	
m,p-Xylenes	0.210 U	9.61	0.210	1	01/07/13 13:20	1/7/13	
o-Xylene	0.160 U	4.80	0.160	1	01/07/13 13:20	1/7/13	
Toluene	0.270 U	4.80	0.270	1	01/07/13 13:20	1/7/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	105	80 - 120	01/07/13 13:20	
4-Bromofluorobenzene	99	64 - 135	01/07/13 13:20	
Dibromofluoromethane	101	74 - 125	01/07/13 13:20	
Toluene-d8	98	46 - 156	01/07/13 13:20	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300077
Date Collected: 01/02/13 17:30
Date Received: 01/04/13 16:14

Sample Name: B430-B-2 (5-7.5)
Lab Code: J1300077-003

Units: ug/Kg
Basis: Dry

Base Neutral Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270C SIM
Prep Method: EPA 3550C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1-Methylnaphthalene	2.70 U	3.18	2.70	1	01/08/13 08:30	1/7/13	
2-Methylnaphthalene	2.30 U	3.18	2.30	1	01/08/13 08:30	1/7/13	
Acenaphthene	3.10 U	6.37	3.10	1	01/08/13 08:30	1/7/13	
Acenaphthylene	2.20 U	6.37	2.20	1	01/08/13 08:30	1/7/13	
Anthracene	1.60 U	3.18	1.60	1	01/08/13 08:30	1/7/13	
Benz(a)anthracene	26.2	3.18	1.90	1	01/08/13 08:30	1/7/13	
Benzo(a)pyrene	29.4	3.18	1.00	1	01/08/13 08:30	1/7/13	
Benzo(b)fluoranthene	40.0	3.18	2.00	1	01/08/13 08:30	1/7/13	
Benzo(g,h,i)perylene	16.2	3.18	2.20	1	01/12/13 04:49	1/7/13	
Benzo(k)fluoranthene	9.49	3.18	2.40	1	01/08/13 08:30	1/7/13	
Chrysene	23.7	3.18	1.90	1	01/08/13 08:30	1/7/13	
Dibenz(a,h)anthracene	2.70 U	3.18	2.70	1	01/08/13 08:30	1/7/13	
Fluoranthene	30.5	3.18	2.00	1	01/08/13 08:30	1/7/13	
Fluorene	2.20 U	3.18	2.20	1	01/08/13 08:30	1/7/13	
Indeno(1,2,3-cd)pyrene	23.9	3.18	2.20	1	01/12/13 04:49	1/7/13	
Naphthalene	3.10 U	3.18	3.10	1	01/08/13 08:30	1/7/13	
Phenanthrene	6.48	6.37	1.70	1	01/08/13 08:30	1/7/13	
Pyrene	41.3	3.18	2.00	1	01/08/13 08:30	1/7/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	51	30 - 118	01/08/13 08:30	
p-Terphenyl-d14	63	41 - 146	01/08/13 08:30	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300077
Date Collected: 01/02/13 17:30
Date Received: 01/04/13 16:14

Sample Name: B430-B-2 (5-7.5)
Lab Code: J1300077-003

Basis: Dry

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total Recoverable	6010B	6230	mg/Kg	5.1	0.9	1	01/08/13 19:29	1/8/13	
Antimony, Total Recoverable	6010B	0.31 J	mg/Kg	0.51	0.08	1	01/08/13 19:30	1/8/13	
Arsenic, Total Recoverable	6010B	0.51	mg/Kg	0.51	0.12	1	01/08/13 19:30	1/8/13	
Barium, Total Recoverable	6010B	9.55	mg/Kg	0.51	0.03	1	01/08/13 19:30	1/8/13	
Beryllium, Total Recoverable	6010B	0.009 U	mg/Kg	0.21	0.009	1	01/08/13 19:30	1/8/13	
Cadmium, Total Recoverable	6010B	0.05 J	mg/Kg	0.26	0.008	1	01/08/13 19:30	1/8/13	
Calcium, Total Recoverable	6010B	373	mg/Kg	5.1	1.1	1	01/08/13 19:29	1/8/13	
Chromium, Total Recoverable	6010B	10.6	mg/Kg	0.51	0.02	1	01/08/13 19:30	1/8/13	
Cobalt, Total Recoverable	6010B	0.51	mg/Kg	0.51	0.05	1	01/08/13 19:30	1/8/13	
Copper, Total Recoverable	6010B	1.44	mg/Kg	0.51	0.07	1	01/08/13 19:30	1/8/13	
Iron, Total Recoverable	6010B	2310	mg/Kg	5.1	0.6	1	01/08/13 19:29	1/8/13	
Lead, Total Recoverable	6010B	3.49	mg/Kg	0.51	0.14	1	01/08/13 19:30	1/8/13	
Magnesium, Total Recoverable	6010B	250	mg/Kg	5.1	0.7	1	01/08/13 19:29	1/8/13	
Manganese, Total Recoverable	6010B	18.3	mg/Kg	0.51	0.009	1	01/08/13 19:30	1/8/13	
Mercury	7471A	0.0313	mg/Kg	0.0072	0.0011	1	01/08/13 11:57	1/7/13	
Nickel, Total Recoverable	6010B	2.31	mg/Kg	0.51	0.04	1	01/08/13 19:30	1/8/13	
Potassium, Total Recoverable	6010B	120	mg/Kg	100	4	1	01/08/13 19:29	1/8/13	
Selenium, Total Recoverable	6010B	0.28 U	mg/Kg	0.51	0.28	1	01/08/13 19:30	1/8/13	
Silver, Total Recoverable	6010B	0.05 U	mg/Kg	0.51	0.05	1	01/08/13 19:30	1/8/13	
Sodium, Total Recoverable	6010B	11 J	mg/Kg	26	2	1	01/08/13 19:29	1/8/13	
Thallium, Total Recoverable	6010B	0.11 U	mg/Kg	0.51	0.11	1	01/08/13 19:30	1/8/13	
Vanadium, Total Recoverable	6010B	8.5	mg/Kg	1.0	0.2	1	01/08/13 19:30	1/8/13	
Zinc, Total Recoverable	6010B	4.3	mg/Kg	1.0	0.2	1	01/08/13 19:30	1/8/13	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300077
Date Collected: 01/02/13 17:35
Date Received: 01/04/13 16:14

Sample Name: B430-B-2 (12.5-15)
Lab Code: J1300077-004

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260B
Prep Method: EPA 5035

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Benzene	0.197 U	5.77	0.197	1	01/07/13 13:48	1/7/13	
Ethylbenzene	0.139 U	5.77	0.139	1	01/07/13 13:48	1/7/13	
m,p-Xylenes	0.254 J	11.5	0.243	1	01/07/13 13:48	1/7/13	
o-Xylene	0.185 U	5.77	0.185	1	01/07/13 13:48	1/7/13	
Toluene	0.312 U	5.77	0.312	1	01/07/13 13:48	1/7/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	101	80 - 120	01/07/13 13:48	
4-Bromofluorobenzene	98	64 - 135	01/07/13 13:48	
Dibromofluoromethane	100	74 - 125	01/07/13 13:48	
Toluene-d8	102	46 - 156	01/07/13 13:48	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300077
Date Collected: 01/02/13 17:35
Date Received: 01/04/13 16:14

Sample Name: B430-B-2 (12.5-15)
Lab Code: J1300077-004

Units: ug/Kg
Basis: Dry

Base Neutral Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270C SIM
Prep Method: EPA 3550C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1-Methylnaphthalene	3.15 U	3.96	3.15	1	01/08/13 08:53	1/7/13	
2-Methylnaphthalene	2.68 U	3.96	2.68	1	01/08/13 08:53	1/7/13	
Acenaphthene	3.62 U	7.92	3.62	1	01/08/13 08:53	1/7/13	
Acenaphthylene	2.57 U	7.92	2.57	1	01/08/13 08:53	1/7/13	
Anthracene	1.87 U	3.96	1.87	1	01/08/13 08:53	1/7/13	
Benz(a)anthracene	2.22 U	3.96	2.22	1	01/08/13 08:53	1/7/13	
Benzo(a)pyrene	1.17 U	3.96	1.17	1	01/08/13 08:53	1/7/13	
Benzo(b)fluoranthene	2.33 U	3.96	2.33	1	01/08/13 08:53	1/7/13	
Benzo(g,h,i)perylene	2.57 U	3.96	2.57	1	01/08/13 08:53	1/7/13	
Benzo(k)fluoranthene	2.80 U	3.96	2.80	1	01/08/13 08:53	1/7/13	
Chrysene	2.22 U	3.96	2.22	1	01/08/13 08:53	1/7/13	
Dibenz(a,h)anthracene	3.15 U	3.96	3.15	1	01/08/13 08:53	1/7/13	
Fluoranthene	2.33 U	3.96	2.33	1	01/08/13 08:53	1/7/13	
Fluorene	2.57 U	3.96	2.57	1	01/08/13 08:53	1/7/13	
Indeno(1,2,3-cd)pyrene	2.57 U	3.96	2.57	1	01/08/13 08:53	1/7/13	
Naphthalene	3.62 U	3.96	3.62	1	01/08/13 08:53	1/7/13	
Phenanthrene	1.98 U	7.92	1.98	1	01/08/13 08:53	1/7/13	
Pyrene	2.33 U	3.96	2.33	1	01/08/13 08:53	1/7/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	52	30 - 118	01/08/13 08:53	
p-Terphenyl-d14	58	41 - 146	01/08/13 08:53	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300077
Date Collected: 01/02/13 17:35
Date Received: 01/04/13 16:14

Sample Name: B430-B-2 (12.5-15)
Lab Code: J1300077-004

Basis: Dry

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total Recoverable	6010B	4670	mg/Kg	5.6	1.0	1	01/08/13 19:34	1/8/13	
Antimony, Total Recoverable	6010B	0.33 J	mg/Kg	0.56	0.09	1	01/08/13 19:35	1/8/13	
Arsenic, Total Recoverable	6010B	0.13 U	mg/Kg	0.56	0.13	1	01/08/13 19:35	1/8/13	
Barium, Total Recoverable	6010B	1.06	mg/Kg	0.56	0.04	1	01/08/13 19:35	1/8/13	
Beryllium, Total Recoverable	6010B	0.009 U	mg/Kg	0.22	0.009	1	01/08/13 19:35	1/8/13	
Cadmium, Total Recoverable	6010B	0.06 J	mg/Kg	0.28	0.008	1	01/08/13 19:35	1/8/13	
Calcium, Total Recoverable	6010B	15.0	mg/Kg	5.6	1.2	1	01/08/13 19:34	1/8/13	
Chromium, Total Recoverable	6010B	3.95	mg/Kg	0.56	0.03	1	01/08/13 19:35	1/8/13	
Cobalt, Total Recoverable	6010B	0.05 U	mg/Kg	0.56	0.05	1	01/08/13 19:35	1/8/13	
Copper, Total Recoverable	6010B	2.06	mg/Kg	0.56	0.07	1	01/08/13 19:35	1/8/13	
Iron, Total Recoverable	6010B	34.4	mg/Kg	5.6	0.7	1	01/08/13 19:34	1/8/13	
Lead, Total Recoverable	6010B	4.34	mg/Kg	0.56	0.15	1	01/08/13 19:35	1/8/13	
Magnesium, Total Recoverable	6010B	8.8	mg/Kg	5.6	0.7	1	01/08/13 19:34	1/8/13	
Manganese, Total Recoverable	6010B	0.50 J	mg/Kg	0.56	0.010	1	01/08/13 19:35	1/8/13	
Mercury	7471A	0.0267	mg/Kg	0.0079	0.0012	1	01/08/13 11:59	1/7/13	
Nickel, Total Recoverable	6010B	0.22 J	mg/Kg	0.56	0.04	1	01/08/13 19:35	1/8/13	
Potassium, Total Recoverable	6010B	10 J	mg/Kg	110	5	1	01/08/13 19:34	1/8/13	
Selenium, Total Recoverable	6010B	0.78	mg/Kg	0.56	0.31	1	01/08/13 19:35	1/8/13	
Silver, Total Recoverable	6010B	0.05 U	mg/Kg	0.56	0.05	1	01/08/13 19:35	1/8/13	
Sodium, Total Recoverable	6010B	5 J	mg/Kg	28	2	1	01/08/13 19:34	1/8/13	
Thallium, Total Recoverable	6010B	0.12 U	mg/Kg	0.56	0.12	1	01/08/13 19:35	1/8/13	
Vanadium, Total Recoverable	6010B	6.3	mg/Kg	1.1	0.2	1	01/08/13 19:35	1/8/13	
Zinc, Total Recoverable	6010B	1.0 J	mg/Kg	1.1	0.2	1	01/08/13 19:35	1/8/13	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300077
Date Collected: 01/02/13 18:15
Date Received: 01/04/13 16:14

Sample Name: B430-B-3 (5-7.5)
Lab Code: J1300077-005

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260B
Prep Method: EPA 5035

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Benzene	10.4	5.43	0.185	1	01/07/13 14:17	1/7/13	
Ethylbenzene	66.1	5.43	0.131	1	01/07/13 14:17	1/7/13	
m,p-Xylenes	422	204	4.28	20	01/10/13 13:12	1/10/13	
o-Xylene	305	102	3.26	20	01/10/13 13:12	1/10/13	
Toluene	43.4	5.43	0.294	1	01/07/13 14:17	1/7/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	108	80 - 120	01/07/13 14:17	
4-Bromofluorobenzene	108	64 - 135	01/07/13 14:17	
Dibromofluoromethane	103	74 - 125	01/07/13 14:17	
Toluene-d8	99	46 - 156	01/07/13 14:17	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300077
Date Collected: 01/02/13 18:15
Date Received: 01/04/13 16:14

Sample Name: B430-B-3 (5-7.5)
Lab Code: J1300077-005

Units: ug/Kg
Basis: Dry

Base Neutral Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270C SIM
Prep Method: EPA 3550C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1-Methylnaphthalene	126	3.40	2.71	1	01/08/13 09:16	1/7/13	
2-Methylnaphthalene	208	3.40	2.31	1	01/08/13 09:16	1/7/13	
Acenaphthene	3.11 U	6.80	3.11	1	01/08/13 09:16	1/7/13	
Acenaphthylene	2.21 U	6.80	2.21	1	01/08/13 09:16	1/7/13	
Anthracene	1.61 U	3.40	1.61	1	01/08/13 09:16	1/7/13	
Benz(a)anthracene	9.76	3.40	1.91	1	01/08/13 09:16	1/7/13	
Benzo(a)pyrene	20.7	3.40	1.01	1	01/08/13 09:16	1/7/13	
Benzo(b)fluoranthene	19.3	3.40	2.01	1	01/08/13 09:16	1/7/13	
Benzo(g,h,i)perylene	11.6	3.40	2.21	1	01/12/13 05:12	1/7/13	
Benzo(k)fluoranthene	2.69 J	3.40	2.41	1	01/08/13 09:16	1/7/13	
Chrysene	9.74	3.40	1.91	1	01/08/13 09:16	1/7/13	
Dibenz(a,h)anthracene	2.71 U	3.40	2.71	1	01/08/13 09:16	1/7/13	
Fluoranthene	15.9	3.40	2.01	1	01/08/13 09:16	1/7/13	
Fluorene	5.17	3.40	2.21	1	01/08/13 09:16	1/7/13	
Indeno(1,2,3-cd)pyrene	2.21 U	3.40	2.21	1	01/08/13 09:16	1/7/13	
Naphthalene	122	3.40	3.11	1	01/08/13 09:16	1/7/13	
Phenanthrene	12.7	6.80	1.71	1	01/08/13 09:16	1/7/13	
Pyrene	20.1	3.40	2.01	1	01/08/13 09:16	1/7/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	49	30 - 118	01/08/13 09:16	
p-Terphenyl-d14	64	41 - 146	01/08/13 09:16	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300077
Date Collected: 01/02/13 18:15
Date Received: 01/04/13 16:14

Sample Name: B430-B-3 (5-7.5)
Lab Code: J1300077-005

Basis: Dry

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total Recoverable	6010B	6470	mg/Kg	5.1	0.9	1	01/08/13 19:38	1/8/13	
Antimony, Total Recoverable	6010B	0.30 J	mg/Kg	0.51	0.08	1	01/08/13 19:39	1/8/13	
Arsenic, Total Recoverable	6010B	0.71	mg/Kg	0.51	0.12	1	01/08/13 19:39	1/8/13	
Barium, Total Recoverable	6010B	11.5	mg/Kg	0.51	0.03	1	01/08/13 19:39	1/8/13	
Beryllium, Total Recoverable	6010B	0.009 U	mg/Kg	0.20	0.009	1	01/08/13 19:38	1/8/13	
Cadmium, Total Recoverable	6010B	0.05 J	mg/Kg	0.25	0.008	1	01/08/13 19:39	1/8/13	
Calcium, Total Recoverable	6010B	1660	mg/Kg	5.1	1.1	1	01/08/13 19:38	1/8/13	
Chromium, Total Recoverable	6010B	12.3	mg/Kg	0.51	0.02	1	01/08/13 19:39	1/8/13	
Cobalt, Total Recoverable	6010B	0.56	mg/Kg	0.51	0.05	1	01/08/13 19:39	1/8/13	
Copper, Total Recoverable	6010B	2.29	mg/Kg	0.51	0.07	1	01/08/13 19:39	1/8/13	
Iron, Total Recoverable	6010B	2820	mg/Kg	5.1	0.6	1	01/08/13 19:38	1/8/13	
Lead, Total Recoverable	6010B	5.69	mg/Kg	0.51	0.14	1	01/08/13 19:39	1/8/13	
Magnesium, Total Recoverable	6010B	325	mg/Kg	5.1	0.7	1	01/08/13 19:38	1/8/13	
Manganese, Total Recoverable	6010B	25.4	mg/Kg	0.51	0.009	1	01/08/13 19:38	1/8/13	
Mercury	7471A	0.0196	mg/Kg	0.0069	0.0011	1	01/08/13 12:01	1/7/13	
Nickel, Total Recoverable	6010B	2.69	mg/Kg	0.51	0.04	1	01/08/13 19:39	1/8/13	
Potassium, Total Recoverable	6010B	180	mg/Kg	100	4	1	01/08/13 19:38	1/8/13	
Selenium, Total Recoverable	6010B	0.28 U	mg/Kg	0.51	0.28	1	01/08/13 19:39	1/8/13	
Silver, Total Recoverable	6010B	0.05 U	mg/Kg	0.51	0.05	1	01/08/13 19:39	1/8/13	
Sodium, Total Recoverable	6010B	368	mg/Kg	25	2	1	01/08/13 19:38	1/8/13	
Thallium, Total Recoverable	6010B	0.11 U	mg/Kg	0.51	0.11	1	01/08/13 19:39	1/8/13	
Vanadium, Total Recoverable	6010B	8.7	mg/Kg	1.0	0.2	1	01/08/13 19:39	1/8/13	
Zinc, Total Recoverable	6010B	5.7	mg/Kg	1.0	0.2	1	01/08/13 19:39	1/8/13	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300077
Date Collected: 01/02/13 18:20
Date Received: 01/04/13 16:14

Sample Name: B430-B-3 (7.5-10)
Lab Code: J1300077-006

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260B
Prep Method: EPA 5035

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Benzene	340 J	577	19.7	100	01/10/13 13:38	1/10/13	
Ethylbenzene	834	577	13.9	100	01/10/13 13:38	1/10/13	
m,p-Xylenes	18300	1150	24.3	100	01/10/13 13:38	1/10/13	
o-Xylene	15400	577	18.5	100	01/10/13 13:38	1/10/13	
Toluene	2810	577	31.2	100	01/10/13 13:38	1/10/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	100	80 - 120	01/10/13 13:38	
4-Bromofluorobenzene	100	64 - 135	01/10/13 13:38	
Dibromofluoromethane	97	74 - 125	01/10/13 13:38	
Toluene-d8	102	46 - 156	01/10/13 13:38	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300077
Date Collected: 01/02/13 18:20
Date Received: 01/04/13 16:14

Sample Name: B430-B-3 (7.5-10)
Lab Code: J1300077-006

Units: ug/Kg
Basis: Dry

Base Neutral Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270C SIM
Prep Method: EPA 3550C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1-Methylnaphthalene	4260	182	145	50	01/12/13 05:35	1/7/13	
2-Methylnaphthalene	7330	182	124	50	01/12/13 05:35	1/7/13	
Acenaphthene	36.4	7.28	3.32	1	01/08/13 09:39	1/7/13	
Acenaphthylene	2.36 U	7.28	2.36	1	01/08/13 09:39	1/7/13	
Anthracene	1.72 U	3.64	1.72	1	01/08/13 09:39	1/7/13	
Benz(a)anthracene	10.4	3.64	2.04	1	01/08/13 09:39	1/7/13	
Benzo(a)pyrene	1.08 U	3.64	1.08	1	01/08/13 09:39	1/7/13	
Benzo(b)fluoranthene	2.15 U	3.64	2.15	1	01/08/13 09:39	1/7/13	
Benzo(g,h,i)perylene	2.36 U	3.64	2.36	1	01/08/13 09:39	1/7/13	
Benzo(k)fluoranthene	2.58 U	3.64	2.58	1	01/08/13 09:39	1/7/13	
Chrysene	4.49	3.64	2.04	1	01/08/13 09:39	1/7/13	
Dibenz(a,h)anthracene	2.90 U	3.64	2.90	1	01/08/13 09:39	1/7/13	
Fluoranthene	20.0	3.64	2.15	1	01/08/13 09:39	1/7/13	
Fluorene	81.9	3.64	2.36	1	01/08/13 09:39	1/7/13	
Indeno(1,2,3-cd)pyrene	2.36 U	3.64	2.36	1	01/08/13 09:39	1/7/13	
Naphthalene	4980	182	166	50	01/12/13 05:35	1/7/13	
Phenanthrene	122	7.28	1.83	1	01/08/13 09:39	1/7/13	
Pyrene	21.8	3.64	2.15	1	01/08/13 09:39	1/7/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	46	30 - 118	01/08/13 09:39	
p-Terphenyl-d14	63	41 - 146	01/08/13 09:39	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300077
Date Collected: 01/02/13 18:20
Date Received: 01/04/13 16:14

Sample Name: B430-B-3 (7.5-10)
Lab Code: J1300077-006

Basis: Dry

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total Recoverable	6010B	5850	mg/Kg	4.9	0.9	1	01/08/13 19:42	1/8/13	
Antimony, Total Recoverable	6010B	0.24 J	mg/Kg	0.49	0.08	1	01/08/13 19:43	1/8/13	
Arsenic, Total Recoverable	6010B	0.19 J	mg/Kg	0.49	0.12	1	01/08/13 19:43	1/8/13	
Barium, Total Recoverable	6010B	1.17	mg/Kg	0.49	0.03	1	01/08/13 19:43	1/8/13	
Beryllium, Total Recoverable	6010B	0.15 J	mg/Kg	0.19	0.008	1	01/08/13 19:43	1/8/13	
Cadmium, Total Recoverable	6010B	0.05 J	mg/Kg	0.24	0.007	1	01/08/13 19:43	1/8/13	
Calcium, Total Recoverable	6010B	660	mg/Kg	4.9	1.1	1	01/08/13 19:42	1/8/13	
Chromium, Total Recoverable	6010B	8.72	mg/Kg	0.49	0.02	1	01/08/13 19:43	1/8/13	
Cobalt, Total Recoverable	6010B	0.04 U	mg/Kg	0.49	0.04	1	01/08/13 19:43	1/8/13	
Copper, Total Recoverable	6010B	1.95	mg/Kg	0.49	0.07	1	01/08/13 19:43	1/8/13	
Iron, Total Recoverable	6010B	333	mg/Kg	4.9	0.6	1	01/08/13 19:42	1/8/13	
Lead, Total Recoverable	6010B	7.60	mg/Kg	0.49	0.13	1	01/08/13 19:43	1/8/13	
Magnesium, Total Recoverable	6010B	40.5	mg/Kg	4.9	0.7	1	01/08/13 19:42	1/8/13	
Manganese, Total Recoverable	6010B	0.83	mg/Kg	0.49	0.009	1	01/08/13 19:43	1/8/13	
Mercury	7471A	0.0452	mg/Kg	0.0073	0.0011	1	01/08/13 12:03	1/7/13	
Nickel, Total Recoverable	6010B	0.29 J	mg/Kg	0.49	0.04	1	01/08/13 19:43	1/8/13	
Potassium, Total Recoverable	6010B	13 J	mg/Kg	97	4	1	01/08/13 19:42	1/8/13	
Selenium, Total Recoverable	6010B	0.27 U	mg/Kg	0.49	0.27	1	01/08/13 19:43	1/8/13	
Silver, Total Recoverable	6010B	0.05 U	mg/Kg	0.49	0.05	1	01/08/13 19:43	1/8/13	
Sodium, Total Recoverable	6010B	373	mg/Kg	24	2	1	01/08/13 19:42	1/8/13	
Thallium, Total Recoverable	6010B	0.11 U	mg/Kg	0.49	0.11	1	01/08/13 19:43	1/8/13	
Vanadium, Total Recoverable	6010B	2.29	mg/Kg	0.97	0.11	1	01/08/13 19:43	1/8/13	
Zinc, Total Recoverable	6010B	0.44 J	mg/Kg	0.97	0.16	1	01/08/13 19:43	1/8/13	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Water

Service Request: J1300077
Date Collected: 01/02/13 00:00
Date Received: 01/04/13 16:14

Sample Name: Trip Blank
Lab Code: J1300077-007

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Benzene	0.21 U	1.0	0.21	1	01/07/13 13:43	
Ethylbenzene	0.21 U	1.0	0.21	1	01/07/13 13:43	
m,p-Xylenes	0.31 U	2.0	0.31	1	01/07/13 13:43	
o-Xylene	0.14 U	1.0	0.14	1	01/07/13 13:43	
Toluene	0.19 U	1.0	0.19	1	01/07/13 13:43	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	107	72 - 121	01/07/13 13:43	
4-Bromofluorobenzene	93	86 - 113	01/07/13 13:43	
Dibromofluoromethane	104	86 - 112	01/07/13 13:43	
Toluene-d8	93	88 - 115	01/07/13 13:43	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Water

Service Request: J1300077
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: JQ1300127-02

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Benzene	0.21 U	1.0	0.21	1	01/07/13 13:17	
Ethylbenzene	0.21 U	1.0	0.21	1	01/07/13 13:17	
m,p-Xylenes	0.31 U	2.0	0.31	1	01/07/13 13:17	
o-Xylene	0.14 U	1.0	0.14	1	01/07/13 13:17	
Toluene	0.19 U	1.0	0.19	1	01/07/13 13:17	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	107	72 - 121	01/07/13 13:17	
4-Bromofluorobenzene	95	86 - 113	01/07/13 13:17	
Dibromofluoromethane	102	86 - 112	01/07/13 13:17	
Toluene-d8	95	88 - 115	01/07/13 13:17	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300077**Date Collected:** NA**Date Received:** NA

Sample Name: Method Blank
Lab Code: JQ1300148-04

Units: ug/Kg**Basis:** Dry**Volatile Organic Compounds by GC/MS**

Analysis Method: 8260B
Prep Method: EPA 5035

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Benzene	0.170 U	5.00	0.170	1	01/07/13 11:54	1/7/13	
Ethylbenzene	0.120 U	5.00	0.120	1	01/07/13 11:54	1/7/13	
m,p-Xylenes	0.210 U	10.0	0.210	1	01/07/13 11:54	1/7/13	
o-Xylene	0.160 U	5.00	0.160	1	01/07/13 11:54	1/7/13	
Toluene	0.270 U	5.00	0.270	1	01/07/13 11:54	1/7/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	103	80 - 120	01/07/13 11:54	
4-Bromofluorobenzene	96	64 - 135	01/07/13 11:54	
Dibromofluoromethane	101	74 - 125	01/07/13 11:54	
Toluene-d8	98	46 - 156	01/07/13 11:54	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300077
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: JQ1300219-04

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260B
Prep Method: EPA 5035

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Benzene	0.170 U	5.00	0.170	1	01/10/13 11:52	1/10/13	
Ethylbenzene	0.120 U	5.00	0.120	1	01/10/13 11:52	1/10/13	
m,p-Xylenes	0.210 U	10.0	0.210	1	01/10/13 11:52	1/10/13	
o-Xylene	0.160 U	5.00	0.160	1	01/10/13 11:52	1/10/13	
Toluene	0.270 U	5.00	0.270	1	01/10/13 11:52	1/10/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	101	80 - 120	01/10/13 11:52	
4-Bromofluorobenzene	98	64 - 135	01/10/13 11:52	
Dibromofluoromethane	97	74 - 125	01/10/13 11:52	
Toluene-d8	102	46 - 156	01/10/13 11:52	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300077
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: JQ1300096-01

Units: ug/Kg
Basis: Dry

Base Neutral Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270C SIM
Prep Method: EPA 3550C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1-Methylnaphthalene	2.70 U	3.40	2.70	1	01/08/13 05:27	1/7/13	
2-Methylnaphthalene	2.30 U	3.40	2.30	1	01/08/13 05:27	1/7/13	
Acenaphthene	3.10 U	6.80	3.10	1	01/08/13 05:27	1/7/13	
Acenaphthylene	2.20 U	6.80	2.20	1	01/08/13 05:27	1/7/13	
Anthracene	1.60 U	3.40	1.60	1	01/08/13 05:27	1/7/13	
Benz(a)anthracene	1.90 U	3.40	1.90	1	01/08/13 05:27	1/7/13	
Benzo(a)pyrene	1.00 U	3.40	1.00	1	01/08/13 05:27	1/7/13	
Benzo(b)fluoranthene	2.00 U	3.40	2.00	1	01/08/13 05:27	1/7/13	
Benzo(g,h,i)perylene	2.20 U	3.40	2.20	1	01/08/13 05:27	1/7/13	
Benzo(k)fluoranthene	2.40 U	3.40	2.40	1	01/08/13 05:27	1/7/13	
Chrysene	1.90 U	3.40	1.90	1	01/08/13 05:27	1/7/13	
Dibenz(a,h)anthracene	2.70 U	3.40	2.70	1	01/08/13 05:27	1/7/13	
Fluoranthene	2.00 U	3.40	2.00	1	01/08/13 05:27	1/7/13	
Fluorene	2.20 U	3.40	2.20	1	01/08/13 05:27	1/7/13	
Indeno(1,2,3-cd)pyrene	2.20 U	3.40	2.20	1	01/08/13 05:27	1/7/13	
Naphthalene	3.10 U	3.40	3.10	1	01/08/13 05:27	1/7/13	
Phenanthrene	1.70 U	6.80	1.70	1	01/08/13 05:27	1/7/13	
Pyrene	2.00 U	3.40	2.00	1	01/08/13 05:27	1/7/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	74	30 - 118	01/08/13 05:27	
p-Terphenyl-d14	99	41 - 146	01/08/13 05:27	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300077
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: J1300077-MB

Basis: Dry

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total Recoverable	6010B	0.9 U	mg/Kg	5.0	0.9	1	01/08/13 18:39	1/8/13	
Antimony, Total Recoverable	6010B	0.45 J	mg/Kg	0.50	0.08	1	01/08/13 18:41	1/8/13	
Arsenic, Total Recoverable	6010B	0.12 U	mg/Kg	0.50	0.12	1	01/08/13 18:41	1/8/13	
Barium, Total Recoverable	6010B	0.03 U	mg/Kg	0.50	0.03	1	01/08/13 18:41	1/8/13	
Beryllium, Total Recoverable	6010B	0.008 U	mg/Kg	0.20	0.008	1	01/08/13 18:40	1/8/13	
Cadmium, Total Recoverable	6010B	0.05 J	mg/Kg	0.25	0.007	1	01/08/13 18:41	1/8/13	
Calcium, Total Recoverable	6010B	1.1 U	mg/Kg	5.0	1.1	1	01/08/13 18:39	1/8/13	
Chromium, Total Recoverable	6010B	0.05 J	mg/Kg	0.50	0.02	1	01/08/13 18:41	1/8/13	
Cobalt, Total Recoverable	6010B	0.04 U	mg/Kg	0.50	0.04	1	01/08/13 18:41	1/8/13	
Copper, Total Recoverable	6010B	0.07 U	mg/Kg	0.50	0.07	1	01/08/13 18:40	1/8/13	
Iron, Total Recoverable	6010B	0.6 U	mg/Kg	5.0	0.6	1	01/08/13 18:39	1/8/13	
Lead, Total Recoverable	6010B	0.13 U	mg/Kg	0.50	0.13	1	01/08/13 18:41	1/8/13	
Magnesium, Total Recoverable	6010B	0.7 U	mg/Kg	5.0	0.7	1	01/08/13 18:39	1/8/13	
Manganese, Total Recoverable	6010B	0.05 J	mg/Kg	0.50	0.009	1	01/08/13 18:41	1/8/13	
Mercury	7471A	0.0010 U	mg/Kg	0.0067	0.0010	1	01/08/13 11:36	1/7/13	
Nickel, Total Recoverable	6010B	0.05 J	mg/Kg	0.50	0.04	1	01/08/13 18:41	1/8/13	
Potassium, Total Recoverable	6010B	4 U	mg/Kg	100	4	1	01/08/13 18:39	1/8/13	
Selenium, Total Recoverable	6010B	0.27 U	mg/Kg	0.50	0.27	1	01/08/13 18:41	1/8/13	
Silver, Total Recoverable	6010B	0.05 U	mg/Kg	0.50	0.05	1	01/08/13 18:40	1/8/13	
Sodium, Total Recoverable	6010B	4 J	mg/Kg	25	2	1	01/08/13 18:39	1/8/13	
Thallium, Total Recoverable	6010B	0.11 U	mg/Kg	0.50	0.11	1	01/08/13 18:41	1/8/13	
Vanadium, Total Recoverable	6010B	0.2 U	mg/Kg	1.0	0.2	1	01/08/13 18:40	1/8/13	
Zinc, Total Recoverable	6010B	0.2 U	mg/Kg	1.0	0.2	1	01/08/13 18:41	1/8/13	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil
Analysis Method: 160.3 Modified

Service Request: J1300077**Date Collected:** 01/2/13**Date Received:** 01/4/13**Units:** Percent**Basis:** As Received**Solids, Total**

Sample Name	Lab Code	Result	MRL	MDL	Dil.	Date Analyzed	Q
B430-B-1 (4-6)	J1300077-001	89	0.10	0.10	1	01/07/13 14:28	
B430-B-1 (12-14)	J1300077-002	81	0.10	0.10	1	01/07/13 14:28	
B430-B-2 (5-7.5)	J1300077-003	91	0.10	0.10	1	01/07/13 14:28	
B430-B-2 (12.5-15)	J1300077-004	81	0.10	0.10	1	01/07/13 14:28	
B430-B-3 (5-7.5)	J1300077-005	92	0.10	0.10	1	01/07/13 14:28	
B430-B-3 (7.5-10)	J1300077-006	87	0.10	0.10	1	01/07/13 14:28	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300077

SURROGATE RECOVERY SUMMARY
Volatile Organic Compounds by GC/MS

Analysis Method: 8260B
Extraction Method: EPA 5035

Sample Name	Lab Code	1,2-Dichloroethane-d4	4-Bromofluorobenzene	Dibromofluoromethane
		80 - 120	64 - 135	74 - 125
B430-B-1 (4-6)	J1300077-001	104	98	101
B430-B-1 (12-14)	J1300077-002	103	100	100
B430-B-2 (5-7.5)	J1300077-003	105	99	101
B430-B-2 (12.5-15)	J1300077-004	101	98	100
B430-B-3 (5-7.5)	J1300077-005	108	108	103
B430-B-3 (7.5-10)	J1300077-006	100	100	97
Trip Blank	J1300077-007	107	93	104
Lab Control Sample	JQ1300127-01	106	95	102
Method Blank	JQ1300127-02	107	95	102
B430-B-2 (12.5-15)	JQ1300148-01	101	100	100
B430-B-2 (12.5-15)	JQ1300148-02	101	100	100
Lab Control Sample	JQ1300148-03	99	97	100
Method Blank	JQ1300148-04	103	96	101
Lab Control Sample	JQ1300219-03	99	100	100
Method Blank	JQ1300219-04	101	98	97

COLUMBIA ANALYTICAL SERVICES, INC.

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QA/QC Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300077

SURROGATE RECOVERY SUMMARY
Volatile Organic Compounds by GC/MS

Analysis Method: 8260B
Extraction Method: EPA 5035

Sample Name	Lab Code	Toluene-d8
		46 - 156
B430-B-1 (4-6)	J1300077-001	101
B430-B-1 (12-14)	J1300077-002	101
B430-B-2 (5-7.5)	J1300077-003	98
B430-B-2 (12.5-15)	J1300077-004	102
B430-B-3 (5-7.5)	J1300077-005	99
B430-B-3 (7.5-10)	J1300077-006	102
Trip Blank	J1300077-007	93
Lab Control Sample	JQ1300127-01	96
Method Blank	JQ1300127-02	95
B430-B-2 (12.5-15)	JQ1300148-01	99
B430-B-2 (12.5-15)	JQ1300148-02	98
Lab Control Sample	JQ1300148-03	98
Method Blank	JQ1300148-04	98
Lab Control Sample	JQ1300219-03	102
Method Blank	JQ1300219-04	102

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300077
Date Collected: 01/02/13
Date Received: 01/04/13
Date Analyzed: 01/7/13
Date Extracted: 01/7/13

**Duplicate Matrix Spike Summary
Volatile Organic Compounds by GC/MS**

Sample Name: B430-B-2 (12.5-15)
Lab Code: J1300077-004
Analysis Method: 8260B
Prep Method: EPA 5035

Units: ug/Kg
Basis: Dry

Analyte Name	Sample Result	Result	Matrix Spike JQ1300148-01		Result	Duplicate Matrix Spike JQ1300148-02		% Rec Limits	RPD	RPD Limit
			Spike Amount	% Rec		Spike Amount	% Rec			
Benzene	ND	20.6	24.8	83	19.8	24.8	80	76-123	4	30
Ethylbenzene	ND	19.4	24.8	78	18.9	24.8	76	71-122	3	30
m,p-Xylenes	0.254	40.9	49.6	82	38.5	49.6	77	71-122	6	30
o-Xylene	ND	21.6	24.8	87	19.4	24.8	78	71-120	11	30
Toluene	ND	19.5	24.8	79	18.8	24.8	76	72-118	4	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

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QA/QC Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Water

Service Request:J1300077**Date Analyzed:**01/07/13

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analysis Method: 8260B**Units:**ug/L**Basis:**NA**Analysis Lot:**324825

Lab Control Sample
JQ1300127-01

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Benzene	21.9	20.0	110	80-117
Ethylbenzene	21.5	20.0	107	82-119
m,p-Xylenes	43.5	40.0	109	79-122
o-Xylene	21.4	20.0	107	80-119
Toluene	21.3	20.0	107	52-152

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300077
Date Analyzed: 01/07/13
Date Extracted: 01/07/13

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analysis Method: 8260B
Prep Method: EPA 5035

Units: ug/Kg
Basis: Dry
Analysis Lot: 325043

Lab Control Sample
JQ1300148-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Benzene	18.5	20.0	93	76-123
Ethylbenzene	18.1	20.0	90	71-122
m,p-Xylenes	36.8	40.0	92	71-122
o-Xylene	18.4	20.0	92	71-120
Toluene	17.6	20.0	88	72-118

COLUMBIA ANALYTICAL SERVICES, INC.

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QA/QC Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request:J1300077**Date Analyzed:**01/10/13**Date Extracted:**01/10/13

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analysis Method: 8260B
Prep Method: EPA 5035

Units:ug/Kg
Basis:Dry
Analysis Lot:325434

Lab Control Sample
JQ1300219-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Benzene	19.8	20.0	99	76-123
Ethylbenzene	20.4	20.0	102	71-122
m,p-Xylenes	41.5	40.0	104	71-122
o-Xylene	20.4	20.0	102	71-120
Toluene	19.7	20.0	98	72-118

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300077**SURROGATE RECOVERY SUMMARY****Base Neutral Semivolatile Organic Compounds by GC/MS SIM****Analysis Method:** 8270C SIM**Extraction Method:** EPA 3550C

Sample Name	Lab Code	2-Fluorobiphenyl	p-Terphenyl-d14
		30 - 118	41 - 146
B430-B-1 (4-6)	J1300077-001	70	84
B430-B-1 (12-14)	J1300077-002	51	63
B430-B-2 (5-7.5)	J1300077-003	51	63
B430-B-2 (12.5-15)	J1300077-004	52	58
B430-B-3 (5-7.5)	J1300077-005	49	64
B430-B-3 (7.5-10)	J1300077-006	46	63
Method Blank	JQ1300096-01	74	99
Lab Control Sample	JQ1300096-02	67	89
B430-B-2 (5-7.5)	JQ1300096-03	46	58
B430-B-2 (5-7.5)	JQ1300096-04	47	62

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300077
Date Collected: 01/02/13
Date Received: 01/04/13
Date Analyzed: 01/8/13
Date Extracted: 01/7/13

Duplicate Matrix Spike Summary
Base Neutral Semivolatile Organic Compounds by GC/MS SIM

Sample Name: B430-B-2 (5-7.5) **Units:** ug/Kg
Lab Code: J1300077-003 **Basis:** Dry
Analysis Method: 8270C SIM
Prep Method: EPA 3550C

Analyte Name	Sample Result	Matrix Spike JQ1300096-03			Duplicate Matrix Spike JQ1300096-04			% Rec Limits	RPD	RPD Limit
		Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
1-Methylnaphthalene	ND	69.7	144	49	74.8	149	50	32-101	7	30
2-Methylnaphthalene	ND	71.7	144	50	76.2	149	51	32-103	6	30
Acenaphthene	ND	75.0	144	52	80.9	149	54	29-122	7	30
Acenaphthylene	ND	82.7	144	58	89.4	149	60	36-114	8	30
Anthracene	ND	89.5	144	62	99.8	149	67	36-135	11	30
Benz(a)anthracene	26.2	137	144	77	162	149	91	43-139	17	30
Benzo(a)pyrene	29.4	102	144	50	117	149	59	43-127	14	30
Benzo(b)fluoranthene	40.0	122	144	57	153	149	76	49-139	22	30
Benzo(g,h,i)perylene	16.2	103	144	61	88.2	149	48	30-135	16	30
Benzo(k)fluoranthene	9.49	61.6	144	36 *	72.5	149	42 *	45-132	16	30
Chrysene	23.7	100	144	53	114	149	61	36-130	13	30
Dibenz(a,h)anthracene	ND	137	144	95	116	149	78	32-139	16	30
Fluoranthene	30.5	117	144	60	151	149	81	42-127	25	30
Fluorene	ND	84.5	144	59	92.4	149	62	41-118	9	30
Indeno(1,2,3-cd)pyrene	23.9	219	144	136 *	202	149	120	32-133	8	30
Naphthalene	ND	69.4	144	48	75.5	149	51	29-107	8	30
Phenanthrene	6.48	87.6	144	56	98.4	149	62	34-130	12	30
Pyrene	41.3	126	144	59	154	149	76	45-118	20	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300077
Date Analyzed: 01/08/13
Date Extracted: 01/07/13

Lab Control Sample Summary
Base Neutral Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270C SIM
Prep Method: EPA 3550C

Units: ug/Kg
Basis: Dry
Analysis Lot: 325033

Lab Control Sample
JQ1300096-02

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
1-Methylnaphthalene	90.7	133	68	32-101
2-Methylnaphthalene	92.3	133	69	32-103
Acenaphthene	96.8	133	73	29-122
Acenaphthylene	102	133	77	36-114
Anthracene	113	133	85	36-135
Benz(a)anthracene	145	133	108	43-139
Benzo(a)pyrene	113	133	85	43-127
Benzo(b)fluoranthene	122	133	92	49-139
Benzo(g,h,i)perylene	114	133	85	30-135
Benzo(k)fluoranthene	75.7	133	57	45-132
Chrysene	95.3	133	72	36-130
Dibenz(a,h)anthracene	162	133	122	32-139
Fluoranthene	108	133	81	42-127
Fluorene	107	133	80	41-118
Indeno(1,2,3-cd)pyrene	140	133	105	32-133
Naphthalene	94.0	133	70	29-107
Phenanthrene	102	133	77	34-130
Pyrene	113	133	85	45-118

COLUMBIA ANALYTICAL SERVICES, INC.

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QA/QC Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300077
Date Collected: 01/02/13
Date Received: 01/04/13
Date Analyzed: 1/8/13

**Duplicate Matrix Spike Summary
Inorganic Parameters**

Sample Name: B430-B-1 (4-6)
Lab Code: J1300077-001

Units: mg/Kg
Basis: Dry

Matrix Spike
J1300077-001MS

Duplicate Matrix Spike
J1300077-001DMS

Analyte Name	Method	Sample Result	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Aluminum, Total Recoverable	6010B	5700	6680	270	364 #	6550	255	335 #	75-125	2	20
Antimony, Total Recoverable	6010B	0.32	27.0	27.0	99	25.5	25.5	99	75-125	6	20
Arsenic, Total Recoverable	6010B	0.48	26.7	27.0	97	25.2	25.5	97	75-125	6	20
Barium, Total Recoverable	6010B	3.69	33.1	27.0	109	30.9	25.5	107	75-125	7	20
Beryllium, Total Recoverable	6010B	0.11	11.2	10.8	103	10.5	10.2	101	75-125	7	20
Cadmium, Total Recoverable	6010B	0.05	13.7	13.5	101	12.9	12.8	101	75-125	6	20
Calcium, Total Recoverable	6010B	103	375	270	101	452	255	137 *	75-125	19	20
Chromium, Total Recoverable	6010B	8.77	37.6	27.0	107	35.3	25.5	104	75-125	6	20
Cobalt, Total Recoverable	6010B	0.11	27.9	27.0	103	26.4	25.5	103	75-125	6	20
Copper, Total Recoverable	6010B	1.98	30.8	27.0	107	29.0	25.5	106	75-125	6	20
Iron, Total Recoverable	6010B	1080	1520	270	161 *	1480	255	157 #	75-125	2	20
Lead, Total Recoverable	6010B	4.39	31.8	27.0	101	30.2	25.5	101	75-125	5	20
Magnesium, Total Recoverable	6010B	85.9	389	270	112	400	255	123	75-125	3	20
Manganese, Total Recoverable	6010B	4.98	33.2	27.0	104	38.4	25.5	131 *	75-125	15	20
Mercury	7471A	0.126	0.223	0.0826	117	0.212	0.0906	95	75-125	5	20
Nickel, Total Recoverable	6010B	0.91	29.1	27.0	104	27.4	25.5	104	75-125	6	20
Potassium, Total Recoverable	6010B	50	5620	5400	103	5340	5110	104	75-125	5	20
Selenium, Total Recoverable	6010B	0.30	25.4	27.0	94	24.1	25.5	94	75-125	5	20
Silver, Total Recoverable	6010B	0.05	27.4	27.0	102	25.6	25.5	100	75-125	7	20
Sodium, Total Recoverable	6010B	15	1420	1350	104	1350	1280	104	75-125	5	20
Thallium, Total Recoverable	6010B	0.12	27.5	27.0	102	25.9	25.5	102	75-125	6	20
Vanadium, Total Recoverable	6010B	5.8	62.8	54.0	106	58.8	51.1	104	75-125	7	20
Zinc, Total Recoverable	6010B	1.2	56.5	54.0	102	52.9	51.1	101	75-125	7	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

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QA/QC Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300077
Date Analyzed: 1/8/13

Lab Control Sample Summary
Inorganic Parameters

Units: mg/Kg
Basis: Dry

Lab Control Sample
J1300077-LCS

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Aluminum, Total Recoverable	6010B	256	250	102	80-120
Antimony, Total Recoverable	6010B	24.6	25.0	98	80-120
Arsenic, Total Recoverable	6010B	23.9	25.0	96	80-120
Barium, Total Recoverable	6010B	25.1	25.0	100	80-120
Beryllium, Total Recoverable	6010B	9.75	10.0	98	80-120
Cadmium, Total Recoverable	6010B	12.4	12.5	99	80-120
Calcium, Total Recoverable	6010B	261	250	104	80-120
Chromium, Total Recoverable	6010B	25.1	25.0	100	80-120
Cobalt, Total Recoverable	6010B	24.8	25.0	99	80-120
Copper, Total Recoverable	6010B	25.6	25.0	102	80-120
Iron, Total Recoverable	6010B	261	250	104	80-120
Lead, Total Recoverable	6010B	24.0	25.0	96	80-120
Magnesium, Total Recoverable	6010B	256	250	102	80-120
Manganese, Total Recoverable	6010B	25.0	25.0	100	80-120
Mercury	7471A	0.0876	0.0833	105	80-120
Nickel, Total Recoverable	6010B	25.0	25.0	100	80-120
Potassium, Total Recoverable	6010B	5040	5000	101	80-120
Selenium, Total Recoverable	6010B	22.5	25.0	90	80-120
Silver, Total Recoverable	6010B	24.6	25.0	98	80-120
Sodium, Total Recoverable	6010B	1290	1250	103	80-120
Thallium, Total Recoverable	6010B	24.5	25.0	98	80-120
Vanadium, Total Recoverable	6010B	49.9	50.0	100	80-120
Zinc, Total Recoverable	6010B	48.8	50.0	98	80-120

Cooler Receipt Form

Client: J2 Env. Service Request #: J1300077
 Project: AAFE5 Fz. Stewer +
 Cooler received on 1/4/13 and opened on 1/4/13 by SL
 COURIER: ALS ☒ UPS FEDEX Client Other _____ Airbill # 12E077R01318780016

- 1 Were custody seals on outside of cooler? ☒ Yes No
 If yes, how many and where? #: 1 on lid other _____
- 2 Were seals intact and signature and date correct? ☒ Yes No N/A
- 3 Were custody papers properly filled out? ☒ Yes No N/A ✓
- 4 Temperature of cooler(s) upon receipt (Should be > 0°C and < 6°C) 0.1°C 0.1°C 0.1°C 0.1°C
- 5 Thermometer ID 781 781 781 781
- 6 Temperature Blank Present? ☒ Yes No
- 7 Were Ice or Ice Packs present ☒ Ice Ice Packs No
- 8 Did all bottles arrive in good condition (unbroken, etc....)? ☒ Yes No N/A
- 9 Type of packing material present ☒ Netting Vial Holder ☒ Bubble Wrap
 Paper ☒ Styrofoam Other N/A
- 10 Were all bottle labels complete (sample ID, preservation, etc....)? ☒ Yes No N/A
- 11 Did all bottle labels and tags agree with custody papers? ☒ Yes No N/A
- 12 Were the correct bottles used for the tests indicated? ☒ Yes No N/A
- 13 Were all of the preserved bottles received with the appropriate preservative? ☒ Yes No ☒ N/A
 HNO3 pH<2 H2SO4 pH<2 ZnAc2/NaOH pH>9 NaOH pH>12 HCl pH<2
 Preservative additions noted below
- 14 Were all samples received within analysis holding times? ☒ Yes No N/A
- 15 Were all VOA vials free of air bubbles? If present, note below ☒ Yes No ☒ N/A
- 16 Where did the bottles originate? ☒ ALS Client

Sample ID	Reagent	Lot #	ml added	Initials Date/Time

Additional comments and/or explanation of all discrepancies noted above:

Client approval to run samples if discrepancies noted:

Date:



CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

SR#

51300077

OAS Contract

9143 Phillips Highway, Ste 200 • Jacksonville, FL 32256 (904) 739-2277 • 800-695-7222 x06 • FAX (904) 739-2011

PAGE 1 OF 1

Project Name		Project Number		ANALYSIS REQUESTED (Include Method Number and Container Preservation)	
APRES Pt. Stuyvesant	12-052	J1300077 5			
Project Manager	Email Address	PRESERVATIVE			
Rich Portale	sp@tok@j2-env.com	48 0 0			
Company/Address		NUMBER OF CONTAINERS			
Seneca J2 Environmental JV		826DB (BCK)			
23 Thomas Indian School Drive		826DB (BCK)			
Irving, NY 14081		826DB (BCK)			
Phone #	FAX #				
716-532-0137	716-532-4036				
Sample's Signature	Sample's Printed Name				
Amiga Kim	Monica Seneca Kim Marshall				
CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	TIME	MATRIX	
B430-B-2 (4'-6')		11/2/13	1715	S	1
B430-B-1 (12'-14')		1720			1
B430-B-2 (5'-7.5')		1730			1
B430-B-2 (12.5'-15')		1735			1
B430-B-3 (5'-7.5')		1815			1
B430-B-3 (7.5'-10')		1820			1
Top Blank					2
Long Blank					1
SPECIAL INSTRUCTIONS/COMMENTS					
See OAPP ☐					
TURNAROUND REQUIREMENTS					
RUSH (SURCHARGES APPLY)					
STANDARD					
REQUESTED FAX DATE					
REQUESTED REPORT DATE					
REPORT REQUIREMENTS					
I. Results Only					
II. Results + QC Summaries (LCS, DUP, MS/MSD as required)					
III. Results + QC and Calibration Summaries					
IV. Data Validation Report with Raw Data					
V. Specialized Forms / Custom Report					
Edata ☒ Yes ☐ No					
RELINQUISHED BY					
RECEIVED BY					
INVOICE INFORMATION					
PO 41010-7001					
BILL TO: 10th Glendale					
Seneca J2 JV					
Irving, NY 14081					
RECEIVED BY					
Signature					
Printed Name					
Firm					
Date/Time					
SAMPLE RECEIPT: CONDITION/COOLER TEMP:					
RECEIVED BY					
RELINQUISHED BY					
Signature					
Printed Name					
Firm					
Date/Time					
CUSTODY SEALS: Y N					
RELINQUISHED BY					
RECEIVED BY					
Signature					
Printed Name					
Firm					
Date/Time					
Distribution: White - Return to Originator, Yellow - Retained by Client					

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January 15, 2013

Service Request No:J1300078

Fred Portofe
J2 Engineering
6921 Pistol Range Road
Suite 101
Tampa, FL 33635

Laboratory Results for: AAFES Ft. Stewart

Dear Fred,

Enclosed are the results of the sample(s) submitted to our laboratory January 04, 2013
For your reference, these analyses have been assigned our service request number **J1300078**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. In accordance to the NELAC 2003 Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Please contact me if you have any questions. My extension is 4409. You may also contact me via email at Craig.Myers@alsglobal.com.

Respectfully submitted,

Columbia Analytical Services, Inc. dba ALS Enviromental

Craig Myers
Project Manager

ADDRESS 9143 Philips Highway, Suite 200, Jacksonville, FL 32256

PHONE +1 904 739 2277 | FAX +1 904 739 2011

Columbia Analytical Services, Inc.

Part of the ALS Group A Campbell Brothers Limited Company

State Certifications, Accreditations, and Licenses

Agency	Number	Expire Date
Florida Department of Health	E82502	6/30/2013
Louisiana Department of Environmental Quality	02086	6/30/2013
Georgia Department of Natural Resources	958	6/30/2013
Kentucky Division of Waste Management	63	7/5/2013
South Carolina Department of Health and Environmental Control	96021001	6/30/2013
Texas Commision on Environmental Quality	T104704197-09-TX	5/31/2013
Maine Department of Health and Human Services	2011006	2/3/2013
Department of Defense	66206	5/31/2013

Data Qualifiers

CAS Standard

- + Possible Tedlar bag artifact.
- A TIC is a suspected aldol-condensation product
- B Analyte found in the associated method blank as well as in the sample.
- BC Reported results are not blank corrected.
- BH The back section of the tube yielded higher results than the front.
- BT Results indicated possible breakthrough; back section $\geq 10\%$ front section.
- C Result identification confirmed.
- D Compound identified in an analysis at a secondary dilution factor
- D Spike was diluted out
- DE Reported results are corrected for desorption efficiency.
- E Estimated value. Concentration above calibration range
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- H1 Sample analysis performed past holding time. See case narrative.
- H2 Initial analysis within holding time. Reanalysis for the required dilution was past holding time.
- H3 Sample was received and analyzed past holding time.
- H4 Sample was extracted past required extraction holding time, but analyzed within analysis holding time. See case narrative.
- I Internal standard not within the specified limits. See case narrative.
- J Estimated Value. Concentration found below MRL.
- K A deflection in the QC ion may indicate interference with the quantitation of this ion. The concentration of this analyte should be considered as an estimate.
- K Analyte was detected above the method reporting limit prior to normalization.
- L1 Laboratory control sample recovery outside the specified limits; results may be biased high.
- L2 Laboratory control sample recovery outside the specified limits; results may be biased low.
- L3 Laboratory control sample recovery outside the specified limits.
- M Matrix interference; results may be biased high.
- M The duplicate injection precision not met.
- M1 Matrix interference due to coelution with a non-target compound; results may be biased high.
- N Presumptive evidence of a compound for TICs that have been identified based on a mass spectral library search.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- P Indicates chlorodiphenyl ether interference present at the retention time of the target compound.
- P Pesticide/Aroclor target analyte $> 40\%$ difference for detected concentrations between GC columns
- Q Indicates as estimated value because the P and P + 2 theoretical abundance ratio does not meet method criteria.
- R Duplicate Precision not met.
- R1 Duplicate precision not within the specified limits; however, the results are below the MRL and considered estimated.
- S Surrogate recovery not within specified limits.

Data Qualifiers

CAS Standard

- S The reported value was determined by the Method of Standard Additions (MSA).
- T Analyte is a tentatively identified compound, result is estimated.
- U Compound was analyzed for, but was not detected (ND).
- V1 The continuing calibration verification standard was outside (biased high) the specified limits for this compound.
- V2 The continuing calibration verification standard was outside (biased low) the specified limits for this compound.
- W Result quantified, but the corresponding peak was detected outside the generated retention time window.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
- X See case narrative.
- Y Recovery outside limits
- Y The chromatogram resembles a petroleum product but does not match the calibration standard.
- Z The chromatogram does not resemble a petroleum product.
- i The MRL/MDL has been elevated due to a matrix interference.

ALS Laboratory Group

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052

Service Request:J1300078

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
J1300078-001	B430-B-13 (5-7.5)	1/4/2013	0830
J1300078-002	B430-B-13 (10-12.5)	1/4/2013	0835
J1300078-003	B430-B-15 (7.5-10)	1/4/2013	0900
J1300078-004	B430-B-15 (12.5-15)	1/4/2013	0905
J1300078-005	B430-DUP-03	1/4/2013	0000
J1300078-006	B430-FB-02	1/4/2013	1025
J1300078-007	B430-EB-02	1/4/2013	1040
J1300078-008	B430-B-16 (5-7.5)	1/4/2013	0930
J1300078-009	B430-B-16 (10-12.5)	1/4/2013	0935
J1300078-010	Trip Blank	1/4/2013	0000
J1300078-011	B430-Hoist-2A (11-12.5)	1/4/2013	1130

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300078
Date Collected: 01/04/13 08:30
Date Received: 01/04/13 15:05

Sample Name: B430-B-13 (5-7.5)
Lab Code: J1300078-001

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260B
Prep Method: EPA 5035

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Benzene	0.172 U	5.05	0.172	1	01/07/13 14:45	1/7/13	
Ethylbenzene	0.122 U	5.05	0.122	1	01/07/13 14:45	1/7/13	
m,p-Xylenes	0.515 J	10.1	0.213	1	01/07/13 14:45	1/7/13	
o-Xylene	0.404 J	5.05	0.162	1	01/07/13 14:45	1/7/13	
Toluene	0.273 U	5.05	0.273	1	01/07/13 14:45	1/7/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	108	80 - 120	01/07/13 14:45	
4-Bromofluorobenzene	99	64 - 135	01/07/13 14:45	
Dibromofluoromethane	100	74 - 125	01/07/13 14:45	
Toluene-d8	98	46 - 156	01/07/13 14:45	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300078
Date Collected: 01/04/13 08:30
Date Received: 01/04/13 15:05

Sample Name: B430-B-13 (5-7.5)
Lab Code: J1300078-001

Units: ug/Kg
Basis: Dry

Base Neutral Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270C SIM
Prep Method: EPA 3550C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1-Methylnaphthalene	2.93 J	3.43	2.73	1	01/08/13 10:02	1/7/13	
2-Methylnaphthalene	5.43	3.43	2.32	1	01/08/13 10:02	1/7/13	
Acenaphthene	3.13 U	6.85	3.13	1	01/08/13 10:02	1/7/13	
Acenaphthylene	2.22 U	6.85	2.22	1	01/08/13 10:02	1/7/13	
Anthracene	1.62 U	3.43	1.62	1	01/08/13 10:02	1/7/13	
Benz(a)anthracene	1.92 U	3.43	1.92	1	01/08/13 10:02	1/7/13	
Benzo(a)pyrene	1.01 U	3.43	1.01	1	01/08/13 10:02	1/7/13	
Benzo(b)fluoranthene	2.02 U	3.43	2.02	1	01/08/13 10:02	1/7/13	
Benzo(g,h,i)perylene	2.22 U	3.43	2.22	1	01/08/13 10:02	1/7/13	
Benzo(k)fluoranthene	2.42 U	3.43	2.42	1	01/08/13 10:02	1/7/13	
Chrysene	1.92 U	3.43	1.92	1	01/08/13 10:02	1/7/13	
Dibenz(a,h)anthracene	2.73 U	3.43	2.73	1	01/08/13 10:02	1/7/13	
Fluoranthene	2.02 U	3.43	2.02	1	01/08/13 10:02	1/7/13	
Fluorene	2.22 U	3.43	2.22	1	01/08/13 10:02	1/7/13	
Indeno(1,2,3-cd)pyrene	2.22 U	3.43	2.22	1	01/08/13 10:02	1/7/13	
Naphthalene	5.06	3.43	3.13	1	01/08/13 10:02	1/7/13	
Phenanthrene	1.72 U	6.85	1.72	1	01/08/13 10:02	1/7/13	
Pyrene	2.02 U	3.43	2.02	1	01/08/13 10:02	1/7/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	47	30 - 118	01/08/13 10:02	
p-Terphenyl-d14	57	41 - 146	01/08/13 10:02	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300078
Date Collected: 01/04/13 08:30
Date Received: 01/04/13 15:05

Sample Name: B430-B-13 (5-7.5)
Lab Code: J1300078-001

Basis: Dry

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total Recoverable	6010B	5760	mg/Kg	5.0	0.9	1	01/08/13 19:54	1/8/13	
Antimony, Total Recoverable	6010B	0.30 J	mg/Kg	0.50	0.08	1	01/08/13 19:56	1/8/13	
Arsenic, Total Recoverable	6010B	0.20 J	mg/Kg	0.50	0.12	1	01/08/13 19:56	1/8/13	
Barium, Total Recoverable	6010B	9.76	mg/Kg	0.50	0.03	1	01/08/13 19:56	1/8/13	
Beryllium, Total Recoverable	6010B	0.008 U	mg/Kg	0.20	0.008	1	01/08/13 19:55	1/8/13	
Cadmium, Total Recoverable	6010B	0.05 J	mg/Kg	0.25	0.007	1	01/08/13 19:56	1/8/13	
Calcium, Total Recoverable	6010B	304	mg/Kg	5.0	1.1	1	01/08/13 19:54	1/8/13	
Chromium, Total Recoverable	6010B	6.22	mg/Kg	0.50	0.02	1	01/08/13 19:56	1/8/13	
Cobalt, Total Recoverable	6010B	0.45 J	mg/Kg	0.50	0.04	1	01/08/13 19:56	1/8/13	
Copper, Total Recoverable	6010B	1.05	mg/Kg	0.50	0.07	1	01/08/13 19:56	1/8/13	
Iron, Total Recoverable	6010B	1360	mg/Kg	5.0	0.6	1	01/08/13 19:54	1/8/13	
Lead, Total Recoverable	6010B	3.24	mg/Kg	0.50	0.13	1	01/08/13 19:56	1/8/13	
Magnesium, Total Recoverable	6010B	218	mg/Kg	5.0	0.7	1	01/08/13 19:54	1/8/13	
Manganese, Total Recoverable	6010B	5.03	mg/Kg	0.50	0.009	1	01/08/13 19:55	1/8/13	
Mercury	7471A	0.0225	mg/Kg	0.0065	0.0010	1	01/08/13 12:05	1/7/13	
Nickel, Total Recoverable	6010B	2.19	mg/Kg	0.50	0.04	1	01/08/13 19:56	1/8/13	
Potassium, Total Recoverable	6010B	115	mg/Kg	100	4	1	01/08/13 19:54	1/8/13	
Selenium, Total Recoverable	6010B	0.27 U	mg/Kg	0.50	0.27	1	01/08/13 19:56	1/8/13	
Silver, Total Recoverable	6010B	0.05 U	mg/Kg	0.50	0.05	1	01/08/13 19:56	1/8/13	
Sodium, Total Recoverable	6010B	13 J	mg/Kg	25	2	1	01/08/13 19:54	1/8/13	
Thallium, Total Recoverable	6010B	0.11 U	mg/Kg	0.50	0.11	1	01/08/13 19:56	1/8/13	
Vanadium, Total Recoverable	6010B	6.02	mg/Kg	1.0	0.11	1	01/08/13 19:56	1/8/13	
Zinc, Total Recoverable	6010B	2.44	mg/Kg	1.0	0.16	1	01/08/13 19:56	1/8/13	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300078
Date Collected: 01/04/13 08:35
Date Received: 01/04/13 15:05

Sample Name: B430-B-13 (10-12.5)
Lab Code: J1300078-002

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260B
Prep Method: EPA 5035

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Benzene	0.215 U	6.30	0.215	1	01/09/13 19:32	1/9/13	
Ethylbenzene	0.152 U	6.30	0.152	1	01/09/13 19:32	1/9/13	
m,p-Xylenes	0.378 J	12.6	0.265	1	01/09/13 19:32	1/9/13	
o-Xylene	0.202 U	6.30	0.202	1	01/09/13 19:32	1/9/13	
Toluene	0.341 U	6.30	0.341	1	01/09/13 19:32	1/9/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	100	80 - 120	01/09/13 19:32	
4-Bromofluorobenzene	101	64 - 135	01/09/13 19:32	
Dibromofluoromethane	98	74 - 125	01/09/13 19:32	
Toluene-d8	102	46 - 156	01/09/13 19:32	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300078
Date Collected: 01/04/13 08:35
Date Received: 01/04/13 15:05

Sample Name: B430-B-13 (10-12.5)
Lab Code: J1300078-002

Units: ug/Kg
Basis: Dry

Base Neutral Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270C SIM
Prep Method: EPA 3550C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1-Methylnaphthalene	3.40 U	4.28	3.40	1	01/08/13 12:17	1/7/13	
2-Methylnaphthalene	2.90 U	4.28	2.90	1	01/08/13 12:17	1/7/13	
Acenaphthene	3.91 U	8.56	3.91	1	01/08/13 12:17	1/7/13	
Acenaphthylene	2.77 U	8.56	2.77	1	01/08/13 12:17	1/7/13	
Anthracene	2.26 J	4.28	2.02	1	01/08/13 12:17	1/7/13	
Benz(a)anthracene	2.40 U	4.28	2.40	1	01/08/13 12:17	1/7/13	
Benzo(a)pyrene	1.26 U	4.28	1.26	1	01/08/13 12:17	1/7/13	
Benzo(b)fluoranthene	2.52 U	4.28	2.52	1	01/08/13 12:17	1/7/13	
Benzo(g,h,i)perylene	2.77 U	4.28	2.77	1	01/08/13 12:17	1/7/13	
Benzo(k)fluoranthene	3.03 U	4.28	3.03	1	01/08/13 12:17	1/7/13	
Chrysene	2.40 U	4.28	2.40	1	01/08/13 12:17	1/7/13	
Dibenz(a,h)anthracene	3.40 U	4.28	3.40	1	01/08/13 12:17	1/7/13	
Fluoranthene	2.52 U	4.28	2.52	1	01/08/13 12:17	1/7/13	
Fluorene	2.87 J	4.28	2.77	1	01/08/13 12:17	1/7/13	
Indeno(1,2,3-cd)pyrene	2.77 U	4.28	2.77	1	01/08/13 12:17	1/7/13	
Naphthalene	3.91 U	4.28	3.91	1	01/08/13 12:17	1/7/13	
Phenanthrene	11.3	8.56	2.14	1	01/08/13 12:17	1/7/13	
Pyrene	2.52 U	4.28	2.52	1	01/08/13 12:17	1/7/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	68	30 - 118	01/08/13 12:17	
p-Terphenyl-d14	80	41 - 146	01/08/13 12:17	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300078
Date Collected: 01/04/13 08:35
Date Received: 01/04/13 15:05

Sample Name: B430-B-13 (10-12.5)
Lab Code: J1300078-002

Basis: Dry

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total Recoverable	6010B	12900	mg/Kg	5.4	0.9	1	01/08/13 19:59	1/8/13	
Antimony, Total Recoverable	6010B	0.43 J	mg/Kg	0.54	0.08	1	01/08/13 20:00	1/8/13	
Arsenic, Total Recoverable	6010B	0.13 U	mg/Kg	0.54	0.13	1	01/08/13 20:00	1/8/13	
Barium, Total Recoverable	6010B	2.86	mg/Kg	0.54	0.03	1	01/08/13 20:00	1/8/13	
Beryllium, Total Recoverable	6010B	0.009 U	mg/Kg	0.22	0.009	1	01/08/13 20:00	1/8/13	
Cadmium, Total Recoverable	6010B	0.05 J	mg/Kg	0.27	0.008	1	01/08/13 20:00	1/8/13	
Calcium, Total Recoverable	6010B	12.3	mg/Kg	5.4	1.2	1	01/08/13 19:59	1/8/13	
Chromium, Total Recoverable	6010B	9.16	mg/Kg	0.54	0.03	1	01/08/13 20:00	1/8/13	
Cobalt, Total Recoverable	6010B	0.05 U	mg/Kg	0.54	0.05	1	01/08/13 20:00	1/8/13	
Copper, Total Recoverable	6010B	3.13	mg/Kg	0.54	0.07	1	01/08/13 20:00	1/8/13	
Iron, Total Recoverable	6010B	175	mg/Kg	5.4	0.7	1	01/08/13 19:59	1/8/13	
Lead, Total Recoverable	6010B	8.62	mg/Kg	0.54	0.14	1	01/08/13 20:00	1/8/13	
Magnesium, Total Recoverable	6010B	47.6	mg/Kg	5.4	0.7	1	01/08/13 19:59	1/8/13	
Manganese, Total Recoverable	6010B	1.08	mg/Kg	0.54	0.009	1	01/08/13 20:00	1/8/13	
Mercury	7471A	0.0558	mg/Kg	0.0081	0.0013	1	01/08/13 12:07	1/7/13	
Nickel, Total Recoverable	6010B	0.75	mg/Kg	0.54	0.04	1	01/08/13 20:00	1/8/13	
Potassium, Total Recoverable	6010B	60 J	mg/Kg	110	4	1	01/08/13 19:59	1/8/13	
Selenium, Total Recoverable	6010B	1.40	mg/Kg	0.54	0.30	1	01/08/13 20:00	1/8/13	
Silver, Total Recoverable	6010B	0.05 U	mg/Kg	0.54	0.05	1	01/08/13 20:00	1/8/13	
Sodium, Total Recoverable	6010B	10 J	mg/Kg	27	2	1	01/08/13 19:59	1/8/13	
Thallium, Total Recoverable	6010B	0.12 U	mg/Kg	0.54	0.12	1	01/08/13 20:00	1/8/13	
Vanadium, Total Recoverable	6010B	10.6	mg/Kg	1.1	0.2	1	01/08/13 20:00	1/8/13	
Zinc, Total Recoverable	6010B	0.5 J	mg/Kg	1.1	0.2	1	01/08/13 20:00	1/8/13	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300078
Date Collected: 01/04/13 09:00
Date Received: 01/04/13 15:05

Sample Name: B430-B-15 (7.5-10)
Lab Code: J1300078-003

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260B
Prep Method: EPA 5035

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Benzene	0.212 U	6.23	0.212	1	01/07/13 15:42	1/7/13	
Ethylbenzene	0.150 U	6.23	0.150	1	01/07/13 15:42	1/7/13	
m,p-Xylenes	0.262 U	12.5	0.262	1	01/07/13 15:42	1/7/13	
o-Xylene	0.200 U	6.23	0.200	1	01/07/13 15:42	1/7/13	
Toluene	0.337 U	6.23	0.337	1	01/07/13 15:42	1/7/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	109	80 - 120	01/07/13 15:42	
4-Bromofluorobenzene	101	64 - 135	01/07/13 15:42	
Dibromofluoromethane	103	74 - 125	01/07/13 15:42	
Toluene-d8	98	46 - 156	01/07/13 15:42	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300078
Date Collected: 01/04/13 09:00
Date Received: 01/04/13 15:05

Sample Name: B430-B-15 (7.5-10)
Lab Code: J1300078-003

Units: ug/Kg
Basis: Dry

Base Neutral Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270C SIM
Prep Method: EPA 3550C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1-Methylnaphthalene	3.57 U	4.49	3.57	1	01/08/13 12:40	1/7/13	
2-Methylnaphthalene	3.04 U	4.49	3.04	1	01/08/13 12:40	1/7/13	
Acenaphthene	4.10 U	8.98	4.10	1	01/08/13 12:40	1/7/13	
Acenaphthylene	2.91 U	8.98	2.91	1	01/08/13 12:40	1/7/13	
Anthracene	2.12 U	4.49	2.12	1	01/08/13 12:40	1/7/13	
Benz(a)anthracene	2.51 U	4.49	2.51	1	01/08/13 12:40	1/7/13	
Benzo(a)pyrene	1.33 U	4.49	1.33	1	01/08/13 12:40	1/7/13	
Benzo(b)fluoranthene	2.65 U	4.49	2.65	1	01/08/13 12:40	1/7/13	
Benzo(g,h,i)perylene	2.91 U	4.49	2.91	1	01/08/13 12:40	1/7/13	
Benzo(k)fluoranthene	3.17 U	4.49	3.17	1	01/08/13 12:40	1/7/13	
Chrysene	2.51 U	4.49	2.51	1	01/08/13 12:40	1/7/13	
Dibenz(a,h)anthracene	3.57 U	4.49	3.57	1	01/08/13 12:40	1/7/13	
Fluoranthene	2.65 U	4.49	2.65	1	01/08/13 12:40	1/7/13	
Fluorene	2.91 U	4.49	2.91	1	01/08/13 12:40	1/7/13	
Indeno(1,2,3-cd)pyrene	2.91 U	4.49	2.91	1	01/08/13 12:40	1/7/13	
Naphthalene	4.10 U	4.49	4.10	1	01/08/13 12:40	1/7/13	
Phenanthrene	2.25 U	8.98	2.25	1	01/08/13 12:40	1/7/13	
Pyrene	2.69 J	4.49	2.65	1	01/08/13 12:40	1/7/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	46	30 - 118	01/08/13 12:40	
p-Terphenyl-d14	51	41 - 146	01/08/13 12:40	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300078
Date Collected: 01/04/13 09:00
Date Received: 01/04/13 15:05

Sample Name: B430-B-15 (7.5-10)
Lab Code: J1300078-003

Basis: Dry

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total Recoverable	6010B	8540	mg/Kg	6.0	1.0	1	01/08/13 20:08	1/8/13	
Antimony, Total Recoverable	6010B	0.42 J	mg/Kg	0.60	0.09	1	01/08/13 20:10	1/8/13	
Arsenic, Total Recoverable	6010B	0.14 U	mg/Kg	0.60	0.14	1	01/08/13 20:10	1/8/13	
Barium, Total Recoverable	6010B	2.92	mg/Kg	0.60	0.04	1	01/08/13 20:10	1/8/13	
Beryllium, Total Recoverable	6010B	0.010 U	mg/Kg	0.24	0.010	1	01/08/13 20:10	1/8/13	
Cadmium, Total Recoverable	6010B	0.06 J	mg/Kg	0.30	0.009	1	01/08/13 20:10	1/8/13	
Calcium, Total Recoverable	6010B	7.9	mg/Kg	6.0	1.3	1	01/08/13 20:09	1/8/13	
Chromium, Total Recoverable	6010B	13.6	mg/Kg	0.60	0.03	1	01/08/13 20:10	1/8/13	
Cobalt, Total Recoverable	6010B	0.05 U	mg/Kg	0.60	0.05	1	01/08/13 20:10	1/8/13	
Copper, Total Recoverable	6010B	4.82	mg/Kg	0.60	0.08	1	01/08/13 20:10	1/8/13	
Iron, Total Recoverable	6010B	39.7	mg/Kg	6.0	0.7	1	01/08/13 20:09	1/8/13	
Lead, Total Recoverable	6010B	8.99	mg/Kg	0.60	0.16	1	01/08/13 20:10	1/8/13	
Magnesium, Total Recoverable	6010B	12.8	mg/Kg	6.0	0.8	1	01/08/13 20:09	1/8/13	
Manganese, Total Recoverable	6010B	0.95	mg/Kg	0.60	0.010	1	01/08/13 20:10	1/8/13	
Mercury	7471A	0.176	mg/Kg	0.0082	0.0013	1	01/08/13 12:09	1/7/13	
Nickel, Total Recoverable	6010B	0.24 J	mg/Kg	0.60	0.04	1	01/08/13 20:10	1/8/13	
Potassium, Total Recoverable	6010B	20 J	mg/Kg	120	5	1	01/08/13 20:08	1/8/13	
Selenium, Total Recoverable	6010B	1.01	mg/Kg	0.60	0.33	1	01/08/13 20:10	1/8/13	
Silver, Total Recoverable	6010B	0.06 U	mg/Kg	0.60	0.06	1	01/08/13 20:10	1/8/13	
Sodium, Total Recoverable	6010B	7 J	mg/Kg	30	2	1	01/08/13 20:08	1/8/13	
Thallium, Total Recoverable	6010B	0.13 U	mg/Kg	0.60	0.13	1	01/08/13 20:10	1/8/13	
Vanadium, Total Recoverable	6010B	4.9	mg/Kg	1.2	0.2	1	01/08/13 20:10	1/8/13	
Zinc, Total Recoverable	6010B	0.8 J	mg/Kg	1.2	0.2	1	01/08/13 20:10	1/8/13	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300078
Date Collected: 01/04/13 09:05
Date Received: 01/04/13 15:05

Sample Name: B430-B-15 (12.5-15)
Lab Code: J1300078-004

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260B
Prep Method: EPA 5035

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Benzene	0.197 U	5.78	0.197	1	01/07/13 16:11	1/7/13	
Ethylbenzene	0.139 U	5.78	0.139	1	01/07/13 16:11	1/7/13	
m,p-Xylenes	0.243 U	11.6	0.243	1	01/07/13 16:11	1/7/13	
o-Xylene	0.185 U	5.78	0.185	1	01/07/13 16:11	1/7/13	
Toluene	0.313 U	5.78	0.313	1	01/07/13 16:11	1/7/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	107	80 - 120	01/07/13 16:11	
4-Bromofluorobenzene	103	64 - 135	01/07/13 16:11	
Dibromofluoromethane	100	74 - 125	01/07/13 16:11	
Toluene-d8	100	46 - 156	01/07/13 16:11	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300078
Date Collected: 01/04/13 09:05
Date Received: 01/04/13 15:05

Sample Name: B430-B-15 (12.5-15)
Lab Code: J1300078-004

Units: ug/Kg
Basis: Dry

Base Neutral Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270C SIM
Prep Method: EPA 3550C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1-Methylnaphthalene	3.40 U	4.28	3.40	1	01/08/13 13:03	1/7/13	
2-Methylnaphthalene	2.90 U	4.28	2.90	1	01/08/13 13:03	1/7/13	
Acenaphthene	3.90 U	8.55	3.90	1	01/08/13 13:03	1/7/13	
Acenaphthylene	2.77 U	8.55	2.77	1	01/08/13 13:03	1/7/13	
Anthracene	2.02 U	4.28	2.02	1	01/08/13 13:03	1/7/13	
Benz(a)anthracene	2.39 U	4.28	2.39	1	01/08/13 13:03	1/7/13	
Benzo(a)pyrene	1.26 U	4.28	1.26	1	01/08/13 13:03	1/7/13	
Benzo(b)fluoranthene	2.52 U	4.28	2.52	1	01/08/13 13:03	1/7/13	
Benzo(g,h,i)perylene	2.77 U	4.28	2.77	1	01/08/13 13:03	1/7/13	
Benzo(k)fluoranthene	3.02 U	4.28	3.02	1	01/08/13 13:03	1/7/13	
Chrysene	2.39 U	4.28	2.39	1	01/08/13 13:03	1/7/13	
Dibenz(a,h)anthracene	3.40 U	4.28	3.40	1	01/08/13 13:03	1/7/13	
Fluoranthene	2.52 U	4.28	2.52	1	01/08/13 13:03	1/7/13	
Fluorene	2.77 U	4.28	2.77	1	01/08/13 13:03	1/7/13	
Indeno(1,2,3-cd)pyrene	2.77 U	4.28	2.77	1	01/08/13 13:03	1/7/13	
Naphthalene	3.90 U	4.28	3.90	1	01/08/13 13:03	1/7/13	
Phenanthrene	2.14 U	8.55	2.14	1	01/08/13 13:03	1/7/13	
Pyrene	5.24	4.28	2.52	1	01/08/13 13:03	1/7/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	57	30 - 118	01/08/13 13:03	
p-Terphenyl-d14	64	41 - 146	01/08/13 13:03	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300078
Date Collected: 01/04/13 09:05
Date Received: 01/04/13 15:05

Sample Name: B430-B-15 (12.5-15)
Lab Code: J1300078-004

Basis: Dry

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total Recoverable	6010B	8060	mg/Kg	5.6	1.0	1	01/08/13 20:13	1/8/13	
Antimony, Total Recoverable	6010B	0.51 J	mg/Kg	0.56	0.09	1	01/08/13 20:15	1/8/13	
Arsenic, Total Recoverable	6010B	0.13 U	mg/Kg	0.56	0.13	1	01/08/13 20:15	1/8/13	
Barium, Total Recoverable	6010B	1.85	mg/Kg	0.56	0.04	1	01/08/13 20:15	1/8/13	
Beryllium, Total Recoverable	6010B	0.009 U	mg/Kg	0.22	0.009	1	01/08/13 20:14	1/8/13	
Cadmium, Total Recoverable	6010B	0.06 J	mg/Kg	0.28	0.008	1	01/08/13 20:15	1/8/13	
Calcium, Total Recoverable	6010B	9.8	mg/Kg	5.6	1.2	1	01/08/13 20:13	1/8/13	
Chromium, Total Recoverable	6010B	4.10	mg/Kg	0.56	0.03	1	01/08/13 20:15	1/8/13	
Cobalt, Total Recoverable	6010B	0.05 U	mg/Kg	0.56	0.05	1	01/08/13 20:15	1/8/13	
Copper, Total Recoverable	6010B	3.20	mg/Kg	0.56	0.07	1	01/08/13 20:14	1/8/13	
Iron, Total Recoverable	6010B	86.0	mg/Kg	5.6	0.7	1	01/08/13 20:13	1/8/13	
Lead, Total Recoverable	6010B	8.48	mg/Kg	0.56	0.15	1	01/08/13 20:15	1/8/13	
Magnesium, Total Recoverable	6010B	19.0	mg/Kg	5.6	0.7	1	01/08/13 20:13	1/8/13	
Manganese, Total Recoverable	6010B	0.84	mg/Kg	0.56	0.010	1	01/08/13 20:15	1/8/13	
Mercury	7471A	0.0192	mg/Kg	0.0074	0.0011	1	01/08/13 12:11	1/7/13	
Nickel, Total Recoverable	6010B	0.28 J	mg/Kg	0.56	0.04	1	01/08/13 20:15	1/8/13	
Potassium, Total Recoverable	6010B	30 J	mg/Kg	110	5	1	01/08/13 20:13	1/8/13	
Selenium, Total Recoverable	6010B	1.97	mg/Kg	0.56	0.31	1	01/08/13 20:15	1/8/13	
Silver, Total Recoverable	6010B	0.05 U	mg/Kg	0.56	0.05	1	01/08/13 20:14	1/8/13	
Sodium, Total Recoverable	6010B	4 J	mg/Kg	28	2	1	01/08/13 20:13	1/8/13	
Thallium, Total Recoverable	6010B	0.12 U	mg/Kg	0.56	0.12	1	01/08/13 20:15	1/8/13	
Vanadium, Total Recoverable	6010B	5.5	mg/Kg	1.1	0.2	1	01/08/13 20:14	1/8/13	
Zinc, Total Recoverable	6010B	0.3 J	mg/Kg	1.1	0.2	1	01/08/13 20:15	1/8/13	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300078
Date Collected: 01/04/13 00:00
Date Received: 01/04/13 15:05

Sample Name: B430-DUP-03
Lab Code: J1300078-005

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260B
Prep Method: EPA 5035

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Benzene	0.194 U	5.70	0.194	1	01/07/13 16:39	1/7/13	
Ethylbenzene	0.137 U	5.70	0.137	1	01/07/13 16:39	1/7/13	
m,p-Xylenes	0.319 J	11.4	0.240	1	01/07/13 16:39	1/7/13	
o-Xylene	0.183 U	5.70	0.183	1	01/07/13 16:39	1/7/13	
Toluene	0.308 U	5.70	0.308	1	01/07/13 16:39	1/7/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	106	80 - 120	01/07/13 16:39	
4-Bromofluorobenzene	104	64 - 135	01/07/13 16:39	
Dibromofluoromethane	103	74 - 125	01/07/13 16:39	
Toluene-d8	100	46 - 156	01/07/13 16:39	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300078
Date Collected: 01/04/13 00:00
Date Received: 01/04/13 15:05

Sample Name: B430-DUP-03
Lab Code: J1300078-005

Units: ug/Kg
Basis: Dry

Base Neutral Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270C SIM
Prep Method: EPA 3550C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1-Methylnaphthalene	3.47 U	4.36	3.47	1	01/08/13 13:26	1/7/13	
2-Methylnaphthalene	2.96 U	4.36	2.96	1	01/08/13 13:26	1/7/13	
Acenaphthene	3.98 U	8.72	3.98	1	01/08/13 13:26	1/7/13	
Acenaphthylene	2.83 U	8.72	2.83	1	01/08/13 13:26	1/7/13	
Anthracene	5.38	4.36	2.06	1	01/08/13 13:26	1/7/13	
Benz(a)anthracene	2.44 U	4.36	2.44	1	01/08/13 13:26	1/7/13	
Benzo(a)pyrene	1.29 U	4.36	1.29	1	01/08/13 13:26	1/7/13	
Benzo(b)fluoranthene	2.57 U	4.36	2.57	1	01/08/13 13:26	1/7/13	
Benzo(g,h,i)perylene	2.83 U	4.36	2.83	1	01/08/13 13:26	1/7/13	
Benzo(k)fluoranthene	3.08 U	4.36	3.08	1	01/08/13 13:26	1/7/13	
Chrysene	2.44 U	4.36	2.44	1	01/08/13 13:26	1/7/13	
Dibenz(a,h)anthracene	3.47 U	4.36	3.47	1	01/08/13 13:26	1/7/13	
Fluoranthene	6.26	4.36	2.57	1	01/08/13 13:26	1/7/13	
Fluorene	3.51 J	4.36	2.83	1	01/08/13 13:26	1/7/13	
Indeno(1,2,3-cd)pyrene	2.83 U	4.36	2.83	1	01/08/13 13:26	1/7/13	
Naphthalene	3.98 U	4.36	3.98	1	01/08/13 13:26	1/7/13	
Phenanthrene	25.0	8.72	2.19	1	01/08/13 13:26	1/7/13	
Pyrene	3.31 J	4.36	2.57	1	01/08/13 13:26	1/7/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	58	30 - 118	01/08/13 13:26	
p-Terphenyl-d14	66	41 - 146	01/08/13 13:26	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300078
Date Collected: 01/04/13 00:00
Date Received: 01/04/13 15:05

Sample Name: B430-DUP-03
Lab Code: J1300078-005

Basis: Dry

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total Recoverable	6010B	11700	mg/Kg	6.1	1.1	1	01/08/13 20:18	1/8/13	
Antimony, Total Recoverable	6010B	0.67	mg/Kg	0.61	0.09	1	01/08/13 20:19	1/8/13	
Arsenic, Total Recoverable	6010B	0.14 U	mg/Kg	0.61	0.14	1	01/08/13 20:19	1/8/13	
Barium, Total Recoverable	6010B	2.80	mg/Kg	0.61	0.04	1	01/08/13 20:19	1/8/13	
Beryllium, Total Recoverable	6010B	0.010 U	mg/Kg	0.24	0.010	1	01/08/13 20:19	1/8/13	
Cadmium, Total Recoverable	6010B	0.06 J	mg/Kg	0.30	0.009	1	01/08/13 20:19	1/8/13	
Calcium, Total Recoverable	6010B	10.5	mg/Kg	6.1	1.3	1	01/08/13 20:18	1/8/13	
Chromium, Total Recoverable	6010B	7.30	mg/Kg	0.61	0.03	1	01/08/13 20:19	1/8/13	
Cobalt, Total Recoverable	6010B	0.05 U	mg/Kg	0.61	0.05	1	01/08/13 20:19	1/8/13	
Copper, Total Recoverable	6010B	2.98	mg/Kg	0.61	0.08	1	01/08/13 20:19	1/8/13	
Iron, Total Recoverable	6010B	171	mg/Kg	6.1	0.8	1	01/08/13 20:18	1/8/13	
Lead, Total Recoverable	6010B	8.70	mg/Kg	0.61	0.16	1	01/08/13 20:19	1/8/13	
Magnesium, Total Recoverable	6010B	44.6	mg/Kg	6.1	0.8	1	01/08/13 20:18	1/8/13	
Manganese, Total Recoverable	6010B	1.10	mg/Kg	0.61	0.02	1	01/08/13 20:19	1/8/13	
Mercury	7471A	0.0442	mg/Kg	0.0081	0.0013	1	01/08/13 12:13	1/7/13	
Nickel, Total Recoverable	6010B	0.73	mg/Kg	0.61	0.05	1	01/08/13 20:19	1/8/13	
Potassium, Total Recoverable	6010B	60 J	mg/Kg	120	5	1	01/08/13 20:18	1/8/13	
Selenium, Total Recoverable	6010B	1.03	mg/Kg	0.61	0.33	1	01/08/13 20:19	1/8/13	
Silver, Total Recoverable	6010B	0.06 U	mg/Kg	0.61	0.06	1	01/08/13 20:19	1/8/13	
Sodium, Total Recoverable	6010B	9 J	mg/Kg	30	3	1	01/08/13 20:18	1/8/13	
Thallium, Total Recoverable	6010B	0.13 U	mg/Kg	0.61	0.13	1	01/08/13 20:19	1/8/13	
Vanadium, Total Recoverable	6010B	9.9	mg/Kg	1.2	0.2	1	01/08/13 20:19	1/8/13	
Zinc, Total Recoverable	6010B	0.7 J	mg/Kg	1.2	0.2	1	01/08/13 20:19	1/8/13	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Water

Service Request: J1300078
Date Collected: 01/04/13 10:25
Date Received: 01/04/13 15:05

Sample Name: B430-FB-02
Lab Code: J1300078-006

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Benzene	0.21 U	1.0	0.21	1	01/07/13 14:10	
Ethylbenzene	0.21 U	1.0	0.21	1	01/07/13 14:10	
m,p-Xylenes	0.31 U	2.0	0.31	1	01/07/13 14:10	
o-Xylene	0.14 U	1.0	0.14	1	01/07/13 14:10	
Toluene	0.19 U	1.0	0.19	1	01/07/13 14:10	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	106	72 - 121	01/07/13 14:10	
4-Bromofluorobenzene	96	86 - 113	01/07/13 14:10	
Dibromofluoromethane	101	86 - 112	01/07/13 14:10	
Toluene-d8	96	88 - 115	01/07/13 14:10	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Water

Service Request: J1300078
Date Collected: 01/04/13 10:25
Date Received: 01/04/13 15:05

Sample Name: B430-FB-02
Lab Code: J1300078-006

Units: ug/L
Basis: NA

Base Neutral Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270C SIM
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1-Methylnaphthalene	0.0489 U	0.111	0.0489	1	01/10/13 01:16	1/8/13	
2-Methylnaphthalene	0.0489 U	0.111	0.0489	1	01/10/13 01:16	1/8/13	
Acenaphthene	0.0456 U	0.111	0.0456	1	01/10/13 01:16	1/8/13	
Acenaphthylene	0.0278 U	0.111	0.0278	1	01/10/13 01:16	1/8/13	
Anthracene	0.0423 U	0.111	0.0423	1	01/10/13 01:16	1/8/13	
Benz(a)anthracene	0.0389 U	0.111	0.0389	1	01/10/13 01:16	1/8/13	
Benzo(a)pyrene	0.0345 U	0.111	0.0345	1	01/10/13 01:16	1/8/13	
Benzo(b)fluoranthene	0.0278 U	0.111	0.0278	1	01/10/13 01:16	1/8/13	
Benzo(g,h,i)perylene	0.0434 U	0.111	0.0434	1	01/10/13 01:16	1/8/13	
Benzo(k)fluoranthene	0.0389 U	0.111	0.0389	1	01/10/13 01:16	1/8/13	
Chrysene	0.0267 U	0.111	0.0267	1	01/10/13 01:16	1/8/13	
Dibenz(a,h)anthracene	0.0400 U	0.111	0.0400	1	01/10/13 01:16	1/8/13	
Fluoranthene	0.0434 U	0.111	0.0434	1	01/10/13 01:16	1/8/13	
Fluorene	0.0523 U	0.111	0.0523	1	01/10/13 01:16	1/8/13	
Indeno(1,2,3-cd)pyrene	0.0445 U	0.111	0.0445	1	01/10/13 01:16	1/8/13	
Naphthalene	0.0434 U	0.111	0.0434	1	01/10/13 01:16	1/8/13	
Phenanthrene	0.0389 U	0.111	0.0389	1	01/10/13 01:16	1/8/13	
Pyrene	0.0345 U	0.111	0.0345	1	01/10/13 01:16	1/8/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	79	22 - 105	01/10/13 01:16	
p-Terphenyl-d14	91	25 - 127	01/10/13 01:16	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Water

Service Request: J1300078
Date Collected: 01/04/13 10:25
Date Received: 01/04/13 15:05

Sample Name: B430-FB-02
Lab Code: J1300078-006

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Dissolved	6010B	30 J	ug/L	100	20	1	01/08/13 14:53	1/7/13	
Aluminum, Total Recoverable	6010B	20 U	ug/L	100	20	1	01/07/13 17:10	1/7/13	
Antimony, Dissolved	6020	0.2 U	ug/L	1.0	0.2	1	01/08/13 18:46	1/7/13	
Antimony, Total Recoverable	6020	0.2 U	ug/L	1.0	0.2	1	01/08/13 16:35	1/7/13	
Arsenic, Dissolved	6010B	4 U	ug/L	10	4	1	01/08/13 14:54	1/7/13	
Arsenic, Total Recoverable	6010B	4 U	ug/L	10	4	1	01/07/13 17:12	1/7/13	
Barium, Dissolved	6010B	0.3 U	ug/L	10	0.3	1	01/08/13 14:54	1/7/13	
Barium, Total Recoverable	6010B	0.3 U	ug/L	10	0.3	1	01/07/13 17:12	1/7/13	
Beryllium, Dissolved	6010B	0.2 U	ug/L	4.0	0.2	1	01/08/13 14:54	1/7/13	
Beryllium, Total Recoverable	6010B	0.2 U	ug/L	4.0	0.2	1	01/07/13 17:11	1/7/13	
Cadmium, Dissolved	6010B	0.2 U	ug/L	5.0	0.2	1	01/08/13 14:54	1/7/13	
Cadmium, Total Recoverable	6010B	0.2 U	ug/L	5.0	0.2	1	01/07/13 17:12	1/7/13	
Calcium, Dissolved	6010B	0.04 J	mg/L	0.10	0.02	1	01/08/13 14:53	1/7/13	
Calcium, Total Recoverable	6010B	0.02 U	mg/L	0.10	0.02	1	01/07/13 17:10	1/7/13	
Chromium, Dissolved	6010B	0.5 U	ug/L	10	0.5	1	01/08/13 14:54	1/7/13	
Chromium, Total Recoverable	6010B	0.5 U	ug/L	10	0.5	1	01/07/13 17:12	1/7/13	
Cobalt, Dissolved	6010B	2 U	ug/L	10	2	1	01/08/13 14:54	1/7/13	
Cobalt, Total Recoverable	6010B	4 J	ug/L	10	2	1	01/07/13 17:12	1/7/13	
Copper, Dissolved	6010B	2 U	ug/L	10	2	1	01/08/13 14:54	1/7/13	
Copper, Total Recoverable	6010B	2 J	ug/L	10	2	1	01/07/13 17:11	1/7/13	
Iron, Dissolved	6010B	3 U	ug/L	100	3	1	01/08/13 14:53	1/7/13	
Iron, Total Recoverable	6010B	3 J	ug/L	100	3	1	01/07/13 17:10	1/7/13	
Lead, Dissolved	6010B	4 U	ug/L	10	4	1	01/08/13 14:54	1/7/13	
Lead, Total Recoverable	6010B	4 U	ug/L	10	4	1	01/07/13 17:12	1/7/13	
Magnesium, Dissolved	6010B	0.02 U	mg/L	0.10	0.02	1	01/08/13 14:53	1/7/13	
Magnesium, Total Recoverable	6010B	0.02 U	mg/L	0.10	0.02	1	01/07/13 17:10	1/7/13	
Manganese, Dissolved	6010B	3 U	ug/L	10	3	1	01/08/13 14:54	1/7/13	
Manganese, Total Recoverable	6010B	3 U	ug/L	10	3	1	01/07/13 17:12	1/7/13	
Mercury, Dissolved	7470A	0.02 U	ug/L	0.10	0.02	1	01/08/13 11:14	1/7/13	
Mercury, Total	7470A	0.02 U	ug/L	0.10	0.02	1	01/08/13 10:48	1/7/13	
Nickel, Dissolved	6010B	0.6 U	ug/L	10	0.6	1	01/08/13 14:54	1/7/13	
Nickel, Total Recoverable	6010B	0.6 U	ug/L	10	0.6	1	01/07/13 17:12	1/7/13	
Potassium, Dissolved	6010B	0.09 U	mg/L	2.0	0.09	1	01/08/13 14:52	1/7/13	
Potassium, Total Recoverable	6010B	0.1 J	mg/L	2.0	0.09	1	01/07/13 17:10	1/7/13	
Selenium, Dissolved	6020	1.1 U	ug/L	2.0	1.1	1	01/08/13 18:46	1/7/13	
Selenium, Total Recoverable	6020	1.1 U	ug/L	2.0	1.1	1	01/08/13 16:35	1/7/13	
Silver, Dissolved	6010B	2 U	ug/L	10	2	1	01/08/13 14:54	1/7/13	
Silver, Total Recoverable	6010B	2 U	ug/L	10	2	1	01/07/13 17:11	1/7/13	
Sodium, Dissolved	6010B	0.03 U	mg/L	0.50	0.03	1	01/08/13 14:52	1/7/13	
Sodium, Total Recoverable	6010B	0.03 U	mg/L	0.50	0.03	1	01/08/13 14:39	1/7/13	
Thallium, Dissolved	6020	0.08 J	ug/L	0.20	0.05	1	01/08/13 18:46	1/7/13	
Thallium, Total Recoverable	6020	0.05 U	ug/L	0.20	0.05	1	01/08/13 16:35	1/7/13	
Vanadium, Dissolved	6010B	2 U	ug/L	20	2	1	01/08/13 14:54	1/7/13	
Vanadium, Total Recoverable	6010B	2 J	ug/L	20	2	1	01/07/13 17:11	1/7/13	

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Analytical Report

Zinc, Dissolved	6010B	3 J	ug/L	20	2	1	01/08/13 14:54	1/7/13
Zinc, Total Recoverable	6010B	2 U	ug/L	20	2	1	01/07/13 17:12	1/7/13

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Water

Service Request: J1300078
Date Collected: 01/04/13 10:40
Date Received: 01/04/13 15:05

Sample Name: B430-EB-02
Lab Code: J1300078-007

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Benzene	0.21 U	1.0	0.21	1	01/07/13 14:37	
Ethylbenzene	0.21 U	1.0	0.21	1	01/07/13 14:37	
m,p-Xylenes	0.31 U	2.0	0.31	1	01/07/13 14:37	
o-Xylene	0.14 U	1.0	0.14	1	01/07/13 14:37	
Toluene	0.19 U	1.0	0.19	1	01/07/13 14:37	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	108	72 - 121	01/07/13 14:37	
4-Bromofluorobenzene	93	86 - 113	01/07/13 14:37	
Dibromofluoromethane	102	86 - 112	01/07/13 14:37	
Toluene-d8	93	88 - 115	01/07/13 14:37	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Water

Service Request: J1300078
Date Collected: 01/04/13 10:40
Date Received: 01/04/13 15:05

Sample Name: B430-EB-02
Lab Code: J1300078-007

Units: ug/L
Basis: NA

Base Neutral Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270C SIM
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1-Methylnaphthalene	0.0484 U	0.110	0.0484	1	01/10/13 01:39	1/8/13	
2-Methylnaphthalene	0.0484 U	0.110	0.0484	1	01/10/13 01:39	1/8/13	
Acenaphthene	0.0451 U	0.110	0.0451	1	01/10/13 01:39	1/8/13	
Acenaphthylene	0.0275 U	0.110	0.0275	1	01/10/13 01:39	1/8/13	
Anthracene	0.0418 U	0.110	0.0418	1	01/10/13 01:39	1/8/13	
Benz(a)anthracene	0.0385 U	0.110	0.0385	1	01/10/13 01:39	1/8/13	
Benzo(a)pyrene	0.0341 U	0.110	0.0341	1	01/10/13 01:39	1/8/13	
Benzo(b)fluoranthene	0.0275 U	0.110	0.0275	1	01/10/13 01:39	1/8/13	
Benzo(g,h,i)perylene	0.0429 U	0.110	0.0429	1	01/10/13 01:39	1/8/13	
Benzo(k)fluoranthene	0.0385 U	0.110	0.0385	1	01/10/13 01:39	1/8/13	
Chrysene	0.0264 U	0.110	0.0264	1	01/10/13 01:39	1/8/13	
Dibenz(a,h)anthracene	0.0396 U	0.110	0.0396	1	01/10/13 01:39	1/8/13	
Fluoranthene	0.0429 U	0.110	0.0429	1	01/10/13 01:39	1/8/13	
Fluorene	0.0517 U	0.110	0.0517	1	01/10/13 01:39	1/8/13	
Indeno(1,2,3-cd)pyrene	0.0440 U	0.110	0.0440	1	01/10/13 01:39	1/8/13	
Naphthalene	0.0429 U	0.110	0.0429	1	01/10/13 01:39	1/8/13	
Phenanthrene	0.0385 U	0.110	0.0385	1	01/10/13 01:39	1/8/13	
Pyrene	0.0341 U	0.110	0.0341	1	01/10/13 01:39	1/8/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	78	22 - 105	01/10/13 01:39	
p-Terphenyl-d14	102	25 - 127	01/10/13 01:39	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Water

Service Request: J1300078
Date Collected: 01/04/13 10:40
Date Received: 01/04/13 15:05

Sample Name: B430-EB-02
Lab Code: J1300078-007

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Dissolved	6010B	40 J	ug/L	100	20	1	01/08/13 14:57	1/7/13	
Aluminum, Total Recoverable	6010B	20 U	ug/L	100	20	1	01/07/13 17:24	1/7/13	
Antimony, Dissolved	6020	0.2 U	ug/L	1.0	0.2	1	01/08/13 18:51	1/7/13	
Antimony, Total Recoverable	6020	0.2 U	ug/L	1.0	0.2	1	01/08/13 16:40	1/7/13	
Arsenic, Dissolved	6010B	4 U	ug/L	10	4	1	01/08/13 14:59	1/7/13	
Arsenic, Total Recoverable	6010B	4 U	ug/L	10	4	1	01/07/13 17:25	1/7/13	
Barium, Dissolved	6010B	1 J	ug/L	10	0.3	1	01/08/13 14:59	1/7/13	
Barium, Total Recoverable	6010B	0.3 U	ug/L	10	0.3	1	01/07/13 17:25	1/7/13	
Beryllium, Dissolved	6010B	0.2 U	ug/L	4.0	0.2	1	01/08/13 14:58	1/7/13	
Beryllium, Total Recoverable	6010B	0.2 U	ug/L	4.0	0.2	1	01/07/13 17:24	1/7/13	
Cadmium, Dissolved	6010B	0.2 U	ug/L	5.0	0.2	1	01/08/13 14:59	1/7/13	
Cadmium, Total Recoverable	6010B	0.2 U	ug/L	5.0	0.2	1	01/07/13 17:25	1/7/13	
Calcium, Dissolved	6010B	0.03 J	mg/L	0.10	0.02	1	01/08/13 14:57	1/7/13	
Calcium, Total Recoverable	6010B	0.02 U	mg/L	0.10	0.02	1	01/07/13 17:24	1/7/13	
Chromium, Dissolved	6010B	0.5 U	ug/L	10	0.5	1	01/08/13 14:59	1/7/13	
Chromium, Total Recoverable	6010B	1 J	ug/L	10	0.5	1	01/07/13 17:25	1/7/13	
Cobalt, Dissolved	6010B	2 U	ug/L	10	2	1	01/08/13 14:59	1/7/13	
Cobalt, Total Recoverable	6010B	2 J	ug/L	10	2	1	01/07/13 17:25	1/7/13	
Copper, Dissolved	6010B	2 U	ug/L	10	2	1	01/08/13 14:58	1/7/13	
Copper, Total Recoverable	6010B	2 J	ug/L	10	2	1	01/07/13 17:24	1/7/13	
Iron, Dissolved	6010B	5 J	ug/L	100	3	1	01/08/13 14:57	1/7/13	
Iron, Total Recoverable	6010B	20 J	ug/L	100	3	1	01/07/13 17:24	1/7/13	
Lead, Dissolved	6010B	4 U	ug/L	10	4	1	01/08/13 14:59	1/7/13	
Lead, Total Recoverable	6010B	4 U	ug/L	10	4	1	01/07/13 17:25	1/7/13	
Magnesium, Dissolved	6010B	0.02 U	mg/L	0.10	0.02	1	01/08/13 14:57	1/7/13	
Magnesium, Total Recoverable	6010B	0.02 U	mg/L	0.10	0.02	1	01/07/13 17:24	1/7/13	
Manganese, Dissolved	6010B	3 U	ug/L	10	3	1	01/08/13 14:59	1/7/13	
Manganese, Total Recoverable	6010B	3 U	ug/L	10	3	1	01/07/13 17:25	1/7/13	
Mercury, Dissolved	7470A	0.02 U	ug/L	0.10	0.02	1	01/08/13 11:25	1/7/13	
Mercury, Total	7470A	0.02 U	ug/L	0.10	0.02	1	01/08/13 10:59	1/7/13	
Nickel, Dissolved	6010B	0.6 U	ug/L	10	0.6	1	01/08/13 14:59	1/7/13	
Nickel, Total Recoverable	6010B	1 J	ug/L	10	0.6	1	01/07/13 17:25	1/7/13	
Potassium, Dissolved	6010B	0.09 U	mg/L	2.0	0.09	1	01/08/13 14:57	1/7/13	
Potassium, Total Recoverable	6010B	0.1 J	mg/L	2.0	0.09	1	01/07/13 17:23	1/7/13	
Selenium, Dissolved	6020	1.1 U	ug/L	2.0	1.1	1	01/08/13 18:51	1/7/13	
Selenium, Total Recoverable	6020	1.1 U	ug/L	2.0	1.1	1	01/08/13 16:40	1/7/13	
Silver, Dissolved	6010B	2 U	ug/L	10	2	1	01/08/13 14:58	1/7/13	
Silver, Total Recoverable	6010B	2 U	ug/L	10	2	1	01/07/13 17:24	1/7/13	
Sodium, Dissolved	6010B	0.03 U	mg/L	0.50	0.03	1	01/08/13 14:57	1/7/13	
Sodium, Total Recoverable	6010B	0.11 J	mg/L	0.50	0.03	1	01/07/13 17:23	1/7/13	
Thallium, Dissolved	6020	0.05 U	ug/L	0.20	0.05	1	01/08/13 18:51	1/7/13	
Thallium, Total Recoverable	6020	0.05 U	ug/L	0.20	0.05	1	01/08/13 16:40	1/7/13	
Vanadium, Dissolved	6010B	2 U	ug/L	20	2	1	01/08/13 14:58	1/7/13	
Vanadium, Total Recoverable	6010B	2 U	ug/L	20	2	1	01/07/13 17:24	1/7/13	

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Analytical Report

Zinc, Dissolved	6010B	4 J	ug/L	20	2	1	01/08/13 14:59	1/7/13
Zinc, Total Recoverable	6010B	2 U	ug/L	20	2	1	01/07/13 17:25	1/7/13

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Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300078
Date Collected: 01/04/13 09:30
Date Received: 01/04/13 15:05

Sample Name: B430-B-16 (5-7.5)
Lab Code: J1300078-008

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260B
Prep Method: EPA 5035

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Benzene	0.184 U	5.41	0.184	1	01/07/13 17:08	1/7/13	
Ethylbenzene	0.130 U	5.41	0.130	1	01/07/13 17:08	1/7/13	
m,p-Xylenes	0.228 U	10.8	0.228	1	01/07/13 17:08	1/7/13	
o-Xylene	0.174 U	5.41	0.174	1	01/07/13 17:08	1/7/13	
Toluene	0.292 U	5.41	0.292	1	01/07/13 17:08	1/7/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	109	80 - 120	01/07/13 17:08	
4-Bromofluorobenzene	102	64 - 135	01/07/13 17:08	
Dibromofluoromethane	104	74 - 125	01/07/13 17:08	
Toluene-d8	100	46 - 156	01/07/13 17:08	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300078
Date Collected: 01/04/13 09:30
Date Received: 01/04/13 15:05

Sample Name: B430-B-16 (5-7.5)
Lab Code: J1300078-008

Units: ug/Kg
Basis: Dry

Base Neutral Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270C SIM
Prep Method: EPA 3550C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1-Methylnaphthalene	3.22 U	4.05	3.22	1	01/08/13 13:49	1/7/13	
2-Methylnaphthalene	2.75 U	4.05	2.75	1	01/08/13 13:49	1/7/13	
Acenaphthene	3.70 U	8.11	3.70	1	01/08/13 13:49	1/7/13	
Acenaphthylene	2.63 U	8.11	2.63	1	01/08/13 13:49	1/7/13	
Anthracene	1.91 U	4.05	1.91	1	01/08/13 13:49	1/7/13	
Benz(a)anthracene	2.27 U	4.05	2.27	1	01/08/13 13:49	1/7/13	
Benzo(a)pyrene	1.20 U	4.05	1.20	1	01/08/13 13:49	1/7/13	
Benzo(b)fluoranthene	2.39 U	4.05	2.39	1	01/08/13 13:49	1/7/13	
Benzo(g,h,i)perylene	2.63 U	4.05	2.63	1	01/08/13 13:49	1/7/13	
Benzo(k)fluoranthene	2.87 U	4.05	2.87	1	01/08/13 13:49	1/7/13	
Chrysene	2.27 U	4.05	2.27	1	01/08/13 13:49	1/7/13	
Dibenz(a,h)anthracene	3.22 U	4.05	3.22	1	01/08/13 13:49	1/7/13	
Fluoranthene	2.39 U	4.05	2.39	1	01/08/13 13:49	1/7/13	
Fluorene	2.63 U	4.05	2.63	1	01/08/13 13:49	1/7/13	
Indeno(1,2,3-cd)pyrene	2.63 U	4.05	2.63	1	01/08/13 13:49	1/7/13	
Naphthalene	3.70 U	4.05	3.70	1	01/08/13 13:49	1/7/13	
Phenanthrene	2.03 U	8.11	2.03	1	01/08/13 13:49	1/7/13	
Pyrene	2.39 U	4.05	2.39	1	01/08/13 13:49	1/7/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	41	30 - 118	01/08/13 13:49	
p-Terphenyl-d14	51	41 - 146	01/08/13 13:49	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300078
Date Collected: 01/04/13 09:30
Date Received: 01/04/13 15:05

Sample Name: B430-B-16 (5-7.5)
Lab Code: J1300078-008

Basis: Dry

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total Recoverable	6010B	4860	mg/Kg	5.5	1.0	1	01/08/13 20:22	1/8/13	
Antimony, Total Recoverable	6010B	0.33 J	mg/Kg	0.55	0.09	1	01/08/13 20:24	1/8/13	
Arsenic, Total Recoverable	6010B	0.17 J	mg/Kg	0.55	0.13	1	01/08/13 20:24	1/8/13	
Barium, Total Recoverable	6010B	1.72	mg/Kg	0.55	0.04	1	01/08/13 20:24	1/8/13	
Beryllium, Total Recoverable	6010B	0.06 J	mg/Kg	0.22	0.009	1	01/08/13 20:24	1/8/13	
Cadmium, Total Recoverable	6010B	0.06 J	mg/Kg	0.28	0.008	1	01/08/13 20:24	1/8/13	
Calcium, Total Recoverable	6010B	172	mg/Kg	5.5	1.2	1	01/08/13 20:23	1/8/13	
Chromium, Total Recoverable	6010B	9.71	mg/Kg	0.55	0.03	1	01/08/13 20:24	1/8/13	
Cobalt, Total Recoverable	6010B	0.05 U	mg/Kg	0.55	0.05	1	01/08/13 20:24	1/8/13	
Copper, Total Recoverable	6010B	1.78	mg/Kg	0.55	0.07	1	01/08/13 20:24	1/8/13	
Iron, Total Recoverable	6010B	183	mg/Kg	5.5	0.7	1	01/08/13 20:23	1/8/13	
Lead, Total Recoverable	6010B	3.27	mg/Kg	0.55	0.15	1	01/08/13 20:24	1/8/13	
Magnesium, Total Recoverable	6010B	29.6	mg/Kg	5.5	0.7	1	01/08/13 20:23	1/8/13	
Manganese, Total Recoverable	6010B	0.83	mg/Kg	0.55	0.010	1	01/08/13 20:24	1/8/13	
Mercury	7471A	0.0947	mg/Kg	0.0076	0.0012	1	01/08/13 12:15	1/7/13	
Nickel, Total Recoverable	6010B	0.33 J	mg/Kg	0.55	0.04	1	01/08/13 20:24	1/8/13	
Potassium, Total Recoverable	6010B	20 J	mg/Kg	110	5	1	01/08/13 20:22	1/8/13	
Selenium, Total Recoverable	6010B	0.30 U	mg/Kg	0.55	0.30	1	01/08/13 20:24	1/8/13	
Silver, Total Recoverable	6010B	0.05 U	mg/Kg	0.55	0.05	1	01/08/13 20:24	1/8/13	
Sodium, Total Recoverable	6010B	6 J	mg/Kg	28	2	1	01/08/13 20:22	1/8/13	
Thallium, Total Recoverable	6010B	0.12 U	mg/Kg	0.55	0.12	1	01/08/13 20:24	1/8/13	
Vanadium, Total Recoverable	6010B	2.9	mg/Kg	1.1	0.2	1	01/08/13 20:24	1/8/13	
Zinc, Total Recoverable	6010B	0.5 J	mg/Kg	1.1	0.2	1	01/08/13 20:24	1/8/13	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300078
Date Collected: 01/04/13 09:35
Date Received: 01/04/13 15:05

Sample Name: B430-B-16 (10-12.5)
Lab Code: J1300078-009

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260B
Prep Method: EPA 5035

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Benzene	0.203 U	5.96	0.203	1	01/07/13 17:37	1/7/13	
Ethylbenzene	0.144 U	5.96	0.144	1	01/07/13 17:37	1/7/13	
m,p-Xylenes	0.251 U	11.9	0.251	1	01/07/13 17:37	1/7/13	
o-Xylene	0.191 U	5.96	0.191	1	01/07/13 17:37	1/7/13	
Toluene	0.322 U	5.96	0.322	1	01/07/13 17:37	1/7/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	108	80 - 120	01/07/13 17:37	
4-Bromofluorobenzene	101	64 - 135	01/07/13 17:37	
Dibromofluoromethane	101	74 - 125	01/07/13 17:37	
Toluene-d8	100	46 - 156	01/07/13 17:37	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300078
Date Collected: 01/04/13 09:35
Date Received: 01/04/13 15:05

Sample Name: B430-B-16 (10-12.5)
Lab Code: J1300078-009

Units: ug/Kg
Basis: Dry

Base Neutral Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270C SIM
Prep Method: EPA 3550C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1-Methylnaphthalene	3.53 U	4.43	3.53	1	01/08/13 14:12	1/7/13	
2-Methylnaphthalene	3.00 U	4.43	3.00	1	01/08/13 14:12	1/7/13	
Acenaphthene	4.05 U	8.87	4.05	1	01/08/13 14:12	1/7/13	
Acenaphthylene	2.87 U	8.87	2.87	1	01/08/13 14:12	1/7/13	
Anthracene	2.09 U	4.43	2.09	1	01/08/13 14:12	1/7/13	
Benz(a)anthracene	2.48 U	4.43	2.48	1	01/08/13 14:12	1/7/13	
Benzo(a)pyrene	1.31 U	4.43	1.31	1	01/08/13 14:12	1/7/13	
Benzo(b)fluoranthene	2.61 U	4.43	2.61	1	01/08/13 14:12	1/7/13	
Benzo(g,h,i)perylene	2.87 U	4.43	2.87	1	01/08/13 14:12	1/7/13	
Benzo(k)fluoranthene	3.13 U	4.43	3.13	1	01/08/13 14:12	1/7/13	
Chrysene	2.48 U	4.43	2.48	1	01/08/13 14:12	1/7/13	
Dibenz(a,h)anthracene	3.53 U	4.43	3.53	1	01/08/13 14:12	1/7/13	
Fluoranthene	2.61 U	4.43	2.61	1	01/08/13 14:12	1/7/13	
Fluorene	2.87 U	4.43	2.87	1	01/08/13 14:12	1/7/13	
Indeno(1,2,3-cd)pyrene	2.87 U	4.43	2.87	1	01/08/13 14:12	1/7/13	
Naphthalene	4.05 U	4.43	4.05	1	01/08/13 14:12	1/7/13	
Phenanthrene	2.22 U	8.87	2.22	1	01/08/13 14:12	1/7/13	
Pyrene	2.61 U	4.43	2.61	1	01/08/13 14:12	1/7/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	61	30 - 118	01/08/13 14:12	
p-Terphenyl-d14	70	41 - 146	01/08/13 14:12	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300078
Date Collected: 01/04/13 09:35
Date Received: 01/04/13 15:05

Sample Name: B430-B-16 (10-12.5)
Lab Code: J1300078-009

Basis: Dry

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total Recoverable	6010B	8220	mg/Kg	5.5	1.0	1	01/08/13 20:27	1/8/13	
Antimony, Total Recoverable	6010B	0.33 J	mg/Kg	0.55	0.09	1	01/08/13 20:29	1/8/13	
Arsenic, Total Recoverable	6010B	0.13 U	mg/Kg	0.55	0.13	1	01/08/13 20:29	1/8/13	
Barium, Total Recoverable	6010B	2.26	mg/Kg	0.55	0.04	1	01/08/13 20:29	1/8/13	
Beryllium, Total Recoverable	6010B	0.009 U	mg/Kg	0.22	0.009	1	01/08/13 20:28	1/8/13	
Cadmium, Total Recoverable	6010B	0.06 J	mg/Kg	0.28	0.008	1	01/08/13 20:29	1/8/13	
Calcium, Total Recoverable	6010B	7.3	mg/Kg	5.5	1.2	1	01/08/13 20:27	1/8/13	
Chromium, Total Recoverable	6010B	4.24	mg/Kg	0.55	0.03	1	01/08/13 20:29	1/8/13	
Cobalt, Total Recoverable	6010B	0.05 U	mg/Kg	0.55	0.05	1	01/08/13 20:29	1/8/13	
Copper, Total Recoverable	6010B	1.16	mg/Kg	0.55	0.07	1	01/08/13 20:28	1/8/13	
Iron, Total Recoverable	6010B	141	mg/Kg	5.5	0.7	1	01/08/13 20:27	1/8/13	
Lead, Total Recoverable	6010B	3.80	mg/Kg	0.55	0.15	1	01/08/13 20:29	1/8/13	
Magnesium, Total Recoverable	6010B	39.1	mg/Kg	5.5	0.7	1	01/08/13 20:27	1/8/13	
Manganese, Total Recoverable	6010B	0.88	mg/Kg	0.55	0.010	1	01/08/13 20:29	1/8/13	
Mercury	7471A	0.0272	mg/Kg	0.0076	0.0012	1	01/08/13 12:22	1/7/13	
Nickel, Total Recoverable	6010B	0.44 J	mg/Kg	0.55	0.04	1	01/08/13 20:29	1/8/13	
Potassium, Total Recoverable	6010B	50 J	mg/Kg	110	5	1	01/08/13 20:27	1/8/13	
Selenium, Total Recoverable	6010B	0.99	mg/Kg	0.55	0.30	1	01/08/13 20:29	1/8/13	
Silver, Total Recoverable	6010B	0.05 U	mg/Kg	0.55	0.05	1	01/08/13 20:28	1/8/13	
Sodium, Total Recoverable	6010B	6 J	mg/Kg	28	2	1	01/08/13 20:27	1/8/13	
Thallium, Total Recoverable	6010B	0.12 U	mg/Kg	0.55	0.12	1	01/08/13 20:29	1/8/13	
Vanadium, Total Recoverable	6010B	6.0	mg/Kg	1.1	0.2	1	01/08/13 20:28	1/8/13	
Zinc, Total Recoverable	6010B	0.4 J	mg/Kg	1.1	0.2	1	01/08/13 20:29	1/8/13	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Water

Service Request: J1300078
Date Collected: 01/04/13 00:00
Date Received: 01/04/13 15:05

Sample Name: Trip Blank
Lab Code: J1300078-010

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Benzene	0.21 U	1.0	0.21	1	01/07/13 15:04	
Ethylbenzene	0.21 U	1.0	0.21	1	01/07/13 15:04	
m,p-Xylenes	0.31 U	2.0	0.31	1	01/07/13 15:04	
o-Xylene	0.14 U	1.0	0.14	1	01/07/13 15:04	
Toluene	0.19 U	1.0	0.19	1	01/07/13 15:04	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	108	72 - 121	01/07/13 15:04	
4-Bromofluorobenzene	97	86 - 113	01/07/13 15:04	
Dibromofluoromethane	106	86 - 112	01/07/13 15:04	
Toluene-d8	93	88 - 115	01/07/13 15:04	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300078
Date Collected: 01/04/13 11:30
Date Received: 01/04/13 15:05

Sample Name: B430-Hoist-2A (11-12.5)
Lab Code: J1300078-011

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260B
Prep Method: EPA 5035

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Benzene	0.189 U	5.55	0.189	1	01/07/13 18:05	1/7/13	
Ethylbenzene	0.788 J	5.55	0.134	1	01/07/13 18:05	1/7/13	
m,p-Xylenes	1.91 J	11.1	0.234	1	01/07/13 18:05	1/7/13	
o-Xylene	0.178 U	5.55	0.178	1	01/07/13 18:05	1/7/13	
Toluene	0.300 U	5.55	0.300	1	01/07/13 18:05	1/7/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	108	80 - 120	01/07/13 18:05	
4-Bromofluorobenzene	103	64 - 135	01/07/13 18:05	
Dibromofluoromethane	102	74 - 125	01/07/13 18:05	
Toluene-d8	100	46 - 156	01/07/13 18:05	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300078
Date Collected: 01/04/13 11:30
Date Received: 01/04/13 15:05

Sample Name: B430-Hoist-2A (11-12.5)
Lab Code: J1300078-011

Units: ug/Kg
Basis: Dry

Base Neutral Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270C SIM
Prep Method: EPA 3550C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1-Methylnaphthalene	137	4.52	3.60	1	01/08/13 14:35	1/7/13	
2-Methylnaphthalene	197	4.52	3.06	1	01/08/13 14:35	1/7/13	
Acenaphthene	132	9.04	4.13	1	01/08/13 14:35	1/7/13	
Acenaphthylene	2.93 U	9.04	2.93	1	01/08/13 14:35	1/7/13	
Anthracene	7.67	4.52	2.13	1	01/08/13 14:35	1/7/13	
Benz(a)anthracene	2.53 U	4.52	2.53	1	01/08/13 14:35	1/7/13	
Benzo(a)pyrene	1.33 U	4.52	1.33	1	01/08/13 14:35	1/7/13	
Benzo(b)fluoranthene	2.66 U	4.52	2.66	1	01/08/13 14:35	1/7/13	
Benzo(g,h,i)perylene	2.93 U	4.52	2.93	1	01/08/13 14:35	1/7/13	
Benzo(k)fluoranthene	3.20 U	4.52	3.20	1	01/08/13 14:35	1/7/13	
Chrysene	2.53 U	4.52	2.53	1	01/08/13 14:35	1/7/13	
Dibenz(a,h)anthracene	3.60 U	4.52	3.60	1	01/08/13 14:35	1/7/13	
Fluoranthene	3.33 J	4.52	2.66	1	01/08/13 14:35	1/7/13	
Fluorene	283	4.52	2.93	1	01/08/13 14:35	1/7/13	
Indeno(1,2,3-cd)pyrene	2.93 U	4.52	2.93	1	01/08/13 14:35	1/7/13	
Naphthalene	66.3	4.52	4.13	1	01/08/13 14:35	1/7/13	
Phenanthrene	86.2	9.04	2.27	1	01/08/13 14:35	1/7/13	
Pyrene	3.00 J	4.52	2.66	1	01/08/13 14:35	1/7/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	53	30 - 118	01/08/13 14:35	
p-Terphenyl-d14	62	41 - 146	01/08/13 14:35	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300078
Date Collected: 01/04/13 11:30
Date Received: 01/04/13 15:05

Sample Name: B430-Hoist-2A (11-12.5)
Lab Code: J1300078-011

Basis: Dry

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total Recoverable	6010B	4110	mg/Kg	5.9	1.0	1	01/08/13 20:32	1/8/13	
Antimony, Total Recoverable	6010B	0.35 J	mg/Kg	0.59	0.09	1	01/08/13 20:33	1/8/13	
Arsenic, Total Recoverable	6010B	0.24 J	mg/Kg	0.59	0.14	1	01/08/13 20:33	1/8/13	
Barium, Total Recoverable	6010B	3.07	mg/Kg	0.59	0.04	1	01/08/13 20:33	1/8/13	
Beryllium, Total Recoverable	6010B	0.010 U	mg/Kg	0.24	0.010	1	01/08/13 20:33	1/8/13	
Cadmium, Total Recoverable	6010B	0.06 J	mg/Kg	0.29	0.009	1	01/08/13 20:33	1/8/13	
Calcium, Total Recoverable	6010B	1100	mg/Kg	5.9	1.3	1	01/08/13 20:32	1/8/13	
Chromium, Total Recoverable	6010B	5.13	mg/Kg	0.59	0.03	1	01/08/13 20:33	1/8/13	
Cobalt, Total Recoverable	6010B	0.06 J	mg/Kg	0.59	0.05	1	01/08/13 20:33	1/8/13	
Copper, Total Recoverable	6010B	1.30	mg/Kg	0.59	0.08	1	01/08/13 20:33	1/8/13	
Iron, Total Recoverable	6010B	529	mg/Kg	5.9	0.7	1	01/08/13 20:32	1/8/13	
Lead, Total Recoverable	6010B	3.54	mg/Kg	0.59	0.16	1	01/08/13 20:33	1/8/13	
Magnesium, Total Recoverable	6010B	51.6	mg/Kg	5.9	0.8	1	01/08/13 20:32	1/8/13	
Manganese, Total Recoverable	6010B	2.30	mg/Kg	0.59	0.010	1	01/08/13 20:33	1/8/13	
Mercury	7471A	0.0592	mg/Kg	0.0081	0.0013	1	01/08/13 12:24	1/7/13	
Nickel, Total Recoverable	6010B	0.47 J	mg/Kg	0.59	0.04	1	01/08/13 20:33	1/8/13	
Potassium, Total Recoverable	6010B	30 J	mg/Kg	120	5	1	01/08/13 20:32	1/8/13	
Selenium, Total Recoverable	6010B	0.32 U	mg/Kg	0.59	0.32	1	01/08/13 20:33	1/8/13	
Silver, Total Recoverable	6010B	0.06 U	mg/Kg	0.59	0.06	1	01/08/13 20:33	1/8/13	
Sodium, Total Recoverable	6010B	28 J	mg/Kg	29	2	1	01/08/13 20:32	1/8/13	
Thallium, Total Recoverable	6010B	0.13 U	mg/Kg	0.59	0.13	1	01/08/13 20:33	1/8/13	
Vanadium, Total Recoverable	6010B	3.3	mg/Kg	1.2	0.2	1	01/08/13 20:33	1/8/13	
Zinc, Total Recoverable	6010B	0.9 J	mg/Kg	1.2	0.2	1	01/08/13 20:33	1/8/13	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Water

Service Request: J1300078**Date Collected:** NA**Date Received:** NA**Sample Name:** Method Blank**Units:** ug/L**Lab Code:** JQ1300127-02**Basis:** NA**Volatile Organic Compounds by GC/MS****Analysis Method:** 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Benzene	0.21 U	1.0	0.21	1	01/07/13 13:17	
Ethylbenzene	0.21 U	1.0	0.21	1	01/07/13 13:17	
m,p-Xylenes	0.31 U	2.0	0.31	1	01/07/13 13:17	
o-Xylene	0.14 U	1.0	0.14	1	01/07/13 13:17	
Toluene	0.19 U	1.0	0.19	1	01/07/13 13:17	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	107	72 - 121	01/07/13 13:17	
4-Bromofluorobenzene	95	86 - 113	01/07/13 13:17	
Dibromofluoromethane	102	86 - 112	01/07/13 13:17	
Toluene-d8	95	88 - 115	01/07/13 13:17	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300078**Date Collected:** NA**Date Received:** NA

Sample Name: Method Blank
Lab Code: JQ1300148-04

Units: ug/Kg**Basis:** Dry**Volatile Organic Compounds by GC/MS**

Analysis Method: 8260B
Prep Method: EPA 5035

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Benzene	0.170 U	5.00	0.170	1	01/07/13 11:54	1/7/13	
Ethylbenzene	0.120 U	5.00	0.120	1	01/07/13 11:54	1/7/13	
m,p-Xylenes	0.210 U	10.0	0.210	1	01/07/13 11:54	1/7/13	
o-Xylene	0.160 U	5.00	0.160	1	01/07/13 11:54	1/7/13	
Toluene	0.270 U	5.00	0.270	1	01/07/13 11:54	1/7/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	103	80 - 120	01/07/13 11:54	
4-Bromofluorobenzene	96	64 - 135	01/07/13 11:54	
Dibromofluoromethane	101	74 - 125	01/07/13 11:54	
Toluene-d8	98	46 - 156	01/07/13 11:54	

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Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300078**Date Collected:** NA**Date Received:** NA**Sample Name:** Method Blank**Units:** ug/Kg**Lab Code:** JQ1300194-03**Basis:** Dry**Volatile Organic Compounds by GC/MS****Analysis Method:** 8260B**Prep Method:** EPA 5035

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Benzene	0.170 U	5.00	0.170	1	01/09/13 19:05	1/9/13	
Ethylbenzene	0.120 U	5.00	0.120	1	01/09/13 19:05	1/9/13	
m,p-Xylenes	0.210 U	10.0	0.210	1	01/09/13 19:05	1/9/13	
o-Xylene	0.160 U	5.00	0.160	1	01/09/13 19:05	1/9/13	
Toluene	0.270 U	5.00	0.270	1	01/09/13 19:05	1/9/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	100	80 - 120	01/09/13 19:05	
4-Bromofluorobenzene	97	64 - 135	01/09/13 19:05	
Dibromofluoromethane	98	74 - 125	01/09/13 19:05	
Toluene-d8	102	46 - 156	01/09/13 19:05	

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Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300078
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: JQ1300096-01

Units: ug/Kg
Basis: Dry

Base Neutral Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270C SIM
Prep Method: EPA 3550C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1-Methylnaphthalene	2.70 U	3.40	2.70	1	01/08/13 05:27	1/7/13	
2-Methylnaphthalene	2.30 U	3.40	2.30	1	01/08/13 05:27	1/7/13	
Acenaphthene	3.10 U	6.80	3.10	1	01/08/13 05:27	1/7/13	
Acenaphthylene	2.20 U	6.80	2.20	1	01/08/13 05:27	1/7/13	
Anthracene	1.60 U	3.40	1.60	1	01/08/13 05:27	1/7/13	
Benz(a)anthracene	1.90 U	3.40	1.90	1	01/08/13 05:27	1/7/13	
Benzo(a)pyrene	1.00 U	3.40	1.00	1	01/08/13 05:27	1/7/13	
Benzo(b)fluoranthene	2.00 U	3.40	2.00	1	01/08/13 05:27	1/7/13	
Benzo(g,h,i)perylene	2.20 U	3.40	2.20	1	01/08/13 05:27	1/7/13	
Benzo(k)fluoranthene	2.40 U	3.40	2.40	1	01/08/13 05:27	1/7/13	
Chrysene	1.90 U	3.40	1.90	1	01/08/13 05:27	1/7/13	
Dibenz(a,h)anthracene	2.70 U	3.40	2.70	1	01/08/13 05:27	1/7/13	
Fluoranthene	2.00 U	3.40	2.00	1	01/08/13 05:27	1/7/13	
Fluorene	2.20 U	3.40	2.20	1	01/08/13 05:27	1/7/13	
Indeno(1,2,3-cd)pyrene	2.20 U	3.40	2.20	1	01/08/13 05:27	1/7/13	
Naphthalene	3.10 U	3.40	3.10	1	01/08/13 05:27	1/7/13	
Phenanthrene	1.70 U	6.80	1.70	1	01/08/13 05:27	1/7/13	
Pyrene	2.00 U	3.40	2.00	1	01/08/13 05:27	1/7/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	74	30 - 118	01/08/13 05:27	
p-Terphenyl-d14	99	41 - 146	01/08/13 05:27	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Water

Service Request: J1300078**Date Collected:** NA**Date Received:** NA

Sample Name: Method Blank
Lab Code: JQ1300131-01

Units: ug/L**Basis:** NA

Base Neutral Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270C SIM**Prep Method:** EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1-Methylnaphthalene	0.0440 U	0.100	0.0440	1	01/09/13 20:14	1/8/13	
2-Methylnaphthalene	0.0440 U	0.100	0.0440	1	01/09/13 20:14	1/8/13	
Acenaphthene	0.0410 U	0.100	0.0410	1	01/09/13 20:14	1/8/13	
Acenaphthylene	0.0250 U	0.100	0.0250	1	01/09/13 20:14	1/8/13	
Anthracene	0.0380 U	0.100	0.0380	1	01/09/13 20:14	1/8/13	
Benz(a)anthracene	0.0350 U	0.100	0.0350	1	01/09/13 20:14	1/8/13	
Benzo(a)pyrene	0.0310 U	0.100	0.0310	1	01/09/13 20:14	1/8/13	
Benzo(b)fluoranthene	0.0250 U	0.100	0.0250	1	01/09/13 20:14	1/8/13	
Benzo(g,h,i)perylene	0.0390 U	0.100	0.0390	1	01/09/13 20:14	1/8/13	
Benzo(k)fluoranthene	0.0350 U	0.100	0.0350	1	01/09/13 20:14	1/8/13	
Chrysene	0.0240 U	0.100	0.0240	1	01/09/13 20:14	1/8/13	
Dibenz(a,h)anthracene	0.0360 U	0.100	0.0360	1	01/09/13 20:14	1/8/13	
Fluoranthene	0.0390 U	0.100	0.0390	1	01/09/13 20:14	1/8/13	
Fluorene	0.0470 U	0.100	0.0470	1	01/09/13 20:14	1/8/13	
Indeno(1,2,3-cd)pyrene	0.0400 U	0.100	0.0400	1	01/09/13 20:14	1/8/13	
Naphthalene	0.0390 U	0.100	0.0390	1	01/09/13 20:14	1/8/13	
Phenanthrene	0.0350 U	0.100	0.0350	1	01/09/13 20:14	1/8/13	
Pyrene	0.0310 U	0.100	0.0310	1	01/09/13 20:14	1/8/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	76	22 - 105	01/09/13 20:14	
p-Terphenyl-d14	106	25 - 127	01/09/13 20:14	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Water

Service Request: J1300078
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: J1300078-MB2

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Dissolved	6010B	70 J	ug/L	100	20	1	01/08/13 14:44	1/7/13	
Aluminum, Total Recoverable	6010B	20 U	ug/L	100	20	1	01/07/13 16:01	1/7/13	
Antimony, Dissolved	6020	0.2 U	ug/L	1.0	0.2	1	01/08/13 18:36	1/7/13	
Antimony, Total Recoverable	6020	0.2 U	ug/L	1.0	0.2	1	01/08/13 15:59	1/7/13	
Arsenic, Dissolved	6010B	4 U	ug/L	10	4	1	01/08/13 14:45	1/7/13	
Arsenic, Total Recoverable	6010B	4 U	ug/L	10	4	1	01/07/13 16:02	1/7/13	
Barium, Dissolved	6010B	1 J	ug/L	10	0.3	1	01/08/13 14:45	1/7/13	
Barium, Total Recoverable	6010B	0.3 U	ug/L	10	0.3	1	01/07/13 16:02	1/7/13	
Beryllium, Dissolved	6010B	0.2 U	ug/L	4.0	0.2	1	01/08/13 14:45	1/7/13	
Beryllium, Total Recoverable	6010B	0.2 U	ug/L	4.0	0.2	1	01/07/13 16:02	1/7/13	
Cadmium, Dissolved	6010B	0.2 U	ug/L	5.0	0.2	1	01/08/13 14:45	1/7/13	
Cadmium, Total Recoverable	6010B	0.2 U	ug/L	5.0	0.2	1	01/07/13 16:02	1/7/13	
Calcium, Dissolved	6010B	0.02 U	mg/L	0.10	0.02	1	01/08/13 14:44	1/7/13	
Calcium, Total Recoverable	6010B	0.02 U	mg/L	0.10	0.02	1	01/07/13 16:01	1/7/13	
Chromium, Dissolved	6010B	0.5 U	ug/L	10	0.5	1	01/08/13 14:45	1/7/13	
Chromium, Total Recoverable	6010B	0.5 U	ug/L	10	0.5	1	01/07/13 16:02	1/7/13	
Cobalt, Dissolved	6010B	2 U	ug/L	10	2	1	01/08/13 14:45	1/7/13	
Cobalt, Total Recoverable	6010B	2 J	ug/L	10	2	1	01/07/13 16:02	1/7/13	
Copper, Dissolved	6010B	2 U	ug/L	10	2	1	01/08/13 14:45	1/7/13	
Copper, Total Recoverable	6010B	2 U	ug/L	10	2	1	01/07/13 16:02	1/7/13	
Iron, Dissolved	6010B	3 U	ug/L	100	3	1	01/08/13 14:44	1/7/13	
Iron, Total Recoverable	6010B	3 U	ug/L	100	3	1	01/07/13 16:01	1/7/13	
Lead, Dissolved	6010B	4 U	ug/L	10	4	1	01/08/13 14:45	1/7/13	
Lead, Total Recoverable	6010B	4 U	ug/L	10	4	1	01/07/13 16:02	1/7/13	
Magnesium, Dissolved	6010B	0.02 U	mg/L	0.10	0.02	1	01/08/13 14:44	1/7/13	
Magnesium, Total Recoverable	6010B	0.02 U	mg/L	0.10	0.02	1	01/07/13 16:01	1/7/13	
Manganese, Dissolved	6010B	3 U	ug/L	10	3	1	01/08/13 14:45	1/7/13	
Manganese, Total Recoverable	6010B	3 U	ug/L	10	3	1	01/07/13 16:02	1/7/13	
Mercury, Dissolved	7470A	0.02 U	ug/L	0.10	0.02	1	01/08/13 11:10	1/7/13	
Mercury, Total	7470A	0.02 U	ug/L	0.10	0.02	1	01/08/13 10:44	1/7/13	
Nickel, Dissolved	6010B	0.6 U	ug/L	10	0.6	1	01/08/13 14:45	1/7/13	
Nickel, Total Recoverable	6010B	0.6 U	ug/L	10	0.6	1	01/07/13 16:02	1/7/13	
Potassium, Dissolved	6010B	0.09 U	mg/L	2.0	0.09	1	01/08/13 14:44	1/7/13	
Potassium, Total Recoverable	6010B	0.09 U	mg/L	2.0	0.09	1	01/07/13 16:00	1/7/13	
Selenium, Dissolved	6020	1.1 U	ug/L	2.0	1.1	1	01/08/13 18:36	1/7/13	
Selenium, Total Recoverable	6020	1.1 U	ug/L	2.0	1.1	1	01/08/13 15:59	1/7/13	
Silver, Dissolved	6010B	2 U	ug/L	10	2	1	01/08/13 14:45	1/7/13	
Silver, Total Recoverable	6010B	2 U	ug/L	10	2	1	01/07/13 16:02	1/7/13	
Sodium, Dissolved	6010B	0.03 U	mg/L	0.50	0.03	1	01/08/13 14:44	1/7/13	
Sodium, Total Recoverable	6010B	0.03 U	mg/L	0.50	0.03	1	01/07/13 16:00	1/7/13	
Thallium, Dissolved	6020	0.05 U	ug/L	0.20	0.05	1	01/08/13 18:36	1/7/13	
Thallium, Total Recoverable	6020	0.05 U	ug/L	0.20	0.05	1	01/08/13 15:59	1/7/13	
Vanadium, Dissolved	6010B	2 U	ug/L	20	2	1	01/08/13 14:45	1/7/13	
Vanadium, Total Recoverable	6010B	2 J	ug/L	20	2	1	01/07/13 16:02	1/7/13	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Zinc, Dissolved	6010B	3 J	ug/L	20	2	1	01/08/13 14:45	1/7/13
Zinc, Total Recoverable	6010B	2 U	ug/L	20	2	1	01/07/13 16:02	1/7/13

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300078
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: J1300078-MB1

Basis: Dry

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total Recoverable	6010B	0.9 U	mg/Kg	5.0	0.9	1	01/08/13 18:39	1/8/13	
Antimony, Total Recoverable	6010B	0.45 J	mg/Kg	0.50	0.08	1	01/08/13 18:41	1/8/13	
Arsenic, Total Recoverable	6010B	0.12 U	mg/Kg	0.50	0.12	1	01/08/13 18:41	1/8/13	
Barium, Total Recoverable	6010B	0.03 U	mg/Kg	0.50	0.03	1	01/08/13 18:41	1/8/13	
Beryllium, Total Recoverable	6010B	0.008 U	mg/Kg	0.20	0.008	1	01/08/13 18:40	1/8/13	
Cadmium, Total Recoverable	6010B	0.05 J	mg/Kg	0.25	0.007	1	01/08/13 18:41	1/8/13	
Calcium, Total Recoverable	6010B	1.1 U	mg/Kg	5.0	1.1	1	01/08/13 18:39	1/8/13	
Chromium, Total Recoverable	6010B	0.05 J	mg/Kg	0.50	0.02	1	01/08/13 18:41	1/8/13	
Cobalt, Total Recoverable	6010B	0.04 U	mg/Kg	0.50	0.04	1	01/08/13 18:41	1/8/13	
Copper, Total Recoverable	6010B	0.07 U	mg/Kg	0.50	0.07	1	01/08/13 18:40	1/8/13	
Iron, Total Recoverable	6010B	0.6 U	mg/Kg	5.0	0.6	1	01/08/13 18:39	1/8/13	
Lead, Total Recoverable	6010B	0.13 U	mg/Kg	0.50	0.13	1	01/08/13 18:41	1/8/13	
Magnesium, Total Recoverable	6010B	0.7 U	mg/Kg	5.0	0.7	1	01/08/13 18:39	1/8/13	
Manganese, Total Recoverable	6010B	0.05 J	mg/Kg	0.50	0.009	1	01/08/13 18:41	1/8/13	
Mercury	7471A	0.0010 U	mg/Kg	0.0067	0.0010	1	01/08/13 11:36	1/7/13	
Nickel, Total Recoverable	6010B	0.05 J	mg/Kg	0.50	0.04	1	01/08/13 18:41	1/8/13	
Potassium, Total Recoverable	6010B	4 U	mg/Kg	100	4	1	01/08/13 18:39	1/8/13	
Selenium, Total Recoverable	6010B	0.27 U	mg/Kg	0.50	0.27	1	01/08/13 18:41	1/8/13	
Silver, Total Recoverable	6010B	0.05 U	mg/Kg	0.50	0.05	1	01/08/13 18:40	1/8/13	
Sodium, Total Recoverable	6010B	4 J	mg/Kg	25	2	1	01/08/13 18:39	1/8/13	
Thallium, Total Recoverable	6010B	0.11 U	mg/Kg	0.50	0.11	1	01/08/13 18:41	1/8/13	
Vanadium, Total Recoverable	6010B	0.2 U	mg/Kg	1.0	0.2	1	01/08/13 18:40	1/8/13	
Zinc, Total Recoverable	6010B	0.2 U	mg/Kg	1.0	0.2	1	01/08/13 18:41	1/8/13	

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Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil
Analysis Method: 160.3 Modified

Service Request: J1300078**Date Collected:** 01/4/13**Date Received:** 01/4/13**Units:** Percent**Basis:** As Received**Solids, Total**

Sample Name	Lab Code	Result	MRL	MDL	Dil.	Date Analyzed	Q
B430-B-13 (5-7.5)	J1300078-001	93	0.10	0.10	1	01/07/13 14:28	
B430-B-13 (10-12.5)	J1300078-002	80	0.10	0.10	1	01/07/13 14:28	
B430-B-15 (7.5-10)	J1300078-003	80	0.10	0.10	1	01/07/13 14:28	
B430-B-15 (12.5-15)	J1300078-004	84	0.10	0.10	1	01/07/13 14:28	
B430-DUP-03	J1300078-005	79	0.10	0.10	1	01/07/13 14:28	
B430-B-16 (5-7.5)	J1300078-008	85	0.10	0.10	1	01/07/13 14:28	
B430-B-16 (10-12.5)	J1300078-009	81	0.10	0.10	1	01/07/13 14:28	
B430-Hoist-2A (11-12.5)	J1300078-011	80	0.10	0.10	1	01/07/13 14:28	

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QA/QC Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300078

SURROGATE RECOVERY SUMMARY
Volatile Organic Compounds by GC/MS

Analysis Method: 8260B
Extraction Method: EPA 5035

Sample Name	Lab Code	1,2-Dichloroethane-d4	4-Bromofluorobenzene	Dibromofluoromethane
		80 - 120	64 - 135	74 - 125
B430-B-13 (5-7.5)	J1300078-001	108	99	100
B430-B-13 (10-12.5)	J1300078-002	100	101	98
B430-B-15 (7.5-10)	J1300078-003	109	101	103
B430-B-15 (12.5-15)	J1300078-004	107	103	100
B430-DUP-03	J1300078-005	106	104	103
B430-FB-02	J1300078-006	106	96	101
B430-EB-02	J1300078-007	108	93	102
B430-B-16 (5-7.5)	J1300078-008	109	102	104
B430-B-16 (10-12.5)	J1300078-009	108	101	101
Trip Blank	J1300078-010	108	97	106
B430-Hoist-2A (11-12.5)	J1300078-011	108	103	102
Lab Control Sample	JQ1300127-01	106	95	102
Method Blank	JQ1300127-02	107	95	102
B430-FB-02	JQ1300127-03	108	94	102
B430-FB-02	JQ1300127-04	105	96	103
Lab Control Sample	JQ1300148-03	99	97	100
Method Blank	JQ1300148-04	103	96	101
Lab Control Sample	JQ1300194-01	99	99	99
Duplicate Lab Control Sample	JQ1300194-02	96	98	97
Method Blank	JQ1300194-03	100	97	98

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QA/QC Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300078

SURROGATE RECOVERY SUMMARY
Volatile Organic Compounds by GC/MS

Analysis Method: 8260B
Extraction Method: EPA 5035

Sample Name	Lab Code	Toluene-d8
		46 - 156
B430-B-13 (5-7.5)	J1300078-001	98
B430-B-13 (10-12.5)	J1300078-002	102
B430-B-15 (7.5-10)	J1300078-003	98
B430-B-15 (12.5-15)	J1300078-004	100
B430-DUP-03	J1300078-005	100
B430-FB-02	J1300078-006	96
B430-EB-02	J1300078-007	93
B430-B-16 (5-7.5)	J1300078-008	100
B430-B-16 (10-12.5)	J1300078-009	100
Trip Blank	J1300078-010	93
B430-Hoist-2A (11-12.5)	J1300078-011	100
Lab Control Sample	JQ1300127-01	96
Method Blank	JQ1300127-02	95
B430-FB-02	JQ1300127-03	96
B430-FB-02	JQ1300127-04	97
Lab Control Sample	JQ1300148-03	98
Method Blank	JQ1300148-04	98
Lab Control Sample	JQ1300194-01	101
Duplicate Lab Control Sample	JQ1300194-02	102
Method Blank	JQ1300194-03	102

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QA/QC Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Water

Service Request: J1300078
Date Collected: 01/04/13
Date Received: 01/04/13
Date Analyzed: 01/7/13

**Duplicate Matrix Spike Summary
Volatile Organic Compounds by GC/MS**

Sample Name: B430-FB-02
Lab Code: J1300078-006
Analysis Method: 8260B

Units: ug/L
Basis: NA

Analyte Name	Sample Result	Result	Matrix Spike JQ1300127-03		Result	Duplicate Matrix Spike JQ1300127-04		% Rec Limits	RPD	RPD Limit
			Spike Amount	% Rec		Spike Amount	% Rec			
Benzene	ND	19.1	20.0	95	19.1	20.0	95	80-117	<1	30
Ethylbenzene	ND	18.8	20.0	94	18.9	20.0	95	82-119	<1	30
m,p-Xylenes	ND	37.6	40.0	94	38.3	40.0	96	79-122	2	30
o-Xylene	ND	19.1	20.0	96	19.7	20.0	98	80-119	3	30
Toluene	ND	18.3	20.0	92	18.9	20.0	94	52-152	3	30

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COLUMBIA ANALYTICAL SERVICES, INC.

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QA/QC Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Water

Service Request:J1300078**Date Analyzed:**01/07/13

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analysis Method: 8260B**Units:**ug/L**Basis:**NA**Analysis Lot:**324825

Lab Control Sample
JQ1300127-01

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Benzene	21.9	20.0	110	80-117
Ethylbenzene	21.5	20.0	107	82-119
m,p-Xylenes	43.5	40.0	109	79-122
o-Xylene	21.4	20.0	107	80-119
Toluene	21.3	20.0	107	52-152

COLUMBIA ANALYTICAL SERVICES, INC.

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QA/QC Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request:J1300078**Date Analyzed:**01/07/13**Date Extracted:**01/07/13

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analysis Method: 8260B
Prep Method: EPA 5035

Units:ug/Kg
Basis:Dry
Analysis Lot:325043

Lab Control Sample
JQ1300148-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Benzene	18.5	20.0	93	76-123
Ethylbenzene	18.1	20.0	90	71-122
m,p-Xylenes	36.8	40.0	92	71-122
o-Xylene	18.4	20.0	92	71-120
Toluene	17.6	20.0	88	72-118

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QA/QC Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300078
Date Analyzed: 01/09/13
Date Extracted: 01/09/13

Duplicate Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analysis Method: 8260B
Prep Method: EPA 5035

Units: ug/Kg
Basis: Dry
Analysis Lot: 325263

Lab Control Sample
JQ1300194-01

Duplicate Lab Control Sample
JQ1300194-02

Analyte Name	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Benzene	21.6	20.0	108	19.8	20.0	99	76-123	9	30
Ethylbenzene	22.2	20.0	111	21.2	20.0	106	71-122	5	30
m,p-Xylenes	44.7	40.0	112	43.0	40.0	108	71-122	4	30
o-Xylene	21.7	20.0	109	21.2	20.0	106	71-120	3	30
Toluene	21.3	20.0	107	20.5	20.0	102	72-118	4	30

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QA/QC Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300078**SURROGATE RECOVERY SUMMARY****Base Neutral Semivolatile Organic Compounds by GC/MS SIM****Analysis Method:** 8270C SIM**Extraction Method:** EPA 3550C

Sample Name	Lab Code	2-Fluorobiphenyl	p-Terphenyl-d14
		30 - 118	41 - 146
B430-B-13 (5-7.5)	J1300078-001	47	57
B430-B-13 (10-12.5)	J1300078-002	68	80
B430-B-15 (7.5-10)	J1300078-003	46	51
B430-B-15 (12.5-15)	J1300078-004	57	64
B430-DUP-03	J1300078-005	58	66
B430-FB-02	J1300078-006	79	91
B430-EB-02	J1300078-007	78	102
B430-B-16 (5-7.5)	J1300078-008	41	51
B430-B-16 (10-12.5)	J1300078-009	61	70
B430-Hoist-2A (11-12.5)	J1300078-011	53	62
Method Blank	JQ1300096-01	74	99
Lab Control Sample	JQ1300096-02	67	89
Method Blank	JQ1300131-01	76	106
Lab Control Sample	JQ1300131-02	74	93

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QA/QC Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300078
Date Analyzed: 01/08/13
Date Extracted: 01/07/13

Lab Control Sample Summary
Base Neutral Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270C SIM
Prep Method: EPA 3550C

Units: ug/Kg
Basis: Dry
Analysis Lot: 325033

Lab Control Sample
JQ1300096-02

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
1-Methylnaphthalene	90.7	133	68	32-101
2-Methylnaphthalene	92.3	133	69	32-103
Acenaphthene	96.8	133	73	29-122
Acenaphthylene	102	133	77	36-114
Anthracene	113	133	85	36-135
Benz(a)anthracene	145	133	108	43-139
Benzo(a)pyrene	113	133	85	43-127
Benzo(b)fluoranthene	122	133	92	49-139
Benzo(g,h,i)perylene	114	133	85	30-135
Benzo(k)fluoranthene	75.7	133	57	45-132
Chrysene	95.3	133	72	36-130
Dibenz(a,h)anthracene	162	133	122	32-139
Fluoranthene	108	133	81	42-127
Fluorene	107	133	80	41-118
Indeno(1,2,3-cd)pyrene	140	133	105	32-133
Naphthalene	94.0	133	70	29-107
Phenanthrene	102	133	77	34-130
Pyrene	113	133	85	45-118

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QA/QC Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Water

Service Request: J1300078
Date Analyzed: 01/09/13
Date Extracted: 01/08/13

Lab Control Sample Summary
Base Neutral Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270C SIM
Prep Method: EPA 3510C

Units: ug/L
Basis: NA
Analysis Lot: 325384

Lab Control Sample
JQ1300131-02

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
1-Methylnaphthalene	1.50	2.00	75	34-107
2-Methylnaphthalene	1.44	2.00	72	41-107
Acenaphthene	1.58	2.00	79	41-109
Acenaphthylene	1.52	2.00	76	44-120
Anthracene	1.59	2.00	80	50-115
Benz(a)anthracene	1.86	2.00	93	46-133
Benzo(a)pyrene	1.82	2.00	91	49-122
Benzo(b)fluoranthene	1.72	2.00	86	48-122
Benzo(g,h,i)perylene	1.94	2.00	97	49-114
Benzo(k)fluoranthene	1.43	2.00	71	51-119
Chrysene	1.68	2.00	84	51-117
Dibenz(a,h)anthracene	2.01	2.00	100	48-121
Fluoranthene	1.70	2.00	85	52-122
Fluorene	1.66	2.00	83	46-113
Indeno(1,2,3-cd)pyrene	2.41	2.00	121	45-121
Naphthalene	1.50	2.00	75	42-104
Phenanthrene	1.62	2.00	81	49-107
Pyrene	1.59	2.00	79	49-128

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QA/QC Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Water

Service Request: J1300078
Date Collected: 01/04/13
Date Received: 01/04/13
Date Analyzed: 1/8/13

Duplicate Matrix Spike Summary
Inorganic Parameters

Sample Name: B430-EB-02
Lab Code: J1300078-007

Units: ug/L
Basis: NA

Matrix Spike J1300078-007MS						Duplicate Matrix Spike J1300078-007DMS					
Analyte Name	Method	Sample Result	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Antimony, Dissolved	6020	0.2	51.3	50.0	103	53.4	50.0	107	75-125	4	20
Selenium, Dissolved	6020	1.1	102	100	102	100	100	100	75-125	2	20
Thallium, Dissolved	6020	0.05	9.90	10.0	99	9.92	10.0	99	75-125	<1	20

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COLUMBIA ANALYTICAL SERVICES, INC.

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QA/QC Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Water

Service Request: J1300078
Date Collected: 01/04/13
Date Received: 01/04/13
Date Analyzed: 1/8/13

Duplicate Matrix Spike Summary
Inorganic Parameters

Sample Name: B430-FB-02
Lab Code: J1300078-006

Units: ug/L
Basis: NA

Matrix Spike J1300078-006MS						Duplicate Matrix Spike J1300078-006DMS					
<u>Analyte Name</u>	<u>Method</u>	<u>Sample Result</u>	<u>Result</u>	<u>Spike Amount</u>	<u>% Rec</u>	<u>Result</u>	<u>Spike Amount</u>	<u>% Rec</u>	<u>% Rec Limits</u>	<u>RPD</u>	<u>RPD Limit</u>
Mercury, Dissolved	7470A	0.02	1.2	1.25	95	1.2	1.25	100	75-125	5	20
Mercury, Total	7470A	0.02	1.2	1.25	97	1.2	1.25	94	75-125	3	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Water

Service Request: J1300078
Date Analyzed: 01/07/13 - 01/08/13

Lab Control Sample Summary
Inorganic Parameters

Units: ug/L
Basis: NA

Lab Control Sample
J1300078-LCS2

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Aluminum, Dissolved	6010B	5210	5000	104	80-120
Aluminum, Total Recoverable	6010B	5350	5000	107	80-120
Antimony, Dissolved	6020	51.8	50.0	104	80-120
Antimony, Total Recoverable	6020	52.2	50.0	104	80-120
Arsenic, Dissolved	6010B	497	500	99	80-120
Arsenic, Total Recoverable	6010B	546	500	109	80-120
Barium, Dissolved	6010B	516	500	103	80-120
Barium, Total Recoverable	6010B	542	500	108	80-120
Beryllium, Dissolved	6010B	206	200	103	80-120
Beryllium, Total Recoverable	6010B	219	200	110	80-120
Cadmium, Dissolved	6010B	256	250	102	80-120
Cadmium, Total Recoverable	6010B	274	250	110	80-120
Chromium, Dissolved	6010B	517	500	103	80-120
Chromium, Total Recoverable	6010B	545	500	109	80-120
Cobalt, Dissolved	6010B	515	500	103	80-120
Cobalt, Total Recoverable	6010B	550	500	110	80-120
Copper, Dissolved	6010B	511	500	102	80-120
Copper, Total Recoverable	6010B	528	500	106	80-120
Iron, Dissolved	6010B	5160	5000	103	80-120
Iron, Total Recoverable	6010B	5590	5000	112	80-120
Lead, Dissolved	6010B	513	500	103	80-120
Lead, Total Recoverable	6010B	552	500	110	80-120
Manganese, Dissolved	6010B	511	500	102	80-120
Manganese, Total Recoverable	6010B	542	500	108	80-120
Mercury, Dissolved	7470A	1.26	1.25	101	80-120
Mercury, Total	7470A	1.20	1.25	96	80-120
Nickel, Dissolved	6010B	518	500	104	80-120
Nickel, Total Recoverable	6010B	554	500	111	80-120
Selenium, Dissolved	6020	100	100	100	80-120
Selenium, Total Recoverable	6020	102	100	102	80-120
Silver, Dissolved	6010B	506	500	101	80-120
Silver, Total Recoverable	6010B	533	500	107	80-120
Thallium, Dissolved	6020	9.84	10.0	98	80-120

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Water

Service Request: J1300078
Date Analyzed: 01/07/13 - 01/08/13

Lab Control Sample Summary
Inorganic Parameters

Units: ug/L
Basis: NA

Lab Control Sample
J1300078-LCS2

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Thallium, Total Recoverable	6020	9.85	10.0	99	80-120
Vanadium, Dissolved	6010B	1030	1000	103	80-120
Vanadium, Total Recoverable	6010B	1080	1000	108	80-120
Zinc, Dissolved	6010B	1040	1000	104	80-120
Zinc, Total Recoverable	6010B	1120	1000	112	80-120

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Water

Service Request: J1300078
Date Analyzed: 01/07/13 - 01/08/13

Lab Control Sample Summary
Inorganic Parameters

Units: mg/L**Basis:** NA**Lab Control Sample**

J1300078-LCS2

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Calcium, Dissolved	6010B	5.24	5.00	105	80-120
Calcium, Total Recoverable	6010B	5.59	5.00	112	80-120
Magnesium, Dissolved	6010B	5.16	5.00	103	80-120
Magnesium, Total Recoverable	6010B	5.62	5.00	112	80-120
Potassium, Dissolved	6010B	104	100	104	80-120
Potassium, Total Recoverable	6010B	104	100	104	80-120
Sodium, Dissolved	6010B	26.1	25.0	104	80-120
Sodium, Total Recoverable	6010B	26.2	25.0	105	80-120

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300078
Date Analyzed: 1/8/13

Lab Control Sample Summary
Inorganic Parameters

Units: mg/Kg
Basis: Dry

Lab Control Sample
J1300078-LCS1

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Aluminum, Total Recoverable	6010B	256	250	102	80-120
Antimony, Total Recoverable	6010B	24.6	25.0	98	80-120
Arsenic, Total Recoverable	6010B	23.9	25.0	96	80-120
Barium, Total Recoverable	6010B	25.1	25.0	100	80-120
Beryllium, Total Recoverable	6010B	9.75	10.0	98	80-120
Cadmium, Total Recoverable	6010B	12.4	12.5	99	80-120
Calcium, Total Recoverable	6010B	261	250	104	80-120
Chromium, Total Recoverable	6010B	25.1	25.0	100	80-120
Cobalt, Total Recoverable	6010B	24.8	25.0	99	80-120
Copper, Total Recoverable	6010B	25.6	25.0	102	80-120
Iron, Total Recoverable	6010B	261	250	104	80-120
Lead, Total Recoverable	6010B	24.0	25.0	96	80-120
Magnesium, Total Recoverable	6010B	256	250	102	80-120
Manganese, Total Recoverable	6010B	25.0	25.0	100	80-120
Mercury	7471A	0.0876	0.0833	105	80-120
Nickel, Total Recoverable	6010B	25.0	25.0	100	80-120
Potassium, Total Recoverable	6010B	5040	5000	101	80-120
Selenium, Total Recoverable	6010B	22.5	25.0	90	80-120
Silver, Total Recoverable	6010B	24.6	25.0	98	80-120
Sodium, Total Recoverable	6010B	1290	1250	103	80-120
Thallium, Total Recoverable	6010B	24.5	25.0	98	80-120
Vanadium, Total Recoverable	6010B	49.9	50.0	100	80-120
Zinc, Total Recoverable	6010B	48.8	50.0	98	80-120

Client: J2 Engineering Service Request #: U1300078
 Project: AAFSFt Stewart
 Cooler received on 1.4.13 and opened on 1.4.13 by GB
 COURIER: ALS UPS FEDEX Client Other _____ Airbill # _____

- 1 Were custody seals on outside of cooler? ☒ Yes ☐ No
 If yes, how many and where? #1 on lid other _____
- 2 Were seals intact and signature and date correct? ☒ Yes ☐ No N/A
- 3 Were custody papers properly filled out? ☒ Yes ☐ No N/A
- 4 Temperature of cooler(s) upon receipt (Should be > 0°C and < 6°C) 5.2 4.1
- 5 Thermometer ID T71
- 6 Temperature Blank Present? ☒ Yes ☐ No
- 7 Were Ice or Ice Packs present ☒ Ice ☐ Ice Packs ☐ No
- 8 Did all bottles arrive in good condition (unbroken, etc....)? ☒ Yes ☐ No N/A
- 9 Type of packing material present ☒ Netting ☒ Vial Holder ☒ Bubble Wrap
 Paper Styrofoam Other N/A
- 10 Were all bottle labels complete (sample ID, preservation, etc....)? ☒ Yes ☐ No N/A
- 11 Did all bottle labels and tags agree with custody papers? ☐ Yes ☒ No N/A
- 12 Were the correct bottles used for the tests indicated? ☒ Yes ☐ No N/A
- 13 Were all of the preserved bottles received with the appropriate preservative? ☒ Yes ☐ No N/A
 HNO₃ pH<2 H₂SO₄ pH<2 ZnAc₂/NaOH pH>9 NaOH pH>12 HCl pH<2
 Preservative additions noted below
- 14 Were all samples received within analysis holding times? ☒ Yes ☐ No N/A
- 15 Were all VOA vials free of air bubbles? If present, note below ☒ Yes ☐ No N/A
- 16 Where did the bottles originate? ☒ ALS ☐ Client

Sample ID	Reagent	Lot #	ml added	Initials Date/Time

Additional comments and/or explanation of all discrepancies noted above: ① Sample ID on label is B430-B-13 (5' - (12.5 - 15) 1.4.13 0835 vs. CAC B430-B-13 (10' - 12.5') 1.4.13 0835. ② Received B430-Hoist-2A (11-12.5) 1.4.13 1130 Soil

Client approval to run samples if discrepancies noted:

Date:



SR# J1300078

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

9143 Philips Highway, Ste 200 • Jacksonville, FL 32256 (904) 739-2277 • 800-695-7222 x06 • FAX (904) 739-2011

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739-2011

-695-7222 x05 • FAX (904)

2256 (904) 739-2277 • 800

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9143 Philips Highway, S.

5

J1300078

2 Engineering
AFES Ft. Stewart

Project Name		Project Number		ANALYSIS REQUESTED (Include Method Number and)										
AAESS Ft. Stewart		12-052												
Project Manager		Email Address												
Felix Portale		fportale@j2-eng.com												
Company/Address														
Sonnen 32 Environmental JV														
23 Thomas Indian School Drive														
Tuxing, NY 14081														
Phone #		FAX #												
716-532-0137		716-532-41036												
Sampler's Signature		Sampler's Printed Name												
[Signature]		Megan Senesi Kim Marshall												
CLIENT SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE									
B430-B-13(5'-7.5')		0830	4/13	S										
B430-B-13(10'-12.5')		1413	0835	S										
B430-B-15(7.5'-10')		1	0900	S										
B430-B-15(12.5'-15')		1	0905	S										
B430-DUP-03		1	1025	W										
B430-FB-02		1	1040	W										
B430-B-16(5'-7.5')		1	0430	S										
B430-B-16(10'-12.5')		1	0435	S										
Tip Blank		1	1025	W										
SPECIAL INSTRUCTIONS/COMMENTS				REPORT REQUIREMENTS										
Temp Blank in all coolers.				TURNAROUND REQUIREMENTS										
				RUSH (SURCHARGES APPLY)										
				STANDARD										
				REQUESTED FAX DATE										
				REQUESTED REPORT DATE										
				RECEIVED BY										
				RELINQUISHED BY										
				Signature										
				Printed Name										
				Firm										
				Date/Time										

Distribution: White - Return to Originator; Yellow - Retained by Client

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January 17, 2013

Service Request No:J1300079

Fred Portofe
J2 Engineering
6921 Pistol Range Road
Suite 101
Tampa, FL 33635

Laboratory Results for: AAFES Ft. Stewart

Dear Fred,

Enclosed are the results of the sample(s) submitted to our laboratory January 04, 2013
For your reference, these analyses have been assigned our service request number **J1300079**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. In accordance to the NELAC 2003 Standard, a statement on the estimated uncertainty of measurement of any quantitative analysis will be supplied upon request.

Please contact me if you have any questions. My extension is 4409. You may also contact me via email at Craig.Myers@alsglobal.com.

Respectfully submitted,

Columbia Analytical Services, Inc. dba ALS Enviromental

Craig Myers
Project Manager

ADDRESS 9143 Philips Highway, Suite 200, Jacksonville, FL 32256

PHONE +1 904 739 2277 | FAX +1 904 739 2011

Columbia Analytical Services, Inc.

Part of the ALS Group A Campbell Brothers Limited Company

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Received: 1/4/13

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II data deliverables, including results of QC samples analyzed from this delivery group. When appropriate to the procedure, method blank results have been reported with each analytical test. Analytical procedures performed by the lab are validated in accordance with NELAC standards. Parameters that are included in the NELAC Fields of Testing but are not included in the lab's NELAC accreditation are identified in the discussion of each analytical procedure.

Sample Receipt

Two water samples, twenty-two soil samples, and one trip blank were received for analysis at ALS Environmental on 1/4/13. The samples were received in good condition and consistent with the accompanying chain of custody form. Samples are refrigerated at $\leq 6^{\circ}\text{C}$ upon receipt at the lab except for aqueous samples designated for metals analyses, which are stored at room temperature.

Volatile Organic Analyses:

Method 8260B: The control criteria were exceeded for the following surrogate in sample J1300079-022 due to matrix interference: 4-Bromofluorobenzene. No further corrective action was required.

Method 8260B: The matrix spike recoveries of several analytes for sample J1300079-023 were outside control criteria. Recovery in the Laboratory Control Sample (LCS) was acceptable, which indicates the analytical batch was in control. The matrix spike outlier suggests a potential bias in this matrix. No further corrective action was appropriate.

Semi-Volatile Organic Analyses:

Method 8270C SIM: The control criterion was exceeded for the following surrogate in sample J1300079-013 due to matrix interference: p-Terphenyl-d14. A re-extraction and reanalysis was performed, but produced similar results. The results of the original analysis are reported. No further corrective action was required.

Method 8270C SIM: The matrix spike recoveries of several analytes for sample J1300079-007 were outside control criteria. Recovery in the Laboratory Control Sample (LCS) was acceptable, which indicates the analytical batch was in control. The matrix spike outlier suggests a potential bias in this matrix. No further corrective action was appropriate.

Method 8270C SIM: Sample J1300079-004 required dilution due to the presence of matrix that interfered with internal standard recovery of Perylene-d12. Samples J1300079-013 and J1300079-015 required dilution due to the presence of matrix that interfered with internal standard recovery of Chrysene-d12. Sample J1300079-020 required dilution due to the presence of matrix that interfered with internal standard recoveries of Perylene-d12 and Chrysene-d12. The reporting limits are adjusted to reflect the dilution.

Metals Analyses:

No significant data anomalies were noted with this analysis.

General Chemistry Analyses:

Approved by



Date 1/17/2013

2 of 129

No significant data anomalies were noted with this analysis.

Approved by  Date 1/17/2013

State Certifications, Accreditations, and Licenses

Agency	Number	Expire Date
Florida Department of Health	E82502	6/30/2013
Louisiana Department of Environmental Quality	02086	6/30/2013
Georgia Department of Natural Resources	958	6/30/2013
Kentucky Division of Waste Management	63	7/5/2013
South Carolina Department of Health and Environmental Control	96021001	6/30/2013
Texas Commision on Environmental Quality	T104704197-09-TX	5/31/2013
Maine Department of Health and Human Services	2011006	2/3/2013
Department of Defense	66206	5/31/2013

Data Qualifiers

CAS Standard

- + Possible Tedlar bag artifact.
- A TIC is a suspected aldol-condensation product
- B Analyte found in the associated method blank as well as in the sample.
- BC Reported results are not blank corrected.
- BH The back section of the tube yielded higher results than the front.
- BT Results indicated possible breakthrough; back section $\geq 10\%$ front section.
- C Result identification confirmed.
- D Compound identified in an analysis at a secondary dilution factor
- D Spike was diluted out
- DE Reported results are corrected for desorption efficiency.
- E Estimated value. Concentration above calibration range
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- H1 Sample analysis performed past holding time. See case narrative.
- H2 Initial analysis within holding time. Reanalysis for the required dilution was past holding time.
- H3 Sample was received and analyzed past holding time.
- H4 Sample was extracted past required extraction holding time, but analyzed within analysis holding time. See case narrative.
- I Internal standard not within the specified limits. See case narrative.
- J Estimated Value. Concentration found below MRL.
- K A deflection in the QC ion may indicate interference with the quantitation of this ion. The concentration of this analyte should be considered as an estimate.
- K Analyte was detected above the method reporting limit prior to normalization.
- L1 Laboratory control sample recovery outside the specified limits; results may be biased high.
- L2 Laboratory control sample recovery outside the specified limits; results may be biased low.
- L3 Laboratory control sample recovery outside the specified limits.
- M Matrix interference; results may be biased high.
- M The duplicate injection precision not met.
- M1 Matrix interference due to coelution with a non-target compound; results may be biased high.
- N Presumptive evidence of a compound for TICs that have been identified based on a mass spectral library search.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- P Indicates chlorodiphenyl ether interference present at the retention time of the target compound.
- P Pesticide/Aroclor target analyte $> 40\%$ difference for detected concentrations between GC columns
- Q Indicates as estimated value because the P and P + 2 theoretical abundance ratio does not meet method criteria.
- R Duplicate Precision not met.
- R1 Duplicate precision not within the specified limits; however, the results are below the MRL and considered estimated.
- S Surrogate recovery not within specified limits.

Data Qualifiers

CAS Standard

- S The reported value was determined by the Method of Standard Additions (MSA).
- T Analyte is a tentatively identified compound, result is estimated.
- U Compound was analyzed for, but was not detected (ND).
- V1 The continuing calibration verification standard was outside (biased high) the specified limits for this compound.
- V2 The continuing calibration verification standard was outside (biased low) the specified limits for this compound.
- W Result quantified, but the corresponding peak was detected outside the generated retention time window.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
- X See case narrative.
- Y Recovery outside limits
- Y The chromatogram resembles a petroleum product but does not match the calibration standard.
- Z The chromatogram does not resemble a petroleum product.
- i The MRL/MDL has been elevated due to a matrix interference.

ALS Laboratory Group

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052

Service Request:J1300079

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
J1300079-001	B430-B-4 (5-7.5)	1/3/2013	0820
J1300079-002	B430-B-4 (10-12.5)	1/3/2013	0825
J1300079-003	B430-B-5 (5-7.5)	1/3/2013	0900
J1300079-004	B430-B-5 (12.5-15)	1/3/2013	0905
J1300079-005	B430-B-6 (5-7.5)	1/3/2013	0925
J1300079-006	B430-B-6 (12.5-15)	1/3/2013	0930
J1300079-007	B430-B-7 (5-7.5)	1/3/2013	1005
J1300079-008	B430-B-7 (7.5-10)	1/3/2013	1010
J1300079-009	B430-DUP-01	1/3/2013	0000
J1300079-010	B430-B-8 (5-7.5)	1/3/2013	1150
J1300079-011	B430-B-8 (12.5-15)	1/3/2013	1155
J1300079-012	B430-B-9 (5-7.5)	1/3/2013	1225
J1300079-013	B430-B-9 (12.5-15)	1/3/2013	1230
J1300079-014	B430-B-10 (2.5-5)	1/3/2013	1300
J1300079-015	B430-B-10 (10-12.5)	1/3/2013	1305
J1300079-016	B430-FB-01	1/3/2013	1040
J1300079-017	B430-EB-01	1/3/2013	1045
J1300079-018	B430-B-11 (7.5-10)	1/3/2013	1545
J1300079-019	B430-B-11 (10-12.5)	1/3/2013	1550
J1300079-020	B430-B-12 (5-7.5)	1/3/2013	1610
J1300079-021	B430-B-12 (12.5-15)	1/3/2013	1615
J1300079-022	B430-B-14 (5-7.5)	1/3/2013	1640
J1300079-023	B430-B-14 (10-12.5)	1/3/2013	1645
J1300079-024	B430-DUP-02	1/3/2013	0000
J1300079-025	Trip Blank	1/3/2013	0000

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 08:20
Date Received: 01/04/13 14:16

Sample Name: B430-B-4 (5-7.5)
Lab Code: J1300079-001

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260B
Prep Method: EPA 5035

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Benzene	0.184 U	5.39	0.184	1	01/07/13 18:34	1/7/13	
Ethylbenzene	0.130 U	5.39	0.130	1	01/07/13 18:34	1/7/13	
m,p-Xylenes	0.227 U	10.8	0.227	1	01/07/13 18:34	1/7/13	
o-Xylene	0.173 U	5.39	0.173	1	01/07/13 18:34	1/7/13	
Toluene	0.292 U	5.39	0.292	1	01/07/13 18:34	1/7/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	111	80 - 120	01/07/13 18:34	
4-Bromofluorobenzene	101	64 - 135	01/07/13 18:34	
Dibromofluoromethane	104	74 - 125	01/07/13 18:34	
Toluene-d8	99	46 - 156	01/07/13 18:34	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 08:20
Date Received: 01/04/13 14:16

Sample Name: B430-B-4 (5-7.5)
Lab Code: J1300079-001

Units: ug/Kg
Basis: Dry

Base Neutral Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270C SIM
Prep Method: EPA 3550C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1-Methylnaphthalene	3.04 U	3.82	3.04	1	01/08/13 15:44	1/7/13	
2-Methylnaphthalene	2.59 U	3.82	2.59	1	01/08/13 15:44	1/7/13	
Acenaphthene	3.49 U	7.65	3.49	1	01/08/13 15:44	1/7/13	
Acenaphthylene	2.48 U	7.65	2.48	1	01/08/13 15:44	1/7/13	
Anthracene	1.80 U	3.82	1.80	1	01/08/13 15:44	1/7/13	
Benz(a)anthracene	2.14 U	3.82	2.14	1	01/08/13 15:44	1/7/13	
Benzo(a)pyrene	1.13 U	3.82	1.13	1	01/08/13 15:44	1/7/13	
Benzo(b)fluoranthene	2.25 U	3.82	2.25	1	01/08/13 15:44	1/7/13	
Benzo(g,h,i)perylene	2.48 U	3.82	2.48	1	01/08/13 15:44	1/7/13	
Benzo(k)fluoranthene	2.70 U	3.82	2.70	1	01/08/13 15:44	1/7/13	
Chrysene	2.14 U	3.82	2.14	1	01/08/13 15:44	1/7/13	
Dibenz(a,h)anthracene	3.04 U	3.82	3.04	1	01/08/13 15:44	1/7/13	
Fluoranthene	2.25 U	3.82	2.25	1	01/08/13 15:44	1/7/13	
Fluorene	2.48 U	3.82	2.48	1	01/08/13 15:44	1/7/13	
Indeno(1,2,3-cd)pyrene	2.48 U	3.82	2.48	1	01/08/13 15:44	1/7/13	
Naphthalene	3.49 U	3.82	3.49	1	01/08/13 15:44	1/7/13	
Phenanthrene	6.65 J	7.65	1.92	1	01/08/13 15:44	1/7/13	
Pyrene	2.25 U	3.82	2.25	1	01/08/13 15:44	1/7/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	43	30 - 118	01/08/13 15:44	
p-Terphenyl-d14	55	41 - 146	01/08/13 15:44	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 08:20
Date Received: 01/04/13 14:16

Sample Name: B430-B-4 (5-7.5)
Lab Code: J1300079-001

Basis: Dry

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total Recoverable	6010B	2490	mg/Kg	5.2	0.9	1	01/08/13 21:23	1/8/13	
Antimony, Total Recoverable	6010B	0.26 J	mg/Kg	0.52	0.08	1	01/08/13 21:25	1/8/13	
Arsenic, Total Recoverable	6010B	0.52	mg/Kg	0.52	0.13	1	01/08/13 21:25	1/8/13	
Barium, Total Recoverable	6010B	2.14	mg/Kg	0.52	0.03	1	01/08/13 21:25	1/8/13	
Beryllium, Total Recoverable	6010B	0.05 J	mg/Kg	0.21	0.009	1	01/08/13 21:24	1/8/13	
Cadmium, Total Recoverable	6010B	0.05 J	mg/Kg	0.26	0.008	1	01/08/13 21:25	1/8/13	
Calcium, Total Recoverable	6010B	300	mg/Kg	5.2	1.1	1	01/08/13 21:24	1/8/13	
Chromium, Total Recoverable	6010B	5.23	mg/Kg	0.52	0.02	1	01/08/13 21:25	1/8/13	
Cobalt, Total Recoverable	6010B	0.05 J	mg/Kg	0.52	0.05	1	01/08/13 21:25	1/8/13	
Copper, Total Recoverable	6010B	0.52	mg/Kg	0.52	0.07	1	01/08/13 21:25	1/8/13	
Iron, Total Recoverable	6010B	1490	mg/Kg	5.2	0.7	1	01/08/13 21:23	1/8/13	
Lead, Total Recoverable	6010B	1.88	mg/Kg	0.52	0.14	1	01/08/13 21:25	1/8/13	
Magnesium, Total Recoverable	6010B	34.8	mg/Kg	5.2	0.7	1	01/08/13 21:24	1/8/13	
Manganese, Total Recoverable	6010B	1.52	mg/Kg	0.52	0.009	1	01/08/13 21:24	1/8/13	
Mercury	7471A	0.0315	mg/Kg	0.0067	0.0011	1	01/08/13 12:34	1/7/13	
Nickel, Total Recoverable	6010B	0.31 J	mg/Kg	0.52	0.04	1	01/08/13 21:25	1/8/13	
Potassium, Total Recoverable	6010B	20 J	mg/Kg	100	4	1	01/08/13 21:23	1/8/13	
Selenium, Total Recoverable	6010B	0.29 U	mg/Kg	0.52	0.29	1	01/08/13 21:25	1/8/13	
Silver, Total Recoverable	6010B	0.05 U	mg/Kg	0.52	0.05	1	01/08/13 21:25	1/8/13	
Sodium, Total Recoverable	6010B	5 J	mg/Kg	26	2	1	01/08/13 21:23	1/8/13	
Thallium, Total Recoverable	6010B	0.11 U	mg/Kg	0.52	0.11	1	01/08/13 21:25	1/8/13	
Vanadium, Total Recoverable	6010B	5.1	mg/Kg	1.0	0.2	1	01/08/13 21:25	1/8/13	
Zinc, Total Recoverable	6010B	0.5 J	mg/Kg	1.0	0.2	1	01/08/13 21:25	1/8/13	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 08:25
Date Received: 01/04/13 14:16

Sample Name: B430-B-4 (10-12.5)
Lab Code: J1300079-002

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260B
Prep Method: EPA 5035

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Benzene	857	594	20.2	100	01/10/13 14:05	1/10/13	
Ethylbenzene	1090	594	14.3	100	01/10/13 14:05	1/10/13	
m,p-Xylenes	8250	1190	25.0	100	01/10/13 14:05	1/10/13	
o-Xylene	4210	594	19.1	100	01/10/13 14:05	1/10/13	
Toluene	1270	594	32.1	100	01/10/13 14:05	1/10/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	97	80 - 120	01/10/13 14:05	
4-Bromofluorobenzene	97	64 - 135	01/10/13 14:05	
Dibromofluoromethane	95	74 - 125	01/10/13 14:05	
Toluene-d8	99	46 - 156	01/10/13 14:05	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 08:25
Date Received: 01/04/13 14:16

Sample Name: B430-B-4 (10-12.5)
Lab Code: J1300079-002

Units: ug/Kg
Basis: Dry

Base Neutral Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270C SIM
Prep Method: EPA 3550C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1-Methylnaphthalene	498	4.37	3.47	1	01/08/13 16:07	1/7/13	
2-Methylnaphthalene	839	4.37	2.96	1	01/08/13 16:07	1/7/13	
Acenaphthene	3.99 U	8.73	3.99	1	01/08/13 16:07	1/7/13	
Acenaphthylene	2.83 U	8.73	2.83	1	01/08/13 16:07	1/7/13	
Anthracene	2.06 U	4.37	2.06	1	01/08/13 16:07	1/7/13	
Benz(a)anthracene	2.45 U	4.37	2.45	1	01/08/13 16:07	1/7/13	
Benzo(a)pyrene	1.29 U	4.37	1.29	1	01/08/13 16:07	1/7/13	
Benzo(b)fluoranthene	2.57 U	4.37	2.57	1	01/08/13 16:07	1/7/13	
Benzo(g,h,i)perylene	2.83 U	4.37	2.83	1	01/08/13 16:07	1/7/13	
Benzo(k)fluoranthene	3.09 U	4.37	3.09	1	01/08/13 16:07	1/7/13	
Chrysene	2.45 U	4.37	2.45	1	01/08/13 16:07	1/7/13	
Dibenz(a,h)anthracene	3.47 U	4.37	3.47	1	01/08/13 16:07	1/7/13	
Fluoranthene	3.60 J	4.37	2.57	1	01/08/13 16:07	1/7/13	
Fluorene	8.49	4.37	2.83	1	01/08/13 16:07	1/7/13	
Indeno(1,2,3-cd)pyrene	2.83 U	4.37	2.83	1	01/08/13 16:07	1/7/13	
Naphthalene	801	4.37	3.99	1	01/08/13 16:07	1/7/13	
Phenanthrene	12.1	8.73	2.19	1	01/08/13 16:07	1/7/13	
Pyrene	2.57 U	4.37	2.57	1	01/08/13 16:07	1/7/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	65	30 - 118	01/08/13 16:07	
p-Terphenyl-d14	76	41 - 146	01/08/13 16:07	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 08:25
Date Received: 01/04/13 14:16

Sample Name: B430-B-4 (10-12.5)
Lab Code: J1300079-002

Basis: Dry

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total Recoverable	6010B	4830	mg/Kg	6.0	1.0	1	01/08/13 21:44	1/8/13	
Antimony, Total Recoverable	6010B	0.42 J	mg/Kg	0.60	0.09	1	01/08/13 21:45	1/8/13	
Arsenic, Total Recoverable	6010B	0.14 U	mg/Kg	0.60	0.14	1	01/08/13 21:45	1/8/13	
Barium, Total Recoverable	6010B	1.79	mg/Kg	0.60	0.04	1	01/08/13 21:45	1/8/13	
Beryllium, Total Recoverable	6010B	0.06 J	mg/Kg	0.24	0.010	1	01/08/13 21:45	1/8/13	
Cadmium, Total Recoverable	6010B	0.06 J	mg/Kg	0.30	0.009	1	01/08/13 21:45	1/8/13	
Calcium, Total Recoverable	6010B	31.7	mg/Kg	6.0	1.3	1	01/08/13 21:44	1/8/13	
Chromium, Total Recoverable	6010B	6.90	mg/Kg	0.60	0.03	1	01/08/13 21:45	1/8/13	
Cobalt, Total Recoverable	6010B	0.05 U	mg/Kg	0.60	0.05	1	01/08/13 21:45	1/8/13	
Copper, Total Recoverable	6010B	2.08	mg/Kg	0.60	0.08	1	01/08/13 21:45	1/8/13	
Iron, Total Recoverable	6010B	120	mg/Kg	6.0	0.7	1	01/08/13 21:44	1/8/13	
Lead, Total Recoverable	6010B	5.71	mg/Kg	0.60	0.16	1	01/08/13 21:45	1/8/13	
Magnesium, Total Recoverable	6010B	10.7	mg/Kg	6.0	0.8	1	01/08/13 21:44	1/8/13	
Manganese, Total Recoverable	6010B	1.31	mg/Kg	0.60	0.010	1	01/08/13 21:45	1/8/13	
Mercury	7471A	0.0824	mg/Kg	0.0074	0.0012	1	01/08/13 12:50	1/7/13	
Nickel, Total Recoverable	6010B	0.36 J	mg/Kg	0.60	0.04	1	01/08/13 21:45	1/8/13	
Potassium, Total Recoverable	6010B	20 J	mg/Kg	120	5	1	01/08/13 21:44	1/8/13	
Selenium, Total Recoverable	6010B	0.36 J	mg/Kg	0.60	0.33	1	01/08/13 21:45	1/8/13	
Silver, Total Recoverable	6010B	0.06 U	mg/Kg	0.60	0.06	1	01/08/13 21:45	1/8/13	
Sodium, Total Recoverable	6010B	86	mg/Kg	30	2	1	01/08/13 21:44	1/8/13	
Thallium, Total Recoverable	6010B	0.13 U	mg/Kg	0.60	0.13	1	01/08/13 21:45	1/8/13	
Vanadium, Total Recoverable	6010B	5.4	mg/Kg	1.2	0.2	1	01/08/13 21:45	1/8/13	
Zinc, Total Recoverable	6010B	1.0 J	mg/Kg	1.2	0.2	1	01/08/13 21:45	1/8/13	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 09:00
Date Received: 01/04/13 14:16

Sample Name: B430-B-5 (5-7.5)
Lab Code: J1300079-003

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260B
Prep Method: EPA 5035

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Benzene	0.170 U	4.96	0.170	1	01/07/13 19:02	1/7/13	
Ethylbenzene	0.120 U	4.96	0.120	1	01/07/13 19:02	1/7/13	
m,p-Xylenes	0.210 U	9.92	0.210	1	01/07/13 19:02	1/7/13	
o-Xylene	0.160 U	4.96	0.160	1	01/07/13 19:02	1/7/13	
Toluene	0.270 U	4.96	0.270	1	01/07/13 19:02	1/7/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	112	80 - 120	01/07/13 19:02	
4-Bromofluorobenzene	97	64 - 135	01/07/13 19:02	
Dibromofluoromethane	104	74 - 125	01/07/13 19:02	
Toluene-d8	99	46 - 156	01/07/13 19:02	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 09:00
Date Received: 01/04/13 14:16

Sample Name: B430-B-5 (5-7.5)
Lab Code: J1300079-003

Units: ug/Kg
Basis: Dry

Base Neutral Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270C SIM
Prep Method: EPA 3550C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1-Methylnaphthalene	2.78 U	3.50	2.78	1	01/08/13 16:30	1/7/13	
2-Methylnaphthalene	2.37 U	3.50	2.37	1	01/08/13 16:30	1/7/13	
Acenaphthene	3.20 U	7.00	3.20	1	01/08/13 16:30	1/7/13	
Acenaphthylene	2.80 J	7.00	2.27	1	01/08/13 16:30	1/7/13	
Anthracene	1.65 U	3.50	1.65	1	01/08/13 16:30	1/7/13	
Benz(a)anthracene	10.8	3.50	1.96	1	01/12/13 03:39	1/7/13	
Benzo(a)pyrene	26.0	3.50	1.03	1	01/08/13 16:30	1/7/13	
Benzo(b)fluoranthene	23.7	3.50	2.06	1	01/12/13 03:39	1/7/13	
Benzo(g,h,i)perylene	20.6	3.50	2.27	1	01/12/13 03:39	1/7/13	
Benzo(k)fluoranthene	6.20	3.50	2.48	1	01/08/13 16:30	1/7/13	
Chrysene	12.8	3.50	1.96	1	01/08/13 16:30	1/7/13	
Dibenz(a,h)anthracene	2.78 U	3.50	2.78	1	01/08/13 16:30	1/7/13	
Fluoranthene	13.1	3.50	2.06	1	01/08/13 16:30	1/7/13	
Fluorene	2.27 U	3.50	2.27	1	01/08/13 16:30	1/7/13	
Indeno(1,2,3-cd)pyrene	26.9	3.50	2.27	1	01/12/13 03:39	1/7/13	
Naphthalene	3.20 U	3.50	3.20	1	01/08/13 16:30	1/7/13	
Phenanthrene	8.89	7.00	1.76	1	01/08/13 16:30	1/7/13	
Pyrene	17.3	3.50	2.06	1	01/08/13 16:30	1/7/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	65	30 - 118	01/08/13 16:30	
p-Terphenyl-d14	75	41 - 146	01/08/13 16:30	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 09:00
Date Received: 01/04/13 14:16

Sample Name: B430-B-5 (5-7.5)
Lab Code: J1300079-003

Basis: Dry

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total Recoverable	6010B	3090	mg/Kg	4.5	0.9	1	01/08/13 21:57	1/8/13	
Antimony, Total Recoverable	6010B	0.27 J	mg/Kg	0.45	0.08	1	01/08/13 21:58	1/8/13	
Arsenic, Total Recoverable	6010B	0.27 J	mg/Kg	0.45	0.12	1	01/08/13 21:58	1/8/13	
Barium, Total Recoverable	6010B	4.15	mg/Kg	0.45	0.03	1	01/08/13 21:58	1/8/13	
Beryllium, Total Recoverable	6010B	0.008 U	mg/Kg	0.18	0.008	1	01/08/13 21:58	1/8/13	
Cadmium, Total Recoverable	6010B	0.05 J	mg/Kg	0.23	0.007	1	01/08/13 21:58	1/8/13	
Calcium, Total Recoverable	6010B	256	mg/Kg	4.5	1.1	1	01/08/13 21:57	1/8/13	
Chromium, Total Recoverable	6010B	5.27	mg/Kg	0.45	0.02	1	01/08/13 21:58	1/8/13	
Cobalt, Total Recoverable	6010B	0.23 J	mg/Kg	0.45	0.04	1	01/08/13 21:58	1/8/13	
Copper, Total Recoverable	6010B	0.72	mg/Kg	0.45	0.07	1	01/08/13 21:58	1/8/13	
Iron, Total Recoverable	6010B	920	mg/Kg	4.5	0.6	1	01/08/13 21:57	1/8/13	
Lead, Total Recoverable	6010B	2.75	mg/Kg	0.45	0.13	1	01/08/13 21:58	1/8/13	
Magnesium, Total Recoverable	6010B	115	mg/Kg	4.5	0.7	1	01/08/13 21:57	1/8/13	
Manganese, Total Recoverable	6010B	3.20	mg/Kg	0.45	0.009	1	01/08/13 21:58	1/8/13	
Mercury	7471A	0.0186	mg/Kg	0.0063	0.0010	1	01/08/13 12:52	1/7/13	
Nickel, Total Recoverable	6010B	1.13	mg/Kg	0.45	0.04	1	01/08/13 21:58	1/8/13	
Potassium, Total Recoverable	6010B	57 J	mg/Kg	90	4	1	01/08/13 21:57	1/8/13	
Selenium, Total Recoverable	6010B	0.27 U	mg/Kg	0.45	0.27	1	01/08/13 21:58	1/8/13	
Silver, Total Recoverable	6010B	0.05 U	mg/Kg	0.45	0.05	1	01/08/13 21:58	1/8/13	
Sodium, Total Recoverable	6010B	6 J	mg/Kg	23	2	1	01/08/13 21:57	1/8/13	
Thallium, Total Recoverable	6010B	0.11 U	mg/Kg	0.45	0.11	1	01/08/13 21:58	1/8/13	
Vanadium, Total Recoverable	6010B	4.55	mg/Kg	0.90	0.11	1	01/08/13 21:58	1/8/13	
Zinc, Total Recoverable	6010B	1.31	mg/Kg	0.90	0.16	1	01/08/13 21:58	1/8/13	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 09:05
Date Received: 01/04/13 14:16

Sample Name: B430-B-5 (12.5-15)
Lab Code: J1300079-004

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260B
Prep Method: EPA 5035

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Benzene	0.198 U	5.82	0.198	1	01/07/13 19:31	1/7/13	
Ethylbenzene	0.652 J	5.82	0.140	1	01/07/13 19:31	1/7/13	
m,p-Xylenes	1.98 J	11.6	0.245	1	01/07/13 19:31	1/7/13	
o-Xylene	2.20 J	5.82	0.187	1	01/07/13 19:31	1/7/13	
Toluene	0.315 U	5.82	0.315	1	01/07/13 19:31	1/7/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	109	80 - 120	01/07/13 19:31	
4-Bromofluorobenzene	105	64 - 135	01/07/13 19:31	
Dibromofluoromethane	104	74 - 125	01/07/13 19:31	
Toluene-d8	101	46 - 156	01/07/13 19:31	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 09:05
Date Received: 01/04/13 14:16

Sample Name: B430-B-5 (12.5-15)
Lab Code: J1300079-004

Units: ug/Kg
Basis: Dry

Base Neutral Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270C SIM
Prep Method: EPA 3550C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1-Methylnaphthalene	25.0	4.19	3.33	1	01/08/13 16:53	1/7/13	
2-Methylnaphthalene	43.7	4.19	2.84	1	01/08/13 16:53	1/7/13	
Acenaphthene	3.83 U	8.38	3.83	1	01/08/13 16:53	1/7/13	
Acenaphthylene	2.72 U	8.38	2.72	1	01/08/13 16:53	1/7/13	
Anthracene	1.98 U	4.19	1.98	1	01/08/13 16:53	1/7/13	
Benz(a)anthracene	2.35 U	4.19	2.35	1	01/08/13 16:53	1/7/13	
Benzo(a)pyrene	6.17 U	21.0	6.17	5	01/12/13 04:03	1/7/13	
Benzo(b)fluoranthene	12.4 U	21.0	12.4	5	01/12/13 04:03	1/7/13	
Benzo(g,h,i)perylene	13.6 U	21.0	13.6	5	01/12/13 04:03	1/7/13	
Benzo(k)fluoranthene	14.8 U	21.0	14.8	5	01/12/13 04:03	1/7/13	
Chrysene	2.35 U	4.19	2.35	1	01/08/13 16:53	1/7/13	
Dibenz(a,h)anthracene	16.7 U	21.0	16.7	5	01/12/13 04:03	1/7/13	
Fluoranthene	2.47 U	4.19	2.47	1	01/08/13 16:53	1/7/13	
Fluorene	2.72 U	4.19	2.72	1	01/08/13 16:53	1/7/13	
Indeno(1,2,3-cd)pyrene	13.6 U	21.0	13.6	5	01/12/13 04:03	1/7/13	
Naphthalene	113	4.19	3.83	1	01/08/13 16:53	1/7/13	
Phenanthrene	2.10 U	8.38	2.10	1	01/08/13 16:53	1/7/13	
Pyrene	2.47 U	4.19	2.47	1	01/08/13 16:53	1/7/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	56	30 - 118	01/08/13 16:53	
p-Terphenyl-d14	60	41 - 146	01/08/13 16:53	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 09:05
Date Received: 01/04/13 14:16

Sample Name: B430-B-5 (12.5-15)
Lab Code: J1300079-004

Basis: Dry

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total Recoverable	6010B	8290	mg/Kg	5.4	1.0	1	01/08/13 22:02	1/8/13	
Antimony, Total Recoverable	6010B	0.38 J	mg/Kg	0.54	0.08	1	01/08/13 22:03	1/8/13	
Arsenic, Total Recoverable	6010B	0.13 U	mg/Kg	0.54	0.13	1	01/08/13 22:03	1/8/13	
Barium, Total Recoverable	6010B	3.19	mg/Kg	0.54	0.03	1	01/08/13 22:03	1/8/13	
Beryllium, Total Recoverable	6010B	0.009 U	mg/Kg	0.22	0.009	1	01/08/13 22:03	1/8/13	
Cadmium, Total Recoverable	6010B	0.05 J	mg/Kg	0.27	0.008	1	01/08/13 22:03	1/8/13	
Calcium, Total Recoverable	6010B	6.6	mg/Kg	5.4	1.2	1	01/08/13 22:02	1/8/13	
Chromium, Total Recoverable	6010B	4.00	mg/Kg	0.54	0.03	1	01/08/13 22:03	1/8/13	
Cobalt, Total Recoverable	6010B	0.05 U	mg/Kg	0.54	0.05	1	01/08/13 22:03	1/8/13	
Copper, Total Recoverable	6010B	1.03	mg/Kg	0.54	0.07	1	01/08/13 22:03	1/8/13	
Iron, Total Recoverable	6010B	162	mg/Kg	5.4	0.7	1	01/08/13 22:02	1/8/13	
Lead, Total Recoverable	6010B	5.57	mg/Kg	0.54	0.14	1	01/08/13 22:03	1/8/13	
Magnesium, Total Recoverable	6010B	46.8	mg/Kg	5.4	0.7	1	01/08/13 22:02	1/8/13	
Manganese, Total Recoverable	6010B	1.08	mg/Kg	0.54	0.009	1	01/08/13 22:03	1/8/13	
Mercury	7471A	0.0861	mg/Kg	0.0073	0.0011	1	01/08/13 12:54	1/7/13	
Nickel, Total Recoverable	6010B	0.54	mg/Kg	0.54	0.04	1	01/08/13 22:03	1/8/13	
Potassium, Total Recoverable	6010B	60 J	mg/Kg	110	5	1	01/08/13 22:02	1/8/13	
Selenium, Total Recoverable	6010B	0.81	mg/Kg	0.54	0.30	1	01/08/13 22:03	1/8/13	
Silver, Total Recoverable	6010B	0.05 U	mg/Kg	0.54	0.05	1	01/08/13 22:03	1/8/13	
Sodium, Total Recoverable	6010B	54	mg/Kg	27	2	1	01/08/13 22:02	1/8/13	
Thallium, Total Recoverable	6010B	0.12 U	mg/Kg	0.54	0.12	1	01/08/13 22:03	1/8/13	
Vanadium, Total Recoverable	6010B	5.1	mg/Kg	1.1	0.2	1	01/08/13 22:03	1/8/13	
Zinc, Total Recoverable	6010B	0.6 J	mg/Kg	1.1	0.2	1	01/08/13 22:03	1/8/13	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 09:25
Date Received: 01/04/13 14:16

Sample Name: B430-B-6 (5-7.5)
Lab Code: J1300079-005

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260B
Prep Method: EPA 5035

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Benzene	0.174 U	5.10	0.174	1	01/07/13 19:59	1/7/13	
Ethylbenzene	0.123 U	5.10	0.123	1	01/07/13 19:59	1/7/13	
m,p-Xylenes	0.215 U	10.2	0.215	1	01/07/13 19:59	1/7/13	
o-Xylene	0.164 U	5.10	0.164	1	01/07/13 19:59	1/7/13	
Toluene	0.276 U	5.10	0.276	1	01/07/13 19:59	1/7/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	108	80 - 120	01/07/13 19:59	
4-Bromofluorobenzene	104	64 - 135	01/07/13 19:59	
Dibromofluoromethane	101	74 - 125	01/07/13 19:59	
Toluene-d8	98	46 - 156	01/07/13 19:59	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 09:25
Date Received: 01/04/13 14:16

Sample Name: B430-B-6 (5-7.5)
Lab Code: J1300079-005

Units: ug/Kg
Basis: Dry

Base Neutral Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270C SIM
Prep Method: EPA 3550C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1-Methylnaphthalene	2.83 U	3.56	2.83	1	01/08/13 17:16	1/7/13	
2-Methylnaphthalene	2.41 U	3.56	2.41	1	01/08/13 17:16	1/7/13	
Acenaphthene	3.25 U	7.12	3.25	1	01/08/13 17:16	1/7/13	
Acenaphthylene	2.31 U	7.12	2.31	1	01/08/13 17:16	1/7/13	
Anthracene	1.68 U	3.56	1.68	1	01/08/13 17:16	1/7/13	
Benz(a)anthracene	21.2	3.56	1.99	1	01/12/13 04:26	1/7/13	
Benzo(a)pyrene	33.3	3.56	1.05	1	01/08/13 17:16	1/7/13	
Benzo(b)fluoranthene	35.2	3.56	2.10	1	01/12/13 04:26	1/7/13	
Benzo(g,h,i)perylene	21.8	3.56	2.31	1	01/12/13 04:26	1/7/13	
Benzo(k)fluoranthene	9.16	3.56	2.52	1	01/08/13 17:16	1/7/13	
Chrysene	22.7	3.56	1.99	1	01/08/13 17:16	1/7/13	
Dibenz(a,h)anthracene	2.83 U	3.56	2.83	1	01/08/13 17:16	1/7/13	
Fluoranthene	28.7	3.56	2.10	1	01/08/13 17:16	1/7/13	
Fluorene	2.31 U	3.56	2.31	1	01/08/13 17:16	1/7/13	
Indeno(1,2,3-cd)pyrene	31.0	3.56	2.31	1	01/12/13 04:26	1/7/13	
Naphthalene	3.25 U	3.56	3.25	1	01/08/13 17:16	1/7/13	
Phenanthrene	9.88	7.12	1.79	1	01/08/13 17:16	1/7/13	
Pyrene	41.0	3.56	2.10	1	01/08/13 17:16	1/7/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	56	30 - 118	01/08/13 17:16	
p-Terphenyl-d14	66	41 - 146	01/08/13 17:16	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 09:25
Date Received: 01/04/13 14:16

Sample Name: B430-B-6 (5-7.5)
Lab Code: J1300079-005

Basis: Dry

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total Recoverable	6010B	2480	mg/Kg	5.2	0.9	1	01/08/13 22:06	1/8/13	
Antimony, Total Recoverable	6010B	0.31 J	mg/Kg	0.52	0.08	1	01/08/13 22:08	1/8/13	
Arsenic, Total Recoverable	6010B	0.21 J	mg/Kg	0.52	0.13	1	01/08/13 22:08	1/8/13	
Barium, Total Recoverable	6010B	3.45	mg/Kg	0.52	0.03	1	01/08/13 22:08	1/8/13	
Beryllium, Total Recoverable	6010B	0.009 U	mg/Kg	0.21	0.009	1	01/08/13 22:07	1/8/13	
Cadmium, Total Recoverable	6010B	0.05 J	mg/Kg	0.26	0.008	1	01/08/13 22:08	1/8/13	
Calcium, Total Recoverable	6010B	522	mg/Kg	5.2	1.1	1	01/08/13 22:06	1/8/13	
Chromium, Total Recoverable	6010B	4.23	mg/Kg	0.52	0.02	1	01/08/13 22:08	1/8/13	
Cobalt, Total Recoverable	6010B	0.16 J	mg/Kg	0.52	0.05	1	01/08/13 22:08	1/8/13	
Copper, Total Recoverable	6010B	0.47 J	mg/Kg	0.52	0.07	1	01/08/13 22:07	1/8/13	
Iron, Total Recoverable	6010B	706	mg/Kg	5.2	0.7	1	01/08/13 22:07	1/8/13	
Lead, Total Recoverable	6010B	1.62	mg/Kg	0.52	0.14	1	01/08/13 22:08	1/8/13	
Magnesium, Total Recoverable	6010B	106	mg/Kg	5.2	0.7	1	01/08/13 22:07	1/8/13	
Manganese, Total Recoverable	6010B	4.85	mg/Kg	0.52	0.009	1	01/08/13 22:07	1/8/13	
Mercury	7471A	0.0136	mg/Kg	0.0065	0.0010	1	01/08/13 12:56	1/7/13	
Nickel, Total Recoverable	6010B	0.78	mg/Kg	0.52	0.04	1	01/08/13 22:08	1/8/13	
Potassium, Total Recoverable	6010B	50 J	mg/Kg	100	4	1	01/08/13 22:06	1/8/13	
Selenium, Total Recoverable	6010B	0.29 U	mg/Kg	0.52	0.29	1	01/08/13 22:08	1/8/13	
Silver, Total Recoverable	6010B	0.05 U	mg/Kg	0.52	0.05	1	01/08/13 22:07	1/8/13	
Sodium, Total Recoverable	6010B	10 J	mg/Kg	26	2	1	01/08/13 22:06	1/8/13	
Thallium, Total Recoverable	6010B	0.11 U	mg/Kg	0.52	0.11	1	01/08/13 22:08	1/8/13	
Vanadium, Total Recoverable	6010B	3.5	mg/Kg	1.0	0.2	1	01/08/13 22:07	1/8/13	
Zinc, Total Recoverable	6010B	1.1	mg/Kg	1.0	0.2	1	01/08/13 22:08	1/8/13	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 09:30
Date Received: 01/04/13 14:16

Sample Name: B430-B-6 (12.5-15)
Lab Code: J1300079-006

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260B
Prep Method: EPA 5035

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Benzene	16.4	6.01	0.205	1	01/07/13 20:28	1/7/13	
Ethylbenzene	0.145 U	6.01	0.145	1	01/07/13 20:28	1/7/13	
m,p-Xylenes	0.253 U	12.0	0.253	1	01/07/13 20:28	1/7/13	
o-Xylene	0.193 U	6.01	0.193	1	01/07/13 20:28	1/7/13	
Toluene	0.325 U	6.01	0.325	1	01/07/13 20:28	1/7/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	107	80 - 120	01/07/13 20:28	
4-Bromofluorobenzene	103	64 - 135	01/07/13 20:28	
Dibromofluoromethane	102	74 - 125	01/07/13 20:28	
Toluene-d8	99	46 - 156	01/07/13 20:28	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 09:30
Date Received: 01/04/13 14:16

Sample Name: B430-B-6 (12.5-15)
Lab Code: J1300079-006

Units: ug/Kg
Basis: Dry

Base Neutral Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270C SIM
Prep Method: EPA 3550C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1-Methylnaphthalene	3.39 U	4.26	3.39	1	01/08/13 17:39	1/7/13	
2-Methylnaphthalene	2.89 U	4.26	2.89	1	01/08/13 17:39	1/7/13	
Acenaphthene	3.89 U	8.52	3.89	1	01/08/13 17:39	1/7/13	
Acenaphthylene	2.76 U	8.52	2.76	1	01/08/13 17:39	1/7/13	
Anthracene	2.01 U	4.26	2.01	1	01/08/13 17:39	1/7/13	
Benz(a)anthracene	2.39 U	4.26	2.39	1	01/08/13 17:39	1/7/13	
Benzo(a)pyrene	1.26 U	4.26	1.26	1	01/08/13 17:39	1/7/13	
Benzo(b)fluoranthene	2.51 U	4.26	2.51	1	01/08/13 17:39	1/7/13	
Benzo(g,h,i)perylene	2.76 U	4.26	2.76	1	01/08/13 17:39	1/7/13	
Benzo(k)fluoranthene	3.01 U	4.26	3.01	1	01/08/13 17:39	1/7/13	
Chrysene	2.39 U	4.26	2.39	1	01/08/13 17:39	1/7/13	
Dibenz(a,h)anthracene	3.39 U	4.26	3.39	1	01/08/13 17:39	1/7/13	
Fluoranthene	5.73	4.26	2.51	1	01/08/13 17:39	1/7/13	
Fluorene	2.76 U	4.26	2.76	1	01/08/13 17:39	1/7/13	
Indeno(1,2,3-cd)pyrene	2.76 U	4.26	2.76	1	01/08/13 17:39	1/7/13	
Naphthalene	3.89 U	4.26	3.89	1	01/08/13 17:39	1/7/13	
Phenanthrene	5.70 J	8.52	2.13	1	01/08/13 17:39	1/7/13	
Pyrene	4.73	4.26	2.51	1	01/08/13 17:39	1/7/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	51	30 - 118	01/08/13 17:39	
p-Terphenyl-d14	64	41 - 146	01/08/13 17:39	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 09:30
Date Received: 01/04/13 14:16

Sample Name: B430-B-6 (12.5-15)
Lab Code: J1300079-006

Basis: Dry

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total Recoverable	6010B	7010	mg/Kg	5.5	1.0	1	01/08/13 22:11	1/8/13	
Antimony, Total Recoverable	6010B	0.27 J	mg/Kg	0.55	0.09	1	01/08/13 22:12	1/8/13	
Arsenic, Total Recoverable	6010B	0.13 U	mg/Kg	0.55	0.13	1	01/08/13 22:12	1/8/13	
Barium, Total Recoverable	6010B	2.47	mg/Kg	0.55	0.04	1	01/08/13 22:12	1/8/13	
Beryllium, Total Recoverable	6010B	0.009 U	mg/Kg	0.22	0.009	1	01/08/13 22:12	1/8/13	
Cadmium, Total Recoverable	6010B	0.05 J	mg/Kg	0.27	0.008	1	01/08/13 22:12	1/8/13	
Calcium, Total Recoverable	6010B	12.3	mg/Kg	5.5	1.2	1	01/08/13 22:11	1/8/13	
Chromium, Total Recoverable	6010B	4.28	mg/Kg	0.55	0.03	1	01/08/13 22:12	1/8/13	
Cobalt, Total Recoverable	6010B	0.05 U	mg/Kg	0.55	0.05	1	01/08/13 22:12	1/8/13	
Copper, Total Recoverable	6010B	1.10	mg/Kg	0.55	0.07	1	01/08/13 22:12	1/8/13	
Iron, Total Recoverable	6010B	108	mg/Kg	5.5	0.7	1	01/08/13 22:11	1/8/13	
Lead, Total Recoverable	6010B	4.67	mg/Kg	0.55	0.15	1	01/08/13 22:12	1/8/13	
Magnesium, Total Recoverable	6010B	30.6	mg/Kg	5.5	0.7	1	01/08/13 22:11	1/8/13	
Manganese, Total Recoverable	6010B	0.88	mg/Kg	0.55	0.010	1	01/08/13 22:12	1/8/13	
Mercury	7471A	0.395	mg/Kg	0.072	0.011	1	01/08/13 12:58	1/7/13	
Nickel, Total Recoverable	6010B	0.38 J	mg/Kg	0.55	0.04	1	01/08/13 22:12	1/8/13	
Potassium, Total Recoverable	6010B	40 J	mg/Kg	110	5	1	01/08/13 22:11	1/8/13	
Selenium, Total Recoverable	6010B	0.55 J	mg/Kg	0.55	0.30	1	01/08/13 22:12	1/8/13	
Silver, Total Recoverable	6010B	0.05 U	mg/Kg	0.55	0.05	1	01/08/13 22:12	1/8/13	
Sodium, Total Recoverable	6010B	7 J	mg/Kg	27	2	1	01/08/13 22:11	1/8/13	
Thallium, Total Recoverable	6010B	0.12 U	mg/Kg	0.55	0.12	1	01/08/13 22:12	1/8/13	
Vanadium, Total Recoverable	6010B	6.0	mg/Kg	1.1	0.2	1	01/08/13 22:12	1/8/13	
Zinc, Total Recoverable	6010B	0.7 J	mg/Kg	1.1	0.2	1	01/08/13 22:12	1/8/13	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 10:05
Date Received: 01/04/13 14:16

Sample Name: B430-B-7 (5-7.5)
Lab Code: J1300079-007

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260B
Prep Method: EPA 5035

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Benzene	0.863 J	4.96	0.170	1	01/09/13 19:58	1/9/13	
Ethylbenzene	5.16	4.96	0.120	1	01/09/13 19:58	1/9/13	
m,p-Xylenes	47.2	9.92	0.210	1	01/09/13 19:58	1/9/13	
o-Xylene	57.8	4.96	0.160	1	01/09/13 19:58	1/9/13	
Toluene	6.41	4.96	0.270	1	01/09/13 19:58	1/9/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	103	80 - 120	01/09/13 19:58	
4-Bromofluorobenzene	110	64 - 135	01/09/13 19:58	
Dibromofluoromethane	100	74 - 125	01/09/13 19:58	
Toluene-d8	105	46 - 156	01/09/13 19:58	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 10:05
Date Received: 01/04/13 14:16

Sample Name: B430-B-7 (5-7.5)
Lab Code: J1300079-007

Units: ug/Kg
Basis: Dry

Base Neutral Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270C SIM
Prep Method: EPA 3550C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1-Methylnaphthalene	68.2	3.75	2.98	1	01/10/13 03:36	1/8/13	
2-Methylnaphthalene	106	3.75	2.54	1	01/10/13 03:36	1/8/13	
Acenaphthene	3.42 U	7.49	3.42	1	01/10/13 03:36	1/8/13	
Acenaphthylene	6.24 J	7.49	2.43	1	01/10/13 03:36	1/8/13	
Anthracene	5.71	3.75	1.77	1	01/10/13 03:36	1/8/13	
Benz(a)anthracene	130	3.75	2.10	1	01/10/13 03:36	1/8/13	
Benzo(a)pyrene	97.6	3.75	1.11	1	01/10/13 03:36	1/8/13	
Benzo(b)fluoranthene	155	3.75	2.21	1	01/10/13 03:36	1/8/13	
Benzo(g,h,i)perylene	61.7	3.75	2.43	1	01/14/13 14:50	1/8/13	
Benzo(k)fluoranthene	45.6	3.75	2.65	1	01/10/13 03:36	1/8/13	
Chrysene	130	3.75	2.10	1	01/10/13 03:36	1/8/13	
Dibenz(a,h)anthracene	15.1	3.75	2.98	1	01/10/13 03:36	1/8/13	
Fluoranthene	162	3.75	2.21	1	01/10/13 03:36	1/8/13	
Fluorene	8.79	3.75	2.43	1	01/10/13 03:36	1/8/13	
Indeno(1,2,3-cd)pyrene	101	3.75	2.43	1	01/10/13 03:36	1/8/13	
Naphthalene	68.5	3.75	3.42	1	01/10/13 03:36	1/8/13	
Phenanthrene	66.3	7.49	1.88	1	01/10/13 03:36	1/8/13	
Pyrene	241	3.75	2.21	1	01/10/13 03:36	1/8/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	41	30 - 118	01/10/13 03:36	
p-Terphenyl-d14	56	41 - 146	01/10/13 03:36	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 10:05
Date Received: 01/04/13 14:16

Sample Name: B430-B-7 (5-7.5)
Lab Code: J1300079-007

Basis: Dry

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total Recoverable	6010B	2780	mg/Kg	5.0	0.9	1	01/08/13 22:15	1/8/13	
Antimony, Total Recoverable	6010B	0.25 J	mg/Kg	0.50	0.08	1	01/08/13 22:16	1/8/13	
Arsenic, Total Recoverable	6010B	0.45 J	mg/Kg	0.50	0.12	1	01/08/13 22:16	1/8/13	
Barium, Total Recoverable	6010B	7.33	mg/Kg	0.50	0.03	1	01/08/13 22:16	1/8/13	
Beryllium, Total Recoverable	6010B	0.25	mg/Kg	0.20	0.008	1	01/08/13 22:16	1/8/13	
Cadmium, Total Recoverable	6010B	0.05 J	mg/Kg	0.25	0.007	1	01/08/13 22:16	1/8/13	
Calcium, Total Recoverable	6010B	2240	mg/Kg	5.0	1.1	1	01/08/13 22:15	1/8/13	
Chromium, Total Recoverable	6010B	9.87	mg/Kg	0.50	0.02	1	01/08/13 22:16	1/8/13	
Cobalt, Total Recoverable	6010B	0.45 J	mg/Kg	0.50	0.04	1	01/08/13 22:16	1/8/13	
Copper, Total Recoverable	6010B	1.65	mg/Kg	0.50	0.07	1	01/08/13 22:16	1/8/13	
Iron, Total Recoverable	6010B	2960	mg/Kg	5.0	0.6	1	01/08/13 22:15	1/8/13	
Lead, Total Recoverable	6010B	3.69	mg/Kg	0.50	0.13	1	01/08/13 22:16	1/8/13	
Magnesium, Total Recoverable	6010B	353	mg/Kg	5.0	0.7	1	01/08/13 22:15	1/8/13	
Manganese, Total Recoverable	6010B	86.5	mg/Kg	0.50	0.009	1	01/08/13 22:16	1/8/13	
Mercury	7471A	0.0228	mg/Kg	0.0070	0.0011	1	01/08/13 13:00	1/7/13	
Nickel, Total Recoverable	6010B	1.55	mg/Kg	0.50	0.04	1	01/08/13 22:16	1/8/13	
Potassium, Total Recoverable	6010B	177	mg/Kg	100	4	1	01/08/13 22:15	1/8/13	
Selenium, Total Recoverable	6010B	0.27 U	mg/Kg	0.50	0.27	1	01/08/13 22:16	1/8/13	
Silver, Total Recoverable	6010B	0.05 U	mg/Kg	0.50	0.05	1	01/08/13 22:16	1/8/13	
Sodium, Total Recoverable	6010B	23 J	mg/Kg	25	2	1	01/08/13 22:15	1/8/13	
Thallium, Total Recoverable	6010B	0.11 U	mg/Kg	0.50	0.11	1	01/08/13 22:16	1/8/13	
Vanadium, Total Recoverable	6010B	5.53	mg/Kg	1.0	0.11	1	01/08/13 22:16	1/8/13	
Zinc, Total Recoverable	6010B	11.1	mg/Kg	1.0	0.16	1	01/08/13 22:16	1/8/13	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 10:10
Date Received: 01/04/13 14:16

Sample Name: B430-B-7 (7.5-10)
Lab Code: J1300079-008

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260B
Prep Method: EPA 5035

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Benzene	183 J	560	19.1	100	01/10/13 15:25	1/10/13	
Ethylbenzene	1320	560	13.5	100	01/10/13 15:25	1/10/13	
m,p-Xylenes	39900	1120	23.6	100	01/10/13 15:25	1/10/13	
o-Xylene	49600	2800	89.7	500	01/10/13 20:43	1/10/13	
Toluene	4380	560	30.3	100	01/10/13 15:25	1/10/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	101	80 - 120	01/10/13 15:25	
4-Bromofluorobenzene	105	64 - 135	01/10/13 15:25	
Dibromofluoromethane	100	74 - 125	01/10/13 15:25	
Toluene-d8	102	46 - 156	01/10/13 15:25	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 10:10
Date Received: 01/04/13 14:16

Sample Name: B430-B-7 (7.5-10)
Lab Code: J1300079-008

Units: ug/Kg
Basis: Dry

Base Neutral Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270C SIM
Prep Method: EPA 3550C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1-Methylnaphthalene	4820	38.1	30.3	10	01/14/13 15:36	1/8/13	
2-Methylnaphthalene	8820	95.2	64.4	25	01/15/13 13:26	1/8/13	
Acenaphthene	27.9	7.61	3.48	1	01/10/13 03:59	1/8/13	
Acenaphthylene	16.6	7.61	2.47	1	01/10/13 03:59	1/8/13	
Anthracene	13.2	3.81	1.80	1	01/10/13 03:59	1/8/13	
Benz(a)anthracene	2.13 U	3.81	2.13	1	01/10/13 03:59	1/8/13	
Benzo(a)pyrene	1.12 U	3.81	1.12	1	01/10/13 03:59	1/8/13	
Benzo(b)fluoranthene	2.24 U	3.81	2.24	1	01/10/13 03:59	1/8/13	
Benzo(g,h,i)perylene	2.47 U	3.81	2.47	1	01/10/13 03:59	1/8/13	
Benzo(k)fluoranthene	2.69 U	3.81	2.69	1	01/10/13 03:59	1/8/13	
Chrysene	2.13 U	3.81	2.13	1	01/10/13 03:59	1/8/13	
Dibenz(a,h)anthracene	3.03 U	3.81	3.03	1	01/10/13 03:59	1/8/13	
Fluoranthene	2.24 U	3.81	2.24	1	01/10/13 03:59	1/8/13	
Fluorene	75.2	3.81	2.47	1	01/10/13 03:59	1/8/13	
Indeno(1,2,3-cd)pyrene	2.47 U	3.81	2.47	1	01/10/13 03:59	1/8/13	
Naphthalene	7560	95.2	86.8	25	01/15/13 13:26	1/8/13	
Phenanthrene	44.4	7.61	1.91	1	01/10/13 03:59	1/8/13	
Pyrene	4.43	3.81	2.24	1	01/10/13 03:59	1/8/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	50	30 - 118	01/10/13 03:59	
p-Terphenyl-d14	76	41 - 146	01/10/13 03:59	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 10:10
Date Received: 01/04/13 14:16

Sample Name: B430-B-7 (7.5-10)
Lab Code: J1300079-008

Basis: Dry

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total Recoverable	6010B	4100	mg/Kg	5.5	1.0	1	01/08/13 22:19	1/8/13	
Antimony, Total Recoverable	6010B	0.22 J	mg/Kg	0.55	0.09	1	01/08/13 22:21	1/8/13	
Arsenic, Total Recoverable	6010B	0.22 J	mg/Kg	0.55	0.13	1	01/08/13 22:21	1/8/13	
Barium, Total Recoverable	6010B	1.33	mg/Kg	0.55	0.04	1	01/08/13 22:21	1/8/13	
Beryllium, Total Recoverable	6010B	0.11 J	mg/Kg	0.22	0.009	1	01/08/13 22:20	1/8/13	
Cadmium, Total Recoverable	6010B	0.06 J	mg/Kg	0.28	0.008	1	01/08/13 22:21	1/8/13	
Calcium, Total Recoverable	6010B	430	mg/Kg	5.5	1.2	1	01/08/13 22:19	1/8/13	
Chromium, Total Recoverable	6010B	7.85	mg/Kg	0.55	0.03	1	01/08/13 22:21	1/8/13	
Cobalt, Total Recoverable	6010B	0.05 U	mg/Kg	0.55	0.05	1	01/08/13 22:21	1/8/13	
Copper, Total Recoverable	6010B	1.55	mg/Kg	0.55	0.07	1	01/08/13 22:20	1/8/13	
Iron, Total Recoverable	6010B	260	mg/Kg	5.5	0.7	1	01/08/13 22:20	1/8/13	
Lead, Total Recoverable	6010B	5.14	mg/Kg	0.55	0.15	1	01/08/13 22:21	1/8/13	
Magnesium, Total Recoverable	6010B	31.7	mg/Kg	5.5	0.7	1	01/08/13 22:20	1/8/13	
Manganese, Total Recoverable	6010B	0.66	mg/Kg	0.55	0.010	1	01/08/13 22:20	1/8/13	
Mercury	7471A	0.0510	mg/Kg	0.0067	0.0010	1	01/08/13 13:02	1/7/13	
Nickel, Total Recoverable	6010B	0.17 J	mg/Kg	0.55	0.04	1	01/08/13 22:21	1/8/13	
Potassium, Total Recoverable	6010B	5 U	mg/Kg	110	5	1	01/08/13 22:19	1/8/13	
Selenium, Total Recoverable	6010B	0.30 U	mg/Kg	0.55	0.30	1	01/08/13 22:21	1/8/13	
Silver, Total Recoverable	6010B	0.05 U	mg/Kg	0.55	0.05	1	01/08/13 22:20	1/8/13	
Sodium, Total Recoverable	6010B	19 J	mg/Kg	28	2	1	01/08/13 22:19	1/8/13	
Thallium, Total Recoverable	6010B	0.12 U	mg/Kg	0.55	0.12	1	01/08/13 22:21	1/8/13	
Vanadium, Total Recoverable	6010B	2.7	mg/Kg	1.1	0.2	1	01/08/13 22:20	1/8/13	
Zinc, Total Recoverable	6010B	0.4 J	mg/Kg	1.1	0.2	1	01/08/13 22:21	1/8/13	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 00:00
Date Received: 01/04/13 14:16

Sample Name: B430-DUP-01
Lab Code: J1300079-009

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260B
Prep Method: EPA 5035

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Benzene	50.7 J	563	19.2	100	01/10/13 15:51	1/10/13	
Ethylbenzene	571	563	13.6	100	01/10/13 15:51	1/10/13	
m,p-Xylenes	15500	1130	23.7	100	01/10/13 15:51	1/10/13	
o-Xylene	18800	563	18.1	100	01/10/13 15:51	1/10/13	
Toluene	1460	563	30.5	100	01/10/13 15:51	1/10/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	95	80 - 120	01/10/13 15:51	
4-Bromofluorobenzene	101	64 - 135	01/10/13 15:51	
Dibromofluoromethane	93	74 - 125	01/10/13 15:51	
Toluene-d8	101	46 - 156	01/10/13 15:51	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 00:00
Date Received: 01/04/13 14:16

Sample Name: B430-DUP-01
Lab Code: J1300079-009

Units: ug/Kg
Basis: Dry

Base Neutral Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270C SIM
Prep Method: EPA 3550C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1-Methylnaphthalene	2200	44.6	35.5	10	01/14/13 15:59	1/8/13	
2-Methylnaphthalene	4000	44.6	30.2	10	01/14/13 15:59	1/8/13	
Acenaphthene	12.9	8.92	4.07	1	01/10/13 04:22	1/8/13	
Acenaphthylene	7.44 J	8.92	2.89	1	01/10/13 04:22	1/8/13	
Anthracene	5.97	4.46	2.10	1	01/10/13 04:22	1/8/13	
Benz(a)anthracene	2.50 U	4.46	2.50	1	01/10/13 04:22	1/8/13	
Benzo(a)pyrene	1.32 U	4.46	1.32	1	01/10/13 04:22	1/8/13	
Benzo(b)fluoranthene	2.63 U	4.46	2.63	1	01/10/13 04:22	1/8/13	
Benzo(g,h,i)perylene	2.89 U	4.46	2.89	1	01/10/13 04:22	1/8/13	
Benzo(k)fluoranthene	3.15 U	4.46	3.15	1	01/10/13 04:22	1/8/13	
Chrysene	2.50 U	4.46	2.50	1	01/10/13 04:22	1/8/13	
Dibenz(a,h)anthracene	3.55 U	4.46	3.55	1	01/10/13 04:22	1/8/13	
Fluoranthene	2.63 U	4.46	2.63	1	01/10/13 04:22	1/8/13	
Fluorene	37.1	4.46	2.89	1	01/10/13 04:22	1/8/13	
Indeno(1,2,3-cd)pyrene	2.89 U	4.46	2.89	1	01/10/13 04:22	1/8/13	
Naphthalene	3440	44.6	40.7	10	01/14/13 15:59	1/8/13	
Phenanthrene	21.4	8.92	2.23	1	01/10/13 04:22	1/8/13	
Pyrene	2.72 J	4.46	2.63	1	01/10/13 04:22	1/8/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	45	30 - 118	01/10/13 04:22	
p-Terphenyl-d14	61	41 - 146	01/10/13 04:22	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 00:00
Date Received: 01/04/13 14:16

Sample Name: B430-DUP-01
Lab Code: J1300079-009

Basis: Dry

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total Recoverable	6010B	3540	mg/Kg	5.7	1.0	1	01/08/13 22:24	1/8/13	
Antimony, Total Recoverable	6010B	0.40 J	mg/Kg	0.57	0.09	1	01/08/13 22:25	1/8/13	
Arsenic, Total Recoverable	6010B	0.14 U	mg/Kg	0.57	0.14	1	01/08/13 22:25	1/8/13	
Barium, Total Recoverable	6010B	1.08	mg/Kg	0.57	0.04	1	01/08/13 22:25	1/8/13	
Beryllium, Total Recoverable	6010B	0.06 J	mg/Kg	0.23	0.010	1	01/08/13 22:25	1/8/13	
Cadmium, Total Recoverable	6010B	0.06 J	mg/Kg	0.28	0.008	1	01/08/13 22:25	1/8/13	
Calcium, Total Recoverable	6010B	227	mg/Kg	5.7	1.2	1	01/08/13 22:24	1/8/13	
Chromium, Total Recoverable	6010B	6.16	mg/Kg	0.57	0.03	1	01/08/13 22:25	1/8/13	
Cobalt, Total Recoverable	6010B	0.05 U	mg/Kg	0.57	0.05	1	01/08/13 22:25	1/8/13	
Copper, Total Recoverable	6010B	1.54	mg/Kg	0.57	0.07	1	01/08/13 22:25	1/8/13	
Iron, Total Recoverable	6010B	130	mg/Kg	5.7	0.7	1	01/08/13 22:24	1/8/13	
Lead, Total Recoverable	6010B	4.62	mg/Kg	0.57	0.15	1	01/08/13 22:25	1/8/13	
Magnesium, Total Recoverable	6010B	18.0	mg/Kg	5.7	0.7	1	01/08/13 22:24	1/8/13	
Manganese, Total Recoverable	6010B	0.80	mg/Kg	0.57	0.010	1	01/08/13 22:25	1/8/13	
Mercury	7471A	0.0588	mg/Kg	0.0069	0.0011	1	01/08/13 13:04	1/7/13	
Nickel, Total Recoverable	6010B	0.23 J	mg/Kg	0.57	0.04	1	01/08/13 22:25	1/8/13	
Potassium, Total Recoverable	6010B	5 U	mg/Kg	110	5	1	01/08/13 22:24	1/8/13	
Selenium, Total Recoverable	6010B	0.31 U	mg/Kg	0.57	0.31	1	01/08/13 22:25	1/8/13	
Silver, Total Recoverable	6010B	0.06 U	mg/Kg	0.57	0.06	1	01/08/13 22:25	1/8/13	
Sodium, Total Recoverable	6010B	19 J	mg/Kg	28	2	1	01/08/13 22:24	1/8/13	
Thallium, Total Recoverable	6010B	0.12 U	mg/Kg	0.57	0.12	1	01/08/13 22:25	1/8/13	
Vanadium, Total Recoverable	6010B	2.2	mg/Kg	1.1	0.2	1	01/08/13 22:25	1/8/13	
Zinc, Total Recoverable	6010B	0.3 J	mg/Kg	1.1	0.2	1	01/08/13 22:25	1/8/13	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 11:50
Date Received: 01/04/13 14:16

Sample Name: B430-B-8 (5-7.5)
Lab Code: J1300079-010

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260B
Prep Method: EPA 5035

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Benzene	0.582 J	5.01	0.171	1	01/09/13 20:25	1/9/13	
Ethylbenzene	0.561 J	5.01	0.121	1	01/09/13 20:25	1/9/13	
m,p-Xylenes	1.43 J	10.0	0.211	1	01/09/13 20:25	1/9/13	
o-Xylene	0.461 J	5.01	0.161	1	01/09/13 20:25	1/9/13	
Toluene	1.58 J	5.01	0.271	1	01/09/13 20:25	1/9/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	104	80 - 120	01/09/13 20:25	
4-Bromofluorobenzene	107	64 - 135	01/09/13 20:25	
Dibromofluoromethane	100	74 - 125	01/09/13 20:25	
Toluene-d8	105	46 - 156	01/09/13 20:25	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 11:50
Date Received: 01/04/13 14:16

Sample Name: B430-B-8 (5-7.5)
Lab Code: J1300079-010

Units: ug/Kg
Basis: Dry

Base Neutral Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270C SIM
Prep Method: EPA 3550C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1-Methylnaphthalene	3.10 U	3.89	3.10	1	01/10/13 04:46	1/8/13	
2-Methylnaphthalene	2.64 U	3.89	2.64	1	01/10/13 04:46	1/8/13	
Acenaphthene	3.55 U	7.78	3.55	1	01/10/13 04:46	1/8/13	
Acenaphthylene	2.52 U	7.78	2.52	1	01/10/13 04:46	1/8/13	
Anthracene	1.84 U	3.89	1.84	1	01/10/13 04:46	1/8/13	
Benz(a)anthracene	20.1	3.89	2.18	1	01/10/13 04:46	1/8/13	
Benzo(a)pyrene	18.8	3.89	1.15	1	01/10/13 04:46	1/8/13	
Benzo(b)fluoranthene	32.3	3.89	2.29	1	01/10/13 04:46	1/8/13	
Benzo(g,h,i)perylene	20.2	3.89	2.52	1	01/14/13 15:13	1/8/13	
Benzo(k)fluoranthene	10.5	3.89	2.75	1	01/10/13 04:46	1/8/13	
Chrysene	26.1	3.89	2.18	1	01/10/13 04:46	1/8/13	
Dibenz(a,h)anthracene	3.10 U	3.89	3.10	1	01/10/13 04:46	1/8/13	
Fluoranthene	24.7	3.89	2.29	1	01/10/13 04:46	1/8/13	
Fluorene	3.18 J	3.89	2.52	1	01/10/13 04:46	1/8/13	
Indeno(1,2,3-cd)pyrene	29.3	3.89	2.52	1	01/10/13 04:46	1/8/13	
Naphthalene	3.55 U	3.89	3.55	1	01/10/13 04:46	1/8/13	
Phenanthrene	16.4	7.78	1.95	1	01/10/13 04:46	1/8/13	
Pyrene	45.6	3.89	2.29	1	01/10/13 04:46	1/8/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	57	30 - 118	01/10/13 04:46	
p-Terphenyl-d14	81	41 - 146	01/10/13 04:46	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 11:50
Date Received: 01/04/13 14:16

Sample Name: B430-B-8 (5-7.5)
Lab Code: J1300079-010

Basis: Dry

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total Recoverable	6010B	4970	mg/Kg	4.8	0.9	1	01/08/13 22:28	1/8/13	
Antimony, Total Recoverable	6010B	0.34 J	mg/Kg	0.48	0.08	1	01/08/13 22:29	1/8/13	
Arsenic, Total Recoverable	6010B	0.39 J	mg/Kg	0.48	0.12	1	01/08/13 22:29	1/8/13	
Barium, Total Recoverable	6010B	8.53	mg/Kg	0.48	0.03	1	01/08/13 22:29	1/8/13	
Beryllium, Total Recoverable	6010B	0.05 J	mg/Kg	0.19	0.008	1	01/08/13 22:29	1/8/13	
Cadmium, Total Recoverable	6010B	0.05 J	mg/Kg	0.24	0.007	1	01/08/13 22:29	1/8/13	
Calcium, Total Recoverable	6010B	1100	mg/Kg	4.8	1.1	1	01/08/13 22:28	1/8/13	
Chromium, Total Recoverable	6010B	11.7	mg/Kg	0.48	0.02	1	01/08/13 22:29	1/8/13	
Cobalt, Total Recoverable	6010B	0.48	mg/Kg	0.48	0.04	1	01/08/13 22:29	1/8/13	
Copper, Total Recoverable	6010B	1.83	mg/Kg	0.48	0.07	1	01/08/13 22:29	1/8/13	
Iron, Total Recoverable	6010B	2500	mg/Kg	4.8	0.6	1	01/08/13 22:28	1/8/13	
Lead, Total Recoverable	6010B	3.57	mg/Kg	0.48	0.13	1	01/08/13 22:29	1/8/13	
Magnesium, Total Recoverable	6010B	265	mg/Kg	4.8	0.7	1	01/08/13 22:28	1/8/13	
Manganese, Total Recoverable	6010B	28.5	mg/Kg	0.48	0.009	1	01/08/13 22:29	1/8/13	
Mercury	7471A	0.0347	mg/Kg	0.0066	0.0010	1	01/08/13 13:06	1/7/13	
Nickel, Total Recoverable	6010B	2.17	mg/Kg	0.48	0.04	1	01/08/13 22:29	1/8/13	
Potassium, Total Recoverable	6010B	132	mg/Kg	96	4	1	01/08/13 22:28	1/8/13	
Selenium, Total Recoverable	6010B	0.27 U	mg/Kg	0.48	0.27	1	01/08/13 22:29	1/8/13	
Silver, Total Recoverable	6010B	0.05 U	mg/Kg	0.48	0.05	1	01/08/13 22:29	1/8/13	
Sodium, Total Recoverable	6010B	12 J	mg/Kg	24	2	1	01/08/13 22:28	1/8/13	
Thallium, Total Recoverable	6010B	0.11 U	mg/Kg	0.48	0.11	1	01/08/13 22:29	1/8/13	
Vanadium, Total Recoverable	6010B	6.36	mg/Kg	0.96	0.11	1	01/08/13 22:29	1/8/13	
Zinc, Total Recoverable	6010B	4.24	mg/Kg	0.96	0.16	1	01/08/13 22:29	1/8/13	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 11:55
Date Received: 01/04/13 14:16

Sample Name: B430-B-8 (12.5-15)
Lab Code: J1300079-011

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260B
Prep Method: EPA 5035

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Benzene	0.201 U	5.91	0.201	1	01/09/13 20:51	1/9/13	
Ethylbenzene	0.945 J	5.91	0.142	1	01/09/13 20:51	1/9/13	
m,p-Xylenes	60.5	11.8	0.249	1	01/09/13 20:51	1/9/13	
o-Xylene	1.31 J	5.91	0.189	1	01/09/13 20:51	1/9/13	
Toluene	1.67 J	5.91	0.319	1	01/09/13 20:51	1/9/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	100	80 - 120	01/09/13 20:51	
4-Bromofluorobenzene	106	64 - 135	01/09/13 20:51	
Dibromofluoromethane	98	74 - 125	01/09/13 20:51	
Toluene-d8	105	46 - 156	01/09/13 20:51	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 11:55
Date Received: 01/04/13 14:16

Sample Name: B430-B-8 (12.5-15)
Lab Code: J1300079-011

Units: ug/Kg
Basis: Dry

Base Neutral Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270C SIM
Prep Method: EPA 3550C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1-Methylnaphthalene	3.26 U	4.10	3.26	1	01/10/13 05:55	1/8/13	
2-Methylnaphthalene	2.78 U	4.10	2.78	1	01/10/13 05:55	1/8/13	
Acenaphthene	3.74 U	8.19	3.74	1	01/10/13 05:55	1/8/13	
Acenaphthylene	2.66 U	8.19	2.66	1	01/10/13 05:55	1/8/13	
Anthracene	1.93 U	4.10	1.93	1	01/10/13 05:55	1/8/13	
Benz(a)anthracene	2.29 U	4.10	2.29	1	01/10/13 05:55	1/8/13	
Benzo(a)pyrene	1.21 U	4.10	1.21	1	01/10/13 05:55	1/8/13	
Benzo(b)fluoranthene	2.41 U	4.10	2.41	1	01/10/13 05:55	1/8/13	
Benzo(g,h,i)perylene	2.66 U	4.10	2.66	1	01/10/13 05:55	1/8/13	
Benzo(k)fluoranthene	2.90 U	4.10	2.90	1	01/10/13 05:55	1/8/13	
Chrysene	2.29 U	4.10	2.29	1	01/10/13 05:55	1/8/13	
Dibenz(a,h)anthracene	3.26 U	4.10	3.26	1	01/10/13 05:55	1/8/13	
Fluoranthene	2.41 U	4.10	2.41	1	01/10/13 05:55	1/8/13	
Fluorene	2.66 U	4.10	2.66	1	01/10/13 05:55	1/8/13	
Indeno(1,2,3-cd)pyrene	2.66 U	4.10	2.66	1	01/10/13 05:55	1/8/13	
Naphthalene	3.74 U	4.10	3.74	1	01/10/13 05:55	1/8/13	
Phenanthrene	2.05 U	8.19	2.05	1	01/10/13 05:55	1/8/13	
Pyrene	2.41 U	4.10	2.41	1	01/10/13 05:55	1/8/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	44	30 - 118	01/10/13 05:55	
p-Terphenyl-d14	59	41 - 146	01/10/13 05:55	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 11:55
Date Received: 01/04/13 14:16

Sample Name: B430-B-8 (12.5-15)
Lab Code: J1300079-011

Basis: Dry

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total Recoverable	6010B	7260	mg/Kg	5.6	1.0	1	01/08/13 22:32	1/8/13	
Antimony, Total Recoverable	6010B	0.28 J	mg/Kg	0.56	0.09	1	01/08/13 22:34	1/8/13	
Arsenic, Total Recoverable	6010B	0.13 U	mg/Kg	0.56	0.13	1	01/08/13 22:34	1/8/13	
Barium, Total Recoverable	6010B	1.45	mg/Kg	0.56	0.04	1	01/08/13 22:34	1/8/13	
Beryllium, Total Recoverable	6010B	0.009 U	mg/Kg	0.22	0.009	1	01/08/13 22:34	1/8/13	
Cadmium, Total Recoverable	6010B	0.06 J	mg/Kg	0.28	0.008	1	01/08/13 22:34	1/8/13	
Calcium, Total Recoverable	6010B	19.9	mg/Kg	5.6	1.2	1	01/08/13 22:33	1/8/13	
Chromium, Total Recoverable	6010B	4.80	mg/Kg	0.56	0.03	1	01/08/13 22:34	1/8/13	
Cobalt, Total Recoverable	6010B	0.06 J	mg/Kg	0.56	0.05	1	01/08/13 22:34	1/8/13	
Copper, Total Recoverable	6010B	1.51	mg/Kg	0.56	0.07	1	01/08/13 22:34	1/8/13	
Iron, Total Recoverable	6010B	67.5	mg/Kg	5.6	0.7	1	01/08/13 22:33	1/8/13	
Lead, Total Recoverable	6010B	4.41	mg/Kg	0.56	0.15	1	01/08/13 22:34	1/8/13	
Magnesium, Total Recoverable	6010B	19.7	mg/Kg	5.6	0.7	1	01/08/13 22:33	1/8/13	
Manganese, Total Recoverable	6010B	0.84	mg/Kg	0.56	0.010	1	01/08/13 22:34	1/8/13	
Mercury	7471A	0.0255	mg/Kg	0.0078	0.0012	1	01/08/13 13:13	1/7/13	
Nickel, Total Recoverable	6010B	0.33 J	mg/Kg	0.56	0.04	1	01/08/13 22:34	1/8/13	
Potassium, Total Recoverable	6010B	20 J	mg/Kg	110	5	1	01/08/13 22:32	1/8/13	
Selenium, Total Recoverable	6010B	1.62	mg/Kg	0.56	0.31	1	01/08/13 22:34	1/8/13	
Silver, Total Recoverable	6010B	0.05 U	mg/Kg	0.56	0.05	1	01/08/13 22:34	1/8/13	
Sodium, Total Recoverable	6010B	6 J	mg/Kg	28	2	1	01/08/13 22:32	1/8/13	
Thallium, Total Recoverable	6010B	0.12 U	mg/Kg	0.56	0.12	1	01/08/13 22:34	1/8/13	
Vanadium, Total Recoverable	6010B	7.5	mg/Kg	1.1	0.2	1	01/08/13 22:34	1/8/13	
Zinc, Total Recoverable	6010B	0.4 J	mg/Kg	1.1	0.2	1	01/08/13 22:34	1/8/13	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 12:25
Date Received: 01/04/13 14:16

Sample Name: B430-B-9 (5-7.5)
Lab Code: J1300079-012

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260B
Prep Method: EPA 5035

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Benzene	0.170 U	4.96	0.170	1	01/09/13 21:18	1/9/13	
Ethylbenzene	0.248 J	4.96	0.120	1	01/09/13 21:18	1/9/13	
m,p-Xylenes	0.913 J	9.93	0.210	1	01/09/13 21:18	1/9/13	
o-Xylene	0.337 J	4.96	0.160	1	01/09/13 21:18	1/9/13	
Toluene	1.41 J	4.96	0.270	1	01/09/13 21:18	1/9/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	103	80 - 120	01/09/13 21:18	
4-Bromofluorobenzene	109	64 - 135	01/09/13 21:18	
Dibromofluoromethane	99	74 - 125	01/09/13 21:18	
Toluene-d8	104	46 - 156	01/09/13 21:18	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 12:25
Date Received: 01/04/13 14:16

Sample Name: B430-B-9 (5-7.5)
Lab Code: J1300079-012

Units: ug/Kg
Basis: Dry

Base Neutral Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270C SIM
Prep Method: EPA 3550C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1-Methylnaphthalene	3.22 U	4.04	3.22	1	01/10/13 06:19	1/8/13	
2-Methylnaphthalene	2.74 U	4.04	2.74	1	01/10/13 06:19	1/8/13	
Acenaphthene	3.69 U	8.09	3.69	1	01/10/13 06:19	1/8/13	
Acenaphthylene	2.62 U	8.09	2.62	1	01/10/13 06:19	1/8/13	
Anthracene	1.91 U	4.04	1.91	1	01/10/13 06:19	1/8/13	
Benz(a)anthracene	2.26 U	4.04	2.26	1	01/10/13 06:19	1/8/13	
Benzo(a)pyrene	1.19 U	4.04	1.19	1	01/10/13 06:19	1/8/13	
Benzo(b)fluoranthene	2.38 U	4.04	2.38	1	01/10/13 06:19	1/8/13	
Benzo(g,h,i)perylene	2.62 U	4.04	2.62	1	01/10/13 06:19	1/8/13	
Benzo(k)fluoranthene	2.86 U	4.04	2.86	1	01/10/13 06:19	1/8/13	
Chrysene	2.26 U	4.04	2.26	1	01/10/13 06:19	1/8/13	
Dibenz(a,h)anthracene	3.22 U	4.04	3.22	1	01/10/13 06:19	1/8/13	
Fluoranthene	2.38 U	4.04	2.38	1	01/10/13 06:19	1/8/13	
Fluorene	2.62 U	4.04	2.62	1	01/10/13 06:19	1/8/13	
Indeno(1,2,3-cd)pyrene	2.62 U	4.04	2.62	1	01/10/13 06:19	1/8/13	
Naphthalene	3.69 U	4.04	3.69	1	01/10/13 06:19	1/8/13	
Phenanthrene	2.03 U	8.09	2.03	1	01/10/13 06:19	1/8/13	
Pyrene	2.38 U	4.04	2.38	1	01/10/13 06:19	1/8/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	51	30 - 118	01/10/13 06:19	
p-Terphenyl-d14	55	41 - 146	01/10/13 06:19	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 12:25
Date Received: 01/04/13 14:16

Sample Name: B430-B-9 (5-7.5)
Lab Code: J1300079-012

Basis: Dry

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total Recoverable	6010B	4290	mg/Kg	5.3	0.9	1	01/08/13 22:37	1/8/13	
Antimony, Total Recoverable	6010B	0.16 J	mg/Kg	0.53	0.08	1	01/08/13 22:39	1/8/13	
Arsenic, Total Recoverable	6010B	0.27 J	mg/Kg	0.53	0.13	1	01/08/13 22:39	1/8/13	
Barium, Total Recoverable	6010B	1.70	mg/Kg	0.53	0.03	1	01/08/13 22:39	1/8/13	
Beryllium, Total Recoverable	6010B	0.11 J	mg/Kg	0.21	0.009	1	01/08/13 22:38	1/8/13	
Cadmium, Total Recoverable	6010B	0.05 J	mg/Kg	0.27	0.008	1	01/08/13 22:39	1/8/13	
Calcium, Total Recoverable	6010B	139	mg/Kg	5.3	1.2	1	01/08/13 22:37	1/8/13	
Chromium, Total Recoverable	6010B	8.14	mg/Kg	0.53	0.03	1	01/08/13 22:39	1/8/13	
Cobalt, Total Recoverable	6010B	0.05 U	mg/Kg	0.53	0.05	1	01/08/13 22:39	1/8/13	
Copper, Total Recoverable	6010B	1.76	mg/Kg	0.53	0.07	1	01/08/13 22:38	1/8/13	
Iron, Total Recoverable	6010B	238	mg/Kg	5.3	0.7	1	01/08/13 22:37	1/8/13	
Lead, Total Recoverable	6010B	5.00	mg/Kg	0.53	0.14	1	01/08/13 22:39	1/8/13	
Magnesium, Total Recoverable	6010B	12.3	mg/Kg	5.3	0.7	1	01/08/13 22:37	1/8/13	
Manganese, Total Recoverable	6010B	0.59	mg/Kg	0.53	0.009	1	01/08/13 22:38	1/8/13	
Mercury	7471A	0.0912	mg/Kg	0.0072	0.0011	1	01/08/13 13:15	1/7/13	
Nickel, Total Recoverable	6010B	0.21 J	mg/Kg	0.53	0.04	1	01/08/13 22:39	1/8/13	
Potassium, Total Recoverable	6010B	10 J	mg/Kg	110	4	1	01/08/13 22:37	1/8/13	
Selenium, Total Recoverable	6010B	0.29 U	mg/Kg	0.53	0.29	1	01/08/13 22:39	1/8/13	
Silver, Total Recoverable	6010B	0.05 U	mg/Kg	0.53	0.05	1	01/08/13 22:38	1/8/13	
Sodium, Total Recoverable	6010B	4 J	mg/Kg	27	2	1	01/08/13 22:37	1/8/13	
Thallium, Total Recoverable	6010B	0.11 U	mg/Kg	0.53	0.11	1	01/08/13 22:39	1/8/13	
Vanadium, Total Recoverable	6010B	2.8	mg/Kg	1.1	0.2	1	01/08/13 22:38	1/8/13	
Zinc, Total Recoverable	6010B	0.3 J	mg/Kg	1.1	0.2	1	01/08/13 22:39	1/8/13	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 12:30
Date Received: 01/04/13 14:16

Sample Name: B430-B-9 (12.5-15)
Lab Code: J1300079-013

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260B
Prep Method: EPA 5035

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Benzene	0.207 U	6.06	0.207	1	01/09/13 21:44	1/9/13	
Ethylbenzene	0.279 J	6.06	0.146	1	01/09/13 21:44	1/9/13	
m,p-Xylenes	0.861 J	12.1	0.255	1	01/09/13 21:44	1/9/13	
o-Xylene	0.327 J	6.06	0.194	1	01/09/13 21:44	1/9/13	
Toluene	1.67 J	6.06	0.328	1	01/09/13 21:44	1/9/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	100	80 - 120	01/09/13 21:44	
4-Bromofluorobenzene	99	64 - 135	01/09/13 21:44	
Dibromofluoromethane	97	74 - 125	01/09/13 21:44	
Toluene-d8	100	46 - 156	01/09/13 21:44	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 12:30
Date Received: 01/04/13 14:16

Sample Name: B430-B-9 (12.5-15)
Lab Code: J1300079-013

Units: ug/Kg
Basis: Dry

Base Neutral Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270C SIM
Prep Method: EPA 3550C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1-Methylnaphthalene	3.17 U	3.99	3.17	1	01/12/13 05:58	1/8/13	
2-Methylnaphthalene	2.70 J	3.99	2.70	1	01/12/13 05:58	1/8/13	
Acenaphthene	3.64 U	7.97	3.64	1	01/12/13 05:58	1/8/13	
Acenaphthylene	2.58 U	7.97	2.58	1	01/12/13 05:58	1/8/13	
Anthracene	1.88 U	3.99	1.88	1	01/12/13 05:58	1/8/13	
Benz(a)anthracene	11.2 U	19.9	11.2	5	01/14/13 16:22	1/8/13	
Benzo(a)pyrene	1.18 U	3.99	1.18	1	01/12/13 05:58	1/8/13	
Benzo(b)fluoranthene	2.35 U	3.99	2.35	1	01/12/13 05:58	1/8/13	
Benzo(g,h,i)perylene	2.58 U	3.99	2.58	1	01/12/13 05:58	1/8/13	
Benzo(k)fluoranthene	2.82 U	3.99	2.82	1	01/12/13 05:58	1/8/13	
Chrysene	11.2 U	19.9	11.2	5	01/14/13 16:22	1/8/13	
Dibenz(a,h)anthracene	3.17 U	3.99	3.17	1	01/12/13 05:58	1/8/13	
Fluoranthene	2.40 J	3.99	2.35	1	01/12/13 05:58	1/8/13	
Fluorene	2.58 U	3.99	2.58	1	01/12/13 05:58	1/8/13	
Indeno(1,2,3-cd)pyrene	2.58 U	3.99	2.58	1	01/12/13 05:58	1/8/13	
Naphthalene	3.64 U	3.99	3.64	1	01/12/13 05:58	1/8/13	
Phenanthrene	4.07 J	7.97	2.00	1	01/12/13 05:58	1/8/13	
Pyrene	11.8 U	19.9	11.8	5	01/14/13 16:22	1/8/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	34	30 - 118	01/12/13 05:58	
p-Terphenyl-d14	40	41 - 146	01/14/13 16:22	*

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 12:30
Date Received: 01/04/13 14:16

Sample Name: B430-B-9 (12.5-15)
Lab Code: J1300079-013

Basis: Dry

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total Recoverable	6010B	5980	mg/Kg	5.6	1.0	1	01/08/13 22:50	1/8/13	
Antimony, Total Recoverable	6010B	0.34 J	mg/Kg	0.56	0.09	1	01/08/13 22:52	1/8/13	
Arsenic, Total Recoverable	6010B	0.13 U	mg/Kg	0.56	0.13	1	01/08/13 22:52	1/8/13	
Barium, Total Recoverable	6010B	1.36	mg/Kg	0.56	0.04	1	01/08/13 22:52	1/8/13	
Beryllium, Total Recoverable	6010B	0.010 U	mg/Kg	0.23	0.010	1	01/08/13 22:51	1/8/13	
Cadmium, Total Recoverable	6010B	0.06 J	mg/Kg	0.28	0.008	1	01/08/13 22:52	1/8/13	
Calcium, Total Recoverable	6010B	11.3	mg/Kg	5.6	1.2	1	01/08/13 22:51	1/8/13	
Chromium, Total Recoverable	6010B	2.65	mg/Kg	0.56	0.03	1	01/08/13 22:52	1/8/13	
Cobalt, Total Recoverable	6010B	0.05 U	mg/Kg	0.56	0.05	1	01/08/13 22:52	1/8/13	
Copper, Total Recoverable	6010B	1.13	mg/Kg	0.56	0.07	1	01/08/13 22:51	1/8/13	
Iron, Total Recoverable	6010B	40.9	mg/Kg	5.6	0.7	1	01/08/13 22:51	1/8/13	
Lead, Total Recoverable	6010B	3.33	mg/Kg	0.56	0.15	1	01/08/13 22:52	1/8/13	
Magnesium, Total Recoverable	6010B	10.0	mg/Kg	5.6	0.7	1	01/08/13 22:51	1/8/13	
Manganese, Total Recoverable	6010B	0.90	mg/Kg	0.56	0.010	1	01/08/13 22:52	1/8/13	
Mercury	7471A	0.0136	mg/Kg	0.0077	0.0012	1	01/08/13 13:17	1/7/13	
Nickel, Total Recoverable	6010B	0.17 J	mg/Kg	0.56	0.04	1	01/08/13 22:52	1/8/13	
Potassium, Total Recoverable	6010B	20 J	mg/Kg	110	5	1	01/08/13 22:50	1/8/13	
Selenium, Total Recoverable	6010B	0.34 J	mg/Kg	0.56	0.31	1	01/08/13 22:52	1/8/13	
Silver, Total Recoverable	6010B	0.06 U	mg/Kg	0.56	0.06	1	01/08/13 22:51	1/8/13	
Sodium, Total Recoverable	6010B	4 J	mg/Kg	28	2	1	01/08/13 22:50	1/8/13	
Thallium, Total Recoverable	6010B	0.12 U	mg/Kg	0.56	0.12	1	01/08/13 22:52	1/8/13	
Vanadium, Total Recoverable	6010B	3.3	mg/Kg	1.1	0.2	1	01/08/13 22:51	1/8/13	
Zinc, Total Recoverable	6010B	1.0 J	mg/Kg	1.1	0.2	1	01/08/13 22:52	1/8/13	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 13:00
Date Received: 01/04/13 14:16

Sample Name: B430-B-10 (2.5-5)
Lab Code: J1300079-014

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260B
Prep Method: EPA 5035

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Benzene	0.177 U	5.19	0.177	1	01/09/13 22:11	1/9/13	
Ethylbenzene	0.249 J	5.19	0.125	1	01/09/13 22:11	1/9/13	
m,p-Xylenes	0.748 J	10.4	0.219	1	01/09/13 22:11	1/9/13	
o-Xylene	0.301 J	5.19	0.167	1	01/09/13 22:11	1/9/13	
Toluene	1.32 J	5.19	0.281	1	01/09/13 22:11	1/9/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	101	80 - 120	01/09/13 22:11	
4-Bromofluorobenzene	111	64 - 135	01/09/13 22:11	
Dibromofluoromethane	101	74 - 125	01/09/13 22:11	
Toluene-d8	107	46 - 156	01/09/13 22:11	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 13:00
Date Received: 01/04/13 14:16

Sample Name: B430-B-10 (2.5-5)
Lab Code: J1300079-014

Units: ug/Kg
Basis: Dry

Base Neutral Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270C SIM
Prep Method: EPA 3550C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1-Methylnaphthalene	2.97 U	3.73	2.97	1	01/12/13 06:21	1/8/13	
2-Methylnaphthalene	2.53 U	3.73	2.53	1	01/12/13 06:21	1/8/13	
Acenaphthene	3.40 U	7.46	3.40	1	01/12/13 06:21	1/8/13	
Acenaphthylene	6.38 J	7.46	2.42	1	01/12/13 06:21	1/8/13	
Anthracene	4.68	3.73	1.76	1	01/12/13 06:21	1/8/13	
Benz(a)anthracene	50.9	3.73	2.09	1	01/12/13 06:21	1/8/13	
Benzo(a)pyrene	47.4	3.73	1.10	1	01/12/13 06:21	1/8/13	
Benzo(b)fluoranthene	88.4	3.73	2.20	1	01/12/13 06:21	1/8/13	
Benzo(g,h,i)perylene	33.7	3.73	2.42	1	01/12/13 06:21	1/8/13	
Benzo(k)fluoranthene	34.3	3.73	2.64	1	01/12/13 06:21	1/8/13	
Chrysene	61.8	3.73	2.09	1	01/12/13 06:21	1/8/13	
Dibenz(a,h)anthracene	16.2	3.73	2.97	1	01/12/13 06:21	1/8/13	
Fluoranthene	84.7	3.73	2.20	1	01/12/13 06:21	1/8/13	
Fluorene	7.11	3.73	2.42	1	01/12/13 06:21	1/8/13	
Indeno(1,2,3-cd)pyrene	56.0	3.73	2.42	1	01/12/13 06:21	1/8/13	
Naphthalene	3.40 U	3.73	3.40	1	01/12/13 06:21	1/8/13	
Phenanthrene	45.2	7.46	1.87	1	01/12/13 06:21	1/8/13	
Pyrene	106	3.73	2.20	1	01/12/13 06:21	1/8/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	45	30 - 118	01/12/13 06:21	
p-Terphenyl-d14	53	41 - 146	01/12/13 06:21	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 13:00
Date Received: 01/04/13 14:16

Sample Name: B430-B-10 (2.5-5)
Lab Code: J1300079-014

Basis: Dry

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total Recoverable	6010B	2110	mg/Kg	5.4	0.9	1	01/08/13 22:55	1/8/13	
Antimony, Total Recoverable	6010B	0.32 J	mg/Kg	0.54	0.08	1	01/08/13 22:56	1/8/13	
Arsenic, Total Recoverable	6010B	0.16 J	mg/Kg	0.54	0.13	1	01/08/13 22:56	1/8/13	
Barium, Total Recoverable	6010B	2.75	mg/Kg	0.54	0.03	1	01/08/13 22:56	1/8/13	
Beryllium, Total Recoverable	6010B	0.009 U	mg/Kg	0.22	0.009	1	01/08/13 22:56	1/8/13	
Cadmium, Total Recoverable	6010B	0.05 J	mg/Kg	0.27	0.008	1	01/08/13 22:56	1/8/13	
Calcium, Total Recoverable	6010B	919	mg/Kg	5.4	1.2	1	01/08/13 22:55	1/8/13	
Chromium, Total Recoverable	6010B	2.05	mg/Kg	0.54	0.03	1	01/08/13 22:56	1/8/13	
Cobalt, Total Recoverable	6010B	0.05 J	mg/Kg	0.54	0.05	1	01/08/13 22:56	1/8/13	
Copper, Total Recoverable	6010B	0.38 J	mg/Kg	0.54	0.07	1	01/08/13 22:56	1/8/13	
Iron, Total Recoverable	6010B	755	mg/Kg	5.4	0.7	1	01/08/13 22:55	1/8/13	
Lead, Total Recoverable	6010B	1.40	mg/Kg	0.54	0.14	1	01/08/13 22:56	1/8/13	
Magnesium, Total Recoverable	6010B	57.1	mg/Kg	5.4	0.7	1	01/08/13 22:55	1/8/13	
Manganese, Total Recoverable	6010B	6.47	mg/Kg	0.54	0.009	1	01/08/13 22:56	1/8/13	
Mercury	7471A	0.0180	mg/Kg	0.0067	0.0010	1	01/08/13 13:19	1/7/13	
Nickel, Total Recoverable	6010B	0.49 J	mg/Kg	0.54	0.04	1	01/08/13 22:56	1/8/13	
Potassium, Total Recoverable	6010B	30 J	mg/Kg	110	4	1	01/08/13 22:55	1/8/13	
Selenium, Total Recoverable	6010B	0.30 U	mg/Kg	0.54	0.30	1	01/08/13 22:56	1/8/13	
Silver, Total Recoverable	6010B	0.05 U	mg/Kg	0.54	0.05	1	01/08/13 22:56	1/8/13	
Sodium, Total Recoverable	6010B	6 J	mg/Kg	27	2	1	01/08/13 22:55	1/8/13	
Thallium, Total Recoverable	6010B	0.12 U	mg/Kg	0.54	0.12	1	01/08/13 22:56	1/8/13	
Vanadium, Total Recoverable	6010B	2.3	mg/Kg	1.1	0.2	1	01/08/13 22:56	1/8/13	
Zinc, Total Recoverable	6010B	0.9 J	mg/Kg	1.1	0.2	1	01/08/13 22:56	1/8/13	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 13:05
Date Received: 01/04/13 14:16

Sample Name: B430-B-10 (10-12.5)
Lab Code: J1300079-015

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260B
Prep Method: EPA 5035

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Benzene	0.207 U	6.08	0.207	1	01/09/13 22:37	1/9/13	
Ethylbenzene	0.195 J	6.08	0.146	1	01/09/13 22:37	1/9/13	
m,p-Xylenes	0.645 J	12.2	0.256	1	01/09/13 22:37	1/9/13	
o-Xylene	0.243 J	6.08	0.195	1	01/09/13 22:37	1/9/13	
Toluene	1.01 J	6.08	0.329	1	01/09/13 22:37	1/9/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	97	80 - 120	01/09/13 22:37	
4-Bromofluorobenzene	103	64 - 135	01/09/13 22:37	
Dibromofluoromethane	96	74 - 125	01/09/13 22:37	
Toluene-d8	103	46 - 156	01/09/13 22:37	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 13:05
Date Received: 01/04/13 14:16

Sample Name: B430-B-10 (10-12.5)
Lab Code: J1300079-015

Units: ug/Kg
Basis: Dry

Base Neutral Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270C SIM
Prep Method: EPA 3550C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1-Methylnaphthalene	3.64 U	4.57	3.64	1	01/12/13 06:44	1/8/13	
2-Methylnaphthalene	3.10 U	4.57	3.10	1	01/12/13 06:44	1/8/13	
Acenaphthene	4.17 U	9.14	4.17	1	01/12/13 06:44	1/8/13	
Acenaphthylene	2.96 U	9.14	2.96	1	01/12/13 06:44	1/8/13	
Anthracene	2.16 U	4.57	2.16	1	01/12/13 06:44	1/8/13	
Benz(a)anthracene	12.8 U	22.9	12.8	5	01/14/13 16:45	1/8/13	
Benzo(a)pyrene	1.35 U	4.57	1.35	1	01/12/13 06:44	1/8/13	
Benzo(b)fluoranthene	2.69 U	4.57	2.69	1	01/12/13 06:44	1/8/13	
Benzo(g,h,i)perylene	2.96 U	4.57	2.96	1	01/12/13 06:44	1/8/13	
Benzo(k)fluoranthene	3.23 U	4.57	3.23	1	01/12/13 06:44	1/8/13	
Chrysene	12.8 U	22.9	12.8	5	01/14/13 16:45	1/8/13	
Dibenz(a,h)anthracene	3.64 U	4.57	3.64	1	01/12/13 06:44	1/8/13	
Fluoranthene	2.69 U	4.57	2.69	1	01/12/13 06:44	1/8/13	
Fluorene	2.96 U	4.57	2.96	1	01/12/13 06:44	1/8/13	
Indeno(1,2,3-cd)pyrene	2.96 U	4.57	2.96	1	01/12/13 06:44	1/8/13	
Naphthalene	4.17 U	4.57	4.17	1	01/12/13 06:44	1/8/13	
Phenanthrene	2.29 U	9.14	2.29	1	01/12/13 06:44	1/8/13	
Pyrene	13.5 U	22.9	13.5	5	01/14/13 16:45	1/8/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	64	30 - 118	01/12/13 06:44	
p-Terphenyl-d14	73	41 - 146	01/14/13 16:45	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 13:05
Date Received: 01/04/13 14:16

Sample Name: B430-B-10 (10-12.5)
Lab Code: J1300079-015

Basis: Dry

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total Recoverable	6010B	6940	mg/Kg	6.2	1.1	1	01/08/13 23:00	1/8/13	
Antimony, Total Recoverable	6010B	0.49 J	mg/Kg	0.62	0.10	1	01/08/13 23:01	1/8/13	
Arsenic, Total Recoverable	6010B	0.15 U	mg/Kg	0.62	0.15	1	01/08/13 23:01	1/8/13	
Barium, Total Recoverable	6010B	1.05	mg/Kg	0.62	0.04	1	01/08/13 23:01	1/8/13	
Beryllium, Total Recoverable	6010B	0.010 U	mg/Kg	0.25	0.010	1	01/08/13 23:01	1/8/13	
Cadmium, Total Recoverable	6010B	0.06 J	mg/Kg	0.31	0.009	1	01/08/13 23:01	1/8/13	
Calcium, Total Recoverable	6010B	13.8	mg/Kg	6.2	1.3	1	01/08/13 23:00	1/8/13	
Chromium, Total Recoverable	6010B	4.81	mg/Kg	0.62	0.03	1	01/08/13 23:01	1/8/13	
Cobalt, Total Recoverable	6010B	0.05 U	mg/Kg	0.62	0.05	1	01/08/13 23:01	1/8/13	
Copper, Total Recoverable	6010B	1.42	mg/Kg	0.62	0.08	1	01/08/13 23:01	1/8/13	
Iron, Total Recoverable	6010B	30.0	mg/Kg	6.2	0.8	1	01/08/13 23:00	1/8/13	
Lead, Total Recoverable	6010B	3.57	mg/Kg	0.62	0.16	1	01/08/13 23:01	1/8/13	
Magnesium, Total Recoverable	6010B	9.2	mg/Kg	6.2	0.8	1	01/08/13 23:00	1/8/13	
Manganese, Total Recoverable	6010B	0.49 J	mg/Kg	0.62	0.02	1	01/08/13 23:01	1/8/13	
Mercury	7471A	0.0293	mg/Kg	0.0079	0.0012	1	01/08/13 13:21	1/7/13	
Nickel, Total Recoverable	6010B	0.18 J	mg/Kg	0.62	0.05	1	01/08/13 23:01	1/8/13	
Potassium, Total Recoverable	6010B	20 J	mg/Kg	120	5	1	01/08/13 23:00	1/8/13	
Selenium, Total Recoverable	6010B	0.80	mg/Kg	0.62	0.34	1	01/08/13 23:01	1/8/13	
Silver, Total Recoverable	6010B	0.06 U	mg/Kg	0.62	0.06	1	01/08/13 23:01	1/8/13	
Sodium, Total Recoverable	6010B	5 J	mg/Kg	31	3	1	01/08/13 23:00	1/8/13	
Thallium, Total Recoverable	6010B	0.13 U	mg/Kg	0.62	0.13	1	01/08/13 23:01	1/8/13	
Vanadium, Total Recoverable	6010B	7.1	mg/Kg	1.2	0.2	1	01/08/13 23:01	1/8/13	
Zinc, Total Recoverable	6010B	0.7 J	mg/Kg	1.2	0.2	1	01/08/13 23:01	1/8/13	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Water

Service Request: J1300079
Date Collected: 01/03/13 10:40
Date Received: 01/04/13 14:16

Sample Name: B430-FB-01
Lab Code: J1300079-016

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Benzene	0.21 U	1.0	0.21	1	01/07/13 15:30	
Ethylbenzene	0.21 U	1.0	0.21	1	01/07/13 15:30	
m,p-Xylenes	0.31 U	2.0	0.31	1	01/07/13 15:30	
o-Xylene	0.14 U	1.0	0.14	1	01/07/13 15:30	
Toluene	0.19 U	1.0	0.19	1	01/07/13 15:30	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	107	72 - 121	01/07/13 15:30	
4-Bromofluorobenzene	95	86 - 113	01/07/13 15:30	
Dibromofluoromethane	105	86 - 112	01/07/13 15:30	
Toluene-d8	94	88 - 115	01/07/13 15:30	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Water

Service Request: J1300079
Date Collected: 01/03/13 10:40
Date Received: 01/04/13 14:16

Sample Name: B430-FB-01
Lab Code: J1300079-016

Units: ug/L
Basis: NA

Base Neutral Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270C SIM
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1-Methylnaphthalene	0.0506 U	0.115	0.0506	1	01/10/13 02:02	1/8/13	
2-Methylnaphthalene	0.0506 U	0.115	0.0506	1	01/10/13 02:02	1/8/13	
Acenaphthene	0.0472 U	0.115	0.0472	1	01/10/13 02:02	1/8/13	
Acenaphthylene	0.0288 U	0.115	0.0288	1	01/10/13 02:02	1/8/13	
Anthracene	0.0437 U	0.115	0.0437	1	01/10/13 02:02	1/8/13	
Benz(a)anthracene	0.0403 U	0.115	0.0403	1	01/10/13 02:02	1/8/13	
Benzo(a)pyrene	0.0357 U	0.115	0.0357	1	01/10/13 02:02	1/8/13	
Benzo(b)fluoranthene	0.0288 U	0.115	0.0288	1	01/10/13 02:02	1/8/13	
Benzo(g,h,i)perylene	0.0449 U	0.115	0.0449	1	01/10/13 02:02	1/8/13	
Benzo(k)fluoranthene	0.0403 U	0.115	0.0403	1	01/10/13 02:02	1/8/13	
Chrysene	0.0276 U	0.115	0.0276	1	01/10/13 02:02	1/8/13	
Dibenz(a,h)anthracene	0.0414 U	0.115	0.0414	1	01/10/13 02:02	1/8/13	
Fluoranthene	0.0449 U	0.115	0.0449	1	01/10/13 02:02	1/8/13	
Fluorene	0.0541 U	0.115	0.0541	1	01/10/13 02:02	1/8/13	
Indeno(1,2,3-cd)pyrene	0.0460 U	0.115	0.0460	1	01/10/13 02:02	1/8/13	
Naphthalene	0.0449 U	0.115	0.0449	1	01/10/13 02:02	1/8/13	
Phenanthrene	0.0403 U	0.115	0.0403	1	01/10/13 02:02	1/8/13	
Pyrene	0.0357 U	0.115	0.0357	1	01/10/13 02:02	1/8/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	71	22 - 105	01/10/13 02:02	
p-Terphenyl-d14	87	25 - 127	01/10/13 02:02	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Water

Service Request: J1300079
Date Collected: 01/03/13 10:40
Date Received: 01/04/13 14:16

Sample Name: B430-FB-01
Lab Code: J1300079-016

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Dissolved	6010B	40 J	ug/L	100	20	1	01/08/13 15:02	1/7/13	
Aluminum, Total Recoverable	6010B	20 U	ug/L	100	20	1	01/07/13 17:28	1/7/13	
Antimony, Dissolved	6020	0.2 U	ug/L	1.0	0.2	1	01/08/13 19:16	1/7/13	
Antimony, Total Recoverable	6020	0.2 U	ug/L	1.0	0.2	1	01/08/13 16:45	1/7/13	
Arsenic, Dissolved	6010B	4 U	ug/L	10	4	1	01/08/13 15:03	1/7/13	
Arsenic, Total Recoverable	6010B	4 U	ug/L	10	4	1	01/07/13 17:29	1/7/13	
Barium, Dissolved	6010B	0.3 U	ug/L	10	0.3	1	01/08/13 15:03	1/7/13	
Barium, Total Recoverable	6010B	0.3 U	ug/L	10	0.3	1	01/07/13 17:29	1/7/13	
Beryllium, Dissolved	6010B	0.2 U	ug/L	4.0	0.2	1	01/08/13 15:03	1/7/13	
Beryllium, Total Recoverable	6010B	0.2 U	ug/L	4.0	0.2	1	01/07/13 17:29	1/7/13	
Cadmium, Dissolved	6010B	0.2 U	ug/L	5.0	0.2	1	01/08/13 15:03	1/7/13	
Cadmium, Total Recoverable	6010B	0.2 U	ug/L	5.0	0.2	1	01/07/13 17:29	1/7/13	
Calcium, Dissolved	6010B	0.06 J	mg/L	0.10	0.02	1	01/08/13 15:02	1/7/13	
Calcium, Total Recoverable	6010B	0.02 U	mg/L	0.10	0.02	1	01/07/13 17:28	1/7/13	
Chromium, Dissolved	6010B	0.5 U	ug/L	10	0.5	1	01/08/13 15:03	1/7/13	
Chromium, Total Recoverable	6010B	0.5 U	ug/L	10	0.5	1	01/07/13 17:29	1/7/13	
Cobalt, Dissolved	6010B	2 U	ug/L	10	2	1	01/08/13 15:03	1/7/13	
Cobalt, Total Recoverable	6010B	2 J	ug/L	10	2	1	01/07/13 17:29	1/7/13	
Copper, Dissolved	6010B	2 U	ug/L	10	2	1	01/08/13 15:03	1/7/13	
Copper, Total Recoverable	6010B	2 U	ug/L	10	2	1	01/07/13 17:29	1/7/13	
Iron, Dissolved	6010B	4 J	ug/L	100	3	1	01/08/13 15:02	1/7/13	
Iron, Total Recoverable	6010B	3 U	ug/L	100	3	1	01/07/13 17:28	1/7/13	
Lead, Dissolved	6010B	4 U	ug/L	10	4	1	01/08/13 15:03	1/7/13	
Lead, Total Recoverable	6010B	4 U	ug/L	10	4	1	01/07/13 17:29	1/7/13	
Magnesium, Dissolved	6010B	0.02 U	mg/L	0.10	0.02	1	01/08/13 15:02	1/7/13	
Magnesium, Total Recoverable	6010B	0.02 U	mg/L	0.10	0.02	1	01/07/13 17:28	1/7/13	
Manganese, Dissolved	6010B	3 U	ug/L	10	3	1	01/08/13 15:03	1/7/13	
Manganese, Total Recoverable	6010B	3 U	ug/L	10	3	1	01/07/13 17:29	1/7/13	
Mercury, Dissolved	7470A	0.02 U	ug/L	0.10	0.02	1	01/08/13 11:32	1/7/13	
Mercury, Total	7470A	0.02 U	ug/L	0.10	0.02	1	01/08/13 11:06	1/7/13	
Nickel, Dissolved	6010B	0.6 U	ug/L	10	0.6	1	01/08/13 15:03	1/7/13	
Nickel, Total Recoverable	6010B	0.6 U	ug/L	10	0.6	1	01/07/13 17:29	1/7/13	
Potassium, Dissolved	6010B	0.09 U	mg/L	2.0	0.09	1	01/08/13 15:02	1/7/13	
Potassium, Total Recoverable	6010B	0.2 J	mg/L	2.0	0.09	1	01/07/13 17:28	1/7/13	
Selenium, Dissolved	6020	1.1 U	ug/L	2.0	1.1	1	01/08/13 19:16	1/7/13	
Selenium, Total Recoverable	6020	1.1 U	ug/L	2.0	1.1	1	01/08/13 16:45	1/7/13	
Silver, Dissolved	6010B	2 U	ug/L	10	2	1	01/08/13 15:03	1/7/13	
Silver, Total Recoverable	6010B	2 U	ug/L	10	2	1	01/07/13 17:29	1/7/13	
Sodium, Dissolved	6010B	0.03 J	mg/L	0.50	0.03	1	01/08/13 15:02	1/7/13	
Sodium, Total Recoverable	6010B	0.11 J	mg/L	0.50	0.03	1	01/07/13 17:28	1/7/13	
Thallium, Dissolved	6020	0.05 U	ug/L	0.20	0.05	1	01/08/13 19:16	1/7/13	
Thallium, Total Recoverable	6020	0.05 U	ug/L	0.20	0.05	1	01/08/13 16:45	1/7/13	
Vanadium, Dissolved	6010B	2 U	ug/L	20	2	1	01/08/13 15:03	1/7/13	
Vanadium, Total Recoverable	6010B	2 J	ug/L	20	2	1	01/07/13 17:29	1/7/13	

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Analytical Report

Zinc, Dissolved	6010B	3 J	ug/L	20	2	1	01/08/13 15:03	1/7/13
Zinc, Total Recoverable	6010B	2 U	ug/L	20	2	1	01/07/13 17:29	1/7/13

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Water

Service Request: J1300079
Date Collected: 01/03/13 10:45
Date Received: 01/04/13 14:16

Sample Name: B430-EB-01
Lab Code: J1300079-017

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Benzene	0.21 U	1.0	0.21	1	01/07/13 15:57	
Ethylbenzene	0.21 U	1.0	0.21	1	01/07/13 15:57	
m,p-Xylenes	0.31 U	2.0	0.31	1	01/07/13 15:57	
o-Xylene	0.14 U	1.0	0.14	1	01/07/13 15:57	
Toluene	0.19 U	1.0	0.19	1	01/07/13 15:57	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	110	72 - 121	01/07/13 15:57	
4-Bromofluorobenzene	98	86 - 113	01/07/13 15:57	
Dibromofluoromethane	106	86 - 112	01/07/13 15:57	
Toluene-d8	95	88 - 115	01/07/13 15:57	

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Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Water

Service Request: J1300079
Date Collected: 01/03/13 10:45
Date Received: 01/04/13 14:16

Sample Name: B430-EB-01
Lab Code: J1300079-017

Units: ug/L
Basis: NA

Base Neutral Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270C SIM
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1-Methylnaphthalene	0.0489 U	0.111	0.0489	1	01/10/13 02:26	1/8/13	
2-Methylnaphthalene	0.0489 U	0.111	0.0489	1	01/10/13 02:26	1/8/13	
Acenaphthene	0.0456 U	0.111	0.0456	1	01/10/13 02:26	1/8/13	
Acenaphthylene	0.0278 U	0.111	0.0278	1	01/10/13 02:26	1/8/13	
Anthracene	0.0423 U	0.111	0.0423	1	01/10/13 02:26	1/8/13	
Benz(a)anthracene	0.0389 U	0.111	0.0389	1	01/10/13 02:26	1/8/13	
Benzo(a)pyrene	0.0345 U	0.111	0.0345	1	01/10/13 02:26	1/8/13	
Benzo(b)fluoranthene	0.0278 U	0.111	0.0278	1	01/10/13 02:26	1/8/13	
Benzo(g,h,i)perylene	0.0434 U	0.111	0.0434	1	01/10/13 02:26	1/8/13	
Benzo(k)fluoranthene	0.0389 U	0.111	0.0389	1	01/10/13 02:26	1/8/13	
Chrysene	0.0267 U	0.111	0.0267	1	01/10/13 02:26	1/8/13	
Dibenz(a,h)anthracene	0.0400 U	0.111	0.0400	1	01/10/13 02:26	1/8/13	
Fluoranthene	0.0434 U	0.111	0.0434	1	01/10/13 02:26	1/8/13	
Fluorene	0.0523 U	0.111	0.0523	1	01/10/13 02:26	1/8/13	
Indeno(1,2,3-cd)pyrene	0.0445 U	0.111	0.0445	1	01/10/13 02:26	1/8/13	
Naphthalene	0.0434 U	0.111	0.0434	1	01/10/13 02:26	1/8/13	
Phenanthrene	0.0389 U	0.111	0.0389	1	01/10/13 02:26	1/8/13	
Pyrene	0.0345 U	0.111	0.0345	1	01/10/13 02:26	1/8/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	79	22 - 105	01/10/13 02:26	
p-Terphenyl-d14	100	25 - 127	01/10/13 02:26	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Water

Service Request: J1300079
Date Collected: 01/03/13 10:45
Date Received: 01/04/13 14:16

Sample Name: B430-EB-01
Lab Code: J1300079-017

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Dissolved	6010B	120	ug/L	100	20	1	01/08/13 15:31	1/7/13	
Aluminum, Total Recoverable	6010B	20 U	ug/L	100	20	1	01/07/13 17:33	1/7/13	
Antimony, Dissolved	6020	0.2 U	ug/L	1.0	0.2	1	01/08/13 19:21	1/7/13	
Antimony, Total Recoverable	6020	0.2 U	ug/L	1.0	0.2	1	01/08/13 17:00	1/7/13	
Arsenic, Dissolved	6010B	4 U	ug/L	10	4	1	01/08/13 15:32	1/7/13	
Arsenic, Total Recoverable	6010B	4 U	ug/L	10	4	1	01/07/13 17:34	1/7/13	
Barium, Dissolved	6010B	1 J	ug/L	10	0.3	1	01/08/13 15:32	1/7/13	
Barium, Total Recoverable	6010B	0.3 U	ug/L	10	0.3	1	01/07/13 17:34	1/7/13	
Beryllium, Dissolved	6010B	0.2 U	ug/L	4.0	0.2	1	01/08/13 15:32	1/7/13	
Beryllium, Total Recoverable	6010B	0.2 U	ug/L	4.0	0.2	1	01/07/13 17:34	1/7/13	
Cadmium, Dissolved	6010B	0.2 U	ug/L	5.0	0.2	1	01/08/13 15:32	1/7/13	
Cadmium, Total Recoverable	6010B	0.2 U	ug/L	5.0	0.2	1	01/07/13 17:34	1/7/13	
Calcium, Dissolved	6010B	0.21	mg/L	0.10	0.02	1	01/08/13 15:31	1/7/13	
Calcium, Total Recoverable	6010B	0.02 U	mg/L	0.10	0.02	1	01/07/13 17:33	1/7/13	
Chromium, Dissolved	6010B	0.5 U	ug/L	10	0.5	1	01/08/13 15:32	1/7/13	
Chromium, Total Recoverable	6010B	3 J	ug/L	10	0.5	1	01/07/13 17:34	1/7/13	
Cobalt, Dissolved	6010B	2 U	ug/L	10	2	1	01/08/13 15:32	1/7/13	
Cobalt, Total Recoverable	6010B	2 U	ug/L	10	2	1	01/07/13 17:34	1/7/13	
Copper, Dissolved	6010B	2 U	ug/L	10	2	1	01/08/13 15:32	1/7/13	
Copper, Total Recoverable	6010B	2 U	ug/L	10	2	1	01/07/13 17:34	1/7/13	
Iron, Dissolved	6010B	9 J	ug/L	100	3	1	01/08/13 15:31	1/7/13	
Iron, Total Recoverable	6010B	70 J	ug/L	100	3	1	01/07/13 17:33	1/7/13	
Lead, Dissolved	6010B	4 U	ug/L	10	4	1	01/08/13 15:32	1/7/13	
Lead, Total Recoverable	6010B	4 U	ug/L	10	4	1	01/07/13 17:34	1/7/13	
Magnesium, Dissolved	6010B	0.05 J	mg/L	0.10	0.02	1	01/08/13 15:31	1/7/13	
Magnesium, Total Recoverable	6010B	0.02 U	mg/L	0.10	0.02	1	01/07/13 17:33	1/7/13	
Manganese, Dissolved	6010B	3 U	ug/L	10	3	1	01/08/13 15:32	1/7/13	
Manganese, Total Recoverable	6010B	3 J	ug/L	10	3	1	01/07/13 17:34	1/7/13	
Mercury, Dissolved	7470A	0.02 U	ug/L	0.10	0.02	1	01/08/13 11:34	1/7/13	
Mercury, Total	7470A	0.02 U	ug/L	0.10	0.02	1	01/08/13 11:08	1/7/13	
Nickel, Dissolved	6010B	0.6 U	ug/L	10	0.6	1	01/08/13 15:32	1/7/13	
Nickel, Total Recoverable	6010B	0.6 U	ug/L	10	0.6	1	01/07/13 17:34	1/7/13	
Potassium, Dissolved	6010B	0.09 U	mg/L	2.0	0.09	1	01/08/13 15:31	1/7/13	
Potassium, Total Recoverable	6010B	0.09 U	mg/L	2.0	0.09	1	01/07/13 17:33	1/7/13	
Selenium, Dissolved	6020	1.1 U	ug/L	2.0	1.1	1	01/08/13 19:21	1/7/13	
Selenium, Total Recoverable	6020	1.1 U	ug/L	2.0	1.1	1	01/08/13 17:00	1/7/13	
Silver, Dissolved	6010B	2 U	ug/L	10	2	1	01/08/13 15:32	1/7/13	
Silver, Total Recoverable	6010B	2 U	ug/L	10	2	1	01/07/13 17:34	1/7/13	
Sodium, Dissolved	6010B	0.03 J	mg/L	0.50	0.03	1	01/08/13 15:31	1/7/13	
Sodium, Total Recoverable	6010B	0.11 J	mg/L	0.50	0.03	1	01/07/13 17:33	1/7/13	
Thallium, Dissolved	6020	0.05 U	ug/L	0.20	0.05	1	01/08/13 19:21	1/7/13	
Thallium, Total Recoverable	6020	0.05 U	ug/L	0.20	0.05	1	01/08/13 17:00	1/7/13	
Vanadium, Dissolved	6010B	2 U	ug/L	20	2	1	01/08/13 15:32	1/7/13	
Vanadium, Total Recoverable	6010B	2 J	ug/L	20	2	1	01/07/13 17:34	1/7/13	

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Analytical Report

Zinc, Dissolved	6010B	13 J	ug/L	20	2	1	01/08/13 15:32	1/7/13
Zinc, Total Recoverable	6010B	2 U	ug/L	20	2	1	01/07/13 17:34	1/7/13

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 15:45
Date Received: 01/04/13 14:16

Sample Name: B430-B-11 (7.5-10)
Lab Code: J1300079-018

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260B
Prep Method: EPA 5035

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Benzene	18.8 U	552	18.8	100	01/10/13 16:18	1/10/13	
Ethylbenzene	541 J	552	13.3	100	01/10/13 16:18	1/10/13	
m,p-Xylenes	3760	1100	23.2	100	01/10/13 16:18	1/10/13	
o-Xylene	2460	552	17.7	100	01/10/13 16:18	1/10/13	
Toluene	137 J	552	29.9	100	01/10/13 16:18	1/10/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	95	80 - 120	01/10/13 16:18	
4-Bromofluorobenzene	98	64 - 135	01/10/13 16:18	
Dibromofluoromethane	94	74 - 125	01/10/13 16:18	
Toluene-d8	100	46 - 156	01/10/13 16:18	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 15:45
Date Received: 01/04/13 14:16

Sample Name: B430-B-11 (7.5-10)
Lab Code: J1300079-018

Units: ug/Kg
Basis: Dry

Base Neutral Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270C SIM
Prep Method: EPA 3550C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1-Methylnaphthalene	534	3.83	3.05	1	01/15/13 17:46	1/15/13	
2-Methylnaphthalene	1140	19.1	13.0	5	01/16/13 12:50	1/15/13	
Acenaphthene	3.50 U	7.66	3.50	1	01/15/13 17:46	1/15/13	
Acenaphthylene	2.48 U	7.66	2.48	1	01/15/13 17:46	1/15/13	
Anthracene	1.81 U	3.83	1.81	1	01/15/13 17:46	1/15/13	
Benz(a)anthracene	2.14 U	3.83	2.14	1	01/15/13 17:46	1/15/13	
Benzo(a)pyrene	1.13 U	3.83	1.13	1	01/15/13 17:46	1/15/13	
Benzo(b)fluoranthene	2.26 U	3.83	2.26	1	01/15/13 17:46	1/15/13	
Benzo(g,h,i)perylene	2.48 U	3.83	2.48	1	01/15/13 17:46	1/15/13	
Benzo(k)fluoranthene	2.71 U	3.83	2.71	1	01/15/13 17:46	1/15/13	
Chrysene	2.14 U	3.83	2.14	1	01/15/13 17:46	1/15/13	
Dibenz(a,h)anthracene	3.05 U	3.83	3.05	1	01/15/13 17:46	1/15/13	
Fluoranthene	3.54 BJ	3.83	2.26	1	01/15/13 17:46	1/15/13	
Fluorene	7.45	3.83	2.48	1	01/15/13 17:46	1/15/13	
Indeno(1,2,3-cd)pyrene	2.48 U	3.83	2.48	1	01/15/13 17:46	1/15/13	
Naphthalene	1330	19.1	17.5	5	01/16/13 12:50	1/15/13	
Phenanthrene	11.5 B	7.66	1.92	1	01/15/13 17:46	1/15/13	
Pyrene	3.51 J	3.83	2.26	1	01/15/13 17:46	1/15/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	51	30 - 118	01/15/13 17:46	
p-Terphenyl-d14	77	41 - 146	01/15/13 17:46	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 15:45
Date Received: 01/04/13 14:16

Sample Name: B430-B-11 (7.5-10)
Lab Code: J1300079-018

Basis: Dry

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total Recoverable	6010B	3310	mg/Kg	5.1	0.9	1	01/08/13 23:04	1/8/13	
Antimony, Total Recoverable	6010B	0.21 J	mg/Kg	0.51	0.08	1	01/08/13 23:06	1/8/13	
Arsenic, Total Recoverable	6010B	0.31 J	mg/Kg	0.51	0.12	1	01/08/13 23:06	1/8/13	
Barium, Total Recoverable	6010B	1.34	mg/Kg	0.51	0.03	1	01/08/13 23:06	1/8/13	
Beryllium, Total Recoverable	6010B	0.10 J	mg/Kg	0.21	0.009	1	01/08/13 23:05	1/8/13	
Cadmium, Total Recoverable	6010B	0.05 J	mg/Kg	0.26	0.008	1	01/08/13 23:06	1/8/13	
Calcium, Total Recoverable	6010B	896	mg/Kg	5.1	1.1	1	01/08/13 23:04	1/8/13	
Chromium, Total Recoverable	6010B	10.5	mg/Kg	0.51	0.02	1	01/08/13 23:06	1/8/13	
Cobalt, Total Recoverable	6010B	0.05 U	mg/Kg	0.51	0.05	1	01/08/13 23:06	1/8/13	
Copper, Total Recoverable	6010B	2.26	mg/Kg	0.51	0.07	1	01/08/13 23:05	1/8/13	
Iron, Total Recoverable	6010B	304	mg/Kg	5.1	0.6	1	01/08/13 23:05	1/8/13	
Lead, Total Recoverable	6010B	15.2	mg/Kg	0.51	0.14	1	01/08/13 23:06	1/8/13	
Magnesium, Total Recoverable	6010B	12.0	mg/Kg	5.1	0.7	1	01/08/13 23:05	1/8/13	
Manganese, Total Recoverable	6010B	1.39	mg/Kg	0.51	0.009	1	01/08/13 23:05	1/8/13	
Mercury	7471A	0.0614	mg/Kg	0.0074	0.0012	1	01/08/13 13:23	1/7/13	
Nickel, Total Recoverable	6010B	0.31 J	mg/Kg	0.51	0.04	1	01/08/13 23:06	1/8/13	
Potassium, Total Recoverable	6010B	20 J	mg/Kg	100	4	1	01/08/13 23:04	1/8/13	
Selenium, Total Recoverable	6010B	0.28 U	mg/Kg	0.51	0.28	1	01/08/13 23:06	1/8/13	
Silver, Total Recoverable	6010B	0.05 U	mg/Kg	0.51	0.05	1	01/08/13 23:05	1/8/13	
Sodium, Total Recoverable	6010B	260	mg/Kg	26	2	1	01/08/13 23:04	1/8/13	
Thallium, Total Recoverable	6010B	0.11 U	mg/Kg	0.51	0.11	1	01/08/13 23:06	1/8/13	
Vanadium, Total Recoverable	6010B	1.6	mg/Kg	1.0	0.2	1	01/08/13 23:05	1/8/13	
Zinc, Total Recoverable	6010B	1.0 J	mg/Kg	1.0	0.2	1	01/08/13 23:06	1/8/13	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 15:50
Date Received: 01/04/13 14:16

Sample Name: B430-B-11 (10-12.5)
Lab Code: J1300079-019

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260B
Prep Method: EPA 5035

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Benzene	4.13 U	121	4.13	20	01/10/13 16:44	1/10/13	
Ethylbenzene	1200	121	2.91	20	01/10/13 16:44	1/10/13	
m,p-Xylenes	9380	242	5.10	20	01/10/13 16:44	1/10/13	
o-Xylene	6410	606	19.4	100	01/17/13 14:11	1/17/13	
Toluene	399	121	6.55	20	01/10/13 16:44	1/10/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	111	80 - 120	01/10/13 16:44	
4-Bromofluorobenzene	106	64 - 135	01/10/13 16:44	
Dibromofluoromethane	94	74 - 125	01/10/13 16:44	
Toluene-d8	97	46 - 156	01/10/13 16:44	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 15:50
Date Received: 01/04/13 14:16

Sample Name: B430-B-11 (10-12.5)
Lab Code: J1300079-019

Units: ug/Kg
Basis: Dry

Base Neutral Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270C SIM
Prep Method: EPA 3550C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1-Methylnaphthalene	230	4.64	3.69	1	01/12/13 07:30	1/8/13	
2-Methylnaphthalene	366	4.64	3.15	1	01/12/13 07:30	1/8/13	
Acenaphthene	4.24 U	9.29	4.24	1	01/12/13 07:30	1/8/13	
Acenaphthylene	3.01 U	9.29	3.01	1	01/12/13 07:30	1/8/13	
Anthracene	2.19 U	4.64	2.19	1	01/12/13 07:30	1/8/13	
Benz(a)anthracene	2.60 U	4.64	2.60	1	01/12/13 07:30	1/8/13	
Benzo(a)pyrene	9.53	4.64	1.37	1	01/12/13 07:30	1/8/13	
Benzo(b)fluoranthene	4.10 J	4.64	2.74	1	01/12/13 07:30	1/8/13	
Benzo(g,h,i)perylene	3.01 U	4.64	3.01	1	01/12/13 07:30	1/8/13	
Benzo(k)fluoranthene	3.28 U	4.64	3.28	1	01/12/13 07:30	1/8/13	
Chrysene	2.60 U	4.64	2.60	1	01/12/13 07:30	1/8/13	
Dibenz(a,h)anthracene	3.69 U	4.64	3.69	1	01/12/13 07:30	1/8/13	
Fluoranthene	2.74 U	4.64	2.74	1	01/12/13 07:30	1/8/13	
Fluorene	5.92	4.64	3.01	1	01/12/13 07:30	1/8/13	
Indeno(1,2,3-cd)pyrene	3.01 U	4.64	3.01	1	01/12/13 07:30	1/8/13	
Naphthalene	376	4.64	4.24	1	01/12/13 07:30	1/8/13	
Phenanthrene	5.13 J	9.29	2.33	1	01/12/13 07:30	1/8/13	
Pyrene	2.74 U	4.64	2.74	1	01/12/13 07:30	1/8/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	49	30 - 118	01/12/13 07:30	
p-Terphenyl-d14	59	41 - 146	01/12/13 07:30	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 15:50
Date Received: 01/04/13 14:16

Sample Name: B430-B-11 (10-12.5)
Lab Code: J1300079-019

Basis: Dry

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total Recoverable	6010B	8060	mg/Kg	5.9	1.0	1	01/08/13 23:09	1/8/13	
Antimony, Total Recoverable	6010B	0.47 J	mg/Kg	0.59	0.09	1	01/08/13 23:10	1/8/13	
Arsenic, Total Recoverable	6010B	0.14 U	mg/Kg	0.59	0.14	1	01/08/13 23:10	1/8/13	
Barium, Total Recoverable	6010B	1.47	mg/Kg	0.59	0.04	1	01/08/13 23:10	1/8/13	
Beryllium, Total Recoverable	6010B	0.06 J	mg/Kg	0.23	0.010	1	01/08/13 23:10	1/8/13	
Cadmium, Total Recoverable	6010B	0.06 J	mg/Kg	0.29	0.009	1	01/08/13 23:10	1/8/13	
Calcium, Total Recoverable	6010B	105	mg/Kg	5.9	1.3	1	01/08/13 23:09	1/8/13	
Chromium, Total Recoverable	6010B	5.33	mg/Kg	0.59	0.03	1	01/08/13 23:10	1/8/13	
Cobalt, Total Recoverable	6010B	0.05 U	mg/Kg	0.59	0.05	1	01/08/13 23:10	1/8/13	
Copper, Total Recoverable	6010B	2.05	mg/Kg	0.59	0.08	1	01/08/13 23:10	1/8/13	
Iron, Total Recoverable	6010B	62.4	mg/Kg	5.9	0.7	1	01/08/13 23:09	1/8/13	
Lead, Total Recoverable	6010B	5.98	mg/Kg	0.59	0.16	1	01/08/13 23:10	1/8/13	
Magnesium, Total Recoverable	6010B	20.5	mg/Kg	5.9	0.8	1	01/08/13 23:09	1/8/13	
Manganese, Total Recoverable	6010B	0.70	mg/Kg	0.59	0.010	1	01/08/13 23:10	1/8/13	
Mercury	7471A	0.0532	mg/Kg	0.0080	0.0012	1	01/08/13 13:25	1/7/13	
Nickel, Total Recoverable	6010B	0.35 J	mg/Kg	0.59	0.04	1	01/08/13 23:10	1/8/13	
Potassium, Total Recoverable	6010B	30 J	mg/Kg	120	5	1	01/08/13 23:09	1/8/13	
Selenium, Total Recoverable	6010B	1.29	mg/Kg	0.59	0.32	1	01/08/13 23:10	1/8/13	
Silver, Total Recoverable	6010B	0.06 U	mg/Kg	0.59	0.06	1	01/08/13 23:10	1/8/13	
Sodium, Total Recoverable	6010B	228	mg/Kg	29	2	1	01/08/13 23:09	1/8/13	
Thallium, Total Recoverable	6010B	0.13 U	mg/Kg	0.59	0.13	1	01/08/13 23:10	1/8/13	
Vanadium, Total Recoverable	6010B	5.0	mg/Kg	1.2	0.2	1	01/08/13 23:10	1/8/13	
Zinc, Total Recoverable	6010B	0.8 J	mg/Kg	1.2	0.2	1	01/08/13 23:10	1/8/13	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 16:10
Date Received: 01/04/13 14:16

Sample Name: B430-B-12 (5-7.5)
Lab Code: J1300079-020

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260B
Prep Method: EPA 5035

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Benzene	0.435 J	5.18	0.177	1	01/10/13 17:11	1/10/13	
Ethylbenzene	1.18 J	5.18	0.125	1	01/10/13 17:11	1/10/13	
m,p-Xylenes	3.61 J	10.4	0.218	1	01/10/13 17:11	1/10/13	
o-Xylene	2.81 J	5.18	0.166	1	01/10/13 17:11	1/10/13	
Toluene	1.52 J	5.18	0.280	1	01/10/13 17:11	1/10/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	94	80 - 120	01/10/13 17:11	
4-Bromofluorobenzene	98	64 - 135	01/10/13 17:11	
Dibromofluoromethane	93	74 - 125	01/10/13 17:11	
Toluene-d8	104	46 - 156	01/10/13 17:11	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 16:10
Date Received: 01/04/13 14:16

Sample Name: B430-B-12 (5-7.5)
Lab Code: J1300079-020

Units: ug/Kg
Basis: Dry

Base Neutral Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270C SIM
Prep Method: EPA 3550C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1-Methylnaphthalene	40.3	3.28	2.70	1	01/12/13 07:53	1/8/13	
2-Methylnaphthalene	49.9	3.28	2.30	1	01/12/13 07:53	1/8/13	
Acenaphthene	3.10 U	6.55	3.10	1	01/12/13 07:53	1/8/13	
Acenaphthylene	2.20 U	6.55	2.20	1	01/12/13 07:53	1/8/13	
Anthracene	1.60 U	3.28	1.60	1	01/12/13 07:53	1/8/13	
Benz(a)anthracene	9.50 U	16.4	9.50	5	01/14/13 17:08	1/8/13	
Benzo(a)pyrene	5.00 U	16.4	5.00	5	01/14/13 17:08	1/8/13	
Benzo(b)fluoranthene	10.0 U	16.4	10.0	5	01/14/13 17:08	1/8/13	
Benzo(g,h,i)perylene	11.0 U	16.4	11.0	5	01/14/13 17:08	1/8/13	
Benzo(k)fluoranthene	12.0 U	16.4	12.0	5	01/14/13 17:08	1/8/13	
Chrysene	9.50 U	16.4	9.50	5	01/14/13 17:08	1/8/13	
Dibenz(a,h)anthracene	13.5 U	16.4	13.5	5	01/14/13 17:08	1/8/13	
Fluoranthene	2.00 U	3.28	2.00	1	01/12/13 07:53	1/8/13	
Fluorene	2.20 U	3.28	2.20	1	01/12/13 07:53	1/8/13	
Indeno(1,2,3-cd)pyrene	11.0 U	16.4	11.0	5	01/14/13 17:08	1/8/13	
Naphthalene	8.28	3.28	3.10	1	01/12/13 07:53	1/8/13	
Phenanthrene	1.70 U	6.55	1.70	1	01/12/13 07:53	1/8/13	
Pyrene	10.0 U	16.4	10.0	5	01/14/13 17:08	1/8/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	43	30 - 118	01/12/13 07:53	
p-Terphenyl-d14	52	41 - 146	01/14/13 17:08	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 16:10
Date Received: 01/04/13 14:16

Sample Name: B430-B-12 (5-7.5)
Lab Code: J1300079-020

Basis: Dry

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total Recoverable	6010B	5350	mg/Kg	5.3	0.9	1	01/08/13 23:13	1/8/13	
Antimony, Total Recoverable	6010B	0.37 J	mg/Kg	0.53	0.08	1	01/08/13 23:14	1/8/13	
Arsenic, Total Recoverable	6010B	0.32 J	mg/Kg	0.53	0.13	1	01/08/13 23:14	1/8/13	
Barium, Total Recoverable	6010B	9.34	mg/Kg	0.53	0.03	1	01/08/13 23:14	1/8/13	
Beryllium, Total Recoverable	6010B	0.009 U	mg/Kg	0.21	0.009	1	01/08/13 23:14	1/8/13	
Cadmium, Total Recoverable	6010B	0.05 J	mg/Kg	0.27	0.008	1	01/08/13 23:14	1/8/13	
Calcium, Total Recoverable	6010B	354	mg/Kg	5.3	1.2	1	01/08/13 23:13	1/8/13	
Chromium, Total Recoverable	6010B	6.61	mg/Kg	0.53	0.03	1	01/08/13 23:14	1/8/13	
Cobalt, Total Recoverable	6010B	0.48 J	mg/Kg	0.53	0.05	1	01/08/13 23:14	1/8/13	
Copper, Total Recoverable	6010B	0.85	mg/Kg	0.53	0.07	1	01/08/13 23:14	1/8/13	
Iron, Total Recoverable	6010B	1520	mg/Kg	5.3	0.7	1	01/08/13 23:13	1/8/13	
Lead, Total Recoverable	6010B	3.73	mg/Kg	0.53	0.14	1	01/08/13 23:14	1/8/13	
Magnesium, Total Recoverable	6010B	217	mg/Kg	5.3	0.7	1	01/08/13 23:13	1/8/13	
Manganese, Total Recoverable	6010B	6.13	mg/Kg	0.53	0.009	1	01/08/13 23:14	1/8/13	
Mercury	7471A	0.0186	mg/Kg	0.0067	0.0010	1	01/08/13 13:27	1/7/13	
Nickel, Total Recoverable	6010B	2.03	mg/Kg	0.53	0.04	1	01/08/13 23:14	1/8/13	
Potassium, Total Recoverable	6010B	100 J	mg/Kg	110	4	1	01/08/13 23:13	1/8/13	
Selenium, Total Recoverable	6010B	0.29 U	mg/Kg	0.53	0.29	1	01/08/13 23:14	1/8/13	
Silver, Total Recoverable	6010B	0.05 U	mg/Kg	0.53	0.05	1	01/08/13 23:14	1/8/13	
Sodium, Total Recoverable	6010B	11 J	mg/Kg	27	2	1	01/08/13 23:13	1/8/13	
Thallium, Total Recoverable	6010B	0.11 U	mg/Kg	0.53	0.11	1	01/08/13 23:14	1/8/13	
Vanadium, Total Recoverable	6010B	6.5	mg/Kg	1.1	0.2	1	01/08/13 23:14	1/8/13	
Zinc, Total Recoverable	6010B	2.3	mg/Kg	1.1	0.2	1	01/08/13 23:14	1/8/13	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 16:15
Date Received: 01/04/13 14:16

Sample Name: B430-B-12 (12.5-15)
Lab Code: J1300079-021

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260B
Prep Method: EPA 5035

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Benzene	579	324	11.1	50	01/11/13 17:46	1/11/13	
Ethylbenzene	865	324	7.79	50	01/11/13 17:46	1/11/13	
m,p-Xylenes	3790	648	13.7	50	01/11/13 17:46	1/11/13	
o-Xylene	2400	324	10.4	50	01/11/13 17:46	1/11/13	
Toluene	223 J	324	17.6	50	01/11/13 17:46	1/11/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	99	80 - 120	01/11/13 17:46	
4-Bromofluorobenzene	93	64 - 135	01/11/13 17:46	
Dibromofluoromethane	96	74 - 125	01/11/13 17:46	
Toluene-d8	99	46 - 156	01/11/13 17:46	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 16:15
Date Received: 01/04/13 14:16

Sample Name: B430-B-12 (12.5-15)
Lab Code: J1300079-021

Units: ug/Kg
Basis: Dry

Base Neutral Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270C SIM
Prep Method: EPA 3550C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1-Methylnaphthalene	3.78 U	4.76	3.78	1	01/12/13 08:16	1/8/13	
2-Methylnaphthalene	4.36 J	4.76	3.22	1	01/12/13 08:16	1/8/13	
Acenaphthene	4.34 U	9.51	4.34	1	01/12/13 08:16	1/8/13	
Acenaphthylene	3.08 U	9.51	3.08	1	01/12/13 08:16	1/8/13	
Anthracene	2.24 U	4.76	2.24	1	01/12/13 08:16	1/8/13	
Benz(a)anthracene	2.66 U	4.76	2.66	1	01/12/13 08:16	1/8/13	
Benzo(a)pyrene	1.40 U	4.76	1.40	1	01/12/13 08:16	1/8/13	
Benzo(b)fluoranthene	2.80 U	4.76	2.80	1	01/12/13 08:16	1/8/13	
Benzo(g,h,i)perylene	3.08 U	4.76	3.08	1	01/12/13 08:16	1/8/13	
Benzo(k)fluoranthene	3.36 U	4.76	3.36	1	01/12/13 08:16	1/8/13	
Chrysene	2.66 U	4.76	2.66	1	01/12/13 08:16	1/8/13	
Dibenz(a,h)anthracene	3.78 U	4.76	3.78	1	01/12/13 08:16	1/8/13	
Fluoranthene	2.80 U	4.76	2.80	1	01/12/13 08:16	1/8/13	
Fluorene	3.08 U	4.76	3.08	1	01/12/13 08:16	1/8/13	
Indeno(1,2,3-cd)pyrene	3.08 U	4.76	3.08	1	01/12/13 08:16	1/8/13	
Naphthalene	56.0	4.76	4.34	1	01/12/13 08:16	1/8/13	
Phenanthrene	2.38 U	9.51	2.38	1	01/12/13 08:16	1/8/13	
Pyrene	2.80 U	4.76	2.80	1	01/12/13 08:16	1/8/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	57	30 - 118	01/12/13 08:16	
p-Terphenyl-d14	65	41 - 146	01/12/13 08:16	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 16:15
Date Received: 01/04/13 14:16

Sample Name: B430-B-12 (12.5-15)
Lab Code: J1300079-021

Basis: Dry

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total Recoverable	6010B	11700	mg/Kg	5.8	1.0	1	01/08/13 23:17	1/8/13	
Antimony, Total Recoverable	6010B	0.46 J	mg/Kg	0.58	0.09	1	01/08/13 23:19	1/8/13	
Arsenic, Total Recoverable	6010B	0.23 J	mg/Kg	0.58	0.14	1	01/08/13 23:19	1/8/13	
Barium, Total Recoverable	6010B	1.79	mg/Kg	0.58	0.04	1	01/08/13 23:19	1/8/13	
Beryllium, Total Recoverable	6010B	0.06 J	mg/Kg	0.23	0.010	1	01/08/13 23:18	1/8/13	
Cadmium, Total Recoverable	6010B	0.06 J	mg/Kg	0.29	0.009	1	01/08/13 23:19	1/8/13	
Calcium, Total Recoverable	6010B	12.1	mg/Kg	5.8	1.3	1	01/08/13 23:18	1/8/13	
Chromium, Total Recoverable	6010B	6.54	mg/Kg	0.58	0.03	1	01/08/13 23:19	1/8/13	
Cobalt, Total Recoverable	6010B	0.05 U	mg/Kg	0.58	0.05	1	01/08/13 23:19	1/8/13	
Copper, Total Recoverable	6010B	3.41	mg/Kg	0.58	0.07	1	01/08/13 23:19	1/8/13	
Iron, Total Recoverable	6010B	89.6	mg/Kg	5.8	0.7	1	01/08/13 23:18	1/8/13	
Lead, Total Recoverable	6010B	9.38	mg/Kg	0.58	0.15	1	01/08/13 23:19	1/8/13	
Magnesium, Total Recoverable	6010B	23.6	mg/Kg	5.8	0.8	1	01/08/13 23:18	1/8/13	
Manganese, Total Recoverable	6010B	0.69	mg/Kg	0.58	0.010	1	01/08/13 23:19	1/8/13	
Mercury	7471A	0.0666	mg/Kg	0.0077	0.0012	1	01/08/13 13:29	1/7/13	
Nickel, Total Recoverable	6010B	0.46 J	mg/Kg	0.58	0.04	1	01/08/13 23:19	1/8/13	
Potassium, Total Recoverable	6010B	30 J	mg/Kg	120	5	1	01/08/13 23:17	1/8/13	
Selenium, Total Recoverable	6010B	3.53	mg/Kg	0.58	0.32	1	01/08/13 23:19	1/8/13	
Silver, Total Recoverable	6010B	0.06 U	mg/Kg	0.58	0.06	1	01/08/13 23:19	1/8/13	
Sodium, Total Recoverable	6010B	10 J	mg/Kg	29	2	1	01/08/13 23:17	1/8/13	
Thallium, Total Recoverable	6010B	0.12 U	mg/Kg	0.58	0.12	1	01/08/13 23:19	1/8/13	
Vanadium, Total Recoverable	6010B	6.9	mg/Kg	1.2	0.2	1	01/08/13 23:19	1/8/13	
Zinc, Total Recoverable	6010B	0.4 J	mg/Kg	1.2	0.2	1	01/08/13 23:19	1/8/13	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 16:40
Date Received: 01/04/13 14:16

Sample Name: B430-B-14 (5-7.5)
Lab Code: J1300079-022

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260B
Prep Method: EPA 5035

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Benzene	1.34 J	5.03	0.171	1	01/10/13 18:04	1/10/13	
Ethylbenzene	93.8	5.03	0.121	1	01/10/13 18:04	1/10/13	
m,p-Xylenes	170	10.1	0.212	1	01/10/13 18:04	1/10/13	
o-Xylene	85.5	5.03	0.161	1	01/10/13 18:04	1/10/13	
Toluene	3.58 J	5.03	0.272	1	01/10/13 18:04	1/10/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	99	80 - 120	01/10/13 18:04	
4-Bromofluorobenzene	144	64 - 135	01/10/13 18:04	*
Dibromofluoromethane	100	74 - 125	01/10/13 18:04	
Toluene-d8	97	46 - 156	01/10/13 18:04	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 16:40
Date Received: 01/04/13 14:16

Sample Name: B430-B-14 (5-7.5)
Lab Code: J1300079-022

Units: ug/Kg
Basis: Dry

Base Neutral Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270C SIM
Prep Method: EPA 3550C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1-Methylnaphthalene	1330	19.3	15.4	5	01/14/13 17:31	1/8/13	
2-Methylnaphthalene	1390	19.3	13.1	5	01/14/13 17:31	1/8/13	
Acenaphthene	14.8	7.73	3.53	1	01/12/13 08:39	1/8/13	
Acenaphthylene	8.52	7.73	2.51	1	01/12/13 08:39	1/8/13	
Anthracene	13.9	3.86	1.82	1	01/12/13 08:39	1/8/13	
Benz(a)anthracene	2.45 J	3.86	2.16	1	01/12/13 08:39	1/8/13	
Benzo(a)pyrene	1.14 U	3.86	1.14	1	01/12/13 08:39	1/8/13	
Benzo(b)fluoranthene	2.28 U	3.86	2.28	1	01/12/13 08:39	1/8/13	
Benzo(g,h,i)perylene	2.51 U	3.86	2.51	1	01/12/13 08:39	1/8/13	
Benzo(k)fluoranthene	2.73 U	3.86	2.73	1	01/12/13 08:39	1/8/13	
Chrysene	2.71 J	3.86	2.16	1	01/12/13 08:39	1/8/13	
Dibenz(a,h)anthracene	3.07 U	3.86	3.07	1	01/12/13 08:39	1/8/13	
Fluoranthene	9.10	3.86	2.28	1	01/12/13 08:39	1/8/13	
Fluorene	136	3.86	2.51	1	01/12/13 08:39	1/8/13	
Indeno(1,2,3-cd)pyrene	2.51 U	3.86	2.51	1	01/12/13 08:39	1/8/13	
Naphthalene	230	3.86	3.53	1	01/12/13 08:39	1/8/13	
Phenanthrene	33.6	7.73	1.94	1	01/12/13 08:39	1/8/13	
Pyrene	8.39	3.86	2.28	1	01/12/13 08:39	1/8/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	51	30 - 118	01/12/13 08:39	
p-Terphenyl-d14	69	41 - 146	01/12/13 08:39	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 16:40
Date Received: 01/04/13 14:16

Sample Name: B430-B-14 (5-7.5)
Lab Code: J1300079-022

Basis: Dry

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total Recoverable	6010B	3930	mg/Kg	5.2	0.9	1	01/08/13 23:27	1/8/13	
Antimony, Total Recoverable	6010B	0.26 J	mg/Kg	0.52	0.08	1	01/08/13 23:29	1/8/13	
Arsenic, Total Recoverable	6010B	0.42 J	mg/Kg	0.52	0.12	1	01/08/13 23:29	1/8/13	
Barium, Total Recoverable	6010B	2.97	mg/Kg	0.52	0.03	1	01/08/13 23:29	1/8/13	
Beryllium, Total Recoverable	6010B	0.05 J	mg/Kg	0.21	0.009	1	01/08/13 23:28	1/8/13	
Cadmium, Total Recoverable	6010B	0.05 J	mg/Kg	0.26	0.008	1	01/08/13 23:29	1/8/13	
Calcium, Total Recoverable	6010B	835	mg/Kg	5.2	1.1	1	01/08/13 23:27	1/8/13	
Chromium, Total Recoverable	6010B	7.82	mg/Kg	0.52	0.02	1	01/08/13 23:29	1/8/13	
Cobalt, Total Recoverable	6010B	0.10 J	mg/Kg	0.52	0.05	1	01/08/13 23:29	1/8/13	
Copper, Total Recoverable	6010B	1.46	mg/Kg	0.52	0.07	1	01/08/13 23:28	1/8/13	
Iron, Total Recoverable	6010B	949	mg/Kg	5.2	0.7	1	01/08/13 23:27	1/8/13	
Lead, Total Recoverable	6010B	6.20	mg/Kg	0.52	0.14	1	01/08/13 23:29	1/8/13	
Magnesium, Total Recoverable	6010B	46.2	mg/Kg	5.2	0.7	1	01/08/13 23:27	1/8/13	
Manganese, Total Recoverable	6010B	2.81	mg/Kg	0.52	0.009	1	01/08/13 23:28	1/8/13	
Mercury	7471A	0.0543	mg/Kg	0.0070	0.0011	1	01/08/13 13:31	1/7/13	
Nickel, Total Recoverable	6010B	0.47 J	mg/Kg	0.52	0.04	1	01/08/13 23:29	1/8/13	
Potassium, Total Recoverable	6010B	20 J	mg/Kg	100	4	1	01/08/13 23:27	1/8/13	
Selenium, Total Recoverable	6010B	0.29 U	mg/Kg	0.52	0.29	1	01/08/13 23:29	1/8/13	
Silver, Total Recoverable	6010B	0.05 U	mg/Kg	0.52	0.05	1	01/08/13 23:28	1/8/13	
Sodium, Total Recoverable	6010B	12 J	mg/Kg	26	2	1	01/08/13 23:27	1/8/13	
Thallium, Total Recoverable	6010B	0.11 U	mg/Kg	0.52	0.11	1	01/08/13 23:29	1/8/13	
Vanadium, Total Recoverable	6010B	3.6	mg/Kg	1.0	0.2	1	01/08/13 23:28	1/8/13	
Zinc, Total Recoverable	6010B	0.7 J	mg/Kg	1.0	0.2	1	01/08/13 23:29	1/8/13	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 16:45
Date Received: 01/04/13 14:16

Sample Name: B430-B-14 (10-12.5)
Lab Code: J1300079-023

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260B
Prep Method: EPA 5035

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Benzene	0.208 U	6.10	0.208	1	01/10/13 18:30	1/10/13	
Ethylbenzene	0.756 J	6.10	0.147	1	01/10/13 18:30	1/10/13	
m,p-Xylenes	2.15 J	12.2	0.257	1	01/10/13 18:30	1/10/13	
o-Xylene	0.988 J	6.10	0.196	1	01/10/13 18:30	1/10/13	
Toluene	1.46 J	6.10	0.330	1	01/10/13 18:30	1/10/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	93	80 - 120	01/10/13 18:30	
4-Bromofluorobenzene	105	64 - 135	01/10/13 18:30	
Dibromofluoromethane	96	74 - 125	01/10/13 18:30	
Toluene-d8	104	46 - 156	01/10/13 18:30	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 16:45
Date Received: 01/04/13 14:16

Sample Name: B430-B-14 (10-12.5)
Lab Code: J1300079-023

Units: ug/Kg
Basis: Dry

Base Neutral Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270C SIM
Prep Method: EPA 3550C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1-Methylnaphthalene	3.19 U	4.01	3.19	1	01/12/13 09:02	1/8/13	
2-Methylnaphthalene	3.77 J	4.01	2.72	1	01/12/13 09:02	1/8/13	
Acenaphthene	3.66 U	8.03	3.66	1	01/12/13 09:02	1/8/13	
Acenaphthylene	2.60 U	8.03	2.60	1	01/12/13 09:02	1/8/13	
Anthracene	1.89 U	4.01	1.89	1	01/12/13 09:02	1/8/13	
Benz(a)anthracene	2.25 U	4.01	2.25	1	01/12/13 09:02	1/8/13	
Benzo(a)pyrene	1.19 U	4.01	1.19	1	01/12/13 09:02	1/8/13	
Benzo(b)fluoranthene	2.37 U	4.01	2.37	1	01/12/13 09:02	1/8/13	
Benzo(g,h,i)perylene	2.60 U	4.01	2.60	1	01/12/13 09:02	1/8/13	
Benzo(k)fluoranthene	2.84 U	4.01	2.84	1	01/12/13 09:02	1/8/13	
Chrysene	2.25 U	4.01	2.25	1	01/12/13 09:02	1/8/13	
Dibenz(a,h)anthracene	3.19 U	4.01	3.19	1	01/12/13 09:02	1/8/13	
Fluoranthene	2.37 U	4.01	2.37	1	01/12/13 09:02	1/8/13	
Fluorene	2.60 U	4.01	2.60	1	01/12/13 09:02	1/8/13	
Indeno(1,2,3-cd)pyrene	2.60 U	4.01	2.60	1	01/12/13 09:02	1/8/13	
Naphthalene	3.66 U	4.01	3.66	1	01/12/13 09:02	1/8/13	
Phenanthrene	2.01 U	8.03	2.01	1	01/12/13 09:02	1/8/13	
Pyrene	2.72 J	4.01	2.37	1	01/12/13 09:02	1/8/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	56	30 - 118	01/12/13 09:02	
p-Terphenyl-d14	63	41 - 146	01/12/13 09:02	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 16:45
Date Received: 01/04/13 14:16

Sample Name: B430-B-14 (10-12.5)
Lab Code: J1300079-023

Basis: Dry

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total Recoverable	6010B	15800	mg/Kg	5.3	0.9	1	01/08/13 20:36	1/8/13	
Antimony, Total Recoverable	6010B	0.47 J	mg/Kg	0.53	0.08	1	01/08/13 20:38	1/8/13	
Arsenic, Total Recoverable	6010B	0.16 J	mg/Kg	0.53	0.13	1	01/08/13 20:38	1/8/13	
Barium, Total Recoverable	6010B	3.57	mg/Kg	0.53	0.03	1	01/08/13 20:38	1/8/13	
Beryllium, Total Recoverable	6010B	0.009 U	mg/Kg	0.21	0.009	1	01/08/13 20:38	1/8/13	
Cadmium, Total Recoverable	6010B	0.05 J	mg/Kg	0.26	0.008	1	01/08/13 20:38	1/8/13	
Calcium, Total Recoverable	6010B	11.4	mg/Kg	5.3	1.1	1	01/08/13 20:37	1/8/13	
Chromium, Total Recoverable	6010B	9.72	mg/Kg	0.53	0.03	1	01/08/13 20:38	1/8/13	
Cobalt, Total Recoverable	6010B	0.05 U	mg/Kg	0.53	0.05	1	01/08/13 20:38	1/8/13	
Copper, Total Recoverable	6010B	4.31	mg/Kg	0.53	0.07	1	01/08/13 20:38	1/8/13	
Iron, Total Recoverable	6010B	206	mg/Kg	5.3	0.7	1	01/08/13 20:37	1/8/13	
Lead, Total Recoverable	6010B	6.04	mg/Kg	0.53	0.14	1	01/08/13 20:38	1/8/13	
Magnesium, Total Recoverable	6010B	53.0	mg/Kg	5.3	0.7	1	01/08/13 20:37	1/8/13	
Manganese, Total Recoverable	6010B	1.16	mg/Kg	0.53	0.009	1	01/08/13 20:38	1/8/13	
Mercury	7471A	0.0851	mg/Kg	0.0079	0.0012	1	01/08/13 12:26	1/7/13	
Nickel, Total Recoverable	6010B	0.84	mg/Kg	0.53	0.04	1	01/08/13 20:38	1/8/13	
Potassium, Total Recoverable	6010B	60 J	mg/Kg	110	4	1	01/08/13 20:36	1/8/13	
Selenium, Total Recoverable	6010B	1.63	mg/Kg	0.53	0.29	1	01/08/13 20:38	1/8/13	
Silver, Total Recoverable	6010B	0.05 U	mg/Kg	0.53	0.05	1	01/08/13 20:38	1/8/13	
Sodium, Total Recoverable	6010B	8 J	mg/Kg	26	2	1	01/08/13 20:36	1/8/13	
Thallium, Total Recoverable	6010B	0.11 U	mg/Kg	0.53	0.11	1	01/08/13 20:38	1/8/13	
Vanadium, Total Recoverable	6010B	10.8	mg/Kg	1.1	0.2	1	01/08/13 20:38	1/8/13	
Zinc, Total Recoverable	6010B	0.6 J	mg/Kg	1.1	0.2	1	01/08/13 20:38	1/8/13	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 00:00
Date Received: 01/04/13 14:16

Sample Name: B430-DUP-02
Lab Code: J1300079-024

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260B
Prep Method: EPA 5035

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Benzene	334	177	8.50	50	01/11/13 18:13	1/11/13	
Ethylbenzene	402	177	6.00	50	01/11/13 18:13	1/11/13	
m,p-Xylenes	1760	353	10.5	50	01/11/13 18:13	1/11/13	
o-Xylene	1100	177	8.00	50	01/11/13 18:13	1/11/13	
Toluene	125 J	177	13.5	50	01/11/13 18:13	1/11/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	99	80 - 120	01/11/13 18:13	
4-Bromofluorobenzene	96	64 - 135	01/11/13 18:13	
Dibromofluoromethane	93	74 - 125	01/11/13 18:13	
Toluene-d8	100	46 - 156	01/11/13 18:13	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 00:00
Date Received: 01/04/13 14:16

Sample Name: B430-DUP-02
Lab Code: J1300079-024

Units: ug/Kg
Basis: Dry

Base Neutral Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270C SIM
Prep Method: EPA 3550C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1-Methylnaphthalene	3.65 U	4.59	3.65	1	01/12/13 09:25	1/8/13	
2-Methylnaphthalene	3.11 U	4.59	3.11	1	01/12/13 09:25	1/8/13	
Acenaphthene	4.19 U	9.17	4.19	1	01/12/13 09:25	1/8/13	
Acenaphthylene	2.97 U	9.17	2.97	1	01/12/13 09:25	1/8/13	
Anthracene	2.16 U	4.59	2.16	1	01/12/13 09:25	1/8/13	
Benz(a)anthracene	2.57 U	4.59	2.57	1	01/12/13 09:25	1/8/13	
Benzo(a)pyrene	1.35 U	4.59	1.35	1	01/12/13 09:25	1/8/13	
Benzo(b)fluoranthene	2.70 U	4.59	2.70	1	01/12/13 09:25	1/8/13	
Benzo(g,h,i)perylene	2.97 U	4.59	2.97	1	01/12/13 09:25	1/8/13	
Benzo(k)fluoranthene	3.24 U	4.59	3.24	1	01/12/13 09:25	1/8/13	
Chrysene	2.57 U	4.59	2.57	1	01/12/13 09:25	1/8/13	
Dibenz(a,h)anthracene	3.65 U	4.59	3.65	1	01/12/13 09:25	1/8/13	
Fluoranthene	2.70 U	4.59	2.70	1	01/12/13 09:25	1/8/13	
Fluorene	2.97 U	4.59	2.97	1	01/12/13 09:25	1/8/13	
Indeno(1,2,3-cd)pyrene	2.97 U	4.59	2.97	1	01/12/13 09:25	1/8/13	
Naphthalene	65.8	4.59	4.19	1	01/12/13 09:25	1/8/13	
Phenanthrene	2.30 U	9.17	2.30	1	01/12/13 09:25	1/8/13	
Pyrene	2.70 U	4.59	2.70	1	01/12/13 09:25	1/8/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	62	30 - 118	01/12/13 09:25	
p-Terphenyl-d14	70	41 - 146	01/12/13 09:25	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13 00:00
Date Received: 01/04/13 14:16

Sample Name: B430-DUP-02
Lab Code: J1300079-024

Basis: Dry

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total Recoverable	6010B	11000	mg/Kg	6.0	1.1	1	01/08/13 20:46	1/8/13	
Antimony, Total Recoverable	6010B	0.42 J	mg/Kg	0.60	0.09	1	01/08/13 20:48	1/8/13	
Arsenic, Total Recoverable	6010B	0.14 U	mg/Kg	0.60	0.14	1	01/08/13 20:48	1/8/13	
Barium, Total Recoverable	6010B	2.10	mg/Kg	0.60	0.04	1	01/08/13 20:48	1/8/13	
Beryllium, Total Recoverable	6010B	0.06 J	mg/Kg	0.24	0.010	1	01/08/13 20:47	1/8/13	
Cadmium, Total Recoverable	6010B	0.06 J	mg/Kg	0.30	0.009	1	01/08/13 20:48	1/8/13	
Calcium, Total Recoverable	6010B	16.3	mg/Kg	6.0	1.3	1	01/08/13 20:46	1/8/13	
Chromium, Total Recoverable	6010B	6.73	mg/Kg	0.60	0.03	1	01/08/13 20:48	1/8/13	
Cobalt, Total Recoverable	6010B	0.05 U	mg/Kg	0.60	0.05	1	01/08/13 20:48	1/8/13	
Copper, Total Recoverable	6010B	3.13	mg/Kg	0.60	0.08	1	01/08/13 20:47	1/8/13	
Iron, Total Recoverable	6010B	106	mg/Kg	6.0	0.7	1	01/08/13 20:46	1/8/13	
Lead, Total Recoverable	6010B	9.38	mg/Kg	0.60	0.16	1	01/08/13 20:48	1/8/13	
Magnesium, Total Recoverable	6010B	29.0	mg/Kg	6.0	0.8	1	01/08/13 20:46	1/8/13	
Manganese, Total Recoverable	6010B	0.90	mg/Kg	0.60	0.010	1	01/08/13 20:48	1/8/13	
Mercury	7471A	0.0646	mg/Kg	0.0077	0.0012	1	01/08/13 12:28	1/7/13	
Nickel, Total Recoverable	6010B	0.42 J	mg/Kg	0.60	0.05	1	01/08/13 20:48	1/8/13	
Potassium, Total Recoverable	6010B	40 J	mg/Kg	120	5	1	01/08/13 20:46	1/8/13	
Selenium, Total Recoverable	6010B	3.61	mg/Kg	0.60	0.33	1	01/08/13 20:48	1/8/13	
Silver, Total Recoverable	6010B	0.06 U	mg/Kg	0.60	0.06	1	01/08/13 20:47	1/8/13	
Sodium, Total Recoverable	6010B	14 J	mg/Kg	30	2	1	01/08/13 20:46	1/8/13	
Thallium, Total Recoverable	6010B	0.13 U	mg/Kg	0.60	0.13	1	01/08/13 20:48	1/8/13	
Vanadium, Total Recoverable	6010B	7.6	mg/Kg	1.2	0.2	1	01/08/13 20:47	1/8/13	
Zinc, Total Recoverable	6010B	0.8 J	mg/Kg	1.2	0.2	1	01/08/13 20:48	1/8/13	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Water

Service Request: J1300079
Date Collected: 01/03/13 00:00
Date Received: 01/04/13 14:16

Sample Name: Trip Blank
Lab Code: J1300079-025

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Benzene	0.21 U	1.0	0.21	1	01/07/13 16:24	
Ethylbenzene	0.21 U	1.0	0.21	1	01/07/13 16:24	
m,p-Xylenes	0.31 U	2.0	0.31	1	01/07/13 16:24	
o-Xylene	0.14 U	1.0	0.14	1	01/07/13 16:24	
Toluene	0.19 U	1.0	0.19	1	01/07/13 16:24	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	109	72 - 121	01/07/13 16:24	
4-Bromofluorobenzene	94	86 - 113	01/07/13 16:24	
Dibromofluoromethane	105	86 - 112	01/07/13 16:24	
Toluene-d8	94	88 - 115	01/07/13 16:24	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Water

Service Request: J1300079
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: JQ1300127-02

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260B

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Benzene	0.21 U	1.0	0.21	1	01/07/13 13:17	
Ethylbenzene	0.21 U	1.0	0.21	1	01/07/13 13:17	
m,p-Xylenes	0.31 U	2.0	0.31	1	01/07/13 13:17	
o-Xylene	0.14 U	1.0	0.14	1	01/07/13 13:17	
Toluene	0.19 U	1.0	0.19	1	01/07/13 13:17	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	107	72 - 121	01/07/13 13:17	
4-Bromofluorobenzene	95	86 - 113	01/07/13 13:17	
Dibromofluoromethane	102	86 - 112	01/07/13 13:17	
Toluene-d8	95	88 - 115	01/07/13 13:17	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: JQ1300148-04

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260B
Prep Method: EPA 5035

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Benzene	0.170 U	5.00	0.170	1	01/07/13 11:54	1/7/13	
Ethylbenzene	0.120 U	5.00	0.120	1	01/07/13 11:54	1/7/13	
m,p-Xylenes	0.210 U	10.0	0.210	1	01/07/13 11:54	1/7/13	
o-Xylene	0.160 U	5.00	0.160	1	01/07/13 11:54	1/7/13	
Toluene	0.270 U	5.00	0.270	1	01/07/13 11:54	1/7/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	103	80 - 120	01/07/13 11:54	
4-Bromofluorobenzene	96	64 - 135	01/07/13 11:54	
Dibromofluoromethane	101	74 - 125	01/07/13 11:54	
Toluene-d8	98	46 - 156	01/07/13 11:54	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: JQ1300194-03

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260B
Prep Method: EPA 5035

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Benzene	0.170 U	5.00	0.170	1	01/09/13 19:05	1/9/13	
Ethylbenzene	0.120 U	5.00	0.120	1	01/09/13 19:05	1/9/13	
m,p-Xylenes	0.210 U	10.0	0.210	1	01/09/13 19:05	1/9/13	
o-Xylene	0.160 U	5.00	0.160	1	01/09/13 19:05	1/9/13	
Toluene	0.270 U	5.00	0.270	1	01/09/13 19:05	1/9/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	100	80 - 120	01/09/13 19:05	
4-Bromofluorobenzene	97	64 - 135	01/09/13 19:05	
Dibromofluoromethane	98	74 - 125	01/09/13 19:05	
Toluene-d8	102	46 - 156	01/09/13 19:05	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: JQ1300219-04

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260B
Prep Method: EPA 5035

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Benzene	0.170 U	5.00	0.170	1	01/10/13 11:52	1/10/13	
Ethylbenzene	0.120 U	5.00	0.120	1	01/10/13 11:52	1/10/13	
m,p-Xylenes	0.210 U	10.0	0.210	1	01/10/13 11:52	1/10/13	
o-Xylene	0.160 U	5.00	0.160	1	01/10/13 11:52	1/10/13	
Toluene	0.270 U	5.00	0.270	1	01/10/13 11:52	1/10/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	101	80 - 120	01/10/13 11:52	
4-Bromofluorobenzene	98	64 - 135	01/10/13 11:52	
Dibromofluoromethane	97	74 - 125	01/10/13 11:52	
Toluene-d8	102	46 - 156	01/10/13 11:52	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: JQ1300236-04

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS

Analysis Method: 8260B
Prep Method: EPA 5035

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Benzene	0.170 U	5.00	0.170	1	01/11/13 16:27	1/11/13	
Ethylbenzene	0.120 U	5.00	0.120	1	01/11/13 16:27	1/11/13	
m,p-Xylenes	0.210 U	10.0	0.210	1	01/11/13 16:27	1/11/13	
o-Xylene	0.160 U	5.00	0.160	1	01/11/13 16:27	1/11/13	
Toluene	0.270 U	5.00	0.270	1	01/11/13 16:27	1/11/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	99	80 - 120	01/11/13 16:27	
4-Bromofluorobenzene	97	64 - 135	01/11/13 16:27	
Dibromofluoromethane	97	74 - 125	01/11/13 16:27	
Toluene-d8	101	46 - 156	01/11/13 16:27	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079**Date Collected:** NA**Date Received:** NA**Sample Name:** Method Blank**Units:** ug/Kg**Lab Code:** JQ1300344-02**Basis:** Dry**Volatile Organic Compounds by GC/MS****Analysis Method:** 8260B**Prep Method:** EPA 5035

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Benzene	0.170 U	5.00	0.170	1	01/17/13 11:19	1/17/13	
Ethylbenzene	0.120 U	5.00	0.120	1	01/17/13 11:19	1/17/13	
m,p-Xylenes	0.210 U	10.0	0.210	1	01/17/13 11:19	1/17/13	
o-Xylene	0.160 U	5.00	0.160	1	01/17/13 11:19	1/17/13	
Toluene	0.270 U	5.00	0.270	1	01/17/13 11:19	1/17/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
1,2-Dichloroethane-d4	99	80 - 120	01/17/13 11:19	
4-Bromofluorobenzene	97	64 - 135	01/17/13 11:19	
Dibromofluoromethane	100	74 - 125	01/17/13 11:19	
Toluene-d8	98	46 - 156	01/17/13 11:19	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079**Date Collected:** NA**Date Received:** NA

Sample Name: Method Blank
Lab Code: JQ1300096-01

Units: ug/Kg**Basis:** Dry

Base Neutral Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270C SIM**Prep Method:** EPA 3550C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1-Methylnaphthalene	2.70 U	3.40	2.70	1	01/08/13 05:27	1/7/13	
2-Methylnaphthalene	2.30 U	3.40	2.30	1	01/08/13 05:27	1/7/13	
Acenaphthene	3.10 U	6.80	3.10	1	01/08/13 05:27	1/7/13	
Acenaphthylene	2.20 U	6.80	2.20	1	01/08/13 05:27	1/7/13	
Anthracene	1.60 U	3.40	1.60	1	01/08/13 05:27	1/7/13	
Benz(a)anthracene	1.90 U	3.40	1.90	1	01/08/13 05:27	1/7/13	
Benzo(a)pyrene	1.00 U	3.40	1.00	1	01/08/13 05:27	1/7/13	
Benzo(b)fluoranthene	2.00 U	3.40	2.00	1	01/08/13 05:27	1/7/13	
Benzo(g,h,i)perylene	2.20 U	3.40	2.20	1	01/08/13 05:27	1/7/13	
Benzo(k)fluoranthene	2.40 U	3.40	2.40	1	01/08/13 05:27	1/7/13	
Chrysene	1.90 U	3.40	1.90	1	01/08/13 05:27	1/7/13	
Dibenz(a,h)anthracene	2.70 U	3.40	2.70	1	01/08/13 05:27	1/7/13	
Fluoranthene	2.00 U	3.40	2.00	1	01/08/13 05:27	1/7/13	
Fluorene	2.20 U	3.40	2.20	1	01/08/13 05:27	1/7/13	
Indeno(1,2,3-cd)pyrene	2.20 U	3.40	2.20	1	01/08/13 05:27	1/7/13	
Naphthalene	3.10 U	3.40	3.10	1	01/08/13 05:27	1/7/13	
Phenanthrene	1.70 U	6.80	1.70	1	01/08/13 05:27	1/7/13	
Pyrene	2.00 U	3.40	2.00	1	01/08/13 05:27	1/7/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	74	30 - 118	01/08/13 05:27	
p-Terphenyl-d14	99	41 - 146	01/08/13 05:27	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: JQ1300130-01

Units: ug/Kg
Basis: Dry

Base Neutral Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270C SIM
Prep Method: EPA 3550C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1-Methylnaphthalene	2.70 U	3.40	2.70	1	01/09/13 18:42	1/8/13	
2-Methylnaphthalene	2.30 U	3.40	2.30	1	01/09/13 18:42	1/8/13	
Acenaphthene	3.10 U	6.80	3.10	1	01/09/13 18:42	1/8/13	
Acenaphthylene	2.20 U	6.80	2.20	1	01/09/13 18:42	1/8/13	
Anthracene	1.60 U	3.40	1.60	1	01/09/13 18:42	1/8/13	
Benz(a)anthracene	1.90 U	3.40	1.90	1	01/09/13 18:42	1/8/13	
Benzo(a)pyrene	1.00 U	3.40	1.00	1	01/09/13 18:42	1/8/13	
Benzo(b)fluoranthene	2.00 U	3.40	2.00	1	01/09/13 18:42	1/8/13	
Benzo(g,h,i)perylene	2.20 U	3.40	2.20	1	01/09/13 18:42	1/8/13	
Benzo(k)fluoranthene	2.40 U	3.40	2.40	1	01/09/13 18:42	1/8/13	
Chrysene	1.90 U	3.40	1.90	1	01/09/13 18:42	1/8/13	
Dibenz(a,h)anthracene	2.70 U	3.40	2.70	1	01/09/13 18:42	1/8/13	
Fluoranthene	2.00 U	3.40	2.00	1	01/09/13 18:42	1/8/13	
Fluorene	2.20 U	3.40	2.20	1	01/09/13 18:42	1/8/13	
Indeno(1,2,3-cd)pyrene	2.20 U	3.40	2.20	1	01/09/13 18:42	1/8/13	
Naphthalene	3.10 U	3.40	3.10	1	01/09/13 18:42	1/8/13	
Phenanthrene	1.70 U	6.80	1.70	1	01/09/13 18:42	1/8/13	
Pyrene	2.00 U	3.40	2.00	1	01/09/13 18:42	1/8/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	51	30 - 118	01/09/13 18:42	
p-Terphenyl-d14	61	41 - 146	01/09/13 18:42	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Water

Service Request: J1300079**Date Collected:** NA**Date Received:** NA

Sample Name: Method Blank
Lab Code: JQ1300131-01

Units: ug/L**Basis:** NA

Base Neutral Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270C SIM**Prep Method:** EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1-Methylnaphthalene	0.0440 U	0.100	0.0440	1	01/09/13 20:14	1/8/13	
2-Methylnaphthalene	0.0440 U	0.100	0.0440	1	01/09/13 20:14	1/8/13	
Acenaphthene	0.0410 U	0.100	0.0410	1	01/09/13 20:14	1/8/13	
Acenaphthylene	0.0250 U	0.100	0.0250	1	01/09/13 20:14	1/8/13	
Anthracene	0.0380 U	0.100	0.0380	1	01/09/13 20:14	1/8/13	
Benz(a)anthracene	0.0350 U	0.100	0.0350	1	01/09/13 20:14	1/8/13	
Benzo(a)pyrene	0.0310 U	0.100	0.0310	1	01/09/13 20:14	1/8/13	
Benzo(b)fluoranthene	0.0250 U	0.100	0.0250	1	01/09/13 20:14	1/8/13	
Benzo(g,h,i)perylene	0.0390 U	0.100	0.0390	1	01/09/13 20:14	1/8/13	
Benzo(k)fluoranthene	0.0350 U	0.100	0.0350	1	01/09/13 20:14	1/8/13	
Chrysene	0.0240 U	0.100	0.0240	1	01/09/13 20:14	1/8/13	
Dibenz(a,h)anthracene	0.0360 U	0.100	0.0360	1	01/09/13 20:14	1/8/13	
Fluoranthene	0.0390 U	0.100	0.0390	1	01/09/13 20:14	1/8/13	
Fluorene	0.0470 U	0.100	0.0470	1	01/09/13 20:14	1/8/13	
Indeno(1,2,3-cd)pyrene	0.0400 U	0.100	0.0400	1	01/09/13 20:14	1/8/13	
Naphthalene	0.0390 U	0.100	0.0390	1	01/09/13 20:14	1/8/13	
Phenanthrene	0.0350 U	0.100	0.0350	1	01/09/13 20:14	1/8/13	
Pyrene	0.0310 U	0.100	0.0310	1	01/09/13 20:14	1/8/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	76	22 - 105	01/09/13 20:14	
p-Terphenyl-d14	106	25 - 127	01/09/13 20:14	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: JQ1300265-01

Units: ug/Kg
Basis: Dry

Base Neutral Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270C SIM
Prep Method: EPA 3550C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1-Methylnaphthalene	2.70 U	3.40	2.70	1	01/15/13 17:00	1/15/13	
2-Methylnaphthalene	2.30 U	3.40	2.30	1	01/15/13 17:00	1/15/13	
Acenaphthene	3.10 U	6.80	3.10	1	01/15/13 17:00	1/15/13	
Acenaphthylene	2.20 U	6.80	2.20	1	01/15/13 17:00	1/15/13	
Anthracene	1.60 U	3.40	1.60	1	01/15/13 17:00	1/15/13	
Benz(a)anthracene	1.90 U	3.40	1.90	1	01/15/13 17:00	1/15/13	
Benzo(a)pyrene	1.00 U	3.40	1.00	1	01/15/13 17:00	1/15/13	
Benzo(b)fluoranthene	2.00 U	3.40	2.00	1	01/15/13 17:00	1/15/13	
Benzo(g,h,i)perylene	2.20 U	3.40	2.20	1	01/15/13 17:00	1/15/13	
Benzo(k)fluoranthene	2.40 U	3.40	2.40	1	01/15/13 17:00	1/15/13	
Chrysene	1.90 U	3.40	1.90	1	01/15/13 17:00	1/15/13	
Dibenz(a,h)anthracene	2.70 U	3.40	2.70	1	01/15/13 17:00	1/15/13	
Fluoranthene	2.33 J	3.40	2.00	1	01/15/13 17:00	1/15/13	
Fluorene	2.20 U	3.40	2.20	1	01/15/13 17:00	1/15/13	
Indeno(1,2,3-cd)pyrene	2.20 U	3.40	2.20	1	01/15/13 17:00	1/15/13	
Naphthalene	3.10 U	3.40	3.10	1	01/15/13 17:00	1/15/13	
Phenanthrene	4.72 J	6.80	1.70	1	01/15/13 17:00	1/15/13	
Pyrene	2.00 U	3.40	2.00	1	01/15/13 17:00	1/15/13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2-Fluorobiphenyl	53	30 - 118	01/15/13 17:00	
p-Terphenyl-d14	62	41 - 146	01/15/13 17:00	

COLUMBIA ANALYTICAL SERVICES, INC.

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Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Water

Service Request: J1300079**Date Collected:** NA**Date Received:** NA

Sample Name: Method Blank
Lab Code: J1300079-MB3

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Dissolved	6010B	70 J	ug/L	100	20	1	01/08/13 14:44	1/7/13	
Antimony, Dissolved	6020	0.2 U	ug/L	1.0	0.2	1	01/08/13 18:36	1/7/13	
Antimony, Total Recoverable	6020	0.2 U	ug/L	1.0	0.2	1	01/08/13 15:59	1/7/13	
Arsenic, Dissolved	6010B	4 U	ug/L	10	4	1	01/08/13 14:45	1/7/13	
Barium, Dissolved	6010B	1 J	ug/L	10	0.3	1	01/08/13 14:45	1/7/13	
Beryllium, Dissolved	6010B	0.2 U	ug/L	4.0	0.2	1	01/08/13 14:45	1/7/13	
Cadmium, Dissolved	6010B	0.2 U	ug/L	5.0	0.2	1	01/08/13 14:45	1/7/13	
Calcium, Dissolved	6010B	0.02 U	mg/L	0.10	0.02	1	01/08/13 14:44	1/7/13	
Chromium, Dissolved	6010B	0.5 U	ug/L	10	0.5	1	01/08/13 14:45	1/7/13	
Cobalt, Dissolved	6010B	2 U	ug/L	10	2	1	01/08/13 14:45	1/7/13	
Copper, Dissolved	6010B	2 U	ug/L	10	2	1	01/08/13 14:45	1/7/13	
Iron, Dissolved	6010B	3 U	ug/L	100	3	1	01/08/13 14:44	1/7/13	
Lead, Dissolved	6010B	4 U	ug/L	10	4	1	01/08/13 14:45	1/7/13	
Magnesium, Dissolved	6010B	0.02 U	mg/L	0.10	0.02	1	01/08/13 14:44	1/7/13	
Manganese, Dissolved	6010B	3 U	ug/L	10	3	1	01/08/13 14:45	1/7/13	
Mercury, Dissolved	7470A	0.02 U	ug/L	0.10	0.02	1	01/08/13 11:10	1/7/13	
Mercury, Total	7470A	0.02 U	ug/L	0.10	0.02	1	01/08/13 10:44	1/7/13	
Nickel, Dissolved	6010B	0.6 U	ug/L	10	0.6	1	01/08/13 14:45	1/7/13	
Potassium, Dissolved	6010B	0.09 U	mg/L	2.0	0.09	1	01/08/13 14:44	1/7/13	
Selenium, Dissolved	6020	1.1 U	ug/L	2.0	1.1	1	01/08/13 18:36	1/7/13	
Selenium, Total Recoverable	6020	1.1 U	ug/L	2.0	1.1	1	01/08/13 15:59	1/7/13	
Silver, Dissolved	6010B	2 U	ug/L	10	2	1	01/08/13 14:45	1/7/13	
Sodium, Dissolved	6010B	0.03 U	mg/L	0.50	0.03	1	01/08/13 14:44	1/7/13	
Thallium, Dissolved	6020	0.05 U	ug/L	0.20	0.05	1	01/08/13 18:36	1/7/13	
Thallium, Total Recoverable	6020	0.05 U	ug/L	0.20	0.05	1	01/08/13 15:59	1/7/13	
Vanadium, Dissolved	6010B	2 U	ug/L	20	2	1	01/08/13 14:45	1/7/13	
Zinc, Dissolved	6010B	3 J	ug/L	20	2	1	01/08/13 14:45	1/7/13	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079**Date Collected:** NA**Date Received:** NA**Sample Name:** Method Blank**Basis:** Dry**Lab Code:** J1300079-MB3

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total Recoverable	6010B	0.9 U	mg/Kg	5.0	0.9	1	01/08/13 18:39	1/8/13	
Arsenic, Total Recoverable	6010B	0.12 U	mg/Kg	0.50	0.12	1	01/08/13 18:41	1/8/13	
Barium, Total Recoverable	6010B	0.03 U	mg/Kg	0.50	0.03	1	01/08/13 18:41	1/8/13	
Beryllium, Total Recoverable	6010B	0.008 U	mg/Kg	0.20	0.008	1	01/08/13 18:40	1/8/13	
Cadmium, Total Recoverable	6010B	0.05 J	mg/Kg	0.25	0.007	1	01/08/13 18:41	1/8/13	
Calcium, Total Recoverable	6010B	1.1 U	mg/Kg	5.0	1.1	1	01/08/13 18:39	1/8/13	
Chromium, Total Recoverable	6010B	0.05 J	mg/Kg	0.50	0.02	1	01/08/13 18:41	1/8/13	
Cobalt, Total Recoverable	6010B	0.04 U	mg/Kg	0.50	0.04	1	01/08/13 18:41	1/8/13	
Copper, Total Recoverable	6010B	0.07 U	mg/Kg	0.50	0.07	1	01/08/13 18:40	1/8/13	
Iron, Total Recoverable	6010B	0.6 U	mg/Kg	5.0	0.6	1	01/08/13 18:39	1/8/13	
Lead, Total Recoverable	6010B	0.13 U	mg/Kg	0.50	0.13	1	01/08/13 18:41	1/8/13	
Magnesium, Total Recoverable	6010B	0.7 U	mg/Kg	5.0	0.7	1	01/08/13 18:39	1/8/13	
Manganese, Total Recoverable	6010B	0.05 J	mg/Kg	0.50	0.009	1	01/08/13 18:41	1/8/13	
Nickel, Total Recoverable	6010B	0.05 J	mg/Kg	0.50	0.04	1	01/08/13 18:41	1/8/13	
Potassium, Total Recoverable	6010B	4 U	mg/Kg	100	4	1	01/08/13 18:39	1/8/13	
Silver, Total Recoverable	6010B	0.05 U	mg/Kg	0.50	0.05	1	01/08/13 18:40	1/8/13	
Sodium, Total Recoverable	6010B	4 J	mg/Kg	25	2	1	01/08/13 18:39	1/8/13	
Vanadium, Total Recoverable	6010B	0.2 U	mg/Kg	1.0	0.2	1	01/08/13 18:40	1/8/13	
Zinc, Total Recoverable	6010B	0.2 U	mg/Kg	1.0	0.2	1	01/08/13 18:41	1/8/13	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Water

Service Request: J1300079**Date Collected:** NA**Date Received:** NA

Sample Name: Method Blank
Lab Code: J1300079-MB1

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total Recoverable	6010B	20 U	ug/L	100	20	1	01/07/13 16:01	1/7/13	
Arsenic, Total Recoverable	6010B	4 U	ug/L	10	4	1	01/07/13 16:02	1/7/13	
Barium, Total Recoverable	6010B	0.3 U	ug/L	10	0.3	1	01/07/13 16:02	1/7/13	
Beryllium, Total Recoverable	6010B	0.2 U	ug/L	4.0	0.2	1	01/07/13 16:02	1/7/13	
Cadmium, Total Recoverable	6010B	0.2 U	ug/L	5.0	0.2	1	01/07/13 16:02	1/7/13	
Calcium, Total Recoverable	6010B	0.02 U	mg/L	0.10	0.02	1	01/07/13 16:01	1/7/13	
Chromium, Total Recoverable	6010B	0.5 U	ug/L	10	0.5	1	01/07/13 16:02	1/7/13	
Cobalt, Total Recoverable	6010B	2 J	ug/L	10	2	1	01/07/13 16:02	1/7/13	
Copper, Total Recoverable	6010B	2 U	ug/L	10	2	1	01/07/13 16:02	1/7/13	
Iron, Total Recoverable	6010B	3 U	ug/L	100	3	1	01/07/13 16:01	1/7/13	
Lead, Total Recoverable	6010B	4 U	ug/L	10	4	1	01/07/13 16:02	1/7/13	
Magnesium, Total Recoverable	6010B	0.02 U	mg/L	0.10	0.02	1	01/07/13 16:01	1/7/13	
Manganese, Total Recoverable	6010B	3 U	ug/L	10	3	1	01/07/13 16:02	1/7/13	
Nickel, Total Recoverable	6010B	0.6 U	ug/L	10	0.6	1	01/07/13 16:02	1/7/13	
Potassium, Total Recoverable	6010B	0.09 U	mg/L	2.0	0.09	1	01/07/13 16:00	1/7/13	
Silver, Total Recoverable	6010B	2 U	ug/L	10	2	1	01/07/13 16:02	1/7/13	
Sodium, Total Recoverable	6010B	0.03 U	mg/L	0.50	0.03	1	01/07/13 16:00	1/7/13	
Vanadium, Total Recoverable	6010B	2 J	ug/L	20	2	1	01/07/13 16:02	1/7/13	
Zinc, Total Recoverable	6010B	2 U	ug/L	20	2	1	01/07/13 16:02	1/7/13	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Sample Name: Method Blank
Lab Code: J1300079-MB1

Service Request: J1300079
Date Collected: NA
Date Received: NA

Basis: Dry

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Antimony, Total Recoverable	6010B	0.35 J	mg/Kg	0.50	0.08	1	01/08/13 21:16	1/8/13	
Mercury	7471A	0.0010 U	mg/Kg	0.0067	0.0010	1	01/08/13 12:30	1/7/13	
Selenium, Total Recoverable	6010B	0.27 U	mg/Kg	0.50	0.27	1	01/08/13 21:16	1/8/13	
Thallium, Total Recoverable	6010B	0.11 U	mg/Kg	0.50	0.11	1	01/08/13 21:16	1/8/13	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: J1300079-MB2

Basis: Dry

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total Recoverable	6010B	0.9 U	mg/Kg	5.0	0.9	1	01/08/13 21:15	1/8/13	
Antimony, Total Recoverable	6010B	0.45 J	mg/Kg	0.50	0.08	1	01/08/13 18:41	1/8/13	
Arsenic, Total Recoverable	6010B	0.12 U	mg/Kg	0.50	0.12	1	01/08/13 21:16	1/8/13	
Barium, Total Recoverable	6010B	0.03 U	mg/Kg	0.50	0.03	1	01/08/13 21:16	1/8/13	
Beryllium, Total Recoverable	6010B	0.008 U	mg/Kg	0.20	0.008	1	01/08/13 21:16	1/8/13	
Cadmium, Total Recoverable	6010B	0.05 J	mg/Kg	0.25	0.007	1	01/08/13 21:16	1/8/13	
Calcium, Total Recoverable	6010B	1.1 U	mg/Kg	5.0	1.1	1	01/08/13 21:15	1/8/13	
Chromium, Total Recoverable	6010B	0.05 J	mg/Kg	0.50	0.02	1	01/08/13 21:16	1/8/13	
Cobalt, Total Recoverable	6010B	0.04 U	mg/Kg	0.50	0.04	1	01/08/13 21:16	1/8/13	
Copper, Total Recoverable	6010B	0.07 U	mg/Kg	0.50	0.07	1	01/08/13 21:16	1/8/13	
Iron, Total Recoverable	6010B	0.6 U	mg/Kg	5.0	0.6	1	01/08/13 21:15	1/8/13	
Lead, Total Recoverable	6010B	0.13 U	mg/Kg	0.50	0.13	1	01/08/13 21:16	1/8/13	
Magnesium, Total Recoverable	6010B	0.7 U	mg/Kg	5.0	0.7	1	01/08/13 21:15	1/8/13	
Manganese, Total Recoverable	6010B	0.05 J	mg/Kg	0.50	0.009	1	01/08/13 21:16	1/8/13	
Mercury	7471A	0.0010 U	mg/Kg	0.0067	0.0010	1	01/08/13 11:36	1/7/13	
Nickel, Total Recoverable	6010B	0.05 J	mg/Kg	0.50	0.04	1	01/08/13 21:16	1/8/13	
Potassium, Total Recoverable	6010B	4 U	mg/Kg	100	4	1	01/08/13 21:15	1/8/13	
Selenium, Total Recoverable	6010B	0.27 U	mg/Kg	0.50	0.27	1	01/08/13 18:41	1/8/13	
Silver, Total Recoverable	6010B	0.05 U	mg/Kg	0.50	0.05	1	01/08/13 21:16	1/8/13	
Sodium, Total Recoverable	6010B	2 U	mg/Kg	25	2	1	01/08/13 21:15	1/8/13	
Thallium, Total Recoverable	6010B	0.11 U	mg/Kg	0.50	0.11	1	01/08/13 18:41	1/8/13	
Vanadium, Total Recoverable	6010B	0.2 U	mg/Kg	1.0	0.2	1	01/08/13 21:16	1/8/13	
Zinc, Total Recoverable	6010B	0.2 U	mg/Kg	1.0	0.2	1	01/08/13 21:16	1/8/13	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil
Analysis Method: 160.3 Modified

Service Request: J1300079
Date Collected: 01/3/13
Date Received: 01/4/13

Units: Percent
Basis: As Received

Solids, Total

Sample Name	Lab Code	Result	MRL	MDL	Dil.	Date Analyzed	Q
B430-B-4 (5-7.5)	J1300079-001	92	0.10	0.10	1	01/07/13 14:28	
B430-B-4 (10-12.5)	J1300079-002	80	0.10	0.10	1	01/07/13 14:28	
B430-B-5 (5-7.5)	J1300079-003	94	0.10	0.10	1	01/07/13 14:28	
B430-B-5 (12.5-15)	J1300079-004	79	0.10	0.10	1	01/07/13 14:28	
B430-B-6 (5-7.5)	J1300079-005	93	0.10	0.10	1	01/07/13 14:28	
B430-B-6 (12.5-15)	J1300079-006	82	0.10	0.10	1	01/07/13 14:28	
B430-B-7 (5-7.5)	J1300079-007	92	0.10	0.10	1	01/07/13 14:28	
B430-B-7 (7.5-10)	J1300079-008	87	0.10	0.10	1	01/07/13 14:28	
B430-DUP-01	J1300079-009	86	0.10	0.10	1	01/07/13 14:28	
B430-B-8 (5-7.5)	J1300079-010	91	0.10	0.10	1	01/07/13 14:28	
B430-B-8 (12.5-15)	J1300079-011	83	0.10	0.10	1	01/07/13 14:28	
B430-B-9 (5-7.5)	J1300079-012	87	0.10	0.10	1	01/07/13 14:28	
B430-B-9 (12.5-15)	J1300079-013	82	0.10	0.10	1	01/07/13 14:28	
B430-B-10 (2.5-5)	J1300079-014	90	0.10	0.10	1	01/07/13 14:28	
B430-B-10 (10-12.5)	J1300079-015	78	0.10	0.10	1	01/07/13 14:28	
B430-B-11 (7.5-10)	J1300079-018	90	0.10	0.10	1	01/07/13 14:28	
B430-B-11 (10-12.5)	J1300079-019	79	0.10	0.10	1	01/07/13 14:28	
B430-B-12 (5-7.5)	J1300079-020	91	0.10	0.10	1	01/07/13 14:28	
B430-B-12 (12.5-15)	J1300079-021	80	0.10	0.10	1	01/07/13 14:28	
B430-B-14 (5-7.5)	J1300079-022	88	0.10	0.10	1	01/07/13 14:28	
B430-B-14 (10-12.5)	J1300079-023	82	0.10	0.10	1	01/07/13 14:28	
B430-DUP-02	J1300079-024	80	0.10	0.10	1	01/07/13 14:28	

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079

SURROGATE RECOVERY SUMMARY
Volatile Organic Compounds by GC/MS

Analysis Method: 8260B
Extraction Method: EPA 5035

Sample Name	Lab Code	1,2-Dichloroethane-d4	4-Bromofluorobenzene	Dibromofluoromethane
		80 - 120	64 - 135	74 - 125
B430-B-4 (5-7.5)	J1300079-001	111	101	104
B430-B-4 (10-12.5)	J1300079-002	97	97	95
B430-B-5 (5-7.5)	J1300079-003	112	97	104
B430-B-5 (12.5-15)	J1300079-004	109	105	104
B430-B-6 (5-7.5)	J1300079-005	108	104	101
B430-B-6 (12.5-15)	J1300079-006	107	103	102
B430-B-7 (5-7.5)	J1300079-007	103	110	100
B430-B-7 (7.5-10)	J1300079-008	101	105	100
B430-DUP-01	J1300079-009	95	101	93
B430-B-8 (5-7.5)	J1300079-010	104	107	100
B430-B-8 (12.5-15)	J1300079-011	100	106	98
B430-B-9 (5-7.5)	J1300079-012	103	109	99
B430-B-9 (12.5-15)	J1300079-013	100	99	97
B430-B-10 (2.5-5)	J1300079-014	101	111	101
B430-B-10 (10-12.5)	J1300079-015	97	103	96
B430-FB-01	J1300079-016	107	95	105
B430-EB-01	J1300079-017	110	98	106
B430-B-11 (7.5-10)	J1300079-018	95	98	94
B430-B-11 (10-12.5)	J1300079-019	111	106	94
B430-B-12 (5-7.5)	J1300079-020	94	98	93
B430-B-12 (12.5-15)	J1300079-021	99	93	96
B430-B-14 (5-7.5)	J1300079-022	99	144 *	100
B430-B-14 (10-12.5)	J1300079-023	93	105	96
B430-DUP-02	J1300079-024	99	96	93
Trip Blank	J1300079-025	109	94	105
Lab Control Sample	JQ1300127-01	106	95	102
Method Blank	JQ1300127-02	107	95	102
Lab Control Sample	JQ1300148-03	99	97	100
Method Blank	JQ1300148-04	103	96	101
Lab Control Sample	JQ1300194-01	99	99	99
Duplicate Lab Control Sample	JQ1300194-02	96	98	97
Method Blank	JQ1300194-03	100	97	98
B430-B-14 (10-12.5)	JQ1300219-01	97	99	97
B430-B-14 (10-12.5)	JQ1300219-02	99	98	99
Lab Control Sample	JQ1300219-03	99	100	100
Method Blank	JQ1300219-04	101	98	97
Lab Control Sample	JQ1300236-03	94	98	98

COLUMBIA ANALYTICAL SERVICES, INC.

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QA/QC Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079

SURROGATE RECOVERY SUMMARY
Volatile Organic Compounds by GC/MS

Analysis Method: 8260B
Extraction Method: EPA 5035

Sample Name	Lab Code	1,2-Dichloroethane-d4	4-Bromofluorobenzene	Dibromofluoromethane
		80 - 120	64 - 135	74 - 125
Method Blank	JQ1300236-04	99	97	97
Lab Control Sample	JQ1300344-01	97	95	102
Method Blank	JQ1300344-02	99	97	100

COLUMBIA ANALYTICAL SERVICES, INC.

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QA/QC Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079

SURROGATE RECOVERY SUMMARY
Volatile Organic Compounds by GC/MS

Analysis Method: 8260B
Extraction Method: EPA 5035

Sample Name	Lab Code	Toluene-d8
		46 - 156
B430-B-4 (5-7.5)	J1300079-001	99
B430-B-4 (10-12.5)	J1300079-002	99
B430-B-5 (5-7.5)	J1300079-003	99
B430-B-5 (12.5-15)	J1300079-004	101
B430-B-6 (5-7.5)	J1300079-005	98
B430-B-6 (12.5-15)	J1300079-006	99
B430-B-7 (5-7.5)	J1300079-007	105
B430-B-7 (7.5-10)	J1300079-008	102
B430-DUP-01	J1300079-009	101
B430-B-8 (5-7.5)	J1300079-010	105
B430-B-8 (12.5-15)	J1300079-011	105
B430-B-9 (5-7.5)	J1300079-012	104
B430-B-9 (12.5-15)	J1300079-013	100
B430-B-10 (2.5-5)	J1300079-014	107
B430-B-10 (10-12.5)	J1300079-015	103
B430-FB-01	J1300079-016	94
B430-EB-01	J1300079-017	95
B430-B-11 (7.5-10)	J1300079-018	100
B430-B-11 (10-12.5)	J1300079-019	97
B430-B-12 (5-7.5)	J1300079-020	104
B430-B-12 (12.5-15)	J1300079-021	99
B430-B-14 (5-7.5)	J1300079-022	97
B430-B-14 (10-12.5)	J1300079-023	104
B430-DUP-02	J1300079-024	100
Trip Blank	J1300079-025	94
Lab Control Sample	JQ1300127-01	96
Method Blank	JQ1300127-02	95
Lab Control Sample	JQ1300148-03	98
Method Blank	JQ1300148-04	98
Lab Control Sample	JQ1300194-01	101
Duplicate Lab Control Sample	JQ1300194-02	102
Method Blank	JQ1300194-03	102
B430-B-14 (10-12.5)	JQ1300219-01	101
B430-B-14 (10-12.5)	JQ1300219-02	101
Lab Control Sample	JQ1300219-03	102
Method Blank	JQ1300219-04	102
Lab Control Sample	JQ1300236-03	103

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079

SURROGATE RECOVERY SUMMARY
Volatile Organic Compounds by GC/MS

Analysis Method: 8260B
Extraction Method: EPA 5035

Sample Name	Lab Code	Toluene-d8
		46 - 156
Method Blank	JQ1300236-04	101
Lab Control Sample	JQ1300344-01	99
Method Blank	JQ1300344-02	98

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QA/QC Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13
Date Received: 01/04/13
Date Analyzed: 01/10/13
Date Extracted: 01/10/13

**Duplicate Matrix Spike Summary
Volatile Organic Compounds by GC/MS**

Sample Name: B430-B-14 (10-12.5)
Lab Code: J1300079-023
Analysis Method: 8260B
Prep Method: EPA 5035

Units: ug/Kg
Basis: Dry

Analyte Name	Matrix Spike JQ1300219-01					Duplicate Matrix Spike JQ1300219-02				
	Sample		Spike			Spike		% Rec		RPD
	Result	Result	Amount	% Rec	Result	Amount	% Rec	Limits	RPD	Limit
Benzene	ND	16.8	24.2	69 *	18.2	24.3	75 *	76-123	8	30
Ethylbenzene	0.756	15.5	24.2	61 *	16.3	24.3	64 *	71-122	5	30
m,p-Xylenes	2.15	30.4	48.5	58 *	31.8	48.6	61 *	71-122	5	30
o-Xylene	0.988	15.4	24.2	59 *	15.9	24.3	61 *	71-120	3	30
Toluene	1.46	15.7	24.2	59 *	17.2	24.3	65 *	72-118	9	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

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QA/QC Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Water

Service Request:J1300079**Date Analyzed:**01/07/13

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analysis Method: 8260B**Units:**ug/L**Basis:**NA**Analysis Lot:**324825

Lab Control Sample
JQ1300127-01

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Benzene	21.9	20.0	110	80-117
Ethylbenzene	21.5	20.0	107	82-119
m,p-Xylenes	43.5	40.0	109	79-122
o-Xylene	21.4	20.0	107	80-119
Toluene	21.3	20.0	107	52-152

COLUMBIA ANALYTICAL SERVICES, INC.

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QA/QC Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request:J1300079**Date Analyzed:**01/07/13**Date Extracted:**01/07/13

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analysis Method: 8260B
Prep Method: EPA 5035

Units:ug/Kg
Basis:Dry
Analysis Lot:325043

Lab Control Sample
JQ1300148-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Benzene	18.5	20.0	93	76-123
Ethylbenzene	18.1	20.0	90	71-122
m,p-Xylenes	36.8	40.0	92	71-122
o-Xylene	18.4	20.0	92	71-120
Toluene	17.6	20.0	88	72-118

COLUMBIA ANALYTICAL SERVICES, INC.

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QA/QC Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request:J1300079**Date Analyzed:**01/10/13**Date Extracted:**01/10/13

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analysis Method: 8260B
Prep Method: EPA 5035

Units:ug/Kg
Basis:Dry
Analysis Lot:325434

Lab Control Sample
JQ1300219-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Benzene	19.8	20.0	99	76-123
Ethylbenzene	20.4	20.0	102	71-122
m,p-Xylenes	41.5	40.0	104	71-122
o-Xylene	20.4	20.0	102	71-120
Toluene	19.7	20.0	98	72-118

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QA/QC Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request:J1300079**Date Analyzed:**01/11/13**Date Extracted:**01/11/13

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analysis Method: 8260B
Prep Method: EPA 5035

Units:ug/Kg
Basis:Dry
Analysis Lot:325494

Lab Control Sample
JQ1300236-03

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Benzene	21.0	20.0	105	76-123
Ethylbenzene	22.1	20.0	111	71-122
m,p-Xylenes	44.0	40.0	110	71-122
o-Xylene	21.5	20.0	107	71-120
Toluene	21.4	20.0	107	72-118

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QA/QC Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request:J1300079**Date Analyzed:**01/17/13**Date Extracted:**01/17/13

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analysis Method: 8260B
Prep Method: EPA 5035

Units:ug/Kg
Basis:Dry
Analysis Lot:326096

Lab Control Sample
JQ1300344-01

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
Benzene	20.8	20.0	104	76-123
Ethylbenzene	20.5	20.0	102	71-122
m,p-Xylenes	40.4	40.0	101	71-122
o-Xylene	20.2	20.0	101	71-120
Toluene	19.8	20.0	99	72-118

COLUMBIA ANALYTICAL SERVICES, INC.

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QA/QC Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Analyzed: 01/09/13
Date Extracted: 01/09/13

Duplicate Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analysis Method: 8260B
Prep Method: EPA 5035

Units: ug/Kg
Basis: Dry
Analysis Lot: 325263

Lab Control Sample
JQ1300194-01

Duplicate Lab Control Sample
JQ1300194-02

Analyte Name	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Benzene	21.6	20.0	108	19.8	20.0	99	76-123	9	30
Ethylbenzene	22.2	20.0	111	21.2	20.0	106	71-122	5	30
m,p-Xylenes	44.7	40.0	112	43.0	40.0	108	71-122	4	30
o-Xylene	21.7	20.0	109	21.2	20.0	106	71-120	3	30
Toluene	21.3	20.0	107	20.5	20.0	102	72-118	4	30

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QA/QC Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079**SURROGATE RECOVERY SUMMARY****Base Neutral Semivolatile Organic Compounds by GC/MS SIM****Analysis Method:** 8270C SIM**Extraction Method:** EPA 3550C

Sample Name	Lab Code	2-Fluorobiphenyl	p-Terphenyl-d14
		30 - 118	41 - 146
B430-B-4 (5-7.5)	J1300079-001	43	55
B430-B-4 (10-12.5)	J1300079-002	65	76
B430-B-5 (5-7.5)	J1300079-003	65	75
B430-B-5 (12.5-15)	J1300079-004	56	60
B430-B-6 (5-7.5)	J1300079-005	56	66
B430-B-6 (12.5-15)	J1300079-006	51	64
B430-B-7 (5-7.5)	J1300079-007	41	56
B430-B-7 (7.5-10)	J1300079-008	50	76
B430-DUP-01	J1300079-009	45	61
B430-B-8 (5-7.5)	J1300079-010	57	81
B430-B-8 (12.5-15)	J1300079-011	44	59
B430-B-9 (5-7.5)	J1300079-012	51	55
B430-B-9 (12.5-15)	J1300079-013	34	40 *
B430-B-10 (2.5-5)	J1300079-014	45	53
B430-B-10 (10-12.5)	J1300079-015	64	73
B430-FB-01	J1300079-016	71	87
B430-EB-01	J1300079-017	79	100
B430-B-11 (7.5-10)	J1300079-018	51	77
B430-B-11 (10-12.5)	J1300079-019	49	59
B430-B-12 (5-7.5)	J1300079-020	43	52
B430-B-12 (12.5-15)	J1300079-021	57	65
B430-B-14 (5-7.5)	J1300079-022	51	69
B430-B-14 (10-12.5)	J1300079-023	56	63
B430-DUP-02	J1300079-024	62	70
Method Blank	JQ1300096-01	74	99
Lab Control Sample	JQ1300096-02	67	89
Method Blank	JQ1300130-01	51	61
Lab Control Sample	JQ1300130-02	66	82
B430-B-7 (5-7.5)	JQ1300130-03	52	64
B430-B-7 (5-7.5)	JQ1300130-04	44	66
Method Blank	JQ1300131-01	76	106
Lab Control Sample	JQ1300131-02	74	93
Method Blank	JQ1300265-01	53	62
Lab Control Sample	JQ1300265-02	66	79

COLUMBIA ANALYTICAL SERVICES, INC.

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QA/QC Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13
Date Received: 01/04/13
Date Analyzed: 01/10/13
Date Extracted: 01/8/13

Duplicate Matrix Spike Summary
Base Neutral Semivolatile Organic Compounds by GC/MS SIM

Sample Name: B430-B-7 (5-7.5) **Units:** ug/Kg
Lab Code: J1300079-007 **Basis:** Dry
Analysis Method: 8270C SIM
Prep Method: EPA 3550C

Analyte Name	Matrix Spike JQ1300130-03				Duplicate Matrix Spike JQ1300130-04					
	Sample Result	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
1-Methylnaphthalene	68.2	179	149	74	153	149	57	32-101	15	30
2-Methylnaphthalene	106	238	149	89	204	149	66	32-103	15	30
Acenaphthene	ND	91.1	149	61	80.4	149	54	29-122	12	30
Acenaphthylene	6.24	96.0	149	60	86.5	149	54	36-114	10	30
Anthracene	5.71	98.3	149	62	87.3	149	55	36-135	12	30
Benz(a)anthracene	130	325	149	131	313	149	123	43-139	4	30
Benzo(a)pyrene	97.6	271	149	117	272	149	117	43-127	<1	30
Benzo(b)fluoranthene	155	345	149	128	373	149	146 *	49-139	8	30
Benzo(g,h,i)perylene	61.7	281	149	147 *	204	149	95	30-135	32*	30
Benzo(k)fluoranthene	45.6	158	149	75	151	149	71	45-132	4	30
Chrysene	130	336	149	138 *	313	149	123	36-130	7	30
Dibenz(a,h)anthracene	15.1	134	149	80	97.5	149	55	32-139	32*	30
Fluoranthene	162	432	149	181 *	386	149	150 *	42-127	11	30
Fluorene	8.79	107	149	66	96.0	149	59	41-118	11	30
Indeno(1,2,3-cd)pyrene	101	353	149	169 *	285	149	124	32-133	21	30
Naphthalene	68.5	179	149	74	154	149	58	29-107	15	30
Phenanthrene	66.3	217	149	101	195	149	87	34-130	10	30
Pyrene	241	511	149	181 *	673	149	290 *	45-118	27	30

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COLUMBIA ANALYTICAL SERVICES, INC.

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QA/QC Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Analyzed: 01/08/13
Date Extracted: 01/07/13

Lab Control Sample Summary
Base Neutral Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270C SIM
Prep Method: EPA 3550C

Units: ug/Kg
Basis: Dry
Analysis Lot: 325033

Lab Control Sample
JQ1300096-02

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
1-Methylnaphthalene	90.7	133	68	32-101
2-Methylnaphthalene	92.3	133	69	32-103
Acenaphthene	96.8	133	73	29-122
Acenaphthylene	102	133	77	36-114
Anthracene	113	133	85	36-135
Benz(a)anthracene	145	133	108	43-139
Benzo(a)pyrene	113	133	85	43-127
Benzo(b)fluoranthene	122	133	92	49-139
Benzo(g,h,i)perylene	114	133	85	30-135
Benzo(k)fluoranthene	75.7	133	57	45-132
Chrysene	95.3	133	72	36-130
Dibenz(a,h)anthracene	162	133	122	32-139
Fluoranthene	108	133	81	42-127
Fluorene	107	133	80	41-118
Indeno(1,2,3-cd)pyrene	140	133	105	32-133
Naphthalene	94.0	133	70	29-107
Phenanthrene	102	133	77	34-130
Pyrene	113	133	85	45-118

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QA/QC Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Analyzed: 01/09/13
Date Extracted: 01/08/13

Lab Control Sample Summary
Base Neutral Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270C SIM
Prep Method: EPA 3550C

Units: ug/Kg
Basis: Dry
Analysis Lot: 325384

Lab Control Sample
JQ1300130-02

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
1-Methylnaphthalene	92.3	133	69	32-101
2-Methylnaphthalene	89.4	133	67	32-103
Acenaphthene	96.0	133	72	29-122
Acenaphthylene	89.2	133	67	36-114
Anthracene	96.1	133	72	36-135
Benz(a)anthracene	107	133	80	43-139
Benzo(a)pyrene	107	133	80	43-127
Benzo(b)fluoranthene	108	133	81	49-139
Benzo(g,h,i)perylene	103	133	77	30-135
Benzo(k)fluoranthene	94.8	133	71	45-132
Chrysene	102	133	77	36-130
Dibenz(a,h)anthracene	108	133	81	32-139
Fluoranthene	98.9	133	74	42-127
Fluorene	99.9	133	75	41-118
Indeno(1,2,3-cd)pyrene	110	133	82	32-133
Naphthalene	89.6	133	67	29-107
Phenanthrene	98.7	133	74	34-130
Pyrene	101	133	76	45-118

COLUMBIA ANALYTICAL SERVICES, INC.

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QA/QC Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Water

Service Request: J1300079
Date Analyzed: 01/09/13
Date Extracted: 01/08/13

Lab Control Sample Summary
Base Neutral Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270C SIM
Prep Method: EPA 3510C

Units: ug/L
Basis: NA
Analysis Lot: 325384

Lab Control Sample
JQ1300131-02

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
1-Methylnaphthalene	1.50	2.00	75	34-107
2-Methylnaphthalene	1.44	2.00	72	41-107
Acenaphthene	1.58	2.00	79	41-109
Acenaphthylene	1.52	2.00	76	44-120
Anthracene	1.59	2.00	80	50-115
Benz(a)anthracene	1.86	2.00	93	46-133
Benzo(a)pyrene	1.82	2.00	91	49-122
Benzo(b)fluoranthene	1.72	2.00	86	48-122
Benzo(g,h,i)perylene	1.94	2.00	97	49-114
Benzo(k)fluoranthene	1.43	2.00	71	51-119
Chrysene	1.68	2.00	84	51-117
Dibenz(a,h)anthracene	2.01	2.00	100	48-121
Fluoranthene	1.70	2.00	85	52-122
Fluorene	1.66	2.00	83	46-113
Indeno(1,2,3-cd)pyrene	2.41	2.00	121	45-121
Naphthalene	1.50	2.00	75	42-104
Phenanthrene	1.62	2.00	81	49-107
Pyrene	1.59	2.00	79	49-128

COLUMBIA ANALYTICAL SERVICES, INC.

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QA/QC Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Analyzed: 01/15/13
Date Extracted: 01/15/13

Lab Control Sample Summary
Base Neutral Semivolatile Organic Compounds by GC/MS SIM

Analysis Method: 8270C SIM
Prep Method: EPA 3550C

Units: ug/Kg
Basis: Dry
Analysis Lot: 325812

Lab Control Sample
JQ1300265-02

Analyte Name	Result	Spike Amount	% Rec	% Rec Limits
1-Methylnaphthalene	87.5	133	66	32-101
2-Methylnaphthalene	90.3	133	68	32-103
Acenaphthene	92.5	133	69	29-122
Acenaphthylene	95.5	133	72	36-114
Anthracene	108	133	81	36-135
Benz(a)anthracene	117	133	88	43-139
Benzo(a)pyrene	102	133	76	43-127
Benzo(b)fluoranthene	105	133	79	49-139
Benzo(g,h,i)perylene	101	133	76	30-135
Benzo(k)fluoranthene	105	133	78	45-132
Chrysene	104	133	78	36-130
Dibenz(a,h)anthracene	102	133	76	32-139
Fluoranthene	119	133	89	42-127
Fluorene	100	133	75	41-118
Indeno(1,2,3-cd)pyrene	131	133	99	32-133
Naphthalene	90.1	133	68	29-107
Phenanthrene	106	133	79	34-130
Pyrene	109	133	82	45-118

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QA/QC Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Water

Service Request: J1300079
Date Collected: 01/03/13
Date Received: 01/04/13
Date Analyzed: 1/8/13

**Duplicate Matrix Spike Summary
Inorganic Parameters**

Sample Name: B430-FB-01
Lab Code: J1300079-016

Units: ug/L
Basis: NA

Matrix Spike J1300079-016MS						Duplicate Matrix Spike J1300079-016DMS					
Analyte Name	Method	Sample Result	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Aluminum, Dissolved	6010B	40	5230	5000	104	5380	5000	107	75-125	3	20
Arsenic, Dissolved	6010B	4	497	500	99	502	500	100	75-125	1	20
Barium, Dissolved	6010B	0.3	514	500	103	520	500	104	75-125	1	20
Beryllium, Dissolved	6010B	0.2	208	200	104	208	200	104	75-125	<1	20
Cadmium, Dissolved	6010B	0.2	256	250	102	258	250	103	75-125	<1	20
Chromium, Dissolved	6010B	0.5	516	500	103	520	500	104	75-125	<1	20
Cobalt, Dissolved	6010B	2	511	500	102	517	500	103	75-125	1	20
Copper, Dissolved	6010B	2	517	500	103	517	500	103	75-125	<1	20
Iron, Dissolved	6010B	4	5170	5000	103	5050	5000	101	75-125	2	20
Lead, Dissolved	6010B	4	510	500	102	515	500	103	75-125	<1	20
Manganese, Dissolved	6010B	3	515	500	103	515	500	103	75-125	<1	20
Nickel, Dissolved	6010B	0.6	516	500	103	522	500	104	75-125	1	20
Silver, Dissolved	6010B	2	512	500	102	510	500	102	75-125	<1	20
Vanadium, Dissolved	6010B	2	1040	1000	104	1040	1000	104	75-125	<1	20
Zinc, Dissolved	6010B	3	1030	1000	103	1080	1000	107	75-125	4	20

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COLUMBIA ANALYTICAL SERVICES, INC.

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QA/QC Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Water

Service Request:J1300079**Date Collected:**01/03/13**Date Received:**01/04/13**Date Analyzed:**1/8/13

Duplicate Matrix Spike Summary
Inorganic Parameters

Sample Name: B430-FB-01
Lab Code: J1300079-016

Units:mg/L**Basis:**NA

Matrix Spike						Duplicate Matrix Spike					
J1300079-016MS						J1300079-016DMS					
Analyte Name	Method	Sample Result	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Calcium, Dissolved	6010B	0.06	5.25	5.00	104	5.69	5.00	113	75-125	8	20
Magnesium, Dissolved	6010B	0.02	5.22	5.00	104	5.14	5.00	103	75-125	2	20
Potassium, Dissolved	6010B	0.09	102	100	102	103	100	103	75-125	<1	20
Sodium, Dissolved	6010B	0.03	25.9	25.0	103	25.9	25.0	104	75-125	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

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QA/QC Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Collected: 01/03/13
Date Received: 01/04/13
Date Analyzed: 1/8/13

Duplicate Matrix Spike Summary
Inorganic Parameters

Sample Name: B430-B-4 (5-7.5)
Lab Code: J1300079-001

Units: mg/Kg
Basis: Dry

Matrix Spike
J1300079-001MS

Duplicate Matrix Spike
J1300079-001DMS

Analyte Name	Method	Sample Result	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Aluminum, Total Recoverable	6010B	2490	3230	269	273 #	3220	256	282 #	75-125	<1	20
Antimony, Total Recoverable	6010B	0.26	26.5	26.9	97	25.1	25.6	97	75-125	5	20
Arsenic, Total Recoverable	6010B	0.52	25.8	26.9	94	24.6	25.6	94	75-125	5	20
Barium, Total Recoverable	6010B	2.14	30.5	26.9	105	29.1	25.6	105	75-125	4	20
Beryllium, Total Recoverable	6010B	0.05	10.7	10.8	99	10.2	10.3	99	75-125	5	20
Cadmium, Total Recoverable	6010B	0.05	13.4	13.5	99	12.8	12.8	99	75-125	5	20
Calcium, Total Recoverable	6010B	300	584	269	105	586	256	111	75-125	<1	20
Chromium, Total Recoverable	6010B	5.23	32.9	26.9	103	31.7	25.6	103	75-125	4	20
Cobalt, Total Recoverable	6010B	0.05	27.2	26.9	101	25.9	25.6	101	75-125	5	20
Copper, Total Recoverable	6010B	0.52	28.2	26.9	103	27.0	25.6	103	75-125	4	20
Iron, Total Recoverable	6010B	1490	1810	269	119 #	1850	256	139 #	75-125	2	20
Lead, Total Recoverable	6010B	1.88	28.8	26.9	100	27.5	25.6	100	75-125	5	20
Magnesium, Total Recoverable	6010B	34.8	333	269	111	335	256	117	75-125	<1	20
Manganese, Total Recoverable	6010B	1.52	29.1	26.9	103	29.2	25.6	108	75-125	<1	20
Mercury	7471A	0.0315	0.124	0.0863	108	0.129	0.0877	111	75-125	3	20
Nickel, Total Recoverable	6010B	0.31	27.7	26.9	102	26.4	25.6	102	75-125	5	20
Potassium, Total Recoverable	6010B	20	5510	5380	102	5160	5130	100	75-125	7	20
Selenium, Total Recoverable	6010B	0.30	24.2	26.9	90	23.2	25.6	90	75-125	4	20
Silver, Total Recoverable	6010B	0.05	26.5	26.9	98	25.3	25.6	99	75-125	5	20
Sodium, Total Recoverable	6010B	5	1380	1350	102	1310	1280	102	75-125	5	20
Thallium, Total Recoverable	6010B	0.12	26.7	26.9	99	25.6	25.6	100	75-125	4	20
Vanadium, Total Recoverable	6010B	5.1	60.2	53.8	102	57.6	51.3	102	75-125	4	20
Zinc, Total Recoverable	6010B	0.5	54.3	53.8	100	51.8	51.3	100	75-125	5	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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QA/QC Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Water

Service Request: J1300079
Date Analyzed: 01/07/13 - 01/08/13

Lab Control Sample Summary
Inorganic Parameters

Units: ug/L
Basis: NA

Lab Control Sample
J1300079-LCS3

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Aluminum, Dissolved	6010B	5210	5000	104	80-120
Aluminum, Total Recoverable	6010B	5350	5000	107	80-120
Antimony, Dissolved	6020	51.8	50.0	104	80-120
Antimony, Total Recoverable	6020	52.2	50.0	104	80-120
Arsenic, Dissolved	6010B	497	500	99	80-120
Arsenic, Total Recoverable	6010B	546	500	109	80-120
Barium, Dissolved	6010B	516	500	103	80-120
Barium, Total Recoverable	6010B	542	500	108	80-120
Beryllium, Dissolved	6010B	206	200	103	80-120
Beryllium, Total Recoverable	6010B	219	200	110	80-120
Cadmium, Dissolved	6010B	256	250	102	80-120
Cadmium, Total Recoverable	6010B	274	250	110	80-120
Chromium, Dissolved	6010B	517	500	103	80-120
Chromium, Total Recoverable	6010B	545	500	109	80-120
Cobalt, Dissolved	6010B	515	500	103	80-120
Cobalt, Total Recoverable	6010B	550	500	110	80-120
Copper, Dissolved	6010B	511	500	102	80-120
Copper, Total Recoverable	6010B	528	500	106	80-120
Iron, Dissolved	6010B	5160	5000	103	80-120
Iron, Total Recoverable	6010B	5590	5000	112	80-120
Lead, Dissolved	6010B	513	500	103	80-120
Lead, Total Recoverable	6010B	552	500	110	80-120
Manganese, Dissolved	6010B	511	500	102	80-120
Manganese, Total Recoverable	6010B	542	500	108	80-120
Mercury, Dissolved	7470A	1.26	1.25	101	80-120
Mercury, Total	7470A	1.20	1.25	96	80-120
Nickel, Dissolved	6010B	518	500	104	80-120
Nickel, Total Recoverable	6010B	554	500	111	80-120
Selenium, Dissolved	6020	100	100	100	80-120
Selenium, Total Recoverable	6020	102	100	102	80-120
Silver, Dissolved	6010B	506	500	101	80-120
Silver, Total Recoverable	6010B	533	500	107	80-120
Thallium, Dissolved	6020	9.84	10.0	98	80-120

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QA/QC Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Water

Service Request: J1300079
Date Analyzed: 01/07/13 - 01/08/13

Lab Control Sample Summary
Inorganic Parameters

Units: ug/L
Basis: NA

Lab Control Sample
J1300079-LCS3

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Thallium, Total Recoverable	6020	9.85	10.0	99	80-120
Vanadium, Dissolved	6010B	1030	1000	103	80-120
Vanadium, Total Recoverable	6010B	1080	1000	108	80-120
Zinc, Dissolved	6010B	1040	1000	104	80-120
Zinc, Total Recoverable	6010B	1120	1000	112	80-120

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QA/QC Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Water

Service Request: J1300079
Date Analyzed: 01/07/13 - 01/08/13

Lab Control Sample Summary
Inorganic Parameters

Units:mg/L**Basis:**NA**Lab Control Sample**

J1300079-LCS3

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Calcium, Dissolved	6010B	5.24	5.00	105	80-120
Calcium, Total Recoverable	6010B	5.59	5.00	112	80-120
Magnesium, Dissolved	6010B	5.16	5.00	103	80-120
Magnesium, Total Recoverable	6010B	5.62	5.00	112	80-120
Potassium, Dissolved	6010B	104	100	104	80-120
Potassium, Total Recoverable	6010B	104	100	104	80-120
Sodium, Dissolved	6010B	26.1	25.0	104	80-120
Sodium, Total Recoverable	6010B	26.2	25.0	105	80-120

COLUMBIA ANALYTICAL SERVICES, INC.

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QA/QC Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Analyzed: 1/8/13

Lab Control Sample Summary
Inorganic Parameters

Units: mg/Kg
Basis: Dry

Lab Control Sample
J1300079-LCS1

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Aluminum, Total Recoverable	6010B	255	250	102	80-120
Antimony, Total Recoverable	6010B	25.2	25.0	101	80-120
Arsenic, Total Recoverable	6010B	24.5	25.0	98	80-120
Barium, Total Recoverable	6010B	25.6	25.0	102	80-120
Beryllium, Total Recoverable	6010B	9.90	10.0	99	80-120
Cadmium, Total Recoverable	6010B	12.6	12.5	101	80-120
Calcium, Total Recoverable	6010B	261	250	105	80-120
Chromium, Total Recoverable	6010B	25.5	25.0	102	80-120
Cobalt, Total Recoverable	6010B	25.5	25.0	102	80-120
Copper, Total Recoverable	6010B	25.9	25.0	103	80-120
Iron, Total Recoverable	6010B	258	250	103	80-120
Lead, Total Recoverable	6010B	24.6	25.0	98	80-120
Magnesium, Total Recoverable	6010B	259	250	104	80-120
Manganese, Total Recoverable	6010B	25.4	25.0	101	80-120
Mercury	7471A	0.0897	0.0833	108	80-120
Nickel, Total Recoverable	6010B	25.7	25.0	103	80-120
Potassium, Total Recoverable	6010B	5140	5000	103	80-120
Selenium, Total Recoverable	6010B	23.3	25.0	93	80-120
Silver, Total Recoverable	6010B	24.8	25.0	99	80-120
Sodium, Total Recoverable	6010B	1300	1250	104	80-120
Thallium, Total Recoverable	6010B	25.0	25.0	100	80-120
Vanadium, Total Recoverable	6010B	50.9	50.0	102	80-120
Zinc, Total Recoverable	6010B	50.5	50.0	101	80-120

COLUMBIA ANALYTICAL SERVICES, INC.

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QA/QC Report

Client: J2 Engineering
Project: AAFES Ft. Stewart/12-052
Sample Matrix: Soil

Service Request: J1300079
Date Analyzed: 1/8/13

Lab Control Sample Summary
Inorganic Parameters

Units: mg/Kg
Basis: Dry

Lab Control Sample
J1300079-LCS2

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Aluminum, Total Recoverable	6010B	256	250	102	80-120
Antimony, Total Recoverable	6010B	24.6	25.0	98	80-120
Arsenic, Total Recoverable	6010B	23.9	25.0	96	80-120
Barium, Total Recoverable	6010B	25.1	25.0	100	80-120
Beryllium, Total Recoverable	6010B	9.75	10.0	98	80-120
Cadmium, Total Recoverable	6010B	12.4	12.5	99	80-120
Calcium, Total Recoverable	6010B	261	250	104	80-120
Chromium, Total Recoverable	6010B	25.1	25.0	100	80-120
Cobalt, Total Recoverable	6010B	24.8	25.0	99	80-120
Copper, Total Recoverable	6010B	25.6	25.0	102	80-120
Iron, Total Recoverable	6010B	261	250	104	80-120
Lead, Total Recoverable	6010B	24.0	25.0	96	80-120
Magnesium, Total Recoverable	6010B	256	250	102	80-120
Manganese, Total Recoverable	6010B	25.0	25.0	100	80-120
Mercury	7471A	0.0876	0.0833	105	80-120
Nickel, Total Recoverable	6010B	25.0	25.0	100	80-120
Potassium, Total Recoverable	6010B	5040	5000	101	80-120
Selenium, Total Recoverable	6010B	22.5	25.0	90	80-120
Silver, Total Recoverable	6010B	24.6	25.0	98	80-120
Sodium, Total Recoverable	6010B	1290	1250	103	80-120
Thallium, Total Recoverable	6010B	24.5	25.0	98	80-120
Vanadium, Total Recoverable	6010B	49.9	50.0	100	80-120
Zinc, Total Recoverable	6010B	48.8	50.0	98	80-120

COLUMBIA ANALYTICAL SERVICES, INC.

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QA/QC Report

Client: J2 Engineering
Project AAFES Ft. Stewart/12-052
Sample Matrix: Soil
Analysis Method: 160.3 Modified

Service Request: J1300079**Date Collected:** 01/03/13**Date Received:** 01/04/13**Units:** Percent**Basis:** As Received**Duplicate Sample Summary****Solids, Total**

Sample Name:	Lab Code:	MRL	MDL	Sample Result	Duplicate Result	Average	RPD	RPD Limit	Date Analyzed
B430-B-6 (5-7.5)	J1300079-005DUP	0.10	0.10	93	94	93.4	<1	20	01/07/13
B430-B-7 (5-7.5)	J1300079-007DUP	0.10	0.10	92	92	91.9	<1	20	01/07/13
B430-DUP-02	J1300079-024DUP	0.10	0.10	80	80	80.0	<1	20	01/07/13

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.



Cooler Receipt Form

Client: 52 Env.
Project: AAFE5 F. StewerService Request #: 51300079Cooler received on 1/4/13 and opened on 1/4/13 by SLCOURIER: ALS ☒ UPS ☐ FEDEX ☐ Client ☐ Other Airbill # 12E077R01318780016

- 1 Were custody seals on outside of cooler? ☒ Yes ☐ No
If yes, how many and where? #: 1 on lid other
- 2 Were seals intact and signature and date correct? ☒ Yes ☐ No ☐ N/A
- 3 Were custody papers properly filled out? ☒ Yes ☐ No ☐ N/A ☒
- 4 Temperature of cooler(s) upon receipt (Should be $> 0^{\circ}\text{C}$ and $< 6^{\circ}\text{C}$) 0.1°C 0.1°C 0.1°C 0.1°C
- 5 Thermometer ID TS1 TS1 TS1 TS1
- 6 Temperature Blank Present? ☒ Yes ☐ No
- 7 Were Ice or Ice Packs present ☒ Ice ☐ Ice Packs ☐ No
- 8 Did all bottles arrive in good condition (unbroken, etc....)? ☒ Yes ☐ No ☐ N/A
- 9 Type of packing material present
☒ Netting ☐ Vial Holder ☒ Bubble Wrap
☐ Paper ☒ Styrofoam ☐ Other ☐ N/A
- 10 Were all bottle labels complete (sample ID, preservation, etc....)? ☒ Yes ☐ No ☐ N/A
- 11 Did all bottle labels and tags agree with custody papers? ☒ Yes ☐ No ☐ N/A
- 12 Were the correct bottles used for the tests indicated? ☒ Yes ☐ No ☐ N/A
- 13 Were all of the preserved bottles received with the appropriate preservative?
☒ HNO₃ pH<2 ☐ H₂SO₄ pH<2 ☐ ZnAc₂/NaOH pH>9 ☐ NaOH pH>12 ☐ HCl pH<2
Preservative additions noted below
- 14 Were all samples received within analysis holding times? ☒ Yes ☐ No ☐ N/A
- 15 Were all VOA vials free of air bubbles? If present, note below ☒ Yes ☐ No ☐ N/A
- 16 Where did the bottles originate? ☒ ALS ☐ Client

Sample ID	Reagent	Lot #	ml added	Initials Date/Time

Additional comments and/or explanation of all discrepancies noted above:

Client approval to run samples if discrepancies noted:

Date:



CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

SR# 51300079
CAS Contract

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Project Name		Project Number		ANALYSIS REQUESTED (Include Method Number and Container Description)	
AAFPES Ft. Stewart		12-052		PRESERVATIVE <u>4/8</u> <u>0</u> <u>0</u>	
Project Manager		Email Address		J1300079 5	
Fryer Portside		afryer@j2eng.com		J2 Engineering	
Company Address				AAFPES Ft. Stewart	
Savannah IL Environmental SV				2. HNO ₃	
23 Thomas Indian School Drive				3. H ₂ SO ₄	
Irving, NY 14081				4. NaOH	
Phone #		FAX #		5. Zn Acetate	
716-532-0137		716-532-4036		6. MeOH	
Sample's Signature		Sample's Printed Name		7. NaHSO ₄	
[Signature]		Marian Serrano		8. Other <u>DE</u>	
CLIENT SAMPLE ID		LAB ID	SAMPLING DATE	TIME	MATRIX
B430-B-4(5'-7.5')		11/3/13	0820	S	
B430-B-4(10'-12.5')			0825		
B430-B-5(5'-7.5')			0900		
B430-B-5(12.5'-15')			0905		
B430-B-6(5'-7.5')			0925		
B430-B-6(12.5'-15')			0930		
B430-B-7(5'-7.5')			1005		
B430-B-7(7.5'-10')			1010		
B430-DUP-D1					
SPECIAL INSTRUCTIONS/COMMENTS					
See QAPP ☐					
SAMPLE RECEIPT: CONDITION/COOLER TEMP:					
RELINQUISHED BY		RECEIVED BY		CUSTODY SEALS: Y N	
RELINQUISHED BY		RECEIVED BY		RELINQUISHED BY	
Signature		Signature		Signature	
Printed Name		Printed Name		Printed Name	
Firm		Firm		Firm	
Date/Time		Date/Time		Date/Time	
11/3/13 1945		11/4/13 1916		11/4/13 1916	
REPORT REQUIREMENTS					
I. Results Only ☐ II. Results + QC Summaries (LCS, DUP, MS/MSD as required) ☒ III. Results + QC and Calibration Summaries ☐ IV. Data Validation Report with Raw Data ☐ V. Specialized Forms / Custom Report ☐					
Edata ☒ Yes ☐ No					
INVOICE INFORMATION					
PO # <u>41010-P001</u>					
BILL TO: <u>Todd Givens</u>					
Savannah IL SV					
Irving, NY 14081					
RECEIVED BY					
RELINQUISHED BY					
Signature					
Printed Name					
Firm					
Date/Time					

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

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#SR#

5/30079

CAS Contract

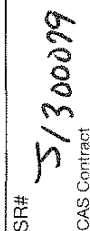
• FAX (904) 739-2011

PAGE 2 OF 3

Project Name		Project Number		ANALYSIS REQUESTED (Include Method Num)		PRESERVATIVE		PRELIMINARY		J1300079		5	
Project Manager		Email Address		Company/Address		Phone #		FAX #		J2 Engineering		AAFES Ft. Stewart	
Client Sample ID		LAB ID		SAMPLING DATE		SAMPLING TIME		MATRIX		8260B (GEX)		8260B (GEX)	
B430-B-8 (5'-7.5')				11/3/0	1150			5	3	1	1	1	0
B430-B-8 (12.5'-15')					1155			5	3	1	1	1	0
B430-B-9 (5'-7.5')					1225			5	3	1	1	1	0
B430-B-9 (12.5'-15')					1230			5	3	1	1	1	0
B430-B-10 (2.5'-5')					1300			5	3	1	1	1	0
B430-B-10 (10'-12.5')					1305			5	3	1	1	1	0
B430-FB-01					1040			7		3	2	1	1
B430-EG-01					1045			7		3	2	1	1
SPECIAL INSTRUCTIONS/COMMENTS		CUSTODY SEALS: Y N		RECEIVED BY		RELINQUISHED BY		RECEIVED BY		REPORT REQUIREMENTS		INVOICE INFORMATION	
See QAPP ☐		SAMPLE RECEIPT: CONDITION/COOLER TEMP:		RECEIVED BY		RELINQUISHED BY		RECEIVED BY		I. Results Only		PO 41010 - Pool	
Signature		Signature		Signature		Signature		Signature		II. Results + QC Summaries (LCS, DUP, MSMDS as required)		BULL TO: Todd Gialanella	
Printed Name		Printed Name		Printed Name		Printed Name		Printed Name		III. Results + QC and Calibration Summaries		Seneca 32 JV	
Firm		Firm		Firm		Firm		Firm		IV. Data Validation Report with Raw Data		Living, NY 14081	
Date/Time		Date/Time		Date/Time		Date/Time		Date/Time		V. Specialized Forms / Custom Report			
Date/Time		Date/Time		Date/Time		Date/Time		Date/Time		Edata ☒ Yes ☐ No			

Distribution: White - Return to Originator; Yellow - Retained by Client

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Distribution: White - Return to Originator; Yellow - Retained by Client

APPENDIX C



Data Quality Review

Project Name: AAFES Car Care Center, Fort Stewart, Georgia
Event Description: Soil Sampling
Dates of Sample Collection: January 2 – 4, 2013
Laboratory Data Reports: J1300077 J1300078 J1300079

Table 1. Summary of Analyses, Qualifications, and Percent Completeness

Parameter:	BTEXX	PAHs	Metals	TOTAL 46
Number of Analytes:	5	18	23	
Analytical Method:	8260B	8270C SIM	6010B / 7471A	
Number of Samples:				
Soil	33	33	33	33
Field Duplicates	3	3	3	3
Field Blanks	2	2	2	2
Equipment Blanks	2	2	2	2
Trip Blanks	3	0	0	3
Total Number of Samples	43	40	40	43
Total Number of Analytes	215	720	920	1,855
Qualified Data:				
Number	5	10	147	162
Percent	2.3%	1.4%	16%	8.7%
Rejected Data:				
Number	0	0	0	0
Percent	0%	0%	0%	0%
Percent Completeness:	100%	100%	100%	100%

BTEXX benzene, toluene, ethylbenzene, m,p-xylenes, and o-xylene

PAHs polynuclear aromatic hydrocarbons

Metals Target Analyte List (TAL)

Data were reviewed by manually reviewing the read-only electronic data reports, supplemented with an electronic review of numeric data reported in laboratory electronic data deliverables (EDDs). The data review criteria and status of each are summarized below. A summary of qualified data is included as a separate table at the end of this report.

Data Review Checklist

Data Review Item			Comment	One or More Results	
				Qualified	Rejected
1. All samples in acceptable condition upon receipt?	Y				
2. All cooler temperatures acceptable at the time of receipt?	Y		All coolers received at $\leq 5.7^{\circ}\text{C}$.		
3. pH of all preserved samples acceptable?	Y		(Applicable to field-generated blanks only)		
4. All samples logged in correctly / log-in issues resolved?	Y				
5. Analytical data received on time?	Y				
6. Laboratory narrative acceptable?	Y				
7. All required holding times met?	Y				
8. Required analyses performed?	Y				
9. All field-generated blanks free of target analytes, including Equipment blanks?		N	Many target metals detected in both of the two equipment blanks, resulting in "B" qualifiers being applied to 75 results for metals.	Y	
Field blanks?		N	Many target metals detected in both of the two field blanks, resulting in "B" qualifiers being applied to 75 results for metals.	Y	
Trip blanks?	Y		No BTEXX detected in any of the three trip blanks.		
10. All field duplicates indicate acceptable cumulative precision?	Y		Overall acceptable agreement between paired results for the three samples collected in duplicate.		
11. All laboratory method blanks free of target analytes?		N	Several target metals detected in the laboratory method blanks, resulting in "B" qualifiers being applied to 80 results.	Y	
12. All LCS recoveries meet data review acceptance criteria?	Y				

Data Review Checklist

Data Review Item			Comment	One or More Results	
				Qualified	Rejected
13. All MS / MSD analyses meet validation acceptance criteria?		N	Qualifications were made to five results (four detections, one non-detection) based on slightly low recoveries and to nine results (all detections) based on slightly high recoveries of the MS and / or MSD. Qualification was limited to results for the native, parent samples as it was believed that any adverse matrix effects could not reasonably be applied to other samples within the analytical batch. MS / MSD recoveries were not evaluated when the spiked amount was less than one-fourth the amount present in the native sample (i.e., when the spiked amount would have been obscured by routine analytical measurement uncertainty).	Y	
14. All surrogate recoveries (organics analyses only) acceptable?	Y		Instances in which only a single surrogate was not within the laboratory's acceptance limits were not used to qualify sample data.		
15. Dilution factors acceptable?	Y		Dilution factors used were necessary and at the appropriate levels. Holding times were met in the reanalyses of diluted samples in all instances.		
16. All method detection limits (MDLs) acceptable?	--		(Consistent with laboratory's current MDLs, except as precluded by dilution factors and percent solids content.)		
17. All method reporting limits (MRLs) acceptable?	--		(Assumed so; consistent with laboratory's established MRLs, except as precluded by dilution factors and percent solids content.)		
Additional Comments: A relatively large number of metals were detected in the field-generated blanks (FGBs; i.e., equipment blanks and field blanks) collected during this event, as well as in the laboratory method blanks. Due to the random and sporadic nature of this low level contamination and uncertainty as to the source, detections in laboratory method blanks were not used to qualify detections in FGBs as non-detections but were used as additional reasons for qualifying sample data. For this same reason (i.e., the uncertainty as to the source of contamination) as well as the short time in which the entire event took place, the results of all FGBs were used to qualify all sample results, regardless as to whether the FGB was collected on the same day as the sample. The on-instrument results were used for the evaluation so that the results for aqueous FGBs could be compared to results for soil samples, based on information provided by the laboratory as to the mass of soil sample analyzed and final volumes.					

LCS laboratory control sample
MS / MSD matrix spike / matrix spike duplicate



Table 2. Summary of Qualified Data

Sample ID	Lab ID	Date Collected	Method	Analyte	Units	Reporting Limit	Detection Limit	Result	Lab Qualifier	Data Review Qualifier	Reason for Qualification
B430-B-1 (4-6)	J1300077-001	01/02/2013	6010B	Antimony	mg/Kg	0.54	0.08	0.32	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-B-1 (4-6)	J1300077-001	01/02/2013	6010B	Cadmium	mg/Kg	0.27	0.008	0.05	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-B-1 (4-6)	J1300077-001	01/02/2013	6010B	Calcium	mg/Kg	5.4	1.2	103		J+	Recovery of the analyte in the MSD performed using this sample exceeds the upper control limit.
B430-B-1 (4-6)	J1300077-001	01/02/2013	6010B	Cobalt	mg/Kg	0.54	0.05	0.11	J	J B	Analyte detected in equipment blank B430-EB-02 and field blank B430-FB-02.
B430-B-1 (4-6)	J1300077-001	01/02/2013	6010B	Manganese	mg/Kg	0.54	0.009	4.98		J+	Recovery of the analyte in the MSD performed using this sample exceeds the upper control limit.
B430-B-1 (4-6)	J1300077-001	01/02/2013	6010B	Sodium	mg/Kg	27	2	15	J	J B	Analyte detected at comparable concentrations in field blank B430-FB-01 and equipment blanks B430-EB-01 and -02.
B430-B-1 (12-14)	J1300077-002	01/02/2013	6010B	Antimony	mg/Kg	0.59	0.09	0.36	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-B-1 (12-14)	J1300077-002	01/02/2013	6010B	Cadmium	mg/Kg	0.30	0.009	0.18	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-B-1 (12-14)	J1300077-002	01/02/2013	6010B	Manganese	mg/Kg	0.59	0.010	0.65		B	Analyte detected in equipment blank B430-EB-01.
B430-B-1 (12-14)	J1300077-002	01/02/2013	6010B	Nickel	mg/Kg	0.59	0.04	0.24	J	J B	Analyte detected in laboratory method blanks and in equipment blank B430-EB-02 at comparable concentrations.
B430-B-1 (12-14)	J1300077-002	01/02/2013	6010B	Sodium	mg/Kg	30	2	12	J	J B	Analyte detected at comparable concentrations in field blank B430-FB-01 and equipment blanks B430-EB-01 and -02.
B430-B-2 (5-7.5)	J1300077-003	01/02/2013	6010B	Antimony	mg/Kg	0.51	0.08	0.31	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-B-2 (5-7.5)	J1300077-003	01/02/2013	6010B	Cadmium	mg/Kg	0.26	0.008	0.05	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-B-2 (5-7.5)	J1300077-003	01/02/2013	6010B	Cobalt	mg/Kg	0.51	0.05	0.51		J B	Analyte detected in equipment blank B430-EB-02 and field blank B430-FB-02.
B430-B-2 (5-7.5)	J1300077-003	01/02/2013	6010B	Sodium	mg/Kg	26	2	11	J	J B	Analyte detected at comparable concentrations in field blank B430-FB-01 and equipment blanks B430-EB-01 and -02.
B430-B-2 (5-7.5)	J1300077-003	01/02/2013	8270C SIM	Benzo(k)fluoranthene	ug/Kg	3.18	2.40	9.49		J	Recoveries of the analyte in the MS / MSD analyses performed using this sample were less than the laboratory's lower acceptance limits.



Table 2. Summary of Qualified Data

Sample ID	Lab ID	Date Collected	Method	Analyte	Units	Reporting Limit	Detection Limit	Result	Lab Qualifier	Data Review Qualifier	Reason for Qualification
B430-B-2 (5-7.5)	J1300077-003	01/02/2013	8270C SIM	Indeno(1,2,3-cd)pyrene	ug/Kg	3.18	2.20	23.9		J+	Recovery of the analyte in the MS performed using this sample exceeds the upper control limit.
B430-B-2 (12.5-15)	J1300077-004	01/02/2013	6010B	Antimony	mg/Kg	0.56	0.09	0.33	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-B-2 (12.5-15)	J1300077-004	01/02/2013	6010B	Cadmium	mg/Kg	0.28	0.008	0.06	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-B-2 (12.5-15)	J1300077-004	01/02/2013	6010B	Manganese	mg/Kg	0.56	0.010	0.50	J	J B	Analyte detected in equipment blank B430-EB-01.
B430-B-2 (12.5-15)	J1300077-004	01/02/2013	6010B	Nickel	mg/Kg	0.56	0.04	0.22	J	J B	Analyte detected in laboratory method blanks and in equipment blank B430-EB-02 at comparable concentrations.
B430-B-2 (12.5-15)	J1300077-004	01/02/2013	6010B	Potassium	mg/Kg	110	5	10	J	J B	Analyte detected at comparable concentrations in equipment blank B430-EB-02 and field blanks B430-FB-01 and -02.
B430-B-2 (12.5-15)	J1300077-004	01/02/2013	6010B	Sodium	mg/Kg	28	2	5	J	J B	Analyte detected at comparable concentrations in field blank B430-FB-01 and equipment blanks B430-EB-01 and -02.
B430-B-3 (5-7.5)	J1300077-005	01/02/2013	6010B	Antimony	mg/Kg	0.51	0.08	0.30	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-B-3 (5-7.5)	J1300077-005	01/02/2013	6010B	Cadmium	mg/Kg	0.25	0.008	0.05	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-B-3 (5-7.5)	J1300077-005	01/02/2013	6010B	Cobalt	mg/Kg	0.51	0.05	0.56		J B	Analyte detected in equipment blank B430-EB-02 and field blank B430-FB-02.
B430-B-3 (7.5-10)	J1300077-006	01/02/2013	6010B	Antimony	mg/Kg	0.49	0.08	0.24	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-B-3 (7.5-10)	J1300077-006	01/02/2013	6010B	Cadmium	mg/Kg	0.24	0.007	0.05	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-B-3 (7.5-10)	J1300077-006	01/02/2013	6010B	Potassium	mg/Kg	97	4	13	J	J B	Analyte detected at comparable concentrations in equipment blank B430-EB-02 and field blanks B430-FB-01 and -02.
B430-B-13 (5-7.5)	J1300078-001	01/04/2013	6010B	Antimony	mg/Kg	0.50	0.08	0.30	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-B-13 (5-7.5)	J1300078-001	01/04/2013	6010B	Cadmium	mg/Kg	0.25	0.007	0.05	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-B-13 (5-7.5)	J1300078-001	01/04/2013	6010B	Cobalt	mg/Kg	0.50	0.04	0.45	J	J B	Analyte detected in equipment blank B430-EB-02 and field blank B430-FB-02.
B430-B-13 (5-7.5)	J1300078-001	01/04/2013	6010B	Sodium	mg/Kg	25	2	13	J	J B	Analyte detected at comparable concentrations in field blank B430-FB-01 and equipment blanks B430-EB-01 and -02.



Table 2. Summary of Qualified Data

Sample ID	Lab ID	Date Collected	Method	Analyte	Units	Reporting Limit	Detection Limit	Result	Lab Qualifier	Data Review Qualifier	Reason for Qualification
B430-B-13 (10-12.5)	J1300078-002	01/04/2013	6010B	Antimony	mg/Kg	0.54	0.08	0.43	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-B-13 (10-12.5)	J1300078-002	01/04/2013	6010B	Cadmium	mg/Kg	0.27	0.008	0.05	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-B-13 (10-12.5)	J1300078-002	01/04/2013	6010B	Sodium	mg/Kg	27	2	10	J	J B	Analyte detected at comparable concentrations in field blank B430-FB-01 and equipment blanks B430-EB-01 and -02.
B430-B-15 (7.5-10)	J1300078-003	01/04/2013	6010B	Antimony	mg/Kg	0.60	0.09	0.42	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-B-15 (7.5-10)	J1300078-003	01/04/2013	6010B	Cadmium	mg/Kg	0.30	0.009	0.06	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-B-15 (7.5-10)	J1300078-003	01/04/2013	6010B	Nickel	mg/Kg	0.60	0.04	0.24	J	J B	Analyte detected in laboratory method blanks and in equipment blank B430-EB-02 at comparable concentrations.
B430-B-15 (7.5-10)	J1300078-003	01/04/2013	6010B	Potassium	mg/Kg	120	5	20	J	J B	Analyte detected at comparable concentrations in equipment blank B430-EB-02 and field blanks B430-FB-01 and -02.
B430-B-15 (7.5-10)	J1300078-003	01/04/2013	6010B	Sodium	mg/Kg	30	2	7	J	J B	Analyte detected at comparable concentrations in field blank B430-FB-01 and equipment blanks B430-EB-01 and -02.
B430-B-15 (12.5-15)	J1300078-004	01/04/2013	6010B	Antimony	mg/Kg	0.56	0.09	0.51	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-B-15 (12.5-15)	J1300078-004	01/04/2013	6010B	Cadmium	mg/Kg	0.28	0.008	0.06	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-B-15 (12.5-15)	J1300078-004	01/04/2013	6010B	Sodium	mg/Kg	28	2	4	J	J B	Analyte detected at comparable concentrations in field blank B430-FB-01 and equipment blanks B430-EB-01 and -02.
B430-DUP-03	J1300078-005	01/04/2013	6010B	Antimony	mg/Kg	0.61	0.09	0.67		B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-DUP-03	J1300078-005	01/04/2013	6010B	Cadmium	mg/Kg	0.30	0.009	0.06	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-DUP-03	J1300078-005	01/04/2013	6010B	Sodium	mg/Kg	30	3	9	J	J B	Analyte detected at comparable concentrations in field blank B430-FB-01 and equipment blanks B430-EB-01 and -02.
B430-B-16 (5-7.5)	J1300078-008	01/04/2013	6010B	Antimony	mg/Kg	0.55	0.09	0.33	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-B-16 (5-7.5)	J1300078-008	01/04/2013	6010B	Cadmium	mg/Kg	0.28	0.008	0.06	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.



Table 2. Summary of Qualified Data

Sample ID	Lab ID	Date Collected	Method	Analyte	Units	Reporting Limit	Detection Limit	Result	Lab Qualifier	Data Review Qualifier	Reason for Qualification
B430-B-16 (5-7.5)	J1300078-008	01/04/2013	6010B	Potassium	mg/Kg	110	5	20	J	J B	Analyte detected at comparable concentrations in equipment blank B430-EB-02 and field blanks B430-FB-01 and -02.
B430-B-16 (5-7.5)	J1300078-008	01/04/2013	6010B	Sodium	mg/Kg	28	2	6	J	J B	Analyte detected at comparable concentrations in field blank B430-FB-01 and equipment blanks B430-EB-01 and -02.
B430-B-16 (10-12.5)	J1300078-009	01/04/2013	6010B	Antimony	mg/Kg	0.55	0.09	0.33	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-B-16 (10-12.5)	J1300078-009	01/04/2013	6010B	Cadmium	mg/Kg	0.28	0.008	0.06	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-B-16 (10-12.5)	J1300078-009	01/04/2013	6010B	Sodium	mg/Kg	28	2	6	J	J B	Analyte detected at comparable concentrations in field blank B430-FB-01 and equipment blanks B430-EB-01 and -02.
B430-Hoist-2A (11-12.5)	J1300078-011	01/04/2013	6010B	Antimony	mg/Kg	0.59	0.09	0.35	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-Hoist-2A (11-12.5)	J1300078-011	01/04/2013	6010B	Cadmium	mg/Kg	0.29	0.009	0.06	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-Hoist-2A (11-12.5)	J1300078-011	01/04/2013	6010B	Cobalt	mg/Kg	0.59	0.05	0.06	J	J B	Analyte detected in equipment blank B430-EB-02 and field blank B430-FB-02.
B430-Hoist-2A (11-12.5)	J1300078-011	01/04/2013	6010B	Sodium	mg/Kg	29	2	28	J	J B	Analyte detected at comparable concentrations in field blank B430-FB-01 and equipment blanks B430-EB-01 and -02.
B430-B-4 (5-7.5)	J1300079-001	01/03/2013	6010B	Antimony	mg/Kg	0.52	0.08	0.26	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-B-4 (5-7.5)	J1300079-001	01/03/2013	6010B	Cadmium	mg/Kg	0.26	0.008	0.05	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-B-4 (5-7.5)	J1300079-001	01/03/2013	6010B	Cobalt	mg/Kg	0.52	0.05	0.05	J	J B	Analyte detected in equipment blank B430-EB-02 and field blank B430-FB-02.
B430-B-4 (5-7.5)	J1300079-001	01/03/2013	6010B	Potassium	mg/Kg	100	4	20	J	J B	Analyte detected at comparable concentrations in equipment blank B430-EB-02 and field blanks B430-FB-01 and -02.
B430-B-4 (5-7.5)	J1300079-001	01/03/2013	6010B	Sodium	mg/Kg	26	2	5	J	J B	Analyte detected at comparable concentrations in field blank B430-FB-01 and equipment blanks B430-EB-01 and -02.
B430-B-4 (10-12.5)	J1300079-002	01/03/2013	6010B	Antimony	mg/Kg	0.60	0.09	0.42	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-B-4 (10-12.5)	J1300079-002	01/03/2013	6010B	Cadmium	mg/Kg	0.30	0.009	0.06	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.



Table 2. Summary of Qualified Data

Sample ID	Lab ID	Date Collected	Method	Analyte	Units	Reporting Limit	Detection Limit	Result	Lab Qualifier	Data Review Qualifier	Reason for Qualification
B430-B-4 (10-12.5)	J1300079-002	01/03/2013	6010B	Potassium	mg/Kg	120	5	20	J	J B	Analyte detected at comparable concentrations in equipment blank B430-EB-02 and field blanks B430-FB-01 and -02.
B430-B-5 (5-7.5)	J1300079-003	01/03/2013	6010B	Antimony	mg/Kg	0.45	0.08	0.27	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-B-5 (5-7.5)	J1300079-003	01/03/2013	6010B	Cadmium	mg/Kg	0.23	0.007	0.05	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-B-5 (5-7.5)	J1300079-003	01/03/2013	6010B	Cobalt	mg/Kg	0.45	0.04	0.23	J	J B	Analyte detected in equipment blank B430-EB-02 and field blank B430-FB-02.
B430-B-5 (5-7.5)	J1300079-003	01/03/2013	6010B	Sodium	mg/Kg	23	2	6	J	J B	Analyte detected at comparable concentrations in field blank B430-FB-01 and equipment blanks B430-EB-01 and -02.
B430-B-5 (12.5-15)	J1300079-004	01/03/2013	6010B	Antimony	mg/Kg	0.54	0.08	0.38	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-B-5 (12.5-15)	J1300079-004	01/03/2013	6010B	Cadmium	mg/Kg	0.27	0.008	0.05	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-B-6 (5-7.5)	J1300079-005	01/03/2013	6010B	Antimony	mg/Kg	0.52	0.08	0.31	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-B-6 (5-7.5)	J1300079-005	01/03/2013	6010B	Cadmium	mg/Kg	0.26	0.008	0.05	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-B-6 (5-7.5)	J1300079-005	01/03/2013	6010B	Cobalt	mg/Kg	0.52	0.05	0.16	J	J B	Analyte detected in equipment blank B430-EB-02 and field blank B430-FB-02.
B430-B-6 (5-7.5)	J1300079-005	01/03/2013	6010B	Copper	mg/Kg	0.52	0.07	0.47	J	J B	Analyte detected in equipment blank B430-EB-02 and field blank B430-FB-02.
B430-B-6 (5-7.5)	J1300079-005	01/03/2013	6010B	Sodium	mg/Kg	26	2	10	J	J B	Analyte detected at comparable concentrations in field blank B430-FB-01 and equipment blanks B430-EB-01 and -02.
B430-B-6 (12.5-15)	J1300079-006	01/03/2013	6010B	Antimony	mg/Kg	0.55	0.09	0.27	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-B-6 (12.5-15)	J1300079-006	01/03/2013	6010B	Cadmium	mg/Kg	0.27	0.008	0.05	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-B-6 (12.5-15)	J1300079-006	01/03/2013	6010B	Sodium	mg/Kg	27	2	7	J	J B	Analyte detected at comparable concentrations in field blank B430-FB-01 and equipment blanks B430-EB-01 and -02.
B430-B-7 (5-7.5)	J1300079-007	01/03/2013	6010B	Antimony	mg/Kg	0.50	0.08	0.25	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-B-7 (5-7.5)	J1300079-007	01/03/2013	6010B	Cadmium	mg/Kg	0.25	0.007	0.05	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.



Table 2. Summary of Qualified Data

Sample ID	Lab ID	Date Collected	Method	Analyte	Units	Reporting Limit	Detection Limit	Result	Lab Qualifier	Data Review Qualifier	Reason for Qualification
B430-B-7 (5-7.5)	J1300079-007	01/03/2013	6010B	Cobalt	mg/Kg	0.50	0.04	0.45	J	J B	Analyte detected in equipment blank B430-EB-02 and field blank B430-FB-02.
B430-B-7 (5-7.5)	J1300079-007	01/03/2013	6010B	Sodium	mg/Kg	25	2	23	J	J B	Analyte detected at comparable concentrations in field blank B430-FB-01 and equipment blanks B430-EB-01 and -02.
B430-B-7 (5-7.5)	J1300079-007	01/03/2013	8270C SIM	Benzo(b)fluoranthene	ug/Kg	3.75	2.21	155		J+	Recovery of the analyte in the MS and / or MSD exceeds the upper control limit.
B430-B-7 (5-7.5)	J1300079-007	01/03/2013	8270C SIM	Benzo(g,h,i)perylene	ug/Kg	3.75	2.43	61.7		J+	Recovery of the analyte in the MS and / or MSD exceeds the upper control limit.
B430-B-7 (5-7.5)	J1300079-007	01/03/2013	8270C SIM	Chrysene	ug/Kg	3.75	2.10	130		J+	Recovery of the analyte in the MS and / or MSD exceeds the upper control limit.
B430-B-7 (5-7.5)	J1300079-007	01/03/2013	8270C SIM	Fluoranthene	ug/Kg	3.75	2.21	162		J+	Recovery of the analyte in the MS and / or MSD exceeds the upper control limit.
B430-B-7 (5-7.5)	J1300079-007	01/03/2013	8270C SIM	Indeno(1,2,3-cd)pyrene	ug/Kg	3.75	2.43	101		J+	Recovery of the analyte in the MS and / or MSD exceeds the upper control limit.
B430-B-7 (5-7.5)	J1300079-007	01/03/2013	8270C SIM	Pyrene	ug/Kg	3.75	2.21	241		J+	Recovery of the analyte in the MS and / or MSD exceeds the upper control limit.
B430-B-7 (7.5-10)	J1300079-008	01/03/2013	6010B	Antimony	mg/Kg	0.55	0.09	0.22	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-B-7 (7.5-10)	J1300079-008	01/03/2013	6010B	Cadmium	mg/Kg	0.28	0.008	0.06	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-B-7 (7.5-10)	J1300079-008	01/03/2013	6010B	Manganese	mg/Kg	0.55	0.010	0.66		B	Analyte detected in equipment blank B430-EB-01.
B430-B-7 (7.5-10)	J1300079-008	01/03/2013	6010B	Nickel	mg/Kg	0.55	0.04	0.17	J	J B	Analyte detected in laboratory method blanks and in equipment blank B430-EB-02 at comparable concentrations.
B430-B-7 (7.5-10)	J1300079-008	01/03/2013	6010B	Sodium	mg/Kg	28	2	19	J	J B	Analyte detected at comparable concentrations in field blank B430-FB-01 and equipment blanks B430-EB-01 and -02.
B430-DUP-01	J1300079-009	01/03/2013	6010B	Antimony	mg/Kg	0.57	0.09	0.40	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-DUP-01	J1300079-009	01/03/2013	6010B	Cadmium	mg/Kg	0.28	0.008	0.06	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-DUP-01	J1300079-009	01/03/2013	6010B	Nickel	mg/Kg	0.57	0.04	0.23	J	J B	Analyte detected in laboratory method blanks and in equipment blank B430-EB-02 at comparable concentrations.
B430-DUP-01	J1300079-009	01/03/2013	6010B	Sodium	mg/Kg	28	2	19	J	J B	Analyte detected at comparable concentrations in field blank B430-FB-01 and equipment blanks B430-EB-01 and -02.



Table 2. Summary of Qualified Data

Sample ID	Lab ID	Date Collected	Method	Analyte	Units	Reporting Limit	Detection Limit	Result	Lab Qualifier	Data Review Qualifier	Reason for Qualification
B430-B-8 (5-7.5)	J1300079-010	01/03/2013	6010B	Antimony	mg/Kg	0.48	0.08	0.34	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-B-8 (5-7.5)	J1300079-010	01/03/2013	6010B	Cadmium	mg/Kg	0.24	0.007	0.05	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-B-8 (5-7.5)	J1300079-010	01/03/2013	6010B	Cobalt	mg/Kg	0.48	0.04	0.48		J B	Analyte detected in equipment blank B430-EB-02 and field blank B430-FB-02.
B430-B-8 (5-7.5)	J1300079-010	01/03/2013	6010B	Sodium	mg/Kg	24	2	12	J	J B	Analyte detected at comparable concentrations in field blank B430-FB-01 and equipment blanks B430-EB-01 and -02.
B430-B-8 (12.5-15)	J1300079-011	01/03/2013	6010B	Antimony	mg/Kg	0.56	0.09	0.28	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-B-8 (12.5-15)	J1300079-011	01/03/2013	6010B	Cadmium	mg/Kg	0.28	0.008	0.06	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-B-8 (12.5-15)	J1300079-011	01/03/2013	6010B	Cobalt	mg/Kg	0.56	0.05	0.06	J	J B	Analyte detected in equipment blank B430-EB-02 and field blank B430-FB-02.
B430-B-8 (12.5-15)	J1300079-011	01/03/2013	6010B	Potassium	mg/Kg	110	5	20	J	J B	Analyte detected at comparable concentrations in equipment blank B430-EB-02 and field blanks B430-FB-01 and -02.
B430-B-8 (12.5-15)	J1300079-011	01/03/2013	6010B	Sodium	mg/Kg	28	2	6	J	J B	Analyte detected at comparable concentrations in field blank B430-FB-01 and equipment blanks B430-EB-01 and -02.
B430-B-9 (5-7.5)	J1300079-012	01/03/2013	6010B	Antimony	mg/Kg	0.53	0.08	0.16	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-B-9 (5-7.5)	J1300079-012	01/03/2013	6010B	Cadmium	mg/Kg	0.27	0.008	0.05	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-B-9 (5-7.5)	J1300079-012	01/03/2013	6010B	Manganese	mg/Kg	0.53	0.009	0.59		B	Analyte detected in equipment blank B430-EB-01.
B430-B-9 (5-7.5)	J1300079-012	01/03/2013	6010B	Nickel	mg/Kg	0.53	0.04	0.21	J	J B	Analyte detected in laboratory method blanks and in equipment blank B430-EB-02 at comparable concentrations.
B430-B-9 (5-7.5)	J1300079-012	01/03/2013	6010B	Potassium	mg/Kg	110	4	10	J	J B	Analyte detected at comparable concentrations in equipment blank B430-EB-02 and field blanks B430-FB-01 and -02.
B430-B-9 (5-7.5)	J1300079-012	01/03/2013	6010B	Sodium	mg/Kg	27	2	4	J	J B	Analyte detected at comparable concentrations in field blank B430-FB-01 and equipment blanks B430-EB-01 and -02.
B430-B-9 (12.5-15)	J1300079-013	01/03/2013	6010B	Antimony	mg/Kg	0.56	0.09	0.34	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.



Table 2. Summary of Qualified Data

Sample ID	Lab ID	Date Collected	Method	Analyte	Units	Reporting Limit	Detection Limit	Result	Lab Qualifier	Data Review Qualifier	Reason for Qualification
B430-B-9 (12.5-15)	J1300079-013	01/03/2013	6010B	Cadmium	mg/Kg	0.28	0.008	0.06	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-B-9 (12.5-15)	J1300079-013	01/03/2013	6010B	Nickel	mg/Kg	0.56	0.04	0.17	J	J B	Analyte detected in laboratory method blanks and in equipment blank B430-EB-02 at comparable concentrations.
B430-B-9 (12.5-15)	J1300079-013	01/03/2013	6010B	Potassium	mg/Kg	110	5	20	J	J B	Analyte detected at comparable concentrations in equipment blank B430-EB-02 and field blanks B430-FB-01 and -02.
B430-B-9 (12.5-15)	J1300079-013	01/03/2013	6010B	Sodium	mg/Kg	28	2	4	J	J B	Analyte detected at comparable concentrations in field blank B430-FB-01 and equipment blanks B430-EB-01 and -02.
B430-B-10 (2.5-5)	J1300079-014	01/03/2013	6010B	Antimony	mg/Kg	0.54	0.08	0.32	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-B-10 (2.5-5)	J1300079-014	01/03/2013	6010B	Cadmium	mg/Kg	0.27	0.008	0.05	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-B-10 (2.5-5)	J1300079-014	01/03/2013	6010B	Cobalt	mg/Kg	0.54	0.05	0.05	J	J B	Analyte detected in equipment blank B430-EB-02 and field blank B430-FB-02.
B430-B-10 (2.5-5)	J1300079-014	01/03/2013	6010B	Copper	mg/Kg	0.54	0.07	0.38	J	J B	Analyte detected in equipment blank B430-EB-02 and field blank B430-FB-02.
B430-B-10 (2.5-5)	J1300079-014	01/03/2013	6010B	Sodium	mg/Kg	27	2	6	J	J B	Analyte detected at comparable concentrations in field blank B430-FB-01 and equipment blanks B430-EB-01 and -02.
B430-B-10 (10-12.5)	J1300079-015	01/03/2013	6010B	Antimony	mg/Kg	0.62	0.10	0.49	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-B-10 (10-12.5)	J1300079-015	01/03/2013	6010B	Cadmium	mg/Kg	0.31	0.009	0.06	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-B-10 (10-12.5)	J1300079-015	01/03/2013	6010B	Manganese	mg/Kg	0.62	0.02	0.49	J	J B	Analyte detected in equipment blank B430-EB-01.
B430-B-10 (10-12.5)	J1300079-015	01/03/2013	6010B	Nickel	mg/Kg	0.62	0.05	0.18	J	J B	Analyte detected in laboratory method blanks and in equipment blank B430-EB-02 at comparable concentrations.
B430-B-10 (10-12.5)	J1300079-015	01/03/2013	6010B	Potassium	mg/Kg	120	5	20	J	J B	Analyte detected at comparable concentrations in equipment blank B430-EB-02 and field blanks B430-FB-01 and -02.
B430-B-10 (10-12.5)	J1300079-015	01/03/2013	6010B	Sodium	mg/Kg	31	3	5	J	J B	Analyte detected at comparable concentrations in field blank B430-FB-01 and equipment blanks B430-EB-01 and -02.
B430-B-11 (7.5-10)	J1300079-018	01/03/2013	6010B	Antimony	mg/Kg	0.51	0.08	0.21	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.



Table 2. Summary of Qualified Data

Sample ID	Lab ID	Date Collected	Method	Analyte	Units	Reporting Limit	Detection Limit	Result	Lab Qualifier	Data Review Qualifier	Reason for Qualification
B430-B-11 (7.5-10)	J1300079-018	01/03/2013	6010B	Cadmium	mg/Kg	0.26	0.008	0.05	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-B-11 (7.5-10)	J1300079-018	01/03/2013	6010B	Potassium	mg/Kg	100	4	20	J	J B	Analyte detected at comparable concentrations in equipment blank B430-EB-02 and field blanks B430-FB-01 and -02.
B430-B-11 (7.5-10)	J1300079-018	01/03/2013	8270C SIM	Fluoranthene	ug/Kg	3.83	2.26	3.54	BJ	J B	Analyte detected at a comparable level in the laboratory method blank.
B430-B-11 (7.5-10)	J1300079-018	01/03/2013	8270C SIM	Phenanthrene	ug/Kg	7.66	1.92	11.5	B	J B	Analyte detected at a comparable level in the laboratory method blank.
B430-B-11 (10-12.5)	J1300079-019	01/03/2013	6010B	Antimony	mg/Kg	0.59	0.09	0.47	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-B-11 (10-12.5)	J1300079-019	01/03/2013	6010B	Cadmium	mg/Kg	0.29	0.009	0.06	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-B-11 (10-12.5)	J1300079-019	01/03/2013	6010B	Manganese	mg/Kg	0.59	0.010	0.70		B	Analyte detected in equipment blank B430-EB-01.
B430-B-12 (5-7.5)	J1300079-020	01/03/2013	6010B	Antimony	mg/Kg	0.53	0.08	0.37	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-B-12 (5-7.5)	J1300079-020	01/03/2013	6010B	Cadmium	mg/Kg	0.27	0.008	0.05	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-B-12 (5-7.5)	J1300079-020	01/03/2013	6010B	Cobalt	mg/Kg	0.53	0.05	0.48	J	J B	Analyte detected in equipment blank B430-EB-02 and field blank B430-FB-02.
B430-B-12 (5-7.5)	J1300079-020	01/03/2013	6010B	Sodium	mg/Kg	27	2	11	J	J B	Analyte detected at comparable concentrations in field blank B430-FB-01 and equipment blanks B430-EB-01 and -02.
B430-B-12 (12.5-15)	J1300079-021	01/03/2013	6010B	Antimony	mg/Kg	0.58	0.09	0.46	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-B-12 (12.5-15)	J1300079-021	01/03/2013	6010B	Cadmium	mg/Kg	0.29	0.009	0.06	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-B-12 (12.5-15)	J1300079-021	01/03/2013	6010B	Manganese	mg/Kg	0.58	0.010	0.69		B	Analyte detected in equipment blank B430-EB-01.
B430-B-12 (12.5-15)	J1300079-021	01/03/2013	6010B	Sodium	mg/Kg	29	2	10	J	J B	Analyte detected at comparable concentrations in field blank B430-FB-01 and equipment blanks B430-EB-01 and -02.
B430-B-14 (5-7.5)	J1300079-022	01/03/2013	6010B	Antimony	mg/Kg	0.52	0.08	0.26	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-B-14 (5-7.5)	J1300079-022	01/03/2013	6010B	Cadmium	mg/Kg	0.26	0.008	0.05	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-B-14 (5-7.5)	J1300079-022	01/03/2013	6010B	Cobalt	mg/Kg	0.52	0.05	0.10	J	J B	Analyte detected in equipment blank B430-EB-02 and field blank B430-FB-02.



Table 2. Summary of Qualified Data

Sample ID	Lab ID	Date Collected	Method	Analyte	Units	Reporting Limit	Detection Limit	Result	Lab Qualifier	Data Review Qualifier	Reason for Qualification
B430-B-14 (5-7.5)	J1300079-022	01/03/2013	6010B	Potassium	mg/Kg	100	4	20	J	J B	Analyte detected at comparable concentrations in equipment blank B430-EB-02 and field blanks B430-FB-01 and -02.
B430-B-14 (5-7.5)	J1300079-022	01/03/2013	6010B	Sodium	mg/Kg	26	2	12	J	J B	Analyte detected at comparable concentrations in field blank B430-FB-01 and equipment blanks B430-EB-01 and -02.
B430-B-14 (10-12.5)	J1300079-023	01/03/2013	6010B	Antimony	mg/Kg	0.53	0.08	0.47	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-B-14 (10-12.5)	J1300079-023	01/03/2013	6010B	Cadmium	mg/Kg	0.26	0.008	0.05	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-B-14 (10-12.5)	J1300079-023	01/03/2013	6010B	Sodium	mg/Kg	26	2	8	J	J B	Analyte detected at comparable concentrations in field blank B430-FB-01 and equipment blanks B430-EB-01 and -02.
B430-B-14 (10-12.5)	J1300079-023	01/03/2013	8260B	Benzene	ug/Kg	6.10	0.208	ND	U	U J	Recoveries of the analyte in the MS / MSD analyses performed using this sample were less than the laboratory's lower acceptance limits.
B430-B-14 (10-12.5)	J1300079-023	01/03/2013	8260B	Ethylbenzene	ug/Kg	6.10	0.147	0.756	J	J	Recoveries of the analyte in the MS / MSD analyses performed using this sample were less than the laboratory's lower acceptance limits.
B430-B-14 (10-12.5)	J1300079-023	01/03/2013	8260B	m,p-Xylenes	ug/Kg	12.2	0.257	2.15	J	J	Recoveries of the analyte in the MS / MSD analyses performed using this sample were less than the laboratory's lower acceptance limits.
B430-B-14 (10-12.5)	J1300079-023	01/03/2013	8260B	o-Xylene	ug/Kg	6.10	0.196	0.988	J	J	Recoveries of the analyte in the MS / MSD analyses performed using this sample were less than the laboratory's lower acceptance limits.
B430-B-14 (10-12.5)	J1300079-023	01/03/2013	8260B	Toluene	ug/Kg	6.10	0.330	1.46	J	J	Recoveries of the analyte in the MS / MSD analyses performed using this sample were less than the laboratory's lower acceptance limits.
B430-DUP-02	J1300079-024	01/03/2013	6010B	Antimony	mg/Kg	0.60	0.09	0.42	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-DUP-02	J1300079-024	01/03/2013	6010B	Cadmium	mg/Kg	0.30	0.009	0.06	J	J B	Analyte detected in laboratory method blanks at comparable concentrations.
B430-DUP-02	J1300079-024	01/03/2013	6010B	Sodium	mg/Kg	30	2	14	J	J B	Analyte detected at comparable concentrations in field blank B430-FB-01 and equipment blanks B430-EB-01 and -02.

APPENDIX D

Georgia Department of Natural Resources

Environmental Protection Division

2 Martin Luther King Jr. Drive, S.E., East Tower, Atlanta, Georgia 30334
Judson H. Turner, Director

Reply To:
Watershed Protection Branch
2 Martin Luther King Jr. Drive, S.E.
East Tower
Suite 1062
Atlanta, Georgia 30334
(404) 656-3214

February 21, 2013

Ms. Algeana Stevenson
Environmental Branch
Directorate of Public Works BLDG 1137
HQS 3D In DIV (Mech) and Fort Stewart
1550 Frank Cochran Drive
Fort Stewart, Georgia 31314-4927

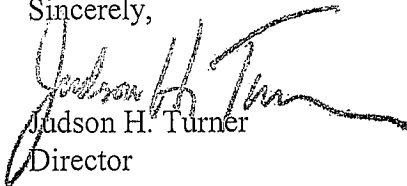
RE: Renewed Underground Injection Control Permit #R-156 for Injection of Treated Groundwater at the U. S. Army Corps of Engineers, Fort Stewart, Building 430, Fort Stewart, Georgia (EPD-Facility ID # 9089118-1).

Dear Ms. Stevenson:

Enclosed is renewed Underground Injection Control (UIC) Permit #R-156 for the U. S. Army Corps of Engineers, Building 430 located in Fort Stewart, Georgia. This UIC permit allows the U.S. Army Corps of Engineers to utilize injection of treated groundwater through one (1) injection well to assist with the remediation of soil and ground water contaminated with petroleum hydrocarbons at this site for up to five (5) years. The UIC permit includes two (2) standard conditions and seven (7) additional conditions in the attachment.

If you have any questions about the permit, please contact Mr. Bijan Rahbar, UIC Coordinator, at (404) 656-3229.

Sincerely,


Judson H. Turner
Director

Enclosure

cc: Renewed UIC Permit #R-156 file
William Logan, EPD-USTMP

**STATE OF GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION**

INJECTION WELL OPERATING PERMIT

PERMIT NUMBER: #R-156

DATE ISSUED: February 21, 2013

FACILITY DATA:

INJECTION WELL TYPE: CLASS V (type 5X26)

FACILITY: U.S. Army
Underground Storage Tanks 257-261
Building 430
Fort Stewart, Georgia
Liberty County

OPERATOR: U.S. Army Corps of Engineers
Directorate of Public Works
1550 Veterans Parkway
Fort Stewart, GA 31314-5048

LOCATION: Lat: 31° 52' 17" N
Long: 81° 36' 35" W

EPD-Facility ID # 9089118-1

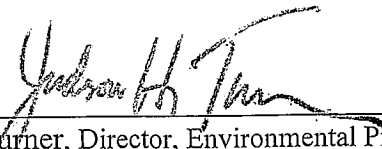
In accordance with the provisions of the Georgia Rules for Underground Injection Control, Chapter 391-3-6-.13, as amended 2001, this permit is issued for the operation of the herein described injection system. This permit is effective immediately, unless appealed within thirty (30) days after its issuance and is conditioned upon the following:

- 1) The Permittee's continued compliance with the Georgia Rules for Underground Injection Control, Chapter 391-3-6-.13, the Georgia Rules for Water Quality Control (Revised) and the Georgia Rules for Safe Drinking Water (Revised); and
- 2) The Permittee's continued compliance with the Permittee's approved injection operation plan that is part of the approved Corrective Action Plan for this site, along with provisions of officially approved plan amendments, if any.

Additional conditions 1 through 7 are attached hereto.

This permit is issued in accordance with the application and supplemental information received on January 29, 2013. The injection operation plan is hereby approved and is based on the statements and supporting data entered herein or attached thereto, all of which are filed with the Environmental Protection Division of the Georgia Department of Natural Resources and hereby made a part of this permit.

This permit is subject to revocation for noncompliance with aforementioned conditions.
This permit expires on **February 20, 2018** unless previously terminated.



Judson H. Turner, Director, Environmental Protection Division
Georgia Department of Natural Resources

INJECTION WELL OPERATING PERMIT ADDITIONAL CONDITIONS

1. Permit Conditions.

- a. This permit is not transferable until any new operator shall agree in writing to all permit conditions. Any new operator also shall provide the Environmental Protection Division (Division) with appropriate documentation that they have adequate financial assurances to plug all existing Class V wells.
- b. If the U.S. Army Corps of Engineers (Operator) wishes to continue an activity regulated by this permit after the expiration of the permit, the Operator must apply for and obtain a new permit.
- c. The Operator shall report any instances of noncompliance with permit conditions to the Division in writing within five (5) working days of such noncompliance, and shall take all reasonable steps to minimize the impact on the environment resulting from noncompliance with this permit and the Georgia Rules for Underground Injection Control.
- d. The Operator shall notify the Division of any proposed changes to the performance of the treated groundwater injection system in writing at least thirty (30) days prior to the change.
- e. All reports submitted to the Division shall be signed and stamped by a Georgia Registered Professional Engineer or Professional Geologist.
- f. All analyses shall be performed by a laboratory approved or accredited by EPD in accordance with the Georgia Rules for Commercial Laboratory Accreditation, Chapter 391-3-26.

2. System Parameters.

- a. This permit is issued to the Operator for the purpose of operating a treated groundwater injection system at the above referenced site to aid in remediation of soil and ground water contaminated with petroleum hydrocarbons.
- b. Number of Class V injection wells: one (1).
- c. Injected fluid: treated groundwater.
- d. Maximum injection rate per well: 30 gallons/min. (gpm)/well.
Maximum total system injection rate: 30 gpm.
- e. Maximum injection volume per well: 43,200 gallons/day/well.
Maximum total system injection volume: 43,200 gallons/day.
- f. Maximum daily average injection pressure (at well head): 15 psi.

3. Monitoring and Reporting Requirements.

- a. The Operator shall report to the Underground Injection Control Program of the Division the number and exact location of all Class V injection wells it installs or plugs on a quarterly basis. The reports are to be submitted to the UIC Program in accordance with the reporting schedule stipulated by the Underground Storage Tank Management Program.
- b. The Operator shall submit to the Division for its approval, a detailed schematic diagram and location map on any Class V injection well that is different in construction from the specifications contained in the UIC permit application, no later than 45 days prior to installation of the injection well. The Operator cannot install such a well until it receives approval from the Division.
- c. The Operator shall submit to the UIC Program one (1) copy of any report regarding this site that the Operator is required to submit to the Underground Storage Tank Management Program, or any other program within the Division.
- d. The Operator shall submit to the UIC Program an annual report that will contain the following information.
 1. Status of the injection system operation;
 2. Results of any ground-water sampling and analyses;
 3. Results of any soil sampling and analyses;
 4. An evaluation of the plume movement through the ground water, if any;
 5. Comparisons of analyses to determine any changes in pollutant concentrations.

The annual reports will be provided to the UIC Program in accordance with the schedule stipulated by the Underground Storage Tank Management Program.

4. Emergency Situations.

- a. The Operator is to immediately notify the Division of any emergency situation that affects the injection system and describe the remedial activity that the Operator is utilizing to correct the situation.
- b. The Operator is to immediately notify the Division when the emergency situation ceases to exist.

5. The Operator shall grant the Division permission to enter the facility property to conduct inspections of the injection system.

Additional Conditions, Renewed UIC Permit #R-156, February 21, 2013, Cont.

6. The Operator shall maintain a copy of this permit at the facility site.
7. The Operator shall, upon termination of the injection of treated groundwater through one Class V injection well at this site, properly plug and abandon all Class V wells constructed on this site in accordance with EPD's *Manual for Groundwater Monitoring* (September 1991) and notify the Division within thirty (30) days of such termination and abandonment.