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FINAL CONSTRUCTION COMPLETION REPORT DIESEL SPILL REMEDIATION NSB KINGS  
BAY GA  
1/1/2015  
TETRA TECH EC

**DEPARTMENT OF THE NAVY  
NAVAL FACILITIES ENGINEERING COMMAND, ATLANTIC  
REMEDIAL ACTION CONTRACT (RAC)  
CONTRACT NO. N62470-13-D-8007  
CONTRACT TASK ORDER NO. JM01**

**FINAL  
CONSTRUCTION COMPLETION REPORT  
DIESEL SPILL REMEDIATION  
NAVAL SUBMARINE BASE KINGS BAY  
ST. MARY'S, GEORGIA**

**January 2015**

*Prepared for*



Department of the Navy  
Naval Facilities Engineering Command, Southeast  
P.O. Box 30, Building 903  
NAS Jacksonville, FL 32212-0030

*Prepared by*

Tetra Tech EC, Inc.  
5250 Challedon Drive  
Virginia Beach, Virginia 23462

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## ACRONYMS AND ABBREVIATIONS

APP	Accident Prevention Plan
Bgs	below ground surface
BOSC	Base Operating Services Contractor
BTEX	Benzene, Toluene, Ethyl benzene, and Xylene
CAP	Corrective Action Plan
CCR	Construction Completion Report
CPR	Contractor Production Report
CQCP	Construction Quality Control Plan
CTO	Contract Task Order
DFM	Diesel Fuel Marine
DRO	Diesel Range Organics
E&S	Erosion and Sediment
GA EPD	Georgia Environmental Protection Division
GRO	Gasoline Range Organics
KB	Kings Bay
MEC	Military Environmental and Construction Corporation
NAVFAC	Naval Facilities Engineering Command
Navy	Department of the Navy
NSB	Naval Submarine Base
OWS	Oil-Water Separator
PAH	Polyaromatic Hydrocarbon
PCBs	polychlorinated biphenyls
PID	photoionization detector
PM	Project Manager
POC	Point of Contact
ppm	parts per million
PQCM	Project QC Manager
QC	Quality Control
QCPM	QC Program Manager
RAC	Remedial Action Contract
SAP	Sampling and Analysis Plan
SOW	Scope of Work
SVOCs	Semi-Volatile Organic Compounds
SSHO	Site Safety and Health Officer
T&D	Transportation and Disposal
TAL	Target Analyte List
TCL	Total Compound List
TCLP	Toxicity Characteristic Leaching Procedure
TPH	Total Petroleum Hydrocarbon
TtEC	Tetra Tech EC, Inc.
ULSD	Ultra Low Sulfur Diesel Fuel
USEPA	United States Environmental Protection Agency
VOCs	Volatile Organic Compounds

<b>WMP</b>	<b>Waste Management Plan</b>
<b>WP</b>	<b>Work Plan</b>

## 1.0 INTRODUCTION

Tetra Tech EC, Inc. (TtEC) was contracted by the Department of the Navy (Navy), Naval Facilities Engineering Command (NAVFAC) Southeast, under Remedial Action Contract (RAC) N62470-13-D-8007, Contract Task Order (CTO) JM01 to assess the impact of a diesel spill and perform remediation activities at the bulk tank fuel farm, Naval Submarine Base (NSB) Kings Bay (KB), Georgia. This action was completed in accordance with the Navy, United States Environmental Protection Agency (USEPA), and the Georgia Environmental Protection Division (GA EPD). This Construction Completion Report (CCR) has been prepared to document all such activities and provide path forward recommendations for the spill impact area.

### 1.1 Background

The bulk tank fuel farm, also referred to as the Diesel Fuel Marine (DFM) Storage Facility, is located in the upper portion of NSB KB. The facility is equipped with two 210,000 gallon above ground fuel storage tanks within a bermed containment area and a fuel truck filling system for the distribution of fuel. A site location map is included as **Figure 1**.

NSB KB records indicate the occurrence of two previous releases at Building 2029 (Facility ID 9-020020) of the bulk tank fuel farm. The first release was encountered on March 5, 1993 and was associated with faulty grouting of a catch basin pipe penetration within berm area #2. The second release was discovered on November 19, 1993 and was associated with a deteriorated gasket between the upper and lower sections of the oil-water separator. Both releases were reported to GA EPD on the same dates as discovered and immediate repairs were conducted to successfully eliminate both sources of release. Initial sample results indicated petroleum impact to soil and groundwater from these releases. A Corrective Action Plan (CAP) for both releases was prepared and submitted to GA EPD in April 1995 and recommended actions were later implemented.

In July 2014, evidence of a diesel release was discovered at the bulk tank fuel farm. The apparent cause of the diesel spill was from a bad seal on a tank level switch. Diesel fuel leaked out through the level switch orifice and flowed through the above ground electrical conduit until it reached the electrical alarm panel box located within a gravel area outside of the containment berm. The fuel then leaked out of the panel box and spilled on to the ground within the gravel area. Continued leakage and subsequent rain events caused the diesel to migrate to the down-gradient grassy area. The measured and reported quantity of diesel spilled was approximately 30 gallons, but the precise quantity is unknown. As an immediate response action in late July and early August prior to TtEC arriving on site, another contractor placed absorbent boom and pads around the impact area, excavated and disposed of visually apparent diesel impacted soil within the grassy area, and covered the excavated area with poly sheeting.

## 1.2 Scope

The tasks associated with this project were to assess the diesel spill impact area, remove diesel-impacted soil and gravel, conduct confirmation sampling and analysis, and restore the site to pre-existing conditions. TtEC completed the following tasks:

- Phase I Sampling and Analysis,
- Soil and Gravel Removal,
- Phase II Sampling and Analysis,
- Transportation and Disposal, and
- Backfill and Site Restoration.

## 1.3 Report Organization

The remainder of this Completion Report is organized as follows:

- Section 2.0 provides a detailed description of the work activities performed.
- Section 3.0 provides the safety summary.
- Section 4.0 provides the quality control summary.
- Section 5.0 presents conclusions and recommendations.
- Appendix A presents the project schedule.
- Appendix B presents photographic documentation.
- Appendix C presents waste disposal documentation
- Appendix D provides sampling analytical data.

## 2.0 SUMMARY OF PROJECT ACTIVITIES

Project activities included the following: Phase I sampling event; pre-construction activities; mobilization and site setup; gravel and soil removal; transportation and disposal; phase II sampling event; backfill and restoration, and demobilization. The following subsections detail each of the project activities completed. A copy of the Final Project Schedule is included in **Appendix A** and photographic documentation is provided in **Appendix B**.

### 2.1 Pre-Construction Activities

Pre-construction activities included: Assessment of the impact area and conducting the phase I sampling event; developing required plans; conducting waste disposal characterization and clean fill verification sampling; and performing utility clearance activities.

#### 2.1.1 Phase I Sampling Event

On August 13, 2014, TtEC conducted a site assessment and sampling event (Phase I) to delineate the impacted area and to verify whether the impacted soil in the grassy area had been adequately removed. Initially, TtEC gauged three existing monitoring wells within the fuel farm on August 13, 2014 and results indicated that the depth to groundwater was approximately 1.5 feet below

ground surface. Delineation of the impact area was accomplished via field screening and soil sampling. Phase I sample locations are shown in **Figure 2**. A photoionization detector (PID) was initially used to field screen the soil throughout the potential impact area prior to collecting any samples for laboratory analysis. Upon obtaining non-detect PID readings, samples were then collected at those locations for laboratory analysis of Total Petroleum Hydrocarbons (TPH) – Diesel Range Organics (DRO). Following PID screening, 30 samples representing the estimated horizontal extents of the impact area were collected from PID non-detect locations around the perimeter of the grassy and stone areas and shipped to an off-site laboratory for TPH-DRO analysis. Of the 30 samples sent to the laboratory, only 20 were analyzed. The 10 samples not tested were 5-ft step back samples taken from suspect areas that may not show acceptable results from their associated tested samples. The results of all sample analyses indicated concentrations below 10 ppm except at three locations with detections of 27.3 ppm, 16.0 ppm, and 10.2 ppm. A table of sample results is included on **Figure 2**. Due to frequent rain events throughout the afternoon causing most of the area to be submerged, samples for delineating the estimated vertical extents of the diesel impact area could not be collected. However, PID field screening of the estimated vertical extents accomplished prior to the rain events indicated that the impact area within the estimated horizontal extents of the gravel area extended to the approximate depth of groundwater at 1.5 ft below ground surface. PID field screening also indicated that the grassy area had been excavated to a sufficient depth except for one isolated area with significant PID readings. This isolated area appeared slightly elevated above the surrounding excavation floor and had grassy contents which were both indicators that this area was where the excavated soil was staged prior to loading out and not quite all of it was loaded out.

Based on PID field screening and the sample results, TtEC recommended that three additional excavation areas be addressed. Final excavation areas are shown in **Figure 3**.

### 2.1.2 Clean Fill Verification Sampling

TtEC collected one clean fill sample per material source to ensure that the proposed backfill materials were clean and free of contamination. Clean fill sampling was performed for the common fill material from the Norton pit located on Alvah Brazell Road in Kingsland, GA. A representative sample (JM01-FILL-1) was collected on September 15, 2014 and shipped to Accutest Laboratories for the following analyses: target analyte list (TAL) metals, target compound list (TCL) volatile organic compounds (VOCs)/semi-volatile organic compounds (SVOCs), pesticides/herbicides, polychlorinated biphenyls (PCBs), TPH DRO, and TPH gasoline range organics (GRO). Analytical results were received on September 22, 2014 and reviewed by TtEC. A data summary package was prepared and submitted for Navy approval on September 22, 2014. The common fill material was accepted for use by the Navy on September 23, 2014. A summary of analytical results is included in **Table 1** and the laboratory analytical report is included in **Appendix D**.

### 2.1.3 Waste Disposal Characterization Sampling

TtEC collected a waste disposal characterization sample (JM01-WDC-01) from the in-situ diesel impacted soil on September 16, 2014 and shipped it to Accutest Laboratory for toxicity characteristic leaching procedure (TCLP) benzene analysis per request by the Waste Management

Chesser Island, GA landfill. The Navy signed waste profile, laboratory analytical report, and diesel MSDS were all submitted to Waste Management for waste acceptance approval which was subsequently received on September 23, 2014. A copy of the waste profile is provided in **Appendix C** and a copy of the analytical report is included in **Appendix D**.

#### 2.1.4 Development of Plans

Pre-construction submittals included a baseline schedule, Work Plan, Contractor Quality Control Plan, and an Accident Prevention Plan. The draft plans were submitted on September 17, 2014 and approved as presented on September 18, 2014, with no comments. Final plans were submitted to the Navy on September 22, 2014.

#### 2.1.5 Utility Clearance

Georgia 811 was notified on September 18, 2014 of excavation activities to ensure all subsurface utilities were marked out (Ticket Number 90174-234-014). In addition, a professional utility locating service, Ground Hound Detection Services, was subcontracted to locate and mark all subsurface utilities using ground penetrating radar and electromagnetic detection within the areas anticipated for intrusive work. The professional utility locating services were performed on September 22, 2014. Utility markings were maintained throughout the removal activities.

### **2.2 Mobilization and Site Setup**

#### 2.2.1 Mobilization

TtEC mobilized the personnel, equipment, and temporary facilities necessary for completing the scoped tasks on September 22, 2014. Prior to commencing field work, a site safety orientation was provided to all site personnel and a kick-off meeting with NAVFAC SE and fuel farm personnel was held on site..

#### 2.2.2 Kick-Off Meeting

A kick-off meeting was held at the site on September 22, 2014 and was attended by representatives from the fuel farm, NAVFAC SE, TtEC and its subcontractors to discuss base access, reporting requirements, staging areas, and other pertinent project information.

#### 2.2.3 Site Setup

Site setup included installation of temporary facilities, fencing, erosion and sediment (E&S) controls, and a soil/gravel staging area. High visibility fencing and/or caution tape was placed around the work area to delineate the work zone and control access. E&S controls were installed as needed to prevent sediment migration from the work area. E&S controls included silt fence and absorbent boom placed around the planned area of earth disturbance. To contain the excavated soil/gravel prior to load out into haul trucks, a 40-foot by 30-foot lined and bermed waste staging area was constructed with 10-mil poly sheeting and stone. The stone was used to create a perimeter

berm and 10 mil poly-sheeting was placed on the floor of the containment area and over the stone berm.

### 2.3 Gravel and Soil Removal

Three areas were excavated as part of this removal effort, as shown in **Figure 3**. Due to the presence of numerous subsurface utilities, much of excavation area 3 was hand-excavated. Otherwise, a mini-excavator was utilized to excavate the waste material in all three excavation areas. Due to the presence of numerous above ground utilities and other physical obstructions within the excavation areas that limited equipment access, excavated material was placed into a skidsteer, transferred to a rubber-tired front end loader positioned outside the excavation areas, and then transferred to the waste staging area by the loader. Excavated material was handled with care to prevent spillage.

Excavation in all three areas was performed to initial limits and/or until PID readings were non-detect. The initial excavation limits were defined by the Phase I Sampling Event. Upon reaching initial limits, PID field screening was conducted along the horizontal and vertical excavation extents to assist in determining whether additional material required removal. Once the PID field screening results indicated that VOC concentrations were non-detect, confirmation samples were collected at those locations for laboratory analysis of TPH-DRO per **Section 2.4**. Final excavation limits were as follows: Excavation Area 1, an approximate 8-foot by 8-foot area, was excavated to 6 inches below grade; Excavation Area 2, an approximate 10-foot by 15-foot area, was excavated to 1.5 feet bgs; Excavation Area 3, an approximate 45-foot by 54-foot area located in the gravel area, was excavated to 22 inches bgs, which included 4 inches of gravel and 1.5 feet of underlying soil. Actual excavation limits and Phase II confirmation sample locations are shown in **Figure 4**. Confirmation sampling is discussed further in **Section 2.4**.

Gravel and soil removed from the excavation areas were staged in an area approved by the Navy. The material was placed in the lined and bermed waste staging area to contain the diesel impacted soil until load-out for off-site transport and disposal to the Waste Management Chesser Island Landfill. A total of 256.76 tons of diesel impacted soil and gravel material was removed from the excavations.

As necessary to perform work, accumulated stormwater was pumped from the excavation and through a filter sock prior to being discharged into a nearby oil water separator.

### 2.4 Phase II Sampling Event

Upon reaching excavation limits as defined by the Phase I sampling event and further verified by PID field screening, confirmation samples were collected from the walls and floors of the three excavation areas as shown in **Figure 4**. The locations indicated on **Figure 4** are roughly based on frequencies of one wall sample per 20 feet and one floor sample per 400 square feet. Groundwater was estimated at approximately 1.5 to 2 feet bgs and excavation depths ranged from 12 inches to 22 inches bgs. Since groundwater was not encountered during excavation activities, all floor samples were collected as planned. A total of 29 confirmation samples were collected.

The confirmation samples were collected as surface soil grab samples. The samples were collected using disposable scoops and one scoop was designated for each sample to avoid potential cross-contamination. The samples were placed in the appropriate containers, packaged on ice in a cooler, and sent to Accutest Laboratory for analysis of TPH-DRO by EPA method M8015c. Copies of the laboratory analytical reports are provided in **Appendix D**.

A remediation goal of less than 100 parts per million (ppm) was established for soil as agreed upon by the Georgia Department of Natural Resources. Confirmation sample results indicated that TPH-DRO concentrations ranged from non-detect to 58.8 ppm. A summary table of sample results is included on **Figure 4** and on **Table 3**.

## **2.5 Transportation and Disposal**

A total of 256.76 tons (11 truckloads) of diesel impacted soil and gravel was removed and disposed of at the Waste Management Chesser Island Landfill in Georgia. Load-out, transport, and disposal activities were conducted on September 29, 2014 through October 1, 2014 and each of the 11 truckloads was properly manifested. The approved waste profile, manifests, and certificate of disposal are provided in **Appendix C**.

## **2.6 Backfill and Restoration**

Following Phase II sampling and approval of the Norton fill source, backfilling of the excavation areas commenced on October 1, 2014.

Excavation Area 3 was backfilled with clean common fill material at a thickness of 18 inches to approximately 4 inches bgs in the gravel area. The fill was tracked in place for compaction and graded to match surrounding subgrade elevations. Per facility request, poly sheeting was placed above the common fill in this area to provide a barrier between the fill and gravel. A four inch thick layer of one to two-inch diameter river rock was placed above the poly sheeting and graded to match surrounding elevations.

Excavation areas 1 and 2 and the previously excavated area were backfilled with fill material and covered with sod. Approximately 12 inches of backfill was placed in Area 1, 18 inches placed in Area 2, and 6 inches placed in the previously excavated area. Centipede sod was used to cover the entire grassy excavation area. The grassy excavation areas are located on the north side of the curb shown in **Figure 3**.

## **2.7 Demobilization**

After site restoration was completed, demobilization activities commenced. Demobilization included site clean-up and the removal of equipment, materials, and personnel from the site.

### **3.0 SAFETY SUMMARY**

The following section provides a summary of health and safety practices implemented during the construction activities.

#### **3.1 Site Orientation**

All personnel were required to attend an orientation and safety briefing prior to performing work at the project site. This briefing was conducted by the Site Safety and Health Officer (SSHO) and Site Manager and included topics outlined in the APP and applicable to the tasks being performed. Upon completion of the orientation, personnel signed the site copy of the APP acknowledging they received the site specific training.

#### **3.2 Daily Safety Meetings**

Safety meetings were conducted each day that work was performed on site. At these meetings, planned tasks for the day were discussed, applicable activity hazard analyses (AHAs) were reviewed, and a specific daily safety topic was discussed. Personnel were also required to sign in and out when arriving and leaving the site so that an accurate site roster was maintained in the event of an emergency.

#### **3.3 Activity Hazard Analyses**

An AHA was prepared for each work activity being performed at the site. The AHAs included a detailed breakdown of the tasks to be performed, hazards associated with those tasks, and controls in place to prevent incidents. The AHAs also identify the equipment to be used, any applicable training and/or certifications, and inspections required during implementation of the task. All site personnel were required to review and sign the applicable AHA prior to performing a task.

#### **3.4 Near Miss Reports**

Personnel were encouraged to report all near misses to the SSHO so that potential hazards could be identified and controls could be put in place prior to an incident occurring. Zero near misses were reported under this task order.

#### **3.5 Incident Summary**

Under this task order, TtEC and its subcontractors worked a total of 11 days and 693 hours with no OSHA recordable, first-aid, lost time, or vehicle incidents.

### **4.0 QUALITY CONTROL SUMMARY**

The following section provides a summary of QC activities performed during construction activities.

#### **4.1 Reports and Meetings**

A Contractor Production Report (CPR) and Contractor QC Report were completed for each day field activities were performed and provided to the Navy.

#### **4.2 Testing and Inspections**

Testing activities for this project are discussed in **Sections 2.1.1 and 2.4**.

Preparatory, Initial, and Follow-up inspections were completed by the Project QC Manager in accordance with Program QC contract requirements. Preparatory meetings were conducted prior to each definable feature of work to review project specifications, ensure necessary submittals were approved, discuss construction methods, and review safety requirements. Initial phase inspections were completed upon commencement of each definable feature of work to ensure that field work was being conducted in accordance with the Work Plan and methods discussed in the preparatory meeting. Follow-up inspections were performed on a daily basis until the completion of each definable feature of work. Preparatory, Initial, and Follow-up inspections were documented in the daily Contractor QC Report.

Photographs were taken of the site to document progress before, during, and after field work. A select number of photographs have been compiled into a photographic log included in **Appendix B**.

### **5.0 CONCLUSIONS AND RECOMMENDATIONS**

#### **5.1 Summary of Actions Completed**

Upon discovery of the diesel fuel release in July 2014, immediate actions were performed by others to contain the spill and mitigate further impact. Immediate actions included; repair of the leak source, removal and disposal of visibly contaminated soil in the grassy area, placement of absorbent pads and boom, and placement of an impermeable plastic sheet over the grassy area of excavation to minimize further infiltration.

The Phase I investigative sampling event was performed on August 13, 2014 to delineate the approximate horizontal and vertical extents of the diesel release impact area through PID field screening and sampling and laboratory analysis. Phase I soil sample results indicated TPH-DRO concentrations ranging from 4.13 ppm to 27.30 ppm at the limits of the proposed excavation. Refer to **Figure 2** for sample locations and **Table 3** for a summary of analytical results. The laboratory analytical report is included in **Appendix D**.

Excavation, removal, and off-site disposal activities were completed for three defined areas per the Phase I sampling event; the gravel area and two isolated areas within the grassy area. A total of 256.76 tons of diesel impacted soil and gravel were removed and disposed of at the Waste Management Chesser Island Landfill. Waste disposal documentation is included in **Appendix C**.

Twenty-nine (29) post-excavation confirmation samples (Phase II sampling event) were collected and shipped for laboratory analysis. Soil TPH-DRO concentrations were confirmed to be less than 100 ppm, with values ranging from non-detect to 58.8 ppm. Sample locations are shown in **Figure 4** and a summary of analytical results are provided in **Table 3**. The laboratory analytical reports are provided in **Appendix D**.

Excavation areas were backfilled to match pre-construction conditions. Grassy areas were backfilled with common fill and covered with centipede sod. The gravel area was backfilled with common fill to approximately 4 inches bgs. The top 4 inches were backfilled with gravel.

## 5.2 Conclusions and Recommendations

Including initial efforts by another contractor, approximately 300 tons of diesel impacted soil and gravel were removed to a maximum depth of 22 inches bgs from the area impacted by a reported 30 gallon diesel spill at the bulk tank fuel farm. Groundwater was not encountered during excavation activities. All post-excavation confirmation sample results indicated concentrations of less than the agreed upon 100 ppm cleanup goal, with the highest result at 58.8 ppm. The excavations were backfilled and restored with clean fill, gravel, and sod. There are no drinking water wells located within the site vicinity and the nearest surface water body is located greater than 500 feet from the site. Given the site's current and expected future industrial use as a fuel storage and distribution facility on a military installation, no further action is recommended for addressing soil and groundwater impacts from this release.

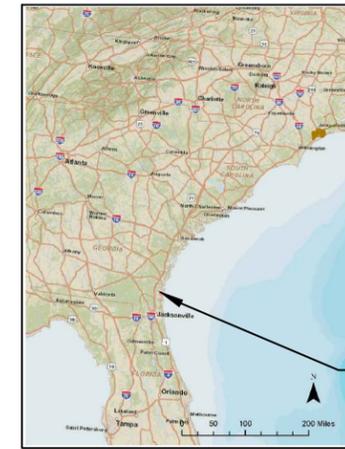
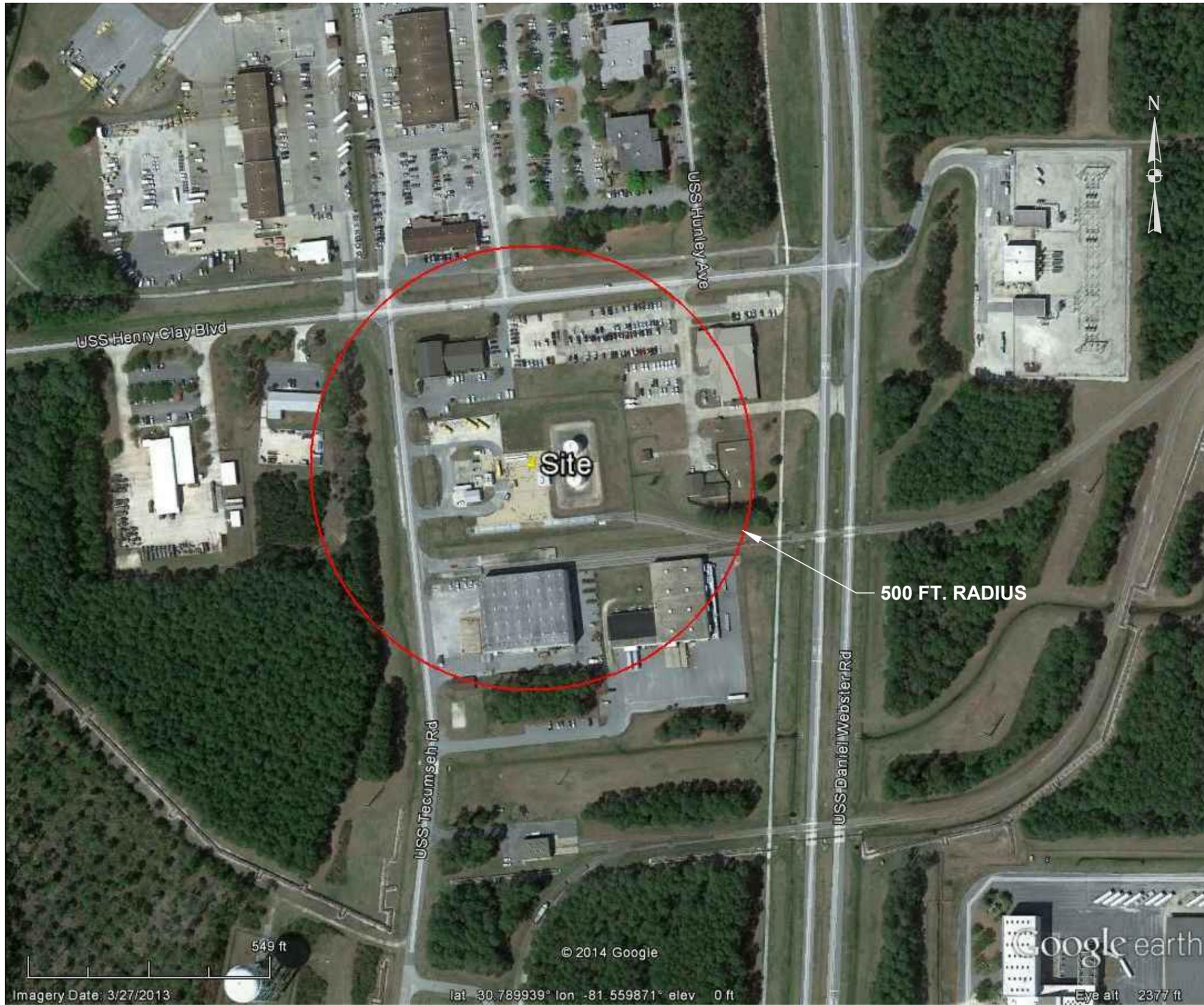
## 6.0 REFERENCES

- Georgia Rules and Regulations. *Rules and Regulations of the State of Georgia- Ch 391 Hazardous Site Response*.  
[http://rules.sos.state.ga.us/pages/GEORGIA\\_DEPARTMENT\\_OF\\_NATURAL\\_RESOURCES/ENVIRONMENTAL\\_PROTECTION/HAZARDOUS\\_SITE\\_RESPONSE/index.html](http://rules.sos.state.ga.us/pages/GEORGIA_DEPARTMENT_OF_NATURAL_RESOURCES/ENVIRONMENTAL_PROTECTION/HAZARDOUS_SITE_RESPONSE/index.html)
- Georgia Environmental Protection Division. Hazardous Site Response Act Guidance.  
<https://epd.georgia.gov/hazardous-site-response-act-guidance>

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## **FIGURES**

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Naval Submarine Base  
Kings Bay, Georgia

SOURCE: ESRI MAPS

**BASE LOCATION MAP**

SOURCE: GOOGLE EARTH PRO

CAD FILE: KINGSBAY-FIGURE 1WRADIUS.DWG

**NAVAL SUBMARINE BASE KINGS BAY, GEORGIA**

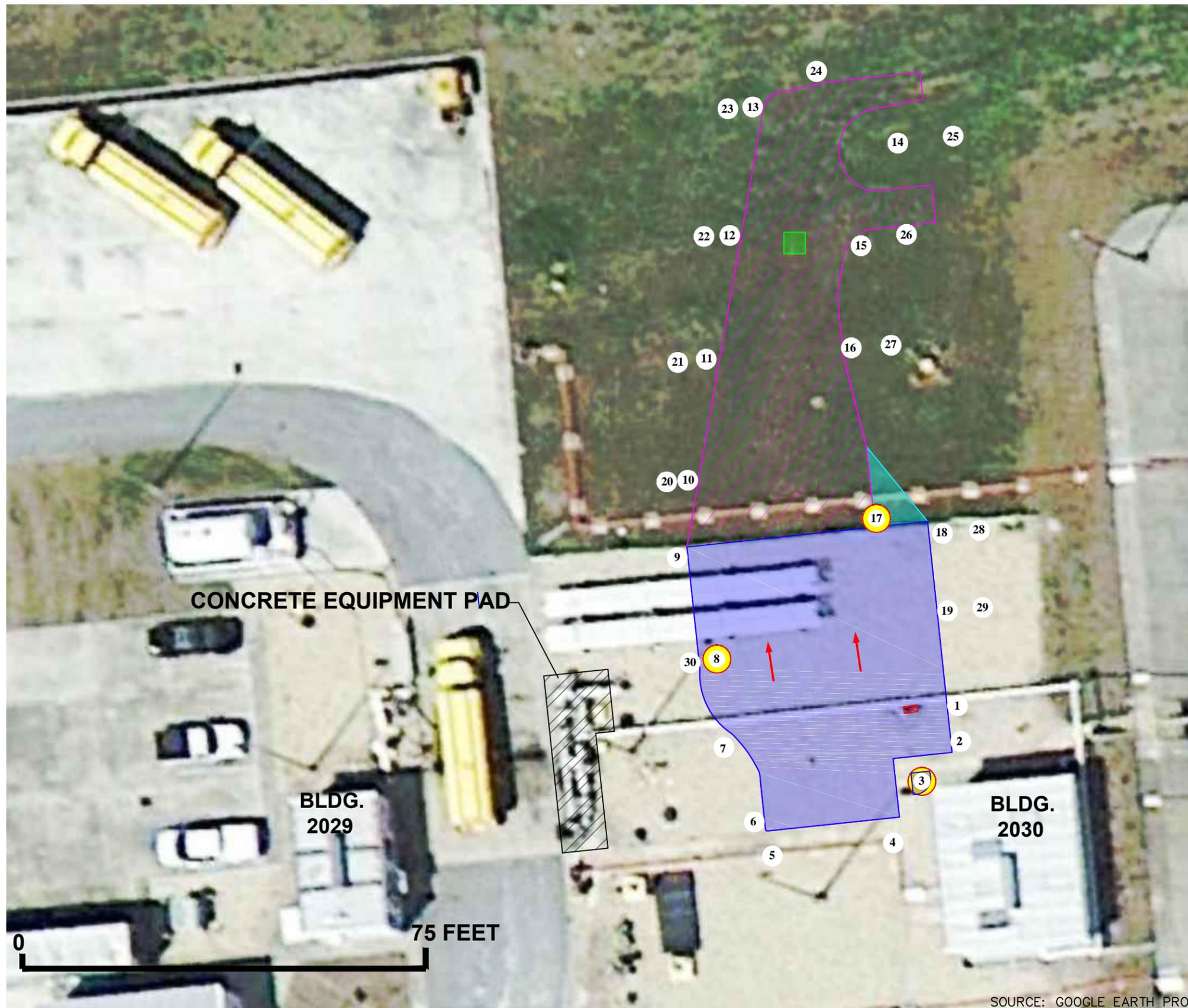
**DIESEL SPILL CLEANUP  
SITE LOCATION MAP**

PREP	CHK	APPR	DATE

**FIGURE  
1**



TETRA TECH EC, INC.



**LEGEND:**

-  Preliminary Excavation Area
-  Excavation Area 1
-  Excavation Area 2
-  Excavation Area 3
-  Phase 1 Sample Point
-  Alarm Panel Box
-  General Direction of Surface Flow of Spilled Diesel

Sample Point	TPH-DRO (ppm)
1	4.46
2	4.28
3	27.30
4	4.13
5	7.73
6	8.67
7	5.44
8	10.20
9	7.71
10	4.50
11	6.52
12	5.66
13	6.60
14	9.63
15	4.22
16	4.20
17	16.00
18	4.30
19	6.57
20	NOT TESTED
21	NOT TESTED
22	NOT TESTED
23	NOT TESTED
24	5.86
25	NOT TESTED
26	NOT TESTED
27	NOT TESTED
28	NOT TESTED
29	NOT TESTED
30	NOT TESTED

TPH - Total Petroleum Hydrocarbon  
 DRO - Diesel Range Organics  
 ppm - parts per million  
 highlighted text indicates detections of concern

SOURCE: GOOGLE EARTH PRO

NAVAL SUBMARINE BASE KINGS BAY, GEORGIA

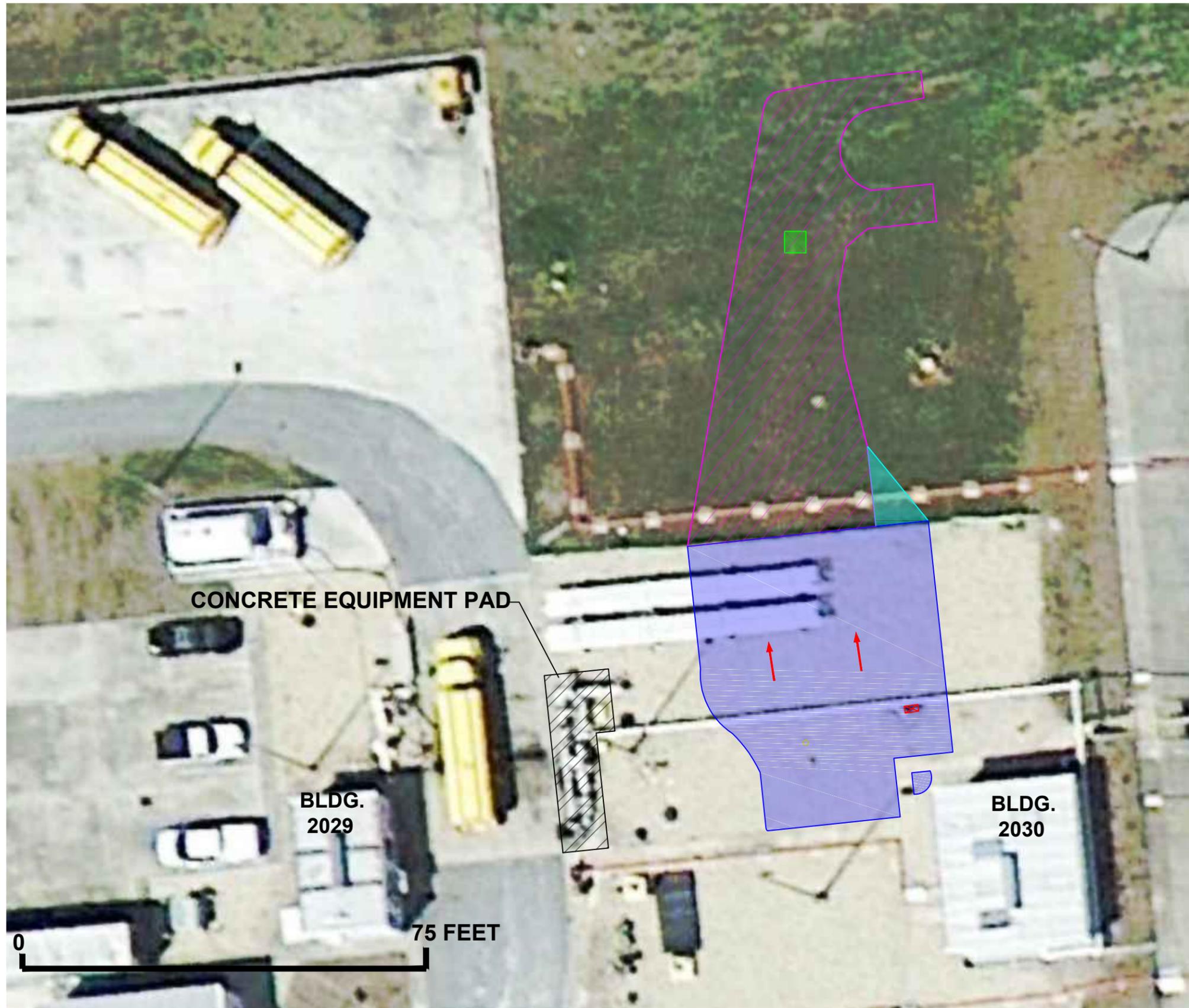
DIESEL SPILL CLEANUP  
 PHASE 1 SAMPLE MAP



TETRA TECH EC, INC.

PREP	CHK	APPR	DATE

FIGURE  
2



**LEGEND:**

-  Preliminary Excavation Area
-  Excavation Area 1 (Depth 0.5 ft.)
-  Excavation Area 2 (Depth 1.5 ft.)
-  Excavation Area 3 (Total Depth 22")  
4" gravel removed plus 1.5' below gravel
-  Alarm Panel Box
-  General Direction of Surface Flow of Spilled Diesel

**NOTE:**

Excavation limits were defined based on Phase 2 sample results and field photoionization (PID) detections.

SOURCE: GOOGLE EARTH PRO

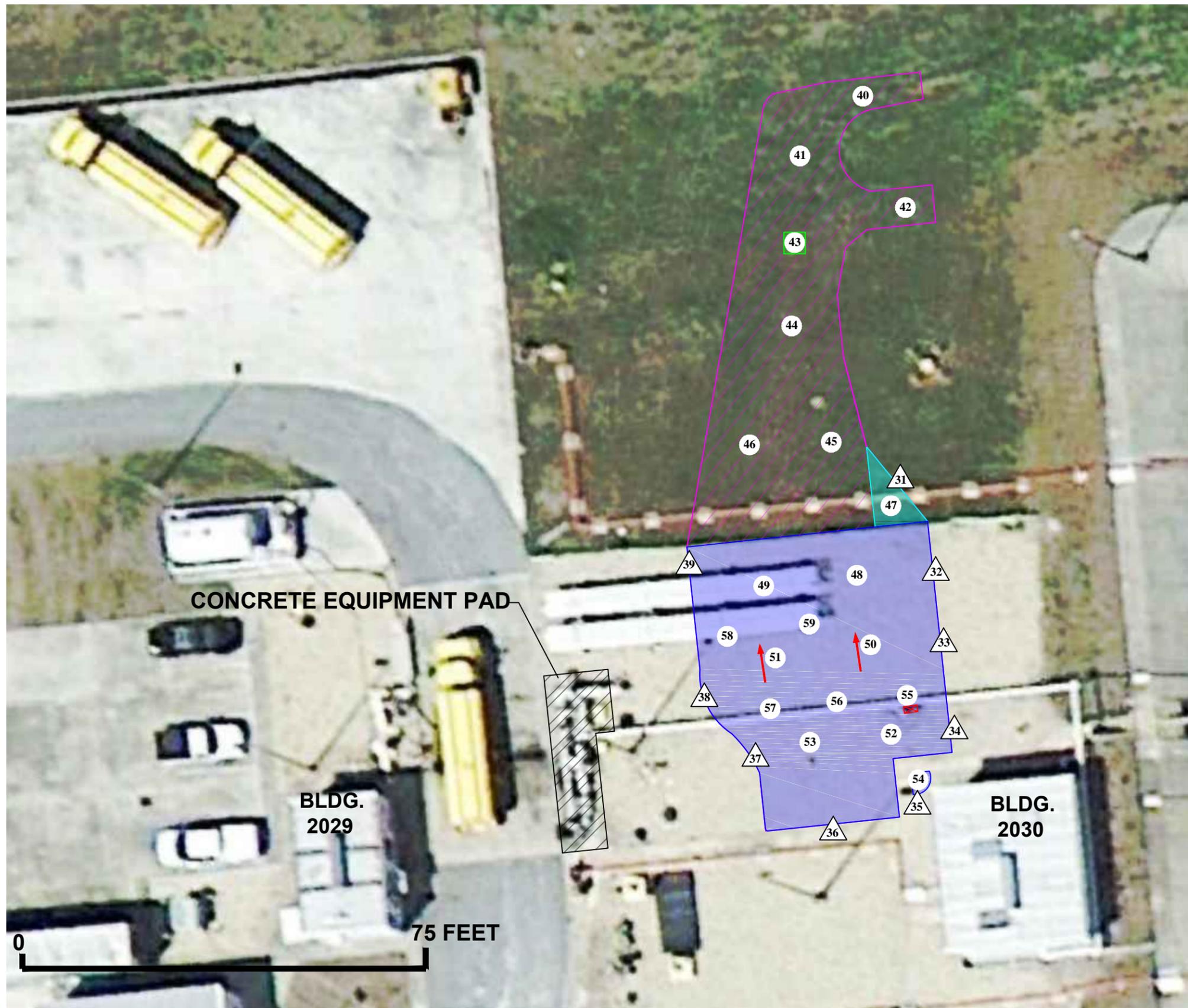


TETRA TECH EC, INC.

NAVAL SUBMARINE BASE KINGS BAY, GEORGIA  
**DIESEL SPILL CLEANUP  
 EXCAVATION AS-BUILT**

PREP	CHK	APPR	DATE

**FIGURE  
3**



**LEGEND:**

-  Preliminary Excavation Area
-  Excavation Area 1
-  Excavation Area 2
-  Excavation Area 3
-  Phase 2 Floor Confirmation Sample Point
-  Phase 2 Sidewall Confirmation Point
-  Alarm Panel Box
-  General Direction of Surface Flow of Spilled Diesel

Sample Point	TPH-DRO (ppm)
31	9.3 U
32	15.30
33	9.3 U
34	9.4 U
35	17.20
36	9.3 U
37	9.4 U
38	9.2 U
39	10.50
40	21.70
41	13.70
42	22.30
43	10 U
44	10 U
45	10 U
46	13.20
47	13.50
48	58.80
49	12.20
50	31.20
51	11.80
52	10 U
53	9.8 U
54	12.90
55	14.40
56	10 U
57	9.9 U
58	9.8 U
59	9.7 U

TPH - Total Petroleum Hydrocarbon  
 DRO - Diesel Range Organics  
 ppm - parts per million  
 U - Not detected

SOURCE: GOOGLE EARTH PRO

NAVAL SUBMARINE BASE KINGS BAY, GEORGIA

**DIESEL SPILL CLEANUP  
 PHASE 2 SAMPLE MAP**

PREP	CHK	APPR	DATE

**FIGURE  
 4**



TETRA TECH EC, INC.

## **TABLES**

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**Table 1**  
**Summary of Clean Fill Verification Laboratory Analytical Results**

<b>Sample ID: JM01-FILL-1</b>				
<b>Date/Time: 9-15-14 @ 1420 hrs</b>				
<b>Location: Norton Irrigation Inc., Alvah Brazell Road, Kingsland, GA</b>				
<b>Method</b>	<b>Analyte</b>	<b>Units</b>	<b>Result</b>	<b>Qualifier</b>
6010C	Aluminum	MG/KG	953.00	
6010C	Antimony	MG/KG	0.21	U
6010C	Arsenic	MG/KG	0.21	U
6010C	Barium	MG/KG	3.10	J
6010C	Beryllium	MG/KG	0.04	U
6010C	Cadmium	MG/KG	0.04	U
6010C	Calcium	MG/KG	59.20	J
6010C	Chromium	MG/KG	1.10	
6010C	Cobalt	MG/KG	0.04	U
6010C	Copper	MG/KG	0.01	J
6010C	Iron	MG/KG	324.00	
6010C	Lead	MG/KG	1.30	
6010C	Magnesium	MG/KG	42.10	J
6010C	Manganese	MG/KG	3.60	
6010C	Nickel	MG/KG	0.30	J
6010C	Potassium	MG/KG	22.70	J
6010C	Selenium	MG/KG	0.21	U
6010C	Silver	MG/KG	0.09	U
6010C	Sodium	MG/KG	86.00	U
6010C	Thallium	MG/KG	0.21	U
6010C	Vanadium	MG/KG	0.97	J
6010C	Zinc	MG/KG	0.83	J
7471B	Mercury	MG/KG	0.02	U
8260B	1,1,1-Trichloroethane	UG/KG	1.50	U
8260B	1,1,2,2-Tetrachloroethane	UG/KG	1.50	U
8260B	1,1,2-Trichloroethane	UG/KG	1.90	U
8260B	1,1-Dichloroethane	UG/KG	1.50	U
8260B	1,1-Dichloroethylene	UG/KG	1.50	U
8260B	1,2-Dibromoethane	UG/KG	1.90	U
8260B	1,2-Dichloroethane	UG/KG	1.50	U
8260B	1,2-Dichloropropane	UG/KG	1.50	U
8260B	1,2-Dibromo-3-chloropropane	UG/KG	3.00	U
8260B	1,2,4-Trichlorobenzene	UG/KG	1.50	U
8260B	2-Hexanone	UG/KG	7.60	U
8260B	4-Methyl-2-Pentanone	UG/KG	7.60	U
8260B	Acetone	UG/KG	19.00	U
8260B	Benzene	UG/KG	1.50	U
8260B	Bromodichloromethane	UG/KG	1.50	U
8260B	Bromoform	UG/KG	1.50	U
8260B	Carbon disulfide	UG/KG	1.50	U
8260B	Carbon tetrachloride	UG/KG	1.50	U

**Table 1**  
**Summary of Clean Fill Verification Laboratory Analytical Results**

Method	Analyte	Units	Result	Qualifier
8260B	Chlorobenzene	UG/KG	1.50	U
8260B	Chloroethane	UG/KG	3.00	U
8260B	Chloroform	UG/KG	1.50	U
8260B	Cyclohexane	UG/KG	1.50	U
8260B	cis-1,2-Dichloroethylene	UG/KG	1.50	U
8260B	cis-1,3-Dichloropropene	UG/KG	1.50	U
8260B	Dibromochloromethane	UG/KG	1.50	U
8260B	Dichlorodifluoromethane	UG/KG	1.50	U
8260B	Ethylbenzene	UG/KG	1.50	U
8260B	Freon 113	UG/KG	1.50	U
8260B	Isopropylbenzene	UG/KG	1.50	U
8260B	Methyl acetate	UG/KG	15.00	U
8260B	Methyl Bromide	UG/KG	3.00	U
8260B	Methylcyclohexane	UG/KG	1.50	U
8260B	Methyl ethyl ketone	UG/KG	7.60	U
8260B	Methyl tert-butyl ether	UG/KG	1.50	U
8260B	Methyl chloride	UG/KG	3.00	U
8260B	Methylene Chloride	UG/KG	3.00	U
8260B	Styrene	UG/KG	1.50	U
8260B	Tetrachloroethylene	UG/KG	1.50	U
8260B	Toluene	UG/KG	1.50	U
8260B	trans-1,2-Dichloroethylene	UG/KG	1.50	U
8260B	trans-1,3-Dichloropropene	UG/KG	1.50	U
8260B	Trichloroethylene	UG/KG	1.50	U
8260B	Trichlorofluoromethane	UG/KG	3.00	U
8260B	Vinyl chloride	UG/KG	1.50	U
8260B	Xylene (total)	UG/KG	4.60	U
8270D	1,1-Biphenyl	UG/KG	34.00	U
8270D	2,4,5-Trichlorophenol	UG/KG	34.00	U
8270D	2,4,6-Trichlorophenol	UG/KG	34.00	U
8270D	2,4-Dichlorophenol	UG/KG	34.00	U
8270D	2,4-Dimethylphenol	UG/KG	68.00	U
8270D	2,4-Dinitrophenol	UG/KG	680.00	U
8270D	2,4-Dinitrotoluene	UG/KG	34.00	U
8270D	2,6-Dinitrotoluene	UG/KG	34.00	U
8270D	2-Chloronaphthalene	UG/KG	34.00	U
8270D	2-Chlorophenol	UG/KG	34.00	U
8270D	2-Methylnaphthalene	UG/KG	34.00	U
8270D	2-Methylphenol	UG/KG	34.00	U
8270D	2-Nitroaniline	UG/KG	68.00	U
8270D	2-Nitrophenol	UG/KG	34.00	U
8270D	3- and 4-Methylphenol	UG/KG	68.00	U
8270D	3,3'-Dichlorobenzidine	UG/KG	68.00	U
8270D	3-Nitroaniline	UG/KG	68.00	U
8270D	4,6-Dinitro-o-cresol	UG/KG	140.00	U
8270D	4-Bromophenyl-Phenylether	UG/KG	34.00	U

**Table 1**  
**Summary of Clean Fill Verification Laboratory Analytical Results**

Method	Analyte	Units	Result	Qualifier
8270D	4-Chloro-3-methyl phenol	UG/KG	34.00	U
8270D	4-Chloroaniline	UG/KG	34.00	U
8270D	4-Chlorophenyl-Phenylether	UG/KG	34.00	U
8270D	4-Nitroaniline	UG/KG	68.00	U
8270D	4-Nitrophenol	UG/KG	340.00	U
8270D	Acenaphthene	UG/KG	34.00	U
8270D	Acenaphthylene	UG/KG	34.00	U
8270D	Acetophenone	UG/KG	34.00	U
8270D	Anthracene	UG/KG	34.00	U
8270D	Atrazine	UG/KG	34.00	U
8270D	Benzaldehyde	UG/KG	340.00	U
8270D	Benzo(a)anthracene	UG/KG	34.00	U
8270D	Benzo(a)pyrene	UG/KG	34.00	U
8270D	Benzo(b)fluoranthene	UG/KG	34.00	U
8270D	Benzo(g,h,i)perylene	UG/KG	34.00	U
8270D	Benzo(k)fluoranthene	UG/KG	34.00	U
8270D	Bis(2-chloroethoxy)methane	UG/KG	34.00	U
8270D	Bis(2-chloroethyl) ether	UG/KG	34.00	U
8270D	Bis(2-chloroisopropyl) ether	UG/KG	34.00	U
8270D	Butylbenzyl phthalate	UG/KG	68.00	U
8270D	Caprolactam	UG/KG	68.00	U
8270D	Carbazole	UG/KG	34.00	U
8270D	Chrysene	UG/KG	34.00	U
8270D	Dibenz(a,h)anthracene	UG/KG	34.00	U
8270D	Dibenzofuran	UG/KG	34.00	U
8270D	Di-n-butyl phthalate	UG/KG	140.00	U
8270D	Di-n-octyl phthalate	UG/KG	68.00	U
8270D	Fluoranthene	UG/KG	34.00	U
8270D	Fluorene	UG/KG	34.00	U
8270D	Hexachlorobenzene	UG/KG	34.00	U
8270D	Hexachlorobutadiene	UG/KG	68.00	U
8270D	Hexachlorocyclopentadiene	UG/KG	68.00	U
8270D	Hexachloroethane	UG/KG	68.00	U
8270D	Indeno(1,2,3-cd)pyrene	UG/KG	34.00	U
8270D	Isophorone	UG/KG	34.00	U
8270D	m-Dichlorobenzene	UG/KG	1.50	U
8270D	o-Dichlorobenzene	UG/KG	1.50	U
8270D	p-Dichlorobenzene	UG/KG	1.50	U
8270D	Naphthalene	UG/KG	34.00	U
8270D	Nitrobenzene	UG/KG	34.00	U
8270D	N-Nitroso-di-n-propylamine	UG/KG	34.00	U
8270D	N-Nitrosodiphenylamine	UG/KG	68.00	U
8270D	Pentachlorophenol	UG/KG	1.70	U
8270D	Phenanthrene	UG/KG	34.00	U
8270D	Phenol	UG/KG	34.00	U
8270D	Pyrene	UG/KG	34.00	U

**Table 1**  
**Summary of Clean Fill Verification Laboratory Analytical Results**

Method	Analyte	Units	Result	Qualifier
8081B	4,4'-DDD	UG/KG	0.69	U
8081B	4,4'-DDE	UG/KG	0.69	U
8081B	4,4'-DDT	UG/KG	0.69	U
8081B	Aldrin	UG/KG	0.69	U
8081B	alpha-BHC	UG/KG	0.69	U
8081B	alpha-Chlordane	UG/KG	0.69	U
8081B	beta-BHC	UG/KG	0.69	U
8081B	delta-BHC	UG/KG	0.69	U
8081B	Dieldrin	UG/KG	0.69	U
8081B	Endosulfan I	UG/KG	0.69	U
8081B	Endosulfan II	UG/KG	0.69	U
8081B	Endosulfan sulfate	UG/KG	0.69	U
8081B	Endrin	UG/KG	0.69	U
8081B	Endrin aldehyde	UG/KG	0.69	U
8081B	Endrin ketone	UG/KG	0.69	U
8081B	gamma-BHC	UG/KG	0.69	U
8081B	gamma-Chlordane	UG/KG	0.69	U
8081B	Heptachlor	UG/KG	0.69	U
8081B	Heptachlor epoxide	UG/KG	0.69	U
8081B	Methoxychlor	UG/KG	1.40	U
8081B	Toxaphene	UG/KG	43.00	U
8082A	Aroclor 1016	UG/KG	8.30	U
8082A	Aroclor 1221	UG/KG	13.00	U
8082A	Aroclor 1232	UG/KG	13.00	U
8082A	Aroclor 1242	UG/KG	8.30	U
8082A	Aroclor 1248	UG/KG	8.30	U
8082A	Aroclor 1254	UG/KG	8.30	U
8082A	Aroclor 1260	UG/KG	8.30	U
8151A	2,4,5-T	UG/KG	1.70	U
8151A	2,4-D	UG/KG	17.00	U
8151A	Dalapon	UG/KG	66.00	U
8151A	2,4-DB	UG/KG	17.00	U
8151A	Dicamba	UG/KG	1.70	U
8151A	Dichloroprop	UG/KG	48.40	
8151A	Dinoseb	UG/KG	33.00	U
8151A	MCPA	UG/KG	26000.00	U
8151A	MCPP	UG/KG	1700.00	U
8151A	2,4,5-TP (Silvex)	UG/KG	1.70	U
8015C	TPH - GRO	MG/KG	2.00	U
8015C	TPH - DRO	MG/KG	5.10	U

**Notes:**

B - indicates analyte found in associated method blank

J - indicates an estimated value

U - not detected

**Table 2**  
**Summary of Waste Disposal Characterization Laboratory Analytical Results**

<b>Sample ID: JM01-WDC-01</b>				
<b>Date/Time: 9-16-14 @ 1002 hrs</b>				
<b>Location: Bulk Fuel Facility, NSB Kings Bay, GA</b>				
<b>Method</b>	<b>Analyte</b>	<b>Units</b>	<b>Result</b>	<b>Qualifier</b>
8260B	Benzene	MG/L	0.005	U

**Notes:**

U - not detected

**Table 3**  
**Summary of Confirmation Sample Laboratory Analytical Results**

Sample ID	Date	Time	Description	Location	TPH-DRO (mg/kg)	Qualifier
JM01-SW-01	8/13/2014	1300	Phase 1	Sidewall	4.46	J
JM01-SW-02	8/13/2014	1315	Phase 1	Sidewall	4.28	J
JM01-SW-03	8/13/2014	1330	Phase 1	Sidewall	27.30	
JM01-SW-04	8/13/2014	1335	Phase 1	Sidewall	4.13	J
JM01-SW-05	8/13/2014	1340	Phase 1	Sidewall	7.73	
JM01-SW-06	8/13/2014	1345	Phase 1	Sidewall	8.67	
JM01-SW-07	8/13/2014	1350	Phase 1	Sidewall	5.44	
JM01-SW-08	8/13/2014	1400	Phase 1	Sidewall	10.20	
JM01-SW-09	8/13/2014	1405	Phase 1	Sidewall	7.71	
JM01-SW-10	8/13/2014	1410	Phase 1	Sidewall	4.50	U
JM01-SW-11	8/13/2014	1415	Phase 1	Sidewall	6.52	
JM01-SW-12	8/13/2014	1420	Phase 1	Sidewall	5.66	
JM01-SW-13	8/13/2014	1425	Phase 1	Sidewall	6.60	
JM01-SW-14	8/13/2014	1430	Phase 1	Sidewall	9.63	
JM01-SW-15	8/13/2014	1440	Phase 1	Sidewall	4.22	J
JM01-SW-16	8/13/2014	1445	Phase 1	Sidewall	4.20	U
JM01-SW-17	8/13/2014	1450	Phase 1	Sidewall	16.00	
JM01-SW-18	8/13/2014	1455	Phase 1	Sidewall	4.30	U
JM01-SW-19	8/13/2014	1500	Phase 1	Sidewall	6.57	
JM01-SW-20	8/13/2014	1530	Phase 1	Sidewall	Not Tested	
JM01-SW-21	8/13/2014	1535	Phase 1	Sidewall	Not Tested	
JM01-SW-22	8/13/2014	1540	Phase 1	Sidewall	Not Tested	
JM01-SW-23	8/13/2014	1545	Phase 1	Sidewall	Not Tested	
JM01-SW-24	8/13/2014	1550	Phase 1	Sidewall	5.86	
JM01-SW-25	8/13/2014	1555	Phase 1	Sidewall	Not Tested	
JM01-SW-26	8/13/2014	1600	Phase 1	Sidewall	Not Tested	
JM01-SW-27	8/13/2014	1605	Phase 1	Sidewall	Not Tested	
JM01-SW-28	8/13/2014	1610	Phase 1	Sidewall	Not Tested	
JM01-SW-29	8/13/2014	1615	Phase 1	Sidewall	Not Tested	
JM01-SW-30	8/13/2014	1620	Phase 1	Sidewall	Not Tested	
JM01-CONF-31	9/29/2014	1238	Phase 2	Sidewall	9.30	U
JM01-CONF-32	9/29/2014	1240	Phase 2	Sidewall	15.30	J
JM01-CONF-33	9/29/2014	1244	Phase 2	Sidewall	9.30	U
JM01-CONF-34	9/29/2014	1248	Phase 2	Sidewall	9.40	U
JM01-CONF-35	9/29/2014	1251	Phase 2	Sidewall	17.20	J
JM01-CONF-36	9/29/2014	1254	Phase 2	Sidewall	9.30	U
JM01-CONF-37	9/29/2014	1432	Phase 2	Sidewall	9.40	U
JM01-CONF-38	9/29/2014	1435	Phase 2	Sidewall	9.20	U
JM01-CONF-39	9/29/2014	1438	Phase 2	Sidewall	10.50	J
JM01-CONF-40	9/30/2014	1206	Phase 2	Floor	21.70	
JM01-CONF-41	9/30/2014	1216	Phase 2	Floor	13.70	J
JM01-CONF-42	9/30/2014	1222	Phase 2	Floor	22.30	
JM01-CONF-43	9/30/2014	1500	Phase 2	Floor	10.00	U
JM01-CONF-44	9/30/2014	1230	Phase 2	Floor	10.00	U

**Table 3**  
**Summary of Confirmation Sample Laboratory Analytical Results**

Sample ID	Date	Time	Description	Location	TPH-DRO (mg/kg)	Qualifier
JM01-CONF-45	9/30/2014	1235	Phase 2	Floor	10.00	U
JM01-CONF-46	9/30/2014	1239	Phase 2	Floor	13.20	J
JM01-CONF-47	9/30/2014	1246	Phase 2	Floor	13.50	J
JM01-CONF-48	9/30/2014	1538	Phase 2	Floor	58.80	
JM01-CONF-49	9/30/2014	1343	Phase 2	Floor	12.20	J
JM01-CONF-50	9/30/2014	1348	Phase 2	Floor	31.20	
JM01-CONF-51	9/30/2014	1353	Phase 2	Floor	11.80	J
JM01-CONF-52	9/30/2014	1603	Phase 2	Floor	10.00	U
JM01-CONF-53	9/30/2014	1608	Phase 2	Floor	9.80	U
JM01-CONF-54	9/30/2014	1613	Phase 2	Floor	12.90	J
JM01-CONF-55	9/30/2014	1626	Phase 2	Floor	14.40	J
JM01-CONF-56	9/30/2014	1628	Phase 2	Floor	10.00	U
JM01-CONF-57	9/30/2014	1644	Phase 2	Floor	9.90	U
JM01-CONF-58	9/30/2014	1647	Phase 2	Floor	9.80	U
JM01-CONF-59	9/30/2014	1654	Phase 2	Floor	9.70	U

**Notes:**

J - indicates an estimated value

U - not detected

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**APPENDIX A**  
**SCHEDULE**

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Activity ID	Activity Name	Original Duration	Activity % Complete	Start	Finish	2014																	
						Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr									
<b>CTO JM01 Oil Spill Remediation, NSB Kings Bay, GA</b>		143		11-Aug-14 A	07-Mar-15																		
<b>Contract Award</b>		19		11-Aug-14 A	08-Sep-14 A																		
A1000	Contract Award	0	100%	11-Aug-14 A																			
A1010	Mod 1 Award	0	100%	21-Aug-14 A																			
A1020	Mod 2 Award	0	100%	08-Sep-14 A																			
<b>Period of Performance</b>		143		11-Aug-14 A	07-Mar-15																		
A1030	Period of Performance Start	0	100%	11-Aug-14 A																			
A1040	Period of Performance End	0	0%		07-Mar-15																		
<b>Work Element 1 - Project Management</b>		95		13-Aug-14 A	31-Dec-14																		
<b>Work Element 2 - Preconstruction Activities</b>		28		13-Aug-14 A	22-Sep-14 A																		
A1050	Site Assessment/Delineation Sampling Event	1	100%	13-Aug-14 A	13-Aug-14 A																		
A1060	Sample Results Received	1	100%	19-Aug-14 A	19-Aug-14 A																		
A1070	Assessment Results/Recommendations Submitted	1	100%	20-Aug-14 A	20-Aug-14 A																		
A1080	Draft Work Plan	6	100%	10-Sep-14 A	17-Sep-14 A																		
A1090	Final Work Plan	3	100%	18-Sep-14 A	22-Sep-14 A																		
<b>Work Element 3 - Mobilization, Setup and Clearing</b>		1		22-Sep-14 A	22-Sep-14 A																		
A1100	Mobilization	1	100%	22-Sep-14 A	22-Sep-14 A																		
<b>Work Element 4 - Fieldwork</b>		10		22-Sep-14 A	06-Oct-14 A																		
A1110	Fieldwork	10	100%	22-Sep-14 A	06-Oct-14 A																		
<b>Work Element 5 - Demobilization</b>		1		06-Oct-14 A	06-Oct-14 A																		
A1120	Demobilization	1	100%	06-Oct-14 A	06-Oct-14 A																		
<b>Work Element 6 - Post Construction Deliverables</b>		44		06-Oct-14 A	31-Dec-14																		
A1130	Draft Project Completion Report	20	75%	06-Oct-14 A	30-Oct-14																		
A1140	Navy Review of Draft Completion Report	10	0%	31-Oct-14	13-Nov-14																		
A1150	Draft Final Completion Report	5	0%	14-Nov-14	20-Nov-14																		
A1160	Regulator Review of Draft Final Completion Report	20	0%	21-Nov-14	22-Dec-14																		
A1170	Final Project Completion Report	5	0%	23-Dec-14	31-Dec-14																		

Primary Baseline   
  Remaining Work   
  Baseline Milestone  
 Actual Work   
  Critical Remaining Work   
  Milestone



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## **APPENDIX B**

### **PHOTOS**

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Project: Diesel Spill Cleanup	Project No.: JM01
Location: Fuel Farm – NSB Kings Bay, GA	
Photographer: G. Phelps	

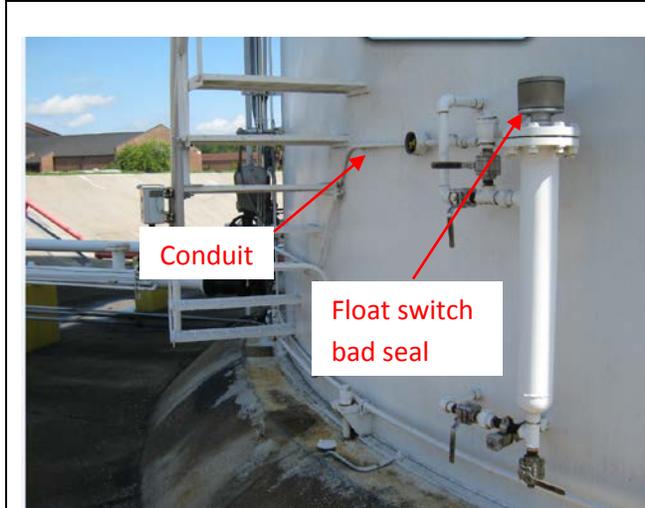


Photo #: 1
Date Taken: N/A
Time Taken: N/A
Location: Fuel Farm
Photographer Facing: Tank
Description: Tank with bad seal on float switch and conduit filled with fuel.



Photo #: 2
Date Taken: N/A
Time Taken: N/A
Location: Fuel Farm
Photographer Facing: E
Description: Control panel box where fuel initially spilled on to the ground.



Photo #: 3
Date Taken: N/A
Time Taken: N/A
Location: Fuel Farm
Photographer Facing: NW
Description: Initial response to spill by another contractor.

Project: Diesel Spill Cleanup	Project No.: JM01
Location: Fuel Farm – NSB Kings Bay, GA	
Photographer: G. Phelps	



Photo #: 4
Date Taken: 8/14/14
Time Taken: N/A
Location: Fuel Farm
Photographer Facing: SW
Description: Pre-construction conditions



Photo #: 5
Date Taken:
Time Taken: N/A
Location: Fuel Farm
Photographer Facing: NW
Description: Initial excavation performed by another contractor.



Photo #: 6
Date Taken: 8/12/14
Time Taken: N/A
Location: Fuel Farm
Photographer Facing: E
Description: Initial excavation covered with plastic sheeting by another contractor.

Project: Diesel Spill Cleanup

Project No.: JM01

Location: Fuel Farm – NSB Kings Bay, GA

Photographer: G. Phelps



Photo #: 7

Date Taken: N/A

Time Taken: N/A

Location: Fuel Farm

Photographer Facing: N

Alarm panels – diesel spill leak source with grassy area in background.



Photo #: 8

Date Taken: 9/22/14

Time Taken: 2:21 PM

Location: Fuel Farm

Photographer Facing: N

Hand excavation within 3 feet of utility lines



Photo #: 9

Date Taken: 9/23/14

Time Taken: 3:53 PM

Location: Fuel Farm

Photographer Facing: SW

Description:  
Soil/Gravel removal by TtEC

Project: Diesel Spill Cleanup

Project No.: JM01

Location: Fuel Farm – NSB Kings Bay, GA

Photographer: G. Phelps



Photo #: 10

Date Taken: 9/24/14

Time Taken: 4:55 PM

Location: Fuel Farm

Photographer Facing: W

Description:

Soil/Gravel removal by TtEC. Utility lines supported by wooden stakes.



Photo #: 11

Date Taken: 9/23/14

Time Taken: 10:12 AM

Location: Fuel Farm

Photographer Facing: N

Description:

Transfer of excavated waste material to staging area by TtEC.



Photo #: 12

Date Taken: 9/24/14

Time Taken: 4:51 PM

Location: Fuel Farm

Photographer Facing: NE

Description:

TtEC waste staging area lined with 10-mil poly-sheeting and bermed with stone.

Project: Diesel Spill Cleanup

Project No.: JM01

Location: Fuel Farm – NSB Kings Bay, GA

Photographer: G. Phelps



Photo #: 13

Date Taken: 9/26/14

Time Taken: 9:50 AM

Location: Fuel Farm

Photographer Facing: E

Description:  
Soil/Gravel removal by TtEC.



Photo #: 14

Date Taken: 10/6/14

Time Taken: 7:16 PM

Location: Fuel Farm

Photographer Facing: W

Description:  
Site restoration by TtEC



Photo #: 15

Date Taken: 10/6/14

Time Taken: 7:16 PM

Location: Fuel Farm

Photographer Facing: SW

Description:  
Site restoration by TtEC

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**APPENDIX C**  
**WASTE DISPOSAL DOCUMENTATION**

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Date	Profile #	Manifest #	Transaction #	Waste Description	Disposal Facility	Tons
9/29/2014	401577GA	1	438066	SOIL/DEBRIS PETROLEUM	Chesser Island	18.93
9/29/2014	401577GA	2	438085	SOIL/DEBRIS PETROLEUM	Chesser Island	23.66
9/29/2014	401577GA	3	438127	SOIL/DEBRIS PETROLEUM	Chesser Island	27.56
9/29/2014	401577GA	4	438173	SOIL/DEBRIS PETROLEUM	Chesser Island	27.87
9/30/2014	401577GA	5	438198	SOIL/DEBRIS PETROLEUM	Chesser Island	25.64
9/30/2014	401577GA	6	438208	SOIL/DEBRIS PETROLEUM	Chesser Island	22.70
9/30/2014	401577GA	7	438236	SOIL/DEBRIS PETROLEUM	Chesser Island	26.94
9/30/2014	401577GA	8	438252	SOIL/DEBRIS PETROLEUM	Chesser Island	22.59
9/30/2014	401577GA	9	438286	SOIL/DEBRIS PETROLEUM	Chesser Island	22.81
10/1/2014	401577GA	10	438360	SOIL/DEBRIS PETROLEUM	Chesser Island	18.83
10/1/2014	401577GA	11	438393	SOIL/DEBRIS PETROLEUM	Chesser Island	19.23
<b>Total Tons:</b>						<b>256.76</b>



## CERTIFICATE OF DISPOSAL

This is to document the disposition of waste material(s) removed from your facility located at:  
**Fuel Farm  
NSB Kings Bay  
Kings Bay, GA. 31547**

Charged to: **Clearfield MMG, Inc.**

The waste material(s) consisted of:

- a) Non-Hazardous Non-DOT Regulated Waste Solid
- b) (Pertroleum Contaminated Soil)
- c) Profile# 401577GA Ticket  
438066,438085,438127,438173,437198,438208,438236,438252,438286,438360
- d) & 438393 total of 11 loads
- e) Carrier: Norton Truck # 136 & Truck #195

The waste material(s) were disposed of at:

Facility: Waste Management: Chesser Island Road Landfill  
Solid waste handling Permit # 024-006D (SL)  
Address: 367 Chesser Island Landfill Road  
Folkston, GA 31537

Disposal of your material(s) was accomplished by the following method(s):

Buried in the Landfill

Date of Disposal: August 29-October 1, 2014

Total Tons Disposed of: 256.76

Authorized Facility Signature:

**Cindy Snipes (Barnard)**  
Admin & Scale House  
[cbarnar1@wm.com](mailto:cbarnar1@wm.com)  
912-496-7918

NON-HAZARDOUS  
WASTE MANIFEST

1. Generator ID Number  
**Not Applicable**

2. Page 1 of  
**1**

3. Emergency Response Phone  
**757-328-7643**

4. Waste Tracking Number  
**401577GA- 1**

5. Generator's Name and Mailing Address  
**NSB Kings Bay  
1036 USS Tennessee Ave., Kings Bay, GA 31547**  
Generator's Phone: **912-573-4646 C/O Mr. Thomas Stofflet**

Generator's Site Address (if different than mailing address)  
**Fuel Farm  
NSB Kings Bay  
Kings Bay, GA**

6. Transporter 1 Company Name  
**Norton Irrigation #136 912-269-4099**

U.S. EPA ID Number  
**Not Applicable**

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address  
**Waste Management Chesser Island Landfill  
367 Chesser Island Landfill Road, Folkston, GA 31537**  
Facility's Phone: **912-496-7918**

U.S. EPA ID Number  
**Not Applicable**

9. Waste Shipping Name and Description

10. Containers

11. Total Quantity

12. Unit WL/Vol.

No.

Type

1. **Non-Hazardous Non-DOT Regulated Waste Solid  
(Petroleum Contaminated Soil)**

**001**

**DT**

**Est. 25**

**T**

13. Special Handling Instructions and Additional Information

**Waste Management Profile # 401577GA**

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name

**Thomas Stofflet**

Signature

*Thomas Stofflet*

Month Day Year  
**9 29 14**

15. International Shipments  Import to U.S.

Export from U.S.

Port of entry/exit:

Date leaving U.S.:

Transporter Signature (for exports only):

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name

Transporter 2 Printed/Typed Name

Signature

Signature

Month Day Year  
**9 29 14**

Month Day Year  
**9 29 14**

17. Discrepancy

17a. Discrepancy Indication Space

Quantity

Type

Residue

Partial Rejection

Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)

U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator)

Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in item 17a

Printed/Typed Name

Signature

*Snipes*

*Cindy Snipes*

Month Day Year  
**9 29 14**

GENERATOR  
TRANSPORTER  
DESIGNATED FACILITY



Chesser Island Landfill  
 Hwy 121/South Chesser Island Rd, P.O.Box 128  
 Folkston, GA, 31537  
 Ph: (912) 496-7918

Original  
 Ticket# 438056

Customer Name CLEARFIELD/MING CLEARFIELD M Carrier NORTON  
 Ticket Date 09/29/2014 Vehicle# 136 Volume  
 Payment Type Credit Account Container  
 Manual Ticket# Driver  
 Hauling Ticket# Check#  
 Route Billing # 0002181  
 State Waste Code Gen EPA ID NR  
 Manifest 1 Grid  
 Destination  
 PO CHH-TTECHSBKB  
 Profile 401577GA (SOIL/DEBRIS PETROLEUM)  
 Generator 114-NSBKINGSBAY NSI KINGS BAY TRF DRYDOCK

Time	Scale	Operator	Inbound	Gross	65500 lb
In 09/29/2014 12:18:03	SCALE	cbarnarl		Tare	27640 lb
Out 09/29/2014 12:39:07	SCALE	cbarnarl		Net	37860 lb
				Tons	18.93

Comments

SAVING TIME NEVER TRUMPS OVER SAFE BEHAVIOR!! THINK SAFETY!!

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Pet-Tons	100	18.93	Tons				CAMDEN
2 HSF-MOST FEE	100		%				CAMDEN
3 SPF-SUPERFUND	100	18.93	Tons				CAMDEN
4 CRM-COST REIMBURSE	100	18.93	Tons				CAMDEN

"I certify that the waste I delivered to this facility on this date does not contain any regulated hazardous, toxic, radioactive waste or substances, or other non-allowable wastes. I also agree to remove any non-allowable wastes I bring to this facility, or pay all costs for proper removal of such wastes, upon request from this facility."

DRIVER: PLEASE SIGN HERE

*Beard [Signature]*

Total Fees  
 Total Ticket



NON-HAZARDOUS  
WASTE MANIFEST

1. Generator ID Number  
Not Applicable

2. Page 1 of  
1

3. Emergency Response Phone  
757-328-7643

4. Waste Tracking Number  
401577GA- 2

5. Generator's Name and Mailing Address  
NSB Kings Bay  
1036 USS Tennessee Ave., Kings Bay, GA 31547  
912-573-4646 C/O Mr. Thomas Stofflet

Generator's Site Address (if different than mailing address)  
Fuel Farm  
NSB Kings Bay  
Kings Bay, GA

Generator's Phone:

6. Transporter 1 Company Name  
Norton Irrigation #136 912-269-4099

U.S. EPA ID Number  
Not Applicable

7. Transporter 2 Company Name  
195

U.S. EPA ID Number

8. Designated Facility Name and Site Address  
Waste Management Chesser Island Landfill  
367 Chesser Island Landfill Road, Folkston, GA 31537  
912-496-7918

U.S. EPA ID Number  
Not Applicable

Facility's Phone:

9. Waste Shipping Name and Description

10. Containers

11. Total Quantity

12. Unit Wt./Vol.

No.

Type

1. Non-Hazardous Non-DOT Regulated Waste Solid  
(Petroleum Contaminated Soil)

001

DT

Est. 25

T

13. Special Handling Instructions and Additional Information

Waste Management Profile # 401577GA

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name

Thomas Stofflet

Signature

Month Day Year  
9 29 14

15. International Shipments  Import to U.S.

Export from U.S.

Port of entry/exit:

Date leaving U.S.:

Transporter Signature (for exports only):

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name

Signature

Month Day Year

Transporter 2 Printed/Typed Name

Signature

Month Day Year

17. Discrepancy

17a. Discrepancy Indication Space

Quantity

Type

Residue

Partial Rejection

Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)

U.S. EPA ID Number

9/29/14

Facility's Phone:

17c. Signature of Alternate Facility (or Generator)

Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in item 17a

Printed/Typed Name

Crystal Masley

Signature

Month Day Year  
9 29 14



Chesser Island Landfill  
 Hwy 121/South Chesser Island Rd, P.O.Box 128  
 Folkston, GA, 31537  
 Ph: (912) 496-7918

Original  
 Ticket# 438885

Customer Name CLEARFIELD MINGING CLEARFIELD M Carrier NORTON  
 Ticket Date 09/29/2014 Vehicle# 195 Volume  
 Payment Type Credit Account Container  
 Manual Ticket# Driver  
 Hauling Ticket# Check#  
 Route Billing # 8002181  
 State Waste Code Gen EPA ID NR  
 Manifest 2 Grid  
 Destination  
 PG CHH-TTECNBKB  
 Profile 401577GA (SOIL/DEBRIS PETROLEUM)  
 Generator 114-NSBKINGSBAY NSB KINGS BAY TRF DRYDOCK

Time	Scale	Operator	Inbound	Gross	75348 lb
In 09/29/2014 13:20:54	SCALE	cmosley1		Tare	28026 lb
Out 09/29/2014 13:45:14	SCALE	cmosley1		Net	47326 lb
				Tons	23.66

Comments

SAVING TIME NEVER TRUMPS OVER SAFE BEHAVIOR!! THINK SAFETY!!

Product	LDX	Qty	UOM	Rate	Fee	Amount	Origin
1 Dont Soil Pet-Tons	100	23.66	Tons				CAMDEN
2 HSF-HOST FEE	100		*				CAMDEN
3 SPF-SUPERFUND	100	23.66	Tons				CAMDEN
4 CRM-COST REINBURSE	100	23.66	Tons				CAMDEN

"I certify that the waste I delivered to this facility on this date does not contain any regulated hazardous, toxic, radioactive waste or substances, or other non-allowable wastes. I also agree to remove any non-allowable wastes I bring to this facility, or pay all costs for proper removal of such wastes, upon request from this facility."

DRIVER: PLEASE SIGN HERE

*Kenny Weber*

Total Fees 44  
 Total Ticket



9-29-14 14:14

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number  
Not Applicable

2. Page 1 of 1

3. Emergency Response Phone  
757-328-7643

4. Waste Tracking Number  
401577GA- 3

5. Generator's Name and Mailing Address  
NSB Kings Bay  
1036 USS Tennessee Ave., Kings Bay, GA 31547  
912-573-4646 C/O Mr. Thomas Stofflet

Generator's Site Address (if different than mailing address)  
Fuel Farm  
NSB Kings Bay  
Kings Bay, GA

6. Transporter 1 Company Name  
Norton Irrigation #136 912-269-4099

U.S. EPA ID Number  
Not Applicable

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address  
Waste Management Chesser Island Landfill  
367 Chesser Island Landfill Road, Folkston, GA 31537  
912-496-7918

U.S. EPA ID Number  
Not Applicable

9. Waste Shipping Name and Description

10. Containers

11. Total Quantity

12. Unit Wt./Vol.

1. Non-Hazardous Non-DOT Regulated Waste Solid (Petroleum Contaminated Soil)

No. 001

Type DT

Est. 25

T

13. Special Handling Instructions and Additional Information

Waste Management Profile # 401577GA

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name

Thomas Stofflet

Signature

Month Day Year

9 29 14

15. International Shipments  Import to U.S.  Export from U.S.

Port of entry/exit:  
Date leaving U.S.:

Transporter Signature (for exports only):

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name

Bill Chapman

Signature

Month Day Year

9 29 14

Transporter 2 Printed/Typed Name

Signature

17. Discrepancy

17a. Discrepancy Indication Space

Quantity

Type

Residue

Partial Rejection

Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)

U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator)

Month Day Year

18. Designated Facility Owner or Operator, Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name

Crystal Mosley

Signature

Month Day Year

9 29 14

GENERATOR  
INTL  
TRANSPORTER  
DESIGNATED FACILITY



Chesser Island Landfill  
 Hwy 121/South Chesser Island Rd, P.O.Box 128  
 Folkston, GA, 31537  
 Ph: (912) 496-7918

Original  
 Ticket# 438127

Customer Name CLEARFIELDMMG INC CLEARFIELD M Carrier NORTON  
 Ticket Date 09/29/2014 Vehicle# 136 Volume  
 Payment Type Credit Account Container  
 Manual Ticket# Driver  
 Hauling Ticket# Check#  
 Route Billing # 0002181  
 State Waste Code Gen EPA ID NR  
 Manifest 3 Grid  
 Destination  
 PG CHH-TTECNBKB  
 Profile 4015776A (SOIL/DEBRIS PETROLEUM)  
 Generator 114-NSBKINGSBAY NSB KINGS BAY TRF DRYDOCK

Time	Scale	Operator	Inbound	Gross	82760 lb
In 09/29/2014 15:21:20	SCALE	cmosley1		Tare	27640 lb
Out 09/29/2014 15:21:20		cmosley1		Net	55120 lb
				Tons	27.56

Comments

SAVING TIME NEVER TRUMPS OVER SAFE BEHAVIOR!! THINK SAFETY!!

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Pet-Tons	100	27.56	Tons				CAMDEN
2 HSF-HOST FEE	100		*				CAMDEN
3 SPF-SUPERFUND	100	27.56	Tons				CAMDEN
4 CRM-COST REIMBURSE	100	27.56	Tons				CAMDEN

"I certify that the waste I delivered to this facility on this date does not contain any regulated hazardous, toxic, radioactive waste or substances, or other non-allowable wastes. I also agree to remove any non-allowable wastes I bring to this facility, or pay all costs for proper removal of such wastes, upon request from this facility."

DRIVER: PLEASE SIGN HERE X

*Bill Rupp*

Total Fees  
 Total Ticket



**NON-HAZARDOUS  
WASTE MANIFEST**

1. Generator ID Number  
**Not Applicable**

2. Page 1 of **1**  
3. Emergency Response Phone  
**757-328-7643**

4. Waste Tracking Number  
**401577GA- 4**

5. Generator's Name and Mailing Address  
**NSB Kings Bay  
1036 USS Tennessee Ave., Kings Bay, GA 31547  
912-573-4648 C/O Mr. Thomas Stofflet**

Generator's Site Address (if different than mailing address)  
**Fuel Farm  
NSB Kings Bay  
Kings Bay, GA**

Generator's Phone:

6. Transporter 1 Company Name  
**Norton Irrigation 912-269-4099**

U.S. EPA ID Number  
**Not Applicable**

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address  
**Waste Management Chesser Island Landfill  
367 Chesser Island Landfill Road, Folkston, GA 31537  
912-496-7918**

U.S. EPA ID Number  
**Not Applicable**

Facility's Phone:

9. Waste Shipping Name and Description

10. Containers

11. Total Quantity

12. Unit Wt/Vol.

No.

Type

1. **Non-Hazardous Non-DOT Regulated Waste Solid  
(Petroleum Contaminated Soil)**

**001**

**DT**

**Est. 25**

**T**

13. Special Handling Instructions and Additional Information

**Waste Management Profile # 401577GA**

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name

**Thomas Stofflet**

Signature

*Thomas Stofflet*

Month Day Year

**9 | 29 | 2019**

15. International Shipments  Import to U.S.  Export from U.S.

Port of entry/exit:

Transporter Signature (for exports only):

Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name

**KENNETH WELDON**

Signature

*Kenneth Weldon*

Month Day Year

**9 | 29 | 19**

Transporter 2 Printed/Typed Name

Signature

Month Day Year

17. Discrepancy

17a. Discrepancy Indication Space

Quantity

Type

Residue

Partial Rejection

Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)

U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator)

Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name

**Crystal Mosley**

Signature

*Crystal Mosley*

Month Day Year

**9 | 30 | 19**

GENERATOR

INT'L

TRANSPORTER

DESIGNATED FACILITY



Chesser Island Landfill  
 Hwy 121/South Chesser Island Rd, P.O.Box 128  
 Folkston, GA, 31537  
 Ph: (912) 496-7918

Original  
 Ticket# 438173

Customer Name CLEARFIELD MNG INC CLEARFIELD M Carrier NORTON  
 Ticket Date 09/30/2014 Vehicle# 195 Volume  
 Payment Type Credit Account Container  
 Manual Ticket# Driver  
 Hauling Ticket# Check#  
 Route Billing # 0002181  
 State Waste Code Gen EPA ID NR  
 Manifest 4 Grid  
 Destination  
 PO CHH-TTECNBKI  
 Profile 4015776A (SOIL/DEBRIS PETROLEUM)  
 Generator 114-NSBKINGSBAY NSB KINGS BAY TRF DRYDOCK

Time	Scale	Operator	Inbound	Gross	83760 lb
In 09/30/2014 07:14:12	SCALE	cmosley1		Tare	28020 lb
Out 09/30/2014 07:14:12		cmosley1		Net	55740 lb
				Tons	27.87

Comments

SAVING TIME NEVER TRUMPS OVER SAFE BEHAVIOR!! THINK SAFETY!!

Product	LDX	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Pet-Tons	100	27.87	Tons				CAMDEN
2 HSF-HOST FEE	100		*				CAMDEN
3 SPF-SUPERFUND	100	27.87	Tons				CAMDEN
4 CRM-COST REIMBURSE	100	27.87	Tons				CAMDEN

"I certify that the waste I delivered to this facility on this date does not contain any regulated hazardous, toxic, radioactive waste or substances, or other non-allowable wastes. I also agree to remove any non-allowable wastes I bring to this facility, or pay all costs for proper removal of such wastes, upon request from this facility."

DRIVER: PLEASE SIGN HERE

*Kenneth Walker*

Total Fees

Total Ticket



**NON-HAZARDOUS  
WASTE MANIFEST**

1. Generator ID Number  
**Not Applicable**

2. Page 1 of  
**1**

3. Emergency Response Phone  
**757-328-7643**

4. Waste Tracking Number  
**401577GA- 5**

5. Generator's Name and Mailing Address  
**NSB Kings Bay  
1036 USS Tennessee Ave., Kings Bay, GA 31547  
912-573-4846 C/O Mr. Thomas Stofflet**

Generator's Site Address (if different than mailing address)  
**Fuel Farm  
NSB Kings Bay  
Kings Bay, GA**

Generator's Phone:

6. Transporter 1 Company Name  
**Norton Irrigation # 136 912-269-4099**

U.S. EPA ID Number  
**Not Applicable**

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address  
**Waste Management Chesser Island Landfill  
367 Chesser Island Landfill Road, Folkston, GA 31537  
912-498-7918**

U.S. EPA ID Number  
**Not Applicable**

Facility's Phone:

9. Waste Shipping Name and Description	10. Containers		11. Total Quantity	12. Unit WL/Vol.
	No.	Type		
1. <b>Non-Hazardous Non-DOT Regulated Waste Solid (Petroleum Contaminated Soil)</b>	<b>001</b>	<b>DT</b>	<b>Est. 25</b>	<b>T</b>
2.				
3.				
4.				

13. Special Handling Instructions and Additional Information

**Waste Management Profile # 401577GA**

14. GENERATOR'S/OFFEROR'S CERTIFICATION. I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name  
**Thomas Stofflet**

Signature  
*Thomas Stofflet*

Month Day Year  
**9 30 2014**

INT'L

15. International Shipments  Import to U.S.  Export from U.S.

Transporter Signature (for exports only):

Port of entry/exit:  
Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name

**Bill Chapman**

Signature  
*Bill Chapman*

Month Day Year  
**9 30 2014**

Transporter 2 Printed/Typed Name

Signature

Month Day Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space  Quantity  Type  Residue  Partial Rejection  Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)

U.S. EPA ID Number:

Facility's Phone:

17c. Signature of Alternate Facility (or Generator)

Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in item 17a

Printed/Typed Name  
**Crystal Masler**

Signature  
*Crystal Masler*

Month Day Year  
**9 30 14**



Chesser Island Landfill  
 Hwy 121/South Chesser Island Rd, P.O.Box 128  
 Folkston, GA, 31537  
 Ph: (912) 496-7918

Original  
 Ticket# 438198

Customer Name CLEARFIELDMMG INC CLEARFIELD M Carrier NORTON  
 Ticket Date 09/30/2014 Vehicle# 136 Volume  
 Payment Type Credit Account Container  
 Manual Ticket# Driver  
 Hauling Ticket# Check#  
 Route Billing # 0002181  
 State Waste Code Gen EPA ID NR  
 Manifest 5 Grid  
 Destination  
 PO CHH-TTECNBKB  
 Profile 4015776A (SOIL/DEBRIS PETROLEUM)  
 Generator 114-NSBKINGSBAY NSB KINGS BAY TRF DRYDOCK

Time	Scale	Operator	Inbound	Gross	78920 lb
In 09/30/2014 09:21:21	SCALE	cmosley1		Tare	27640 lb
Out 09/30/2014 09:21:21		cmosley1		Net	51280 lb
				Tons	25.64

Comments

SAVING TIME NEVER TRUMPS OVER SAFE BEHAVIOR!! THINK SAFETY!!

Product	LDX	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Pet-Tons	100	25.64	Tons				CAMDEN
2 HSF-HOST FEE	100		*				CAMDEN
3 SPF-SUPERFUND	100	25.64	Tons				CAMDEN
4 CRM-COST REIMBURSE	100	25.64	Tons				CAMDEN

*[Signature]*

"I certify that the waste I delivered to this facility on this date does not contain any regulated hazardous, toxic, radioactive waste or substances, or other non-allowable wastes. I also agree to remove any non-allowable wastes I bring to this facility, or pay all costs for proper removal of such wastes, upon request from this facility."

DRIVER: PLEASE SIGN HERE

Total Fees  
 Total Ticket



9-30-14 09:00 Loaded

**NON-HAZARDOUS WASTE MANIFEST**

1. Generator ID Number: **Not Applicable**      2. Page 1 of **1**      3. Emergency Response Phone: **757-328-7843**      4. Waste Tracking Number: **401577GA- 6**

5. Generator's Name and Mailing Address: **NSB Kings Bay, 1036 USS Tennessee Ave., Kings Bay, GA 31547**  
 Generator's Site Address (if different than mailing address): **Fuel Farm, NSB Kings Bay, Kings Bay, GA**  
 Generator's Phone: **912-573-4646 C/O Mr. Thomas Stofflet**

6. Transporter 1 Company Name: **Norton Irrigation #195**      912-269-4099      U.S. EPA ID Number: **Not Applicable**

7. Transporter 2 Company Name: \_\_\_\_\_      U.S. EPA ID Number: \_\_\_\_\_

8. Designated Facility Name and Site Address: **Waste Management Chesser Island Landfill, 367 Chesser Island Landfill Road, Folkston, GA 31537**  
 Facility's Phone: **912-496-7918**      U.S. EPA ID Number: **Not Applicable**

9. Waste Shipping Name and Description	10. Containers		11. Total Quantity	12. Unit Wt./Vol.
	No.	Type		
1. <b>Non-Hazardous Non-DOT Regulated Waste Solid (Petroleum Contaminated Soil)</b>	<b>001</b>	<b>DT</b>	<b>Est. 25</b>	<b>T</b>
2.				
3.				
4.				

13. Special Handling Instructions and Additional Information:  
**Waste Management Profile # 401577GA**

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.  
 Generator's/Offeror's Printed/Typed Name: **Thomas Stofflet**      Signature: *[Signature]*      Month: **09** Day: **30** Year: **2014**

15. International Shipments:  Import to U.S.       Export from U.S.      Port of entry/exit: \_\_\_\_\_      Date leaving U.S.: \_\_\_\_\_

16. Transporter Acknowledgment of Receipt of Materials  
 Transporter 1 Printed/Typed Name: **KENNETH WELDON**      Signature: *[Signature]*      Month: **09** Day: **30** Year: **2014**  
 Transporter 2 Printed/Typed Name: \_\_\_\_\_      Signature: \_\_\_\_\_      Month: \_\_\_\_\_ Day: \_\_\_\_\_ Year: \_\_\_\_\_

17. Discrepancy  
 17a. Discrepancy Indication Space:  Quantity       Type       Residue       Partial Rejection       Full Rejection  
 Manifest Reference Number: \_\_\_\_\_

17b. Alternate Facility (or Generator): \_\_\_\_\_      U.S. EPA ID Number: \_\_\_\_\_  
 Facility's Phone: \_\_\_\_\_  
 17c. Signature of Alternate Facility (or Generator): \_\_\_\_\_      Month: \_\_\_\_\_ Day: \_\_\_\_\_ Year: \_\_\_\_\_

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a  
 Printed/Typed Name: **Crystal Mosley**      Signature: *[Signature]*      Month: **9** Day: **30** Year: **14**

GENERATOR

TRANSPORTER

DESIGNATED FACILITY



Chesser Island Landfill  
 Hwy 121/South Chesser Island Rd, P.O.Box 128  
 Folkston, GA, 31537  
 Ph: (912) 496-7918

Original  
 Ticket# 438200

Customer Name CLEARFIELDMMG INC CLEARFIELD M Carrier NORTON  
 Ticket Date 09/30/2014 Vehicle# 195 Volume  
 Payment Type Credit Account Container  
 Manual Ticket# Driver  
 Hauling Ticket# Check#  
 Route Billing # 0002181  
 State Waste Code Gen EPA ID NR  
 Manifest 6 Grid  
 Destination  
 PO CHH-TTECHSBKB  
 Profile 4015776A (SOIL/DEBRIS PETROLEUM)  
 Generator 114-NSBKINGSBAY NSB KINGS BAY TRF DRYDOCK

Time	Scale	Operator	Inbound	Gross	73420 lb
In 09/30/2014 10:04:10	SCALE	cmosley1		Tare	28020 lb
Out 09/30/2014 10:04:10		cmosley1		Net	45400 lb
				Tons	22.70

Comments

SAVING TIME NEVER TRUMPS OVER SAFE BEHAVIOR!! THINK SAFETY!!

Product	LDX	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Pet-Tons	100	22.70	Tons				CAMDEN
2 HSF-HOST FEE	100		X				CAMDEN
3 SPF-SUPERFUND	100	22.70	Tons				CAMDEN
4 CRM-COST REIMBURSE	100	22.70	Tons				CAMDEN

"I certify that the waste I delivered to this facility on this date does not contain any regulated hazardous, toxic, radioactive waste or substances, or other non-allowable wastes. I also agree to remove any non-allowable wastes I bring to this facility, or pay all costs for proper removal of such wastes, upon request from this facility."

DRIVER: PLEASE SIGN HERE

*Kenny W. [Signature]*

Total Fees  
 Total Ticket



9-30-2014 10:45

<b>NON-HAZARDOUS WASTE MANIFEST</b>	1. Generator ID Number <b>Not Applicable</b>	2. Page 1 of <b>1</b>	3. Emergency Response Phone <b>757-328-7643</b>	4. Waste Tracking Number <b>401577GA-7</b>				
5. Generator's Name and Mailing Address <b>NSB Kings Bay 1036 USS Tennessee Ave., Kings Bay, GA 31547</b>		Generator's Site Address (if different than mailing address) <b>Fuel Farm NSB Kings Bay Kings Bay, GA</b>						
Generator's Phone: <b>912-573-4646 C/O Mr. Thomas Stofflet</b>								
6. Transporter 1 Company Name <b>Norton Irrigation</b>			U.S. EPA ID Number <b>Not Applicable</b>					
7. Transporter 2 Company Name			U.S. EPA ID Number					
8. Designated Facility Name and Site Address <b>Waste Management Chesser Island Landfill 367 Chesser Island Landfill Road, Folkston, GA 31537</b>			U.S. EPA ID Number <b>Not Applicable</b>					
Facility's Phone: <b>912-496-7918</b>								
GENERATOR	9. Waste Shipping Name and Description		10. Containers		11. Total Quantity	12. Unit Wt./Vol.		
			No.	Type				
	1. <b>Non-Hazardous Non-DOT Regulated Waste Solid (Petroleum Contaminated Soil)</b>		<b>001</b>	<b>DT</b>	<b>Est. 25</b>	<b>T</b>		
	2.							
	3.							
4.								
13. Special Handling Instructions and Additional Information  <b>Waste Management Profile # 401577GA</b>								
14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.								
Generator's/Offeror's Printed/Typed Name <b>Thomas Stofflet</b>			Signature <i>Thomas Stofflet</i>		Month	Day	Year	
					<b>9</b>	<b>30</b>	<b>2014</b>	
INT'L	15. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____							
	Transporter Signature (for exports only): _____ Date leaving U.S.: _____							
TRANSPORTER	16. Transporter Acknowledgment of Receipt of Materials							
	Transporter 1 Printed/Typed Name <b>Bill Chapman</b>			Signature <i>Bill Chapman</i>		Month	Day	Year
						<b>9</b>	<b>30</b>	<b>2014</b>
Transporter 2 Printed/Typed Name			Signature		Month	Day	Year	
DESIGNATED FACILITY	17. Discrepancy							
	17a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection							
	Manifest Reference Number: _____							
	17b. Alternate Facility (or Generator)			U.S. EPA ID Number				
Facility's Phone								
17c. Signature of Alternate Facility (or Generator)			Month		Day	Year		
18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a								
Printed/Typed Name <b>Crystal Mosley</b>			Signature <i>Crystal Mosley</i>		Month	Day	Year	
					<b>9</b>	<b>30</b>	<b>14</b>	



Chesser Island Landfill  
 Hwy 121/South Chesser Island Rd, P.O.Box 128  
 Folkston, GA, 31537  
 Ph: (912) 496-7918

Original  
 Ticket# 438236

Customer Name CLEARFIELDMMG INC CLEARFIELD M Carrier NORTON  
 Ticket Date 09/30/2014 Vehicle# 136 Volume  
 Payment Type Credit Account Container  
 Manual Ticket# Driver  
 Hauling Ticket# Check#  
 Route Billing # 0002181  
 State Waste Code Gen EPA ID NR  
 Manifest 7 Grid  
 Destination  
 PO CHH-TTECNBKB  
 Profile 401577GA (SOIL/DEBRIS PETROLEUM)  
 Generator 114-NSBKINGSBAY NSB KINGS BAY TRF DRYDOCK

Time	Scale	Operator	Inbound	Gross	81520 lb
In 09/30/2014 11:51:57	SCALE	cmosley1		Tare	27640 lb
Out 09/30/2014 11:51:57		cmosley1		Net	53880 lb
				Tons	26.94

Comments: [Faint text]

SAVING TIME NEVER TRUMPS OVER SAFE BEHAVIOR!! THINK SAFETY!!

Product	LDX	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Pet-Tons	100	26.94	Tons				CAMDEN
2 HSF-HOST FEE	100		x				CAMDEN
3 SPF-SUPERFUND	100	26.94	Tons				CAMDEN
4 CRM-COST REIMBURSE	100	26.94	Tons				CAMDEN

"I certify that the waste I delivered to this facility on this date does not contain any regulated hazardous, toxic, radioactive waste or substances, or other non-allowable wastes. I also agree to remove any non-allowable wastes I bring to this facility, or pay all costs for proper removal of such wastes, upon request from this facility."

DRIVER: PLEASE SIGN HERE

*Bill Chapman*

Total Fees  
 Total Ticket



9-30-14 11:41

NON-HAZARDOUS  
WASTE MANIFEST

1. Generator ID Number  
Not Applicable

2. Page 1 of  
1

3. Emergency Response Phone  
757-328-7843

4. Waste Tracking Number  
401577GA- 8

5. Generator's Name and Mailing Address  
NSB Kings Bay  
1036 USS Tennessee Ave., Kings Bay, GA 31547  
912-573-4846 C/O Mr. Thomas Stofflet

Generator's Site Address (if different than mailing address)  
Fuel Farm  
NSB Kings Bay  
Kings Bay, GA

Generator's Phone:

6. Transporter 1 Company Name  
Norton Irrigation #195 912-289-4099

U.S. EPA ID Number  
Not Applicable

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address  
Waste Management Chesser Island Landfill  
367 Chesser Island Landfill Road, Folkston, GA 31537  
912-496-7918

U.S. EPA ID Number  
Not Applicable

Facility's Phone:

9. Waste Shipping Name and Description

10. Containers

No. Type

11. Total Quantity

12. Unit WL/Vol.

1. Non-Hazardous Non-DOT Regulated Waste Solid  
(Petroleum Contaminated Soil)

001

DT

Est. 25

T

13. Special Handling Instructions and Additional Information

Waste Management Profile # 401577GA

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offoror's Printed/Typed Name

Thomas Stofflet

Signature

*Thomas Stofflet*

Month Day Year  
9 30 14

15. International Shipments  Import to U.S.  Export from U.S.

Transporter Signature (for exports only):

Port of entry/exit:

Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name

KENNETH WELDON

Signature

*Kenneth Weldon*

Month Day Year  
9 30 14

Transporter 2 Printed/Typed Name

Signature

Month Day Year

17. Discrepancy

17a. Discrepancy Indication Space

Quantity

Type

Residue

Partial Rejection

Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)

U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator)

Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17c

Printed/Typed Name

*Cindy Snipes*

Signature

*Cindy Snipes*

Month Day Year  
9 30 14

GENERATOR

TRANSPORTER

DESIGNATED FACILITY



Chesser Island Landfill  
 Hwy 121/South Chesser Island Rd, P.O.Box 128  
 Folkston, GA, 31537  
 Ph: (912) 496-7918

Original  
 Ticket# 438252

Customer Name CLEARFIELDMMG INC CLEARFIELD M Carrier NORTON  
 Ticket Date 09/30/2014 Vehicle# 195 Volume  
 Payment Type Credit Account Container  
 Manual Ticket# Driver  
 Hauling Ticket# Check#  
 Route Billing # 0002181  
 State Waste Code Gen EPA ID NR  
 Manifest 8 Grid  
 Destination  
 PO CHH-TTECNBKB  
 Profile 401577GA (SOIL/DEBRIS PETROLEUM)  
 Generator 114-NSBKINGSBAY NSB KINGS BAY TRF DRYDOCK

Time	Scale	Operator	Inbound	Gross	73200 lb
In 09/30/2014 12:55:30	SCALE	cbarnari		Tare	28020 lb
Out 09/30/2014 12:55:30		cbarnari		Net	45180 lb
				Tons	22.59

Comments

SAVING TIME NEVER TRUMPS OVER SAFE BEHAVIOR!! THINK SAFETY!!

Product	LDX	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Pet-Tons	100	22.59	Tons				CAMDEN
2 HSF-HOST FEE	100		*				CAMDEN
3 SPF-SUPERFUND	100	22.59	Tons				CAMDEN
4 CRM-COST REIMBURSE	100	22.59	Tons				CAMDEN

"I certify that the waste I delivered to this facility on this date does not contain any regulated hazardous, toxic, radioactive waste or substances, or other non-allowable wastes. I also agree to remove any non-allowable wastes I bring to this facility, or pay all costs for proper removal of such wastes, upon request from this facility."

DRIVER: PLEASE SIGN HERE

*Terry W. [Signature]*

Total Fees  
 Total Ticket



9-30-14 13:25

**NON-HAZARDOUS  
WASTE MANIFEST**

1. Generator ID Number  
**Not Applicable**

2. Page 1 of  
**1**

3. Emergency Response Phone  
**757-328-7643**

4. Waste Tracking Number  
**401577GA-9**

5. Generator's Name and Mailing Address  
**NSB Kings Bay  
1036 USS Tennessee Ave., Kings Bay, GA 31547  
912-573-4646 C/O Mr. Thomas Stofflet**

Generator's Site Address (if different than mailing address)  
**Fuel Farm  
NSB Kings Bay  
Kings Bay, GA**

6. Transporter 1 Company Name  
**Norton Irrigation 912-288-4099**

U.S. EPA ID Number  
**Not Applicable**

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address  
**Waste Management Chesser Island Landfill  
367 Chesser Island Landfill Road, Folkston, GA 31537  
912-498-7918**

U.S. EPA ID Number  
**Not Applicable**

9. Waste Shipping Name and Description	10. Containers		11. Total Quantity	12. Unit Wt./Vol.
	No.	Type		
1. <b>Non-Hazardous Non-DOT Regulated Waste Solid (Petroleum Contaminated Soil)</b>	<b>001</b>	<b>DT</b>	<b>Est 25</b>	<b>T</b>
2.				
3.				
4.				

13. Special Handling Instructions and Additional Information  
**Waste Management Profile # 401577GA**

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name  
**Thomas Stofflet**

Signature  
*Thomas Stofflet*

Month Day Year  
**9 30 14**

15. International Shipments  Import to U.S.  Export from U.S. Port of entry/exit: Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name  
**Bill Chapman**

Signature  
*Bill Chapman*

Month Day Year  
**9 30 14**

Transporter 2 Printed/Typed Name

Signature

Month Day Year

17. Discrepancy

17a. Discrepancy Indication Space  Quantity  Type  Residue  Partial Rejection  Full Rejection

17b. Alternate Facility (or Generator) Manifest Reference Number: U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator): Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name  
**Crystal Mosler**

Signature  
*Crystal Mosler*

Month Day Year  
**9 30 14**

GENERATOR  
INT'L  
TRANSPORTER  
DESIGNATED FACILITY



Chesser Island Landfill  
 Hwy 121/South Chesser Island Rd, P.O.Box 128  
 Folkston, GA, 31537  
 Ph: (912) 496-7918

Original  
 Ticket# 438286

Customer Name CLEARFIELDMMG INC CLEARFIELD M Carrier NORTON  
 Ticket Date 09/30/2014 Vehicle# 136 Volume  
 Payment Type Credit Account Container  
 Manual Ticket# Driver  
 Hauling Ticket# Check#  
 Route Billing # 0002181  
 State Waste Code Gen EPA ID NR  
 Manifest 9 Grid  
 Destination  
 PD CHH-TTECNBKB  
 Profile 401577GA (SOIL/DEBRIS PETROLEUM)  
 Generator 114-N9BKINGSBAY NSB KINGS BAY TRF DRYDOCK

Time	Scale	Operator	Inbound	Gross	73260 lb
In 09/30/2014 14:43:38	SCALE	cmosley1		Tare	27640 lb
Out 09/30/2014 14:43:38		cmosley1		Net	45620 lb
				Tons	22.81

Comments

SAVING TIME NEVER TRUMPS OVER SAFE BEHAVIOR!! THINK SAFETY!!

Product	LDX	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Pet-Tons	100	22.81	Tons				CAMDEN
2 NSF-HOST FEE	100		x				CAMDEN
3 SPF-SUPERFUND	100	22.81	Tons				CAMDEN
4 CRM-COST REIMBURSE	100	22.81	Tons				CAMDEN

"I certify that the waste I delivered to this facility on this date does not contain any regulated hazardous, toxic, radioactive waste or substances, or other non-allowable wastes. I also agree to remove any non-allowable wastes I bring to this facility, or pay all costs for proper removal of such wastes, upon request from this facility."

DRIVER: PLEASE SIGN HERE

*[Handwritten Signature]*

Total Fees  
 Total Ticket



10-1-14 0715

NON-HAZARDOUS  
WASTE MANIFEST

1. Generator ID Number  
Not Applicable

2. Page 1 of  
1

3. Emergency Response Phone  
757-328-7643

4. Waste Tracking Number  
401577GA- 10

5. Generator's Name and Mailing Address

NSB Kings Bay  
1036 USS Tennessee Ave., Kings Bay, GA 31547  
912-573-4646 C/O Mr. Thomas Stofflet

Generator's Site Address (if different than mailing address)

Fuel Farm  
NSB Kings Bay  
Kings Bay, GA

Generator's Phone:

6. Transporter 1 Company Name

Norton Irrigation # 195 912-269-4099

U.S. EPA ID Number  
Not Applicable

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address

Waste Management Chesser Island Landfill  
367 Chesser Island Landfill Road, Folkston, GA 31537  
912-496-7918

U.S. EPA ID Number

Not Applicable

Facility's Phone:

9. Waste Shipping Name and Description

1. Non-Hazardous Non-DOT Regulated Waste Solid  
(Petroleum Contaminated Soil)

10. Containers

No. Type

001

DT

11. Total Quantity

Est. 25

12. Unit WL/Vol.

T

13. Special Handling Instructions and Additional Information

Waste Management Profile # 401577GA

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name

Thomas Stofflet

Signature

Month Day Year  
10 1 14

15. International Shipments

Import to U.S.

Export from U.S.

Port of entry/exit:

Date leaving U.S.:

Transporter Signature (for exports only):

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name

KENNETH WELDON

Signature

Month Day Year  
10 1 14

Transporter 2 Printed/Typed Name

Signature

Month Day Year

17. Discrepancy

17a. Discrepancy Indication Space

Quantity

Type

Residue

Partial Rejection

Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)

U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator)

Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in item 17a

Printed/Typed Name

Signature

Month Day Year  
10 1 14

GENERATOR  
TRANSPORTER  
INT'L  
TRANSPORTER

DESIGNATED FACILITY



Chesser Island Landfill  
 Hwy 121/South Chesser Island Rd, P.O.Box 128  
 Folkston, GA, 31537  
 Ph: (912) 496-7918

Original  
 Ticket# 438360

Customer Name CLEARFIELDMMG INC CLEARFIELD M Carrier NORTON  
 Ticket Date 10/01/2014 Vehicle# 195 Volume  
 Payment Type Credit Account Container  
 Manual Ticket# Driver  
 Hauling Ticket# Check#  
 Route Billing # 0002181  
 State Waste Code Gen EPA ID NR  
 Manifest 10 Grid  
 Destination  
 PO CHH-TTECNBKB  
 Profile 4015770A (SOIL/DEBRIS PETROLEUM)  
 Generator 114-NSBKINGSBAY NSB KINGS BAY TRF DRYDOCK

Time	Scale	Operator	Inbound	Gross	65680 lb
In 10/01/2014 09:08:03	SCALE	cmosley1		Tare	28020 lb
Out 10/01/2014 09:08:03		cmosley1		Net	37668 lb
				Tons	18.83

Comments

SAVING TIME NEVER TRUMPS OVER SAFE BEHAVIOR!! THINK SAFETY!!

Product	LD%	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Pet-Tons	100	18.83	Tons				CAMDEN
2 HSF-HOST FEE	100		%				CAMDEN
3 SPF-SUPERFUND	100	18.83	Tons				CAMDEN
4 CRM-COST REIMBURSE	100	18.83	Tons				CAMDEN

"I certify that the waste I delivered to this facility on this date does not contain any regulated hazardous, toxic, radioactive waste or substances, or other non-allowable wastes. I also agree to remove any non-allowable wastes I bring to this facility, or pay all costs for proper removal of such wastes, upon request from this facility."

DRIVER: PLEASE SIGN HERE

*Kenny W. [Signature]*  
 Total Fees  
 Total Ticket



10-1-14

<b>NON-HAZARDOUS WASTE MANIFEST</b>	1. Generator ID Number <b>Not Applicable</b>	2. Page 1 of <b>1</b>	3. Emergency Response Phone <b>757-328-7643</b>	4. Waste Tracking Number <b>401577GA- 11</b>
-------------------------------------	---	--------------------------	--	---

5. Generator's Name and Mailing Address <b>NSB Kings Bay 1036 USS Tennessee Ave., Kings Bay, GA 31547 912-573-4848 C/O Mr. Thomas Stofflet</b>	Generator's Site Address (if different than mailing address) <b>Fuel Farm NSB Kings Bay Kings Bay, GA</b>
---	--

6. Transporter 1 Company Name <b>Norton Irrigation 136 912-268-4099</b>	U.S. EPA ID Number <b>Not Applicable</b>
--	---

7. Transporter 2 Company Name	U.S. EPA ID Number
-------------------------------	--------------------

8. Designated Facility Name and Site Address <b>Waste Management Chesser Island Landfill 367 Chesser Island Landfill Road, Folkston, GA 31537 912-496-7918</b>	U.S. EPA ID Number <b>Not Applicable</b>
---	---

9. Waste Shipping Name and Description	10. Containers		11. Total Quantity	12. Unit Wt./Vol.
	No.	Type		
1. <b>Non-Hazardous Non-DOT Regulated Waste Solid (Petroleum Contaminated Soil)</b>	<b>001</b>	<b>DT</b>	<b>Est 25</b>	<b>T</b>
2.				
3.				
4.				

13. Special Handling Instructions and Additional Information  
**Waste Management Profile # 401577GA**

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: **Thomas Stofflet** Signature: *[Signature]* Month: **10** Day: **1** Year: **14**

15. International Shipments  Import to U.S.  Export from U.S. Port of entry/exit: \_\_\_\_\_ Date leaving U.S.: \_\_\_\_\_

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: **Bill Chapman** Signature: *[Signature]* Month: **10** Day: **1** Year: **14**

Transporter 2 Printed/Typed Name: \_\_\_\_\_ Signature: \_\_\_\_\_ Month: \_\_\_\_\_ Day: \_\_\_\_\_ Year: \_\_\_\_\_

17. Discrepancy

17a. Discrepancy Indication Space  Quantity  Type  Residue  Partial Rejection  Full Rejection

Manifest Reference Number: \_\_\_\_\_

17b. Alternate Facility (or Generator) U.S. EPA ID Number \_\_\_\_\_

Facility's Phone: \_\_\_\_\_

17c. Signature of Alternate Facility (or Generator) Month: \_\_\_\_\_ Day: \_\_\_\_\_ Year: \_\_\_\_\_

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in item 17a

Printed/Typed Name: **Crystal Mosley** Signature: *[Signature]* Month: **10** Day: **1** Year: **14**



Chesser Island Landfill  
 Hwy 121/South Chesser Island Rd, P.O.Box 128  
 Folkston, GA, 31537  
 Ph: (912) 496-7918

Original  
 Ticket# 438393

Customer Name CLEARFIELDMMG INC CLEARFIELD N Carrier: NORTON  
 Ticket Date 10/01/2014 Vehicle# 136 Volume  
 Payment Type Credit Account Container  
 Manual Ticket# Driver  
 Hauling Ticket# Check#  
 Route Billing # 0002181  
 State Waste Code Gen EPA ID NR  
 Manifest 11 Grid  
 Destination  
 PO CHH-TTECNBKB  
 Profile 401577GA (SOIL/DEBRIS PETROLEUM)  
 Generator 114-NSBKINGSBAY NSB KINGS BAY TRF DRYDOCK

Time	Scale	Operator	Inbound	Gross	66100 lb
In 10/01/2014 11:08:03	SCALE	cmosley1		Tare	27640 lb
Out 10/01/2014 11:08:03		cmosley1		Net	38460 lb
				Tons	19.23

Comments

SAVING TIME NEVER TRUMPS OVER SAFE BEHAVIOR!! THINK SAFETY!!

Product	LDX	Qty	UOM	Rate	Fee	Amount	Origin
1 Cont Soil Pet-Tons	100	19.23	Tons				CAMDEN
2 NSF-HOST FEE	100		X				CAMDEN
3 SPF-SUPERFUND	100	19.23	Tons				CAMDEN
4 CRM-COST REIMBURSE	100	19.23	Tons				CAMDEN

"I certify that the waste I delivered to this facility on this date does not contain any regulated hazardous, toxic, radioactive waste or substances, or other non-allowable wastes. I also agree to remove any non-allowable wastes I bring to this facility, or pay all costs for proper removal of such wastes, upon request from this facility."

DRIVER: PLEASE SIGN HERE

*[Handwritten Signature]*

Total Fees  
 Total Ticket





Requested Facility: \_\_\_\_\_  Unsure Profile Number: \_\_\_\_\_  
 Multiple Generator Locations (Attach Locations)  Request Certificate of Disposal  Renewal? Original Profile Number: \_\_\_\_\_

**A. GENERATOR INFORMATION (MATERIAL ORIGIN)**

- 1. Generator Name: \_\_\_\_\_
- 2. Site Address: \_\_\_\_\_  
(City, State, ZIP) \_\_\_\_\_
- 3. County: \_\_\_\_\_
- 4. Contact Name: \_\_\_\_\_
- 5. Email: \_\_\_\_\_
- 6. Phone: \_\_\_\_\_ 7. Fax: \_\_\_\_\_
- 8. Generator EPA ID: \_\_\_\_\_  N/A
- 9. State ID: \_\_\_\_\_  N/A

**C. MATERIAL INFORMATION**

- 1. Common Name: \_\_\_\_\_  
Describe Process Generating Material:  See Attached
- 2. Material Composition and Contaminants:  See Attached  

1.	
2.	
3.	
4.	

Total composition must be equal to or greater than 100% ≥100%
- 3. State Waste Codes: \_\_\_\_\_  N/A
- 4. Color: \_\_\_\_\_
- 5. Physical State at 70°F:  Solid  Liquid  Other: \_\_\_\_\_
- 6. Free Liquid Range Percentage: \_\_\_\_\_ to \_\_\_\_\_  N/A
- 7. pH: \_\_\_\_\_ to \_\_\_\_\_  N/A
- 8. Strong Odor:  Yes  No Describe: \_\_\_\_\_
- 9. Flash Point:  <140°F  140°-199°F  ≥200°  N/A

**E. ANALYTICAL AND OTHER REPRESENTATIVE INFORMATION**

- 1. Analytical attached  Yes  
Please identify applicable samples and/or lab reports:
- 2. Other information attached (such as MSDS)?  Yes

**G. GENERATOR CERTIFICATION (PLEASE READ AND CERTIFY BY SIGNATURE)**

By signing this EZ Profile™ form, I hereby certify that all information submitted in this and all attached documents contain true and accurate descriptions of this material, and that all relevant information necessary for proper material characterization and to identify known and suspected hazards has been provided. Any analytical data attached was derived from a sample that is representative as defined in 40 CFR 261 - Appendix 1 or by using an equivalent method. All changes occurring in the character of the material (i.e., changes in the process or new analytical) will be identified by the Generator and be disclosed to Waste Management prior to providing the material to Waste Management.

If I am an agent signing on behalf of the Generator, I have confirmed with the Generator that information contained in this Profile is accurate and complete.

Name (Print): \_\_\_\_\_ Date: \_\_\_\_\_  
Title: \_\_\_\_\_  
Company: \_\_\_\_\_

**B. BILLING INFORMATION**

SAME AS GENERATOR

- 1. Billing Name: \_\_\_\_\_
- 2. Billing Address: \_\_\_\_\_  
(City, State, ZIP) \_\_\_\_\_
- 3. Contact Name: \_\_\_\_\_
- 4. Email: \_\_\_\_\_
- 5. Phone: \_\_\_\_\_ 6. Fax: \_\_\_\_\_
- 7. WM Hauled?  Yes  No
- 8. P.O. Number: \_\_\_\_\_
- 9. Payment Method:  Credit Account  Cash  Credit Card

**D. REGULATORY INFORMATION**

- 1. EPA Hazardous Waste?  Yes\*  No  
Code: \_\_\_\_\_
- 2. State Hazardous Waste?  Yes  No  
Code: \_\_\_\_\_
- 3. Is this material non-hazardous due to Treatment, Delisting, or an Exclusion?  Yes\*  No
- 4. Contains Underlying Hazardous Constituents?  Yes\*  No
- 5. Contains benzene **and** subject to Benzene NESHAP?  Yes\*  No
- 6. Facility remediation subject to 40 CFR 63 GGGGG?  Yes\*  No
- 7. CERCLA or State-mandated clean-up?  Yes\*  No
- 8. NRC or State-regulated radioactive or NORM waste?  Yes\*  No
- \*If Yes, see Addendum (page 2) for additional questions and space.**
- 9. Contains PCBs? → If Yes, answer a, b and c.  Yes  No
  - a. Regulated by 40 CFR 761?  Yes  No
  - b. Remediation under 40 CFR 761.61 (a)?  Yes  No
  - c. Were PCB imported into the US?  Yes  No
- 10. Regulated and/or Untreated Medical/Infectious Waste?  Yes  No
- 11. Contains Asbestos?  Yes  No  
→ If Yes:  Non-Friable  Non-Friable - Regulated  Friable

**F. SHIPPING AND DOT INFORMATION**

- 1.  One-Time Event  Repeat Event/Ongoing Business
- 2. Estimated Quantity/Unit of Measure: \_\_\_\_\_  
 Tons  Yards  Drums  Gallons  Other: \_\_\_\_\_
- 3. Container Type and Size: \_\_\_\_\_
- 4. USDOT Proper Shipping Name: \_\_\_\_\_  N/A

Certification Signature



D52, D55

# MATERIAL SAFETY DATA SHEET

## Diesel Fuels

VALERO MARKETING & SUPPLY COMPANY  
and Affiliates  
P.O. Box 696000  
San Antonio, TX 78269-6000

Emergency Phone Numbers  
24 Hour Emergency: 866-565-5220  
Chemtrec Emergency: 800-424-9300

General Assistance  
General Assistance: 210-345-4593

**BRAND NAMES:** Valero, Diamond Shamrock, Shamrock, Ultramar, Beacon, Total

### Section 1. Chemical Product and Company Identification

**Common / Trade name** : Diesel Fuels  
**Synonym** : Diesel Fuels All Grades, Diesel Fuel No.2, Fuel Oil No.2, High Sulfur Diesel Fuel, Low Sulfur Diesel Fuel, Ultra Low Sulfur Diesel Fuel, Off-Road Diesel fuel, Dyed Diesel Fuel, X Grade Diesel Fuel, X-1 Diesel Fuel

**SYNONYMS/COMMON NAMES:** This Material Safety Data Sheet applies to the listed products and synonym descriptions for Hazard Communication purposes only. Technical specifications vary greatly depending on the product and are not reflected in this document. Consult specification sheets for technical information. This product contains ingredients that are considered to be hazardous as defined by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Material uses** : Motor fuels. Heating fuels.  
**MSDS #** : 102  
**CAS #** : 68476-34-6

### Section 2. Composition, information on ingredients

Name	CAS number	Concentration (%)
Diesel fuel	68476-34-6	85 - 95
Naphthalene	91-20-3	1 - 3
n-Nonane	111-84-2	1 - 3
Hexane (Other Isomers)	mixture	1 - 3
n-Heptane	142-82-5	1 - 2
n-Hexane	110-54-3	1 - 2
Octane (All Isomers)	111-65-9	1 - 2

### Section 3. Hazards Identification

**Danger!** Diesel Exhaust has been Reported to be an Occupational hazard due to NIOSH-reported potential carcinogenic properties.

**Danger!** Product May Contain or Release Hydrogen Sulfide. H2S is a highly toxic, highly flammable gas which can be fatal if inhaled at certain concentrations.

May cause irritation to eyes, skin and respiratory system. Avoid liquid, mist and vapor contact. Harmful or fatal if swallowed. Inhalation hazard, can enter lungs and cause damage. May cause irritation or be harmful if inhaled or absorbed through the skin. Avoid prolonged or repeated skin contact. Combustible Liquid. Vapors may explode.

**Physical state** : Liquid. (May be dyed red.)

*Continued on next page*

<b>Emergency overview</b>	: Danger! CAUSES EYE BURNS. HARMFUL IF SWALLOWED. CONTAINS MATERIAL WHICH CAUSES DAMAGE TO THE FOLLOWING ORGANS: BLOOD, KIDNEYS, LIVER, PERIPHERAL NERVOUS SYSTEM, RESPIRATORY TRACT, SKIN, CENTRAL NERVOUS SYSTEM, EYE, LENS OR CORNEA. SUSPECT CANCER HAZARD. CONTAINS MATERIAL WHICH MAY CAUSE CANCER. COMBUSTIBLE LIQUID AND VAPOR. VAPOR MAY CAUSE FIRE.
	Do not ingest. Do not get in eyes or on skin or clothing. Avoid breathing vapor or mist. Keep away from heat, sparks and flame. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling. Risk of cancer depends on duration and level of exposure.
<b>Routes of entry</b>	: Dermal contact. Eye contact. Inhalation. Ingestion.
<b><u>Potential acute health effects</u></b>	
<b>Eyes</b>	: Corrosive to eyes. May cause severe irritation, redness, tearing, blurred vision and conjunctivitis.
<b>Skin</b>	: Prolonged or repeated contact may cause moderate irritation, defatting (cracking), redness, itching, inflammation, dermatitis and possible secondary infection. High pressure skin injections are <b>SERIOUS MEDICAL EMERGENCIES</b> . Injury may not appear serious at first. Within a few hours, tissues will become swollen, discolored and extremely painful.
<b>Inhalation</b>	: Nasal and respiratory tract irritation, central nervous system effects including excitation, euphoria, contracted eye pupils, dizziness, drowsiness, blurred vision, fatigue, nausea, headache, loss of reflexes, tremors, convulsions, seizures, loss of consciousness, coma, respiratory arrest and sudden death could occur as a result of long term and/or high concentration exposure to vapors. May also cause anemia and irregular heart rhythm. Repeated or prolonged exposure may cause behavioral changes. NIOSH Current Intelligence Bulletin 50 reports a potential occupational carcinogenic hazard exists due to human exposure to diesel exhaust.
<b>Ingestion</b>	: Toxic if swallowed. May cause burns to mouth, throat and stomach. This product may be harmful or fatal if swallowed. This product may cause nausea, vomiting, diarrhea and restlessness. <b>DO NOT INDUCE VOMITING</b> . Aspiration into the lungs can cause severe chemical pneumonitis or pulmonary edema/hemorrhage, which can be fatal. May cause gastrointestinal disturbances. Symptoms may include irritation, depression, vomiting and diarrhea. May cause harmful central nervous system effects, similar to those listed under "inhalation".
<b>Medical conditions aggravated by over-exposure</b>	: Repeated or prolonged contact with spray or mist may produce chronic eye irritation and severe skin irritation. Repeated or prolonged exposure to spray or mist may produce respiratory tract irritation, leading to frequent attacks of bronchial infection. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.
<b>Over-exposure signs/symptoms</b>	: Nasal and respiratory tract irritation, central nervous system effects including excitation, euphoria, contracted eye pupils, dizziness, drowsiness, blurred vision, fatigue, nausea, headache, loss of reflexes, tremors, convulsions, seizures, loss of consciousness, coma, respiratory arrest or sudden death could occur as a result of long term and/or high concentration exposure to vapors. May also cause anemia and irregular heart rhythm.
<b>See toxicological information (section 11)</b>	

## Section 4. First Aid Measures

- Eye contact** : Flush immediately with large amounts of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Seek medical advice if pain or redness continues.
- Skin contact** : In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention. Wash exposed area thoroughly with soap and water. Remove contaminated clothing promptly and launder before reuse. Contaminated leather goods should be discarded. If irritation persists or symptoms described in the MSDS develop, seek medical attention. High pressure skin injections are SERIOUS MEDICAL EMERGENCIES. Get immediate medical attention.
- Inhalation** : If inhaled, remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.
- Ingestion** : This product may be harmful or fatal if swallowed. This product may cause nausea, vomiting, diarrhea and restlessness. DO NOT INDUCE VOMITING. Aspiration into the lungs can cause severe chemical pneumonitis or pulmonary edema/hemorrhage, which can be fatal. May cause gastrointestinal disturbances. Symptoms may include irritation, depression, vomiting and diarrhea. May cause harmful central nervous system effects, similar to those listed under "inhalation".
- Notes to physician** : In case of ingestion, gastric lavage with activated charcoal can be used promptly to prevent absorption. Consideration should be given to the use of an intratracheal tube, to prevent aspiration. Irregular heart beat may occur, use of adrenalin is not advisable. Individuals intoxicated by the product should be hospitalized immediately, with acute and continuing attention to neurological and cardiopulmonary function. Positive pressure ventilation may be necessary. After the initial episode, individuals should be monitored for changes in blood variables and the delayed appearance of pulmonary edema and chemical pneumonitis. Such patients should be monitored for several days or weeks for delayed effects, including bone marrow toxicity, hepatic and renal impairment. Individuals with chronic pulmonary disease will be more seriously impaired, and recovery from inhalation exposure may be complicated. In case of skin injection, prompt debridement of the wound is necessary to minimize necrosis and tissue loss.

## Section 5. Fire Fighting Measures

- Flammability of the product** : Combustible.
- Auto-ignition temperature** : 257.2°C (495°F)
- Flash point** : Closed cup: 51.67 to 87.78°C (125 to 190°F).
- Flammable limits** : Lower: 0.4% Upper: 8%
- Products of combustion** : These products are carbon oxides (CO, CO<sub>2</sub>), nitrogen and sulfur oxides (NO<sub>x</sub>, SO<sub>x</sub>), particulate matter, VOC's.
- Fire hazards in the presence of various substances** : Flammable in the presence of open flames, sparks and static discharge.
- Explosion hazards in the presence of various substances** : Explosive in the presence of open flames, sparks and static discharge.
- Fire-fighting media and instructions** : Combustible Liquid. Use dry chemical, foam or carbon dioxide to extinguish the fire. Consult foam manufacturer for appropriate media, application rates and water/foam ratio. Water can be used to cool fire- exposed containers, structures and to protect personnel. If a leak or spill has not ignited, ventilate area and use water spray to disperse gas or vapor and to protect personnel attempting to stop a leak. Use water to flush spills away from sources of ignition. Do not flush down public sewers. Collect contaminated fire-fighting water separately. It must not enter the sewage system. Dike area of fire to prevent runoff. Decontaminate emergency personnel and equipment with soap and water.

Continued on next page

Combustible liquid and vapor. Vapor may cause flash fire. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.

- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
- Special remarks on fire hazards** : No additional remark.
- Special remarks on explosion hazards** : No additional remark.

## Section 6. Accidental Release Measures

- Personal precautions** : Immediately contact emergency personnel. Eliminate all ignition sources. Keep unnecessary personnel away. Use suitable protective equipment (section 8). Do not touch or walk through spilled material. Tanks, vessels or other confined spaces which have contained product should be freed of vapors before entering. The container should be checked to ensure a safe atmosphere before entry. Empty containers may contain toxic, flammable/combustible or explosive residues or vapors. Do not cut, grind, drill, weld or reuse empty containers that contained this product. Do not transfer this product to another container unless the container receiving the product is labeled with proper DOT shipping name, hazard class and other information that describes the product and its hazards.
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. If facility or operation has an "oil or hazardous substance contingency plan", activate its procedures. Stay upwind and away from spill. Wear appropriate protective equipment including respiratory protection as conditions warrant. Do not enter or stay in area unless monitoring indicates that it is safe to do so. Isolate hazard area and restrict entry to emergency crew. Extremely flammable. Review Fire and Explosion Hazard Data before proceeding with clean up. Keep all sources of ignition (flames, smoking, flares, etc.) and hot surfaces away from release. Contain spill in smallest possible area. Recover as much product as possible (e.g., by vacuuming). Stop leak if it can be done without risk. Use water spray to disperse vapors. Spilled material may be absorbed by an appropriate absorbent, and then handled in accordance with environmental regulations. Prevent spilled material from entering sewers, storm drains, other unauthorized treatment or drainage systems and natural waterways. Contact fire authorities and appropriate federal, state and local agencies. If spill of any amount is made into or upon navigable waters, the contiguous zone, or adjoining shorelines, contact the National Response Center at 800-424- 8802. For highway or railway spills, contact Chemtrec at 800-424-9300.
- Methods for cleaning up** : If emergency personnel are unavailable, contain spilled material. For small spills, add absorbent (soil may be used in the absence of other suitable materials) and use a non-sparking or explosion-proof means to transfer material to a sealable, appropriate container for disposal. For large spills, dike spilled material or otherwise contain it to ensure runoff does not reach a waterway. Place spilled material in an appropriate container for disposal.

## Section 7. Handling and Storage

- Handling** : Do not ingest. Do not get in eyes, on skin or on clothing. Keep container closed. Use only with adequate ventilation. Avoid breathing vapor or mist. Keep away from heat, sparks and flame. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Wash thoroughly after handling. Use only in well ventilated locations. Keep away from heat, spark and flames. In case of fire, use water spray, foam, dry chemical or carbon dioxide as described in the Fire and Explosion Hazard Data section of the MSDS. Do not pressurize, cut, weld, braze, solder, drill on or near this container. "Empty" container contains residue (liquid and/or vapor) and may explode in heat of a fire.

*Continued on next page*

Keep out of reach of children. Failure to use caution may cause serious injury or illness. Never siphon by mouth. For use as a motor fuel only. Do not use as a cleaning solvent or for other non-motor fuel uses. Wash thoroughly after handling. To prevent ingestion and exposure - Do not siphon by mouth to transfer product between containers. Use good personal hygiene practices. After handling this product, wash hands before eating, drinking, or using toilet facilities.

**Storage** : Store in tightly closed containers in cool, dry, isolated and well ventilated area away from heat, sources of ignition and incompatible materials. Use non-sparking tools and explosion proof equipment. Ground lines, containers, and other equipment used during product transfer to reduce the possibility of a static induced spark. Do not "switch load" because of possible accumulation of a static charge resulting in a source of ignition. Use good personal hygiene practices.

## Section 8. Exposure controls, personal protection

**Engineering controls** : Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits. Ensure that eyewash stations and safety showers are close to the workstation location.

### Personal protection

**Eyes** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.

**Skin** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Flame Retardant Clothing is recommended.

**Respiratory** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

**Hands** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

**Personal protective equipment (Pictograms)** : Consult your supervisor or S.O.P. for special handling direction.



**Personal protection in case of a large spill** : Splash goggles. Full suit. Vapor respirator. Boots. Gloves. Self-contained breathing apparatus (SCBA) should be used to avoid inhalation of the product. Suggested protective clothing might not be adequate. Consult a specialist before handling this product.

### Component

Diesel fuel

Naphthalene

### Exposure limits

**ACGIH TLV (United States, 1/2004). Skin Notes: 2002 Adoption.**

TWA: 100 mg/m<sup>3</sup> 8 hour/hours. Form: Total hydrocarbons

**NIOSH REL (United States, 6/2001).**

STEL: 15 ppm 15 minute/minutes. Form: All forms

TWA: 10 ppm 10 hour/hours. Form: All forms

**OSHA PEL (United States, 6/1993).**

TWA: 10 ppm 8 hour/hours. Form: All forms

**ACGIH TLV (United States, 5/2004). Notes: 1996 Adoption Refers to Appendix A -- Carcinogens.**

STEL: 15 ppm 15 minute/minutes. Form: All forms

TWA: 10 ppm 8 hour/hours. Form: All forms

**NIOSH REL (United States, 6/2001).**

TWA: 200 ppm 10 hour/hours. Form: All forms

n-Nonane

	<b>ACGIH TLV (United States, 9/2004).</b> TWA: 200 ppm 8 hour/hours. Form: All forms
Hexane (Other Isomers)	<b>ACGIH TLV (United States, 9/2004).</b> STEL: 1000 ppm 15 minute/minutes. Form: All forms TWA: 500 ppm 8 hour/hours. Form: All forms <b>NIOSH REL (United States, 6/2001).</b> CEIL: 510 ppm 15 minute/minutes. Form: All forms
n-Heptane	<b>ACGIH TLV (United States, 9/2004).</b> STEL: 500 ppm 15 minute/minutes. Form: All forms TWA: 400 ppm 8 hour/hours. Form: All forms <b>NIOSH REL (United States, 6/2001).</b> TWA: 350 mg/m <sup>3</sup> 10 hour/hours. Form: All forms <b>OSHA PEL (United States, 6/1993).</b> TWA: 500 ppm 8 hour/hours. Form: All forms
n-Hexane	<b>OSHA PEL (United States, 6/1993).</b> TWA: 500 ppm 8 hour/hours. Form: All forms <b>ACGIH TLV (United States, 9/2004). Skin</b> TWA: 50 ppm 8 hour/hours. Form: All forms <b>NIOSH REL (United States, 6/2001).</b> TWA: 50 ppm 10 hour/hours. Form: All forms
Octane (All Isomers)	<b>NIOSH REL (United States, 6/2001).</b> CEIL: 385 ppm 15 minute/minutes. Form: All forms TWA: 75 ppm 10 hour/hours. Form: All forms <b>OSHA PEL (United States, 6/1993).</b> TWA: 500 ppm 8 hour/hours. Form: All forms <b>ACGIH TLV (United States, 3/2004). Notes: 1999 Adoption.</b> TWA: 300 ppm 8 hour/hours. Form: All forms

Consult local authorities for acceptable exposure limits.

## Section 9. Physical and Chemical Properties

<b>Physical state</b>	: Liquid. (May be dyed red.)
<b>Color</b>	: Clear. Straw.
<b>Odor</b>	: Kerosene (Strong.)
<b>Boiling point</b>	: 162.78 to 371.11°C (325 to 700°F)
<b>Melting/freezing point</b>	: May start to solidify at -51.15°C (-60.1°F) based on data for: n-Nonane. Weighted average: -92.6°C (-134.7°F)
<b>Specific gravity</b>	: 0.84 to 0.93 (Water = 1) (@ 60 °F)
<b>Vapor pressure</b>	: <0.7 kPa (<5.2 mm Hg) (at 20°C)
<b>Vapor density</b>	: 3 (Air = 1)
<b>Volatility</b>	: Negligible
<b>Evaporation rate</b>	: 0.02

## Section 10. Stability and reactivity data

<b>Stability and reactivity</b>	: The product is stable.
<b>Incompatibility with various substances</b>	: Reactive with oxidizing agents, acids, alkalis.
<b>Hazardous decomposition products</b>	: These products are carbon oxides (CO, CO <sub>2</sub> ), nitrogen and sulfur oxides (NO <sub>x</sub> , SO <sub>x</sub> ), particulate matter, VOC's.
<b>Hazardous polymerization</b>	: Will not occur.

Continued on next page

## Section 11. Toxicological Information

### Toxicity data

**DIESEL EXHAUST FUMES** have been reported to be a potential occupational carcinogen in humans by NIOSH Current Intelligence Bulletin 50.

**HEPTANE** can affect the body if it is inhaled, comes in contact with the eyes or skin, or is swallowed. Heptane vapor is a narcotic. Concentrations of 10,000 to 15,000 ppm produced narcosis in mice within 30 to 60 minutes, while 15,000 to 20,000 ppm caused convulsions and death. At 48,000 ppm, respiratory arrest was produced in mice in 3 to 4 minutes from the start of exposure. Human subjects exposed to 1,000 ppm for 6 minutes, or to 2,000 ppm for 4 minutes, reported slight vertigo. At 5,000 ppm for 4 minutes, there was marked vertigo, inability to walk a straight line, hilarity, and incoordination, but no complaints of eye and upper respiratory tract or mucous membrane irritation. A 15-minute exposure at 5,000 ppm produced in some subjects a state of stupor lasting for 30 minutes after exposure. These subjects also reported loss of appetite, slight nausea, and a taste resembling gasoline for several hours after exposure. Although chronic nervous system effects have not been attributed to heptane, polyneuritis has been reported following prolonged exposure to a petroleum fraction with boiling range between 70C and 100C, and this fraction would normally contain various isomers of heptane as major ingredients.

**n-HEXANE** can affect the body if it is inhaled, comes in contact with the eyes or skin, or is swallowed. Hexane vapor is a narcotic and a mild upper respiratory irritant. Polyneuropathy (peripheral nerve damage) has been reported to occur in workers exposed to hexane vapors, characterized by progressive weakness and numbness in the extremities, loss of deep tendon reflexes and reduction of motor nerve conduction velocity. Recovery ranges from no recovery to complete recovery depending upon the duration of exposure and severity of nerve damage. Concentrations of 30,000 ppm produced narcosis in mice within 30 to 60 minutes, convulsions and death occurred at 35,000 to 40,000 ppm, and at 64,000 ppm respiratory arrest was produced in 2.5 to 4.5 minutes from the start of exposure. Concentrations up to 8000 ppm produced no anesthesia. In human subjects, 2000 ppm for 10 minutes produced no effects, but 5000 ppm resulted in dizziness and a sensation of giddiness. Other investigators reported slight nausea, headache and irritation of the eyes and throat at 1400 to 1500 ppm. In industrial practice, mild narcotic symptoms such as dizziness have been observed when concentrations exceeded 1000 ppm, but not below 500 ppm.

**NONANE** causes a four hour LC50 in rats at concentrations of 3200 ppm, or at about the same level as VM&P Naphtha. This level is markedly lower than the lethal concentrations reported in earlier mice studies involving octane (13,500 ppm) and heptane (16,000 ppm), supporting the lower limit for nonane.

**OCTANE** can affect the body if it is inhaled, comes in contact with the skin or eyes or is swallowed. Octane vapor is a mild narcotic and mucous membrane irritant. Concentrations of 6600 to 13,700 ppm produced narcosis in mice in 30 to 90 minutes, the fatal concentration for animals is near 13,500 ppm. No chronic systemic effects have been reported in humans.

**APHTHALENE** can affect the body if it is inhaled, comes into contact with the eyes or the skin or if it is swallowed. Naphthalene vapor causes hemolysis and eye irritation, and may cause cataracts. Severe intoxication from ingestion of the solid results in characteristic manifestations of marked intravascular hemolysis and its consequences, including potentially fatal hyperkalemia. Initial symptoms include eye irritation, headache, confusion, excitement, malaise, profuse sweating, nausea, vomiting, abdominal pain, and irritation of the bladder. There may be progression to jaundice, hematuria, hemoglobinuria, renal tubular blockage, and acute renal shutdown. Hematologic features include red cell fragmentation, icterus, severe anemia with nucleated red cells, leukocytosis, and dramatic decreases in hemoglobin, hematocrit and red cell count; sometimes there is formation of Heinz bodies and methemoglobin. Individuals with a deficiency of glucose-6-phosphate dehydrogenase in erythrocytes may be more susceptible to hemolysis by naphthalene. Cataracts and ocular irritation have been produced experimentally in animals and have been described in humans. Of 21 workers exposed to high concentrations of fume or vapor for 5 years, 8 had peripheral lens opacities; in other studies, no abnormalities of the eyes have been detected in workers exposed to naphthalene for several years. The vapor causes eye irritation at 15 ppm. Eye contact with the solid may result in conjunctivitis, superficial injury to the cornea, chorioretinitis, scotoma, and diminished visual acuity. Naphthalene on the skin may cause hypersensitivity dermatitis, chronic dermatitis is rare.

**HEXANE ISOMERS** are three times as toxic to mice as is pentane. Narcosis was produced in mice within 30-60 minutes at concentrations of 30,000 ppm. In man, concentrations for 10 minutes at 2000 ppm produced no effects, but 5000 ppm caused dizziness and a sense of giddiness. Concentrations of 1400-1500 ppm produced slight nausea, headache, eye, and throat irritation.

<u>Ingredient name</u>	<u>Test</u>	<u>Result</u>	<u>Route</u>	<u>Species</u>
Naphthalene	LD50	490 mg/kg	Oral	Rat
	LD50	316 mg/kg	Oral	Mouse
	LD50	1200 mg/kg	Oral	Guinea pig
	LD50	>2500 mg/kg	Dermal	Rat
	LDLo	100 mg/kg	Oral	child
	LDLo	400 mg/kg	Oral	Dog

**Chronic effects on humans** : **CARCINOGENIC EFFECTS:** Classified A3 (Proven for animals.) by ACGIH, 3 (Possible for humans.) by European Union [Diesel fuel]. Classified 3 (Not classifiable for humans.) by IARC [Diesel fuel]. Classified 2B (Possible for humans.) by IARC [Naphthalene]. Classified A4 (Not classifiable for humans or animals.) by ACGIH [Naphthalene]. Contains material which causes damage to the following organs: blood, kidneys, liver, peripheral nervous system, upper respiratory tract, skin, central nervous system (CNS), eye, lens or cornea.

**Other toxic effects on humans** : Very hazardous in case of eye contact (corrosive).  
Hazardous in case of skin contact (irritant), of ingestion, of inhalation (lung irritant).

*Continued on next page*

Special remarks on toxicity animals : No additional remark.

Special remarks on chronic effects on humans : No additional remark.

Special remarks on other toxic effects on humans : No additional remark.

#### Specific effects

Carcinogenic effects : Contains material which may cause cancer. Risk of cancer depends on duration and level of exposure.

Target organs : Contains material which causes damage to the following organs: blood, kidneys, liver, peripheral nervous system, upper respiratory tract, skin, central nervous system (CNS), eye, lens or cornea.

## Section 12. Ecological Information

### Ecotoxicity data

<u>Ingredient name</u>	<u>Species</u>	<u>Period</u>	<u>Result</u>
Naphthalene	Daphnia magna (EC50)	48 hour/hours	1.6 mg/l
	Daphnia magna (EC50)	48 hour/hours	2.194 mg/l
	Daphnia magna (EC50)	48 hour/hours	2.55 mg/l
	Daphnia pulex (LC50)	96 hour/hours	1 mg/l
	Oncorhynchus mykiss (LC50)	96 hour/hours	1.6 mg/l
	Oncorhynchus mykiss (LC50)	96 hour/hours	1.8 mg/l
n-Hexane	Pimephales promelas (LC50)	96 hour/hours	2.5 mg/l

Products of degradation : These products are carbon oxides (CO, CO<sub>2</sub>) and water.

Toxicity of the products of biodegradation : The products of degradation are less toxic than the product itself.

## Section 13. Disposal Considerations

Waste disposal : The generation of waste should be avoided or minimized wherever possible. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Consult your local or regional authorities.

## Section 14. Transport Information

Regulatory information	UN number	Proper shipping name	Class	Packing group	Label	Additional information
DOT Classification	UN1993	Diesel fuel	3 Combustible liquid.	III		Not available.
TDG Classification	UN1993	Diesel fuel Mixture	3	III		Not available.

Continued on next page

## Section 15. Regulatory Information

### United States

**U.S. Federal regulations** : TSCA 4(a) final test rules: Hexane (Other Isomers); n-Hexane  
 TSCA 8(a) PAIR: Naphthalene; n-Heptane; n-Nonane  
 TSCA 8(b) inventory: Hexane (Other Isomers); Naphthalene; n-Heptane; n-Hexane; n-Nonane; Diesel fuel; Octane (All Isomers); Toluene; Benzene  
 SARA 302/304/311/312 extremely hazardous substances: No products were found.  
 SARA 302/304 emergency planning and notification: No products were found.  
 SARA 302/304/311/312 hazardous chemicals: Hexane (Other Isomers); Naphthalene; n-Heptane; n-Hexane; n-Nonane; Octane (All Isomers)  
 SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Hexane (Other Isomers): Fire hazard, Immediate (acute) health hazard; Naphthalene: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard; n-Heptane: Fire hazard; n-Hexane: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard; n-Nonane: Fire hazard, Immediate (acute) health hazard; Octane (All Isomers): Fire hazard  
 Clean Water Act (CWA) 307: Naphthalene; Toluene; Benzene  
 Clean Water Act (CWA) 311: Naphthalene; Toluene; Benzene  
 Clean Air Act (CAA) 112 accidental release prevention: No products were found.  
 Clean Air Act (CAA) 112 regulated flammable substances: No products were found.  
 Clean Air Act (CAA) 112 regulated toxic substances: No products were found.

### SARA 313

	<u>Product name</u>	<u>CAS number</u>	<u>Concentration</u>
<b>Form R - Reporting requirements</b>	Naphthalene	91-20-3	1 - 3
	n-Hexane	110-54-3	1 - 2
<b>Supplier notification</b>	Naphthalene	91-20-3	1 - 3
	n-Hexane	110-54-3	1 - 2

SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

**State regulations** : Connecticut carcinogen reporting list.: Benzene  
 Connecticut hazardous material survey.: Naphthalene; n-Hexane; Toluene; Benzene  
 Illinois toxic substances disclosure to employee act: Naphthalene; n-Hexane; Toluene; Benzene  
 Rhode Island RTK hazardous substances: Naphthalene; n-Hexane; Toluene; Benzene  
 Pennsylvania RTK: Hexane (Other Isomers): (generic environmental hazard); Naphthalene: (environmental hazard, generic environmental hazard); n-Heptane: (generic environmental hazard); n-Hexane: (generic environmental hazard); n-Nonane: (generic environmental hazard); Octane (All Isomers): (generic environmental hazard); Toluene: (environmental hazard, generic environmental hazard); Benzene: (special hazard, environmental hazard, generic environmental hazard)  
 Florida: Naphthalene; n-Hexane; Toluene; Benzene  
 Michigan critical material: Toluene; Benzene  
 Massachusetts RTK: Hexane (Other Isomers); Naphthalene; n-Heptane; n-Hexane; n-Nonane; Octane (All Isomers); Toluene; Benzene  
 New Jersey: Naphthalene; n-Heptane; n-Hexane; n-Nonane; Diesel fuel; Octane (All Isomers); Toluene; Benzene  
**WARNING:** This product contains chemical/chemicals known to the state of California to cause cancer, birth defects or other reproductive harm.: Naphthalene; Toluene; Benzene  
**WARNING:** This product contains chemical/chemicals known to the state of California to cause reproductive harm (male).: Benzene  
 California prop. 65 (no significant risk level): Benzene  
 California prop. 65 (Maximum Acceptable Dosage Level): Toluene; Benzene  
**WARNING:** This product contains chemical/chemicals known to the state of California to cause birth defects or other reproductive harm.: Toluene; Benzene  
**WARNING:** This product contains chemical/chemicals known to the state of California to

Continued on next page

cause cancer.: Naphthalene; Benzene

anada

**WHMIS (Canada)** : Class B-3: Combustible liquid with a flash point between 37.8°C (100°F) and 93.3°C (200°F).  
 Class D-1B: Material causing immediate and serious toxic effects (Toxic).  
 Class D-2A: Material causing other toxic effects (Very toxic).  
 Class D-2B: Material causing other toxic effects (Toxic).  
 Class E: Corrosive liquid.  
 CEPA DSL: Hexane (Other Isomers); Naphthalene; n-Heptane; n-Hexane; n-Nonane; Diesel fuel; Octane (All Isomers); Toluene; Benzene

**Section 16. Other Information**

**Label requirements** : CAUSES EYE BURNS.  
 HARMFUL IF SWALLOWED.  
 CONTAINS MATERIAL WHICH CAUSES DAMAGE TO THE FOLLOWING ORGANS: BLOOD, KIDNEYS, LIVER, PERIPHERAL NERVOUS SYSTEM, RESPIRATORY TRACT, SKIN, CENTRAL NERVOUS SYSTEM, EYE, LENS OR CORNEA.  
 SUSPECT CANCER HAZARD.  
 CONTAINS MATERIAL WHICH MAY CAUSE CANCER.  
 COMBUSTIBLE LIQUID AND VAPOR.  
 VAPOR MAY CAUSE FIRE.

**Hazardous Material Information System (U.S.A.)** :

Health	0
Fire hazard	2
Physical Hazard	0
Personal protection	

**National Fire Protection Association (U.S.A.)** :



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Disclaimer

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## Definitions of Material Safety Data Sheet Terminology

### GOVERNMENT AGENCIES AND PRIVATE ASSOCIATIONS

**ACGIH** - American Conference of Governmental Industrial Hygienists, (private association)  
**DOT** - United States Department of Transportation  
**EPA** - United States Environmental Protection Agency  
**IARC** - International Agency for Research on Cancer, (private association)  
**NFPA** - National Fire Protection Association, (private association)  
**MSHA** - Mine Safety and Health Administration, U.S. Department of Labor  
**NIOSH** - National Institute of Occupational Safety and Health, U.S. Department of Health and Human Services  
**NTP** - National Toxicology Program, (private association)  
**OSHA** - Occupational Safety and Health Administration, U.S. Department of Labor  
**WHMIS** - Workplace Hazardous Material Information System  
**CSA** - Canadian Standards Association

### HAZARD AND EXPOSURE INFORMATION

**Acute Hazard** - An adverse health effect which occurs rapidly as a result of short term exposure.  
**CAS #** - American Chemical Society's Chemical Abstract service registry number which identifies the product and/or ingredients.  
**Ceiling** - The concentration that should not be exceeded during any part of the working exposure  
**Chronic Hazard** - An adverse health effect which generally occurs as a result of long term exposure or short term exposure with delayed health effects and is of long duration  
**Fire Hazard** - A material that poses a physical hazard by being flammable, combustible, pyrophoric or an oxidizer as defined by 29 CFR 1910.1200  
**Hazard Class** - DOT hazard classification  
**Hazardous Ingredients** - Names of ingredients which have been identified as health hazards  
**IDLH** - Immediately Dangerous to Life and Health, the airborne concentration below which a person can escape without respiratory protection and exposure up to 30 minutes, and not suffer debilitating or irreversible health effects. Established by NIOSH.  
**mg/m3** - Milligrams of contaminant per cubic meter of air, a mass to volume ratio  
**N/A** - Not available or no relevant information found  
**NA** - Not applicable  
**PEL** - OSHA permissible exposure limit; an action level of one half this value may be applicable  
**ppm** - Part per million (one volume of vapor or gas in one million volumes of air)  
**Pressure Hazard** - A material that poses a physical hazard due to the potential of a sudden release of pressure such as explosive or a compressed gas as defined by 29 CFR 1910.1200  
**Reactive Hazard** - A material that poses a physical hazard due to the potential to become unstable reactive, water reactive or that is an organic peroxide as defined by 29 CFR 1910.1200.  
**STEL** - The ACGIH Short-Term Exposure Limit, a 15-minute Time-Weighted Average exposure which should not be exceeded at any time during a workday, even if the 8-hour TWA is less than the TLV.  
**TLV** - ACGIH Threshold Limit Value, represented herein as an 8-hour TWA concentration.  
**8-hour TWA** - The time weighted average concentration for a normal 8-hour workday and a 40-hour workweek, to which nearly all workers may be repeatedly exposed, day after day, without adverse effect.  
**LD50** - Single dose of a substance that, when administered by a defined route in an animal assay, is expected to cause the death of 50% of the defined animal population.  
**LC50** - The concentration of a substance in air that, when administered by means of inhalation over a specified length of time in an animal assay, is expected to cause the death of 50% of a defined animal population.

**APPENDIX D**  
**SAMPLING ANALYTICAL DATA**

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**APPENDIX D-1**  
**Clean Fill Analytical Results**

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Technical Report for

Tetra Tech EC, Inc

NSB Kings Bay, GA

106.4659.JM01

Accutest Job Number: FA18287

Sampling Date: 09/15/14

Report to:

Tetra Tech EC, Inc  
17885 Von Karman Ave Suite 500  
Irvine, CA 92614  
lisa.bienkowski@tetrattech.com

ATTN: Lisa Bienkowski

Total number of pages in report: **87**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.



Norm Farmer  
Technical Director

Client Service contact: Andrea Colby 407-425-6700

Certifications: FL (E83510), LA (03051), KS (E-10327), IA (366), IL (200063), NC (573), NJ (FL002), SC (96038001)  
DoD ELAP (L-A-B L2229), CA (04226CA), TX (T104704404), PA (68-03573), VA (460177),  
AK, AR, GA, KY, MA, NV, OK, UT, WA

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Test results relate only to samples analyzed.

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## Sample Summary

Tetra Tech EC, Inc

Job No: FA18287

NSB Kings Bay, GA  
Project No: 106.4659.JM01

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
FA18287-1	09/15/14	14:20 GP	09/16/14	SO	Soil	JM01-FILL-1
FA18287-2	09/15/14	14:50 GP	09/16/14	SO	Soil	JM01-FILL-2TS

---

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

## SAMPLE DELIVERY GROUP CASE NARRATIVE

**Client:** Tetra Tech EC, Inc

**Job No:** FA18287

**Site:** NSB Kings Bay, GA

**Report Date:** 9/19/2014 6:44:13 PM

2 Sample(s) were collected on 09/15/2014 and were received at Accutest SE on 09/16/2014 properly preserved, at 3 Deg. C and intact. These Samples received an Accutest job number of FA18287. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

### Volatiles by GCMS By Method SW846 8260B

**Matrix:** SO

**Batch ID:** VG3481

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) FA18290-4MS, FA18290-4MSD were used as the QC samples indicated.

Matrix Spike Recovery(s) for 1,1-Dichloroethylene, 1,2,4-Trichlorobenzene, Bromoform, Carbon disulfide, Carbon tetrachloride, Chlorobenzene, cis-1,3-Dichloropropene, Isopropylbenzene, m-Dichlorobenzene, Methyl ethyl ketone, Methylene chloride, o-Dichlorobenzene, p-Dichlorobenzene, Styrene, trans-1,2-Dichloroethylene, trans-1,3-Dichloropropene, Vinyl chloride, Xylene (total) are outside control limits. Probable cause is due to matrix interference. For method performance in a clean matrix, refer to Blank Spike.

Matrix Spike Duplicate Recovery(s) for 1,1-Dichloroethylene, 1,2,4-Trichlorobenzene, 1,2-Dibromo-3-chloropropane, 1,2-Dichloroethane, 2-Hexanone, Bromodichloromethane, Bromoform, Carbon disulfide, Carbon tetrachloride, Chlorobenzene, cis-1,2-Dichloroethylene, cis-1,3-Dichloropropene, Dibromochloromethane, Ethylbenzene, Isopropylbenzene, m-Dichlorobenzene, Methyl ethyl ketone, Methylcyclohexane, Methylene chloride, o-Dichlorobenzene, p-Dichlorobenzene, Styrene, Tetrachloroethylene, Toluene, trans-1,2-Dichloroethylene, trans-1,3-Dichloropropene, Trichloroethylene, Vinyl chloride, Xylene (total) are outside control limits. Probable cause is due to matrix interference. For method performance in a clean matrix, refer to Blank Spike.

### Extractables by GCMS By Method SW846 8270D

**Matrix:** SO

**Batch ID:** OP53129

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) FA18287-1MS, FA18287-1MSD were used as the QC samples indicated.

### Volatiles by GC By Method SW846 8015C

**Matrix:** SO

**Batch ID:** GUU426

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) FA18218-1MS, FA18218-1MSD were used as the QC samples indicated.

### Extractables by GC By Method SW846 8015C

**Matrix:** SO

**Batch ID:** OP53130

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) FA18294-10MS, FA18294-10MSD were used as the QC samples indicated.

FA18287-2 for TPH (C10-C28): Petroleum hydrocarbon pattern extends beyond C28.

## Extractables by GC By Method SW846 8081B

**Matrix:** SO

**Batch ID:** OP53131

All samples were extracted within the recommended method holding time.  
All samples were analyzed within the recommended method holding time.  
All method blanks for this batch meet method specific criteria.  
Sample(s) FA18287-1MS, FA18287-1MSD were used as the QC samples indicated.  
FA18287-2: Dilution required due to matrix interference; extract was viscous.

## Extractables by GC By Method SW846 8082A

**Matrix:** SO

**Batch ID:** OP53132

All samples were extracted within the recommended method holding time.  
All samples were analyzed within the recommended method holding time.  
All method blanks for this batch meet method specific criteria.  
Sample(s) FA18287-2MS, FA18287-2MSD were used as the QC samples indicated.  
FA18287-1 for Aroclor 1221: Associated CCV outside control limits.  
FA18287-1 for Aroclor 1254: Associated CCV outside control limits.  
FA18287-2 for Aroclor 1221: Associated CCV outside control limits.  
FA18287-2 for Aroclor 1248: Associated CCV outside control limits.  
FA18287-1 for Aroclor 1248: Associated CCV outside control limits.  
FA18287-2 for Aroclor 1254: Associated CCV outside control limits.

## Extractables by GC By Method SW846 8151A

**Matrix:** SO

**Batch ID:** OP53144

All samples were extracted within the recommended method holding time.  
All samples were analyzed within the recommended method holding time.  
All method blanks for this batch meet method specific criteria.  
Sample(s) FA18287-1MS, FA18287-1MSD were used as the QC samples indicated.  
Matrix Spike Recovery(s) for MCPPE are outside control limits. Probable cause is due to matrix interference. For method performance in a clean matrix, refer to Blank Spike.  
Matrix Spike Duplicate Recovery(s) for 2,4,5-T, Dicamba, MCPPE are outside control limits. Probable cause is due to matrix interference. For method performance in a clean matrix, refer to Blank Spike.  
Sample(s) FA18287-2 have surrogates outside control limits. Confirmation run for surrogate recoveries.  
FA18287-1 for MCPPE: Elevated reporting limit due to matrix interference.  
FA18287-1 for MCPPE: Outside control limits in associated MS/MSD sample(s).  
FA18287-1 for Dinoseb: Associated CCV outside control limits.  
FA18287-2 for Dinoseb: Associated CCV outside control limits.  
FA18287-2 for 2,4-DCAA: Outside control limits due to matrix interference.

## Metals By Method SW846 6010C

**Matrix:** SO

**Batch ID:** MP27881

All samples were digested within the recommended method holding time.  
All samples were analyzed within the recommended method holding time.  
All method blanks for this batch meet method specific criteria.  
Sample(s) FA18287-1DUP, FA18287-1MS, FA18287-1MSD, FA18287-1PS, FA18287-1SDL were used as the QC samples for metals.  
Matrix Spike Recovery(s) for Aluminum, Antimony are outside control limits. Spike recovery indicates possible matrix interference and/or sample non-homogeneity.  
Matrix Spike Duplicate Recovery(s) for Aluminum, Antimony are outside control limits. Spike recovery indicates possible matrix interference and/or sample non-homogeneity.  
RPD(s) for Duplicate for Antimony, Copper are outside control limits for sample MP27881-D1. RPD acceptable due to low duplicate and sample concentrations.  
RPD(s) for MSD for Antimony are outside control limits for sample MP27881-S2. High RPD due to possible sample non-homogeneity.  
RPD(s) for Serial Dilution for Antimony, Arsenic, Calcium, Copper, Magnesium, Potassium, Zinc are outside control limits for sample MP27881-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

### Metals By Method SW846 7471B

**Matrix:** SO

**Batch ID:** MP27882

All samples were digested within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) FA18287-1DUP, FA18287-1MS, FA18287-1MSD, FA18287-1SDL were used as the QC samples for metals.

### Wet Chemistry By Method SM19 2540G

**Matrix:** SO

**Batch ID:** GN63191

Sample(s) FA18290-1DUP was used as the QC samples for Solids, Percent.

Accutest Laboratories Southeast (ALSE) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALSE and as stated on the COC. ALSE certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALSE Quality Manual except as noted above. This report is to be used in its entirety. ALSE is not responsible for any assumptions of data quality if partial data packages are used.

Narrative prepared by:

\_\_\_\_\_  
Kim Benham, Client Services (signature on file)

Date: September 19, 2014

## Summary of Hits

**Job Number:** FA18287  
**Account:** Tetra Tech EC, Inc  
**Project:** NSB Kings Bay, GA  
**Collected:** 09/15/14



Lab Sample ID	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
---------------	------------------	-----------------	-----	-----	-------	--------

**FA18287-1 JM01-FILL-1**

Dichloroprop		48.4	33	17	ug/kg	SW846 8151A
Aluminum		953	8.6	2.1	mg/kg	SW846 6010C
Barium		3.1 J	8.6	0.086	mg/kg	SW846 6010C
Calcium		59.2 J	210	4.3	mg/kg	SW846 6010C
Chromium		1.1	0.43	0.086	mg/kg	SW846 6010C
Copper		0.12 J	1.1	0.086	mg/kg	SW846 6010C
Iron		324	13	2.1	mg/kg	SW846 6010C
Lead		1.3	0.86	0.17	mg/kg	SW846 6010C
Magnesium		42.1 J	210	4.3	mg/kg	SW846 6010C
Manganese		3.6	0.64	0.043	mg/kg	SW846 6010C
Nickel		0.30 J	1.7	0.043	mg/kg	SW846 6010C
Potassium		22.7 J	430	21	mg/kg	SW846 6010C
Vanadium		0.97 J	2.1	0.043	mg/kg	SW846 6010C
Zinc		0.83 J	0.86	0.21	mg/kg	SW846 6010C

**FA18287-2 JM01-FILL-2TS**

TPH (C10-C28) <sup>a</sup>		56.6	6.8	5.5	mg/kg	SW846 8015C
Aluminum		2670	10	2.6	mg/kg	SW846 6010C
Arsenic		0.55	0.52	0.26	mg/kg	SW846 6010C
Barium		10	10	0.10	mg/kg	SW846 6010C
Beryllium		0.14 J	0.26	0.052	mg/kg	SW846 6010C
Calcium		173 J	260	5.2	mg/kg	SW846 6010C
Chromium		3.2	0.52	0.10	mg/kg	SW846 6010C
Copper		0.33 J	1.3	0.10	mg/kg	SW846 6010C
Iron		496	16	2.6	mg/kg	SW846 6010C
Lead		4.3	1.0	0.21	mg/kg	SW846 6010C
Magnesium		97.2 J	260	5.2	mg/kg	SW846 6010C
Manganese		3.9	0.79	0.052	mg/kg	SW846 6010C
Mercury		0.030 J	0.043	0.017	mg/kg	SW846 7471B
Nickel		0.31 J	2.1	0.052	mg/kg	SW846 6010C
Potassium		98.9 J	520	26	mg/kg	SW846 6010C
Vanadium		3.0	2.6	0.052	mg/kg	SW846 6010C
Zinc		0.94 J	1.0	0.26	mg/kg	SW846 6010C

(a) Petroleum hydrocarbon pattern extends beyond C28.

Sample Results

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Report of Analysis

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## Report of Analysis

<b>Client Sample ID:</b> JM01-FILL-1		
<b>Lab Sample ID:</b> FA18287-1		<b>Date Sampled:</b> 09/15/14
<b>Matrix:</b> SO - Soil		<b>Date Received:</b> 09/16/14
<b>Method:</b> SW846 8260B		<b>Percent Solids:</b> 99.0
<b>Project:</b> NSB Kings Bay, GA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	G0095090.D	1	09/16/14	EP	n/a	n/a	VG3481
Run #2							

Run #	Initial Weight
Run #1	6.63 g
Run #2	

## VOA TCL 4.2 List

CAS No.	Compound	Result	LOQ	LOD	Units	Q
67-64-1	Acetone	19 U	38	19	ug/kg	
71-43-2	Benzene	1.5 U	3.8	1.5	ug/kg	
75-27-4	Bromodichloromethane	1.5 U	3.8	1.5	ug/kg	
75-25-2	Bromoform	1.5 U	3.8	1.5	ug/kg	
108-90-7	Chlorobenzene	1.5 U	3.8	1.5	ug/kg	
75-00-3	Chloroethane	3.0 U	3.8	3.0	ug/kg	
67-66-3	Chloroform	1.5 U	3.8	1.5	ug/kg	
75-15-0	Carbon disulfide	1.5 U	3.8	1.5	ug/kg	
56-23-5	Carbon tetrachloride	1.5 U	3.8	1.5	ug/kg	
110-82-7	Cyclohexane	1.5 U	3.8	1.5	ug/kg	
75-34-3	1,1-Dichloroethane	1.5 U	3.8	1.5	ug/kg	
75-35-4	1,1-Dichloroethylene	1.5 U	3.8	1.5	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	3.0 U	3.8	3.0	ug/kg	
106-93-4	1,2-Dibromoethane	1.9 U	3.8	1.9	ug/kg	
107-06-2	1,2-Dichloroethane	1.5 U	3.8	1.5	ug/kg	
78-87-5	1,2-Dichloropropane	1.5 U	3.8	1.5	ug/kg	
124-48-1	Dibromochloromethane	1.5 U	3.8	1.5	ug/kg	
75-71-8	Dichlorodifluoromethane	1.5 U	3.8	1.5	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	1.5 U	3.8	1.5	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	1.5 U	3.8	1.5	ug/kg	
541-73-1	m-Dichlorobenzene	1.5 U	3.8	1.5	ug/kg	
95-50-1	o-Dichlorobenzene	1.5 U	3.8	1.5	ug/kg	
106-46-7	p-Dichlorobenzene	1.5 U	3.8	1.5	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	1.5 U	3.8	1.5	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	1.5 U	3.8	1.5	ug/kg	
100-41-4	Ethylbenzene	1.5 U	3.8	1.5	ug/kg	
76-13-1	Freon 113	1.5 U	3.8	1.5	ug/kg	
591-78-6	2-Hexanone	7.6 U	19	7.6	ug/kg	
98-82-8	Isopropylbenzene	1.5 U	3.8	1.5	ug/kg	
108-10-1	4-Methyl-2-pentanone	7.6 U	19	7.6	ug/kg	
79-20-9	Methyl acetate	15 U	19	15	ug/kg	
74-83-9	Methyl bromide	3.0 U	3.8	3.0	ug/kg	

U = Not detected      LOD = Limit of Detection

LOQ = Limit of Quantitation

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> JM01-FILL-1	
<b>Lab Sample ID:</b> FA18287-1	<b>Date Sampled:</b> 09/15/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 09/16/14
<b>Method:</b> SW846 8260B	<b>Percent Solids:</b> 99.0
<b>Project:</b> NSB Kings Bay, GA	

## VOA TCL 4.2 List

CAS No.	Compound	Result	LOQ	LOD	Units	Q
74-87-3	Methyl chloride	3.0 U	3.8	3.0	ug/kg	
108-87-2	Methylcyclohexane	1.5 U	3.8	1.5	ug/kg	
75-09-2	Methylene chloride	3.8 U	7.6	3.8	ug/kg	
78-93-3	Methyl ethyl ketone	7.6 U	19	7.6	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	1.5 U	3.8	1.5	ug/kg	
100-42-5	Styrene	1.5 U	3.8	1.5	ug/kg	
71-55-6	1,1,1-Trichloroethane	1.5 U	3.8	1.5	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	1.5 U	3.8	1.5	ug/kg	
79-00-5	1,1,2-Trichloroethane	1.9 U	3.8	1.9	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	1.5 U	3.8	1.5	ug/kg	
127-18-4	Tetrachloroethylene	1.5 U	3.8	1.5	ug/kg	
108-88-3	Toluene	1.5 U	3.8	1.5	ug/kg	
79-01-6	Trichloroethylene	1.5 U	3.8	1.5	ug/kg	
75-69-4	Trichlorofluoromethane	3.0 U	3.8	3.0	ug/kg	
75-01-4	Vinyl chloride	1.5 U	3.8	1.5	ug/kg	
1330-20-7	Xylene (total)	4.6 U	11	4.6	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		75-124%
2037-26-5	Toluene-D8	96%		75-126%
460-00-4	4-Bromofluorobenzene	100%		71-133%
17060-07-0	1,2-Dichloroethane-D4	104%		72-135%

U = Not detected      LOD = Limit of Detection  
 LOQ = Limit of Quantitation  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> JM01-FILL-1		
<b>Lab Sample ID:</b> FA18287-1		<b>Date Sampled:</b> 09/15/14
<b>Matrix:</b> SO - Soil		<b>Date Received:</b> 09/16/14
<b>Method:</b> SW846 8270D SW846 3550C		<b>Percent Solids:</b> 99.0
<b>Project:</b> NSB Kings Bay, GA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	T014271.D	1	09/17/14	NJ	09/16/14	OP53129	ST679
Run #2	X036428.D	1	09/17/14	NJ	09/16/14	OP53129	SX1709

Run #	Initial Weight	Final Volume
Run #1	29.9 g	1.0 ml
Run #2	29.9 g	1.0 ml

## ABN TCL 4.2 List

CAS No.	Compound	Result	LOQ	LOD	Units	Q
95-57-8	2-Chlorophenol	34 U	170	34	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	34 U	170	34	ug/kg	
120-83-2	2,4-Dichlorophenol	34 U	170	34	ug/kg	
105-67-9	2,4-Dimethylphenol	68 U	170	68	ug/kg	
51-28-5	2,4-Dinitrophenol	680 U	840	680	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	140 U	340	140	ug/kg	
95-48-7	2-Methylphenol	34 U	170	34	ug/kg	
	3&4-Methylphenol	68 U	170	68	ug/kg	
88-75-5	2-Nitrophenol	34 U	170	34	ug/kg	
100-02-7	4-Nitrophenol	340 U	840	340	ug/kg	
87-86-5	Pentachlorophenol	340 U	840	340	ug/kg	
108-95-2	Phenol	34 U	170	34	ug/kg	
95-95-4	2,4,5-Trichlorophenol	34 U	170	34	ug/kg	
88-06-2	2,4,6-Trichlorophenol	34 U	170	34	ug/kg	
83-32-9	Acenaphthene	34 U	170	34	ug/kg	
208-96-8	Acenaphthylene	34 U	170	34	ug/kg	
98-86-2	Acetophenone	34 U	170	34	ug/kg	
120-12-7	Anthracene	34 U	170	34	ug/kg	
1912-24-9	Atrazine	34 U	170	34	ug/kg	
100-52-7	Benzaldehyde	340 U	840	340	ug/kg	
56-55-3	Benzo(a)anthracene	34 U	170	34	ug/kg	
50-32-8	Benzo(a)pyrene	34 U	170	34	ug/kg	
205-99-2	Benzo(b)fluoranthene	34 U	170	34	ug/kg	
191-24-2	Benzo(g,h,i)perylene	34 U	170	34	ug/kg	
207-08-9	Benzo(k)fluoranthene	34 U	170	34	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	34 U	170	34	ug/kg	
85-68-7	Butyl benzyl phthalate	68 U	170	68	ug/kg	
92-52-4	1,1'-Biphenyl	34 U	170	34	ug/kg	
105-60-2	Caprolactam	68 U	170	68	ug/kg	
91-58-7	2-Chloronaphthalene	34 U	170	34	ug/kg	
106-47-8	4-Chloroaniline	34 U	170	34	ug/kg	
86-74-8	Carbazole	34 U	170	34	ug/kg	

U = Not detected      LOD = Limit of Detection

LOQ = Limit of Quantitation

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	JM01-FILL-1	<b>Date Sampled:</b>	09/15/14
<b>Lab Sample ID:</b>	FA18287-1	<b>Date Received:</b>	09/16/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	99.0
<b>Method:</b>	SW846 8270D SW846 3550C		
<b>Project:</b>	NSB Kings Bay, GA		

## ABN TCL 4.2 List

CAS No.	Compound	Result	LOQ	LOD	Units	Q
218-01-9	Chrysene	34 U	170	34	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	34 U	170	34	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	34 U	170	34	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	34 U <sup>a</sup>	170	34	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	34 U	170	34	ug/kg	
121-14-2	2,4-Dinitrotoluene	34 U	170	34	ug/kg	
606-20-2	2,6-Dinitrotoluene	34 U	170	34	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	68 U	170	68	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	34 U	170	34	ug/kg	
132-64-9	Dibenzofuran	34 U	170	34	ug/kg	
84-74-2	Di-n-butyl phthalate	140 U	340	140	ug/kg	
117-84-0	Di-n-octyl phthalate	68 U	170	68	ug/kg	
84-66-2	Diethyl phthalate	140 U	340	140	ug/kg	
131-11-3	Dimethyl phthalate	68 U	170	68	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	140 U	340	140	ug/kg	
206-44-0	Fluoranthene	34 U	170	34	ug/kg	
86-73-7	Fluorene	34 U	170	34	ug/kg	
118-74-1	Hexachlorobenzene	34 U	170	34	ug/kg	
87-68-3	Hexachlorobutadiene	68 U	170	68	ug/kg	
77-47-4	Hexachlorocyclopentadiene	68 U	170	68	ug/kg	
67-72-1	Hexachloroethane	68 U	170	68	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	34 U	170	34	ug/kg	
78-59-1	Isophorone	34 U	170	34	ug/kg	
91-57-6	2-Methylnaphthalene	34 U	170	34	ug/kg	
88-74-4	2-Nitroaniline	68 U	170	68	ug/kg	
99-09-2	3-Nitroaniline	68 U	170	68	ug/kg	
100-01-6	4-Nitroaniline	68 U	170	68	ug/kg	
91-20-3	Naphthalene	34 U	170	34	ug/kg	
98-95-3	Nitrobenzene	34 U	170	34	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	34 U	170	34	ug/kg	
86-30-6	N-Nitrosodiphenylamine	68 U	170	68	ug/kg	
85-01-8	Phenanthrene	34 U	170	34	ug/kg	
129-00-0	Pyrene	34 U	170	34	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	69%	74%	40-102%
4165-62-2	Phenol-d5	76%	80%	41-100%
118-79-6	2,4,6-Tribromophenol	84%	92%	42-108%
4165-60-0	Nitrobenzene-d5	72%	71%	40-105%

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LOQ = Limit of Quantitation

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> JM01-FILL-1 <b>Lab Sample ID:</b> FA18287-1 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846 8270D SW846 3550C <b>Project:</b> NSB Kings Bay, GA	<b>Date Sampled:</b> 09/15/14 <b>Date Received:</b> 09/16/14 <b>Percent Solids:</b> 99.0
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**ABN TCL 4.2 List**

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	72%	77%	43-107%
1718-51-0	Terphenyl-d14	84%	94%	45-119%

(a) Result is from Run# 2

U = Not detected      LOD = Limit of Detection  
 LOQ = Limit of Quantitation  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.1  
4

## Report of Analysis

<b>Client Sample ID:</b> JM01-FILL-1	<b>Date Sampled:</b> 09/15/14
<b>Lab Sample ID:</b> FA18287-1	<b>Date Received:</b> 09/16/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 99.0
<b>Method:</b> SW846 8015C	
<b>Project:</b> NSB Kings Bay, GA	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	UU008663.D	1	09/17/14	AH	n/a	n/a	GUU426
Run #2							

Run #	Initial Weight	Final Volume	Methanol Aliquot
Run #1	6.29 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH-GRO (C6-C10)	2.0 U	4.1	2.0	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
460-00-4	4-Bromofluorobenzene	95%		56-149%		
98-08-8	aaa-Trifluorotoluene	88%		66-132%		

U = Not detected      LOD = Limit of Detection  
 LOQ = Limit of Quantitation  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.1  
4

# Report of Analysis

<b>Client Sample ID:</b> JM01-FILL-1		
<b>Lab Sample ID:</b> FA18287-1		<b>Date Sampled:</b> 09/15/14
<b>Matrix:</b> SO - Soil		<b>Date Received:</b> 09/16/14
<b>Method:</b> SW846 8151A SW846 3546		<b>Percent Solids:</b> 99.0
<b>Project:</b> NSB Kings Bay, GA		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CC045598.D	1	09/19/14	NJ	09/17/14	OP53144	GCC729
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	15.2 g	5.0 ml
Run #2		

### Herbicide List

CAS No.	Compound	Result	LOQ	LOD	Units	Q
94-75-7	2,4-D	17 U	33	17	ug/kg	
93-72-1	2,4,5-TP (Silvex)	1.7 U	3.3	1.7	ug/kg	
93-76-5	2,4,5-T	1.7 U	3.3	1.7	ug/kg	
1918-00-9	Dicamba	1.7 U	3.3	1.7	ug/kg	
88-85-7	Dinoseb <sup>a</sup>	33 U	83	33	ug/kg	
75-99-0	Dalapon	66 U	170	66	ug/kg	
120-36-5	Dichloroprop	48.4	33	17	ug/kg	
94-82-6	2,4-DB	17 U	33	17	ug/kg	
93-65-2	MCP P <sup>b</sup>	1700 U	3300	1700	ug/kg	
94-74-6	MCP A <sup>c</sup>	26000 U	26000	26000	ug/kg	
87-86-5	Pentachlorophenol	1.7 U	3.3	1.7	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
19719-28-9	2,4-DCAA	50%		31-132%

- (a) Associated CCV outside control limits.
- (b) Outside control limits in associated MS/MSD sample(s).
- (c) Elevated reporting limit due to matrix interference.

U = Not detected      LOD = Limit of Detection  
 LOQ = Limit of Quantitation  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> JM01-FILL-1	<b>Date Sampled:</b> 09/15/14
<b>Lab Sample ID:</b> FA18287-1	<b>Date Received:</b> 09/16/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 99.0
<b>Method:</b> SW846 8081B SW846 3546	
<b>Project:</b> NSB Kings Bay, GA	

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	KK66379.D	1	09/18/14	FS	09/16/14	OP53131	GKK2187
Run #2							

Run #1	Initial Weight	Final Volume
Run #1	14.6 g	5.0 ml
Run #2		

### Pesticide TCL List

CAS No.	Compound	Result	LOQ	LOD	Units	Q
309-00-2	Aldrin	0.69 U	1.7	0.69	ug/kg	
319-84-6	alpha-BHC	0.69 U	1.7	0.69	ug/kg	
319-85-7	beta-BHC	0.69 U	1.7	0.69	ug/kg	
319-86-8	delta-BHC	0.69 U	1.7	0.69	ug/kg	
58-89-9	gamma-BHC (Lindane)	0.69 U	1.7	0.69	ug/kg	
5103-71-9	alpha-Chlordane	0.69 U	1.7	0.69	ug/kg	
5103-74-2	gamma-Chlordane	0.69 U	1.7	0.69	ug/kg	
60-57-1	Dieldrin	0.69 U	1.7	0.69	ug/kg	
72-54-8	4,4'-DDD	0.69 U	3.5	0.69	ug/kg	
72-55-9	4,4'-DDE	0.69 U	3.5	0.69	ug/kg	
50-29-3	4,4'-DDT	0.69 U	3.5	0.69	ug/kg	
72-20-8	Endrin	0.69 U	3.5	0.69	ug/kg	
1031-07-8	Endosulfan sulfate	0.69 U	3.5	0.69	ug/kg	
7421-93-4	Endrin aldehyde	0.69 U	3.5	0.69	ug/kg	
53494-70-5	Endrin ketone	0.69 U	3.5	0.69	ug/kg	
959-98-8	Endosulfan-I	0.69 U	1.7	0.69	ug/kg	
33213-65-9	Endosulfan-II	0.69 U	1.7	0.69	ug/kg	
76-44-8	Heptachlor	0.69 U	1.7	0.69	ug/kg	
1024-57-3	Heptachlor epoxide	0.69 U	1.7	0.69	ug/kg	
72-43-5	Methoxychlor	1.4 U	3.5	1.4	ug/kg	
8001-35-2	Toxaphene	43 U	86	43	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	84%		50-122%
2051-24-3	Decachlorobiphenyl	96%		50-133%

U = Not detected      LOD = Limit of Detection  
 LOQ = Limit of Quantitation  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.1  
4

## Report of Analysis

<b>Client Sample ID:</b> JM01-FILL-1	<b>Date Sampled:</b> 09/15/14
<b>Lab Sample ID:</b> FA18287-1	<b>Date Received:</b> 09/16/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 99.0
<b>Method:</b> SW846 8082A SW846 3546	
<b>Project:</b> NSB Kings Bay, GA	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	MM11494.D	1	09/18/14	RS	09/16/14	OP53132	GMM250
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.2 g	5.0 ml
Run #2		

**PCB List**

CAS No.	Compound	Result	LOQ	LOD	Units	Q
12674-11-2	Aroclor 1016	8.3 U	17	8.3	ug/kg	
11104-28-2	Aroclor 1221 <sup>a</sup>	13 U	17	13	ug/kg	
11141-16-5	Aroclor 1232	13 U	17	13	ug/kg	
53469-21-9	Aroclor 1242	8.3 U	17	8.3	ug/kg	
12672-29-6	Aroclor 1248 <sup>a</sup>	8.3 U	17	8.3	ug/kg	
11097-69-1	Aroclor 1254 <sup>a</sup>	8.3 U	17	8.3	ug/kg	
11096-82-5	Aroclor 1260	8.3 U	17	8.3	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	77%		44-126%
2051-24-3	Decachlorobiphenyl	65%		41-145%

(a) Associated CCV outside control limits.

U = Not detected      LOD = Limit of Detection  
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J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.1  
4

## Report of Analysis

<b>Client Sample ID:</b> JM01-FILL-1	<b>Date Sampled:</b> 09/15/14
<b>Lab Sample ID:</b> FA18287-1	<b>Date Received:</b> 09/16/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 99.0
<b>Method:</b> SW846 8015C SW846 3546	
<b>Project:</b> NSB Kings Bay, GA	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JJ005183.D	1	09/17/14	SJL	09/16/14	OP53130	GJJ200
Run #2							

Run #	Initial Weight	Final Volume
Run #1	19.8 g	1.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH (C10-C28)	5.1 U	6.4	5.1	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	89%		56-122%		

U = Not detected      LOD = Limit of Detection  
 LOQ = Limit of Quantitation  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.1  
4

# Report of Analysis

<b>Client Sample ID:</b> JM01-FILL-1	<b>Date Sampled:</b> 09/15/14
<b>Lab Sample ID:</b> FA18287-1	<b>Date Received:</b> 09/16/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 99.0
<b>Project:</b> NSB Kings Bay, GA	

## Metals Analysis

Analyte	Result	LOQ	LOD	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	953	8.6	2.1	mg/kg	1	09/17/14	09/17/14 LM	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Antimony	0.21 U	0.86	0.21	mg/kg	1	09/17/14	09/17/14 LM	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Arsenic	0.21 U	0.43	0.21	mg/kg	1	09/17/14	09/17/14 LM	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Barium	3.1 J	8.6	0.086	mg/kg	1	09/17/14	09/17/14 LM	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.043 U	0.21	0.043	mg/kg	1	09/17/14	09/17/14 LM	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Cadmium	0.043 U	0.17	0.043	mg/kg	1	09/17/14	09/17/14 LM	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Calcium	59.2 J	210	4.3	mg/kg	1	09/17/14	09/17/14 LM	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Chromium	1.1	0.43	0.086	mg/kg	1	09/17/14	09/17/14 LM	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Cobalt	0.043 U	2.1	0.043	mg/kg	1	09/17/14	09/17/14 LM	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Copper	0.12 J	1.1	0.086	mg/kg	1	09/17/14	09/17/14 LM	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Iron	324	13	2.1	mg/kg	1	09/17/14	09/17/14 LM	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Lead	1.3	0.86	0.17	mg/kg	1	09/17/14	09/17/14 LM	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Magnesium	42.1 J	210	4.3	mg/kg	1	09/17/14	09/17/14 LM	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Manganese	3.6	0.64	0.043	mg/kg	1	09/17/14	09/17/14 LM	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Mercury	0.016 U	0.040	0.016	mg/kg	1	09/17/14	09/17/14 JL	SW846 7471B <sup>1</sup>	SW846 7471B <sup>4</sup>
Nickel	0.30 J	1.7	0.043	mg/kg	1	09/17/14	09/17/14 LM	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Potassium	22.7 J	430	21	mg/kg	1	09/17/14	09/17/14 LM	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Selenium	0.21 U	0.86	0.21	mg/kg	1	09/17/14	09/17/14 LM	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Silver	0.086 U	0.43	0.086	mg/kg	1	09/17/14	09/17/14 LM	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Sodium	86 U	430	86	mg/kg	1	09/17/14	09/17/14 LM	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Thallium	0.21 U	0.43	0.21	mg/kg	1	09/17/14	09/17/14 LM	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Vanadium	0.97 J	2.1	0.043	mg/kg	1	09/17/14	09/17/14 LM	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Zinc	0.83 J	0.86	0.21	mg/kg	1	09/17/14	09/17/14 LM	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>

- (1) Instrument QC Batch: MA11891
- (2) Instrument QC Batch: MA11892
- (3) Prep QC Batch: MP27881
- (4) Prep QC Batch: MP27882

LOQ = Limit of Quantitation  
 LOD = Limit of Detection

U = Indicates a result < LOD  
 J = Indicates a result > = LOD but < LOQ

4.1  
 4

## Report of Analysis

<b>Client Sample ID:</b> JM01-FILL-2TS		
<b>Lab Sample ID:</b> FA18287-2		<b>Date Sampled:</b> 09/15/14
<b>Matrix:</b> SO - Soil		<b>Date Received:</b> 09/16/14
<b>Method:</b> SW846 8260B		<b>Percent Solids:</b> 90.1
<b>Project:</b> NSB Kings Bay, GA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	G0095091.D	1	09/16/14	EP	n/a	n/a	VG3481
Run #2							

Run #	Initial Weight
Run #1	6.59 g
Run #2	

## VOA TCL 4.2 List

CAS No.	Compound	Result	LOQ	LOD	Units	Q
67-64-1	Acetone	21 U	42	21	ug/kg	
71-43-2	Benzene	1.7 U	4.2	1.7	ug/kg	
75-27-4	Bromodichloromethane	1.7 U	4.2	1.7	ug/kg	
75-25-2	Bromoform	1.7 U	4.2	1.7	ug/kg	
108-90-7	Chlorobenzene	1.7 U	4.2	1.7	ug/kg	
75-00-3	Chloroethane	3.4 U	4.2	3.4	ug/kg	
67-66-3	Chloroform	1.7 U	4.2	1.7	ug/kg	
75-15-0	Carbon disulfide	1.7 U	4.2	1.7	ug/kg	
56-23-5	Carbon tetrachloride	1.7 U	4.2	1.7	ug/kg	
110-82-7	Cyclohexane	1.7 U	4.2	1.7	ug/kg	
75-34-3	1,1-Dichloroethane	1.7 U	4.2	1.7	ug/kg	
75-35-4	1,1-Dichloroethylene	1.7 U	4.2	1.7	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	3.4 U	4.2	3.4	ug/kg	
106-93-4	1,2-Dibromoethane	2.1 U	4.2	2.1	ug/kg	
107-06-2	1,2-Dichloroethane	1.7 U	4.2	1.7	ug/kg	
78-87-5	1,2-Dichloropropane	1.7 U	4.2	1.7	ug/kg	
124-48-1	Dibromochloromethane	1.7 U	4.2	1.7	ug/kg	
75-71-8	Dichlorodifluoromethane	1.7 U	4.2	1.7	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	1.7 U	4.2	1.7	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	1.7 U	4.2	1.7	ug/kg	
541-73-1	m-Dichlorobenzene	1.7 U	4.2	1.7	ug/kg	
95-50-1	o-Dichlorobenzene	1.7 U	4.2	1.7	ug/kg	
106-46-7	p-Dichlorobenzene	1.7 U	4.2	1.7	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	1.7 U	4.2	1.7	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	1.7 U	4.2	1.7	ug/kg	
100-41-4	Ethylbenzene	1.7 U	4.2	1.7	ug/kg	
76-13-1	Freon 113	1.7 U	4.2	1.7	ug/kg	
591-78-6	2-Hexanone	8.4 U	21	8.4	ug/kg	
98-82-8	Isopropylbenzene	1.7 U	4.2	1.7	ug/kg	
108-10-1	4-Methyl-2-pentanone	8.4 U	21	8.4	ug/kg	
79-20-9	Methyl acetate	17 U	21	17	ug/kg	
74-83-9	Methyl bromide	3.4 U	4.2	3.4	ug/kg	

U = Not detected      LOD = Limit of Detection

LOQ = Limit of Quantitation

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> JM01-FILL-2TS		<b>Date Sampled:</b> 09/15/14
<b>Lab Sample ID:</b> FA18287-2		<b>Date Received:</b> 09/16/14
<b>Matrix:</b> SO - Soil		<b>Percent Solids:</b> 90.1
<b>Method:</b> SW846 8260B		
<b>Project:</b> NSB Kings Bay, GA		

**VOA TCL 4.2 List**

CAS No.	Compound	Result	LOQ	LOD	Units	Q
74-87-3	Methyl chloride	3.4 U	4.2	3.4	ug/kg	
108-87-2	Methylcyclohexane	1.7 U	4.2	1.7	ug/kg	
75-09-2	Methylene chloride	4.2 U	8.4	4.2	ug/kg	
78-93-3	Methyl ethyl ketone	8.4 U	21	8.4	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	1.7 U	4.2	1.7	ug/kg	
100-42-5	Styrene	1.7 U	4.2	1.7	ug/kg	
71-55-6	1,1,1-Trichloroethane	1.7 U	4.2	1.7	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	1.7 U	4.2	1.7	ug/kg	
79-00-5	1,1,2-Trichloroethane	2.1 U	4.2	2.1	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	1.7 U	4.2	1.7	ug/kg	
127-18-4	Tetrachloroethylene	1.7 U	4.2	1.7	ug/kg	
108-88-3	Toluene	1.7 U	4.2	1.7	ug/kg	
79-01-6	Trichloroethylene	1.7 U	4.2	1.7	ug/kg	
75-69-4	Trichlorofluoromethane	3.4 U	4.2	3.4	ug/kg	
75-01-4	Vinyl chloride	1.7 U	4.2	1.7	ug/kg	
1330-20-7	Xylene (total)	5.1 U	13	5.1	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		75-124%
2037-26-5	Toluene-D8	103%		75-126%
460-00-4	4-Bromofluorobenzene	122%		71-133%
17060-07-0	1,2-Dichloroethane-D4	107%		72-135%

U = Not detected      LOD = Limit of Detection  
 LOQ = Limit of Quantitation  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

<b>Client Sample ID:</b> JM01-FILL-2TS		<b>Date Sampled:</b> 09/15/14
<b>Lab Sample ID:</b> FA18287-2		<b>Date Received:</b> 09/16/14
<b>Matrix:</b> SO - Soil		<b>Percent Solids:</b> 90.1
<b>Method:</b> SW846 8270D SW846 3550C		
<b>Project:</b> NSB Kings Bay, GA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	T014274.D	1	09/17/14	NJ	09/16/14	OP53129	ST679
Run #2	X036429.D	1	09/17/14	NJ	09/16/14	OP53129	SX1709

Run #	Initial Weight	Final Volume
Run #1	30.2 g	1.0 ml
Run #2	30.2 g	1.0 ml

**ABN TCL 4.2 List**

CAS No.	Compound	Result	LOQ	LOD	Units	Q
95-57-8	2-Chlorophenol	37 U	180	37	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	37 U	180	37	ug/kg	
120-83-2	2,4-Dichlorophenol	37 U	180	37	ug/kg	
105-67-9	2,4-Dimethylphenol	74 U	180	74	ug/kg	
51-28-5	2,4-Dinitrophenol	740 U	920	740	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	150 U	370	150	ug/kg	
95-48-7	2-Methylphenol	37 U	180	37	ug/kg	
	3&4-Methylphenol	74 U	180	74	ug/kg	
88-75-5	2-Nitrophenol	37 U	180	37	ug/kg	
100-02-7	4-Nitrophenol	370 U	920	370	ug/kg	
87-86-5	Pentachlorophenol	370 U	920	370	ug/kg	
108-95-2	Phenol	37 U	180	37	ug/kg	
95-95-4	2,4,5-Trichlorophenol	37 U	180	37	ug/kg	
88-06-2	2,4,6-Trichlorophenol	37 U	180	37	ug/kg	
83-32-9	Acenaphthene	37 U	180	37	ug/kg	
208-96-8	Acenaphthylene	37 U	180	37	ug/kg	
98-86-2	Acetophenone	37 U	180	37	ug/kg	
120-12-7	Anthracene	37 U	180	37	ug/kg	
1912-24-9	Atrazine	37 U	180	37	ug/kg	
100-52-7	Benzaldehyde	370 U	920	370	ug/kg	
56-55-3	Benzo(a)anthracene	37 U	180	37	ug/kg	
50-32-8	Benzo(a)pyrene	37 U	180	37	ug/kg	
205-99-2	Benzo(b)fluoranthene	37 U	180	37	ug/kg	
191-24-2	Benzo(g,h,i)perylene	37 U	180	37	ug/kg	
207-08-9	Benzo(k)fluoranthene	37 U	180	37	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	37 U	180	37	ug/kg	
85-68-7	Butyl benzyl phthalate	74 U	180	74	ug/kg	
92-52-4	1,1'-Biphenyl	37 U	180	37	ug/kg	
105-60-2	Caprolactam	74 U	180	74	ug/kg	
91-58-7	2-Chloronaphthalene	37 U	180	37	ug/kg	
106-47-8	4-Chloroaniline	37 U	180	37	ug/kg	
86-74-8	Carbazole	37 U	180	37	ug/kg	

U = Not detected      LOD = Limit of Detection  
 LOQ = Limit of Quantitation  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.2  
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## Report of Analysis

<b>Client Sample ID:</b>	JM01-FILL-2TS	<b>Date Sampled:</b>	09/15/14
<b>Lab Sample ID:</b>	FA18287-2	<b>Date Received:</b>	09/16/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.1
<b>Method:</b>	SW846 8270D SW846 3550C		
<b>Project:</b>	NSB Kings Bay, GA		

## ABN TCL 4.2 List

CAS No.	Compound	Result	LOQ	LOD	Units	Q
218-01-9	Chrysene	37 U	180	37	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	37 U	180	37	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	37 U	180	37	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	37 U <sup>a</sup>	180	37	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	37 U	180	37	ug/kg	
121-14-2	2,4-Dinitrotoluene	37 U	180	37	ug/kg	
606-20-2	2,6-Dinitrotoluene	37 U	180	37	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	74 U	180	74	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	37 U	180	37	ug/kg	
132-64-9	Dibenzofuran	37 U	180	37	ug/kg	
84-74-2	Di-n-butyl phthalate	150 U	370	150	ug/kg	
117-84-0	Di-n-octyl phthalate	74 U	180	74	ug/kg	
84-66-2	Diethyl phthalate	150 U	370	150	ug/kg	
131-11-3	Dimethyl phthalate	74 U	180	74	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	150 U	370	150	ug/kg	
206-44-0	Fluoranthene	37 U	180	37	ug/kg	
86-73-7	Fluorene	37 U	180	37	ug/kg	
118-74-1	Hexachlorobenzene	37 U	180	37	ug/kg	
87-68-3	Hexachlorobutadiene	74 U	180	74	ug/kg	
77-47-4	Hexachlorocyclopentadiene	74 U	180	74	ug/kg	
67-72-1	Hexachloroethane	74 U	180	74	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	37 U	180	37	ug/kg	
78-59-1	Isophorone	37 U	180	37	ug/kg	
91-57-6	2-Methylnaphthalene	37 U	180	37	ug/kg	
88-74-4	2-Nitroaniline	74 U	180	74	ug/kg	
99-09-2	3-Nitroaniline	74 U	180	74	ug/kg	
100-01-6	4-Nitroaniline	74 U	180	74	ug/kg	
91-20-3	Naphthalene	37 U	180	37	ug/kg	
98-95-3	Nitrobenzene	37 U	180	37	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	37 U	180	37	ug/kg	
86-30-6	N-Nitrosodiphenylamine	74 U	180	74	ug/kg	
85-01-8	Phenanthrene	37 U	180	37	ug/kg	
129-00-0	Pyrene	37 U	180	37	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	62%	66%	40-102%
4165-62-2	Phenol-d5	66%	70%	41-100%
118-79-6	2,4,6-Tribromophenol	79%	86%	42-108%
4165-60-0	Nitrobenzene-d5	67%	66%	40-105%

U = Not detected      LOD = Limit of Detection

LOQ = Limit of Quantitation

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> JM01-FILL-2TS	
<b>Lab Sample ID:</b> FA18287-2	<b>Date Sampled:</b> 09/15/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 09/16/14
<b>Method:</b> SW846 8270D SW846 3550C	<b>Percent Solids:</b> 90.1
<b>Project:</b> NSB Kings Bay, GA	

### ABN TCL 4.2 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
321-60-8	2-Fluorobiphenyl	67%	72%	43-107%
1718-51-0	Terphenyl-d14	73%	88%	45-119%

(a) Result is from Run# 2

U = Not detected      LOD = Limit of Detection  
 LOQ = Limit of Quantitation  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.2  
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## Report of Analysis

<b>Client Sample ID:</b> JM01-FILL-2TS	<b>Date Sampled:</b> 09/15/14
<b>Lab Sample ID:</b> FA18287-2	<b>Date Received:</b> 09/16/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.1
<b>Method:</b> SW846 8015C	
<b>Project:</b> NSB Kings Bay, GA	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	UU008664.D	1	09/17/14	AH	n/a	n/a	GUU426
Run #2							

Run #	Initial Weight	Final Volume	Methanol Aliquot
Run #1	6.61 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH-GRO (C6-C10)	2.4 U	4.7	2.4	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	127%		56-149%
98-08-8	aaa-Trifluorotoluene	86%		66-132%

U = Not detected      LOD = Limit of Detection  
 LOQ = Limit of Quantitation  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.2  
4

## Report of Analysis

<b>Client Sample ID:</b> JM01-FILL-2TS	
<b>Lab Sample ID:</b> FA18287-2	<b>Date Sampled:</b> 09/15/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 09/16/14
<b>Method:</b> SW846 8151A SW846 3546	<b>Percent Solids:</b> 90.1
<b>Project:</b> NSB Kings Bay, GA	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CC045601.D	1	09/19/14	NJ	09/17/14	OP53144	GCC729
Run #2 <sup>a</sup>	CC045604.D	5	09/19/14	NJ	09/17/14	OP53144	GCC729

Run #	Initial Weight	Final Volume
Run #1	15.1 g	5.0 ml
Run #2	15.1 g	5.0 ml

### Herbicide List

CAS No.	Compound	Result	LOQ	LOD	Units	Q
94-75-7	2,4-D	18 U	37	18	ug/kg	
93-72-1	2,4,5-TP (Silvex)	1.8 U	3.7	1.8	ug/kg	
93-76-5	2,4,5-T	1.8 U	3.7	1.8	ug/kg	
1918-00-9	Dicamba	1.8 U	3.7	1.8	ug/kg	
88-85-7	Dinoseb <sup>b</sup>	37 U	92	37	ug/kg	
75-99-0	Dalapon	74 U	180	74	ug/kg	
120-36-5	Dichloroprop	18 U	37	18	ug/kg	
94-82-6	2,4-DB	18 U	37	18	ug/kg	
93-65-2	MCP P	1800 U	3700	1800	ug/kg	
94-74-6	MCP A	1800 U	3700	1800	ug/kg	
87-86-5	Pentachlorophenol	1.8 U	3.7	1.8	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
19719-28-9	2,4-DCAA	782% <sup>c</sup>	741%	31-132%

- (a) Confirmation run for surrogate recoveries.
- (b) Associated CCV outside control limits.
- (c) Outside control limits due to matrix interference.

U = Not detected      LOD = Limit of Detection  
 LOQ = Limit of Quantitation  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.2  
4

## Report of Analysis

<b>Client Sample ID:</b> JM01-FILL-2TS		<b>Date Sampled:</b> 09/15/14
<b>Lab Sample ID:</b> FA18287-2		<b>Date Received:</b> 09/16/14
<b>Matrix:</b> SO - Soil		<b>Percent Solids:</b> 90.1
<b>Method:</b> SW846 8081B SW846 3546		
<b>Project:</b> NSB Kings Bay, GA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	KK66420.D	4	09/19/14	FS	09/16/14	OP53131	GKK2188
Run #2							

Run #	Initial Weight	Final Volume
Run #1	14.7 g	5.0 ml
Run #2		

**Pesticide TCL List**

CAS No.	Compound	Result	LOQ	LOD	Units	Q
309-00-2	Aldrin	3.0 U	7.6	3.0	ug/kg	
319-84-6	alpha-BHC	3.0 U	7.6	3.0	ug/kg	
319-85-7	beta-BHC	3.0 U	7.6	3.0	ug/kg	
319-86-8	delta-BHC	3.0 U	7.6	3.0	ug/kg	
58-89-9	gamma-BHC (Lindane)	3.0 U	7.6	3.0	ug/kg	
5103-71-9	alpha-Chlordane	3.0 U	7.6	3.0	ug/kg	
5103-74-2	gamma-Chlordane	3.0 U	7.6	3.0	ug/kg	
60-57-1	Dieldrin	3.0 U	7.6	3.0	ug/kg	
72-54-8	4,4'-DDD	3.0 U	15	3.0	ug/kg	
72-55-9	4,4'-DDE	3.0 U	15	3.0	ug/kg	
50-29-3	4,4'-DDT	3.0 U	15	3.0	ug/kg	
72-20-8	Endrin	3.0 U	15	3.0	ug/kg	
1031-07-8	Endosulfan sulfate	3.0 U	15	3.0	ug/kg	
7421-93-4	Endrin aldehyde	3.0 U	15	3.0	ug/kg	
53494-70-5	Endrin ketone	3.0 U	15	3.0	ug/kg	
959-98-8	Endosulfan-I	3.0 U	7.6	3.0	ug/kg	
33213-65-9	Endosulfan-II	3.0 U	7.6	3.0	ug/kg	
76-44-8	Heptachlor	3.0 U	7.6	3.0	ug/kg	
1024-57-3	Heptachlor epoxide	3.0 U	7.6	3.0	ug/kg	
72-43-5	Methoxychlor	6.0 U	15	6.0	ug/kg	
8001-35-2	Toxaphene	190 U	380	190	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	84%		50-122%
2051-24-3	Decachlorobiphenyl	62%		50-133%

(a) Dilution required due to matrix interference; extract was viscous.

U = Not detected      LOD = Limit of Detection  
 LOQ = Limit of Quantitation  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.2  
4

## Report of Analysis

<b>Client Sample ID:</b> JM01-FILL-2TS	<b>Date Sampled:</b> 09/15/14
<b>Lab Sample ID:</b> FA18287-2	<b>Date Received:</b> 09/16/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.1
<b>Method:</b> SW846 8082A SW846 3546	
<b>Project:</b> NSB Kings Bay, GA	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	MM11491.D	1	09/18/14	RS	09/16/14	OP53132	GMM250
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.2 g	5.0 ml
Run #2		

**PCB List**

CAS No.	Compound	Result	LOQ	LOD	Units	Q
12674-11-2	Aroclor 1016	9.1 U	18	9.1	ug/kg	
11104-28-2	Aroclor 1221 <sup>a</sup>	15 U	18	15	ug/kg	
11141-16-5	Aroclor 1232	15 U	18	15	ug/kg	
53469-21-9	Aroclor 1242	9.1 U	18	9.1	ug/kg	
12672-29-6	Aroclor 1248 <sup>a</sup>	9.1 U	18	9.1	ug/kg	
11097-69-1	Aroclor 1254 <sup>a</sup>	9.1 U	18	9.1	ug/kg	
11096-82-5	Aroclor 1260	9.1 U	18	9.1	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	56%		44-126%
2051-24-3	Decachlorobiphenyl	50%		41-145%

(a) Associated CCV outside control limits.

U = Not detected      LOD = Limit of Detection  
 LOQ = Limit of Quantitation  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.2  
4

## Report of Analysis

<b>Client Sample ID:</b> JM01-FILL-2TS	<b>Date Sampled:</b> 09/15/14
<b>Lab Sample ID:</b> FA18287-2	<b>Date Received:</b> 09/16/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.1
<b>Method:</b> SW846 8015C SW846 3546	
<b>Project:</b> NSB Kings Bay, GA	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JJ005184.D	1	09/17/14	SJL	09/16/14	OP53130	GJJ200
Run #2							

Run #	Initial Weight	Final Volume
Run #1	20.3 g	1.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH (C10-C28) <sup>a</sup>	56.6	6.8	5.5	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	59%		56-122%		

(a) Petroleum hydrocarbon pattern extends beyond C28.

U = Not detected      LOD = Limit of Detection  
 LOQ = Limit of Quantitation  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.2  
4

# Report of Analysis

<b>Client Sample ID:</b> JM01-FILL-2TS	<b>Date Sampled:</b> 09/15/14
<b>Lab Sample ID:</b> FA18287-2	<b>Date Received:</b> 09/16/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.1
<b>Project:</b> NSB Kings Bay, GA	

## Metals Analysis

Analyte	Result	LOQ	LOD	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	2670	10	2.6	mg/kg	1	09/17/14	09/17/14 LM	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Antimony	0.26 U	1.0	0.26	mg/kg	1	09/17/14	09/17/14 LM	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Arsenic	0.55	0.52	0.26	mg/kg	1	09/17/14	09/17/14 LM	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Barium	10	10	0.10	mg/kg	1	09/17/14	09/17/14 LM	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.14 J	0.26	0.052	mg/kg	1	09/17/14	09/17/14 LM	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Cadmium	0.052 U	0.21	0.052	mg/kg	1	09/17/14	09/17/14 LM	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Calcium	173 J	260	5.2	mg/kg	1	09/17/14	09/17/14 LM	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Chromium	3.2	0.52	0.10	mg/kg	1	09/17/14	09/17/14 LM	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Cobalt	0.052 U	2.6	0.052	mg/kg	1	09/17/14	09/17/14 LM	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Copper	0.33 J	1.3	0.10	mg/kg	1	09/17/14	09/17/14 LM	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Iron	496	16	2.6	mg/kg	1	09/17/14	09/17/14 LM	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Lead	4.3	1.0	0.21	mg/kg	1	09/17/14	09/17/14 LM	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Magnesium	97.2 J	260	5.2	mg/kg	1	09/17/14	09/17/14 LM	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Manganese	3.9	0.79	0.052	mg/kg	1	09/17/14	09/17/14 LM	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Mercury	0.030 J	0.043	0.017	mg/kg	1	09/17/14	09/17/14 JL	SW846 7471B <sup>1</sup>	SW846 7471B <sup>4</sup>
Nickel	0.31 J	2.1	0.052	mg/kg	1	09/17/14	09/17/14 LM	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Potassium	98.9 J	520	26	mg/kg	1	09/17/14	09/17/14 LM	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Selenium	0.26 U	1.0	0.26	mg/kg	1	09/17/14	09/17/14 LM	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Silver	0.10 U	0.52	0.10	mg/kg	1	09/17/14	09/17/14 LM	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Sodium	100 U	520	100	mg/kg	1	09/17/14	09/17/14 LM	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Thallium	0.26 U	0.52	0.26	mg/kg	1	09/17/14	09/17/14 LM	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Vanadium	3.0	2.6	0.052	mg/kg	1	09/17/14	09/17/14 LM	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Zinc	0.94 J	1.0	0.26	mg/kg	1	09/17/14	09/17/14 LM	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>

- (1) Instrument QC Batch: MA11891
- (2) Instrument QC Batch: MA11892
- (3) Prep QC Batch: MP27881
- (4) Prep QC Batch: MP27882

LOQ = Limit of Quantitation  
 LOD = Limit of Detection

U = Indicates a result < LOD  
 J = Indicates a result > = LOD but < LOQ

4.2  
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## Misc. Forms

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### Custody Documents and Other Forms

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Includes the following where applicable:

- Chain of Custody



**ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION**

ACCUTEST'S JOB NUMBER: FA18287 CLIENT: Tetra Tech PROJECT: NSB Kings Bay  
 DATE/TIME RECEIVED: 091614 200 {MM/DD/YY 24:00} NUMBER OF COOLERS RECEIVED: 1  
 METHOD OF DELIVERY: FEDEX UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER  
 AIRBILL NUMBERS: 8063 1881 6387

**COOLER INFORMATION**

- CUSTODY SEAL NOT PRESENT OR NOT INTACT
- CHAIN OF CUSTODY NOT RECEIVED (COC)
- ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- TEMPERATURE CRITERIA NOT MET

**TRIP BLANK INFORMATION**

- TRIP BLANK PROVIDED
- TRIP BLANK NOT PROVIDED
- TRIP BLANK NOT ON COC
- TRIP BLANK INTACT
- TRIP BLANK NOT INTACT
- RECEIVED WATER TRIP BLANK
- RECEIVED SOIL TRIP BLANK

**MISC. INFORMATION**

NUMBER OF ENCORES ? 25-GRAM \_\_\_\_\_ 5-GRAM \_\_\_\_\_  
 NUMBER OF 5035 FIELD KITS ? 2  
 NUMBER OF LAB FILTERED METALS ? \_\_\_\_\_

**TEMPERATURE INFORMATION**

- IR THERM ID 1 CORR. FACTOR 10.4
- OBSERVED TEMPS: 2.6
- CORRECTED TEMPS: 30

**SAMPLE INFORMATION**

- INCORRECT NUMBER OF CONTAINERS USED
- SAMPLE RECEIVED IMPROPERLY PRESERVED
- INSUFFICIENT VOLUME FOR ANALYSIS
- DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- ID'S ON COC DO NOT MATCH LABEL
- VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- SAMPLE CONTAINER(S) RECEIVED BROKEN
- 5035 FIELD KITS NOT RECEIVED WITHIN 48 HOURS
- BULK VOA SOIL JARS NOT RECEIVED WITHIN 48 HOURS
- % SOLIDS JAR NOT RECEIVED
- RESIDUAL CHLORINE PRESENT

{APPLICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS}

SUMMARY OF COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

TECHNICIAN SIGNATURE/DATE RWills 09-16-14 REVIEWER SIGNATURE/DATE [Signature] 9-16-14  
 RS 04/14 receipt confirmation 041514.xls

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## GC/MS Volatiles

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## QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

## Method Blank Summary

**Job Number:** FA18287  
**Account:** TETRCAI Tetra Tech EC, Inc  
**Project:** NSB Kings Bay, GA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VG3481-MB	G0095077.D	1	09/16/14	EP	n/a	n/a	VG3481

The QC reported here applies to the following samples:

Method: SW846 8260B

FA18287-1, FA18287-2

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	50	15	ug/kg	
71-43-2	Benzene	ND	5.0	1.0	ug/kg	
75-27-4	Bromodichloromethane	ND	5.0	1.0	ug/kg	
75-25-2	Bromoform	ND	5.0	1.1	ug/kg	
108-90-7	Chlorobenzene	ND	5.0	1.0	ug/kg	
75-00-3	Chloroethane	ND	5.0	2.3	ug/kg	
67-66-3	Chloroform	ND	5.0	1.1	ug/kg	
75-15-0	Carbon disulfide	ND	5.0	1.0	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.0	1.4	ug/kg	
110-82-7	Cyclohexane	ND	5.0	1.1	ug/kg	
75-34-3	1,1-Dichloroethane	ND	5.0	1.0	ug/kg	
75-35-4	1,1-Dichloroethylene	ND	5.0	1.0	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	2.1	ug/kg	
106-93-4	1,2-Dibromoethane	ND	5.0	1.8	ug/kg	
107-06-2	1,2-Dichloroethane	ND	5.0	1.0	ug/kg	
78-87-5	1,2-Dichloropropane	ND	5.0	1.0	ug/kg	
124-48-1	Dibromochloromethane	ND	5.0	1.0	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	5.0	1.3	ug/kg	
156-59-2	cis-1,2-Dichloroethylene	ND	5.0	1.0	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.0	1.0	ug/kg	
541-73-1	m-Dichlorobenzene	ND	5.0	1.0	ug/kg	
95-50-1	o-Dichlorobenzene	ND	5.0	1.0	ug/kg	
106-46-7	p-Dichlorobenzene	ND	5.0	1.1	ug/kg	
156-60-5	trans-1,2-Dichloroethylene	ND	5.0	1.3	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.0	1.0	ug/kg	
100-41-4	Ethylbenzene	ND	5.0	1.0	ug/kg	
76-13-1	Freon 113	ND	5.0	1.3	ug/kg	
591-78-6	2-Hexanone	ND	25	4.9	ug/kg	
98-82-8	Isopropylbenzene	ND	5.0	1.0	ug/kg	
108-10-1	4-Methyl-2-pentanone	ND	25	5.0	ug/kg	
79-20-9	Methyl acetate	ND	25	5.0	ug/kg	
74-83-9	Methyl bromide	ND	5.0	1.9	ug/kg	
74-87-3	Methyl chloride	ND	5.0	2.0	ug/kg	
108-87-2	Methylcyclohexane	ND	5.0	1.0	ug/kg	
75-09-2	Methylene chloride	ND	10	4.0	ug/kg	
78-93-3	Methyl ethyl ketone	ND	25	7.5	ug/kg	

## Method Blank Summary

**Job Number:** FA18287  
**Account:** TETRCAI Tetra Tech EC, Inc  
**Project:** NSB Kings Bay, GA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VG3481-MB	G0095077.D	1	09/16/14	EP	n/a	n/a	VG3481

The QC reported here applies to the following samples:

Method: SW846 8260B

FA18287-1, FA18287-2

CAS No.	Compound	Result	RL	MDL	Units	Q
1634-04-4	Methyl Tert Butyl Ether	ND	5.0	1.0	ug/kg	
100-42-5	Styrene	ND	5.0	1.0	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	5.0	1.0	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.0	1.4	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	5.0	1.6	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	1.2	ug/kg	
127-18-4	Tetrachloroethylene	ND	5.0	1.3	ug/kg	
108-88-3	Toluene	ND	5.0	1.0	ug/kg	
79-01-6	Trichloroethylene	ND	5.0	1.0	ug/kg	
75-69-4	Trichlorofluoromethane	ND	5.0	1.0	ug/kg	
75-01-4	Vinyl chloride	ND	5.0	1.0	ug/kg	
1330-20-7	Xylene (total)	ND	15	2.7	ug/kg	

CAS No.	Surrogate Recoveries	Limits	
1868-53-7	Dibromofluoromethane	97%	75-124%
2037-26-5	Toluene-D8	95%	75-126%
460-00-4	4-Bromofluorobenzene	104%	71-133%
17060-07-0	1,2-Dichloroethane-D4	102%	72-135%

# Blank Spike Summary

**Job Number:** FA18287  
**Account:** TETRAI Tetra Tech EC, Inc  
**Project:** NSB Kings Bay, GA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VG3481-BS	G0095076.D	1	09/16/14	EP	n/a	n/a	VG3481

The QC reported here applies to the following samples:

Method: SW846 8260B

FA18287-1, FA18287-2

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
67-64-1	Acetone	250	253	101	61-152
71-43-2	Benzene	50	48.6	97	76-126
75-27-4	Bromodichloromethane	50	48.4	97	74-130
75-25-2	Bromoform	50	49.2	98	76-127
108-90-7	Chlorobenzene	50	46.1	92	81-129
75-00-3	Chloroethane	50	51.0	102	68-133
67-66-3	Chloroform	50	48.3	97	72-123
75-15-0	Carbon disulfide	50	59.5	119	72-122
56-23-5	Carbon tetrachloride	50	45.4	91	78-133
110-82-7	Cyclohexane	50	59.6	119	73-126
75-34-3	1,1-Dichloroethane	50	48.0	96	73-125
75-35-4	1,1-Dichloroethylene	50	48.2	96	81-136
96-12-8	1,2-Dibromo-3-chloropropane	50	46.5	93	70-137
106-93-4	1,2-Dibromoethane	50	48.9	98	77-126
107-06-2	1,2-Dichloroethane	50	48.1	96	74-128
78-87-5	1,2-Dichloropropane	50	49.6	99	74-125
124-48-1	Dibromochloromethane	50	48.7	97	76-127
75-71-8	Dichlorodifluoromethane	50	41.3	83	68-168
156-59-2	cis-1,2-Dichloroethylene	50	45.7	91	74-126
10061-01-5	cis-1,3-Dichloropropene	50	48.9	98	80-123
541-73-1	m-Dichlorobenzene	50	49.0	98	81-129
95-50-1	o-Dichlorobenzene	50	48.7	97	80-129
106-46-7	p-Dichlorobenzene	50	48.3	97	76-130
156-60-5	trans-1,2-Dichloroethylene	50	48.6	97	70-127
10061-02-6	trans-1,3-Dichloropropene	50	49.9	100	75-131
100-41-4	Ethylbenzene	50	47.6	95	77-123
76-13-1	Freon 113	50	59.0	118	71-129
591-78-6	2-Hexanone	250	239	96	72-133
98-82-8	Isopropylbenzene	50	47.1	94	80-136
108-10-1	4-Methyl-2-pentanone	250	245	98	76-132
79-20-9	Methyl acetate	250	273	109	67-137
74-83-9	Methyl bromide	50	56.1	112	65-139
74-87-3	Methyl chloride	50	46.4	93	71-144
108-87-2	Methylcyclohexane	50	60.0	120	75-128
75-09-2	Methylene chloride	50	43.5	87	74-137
78-93-3	Methyl ethyl ketone	250	248	99	75-137

\* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** FA18287  
**Account:** TETRCAI Tetra Tech EC, Inc  
**Project:** NSB Kings Bay, GA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VG3481-BS	G0095076.D	1	09/16/14	EP	n/a	n/a	VG3481

The QC reported here applies to the following samples:

Method: SW846 8260B

FA18287-1, FA18287-2

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
1634-04-4	Methyl Tert Butyl Ether	50	58.5	117	77-120
100-42-5	Styrene	50	49.5	99	78-125
71-55-6	1,1,1-Trichloroethane	50	47.2	94	70-129
79-34-5	1,1,2,2-Tetrachloroethane	50	46.0	92	71-126
79-00-5	1,1,2-Trichloroethane	50	49.4	99	74-124
120-82-1	1,2,4-Trichlorobenzene	50	46.9	94	78-130
127-18-4	Tetrachloroethylene	50	46.7	93	79-130
108-88-3	Toluene	50	47.6	95	76-124
79-01-6	Trichloroethylene	50	47.7	95	75-128
75-69-4	Trichlorofluoromethane	50	49.2	98	73-145
75-01-4	Vinyl chloride	50	47.1	94	76-141
1330-20-7	Xylene (total)	150	144	96	80-129

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	98%	75-124%
2037-26-5	Toluene-D8	97%	75-126%
460-00-4	4-Bromofluorobenzene	102%	71-133%
17060-07-0	1,2-Dichloroethane-D4	95%	72-135%

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** FA18287  
**Account:** TETRAI Tetra Tech EC, Inc  
**Project:** NSB Kings Bay, GA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA18290-4MS	G0095096.D	1	09/16/14	EP	n/a	n/a	VG3481
FA18290-4MSD	G0095097.D	1	09/16/14	EP	n/a	n/a	VG3481
FA18290-4	G0095084.D	1	09/16/14	EP	n/a	n/a	VG3481

The QC reported here applies to the following samples:

Method: SW846 8260B

FA18287-1, FA18287-2

CAS No.	Compound	FA18290-4 ug/kg	Spike Q ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	55 U	347	273	79	355	281	79	3	61-152/27
71-43-2	Benzene	5.5 U	69.5	59.1	85	71	56.1	79	5	76-126/26
75-27-4	Bromodichloromethane	5.5 U	69.5	52.1	75	71	52.0	73*	0	74-130/25
75-25-2	Bromoform	5.5 U	69.5	48.9	70*	71	48.5	68*	1	76-127/26
108-90-7	Chlorobenzene	5.5 U	69.5	55.9	80*	71	49.0	69*	13	81-129/29
75-00-3	Chloroethane	5.5 U	69.5	61.2	88	71	52.8	74	15	68-133/29
67-66-3	Chloroform	5.5 U	69.5	59.0	85	71	56.9	80	4	72-123/26
75-15-0	Carbon disulfide	5.5 U	69.5	46.2	66*	71	37.9	53*	20	72-122/29
56-23-5	Carbon tetrachloride	5.5 U	69.5	48.1	69*	71	45.8	64*	5	78-133/29
110-82-7	Cyclohexane	5.5 U	69.5	59.6	86	71	56.9	80	5	73-126/32
75-34-3	1,1-Dichloroethane	5.5 U	69.5	58.1	84	71	55.4	78	5	73-125/27
75-35-4	1,1-Dichloroethylene	5.5 U	69.5	53.4	77*	71	48.3	68*	10	81-136/28
96-12-8	1,2-Dibromo-3-chloropropane	5.5 U	69.5	50.3	72	71	49.3	69*	2	70-137/29
106-93-4	1,2-Dibromoethane	5.5 U	69.5	55.9	80	71	54.9	77	2	77-126/26
107-06-2	1,2-Dichloroethane	5.5 U	69.5	54.3	78	71	49.6	70*	9	74-128/23
78-87-5	1,2-Dichloropropane	5.5 U	69.5	61.5	89	71	58.6	83	5	74-125/25
124-48-1	Dibromochloromethane	5.5 U	69.5	53.3	77	71	49.2	69*	8	76-127/27
75-71-8	Dichlorodifluoromethane	5.5 U	69.5	51.9	75	71	49.4	70	5	68-168/29
156-59-2	cis-1,2-Dichloroethylene	5.5 U	69.5	53.4	77	71	46.7	66*	13	74-126/26
10061-01-5	cis-1,3-Dichloropropene	5.5 U	69.5	47.2	68*	71	43.5	61*	8	80-123/26
541-73-1	m-Dichlorobenzene	5.5 U	69.5	50.3	72*	71	45.1	64*	11	81-129/33
95-50-1	o-Dichlorobenzene	5.5 U	69.5	51.2	74*	71	45.7	64*	11	80-129/32
106-46-7	p-Dichlorobenzene	5.5 U	69.5	47.5	68*	71	43.6	61*	9	76-130/32
156-60-5	trans-1,2-Dichloroethylene	5.5 U	69.5	46.6	67*	71	36.4	51*	25	70-127/27
10061-02-6	trans-1,3-Dichloropropene	5.5 U	69.5	48.5	70*	71	42.6	60*	13	75-131/28
100-41-4	Ethylbenzene	5.5 U	69.5	54.3	78	71	48.9	69*	10	77-123/31
76-13-1	Freon 113	5.5 U	69.5	63.4	91	71	59.5	84	6	71-129/30
591-78-6	2-Hexanone	28 U	347	250	72	355	240	68*	4	72-133/26
98-82-8	Isopropylbenzene	5.5 U	69.5	49.9	72*	71	46.6	66*	7	80-136/32
108-10-1	4-Methyl-2-pentanone	28 U	347	281	81	355	282	79	0	76-132/26
79-20-9	Methyl acetate	28 U	347	365	105	355	324	91	12	67-137/30
74-83-9	Methyl bromide	5.5 U	69.5	56.1	81	71	48.1	68	15	65-139/31
74-87-3	Methyl chloride	5.5 U	69.5	54.0	78	71	50.7	71	6	71-144/27
108-87-2	Methylcyclohexane	5.5 U	69.5	53.2	77	71	47.9	67*	10	75-128/31
75-09-2	Methylene chloride	6.0	I 69.5	47.6	60*	71	42.9	52*	10	74-137/28
78-93-3	Methyl ethyl ketone	28 U	347	249	72*	355	253	71*	2	75-137/25

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** FA18287  
**Account:** TETRAI Tetra Tech EC, Inc  
**Project:** NSB Kings Bay, GA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA18290-4MS	G0095096.D	1	09/16/14	EP	n/a	n/a	VG3481
FA18290-4MSD	G0095097.D	1	09/16/14	EP	n/a	n/a	VG3481
FA18290-4	G0095084.D	1	09/16/14	EP	n/a	n/a	VG3481

The QC reported here applies to the following samples:

Method: SW846 8260B

FA18287-1, FA18287-2

CAS No.	Compound	FA18290-4 ug/kg	Spike Q ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
1634-04-4	Methyl Tert Butyl Ether	5.5 U	69.5	73.7	106	71	72.2	102	2	77-120/24
100-42-5	Styrene	5.5 U	69.5	52.2	75*	71	46.8	66*	11	78-125/30
71-55-6	1,1,1-Trichloroethane	5.5 U	69.5	57.9	83	71	55.3	78	5	70-129/27
79-34-5	1,1,2,2-Tetrachloroethane	5.5 U	69.5	59.7	86	71	57.7	81	3	71-126/30
79-00-5	1,1,2-Trichloroethane	5.5 U	69.5	61.0	88	71	55.2	78	10	74-124/28
120-82-1	1,2,4-Trichlorobenzene	5.5 U	69.5	33.0	47*	71	26.8	38*	21	78-130/34
127-18-4	Tetrachloroethylene	5.5 U	69.5	61.4	88	71	55.2	78*	11	79-130/31
108-88-3	Toluene	5.5 U	69.5	57.3	82	71	53.4	75*	7	76-124/30
79-01-6	Trichloroethylene	5.5 U	69.5	53.2	77	71	48.9	69*	8	75-128/27
75-69-4	Trichlorofluoromethane	5.5 U	69.5	56.4	81	71	54.8	77	3	73-145/31
75-01-4	Vinyl chloride	5.5 U	69.5	51.0	73*	71	45.0	63*	13	76-141/27
1330-20-7	Xylene (total)	17 U	208	162	78*	213	149	70*	8	80-129/30

CAS No.	Surrogate Recoveries	MS	MSD	FA18290-4	Limits
1868-53-7	Dibromofluoromethane	92%	93%	97%	75-124%
2037-26-5	Toluene-D8	101%	100%	100%	75-126%
460-00-4	4-Bromofluorobenzene	111%	109%	115%	71-133%
17060-07-0	1,2-Dichloroethane-D4	87%	88%	102%	72-135%

\* = Outside of Control Limits.

## GC/MS Semi-volatiles

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### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

## Method Blank Summary

**Job Number:** FA18287  
**Account:** TETRCAI Tetra Tech EC, Inc  
**Project:** NSB Kings Bay, GA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP53129-MB	T014270.D	1	09/17/14	NJ	09/16/14	OP53129	ST679

The QC reported here applies to the following samples:

Method: SW846 8270D

FA18287-1, FA18287-2

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	170	17	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	170	17	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	170	17	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	170	18	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	830	170	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	330	67	ug/kg	
95-48-7	2-Methylphenol	ND	170	17	ug/kg	
	3&4-Methylphenol	ND	170	33	ug/kg	
88-75-5	2-Nitrophenol	ND	170	17	ug/kg	
100-02-7	4-Nitrophenol	ND	830	130	ug/kg	
87-86-5	Pentachlorophenol	ND	830	130	ug/kg	
108-95-2	Phenol	ND	170	17	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	170	21	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	170	17	ug/kg	
83-32-9	Acenaphthene	ND	170	21	ug/kg	
208-96-8	Acenaphthylene	ND	170	17	ug/kg	
98-86-2	Acetophenone	ND	170	17	ug/kg	
120-12-7	Anthracene	ND	170	17	ug/kg	
1912-24-9	Atrazine	ND	170	17	ug/kg	
100-52-7	Benzaldehyde	ND	830	170	ug/kg	
56-55-3	Benzo(a)anthracene	ND	170	17	ug/kg	
50-32-8	Benzo(a)pyrene	ND	170	17	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	170	17	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	170	17	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	170	18	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	170	17	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	170	33	ug/kg	
92-52-4	1,1'-Biphenyl	ND	170	17	ug/kg	
105-60-2	Caprolactam	ND	170	18	ug/kg	
91-58-7	2-Chloronaphthalene	ND	170	20	ug/kg	
106-47-8	4-Chloroaniline	ND	170	17	ug/kg	
86-74-8	Carbazole	ND	170	17	ug/kg	
218-01-9	Chrysene	ND	170	17	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	170	17	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	170	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	170	17	ug/kg	

7.1.1  
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## Method Blank Summary

**Job Number:** FA18287  
**Account:** TETRCAI Tetra Tech EC, Inc  
**Project:** NSB Kings Bay, GA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP53129-MB	T014270.D	1	09/17/14	NJ	09/16/14	OP53129	ST679

The QC reported here applies to the following samples:

Method: SW846 8270D

FA18287-1, FA18287-2

CAS No.	Compound	Result	RL	MDL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	170	25	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	170	19	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	170	18	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	170	17	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	170	17	ug/kg	
132-64-9	Dibenzofuran	ND	170	17	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	330	33	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	170	33	ug/kg	
84-66-2	Diethyl phthalate	ND	330	33	ug/kg	
131-11-3	Dimethyl phthalate	ND	170	33	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	330	33	ug/kg	
206-44-0	Fluoranthene	ND	170	17	ug/kg	
86-73-7	Fluorene	ND	170	17	ug/kg	
118-74-1	Hexachlorobenzene	ND	170	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	170	17	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	170	17	ug/kg	
67-72-1	Hexachloroethane	ND	170	17	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	170	17	ug/kg	
78-59-1	Isophorone	ND	170	17	ug/kg	
91-57-6	2-Methylnaphthalene	ND	170	17	ug/kg	
88-74-4	2-Nitroaniline	ND	170	33	ug/kg	
99-09-2	3-Nitroaniline	ND	170	33	ug/kg	
100-01-6	4-Nitroaniline	ND	170	33	ug/kg	
91-20-3	Naphthalene	ND	170	17	ug/kg	
98-95-3	Nitrobenzene	ND	170	17	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	170	17	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	170	17	ug/kg	
85-01-8	Phenanthrene	ND	170	17	ug/kg	
129-00-0	Pyrene	ND	170	17	ug/kg	

CAS No.	Surrogate Recoveries	Limits	
367-12-4	2-Fluorophenol	67%	40-102%
4165-62-2	Phenol-d5	73%	41-100%
118-79-6	2,4,6-Tribromophenol	83%	42-108%

## Method Blank Summary

**Job Number:** FA18287  
**Account:** TETRCAI Tetra Tech EC, Inc  
**Project:** NSB Kings Bay, GA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP53129-MB	T014270.D	1	09/17/14	NJ	09/16/14	OP53129	ST679

The QC reported here applies to the following samples:

Method: SW846 8270D

FA18287-1, FA18287-2

CAS No.	Surrogate Recoveries	Limits
4165-60-0	Nitrobenzene-d5	71% 40-105%
321-60-8	2-Fluorobiphenyl	73% 43-107%
1718-51-0	Terphenyl-d14	84% 45-119%

7.1.1  
7

## Method Blank Summary

**Job Number:** FA18287  
**Account:** TETRCAI Tetra Tech EC, Inc  
**Project:** NSB Kings Bay, GA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP53129-MB	X036427.D	1	09/17/14	NJ	09/16/14	OP53129	SX1709

The QC reported here applies to the following samples:

Method: SW846 8270D

FA18287-1, FA18287-2

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	170	17	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	170	17	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	170	17	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	170	18	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	830	170	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	330	67	ug/kg	
95-48-7	2-Methylphenol	ND	170	17	ug/kg	
	3&4-Methylphenol	ND	170	33	ug/kg	
88-75-5	2-Nitrophenol	ND	170	17	ug/kg	
100-02-7	4-Nitrophenol	ND	830	130	ug/kg	
87-86-5	Pentachlorophenol	ND	830	130	ug/kg	
108-95-2	Phenol	ND	170	17	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	170	21	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	170	17	ug/kg	
83-32-9	Acenaphthene	ND	170	21	ug/kg	
208-96-8	Acenaphthylene	ND	170	17	ug/kg	
98-86-2	Acetophenone	ND	170	17	ug/kg	
120-12-7	Anthracene	ND	170	17	ug/kg	
1912-24-9	Atrazine	ND	170	17	ug/kg	
100-52-7	Benzaldehyde	ND	830	170	ug/kg	
56-55-3	Benzo(a)anthracene	ND	170	17	ug/kg	
50-32-8	Benzo(a)pyrene	ND	170	17	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	170	17	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	170	17	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	170	18	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	170	17	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	170	33	ug/kg	
92-52-4	1,1'-Biphenyl	ND	170	17	ug/kg	
105-60-2	Caprolactam	ND	170	18	ug/kg	
91-58-7	2-Chloronaphthalene	ND	170	20	ug/kg	
106-47-8	4-Chloroaniline	ND	170	17	ug/kg	
86-74-8	Carbazole	ND	170	17	ug/kg	
218-01-9	Chrysene	ND	170	17	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	170	17	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	170	17	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	170	17	ug/kg	

## Method Blank Summary

**Job Number:** FA18287  
**Account:** TETRCAI Tetra Tech EC, Inc  
**Project:** NSB Kings Bay, GA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP53129-MB	X036427.D	1	09/17/14	NJ	09/16/14	OP53129	SX1709

The QC reported here applies to the following samples:

Method: SW846 8270D

FA18287-1, FA18287-2

CAS No.	Compound	Result	RL	MDL	Units	Q
7005-72-3	4-Chlorophenyl phenyl ether	ND	170	25	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	170	19	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	170	18	ug/kg	
91-94-1	3,3'-Dichlorobenzidine	ND	170	17	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	170	17	ug/kg	
132-64-9	Dibenzofuran	ND	170	17	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	330	33	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	170	33	ug/kg	
84-66-2	Diethyl phthalate	ND	330	33	ug/kg	
131-11-3	Dimethyl phthalate	ND	170	33	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	330	33	ug/kg	
206-44-0	Fluoranthene	ND	170	17	ug/kg	
86-73-7	Fluorene	ND	170	17	ug/kg	
118-74-1	Hexachlorobenzene	ND	170	17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	170	17	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	170	17	ug/kg	
67-72-1	Hexachloroethane	ND	170	17	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	170	17	ug/kg	
78-59-1	Isophorone	ND	170	17	ug/kg	
91-57-6	2-Methylnaphthalene	ND	170	17	ug/kg	
88-74-4	2-Nitroaniline	ND	170	33	ug/kg	
99-09-2	3-Nitroaniline	ND	170	33	ug/kg	
100-01-6	4-Nitroaniline	ND	170	33	ug/kg	
91-20-3	Naphthalene	ND	170	17	ug/kg	
98-95-3	Nitrobenzene	ND	170	17	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	170	17	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	170	17	ug/kg	
85-01-8	Phenanthrene	ND	170	17	ug/kg	
129-00-0	Pyrene	ND	170	17	ug/kg	

CAS No.	Surrogate Recoveries	Limits	
367-12-4	2-Fluorophenol	73%	40-102%
4165-62-2	Phenol-d5	77%	41-100%
118-79-6	2,4,6-Tribromophenol	89%	42-108%

7.1.2  
7

## Method Blank Summary

**Job Number:** FA18287  
**Account:** TETRCAI Tetra Tech EC, Inc  
**Project:** NSB Kings Bay, GA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP53129-MB	X036427.D	1	09/17/14	NJ	09/16/14	OP53129	SX1709

The QC reported here applies to the following samples:

Method: SW846 8270D

FA18287-1, FA18287-2

CAS No.	Surrogate Recoveries	Limits
4165-60-0	Nitrobenzene-d5	72% 40-105%
321-60-8	2-Fluorobiphenyl	77% 43-107%
1718-51-0	Terphenyl-d14	94% 45-119%

# Blank Spike Summary

**Job Number:** FA18287  
**Account:** TETRCAI Tetra Tech EC, Inc  
**Project:** NSB Kings Bay, GA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP53129-BS	T014269.D	1	09/17/14	NJ	09/16/14	OP53129	ST679

The QC reported here applies to the following samples:

Method: SW846 8270D

FA18287-1, FA18287-2

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
95-57-8	2-Chlorophenol	1670	1160	70	48-104
59-50-7	4-Chloro-3-methyl phenol	1670	1190	71	52-108
120-83-2	2,4-Dichlorophenol	1670	1130	68	51-105
105-67-9	2,4-Dimethylphenol	1670	1150	69	43-96
51-28-5	2,4-Dinitrophenol	3330	3630	109	40-119
534-52-1	4,6-Dinitro-o-cresol	3330	3240	97	64-121
95-48-7	2-Methylphenol	1670	1140	68	46-107
	3&4-Methylphenol	3330	2350	71	44-111
88-75-5	2-Nitrophenol	1670	1190	71	49-104
100-02-7	4-Nitrophenol	3330	2900	87	56-116
87-86-5	Pentachlorophenol	3330	2680	80	61-114
108-95-2	Phenol	1670	1240	74	45-110
95-95-4	2,4,5-Trichlorophenol	1670	1340	80	58-112
88-06-2	2,4,6-Trichlorophenol	1670	1330	80	56-109
83-32-9	Acenaphthene	1670	1290	77	56-109
208-96-8	Acenaphthylene	1670	1280	77	56-106
98-86-2	Acetophenone	1670	993	60	48-107
120-12-7	Anthracene	1670	1290	77	61-110
1912-24-9	Atrazine	1670	1140	68	60-112
56-55-3	Benzo(a)anthracene	1670	1320	79	66-111
50-32-8	Benzo(a)pyrene	1670	1330	80	59-104
205-99-2	Benzo(b)fluoranthene	1670	1320	79	67-113
191-24-2	Benzo(g,h,i)perylene	1670	1360	82	67-113
207-08-9	Benzo(k)fluoranthene	1670	1380	83	67-114
101-55-3	4-Bromophenyl phenyl ether	1670	1080	65	62-110
85-68-7	Butyl benzyl phthalate	1670	1250	75	65-113
92-52-4	1,1'-Biphenyl	1670	1190	71	53-106
105-60-2	Caprolactam	1670	1160	70	40-110
91-58-7	2-Chloronaphthalene	1670	1200	72	53-106
106-47-8	4-Chloroaniline	1670	1010	61	30-115
86-74-8	Carbazole	1670	1280	77	60-111
218-01-9	Chrysene	1670	1360	82	65-112
111-91-1	bis(2-Chloroethoxy)methane	1670	1050	63	48-105
111-44-4	bis(2-Chloroethyl)ether	1670	1080	65	46-103
108-60-1	bis(2-Chloroisopropyl)ether	1670	1010	61	40-110
7005-72-3	4-Chlorophenyl phenyl ether	1670	1260	76	58-106

\* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** FA18287  
**Account:** TETRAI Tetra Tech EC, Inc  
**Project:** NSB Kings Bay, GA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP53129-BS	T014269.D	1	09/17/14	NJ	09/16/14	OP53129	ST679

The QC reported here applies to the following samples:

Method: SW846 8270D

FA18287-1, FA18287-2

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
121-14-2	2,4-Dinitrotoluene	1670	1500	90	59-109
606-20-2	2,6-Dinitrotoluene	1670	1390	83	61-107
91-94-1	3,3'-Dichlorobenzidine	1670	1330	80	36-114
53-70-3	Dibenzo(a,h)anthracene	1670	1350	81	68-115
132-64-9	Dibenzofuran	1670	1280	77	57-108
84-74-2	Di-n-butyl phthalate	1670	1290	77	63-108
117-84-0	Di-n-octyl phthalate	1670	1330	80	64-119
84-66-2	Diethyl phthalate	1670	1270	76	61-109
131-11-3	Dimethyl phthalate	1670	1300	78	59-108
117-81-7	bis(2-Ethylhexyl)phthalate	1670	1240	74	64-115
206-44-0	Fluoranthene	1670	1330	80	60-108
86-73-7	Fluorene	1670	1350	81	58-109
118-74-1	Hexachlorobenzene	1670	1290	77	59-111
87-68-3	Hexachlorobutadiene	1670	1160	70	41-108
77-47-4	Hexachlorocyclopentadiene	1670	1120	67	49-110
67-72-1	Hexachloroethane	1670	1070	64	40-105
193-39-5	Indeno(1,2,3-cd)pyrene	1670	1250	75	66-116
78-59-1	Isophorone	1670	1070	64	42-89
91-57-6	2-Methylnaphthalene	1670	1080	65	47-106
88-74-4	2-Nitroaniline	1670	1430	86	56-123
99-09-2	3-Nitroaniline	1670	1220	73	41-111
100-01-6	4-Nitroaniline	1670	1390	83	54-113
91-20-3	Naphthalene	1670	1070	64	44-104
98-95-3	Nitrobenzene	1670	1050	63	43-108
621-64-7	N-Nitroso-di-n-propylamine	1670	1210	73	48-108
86-30-6	N-Nitrosodiphenylamine	1670	1260	76	62-110
85-01-8	Phenanthrene	1670	1300	78	63-111
129-00-0	Pyrene	1670	1220	73	65-115

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	67%	40-102%
4165-62-2	Phenol-d5	73%	41-100%
118-79-6	2,4,6-Tribromophenol	84%	42-108%
4165-60-0	Nitrobenzene-d5	65%	40-105%

\* = Outside of Control Limits.

7.2.1  
7

## Blank Spike Summary

**Job Number:** FA18287  
**Account:** TETRCAI Tetra Tech EC, Inc  
**Project:** NSB Kings Bay, GA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP53129-BS	T014269.D	1	09/17/14	NJ	09/16/14	OP53129	ST679

The QC reported here applies to the following samples:

Method: SW846 8270D

FA18287-1, FA18287-2

CAS No.	Surrogate Recoveries	BSP	Limits
321-60-8	2-Fluorobiphenyl	72%	43-107%
1718-51-0	Terphenyl-d14	81%	45-119%

\* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** FA18287  
**Account:** TETRCAI Tetra Tech EC, Inc  
**Project:** NSB Kings Bay, GA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP53129-BS	X036426.D	1	09/17/14	NJ	09/16/14	OP53129	SX1709

The QC reported here applies to the following samples:

Method: SW846 8270D

FA18287-1, FA18287-2

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
95-57-8	2-Chlorophenol	1670	1200	72	48-104
59-50-7	4-Chloro-3-methyl phenol	1670	1210	73	52-108
120-83-2	2,4-Dichlorophenol	1670	1170	70	51-105
105-67-9	2,4-Dimethylphenol	1670	1200	72	43-96
51-28-5	2,4-Dinitrophenol	3330	2850	86	40-119
534-52-1	4,6-Dinitro-o-cresol	3330	3210	96	64-121
95-48-7	2-Methylphenol	1670	1200	72	46-107
	3&4-Methylphenol	3330	2410	72	44-111
88-75-5	2-Nitrophenol	1670	1160	70	49-104
100-02-7	4-Nitrophenol	3330	2360	71	56-116
87-86-5	Pentachlorophenol	3330	3200	96	61-114
108-95-2	Phenol	1670	1320	79	45-110
95-95-4	2,4,5-Trichlorophenol	1670	1360	82	58-112
88-06-2	2,4,6-Trichlorophenol	1670	1320	79	56-109
83-32-9	Acenaphthene	1670	1330	80	56-109
208-96-8	Acenaphthylene	1670	1320	79	56-106
98-86-2	Acetophenone	1670	994	60	48-107
120-12-7	Anthracene	1670	1370	82	61-110
1912-24-9	Atrazine	1670	1180	71	60-112
56-55-3	Benzo(a)anthracene	1670	1400	84	66-111
50-32-8	Benzo(a)pyrene	1670	1340	80	59-104
205-99-2	Benzo(b)fluoranthene	1670	1390	83	67-113
191-24-2	Benzo(g,h,i)perylene	1670	1380	83	67-113
207-08-9	Benzo(k)fluoranthene	1670	1410	85	67-114
101-55-3	4-Bromophenyl phenyl ether	1670	1190	71	62-110
85-68-7	Butyl benzyl phthalate	1670	1380	83	65-113
92-52-4	1,1'-Biphenyl	1670	1230	74	53-106
105-60-2	Caprolactam	1670	1120	67	40-110
91-58-7	2-Chloronaphthalene	1670	1220	73	53-106
106-47-8	4-Chloroaniline	1670	1030	62	30-115
86-74-8	Carbazole	1670	1310	79	60-111
218-01-9	Chrysene	1670	1420	85	65-112
111-91-1	bis(2-Chloroethoxy)methane	1670	1100	66	48-105
111-44-4	bis(2-Chloroethyl)ether	1670	1100	66	46-103
108-60-1	bis(2-Chloroisopropyl)ether	1670	1100	66	40-110
7005-72-3	4-Chlorophenyl phenyl ether	1670	1250	75	58-106

\* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** FA18287  
**Account:** TETRAI Tetra Tech EC, Inc  
**Project:** NSB Kings Bay, GA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP53129-BS	X036426.D	1	09/17/14	NJ	09/16/14	OP53129	SX1709

The QC reported here applies to the following samples:

Method: SW846 8270D

FA18287-1, FA18287-2

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
121-14-2	2,4-Dinitrotoluene	1670	1240	74	59-109
606-20-2	2,6-Dinitrotoluene	1670	1280	77	61-107
91-94-1	3,3'-Dichlorobenzidine	1670	1270	76	36-114
53-70-3	Dibenzo(a,h)anthracene	1670	1410	85	68-115
132-64-9	Dibenzofuran	1670	1300	78	57-108
84-74-2	Di-n-butyl phthalate	1670	1280	77	63-108
117-84-0	Di-n-octyl phthalate	1670	1410	85	64-119
84-66-2	Diethyl phthalate	1670	1260	76	61-109
131-11-3	Dimethyl phthalate	1670	1280	77	59-108
117-81-7	bis(2-Ethylhexyl)phthalate	1670	1380	83	64-115
206-44-0	Fluoranthene	1670	1280	77	60-108
86-73-7	Fluorene	1670	1360	82	58-109
118-74-1	Hexachlorobenzene	1670	1430	86	59-111
87-68-3	Hexachlorobutadiene	1670	1180	71	41-108
77-47-4	Hexachlorocyclopentadiene	1670	1140	68	49-110
67-72-1	Hexachloroethane	1670	1080	65	40-105
193-39-5	Indeno(1,2,3-cd)pyrene	1670	1330	80	66-116
78-59-1	Isophorone	1670	1090	65	42-89
91-57-6	2-Methylnaphthalene	1670	1140	68	47-106
88-74-4	2-Nitroaniline	1670	1270	76	56-123
99-09-2	3-Nitroaniline	1670	1070	64	41-111
100-01-6	4-Nitroaniline	1670	1260	76	54-113
91-20-3	Naphthalene	1670	1150	69	44-104
98-95-3	Nitrobenzene	1670	1060	64	43-108
621-64-7	N-Nitroso-di-n-propylamine	1670	1220	73	48-108
86-30-6	N-Nitrosodiphenylamine	1670	1330	80	62-110
85-01-8	Phenanthrene	1670	1360	82	63-111
129-00-0	Pyrene	1670	1400	84	65-115

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	72%	40-102%
4165-62-2	Phenol-d5	76%	41-100%
118-79-6	2,4,6-Tribromophenol	90%	42-108%
4165-60-0	Nitrobenzene-d5	65%	40-105%

\* = Outside of Control Limits.

7.2.2  
 7

# Blank Spike Summary

**Job Number:** FA18287  
**Account:** TETRCAI Tetra Tech EC, Inc  
**Project:** NSB Kings Bay, GA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP53129-BS	X036426.D	1	09/17/14	NJ	09/16/14	OP53129	SX1709

The QC reported here applies to the following samples:

Method: SW846 8270D

FA18287-1, FA18287-2

CAS No.	Surrogate Recoveries	BSP	Limits
321-60-8	2-Fluorobiphenyl	74%	43-107%
1718-51-0	Terphenyl-d14	93%	45-119%

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** FA18287  
**Account:** TETRAI Tetra Tech EC, Inc  
**Project:** NSB Kings Bay, GA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP53129-MS	T014272.D	1	09/17/14	NJ	09/16/14	OP53129	ST679
OP53129-MSD	T014273.D	1	09/17/14	NJ	09/16/14	OP53129	ST679
FA18287-1	T014271.D	1	09/17/14	NJ	09/16/14	OP53129	ST679
FA18287-1	X036428.D	1	09/17/14	NJ	09/16/14	OP53129	SX1709

The QC reported here applies to the following samples:

Method: SW846 8270D

FA18287-1, FA18287-2

CAS No.	Compound	FA18287-1 ug/kg	Spike Q ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
95-57-8	2-Chlorophenol	170 U	1690	1140	67	1690	1160	69	2	48-104/26
59-50-7	4-Chloro-3-methyl phenol	170 U	1690	1160	69	1690	1180	70	2	52-108/21
120-83-2	2,4-Dichlorophenol	170 U	1690	1120	66	1690	1120	66	0	51-105/27
105-67-9	2,4-Dimethylphenol	170 U	1690	1160	69	1690	1150	68	1	43-96/23
51-28-5	2,4-Dinitrophenol	840 U	3380	3550	105	3380	3590	106	1	40-119/32
534-52-1	4,6-Dinitro-o-cresol	340 U	3380	3190	94	3380	3290	97	3	64-121/29
95-48-7	2-Methylphenol	170 U	1690	1150	68	1690	1150	68	0	46-107/24
	3&4-Methylphenol	170 U	3380	2310	68	3380	2380	70	3	44-111/24
88-75-5	2-Nitrophenol	170 U	1690	1200	71	1690	1210	72	1	49-104/27
100-02-7	4-Nitrophenol	840 U	3380	2750	81	3380	2870	85	4	56-116/23
87-86-5	Pentachlorophenol	840 U	3380	2620	78	3380	2680	79	2	61-114/23
108-95-2	Phenol	170 U	1690	1220	72	1690	1240	73	2	45-110/24
95-95-4	2,4,5-Trichlorophenol	170 U	1690	1300	77	1690	1320	78	2	58-112/22
88-06-2	2,4,6-Trichlorophenol	170 U	1690	1290	76	1690	1290	76	0	56-109/25
83-32-9	Acenaphthene	170 U	1690	1260	75	1690	1270	75	1	56-109/23
208-96-8	Acenaphthylene	170 U	1690	1240	73	1690	1260	75	2	56-106/23
98-86-2	Acetophenone	170 U	1690	897	53	1690	904	54	1	48-107/27
120-12-7	Anthracene	170 U	1690	1250	74	1690	1290	76	3	61-110/21
1912-24-9	Atrazine	170 U	1690	1090	65	1690	1150	68	5	60-112/21
56-55-3	Benzo(a)anthracene	170 U	1690	1300	77	1690	1320	78	2	66-111/23
50-32-8	Benzo(a)pyrene	170 U	1690	1260	75	1690	1330	79	5	59-104/23
205-99-2	Benzo(b)fluoranthene	170 U	1690	1270	75	1690	1350	80	6	67-113/24
191-24-2	Benzo(g,h,i)perylene	170 U	1690	1260	75	1690	1340	79	6	67-113/21
207-08-9	Benzo(k)fluoranthene	170 U	1690	1340	79	1690	1390	82	4	67-114/22
101-55-3	4-Bromophenyl phenyl ether	170 U	1690	1050	62	1690	1080	64	3	62-110/21
85-68-7	Butyl benzyl phthalate	170 U	1690	1270	75	1690	1260	75	1	65-113/20
92-52-4	1,1'-Biphenyl	170 U	1690	1160	69	1690	1170	69	1	53-106/24
105-60-2	Caprolactam	170 U	1690	1130	67	1690	1160	69	3	40-110/22
91-58-7	2-Chloronaphthalene	170 U	1690	1150	68	1690	1170	69	2	53-106/23
106-47-8	4-Chloroaniline	170 U	1690	1000	59	1690	1010	60	1	30-115/30
86-74-8	Carbazole	170 U	1690	1220	72	1690	1270	75	4	60-111/19
218-01-9	Chrysene	170 U	1690	1320	78	1690	1360	81	3	65-112/25
111-91-1	bis(2-Chloroethoxy)methane	170 U	1690	1060	63	1690	1050	62	1	48-105/24
111-44-4	bis(2-Chloroethyl)ether	170 U	1690	1040	62	1690	1060	63	2	46-103/27
108-60-1	bis(2-Chloroisopropyl)ether	170 U <sup>a</sup>	1690	971	57	1690	969	57	0	40-110/25
7005-72-3	4-Chlorophenyl phenyl ether	170 U	1690	1230	73	1690	1260	75	2	58-106/21

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** FA18287  
**Account:** TETRCAI Tetra Tech EC, Inc  
**Project:** NSB Kings Bay, GA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP53129-MS	T014272.D	1	09/17/14	NJ	09/16/14	OP53129	ST679
OP53129-MSD	T014273.D	1	09/17/14	NJ	09/16/14	OP53129	ST679
FA18287-1	T014271.D	1	09/17/14	NJ	09/16/14	OP53129	ST679
FA18287-1	X036428.D	1	09/17/14	NJ	09/16/14	OP53129	SX1709

The QC reported here applies to the following samples:

Method: SW846 8270D

FA18287-1, FA18287-2

CAS No.	Compound	FA18287-1 ug/kg	Spike Q ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
121-14-2	2,4-Dinitrotoluene	170 U	1690	1460	86	1690	1490	88	2	59-109/20
606-20-2	2,6-Dinitrotoluene	170 U	1690	1340	79	1690	1360	81	1	61-107/22
91-94-1	3,3'-Dichlorobenzidine	170 U	1690	1280	76	1690	1310	78	2	36-114/28
53-70-3	Dibenzo(a,h)anthracene	170 U	1690	1290	76	1690	1330	79	3	68-115/23
132-64-9	Dibenzofuran	170 U	1690	1240	73	1690	1220	72	2	57-108/22
84-74-2	Di-n-butyl phthalate	340 U	1690	1240	73	1690	1280	76	3	63-108/19
117-84-0	Di-n-octyl phthalate	170 U	1690	1370	81	1690	1340	79	2	64-119/21
84-66-2	Diethyl phthalate	340 U	1690	1270	75	1690	1270	75	0	61-109/20
131-11-3	Dimethyl phthalate	170 U	1690	1260	75	1690	1270	75	1	59-108/20
117-81-7	bis(2-Ethylhexyl)phthalate	340 U	1690	1280	76	1690	1260	75	2	64-115/23
206-44-0	Fluoranthene	170 U	1690	1270	75	1690	1330	79	5	60-108/25
86-73-7	Fluorene	170 U	1690	1310	78	1690	1320	78	1	58-109/21
118-74-1	Hexachlorobenzene	170 U	1690	1250	74	1690	1290	76	3	59-111/21
87-68-3	Hexachlorobutadiene	170 U	1690	1130	67	1690	1130	67	0	41-108/27
77-47-4	Hexachlorocyclopentadiene	170 U	1690	1110	66	1690	1110	66	0	49-110/31
67-72-1	Hexachloroethane	170 U	1690	1060	63	1690	1070	63	1	40-105/32
193-39-5	Indeno(1,2,3-cd)pyrene	170 U	1690	1140	67	1690	1270	75	11	66-116/22
78-59-1	Isophorone	170 U	1690	1070	63	1690	1080	64	1	42-89/22
91-57-6	2-Methylnaphthalene	170 U	1690	1070	63	1690	1060	63	1	47-106/27
88-74-4	2-Nitroaniline	170 U	1690	1360	81	1690	1380	82	1	56-123/24
99-09-2	3-Nitroaniline	170 U	1690	1210	72	1690	1230	73	2	41-111/25
100-01-6	4-Nitroaniline	170 U	1690	1360	81	1690	1400	83	3	54-113/22
91-20-3	Naphthalene	170 U	1690	1060	63	1690	1060	63	0	44-104/27
98-95-3	Nitrobenzene	170 U	1690	1040	62	1690	1050	62	1	43-108/25
621-64-7	N-Nitroso-di-n-propylamine	170 U	1690	1200	71	1690	1200	71	0	48-108/27
86-30-6	N-Nitrosodiphenylamine	170 U	1690	1210	72	1690	1240	73	2	62-110/21
85-01-8	Phenanthrene	170 U	1690	1240	73	1690	1280	76	3	63-111/22
129-00-0	Pyrene	170 U	1690	1260	75	1690	1240	73	2	65-115/25

CAS No.	Surrogate Recoveries	MS	MSD	FA18287-1	FA18287-1	Limits
367-12-4	2-Fluorophenol	65%	66%	69%	74%	40-102%
4165-62-2	Phenol-d5	71%	72%	76%	80%	41-100%
118-79-6	2,4,6-Tribromophenol	79%	82%	84%	92%	42-108%
4165-60-0	Nitrobenzene-d5	63%	63%	72%	71%	40-105%

\* = Outside of Control Limits.

7.3.1  
 7

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** FA18287  
**Account:** TETRCAI Tetra Tech EC, Inc  
**Project:** NSB Kings Bay, GA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP53129-MS	T014272.D	1	09/17/14	NJ	09/16/14	OP53129	ST679
OP53129-MSD	T014273.D	1	09/17/14	NJ	09/16/14	OP53129	ST679
FA18287-1	T014271.D	1	09/17/14	NJ	09/16/14	OP53129	ST679
FA18287-1	X036428.D	1	09/17/14	NJ	09/16/14	OP53129	SX1709

The QC reported here applies to the following samples:

Method: SW846 8270D

FA18287-1, FA18287-2

CAS No.	Surrogate Recoveries	MS	MSD	FA18287-1	FA18287-1	Limits
321-60-8	2-Fluorobiphenyl	68%	68%	72%	77%	43-107%
1718-51-0	Terphenyl-d14	82%	81%	84%	94%	45-119%

(a) Result is from Run #2.

\* = Outside of Control Limits.

7.3.1  
 7

## GC Volatiles

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### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

## Method Blank Summary

**Job Number:** FA18287  
**Account:** TETRCAI Tetra Tech EC, Inc  
**Project:** NSB Kings Bay, GA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GUU426-MB	UU008649.D	1	09/17/14	AH	n/a	n/a	GUU426

The QC reported here applies to the following samples:

Method: SW846 8015C

FA18287-1, FA18287-2

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	5.0	2.5	mg/kg	

CAS No.	Surrogate Recoveries	Limits	
460-00-4	4-Bromofluorobenzene	71%	56-149%
98-08-8	aaa-Trifluorotoluene	79%	66-132%

# Blank Spike Summary

**Job Number:** FA18287  
**Account:** TETRCAI Tetra Tech EC, Inc  
**Project:** NSB Kings Bay, GA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GUU426-BS	UU008648.D	1	09/17/14	AH	n/a	n/a	GUU426

The QC reported here applies to the following samples:

Method: SW846 8015C

FA18287-1, FA18287-2

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-GRO (C6-C10)	20	18.0	90	74-128

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	4-Bromofluorobenzene	89%	56-149%
98-08-8	aaa-Trifluorotoluene	91%	66-132%

8.2.1

8

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** FA18287  
**Account:** TETRCAI Tetra Tech EC, Inc  
**Project:** NSB Kings Bay, GA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA18218-1MS	UU008675.D	1	09/17/14	AH	n/a	n/a	GUU426
FA18218-1MSD	UU008676.D	1	09/17/14	AH	n/a	n/a	GUU426
FA18218-1	UU008650.D	1	09/17/14	AH	n/a	n/a	GUU426

The QC reported here applies to the following samples:

Method: SW846 8015C

FA18287-1, FA18287-2

CAS No.	Compound	FA18218-1 mg/kg	Spike Q mg/kg	MS mg/kg	MS %	Spike mg/kg	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	3.9 U	15.7	13.9	89	15.7	15.0	96	8	74-128/17

CAS No.	Surrogate Recoveries	MS	MSD	FA18218-1	Limits
460-00-4	4-Bromofluorobenzene	92%	88%	82%	56-149%
98-08-8	aaa-Trifluorotoluene	92%	94%	85%	66-132%

8.3.1  
8

\* = Outside of Control Limits.

## GC Semi-volatiles

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### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

## Method Blank Summary

**Job Number:** FA18287  
**Account:** TETRCAI Tetra Tech EC, Inc  
**Project:** NSB Kings Bay, GA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP53144-MB	CC045597.D	1	09/19/14	NJ	09/17/14	OP53144	GCC729

The QC reported here applies to the following samples:

Method: SW846 8151A

FA18287-1, FA18287-2

CAS No.	Compound	Result	RL	MDL	Units	Q
94-75-7	2,4-D	ND	33	5.7	ug/kg	
93-72-1	2,4,5-TP (Silvex)	ND	3.3	0.91	ug/kg	
93-76-5	2,4,5-T	ND	3.3	0.67	ug/kg	
1918-00-9	Dicamba	ND	3.3	1.1	ug/kg	
88-85-7	Dinoseb	ND	83	17	ug/kg	
75-99-0	Dalapon	ND	170	33	ug/kg	
120-36-5	Dichloroprop	ND	33	13	ug/kg	
94-82-6	2,4-DB	ND	33	12	ug/kg	
93-65-2	MCPP	ND	3300	890	ug/kg	
94-74-6	MCPA	ND	3300	800	ug/kg	
87-86-5	Pentachlorophenol	ND	3.3	0.51	ug/kg	

CAS No.	Surrogate Recoveries	Limits
19719-28-9	2,4-DCAA	40% 31-132%

# Method Blank Summary

**Job Number:** FA18287  
**Account:** TETRAI Tetra Tech EC, Inc  
**Project:** NSB Kings Bay, GA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP53131-MB	KK66378.D	1	09/18/14	FS	09/16/14	OP53131	GKK2187

The QC reported here applies to the following samples:

Method: SW846 8081B

FA18287-1, FA18287-2

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	1.7	0.35	ug/kg	
319-84-6	alpha-BHC	ND	1.7	0.33	ug/kg	
319-85-7	beta-BHC	ND	1.7	0.33	ug/kg	
319-86-8	delta-BHC	ND	1.7	0.37	ug/kg	
58-89-9	gamma-BHC (Lindane)	ND	1.7	0.33	ug/kg	
5103-71-9	alpha-Chlordane	ND	1.7	0.36	ug/kg	
5103-74-2	gamma-Chlordane	ND	1.7	0.40	ug/kg	
60-57-1	Dieldrin	ND	1.7	0.39	ug/kg	
72-54-8	4,4' -DDD	ND	3.3	0.39	ug/kg	
72-55-9	4,4' -DDE	ND	3.3	0.41	ug/kg	
50-29-3	4,4' -DDT	ND	3.3	0.33	ug/kg	
72-20-8	Endrin	ND	3.3	0.33	ug/kg	
1031-07-8	Endosulfan sulfate	ND	3.3	0.34	ug/kg	
7421-93-4	Endrin aldehyde	ND	3.3	0.33	ug/kg	
53494-70-5	Endrin ketone	ND	3.3	0.33	ug/kg	
959-98-8	Endosulfan-I	ND	1.7	0.36	ug/kg	
33213-65-9	Endosulfan-II	ND	1.7	0.33	ug/kg	
76-44-8	Heptachlor	ND	1.7	0.39	ug/kg	
1024-57-3	Heptachlor epoxide	ND	1.7	0.36	ug/kg	
72-43-5	Methoxychlor	ND	3.3	0.40	ug/kg	
8001-35-2	Toxaphene	ND	83	33	ug/kg	

CAS No.	Surrogate Recoveries	Limits	
877-09-8	Tetrachloro-m-xylene	83%	50-122%
2051-24-3	Decachlorobiphenyl	93%	50-133%

9.1.2  
9

## Method Blank Summary

**Job Number:** FA18287  
**Account:** TETRCAI Tetra Tech EC, Inc  
**Project:** NSB Kings Bay, GA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP53132-MB	MM11489.D	1	09/18/14	RS	09/16/14	OP53132	GMM250

The QC reported here applies to the following samples:

Method: SW846 8082A

FA18287-1, FA18287-2

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	17	6.7	ug/kg	
11104-28-2	Aroclor 1221	ND	17	8.3	ug/kg	
11141-16-5	Aroclor 1232	ND	17	8.3	ug/kg	
53469-21-9	Aroclor 1242	ND	17	6.7	ug/kg	
12672-29-6	Aroclor 1248	ND	17	6.7	ug/kg	
11097-69-1	Aroclor 1254	ND	17	6.7	ug/kg	
11096-82-5	Aroclor 1260	ND	17	6.7	ug/kg	

CAS No.	Surrogate Recoveries	Limits	
877-09-8	Tetrachloro-m-xylene	91%	44-126%
2051-24-3	Decachlorobiphenyl	77%	41-145%

## Method Blank Summary

**Job Number:** FA18287  
**Account:** TETRCAI Tetra Tech EC, Inc  
**Project:** NSB Kings Bay, GA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP53130-MB	JJ005182.D	1	09/17/14	SJL	09/16/14	OP53130	GJJ200

The QC reported here applies to the following samples:

Method: SW846 8015C

FA18287-1, FA18287-2

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	ND	6.3	3.8	mg/kg	

CAS No.	Surrogate Recoveries	Limits
84-15-1	o-Terphenyl	94% 56-122%

# Blank Spike Summary

**Job Number:** FA18287  
**Account:** TETRCAI Tetra Tech EC, Inc  
**Project:** NSB Kings Bay, GA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP53144-BS	CC045596.D	1	09/19/14	NJ	09/17/14	OP53144	GCC729

The QC reported here applies to the following samples:

Method: SW846 8151A

FA18287-1, FA18287-2

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
94-75-7	2,4-D	167	113	68	49-132
93-72-1	2,4,5-TP (Silvex)	16.7	11.4	68	58-143
93-76-5	2,4,5-T	16.7	10.7	64	55-147
1918-00-9	Dicamba	16.7	11.9	71	51-146
88-85-7	Dinoseb	83.3	27.4	33	10-124
75-99-0	Dalapon	417	133	32	10-133
120-36-5	Dichloroprop	167	151	91	65-154
94-82-6	2,4-DB	167	121	73	51-137
93-65-2	MCPP	16700	13700	82	53-135
94-74-6	MCPA	16700	11200	67	52-132
87-86-5	Pentachlorophenol	16.7	11.8	71	54-140

CAS No.	Surrogate Recoveries	BSP	Limits
19719-28-9	2,4-DCAA	54%	31-132%

\* = Outside of Control Limits.

9.2.1  
9

# Blank Spike Summary

**Job Number:** FA18287  
**Account:** TETRCAI Tetra Tech EC, Inc  
**Project:** NSB Kings Bay, GA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP53131-BS	KK66376.D	1	09/18/14	FS	09/16/14	OP53131	GKK2187

The QC reported here applies to the following samples:

Method: SW846 8081B

FA18287-1, FA18287-2

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
309-00-2	Aldrin	16.7	14.8	89	57-120
319-84-6	alpha-BHC	16.7	14.4	86	60-117
319-85-7	beta-BHC	16.7	14.1	85	57-125
319-86-8	delta-BHC	16.7	14.7	88	42-126
58-89-9	gamma-BHC (Lindane)	16.7	14.5	87	60-123
5103-71-9	alpha-Chlordane	16.7	16.0	96	61-122
5103-74-2	gamma-Chlordane	16.7	15.8	95	63-122
60-57-1	Dieldrin	16.7	15.2	91	63-125
72-54-8	4,4'-DDD	16.7	15.2	91	55-135
72-55-9	4,4'-DDE	16.7	15.1	91	61-129
50-29-3	4,4'-DDT	16.7	15.3	92	60-136
72-20-8	Endrin	16.7	13.7	82	67-138
1031-07-8	Endosulfan sulfate	16.7	16.0	96	59-119
7421-93-4	Endrin aldehyde	16.7	14.4	86	37-110
53494-70-5	Endrin ketone	16.7	15.9	95	60-128
959-98-8	Endosulfan-I	16.7	11.3	68	62-122
33213-65-9	Endosulfan-II	16.7	13.1	79	62-122
76-44-8	Heptachlor	16.7	14.6	88	58-123
1024-57-3	Heptachlor epoxide	16.7	15.1	91	60-122
72-43-5	Methoxychlor	16.7	13.5	81	57-133

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	75%	50-122%
2051-24-3	Decachlorobiphenyl	85%	50-133%

\* = Outside of Control Limits.

9.2.2  
9

# Blank Spike Summary

**Job Number:** FA18287  
**Account:** TETRCAI Tetra Tech EC, Inc  
**Project:** NSB Kings Bay, GA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP53131-BS2	KK66377.D	1	09/18/14	FS	09/16/14	OP53131	GKK2187

The QC reported here applies to the following samples:

Method: SW846 8081B

FA18287-1, FA18287-2

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
8001-35-2	Toxaphene	167	169	101	48-155

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	77%	50-122%
2051-24-3	Decachlorobiphenyl	84%	50-133%

9.2.3  
9

\* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** FA18287  
**Account:** TETRCAI Tetra Tech EC, Inc  
**Project:** NSB Kings Bay, GA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP53132-BS	MM11490.D	1	09/18/14	RS	09/16/14	OP53132	GMM250

The QC reported here applies to the following samples:

Method: SW846 8082A

FA18287-1, FA18287-2

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
12674-11-2	Aroclor 1016	133	125	94	58-126
11096-82-5	Aroclor 1260	133	126	95	59-133

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	96%	44-126%
2051-24-3	Decachlorobiphenyl	77%	41-145%

9.2.4  
9

\* = Outside of Control Limits.

# Blank Spike Summary

**Job Number:** FA18287  
**Account:** TETRCAI Tetra Tech EC, Inc  
**Project:** NSB Kings Bay, GA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP53130-BS	JJ005181.D	1	09/17/14	SJL	09/16/14	OP53130	GJJ200

The QC reported here applies to the following samples:

Method: SW846 8015C

FA18287-1, FA18287-2

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH (C10-C28)	50	38.7	77	62-116

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	82%	56-122%

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** FA18287  
**Account:** TETRCAI Tetra Tech EC, Inc  
**Project:** NSB Kings Bay, GA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP53144-MS	CC045599.D	1	09/19/14	NJ	09/17/14	OP53144	GCC729
OP53144-MSD	CC045600.D	1	09/19/14	NJ	09/17/14	OP53144	GCC729
FA18287-1	CC045598.D	1	09/19/14	NJ	09/17/14	OP53144	GCC729

The QC reported here applies to the following samples:

Method: SW846 8151A

FA18287-1, FA18287-2

CAS No.	Compound	FA18287-1 ug/kg	Spike Q ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
94-75-7	2,4-D	33 U	167	98.8	59	166	107	64	8	49-132/33
93-72-1	2,4,5-TP (Silvex)	3.3 U	16.7	12.1	72	16.6	12.7	76	5	58-143/32
93-76-5	2,4,5-T	3.3 U	16.7	9.6	57	16.6	8.1	49*	17	55-147/38
1918-00-9	Dicamba	3.3 U	16.7	9.1	54	16.6	8.3	50*	9	51-146/39
88-85-7	Dinoseb	83 U	83.6	42.3	51	83.1	42.6	51	1	10-124/41
75-99-0	Dalapon	170 U	418	373	89	415	530	128	35	10-133/43
120-36-5	Dichloroprop	48.4	167	177	77	166	172	74	3	65-154/34
94-82-6	2,4-DB	33 U	167	114	68	166	108	65	5	51-137/39
93-65-2	MCPP	3300 U	16700	41100	246*	16600	42200	254*	3	53-135/33
94-74-6	MCPA	18000	16700	31800	83	16600	27700	58	14	52-132/38
87-86-5	Pentachlorophenol	3.3 U	16.7	15.2	91	16.6	14.4	87	5	54-140/36

CAS No.	Surrogate Recoveries	MS	MSD	FA18287-1	Limits
19719-28-9	2,4-DCAA	51%	52%	50%	31-132%

\* = Outside of Control Limits.

9.3.1  
9

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** FA18287  
**Account:** TETRCAI Tetra Tech EC, Inc  
**Project:** NSB Kings Bay, GA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP53131-MS	KK66380.D	1	09/18/14	FS	09/16/14	OP53131	GKK2187
OP53131-MSD	KK66381.D	1	09/18/14	FS	09/16/14	OP53131	GKK2187
FA18287-1	KK66379.D	1	09/18/14	FS	09/16/14	OP53131	GKK2187

The QC reported here applies to the following samples:

Method: SW846 8081B

FA18287-1, FA18287-2

CAS No.	Compound	FA18287-1 ug/kg	Spike Q ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
309-00-2	Aldrin	1.7 U	16.6	15.6	94	17.1	16.4	96	5	57-120/28
319-84-6	alpha-BHC	1.7 U	16.6	14.8	89	17.1	15.6	91	5	60-117/24
319-85-7	beta-BHC	1.7 U	16.6	14.8	89	17.1	16.0	94	8	57-125/26
319-86-8	delta-BHC	1.7 U	16.6	16.0	96	17.1	17.4	102	8	42-126/24
58-89-9	gamma-BHC (Lindane)	1.7 U	16.6	15.4	93	17.1	16.4	96	6	60-123/29
5103-71-9	alpha-Chlordane	1.7 U	16.6	16.0	96	17.1	16.9	99	5	61-122/26
5103-74-2	gamma-Chlordane	1.7 U	16.6	16.0	96	17.1	17.1	100	7	63-122/28
60-57-1	Dieldrin	1.7 U	16.6	15.9	96	17.1	16.3	96	2	63-125/29
72-54-8	4,4'-DDD	3.5 U	16.6	16.2	98	17.1	16.2	95	0	55-135/31
72-55-9	4,4'-DDE	3.5 U	16.6	15.9	96	17.1	16.1	94	1	61-129/31
50-29-3	4,4'-DDT	3.5 U	16.6	17.0	102	17.1	17.7	104	4	60-136/39
72-20-8	Endrin	3.5 U	16.6	14.6	88	17.1	15.1	88	3	67-138/28
1031-07-8	Endosulfan sulfate	3.5 U	16.6	16.9	102	17.1	17.1	100	1	59-119/28
7421-93-4	Endrin aldehyde	3.5 U	16.6	15.4	93	17.1	15.9	93	3	37-110/25
53494-70-5	Endrin ketone	3.5 U	16.6	16.9	102	17.1	17.2	101	2	60-128/24
959-98-8	Endosulfan-I	1.7 U	16.6	11.8	71	17.1	12.3	72	4	62-122/29
33213-65-9	Endosulfan-II	1.7 U	16.6	13.8	83	17.1	14.0	82	1	62-122/31
76-44-8	Heptachlor	1.7 U	16.6	15.7	95	17.1	16.6	97	6	58-123/30
1024-57-3	Heptachlor epoxide	1.7 U	16.6	16.1	97	17.1	16.7	98	4	60-122/33
72-43-5	Methoxychlor	3.5 U	16.6	15.1	91	17.1	15.7	92	4	57-133/31

CAS No.	Surrogate Recoveries	MS	MSD	FA18287-1	Limits
877-09-8	Tetrachloro-m-xylene	77%	78%	84%	50-122%
2051-24-3	Decachlorobiphenyl	86%	86%	96%	50-133%

\* = Outside of Control Limits.

9.3.2  
 9

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** FA18287  
**Account:** TETRCAI Tetra Tech EC, Inc  
**Project:** NSB Kings Bay, GA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP53132-MS	MM11492.D	1	09/18/14	RS	09/16/14	OP53132	GMM250
OP53132-MSD	MM11493.D	1	09/18/14	RS	09/16/14	OP53132	GMM250
FA18287-2	MM11491.D	1	09/18/14	RS	09/16/14	OP53132	GMM250

The QC reported here applies to the following samples:

Method: SW846 8082A

FA18287-1, FA18287-2

CAS No.	Compound	FA18287-2 ug/kg	Spike Q ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
12674-11-2	Aroclor 1016	18 U	149	95.9	64	148	107	72	11	58-126/25
11096-82-5	Aroclor 1260	18 U	149	96.2	65	148	111	75	14	59-133/31

CAS No.	Surrogate Recoveries	MS	MSD	FA18287-2	Limits
877-09-8	Tetrachloro-m-xylene	65%	76%	56%	44-126%
2051-24-3	Decachlorobiphenyl	54%	62%	50%	41-145%

9.3.3  
9

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** FA18287  
**Account:** TETRCAI Tetra Tech EC, Inc  
**Project:** NSB Kings Bay, GA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP53130-MS	JJ005198.D	1	09/18/14	SJL	09/16/14	OP53130	GJJ200
OP53130-MSD	JJ005199.D	1	09/18/14	SJL	09/16/14	OP53130	GJJ200
FA18294-10	JJ005197.D	1	09/18/14	SJL	09/16/14	OP53130	GJJ200

The QC reported here applies to the following samples:

Method: SW846 8015C

FA18287-1, FA18287-2

CAS No.	Compound	FA18294-10 Spike mg/kg	MS mg/kg	MS %	Spike mg/kg	MSD mg/kg	MSD %	RPD	Limits Rec/RPD	
	TPH (C10-C28)	ND	58.9	46.7	79	58.1	49.0	84	5	62-116/35

CAS No.	Surrogate Recoveries	MS	MSD	FA18294-10 Limits
84-15-1	o-Terphenyl	87%	92%	85% 56-122%

9.3.4  
9

\* = Outside of Control Limits.

## Metals Analysis

---

### QC Data Summaries

---

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: FA18287  
Account: TETRAI - Tetra Tech EC, Inc  
Project: NSB Kings Bay, GA

QC Batch ID: MP27881  
Matrix Type: SOLID

Methods: SW846 6010C  
Units: mg/kg

Prep Date: 09/17/14

Metal	RL	IDL	MDL	MB raw	final
Aluminum	10	.75	1.6	0.68	<10
Antimony	1.0	.1	.1	0.015	<1.0
Arsenic	0.50	.1	.1	-0.055	<0.50
Barium	10	.05	.05	0.0050	<10
Beryllium	0.25	.025	.025	0.0	<0.25
Cadmium	0.20	.025	.025	0.0	<0.20
Calcium	250	2.5	2.5	1.6	<250
Chromium	0.50	.05	.05	0.035	<0.50
Cobalt	2.5	.025	.025	-0.0050	<2.5
Copper	1.3	.05	.05	-0.050	<1.3
Iron	15	.85	1.3	0.98	<15
Lead	1.0	.055	.08	0.0	<1.0
Magnesium	250	2.5	2.5	0.77	<250
Manganese	0.75	.025	.025	0.015	<0.75
Molybdenum	2.5	.025	.03		
Nickel	2.0	.025	.025	0.0050	<2.0
Potassium	500	10	10	1.3	<500
Selenium	1.0	.12	.15	-0.010	<1.0
Silver	0.50	.033	.033	-0.030	<0.50
Sodium	500	25	25	0.65	<500
Strontium	0.50	.02	.025		
Thallium	0.50	.075	.075	-0.045	<0.50
Tin	2.5	.035	.035		
Titanium	0.50	.045	.045		
Vanadium	2.5	.025	.025	0.0050	<2.5
Zinc	1.0	.15	.15	0.020	<1.0

Associated samples MP27881: FA18287-1, FA18287-2

Results < IDL are shown as zero for calculation purposes  
(\* ) Outside of QC limits  
(anr) Analyte not requested

10.1.1  
10

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA18287  
 Account: TETRAI - Tetra Tech EC, Inc  
 Project: NSB Kings Bay, GA

QC Batch ID: MP27881  
 Matrix Type: SOLID

Methods: SW846 6010C  
 Units: mg/kg

Prep Date: 09/17/14 09/17/14

Metal	FA18287-1 Original	FA18287-1 DUP	RPD	QC Limits	FA18287-1 Original MS	Spikelot MPFLICP2	% Rec	QC Limits	
Aluminum	953	957	0.4	0-20	953	2220	1030	123.6N(b)	80-120
Antimony	0.10	0.0	200.0(a)	0-20	0.10	10.4	19	54.2N(b)	80-120
Arsenic	0.18	0.20	10.5	0-20	0.18	70.6	75.9	92.7	80-120
Barium	3.1	3.4	9.2	0-20	3.1	79.7	75.9	100.9	80-120
Beryllium	0.0	0.0	NC	0-20	0.0	1.9	1.9	100.1	80-120
Cadmium	0.0	0.0	NC	0-20	0.0	1.8	1.9	94.8	80-120
Calcium	59.2	71.2	18.4	0-20	59.2	1030	949	102.3	80-120
Chromium	1.1	1.1	0.0	0-20	1.1	8.9	7.59	102.7	80-120
Cobalt	0.0	0.0	NC	0-20	0.0	18.6	19	98.0	80-120
Copper	0.12	0.097	21.2 (a)	0-20	0.12	9.6	9.49	99.9	80-120
Iron	324	320	1.2	0-20	324	1300	987	98.9	80-120
Lead	1.3	1.3	0.0	0-20	1.3	19.6	19	96.4	80-120
Magnesium	42.1	46.9	10.8	0-20	42.1	1010	949	102.0	80-120
Manganese	3.6	4.0	10.5	0-20	3.6	22.0	19	96.9	80-120
Molybdenum									
Nickel	0.30	0.31	3.3	0-20	0.30	19.5	19	101.1	80-120
Potassium	22.7	22.6	0.4	0-20	22.7	980	949	100.8	80-120
Selenium	0.0	0.0	NC	0-20	0.0	71.3	75.9	93.9	80-120
Silver	0.0	0.0	NC	0-20	0.0	1.8	1.9	94.8	80-120
Sodium	0.0	0.0	NC	0-20	0.0	960	949	101.1	80-120
Strontium									
Thallium	0.0	0.0	NC	0-20	0.0	71.3	75.9	93.9	80-120
Tin									
Titanium									
Vanadium	0.97	0.97	0.0	0-20	0.97	19.3	19	96.5	80-120
Zinc	0.83	0.89	7.0	0-20	0.83	19.4	19	97.8	80-120

Associated samples MP27881: FA18287-1, FA18287-2

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

(a) RPD acceptable due to low duplicate and sample concentrations.

(b) Spike recovery indicates possible matrix interference and/or sample non-homogeneity.

10.12  
 10

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA18287  
 Account: TETRAI - Tetra Tech EC, Inc  
 Project: NSB Kings Bay, GA

QC Batch ID: MP27881  
 Matrix Type: SOLID

Methods: SW846 6010C  
 Units: mg/kg

Prep Date: 09/17/14

Metal	FA18287-1 Original MSD		Spike/lot MPFLICP2 % Rec		MSD RPD	QC Limit
Aluminum	953	2430	1200	123.5N(a)	9.0	20
Antimony	0.10	12.8	22.2	57.3N(a)	20.7 (b)	20
Arsenic	0.18	83.2	88.6	93.7	16.4	20
Barium	3.1	92.9	88.6	101.3	15.3	20
Beryllium	0.0	2.3	2.22	103.8	19.0	20
Cadmium	0.0	2.2	2.22	99.3	20.0	20
Calcium	59.2	1200	1110	103.0	15.2	20
Chromium	1.1	10.2	8.86	102.7	13.6	20
Cobalt	0.0	21.8	22.2	98.4	15.8	20
Copper	0.12	11.2	11.1	100.0	15.4	20
Iron	324	1500	1150	102.1	14.3	20
Lead	1.3	23.0	22.2	98.0	16.0	20
Magnesium	42.1	1180	1110	102.7	15.5	20
Manganese	3.6	25.5	22.2	98.9	14.7	20
Molybdenum						
Nickel	0.30	22.9	22.2	102.0	16.0	20
Potassium	22.7	1140	1110	100.9	15.1	20
Selenium	0.0	84.0	88.6	94.8	16.4	20
Silver	0.0	2.1	2.22	94.8	15.4	20
Sodium	0.0	1120	1110	101.1	15.4	20
Strontium						
Thallium	0.0	83.5	88.6	94.2	15.8	20
Tin						
Titanium						
Vanadium	0.97	22.5	22.2	97.2	15.3	20
Zinc	0.83	22.6	22.2	98.3	15.2	20

Associated samples MP27881: FA18287-1, FA18287-2

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

(a) Spike recovery indicates possible matrix interference and/or sample non-homogeneity.

(b) High RPD due to possible sample non-homogeneity.

10.1.2  
 10

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: FA18287  
 Account: TETRAI - Tetra Tech EC, Inc  
 Project: NSB Kings Bay, GA

QC Batch ID: MP27881  
 Matrix Type: SOLID

Methods: SW846 6010C  
 Units: mg/kg

Prep Date: 09/17/14

Metal	BSP Result	Spikelot MPFLICP2	% Rec	QC Limits
Aluminum	1360	1350	100.7	80-120
Antimony	24.4	25	97.6	80-120
Arsenic	100	100	100.0	80-120
Barium	101	100	101.0	80-120
Beryllium	2.5	2.5	100.0	80-120
Cadmium	2.5	2.5	100.0	80-120
Calcium	1270	1250	101.6	80-120
Chromium	10.4	10	104.0	80-120
Cobalt	25.3	25	101.2	80-120
Copper	12.6	12.5	100.8	80-120
Iron	1300	1300	100.0	80-120
Lead	23.6	25	94.4	80-120
Magnesium	1260	1250	100.8	80-120
Manganese	25.8	25	103.2	80-120
Molybdenum				
Nickel	26.0	25	104.0	80-120
Potassium	1270	1250	101.6	80-120
Selenium	98.7	100	98.7	80-120
Silver	2.4	2.5	96.0	80-120
Sodium	1270	1250	101.6	80-120
Strontium				
Thallium	94.3	100	94.3	80-120
Tin				
Titanium				
Vanadium	24.5	25	98.0	80-120
Zinc	25.0	25	100.0	80-120

Associated samples MP27881: FA18287-1, FA18287-2

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (anr) Analyte not requested

10.1.3  
10

SERIAL DILUTION RESULTS SUMMARY

Login Number: FA18287  
 Account: TETRAI - Tetra Tech EC, Inc  
 Project: NSB Kings Bay, GA

QC Batch ID: MP27881  
 Matrix Type: SOLID

Methods: SW846 6010C  
 Units: ug/l

Prep Date: 09/17/14

Metal	FA18287-1		%DIF	QC Limits
	Original	SDL 1:5		
Aluminum	22300	23400	5.1	0-10
Antimony	2.40	0.00	100.0(a)	0-10
Arsenic	4.30	0.00	100.0(a)	0-10
Barium	73.1	79.4	8.6	0-10
Beryllium	0.00	0.00	NC	0-10
Cadmium	0.00	0.00	NC	0-10
Calcium	1380	3690	166.9(a)	0-10
Chromium	25.9	27.3	5.4	0-10
Cobalt	0.00	0.00	NC	0-10
Copper	2.70	0.00	100.0(a)	0-10
Iron	7580	7840	3.4	0-10
Lead	31.5	34.5	9.5	0-10
Magnesium	984	1380	40.3 (a)	0-10
Manganese	83.0	88.5	6.6	0-10
Molybdenum				
Nickel	7.10	7.80	9.9	0-10
Potassium	529	0.00	100.0(a)	0-10
Selenium	0.00	0.00	NC	0-10
Silver	0.00	0.00	NC	0-10
Sodium	0.00	0.00	NC	0-10
Strontium				
Thallium	0.00	0.00	NC	0-10
Tin				
Titanium				
Vanadium	22.6	23.4	3.5	0-10
Zinc	19.4	25.8	33.0 (a)	0-10

Associated samples MP27881: FA18287-1, FA18287-2

Results < IDL are shown as zero for calculation purposes

(\*) Outside of QC limits

(anr) Analyte not requested

(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

10.1.4  
10

POST DIGESTATE SPIKE SUMMARY

Login Number: FA18287  
 Account: TETRAI - Tetra Tech EC, Inc  
 Project: NSB Kings Bay, GA

QC Batch ID: MP27881  
 Matrix Type: SOLID

Methods: SW846 6010C  
 Units: ug/l

Prep Date:

09/17/14

Metal	Sample ml	Final ml	FA18287-1 Raw	FA18287-1 Corr.**	PS ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum	9.8	10	22260	21814.8	24300	0.2	125	2500	99.4	80-120
Antimony	9.8	10	2.4	2.352	101.4	0.2	5	100	99.0	80-120
Arsenic	9.8	10	4.3	4.214	106.9	0.2	5	100	102.7	80-120
Barium	9.8	10	73.1	71.638	326.6	0.2	12.5	250	102.0	80-120
Beryllium	9.8	10			51.7	0.2	2.5	50	103.4	80-120
Cadmium	9.8	10			51.7	0.2	2.5	50	103.4	80-120
Calcium	9.8	10	1382	1354.36	6951	0.2	250	5000	111.9	80-120
Chromium	9.8	10	25.9	25.382	78.4	0.2	2.5	50	106.0	80-120
Cobalt	9.8	10			52.1	0.2	2.5	50	104.2	80-120
Copper	9.8	10	2.7	2.646	105.6	0.2	5	100	103.0	80-120
Iron	9.8	10	7579	7427.42	10320	0.2	150	3000	96.4	80-120
Lead	9.8	10	31.5	30.87	80.2	0.2	2.5	50	98.7	80-120
Magnesium	9.8	10	984.2	964.516	5959	0.2	250	5000	99.9	80-120
Manganese	9.8	10	83	81.34	134.8	0.2	2.5	50	106.9	80-120
Molybdenum										
Nickel	9.8	10	7.1	6.958	114.5	0.2	5	100	107.5	80-120
Potassium	9.8	10	529.2	518.616	10690	0.2	500	10000	101.7	80-120
Selenium	9.8	10			97.7	0.2	5	100	97.7	80-120
Silver	9.8	10			48.6	0.2	2.5	50	97.2	80-120
Sodium	9.8	10			10760	0.2	500	10000	107.6	80-120
Strontium										
Thallium	9.8	10			96.8	0.2	5	100	96.8	80-120
Tin										
Titanium										
Vanadium	9.8	10	22.6	22.148	72.8	0.2	2.5	50	101.3	80-120
Zinc	9.8	10	19.4	19.012	280.5	0.2	12.5	250	104.6	80-120

Associated samples MP27881: FA18287-1, FA18287-2

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (\*\*) Corr. sample result = Raw \* (sample volume / final volume)  
 (anr) Analyte not requested

10.1.5  
10

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: FA18287  
Account: TETRAI - Tetra Tech EC, Inc  
Project: NSB Kings Bay, GA

QC Batch ID: MP27882  
Matrix Type: SOLID

Methods: SW846 7471B  
Units: mg/kg

Prep Date: 09/17/14

Metal	RL	IDL	MDL	MB	
				raw	final
Mercury	0.042	.0025	.0042	-0.00023	<0.042

Associated samples MP27882: FA18287-1, FA18287-2

Results < IDL are shown as zero for calculation purposes  
(\* ) Outside of QC limits  
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA18287  
 Account: TETRCAI - Tetra Tech EC, Inc  
 Project: NSB Kings Bay, GA

QC Batch ID: MP27882  
 Matrix Type: SOLID

Methods: SW846 7471B  
 Units: mg/kg

Prep Date: 09/17/14 09/17/14

Metal	FA18287-1 Original	DUP	RPD	QC Limits	FA18287-1 Original MS	Spikelot HGFLWS1	% Rec	QC Limits	
Mercury	0.0	0.0	NC	0-20	0.0	0.26	0.233	111.5	80-120

Associated samples MP27882: FA18287-1, FA18287-2

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (N) Matrix Spike Rec. outside of QC limits  
 (anr) Analyte not requested

10.2.2  
 10

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: FA18287  
 Account: TETRAI - Tetra Tech EC, Inc  
 Project: NSB Kings Bay, GA

QC Batch ID: MP27882  
 Matrix Type: SOLID

Methods: SW846 7471B  
 Units: mg/kg

Prep Date: 09/17/14

Metal	FA18287-1 Original MSD	Spikelot HGFLWS1	% Rec	MSD RPD	QC Limit
Mercury	0.0	0.26	0.237	109.8	0.0 20

Associated samples MP27882: FA18287-1, FA18287-2

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits  
 (N) Matrix Spike Rec. outside of QC limits  
 (anr) Analyte not requested

10.2.2  
 10

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: FA18287  
Account: TETRAI - Tetra Tech EC, Inc  
Project: NSB Kings Bay, GA

QC Batch ID: MP27882  
Matrix Type: SOLID

Methods: SW846 7471B  
Units: mg/kg

Prep Date: 09/17/14

Metal	BSP Result	Spikelot HGFLWS1	QC % Rec	QC Limits
Mercury	0.25	0.25	100.0	80-120

Associated samples MP27882: FA18287-1, FA18287-2

Results < IDL are shown as zero for calculation purposes  
(\* ) Outside of QC limits  
(anr) Analyte not requested

10.2.3  
10

SERIAL DILUTION RESULTS SUMMARY

Login Number: FA18287  
Account: TETRAI - Tetra Tech EC, Inc  
Project: NSB Kings Bay, GA

QC Batch ID: MP27882  
Matrix Type: SOLID

Methods: SW846 7471B  
Units: ug/l

Prep Date: 09/17/14

Metal	FA18287-1	Original	SDL 1:5	%DIF	QC	Limits
-------	-----------	----------	---------	------	----	--------

Mercury 0.00 0.00 NC 0-10

Associated samples MP27882: FA18287-1, FA18287-2

Results < IDL are shown as zero for calculation purposes  
(\* ) Outside of QC limits  
(anr) Analyte not requested

10.2.4  
10

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## **APPENDIX D-2**

### **Waste Characterization Analytical Results**

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Technical Report for

Tetra Tech EC, Inc

NSB Kings Bay, GA

106.4659.JM01

Accutest Job Number: FA18320

Sampling Date: 09/16/14

Report to:

Tetra Tech EC, Inc  
17885 Von Karman Ave Suite 500  
Irvine, CA 92614  
lisa.bienkowski@tetratech.com

ATTN: Lisa Bienkowski

Total number of pages in report: **16**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.



Norm Farmer  
Technical Director

Client Service contact: Andrea Colby 407-425-6700

Certifications: FL (E83510), LA (03051), KS (E-10327), IA (366), IL (200063), NC (573), NJ (FL002), SC (96038001)  
DoD ELAP (L-A-B L2229), CA (04226CA), TX (T104704404), PA (68-03573), VA (460177),  
AK, AR, GA, KY, MA, NV, OK, UT, WA

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Test results relate only to samples analyzed.

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## Sample Summary

Tetra Tech EC, Inc

Job No: FA18320

NSB Kings Bay, GA

Project No: 106.4659.JM01

Sample Number	Collected		Matrix			Client Sample ID
	Date	Time By	Received	Code	Type	
FA18320-1	09/16/14	10:00 GP	09/17/14	SO	Soil	JM01-WDC-01

---

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

## SAMPLE DELIVERY GROUP CASE NARRATIVE

**Client:** Tetra Tech EC, Inc

**Job No:** FA18320

**Site:** NSB Kings Bay, GA

**Report Date:** 9/22/2014 3:50:44 PM

1 Sample(s) was collected on 09/16/2014 and was received at Accutest SE on 09/17/2014 properly preserved, at 3.8 Deg. C and intact. The Sample received an Accutest job number of FA18320. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

### Volatiles by GCMS By Method SW846 8260B

**Matrix:** LEACHATE

**Batch ID:** VN3496

All samples were prepared within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) FA18347-1LMS, FA18347-1LMSD, FA18293-1DUP were used as the QC samples indicated.

Accutest Laboratories Southeast (ALSE) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALSE and as stated on the COC. ALSE certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALSE Quality Manual except as noted above. This report is to be used in its entirety. ALSE is not responsible for any assumptions of data quality if partial data packages are used.

Narrative prepared by:

\_\_\_\_\_  
Kim Benham, Client Services (signature on file)

Date: September 22, 2014

## Summary of Hits

**Job Number:** FA18320  
**Account:** Tetra Tech EC, Inc  
**Project:** NSB Kings Bay, GA  
**Collected:** 09/16/14



Lab Sample ID	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
---------------	------------------	-----------------	-----	-----	-------	--------

**FA18320-1**      **JM01-WDC-01**

No hits reported in this sample.

Sample Results

---

Report of Analysis

---

## Report of Analysis

<b>Client Sample ID:</b> JM01-WDC-01	<b>Date Sampled:</b> 09/16/14
<b>Lab Sample ID:</b> FA18320-1	<b>Date Received:</b> 09/17/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B SW846 1311	
<b>Project:</b> NSB Kings Bay, GA	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N0079458.D	10	09/21/14	RB	09/18/14	OP53157	VN3496
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

**TCLP Leachate method SW846 1311**

CAS No.	Compound	Result	HW#	MCL	LOQ	LOD	Units	Q
71-43-2	Benzene	0.0050 U	D018	0.50	0.010	0.0050	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		83-118%
17060-07-0	1,2-Dichloroethane-D4	99%		79-125%
2037-26-5	Toluene-D8	97%		85-112%
460-00-4	4-Bromofluorobenzene	99%		83-118%

U = Not detected      LOD = Limit of Detection      J = Indicates an estimated value  
 MCL = Maximum Contamination Level (40 CFR 261 6/96)      B = Indicates analyte found in associated method blank  
 E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Misc. Forms

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## Custody Documents and Other Forms

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Includes the following where applicable:

- Chain of Custody



# Accutest Laboratories Southeast

## Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, FL 32811  
 TEL: 407-425-6700 • FAX: 407-425-0707

Accutest JOB # **FA18320** PAGE \_\_\_\_\_ OF \_\_\_\_\_

Client / Reporting Information		Project Information		Analytical Information										Matrix Codes						
Company Name <b>TETRA TECH EC INC</b>		Project Name: <b>NSB Kings Bay, GA</b>		<b>TCLP BENZENE</b>										DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge OL - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe						
Address <b>17885 VON KARMAN, Suite 500</b>		Street <b>N/A</b>																		
City <b>TRIVIA</b> State <b>CA</b> Zip <b>92614</b>		City <b>KINGS BAYBASE</b> State <b>GA</b>																		
Project Contact <b>LISA BZENKOWSKIE</b>		Project # <b>106-4659-JM01</b>																		
Phone#		Fax # <b>N/A</b>																		
Sampler(s) Name(s) (Printed) <b>GARY PHELAS</b>		Client Purchase Order # <b>1108297</b>																		
Accutest Sample #	Field ID / Point of Collection	COLLECTION				CONTAINER INFORMATION										LAB USE ONLY				
		DATE	TIME	SAMPLED BY	MATRIX	TOTAL # OF BOTTLES	OTHER	PCB	PCP	PCB	PCB	PCB	PCB	PCB	PCB		PCB	PCB	PCB	PCB
<b>1</b>	<b>JM01-WDC-01</b> <b>TEMP BLANK</b>	<b>9-16-14</b>	<b>10:00</b>	<b>188</b>	<b>Soil</b>	<b>10</b>														

TURNAROUND TIME (Business Days)		Data Deliverable Information		Comments / Remarks	
<input type="checkbox"/> 10 Days Standard <input type="checkbox"/> 7 Day RUSH <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY <input type="checkbox"/> OTHER		Approved By: / Rush Code _____ <input type="checkbox"/> COMMERCIAL "A" (RESULTS ONLY) <input checked="" type="checkbox"/> COMMERCIAL "B" (RESULTS PLUS QC) <input type="checkbox"/> REDT1 (EPA LEVEL 3) <input type="checkbox"/> FULT1 (EPA LEVEL 4) <input type="checkbox"/> EDD'S			

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler: <b>1</b> <i>[Signature]</i>	Date Time: <b>9-16-14 1700</b>	Received By: <b>2</b> <b>FEDEX</b>	Relinquished by: <b>3</b> <b>FK</b>	Date Time: <b>9-17-14</b>	Received By: <b>4</b> <b>CONNOR ALLEN 07:00</b>
Relinquished by: <b>5</b>	Date Time:	Received By: <b>6</b>	Relinquished by: <b>7</b>	Date Time:	Received By: <b>8</b>

Lab Use Only: Custody Seal in Place: Y N Temp Blank Provided:  N Preserved where Applicable: Y N Total # of Coolers: **1** Cooler Temperature (s) Celsius: **3-8**

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**FA18320: Chain of Custody**

**Page 1 of 3**

**ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION**

ACCUTEST'S JOB NUMBER: FA18320 CLIENT: TOTRA TECH PROJECT: NSB KINGS  
 DATE/TIME RECEIVED: 9-17-14 07:00 (MM/DD/YY 24:00) NUMBER OF COOLERS RECEIVED: 1  
 METHOD OF DELIVERY: FEDEX UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER  
 AIRBILL NUMBERS: 8055 8488 9290

**COOLER INFORMATION**

- CUSTODY SEAL NOT PRESENT OR NOT INTACT
- CHAIN OF CUSTODY NOT RECEIVED (COC)
- ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- TEMPERATURE CRITERIA NOT MET

**TRIP BLANK INFORMATION**

- TRIP BLANK PROVIDED
- TRIP BLANK NOT PROVIDED
- TRIP BLANK NOT ON COC
- TRIP BLANK INTACT
- TRIP BLANK NOT INTACT
- RECEIVED WATER TRIP BLANK
- RECEIVED SOIL TRIP BLANK

**MISC. INFORMATION**

NUMBER OF ENCORES? 25-GRAM \_\_\_\_\_ 5-GRAM \_\_\_\_\_  
 NUMBER OF 5035 FIELD KITS? \_\_\_\_\_  
 NUMBER OF LAB FILTERED METALS? \_\_\_\_\_

**TEMPERATURE INFORMATION**

IR THERM ID 1 CORR. FACTOR 10.1  
 OBSERVED TEMPS: 3.4  
 CORRECTED TEMPS: 3.8

**SAMPLE INFORMATION**

- INCORRECT NUMBER OF CONTAINERS USED
- SAMPLE RECEIVED IMPROPERLY PRESERVED
- INSUFFICIENT VOLUME FOR ANALYSIS
- DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- ID'S ON COC DO NOT MATCH LABEL
- VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- SAMPLE CONTAINER(S) RECEIVED BROKEN
- 5035 FIELD KITS NOT RECEIVED WITHIN 48 HOURS
- BULK VOA SOIL JARS NOT RECEIVED WITHIN 48 HOURS
- % SOLIDS JAR NOT RECEIVED
- RESIDUAL CHLORINE PRESENT

{APPLICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS}

SUMMARY OF COMMENTS: NO ANALYSIS REQUESTED

TECHNICIAN SIGNATURE/DATE [Signature] 9-17-14 REVIEWER SIGNATURE/DATE [Signature] 09-17-14

RS 04/14

receipt confirmation 041514.xls

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NEW Package  
US Airbill

FedEx Tracking Number 8055 8488 9290

Form ID No. 0200

Packages up to 150 lbs.  
For packages over 150 lbs., see a separate  
FedEx Express Freight US Airbill

1 From  
Date 9/14/99

Sender's Name  
Company

Address  
City VA ZIP 2462

State VA ZIP 2462

2 Your Internal Billing Reference  
104-4670 31101 2101 1000

3 To Recipient's Name  
Company ACCUTEST LABORATORIES ST, INC

Address  
City FLA ZIP 32811 3100

State FL ZIP 32811 3100

City FLA ZIP 32811 3100

4 Express Package Service  
NOTE: Service order has changed. Please select carefully.

Next Business Day  
 FedEx First Overnight  
 FedEx Priority Overnight  
 FedEx Standard Overnight

2 or 3 Business Days  
 FedEx 2Day AM  
 FedEx 2Day  
 FedEx Express Saver

5 Packaging  
 FedEx Envelope\*  
 FedEx Pak\*  
 FedEx Box  
 FedEx Tube  
 Other

6 Special Handling and Delivery Signature Options  
 SATURDAY Delivery  
 No Signature Required  
 Direct Signature  
 Indirect Signature

Does this shipment contain dangerous goods?  
 No  
 Yes  
 Yes (Shippers Declaration required)

7 Payment Bill to:  
 Sender  
 Recipient  
 Third Party  
 Credit Card  
 Cash/Check



FedEx  
TRK# 8055 8488 9290

WED - 17 SEP 8:00A  
FIRST OVERNIGHT 644

V4 TIV A

32811

fedex.com 1.800.FEDEX 1.800.463.3339

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## GC/MS Volatiles

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### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

# Leachate Blank Summary

**Job Number:** FA18320  
**Account:** TETRCAI Tetra Tech EC, Inc  
**Project:** NSB Kings Bay, GA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP53157-LB	N0079453.D	10	09/21/14	RB	09/18/14	OP53157	VN3496

The QC reported here applies to the following samples:

Method: SW846 8260B

FA18320-1

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	10	2.4	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	100% 83-118%
17060-07-0	1,2-Dichloroethane-D4	98% 79-125%
2037-26-5	Toluene-D8	98% 85-112%
460-00-4	4-Bromofluorobenzene	100% 83-118%

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# Blank Spike Summary

**Job Number:** FA18320  
**Account:** TETRCAI Tetra Tech EC, Inc  
**Project:** NSB Kings Bay, GA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VN3496-BS	N0079452.D	10	09/21/14	RB	n/a	n/a	VN3496

The QC reported here applies to the following samples:

Method: SW846 8260B

FA18320-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	250	259	104	81-122

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	99%	83-118%
17060-07-0	1,2-Dichloroethane-D4	94%	79-125%
2037-26-5	Toluene-D8	98%	85-112%
460-00-4	4-Bromofluorobenzene	95%	83-118%

\* = Outside of Control Limits.

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** FA18320  
**Account:** TETRCAI Tetra Tech EC, Inc  
**Project:** NSB Kings Bay, GA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA18347-1LMS	N0079473.D	10	09/22/14	RB	n/a	n/a	VN3496
FA18347-1LMSD	N0079474.D	10	09/22/14	RB	n/a	n/a	VN3496
FA18347-1L	N0079460.D	10	09/21/14	RB	09/18/14	OP53157	VN3496

The QC reported here applies to the following samples:

Method: SW846 8260B

FA18320-1

CAS No.	Compound	FA18347-1L Spike ug/l	MS Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	10 U	250	262	105	250	263	105	0	81-122/14

CAS No.	Surrogate Recoveries	MS	MSD	FA18347-1L Limits
1868-53-7	Dibromofluoromethane	102%	102%	101% 83-118%
17060-07-0	1,2-Dichloroethane-D4	102%	100%	99% 79-125%
2037-26-5	Toluene-D8	99%	97%	95% 85-112%
460-00-4	4-Bromofluorobenzene	96%	98%	96% 83-118%

\* = Outside of Control Limits.

# Duplicate Summary

**Job Number:** FA18320  
**Account:** TETRCAI Tetra Tech EC, Inc  
**Project:** NSB Kings Bay, GA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA18293-1DUP	N0079457.D	10	09/21/14	RB	n/a	n/a	VN3496
FA18293-1	N0079456.D	10	09/21/14	RB	09/18/14	OP53157	VN3496

The QC reported here applies to the following samples:

Method: SW846 8260B

FA18320-1

CAS No.	Compound	FA18293-1 ug/l	DUP Q	FA18293-1 ug/l	Q	RPD	Limits
71-43-2	Benzene	10 U		ND		nc	14

CAS No.	Surrogate Recoveries	DUP	FA18293-1	Limits
1868-53-7	Dibromofluoromethane	104%	104%	83-118%
17060-07-0	1,2-Dichloroethane-D4	100%	101%	79-125%
2037-26-5	Toluene-D8	97%	96%	85-112%
460-00-4	4-Bromofluorobenzene	98%	94%	83-118%

\* = Outside of Control Limits.

## **APPENDIX D-3**

### **Phase I Sampling Analytical Results**

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## Sample Summary

Tetra Tech EC, Inc

**Job No:** FA17426

NSB Kings Bay, GA

Project No: 106.4659.JM01

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
FA17426-1	08/13/14	13:00 MP	08/15/14	SO	Soil	JM01-SW-01
FA17426-2	08/13/14	13:15 MP	08/15/14	SO	Soil	JM01-SW-02
FA17426-3	08/13/14	13:30 MP	08/15/14	SO	Soil	JM01-SW-03
FA17426-4	08/13/14	13:35 MP	08/15/14	SO	Soil	JM01-SW-04
FA17426-5	08/13/14	13:40 MP	08/15/14	SO	Soil	JM01-SW-05
FA17426-6	08/13/14	13:45 MP	08/15/14	SO	Soil	JM01-SW-06
FA17426-7	08/13/14	13:50 MP	08/15/14	SO	Soil	JM01-SW-07
FA17426-8	08/13/14	14:00 MP	08/15/14	SO	Soil	JM01-SW-08
FA17426-9	08/13/14	14:05 MP	08/15/14	SO	Soil	JM01-SW-09
FA17426-10	08/13/14	14:10 MP	08/15/14	SO	Soil	JM01-SW-10
FA17426-11	08/13/14	14:15 MP	08/15/14	SO	Soil	JM01-SW-11
FA17426-12	08/13/14	14:20 MP	08/15/14	SO	Soil	JM01-SW-12
FA17426-13	08/13/14	14:25 MP	08/15/14	SO	Soil	JM01-SW-13

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Soil samples reported on a dry weight basis unless otherwise indicated on result page.

## Sample Summary

(continued)

Tetra Tech EC, Inc

**Job No:** FA17426

NSB Kings Bay, GA

Project No: 106.4659.JM01

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
FA17426-14	08/13/14	14:30 MP	08/15/14	SO	Soil	JM01-SW-14
FA17426-15	08/13/14	14:40 MP	08/15/14	SO	Soil	JM01-SW-15
FA17426-16	08/13/14	14:45 MP	08/15/14	SO	Soil	JM01-SW-16
FA17426-17	08/13/14	14:50 MP	08/15/14	SO	Soil	JM01-SW-17
FA17426-18	08/13/14	14:55 MP	08/15/14	SO	Soil	JM01-SW-18
FA17426-19	08/13/14	15:00 MP	08/15/14	SO	Soil	JM01-SW-19
FA17426-20	08/13/14	15:30 MP	08/15/14	SO	Soil	JM01-SW-20
FA17426-21	08/13/14	15:35 MP	08/15/14	SO	Soil	JM01-SW-21
FA17426-22	08/13/14	15:40 MP	08/15/14	SO	Soil	JM01-SW-22
FA17426-23	08/13/14	15:45 MP	08/15/14	SO	Soil	JM01-SW-23
FA17426-24	08/13/14	15:50 MP	08/15/14	SO	Soil	JM01-SW-24
FA17426-25	08/13/14	15:55 MP	08/15/14	SO	Soil	JM01-SW-25
FA17426-26	08/13/14	16:00 MP	08/15/14	SO	Soil	JM01-SW-26

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Soil samples reported on a dry weight basis unless otherwise indicated on result page.

## Sample Summary

(continued)

Tetra Tech EC, Inc

Job No: FA17426

NSB Kings Bay, GA

Project No: 106.4659.JM01

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
FA17426-27	08/13/14	16:05 MP	08/15/14	SO	Soil	JM01-SW-27
FA17426-28	08/13/14	16:10 MP	08/15/14	SO	Soil	JM01-SW-28
FA17426-29	08/13/14	16:15 MP	08/15/14	SO	Soil	JM01-SW-29
FA17426-30	08/13/14	16:20 MP	08/15/14	SO	Soil	JM01-SW-30

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Soil samples reported on a dry weight basis unless otherwise indicated on result page.

**Report of Analysis**

<b>Client Sample ID:</b>	JM01-SW-01	<b>Date Sampled:</b>	08/13/14
<b>Lab Sample ID:</b>	FA17426-1	<b>Date Received:</b>	08/15/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	85.5
<b>Method:</b>	SW846 8015C SW846 3550C		
<b>Project:</b>	NSB Kings Bay, GA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JJ004544.D	1	08/18/14	SJL	08/15/14	OP52723	GJJ174
Run #2							

	Initial Weight	Final Volume
Run #1	29.8 g	1.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH (C10-C28) <sup>a</sup>	4.46	4.9	3.9	mg/kg	J
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	85%		56-122%		

(a) Petroleum hydrocarbon pattern extends beyond C28.

U = Not detected      LOD = Limit of Detection  
 LOQ = Limit of Quantitation  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

**Report of Analysis**

<b>Client Sample ID:</b>	JM01-SW-02	<b>Date Sampled:</b>	08/13/14
<b>Lab Sample ID:</b>	FA17426-2	<b>Date Received:</b>	08/15/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	82.5
<b>Method:</b>	SW846 8015C SW846 3550C		
<b>Project:</b>	NSB Kings Bay, GA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JJ004549.D	1	08/19/14	SJL	08/15/14	OP52723	GJJ174
Run #2							

	Initial Weight	Final Volume
Run #1	29.6 g	1.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH (C10-C28) <sup>a</sup>	4.28	5.1	4.1	mg/kg	J
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	84%		56-122%		

(a) Petroleum hydrocarbon pattern extends beyond C28.

U = Not detected      LOD = Limit of Detection  
 LOQ = Limit of Quantitation  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

**Report of Analysis**

<b>Client Sample ID:</b> JM01-SW-03	
<b>Lab Sample ID:</b> FA17426-3	<b>Date Sampled:</b> 08/13/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 08/15/14
<b>Method:</b> SW846 8015C SW846 3550C	<b>Percent Solids:</b> 81.9
<b>Project:</b> NSB Kings Bay, GA	

	<b>File ID</b>	<b>DF</b>	<b>Analyzed</b>	<b>By</b>	<b>Prep Date</b>	<b>Prep Batch</b>	<b>Analytical Batch</b>
Run #1	JJ004550.D	1	08/19/14	SJL	08/15/14	OP52723	GJJ174
Run #2							

	<b>Initial Weight</b>	<b>Final Volume</b>
Run #1	30.4 g	1.0 ml
Run #2		

<b>CAS No.</b>	<b>Compound</b>	<b>Result</b>	<b>LOQ</b>	<b>LOD</b>	<b>Units</b>	<b>Q</b>
	TPH (C10-C28)	27.3	5.0	4.0	mg/kg	
<b>CAS No.</b>	<b>Surrogate Recoveries</b>	<b>Run# 1</b>	<b>Run# 2</b>	<b>Limits</b>		
84-15-1	o-Terphenyl	91%		56-122%		

U = Not detected      LOD = Limit of Detection  
 LOQ = Limit of Quantitation  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

**Report of Analysis**

<b>Client Sample ID:</b>	JM01-SW-04	<b>Date Sampled:</b>	08/13/14
<b>Lab Sample ID:</b>	FA17426-4	<b>Date Received:</b>	08/15/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	86.2
<b>Method:</b>	SW846 8015C SW846 3550C		
<b>Project:</b>	NSB Kings Bay, GA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JJ004551.D	1	08/19/14	SJL	08/15/14	OP52723	GJJ174
Run #2							

	Initial Weight	Final Volume
Run #1	30.0 g	1.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH (C10-C28) <sup>a</sup>	4.13	4.8	3.9	mg/kg	J
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	82%		56-122%		

(a) Petroleum hydrocarbon pattern extends beyond C28.

U = Not detected      LOD = Limit of Detection  
 LOQ = Limit of Quantitation  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

**Report of Analysis**

<b>Client Sample ID:</b>	JM01-SW-05	<b>Date Sampled:</b>	08/13/14
<b>Lab Sample ID:</b>	FA17426-5	<b>Date Received:</b>	08/15/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	82.3
<b>Method:</b>	SW846 8015C SW846 3550C		
<b>Project:</b>	NSB Kings Bay, GA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JJ004552.D	1	08/19/14	SJL	08/15/14	OP52723	GJJ174
Run #2							

	Initial Weight	Final Volume
Run #1	29.6 g	1.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH (C10-C28) <sup>a</sup>	7.73	5.1	4.1	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	86%		56-122%		

(a) Petroleum hydrocarbon pattern extends beyond C28.

U = Not detected      LOD = Limit of Detection  
 LOQ = Limit of Quantitation  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> JM01-SW-06	
<b>Lab Sample ID:</b> FA17426-6	<b>Date Sampled:</b> 08/13/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 08/15/14
<b>Method:</b> SW846 8015C SW846 3550C	<b>Percent Solids:</b> 81.7
<b>Project:</b> NSB Kings Bay, GA	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JJ004553.D	1	08/19/14	SJL	08/15/14	OP52723	GJJ174
Run #2							

	Initial Weight	Final Volume
Run #1	30.0 g	1.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH (C10-C28) <sup>a</sup>	8.67	5.1	4.1	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	83%		56-122%		

(a) Petroleum hydrocarbon pattern extends beyond C28.

U = Not detected      LOD = Limit of Detection  
 LOQ = Limit of Quantitation  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

**Report of Analysis**

<b>Client Sample ID:</b> JM01-SW-07	
<b>Lab Sample ID:</b> FA17426-7	<b>Date Sampled:</b> 08/13/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 08/15/14
<b>Method:</b> SW846 8015C SW846 3550C	<b>Percent Solids:</b> 83.1
<b>Project:</b> NSB Kings Bay, GA	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JJ004554.D	1	08/19/14	SJL	08/15/14	OP52723	GJJ174
Run #2							

	Initial Weight	Final Volume
Run #1	29.7 g	1.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH (C10-C28) <sup>a</sup>	5.44	5.1	4.1	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	83%		56-122%		

(a) Petroleum hydrocarbon pattern extends beyond C28.

U = Not detected      LOD = Limit of Detection  
 LOQ = Limit of Quantitation  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

**Report of Analysis**

<b>Client Sample ID:</b> JM01-SW-08	
<b>Lab Sample ID:</b> FA17426-8	<b>Date Sampled:</b> 08/13/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 08/15/14
<b>Method:</b> SW846 8015C SW846 3550C	<b>Percent Solids:</b> 81.0
<b>Project:</b> NSB Kings Bay, GA	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JJ004555.D	1	08/19/14	SJL	08/15/14	OP52723	GJJ174
Run #2							

	Initial Weight	Final Volume
Run #1	30.2 g	1.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH (C10-C28) <sup>a</sup>	10.2	5.1	4.1	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	88%		56-122%		

(a) Petroleum hydrocarbon pattern extends beyond C28.

U = Not detected      LOD = Limit of Detection  
 LOQ = Limit of Quantitation  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

**Report of Analysis**

<b>Client Sample ID:</b> JM01-SW-09	
<b>Lab Sample ID:</b> FA17426-9	<b>Date Sampled:</b> 08/13/14
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 08/15/14
<b>Method:</b> SW846 8015C SW846 3550C	<b>Percent Solids:</b> 80.0
<b>Project:</b> NSB Kings Bay, GA	

	<b>File ID</b>	<b>DF</b>	<b>Analyzed</b>	<b>By</b>	<b>Prep Date</b>	<b>Prep Batch</b>	<b>Analytical Batch</b>
Run #1	JJ004556.D	1	08/19/14	SJL	08/15/14	OP52723	GJJ174
Run #2							

	<b>Initial Weight</b>	<b>Final Volume</b>
Run #1	30.3 g	1.0 ml
Run #2		

<b>CAS No.</b>	<b>Compound</b>	<b>Result</b>	<b>LOQ</b>	<b>LOD</b>	<b>Units</b>	<b>Q</b>
	TPH (C10-C28) <sup>a</sup>	7.71	5.2	4.1	mg/kg	
<b>CAS No.</b>	<b>Surrogate Recoveries</b>	<b>Run# 1</b>	<b>Run# 2</b>	<b>Limits</b>		
84-15-1	o-Terphenyl	85%		56-122%		

(a) Petroleum hydrocarbon pattern extends beyond C28.

U = Not detected      LOD = Limit of Detection  
 LOQ = Limit of Quantitation  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

**Report of Analysis**

<b>Client Sample ID:</b>	JM01-SW-10	<b>Date Sampled:</b>	08/13/14
<b>Lab Sample ID:</b>	FA17426-10	<b>Date Received:</b>	08/15/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	75.1
<b>Method:</b>	SW846 8015C SW846 3550C		
<b>Project:</b>	NSB Kings Bay, GA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JJ004560.D	1	08/19/14	SJL	08/15/14	OP52723	GJJ174
Run #2							

	Initial Weight	Final Volume
Run #1	29.9 g	1.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH (C10-C28) <sup>a</sup>	4.5 U	5.6	4.5	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	83%		56-122%		

(a) Petroleum hydrocarbon pattern extends beyond C28.

U = Not detected      LOD = Limit of Detection  
 LOQ = Limit of Quantitation  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

**Report of Analysis**

<b>Client Sample ID:</b>	JM01-SW-11	<b>Date Sampled:</b>	08/13/14
<b>Lab Sample ID:</b>	FA17426-11	<b>Date Received:</b>	08/15/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	79.0
<b>Method:</b>	SW846 8015C SW846 3550C		
<b>Project:</b>	NSB Kings Bay, GA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JJ004561.D	1	08/19/14	SJL	08/15/14	OP52723	GJJ174
Run #2							

	Initial Weight	Final Volume
Run #1	29.5 g	1.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH (C10-C28) <sup>a</sup>	6.52	5.4	4.3	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	87%		56-122%		

(a) Petroleum hydrocarbon pattern extends beyond C28.

U = Not detected      LOD = Limit of Detection  
 LOQ = Limit of Quantitation  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

**Report of Analysis**

<b>Client Sample ID:</b> JM01-SW-12		
<b>Lab Sample ID:</b> FA17426-12		<b>Date Sampled:</b> 08/13/14
<b>Matrix:</b> SO - Soil		<b>Date Received:</b> 08/15/14
<b>Method:</b> SW846 8015C SW846 3550C		<b>Percent Solids:</b> 79.4
<b>Project:</b> NSB Kings Bay, GA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JJ004562.D	1	08/19/14	SJL	08/15/14	OP52723	GJJ174
Run #2							

	Initial Weight	Final Volume
Run #1	30.5 g	1.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH (C10-C28) <sup>a</sup>	5.66	5.2	4.1	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	82%		56-122%		

(a) Petroleum hydrocarbon pattern extends beyond C28.

U = Not detected      LOD = Limit of Detection  
 LOQ = Limit of Quantitation  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

**Report of Analysis**

<b>Client Sample ID:</b>	JM01-SW-13	<b>Date Sampled:</b>	08/13/14
<b>Lab Sample ID:</b>	FA17426-13	<b>Date Received:</b>	08/15/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	85.0
<b>Method:</b>	SW846 8015C SW846 3550C		
<b>Project:</b>	NSB Kings Bay, GA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JJ004563.D	1	08/19/14	SJL	08/15/14	OP52723	GJJ174
Run #2							

	Initial Weight	Final Volume
Run #1	29.8 g	1.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH (C10-C28) <sup>a</sup>	6.60	4.9	3.9	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	80%		56-122%		

(a) Petroleum hydrocarbon pattern extends beyond C28.

U = Not detected      LOD = Limit of Detection  
 LOQ = Limit of Quantitation  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

**Report of Analysis**

<b>Client Sample ID:</b>	JM01-SW-14	<b>Date Sampled:</b>	08/13/14
<b>Lab Sample ID:</b>	FA17426-14	<b>Date Received:</b>	08/15/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	77.9
<b>Method:</b>	SW846 8015C SW846 3550C		
<b>Project:</b>	NSB Kings Bay, GA		

	<b>File ID</b>	<b>DF</b>	<b>Analyzed</b>	<b>By</b>	<b>Prep Date</b>	<b>Prep Batch</b>	<b>Analytical Batch</b>
Run #1	JJ004564.D	1	08/19/14	SJL	08/15/14	OP52723	GJJ174
Run #2							

	<b>Initial Weight</b>	<b>Final Volume</b>
Run #1	30.2 g	1.0 ml
Run #2		

<b>CAS No.</b>	<b>Compound</b>	<b>Result</b>	<b>LOQ</b>	<b>LOD</b>	<b>Units</b>	<b>Q</b>
	TPH (C10-C28) <sup>a</sup>	9.63	5.3	4.3	mg/kg	
<b>CAS No.</b>	<b>Surrogate Recoveries</b>	<b>Run# 1</b>	<b>Run# 2</b>	<b>Limits</b>		
84-15-1	o-Terphenyl	83%		56-122%		

(a) Petroleum hydrocarbon pattern extends beyond C28.

U = Not detected      LOD = Limit of Detection  
 LOQ = Limit of Quantitation  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> JM01-SW-15	<b>Date Sampled:</b> 08/13/14
<b>Lab Sample ID:</b> FA17426-15	<b>Date Received:</b> 08/15/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 79.6
<b>Method:</b> SW846 8015C SW846 3550C	
<b>Project:</b> NSB Kings Bay, GA	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JJ004565.D	1	08/19/14	SJL	08/15/14	OP52723	GJJ174
Run #2							

	Initial Weight	Final Volume
Run #1	30.0 g	1.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH (C10-C28) <sup>a</sup>	4.22	5.2	4.2	mg/kg	J
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	80%		56-122%		

(a) Petroleum hydrocarbon pattern extends beyond C28.

U = Not detected      LOD = Limit of Detection  
 LOQ = Limit of Quantitation  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> JM01-SW-16	<b>Date Sampled:</b> 08/13/14
<b>Lab Sample ID:</b> FA17426-16	<b>Date Received:</b> 08/15/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 79.3
<b>Method:</b> SW846 8015C SW846 3550C	
<b>Project:</b> NSB Kings Bay, GA	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JJ004566.D	1	08/19/14	SJL	08/15/14	OP52723	GJJ174
Run #2							

	Initial Weight	Final Volume
Run #1	29.8 g	1.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH (C10-C28) <sup>a</sup>	4.2 U	5.3	4.2	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	89%		56-122%		

(a) Petroleum hydrocarbon pattern extends beyond C28.

U = Not detected      LOD = Limit of Detection  
 LOQ = Limit of Quantitation  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> JM01-SW-17	<b>Date Sampled:</b> 08/13/14
<b>Lab Sample ID:</b> FA17426-17	<b>Date Received:</b> 08/15/14
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 77.0
<b>Method:</b> SW846 8015C SW846 3550C	
<b>Project:</b> NSB Kings Bay, GA	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JJ004567.D	1	08/19/14	SJL	08/15/14	OP52723	GJJ174
Run #2							

	Initial Weight	Final Volume
Run #1	30.4 g	1.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH (C10-C28) <sup>a</sup>	16.0	5.3	4.3	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	74%		56-122%		

(a) Petroleum hydrocarbon pattern extends beyond C28.

U = Not detected      LOD = Limit of Detection  
 LOQ = Limit of Quantitation  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

**Report of Analysis**

<b>Client Sample ID:</b>	JM01-SW-18	<b>Date Sampled:</b>	08/13/14
<b>Lab Sample ID:</b>	FA17426-18	<b>Date Received:</b>	08/15/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	78.4
<b>Method:</b>	SW846 8015C SW846 3550C		
<b>Project:</b>	NSB Kings Bay, GA		

	<b>File ID</b>	<b>DF</b>	<b>Analyzed</b>	<b>By</b>	<b>Prep Date</b>	<b>Prep Batch</b>	<b>Analytical Batch</b>
Run #1	JJ004568.D	1	08/19/14	SJL	08/15/14	OP52723	GJJ174
Run #2							

	<b>Initial Weight</b>	<b>Final Volume</b>
Run #1	29.9 g	1.0 ml
Run #2		

<b>CAS No.</b>	<b>Compound</b>	<b>Result</b>	<b>LOQ</b>	<b>LOD</b>	<b>Units</b>	<b>Q</b>
	TPH (C10-C28)	4.3 U	5.3	4.3	mg/kg	
<b>CAS No.</b>	<b>Surrogate Recoveries</b>	<b>Run# 1</b>	<b>Run# 2</b>	<b>Limits</b>		
84-15-1	o-Terphenyl	82%		56-122%		

U = Not detected      LOD = Limit of Detection  
 LOQ = Limit of Quantitation  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

**Report of Analysis**

<b>Client Sample ID:</b>	JM01-SW-19	<b>Date Sampled:</b>	08/13/14
<b>Lab Sample ID:</b>	FA17426-19	<b>Date Received:</b>	08/15/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	85.2
<b>Method:</b>	SW846 8015C SW846 3550C		
<b>Project:</b>	NSB Kings Bay, GA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JJ004569.D	1	08/19/14	SJL	08/15/14	OP52723	GJJ174
Run #2							

	Initial Weight	Final Volume
Run #1	30.3 g	1.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH (C10-C28) <sup>a</sup>	6.57	4.8	3.9	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	84%		56-122%		

(a) Petroleum hydrocarbon pattern extends beyond C28.

U = Not detected      LOD = Limit of Detection  
 LOQ = Limit of Quantitation  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> JM01-SW-20		<b>Date Sampled:</b> 08/13/14
<b>Lab Sample ID:</b> FA17426-20		<b>Date Received:</b> 08/15/14
<b>Matrix:</b> SO - Soil		<b>Percent Solids:</b> 76.2
<b>Project:</b> NSB Kings Bay, GA		

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	76.2		%	1	08/15/14 10:02	JC	SM19 2540G

---

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> JM01-SW-21		<b>Date Sampled:</b> 08/13/14
<b>Lab Sample ID:</b> FA17426-21		<b>Date Received:</b> 08/15/14
<b>Matrix:</b> SO - Soil		<b>Percent Solids:</b> 76.1
<b>Project:</b> NSB Kings Bay, GA		

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	76.1		%	1	08/15/14 10:02	JC	SM19 2540G

---

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> JM01-SW-22		<b>Date Sampled:</b> 08/13/14
<b>Lab Sample ID:</b> FA17426-22		<b>Date Received:</b> 08/15/14
<b>Matrix:</b> SO - Soil		<b>Percent Solids:</b> 83.1
<b>Project:</b> NSB Kings Bay, GA		

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	83.1		%	1	08/15/14 10:02	JC	SM19 2540G

---

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> JM01-SW-23		<b>Date Sampled:</b> 08/13/14
<b>Lab Sample ID:</b> FA17426-23		<b>Date Received:</b> 08/15/14
<b>Matrix:</b> SO - Soil		<b>Percent Solids:</b> 69.5
<b>Project:</b> NSB Kings Bay, GA		

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	69.5		%	1	08/15/14 10:02	JC	SM19 2540G

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RL = Reporting Limit

**Report of Analysis**

<b>Client Sample ID:</b>	JM01-SW-24	<b>Date Sampled:</b>	08/13/14
<b>Lab Sample ID:</b>	FA17426-24	<b>Date Received:</b>	08/15/14
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	79.6
<b>Method:</b>	SW846 8015C SW846 3550C		
<b>Project:</b>	NSB Kings Bay, GA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JJ004523.D	1	08/18/14	SJL	08/15/14	OP52732	GJJ174
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	1.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH (C10-C28) <sup>a</sup>	5.86	5.2	4.2	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	93%		56-122%		

(a) Petroleum hydrocarbon pattern extends beyond C28.

U = Not detected      LOD = Limit of Detection  
 LOQ = Limit of Quantitation  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> JM01-SW-25		<b>Date Sampled:</b> 08/13/14
<b>Lab Sample ID:</b> FA17426-25		<b>Date Received:</b> 08/15/14
<b>Matrix:</b> SO - Soil		<b>Percent Solids:</b> 82.8
<b>Project:</b> NSB Kings Bay, GA		

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	82.8		%	1	08/15/14 10:02	JC	SM19 2540G

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RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> JM01-SW-26		<b>Date Sampled:</b> 08/13/14
<b>Lab Sample ID:</b> FA17426-26		<b>Date Received:</b> 08/15/14
<b>Matrix:</b> SO - Soil		<b>Percent Solids:</b> 73.4
<b>Project:</b> NSB Kings Bay, GA		

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	73.4		%	1	08/15/14 10:02	JC	SM19 2540G

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RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> JM01-SW-27		<b>Date Sampled:</b> 08/13/14
<b>Lab Sample ID:</b> FA17426-27		<b>Date Received:</b> 08/15/14
<b>Matrix:</b> SO - Soil		<b>Percent Solids:</b> 75.2
<b>Project:</b> NSB Kings Bay, GA		

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	75.2		%	1	08/15/14 10:02	JC	SM19 2540G

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RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> JM01-SW-28		<b>Date Sampled:</b> 08/13/14
<b>Lab Sample ID:</b> FA17426-28		<b>Date Received:</b> 08/15/14
<b>Matrix:</b> SO - Soil		<b>Percent Solids:</b> 84.7
<b>Project:</b> NSB Kings Bay, GA		

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	84.7		%	1	08/15/14 10:02	JC	SM19 2540G

---

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> JM01-SW-29		<b>Date Sampled:</b> 08/13/14
<b>Lab Sample ID:</b> FA17426-29		<b>Date Received:</b> 08/15/14
<b>Matrix:</b> SO - Soil		<b>Percent Solids:</b> 84.6
<b>Project:</b> NSB Kings Bay, GA		

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	84.6		%	1	08/15/14 10:02	JC	SM19 2540G

---

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> JM01-SW-30		<b>Date Sampled:</b> 08/13/14
<b>Lab Sample ID:</b> FA17426-30		<b>Date Received:</b> 08/15/14
<b>Matrix:</b> SO - Soil		<b>Percent Solids:</b> 82.4
<b>Project:</b> NSB Kings Bay, GA		

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	82.4		%	1	08/15/14 10:02	JC	SM19 2540G

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RL = Reporting Limit







**ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION**

ACCUTEST'S JOB NUMBER: FA 17426 CLIENT: NETA TECH PROJECT: NSB KINGS BAY  
 DATE/TIME RECEIVED: 8-15-14 07:00 [MM/DD/YY 24:00] NUMBER OF COOLERS RECEIVED: 1  
 METHOD OF DELIVERY: FEDEX UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER  
 AIRBILL NUMBERS: 8057 2338 7788

**COOLER INFORMATION**

- CUSTODY SEAL NOT PRESENT OR NOT INTACT
- CHAIN OF CUSTODY NOT RECEIVED (COC)
- ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- TEMPERATURE CRITERIA NOT MET

**TRIP BLANK INFORMATION**

- TRIP BLANK PROVIDED
- TRIP BLANK NOT PROVIDED
- TRIP BLANK NOT ON COC
- TRIP BLANK INTACT
- TRIP BLANK NOT INTACT
- RECEIVED WATER TRIP BLANK
- RECEIVED SOIL TRIP BLANK

**MISC. INFORMATION**

NUMBER OF ENCORES ? 25-GRAM          5-GRAM           
 NUMBER OF 5035 FIELD KITS ?           
 NUMBER OF LAB FILTERED METALS ?         

**TEMPERATURE INFORMATION**

- IR THERM ID          CORR. FACTOR faf
- OBSERVED TEMPS: 3.0
- CORRECTED TEMPS: 3.4

**SAMPLE INFORMATION**

- INCORRECT NUMBER OF CONTAINERS USED
- SAMPLE RECEIVED IMPROPERLY PRESERVED
- INSUFFICIENT VOLUME FOR ANALYSIS
- DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- ID'S ON COC DO NOT MATCH LABEL
- VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- SAMPLE CONTAINER(S) RECEIVED BROKEN
- 5035 FIELD KITS NOT RECEIVED WITHIN 48 HOURS
- BULK VOA SOIL JARS NOT RECEIVED WITHIN 48 HOURS
- % SOLIDS JAR NOT RECEIVED
- RESIDUAL CHLORINE PRESENT

(APPLICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS)

SUMMARY OF COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

TECHNICIAN SIGNATURE/DATE [Signature] 8-15-14 REVIEWER SIGNATURE/DATE [Signature] 08-15-14

RS 04/14

receipt confirmation 041514.xls

FedEx Express **NEW Package** US Airbill

FedEx Tracking Number **8057 2338 7758**

FTD 392237 14AUG14 NTPA 61AC1/ECF2/6500

From  
Date **8-14-14**

Sender's Name **GARY S PHILLIPS** Phone **757 338 7643**

Company **TETRA TECH**

Address **5350 CHALLENGER DR**

City **VA BEACH** State **VA** ZIP **23462**

2 Your Internal Billing Reference **106-4639 JMO1**

3 To Recipient's Name \_\_\_\_\_ Phone \_\_\_\_\_

Company **ACCU TEST LAB - SOUTHEAST**

Address **4405 VINELAND RD Suite G15**

Address **0**

City **ORLANDO** State **FL** ZIP **32811**

HOLD Weekday  
FedEx location address  
REQUIRED. NOT available for  
FedEx First Overnight.

HOLD Saturday  
FedEx location address  
REQUIRED. Available ONLY for  
FedEx Priority Overnight and  
FedEx 2Day to select locations.



4 Express Package Service \* Transit location.

NOTE: Service order has changed. Please select carefully.

Packages up to 150 lbs.  
For packages over 100 lbs., use the new  
FedEx Express Freight US Airbill.

Next Business Day

**FedEx First Overnight**  
Earliest next business morning delivery to select  
locations. Friday shipments will be delivered on  
Monday unless SATURDAY Delivery is selected.

**FedEx Priority Overnight**  
Next business morning. \*Friday shipments will be  
delivered on Monday unless SATURDAY Delivery  
is selected.

**FedEx Standard Overnight**  
Next business afternoon. \*  
Saturday Delivery NOT available.

2 or 3 Business Days

**FedEx 2Day A.M.**  
Second business morning.  
Saturday Delivery NOT available.

**FedEx 2Day**  
Second business afternoon. \*This  
will be delivered on Monday unless  
Saturday Delivery is selected.

**FedEx Express Saver**  
Third business day. \*  
Saturday Delivery NOT available.

5 Packaging \* Declared value limit \$500.

FedEx Envelope\*  FedEx Pak\*  FedEx Box  FedEx Tube

6 Special Handling and Delivery Signature Options

**SATURDAY Delivery**  
NOT available for FedEx Standard Overnight, FedEx 2Day A.M., or FedEx Express Saver.

**No Signature Required**  
Package may be left without  
obtaining a signature for delivery.

**Direct Signature**  
Signature at recipient's address  
may sign for delivery. Fee applies.

**Indirect  
Signature**  
Signature at  
address of  
recipient.

Does this shipment contain dangerous goods?

No  Yes  
Yes per attached  
Shipper's Declaration.  
Dangerous goods (including dry ice) cannot be shipped in FedEx packaging  
or placed in a FedEx Express Express Box.

7 Payment Bill to:

Enter FedEx Acct. No. or Credit Card No. below.

**Sender  
Account**  Recipient  Third Party  Credit Card.

Total Packages **1** Total Weight **50** lbs. Credit Card Auth. \_\_\_\_\_

The package is limited to 150 lbs. unless you declare a higher value. See the current FedEx Service Guide for details.

ELC



**Job Change Order:** FA17426\_8/15/2014

<b>Requested Date:</b>	8/15/2014	<b>Received Date:</b>	8/15/2014
<b>Account Name:</b>	Tetra Tech EC, Inc	<b>Due Date:</b>	8/19/2014
<b>Project Description:</b>	NSB Kings Bay, GA	<b>Deliverable:</b>	COMMBN
<b>CSR:</b>	AC	<b>TAT (Days):</b>	2

**Sample #:** FA17426-20-23,25-30      **Change:** Please put these samples on hold.

**Above Changes**      Lisa Bienkowski

**Date:** 8/15/2014

**FA17426: Chain of Custody**

**Page 6 of 6**

To Client: This Change Order is confirmation of the revisions, previously discussed with the Accutest Client Service Representative.

Page 1 of 1

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## **APPENDIX D-4**

### **Phase II Sampling Analytical Results**

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**Technical Report for**

**Tetra Tech EC, Inc**

**NSB Kings Bay, GA**

**106.4659.JM01**

**Accutest Job Number: FA18714**

**Sampling Date: 09/29/14**

**Report to:**

**Tetra Tech EC, Inc  
17885 Von Karman Ave Suite 500  
Irvine, CA 92614  
lisa.bienkowski@tetrattech.com**

**ATTN: Lisa Bienkowski**

**Total number of pages in report: 29**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.



**Norm Farmer  
Technical Director**

**Client Service contact: Andrea Colby 407-425-6700**

Certifications: FL (E83510), LA (03051), KS (E-10327), IA (366), IL (200063), NC (573), NJ (FL002), SC (96038001)  
DoD ELAP (L-A-B L2229), CA (04226CA), TX (T104704404), PA (68-03573), VA (460177),  
AK, AR, GA, KY, MA, NV, OK, UT, WA

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.  
Test results relate only to samples analyzed.

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### Sample Summary

Tetra Tech EC, Inc

Job No: FA18714

NSB Kings Bay, GA  
 Project No: 106.4659.JM01

Sample Number	Collected			Received	Matrix		Client Sample ID
	Date	Time	By		Code	Type	
FA18714-1	09/29/14	12:38	GP	09/30/14	SO	Soil	JM01-CONF-31
FA18714-2	09/29/14	12:40	GP	09/30/14	SO	Soil	JM01-CONF-32
FA18714-3	09/29/14	12:44	GP	09/30/14	SO	Soil	JM01-CONF-33
FA18714-4	09/29/14	12:48	GP	09/30/14	SO	Soil	JM01-CONF-34
FA18714-5	09/29/14	12:51	GP	09/30/14	SO	Soil	JM01-CONF-35
FA18714-6	09/29/14	12:54	GP	09/30/14	SO	Soil	JM01-CONF-36
FA18714-7	09/29/14	14:32	GP	09/30/14	SO	Soil	JM01-CONF-37
FA18714-8	09/29/14	14:35	GP	09/30/14	SO	Soil	JM01-CONF-38
FA18714-9	09/29/14	14:38	GP	09/30/14	SO	Soil	JM01-CONF-39

---

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

## SAMPLE DELIVERY GROUP CASE NARRATIVE

**Client:** Tetra Tech EC, Inc

**Job No:** FA18714

**Site:** NSB Kings Bay, GA

**Report Date:** 10/6/2014 6:59:28 PM

9 Sample(s) were collected on 09/29/2014 and were received at Accutest SE on 09/30/2014 properly preserved, at 3.4 Deg. C and intact. These Samples received an Accutest job number of FA18714. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

### Extractables by GC By Method SW846-8015

**Matrix:** SO

**Batch ID:** M: OP40064

- FA18714-1: Analysis performed at Accutest Laboratories, Marlborough, MA.
- FA18714-2: Analysis performed at Accutest Laboratories, Marlborough, MA.
- FA18714-3: Analysis performed at Accutest Laboratories, Marlborough, MA.
- FA18714-4: Analysis performed at Accutest Laboratories, Marlborough, MA.
- FA18714-5: Analysis performed at Accutest Laboratories, Marlborough, MA.
- FA18714-6: Analysis performed at Accutest Laboratories, Marlborough, MA.
- FA18714-7: Analysis performed at Accutest Laboratories, Marlborough, MA.
- FA18714-8: Analysis performed at Accutest Laboratories, Marlborough, MA.
- FA18714-9: Analysis performed at Accutest Laboratories, Marlborough, MA.

### Wet Chemistry By Method SM21 2540 B MOD.

**Matrix:** SO

**Batch ID:** M: GN48497

- FA18714-1 for Solids, Percent: Analysis performed at Accutest Laboratories, Marlborough, MA.
- FA18714-2 for Solids, Percent: Analysis performed at Accutest Laboratories, Marlborough, MA.
- FA18714-3 for Solids, Percent: Analysis performed at Accutest Laboratories, Marlborough, MA.
- FA18714-4 for Solids, Percent: Analysis performed at Accutest Laboratories, Marlborough, MA.
- FA18714-5 for Solids, Percent: Analysis performed at Accutest Laboratories, Marlborough, MA.
- FA18714-6 for Solids, Percent: Analysis performed at Accutest Laboratories, Marlborough, MA.
- FA18714-7 for Solids, Percent: Analysis performed at Accutest Laboratories, Marlborough, MA.
- FA18714-8 for Solids, Percent: Analysis performed at Accutest Laboratories, Marlborough, MA.
- FA18714-9 for Solids, Percent: Analysis performed at Accutest Laboratories, Marlborough, MA.

Accutest Laboratories Southeast (ALSE) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALSE and as stated on the COC. ALSE certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALSE Quality Manual except as noted above. This report is to be used in its entirety. ALSE is not responsible for any assumptions of data quality if partial data packages are used.

Narrative prepared by:

\_\_\_\_\_  
Kim Benham, Client Services (signature on file)

Date: October 6, 2014



## SAMPLE DELIVERY GROUP CASE NARRATIVE

**Client:** Accutest Laboratories Southeast, Inc.

**Job No** FA18714

**Site:** TETRCAL: NSB Kings Bay, GA

**Report Date** 10/6/2014 9:13:32 AM

9 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were collected on 09/29/2014 and were received at Accutest SE on 09/30/2014 and at Accutest NE on 10/02/2014 properly preserved, at 0.3 Deg. C and intact. These Samples received an Accutest job number of FA18714. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

### Extractables by GC By Method SW846-8015

**Matrix:** SO

**Batch ID:** OP40064

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) FA18714-1MS, FA18714-1MSD were used as the QC samples indicated.

### Wet Chemistry By Method SM21 2540 B MOD.

**Matrix:** SO

**Batch ID:** GN48497

- Sample(s) FA18714-1DUP were used as the QC samples for Solids, Percent.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety. The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report (FA18714).

## Summary of Hits

Job Number: FA18714  
Account: Tetra Tech EC, Inc  
Project: NSB Kings Bay, GA  
Collected: 09/29/14



Lab Sample ID	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
---------------	------------------	-----------------	-----	-----	-------	--------

FA18714-1 JM01-CONF-31

No hits reported in this sample.

FA18714-2 JM01-CONF-32

TPH (C10-C28) <sup>a</sup> 15.3 J 19 9.3 mg/kg SW846-8015

FA18714-3 JM01-CONF-33

No hits reported in this sample.

FA18714-4 JM01-CONF-34

No hits reported in this sample.

FA18714-5 JM01-CONF-35

TPH (C10-C28) <sup>a</sup> 17.2 J 19 9.5 mg/kg SW846-8015

FA18714-6 JM01-CONF-36

No hits reported in this sample.

FA18714-7 JM01-CONF-37

No hits reported in this sample.

FA18714-8 JM01-CONF-38

No hits reported in this sample.

FA18714-9 JM01-CONF-39

TPH (C10-C28) <sup>a</sup> 10.5 J 20 9.8 mg/kg SW846-8015

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

**Sample Results**

---

**Report of Analysis**

---

## Report of Analysis

<b>Client Sample ID:</b> JM01-CONF-31 <b>Lab Sample ID:</b> FA18714-1 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846-8015 SW846 3546 <b>Project:</b> NSB Kings Bay, GA	<b>Date Sampled:</b> 09/29/14 <b>Date Received:</b> 09/30/14 <b>Percent Solids:</b> 86.7 <sup>a</sup>
---	---

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	BI40538.D	1	10/03/14	AMA	10/02/14	M:OP40064	M:GBI1527
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.5 g	1.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH (C10-C28)	9.3 U	19	9.3	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	70%		40-140%		

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

U = Not detected      LOD = Limit of Detection  
 LOQ = Limit of Quantitation  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.1  
4

## Report of Analysis

<b>Client Sample ID:</b> JM01-CONF-32 <b>Lab Sample ID:</b> FA18714-2 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846-8015 SW846 3546 <b>Project:</b> NSB Kings Bay, GA	<b>Date Sampled:</b> 09/29/14 <b>Date Received:</b> 09/30/14 <b>Percent Solids:</b> 87.2 <sup>a</sup>
---	---

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	BI40539.D	1	10/03/14	AMA	10/02/14	M:OP40064	M:GBI1527
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.4 g	1.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH (C10-C28)	15.3	19	9.3	mg/kg	J
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	79%		40-140%		

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

U = Not detected      LOD = Limit of Detection  
 LOQ = Limit of Quantitation  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.2  
4

## Report of Analysis

<b>Client Sample ID:</b> JM01-CONF-33 <b>Lab Sample ID:</b> FA18714-3 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846-8015 SW846 3546 <b>Project:</b> NSB Kings Bay, GA	<b>Date Sampled:</b> 09/29/14 <b>Date Received:</b> 09/30/14 <b>Percent Solids:</b> 86.3 <sup>a</sup>
---	---

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	BI40541.D	1	10/03/14	AMA	10/02/14	M:OP40064	M:GBI1527
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.6 g	1.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH (C10-C28)	9.3 U	19	9.3	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	71%		40-140%		

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

U = Not detected      LOD = Limit of Detection  
 LOQ = Limit of Quantitation  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.3  
4

## Report of Analysis

<b>Client Sample ID:</b> JM01-CONF-34 <b>Lab Sample ID:</b> FA18714-4 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846-8015 SW846 3546 <b>Project:</b> NSB Kings Bay, GA	<b>Date Sampled:</b> 09/29/14 <b>Date Received:</b> 09/30/14 <b>Percent Solids:</b> 86.3 <sup>a</sup>
---	---

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	BI40542.D	1	10/03/14	AMA	10/02/14	M:OP40064	M:GBI1527
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.4 g	1.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH (C10-C28)	9.4 U	19	9.4	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	67%		40-140%		

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

U = Not detected      LOD = Limit of Detection  
 LOQ = Limit of Quantitation  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.4  
4

## Report of Analysis

<b>Client Sample ID:</b> JM01-CONF-35 <b>Lab Sample ID:</b> FA18714-5 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846-8015 SW846 3546 <b>Project:</b> NSB Kings Bay, GA	<b>Date Sampled:</b> 09/29/14 <b>Date Received:</b> 09/30/14 <b>Percent Solids:</b> 84.6 <sup>a</sup>
---	---

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	BI40543.D	1	10/03/14	AMA	10/02/14	M:OP40064	M:GBI1527
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.6 g	1.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH (C10-C28)	17.2	19	9.5	mg/kg	J
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	65%		40-140%		

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

U = Not detected      LOD = Limit of Detection  
 LOQ = Limit of Quantitation  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.5  
4

## Report of Analysis

<b>Client Sample ID:</b> JM01-CONF-36 <b>Lab Sample ID:</b> FA18714-6 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846-8015 SW846 3546 <b>Project:</b> NSB Kings Bay, GA	<b>Date Sampled:</b> 09/29/14 <b>Date Received:</b> 09/30/14 <b>Percent Solids:</b> 85.7 <sup>a</sup>
---	---

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	BI40544.D	1	10/03/14	AMA	10/02/14	M:OP40064	M:GBI1527
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.7 g	1.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH (C10-C28)	9.3 U	19	9.3	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	63%		40-140%		

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

U = Not detected      LOD = Limit of Detection  
 LOQ = Limit of Quantitation  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.6  
4

## Report of Analysis

<b>Client Sample ID:</b> JM01-CONF-37 <b>Lab Sample ID:</b> FA18714-7 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846-8015 SW846 3546 <b>Project:</b> NSB Kings Bay, GA	<b>Date Sampled:</b> 09/29/14 <b>Date Received:</b> 09/30/14 <b>Percent Solids:</b> 86.7 <sup>a</sup>
---	---

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	BI40545.D	1	10/03/14	AMA	10/02/14	M:OP40064	M:GBI1527
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.3 g	1.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH (C10-C28)	9.4 U	19	9.4	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	70%		40-140%		

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

U = Not detected      LOD = Limit of Detection  
 LOQ = Limit of Quantitation  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.7  
4

## Report of Analysis

<b>Client Sample ID:</b> JM01-CONF-38 <b>Lab Sample ID:</b> FA18714-8 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846-8015 SW846 3546 <b>Project:</b> NSB Kings Bay, GA	<b>Date Sampled:</b> 09/29/14 <b>Date Received:</b> 09/30/14 <b>Percent Solids:</b> 87.1 <sup>a</sup>
---	---

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	BI40546.D	1	10/03/14	AMA	10/02/14	M:OP40064	M:GBI1527
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.6 g	1.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH (C10-C28)	9.2 U	18	9.2	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	64%		40-140%		

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

U = Not detected      LOD = Limit of Detection  
 LOQ = Limit of Quantitation  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.8  
4

## Report of Analysis

<b>Client Sample ID:</b> JM01-CONF-39 <b>Lab Sample ID:</b> FA18714-9 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846-8015 SW846 3546 <b>Project:</b> NSB Kings Bay, GA	<b>Date Sampled:</b> 09/29/14 <b>Date Received:</b> 09/30/14 <b>Percent Solids:</b> 84.6 <sup>a</sup>
---	---

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	BI40547.D	1	10/03/14	AMA	10/02/14	M:OP40064	M:GBI1527
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.1 g	1.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH (C10-C28)	10.5	20	9.8	mg/kg	J
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	74%		40-140%		

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

U = Not detected      LOD = Limit of Detection  
 LOQ = Limit of Quantitation  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.9  
4

## Misc. Forms

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5

### Custody Documents and Other Forms

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**Includes the following where applicable:**

- Chain of Custody



**Accutest Laboratories Southeast  
Chain of Custody**

4405 Vineland Road, Suite C-15 Orlando, FL 32811  
TEL: 407-425-6700 FAX: 407-425-0707  
www.accutest.com

**FA 18714**

ACCUTEST JOB #: PAGE 1 OF 1

Client / Reporting Information		Project Information		Accutest Quote #		SKIFF #												
Lisa Bienkowski		Project Name: NSB Kings Bay, GA																
Tetra Tech EC, Inc.		Street N/A																
17885 Von Karman, Suite 500		City Kings Bay Base State GA																
Irvine, CA 92614 949-809-5028		Project # 106-4659.JM01																
		Fax # N/A																
Sampler(s) Name(s) (Printed)		Client Purchase Order # 1108297																
Sampler 1: Gary Phelps		Sampler 2:																
Accutest Sample #	Field ID / Point of Collection	COLLECTION			CONTAINER INFORMATION												TPH-DRO	Matrix Codes
		DATE	TIME	SAMPLED BY	MATRIX	TOTAL # OF BOTTLES	OTHER	PCNE	PCU	NICH	FINO3	TESO4	NACH-ZNA	DI WATER	RECH	LAB USE ONLY		
1	JM01-CONF-31	9/29/14	12:38	GP	SO	One 4oz	X										X	DW - Drinking Water
2	JM01-CONF-32	9/29/14	12:40	GP	SO	One 4oz	X										X	GW - Ground Water
3	JM01-CONF-33	9/29/14	12:44	GP	SO	One 4oz	X										X	WW - Water
4	JM01-CONF-34	9/29/14	12:48	GP	SO	One 4oz	X										X	SW - Surface Water
5	JM01-CONF-35	9/29/14	12:51	GP	SO	One 4oz	X										X	SO - Soil
6	JM01-CONF-36	9/29/14	12:54	GP	SO	One 4oz	X										X	SL - Sludge
7	JM01-CONF-37	9/29/14	14:32	GP	SO	One 4oz	X										X	LIQ - Other Liquid
8	JM01-CONF-38	9/29/14	14:35	GP	SO	One 4oz	X										X	AIR - Air
9	JM01-CONF-39	9/29/14	14:38	GP	SO	One 4oz	X										X	
<b>Turnaround Time ( Business days)</b>		<b>Data Deliverable Information</b>		<b>Comments / Remarks</b>														
Std. 10 Business Days 7 Day RUSH 5 Day RUSH 3 Day EMERGENCY 2 Day EMERGENCY 1 Day EMERGENCY Other Emergency or Rush T/A Data Available VIA Email or Lablink		Approved By: / Date/Rush Code: 72 hour TAT		<input type="checkbox"/> COMMERCIAL "A" (RESULTS ONLY) <input checked="" type="checkbox"/> COMMERCIAL "B" (RESULTS PLUS QC) <input type="checkbox"/> REDT1 (EPA LEVEL 3) <input type="checkbox"/> FULLT1 (EPA LEVEL 4) <input type="checkbox"/> EDD'S (NEDD and Excel File only)														
Sample Custody must be documented below each time samples change possession, including courier delivery.																		
Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation													
1 <i>[Signature]</i>	9-29-14 16:00	2 FEDEX	3 <i>[Signature]</i>	9-30-14	4 <i>[Signature]</i> (A/E)	07:00												
Relinquished by/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation													
5		6	7		8													
<b>Lab Use Only :</b> Custody Seal in Place: Y N Temp Blank Provided: Y N Preserved Where Applicable: Y N Total # of Coolers: 1 Cooler Temperature (s) Celsius: 3-4																		

5.1  
5

**ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION**

ACCUTEST'S JOB NUMBER: FA18714 CLIENT: PETRA TECH PROJECT: MSB KINGS BAY  
 DATE/TIME RECEIVED: 9-30-14 07:00 (MM/DD/YY 24:00) NUMBER OF COOLERS RECEIVED: 1  
 METHOD OF DELIVERY: FEDEX UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER  
 AIRBILL NUMBERS: 8057 23387427

**COOLER INFORMATION**

- CUSTODY SEAL NOT PRESENT OR NOT INTACT
- CHAIN OF CUSTODY NOT RECEIVED (COC)
- ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- TEMPERATURE CRITERIA NOT MET

**TRIP BLANK INFORMATION**

- TRIP BLANK PROVIDED
- TRIP BLANK NOT PROVIDED
- TRIP BLANK NOT ON COC
- TRIP BLANK INTACT
- TRIP BLANK NOT INTACT
- RECEIVED WATER TRIP BLANK
- RECEIVED SOIL TRIP BLANK

**MISC. INFORMATION**

NUMBER OF ENCORES ? 25-GRAM \_\_\_\_\_ 5-GRAM \_\_\_\_\_  
 NUMBER OF 5035 FIELD KITS ? \_\_\_\_\_  
 NUMBER OF LAB FILTERED METALS ? \_\_\_\_\_

**TEMPERATURE INFORMATION**

- IR THERM ID 1 CORR. FACTOR +0.4
- OBSERVED TEMPS: 3.0
- CORRECTED TEMPS: 3.4

**SAMPLE INFORMATION**

- INCORRECT NUMBER OF CONTAINERS USED
- SAMPLE RECEIVED IMPROPERLY PRESERVED
- INSUFFICIENT VOLUME FOR ANALYSIS
- DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- ID'S ON COC DO NOT MATCH LABEL
- VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- SAMPLE CONTAINER(S) RECEIVED BROKEN
- 5035 FIELD KITS NOT RECEIVED WITHIN 48 HOURS
- BULK VOA SOIL JARS NOT RECEIVED WITHIN 48 HOURS
- % SOLIDS JAR NOT RECEIVED
- RESIDUAL CHLORINE PRESENT

(APPLICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS)

SUMMARY OF COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

TECHNICIAN SIGNATURE/DATE [Signature] 9-30-14 REVIEWER SIGNATURE/DATE [Signature] 09-30-14

RS 04/14

receipt confirmation 041514.xls

5.1  
5

FedEx  
TRK#  
10200 8057 2338 7427

TUE - 30 SEP 8:00A  
FIRST OVERNIGHT

X1 TIXA

32811  
FL-US  
MCO

Delivery Address  
4405 VINELAND RD C15



FedEx NEW Package  
Express US Airbill

FedEx Tracking Number 8057 2338 7427

Form ID No. 0200



FID 392237 29SEP14 NIDA 522C1/0R/64

1 From  
Date 9/29/14

Sender's Name Gary S. PHILLIPS Phone 87 228 7842

Company STRATTON - ESC

Address 5250 CHALLENGER DR

City VA Beach State VA ZIP 23462

2 Your Internal Billing Reference 106-9859-0101010101000

3 To Recipient's Name  
Company ACUTEST LAB Savannah

Address 4405 VINELAND RD C15

Address Savannah

City Savannah State GA ZIP 31311

4 Express Package Service \*To select, NOTE: Service order has changed. Please select carefully.

Next Business Day  
 FedEx First Overnight

2 or 3 Business Days  
 FedEx 2Day A.M.

FedEx Priority Overnight

FedEx 2Day

FedEx Standard Overnight

FedEx Express Saver

5 Packaging \*Declared value limit \$500  
 FedEx Envelope\*  FedEx Pak\*  FedEx Box  FedEx Tube  Other

6 Special Handling and Delivery Signature Options  
 SATURDAY Delivery

No Signature Required  Direct Signature  Indirect Signature

Does this shipment contain dangerous goods?  
 No  Yes  Yes

7 Payment Bill to:  
 Sender  Recipient  Third Party  Credit Card  Cash/Check

Total Packages 1 Total Weight 24 lbs.



8057 2338 7427

Rev Date 7/12 • Part #8002 • ©2012 FedEx • PRIVATE IN U.S.A. SFP

FA18714: Chain of Custody  
Page 3 of 5

**Job Change Order:** FA18714\_9/30/2014

<b>Requested</b>	9/30/2014	<b>Received Date:</b>	9/30/2014
<b>Account</b>	Tetra Tech EC, Inc	<b>Due Date:</b>	10/3/2014
<b>Project</b>	NSB Kings Bay, GA	<b>Deliverable:</b>	COMMBN
<b>CSR:</b>	AC	<b>TAT (Days):</b>	14

**Sample #:**  
FA18714-all

**Change:** Please change TAT to 10 working day, due 10/14/14.

**Above Changes Per:** Lisa Bienkowski

**Date:** 9/30/2014

**FA18714: Chain of Custody**

**Page 4 of 5**

To Client: This Change Order is confirmation of the revisions, previously discussed with the Accutest Client Service Representative.

Page 1 of 1

**Job Change Order:** FA18714\_10/1/2014

<b>Requested</b>	10/1/2014	<b>Received Date:</b>	9/30/2014
<b>Account</b>	Tetra Tech EC, Inc	<b>Due Date:</b>	10/6/2014
<b>Project</b>	NSB Kings Bay, GA	<b>Deliverable:</b>	COMMBN
<b>CSR:</b>	AC	<b>TAT (Days):</b>	3

**Sample #:**  
FA18714-all

**Change:** Please subcontract the samples to the Accutest NE lab. Due date 10/6/14.

**Above Changes Per:** Lisa Bienkowski

**Date:** 10/1/2014

**FA18714: Chain of Custody**

**Page 5 of 5**

To Client: This Change Order is confirmation of the revisions, previously discussed with the Accutest Client Service Representative.

Page 1 of 1

## Misc. Forms

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### Custody Documents and Other Forms

(Accutest Labs of New England, Inc.)

---

**Includes the following where applicable:**

- Chain of Custody

4405 Vineland Rd, Suite C-15, Orlando, FL 32811  
TEL: 407-425-6700 FAX: 407-425-0707  
www.accutest.com

FED-EX Tracking #	Matrix Order Control #
Accutest Quote #	Accutest Job # <b>FA18714</b>

Client / Reporting Information		Project Information		Requested Analysis ( see TEST CODE sheet)												Matrix Codes										
Company Name: <b>Accutest Laboratories</b>		Project Name: <b>NSB Kings Bay, GA</b>		%SOL_BB015DROM1												DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EQ - Equipment Blank RB - Rinse Blank TB - Trip Blank										
Street Address: <b>4405 Vineland Rd, Suite C-15</b>		Street:																								
City State Zip: <b>Orlando FL 32811</b>		City State:																								
Project Contact E-mail: <b>andrea@accutest.com</b>		Project #:																								
Phone #: <b>407-425-6700</b>		Client Purchase Order #:																								
Sampler(s) Name(s): <b>GP</b>		Project Manager:																								
Turnaround Time ( Business days)		Data Deliverable Information															Comments / Special Instructions									
<input type="checkbox"/> 10 Day (business) <input type="checkbox"/> 5-7 Day <input type="checkbox"/> 3 Day RUSH <input type="checkbox"/> 2 Day RUSH <input type="checkbox"/> 1 Day RUSH <input checked="" type="checkbox"/> other Due <b>10/6/2014</b> Rush T/A data available VIA Lablink		<input type="checkbox"/> Commercial "A" ( Level 1, Results Only) <input type="checkbox"/> Commercial "B" ( Level 2, Results + QC summary) <input type="checkbox"/> REDT1 ( Level 3) <input type="checkbox"/> FULT1 ( Level 4) <input type="checkbox"/> DOD FULT1 (Level 4) <input checked="" type="checkbox"/> Other <b>COMMBN</b> <input type="checkbox"/> EDD Format															ALNE									
Sample Custody must be documented below each time samples change possession, including courier delivery.																										
Relinquished by Sampler: <b>1 [Signature]</b>		Date Time: <b>10-2-14 1760</b>															Received By: <b>1 [Signature]</b>		Date Time: <b>9-30 10-2-14</b>		Relinquished By: <b>2 [Signature]</b>		Date Time:		Received By: <b>4 [Signature]</b>	
Relinquished by Sampler: <b>3</b>		Date Time:		Received By: <b>3</b>		Date Time:		Relinquished By: <b>4</b>		Date Time:		Received By:														
Relinquished by: <b>5</b>		Date Time:		Received By: <b>5</b>		Date Time:		Custody Seal #		<input checked="" type="checkbox"/> Intact <input type="checkbox"/> Not intact		Preserved where applicable <input type="checkbox"/> On Ice <input type="checkbox"/> Cooler Temp: <b>0.3°C</b>														

6.1  
6

**FA18714: Chain of Custody**  
**Page 1 of 2**  
**Accutest Labs of New England, Inc.**



## GC Semi-volatiles

---

### QC Data Summaries

(Accutest Labs of New England, Inc.)

---

#### Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

# Method Blank Summary

Job Number: FA18714  
Account: ALSE Accutest Laboratories Southeast, Inc.  
Project: TETRCAI: NSB Kings Bay, GA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP40064-MB	BI40530.D	1	10/03/14	AP	10/02/14	OP40064	GBI1527

The QC reported here applies to the following samples: Method: SW846-8015

FA18714-1, FA18714-2, FA18714-3, FA18714-4, FA18714-5, FA18714-6, FA18714-7, FA18714-8, FA18714-9

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	ND	17	4.2	mg/kg	

CAS No.	Surrogate Recoveries	Limits
84-15-1	o-Terphenyl	57% 40-140%

7.1.1  
7

# Blank Spike Summary

Job Number: FA18714  
 Account: ALSE Accutest Laboratories Southeast, Inc.  
 Project: TETRCAI: NSB Kings Bay, GA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP40064-BS	BI40531.D	1	10/03/14	AP	10/02/14	OP40064	GBI1527

The QC reported here applies to the following samples: Method: SW846-8015

FA18714-1, FA18714-2, FA18714-3, FA18714-4, FA18714-5, FA18714-6, FA18714-7, FA18714-8, FA18714-9

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH (C10-C28)	163	108	66	63-139

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	81%	40-140%

\* = Outside of Control Limits.

7.2.1  
7

# Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA18714  
 Account: ALSE Accutest Laboratories Southeast, Inc.  
 Project: TETRCAI: NSB Kings Bay, GA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP40064-MS	BI40536.D	1	10/03/14	AP	10/02/14	OP40064	GBI1527
OP40064-MSD	BI40537.D	1	10/03/14	AP	10/02/14	OP40064	GBI1527
FA18714-1	BI40538.D	1	10/03/14	AP	10/02/14	OP40064	GBI1527

The QC reported here applies to the following samples: Method: SW846-8015

FA18714-1, FA18714-2, FA18714-3, FA18714-4, FA18714-5, FA18714-6, FA18714-7, FA18714-8, FA18714-9

CAS No.	Compound	FA18714-1 mg/kg	Spike Q mg/kg	MS mg/kg	MS %	Spike mg/kg	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH (C10-C28)	6.66	190	134	67	189	118	59	13	8-154/127

CAS No.	Surrogate Recoveries	MS	MSD	FA18714-1	Limits
84-15-1	o-Terphenyl	76%	70%	70%	40-140%

\* = Outside of Control Limits.

7.3.1  
7

**Technical Report for**

**Tetra Tech EC, Inc**

**NSB Kings Bay, GA**

**106.4659.JM01**

**Accutest Job Number: FA18761**

**Sampling Date: 09/30/14**

**Report to:**

**Tetra Tech EC, Inc  
17885 Von Karman Ave Suite 500  
Irvine, CA 92614  
lisa.bienkowski@tetrattech.com**

**ATTN: Lisa Bienkowski**

**Total number of pages in report: 43**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.



**Norm Farmer  
Technical Director**

**Client Service contact: Andrea Colby 407-425-6700**

Certifications: FL (E83510), LA (03051), KS (E-10327), IA (366), IL (200063), NC (573), NJ (FL002), SC (96038001)  
DoD ELAP (L-A-B L2229), CA (04226CA), TX (T104704404), PA (68-03573), VA (460177),  
AK, AR, GA, KY, MA, NV, OK, UT, WA

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Test results relate only to samples analyzed.

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## Sample Summary

**Tetra Tech EC, Inc**

**Job No: FA18761**

**NSB Kings Bay, GA**

**Project No: 106.4659.JM01**

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
FA18761-1	09/30/14	12:06 GP	10/01/14	SO	Soil	JM01-CONF-40
FA18761-2	09/30/14	12:16 GP	10/01/14	SO	Soil	JM01-CONF-41
FA18761-3	09/30/14	12:22 GP	10/01/14	SO	Soil	JM01-CONF-42
FA18761-4	09/30/14	15:00 GP	10/01/14	SO	Soil	JM01-CONF-43
FA18761-5	09/30/14	12:30 GP	10/01/14	SO	Soil	JM01-CONF-44
FA18761-6	09/30/14	12:35 GP	10/01/14	SO	Soil	JM01-CONF-45
FA18761-7	09/30/14	12:39 GP	10/01/14	SO	Soil	JM01-CONF-46
FA18761-8	09/30/14	12:46 GP	10/01/14	SO	Soil	JM01-CONF-47
FA18761-9	09/30/14	15:38 GP	10/01/14	SO	Soil	JM01-CONF-48
FA18761-10	09/30/14	13:43 GP	10/01/14	SO	Soil	JM01-CONF-49
FA18761-11	09/30/14	13:48 GP	10/01/14	SO	Soil	JM01-CONF-50
FA18761-12	09/30/14	13:53 GP	10/01/14	SO	Soil	JM01-CONF-51
FA18761-13	09/30/14	16:03 GP	10/01/14	SO	Soil	JM01-CONF-52

---

Soil samples reported on a dry weight basis unless otherwise indicated on result page.



### Sample Summary (continued)

Tetra Tech EC, Inc

Job No: FA18761

NSB Kings Bay, GA  
Project No: 106.4659.JM01

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
FA18761-14	09/30/14	16:08 GP	10/01/14	SO	Soil	JM01-CONF-53
FA18761-15	09/30/14	16:13 GP	10/01/14	SO	Soil	JM01-CONF-54
FA18761-16	09/30/14	16:26 GP	10/01/14	SO	Soil	JM01-CONF-55
FA18761-17	09/30/14	16:28 GP	10/01/14	SO	Soil	JM01-CONF-56
FA18761-18	09/30/14	16:44 GP	10/01/14	SO	Soil	JM01-CONF-57
FA18761-19	09/30/14	16:47 GP	10/01/14	SO	Soil	JM01-CONF-58
FA18761-20	09/30/14	16:54 GP	10/01/14	SO	Soil	JM01-CONF-59

---

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

## SAMPLE DELIVERY GROUP CASE NARRATIVE

**Client:** Tetra Tech EC, Inc

**Job No:** FA18761

**Site:** NSB Kings Bay, GA

**Report Date:** 10/6/2014 7:00:46 PM

20 Sample(s) were collected on 09/30/2014 and were received at Accutest SE on 10/01/2014 properly preserved, at 3.6 Deg. C and intact. These Samples received an Accutest job number of FA18761. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

### Extractables by GC By Method SW846-8015

**Matrix:** SO

**Batch ID:** M: OP40056

FA18761-1: Analysis performed at Accutest Laboratories, Marlborough, MA.

FA18761-2: Analysis performed at Accutest Laboratories, Marlborough, MA.

FA18761-3: Analysis performed at Accutest Laboratories, Marlborough, MA.

FA18761-4: Analysis performed at Accutest Laboratories, Marlborough, MA.

FA18761-5: Analysis performed at Accutest Laboratories, Marlborough, MA.

FA18761-6: Analysis performed at Accutest Laboratories, Marlborough, MA.

FA18761-7: Analysis performed at Accutest Laboratories, Marlborough, MA.

FA18761-8: Analysis performed at Accutest Laboratories, Marlborough, MA.

FA18761-9: Analysis performed at Accutest Laboratories, Marlborough, MA.

FA18761-10: Analysis performed at Accutest Laboratories, Marlborough, MA.

FA18761-11: Analysis performed at Accutest Laboratories, Marlborough, MA.

FA18761-12: Analysis performed at Accutest Laboratories, Marlborough, MA.

FA18761-13: Analysis performed at Accutest Laboratories, Marlborough, MA.

FA18761-14: Analysis performed at Accutest Laboratories, Marlborough, MA.

FA18761-15: Analysis performed at Accutest Laboratories, Marlborough, MA.

FA18761-16: Analysis performed at Accutest Laboratories, Marlborough, MA.

FA18761-17: Analysis performed at Accutest Laboratories, Marlborough, MA.

FA18761-18: Analysis performed at Accutest Laboratories, Marlborough, MA.

FA18761-19: Analysis performed at Accutest Laboratories, Marlborough, MA.

FA18761-20: Analysis performed at Accutest Laboratories, Marlborough, MA.

### Wet Chemistry By Method SM21 2540 B MOD.

**Matrix:** SO

**Batch ID:** M: GN48498

FA18761-1 for Solids, Percent: Analysis performed at Accutest Laboratories, Marlborough, MA.

FA18761-2 for Solids, Percent: Analysis performed at Accutest Laboratories, Marlborough, MA.

FA18761-3 for Solids, Percent: Analysis performed at Accutest Laboratories, Marlborough, MA.

FA18761-4 for Solids, Percent: Analysis performed at Accutest Laboratories, Marlborough, MA.

FA18761-5 for Solids, Percent: Analysis performed at Accutest Laboratories, Marlborough, MA.

FA18761-6 for Solids, Percent: Analysis performed at Accutest Laboratories, Marlborough, MA.

FA18761-7 for Solids, Percent: Analysis performed at Accutest Laboratories, Marlborough, MA.

FA18761-8 for Solids, Percent: Analysis performed at Accutest Laboratories, Marlborough, MA.

FA18761-9 for Solids, Percent: Analysis performed at Accutest Laboratories, Marlborough, MA.

FA18761-10 for Solids, Percent: Analysis performed at Accutest Laboratories, Marlborough, MA.

FA18761-11 for Solids, Percent: Analysis performed at Accutest Laboratories, Marlborough, MA.

FA18761-12 for Solids, Percent: Analysis performed at Accutest Laboratories, Marlborough, MA.

FA18761-13 for Solids, Percent: Analysis performed at Accutest Laboratories, Marlborough, MA.

Monday, October 06, 2014

Page 1 of 2

## Wet Chemistry By Method SM21 2540 B MOD.

**Matrix:** SO

**Batch ID:** M: GN48498

FA18761-14 for Solids, Percent: Analysis performed at Accutest Laboratories, Marlborough, MA.  
FA18761-15 for Solids, Percent: Analysis performed at Accutest Laboratories, Marlborough, MA.  
FA18761-16 for Solids, Percent: Analysis performed at Accutest Laboratories, Marlborough, MA.  
FA18761-17 for Solids, Percent: Analysis performed at Accutest Laboratories, Marlborough, MA.  
FA18761-18 for Solids, Percent: Analysis performed at Accutest Laboratories, Marlborough, MA.  
FA18761-19 for Solids, Percent: Analysis performed at Accutest Laboratories, Marlborough, MA.  
FA18761-20 for Solids, Percent: Analysis performed at Accutest Laboratories, Marlborough, MA.

Accutest Laboratories Southeast (ALSE) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALSE and as stated on the COC. ALSE certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALSE Quality Manual except as noted above. This report is to be used in its entirety. ALSE is not responsible for any assumptions of data quality if partial data packages are used.

Narrative prepared by:

\_\_\_\_\_  
Kim Benham, Client Services (signature on file)

Date: October 6, 2014



## SAMPLE DELIVERY GROUP CASE NARRATIVE

**Client:** Accutest Laboratories Southeast, Inc.

**Job No** FA18761

**Site:** TETRCAL: NSB Kings Bay, GA

**Report Date** 10/6/2014 9:35:08 AM

20 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were collected on 09/30/2014 and were received at Accutest SE on 10/01/2014 and at Accutest NE on 10/02/2014 properly preserved, at 0.3 Deg. C and intact. These Samples received an Accutest job number of FA18761. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

### Extractables by GC By Method SW846-8015

**Matrix:** SO

**Batch ID:** OP40056

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) FA18761-1MS, FA18761-1MSD were used as the QC samples indicated.

### Wet Chemistry By Method SM21 2540 B MOD.

**Matrix:** SO

**Batch ID:** GN48498

- Sample(s) FA18761-1DUP were used as the QC samples for Solids, Percent.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety. The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report (FA18761).

## Summary of Hits

Job Number: FA18761  
Account: Tetra Tech EC, Inc  
Project: NSB Kings Bay, GA  
Collected: 09/30/14



Lab Sample ID Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
FA18761-1	JM01-CONF-40					
TPH (C10-C28) <sup>a</sup>		21.7	20	10	mg/kg	SW846-8015
FA18761-2	JM01-CONF-41					
TPH (C10-C28) <sup>a</sup>		13.7 J	18	9.1	mg/kg	SW846-8015
FA18761-3	JM01-CONF-42					
TPH (C10-C28) <sup>a</sup>		22.3	20	9.9	mg/kg	SW846-8015
FA18761-4	JM01-CONF-43					
No hits reported in this sample.						
FA18761-5	JM01-CONF-44					
No hits reported in this sample.						
FA18761-6	JM01-CONF-45					
No hits reported in this sample.						
FA18761-7	JM01-CONF-46					
TPH (C10-C28) <sup>a</sup>		13.2 J	20	9.8	mg/kg	SW846-8015
FA18761-8	JM01-CONF-47					
TPH (C10-C28) <sup>a</sup>		13.5 J	21	11	mg/kg	SW846-8015
FA18761-9	JM01-CONF-48					
TPH (C10-C28) <sup>a</sup>		58.8	20	9.8	mg/kg	SW846-8015
FA18761-10	JM01-CONF-49					
TPH (C10-C28) <sup>a</sup>		12.2 J	19	9.7	mg/kg	SW846-8015
FA18761-11	JM01-CONF-50					
TPH (C10-C28) <sup>a</sup>		31.2	20	10	mg/kg	SW846-8015

## Summary of Hits

Job Number: FA18761  
Account: Tetra Tech EC, Inc  
Project: NSB Kings Bay, GA  
Collected: 09/30/14



Lab Sample ID	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
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FA18761-12 JM01-CONF-51

TPH (C10-C28) <sup>a</sup> 11.8 J 21 10 mg/kg SW846-8015

FA18761-13 JM01-CONF-52

No hits reported in this sample.

FA18761-14 JM01-CONF-53

No hits reported in this sample.

FA18761-15 JM01-CONF-54

TPH (C10-C28) <sup>a</sup> 12.9 J 19 9.7 mg/kg SW846-8015

FA18761-16 JM01-CONF-55

TPH (C10-C28) <sup>a</sup> 14.4 J 18 9.1 mg/kg SW846-8015

FA18761-17 JM01-CONF-56

No hits reported in this sample.

FA18761-18 JM01-CONF-57

No hits reported in this sample.

FA18761-19 JM01-CONF-58

No hits reported in this sample.

FA18761-20 JM01-CONF-59

No hits reported in this sample.

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

**Sample Results**

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**Report of Analysis**

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## Report of Analysis

<b>Client Sample ID:</b> JM01-CONF-40 <b>Lab Sample ID:</b> FA18761-1 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846-8015 SW846 3546 <b>Project:</b> NSB Kings Bay, GA	<b>Date Sampled:</b> 09/30/14 <b>Date Received:</b> 10/01/14 <b>Percent Solids:</b> 82.5 <sup>a</sup>
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	BI40550.D	1	10/03/14	AMA	10/02/14	M:OP40056	M:GBI1527
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.1 g	1.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH (C10-C28)	21.7	20	10	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	71%		40-140%		

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

U = Not detected      LOD = Limit of Detection  
 LOQ = Limit of Quantitation  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.1  
4

## Report of Analysis

<b>Client Sample ID:</b> JM01-CONF-41 <b>Lab Sample ID:</b> FA18761-2 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846-8015 SW846 3546 <b>Project:</b> NSB Kings Bay, GA	<b>Date Sampled:</b> 09/30/14 <b>Date Received:</b> 10/01/14 <b>Percent Solids:</b> 86.3 <sup>a</sup>
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	BI40552.D	1	10/03/14	AMA	10/02/14	M:OP40056	M:GBI1527
Run #2							

Run #	Initial Weight	Final Volume
Run #1	16.0 g	1.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH (C10-C28)	13.7	18	9.1	mg/kg	J
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	81%		40-140%		

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

U = Not detected      LOD = Limit of Detection  
 LOQ = Limit of Quantitation  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.2  
4

## Report of Analysis

<b>Client Sample ID:</b> JM01-CONF-42 <b>Lab Sample ID:</b> FA18761-3 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846-8015 SW846 3546 <b>Project:</b> NSB Kings Bay, GA	<b>Date Sampled:</b> 09/30/14 <b>Date Received:</b> 10/01/14 <b>Percent Solids:</b> 81.8 <sup>a</sup>
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	BI40570.D	1	10/04/14	AMA	10/02/14	M:OP40056	M:GBI1527
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.4 g	1.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH (C10-C28)	22.3	20	9.9	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	80%		40-140%		

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

U = Not detected      LOD = Limit of Detection  
 LOQ = Limit of Quantitation  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.3  
4

## Report of Analysis

<b>Client Sample ID:</b> JM01-CONF-43 <b>Lab Sample ID:</b> FA18761-4 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846-8015 SW846 3546 <b>Project:</b> NSB Kings Bay, GA	<b>Date Sampled:</b> 09/30/14 <b>Date Received:</b> 10/01/14 <b>Percent Solids:</b> 79.9 <sup>a</sup>
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	BI40553.D	1	10/03/14	AMA	10/02/14	M:OP40056	M:GBI1527
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.1 g	1.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH (C10-C28)	10 U	21	10	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	66%		40-140%		

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

U = Not detected      LOD = Limit of Detection  
 LOQ = Limit of Quantitation  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.4  
4

## Report of Analysis

<b>Client Sample ID:</b> JM01-CONF-44 <b>Lab Sample ID:</b> FA18761-5 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846-8015 SW846 3546 <b>Project:</b> NSB Kings Bay, GA	<b>Date Sampled:</b> 09/30/14 <b>Date Received:</b> 10/01/14 <b>Percent Solids:</b> 78.1 <sup>a</sup>
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	BI40534.D	1	10/03/14	AMA	10/02/14	M:OP40056	M:GBI1527
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.3 g	1.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH (C10-C28)	10 U	21	10	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	67%		40-140%		

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

U = Not detected      LOD = Limit of Detection  
 LOQ = Limit of Quantitation  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.5  
4

## Report of Analysis

<b>Client Sample ID:</b> JM01-CONF-45 <b>Lab Sample ID:</b> FA18761-6 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846-8015 SW846 3546 <b>Project:</b> NSB Kings Bay, GA	<b>Date Sampled:</b> 09/30/14 <b>Date Received:</b> 10/01/14 <b>Percent Solids:</b> 80.4 <sup>a</sup>
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	BI40554.D	1	10/03/14	AMA	10/02/14	M:OP40056	M:GBI1527
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.1 g	1.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH (C10-C28)	10 U	21	10	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	67%		40-140%		

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

U = Not detected      LOD = Limit of Detection  
 LOQ = Limit of Quantitation  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.6  
4

## Report of Analysis

<b>Client Sample ID:</b> JM01-CONF-46 <b>Lab Sample ID:</b> FA18761-7 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846-8015 SW846 3546 <b>Project:</b> NSB Kings Bay, GA	<b>Date Sampled:</b> 09/30/14 <b>Date Received:</b> 10/01/14 <b>Percent Solids:</b> 82.1 <sup>a</sup>
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	BI40555.D	1	10/03/14	AMA	10/02/14	M:OP40056	M:GBI1527
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.5 g	1.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH (C10-C28)	13.2	20	9.8	mg/kg	J
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	71%		40-140%		

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

U = Not detected      LOD = Limit of Detection  
 LOQ = Limit of Quantitation  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.7  
4

## Report of Analysis

<b>Client Sample ID:</b> JM01-CONF-47 <b>Lab Sample ID:</b> FA18761-8 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846-8015 SW846 3546 <b>Project:</b> NSB Kings Bay, GA	<b>Date Sampled:</b> 09/30/14 <b>Date Received:</b> 10/01/14 <b>Percent Solids:</b> 78.1 <sup>a</sup>
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	BI40556.D	1	10/03/14	AMA	10/02/14	M:OP40056	M:GBI1527
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.1 g	1.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH (C10-C28)	13.5	21	11	mg/kg	J
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	68%		40-140%		

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

U = Not detected      LOD = Limit of Detection  
 LOQ = Limit of Quantitation  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.8  
4

## Report of Analysis

<b>Client Sample ID:</b> JM01-CONF-48 <b>Lab Sample ID:</b> FA18761-9 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846-8015 SW846 3546 <b>Project:</b> NSB Kings Bay, GA	<b>Date Sampled:</b> 09/30/14 <b>Date Received:</b> 10/01/14 <b>Percent Solids:</b> 82.0 <sup>a</sup>
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	BI40557.D	1	10/03/14	AMA	10/02/14	M:OP40056	M:GBI1527
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.6 g	1.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH (C10-C28)	58.8	20	9.8	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	72%		40-140%		

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

U = Not detected      LOD = Limit of Detection  
 LOQ = Limit of Quantitation  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.9  
4

## Report of Analysis

<b>Client Sample ID:</b> JM01-CONF-49 <b>Lab Sample ID:</b> FA18761-10 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846-8015 SW846 3546 <b>Project:</b> NSB Kings Bay, GA	<b>Date Sampled:</b> 09/30/14 <b>Date Received:</b> 10/01/14 <b>Percent Solids:</b> 81.7 <sup>a</sup>
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	BI40558.D	1	10/03/14	AMA	10/02/14	M:OP40056	M:GBI1527
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.7 g	1.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH (C10-C28)	12.2	19	9.7	mg/kg	J
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	64%		40-140%		

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

U = Not detected      LOD = Limit of Detection  
 LOQ = Limit of Quantitation  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.10  
4

## Report of Analysis

<b>Client Sample ID:</b> JM01-CONF-50 <b>Lab Sample ID:</b> FA18761-11 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846-8015 SW846 3546 <b>Project:</b> NSB Kings Bay, GA	<b>Date Sampled:</b> 09/30/14 <b>Date Received:</b> 10/01/14 <b>Percent Solids:</b> 81.5 <sup>a</sup>
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	BI40568.D	1	10/04/14	AMA	10/02/14	M:OP40056	M:GBI1527
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.2 g	1.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH (C10-C28)	31.2	20	10	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	73%		40-140%		

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

U = Not detected      LOD = Limit of Detection  
 LOQ = Limit of Quantitation  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.11  
4

## Report of Analysis

<b>Client Sample ID:</b> JM01-CONF-51 <b>Lab Sample ID:</b> FA18761-12 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846-8015 SW846 3546 <b>Project:</b> NSB Kings Bay, GA	<b>Date Sampled:</b> 09/30/14 <b>Date Received:</b> 10/01/14 <b>Percent Solids:</b> 76.3 <sup>a</sup>
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	BI40559.D	1	10/04/14	AMA	10/02/14	M:OP40056	M:GBI1527
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.7 g	1.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH (C10-C28)	11.8	21	10	mg/kg	J
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	67%		40-140%		

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

U = Not detected      LOD = Limit of Detection  
 LOQ = Limit of Quantitation  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.12  
4

## Report of Analysis

<b>Client Sample ID:</b> JM01-CONF-52 <b>Lab Sample ID:</b> FA18761-13 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846-8015 SW846 3546 <b>Project:</b> NSB Kings Bay, GA	<b>Date Sampled:</b> 09/30/14 <b>Date Received:</b> 10/01/14 <b>Percent Solids:</b> 81.4 <sup>a</sup>
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	BI40560.D	1	10/04/14	AMA	10/02/14	M:OP40056	M:GBI1527
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.2 g	1.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH (C10-C28)	10 U	20	10	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	69%		40-140%		

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

U = Not detected      LOD = Limit of Detection  
 LOQ = Limit of Quantitation  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.13  
4

## Report of Analysis

<b>Client Sample ID:</b> JM01-CONF-53 <b>Lab Sample ID:</b> FA18761-14 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846-8015 SW846 3546 <b>Project:</b> NSB Kings Bay, GA	<b>Date Sampled:</b> 09/30/14 <b>Date Received:</b> 10/01/14 <b>Percent Solids:</b> 79.7 <sup>a</sup>
--	---

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	BI40535.D	1	10/03/14	AMA	10/02/14	M:OP40056	M:GBI1527
Run #2							

Run #	Initial Weight	Final Volume
Run #1	16.0 g	1.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH (C10-C28)	9.8 U	20	9.8	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	65%		40-140%		

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

U = Not detected      LOD = Limit of Detection  
 LOQ = Limit of Quantitation  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.14  
4

## Report of Analysis

<b>Client Sample ID:</b> JM01-CONF-54 <b>Lab Sample ID:</b> FA18761-15 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846-8015 SW846 3546 <b>Project:</b> NSB Kings Bay, GA	<b>Date Sampled:</b> 09/30/14 <b>Date Received:</b> 10/01/14 <b>Percent Solids:</b> 83.3 <sup>a</sup>
--	---

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	BI40561.D	1	10/04/14	AMA	10/02/14	M:OP40056	M:GBI1527
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.4 g	1.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH (C10-C28)	12.9	19	9.7	mg/kg	J
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	74%		40-140%		

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

U = Not detected      LOD = Limit of Detection  
 LOQ = Limit of Quantitation  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.15  
4

## Report of Analysis

<b>Client Sample ID:</b> JM01-CONF-55 <b>Lab Sample ID:</b> FA18761-16 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846-8015 SW846 3546 <b>Project:</b> NSB Kings Bay, GA	<b>Date Sampled:</b> 09/30/14 <b>Date Received:</b> 10/01/14 <b>Percent Solids:</b> 86.7 <sup>a</sup>
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Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	BI40563.D	1	10/04/14	AMA	10/02/14	M:OP40056	M:GBI1527
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.9 g	1.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH (C10-C28)	14.4	18	9.1	mg/kg	J
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	75%		40-140%		

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

U = Not detected      LOD = Limit of Detection  
 LOQ = Limit of Quantitation  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.16  
4

## Report of Analysis

<b>Client Sample ID:</b> JM01-CONF-56 <b>Lab Sample ID:</b> FA18761-17 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846-8015 SW846 3546 <b>Project:</b> NSB Kings Bay, GA	<b>Date Sampled:</b> 09/30/14 <b>Date Received:</b> 10/01/14 <b>Percent Solids:</b> 79.2 <sup>a</sup>
--	---

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	BI40564.D	1	10/04/14	AMA	10/02/14	M:OP40056	M:GBI1527
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.7 g	1.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH (C10-C28)	10 U	20	10	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	70%		40-140%		

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

U = Not detected      LOD = Limit of Detection  
 LOQ = Limit of Quantitation  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.17  
4

## Report of Analysis

<b>Client Sample ID:</b> JM01-CONF-57 <b>Lab Sample ID:</b> FA18761-18 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846-8015 SW846 3546 <b>Project:</b> NSB Kings Bay, GA	<b>Date Sampled:</b> 09/30/14 <b>Date Received:</b> 10/01/14 <b>Percent Solids:</b> 83.2 <sup>a</sup>
--	---

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	BI40565.D	1	10/04/14	AMA	10/02/14	M:OP40056	M:GBI1527
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.2 g	1.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH (C10-C28)	9.9 U	20	9.9	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	68%		40-140%		

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

U = Not detected      LOD = Limit of Detection  
 LOQ = Limit of Quantitation  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.18  
4

## Report of Analysis

<b>Client Sample ID:</b> JM01-CONF-58 <b>Lab Sample ID:</b> FA18761-19 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846-8015 SW846 3546 <b>Project:</b> NSB Kings Bay, GA	<b>Date Sampled:</b> 09/30/14 <b>Date Received:</b> 10/01/14 <b>Percent Solids:</b> 82.1 <sup>a</sup>
--	---

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	BI40566.D	1	10/04/14	AMA	10/02/14	M:OP40056	M:GBI1527
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.6 g	1.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH (C10-C28)	9.8 U	20	9.8	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	82%		40-140%		

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

U = Not detected      LOD = Limit of Detection  
 LOQ = Limit of Quantitation  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.19  
4

## Report of Analysis

<b>Client Sample ID:</b> JM01-CONF-59 <b>Lab Sample ID:</b> FA18761-20 <b>Matrix:</b> SO - Soil <b>Method:</b> SW846-8015 SW846 3546 <b>Project:</b> NSB Kings Bay, GA	<b>Date Sampled:</b> 09/30/14 <b>Date Received:</b> 10/01/14 <b>Percent Solids:</b> 83.0 <sup>a</sup>
--	---

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	BI40567.D	1	10/04/14	AMA	10/02/14	M:OP40056	M:GBI1527
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.5 g	1.0 ml
Run #2		

CAS No.	Compound	Result	LOQ	LOD	Units	Q
	TPH (C10-C28)	9.7 U	19	9.7	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	88%		40-140%		

(a) Analysis performed at Accutest Laboratories, Marlborough, MA.

U = Not detected      LOD = Limit of Detection  
 LOQ = Limit of Quantitation  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

4.20  
4

## Misc. Forms

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5

### Custody Documents and Other Forms

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Includes the following where applicable:

- Chain of Custody



Accutest Laboratories Southeast

Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, FL 32811  
 TEL: 407-425-6700 FAX: 407-425-0707  
 www.accutest.com

FA 18761

ACCUTEST JOB #: PAGE 1 OF 2

Client / Reporting Information		Project Information		Accutest Quote #	SKIFF #																																																																																																																																															
Lisa Bienkowski		Project Name: NSB Kings Bay, GA		<table border="1"> <thead> <tr> <th colspan="12">Analytical Information</th> <th colspan="1">Matrix Codes</th> </tr> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> <td>DW - Drinking Water</td> </tr> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> <td>GW - Ground Water</td> </tr> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> <td>WW - Water</td> </tr> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> <td>SW - Surface Water</td> </tr> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> <td>SO - Soil</td> </tr> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> <td>SL - Sludge</td> </tr> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> <td>OI - Oil</td> </tr> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> <td>LIQ - Other Liquid</td> </tr> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> <td>AIR - Air</td> </tr> <tr> <td colspan="12"></td> <td>LAB USE ONLY</td> </tr> </thead></table>		Analytical Information												Matrix Codes													DW - Drinking Water													GW - Ground Water													WW - Water													SW - Surface Water													SO - Soil													SL - Sludge													OI - Oil													LIQ - Other Liquid													AIR - Air													LAB USE ONLY
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Sampler 1: Gary Phelps		Sampler 2:																																																																																																																																																		
Accutest Sample #	Field ID / Point of Collection	COLLECTION		CONTAINER INFORMATION												TPH-DRC																																																																																																																																				
		DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NO3	NO2	NO3	PHOS	PHOS	NACH2O4		DI WATER	MEDH																																																																																																																																		
1	JM01-CONF-40	9/30/14	12:06	GP	SO	One 4oz	X											X																																																																																																																																		
2	JM01-CONF-41	9/30/14	12:16	GP	SO	One 4oz	X											X																																																																																																																																		
3	JM01-CONF-42	9/30/14	12:22	GP	SO	One 4oz	X											X																																																																																																																																		
4	JM01-CONF-43	9/30/14	3:00:00 PM	GP	SO	One 4oz	X											X																																																																																																																																		
5	JM01-CONF-44	9/30/14	12:30	GP	SO	One 4oz	X											X																																																																																																																																		
6	JM01-CONF-45	9/30/14	12:35	GP	SO	One 4oz	X											X																																																																																																																																		
7	JM01-CONF-46	9/30/14	12:39	GP	SO	One 4oz	X											X																																																																																																																																		
8	JM01-CONF-47	9/30/14	12:46	GP	SO	One 4oz	X											X																																																																																																																																		
9	JM01-CONF-48	9/30/14	3:38:00 PM	GP	SO	One 4oz	X											X																																																																																																																																		
10	JM01-CONF-49	9/30/14	13:43	GP	SO	One 4oz	X											X																																																																																																																																		
11	JM01-CONF-50	9/30/14	13:48	GP	SO	One 4oz	X											X																																																																																																																																		
12	JM01-CONF-51	9/30/14	13:53	GP	SO	One 4oz	X											X																																																																																																																																		
Turnaround Time ( Business days)				Data Deliverable Information				Comments / Remarks																																																																																																																																												
Std. 10 Business Days		Approved By: / Date/Rush Code:		<input type="checkbox"/> COMMERCIAL "A" (RESULTS ONLY) <input checked="" type="checkbox"/> COMMERCIAL "B" (RESULTS PLUS QC) <input type="checkbox"/> REDT1 (EPA LEVEL 3) <input type="checkbox"/> FULLT1 (EPA LEVEL 4) <input type="checkbox"/> EDD'S (NEDD and Excel File only)																																																																																																																																																
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Lab Use Only : Custody Seal in Place: Y N Temp Blank Provided: Y N Preserved Where Applicable: Y N Total # of Coolers: 1 Cooler Temperature (s) Celsius: 3.6																																																																																																																																																				

5.1  
5



**Accutest Laboratories Southeast**  
**Chain of Custody**

4405 Vineland Road, Suite C-15 Orlando, FL 32811  
TEL: 407-425-6700 FAX: 407-425-0707  
www.accutest.com

ACCUTEST JOB #:

PAGE 2 OF 2

**FA18761**

Client / Reporting Information		Project Information		Analytical Information												Matrix Codes		
Lisa Bienkowski		Project Name: NSB Kings Bay, GA														DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge OI - Oil LIQ - Other Liquid AIR - Air		
Tetra Tech EC, Inc.		Street: N/A																
17885 Von Karman, Suite 500 Irvine, CA 92614 949-809-5028		City: Kings Bay Base State: GA																
		Project #: 106-4659.JM01																
Sampler(s) Name(s) (Printed)		Client Purchase Order #																
Sampler 1: Gary Phelps		Sampler 2:																
Accutest Sample #	Field ID / Point of Collection	COLLECTION		CONTAINER INFORMATION												TPH-DRO	LAB USE ONLY	
		DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	OTHER	NOE	NOI	NO3	NO2	NO3+NO2	NO3+NO2+NO	NO3+NO2+NO+NH4	NO3+NO2+NO+NH4+NH4			NO3+NO2+NO+NH4+NH4+NH4
13	JM01-CONF-52	9/30/14	4:03:00 PM	GP	SO	One 4oz	X											X
14	JM01-CONF-53	9/30/14	4:08:00 PM	GP	SO	One 4oz	X											X
15	JM01-CONF-54	9/30/14	4:13:00 PM	GP	SO	One 4oz	X											X
16	JM01-CONF-55	9/30/14	4:26:00 PM	GP	SO	One 4oz	X											X
17	JM01-CONF-56	9/30/14	4:28:00 PM	GP	SO	One 4oz	X											X
18	JM01-CONF-57	9/30/14	4:44:00 PM	GP	SO	One 4oz	X											X
19	JM01-CONF-58	9/30/14	4:47:00 PM	GP	SO	One 4oz	X											X
20	JM01-CONF-59	9/30/14	4:54:00 PM	GP	SO	One 4oz	X											X
Turnaround Time ( Business days)		Data Deliverable Information		Comments / Remarks														
Std. 10 Business Days 7 Day RUSH 5 Day RUSH 3 Day EMERGENCY 2 Day EMERGENCY 1 Day EMERGENCY Other Emergency or Rush T/A Data Available VIA Email or Lablink		Approved By: / Date/Rush Code: 72 hour TAT		<input type="checkbox"/> COMMERCIAL "A" (RESULTS ONLY) <input checked="" type="checkbox"/> COMMERCIAL "B" (RESULTS PLUS QC) <input type="checkbox"/> REDT1 (EPA LEVEL 3) <input type="checkbox"/> FULLT1 (EPA LEVEL 4) <input type="checkbox"/> EDD'S (NEDD and Excel File only)														
Sample Custody must be documented below each time samples change possession, including courier delivery.																		
Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation							Date Time:	Received By/Affiliation					
1		2 FEDEX	3 FX	10-1-14	4 J. Bone (AIR)							07:00						
Relinquished By/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation													
5		6	7		8													

Lab Use Only : Custody Seal in Place: Y N Temp Blank Provided: Y N Preserved Where Applicable: Y N Total # of Coolers: Cooler Temperature (s) Celsius:

51  
5

**ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION**

ACCUTEST'S JOB NUMBER: FA18761 CLIENT: TETRA TECH PROJECT: USB KINGS BAY  
 DATE/TIME RECEIVED: 10-1-14 07:00 (MM/DD/YY 24:00) NUMBER OF COOLERS RECEIVED: 1  
 METHOD OF DELIVERY: FEDEX UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER  
 AIRBILL NUMBERS: 8057 2338 7335

**COOLER INFORMATION**

- CUSTODY SEAL NOT PRESENT OR NOT INTACT
- CHAIN OF CUSTODY NOT RECEIVED (COC)
- ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- TEMPERATURE CRITERIA NOT MET

**TRIP BLANK INFORMATION**

- TRIP BLANK PROVIDED
- TRIP BLANK NOT PROVIDED
- TRIP BLANK NOT ON COC
- TRIP BLANK INTACT
- TRIP BLANK NOT INTACT
- RECEIVED WATER TRIP BLANK
- RECEIVED SOIL TRIP BLANK

**MISC. INFORMATION**

NUMBER OF ENCORES ? 25-GRAM \_\_\_\_\_ 5-GRAM \_\_\_\_\_  
 NUMBER OF 5035 FIELD KITS ? \_\_\_\_\_  
 NUMBER OF LAB FILTERED METALS ? \_\_\_\_\_

**TEMPERATURE INFORMATION**

- IR THERM ID 1 CORR. FACTOR 10.4
- OBSERVED TEMPS: 3.2
- CORRECTED TEMPS: 3.6

**SAMPLE INFORMATION**

- INCORRECT NUMBER OF CONTAINERS USED
- SAMPLE RECEIVED IMPROPERLY PRESERVED
- INSUFFICIENT VOLUME FOR ANALYSIS
- DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- ID'S ON COC DO NOT MATCH LABEL
- VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- SAMPLE CONTAINER(S) RECEIVED BROKEN
- 5035 FIELD KITS NOT RECEIVED WITHIN 48 HOURS
- BULK VOA SOIL JARS NOT RECEIVED WITHIN 48 HOURS
- % SOLIDS JAR NOT RECEIVED
- RESIDUAL CHLORINE PRESENT

{APPLICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS}

SUMMARY OF COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

TECHNICIAN SIGNATURE/DATE K 10-1-14 REVIEWER SIGNATURE/DATE [Signature] 10-01-14

RS 04/14

receipt confirmation 041514.xls

5.1  
5

**FedEx**  
**FIRST OVERNIGHT**

Delivery Address  
 4405 VINELAND RD C15



**FedEx**  
 RK# 8057 2338 7335  
 3200

**X1 TIXA**



FID 392237 38SEP14 NIPA 522C1/DF64/6500

WED - 01 OCT 8:00A  
**FIRST OVERNIGHT**

32811  
 FL-US  
 MCO

OPEN END OF FEDEX AIRBILL POUCH HERE

**edEx** NEW Package  
 Express US Airbill  
 Tracking Number 8057 2338 7335

From: [Redacted]  
 Date: 9/30/14  
 Sender's Name: GRACY S PHELPS Phone: 757 228-7643  
 Company: STRATECH  
 Address: 5250 FALLING OAK DR  
 City: VA BEACH State: VA ZIP: 23462

Your Internal Billing Reference: 106 4051 100 0101 1000

To Recipient's Name: [Redacted] Phone: 407 426 7100  
 Company: [Redacted]  
 Address: 2405 WINDY HILL RD  
 City: [Redacted] State: [Redacted] ZIP: [Redacted]

Form ID No: 0200

**4 Express Package Service** \* To meet location. NOTE: Service order has changed. Please select carefully.

**Next Business Day**

FedEx First Overnight  
 Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

FedEx Priority Overnight  
 Next business morning. Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

FedEx Standard Overnight  
 Next business afternoon. Saturday Delivery NOT available.

**2 or 3 Business Days**

FedEx 2Day A.M.  
 Second business morning. Saturday Delivery NOT available.

FedEx 2Day  
 Second business afternoon. Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

FedEx Express Saver  
 Third business day. Saturday Delivery NOT available.

**5 Packaging** \* Declared value limit \$500.

FedEx Envelope\*  FedEx Pak\*  FedEx Box  FedEx Tube  Other

**6 Special Handling and Delivery Signature Options**

SATURDAY Delivery  
 NOT available for FedEx Standard Overnight, FedEx 2Day A.M., or FedEx Express Saver.

No Signature Required  
 Package may be left without clearing a signature for delivery.

Direct Signature  
 Someone at recipient's address may sign for delivery. Fee applies.

Indirect Signature  
 If not able to visit, or if recipient address is in a neighboring address may sign for delivery for residential deliveries only. Fee applies.

**Does this shipment contain dangerous goods?**  
 (One box must be checked.)

No  Yes (See attached Shipper's Declaration)  Yes (Shipper's Declaration not required)  Dry Ice (Dry Ice, UN 1845)  Cargo Aircraft Only

**7 Payment Bill to:** Enter FedEx Acct. No. or Credit Card No. below.  Unpaid (From Add'l. No.)

FedEx.com 1.800.Go.FedEx 1.800.463.3339

## Misc. Forms

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### Custody Documents and Other Forms

(Accutest Labs of New England, Inc.)

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**Includes the following where applicable:**

- Chain of Custody





## Accutest Laboratories Sample Receipt Summary

**Accutest Job Number:** FA18761      **Client:** ACFL      **Project:** SUB  
**Date / Time Received:** 10/2/2014 9:30:00 AM      **Delivery Method:** \_\_\_\_\_      **Airbill #'s:** \_\_\_\_\_  
**Cooler Temps (Initial/Adjusted):** #1: (0.3/0.3):\_

**Cooler Security**      Y or N      Y or N  
 1. Custody Seals Present:        3. COC Present:    
 2. Custody Seals Intact:        4. Smp Dates/Time OK

**Cooler Temperature**      Y or N  
 1. Temp criteria achieved:    
 2. Thermometer ID: \_\_\_\_\_ G1;  
 3. Cooler media: \_\_\_\_\_ Ice (Bag)  
 4. No. Coolers: \_\_\_\_\_ 1

**Quality Control Preservation**      Y      or      N      N/A  
 1. Trip Blank present / cooler:     
 2. Trip Blank listed on COC:     
 3. Samples preserved properly:    
 4. VOCs headspace free:

**Sample Integrity - Documentation**      Y      or      N  
 1. Sample labels present on bottles:    
 2. Container labeling complete:    
 3. Sample container label / COC agree:

**Sample Integrity - Condition**      Y      or      N  
 1. Sample recvd within HT:    
 2. All containers accounted for:    
 3. Condition of sample: \_\_\_\_\_ Intact

**Sample Integrity - Instructions**      Y      or      N      N/A  
 1. Analysis requested is clear:    
 2. Bottles received for unspecified tests:    
 3. Sufficient volume recvd for analysis:    
 4. Compositing instructions clear:     
 5. Filtering instructions clear:

Comments

## GC Semi-volatiles

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### QC Data Summaries

(Accutest Labs of New England, Inc.)

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#### Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

# Method Blank Summary

Job Number: FA18761  
Account: ALSE Accutest Laboratories Southeast, Inc.  
Project: TETRCAI: NSB Kings Bay, GA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP40056-MB	BI40532.D	1	10/03/14	AP	10/02/14	OP40056	GBI1527

The QC reported here applies to the following samples:

Method: SW846-8015

FA18761-1, FA18761-2, FA18761-3, FA18761-4, FA18761-5, FA18761-6, FA18761-7, FA18761-8, FA18761-9, FA18761-10, FA18761-11, FA18761-12, FA18761-13, FA18761-14, FA18761-15, FA18761-16, FA18761-17, FA18761-18, FA18761-19, FA18761-20

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	ND	16	4.0	mg/kg	

CAS No.	Surrogate Recoveries	Limits
84-15-1	o-Terphenyl	80% 40-140%

7.1.1  
7

# Blank Spike Summary

Job Number: FA18761  
 Account: ALSE Accutest Laboratories Southeast, Inc.  
 Project: TETRCAI: NSB Kings Bay, GA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP40056-BS	BI40533.D	1	10/03/14	AP	10/02/14	OP40056	GBI1527

The QC reported here applies to the following samples:

Method: SW846-8015

FA18761-1, FA18761-2, FA18761-3, FA18761-4, FA18761-5, FA18761-6, FA18761-7, FA18761-8, FA18761-9, FA18761-10, FA18761-11, FA18761-12, FA18761-13, FA18761-14, FA18761-15, FA18761-16, FA18761-17, FA18761-18, FA18761-19, FA18761-20

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH (C10-C28)	162	114	70	63-139

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	84%	40-140%

\* = Outside of Control Limits.

7.2.1  
7

# Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA18761  
 Account: ALSE Accutest Laboratories Southeast, Inc.  
 Project: TETRCAI: NSB Kings Bay, GA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP40056-MS	BI40548.D	1	10/03/14	AP	10/02/14	OP40056	GBI1527
OP40056-MSD	BI40549.D	1	10/03/14	AP	10/02/14	OP40056	GBI1527
FA18761-1	BI40550.D	1	10/03/14	AP	10/02/14	OP40056	GBI1527

The QC reported here applies to the following samples: Method: SW846-8015

FA18761-1, FA18761-2, FA18761-3, FA18761-4, FA18761-5, FA18761-6, FA18761-7, FA18761-8, FA18761-9, FA18761-10, FA18761-11, FA18761-12, FA18761-13, FA18761-14, FA18761-15, FA18761-16, FA18761-17, FA18761-18, FA18761-19, FA18761-20

CAS No.	Compound	FA18761-1 mg/kg	Spike Q mg/kg	MS mg/kg	MS %	Spike mg/kg	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH (C10-C28)	21.7	192	153	68	200	161	70	5	8-154/127

CAS No.	Surrogate Recoveries	MS	MSD	FA18761-1	Limits
84-15-1	o-Terphenyl	79%	75%	71%	40-140%

\* = Outside of Control Limits.

7.3.1  
7