

INITIAL ABATEMENT ACTION REPORT FOR THREE CLOSED ORPHAN UNDERGROUND STORAGE TANKS

**1381 Piney Green Road, Parcel #149
TIP # U-3810, WBS Element #35801.1.1
Onslow County**

North Carolina Department of Transportation
Geotechnical Engineering Unit
1589 Mail Service Center
Raleigh, North Carolina 27699-1589

February 3, 2012

6 Initial Abatement Action Report

In addition to reporting initial response and abatement actions and assessment actions and presenting initial site characterization, this newly-created Initial Abatement Action Report must fulfill the requirements, when a release has been discovered, for the following individual reports:

- Site Check Report (Section C)
- UST Closure Report (UST-12) with UST-2 Form (Section D)
- Post-Excavation Soil Contamination Assessment Report (Section H)
- Free Product Recovery Report (Section E)

Check the applicable report(s). Complete Sections A-L, as required, including the sections specifically designated for the reports you have indicated. The Initial Abatement Action Report must be submitted to the appropriate regional office within 90 days following discovery of release.

A. Site Information

1. Site Identification

- Date of Report: February 3, 2012
- Facility I.D.: NA UST Incident Number (if known): NA
- Site Name: Former Leonard Brownley Property
- Site Street Address: 1381 Piney Green Road, Parcel 149
- City/Town: Jacksonville (outside city limits) Zip Code: 28456 County: Onslow
- Description of Geographical Data Point (e.g., diesel fill port): Center of property
- Location Method (GPS, topographical map, other): GPS
- Latitude (decimal degrees): 34.759684 N Longitude (decimal degrees): 77.338257 W

2. Information about Contacts Associated with the Leaking UST System (Addresses must include street, city, state, zip code and mailing address, if different).

- UST Owner: Unknown
Address: Unknown Tel.: Unknown
- UST Operator: Unknown
Address: Unknown Tel.: Unknown
- Property Owner: NCDOT
Address: 1589 Mail Service Center, Raleigh, NC 27699 Tel.: 919-707-6850
- Property Occupant: Vacant
Address: NA Tel.: NA
- Consultant/Contractor: GEL Engineering of NC, Inc.
Address: P.O. Box 14262 Tel.: 919-323-8828
- Analytical Laboratory: N/A State Certification No. N/A
Address: N/A Tel.: N/A

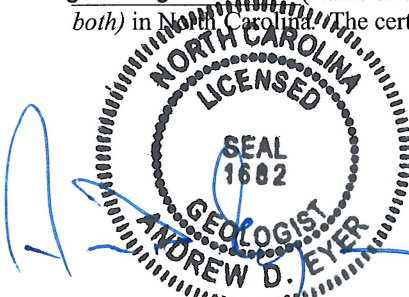
3. Information about Release

- Date Discovered: November 8, 2011
- Estimated Quantity of Release: < 100 gallons
- Cause of Release: Corrosion holes in bottoms of USTs
- Source of Release (Dispenser/Piping/UST): USTs
- Sizes and contents of UST system(s) from which the release occurred: 2000-gal. and 750-gal. waste oil; 275-gal. heating oil

4. Certification (The title page must display the seal and signature of the certifying P.E. or L.G. and the name and certification number of the company or corporation, if applicable [See 15A NCAC 2L .0103(e)].)

I, Andrew D. Eyer, a Professional Engineer/Licensed Geologist (circle one) for (firm or company of employment), do certify that the information contained in this report is correct and accurate to the best of my knowledge. (Please Affix Seal and Signature)

GEL Engineering of NC, Inc. (Name of company or corporation) is licensed to practice geology/engineering (circle one or both) in North Carolina. The certification number of the company or corporation is C-3017C-1938.



INITIAL ABATEMENT ACTION REPORT

**Abandoned Commercial Facility and Abandoned Residence
1381 Piney Green Road, Parcel 149
Onslow County, North Carolina
State Project U-3810
WBS Element # 35801.1.1**

B. Site History and Characterization

1. Provide UST owner and operator information.
 - List the names, addresses, telephone numbers, and dates of ownership/operation of all previous UST owners and operators of the UST system(s). Present in table form (Use Reporting Table B-2, Site History, UST Owner/Operator and Other RP Information, from the Guidelines, Appendix B.).

See Table 1 of this report

2. Provide UST information (inclusive of all USTs, currently and historically in place at facility). For each UST, provide the following information in table form (Use Reporting Table B-1, Site History, UST/AST System and Other Release Information, from the Guidelines, Appendix B).

See Table 1 of this report

Provide discussion to supplement Table B-1 and the UST location map in order to clarify the spatial and historical relationships among tanks and between tanks and piping and dispensers and a brief description of all historical compliance issues and releases (indicate incident number)

Two adjacent waste oil USTs, UST #001 and UST #002, located next to an abandoned commercial facility (see Photograph 1 in Appendix VIII). UST #003, located next to an abandoned residence, was used for residential heating (see Photograph 2 in Appendix VIII). The locations and spatial relationships of USTs #001, #002, and #003 are shown in Figure 2. No piping or dispensers were encountered when the USTs were removed.

3. Provide non-UST information.

None

4. Provide a comprehensive description of the release, including date discovered, cause and source (including tank identification number and contents), and the relationship of historical UST releases, non-UST releases, and off-site releases (indicate incident number) to contamination from current release.

Releases were discovered on November 8, 2011 during removal of USTs #001, #002, and #003 based on stained soil and petroleum odors observed on the bottoms of the UST excavations. Releases from USTs #001 and #002 appear to be the result of corrosion holes in both tanks (see Photograph 7 in Appendix VIII) and possibly overfilling when the tanks were in operation. Releases from UST #003 were the result of corrosion holes observed on the bottom and east end of the UST following its removal (see Photograph 8 in Appendix VIII).

5. Provide a brief description of site characteristics (including status of facility (active or inactive), land use of site and surrounding area, water supply, topography, vegetation, surface water, wells, buildings, surface cover, soil type, depth to and nature of bedrock, depth to groundwater, direction of groundwater flow, etc.)

The abandoned residence and abandoned commercial facility will be demolished as part of NCDOT right-of-way expansion for Piney Green Road (see Figure 3). Surrounding land use is commercial and residential. Soil observed during UST removals ranged from tan/black/grey, dry to moist, sandy silt at USTs #001 and #002 (see Photographs 3 and 4 in Appendix VIII) to tan, dry to moist, silty, clayey, fine-grained sand at UST #003 (see Photograph 5 in Appendix VIII). Depth to groundwater and direction of groundwater flow are not known; however, depth to groundwater is most likely less than 10 feet below ground surface, based on damp to moist soil encountered at bottoms of UST excavations. Groundwater flow of the uppermost unconfined aquifer is assumed to be in northwesterly direction towards an unnamed tributary of Little Northeast Creek, based on topography shown on Figure 1 of this report.

6. Summarize initial abatement actions, assessment activities, and corrective actions performed to date and list all reports previously submitted.

Following removal of USTs #001 and #002, soil staining was observed at bottom of the UST excavation and a petroleum odor was noted. The organic soil vapors in samples of the soil collected from the UST excavation during the UST removals were screened using a photoionization detector (PID). The measurements ranged from 0.3 to 30.1 parts per million (ppm). A total of approximately 90 cubic yards of impacted soil was removed from the UST #001/#002 excavation and approximately 20 cubic yards of the most contaminated soil was disposed offsite. The remainder of the excavated soil was backfilled into the UST #001/#002 excavation. The remainder of the UST excavation was backfilled with clean fill material to land surface, compacted, and topped with compacted ABC stone. A 24-hour release notification (NCDENR Form UST-61) was submitted to Fayetteville Regional Office of NCDENR on November 9, 2011. The excavation was backfilled with clean fill material to land surface and compacted (see Photograph 9 in Appendix VIII). A 24-hour release notification (NCDENR Form UST-61) was submitted to Fayetteville Regional Office of NCDENR on November 9, 2011.

Following removal of UST #003, soil staining was observed at bottom of the UST excavation and a petroleum odor was noted. The organic soil vapors in grab samples of the soil excavated during the UST removal were screened using a photoionization detector (PID). The measurements ranged from 36.0 to 158 ppm. A total of approximately 13 cubic yards of impacted soil was removed from the UST #003 excavation. Additional excavation was not possible due to the potential of structural damage to adjacent residence (see Photograph 10 in Appendix VIII). Approximately 7 cubic yards of the most contaminated soil was disposed offsite. The remainder of the excavated soil was backfilled into the UST #003 excavation. The UST excavation was then backfilled with clean fill material to land surface, compacted, and topped with compacted ABC stone. A 24-hour release notification (NCDENR Form UST-61) was submitted to Fayetteville Regional Office of NCDENR on November 9, 2011.

C. Site Check Report

Not applicable

D. UST Closure Report (following UST-12 Format) and Site Investigation Report of Permanent Closure or Change-in Service of UST (UST-2 Form)

UST-12 closure report requirements for UST #001 and UST #002 are addressed in this Initial Abatement Action report. A UST-2 Form for the closure of UST #001 and UST #002 is provided in Appendix I.

Closure report requirements for UST #003 are not applicable....the UST was non-regulated...it was used for residential heating.

E. Free Product Investigation and Recovery Report

Not applicable

F. Groundwater and Surface Water Investigation

Not applicable

G. Initial Response and Abatement Activities

1. Describe initial response actions performed within 24 hours of the release
 - Submittal of 24-hour Release Report and UST Leak Reporting Form (UST-61);

A completed UST-61 form was submitted to the Wilmington Office of NCDENR on November 9, 2011.

- Action to prevent further release and to determine source of the release;

Prior to removal of the three USTs, approximately 1380 gallons of a waste oil/water mixture was removed from UST #001, approximately 750 gallons of a waste oil/water mixture was removed from UST #002, and approximately 100 gallons of a heating oil/water mixture was removed from UST #003 using a vacuum truck. A copy of the manifest for offsite disposal of the liquids is provided in Appendix V. Once the USTs were removed, the exteriors of all three USTs were examined. USTs #001 and #002 showed evidence of small corrosion holes and exterior staining, and large corrosion holes were identified on the bottom of UST #003 at one end, as well as staining on the UST bottom, as shown in Photograph 8 in Appendix VIII.

- Identification and mitigation of hazards due to exposure to pollutants;

Based on observed conditions in the UST excavations following the removal of the UST, no remaining hazards were identified except for the stained soil observed at the excavation. Following overexcavation, the UST excavations were backfilled with stockpiled soil and clean fill material from an offsite source, compacted, and topped with compacted ABC stone.

- Identification and mitigation of hazards due to fire, explosion, and vapor hazards;

The atmospheres of USTs #001, UST #002, and UST #003 were monitored with a LEL meter prior to removal. All measurements were < 10% of LEL. The stained soil remaining at the bottom of the UST excavations was not considered a fire, explosion, or vapor hazard.

2. Describe initial abatement actions performed

- Completion of investigation to confirm presence and determine source of release;

Corrosion holes and exterior staining were observed on the bottom of removed USTs #001, #002, and #003, and stained soil was observed in the bottom of the UST excavations, thereby confirming the source of the release.

- Investigation and recovery of free product;

Not applicable....no free product was encountered in the UST excavation.

- Continued mitigation and monitoring of fire, explosion, and vapor hazards;

Further mitigation and monitoring of hazards were not required following removal of the USTs.

- Remediation of hazards posed by exposed contaminated soil;

Soil removed from the UST excavations showing the most staining was loaded onto trucks and transported offsite. The remaining impacted soil was backfilled into the UST excavations was covered by clean fill material.

- Submittal of 20-Day Report summarizing the progress of the initial actions performed within the 20-day period following the discovery of the release;

Not applicable

- Soil excavation activities;

See Section H below.

H. Excavation of Contaminated Soil

1. Describe source and estimated extent of soil contamination determined in initial investigations (e.g., site check, UST system closure), referencing maps and cross-sections in Section J and tables presenting soil sampling information and results in Section K.

Petroleum-stained soil was observed on the sides and the bottom of the UST excavations following removal of USTs #001, #002, and #003.

- Sampling location and depths; locations of tanks; piping dispensers, sumps, areas of staining; utility lines; potential receptors; buildings; relationship of area of contaminated soil to groundwater and bedrock.

Soil sample locations are shown in Figure 2. Soil samples SB-1 and SB-2 were collected from the excavation bottom beneath UST #002 at depth of 6 feet below land surface. Soil samples SB-3 and SB-4 were collected from the excavation bottom beneath UST #001 at depth of 6 feet below land surface. Confirmation soil samples were collected from the post-excavation sidewalls (soil samples SB-5, SB-6, SB-7, and SB-10), and from the post-excavation bottom (soil samples SB-8 and SB-9) for PID screening and analysis of petroleum constituents (see Figure 2).

Analytical results for the collected soil samples are presented in Table 3 and Appendix VII, and PID readings for the soil samples are shown on Figure 2.

Soil sample SB-11 was collected from beneath UST #003 at depth of 4 feet below land surface. Soil samples were collected from three of the post-excavation sidewalls (soil samples SB-13, SB-14, and SB-15), and from the post-excavation bottom (soil sample SB-12) for PID screening and analysis of petroleum constituents (see Figure 2). Analytical results

for the collected soil samples are presented in Table 3 and Appendix VII, and PID readings for the soil samples are shown on Figure 2.

The abandoned commercial facility is located approximately 20 feet north of UST #001/#002 excavation. Neither bedrock nor groundwater was encountered during closure of the USTs. Bedrock is believed to be greater than 100 feet below the impacted soil remaining in the excavation, and groundwater most likely located less than 5 feet below the impacted soil. A potential receptor, an unnamed tributary of Little Northeast Creek, is located approximately 500 feet west of the former USTs. No piping dispensers, pumps, or utility lines were located in the vicinity of the former USTs.

The abandoned residence serviced by former UST #003 is located less than 2 foot east of the UST excavation. Neither bedrock nor groundwater was encountered during closure of the UST, and both are believed to be greater than 10 feet below the contaminated soil encountered during closure. A potential receptor, an unnamed tributary of Little Northeast Creek, is located approximately 600 feet west of the former UST. No piping dispensers, pumps, or utility lines were located in the vicinity of the former UST.

- If part or all of UST system was removed, indicate dimensions of resulting pits and trenches.

A pit 18 feet wide by 20 feet long by 7 feet deep remained following the removal of UST #001 and UST #002, as shown in Figure 2. A pit 5 feet wide by 10 feet long by 7 feet deep remained following the removal of UST #003, as shown in Figure 2.

2. Describe excavation process, referencing maps and cross-sections in Section J, tables presenting soil sampling information and results in section K and disposal manifests and geological logs in Section J.

- Describe type of equipment used.

A trackhoe was used to remove all three USTs and the overexcavation following the UST removals.

- Describe field screening, including:

- Physical characteristics of soil samples, as observed during collection;

Soil in samples was generally friable to slightly cohesive sandy silt or silty sand that was damp, stained, with a petroleum odor.

- Field instrumentation used to screen soils;

Soil samples were screened with a MiniRAE2000 PID.

- Field instrument calibration procedures;

The PID was calibrated to 10.6 parts per million isobutylene using standard calibration gas in accordance with manufacturer's instructions prior to screening.

- Screening results.

The PID readings for the soil samples are indicated on Figure 2.

- Indicate the final dimensions of the excavation.

A pit 18 feet wide by 20 feet long by 7 feet deep remained following the removal of UST #001 and UST #002, as shown in Figure 2. A pit 5 feet wide by 10 feet long by 7 feet deep remained following the removal of UST #003, as shown in Figure 2.

- Indicate the volume (in cubic yards) and weight (in tons) of soil excavated from each excavation (show calculations).

A total of approximately 90 cubic yards (90 x 0.93 tons/cubic yard = 84 tons) of soil was excavated from the UST #001/#002 excavation, and approximately 13 cubic yards (13 x 0.93 tons/cubic yard = 12 tons) of soil was excavated from the UST #003 excavation.

- Describe the relationship of final excavation pit to former UST system, to groundwater, to bedrock, and to structures.

The abandoned commercial facility is located approximately 20 feet north of former USTs #001 and #002. Neither bedrock nor groundwater was encountered during closure of the USTs. Bedrock is believed to be greater than 100 feet below the impacted soil remaining in the excavation, and groundwater most likely located less than 5 feet below the impacted soil. No piping dispensers, pumps, or utility lines were located in the vicinity of the former USTs.

The abandoned residence serviced by former UST #003 was located approximately 2 foot east of the UST. Neither bedrock nor groundwater was encountered during closure of the UST, and both are believed to be greater than 10 feet below the contaminated soil encountered during closure. No piping dispensers, pumps, or utility lines were located in the vicinity of the former UST.

- Indicate if the excavation operation ceased on encountering clean soil, groundwater, or bedrock.

No clean soil, groundwater, or bedrock was encountered during excavation. Overexcavation at both UST excavations (#001/#002 excavation and the #003 excavation) was discontinued based on the remaining extent of stained soil in the unexcavated soil at the UST

excavations, and the potential threat to the structural integrity of the abandoned residence adjacent to the UST #003 excavation.

3. Describe post-excavation confirmation soil sampling, referencing maps and cross-sections in Section J, tables presenting soil sampling information and results in Section K, and geological logs in Section L as follows:

- Describe the sample location and depth, and methods of collection and analysis for each excavation.

The locations and depths of soil samples SB-1 through SB-15 are shown in Figure 2. They were collected as grab samples from the trackhoe bucket, using Encore™ samplers to collect samples for GRO, VPH and VOC analysis. Sampling protocol is described in Appendix IV.

- Note if multiple excavations were performed sequentially in an area of contaminated soil. i.e., if confirmatory sampling following primary excavation indicated that contaminated soil remained, so that further excavation was performed and a second set of confirmatory samples was collected and analyzed.

Overexcavation at both UST excavations (#001/#002 excavation and the #003 excavation) was discontinued based on the remaining extent of stained soil in the unexcavated soil at the UST excavations, and the potential threat to the structural integrity of the abandoned residence adjacent to the UST #003 excavation. One set of confirmatory soil samples was collected from each excavation at that time.

- If contaminated soil was allowed to remain after final excavation, indicate precisely the location and depth of the residual contamination and explain why it is not removed.

Based on analytical results for confirmation soil samples collected from both UST excavations (#001/#002 excavation and the #003 excavation), as well as observed staining and petroleum odors, unexcavated impacted soil remains beneath and outside the final areas and depths of the excavations. This soil was not removed due to its extent and the fact that the areas in which the abandoned commercial facility adjacent to the former locations of USTs #001 and #002, and the abandoned residence adjacent to the former location of UST #003 are located will undergo demolition as part of NCDOT's planned right-of-way expansion (see Figure 3).

4. Document soil investigation.

- Provide soil sampling information for all samples collected following excavation and during previous investigations. Refer to table provided in Section K: Table B-3, Summary of Soil sampling results; to figures, in Section J, and to appendices, in Section L. Information should include:

- Lithologic descriptions from logs for boring, excavations;

Soil observed during UST removals and excavations ranged from tan/black/grey, dry to moist, sandy silt at USTs #001 and #002 to tan dry to moist, silty, clayey, fine-grained sand at UST #003.

- Type of samples;

All soil samples were collected as grab samples.

- Sample collection procedures;

Sampling protocol is described in Appendix IV.

- Locations of the soil samples;

The soil sample locations are shown in Figure 2.

- Depths of the soil samples;

The soil sample depths are shown in Figure 2.

- Time/date collected;

All soil samples were collected on November 8, 2011. The times of the sample collections are provided on the Chain of Custody form in Appendix VI.

- Sample identification;

Soil sample IDs were SB-1 through SB-15, as shown in Figure 2. Soil samples SB-1 through SB-10 were collected from the excavation for UST #001 and UST #002, and soils samples SB-11 through SB-15 were collected from the excavation fro UST #003. Soil samples SB-1 through SB-4 and soil sample SB-11 were collected beneath the USTs immediately following their removal, and samples SB-5 through SB-10 and SB-12 through SB-15 were confirmation samples collected following excavation of impacted soil.

- Indication of phase of sampling: site check, closure, IAA, etc.;

All soil samples were collected as part of the UST closures.

- Methods of soil sample analysis

As indicated in Table 3, soil samples SB-1 through SB-4 and SB-11 were analyzed for Gasoline Range Organics (GRO) and Diesel Range Organics (DRO) by EPA Method 8015C. Soil samples SB-1 through SB-4 were also analyzed for chromium and lead by EPA Method 6010C.

Soil samples SB-5 through SB-10 and SB-12 through SB-15 were analyzed for volatile organic compounds (VOCs) by EPA Method 8260B, semi-volatile organic compounds (SVOCs) by EPA Method 8270D, and volatile petroleum hydrocarbons (VPH) and extractable petroleum hydrocarbons (EPH) by the MADEP Method. Soil samples SB-5 through SB-10 were also analyzed for chromium and lead by EPA Method 6010C.

- Document quality-control measures information, including:
 - Sample handling procedures including sample preservation techniques and sample transport procedures;

Sample handling procedures are described in Appendix IV. Sample containers and Encore samplers were new, and samples requiring preservation (GRO, VPH, and VOCs) were placed in containers provided by lab with pre-measured preservative. All samples were placed on ice in a cooler, and delivered to the laboratory courier following completion of soil sampling activities.

- Decontamination procedures;

The trackhoe used for UST removals and excavation was decontaminated by the subcontractor prior to arrival at the site. No other equipment used in the UST removals required decontamination.

- Time and date samples were submitted to lab;

All collected soil samples were submitted to the lab at 10:30 AM on November 10, 2011.

- Collection of samples for quality control purposes.

No soil samples were collected for quality control purposes.

- Describe soil investigation results;

- Presentation of analytical results for soil samples;

Certificates of Analysis for the collected soil samples are presented in Appendix VII, and the results are summarized in Table 3.

- Discussion of the results in relation to the appropriate cleanup levels, Identifying the samples that exceed the lower of the residential MSCCs or the soil-to-groundwater MSCCs.

Based on the analytical results for soil samples collected from the sides and bottoms of both UST excavations (#001/#002 excavation and the #003 excavation), soil contamination levels exceeding MSCCs likely remain in the excavations. Soil samples collected from beneath the USTs following their removal (SB-1 through SB-

4 and SB-11) all had detected DRO and GRO concentrations that exceed the respective NCDENR action levels.

The analytical results for confirmation soil samples collected from the UST #001/#002 excavation indicate that very few or no exceedances of MSCCs for detected constituents in samples collected from the excavation's east and south sidewalls (samples SB-6 and SB-7, respectively), and the east side of the excavation bottom (SB-8). However, there were exceedances in MSCCs for VOCs, SVOCs, VPH, and/or EPH for detected constituents in the sample collected from excavation's north and west sidewalls (SB-5 and SB-10, respectively), and the west side of the excavation bottom (SB-9). No MSCC exceedances were reported for samples analyzed for chromium and lead, except soil sample SB-10, in which chromium was detected at 5.75 milligrams per kilogram (Soil to Groundwater MSCC = 5.4 milligrams per kilogram).

The analytical results for confirmation soil samples collected from the UST #003 excavation indicate MSCC exceedances for detected VOCs, SVOCs, VPH, and/or EPH in all samples.

- Discussion of effect of quality control sample results on the interpretation of soil sample results.

Not applicable...no quality control samples were collected.

5. Describe disposal of contaminated soil, referencing tables presenting soil sampling information and results in Section K and disposal manifests in Section L, as follows:

- Indicate volume and weight of contaminated soil removed from each excavation at site;

A total of approximately 90 cubic yards (84 tons) of impacted soil was removed from the UST #001/#002 excavation and approximately 20 cubic yards 18 tons of the most contaminated soil was disposed offsite. The remainder of the excavated soil was backfilled into the UST #001/#002 excavation.

A total of approximately 13 cubic yards (12 tons) of impacted soil was removed from the UST #003 excavation. Additional excavation was not possible due to the potential of structural damage to adjacent residence (see Photograph 5 in Appendix VIII). Approximately 7 cubic yards (6 tons) of the most contaminated soil was disposed offsite. The remainder of the excavated soil was backfilled into the UST #003 excavation.

A copy of the manifest for offsite disposal of impacted soil from both excavations (24.51 tons) is provided in Appendix V.

- Describe construction of any stockpile of contaminated soil, describe collection and analysis of stockpile samples;

Soil removed from the UST #001/#002 excavation was briefly stockpiled on the surrounding asphalt surface. The stockpiled soil was removed or backfilled following excavation activities. Soil removed from the UST #003 excavation was briefly stockpiled on plastic sheeting on the ground adjacent to the excavation. The stockpiled soil was removed or backfilled following excavation activities.

- Indicate if soil was treated onsite;

Soil was not treated onsite.

- Indicate if soil was transported offsite for disposal and, if so, by whom and to what destination;

Soil was transported offsite to Oak Hills Farms in Autryville, North Carolina by Duff's Trucking of Jacksonville, North Carolina on November 8, 2011.

- Confirm the excavation was back-filled with clean soil;

Both excavations (#001/#002 excavation and the #003 excavation) were partially backfilled with some of the stockpiled soil that had been removed from each respective excavation, then covered with clean fill material by A&D Environmental, compacted, and topped with compacted ABC stone (see Photographs 9 and 10 in Appendix VIII).

6. Present conclusions, as follows:

- Briefly summarize excavation process;

The overburden material was removed by a trackhoe from UST #001 and UST # and stockpiled on the adjacent asphalt surface. Soil samples were collected from beneath the USTs after they were removed. The UST excavation was widened and deepened as visibly stained soil was removed. Impacted soil indicating significant staining and/or odor was stockpiled separately on the asphalt surface, and a separate stockpile of excavated soil with less staining and/or odor was created as the soil removal continued. Following the excavation of a pit approximately 18 feet by 20 feet by 7 feet deep, soil removal operations were discontinued due to the extent of unexcavated impacted soil that remained on the sides and bottom of the excavation, based on staining and odor. The isolated stockpile of significantly impacted soil was removed with a front end loader and loaded into a dump truck. Once the truck had been filled, stockpiled soil was into a second dump truck until it was half full. The remaining stockpile soil was then backfilled into the excavation with the front end loader and compacted. Clean fill material

from an offsite source was then backfilled into the excavation, compacted, and topped with compacted ABC stone.

Overburden material was removed by a trackhoe from UST #003 and placed on plastic sheeting on the adjacent ground surface. A soil sample was collected from beneath the UST after it was removed. The excavation was widened and deepened as soil with visible staining and/or petroleum odors were removed. Impacted soil indicating significant staining and/or odor was stockpiled separately on the plastic sheeting. Following the excavation of a pit approximately 5 feet by 10 feet by 7 feet deep, soil removal operations were discontinued due to the extent of unexcavated impacted soil that remained on the sides and bottom of the excavation, based on staining and odor, including soil that extended beneath the abandoned residence. Significantly impacted soil was removed with a front end loader and loaded into the half-full dump truck (from the #001/#002 excavation) until it was full. The remaining stockpile soil was then backfilled into the excavation with the front end loader and compacted. Clean fill material from an offsite source was then backfilled into the excavation, compacted, and topped with compacted ABC stone.

- Describe the extent of final excavation and collection of confirmatory soil samples;

The dimensions of the final excavation for USTs #001 and #002 are approximately 18 feet x 20 feet x 7 feet deep, and 5 feet x 10 feet x 7 feet for the final excavation for UST #003. Confirmatory soil samples were collected as grab samples from minimally disturbed soil obtained from each sidewall and the bottoms of the final excavations using the trackhoe bucket (see Appendix IV).

- Indicate if excavation ceased on encountering groundwater or bedrock;

No groundwater or bedrock was encountered during the excavation process.

- Indicate whether soil contamination levels in exceedance of the lowest MSCCs remain in the excavation, further excavation being determined infeasible by the UST Section, or soil contaminant levels in final excavation confirmatory samples were equal to or below the lowest MSCCs.

Based on the analytical results for soil samples collected from the sides and bottoms of both UST excavations (#001/#002 excavation and the #003 excavation), soil contamination levels exceeding MSCCs likely remain in the excavations.

I. Conclusions

1. If soil contaminant levels in exceedance of the lowest MSCCs remain in the excavation(s) (further excavation being determined infeasible by the UST Section), if groundwater or bedrock has been encountered in proximity to contamination, or if free product is present, it should be concluded that a Limited Site Assessment must be performed and a report submitted within 120 days of discovery of the release; but

Stained soil remains within the backfilled excavations for former USTs #001, #002, and #003. The concentrations of potential contaminants in the stained soil most likely exceed the MSCCs. The areas in which the abandoned commercial facility adjacent to the former locations of USTs #001 and #002, and the abandoned residence adjacent to the former location of UST #003 are located will undergo demolition as part of NCDOT's planned right-of-way expansion (see Figure 3).

2. If soil contaminant levels in final excavation confirmatory samples were equal to or below the lowest MSCCs and if groundwater, bedrock, and free product were not encountered in the excavation(s), then no further action should be requested.

J. Figures

1. A topographic map illustrating the area within 1500-foot radius of the source of the release;

Attached as Figure 1 of this report.

2. Site map and cross-sections illustrating the UST system(s)/excavation area(s), drawn to scale;

Attached as Figure 2 of this report.

3. Map(s) and geological cross-sections, drawn to scale, depicting all soil analytical results obtained to date and final confirmatory sample results;

Attached as Figure 2 of this report. Insufficient room on figure to display analytical results for collected soil samples. Analytical results are summarized in Table 3 of this report.

4. Map(s) and geological cross-sections, drawn to scale, depicting groundwater and surface water analytical results;

Not applicable.

5. A free product map showing thickness (in feet) and extent of free product using contour lines;

Not applicable.

6. Potential receptor map that clearly identifies water supply wells and other potential receptors.

Not applicable...no known water supplies wells in the vicinity of the impacted soil in the UST excavations. Potential surface water receptor (tributary of Little Northeast Creek) is shown in Figure 1.

K. Tables

1. Site history

Attached as Table 1 of this report.

2. Public and private water supply well and other receptor information

Attached as Table 2 of this report.

3. Field screening results

Field screening results are shown on Figure 2.

4. Summary of soil sampling results

Attached as Table 3 of this report.

5. Summary of groundwater and surface water sampling results

Not applicable.

6. Monitoring and remediation well construction information

Not applicable.

7. Free product recovery information

Not applicable.

8. Cumulative volume of free product recovered from site

Not applicable.

9. Current and historical groundwater elevations and free product thickness

Not applicable.

L. Appendices

- A. Tightness testing results and supporting documentation

Not applicable.

B. Notification of Intent: UST Permanent Closure or Change-in-Service (UST-3 Form)

UST-3 Form for USTs #001 and #002 is attached in Appendix I. No UST-3 Form for UST#003 was submitted because it was a non-regulated UST.

C. Site Investigation Report for Permanent Closure or Change-in-Service of UST (UST-2 Form)

UST-2 Form for USTs #001 and #002 is attached in Appendix I. No UST-2 Form for UST#003 was submitted because it was a non-regulated UST.

D. Site specific Health and Safety Plan (HASP)

Attached as Appendix II of this report.

E. Certificate of UST disposal

Attached as Appendix III of this report.

F. Groundwater field measurements

Not applicable.

G. Standard procedures

Attached as Appendix IV of this report.

H. Soil, water, free product, and sludge disposal manifests and soil treatment permits

Attached as Appendix V of this report.

I. Complete chain-of-custody records

Attached as Appendix VI of this report.

J. Copy of all laboratory analytical records

Attached as Appendix VII of this report.

K. Photographs

Attached as Appendix VIII of this report.

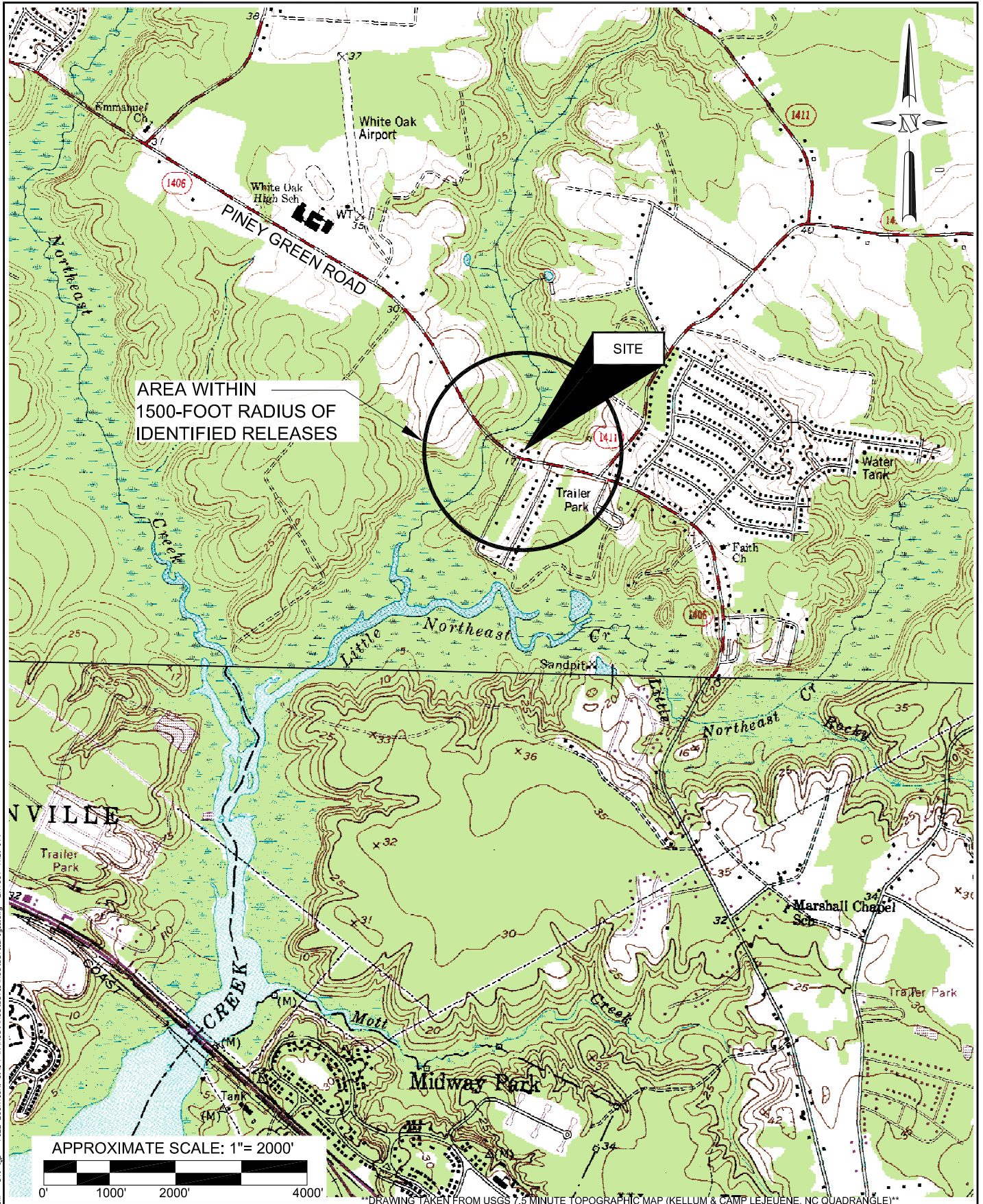
L. Geologic logs for excavation(s)/borings

No borings were constructed. No lithologic logs were completed for the excavations. The lithology of soil encountered in the excavations is described in Section H above.

M. Monitoring well construction forms

Not applicable.

FIGURES



PLOTTED: Jan 31, 2012 - 12:39pm B:\s_jsp FILE LOCATION: G:\I-P\N\ncst\ncst48971\ncst48971_L\fig\ndwg_LAYOUT TAB: 149



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PROJECT: ncd100711

INITIAL ABATEMENT ACTION REPORT
 1381 PINEY GREEN ROAD, PARCEL 149
 ONSLOW COUNTY, NORTH CAROLINA
 STATE PROJECT U-3810, WBS #35801.1.1

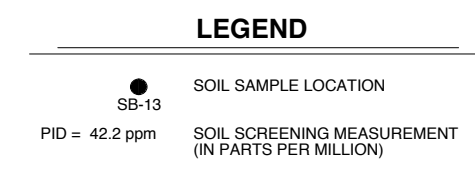
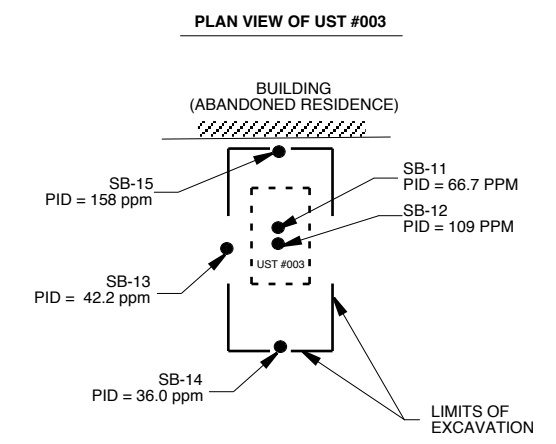
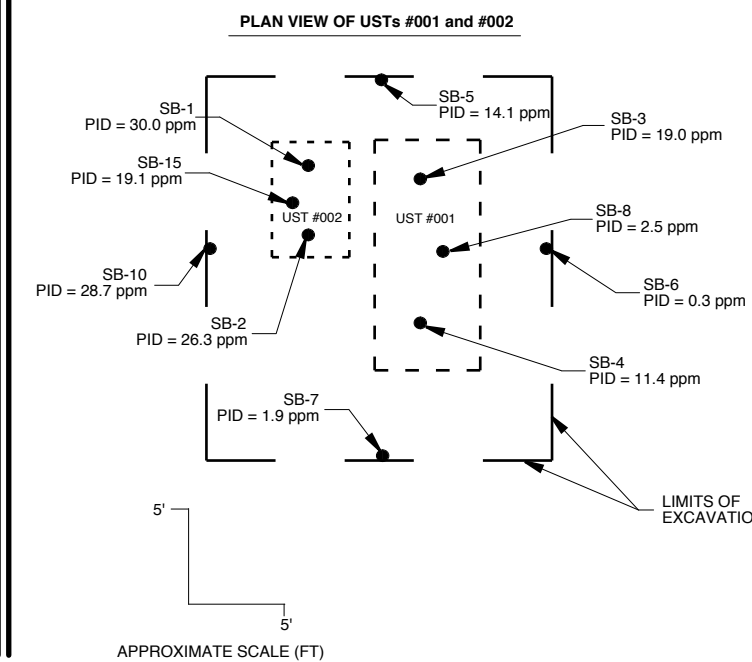
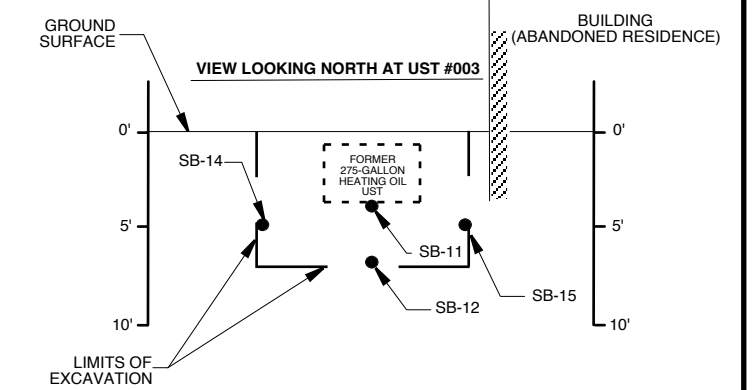
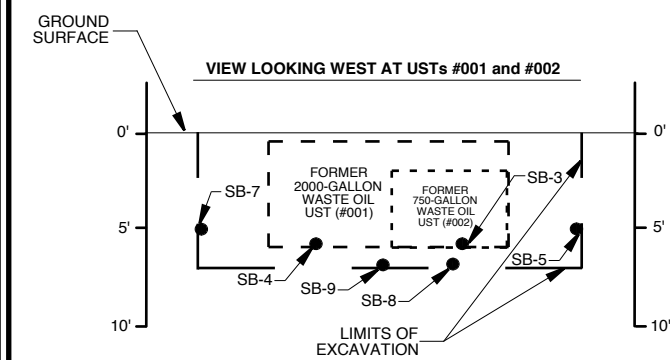
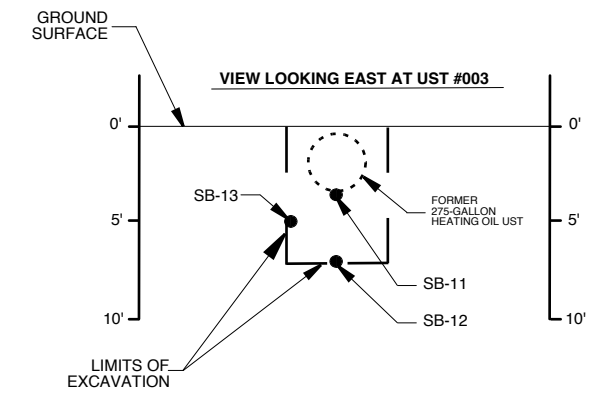
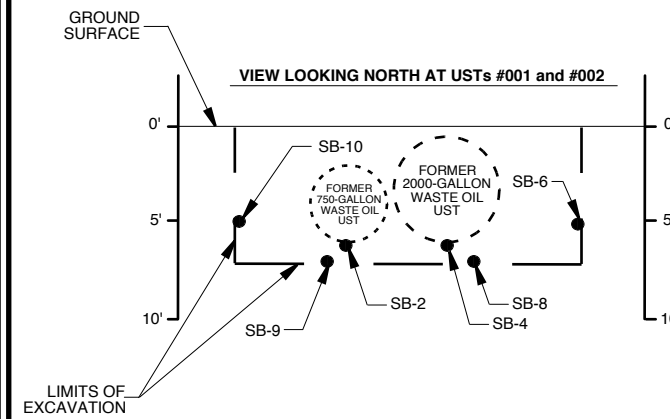
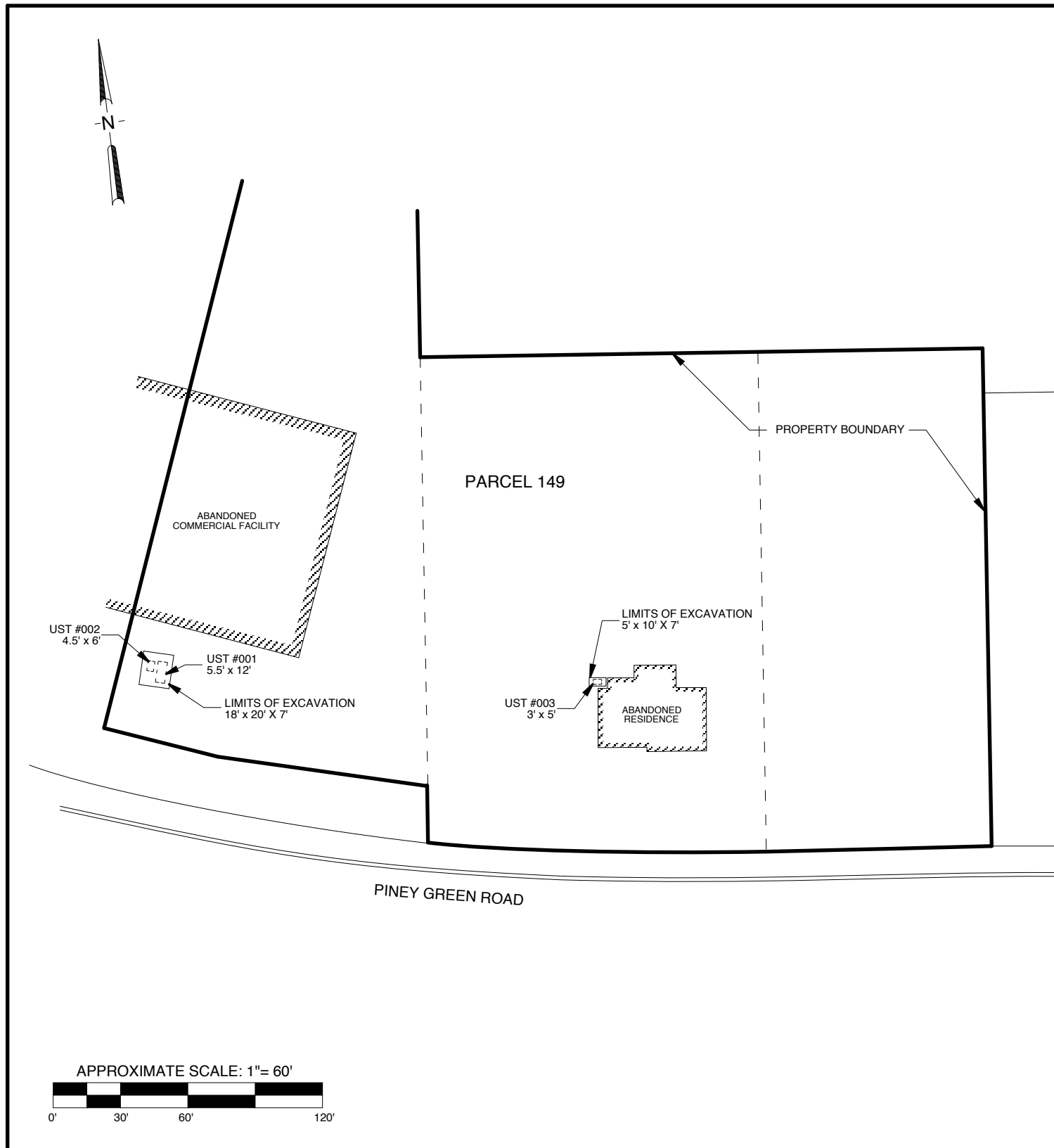
USGS TOPOGRAPHIC
 LOCATION MAP

FIGURE
 1

DATE: January 30, 2012

DRAWN BY: TJP

APPRV. BY: ADE



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an Affiliate of The GEL Group, Inc.

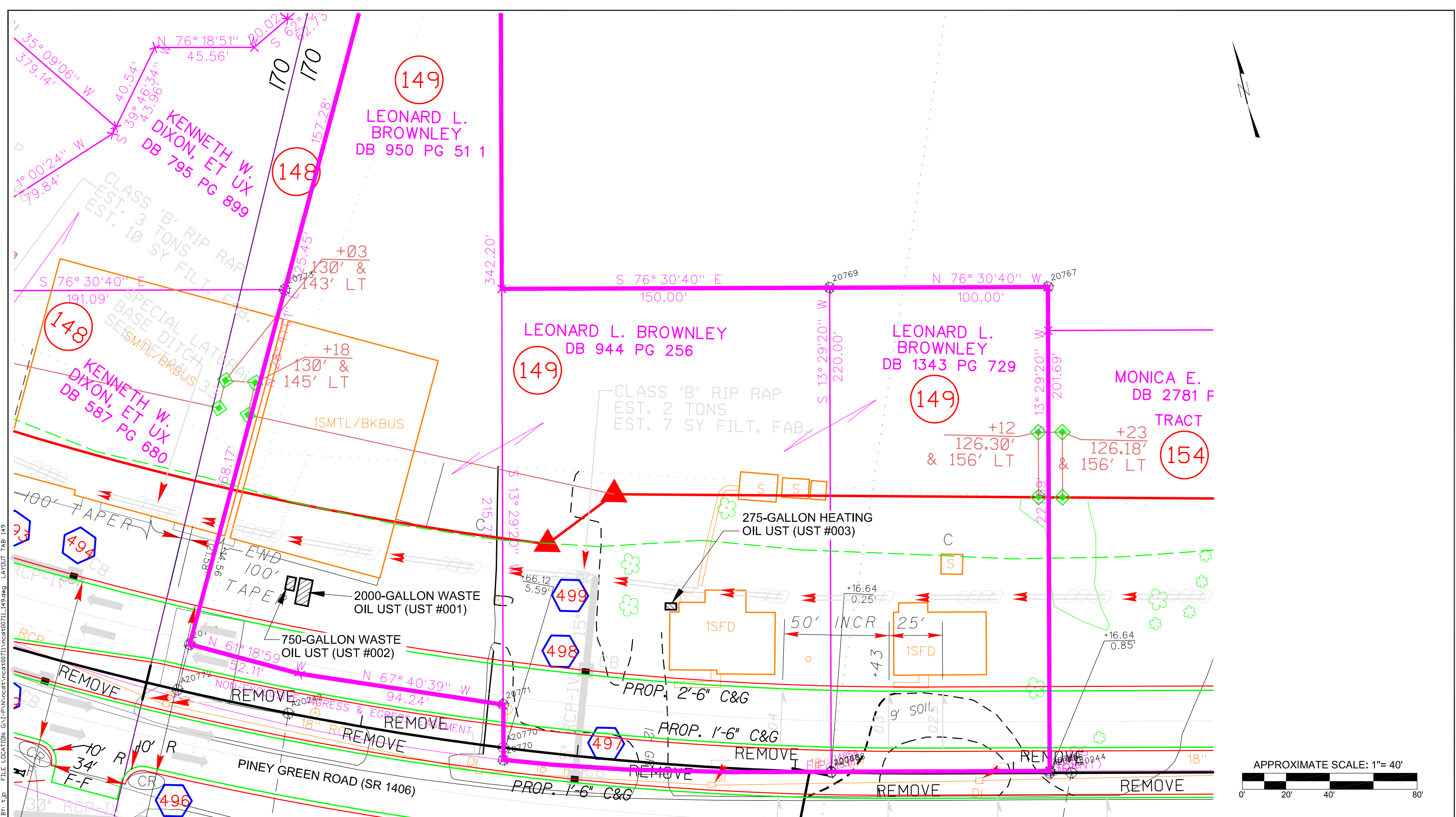


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RESEARCH TRIANGLE PARK, NC
(919) 544-1100

PROJECT: ncdt00711
INITIAL ABATEMENT ACTION REPORT
1381 PINEY GREEN ROAD, PARCEL 149
ONSLow COUNTY, NORTH CAROLINA
STATE PROJECT U-3810, WBS 35801.1.1
DATE: January 31, 2012

SITE PLAN
DRAWN BY: ADE
APPRV. BY:

DRAWING
2



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PROJECT: ncdt00711
 INITIAL ABATEMENT ACTION REPORT
 1381 PINEY GREEN ROAD, PARCEL 149
 ONSLOW COUNTY, NORTH CAROLINA
 STATE PROJECT U-3810, WBS #35801.1.1
 DATE: February 2, 2012

SITE MAP SHOWING LOCATIONS OF
 USTs REMOVED ON NOVEMBER 8, 2011
 DRAWN BY: TJP APPRV. BY: ADE

FIGURE
 3

PLOTTED: Feb 03, 2012 - 11:00am
 FILE LOCATION: G:\P\N\ncdt\ncdt00711\ncdt00711_149.dwg LAYOUT Tab 149
 BY: t.jp

TABLES

TABLE 1

Site History

Table B-1: Site History – UST/AST System and Other Release Information

Revision Date: NA Incident Number and Name: 1381 Piney Green Road, Onslow County, NC

UST ID Number	Current/Last Contents *	Previous Contents *	Capacity (in gallons)	Construction Details **	Tank Dimensions	Description of Associated Piping and Pumps	Date Tank Installed	Status of UST ***	Was release associated with the UST System?
001	Waste Oil	Waste Oil	2000	Steel, Single-walled	5.5' x 12'	None Observed	Not Known	Closed Removed on 11/08/11	Yes
002	Waste Oil	Waste Oil	750	Steel, Single-walled	4.5' x 6'	None Observed	Not Known	Closed Removed on 11/08/11	Yes

Add additional records as necessary

AST ID Number	Current/Last Contents *	Previous Contents *	Capacity (in gallons)	Construction Details **	Tank Dimensions	Description of Associated Piping and Pumps	Date Tank Installed	Status of AST ***	Was release associated with the AST System?
NA									

Add additional records as necessary

Incident Number	Material Released	Date of Release	Description of Release
NA	Waste Oil	Not Known	Stained soil with petroleum odor was observed in UST excavation following removal of USTs #001 and #002.

Add additional records as necessary

* Gasoline (unleaded or leaded), diesel, used oil, waste oil, aviation fuel, etc., or pesticides, non-halogenated or halogenated solvents, etc.

** Fiberglass (single- or double-walled), steel (single- or double-walled), steel with FRP (single- or double-walled), steel with liner, other, unknown.

*** Currently operational, not in use or temporarily closed (specify date), permanently closed in place (specify date), permanently closed by removal (specify date)

Table B-1: Site History – UST/AST System and Other Release Information

Revision Date: NA Incident Number and Name: 1381 Piney Green Road, Onslow County, NC

UST ID Number	Current/Last Contents *	Previous Contents *	Capacity (in gallons)	Construction Details **	Tank Dimensions	Description of Associated Piping and Pumps	Date Tank Installed	Status of UST ***	Was release associated with the UST System?
003	Heating Oil	Heating Oil	275	Steel, Single-walled	3' x 5'	None Observed	Not Known	Closed Removed on 11/08/11	Yes

Add additional records as necessary

AST ID Number	Current/Last Contents *	Previous Contents *	Capacity (in gallons)	Construction Details **	Tank Dimensions	Description of Associated Piping and Pumps	Date Tank Installed	Status of AST ***	Was release associated with the AST System?
NA									

Add additional records as necessary

Incident Number	Material Released	Date of Release	Description of Release
NA	Heating Oil	Not Known	Stained soil with petroleum odor was observed in UST excavation following removal of UST #003.

Add additional records as necessary

* Gasoline (unleaded or leaded), diesel, used oil, waste oil, aviation fuel, etc., or pesticides, non-halogenated or halogenated solvents, etc.

** Fiberglass (single- or double-walled), steel (single- or double-walled), steel with FRP (single- or double-walled), steel with liner, other, unknown.

*** Currently operational, not in use or temporarily closed (specify date), permanently closed in place (specify date), permanently closed by removal (specify date)

Table B-2: Site History - UST/AST Owner/Operator and Other Responsible Party Information

Revision Date: N/A Incident Number and Name: 1381 Piney Green Road, Onslow County, NC

UST ID Number	USTs #001, #002, and #003		Facility ID Number	N/A
Name of Owner		Dates of Operation (mm/dd/yy to mm/dd/yy)		
Not known: abandoned orphan USTs		Not known		
Street Address				
N/A				
City		State	Zip	Telephone Number
N/A				N/A
Name of Operator		Dates of Operation (mm/dd/yy to mm/dd/yy)		
Not known		Not known		
Street Address				
Not known				
City		State	Zip	Telephone Number
Not known				Not known
Incident Number	N/A			
Name of Other Responsible Party		Dates of Release(s) (mm/dd/yy to mm/dd/yy)		
N/A		N/A		
Street Address				
N/A				
City		State	Zip	Telephone Number
N/A				N/A

Add additional records for all owners, operators and responsible parties as necessary

TABLE 2

**Public and Private Water Supply Well
and
Other Potential receptors**

Table B-5: Public and Private Water Supply Well and Other Receptor Information

Revision Date: NA Incident Number and Name: 1381 Piney Green Road, Onslow County, NC Facility ID#: NA

(Include the following information. The well number (can use tax number), well owner and user names, addresses and telephone numbers, use of the well (potable, agricultural, etc.), well depth, type of well (i.e., drilled or bored), well casing depth, well screen interval and distance of well from the source area of the release)

Public and Private Water Supply Wells

Well #	Well Owner/ User (indicate which)	Address	Phone Number	Well Use	Well Depth (ft BGS)	Type of Well	Well Casing Depth (ft. BGS)	Well Screen Interval (x to y ft. BGS)	Distance from source area of release (ft.)	Up or downgradient
	Not known (no known well at 1381 Piney Green Road, and no known wells in neighborhood)									

Ft BGS = feet below ground surface

Other Receptors

(other public water supplies, reservoirs, water supply lines, surface water bodies, wellhead protection areas, recharge areas for deep aquifers, subsurface structures)

Receptor ID	Description	Location	Contact	Phone Number	Usage			Up or down-gradient	Distance from source area of release (ft.)
1	Unnamed creek	Tributary of Little Northeast Creek			Not known			Down	~500 feet

Table B-6: Property Owners/ Occupants

Revision Date: NA Incident No. and Name: NA Facility ID#: NA

Tax Parcel Number/ Map ID	Owner/ Occupant Name (Last, First MI)	Address
	Current owner: NCDOT (site is vacant)	1589 Mail Service Center Raleigh, NC 27699

TABLE 3

Summary of Soil Sampling Results

Table B-3: Summary of Soil Sample Results

Revision Date: NA Incident Number and Name: 1381 Piney Green Road, Onslow County, NC Facility ID #: NA

Analytical Method (e.g., VOC by EPA 8260) →					EPA 8015C	EPA 8015C	EPA 6010C	EPA 6010C		
Contaminant of Concern →					GRO	DRO	Chromium	Lead		
Sample ID	Date Collected (m/dd/yy)	Source Area (e.g. Tank pit 1)	Sample Depth (ft BGS)	Incident Phase (Closure, 20Day, LSA, etc.)						
SB-1	11/8/2011	#002 bottom	6	Closure	15600	46.2	3.09	30.6		
SB-2	11/8/2011	#002 bottom	6	Closure	19800	103	3.95	57.1		
SB-3	11/8/2011	#001 bottom	6	Closure	874	6.23	4.00	16.4		
SB-4	11/8/2011	#001 bottom	6	Closure	95.4	< 3.42	4.18	9.25		
Soil to groundwater MSCC (mg/kg)					None	None	5.4	270		
Residential MSCC (mg/kg)					None	None	47	400		
Industrial/Commercial MSCC (mg/kg)					None	None	1226	400		

Indicate method detection limit for contaminants when analyzed , but not detected (e.g., < 1, 10, 42)

List any contaminant detected above the method detection limit

MSCC = maximum soil contaminant concentration

ft. BGS = feet below ground surface

Results must be reported in mg/kg.

mg/kg = milligrams per kilogram

Table B-3: Summary of Soil Sample Results

Revision Date: NA Incident Number and Name: 1381 Piney Green Road, Onslow County, NC Facility ID #: NA

Analytical Method (e.g., VOC by EPA 8260) →					EPA 8260B	EPA 8260B	EPA 8260B	EPA 8260B	EPA 8260B	EPA 8260B
Contaminant of Concern →					1,2,4-Trimethyl- benzene	1,3,5-Trimethyl- benzene	4-Isopropyl- toluene	Ethylbenzene	Naphthalene	m,p-Xylene
Sample ID	Date Collected (m/dd/yy)	Source Area (e.g. Tank pit 1)	Sample Depth (ft BGS)	Incident Phase (Closure, 20Day, LSA, etc.)						
SB-5	11/8/2011	#001/#002 pit side	5	Closure	6490	1730	596	2220	7540	3460
SB-6	11/8/2011	#001/#002 pit side	5	Closure	< 5.40	< 5.40	< 5.40	< 5.40	< 5.40	< 5.40
SB-7	11/8/2011	#001/#002 pit side	5	Closure	< 4.36	< 4.36	< 4.36	< 4.36	< 4.36	< 4.36
SB-8	11/8/2011	#001/#002 pit bottom	7	Closure	70.3	< 57.6	< 57.6	< 57.6	409	< 57.6
SB-9	11/8/2011	#001/#002 pit bottom	7	Closure	8700	2220	590	2240	7370	6010
Soil to groundwater MSCC (mg/kg)					2.6	8.3	None	4.9	0.16	4.6
Residential MSCC (mg/kg)					156	782	None	1560	313	3129
Industrial/Commercial MSCC (mg/kg)					4088	20440	None	40000	8176	81760

Indicate method detection limit for contaminants when analyzed , but not detected (e.g., < 1, 10, 42)

List any contaminant detected above the method detection limit

MSCC = maximum soil contaminant concentration

ft. BGS = feet below ground surface

Results must be reported in mg/kg.

mg/kg = milligrams per kilogram

Table B-3: Summary of Soil Sample Results

Revision Date: NA Incident Number and Name: 1381 Piney Green Road, Onslow County, NC Facility ID #: NA

Analytical Method (e.g., VOC by EPA 8260) →					EPA 8260B	EPA 8260B	EPA 8260B	EPA 8260B	EPA 8260B	EPA 8260B
Contaminant of Concern →					n-Propyl- benzene	o-Xylene	2-Butanone	Acetone	Toluene	Isopropyl- benzene
Sample ID	Date Collected (m/dd/yy)	Source Area (e.g. Tank pit 1)	Sample Depth (ft BGS)	Incident Phase (Closure, 20Day, LSA, etc.)						
SB-5	11/8/2011	#001/#002 pit side	5	Closure	1990	1410	< 8980	< 8980	< 359	453
SB-6	11/8/2011	#001/#002 pit side	5	Closure	< 5.40	< 5.40	33.1	178	< 5.40	< 5.40
SB-7	11/8/2011	#001/#002 pit side	5	Closure	< 4.36	< 4.36	< 21.8	69.9	< 4.36	< 4.36
SB-8	11/8/2011	#001/#002 pit bottom	7	Closure	< 57.6	< 57.6	< 1440	< 1440	70.3	< 57.6
SB-9	11/8/2011	#001/#002 pit bottom	7	Closure	8700	2220	< 9060	< 9060	648	398
Soil to groundwater MSCC (mg/kg)					1.7	4.6	68	31	540	1.7
Residential MSCC (mg/kg)					626	3129	939	469	1500	1564
Industrial/Commercial MSCC (mg/kg)					16350	81760	24528	12264	40000	40880

Indicate method detection limit for contaminants when analyzed , but not detected (e.g., < 1, 10, 42)

List any contaminant detected above the method detection limit

MSCC = maximum soil contaminant concentration

ft. BGS = feet below ground surface

Results must be reported in mg/kg.

mg/kg = milligrams per kilogram

Table B-3: Summary of Soil Sample Results

Revision Date: NA Incident Number and Name: 1381 Piney Green Road, Onslow County, NC Facility ID #: NA

Analytical Method (e.g., VOC by EPA 8260) →					MADEP VPH	MADEP VPH	MADEP VPH	MADEP EPH	MADEP EPH	MADEP EPH
Contaminant of Concern →					C5-C8 Aliphatics	C9-C10 Aromatics	C9-C12 Aliphatics	C11-C22 Aromatics	C19-C36 Aliphatics	C9-C18 Aliphatics
Sample ID	Date Collected (m/dd/yy)	Source Area (e.g. Tank pit 1)	Sample Depth (ft BGS)	Incident Phase (Closure, 20Day, LSA, etc.)						
SB-5	11/8/2011	#001/#002 pit side	5	Closure	7.29	41.1	64.7	62.5	326	< 6.89
SB-6	11/8/2011	#001/#002 pit side	5	Closure	< 4.59	< 4.59	< 4.59	19.7	< 7.73	< 6.69
SB-7	11/8/2011	#001/#002 pit side	5	Closure	< 4.83	< 4.83	< 4.83	< 15.9	< 8.18	< 7.08
SB-8	11/8/2011	#001/#002 pit bottom	7	Closure	< 5.76	< 5.76	< 5.76	103	477	7.11
SB-9	11/8/2011	#001/#002 pit bottom	7	Closure	13.1	68	101	2010	10900	170
Soil to groundwater MSCC (mg/kg)					68	31	540	31	None	540
Residential MSCC (mg/kg)					939	469	1500	469	31000	1500
Industrial/Commercial MSCC (mg/kg)					24528	12264	40000	12264	810000	40000

Indicate method detection limit for contaminants when analyzed , but not detected (e.g., < 1, 10, 42)

List any contaminant detected above the method detection limit

MSCC = maximum soil contaminant concentration

ft. BGS = feet below ground surface

Results must be reported in mg/kg.

mg/kg = milligrams per kilogram

Table B-3: Summary of Soil Sample Results

Revision Date: NA Incident Number and Name: 1381 Piney Green Road, Onslow County, NC Facility ID #: NA

Analytical Method (e.g., VOC by EPA 8260) →					EPA 6010C	EPA 6010C	EPA 8270D	EPA 8270D	EPA 8270D	EPA 8270D
Contaminant of Concern →					Chromium	Lead	2-Methyl- naphthalene	Bis(2-Ethylhexyl) phthalete	Phenanthrene	Pyrene
Sample ID	Date Collected (m/dd/yy)	Source Area (e.g. Tank pit 1)	Sample Depth (ft BGS)	Incident Phase (Closure, 20Day, LSA, etc.)						
SB-5	11/8/2011	#001/#002 pit side	5	Closure	4.19	8.76	1910	542	< 367	< 367
SB-6	11/8/2011	#001/#002 pit side	5	Closure	3.26	4.37	< 370	< 370	< 370	< 370
SB-7	11/8/2011	#001/#002 pit side	5	Closure	4.11	12.4	< 378	< 378	< 378	< 378
SB-8	11/8/2011	#001/#002 pit bottom	7	Closure	4.43	7.54	< 396	< 396	< 396	< 396
SB-9	11/8/2011	#001/#002 pit bottom	7	Closure	4.65	241	10600	2190	3080	2000
Soil to groundwater MSCC (mg/kg)					5.4	270	3.6	6.6	56	270
Residential MSCC (mg/kg)					47	400	63	46	469	469
Industrial/Commercial MSCC (mg/kg)					1226	400	1635	410	12264	12264

Indicate method detection limit for contaminants when analyzed , but not detected (e.g., < 1, 10, 42)

List any contaminant detected above the method detection limit

MSCC = maximum soil contaminant concentration

ft. BGS = feet below ground surface

Results must be reported in mg/kg.

mg/kg = milligrams per kilogram

Table B-3: Summary of Soil Sample Results

Revision Date: NA Incident Number and Name: 1381 Piney Green Road, Onslow County, NC Facility ID #: NA

Analytical Method (e.g., VOC by EPA 8260) →					EPA 8260B	EPA 6010C	MADEP VPH	MADEP EPH	MADEP EPH	MADEP EPH
Contaminant of Concern →					1,2,4-Trimethyl- benzene	Naphthalene	C9-C12 Aliphatics	C11-C22 Aromatics	C19-C36 Aliphatics	C9-C18 Aliphatics
Sample ID	Date Collected (m/dd/yy)	Source Area (e.g. Tank pit 1)	Sample Depth (ft BGS)	Incident Phase (Closure, 20Day, LSA, etc.)						
SB-10	11/8/2011	#001/#002 pit side	5	Closure	83	245	11.1	109	617	15.3
Soil to groundwater MSCC (mg/kg)					2.6	0.16	540	31	None	540
Residential MSCC (mg/kg)					156	313	1500	469	31000	1500
Industrial/Commercial MSCC (mg/kg)					4088	8176	40000	12264	810000	40000

Indicate method detection limit for contaminants when analyzed , but not detected (e.g., < 1, 10, 42)

List any contaminant detected above the method detection limit

MSCC = maximum soil contaminant concentration

ft. BGS = feet below ground surface

Results must be reported in mg/kg.

mg/kg = milligrams per kilogram

Table B-3: Summary of Soil Sample Results

Revision Date: NA Incident Number and Name: 1381 Piney Green Road, Onslow County, NC Facility ID #: NA

Analytical Method (e.g., VOC by EPA 8260) →					EPA 6010C	EPA 6010C	EPA 8270D			
Contaminant of Concern →					Chromium	Lead	2-Methyl- naphthalene			
Sample ID	Date Collected (m/dd/yy)	Source Area (e.g. Tank pit 1)	Sample Depth (ft BGS)	Incident Phase (Closure, 20Day, LSA, etc.)						
SB-10	11/8/2011	#001/#002 pit side	5	Closure	5.75	11.9	418			
Soil to groundwater MSCC (mg/kg)					5.4	270	3.6			
Residential MSCC (mg/kg)					47	400	63			
Industrial/Commercial MSCC (mg/kg)					1226	400	1635			

Indicate method detection limit for contaminants when analyzed , but not detected (e.g., < 1, 10, 42)

List any contaminant detected above the method detection limit

MSCC = maximum soil contaminant concentration

ft. BGS = feet below ground surface

Results must be reported in mg/kg.

mg/kg = milligrams per kilogram

Table B-3: Summary of Soil Sample Results

Revision Date: NA Incident Number and Name: 1381 Piney Green Road, Onslow County, NC Facility ID #: NA

Analytical Method (e.g., VOC by EPA 8260) →					EPA 8015C	EPA 8015C	EPA 8260B	EPA 8260B	EPA 8260B	EPA 8260B
Contaminant of Concern →					GRO	DRO	1,2,4-Trimethyl- benzene	1,3,5-Trimethyl- benzene	4-Isopropyl- toluene	Ethylbenzene
Sample ID	Date Collected (m/dd/yy)	Source Area (e.g. Tank pit 1)	Sample Depth (ft BGS)	Incident Phase (Closure, 20Day, LSA, etc.)						
SB-11	11/8/2011	#003 bottom	4	Closure	337	7000	Not analyzed	Not analyzed	Not analyzed	Not analyzed
SB-12	11/8/2011	#003 pit bottom	7	Closure	Not analyzed	Not analyzed	20300	5960	5530	2030
SB-13	11/8/2011	#003 pit side	5	Closure	Not analyzed	Not analyzed	494	443	304	< 42.3
SB-14	11/8/2011	#003 pit side	5	Closure	Not analyzed	Not analyzed	869	296	291	< 53.4
SB-15	11/8/2011	#003 pit side	5	Closure	Not analyzed	Not analyzed	29300	8820	7390	3330
Soil to groundwater MSCC (mg/kg)					None	None	5.4	270	None	4.9
Residential MSCC (mg/kg)					None	None	47	400	None	1560
Industrial/Commercial MSCC (mg/kg)					None	None	1226	400	None	40000

Indicate method detection limit for contaminants when analyzed , but not detected (e.g., < 1, 10, 42)

List any contaminant detected above the method detection limit

MSCC = maximum soil contaminant concentration

ft. BGS = feet below ground surface

Results must be reported in mg/kg.

mg/kg = milligrams per kilogram

Table B-3: Summary of Soil Sample Results

Revision Date: NA Incident Number and Name: 1381 Piney Green Road, Onslow County, NC Facility ID #: NA

Analytical Method (e.g., VOC by EPA 8260) →					EPA 8260B	EPA 8260B	EPA 8260B	EPA 8260B	EPA 8260B	
Contaminant of Concern →					Naphthalene	m,p-Xylene	n-Propyl- benzene	o-Xylene	sec-Butyl- benzene	
Sample ID	Date Collected (m/dd/yy)	Source Area (e.g. Tank pit 1)	Sample Depth (ft BGS)	Incident Phase (Closure, 20Day, LSA, etc.)						
SB-12	11/8/2011	#003 pit bottom	7	Closure	12800	8500	2710	5010	< 703	
SB-13	11/8/2011	#003 pit side	5	Closure	781	114	< 42.3	187	< 42.3	
SB-14	11/8/2011	#003 pit side	5	Closure	737	210	69.9	173	< 53.4	
SB-15	11/8/2011	#003 pit side	5	Closure	17600	13200	4180	7130	4040	
Soil to groundwater MSCC (mg/kg)					0.16	4.6	1.7	4.6	3.3	
Residential MSCC (mg/kg)					313	3129	626	3129	626	
Industrial/Commercial MSCC (mg/kg)					8176	81760	16350	81760	16350	

Indicate method detection limit for contaminants when analyzed , but not detected (e.g., < 1, 10, 42)

List any contaminant detected above the method detection limit

MSCC = maximum soil contaminant concentration

ft. BGS = feet below ground surface

Results must be reported in mg/kg.

mg/kg = milligrams per kilogram

Table B-3: Summary of Soil Sample Results

Revision Date: NA Incident Number and Name: 1381 Piney Green Road, Onslow County, NC Facility ID #: NA

Analytical Method (e.g., VOC by EPA 8260) →					MADEP VPH	MADEP VPH	MADEP VPH	MADEP EPH	MADEP EPH	MADEP EPH
Contaminant of Concern →					C5-C8 Aliphatics	C9-C10 Aromatics	C9-C12 Aliphatics	C11-C22 Aromatics	C19-C36 Aliphatics	C9-C18 Aliphatics
Sample ID	Date Collected (m/dd/yy)	Source Area (e.g. Tank pit 1)	Sample Depth (ft BGS)	Incident Phase (Closure, 20Day, LSA, etc.)						
SB-12	11/8/2011	#003 pit bottom	7	Closure	42	274	339	1250	395	2790
SB-13	11/8/2011	#003 pit side	5	Closure	< 4.23	66.4	91.8	1080	561	2760
SB-14	11/8/2011	#003 pit side	5	Closure	< 5.34	96.01	116	1070	764	3530
SB-15	11/8/2011	#003 pit side	5	Closure	72.1	466	479	1910	627	3590
Soil to groundwater MSCC (mg/kg)					68	31	540	31	None	540
Residential MSCC (mg/kg)					939	469	1500	469	31000	1500
Industrial/Commercial MSCC (mg/kg)					24528	12264	40000	12264	810000	40000

Indicate method detection limit for contaminants when analyzed , but not detected (e.g., < 1, 10, 42)

List any contaminant detected above the method detection limit

MSCC = maximum soil contaminant concentration

ft. BGS = feet below ground surface

Results must be reported in mg/kg.

mg/kg = milligrams per kilogram

Table B-3: Summary of Soil Sample Results

Revision Date: NA Incident Number and Name: 1381 Piney Green Road, Onslow County, NC Facility ID #: NA

Analytical Method (e.g., VOC by EPA 8260) →					EPA 8270D	EPA 8270D	EPA 8270D			
Contaminant of Concern →					2-Methyl- naphthalene	Fluorene	Phenanthrene			
Sample ID	Date Collected (m/dd/yy)	Source Area (e.g. Tank pit 1)	Sample Depth (ft BGS)	Incident Phase (Closure, 20Day, LSA, etc.)						
SB-12	11/8/2011	#003 pit bottom	7	Closure	56500	7740	14800			
SB-13	11/8/2011	#003 pit side	5	Closure	< 7360	< 7360	< 7360			
SB-14	11/8/2011	#003 pit side	5	Closure	< 7560	< 7560	< 7560			
SB-15	11/8/2011	#003 pit side	5	Closure	29800	< 6830	8110			
Soil to groundwater MSCC (mg/kg)					3.6	47	56			
Residential MSCC (mg/kg)					63	620	469			
Industrial/Commercial MSCC (mg/kg)					1635	16400	12264			

Indicate method detection limit for contaminants when analyzed , but not detected (e.g., < 1, 10, 42)

List any contaminant detected above the method detection limit

MSCC = maximum soil contaminant concentration

ft. BGS = feet below ground surface

Results must be reported in mg/kg.

mg/kg = milligrams per kilogram

APPENDICES

APPENDIX I

UST -2 Form, UST-3 Form, and UST-61 Form

UST-2 Site Investigation Report for Permanent Closure or Change-in-Service of UST

Return completed form to:

The DWM Regional Office located in the area where the facility is located. Send a copy to the Central Office in Raleigh so that the status of the tank may be changed to "PERMANENTLY CLOSED" and your tank fee account can be closed out. SEE MAP ON THE BACK OF THIS FORM FOR THE CENTRAL AND REGIONAL OFFICE ADDRESSES.

STATE USE ONLY:

I.D. # _____

Date Received _____

INSTRUCTIONS (READ THIS FIRST)

For more than five UST systems you may attach additional forms as needed.

Permanent closure – For permanent closure, complete all sections of this form.

Change-in-service – For change-in-service where UST systems will be converted from containing a regulated substance to storing a non-regulated substance, complete sections I, II, III, IV, and VIII

Effective February 1, 1995, all UST closure/change-in-service reports must be submitted in the format provided in the UST-12 form. UST closure and change-in-services must be completed in accordance with the latest version of the *Guidelines for Tank Closure*. A copy of the UST-12 form and the *Guidelines for Tank Closure* can be obtained at www.wastenotnc.org.

You must make sure that USTs removed from your property are disposed of properly. When choosing a closure contractor, ask where the tank(s) will be taken for disposal. Usually, USTs are cleaned and cut up for scrap metal. This is dangerous work and must be performed by a qualified company. Tanks disposed of illegally in fields or other dumpsites can leak petroleum products and sludge into the environment. If your tanks are disposed of improperly, you could be held responsible for the cleanup of any environmental damage that occurs.

NOTE: If a release from the tank(s) has occurred, the site assessment portion of the tank closure must be conducted under the supervision of a P.E. or L.G., with all closure site assessment reports bearing the signature and seal of the P.E. or L.G.

I. OWNERSHIP OF TANKS				II. LOCATION OF TANKS			
Owner Name (Corporation, Individual, Public Agency, or Other Entity) Unknown (abandoned orphan USTs)				Facility Name or Company Unoccupied abandoned buildings			
Street Address Unknown				Facility ID # (If known) NA			
City Unknown		County Unknown		Street Address 1381 Piney Green Road Street			
State Unknown		Zip Code Unknown		City Jacksonville (outside C. Lmts.)		County Onslow	Zip Code 28716
Phone Number Unknown				Phone Number NA			

III. CONTACT PERSONNEL

Contact for Facility: Terry Fox, NCDOT Geotech Engineering Unit			Job Title: GeoEnvironmental Project Mgr.			Phone No: 919-707-6870			
Closure Contractor Name: Tim Parker		Closure Contractor Company: A & D Environmental Serv., Inc.		Address: P.O. Box 484, High Point, NC 27261			Phone No: 919-336-7750		
Primary Consultant Name: Andrew Eyer		Primary Consultant Company: GEL Engineering of NC, Inc.		Address: P.O. Box 14262, RTP, NC 27709			Phone No: 919-323-8828		

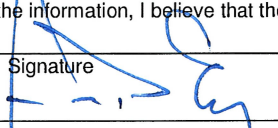
IV. UST INFORMATION FOR REGISTERED UST SYSTEMS							V. EXCAVATION CONDITION					
Tank ID No.	Size in Gallons	Tank Dimensions	Last Contents	Last Use Date	Permanent Close Date	Change-in-Service Date	Water in excavation		Free product		Notable odor or visible soil contamination	
							Yes	No	Yes	No	Yes	No
							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

VI. UST INFORMATION FOR UNREGISTERED UST SYSTEMS							VII. EXCAVATION CONDITION					
Tank ID No.	Size in Gallons	Tank Dimensions	Last Contents	Last Use Date	Permanent Close Date	Tank Owner Name *	Water in excavation		Free product		Notable odor or visible soil contamination	
							Yes	No	Yes	No	Yes	No
001	2000	5.5' x 12'	Waste Oil	Unknown	11/08/11	Unknown	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
002	750	4.5' x 6'	Waste Oil	Unknown	11/08/11	Unknown	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
							<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

* If the tank owner address is different from the one listed in Section I., then enter the street address, city, state, zip code and telephone no. below:

VIII. CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true accurate and complete.

Print name and official title of owner or owner's authorized representative Andrew D. Eyer (for NCDOT)	Signature 	Date Signed 2/03/12
---	---	------------------------

UST-3 Notice of Intent: UST Permanent Closure or Change-in-Service

Return completed form to:

The DWM Regional Office located in the area where the facility is located. Send a copy to the Central Office in Raleigh so that the status of the tank may be changed to "PERMANENTLY CLOSED" and your tank fee account can be closed out. SEE MAP ON THE BACK OF THIS FORM FOR THE CENTRAL AND REGIONAL OFFICE ADDRESSES.

STATE USE ONLY

I.D. # _____

Date Received _____

INSTRUCTIONS (READ THIS FIRST)

Complete and return at least **thirty (30) days** prior to closure or change-in-service activities. If a Professional Engineer (P.E.) or a Licensed Geologist (L.G.) provides supervision for closure or change-in-service site assessment activities and signs and seals all closure reports then at least a **five (5) working days** notice is acceptable.

Completed UST closure or change-in-service site assessment reports, along with a copy of the UST-2 form, should be submitted to the appropriate Division of Waste Management (DWM) Regional Office within thirty (30) days following closure activities. The UST-2 form should also be submitted to the Central Office in Raleigh so that the status of the tanks may be changed to permanently closed and your tank fee account can be closed out.

UST closure and change-in-service site assessments must be completed in accordance with the latest version of the *Guidelines for Tank Closure*. The *Guidelines for Tank Closure* can be obtained at www.wastenotnc.org.

You must make sure that USTs removed from your property are disposed of properly. When choosing a closure contractor, ask where the tank(s) will be taken for disposal. Usually, USTs are cleaned and cut up for scrap metal. This is dangerous work and must be performed by a qualified company. Tanks disposed of illegally in fields or other dumpsites can leak petroleum products and sludge into the environment. If your tanks are disposed of improperly, you could be held responsible for the cleanup of any environmental damage that occurs.

I. OWNERSHIP OF TANKS		II. LOCATION		
Owner Name (Corporation, Individual, Public Agency, or Other Entity) N/A (Abandoned orphan UST)		Facility Name or Company Word of God Church		
Street Address N/A		Facility ID # (If known) N/A		
City N/A	County N/A	Street Address 2774 Piney Green Road		
State NA	Zip Code N/A	City Jacksonville	County Onslow	Zip Code 28546
Phone Number N/A		Phone Number N/A		

III. CONTACT PERSONNEL

Name: Andrew Eyer (on behalf of NCDOT)	Company Name: GEL Engineering of NC, Inc	Job Title: Sr. Proj. Mgr.	Phone Number: 919-210-3658
---	---	------------------------------	--------------------------------------

IV. TANK REMOVAL, CLOSURE IN PLACE, CHANGE-IN SERVICE

- | | | |
|--|--|---|
| <ol style="list-style-type: none"> Contact local fire marshal. Plan entire closure event. Conduct Site Soil Assessment. If removing tanks or closing in place, refer to API Publication 2015 <i>Cleaning Petroleum Storage Tanks</i> and 1604 <i>Removal and Disposal of Used Underground Petroleum Storage Tanks</i>. | <ol style="list-style-type: none"> Provide a sketch locating piping, tanks and soil sampling locations. Submit a closure report in the format of UST-12 (including the form UST-2) within thirty (30) days following the site investigation. If a release from the tanks has occurred, the site assessment portion of the tank closure must be conducted under the supervision of | <p>a P.E. or L.G., with all closure site assessment reports bearing the signature and seal of the P.E. or L.G. If a release has not occurred, the supervision, signature or seal of a P.E. or L.G. is not required.</p> <ol style="list-style-type: none"> Keep closure records for three (3) years. |
|--|--|---|

V. WORK TO BE PERFORMED BY

Contractor Name: Mike Stoneman		Contractor Company Name: A & D Environmental		
Address: P.O. Box 484, High Point		State: NC	Zip Code: 27261	Phone No: 336-434-7750
Primary Consultant Name: Andrew Eyer		Primary Consultant Company Name: GEL Engineering of NC, Inc.		Consultant Phone No: 919-210-3658

VI. TANKS SCHEDULED FOR CLOSURE OR CHANGE-IN-SERVICE

Tank ID No.	Size in Gallons	Last Contents	Proposed Activity		
			Closure		Change-In-Service New Contents Stored
			Removal	Abandonment in Place *	
001	6000	Gasoline, Gas Mix	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
002	6000	Gasoline, Gas Mix	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	
			<input type="checkbox"/>	<input type="checkbox"/>	

* Prior written approval to abandon a tank in place must be received from a DWM Regional Office.

VII. OWNER OR OWNER'S AUTHORIZED REPRESENTATIVE

I understand that I can be held responsible for environmental damage resulting from the improper disposal of my USTs.

Print name and official title: Andrew Eyer (on behalf of NCDOT)

Signature 	Date Signed 11/7/11	SCHEDULED REMOVAL DATE 11/09/11	Notify your DWM Regional Office 48 hours before this date if scheduled removal date changes
---	------------------------	------------------------------------	--

UST-61 24-Hour Release and UST Leak Reporting Form.

For Releases in NC This form should be completed and submitted to the UST Section's regional office following a known or suspected release from an underground storage tank (UST) system. This form is required to be submitted within 24 hours of discovery of a known or suspected release

(DWM USE ONLY) Incident # _____ Risk (H,I,L,U) _____ Received On _____ Received By _____ Reported by (circle one): Phone, Fax or Report Region _____	Suspected Contamination? (Y/N) <u>Y</u> Confirmed GW Contamination? (Y/N) <u>N</u> Confirmed Soil Contamination? (Y/N) <u>N</u> Samples Taken?(Y/N) <u>Y</u> Free Product? (Y/N) <u>N</u> If Yes, State Greatest Thickness _____	Facility ID Number <u>Not known</u> Date Leak Discovered <u>11/08/11</u> Comm/Non-Commercial? <u>Unknown</u> Reg/Non-regulated? <u>Unknown</u>
--	---	---

INCIDENT DESCRIPTION

Incident Name: **Orphan UST releases**

Address: **1381 Piney Green Road** County: **Onslow**

City/Town: **Jacksonville (not in City limits)** Zip Code: **28546** Regional Office (circle one): **Asheville, Mooresville, Fayetteville, Raleigh, Washington, Wilmington, Winston-Salem**

Latitude (decimal degrees): **34.75977** Longitude (decimal degrees) : **- 77.338606**

Obtained by:

GPS
 Topographic map
 GIS Address matching
 Other
 Unknown

Briefly describe suspected or confirmed release: (including but not limited to: nature of release, date of release, amount of release, amount of free product present and recovery efforts, initial responses conducted, impacts to receptors)

Releases of waste oil from UST 001 and adjacent UST 002 suspected based on odor and stained soil when USTs were removed at 1381 Piney Green Rd. Release of heating oil from UST 003 suspected based on odor and stained soil when UST was being removed. No free product observed, but waste oil/water mixtures were removed from USTs 001 and 002, and heating oil/water mixture was removed from UST 003. Contaminated soil was over excavated at UST 001 and UST 002 location, and UST 003 location to the extent possible. However, some contaminated soil had to be left in place prior to closure of all three USTs.

Describe location:
 Former auto body shop and residence at 1381 Piney Green Rd.

HOW RELEASE WAS DISCOVERED (Release Code)

(Check one)

<input type="checkbox"/> Release Detection Equipment or Methods <input checked="" type="checkbox"/> During UST Closure/Removal <input type="checkbox"/> Property Transfer	<input checked="" type="checkbox"/> Visual/Odor <input checked="" type="checkbox"/> Water in Tank <input type="checkbox"/> Water Supply Well Contamination	<input type="checkbox"/> Groundwater Contamination <input type="checkbox"/> Surface Water Contamination <input type="checkbox"/> Other (specify) _____
---	--	--

SOURCE OF CONTAMINATION

Source of Release <i>(Check one to indicate primary source)</i>	Cause of Release <i>(Check one to indicate primary cause)</i>	Type of Release <i>(Check one)</i>	Product Type Released <i>(Check one to indicate primary product type released)</i>
<input checked="" type="checkbox"/> Tank <input type="checkbox"/> Piping <input type="checkbox"/> Dispenser <input type="checkbox"/> Submersible Turbine Pump <input type="checkbox"/> Delivery Problem <input type="checkbox"/> Other <input type="checkbox"/> Unknown	<input type="checkbox"/> Spill <input type="checkbox"/> Overfill <input checked="" type="checkbox"/> Corrosion <input type="checkbox"/> Physical or Mechanical Damage <input type="checkbox"/> Install Problem <input type="checkbox"/> Other <input type="checkbox"/> Unknown	<input checked="" type="checkbox"/> Petroleum <input type="checkbox"/> Non-Petroleum <input type="checkbox"/> Both Location <i>(Check one)</i> <input checked="" type="checkbox"/> Facility (former) <input checked="" type="checkbox"/> Residence (former) <input type="checkbox"/> Other	<input type="checkbox"/> Gasoline/ Diesel/ Kerosene <input checked="" type="checkbox"/> Heating Oil <input checked="" type="checkbox"/> Other Petroleum Products <input type="checkbox"/> Metals <input type="checkbox"/> Other Inorganics <input type="checkbox"/> Other Organics <input type="checkbox"/> Diesel/Veg. Oil Blend <input type="checkbox"/> Vegetable Oil 100% <input type="checkbox"/> E10 – E20 <input type="checkbox"/> E21 – E84 <input type="checkbox"/> E85 – E99 <input type="checkbox"/> Ethanol 100% <input type="checkbox"/> E01 – E09

Definitions presented on reverse

Ownership
 1. Municipal 2. Military 3. Unknown 4. Private 5. Federal 6. County 7. State

Operation Type
 1. Public Service 2. Agricultural 3. Residential 4. Education/Relig. 5. Industrial 6. Commercial 7. Mining Abandoned structures

IMPACT ON DRINKING WATER SUPPLIES

Water Supply Wells Affected? 1. Yes 2. No 3. Unknown

Number of Water Supply Wells Affected N/A

Water Supply Wells Contaminated: *(Include Users Names, Addresses and Phone Numbers. Attach additional sheet if necessary)*

1. N/A
- 2.
- 3.

UST SYSTEM OWNER

UST Owner/Company
Abandoned orphan USTs

Point of Contact Not known		Address Not known		
City Not known	State Not known	Zip Code Not known	Telephone Number Not known	

UST SYSTEM OPERATOR

UST Operator/Company Not known		Address Not known		
City Not known	State Not known	Zip Code Not known	Telephone Number Not known	

LANDOWNER AT LOCATION OF UST INCIDENT

Landowner NCDOT		Address 1589 Mail Service Center		
City Raleigh	State NC	Zip Code 27699	Telephone Number 919-707-6870	

Draw Sketch of Area (showing two major road intersections) or Attach Map

SEE ATTACHED MAP

Person Reporting Incident Andrew Eyer	Company GEL Eng. Of NC, Inc.	Telephone Number 919-323-8828
Title Sr. Proj. Mgr.	Address P.O. Box 14262, RTP, NC 27709	Date 11/09/11

Definitions of Sources

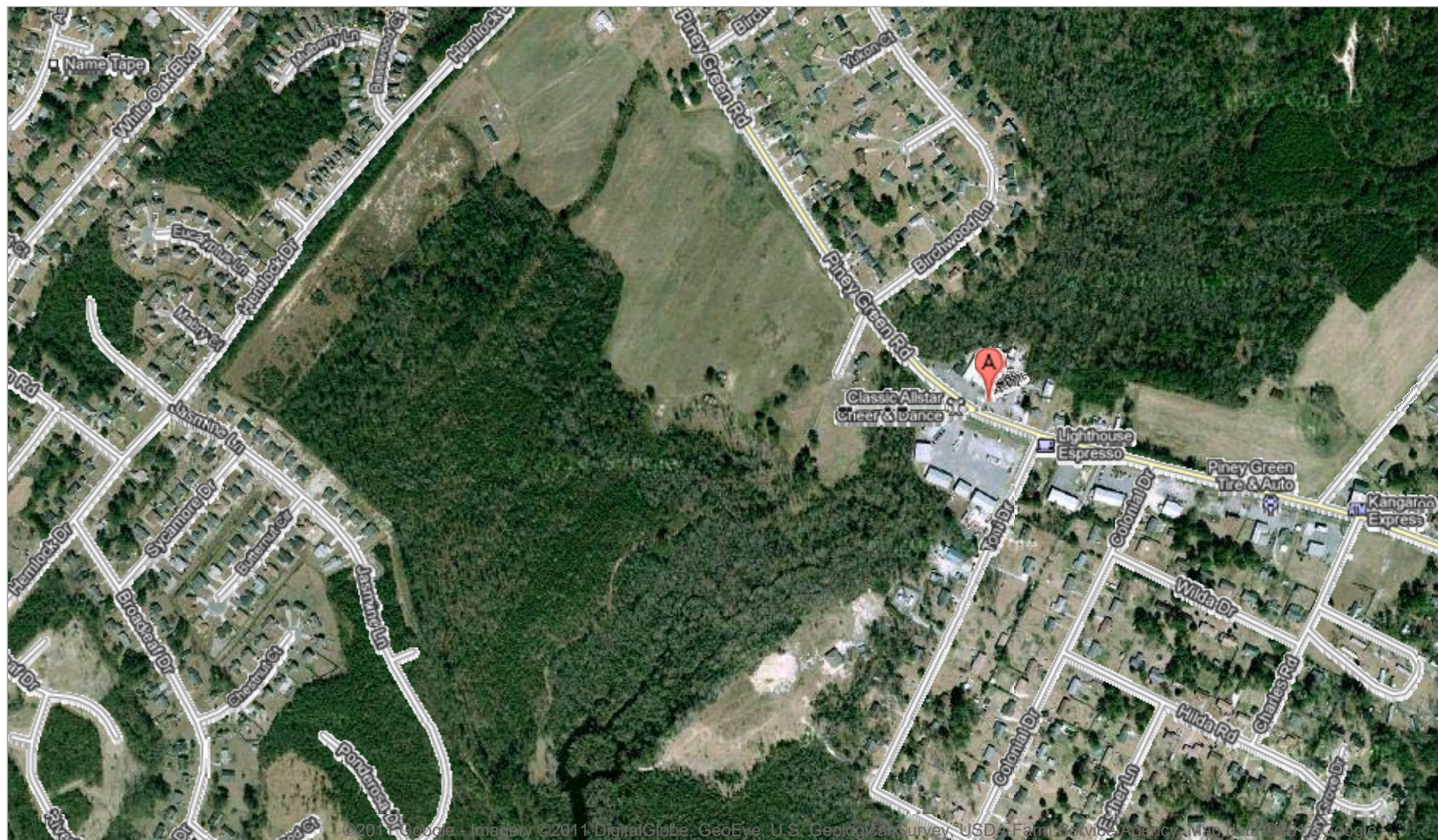
- Tank: means the tank that stores the product and is part of the underground storage tank system
- Piping: means the piping and connectors running from the tank or submersible turbine pump to the dispenser or other end-use equipment (Vent, vapor recovery, or fill lines are excluded.)
- Dispenser: includes the dispenser and the equipment used to connect the dispenser to the piping (e.g., a release from a suction pump or from components located above the shear valve)
- Submersible Turbine Pump (STP) Area includes the submersible turbine pump head (typically located in the tank sump), the line leak detector, and the piping that connects the submersible turbine pump to the tank
- Delivery Problem: identifies releases that occurred during product delivery to the tank. (Typical causes associated with this source are spills and overfills.)
- Other: serves as the option to use when the release source is known but does not fit into one of the preceding categories (e.g., for releases from vent lines, vapor recovery lines, and fill lines)
- Unknown: identifies releases for which the source has not been determined

Definitions of Causes

- Spill: use this cause when a spill occurs (e.g., when the delivery hose is disconnected from the tank fill pipe or when the nozzle is removed from the dispenser)
- Overfill: use when an overfill occurs (e.g., overfills may occur from the fill pipe at the tank or when the nozzle fails to shut off at the dispenser)
- Physical or Mechanical Damage: use for all types of physical or mechanical damage, except corrosion (e.g., puncture of tank or piping, loose fittings, broken components, and components that have changed dimension)
- Corrosion: use when a metal tank, piping, or other component has a release due to corrosion (e.g., for steel, corrosion takes the form of rust)
- Installation Problem: use when the problem is determined to have occurred specifically because the UST system was not installed properly
- Other: use this option when the cause is known but does not fit into one of the preceding categories (e.g., putting regulated substances into monitoring wells)
- Unknown: use when the cause has not been determined



To see all the details that are visible on the screen, use the "Print" link next to the map.



The "A" location is 1381 Piney Green Road.

APPENDIX II

Site Specific Health and Safety Plan (HASP)

THE GEL GROUP, INC.
FIELD SERVICES SITE SAFETY PLAN

Project Code: ncdt00711 – 1381 Piney Green Road, Jacksonville, NC
Project Description: Oversight of UST removals; soil sampling
Project Manager: Eyer Pager/Cell: 919-210-3658

HAZARDS LIKELY TO BE ENCOUNTERED:

Expected Contaminant at Site: Petroleum (heating oil + diesel?)

- | | | |
|---|--|--|
| <input type="checkbox"/> Electrocutation/Shock | <input checked="" type="checkbox"/> Toxic Atmosphere | <input checked="" type="checkbox"/> Pinch Points |
| <input checked="" type="checkbox"/> Slip/Trip/Fall | <input checked="" type="checkbox"/> Excavation | <input type="checkbox"/> Flying Debris |
| <input type="checkbox"/> Manual Lifting | <input type="checkbox"/> Confined Space | <input type="checkbox"/> Vehicle Traffic |
| <input checked="" type="checkbox"/> Rough/Sharp Material | <input checked="" type="checkbox"/> Noise | <input type="checkbox"/> Railway Traffic |
| <input checked="" type="checkbox"/> Rotating/Moving Machinery | <input type="checkbox"/> Flammable Materials | <input type="checkbox"/> Asbestos/Lead |
| <input type="checkbox"/> Hot Surfaces/Steam Cleaner | <input checked="" type="checkbox"/> Chemicals | <input checked="" type="checkbox"/> Heat/Cold |
| <input type="checkbox"/> Overhead Hazard | <input type="checkbox"/> Insects/Animals | |

PERSONAL PROTECTIVE EQUIPMENT NEEDED:

- | | |
|--|---|
| <input checked="" type="checkbox"/> Safety Glasses | <input type="checkbox"/> Work Gloves |
| <input checked="" type="checkbox"/> Hearing Protection | <input checked="" type="checkbox"/> Chemical Resistant Gloves |
| <input checked="" type="checkbox"/> Hard Hat | <input type="checkbox"/> Protective Clothing |
| <input checked="" type="checkbox"/> Steel-toed Boots | <input type="checkbox"/> Traffic Control Measures |
| <input type="checkbox"/> Snake Boots | <input checked="" type="checkbox"/> PID |
| <input type="checkbox"/> Fall Protection Equipment | <input type="checkbox"/> Buddy System |
| <input type="checkbox"/> Respiratory Protection | |

ADDITIONAL SAFETY MEASURES, PROCEDURES OR OPERATIONS TO FOLLOW:

- Monitor ambient breathing space with PID.
Do not enter excavations having depths >5 feet.
UST removal contractor to operate under its corporate HASP

LOCATION OF NEAREST MEDICAL ASSISTANCE: ATTACH MAP TO HOSPITAL

Onslow Memorial Hospital, 317 Western Boulevard, Jacksonville, NC ---- (910) 577-2345

DOES THE CLIENT HAVE A FIRST-AID FACILITY?

Yes _____ No

WILL YOU BE OPERATING UNDER THE CLIENT'S SITE SAFETY PLAN ALSO?

Yes _____ No

IF YES, HAVE YOU REVIEWED THE CLIENT'S SITE SAFETY PLAN, AND ARE YOU IN AGREEMENT WITH ALL ASPECTS OF THE PLAN?

Yes _____ No _____

IN CASE OF ACCIDENT:

EMERGENCY PHONE NUMBER FOR MEDICAL ASSISTANCE: 911

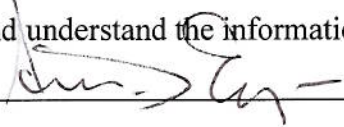
GEL HUMAN RESOURCES: Nancy Lacy, (843) 556-8171, ext. 4490

GEL CORPORATE SAFETY DIRECTOR: Bryan Raughley, (843) 556-8171

PROJECT MANAGER: Andrew Eyer (919) 210-3658

GEL NC OFFICE MANAGER: Keith McCulloch (919) 323-8830

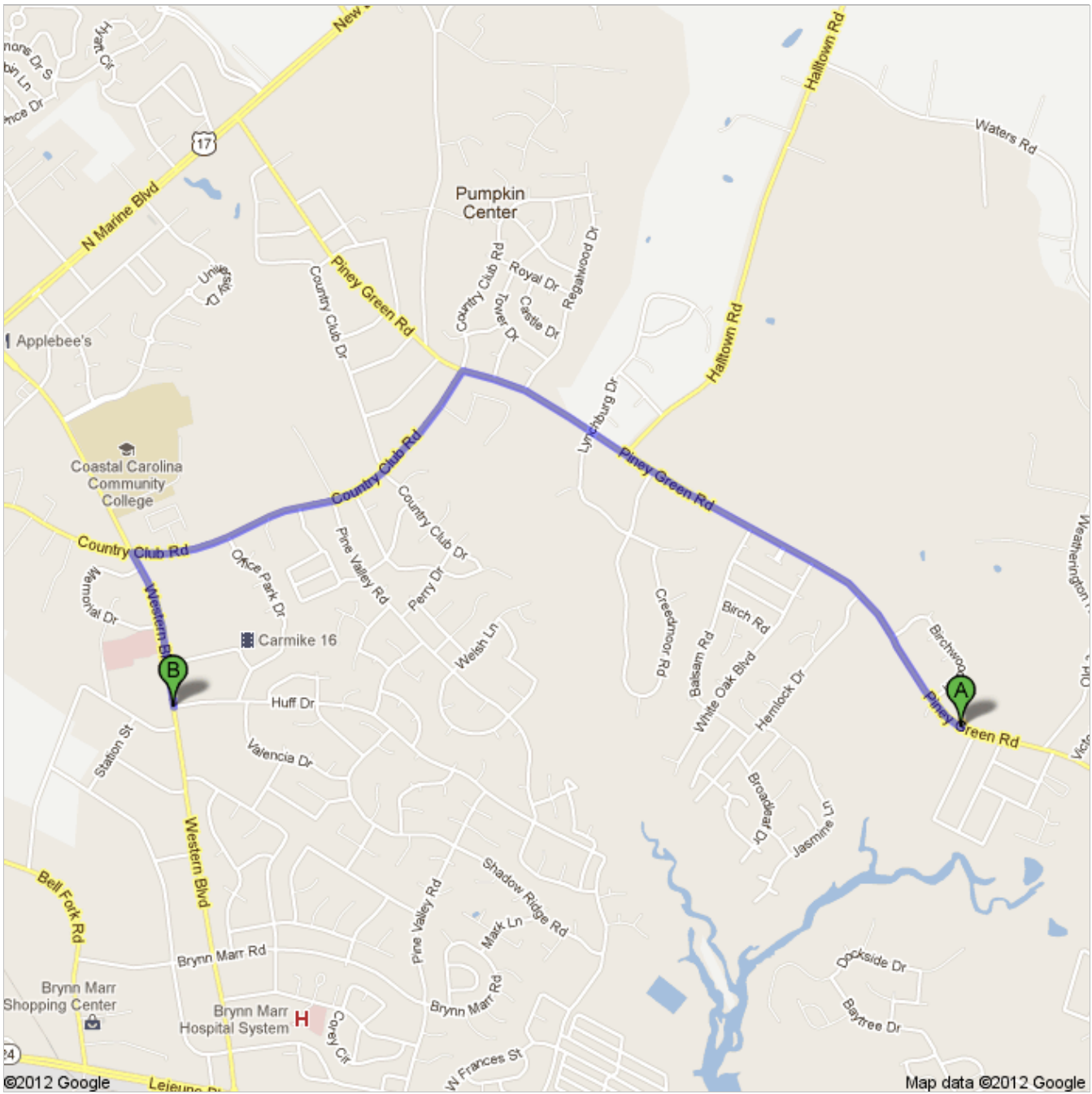
I have read and understand the information contained above:


_____ Date: 11/8/11
_____ Date: _____
_____ Date: _____
_____ Date: _____
_____ Date: _____




Directions to 317 Western Blvd, Jacksonville, NC 28546
3.7 mi – about 8 mins

Save trees. Go green!
Download Google Maps on your phone at google.com/gmm



A 1381 Piney Green Rd, Jacksonville, NC 28546

1. Head **northwest** on **Piney Green Rd** toward **Birchwood Ln** go 2.0 mi
About 4 mins total 2.0 mi

 2. Turn left onto **Country Club Rd** go 1.3 mi
About 3 mins total 3.2 mi

 3. Turn left onto **Western Blvd** go 0.5 mi
Destination will be on the right total 3.7 mi
About 1 min

B 317 Western Blvd, Jacksonville, NC 28546

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.

Map data ©2012 Google

Directions weren't right? Please find your route on maps.google.com and click "Report a problem" at the bottom left.

APPENDIX III

Certificate of UST Disposal



Environmental Services, Inc.

P.O. Box 484 • High Point, NC • Phone (336) 434-7750 • FAX (336) 434-7752

TANK DISPOSAL MANIFEST

17708

1) Tank Owner/Authorized Representative: Name and Mailing Address _____

N.C. DOT
1381 Piney Grove Rd
JACKSONVILLE NC

2) Tank Owner/Authorized Representative: Contact (Gel) Andrew Eyer

Phone#: 919 544 1100

3) Description Of Tanks:

<u>Tank No.</u>	<u>Capacity</u>	<u>Previous Contents</u>	<u>Comments</u>
#1	2000 G	? used oil	
#2	750 G	used oil	
#3	500 G <u>215</u> G	#2 oil	

A&D

4) Tank Owner/Authorized Representative Certification: The undersigned certifies that the above listed storage tanks have been removed from the premises of the tank owner.

Andrew Eyer (FOR N.C. DOT)

Printed/Typed Name

Signature

11/8/11

Month/Day/Year

5) Transporter: The undersigned certifies that the above listed storage tanks have been transported to A&D Environmental and Industrial Services, 2718 Uwharrie Road, Archdale, N.C. 27263.

Rodney Reinertson

Printed/Typed Name

Signature

11-8-11

Month/Day/Year

6) Disposal Certification: The undersigned certifies that the above-named storage tank(s) have been cut into scrap pieces and accepted by the metal recycling facility.

Recycling Facility: D.H. Griffin Scrap Metals - G'boro, NC

Eric D. McMann

Printed/Typed Name

Signature

11-11-11

Month/Day/Year

APPENDIX IV
Standard Procedures

Field Procedures for Soil Screening and Sampling

**Closure of Waste Oil USTs #001 and #002, and Heating Oil UST #003
1381 Piney Green Road, Parcel 149
State Project U-3810, WBS Element No. 35801.1.1
Onslow County, North Carolina
November 8, 2011**

Soil samples were collected for analysis and screening on November 8, 2011, following the removal of USTs #001, #002, and #003. Soil samples were collected from designated excavation locations by the trackhoe. The onsite North Carolina Licensed Geologist then collected the soil samples from the trackhoe bucket. Encore™ samplers were used to collect soil samples for analysis of gasoline range organics (GRO), volatile organic compounds (VOCs), and volatile petroleum hydrocarbons (VPH). The soil samples were transferred to new sample containers and placed in a cooler with ice until submittal to the laboratory.

For each soil sample, soil was transferred from the sample location to a sealed plastic bag and allowed to equilibrate for approximately 5 minutes. The soil was then screened using a MiniRAE2000 photoionization detector (PID) that had been calibrated to 10.6 parts per million (ppm) isobutylene prior to conducting the soil screening. The PID probe was inserted through a small opening in the plastic bag for a measurement.

APPENDIX V

Manifests



A&D Environmental Services

Bill of Lading / Material Manifest

A&D Job No: _____ Generator ID Number _____ Page 1 of _____ Emergency Response Phone **800-434-7750** Tracking Number **13427**

Generator's Name and Mailing Address: **NCDOT**
1381 Pinny Green Rd
Jacksonville NC
 Generator's site address (if different from mailing address): _____

Transporter 1 2 Company Name: **A&D Environmental Services, Inc.** US EPA ID No: **NCD98623222**

Transporter 1 2 Company Name: **A&D Environmental Services (SC), LLC** US EPA ID No: **SCD987598331**

Designated Facility	Designated Facility	Designated Facility	Designated Facility	Designated Facility
A&D Environmental Services, Inc. 2718 Uwharrie Road Archdale, NC 27263 336-434-7750 NCD986232221	A&D Environmental Services, Inc. 3149 Lear Drive Burlington, NC 27215 336-229-0058 NCR000138628	A&D Environmental Services (SC), LLC 1915 Brentwood Street High Point, NC 27260 336-882-8000 NCR000002501	A&D Environmental Services (SC), LLC 1741 Calks Ferry Road Lexington, SC 29073 803-957-9175 SCD987598331	A&D Environmental Services (SC), LLC 305 B South Main Street Mauldin, SC 29662 803-967-3500 SCR000765677

HM	Hazardous Materials Shipping Name and Description (if applicable)	No.	Type	QTY	Wt/Vol	Profile Number
	Non hazardous liquid nos. #2 Fuel oil sludge twister from ^{275 ADE} 550 tank	1	TT	100	gal	
	Non hazardous liquid nos oil/water From 750 tank	1	TT	750	gal	
	Non hazardous liquid nos oil/water From 2000 gal tank	1	TT	1383	gal	
Petroleum Products for Recycle						
X	NA1993, Diesel fuel, 3, III	No.	Type	QTY	Wt/Vol	Profile Number
X	NA1993, Fuel oil (No.1,2,4,5 or 6), 3, III					ERG# 128
X	UN1203, Gasoline, 3, II					ERG# 128
X	NA1270, Petroleum Oil, 3, III					ERG# 128

Universal Waste Lamps, Batteries, Ballasts, and Electronics for Recycle							
HM	No.	Type	Est. Wt.	Count	Shipping Name and Description (if applicable)	Common Name	Discrepancy
X					RQ, UN2809, Mercury contained in manufactured articles, 8, III ERG# 172	Mercury Containing Articles	
X					RQ, UN2809, Mercury, 8, III ERG# 172	Mercury	
X					RQ, UN3432, Polychlorinated biphenyls, solid, 9, II ERG# 171	TSCA Exempt PCB Lamp Ballasts	
X					UN2800, Batteries, wet, nonspillable, 8, III ERG# 154	Sealed Lead Acid Batteries	
X					UN2794, Batteries, wet, filled with acid, 8, III ERG# 154	Lead Acid Batteries	
X					UN2795, Batteries, wet, filled with alkali, 8, III ERG# 154	Wet NiCad Batteries	
X					UN3090, Lithium batteries, 9, II ERG# 138	Lithium Batteries	
X					UN3028, Batteries, dry, containing potassium hydroxide solid, 8, III ERG# 154	Alkaline Batteries	
X					UN3028, Batteries, dry, containing potassium hydroxide solid, 8, III ERG# 154	NiCad Batteries	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e))	Fluorescent lamps 4' or <	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e))	Fluorescent lamps 4' or >	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e))	Circular/U-tube lamps	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e))	Compact Lamps	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e))	Shattershield	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e))	HID/MV/UV Lamps	
					Universal Waste Lamps (Not DOT-Regulated per 49 CFR 173.164(e))	Incandescent Lamps	
					Non-PCB Light Ballasts for Recycle (Not DOT-Regulated)	Non-PCB Light Ballasts	
					Electronic Equipment for Recycle (Not DOT-Regulated)	Electronics	

Generator's Certification: This is to certify that the above-named materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. I further certify that none of the materials described above are a hazardous waste as defined by EPA 40CFR Part 261 or any applicable state law, and unless specifically identified above the materials contain less than 1,000 ppm total halogens and do not contain quantifiable levels (2ppm) of PCBs as defined by EPA 40 CFR Parts 279 and 761.

Generator's/Officer's Printed / Typed Name: **ANDREW EYER (FOR NCDOT)** Signature: _____ Month: **11** Day: **8** Year: **11**

Transporter 1 Printed / Typed Name: **Rodney Reinertson** Signature: _____ Month: **11** Day: **8** Year: **11**

Transporter 2 Printed / Typed Name: _____ Signature: _____ Month: _____ Day: _____ Year: _____

Discrepancy Indication / Additional Information: _____ Month: _____ Day: _____ Year: _____

Designated Facility Certification: I hereby acknowledge receipt of the materials covered by this manifest except for any discrepancy indicated above.

Printed / Typed Name: **Eric O McManus** Signature: _____ Month: **11** Day: **10** Year: **11**

OAK HILL FARMS

LOAD # #1

TRUCK # DT

9018 Rays Landing Road
P.O. Box 220
Autryville, NC 28318
Telephone: (910) 531-3800
Permit # SRU600039

NON-HAZARDOUS WASTE MANIFEST

ADD Environmental

ENVR CONSULTANT: Geel Engineering CONTACT: Andrew Eyer
P.O. Box 14262 PHONE: 919 544 1100
Research Triangle Park NC
27709

GENERATOR: N.C. DOT CONTACT: _____
1381 Piney Green Rd PHONE: _____
Jacksonville NC

TRANSPORTER: Duff's Trucking CONTACT: _____
J'ville, NC PHONE: 910-934-5071

DESTINATION: OAK HILL FARMS CONTACT: OAK HILL FARMS
9018 Rays Landing Road PHONE: (910) 531-4489
Autryville, NC 28318

WASTE DESCRIPTION: Petroleum Soil #2 soil

WASTE ORIGATION POINT (complete address): 1381 Piney Green Rd
Jacksonville NC

NORTH CAROLINA
PUBLIC WEIGHMASTER
LICENSE EXPIRES JUNE 30 2012
INDA T. HERRING
INDA T. HERRING
INVALID UNLESS SIGNED

GROSS WEIGHT: 70520.16 161.22 11/08/11

TARE WEIGHT: 70500.16 161.27 11/08/11

NET WEIGHT: 20.00 24.51

GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of HAZARDOUS WASTE. I am also aware that plastic, trash, piping, concrete, asphalt and rock exceeding 3" could result in a \$3.00 per ton per truck surcharge.

PRINTED/TYPED NAME, TITLE: ANDREW EYER (ON BEHALF OF NCDOT) SIGNATURE: [Signature] DATE JOB STARTED: 11/8/11

TRUCK DRIVER'S SIGNATURE (acknowledgment of receipt of material): [Signature] DATE: 11/8/11

NOTED DISCREPANCIES: _____

INSPECTED & ACCEPTED (except as noted above): BY: OAK HILL FARMS
SIGNED BY: Inda T. Herring
DATE: 11/8/11

APPENDIX VI

Chain-of-Custody Records



CHAIN OF CUSTODY RECORD
SGS North America Inc.

- Locations Nationwide
- Alaska
 - New Jersey
 - North Carolina
 - Maryland
 - New York
 - Ohio

www.us.sgs.com

106135

31103195

1 CLIENT: <u>GEL Eng. OR NC, INC.</u> CONTACT: <u>ANDREW EYER</u> PHONE NO.: <u>(919) 323-8828</u> PROJECT: <u>1381 PINEY GREEN</u> SITE/PWSID#: _____ REPORTS TO: <u>ade@gel.com</u> FAX NO.: () _____ INVOICE TO: <u>NC DOT</u> QUOTE #: <u>U-3810</u> P.O. NUMBER: <u>WBS#35801.1.1</u>					SGS Reference: <u>ONSLow COUNTY</u>					PAGE <u>1</u> OF <u>2</u>							
2					No CONTAINERS	SAMPLE TYPE C=COMP G=GRAB	Preservatives Used Analysis Required						REMARKS ↑ Normal TAT ↓				
LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX													
	SB-1	11/8/11	0945	SOIL			3	G	✓	✓	✓						
	SB-2	}	0950	}			3	}	✓	✓	✓						
	SB-3		1000				3		✓	✓	✓						
	SB-A		1005				3		✓	✓	✓						
	SB-5		1140				7					✓		✓	✓	✓	
	SB-6		1145				7					✓		✓	✓	✓	
	SB-7		1150				7					✓		✓	✓	✓	
	SB-8		1200				7					✓		✓	✓	✓	
	SB-9		1205		7					✓	✓	✓	✓				
	SB-10		1210		7					✓	✓	✓	✓				
5 Collected/Relinquished By: (1) <u>[Signature]</u> Date <u>11/9/11</u> Time <u>1315</u> Received By: <u>[Signature]</u>					4 Shipping Carrier: _____ Samples Received Cold? (Circle) <u>YES</u> NO Shipping Ticket No: _____ Temperature°C: <u>2.7</u> . <u>3.5</u> Special Deliverable Requirements: _____ Chain of Custody Seal: (Circle) <input checked="" type="checkbox"/> INTACT <input type="checkbox"/> BROKEN <input type="checkbox"/> ABSENT												
Relinquished By: (2) _____ Date _____ Time _____ Received By: _____					Special Instructions: _____												
Relinquished By: (3) _____ Date _____ Time _____ Received By: _____					Requested Turnaround Time: <input type="checkbox"/> RUSH _____ Date Needed _____ <input checked="" type="checkbox"/> STD												
Relinquished By: (4) _____ Date <u>11/10/11</u> Time <u>11:30</u> Received By: <u>[Signature]</u>																	



CHAIN OF CUSTODY RECORD
SGS North America Inc.

- Locations Nationwide
• Alaska
• New Jersey
• North Carolina
• Maryland
• New York
• Ohio

31103195

www.us.sgs.com

106134

Form containing client information (GEL Eng. of NC, Inc), SGS Reference (Onslow County), sample analysis table with columns for Lab No, Sample Identification, Date, Time, Matrix, and Remarks, and collection/relinquishment details.

Page 86 of 87

APPENDIX VII

Laboratory Analytical Records



Laboratory Report of Analysis

To: Andrew Eyer
GEL Engineering of NC, Inc.
PO Box 14262
RTP, NC 27709

Report Number: **31103195**

Client Project: **1381 Piney Green**

Dear Andrew Eyer,

Enclosed are the results of the analytical services performed under the referenced project for the received samples and associated QC as applicable. The samples are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards. Copies of this report and supporting data will be retained in our files for a period of five years in the event they are required for future reference. All results are intended to be used in their entirety and SGS is not responsible for use of less than the complete report. Any samples submitted to our laboratory will be retained for a maximum of thirty (30) days from the date of this report unless other arrangements are requested.

If there are any questions about the report or services performed during this project, please call Michael D. Page at (910) 350-1903. We will be happy to answer any questions or concerns which you may have.

Thank you for using SGS North America Inc. for your analytical services. We look forward to working with you again on any additional analytical needs.

Sincerely,
SGS North America Inc.

Michael D. Page
Project Manager
michael.page@sgs.com

Date

Laboratory Qualifiers

Report Definitions

DL	Method, Instrument, or Estimated Detection Limit per Analytical Method
CL	Control Limits for the recovery result of a parameter
LOQ	Reporting Limit
DF	Dilution Factor
RPD	Relative Percent Difference
LCS(D)	Laboratory Control Spike (Duplicate)
MS(D)	Matrix Spike (Duplicate)
MB	Method Blank

Qualifier Definitions

*	Recovery or RPD outside of control limits
B	Analyte was detected in the Lab Method Blank at a level above the LOQ
U	Undetected (Reported as ND or < DL)
V	Recovery is below quality control limit. The data has been validated based on a favorable signal-to-noise and detection limit
A	Amount detected is less than the Lower Method Calibration Limit
J	Amount detected is between the Method Detection Limit and the Lower Calibration Limit
O	The recovery of this analyte in the OPR is above the Method QC Limits and the reported concentration in the sample may be biased high
E	Amount detected is greater than the Upper Calibration Limit
S	The amount of analyte present has saturated the detector. This situation results in an underestimation of the affected analyte(s)
Q	Indicates the presence of a quantitative interference. This situation may result in an underestimation of the affected analyte(s)
I	Indicates the presence of a qualitative interference that could cause a false positive or an overestimation of the affected analyte(s)
DPE	Indicates the presence of a peak in the polychlorinated diphenylether channel that could cause a false positive or an overestimation of the affected analyte(s)
TIC	Tentatively Identified Compound
EMPC	Estimated Maximum possible Concentration due to ion ratio failure
ND	Not Detected
K	Result is estimated due to ion ratio failure in High Resolution PCB Analysis
P	RPD > 40% between results of dual columns
D	Spike or surrogate was diluted out in order to achieve a parameter result within instrument calibration range

Samples requiring manual integrations for various congeners and/or standards are marked and dated by the analyst. A code definition is provided below:

M1	Mis-identified peak
M2	Software did not integrate peak
M3	Incorrect baseline construction (i.e. not all of peak included; two peaks integrated as one)
M4	Pattern integration required (i.e. DRO, GRO, PCB, Toxaphene and Technical Chlordane)
M5	Other - Explained in case narrative

Note Results pages that include a value for "Solids (%)" have been adjusted for moisture content.

Sample Summary

<u>Client Sample ID</u>	<u>Lab Sample ID</u>	<u>Collected</u>	<u>Received</u>	<u>Matrix</u>
SB-1	31103195001	11/08/2011 09:45	11/10/2011 11:30	Soil-Solid as dry weight
SB-2	31103195002	11/08/2011 09:50	11/10/2011 11:30	Soil-Solid as dry weight
SB-3	31103195003	11/08/2011 10:00	11/10/2011 11:30	Soil-Solid as dry weight
SB-4	31103195004	11/08/2011 10:05	11/10/2011 11:30	Soil-Solid as dry weight
SB-5	31103195005	11/08/2011 11:40	11/10/2011 11:30	Soil-Solid as dry weight
SB-6	31103195006	11/08/2011 11:45	11/10/2011 11:30	Soil-Solid as dry weight
SB-7	31103195007	11/08/2011 11:50	11/10/2011 11:30	Soil-Solid as dry weight
SB-8	31103195008	11/08/2011 12:00	11/10/2011 11:30	Soil-Solid as dry weight
SB-9	31103195009	11/08/2011 12:05	11/10/2011 11:30	Soil-Solid as dry weight
SB-10	31103195010	11/08/2011 12:10	11/10/2011 11:30	Soil-Solid as dry weight
SB-11	31103195011	11/08/2011 13:25	11/10/2011 11:30	Soil-Solid as dry weight
SB-12	31103195012	11/08/2011 14:50	11/10/2011 11:30	Soil-Solid as dry weight
SB-13	31103195013	11/08/2011 14:55	11/10/2011 11:30	Soil-Solid as dry weight
SB-14	31103195014	11/08/2011 15:00	11/10/2011 11:30	Soil-Solid as dry weight
SB-15	31103195015	11/08/2011 15:10	11/10/2011 11:30	Soil-Solid as dry weight

Case Narrative

SB-9

8270D - This sample required a 5X dilution due to non-target interferences.

SB-12

8270D - This sample required a 20X dilution due to non-target interferences.

SB-13

8270D - This sample required a 20X dilution due to non-target interferences.

SB-14

8270D - This sample required a 20X dilution due to non-target interferences.

SB-15

8270D - This sample required a 20X dilution due to non-target interferences.

Results of SB-1

Client Sample ID: **SB-1**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195001-B
 Lab Project ID: 31103195

Collection Date: 11/08/2011 09:45
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 85.90

Results by SW-846 8015C GRO

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Gasoline Range Organics (GRO)	46.2		12.6	mg/kg	4	11/14/2011 18:39

Surrogates

4-Bromofluorobenzene	96.3		70.0-130	%	4	11/14/2011 18:39
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Batch Information

Analytical Batch: **VGC1514**
 Analytical Method: **SW-846 8015C GRO**
 Instrument: **GC7**
 Analyst: **MDY**
 Analytical Date/Time: **11/14/2011 18:39**

Prep Batch: **VXX2365**
 Prep Method: **SW-846 5035**
 Prep Date/Time: **11/11/2011 15:14**
 Prep Initial Wt./Vol.: **7.367 g**
 Prep Extract Vol: **5 mL**

Results of SB-1

Client Sample ID: **SB-1**
Client Project ID: **1381 Piney Green**
Lab Sample ID: 31103195001-C
Lab Project ID: 31103195

Collection Date: 11/08/2011 09:45
Received Date: 11/10/2011 11:30
Matrix: Soil-Solid as dry weight
Solids (%): 85.90

Results by SW-846 6010C

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Chromium	3.09		0.986	mg/kg	1	11/15/2011 13:02
Lead	30.6		0.986	mg/kg	1	11/15/2011 13:02

Batch Information

Analytical Batch: **MIP1327**
Analytical Method: **SW-846 6010C**
Instrument: **ICP1**
Analyst: **NTM**
Analytical Date/Time: **11/15/2011 13:02**

Prep Batch: **MXX1635**
Prep Method: **SW-846 3050B**
Prep Date/Time: **11/14/2011 08:58**
Prep Initial Wt./Vol.: **.59 g**
Prep Extract Vol: **50 mL**

Results of SB-1

Client Sample ID: **SB-1**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195001-C
 Lab Project ID: 31103195

Collection Date: 11/08/2011 09:45
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 85.90

Results by SW-846 8015C DRO

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Diesel Range Organics (DRO)	15600		1440	mg/kg	200	11/18/2011 12:26

Surrogates

o-Terphenyl	NA	D	40.0-140	%	200	11/18/2011 12:26
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Batch Information

Analytical Batch: **XGC1728**
 Analytical Method: **SW-846 8015C DRO**
 Instrument: **GC6**
 Analyst: **DTF**
 Analytical Date/Time: **11/18/2011 12:26**

Prep Batch: **XXX1978**
 Prep Method: **SW-846 3541**
 Prep Date/Time: **11/15/2011 13:06**
 Prep Initial Wt./Vol.: **32.27 g**
 Prep Extract Vol: **10 mL**

Results of SB-2

Client Sample ID: **SB-2**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195002-B
 Lab Project ID: 31103195

Collection Date: 11/08/2011 09:50
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 82.80

Results by SW-846 8015C GRO

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Gasoline Range Organics (GRO)	103		18.9	mg/kg	5	11/14/2011 19:05

Surrogates

4-Bromofluorobenzene	101		70.0-130	%	5	11/14/2011 19:05
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Batch Information

Analytical Batch: **VGC1514**
 Analytical Method: **SW-846 8015C GRO**
 Instrument: **GC7**
 Analyst: **MDY**
 Analytical Date/Time: **11/14/2011 19:05**

Prep Batch: **VXX2365**
 Prep Method: **SW-846 5035**
 Prep Date/Time: **11/11/2011 14:28**
 Prep Initial Wt./Vol.: **6.377 g**
 Prep Extract Vol: **5 mL**

Results of SB-2

Client Sample ID: **SB-2**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195002-C
 Lab Project ID: 31103195

Collection Date: 11/08/2011 09:50
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 82.80

Results by SW-846 6010C

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Chromium	3.95		1.06	mg/kg	1	11/15/2011 13:09
Lead	57.1		1.06	mg/kg	1	11/15/2011 13:09

Batch Information

Analytical Batch: **MIP1327**
 Analytical Method: **SW-846 6010C**
 Instrument: **ICP1**
 Analyst: **NTM**
 Analytical Date/Time: **11/15/2011 13:09**

Prep Batch: **MX1635**
 Prep Method: **SW-846 3050B**
 Prep Date/Time: **11/14/2011 08:58**
 Prep Initial Wt./Vol.: **.57 g**
 Prep Extract Vol: **50 mL**

Results of SB-2

Client Sample ID: **SB-2**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195002-C
 Lab Project ID: 31103195

Collection Date: 11/08/2011 09:50
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 82.80

Results by SW-846 8015C DRO

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Diesel Range Organics (DRO)	19800		1480	mg/kg	200	11/18/2011 12:54

Surrogates

o-Terphenyl	NA	D	40.0-140	%	200	11/18/2011 12:54
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Batch Information

Analytical Batch: **XGC1728**
 Analytical Method: **SW-846 8015C DRO**
 Instrument: **GC6**
 Analyst: **DTF**
 Analytical Date/Time: **11/18/2011 12:54**

Prep Batch: **XXX1978**
 Prep Method: **SW-846 3541**
 Prep Date/Time: **11/15/2011 13:06**
 Prep Initial Wt./Vol.: **32.69 g**
 Prep Extract Vol: **10 mL**

Results of SB-3

Client Sample ID: **SB-3**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195003-A
 Lab Project ID: 31103195

Collection Date: 11/08/2011 10:00
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 86.40

Results by SW-846 8015C GRO

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Gasoline Range Organics (GRO)	6.23		3.70	mg/kg	1	11/16/2011 12:19

Surrogates

4-Bromofluorobenzene	101		70.0-130	%	1	11/16/2011 12:19
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Batch Information

Analytical Batch: **VGC1519**
 Analytical Method: **SW-846 8015C GRO**
 Instrument: **GC7**
 Analyst: **MDY**
 Analytical Date/Time: **11/16/2011 12:19**

Prep Batch: **VXX2381**
 Prep Method: **SW-846 5035**
 Prep Date/Time: **11/11/2011 14:28**
 Prep Initial Wt./Vol.: **6.26 g**
 Prep Extract Vol: **5 mL**

Results of SB-3

Client Sample ID: **SB-3**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195003-C
 Lab Project ID: 31103195

Collection Date: 11/08/2011 10:00
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 86.40

Results by SW-846 6010C

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Chromium	4.00		1.13	mg/kg	1	11/15/2011 13:15
Lead	16.4		1.13	mg/kg	1	11/15/2011 13:15

Batch Information

Analytical Batch: **MIP1327**
 Analytical Method: **SW-846 6010C**
 Instrument: **ICP1**
 Analyst: **NTM**
 Analytical Date/Time: **11/15/2011 13:15**

Prep Batch: **MXX1635**
 Prep Method: **SW-846 3050B**
 Prep Date/Time: **11/14/2011 08:58**
 Prep Initial Wt./Vol.: **.51 g**
 Prep Extract Vol: **50 mL**

Results of SB-3

Client Sample ID: **SB-3**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195003-C
 Lab Project ID: 31103195

Collection Date: 11/08/2011 10:00
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 86.40

Results by SW-846 8015C DRO

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Diesel Range Organics (DRO)	874		36.1	mg/kg	5	11/18/2011 13:22

Surrogates

o-Terphenyl	99.4		40.0-140	%	5	11/18/2011 13:22
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Batch Information

Analytical Batch: **XGC1728**
 Analytical Method: **SW-846 8015C DRO**
 Instrument: **GC6**
 Analyst: **DTF**
 Analytical Date/Time: **11/18/2011 13:22**

Prep Batch: **XXX1978**
 Prep Method: **SW-846 3541**
 Prep Date/Time: **11/15/2011 13:06**
 Prep Initial Wt./Vol.: **32.07 g**
 Prep Extract Vol: **10 mL**

Results of SB-4

Client Sample ID: **SB-4**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195004-B
 Lab Project ID: 31103195

Collection Date: 11/08/2011 10:05
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 87.60

Results by SW-846 8015C GRO

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Gasoline Range Organics (GRO)	ND		3.42	mg/kg	1	11/14/2011 15:08

Surrogates

4-Bromofluorobenzene	101		70.0-130	%	1	11/14/2011 15:08
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Batch Information

Analytical Batch: **VGC1514**
 Analytical Method: **SW-846 8015C GRO**
 Instrument: **GC7**
 Analyst: **MDY**
 Analytical Date/Time: **11/14/2011 15:08**

Prep Batch: **VXX2365**
 Prep Method: **SW-846 5035**
 Prep Date/Time: **11/11/2011 14:29**
 Prep Initial Wt./Vol.: **6.675 g**
 Prep Extract Vol: **5 mL**

Results of SB-4

Client Sample ID: **SB-4**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195004-C
 Lab Project ID: 31103195

Collection Date: 11/08/2011 10:05
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 87.60

Results by SW-846 6010C

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Chromium	4.18		1.12	mg/kg	1	11/15/2011 13:22
Lead	9.25		1.12	mg/kg	1	11/15/2011 13:22

Batch Information

Analytical Batch: **MIP1327**
 Analytical Method: **SW-846 6010C**
 Instrument: **ICP1**
 Analyst: **NTM**
 Analytical Date/Time: **11/15/2011 13:22**

Prep Batch: **MXX1635**
 Prep Method: **SW-846 3050B**
 Prep Date/Time: **11/14/2011 08:58**
 Prep Initial Wt./Vol.: **.51 g**
 Prep Extract Vol: **50 mL**

Results of SB-4

Client Sample ID: **SB-4**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195004-C
 Lab Project ID: 31103195

Collection Date: 11/08/2011 10:05
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 87.60

Results by SW-846 8015C DRO

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Diesel Range Organics (DRO)	95.4		7.00	mg/kg	1	11/18/2011 13:50

Surrogates

o-Terphenyl	74.2		40.0-140	%	1	11/18/2011 13:50
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Batch Information

Analytical Batch: **XGC1728**
 Analytical Method: **SW-846 8015C DRO**
 Instrument: **GC6**
 Analyst: **DTF**
 Analytical Date/Time: **11/18/2011 13:50**

Prep Batch: **XXX1978**
 Prep Method: **SW-846 3541**
 Prep Date/Time: **11/15/2011 13:06**
 Prep Initial Wt./Vol.: **32.58 g**
 Prep Extract Vol: **10 mL**



Results of **SB-5**

Client Sample ID: **SB-5**
Client Project ID: **1381 Piney Green**
Lab Sample ID: 31103195005-D
Lab Project ID: 31103195

Collection Date: 11/08/2011 11:40
Received Date: 11/10/2011 11:30
Matrix: Soil-Solid as dry weight
Solids (%): 83.70

Results by **SW-846 8260B**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
1,1,1,2-Tetrachloroethane	ND		359	ug/Kg	400	11/14/2011 18:59
1,1,1-Trichloroethane	ND		359	ug/Kg	400	11/14/2011 18:59
1,1,2,2-Tetrachloroethane	ND		359	ug/Kg	400	11/14/2011 18:59
1,1,2-Trichloroethane	ND		359	ug/Kg	400	11/14/2011 18:59
1,1-Dichloroethane	ND		359	ug/Kg	400	11/14/2011 18:59
1,1-Dichloroethene	ND		359	ug/Kg	400	11/14/2011 18:59
1,1-Dichloropropene	ND		359	ug/Kg	400	11/14/2011 18:59
1,2,3-Trichlorobenzene	ND		359	ug/Kg	400	11/14/2011 18:59
1,2,3-Trichloropropane	ND		359	ug/Kg	400	11/14/2011 18:59
1,2,4-Trichlorobenzene	ND		359	ug/Kg	400	11/14/2011 18:59
1,2,4-Trimethylbenzene	6490		359	ug/Kg	400	11/14/2011 18:59
1,2-Dibromo-3-chloropropane	ND		1800	ug/Kg	400	11/14/2011 18:59
1,2-Dibromoethane	ND		359	ug/Kg	400	11/14/2011 18:59
1,2-Dichlorobenzene	ND		359	ug/Kg	400	11/14/2011 18:59
1,2-Dichloroethane	ND		359	ug/Kg	400	11/14/2011 18:59
1,2-Dichloropropane	ND		359	ug/Kg	400	11/14/2011 18:59
1,3,5-Trimethylbenzene	1730		359	ug/Kg	400	11/14/2011 18:59
1,3-Dichlorobenzene	ND		359	ug/Kg	400	11/14/2011 18:59
1,3-Dichloropropane	ND		359	ug/Kg	400	11/14/2011 18:59
1,4-Dichlorobenzene	ND		359	ug/Kg	400	11/14/2011 18:59
2,2-Dichloropropane	ND		359	ug/Kg	400	11/14/2011 18:59
2-Butanone	ND		8980	ug/Kg	400	11/14/2011 18:59
2-Chlorotoluene	ND		359	ug/Kg	400	11/14/2011 18:59
2-Hexanone	ND		1800	ug/Kg	400	11/14/2011 18:59
4-Chlorotoluene	ND		359	ug/Kg	400	11/14/2011 18:59
4-Isopropyltoluene	596		359	ug/Kg	400	11/14/2011 18:59
4-Methyl-2-pentanone	ND		1800	ug/Kg	400	11/14/2011 18:59
Acetone	ND		8980	ug/Kg	400	11/14/2011 18:59
Benzene	ND		359	ug/Kg	400	11/14/2011 18:59
Bromobenzene	ND		359	ug/Kg	400	11/14/2011 18:59
Bromochloromethane	ND		359	ug/Kg	400	11/14/2011 18:59
Bromodichloromethane	ND		359	ug/Kg	400	11/14/2011 18:59
Bromoform	ND		359	ug/Kg	400	11/14/2011 18:59
Bromomethane	ND		359	ug/Kg	400	11/14/2011 18:59
n-Butylbenzene	ND		359	ug/Kg	400	11/14/2011 18:59
Carbon disulfide	ND		359	ug/Kg	400	11/14/2011 18:59
Carbon tetrachloride	ND		359	ug/Kg	400	11/14/2011 18:59
Chlorobenzene	ND		359	ug/Kg	400	11/14/2011 18:59
Chloroethane	ND		359	ug/Kg	400	11/14/2011 18:59
Chloroform	ND		359	ug/Kg	400	11/14/2011 18:59
Chloromethane	ND		359	ug/Kg	400	11/14/2011 18:59
Dibromochloromethane	ND		359	ug/Kg	400	11/14/2011 18:59
Dibromomethane	ND		359	ug/Kg	400	11/14/2011 18:59

Print Date: 11/22/2011

N.C. Certification # 481

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Member of SGS Group

Results of SB-5

Client Sample ID: **SB-5**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195005-D
 Lab Project ID: 31103195

Collection Date: 11/08/2011 11:40
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 83.70

Results by SW-846 8260B

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Dichlorodifluoromethane	ND		1800	ug/Kg	400	11/14/2011 18:59
cis-1,3-Dichloropropene	ND		359	ug/Kg	400	11/14/2011 18:59
trans-1,3-Dichloropropene	ND		359	ug/Kg	400	11/14/2011 18:59
Diisopropyl Ether	ND		359	ug/Kg	400	11/14/2011 18:59
Ethyl Benzene	2220		359	ug/Kg	400	11/14/2011 18:59
Hexachlorobutadiene	ND		359	ug/Kg	400	11/14/2011 18:59
Isopropylbenzene (Cumene)	453		359	ug/Kg	400	11/14/2011 18:59
Methyl iodide	ND		359	ug/Kg	400	11/14/2011 18:59
Methylene chloride	ND		1800	ug/Kg	400	11/14/2011 18:59
Naphthalene	7540		359	ug/Kg	400	11/14/2011 18:59
Styrene	ND		359	ug/Kg	400	11/14/2011 18:59
Tetrachloroethene	ND		359	ug/Kg	400	11/14/2011 18:59
Toluene	ND		359	ug/Kg	400	11/14/2011 18:59
Trichloroethene	ND		359	ug/Kg	400	11/14/2011 18:59
Trichlorofluoromethane	ND		359	ug/Kg	400	11/14/2011 18:59
Vinyl chloride	ND		359	ug/Kg	400	11/14/2011 18:59
cis-1,2-Dichloroethene	ND		359	ug/Kg	400	11/14/2011 18:59
m,p-Xylene	3460		719	ug/Kg	400	11/14/2011 18:59
n-Propylbenzene	1990		359	ug/Kg	400	11/14/2011 18:59
o-Xylene	1410		359	ug/Kg	400	11/14/2011 18:59
sec-Butylbenzene	ND		359	ug/Kg	400	11/14/2011 18:59
tert-Butyl methyl ether (MTBE)	ND		359	ug/Kg	400	11/14/2011 18:59
tert-Butylbenzene	ND		359	ug/Kg	400	11/14/2011 18:59
trans-1,2-Dichloroethene	ND		359	ug/Kg	400	11/14/2011 18:59
trans-1,4-Dichloro-2-butene	ND		1800	ug/Kg	400	11/14/2011 18:59

Surrogates

1,2-Dichloroethane-d4	90.0		55.0-173	%	400	11/14/2011 18:59
4-Bromofluorobenzene	102		23.0-141	%	400	11/14/2011 18:59
Toluene d8	105		57.0-134	%	400	11/14/2011 18:59

Batch Information

Analytical Batch: **VMS1702**
 Analytical Method: **SW-846 8260B**
 Instrument: **MSD4**
 Analyst: **DVO**
 Analytical Date/Time: **11/14/2011 18:59**

Prep Batch: **VXX2374**
 Prep Method: **SW-846 5035 SM**
 Prep Date/Time: **11/11/2011 14:31**
 Prep Initial Wt./Vol.: **6.647 g**
 Prep Extract Vol: **5 mL**

Results of SB-5

Client Sample ID: **SB-5**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195005-E
 Lab Project ID: 31103195

Collection Date: 11/08/2011 11:40
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 83.70

Results by MADEP VPH

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
C5-C8 Aliphatics	7.29		4.37	mg/kg	1	11/16/2011 12:05
C9-C10 Aromatics	41.1		4.37	mg/kg	1	11/16/2011 12:05
C9-C12 Aliphatics	64.7		4.37	mg/kg	1	11/16/2011 12:05

Surrogates

FID - 4-Bromofluorobenzene	115		70.0-130	%	1	11/16/2011 12:05
PID - 4-Bromofluorobenzene	106		70.0-130	%	1	11/16/2011 12:05

Batch Information

Analytical Batch: **VGC1521**
 Analytical Method: **MADEP VPH**
 Instrument: **GC4**
 Analyst: **MDY**
 Analytical Date/Time: **11/16/2011 12:05**

Prep Batch: **VXX2383**
 Prep Method: **SW-846 5035 VPH prep**
 Prep Date/Time: **11/11/2011 14:31**
 Prep Initial Wt./Vol.: **6.824 g**
 Prep Extract Vol: **5 mL**

Results of SB-5

Client Sample ID: **SB-5**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195005-F
 Lab Project ID: 31103195

Collection Date: 11/08/2011 11:40
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 83.70

Results by SW-846 8270D

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	ND		367	ug/Kg	1	11/16/2011 13:35
1,2-Dichlorobenzene	ND		367	ug/Kg	1	11/16/2011 13:35
1,3-Dichlorobenzene	ND		367	ug/Kg	1	11/16/2011 13:35
1,4-Dichlorobenzene	ND		367	ug/Kg	1	11/16/2011 13:35
2,4,5-Trichlorophenol	ND		367	ug/Kg	1	11/16/2011 13:35
2,4,6-Trichlorophenol	ND		367	ug/Kg	1	11/16/2011 13:35
2,4-Dichlorophenol	ND		367	ug/Kg	1	11/16/2011 13:35
2,4-Dinitrophenol	ND		733	ug/Kg	1	11/16/2011 13:35
2,4-Dinitrotoluene	ND		367	ug/Kg	1	11/16/2011 13:35
2,6-Dinitrotoluene	ND		367	ug/Kg	1	11/16/2011 13:35
2-Chloronaphthalene	ND		367	ug/Kg	1	11/16/2011 13:35
2-Chlorophenol	ND		367	ug/Kg	1	11/16/2011 13:35
2-Methylnaphthalene	1910		367	ug/Kg	1	11/16/2011 13:35
2-Methylphenol	ND		367	ug/Kg	1	11/16/2011 13:35
2-Nitroaniline	ND		367	ug/Kg	1	11/16/2011 13:35
2-Nitrophenol	ND		367	ug/Kg	1	11/16/2011 13:35
3 and/or 4-Methylphenol	ND		367	ug/Kg	1	11/16/2011 13:35
3,3'-Dichlorobenzidine	ND		367	ug/Kg	1	11/16/2011 13:35
3-Nitroaniline	ND		367	ug/Kg	1	11/16/2011 13:35
4,6-Dinitro-2-methylphenol	ND		367	ug/Kg	1	11/16/2011 13:35
4-Chloro-3-methylphenol	ND		367	ug/Kg	1	11/16/2011 13:35
4-Chloroaniline	ND		367	ug/Kg	1	11/16/2011 13:35
4-Chlorophenyl phenyl ether	ND		367	ug/Kg	1	11/16/2011 13:35
Acenaphthene	ND		367	ug/Kg	1	11/16/2011 13:35
Acenaphthylene	ND		367	ug/Kg	1	11/16/2011 13:35
Anthracene	ND		367	ug/Kg	1	11/16/2011 13:35
Benzo(a)anthracene	ND		367	ug/Kg	1	11/16/2011 13:35
Benzo(a)pyrene	ND		367	ug/Kg	1	11/16/2011 13:35
Benzo(b)fluoranthene	ND		367	ug/Kg	1	11/16/2011 13:35
Benzo(g,h,i)perylene	ND		367	ug/Kg	1	11/16/2011 13:35
Benzo(k)fluoranthene	ND		367	ug/Kg	1	11/16/2011 13:35
Benzoic acid	ND		367	ug/Kg	1	11/16/2011 13:35
Bis(2-Chloroethoxy)methane	ND		367	ug/Kg	1	11/16/2011 13:35
Bis(2-Chloroethyl)ether	ND		367	ug/Kg	1	11/16/2011 13:35
Bis(2-Chloroisopropyl)ether	ND		367	ug/Kg	1	11/16/2011 13:35
Bis(2-Ethylhexyl)phthalate	542		367	ug/Kg	1	11/16/2011 13:35
4-Bromophenyl phenyl ether	ND		367	ug/Kg	1	11/16/2011 13:35
Butyl benzyl phthalate	ND		367	ug/Kg	1	11/16/2011 13:35
Chrysene	ND		367	ug/Kg	1	11/16/2011 13:35
Di-n-butyl phthalate	ND		367	ug/Kg	1	11/16/2011 13:35
Di-n-octyl phthalate	ND		367	ug/Kg	1	11/16/2011 13:35
Dibenz(a,h)anthracene	ND		367	ug/Kg	1	11/16/2011 13:35
Dibenzofuran	ND		367	ug/Kg	1	11/16/2011 13:35

Results of SB-5

Client Sample ID: **SB-5**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195005-F
 Lab Project ID: 31103195

Collection Date: 11/08/2011 11:40
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 83.70

Results by SW-846 8270D

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Diethyl phthalate	ND		367	ug/Kg	1	11/16/2011 13:35
Dimethyl phthalate	ND		367	ug/Kg	1	11/16/2011 13:35
2,4-Dimethylphenol	ND		367	ug/Kg	1	11/16/2011 13:35
Diphenylamine	ND		367	ug/Kg	1	11/16/2011 13:35
Fluoranthene	ND		367	ug/Kg	1	11/16/2011 13:35
Fluorene	ND		367	ug/Kg	1	11/16/2011 13:35
Hexachlorobenzene	ND		367	ug/Kg	1	11/16/2011 13:35
Hexachlorobutadiene	ND		367	ug/Kg	1	11/16/2011 13:35
Hexachlorocyclopentadiene	ND		367	ug/Kg	1	11/16/2011 13:35
Hexachloroethane	ND		367	ug/Kg	1	11/16/2011 13:35
Indeno(1,2,3-cd)pyrene	ND		367	ug/Kg	1	11/16/2011 13:35
Isophorone	ND		367	ug/Kg	1	11/16/2011 13:35
Naphthalene	1030		367	ug/Kg	1	11/16/2011 13:35
4-Nitroaniline	ND		367	ug/Kg	1	11/16/2011 13:35
Nitrobenzene	ND		367	ug/Kg	1	11/16/2011 13:35
4-Nitrophenol	ND		367	ug/Kg	1	11/16/2011 13:35
Pentachlorophenol	ND		367	ug/Kg	1	11/16/2011 13:35
Phenanthrene	ND		367	ug/Kg	1	11/16/2011 13:35
Phenol	ND		367	ug/Kg	1	11/16/2011 13:35
Pyrene	ND		367	ug/Kg	1	11/16/2011 13:35
n-Nitrosodi-n-propylamine	ND		367	ug/Kg	1	11/16/2011 13:35
Surrogates						
2,4,6-Tribromophenol	86.0		41.0-129	%	1	11/16/2011 13:35
2-Fluorobiphenyl	75.0		48.0-123	%	1	11/16/2011 13:35
2-Fluorophenol	81.0		42.0-123	%	1	11/16/2011 13:35
Nitrobenzene-d5	83.0		46.0-117	%	1	11/16/2011 13:35
Phenol-d6	84.0		48.0-125	%	1	11/16/2011 13:35
Terphenyl-d14	105		44.0-140	%	1	11/16/2011 13:35

Batch Information

Analytical Batch: **XMS1303**
 Analytical Method: **SW-846 8270D**
 Instrument: **MSD10**
 Analyst: **CMP**
 Analytical Date/Time: **11/16/2011 13:35**

Prep Batch: **XXX1973**
 Prep Method: **SW-846 3541**
 Prep Date/Time: **11/14/2011 12:16**
 Prep Initial Wt./Vol.: **32.57 g**
 Prep Extract Vol: **10 mL**

Results of SB-5

Client Sample ID: **SB-5**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195005-F
 Lab Project ID: 31103195

Collection Date: 11/08/2011 11:40
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 83.70

Results by SW-846 6010C

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Chromium	4.19		1.09	mg/kg	1	11/15/2011 13:43
Lead	8.76		1.09	mg/kg	1	11/15/2011 13:43

Batch Information

Analytical Batch: **MIP1327**
 Analytical Method: **SW-846 6010C**
 Instrument: **ICP1**
 Analyst: **NTM**
 Analytical Date/Time: **11/15/2011 13:43**

Prep Batch: **MXX1635**
 Prep Method: **SW-846 3050B**
 Prep Date/Time: **11/14/2011 08:58**
 Prep Initial Wt./Vol.: **.55 g**
 Prep Extract Vol: **50 mL**

Results of SB-5

Client Sample ID: **SB-5**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195005-F
 Lab Project ID: 31103195

Collection Date: 11/08/2011 11:40
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 83.70

Results by MADEP EPH

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
C11-C22 Aromatics	62.5		15.4	mg/kg	1	11/18/2011 16:10
C19-C36 Aliphatics	326		7.96	mg/kg	1	11/18/2011 15:42
C9-C18 Aliphatics	ND		6.89	mg/kg	1	11/18/2011 15:42

Surrogates

2-Bromonaphthalene	117		40.0-140	%	1	11/18/2011 16:10
2-Fluorobiphenyl	105		40.0-140	%	1	11/18/2011 16:10
n-Tricosane	94.0		40.0-140	%	1	11/18/2011 15:42
o-Terphenyl	89.0		40.0-140	%	1	11/18/2011 16:10

Batch Information

Analytical Batch: **XGC1736**
 Analytical Method: **MADEP EPH**
 Instrument: **GC6**
 Analyst: **DTF**
 Analytical Date/Time: **11/18/2011 16:10**

Prep Batch: **XXX1979**
 Prep Method: **SW-846 3541/8015 EPH**
 Prep Date/Time: **11/15/2011 13:13**
 Prep Initial Wt./Vol.: **12.06 g**
 Prep Extract Vol: **10 mL**

Results of SB-6

Client Sample ID: **SB-6**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195006-A
 Lab Project ID: 31103195

Collection Date: 11/08/2011 11:45
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 83.10

Results by SW-846 8260B

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND		5.40	ug/Kg	1	11/16/2011 12:24
1,1,1-Trichloroethane	ND		5.40	ug/Kg	1	11/16/2011 12:24
1,1,1,2-Tetrachloroethane	ND		5.40	ug/Kg	1	11/16/2011 12:24
1,1,2-Trichloroethane	ND		5.40	ug/Kg	1	11/16/2011 12:24
1,1-Dichloroethane	ND		5.40	ug/Kg	1	11/16/2011 12:24
1,1-Dichloroethene	ND		5.40	ug/Kg	1	11/16/2011 12:24
1,1-Dichloropropene	ND		5.40	ug/Kg	1	11/16/2011 12:24
1,2,3-Trichlorobenzene	ND		5.40	ug/Kg	1	11/16/2011 12:24
1,2,3-Trichloropropane	ND		5.40	ug/Kg	1	11/16/2011 12:24
1,2,4-Trichlorobenzene	ND		5.40	ug/Kg	1	11/16/2011 12:24
1,2,4-Trimethylbenzene	ND		5.40	ug/Kg	1	11/16/2011 12:24
1,2-Dibromo-3-chloropropane	ND		32.4	ug/Kg	1	11/16/2011 12:24
1,2-Dibromoethane	ND		5.40	ug/Kg	1	11/16/2011 12:24
1,2-Dichlorobenzene	ND		5.40	ug/Kg	1	11/16/2011 12:24
1,2-Dichloroethane	ND		5.40	ug/Kg	1	11/16/2011 12:24
1,2-Dichloropropane	ND		5.40	ug/Kg	1	11/16/2011 12:24
1,3,5-Trimethylbenzene	ND		5.40	ug/Kg	1	11/16/2011 12:24
1,3-Dichlorobenzene	ND		5.40	ug/Kg	1	11/16/2011 12:24
1,3-Dichloropropane	ND		5.40	ug/Kg	1	11/16/2011 12:24
1,4-Dichlorobenzene	ND		5.40	ug/Kg	1	11/16/2011 12:24
2,2-Dichloropropane	ND		5.40	ug/Kg	1	11/16/2011 12:24
2-Butanone	33.1		27.0	ug/Kg	1	11/16/2011 12:24
2-Chlorotoluene	ND		5.40	ug/Kg	1	11/16/2011 12:24
2-Hexanone	ND		13.5	ug/Kg	1	11/16/2011 12:24
4-Chlorotoluene	ND		5.40	ug/Kg	1	11/16/2011 12:24
4-Isopropyltoluene	ND		5.40	ug/Kg	1	11/16/2011 12:24
4-Methyl-2-pentanone	ND		13.5	ug/Kg	1	11/16/2011 12:24
Acetone	178		54.0	ug/Kg	1	11/16/2011 12:24
Benzene	ND		5.40	ug/Kg	1	11/16/2011 12:24
Bromobenzene	ND		5.40	ug/Kg	1	11/16/2011 12:24
Bromochloromethane	ND		5.40	ug/Kg	1	11/16/2011 12:24
Bromodichloromethane	ND		5.40	ug/Kg	1	11/16/2011 12:24
Bromoform	ND		5.40	ug/Kg	1	11/16/2011 12:24
Bromomethane	ND		5.40	ug/Kg	1	11/16/2011 12:24
n-Butylbenzene	ND		5.40	ug/Kg	1	11/16/2011 12:24
Carbon disulfide	ND		5.40	ug/Kg	1	11/16/2011 12:24
Carbon tetrachloride	ND		5.40	ug/Kg	1	11/16/2011 12:24
Chlorobenzene	ND		5.40	ug/Kg	1	11/16/2011 12:24
Chloroethane	ND		5.40	ug/Kg	1	11/16/2011 12:24
Chloroform	ND		5.40	ug/Kg	1	11/16/2011 12:24
Chloromethane	ND		5.40	ug/Kg	1	11/16/2011 12:24
Dibromochloromethane	ND		5.40	ug/Kg	1	11/16/2011 12:24
Dibromomethane	ND		5.40	ug/Kg	1	11/16/2011 12:24

Results of SB-6

Client Sample ID: **SB-6**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195006-A
 Lab Project ID: 31103195

Collection Date: 11/08/2011 11:45
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 83.10

Results by SW-846 8260B

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Dichlorodifluoromethane	ND		5.40	ug/Kg	1	11/16/2011 12:24
cis-1,3-Dichloropropene	ND		5.40	ug/Kg	1	11/16/2011 12:24
trans-1,3-Dichloropropene	ND		5.40	ug/Kg	1	11/16/2011 12:24
Diisopropyl Ether	ND		5.40	ug/Kg	1	11/16/2011 12:24
Ethyl Benzene	ND		5.40	ug/Kg	1	11/16/2011 12:24
Hexachlorobutadiene	ND		5.40	ug/Kg	1	11/16/2011 12:24
Isopropylbenzene (Cumene)	ND		5.40	ug/Kg	1	11/16/2011 12:24
Methyl iodide	ND		5.40	ug/Kg	1	11/16/2011 12:24
Methylene chloride	ND		21.6	ug/Kg	1	11/16/2011 12:24
Naphthalene	ND		5.40	ug/Kg	1	11/16/2011 12:24
Styrene	ND		5.40	ug/Kg	1	11/16/2011 12:24
Tetrachloroethene	ND		5.40	ug/Kg	1	11/16/2011 12:24
Toluene	ND		5.40	ug/Kg	1	11/16/2011 12:24
Trichloroethene	ND		5.40	ug/Kg	1	11/16/2011 12:24
Trichlorofluoromethane	ND		5.40	ug/Kg	1	11/16/2011 12:24
Vinyl chloride	ND		5.40	ug/Kg	1	11/16/2011 12:24
cis-1,2-Dichloroethene	ND		5.40	ug/Kg	1	11/16/2011 12:24
m,p-Xylene	ND		10.8	ug/Kg	1	11/16/2011 12:24
n-Propylbenzene	ND		5.40	ug/Kg	1	11/16/2011 12:24
o-Xylene	ND		5.40	ug/Kg	1	11/16/2011 12:24
sec-Butylbenzene	ND		5.40	ug/Kg	1	11/16/2011 12:24
tert-Butyl methyl ether (MTBE)	ND		5.40	ug/Kg	1	11/16/2011 12:24
tert-Butylbenzene	ND		5.40	ug/Kg	1	11/16/2011 12:24
trans-1,2-Dichloroethene	ND		5.40	ug/Kg	1	11/16/2011 12:24
trans-1,4-Dichloro-2-butene	ND		27.0	ug/Kg	1	11/16/2011 12:24

Surrogates

1,2-Dichloroethane-d4	149		55.0-173	%	1	11/16/2011 12:24
4-Bromofluorobenzene	70.0		23.0-141	%	1	11/16/2011 12:24
Toluene d8	82.0		57.0-134	%	1	11/16/2011 12:24

Batch Information

Analytical Batch: **VMS1707**
 Analytical Method: **SW-846 8260B**
 Instrument: **MSD9**
 Analyst: **DVO**
 Analytical Date/Time: **11/16/2011 12:24**

Prep Batch: **VXX2379**
 Prep Method: **SW-846 5035 SL**
 Prep Date/Time: **11/11/2011 14:34**
 Prep Initial Wt./Vol.: **5.57 g**
 Prep Extract Vol: **5 mL**

Results of SB-6

Client Sample ID: **SB-6**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195006-D
 Lab Project ID: 31103195

Collection Date: 11/08/2011 11:45
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 83.10

Results by MADEP VPH

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
C5-C8 Aliphatics	ND		4.59	mg/kg	1	11/16/2011 12:31
C9-C10 Aromatics	ND		4.59	mg/kg	1	11/16/2011 12:31
C9-C12 Aliphatics	ND		4.59	mg/kg	1	11/16/2011 12:31

Surrogates

FID - 4-Bromofluorobenzene	105		70.0-130	%	1	11/16/2011 12:31
PID - 4-Bromofluorobenzene	100		70.0-130	%	1	11/16/2011 12:31

Batch Information

Analytical Batch: **VGC1521**
 Analytical Method: **MADEP VPH**
 Instrument: **GC4**
 Analyst: **MDY**
 Analytical Date/Time: **11/16/2011 12:31**

Prep Batch: **VXX2383**
 Prep Method: **SW-846 5035 VPH prep**
 Prep Date/Time: **11/11/2011 14:34**
 Prep Initial Wt./Vol.: **6.55 g**
 Prep Extract Vol: **5 mL**

Results of SB-6

Client Sample ID: **SB-6**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195006-F
 Lab Project ID: 31103195

Collection Date: 11/08/2011 11:45
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 83.10

Results by SW-846 8270D

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	ND		370	ug/Kg	1	11/16/2011 13:58
1,2-Dichlorobenzene	ND		370	ug/Kg	1	11/16/2011 13:58
1,3-Dichlorobenzene	ND		370	ug/Kg	1	11/16/2011 13:58
1,4-Dichlorobenzene	ND		370	ug/Kg	1	11/16/2011 13:58
2,4,5-Trichlorophenol	ND		370	ug/Kg	1	11/16/2011 13:58
2,4,6-Trichlorophenol	ND		370	ug/Kg	1	11/16/2011 13:58
2,4-Dichlorophenol	ND		370	ug/Kg	1	11/16/2011 13:58
2,4-Dinitrophenol	ND		738	ug/Kg	1	11/16/2011 13:58
2,4-Dinitrotoluene	ND		370	ug/Kg	1	11/16/2011 13:58
2,6-Dinitrotoluene	ND		370	ug/Kg	1	11/16/2011 13:58
2-Chloronaphthalene	ND		370	ug/Kg	1	11/16/2011 13:58
2-Chlorophenol	ND		370	ug/Kg	1	11/16/2011 13:58
2-Methylnaphthalene	ND		370	ug/Kg	1	11/16/2011 13:58
2-Methylphenol	ND		370	ug/Kg	1	11/16/2011 13:58
2-Nitroaniline	ND		370	ug/Kg	1	11/16/2011 13:58
2-Nitrophenol	ND		370	ug/Kg	1	11/16/2011 13:58
3 and/or 4-Methylphenol	ND		370	ug/Kg	1	11/16/2011 13:58
3,3'-Dichlorobenzidine	ND		370	ug/Kg	1	11/16/2011 13:58
3-Nitroaniline	ND		370	ug/Kg	1	11/16/2011 13:58
4,6-Dinitro-2-methylphenol	ND		370	ug/Kg	1	11/16/2011 13:58
4-Chloro-3-methylphenol	ND		370	ug/Kg	1	11/16/2011 13:58
4-Chloroaniline	ND		370	ug/Kg	1	11/16/2011 13:58
4-Chlorophenyl phenyl ether	ND		370	ug/Kg	1	11/16/2011 13:58
Acenaphthene	ND		370	ug/Kg	1	11/16/2011 13:58
Acenaphthylene	ND		370	ug/Kg	1	11/16/2011 13:58
Anthracene	ND		370	ug/Kg	1	11/16/2011 13:58
Benzo(a)anthracene	ND		370	ug/Kg	1	11/16/2011 13:58
Benzo(a)pyrene	ND		370	ug/Kg	1	11/16/2011 13:58
Benzo(b)fluoranthene	ND		370	ug/Kg	1	11/16/2011 13:58
Benzo(g,h,i)perylene	ND		370	ug/Kg	1	11/16/2011 13:58
Benzo(k)fluoranthene	ND		370	ug/Kg	1	11/16/2011 13:58
Benzoic acid	ND		370	ug/Kg	1	11/16/2011 13:58
Bis(2-Chloroethoxy)methane	ND		370	ug/Kg	1	11/16/2011 13:58
Bis(2-Chloroethyl)ether	ND		370	ug/Kg	1	11/16/2011 13:58
Bis(2-Chloroisopropyl)ether	ND		370	ug/Kg	1	11/16/2011 13:58
Bis(2-Ethylhexyl)phthalate	ND		370	ug/Kg	1	11/16/2011 13:58
4-Bromophenyl phenyl ether	ND		370	ug/Kg	1	11/16/2011 13:58
Butyl benzyl phthalate	ND		370	ug/Kg	1	11/16/2011 13:58
Chrysene	ND		370	ug/Kg	1	11/16/2011 13:58
Di-n-butyl phthalate	ND		370	ug/Kg	1	11/16/2011 13:58
Di-n-octyl phthalate	ND		370	ug/Kg	1	11/16/2011 13:58
Dibenz(a,h)anthracene	ND		370	ug/Kg	1	11/16/2011 13:58
Dibenzofuran	ND		370	ug/Kg	1	11/16/2011 13:58

Results of SB-6

Client Sample ID: **SB-6**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195006-F
 Lab Project ID: 31103195

Collection Date: 11/08/2011 11:45
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 83.10

Results by SW-846 8270D

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Diethyl phthalate	ND		370	ug/Kg	1	11/16/2011 13:58
Dimethyl phthalate	ND		370	ug/Kg	1	11/16/2011 13:58
2,4-Dimethylphenol	ND		370	ug/Kg	1	11/16/2011 13:58
Diphenylamine	ND		370	ug/Kg	1	11/16/2011 13:58
Fluoranthene	ND		370	ug/Kg	1	11/16/2011 13:58
Fluorene	ND		370	ug/Kg	1	11/16/2011 13:58
Hexachlorobenzene	ND		370	ug/Kg	1	11/16/2011 13:58
Hexachlorobutadiene	ND		370	ug/Kg	1	11/16/2011 13:58
Hexachlorocyclopentadiene	ND		370	ug/Kg	1	11/16/2011 13:58
Hexachloroethane	ND		370	ug/Kg	1	11/16/2011 13:58
Indeno(1,2,3-cd)pyrene	ND		370	ug/Kg	1	11/16/2011 13:58
Isophorone	ND		370	ug/Kg	1	11/16/2011 13:58
Naphthalene	ND		370	ug/Kg	1	11/16/2011 13:58
4-Nitroaniline	ND		370	ug/Kg	1	11/16/2011 13:58
Nitrobenzene	ND		370	ug/Kg	1	11/16/2011 13:58
4-Nitrophenol	ND		370	ug/Kg	1	11/16/2011 13:58
Pentachlorophenol	ND		370	ug/Kg	1	11/16/2011 13:58
Phenanthrene	ND		370	ug/Kg	1	11/16/2011 13:58
Phenol	ND		370	ug/Kg	1	11/16/2011 13:58
Pyrene	ND		370	ug/Kg	1	11/16/2011 13:58
n-Nitrosodi-n-propylamine	ND		370	ug/Kg	1	11/16/2011 13:58
Surrogates						
2,4,6-Tribromophenol	77.0		41.0-129	%	1	11/16/2011 13:58
2-Fluorobiphenyl	66.0		48.0-123	%	1	11/16/2011 13:58
2-Fluorophenol	78.0		42.0-123	%	1	11/16/2011 13:58
Nitrobenzene-d5	78.0		46.0-117	%	1	11/16/2011 13:58
Phenol-d6	82.0		48.0-125	%	1	11/16/2011 13:58
Terphenyl-d14	75.0		44.0-140	%	1	11/16/2011 13:58

Batch Information

Analytical Batch: **XMS1303**
 Analytical Method: **SW-846 8270D**
 Instrument: **MSD10**
 Analyst: **CMP**
 Analytical Date/Time: **11/16/2011 13:58**

Prep Batch: **XXX1973**
 Prep Method: **SW-846 3541**
 Prep Date/Time: **11/14/2011 12:16**
 Prep Initial Wt./Vol.: **32.61 g**
 Prep Extract Vol: **10 mL**

Results of SB-6

Client Sample ID: **SB-6**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195006-F
 Lab Project ID: 31103195

Collection Date: 11/08/2011 11:45
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 83.10

Results by SW-846 6010C

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Chromium	3.26		1.18	mg/kg	1	11/15/2011 13:49
Lead	4.37		1.18	mg/kg	1	11/15/2011 13:49

Batch Information

Analytical Batch: **MIP1327**
 Analytical Method: **SW-846 6010C**
 Instrument: **ICP1**
 Analyst: **NTM**
 Analytical Date/Time: **11/15/2011 13:49**

Prep Batch: **MX1635**
 Prep Method: **SW-846 3050B**
 Prep Date/Time: **11/14/2011 08:58**
 Prep Initial Wt./Vol.: **.51 g**
 Prep Extract Vol: **50 mL**

Results of SB-6

Client Sample ID: **SB-6**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195006-F
 Lab Project ID: 31103195

Collection Date: 11/08/2011 11:45
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 83.10

Results by MADEP EPH

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
C11-C22 Aromatics	19.7		15.0	mg/kg	1	11/18/2011 17:07
C19-C36 Aliphatics	ND		7.73	mg/kg	1	11/18/2011 16:39
C9-C18 Aliphatics	ND		6.69	mg/kg	1	11/18/2011 16:39

Surrogates

2-Bromonaphthalene	123		40.0-140	%	1	11/18/2011 17:07
2-Fluorobiphenyl	111		40.0-140	%	1	11/18/2011 17:07
n-Tricosane	93.0		40.0-140	%	1	11/18/2011 16:39
o-Terphenyl	85.0		40.0-140	%	1	11/18/2011 17:07

Batch Information

Analytical Batch: **XGC1736**
 Analytical Method: **MADEP EPH**
 Instrument: **GC6**
 Analyst: **DTF**
 Analytical Date/Time: **11/18/2011 17:07**

Prep Batch: **XXX1979**
 Prep Method: **SW-846 3541/8015 EPH**
 Prep Date/Time: **11/15/2011 13:13**
 Prep Initial Wt./Vol.: **12.51 g**
 Prep Extract Vol: **10 mL**



Results of **SB-7**

Client Sample ID: **SB-7**
Client Project ID: **1381 Piney Green**
Lab Sample ID: 31103195007-A
Lab Project ID: 31103195

Collection Date: 11/08/2011 11:50
Received Date: 11/10/2011 11:30
Matrix: Soil-Solid as dry weight
Solids (%): 79.70

Results by **SW-846 8260B**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
1,1,1,2-Tetrachloroethane	ND		4.36	ug/Kg	1	11/16/2011 12:51
1,1,1-Trichloroethane	ND		4.36	ug/Kg	1	11/16/2011 12:51
1,1,1,2,2-Tetrachloroethane	ND		4.36	ug/Kg	1	11/16/2011 12:51
1,1,2-Trichloroethane	ND		4.36	ug/Kg	1	11/16/2011 12:51
1,1-Dichloroethane	ND		4.36	ug/Kg	1	11/16/2011 12:51
1,1-Dichloroethene	ND		4.36	ug/Kg	1	11/16/2011 12:51
1,1-Dichloropropene	ND		4.36	ug/Kg	1	11/16/2011 12:51
1,2,3-Trichlorobenzene	ND		4.36	ug/Kg	1	11/16/2011 12:51
1,2,3-Trichloropropane	ND		4.36	ug/Kg	1	11/16/2011 12:51
1,2,4-Trichlorobenzene	ND		4.36	ug/Kg	1	11/16/2011 12:51
1,2,4-Trimethylbenzene	ND		4.36	ug/Kg	1	11/16/2011 12:51
1,2-Dibromo-3-chloropropane	ND		26.1	ug/Kg	1	11/16/2011 12:51
1,2-Dibromoethane	ND		4.36	ug/Kg	1	11/16/2011 12:51
1,2-Dichlorobenzene	ND		4.36	ug/Kg	1	11/16/2011 12:51
1,2-Dichloroethane	ND		4.36	ug/Kg	1	11/16/2011 12:51
1,2-Dichloropropane	ND		4.36	ug/Kg	1	11/16/2011 12:51
1,3,5-Trimethylbenzene	ND		4.36	ug/Kg	1	11/16/2011 12:51
1,3-Dichlorobenzene	ND		4.36	ug/Kg	1	11/16/2011 12:51
1,3-Dichloropropane	ND		4.36	ug/Kg	1	11/16/2011 12:51
1,4-Dichlorobenzene	ND		4.36	ug/Kg	1	11/16/2011 12:51
2,2-Dichloropropane	ND		4.36	ug/Kg	1	11/16/2011 12:51
2-Butanone	ND		21.8	ug/Kg	1	11/16/2011 12:51
2-Chlorotoluene	ND		4.36	ug/Kg	1	11/16/2011 12:51
2-Hexanone	ND		10.9	ug/Kg	1	11/16/2011 12:51
4-Chlorotoluene	ND		4.36	ug/Kg	1	11/16/2011 12:51
4-Isopropyltoluene	ND		4.36	ug/Kg	1	11/16/2011 12:51
4-Methyl-2-pentanone	ND		10.9	ug/Kg	1	11/16/2011 12:51
Acetone	69.9		43.6	ug/Kg	1	11/16/2011 12:51
Benzene	ND		4.36	ug/Kg	1	11/16/2011 12:51
Bromobenzene	ND		4.36	ug/Kg	1	11/16/2011 12:51
Bromochloromethane	ND		4.36	ug/Kg	1	11/16/2011 12:51
Bromodichloromethane	ND		4.36	ug/Kg	1	11/16/2011 12:51
Bromoform	ND		4.36	ug/Kg	1	11/16/2011 12:51
Bromomethane	ND		4.36	ug/Kg	1	11/16/2011 12:51
n-Butylbenzene	ND		4.36	ug/Kg	1	11/16/2011 12:51
Carbon disulfide	ND		4.36	ug/Kg	1	11/16/2011 12:51
Carbon tetrachloride	ND		4.36	ug/Kg	1	11/16/2011 12:51
Chlorobenzene	ND		4.36	ug/Kg	1	11/16/2011 12:51
Chloroethane	ND		4.36	ug/Kg	1	11/16/2011 12:51
Chloroform	ND		4.36	ug/Kg	1	11/16/2011 12:51
Chloromethane	ND		4.36	ug/Kg	1	11/16/2011 12:51
Dibromochloromethane	ND		4.36	ug/Kg	1	11/16/2011 12:51
Dibromomethane	ND		4.36	ug/Kg	1	11/16/2011 12:51

Print Date: 11/22/2011

N.C. Certification # 481

Results of SB-7

Client Sample ID: **SB-7**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195007-A
 Lab Project ID: 31103195

Collection Date: 11/08/2011 11:50
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 79.70

Results by SW-846 8260B

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Dichlorodifluoromethane	ND		4.36	ug/Kg	1	11/16/2011 12:51
cis-1,3-Dichloropropene	ND		4.36	ug/Kg	1	11/16/2011 12:51
trans-1,3-Dichloropropene	ND		4.36	ug/Kg	1	11/16/2011 12:51
Diisopropyl Ether	ND		4.36	ug/Kg	1	11/16/2011 12:51
Ethyl Benzene	ND		4.36	ug/Kg	1	11/16/2011 12:51
Hexachlorobutadiene	ND		4.36	ug/Kg	1	11/16/2011 12:51
Isopropylbenzene (Cumene)	ND		4.36	ug/Kg	1	11/16/2011 12:51
Methyl iodide	ND		4.36	ug/Kg	1	11/16/2011 12:51
Methylene chloride	ND		17.4	ug/Kg	1	11/16/2011 12:51
Naphthalene	ND		4.36	ug/Kg	1	11/16/2011 12:51
Styrene	ND		4.36	ug/Kg	1	11/16/2011 12:51
Tetrachloroethene	ND		4.36	ug/Kg	1	11/16/2011 12:51
Toluene	ND		4.36	ug/Kg	1	11/16/2011 12:51
Trichloroethene	ND		4.36	ug/Kg	1	11/16/2011 12:51
Trichlorofluoromethane	ND		4.36	ug/Kg	1	11/16/2011 12:51
Vinyl chloride	ND		4.36	ug/Kg	1	11/16/2011 12:51
cis-1,2-Dichloroethene	ND		4.36	ug/Kg	1	11/16/2011 12:51
m,p-Xylene	ND		8.72	ug/Kg	1	11/16/2011 12:51
n-Propylbenzene	ND		4.36	ug/Kg	1	11/16/2011 12:51
o-Xylene	ND		4.36	ug/Kg	1	11/16/2011 12:51
sec-Butylbenzene	ND		4.36	ug/Kg	1	11/16/2011 12:51
tert-Butyl methyl ether (MTBE)	ND		4.36	ug/Kg	1	11/16/2011 12:51
tert-Butylbenzene	ND		4.36	ug/Kg	1	11/16/2011 12:51
trans-1,2-Dichloroethene	ND		4.36	ug/Kg	1	11/16/2011 12:51
trans-1,4-Dichloro-2-butene	ND		21.8	ug/Kg	1	11/16/2011 12:51

Surrogates

1,2-Dichloroethane-d4	135		55.0-173	%	1	11/16/2011 12:51
4-Bromofluorobenzene	82.0		23.0-141	%	1	11/16/2011 12:51
Toluene d8	97.0		57.0-134	%	1	11/16/2011 12:51

Batch Information

Analytical Batch: **VMS1707**
 Analytical Method: **SW-846 8260B**
 Instrument: **MSD9**
 Analyst: **DVO**
 Analytical Date/Time: **11/16/2011 12:51**

Prep Batch: **VXX2379**
 Prep Method: **SW-846 5035 SL**
 Prep Date/Time: **11/11/2011 14:36**
 Prep Initial Wt./Vol.: **7.2 g**
 Prep Extract Vol: **5 mL**

Results of SB-7

Client Sample ID: **SB-7**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195007-D
 Lab Project ID: 31103195

Collection Date: 11/08/2011 11:50
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 79.70

Results by MADEP VPH

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
C5-C8 Aliphatics	ND		4.83	mg/kg	1	11/16/2011 12:58
C9-C10 Aromatics	ND		4.83	mg/kg	1	11/16/2011 12:58
C9-C12 Aliphatics	ND		4.83	mg/kg	1	11/16/2011 12:58

Surrogates

FID - 4-Bromofluorobenzene	108		70.0-130	%	1	11/16/2011 12:58
PID - 4-Bromofluorobenzene	102		70.0-130	%	1	11/16/2011 12:58

Batch Information

Analytical Batch: **VGC1521**
 Analytical Method: **MADEP VPH**
 Instrument: **GC4**
 Analyst: **MDY**
 Analytical Date/Time: **11/16/2011 12:58**

Prep Batch: **VXX2383**
 Prep Method: **SW-846 5035 VPH prep**
 Prep Date/Time: **11/11/2011 14:36**
 Prep Initial Wt./Vol.: **6.493 g**
 Prep Extract Vol: **5 mL**

Results of SB-7

Client Sample ID: **SB-7**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195007-F
 Lab Project ID: 31103195

Collection Date: 11/08/2011 11:50
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 79.70

Results by SW-846 8270D

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	ND		378	ug/Kg	1	11/16/2011 14:21
1,2-Dichlorobenzene	ND		378	ug/Kg	1	11/16/2011 14:21
1,3-Dichlorobenzene	ND		378	ug/Kg	1	11/16/2011 14:21
1,4-Dichlorobenzene	ND		378	ug/Kg	1	11/16/2011 14:21
2,4,5-Trichlorophenol	ND		378	ug/Kg	1	11/16/2011 14:21
2,4,6-Trichlorophenol	ND		378	ug/Kg	1	11/16/2011 14:21
2,4-Dichlorophenol	ND		378	ug/Kg	1	11/16/2011 14:21
2,4-Dinitrophenol	ND		755	ug/Kg	1	11/16/2011 14:21
2,4-Dinitrotoluene	ND		378	ug/Kg	1	11/16/2011 14:21
2,6-Dinitrotoluene	ND		378	ug/Kg	1	11/16/2011 14:21
2-Chloronaphthalene	ND		378	ug/Kg	1	11/16/2011 14:21
2-Chlorophenol	ND		378	ug/Kg	1	11/16/2011 14:21
2-Methylnaphthalene	ND		378	ug/Kg	1	11/16/2011 14:21
2-Methylphenol	ND		378	ug/Kg	1	11/16/2011 14:21
2-Nitroaniline	ND		378	ug/Kg	1	11/16/2011 14:21
2-Nitrophenol	ND		378	ug/Kg	1	11/16/2011 14:21
3 and/or 4-Methylphenol	ND		378	ug/Kg	1	11/16/2011 14:21
3,3'-Dichlorobenzidine	ND		378	ug/Kg	1	11/16/2011 14:21
3-Nitroaniline	ND		378	ug/Kg	1	11/16/2011 14:21
4,6-Dinitro-2-methylphenol	ND		378	ug/Kg	1	11/16/2011 14:21
4-Chloro-3-methylphenol	ND		378	ug/Kg	1	11/16/2011 14:21
4-Chloroaniline	ND		378	ug/Kg	1	11/16/2011 14:21
4-Chlorophenyl phenyl ether	ND		378	ug/Kg	1	11/16/2011 14:21
Acenaphthene	ND		378	ug/Kg	1	11/16/2011 14:21
Acenaphthylene	ND		378	ug/Kg	1	11/16/2011 14:21
Anthracene	ND		378	ug/Kg	1	11/16/2011 14:21
Benzo(a)anthracene	ND		378	ug/Kg	1	11/16/2011 14:21
Benzo(a)pyrene	ND		378	ug/Kg	1	11/16/2011 14:21
Benzo(b)fluoranthene	ND		378	ug/Kg	1	11/16/2011 14:21
Benzo(g,h,i)perylene	ND		378	ug/Kg	1	11/16/2011 14:21
Benzo(k)fluoranthene	ND		378	ug/Kg	1	11/16/2011 14:21
Benzoic acid	ND		378	ug/Kg	1	11/16/2011 14:21
Bis(2-Chloroethoxy)methane	ND		378	ug/Kg	1	11/16/2011 14:21
Bis(2-Chloroethyl)ether	ND		378	ug/Kg	1	11/16/2011 14:21
Bis(2-Chloroisopropyl)ether	ND		378	ug/Kg	1	11/16/2011 14:21
Bis(2-Ethylhexyl)phthalate	ND		378	ug/Kg	1	11/16/2011 14:21
4-Bromophenyl phenyl ether	ND		378	ug/Kg	1	11/16/2011 14:21
Butyl benzyl phthalate	ND		378	ug/Kg	1	11/16/2011 14:21
Chrysene	ND		378	ug/Kg	1	11/16/2011 14:21
Di-n-butyl phthalate	ND		378	ug/Kg	1	11/16/2011 14:21
Di-n-octyl phthalate	ND		378	ug/Kg	1	11/16/2011 14:21
Dibenz(a,h)anthracene	ND		378	ug/Kg	1	11/16/2011 14:21
Dibenzofuran	ND		378	ug/Kg	1	11/16/2011 14:21

Results of SB-7

Client Sample ID: **SB-7**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195007-F
 Lab Project ID: 31103195

Collection Date: 11/08/2011 11:50
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 79.70

Results by SW-846 8270D

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Diethyl phthalate	ND		378	ug/Kg	1	11/16/2011 14:21
Dimethyl phthalate	ND		378	ug/Kg	1	11/16/2011 14:21
2,4-Dimethylphenol	ND		378	ug/Kg	1	11/16/2011 14:21
Diphenylamine	ND		378	ug/Kg	1	11/16/2011 14:21
Fluoranthene	ND		378	ug/Kg	1	11/16/2011 14:21
Fluorene	ND		378	ug/Kg	1	11/16/2011 14:21
Hexachlorobenzene	ND		378	ug/Kg	1	11/16/2011 14:21
Hexachlorobutadiene	ND		378	ug/Kg	1	11/16/2011 14:21
Hexachlorocyclopentadiene	ND		378	ug/Kg	1	11/16/2011 14:21
Hexachloroethane	ND		378	ug/Kg	1	11/16/2011 14:21
Indeno(1,2,3-cd)pyrene	ND		378	ug/Kg	1	11/16/2011 14:21
Isophorone	ND		378	ug/Kg	1	11/16/2011 14:21
Naphthalene	ND		378	ug/Kg	1	11/16/2011 14:21
4-Nitroaniline	ND		378	ug/Kg	1	11/16/2011 14:21
Nitrobenzene	ND		378	ug/Kg	1	11/16/2011 14:21
4-Nitrophenol	ND		378	ug/Kg	1	11/16/2011 14:21
Pentachlorophenol	ND		378	ug/Kg	1	11/16/2011 14:21
Phenanthrene	ND		378	ug/Kg	1	11/16/2011 14:21
Phenol	ND		378	ug/Kg	1	11/16/2011 14:21
Pyrene	ND		378	ug/Kg	1	11/16/2011 14:21
n-Nitrosodi-n-propylamine	ND		378	ug/Kg	1	11/16/2011 14:21
Surrogates						
2,4,6-Tribromophenol	86.0		41.0-129	%	1	11/16/2011 14:21
2-Fluorobiphenyl	71.0		48.0-123	%	1	11/16/2011 14:21
2-Fluorophenol	78.0		42.0-123	%	1	11/16/2011 14:21
Nitrobenzene-d5	77.0		46.0-117	%	1	11/16/2011 14:21
Phenol-d6	82.0		48.0-125	%	1	11/16/2011 14:21
Terphenyl-d14	79.0		44.0-140	%	1	11/16/2011 14:21

Batch Information

Analytical Batch: **XMS1303**
 Analytical Method: **SW-846 8270D**
 Instrument: **MSD10**
 Analyst: **CMP**
 Analytical Date/Time: **11/16/2011 14:21**

Prep Batch: **XXX1973**
 Prep Method: **SW-846 3541**
 Prep Date/Time: **11/14/2011 12:16**
 Prep Initial Wt./Vol.: **33.26 g**
 Prep Extract Vol: **10 mL**

Results of SB-7

Client Sample ID: **SB-7**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195007-F
 Lab Project ID: 31103195

Collection Date: 11/08/2011 11:50
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 79.70

Results by SW-846 6010C

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Chromium	4.11		1.12	mg/kg	1	11/15/2011 13:56
Lead	12.4		1.12	mg/kg	1	11/15/2011 13:56

Batch Information

Analytical Batch: **MIP1327**
 Analytical Method: **SW-846 6010C**
 Instrument: **ICP1**
 Analyst: **NTM**
 Analytical Date/Time: **11/15/2011 13:56**

Prep Batch: **MX1635**
 Prep Method: **SW-846 3050B**
 Prep Date/Time: **11/14/2011 08:58**
 Prep Initial Wt./Vol.: **.56 g**
 Prep Extract Vol: **50 mL**

Results of SB-7

Client Sample ID: **SB-7**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195007-F
 Lab Project ID: 31103195

Collection Date: 11/08/2011 11:50
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 79.70

Results by MADEP EPH

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
C11-C22 Aromatics	ND		15.9	mg/kg	1	11/18/2011 18:02
C19-C36 Aliphatics	ND		8.18	mg/kg	1	11/18/2011 17:34
C9-C18 Aliphatics	ND		7.08	mg/kg	1	11/18/2011 17:34

Surrogates

2-Bromonaphthalene	122		40.0-140	%	1	11/18/2011 18:02
2-Fluorobiphenyl	106		40.0-140	%	1	11/18/2011 18:02
n-Tricosane	87.0		40.0-140	%	1	11/18/2011 17:34
o-Terphenyl	77.0		40.0-140	%	1	11/18/2011 18:02

Batch Information

Analytical Batch: **XGC1736**
 Analytical Method: **MADEP EPH**
 Instrument: **GC6**
 Analyst: **DTF**
 Analytical Date/Time: **11/18/2011 18:02**

Prep Batch: **XXX1979**
 Prep Method: **SW-846 3541/8015 EPH**
 Prep Date/Time: **11/15/2011 13:13**
 Prep Initial Wt./Vol.: **12.34 g**
 Prep Extract Vol: **10 mL**



Results of **SB-8**

Client Sample ID: **SB-8**
Client Project ID: **1381 Piney Green**
Lab Sample ID: 31103195008-D
Lab Project ID: 31103195

Collection Date: 11/08/2011 12:00
Received Date: 11/10/2011 11:30
Matrix: Soil-Solid as dry weight
Solids (%): 78.30

Results by **SW-846 8260B**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
1,1,1,2-Tetrachloroethane	ND		57.6	ug/Kg	50	11/14/2011 16:53
1,1,1-Trichloroethane	ND		57.6	ug/Kg	50	11/14/2011 16:53
1,1,1,2-Tetrachloroethane	ND		57.6	ug/Kg	50	11/14/2011 16:53
1,1,2-Trichloroethane	ND		57.6	ug/Kg	50	11/14/2011 16:53
1,1-Dichloroethane	ND		57.6	ug/Kg	50	11/14/2011 16:53
1,1-Dichloroethene	ND		57.6	ug/Kg	50	11/14/2011 16:53
1,1-Dichloropropene	ND		57.6	ug/Kg	50	11/14/2011 16:53
1,2,3-Trichlorobenzene	ND		57.6	ug/Kg	50	11/14/2011 16:53
1,2,3-Trichloropropane	ND		57.6	ug/Kg	50	11/14/2011 16:53
1,2,4-Trichlorobenzene	ND		57.6	ug/Kg	50	11/14/2011 16:53
1,2,4-Trimethylbenzene	70.3		57.6	ug/Kg	50	11/14/2011 16:53
1,2-Dibromo-3-chloropropane	ND		288	ug/Kg	50	11/14/2011 16:53
1,2-Dibromoethane	ND		57.6	ug/Kg	50	11/14/2011 16:53
1,2-Dichlorobenzene	ND		57.6	ug/Kg	50	11/14/2011 16:53
1,2-Dichloroethane	ND		57.6	ug/Kg	50	11/14/2011 16:53
1,2-Dichloropropane	ND		57.6	ug/Kg	50	11/14/2011 16:53
1,3,5-Trimethylbenzene	ND		57.6	ug/Kg	50	11/14/2011 16:53
1,3-Dichlorobenzene	ND		57.6	ug/Kg	50	11/14/2011 16:53
1,3-Dichloropropane	ND		57.6	ug/Kg	50	11/14/2011 16:53
1,4-Dichlorobenzene	ND		57.6	ug/Kg	50	11/14/2011 16:53
2,2-Dichloropropane	ND		57.6	ug/Kg	50	11/14/2011 16:53
2-Butanone	ND		1440	ug/Kg	50	11/14/2011 16:53
2-Chlorotoluene	ND		57.6	ug/Kg	50	11/14/2011 16:53
2-Hexanone	ND		288	ug/Kg	50	11/14/2011 16:53
4-Chlorotoluene	ND		57.6	ug/Kg	50	11/14/2011 16:53
4-Isopropyltoluene	ND		57.6	ug/Kg	50	11/14/2011 16:53
4-Methyl-2-pentanone	ND		288	ug/Kg	50	11/14/2011 16:53
Acetone	ND		1440	ug/Kg	50	11/14/2011 16:53
Benzene	ND		57.6	ug/Kg	50	11/14/2011 16:53
Bromobenzene	ND		57.6	ug/Kg	50	11/14/2011 16:53
Bromochloromethane	ND		57.6	ug/Kg	50	11/14/2011 16:53
Bromodichloromethane	ND		57.6	ug/Kg	50	11/14/2011 16:53
Bromoform	ND		57.6	ug/Kg	50	11/14/2011 16:53
Bromomethane	ND		57.6	ug/Kg	50	11/14/2011 16:53
n-Butylbenzene	ND		57.6	ug/Kg	50	11/14/2011 16:53
Carbon disulfide	ND		57.6	ug/Kg	50	11/14/2011 16:53
Carbon tetrachloride	ND		57.6	ug/Kg	50	11/14/2011 16:53
Chlorobenzene	ND		57.6	ug/Kg	50	11/14/2011 16:53
Chloroethane	ND		57.6	ug/Kg	50	11/14/2011 16:53
Chloroform	ND		57.6	ug/Kg	50	11/14/2011 16:53
Chloromethane	ND		57.6	ug/Kg	50	11/14/2011 16:53
Dibromochloromethane	ND		57.6	ug/Kg	50	11/14/2011 16:53
Dibromomethane	ND		57.6	ug/Kg	50	11/14/2011 16:53

Results of SB-8

Client Sample ID: **SB-8**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195008-D
 Lab Project ID: 31103195

Collection Date: 11/08/2011 12:00
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 78.30

Results by SW-846 8260B

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Dichlorodifluoromethane	ND		288	ug/Kg	50	11/14/2011 16:53
cis-1,3-Dichloropropene	ND		57.6	ug/Kg	50	11/14/2011 16:53
trans-1,3-Dichloropropene	ND		57.6	ug/Kg	50	11/14/2011 16:53
Diisopropyl Ether	ND		57.6	ug/Kg	50	11/14/2011 16:53
Ethyl Benzene	ND		57.6	ug/Kg	50	11/14/2011 16:53
Hexachlorobutadiene	ND		57.6	ug/Kg	50	11/14/2011 16:53
Isopropylbenzene (Cumene)	ND		57.6	ug/Kg	50	11/14/2011 16:53
Methyl iodide	ND		57.6	ug/Kg	50	11/14/2011 16:53
Methylene chloride	ND		288	ug/Kg	50	11/14/2011 16:53
Naphthalene	409		57.6	ug/Kg	50	11/14/2011 16:53
Styrene	ND		57.6	ug/Kg	50	11/14/2011 16:53
Tetrachloroethene	ND		57.6	ug/Kg	50	11/14/2011 16:53
Toluene	70.3		57.6	ug/Kg	50	11/14/2011 16:53
Trichloroethene	ND		57.6	ug/Kg	50	11/14/2011 16:53
Trichlorofluoromethane	ND		57.6	ug/Kg	50	11/14/2011 16:53
Vinyl chloride	ND		57.6	ug/Kg	50	11/14/2011 16:53
cis-1,2-Dichloroethene	ND		57.6	ug/Kg	50	11/14/2011 16:53
m,p-Xylene	ND		115	ug/Kg	50	11/14/2011 16:53
n-Propylbenzene	ND		57.6	ug/Kg	50	11/14/2011 16:53
o-Xylene	ND		57.6	ug/Kg	50	11/14/2011 16:53
sec-Butylbenzene	ND		57.6	ug/Kg	50	11/14/2011 16:53
tert-Butyl methyl ether (MTBE)	ND		57.6	ug/Kg	50	11/14/2011 16:53
tert-Butylbenzene	ND		57.6	ug/Kg	50	11/14/2011 16:53
trans-1,2-Dichloroethene	ND		57.6	ug/Kg	50	11/14/2011 16:53
trans-1,4-Dichloro-2-butene	ND		288	ug/Kg	50	11/14/2011 16:53

Surrogates

1,2-Dichloroethane-d4	99.0		55.0-173	%	50	11/14/2011 16:53
4-Bromofluorobenzene	103		23.0-141	%	50	11/14/2011 16:53
Toluene d8	101		57.0-134	%	50	11/14/2011 16:53

Batch Information

Analytical Batch: **VMS1702**
 Analytical Method: **SW-846 8260B**
 Instrument: **MSD4**
 Analyst: **DVO**
 Analytical Date/Time: **11/14/2011 16:53**

Prep Batch: **VXX2374**
 Prep Method: **SW-846 5035 SM**
 Prep Date/Time: **11/11/2011 14:47**
 Prep Initial Wt./Vol.: **5.537 g**
 Prep Extract Vol: **5 mL**

Results of SB-8

Client Sample ID: **SB-8**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195008-D
 Lab Project ID: 31103195

Collection Date: 11/08/2011 12:00
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 78.30

Results by MADEP VPH

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
C5-C8 Aliphatics	ND		5.76	mg/kg	1	11/16/2011 13:25
C9-C10 Aromatics	ND		5.76	mg/kg	1	11/16/2011 13:25
C9-C12 Aliphatics	ND		5.76	mg/kg	1	11/16/2011 13:25

Surrogates

FID - 4-Bromofluorobenzene	107		70.0-130	%	1	11/16/2011 13:25
PID - 4-Bromofluorobenzene	99.0		70.0-130	%	1	11/16/2011 13:25

Batch Information

Analytical Batch: **VGC1521**
 Analytical Method: **MADEP VPH**
 Instrument: **GC4**
 Analyst: **MDY**
 Analytical Date/Time: **11/16/2011 13:25**

Prep Batch: **VXX2383**
 Prep Method: **SW-846 5035 VPH prep**
 Prep Date/Time: **11/11/2011 14:47**
 Prep Initial Wt./Vol.: **5.537 g**
 Prep Extract Vol: **5 mL**



Results of **SB-8**

Client Sample ID: **SB-8**
Client Project ID: **1381 Piney Green**
Lab Sample ID: 31103195008-F
Lab Project ID: 31103195

Collection Date: 11/08/2011 12:00
Received Date: 11/10/2011 11:30
Matrix: Soil-Solid as dry weight
Solids (%): 78.30

Results by **SW-846 8270D**

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	ND		396	ug/Kg	1	11/16/2011 15:07
1,2-Dichlorobenzene	ND		396	ug/Kg	1	11/16/2011 15:07
1,3-Dichlorobenzene	ND		396	ug/Kg	1	11/16/2011 15:07
1,4-Dichlorobenzene	ND		396	ug/Kg	1	11/16/2011 15:07
2,4,5-Trichlorophenol	ND		396	ug/Kg	1	11/16/2011 15:07
2,4,6-Trichlorophenol	ND		396	ug/Kg	1	11/16/2011 15:07
2,4-Dichlorophenol	ND		396	ug/Kg	1	11/16/2011 15:07
2,4-Dinitrophenol	ND		790	ug/Kg	1	11/16/2011 15:07
2,4-Dinitrotoluene	ND		396	ug/Kg	1	11/16/2011 15:07
2,6-Dinitrotoluene	ND		396	ug/Kg	1	11/16/2011 15:07
2-Chloronaphthalene	ND		396	ug/Kg	1	11/16/2011 15:07
2-Chlorophenol	ND		396	ug/Kg	1	11/16/2011 15:07
2-Methylnaphthalene	ND		396	ug/Kg	1	11/16/2011 15:07
2-Methylphenol	ND		396	ug/Kg	1	11/16/2011 15:07
2-Nitroaniline	ND		396	ug/Kg	1	11/16/2011 15:07
2-Nitrophenol	ND		396	ug/Kg	1	11/16/2011 15:07
3 and/or 4-Methylphenol	ND		396	ug/Kg	1	11/16/2011 15:07
3,3'-Dichlorobenzidine	ND		396	ug/Kg	1	11/16/2011 15:07
3-Nitroaniline	ND		396	ug/Kg	1	11/16/2011 15:07
4,6-Dinitro-2-methylphenol	ND		396	ug/Kg	1	11/16/2011 15:07
4-Chloro-3-methylphenol	ND		396	ug/Kg	1	11/16/2011 15:07
4-Chloroaniline	ND		396	ug/Kg	1	11/16/2011 15:07
4-Chlorophenyl phenyl ether	ND		396	ug/Kg	1	11/16/2011 15:07
Acenaphthene	ND		396	ug/Kg	1	11/16/2011 15:07
Acenaphthylene	ND		396	ug/Kg	1	11/16/2011 15:07
Anthracene	ND		396	ug/Kg	1	11/16/2011 15:07
Benzo(a)anthracene	ND		396	ug/Kg	1	11/16/2011 15:07
Benzo(a)pyrene	ND		396	ug/Kg	1	11/16/2011 15:07
Benzo(b)fluoranthene	ND		396	ug/Kg	1	11/16/2011 15:07
Benzo(g,h,i)perylene	ND		396	ug/Kg	1	11/16/2011 15:07
Benzo(k)fluoranthene	ND		396	ug/Kg	1	11/16/2011 15:07
Benzoic acid	ND		396	ug/Kg	1	11/16/2011 15:07
Bis(2-Chloroethoxy)methane	ND		396	ug/Kg	1	11/16/2011 15:07
Bis(2-Chloroethyl)ether	ND		396	ug/Kg	1	11/16/2011 15:07
Bis(2-Chloroisopropyl)ether	ND		396	ug/Kg	1	11/16/2011 15:07
Bis(2-Ethylhexyl)phthalate	ND		396	ug/Kg	1	11/16/2011 15:07
4-Bromophenyl phenyl ether	ND		396	ug/Kg	1	11/16/2011 15:07
Butyl benzyl phthalate	ND		396	ug/Kg	1	11/16/2011 15:07
Chrysene	ND		396	ug/Kg	1	11/16/2011 15:07
Di-n-butyl phthalate	ND		396	ug/Kg	1	11/16/2011 15:07
Di-n-octyl phthalate	ND		396	ug/Kg	1	11/16/2011 15:07
Dibenz(a,h)anthracene	ND		396	ug/Kg	1	11/16/2011 15:07
Dibenzofuran	ND		396	ug/Kg	1	11/16/2011 15:07

Print Date: 11/22/2011

N.C. Certification # 481

Results of SB-8

Client Sample ID: **SB-8**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195008-F
 Lab Project ID: 31103195

Collection Date: 11/08/2011 12:00
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 78.30

Results by SW-846 8270D

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Diethyl phthalate	ND		396	ug/Kg	1	11/16/2011 15:07
Dimethyl phthalate	ND		396	ug/Kg	1	11/16/2011 15:07
2,4-Dimethylphenol	ND		396	ug/Kg	1	11/16/2011 15:07
Diphenylamine	ND		396	ug/Kg	1	11/16/2011 15:07
Fluoranthene	ND		396	ug/Kg	1	11/16/2011 15:07
Fluorene	ND		396	ug/Kg	1	11/16/2011 15:07
Hexachlorobenzene	ND		396	ug/Kg	1	11/16/2011 15:07
Hexachlorobutadiene	ND		396	ug/Kg	1	11/16/2011 15:07
Hexachlorocyclopentadiene	ND		396	ug/Kg	1	11/16/2011 15:07
Hexachloroethane	ND		396	ug/Kg	1	11/16/2011 15:07
Indeno(1,2,3-cd)pyrene	ND		396	ug/Kg	1	11/16/2011 15:07
Isophorone	ND		396	ug/Kg	1	11/16/2011 15:07
Naphthalene	ND		396	ug/Kg	1	11/16/2011 15:07
4-Nitroaniline	ND		396	ug/Kg	1	11/16/2011 15:07
Nitrobenzene	ND		396	ug/Kg	1	11/16/2011 15:07
4-Nitrophenol	ND		396	ug/Kg	1	11/16/2011 15:07
Pentachlorophenol	ND		396	ug/Kg	1	11/16/2011 15:07
Phenanthrene	ND		396	ug/Kg	1	11/16/2011 15:07
Phenol	ND		396	ug/Kg	1	11/16/2011 15:07
Pyrene	ND		396	ug/Kg	1	11/16/2011 15:07
n-Nitrosodi-n-propylamine	ND		396	ug/Kg	1	11/16/2011 15:07
Surrogates						
2,4,6-Tribromophenol	80.0		41.0-129	%	1	11/16/2011 15:07
2-Fluorobiphenyl	63.0		48.0-123	%	1	11/16/2011 15:07
2-Fluorophenol	76.0		42.0-123	%	1	11/16/2011 15:07
Nitrobenzene-d5	77.0		46.0-117	%	1	11/16/2011 15:07
Phenol-d6	82.0		48.0-125	%	1	11/16/2011 15:07
Terphenyl-d14	77.0		44.0-140	%	1	11/16/2011 15:07

Batch Information

Analytical Batch: **XMS1303**
 Analytical Method: **SW-846 8270D**
 Instrument: **MSD10**
 Analyst: **CMP**
 Analytical Date/Time: **11/16/2011 15:07**

Prep Batch: **XXX1973**
 Prep Method: **SW-846 3541**
 Prep Date/Time: **11/14/2011 12:16**
 Prep Initial Wt./Vol.: **32.33 g**
 Prep Extract Vol: **10 mL**

Results of SB-8

Client Sample ID: **SB-8**
Client Project ID: **1381 Piney Green**
Lab Sample ID: 31103195008-F
Lab Project ID: 31103195

Collection Date: 11/08/2011 12:00
Received Date: 11/10/2011 11:30
Matrix: Soil-Solid as dry weight
Solids (%): 78.30

Results by SW-846 6010C

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Chromium	4.43		1.25	mg/kg	1	11/15/2011 14:03
Lead	7.54		1.25	mg/kg	1	11/15/2011 14:03

Batch Information

Analytical Batch: **MIP1327**
Analytical Method: **SW-846 6010C**
Instrument: **ICP1**
Analyst: **NTM**
Analytical Date/Time: **11/15/2011 14:03**

Prep Batch: **MX1635**
Prep Method: **SW-846 3050B**
Prep Date/Time: **11/14/2011 08:58**
Prep Initial Wt./Vol.: **.51 g**
Prep Extract Vol: **50 mL**

Results of SB-8

Client Sample ID: **SB-8**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195008-F
 Lab Project ID: 31103195

Collection Date: 11/08/2011 12:00
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 78.30

Results by MADEP EPH

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
C11-C22 Aromatics	103		15.8	mg/kg	1	11/18/2011 18:58
C19-C36 Aliphatics	477		8.14	mg/kg	1	11/18/2011 18:30
C9-C18 Aliphatics	7.11		7.05	mg/kg	1	11/18/2011 18:30

Surrogates

2-Bromonaphthalene	124		40.0-140	%	1	11/18/2011 18:58
2-Fluorobiphenyl	111		40.0-140	%	1	11/18/2011 18:58
n-Tricosane	92.0		40.0-140	%	1	11/18/2011 18:30
o-Terphenyl	98.0		40.0-140	%	1	11/18/2011 18:58

Batch Information

Analytical Batch: **XGC1736**
 Analytical Method: **MADEP EPH**
 Instrument: **GC6**
 Analyst: **DTF**
 Analytical Date/Time: **11/18/2011 18:58**

Prep Batch: **XXX1979**
 Prep Method: **SW-846 3541/8015 EPH**
 Prep Date/Time: **11/15/2011 13:13**
 Prep Initial Wt./Vol.: **12.61 g**
 Prep Extract Vol: **10 mL**

Results of SB-9

Client Sample ID: **SB-9**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195009-D
 Lab Project ID: 31103195

Collection Date: 11/08/2011 12:05
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 82.30

Results by SW-846 8260B

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND		362	ug/Kg	400	11/14/2011 19:25
1,1,1-Trichloroethane	ND		362	ug/Kg	400	11/14/2011 19:25
1,1,1,2,2-Tetrachloroethane	ND		362	ug/Kg	400	11/14/2011 19:25
1,1,2-Trichloroethane	ND		362	ug/Kg	400	11/14/2011 19:25
1,1-Dichloroethane	ND		362	ug/Kg	400	11/14/2011 19:25
1,1-Dichloroethene	ND		362	ug/Kg	400	11/14/2011 19:25
1,1-Dichloropropene	ND		362	ug/Kg	400	11/14/2011 19:25
1,2,3-Trichlorobenzene	ND		362	ug/Kg	400	11/14/2011 19:25
1,2,3-Trichloropropane	ND		362	ug/Kg	400	11/14/2011 19:25
1,2,4-Trichlorobenzene	ND		362	ug/Kg	400	11/14/2011 19:25
1,2,4-Trimethylbenzene	8700		362	ug/Kg	400	11/14/2011 19:25
1,2-Dibromo-3-chloropropane	ND		1810	ug/Kg	400	11/14/2011 19:25
1,2-Dibromoethane	ND		362	ug/Kg	400	11/14/2011 19:25
1,2-Dichlorobenzene	ND		362	ug/Kg	400	11/14/2011 19:25
1,2-Dichloroethane	ND		362	ug/Kg	400	11/14/2011 19:25
1,2-Dichloropropane	ND		362	ug/Kg	400	11/14/2011 19:25
1,3,5-Trimethylbenzene	2220		362	ug/Kg	400	11/14/2011 19:25
1,3-Dichlorobenzene	ND		362	ug/Kg	400	11/14/2011 19:25
1,3-Dichloropropane	ND		362	ug/Kg	400	11/14/2011 19:25
1,4-Dichlorobenzene	ND		362	ug/Kg	400	11/14/2011 19:25
2,2-Dichloropropane	ND		362	ug/Kg	400	11/14/2011 19:25
2-Butanone	ND		9060	ug/Kg	400	11/14/2011 19:25
2-Chlorotoluene	ND		362	ug/Kg	400	11/14/2011 19:25
2-Hexanone	ND		1810	ug/Kg	400	11/14/2011 19:25
4-Chlorotoluene	ND		362	ug/Kg	400	11/14/2011 19:25
4-Isopropyltoluene	590		362	ug/Kg	400	11/14/2011 19:25
4-Methyl-2-pentanone	ND		1810	ug/Kg	400	11/14/2011 19:25
Acetone	ND		9060	ug/Kg	400	11/14/2011 19:25
Benzene	ND		362	ug/Kg	400	11/14/2011 19:25
Bromobenzene	ND		362	ug/Kg	400	11/14/2011 19:25
Bromochloromethane	ND		362	ug/Kg	400	11/14/2011 19:25
Bromodichloromethane	ND		362	ug/Kg	400	11/14/2011 19:25
Bromoform	ND		362	ug/Kg	400	11/14/2011 19:25
Bromomethane	ND		362	ug/Kg	400	11/14/2011 19:25
n-Butylbenzene	ND		362	ug/Kg	400	11/14/2011 19:25
Carbon disulfide	ND		362	ug/Kg	400	11/14/2011 19:25
Carbon tetrachloride	ND		362	ug/Kg	400	11/14/2011 19:25
Chlorobenzene	ND		362	ug/Kg	400	11/14/2011 19:25
Chloroethane	ND		362	ug/Kg	400	11/14/2011 19:25
Chloroform	ND		362	ug/Kg	400	11/14/2011 19:25
Chloromethane	ND		362	ug/Kg	400	11/14/2011 19:25
Dibromochloromethane	ND		362	ug/Kg	400	11/14/2011 19:25
Dibromomethane	ND		362	ug/Kg	400	11/14/2011 19:25

Results of SB-9

Client Sample ID: **SB-9**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195009-D
 Lab Project ID: 31103195

Collection Date: 11/08/2011 12:05
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 82.30

Results by SW-846 8260B

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Dichlorodifluoromethane	ND		1810	ug/Kg	400	11/14/2011 19:25
cis-1,3-Dichloropropene	ND		362	ug/Kg	400	11/14/2011 19:25
trans-1,3-Dichloropropene	ND		362	ug/Kg	400	11/14/2011 19:25
Diisopropyl Ether	ND		362	ug/Kg	400	11/14/2011 19:25
Ethyl Benzene	2240		362	ug/Kg	400	11/14/2011 19:25
Hexachlorobutadiene	ND		362	ug/Kg	400	11/14/2011 19:25
Isopropylbenzene (Cumene)	398		362	ug/Kg	400	11/14/2011 19:25
Methyl iodide	ND		362	ug/Kg	400	11/14/2011 19:25
Methylene chloride	ND		1810	ug/Kg	400	11/14/2011 19:25
Naphthalene	7370		362	ug/Kg	400	11/14/2011 19:25
Styrene	ND		362	ug/Kg	400	11/14/2011 19:25
Tetrachloroethene	ND		362	ug/Kg	400	11/14/2011 19:25
Toluene	648		362	ug/Kg	400	11/14/2011 19:25
Trichloroethene	ND		362	ug/Kg	400	11/14/2011 19:25
Trichlorofluoromethane	ND		362	ug/Kg	400	11/14/2011 19:25
Vinyl chloride	ND		362	ug/Kg	400	11/14/2011 19:25
cis-1,2-Dichloroethene	ND		362	ug/Kg	400	11/14/2011 19:25
m,p-Xylene	6010		725	ug/Kg	400	11/14/2011 19:25
n-Propylbenzene	1520		362	ug/Kg	400	11/14/2011 19:25
o-Xylene	2550		362	ug/Kg	400	11/14/2011 19:25
sec-Butylbenzene	ND		362	ug/Kg	400	11/14/2011 19:25
tert-Butyl methyl ether (MTBE)	ND		362	ug/Kg	400	11/14/2011 19:25
tert-Butylbenzene	ND		362	ug/Kg	400	11/14/2011 19:25
trans-1,2-Dichloroethene	ND		362	ug/Kg	400	11/14/2011 19:25
trans-1,4-Dichloro-2-butene	ND		1810	ug/Kg	400	11/14/2011 19:25

Surrogates

1,2-Dichloroethane-d4	90.0		55.0-173	%	400	11/14/2011 19:25
4-Bromofluorobenzene	102		23.0-141	%	400	11/14/2011 19:25
Toluene d8	106		57.0-134	%	400	11/14/2011 19:25

Batch Information

Analytical Batch: **VMS1702**
 Analytical Method: **SW-846 8260B**
 Instrument: **MSD4**
 Analyst: **DVO**
 Analytical Date/Time: **11/14/2011 19:25**

Prep Batch: **VXX2374**
 Prep Method: **SW-846 5035 SM**
 Prep Date/Time: **11/11/2011 14:50**
 Prep Initial Wt./Vol.: **6.712 g**
 Prep Extract Vol: **5 mL**

Results of SB-9

Client Sample ID: **SB-9**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195009-D
 Lab Project ID: 31103195

Collection Date: 11/08/2011 12:05
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 82.30

Results by MADEP VPH

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
C5-C8 Aliphatics	13.1		4.53	mg/kg	1	11/16/2011 13:52
C9-C10 Aromatics	68.0		4.53	mg/kg	1	11/16/2011 13:52
C9-C12 Aliphatics	101		4.53	mg/kg	1	11/16/2011 13:52

Surrogates

FID - 4-Bromofluorobenzene	115		70.0-130	%	1	11/16/2011 13:52
PID - 4-Bromofluorobenzene	107		70.0-130	%	1	11/16/2011 13:52

Batch Information

Analytical Batch: **VGC1521**
 Analytical Method: **MADEP VPH**
 Instrument: **GC4**
 Analyst: **MDY**
 Analytical Date/Time: **11/16/2011 13:52**

Prep Batch: **VXX2383**
 Prep Method: **SW-846 5035 VPH prep**
 Prep Date/Time: **11/11/2011 14:50**
 Prep Initial Wt./Vol.: **6.712 g**
 Prep Extract Vol: **5 mL**



Results of **SB-9**

Client Sample ID: **SB-9**
Client Project ID: **1381 Piney Green**
Lab Sample ID: 31103195009-F
Lab Project ID: 31103195

Collection Date: 11/08/2011 12:05
Received Date: 11/10/2011 11:30
Matrix: Soil-Solid as dry weight
Solids (%): 82.30

Results by **SW-846 8270D**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
1,2,4-Trichlorobenzene	ND		1860	ug/Kg	5	11/16/2011 17:48
1,2-Dichlorobenzene	ND		1860	ug/Kg	5	11/16/2011 17:48
1,3-Dichlorobenzene	ND		1860	ug/Kg	5	11/16/2011 17:48
1,4-Dichlorobenzene	ND		1860	ug/Kg	5	11/16/2011 17:48
2,4,5-Trichlorophenol	ND		1860	ug/Kg	5	11/16/2011 17:48
2,4,6-Trichlorophenol	ND		1860	ug/Kg	5	11/16/2011 17:48
2,4-Dichlorophenol	ND		1860	ug/Kg	5	11/16/2011 17:48
2,4-Dinitrophenol	ND		3710	ug/Kg	5	11/16/2011 17:48
2,4-Dinitrotoluene	ND		1860	ug/Kg	5	11/16/2011 17:48
2,6-Dinitrotoluene	ND		1860	ug/Kg	5	11/16/2011 17:48
2-Chloronaphthalene	ND		1860	ug/Kg	5	11/16/2011 17:48
2-Chlorophenol	ND		1860	ug/Kg	5	11/16/2011 17:48
2-Methylnaphthalene	10600		1860	ug/Kg	5	11/16/2011 17:48
2-Methylphenol	ND		1860	ug/Kg	5	11/16/2011 17:48
2-Nitroaniline	ND		1860	ug/Kg	5	11/16/2011 17:48
2-Nitrophenol	ND		1860	ug/Kg	5	11/16/2011 17:48
3 and/or 4-Methylphenol	ND		1860	ug/Kg	5	11/16/2011 17:48
3,3'-Dichlorobenzidine	ND		1860	ug/Kg	5	11/16/2011 17:48
3-Nitroaniline	ND		1860	ug/Kg	5	11/16/2011 17:48
4,6-Dinitro-2-methylphenol	ND		1860	ug/Kg	5	11/16/2011 17:48
4-Chloro-3-methylphenol	ND		1860	ug/Kg	5	11/16/2011 17:48
4-Chloroaniline	ND		1860	ug/Kg	5	11/16/2011 17:48
4-Chlorophenyl phenyl ether	ND		1860	ug/Kg	5	11/16/2011 17:48
Acenaphthene	ND		1860	ug/Kg	5	11/16/2011 17:48
Acenaphthylene	ND		1860	ug/Kg	5	11/16/2011 17:48
Anthracene	ND		1860	ug/Kg	5	11/16/2011 17:48
Benzo(a)anthracene	ND		1860	ug/Kg	5	11/16/2011 17:48
Benzo(a)pyrene	ND		1860	ug/Kg	5	11/16/2011 17:48
Benzo(b)fluoranthene	ND		1860	ug/Kg	5	11/16/2011 17:48
Benzo(g,h,i)perylene	ND		1860	ug/Kg	5	11/16/2011 17:48
Benzo(k)fluoranthene	ND		1860	ug/Kg	5	11/16/2011 17:48
Benzoic acid	ND		1860	ug/Kg	5	11/16/2011 17:48
Bis(2-Chloroethoxy)methane	ND		1860	ug/Kg	5	11/16/2011 17:48
Bis(2-Chloroethyl)ether	ND		1860	ug/Kg	5	11/16/2011 17:48
Bis(2-Chloroisopropyl)ether	ND		1860	ug/Kg	5	11/16/2011 17:48
Bis(2-Ethylhexyl)phthalate	2190		1860	ug/Kg	5	11/16/2011 17:48
4-Bromophenyl phenyl ether	ND		1860	ug/Kg	5	11/16/2011 17:48
Butyl benzyl phthalate	ND		1860	ug/Kg	5	11/16/2011 17:48
Chrysene	ND		1860	ug/Kg	5	11/16/2011 17:48
Di-n-butyl phthalate	ND		1860	ug/Kg	5	11/16/2011 17:48
Di-n-octyl phthalate	ND		1860	ug/Kg	5	11/16/2011 17:48
Dibenz(a,h)anthracene	ND		1860	ug/Kg	5	11/16/2011 17:48
Dibenzofuran	ND		1860	ug/Kg	5	11/16/2011 17:48

Results of SB-9

Client Sample ID: **SB-9**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195009-F
 Lab Project ID: 31103195

Collection Date: 11/08/2011 12:05
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 82.30

Results by SW-846 8270D

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Diethyl phthalate	ND		1860	ug/Kg	5	11/16/2011 17:48
Dimethyl phthalate	ND		1860	ug/Kg	5	11/16/2011 17:48
2,4-Dimethylphenol	ND		1860	ug/Kg	5	11/16/2011 17:48
Diphenylamine	ND		1860	ug/Kg	5	11/16/2011 17:48
Fluoranthene	ND		1860	ug/Kg	5	11/16/2011 17:48
Fluorene	ND		1860	ug/Kg	5	11/16/2011 17:48
Hexachlorobenzene	ND		1860	ug/Kg	5	11/16/2011 17:48
Hexachlorobutadiene	ND		1860	ug/Kg	5	11/16/2011 17:48
Hexachlorocyclopentadiene	ND		1860	ug/Kg	5	11/16/2011 17:48
Hexachloroethane	ND		1860	ug/Kg	5	11/16/2011 17:48
Indeno(1,2,3-cd)pyrene	ND		1860	ug/Kg	5	11/16/2011 17:48
Isophorone	ND		1860	ug/Kg	5	11/16/2011 17:48
Naphthalene	6560		1860	ug/Kg	5	11/16/2011 17:48
4-Nitroaniline	ND		1860	ug/Kg	5	11/16/2011 17:48
Nitrobenzene	ND		1860	ug/Kg	5	11/16/2011 17:48
4-Nitrophenol	ND		1860	ug/Kg	5	11/16/2011 17:48
Pentachlorophenol	ND		1860	ug/Kg	5	11/16/2011 17:48
Phenanthrene	3080		1860	ug/Kg	5	11/16/2011 17:48
Phenol	ND		1860	ug/Kg	5	11/16/2011 17:48
Pyrene	2000		1860	ug/Kg	5	11/16/2011 17:48
n-Nitrosodi-n-propylamine	ND		1860	ug/Kg	5	11/16/2011 17:48
Surrogates						
2,4,6-Tribromophenol	82.0		41.0-129	%	5	11/16/2011 17:48
2-Fluorobiphenyl	82.0		48.0-123	%	5	11/16/2011 17:48
2-Fluorophenol	75.0		42.0-123	%	5	11/16/2011 17:48
Nitrobenzene-d5	82.0		46.0-117	%	5	11/16/2011 17:48
Phenol-d6	80.0		48.0-125	%	5	11/16/2011 17:48
Terphenyl-d14	111		44.0-140	%	5	11/16/2011 17:48

Batch Information

Analytical Batch: **XMS1303**
 Analytical Method: **SW-846 8270D**
 Instrument: **MSD10**
 Analyst: **CMP**
 Analytical Date/Time: **11/16/2011 17:48**

Prep Batch: **XXX1973**
 Prep Method: **SW-846 3541**
 Prep Date/Time: **11/14/2011 12:16**
 Prep Initial Wt./Vol.: **32.76 g**
 Prep Extract Vol: **10 mL**

Results of SB-9

Client Sample ID: **SB-9**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195009-F
 Lab Project ID: 31103195

Collection Date: 11/08/2011 12:05
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 82.30

Results by SW-846 6010C

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Chromium	4.65		1.01	mg/kg	1	11/15/2011 14:10
Lead	241		10.1	mg/kg	10	11/16/2011 14:01

Batch Information

Analytical Batch: **MIP1327**
 Analytical Method: **SW-846 6010C**
 Instrument: **ICP1**
 Analyst: **NTM**
 Analytical Date/Time: **11/15/2011 14:10**

Prep Batch: **MX1635**
 Prep Method: **SW-846 3050B**
 Prep Date/Time: **11/14/2011 08:58**
 Prep Initial Wt./Vol.: **.6 g**
 Prep Extract Vol: **50 mL**

Analytical Batch: **MIP1329**
 Analytical Method: **SW-846 6010C**
 Instrument: **ICP1**
 Analyst: **NTM**
 Analytical Date/Time: **11/16/2011 14:01**

Prep Batch: **MX1635**
 Prep Method: **SW-846 3050B**
 Prep Date/Time: **11/14/2011 08:58**
 Prep Initial Wt./Vol.: **.6 g**
 Prep Extract Vol: **50 mL**

Results of SB-9

Client Sample ID: **SB-9**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195009-F
 Lab Project ID: 31103195

Collection Date: 11/08/2011 12:05
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 82.30

Results by MADEP EPH

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
C11-C22 Aromatics	2010		15.1	mg/kg	1	11/18/2011 19:54
C19-C36 Aliphatics	10900		78.0	mg/kg	10	11/21/2011 17:13
C9-C18 Aliphatics	170		67.5	mg/kg	10	11/21/2011 17:13

Surrogates

2-Bromonaphthalene	134		40.0-140	%	1	11/18/2011 19:54
2-Fluorobiphenyl	118		40.0-140	%	1	11/18/2011 19:54
n-Tricosane	65.0		40.0-140	%	10	11/21/2011 17:13
o-Terphenyl	96.0		40.0-140	%	1	11/18/2011 19:54

Batch Information

Analytical Batch: **XGC1736**
 Analytical Method: **MADEP EPH**
 Instrument: **GC6**
 Analyst: **DTF**
 Analytical Date/Time: **11/18/2011 19:54**

Prep Batch: **XXX1979**
 Prep Method: **SW-846 3541/8015 EPH**
 Prep Date/Time: **11/15/2011 13:13**
 Prep Initial Wt./Vol.: **12.53 g**
 Prep Extract Vol: **10 mL**

Analytical Batch: **XGC1737**
 Analytical Method: **MADEP EPH**
 Instrument: **GC6**
 Analyst: **DTF**
 Analytical Date/Time: **11/21/2011 17:13**

Prep Batch: **XXX1979**
 Prep Method: **SW-846 3541/8015 EPH**
 Prep Date/Time: **11/15/2011 13:13**
 Prep Initial Wt./Vol.: **12.53 g**
 Prep Extract Vol: **10 mL**

Results of SB-10

Client Sample ID: **SB-10**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195010-D
 Lab Project ID: 31103195

Collection Date: 11/08/2011 12:10
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 85.70

Results by SW-846 8260B

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND		44.2	ug/Kg	50	11/14/2011 16:28
1,1,1-Trichloroethane	ND		44.2	ug/Kg	50	11/14/2011 16:28
1,1,1,2-Tetrachloroethane	ND		44.2	ug/Kg	50	11/14/2011 16:28
1,1,2-Trichloroethane	ND		44.2	ug/Kg	50	11/14/2011 16:28
1,1-Dichloroethane	ND		44.2	ug/Kg	50	11/14/2011 16:28
1,1-Dichloroethene	ND		44.2	ug/Kg	50	11/14/2011 16:28
1,1-Dichloropropene	ND		44.2	ug/Kg	50	11/14/2011 16:28
1,2,3-Trichlorobenzene	ND		44.2	ug/Kg	50	11/14/2011 16:28
1,2,3-Trichloropropane	ND		44.2	ug/Kg	50	11/14/2011 16:28
1,2,4-Trichlorobenzene	ND		44.2	ug/Kg	50	11/14/2011 16:28
1,2,4-Trimethylbenzene	83.0		44.2	ug/Kg	50	11/14/2011 16:28
1,2-Dibromo-3-chloropropane	ND		221	ug/Kg	50	11/14/2011 16:28
1,2-Dibromoethane	ND		44.2	ug/Kg	50	11/14/2011 16:28
1,2-Dichlorobenzene	ND		44.2	ug/Kg	50	11/14/2011 16:28
1,2-Dichloroethane	ND		44.2	ug/Kg	50	11/14/2011 16:28
1,2-Dichloropropane	ND		44.2	ug/Kg	50	11/14/2011 16:28
1,3,5-Trimethylbenzene	ND		44.2	ug/Kg	50	11/14/2011 16:28
1,3-Dichlorobenzene	ND		44.2	ug/Kg	50	11/14/2011 16:28
1,3-Dichloropropane	ND		44.2	ug/Kg	50	11/14/2011 16:28
1,4-Dichlorobenzene	ND		44.2	ug/Kg	50	11/14/2011 16:28
2,2-Dichloropropane	ND		44.2	ug/Kg	50	11/14/2011 16:28
2-Butanone	ND		1100	ug/Kg	50	11/14/2011 16:28
2-Chlorotoluene	ND		44.2	ug/Kg	50	11/14/2011 16:28
2-Hexanone	ND		221	ug/Kg	50	11/14/2011 16:28
4-Chlorotoluene	ND		44.2	ug/Kg	50	11/14/2011 16:28
4-Isopropyltoluene	ND		44.2	ug/Kg	50	11/14/2011 16:28
4-Methyl-2-pentanone	ND		221	ug/Kg	50	11/14/2011 16:28
Acetone	ND		1100	ug/Kg	50	11/14/2011 16:28
Benzene	ND		44.2	ug/Kg	50	11/14/2011 16:28
Bromobenzene	ND		44.2	ug/Kg	50	11/14/2011 16:28
Bromochloromethane	ND		44.2	ug/Kg	50	11/14/2011 16:28
Bromodichloromethane	ND		44.2	ug/Kg	50	11/14/2011 16:28
Bromoform	ND		44.2	ug/Kg	50	11/14/2011 16:28
Bromomethane	ND		44.2	ug/Kg	50	11/14/2011 16:28
n-Butylbenzene	ND		44.2	ug/Kg	50	11/14/2011 16:28
Carbon disulfide	ND		44.2	ug/Kg	50	11/14/2011 16:28
Carbon tetrachloride	ND		44.2	ug/Kg	50	11/14/2011 16:28
Chlorobenzene	ND		44.2	ug/Kg	50	11/14/2011 16:28
Chloroethane	ND		44.2	ug/Kg	50	11/14/2011 16:28
Chloroform	ND		44.2	ug/Kg	50	11/14/2011 16:28
Chloromethane	ND		44.2	ug/Kg	50	11/14/2011 16:28
Dibromochloromethane	ND		44.2	ug/Kg	50	11/14/2011 16:28
Dibromomethane	ND		44.2	ug/Kg	50	11/14/2011 16:28

Results of SB-10

Client Sample ID: **SB-10**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195010-D
 Lab Project ID: 31103195

Collection Date: 11/08/2011 12:10
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 85.70

Results by SW-846 8260B

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Dichlorodifluoromethane	ND		221	ug/Kg	50	11/14/2011 16:28
cis-1,3-Dichloropropene	ND		44.2	ug/Kg	50	11/14/2011 16:28
trans-1,3-Dichloropropene	ND		44.2	ug/Kg	50	11/14/2011 16:28
Diisopropyl Ether	ND		44.2	ug/Kg	50	11/14/2011 16:28
Ethyl Benzene	ND		44.2	ug/Kg	50	11/14/2011 16:28
Hexachlorobutadiene	ND		44.2	ug/Kg	50	11/14/2011 16:28
Isopropylbenzene (Cumene)	ND		44.2	ug/Kg	50	11/14/2011 16:28
Methyl iodide	ND		44.2	ug/Kg	50	11/14/2011 16:28
Methylene chloride	ND		221	ug/Kg	50	11/14/2011 16:28
Naphthalene	245		44.2	ug/Kg	50	11/14/2011 16:28
Styrene	ND		44.2	ug/Kg	50	11/14/2011 16:28
Tetrachloroethene	ND		44.2	ug/Kg	50	11/14/2011 16:28
Toluene	ND		44.2	ug/Kg	50	11/14/2011 16:28
Trichloroethene	ND		44.2	ug/Kg	50	11/14/2011 16:28
Trichlorofluoromethane	ND		44.2	ug/Kg	50	11/14/2011 16:28
Vinyl chloride	ND		44.2	ug/Kg	50	11/14/2011 16:28
cis-1,2-Dichloroethene	ND		44.2	ug/Kg	50	11/14/2011 16:28
m,p-Xylene	ND		88.3	ug/Kg	50	11/14/2011 16:28
n-Propylbenzene	ND		44.2	ug/Kg	50	11/14/2011 16:28
o-Xylene	ND		44.2	ug/Kg	50	11/14/2011 16:28
sec-Butylbenzene	ND		44.2	ug/Kg	50	11/14/2011 16:28
tert-Butyl methyl ether (MTBE)	ND		44.2	ug/Kg	50	11/14/2011 16:28
tert-Butylbenzene	ND		44.2	ug/Kg	50	11/14/2011 16:28
trans-1,2-Dichloroethene	ND		44.2	ug/Kg	50	11/14/2011 16:28
trans-1,4-Dichloro-2-butene	ND		221	ug/Kg	50	11/14/2011 16:28

Surrogates

1,2-Dichloroethane-d4	100		55.0-173	%	50	11/14/2011 16:28
4-Bromofluorobenzene	102		23.0-141	%	50	11/14/2011 16:28
Toluene d8	101		57.0-134	%	50	11/14/2011 16:28

Batch Information

Analytical Batch: **VMS1702**
 Analytical Method: **SW-846 8260B**
 Instrument: **MSD4**
 Analyst: **DVO**
 Analytical Date/Time: **11/14/2011 16:28**

Prep Batch: **VXX2374**
 Prep Method: **SW-846 5035 SM**
 Prep Date/Time: **11/11/2011 14:52**
 Prep Initial Wt./Vol.: **6.605 g**
 Prep Extract Vol: **5 mL**

Results of SB-10

Client Sample ID: **SB-10**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195010-D
 Lab Project ID: 31103195

Collection Date: 11/08/2011 12:10
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 85.70

Results by MADEP VPH

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
C5-C8 Aliphatics	ND		4.42	mg/kg	1	11/16/2011 17:54
C9-C10 Aromatics	ND		4.42	mg/kg	1	11/16/2011 17:54
C9-C12 Aliphatics	11.1		4.42	mg/kg	1	11/16/2011 17:54

Surrogates

FID - 4-Bromofluorobenzene	108		70.0-130	%	1	11/16/2011 17:54
PID - 4-Bromofluorobenzene	106		70.0-130	%	1	11/16/2011 17:54

Batch Information

Analytical Batch: **VGC1521**
 Analytical Method: **MADEP VPH**
 Instrument: **GC4**
 Analyst: **MDY**
 Analytical Date/Time: **11/16/2011 17:54**

Prep Batch: **VXX2383**
 Prep Method: **SW-846 5035 VPH prep**
 Prep Date/Time: **11/11/2011 14:52**
 Prep Initial Wt./Vol.: **6.605 g**
 Prep Extract Vol: **5 mL**

Results of SB-10

Client Sample ID: **SB-10**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195010-F
 Lab Project ID: 31103195

Collection Date: 11/08/2011 12:10
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 85.70

Results by SW-846 8270D

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	ND		358	ug/Kg	1	11/16/2011 15:30
1,2-Dichlorobenzene	ND		358	ug/Kg	1	11/16/2011 15:30
1,3-Dichlorobenzene	ND		358	ug/Kg	1	11/16/2011 15:30
1,4-Dichlorobenzene	ND		358	ug/Kg	1	11/16/2011 15:30
2,4,5-Trichlorophenol	ND		358	ug/Kg	1	11/16/2011 15:30
2,4,6-Trichlorophenol	ND		358	ug/Kg	1	11/16/2011 15:30
2,4-Dichlorophenol	ND		358	ug/Kg	1	11/16/2011 15:30
2,4-Dinitrophenol	ND		715	ug/Kg	1	11/16/2011 15:30
2,4-Dinitrotoluene	ND		358	ug/Kg	1	11/16/2011 15:30
2,6-Dinitrotoluene	ND		358	ug/Kg	1	11/16/2011 15:30
2-Chloronaphthalene	ND		358	ug/Kg	1	11/16/2011 15:30
2-Chlorophenol	ND		358	ug/Kg	1	11/16/2011 15:30
2-Methylnaphthalene	418		358	ug/Kg	1	11/16/2011 15:30
2-Methylphenol	ND		358	ug/Kg	1	11/16/2011 15:30
2-Nitroaniline	ND		358	ug/Kg	1	11/16/2011 15:30
2-Nitrophenol	ND		358	ug/Kg	1	11/16/2011 15:30
3 and/or 4-Methylphenol	ND		358	ug/Kg	1	11/16/2011 15:30
3,3'-Dichlorobenzidine	ND		358	ug/Kg	1	11/16/2011 15:30
3-Nitroaniline	ND		358	ug/Kg	1	11/16/2011 15:30
4,6-Dinitro-2-methylphenol	ND		358	ug/Kg	1	11/16/2011 15:30
4-Chloro-3-methylphenol	ND		358	ug/Kg	1	11/16/2011 15:30
4-Chloroaniline	ND		358	ug/Kg	1	11/16/2011 15:30
4-Chlorophenyl phenyl ether	ND		358	ug/Kg	1	11/16/2011 15:30
Acenaphthene	ND		358	ug/Kg	1	11/16/2011 15:30
Acenaphthylene	ND		358	ug/Kg	1	11/16/2011 15:30
Anthracene	ND		358	ug/Kg	1	11/16/2011 15:30
Benzo(a)anthracene	ND		358	ug/Kg	1	11/16/2011 15:30
Benzo(a)pyrene	ND		358	ug/Kg	1	11/16/2011 15:30
Benzo(b)fluoranthene	ND		358	ug/Kg	1	11/16/2011 15:30
Benzo(g,h,i)perylene	ND		358	ug/Kg	1	11/16/2011 15:30
Benzo(k)fluoranthene	ND		358	ug/Kg	1	11/16/2011 15:30
Benzoic acid	ND		358	ug/Kg	1	11/16/2011 15:30
Bis(2-Chloroethoxy)methane	ND		358	ug/Kg	1	11/16/2011 15:30
Bis(2-Chloroethyl)ether	ND		358	ug/Kg	1	11/16/2011 15:30
Bis(2-Chloroisopropyl)ether	ND		358	ug/Kg	1	11/16/2011 15:30
Bis(2-Ethylhexyl)phthalate	ND		358	ug/Kg	1	11/16/2011 15:30
4-Bromophenyl phenyl ether	ND		358	ug/Kg	1	11/16/2011 15:30
Butyl benzyl phthalate	ND		358	ug/Kg	1	11/16/2011 15:30
Chrysene	ND		358	ug/Kg	1	11/16/2011 15:30
Di-n-butyl phthalate	ND		358	ug/Kg	1	11/16/2011 15:30
Di-n-octyl phthalate	ND		358	ug/Kg	1	11/16/2011 15:30
Dibenz(a,h)anthracene	ND		358	ug/Kg	1	11/16/2011 15:30
Dibenzofuran	ND		358	ug/Kg	1	11/16/2011 15:30

Results of SB-10

Client Sample ID: **SB-10**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195010-F
 Lab Project ID: 31103195

Collection Date: 11/08/2011 12:10
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 85.70

Results by SW-846 8270D

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Diethyl phthalate	ND		358	ug/Kg	1	11/16/2011 15:30
Dimethyl phthalate	ND		358	ug/Kg	1	11/16/2011 15:30
2,4-Dimethylphenol	ND		358	ug/Kg	1	11/16/2011 15:30
Diphenylamine	ND		358	ug/Kg	1	11/16/2011 15:30
Fluoranthene	ND		358	ug/Kg	1	11/16/2011 15:30
Fluorene	ND		358	ug/Kg	1	11/16/2011 15:30
Hexachlorobenzene	ND		358	ug/Kg	1	11/16/2011 15:30
Hexachlorobutadiene	ND		358	ug/Kg	1	11/16/2011 15:30
Hexachlorocyclopentadiene	ND		358	ug/Kg	1	11/16/2011 15:30
Hexachloroethane	ND		358	ug/Kg	1	11/16/2011 15:30
Indeno(1,2,3-cd)pyrene	ND		358	ug/Kg	1	11/16/2011 15:30
Isophorone	ND		358	ug/Kg	1	11/16/2011 15:30
Naphthalene	ND		358	ug/Kg	1	11/16/2011 15:30
4-Nitroaniline	ND		358	ug/Kg	1	11/16/2011 15:30
Nitrobenzene	ND		358	ug/Kg	1	11/16/2011 15:30
4-Nitrophenol	ND		358	ug/Kg	1	11/16/2011 15:30
Pentachlorophenol	ND		358	ug/Kg	1	11/16/2011 15:30
Phenanthrene	ND		358	ug/Kg	1	11/16/2011 15:30
Phenol	ND		358	ug/Kg	1	11/16/2011 15:30
Pyrene	ND		358	ug/Kg	1	11/16/2011 15:30
n-Nitrosodi-n-propylamine	ND		358	ug/Kg	1	11/16/2011 15:30
Surrogates						
2,4,6-Tribromophenol	95.0		41.0-129	%	1	11/16/2011 15:30
2-Fluorobiphenyl	77.0		48.0-123	%	1	11/16/2011 15:30
2-Fluorophenol	81.0		42.0-123	%	1	11/16/2011 15:30
Nitrobenzene-d5	81.0		46.0-117	%	1	11/16/2011 15:30
Phenol-d6	85.0		48.0-125	%	1	11/16/2011 15:30
Terphenyl-d14	88.0		44.0-140	%	1	11/16/2011 15:30

Batch Information

Analytical Batch: **XMS1303**
 Analytical Method: **SW-846 8270D**
 Instrument: **MSD10**
 Analyst: **CMP**
 Analytical Date/Time: **11/16/2011 15:30**

Prep Batch: **XXX1973**
 Prep Method: **SW-846 3541**
 Prep Date/Time: **11/14/2011 12:16**
 Prep Initial Wt./Vol.: **32.63 g**
 Prep Extract Vol: **10 mL**

Results of SB-10

Client Sample ID: **SB-10**
Client Project ID: **1381 Piney Green**
Lab Sample ID: 31103195010-F
Lab Project ID: 31103195

Collection Date: 11/08/2011 12:10
Received Date: 11/10/2011 11:30
Matrix: Soil-Solid as dry weight
Solids (%): 85.70

Results by SW-846 6010C

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Chromium	5.75		1.10	mg/kg	1	11/15/2011 14:17
Lead	11.9		1.10	mg/kg	1	11/15/2011 14:17

Batch Information

Analytical Batch: **MIP1327**
Analytical Method: **SW-846 6010C**
Instrument: **ICP1**
Analyst: **NTM**
Analytical Date/Time: **11/15/2011 14:17**

Prep Batch: **MXX1635**
Prep Method: **SW-846 3050B**
Prep Date/Time: **11/14/2011 08:58**
Prep Initial Wt./Vol.: **.53 g**
Prep Extract Vol: **50 mL**

Results of SB-10

Client Sample ID: **SB-10**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195010-F
 Lab Project ID: 31103195

Collection Date: 11/08/2011 12:10
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 85.70

Results by MADEP EPH

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
C11-C22 Aromatics	109		15.1	mg/kg	1	11/18/2011 20:50
C19-C36 Aliphatics	617		7.78	mg/kg	1	11/18/2011 20:22
C9-C18 Aliphatics	15.3		6.74	mg/kg	1	11/18/2011 20:22

Surrogates

2-Bromonaphthalene	127		40.0-140	%	1	11/18/2011 20:50
2-Fluorobiphenyl	113		40.0-140	%	1	11/18/2011 20:50
n-Tricosane	102		40.0-140	%	1	11/18/2011 20:22
o-Terphenyl	109		40.0-140	%	1	11/18/2011 20:50

Batch Information

Analytical Batch: **XGC1736**
 Analytical Method: **MADEP EPH**
 Instrument: **GC6**
 Analyst: **DTF**
 Analytical Date/Time: **11/18/2011 20:50**

Prep Batch: **XXX1979**
 Prep Method: **SW-846 3541/8015 EPH**
 Prep Date/Time: **11/15/2011 13:13**
 Prep Initial Wt./Vol.: **12.05 g**
 Prep Extract Vol: **10 mL**

Results of SB-11

Client Sample ID: **SB-11**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195011-D
 Lab Project ID: 31103195

Collection Date: 11/08/2011 13:25
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 92.40

Results by SW-846 8015C GRO

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Gasoline Range Organics (GRO)	337		72.8	mg/kg	20	11/14/2011 19:31

Surrogates

4-Bromofluorobenzene	104		70.0-130	%	20	11/14/2011 19:31
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Batch Information

Analytical Batch: **VGC1514**
 Analytical Method: **SW-846 8015C GRO**
 Instrument: **GC7**
 Analyst: **MDY**
 Analytical Date/Time: **11/14/2011 19:31**

Prep Batch: **VXX2365**
 Prep Method: **SW-846 5035**
 Prep Date/Time: **11/11/2011 14:54**
 Prep Initial Wt./Vol.: **5.943 g**
 Prep Extract Vol: **5 mL**

Results of SB-11

Client Sample ID: **SB-11**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195011-H
 Lab Project ID: 31103195

Collection Date: 11/08/2011 13:25
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 92.40

Results by SW-846 8015C DRO

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
Diesel Range Organics (DRO)	7000		337	mg/kg	50	11/21/2011 18:09

Surrogates

o-Terphenyl	NA	D	40.0-140	%	50	11/21/2011 18:09
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Batch Information

Analytical Batch: **XGC1733**
 Analytical Method: **SW-846 8015C DRO**
 Instrument: **GC6**
 Analyst: **DTF**
 Analytical Date/Time: **11/21/2011 18:09**

Prep Batch: **XXX1978**
 Prep Method: **SW-846 3541**
 Prep Date/Time: **11/15/2011 13:06**
 Prep Initial Wt./Vol.: **32.07 g**
 Prep Extract Vol: **10 mL**

Results of SB-12

Client Sample ID: **SB-12**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195012-D
 Lab Project ID: 31103195

Collection Date: 11/08/2011 14:50
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 83.70

Results by SW-846 8260B

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND		703	ug/Kg	800	11/14/2011 19:50
1,1,1-Trichloroethane	ND		703	ug/Kg	800	11/14/2011 19:50
1,1,1,2,2-Tetrachloroethane	ND		703	ug/Kg	800	11/14/2011 19:50
1,1,2-Trichloroethane	ND		703	ug/Kg	800	11/14/2011 19:50
1,1-Dichloroethane	ND		703	ug/Kg	800	11/14/2011 19:50
1,1-Dichloroethene	ND		703	ug/Kg	800	11/14/2011 19:50
1,1-Dichloropropene	ND		703	ug/Kg	800	11/14/2011 19:50
1,2,3-Trichlorobenzene	ND		703	ug/Kg	800	11/14/2011 19:50
1,2,3-Trichloropropane	ND		703	ug/Kg	800	11/14/2011 19:50
1,2,4-Trichlorobenzene	ND		703	ug/Kg	800	11/14/2011 19:50
1,2,4-Trimethylbenzene	20300		703	ug/Kg	800	11/14/2011 19:50
1,2-Dibromo-3-chloropropane	ND		3520	ug/Kg	800	11/14/2011 19:50
1,2-Dibromoethane	ND		703	ug/Kg	800	11/14/2011 19:50
1,2-Dichlorobenzene	ND		703	ug/Kg	800	11/14/2011 19:50
1,2-Dichloroethane	ND		703	ug/Kg	800	11/14/2011 19:50
1,2-Dichloropropane	ND		703	ug/Kg	800	11/14/2011 19:50
1,3,5-Trimethylbenzene	5960		703	ug/Kg	800	11/14/2011 19:50
1,3-Dichlorobenzene	ND		703	ug/Kg	800	11/14/2011 19:50
1,3-Dichloropropane	ND		703	ug/Kg	800	11/14/2011 19:50
1,4-Dichlorobenzene	ND		703	ug/Kg	800	11/14/2011 19:50
2,2-Dichloropropane	ND		703	ug/Kg	800	11/14/2011 19:50
2-Butanone	ND		17600	ug/Kg	800	11/14/2011 19:50
2-Chlorotoluene	ND		703	ug/Kg	800	11/14/2011 19:50
2-Hexanone	ND		3520	ug/Kg	800	11/14/2011 19:50
4-Chlorotoluene	ND		703	ug/Kg	800	11/14/2011 19:50
4-Isopropyltoluene	5530		703	ug/Kg	800	11/14/2011 19:50
4-Methyl-2-pentanone	ND		3520	ug/Kg	800	11/14/2011 19:50
Acetone	ND		17600	ug/Kg	800	11/14/2011 19:50
Benzene	ND		703	ug/Kg	800	11/14/2011 19:50
Bromobenzene	ND		703	ug/Kg	800	11/14/2011 19:50
Bromochloromethane	ND		703	ug/Kg	800	11/14/2011 19:50
Bromodichloromethane	ND		703	ug/Kg	800	11/14/2011 19:50
Bromoform	ND		703	ug/Kg	800	11/14/2011 19:50
Bromomethane	ND		703	ug/Kg	800	11/14/2011 19:50
n-Butylbenzene	ND		703	ug/Kg	800	11/14/2011 19:50
Carbon disulfide	ND		703	ug/Kg	800	11/14/2011 19:50
Carbon tetrachloride	ND		703	ug/Kg	800	11/14/2011 19:50
Chlorobenzene	ND		703	ug/Kg	800	11/14/2011 19:50
Chloroethane	ND		703	ug/Kg	800	11/14/2011 19:50
Chloroform	ND		703	ug/Kg	800	11/14/2011 19:50
Chloromethane	ND		703	ug/Kg	800	11/14/2011 19:50
Dibromochloromethane	ND		703	ug/Kg	800	11/14/2011 19:50
Dibromomethane	ND		703	ug/Kg	800	11/14/2011 19:50

Results of SB-12

Client Sample ID: **SB-12**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195012-D
 Lab Project ID: 31103195

Collection Date: 11/08/2011 14:50
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 83.70

Results by SW-846 8260B

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Dichlorodifluoromethane	ND		3520	ug/Kg	800	11/14/2011 19:50
cis-1,3-Dichloropropene	ND		703	ug/Kg	800	11/14/2011 19:50
trans-1,3-Dichloropropene	ND		703	ug/Kg	800	11/14/2011 19:50
Diisopropyl Ether	ND		703	ug/Kg	800	11/14/2011 19:50
Ethyl Benzene	2030		703	ug/Kg	800	11/14/2011 19:50
Hexachlorobutadiene	ND		703	ug/Kg	800	11/14/2011 19:50
Isopropylbenzene (Cumene)	1290		703	ug/Kg	800	11/14/2011 19:50
Methyl iodide	ND		703	ug/Kg	800	11/14/2011 19:50
Methylene chloride	ND		3520	ug/Kg	800	11/14/2011 19:50
Naphthalene	12800		703	ug/Kg	800	11/14/2011 19:50
Styrene	ND		703	ug/Kg	800	11/14/2011 19:50
Tetrachloroethene	ND		703	ug/Kg	800	11/14/2011 19:50
Toluene	ND		703	ug/Kg	800	11/14/2011 19:50
Trichloroethene	ND		703	ug/Kg	800	11/14/2011 19:50
Trichlorofluoromethane	ND		703	ug/Kg	800	11/14/2011 19:50
Vinyl chloride	ND		703	ug/Kg	800	11/14/2011 19:50
cis-1,2-Dichloroethene	ND		703	ug/Kg	800	11/14/2011 19:50
m,p-Xylene	8500		1410	ug/Kg	800	11/14/2011 19:50
n-Propylbenzene	2710		703	ug/Kg	800	11/14/2011 19:50
o-Xylene	5010		703	ug/Kg	800	11/14/2011 19:50
sec-Butylbenzene	ND		703	ug/Kg	800	11/14/2011 19:50
tert-Butyl methyl ether (MTBE)	ND		703	ug/Kg	800	11/14/2011 19:50
tert-Butylbenzene	ND		703	ug/Kg	800	11/14/2011 19:50
trans-1,2-Dichloroethene	ND		703	ug/Kg	800	11/14/2011 19:50
trans-1,4-Dichloro-2-butene	ND		3520	ug/Kg	800	11/14/2011 19:50

Surrogates

1,2-Dichloroethane-d4	90.0		55.0-173	%	800	11/14/2011 19:50
4-Bromofluorobenzene	105		23.0-141	%	800	11/14/2011 19:50
Toluene d8	106		57.0-134	%	800	11/14/2011 19:50

Batch Information

Analytical Batch: **VMS1702**
 Analytical Method: **SW-846 8260B**
 Instrument: **MSD4**
 Analyst: **DVO**
 Analytical Date/Time: **11/14/2011 19:50**

Prep Batch: **VXX2374**
 Prep Method: **SW-846 5035 SM**
 Prep Date/Time: **11/11/2011 15:00**
 Prep Initial Wt./Vol.: **6.793 g**
 Prep Extract Vol: **5 mL**

Results of SB-12

Client Sample ID: **SB-12**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195012-D
 Lab Project ID: 31103195

Collection Date: 11/08/2011 14:50
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 83.70

Results by MADEP VPH

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
C5-C8 Aliphatics	42.0		8.79	mg/kg	2	11/16/2011 18:21
C9-C10 Aromatics	274		8.79	mg/kg	2	11/16/2011 18:21
C9-C12 Aliphatics	339		8.79	mg/kg	2	11/16/2011 18:21

Surrogates

FID - 4-Bromofluorobenzene	124		70.0-130	%	2	11/16/2011 18:21
PID - 4-Bromofluorobenzene	113		70.0-130	%	2	11/16/2011 18:21

Batch Information

Analytical Batch: **VGC1521**
 Analytical Method: **MADEP VPH**
 Instrument: **GC4**
 Analyst: **MDY**
 Analytical Date/Time: **11/16/2011 18:21**

Prep Batch: **VXX2383**
 Prep Method: **SW-846 5035 VPH prep**
 Prep Date/Time: **11/11/2011 15:00**
 Prep Initial Wt./Vol.: **6.793 g**
 Prep Extract Vol: **5 mL**

Results of SB-12

Client Sample ID: **SB-12**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195012-F
 Lab Project ID: 31103195

Collection Date: 11/08/2011 14:50
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 83.70

Results by SW-846 8270D

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	ND		7120	ug/Kg	20	11/16/2011 18:11
1,2-Dichlorobenzene	ND		7120	ug/Kg	20	11/16/2011 18:11
1,3-Dichlorobenzene	ND		7120	ug/Kg	20	11/16/2011 18:11
1,4-Dichlorobenzene	ND		7120	ug/Kg	20	11/16/2011 18:11
2,4,5-Trichlorophenol	ND		7120	ug/Kg	20	11/16/2011 18:11
2,4,6-Trichlorophenol	ND		7120	ug/Kg	20	11/16/2011 18:11
2,4-Dichlorophenol	ND		7120	ug/Kg	20	11/16/2011 18:11
2,4-Dinitrophenol	ND		14200	ug/Kg	20	11/16/2011 18:11
2,4-Dinitrotoluene	ND		7120	ug/Kg	20	11/16/2011 18:11
2,6-Dinitrotoluene	ND		7120	ug/Kg	20	11/16/2011 18:11
2-Chloronaphthalene	ND		7120	ug/Kg	20	11/16/2011 18:11
2-Chlorophenol	ND		7120	ug/Kg	20	11/16/2011 18:11
2-Methylnaphthalene	56500		7120	ug/Kg	20	11/16/2011 18:11
2-Methylphenol	ND		7120	ug/Kg	20	11/16/2011 18:11
2-Nitroaniline	ND		7120	ug/Kg	20	11/16/2011 18:11
2-Nitrophenol	ND		7120	ug/Kg	20	11/16/2011 18:11
3 and/or 4-Methylphenol	ND		7120	ug/Kg	20	11/16/2011 18:11
3,3'-Dichlorobenzidine	ND		7120	ug/Kg	20	11/16/2011 18:11
3-Nitroaniline	ND		7120	ug/Kg	20	11/16/2011 18:11
4,6-Dinitro-2-methylphenol	ND		7120	ug/Kg	20	11/16/2011 18:11
4-Chloro-3-methylphenol	ND		7120	ug/Kg	20	11/16/2011 18:11
4-Chloroaniline	ND		7120	ug/Kg	20	11/16/2011 18:11
4-Chlorophenyl phenyl ether	ND		7120	ug/Kg	20	11/16/2011 18:11
Acenaphthene	ND		7120	ug/Kg	20	11/16/2011 18:11
Acenaphthylene	ND		7120	ug/Kg	20	11/16/2011 18:11
Anthracene	ND		7120	ug/Kg	20	11/16/2011 18:11
Benzo(a)anthracene	ND		7120	ug/Kg	20	11/16/2011 18:11
Benzo(a)pyrene	ND		7120	ug/Kg	20	11/16/2011 18:11
Benzo(b)fluoranthene	ND		7120	ug/Kg	20	11/16/2011 18:11
Benzo(g,h,i)perylene	ND		7120	ug/Kg	20	11/16/2011 18:11
Benzo(k)fluoranthene	ND		7120	ug/Kg	20	11/16/2011 18:11
Benzoic acid	ND		7120	ug/Kg	20	11/16/2011 18:11
Bis(2-Chloroethoxy)methane	ND		7120	ug/Kg	20	11/16/2011 18:11
Bis(2-Chloroethyl)ether	ND		7120	ug/Kg	20	11/16/2011 18:11
Bis(2-Chloroisopropyl)ether	ND		7120	ug/Kg	20	11/16/2011 18:11
Bis(2-Ethylhexyl)phthalate	ND		7120	ug/Kg	20	11/16/2011 18:11
4-Bromophenyl phenyl ether	ND		7120	ug/Kg	20	11/16/2011 18:11
Butyl benzyl phthalate	ND		7120	ug/Kg	20	11/16/2011 18:11
Chrysene	ND		7120	ug/Kg	20	11/16/2011 18:11
Di-n-butyl phthalate	ND		7120	ug/Kg	20	11/16/2011 18:11
Di-n-octyl phthalate	ND		7120	ug/Kg	20	11/16/2011 18:11
Dibenz(a,h)anthracene	ND		7120	ug/Kg	20	11/16/2011 18:11
Dibenzofuran	ND		7120	ug/Kg	20	11/16/2011 18:11

Results of SB-12

Client Sample ID: **SB-12**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195012-F
 Lab Project ID: 31103195

Collection Date: 11/08/2011 14:50
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 83.70

Results by SW-846 8270D

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Diethyl phthalate	ND		7120	ug/Kg	20	11/16/2011 18:11
Dimethyl phthalate	ND		7120	ug/Kg	20	11/16/2011 18:11
2,4-Dimethylphenol	ND		7120	ug/Kg	20	11/16/2011 18:11
Diphenylamine	ND		7120	ug/Kg	20	11/16/2011 18:11
Fluoranthene	ND		7120	ug/Kg	20	11/16/2011 18:11
Fluorene	7740		7120	ug/Kg	20	11/16/2011 18:11
Hexachlorobenzene	ND		7120	ug/Kg	20	11/16/2011 18:11
Hexachlorobutadiene	ND		7120	ug/Kg	20	11/16/2011 18:11
Hexachlorocyclopentadiene	ND		7120	ug/Kg	20	11/16/2011 18:11
Hexachloroethane	ND		7120	ug/Kg	20	11/16/2011 18:11
Indeno(1,2,3-cd)pyrene	ND		7120	ug/Kg	20	11/16/2011 18:11
Isophorone	ND		7120	ug/Kg	20	11/16/2011 18:11
Naphthalene	11400		7120	ug/Kg	20	11/16/2011 18:11
4-Nitroaniline	ND		7120	ug/Kg	20	11/16/2011 18:11
Nitrobenzene	ND		7120	ug/Kg	20	11/16/2011 18:11
4-Nitrophenol	ND		7120	ug/Kg	20	11/16/2011 18:11
Pentachlorophenol	ND		7120	ug/Kg	20	11/16/2011 18:11
Phenanthrene	14800		7120	ug/Kg	20	11/16/2011 18:11
Phenol	ND		7120	ug/Kg	20	11/16/2011 18:11
Pyrene	ND		7120	ug/Kg	20	11/16/2011 18:11
n-Nitrosodi-n-propylamine	ND		7120	ug/Kg	20	11/16/2011 18:11

Surrogates

2,4,6-Tribromophenol	NA	D	41.0-129	%	20	11/16/2011 18:11
2-Fluorobiphenyl	NA	D	48.0-123	%	20	11/16/2011 18:11
2-Fluorophenol	NA	D	42.0-123	%	20	11/16/2011 18:11
Nitrobenzene-d5	NA	D	46.0-117	%	20	11/16/2011 18:11
Phenol-d6	NA	D	48.0-125	%	20	11/16/2011 18:11
Terphenyl-d14	NA	D	44.0-140	%	20	11/16/2011 18:11

Batch Information

Analytical Batch: **XMS1303**
 Analytical Method: **SW-846 8270D**
 Instrument: **MSD10**
 Analyst: **CMP**
 Analytical Date/Time: **11/16/2011 18:11**

Prep Batch: **XXX1973**
 Prep Method: **SW-846 3541**
 Prep Date/Time: **11/14/2011 12:16**
 Prep Initial Wt./Vol.: **33.61 g**
 Prep Extract Vol: **10 mL**

Results of SB-12

Client Sample ID: **SB-12**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195012-F
 Lab Project ID: 31103195

Collection Date: 11/08/2011 14:50
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 83.70

Results by MADEP EPH

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
C11-C22 Aromatics	1250		14.8	mg/kg	1	11/21/2011 18:09
C19-C36 Aliphatics	395		76.3	mg/kg	10	11/21/2011 17:41
C9-C18 Aliphatics	2790		66.0	mg/kg	10	11/21/2011 17:41

Surrogates

2-Bromonaphthalene	115		40.0-140	%	1	11/21/2011 18:09
2-Fluorobiphenyl	107		40.0-140	%	1	11/21/2011 18:09
n-Tricosane	100		40.0-140	%	10	11/21/2011 17:41
o-Terphenyl	89.0		40.0-140	%	1	11/21/2011 18:09

Batch Information

Analytical Batch: **XGC1737**
 Analytical Method: **MADEP EPH**
 Instrument: **GC6**
 Analyst: **DTF**
 Analytical Date/Time: **11/21/2011 18:09**

Prep Batch: **XXX1979**
 Prep Method: **SW-846 3541/8015 EPH**
 Prep Date/Time: **11/15/2011 13:13**
 Prep Initial Wt./Vol.: **12.59 g**
 Prep Extract Vol: **10 mL**

Results of SB-13

Client Sample ID: **SB-13**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195013-D
 Lab Project ID: 31103195

Collection Date: 11/08/2011 14:55
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 84.70

Results by SW-846 8260B

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND		42.3	ug/Kg	50	11/14/2011 18:34
1,1,1-Trichloroethane	ND		42.3	ug/Kg	50	11/14/2011 18:34
1,1,1,2,2-Tetrachloroethane	ND		42.3	ug/Kg	50	11/14/2011 18:34
1,1,2-Trichloroethane	ND		42.3	ug/Kg	50	11/14/2011 18:34
1,1-Dichloroethane	ND		42.3	ug/Kg	50	11/14/2011 18:34
1,1-Dichloroethene	ND		42.3	ug/Kg	50	11/14/2011 18:34
1,1-Dichloropropene	ND		42.3	ug/Kg	50	11/14/2011 18:34
1,2,3-Trichlorobenzene	ND		42.3	ug/Kg	50	11/14/2011 18:34
1,2,3-Trichloropropane	ND		42.3	ug/Kg	50	11/14/2011 18:34
1,2,4-Trichlorobenzene	ND		42.3	ug/Kg	50	11/14/2011 18:34
1,2,4-Trimethylbenzene	494		42.3	ug/Kg	50	11/14/2011 18:34
1,2-Dibromo-3-chloropropane	ND		211	ug/Kg	50	11/14/2011 18:34
1,2-Dibromoethane	ND		42.3	ug/Kg	50	11/14/2011 18:34
1,2-Dichlorobenzene	ND		42.3	ug/Kg	50	11/14/2011 18:34
1,2-Dichloroethane	ND		42.3	ug/Kg	50	11/14/2011 18:34
1,2-Dichloropropane	ND		42.3	ug/Kg	50	11/14/2011 18:34
1,3,5-Trimethylbenzene	443		42.3	ug/Kg	50	11/14/2011 18:34
1,3-Dichlorobenzene	ND		42.3	ug/Kg	50	11/14/2011 18:34
1,3-Dichloropropane	ND		42.3	ug/Kg	50	11/14/2011 18:34
1,4-Dichlorobenzene	ND		42.3	ug/Kg	50	11/14/2011 18:34
2,2-Dichloropropane	ND		42.3	ug/Kg	50	11/14/2011 18:34
2-Butanone	ND		1060	ug/Kg	50	11/14/2011 18:34
2-Chlorotoluene	ND		42.3	ug/Kg	50	11/14/2011 18:34
2-Hexanone	ND		211	ug/Kg	50	11/14/2011 18:34
4-Chlorotoluene	ND		42.3	ug/Kg	50	11/14/2011 18:34
4-Isopropyltoluene	304		42.3	ug/Kg	50	11/14/2011 18:34
4-Methyl-2-pentanone	ND		211	ug/Kg	50	11/14/2011 18:34
Acetone	ND		1060	ug/Kg	50	11/14/2011 18:34
Benzene	ND		42.3	ug/Kg	50	11/14/2011 18:34
Bromobenzene	ND		42.3	ug/Kg	50	11/14/2011 18:34
Bromochloromethane	ND		42.3	ug/Kg	50	11/14/2011 18:34
Bromodichloromethane	ND		42.3	ug/Kg	50	11/14/2011 18:34
Bromoform	ND		42.3	ug/Kg	50	11/14/2011 18:34
Bromomethane	ND		42.3	ug/Kg	50	11/14/2011 18:34
n-Butylbenzene	ND		42.3	ug/Kg	50	11/14/2011 18:34
Carbon disulfide	ND		42.3	ug/Kg	50	11/14/2011 18:34
Carbon tetrachloride	ND		42.3	ug/Kg	50	11/14/2011 18:34
Chlorobenzene	ND		42.3	ug/Kg	50	11/14/2011 18:34
Chloroethane	ND		42.3	ug/Kg	50	11/14/2011 18:34
Chloroform	ND		42.3	ug/Kg	50	11/14/2011 18:34
Chloromethane	ND		42.3	ug/Kg	50	11/14/2011 18:34
Dibromochloromethane	ND		42.3	ug/Kg	50	11/14/2011 18:34
Dibromomethane	ND		42.3	ug/Kg	50	11/14/2011 18:34

Results of SB-13

Client Sample ID: **SB-13**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195013-D
 Lab Project ID: 31103195

Collection Date: 11/08/2011 14:55
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 84.70

Results by SW-846 8260B

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Dichlorodifluoromethane	ND		211	ug/Kg	50	11/14/2011 18:34
cis-1,3-Dichloropropene	ND		42.3	ug/Kg	50	11/14/2011 18:34
trans-1,3-Dichloropropene	ND		42.3	ug/Kg	50	11/14/2011 18:34
Diisopropyl Ether	ND		42.3	ug/Kg	50	11/14/2011 18:34
Ethyl Benzene	ND		42.3	ug/Kg	50	11/14/2011 18:34
Hexachlorobutadiene	ND		42.3	ug/Kg	50	11/14/2011 18:34
Isopropylbenzene (Cumene)	ND		42.3	ug/Kg	50	11/14/2011 18:34
Methyl iodide	ND		42.3	ug/Kg	50	11/14/2011 18:34
Methylene chloride	ND		211	ug/Kg	50	11/14/2011 18:34
Naphthalene	781		42.3	ug/Kg	50	11/14/2011 18:34
Styrene	ND		42.3	ug/Kg	50	11/14/2011 18:34
Tetrachloroethene	ND		42.3	ug/Kg	50	11/14/2011 18:34
Toluene	ND		42.3	ug/Kg	50	11/14/2011 18:34
Trichloroethene	ND		42.3	ug/Kg	50	11/14/2011 18:34
Trichlorofluoromethane	ND		42.3	ug/Kg	50	11/14/2011 18:34
Vinyl chloride	ND		42.3	ug/Kg	50	11/14/2011 18:34
cis-1,2-Dichloroethene	ND		42.3	ug/Kg	50	11/14/2011 18:34
m,p-Xylene	114		84.6	ug/Kg	50	11/14/2011 18:34
n-Propylbenzene	ND		42.3	ug/Kg	50	11/14/2011 18:34
o-Xylene	187		42.3	ug/Kg	50	11/14/2011 18:34
sec-Butylbenzene	ND		42.3	ug/Kg	50	11/14/2011 18:34
tert-Butyl methyl ether (MTBE)	ND		42.3	ug/Kg	50	11/14/2011 18:34
tert-Butylbenzene	ND		42.3	ug/Kg	50	11/14/2011 18:34
trans-1,2-Dichloroethene	ND		42.3	ug/Kg	50	11/14/2011 18:34
trans-1,4-Dichloro-2-butene	ND		211	ug/Kg	50	11/14/2011 18:34

Surrogates

1,2-Dichloroethane-d4	93.0		55.0-173	%	50	11/14/2011 18:34
4-Bromofluorobenzene	133		23.0-141	%	50	11/14/2011 18:34
Toluene d8	106		57.0-134	%	50	11/14/2011 18:34

Batch Information

Analytical Batch: **VMS1702**
 Analytical Method: **SW-846 8260B**
 Instrument: **MSD4**
 Analyst: **DVO**
 Analytical Date/Time: **11/14/2011 18:34**

Prep Batch: **VXX2374**
 Prep Method: **SW-846 5035 SM**
 Prep Date/Time: **11/11/2011 15:02**
 Prep Initial Wt./Vol.: **6.977 g**
 Prep Extract Vol: **5 mL**

Results of SB-13

Client Sample ID: **SB-13**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195013-D
 Lab Project ID: 31103195

Collection Date: 11/08/2011 14:55
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 84.70

Results by MADEP VPH

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
C5-C8 Aliphatics	ND		4.23	mg/kg	1	11/16/2011 14:45
C9-C10 Aromatics	66.4		4.23	mg/kg	1	11/16/2011 14:45
C9-C12 Aliphatics	91.8		4.23	mg/kg	1	11/16/2011 14:45

Surrogates

FID - 4-Bromofluorobenzene	123		70.0-130	%	1	11/16/2011 14:45
PID - 4-Bromofluorobenzene	121		70.0-130	%	1	11/16/2011 14:45

Batch Information

Analytical Batch: **VGC1521**
 Analytical Method: **MADEP VPH**
 Instrument: **GC4**
 Analyst: **MDY**
 Analytical Date/Time: **11/16/2011 14:45**

Prep Batch: **VXX2383**
 Prep Method: **SW-846 5035 VPH prep**
 Prep Date/Time: **11/11/2011 15:02**
 Prep Initial Wt./Vol.: **6.977 g**
 Prep Extract Vol: **5 mL**



Results of **SB-13**

Client Sample ID: **SB-13**
Client Project ID: **1381 Piney Green**
Lab Sample ID: 31103195013-F
Lab Project ID: 31103195

Collection Date: 11/08/2011 14:55
Received Date: 11/10/2011 11:30
Matrix: Soil-Solid as dry weight
Solids (%): 84.70

Results by **SW-846 8270D**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
1,2,4-Trichlorobenzene	ND		7360	ug/Kg	20	11/16/2011 18:34
1,2-Dichlorobenzene	ND		7360	ug/Kg	20	11/16/2011 18:34
1,3-Dichlorobenzene	ND		7360	ug/Kg	20	11/16/2011 18:34
1,4-Dichlorobenzene	ND		7360	ug/Kg	20	11/16/2011 18:34
2,4,5-Trichlorophenol	ND		7360	ug/Kg	20	11/16/2011 18:34
2,4,6-Trichlorophenol	ND		7360	ug/Kg	20	11/16/2011 18:34
2,4-Dichlorophenol	ND		7360	ug/Kg	20	11/16/2011 18:34
2,4-Dinitrophenol	ND		14700	ug/Kg	20	11/16/2011 18:34
2,4-Dinitrotoluene	ND		7360	ug/Kg	20	11/16/2011 18:34
2,6-Dinitrotoluene	ND		7360	ug/Kg	20	11/16/2011 18:34
2-Chloronaphthalene	ND		7360	ug/Kg	20	11/16/2011 18:34
2-Chlorophenol	ND		7360	ug/Kg	20	11/16/2011 18:34
2-Methylnaphthalene	ND		7360	ug/Kg	20	11/16/2011 18:34
2-Methylphenol	ND		7360	ug/Kg	20	11/16/2011 18:34
2-Nitroaniline	ND		7360	ug/Kg	20	11/16/2011 18:34
2-Nitrophenol	ND		7360	ug/Kg	20	11/16/2011 18:34
3 and/or 4-Methylphenol	ND		7360	ug/Kg	20	11/16/2011 18:34
3,3'-Dichlorobenzidine	ND		7360	ug/Kg	20	11/16/2011 18:34
3-Nitroaniline	ND		7360	ug/Kg	20	11/16/2011 18:34
4,6-Dinitro-2-methylphenol	ND		7360	ug/Kg	20	11/16/2011 18:34
4-Chloro-3-methylphenol	ND		7360	ug/Kg	20	11/16/2011 18:34
4-Chloroaniline	ND		7360	ug/Kg	20	11/16/2011 18:34
4-Chlorophenyl phenyl ether	ND		7360	ug/Kg	20	11/16/2011 18:34
Acenaphthene	ND		7360	ug/Kg	20	11/16/2011 18:34
Acenaphthylene	ND		7360	ug/Kg	20	11/16/2011 18:34
Anthracene	ND		7360	ug/Kg	20	11/16/2011 18:34
Benzo(a)anthracene	ND		7360	ug/Kg	20	11/16/2011 18:34
Benzo(a)pyrene	ND		7360	ug/Kg	20	11/16/2011 18:34
Benzo(b)fluoranthene	ND		7360	ug/Kg	20	11/16/2011 18:34
Benzo(g,h,i)perylene	ND		7360	ug/Kg	20	11/16/2011 18:34
Benzo(k)fluoranthene	ND		7360	ug/Kg	20	11/16/2011 18:34
Benzoic acid	ND		7360	ug/Kg	20	11/16/2011 18:34
Bis(2-Chloroethoxy)methane	ND		7360	ug/Kg	20	11/16/2011 18:34
Bis(2-Chloroethyl)ether	ND		7360	ug/Kg	20	11/16/2011 18:34
Bis(2-Chloroisopropyl)ether	ND		7360	ug/Kg	20	11/16/2011 18:34
Bis(2-Ethylhexyl)phthalate	ND		7360	ug/Kg	20	11/16/2011 18:34
4-Bromophenyl phenyl ether	ND		7360	ug/Kg	20	11/16/2011 18:34
Butyl benzyl phthalate	ND		7360	ug/Kg	20	11/16/2011 18:34
Chrysene	ND		7360	ug/Kg	20	11/16/2011 18:34
Di-n-butyl phthalate	ND		7360	ug/Kg	20	11/16/2011 18:34
Di-n-octyl phthalate	ND		7360	ug/Kg	20	11/16/2011 18:34
Dibenz(a,h)anthracene	ND		7360	ug/Kg	20	11/16/2011 18:34
Dibenzofuran	ND		7360	ug/Kg	20	11/16/2011 18:34

Print Date: 11/22/2011

N.C. Certification # 481

Results of SB-13

Client Sample ID: **SB-13**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195013-F
 Lab Project ID: 31103195

Collection Date: 11/08/2011 14:55
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 84.70

Results by SW-846 8270D

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Diethyl phthalate	ND		7360	ug/Kg	20	11/16/2011 18:34
Dimethyl phthalate	ND		7360	ug/Kg	20	11/16/2011 18:34
2,4-Dimethylphenol	ND		7360	ug/Kg	20	11/16/2011 18:34
Diphenylamine	ND		7360	ug/Kg	20	11/16/2011 18:34
Fluoranthene	ND		7360	ug/Kg	20	11/16/2011 18:34
Fluorene	ND		7360	ug/Kg	20	11/16/2011 18:34
Hexachlorobenzene	ND		7360	ug/Kg	20	11/16/2011 18:34
Hexachlorobutadiene	ND		7360	ug/Kg	20	11/16/2011 18:34
Hexachlorocyclopentadiene	ND		7360	ug/Kg	20	11/16/2011 18:34
Hexachloroethane	ND		7360	ug/Kg	20	11/16/2011 18:34
Indeno(1,2,3-cd)pyrene	ND		7360	ug/Kg	20	11/16/2011 18:34
Isophorone	ND		7360	ug/Kg	20	11/16/2011 18:34
Naphthalene	ND		7360	ug/Kg	20	11/16/2011 18:34
4-Nitroaniline	ND		7360	ug/Kg	20	11/16/2011 18:34
Nitrobenzene	ND		7360	ug/Kg	20	11/16/2011 18:34
4-Nitrophenol	ND		7360	ug/Kg	20	11/16/2011 18:34
Pentachlorophenol	ND		7360	ug/Kg	20	11/16/2011 18:34
Phenanthrene	ND		7360	ug/Kg	20	11/16/2011 18:34
Phenol	ND		7360	ug/Kg	20	11/16/2011 18:34
Pyrene	ND		7360	ug/Kg	20	11/16/2011 18:34
n-Nitrosodi-n-propylamine	ND		7360	ug/Kg	20	11/16/2011 18:34
Surrogates						
2,4,6-Tribromophenol	NA	D	41.0-129	%	20	11/16/2011 18:34
2-Fluorobiphenyl	NA	D	48.0-123	%	20	11/16/2011 18:34
2-Fluorophenol	NA	D	42.0-123	%	20	11/16/2011 18:34
Nitrobenzene-d5	NA	D	46.0-117	%	20	11/16/2011 18:34
Phenol-d6	NA	D	48.0-125	%	20	11/16/2011 18:34
Terphenyl-d14	NA	D	44.0-140	%	20	11/16/2011 18:34

Batch Information

Analytical Batch: **XMS1303**
 Analytical Method: **SW-846 8270D**
 Instrument: **MSD10**
 Analyst: **CMP**
 Analytical Date/Time: **11/16/2011 18:34**

Prep Batch: **XXX1973**
 Prep Method: **SW-846 3541**
 Prep Date/Time: **11/14/2011 12:16**
 Prep Initial Wt./Vol.: **32.11 g**
 Prep Extract Vol: **10 mL**

Results of SB-13

Client Sample ID: **SB-13**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195013-F
 Lab Project ID: 31103195

Collection Date: 11/08/2011 14:55
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 84.70

Results by MADEP EPH

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
C11-C22 Aromatics	1080		15.2	mg/kg	1	11/18/2011 0:32
C19-C36 Aliphatics	561		78.1	mg/kg	10	11/21/2011 18:37
C9-C18 Aliphatics	2760		67.6	mg/kg	10	11/21/2011 18:37

Surrogates

2-Bromonaphthalene	123		40.0-140	%	1	11/18/2011 0:32
2-Fluorobiphenyl	106		40.0-140	%	1	11/18/2011 0:32
n-Tricosane	103		40.0-140	%	10	11/21/2011 18:37
o-Terphenyl	72.0		40.0-140	%	1	11/18/2011 0:32

Batch Information

Analytical Batch: **XGC1736**
 Analytical Method: **MADEP EPH**
 Instrument: **GC6**
 Analyst: **DTF**
 Analytical Date/Time: **11/18/2011 00:32**

Prep Batch: **XXX1979**
 Prep Method: **SW-846 3541/8015 EPH**
 Prep Date/Time: **11/15/2011 13:13**
 Prep Initial Wt./Vol.: **12.15 g**
 Prep Extract Vol: **10 mL**

Analytical Batch: **XGC1737**
 Analytical Method: **MADEP EPH**
 Instrument: **GC6**
 Analyst: **DTF**
 Analytical Date/Time: **11/21/2011 18:37**

Prep Batch: **XXX1979**
 Prep Method: **SW-846 3541/8015 EPH**
 Prep Date/Time: **11/15/2011 13:13**
 Prep Initial Wt./Vol.: **12.15 g**
 Prep Extract Vol: **10 mL**

Results of SB-14

Client Sample ID: **SB-14**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195014-D
 Lab Project ID: 31103195

Collection Date: 11/08/2011 15:00
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 82.40

Results by SW-846 8260B

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND		53.4	ug/Kg	50	11/14/2011 17:18
1,1,1-Trichloroethane	ND		53.4	ug/Kg	50	11/14/2011 17:18
1,1,1,2,2-Tetrachloroethane	ND		53.4	ug/Kg	50	11/14/2011 17:18
1,1,2-Trichloroethane	ND		53.4	ug/Kg	50	11/14/2011 17:18
1,1-Dichloroethane	ND		53.4	ug/Kg	50	11/14/2011 17:18
1,1-Dichloroethene	ND		53.4	ug/Kg	50	11/14/2011 17:18
1,1-Dichloropropene	ND		53.4	ug/Kg	50	11/14/2011 17:18
1,2,3-Trichlorobenzene	ND		53.4	ug/Kg	50	11/14/2011 17:18
1,2,3-Trichloropropane	ND		53.4	ug/Kg	50	11/14/2011 17:18
1,2,4-Trichlorobenzene	ND		53.4	ug/Kg	50	11/14/2011 17:18
1,2,4-Trimethylbenzene	869		53.4	ug/Kg	50	11/14/2011 17:18
1,2-Dibromo-3-chloropropane	ND		267	ug/Kg	50	11/14/2011 17:18
1,2-Dibromoethane	ND		53.4	ug/Kg	50	11/14/2011 17:18
1,2-Dichlorobenzene	ND		53.4	ug/Kg	50	11/14/2011 17:18
1,2-Dichloroethane	ND		53.4	ug/Kg	50	11/14/2011 17:18
1,2-Dichloropropane	ND		53.4	ug/Kg	50	11/14/2011 17:18
1,3,5-Trimethylbenzene	296		53.4	ug/Kg	50	11/14/2011 17:18
1,3-Dichlorobenzene	ND		53.4	ug/Kg	50	11/14/2011 17:18
1,3-Dichloropropane	ND		53.4	ug/Kg	50	11/14/2011 17:18
1,4-Dichlorobenzene	ND		53.4	ug/Kg	50	11/14/2011 17:18
2,2-Dichloropropane	ND		53.4	ug/Kg	50	11/14/2011 17:18
2-Butanone	ND		1330	ug/Kg	50	11/14/2011 17:18
2-Chlorotoluene	ND		53.4	ug/Kg	50	11/14/2011 17:18
2-Hexanone	ND		267	ug/Kg	50	11/14/2011 17:18
4-Chlorotoluene	ND		53.4	ug/Kg	50	11/14/2011 17:18
4-Isopropyltoluene	291		53.4	ug/Kg	50	11/14/2011 17:18
4-Methyl-2-pentanone	ND		267	ug/Kg	50	11/14/2011 17:18
Acetone	ND		1330	ug/Kg	50	11/14/2011 17:18
Benzene	ND		53.4	ug/Kg	50	11/14/2011 17:18
Bromobenzene	ND		53.4	ug/Kg	50	11/14/2011 17:18
Bromochloromethane	ND		53.4	ug/Kg	50	11/14/2011 17:18
Bromodichloromethane	ND		53.4	ug/Kg	50	11/14/2011 17:18
Bromoform	ND		53.4	ug/Kg	50	11/14/2011 17:18
Bromomethane	ND		53.4	ug/Kg	50	11/14/2011 17:18
n-Butylbenzene	ND		53.4	ug/Kg	50	11/14/2011 17:18
Carbon disulfide	ND		53.4	ug/Kg	50	11/14/2011 17:18
Carbon tetrachloride	ND		53.4	ug/Kg	50	11/14/2011 17:18
Chlorobenzene	ND		53.4	ug/Kg	50	11/14/2011 17:18
Chloroethane	ND		53.4	ug/Kg	50	11/14/2011 17:18
Chloroform	ND		53.4	ug/Kg	50	11/14/2011 17:18
Chloromethane	ND		53.4	ug/Kg	50	11/14/2011 17:18
Dibromochloromethane	ND		53.4	ug/Kg	50	11/14/2011 17:18
Dibromomethane	ND		53.4	ug/Kg	50	11/14/2011 17:18

Results of SB-14

Client Sample ID: **SB-14**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195014-D
 Lab Project ID: 31103195

Collection Date: 11/08/2011 15:00
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 82.40

Results by SW-846 8260B

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Dichlorodifluoromethane	ND		267	ug/Kg	50	11/14/2011 17:18
cis-1,3-Dichloropropene	ND		53.4	ug/Kg	50	11/14/2011 17:18
trans-1,3-Dichloropropene	ND		53.4	ug/Kg	50	11/14/2011 17:18
Diisopropyl Ether	ND		53.4	ug/Kg	50	11/14/2011 17:18
Ethyl Benzene	ND		53.4	ug/Kg	50	11/14/2011 17:18
Hexachlorobutadiene	ND		53.4	ug/Kg	50	11/14/2011 17:18
Isopropylbenzene (Cumene)	ND		53.4	ug/Kg	50	11/14/2011 17:18
Methyl iodide	ND		53.4	ug/Kg	50	11/14/2011 17:18
Methylene chloride	ND		267	ug/Kg	50	11/14/2011 17:18
Naphthalene	737		53.4	ug/Kg	50	11/14/2011 17:18
Styrene	ND		53.4	ug/Kg	50	11/14/2011 17:18
Tetrachloroethene	ND		53.4	ug/Kg	50	11/14/2011 17:18
Toluene	ND		53.4	ug/Kg	50	11/14/2011 17:18
Trichloroethene	ND		53.4	ug/Kg	50	11/14/2011 17:18
Trichlorofluoromethane	ND		53.4	ug/Kg	50	11/14/2011 17:18
Vinyl chloride	ND		53.4	ug/Kg	50	11/14/2011 17:18
cis-1,2-Dichloroethene	ND		53.4	ug/Kg	50	11/14/2011 17:18
m,p-Xylene	210		107	ug/Kg	50	11/14/2011 17:18
n-Propylbenzene	69.9		53.4	ug/Kg	50	11/14/2011 17:18
o-Xylene	173		53.4	ug/Kg	50	11/14/2011 17:18
sec-Butylbenzene	ND		53.4	ug/Kg	50	11/14/2011 17:18
tert-Butyl methyl ether (MTBE)	ND		53.4	ug/Kg	50	11/14/2011 17:18
tert-Butylbenzene	ND		53.4	ug/Kg	50	11/14/2011 17:18
trans-1,2-Dichloroethene	ND		53.4	ug/Kg	50	11/14/2011 17:18
trans-1,4-Dichloro-2-butene	ND		267	ug/Kg	50	11/14/2011 17:18

Surrogates

1,2-Dichloroethane-d4	98.0		55.0-173	%	50	11/14/2011 17:18
4-Bromofluorobenzene	119		23.0-141	%	50	11/14/2011 17:18
Toluene d8	103		57.0-134	%	50	11/14/2011 17:18

Batch Information

Analytical Batch: **VMS1702**
 Analytical Method: **SW-846 8260B**
 Instrument: **MSD4**
 Analyst: **DVO**
 Analytical Date/Time: **11/14/2011 17:18**

Prep Batch: **VXX2374**
 Prep Method: **SW-846 5035 SM**
 Prep Date/Time: **11/11/2011 15:06**
 Prep Initial Wt./Vol.: **5.682 g**
 Prep Extract Vol: **5 mL**

Results of SB-14

Client Sample ID: **SB-14**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195014-D
 Lab Project ID: 31103195

Collection Date: 11/08/2011 15:00
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 82.40

Results by MADEP VPH

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
C5-C8 Aliphatics	ND		5.34	mg/kg	1	11/16/2011 15:12
C9-C10 Aromatics	96.0		5.34	mg/kg	1	11/16/2011 15:12
C9-C12 Aliphatics	116		5.34	mg/kg	1	11/16/2011 15:12

Surrogates

FID - 4-Bromofluorobenzene	116		70.0-130	%	1	11/16/2011 15:12
PID - 4-Bromofluorobenzene	109		70.0-130	%	1	11/16/2011 15:12

Batch Information

Analytical Batch: **VGC1521**
 Analytical Method: **MADEP VPH**
 Instrument: **GC4**
 Analyst: **MDY**
 Analytical Date/Time: **11/16/2011 15:12**

Prep Batch: **VXX2383**
 Prep Method: **SW-846 5035 VPH prep**
 Prep Date/Time: **11/11/2011 15:06**
 Prep Initial Wt./Vol.: **5.682 g**
 Prep Extract Vol: **5 mL**

Results of SB-14

Client Sample ID: **SB-14**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195014-F
 Lab Project ID: 31103195

Collection Date: 11/08/2011 15:00
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 82.40

Results by SW-846 8270D

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	ND		7560	ug/Kg	20	11/17/2011 12:37
1,2-Dichlorobenzene	ND		7560	ug/Kg	20	11/17/2011 12:37
1,3-Dichlorobenzene	ND		7560	ug/Kg	20	11/17/2011 12:37
1,4-Dichlorobenzene	ND		7560	ug/Kg	20	11/17/2011 12:37
2,4,5-Trichlorophenol	ND		7560	ug/Kg	20	11/17/2011 12:37
2,4,6-Trichlorophenol	ND		7560	ug/Kg	20	11/17/2011 12:37
2,4-Dichlorophenol	ND		7560	ug/Kg	20	11/17/2011 12:37
2,4-Dinitrophenol	ND		15100	ug/Kg	20	11/17/2011 12:37
2,4-Dinitrotoluene	ND		7560	ug/Kg	20	11/17/2011 12:37
2,6-Dinitrotoluene	ND		7560	ug/Kg	20	11/17/2011 12:37
2-Chloronaphthalene	ND		7560	ug/Kg	20	11/17/2011 12:37
2-Chlorophenol	ND		7560	ug/Kg	20	11/17/2011 12:37
2-Methylnaphthalene	ND		7560	ug/Kg	20	11/17/2011 12:37
2-Methylphenol	ND		7560	ug/Kg	20	11/17/2011 12:37
2-Nitroaniline	ND		7560	ug/Kg	20	11/17/2011 12:37
2-Nitrophenol	ND		7560	ug/Kg	20	11/17/2011 12:37
3 and/or 4-Methylphenol	ND		7560	ug/Kg	20	11/17/2011 12:37
3,3'-Dichlorobenzidine	ND		7560	ug/Kg	20	11/17/2011 12:37
3-Nitroaniline	ND		7560	ug/Kg	20	11/17/2011 12:37
4,6-Dinitro-2-methylphenol	ND		7560	ug/Kg	20	11/17/2011 12:37
4-Chloro-3-methylphenol	ND		7560	ug/Kg	20	11/17/2011 12:37
4-Chloroaniline	ND		7560	ug/Kg	20	11/17/2011 12:37
4-Chlorophenyl phenyl ether	ND		7560	ug/Kg	20	11/17/2011 12:37
Acenaphthene	ND		7560	ug/Kg	20	11/17/2011 12:37
Acenaphthylene	ND		7560	ug/Kg	20	11/17/2011 12:37
Anthracene	ND		7560	ug/Kg	20	11/17/2011 12:37
Benzo(a)anthracene	ND		7560	ug/Kg	20	11/17/2011 12:37
Benzo(a)pyrene	ND		7560	ug/Kg	20	11/17/2011 12:37
Benzo(b)fluoranthene	ND		7560	ug/Kg	20	11/17/2011 12:37
Benzo(g,h,i)perylene	ND		7560	ug/Kg	20	11/17/2011 12:37
Benzo(k)fluoranthene	ND		7560	ug/Kg	20	11/17/2011 12:37
Benzoic acid	ND		7560	ug/Kg	20	11/17/2011 12:37
Bis(2-Chloroethoxy)methane	ND		7560	ug/Kg	20	11/17/2011 12:37
Bis(2-Chloroethyl)ether	ND		7560	ug/Kg	20	11/17/2011 12:37
Bis(2-Chloroisopropyl)ether	ND		7560	ug/Kg	20	11/17/2011 12:37
Bis(2-Ethylhexyl)phthalate	ND		7560	ug/Kg	20	11/17/2011 12:37
4-Bromophenyl phenyl ether	ND		7560	ug/Kg	20	11/17/2011 12:37
Butyl benzyl phthalate	ND		7560	ug/Kg	20	11/17/2011 12:37
Chrysene	ND		7560	ug/Kg	20	11/17/2011 12:37
Di-n-butyl phthalate	ND		7560	ug/Kg	20	11/17/2011 12:37
Di-n-octyl phthalate	ND		7560	ug/Kg	20	11/17/2011 12:37
Dibenz(a,h)anthracene	ND		7560	ug/Kg	20	11/17/2011 12:37
Dibenzofuran	ND		7560	ug/Kg	20	11/17/2011 12:37

Results of SB-14

Client Sample ID: **SB-14**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195014-F
 Lab Project ID: 31103195

Collection Date: 11/08/2011 15:00
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 82.40

Results by SW-846 8270D

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Diethyl phthalate	ND		7560	ug/Kg	20	11/17/2011 12:37
Dimethyl phthalate	ND		7560	ug/Kg	20	11/17/2011 12:37
2,4-Dimethylphenol	ND		7560	ug/Kg	20	11/17/2011 12:37
Diphenylamine	ND		7560	ug/Kg	20	11/17/2011 12:37
Fluoranthene	ND		7560	ug/Kg	20	11/17/2011 12:37
Fluorene	ND		7560	ug/Kg	20	11/17/2011 12:37
Hexachlorobenzene	ND		7560	ug/Kg	20	11/17/2011 12:37
Hexachlorobutadiene	ND		7560	ug/Kg	20	11/17/2011 12:37
Hexachlorocyclopentadiene	ND		7560	ug/Kg	20	11/17/2011 12:37
Hexachloroethane	ND		7560	ug/Kg	20	11/17/2011 12:37
Indeno(1,2,3-cd)pyrene	ND		7560	ug/Kg	20	11/17/2011 12:37
Isophorone	ND		7560	ug/Kg	20	11/17/2011 12:37
Naphthalene	ND		7560	ug/Kg	20	11/17/2011 12:37
4-Nitroaniline	ND		7560	ug/Kg	20	11/17/2011 12:37
Nitrobenzene	ND		7560	ug/Kg	20	11/17/2011 12:37
4-Nitrophenol	ND		7560	ug/Kg	20	11/17/2011 12:37
Pentachlorophenol	ND		7560	ug/Kg	20	11/17/2011 12:37
Phenanthrene	ND		7560	ug/Kg	20	11/17/2011 12:37
Phenol	ND		7560	ug/Kg	20	11/17/2011 12:37
Pyrene	ND		7560	ug/Kg	20	11/17/2011 12:37
n-Nitrosodi-n-propylamine	ND		7560	ug/Kg	20	11/17/2011 12:37

Surrogates

2,4,6-Tribromophenol	NA	D	41.0-129	%	20	11/17/2011 12:37
2-Fluorobiphenyl	NA	D	48.0-123	%	20	11/17/2011 12:37
2-Fluorophenol	NA	D	42.0-123	%	20	11/17/2011 12:37
Nitrobenzene-d5	NA	D	46.0-117	%	20	11/17/2011 12:37
Phenol-d6	NA	D	48.0-125	%	20	11/17/2011 12:37
Terphenyl-d14	NA	D	44.0-140	%	20	11/17/2011 12:37

Batch Information

Analytical Batch: **XMS1306**
 Analytical Method: **SW-846 8270D**
 Instrument: **MSD10**
 Analyst: **CMP**
 Analytical Date/Time: **11/17/2011 12:37**

Prep Batch: **XXX1973**
 Prep Method: **SW-846 3541**
 Prep Date/Time: **11/14/2011 12:16**
 Prep Initial Wt./Vol.: **32.17 g**
 Prep Extract Vol: **10 mL**

Results of SB-14

Client Sample ID: **SB-14**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195014-F
 Lab Project ID: 31103195

Collection Date: 11/08/2011 15:00
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 82.40

Results by MADEP EPH

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
C11-C22 Aromatics	1070		14.8	mg/kg	1	11/19/2011 1:28
C19-C36 Aliphatics	764		76.0	mg/kg	10	11/21/2011 19:05
C9-C18 Aliphatics	3530		65.8	mg/kg	10	11/21/2011 19:05

Surrogates

2-Bromonaphthalene	126		40.0-140	%	1	11/19/2011 1:28
2-Fluorobiphenyl	110		40.0-140	%	1	11/19/2011 1:28
n-Tricosane	116		40.0-140	%	10	11/21/2011 19:05
o-Terphenyl	90.0		40.0-140	%	1	11/19/2011 1:28

Batch Information

Analytical Batch: **XGC1736**
 Analytical Method: **MADEP EPH**
 Instrument: **GC6**
 Analyst: **DTF**
 Analytical Date/Time: **11/19/2011 01:28**

Prep Batch: **XXX1979**
 Prep Method: **SW-846 3541/8015 EPH**
 Prep Date/Time: **11/15/2011 13:13**
 Prep Initial Wt./Vol.: **12.83 g**
 Prep Extract Vol: **10 mL**

Analytical Batch: **XGC1737**
 Analytical Method: **MADEP EPH**
 Instrument: **GC6**
 Analyst: **DTF**
 Analytical Date/Time: **11/21/2011 19:05**

Prep Batch: **XXX1979**
 Prep Method: **SW-846 3541/8015 EPH**
 Prep Date/Time: **11/15/2011 13:13**
 Prep Initial Wt./Vol.: **12.83 g**
 Prep Extract Vol: **10 mL**

Results of SB-15

Client Sample ID: **SB-15**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195015-D
 Lab Project ID: 31103195

Collection Date: 11/08/2011 15:10
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 89.30

Results by SW-846 8260B

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND		899	ug/Kg	1000	11/15/2011 11:33
1,1,1-Trichloroethane	ND		899	ug/Kg	1000	11/15/2011 11:33
1,1,1,2-Tetrachloroethane	ND		899	ug/Kg	1000	11/15/2011 11:33
1,1,2-Trichloroethane	ND		899	ug/Kg	1000	11/15/2011 11:33
1,1-Dichloroethane	ND		899	ug/Kg	1000	11/15/2011 11:33
1,1-Dichloroethene	ND		899	ug/Kg	1000	11/15/2011 11:33
1,1-Dichloropropene	ND		899	ug/Kg	1000	11/15/2011 11:33
1,2,3-Trichlorobenzene	ND		899	ug/Kg	1000	11/15/2011 11:33
1,2,3-Trichloropropane	ND		899	ug/Kg	1000	11/15/2011 11:33
1,2,4-Trichlorobenzene	ND		899	ug/Kg	1000	11/15/2011 11:33
1,2,4-Trimethylbenzene	29300		899	ug/Kg	1000	11/15/2011 11:33
1,2-Dibromo-3-chloropropane	ND		4490	ug/Kg	1000	11/15/2011 11:33
1,2-Dibromoethane	ND		899	ug/Kg	1000	11/15/2011 11:33
1,2-Dichlorobenzene	ND		899	ug/Kg	1000	11/15/2011 11:33
1,2-Dichloroethane	ND		899	ug/Kg	1000	11/15/2011 11:33
1,2-Dichloropropane	ND		899	ug/Kg	1000	11/15/2011 11:33
1,3,5-Trimethylbenzene	8820		899	ug/Kg	1000	11/15/2011 11:33
1,3-Dichlorobenzene	ND		899	ug/Kg	1000	11/15/2011 11:33
1,3-Dichloropropane	ND		899	ug/Kg	1000	11/15/2011 11:33
1,4-Dichlorobenzene	ND		899	ug/Kg	1000	11/15/2011 11:33
2,2-Dichloropropane	ND		899	ug/Kg	1000	11/15/2011 11:33
2-Butanone	ND		22500	ug/Kg	1000	11/15/2011 11:33
2-Chlorotoluene	ND		899	ug/Kg	1000	11/15/2011 11:33
2-Hexanone	ND		4490	ug/Kg	1000	11/15/2011 11:33
4-Chlorotoluene	ND		899	ug/Kg	1000	11/15/2011 11:33
4-Isopropyltoluene	7390		899	ug/Kg	1000	11/15/2011 11:33
4-Methyl-2-pentanone	ND		4490	ug/Kg	1000	11/15/2011 11:33
Acetone	ND		22500	ug/Kg	1000	11/15/2011 11:33
Benzene	ND		899	ug/Kg	1000	11/15/2011 11:33
Bromobenzene	ND		899	ug/Kg	1000	11/15/2011 11:33
Bromochloromethane	ND		899	ug/Kg	1000	11/15/2011 11:33
Bromodichloromethane	ND		899	ug/Kg	1000	11/15/2011 11:33
Bromoform	ND		899	ug/Kg	1000	11/15/2011 11:33
Bromomethane	ND		899	ug/Kg	1000	11/15/2011 11:33
n-Butylbenzene	ND		899	ug/Kg	1000	11/15/2011 11:33
Carbon disulfide	ND		899	ug/Kg	1000	11/15/2011 11:33
Carbon tetrachloride	ND		899	ug/Kg	1000	11/15/2011 11:33
Chlorobenzene	ND		899	ug/Kg	1000	11/15/2011 11:33
Chloroethane	ND		899	ug/Kg	1000	11/15/2011 11:33
Chloroform	ND		899	ug/Kg	1000	11/15/2011 11:33
Chloromethane	ND		899	ug/Kg	1000	11/15/2011 11:33
Dibromochloromethane	ND		899	ug/Kg	1000	11/15/2011 11:33
Dibromomethane	ND		899	ug/Kg	1000	11/15/2011 11:33

Results of SB-15

Client Sample ID: **SB-15**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195015-D
 Lab Project ID: 31103195

Collection Date: 11/08/2011 15:10
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 89.30

Results by SW-846 8260B

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Dichlorodifluoromethane	ND		4490	ug/Kg	1000	11/15/2011 11:33
cis-1,3-Dichloropropene	ND		899	ug/Kg	1000	11/15/2011 11:33
trans-1,3-Dichloropropene	ND		899	ug/Kg	1000	11/15/2011 11:33
Diisopropyl Ether	ND		899	ug/Kg	1000	11/15/2011 11:33
Ethyl Benzene	3330		899	ug/Kg	1000	11/15/2011 11:33
Hexachlorobutadiene	ND		899	ug/Kg	1000	11/15/2011 11:33
Isopropylbenzene (Cumene)	1850		899	ug/Kg	1000	11/15/2011 11:33
Methyl iodide	ND		899	ug/Kg	1000	11/15/2011 11:33
Methylene chloride	ND		4490	ug/Kg	1000	11/15/2011 11:33
Naphthalene	17600		899	ug/Kg	1000	11/15/2011 11:33
Styrene	ND		899	ug/Kg	1000	11/15/2011 11:33
Tetrachloroethene	ND		899	ug/Kg	1000	11/15/2011 11:33
Toluene	ND		899	ug/Kg	1000	11/15/2011 11:33
Trichloroethene	ND		899	ug/Kg	1000	11/15/2011 11:33
Trichlorofluoromethane	ND		899	ug/Kg	1000	11/15/2011 11:33
Vinyl chloride	ND		899	ug/Kg	1000	11/15/2011 11:33
cis-1,2-Dichloroethene	ND		899	ug/Kg	1000	11/15/2011 11:33
m,p-Xylene	13200		1800	ug/Kg	1000	11/15/2011 11:33
n-Propylbenzene	4180		899	ug/Kg	1000	11/15/2011 11:33
o-Xylene	7130		899	ug/Kg	1000	11/15/2011 11:33
sec-Butylbenzene	4040		899	ug/Kg	1000	11/15/2011 11:33
tert-Butyl methyl ether (MTBE)	ND		899	ug/Kg	1000	11/15/2011 11:33
tert-Butylbenzene	ND		899	ug/Kg	1000	11/15/2011 11:33
trans-1,2-Dichloroethene	ND		899	ug/Kg	1000	11/15/2011 11:33
trans-1,4-Dichloro-2-butene	ND		4490	ug/Kg	1000	11/15/2011 11:33

Surrogates

1,2-Dichloroethane-d4	87.0		55.0-173	%	1000	11/15/2011 11:33
4-Bromofluorobenzene	106		23.0-141	%	1000	11/15/2011 11:33
Toluene d8	106		57.0-134	%	1000	11/15/2011 11:33

Batch Information

Analytical Batch: **VMS1704**
 Analytical Method: **SW-846 8260B**
 Instrument: **MSD4**
 Analyst: **DVO**
 Analytical Date/Time: **11/15/2011 11:33**

Prep Batch: **VXX2375**
 Prep Method: **SW-846 5035 SM**
 Prep Date/Time: **11/11/2011 15:08**
 Prep Initial Wt./Vol.: **6.229 g**
 Prep Extract Vol: **5 mL**

Results of SB-15

Client Sample ID: **SB-15**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195015
 Lab Project ID: 31103195

Collection Date: 11/08/2011 15:10
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 89.30

Results by MADEP VPH

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
C5-C8 Aliphatics	72.1		8.99	mg/kg	2	11/20/2011 17:16
C9-C10 Aromatics	466		8.99	mg/kg	2	11/20/2011 17:16
C9-C12 Aliphatics	479		8.99	mg/kg	2	11/20/2011 17:16

Surrogates

FID - 4-Bromofluorobenzene	126		70.0-130	%	2	11/20/2011 17:16
PID - 4-Bromofluorobenzene	119		70.0-130	%	2	11/20/2011 17:16

Batch Information

Analytical Batch: **VGC1526**
 Analytical Method: **MADEP VPH**
 Instrument: **GC4**
 Analyst: **MDY**
 Analytical Date/Time: **11/20/2011 17:16**

Prep Batch: **VXX2395**
 Prep Method: **SW-846 5035 VPH prep**
 Prep Date/Time: **11/20/2011 14:26**
 Prep Initial Wt./Vol.: **6.229 g**
 Prep Extract Vol: **5 mL**



Results of **SB-15**

Client Sample ID: **SB-15**
Client Project ID: **1381 Piney Green**
Lab Sample ID: 31103195015-F
Lab Project ID: 31103195

Collection Date: 11/08/2011 15:10
Received Date: 11/10/2011 11:30
Matrix: Soil-Solid as dry weight
Solids (%): 89.30

Results by **SW-846 8270D**

<u>Parameter</u>	<u>Result</u>	<u>Qual</u>	<u>LOQ/CL</u>	<u>Units</u>	<u>DF</u>	<u>Date Analyzed</u>
1,2,4-Trichlorobenzene	ND		6830	ug/Kg	20	11/17/2011 13:00
1,2-Dichlorobenzene	ND		6830	ug/Kg	20	11/17/2011 13:00
1,3-Dichlorobenzene	ND		6830	ug/Kg	20	11/17/2011 13:00
1,4-Dichlorobenzene	ND		6830	ug/Kg	20	11/17/2011 13:00
2,4,5-Trichlorophenol	ND		6830	ug/Kg	20	11/17/2011 13:00
2,4,6-Trichlorophenol	ND		6830	ug/Kg	20	11/17/2011 13:00
2,4-Dichlorophenol	ND		6830	ug/Kg	20	11/17/2011 13:00
2,4-Dinitrophenol	ND		13600	ug/Kg	20	11/17/2011 13:00
2,4-Dinitrotoluene	ND		6830	ug/Kg	20	11/17/2011 13:00
2,6-Dinitrotoluene	ND		6830	ug/Kg	20	11/17/2011 13:00
2-Chloronaphthalene	ND		6830	ug/Kg	20	11/17/2011 13:00
2-Chlorophenol	ND		6830	ug/Kg	20	11/17/2011 13:00
2-Methylnaphthalene	29800		6830	ug/Kg	20	11/17/2011 13:00
2-Methylphenol	ND		6830	ug/Kg	20	11/17/2011 13:00
2-Nitroaniline	ND		6830	ug/Kg	20	11/17/2011 13:00
2-Nitrophenol	ND		6830	ug/Kg	20	11/17/2011 13:00
3 and/or 4-Methylphenol	ND		6830	ug/Kg	20	11/17/2011 13:00
3,3'-Dichlorobenzidine	ND		6830	ug/Kg	20	11/17/2011 13:00
3-Nitroaniline	ND		6830	ug/Kg	20	11/17/2011 13:00
4,6-Dinitro-2-methylphenol	ND		6830	ug/Kg	20	11/17/2011 13:00
4-Chloro-3-methylphenol	ND		6830	ug/Kg	20	11/17/2011 13:00
4-Chloroaniline	ND		6830	ug/Kg	20	11/17/2011 13:00
4-Chlorophenyl phenyl ether	ND		6830	ug/Kg	20	11/17/2011 13:00
Acenaphthene	ND		6830	ug/Kg	20	11/17/2011 13:00
Acenaphthylene	ND		6830	ug/Kg	20	11/17/2011 13:00
Anthracene	ND		6830	ug/Kg	20	11/17/2011 13:00
Benzo(a)anthracene	ND		6830	ug/Kg	20	11/17/2011 13:00
Benzo(a)pyrene	ND		6830	ug/Kg	20	11/17/2011 13:00
Benzo(b)fluoranthene	ND		6830	ug/Kg	20	11/17/2011 13:00
Benzo(g,h,i)perylene	ND		6830	ug/Kg	20	11/17/2011 13:00
Benzo(k)fluoranthene	ND		6830	ug/Kg	20	11/17/2011 13:00
Benzoic acid	ND		6830	ug/Kg	20	11/17/2011 13:00
Bis(2-Chloroethoxy)methane	ND		6830	ug/Kg	20	11/17/2011 13:00
Bis(2-Chloroethyl)ether	ND		6830	ug/Kg	20	11/17/2011 13:00
Bis(2-Chloroisopropyl)ether	ND		6830	ug/Kg	20	11/17/2011 13:00
Bis(2-Ethylhexyl)phthalate	ND		6830	ug/Kg	20	11/17/2011 13:00
4-Bromophenyl phenyl ether	ND		6830	ug/Kg	20	11/17/2011 13:00
Butyl benzyl phthalate	ND		6830	ug/Kg	20	11/17/2011 13:00
Chrysene	ND		6830	ug/Kg	20	11/17/2011 13:00
Di-n-butyl phthalate	ND		6830	ug/Kg	20	11/17/2011 13:00
Di-n-octyl phthalate	ND		6830	ug/Kg	20	11/17/2011 13:00
Dibenz(a,h)anthracene	ND		6830	ug/Kg	20	11/17/2011 13:00
Dibenzofuran	ND		6830	ug/Kg	20	11/17/2011 13:00

Print Date: 11/22/2011

N.C. Certification # 481

Results of SB-15

Client Sample ID: **SB-15**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195015-F
 Lab Project ID: 31103195

Collection Date: 11/08/2011 15:10
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 89.30

Results by SW-846 8270D

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
Diethyl phthalate	ND		6830	ug/Kg	20	11/17/2011 13:00
Dimethyl phthalate	ND		6830	ug/Kg	20	11/17/2011 13:00
2,4-Dimethylphenol	ND		6830	ug/Kg	20	11/17/2011 13:00
Diphenylamine	ND		6830	ug/Kg	20	11/17/2011 13:00
Fluoranthene	ND		6830	ug/Kg	20	11/17/2011 13:00
Fluorene	ND		6830	ug/Kg	20	11/17/2011 13:00
Hexachlorobenzene	ND		6830	ug/Kg	20	11/17/2011 13:00
Hexachlorobutadiene	ND		6830	ug/Kg	20	11/17/2011 13:00
Hexachlorocyclopentadiene	ND		6830	ug/Kg	20	11/17/2011 13:00
Hexachloroethane	ND		6830	ug/Kg	20	11/17/2011 13:00
Indeno(1,2,3-cd)pyrene	ND		6830	ug/Kg	20	11/17/2011 13:00
Isophorone	ND		6830	ug/Kg	20	11/17/2011 13:00
Naphthalene	ND		6830	ug/Kg	20	11/17/2011 13:00
4-Nitroaniline	ND		6830	ug/Kg	20	11/17/2011 13:00
Nitrobenzene	ND		6830	ug/Kg	20	11/17/2011 13:00
4-Nitrophenol	ND		6830	ug/Kg	20	11/17/2011 13:00
Pentachlorophenol	ND		6830	ug/Kg	20	11/17/2011 13:00
Phenanthrene	8110		6830	ug/Kg	20	11/17/2011 13:00
Phenol	ND		6830	ug/Kg	20	11/17/2011 13:00
Pyrene	ND		6830	ug/Kg	20	11/17/2011 13:00
n-Nitrosodi-n-propylamine	ND		6830	ug/Kg	20	11/17/2011 13:00

Surrogates

2,4,6-Tribromophenol	NA	D	41.0-129	%	20	11/17/2011 13:00
2-Fluorobiphenyl	NA	D	48.0-123	%	20	11/17/2011 13:00
2-Fluorophenol	NA	D	42.0-123	%	20	11/17/2011 13:00
Nitrobenzene-d5	NA	D	46.0-117	%	20	11/17/2011 13:00
Phenol-d6	NA	D	48.0-125	%	20	11/17/2011 13:00
Terphenyl-d14	NA	D	44.0-140	%	20	11/17/2011 13:00

Batch Information

Analytical Batch: **XMS1306**
 Analytical Method: **SW-846 8270D**
 Instrument: **MSD10**
 Analyst: **CMP**
 Analytical Date/Time: **11/17/2011 13:00**

Prep Batch: **XXX1973**
 Prep Method: **SW-846 3541**
 Prep Date/Time: **11/14/2011 12:16**
 Prep Initial Wt./Vol.: **32.82 g**
 Prep Extract Vol: **10 mL**

Results of SB-15

Client Sample ID: **SB-15**
 Client Project ID: **1381 Piney Green**
 Lab Sample ID: 31103195015-F
 Lab Project ID: 31103195

Collection Date: 11/08/2011 15:10
 Received Date: 11/10/2011 11:30
 Matrix: Soil-Solid as dry weight
 Solids (%): 89.30

Results by MADEP EPH

Parameter	Result	Qual	LOQ/CL	Units	DF	Date Analyzed
C11-C22 Aromatics	1910		14.0	mg/kg	1	11/19/2011 2:23
C19-C36 Aliphatics	627		71.9	mg/kg	10	11/21/2011 19:33
C9-C18 Aliphatics	3590		62.3	mg/kg	10	11/21/2011 19:33

Surrogates

2-Bromonaphthalene	102		40.0-140	%	1	11/19/2011 2:23
2-Fluorobiphenyl	102		40.0-140	%	1	11/19/2011 2:23
n-Tricosane	115		40.0-140	%	10	11/21/2011 19:33
o-Terphenyl	97.0		40.0-140	%	1	11/19/2011 2:23

Batch Information

Analytical Batch: **XGC1736**
 Analytical Method: **MADEP EPH**
 Instrument: **GC6**
 Analyst: **DTF**
 Analytical Date/Time: **11/19/2011 02:23**

Prep Batch: **XXX1979**
 Prep Method: **SW-846 3541/8015 EPH**
 Prep Date/Time: **11/15/2011 13:13**
 Prep Initial Wt./Vol.: **12.51 g**
 Prep Extract Vol: **10 mL**

Analytical Batch: **XGC1737**
 Analytical Method: **MADEP EPH**
 Instrument: **GC6**
 Analyst: **DTF**
 Analytical Date/Time: **11/21/2011 19:33**

Prep Batch: **XXX1979**
 Prep Method: **SW-846 3541/8015 EPH**
 Prep Date/Time: **11/15/2011 13:13**
 Prep Initial Wt./Vol.: **12.51 g**
 Prep Extract Vol: **10 mL**



CHAIN OF CUSTODY RECORD SGS North America Inc.

- Locations Nationwide
- Alaska
 - Maryland
 - New Jersey
 - North Carolina
 - Ohio

www.us.sgs.com

3110 3195

106135

1 CLIENT: **GEL Eng. & Env. Inc.** PHONE NO: **(919) 323-8828** PAGE **1** OF **2**

CONTACT: **Andrew Eyre** SITE/PWSID#: _____

PROJECT: **1381 PINEY GREEN** FAX NO.: ()

REPORTS TO: **ade@gel.com** QUOTE #: **U-3810**

INVOICE TO: **NC DOT** P.O. NUMBER: **WBS#35801-1.1**

2

LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX	No CONTAINERS	SAMPLE TYPE	Preservatives Used	Analysis Required	REMARKS
SB-1		11/8/11	0945	soil	3	G	✓	3	↑
SB-2			0950		3		✓		No print
SB-3			1000		3		✓		
SB-4			1005		3		✓		↑
SB-5			1140		7		✓		
SB-6			1145		7		✓		↓
SB-7			1150		7		✓		
SB-8			1200		7		✓		
SB-9			1205		7		✓		
SB-10			1210		7		✓		

3

4

5

Shipping Carrier: _____

Shipping Ticket No: _____

Special Deliverable Requirements: _____

Special Instructions: _____

Samples Received Cold? (Circle) YES NO

Temperature °C: **27.35**

Chain of Custody Seal: (Circle) INTACT BROKEN ABSENT

Requested Turnaround Time: _____

RUSH STD Date Needed _____

SGS North America Inc.

Sample Receipt Checklist (SRC)

Client: NCDOT-GEL

Work Order No.: 31103195

- 1. Shipped
 Hand Delivered
- 2. COC Present on Receipt
 No COC
 Additional Transmittal Forms
- 3. Custody Tape on Container
 No Custody Tape
- 4. Samples Intact
 Samples Broken / Leaking
- 5. Chilled on Receipt Actual Temp.(s) in °C: 2.7, 3.5
 Ambient on Receipt
 Walk-in on Ice; Coming down to temp.
 Received Outside of Temperature Specifications
- 6. Sufficient Sample Submitted
 Insufficient Sample Submitted
- 7. Chlorine absent
 HNO3 < 2
 HCL < 2
 Additional Preservatives verified (see notes)
- 8. Received Within Holding Time
 Not Received Within Holding Time
- 9. No Discrepancies Noted
 Discrepancies Noted
 NCDENR notified of Discrepancies*
- 10. No Headspace present in VOC vials
 Headspace present in VOC vials >6mm

Notes: _____

Comments: _____

Inspected and Logged in by: JJ
Date: Fri-11/11/11 00:00

APPENDIX VIII

Photographs



Photograph 1: View looking north at location of USTs #001 and #002 prior to removal.



Photograph 2: View looking north at UST #003 prior to removal.



Photograph 3: View looking north at former location of UST #001 prior to overexcavation.



Photograph 4: View looking west at stained soil in former location of UST #002 prior to overexcavation.



Photograph 5: View looking east at stained soil near bottom of east wall of UST #003 excavation.



Photograph 6: UST #001 (on right) and UST #002 (on left) loaded for offsite disposal.



Photograph 7: View of bottom of UST #002 showing staining from release.



Photograph 8: View of east end of UST #003 showing corrosion.



Photograph 9: View looking northeast at backfilled and compacted UST #001/#002 excavation.



Photograph 10: View looking northeast at backfilled and compacted UST #003 excavation.