# NSB POINT LAY KALI SCHOOL

# SITE CHARACTERIZATION REPORT ADDENDUM

# PHASE II

# FINAL

## FEBRUARY 2, 2016

Prepared for:

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Signature of Qualified Person Responsible for Interpreting and Reporting the Data:

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## ACRONYMS AND ABBREVIATIONS

AAC ..... Alaska Administrative Code
ADEC ..... Alaska Department of Environmental Conservation
Agviq ..... Agviq, Limited Liability Company
AK ..... Alaska Method
bgs ..... below ground surface
°C ..... degrees Celsius
COC ..... chain-of-custody record
COPC ..... constituents of potential concern
DL ..... detection limit
DQO ..... data quality objectives
DRO ..... diesel range organic compounds
°F ..... degrees Fahrenheit
GRO ..... gasoline range organic compounds
ID ..... identification
LCS ..... laboratory control sample
LCSD ..... laboratory control sample duplicate
LOD ..... Limit of Detection
LOQ ..... Limit of Quantitation
mg/kg ..... milligrams per kilogram
mg/L ..... milligrams per liter
MS/MSD ..... matrix spike/matrix spike duplicate
ND ..... not detected
NSB ..... North Slope Borough
PAH ..... polynuclear aromatic hydrocarbons
PPE ..... person protective equipment
ppm ..... parts per million
QA/QC ..... quality assurance/quality control
RPD ..... relative percent difference
RRO ..... residual range organic compounds
SGS ..... SGS Environmental Services, Inc.
SIM ..... selective ion monitoring
VOCs ..... volatile organic compounds

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## EXECUTIVE SUMMARY

This addendum to the 2014 Point Lay Kali School Site Characterization Report (2014. Agviq) describes the 2015 activities performed to further characterize two locations identified in 2014 (Point Lay village location shown on **Figure 1** and site location shown on **Figure 2**). Surface and subsurface soil samples were collected by Agviq, Limited Liability Company (Agviq) to establish boundary of the horizontal contamination at two locations shown on **Figure 3** per an Alaska Department of Environmental Conservation (ADEC) request. Information presented in the 2014 report will not be included in this addendum.

Site characterization activities included advancement of eight (8) soil borings (four [4] at each location), and collection of soil samples from two intervals within each soil boring.

The soil results were evaluated against two different ADEC methods depending on matrix/soil characteristics. The results in gravel were evaluated against the more conservative ADEC 18 AAC 75 Method One Arctic Zone cleanup levels because contamination is likely to migrate through the porous material. Results present in the organic native or mineral soil were compared to less conservative ADEC Method Two Arctic Zone cleanup criteria since this soil type is more likely to bind contamination and less likely to be released to groundwater or surface water and to migrate off-site.

Fuel constituents were present in some samples collected from the gravel layer but at concentrations below the following ADEC Method One Arctic Zone cleanup limits: gasoline range organic compounds (GRO) of 100 milligrams per kilogram (mg/kg), diesel range organic compounds (DRO) 200 mg/kg, and residual range organic compounds (RRO) 2,000 mg/kg in gravel. Fuel constituent concentrations in samples collected from the organic or native layer in the borings did not exceed the following ADEC Method Two Arctic Zone cleanup criteria: DRO 12,500 mg/kg and RRO 13,700 mg/kg.

Sample results confirm that contamination is not present in soil outside the boundaries of the previous site characterization performed in September 2014.

Analytical data shows that horizontal extend of contamination has been bounded by the placement of additional soil borings near the location of the following 2014 sampling points: MW-01 and PM-3. It is the recommendation of Agviq that no further action is needed at the Kali School, Point Lay, Alaska based on the 2014 and 2015 data.

# 1. INTRODUCTION

This addendum to the 2014 Site Characterization Report (Agviq.2014) describes the soil sampling activities conducted by Agviq, Limited Liability Company (Agviq) for the North Slope Borough (NSB) at the Point Lay Kali School (previously known as the Cully School) in May 2015. The information presented in the 2014 report will not be included in this addendum, only new information collected in 2015 will be presented.

The purpose of this second phase of the site characterization was to determine if contamination exists above the appropriate cleanup levels outside the boundary established by the previous characterization.

## 1.1. Project Objectives

The objective of this phase was to determine if soil data from previous site characterization defined the horizontal extent of contamination at two locations identified by the Alaska Department of Environmental Conservation (ADEC) Project Manager. This will be accomplished through the collection of soil samples from four (4) borings placed near MW-01 and four (4) borings placed near PM-3. Soil borings were placed approximately 50 feet from original soil borings.

## 1.2. Site History

During the 2014 Site Characterization soil borings were used to collect soil samples across the site at locations shown to be potentially contaminated due to fuel releases. Some of the soil borings were converted to monitoring wells to evaluate potential impact to groundwater. In addition, surface water samples were collected to evaluate offsite migration of contamination. The ADEC requested further characterization at two locations where data did not appear to define the boundary of the horizontal extent of fuel contamination. Data from the 2014 characterization showed soil contaminates at soil boring PM-3 exceeded Method 1 clean-up levels in porous soils at 1.8 feet bgs and contaminates exceeded Method 2 clean-up levels in non-porous soils at 3.5 feet bgs. At MW-01 groundwater exceedances were present, RRO was found to be 1.26 mg/L. **Table 1** presents the results in samples collected at two locations during the 2014 Site Characterization of the Kali School where concentrations exceeded ADEC cleanup levels. At the location of MW-01, both a soil boring and groundwater sample were collected as this boring was converted to a monitoring well. At the location of PM-3, only a soil sample was collected because this boring was not converted into a monitoring well.

**Table 1: Soil and Water Results Exceeding ADEC Cleanup Criteria from 2014 Site Characterization**

| Location of Sample | Analytical Results Above Cleanup Level | | |
|---|---|---|---|
| | **DRO** | **RRO** | **GRO** |
| **MW-01** | | | |
| Soil sample collected at depth of 4.6 feet | **68,600 mg/kg** | < ADEC CL | < ADEC CL |
| Groundwater sample collected from monitoring well | < ADEC CL | < ADEC CL | **1.26mg/L** |
| **PM-3** | | | |
| Soil sample collected at 3.5 feet | < ADEC CL | **15,200 mg/kg** | < ADEC CL |
| No monitoring well at this location | NA | NA | NA |

Notes:

ADEC CL – Applicable ADEC Cleanup Level

NA – Not applicable/Boring not converted into a groundwater monitoring well

### 1.3. Regulatory Framework

Work was performed in accordance with the following regulations and guidance:

- Title 18 of the Alaska Administrative Code (AAC) Chapter 75, *Oil and Other Hazardous Substances Pollution Control*, as revised 1 October 2014 (ADEC 2014)
- *Draft Field Sampling Guidance*, May 2010 (ADEC 2010a)

Results were evaluated against two different ADEC cleanup levels depending on matrix/soil characteristics. The results in gravel were evaluated against the more conservative ADEC 18 AAC 75 Method One Arctic Zone cleanup levels because contamination is likely to migrate through the porous material. Results present in the organic native or mineral soil were compared to less conservative ADEC Method Two Arctic Zone cleanup criteria since this soil type is more likely to bind contamination and less likely to be released to groundwater or surface water to migrate off-site.

### 1.4. Constituents of Potential Concern

The constituents of potential concern (COPC) for these two locations based on analytes previously detected during the 2014 Site Characterization and summarized **In Text Table 1** include GRO, DRO, and RRO. Applicable cleanup levels for COPCs in soils are presented in attached **Tables 1, 2, 3** and **4** as applied to the two soil matrix types. **Tables 1 and 2** present the

results for analytes detected in the both non-porous and porous samples and **Tables 3 and 4** provide all results to include non-detected values for non-porous and porous samples.

# 2. SITE CHARACTERIZATION ACTIVITIES

The initial site characterization was performed on September 16 and 24, 2014. The second phase of the site characterization was performed between May 10 and 11, 2015. Initial site characterization was performed in accordance with the ADEC-approved *NSB Point Lay Kali School Site Final Characterization Work Plan* (Agviq. 2014) and the second site characterization was performed according to the origin work plan and the *Work Plan Addendum* (Agviq. 2015).

**Appendix A** contains a copy of the field notes and borehole logs for this project and **Appendix B** contains the ADEC Checklist, Data Quality Review and chain-of-custody (COC).

## 2.1. Soil Analytical Sampling

Two soil samples were collected from each of the 8 soil borings placed approximately 50 feet from the original soil borings. The first sample from each soil boring was collected from the area with the highest Photoionization Detector (PID) reading; the second sample was collected from the active layer associated with the soil boring. A total of 16 discrete analytical soil samples were collected as shown in **Tables 1 and 2**. Quality assurance samples included one (1) field duplicate, one (1) matrix spike/matrix spike duplicates (MS/MSD) and one (1) trip blank sample. The duplicate sample was submitted blind to the project laboratory.

All samples were submitted for the following analyses:

- Gasoline Range Organic Compounds (GRO) by Alaska Method AK101
- Diesel Range Organic Compounds (DRO) by Alaska Method AK102
- Residual Range Organic Compounds (RRO) by Alaska Method AK103
- Volatile Organic Compounds by USEPA Method SW8260B
- Polynuclear Aromatic Hydrocarbons (PAHs) by modified USEPA Method SW8270D selective ion monitoring (SIM); One (1) sample collected for PAHs.

All samples were placed in a cooler with sufficient gel ice to keep sample temperatures at 4 degrees Celsius (°C) ±2 °C until delivery to the project laboratory under standard COC procedures. A copy of each COC is included with its corresponding laboratory analytical report in **Appendix B.**

## 2.2. Management of Investigation-Derived Waste

Investigation-derived waste (IDW) included personal protective equipment (PPE), disposable sampling materials, and soil cuttings from the soil core samples, Used PPE and disposable sampling equipment without visible oily residue were disposed at the Point Lay Landfill. Soil

borings were stored in labeled 5-gallon buckets; analytical data show the soil waste is non-hazardous; therefore, soil was placed in a super sack and staged in landfill with other fuel impacted soils from the removal action.

# 3. SITE CHARACTERIZATION RESULTS

Soil results for analytes detected in the samples collected during the 2015 Site Characterization are summarized in **Tables 1 and 2** for porous and nonporous matrices**.** All results are presented in **Tables 3 and 4** for both porous and nonporous matrices.

The soil sample locations are presented on **Figure 3;** because results did not exceed ADEC cleanup levels, results are only provided in **Tables 1 and 2** and not on **Figure 3**.

## 3.1. Analytical Laboratory Results

Benzene, toluene, GRO, DRO and RRO were detected in samples associated with MW-01 and DRO and RRO were detected in PM-3 associated samples. Samples collected in the vicinity of MW-01 and PM-3 during the second phase do not exceed Method One or Method Two Arctic Zone Criteria. Concentrations for these analytes as presented in **Tables 1 and 2**.

## 3.2. Soil Lithology

No changes in lithology were noted during the 2015 Site Characterization.

# 4. CONCEPTUAL SITE MODEL

No changes to Conceptual Site Model.

## 5. VARIANCES TO WORK PLAN.

There were no variances made during implementation of the work plan. The soil borings and monitoring wells were placed as identified in the work plan and on **Figure 3**.

# 6. QUALITY ASSURANCE REVIEW

Third party review of the data was performed by ARGON, Alaska (ARGON). ARGON also completed an ADEC Checklist for the individual data set reported by SGS Environmental Services (SGS). ARGON reported 100% completeness with none of the data considered rejected. Data supports the project data quality objectives. The ADEC Checklist and Data Quality Review Report are provided in **Appendix B**.

# 7. CONCLUSIONS AND RECOMMENDATIONS

Findings, conclusions, and recommendations related to the 2015 Kali School Phase II Site Characterization are presented below.

## 7.1. Findings

Results in soil samples analyzed for GRO, DRO, RRO, PAH and VOCs did not exceed ADEC Method One Arctic Zone cleanup levels or ADEC Method Two Arctic Zone cleanup levels.

## 7.2. Conclusions

The samples collected to define the boundary of contamination previously detected in the area of MW-03 and four (4) borings around PM-3 met the objective of this task. These sample results confirm contamination is not present beyond the perimeter of the soil borings at concentrations exceeding ADEC cleanup.

## 7.3. Recommendations

The task involved two small areas of concern. The boundary of the horizontal extent of the contamination at each area has been defined. Agviq does not recommend excavation of these small areas since offsite migration is not an issue and recommends no further action at Kali School.

If ADEC determines, additional groundwater monitoring is not required, the monitoring wells installed during the 2014 and 2015 site characterizations should be decommissioned.

# 8. REFERENCES

Alaska Department of Environmental Conservation (ADEC). 2014. 18 AAC 75, *Oil and Other Hazardous Substances Pollution Control* as revised 1 October 2014.

ADEC. 2010. *Draft Field Sampling Guidance.* May, 2010.

Agviq, Limited Liability Company (Agviq). 2014. *NSB Point Lay Kali School Site Final Characterization Work Plan.* May 2014.

Agviq. 2015. *NSB Point Lay Kali School, Second Phase Site Characterization Work Plan Addendum.* April 2015.

**FIGURE 1: SITE LOCATION MAP**

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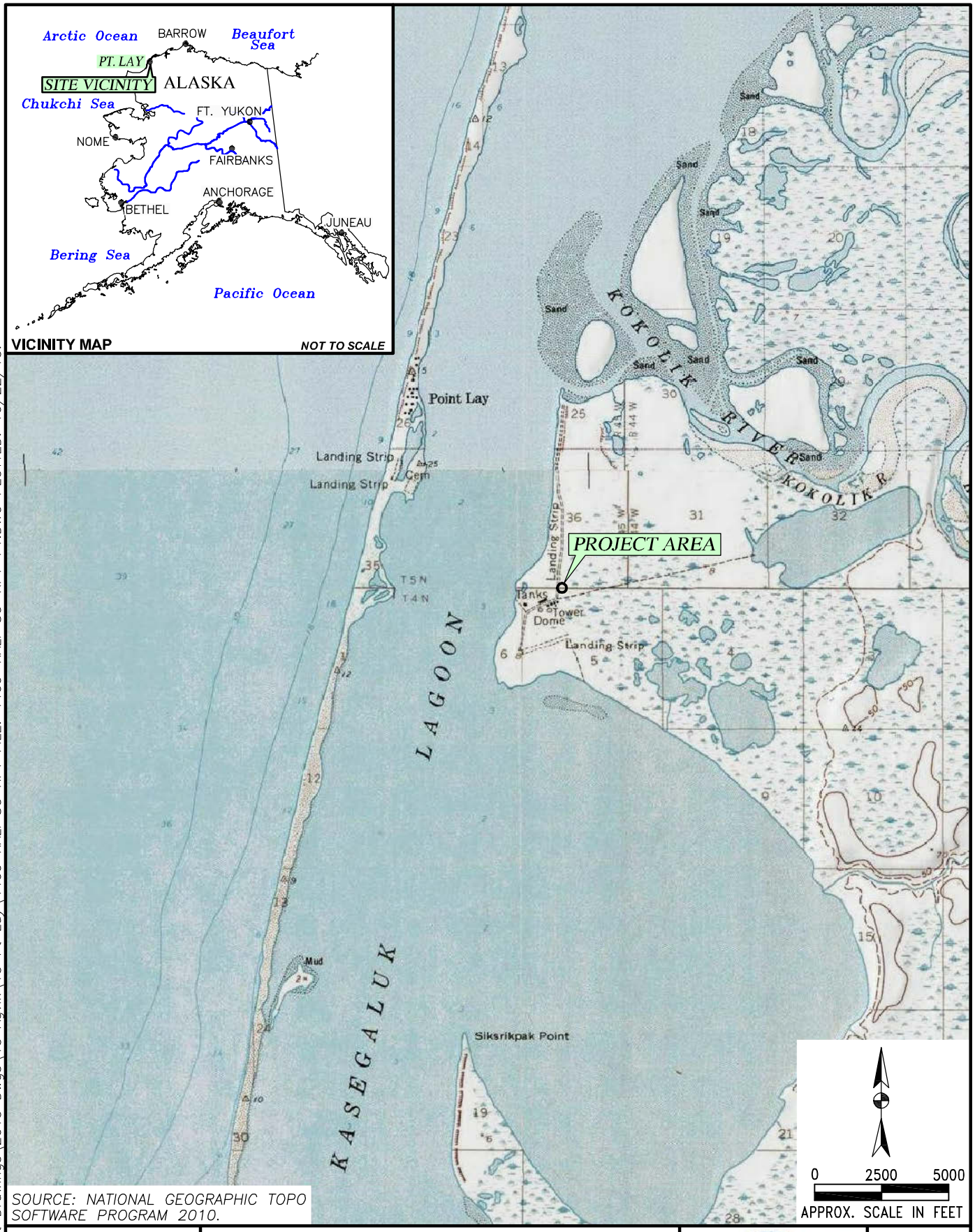


PATH: D:\Project Drawings\2015 Dwgs\15 Agvik\15 Pt Lay\4409 KALI SC RPT FILE: 4409-KALI-SC-RPT-F1.DWG PLOTTED: 10/22/15.

DATE: OCTOBER 2015
CHKD: G.M.B.
DRAWN: C.E.H.
PROJ. No.: 4409

# SITE LOCATION MAP

NSB POINT LAY
KALI SCHOOL
PHASE II SITE CHARACTERIZATION REPORT
Point Lay, Alaska

AGVIQ ENVIRONMENTAL SERVICES
301 W. Northern Lights Ave., Suite 660
Anchorage, Alaska 99503

FIGURE
1

**FIGURE 2: SITE MAP**

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SOURCE: GOOGLE EARTH PROFESSION PHOTO DATED 8/2006.

PATH: D:\Project Drawings\2015 Dwgs\15 Agvik\15 Pt Lay\4409 KALI SC RPT FILE: 4409-KALI-SC-RPT-F2.DWG PLOTTED: 10/22/15.

DATE: OCTOBER 2015
CHKD: G.M.B.
DRAWN: C.E.H.
PROJ. No.: 4409

# SITE MAP

NSB POINT LAY
KALI SCHOOL
PHASE II SITE CHARACTERIZATION REPORT
Point Lay, Alaska

AGVIQ ENVIRONMENTAL SERVICES
301 W. Northern Lights Ave., Suite 660
Anchorage, Alaska 99503

FIGURE
2

**FIGURE 3: SAMPLING LOCATIONS**

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DATE: AUUGUST 2015
CHKD: G.M.B.
DRAWN: C.E.H.
PROJ. No.: 4409

## SAMPLING LOCATIONS

NSB POINT LAY
KALI SCHOOL PHASE II SITE CHARACTERIZATION REPORT
Point Lay, Alaska

AGVIQ
301 W. Northern Lights Ave., Suite 660
Anchorage, Alaska 99503

FIGURE
3

**TABLE 1: NON-POROUS SOIL ANALYTICAL RESULTS DETECTED IN SAMPLES – GRO, DRO, RRO, VOCs AND PAHs**

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**TABLE 1 and 2: SOIL ANALYTICAL RESULTS DETECTED IN SAMPLES - LEGEND**
**NSB POINT LAY KALI SCHOOL PHASE II SITE CHARACTERIZATION (2015-087-4409)**
**POINT LAY, ALASKA**

**Notes:**

**Bolded light highlighted text indicates concentration is above the ADEC Method 1 Cleanup Level for Petroleum Hydrocarbons in Arctic Zone Soils.**

**Bolded dark highlighted text indicates concentration is above the ADEC Method 2 Lowest Cleanup Level in Arctic Zone Soils.**

**Acronyms:**

| | |
|---|---|
| ADEC | Alaska Department of Environmental Conservation |
| ADEC CL 1 | ADEC Method 1 Cleanup Level for Petroleum Hydrocarbons in Arctic Zone Soils |
| ADEC CL 2 | ADEC Method 2 Lowest Cleanup Level in Arctic Zone Soils |
| CAS | Chemical Abstracts Service |
| CL | Cleanup Level |
| FD | Field Duplicate |
| ft | Feet |
| IQ | Interpreted Qualifier |
| MDL | Method Detection Limit |
| mg/kg | milligram per kilogram |
| N | Normal / Primary |
| ND | Not Detected |
| NSB | North Slope Borough |
| PAH | Poly-cyclic Aromatic Hydrocarbons |
| PQL | Practical Quantitation Limit *(aka* LOQ - Limit of Quantitation) |
| SB | Soil Boring |
| SIM | Selective Ion Monitoring |
| SVOC | Semi-Volatile Organic Compound |
| VOC | Volatile Organic Compound |

**Interpreted Qualifiers:**

| | |
|---|---|
| J | The result is an estimation due to its quantitation level. |
| JD | The result is an estimation due to field duplicate imprecision. |
| JL | The result is an estimation due to laboratory control sample imprecision or inaccuracy. |
| JS | The result is an estimation due to surrogate inaccuracy. |

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# TABLE 1: NON-POROUS SOIL ANALYTICAL RESULTS DETECTED IN SAMPLES - GRO, DRO, RRO, VOCS, AND PAHS
## NSB POINT LAY KALI SCHOOL PHASE II SITE CHARACTERIZATION (2015-087-4409)
## POINT LAY, ALASKA

| All values reported in mg/kg. | | Location ID | SB-01 | | | | SB-02 | | | | SB-02 | | | | SB-04 | | | | SB-04 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Start Depth (ft) | 3 | | | | 0 | | | | 1 | | | | 0 | | | | 6 | | | |
| | | End Depth (ft) | 4 | | | | 1 | | | | 2 | | | | 1 | | | | 7 | | | |
| | | Sample ID | 15-PLK2-SO-01-3.0 | | | | 15-PLK2-SO-02-0.0 | | | | 15-PLK2-SO-02-1.0 | | | | 15-PLK2-SO-04-0.0 | | | | 15-PLK2-SO-04-6.0 | | | |
| | | Sample Type | N | | | | N | | | | N | | | | N | | | | N | | | |
| | | Sample Date | 5/10/2015 | | | | 5/10/2015 | | | | 5/10/2015 | | | | 5/10/2015 | | | | 5/10/2015 | | | |
| | | Parent Sample ID | | | | | | | | | | | | | | | | | | | | |
| | | Matrix | Soil: Non-porous | | | | Soil: Non-porous | | | | Soil: Non-porous | | | | Soil: Non-porous | | | | Soil: Non-porous | | | |
| Method | Chemical Name | CAS# | ADEC CL 2 | Result | MDL | PQL | IQ | Result | MDL | PQL | IQ | Result | MDL | PQL | IQ | Result | MDL | PQL | IQ | Result | MDL | PQL | IQ |
| AK101 | Gasoline Range Organics | GRO | 1400 | 4.64 | 1.19 | 3.97 | | | | | | | | | | 1.61 | 1.16 | 3.86 | J | | | | |
| AK102 | Diesel Range Organics | DRO | 12500 | 204 | 7.32 | 23.6 | | 719 | 63.8 | 206 | | 1310 | 95.1 | 307 | | 75.7 | 7.26 | 23.4 | | 84.2 | 8.11 | 26.2 | |
| AK103 | Residual Range Organics | RRO | 13700 | 334 | 7.32 | 23.6 | | 2900 | 63.8 | 206 | JS | 6320 | 95.1 | 307 | JS | 212 | 7.26 | 23.4 | | 231 | 8.11 | 26.2 | |
| SW8260B | 1,2,4-Trimethylbenzene | 95-63-6 | 49 | 0.144 | 0.0238 | 0.0793 | | | | | | | | | | | | | | | | | |
| SW8260B | 1,3,5-Trimethylbenzene | 108-67-8 | 42 | 0.107 | 0.0124 | 0.0397 | | | | | | | | | | | | | | | | | |
| SW8260B | 2-Butanone | 78-93-3 | 23300 | | | | | | | | | | | | | | | | | | | | |
| SW8260B | 4-Isopropyltoluene | 99-87-6 | | 0.0971 | 0.0124 | 0.0397 | | | | | | | | | | | | | | | | | |
| SW8260B | Benzene | 71-43-2 | 17 | 0.0171 | 0.00619 | 0.0198 | J | | | | | | | | | | | | | | | | |
| SW8260B | Bromobenzene | 108-86-1 | | 0.0440 | 0.0124 | 0.0397 | | | | | | | | | | | | | | | | | |
| SW8260B | Chlorobenzene | 108-90-7 | 200 | 0.0246 | 0.0124 | 0.0397 | J | | | | | | | | | | | | | | | | |
| SW8260B | Ethylbenzene | 100-41-4 | 110 | 0.0666 | 0.0124 | 0.0397 | | | | | | | | | | | | | | | | | |
| SW8260B | Freon 11 | 75-69-4 | 990 | 0.182 | 0.0238 | 0.0793 | JL | | | | | | | | | | | | | | | | |
| SW8260B | Freon 12 | 75-71-8 | 570 | 0.0480 | 0.0238 | 0.0793 | J | | | | | | | | | | | | | | | | |
| SW8260B | Isopropylbenzene (Cumene) | 98-82-8 | 62 | 0.0182 | 0.0124 | 0.0397 | J | | | | | | | | | | | | | | | | |
| SW8260B | m,p-Xylenes | 179601-23-1 | | 0.0940 | 0.0238 | 0.0793 | | | | | | | | | | | | | | | | | |
| SW8260B | Methyl chloride | 74-87-3 | 37 | 0.0496 | 0.0124 | 0.0397 | | | | | | 0.0851 | 0.0758 | 0.243 | J | | | | | | | | |
| SW8260B | Naphthalene | 91-20-3 | 42 | 0.192 | 0.0238 | 0.0793 | | | | | | | | | | 0.0336 | 0.0232 | 0.0773 | J | | | | |
| SW8260B | n-Butylbenzene | 104-51-8 | 42 | 0.0254 | 0.0124 | 0.0397 | J | | | | | | | | | | | | | | | | |
| SW8260B | n-Propylbenzene | 103-65-1 | 42 | 0.0254 | 0.0124 | 0.0397 | J | | | | | | | | | | | | | | | | |
| SW8260B | o-Xylene | 95-47-6 | | 0.0591 | 0.0124 | 0.0397 | | | | | | | | | | | | | | | | | |
| SW8260B | Toluene | 108-88-3 | 220 | 0.706 | 0.0124 | 0.0397 | | | | | | 1.03 | 0.0758 | 0.243 | | 0.0495 | 0.0121 | 0.0386 | | | | | |
| SW8260B | Xylenes | 1330-20-7 | 63 | 0.153 | 0.0362 | 0.119 | | | | | | | | | | | | | | | | | |
| SW8270D-SIM | 1-Methylnaphthalene | 90-12-0 | 380 | 0.46 | 0.00888 | 0.0296 | | | | | | | | | | | | | | | | | |
| SW8270D-SIM | 2-Methylnaphthalene | 91-57-6 | 380 | 0.436 | 0.00888 | 0.0296 | | | | | | | | | | | | | | | | | |
| SW8270D-SIM | Acenaphthene | 83-32-9 | 3800 | 0.0192 | 0.00888 | 0.0296 | J | | | | | | | | | | | | | | | | |
| SW8270D-SIM | Benzo(b)fluoranthene | 205-99-2 | 6.6 | | | | | | | | | | | | | | | | | | | | |
| SW8270D-SIM | Benzo(g,h,i)perylene | 191-24-2 | 1900 | | | | | | | | | | | | | | | | | | | | |
| SW8270D-SIM | Chrysene | 218-01-9 | 660 | 0.0130 | 0.00888 | 0.0296 | J | | | | | | | | | | | | | | | | |
| SW8270D-SIM | Fluorene | 86-73-7 | 3200 | 0.0193 | 0.00888 | 0.0296 | J | | | | | | | | | | | | | | | | |
| SW8270D-SIM | Naphthalene | 91-20-3 | 42 | 0.216 | 0.00888 | 0.0296 | | | | | | | | | | | | | | | | | |
| SW8270D-SIM | Phenanthrene | 85-01-8 | 27800 | 0.0668 | 0.00888 | 0.0296 | | | | | | | | | | | | | | | | | |
| SW8270D-SIM | Pyrene | 129-00-0 | 1900 | 0.00932 | 0.00888 | 0.0296 | J | | | | | | | | | | | | | | | | |

**TABLE 1: NON-POROUS SOIL ANALYTICAL RESULTS DETECTED IN SAMPLES - GRO, DRO, RRO, VOCS, AND PAHS**
**NSB POINT LAY KALI SCHOOL PHASE II SITE CHARACTERIZATION (2015-087-4409)**
**POINT LAY, ALASKA**

| All values reported in mg/kg. | | Location ID | | SB-05 | | | | SB-06 | | | | SB-07 | | | | SB-07 | | | | SB-07 | | | | SB-08 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Start Depth (ft) | | 3 | | | | 3.5 | | | | 1 | | | | 6 | | | | 6 | | | | 3 | | | |
| | | End Depth (ft) | | 4 | | | | 4.5 | | | | 2 | | | | 7 | | | | 7 | | | | 4 | | | |
| | | Sample ID | | 15-PLK2-SO-05-3.0 | | | | 15-PLK2-SO-06-3.5 | | | | 15-PLK2-SO-07-1.0 | | | | 15-PLK2-SBZ-02-6.0 | | | | 15-PLK2-SO-07-6.0 | | | | 15-PLK2-SO-08-3.0 | | | |
| | | Sample Type | | N | | | | N | | | | N | | | | FD | | | | N | | | | N | | | |
| | | Sample Date | | 5/10/2015 | | | | 5/10/2015 | | | | 5/10/2015 | | | | 5/10/2015 | | | | 5/10/2015 | | | | 5/10/2015 | | | |
| | | Parent Sample ID | | | | | | | | | | | | | | 15-PLK2-SO-07-6.0 | | | | | | | | | | | |
| | | Matrix | | Soil: Non-porous | | | | Soil: Non-porous | | | | Soil: Non-porous | | | | Soil: Non-porous | | | | Soil: Non-porous | | | | Soil: Non-porous | | | |
| Method | Chemical Name | CAS# | ADEC CL 2 | Result | MDL | PQL | IQ | Result | MDL | PQL | IQ | Result | MDL | PQL | IQ | Result | MDL | PQL | IQ | Result | MDL | PQL | IQ | Result | MDL | PQL | IQ |
| AK101 | Gasoline Range Organics | GRO | 1400 | | | | | 6.34 | 2.47 | 8.25 | J | 3.46 | 2.59 | 8.64 | JS | | | | | 3.11 | 2.75 | 9.17 | JS | | | | |
| AK102 | Diesel Range Organics | DRO | 12500 | 642 | 51.3 | 166 | | 399 | 43.5 | 140 | | 303 | 44.6 | 144 | | 143 | 11.0 | 35.6 | JD | 66.1 | 11.8 | 38.1 | JD | 311 | 28.5 | 91.8 | |
| AK103 | Residual Range Organics | RRO | 13700 | 3350 | 51.3 | 166 | JS | 1840 | 43.5 | 140 | JS | 1720 | 44.6 | 144 | JS | 703 | 11.0 | 35.6 | JD | 259 | 11.8 | 38.1 | JD | 1350 | 28.5 | 91.8 | JS |
| SW8260B | 1,2,4-Trimethylbenzene | 95-63-6 | 49 | 0.0809 | 0.0622 | 0.207 | J | | | | | | | | | | | | | | | | | | | | |
| SW8260B | 1,3,5-Trimethylbenzene | 108-67-8 | 42 | | | | | | | | | | | | | | | | | | | | | | | | |
| SW8260B | 2-Butanone | 78-93-3 | 23300 | | | | | | | | | | | | | 0.362 | 0.259 | 0.831 | J | 0.321 | 0.286 | 0.917 | J | | | | |
| SW8260B | 4-Isopropyltoluene | 99-87-6 | | | | | | | | | | | | | | | | | | | | | | | | | |
| SW8260B | Benzene | 71-43-2 | 17 | | | | | | | | | | | | | | | | | | | | | | | | |
| SW8260B | Bromobenzene | 108-86-1 | | | | | | | | | | | | | | | | | | | | | | | | | |
| SW8260B | Chlorobenzene | 108-90-7 | 200 | | | | | | | | | | | | | | | | | | | | | | | | |
| SW8260B | Ethylbenzene | 100-41-4 | 110 | | | | | | | | | | | | | | | | | | | | | | | | |
| SW8260B | Freon 11 | 75-69-4 | 990 | | | | | | | | | | | | | | | | | | | | | | | | |
| SW8260B | Freon 12 | 75-71-8 | 570 | | | | | | | | | | | | | | | | | | | | | | | | |
| SW8260B | Isopropylbenzene (Cumene) | 98-82-8 | 62 | | | | | | | | | | | | | | | | | | | | | | | | |
| SW8260B | m,p-Xylenes | 179601-23-1 | | 0.0819 | 0.0622 | 0.207 | J | | | | | | | | | | | | | | | | | | | | |
| SW8260B | Methyl chloride | 74-87-3 | 37 | | | | | | | | | | | | | | | | | | | | | | | | |
| SW8260B | Naphthalene | 91-20-3 | 42 | 0.0695 | 0.0622 | 0.207 | J | | | | | | | | | 0.0524 | 0.0499 | 0.166 | J | | | | | | | | |
| SW8260B | n-Butylbenzene | 104-51-8 | 42 | | | | | | | | | | | | | | | | | | | | | | | | |
| SW8260B | n-Propylbenzene | 103-65-1 | 42 | | | | | | | | | | | | | | | | | | | | | | | | |
| SW8260B | o-Xylene | 95-47-6 | | 0.0539 | 0.0324 | 0.104 | J | | | | | | | | | | | | | | | | | | | | |
| SW8260B | Toluene | 108-88-3 | 220 | | | | | | | | | | | | | | | | | | | | | | | | |
| SW8260B | Xylenes | 1330-20-7 | 63 | 0.136 | 0.0946 | 0.311 | J | | | | | | | | | | | | | | | | | | | | |
| SW8270D-SIM | 1-Methylnaphthalene | 90-12-0 | 380 | | | | | | | | | | | | | | | | | | | | | 0.0323 | 0.00292 | 0.00974 | |
| SW8270D-SIM | 2-Methylnaphthalene | 91-57-6 | 380 | | | | | | | | | | | | | | | | | | | | | 0.0385 | 0.00292 | 0.00974 | |
| SW8270D-SIM | Acenaphthene | 83-32-9 | 3800 | | | | | | | | | | | | | | | | | | | | | | | | |
| SW8270D-SIM | Benzo(b)fluoranthene | 205-99-2 | 6.6 | | | | | | | | | | | | | | | | | | | | | 0.00559 | 0.00292 | 0.00974 | J |
| SW8270D-SIM | Benzo(g,h,i)perylene | 191-24-2 | 1900 | | | | | | | | | | | | | | | | | | | | | 0.0752 | 0.00292 | 0.00974 | |
| SW8270D-SIM | Chrysene | 218-01-9 | 660 | | | | | | | | | | | | | | | | | | | | | 0.00823 | 0.00292 | 0.00974 | J |
| SW8270D-SIM | Fluorene | 86-73-7 | 3200 | | | | | | | | | | | | | | | | | | | | | 0.00360 | 0.00292 | 0.00974 | J |
| SW8270D-SIM | Naphthalene | 91-20-3 | 42 | | | | | | | | | | | | | | | | | | | | | 0.0187 | 0.00292 | 0.00974 | |
| SW8270D-SIM | Phenanthrene | 85-01-8 | 27800 | | | | | | | | | | | | | | | | | | | | | 0.0374 | 0.00292 | 0.00974 | |
| SW8270D-SIM | Pyrene | 129-00-0 | 1900 | | | | | | | | | | | | | | | | | | | | | | | | |

**TABLE 2: POROUS SOIL ANALYTICAL RESULTS DETECTED IN SAMPLES – GRO, DRO, RRO, VOCs AND PAHs**

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**TABLE 2: POROUS SOIL SAMPLE ANALYTICAL RESULTS DETECTED IN SAMPLES - GRO, DRO, RRO, VOCS, AND PAHS**
**NSB POINT LAY KALI SCHOOL PHASE II SITE CHARACTERIZATION (2015-087-4409)**
**POINT LAY, ALASKA**

| All values reported in mg/kg. | | | | | Location ID | SB-01 | | | | SB-03 | | | | SB-03 | | | | SB-05 | | | | SB-05 | | | | SB-08 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Start Depth (ft) | 1 | | | | 1 | | | | 2 | | | | 1 | | | | 1 | | | | 1 | | | |
| | | | | | End Depth (ft) | 2 | | | | 2 | | | | 3 | | | | 2 | | | | 2 | | | | 2 | | | |
| | | | | | Sample ID | 15-PLK2-SO-01-1.0 | | | | 15-PLK2-SO-03-1.0 | | | | 15-PLK2-SO-03-2.0 | | | | 15-PLK2-SBZ-01-1.0 | | | | 15-PLK2-SO-05-1.0 | | | | 15-PLK2-SO-08-1.0 | | | |
| | | | | | Sample Type | N | | | | N | | | | N | | | | FD | | | | N | | | | N | | | |
| | | | | | Sample Date | 5/10/2015 | | | | 5/10/2015 | | | | 5/10/2015 | | | | 5/10/2015 | | | | 5/10/2015 | | | | 5/10/2015 | | | |
| | | | | | Parent Sample ID | | | | | | | | | | | | | 15-PLK2-SO-05-1.0 | | | | | | | | | | | | |
| | | | | | Matrix | Soil: Porous | | | | Soil: Porous | | | | Soil: Porous | | | | Soil: Porous | | | | Soil: Porous | | | | Soil: Porous | | | |
| Method | Chemical Name | CAS# | ADEC CL 1 | ADEC CL 2 | Result | MDL | PQL | IQ | Result | MDL | PQL | IQ | Result | MDL | PQL | IQ | Result | MDL | PQL | IQ | Result | MDL | PQL | IQ | Result | MDL | PQL | IQ |
| AK101 | Gasoline Range Organics | GRO | 100 | | 2.24 | 0.866 | 2.89 | J | 1.59 | 0.886 | 2.95 | J | 2.16 | 0.945 | 3.15 | J | 1.83 | 1.02 | 3.39 | J | 1.21 | 0.968 | 3.23 | J | | | | |
| AK102 | Diesel Range Organics | DRO | 200 | | | | | | | | | | | | | | | | | | | | | | 78.2 | 7.37 | 23.8 | |
| AK103 | Residual Range Organics | RRO | 2000 | | | | | | | | | | 96.7 | 6.65 | 21.4 | | | | | | | | | | 394 | 7.37 | 23.8 | |
| SW8260B | 1,2,4-Trimethylbenzene | 95-63-6 | | 49 | 0.0292 | 0.0173 | 0.0578 | J | 0.0600 | 0.0177 | 0.0591 | | 0.0391 | 0.0189 | 0.0630 | J | 0.0234 | 0.0203 | 0.0678 | J | 0.0300 | 0.0194 | 0.0646 | J | 0.0286 | 0.0245 | 0.0817 | J |
| SW8260B | 1,3,5-Trimethylbenzene | 108-67-8 | | 42 | 0.0196 | 0.00901 | 0.0289 | J | 0.0316 | 0.00922 | 0.0295 | | 0.0224 | 0.00983 | 0.0315 | J | 0.0159 | 0.0106 | 0.0339 | J | 0.0145 | 0.0101 | 0.0323 | J | | | | |
| SW8260B | Benzene | 71-43-2 | | 17 | 0.00982 | 0.00451 | 0.0144 | J | 0.00738 | 0.00461 | 0.0148 | J | 0.0107 | 0.00492 | 0.0158 | J | 0.00542 | 0.00529 | 0.0170 | J | | | | | | | | |
| SW8260B | m,p-Xylenes | 179601-23-1 | | | 0.0618 | 0.0173 | 0.0578 | | 0.0614 | 0.0177 | 0.0591 | | 0.0772 | 0.0189 | 0.0630 | | 0.0424 | 0.0203 | 0.0678 | J | 0.0423 | 0.0194 | 0.0646 | J | | | | |
| SW8260B | Naphthalene | 91-20-3 | | 42 | 0.0592 | 0.0173 | 0.0578 | | 0.191 | 0.0177 | 0.0591 | | 0.104 | 0.0189 | 0.0630 | | 0.0583 | 0.0203 | 0.0678 | JD | 0.107 | 0.0194 | 0.0646 | JD | 0.0343 | 0.0245 | 0.0817 | J |
| SW8260B | n-Butylbenzene | 104-51-8 | | 42 | | | | | 0.0133 | 0.00922 | 0.0295 | J | | | | | | | | | | | | | | | | |
| SW8260B | o-Xylene | 95-47-6 | | | 0.0300 | 0.00901 | 0.0289 | | 0.0239 | 0.00922 | 0.0295 | J | 0.0394 | 0.00983 | 0.0315 | | 0.0210 | 0.0106 | 0.0339 | J | 0.0223 | 0.0101 | 0.0323 | J | | | | |
| SW8260B | Toluene | 108-88-3 | | 220 | 0.0341 | 0.00901 | 0.0289 | | 0.0245 | 0.00922 | 0.0295 | J | 0.0366 | 0.00983 | 0.0315 | | 0.0451 | 0.0106 | 0.0339 | | 0.0313 | 0.0101 | 0.0323 | J | 0.0282 | 0.0127 | 0.0408 | J |
| SW8260B | Xylenes | 1330-20-7 | | 63 | 0.0918 | 0.0263 | 0.0866 | | 0.0854 | 0.0269 | 0.0886 | J | 0.117 | 0.0287 | 0.0945 | | 0.0634 | 0.0309 | 0.102 | J | 0.0646 | 0.0294 | 0.0968 | J | | | | |
| SW8270D-SIM | 1-Methylnaphthalene | 90-12-0 | | 380 | | | | | | | | | | | | | 0.0212 | 0.00167 | 0.00555 | | 0.0234 | 0.00166 | 0.00553 | | | | | |
| SW8270D-SIM | 2-Methylnaphthalene | 91-57-6 | | 380 | | | | | | | | | | | | | 0.0266 | 0.00167 | 0.00555 | | 0.0287 | 0.00166 | 0.00553 | | | | | |
| SW8270D-SIM | Benzo(a)anthracene | 56-55-3 | | 6.6 | | | | | | | | | | | | | 0.00218 | 0.00167 | 0.00555 | J | 0.00245 | 0.00166 | 0.00553 | J | | | | |
| SW8270D-SIM | Benzo(b)fluoranthene | 205-99-2 | | 6.6 | | | | | | | | | | | | | 0.00266 | 0.00167 | 0.00555 | J | 0.00303 | 0.00166 | 0.00553 | J | | | | |
| SW8270D-SIM | Chrysene | 218-01-9 | | 660 | | | | | | | | | | | | | 0.00550 | 0.00167 | 0.00555 | J | 0.00615 | 0.00166 | 0.00553 | | | | | |
| SW8270D-SIM | Fluoranthene | 206-44-0 | | 2500 | | | | | | | | | | | | | 0.00436 | 0.00167 | 0.00555 | J | 0.00480 | 0.00166 | 0.00553 | J | | | | |
| SW8270D-SIM | Naphthalene | 91-20-3 | | 42 | | | | | | | | | | | | | 0.0190 | 0.00167 | 0.00555 | | 0.0203 | 0.00166 | 0.00553 | | | | | |
| SW8270D-SIM | Phenanthrene | 85-01-8 | | 27800 | | | | | | | | | | | | | 0.0205 | 0.00167 | 0.00555 | | 0.0198 | 0.00166 | 0.00553 | | | | | |
| SW8270D-SIM | Pyrene | 129-00-0 | | 1900 | | | | | | | | | | | | | 0.00500 | 0.00167 | 0.00555 | J | 0.00551 | 0.00166 | 0.00553 | J | | | | |

**TABLE 3: NON-POROUS SOIL ALL ANALYTICAL RESULTS – GRO, DRO, RRO, VOCs AND PAHs**

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**TABLE 3 and 4: SOIL ALL ANALYTICAL RESULTS - LEGEND**
**NSB POINT LAY KALI SCHOOL PHASE II SITE CHARACTERIZATION (2015-087-4409)**
**POINT LAY, ALASKA**

**Notes:**

**Bolded light highlighted text indicates concentration is above the ADEC Method 1 Cleanup Level for Petroleum Hydrocarbons in Arctic Zone Soils.**

**Bolded dark highlighted text indicates concentration is above the ADEC Method 2 Lowest Cleanup Level in Arctic Zone Soils.**

**Acronyms:**

| | |
|---|---|
| ADEC | Alaska Department of Environmental Conservation |
| ADEC CL 1 | ADEC Method 1 Cleanup Level for Petroleum Hydrocarbons in Arctic Zone Soils |
| ADEC CL 2 | ADEC Method 2 Lowest Cleanup Level in Arctic Zone Soils |
| CAS | Chemical Abstracts Service |
| CL | Cleanup Level |
| FD | Field Duplicate |
| ft | Feet |
| IQ | Interpreted Qualifier |
| MDL | Method Detection Limit |
| mg/kg | milligram per kilogram |
| N | Normal / Primary |
| ND | Not Detected |
| NSB | North Slope Borough |
| PAH | Poly-cyclic Aromatic Hydrocarbons |
| PQL | Practical Quantitation Limit *(aka* LOQ - Limit of Quantitation) |
| SB | Soil Boring |
| SIM | Selective Ion Monitoring |
| SVOC | Semi-Volatile Organic Compound |
| VOC | Volatile Organic Compound |

**Interpreted Qualifiers:**

| | |
|---|---|
| J | The result is an estimation due to its quantitation level. |
| JD | The result is an estimation due to field duplicate imprecision. |
| JL | The result is an estimation due to laboratory control sample imprecision or inaccuracy. |
| JS | The result is an estimation due to surrogate inaccuracy. |
| UB | The result is considered not detected at an elevated PQL due to blank contamination. |
| UJ | The result was not detected and the quantitation level is considered an estimation. |

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# TABLE 3: NON-POROUS SOIL ALL ANALYTICAL RESULTS - GRO, DRO, RRO, VOCS, AND PAHS
## NSB POINT LAY KALI SCHOOL PHASE II SITE CHARACTERIZATION (2015-087-4409)
## POINT LAY, ALASKA

| All values reported in mg/kg. | | Location ID | | SB-01 | | | | SB-02 | | | | SB-02 | | | | SB-04 | | | | SB-04 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Start Depth (ft) | | 3 | | | | 0 | | | | 1 | | | | 0 | | | | 6 | | | |
| | | End Depth (ft) | | 4 | | | | 1 | | | | 2 | | | | 1 | | | | 7 | | | |
| | | Sample ID | | 15-PLK2-SO-01-3.0 | | | | 15-PLK2-SO-02-0.0 | | | | 15-PLK2-SO-02-1.0 | | | | 15-PLK2-SO-04-0.0 | | | | 15-PLK2-SO-04-6.0 | | | |
| | | Sample Type | | N | | | | N | | | | N | | | | N | | | | N | | | |
| | | Sample Date | | 5/10/2015 | | | | 5/10/2015 | | | | 5/10/2015 | | | | 5/10/2015 | | | | 5/10/2015 | | | |
| | | Parent Sample ID | | | | | | | | | | | | | | | | | | | | | |
| | | Matrix | | Soil: Non-porous | | | | Soil: Non-porous | | | | Soil: Non-porous | | | | Soil: Non-porous | | | | Soil: Non-porous | | | |
| Method | Chemical Name | CAS# | ADEC CL 2 | Result | MDL | PQL | IQ | Result | MDL | PQL | IQ | Result | MDL | PQL | IQ | Result | MDL | PQL | IQ | Result | MDL | PQL | IQ |
| AK101 | Gasoline Range Organics | GRO | 1400 | 4.64 | 1.19 | 3.97 | | ND | 4.46 | 14.9 | UJ | ND | 7.29 | 24.3 | UJ | 1.61 | 1.16 | 3.86 | J | ND | 1.48 | 4.93 | |
| AK102 | Diesel Range Organics | DRO | 12500 | 204 | 7.32 | 23.6 | | 719 | 63.8 | 206 | | 1310 | 95.1 | 307 | | 75.7 | 7.26 | 23.4 | | 84.2 | 8.11 | 26.2 | |
| AK103 | Residual Range Organics | RRO | 13700 | 334 | 7.32 | 23.6 | | 2900 | 63.8 | 206 | JS | 6320 | 95.1 | 307 | JS | 212 | 7.26 | 23.4 | | 231 | 8.11 | 26.2 | |
| SW8260B | 1,1,1,2-Tetrachloroethane | 630-20-6 | | ND | 0.0124 | 0.0397 | | ND | 0.0464 | 0.149 | | ND | 0.0758 | 0.243 | | ND | 0.0121 | 0.0386 | | ND | 0.0154 | 0.0493 | |
| SW8260B | 1,1,1-Trichloroethane | 71-55-6 | 360 | ND | 0.0124 | 0.0397 | | ND | 0.0464 | 0.149 | | ND | 0.0758 | 0.243 | | ND | 0.0121 | 0.0386 | | ND | 0.0154 | 0.0493 | |
| SW8260B | 1,1,2,2-Tetrachloroethane | 79-34-5 | 8.1 | ND | 0.00619 | 0.0198 | | ND | 0.0232 | 0.0744 | | ND | 0.0379 | 0.122 | | ND | 0.00603 | 0.0193 | | ND | 0.00769 | 0.0247 | |
| SW8260B | 1,1,2-Trichloroethane | 79-00-5 | 17 | ND | 0.0124 | 0.0397 | | ND | 0.0464 | 0.149 | | ND | 0.0758 | 0.243 | | ND | 0.0121 | 0.0386 | | ND | 0.0154 | 0.0493 | |
| SW8260B | 1,1-Dichloroethane | 75-34-3 | 900 | ND | 0.0124 | 0.0397 | | ND | 0.0464 | 0.149 | | ND | 0.0758 | 0.243 | | ND | 0.0121 | 0.0386 | | ND | 0.0154 | 0.0493 | |
| SW8260B | 1,1-Dichloroethene | 75-35-4 | 1.3 | ND | 0.0124 | 0.0397 | | ND | 0.0464 | 0.149 | | ND | 0.0758 | 0.243 | | ND | 0.0121 | 0.0386 | | ND | 0.0154 | 0.0493 | |
| SW8260B | 1,1-Dichloropropene | 563-58-6 | | ND | 0.0124 | 0.0397 | | ND | 0.0464 | 0.149 | | ND | 0.0758 | 0.243 | | ND | 0.0121 | 0.0386 | | ND | 0.0154 | 0.0493 | |
| SW8260B | 1,2,3-Trichlorobenzene | 87-61-6 | | ND | 0.0238 | 0.0793 | | ND | 0.0892 | 0.297 | | ND | 0.146 | 0.486 | | ND | 0.0232 | 0.0773 | | ND | 0.0296 | 0.0986 | |
| SW8260B | 1,2,3-Trichloropropane | 96-18-4 | 0.26 | ND | 0.0124 | 0.0397 | | ND | 0.0464 | 0.149 | | ND | 0.0758 | 0.243 | | ND | 0.0121 | 0.0386 | | ND | 0.0154 | 0.0493 | |
| SW8260B | 1,2,4-Trichlorobenzene | 120-82-1 | 41 | ND | 0.0124 | 0.0397 | | ND | 0.0464 | 0.149 | | ND | 0.0758 | 0.243 | | ND | 0.0121 | 0.0386 | | ND | 0.0154 | 0.0493 | |
| SW8260B | 1,2,4-Trimethylbenzene | 95-63-6 | 49 | 0.144 | 0.0238 | 0.0793 | | ND | 0.0892 | 0.297 | | ND | 0.146 | 0.486 | | ND | 0.0232 | 0.0773 | | ND | 0.0296 | 0.0986 | |
| SW8260B | 1,2-Dibromo-3-chloropropane | 96-12-8 | | ND | 0.0492 | 0.159 | | ND | 0.184 | 0.595 | | ND | 0.301 | 0.972 | | ND | 0.0479 | 0.155 | | ND | 0.0612 | 0.197 | |
| SW8260B | 1,2-Dichlorobenzene | 95-50-1 | 45 | ND | 0.0124 | 0.0397 | | ND | 0.0464 | 0.149 | | ND | 0.0758 | 0.243 | | ND | 0.0121 | 0.0386 | | ND | 0.0154 | 0.0493 | |
| SW8260B | 1,2-Dichloroethane | 107-06-2 | 7.1 | ND | 0.0124 | 0.0397 | | ND | 0.0464 | 0.149 | | ND | 0.0758 | 0.243 | | ND | 0.0121 | 0.0386 | | ND | 0.0154 | 0.0493 | |
| SW8260B | 1,2-Dichloropropane | 78-87-5 | 7.9 | ND | 0.0124 | 0.0397 | | ND | 0.0464 | 0.149 | | ND | 0.0758 | 0.243 | | ND | 0.0121 | 0.0386 | | ND | 0.0154 | 0.0493 | |
| SW8260B | 1,3,5-Trimethylbenzene | 108-67-8 | 42 | 0.107 | 0.0124 | 0.0397 | | ND | 0.0464 | 0.149 | | ND | 0.0758 | 0.243 | | ND | 0.0121 | 0.0386 | | ND | 0.0154 | 0.0493 | |
| SW8260B | 1,3-Dichlorobenzene | 541-73-1 | 69 | ND | 0.0124 | 0.0397 | | ND | 0.0464 | 0.149 | | ND | 0.0758 | 0.243 | | ND | 0.0121 | 0.0386 | | ND | 0.0154 | 0.0493 | |
| SW8260B | 1,3-Dichloropropane | 142-28-9 | | ND | 0.0124 | 0.0397 | | ND | 0.0464 | 0.149 | | ND | 0.0758 | 0.243 | | ND | 0.0121 | 0.0386 | | ND | 0.0154 | 0.0493 | |
| SW8260B | 1,4-Dichlorobenzene | 106-46-7 | 44 | ND | 0.0124 | 0.0397 | | ND | 0.0464 | 0.149 | | ND | 0.0758 | 0.243 | | ND | 0.0121 | 0.0386 | | ND | 0.0154 | 0.0493 | |
| SW8260B | 2,2-Dichloropropane | 594-20-7 | | ND | 0.0124 | 0.0397 | | ND | 0.0464 | 0.149 | | ND | 0.0758 | 0.243 | | ND | 0.0121 | 0.0386 | | ND | 0.0154 | 0.0493 | |
| SW8260B | 2-Butanone | 78-93-3 | 23300 | ND | 0.124 | 0.397 | | ND | 0.464 | 1.49 | | ND | 0.758 | 2.43 | | ND | 0.121 | 0.386 | | ND | 0.154 | 0.493 | |
| SW8260B | 2-Hexanone | 591-78-6 | | ND | 0.124 | 0.397 | | ND | 0.464 | 1.49 | | ND | 0.758 | 2.43 | | ND | 0.121 | 0.386 | | ND | 0.154 | 0.493 | |
| SW8260B | 4-Chlorotoluene | 106-43-4 | | ND | 0.0124 | 0.0397 | | ND | 0.0464 | 0.149 | | ND | 0.0758 | 0.243 | | ND | 0.0121 | 0.0386 | | ND | 0.0154 | 0.0493 | |
| SW8260B | 4-Isopropyltoluene | 99-87-6 | | 0.0971 | 0.0124 | 0.0397 | | ND | 0.0464 | 0.149 | | ND | 0.0758 | 0.243 | | ND | 0.0121 | 0.0386 | | ND | 0.0154 | 0.0493 | |
| SW8260B | 4-Methyl-2-pentanone | 108-10-1 | 2100 | ND | 0.124 | 0.397 | | ND | 0.464 | 1.49 | | ND | 0.758 | 2.43 | | ND | 0.121 | 0.386 | | ND | 0.154 | 0.493 | |
| SW8260B | Benzene | 71-43-2 | 17 | 0.0171 | 0.00619 | 0.0198 | J | ND | 0.0232 | 0.0744 | | ND | 0.0379 | 0.122 | | ND | 0.00603 | 0.0193 | | ND | 0.00769 | 0.0247 | |
| SW8260B | Bromobenzene | 108-86-1 | | 0.0440 | 0.0124 | 0.0397 | | ND | 0.0464 | 0.149 | | ND | 0.0758 | 0.243 | | ND | 0.0121 | 0.0386 | | ND | 0.0154 | 0.0493 | |
| SW8260B | Bromodichloromethane | 75-27-4 | 15 | ND | 0.0124 | 0.0397 | | ND | 0.0464 | 0.149 | | ND | 0.0758 | 0.243 | | ND | 0.0121 | 0.0386 | | ND | 0.0154 | 0.0493 | |
| SW8260B | Bromoform | 75-25-2 | 430 | ND | 0.0124 | 0.0397 | | ND | 0.0464 | 0.149 | | ND | 0.0758 | 0.243 | | ND | 0.0121 | 0.0386 | | ND | 0.0154 | 0.0493 | |
| SW8260B | Carbon disulfide | 75-15-0 | 250 | ND | 0.0492 | 0.159 | | ND | 0.184 | 0.595 | | ND | 0.301 | 0.972 | | ND | 0.0479 | 0.155 | | ND | 0.0612 | 0.197 | |
| SW8260B | Carbon tetrachloride | 56-23-5 | 4.5 | ND | 0.00619 | 0.0198 | | ND | 0.0232 | 0.0744 | | ND | 0.0379 | 0.122 | | ND | 0.00603 | 0.0193 | | ND | 0.00769 | 0.0247 | |
| SW8260B | Chlorobenzene | 108-90-7 | 200 | 0.0246 | 0.0124 | 0.0397 | J | ND | 0.0464 | 0.149 | | ND | 0.0758 | 0.243 | | ND | 0.0121 | 0.0386 | | ND | 0.0154 | 0.0493 | |
| SW8260B | Chlorobromomethane | 74-97-5 | | ND | 0.0124 | 0.0397 | | ND | 0.0464 | 0.149 | | ND | 0.0758 | 0.243 | | ND | 0.0121 | 0.0386 | | ND | 0.0154 | 0.0493 | |
| SW8260B | Chloroethane | 75-00-3 | 34 | ND | 0.0983 | 0.317 | | ND | 0.369 | 1.19 | | ND | 0.603 | 1.94 | | ND | 0.0958 | 0.309 | | ND | 0.122 | 0.395 | |
| SW8260B | Chloroform | 67-66-3 | 4.7 | ND | 0.0124 | 0.0397 | | ND | 0.0464 | 0.149 | | ND | 0.0758 | 0.243 | | ND | 0.0121 | 0.0386 | | ND | 0.0154 | 0.0493 | |
| SW8260B | cis-1,2-Dichloroethene | 156-59-2 | 190 | ND | 0.0124 | 0.0397 | | ND | 0.0464 | 0.149 | | ND | 0.0758 | 0.243 | | ND | 0.0121 | 0.0386 | | ND | 0.0154 | 0.0493 | |
| SW8260B | cis-1,3-Dichloropropene | 10061-01-5 | | ND | 0.0124 | 0.0397 | | ND | 0.0464 | 0.149 | | ND | 0.0758 | 0.243 | | ND | 0.0121 | 0.0386 | | ND | 0.0154 | 0.0493 | |
| SW8260B | Dibromochloromethane | 124-48-1 | 21 | ND | 0.0124 | 0.0397 | | ND | 0.0464 | 0.149 | | ND | 0.0758 | 0.243 | | ND | 0.0121 | 0.0386 | | ND | 0.0154 | 0.0493 | |
| SW8260B | Dibromomethane | 74-95-3 | 560 | ND | 0.0124 | 0.0397 | | ND | 0.0464 | 0.149 | | ND | 0.0758 | 0.243 | | ND | 0.0121 | 0.0386 | | ND | 0.0154 | 0.0493 | |
| SW8260B | Ethylbenzene | 100-41-4 | 110 | 0.0666 | 0.0124 | 0.0397 | | ND | 0.0464 | 0.149 | | ND | 0.0758 | 0.243 | | ND | 0.0121 | 0.0386 | | ND | 0.0154 | 0.0493 | |
| SW8260B | Ethylene dibromide | 106-93-4 | 0.89 | ND | 0.0124 | 0.0397 | | ND | 0.0464 | 0.149 | | ND | 0.0758 | 0.243 | | ND | 0.0121 | 0.0386 | | ND | 0.0154 | 0.0493 | |

# TABLE 3: NON-POROUS SOIL ALL ANALYTICAL RESULTS - GRO, DRO, RRO, VOCS, AND PAHS
## NSB POINT LAY KALI SCHOOL PHASE II SITE CHARACTERIZATION (2015-087-4409)
## POINT LAY, ALASKA

| All values reported in mg/kg. | | Location ID | | SB-01 | | | | SB-02 | | | | SB-02 | | | | SB-04 | | | | SB-04 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Start Depth (ft) | | 3 | | | | 0 | | | | 1 | | | | 0 | | | | 6 | | | |
| | | End Depth (ft) | | 4 | | | | 1 | | | | 2 | | | | 1 | | | | 7 | | | |
| | | Sample ID | | 15-PLK2-SO-01-3.0 | | | | 15-PLK2-SO-02-0.0 | | | | 15-PLK2-SO-02-1.0 | | | | 15-PLK2-SO-04-0.0 | | | | 15-PLK2-SO-04-6.0 | | | |
| | | Sample Type | | N | | | | N | | | | N | | | | N | | | | N | | | |
| | | Sample Date | | 5/10/2015 | | | | 5/10/2015 | | | | 5/10/2015 | | | | 5/10/2015 | | | | 5/10/2015 | | | |
| | | Parent Sample ID | | | | | | | | | | | | | | | | | | | | | |
| | | Matrix | | Soil: Non-porous | | | | Soil: Non-porous | | | | Soil: Non-porous | | | | Soil: Non-porous | | | | Soil: Non-porous | | | |
| Method | Chemical Name | CAS# | ADEC CL 2 | Result | MDL | PQL | IQ | Result | MDL | PQL | IQ | Result | MDL | PQL | IQ | Result | MDL | PQL | IQ | Result | MDL | PQL | IQ |
| SW8260B | Freon 11 | 75-69-4 | 990 | 0.182 | 0.0238 | 0.0793 | JL | ND | 0.0892 | 0.297 | | ND | 0.146 | 0.486 | | ND | 0.0232 | 0.0773 | | ND | 0.0296 | 0.0986 | |
| SW8260B | Freon 12 | 75-71-8 | 570 | 0.0480 | 0.0238 | 0.0793 | J | ND | 0.0892 | 0.297 | | ND | 0.146 | 0.486 | | ND | 0.0232 | 0.0773 | | ND | 0.0296 | 0.0986 | |
| SW8260B | Hexachlorobutadiene | 87-68-3 | 3.8 | ND | 0.0238 | 0.0793 | | ND | 0.0892 | 0.297 | | ND | 0.146 | 0.486 | | ND | 0.0232 | 0.0773 | | ND | 0.0296 | 0.0986 | |
| SW8260B | Isopropylbenzene (Cumene) | 98-82-8 | 62 | 0.0182 | 0.0124 | 0.0397 | J | ND | 0.0464 | 0.149 | | ND | 0.0758 | 0.243 | | ND | 0.0121 | 0.0386 | | ND | 0.0154 | 0.0493 | |
| SW8260B | m,p-Xylenes | 179601-23-1 | | 0.0940 | 0.0238 | 0.0793 | | ND | 0.0892 | 0.297 | | ND | 0.146 | 0.486 | | ND | 0.0232 | 0.0773 | | ND | 0.0296 | 0.0986 | |
| SW8260B | Methyl bromide | 74-83-9 | 21 | ND | 0.0983 | 0.317 | | ND | 0.369 | 1.19 | | ND | 0.603 | 1.94 | | ND | 0.0958 | 0.309 | | ND | 0.122 | 0.395 | |
| SW8260B | Methyl chloride | 74-87-3 | 37 | 0.0496 | 0.0124 | 0.0397 | | ND | 0.0464 | 0.149 | | 0.0851 | 0.0758 | 0.243 | J | ND | 0.0121 | 0.0386 | | ND | 0.0154 | 0.0493 | |
| SW8260B | Methyl tert-butyl ether | 1634-04-4 | 440 | ND | 0.0492 | 0.159 | | ND | 0.184 | 0.595 | | ND | 0.301 | 0.972 | | ND | 0.0479 | 0.155 | | ND | 0.0612 | 0.197 | |
| SW8260B | Methylene chloride | 75-09-2 | 240 | ND | 0.0492 | 0.159 | | ND | 0.184 | 0.595 | | ND | 0.301 | 0.972 | | ND | 0.0479 | 0.155 | | ND | 0.0612 | 0.197 | |
| SW8260B | Naphthalene | 91-20-3 | 42 | 0.192 | 0.0238 | 0.0793 | | ND | 0.0892 | 0.297 | | ND | 0.146 | 0.486 | | 0.0336 | 0.0232 | 0.0773 | J | ND | 0.0296 | 0.0986 | |
| SW8260B | n-Butylbenzene | 104-51-8 | 42 | 0.0254 | 0.0124 | 0.0397 | J | ND | 0.0464 | 0.149 | | ND | 0.0758 | 0.243 | | ND | 0.0121 | 0.0386 | | ND | 0.0154 | 0.0493 | |
| SW8260B | n-Propylbenzene | 103-65-1 | 42 | 0.0254 | 0.0124 | 0.0397 | J | ND | 0.0464 | 0.149 | | ND | 0.0758 | 0.243 | | ND | 0.0121 | 0.0386 | | ND | 0.0154 | 0.0493 | |
| SW8260B | o-Chlorotoluene (2-chlorotoluene) | 95-49-8 | | ND | 0.0124 | 0.0397 | | ND | 0.0464 | 0.149 | | ND | 0.0758 | 0.243 | | ND | 0.0121 | 0.0386 | | ND | 0.0154 | 0.0493 | |
| SW8260B | o-Xylene | 95-47-6 | | 0.0591 | 0.0124 | 0.0397 | | ND | 0.0464 | 0.149 | | ND | 0.0758 | 0.243 | | ND | 0.0121 | 0.0386 | | ND | 0.0154 | 0.0493 | |
| SW8260B | sec-Butylbenzene | 135-98-8 | 41 | ND | 0.0124 | 0.0397 | | ND | 0.0464 | 0.149 | | ND | 0.0758 | 0.243 | | ND | 0.0121 | 0.0386 | | ND | 0.0154 | 0.0493 | |
| SW8260B | Styrene | 100-42-5 | 200 | ND | 0.0124 | 0.0397 | | ND | 0.0464 | 0.149 | | ND | 0.0758 | 0.243 | | ND | 0.0121 | 0.0386 | | ND | 0.0154 | 0.0493 | |
| SW8260B | tert-Butylbenzene | 98-06-6 | 70 | ND | 0.0124 | 0.0397 | | ND | 0.0464 | 0.149 | | ND | 0.0758 | 0.243 | | ND | 0.0121 | 0.0386 | | ND | 0.0154 | 0.0493 | |
| SW8260B | Tetrachloroethene | 127-18-4 | 15 | ND | 0.00619 | 0.0198 | | ND | 0.0232 | 0.0744 | | ND | 0.0379 | 0.122 | | ND | 0.00603 | 0.0193 | | ND | 0.00769 | 0.0247 | |
| SW8260B | Toluene | 108-88-3 | 220 | 0.706 | 0.0124 | 0.0397 | | ND | 0.0464 | 0.149 | | 1.03 | 0.0758 | 0.243 | | 0.0495 | 0.0121 | 0.0386 | | ND | 0.0154 | 0.0493 | |
| SW8260B | trans-1,2-Dichloroethene | 156-60-5 | 240 | ND | 0.0124 | 0.0397 | | ND | 0.0464 | 0.149 | | ND | 0.0758 | 0.243 | | ND | 0.0121 | 0.0386 | | ND | 0.0154 | 0.0493 | |
| SW8260B | trans-1,3-Dichloropropene | 10061-02-6 | | ND | 0.0124 | 0.0397 | | ND | 0.0464 | 0.149 | | ND | 0.0758 | 0.243 | | ND | 0.0121 | 0.0386 | | ND | 0.0154 | 0.0493 | |
| SW8260B | Trichloroethene | 79-01-6 | 0.85 | ND | 0.00619 | 0.0198 | | ND | 0.0232 | 0.0744 | | ND | 0.0379 | 0.122 | | ND | 0.00603 | 0.0193 | | ND | 0.00769 | 0.0247 | |
| SW8260B | Vinyl chloride | 75-01-4 | 6.4 | ND | 0.0124 | 0.0397 | | ND | 0.0464 | 0.149 | | ND | 0.0758 | 0.243 | | ND | 0.0121 | 0.0386 | | ND | 0.0154 | 0.0493 | |
| SW8260B | Xylenes | 1330-20-7 | 63 | 0.153 | 0.0362 | 0.119 | | ND | 0.136 | 0.446 | | ND | 0.222 | 0.729 | | ND | 0.0352 | 0.116 | | ND | 0.0450 | 0.148 | |
| SW8270D-SIM | 1-Methylnaphthalene | 90-12-0 | 380 | 0.46 | 0.00888 | 0.0296 | | | | | | | | | | | | | | | | | |
| SW8270D-SIM | 2-Methylnaphthalene | 91-57-6 | 380 | 0.436 | 0.00888 | 0.0296 | | | | | | | | | | | | | | | | | |
| SW8270D-SIM | Acenaphthene | 83-32-9 | 3800 | 0.0192 | 0.00888 | 0.0296 | J | | | | | | | | | | | | | | | | |
| SW8270D-SIM | Acenaphthylene | 208-96-8 | 3800 | ND | 0.00888 | 0.0296 | | | | | | | | | | | | | | | | | |
| SW8270D-SIM | Anthracene | 120-12-7 | 27800 | ND | 0.00888 | 0.0296 | | | | | | | | | | | | | | | | | |
| SW8270D-SIM | Benzo(a)anthracene | 56-55-3 | 6.6 | ND | 0.00888 | 0.0296 | | | | | | | | | | | | | | | | | |
| SW8270D-SIM | Benzo(a)pyrene | 50-32-8 | 0.66 | ND | 0.00888 | 0.0296 | | | | | | | | | | | | | | | | | |
| SW8270D-SIM | Benzo(b)fluoranthene | 205-99-2 | 6.6 | ND | 0.00888 | 0.0296 | | | | | | | | | | | | | | | | | |
| SW8270D-SIM | Benzo(g,h,i)perylene | 191-24-2 | 1900 | ND | 0.00888 | 0.0296 | | | | | | | | | | | | | | | | | |
| SW8270D-SIM | Benzo(k)fluoranthene | 207-08-9 | 66 | ND | 0.00888 | 0.0296 | | | | | | | | | | | | | | | | | |
| SW8270D-SIM | Chrysene | 218-01-9 | 660 | 0.0130 | 0.00888 | 0.0296 | J | | | | | | | | | | | | | | | | |
| SW8270D-SIM | Dibenzo(a,h)anthracene | 53-70-3 | 0.66 | ND | 0.00888 | 0.0296 | | | | | | | | | | | | | | | | | |
| SW8270D-SIM | Fluoranthene | 206-44-0 | 2500 | ND | 0.00888 | 0.0296 | | | | | | | | | | | | | | | | | |
| SW8270D-SIM | Fluorene | 86-73-7 | 3200 | 0.0193 | 0.00888 | 0.0296 | J | | | | | | | | | | | | | | | | |
| SW8270D-SIM | Indeno(1,2,3-cd)pyrene | 193-39-5 | 6.6 | ND | 0.00888 | 0.0296 | | | | | | | | | | | | | | | | | |
| SW8270D-SIM | Naphthalene | 91-20-3 | 42 | 0.216 | 0.00888 | 0.0296 | | | | | | | | | | | | | | | | | |
| SW8270D-SIM | Phenanthrene | 85-01-8 | 27800 | 0.0668 | 0.00888 | 0.0296 | | | | | | | | | | | | | | | | | |
| SW8270D-SIM | Pyrene | 129-00-0 | 1900 | 0.00932 | 0.00888 | 0.0296 | J | | | | | | | | | | | | | | | | |

**TABLE 3: NON-POROUS SOIL ALL ANALYTICAL RESULTS - GRO, DRO, RRO, VOCS, AND PAHS**
**NSB POINT LAY KALI SCHOOL PHASE II SITE CHARACTERIZATION (2015-087-4409)**
**POINT LAY, ALASKA**

| All values reported in mg/kg. | | Location ID | | SB-05 | | | | SB-06 | | | | SB-07 | | | | SB-07 | | | | SB-07 | | | | SB-08 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Start Depth (ft) | | 3 | | | | 3.5 | | | | 1 | | | | 6 | | | | 6 | | | | 3 | | | |
| | | End Depth (ft) | | 4 | | | | 4.5 | | | | 2 | | | | 7 | | | | 7 | | | | 4 | | | |
| | | Sample ID | | 15-PLK2-SO-05-3.0 | | | | 15-PLK2-SO-06-3.5 | | | | 15-PLK2-SO-07-1.0 | | | | 15-PLK2-SBZ-02-6.0 | | | | 15-PLK2-SO-07-6.0 | | | | 15-PLK2-SO-08-3.0 | | | |
| | | Sample Type | | N | | | | N | | | | N | | | | FD | | | | N | | | | N | | | |
| | | Sample Date | | 5/10/2015 | | | | 5/10/2015 | | | | 5/10/2015 | | | | 5/10/2015 | | | | 5/10/2015 | | | | 5/10/2015 | | | |
| | | Parent Sample ID | | | | | | | | | | | | | | 15-PLK2-SO-07-6.0 | | | | | | | | | | | |
| | | Matrix | | Soil: Non-porous | | | | Soil: Non-porous | | | | Soil: Non-porous | | | | Soil: Non-porous | | | | Soil: Non-porous | | | | Soil: Non-porous | | | |
| Method | Chemical Name | CAS# | ADEC CL 2 | Result | MDL | PQL | IQ | Result | MDL | PQL | IQ | Result | MDL | PQL | IQ | Result | MDL | PQL | IQ | Result | MDL | PQL | IQ | Result | MDL | PQL | IQ |
| AK101 | Gasoline Range Organics | GRO | 1400 | ND | 3.11 | 10.4 | UJ | 6.34 | 2.47 | 8.25 | J | 3.46 | 2.59 | 8.64 | JS | ND | 2.49 | 8.31 | | 3.11 | 2.75 | 9.17 | JS | ND | 1.11 | 3.70 | UJ |
| AK102 | Diesel Range Organics | DRO | 12500 | 642 | 51.3 | 166 | | 399 | 43.5 | 140 | | 303 | 44.6 | 144 | | 143 | 11.0 | 35.6 | JD | 66.1 | 11.8 | 38.1 | JD | 311 | 28.5 | 91.8 | |
| AK103 | Residual Range Organics | RRO | 13700 | 3350 | 51.3 | 166 | JS | 1840 | 43.5 | 140 | JS | 1720 | 44.6 | 144 | JS | 703 | 11.0 | 35.6 | JD | 259 | 11.8 | 38.1 | JD | 1350 | 28.5 | 91.8 | JS |
| SW8260B | 1,1,1,2-Tetrachloroethane | 630-20-6 | | ND | 0.0324 | 0.104 | | ND | 0.0257 | 0.0825 | | ND | 0.0269 | 0.0864 | | ND | 0.0259 | 0.0831 | | ND | 0.0286 | 0.0917 | | ND | 0.0115 | 0.0370 | |
| SW8260B | 1,1,1-Trichloroethane | 71-55-6 | 360 | ND | 0.0324 | 0.104 | | ND | 0.0257 | 0.0825 | | ND | 0.0269 | 0.0864 | | ND | 0.0259 | 0.0831 | | ND | 0.0286 | 0.0917 | | ND | 0.0115 | 0.0370 | |
| SW8260B | 1,1,2,2-Tetrachloroethane | 79-34-5 | 8.1 | ND | 0.0162 | 0.0519 | | ND | 0.0129 | 0.0412 | | ND | 0.0135 | 0.0432 | | ND | 0.0130 | 0.0416 | | ND | 0.0143 | 0.0458 | | ND | 0.00577 | 0.0185 | UJ |
| SW8260B | 1,1,2-Trichloroethane | 79-00-5 | 17 | ND | 0.0324 | 0.104 | | ND | 0.0257 | 0.0825 | | ND | 0.0269 | 0.0864 | | ND | 0.0259 | 0.0831 | | ND | 0.0286 | 0.0917 | | ND | 0.0115 | 0.0370 | |
| SW8260B | 1,1-Dichloroethane | 75-34-3 | 900 | ND | 0.0324 | 0.104 | | ND | 0.0257 | 0.0825 | | ND | 0.0269 | 0.0864 | | ND | 0.0259 | 0.0831 | | ND | 0.0286 | 0.0917 | | ND | 0.0115 | 0.0370 | |
| SW8260B | 1,1-Dichloroethene | 75-35-4 | 1.3 | ND | 0.0324 | 0.104 | | ND | 0.0257 | 0.0825 | | ND | 0.0269 | 0.0864 | | ND | 0.0259 | 0.0831 | | ND | 0.0286 | 0.0917 | | ND | 0.0115 | 0.0370 | |
| SW8260B | 1,1-Dichloropropene | 563-58-6 | | ND | 0.0324 | 0.104 | | ND | 0.0257 | 0.0825 | | ND | 0.0269 | 0.0864 | | ND | 0.0259 | 0.0831 | | ND | 0.0286 | 0.0917 | | ND | 0.0115 | 0.0370 | |
| SW8260B | 1,2,3-Trichlorobenzene | 87-61-6 | | ND | 0.0622 | 0.207 | | ND | 0.0495 | 0.165 | | ND | 0.0518 | 0.173 | | ND | 0.0499 | 0.166 | | ND | 0.0550 | 0.183 | | ND | 0.0222 | 0.0740 | UJ |
| SW8260B | 1,2,3-Trichloropropane | 96-18-4 | 0.26 | ND | 0.0324 | 0.104 | | ND | 0.0257 | 0.0825 | | ND | 0.0269 | 0.0864 | | ND | 0.0259 | 0.0831 | | ND | 0.0286 | 0.0917 | | ND | 0.0115 | 0.0370 | UJ |
| SW8260B | 1,2,4-Trichlorobenzene | 120-82-1 | 41 | ND | 0.0324 | 0.104 | | ND | 0.0257 | 0.0825 | | ND | 0.0269 | 0.0864 | | ND | 0.0259 | 0.0831 | | ND | 0.0286 | 0.0917 | | ND | 0.0115 | 0.0370 | |
| SW8260B | 1,2,4-Trimethylbenzene | 95-63-6 | 49 | 0.0809 | 0.0622 | 0.207 | J | ND | 0.0495 | 0.165 | | ND | 0.0518 | 0.173 | | ND | 0.0499 | 0.166 | | ND | 0.0550 | 0.183 | | ND | 0.0222 | 0.0740 | UJ |
| SW8260B | 1,2-Dibromo-3-chloropropane | 96-12-8 | | ND | 0.129 | 0.415 | | ND | 0.102 | 0.33 | | ND | 0.107 | 0.345 | | ND | 0.103 | 0.332 | | ND | 0.114 | 0.367 | | ND | 0.0459 | 0.148 | UJ |
| SW8260B | 1,2-Dichlorobenzene | 95-50-1 | 45 | ND | 0.0324 | 0.104 | | ND | 0.0257 | 0.0825 | | ND | 0.0269 | 0.0864 | | ND | 0.0259 | 0.0831 | | ND | 0.0286 | 0.0917 | | ND | 0.0115 | 0.0370 | UJ |
| SW8260B | 1,2-Dichloroethane | 107-06-2 | 7.1 | ND | 0.0324 | 0.104 | | ND | 0.0257 | 0.0825 | | ND | 0.0269 | 0.0864 | | ND | 0.0259 | 0.0831 | | ND | 0.0286 | 0.0917 | | ND | 0.0115 | 0.0370 | |
| SW8260B | 1,2-Dichloropropane | 78-87-5 | 7.9 | ND | 0.0324 | 0.104 | | ND | 0.0257 | 0.0825 | | ND | 0.0269 | 0.0864 | | ND | 0.0259 | 0.0831 | | ND | 0.0286 | 0.0917 | | ND | 0.0115 | 0.0370 | |
| SW8260B | 1,3,5-Trimethylbenzene | 108-67-8 | 42 | ND | 0.0324 | 0.104 | | ND | 0.0257 | 0.0825 | | ND | 0.0269 | 0.0864 | | ND | 0.0259 | 0.0831 | | ND | 0.0286 | 0.0917 | | ND | 0.0115 | 0.0370 | UJ |
| SW8260B | 1,3-Dichlorobenzene | 541-73-1 | 69 | ND | 0.0324 | 0.104 | | ND | 0.0257 | 0.0825 | | ND | 0.0269 | 0.0864 | | ND | 0.0259 | 0.0831 | | ND | 0.0286 | 0.0917 | | ND | 0.0115 | 0.0370 | UJ |
| SW8260B | 1,3-Dichloropropane | 142-28-9 | | ND | 0.0324 | 0.104 | | ND | 0.0257 | 0.0825 | | ND | 0.0269 | 0.0864 | | ND | 0.0259 | 0.0831 | | ND | 0.0286 | 0.0917 | | ND | 0.0115 | 0.0370 | |
| SW8260B | 1,4-Dichlorobenzene | 106-46-7 | 44 | ND | 0.0324 | 0.104 | | ND | 0.0257 | 0.0825 | | ND | 0.0269 | 0.0864 | | ND | 0.0259 | 0.0831 | | ND | 0.0286 | 0.0917 | | ND | 0.0115 | 0.0370 | UJ |
| SW8260B | 2,2-Dichloropropane | 594-20-7 | | ND | 0.0324 | 0.104 | | ND | 0.0257 | 0.0825 | | ND | 0.0269 | 0.0864 | | ND | 0.0259 | 0.0831 | | ND | 0.0286 | 0.0917 | | ND | 0.0115 | 0.0370 | |
| SW8260B | 2-Butanone | 78-93-3 | 23300 | ND | 0.324 | 1.04 | | ND | 0.257 | 0.825 | | ND | 0.269 | 0.864 | | 0.362 | 0.259 | 0.831 | J | 0.321 | 0.286 | 0.917 | J | ND | 0.115 | 0.37 | |
| SW8260B | 2-Hexanone | 591-78-6 | | ND | 0.324 | 1.04 | | ND | 0.257 | 0.825 | | ND | 0.269 | 0.864 | | ND | 0.259 | 0.831 | | ND | 0.286 | 0.917 | | ND | 0.115 | 0.37 | |
| SW8260B | 4-Chlorotoluene | 106-43-4 | | ND | 0.0324 | 0.104 | | ND | 0.0257 | 0.0825 | | ND | 0.0269 | 0.0864 | | ND | 0.0259 | 0.0831 | | ND | 0.0286 | 0.0917 | | ND | 0.0115 | 0.0370 | UJ |
| SW8260B | 4-Isopropyltoluene | 99-87-6 | | ND | 0.0324 | 0.104 | | ND | 0.0257 | 0.0825 | | ND | 0.0269 | 0.0864 | | ND | 0.0259 | 0.0831 | | ND | 0.0286 | 0.0917 | | ND | 0.0115 | 0.0370 | UJ |
| SW8260B | 4-Methyl-2-pentanone | 108-10-1 | 2100 | ND | 0.324 | 1.04 | | ND | 0.257 | 0.825 | | ND | 0.269 | 0.864 | | ND | 0.259 | 0.831 | | ND | 0.286 | 0.917 | | ND | 0.115 | 0.37 | |
| SW8260B | Benzene | 71-43-2 | 17 | ND | 0.0162 | 0.0519 | | ND | 0.0129 | 0.0412 | | ND | 0.0135 | 0.0432 | | ND | 0.0130 | 0.0416 | | ND | 0.0143 | 0.0458 | | ND | 0.00577 | 0.0185 | |
| SW8260B | Bromobenzene | 108-86-1 | | ND | 0.0324 | 0.104 | | ND | 0.0257 | 0.0825 | | ND | 0.0269 | 0.0864 | | ND | 0.0259 | 0.0831 | | ND | 0.0286 | 0.0917 | | ND | 0.0115 | 0.0370 | UJ |
| SW8260B | Bromodichloromethane | 75-27-4 | 15 | ND | 0.0324 | 0.104 | | ND | 0.0257 | 0.0825 | | ND | 0.0269 | 0.0864 | | ND | 0.0259 | 0.0831 | | ND | 0.0286 | 0.0917 | | ND | 0.0115 | 0.0370 | |
| SW8260B | Bromoform | 75-25-2 | 430 | ND | 0.0324 | 0.104 | | ND | 0.0257 | 0.0825 | | ND | 0.0269 | 0.0864 | | ND | 0.0259 | 0.0831 | | ND | 0.0286 | 0.0917 | | ND | 0.0115 | 0.0370 | |
| SW8260B | Carbon disulfide | 75-15-0 | 250 | ND | 0.129 | 0.415 | | ND | 0.102 | 0.33 | | ND | 0.107 | 0.345 | | ND | 0.103 | 0.332 | | ND | 0.114 | 0.367 | | ND | 0.0459 | 0.148 | |
| SW8260B | Carbon tetrachloride | 56-23-5 | 4.5 | ND | 0.0162 | 0.0519 | | ND | 0.0129 | 0.0412 | | ND | 0.0135 | 0.0432 | | ND | 0.0130 | 0.0416 | | ND | 0.0143 | 0.0458 | | ND | 0.00577 | 0.0185 | |
| SW8260B | Chlorobenzene | 108-90-7 | 200 | ND | 0.0324 | 0.104 | | ND | 0.0257 | 0.0825 | | ND | 0.0269 | 0.0864 | | ND | 0.0259 | 0.0831 | | ND | 0.0286 | 0.0917 | | ND | 0.0115 | 0.0370 | |
| SW8260B | Chlorobromomethane | 74-97-5 | | ND | 0.0324 | 0.104 | | ND | 0.0257 | 0.0825 | | ND | 0.0269 | 0.0864 | | ND | 0.0259 | 0.0831 | | ND | 0.0286 | 0.0917 | | ND | 0.0115 | 0.0370 | |
| SW8260B | Chloroethane | 75-00-3 | 34 | ND | 0.257 | 0.83 | | ND | 0.205 | 0.66 | | ND | 0.214 | 0.691 | | ND | 0.206 | 0.665 | | ND | 0.227 | 0.734 | | ND | 0.0918 | 0.296 | |
| SW8260B | Chloroform | 67-66-3 | 4.7 | ND | 0.0324 | 0.104 | | ND | 0.0257 | 0.0825 | | ND | 0.0269 | 0.0864 | | ND | 0.0259 | 0.0831 | | ND | 0.0286 | 0.0917 | | ND | 0.0115 | 0.0370 | |
| SW8260B | cis-1,2-Dichloroethene | 156-59-2 | 190 | ND | 0.0324 | 0.104 | | ND | 0.0257 | 0.0825 | | ND | 0.0269 | 0.0864 | | ND | 0.0259 | 0.0831 | | ND | 0.0286 | 0.0917 | | ND | 0.0115 | 0.0370 | |
| SW8260B | cis-1,3-Dichloropropene | 10061-01-5 | | ND | 0.0324 | 0.104 | | ND | 0.0257 | 0.0825 | | ND | 0.0269 | 0.0864 | | ND | 0.0259 | 0.0831 | | ND | 0.0286 | 0.0917 | | ND | 0.0115 | 0.0370 | |
| SW8260B | Dibromochloromethane | 124-48-1 | 21 | ND | 0.0324 | 0.104 | | ND | 0.0257 | 0.0825 | | ND | 0.0269 | 0.0864 | | ND | 0.0259 | 0.0831 | | ND | 0.0286 | 0.0917 | | ND | 0.0115 | 0.0370 | |
| SW8260B | Dibromomethane | 74-95-3 | 560 | ND | 0.0324 | 0.104 | | ND | 0.0257 | 0.0825 | | ND | 0.0269 | 0.0864 | | ND | 0.0259 | 0.0831 | | ND | 0.0286 | 0.0917 | | ND | 0.0115 | 0.0370 | |
| SW8260B | Ethylbenzene | 100-41-4 | 110 | ND | 0.0324 | 0.104 | | ND | 0.0257 | 0.0825 | | ND | 0.0269 | 0.0864 | | ND | 0.0259 | 0.0831 | | ND | 0.0286 | 0.0917 | | ND | 0.0115 | 0.0370 | |
| SW8260B | Ethylene dibromide | 106-93-4 | 0.89 | ND | 0.0324 | 0.104 | | ND | 0.0257 | 0.0825 | | ND | 0.0269 | 0.0864 | | ND | 0.0259 | 0.0831 | | ND | 0.0286 | 0.0917 | | ND | 0.0115 | 0.0370 | |

**TABLE 3: NON-POROUS SOIL ALL ANALYTICAL RESULTS - GRO, DRO, RRO, VOCS, AND PAHS**
**NSB POINT LAY KALI SCHOOL PHASE II SITE CHARACTERIZATION (2015-087-4409)**
**POINT LAY, ALASKA**

| All values reported in mg/kg. | | Location ID | | SB-05 | | | | SB-06 | | | | SB-07 | | | | SB-07 | | | | SB-07 | | | | SB-08 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Start Depth (ft) | | 3 | | | | 3.5 | | | | 1 | | | | 6 | | | | 6 | | | | 3 | | | |
| | | End Depth (ft) | | 4 | | | | 4.5 | | | | 2 | | | | 7 | | | | 7 | | | | 4 | | | |
| | | Sample ID | | 15-PLK2-SO-05-3.0 | | | | 15-PLK2-SO-06-3.5 | | | | 15-PLK2-SO-07-1.0 | | | | 15-PLK2-SBZ-02-6.0 | | | | 15-PLK2-SO-07-6.0 | | | | 15-PLK2-SO-08-3.0 | | | |
| | | Sample Type | | N | | | | N | | | | N | | | | FD | | | | N | | | | N | | | |
| | | Sample Date | | 5/10/2015 | | | | 5/10/2015 | | | | 5/10/2015 | | | | 5/10/2015 | | | | 5/10/2015 | | | | 5/10/2015 | | | |
| | | Parent Sample ID | | | | | | | | | | | | | | 15-PLK2-SO-07-6.0 | | | | | | | | | | | |
| | | Matrix | | Soil: Non-porous | | | | Soil: Non-porous | | | | Soil: Non-porous | | | | Soil: Non-porous | | | | Soil: Non-porous | | | | Soil: Non-porous | | | |
| Method | Chemical Name | CAS# | ADEC CL 2 | Result | MDL | PQL | IQ | Result | MDL | PQL | IQ | Result | MDL | PQL | IQ | Result | MDL | PQL | IQ | Result | MDL | PQL | IQ | Result | MDL | PQL | IQ |
| SW8260B | Freon 11 | 75-69-4 | 990 | ND | 0.0622 | 0.207 | | ND | 0.0495 | 0.165 | | ND | 0.0518 | 0.173 | | ND | 0.0499 | 0.166 | | ND | 0.0550 | 0.183 | | ND | 0.0222 | 0.0740 | |
| SW8260B | Freon 12 | 75-71-8 | 570 | ND | 0.0622 | 0.207 | | ND | 0.0495 | 0.165 | | ND | 0.0518 | 0.173 | | ND | 0.0499 | 0.166 | | ND | 0.0550 | 0.183 | | ND | 0.0222 | 0.0740 | |
| SW8260B | Hexachlorobutadiene | 87-68-3 | 3.8 | ND | 0.0622 | 0.207 | | ND | 0.0495 | 0.165 | | ND | 0.0518 | 0.173 | | ND | 0.0499 | 0.166 | | ND | 0.0550 | 0.183 | | ND | 0.0222 | 0.0740 | UJ |
| SW8260B | Isopropylbenzene (Cumene) | 98-82-8 | 62 | ND | 0.0324 | 0.104 | | ND | 0.0257 | 0.0825 | | ND | 0.0269 | 0.0864 | | ND | 0.0259 | 0.0831 | | ND | 0.0286 | 0.0917 | | ND | 0.0115 | 0.0370 | |
| SW8260B | m,p-Xylenes | 179601-23-1 | | 0.0819 | 0.0622 | 0.207 | J | ND | 0.0495 | 0.165 | | ND | 0.0518 | 0.173 | | ND | 0.0499 | 0.166 | | ND | 0.0550 | 0.183 | | ND | 0.0222 | 0.0740 | |
| SW8260B | Methyl bromide | 74-83-9 | 21 | ND | 0.257 | 0.83 | | ND | 0.205 | 0.66 | | ND | 0.214 | 0.691 | | ND | 0.206 | 0.665 | | ND | 0.227 | 0.734 | | ND | 0.0918 | 0.296 | |
| SW8260B | Methyl chloride | 74-87-3 | 37 | ND | 0.0324 | 0.104 | | ND | 0.0257 | 0.0825 | | ND | 0.0269 | 0.0864 | | ND | 0.0259 | 0.0831 | | ND | 0.0286 | 0.0917 | | ND | 0.0115 | 0.0370 | |
| SW8260B | Methyl tert-butyl ether | 1634-04-4 | 440 | ND | 0.129 | 0.415 | | ND | 0.102 | 0.33 | | ND | 0.107 | 0.345 | | ND | 0.103 | 0.332 | | ND | 0.114 | 0.367 | | ND | 0.0459 | 0.148 | |
| SW8260B | Methylene chloride | 75-09-2 | 240 | ND | 0.129 | 0.415 | | ND | 0.102 | 0.33 | | ND | 0.107 | 0.345 | | ND | 0.103 | 0.332 | | ND | 0.114 | 0.367 | | ND | 0.0459 | 0.148 | |
| SW8260B | Naphthalene | 91-20-3 | 42 | 0.0695 | 0.0622 | 0.207 | J | ND | 0.0495 | 0.165 | | ND | 0.0518 | 0.173 | | 0.0524 | 0.0499 | 0.166 | J | ND | 0.0550 | 0.183 | | ND | 0.0222 | 0.0740 | UJ |
| SW8260B | n-Butylbenzene | 104-51-8 | 42 | ND | 0.0324 | 0.104 | | ND | 0.0257 | 0.0825 | | ND | 0.0269 | 0.0864 | | ND | 0.0259 | 0.0831 | | ND | 0.0286 | 0.0917 | | ND | 0.0115 | 0.0370 | UJ |
| SW8260B | n-Propylbenzene | 103-65-1 | 42 | ND | 0.0324 | 0.104 | | ND | 0.0257 | 0.0825 | | ND | 0.0269 | 0.0864 | | ND | 0.0259 | 0.0831 | | ND | 0.0286 | 0.0917 | | ND | 0.0115 | 0.0370 | UJ |
| SW8260B | o-Chlorotoluene (2-chlorotoluene) | 95-49-8 | | ND | 0.0324 | 0.104 | | ND | 0.0257 | 0.0825 | | ND | 0.0269 | 0.0864 | | ND | 0.0259 | 0.0831 | | ND | 0.0286 | 0.0917 | | ND | 0.0115 | 0.0370 | UJ |
| SW8260B | o-Xylene | 95-47-6 | | 0.0539 | 0.0324 | 0.104 | J | ND | 0.0257 | 0.0825 | | ND | 0.0269 | 0.0864 | | ND | 0.0259 | 0.0831 | | ND | 0.0286 | 0.0917 | | ND | 0.0115 | 0.0370 | |
| SW8260B | sec-Butylbenzene | 135-98-8 | 41 | ND | 0.0324 | 0.104 | | ND | 0.0257 | 0.0825 | | ND | 0.0269 | 0.0864 | | ND | 0.0259 | 0.0831 | | ND | 0.0286 | 0.0917 | | ND | 0.0115 | 0.0370 | UJ |
| SW8260B | Styrene | 100-42-5 | 200 | ND | 0.0324 | 0.104 | | ND | 0.0257 | 0.0825 | | ND | 0.0269 | 0.0864 | | ND | 0.0259 | 0.0831 | | ND | 0.0286 | 0.0917 | | ND | 0.0115 | 0.0370 | |
| SW8260B | tert-Butylbenzene | 98-06-6 | 70 | ND | 0.0324 | 0.104 | | ND | 0.0257 | 0.0825 | | ND | 0.0269 | 0.0864 | | ND | 0.0259 | 0.0831 | | ND | 0.0286 | 0.0917 | | ND | 0.0115 | 0.0370 | UJ |
| SW8260B | Tetrachloroethene | 127-18-4 | 15 | ND | 0.0162 | 0.0519 | | ND | 0.0129 | 0.0412 | | ND | 0.0135 | 0.0432 | | ND | 0.0130 | 0.0416 | | ND | 0.0143 | 0.0458 | | ND | 0.00577 | 0.0185 | |
| SW8260B | Toluene | 108-88-3 | 220 | ND | 0.0324 | 0.104 | | ND | 0.0257 | 0.0825 | | ND | 0.0269 | 0.0864 | | ND | 0.0259 | 0.0831 | | ND | 0.0286 | 0.0917 | | ND | 0.0115 | 0.0370 | |
| SW8260B | trans-1,2-Dichloroethene | 156-60-5 | 240 | ND | 0.0324 | 0.104 | | ND | 0.0257 | 0.0825 | | ND | 0.0269 | 0.0864 | | ND | 0.0259 | 0.0831 | | ND | 0.0286 | 0.0917 | | ND | 0.0115 | 0.0370 | |
| SW8260B | trans-1,3-Dichloropropene | 10061-02-6 | | ND | 0.0324 | 0.104 | | ND | 0.0257 | 0.0825 | | ND | 0.0269 | 0.0864 | | ND | 0.0259 | 0.0831 | | ND | 0.0286 | 0.0917 | | ND | 0.0115 | 0.0370 | |
| SW8260B | Trichloroethene | 79-01-6 | 0.85 | ND | 0.0162 | 0.0519 | | ND | 0.0129 | 0.0412 | | ND | 0.0135 | 0.0432 | | ND | 0.0130 | 0.0416 | | ND | 0.0143 | 0.0458 | | ND | 0.00577 | 0.0185 | |
| SW8260B | Vinyl chloride | 75-01-4 | 6.4 | ND | 0.0324 | 0.104 | | ND | 0.0257 | 0.0825 | | ND | 0.0269 | 0.0864 | | ND | 0.0259 | 0.0831 | | ND | 0.0286 | 0.0917 | | ND | 0.0115 | 0.0370 | |
| SW8260B | Xylenes | 1330-20-7 | 63 | 0.136 | 0.0946 | 0.311 | J | ND | 0.0752 | 0.247 | | ND | 0.0788 | 0.259 | | ND | 0.0758 | 0.249 | | ND | 0.0836 | 0.275 | | ND | 0.0338 | 0.111 | |
| SW8270D-SIM | 1-Methylnaphthalene | 90-12-0 | 380 | | | | | | | | | | | | | | | | | | | | | 0.0323 | 0.00292 | 0.00974 | |
| SW8270D-SIM | 2-Methylnaphthalene | 91-57-6 | 380 | | | | | | | | | | | | | | | | | | | | | 0.0385 | 0.00292 | 0.00974 | |
| SW8270D-SIM | Acenaphthene | 83-32-9 | 3800 | | | | | | | | | | | | | | | | | | | | | ND | 0.00292 | 0.00974 | |
| SW8270D-SIM | Acenaphthylene | 208-96-8 | 3800 | | | | | | | | | | | | | | | | | | | | | ND | 0.00292 | 0.00974 | |
| SW8270D-SIM | Anthracene | 120-12-7 | 27800 | | | | | | | | | | | | | | | | | | | | | ND | 0.00292 | 0.00974 | |
| SW8270D-SIM | Benzo(a)anthracene | 56-55-3 | 6.6 | | | | | | | | | | | | | | | | | | | | | ND | 0.00292 | 0.00974 | |
| SW8270D-SIM | Benzo(a)pyrene | 50-32-8 | 0.66 | | | | | | | | | | | | | | | | | | | | | ND | 0.00292 | 0.00974 | |
| SW8270D-SIM | Benzo(b)fluoranthene | 205-99-2 | 6.6 | | | | | | | | | | | | | | | | | | | | | 0.00559 | 0.00292 | 0.00974 | J |
| SW8270D-SIM | Benzo(g,h,i)perylene | 191-24-2 | 1900 | | | | | | | | | | | | | | | | | | | | | 0.0752 | 0.00292 | 0.00974 | |
| SW8270D-SIM | Benzo(k)fluoranthene | 207-08-9 | 66 | | | | | | | | | | | | | | | | | | | | | ND | 0.00292 | 0.00974 | |
| SW8270D-SIM | Chrysene | 218-01-9 | 660 | | | | | | | | | | | | | | | | | | | | | 0.00823 | 0.00292 | 0.00974 | J |
| SW8270D-SIM | Dibenzo(a,h)anthracene | 53-70-3 | 0.66 | | | | | | | | | | | | | | | | | | | | | ND | 0.00292 | 0.00974 | |
| SW8270D-SIM | Fluoranthene | 206-44-0 | 2500 | | | | | | | | | | | | | | | | | | | | | ND | 0.00292 | 0.00974 | |
| SW8270D-SIM | Fluorene | 86-73-7 | 3200 | | | | | | | | | | | | | | | | | | | | | 0.00360 | 0.00292 | 0.00974 | J |
| SW8270D-SIM | Indeno(1,2,3-cd)pyrene | 193-39-5 | 6.6 | | | | | | | | | | | | | | | | | | | | | ND | 0.00292 | 0.00974 | |
| SW8270D-SIM | Naphthalene | 91-20-3 | 42 | | | | | | | | | | | | | | | | | | | | | 0.0187 | 0.00292 | 0.00974 | |
| SW8270D-SIM | Phenanthrene | 85-01-8 | 27800 | | | | | | | | | | | | | | | | | | | | | 0.0374 | 0.00292 | 0.00974 | |
| SW8270D-SIM | Pyrene | 129-00-0 | 1900 | | | | | | | | | | | | | | | | | | | | | ND | 0.00292 | 0.00974 | |

**TABLE 4: POROUS SOIL ALL ANALYTICAL RESULTS – GRO, DRO, RRO, VOCs AND PAHs**

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# TABLE 4: POROUS SOIL ALL ANALYTICAL RESULTS - GRO, DRO, RRO, VOCS, AND PAHS
## NSB POINT LAY KALI SCHOOL PHASE II SITE CHARACTERIZATION (2015-087-4409)
## POINT LAY, ALASKA

| All values reported in mg/kg. | | | | | Location ID | SB-01 | | | SB-03 | | | | SB-03 | | | | SB-05 | | | | SB-05 | | | | SB-08 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Start Depth (ft) | 1 | | | 1 | | | | 2 | | | | 1 | | | | 1 | | | | 1 | | | |
| | | | | | End Depth (ft) | 2 | | | 2 | | | | 3 | | | | 2 | | | | 2 | | | | 2 | | | |
| | | | | | Sample ID | 15-PLK2-SO-01-1.0 | | | 15-PLK2-SO-03-1.0 | | | | 15-PLK2-SO-03-2.0 | | | | 15-PLK2-SBZ-01-1.0 | | | | 15-PLK2-SO-05-1.0 | | | | 15-PLK2-SO-08-1.0 | | | |
| | | | | | Sample Type | N | | | N | | | | N | | | | FD | | | | N | | | | N | | | |
| | | | | | Sample Date | 5/10/2015 | | | 5/10/2015 | | | | 5/10/2015 | | | | 5/10/2015 | | | | 5/10/2015 | | | | 5/10/2015 | | | |
| | | | | | Parent Sample ID | | | | | | | | | | | | 15-PLK2-SO-05-1.0 | | | | | | | | | | | |
| | | | | | Matrix | Soil: Porous | | | Soil: Porous | | | | Soil: Porous | | | | Soil: Porous | | | | Soil: Porous | | | | Soil: Porous | | | |
| Method | Chemical Name | CAS# | ADEC CL 1 | ADEC CL 2 | Result | MDL | PQL | IQ | Result | MDL | PQL | IQ | Result | MDL | PQL | IQ | Result | MDL | PQL | IQ | Result | MDL | PQL | IQ | Result | MDL | PQL | IQ |
| AK101 | Gasoline Range Organics | GRO | 100 | | 2.24 | 0.866 | 2.89 | J | 1.59 | 0.886 | 2.95 | J | 2.16 | 0.945 | 3.15 | J | 1.83 | 1.02 | 3.39 | J | 1.21 | 0.968 | 3.23 | J | ND | 1.22 | 4.08 | |
| AK102 | Diesel Range Organics | DRO | 200 | | ND | 6.38 | 24.6 | UB | ND | 6.48 | 24.0 | UB | ND | 6.65 | 39.5 | UB | ND | 6.90 | 22.3 | UB,JD | ND | 6.89 | 33.6 | UB,JD | 78.2 | 7.37 | 23.8 | |
| AK103 | Residual Range Organics | RRO | 2000 | | ND | 6.38 | 45.7 | UB | ND | 6.48 | 40.6 | UB | 96.7 | 6.65 | 21.4 | | ND | 6.90 | 25.0 | UB | ND | 6.89 | 41.3 | UB | 394 | 7.37 | 23.8 | |
| SW8260B | 1,1,1,2-Tetrachloroethane | 630-20-6 | | | ND | 0.00901 | 0.0289 | | ND | 0.00922 | 0.0295 | | ND | 0.00983 | 0.0315 | | ND | 0.0106 | 0.0339 | | ND | 0.0101 | 0.0323 | | ND | 0.0127 | 0.0408 | |
| SW8260B | 1,1,1-Trichloroethane | 71-55-6 | | 360 | ND | 0.00901 | 0.0289 | | ND | 0.00922 | 0.0295 | | ND | 0.00983 | 0.0315 | | ND | 0.0106 | 0.0339 | | ND | 0.0101 | 0.0323 | | ND | 0.0127 | 0.0408 | |
| SW8260B | 1,1,2,2-Tetrachloroethane | 79-34-5 | | 8.1 | ND | 0.00451 | 0.0144 | | ND | 0.00461 | 0.0148 | | ND | 0.00492 | 0.0158 | | ND | 0.00529 | 0.0170 | | ND | 0.00504 | 0.0161 | | ND | 0.00637 | 0.0204 | |
| SW8260B | 1,1,2-Trichloroethane | 79-00-5 | | 17 | ND | 0.00901 | 0.0289 | | ND | 0.00922 | 0.0295 | | ND | 0.00983 | 0.0315 | | ND | 0.0106 | 0.0339 | | ND | 0.0101 | 0.0323 | | ND | 0.0127 | 0.0408 | |
| SW8260B | 1,1-Dichloroethane | 75-34-3 | | 900 | ND | 0.00901 | 0.0289 | | ND | 0.00922 | 0.0295 | | ND | 0.00983 | 0.0315 | | ND | 0.0106 | 0.0339 | | ND | 0.0101 | 0.0323 | | ND | 0.0127 | 0.0408 | |
| SW8260B | 1,1-Dichloroethene | 75-35-4 | | 1.3 | ND | 0.00901 | 0.0289 | | ND | 0.00922 | 0.0295 | | ND | 0.00983 | 0.0315 | | ND | 0.0106 | 0.0339 | | ND | 0.0101 | 0.0323 | | ND | 0.0127 | 0.0408 | |
| SW8260B | 1,1-Dichloropropene | 563-58-6 | | | ND | 0.00901 | 0.0289 | | ND | 0.00922 | 0.0295 | | ND | 0.00983 | 0.0315 | | ND | 0.0106 | 0.0339 | | ND | 0.0101 | 0.0323 | | ND | 0.0127 | 0.0408 | |
| SW8260B | 1,2,3-Trichlorobenzene | 87-61-6 | | | ND | 0.0173 | 0.0578 | | ND | 0.0177 | 0.0591 | | ND | 0.0189 | 0.0630 | | ND | 0.0203 | 0.0678 | | ND | 0.0194 | 0.0646 | | ND | 0.0245 | 0.0817 | |
| SW8260B | 1,2,3-Trichloropropane | 96-18-4 | | 0.26 | ND | 0.00901 | 0.0289 | | ND | 0.00922 | 0.0295 | | ND | 0.00983 | 0.0315 | | ND | 0.0106 | 0.0339 | | ND | 0.0101 | 0.0323 | | ND | 0.0127 | 0.0408 | |
| SW8260B | 1,2,4-Trichlorobenzene | 120-82-1 | | 41 | ND | 0.00901 | 0.0289 | | ND | 0.00922 | 0.0295 | | ND | 0.00983 | 0.0315 | | ND | 0.0106 | 0.0339 | | ND | 0.0101 | 0.0323 | | ND | 0.0127 | 0.0408 | |
| SW8260B | 1,2,4-Trimethylbenzene | 95-63-6 | | 49 | 0.0292 | 0.0173 | 0.0578 | J | 0.0600 | 0.0177 | 0.0591 | | 0.0391 | 0.0189 | 0.0630 | J | 0.0234 | 0.0203 | 0.0678 | J | 0.0300 | 0.0194 | 0.0646 | J | 0.0286 | 0.0245 | 0.0817 | J |
| SW8260B | 1,2-Dibromo-3-chloropropane | 96-12-8 | | | ND | 0.0358 | 0.116 | | ND | 0.0366 | 0.118 | | ND | 0.0391 | 0.126 | | ND | 0.0420 | 0.136 | | ND | 0.0400 | 0.129 | | ND | 0.0506 | 0.163 | |
| SW8260B | 1,2-Dichlorobenzene | 95-50-1 | | 45 | ND | 0.00901 | 0.0289 | | ND | 0.00922 | 0.0295 | | ND | 0.00983 | 0.0315 | | ND | 0.0106 | 0.0339 | | ND | 0.0101 | 0.0323 | | ND | 0.0127 | 0.0408 | |
| SW8260B | 1,2-Dichloroethane | 107-06-2 | | 7.1 | ND | 0.00901 | 0.0289 | | ND | 0.00922 | 0.0295 | | ND | 0.00983 | 0.0315 | | ND | 0.0106 | 0.0339 | | ND | 0.0101 | 0.0323 | | ND | 0.0127 | 0.0408 | |
| SW8260B | 1,2-Dichloropropane | 78-87-5 | | 7.9 | ND | 0.00901 | 0.0289 | | ND | 0.00922 | 0.0295 | | ND | 0.00983 | 0.0315 | | ND | 0.0106 | 0.0339 | | ND | 0.0101 | 0.0323 | | ND | 0.0127 | 0.0408 | |
| SW8260B | 1,3,5-Trimethylbenzene | 108-67-8 | | 42 | 0.0196 | 0.00901 | 0.0289 | J | 0.0316 | 0.00922 | 0.0295 | | 0.0224 | 0.00983 | 0.0315 | J | 0.0159 | 0.0106 | 0.0339 | J | 0.0145 | 0.0101 | 0.0323 | J | ND | 0.0127 | 0.0408 | |
| SW8260B | 1,3-Dichlorobenzene | 541-73-1 | | 69 | ND | 0.00901 | 0.0289 | | ND | 0.00922 | 0.0295 | | ND | 0.00983 | 0.0315 | | ND | 0.0106 | 0.0339 | | ND | 0.0101 | 0.0323 | | ND | 0.0127 | 0.0408 | |
| SW8260B | 1,3-Dichloropropane | 142-28-9 | | | ND | 0.00901 | 0.0289 | | ND | 0.00922 | 0.0295 | | ND | 0.00983 | 0.0315 | | ND | 0.0106 | 0.0339 | | ND | 0.0101 | 0.0323 | | ND | 0.0127 | 0.0408 | |
| SW8260B | 1,4-Dichlorobenzene | 106-46-7 | | 44 | ND | 0.00901 | 0.0289 | | ND | 0.00922 | 0.0295 | | ND | 0.00983 | 0.0315 | | ND | 0.0106 | 0.0339 | | ND | 0.0101 | 0.0323 | | ND | 0.0127 | 0.0408 | |
| SW8260B | 2,2-Dichloropropane | 594-20-7 | | | ND | 0.00901 | 0.0289 | | ND | 0.00922 | 0.0295 | | ND | 0.00983 | 0.0315 | | ND | 0.0106 | 0.0339 | | ND | 0.0101 | 0.0323 | | ND | 0.0127 | 0.0408 | |
| SW8260B | 2-Butanone | 78-93-3 | | 23300 | ND | 0.0901 | 0.289 | | ND | 0.0922 | 0.295 | | ND | 0.0983 | 0.315 | | ND | 0.106 | 0.339 | | ND | 0.101 | 0.323 | | ND | 0.127 | 0.408 | |
| SW8260B | 2-Hexanone | 591-78-6 | | | ND | 0.0901 | 0.289 | | ND | 0.0922 | 0.295 | | ND | 0.0983 | 0.315 | | ND | 0.106 | 0.339 | | ND | 0.101 | 0.323 | | ND | 0.127 | 0.408 | |
| SW8260B | 4-Chlorotoluene | 106-43-4 | | | ND | 0.00901 | 0.0289 | | ND | 0.00922 | 0.0295 | | ND | 0.00983 | 0.0315 | | ND | 0.0106 | 0.0339 | | ND | 0.0101 | 0.0323 | | ND | 0.0127 | 0.0408 | |
| SW8260B | 4-Isopropyltoluene | 99-87-6 | | | ND | 0.00901 | 0.0289 | | ND | 0.00922 | 0.0295 | | ND | 0.00983 | 0.0315 | | ND | 0.0106 | 0.0339 | | ND | 0.0101 | 0.0323 | | ND | 0.0127 | 0.0408 | |
| SW8260B | 4-Methyl-2-pentanone | 108-10-1 | | 2100 | ND | 0.0901 | 0.289 | | ND | 0.0922 | 0.295 | | ND | 0.0983 | 0.315 | | ND | 0.106 | 0.339 | | ND | 0.101 | 0.323 | | ND | 0.127 | 0.408 | |
| SW8260B | Benzene | 71-43-2 | | 17 | 0.00982 | 0.00451 | 0.0144 | J | 0.00738 | 0.00461 | 0.0148 | J | 0.0107 | 0.00492 | 0.0158 | J | 0.00542 | 0.00529 | 0.0170 | J | ND | 0.00504 | 0.0161 | | ND | 0.00637 | 0.0204 | |
| SW8260B | Bromobenzene | 108-86-1 | | | ND | 0.00901 | 0.0289 | | ND | 0.00922 | 0.0295 | | ND | 0.00983 | 0.0315 | | ND | 0.0106 | 0.0339 | | ND | 0.0101 | 0.0323 | | ND | 0.0127 | 0.0408 | |
| SW8260B | Bromodichloromethane | 75-27-4 | | 15 | ND | 0.00901 | 0.0289 | | ND | 0.00922 | 0.0295 | | ND | 0.00983 | 0.0315 | | ND | 0.0106 | 0.0339 | | ND | 0.0101 | 0.0323 | | ND | 0.0127 | 0.0408 | |
| SW8260B | Bromoform | 75-25-2 | | 430 | ND | 0.00901 | 0.0289 | | ND | 0.00922 | 0.0295 | | ND | 0.00983 | 0.0315 | | ND | 0.0106 | 0.0339 | | ND | 0.0101 | 0.0323 | | ND | 0.0127 | 0.0408 | |
| SW8260B | Carbon disulfide | 75-15-0 | | 250 | ND | 0.0358 | 0.116 | | ND | 0.0366 | 0.118 | | ND | 0.0391 | 0.126 | | ND | 0.0420 | 0.136 | | ND | 0.0400 | 0.129 | | ND | 0.0506 | 0.163 | |
| SW8260B | Carbon tetrachloride | 56-23-5 | | 4.5 | ND | 0.00451 | 0.0144 | | ND | 0.00461 | 0.0148 | | ND | 0.00492 | 0.0158 | | ND | 0.00529 | 0.0170 | | ND | 0.00504 | 0.0161 | | ND | 0.00637 | 0.0204 | |
| SW8260B | Chlorobenzene | 108-90-7 | | 200 | ND | 0.00901 | 0.0289 | | ND | 0.00922 | 0.0295 | | ND | 0.00983 | 0.0315 | | ND | 0.0106 | 0.0339 | | ND | 0.0101 | 0.0323 | | ND | 0.0127 | 0.0408 | |
| SW8260B | Chlorobromomethane | 74-97-5 | | | ND | 0.00901 | 0.0289 | | ND | 0.00922 | 0.0295 | | ND | 0.00983 | 0.0315 | | ND | 0.0106 | 0.0339 | | ND | 0.0101 | 0.0323 | | ND | 0.0127 | 0.0408 | |
| SW8260B | Chloroethane | 75-00-3 | | 34 | ND | 0.0716 | 0.231 | | ND | 0.0733 | 0.236 | | ND | 0.0782 | 0.252 | | ND | 0.0841 | 0.271 | | ND | 0.0801 | 0.258 | | ND | 0.101 | 0.327 | |
| SW8260B | Chloroform | 67-66-3 | | 4.7 | ND | 0.00901 | 0.0289 | | ND | 0.00922 | 0.0295 | | ND | 0.00983 | 0.0315 | | ND | 0.0106 | 0.0339 | | ND | 0.0101 | 0.0323 | | ND | 0.0127 | 0.0408 | |
| SW8260B | cis-1,2-Dichloroethene | 156-59-2 | | 190 | ND | 0.00901 | 0.0289 | | ND | 0.00922 | 0.0295 | | ND | 0.00983 | 0.0315 | | ND | 0.0106 | 0.0339 | | ND | 0.0101 | 0.0323 | | ND | 0.0127 | 0.0408 | |
| SW8260B | cis-1,3-Dichloropropene | 10061-01-5 | | | ND | 0.00901 | 0.0289 | | ND | 0.00922 | 0.0295 | | ND | 0.00983 | 0.0315 | | ND | 0.0106 | 0.0339 | | ND | 0.0101 | 0.0323 | | ND | 0.0127 | 0.0408 | |
| SW8260B | Dibromochloromethane | 124-48-1 | | 21 | ND | 0.00901 | 0.0289 | | ND | 0.00922 | 0.0295 | | ND | 0.00983 | 0.0315 | | ND | 0.0106 | 0.0339 | | ND | 0.0101 | 0.0323 | | ND | 0.0127 | 0.0408 | |
| SW8260B | Dibromomethane | 74-95-3 | | 560 | ND | 0.00901 | 0.0289 | | ND | 0.00922 | 0.0295 | | ND | 0.00983 | 0.0315 | | ND | 0.0106 | 0.0339 | | ND | 0.0101 | 0.0323 | | ND | 0.0127 | 0.0408 | |
| SW8260B | Ethylbenzene | 100-41-4 | | 110 | ND | 0.00901 | 0.0289 | | ND | 0.00922 | 0.0295 | | ND | 0.00983 | 0.0315 | | ND | 0.0106 | 0.0339 | | ND | 0.0101 | 0.0323 | | ND | 0.0127 | 0.0408 | |
| SW8260B | Ethylene dibromide | 106-93-4 | | 0.89 | ND | 0.00901 | 0.0289 | | ND | 0.00922 | 0.0295 | | ND | 0.00983 | 0.0315 | | ND | 0.0106 | 0.0339 | | ND | 0.0101 | 0.0323 | | ND | 0.0127 | 0.0408 | |

# TABLE 4: POROUS SOIL ALL ANALYTICAL RESULTS - GRO, DRO, RRO, VOCS, AND PAHS
## NSB POINT LAY KALI SCHOOL PHASE II SITE CHARACTERIZATION (2015-087-4409)
## POINT LAY, ALASKA

| All values reported in mg/kg. | | | | | Location ID | SB-01 | | | | SB-03 | | | | SB-03 | | | | SB-05 | | | | SB-05 | | | | SB-08 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Start Depth (ft) | 1 | | | | 1 | | | | 2 | | | | 1 | | | | 1 | | | | 1 | | | |
| | | | | | End Depth (ft) | 2 | | | | 2 | | | | 3 | | | | 2 | | | | 2 | | | | 2 | | | |
| | | | | | Sample ID | 15-PLK2-SO-01-1.0 | | | | 15-PLK2-SO-03-1.0 | | | | 15-PLK2-SO-03-2.0 | | | | 15-PLK2-SBZ-01-1.0 | | | | 15-PLK2-SO-05-1.0 | | | | 15-PLK2-SO-08-1.0 | | | |
| | | | | | Sample Type | N | | | | N | | | | N | | | | FD | | | | N | | | | N | | | |
| | | | | | Sample Date | 5/10/2015 | | | | 5/10/2015 | | | | 5/10/2015 | | | | 5/10/2015 | | | | 5/10/2015 | | | | 5/10/2015 | | | |
| | | | | | Parent Sample ID | | | | | | | | | | | | | 15-PLK2-SO-05-1.0 | | | | | | | | | | | | |
| | | | | | Matrix | Soil: Porous | | | | Soil: Porous | | | | Soil: Porous | | | | Soil: Porous | | | | Soil: Porous | | | | Soil: Porous | | | |
| Method | Chemical Name | CAS# | ADEC CL 1 | ADEC CL 2 | Result | MDL | PQL | IQ | Result | MDL | PQL | IQ | Result | MDL | PQL | IQ | Result | MDL | PQL | IQ | Result | MDL | PQL | IQ | Result | MDL | PQL | IQ |
| SW8260B | Freon 11 | 75-69-4 | | 990 | ND | 0.0173 | 0.0578 | | ND | 0.0177 | 0.0591 | | ND | 0.0189 | 0.0630 | | ND | 0.0203 | 0.0678 | | ND | 0.0194 | 0.0646 | | ND | 0.0245 | 0.0817 | |
| SW8260B | Freon 12 | 75-71-8 | | 570 | ND | 0.0173 | 0.0578 | | ND | 0.0177 | 0.0591 | | ND | 0.0189 | 0.0630 | | ND | 0.0203 | 0.0678 | | ND | 0.0194 | 0.0646 | | ND | 0.0245 | 0.0817 | |
| SW8260B | Hexachlorobutadiene | 87-68-3 | | 3.8 | ND | 0.0173 | 0.0578 | | ND | 0.0177 | 0.0591 | | ND | 0.0189 | 0.0630 | | ND | 0.0203 | 0.0678 | | ND | 0.0194 | 0.0646 | | ND | 0.0245 | 0.0817 | |
| SW8260B | Isopropylbenzene (Cumene) | 98-82-8 | | 62 | ND | 0.00901 | 0.0289 | | ND | 0.00922 | 0.0295 | | ND | 0.00983 | 0.0315 | | ND | 0.0106 | 0.0339 | | ND | 0.0101 | 0.0323 | | ND | 0.0127 | 0.0408 | |
| SW8260B | m,p-Xylenes | 179601-23-1 | | | 0.0618 | 0.0173 | 0.0578 | | 0.0614 | 0.0177 | 0.0591 | | 0.0772 | 0.0189 | 0.0630 | | 0.0424 | 0.0203 | 0.0678 | J | 0.0423 | 0.0194 | 0.0646 | J | ND | 0.0245 | 0.0817 | |
| SW8260B | Methyl bromide | 74-83-9 | | 21 | ND | 0.0716 | 0.231 | | ND | 0.0733 | 0.236 | | ND | 0.0782 | 0.252 | | ND | 0.0841 | 0.271 | | ND | 0.0801 | 0.258 | | ND | 0.101 | 0.327 | |
| SW8260B | Methyl chloride | 74-87-3 | | 37 | ND | 0.00901 | 0.0289 | UB | ND | 0.00922 | 0.0295 | | ND | 0.00983 | 0.0315 | | ND | 0.0106 | 0.0339 | | ND | 0.0101 | 0.0323 | | ND | 0.0127 | 0.0408 | |
| SW8260B | Methyl tert-butyl ether | 1634-04-4 | | 440 | ND | 0.0358 | 0.116 | | ND | 0.0366 | 0.118 | | ND | 0.0391 | 0.126 | | ND | 0.0420 | 0.136 | | ND | 0.0400 | 0.129 | | ND | 0.0506 | 0.163 | |
| SW8260B | Methylene chloride | 75-09-2 | | 240 | ND | 0.0358 | 0.116 | | ND | 0.0366 | 0.118 | | ND | 0.0391 | 0.126 | | ND | 0.0420 | 0.136 | | ND | 0.0400 | 0.129 | | ND | 0.0506 | 0.163 | |
| SW8260B | Naphthalene | 91-20-3 | | 42 | 0.0592 | 0.0173 | 0.0578 | | 0.191 | 0.0177 | 0.0591 | | 0.104 | 0.0189 | 0.0630 | | 0.0583 | 0.0203 | 0.0678 | JD | 0.107 | 0.0194 | 0.0646 | JD | 0.0343 | 0.0245 | 0.0817 | J |
| SW8260B | n-Butylbenzene | 104-51-8 | | 42 | ND | 0.00901 | 0.0289 | | 0.0133 | 0.00922 | 0.0295 | J | ND | 0.00983 | 0.0315 | | ND | 0.0106 | 0.0339 | | ND | 0.0101 | 0.0323 | | ND | 0.0127 | 0.0408 | |
| SW8260B | n-Propylbenzene | 103-65-1 | | 42 | ND | 0.00901 | 0.0289 | | ND | 0.00922 | 0.0295 | | ND | 0.00983 | 0.0315 | | ND | 0.0106 | 0.0339 | | ND | 0.0101 | 0.0323 | | ND | 0.0127 | 0.0408 | |
| SW8260B | o-Chlorotoluene (2-chlorotoluene) | 95-49-8 | | | ND | 0.00901 | 0.0289 | | ND | 0.00922 | 0.0295 | | ND | 0.00983 | 0.0315 | | ND | 0.0106 | 0.0339 | | ND | 0.0101 | 0.0323 | | ND | 0.0127 | 0.0408 | |
| SW8260B | o-Xylene | 95-47-6 | | | 0.0300 | 0.00901 | 0.0289 | | 0.0239 | 0.00922 | 0.0295 | J | 0.0394 | 0.00983 | 0.0315 | | 0.0210 | 0.0106 | 0.0339 | J | 0.0223 | 0.0101 | 0.0323 | J | ND | 0.0127 | 0.0408 | |
| SW8260B | sec-Butylbenzene | 135-98-8 | | 41 | ND | 0.00901 | 0.0289 | | ND | 0.00922 | 0.0295 | | ND | 0.00983 | 0.0315 | | ND | 0.0106 | 0.0339 | | ND | 0.0101 | 0.0323 | | ND | 0.0127 | 0.0408 | |
| SW8260B | Styrene | 100-42-5 | | 200 | ND | 0.00901 | 0.0289 | | ND | 0.00922 | 0.0295 | | ND | 0.00983 | 0.0315 | | ND | 0.0106 | 0.0339 | | ND | 0.0101 | 0.0323 | | ND | 0.0127 | 0.0408 | |
| SW8260B | tert-Butylbenzene | 98-06-6 | | 70 | ND | 0.00901 | 0.0289 | | ND | 0.00922 | 0.0295 | | ND | 0.00983 | 0.0315 | | ND | 0.0106 | 0.0339 | | ND | 0.0101 | 0.0323 | | ND | 0.0127 | 0.0408 | |
| SW8260B | Tetrachloroethene | 127-18-4 | | 15 | ND | 0.00451 | 0.0144 | | ND | 0.00461 | 0.0148 | | ND | 0.00492 | 0.0158 | | ND | 0.00529 | 0.0170 | | ND | 0.00504 | 0.0161 | | ND | 0.00637 | 0.0204 | |
| SW8260B | Toluene | 108-88-3 | | 220 | 0.0341 | 0.00901 | 0.0289 | | 0.0245 | 0.00922 | 0.0295 | J | 0.0366 | 0.00983 | 0.0315 | | 0.0451 | 0.0106 | 0.0339 | | 0.0313 | 0.0101 | 0.0323 | J | 0.0282 | 0.0127 | 0.0408 | J |
| SW8260B | trans-1,2-Dichloroethene | 156-60-5 | | 240 | ND | 0.00901 | 0.0289 | | ND | 0.00922 | 0.0295 | | ND | 0.00983 | 0.0315 | | ND | 0.0106 | 0.0339 | | ND | 0.0101 | 0.0323 | | ND | 0.0127 | 0.0408 | |
| SW8260B | trans-1,3-Dichloropropene | 10061-02-6 | | | ND | 0.00901 | 0.0289 | | ND | 0.00922 | 0.0295 | | ND | 0.00983 | 0.0315 | | ND | 0.0106 | 0.0339 | | ND | 0.0101 | 0.0323 | | ND | 0.0127 | 0.0408 | |
| SW8260B | Trichloroethene | 79-01-6 | | 0.85 | ND | 0.00451 | 0.0144 | | ND | 0.00461 | 0.0148 | | ND | 0.00492 | 0.0158 | | ND | 0.00529 | 0.0170 | | ND | 0.00504 | 0.0161 | | ND | 0.00637 | 0.0204 | |
| SW8260B | Vinyl chloride | 75-01-4 | | 6.4 | ND | 0.00901 | 0.0289 | | ND | 0.00922 | 0.0295 | | ND | 0.00983 | 0.0315 | | ND | 0.0106 | 0.0339 | | ND | 0.0101 | 0.0323 | | ND | 0.0127 | 0.0408 | |
| SW8260B | Xylenes | 1330-20-7 | | 63 | 0.0918 | 0.0263 | 0.0866 | | 0.0854 | 0.0269 | 0.0886 | J | 0.117 | 0.0287 | 0.0945 | | 0.0634 | 0.0309 | 0.102 | J | 0.0646 | 0.0294 | 0.0968 | J | ND | 0.0372 | 0.122 | |
| SW8270D-SIM | 1-Methylnaphthalene | 90-12-0 | | 380 | | | | | | | | | | | | | 0.0212 | 0.00167 | 0.00555 | | 0.0234 | 0.00166 | 0.00553 | | | | | |
| SW8270D-SIM | 2-Methylnaphthalene | 91-57-6 | | 380 | | | | | | | | | | | | | 0.0266 | 0.00167 | 0.00555 | | 0.0287 | 0.00166 | 0.00553 | | | | | |
| SW8270D-SIM | Acenaphthene | 83-32-9 | | 3800 | | | | | | | | | | | | | ND | 0.00167 | 0.00555 | | ND | 0.00166 | 0.00553 | | | | | |
| SW8270D-SIM | Acenaphthylene | 208-96-8 | | 3800 | | | | | | | | | | | | | ND | 0.00167 | 0.00555 | | ND | 0.00166 | 0.00553 | | | | | |
| SW8270D-SIM | Anthracene | 120-12-7 | | 27800 | | | | | | | | | | | | | ND | 0.00167 | 0.00555 | | ND | 0.00166 | 0.00553 | | | | | |
| SW8270D-SIM | Benzo(a)anthracene | 56-55-3 | | 6.6 | | | | | | | | | | | | | 0.00218 | 0.00167 | 0.00555 | J | 0.00245 | 0.00166 | 0.00553 | J | | | | |
| SW8270D-SIM | Benzo(a)pyrene | 50-32-8 | | 0.66 | | | | | | | | | | | | | ND | 0.00167 | 0.00555 | | ND | 0.00166 | 0.00553 | | | | | |
| SW8270D-SIM | Benzo(b)fluoranthene | 205-99-2 | | 6.6 | | | | | | | | | | | | | 0.00266 | 0.00167 | 0.00555 | J | 0.00303 | 0.00166 | 0.00553 | J | | | | |
| SW8270D-SIM | Benzo(g,h,i)perylene | 191-24-2 | | 1900 | | | | | | | | | | | | | ND | 0.00167 | 0.00555 | | ND | 0.00166 | 0.00553 | | | | | |
| SW8270D-SIM | Benzo(k)fluoranthene | 207-08-9 | | 66 | | | | | | | | | | | | | ND | 0.00167 | 0.00555 | | ND | 0.00166 | 0.00553 | | | | | |
| SW8270D-SIM | Chrysene | 218-01-9 | | 660 | | | | | | | | | | | | | 0.00550 | 0.00167 | 0.00555 | J | 0.00615 | 0.00166 | 0.00553 | | | | | |
| SW8270D-SIM | Dibenzo(a,h)anthracene | 53-70-3 | | 0.66 | | | | | | | | | | | | | ND | 0.00167 | 0.00555 | | ND | 0.00166 | 0.00553 | | | | | |
| SW8270D-SIM | Fluoranthene | 206-44-0 | | 2500 | | | | | | | | | | | | | 0.00436 | 0.00167 | 0.00555 | J | 0.00480 | 0.00166 | 0.00553 | J | | | | |
| SW8270D-SIM | Fluorene | 86-73-7 | | 3200 | | | | | | | | | | | | | ND | 0.00167 | 0.00555 | | ND | 0.00166 | 0.00553 | | | | | |
| SW8270D-SIM | Indeno(1,2,3-cd)pyrene | 193-39-5 | | 6.6 | | | | | | | | | | | | | ND | 0.00167 | 0.00555 | | ND | 0.00166 | 0.00553 | | | | | |
| SW8270D-SIM | Naphthalene | 91-20-3 | | 42 | | | | | | | | | | | | | 0.0190 | 0.00167 | 0.00555 | | 0.0203 | 0.00166 | 0.00553 | | | | | |
| SW8270D-SIM | Phenanthrene | 85-01-8 | | 27800 | | | | | | | | | | | | | 0.0205 | 0.00167 | 0.00555 | | 0.0198 | 0.00166 | 0.00553 | | | | | |
| SW8270D-SIM | Pyrene | 129-00-0 | | 1900 | | | | | | | | | | | | | 0.00500 | 0.00167 | 0.00555 | J | 0.00551 | 0.00166 | 0.00553 | J | | | | |

# APPENDIX A: FIELD NOTES AND BORE LOGS

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Location Point Lay Date 5/10/15

Project / Client Kali Sch. PH II 4409/NSB

| | |
|---|---|
| 0600 | PTSP & Health & Safety Meeting w/ AGUIRA & GeoTEK Safety Topic was Tracking Swabs w/ Geoprobe Rig. Avoid utilities, steep slopes and use damage when needed Traveling on Snow |
| 0630 | Crew Heads out to lay out Kali School area. SB-01 - SB-08. J. Martin clears Utility locates and GeoTEK gets up for Macro coring. |
| 0720 | J. Newton & J. Martin set up Sample Management area. |
| 0750 | PID Calibration @ 100 ppm w/ Isobutylene Reading @ 99.7 ppm |
| 0810 | Start Sampling |
| 0730 | 1S-PLK2-S0-01-1.0 |
| 0735 | 1S-PLK2-S0-01-3.0 PAH |
| 0755 | 1S-PLK2-S0-03-1.0 |
| 0800 | 1S-PLK2-S0-03-2.0 |

Location Point Lay Date 5/10/15

Project / Client Kali Sch. PH.II 4409/USB

| | | |
|---|---|---|
| 0820 | 1S-PLK2-S0-02-0.0 | |
| 0825 | 1S-PLK2-S0-02-1.0 | |
| 0840 | 1S-PLK2-S0-04-0.0 | |
| 0845 | 1S-PLK2-S0-04-6.0 | |
| 0930 | 1S-PLK2-S0-05-1.0 | PAH |
| 0935 | 1S-PLK2-S0-05-3.0 | PAH |
| 0940 | 1S-PLK2-SB2-01-1.0 | |
| 0950 | 1S-PLK2-S0-06-3.5 | |
| 1005 | 1S-PLK2-S0-09-1.0 | MS/MSD |
| 1010 | 1S-PLK2-S0-08-3.0 | PAH |
| 1020 | 1S-PLK2-S0-07-1.0 | |
| 1025 | 1S-PLK2-S0-07-6.0 | |
| 1050 | 1S-PLK2-SB2-02-6.0 | |
| 1200 | Soil Sampling for PLKS 4409 is complete 5 samples are on Gel ICE | |
| 1215 | Lunch | |
| 1245 | J. Newton @ FIZ airport to pickup Gel ICE sent from AIN | |
| 1315 | J. Newton collects GPS points @ SB's for PLKS 4409. Accuracy Range 3.6' - 29' | |

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# SB-01



**CLIENT** North Slope Borough
**PROJECT NAME** Point Lay Kali School Phase II
**PROJECT NUMBER** 4409
**PROJECT LOCATION** Point Lay, Alaska
**PROJECT MANAGER:** Gloria Beckman
**DRILLING CONTRACTOR:** GeoTek Alaska, Inc.
**BORING COMPLETED:** 5/10/2015
**DRILL RIG TYPE:** Geoprobe 6620
**LOGGED BY: J. Newton**
**TOTAL BOREHOLE DEPTH:** 7 feet BGS

| Depth bgs (ft) | In-Situ PID (ppm) | Soil Analytical Sample ID | Lithologic Column | USCS | Lithologic Description | Sorting | Color | Moisture | Odor | Well Diagram | Well Description |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 0 | | | | | | | | | | |
| 1 | 0 | 15-PLK2-SO-01-1.0 | | GP | POORLY GRADED GRAVEL WITH SAND. SANDY GRAVEL | POOR | BROWN | DRY | NONE | | |
| 2 | 0.1 | | | | | | | | | | |
| 3 | 1.7 | 15-PLK2-SO-01-3.0 | | GM | WELL GRADED GRAVEL WITH SILT. SANDY GRAVEL WITH SILT | POOR | BROWN TO DARK BROWN | MOIST | NONE | | |
| 4 | 0 | | | | | | | | | | |
| 5 | 0 | | | ML | SILT. SILT | WELL | OLIVE GRAY | MOIST | NONE | | |
| 6 | 0 | | | OH | ORGANIC SOIL. PEAT | | DARK BROWN | WET | NONE | | |
| 7 | 0 | | | | | | | | | | |

Drawn: 10-September-2015
Drawn By: B. Maloney
Checked By: G. Beckman

Notes:
bgs: below ground surface
PID: photo ionization detector
NA: not applicable
HC: hydrocarbon

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# SB-02



**CLIENT** North Slope Borough
**PROJECT NAME** Point Lay Kali School Phase II
**PROJECT NUMBER** 4409
**PROJECT LOCATION** Point Lay, Alaska
**PROJECT MANAGER:** Gloria Beckman
**DRILLING CONTRACTOR:** GeoTek Alaska, Inc.
**BORING COMPLETED:** 5/10/2015
**DRILL RIG TYPE:** Geoprobe 6620
**LOGGED BY: J. Newton**
**TOTAL BOREHOLE DEPTH:** 7 feet BGS

| Depth bgs (ft) | In-Situ PID (ppm) | Soil Analytical Sample ID | Lithologic Column | USCS | Lithologic Description | Sorting | Color | Moisture | Odor | Well Diagram | Well Description |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | 15-PLK2-SO-02-0.0 | | OH | ORGANIC SOIL. PEAT | | VERY DARK BROWN | MOIST | NONE | | |
| 1 | 0.1 | 15-PLK2-SO-02-1.0 | | | | | | | | | |
| 2 | 0 | | | OH | ORGANIC SOIL. MUCKY PEAT (ORGANICS WITH FINES AND ICE CRYSTALS) | | VERY DARK BROWN | SATURATED | NONE | | |
| 3 | 0.4 | | | | | | | | | | |
| 4 | 0 | | | | | | | | | | |
| 5 | 0 | | | ICE | ICE | | WHITE | SATURATED | NONE | | |
| 6 | 0 | | | | | | | | | | |
| 7 | 0 | | | | | | | | | | |

Drawn: 10-September-2015
Drawn By: B. Maloney
Checked By: G. Beckman

Notes:
bgs: below ground surface
PID: photo ionization detector
NA: not applicable
HC: hydrocarbon

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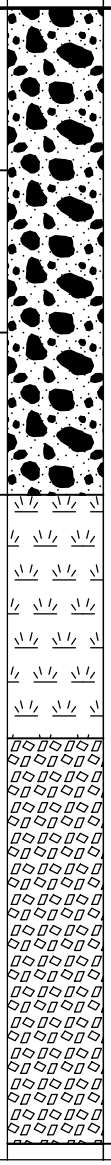
# SB-03



**CLIENT** North Slope Borough
**PROJECT NAME** Point Lay Kali School Phase II
**PROJECT NUMBER** 4409
**PROJECT LOCATION** Point Lay, Alaska
**PROJECT MANAGER:** Gloria Beckman
**DRILLING CONTRACTOR:** GeoTek Alaska, Inc.
**BORING COMPLETED:** 5/10/2015
**DRILL RIG TYPE:** Geoprobe 6620
**LOGGED BY: J. Newton**
**TOTAL BOREHOLE DEPTH:** 7 feet BGS

| Depth bgs (ft) | In-Situ PID (ppm) | Soil Analytical Sample ID | Lithologic Column | USCS | Lithologic Description | Sorting | Color | Moisture | Odor | Well Diagram | Well Description |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 0 | |  | | | | | | | | |
| 1 | 0 | 15-PLK2-SO-03-1.0 | | GW | WELL GRADED GRAVEL WITH SAND. SANDY GRAVEL | POOR | BROWN | MOIST | NONE | | |
| 2 | 0.2 | 15-PLK2-SO-03-2.0 | | | | | | | | | |
| 3 | 0 | | | OH | ORGANIC SOIL. PEAT | | DARK BROWN | MOIST | NONE | | |
| 4 | 0 | | | | | | | | | | |
| 5 | 0 | | | ICE | ICE | | WHITE | SATURATED | NONE | | |
| 6 | 0 | | | | | | | | | | |
| 7 | 0 | | | | | | | | | | |

Drawn: 10-September-2015
Drawn By: B. Maloney
Checked By: G. Beckman

Notes:
bgs: below ground surface
PID: photo ionization detector
NA: not applicable
HC: hydrocarbon

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# SB-04



**CLIENT** North Slope Borough
**PROJECT NAME** Point Lay Kali School Phase II
**PROJECT NUMBER** 4409
**PROJECT LOCATION** Point Lay, Alaska
**PROJECT MANAGER:** Gloria Beckman
**DRILLING CONTRACTOR:** GeoTek Alaska, Inc.
**BORING COMPLETED:** 5/10/2015
**DRILL RIG TYPE:** Geoprobe 6620
**LOGGED BY: J. Newton**
**TOTAL BOREHOLE DEPTH:** 7 feet BGS

| Depth bgs (ft) | In-Situ PID (ppm) | Soil Analytical Sample ID | Lithologic Column | USCS | Lithologic Description | Sorting | Color | Moisture | Odor | Well Diagram | Well Description |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1.2 | 15-PLK2-SO-04-0.0 | | SW | WELL GRADED GRAVEL WITH SAND. GRAVELY SAND | POOR | DARK GRAY TO BROWN | MOIST | NONE | | |
| 1 | 0 | | | OH | ORGANIC SOIL. PEAT | | VERY DARK BROWN | MOIST | NONE | | |
| 2 | 0 | | | | | | | | | | |
| 3 | 0 | | | | | | | | | | |
| 4 | 0 | | | OH | ORGANIC SOIL. PEAT | | VERY DARK BROWN | SATURATED | NONE | | |
| 5 | 0 | | | | | | | | | | |
| 6 | 0 | 15-PLK2-SO-04-6.0 | | ML | SILT. SILT | | OLIVE GRAY | SATURATED | NONE | | |
| 7 | 0 | | | | | | | | | | |

Drawn: 10-September-2015
Drawn By: B. Maloney
Checked By: G. Beckman

Notes:
bgs: below ground surface
PID: photo ionization detector
NA: not applicable
HC: hydrocarbon

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# SB-05



**CLIENT** North Slope Borough
**PROJECT NAME** Point Lay Kali School Phase II
**PROJECT NUMBER** 4409
**PROJECT LOCATION** Point Lay, Alaska
**PROJECT MANAGER:** Gloria Beckman
**DRILLING CONTRACTOR:** GeoTek Alaska, Inc.
**BORING COMPLETED:** 5/10/2015
**DRILL RIG TYPE:** Geoprobe 6620
**LOGGED BY: J. Newton**
**TOTAL BOREHOLE DEPTH:** 7 feet BGS

| Depth bgs (ft) | In-Situ PID (ppm) | Soil Analytical Sample ID | Lithologic Column | USCS | Lithologic Description | Sorting | Color | Moisture | Odor | Well Diagram | Well Description |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0 | | | GW | WELL GRADED SAND WITH GRAVEL. SANDY GRAVEL | POOR | BROWN | WET | NONE | | |
| | 1 | 15-PLK2-SO-05-1.0 | | | | | | | | | |
| 2 | 2 | | | | | | | | | | |
| 3 | 0 | 15-PLK2-SO-05-3.0 | | OH | ORGANIC SOIL. PEAT | | VERY DARK BROWN | SATURATED | NONE | | |
| 4 | 0 | | | | | | | | | | |
| 5 | 0 | | | ICE | ICE | | WHITE | SATURATED | NONE | | |
| 6 | 0 | | | | | | | | | | |
| 7 | 0 | | | | | | | | | | |

Drawn: 10-September-2015
Drawn By: B. Maloney
Checked By: G. Beckman

Notes:
bgs: below ground surface
PID: photo ionization detector
NA: not applicable
HC: hydrocarbon

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# SB-06



**CLIENT** North Slope Borough
**PROJECT NAME** Point Lay Kali School Phase II
**PROJECT NUMBER** 4409
**PROJECT LOCATION** Point Lay, Alaska
**PROJECT MANAGER:** Gloria Beckman
**DRILLING CONTRACTOR:** GeoTek Alaska, Inc.
**BORING COMPLETED:** 5/10/2015
**DRILL RIG TYPE:** Geoprobe 6620
**LOGGED BY: J. Newton**
**TOTAL BOREHOLE DEPTH:** 7 feet BGS

| Depth bgs (ft) | In-Situ PID (ppm) | Soil Analytical Sample ID | Lithologic Column | USCS | Lithologic Description | Sorting | Color | Moisture | Odor | Well Diagram | Well Description |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 0 | | | OH | ORGANIC SOIL. PEAT | | VERY DARK BROWN TO BLACK | SATURATED | NONE | | |
| | 0.5 | | | | | | | | | | |
| 2 | 0 | | | | | | | | | | |
| 3 | 0 | | | | | | | | | | |
| 4 | 0 | 15-PLK2-SO-06-3.5 | | OH | ORGANIC SOIL. PEAT | | VERY DARK BROWN | WET | NONE | | |
| 5 | 0 | | | | | | | | | | |
| | | | | | ICE | | WHITE | SATURATED | NONE | | |
| 6 | 0 | | | | | | | | | | |
| 7 | 0 | | | | | | | | | | |

Drawn: 10-September-2015
Drawn By: B. Maloney
Checked By: G. Beckman

Notes:
bgs: below ground surface
PID: photo ionization detector
NA: not applicable
HC: hydrocarbon

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# SB-07



**CLIENT** North Slope Borough
**PROJECT NAME** Point Lay Kali School Phase II
**PROJECT NUMBER** 4409
**PROJECT LOCATION** Point Lay, Alaska
**PROJECT MANAGER:** Gloria Beckman
**DRILLING CONTRACTOR:** GeoTek Alaska, Inc.
**BORING COMPLETED:** 5/10/2015
**DRILL RIG TYPE:** Geoprobe 6620
**LOGGED BY: J. Newton**
**TOTAL BOREHOLE DEPTH:** 7 feet BGS

| Depth bgs (ft) | In-Situ PID (ppm) | Soil Analytical Sample ID | Lithologic Column | USCS | Lithologic Description | Sorting | Color | Moisture | Odor | Well Diagram | Well Description |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0 | | | OH | ORGANIC SOIL. PEAT | | VERY DARK BROWN | WET | NONE | | |
| 1 | 0 | 15-PLK2-SO-07-1.0 | | | | | | | | | |
| 2 | 0 | | | OH | ORGANIC SOIL. PEAT | | VERY DARK BROWN | MOIST | NONE | | |
| 3 | 0 | | | | | | | | | | |
| 4 | 0 | | | | ICE | | WHITE | SATURATED | NONE | | |
| 5 | 0 | | | | | | | | | | |
| 6 | 0 | 15-PLK2-SO-07-6.0 | | ML | SILT. SILT | | OLIVE GRAY | SATURATED | NONE | | |
| 7 | 0 | | | | | | | | | | |

Drawn: 10-September-2015
Drawn By: B. Maloney
Checked By: G. Beckman

Notes:
bgs: below ground surface
PID: photo ionization detector
NA: not applicable
HC: hydrocarbon

TEST LOG - GINT STD US.GDT - 10/26/15 09:45 - C:\USERS\PUBLIC\DOCUMENTS\BENTLEY\GINT\PROJECTS\PL KALI SCHOOL 4409.GPJ

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# SB-08



**CLIENT** North Slope Borough
**PROJECT NAME** Point Lay Kali School Phase II
**PROJECT NUMBER** 4409
**PROJECT LOCATION** Point Lay, Alaska
**PROJECT MANAGER:** Gloria Beckman
**DRILLING CONTRACTOR:** GeoTek Alaska, Inc.
**BORING COMPLETED:** 5/10/2015
**DRILL RIG TYPE:** Geoprobe 6620
**LOGGED BY: J. Newton**
**TOTAL BOREHOLE DEPTH:** 7 feet BGS

| Depth bgs (ft) | In-Situ PID (ppm) | Soil Analytical Sample ID | Lithologic Column | USCS | Lithologic Description | Sorting | Color | Moisture | Odor | Well Diagram | Well Description |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 0 | | | | | | | | | | |
| 1 | 0 | 15-PLK2-SO-08-1.0 | | GW | WELL GRADED GRAVEL WITH SAND. SANDY GRAVEL | POOR | BLACK | MOIST | NONE | | |
| 2 | 0.1 | | | | | | | | | | |
| 3 | 0 | 15-PLK2-SO-08-3.0 | | OH | ORGANIC SOIL. MUCKY PEAT (ORGANICS WITH FINES) | POOR | VERY DARK BROWN TO BLACK | MOIST | NONE | | |
| 4 | 0 | | | | | | | | | | |
| 5 | 0 | | | ICE | ICE | | WHITE | SATURATED | NONE | | |
| 6 | 0 | | | | | | | | | | |
| 7 | 0 | | | | | | | | | | |

Drawn: 10-September-2015
Drawn By: B. Maloney
Checked By: G. Beckman

Notes:
bgs: below ground surface
PID: photo ionization detector
NA: not applicable
HC: hydrocarbon

TEST LOG - GINT STD US.GDT - 10/26/15 09:45 - C:\USERS\PUBLIC\DOCUMENTS\BENTLEY\GINT\PROJECTS\PL KALI SCHOOL 4409.GPJ

| USCS Lithology Abbreviation | Lithological Description | Additional Information |
|---|---|---|
| GP | Poorly graded gravel with sand | Sandy Gravel |
| GM | Well graded gravel with silt. | Sandy Gravel with Silt |
| ML | Silt | Silt |
| OH | Organic Soil | Peat; Mucky Peat; Organics with Fines and Ice Crystals |
| GW | Well Graded Gravel with Sand. | Sandy Gravel |
| SW | Well Graded Gravel with Sand. | Gravely Sand |
| ICE | Frozen groundwater | Ice no soil |

**Notes:** Based on Unified Soil Classification System ASTM D2488-09a, the lithology abbreviations and descriptions presented in the table are also presented and defined in the boring log columns 4 and 5. This information is also based on data base supporting the gINT V8i program used to generate the boring logs.

# APPENDIX B: ADEC LABORATORY REVIEW CHECKLIST, DATA QUALITY REVIEW, AND CHAIN- OF CUSTODY

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# Laboratory Data Review Checklist

Completed by: Jack James

Title: Chemist, Argon, Inc. Date: 7/6/2015

CS Report Name: 4409 – Point Lay Kali School Ph2 Report Date: 06/05/2015

Consultant Firm: AGVIQ, LLC

Laboratory Name: SGS – Anchorage, AK Laboratory Report Number: 1152028

ADEC File Number: ADEC RecKey Number:

1. Laboratory
   a. Did an ADEC CS approved laboratory receive and perform all of the submitted sample analyses?
      ✓Yes No NA (Please explain.) Comments:

   b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?
      Yes No ✓NA (Please explain.) Comments:

      Samples were not subcontracted.

2. Chain of Custody (COC)
   a. COC information completed, signed, and dated (including released/received by)?
      ✓Yes No NA (Please explain.) Comments:

   b. Correct analyses requested?
      ✓Yes No NA (Please explain.) Comments:

3. Laboratory Sample Receipt Documentation
   a. Sample/cooler temperature documented and within range at receipt (4° ± 2° C)?
      ✓Yes No NA (Please explain.) Comments:

   b. Sample preservation acceptable – acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?
      ✓Yes No NA (Please explain.) Comments:

c. Sample condition documented – broken, leaking (Methanol), zero headspace (VOC vials)?
✓Yes No NA (Please explain.) Comments:

d. If there were any discrepancies, were they documented? For example, incorrect sample containers/preservation, sample temperature outside of acceptable range, insufficient or missing samples, etc.?
✓Yes No NA (Please explain.) Comments:

e. Data quality or usability affected? (Please explain.)
Comments:

4. Case Narrative
   a. Present and understandable?
   ✓Yes No NA (Please explain.) Comments:

   b. Discrepancies, errors or QC failures identified by the lab?
   ✓Yes No NA (Please explain.) Comments:

   Refer to the laboratory case narrative for description of VOC CCV exception. No exceptions resulted in sample qualification by the laboratory. Insufficient information was given in the Level II laboratory report for the validator to apply qualifications.

   c. Were all corrective actions documented?
   ✓Yes No NA (Please explain.) Comments:

   d. What is the effect on data quality/usability according to the case narrative?
   Comments:

   No data quality or usability was affected by the case narrative that is not discussed elsewhere in this checklist.

5. Samples Results
   a. Correct analyses performed/reported as requested on COC?
   ✓Yes No NA (Please explain.) Comments:

b. All applicable holding times met?

✓Yes No NA (Please explain.) Comments:

c. All soils reported on a dry weight basis?

✓Yes No NA (Please explain.) Comments:

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

✓Yes No NA (Please explain.) Comments:

e. Data quality or usability affected?

Comments:

No data quality or usability was affected.

6. QC Samples

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

✓Yes No NA (Please explain.) Comments:

ii. All method blank results less than PQL?

✓Yes No NA (Please explain.) Comments:

No method blank results were above than the PQL; however, three method blank samples detected target analytes at concentrations below the PQL.

DRO/RRO method blank sample 1265673 and 1265796 in prep batches XXX33106 and XXX33109, respectively, detected DRO and RRO at concentrations below the PQL.

VOC method blank sample 1265375 in prep batch VXX27266 detected tetrachloroethene and trichloroethene at concentrations below the PQLs.

iii. If above PQL, what samples are affected?

Comments:

Associated sample 15-PLK2-SBZ-01-1.0 detected DRO at a concentration less than five-times that of the method blank sample and less than the PQL. The result was raised to the PQL, considered not detected at the PQL, and qualified (UB) to reflect the bias introduced by the method blank contamination. Associated samples 15-PLK2-SO-01-1.0, 15-PLK2-SO-03-1.0, 15-PLK2-SO-03-2.0, and 15-PLK2-SO-05-1.0 detected DRO at concentrations less than five-times that of the method blank sample, but greater than the PQL. The PQL was raised to the result value, qualified (UB), and considered not detected at the new PQL.

Associated samples 15-PLK2-SBZ-01-1.0, 15-PLK2-SO-01-1.0, 15-PLK2-SO-03-1.0, and 15-PLK2-SO-05-1.0 detected RRO at concentrations less than five-times that of the method blank sample, but greater than the PQL. The PQLs were raised to the result values, qualified (UB), and considered not detected at the new PQL to reflect the bias introduced by the method blank contamination.

No VOC samples were affected by the method blank because all associated samples detected tetrachloroethene and trichloroethene at concentrations greater than five-times that of the method blank.

iv. Do the affected sample(s) have data flags and if so, are the data flags clearly defined?

✓Yes No NA (Please explain.) Comments:

v. Data quality or usability affected? (Please explain.)

Comments:

See 6aiii above.

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics – One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

✓Yes No NA (Please explain.) Comments:

ii. Metals/Inorganics – one LCS and one sample duplicate reported per matrix, analysis and 20 samples?

Yes No ✓NA (Please explain.) Comments:

No metals/inorganics were included in this work order.

iii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

Yes ✓No NA (Please explain.) Comments:

VOC analyte chloroethane recovered above laboratory limits in LCS samples 1265376 and 1265919. Additionally, chloroethane and trichlorofluoromethane recovered above laboratory limits in LCS samples 1265378, 1265394, and 1265732.

The laboratory prepared sample 15-PLK2-SO-07-1.0 as a VOC MS/MSD. 1,1-Dichloroethane, 1,1-dichloroethene, 1,2-dichloropropane, bromobenzene, bromochloromethane, chloroethane, chloroform, dichlorodifluoromethane, trichloroethene, trichlorofluoromethane, and vinyl chloride recovered above laboratory limits in the MS sample. 1,2-Dichloropropane, bromobenzene, and dichlorodifluoromethane recovered above laboratory limits in the MSD sample.

iv. Precision – All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/MSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

Yes ✓No NA (Please explain.) Comments:

The laboratory prepared sample 15-PLK2-SO-07-1.0 as a VOC MS/MSD. Chloroethane and trichlorofluoromethane reported RPDs above the laboratory limit.

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

Associated VOC sample 15-PLK2-SO-01-3.0 detected trichlorofluoromethane and the result was qualified (JL) due to the high LCS recovery. All other associated VOC samples did not detect chloroethane or trichlorofluoromethane and are considered unaffected by the high LCS recoveries.

Parent sample 15-PLK2-SO-07-1.0 did not detect 1,1-dichloroethane, 1,1-dichloroethene, 1,2-dichloropropane, bromobenzene, bromochloromethane, chloroethane, chloroform, dichlorodifluoromethane, trichloroethene, trichlorofluoromethane, and vinyl chloride and is considered unaffected by the high MS/MSD recoveries.

Parent sample 15-PLK2-SO-07-1.0 did not detect chloroethane or trichlorofluoromethane and is considered unaffected by the high MS/MSD RPD.

vi. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

✓Yes No NA (Please explain.) Comments:

vii. Data quality or usability affected? (Use comment box to explain.)

Comments:

See 6bv above.

c. Surrogates – Organics Only

i. Are surrogate recoveries reported for organic analyses – field, QC and laboratory samples?
✓Yes No NA (Please explain.) Comments:

ii. Accuracy – All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)
Yes ✓No NA (Please explain.) Comments:

GRO surrogate 4-bromofluorobenzene recovered below laboratory limits in samples 15-PLK2-SO-02-0.0, 15-PLK2-SO-02-1.0, 15-PLK2-SO-05-3.0, 15-PLK2-SO-07-1.0, 15-PLK2-SO-07-6.0, and 15-PLK2-SO-08-3.0.

RRO surrogate n-triacontane recovered above laboratory limits in samples 15-PLK2-SO-02-0.0, 15-PLK2-SO-02-1.0, 15-PLK2-SO-05-3.0, 15-PLK2-SO-06-3.5, 15-PLK2-SO-07-1.0, and 15-PLK2-SO-08-3.0.

VOC surrogate 1,2-dichloroethane-d4 recovered above laboratory limits in samples 15-PLK2-SO-05-1.0, 15-PLK2-SO-05-3.0, 15-PLK2-SO-06-3.5, 15-PLK2-SO-07-1.0, 15-PLK2-SO-08-3.0, and the MS prepared from sample 15-PLK2-SO-07-1.0.

VOC surrogate 4-bromofluorobenzene recovered below laboratory limits in samples 15-PLK2-SO-08-3.0, and the MS/MSD prepared from sample 15-PLK2-SO-07-1.0.

PAH surrogates 2-fluorobiphenyl and terphenyl-d14 recovered above laboratory limits in sample 15-PLK2-S0-01-3.0.

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?
✓Yes No NA (Please explain.) Comments:

iv. Data quality or usability affected? (Use the comment box to explain.)
Comments:

The GRO results in samples 15-PLK2-SO-02-0.0, 15-PLK2-SO-02-1.0, 15-PLK2-SO-05-3.0, 15-PLK2-SO-07-1.0, 15-PLK2-SO-07-6.0, and 15-PLK2-SO-08-3.0 were qualified (JS) and (UJ) as estimates due to the low surrogate recoveries.

The RRO results in samples 15-PLK2-SO-02-0.0, 15-PLK2-SO-02-1.0, 15-PLK2-SO-05-3.0, 15-PLK2-SO-06-3.5, 15-PLK2-SO-07-1.0, and 15-PLK2-SO-08-3.0 were qualified (JS) as estimates due to the high surrogate recoveries.

The VOC results in sample with high surrogate 1,2-dichloroethane-d4 recoveries were not affected as associated analytes were not detected. Qualifications were not made based upon surrogate recovery in the MS sample and the sample was instead assessed based upon recoveries of spiked target analytes.

The VOC results associated with surrogate 4-bromofluorobenzene in sample 15-PLK2-SO-08-3.0 were qualified (UJ) as estimates due to the low surrogate recovery. Qualifications were not made based upon surrogate recovery in the MS/MSD sample and the sample was instead assessed based upon recoveries of spiked target analytes.

The PAH results in all samples with high surrogate recoveries were not affected because the recoveries were due to 5x dilutions. No qualifications were applied.

d. Trip blank – Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.): Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.)

✓Yes No NA (Please explain.) Comments:

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

✓Yes No NA (Please explain.) Comments:

Trip blank sample 15-PLK2-TB-01 was included in cooler 1.

iii. All results less than PQL?

✓Yes No NA (Please explain.) Comments:

No trip blank results were above the PQL; however, chloromethane was detected at a concentration below the PQL.

iv. If above PQL, what samples are affected?

Comments:

Associated sample 15-PLK2-SO-01-1.0 detected chloromethane at a concentration less than five-times that of the trip blank sample and less than the PQL. The result was raised to the PQL, considered not detected at the PQL, and qualified (UB) to reflect the bias introduced by the trip blank contamination.

v. Data quality or usability affected? (Please explain.)

Comments:

See 6div above.

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?
✓Yes No NA (Please explain.) Comments:

Field duplicate frequency is assessed on a per project basis (rather than per laboratory report basis).

Two field duplicate soil samples were submitted for the fifteen primary soil samples included in this work order for GRO, DRO, RRO, and VOC analyses (13%) and one field duplicate soil sample was submitted for the three primary soil samples for PAH analysis (33%), satisfying the project frequency requirement for all methods.

ii. Submitted blind to lab?
✓Yes No NA (Please explain.) Comments:

Sample 15-PLK2-SBZ-01-1.0 was a field duplicate of sample 15-PLK2-SO-05-1.0 and sample 15-PLK2-SBZ-02-6.0 was a field duplicate of sample 15-PLK2-SO-07-6.0.

iii. Precision – All relative percent differences (RPD) less than specified DQOs? (Recommended: 30% water, 50% soil)

RPD (%) = Absolute value of: $\frac{(R_1-R_2)}{((R_1+R_2)/2)} \times 100$

Where $R_1$ = Sample Concentration
$R_2$ = Field Duplicate Concentration

Yes ✓No NA (Please explain.) Comments:

In cases where a target analyte was non-detect, the PQL was used for RPD calculation purposes.

All results for the field duplicate/parent sample pair 15-PLK2-SBZ-01-1.0 /15-PLK2-SO-05-1.0 were comparable (RPD ≤ 50%), with the exception of DRO and naphthalene.

All results for the field duplicate/parent sample pair 15-PLK2-SBZ-02-6.0 /15-PLK2-SO-07-6.0 were comparable (RPD ≤ 50%), with the exception of DRO, RRO, and naphthalene.

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)

Comments:

The DRO and naphthalene results in field duplicate/parent sample pair 15-PLK2-SBZ-01-1.0 /15-PLK2-SO-05-1.0 were detected above the PQL in the parent and below the PQL in the duplicate. Parent and duplicate results were qualified (JD) as estimates due to imprecision.

The DRO and RRO results in field duplicate/parent sample pair 15-PLK2-SBZ-02-6.0 /15-PLK2-SO-07-6.0 were detected above the PQL and were qualified (JD) as estimates due to imprecision. Naphthalene results were less than the PQL in the duplicate and non-detect in the parent sample and qualifications were not necessary.

f. Decontamination or Equipment Blank (If not used explain why).

Yes No ✓NA (Please explain.) Comments:

No equipment blank was required because disposable sampling equipment was used.

i. All results less than PQL?

Yes No ✓NA (Please explain.) Comments:

No equipment blank was required.

ii. If above PQL, what samples are affected?

Comments:

Not applicable.

iii. Data quality or usability affected? (Please explain.)

Comments:

Not applicable.

7. Other Data Flags/Qualifiers (ACOE, AFCEE, Lab Specific, etc.)

a. Defined and appropriate?

Yes No ✓NA (Please explain.) Comments:

No other data flags/qualifiers were used.

# Quality Assurance Summary

## SGS Laboratory Report 1152028
## Point Lay Kali School
## Point Lay, Alaska

Prepared For

Prepared By

July 6, 2015

# 1.0 INTRODUCTION

This Quality Assurance (QA) Summary outlines the technical review of analytical results generated in support of soil sample collection for the Agviq, LLC (Agviq) Point Lay Kali School, Second Phase Site (PLK2) project in May 2015. Argon, Inc. (Argon) reviewed project and quality control (QC) analytical data to assess whether the data met the designated data quality objectives (DQOs) and were acceptable for project use. The project data were reviewed for deviations to the requirements presented in the Work Plan (*Point Lay Kali School, Second Phase Site, Site Characterization Work Plan, Agviq, April 2015*) and for any effects on data validity and/or usability due to field sampling and laboratory quality control discrepancies.

## 1.1 Data Quality Objectives

The six DQOs used for this review were precision, accuracy, representativeness, comparability, completeness, and sensitivity.

- Precision measures the reproducibility of repetitive measurements. It is measured by calculating the relative percent difference (RPD) between duplicate samples. Field duplicate samples, matrix spike (MS) and matrix spike duplicate (MSD) sample pairs, and laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) pairs were used to measure precision for this project.
- Accuracy measures the correctness, or the closeness, between the true value and the quantity detected. It is measured by calculating the percent recovery of known concentrations of spiked compounds that were introduced into the appropriate sample matrix. Surrogate, LCS, and MS sample recoveries were used to measure accuracy for this project.
- Representativeness describes the degree to which data accurately and precisely represents site characteristics. Representativeness was demonstrated by choosing the number of samples, sample locations, and sampling procedures in order to produce results showing as accurately as possible the matrix and site conditions.
- Comparability describes whether two data sets can be considered equivalent with respect to the project goal. Comparability is achieved by keeping the analytical laboratory the same throughout the project. Analytical methods, laboratory procedures, and reporting limits are therefore consistent and comparable between laboratory reports.
- Completeness describes the amount of valid data obtained from the sampling event(s). It is calculated as the percentage of valid measurements compared to the total number of measurements.
- Sensitivity describes the lowest concentration that the analytical method can reliably quantitate, and is evaluated by verifying that the detected results and/or practical quantitation limits (PQLs) meet the

project specific cleanup levels and/or screening levels. Sensitivity is also assessed by comparison of method blank and trip blank results to the PQL.

In addition to these criteria for the six DQOs described above, sample collection and handling procedures and blank samples were reviewed to ensure overall data quality. Sample collection forms were reviewed to verify that representative samples were collected and samples were without headspace (if applicable). Sample handling was reviewed to assess parameters such as chain-of-custody (COC) documentation, the use of appropriate sample containers and preservatives, shipment cooler temperature, and method-specified sample holding times. Blank samples were analyzed to detect potential field or laboratory cross-contamination. Each of these parameters contributes to the general representativeness and comparability of the project data. The combination of evaluations of the above-mentioned parameters will lead to a determination of the overall project data completeness.

The following data qualifiers are used to indicate a potential bias in an analytical result or a deviation from method or project QC procedures:

- U The analyte was analyzed for, but not detected.
- UJ The analyte was analyzed for, but not detected. The reported quantitation level is approximate and may be inaccurate or imprecise.
- UB The analyte is detected in an associated blank and the sample result is less than 5x or 10x (for the common lab contaminants) the blank contamination. If the sample result is less than the PQL, the result is considered not detected at the PQL. If the sample result is greater than the PQL, the result is considered not detected and the sample result is considered the new PQL.
- J The analyte is considered an estimated value due to its quantitation level.
- JC The analyte is considered an estimated value due to a calibration QC deviation.
- JD The analyte is considered an estimated value due to demonstrated field duplicate imprecision.
- JH The analyte is considered an estimated value due to exceedance of the technical holding time.
- JI The analyte is considered an estimated value due to an internal standard QC deviation.
- JL The analyte is considered an estimated value due to demonstrated laboratory control sample imprecision or inaccuracy.
- JM The analyte is considered an estimated value due to demonstrated sample matrix interference.
- JS The analyte is considered an estimated value due to a surrogate QC deviation.
- JT The analyte is considered an estimated value due to exceedance of the recommended sample receipt temperature.

- R The result is rejected because of deficiencies in meeting QC criteria and may not be used for decision making.

## 1.2 Summary

A total of 29 soil samples, consisting of 26 primary samples and three field duplicate sample were collected in support of the Point Lay PLK2 project in May 2015. Extra volume was collected for MS/MSD analysis for one sample. In addition, one trip blank sample accompanied each cooler containing samples for volatile analyses. The collection of an equipment blank sample was not required as samples were collected using disposable equipment. Each sample was analyzed by one or more of the following analytical methods:

- Gasoline range organics (GRO) by Alaska (AK) Method 101
- Diesel range organics (DRO) by AK Method 102
- Residual range organics (RRO) by AK Method 103
- Volatile organic compounds (VOCs) by United States Environmental Protection Agency (EPA) Method SW8260B
- Polynuclear aromatic hydrocarbons (PAHs) by EPA 8270D-selective ion monitoring (SIM)

All project and quality control samples were analyzed by SGS North America, Inc. of Anchorage, Alaska (SGS). The laboratory is validated by the State of Alaska through the Contaminated Sites Program and is certified through the Environmental Laboratory Accreditation Program (ELAP) for the applicable methods employed for this project.

# 2.0 DATA QUALITY REVIEW

## 2.1 Sample Handling

The evaluation of proper sample handling procedures included verification of the following: correct COC documentation, appropriate sample containers and preservatives, cooler temperatures maintained 4 degrees Celsius (°C) (±2 °C), and sample analyses performed within method-specified holding times.

- No sample handling discrepancies were noted upon receipt at the laboratory.

## 2.2 Blanks

Method blanks and trip blanks were utilized to detect potential cross-contamination of project samples. The blank samples were reviewed for detections of target analytes and the effect (if any) on project samples is addressed.

### 2.2.1 Method Blanks

Method blanks were utilized to detect potential cross-contamination of project samples occurring in the laboratory. Method blanks are analyzed at the frequency of one per matrix, analysis, and 20 samples.

- Method blanks were analyzed at the correct frequency and no analyte results were above the PQL. However, three method blank samples detected target analytes below the PQL:
  - DRO/RRO method blank sample 1265673 and 1265796 in prep batches XXX33106 and XXX33109, respectively, detected DRO and RRO at concentrations below the PQL. Associated sample 15-PLK2-SBZ-01-1.0 detected DRO at a concentration less than five-times that of the method blank sample and less than the PQL. The result was raised to the PQL, considered not detected at the PQL, and qualified (UB) to reflect the bias introduced by the method blank contamination. Associated samples 15-PLK2-SO-01-1.0, 15-PLK2-SO-03-1.0, 15-PLK2-SO-03-2.0, and 15-PLK2-SO-05-1.0 detected DRO at concentrations less than five-times that of the method blank sample, but greater than the PQL. The PQL was raised to the result value, qualified (UB), and considered not detected at the new PQL.
  - Associated samples 15-PLK2-SBZ-01-1.0, 15-PLK2-SO-01-1.0, 15-PLK2-SO-03-1.0, and 15-PLK2-SO-05-1.0 detected RRO at concentrations less than five-times that of the method blank sample, but greater than the PQL. The PQLs were raised to the result values, qualified (UB), and considered not detected at the new PQL to reflect the bias introduced by the method blank contamination.
  - VOC method blank sample 1265375 in prep batch VXX27266 detected tetrachloroethene and trichloroethene at concentrations below the PQLs. No project VOC samples were affected by the method blank because all associated samples detected tetrachloroethene and trichloroethene at concentrations greater than five-times that of the method blank.

### 2.2.2 Trip Blanks

Trip blanks were utilized to detect potential cross-contamination of project samples occurring during shipment and storage. A trip blank accompanies every cooler containing samples for volatiles analyses.

- One cooler was submitted for this project. Cooler 1 contained trip blank sample 15-PLK2-TB-01.
- No analyte results in the trip blank sample were above the PQL; however, chloromethane was detected at a concentration below the PQL. Associated sample 15-PLK2-SO-01-1.0 detected chloromethane at a concentration less than five-times that of the trip blank sample and less than the PQL. The result was raised to the PQL, considered not detected at the PQL, and qualified (UB) to reflect the bias introduced by the trip blank contamination.

## 2.3 Laboratory Control Samples

LCS/LCSD samples were prepared by adding spike compounds to blank samples in order to assess laboratory extraction and instrumentation performance. LCS samples are analyzed at the frequency of one per matrix, analysis, and 20 samples for all methods. Additionally, LCSD samples are analyzed at the frequency of one per matrix, analysis, and 20 samples for Alaska fuel methods.

- LCS/LCSD samples were analyzed at the correct frequency and all results met laboratory accuracy and precision limits, with the following exception:
    - The VOC LCS sample 1265376 had a recovery above laboratory limits for chloroethane. Additionaly, the VOC LCS samples 1265378, 1265394, and 1265732 had recoveries above the laboratory limits for chloroethane and trichlorofluoromethane. Associated VOC sample 15-PLK2-SO-01-3.0 detected trichlorofluoromethane and the result was qualified (JL) due to the high LCS recovery. All other associated VOC samples did not detect chloroethane or trichlorofluoromethane and are considered unaffected by the high LCS recoveries.

## 2.4 Matrix Spike Samples

MS/MSD samples were prepared by adding spike compounds to project samples in order to assess potential matrix interference, recovery accuracy, and precision. MS/MSD samples are analyzed for each method and matrix at the frequency of one per 20 project samples (5%) and frequency is assessed on a per project basis (rather than per laboratory report basis). Only MS/MSD samples prepared from project samples are reviewed as only their results apply to samples from this project.

- One MS/MSD soil sample was analyzed for the 15 primary soil samples for GRO, DRO, and RRO (7%). Satisfying project frequency requirement was met for these analytical methods. Two MS/MSD soil samples were analyzed for the 15 primary soil samples for VOC analyses (13%), satisfying the project frequency requirement for this method. No project MS/MSD soil sample was analyzed for the three primary soil sample for PAH analysis (0%). The project frequency requirement was not met for this analytical method.
- The following MS/MSD discrepancies were noted:
    - The laboratory prepared sample 15-PLK2-SO-07-1.0 as a VOC MS/MSD. ,1-Dichloroethane, 1,1-dichloroethene, 1,2-dichloropropane, bromobenzene, bromochloromethane, chloroethane, chloroform, dichlorodifluoromethane, trichloroethene, trichlorofluoromethane, and vinyl chloride recovered above laboratory limits in the MS sample. 1,2-Dichloropropane, bromobenzene, and dichlorodifluoromethane recovered above laboratory limits in the MSD sample. Parent sample 15-PLK2-SO-07-1.0 did not detect 1,1-dichloroethane, 1,1-dichloroethene, 1,2-dichloropropane, bromobenzene,

bromochloromethane, chloroethane, chloroform, dichlorodifluoromethane, trichloroethene, trichlorofluoromethane, and vinyl chloride and is considered unaffected by the high MS/MSD recoveries.

- The laboratory prepared sample 15-PLK2-SO-07-1.0 as a VOC MS/MSD. Chloroethane and trichlorofluoromethane reported RPDs above the laboratory limit. Parent sample 15-PLK2-SO-07-1.0 did not detect chloroethane or trichlorofluoromethane and is considered unaffected by the high MS/MSD RPD.

## 2.5 Surrogate Recovery

Surrogate compounds were added to project samples by the laboratory prior to analysis, in accordance with method requirements. Surrogate recoveries were then calculated as percentages and reported by the laboratory as a measure of analytical extraction efficiency. The following surrogate recovery discrepancies were noted:

- GRO surrogate 4-bromofluorobenzene recovered below laboratory limits in samples 15-PLK2-SO-02-0.0, 15-PLK2-SO-02-1.0, 15-PLK2-SO-05-3.0, 15-PLK2-SO-07-1.0, 15-PLK2-SO-07-6.0, and 15-PLK2-SO-08-3.0. The GRO results in samples 15-PLK2-SO-02-0.0, 15-PLK2-SO-02-1.0, 15-PLK2-SO-05-3.0, 15-PLK2-SO-07-1.0, 15-PLK2-SO-07-6.0, and 15-PLK2-SO-08-3.0 were qualified (JS) and (UJ) as estimates due to the low surrogate recoveries.
- RRO surrogate n-triacontane recovered above laboratory limits in samples 15-PLK2-SO-02-0.0, 15-PLK2-SO-02-1.0, 15-PLK2-SO-05-3.0, 15-PLK2-SO-06-3.5, 15-PLK2-SO-07-1.0, and 15-PLK2-SO-08-3.0. The RRO results in samples 15-PLK2-SO-02-0.0, 15-PLK2-SO-02-1.0, 15-PLK2-SO-05-3.0, 15-PLK2-SO-06-3.5, 15-PLK2-SO-07-1.0, and 15-PLK2-SO-08-3.0 were qualified (JS) as estimates due to the high surrogate recoveries.
- VOC surrogate 1,2-dichloroethane-d4 recovered above laboratory limits in samples 15-PLK2-SO-05-1.0, 15-PLK2-SO-05-3.0, 15-PLK2-SO-06-3.5, 15-PLK2-SO-07-1.0, 15-PLK2-SO-08-3.0, and the MS prepared from sample 15-PLK2-SO-07-1.0. The VOC results in sample with high surrogate 1,2-dichloroethane-d4 recoveries were not affected as associated analytes were not detected. Qualifications were not made based upon surrogate recovery in the MS sample and the sample was instead assessed based upon recoveries of spiked target analytes.
- VOC surrogate 4-bromofluorobenzene recovered below laboratory limits in samples 15-PLK2-SO-08-3.0, and the MS/MSD prepared from sample 15-PLK2-SO-07-1.0. The VOC results associated with surrogate 4-bromofluorobenzene in sample 15-PLK2-SO-08-3.0 were qualified (UJ) as estimates due to the low surrogate recovery. Qualifications were not made based upon surrogate recovery in the MS/MSD sample and the sample was instead assessed based upon recoveries of spiked target analytes.

- PAH surrogates 2-fluorobiphenyl and terphenyl-d14 recovered above laboratory limits in sample 15-PLK2-S0-01-3.0. The PAH results in all samples with high surrogate recoveries were not affected because the recoveries were due to 5x dilutions. No qualifications were applied.

## 2.6 Field Duplicates

Comparison of field sample duplicate results to the associated parent sample results provides precision information for the overall sample collection and analytical process. Field duplicate samples are submitted to the laboratory as blind samples. Field duplicates are analyzed for each method and matrix at the frequency of one per 10 project samples (10%) and frequency is assessed on a per project basis (rather than per laboratory report basis). Results between field duplicates and parent samples are considered comparable when RPDs are within ADEC criterion of ≤ 50% for a soil matrix. In the case where a target analyte was not detected, the PQL was used for RPD calculation purposes.

- Two field duplicate soil samples were submitted for the fifteen primary soil samples included in this work order for GRO, DRO, RRO, and VOC analyses (13%) and one field duplicate soil sample was submitted for the three primary soil samples for PAH analysis (33%), satisfying the project frequency requirement for all methods.
- All results for the field duplicate/parent sample pair 15-PLK2-SBZ-01-1.0 /15-PLK2-SO-05-1.0 were comparable (RPD ≤ 50%), with the exception of DRO and naphthalene. The DRO and naphthalene results were detected above the PQL in the parent and below the PQL in the duplicate. Parent and duplicate results were qualified (JD) as estimates due to imprecision.
- All results for the field duplicate/parent sample pair 15-PLK2-SBZ-02-6.0 /15-PLK2-SO-07-6.0 were comparable (RPD ≤ 50%), with the exception of DRO, RRO, and naphthalene. The DRO and RRO results in both the duplicate and parent sample were detected above the PQL and were qualified (JD) as estimates due to imprecision. Naphthalene results were less than the PQL in the duplicate and non-detect in the parent sample and qualifications were not necessary.

## 2.7 Analytical Sensitivity

Analytical sensitivity was evaluated to verify that PQLs met the applicable cleanup levels for non-detect results. Soil data was compared against ADEC Method One cleanup levels for Arctic Zone if matrix is porous; or ADEC Method Two lowest cleanup levels for Arctic Zone if matrix is non-porous.

- In all cases, non-detect PQLs for target analytes met applicable ADEC soil levels.

## 2.8 Additional Quality Control Discrepancies

Refer to the laboratory case narrative for description of VOC CCV exception. No exceptions resulted in sample qualification by the laboratory. Insufficient information was given in the Level II laboratory report for the validator to apply qualifications.

## 2.9 Summary of Qualified Results

Overall, the review process deemed the project data acceptable for use. Several results were qualified as estimates; however, no data were rejected pursuant to Argon's data quality review.

The appendix of the report provides a table of qualified data, including the associated sample numbers, analytes, and qualifiers.

## 2.10 Completeness

Completeness was calculated at 100% for this data set, which exceeds the 85% goal per UST Procedures Manual.

AGVIQ

**CHAIN-OF-CUSTODY / Analytical Request Docum**

15-PLKS-5-10-15-001

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed and ac

**1152028**

Page: 1 of 2
Cooler # 1 of 1

sk: 15-PLK2-SOIL-4409
Total # of Samples: 18 Event Complete?

| Lab Information: | | Project Information: | | Other Information: | |
|---|---|---|---|---|---|
| Lab: | SGS Environmental Services, Inc. | Project: | Point Lay Kali School Phase II | Send Invoice to: | Diane Kinka / AGVIQ, LLC |
| Address: | 200 W Potter Drive Anchorage, AK 99518 | Consultant: | AGVIQ, LLC / Environmental Services | Address: | 2809 S. Lynnhaven Road, Suite 200 Virginia Beach, VA 23452 |
| Lab PM: | Chuck Homestead | Address: | 301 W. Northern Lights Blvd., Suite 660 Anchorage, AK 99503 | | |
| Phone/Fax: | (907) 562-2343 / (907) 562-0119 | Contact Name: | Gloria Beckman | Phone/Fax: | 907.365.6230 / 907.365.6350 |
| PM Email: | Charles.Homestead@sgs.com | | | | |
| Lab Quote #: | 12408B | Project #: | 4409 | Send EDD to: | gbeckman@tikigaq.com |

TAT: 14 d — Rush

Notes: F= Field Filtered , H= Hold , X = Shared Container

Lab Notes

Preservative: MeOH | | MeOH | | | | | |

| ITEM # | Field Sample No. /Identification | MATRIX CODE | G=GRAB C=COMP | SAMPLE DATE | #OF CONTAINERS | Comment | Analysis: AK_AK101(GRO)_SO | AK_AK102(DRO)/AK103(RRO)_SO | AK_SW8260B(VOCs)_SO | AK_SW8270D-SIM(PAHs)_SO | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 15-PLK2-SBZ-01-1.0 (1) A-B | SO | G | 05/10/2015 09:40 | 2 | PAH | 1 | 1 | X | X | | | | |
| 2 | 15-PLK2-SBZ-02-6.0 (2) A-B | SO | G | 05/10/2015 10:30 | 2 | | 1 | 1 | X | | | | | |
| 3 | 15-PLK2-SO-01-1.0 (3) A-B | SO | G | 05/10/2015 07:30 | 2 | | 1 | 1 | X | | | | | |
| 4 | 15-PLK2-SO-01-3.0 (4) A-B | SO | G | 05/10/2015 07:35 | 2 | PAH | 1 | 1 | X | X | | | | |
| 5 | 15-PLK2-SO-02-0.0 (5) A-B | SO | G | 05/10/2015 08:20 | 2 | Peat Only Material Present to Sample | 1 | 1 | X | | | | | |
| 6 | 15-PLK2-SO-02-1.0 (6) A-B | SO | G | 05/10/2015 08:25 | 2 | Peat Only Material Present to Sample | 1 | 1 | X | | | | | |
| 7 | 15-PLK2-SO-03-1.0 (7) A-B | SO | G | 05/10/2015 07:55 | 2 | | 1 | 1 | X | | | | | |
| 8 | 15-PLK2-SO-03-2.0 (8) A-B | SO | G | 05/10/2015 08:00 | 2 | | 1 | 1 | X | | | | | |
| 9 | 15-PLK2-SO-04-0.0 (9) A-B | SO | G | 05/10/2015 08:40 | 2 | | 1 | 1 | X | | | | | |
| 10 | 15-PLK2-SO-04-6.0 (10) A-B | SO | G | 05/10/2015 08:45 | 2 | | 1 | 1 | X | | | | | |
| 11 | 15-PLK2-SO-05-1.0 (11) A-B | SO | G | 05/10/2015 09:30 | 2 | PAH | 1 | 1 | X | X | | | | |

**Additional Comments/Special Instructions:**

| | RELINQUISHED BY / AFFILIATION | DATE | TIME | ACCEPTED BY / AFFILIATION | DATE | TIME |
|---|---|---|---|---|---|---|
| SAMPLER: | Jacob Newton | 11-May | 7:00 | | | |
| RELINQUISHER 1: | Jacob Newton | 11-May | 7:00 | | 13May15 | 0820 |
| RELINQUISHER 2: | | | | | | |
| RELINQUISHER 3: | | | | | | |
| RELINQUISHER 4: | | | | | | |
| RELINQUISHER 5: | | | | | | |
| RELINQUISHER 6: | | | | | | |
| RELINQUISHER 7: | | | | | | |

**Sample Receipt Conditions**

| | | | |
|---|---|---|---|
| | Y/N | Y/N | Y/N |
| | Y/N | Y/N | Y/N |
| | Y/N | Y/N | Y/N |
| 5.6 | Y/N | Y/N | Y/N |
| Temp in °C | Samples on Ice? | Sample intact? | Trip Blank? |

#203

AGVIQ

# CHAIN-OF-CUSTODY / Analytical Request Documen

15-PLKS-5-10-15-001

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed and accurat

1152028

Page: 2 of 2
Cooler # 1 of 1

: 15-PLK2-SOIL-4409
otal # of Samples: 18 Event Complete?

| Lab Information: | | Project Information: | | Other Information: | |
|---|---|---|---|---|---|
| Lab: | SGS Environmental Services, Inc. | Project: | Point Lay Kali School Phase II | Send Invoice to: | Diane Kinka / AGVIQ, LLC |
| | | Consultant: | AGVIQ, LLC / Environmental Services | | |
| Address: | 200 W Potter Drive Anchorage, AK 99518 | Address: | 301 W. Northern Lights Blvd., Suite 660 Anchorage, AK 99503 | Address: | 2809 S. Lynnhaven Road, Suite 200 Virginia Beach, VA 23452 |
| Lab PM: | Chuck Homestead | | | | |
| Phone/Fax: | (907) 562-2343 / (907) 562-0119 | Contact Name: | Gloria Beckman | Phone/Fax: | 907.365.6230 / 907.365.6350 |
| PM Email: | Charles.Homestead@sgs.com | | | | |
| Lab Quote #: | 12408B | Project #: | 4409 | Send EDD to: | gbeckman@tikigaq.com |

TAT: 14 d | Rush

Notes: F= Field Filtered , H= Hold , X = Shared Container

| ITEM # | Field Sample No. /Identification | MATRIX CODE | G=GRAB C=COMP | SAMPLE DATE | #OF CONTAINERS | Comment | Lab Notes | Preservative | Analysis | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | AK_AK101(GRO)_SO | AK_AK102(DRO)/AK103(RRO)_SO | AK_SW8260B(VOCs)_SO | AK_SW8270D-SIM(PAHs)_SO | | | | | |
| | | | | | | | | MeOH | | MeOH | | | | | | | |
| 12 | 15-PLK2-SO-05-3.0 (12) A-B | SO | G | 05/10/2015 09:35 | 2 | | | | 1 | 1 | X | | | | | | |
| 13 | 15-PLK2-SO-06-3.5 (13) A-B | SO | G | 05/10/2015 09:50 | 2 | | | | 1 | 1 | X | | | | | | |
| 14 | 15-PLK2-SO-07-1.0 (14) A-B | SO | G | 05/10/2015 10:20 | 2 | | | | 1 | 1 | X | | | | | | |
| 15 | 15-PLK2-SO-07-6.0 (15) A-B | SO | G | 05/10/2015 10:25 | 2 | | | | 1 | 1 | X | | | | | | |
| 16 | 15-PLK2-SO-08-1.0 (16) A-F (17) A-F (18) A-F | SO | G | 05/10/2015 10:05 | 6 | MS/MSD | | | 3 | 3 | X | | | | | | |
| 17 | 15-PLK2-SO-08-3.0 (19) A-B | SO | G | 05/10/2015 10:10 | 2 | PAH | | | 1 | 1 | X | X | | | | | |
| 18 | 15-PLK2-TB-01 (20) A | SO | G | 05/10/2015 08:00 | 1 | | | | 1 | | X | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |

**Additional Comments/Special Instructions:**

| | RELINQUISHED BY / AFFILIATION | DATE | TIME | ACCEPTED BY / AFFILIATION | DATE | TIME |
|---|---|---|---|---|---|---|
| SAMPLER: | Jacob Newton | 11-May | 7:00 | | | |
| RELINQUISHER 1: | | 11-May | 7:00 | | 13May15 | 0820 |
| RELINQUISHER 2: | | | | | | |
| RELINQUISHER 3: | | | | | | |
| RELINQUISHER 4: | | | | | | |
| RELINQUISHER 5: | | | | | | |
| RELINQUISHER 6: | | | | | | |
| RELINQUISHER 7: | | | | | | |

| Sample Receipt Conditions | | | |
|---|---|---|---|
| | Y/N | Y/N | Y/N |
| | Y/N | Y/N | Y/N |
| | Y/N | Y/N | Y/N |
| 5.9 | Y/N | Y/N | Y/N |
| Temp in °C | Samples on Ice? | Sample intact? | Trip Blank? |

#203

AIRPORT OF DEPARTURE PIZ 05/11/15 08:55 WWW **808 6825039**

| SHIPPER'S NAME, ADDRESS & PHONE | SHIPPER'S ACCOUNT NUMBER | NOT AIR WAYBILL (AIR CONSIGNMENT NOTE) |
|---|---|---|
| AGVIQ, LLC.<br>2809 S. LYNNHAVEN RD<br>VIRGINIA BEACH AK 23452 7573189420 | A0332 | Ravn ALASKA<br>4700 Old International Airport Road<br>Anchorage, Alaska 99502 |

It is agreed that the goods described herein are accepted in apparent good order and condition (except as noted) for carriage SUBJECT TO THE CONDITIONS OF CONTRACT AS LISTED IN THE COMPANIES TARIFFS. THE SHIPPER'S ATTENTION IS DRAWN TO THE NOTICE CONCERNING CARRIERS' LIMITATION OF LIABILITY. Shipper may increase such limitation of liability by declaring a higher value for carriage and paying a supplemental charge if required.

Received in Good Condition

Place _____ Date _____

**TO EXPEDITE MOVEMENT, SHIPMENT MAY BE DIVERTED TO MOTOR OR OTHER CARRIER AS PER TARIFF RULE UNLESS SHIPPER GIVES OTHER INSTRUCTION HEREON**

| CONSIGNEE'S NAME, ADDRESS & PHONE | CONSIGNEE'S ACCOUNT NUMBER |
|---|---|
| SGS North America<br>200 W. Potter Drive<br>Anchorage AK 99518 9075622343 | |

ISSUING CARRIER'S AGENT NAME, CITY & PHONE

ALSO NOTIFY NAME & ADDRESS

| AGENT'S IATA CODE | ACCOUNT NO. | ACCOUNTING INFORMATION 6969531 |
|---|---|---|
| | | Acc #: A0332 AGVIQ, LLC. |

| AIRPORT OF DEPARTURE | Declared Value | Insured Amount |
|---|---|---|
| Pt Lay | $ 0.00 | $ 0.00 |

ROUTING AND DESTINATION

| TO | BY FIRST | TO | BY | TO | BY |
|---|---|---|---|---|---|
| | | | | | |

COMMENTS TSA 1

| AIRPORT OF DESTINATION | FOR CARRIER USE ONLY FLIGHT/DATE | FLIGHT/DATE |
|---|---|---|
| Anchorage | 0 | |

| No. Of Pieces Rcp | Gross Weight | kg lb | Rate Class | Commodity Item No. | Chargeable Weight | Rate/Charge | Total | Nature and Quantity of Goods |
|---|---|---|---|---|---|---|---|---|
| 3 | 108 | l.. | F | GEN | 1 | $347.29 | $347.29 | Sample Coolers |
| 3 | 108 | | | | | | $347.29 | |

| PREPAID | WEIGHT CHARGE | COLLECT |
|---|---|---|
| $347.29 | | |

| VALUATION CHARGE |
|---|
| $0.00 |

| FEDERAL EXCISE TAX |
|---|
| $21.71 |

| TOTAL OTHER CHARGES DUE AGENT |
|---|
| $0.00 |

| TOTAL OTHER CHARGES DUE CARRIER |
|---|
| $0.00 |

| TOTAL PREPAID | TOTAL COLLECT |
|---|---|
| $369.00 | |

OTHER CHARGES AND DESCRIPTION

| AMOUNT | DESCRIPTION |
|---|---|
| | |

HAZMAT No

Shipper certifies that the particulars on the face hereof are correct, agrees to the CONDITIONS AS LISTED IN THE COMPANIES TARIFFS, accepts that carrier's liability is limited as stated in the companies tariffs and accepts such value unless a higher value for carriage is declared on the face hereof subject to an additional charge and that insofar as any part of the consignment contains restricted articles, such part is described by name and is in proper condition for carriage by air according to applicable national governmental regulations, and for international shipments, the current International Air Transport Association's Restricted Articles Regulations.

Printed Name and Title _____

Signature

**STATION NUMBERS**

ANCHORAGE - (907) 243-2761
ANIAK - (907) 675-4572
BARROW - (907) 852-5300
BETHEL -(907) 543-3825
DEADHORSE - (907) 659-9222
FAIRBANKS - (907) 450-7250
GALENA -(907) 656-1875
KOTZEBUE - (907) 442-3020
NOME - (907) 443-7595
ST. MARYS - (907) 438-2247
UNALAKLEET - (907) 624-3595

Printed at 11:50:11 on 5/11/2015 at BRW-1 10.96.1.7

**Consignee Copy**

# *Alert Expeditors Inc.* #354110

Citywide Delivery • 440-3351
8421 Flamingo Drive • Anchorage, Alaska 99502

Date 5.31.5

From ANVIL

To 5.5

| Collect ❐ | Prepay ❐ Account ❐ | Advance Charges ❐ |
|---|---|---|
| Job # | PO# | |

3@ 108

Rush

L82 5039

Shipped Signature

Total Charge

Received By:

# 1152028

## SAMPLE RECEIPT FORM

| Review Criteria: | Yes | N/A | No | Comments/Action Taken: |
|---|---|---|---|---|
| Were **custody seals** intact? Note # & location, if applicable.<br>COC accompanied samples? | ☑<br>☑ | ☐<br>☐ | ☐<br>☐ | ***Exemption permitted if sampler hand carries/delivers.***<br>1F |
| **Temperature blank** compliant* (i.e., 0-6°C after CF)?<br>*If >6 °C, were samples collected <8 hours ago?*<br>*If <0 °C, were all sample containers ice free?*<br>Cooler ID: [1] _____ @ 5.8 _____ w/ Therm.ID: 203 _____<br>Cooler ID: _____ @ _____ w/ Therm.ID: _____<br>Cooler ID: _____ @ _____ w/ Therm.ID: _____<br>Cooler ID: _____ @ _____ w/ Therm.ID: _____<br>Cooler ID: _____ @ _____ w/ Therm.ID: _____<br>If samples are received without a temperature blank, the "cooler temperature" will be documented in lieu of the temperature blank & "**COOLER TEMP**" will be noted to the right. In cases where neither a temp blank nor cooler temp can be obtained, note "ambient" or "chilled." | ☑<br>☐<br>☐ | ☐<br>☑<br>☑ | ☐<br>☐<br>☐ | ***Exemption permitted if chilled & collected <8 hrs ago.***<br><br>***Note: Identify containers received at non-compliant temperature. Use form FS-0029 if more space is needed.*** |
| Delivery method (specify all that apply): ☐Client (hand carried)<br>☐USPS ☐Lynden ☐AK Air ☑Alert Courier<br>☐UPS ☐FedEx ☑RAVN ☐C&D Delivery<br>☐Carlile ☐Pen Air ☐Warp Speed ☐Other: _____<br>→ *For WO# with airbills, was the WO# & airbill info recorded in the Front Counter eLog?* | ☑ | ☐ | ☐ | |
| | Yes | N/A | No | |
| Were samples received within hold time?<br>Do samples **match COC*** (i.e., sample IDs, dates/times collected)?<br>Were analyses requested unambiguous? | ☑<br>☑<br>☑ | ☐<br>☐<br>☐ | ☐<br>☐<br>☐ | ***Note: Refer to form F-083 "Sample Guide" for hold times.***<br>***Note: If times differ <1hr, record details and login per COC.*** |
| Were samples in **good condition** (no leaks/cracks/breakage)?<br>Packing material used (specify all that apply): ☑Bubble Wrap<br>☐Separate plastic bags ☐Vermiculite ☑Other: BOX | ☑ | ☐ | ☐ | |
| Were **proper containers** (type/mass/volume/preservative*) used?<br>Were **Trip Blanks** (i.e., VOAs, LL-Hg) in cooler with samples?<br>Were all VOA vials **free of headspace** (i.e., bubbles ≤6 mm)?<br>Were all soil VOAs **field extracted** with MeOH+BFB? | ☑<br>☑<br>☐<br>☑ | ☐<br>☐<br>☑<br>☐ | ☐<br>☐<br>☐<br>☐ | ☐ ***Exemption permitted for metals (e.g., 200.8/6020A).*** |
| For preserved waters (other than VOA vials, LL-Mercury or microbiological analyses), was **pH verified and compliant**?<br>If pH was adjusted, were bottles flagged (i.e., stickers)? | ☐<br>☐ | ☑<br>☑ | ☐<br>☐ | |
| For **special handling** (e.g., "MI" soils, foreign soils, lab filter for dissolved…, lab extract for volatiles, Ref Lab, limited volume), were bottles/paperwork flagged (e.g., sticker)? | ☐ | ☑ | ☐ | |
| For **RUSH/SHORT Hold Time**, were COC/Bottles flagged accordingly? Was Rush/Short HT email sent, if applicable? | ☐ | ☑ | ☐ | |
| For **SITE-SPECIFIC QC, e.g. BMS/BMSD/BDUP**, were containers / paperwork flagged accordingly? | ☑ | ☐ | ☐ | |
| **For any question answered "No,"** has the PM been notified and the problem resolved (or paperwork put in their bin)? | ☐ | ☑ | ☐ | SRF Completed by: KMW<br>PM notified: |
| Was **PEER REVIEW** of ***sample numbering/labeling completed?*** | ☐ | ☑ | ☐ | Peer Reviewed by: |

Additional notes (if applicable):

***Note to Client:*** *Any "no" answer above indicates non-compliance with standard procedures and may impact data quality.*

## Sample Containers and Preservatives

| Container Id | Preservative | Container Condition |
|---|---|---|
| 1152028001-A | Methanol field pres. 4 C | OK |
| 1152028001-B | No Preservative Required | OK |
| 1152028002-A | Methanol field pres. 4 C | OK |
| 1152028002-B | No Preservative Required | OK |
| 1152028003-A | Methanol field pres. 4 C | OK |
| 1152028003-B | No Preservative Required | OK |
| 1152028004-A | Methanol field pres. 4 C | OK |
| 1152028004-B | No Preservative Required | OK |
| 1152028005-A | Methanol field pres. 4 C | OK |
| 1152028005-B | No Preservative Required | OK |
| 1152028006-A | Methanol field pres. 4 C | OK |
| 1152028006-B | No Preservative Required | OK |
| 1152028007-A | Methanol field pres. 4 C | OK |
| 1152028007-B | No Preservative Required | OK |
| 1152028008-A | Methanol field pres. 4 C | OK |
| 1152028008-B | No Preservative Required | OK |
| 1152028009-A | Methanol field pres. 4 C | OK |
| 1152028009-B | No Preservative Required | OK |
| 1152028010-A | Methanol field pres. 4 C | OK |
| 1152028010-B | No Preservative Required | OK |
| 1152028011-A | Methanol field pres. 4 C | OK |
| 1152028011-B | No Preservative Required | OK |
| 1152028012-A | Methanol field pres. 4 C | OK |
| 1152028012-B | No Preservative Required | OK |
| 1152028013-A | Methanol field pres. 4 C | OK |
| 1152028013-B | No Preservative Required | OK |
| 1152028014-A | Methanol field pres. 4 C | OK |
| 1152028014-B | No Preservative Required | OK |
| 1152028015-A | Methanol field pres. 4 C | OK |
| 1152028015-B | No Preservative Required | OK |
| 1152028016-A | Methanol field pres. 4 C | OK |
| 1152028016-B | Methanol field pres. 4 C | OK |
| 1152028016-C | Methanol field pres. 4 C | OK |
| 1152028016-D | No Preservative Required | OK |
| 1152028016-E | No Preservative Required | OK |
| 1152028016-F | No Preservative Required | OK |
| 1152028017-A | Methanol field pres. 4 C | OK |
| 1152028017-B | Methanol field pres. 4 C | OK |
| 1152028017-C | Methanol field pres. 4 C | OK |
| 1152028017-D | No Preservative Required | OK |
| 1152028017-E | No Preservative Required | OK |
| 1152028017-F | No Preservative Required | OK |
| 1152028018-A | Methanol field pres. 4 C | OK |
| 1152028018-B | Methanol field pres. 4 C | OK |
| 1152028018-C | Methanol field pres. 4 C | OK |
| 1152028018-D | No Preservative Required | OK |
| 1152028018-E | No Preservative Required | OK |
| 1152028018-F | No Preservative Required | OK |
| 1152028019-A | Methanol field pres. 4 C | OK |
| 1152028019-B | No Preservative Required | OK |
| 1152028020-A | Methanol field pres. 4 C | OK |

| Container Id | Preservative | Container Condition | Container Id | Preservative | Container Condition |
|---|---|---|---|---|---|

Container Condition Glossary

Containers for bacteriological, low level mercury and VOA vials are not opened prior to analysis and will be assigned condition code OK unless evidence indicates than an inappropriate container was submitted.

OK - The container was received at an acceptable pH for the analysis requested.
PA - The container was received outside of the acceptable pH for the analysis requested. Preservative was added upon receipt and the container is now at the correct pH. See the Sample Receipt Form for details on the amount and lot # of the preservative added.
PH - The container was received outside of the acceptable pH for the analysis requested. Preservative was added upon receipt, but was insufficient to bring the container to the correct pH for the analysis requested. See the Sample Receipt Form for details on the amount and lot # of the preservative added.
BU - The container was received with headspace greater than 6mm.

**APPENDIX C: SGS ANALYTICAL LABORATORY REPORT (PROVIDED ON CD)**

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**Laboratory Report of Analysis**

To: AGVIQ LLC
301 W. Northern Lights Blvd Ste 660
Anchorage, AK 99503
(907)365-6230

Report Number: **1152028**

Client Project: **4409-Point Lay Kali School Ph2**

Dear Gloria Beckman,

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 ten 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 fourteen (14) days from the date of this report unless other archiving requirements were included in the quote.

If there are any questions about the report or services performed during this project, please call Forest at (907) 562-2343. 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.

Forest Taylor Date
Project Manager
Forest.Taylor@sgs.com

Print Date: 06/05/2015 8:35:55AM

## Case Narrative

SGS Client: **AGVIQ LLC**
SGS Project: **1152028**
Project Name/Site: **4409-Point Lay Kali School Ph2**
Project Contact: **Gloria Beckman**

Refer to sample receipt form for information on sample condition.

**15-PLK2-SO-01-3.0 (1152028004) PS**

8260B - CCV recovery for trichlorofluoromethane does not meet QC criteria (179%).
8270D SIM - LOQs are elevated due to sample dilution. Sample analyzed at a dilution due to matrix.
8270D SIM - Surrogate recovery 2-fluorobiphenyl (107%) is outside of QC criteria due to sample dilution.

**15-PLK2-SO-02-0.0 (1152028005) PS**

AK101 - 4-Bromofluorobenzene (surrogate) recovery does not meet QC criteria (40%). Sample was analyzed twice and results confirmed.
AK103 - n-Triacontane (surrogate) recovery is outside QC criteria(203%) due to matrix.

**15-PLK2-SO-02-1.0 (1152028006) PS**

AK101 - 4-Bromofluorobenzene (surrogate) recovery does not meet QC criteria (24%). Sample was analyzed twice and results confirmed.
AK103 - n-Triacontane (surrogate) recovery is outside QC criteria(384%) due to matrix.

**15-PLK2-SO-04-0.0 (1152028009) PS**

AK102/103 - 5a-Androstane and n-triacontane (surrogates) recoveries are outside QC criteria (238/302%) due to hydrocarbon interference.

**15-PLK2-SO-04-6.0 (1152028010) PS**

8260B - 1,2- dichloroethane-d4 (surrogate) recovery is outside QC criteria (128%). Analytes associated with this surrogate were not detected above the LOQ.

**15-PLK2-SO-05-1.0 (1152028011) PS**

8260B - 1,2- dichloroethane-d4 (surrogate) recovery is outside QC criteria (133%). Analytes associated with this surrogate were not detected above the LOQ.

**15-PLK2-SO-05-3.0 (1152028012) PS**

8260B – 1,2-dichloroethane-D4 (surrogate) recovery does not meet QC criteria (122%). The analytes associated with this surrogate were not detected above the LOQ.
AK101 - 4-Bromofluorobenzene (surrogate) recovery does not meet QC criteria (10%). Sample was analyzed twice and results confirmed.
AK103 - n-Triacontane (surrogate) recovery is outside QC criteria(485%) due to matrix.

**15-PLK2-SO-06-3.5 (1152028013) PS**

8260B - 1,2-Dichloroethane-d4 (surrogate) recovery is outside QC criteria (121%). Analytes associated with this surrogate are not detected above the LOQ.
AK103 - n-Triacontane (surrogate) recovery is outside QC criteria(187%) due to matrix.

**15-PLK2-SO-07-1.0 (1152028014) PS**

AK101 - 4-Bromofluorobenzene (surrogate) recovery does not meet QC criteria (16%). Sample was analyzed twice and results confirmed.
8260B - 1,2- dichloroethane-d4 (surrogate) recovery is outside QC criteria (128%). Analytes associated with this surrogate were not detected above the LOQ.
AK103 - n-Triacontane (surrogate) recovery is outside QC criteria (152%).

**15-PLK2-SO-07-6.0 (1152028015) PS**

AK101 - 4-Bromofluorobenzene (surrogate) recovery does not meet QC criteria (43%). Sample was analyzed twice and results confirmed.

**15-PLK2-SO-08-3.0 (1152028019) PS**



SGS North America Inc.
200 West Potter Drive, Anchorage, AK 99518
t 907.562.2343 f 907.561.5301 www.us.sgs.com

SGS Client: **AGVIQ LLC**
SGS Project: **1152028**
Project Name/Site: **4409-Point Lay Kali School Ph2**
Project Contact: **Gloria Beckman**

8260B - 1,2-Dichloroethane-d4 (surrogate) recovery is outside QC criteria (123%). Analytes associated with this surrogate are not detected above the LOQ.
8260B - 4-Bromofluorobenzene (surrogate) recovery is outside QC criteria (63.3%). The sample was run twice and the results confirmed.
AK101 - 4-Bromofluorobenzene (surrogate) recovery does not meet QC criteria (22%). Sample was analyzed twice and results confirmed.
AK103 - n-Triacontane (surrogate) recovery is outside QC criteria (955%).

**15-PLK2-SO-08-1.0 MSD (1152028018) BMSD**

8260B –-MS/MSD RPD for trichlorofluoromethane do not meet QC criteria. These analytes were not detected above the LOQ in the original sample.
AK103 - n-Triacontane (surrogate) recovery is outside QC criteria (55.5%).

**LCS for HBN 1709116 [VXX/27266 (1265376) LCS**

8260B - LCS recovery for chloroethane does not meet QC criteria (175%). This analyte was not detected above the LOQ in the associated samples.

**LCS for HBN 1709118 [VXX/27267 (1265378) LCS**

8260B - LCS recovery for chloroethane and trichlorofluoromethane do not meet QC criteria (222%, 200%).

**LCS for HBN 1709122 [VXX/27269 (1265394) LCS**

8260B - LCS recoveries for chloroethane (228%) and trichlorofluoromethane (211%) do not meet QC criteria. These analytes were not detected above the LOQ in the associated samples.

**LCS for HBN 1709195 [VXX/27276 (1265732) LCS**

8260B - LCS recovery for chloroethane and trichlorofluoromethane is outside QC criteria (210%, 195%).

**LCS for HBN 1709241 [VXX/27280 (1265919) LCS**

8260B -LCS recovery for chloroethane does not meet QC criteria (171%). This analyte was not detected above the LOQ in the associated samples.

**MB for HBN 1709185 [XXX/33106] (1265673) MB**

AK103 - MB result is greater than one-half the LOQ, however less than the LOQ.
AK103 - n-Triacontane (surrogate) recovery is outside QC criteria(124%) .

**MB for HBN 1709209 [XXX/33109] (1265796) MB**

AK102/103 - MB result is greater than one-half the LOQ, however less than the LOQ.

**LRAB-19-0510(1152077018MS) (1265607) MS**

8260B - MS recoveries for several compounds do not meet QC criteria. Refer to LCS for accuracy.

**1157901025MS (1265808) MS**

8260B - MS recovery chloroethane and trichlorofluoromethane do not meet QC criteria (184%, 192%). Refer to LCS for accuracy.

**1152028014MS (1265916) MS**



SGS North America Inc.
200 West Potter Drive, Anchorage, AK 99518
**t** 907.562.2343 **f** 907.561.5301 www.us.sgs.com

## Case Narrative

SGS Client: **AGVIQ LLC**
SGS Project: **1152028**
Project Name/Site: **4409-Point Lay Kali School Ph2**
Project Contact: **Gloria Beckman**

8260B –-MS/MSD recoveries for several analytes do not meet QC criteria. Refer to LCS for accuracy.
8260B - 1,2- dichloroethane-d4 (surrogate) recovery is outside QC criteria (121%). Analytes associated with this surrogate were not detected above the LOQ in the original sample.
8260B - 4-bromofluorobenzene (surrogate) recovery does not meet QC criteria (46.8%). Sample was analyzed twice for confirmation and the results confirmed.

**1152077001(1266332MS) (1266107) MS**

8260B - MS recovery for several analytes do not meet QC criteria. Refer to LCS for accuracy.

**1152027031MSD (1265558) MSD**

8260B - MSD recovery for chloroethane (187%) and trichlorofluoromethane(195%) does not meet QC criteria.
8260B - MS/MSD RPD for bromomethane (20.9) does not meet QC criteria. The result for this analyte is estimated in the parent sample.

**LRAB-19-0510(1152077018MSD) (1265608) MSD**

8260B - MSD recoveries for several compounds do not meet QC criteria. Refer to LCS for accuracy.
8260B - MS/MSD RPD for trichlorofluoromethane (50.5), chloroethane (68.2) and 2-butanone (MEK) (24.5) do not meet QC criteria. Chloroethane and 2-butanone(MEK) were not detected above the LOQ in the original sample.

**1157901025MSD (1265809) MSD**

8260B - MS/MSD RPD for chloroethane and trichlorofluoromethane do not meet QC criteria (56,58).

**1152028014MSD (1265917) MSD**

8260B –-MS/MSD recoveries for several analytes do not meet QC criteria. Refer to LCS for accuracy.
8260B –-MS/MSD RPD for chloroethane and trichlorofluoromethane do not meet QC criteria. These analytes were not detected above the LOQ in theoriginal sample.
8260B - 4-bromofluorobenzene (surrogate) recovery does not meet QC criteria (46.4%). Sample was analyzed twice for confirmation and the results confirmed.

**1152077001(1266332MSD) (1266108) MSD**

8260B – MSD recovery for 2-chlorotoluene (153%) does not meet QC criteria. Refer to LCS for accuracy.
8260B - MS/MSD RPDs for chloroethane (48.7) and trichlorofluoromethan (40.9) do not meet QC criteria. Refer to LCS for accuracy.

**1152028016(1268061MSD) (1268082) MSD**

8260B –-MS/MSD RPD for trichlorofluoromethane do not meet QC criteria. These analytes were not detected above the LOQ in the original sample.

*QC comments may be associated with the field samples found in this report. When applicable, comments will be applied to associated field samples.



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## Report of Manual Integrations

| Laboratory ID | Client Sample ID | Analytical Batch | Analyte | Reason |
|---|---|---|---|---|
| **8270D SIMS (PAH)** | | | | |
| 1152028004 | 15-PLK2-SO-01-3.0 | XMS8673 | Fluorene | RSP |
| **SW8260B** | | | | |
| 1152028004 | 15-PLK2-SO-01-3.0 | VMS14931 | 4-Isopropyltoluene | SP |
| 1152028004 | 15-PLK2-SO-01-3.0 | VMS14931 | n-Butylbenzene | SP |
| 1152028007 | 15-PLK2-SO-03-1.0 | VMS14924 | n-Butylbenzene | SP |

Manual Integration Reason Code Descriptions

| Code | Description |
|---|---|
| O | Original Chromatogram |
| M | Modified Chromatogram |
| SS | Skimmed surrogate |
| BLG | Closed baseline gap |
| RP | Reassign peak name |
| PIR | Pattern integration required |
| IT | Included tail |
| SP | Split peak |
| RSP | Removed split peak |
| FPS | Forced peak start/stop |
| BLC | Baseline correction |
| PNF | Peak not found by software |

All DRO/RRO analysis are integrated per SOP.



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## Laboratory Qualifiers

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SGS maintains a formal Quality Assurance/Quality Control (QA/QC) program. A copy of our Quality Assurance Plan (QAP), which outlines this program, is available at your request. The laboratory certification numbers are AK00971 (DW Chemistry & Microbiology) & UST-005 (CS) for ADEC and 2944.01 for DOD ELAP/ISO17025 (RCRA methods: 1020B, 1311, 3010A, 3050B, 3520C, 3550C, 5030B, 5035A, 6020A, 7470A, 7471B, 8021B, 8082A, 8260B, 8270D, 8270D-SIM, 9040C, 9045D, 9056A, 9060A, AK101 and AK102/103). Except as specifically noted, all statements and data in this report are in conformance to the provisions set forth by the SGS QAP and, when applicable, other regulatory authorities.

The following descriptors or qualifiers may be found in your report:

| | |
|---|---|
| * | The analyte has exceeded allowable regulatory or control limits. |
| ! | Surrogate out of control limits. |
| B | Indicates the analyte is found in a blank associated with the sample. |
| CCV | Continuing Calibration Verification |
| CCCV | Closing Continuing Calibration Verification |
| CL | Control Limit |
| D | The analyte concentration is the result of a dilution. |
| DF | Dilution Factor |
| DL | Detection Limit (i.e., maximum method detection limit) |
| E | The analyte result is above the calibrated range. |
| F | Indicates value that is greater than or equal to the DL |
| GT | Greater Than |
| IB | Instrument Blank |
| ICV | Initial Calibration Verification |
| J | The quantitation is an estimation. |
| JL | The analyte was positively identified, but the quantitation is a low estimation. |
| LCS(D) | Laboratory Control Spike (Duplicate) |
| LOD | Limit of Detection (i.e., 1/2 of the LOQ) |
| LOQ | Limit of Quantitation (i.e., reporting or practical quantitation limit) |
| LT | Less Than |
| M | A matrix effect was present. |
| MB | Method Blank |
| MS(D) | Matrix Spike (Duplicate) |
| ND | Indicates the analyte is not detected. |
| Q | QC parameter out of acceptance range. |
| R | Rejected |
| RPD | Relative Percent Difference |
| U | Indicates the analyte was analyzed for but not detected. |

Note: Sample summaries which include a result for "Total Solids" have already been adjusted for moisture content. All DRO/RRO analyses are integrated per SOP.

## Sample Summary

| Client Sample ID | Lab Sample ID | Collected | Received | Matrix |
|---|---|---|---|---|
| 15-PLK2-SBZ-01-1.0 | 1152028001 | 05/10/2015 | 05/13/2015 | Soil/Solid (dry weight) |
| 15-PLK2-SBZ-02-6.0 | 1152028002 | 05/10/2015 | 05/13/2015 | Soil/Solid (dry weight) |
| 15-PLK2-SO-01-1.0 | 1152028003 | 05/10/2015 | 05/13/2015 | Soil/Solid (dry weight) |
| 15-PLK2-SO-01-3.0 | 1152028004 | 05/10/2015 | 05/13/2015 | Soil/Solid (dry weight) |
| 15-PLK2-SO-02-0.0 | 1152028005 | 05/10/2015 | 05/13/2015 | Soil/Solid (dry weight) |
| 15-PLK2-SO-02-1.0 | 1152028006 | 05/10/2015 | 05/13/2015 | Soil/Solid (dry weight) |
| 15-PLK2-SO-03-1.0 | 1152028007 | 05/10/2015 | 05/13/2015 | Soil/Solid (dry weight) |
| 15-PLK2-SO-03-2.0 | 1152028008 | 05/10/2015 | 05/13/2015 | Soil/Solid (dry weight) |
| 15-PLK2-SO-04-0.0 | 1152028009 | 05/10/2015 | 05/13/2015 | Soil/Solid (dry weight) |
| 15-PLK2-SO-04-6.0 | 1152028010 | 05/10/2015 | 05/13/2015 | Soil/Solid (dry weight) |
| 15-PLK2-SO-05-1.0 | 1152028011 | 05/10/2015 | 05/13/2015 | Soil/Solid (dry weight) |
| 15-PLK2-SO-05-3.0 | 1152028012 | 05/10/2015 | 05/13/2015 | Soil/Solid (dry weight) |
| 15-PLK2-SO-06-3.5 | 1152028013 | 05/10/2015 | 05/13/2015 | Soil/Solid (dry weight) |
| 15-PLK2-SO-07-1.0 | 1152028014 | 05/10/2015 | 05/13/2015 | Soil/Solid (dry weight) |
| 15-PLK2-SO-07-6.0 | 1152028015 | 05/10/2015 | 05/13/2015 | Soil/Solid (dry weight) |
| 15-PLK2-SO-08-1.0 | 1152028016 | 05/10/2015 | 05/13/2015 | Soil/Solid (dry weight) |
| 15-PLK2-SO-08-1.0 MS | 1152028017 | 05/10/2015 | 05/13/2015 | Soil/Solid (dry weight) |
| 15-PLK2-SO-08-1.0 MSD | 1152028018 | 05/10/2015 | 05/13/2015 | Soil/Solid (dry weight) |
| 15-PLK2-SO-08-3.0 | 1152028019 | 05/10/2015 | 05/13/2015 | Soil/Solid (dry weight) |
| 15-PLK2-TB-01 | 1152028020 | 05/10/2015 | 05/13/2015 | Solid/Soil (Wet Weight) |

| Method | Method Description |
|---|---|
| 8270D SIMS (PAH) | 8270 PAH SIM Semi-Volatiles GC/MS |
| AK102 | Diesel/Residual Range Organics |
| AK103 | Diesel/Residual Range Organics |
| AK101 | Gasoline Range Organics (S) |
| SM21 2540G | Percent Solids SM2540G |
| SW8260B | VOC 8260 (S) Field Extracted |



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## Detectable Results Summary

Client Sample ID: **15-PLK2-SBZ-01-1.0**
Lab Sample ID: 1152028001

| | Parameter | Result | Units |
|---|---|---|---|
| **Polynuclear Aromatics GC/MS** | 1-Methylnaphthalene | 21.2 | ug/Kg |
| | 2-Methylnaphthalene | 26.6 | ug/Kg |
| | Benzo(a)Anthracene | 2.18J | ug/Kg |
| | Benzo[b]Fluoranthene | 2.66J | ug/Kg |
| | Chrysene | 5.50J | ug/Kg |
| | Fluoranthene | 4.36J | ug/Kg |
| | Naphthalene | 19.0 | ug/Kg |
| | Phenanthrene | 20.5 | ug/Kg |
| | Pyrene | 5.00J | ug/Kg |
| **Semivolatile Organic Fuels** | Diesel Range Organics | 17.6J | mg/Kg |
| | Residual Range Organics | 25.0 | mg/Kg |
| **Volatile Fuels** | Gasoline Range Organics | 1.83J | mg/Kg |
| **Volatile Gas Chromatography/Mass Spectrom** | 1,2,4-Trimethylbenzene | 23.4J | ug/Kg |
| | 1,3,5-Trimethylbenzene | 15.9J | ug/Kg |
| | Benzene | 5.42J | ug/Kg |
| | Naphthalene | 58.3J | ug/Kg |
| | o-Xylene | 21.0J | ug/Kg |
| | P & M -Xylene | 42.4J | ug/Kg |
| | Toluene | 45.1 | ug/Kg |
| | Xylenes (total) | 63.4J | ug/Kg |

Client Sample ID: **15-PLK2-SBZ-02-6.0**
Lab Sample ID: 1152028002

| | Parameter | Result | Units |
|---|---|---|---|
| **Semivolatile Organic Fuels** | Diesel Range Organics | 143 | mg/Kg |
| | Residual Range Organics | 703 | mg/Kg |
| **Volatile Gas Chromatography/Mass Spectrom** | 2-Butanone (MEK) | 362J | ug/Kg |
| | Naphthalene | 52.4J | ug/Kg |

Client Sample ID: **15-PLK2-SO-01-1.0**
Lab Sample ID: 1152028003

| | Parameter | Result | Units |
|---|---|---|---|
| **Semivolatile Organic Fuels** | Diesel Range Organics | 24.6 | mg/Kg |
| | Residual Range Organics | 45.7 | mg/Kg |
| **Volatile Fuels** | Gasoline Range Organics | 2.24J | mg/Kg |
| **Volatile Gas Chromatography/Mass Spectrom** | 1,2,4-Trimethylbenzene | 29.2J | ug/Kg |
| | 1,3,5-Trimethylbenzene | 19.6J | ug/Kg |
| | Benzene | 9.82J | ug/Kg |
| | Chloromethane | 10.7J | ug/Kg |
| | Naphthalene | 59.2 | ug/Kg |
| | o-Xylene | 30.0 | ug/Kg |
| | P & M -Xylene | 61.8 | ug/Kg |
| | Toluene | 34.1 | ug/Kg |
| | Xylenes (total) | 91.8 | ug/Kg |



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## Detectable Results Summary

Client Sample ID: **15-PLK2-SO-01-3.0**
Lab Sample ID: 1152028004

| | Parameter | Result | Units |
|---|---|---|---|
| **Polynuclear Aromatics GC/MS** | 1-Methylnaphthalene | 460 | ug/Kg |
| | 2-Methylnaphthalene | 436 | ug/Kg |
| | Acenaphthene | 19.2J | ug/Kg |
| | Chrysene | 13.0J | ug/Kg |
| | Fluorene | 19.3J | ug/Kg |
| | Naphthalene | 216 | ug/Kg |
| | Phenanthrene | 66.8 | ug/Kg |
| | Pyrene | 9.32J | ug/Kg |
| **Semivolatile Organic Fuels** | Diesel Range Organics | 204 | mg/Kg |
| | Residual Range Organics | 334 | mg/Kg |
| **Volatile Fuels** | Gasoline Range Organics | 4.64 | mg/Kg |
| **Volatile Gas Chromatography/Mass Spectrom** | 1,2,4-Trimethylbenzene | 144 | ug/Kg |
| | 1,3,5-Trimethylbenzene | 107 | ug/Kg |
| | 4-Isopropyltoluene | 97.1 | ug/Kg |
| | Benzene | 17.1J | ug/Kg |
| | Bromobenzene | 44.0 | ug/Kg |
| | Chlorobenzene | 24.6J | ug/Kg |
| | Chloromethane | 49.6 | ug/Kg |
| | Dichlorodifluoromethane | 48.0J | ug/Kg |
| | Ethylbenzene | 66.6 | ug/Kg |
| | Isopropylbenzene (Cumene) | 18.2J | ug/Kg |
| | Naphthalene | 192 | ug/Kg |
| | n-Butylbenzene | 25.4J | ug/Kg |
| | n-Propylbenzene | 25.4J | ug/Kg |
| | o-Xylene | 59.1 | ug/Kg |
| | P & M -Xylene | 94.0 | ug/Kg |
| | Toluene | 706 | ug/Kg |
| | Trichlorofluoromethane | 182 | ug/Kg |
| | Xylenes (total) | 153 | ug/Kg |

Client Sample ID: **15-PLK2-SO-02-0.0**
Lab Sample ID: 1152028005

| | Parameter | Result | Units |
|---|---|---|---|
| **Semivolatile Organic Fuels** | Diesel Range Organics | 719 | mg/Kg |
| | Residual Range Organics | 2900 | mg/Kg |

Client Sample ID: **15-PLK2-SO-02-1.0**
Lab Sample ID: 1152028006

| | Parameter | Result | Units |
|---|---|---|---|
| **Semivolatile Organic Fuels** | Diesel Range Organics | 1310 | mg/Kg |
| | Residual Range Organics | 6320 | mg/Kg |
| **Volatile Gas Chromatography/Mass Spectrom** | Chloromethane | 85.1J | ug/Kg |
| | Toluene | 1030 | ug/Kg |



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## Detectable Results Summary

Client Sample ID: **15-PLK2-SO-03-1.0**
Lab Sample ID: 1152028007

| | Parameter | Result | Units |
|---|---|---|---|
| **Semivolatile Organic Fuels** | Diesel Range Organics | 24.0 | mg/Kg |
| | Residual Range Organics | 40.6 | mg/Kg |
| **Volatile Fuels** | Gasoline Range Organics | 1.59J | mg/Kg |
| **Volatile Gas Chromatography/Mass Spectrom** | 1,2,4-Trimethylbenzene | 60.0 | ug/Kg |
| | 1,3,5-Trimethylbenzene | 31.6 | ug/Kg |
| | Benzene | 7.38J | ug/Kg |
| | Naphthalene | 191 | ug/Kg |
| | n-Butylbenzene | 13.3J | ug/Kg |
| | o-Xylene | 23.9J | ug/Kg |
| | P & M -Xylene | 61.4 | ug/Kg |
| | Toluene | 24.5J | ug/Kg |
| | Xylenes (total) | 85.4J | ug/Kg |

Client Sample ID: **15-PLK2-SO-03-2.0**
Lab Sample ID: 1152028008

| | Parameter | Result | Units |
|---|---|---|---|
| **Semivolatile Organic Fuels** | Diesel Range Organics | 39.5 | mg/Kg |
| | Residual Range Organics | 96.7 | mg/Kg |
| **Volatile Fuels** | Gasoline Range Organics | 2.16J | mg/Kg |
| **Volatile Gas Chromatography/Mass Spectrom** | 1,2,4-Trimethylbenzene | 39.1J | ug/Kg |
| | 1,3,5-Trimethylbenzene | 22.4J | ug/Kg |
| | Benzene | 10.7J | ug/Kg |
| | Naphthalene | 104 | ug/Kg |
| | o-Xylene | 39.4 | ug/Kg |
| | P & M -Xylene | 77.2 | ug/Kg |
| | Toluene | 36.6 | ug/Kg |
| | Xylenes (total) | 117 | ug/Kg |

Client Sample ID: **15-PLK2-SO-04-0.0**
Lab Sample ID: 1152028009

| | Parameter | Result | Units |
|---|---|---|---|
| **Semivolatile Organic Fuels** | Diesel Range Organics | 75.7 | mg/Kg |
| | Residual Range Organics | 212 | mg/Kg |
| **Volatile Fuels** | Gasoline Range Organics | 1.61J | mg/Kg |
| **Volatile Gas Chromatography/Mass Spectrom** | Naphthalene | 33.6J | ug/Kg |
| | Toluene | 49.5 | ug/Kg |

Client Sample ID: **15-PLK2-SO-04-6.0**
Lab Sample ID: 1152028010

| | Parameter | Result | Units |
|---|---|---|---|
| **Semivolatile Organic Fuels** | Diesel Range Organics | 84.2 | mg/Kg |
| | Residual Range Organics | 231 | mg/Kg |



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## Detectable Results Summary

Client Sample ID: **15-PLK2-SO-05-1.0**
Lab Sample ID: 1152028011

| | Parameter | Result | Units |
|---|---|---|---|
| **Polynuclear Aromatics GC/MS** | 1-Methylnaphthalene | 23.4 | ug/Kg |
| | 2-Methylnaphthalene | 28.7 | ug/Kg |
| | Benzo(a)Anthracene | 2.45J | ug/Kg |
| | Benzo[b]Fluoranthene | 3.03J | ug/Kg |
| | Chrysene | 6.15 | ug/Kg |
| | Fluoranthene | 4.80J | ug/Kg |
| | Naphthalene | 20.3 | ug/Kg |
| | Phenanthrene | 19.8 | ug/Kg |
| | Pyrene | 5.51J | ug/Kg |
| **Semivolatile Organic Fuels** | Diesel Range Organics | 33.6 | mg/Kg |
| | Residual Range Organics | 41.3 | mg/Kg |
| **Volatile Fuels** | Gasoline Range Organics | 1.21J | mg/Kg |
| **Volatile Gas Chromatography/Mass Spectrom** | 1,2,4-Trimethylbenzene | 30.0J | ug/Kg |
| | 1,3,5-Trimethylbenzene | 14.5J | ug/Kg |
| | Naphthalene | 107 | ug/Kg |
| | o-Xylene | 22.3J | ug/Kg |
| | P & M -Xylene | 42.3J | ug/Kg |
| | Toluene | 31.3J | ug/Kg |
| | Xylenes (total) | 64.6J | ug/Kg |

Client Sample ID: **15-PLK2-SO-05-3.0**
Lab Sample ID: 1152028012

| | Parameter | Result | Units |
|---|---|---|---|
| **Semivolatile Organic Fuels** | Diesel Range Organics | 642 | mg/Kg |
| | Residual Range Organics | 3350 | mg/Kg |
| **Volatile Gas Chromatography/Mass Spectrom** | 1,2,4-Trimethylbenzene | 80.9J | ug/Kg |
| | Naphthalene | 69.5J | ug/Kg |
| | o-Xylene | 53.9J | ug/Kg |
| | P & M -Xylene | 81.9J | ug/Kg |
| | Xylenes (total) | 136J | ug/Kg |

Client Sample ID: **15-PLK2-SO-06-3.5**
Lab Sample ID: 1152028013

| | Parameter | Result | Units |
|---|---|---|---|
| **Semivolatile Organic Fuels** | Diesel Range Organics | 399 | mg/Kg |
| | Residual Range Organics | 1840 | mg/Kg |
| **Volatile Fuels** | Gasoline Range Organics | 6.34J | mg/Kg |

Client Sample ID: **15-PLK2-SO-07-1.0**
Lab Sample ID: 1152028014

| | Parameter | Result | Units |
|---|---|---|---|
| **Semivolatile Organic Fuels** | Diesel Range Organics | 303 | mg/Kg |
| | Residual Range Organics | 1720 | mg/Kg |
| **Volatile Fuels** | Gasoline Range Organics | 3.46J | mg/Kg |



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## Detectable Results Summary

Client Sample ID: **15-PLK2-SO-07-6.0**
Lab Sample ID: 1152028015

| | Parameter | Result | Units |
|---|---|---|---|
| **Semivolatile Organic Fuels** | Diesel Range Organics | 66.1 | mg/Kg |
| | Residual Range Organics | 259 | mg/Kg |
| **Volatile Fuels** | Gasoline Range Organics | 3.11J | mg/Kg |
| **Volatile Gas Chromatography/Mass Spectrom** | 2-Butanone (MEK) | 321J | ug/Kg |

Client Sample ID: **15-PLK2-SO-08-1.0**
Lab Sample ID: 1152028016

| | Parameter | Result | Units |
|---|---|---|---|
| **Semivolatile Organic Fuels** | Diesel Range Organics | 78.2 | mg/Kg |
| | Residual Range Organics | 394 | mg/Kg |
| **Volatile Gas Chromatography/Mass Spectrom** | 1,2,4-Trimethylbenzene | 28.6J | ug/Kg |
| | Naphthalene | 34.3J | ug/Kg |
| | Toluene | 28.2J | ug/Kg |

Client Sample ID: **15-PLK2-SO-08-3.0**
Lab Sample ID: 1152028019

| | Parameter | Result | Units |
|---|---|---|---|
| **Polynuclear Aromatics GC/MS** | 1-Methylnaphthalene | 32.3 | ug/Kg |
| | 2-Methylnaphthalene | 38.5 | ug/Kg |
| | Benzo[b]Fluoranthene | 5.59J | ug/Kg |
| | Benzo[g,h,i]perylene | 75.2 | ug/Kg |
| | Chrysene | 8.23J | ug/Kg |
| | Fluorene | 3.60J | ug/Kg |
| | Naphthalene | 18.7 | ug/Kg |
| | Phenanthrene | 37.4 | ug/Kg |
| **Semivolatile Organic Fuels** | Diesel Range Organics | 311 | mg/Kg |
| | Residual Range Organics | 1350 | mg/Kg |

Client Sample ID: **15-PLK2-TB-01**
Lab Sample ID: 1152028020

| | Parameter | Result | Units |
|---|---|---|---|
| **Volatile Gas Chromatography/Mass Spectrom** | Chloromethane | 9.90J | ug/Kg |



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Results of **15-PLK2-SBZ-01-1.0**

Client Sample ID: **15-PLK2-SBZ-01-1.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028001
Lab Project ID: 1152028

Collection Date: 05/10/15 09:40
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):89.4
Location:

Results by **Polynuclear Aromatics GC/MS**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| 1-Methylnaphthalene | 21.2 | | 5.55 | 1.67 | ug/Kg | 1 | | 05/20/15 03:37 |
| 2-Methylnaphthalene | 26.6 | | 5.55 | 1.67 | ug/Kg | 1 | | 05/20/15 03:37 |
| Acenaphthene | 2.77 | U | 5.55 | 1.67 | ug/Kg | 1 | | 05/20/15 03:37 |
| Acenaphthylene | 2.77 | U | 5.55 | 1.67 | ug/Kg | 1 | | 05/20/15 03:37 |
| Anthracene | 2.77 | U | 5.55 | 1.67 | ug/Kg | 1 | | 05/20/15 03:37 |
| Benzo(a)Anthracene | 2.18 | J | 5.55 | 1.67 | ug/Kg | 1 | | 05/20/15 03:37 |
| Benzo[a]pyrene | 2.77 | U | 5.55 | 1.67 | ug/Kg | 1 | | 05/20/15 03:37 |
| Benzo[b]Fluoranthene | 2.66 | J | 5.55 | 1.67 | ug/Kg | 1 | | 05/20/15 03:37 |
| Benzo[g,h,i]perylene | 2.77 | U | 5.55 | 1.67 | ug/Kg | 1 | | 05/20/15 03:37 |
| Benzo[k]fluoranthene | 2.77 | U | 5.55 | 1.67 | ug/Kg | 1 | | 05/20/15 03:37 |
| Chrysene | 5.50 | J | 5.55 | 1.67 | ug/Kg | 1 | | 05/20/15 03:37 |
| Dibenzo[a,h]anthracene | 2.77 | U | 5.55 | 1.67 | ug/Kg | 1 | | 05/20/15 03:37 |
| Fluoranthene | 4.36 | J | 5.55 | 1.67 | ug/Kg | 1 | | 05/20/15 03:37 |
| Fluorene | 2.77 | U | 5.55 | 1.67 | ug/Kg | 1 | | 05/20/15 03:37 |
| Indeno[1,2,3-c,d] pyrene | 2.77 | U | 5.55 | 1.67 | ug/Kg | 1 | | 05/20/15 03:37 |
| Naphthalene | 19.0 | | 5.55 | 1.67 | ug/Kg | 1 | | 05/20/15 03:37 |
| Phenanthrene | 20.5 | | 5.55 | 1.67 | ug/Kg | 1 | | 05/20/15 03:37 |
| Pyrene | 5.00 | J | 5.55 | 1.67 | ug/Kg | 1 | | 05/20/15 03:37 |
| **Surrogates** | | | | | | | | |
| 2-Fluorobiphenyl (surr) | 74.4 | | 45-105 | | % | 1 | | 05/20/15 03:37 |
| Terphenyl-d14 (surr) | 101 | | 30-125 | | % | 1 | | 05/20/15 03:37 |

**Batch Information**

Analytical Batch: XMS8667
Analytical Method: 8270D SIMS (PAH)
Analyst: SP
Analytical Date/Time: 05/20/15 03:37
Container ID: 1152028001-B

Prep Batch: XXX33067
Prep Method: SW3550C
Prep Date/Time: 05/16/15 10:29
Prep Initial Wt./Vol.: 22.674 g
Prep Extract Vol: 1 mL

## Results of **15-PLK2-SBZ-01-1.0**

Client Sample ID: **15-PLK2-SBZ-01-1.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028001
Lab Project ID: 1152028

Collection Date: 05/10/15 09:40
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):89.4
Location:

## Results by **Semivolatile Organic Fuels**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics | 17.6 | J | 22.3 | 6.90 | mg/Kg | 1 | | 05/29/15 01:10 |
| **Surrogates** | | | | | | | | |
| 5a Androstane (surr) | 79.4 | | 50-150 | | % | 1 | | 05/29/15 01:10 |

### Batch Information

Analytical Batch: XFC11851
Analytical Method: AK102
Analyst: MCM
Analytical Date/Time: 05/29/15 01:10
Container ID: 1152028001-B

Prep Batch: XXX33106
Prep Method: SW3550C
Prep Date/Time: 05/21/15 13:06
Prep Initial Wt./Vol.: 30.14 g
Prep Extract Vol: 1 mL

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Residual Range Organics | 25.0 | | 22.3 | 6.90 | mg/Kg | 1 | | 05/29/15 01:10 |
| **Surrogates** | | | | | | | | |
| n-Triacontane-d62 (surr) | 92.8 | | 50-150 | | % | 1 | | 05/29/15 01:10 |

### Batch Information

Analytical Batch: XFC11851
Analytical Method: AK103
Analyst: MCM
Analytical Date/Time: 05/29/15 01:10
Container ID: 1152028001-B

Prep Batch: XXX33106
Prep Method: SW3550C
Prep Date/Time: 05/21/15 13:06
Prep Initial Wt./Vol.: 30.14 g
Prep Extract Vol: 1 mL

Print Date: 06/05/2015 8:36:01AM

J flagging is activated

Results of **15-PLK2-SBZ-01-1.0**

Client Sample ID: **15-PLK2-SBZ-01-1.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028001
Lab Project ID: 1152028

Collection Date: 05/10/15 09:40
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):89.4
Location:

Results by **Volatile Fuels**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics | 1.83 | J | 3.39 | 1.02 | mg/Kg | 1 | | 05/17/15 14:46 |
| **Surrogates** | | | | | | | | |
| 4-Bromofluorobenzene (surr) | 86.9 | | 50-150 | | % | 1 | | 05/17/15 14:46 |

**Batch Information**

Analytical Batch: VFC12404
Analytical Method: AK101
Analyst: ST
Analytical Date/Time: 05/17/15 14:46
Container ID: 1152028001-A

Prep Batch: VXX27252
Prep Method: SW5035A
Prep Date/Time: 05/10/15 09:40
Prep Initial Wt./Vol.: 50.005 g
Prep Extract Vol: 30.3067 mL

Print Date: 06/05/2015 8:36:01AM

J flagging is activated

Results of **15-PLK2-SBZ-01-1.0**

Client Sample ID: **15-PLK2-SBZ-01-1.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028001
Lab Project ID: 1152028

Collection Date: 05/10/15 09:40
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):89.4
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 16.9 | U | 33.9 | 10.6 | ug/Kg | 1 | | 05/17/15 14:59 |
| 1,1,1-Trichloroethane | 16.9 | U | 33.9 | 10.6 | ug/Kg | 1 | | 05/17/15 14:59 |
| 1,1,2,2-Tetrachloroethane | 8.50 | U | 17.0 | 5.29 | ug/Kg | 1 | | 05/17/15 14:59 |
| 1,1,2-Trichloroethane | 16.9 | U | 33.9 | 10.6 | ug/Kg | 1 | | 05/17/15 14:59 |
| 1,1-Dichloroethane | 16.9 | U | 33.9 | 10.6 | ug/Kg | 1 | | 05/17/15 14:59 |
| 1,1-Dichloroethene | 16.9 | U | 33.9 | 10.6 | ug/Kg | 1 | | 05/17/15 14:59 |
| 1,1-Dichloropropene | 16.9 | U | 33.9 | 10.6 | ug/Kg | 1 | | 05/17/15 14:59 |
| 1,2,3-Trichlorobenzene | 33.9 | U | 67.8 | 20.3 | ug/Kg | 1 | | 05/17/15 14:59 |
| 1,2,3-Trichloropropane | 16.9 | U | 33.9 | 10.6 | ug/Kg | 1 | | 05/17/15 14:59 |
| 1,2,4-Trichlorobenzene | 16.9 | U | 33.9 | 10.6 | ug/Kg | 1 | | 05/17/15 14:59 |
| 1,2,4-Trimethylbenzene | 23.4 | J | 67.8 | 20.3 | ug/Kg | 1 | | 05/17/15 14:59 |
| 1,2-Dibromo-3-chloropropane | 68.0 | U | 136 | 42.0 | ug/Kg | 1 | | 05/17/15 14:59 |
| 1,2-Dibromoethane | 16.9 | U | 33.9 | 10.6 | ug/Kg | 1 | | 05/17/15 14:59 |
| 1,2-Dichlorobenzene | 16.9 | U | 33.9 | 10.6 | ug/Kg | 1 | | 05/17/15 14:59 |
| 1,2-Dichloroethane | 16.9 | U | 33.9 | 10.6 | ug/Kg | 1 | | 05/17/15 14:59 |
| 1,2-Dichloropropane | 16.9 | U | 33.9 | 10.6 | ug/Kg | 1 | | 05/17/15 14:59 |
| 1,3,5-Trimethylbenzene | 15.9 | J | 33.9 | 10.6 | ug/Kg | 1 | | 05/17/15 14:59 |
| 1,3-Dichlorobenzene | 16.9 | U | 33.9 | 10.6 | ug/Kg | 1 | | 05/17/15 14:59 |
| 1,3-Dichloropropane | 16.9 | U | 33.9 | 10.6 | ug/Kg | 1 | | 05/17/15 14:59 |
| 1,4-Dichlorobenzene | 16.9 | U | 33.9 | 10.6 | ug/Kg | 1 | | 05/17/15 14:59 |
| 2,2-Dichloropropane | 16.9 | U | 33.9 | 10.6 | ug/Kg | 1 | | 05/17/15 14:59 |
| 2-Butanone (MEK) | 170 | U | 339 | 106 | ug/Kg | 1 | | 05/17/15 14:59 |
| 2-Chlorotoluene | 16.9 | U | 33.9 | 10.6 | ug/Kg | 1 | | 05/17/15 14:59 |
| 2-Hexanone | 170 | U | 339 | 106 | ug/Kg | 1 | | 05/17/15 14:59 |
| 4-Chlorotoluene | 16.9 | U | 33.9 | 10.6 | ug/Kg | 1 | | 05/17/15 14:59 |
| 4-Isopropyltoluene | 16.9 | U | 33.9 | 10.6 | ug/Kg | 1 | | 05/17/15 14:59 |
| 4-Methyl-2-pentanone (MIBK) | 170 | U | 339 | 106 | ug/Kg | 1 | | 05/17/15 14:59 |
| Benzene | 5.42 | J | 17.0 | 5.29 | ug/Kg | 1 | | 05/17/15 14:59 |
| Bromobenzene | 16.9 | U | 33.9 | 10.6 | ug/Kg | 1 | | 05/17/15 14:59 |
| Bromochloromethane | 16.9 | U | 33.9 | 10.6 | ug/Kg | 1 | | 05/17/15 14:59 |
| Bromodichloromethane | 16.9 | U | 33.9 | 10.6 | ug/Kg | 1 | | 05/17/15 14:59 |
| Bromoform | 16.9 | U | 33.9 | 10.6 | ug/Kg | 1 | | 05/17/15 14:59 |
| Bromomethane | 136 | U | 271 | 84.1 | ug/Kg | 1 | | 05/17/15 14:59 |
| Carbon disulfide | 68.0 | U | 136 | 42.0 | ug/Kg | 1 | | 05/17/15 14:59 |
| Carbon tetrachloride | 8.50 | U | 17.0 | 5.29 | ug/Kg | 1 | | 05/17/15 14:59 |
| Chlorobenzene | 16.9 | U | 33.9 | 10.6 | ug/Kg | 1 | | 05/17/15 14:59 |
| Chloroethane | 136 | U | 271 | 84.1 | ug/Kg | 1 | | 05/17/15 14:59 |

Results of **15-PLK2-SBZ-01-1.0**

Client Sample ID: **15-PLK2-SBZ-01-1.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028001
Lab Project ID: 1152028

Collection Date: 05/10/15 09:40
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):89.4
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Chloroform | 16.9 | U | 33.9 | 10.6 | ug/Kg | 1 | | 05/17/15 14:59 |
| Chloromethane | 16.9 | U | 33.9 | 10.6 | ug/Kg | 1 | | 05/17/15 14:59 |
| cis-1,2-Dichloroethene | 16.9 | U | 33.9 | 10.6 | ug/Kg | 1 | | 05/17/15 14:59 |
| cis-1,3-Dichloropropene | 16.9 | U | 33.9 | 10.6 | ug/Kg | 1 | | 05/17/15 14:59 |
| Dibromochloromethane | 16.9 | U | 33.9 | 10.6 | ug/Kg | 1 | | 05/17/15 14:59 |
| Dibromomethane | 16.9 | U | 33.9 | 10.6 | ug/Kg | 1 | | 05/17/15 14:59 |
| Dichlorodifluoromethane | 33.9 | U | 67.8 | 20.3 | ug/Kg | 1 | | 05/17/15 14:59 |
| Ethylbenzene | 16.9 | U | 33.9 | 10.6 | ug/Kg | 1 | | 05/17/15 14:59 |
| Hexachlorobutadiene | 33.9 | U | 67.8 | 20.3 | ug/Kg | 1 | | 05/17/15 14:59 |
| Isopropylbenzene (Cumene) | 16.9 | U | 33.9 | 10.6 | ug/Kg | 1 | | 05/17/15 14:59 |
| Methylene chloride | 68.0 | U | 136 | 42.0 | ug/Kg | 1 | | 05/17/15 14:59 |
| Methyl-t-butyl ether | 68.0 | U | 136 | 42.0 | ug/Kg | 1 | | 05/17/15 14:59 |
| Naphthalene | 58.3 | J | 67.8 | 20.3 | ug/Kg | 1 | | 05/17/15 14:59 |
| n-Butylbenzene | 16.9 | U | 33.9 | 10.6 | ug/Kg | 1 | | 05/17/15 14:59 |
| n-Propylbenzene | 16.9 | U | 33.9 | 10.6 | ug/Kg | 1 | | 05/17/15 14:59 |
| o-Xylene | 21.0 | J | 33.9 | 10.6 | ug/Kg | 1 | | 05/17/15 14:59 |
| P & M -Xylene | 42.4 | J | 67.8 | 20.3 | ug/Kg | 1 | | 05/17/15 14:59 |
| sec-Butylbenzene | 16.9 | U | 33.9 | 10.6 | ug/Kg | 1 | | 05/17/15 14:59 |
| Styrene | 16.9 | U | 33.9 | 10.6 | ug/Kg | 1 | | 05/17/15 14:59 |
| tert-Butylbenzene | 16.9 | U | 33.9 | 10.6 | ug/Kg | 1 | | 05/17/15 14:59 |
| Tetrachloroethene | 8.50 | U | 17.0 | 5.29 | ug/Kg | 1 | | 05/17/15 14:59 |
| Toluene | 45.1 | | 33.9 | 10.6 | ug/Kg | 1 | | 05/17/15 14:59 |
| trans-1,2-Dichloroethene | 16.9 | U | 33.9 | 10.6 | ug/Kg | 1 | | 05/17/15 14:59 |
| trans-1,3-Dichloropropene | 16.9 | U | 33.9 | 10.6 | ug/Kg | 1 | | 05/17/15 14:59 |
| Trichloroethene | 8.50 | U | 17.0 | 5.29 | ug/Kg | 1 | | 05/17/15 14:59 |
| Trichlorofluoromethane | 33.9 | U | 67.8 | 20.3 | ug/Kg | 1 | | 05/17/15 14:59 |
| Vinyl chloride | 16.9 | U | 33.9 | 10.6 | ug/Kg | 1 | | 05/17/15 14:59 |
| Xylenes (total) | 63.4 | J | 102 | 30.9 | ug/Kg | 1 | | 05/17/15 14:59 |
| **Surrogates** | | | | | | | | |
| 1,2-Dichloroethane-D4 (surr) | 112 | | 79-118 | | % | 1 | | 05/17/15 14:59 |
| 4-Bromofluorobenzene (surr) | 104 | | 67-138 | | % | 1 | | 05/17/15 14:59 |
| Toluene-d8 (surr) | 107 | | 85-115 | | % | 1 | | 05/17/15 14:59 |

Print Date: 06/05/2015 8:36:01AM

J flagging is activated

Results of **15-PLK2-SBZ-01-1.0**

Client Sample ID: **15-PLK2-SBZ-01-1.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028001
Lab Project ID: 1152028

Collection Date: 05/10/15 09:40
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):89.4
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

**Batch Information**

Analytical Batch: VMS14922
Analytical Method: SW8260B
Analyst: SCL
Analytical Date/Time: 05/17/15 14:59
Container ID: 1152028001-A

Prep Batch: VXX27269
Prep Method: SW5035A
Prep Date/Time: 05/10/15 09:40
Prep Initial Wt./Vol.: 50.005 g
Prep Extract Vol: 30.3067 mL



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## Results of **15-PLK2-SBZ-02-6.0**

Client Sample ID: **15-PLK2-SBZ-02-6.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028002
Lab Project ID: 1152028

Collection Date: 05/10/15 10:30
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):55.4
Location:

## Results by **Semivolatile Organic Fuels**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics | 143 | | 35.6 | 11.0 | mg/Kg | 1 | | 05/29/15 01:20 |
| **Surrogates** | | | | | | | | |
| 5a Androstane (surr) | 87.6 | | 50-150 | | % | 1 | | 05/29/15 01:20 |

### Batch Information

Analytical Batch: XFC11851
Analytical Method: AK102
Analyst: MCM
Analytical Date/Time: 05/29/15 01:20
Container ID: 1152028002-B

Prep Batch: XXX33106
Prep Method: SW3550C
Prep Date/Time: 05/21/15 13:06
Prep Initial Wt./Vol.: 30.38 g
Prep Extract Vol: 1 mL

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Residual Range Organics | 703 | | 35.6 | 11.0 | mg/Kg | 1 | | 05/29/15 01:20 |
| **Surrogates** | | | | | | | | |
| n-Triacontane-d62 (surr) | 83.8 | | 50-150 | | % | 1 | | 05/29/15 01:20 |

### Batch Information

Analytical Batch: XFC11851
Analytical Method: AK103
Analyst: MCM
Analytical Date/Time: 05/29/15 01:20
Container ID: 1152028002-B

Prep Batch: XXX33106
Prep Method: SW3550C
Prep Date/Time: 05/21/15 13:06
Prep Initial Wt./Vol.: 30.38 g
Prep Extract Vol: 1 mL

## Results of **15-PLK2-SBZ-02-6.0**

Client Sample ID: **15-PLK2-SBZ-02-6.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028002
Lab Project ID: 1152028

Collection Date: 05/10/15 10:30
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):55.4
Location:

## Results by **Volatile Fuels**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics | 4.16 | U | 8.31 | 2.49 | mg/Kg | 1 | | 05/17/15 15:05 |
| **Surrogates** | | | | | | | | |
| 4-Bromofluorobenzene (surr) | 51.5 | | 50-150 | | % | 1 | | 05/17/15 15:05 |

## Batch Information

Analytical Batch: VFC12404
Analytical Method: AK101
Analyst: ST
Analytical Date/Time: 05/17/15 15:05
Container ID: 1152028002-A

Prep Batch: VXX27252
Prep Method: SW5035A
Prep Date/Time: 05/10/15 10:30
Prep Initial Wt./Vol.: 52.521 g
Prep Extract Vol: 48.4025 mL



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Results of **15-PLK2-SBZ-02-6.0**

Client Sample ID: **15-PLK2-SBZ-02-6.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028002
Lab Project ID: 1152028

Collection Date: 05/10/15 10:30
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):55.4
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 41.5 | U | 83.1 | 25.9 | ug/Kg | 1 | | 05/17/15 15:15 |
| 1,1,1-Trichloroethane | 41.5 | U | 83.1 | 25.9 | ug/Kg | 1 | | 05/17/15 15:15 |
| 1,1,2,2-Tetrachloroethane | 20.8 | U | 41.6 | 13.0 | ug/Kg | 1 | | 05/17/15 15:15 |
| 1,1,2-Trichloroethane | 41.5 | U | 83.1 | 25.9 | ug/Kg | 1 | | 05/17/15 15:15 |
| 1,1-Dichloroethane | 41.5 | U | 83.1 | 25.9 | ug/Kg | 1 | | 05/17/15 15:15 |
| 1,1-Dichloroethene | 41.5 | U | 83.1 | 25.9 | ug/Kg | 1 | | 05/17/15 15:15 |
| 1,1-Dichloropropene | 41.5 | U | 83.1 | 25.9 | ug/Kg | 1 | | 05/17/15 15:15 |
| 1,2,3-Trichlorobenzene | 83.0 | U | 166 | 49.9 | ug/Kg | 1 | | 05/17/15 15:15 |
| 1,2,3-Trichloropropane | 41.5 | U | 83.1 | 25.9 | ug/Kg | 1 | | 05/17/15 15:15 |
| 1,2,4-Trichlorobenzene | 41.5 | U | 83.1 | 25.9 | ug/Kg | 1 | | 05/17/15 15:15 |
| 1,2,4-Trimethylbenzene | 83.0 | U | 166 | 49.9 | ug/Kg | 1 | | 05/17/15 15:15 |
| 1,2-Dibromo-3-chloropropane | 166 | U | 332 | 103 | ug/Kg | 1 | | 05/17/15 15:15 |
| 1,2-Dibromoethane | 41.5 | U | 83.1 | 25.9 | ug/Kg | 1 | | 05/17/15 15:15 |
| 1,2-Dichlorobenzene | 41.5 | U | 83.1 | 25.9 | ug/Kg | 1 | | 05/17/15 15:15 |
| 1,2-Dichloroethane | 41.5 | U | 83.1 | 25.9 | ug/Kg | 1 | | 05/17/15 15:15 |
| 1,2-Dichloropropane | 41.5 | U | 83.1 | 25.9 | ug/Kg | 1 | | 05/17/15 15:15 |
| 1,3,5-Trimethylbenzene | 41.5 | U | 83.1 | 25.9 | ug/Kg | 1 | | 05/17/15 15:15 |
| 1,3-Dichlorobenzene | 41.5 | U | 83.1 | 25.9 | ug/Kg | 1 | | 05/17/15 15:15 |
| 1,3-Dichloropropane | 41.5 | U | 83.1 | 25.9 | ug/Kg | 1 | | 05/17/15 15:15 |
| 1,4-Dichlorobenzene | 41.5 | U | 83.1 | 25.9 | ug/Kg | 1 | | 05/17/15 15:15 |
| 2,2-Dichloropropane | 41.5 | U | 83.1 | 25.9 | ug/Kg | 1 | | 05/17/15 15:15 |
| 2-Butanone (MEK) | 362 | J | 831 | 259 | ug/Kg | 1 | | 05/17/15 15:15 |
| 2-Chlorotoluene | 41.5 | U | 83.1 | 25.9 | ug/Kg | 1 | | 05/17/15 15:15 |
| 2-Hexanone | 416 | U | 831 | 259 | ug/Kg | 1 | | 05/17/15 15:15 |
| 4-Chlorotoluene | 41.5 | U | 83.1 | 25.9 | ug/Kg | 1 | | 05/17/15 15:15 |
| 4-Isopropyltoluene | 41.5 | U | 83.1 | 25.9 | ug/Kg | 1 | | 05/17/15 15:15 |
| 4-Methyl-2-pentanone (MIBK) | 416 | U | 831 | 259 | ug/Kg | 1 | | 05/17/15 15:15 |
| Benzene | 20.8 | U | 41.6 | 13.0 | ug/Kg | 1 | | 05/17/15 15:15 |
| Bromobenzene | 41.5 | U | 83.1 | 25.9 | ug/Kg | 1 | | 05/17/15 15:15 |
| Bromochloromethane | 41.5 | U | 83.1 | 25.9 | ug/Kg | 1 | | 05/17/15 15:15 |
| Bromodichloromethane | 41.5 | U | 83.1 | 25.9 | ug/Kg | 1 | | 05/17/15 15:15 |
| Bromoform | 41.5 | U | 83.1 | 25.9 | ug/Kg | 1 | | 05/17/15 15:15 |
| Bromomethane | 333 | U | 665 | 206 | ug/Kg | 1 | | 05/17/15 15:15 |
| Carbon disulfide | 166 | U | 332 | 103 | ug/Kg | 1 | | 05/17/15 15:15 |
| Carbon tetrachloride | 20.8 | U | 41.6 | 13.0 | ug/Kg | 1 | | 05/17/15 15:15 |
| Chlorobenzene | 41.5 | U | 83.1 | 25.9 | ug/Kg | 1 | | 05/17/15 15:15 |
| Chloroethane | 333 | U | 665 | 206 | ug/Kg | 1 | | 05/17/15 15:15 |

Results of **15-PLK2-SBZ-02-6.0**

Client Sample ID: **15-PLK2-SBZ-02-6.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028002
Lab Project ID: 1152028

Collection Date: 05/10/15 10:30
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):55.4
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Chloroform | 41.5 | U | 83.1 | 25.9 | ug/Kg | 1 | | 05/17/15 15:15 |
| Chloromethane | 41.5 | U | 83.1 | 25.9 | ug/Kg | 1 | | 05/17/15 15:15 |
| cis-1,2-Dichloroethene | 41.5 | U | 83.1 | 25.9 | ug/Kg | 1 | | 05/17/15 15:15 |
| cis-1,3-Dichloropropene | 41.5 | U | 83.1 | 25.9 | ug/Kg | 1 | | 05/17/15 15:15 |
| Dibromochloromethane | 41.5 | U | 83.1 | 25.9 | ug/Kg | 1 | | 05/17/15 15:15 |
| Dibromomethane | 41.5 | U | 83.1 | 25.9 | ug/Kg | 1 | | 05/17/15 15:15 |
| Dichlorodifluoromethane | 83.0 | U | 166 | 49.9 | ug/Kg | 1 | | 05/17/15 15:15 |
| Ethylbenzene | 41.5 | U | 83.1 | 25.9 | ug/Kg | 1 | | 05/17/15 15:15 |
| Hexachlorobutadiene | 83.0 | U | 166 | 49.9 | ug/Kg | 1 | | 05/17/15 15:15 |
| Isopropylbenzene (Cumene) | 41.5 | U | 83.1 | 25.9 | ug/Kg | 1 | | 05/17/15 15:15 |
| Methylene chloride | 166 | U | 332 | 103 | ug/Kg | 1 | | 05/17/15 15:15 |
| Methyl-t-butyl ether | 166 | U | 332 | 103 | ug/Kg | 1 | | 05/17/15 15:15 |
| Naphthalene | 52.4 | J | 166 | 49.9 | ug/Kg | 1 | | 05/17/15 15:15 |
| n-Butylbenzene | 41.5 | U | 83.1 | 25.9 | ug/Kg | 1 | | 05/17/15 15:15 |
| n-Propylbenzene | 41.5 | U | 83.1 | 25.9 | ug/Kg | 1 | | 05/17/15 15:15 |
| o-Xylene | 41.5 | U | 83.1 | 25.9 | ug/Kg | 1 | | 05/17/15 15:15 |
| P & M -Xylene | 83.0 | U | 166 | 49.9 | ug/Kg | 1 | | 05/17/15 15:15 |
| sec-Butylbenzene | 41.5 | U | 83.1 | 25.9 | ug/Kg | 1 | | 05/17/15 15:15 |
| Styrene | 41.5 | U | 83.1 | 25.9 | ug/Kg | 1 | | 05/17/15 15:15 |
| tert-Butylbenzene | 41.5 | U | 83.1 | 25.9 | ug/Kg | 1 | | 05/17/15 15:15 |
| Tetrachloroethene | 20.8 | U | 41.6 | 13.0 | ug/Kg | 1 | | 05/17/15 15:15 |
| Toluene | 41.5 | U | 83.1 | 25.9 | ug/Kg | 1 | | 05/17/15 15:15 |
| trans-1,2-Dichloroethene | 41.5 | U | 83.1 | 25.9 | ug/Kg | 1 | | 05/17/15 15:15 |
| trans-1,3-Dichloropropene | 41.5 | U | 83.1 | 25.9 | ug/Kg | 1 | | 05/17/15 15:15 |
| Trichloroethene | 20.8 | U | 41.6 | 13.0 | ug/Kg | 1 | | 05/17/15 15:15 |
| Trichlorofluoromethane | 83.0 | U | 166 | 49.9 | ug/Kg | 1 | | 05/17/15 15:15 |
| Vinyl chloride | 41.5 | U | 83.1 | 25.9 | ug/Kg | 1 | | 05/17/15 15:15 |
| Xylenes (total) | 125 | U | 249 | 75.8 | ug/Kg | 1 | | 05/17/15 15:15 |
| **Surrogates** | | | | | | | | |
| 1,2-Dichloroethane-D4 (surr) | 115 | | 79-118 | | % | 1 | | 05/17/15 15:15 |
| 4-Bromofluorobenzene (surr) | 89.5 | | 67-138 | | % | 1 | | 05/17/15 15:15 |
| Toluene-d8 (surr) | 109 | | 85-115 | | % | 1 | | 05/17/15 15:15 |

Print Date: 06/05/2015 8:36:01AM

J flagging is activated

Results of **15-PLK2-SBZ-02-6.0**

Client Sample ID: **15-PLK2-SBZ-02-6.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028002
Lab Project ID: 1152028

Collection Date: 05/10/15 10:30
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):55.4
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

**Batch Information**

Analytical Batch: VMS14922
Analytical Method: SW8260B
Analyst: SCL
Analytical Date/Time: 05/17/15 15:15
Container ID: 1152028002-A

Prep Batch: VXX27269
Prep Method: SW5035A
Prep Date/Time: 05/10/15 10:30
Prep Initial Wt./Vol.: 52.521 g
Prep Extract Vol: 48.4025 mL

Results of **15-PLK2-SO-01-1.0**

Client Sample ID: **15-PLK2-SO-01-1.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028003
Lab Project ID: 1152028

Collection Date: 05/10/15 07:30
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):96.5
Location:

Results by **Semivolatile Organic Fuels**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics | 24.6 | | 20.6 | 6.38 | mg/Kg | 1 | | 05/29/15 01:30 |
| **Surrogates** | | | | | | | | |
| 5a Androstane (surr) | 76.5 | | 50-150 | | % | 1 | | 05/29/15 01:30 |

**Batch Information**

Analytical Batch: XFC11851
Analytical Method: AK102
Analyst: MCM
Analytical Date/Time: 05/29/15 01:30
Container ID: 1152028003-B

Prep Batch: XXX33106
Prep Method: SW3550C
Prep Date/Time: 05/21/15 13:06
Prep Initial Wt./Vol.: 30.202 g
Prep Extract Vol: 1 mL

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Residual Range Organics | 45.7 | | 20.6 | 6.38 | mg/Kg | 1 | | 05/29/15 01:30 |
| **Surrogates** | | | | | | | | |
| n-Triacontane-d62 (surr) | 91.2 | | 50-150 | | % | 1 | | 05/29/15 01:30 |

**Batch Information**

Analytical Batch: XFC11851
Analytical Method: AK103
Analyst: MCM
Analytical Date/Time: 05/29/15 01:30
Container ID: 1152028003-B

Prep Batch: XXX33106
Prep Method: SW3550C
Prep Date/Time: 05/21/15 13:06
Prep Initial Wt./Vol.: 30.202 g
Prep Extract Vol: 1 mL

Print Date: 06/05/2015 8:36:01AM

J flagging is activated

Results of **15-PLK2-SO-01-1.0**

Client Sample ID: **15-PLK2-SO-01-1.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028003
Lab Project ID: 1152028

Collection Date: 05/10/15 07:30
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):96.5
Location:

Results by **Volatile Fuels**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics | 2.24 | J | 2.89 | 0.866 | mg/Kg | 1 | | 05/17/15 15:25 |
| **Surrogates** | | | | | | | | |
| 4-Bromofluorobenzene (surr) | 83.3 | | 50-150 | | % | 1 | | 05/17/15 15:25 |

**Batch Information**

Analytical Batch: VFC12404
Analytical Method: AK101
Analyst: ST
Analytical Date/Time: 05/17/15 15:25
Container ID: 1152028003-A

Prep Batch: VXX27252
Prep Method: SW5035A
Prep Date/Time: 05/10/15 07:30
Prep Initial Wt./Vol.: 47.823 g
Prep Extract Vol: 26.6632 mL

Results of **15-PLK2-SO-01-1.0**

Client Sample ID: **15-PLK2-SO-01-1.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028003
Lab Project ID: 1152028

Collection Date: 05/10/15 07:30
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):96.5
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 14.4 | U | 28.9 | 9.01 | ug/Kg | 1 | | 05/17/15 15:31 |
| 1,1,1-Trichloroethane | 14.4 | U | 28.9 | 9.01 | ug/Kg | 1 | | 05/17/15 15:31 |
| 1,1,2,2-Tetrachloroethane | 7.20 | U | 14.4 | 4.51 | ug/Kg | 1 | | 05/17/15 15:31 |
| 1,1,2-Trichloroethane | 14.4 | U | 28.9 | 9.01 | ug/Kg | 1 | | 05/17/15 15:31 |
| 1,1-Dichloroethane | 14.4 | U | 28.9 | 9.01 | ug/Kg | 1 | | 05/17/15 15:31 |
| 1,1-Dichloroethene | 14.4 | U | 28.9 | 9.01 | ug/Kg | 1 | | 05/17/15 15:31 |
| 1,1-Dichloropropene | 14.4 | U | 28.9 | 9.01 | ug/Kg | 1 | | 05/17/15 15:31 |
| 1,2,3-Trichlorobenzene | 28.9 | U | 57.8 | 17.3 | ug/Kg | 1 | | 05/17/15 15:31 |
| 1,2,3-Trichloropropane | 14.4 | U | 28.9 | 9.01 | ug/Kg | 1 | | 05/17/15 15:31 |
| 1,2,4-Trichlorobenzene | 14.4 | U | 28.9 | 9.01 | ug/Kg | 1 | | 05/17/15 15:31 |
| 1,2,4-Trimethylbenzene | 29.2 | J | 57.8 | 17.3 | ug/Kg | 1 | | 05/17/15 15:31 |
| 1,2-Dibromo-3-chloropropane | 58.0 | U | 116 | 35.8 | ug/Kg | 1 | | 05/17/15 15:31 |
| 1,2-Dibromoethane | 14.4 | U | 28.9 | 9.01 | ug/Kg | 1 | | 05/17/15 15:31 |
| 1,2-Dichlorobenzene | 14.4 | U | 28.9 | 9.01 | ug/Kg | 1 | | 05/17/15 15:31 |
| 1,2-Dichloroethane | 14.4 | U | 28.9 | 9.01 | ug/Kg | 1 | | 05/17/15 15:31 |
| 1,2-Dichloropropane | 14.4 | U | 28.9 | 9.01 | ug/Kg | 1 | | 05/17/15 15:31 |
| 1,3,5-Trimethylbenzene | 19.6 | J | 28.9 | 9.01 | ug/Kg | 1 | | 05/17/15 15:31 |
| 1,3-Dichlorobenzene | 14.4 | U | 28.9 | 9.01 | ug/Kg | 1 | | 05/17/15 15:31 |
| 1,3-Dichloropropane | 14.4 | U | 28.9 | 9.01 | ug/Kg | 1 | | 05/17/15 15:31 |
| 1,4-Dichlorobenzene | 14.4 | U | 28.9 | 9.01 | ug/Kg | 1 | | 05/17/15 15:31 |
| 2,2-Dichloropropane | 14.4 | U | 28.9 | 9.01 | ug/Kg | 1 | | 05/17/15 15:31 |
| 2-Butanone (MEK) | 145 | U | 289 | 90.1 | ug/Kg | 1 | | 05/17/15 15:31 |
| 2-Chlorotoluene | 14.4 | U | 28.9 | 9.01 | ug/Kg | 1 | | 05/17/15 15:31 |
| 2-Hexanone | 145 | U | 289 | 90.1 | ug/Kg | 1 | | 05/17/15 15:31 |
| 4-Chlorotoluene | 14.4 | U | 28.9 | 9.01 | ug/Kg | 1 | | 05/17/15 15:31 |
| 4-Isopropyltoluene | 14.4 | U | 28.9 | 9.01 | ug/Kg | 1 | | 05/17/15 15:31 |
| 4-Methyl-2-pentanone (MIBK) | 145 | U | 289 | 90.1 | ug/Kg | 1 | | 05/17/15 15:31 |
| Benzene | 9.82 | J | 14.4 | 4.51 | ug/Kg | 1 | | 05/17/15 15:31 |
| Bromobenzene | 14.4 | U | 28.9 | 9.01 | ug/Kg | 1 | | 05/17/15 15:31 |
| Bromochloromethane | 14.4 | U | 28.9 | 9.01 | ug/Kg | 1 | | 05/17/15 15:31 |
| Bromodichloromethane | 14.4 | U | 28.9 | 9.01 | ug/Kg | 1 | | 05/17/15 15:31 |
| Bromoform | 14.4 | U | 28.9 | 9.01 | ug/Kg | 1 | | 05/17/15 15:31 |
| Bromomethane | 116 | U | 231 | 71.6 | ug/Kg | 1 | | 05/17/15 15:31 |
| Carbon disulfide | 58.0 | U | 116 | 35.8 | ug/Kg | 1 | | 05/17/15 15:31 |
| Carbon tetrachloride | 7.20 | U | 14.4 | 4.51 | ug/Kg | 1 | | 05/17/15 15:31 |
| Chlorobenzene | 14.4 | U | 28.9 | 9.01 | ug/Kg | 1 | | 05/17/15 15:31 |
| Chloroethane | 116 | U | 231 | 71.6 | ug/Kg | 1 | | 05/17/15 15:31 |

Results of **15-PLK2-SO-01-1.0**

Client Sample ID: **15-PLK2-SO-01-1.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028003
Lab Project ID: 1152028

Collection Date: 05/10/15 07:30
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):96.5
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Chloroform | 14.4 | U | 28.9 | 9.01 | ug/Kg | 1 | | 05/17/15 15:31 |
| Chloromethane | 10.7 | J | 28.9 | 9.01 | ug/Kg | 1 | | 05/17/15 15:31 |
| cis-1,2-Dichloroethene | 14.4 | U | 28.9 | 9.01 | ug/Kg | 1 | | 05/17/15 15:31 |
| cis-1,3-Dichloropropene | 14.4 | U | 28.9 | 9.01 | ug/Kg | 1 | | 05/17/15 15:31 |
| Dibromochloromethane | 14.4 | U | 28.9 | 9.01 | ug/Kg | 1 | | 05/17/15 15:31 |
| Dibromomethane | 14.4 | U | 28.9 | 9.01 | ug/Kg | 1 | | 05/17/15 15:31 |
| Dichlorodifluoromethane | 28.9 | U | 57.8 | 17.3 | ug/Kg | 1 | | 05/17/15 15:31 |
| Ethylbenzene | 14.4 | U | 28.9 | 9.01 | ug/Kg | 1 | | 05/17/15 15:31 |
| Hexachlorobutadiene | 28.9 | U | 57.8 | 17.3 | ug/Kg | 1 | | 05/17/15 15:31 |
| Isopropylbenzene (Cumene) | 14.4 | U | 28.9 | 9.01 | ug/Kg | 1 | | 05/17/15 15:31 |
| Methylene chloride | 58.0 | U | 116 | 35.8 | ug/Kg | 1 | | 05/17/15 15:31 |
| Methyl-t-butyl ether | 58.0 | U | 116 | 35.8 | ug/Kg | 1 | | 05/17/15 15:31 |
| Naphthalene | 59.2 | | 57.8 | 17.3 | ug/Kg | 1 | | 05/17/15 15:31 |
| n-Butylbenzene | 14.4 | U | 28.9 | 9.01 | ug/Kg | 1 | | 05/17/15 15:31 |
| n-Propylbenzene | 14.4 | U | 28.9 | 9.01 | ug/Kg | 1 | | 05/17/15 15:31 |
| o-Xylene | 30.0 | | 28.9 | 9.01 | ug/Kg | 1 | | 05/17/15 15:31 |
| P & M -Xylene | 61.8 | | 57.8 | 17.3 | ug/Kg | 1 | | 05/17/15 15:31 |
| sec-Butylbenzene | 14.4 | U | 28.9 | 9.01 | ug/Kg | 1 | | 05/17/15 15:31 |
| Styrene | 14.4 | U | 28.9 | 9.01 | ug/Kg | 1 | | 05/17/15 15:31 |
| tert-Butylbenzene | 14.4 | U | 28.9 | 9.01 | ug/Kg | 1 | | 05/17/15 15:31 |
| Tetrachloroethene | 7.20 | U | 14.4 | 4.51 | ug/Kg | 1 | | 05/17/15 15:31 |
| Toluene | 34.1 | | 28.9 | 9.01 | ug/Kg | 1 | | 05/17/15 15:31 |
| trans-1,2-Dichloroethene | 14.4 | U | 28.9 | 9.01 | ug/Kg | 1 | | 05/17/15 15:31 |
| trans-1,3-Dichloropropene | 14.4 | U | 28.9 | 9.01 | ug/Kg | 1 | | 05/17/15 15:31 |
| Trichloroethene | 7.20 | U | 14.4 | 4.51 | ug/Kg | 1 | | 05/17/15 15:31 |
| Trichlorofluoromethane | 28.9 | U | 57.8 | 17.3 | ug/Kg | 1 | | 05/17/15 15:31 |
| Vinyl chloride | 14.4 | U | 28.9 | 9.01 | ug/Kg | 1 | | 05/17/15 15:31 |
| Xylenes (total) | 91.8 | | 86.6 | 26.3 | ug/Kg | 1 | | 05/17/15 15:31 |
| **Surrogates** | | | | | | | | |
| 1,2-Dichloroethane-D4 (surr) | 108 | | 79-118 | | % | 1 | | 05/17/15 15:31 |
| 4-Bromofluorobenzene (surr) | 95 | | 67-138 | | % | 1 | | 05/17/15 15:31 |
| Toluene-d8 (surr) | 103 | | 85-115 | | % | 1 | | 05/17/15 15:31 |

Print Date: 06/05/2015 8:36:01AM

J flagging is activated

Results of **15-PLK2-SO-01-1.0**

Client Sample ID: **15-PLK2-SO-01-1.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028003
Lab Project ID: 1152028

Collection Date: 05/10/15 07:30
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):96.5
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

**Batch Information**

Analytical Batch: VMS14922
Analytical Method: SW8260B
Analyst: SCL
Analytical Date/Time: 05/17/15 15:31
Container ID: 1152028003-A

Prep Batch: VXX27269
Prep Method: SW5035A
Prep Date/Time: 05/10/15 07:30
Prep Initial Wt./Vol.: 47.823 g
Prep Extract Vol: 26.6632 mL



SGS North America Inc.
200 West Potter Drive Anchorage, AK 95518
**t** 907.562.2343 **f** 907.561.5301 www.us.sgs.com

Results of **15-PLK2-SO-01-3.0**

Client Sample ID: **15-PLK2-SO-01-3.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028004
Lab Project ID: 1152028

Collection Date: 05/10/15 07:35
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):84.2
Location:

Results by **Polynuclear Aromatics GC/MS**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| 1-Methylnaphthalene | 460 | | 29.6 | 8.88 | ug/Kg | 5 | | 05/26/15 17:48 |
| 2-Methylnaphthalene | 436 | | 29.6 | 8.88 | ug/Kg | 5 | | 05/26/15 17:48 |
| Acenaphthene | 19.2 | J | 29.6 | 8.88 | ug/Kg | 5 | | 05/26/15 17:48 |
| Acenaphthylene | 14.8 | U | 29.6 | 8.88 | ug/Kg | 5 | | 05/26/15 17:48 |
| Anthracene | 14.8 | U | 29.6 | 8.88 | ug/Kg | 5 | | 05/26/15 17:48 |
| Benzo(a)Anthracene | 14.8 | U | 29.6 | 8.88 | ug/Kg | 5 | | 05/26/15 17:48 |
| Benzo[a]pyrene | 14.8 | U | 29.6 | 8.88 | ug/Kg | 5 | | 05/26/15 17:48 |
| Benzo[b]Fluoranthene | 14.8 | U | 29.6 | 8.88 | ug/Kg | 5 | | 05/26/15 17:48 |
| Benzo[g,h,i]perylene | 14.8 | U | 29.6 | 8.88 | ug/Kg | 5 | | 05/26/15 17:48 |
| Benzo[k]fluoranthene | 14.8 | U | 29.6 | 8.88 | ug/Kg | 5 | | 05/26/15 17:48 |
| Chrysene | 13.0 | J | 29.6 | 8.88 | ug/Kg | 5 | | 05/26/15 17:48 |
| Dibenzo[a,h]anthracene | 14.8 | U | 29.6 | 8.88 | ug/Kg | 5 | | 05/26/15 17:48 |
| Fluoranthene | 14.8 | U | 29.6 | 8.88 | ug/Kg | 5 | | 05/26/15 17:48 |
| Fluorene | 19.3 | J | 29.6 | 8.88 | ug/Kg | 5 | | 05/26/15 17:48 |
| Indeno[1,2,3-c,d] pyrene | 14.8 | U | 29.6 | 8.88 | ug/Kg | 5 | | 05/26/15 17:48 |
| Naphthalene | 216 | | 29.6 | 8.88 | ug/Kg | 5 | | 05/26/15 17:48 |
| Phenanthrene | 66.8 | | 29.6 | 8.88 | ug/Kg | 5 | | 05/26/15 17:48 |
| Pyrene | 9.32 | J | 29.6 | 8.88 | ug/Kg | 5 | | 05/26/15 17:48 |
| **Surrogates** | | | | | | | | |
| 2-Fluorobiphenyl (surr) | 107 | * | 45-105 | | % | 5 | | 05/26/15 17:48 |
| Terphenyl-d14 (surr) | 90.6 | | 30-125 | | % | 5 | | 05/26/15 17:48 |

**Batch Information**

Analytical Batch: XMS8673
Analytical Method: 8270D SIMS (PAH)
Analyst: DSH
Analytical Date/Time: 05/26/15 17:48
Container ID: 1152028004-B

Prep Batch: XXX33067
Prep Method: SW3550C
Prep Date/Time: 05/16/15 10:29
Prep Initial Wt./Vol.: 22.569 g
Prep Extract Vol: 1 mL

Print Date: 06/05/2015 8:36:01AM

J flagging is activated

Results of **15-PLK2-SO-01-3.0**

Client Sample ID: **15-PLK2-SO-01-3.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028004
Lab Project ID: 1152028

Collection Date: 05/10/15 07:35
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):84.2
Location:

Results by **Semivolatile Organic Fuels**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics | 204 | | 23.6 | 7.32 | mg/Kg | 1 | | 05/29/15 01:40 |
| **Surrogates** | | | | | | | | |
| 5a Androstane (surr) | 91.8 | | 50-150 | | % | 1 | | 05/29/15 01:40 |

**Batch Information**

Analytical Batch: XFC11851
Analytical Method: AK102
Analyst: MCM
Analytical Date/Time: 05/29/15 01:40
Container ID: 1152028004-B

Prep Batch: XXX33106
Prep Method: SW3550C
Prep Date/Time: 05/21/15 13:06
Prep Initial Wt./Vol.: 30.19 g
Prep Extract Vol: 1 mL

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Residual Range Organics | 334 | | 23.6 | 7.32 | mg/Kg | 1 | | 05/29/15 01:40 |
| **Surrogates** | | | | | | | | |
| n-Triacontane-d62 (surr) | 71.3 | | 50-150 | | % | 1 | | 05/29/15 01:40 |

**Batch Information**

Analytical Batch: XFC11851
Analytical Method: AK103
Analyst: MCM
Analytical Date/Time: 05/29/15 01:40
Container ID: 1152028004-B

Prep Batch: XXX33106
Prep Method: SW3550C
Prep Date/Time: 05/21/15 13:06
Prep Initial Wt./Vol.: 30.19 g
Prep Extract Vol: 1 mL

Print Date: 06/05/2015 8:36:01AM

J flagging is activated

Results of **15-PLK2-SO-01-3.0**

Client Sample ID: **15-PLK2-SO-01-3.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028004
Lab Project ID: 1152028

Collection Date: 05/10/15 07:35
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):84.2
Location:

Results by **Volatile Fuels**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics | 4.64 | | 3.97 | 1.19 | mg/Kg | 1 | | 05/17/15 15:44 |
| **Surrogates** | | | | | | | | |
| 4-Bromofluorobenzene (surr) | 89.8 | | 50-150 | | % | 1 | | 05/17/15 15:44 |

**Batch Information**

Analytical Batch: VFC12404
Analytical Method: AK101
Analyst: ST
Analytical Date/Time: 05/17/15 15:44
Container ID: 1152028004-A

Prep Batch: VXX27252
Prep Method: SW5035A
Prep Date/Time: 05/10/15 07:35
Prep Initial Wt./Vol.: 49.097 g
Prep Extract Vol: 32.7722 mL



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Results of **15-PLK2-SO-01-3.0**

Client Sample ID: **15-PLK2-SO-01-3.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028004
Lab Project ID: 1152028

Collection Date: 05/10/15 07:35
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):84.2
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 19.9 | U | 39.7 | 12.4 | ug/Kg | 1 | | 05/19/15 03:00 |
| 1,1,1-Trichloroethane | 19.9 | U | 39.7 | 12.4 | ug/Kg | 1 | | 05/19/15 03:00 |
| 1,1,2,2-Tetrachloroethane | 9.90 | U | 19.8 | 6.19 | ug/Kg | 1 | | 05/19/15 03:00 |
| 1,1,2-Trichloroethane | 19.9 | U | 39.7 | 12.4 | ug/Kg | 1 | | 05/19/15 03:00 |
| 1,1-Dichloroethane | 19.9 | U | 39.7 | 12.4 | ug/Kg | 1 | | 05/19/15 03:00 |
| 1,1-Dichloroethene | 19.9 | U | 39.7 | 12.4 | ug/Kg | 1 | | 05/19/15 03:00 |
| 1,1-Dichloropropene | 19.9 | U | 39.7 | 12.4 | ug/Kg | 1 | | 05/19/15 03:00 |
| 1,2,3-Trichlorobenzene | 39.6 | U | 79.3 | 23.8 | ug/Kg | 1 | | 05/19/15 03:00 |
| 1,2,3-Trichloropropane | 19.9 | U | 39.7 | 12.4 | ug/Kg | 1 | | 05/19/15 03:00 |
| 1,2,4-Trichlorobenzene | 19.9 | U | 39.7 | 12.4 | ug/Kg | 1 | | 05/19/15 03:00 |
| 1,2,4-Trimethylbenzene | 144 | | 79.3 | 23.8 | ug/Kg | 1 | | 05/19/15 03:00 |
| 1,2-Dibromo-3-chloropropane | 79.5 | U | 159 | 49.2 | ug/Kg | 1 | | 05/19/15 03:00 |
| 1,2-Dibromoethane | 19.9 | U | 39.7 | 12.4 | ug/Kg | 1 | | 05/19/15 03:00 |
| 1,2-Dichlorobenzene | 19.9 | U | 39.7 | 12.4 | ug/Kg | 1 | | 05/19/15 03:00 |
| 1,2-Dichloroethane | 19.9 | U | 39.7 | 12.4 | ug/Kg | 1 | | 05/19/15 03:00 |
| 1,2-Dichloropropane | 19.9 | U | 39.7 | 12.4 | ug/Kg | 1 | | 05/19/15 03:00 |
| 1,3,5-Trimethylbenzene | 107 | | 39.7 | 12.4 | ug/Kg | 1 | | 05/19/15 03:00 |
| 1,3-Dichlorobenzene | 19.9 | U | 39.7 | 12.4 | ug/Kg | 1 | | 05/19/15 03:00 |
| 1,3-Dichloropropane | 19.9 | U | 39.7 | 12.4 | ug/Kg | 1 | | 05/19/15 03:00 |
| 1,4-Dichlorobenzene | 19.9 | U | 39.7 | 12.4 | ug/Kg | 1 | | 05/19/15 03:00 |
| 2,2-Dichloropropane | 19.9 | U | 39.7 | 12.4 | ug/Kg | 1 | | 05/19/15 03:00 |
| 2-Butanone (MEK) | 199 | U | 397 | 124 | ug/Kg | 1 | | 05/19/15 03:00 |
| 2-Chlorotoluene | 19.9 | U | 39.7 | 12.4 | ug/Kg | 1 | | 05/19/15 03:00 |
| 2-Hexanone | 199 | U | 397 | 124 | ug/Kg | 1 | | 05/19/15 03:00 |
| 4-Chlorotoluene | 19.9 | U | 39.7 | 12.4 | ug/Kg | 1 | | 05/19/15 03:00 |
| 4-Isopropyltoluene | 97.1 | | 39.7 | 12.4 | ug/Kg | 1 | | 05/19/15 03:00 |
| 4-Methyl-2-pentanone (MIBK) | 199 | U | 397 | 124 | ug/Kg | 1 | | 05/19/15 03:00 |
| Benzene | 17.1 | J | 19.8 | 6.19 | ug/Kg | 1 | | 05/19/15 03:00 |
| Bromobenzene | 44.0 | | 39.7 | 12.4 | ug/Kg | 1 | | 05/19/15 03:00 |
| Bromochloromethane | 19.9 | U | 39.7 | 12.4 | ug/Kg | 1 | | 05/19/15 03:00 |
| Bromodichloromethane | 19.9 | U | 39.7 | 12.4 | ug/Kg | 1 | | 05/19/15 03:00 |
| Bromoform | 19.9 | U | 39.7 | 12.4 | ug/Kg | 1 | | 05/19/15 03:00 |
| Bromomethane | 159 | U | 317 | 98.3 | ug/Kg | 1 | | 05/19/15 03:00 |
| Carbon disulfide | 79.5 | U | 159 | 49.2 | ug/Kg | 1 | | 05/19/15 03:00 |
| Carbon tetrachloride | 9.90 | U | 19.8 | 6.19 | ug/Kg | 1 | | 05/19/15 03:00 |
| Chlorobenzene | 24.6 | J | 39.7 | 12.4 | ug/Kg | 1 | | 05/19/15 03:00 |
| Chloroethane | 159 | U | 317 | 98.3 | ug/Kg | 1 | | 05/19/15 03:00 |

Results of **15-PLK2-SO-01-3.0**

Client Sample ID: **15-PLK2-SO-01-3.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028004
Lab Project ID: 1152028

Collection Date: 05/10/15 07:35
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):84.2
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Chloroform | 19.9 | U | 39.7 | 12.4 | ug/Kg | 1 | | 05/19/15 03:00 |
| Chloromethane | 49.6 | | 39.7 | 12.4 | ug/Kg | 1 | | 05/19/15 03:00 |
| cis-1,2-Dichloroethene | 19.9 | U | 39.7 | 12.4 | ug/Kg | 1 | | 05/19/15 03:00 |
| cis-1,3-Dichloropropene | 19.9 | U | 39.7 | 12.4 | ug/Kg | 1 | | 05/19/15 03:00 |
| Dibromochloromethane | 19.9 | U | 39.7 | 12.4 | ug/Kg | 1 | | 05/19/15 03:00 |
| Dibromomethane | 19.9 | U | 39.7 | 12.4 | ug/Kg | 1 | | 05/19/15 03:00 |
| Dichlorodifluoromethane | 48.0 | J | 79.3 | 23.8 | ug/Kg | 1 | | 05/19/15 03:00 |
| Ethylbenzene | 66.6 | | 39.7 | 12.4 | ug/Kg | 1 | | 05/19/15 03:00 |
| Hexachlorobutadiene | 39.6 | U | 79.3 | 23.8 | ug/Kg | 1 | | 05/19/15 03:00 |
| Isopropylbenzene (Cumene) | 18.2 | J | 39.7 | 12.4 | ug/Kg | 1 | | 05/19/15 03:00 |
| Methylene chloride | 79.5 | U | 159 | 49.2 | ug/Kg | 1 | | 05/19/15 03:00 |
| Methyl-t-butyl ether | 79.5 | U | 159 | 49.2 | ug/Kg | 1 | | 05/19/15 03:00 |
| Naphthalene | 192 | | 79.3 | 23.8 | ug/Kg | 1 | | 05/19/15 03:00 |
| n-Butylbenzene | 25.4 | J | 39.7 | 12.4 | ug/Kg | 1 | | 05/19/15 03:00 |
| n-Propylbenzene | 25.4 | J | 39.7 | 12.4 | ug/Kg | 1 | | 05/19/15 03:00 |
| o-Xylene | 59.1 | | 39.7 | 12.4 | ug/Kg | 1 | | 05/19/15 03:00 |
| P & M -Xylene | 94.0 | | 79.3 | 23.8 | ug/Kg | 1 | | 05/19/15 03:00 |
| sec-Butylbenzene | 19.9 | U | 39.7 | 12.4 | ug/Kg | 1 | | 05/19/15 03:00 |
| Styrene | 19.9 | U | 39.7 | 12.4 | ug/Kg | 1 | | 05/19/15 03:00 |
| tert-Butylbenzene | 19.9 | U | 39.7 | 12.4 | ug/Kg | 1 | | 05/19/15 03:00 |
| Tetrachloroethene | 9.90 | U | 19.8 | 6.19 | ug/Kg | 1 | | 05/19/15 03:00 |
| Toluene | 706 | | 39.7 | 12.4 | ug/Kg | 1 | | 05/19/15 03:00 |
| trans-1,2-Dichloroethene | 19.9 | U | 39.7 | 12.4 | ug/Kg | 1 | | 05/19/15 03:00 |
| trans-1,3-Dichloropropene | 19.9 | U | 39.7 | 12.4 | ug/Kg | 1 | | 05/19/15 03:00 |
| Trichloroethene | 9.90 | U | 19.8 | 6.19 | ug/Kg | 1 | | 05/19/15 03:00 |
| Trichlorofluoromethane | 182 | | 79.3 | 23.8 | ug/Kg | 1 | | 05/19/15 03:00 |
| Vinyl chloride | 19.9 | U | 39.7 | 12.4 | ug/Kg | 1 | | 05/19/15 03:00 |
| Xylenes (total) | 153 | | 119 | 36.2 | ug/Kg | 1 | | 05/19/15 03:00 |
| **Surrogates** | | | | | | | | |
| 1,2-Dichloroethane-D4 (surr) | 118 | | 79-118 | | % | 1 | | 05/19/15 03:00 |
| 4-Bromofluorobenzene (surr) | 103 | | 67-138 | | % | 1 | | 05/19/15 03:00 |
| Toluene-d8 (surr) | 108 | | 85-115 | | % | 1 | | 05/19/15 03:00 |

Print Date: 06/05/2015 8:36:01AM

J flagging is activated

Results of **15-PLK2-SO-01-3.0**

Client Sample ID: **15-PLK2-SO-01-3.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028004
Lab Project ID: 1152028

Collection Date: 05/10/15 07:35
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):84.2
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

**Batch Information**

Analytical Batch: VMS14931
Analytical Method: SW8260B
Analyst: SP
Analytical Date/Time: 05/19/15 03:00
Container ID: 1152028004-A

Prep Batch: VXX27266
Prep Method: SW5035A
Prep Date/Time: 05/10/15 07:35
Prep Initial Wt./Vol.: 49.097 g
Prep Extract Vol: 32.7722 mL



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Results of **15-PLK2-SO-02-0.0**

Client Sample ID: **15-PLK2-SO-02-0.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028005
Lab Project ID: 1152028

Collection Date: 05/10/15 08:20
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):38.4
Location:

Results by **Semivolatile Organic Fuels**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics | 719 | | 206 | 63.8 | mg/Kg | 4 | | 05/29/15 07:35 |
| **Surrogates** | | | | | | | | |
| 5a Androstane (surr) | 113 | | 50-150 | | % | 4 | | 05/29/15 07:35 |

**Batch Information**

Analytical Batch: XFC11851
Analytical Method: AK102
Analyst: MCM
Analytical Date/Time: 05/29/15 07:35
Container ID: 1152028005-B

Prep Batch: XXX33106
Prep Method: SW3550C
Prep Date/Time: 05/21/15 13:06
Prep Initial Wt./Vol.: 30.398 g
Prep Extract Vol: 1 mL

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Residual Range Organics | 2900 | | 206 | 63.8 | mg/Kg | 4 | | 05/29/15 07:35 |
| **Surrogates** | | | | | | | | |
| n-Triacontane-d62 (surr) | 203 | * | 50-150 | | % | 4 | | 05/29/15 07:35 |

**Batch Information**

Analytical Batch: XFC11851
Analytical Method: AK103
Analyst: MCM
Analytical Date/Time: 05/29/15 07:35
Container ID: 1152028005-B

Prep Batch: XXX33106
Prep Method: SW3550C
Prep Date/Time: 05/21/15 13:06
Prep Initial Wt./Vol.: 30.398 g
Prep Extract Vol: 1 mL

Print Date: 06/05/2015 8:36:01AM

J flagging is activated

## Results of **15-PLK2-SO-02-0.0**

Client Sample ID: **15-PLK2-SO-02-0.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028005
Lab Project ID: 1152028

Collection Date: 05/10/15 08:20
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):38.4
Location:

## Results by **Volatile Fuels**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics | 7.45 | U | 14.9 | 4.46 | mg/Kg | 1 | | 05/17/15 16:03 |
| **Surrogates** | | | | | | | | |
| 4-Bromofluorobenzene (surr) | 40.1 | * | 50-150 | | % | 1 | | 05/17/15 16:03 |

## Batch Information

Analytical Batch: VFC12404
Analytical Method: AK101
Analyst: ST
Analytical Date/Time: 05/17/15 16:03
Container ID: 1152028005-A

Prep Batch: VXX27252
Prep Method: SW5035A
Prep Date/Time: 05/10/15 08:20
Prep Initial Wt./Vol.: 47.57 g
Prep Extract Vol: 54.3089 mL



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Results of **15-PLK2-SO-02-0.0**

Client Sample ID: **15-PLK2-SO-02-0.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028005
Lab Project ID: 1152028

Collection Date: 05/10/15 08:20
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):38.4
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 74.5 | U | 149 | 46.4 | ug/Kg | 1 | | 05/19/15 03:15 |
| 1,1,1-Trichloroethane | 74.5 | U | 149 | 46.4 | ug/Kg | 1 | | 05/19/15 03:15 |
| 1,1,2,2-Tetrachloroethane | 37.2 | U | 74.4 | 23.2 | ug/Kg | 1 | | 05/19/15 03:15 |
| 1,1,2-Trichloroethane | 74.5 | U | 149 | 46.4 | ug/Kg | 1 | | 05/19/15 03:15 |
| 1,1-Dichloroethane | 74.5 | U | 149 | 46.4 | ug/Kg | 1 | | 05/19/15 03:15 |
| 1,1-Dichloroethene | 74.5 | U | 149 | 46.4 | ug/Kg | 1 | | 05/19/15 03:15 |
| 1,1-Dichloropropene | 74.5 | U | 149 | 46.4 | ug/Kg | 1 | | 05/19/15 03:15 |
| 1,2,3-Trichlorobenzene | 149 | U | 297 | 89.2 | ug/Kg | 1 | | 05/19/15 03:15 |
| 1,2,3-Trichloropropane | 74.5 | U | 149 | 46.4 | ug/Kg | 1 | | 05/19/15 03:15 |
| 1,2,4-Trichlorobenzene | 74.5 | U | 149 | 46.4 | ug/Kg | 1 | | 05/19/15 03:15 |
| 1,2,4-Trimethylbenzene | 149 | U | 297 | 89.2 | ug/Kg | 1 | | 05/19/15 03:15 |
| 1,2-Dibromo-3-chloropropane | 298 | U | 595 | 184 | ug/Kg | 1 | | 05/19/15 03:15 |
| 1,2-Dibromoethane | 74.5 | U | 149 | 46.4 | ug/Kg | 1 | | 05/19/15 03:15 |
| 1,2-Dichlorobenzene | 74.5 | U | 149 | 46.4 | ug/Kg | 1 | | 05/19/15 03:15 |
| 1,2-Dichloroethane | 74.5 | U | 149 | 46.4 | ug/Kg | 1 | | 05/19/15 03:15 |
| 1,2-Dichloropropane | 74.5 | U | 149 | 46.4 | ug/Kg | 1 | | 05/19/15 03:15 |
| 1,3,5-Trimethylbenzene | 74.5 | U | 149 | 46.4 | ug/Kg | 1 | | 05/19/15 03:15 |
| 1,3-Dichlorobenzene | 74.5 | U | 149 | 46.4 | ug/Kg | 1 | | 05/19/15 03:15 |
| 1,3-Dichloropropane | 74.5 | U | 149 | 46.4 | ug/Kg | 1 | | 05/19/15 03:15 |
| 1,4-Dichlorobenzene | 74.5 | U | 149 | 46.4 | ug/Kg | 1 | | 05/19/15 03:15 |
| 2,2-Dichloropropane | 74.5 | U | 149 | 46.4 | ug/Kg | 1 | | 05/19/15 03:15 |
| 2-Butanone (MEK) | 745 | U | 1490 | 464 | ug/Kg | 1 | | 05/19/15 03:15 |
| 2-Chlorotoluene | 74.5 | U | 149 | 46.4 | ug/Kg | 1 | | 05/19/15 03:15 |
| 2-Hexanone | 745 | U | 1490 | 464 | ug/Kg | 1 | | 05/19/15 03:15 |
| 4-Chlorotoluene | 74.5 | U | 149 | 46.4 | ug/Kg | 1 | | 05/19/15 03:15 |
| 4-Isopropyltoluene | 74.5 | U | 149 | 46.4 | ug/Kg | 1 | | 05/19/15 03:15 |
| 4-Methyl-2-pentanone (MIBK) | 745 | U | 1490 | 464 | ug/Kg | 1 | | 05/19/15 03:15 |
| Benzene | 37.2 | U | 74.4 | 23.2 | ug/Kg | 1 | | 05/19/15 03:15 |
| Bromobenzene | 74.5 | U | 149 | 46.4 | ug/Kg | 1 | | 05/19/15 03:15 |
| Bromochloromethane | 74.5 | U | 149 | 46.4 | ug/Kg | 1 | | 05/19/15 03:15 |
| Bromodichloromethane | 74.5 | U | 149 | 46.4 | ug/Kg | 1 | | 05/19/15 03:15 |
| Bromoform | 74.5 | U | 149 | 46.4 | ug/Kg | 1 | | 05/19/15 03:15 |
| Bromomethane | 595 | U | 1190 | 369 | ug/Kg | 1 | | 05/19/15 03:15 |
| Carbon disulfide | 298 | U | 595 | 184 | ug/Kg | 1 | | 05/19/15 03:15 |
| Carbon tetrachloride | 37.2 | U | 74.4 | 23.2 | ug/Kg | 1 | | 05/19/15 03:15 |
| Chlorobenzene | 74.5 | U | 149 | 46.4 | ug/Kg | 1 | | 05/19/15 03:15 |
| Chloroethane | 595 | U | 1190 | 369 | ug/Kg | 1 | | 05/19/15 03:15 |

Results of **15-PLK2-SO-02-0.0**

Client Sample ID: **15-PLK2-SO-02-0.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028005
Lab Project ID: 1152028

Collection Date: 05/10/15 08:20
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):38.4
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Chloroform | 74.5 | U | 149 | 46.4 | ug/Kg | 1 | | 05/19/15 03:15 |
| Chloromethane | 74.5 | U | 149 | 46.4 | ug/Kg | 1 | | 05/19/15 03:15 |
| cis-1,2-Dichloroethene | 74.5 | U | 149 | 46.4 | ug/Kg | 1 | | 05/19/15 03:15 |
| cis-1,3-Dichloropropene | 74.5 | U | 149 | 46.4 | ug/Kg | 1 | | 05/19/15 03:15 |
| Dibromochloromethane | 74.5 | U | 149 | 46.4 | ug/Kg | 1 | | 05/19/15 03:15 |
| Dibromomethane | 74.5 | U | 149 | 46.4 | ug/Kg | 1 | | 05/19/15 03:15 |
| Dichlorodifluoromethane | 149 | U | 297 | 89.2 | ug/Kg | 1 | | 05/19/15 03:15 |
| Ethylbenzene | 74.5 | U | 149 | 46.4 | ug/Kg | 1 | | 05/19/15 03:15 |
| Hexachlorobutadiene | 149 | U | 297 | 89.2 | ug/Kg | 1 | | 05/19/15 03:15 |
| Isopropylbenzene (Cumene) | 74.5 | U | 149 | 46.4 | ug/Kg | 1 | | 05/19/15 03:15 |
| Methylene chloride | 298 | U | 595 | 184 | ug/Kg | 1 | | 05/19/15 03:15 |
| Methyl-t-butyl ether | 298 | U | 595 | 184 | ug/Kg | 1 | | 05/19/15 03:15 |
| Naphthalene | 149 | U | 297 | 89.2 | ug/Kg | 1 | | 05/19/15 03:15 |
| n-Butylbenzene | 74.5 | U | 149 | 46.4 | ug/Kg | 1 | | 05/19/15 03:15 |
| n-Propylbenzene | 74.5 | U | 149 | 46.4 | ug/Kg | 1 | | 05/19/15 03:15 |
| o-Xylene | 74.5 | U | 149 | 46.4 | ug/Kg | 1 | | 05/19/15 03:15 |
| P & M -Xylene | 149 | U | 297 | 89.2 | ug/Kg | 1 | | 05/19/15 03:15 |
| sec-Butylbenzene | 74.5 | U | 149 | 46.4 | ug/Kg | 1 | | 05/19/15 03:15 |
| Styrene | 74.5 | U | 149 | 46.4 | ug/Kg | 1 | | 05/19/15 03:15 |
| tert-Butylbenzene | 74.5 | U | 149 | 46.4 | ug/Kg | 1 | | 05/19/15 03:15 |
| Tetrachloroethene | 37.2 | U | 74.4 | 23.2 | ug/Kg | 1 | | 05/19/15 03:15 |
| Toluene | 74.5 | U | 149 | 46.4 | ug/Kg | 1 | | 05/19/15 03:15 |
| trans-1,2-Dichloroethene | 74.5 | U | 149 | 46.4 | ug/Kg | 1 | | 05/19/15 03:15 |
| trans-1,3-Dichloropropene | 74.5 | U | 149 | 46.4 | ug/Kg | 1 | | 05/19/15 03:15 |
| Trichloroethene | 37.2 | U | 74.4 | 23.2 | ug/Kg | 1 | | 05/19/15 03:15 |
| Trichlorofluoromethane | 149 | U | 297 | 89.2 | ug/Kg | 1 | | 05/19/15 03:15 |
| Vinyl chloride | 74.5 | U | 149 | 46.4 | ug/Kg | 1 | | 05/19/15 03:15 |
| Xylenes (total) | 223 | U | 446 | 136 | ug/Kg | 1 | | 05/19/15 03:15 |
| **Surrogates** | | | | | | | | |
| 1,2-Dichloroethane-D4 (surr) | 116 | | 79-118 | | % | 1 | | 05/19/15 03:15 |
| 4-Bromofluorobenzene (surr) | 81.9 | | 67-138 | | % | 1 | | 05/19/15 03:15 |
| Toluene-d8 (surr) | 105 | | 85-115 | | % | 1 | | 05/19/15 03:15 |

Print Date: 06/05/2015 8:36:01AM

J flagging is activated

Results of **15-PLK2-SO-02-0.0**

Client Sample ID: **15-PLK2-SO-02-0.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028005
Lab Project ID: 1152028

Collection Date: 05/10/15 08:20
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):38.4
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

**Batch Information**

Analytical Batch: VMS14931
Analytical Method: SW8260B
Analyst: SP
Analytical Date/Time: 05/19/15 03:15
Container ID: 1152028005-A

Prep Batch: VXX27266
Prep Method: SW5035A
Prep Date/Time: 05/10/15 08:20
Prep Initial Wt./Vol.: 47.57 g
Prep Extract Vol: 54.3089 mL

## Results of **15-PLK2-SO-02-1.0**

Client Sample ID: **15-PLK2-SO-02-1.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028006
Lab Project ID: 1152028

Collection Date: 05/10/15 08:25
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):25.7
Location:

## Results by **Semivolatile Organic Fuels**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics | 1310 | | 307 | 95.1 | mg/Kg | 4 | | 05/29/15 07:45 |
| **Surrogates** | | | | | | | | |
| 5a Androstane (surr) | 83.9 | | 50-150 | | % | 4 | | 05/29/15 07:45 |

### Batch Information

Analytical Batch: XFC11851
Analytical Method: AK102
Analyst: MCM
Analytical Date/Time: 05/29/15 07:45
Container ID: 1152028006-B

Prep Batch: XXX33106
Prep Method: SW3550C
Prep Date/Time: 05/21/15 13:06
Prep Initial Wt./Vol.: 30.467 g
Prep Extract Vol: 1 mL

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Residual Range Organics | 6320 | | 307 | 95.1 | mg/Kg | 4 | | 05/29/15 07:45 |
| **Surrogates** | | | | | | | | |
| n-Triacontane-d62 (surr) | 384 | * | 50-150 | | % | 4 | | 05/29/15 07:45 |

### Batch Information

Analytical Batch: XFC11851
Analytical Method: AK103
Analyst: MCM
Analytical Date/Time: 05/29/15 07:45
Container ID: 1152028006-B

Prep Batch: XXX33106
Prep Method: SW3550C
Prep Date/Time: 05/21/15 13:06
Prep Initial Wt./Vol.: 30.467 g
Prep Extract Vol: 1 mL

Print Date: 06/05/2015 8:36:01AM

J flagging is activated

## Results of **15-PLK2-SO-02-1.0**

Client Sample ID: **15-PLK2-SO-02-1.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028006
Lab Project ID: 1152028

Collection Date: 05/10/15 08:25
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):25.7
Location:

## Results by **Volatile Fuels**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics | 12.2 | U | 24.3 | 7.29 | mg/Kg | 1 | | 05/17/15 16:22 |
| **Surrogates** | | | | | | | | |
| 4-Bromofluorobenzene (surr) | 23.5 | * | 50-150 | | % | 1 | | 05/17/15 16:22 |

## Batch Information

Analytical Batch: VFC12404
Analytical Method: AK101
Analyst: ST
Analytical Date/Time: 05/17/15 16:22
Container ID: 1152028006-A

Prep Batch: VXX27252
Prep Method: SW5035A
Prep Date/Time: 05/10/15 08:25
Prep Initial Wt./Vol.: 49.571 g
Prep Extract Vol: 61.8468 mL

Print Date: 06/05/2015 8:36:01AM

J flagging is activated

Results of **15-PLK2-SO-02-1.0**

Client Sample ID: **15-PLK2-SO-02-1.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028006
Lab Project ID: 1152028

Collection Date: 05/10/15 08:25
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):25.7
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 122 | U | 243 | 75.8 | ug/Kg | 1 | | 05/19/15 03:31 |
| 1,1,1-Trichloroethane | 122 | U | 243 | 75.8 | ug/Kg | 1 | | 05/19/15 03:31 |
| 1,1,2,2-Tetrachloroethane | 61.0 | U | 122 | 37.9 | ug/Kg | 1 | | 05/19/15 03:31 |
| 1,1,2-Trichloroethane | 122 | U | 243 | 75.8 | ug/Kg | 1 | | 05/19/15 03:31 |
| 1,1-Dichloroethane | 122 | U | 243 | 75.8 | ug/Kg | 1 | | 05/19/15 03:31 |
| 1,1-Dichloroethene | 122 | U | 243 | 75.8 | ug/Kg | 1 | | 05/19/15 03:31 |
| 1,1-Dichloropropene | 122 | U | 243 | 75.8 | ug/Kg | 1 | | 05/19/15 03:31 |
| 1,2,3-Trichlorobenzene | 243 | U | 486 | 146 | ug/Kg | 1 | | 05/19/15 03:31 |
| 1,2,3-Trichloropropane | 122 | U | 243 | 75.8 | ug/Kg | 1 | | 05/19/15 03:31 |
| 1,2,4-Trichlorobenzene | 122 | U | 243 | 75.8 | ug/Kg | 1 | | 05/19/15 03:31 |
| 1,2,4-Trimethylbenzene | 243 | U | 486 | 146 | ug/Kg | 1 | | 05/19/15 03:31 |
| 1,2-Dibromo-3-chloropropane | 486 | U | 972 | 301 | ug/Kg | 1 | | 05/19/15 03:31 |
| 1,2-Dibromoethane | 122 | U | 243 | 75.8 | ug/Kg | 1 | | 05/19/15 03:31 |
| 1,2-Dichlorobenzene | 122 | U | 243 | 75.8 | ug/Kg | 1 | | 05/19/15 03:31 |
| 1,2-Dichloroethane | 122 | U | 243 | 75.8 | ug/Kg | 1 | | 05/19/15 03:31 |
| 1,2-Dichloropropane | 122 | U | 243 | 75.8 | ug/Kg | 1 | | 05/19/15 03:31 |
| 1,3,5-Trimethylbenzene | 122 | U | 243 | 75.8 | ug/Kg | 1 | | 05/19/15 03:31 |
| 1,3-Dichlorobenzene | 122 | U | 243 | 75.8 | ug/Kg | 1 | | 05/19/15 03:31 |
| 1,3-Dichloropropane | 122 | U | 243 | 75.8 | ug/Kg | 1 | | 05/19/15 03:31 |
| 1,4-Dichlorobenzene | 122 | U | 243 | 75.8 | ug/Kg | 1 | | 05/19/15 03:31 |
| 2,2-Dichloropropane | 122 | U | 243 | 75.8 | ug/Kg | 1 | | 05/19/15 03:31 |
| 2-Butanone (MEK) | 1215 | U | 2430 | 758 | ug/Kg | 1 | | 05/19/15 03:31 |
| 2-Chlorotoluene | 122 | U | 243 | 75.8 | ug/Kg | 1 | | 05/19/15 03:31 |
| 2-Hexanone | 1215 | U | 2430 | 758 | ug/Kg | 1 | | 05/19/15 03:31 |
| 4-Chlorotoluene | 122 | U | 243 | 75.8 | ug/Kg | 1 | | 05/19/15 03:31 |
| 4-Isopropyltoluene | 122 | U | 243 | 75.8 | ug/Kg | 1 | | 05/19/15 03:31 |
| 4-Methyl-2-pentanone (MIBK) | 1215 | U | 2430 | 758 | ug/Kg | 1 | | 05/19/15 03:31 |
| Benzene | 61.0 | U | 122 | 37.9 | ug/Kg | 1 | | 05/19/15 03:31 |
| Bromobenzene | 122 | U | 243 | 75.8 | ug/Kg | 1 | | 05/19/15 03:31 |
| Bromochloromethane | 122 | U | 243 | 75.8 | ug/Kg | 1 | | 05/19/15 03:31 |
| Bromodichloromethane | 122 | U | 243 | 75.8 | ug/Kg | 1 | | 05/19/15 03:31 |
| Bromoform | 122 | U | 243 | 75.8 | ug/Kg | 1 | | 05/19/15 03:31 |
| Bromomethane | 970 | U | 1940 | 603 | ug/Kg | 1 | | 05/19/15 03:31 |
| Carbon disulfide | 486 | U | 972 | 301 | ug/Kg | 1 | | 05/19/15 03:31 |
| Carbon tetrachloride | 61.0 | U | 122 | 37.9 | ug/Kg | 1 | | 05/19/15 03:31 |
| Chlorobenzene | 122 | U | 243 | 75.8 | ug/Kg | 1 | | 05/19/15 03:31 |
| Chloroethane | 970 | U | 1940 | 603 | ug/Kg | 1 | | 05/19/15 03:31 |

Print Date: 06/05/2015 8:36:01AM

J flagging is activated

Results of **15-PLK2-SO-02-1.0**

Client Sample ID: **15-PLK2-SO-02-1.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028006
Lab Project ID: 1152028

Collection Date: 05/10/15 08:25
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):25.7
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Chloroform | 122 | U | 243 | 75.8 | ug/Kg | 1 | | 05/19/15 03:31 |
| Chloromethane | 85.1 | J | 243 | 75.8 | ug/Kg | 1 | | 05/19/15 03:31 |
| cis-1,2-Dichloroethene | 122 | U | 243 | 75.8 | ug/Kg | 1 | | 05/19/15 03:31 |
| cis-1,3-Dichloropropene | 122 | U | 243 | 75.8 | ug/Kg | 1 | | 05/19/15 03:31 |
| Dibromochloromethane | 122 | U | 243 | 75.8 | ug/Kg | 1 | | 05/19/15 03:31 |
| Dibromomethane | 122 | U | 243 | 75.8 | ug/Kg | 1 | | 05/19/15 03:31 |
| Dichlorodifluoromethane | 243 | U | 486 | 146 | ug/Kg | 1 | | 05/19/15 03:31 |
| Ethylbenzene | 122 | U | 243 | 75.8 | ug/Kg | 1 | | 05/19/15 03:31 |
| Hexachlorobutadiene | 243 | U | 486 | 146 | ug/Kg | 1 | | 05/19/15 03:31 |
| Isopropylbenzene (Cumene) | 122 | U | 243 | 75.8 | ug/Kg | 1 | | 05/19/15 03:31 |
| Methylene chloride | 486 | U | 972 | 301 | ug/Kg | 1 | | 05/19/15 03:31 |
| Methyl-t-butyl ether | 486 | U | 972 | 301 | ug/Kg | 1 | | 05/19/15 03:31 |
| Naphthalene | 243 | U | 486 | 146 | ug/Kg | 1 | | 05/19/15 03:31 |
| n-Butylbenzene | 122 | U | 243 | 75.8 | ug/Kg | 1 | | 05/19/15 03:31 |
| n-Propylbenzene | 122 | U | 243 | 75.8 | ug/Kg | 1 | | 05/19/15 03:31 |
| o-Xylene | 122 | U | 243 | 75.8 | ug/Kg | 1 | | 05/19/15 03:31 |
| P & M -Xylene | 243 | U | 486 | 146 | ug/Kg | 1 | | 05/19/15 03:31 |
| sec-Butylbenzene | 122 | U | 243 | 75.8 | ug/Kg | 1 | | 05/19/15 03:31 |
| Styrene | 122 | U | 243 | 75.8 | ug/Kg | 1 | | 05/19/15 03:31 |
| tert-Butylbenzene | 122 | U | 243 | 75.8 | ug/Kg | 1 | | 05/19/15 03:31 |
| Tetrachloroethene | 61.0 | U | 122 | 37.9 | ug/Kg | 1 | | 05/19/15 03:31 |
| Toluene | 1030 | | 243 | 75.8 | ug/Kg | 1 | | 05/19/15 03:31 |
| trans-1,2-Dichloroethene | 122 | U | 243 | 75.8 | ug/Kg | 1 | | 05/19/15 03:31 |
| trans-1,3-Dichloropropene | 122 | U | 243 | 75.8 | ug/Kg | 1 | | 05/19/15 03:31 |
| Trichloroethene | 61.0 | U | 122 | 37.9 | ug/Kg | 1 | | 05/19/15 03:31 |
| Trichlorofluoromethane | 243 | U | 486 | 146 | ug/Kg | 1 | | 05/19/15 03:31 |
| Vinyl chloride | 122 | U | 243 | 75.8 | ug/Kg | 1 | | 05/19/15 03:31 |
| Xylenes (total) | 365 | U | 729 | 222 | ug/Kg | 1 | | 05/19/15 03:31 |
| **Surrogates** | | | | | | | | |
| 1,2-Dichloroethane-D4 (surr) | 115 | | 79-118 | | % | 1 | | 05/19/15 03:31 |
| 4-Bromofluorobenzene (surr) | 74.7 | | 67-138 | | % | 1 | | 05/19/15 03:31 |
| Toluene-d8 (surr) | 106 | | 85-115 | | % | 1 | | 05/19/15 03:31 |

Print Date: 06/05/2015 8:36:01AM

J flagging is activated

Results of **15-PLK2-SO-02-1.0**

Client Sample ID: **15-PLK2-SO-02-1.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028006
Lab Project ID: 1152028

Collection Date: 05/10/15 08:25
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):25.7
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

**Batch Information**

Analytical Batch: VMS14931
Analytical Method: SW8260B
Analyst: SP
Analytical Date/Time: 05/19/15 03:31
Container ID: 1152028006-A

Prep Batch: VXX27266
Prep Method: SW5035A
Prep Date/Time: 05/10/15 08:25
Prep Initial Wt./Vol.: 49.571 g
Prep Extract Vol: 61.8468 mL



SGS North America Inc.
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**t** 907.562.2343 **f** 907.561.5301 www.us.sgs.com

Results of **15-PLK2-SO-03-1.0**

Client Sample ID: **15-PLK2-SO-03-1.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028007
Lab Project ID: 1152028

Collection Date: 05/10/15 07:55
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):94.6
Location:

Results by **Semivolatile Organic Fuels**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics | 24.0 | | 20.9 | 6.48 | mg/Kg | 1 | | 05/29/15 01:50 |
| **Surrogates** | | | | | | | | |
| 5a Androstane (surr) | 68.8 | | 50-150 | | % | 1 | | 05/29/15 01:50 |

**Batch Information**

Analytical Batch: XFC11851
Analytical Method: AK102
Analyst: MCM
Analytical Date/Time: 05/29/15 01:50
Container ID: 1152028007-B

Prep Batch: XXX33106
Prep Method: SW3550C
Prep Date/Time: 05/21/15 13:06
Prep Initial Wt./Vol.: 30.332 g
Prep Extract Vol: 1 mL

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Residual Range Organics | 40.6 | | 20.9 | 6.48 | mg/Kg | 1 | | 05/29/15 01:50 |
| **Surrogates** | | | | | | | | |
| n-Triacontane-d62 (surr) | 78.9 | | 50-150 | | % | 1 | | 05/29/15 01:50 |

**Batch Information**

Analytical Batch: XFC11851
Analytical Method: AK103
Analyst: MCM
Analytical Date/Time: 05/29/15 01:50
Container ID: 1152028007-B

Prep Batch: XXX33106
Prep Method: SW3550C
Prep Date/Time: 05/21/15 13:06
Prep Initial Wt./Vol.: 30.332 g
Prep Extract Vol: 1 mL

Results of **15-PLK2-SO-03-1.0**

Client Sample ID: **15-PLK2-SO-03-1.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028007
Lab Project ID: 1152028

Collection Date: 05/10/15 07:55
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):94.6
Location:

Results by **Volatile Fuels**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics | 1.59 | J | 2.95 | 0.886 | mg/Kg | 1 | | 05/17/15 16:42 |
| **Surrogates** | | | | | | | | |
| 4-Bromofluorobenzene (surr) | 83.5 | | 50-150 | | % | 1 | | 05/17/15 16:42 |

**Batch Information**

Analytical Batch: VFC12404
Analytical Method: AK101
Analyst: ST
Analytical Date/Time: 05/17/15 16:42
Container ID: 1152028007-A

Prep Batch: VXX27252
Prep Method: SW5035A
Prep Date/Time: 05/10/15 07:55
Prep Initial Wt./Vol.: 49.513 g
Prep Extract Vol: 27.6709 mL

Print Date: 06/05/2015 8:36:01AM

J flagging is activated

Results of **15-PLK2-SO-03-1.0**

Client Sample ID: **15-PLK2-SO-03-1.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028007
Lab Project ID: 1152028

Collection Date: 05/10/15 07:55
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):94.6
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 14.8 | U | 29.5 | 9.22 | ug/Kg | 1 | | 05/19/15 13:22 |
| 1,1,1-Trichloroethane | 14.8 | U | 29.5 | 9.22 | ug/Kg | 1 | | 05/19/15 13:22 |
| 1,1,2,2-Tetrachloroethane | 7.40 | U | 14.8 | 4.61 | ug/Kg | 1 | | 05/19/15 13:22 |
| 1,1,2-Trichloroethane | 14.8 | U | 29.5 | 9.22 | ug/Kg | 1 | | 05/19/15 13:22 |
| 1,1-Dichloroethane | 14.8 | U | 29.5 | 9.22 | ug/Kg | 1 | | 05/19/15 13:22 |
| 1,1-Dichloroethene | 14.8 | U | 29.5 | 9.22 | ug/Kg | 1 | | 05/19/15 13:22 |
| 1,1-Dichloropropene | 14.8 | U | 29.5 | 9.22 | ug/Kg | 1 | | 05/19/15 13:22 |
| 1,2,3-Trichlorobenzene | 29.6 | U | 59.1 | 17.7 | ug/Kg | 1 | | 05/19/15 13:22 |
| 1,2,3-Trichloropropane | 14.8 | U | 29.5 | 9.22 | ug/Kg | 1 | | 05/19/15 13:22 |
| 1,2,4-Trichlorobenzene | 14.8 | U | 29.5 | 9.22 | ug/Kg | 1 | | 05/19/15 13:22 |
| 1,2,4-Trimethylbenzene | 60.0 | | 59.1 | 17.7 | ug/Kg | 1 | | 05/19/15 13:22 |
| 1,2-Dibromo-3-chloropropane | 59.0 | U | 118 | 36.6 | ug/Kg | 1 | | 05/19/15 13:22 |
| 1,2-Dibromoethane | 14.8 | U | 29.5 | 9.22 | ug/Kg | 1 | | 05/19/15 13:22 |
| 1,2-Dichlorobenzene | 14.8 | U | 29.5 | 9.22 | ug/Kg | 1 | | 05/19/15 13:22 |
| 1,2-Dichloroethane | 14.8 | U | 29.5 | 9.22 | ug/Kg | 1 | | 05/19/15 13:22 |
| 1,2-Dichloropropane | 14.8 | U | 29.5 | 9.22 | ug/Kg | 1 | | 05/19/15 13:22 |
| 1,3,5-Trimethylbenzene | 31.6 | | 29.5 | 9.22 | ug/Kg | 1 | | 05/19/15 13:22 |
| 1,3-Dichlorobenzene | 14.8 | U | 29.5 | 9.22 | ug/Kg | 1 | | 05/19/15 13:22 |
| 1,3-Dichloropropane | 14.8 | U | 29.5 | 9.22 | ug/Kg | 1 | | 05/19/15 13:22 |
| 1,4-Dichlorobenzene | 14.8 | U | 29.5 | 9.22 | ug/Kg | 1 | | 05/19/15 13:22 |
| 2,2-Dichloropropane | 14.8 | U | 29.5 | 9.22 | ug/Kg | 1 | | 05/19/15 13:22 |
| 2-Butanone (MEK) | 148 | U | 295 | 92.2 | ug/Kg | 1 | | 05/19/15 13:22 |
| 2-Chlorotoluene | 14.8 | U | 29.5 | 9.22 | ug/Kg | 1 | | 05/19/15 13:22 |
| 2-Hexanone | 148 | U | 295 | 92.2 | ug/Kg | 1 | | 05/19/15 13:22 |
| 4-Chlorotoluene | 14.8 | U | 29.5 | 9.22 | ug/Kg | 1 | | 05/19/15 13:22 |
| 4-Isopropyltoluene | 14.8 | U | 29.5 | 9.22 | ug/Kg | 1 | | 05/19/15 13:22 |
| 4-Methyl-2-pentanone (MIBK) | 148 | U | 295 | 92.2 | ug/Kg | 1 | | 05/19/15 13:22 |
| Benzene | 7.38 | J | 14.8 | 4.61 | ug/Kg | 1 | | 05/19/15 13:22 |
| Bromobenzene | 14.8 | U | 29.5 | 9.22 | ug/Kg | 1 | | 05/19/15 13:22 |
| Bromochloromethane | 14.8 | U | 29.5 | 9.22 | ug/Kg | 1 | | 05/19/15 13:22 |
| Bromodichloromethane | 14.8 | U | 29.5 | 9.22 | ug/Kg | 1 | | 05/19/15 13:22 |
| Bromoform | 14.8 | U | 29.5 | 9.22 | ug/Kg | 1 | | 05/19/15 13:22 |
| Bromomethane | 118 | U | 236 | 73.3 | ug/Kg | 1 | | 05/19/15 13:22 |
| Carbon disulfide | 59.0 | U | 118 | 36.6 | ug/Kg | 1 | | 05/19/15 13:22 |
| Carbon tetrachloride | 7.40 | U | 14.8 | 4.61 | ug/Kg | 1 | | 05/19/15 13:22 |
| Chlorobenzene | 14.8 | U | 29.5 | 9.22 | ug/Kg | 1 | | 05/19/15 13:22 |
| Chloroethane | 118 | U | 236 | 73.3 | ug/Kg | 1 | | 05/19/15 13:22 |

Results of **15-PLK2-SO-03-1.0**

Client Sample ID: **15-PLK2-SO-03-1.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028007
Lab Project ID: 1152028

Collection Date: 05/10/15 07:55
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):94.6
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Chloroform | 14.8 | U | 29.5 | 9.22 | ug/Kg | 1 | | 05/19/15 13:22 |
| Chloromethane | 14.8 | U | 29.5 | 9.22 | ug/Kg | 1 | | 05/19/15 13:22 |
| cis-1,2-Dichloroethene | 14.8 | U | 29.5 | 9.22 | ug/Kg | 1 | | 05/19/15 13:22 |
| cis-1,3-Dichloropropene | 14.8 | U | 29.5 | 9.22 | ug/Kg | 1 | | 05/19/15 13:22 |
| Dibromochloromethane | 14.8 | U | 29.5 | 9.22 | ug/Kg | 1 | | 05/19/15 13:22 |
| Dibromomethane | 14.8 | U | 29.5 | 9.22 | ug/Kg | 1 | | 05/19/15 13:22 |
| Dichlorodifluoromethane | 29.6 | U | 59.1 | 17.7 | ug/Kg | 1 | | 05/19/15 13:22 |
| Ethylbenzene | 14.8 | U | 29.5 | 9.22 | ug/Kg | 1 | | 05/19/15 13:22 |
| Hexachlorobutadiene | 29.6 | U | 59.1 | 17.7 | ug/Kg | 1 | | 05/19/15 13:22 |
| Isopropylbenzene (Cumene) | 14.8 | U | 29.5 | 9.22 | ug/Kg | 1 | | 05/19/15 13:22 |
| Methylene chloride | 59.0 | U | 118 | 36.6 | ug/Kg | 1 | | 05/19/15 13:22 |
| Methyl-t-butyl ether | 59.0 | U | 118 | 36.6 | ug/Kg | 1 | | 05/19/15 13:22 |
| Naphthalene | 191 | | 59.1 | 17.7 | ug/Kg | 1 | | 05/19/15 13:22 |
| n-Butylbenzene | 13.3 | J | 29.5 | 9.22 | ug/Kg | 1 | | 05/19/15 13:22 |
| n-Propylbenzene | 14.8 | U | 29.5 | 9.22 | ug/Kg | 1 | | 05/19/15 13:22 |
| o-Xylene | 23.9 | J | 29.5 | 9.22 | ug/Kg | 1 | | 05/19/15 13:22 |
| P & M -Xylene | 61.4 | | 59.1 | 17.7 | ug/Kg | 1 | | 05/19/15 13:22 |
| sec-Butylbenzene | 14.8 | U | 29.5 | 9.22 | ug/Kg | 1 | | 05/19/15 13:22 |
| Styrene | 14.8 | U | 29.5 | 9.22 | ug/Kg | 1 | | 05/19/15 13:22 |
| tert-Butylbenzene | 14.8 | U | 29.5 | 9.22 | ug/Kg | 1 | | 05/19/15 13:22 |
| Tetrachloroethene | 7.40 | U | 14.8 | 4.61 | ug/Kg | 1 | | 05/19/15 13:22 |
| Toluene | 24.5 | J | 29.5 | 9.22 | ug/Kg | 1 | | 05/19/15 13:22 |
| trans-1,2-Dichloroethene | 14.8 | U | 29.5 | 9.22 | ug/Kg | 1 | | 05/19/15 13:22 |
| trans-1,3-Dichloropropene | 14.8 | U | 29.5 | 9.22 | ug/Kg | 1 | | 05/19/15 13:22 |
| Trichloroethene | 7.40 | U | 14.8 | 4.61 | ug/Kg | 1 | | 05/19/15 13:22 |
| Trichlorofluoromethane | 29.6 | U | 59.1 | 17.7 | ug/Kg | 1 | | 05/19/15 13:22 |
| Vinyl chloride | 14.8 | U | 29.5 | 9.22 | ug/Kg | 1 | | 05/19/15 13:22 |
| Xylenes (total) | 85.4 | J | 88.6 | 26.9 | ug/Kg | 1 | | 05/19/15 13:22 |
| **Surrogates** | | | | | | | | |
| 1,2-Dichloroethane-D4 (surr) | 114 | | 79-118 | | % | 1 | | 05/19/15 13:22 |
| 4-Bromofluorobenzene (surr) | 102 | | 67-138 | | % | 1 | | 05/19/15 13:22 |
| Toluene-d8 (surr) | 103 | | 85-115 | | % | 1 | | 05/19/15 13:22 |

Print Date: 06/05/2015 8:36:01AM

J flagging is activated

Results of **15-PLK2-SO-03-1.0**

Client Sample ID: **15-PLK2-SO-03-1.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028007
Lab Project ID: 1152028

Collection Date: 05/10/15 07:55
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):94.6
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

**Batch Information**

Analytical Batch: VMS14924
Analytical Method: SW8260B
Analyst: SP
Analytical Date/Time: 05/19/15 13:22
Container ID: 1152028007-A

Prep Batch: VXX27267
Prep Method: SW5035A
Prep Date/Time: 05/10/15 07:55
Prep Initial Wt./Vol.: 49.513 g
Prep Extract Vol: 27.6709 mL



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Results of **15-PLK2-SO-03-2.0**

Client Sample ID: **15-PLK2-SO-03-2.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028008
Lab Project ID: 1152028

Collection Date: 05/10/15 08:00
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):92.4
Location:

Results by **Semivolatile Organic Fuels**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics | 39.5 | | 21.4 | 6.65 | mg/Kg | 1 | | 05/29/15 01:59 |
| **Surrogates** | | | | | | | | |
| 5a Androstane (surr) | 88.3 | | 50-150 | | % | 1 | | 05/29/15 01:59 |

**Batch Information**

Analytical Batch: XFC11851
Analytical Method: AK102
Analyst: MCM
Analytical Date/Time: 05/29/15 01:59
Container ID: 1152028008-B

Prep Batch: XXX33106
Prep Method: SW3550C
Prep Date/Time: 05/21/15 13:06
Prep Initial Wt./Vol.: 30.274 g
Prep Extract Vol: 1 mL

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Residual Range Organics | 96.7 | | 21.4 | 6.65 | mg/Kg | 1 | | 05/29/15 01:59 |
| **Surrogates** | | | | | | | | |
| n-Triacontane-d62 (surr) | 104 | | 50-150 | | % | 1 | | 05/29/15 01:59 |

**Batch Information**

Analytical Batch: XFC11851
Analytical Method: AK103
Analyst: MCM
Analytical Date/Time: 05/29/15 01:59
Container ID: 1152028008-B

Prep Batch: XXX33106
Prep Method: SW3550C
Prep Date/Time: 05/21/15 13:06
Prep Initial Wt./Vol.: 30.274 g
Prep Extract Vol: 1 mL

Results of **15-PLK2-SO-03-2.0**

Client Sample ID: **15-PLK2-SO-03-2.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028008
Lab Project ID: 1152028

Collection Date: 05/10/15 08:00
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):92.4
Location:

Results by **Volatile Fuels**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics | 2.16 | J | 3.15 | 0.945 | mg/Kg | 1 | | 05/17/15 17:01 |
| **Surrogates** | | | | | | | | |
| 4-Bromofluorobenzene (surr) | 88.6 | | 50-150 | | % | 1 | | 05/17/15 17:01 |

**Batch Information**

Analytical Batch: VFC12404
Analytical Method: AK101
Analyst: ST
Analytical Date/Time: 05/17/15 17:01
Container ID: 1152028008-A

Prep Batch: VXX27252
Prep Method: SW5035A
Prep Date/Time: 05/10/15 08:00
Prep Initial Wt./Vol.: 49.325 g
Prep Extract Vol: 28.7336 mL

Results of **15-PLK2-SO-03-2.0**

Client Sample ID: **15-PLK2-SO-03-2.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028008
Lab Project ID: 1152028

Collection Date: 05/10/15 08:00
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):92.4
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 15.8 | U | 31.5 | 9.83 | ug/Kg | 1 | | 05/19/15 13:38 |
| 1,1,1-Trichloroethane | 15.8 | U | 31.5 | 9.83 | ug/Kg | 1 | | 05/19/15 13:38 |
| 1,1,2,2-Tetrachloroethane | 7.90 | U | 15.8 | 4.92 | ug/Kg | 1 | | 05/19/15 13:38 |
| 1,1,2-Trichloroethane | 15.8 | U | 31.5 | 9.83 | ug/Kg | 1 | | 05/19/15 13:38 |
| 1,1-Dichloroethane | 15.8 | U | 31.5 | 9.83 | ug/Kg | 1 | | 05/19/15 13:38 |
| 1,1-Dichloroethene | 15.8 | U | 31.5 | 9.83 | ug/Kg | 1 | | 05/19/15 13:38 |
| 1,1-Dichloropropene | 15.8 | U | 31.5 | 9.83 | ug/Kg | 1 | | 05/19/15 13:38 |
| 1,2,3-Trichlorobenzene | 31.5 | U | 63.0 | 18.9 | ug/Kg | 1 | | 05/19/15 13:38 |
| 1,2,3-Trichloropropane | 15.8 | U | 31.5 | 9.83 | ug/Kg | 1 | | 05/19/15 13:38 |
| 1,2,4-Trichlorobenzene | 15.8 | U | 31.5 | 9.83 | ug/Kg | 1 | | 05/19/15 13:38 |
| 1,2,4-Trimethylbenzene | 39.1 | J | 63.0 | 18.9 | ug/Kg | 1 | | 05/19/15 13:38 |
| 1,2-Dibromo-3-chloropropane | 63.0 | U | 126 | 39.1 | ug/Kg | 1 | | 05/19/15 13:38 |
| 1,2-Dibromoethane | 15.8 | U | 31.5 | 9.83 | ug/Kg | 1 | | 05/19/15 13:38 |
| 1,2-Dichlorobenzene | 15.8 | U | 31.5 | 9.83 | ug/Kg | 1 | | 05/19/15 13:38 |
| 1,2-Dichloroethane | 15.8 | U | 31.5 | 9.83 | ug/Kg | 1 | | 05/19/15 13:38 |
| 1,2-Dichloropropane | 15.8 | U | 31.5 | 9.83 | ug/Kg | 1 | | 05/19/15 13:38 |
| 1,3,5-Trimethylbenzene | 22.4 | J | 31.5 | 9.83 | ug/Kg | 1 | | 05/19/15 13:38 |
| 1,3-Dichlorobenzene | 15.8 | U | 31.5 | 9.83 | ug/Kg | 1 | | 05/19/15 13:38 |
| 1,3-Dichloropropane | 15.8 | U | 31.5 | 9.83 | ug/Kg | 1 | | 05/19/15 13:38 |
| 1,4-Dichlorobenzene | 15.8 | U | 31.5 | 9.83 | ug/Kg | 1 | | 05/19/15 13:38 |
| 2,2-Dichloropropane | 15.8 | U | 31.5 | 9.83 | ug/Kg | 1 | | 05/19/15 13:38 |
| 2-Butanone (MEK) | 158 | U | 315 | 98.3 | ug/Kg | 1 | | 05/19/15 13:38 |
| 2-Chlorotoluene | 15.8 | U | 31.5 | 9.83 | ug/Kg | 1 | | 05/19/15 13:38 |
| 2-Hexanone | 158 | U | 315 | 98.3 | ug/Kg | 1 | | 05/19/15 13:38 |
| 4-Chlorotoluene | 15.8 | U | 31.5 | 9.83 | ug/Kg | 1 | | 05/19/15 13:38 |
| 4-Isopropyltoluene | 15.8 | U | 31.5 | 9.83 | ug/Kg | 1 | | 05/19/15 13:38 |
| 4-Methyl-2-pentanone (MIBK) | 158 | U | 315 | 98.3 | ug/Kg | 1 | | 05/19/15 13:38 |
| Benzene | 10.7 | J | 15.8 | 4.92 | ug/Kg | 1 | | 05/19/15 13:38 |
| Bromobenzene | 15.8 | U | 31.5 | 9.83 | ug/Kg | 1 | | 05/19/15 13:38 |
| Bromochloromethane | 15.8 | U | 31.5 | 9.83 | ug/Kg | 1 | | 05/19/15 13:38 |
| Bromodichloromethane | 15.8 | U | 31.5 | 9.83 | ug/Kg | 1 | | 05/19/15 13:38 |
| Bromoform | 15.8 | U | 31.5 | 9.83 | ug/Kg | 1 | | 05/19/15 13:38 |
| Bromomethane | 126 | U | 252 | 78.2 | ug/Kg | 1 | | 05/19/15 13:38 |
| Carbon disulfide | 63.0 | U | 126 | 39.1 | ug/Kg | 1 | | 05/19/15 13:38 |
| Carbon tetrachloride | 7.90 | U | 15.8 | 4.92 | ug/Kg | 1 | | 05/19/15 13:38 |
| Chlorobenzene | 15.8 | U | 31.5 | 9.83 | ug/Kg | 1 | | 05/19/15 13:38 |
| Chloroethane | 126 | U | 252 | 78.2 | ug/Kg | 1 | | 05/19/15 13:38 |

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Results of **15-PLK2-SO-03-2.0**

Client Sample ID: **15-PLK2-SO-03-2.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028008
Lab Project ID: 1152028

Collection Date: 05/10/15 08:00
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):92.4
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Chloroform | 15.8 | U | 31.5 | 9.83 | ug/Kg | 1 | | 05/19/15 13:38 |
| Chloromethane | 15.8 | U | 31.5 | 9.83 | ug/Kg | 1 | | 05/19/15 13:38 |
| cis-1,2-Dichloroethene | 15.8 | U | 31.5 | 9.83 | ug/Kg | 1 | | 05/19/15 13:38 |
| cis-1,3-Dichloropropene | 15.8 | U | 31.5 | 9.83 | ug/Kg | 1 | | 05/19/15 13:38 |
| Dibromochloromethane | 15.8 | U | 31.5 | 9.83 | ug/Kg | 1 | | 05/19/15 13:38 |
| Dibromomethane | 15.8 | U | 31.5 | 9.83 | ug/Kg | 1 | | 05/19/15 13:38 |
| Dichlorodifluoromethane | 31.5 | U | 63.0 | 18.9 | ug/Kg | 1 | | 05/19/15 13:38 |
| Ethylbenzene | 15.8 | U | 31.5 | 9.83 | ug/Kg | 1 | | 05/19/15 13:38 |
| Hexachlorobutadiene | 31.5 | U | 63.0 | 18.9 | ug/Kg | 1 | | 05/19/15 13:38 |
| Isopropylbenzene (Cumene) | 15.8 | U | 31.5 | 9.83 | ug/Kg | 1 | | 05/19/15 13:38 |
| Methylene chloride | 63.0 | U | 126 | 39.1 | ug/Kg | 1 | | 05/19/15 13:38 |
| Methyl-t-butyl ether | 63.0 | U | 126 | 39.1 | ug/Kg | 1 | | 05/19/15 13:38 |
| Naphthalene | 104 | | 63.0 | 18.9 | ug/Kg | 1 | | 05/19/15 13:38 |
| n-Butylbenzene | 15.8 | U | 31.5 | 9.83 | ug/Kg | 1 | | 05/19/15 13:38 |
| n-Propylbenzene | 15.8 | U | 31.5 | 9.83 | ug/Kg | 1 | | 05/19/15 13:38 |
| o-Xylene | 39.4 | | 31.5 | 9.83 | ug/Kg | 1 | | 05/19/15 13:38 |
| P & M -Xylene | 77.2 | | 63.0 | 18.9 | ug/Kg | 1 | | 05/19/15 13:38 |
| sec-Butylbenzene | 15.8 | U | 31.5 | 9.83 | ug/Kg | 1 | | 05/19/15 13:38 |
| Styrene | 15.8 | U | 31.5 | 9.83 | ug/Kg | 1 | | 05/19/15 13:38 |
| tert-Butylbenzene | 15.8 | U | 31.5 | 9.83 | ug/Kg | 1 | | 05/19/15 13:38 |
| Tetrachloroethene | 7.90 | U | 15.8 | 4.92 | ug/Kg | 1 | | 05/19/15 13:38 |
| Toluene | 36.6 | | 31.5 | 9.83 | ug/Kg | 1 | | 05/19/15 13:38 |
| trans-1,2-Dichloroethene | 15.8 | U | 31.5 | 9.83 | ug/Kg | 1 | | 05/19/15 13:38 |
| trans-1,3-Dichloropropene | 15.8 | U | 31.5 | 9.83 | ug/Kg | 1 | | 05/19/15 13:38 |
| Trichloroethene | 7.90 | U | 15.8 | 4.92 | ug/Kg | 1 | | 05/19/15 13:38 |
| Trichlorofluoromethane | 31.5 | U | 63.0 | 18.9 | ug/Kg | 1 | | 05/19/15 13:38 |
| Vinyl chloride | 15.8 | U | 31.5 | 9.83 | ug/Kg | 1 | | 05/19/15 13:38 |
| Xylenes (total) | 117 | | 94.5 | 28.7 | ug/Kg | 1 | | 05/19/15 13:38 |
| **Surrogates** | | | | | | | | |
| 1,2-Dichloroethane-D4 (surr) | 113 | | 79-118 | | % | 1 | | 05/19/15 13:38 |
| 4-Bromofluorobenzene (surr) | 103 | | 67-138 | | % | 1 | | 05/19/15 13:38 |
| Toluene-d8 (surr) | 103 | | 85-115 | | % | 1 | | 05/19/15 13:38 |

Print Date: 06/05/2015 8:36:01AM

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Results of **15-PLK2-SO-03-2.0**

Client Sample ID: **15-PLK2-SO-03-2.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028008
Lab Project ID: 1152028

Collection Date: 05/10/15 08:00
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):92.4
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

**Batch Information**

Analytical Batch: VMS14924
Analytical Method: SW8260B
Analyst: SP
Analytical Date/Time: 05/19/15 13:38
Container ID: 1152028008-A

Prep Batch: VXX27267
Prep Method: SW5035A
Prep Date/Time: 05/10/15 08:00
Prep Initial Wt./Vol.: 49.325 g
Prep Extract Vol: 28.7336 mL



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## Results of **15-PLK2-SO-04-0.0**

Client Sample ID: **15-PLK2-SO-04-0.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028009
Lab Project ID: 1152028

Collection Date: 05/10/15 08:40
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):84.5
Location:

## Results by **Semivolatile Organic Fuels**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics | 75.7 | | 23.4 | 7.26 | mg/Kg | 1 | | 05/30/15 10:36 |
| **Surrogates** | | | | | | | | |
| 5a Androstane (surr) | 89 | | 50-150 | | % | 1 | | 05/30/15 10:36 |

### Batch Information

Analytical Batch: XFC11854
Analytical Method: AK102
Analyst: MCM
Analytical Date/Time: 05/30/15 10:36
Container ID: 1152028009-B

Prep Batch: XXX33106
Prep Method: SW3550C
Prep Date/Time: 05/21/15 13:06
Prep Initial Wt./Vol.: 30.341 g
Prep Extract Vol: 1 mL

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Residual Range Organics | 212 | | 23.4 | 7.26 | mg/Kg | 1 | | 05/30/15 10:36 |
| **Surrogates** | | | | | | | | |
| n-Triacontane-d62 (surr) | 104 | | 50-150 | | % | 1 | | 05/30/15 10:36 |

### Batch Information

Analytical Batch: XFC11854
Analytical Method: AK103
Analyst: MCM
Analytical Date/Time: 05/30/15 10:36
Container ID: 1152028009-B

Prep Batch: XXX33106
Prep Method: SW3550C
Prep Date/Time: 05/21/15 13:06
Prep Initial Wt./Vol.: 30.341 g
Prep Extract Vol: 1 mL

Print Date: 06/05/2015 8:36:01AM

J flagging is activated

## Results of **15-PLK2-SO-04-0.0**

Client Sample ID: **15-PLK2-SO-04-0.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028009
Lab Project ID: 1152028

Collection Date: 05/10/15 08:40
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):84.5
Location:

## Results by **Volatile Fuels**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics | 1.61 | J | 3.86 | 1.16 | mg/Kg | 1 | | 05/18/15 15:44 |
| **Surrogates** | | | | | | | | |
| 4-Bromofluorobenzene (surr) | 84.6 | | 50-150 | | % | 1 | | 05/18/15 15:44 |

## Batch Information

Analytical Batch: VFC12405
Analytical Method: AK101
Analyst: ST
Analytical Date/Time: 05/18/15 15:44
Container ID: 1152028009-A

Prep Batch: VXX27257
Prep Method: SW5035A
Prep Date/Time: 05/10/15 08:40
Prep Initial Wt./Vol.: 50.271 g
Prep Extract Vol: 32.8161 mL

Print Date: 06/05/2015 8:36:01AM

J flagging is activated

Results of **15-PLK2-SO-04-0.0**

Client Sample ID: **15-PLK2-SO-04-0.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028009
Lab Project ID: 1152028

Collection Date: 05/10/15 08:40
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):84.5
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 19.3 | U | 38.6 | 12.1 | ug/Kg | 1 | | 05/19/15 13:54 |
| 1,1,1-Trichloroethane | 19.3 | U | 38.6 | 12.1 | ug/Kg | 1 | | 05/19/15 13:54 |
| 1,1,2,2-Tetrachloroethane | 9.65 | U | 19.3 | 6.03 | ug/Kg | 1 | | 05/19/15 13:54 |
| 1,1,2-Trichloroethane | 19.3 | U | 38.6 | 12.1 | ug/Kg | 1 | | 05/19/15 13:54 |
| 1,1-Dichloroethane | 19.3 | U | 38.6 | 12.1 | ug/Kg | 1 | | 05/19/15 13:54 |
| 1,1-Dichloroethene | 19.3 | U | 38.6 | 12.1 | ug/Kg | 1 | | 05/19/15 13:54 |
| 1,1-Dichloropropene | 19.3 | U | 38.6 | 12.1 | ug/Kg | 1 | | 05/19/15 13:54 |
| 1,2,3-Trichlorobenzene | 38.6 | U | 77.3 | 23.2 | ug/Kg | 1 | | 05/19/15 13:54 |
| 1,2,3-Trichloropropane | 19.3 | U | 38.6 | 12.1 | ug/Kg | 1 | | 05/19/15 13:54 |
| 1,2,4-Trichlorobenzene | 19.3 | U | 38.6 | 12.1 | ug/Kg | 1 | | 05/19/15 13:54 |
| 1,2,4-Trimethylbenzene | 38.6 | U | 77.3 | 23.2 | ug/Kg | 1 | | 05/19/15 13:54 |
| 1,2-Dibromo-3-chloropropane | 77.5 | U | 155 | 47.9 | ug/Kg | 1 | | 05/19/15 13:54 |
| 1,2-Dibromoethane | 19.3 | U | 38.6 | 12.1 | ug/Kg | 1 | | 05/19/15 13:54 |
| 1,2-Dichlorobenzene | 19.3 | U | 38.6 | 12.1 | ug/Kg | 1 | | 05/19/15 13:54 |
| 1,2-Dichloroethane | 19.3 | U | 38.6 | 12.1 | ug/Kg | 1 | | 05/19/15 13:54 |
| 1,2-Dichloropropane | 19.3 | U | 38.6 | 12.1 | ug/Kg | 1 | | 05/19/15 13:54 |
| 1,3,5-Trimethylbenzene | 19.3 | U | 38.6 | 12.1 | ug/Kg | 1 | | 05/19/15 13:54 |
| 1,3-Dichlorobenzene | 19.3 | U | 38.6 | 12.1 | ug/Kg | 1 | | 05/19/15 13:54 |
| 1,3-Dichloropropane | 19.3 | U | 38.6 | 12.1 | ug/Kg | 1 | | 05/19/15 13:54 |
| 1,4-Dichlorobenzene | 19.3 | U | 38.6 | 12.1 | ug/Kg | 1 | | 05/19/15 13:54 |
| 2,2-Dichloropropane | 19.3 | U | 38.6 | 12.1 | ug/Kg | 1 | | 05/19/15 13:54 |
| 2-Butanone (MEK) | 193 | U | 386 | 121 | ug/Kg | 1 | | 05/19/15 13:54 |
| 2-Chlorotoluene | 19.3 | U | 38.6 | 12.1 | ug/Kg | 1 | | 05/19/15 13:54 |
| 2-Hexanone | 193 | U | 386 | 121 | ug/Kg | 1 | | 05/19/15 13:54 |
| 4-Chlorotoluene | 19.3 | U | 38.6 | 12.1 | ug/Kg | 1 | | 05/19/15 13:54 |
| 4-Isopropyltoluene | 19.3 | U | 38.6 | 12.1 | ug/Kg | 1 | | 05/19/15 13:54 |
| 4-Methyl-2-pentanone (MIBK) | 193 | U | 386 | 121 | ug/Kg | 1 | | 05/19/15 13:54 |
| Benzene | 9.65 | U | 19.3 | 6.03 | ug/Kg | 1 | | 05/19/15 13:54 |
| Bromobenzene | 19.3 | U | 38.6 | 12.1 | ug/Kg | 1 | | 05/19/15 13:54 |
| Bromochloromethane | 19.3 | U | 38.6 | 12.1 | ug/Kg | 1 | | 05/19/15 13:54 |
| Bromodichloromethane | 19.3 | U | 38.6 | 12.1 | ug/Kg | 1 | | 05/19/15 13:54 |
| Bromoform | 19.3 | U | 38.6 | 12.1 | ug/Kg | 1 | | 05/19/15 13:54 |
| Bromomethane | 155 | U | 309 | 95.8 | ug/Kg | 1 | | 05/19/15 13:54 |
| Carbon disulfide | 77.5 | U | 155 | 47.9 | ug/Kg | 1 | | 05/19/15 13:54 |
| Carbon tetrachloride | 9.65 | U | 19.3 | 6.03 | ug/Kg | 1 | | 05/19/15 13:54 |
| Chlorobenzene | 19.3 | U | 38.6 | 12.1 | ug/Kg | 1 | | 05/19/15 13:54 |
| Chloroethane | 155 | U | 309 | 95.8 | ug/Kg | 1 | | 05/19/15 13:54 |

Print Date: 06/05/2015 8:36:01AM

J flagging is activated

Results of **15-PLK2-SO-04-0.0**

Client Sample ID: **15-PLK2-SO-04-0.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028009
Lab Project ID: 1152028

Collection Date: 05/10/15 08:40
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):84.5
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Chloroform | 19.3 | U | 38.6 | 12.1 | ug/Kg | 1 | | 05/19/15 13:54 |
| Chloromethane | 19.3 | U | 38.6 | 12.1 | ug/Kg | 1 | | 05/19/15 13:54 |
| cis-1,2-Dichloroethene | 19.3 | U | 38.6 | 12.1 | ug/Kg | 1 | | 05/19/15 13:54 |
| cis-1,3-Dichloropropene | 19.3 | U | 38.6 | 12.1 | ug/Kg | 1 | | 05/19/15 13:54 |
| Dibromochloromethane | 19.3 | U | 38.6 | 12.1 | ug/Kg | 1 | | 05/19/15 13:54 |
| Dibromomethane | 19.3 | U | 38.6 | 12.1 | ug/Kg | 1 | | 05/19/15 13:54 |
| Dichlorodifluoromethane | 38.6 | U | 77.3 | 23.2 | ug/Kg | 1 | | 05/19/15 13:54 |
| Ethylbenzene | 19.3 | U | 38.6 | 12.1 | ug/Kg | 1 | | 05/19/15 13:54 |
| Hexachlorobutadiene | 38.6 | U | 77.3 | 23.2 | ug/Kg | 1 | | 05/19/15 13:54 |
| Isopropylbenzene (Cumene) | 19.3 | U | 38.6 | 12.1 | ug/Kg | 1 | | 05/19/15 13:54 |
| Methylene chloride | 77.5 | U | 155 | 47.9 | ug/Kg | 1 | | 05/19/15 13:54 |
| Methyl-t-butyl ether | 77.5 | U | 155 | 47.9 | ug/Kg | 1 | | 05/19/15 13:54 |
| Naphthalene | 33.6 | J | 77.3 | 23.2 | ug/Kg | 1 | | 05/19/15 13:54 |
| n-Butylbenzene | 19.3 | U | 38.6 | 12.1 | ug/Kg | 1 | | 05/19/15 13:54 |
| n-Propylbenzene | 19.3 | U | 38.6 | 12.1 | ug/Kg | 1 | | 05/19/15 13:54 |
| o-Xylene | 19.3 | U | 38.6 | 12.1 | ug/Kg | 1 | | 05/19/15 13:54 |
| P & M -Xylene | 38.6 | U | 77.3 | 23.2 | ug/Kg | 1 | | 05/19/15 13:54 |
| sec-Butylbenzene | 19.3 | U | 38.6 | 12.1 | ug/Kg | 1 | | 05/19/15 13:54 |
| Styrene | 19.3 | U | 38.6 | 12.1 | ug/Kg | 1 | | 05/19/15 13:54 |
| tert-Butylbenzene | 19.3 | U | 38.6 | 12.1 | ug/Kg | 1 | | 05/19/15 13:54 |
| Tetrachloroethene | 9.65 | U | 19.3 | 6.03 | ug/Kg | 1 | | 05/19/15 13:54 |
| Toluene | 49.5 | | 38.6 | 12.1 | ug/Kg | 1 | | 05/19/15 13:54 |
| trans-1,2-Dichloroethene | 19.3 | U | 38.6 | 12.1 | ug/Kg | 1 | | 05/19/15 13:54 |
| trans-1,3-Dichloropropene | 19.3 | U | 38.6 | 12.1 | ug/Kg | 1 | | 05/19/15 13:54 |
| Trichloroethene | 9.65 | U | 19.3 | 6.03 | ug/Kg | 1 | | 05/19/15 13:54 |
| Trichlorofluoromethane | 38.6 | U | 77.3 | 23.2 | ug/Kg | 1 | | 05/19/15 13:54 |
| Vinyl chloride | 19.3 | U | 38.6 | 12.1 | ug/Kg | 1 | | 05/19/15 13:54 |
| Xylenes (total) | 58.0 | U | 116 | 35.2 | ug/Kg | 1 | | 05/19/15 13:54 |
| **Surrogates** | | | | | | | | |
| 1,2-Dichloroethane-D4 (surr) | 115 | | 79-118 | | % | 1 | | 05/19/15 13:54 |
| 4-Bromofluorobenzene (surr) | 104 | | 67-138 | | % | 1 | | 05/19/15 13:54 |
| Toluene-d8 (surr) | 105 | | 85-115 | | % | 1 | | 05/19/15 13:54 |

Print Date: 06/05/2015 8:36:01AM

J flagging is activated

Results of **15-PLK2-SO-04-0.0**

Client Sample ID: **15-PLK2-SO-04-0.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028009
Lab Project ID: 1152028

Collection Date: 05/10/15 08:40
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):84.5
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

**Batch Information**

Analytical Batch: VMS14924
Analytical Method: SW8260B
Analyst: SP
Analytical Date/Time: 05/19/15 13:54
Container ID: 1152028009-A

Prep Batch: VXX27267
Prep Method: SW5035A
Prep Date/Time: 05/10/15 08:40
Prep Initial Wt./Vol.: 50.271 g
Prep Extract Vol: 32.8161 mL



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200 West Potter Drive Anchorage, AK 95518
**t** 907.562.2343 **f** 907.561.5301 www.us.sgs.com

Results of **15-PLK2-SO-04-6.0**

Client Sample ID: **15-PLK2-SO-04-6.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028010
Lab Project ID: 1152028

Collection Date: 05/10/15 08:45
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):76.0
Location:

Results by **Semivolatile Organic Fuels**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics | 84.2 | | 26.2 | 8.11 | mg/Kg | 1 | | 05/29/15 02:19 |
| **Surrogates** | | | | | | | | |
| 5a Androstane (surr) | 51.5 | | 50-150 | | % | 1 | | 05/29/15 02:19 |

**Batch Information**

Analytical Batch: XFC11851
Analytical Method: AK102
Analyst: MCM
Analytical Date/Time: 05/29/15 02:19
Container ID: 1152028010-B

Prep Batch: XXX33106
Prep Method: SW3550C
Prep Date/Time: 05/21/15 13:06
Prep Initial Wt./Vol.: 30.185 g
Prep Extract Vol: 1 mL

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Residual Range Organics | 231 | | 26.2 | 8.11 | mg/Kg | 1 | | 05/29/15 02:19 |
| **Surrogates** | | | | | | | | |
| n-Triacontane-d62 (surr) | 66.8 | | 50-150 | | % | 1 | | 05/29/15 02:19 |

**Batch Information**

Analytical Batch: XFC11851
Analytical Method: AK103
Analyst: MCM
Analytical Date/Time: 05/29/15 02:19
Container ID: 1152028010-B

Prep Batch: XXX33106
Prep Method: SW3550C
Prep Date/Time: 05/21/15 13:06
Prep Initial Wt./Vol.: 30.185 g
Prep Extract Vol: 1 mL

Print Date: 06/05/2015 8:36:01AM

J flagging is activated

## Results of **15-PLK2-SO-04-6.0**

Client Sample ID: **15-PLK2-SO-04-6.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028010
Lab Project ID: 1152028

Collection Date: 05/10/15 08:45
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):76.0
Location:

## Results by **Volatile Fuels**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics | 2.46 | U | 4.93 | 1.48 | mg/Kg | 1 | | 05/17/15 17:39 |
| **Surrogates** | | | | | | | | |
| 4-Bromofluorobenzene (surr) | 77 | | 50-150 | | % | 1 | | 05/17/15 17:39 |

## Batch Information

Analytical Batch: VFC12404
Analytical Method: AK101
Analyst: ST
Analytical Date/Time: 05/17/15 17:39
Container ID: 1152028010-A

Prep Batch: VXX27252
Prep Method: SW5035A
Prep Date/Time: 05/10/15 08:45
Prep Initial Wt./Vol.: 49.077 g
Prep Extract Vol: 36.7861 mL

Results of **15-PLK2-SO-04-6.0**

Client Sample ID: **15-PLK2-SO-04-6.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028010
Lab Project ID: 1152028

Collection Date: 05/10/15 08:45
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):76.0
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 24.6 | U | 49.3 | 15.4 | ug/Kg | 1 | | 05/21/15 14:53 |
| 1,1,1-Trichloroethane | 24.6 | U | 49.3 | 15.4 | ug/Kg | 1 | | 05/21/15 14:53 |
| 1,1,2,2-Tetrachloroethane | 12.4 | U | 24.7 | 7.69 | ug/Kg | 1 | | 05/21/15 14:53 |
| 1,1,2-Trichloroethane | 24.6 | U | 49.3 | 15.4 | ug/Kg | 1 | | 05/21/15 14:53 |
| 1,1-Dichloroethane | 24.6 | U | 49.3 | 15.4 | ug/Kg | 1 | | 05/21/15 14:53 |
| 1,1-Dichloroethene | 24.6 | U | 49.3 | 15.4 | ug/Kg | 1 | | 05/21/15 14:53 |
| 1,1-Dichloropropene | 24.6 | U | 49.3 | 15.4 | ug/Kg | 1 | | 05/21/15 14:53 |
| 1,2,3-Trichlorobenzene | 49.3 | U | 98.6 | 29.6 | ug/Kg | 1 | | 05/21/15 14:53 |
| 1,2,3-Trichloropropane | 24.6 | U | 49.3 | 15.4 | ug/Kg | 1 | | 05/21/15 14:53 |
| 1,2,4-Trichlorobenzene | 24.6 | U | 49.3 | 15.4 | ug/Kg | 1 | | 05/21/15 14:53 |
| 1,2,4-Trimethylbenzene | 49.3 | U | 98.6 | 29.6 | ug/Kg | 1 | | 05/21/15 14:53 |
| 1,2-Dibromo-3-chloropropane | 98.5 | U | 197 | 61.2 | ug/Kg | 1 | | 05/21/15 14:53 |
| 1,2-Dibromoethane | 24.6 | U | 49.3 | 15.4 | ug/Kg | 1 | | 05/21/15 14:53 |
| 1,2-Dichlorobenzene | 24.6 | U | 49.3 | 15.4 | ug/Kg | 1 | | 05/21/15 14:53 |
| 1,2-Dichloroethane | 24.6 | U | 49.3 | 15.4 | ug/Kg | 1 | | 05/21/15 14:53 |
| 1,2-Dichloropropane | 24.6 | U | 49.3 | 15.4 | ug/Kg | 1 | | 05/21/15 14:53 |
| 1,3,5-Trimethylbenzene | 24.6 | U | 49.3 | 15.4 | ug/Kg | 1 | | 05/21/15 14:53 |
| 1,3-Dichlorobenzene | 24.6 | U | 49.3 | 15.4 | ug/Kg | 1 | | 05/21/15 14:53 |
| 1,3-Dichloropropane | 24.6 | U | 49.3 | 15.4 | ug/Kg | 1 | | 05/21/15 14:53 |
| 1,4-Dichlorobenzene | 24.6 | U | 49.3 | 15.4 | ug/Kg | 1 | | 05/21/15 14:53 |
| 2,2-Dichloropropane | 24.6 | U | 49.3 | 15.4 | ug/Kg | 1 | | 05/21/15 14:53 |
| 2-Butanone (MEK) | 247 | U | 493 | 154 | ug/Kg | 1 | | 05/21/15 14:53 |
| 2-Chlorotoluene | 24.6 | U | 49.3 | 15.4 | ug/Kg | 1 | | 05/21/15 14:53 |
| 2-Hexanone | 247 | U | 493 | 154 | ug/Kg | 1 | | 05/21/15 14:53 |
| 4-Chlorotoluene | 24.6 | U | 49.3 | 15.4 | ug/Kg | 1 | | 05/21/15 14:53 |
| 4-Isopropyltoluene | 24.6 | U | 49.3 | 15.4 | ug/Kg | 1 | | 05/21/15 14:53 |
| 4-Methyl-2-pentanone (MIBK) | 247 | U | 493 | 154 | ug/Kg | 1 | | 05/21/15 14:53 |
| Benzene | 12.4 | U | 24.7 | 7.69 | ug/Kg | 1 | | 05/21/15 14:53 |
| Bromobenzene | 24.6 | U | 49.3 | 15.4 | ug/Kg | 1 | | 05/21/15 14:53 |
| Bromochloromethane | 24.6 | U | 49.3 | 15.4 | ug/Kg | 1 | | 05/21/15 14:53 |
| Bromodichloromethane | 24.6 | U | 49.3 | 15.4 | ug/Kg | 1 | | 05/21/15 14:53 |
| Bromoform | 24.6 | U | 49.3 | 15.4 | ug/Kg | 1 | | 05/21/15 14:53 |
| Bromomethane | 198 | U | 395 | 122 | ug/Kg | 1 | | 05/21/15 14:53 |
| Carbon disulfide | 98.5 | U | 197 | 61.2 | ug/Kg | 1 | | 05/21/15 14:53 |
| Carbon tetrachloride | 12.4 | U | 24.7 | 7.69 | ug/Kg | 1 | | 05/21/15 14:53 |
| Chlorobenzene | 24.6 | U | 49.3 | 15.4 | ug/Kg | 1 | | 05/21/15 14:53 |
| Chloroethane | 198 | U | 395 | 122 | ug/Kg | 1 | | 05/21/15 14:53 |

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Results of **15-PLK2-SO-04-6.0**

Client Sample ID: **15-PLK2-SO-04-6.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028010
Lab Project ID: 1152028

Collection Date: 05/10/15 08:45
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):76.0
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Chloroform | 24.6 | U | 49.3 | 15.4 | ug/Kg | 1 | | 05/21/15 14:53 |
| Chloromethane | 24.6 | U | 49.3 | 15.4 | ug/Kg | 1 | | 05/21/15 14:53 |
| cis-1,2-Dichloroethene | 24.6 | U | 49.3 | 15.4 | ug/Kg | 1 | | 05/21/15 14:53 |
| cis-1,3-Dichloropropene | 24.6 | U | 49.3 | 15.4 | ug/Kg | 1 | | 05/21/15 14:53 |
| Dibromochloromethane | 24.6 | U | 49.3 | 15.4 | ug/Kg | 1 | | 05/21/15 14:53 |
| Dibromomethane | 24.6 | U | 49.3 | 15.4 | ug/Kg | 1 | | 05/21/15 14:53 |
| Dichlorodifluoromethane | 49.3 | U | 98.6 | 29.6 | ug/Kg | 1 | | 05/21/15 14:53 |
| Ethylbenzene | 24.6 | U | 49.3 | 15.4 | ug/Kg | 1 | | 05/21/15 14:53 |
| Hexachlorobutadiene | 49.3 | U | 98.6 | 29.6 | ug/Kg | 1 | | 05/21/15 14:53 |
| Isopropylbenzene (Cumene) | 24.6 | U | 49.3 | 15.4 | ug/Kg | 1 | | 05/21/15 14:53 |
| Methylene chloride | 98.5 | U | 197 | 61.2 | ug/Kg | 1 | | 05/21/15 14:53 |
| Methyl-t-butyl ether | 98.5 | U | 197 | 61.2 | ug/Kg | 1 | | 05/21/15 14:53 |
| Naphthalene | 49.3 | U | 98.6 | 29.6 | ug/Kg | 1 | | 05/21/15 14:53 |
| n-Butylbenzene | 24.6 | U | 49.3 | 15.4 | ug/Kg | 1 | | 05/21/15 14:53 |
| n-Propylbenzene | 24.6 | U | 49.3 | 15.4 | ug/Kg | 1 | | 05/21/15 14:53 |
| o-Xylene | 24.6 | U | 49.3 | 15.4 | ug/Kg | 1 | | 05/21/15 14:53 |
| P & M -Xylene | 49.3 | U | 98.6 | 29.6 | ug/Kg | 1 | | 05/21/15 14:53 |
| sec-Butylbenzene | 24.6 | U | 49.3 | 15.4 | ug/Kg | 1 | | 05/21/15 14:53 |
| Styrene | 24.6 | U | 49.3 | 15.4 | ug/Kg | 1 | | 05/21/15 14:53 |
| tert-Butylbenzene | 24.6 | U | 49.3 | 15.4 | ug/Kg | 1 | | 05/21/15 14:53 |
| Tetrachloroethene | 12.4 | U | 24.7 | 7.69 | ug/Kg | 1 | | 05/21/15 14:53 |
| Toluene | 24.6 | U | 49.3 | 15.4 | ug/Kg | 1 | | 05/21/15 14:53 |
| trans-1,2-Dichloroethene | 24.6 | U | 49.3 | 15.4 | ug/Kg | 1 | | 05/21/15 14:53 |
| trans-1,3-Dichloropropene | 24.6 | U | 49.3 | 15.4 | ug/Kg | 1 | | 05/21/15 14:53 |
| Trichloroethene | 12.4 | U | 24.7 | 7.69 | ug/Kg | 1 | | 05/21/15 14:53 |
| Trichlorofluoromethane | 49.3 | U | 98.6 | 29.6 | ug/Kg | 1 | | 05/21/15 14:53 |
| Vinyl chloride | 24.6 | U | 49.3 | 15.4 | ug/Kg | 1 | | 05/21/15 14:53 |
| Xylenes (total) | 74.0 | U | 148 | 45.0 | ug/Kg | 1 | | 05/21/15 14:53 |
| **Surrogates** | | | | | | | | |
| 1,2-Dichloroethane-D4 (surr) | 117 | | 79-118 | | % | 1 | | 05/21/15 14:53 |
| 4-Bromofluorobenzene (surr) | 95 | | 67-138 | | % | 1 | | 05/21/15 14:53 |
| Toluene-d8 (surr) | 105 | | 85-115 | | % | 1 | | 05/21/15 14:53 |

Print Date: 06/05/2015 8:36:01AM

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Results of **15-PLK2-SO-04-6.0**

Client Sample ID: **15-PLK2-SO-04-6.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028010
Lab Project ID: 1152028

Collection Date: 05/10/15 08:45
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):76.0
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

**Batch Information**

Analytical Batch: VMS14938
Analytical Method: SW8260B
Analyst: SCL
Analytical Date/Time: 05/21/15 14:53
Container ID: 1152028010-A

Prep Batch: VXX27280
Prep Method: SW5035A
Prep Date/Time: 05/10/15 08:45
Prep Initial Wt./Vol.: 49.077 g
Prep Extract Vol: 36.7861 mL



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Results of **15-PLK2-SO-05-1.0**

Client Sample ID: **15-PLK2-SO-05-1.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028011
Lab Project ID: 1152028

Collection Date: 05/10/15 09:30
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):89.8
Location:

Results by **Polynuclear Aromatics GC/MS**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| 1-Methylnaphthalene | 23.4 | | 5.53 | 1.66 | ug/Kg | 1 | | 05/20/15 03:54 |
| 2-Methylnaphthalene | 28.7 | | 5.53 | 1.66 | ug/Kg | 1 | | 05/20/15 03:54 |
| Acenaphthene | 2.77 | U | 5.53 | 1.66 | ug/Kg | 1 | | 05/20/15 03:54 |
| Acenaphthylene | 2.77 | U | 5.53 | 1.66 | ug/Kg | 1 | | 05/20/15 03:54 |
| Anthracene | 2.77 | U | 5.53 | 1.66 | ug/Kg | 1 | | 05/20/15 03:54 |
| Benzo(a)Anthracene | 2.45 | J | 5.53 | 1.66 | ug/Kg | 1 | | 05/20/15 03:54 |
| Benzo[a]pyrene | 2.77 | U | 5.53 | 1.66 | ug/Kg | 1 | | 05/20/15 03:54 |
| Benzo[b]Fluoranthene | 3.03 | J | 5.53 | 1.66 | ug/Kg | 1 | | 05/20/15 03:54 |
| Benzo[g,h,i]perylene | 2.77 | U | 5.53 | 1.66 | ug/Kg | 1 | | 05/20/15 03:54 |
| Benzo[k]fluoranthene | 2.77 | U | 5.53 | 1.66 | ug/Kg | 1 | | 05/20/15 03:54 |
| Chrysene | 6.15 | | 5.53 | 1.66 | ug/Kg | 1 | | 05/20/15 03:54 |
| Dibenzo[a,h]anthracene | 2.77 | U | 5.53 | 1.66 | ug/Kg | 1 | | 05/20/15 03:54 |
| Fluoranthene | 4.80 | J | 5.53 | 1.66 | ug/Kg | 1 | | 05/20/15 03:54 |
| Fluorene | 2.77 | U | 5.53 | 1.66 | ug/Kg | 1 | | 05/20/15 03:54 |
| Indeno[1,2,3-c,d] pyrene | 2.77 | U | 5.53 | 1.66 | ug/Kg | 1 | | 05/20/15 03:54 |
| Naphthalene | 20.3 | | 5.53 | 1.66 | ug/Kg | 1 | | 05/20/15 03:54 |
| Phenanthrene | 19.8 | | 5.53 | 1.66 | ug/Kg | 1 | | 05/20/15 03:54 |
| Pyrene | 5.51 | J | 5.53 | 1.66 | ug/Kg | 1 | | 05/20/15 03:54 |
| **Surrogates** | | | | | | | | |
| 2-Fluorobiphenyl (surr) | 68.2 | | 45-105 | | % | 1 | | 05/20/15 03:54 |
| Terphenyl-d14 (surr) | 107 | | 30-125 | | % | 1 | | 05/20/15 03:54 |

**Batch Information**

Analytical Batch: XMS8667
Analytical Method: 8270D SIMS (PAH)
Analyst: SP
Analytical Date/Time: 05/20/15 03:54
Container ID: 1152028011-B

Prep Batch: XXX33067
Prep Method: SW3550C
Prep Date/Time: 05/16/15 10:29
Prep Initial Wt./Vol.: 22.655 g
Prep Extract Vol: 1 mL

Print Date: 06/05/2015 8:36:01AM

J flagging is activated

Results of **15-PLK2-SO-05-1.0**

Client Sample ID: **15-PLK2-SO-05-1.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028011
Lab Project ID: 1152028

Collection Date: 05/10/15 09:30
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):89.8
Location:

Results by **Semivolatile Organic Fuels**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics | 33.6 | | 22.2 | 6.89 | mg/Kg | 1 | | 05/29/15 02:29 |
| **Surrogates** | | | | | | | | |
| 5a Androstane (surr) | 97.9 | | 50-150 | | % | 1 | | 05/29/15 02:29 |

**Batch Information**

Analytical Batch: XFC11851
Analytical Method: AK102
Analyst: MCM
Analytical Date/Time: 05/29/15 02:29
Container ID: 1152028011-B

Prep Batch: XXX33106
Prep Method: SW3550C
Prep Date/Time: 05/21/15 13:06
Prep Initial Wt./Vol.: 30.081 g
Prep Extract Vol: 1 mL

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Residual Range Organics | 41.3 | | 22.2 | 6.89 | mg/Kg | 1 | | 05/29/15 02:29 |
| **Surrogates** | | | | | | | | |
| n-Triacontane-d62 (surr) | 107 | | 50-150 | | % | 1 | | 05/29/15 02:29 |

**Batch Information**

Analytical Batch: XFC11851
Analytical Method: AK103
Analyst: MCM
Analytical Date/Time: 05/29/15 02:29
Container ID: 1152028011-B

Prep Batch: XXX33106
Prep Method: SW3550C
Prep Date/Time: 05/21/15 13:06
Prep Initial Wt./Vol.: 30.081 g
Prep Extract Vol: 1 mL

Print Date: 06/05/2015 8:36:01AM

J flagging is activated

Results of **15-PLK2-SO-05-1.0**

Client Sample ID: **15-PLK2-SO-05-1.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028011
Lab Project ID: 1152028

Collection Date: 05/10/15 09:30
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):89.8
Location:

Results by **Volatile Fuels**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics | 1.21 | J | 3.23 | 0.968 | mg/Kg | 1 | | 05/17/15 17:58 |
| **Surrogates** | | | | | | | | |
| 4-Bromofluorobenzene (surr) | 89.7 | | 50-150 | | % | 1 | | 05/17/15 17:58 |

**Batch Information**

Analytical Batch: VFC12404
Analytical Method: AK101
Analyst: ST
Analytical Date/Time: 05/17/15 17:58
Container ID: 1152028011-A

Prep Batch: VXX27252
Prep Method: SW5035A
Prep Date/Time: 05/10/15 09:30
Prep Initial Wt./Vol.: 52.385 g
Prep Extract Vol: 30.3607 mL

Print Date: 06/05/2015 8:36:01AM

J flagging is activated

Results of **15-PLK2-SO-05-1.0**

Client Sample ID: **15-PLK2-SO-05-1.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028011
Lab Project ID: 1152028

Collection Date: 05/10/15 09:30
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):89.8
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 16.1 | U | 32.3 | 10.1 | ug/Kg | 1 | | 05/21/15 00:21 |
| 1,1,1-Trichloroethane | 16.1 | U | 32.3 | 10.1 | ug/Kg | 1 | | 05/21/15 00:21 |
| 1,1,2,2-Tetrachloroethane | 8.05 | U | 16.1 | 5.04 | ug/Kg | 1 | | 05/21/15 00:21 |
| 1,1,2-Trichloroethane | 16.1 | U | 32.3 | 10.1 | ug/Kg | 1 | | 05/21/15 00:21 |
| 1,1-Dichloroethane | 16.1 | U | 32.3 | 10.1 | ug/Kg | 1 | | 05/21/15 00:21 |
| 1,1-Dichloroethene | 16.1 | U | 32.3 | 10.1 | ug/Kg | 1 | | 05/21/15 00:21 |
| 1,1-Dichloropropene | 16.1 | U | 32.3 | 10.1 | ug/Kg | 1 | | 05/21/15 00:21 |
| 1,2,3-Trichlorobenzene | 32.3 | U | 64.6 | 19.4 | ug/Kg | 1 | | 05/21/15 00:21 |
| 1,2,3-Trichloropropane | 16.1 | U | 32.3 | 10.1 | ug/Kg | 1 | | 05/21/15 00:21 |
| 1,2,4-Trichlorobenzene | 16.1 | U | 32.3 | 10.1 | ug/Kg | 1 | | 05/21/15 00:21 |
| 1,2,4-Trimethylbenzene | 30.0 | J | 64.6 | 19.4 | ug/Kg | 1 | | 05/21/15 00:21 |
| 1,2-Dibromo-3-chloropropane | 64.5 | U | 129 | 40.0 | ug/Kg | 1 | | 05/21/15 00:21 |
| 1,2-Dibromoethane | 16.1 | U | 32.3 | 10.1 | ug/Kg | 1 | | 05/21/15 00:21 |
| 1,2-Dichlorobenzene | 16.1 | U | 32.3 | 10.1 | ug/Kg | 1 | | 05/21/15 00:21 |
| 1,2-Dichloroethane | 16.1 | U | 32.3 | 10.1 | ug/Kg | 1 | | 05/21/15 00:21 |
| 1,2-Dichloropropane | 16.1 | U | 32.3 | 10.1 | ug/Kg | 1 | | 05/21/15 00:21 |
| 1,3,5-Trimethylbenzene | 14.5 | J | 32.3 | 10.1 | ug/Kg | 1 | | 05/21/15 00:21 |
| 1,3-Dichlorobenzene | 16.1 | U | 32.3 | 10.1 | ug/Kg | 1 | | 05/21/15 00:21 |
| 1,3-Dichloropropane | 16.1 | U | 32.3 | 10.1 | ug/Kg | 1 | | 05/21/15 00:21 |
| 1,4-Dichlorobenzene | 16.1 | U | 32.3 | 10.1 | ug/Kg | 1 | | 05/21/15 00:21 |
| 2,2-Dichloropropane | 16.1 | U | 32.3 | 10.1 | ug/Kg | 1 | | 05/21/15 00:21 |
| 2-Butanone (MEK) | 162 | U | 323 | 101 | ug/Kg | 1 | | 05/21/15 00:21 |
| 2-Chlorotoluene | 16.1 | U | 32.3 | 10.1 | ug/Kg | 1 | | 05/21/15 00:21 |
| 2-Hexanone | 162 | U | 323 | 101 | ug/Kg | 1 | | 05/21/15 00:21 |
| 4-Chlorotoluene | 16.1 | U | 32.3 | 10.1 | ug/Kg | 1 | | 05/21/15 00:21 |
| 4-Isopropyltoluene | 16.1 | U | 32.3 | 10.1 | ug/Kg | 1 | | 05/21/15 00:21 |
| 4-Methyl-2-pentanone (MIBK) | 162 | U | 323 | 101 | ug/Kg | 1 | | 05/21/15 00:21 |
| Benzene | 8.05 | U | 16.1 | 5.04 | ug/Kg | 1 | | 05/21/15 00:21 |
| Bromobenzene | 16.1 | U | 32.3 | 10.1 | ug/Kg | 1 | | 05/21/15 00:21 |
| Bromochloromethane | 16.1 | U | 32.3 | 10.1 | ug/Kg | 1 | | 05/21/15 00:21 |
| Bromodichloromethane | 16.1 | U | 32.3 | 10.1 | ug/Kg | 1 | | 05/21/15 00:21 |
| Bromoform | 16.1 | U | 32.3 | 10.1 | ug/Kg | 1 | | 05/21/15 00:21 |
| Bromomethane | 129 | U | 258 | 80.1 | ug/Kg | 1 | | 05/21/15 00:21 |
| Carbon disulfide | 64.5 | U | 129 | 40.0 | ug/Kg | 1 | | 05/21/15 00:21 |
| Carbon tetrachloride | 8.05 | U | 16.1 | 5.04 | ug/Kg | 1 | | 05/21/15 00:21 |
| Chlorobenzene | 16.1 | U | 32.3 | 10.1 | ug/Kg | 1 | | 05/21/15 00:21 |
| Chloroethane | 129 | U | 258 | 80.1 | ug/Kg | 1 | | 05/21/15 00:21 |

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J flagging is activated

Results of **15-PLK2-SO-05-1.0**

Client Sample ID: **15-PLK2-SO-05-1.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028011
Lab Project ID: 1152028

Collection Date: 05/10/15 09:30
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):89.8
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Chloroform | 16.1 | U | 32.3 | 10.1 | ug/Kg | 1 | | 05/21/15 00:21 |
| Chloromethane | 16.1 | U | 32.3 | 10.1 | ug/Kg | 1 | | 05/21/15 00:21 |
| cis-1,2-Dichloroethene | 16.1 | U | 32.3 | 10.1 | ug/Kg | 1 | | 05/21/15 00:21 |
| cis-1,3-Dichloropropene | 16.1 | U | 32.3 | 10.1 | ug/Kg | 1 | | 05/21/15 00:21 |
| Dibromochloromethane | 16.1 | U | 32.3 | 10.1 | ug/Kg | 1 | | 05/21/15 00:21 |
| Dibromomethane | 16.1 | U | 32.3 | 10.1 | ug/Kg | 1 | | 05/21/15 00:21 |
| Dichlorodifluoromethane | 32.3 | U | 64.6 | 19.4 | ug/Kg | 1 | | 05/21/15 00:21 |
| Ethylbenzene | 16.1 | U | 32.3 | 10.1 | ug/Kg | 1 | | 05/21/15 00:21 |
| Hexachlorobutadiene | 32.3 | U | 64.6 | 19.4 | ug/Kg | 1 | | 05/21/15 00:21 |
| Isopropylbenzene (Cumene) | 16.1 | U | 32.3 | 10.1 | ug/Kg | 1 | | 05/21/15 00:21 |
| Methylene chloride | 64.5 | U | 129 | 40.0 | ug/Kg | 1 | | 05/21/15 00:21 |
| Methyl-t-butyl ether | 64.5 | U | 129 | 40.0 | ug/Kg | 1 | | 05/21/15 00:21 |
| Naphthalene | 107 | | 64.6 | 19.4 | ug/Kg | 1 | | 05/21/15 00:21 |
| n-Butylbenzene | 16.1 | U | 32.3 | 10.1 | ug/Kg | 1 | | 05/21/15 00:21 |
| n-Propylbenzene | 16.1 | U | 32.3 | 10.1 | ug/Kg | 1 | | 05/21/15 00:21 |
| o-Xylene | 22.3 | J | 32.3 | 10.1 | ug/Kg | 1 | | 05/21/15 00:21 |
| P & M -Xylene | 42.3 | J | 64.6 | 19.4 | ug/Kg | 1 | | 05/21/15 00:21 |
| sec-Butylbenzene | 16.1 | U | 32.3 | 10.1 | ug/Kg | 1 | | 05/21/15 00:21 |
| Styrene | 16.1 | U | 32.3 | 10.1 | ug/Kg | 1 | | 05/21/15 00:21 |
| tert-Butylbenzene | 16.1 | U | 32.3 | 10.1 | ug/Kg | 1 | | 05/21/15 00:21 |
| Tetrachloroethene | 8.05 | U | 16.1 | 5.04 | ug/Kg | 1 | | 05/21/15 00:21 |
| Toluene | 31.3 | J | 32.3 | 10.1 | ug/Kg | 1 | | 05/21/15 00:21 |
| trans-1,2-Dichloroethene | 16.1 | U | 32.3 | 10.1 | ug/Kg | 1 | | 05/21/15 00:21 |
| trans-1,3-Dichloropropene | 16.1 | U | 32.3 | 10.1 | ug/Kg | 1 | | 05/21/15 00:21 |
| Trichloroethene | 8.05 | U | 16.1 | 5.04 | ug/Kg | 1 | | 05/21/15 00:21 |
| Trichlorofluoromethane | 32.3 | U | 64.6 | 19.4 | ug/Kg | 1 | | 05/21/15 00:21 |
| Vinyl chloride | 16.1 | U | 32.3 | 10.1 | ug/Kg | 1 | | 05/21/15 00:21 |
| Xylenes (total) | 64.6 | J | 96.8 | 29.4 | ug/Kg | 1 | | 05/21/15 00:21 |
| **Surrogates** | | | | | | | | |
| 1,2-Dichloroethane-D4 (surr) | 133 | * | 79-118 | | % | 1 | | 05/21/15 00:21 |
| 4-Bromofluorobenzene (surr) | 113 | | 67-138 | | % | 1 | | 05/21/15 00:21 |
| Toluene-d8 (surr) | 110 | | 85-115 | | % | 1 | | 05/21/15 00:21 |

Print Date: 06/05/2015 8:36:01AM

J flagging is activated

Results of **15-PLK2-SO-05-1.0**

Client Sample ID: **15-PLK2-SO-05-1.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028011
Lab Project ID: 1152028

Collection Date: 05/10/15 09:30
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):89.8
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

**Batch Information**

Analytical Batch: VMS14934
Analytical Method: SW8260B
Analyst: SP
Analytical Date/Time: 05/21/15 00:21
Container ID: 1152028011-A

Prep Batch: VXX27276
Prep Method: SW5035A
Prep Date/Time: 05/10/15 09:30
Prep Initial Wt./Vol.: 52.385 g
Prep Extract Vol: 30.3607 mL



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## Results of **15-PLK2-SO-05-3.0**

Client Sample ID: **15-PLK2-SO-05-3.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028012
Lab Project ID: 1152028

Collection Date: 05/10/15 09:35
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):47.9
Location:

## Results by **Semivolatile Organic Fuels**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics | 642 | | 166 | 51.3 | mg/Kg | 4 | | 05/29/15 07:55 |
| **Surrogates** | | | | | | | | |
| 5a Androstane (surr) | 74.8 | | 50-150 | | % | 4 | | 05/29/15 07:55 |

### Batch Information

Analytical Batch: XFC11851
Analytical Method: AK102
Analyst: MCM
Analytical Date/Time: 05/29/15 07:55
Container ID: 1152028012-B

Prep Batch: XXX33106
Prep Method: SW3550C
Prep Date/Time: 05/21/15 13:06
Prep Initial Wt./Vol.: 30.257 g
Prep Extract Vol: 1 mL

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Residual Range Organics | 3350 | | 166 | 51.3 | mg/Kg | 4 | | 05/29/15 07:55 |
| **Surrogates** | | | | | | | | |
| n-Triacontane-d62 (surr) | 485 | * | 50-150 | | % | 4 | | 05/29/15 07:55 |

### Batch Information

Analytical Batch: XFC11851
Analytical Method: AK103
Analyst: MCM
Analytical Date/Time: 05/29/15 07:55
Container ID: 1152028012-B

Prep Batch: XXX33106
Prep Method: SW3550C
Prep Date/Time: 05/21/15 13:06
Prep Initial Wt./Vol.: 30.257 g
Prep Extract Vol: 1 mL

Print Date: 06/05/2015 8:36:01AM

J flagging is activated

## Results of **15-PLK2-SO-05-3.0**

Client Sample ID: **15-PLK2-SO-05-3.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028012
Lab Project ID: 1152028

Collection Date: 05/10/15 09:35
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):47.9
Location:

## Results by **Volatile Fuels**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics | 5.20 | U | 10.4 | 3.11 | mg/Kg | 1 | | 05/17/15 18:17 |
| **Surrogates** | | | | | | | | |
| 4-Bromofluorobenzene (surr) | 10 | * | 50-150 | | % | 1 | | 05/17/15 18:17 |

## Batch Information

Analytical Batch: VFC12404
Analytical Method: AK101
Analyst: ST
Analytical Date/Time: 05/17/15 18:17
Container ID: 1152028012-A

Prep Batch: VXX27252
Prep Method: SW5035A
Prep Date/Time: 05/10/15 09:35
Prep Initial Wt./Vol.: 52.912 g
Prep Extract Vol: 52.571 mL



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Results of **15-PLK2-SO-05-3.0**

Client Sample ID: **15-PLK2-SO-05-3.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028012
Lab Project ID: 1152028

Collection Date: 05/10/15 09:35
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):47.9
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 52.0 | U | 104 | 32.4 | ug/Kg | 1 | | 05/20/15 23:38 |
| 1,1,1-Trichloroethane | 52.0 | U | 104 | 32.4 | ug/Kg | 1 | | 05/20/15 23:38 |
| 1,1,2,2-Tetrachloroethane | 25.9 | U | 51.9 | 16.2 | ug/Kg | 1 | | 05/20/15 23:38 |
| 1,1,2-Trichloroethane | 52.0 | U | 104 | 32.4 | ug/Kg | 1 | | 05/20/15 23:38 |
| 1,1-Dichloroethane | 52.0 | U | 104 | 32.4 | ug/Kg | 1 | | 05/20/15 23:38 |
| 1,1-Dichloroethene | 52.0 | U | 104 | 32.4 | ug/Kg | 1 | | 05/20/15 23:38 |
| 1,1-Dichloropropene | 52.0 | U | 104 | 32.4 | ug/Kg | 1 | | 05/20/15 23:38 |
| 1,2,3-Trichlorobenzene | 104 | U | 207 | 62.2 | ug/Kg | 1 | | 05/20/15 23:38 |
| 1,2,3-Trichloropropane | 52.0 | U | 104 | 32.4 | ug/Kg | 1 | | 05/20/15 23:38 |
| 1,2,4-Trichlorobenzene | 52.0 | U | 104 | 32.4 | ug/Kg | 1 | | 05/20/15 23:38 |
| 1,2,4-Trimethylbenzene | 80.9 | J | 207 | 62.2 | ug/Kg | 1 | | 05/20/15 23:38 |
| 1,2-Dibromo-3-chloropropane | 208 | U | 415 | 129 | ug/Kg | 1 | | 05/20/15 23:38 |
| 1,2-Dibromoethane | 52.0 | U | 104 | 32.4 | ug/Kg | 1 | | 05/20/15 23:38 |
| 1,2-Dichlorobenzene | 52.0 | U | 104 | 32.4 | ug/Kg | 1 | | 05/20/15 23:38 |
| 1,2-Dichloroethane | 52.0 | U | 104 | 32.4 | ug/Kg | 1 | | 05/20/15 23:38 |
| 1,2-Dichloropropane | 52.0 | U | 104 | 32.4 | ug/Kg | 1 | | 05/20/15 23:38 |
| 1,3,5-Trimethylbenzene | 52.0 | U | 104 | 32.4 | ug/Kg | 1 | | 05/20/15 23:38 |
| 1,3-Dichlorobenzene | 52.0 | U | 104 | 32.4 | ug/Kg | 1 | | 05/20/15 23:38 |
| 1,3-Dichloropropane | 52.0 | U | 104 | 32.4 | ug/Kg | 1 | | 05/20/15 23:38 |
| 1,4-Dichlorobenzene | 52.0 | U | 104 | 32.4 | ug/Kg | 1 | | 05/20/15 23:38 |
| 2,2-Dichloropropane | 52.0 | U | 104 | 32.4 | ug/Kg | 1 | | 05/20/15 23:38 |
| 2-Butanone (MEK) | 520 | U | 1040 | 324 | ug/Kg | 1 | | 05/20/15 23:38 |
| 2-Chlorotoluene | 52.0 | U | 104 | 32.4 | ug/Kg | 1 | | 05/20/15 23:38 |
| 2-Hexanone | 520 | U | 1040 | 324 | ug/Kg | 1 | | 05/20/15 23:38 |
| 4-Chlorotoluene | 52.0 | U | 104 | 32.4 | ug/Kg | 1 | | 05/20/15 23:38 |
| 4-Isopropyltoluene | 52.0 | U | 104 | 32.4 | ug/Kg | 1 | | 05/20/15 23:38 |
| 4-Methyl-2-pentanone (MIBK) | 520 | U | 1040 | 324 | ug/Kg | 1 | | 05/20/15 23:38 |
| Benzene | 25.9 | U | 51.9 | 16.2 | ug/Kg | 1 | | 05/20/15 23:38 |
| Bromobenzene | 52.0 | U | 104 | 32.4 | ug/Kg | 1 | | 05/20/15 23:38 |
| Bromochloromethane | 52.0 | U | 104 | 32.4 | ug/Kg | 1 | | 05/20/15 23:38 |
| Bromodichloromethane | 52.0 | U | 104 | 32.4 | ug/Kg | 1 | | 05/20/15 23:38 |
| Bromoform | 52.0 | U | 104 | 32.4 | ug/Kg | 1 | | 05/20/15 23:38 |
| Bromomethane | 415 | U | 830 | 257 | ug/Kg | 1 | | 05/20/15 23:38 |
| Carbon disulfide | 208 | U | 415 | 129 | ug/Kg | 1 | | 05/20/15 23:38 |
| Carbon tetrachloride | 25.9 | U | 51.9 | 16.2 | ug/Kg | 1 | | 05/20/15 23:38 |
| Chlorobenzene | 52.0 | U | 104 | 32.4 | ug/Kg | 1 | | 05/20/15 23:38 |
| Chloroethane | 415 | U | 830 | 257 | ug/Kg | 1 | | 05/20/15 23:38 |

Print Date: 06/05/2015 8:36:01AM

J flagging is activated

Results of **15-PLK2-SO-05-3.0**

Client Sample ID: **15-PLK2-SO-05-3.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028012
Lab Project ID: 1152028

Collection Date: 05/10/15 09:35
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):47.9
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Chloroform | 52.0 | U | 104 | 32.4 | ug/Kg | 1 | | 05/20/15 23:38 |
| Chloromethane | 52.0 | U | 104 | 32.4 | ug/Kg | 1 | | 05/20/15 23:38 |
| cis-1,2-Dichloroethene | 52.0 | U | 104 | 32.4 | ug/Kg | 1 | | 05/20/15 23:38 |
| cis-1,3-Dichloropropene | 52.0 | U | 104 | 32.4 | ug/Kg | 1 | | 05/20/15 23:38 |
| Dibromochloromethane | 52.0 | U | 104 | 32.4 | ug/Kg | 1 | | 05/20/15 23:38 |
| Dibromomethane | 52.0 | U | 104 | 32.4 | ug/Kg | 1 | | 05/20/15 23:38 |
| Dichlorodifluoromethane | 104 | U | 207 | 62.2 | ug/Kg | 1 | | 05/20/15 23:38 |
| Ethylbenzene | 52.0 | U | 104 | 32.4 | ug/Kg | 1 | | 05/20/15 23:38 |
| Hexachlorobutadiene | 104 | U | 207 | 62.2 | ug/Kg | 1 | | 05/20/15 23:38 |
| Isopropylbenzene (Cumene) | 52.0 | U | 104 | 32.4 | ug/Kg | 1 | | 05/20/15 23:38 |
| Methylene chloride | 208 | U | 415 | 129 | ug/Kg | 1 | | 05/20/15 23:38 |
| Methyl-t-butyl ether | 208 | U | 415 | 129 | ug/Kg | 1 | | 05/20/15 23:38 |
| Naphthalene | 69.5 | J | 207 | 62.2 | ug/Kg | 1 | | 05/20/15 23:38 |
| n-Butylbenzene | 52.0 | U | 104 | 32.4 | ug/Kg | 1 | | 05/20/15 23:38 |
| n-Propylbenzene | 52.0 | U | 104 | 32.4 | ug/Kg | 1 | | 05/20/15 23:38 |
| o-Xylene | 53.9 | J | 104 | 32.4 | ug/Kg | 1 | | 05/20/15 23:38 |
| P & M -Xylene | 81.9 | J | 207 | 62.2 | ug/Kg | 1 | | 05/20/15 23:38 |
| sec-Butylbenzene | 52.0 | U | 104 | 32.4 | ug/Kg | 1 | | 05/20/15 23:38 |
| Styrene | 52.0 | U | 104 | 32.4 | ug/Kg | 1 | | 05/20/15 23:38 |
| tert-Butylbenzene | 52.0 | U | 104 | 32.4 | ug/Kg | 1 | | 05/20/15 23:38 |
| Tetrachloroethene | 25.9 | U | 51.9 | 16.2 | ug/Kg | 1 | | 05/20/15 23:38 |
| Toluene | 52.0 | U | 104 | 32.4 | ug/Kg | 1 | | 05/20/15 23:38 |
| trans-1,2-Dichloroethene | 52.0 | U | 104 | 32.4 | ug/Kg | 1 | | 05/20/15 23:38 |
| trans-1,3-Dichloropropene | 52.0 | U | 104 | 32.4 | ug/Kg | 1 | | 05/20/15 23:38 |
| Trichloroethene | 25.9 | U | 51.9 | 16.2 | ug/Kg | 1 | | 05/20/15 23:38 |
| Trichlorofluoromethane | 104 | U | 207 | 62.2 | ug/Kg | 1 | | 05/20/15 23:38 |
| Vinyl chloride | 52.0 | U | 104 | 32.4 | ug/Kg | 1 | | 05/20/15 23:38 |
| Xylenes (total) | 136 | J | 311 | 94.6 | ug/Kg | 1 | | 05/20/15 23:38 |
| **Surrogates** | | | | | | | | |
| 1,2-Dichloroethane-D4 (surr) | 122 | * | 79-118 | | % | 1 | | 05/20/15 23:38 |
| 4-Bromofluorobenzene (surr) | 68 | | 67-138 | | % | 1 | | 05/20/15 23:38 |
| Toluene-d8 (surr) | 113 | | 85-115 | | % | 1 | | 05/20/15 23:38 |

Print Date: 06/05/2015 8:36:01AM

J flagging is activated

Results of **15-PLK2-SO-05-3.0**

Client Sample ID: **15-PLK2-SO-05-3.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028012
Lab Project ID: 1152028

Collection Date: 05/10/15 09:35
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):47.9
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

**Batch Information**

Analytical Batch: VMS14928
Analytical Method: SW8260B
Analyst: SCL
Analytical Date/Time: 05/20/15 23:38
Container ID: 1152028012-A

Prep Batch: VXX27273
Prep Method: SW5035A
Prep Date/Time: 05/10/15 09:35
Prep Initial Wt./Vol.: 52.912 g
Prep Extract Vol: 52.571 mL



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## Results of **15-PLK2-SO-06-3.5**

Client Sample ID: **15-PLK2-SO-06-3.5**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028013
Lab Project ID: 1152028

Collection Date: 05/10/15 09:50
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):56.6
Location:

## Results by **Semivolatile Organic Fuels**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics | 399 | | 140 | 43.5 | mg/Kg | 4 | | 05/29/15 08:05 |
| **Surrogates** | | | | | | | | |
| 5a Androstane (surr) | 66.3 | | 50-150 | | % | 4 | | 05/29/15 08:05 |

### Batch Information

Analytical Batch: XFC11851
Analytical Method: AK102
Analyst: MCM
Analytical Date/Time: 05/29/15 08:05
Container ID: 1152028013-B

Prep Batch: XXX33106
Prep Method: SW3550C
Prep Date/Time: 05/21/15 13:06
Prep Initial Wt./Vol.: 30.253 g
Prep Extract Vol: 1 mL

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Residual Range Organics | 1840 | | 140 | 43.5 | mg/Kg | 4 | | 05/29/15 08:05 |
| **Surrogates** | | | | | | | | |
| n-Triacontane-d62 (surr) | 187 | * | 50-150 | | % | 4 | | 05/29/15 08:05 |

### Batch Information

Analytical Batch: XFC11851
Analytical Method: AK103
Analyst: MCM
Analytical Date/Time: 05/29/15 08:05
Container ID: 1152028013-B

Prep Batch: XXX33106
Prep Method: SW3550C
Prep Date/Time: 05/21/15 13:06
Prep Initial Wt./Vol.: 30.253 g
Prep Extract Vol: 1 mL

Print Date: 06/05/2015 8:36:01AM

J flagging is activated

## Results of **15-PLK2-SO-06-3.5**

Client Sample ID: **15-PLK2-SO-06-3.5**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028013
Lab Project ID: 1152028

Collection Date: 05/10/15 09:50
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):56.6
Location:

## Results by **Volatile Fuels**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics | 6.34 | J | 8.25 | 2.47 | mg/Kg | 1 | | 05/17/15 20:51 |
| **Surrogates** | | | | | | | | |
| 4-Bromofluorobenzene (surr) | 62.2 | | 50-150 | | % | 1 | | 05/17/15 20:51 |

## Batch Information

Analytical Batch: VFC12404
Analytical Method: AK101
Analyst: ST
Analytical Date/Time: 05/17/15 20:51
Container ID: 1152028013-A

Prep Batch: VXX27252
Prep Method: SW5035A
Prep Date/Time: 05/10/15 09:50
Prep Initial Wt./Vol.: 50.122 g
Prep Extract Vol: 46.7699 mL

Results of **15-PLK2-SO-06-3.5**

Client Sample ID: **15-PLK2-SO-06-3.5**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028013
Lab Project ID: 1152028

Collection Date: 05/10/15 09:50
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):56.6
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 41.3 | U | 82.5 | 25.7 | ug/Kg | 1 | | 05/19/15 14:10 |
| 1,1,1-Trichloroethane | 41.3 | U | 82.5 | 25.7 | ug/Kg | 1 | | 05/19/15 14:10 |
| 1,1,2,2-Tetrachloroethane | 20.6 | U | 41.2 | 12.9 | ug/Kg | 1 | | 05/19/15 14:10 |
| 1,1,2-Trichloroethane | 41.3 | U | 82.5 | 25.7 | ug/Kg | 1 | | 05/19/15 14:10 |
| 1,1-Dichloroethane | 41.3 | U | 82.5 | 25.7 | ug/Kg | 1 | | 05/19/15 14:10 |
| 1,1-Dichloroethene | 41.3 | U | 82.5 | 25.7 | ug/Kg | 1 | | 05/19/15 14:10 |
| 1,1-Dichloropropene | 41.3 | U | 82.5 | 25.7 | ug/Kg | 1 | | 05/19/15 14:10 |
| 1,2,3-Trichlorobenzene | 82.5 | U | 165 | 49.5 | ug/Kg | 1 | | 05/19/15 14:10 |
| 1,2,3-Trichloropropane | 41.3 | U | 82.5 | 25.7 | ug/Kg | 1 | | 05/19/15 14:10 |
| 1,2,4-Trichlorobenzene | 41.3 | U | 82.5 | 25.7 | ug/Kg | 1 | | 05/19/15 14:10 |
| 1,2,4-Trimethylbenzene | 82.5 | U | 165 | 49.5 | ug/Kg | 1 | | 05/19/15 14:10 |
| 1,2-Dibromo-3-chloropropane | 165 | U | 330 | 102 | ug/Kg | 1 | | 05/19/15 14:10 |
| 1,2-Dibromoethane | 41.3 | U | 82.5 | 25.7 | ug/Kg | 1 | | 05/19/15 14:10 |
| 1,2-Dichlorobenzene | 41.3 | U | 82.5 | 25.7 | ug/Kg | 1 | | 05/19/15 14:10 |
| 1,2-Dichloroethane | 41.3 | U | 82.5 | 25.7 | ug/Kg | 1 | | 05/19/15 14:10 |
| 1,2-Dichloropropane | 41.3 | U | 82.5 | 25.7 | ug/Kg | 1 | | 05/19/15 14:10 |
| 1,3,5-Trimethylbenzene | 41.3 | U | 82.5 | 25.7 | ug/Kg | 1 | | 05/19/15 14:10 |
| 1,3-Dichlorobenzene | 41.3 | U | 82.5 | 25.7 | ug/Kg | 1 | | 05/19/15 14:10 |
| 1,3-Dichloropropane | 41.3 | U | 82.5 | 25.7 | ug/Kg | 1 | | 05/19/15 14:10 |
| 1,4-Dichlorobenzene | 41.3 | U | 82.5 | 25.7 | ug/Kg | 1 | | 05/19/15 14:10 |
| 2,2-Dichloropropane | 41.3 | U | 82.5 | 25.7 | ug/Kg | 1 | | 05/19/15 14:10 |
| 2-Butanone (MEK) | 413 | U | 825 | 257 | ug/Kg | 1 | | 05/19/15 14:10 |
| 2-Chlorotoluene | 41.3 | U | 82.5 | 25.7 | ug/Kg | 1 | | 05/19/15 14:10 |
| 2-Hexanone | 413 | U | 825 | 257 | ug/Kg | 1 | | 05/19/15 14:10 |
| 4-Chlorotoluene | 41.3 | U | 82.5 | 25.7 | ug/Kg | 1 | | 05/19/15 14:10 |
| 4-Isopropyltoluene | 41.3 | U | 82.5 | 25.7 | ug/Kg | 1 | | 05/19/15 14:10 |
| 4-Methyl-2-pentanone (MIBK) | 413 | U | 825 | 257 | ug/Kg | 1 | | 05/19/15 14:10 |
| Benzene | 20.6 | U | 41.2 | 12.9 | ug/Kg | 1 | | 05/19/15 14:10 |
| Bromobenzene | 41.3 | U | 82.5 | 25.7 | ug/Kg | 1 | | 05/19/15 14:10 |
| Bromochloromethane | 41.3 | U | 82.5 | 25.7 | ug/Kg | 1 | | 05/19/15 14:10 |
| Bromodichloromethane | 41.3 | U | 82.5 | 25.7 | ug/Kg | 1 | | 05/19/15 14:10 |
| Bromoform | 41.3 | U | 82.5 | 25.7 | ug/Kg | 1 | | 05/19/15 14:10 |
| Bromomethane | 330 | U | 660 | 205 | ug/Kg | 1 | | 05/19/15 14:10 |
| Carbon disulfide | 165 | U | 330 | 102 | ug/Kg | 1 | | 05/19/15 14:10 |
| Carbon tetrachloride | 20.6 | U | 41.2 | 12.9 | ug/Kg | 1 | | 05/19/15 14:10 |
| Chlorobenzene | 41.3 | U | 82.5 | 25.7 | ug/Kg | 1 | | 05/19/15 14:10 |
| Chloroethane | 330 | U | 660 | 205 | ug/Kg | 1 | | 05/19/15 14:10 |

Results of **15-PLK2-SO-06-3.5**

Client Sample ID: **15-PLK2-SO-06-3.5**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028013
Lab Project ID: 1152028

Collection Date: 05/10/15 09:50
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):56.6
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Chloroform | 41.3 | U | 82.5 | 25.7 | ug/Kg | 1 | | 05/19/15 14:10 |
| Chloromethane | 41.3 | U | 82.5 | 25.7 | ug/Kg | 1 | | 05/19/15 14:10 |
| cis-1,2-Dichloroethene | 41.3 | U | 82.5 | 25.7 | ug/Kg | 1 | | 05/19/15 14:10 |
| cis-1,3-Dichloropropene | 41.3 | U | 82.5 | 25.7 | ug/Kg | 1 | | 05/19/15 14:10 |
| Dibromochloromethane | 41.3 | U | 82.5 | 25.7 | ug/Kg | 1 | | 05/19/15 14:10 |
| Dibromomethane | 41.3 | U | 82.5 | 25.7 | ug/Kg | 1 | | 05/19/15 14:10 |
| Dichlorodifluoromethane | 82.5 | U | 165 | 49.5 | ug/Kg | 1 | | 05/19/15 14:10 |
| Ethylbenzene | 41.3 | U | 82.5 | 25.7 | ug/Kg | 1 | | 05/19/15 14:10 |
| Hexachlorobutadiene | 82.5 | U | 165 | 49.5 | ug/Kg | 1 | | 05/19/15 14:10 |
| Isopropylbenzene (Cumene) | 41.3 | U | 82.5 | 25.7 | ug/Kg | 1 | | 05/19/15 14:10 |
| Methylene chloride | 165 | U | 330 | 102 | ug/Kg | 1 | | 05/19/15 14:10 |
| Methyl-t-butyl ether | 165 | U | 330 | 102 | ug/Kg | 1 | | 05/19/15 14:10 |
| Naphthalene | 82.5 | U | 165 | 49.5 | ug/Kg | 1 | | 05/19/15 14:10 |
| n-Butylbenzene | 41.3 | U | 82.5 | 25.7 | ug/Kg | 1 | | 05/19/15 14:10 |
| n-Propylbenzene | 41.3 | U | 82.5 | 25.7 | ug/Kg | 1 | | 05/19/15 14:10 |
| o-Xylene | 41.3 | U | 82.5 | 25.7 | ug/Kg | 1 | | 05/19/15 14:10 |
| P & M -Xylene | 82.5 | U | 165 | 49.5 | ug/Kg | 1 | | 05/19/15 14:10 |
| sec-Butylbenzene | 41.3 | U | 82.5 | 25.7 | ug/Kg | 1 | | 05/19/15 14:10 |
| Styrene | 41.3 | U | 82.5 | 25.7 | ug/Kg | 1 | | 05/19/15 14:10 |
| tert-Butylbenzene | 41.3 | U | 82.5 | 25.7 | ug/Kg | 1 | | 05/19/15 14:10 |
| Tetrachloroethene | 20.6 | U | 41.2 | 12.9 | ug/Kg | 1 | | 05/19/15 14:10 |
| Toluene | 41.3 | U | 82.5 | 25.7 | ug/Kg | 1 | | 05/19/15 14:10 |
| trans-1,2-Dichloroethene | 41.3 | U | 82.5 | 25.7 | ug/Kg | 1 | | 05/19/15 14:10 |
| trans-1,3-Dichloropropene | 41.3 | U | 82.5 | 25.7 | ug/Kg | 1 | | 05/19/15 14:10 |
| Trichloroethene | 20.6 | U | 41.2 | 12.9 | ug/Kg | 1 | | 05/19/15 14:10 |
| Trichlorofluoromethane | 82.5 | U | 165 | 49.5 | ug/Kg | 1 | | 05/19/15 14:10 |
| Vinyl chloride | 41.3 | U | 82.5 | 25.7 | ug/Kg | 1 | | 05/19/15 14:10 |
| Xylenes (total) | 124 | U | 247 | 75.2 | ug/Kg | 1 | | 05/19/15 14:10 |
| **Surrogates** | | | | | | | | |
| 1,2-Dichloroethane-D4 (surr) | 121 | * | 79-118 | | % | 1 | | 05/19/15 14:10 |
| 4-Bromofluorobenzene (surr) | 84 | | 67-138 | | % | 1 | | 05/19/15 14:10 |
| Toluene-d8 (surr) | 113 | | 85-115 | | % | 1 | | 05/19/15 14:10 |

Print Date: 06/05/2015 8:36:01AM

J flagging is activated

Results of **15-PLK2-SO-06-3.5**

Client Sample ID: **15-PLK2-SO-06-3.5**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028013
Lab Project ID: 1152028

Collection Date: 05/10/15 09:50
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):56.6
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

**Batch Information**

Analytical Batch: VMS14924
Analytical Method: SW8260B
Analyst: SP
Analytical Date/Time: 05/19/15 14:10
Container ID: 1152028013-A

Prep Batch: VXX27267
Prep Method: SW5035A
Prep Date/Time: 05/10/15 09:50
Prep Initial Wt./Vol.: 50.122 g
Prep Extract Vol: 46.7699 mL



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## Results of **15-PLK2-SO-07-1.0**

Client Sample ID: **15-PLK2-SO-07-1.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028014
Lab Project ID: 1152028

Collection Date: 05/10/15 10:20
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):55.3
Location:

## Results by **Semivolatile Organic Fuels**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics | 303 | | 144 | 44.6 | mg/Kg | 4 | | 05/30/15 21:46 |
| **Surrogates** | | | | | | | | |
| 5a Androstane (surr) | 79.5 | | 50-150 | | % | 4 | | 05/30/15 21:46 |

### Batch Information

Analytical Batch: XFC11854
Analytical Method: AK102
Analyst: MCM
Analytical Date/Time: 05/30/15 21:46
Container ID: 1152028014-B

Prep Batch: XXX33109
Prep Method: SW3550C
Prep Date/Time: 05/21/15 22:01
Prep Initial Wt./Vol.: 30.143 g
Prep Extract Vol: 1 mL

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Residual Range Organics | 1720 | | 144 | 44.6 | mg/Kg | 4 | | 05/30/15 21:46 |
| **Surrogates** | | | | | | | | |
| n-Triacontane-d62 (surr) | 152 | * | 50-150 | | % | 4 | | 05/30/15 21:46 |

### Batch Information

Analytical Batch: XFC11854
Analytical Method: AK103
Analyst: MCM
Analytical Date/Time: 05/30/15 21:46
Container ID: 1152028014-B

Prep Batch: XXX33109
Prep Method: SW3550C
Prep Date/Time: 05/21/15 22:01
Prep Initial Wt./Vol.: 30.143 g
Prep Extract Vol: 1 mL

Print Date: 06/05/2015 8:36:01AM

J flagging is activated

## Results of **15-PLK2-SO-07-1.0**

Client Sample ID: **15-PLK2-SO-07-1.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028014
Lab Project ID: 1152028

Collection Date: 05/10/15 10:20
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):55.3
Location:

## Results by **Volatile Fuels**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics | 3.46 | J | 8.64 | 2.59 | mg/Kg | 1 | | 05/18/15 16:03 |
| **Surrogates** | | | | | | | | |
| 4-Bromofluorobenzene (surr) | 15.7 | * | 50-150 | | % | 1 | | 05/18/15 16:03 |

## Batch Information

Analytical Batch: VFC12405
Analytical Method: AK101
Analyst: ST
Analytical Date/Time: 05/18/15 16:03
Container ID: 1152028014-A

Prep Batch: VXX27257
Prep Method: SW5035A
Prep Date/Time: 05/10/15 10:20
Prep Initial Wt./Vol.: 49.077 g
Prep Extract Vol: 46.9161 mL



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Results of **15-PLK2-SO-07-1.0**

Client Sample ID: **15-PLK2-SO-07-1.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028014
Lab Project ID: 1152028

Collection Date: 05/10/15 10:20
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):55.3
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 43.2 | U | 86.4 | 26.9 | ug/Kg | 1 | | 05/20/15 23:17 |
| 1,1,1-Trichloroethane | 43.2 | U | 86.4 | 26.9 | ug/Kg | 1 | | 05/20/15 23:17 |
| 1,1,2,2-Tetrachloroethane | 21.6 | U | 43.2 | 13.5 | ug/Kg | 1 | | 05/20/15 23:17 |
| 1,1,2-Trichloroethane | 43.2 | U | 86.4 | 26.9 | ug/Kg | 1 | | 05/20/15 23:17 |
| 1,1-Dichloroethane | 43.2 | U | 86.4 | 26.9 | ug/Kg | 1 | | 05/20/15 23:17 |
| 1,1-Dichloroethene | 43.2 | U | 86.4 | 26.9 | ug/Kg | 1 | | 05/20/15 23:17 |
| 1,1-Dichloropropene | 43.2 | U | 86.4 | 26.9 | ug/Kg | 1 | | 05/20/15 23:17 |
| 1,2,3-Trichlorobenzene | 86.5 | U | 173 | 51.8 | ug/Kg | 1 | | 05/20/15 23:17 |
| 1,2,3-Trichloropropane | 43.2 | U | 86.4 | 26.9 | ug/Kg | 1 | | 05/20/15 23:17 |
| 1,2,4-Trichlorobenzene | 43.2 | U | 86.4 | 26.9 | ug/Kg | 1 | | 05/20/15 23:17 |
| 1,2,4-Trimethylbenzene | 86.5 | U | 173 | 51.8 | ug/Kg | 1 | | 05/20/15 23:17 |
| 1,2-Dibromo-3-chloropropane | 173 | U | 345 | 107 | ug/Kg | 1 | | 05/20/15 23:17 |
| 1,2-Dibromoethane | 43.2 | U | 86.4 | 26.9 | ug/Kg | 1 | | 05/20/15 23:17 |
| 1,2-Dichlorobenzene | 43.2 | U | 86.4 | 26.9 | ug/Kg | 1 | | 05/20/15 23:17 |
| 1,2-Dichloroethane | 43.2 | U | 86.4 | 26.9 | ug/Kg | 1 | | 05/20/15 23:17 |
| 1,2-Dichloropropane | 43.2 | U | 86.4 | 26.9 | ug/Kg | 1 | | 05/20/15 23:17 |
| 1,3,5-Trimethylbenzene | 43.2 | U | 86.4 | 26.9 | ug/Kg | 1 | | 05/20/15 23:17 |
| 1,3-Dichlorobenzene | 43.2 | U | 86.4 | 26.9 | ug/Kg | 1 | | 05/20/15 23:17 |
| 1,3-Dichloropropane | 43.2 | U | 86.4 | 26.9 | ug/Kg | 1 | | 05/20/15 23:17 |
| 1,4-Dichlorobenzene | 43.2 | U | 86.4 | 26.9 | ug/Kg | 1 | | 05/20/15 23:17 |
| 2,2-Dichloropropane | 43.2 | U | 86.4 | 26.9 | ug/Kg | 1 | | 05/20/15 23:17 |
| 2-Butanone (MEK) | 432 | U | 864 | 269 | ug/Kg | 1 | | 05/20/15 23:17 |
| 2-Chlorotoluene | 43.2 | U | 86.4 | 26.9 | ug/Kg | 1 | | 05/20/15 23:17 |
| 2-Hexanone | 432 | U | 864 | 269 | ug/Kg | 1 | | 05/20/15 23:17 |
| 4-Chlorotoluene | 43.2 | U | 86.4 | 26.9 | ug/Kg | 1 | | 05/20/15 23:17 |
| 4-Isopropyltoluene | 43.2 | U | 86.4 | 26.9 | ug/Kg | 1 | | 05/20/15 23:17 |
| 4-Methyl-2-pentanone (MIBK) | 432 | U | 864 | 269 | ug/Kg | 1 | | 05/20/15 23:17 |
| Benzene | 21.6 | U | 43.2 | 13.5 | ug/Kg | 1 | | 05/20/15 23:17 |
| Bromobenzene | 43.2 | U | 86.4 | 26.9 | ug/Kg | 1 | | 05/20/15 23:17 |
| Bromochloromethane | 43.2 | U | 86.4 | 26.9 | ug/Kg | 1 | | 05/20/15 23:17 |
| Bromodichloromethane | 43.2 | U | 86.4 | 26.9 | ug/Kg | 1 | | 05/20/15 23:17 |
| Bromoform | 43.2 | U | 86.4 | 26.9 | ug/Kg | 1 | | 05/20/15 23:17 |
| Bromomethane | 346 | U | 691 | 214 | ug/Kg | 1 | | 05/20/15 23:17 |
| Carbon disulfide | 173 | U | 345 | 107 | ug/Kg | 1 | | 05/20/15 23:17 |
| Carbon tetrachloride | 21.6 | U | 43.2 | 13.5 | ug/Kg | 1 | | 05/20/15 23:17 |
| Chlorobenzene | 43.2 | U | 86.4 | 26.9 | ug/Kg | 1 | | 05/20/15 23:17 |
| Chloroethane | 346 | U | 691 | 214 | ug/Kg | 1 | | 05/20/15 23:17 |

Results of **15-PLK2-SO-07-1.0**

Client Sample ID: **15-PLK2-SO-07-1.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028014
Lab Project ID: 1152028

Collection Date: 05/10/15 10:20
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):55.3
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Chloroform | 43.2 | U | 86.4 | 26.9 | ug/Kg | 1 | | 05/20/15 23:17 |
| Chloromethane | 43.2 | U | 86.4 | 26.9 | ug/Kg | 1 | | 05/20/15 23:17 |
| cis-1,2-Dichloroethene | 43.2 | U | 86.4 | 26.9 | ug/Kg | 1 | | 05/20/15 23:17 |
| cis-1,3-Dichloropropene | 43.2 | U | 86.4 | 26.9 | ug/Kg | 1 | | 05/20/15 23:17 |
| Dibromochloromethane | 43.2 | U | 86.4 | 26.9 | ug/Kg | 1 | | 05/20/15 23:17 |
| Dibromomethane | 43.2 | U | 86.4 | 26.9 | ug/Kg | 1 | | 05/20/15 23:17 |
| Dichlorodifluoromethane | 86.5 | U | 173 | 51.8 | ug/Kg | 1 | | 05/20/15 23:17 |
| Ethylbenzene | 43.2 | U | 86.4 | 26.9 | ug/Kg | 1 | | 05/20/15 23:17 |
| Hexachlorobutadiene | 86.5 | U | 173 | 51.8 | ug/Kg | 1 | | 05/20/15 23:17 |
| Isopropylbenzene (Cumene) | 43.2 | U | 86.4 | 26.9 | ug/Kg | 1 | | 05/20/15 23:17 |
| Methylene chloride | 173 | U | 345 | 107 | ug/Kg | 1 | | 05/20/15 23:17 |
| Methyl-t-butyl ether | 173 | U | 345 | 107 | ug/Kg | 1 | | 05/20/15 23:17 |
| Naphthalene | 86.5 | U | 173 | 51.8 | ug/Kg | 1 | | 05/20/15 23:17 |
| n-Butylbenzene | 43.2 | U | 86.4 | 26.9 | ug/Kg | 1 | | 05/20/15 23:17 |
| n-Propylbenzene | 43.2 | U | 86.4 | 26.9 | ug/Kg | 1 | | 05/20/15 23:17 |
| o-Xylene | 43.2 | U | 86.4 | 26.9 | ug/Kg | 1 | | 05/20/15 23:17 |
| P & M -Xylene | 86.5 | U | 173 | 51.8 | ug/Kg | 1 | | 05/20/15 23:17 |
| sec-Butylbenzene | 43.2 | U | 86.4 | 26.9 | ug/Kg | 1 | | 05/20/15 23:17 |
| Styrene | 43.2 | U | 86.4 | 26.9 | ug/Kg | 1 | | 05/20/15 23:17 |
| tert-Butylbenzene | 43.2 | U | 86.4 | 26.9 | ug/Kg | 1 | | 05/20/15 23:17 |
| Tetrachloroethene | 21.6 | U | 43.2 | 13.5 | ug/Kg | 1 | | 05/20/15 23:17 |
| Toluene | 43.2 | U | 86.4 | 26.9 | ug/Kg | 1 | | 05/20/15 23:17 |
| trans-1,2-Dichloroethene | 43.2 | U | 86.4 | 26.9 | ug/Kg | 1 | | 05/20/15 23:17 |
| trans-1,3-Dichloropropene | 43.2 | U | 86.4 | 26.9 | ug/Kg | 1 | | 05/20/15 23:17 |
| Trichloroethene | 21.6 | U | 43.2 | 13.5 | ug/Kg | 1 | | 05/20/15 23:17 |
| Trichlorofluoromethane | 86.5 | U | 173 | 51.8 | ug/Kg | 1 | | 05/20/15 23:17 |
| Vinyl chloride | 43.2 | U | 86.4 | 26.9 | ug/Kg | 1 | | 05/20/15 23:17 |
| Xylenes (total) | 130 | U | 259 | 78.8 | ug/Kg | 1 | | 05/20/15 23:17 |
| **Surrogates** | | | | | | | | |
| 1,2-Dichloroethane-D4 (surr) | 128 | * | 79-118 | | % | 1 | | 05/20/15 23:17 |
| 4-Bromofluorobenzene (surr) | 69.5 | | 67-138 | | % | 1 | | 05/20/15 23:17 |
| Toluene-d8 (surr) | 114 | | 85-115 | | % | 1 | | 05/20/15 23:17 |

Print Date: 06/05/2015 8:36:01AM

J flagging is activated

Results of **15-PLK2-SO-07-1.0**

Client Sample ID: **15-PLK2-SO-07-1.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028014
Lab Project ID: 1152028

Collection Date: 05/10/15 10:20
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):55.3
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

**Batch Information**

Analytical Batch: VMS14934
Analytical Method: SW8260B
Analyst: SP
Analytical Date/Time: 05/20/15 23:17
Container ID: 1152028014-A

Prep Batch: VXX27276
Prep Method: SW5035A
Prep Date/Time: 05/10/15 10:20
Prep Initial Wt./Vol.: 49.077 g
Prep Extract Vol: 46.9161 mL



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Results of **15-PLK2-SO-07-6.0**

Client Sample ID: **15-PLK2-SO-07-6.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028015
Lab Project ID: 1152028

Collection Date: 05/10/15 10:25
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):52.4
Location:

Results by **Semivolatile Organic Fuels**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics | 66.1 | | 38.1 | 11.8 | mg/Kg | 1 | | 05/30/15 17:16 |
| **Surrogates** | | | | | | | | |
| 5a Androstane (surr) | 80.8 | | 50-150 | | % | 1 | | 05/30/15 17:16 |

**Batch Information**

Analytical Batch: XFC11854
Analytical Method: AK102
Analyst: MCM
Analytical Date/Time: 05/30/15 17:16
Container ID: 1152028015-B

Prep Batch: XXX33109
Prep Method: SW3550C
Prep Date/Time: 05/21/15 22:01
Prep Initial Wt./Vol.: 30.047 g
Prep Extract Vol: 1 mL

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Residual Range Organics | 259 | | 38.1 | 11.8 | mg/Kg | 1 | | 05/30/15 17:16 |
| **Surrogates** | | | | | | | | |
| n-Triacontane-d62 (surr) | 63.8 | | 50-150 | | % | 1 | | 05/30/15 17:16 |

**Batch Information**

Analytical Batch: XFC11854
Analytical Method: AK103
Analyst: MCM
Analytical Date/Time: 05/30/15 17:16
Container ID: 1152028015-B

Prep Batch: XXX33109
Prep Method: SW3550C
Prep Date/Time: 05/21/15 22:01
Prep Initial Wt./Vol.: 30.047 g
Prep Extract Vol: 1 mL

Print Date: 06/05/2015 8:36:01AM

J flagging is activated

## Results of **15-PLK2-SO-07-6.0**

Client Sample ID: **15-PLK2-SO-07-6.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028015
Lab Project ID: 1152028

Collection Date: 05/10/15 10:25
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):52.4
Location:

## Results by **Volatile Fuels**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics | 3.11 | J | 9.17 | 2.75 | mg/Kg | 1 | | 05/18/15 16:22 |
| **Surrogates** | | | | | | | | |
| 4-Bromofluorobenzene (surr) | 43.4 | * | 50-150 | | % | 1 | | 05/18/15 16:22 |

## Batch Information

Analytical Batch: VFC12405
Analytical Method: AK101
Analyst: ST
Analytical Date/Time: 05/18/15 16:22
Container ID: 1152028015-A

Prep Batch: VXX27257
Prep Method: SW5035A
Prep Date/Time: 05/10/15 10:25
Prep Initial Wt./Vol.: 51.606 g
Prep Extract Vol: 49.5739 mL

Print Date: 06/05/2015 8:36:01AM

J flagging is activated

Results of **15-PLK2-SO-07-6.0**

Client Sample ID: **15-PLK2-SO-07-6.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028015
Lab Project ID: 1152028

Collection Date: 05/10/15 10:25
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):52.4
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 45.9 | U | 91.7 | 28.6 | ug/Kg | 1 | | 05/19/15 14:26 |
| 1,1,1-Trichloroethane | 45.9 | U | 91.7 | 28.6 | ug/Kg | 1 | | 05/19/15 14:26 |
| 1,1,2,2-Tetrachloroethane | 22.9 | U | 45.8 | 14.3 | ug/Kg | 1 | | 05/19/15 14:26 |
| 1,1,2-Trichloroethane | 45.9 | U | 91.7 | 28.6 | ug/Kg | 1 | | 05/19/15 14:26 |
| 1,1-Dichloroethane | 45.9 | U | 91.7 | 28.6 | ug/Kg | 1 | | 05/19/15 14:26 |
| 1,1-Dichloroethene | 45.9 | U | 91.7 | 28.6 | ug/Kg | 1 | | 05/19/15 14:26 |
| 1,1-Dichloropropene | 45.9 | U | 91.7 | 28.6 | ug/Kg | 1 | | 05/19/15 14:26 |
| 1,2,3-Trichlorobenzene | 91.5 | U | 183 | 55.0 | ug/Kg | 1 | | 05/19/15 14:26 |
| 1,2,3-Trichloropropane | 45.9 | U | 91.7 | 28.6 | ug/Kg | 1 | | 05/19/15 14:26 |
| 1,2,4-Trichlorobenzene | 45.9 | U | 91.7 | 28.6 | ug/Kg | 1 | | 05/19/15 14:26 |
| 1,2,4-Trimethylbenzene | 91.5 | U | 183 | 55.0 | ug/Kg | 1 | | 05/19/15 14:26 |
| 1,2-Dibromo-3-chloropropane | 184 | U | 367 | 114 | ug/Kg | 1 | | 05/19/15 14:26 |
| 1,2-Dibromoethane | 45.9 | U | 91.7 | 28.6 | ug/Kg | 1 | | 05/19/15 14:26 |
| 1,2-Dichlorobenzene | 45.9 | U | 91.7 | 28.6 | ug/Kg | 1 | | 05/19/15 14:26 |
| 1,2-Dichloroethane | 45.9 | U | 91.7 | 28.6 | ug/Kg | 1 | | 05/19/15 14:26 |
| 1,2-Dichloropropane | 45.9 | U | 91.7 | 28.6 | ug/Kg | 1 | | 05/19/15 14:26 |
| 1,3,5-Trimethylbenzene | 45.9 | U | 91.7 | 28.6 | ug/Kg | 1 | | 05/19/15 14:26 |
| 1,3-Dichlorobenzene | 45.9 | U | 91.7 | 28.6 | ug/Kg | 1 | | 05/19/15 14:26 |
| 1,3-Dichloropropane | 45.9 | U | 91.7 | 28.6 | ug/Kg | 1 | | 05/19/15 14:26 |
| 1,4-Dichlorobenzene | 45.9 | U | 91.7 | 28.6 | ug/Kg | 1 | | 05/19/15 14:26 |
| 2,2-Dichloropropane | 45.9 | U | 91.7 | 28.6 | ug/Kg | 1 | | 05/19/15 14:26 |
| 2-Butanone (MEK) | 321 | J | 917 | 286 | ug/Kg | 1 | | 05/19/15 14:26 |
| 2-Chlorotoluene | 45.9 | U | 91.7 | 28.6 | ug/Kg | 1 | | 05/19/15 14:26 |
| 2-Hexanone | 459 | U | 917 | 286 | ug/Kg | 1 | | 05/19/15 14:26 |
| 4-Chlorotoluene | 45.9 | U | 91.7 | 28.6 | ug/Kg | 1 | | 05/19/15 14:26 |
| 4-Isopropyltoluene | 45.9 | U | 91.7 | 28.6 | ug/Kg | 1 | | 05/19/15 14:26 |
| 4-Methyl-2-pentanone (MIBK) | 459 | U | 917 | 286 | ug/Kg | 1 | | 05/19/15 14:26 |
| Benzene | 22.9 | U | 45.8 | 14.3 | ug/Kg | 1 | | 05/19/15 14:26 |
| Bromobenzene | 45.9 | U | 91.7 | 28.6 | ug/Kg | 1 | | 05/19/15 14:26 |
| Bromochloromethane | 45.9 | U | 91.7 | 28.6 | ug/Kg | 1 | | 05/19/15 14:26 |
| Bromodichloromethane | 45.9 | U | 91.7 | 28.6 | ug/Kg | 1 | | 05/19/15 14:26 |
| Bromoform | 45.9 | U | 91.7 | 28.6 | ug/Kg | 1 | | 05/19/15 14:26 |
| Bromomethane | 367 | U | 734 | 227 | ug/Kg | 1 | | 05/19/15 14:26 |
| Carbon disulfide | 184 | U | 367 | 114 | ug/Kg | 1 | | 05/19/15 14:26 |
| Carbon tetrachloride | 22.9 | U | 45.8 | 14.3 | ug/Kg | 1 | | 05/19/15 14:26 |
| Chlorobenzene | 45.9 | U | 91.7 | 28.6 | ug/Kg | 1 | | 05/19/15 14:26 |
| Chloroethane | 367 | U | 734 | 227 | ug/Kg | 1 | | 05/19/15 14:26 |

Results of **15-PLK2-SO-07-6.0**

Client Sample ID: **15-PLK2-SO-07-6.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028015
Lab Project ID: 1152028

Collection Date: 05/10/15 10:25
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):52.4
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Chloroform | 45.9 | U | 91.7 | 28.6 | ug/Kg | 1 | | 05/19/15 14:26 |
| Chloromethane | 45.9 | U | 91.7 | 28.6 | ug/Kg | 1 | | 05/19/15 14:26 |
| cis-1,2-Dichloroethene | 45.9 | U | 91.7 | 28.6 | ug/Kg | 1 | | 05/19/15 14:26 |
| cis-1,3-Dichloropropene | 45.9 | U | 91.7 | 28.6 | ug/Kg | 1 | | 05/19/15 14:26 |
| Dibromochloromethane | 45.9 | U | 91.7 | 28.6 | ug/Kg | 1 | | 05/19/15 14:26 |
| Dibromomethane | 45.9 | U | 91.7 | 28.6 | ug/Kg | 1 | | 05/19/15 14:26 |
| Dichlorodifluoromethane | 91.5 | U | 183 | 55.0 | ug/Kg | 1 | | 05/19/15 14:26 |
| Ethylbenzene | 45.9 | U | 91.7 | 28.6 | ug/Kg | 1 | | 05/19/15 14:26 |
| Hexachlorobutadiene | 91.5 | U | 183 | 55.0 | ug/Kg | 1 | | 05/19/15 14:26 |
| Isopropylbenzene (Cumene) | 45.9 | U | 91.7 | 28.6 | ug/Kg | 1 | | 05/19/15 14:26 |
| Methylene chloride | 184 | U | 367 | 114 | ug/Kg | 1 | | 05/19/15 14:26 |
| Methyl-t-butyl ether | 184 | U | 367 | 114 | ug/Kg | 1 | | 05/19/15 14:26 |
| Naphthalene | 91.5 | U | 183 | 55.0 | ug/Kg | 1 | | 05/19/15 14:26 |
| n-Butylbenzene | 45.9 | U | 91.7 | 28.6 | ug/Kg | 1 | | 05/19/15 14:26 |
| n-Propylbenzene | 45.9 | U | 91.7 | 28.6 | ug/Kg | 1 | | 05/19/15 14:26 |
| o-Xylene | 45.9 | U | 91.7 | 28.6 | ug/Kg | 1 | | 05/19/15 14:26 |
| P & M -Xylene | 91.5 | U | 183 | 55.0 | ug/Kg | 1 | | 05/19/15 14:26 |
| sec-Butylbenzene | 45.9 | U | 91.7 | 28.6 | ug/Kg | 1 | | 05/19/15 14:26 |
| Styrene | 45.9 | U | 91.7 | 28.6 | ug/Kg | 1 | | 05/19/15 14:26 |
| tert-Butylbenzene | 45.9 | U | 91.7 | 28.6 | ug/Kg | 1 | | 05/19/15 14:26 |
| Tetrachloroethene | 22.9 | U | 45.8 | 14.3 | ug/Kg | 1 | | 05/19/15 14:26 |
| Toluene | 45.9 | U | 91.7 | 28.6 | ug/Kg | 1 | | 05/19/15 14:26 |
| trans-1,2-Dichloroethene | 45.9 | U | 91.7 | 28.6 | ug/Kg | 1 | | 05/19/15 14:26 |
| trans-1,3-Dichloropropene | 45.9 | U | 91.7 | 28.6 | ug/Kg | 1 | | 05/19/15 14:26 |
| Trichloroethene | 22.9 | U | 45.8 | 14.3 | ug/Kg | 1 | | 05/19/15 14:26 |
| Trichlorofluoromethane | 91.5 | U | 183 | 55.0 | ug/Kg | 1 | | 05/19/15 14:26 |
| Vinyl chloride | 45.9 | U | 91.7 | 28.6 | ug/Kg | 1 | | 05/19/15 14:26 |
| Xylenes (total) | 138 | U | 275 | 83.6 | ug/Kg | 1 | | 05/19/15 14:26 |
| **Surrogates** | | | | | | | | |
| 1,2-Dichloroethane-D4 (surr) | 114 | | 79-118 | | % | 1 | | 05/19/15 14:26 |
| 4-Bromofluorobenzene (surr) | 82.3 | | 67-138 | | % | 1 | | 05/19/15 14:26 |
| Toluene-d8 (surr) | 106 | | 85-115 | | % | 1 | | 05/19/15 14:26 |

Print Date: 06/05/2015 8:36:01AM

J flagging is activated

Results of **15-PLK2-SO-07-6.0**

Client Sample ID: **15-PLK2-SO-07-6.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028015
Lab Project ID: 1152028

Collection Date: 05/10/15 10:25
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):52.4
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

**Batch Information**

Analytical Batch: VMS14924
Analytical Method: SW8260B
Analyst: SP
Analytical Date/Time: 05/19/15 14:26
Container ID: 1152028015-A

Prep Batch: VXX27267
Prep Method: SW5035A
Prep Date/Time: 05/10/15 10:25
Prep Initial Wt./Vol.: 51.606 g
Prep Extract Vol: 49.5739 mL



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Results of **15-PLK2-SO-08-1.0**

Client Sample ID: **15-PLK2-SO-08-1.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028016
Lab Project ID: 1152028

Collection Date: 05/10/15 10:05
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):82.9
Location:

Results by **Semivolatile Organic Fuels**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics | 78.2 | | 23.8 | 7.37 | mg/Kg | 1 | | 05/30/15 17:26 |
| **Surrogates** | | | | | | | | |
| 5a Androstane (surr) | 85.4 | | 50-150 | | % | 1 | | 05/30/15 17:26 |

**Batch Information**

Analytical Batch: XFC11854
Analytical Method: AK102
Analyst: MCM
Analytical Date/Time: 05/30/15 17:26
Container ID: 1152028016-D

Prep Batch: XXX33109
Prep Method: SW3550C
Prep Date/Time: 05/21/15 22:01
Prep Initial Wt./Vol.: 30.441 g
Prep Extract Vol: 1 mL

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Residual Range Organics | 394 | | 23.8 | 7.37 | mg/Kg | 1 | | 05/30/15 17:26 |
| **Surrogates** | | | | | | | | |
| n-Triacontane-d62 (surr) | 52.8 | | 50-150 | | % | 1 | | 05/30/15 17:26 |

**Batch Information**

Analytical Batch: XFC11854
Analytical Method: AK103
Analyst: MCM
Analytical Date/Time: 05/30/15 17:26
Container ID: 1152028016-D

Prep Batch: XXX33109
Prep Method: SW3550C
Prep Date/Time: 05/21/15 22:01
Prep Initial Wt./Vol.: 30.441 g
Prep Extract Vol: 1 mL

Print Date: 06/05/2015 8:36:01AM

J flagging is activated

## Results of **15-PLK2-SO-08-1.0**

Client Sample ID: **15-PLK2-SO-08-1.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028016
Lab Project ID: 1152028

Collection Date: 05/10/15 10:05
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):82.9
Location:

## Results by **Volatile Fuels**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics | 2.04 | U | 4.08 | 1.22 | mg/Kg | 1 | | 05/17/15 19:15 |
| **Surrogates** | | | | | | | | |
| 4-Bromofluorobenzene (surr) | 81.4 | | 50-150 | | % | 1 | | 05/17/15 19:15 |

## Batch Information

Analytical Batch: VFC12404
Analytical Method: AK101
Analyst: ST
Analytical Date/Time: 05/17/15 19:15
Container ID: 1152028016-A

Prep Batch: VXX27252
Prep Method: SW5035A
Prep Date/Time: 05/10/15 10:05
Prep Initial Wt./Vol.: 49.477 g
Prep Extract Vol: 33.4796 mL

Results of **15-PLK2-SO-08-1.0**

Client Sample ID: **15-PLK2-SO-08-1.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028016
Lab Project ID: 1152028

Collection Date: 05/10/15 10:05
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):82.9
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 20.4 | U | 40.8 | 12.7 | ug/Kg | 1 | | 05/17/15 00:22 |
| 1,1,1-Trichloroethane | 20.4 | U | 40.8 | 12.7 | ug/Kg | 1 | | 05/17/15 00:22 |
| 1,1,2,2-Tetrachloroethane | 10.2 | U | 20.4 | 6.37 | ug/Kg | 1 | | 05/17/15 00:22 |
| 1,1,2-Trichloroethane | 20.4 | U | 40.8 | 12.7 | ug/Kg | 1 | | 05/17/15 00:22 |
| 1,1-Dichloroethane | 20.4 | U | 40.8 | 12.7 | ug/Kg | 1 | | 05/17/15 00:22 |
| 1,1-Dichloroethene | 20.4 | U | 40.8 | 12.7 | ug/Kg | 1 | | 05/17/15 00:22 |
| 1,1-Dichloropropene | 20.4 | U | 40.8 | 12.7 | ug/Kg | 1 | | 05/17/15 00:22 |
| 1,2,3-Trichlorobenzene | 40.9 | U | 81.7 | 24.5 | ug/Kg | 1 | | 05/17/15 00:22 |
| 1,2,3-Trichloropropane | 20.4 | U | 40.8 | 12.7 | ug/Kg | 1 | | 05/17/15 00:22 |
| 1,2,4-Trichlorobenzene | 20.4 | U | 40.8 | 12.7 | ug/Kg | 1 | | 05/17/15 00:22 |
| 1,2,4-Trimethylbenzene | 28.6 | J | 81.7 | 24.5 | ug/Kg | 1 | | 05/17/15 00:22 |
| 1,2-Dibromo-3-chloropropane | 81.5 | U | 163 | 50.6 | ug/Kg | 1 | | 05/17/15 00:22 |
| 1,2-Dibromoethane | 20.4 | U | 40.8 | 12.7 | ug/Kg | 1 | | 05/17/15 00:22 |
| 1,2-Dichlorobenzene | 20.4 | U | 40.8 | 12.7 | ug/Kg | 1 | | 05/17/15 00:22 |
| 1,2-Dichloroethane | 20.4 | U | 40.8 | 12.7 | ug/Kg | 1 | | 05/17/15 00:22 |
| 1,2-Dichloropropane | 20.4 | U | 40.8 | 12.7 | ug/Kg | 1 | | 05/17/15 00:22 |
| 1,3,5-Trimethylbenzene | 20.4 | U | 40.8 | 12.7 | ug/Kg | 1 | | 05/17/15 00:22 |
| 1,3-Dichlorobenzene | 20.4 | U | 40.8 | 12.7 | ug/Kg | 1 | | 05/17/15 00:22 |
| 1,3-Dichloropropane | 20.4 | U | 40.8 | 12.7 | ug/Kg | 1 | | 05/17/15 00:22 |
| 1,4-Dichlorobenzene | 20.4 | U | 40.8 | 12.7 | ug/Kg | 1 | | 05/17/15 00:22 |
| 2,2-Dichloropropane | 20.4 | U | 40.8 | 12.7 | ug/Kg | 1 | | 05/17/15 00:22 |
| 2-Butanone (MEK) | 204 | U | 408 | 127 | ug/Kg | 1 | | 05/17/15 00:22 |
| 2-Chlorotoluene | 20.4 | U | 40.8 | 12.7 | ug/Kg | 1 | | 05/17/15 00:22 |
| 2-Hexanone | 204 | U | 408 | 127 | ug/Kg | 1 | | 05/17/15 00:22 |
| 4-Chlorotoluene | 20.4 | U | 40.8 | 12.7 | ug/Kg | 1 | | 05/17/15 00:22 |
| 4-Isopropyltoluene | 20.4 | U | 40.8 | 12.7 | ug/Kg | 1 | | 05/17/15 00:22 |
| 4-Methyl-2-pentanone (MIBK) | 204 | U | 408 | 127 | ug/Kg | 1 | | 05/17/15 00:22 |
| Benzene | 10.2 | U | 20.4 | 6.37 | ug/Kg | 1 | | 05/17/15 00:22 |
| Bromobenzene | 20.4 | U | 40.8 | 12.7 | ug/Kg | 1 | | 05/17/15 00:22 |
| Bromochloromethane | 20.4 | U | 40.8 | 12.7 | ug/Kg | 1 | | 05/17/15 00:22 |
| Bromodichloromethane | 20.4 | U | 40.8 | 12.7 | ug/Kg | 1 | | 05/17/15 00:22 |
| Bromoform | 20.4 | U | 40.8 | 12.7 | ug/Kg | 1 | | 05/17/15 00:22 |
| Bromomethane | 164 | U | 327 | 101 | ug/Kg | 1 | | 05/17/15 00:22 |
| Carbon disulfide | 81.5 | U | 163 | 50.6 | ug/Kg | 1 | | 05/17/15 00:22 |
| Carbon tetrachloride | 10.2 | U | 20.4 | 6.37 | ug/Kg | 1 | | 05/17/15 00:22 |
| Chlorobenzene | 20.4 | U | 40.8 | 12.7 | ug/Kg | 1 | | 05/17/15 00:22 |
| Chloroethane | 164 | U | 327 | 101 | ug/Kg | 1 | | 05/17/15 00:22 |

Results of **15-PLK2-SO-08-1.0**

Client Sample ID: **15-PLK2-SO-08-1.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028016
Lab Project ID: 1152028

Collection Date: 05/10/15 10:05
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):82.9
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Chloroform | 20.4 | U | 40.8 | 12.7 | ug/Kg | 1 | | 05/17/15 00:22 |
| Chloromethane | 20.4 | U | 40.8 | 12.7 | ug/Kg | 1 | | 05/17/15 00:22 |
| cis-1,2-Dichloroethene | 20.4 | U | 40.8 | 12.7 | ug/Kg | 1 | | 05/17/15 00:22 |
| cis-1,3-Dichloropropene | 20.4 | U | 40.8 | 12.7 | ug/Kg | 1 | | 05/17/15 00:22 |
| Dibromochloromethane | 20.4 | U | 40.8 | 12.7 | ug/Kg | 1 | | 05/17/15 00:22 |
| Dibromomethane | 20.4 | U | 40.8 | 12.7 | ug/Kg | 1 | | 05/17/15 00:22 |
| Dichlorodifluoromethane | 40.9 | U | 81.7 | 24.5 | ug/Kg | 1 | | 05/17/15 00:22 |
| Ethylbenzene | 20.4 | U | 40.8 | 12.7 | ug/Kg | 1 | | 05/17/15 00:22 |
| Hexachlorobutadiene | 40.9 | U | 81.7 | 24.5 | ug/Kg | 1 | | 05/17/15 00:22 |
| Isopropylbenzene (Cumene) | 20.4 | U | 40.8 | 12.7 | ug/Kg | 1 | | 05/17/15 00:22 |
| Methylene chloride | 81.5 | U | 163 | 50.6 | ug/Kg | 1 | | 05/17/15 00:22 |
| Methyl-t-butyl ether | 81.5 | U | 163 | 50.6 | ug/Kg | 1 | | 05/17/15 00:22 |
| Naphthalene | 34.3 | J | 81.7 | 24.5 | ug/Kg | 1 | | 05/17/15 00:22 |
| n-Butylbenzene | 20.4 | U | 40.8 | 12.7 | ug/Kg | 1 | | 05/17/15 00:22 |
| n-Propylbenzene | 20.4 | U | 40.8 | 12.7 | ug/Kg | 1 | | 05/17/15 00:22 |
| o-Xylene | 20.4 | U | 40.8 | 12.7 | ug/Kg | 1 | | 05/17/15 00:22 |
| P & M -Xylene | 40.9 | U | 81.7 | 24.5 | ug/Kg | 1 | | 05/17/15 00:22 |
| sec-Butylbenzene | 20.4 | U | 40.8 | 12.7 | ug/Kg | 1 | | 05/17/15 00:22 |
| Styrene | 20.4 | U | 40.8 | 12.7 | ug/Kg | 1 | | 05/17/15 00:22 |
| tert-Butylbenzene | 20.4 | U | 40.8 | 12.7 | ug/Kg | 1 | | 05/17/15 00:22 |
| Tetrachloroethene | 10.2 | U | 20.4 | 6.37 | ug/Kg | 1 | | 05/17/15 00:22 |
| Toluene | 28.2 | J | 40.8 | 12.7 | ug/Kg | 1 | | 05/17/15 00:22 |
| trans-1,2-Dichloroethene | 20.4 | U | 40.8 | 12.7 | ug/Kg | 1 | | 05/17/15 00:22 |
| trans-1,3-Dichloropropene | 20.4 | U | 40.8 | 12.7 | ug/Kg | 1 | | 05/17/15 00:22 |
| Trichloroethene | 10.2 | U | 20.4 | 6.37 | ug/Kg | 1 | | 05/17/15 00:22 |
| Trichlorofluoromethane | 40.9 | U | 81.7 | 24.5 | ug/Kg | 1 | | 05/17/15 00:22 |
| Vinyl chloride | 20.4 | U | 40.8 | 12.7 | ug/Kg | 1 | | 05/17/15 00:22 |
| Xylenes (total) | 61.0 | U | 122 | 37.2 | ug/Kg | 1 | | 05/17/15 00:22 |
| **Surrogates** | | | | | | | | |
| 1,2-Dichloroethane-D4 (surr) | 111 | | 79-118 | | % | 1 | | 05/17/15 00:22 |
| 4-Bromofluorobenzene (surr) | 95.7 | | 67-138 | | % | 1 | | 05/17/15 00:22 |
| Toluene-d8 (surr) | 103 | | 85-115 | | % | 1 | | 05/17/15 00:22 |

Print Date: 06/05/2015 8:36:01AM

J flagging is activated

Results of **15-PLK2-SO-08-1.0**

Client Sample ID: **15-PLK2-SO-08-1.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028016
Lab Project ID: 1152028

Collection Date: 05/10/15 10:05
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):82.9
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

**Batch Information**

Analytical Batch: VMS14929
Analytical Method: SW8260B
Analyst: SCL
Analytical Date/Time: 05/17/15 00:22
Container ID: 1152028016-A

Prep Batch: VXX27235
Prep Method: SW5035A
Prep Date/Time: 05/10/15 10:05
Prep Initial Wt./Vol.: 49.477 g
Prep Extract Vol: 33.4796 mL



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Results of **15-PLK2-SO-08-3.0**

Client Sample ID: **15-PLK2-SO-08-3.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028019
Lab Project ID: 1152028

Collection Date: 05/10/15 10:10
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):87.0
Location:

Results by **Polynuclear Aromatics GC/MS**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| 1-Methylnaphthalene | 32.3 | | 9.74 | 2.92 | ug/Kg | 1 | | 05/22/15 00:53 |
| 2-Methylnaphthalene | 38.5 | | 9.74 | 2.92 | ug/Kg | 1 | | 05/22/15 00:53 |
| Acenaphthene | 4.87 | U | 9.74 | 2.92 | ug/Kg | 1 | | 05/22/15 00:53 |
| Acenaphthylene | 4.87 | U | 9.74 | 2.92 | ug/Kg | 1 | | 05/22/15 00:53 |
| Anthracene | 4.87 | U | 9.74 | 2.92 | ug/Kg | 1 | | 05/22/15 00:53 |
| Benzo(a)Anthracene | 4.87 | U | 9.74 | 2.92 | ug/Kg | 1 | | 05/22/15 00:53 |
| Benzo[a]pyrene | 4.87 | U | 9.74 | 2.92 | ug/Kg | 1 | | 05/22/15 00:53 |
| Benzo[b]Fluoranthene | 5.59 | J | 9.74 | 2.92 | ug/Kg | 1 | | 05/22/15 00:53 |
| Benzo[g,h,i]perylene | 75.2 | | 9.74 | 2.92 | ug/Kg | 1 | | 05/22/15 00:53 |
| Benzo[k]fluoranthene | 4.87 | U | 9.74 | 2.92 | ug/Kg | 1 | | 05/22/15 00:53 |
| Chrysene | 8.23 | J | 9.74 | 2.92 | ug/Kg | 1 | | 05/22/15 00:53 |
| Dibenzo[a,h]anthracene | 4.87 | U | 9.74 | 2.92 | ug/Kg | 1 | | 05/22/15 00:53 |
| Fluoranthene | 4.87 | U | 9.74 | 2.92 | ug/Kg | 1 | | 05/22/15 00:53 |
| Fluorene | 3.60 | J | 9.74 | 2.92 | ug/Kg | 1 | | 05/22/15 00:53 |
| Indeno[1,2,3-c,d] pyrene | 4.87 | U | 9.74 | 2.92 | ug/Kg | 1 | | 05/22/15 00:53 |
| Naphthalene | 18.7 | | 9.74 | 2.92 | ug/Kg | 1 | | 05/22/15 00:53 |
| Phenanthrene | 37.4 | | 9.74 | 2.92 | ug/Kg | 1 | | 05/22/15 00:53 |
| Pyrene | 4.87 | U | 9.74 | 2.92 | ug/Kg | 1 | | 05/22/15 00:53 |
| **Surrogates** | | | | | | | | |
| 2-Fluorobiphenyl (surr) | 84.2 | | 45-105 | | % | 1 | | 05/22/15 00:53 |
| Terphenyl-d14 (surr) | 88.3 | | 30-125 | | % | 1 | | 05/22/15 00:53 |

**Batch Information**

Analytical Batch: XMS8671
Analytical Method: 8270D SIMS (PAH)
Analyst: DSH
Analytical Date/Time: 05/22/15 00:53
Container ID: 1152028019-B

Prep Batch: XXX33067
Prep Method: SW3550C
Prep Date/Time: 05/16/15 10:29
Prep Initial Wt./Vol.: 22.558 g
Prep Extract Vol: 1.7 mL

Print Date: 06/05/2015 8:36:01AM

J flagging is activated

Results of **15-PLK2-SO-08-3.0**

Client Sample ID: **15-PLK2-SO-08-3.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028019
Lab Project ID: 1152028

Collection Date: 05/10/15 10:10
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):87.0
Location:

Results by **Semivolatile Organic Fuels**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics | 311 | | 91.8 | 28.5 | mg/Kg | 4 | | 05/30/15 21:56 |
| **Surrogates** | | | | | | | | |
| 5a Androstane (surr) | 126 | | 50-150 | | % | 4 | | 05/30/15 21:56 |

**Batch Information**

Analytical Batch: XFC11854
Analytical Method: AK102
Analyst: MCM
Analytical Date/Time: 05/30/15 21:56
Container ID: 1152028019-B

Prep Batch: XXX33109
Prep Method: SW3550C
Prep Date/Time: 05/21/15 22:01
Prep Initial Wt./Vol.: 30.045 g
Prep Extract Vol: 1 mL

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Residual Range Organics | 1350 | | 91.8 | 28.5 | mg/Kg | 4 | | 05/30/15 21:56 |
| **Surrogates** | | | | | | | | |
| n-Triacontane-d62 (surr) | 955 | * | 50-150 | | % | 4 | | 05/30/15 21:56 |

**Batch Information**

Analytical Batch: XFC11854
Analytical Method: AK103
Analyst: MCM
Analytical Date/Time: 05/30/15 21:56
Container ID: 1152028019-B

Prep Batch: XXX33109
Prep Method: SW3550C
Prep Date/Time: 05/21/15 22:01
Prep Initial Wt./Vol.: 30.045 g
Prep Extract Vol: 1 mL

Print Date: 06/05/2015 8:36:01AM

J flagging is activated

## Results of **15-PLK2-SO-08-3.0**

Client Sample ID: **15-PLK2-SO-08-3.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028019
Lab Project ID: 1152028

Collection Date: 05/10/15 10:10
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):87.0
Location:

## Results by **Volatile Fuels**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics | 1.85 | U | 3.70 | 1.11 | mg/Kg | 1 | | 05/17/15 22:27 |
| **Surrogates** | | | | | | | | |
| 4-Bromofluorobenzene (surr) | 22.2 | * | 50-150 | | % | 1 | | 05/17/15 22:27 |

## Batch Information

Analytical Batch: VFC12404
Analytical Method: AK101
Analyst: ST
Analytical Date/Time: 05/17/15 22:27
Container ID: 1152028019-A

Prep Batch: VXX27252
Prep Method: SW5035A
Prep Date/Time: 05/10/15 10:10
Prep Initial Wt./Vol.: 48.627 g
Prep Extract Vol: 31.3174 mL



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Results of **15-PLK2-SO-08-3.0**

Client Sample ID: **15-PLK2-SO-08-3.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028019
Lab Project ID: 1152028

Collection Date: 05/10/15 10:10
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):87.0
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 18.5 | U | 37.0 | 11.5 | ug/Kg | 1 | | 05/19/15 14:42 |
| 1,1,1-Trichloroethane | 18.5 | U | 37.0 | 11.5 | ug/Kg | 1 | | 05/19/15 14:42 |
| 1,1,2,2-Tetrachloroethane | 9.25 | U | 18.5 | 5.77 | ug/Kg | 1 | | 05/19/15 14:42 |
| 1,1,2-Trichloroethane | 18.5 | U | 37.0 | 11.5 | ug/Kg | 1 | | 05/19/15 14:42 |
| 1,1-Dichloroethane | 18.5 | U | 37.0 | 11.5 | ug/Kg | 1 | | 05/19/15 14:42 |
| 1,1-Dichloroethene | 18.5 | U | 37.0 | 11.5 | ug/Kg | 1 | | 05/19/15 14:42 |
| 1,1-Dichloropropene | 18.5 | U | 37.0 | 11.5 | ug/Kg | 1 | | 05/19/15 14:42 |
| 1,2,3-Trichlorobenzene | 37.0 | U | 74.0 | 22.2 | ug/Kg | 1 | | 05/19/15 14:42 |
| 1,2,3-Trichloropropane | 18.5 | U | 37.0 | 11.5 | ug/Kg | 1 | | 05/19/15 14:42 |
| 1,2,4-Trichlorobenzene | 18.5 | U | 37.0 | 11.5 | ug/Kg | 1 | | 05/19/15 14:42 |
| 1,2,4-Trimethylbenzene | 37.0 | U | 74.0 | 22.2 | ug/Kg | 1 | | 05/19/15 14:42 |
| 1,2-Dibromo-3-chloropropane | 74.0 | U | 148 | 45.9 | ug/Kg | 1 | | 05/19/15 14:42 |
| 1,2-Dibromoethane | 18.5 | U | 37.0 | 11.5 | ug/Kg | 1 | | 05/19/15 14:42 |
| 1,2-Dichlorobenzene | 18.5 | U | 37.0 | 11.5 | ug/Kg | 1 | | 05/19/15 14:42 |
| 1,2-Dichloroethane | 18.5 | U | 37.0 | 11.5 | ug/Kg | 1 | | 05/19/15 14:42 |
| 1,2-Dichloropropane | 18.5 | U | 37.0 | 11.5 | ug/Kg | 1 | | 05/19/15 14:42 |
| 1,3,5-Trimethylbenzene | 18.5 | U | 37.0 | 11.5 | ug/Kg | 1 | | 05/19/15 14:42 |
| 1,3-Dichlorobenzene | 18.5 | U | 37.0 | 11.5 | ug/Kg | 1 | | 05/19/15 14:42 |
| 1,3-Dichloropropane | 18.5 | U | 37.0 | 11.5 | ug/Kg | 1 | | 05/19/15 14:42 |
| 1,4-Dichlorobenzene | 18.5 | U | 37.0 | 11.5 | ug/Kg | 1 | | 05/19/15 14:42 |
| 2,2-Dichloropropane | 18.5 | U | 37.0 | 11.5 | ug/Kg | 1 | | 05/19/15 14:42 |
| 2-Butanone (MEK) | 185 | U | 370 | 115 | ug/Kg | 1 | | 05/19/15 14:42 |
| 2-Chlorotoluene | 18.5 | U | 37.0 | 11.5 | ug/Kg | 1 | | 05/19/15 14:42 |
| 2-Hexanone | 185 | U | 370 | 115 | ug/Kg | 1 | | 05/19/15 14:42 |
| 4-Chlorotoluene | 18.5 | U | 37.0 | 11.5 | ug/Kg | 1 | | 05/19/15 14:42 |
| 4-Isopropyltoluene | 18.5 | U | 37.0 | 11.5 | ug/Kg | 1 | | 05/19/15 14:42 |
| 4-Methyl-2-pentanone (MIBK) | 185 | U | 370 | 115 | ug/Kg | 1 | | 05/19/15 14:42 |
| Benzene | 9.25 | U | 18.5 | 5.77 | ug/Kg | 1 | | 05/19/15 14:42 |
| Bromobenzene | 18.5 | U | 37.0 | 11.5 | ug/Kg | 1 | | 05/19/15 14:42 |
| Bromochloromethane | 18.5 | U | 37.0 | 11.5 | ug/Kg | 1 | | 05/19/15 14:42 |
| Bromodichloromethane | 18.5 | U | 37.0 | 11.5 | ug/Kg | 1 | | 05/19/15 14:42 |
| Bromoform | 18.5 | U | 37.0 | 11.5 | ug/Kg | 1 | | 05/19/15 14:42 |
| Bromomethane | 148 | U | 296 | 91.8 | ug/Kg | 1 | | 05/19/15 14:42 |
| Carbon disulfide | 74.0 | U | 148 | 45.9 | ug/Kg | 1 | | 05/19/15 14:42 |
| Carbon tetrachloride | 9.25 | U | 18.5 | 5.77 | ug/Kg | 1 | | 05/19/15 14:42 |
| Chlorobenzene | 18.5 | U | 37.0 | 11.5 | ug/Kg | 1 | | 05/19/15 14:42 |
| Chloroethane | 148 | U | 296 | 91.8 | ug/Kg | 1 | | 05/19/15 14:42 |

Print Date: 06/05/2015 8:36:01AM

J flagging is activated

Results of **15-PLK2-SO-08-3.0**

Client Sample ID: **15-PLK2-SO-08-3.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028019
Lab Project ID: 1152028

Collection Date: 05/10/15 10:10
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):87.0
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Chloroform | 18.5 | U | 37.0 | 11.5 | ug/Kg | 1 | | 05/19/15 14:42 |
| Chloromethane | 18.5 | U | 37.0 | 11.5 | ug/Kg | 1 | | 05/19/15 14:42 |
| cis-1,2-Dichloroethene | 18.5 | U | 37.0 | 11.5 | ug/Kg | 1 | | 05/19/15 14:42 |
| cis-1,3-Dichloropropene | 18.5 | U | 37.0 | 11.5 | ug/Kg | 1 | | 05/19/15 14:42 |
| Dibromochloromethane | 18.5 | U | 37.0 | 11.5 | ug/Kg | 1 | | 05/19/15 14:42 |
| Dibromomethane | 18.5 | U | 37.0 | 11.5 | ug/Kg | 1 | | 05/19/15 14:42 |
| Dichlorodifluoromethane | 37.0 | U | 74.0 | 22.2 | ug/Kg | 1 | | 05/19/15 14:42 |
| Ethylbenzene | 18.5 | U | 37.0 | 11.5 | ug/Kg | 1 | | 05/19/15 14:42 |
| Hexachlorobutadiene | 37.0 | U | 74.0 | 22.2 | ug/Kg | 1 | | 05/19/15 14:42 |
| Isopropylbenzene (Cumene) | 18.5 | U | 37.0 | 11.5 | ug/Kg | 1 | | 05/19/15 14:42 |
| Methylene chloride | 74.0 | U | 148 | 45.9 | ug/Kg | 1 | | 05/19/15 14:42 |
| Methyl-t-butyl ether | 74.0 | U | 148 | 45.9 | ug/Kg | 1 | | 05/19/15 14:42 |
| Naphthalene | 37.0 | U | 74.0 | 22.2 | ug/Kg | 1 | | 05/19/15 14:42 |
| n-Butylbenzene | 18.5 | U | 37.0 | 11.5 | ug/Kg | 1 | | 05/19/15 14:42 |
| n-Propylbenzene | 18.5 | U | 37.0 | 11.5 | ug/Kg | 1 | | 05/19/15 14:42 |
| o-Xylene | 18.5 | U | 37.0 | 11.5 | ug/Kg | 1 | | 05/19/15 14:42 |
| P & M -Xylene | 37.0 | U | 74.0 | 22.2 | ug/Kg | 1 | | 05/19/15 14:42 |
| sec-Butylbenzene | 18.5 | U | 37.0 | 11.5 | ug/Kg | 1 | | 05/19/15 14:42 |
| Styrene | 18.5 | U | 37.0 | 11.5 | ug/Kg | 1 | | 05/19/15 14:42 |
| tert-Butylbenzene | 18.5 | U | 37.0 | 11.5 | ug/Kg | 1 | | 05/19/15 14:42 |
| Tetrachloroethene | 9.25 | U | 18.5 | 5.77 | ug/Kg | 1 | | 05/19/15 14:42 |
| Toluene | 18.5 | U | 37.0 | 11.5 | ug/Kg | 1 | | 05/19/15 14:42 |
| trans-1,2-Dichloroethene | 18.5 | U | 37.0 | 11.5 | ug/Kg | 1 | | 05/19/15 14:42 |
| trans-1,3-Dichloropropene | 18.5 | U | 37.0 | 11.5 | ug/Kg | 1 | | 05/19/15 14:42 |
| Trichloroethene | 9.25 | U | 18.5 | 5.77 | ug/Kg | 1 | | 05/19/15 14:42 |
| Trichlorofluoromethane | 37.0 | U | 74.0 | 22.2 | ug/Kg | 1 | | 05/19/15 14:42 |
| Vinyl chloride | 18.5 | U | 37.0 | 11.5 | ug/Kg | 1 | | 05/19/15 14:42 |
| Xylenes (total) | 55.5 | U | 111 | 33.8 | ug/Kg | 1 | | 05/19/15 14:42 |
| **Surrogates** | | | | | | | | |
| 1,2-Dichloroethane-D4 (surr) | 123 | * | 79-118 | | % | 1 | | 05/19/15 14:42 |
| 4-Bromofluorobenzene (surr) | 63.3 | * | 67-138 | | % | 1 | | 05/19/15 14:42 |
| Toluene-d8 (surr) | 111 | | 85-115 | | % | 1 | | 05/19/15 14:42 |

Results of **15-PLK2-SO-08-3.0**

Client Sample ID: **15-PLK2-SO-08-3.0**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028019
Lab Project ID: 1152028

Collection Date: 05/10/15 10:10
Received Date: 05/13/15 08:20
Matrix: Soil/Solid (dry weight)
Solids (%):87.0
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

**Batch Information**

Analytical Batch: VMS14924
Analytical Method: SW8260B
Analyst: SP
Analytical Date/Time: 05/19/15 14:42
Container ID: 1152028019-A

Prep Batch: VXX27267
Prep Method: SW5035A
Prep Date/Time: 05/10/15 10:10
Prep Initial Wt./Vol.: 48.627 g
Prep Extract Vol: 31.3174 mL

## Results of **15-PLK2-TB-01**

Client Sample ID: **15-PLK2-TB-01**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028020
Lab Project ID: 1152028

Collection Date: 05/10/15 08:00
Received Date: 05/13/15 08:20
Matrix: Solid/Soil (Wet Weight)
Solids (%):
Location:

## Results by **Volatile Fuels**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Gasoline Range Organics | 1.27 | U | 2.54 | 0.761 | mg/Kg | 1 | | 05/17/15 22:08 |
| **Surrogates** | | | | | | | | |
| 4-Bromofluorobenzene (surr) | 88.3 | | 50-150 | | % | 1 | | 05/17/15 22:08 |

## Batch Information

Analytical Batch: VFC12404
Analytical Method: AK101
Analyst: ST
Analytical Date/Time: 05/17/15 22:08
Container ID: 1152028020-A

Prep Batch: VXX27252
Prep Method: SW5035A
Prep Date/Time: 05/10/15 08:00
Prep Initial Wt./Vol.: 49.254 g
Prep Extract Vol: 25 mL



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Results of **15-PLK2-TB-01**

Client Sample ID: **15-PLK2-TB-01**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028020
Lab Project ID: 1152028

Collection Date: 05/10/15 08:00
Received Date: 05/13/15 08:20
Matrix: Solid/Soil (Wet Weight)
Solids (%):
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 12.7 | U | 25.4 | 7.92 | ug/Kg | 1 | | 05/19/15 14:58 |
| 1,1,1-Trichloroethane | 12.7 | U | 25.4 | 7.92 | ug/Kg | 1 | | 05/19/15 14:58 |
| 1,1,2,2-Tetrachloroethane | 6.35 | U | 12.7 | 3.96 | ug/Kg | 1 | | 05/19/15 14:58 |
| 1,1,2-Trichloroethane | 12.7 | U | 25.4 | 7.92 | ug/Kg | 1 | | 05/19/15 14:58 |
| 1,1-Dichloroethane | 12.7 | U | 25.4 | 7.92 | ug/Kg | 1 | | 05/19/15 14:58 |
| 1,1-Dichloroethene | 12.7 | U | 25.4 | 7.92 | ug/Kg | 1 | | 05/19/15 14:58 |
| 1,1-Dichloropropene | 12.7 | U | 25.4 | 7.92 | ug/Kg | 1 | | 05/19/15 14:58 |
| 1,2,3-Trichlorobenzene | 25.4 | U | 50.8 | 15.2 | ug/Kg | 1 | | 05/19/15 14:58 |
| 1,2,3-Trichloropropane | 12.7 | U | 25.4 | 7.92 | ug/Kg | 1 | | 05/19/15 14:58 |
| 1,2,4-Trichlorobenzene | 12.7 | U | 25.4 | 7.92 | ug/Kg | 1 | | 05/19/15 14:58 |
| 1,2,4-Trimethylbenzene | 25.4 | U | 50.8 | 15.2 | ug/Kg | 1 | | 05/19/15 14:58 |
| 1,2-Dibromo-3-chloropropane | 51.0 | U | 102 | 31.5 | ug/Kg | 1 | | 05/19/15 14:58 |
| 1,2-Dibromoethane | 12.7 | U | 25.4 | 7.92 | ug/Kg | 1 | | 05/19/15 14:58 |
| 1,2-Dichlorobenzene | 12.7 | U | 25.4 | 7.92 | ug/Kg | 1 | | 05/19/15 14:58 |
| 1,2-Dichloroethane | 12.7 | U | 25.4 | 7.92 | ug/Kg | 1 | | 05/19/15 14:58 |
| 1,2-Dichloropropane | 12.7 | U | 25.4 | 7.92 | ug/Kg | 1 | | 05/19/15 14:58 |
| 1,3,5-Trimethylbenzene | 12.7 | U | 25.4 | 7.92 | ug/Kg | 1 | | 05/19/15 14:58 |
| 1,3-Dichlorobenzene | 12.7 | U | 25.4 | 7.92 | ug/Kg | 1 | | 05/19/15 14:58 |
| 1,3-Dichloropropane | 12.7 | U | 25.4 | 7.92 | ug/Kg | 1 | | 05/19/15 14:58 |
| 1,4-Dichlorobenzene | 12.7 | U | 25.4 | 7.92 | ug/Kg | 1 | | 05/19/15 14:58 |
| 2,2-Dichloropropane | 12.7 | U | 25.4 | 7.92 | ug/Kg | 1 | | 05/19/15 14:58 |
| 2-Butanone (MEK) | 127 | U | 254 | 79.2 | ug/Kg | 1 | | 05/19/15 14:58 |
| 2-Chlorotoluene | 12.7 | U | 25.4 | 7.92 | ug/Kg | 1 | | 05/19/15 14:58 |
| 2-Hexanone | 127 | U | 254 | 79.2 | ug/Kg | 1 | | 05/19/15 14:58 |
| 4-Chlorotoluene | 12.7 | U | 25.4 | 7.92 | ug/Kg | 1 | | 05/19/15 14:58 |
| 4-Isopropyltoluene | 12.7 | U | 25.4 | 7.92 | ug/Kg | 1 | | 05/19/15 14:58 |
| 4-Methyl-2-pentanone (MIBK) | 127 | U | 254 | 79.2 | ug/Kg | 1 | | 05/19/15 14:58 |
| Benzene | 6.35 | U | 12.7 | 3.96 | ug/Kg | 1 | | 05/19/15 14:58 |
| Bromobenzene | 12.7 | U | 25.4 | 7.92 | ug/Kg | 1 | | 05/19/15 14:58 |
| Bromochloromethane | 12.7 | U | 25.4 | 7.92 | ug/Kg | 1 | | 05/19/15 14:58 |
| Bromodichloromethane | 12.7 | U | 25.4 | 7.92 | ug/Kg | 1 | | 05/19/15 14:58 |
| Bromoform | 12.7 | U | 25.4 | 7.92 | ug/Kg | 1 | | 05/19/15 14:58 |
| Bromomethane | 102 | U | 203 | 62.9 | ug/Kg | 1 | | 05/19/15 14:58 |
| Carbon disulfide | 51.0 | U | 102 | 31.5 | ug/Kg | 1 | | 05/19/15 14:58 |
| Carbon tetrachloride | 6.35 | U | 12.7 | 3.96 | ug/Kg | 1 | | 05/19/15 14:58 |
| Chlorobenzene | 12.7 | U | 25.4 | 7.92 | ug/Kg | 1 | | 05/19/15 14:58 |
| Chloroethane | 102 | U | 203 | 62.9 | ug/Kg | 1 | | 05/19/15 14:58 |

Results of **15-PLK2-TB-01**

Client Sample ID: **15-PLK2-TB-01**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028020
Lab Project ID: 1152028

Collection Date: 05/10/15 08:00
Received Date: 05/13/15 08:20
Matrix: Solid/Soil (Wet Weight)
Solids (%):
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

| Parameter | Result | Qual | LOQ/CL | DL | Units | DF | Allowable Limits | Date Analyzed |
|---|---|---|---|---|---|---|---|---|
| Chloroform | 12.7 | U | 25.4 | 7.92 | ug/Kg | 1 | | 05/19/15 14:58 |
| Chloromethane | 9.90 | J | 25.4 | 7.92 | ug/Kg | 1 | | 05/19/15 14:58 |
| cis-1,2-Dichloroethene | 12.7 | U | 25.4 | 7.92 | ug/Kg | 1 | | 05/19/15 14:58 |
| cis-1,3-Dichloropropene | 12.7 | U | 25.4 | 7.92 | ug/Kg | 1 | | 05/19/15 14:58 |
| Dibromochloromethane | 12.7 | U | 25.4 | 7.92 | ug/Kg | 1 | | 05/19/15 14:58 |
| Dibromomethane | 12.7 | U | 25.4 | 7.92 | ug/Kg | 1 | | 05/19/15 14:58 |
| Dichlorodifluoromethane | 25.4 | U | 50.8 | 15.2 | ug/Kg | 1 | | 05/19/15 14:58 |
| Ethylbenzene | 12.7 | U | 25.4 | 7.92 | ug/Kg | 1 | | 05/19/15 14:58 |
| Hexachlorobutadiene | 25.4 | U | 50.8 | 15.2 | ug/Kg | 1 | | 05/19/15 14:58 |
| Isopropylbenzene (Cumene) | 12.7 | U | 25.4 | 7.92 | ug/Kg | 1 | | 05/19/15 14:58 |
| Methylene chloride | 51.0 | U | 102 | 31.5 | ug/Kg | 1 | | 05/19/15 14:58 |
| Methyl-t-butyl ether | 51.0 | U | 102 | 31.5 | ug/Kg | 1 | | 05/19/15 14:58 |
| Naphthalene | 25.4 | U | 50.8 | 15.2 | ug/Kg | 1 | | 05/19/15 14:58 |
| n-Butylbenzene | 12.7 | U | 25.4 | 7.92 | ug/Kg | 1 | | 05/19/15 14:58 |
| n-Propylbenzene | 12.7 | U | 25.4 | 7.92 | ug/Kg | 1 | | 05/19/15 14:58 |
| o-Xylene | 12.7 | U | 25.4 | 7.92 | ug/Kg | 1 | | 05/19/15 14:58 |
| P & M -Xylene | 25.4 | U | 50.8 | 15.2 | ug/Kg | 1 | | 05/19/15 14:58 |
| sec-Butylbenzene | 12.7 | U | 25.4 | 7.92 | ug/Kg | 1 | | 05/19/15 14:58 |
| Styrene | 12.7 | U | 25.4 | 7.92 | ug/Kg | 1 | | 05/19/15 14:58 |
| tert-Butylbenzene | 12.7 | U | 25.4 | 7.92 | ug/Kg | 1 | | 05/19/15 14:58 |
| Tetrachloroethene | 6.35 | U | 12.7 | 3.96 | ug/Kg | 1 | | 05/19/15 14:58 |
| Toluene | 12.7 | U | 25.4 | 7.92 | ug/Kg | 1 | | 05/19/15 14:58 |
| trans-1,2-Dichloroethene | 12.7 | U | 25.4 | 7.92 | ug/Kg | 1 | | 05/19/15 14:58 |
| trans-1,3-Dichloropropene | 12.7 | U | 25.4 | 7.92 | ug/Kg | 1 | | 05/19/15 14:58 |
| Trichloroethene | 6.35 | U | 12.7 | 3.96 | ug/Kg | 1 | | 05/19/15 14:58 |
| Trichlorofluoromethane | 25.4 | U | 50.8 | 15.2 | ug/Kg | 1 | | 05/19/15 14:58 |
| Vinyl chloride | 12.7 | U | 25.4 | 7.92 | ug/Kg | 1 | | 05/19/15 14:58 |
| Xylenes (total) | 38.0 | U | 76.1 | 23.1 | ug/Kg | 1 | | 05/19/15 14:58 |
| **Surrogates** | | | | | | | | |
| 1,2-Dichloroethane-D4 (surr) | 118 | | 79-118 | | % | 1 | | 05/19/15 14:58 |
| 4-Bromofluorobenzene (surr) | 106 | | 67-138 | | % | 1 | | 05/19/15 14:58 |
| Toluene-d8 (surr) | 111 | | 85-115 | | % | 1 | | 05/19/15 14:58 |

Print Date: 06/05/2015 8:36:01AM

J flagging is activated

Results of **15-PLK2-TB-01**

Client Sample ID: **15-PLK2-TB-01**
Client Project ID: **4409-Point Lay Kali School Ph2**
Lab Sample ID: 1152028020
Lab Project ID: 1152028

Collection Date: 05/10/15 08:00
Received Date: 05/13/15 08:20
Matrix: Solid/Soil (Wet Weight)
Solids (%):
Location:

Results by **Volatile Gas Chromatography/Mass Spectrome**

**Batch Information**

Analytical Batch: VMS14924
Analytical Method: SW8260B
Analyst: SP
Analytical Date/Time: 05/19/15 14:58
Container ID: 1152028020-A

Prep Batch: VXX27267
Prep Method: SW5035A
Prep Date/Time: 05/10/15 08:00
Prep Initial Wt./Vol.: 49.254 g
Prep Extract Vol: 25 mL

## Method Blank

Blank ID: MB for HBN 1708756 [SPT/9592]
Blank Lab ID: 1264553

Matrix: Soil/Solid (dry weight)

QC for Samples:
1152028001, 1152028004, 1152028011, 1152028019

## Results by **SM21 2540G**

| Parameter | Results | LOQ/CL | DL | Units |
|---|---|---|---|---|
| Total Solids | 100 | | | % |

## Batch Information

Analytical Batch: SPT9592
Analytical Method: SM21 2540G
Instrument:
Analyst: A.K
Analytical Date/Time: 5/15/2015 8:03:00PM



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## Duplicate Sample Summary

Original Sample ID: 1151960001
Duplicate Sample ID: 1264557
QC for Samples:

Analysis Date: 05/15/2015 20:03
Matrix: Soil/Solid (dry weight)

## Results by **SM21 2540G**

| NAME | Original | Duplicate | Units | RPD (%) | RPD CL |
|---|---|---|---|---|---|
| Total Solids | 93.5 | 92.9 | % | 0.60 | (< 5 ) |

## Batch Information

Analytical Batch: SPT9592
Analytical Method: SM21 2540G
Instrument:
Analyst: A.K

Print Date: 06/05/2015 8:36:07AM

## Duplicate Sample Summary

Original Sample ID: 1151960031
Duplicate Sample ID: 1264558
QC for Samples:
1152028001, 1152028004, 1152028011, 1152028019

Analysis Date: 05/15/2015 20:03
Matrix: Soil/Solid (dry weight)

## Results by **SM21 2540G**

| NAME | Original | Duplicate | Units | RPD (%) | RPD CL |
|---|---|---|---|---|---|
| Total Solids | 91.0 | 90.9 | % | 0.02 | (< 5 ) |

## Batch Information

Analytical Batch: SPT9592
Analytical Method: SM21 2540G
Instrument:
Analyst: A.K

Print Date: 06/05/2015 8:36:07AM

## Method Blank

Blank ID: MB for HBN 1709083 [SPT/9597]
Blank Lab ID: 1265270

Matrix: Soil/Solid (dry weight)

QC for Samples:
1152028002, 1152028003, 1152028005, 1152028006, 1152028007, 1152028008, 1152028009, 1152028010, 1152028012, 1152028013

## Results by **SM21 2540G**

| Parameter | Results | LOQ/CL | DL | Units |
|---|---|---|---|---|
| Total Solids | 100 | | | % |

## Batch Information

Analytical Batch: SPT9597
Analytical Method: SM21 2540G
Instrument:
Analyst: A.K
Analytical Date/Time: 5/20/2015 1:23:00AM



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## Duplicate Sample Summary

Original Sample ID: 1152028007
Duplicate Sample ID: 1265271

Analysis Date: 05/20/2015 01:23
Matrix: Soil/Solid (dry weight)

QC for Samples:

1152028002, 1152028003, 1152028005, 1152028006, 1152028007, 1152028008, 1152028009, 1152028010, 1152028012, 1152028013

## Results by **SM21 2540G**

| NAME | Original | Duplicate | Units | RPD (%) | RPD CL |
|---|---|---|---|---|---|
| Total Solids | 94.6 | 94.0 | % | 0.62 | (< 5 ) |

## Batch Information

Analytical Batch: SPT9597
Analytical Method: SM21 2540G
Instrument:
Analyst: A.K

Print Date: 06/05/2015 8:36:10AM

## Method Blank

Blank ID: MB for HBN 1709181 [SPT/9600]
Blank Lab ID: 1265663

Matrix: Soil/Solid (dry weight)

QC for Samples:
1152028014, 1152028015, 1152028016

## Results by **SM21 2540G**

| Parameter | Results | LOQ/CL | DL | Units |
|---|---|---|---|---|
| Total Solids | 100 | | | % |

## Batch Information

Analytical Batch: SPT9600
Analytical Method: SM21 2540G
Instrument:
Analyst: A.K
Analytical Date/Time: 5/20/2015 8:40:00PM



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## Duplicate Sample Summary

Original Sample ID: 1152028016
Duplicate Sample ID: 1265664
QC for Samples:
1152028014, 1152028015, 1152028016

Analysis Date: 05/20/2015 20:40
Matrix: Soil/Solid (dry weight)

## Results by **SM21 2540G**

| NAME | Original | Duplicate | Units | RPD (%) | RPD CL |
|---|---|---|---|---|---|
| Total Solids | 82.9 | 83.0 | % | 0.20 | (< 5 ) |

## Batch Information

Analytical Batch: SPT9600
Analytical Method: SM21 2540G
Instrument:
Analyst: A.K

Print Date: 06/05/2015 8:36:13AM

## Method Blank

Blank ID: MB for HBN 1708852 [VXX/27235]
Blank Lab ID: 1264570

Matrix: Soil/Solid (dry weight)

QC for Samples:
1152028016

Results by **SW8260B**

| Parameter | Results | LOQ/CL | DL | Units |
|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,1,1-Trichloroethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,1,2,2-Tetrachloroethane | 6.25U | 12.5 | 3.90 | ug/Kg |
| 1,1,2-Trichloroethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,1-Dichloroethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,1-Dichloroethene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,1-Dichloropropene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,2,3-Trichlorobenzene | 25.0U | 50.0 | 15.0 | ug/Kg |
| 1,2,3-Trichloropropane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,2,4-Trichlorobenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,2,4-Trimethylbenzene | 25.0U | 50.0 | 15.0 | ug/Kg |
| 1,2-Dibromo-3-chloropropane | 50.0U | 100 | 31.0 | ug/Kg |
| 1,2-Dibromoethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,2-Dichlorobenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,2-Dichloroethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,2-Dichloropropane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,3,5-Trimethylbenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,3-Dichlorobenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,3-Dichloropropane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,4-Dichlorobenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 2,2-Dichloropropane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 2-Butanone (MEK) | 125U | 250 | 78.0 | ug/Kg |
| 2-Chlorotoluene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 2-Hexanone | 125U | 250 | 78.0 | ug/Kg |
| 4-Chlorotoluene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 4-Isopropyltoluene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 4-Methyl-2-pentanone (MIBK) | 125U | 250 | 78.0 | ug/Kg |
| Benzene | 6.25U | 12.5 | 3.90 | ug/Kg |
| Bromobenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| Bromochloromethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| Bromodichloromethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| Bromoform | 12.5U | 25.0 | 7.80 | ug/Kg |
| Bromomethane | 100U | 200 | 62.0 | ug/Kg |
| Carbon disulfide | 50.0U | 100 | 31.0 | ug/Kg |
| Carbon tetrachloride | 6.25U | 12.5 | 3.90 | ug/Kg |
| Chlorobenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| Chloroethane | 100U | 200 | 62.0 | ug/Kg |
| Chloroform | 12.5U | 25.0 | 7.80 | ug/Kg |

## Method Blank

Blank ID: MB for HBN 1708852 [VXX/27235]
Blank Lab ID: 1264570

Matrix: Soil/Solid (dry weight)

QC for Samples:
1152028016

Results by **SW8260B**

| Parameter | Results | LOQ/CL | DL | Units |
|---|---|---|---|---|
| Chloromethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| cis-1,2-Dichloroethene | 12.5U | 25.0 | 7.80 | ug/Kg |
| cis-1,3-Dichloropropene | 12.5U | 25.0 | 7.80 | ug/Kg |
| Dibromochloromethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| Dibromomethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| Dichlorodifluoromethane | 25.0U | 50.0 | 15.0 | ug/Kg |
| Ethylbenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| Hexachlorobutadiene | 25.0U | 50.0 | 15.0 | ug/Kg |
| Isopropylbenzene (Cumene) | 12.5U | 25.0 | 7.80 | ug/Kg |
| Methylene chloride | 50.0U | 100 | 31.0 | ug/Kg |
| Methyl-t-butyl ether | 50.0U | 100 | 31.0 | ug/Kg |
| Naphthalene | 25.0U | 50.0 | 15.0 | ug/Kg |
| n-Butylbenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| n-Propylbenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| o-Xylene | 12.5U | 25.0 | 7.80 | ug/Kg |
| P & M -Xylene | 25.0U | 50.0 | 15.0 | ug/Kg |
| sec-Butylbenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| Styrene | 12.5U | 25.0 | 7.80 | ug/Kg |
| tert-Butylbenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| Tetrachloroethene | 6.25U | 12.5 | 3.90 | ug/Kg |
| Toluene | 12.5U | 25.0 | 7.80 | ug/Kg |
| trans-1,2-Dichloroethene | 12.5U | 25.0 | 7.80 | ug/Kg |
| trans-1,3-Dichloropropene | 12.5U | 25.0 | 7.80 | ug/Kg |
| Trichloroethene | 6.25U | 12.5 | 3.90 | ug/Kg |
| Trichlorofluoromethane | 25.0U | 50.0 | 15.0 | ug/Kg |
| Vinyl chloride | 12.5U | 25.0 | 7.80 | ug/Kg |
| Xylenes (total) | 37.5U | 75.0 | 22.8 | ug/Kg |
| **Surrogates** | | | | |
| 1,2-Dichloroethane-D4 (surr) | 118 | 79-118 | | % |
| 4-Bromofluorobenzene (surr) | 107 | 67-138 | | % |
| Toluene-d8 (surr) | 107 | 85-115 | | % |

## Method Blank

Blank ID: MB for HBN 1708852 [VXX/27235]
Blank Lab ID: 1264570

Matrix: Soil/Solid (dry weight)

QC for Samples:
1152028016

Results by **SW8260B**

| Parameter | Results | LOQ/CL | DL | Units |
|---|---|---|---|---|

### Batch Information

Analytical Batch: VMS14929
Analytical Method: SW8260B
Instrument: Agilent 7890-75MS
Analyst: SCL
Analytical Date/Time: 5/16/2015 9:47:00PM

Prep Batch: VXX27235
Prep Method: SW5035A
Prep Date/Time: 5/16/2015 12:00:00AM
Prep Initial Wt./Vol.: 50 g
Prep Extract Vol: 25 mL



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## Blank Spike Summary

Blank Spike ID: LCS for HBN 1152028 [VXX27235]
Blank Spike Lab ID: 1264571
Date Analyzed: 05/16/2015 22:13

Matrix: Soil/Solid (dry weight)

QC for Samples: 1152028016

## Results by **SW8260B**

Blank Spike (ug/Kg)

| Parameter | Spike | Result | Rec (%) | CL |
|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 750 | 716 | 95 | ( 75-125 ) |
| 1,1,1-Trichloroethane | 750 | 783 | 104 | ( 70-135 ) |
| 1,1,2,2-Tetrachloroethane | 750 | 796 | 106 | ( 55-130 ) |
| 1,1,2-Trichloroethane | 750 | 736 | 98 | ( 60-125 ) |
| 1,1-Dichloroethane | 750 | 761 | 101 | ( 75-125 ) |
| 1,1-Dichloroethene | 750 | 826 | 110 | ( 65-135 ) |
| 1,1-Dichloropropene | 750 | 790 | 105 | ( 70-135 ) |
| 1,2,3-Trichlorobenzene | 750 | 733 | 98 | ( 60-135 ) |
| 1,2,3-Trichloropropane | 750 | 824 | 110 | ( 65-130 ) |
| 1,2,4-Trichlorobenzene | 750 | 759 | 101 | ( 65-130 ) |
| 1,2,4-Trimethylbenzene | 750 | 815 | 109 | ( 65-135 ) |
| 1,2-Dibromo-3-chloropropane | 750 | 740 | 99 | ( 40-135 ) |
| 1,2-Dibromoethane | 750 | 733 | 98 | ( 70-125 ) |
| 1,2-Dichlorobenzene | 750 | 802 | 107 | ( 75-120 ) |
| 1,2-Dichloroethane | 750 | 794 | 106 | ( 70-135 ) |
| 1,2-Dichloropropane | 750 | 797 | 106 | ( 70-120 ) |
| 1,3,5-Trimethylbenzene | 750 | 815 | 109 | ( 65-135 ) |
| 1,3-Dichlorobenzene | 750 | 792 | 106 | ( 70-125 ) |
| 1,3-Dichloropropane | 750 | 729 | 97 | ( 75-125 ) |
| 1,4-Dichlorobenzene | 750 | 804 | 107 | ( 70-125 ) |
| 2,2-Dichloropropane | 750 | 780 | 104 | ( 65-135 ) |
| 2-Butanone (MEK) | 2250 | 2310 | 103 | ( 30-160 ) |
| 2-Chlorotoluene | 750 | 815 | 109 | ( 70-130 ) |
| 2-Hexanone | 2250 | 2390 | 106 | ( 45-145 ) |
| 4-Chlorotoluene | 750 | 812 | 108 | ( 75-125 ) |
| 4-Isopropyltoluene | 750 | 820 | 109 | ( 75-135 ) |
| 4-Methyl-2-pentanone (MIBK) | 2250 | 2310 | 103 | ( 45-145 ) |
| Benzene | 750 | 805 | 107 | ( 75-125 ) |
| Bromobenzene | 750 | 821 | 109 | ( 65-120 ) |
| Bromochloromethane | 750 | 800 | 107 | ( 70-125 ) |
| Bromodichloromethane | 750 | 785 | 105 | ( 70-130 ) |
| Bromoform | 750 | 677 | 90 | ( 55-135 ) |
| Bromomethane | 750 | 790 | 105 | ( 30-160 ) |
| Carbon disulfide | 1130 | 1180 | 105 | ( 45-160 ) |

## Blank Spike Summary

Blank Spike ID: LCS for HBN 1152028 [VXX27235]
Blank Spike Lab ID: 1264571
Date Analyzed: 05/16/2015 22:13

Matrix: Soil/Solid (dry weight)

QC for Samples: 1152028016

## Results by **SW8260B**

Blank Spike (ug/Kg)

| Parameter | Spike | Result | Rec (%) | CL |
|---|---|---|---|---|
| Carbon tetrachloride | 750 | 765 | 102 | ( 65-135 ) |
| Chlorobenzene | 750 | 816 | 109 | ( 75-125 ) |
| Chloroethane | 750 | 1100 | 147 | ( 40-155 ) |
| Chloroform | 750 | 773 | 103 | ( 70-125 ) |
| Chloromethane | 750 | 746 | 99 | ( 50-130 ) |
| cis-1,2-Dichloroethene | 750 | 774 | 103 | ( 65-125 ) |
| cis-1,3-Dichloropropene | 750 | 779 | 104 | ( 70-125 ) |
| Dibromochloromethane | 750 | 693 | 92 | ( 65-130 ) |
| Dibromomethane | 750 | 775 | 103 | ( 75-130 ) |
| Dichlorodifluoromethane | 750 | 834 | 111 | ( 35-135 ) |
| Ethylbenzene | 750 | 804 | 107 | ( 75-125 ) |
| Hexachlorobutadiene | 750 | 855 | 114 | ( 55-140 ) |
| Isopropylbenzene (Cumene) | 750 | 807 | 108 | ( 75-130 ) |
| Methylene chloride | 750 | 736 | 98 | ( 55-140 ) |
| Methyl-t-butyl ether | 1130 | 1200 | 106 | ( 63-149 ) |
| Naphthalene | 750 | 733 | 98 | ( 40-125 ) |
| n-Butylbenzene | 750 | 844 | 113 | ( 65-140 ) |
| n-Propylbenzene | 750 | 823 | 110 | ( 65-135 ) |
| o-Xylene | 750 | 799 | 107 | ( 75-125 ) |
| P & M -Xylene | 1500 | 1590 | 106 | ( 80-125 ) |
| sec-Butylbenzene | 750 | 826 | 110 | ( 65-130 ) |
| Styrene | 750 | 816 | 109 | ( 75-125 ) |
| tert-Butylbenzene | 750 | 812 | 108 | ( 65-130 ) |
| Tetrachloroethene | 750 | 710 | 95 | ( 65-140 ) |
| Toluene | 750 | 701 | 93 | ( 70-125 ) |
| trans-1,2-Dichloroethene | 750 | 787 | 105 | ( 65-135 ) |
| trans-1,3-Dichloropropene | 750 | 702 | 94 | ( 65-125 ) |
| Trichloroethene | 750 | 800 | 107 | ( 75-125 ) |
| Trichlorofluoromethane | 750 | 1260 | 168 | ( 25-185 ) |
| Vinyl chloride | 750 | 772 | 103 | ( 60-125 ) |
| Xylenes (total) | 2250 | 2390 | 106 | ( 80-125 ) |
| **Surrogates** | | | | |
| 1,2-Dichloroethane-D4 (surr) | 750 | 103 | 103 | ( 79-118 ) |

## Blank Spike Summary

Blank Spike ID: LCS for HBN 1152028 [VXX27235]
Blank Spike Lab ID: 1264571
Date Analyzed: 05/16/2015 22:13

Matrix: Soil/Solid (dry weight)

QC for Samples: 1152028016

## Results by **SW8260B**

| | | Blank Spike (%) | | |
|---|---|---|---|---|
| Parameter | Spike | Result | Rec (%) | CL |
| 4-Bromofluorobenzene (surr) | 750 | 99.1 | 99 | ( 67-138 ) |
| Toluene-d8 (surr) | 750 | 108 | 108 | ( 85-115 ) |

## Batch Information

Analytical Batch: **VMS14929**
Analytical Method: **SW8260B**
Instrument: **Agilent 7890-75MS**
Analyst: **SCL**

Prep Batch: **VXX27235**
Prep Method: **SW5035A**
Prep Date/Time: **05/16/2015 00:00**
Spike Init Wt./Vol.: 750 ug/Kg Extract Vol: 25 mL
Dupe Init Wt./Vol.: Extract Vol:



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## Matrix Spike Summary

Original Sample ID: 1268061
MS Sample ID: 1268081 MS
MSD Sample ID: 1268082 MSD

Analysis Date: 05/17/2015 0:22
Analysis Date: 05/16/2015 23:34
Analysis Date: 05/16/2015 23:50
Matrix: Solid/Soil (Wet Weight)

QC for Samples: 1152028016

## Results by **SW8260B**

| | | Matrix Spike (ug/Kg) | | | Spike Duplicate (ug/Kg) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Parameter | Sample | Spike | Result | Rec (%) | Spike | Result | Rec (%) | CL | RPD (%) | RPD CL |
| 1,1,1,2-Tetrachloroethane | 12.7U | 758 | 731 | 97 | 758 | 758 | 100 | 75-125 | 3.60 | (< 20 ) |
| 1,1,1-Trichloroethane | 12.7U | 758 | 848 | 112 | 758 | 821 | 108 | 70-135 | 3.30 | (< 20 ) |
| 1,1,2,2-Tetrachloroethane | 6.30U | 758 | 830 | 110 | 758 | 851 | 112 | 55-130 | 2.50 | (< 20 ) |
| 1,1,2-Trichloroethane | 12.7U | 758 | 770 | 102 | 758 | 782 | 103 | 60-125 | 1.60 | (< 20 ) |
| 1,1-Dichloroethane | 12.7U | 758 | 825 | 109 | 758 | 796 | 105 | 75-125 | 3.60 | (< 20 ) |
| 1,1-Dichloroethene | 12.7U | 758 | 899 | 119 | 758 | 858 | 113 | 65-135 | 4.60 | (< 20 ) |
| 1,1-Dichloropropene | 12.7U | 758 | 863 | 114 | 758 | 834 | 110 | 70-135 | 3.30 | (< 20 ) |
| 1,2,3-Trichlorobenzene | 25.3U | 758 | 775 | 102 | 758 | 815 | 108 | 60-135 | 5.00 | (< 20 ) |
| 1,2,3-Trichloropropane | 12.7U | 758 | 860 | 113 | 758 | 882 | 116 | 65-130 | 2.60 | (< 20 ) |
| 1,2,4-Trichlorobenzene | 12.7U | 758 | 785 | 104 | 758 | 810 | 107 | 65-130 | 3.10 | (< 20 ) |
| 1,2,4-Trimethylbenzene | 17.7J | 758 | 864 | 112 | 758 | 882 | 114 | 65-135 | 2.10 | (< 20 ) |
| 1,2-Dibromo-3-chloropropane | 50.5U | 758 | 788 | 104 | 758 | 820 | 108 | 40-135 | 4.00 | (< 20 ) |
| 1,2-Dibromoethane | 12.7U | 758 | 764 | 101 | 758 | 775 | 102 | 70-125 | 1.40 | (< 20 ) |
| 1,2-Dichlorobenzene | 12.7U | 758 | 838 | 111 | 758 | 854 | 113 | 75-120 | 1.90 | (< 20 ) |
| 1,2-Dichloroethane | 12.7U | 758 | 859 | 113 | 758 | 844 | 111 | 70-135 | 1.80 | (< 20 ) |
| 1,2-Dichloropropane | 12.7U | 758 | 861 | 114 | 758 | 846 | 112 | 70-120 | 1.70 | (< 20 ) |
| 1,3,5-Trimethylbenzene | 12.7U | 758 | 852 | 112 | 758 | 865 | 114 | 65-135 | 1.60 | (< 20 ) |
| 1,3-Dichlorobenzene | 12.7U | 758 | 834 | 110 | 758 | 842 | 111 | 70-125 | 0.87 | (< 20 ) |
| 1,3-Dichloropropane | 12.7U | 758 | 764 | 101 | 758 | 773 | 102 | 75-125 | 1.10 | (< 20 ) |
| 1,4-Dichlorobenzene | 12.7U | 758 | 840 | 111 | 758 | 860 | 113 | 70-125 | 2.40 | (< 20 ) |
| 2,2-Dichloropropane | 12.7U | 758 | 838 | 111 | 758 | 809 | 107 | 65-135 | 3.60 | (< 20 ) |
| 2-Butanone (MEK) | 127U | 2270 | 2500 | 110 | 2270 | 2540 | 112 | 30-160 | 1.80 | (< 20 ) |
| 2-Chlorotoluene | 12.7U | 758 | 852 | 112 | 758 | 870 | 115 | 70-130 | 2.10 | (< 20 ) |
| 2-Hexanone | 127U | 2270 | 2560 | 113 | 2270 | 2620 | 115 | 45-145 | 2.10 | (< 20 ) |
| 4-Chlorotoluene | 12.7U | 758 | 848 | 112 | 758 | 852 | 112 | 75-125 | 0.53 | (< 20 ) |
| 4-Isopropyltoluene | 12.7U | 758 | 857 | 113 | 758 | 860 | 114 | 75-135 | 0.32 | (< 20 ) |
| 4-Methyl-2-pentanone (MIBK) | 127U | 2270 | 2480 | 109 | 2270 | 2510 | 110 | 45-145 | 1.10 | (< 20 ) |
| Benzene | 6.30U | 758 | 861 | 114 | 758 | 834 | 110 | 75-125 | 3.20 | (< 20 ) |
| Bromobenzene | 12.7U | 758 | 851 | 112 | 758 | 866 | 114 | 65-120 | 1.70 | (< 20 ) |
| Bromochloromethane | 12.7U | 758 | 834 | 110 | 758 | 817 | 108 | 70-125 | 2.10 | (< 20 ) |
| Bromodichloromethane | 12.7U | 758 | 844 | 111 | 758 | 831 | 110 | 70-130 | 1.50 | (< 20 ) |
| Bromoform | 12.7U | 758 | 693 | 91 | 758 | 716 | 95 | 55-135 | 3.40 | (< 20 ) |
| Bromomethane | 101U | 758 | 811 | 107 | 758 | 774 | 102 | 30-160 | 4.60 | (< 20 ) |
| Carbon disulfide | 50.5U | 1140 | 1270 | 112 | 1140 | 1220 | 107 | 45-160 | 4.50 | (< 20 ) |
| Carbon tetrachloride | 6.30U | 758 | 821 | 108 | 758 | 800 | 106 | 65-135 | 2.60 | (< 20 ) |
| Chlorobenzene | 12.7U | 758 | 866 | 114 | 758 | 874 | 115 | 75-125 | 1.00 | (< 20 ) |
| Chloroethane | 101U | 758 | 937 | 124 | 758 | 810 | 107 | 40-155 | 14.50 | (< 20 ) |

Print Date: 06/05/2015 8:36:19AM

## Matrix Spike Summary

Original Sample ID: 1268061
MS Sample ID: 1268081 MS
MSD Sample ID: 1268082 MSD

Analysis Date: 05/17/2015 0:22
Analysis Date: 05/16/2015 23:34
Analysis Date: 05/16/2015 23:50
Matrix: Solid/Soil (Wet Weight)

QC for Samples: 1152028016

## Results by **SW8260B**

| | | Matrix Spike (ug/Kg) | | | Spike Duplicate (ug/Kg) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Parameter | Sample | Spike | Result | Rec (%) | Spike | Result | Rec (%) | CL | RPD (%) | RPD CL |
| Chloroform | 12.7U | 758 | 834 | 110 | 758 | 814 | 107 | 70-125 | 2.50 | (< 20 ) |
| Chloromethane | 12.7U | 758 | 753 | 99 | 758 | 723 | 95 | 50-130 | 4.00 | (< 20 ) |
| cis-1,2-Dichloroethene | 12.7U | 758 | 854 | 113 | 758 | 822 | 109 | 65-125 | 3.80 | (< 20 ) |
| cis-1,3-Dichloropropene | 12.7U | 758 | 841 | 111 | 758 | 831 | 110 | 70-125 | 1.20 | (< 20 ) |
| Dibromochloromethane | 12.7U | 758 | 723 | 95 | 758 | 733 | 97 | 65-130 | 1.30 | (< 20 ) |
| Dibromomethane | 12.7U | 758 | 855 | 113 | 758 | 818 | 108 | 75-130 | 4.50 | (< 20 ) |
| Dichlorodifluoromethane | 25.3U | 758 | 872 | 115 | 758 | 823 | 109 | 35-135 | 5.80 | (< 20 ) |
| Ethylbenzene | 12.7U | 758 | 853 | 113 | 758 | 842 | 111 | 75-125 | 1.30 | (< 20 ) |
| Hexachlorobutadiene | 25.3U | 758 | 826 | 109 | 758 | 812 | 107 | 55-140 | 1.70 | (< 20 ) |
| Isopropylbenzene (Cumene) | 12.7U | 758 | 854 | 113 | 758 | 844 | 111 | 75-130 | 1.20 | (< 20 ) |
| Methylene chloride | 50.5U | 758 | 790 | 104 | 758 | 767 | 101 | 55-140 | 2.90 | (< 20 ) |
| Methyl-t-butyl ether | 50.5U | 1140 | 1280 | 113 | 1140 | 1260 | 111 | 63-149 | 1.70 | (< 20 ) |
| Naphthalene | 21.2J | 758 | 796 | 102 | 758 | 845 | 109 | 40-125 | 6.00 | (< 20 ) |
| n-Butylbenzene | 12.7U | 758 | 861 | 114 | 758 | 867 | 114 | 65-140 | 0.70 | (< 20 ) |
| n-Propylbenzene | 12.7U | 758 | 854 | 113 | 758 | 862 | 114 | 65-135 | 0.91 | (< 20 ) |
| o-Xylene | 12.7U | 758 | 851 | 112 | 758 | 846 | 112 | 75-125 | 0.57 | (< 20 ) |
| P & M -Xylene | 25.3U | 1520 | 1710 | 113 | 1520 | 1680 | 111 | 80-125 | 1.70 | (< 20 ) |
| sec-Butylbenzene | 12.7U | 758 | 839 | 111 | 758 | 856 | 113 | 65-130 | 2.00 | (< 20 ) |
| Styrene | 12.7U | 758 | 856 | 113 | 758 | 853 | 113 | 75-125 | 0.33 | (< 20 ) |
| tert-Butylbenzene | 12.7U | 758 | 848 | 112 | 758 | 849 | 112 | 65-130 | 0.15 | (< 20 ) |
| Tetrachloroethene | 6.30U | 758 | 750 | 99 | 758 | 754 | 100 | 65-140 | 0.57 | (< 20 ) |
| Toluene | 17.4J | 758 | 753 | 97 | 758 | 766 | 99 | 70-125 | 1.70 | (< 20 ) |
| trans-1,2-Dichloroethene | 12.7U | 758 | 849 | 112 | 758 | 820 | 108 | 65-135 | 3.40 | (< 20 ) |
| trans-1,3-Dichloropropene | 12.7U | 758 | 736 | 97 | 758 | 742 | 98 | 65-125 | 0.85 | (< 20 ) |
| Trichloroethene | 6.30U | 758 | 871 | 115 | 758 | 849 | 112 | 75-125 | 2.60 | (< 20 ) |
| Trichlorofluoromethane | 25.3U | 758 | 1090 | 144 | 758 | 886 | 117 | 25-185 | 21.10 | * (< 20 ) |
| Vinyl chloride | 12.7U | 758 | 798 | 105 | 758 | 759 | 100 | 60-125 | 4.90 | (< 20 ) |
| Xylenes (total) | 37.9U | 2270 | 2560 | 113 | 2270 | 2530 | 111 | 80-125 | 1.30 | (< 20 ) |
| **Surrogates** | | | | | | | | | | |
| 1,2-Dichloroethane-D4 (surr) | | 758 | 814 | 107 | 758 | 796 | 105 | 79-118 | 2.20 | |
| 4-Bromofluorobenzene (surr) | | 2020 | 1670 | 83 | 2020 | 1680 | 83 | 67-138 | 0.75 | |
| Toluene-d8 (surr) | | 758 | 830 | 110 | 758 | 843 | 111 | 85-115 | 1.50 | |

Print Date: 06/05/2015 8:36:19AM

## Matrix Spike Summary

Original Sample ID: 1268061
MS Sample ID: 1268081 MS
MSD Sample ID: 1268082 MSD

QC for Samples: 1152028016

Analysis Date:
Analysis Date: 05/16/2015 23:34
Analysis Date: 05/16/2015 23:50
Matrix: Solid/Soil (Wet Weight)

Results by **SW8260B**

| | | Matrix Spike (%) | | | Spike Duplicate (%) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Parameter | Sample | Spike | Result | Rec (%) | Spike | Result | Rec (%) | CL | RPD (%) | RPD CL |

### Batch Information

Analytical Batch: VMS14929
Analytical Method: SW8260B
Instrument: Agilent 7890-75MS
Analyst: SCL
Analytical Date/Time: 5/16/2015 11:34:00PM

Prep Batch: VXX27235
Prep Method: Vol. Extraction SW8260 Field Extracted L
Prep Date/Time: 5/16/2015 12:00:00AM
Prep Initial Wt./Vol.: 49.48g
Prep Extract Vol: 25.00mL



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## Billable Matrix Spike Summary

Original Sample ID: 1152028016
MS Sample ID: 1152028017 BMS
MSD Sample ID: 1152028018 BMSD

Analysis Date: 05/17/2015 0:22
Analysis Date: 05/16/2015 23:34
Analysis Date: 05/16/2015 23:50
Matrix: Soil/Solid (dry weight)

QC for Samples:

Results by **SW8260B**

| | | Matrix Spike (ug/Kg) | | | Spike Duplicate (ug/Kg) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Parameter | Sample | Spike | Result | Rec (%) | Spike | Result | Rec (%) | CL | RPD (%) | RPD CL |
| 1,1,1,2-Tetrachloroethane | 20.4U | 1218 | 1181 | 97 | 1218 | 1230 | 100 | 75-125 | 3.60 | (< 20 ) |
| 1,1,1-Trichloroethane | 20.4U | 1218 | 1375 | 112 | 1218 | 1327 | 109 | 70-135 | 3.30 | (< 20 ) |
| 1,1,2,2-Tetrachloroethane | 10.2U | 1218 | 1339 | 110 | 1218 | 1375 | 113 | 55-130 | 2.50 | (< 20 ) |
| 1,1,2-Trichloroethane | 20.4U | 1218 | 1242 | 102 | 1218 | 1267 | 104 | 60-125 | 1.60 | (< 20 ) |
| 1,1-Dichloroethane | 20.4U | 1218 | 1339 | 109 | 1218 | 1291 | 105 | 75-125 | 3.60 | (< 20 ) |
| 1,1-Dichloroethene | 20.4U | 1218 | 1448 | 119 | 1218 | 1387 | 114 | 65-135 | 4.60 | (< 20 ) |
| 1,1-Dichloropropene | 20.4U | 1218 | 1399 | 114 | 1218 | 1351 | 111 | 70-135 | 3.30 | (< 20 ) |
| 1,2,3-Trichlorobenzene | 40.9U | 1218 | 1255 | 103 | 1218 | 1315 | 108 | 60-135 | 5.00 | (< 20 ) |
| 1,2,3-Trichloropropane | 20.4U | 1218 | 1387 | 114 | 1218 | 1423 | 117 | 65-130 | 2.60 | (< 20 ) |
| 1,2,4-Trichlorobenzene | 20.4U | 1218 | 1267 | 104 | 1218 | 1303 | 107 | 65-130 | 3.10 | (< 20 ) |
| 1,2,4-Trimethylbenzene | 28.6J | 1218 | 1399 | 112 | 1218 | 1423 | 115 | 65-135 | 2.10 | (< 20 ) |
| 1,2-Dibromo-3-chloropropane | 81.5U | 1218 | 1279 | 104 | 1218 | 1327 | 109 | 40-135 | 4.00 | (< 20 ) |
| 1,2-Dibromoethane | 20.4U | 1218 | 1230 | 101 | 1218 | 1255 | 103 | 70-125 | 1.40 | (< 20 ) |
| 1,2-Dichlorobenzene | 20.4U | 1218 | 1351 | 111 | 1218 | 1375 | 113 | 75-120 | 1.90 | (< 20 ) |
| 1,2-Dichloroethane | 20.4U | 1218 | 1387 | 114 | 1218 | 1363 | 112 | 70-135 | 1.80 | (< 20 ) |
| 1,2-Dichloropropane | 20.4U | 1218 | 1387 | 114 | 1218 | 1363 | 112 | 70-120 | 1.70 | (< 20 ) |
| 1,3,5-Trimethylbenzene | 20.4U | 1218 | 1375 | 113 | 1218 | 1399 | 115 | 65-135 | 1.60 | (< 20 ) |
| 1,3-Dichlorobenzene | 20.4U | 1218 | 1351 | 111 | 1218 | 1363 | 112 | 70-125 | 0.87 | (< 20 ) |
| 1,3-Dichloropropane | 20.4U | 1218 | 1230 | 101 | 1218 | 1242 | 102 | 75-125 | 1.10 | (< 20 ) |
| 1,4-Dichlorobenzene | 20.4U | 1218 | 1351 | 111 | 1218 | 1387 | 114 | 70-125 | 2.40 | (< 20 ) |
| 2,2-Dichloropropane | 20.4U | 1218 | 1351 | 111 | 1218 | 1303 | 107 | 65-135 | 3.60 | (< 20 ) |
| 2-Butanone (MEK) | 204U | 3655 | 4029 | 110 | 3655 | 4113 | 112 | 30-160 | 1.80 | (< 20 ) |
| 2-Chlorotoluene | 20.4U | 1218 | 1375 | 113 | 1218 | 1399 | 115 | 70-130 | 2.10 | (< 20 ) |
| 2-Hexanone | 204U | 3655 | 4138 | 113 | 3655 | 4222 | 116 | 45-145 | 2.10 | (< 20 ) |
| 4-Chlorotoluene | 20.4U | 1218 | 1375 | 112 | 1218 | 1375 | 113 | 75-125 | 0.53 | (< 20 ) |
| 4-Isopropyltoluene | 20.4U | 1218 | 1387 | 114 | 1218 | 1387 | 114 | 75-135 | 0.32 | (< 20 ) |
| 4-Methyl-2-pentanone (MIBK) | 204U | 3655 | 4005 | 109 | 3655 | 4053 | 111 | 45-145 | 1.10 | (< 20 ) |
| Benzene | 10.2U | 1218 | 1387 | 114 | 1218 | 1351 | 111 | 75-125 | 3.20 | (< 20 ) |
| Bromobenzene | 20.4U | 1218 | 1375 | 113 | 1218 | 1399 | 115 | 65-120 | 1.70 | (< 20 ) |
| Bromochloromethane | 20.4U | 1218 | 1351 | 111 | 1218 | 1315 | 108 | 70-125 | 2.10 | (< 20 ) |
| Bromodichloromethane | 20.4U | 1218 | 1363 | 112 | 1218 | 1339 | 110 | 70-130 | 1.50 | (< 20 ) |
| Bromoform | 20.4U | 1218 | 1119 | 92 | 1218 | 1158 | 95 | 55-135 | 3.40 | (< 20 ) |
| Bromomethane | 164U | 1218 | 1315 | 107 | 1218 | 1255 | 103 | 30-160 | 4.60 | (< 20 ) |
| Carbon disulfide | 81.5U | 1834 | 2051 | 112 | 1834 | 1966 | 107 | 45-160 | 4.50 | (< 20 ) |
| Carbon tetrachloride | 10.2U | 1218 | 1327 | 109 | 1218 | 1291 | 106 | 65-135 | 2.60 | (< 20 ) |
| Chlorobenzene | 20.4U | 1218 | 1399 | 115 | 1218 | 1411 | 116 | 75-125 | 1.00 | (< 20 ) |
| Chloroethane | 164U | 1218 | 1508 | 124 | 1218 | 1315 | 107 | 40-155 | 14.50 | (< 20 ) |

Print Date: 06/05/2015 8:36:19AM

## Billable Matrix Spike Summary

Original Sample ID: 1152028016
MS Sample ID: 1152028017 BMS
MSD Sample ID: 1152028018 BMSD

Analysis Date: 05/17/2015 0:22
Analysis Date: 05/16/2015 23:34
Analysis Date: 05/16/2015 23:50
Matrix: Soil/Solid (dry weight)

QC for Samples:

## Results by **SW8260B**

| | | Matrix Spike (ug/Kg) | | | Spike Duplicate (ug/Kg) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Parameter | Sample | Spike | Result | Rec (%) | Spike | Result | Rec (%) | CL | RPD (%) | RPD CL |
| Chloroform | 20.4U | 1218 | 1351 | 111 | 1218 | 1315 | 108 | 70-125 | 2.50 | (< 20 ) |
| Chloromethane | 20.4U | 1218 | 1218 | 100 | 1218 | 1169 | 96 | 50-130 | 4.00 | (< 20 ) |
| cis-1,2-Dichloroethene | 20.4U | 1218 | 1375 | 113 | 1218 | 1327 | 109 | 65-125 | 3.80 | (< 20 ) |
| cis-1,3-Dichloropropene | 20.4U | 1218 | 1363 | 111 | 1218 | 1339 | 110 | 70-125 | 1.20 | (< 20 ) |
| Dibromochloromethane | 20.4U | 1218 | 1168 | 96 | 1218 | 1183 | 97 | 65-130 | 1.30 | (< 20 ) |
| Dibromomethane | 20.4U | 1218 | 1387 | 113 | 1218 | 1315 | 108 | 75-130 | 4.50 | (< 20 ) |
| Dichlorodifluoromethane | 40.9U | 1218 | 1411 | 116 | 1218 | 1327 | 109 | 35-135 | 5.80 | (< 20 ) |
| Ethylbenzene | 20.4U | 1218 | 1375 | 113 | 1218 | 1363 | 112 | 75-125 | 1.30 | (< 20 ) |
| Hexachlorobutadiene | 40.9U | 1218 | 1339 | 109 | 1218 | 1315 | 108 | 55-140 | 1.70 | (< 20 ) |
| Isopropylbenzene (Cumene) | 20.4U | 1218 | 1375 | 113 | 1218 | 1363 | 112 | 75-130 | 1.20 | (< 20 ) |
| Methylene chloride | 81.5U | 1218 | 1279 | 105 | 1218 | 1242 | 102 | 55-140 | 2.90 | (< 20 ) |
| Methyl-t-butyl ether | 81.5U | 1834 | 2063 | 113 | 1834 | 2039 | 111 | 63-149 | 1.70 | (< 20 ) |
| Naphthalene | 34.3J | 1218 | 1291 | 103 | 1218 | 1363 | 109 | 40-125 | 6.00 | (< 20 ) |
| n-Butylbenzene | 20.4U | 1218 | 1387 | 114 | 1218 | 1399 | 115 | 65-140 | 0.70 | (< 20 ) |
| n-Propylbenzene | 20.4U | 1218 | 1375 | 113 | 1218 | 1387 | 114 | 65-135 | 0.91 | (< 20 ) |
| o-Xylene | 20.4U | 1218 | 1375 | 113 | 1218 | 1363 | 112 | 75-125 | 0.57 | (< 20 ) |
| P & M -Xylene | 40.9U | 2437 | 2762 | 113 | 2437 | 2714 | 111 | 80-125 | 1.70 | (< 20 ) |
| sec-Butylbenzene | 20.4U | 1218 | 1351 | 111 | 1218 | 1387 | 113 | 65-130 | 2.00 | (< 20 ) |
| Styrene | 20.4U | 1218 | 1387 | 113 | 1218 | 1375 | 113 | 75-125 | 0.33 | (< 20 ) |
| tert-Butylbenzene | 20.4U | 1218 | 1375 | 112 | 1218 | 1375 | 112 | 65-130 | 0.15 | (< 20 ) |
| Tetrachloroethene | 10.2U | 1218 | 1206 | 99 | 1218 | 1218 | 100 | 65-140 | 0.57 | (< 20 ) |
| Toluene | 28.2J | 1218 | 1218 | 98 | 1218 | 1242 | 99 | 70-125 | 1.70 | (< 20 ) |
| trans-1,2-Dichloroethene | 20.4U | 1218 | 1375 | 112 | 1218 | 1327 | 109 | 65-135 | 3.40 | (< 20 ) |
| trans-1,3-Dichloropropene | 20.4U | 1218 | 1189 | 98 | 1218 | 1199 | 98 | 65-125 | 0.85 | (< 20 ) |
| Trichloroethene | 10.2U | 1218 | 1411 | 115 | 1218 | 1375 | 112 | 75-125 | 2.60 | (< 20 ) |
| Trichlorofluoromethane | 40.9U | 1218 | 1773 | 145 | 1218 | 1435 | 117 | 25-185 | 21.10 | * (< 20 ) |
| Vinyl chloride | 20.4U | 1218 | 1291 | 106 | 1218 | 1230 | 101 | 60-125 | 4.90 | (< 20 ) |
| Xylenes (total) | 61.0U | 3655 | 4138 | 113 | 3655 | 4077 | 112 | 80-125 | 1.30 | (< 20 ) |
| **Surrogates** | | | | | | | | | | |
| 1,2-Dichloroethane-D4 (surr) | | 1218 | 1315 | 108 | 1218 | 1291 | 106 | 79-118 | 2.20 | |
| 4-Bromofluorobenzene (surr) | | 2738 | 2690 | 98 | 2738 | 2714 | 99 | 67-138 | 0.75 | |
| Toluene-d8 (surr) | | 1218 | 1339 | 110 | 1218 | 1363 | 112 | 85-115 | 1.50 | |

## Billable Matrix Spike Summary

Original Sample ID: 1152028016
MS Sample ID: 1152028017 BMS
MSD Sample ID: 1152028018 BMSD

Analysis Date:
Analysis Date: 05/16/2015 23:34
Analysis Date: 05/16/2015 23:50
Matrix: Soil/Solid (dry weight)

QC for Samples:

## Results by **SW8260B**

| | | Matrix Spike (%) | | | Spike Duplicate (%) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Parameter | Sample | Spike | Result | Rec (%) | Spike | Result | Rec (%) | CL | RPD (%) | RPD CL |

## Batch Information

Analytical Batch: VMS14929
Analytical Method: SW8260B
Instrument: Agilent 7890-75MS
Analyst: SCL
Analytical Date/Time: 5/16/2015 11:34:00PM

Prep Batch: VXX27235
Prep Method: Vol. Extraction SW8260 Field Extracted L
Prep Date/Time: 5/10/2015 10:05:00AM
Prep Initial Wt./Vol.: 49.48g
Prep Extract Vol: 33.48mL



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## Method Blank

Blank ID: MB for HBN 1708984 [VXX/27252]
Blank Lab ID: 1264829

Matrix: Soil/Solid (dry weight)

QC for Samples:
1152028001, 1152028002, 1152028003, 1152028004, 1152028005, 1152028006, 1152028007, 1152028008, 1152028010, 1152028011, 1152028012, 1152028013, 1152028016, 1152028019, 1152028020

## Results by **AK101**

| Parameter | Results | LOQ/CL | DL | Units |
|---|---|---|---|---|
| Gasoline Range Organics | 1.25U | 2.50 | 0.750 | mg/Kg |
| **Surrogates** | | | | |
| 4-Bromofluorobenzene (surr) | 81.7 | 50-150 | | % |

## Batch Information

Analytical Batch: VFC12404
Analytical Method: AK101
Instrument: Agilent 7890 PID/FID
Analyst: ST
Analytical Date/Time: 5/17/2015 12:26:00PM

Prep Batch: VXX27252
Prep Method: SW5035A
Prep Date/Time: 5/17/2015 8:00:00AM
Prep Initial Wt./Vol.: 50 g
Prep Extract Vol: 25 mL



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## Blank Spike Summary

Blank Spike ID: LCS for HBN 1152028 [VXX27252]
Blank Spike Lab ID: 1264830
Date Analyzed: 05/17/2015 12:46

Spike Duplicate ID: LCSD for HBN 1152028 [VXX27252]
Spike Duplicate Lab ID: 1264831
Matrix: Soil/Solid (dry weight)

QC for Samples: 1152028001, 1152028002, 1152028003, 1152028004, 1152028005, 1152028006, 1152028007, 1152028008, 1152028010, 1152028011, 1152028012, 1152028013, 1152028016, 1152028019, 1152028020

## Results by **AK101**

| | Blank Spike (mg/Kg) | | | Spike Duplicate (mg/Kg) | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Parameter | Spike | Result | Rec (%) | Spike | Result | Rec (%) | CL | RPD (%) | RPD CL |
| Gasoline Range Organics | 10.0 | 10.1 | 101 | 10.0 | 10.2 | 102 | ( 60-120 ) | 1.30 | (< 20 ) |
| **Surrogates** | | | | | | | | | |
| 4-Bromofluorobenzene (surr) | 1.25 | 79 | 79 | 1.25 | 78 | 78 | ( 50-150 ) | 1.40 | |

## Batch Information

Analytical Batch: **VFC12404**
Analytical Method: **AK101**
Instrument: **Agilent 7890 PID/FID**
Analyst: **ST**

Prep Batch: **VXX27252**
Prep Method: **SW5035A**
Prep Date/Time: **05/17/2015 08:00**
Spike Init Wt./Vol.: 10.0 mg/Kg Extract Vol: 25 mL
Dupe Init Wt./Vol.: 10.0 mg/Kg Extract Vol: 25 mL



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## Billable Matrix Spike Summary

Original Sample ID: 1152028016
MS Sample ID: 1152028017 BMS
MSD Sample ID: 1152028018 BMSD

Analysis Date: 05/17/2015 19:15
Analysis Date: 05/17/2015 19:34
Analysis Date: 05/17/2015 19:53
Matrix: Soil/Solid (dry weight)

QC for Samples:

## Results by **AK101**

| | | Matrix Spike (mg/Kg) | | | Spike Duplicate (mg/Kg) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Parameter | Sample | Spike | Result | Rec (%) | Spike | Result | Rec (%) | CL | RPD (%) | RPD CL |
| Gasoline Range Organics | 2.04U | 16.3 | 16.3 | 100 | 16.3 | 15.9 | 97 | 60-120 | 2.40 | (< 20 ) |
| **Surrogates** | | | | | | | | | | |
| 4-Bromofluorobenzene (surr) | | 1.52 | 1.24 | 82 | 1.52 | 1.23 | 81 | 50-150 | 1.70 | |

## Batch Information

Analytical Batch: VFC12404
Analytical Method: AK101
Instrument: Agilent 7890 PID/FID
Analyst: ST
Analytical Date/Time: 5/17/2015 7:34:00PM

Prep Batch: VXX27252
Prep Method: AK101 Extraction (S)
Prep Date/Time: 5/10/2015 10:05:00AM
Prep Initial Wt./Vol.: 49.48g
Prep Extract Vol: 33.48mL

Print Date: 06/05/2015 8:36:23AM

## Method Blank

Blank ID: MB for HBN 1709026 [VXX/27257]
Blank Lab ID: 1265014

Matrix: Soil/Solid (dry weight)

QC for Samples:
1152028009, 1152028014, 1152028015

## Results by **AK101**

| Parameter | Results | LOQ/CL | DL | Units |
|---|---|---|---|---|
| Gasoline Range Organics | 1.25U | 2.50 | 0.750 | mg/Kg |
| **Surrogates** | | | | |
| 4-Bromofluorobenzene (surr) | 84.1 | 50-150 | | % |

## Batch Information

Analytical Batch: VFC12405
Analytical Method: AK101
Instrument: Agilent 7890A PID/FID
Analyst: ST
Analytical Date/Time: 5/18/2015 11:14:00AM

Prep Batch: VXX27257
Prep Method: SW5035A
Prep Date/Time: 5/18/2015 8:00:00AM
Prep Initial Wt./Vol.: 50 g
Prep Extract Vol: 25 mL



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## Blank Spike Summary

Blank Spike ID: LCS for HBN 1152028 [VXX27257]
Blank Spike Lab ID: 1265015
Date Analyzed: 05/18/2015 11:33

Spike Duplicate ID: LCSD for HBN 1152028 [VXX27257]
Spike Duplicate Lab ID: 1265016
Matrix: Soil/Solid (dry weight)

QC for Samples: 1152028009, 1152028014, 1152028015

## Results by **AK101**

| | Blank Spike (mg/Kg) | | | Spike Duplicate (mg/Kg) | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Parameter | Spike | Result | Rec (%) | Spike | Result | Rec (%) | CL | RPD (%) | RPD CL |
| Gasoline Range Organics | 10.0 | 9.56 | 96 | 10.0 | 9.73 | 97 | ( 60-120 ) | 1.80 | (< 20 ) |
| **Surrogates** | | | | | | | | | |
| 4-Bromofluorobenzene (surr) | 1.25 | 87.9 | 88 | 1.25 | 86.4 | 86 | ( 50-150 ) | 1.70 | |

## Batch Information

Analytical Batch: **VFC12405**
Analytical Method: **AK101**
Instrument: **Agilent 7890A PID/FID**
Analyst: **ST**

Prep Batch: **VXX27257**
Prep Method: **SW5035A**
Prep Date/Time: **05/18/2015 08:00**
Spike Init Wt./Vol.: 10.0 mg/Kg Extract Vol: 25 mL
Dupe Init Wt./Vol.: 10.0 mg/Kg Extract Vol: 25 mL



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## Method Blank

Blank ID: MB for HBN 1709116 [VXX/27266]
Blank Lab ID: 1265375

Matrix: Soil/Solid (dry weight)

QC for Samples:
1152028004, 1152028005, 1152028006

Results by **SW8260B**

| Parameter | Results | LOQ/CL | DL | Units |
|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,1,1-Trichloroethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,1,2,2-Tetrachloroethane | 6.25U | 12.5 | 3.90 | ug/Kg |
| 1,1,2-Trichloroethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,1-Dichloroethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,1-Dichloroethene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,1-Dichloropropene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,2,3-Trichlorobenzene | 25.0U | 50.0 | 15.0 | ug/Kg |
| 1,2,3-Trichloropropane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,2,4-Trichlorobenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,2,4-Trimethylbenzene | 25.0U | 50.0 | 15.0 | ug/Kg |
| 1,2-Dibromo-3-chloropropane | 50.0U | 100 | 31.0 | ug/Kg |
| 1,2-Dibromoethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,2-Dichlorobenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,2-Dichloroethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,2-Dichloropropane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,3,5-Trimethylbenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,3-Dichlorobenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,3-Dichloropropane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,4-Dichlorobenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 2,2-Dichloropropane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 2-Butanone (MEK) | 125U | 250 | 78.0 | ug/Kg |
| 2-Chlorotoluene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 2-Hexanone | 125U | 250 | 78.0 | ug/Kg |
| 4-Chlorotoluene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 4-Isopropyltoluene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 4-Methyl-2-pentanone (MIBK) | 125U | 250 | 78.0 | ug/Kg |
| Benzene | 6.25U | 12.5 | 3.90 | ug/Kg |
| Bromobenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| Bromochloromethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| Bromodichloromethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| Bromoform | 12.5U | 25.0 | 7.80 | ug/Kg |
| Bromomethane | 100U | 200 | 62.0 | ug/Kg |
| Carbon disulfide | 50.0U | 100 | 31.0 | ug/Kg |
| Carbon tetrachloride | 6.25U | 12.5 | 3.90 | ug/Kg |
| Chlorobenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| Chloroethane | 100U | 200 | 62.0 | ug/Kg |
| Chloroform | 12.5U | 25.0 | 7.80 | ug/Kg |

## Method Blank

Blank ID: MB for HBN 1709116 [VXX/27266]
Blank Lab ID: 1265375

Matrix: Soil/Solid (dry weight)

QC for Samples:
1152028004, 1152028005, 1152028006

Results by **SW8260B**

| Parameter | Results | LOQ/CL | DL | Units |
|---|---|---|---|---|
| Chloromethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| cis-1,2-Dichloroethene | 12.5U | 25.0 | 7.80 | ug/Kg |
| cis-1,3-Dichloropropene | 12.5U | 25.0 | 7.80 | ug/Kg |
| Dibromochloromethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| Dibromomethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| Dichlorodifluoromethane | 25.0U | 50.0 | 15.0 | ug/Kg |
| Ethylbenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| Hexachlorobutadiene | 25.0U | 50.0 | 15.0 | ug/Kg |
| Isopropylbenzene (Cumene) | 12.5U | 25.0 | 7.80 | ug/Kg |
| Methylene chloride | 50.0U | 100 | 31.0 | ug/Kg |
| Methyl-t-butyl ether | 50.0U | 100 | 31.0 | ug/Kg |
| Naphthalene | 25.0U | 50.0 | 15.0 | ug/Kg |
| n-Butylbenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| n-Propylbenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| o-Xylene | 12.5U | 25.0 | 7.80 | ug/Kg |
| P & M -Xylene | 25.0U | 50.0 | 15.0 | ug/Kg |
| sec-Butylbenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| Styrene | 12.5U | 25.0 | 7.80 | ug/Kg |
| tert-Butylbenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| Tetrachloroethene | 9.00J | 12.5 | 3.90 | ug/Kg |
| Toluene | 12.5U | 25.0 | 7.80 | ug/Kg |
| trans-1,2-Dichloroethene | 12.5U | 25.0 | 7.80 | ug/Kg |
| trans-1,3-Dichloropropene | 12.5U | 25.0 | 7.80 | ug/Kg |
| Trichloroethene | 4.25J | 12.5 | 3.90 | ug/Kg |
| Trichlorofluoromethane | 25.0U | 50.0 | 15.0 | ug/Kg |
| Vinyl chloride | 12.5U | 25.0 | 7.80 | ug/Kg |
| Xylenes (total) | 37.5U | 75.0 | 22.8 | ug/Kg |
| **Surrogates** | | | | |
| 1,2-Dichloroethane-D4 (surr) | 117 | 79-118 | | % |
| 4-Bromofluorobenzene (surr) | 108 | 67-138 | | % |
| Toluene-d8 (surr) | 110 | 85-115 | | % |

## Method Blank

Blank ID: MB for HBN 1709116 [VXX/27266]
Blank Lab ID: 1265375

Matrix: Soil/Solid (dry weight)

QC for Samples:
1152028004, 1152028005, 1152028006

Results by **SW8260B**

| Parameter | Results | LOQ/CL | DL | Units |
|---|---|---|---|---|

### Batch Information

Analytical Batch: VMS14931
Analytical Method: SW8260B
Instrument: Agilent 7890-75MS
Analyst: SP
Analytical Date/Time: 5/18/2015 8:19:00PM

Prep Batch: VXX27266
Prep Method: SW5035A
Prep Date/Time: 5/18/2015 12:00:00AM
Prep Initial Wt./Vol.: 50 g
Prep Extract Vol: 25 mL

Print Date: 06/05/2015 8:36:28AM

## Blank Spike Summary

Blank Spike ID: LCS for HBN 1152028 [VXX27266]
Blank Spike Lab ID: 1265376
Date Analyzed: 05/18/2015 20:44

Matrix: Soil/Solid (dry weight)

QC for Samples: 1152028004, 1152028005, 1152028006

## Results by **SW8260B**

Blank Spike (ug/Kg)

| Parameter | Spike | Result | Rec (%) | CL |
|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 750 | 663 | 88 | ( 75-125 ) |
| 1,1,1-Trichloroethane | 750 | 746 | 99 | ( 70-135 ) |
| 1,1,2,2-Tetrachloroethane | 750 | 772 | 103 | ( 55-130 ) |
| 1,1,2-Trichloroethane | 750 | 702 | 94 | ( 60-125 ) |
| 1,1-Dichloroethane | 750 | 731 | 97 | ( 75-125 ) |
| 1,1-Dichloroethene | 750 | 800 | 107 | ( 65-135 ) |
| 1,1-Dichloropropene | 750 | 756 | 101 | ( 70-135 ) |
| 1,2,3-Trichlorobenzene | 750 | 649 | 87 | ( 60-135 ) |
| 1,2,3-Trichloropropane | 750 | 791 | 105 | ( 65-130 ) |
| 1,2,4-Trichlorobenzene | 750 | 714 | 95 | ( 65-130 ) |
| 1,2,4-Trimethylbenzene | 750 | 793 | 106 | ( 65-135 ) |
| 1,2-Dibromo-3-chloropropane | 750 | 661 | 88 | ( 40-135 ) |
| 1,2-Dibromoethane | 750 | 693 | 92 | ( 70-125 ) |
| 1,2-Dichlorobenzene | 750 | 774 | 103 | ( 75-120 ) |
| 1,2-Dichloroethane | 750 | 770 | 103 | ( 70-135 ) |
| 1,2-Dichloropropane | 750 | 766 | 102 | ( 70-120 ) |
| 1,3,5-Trimethylbenzene | 750 | 789 | 105 | ( 65-135 ) |
| 1,3-Dichlorobenzene | 750 | 780 | 104 | ( 70-125 ) |
| 1,3-Dichloropropane | 750 | 690 | 92 | ( 75-125 ) |
| 1,4-Dichlorobenzene | 750 | 786 | 105 | ( 70-125 ) |
| 2,2-Dichloropropane | 750 | 736 | 98 | ( 65-135 ) |
| 2-Butanone (MEK) | 2250 | 2040 | 91 | ( 30-160 ) |
| 2-Chlorotoluene | 750 | 790 | 105 | ( 70-130 ) |
| 2-Hexanone | 2250 | 2200 | 98 | ( 45-145 ) |
| 4-Chlorotoluene | 750 | 794 | 106 | ( 75-125 ) |
| 4-Isopropyltoluene | 750 | 797 | 106 | ( 75-135 ) |
| 4-Methyl-2-pentanone (MIBK) | 2250 | 2160 | 96 | ( 45-145 ) |
| Benzene | 750 | 762 | 102 | ( 75-125 ) |
| Bromobenzene | 750 | 791 | 105 | ( 65-120 ) |
| Bromochloromethane | 750 | 770 | 103 | ( 70-125 ) |
| Bromodichloromethane | 750 | 739 | 99 | ( 70-130 ) |
| Bromoform | 750 | 603 | 80 | ( 55-135 ) |
| Bromomethane | 750 | 768 | 102 | ( 30-160 ) |
| Carbon disulfide | 1130 | 1120 | 100 | ( 45-160 ) |

## Blank Spike Summary

Blank Spike ID: LCS for HBN 1152028 [VXX27266]
Blank Spike Lab ID: 1265376
Date Analyzed: 05/18/2015 20:44

Matrix: Soil/Solid (dry weight)

QC for Samples: 1152028004, 1152028005, 1152028006

## Results by **SW8260B**

Blank Spike (ug/Kg)

| Parameter | Spike | Result | Rec (%) | | CL |
|---|---|---|---|---|---|
| Carbon tetrachloride | 750 | 703 | 94 | | ( 65-135 ) |
| Chlorobenzene | 750 | 773 | 103 | | ( 75-125 ) |
| Chloroethane | 750 | 1310 | 175 | * | ( 40-155 ) |
| Chloroform | 750 | 748 | 100 | | ( 70-125 ) |
| Chloromethane | 750 | 715 | 95 | | ( 50-130 ) |
| cis-1,2-Dichloroethene | 750 | 750 | 100 | | ( 65-125 ) |
| cis-1,3-Dichloropropene | 750 | 726 | 97 | | ( 70-125 ) |
| Dibromochloromethane | 750 | 636 | 85 | | ( 65-130 ) |
| Dibromomethane | 750 | 771 | 103 | | ( 75-130 ) |
| Dichlorodifluoromethane | 750 | 783 | 104 | | ( 35-135 ) |
| Ethylbenzene | 750 | 754 | 100 | | ( 75-125 ) |
| Hexachlorobutadiene | 750 | 799 | 106 | | ( 55-140 ) |
| Isopropylbenzene (Cumene) | 750 | 760 | 101 | | ( 75-130 ) |
| Methylene chloride | 750 | 714 | 95 | | ( 55-140 ) |
| Methyl-t-butyl ether | 1130 | 1140 | 101 | | ( 63-149 ) |
| Naphthalene | 750 | 650 | 87 | | ( 40-125 ) |
| n-Butylbenzene | 750 | 822 | 110 | | ( 65-140 ) |
| n-Propylbenzene | 750 | 799 | 106 | | ( 65-135 ) |
| o-Xylene | 750 | 746 | 100 | | ( 75-125 ) |
| P & M -Xylene | 1500 | 1510 | 101 | | ( 80-125 ) |
| sec-Butylbenzene | 750 | 801 | 107 | | ( 65-130 ) |
| Styrene | 750 | 775 | 103 | | ( 75-125 ) |
| tert-Butylbenzene | 750 | 794 | 106 | | ( 65-130 ) |
| Tetrachloroethene | 750 | 679 | 91 | | ( 65-140 ) |
| Toluene | 750 | 663 | 88 | | ( 70-125 ) |
| trans-1,2-Dichloroethene | 750 | 752 | 100 | | ( 65-135 ) |
| trans-1,3-Dichloropropene | 750 | 647 | 86 | | ( 65-125 ) |
| Trichloroethene | 750 | 769 | 103 | | ( 75-125 ) |
| Trichlorofluoromethane | 750 | 1340 | 179 | | ( 25-185 ) |
| Vinyl chloride | 750 | 750 | 100 | | ( 60-125 ) |
| Xylenes (total) | 2250 | 2250 | 100 | | ( 80-125 ) |
| **Surrogates** | | | | | |
| 1,2-Dichloroethane-D4 (surr) | 750 | 104 | 104 | | ( 79-118 ) |



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## Blank Spike Summary

Blank Spike ID: LCS for HBN 1152028 [VXX27266]
Blank Spike Lab ID: 1265376
Date Analyzed: 05/18/2015 20:44

Matrix: Soil/Solid (dry weight)

QC for Samples: 1152028004, 1152028005, 1152028006

## Results by **SW8260B**

| | | Blank Spike (%) | | |
|---|---|---|---|---|
| Parameter | Spike | Result | Rec (%) | CL |
| 4-Bromofluorobenzene (surr) | 750 | 103 | 103 | ( 67-138 ) |
| Toluene-d8 (surr) | 750 | 108 | 108 | ( 85-115 ) |

## Batch Information

Analytical Batch: **VMS14931**
Analytical Method: **SW8260B**
Instrument: **Agilent 7890-75MS**
Analyst: **SP**

Prep Batch: **VXX27266**
Prep Method: **SW5035A**
Prep Date/Time: **05/18/2015 00:00**
Spike Init Wt./Vol.: 750 ug/Kg Extract Vol: 25 mL
Dupe Init Wt./Vol.: Extract Vol:



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## Matrix Spike Summary

Original Sample ID: 1157901025
MS Sample ID: 1265808 MS
MSD Sample ID: 1265809 MSD

Analysis Date: 05/18/2015 22:12
Analysis Date: 05/18/2015 21:25
Analysis Date: 05/18/2015 21:40
Matrix: Soil/Solid (dry weight)

QC for Samples: 1152028004, 1152028005, 1152028006

## Results by **SW8260B**

| | | Matrix Spike (ug/Kg) | | | Spike Duplicate (ug/Kg) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Parameter | Sample | Spike | Result | Rec (%) | Spike | Result | Rec (%) | CL | RPD (%) | RPD CL |
| 1,1,1,2-Tetrachloroethane | 18.3U | 840 | 834 | 99 | 840 | 794 | 95 | 75-125 | 4.80 | (< 20 ) |
| 1,1,1-Trichloroethane | 18.3U | 840 | 952 | 113 | 840 | 902 | 107 | 70-135 | 5.40 | (< 20 ) |
| 1,1,2,2-Tetrachloroethane | 9.15U | 840 | 937 | 112 | 840 | 970 | 115 | 55-130 | 3.40 | (< 20 ) |
| 1,1,2-Trichloroethane | 18.3U | 840 | 840 | 100 | 840 | 868 | 103 | 60-125 | 3.20 | (< 20 ) |
| 1,1-Dichloroethane | 18.3U | 840 | 934 | 111 | 840 | 872 | 104 | 75-125 | 7.00 | (< 20 ) |
| 1,1-Dichloroethene | 18.3U | 840 | 1035 | 123 | 840 | 945 | 113 | 65-135 | 9.20 | (< 20 ) |
| 1,1-Dichloropropene | 18.3U | 840 | 957 | 114 | 840 | 919 | 109 | 70-135 | 4.00 | (< 20 ) |
| 1,2,3-Trichlorobenzene | 36.5U | 840 | 788 | 94 | 840 | 891 | 106 | 60-135 | 12.20 | (< 20 ) |
| 1,2,3-Trichloropropane | 18.3U | 840 | 954 | 114 | 840 | 993 | 118 | 65-130 | 3.90 | (< 20 ) |
| 1,2,4-Trichlorobenzene | 18.3U | 840 | 835 | 100 | 840 | 899 | 107 | 65-130 | 7.40 | (< 20 ) |
| 1,2,4-Trimethylbenzene | 36.5U | 840 | 954 | 114 | 840 | 951 | 113 | 65-135 | 0.47 | (< 20 ) |
| 1,2-Dibromo-3-chloropropane | 73.0U | 840 | 794 | 95 | 840 | 925 | 110 | 40-135 | 15.20 | (< 20 ) |
| 1,2-Dibromoethane | 18.3U | 840 | 840 | 100 | 840 | 858 | 102 | 70-125 | 2.20 | (< 20 ) |
| 1,2-Dichlorobenzene | 18.3U | 840 | 934 | 111 | 840 | 944 | 112 | 75-120 | 1.00 | (< 20 ) |
| 1,2-Dichloroethane | 18.3U | 840 | 980 | 117 | 840 | 939 | 112 | 70-135 | 4.30 | (< 20 ) |
| 1,2-Dichloropropane | 18.3U | 840 | 967 | 115 | 840 | 940 | 112 | 70-120 | 2.90 | (< 20 ) |
| 1,3,5-Trimethylbenzene | 18.3U | 840 | 953 | 113 | 840 | 944 | 112 | 65-135 | 0.89 | (< 20 ) |
| 1,3-Dichlorobenzene | 18.3U | 840 | 939 | 112 | 840 | 944 | 112 | 70-125 | 0.56 | (< 20 ) |
| 1,3-Dichloropropane | 18.3U | 840 | 836 | 100 | 840 | 864 | 103 | 75-125 | 3.40 | (< 20 ) |
| 1,4-Dichlorobenzene | 18.3U | 840 | 944 | 112 | 840 | 956 | 114 | 70-125 | 1.20 | (< 20 ) |
| 2,2-Dichloropropane | 18.3U | 840 | 940 | 112 | 840 | 886 | 106 | 65-135 | 5.90 | (< 20 ) |
| 2-Butanone (MEK) | 183U | 2518 | 2459 | 98 | 2518 | 2963 | 118 | 30-160 | 18.60 | (< 20 ) |
| 2-Chlorotoluene | 18.3U | 840 | 977 | 116 | 840 | 967 | 115 | 70-130 | 0.95 | (< 20 ) |
| 2-Hexanone | 183U | 2518 | 2623 | 104 | 2518 | 2986 | 118 | 45-145 | 12.80 | (< 20 ) |
| 4-Chlorotoluene | 18.3U | 840 | 971 | 116 | 840 | 954 | 114 | 75-125 | 1.70 | (< 20 ) |
| 4-Isopropyltoluene | 18.3U | 840 | 964 | 115 | 840 | 944 | 112 | 75-135 | 2.10 | (< 20 ) |
| 4-Methyl-2-pentanone (MIBK) | 183U | 2518 | 2681 | 106 | 2518 | 2775 | 110 | 45-145 | 3.70 | (< 20 ) |
| Benzene | 16.1J | 840 | 965 | 115 | 840 | 930 | 111 | 75-125 | 3.70 | (< 20 ) |
| Bromobenzene | 18.3U | 840 | 963 | 115 | 840 | 970 | 116 | 65-120 | 0.81 | (< 20 ) |
| Bromochloromethane | 18.3U | 840 | 970 | 115 | 840 | 900 | 107 | 70-125 | 7.40 | (< 20 ) |
| Bromodichloromethane | 18.3U | 840 | 960 | 114 | 840 | 907 | 108 | 70-130 | 5.70 | (< 20 ) |
| Bromoform | 18.3U | 840 | 754 | 90 | 840 | 756 | 90 | 55-135 | 0.26 | (< 20 ) |
| Bromomethane | 146U | 840 | 918 | 109 | 840 | 841 | 100 | 30-160 | 8.80 | (< 20 ) |
| Carbon disulfide | 73.0U | 1265 | 1464 | 116 | 1265 | 1347 | 107 | 45-160 | 8.50 | (< 20 ) |
| Carbon tetrachloride | 9.15U | 840 | 919 | 109 | 840 | 855 | 102 | 65-135 | 7.10 | (< 20 ) |
| Chlorobenzene | 18.3U | 840 | 961 | 115 | 840 | 939 | 112 | 75-125 | 2.40 | (< 20 ) |
| Chloroethane | 146U | 840 | 1546 | 184 * | 840 | 868 | 103 | 40-155 | 56.20 | * (< 20 ) |

Print Date: 06/05/2015 8:36:31AM

## Matrix Spike Summary

Original Sample ID: 1157901025
MS Sample ID: 1265808 MS
MSD Sample ID: 1265809 MSD

Analysis Date: 05/18/2015 22:12
Analysis Date: 05/18/2015 21:25
Analysis Date: 05/18/2015 21:40
Matrix: Soil/Solid (dry weight)

QC for Samples: 1152028004, 1152028005, 1152028006

## Results by **SW8260B**

| | | Matrix Spike (ug/Kg) | | | | Spike Duplicate (ug/Kg) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Parameter | Sample | Spike | Result | Rec (%) | | Spike | Result | Rec (%) | CL | RPD (%) | RPD CL |
| Chloroform | 18.3U | 840 | 953 | 114 | | 840 | 903 | 108 | 70-125 | 5.50 | (< 20 ) |
| Chloromethane | 18.3U | 840 | 867 | 103 | | 840 | 775 | 92 | 50-130 | 11.20 | (< 20 ) |
| cis-1,2-Dichloroethene | 18.3U | 840 | 968 | 115 | | 840 | 898 | 107 | 65-125 | 7.50 | (< 20 ) |
| cis-1,3-Dichloropropene | 18.3U | 840 | 926 | 110 | | 840 | 910 | 108 | 70-125 | 1.80 | (< 20 ) |
| Dibromochloromethane | 18.3U | 840 | 782 | 93 | | 840 | 792 | 94 | 65-130 | 1.20 | (< 20 ) |
| Dibromomethane | 18.3U | 840 | 953 | 114 | | 840 | 916 | 109 | 75-130 | 4.00 | (< 20 ) |
| Dichlorodifluoromethane | 36.5U | 840 | 966 | 115 | | 840 | 876 | 104 | 35-135 | 9.70 | (< 20 ) |
| Ethylbenzene | 18.3U | 840 | 936 | 111 | | 840 | 930 | 111 | 75-125 | 0.60 | (< 20 ) |
| Hexachlorobutadiene | 36.5U | 840 | 974 | 116 | | 840 | 938 | 112 | 55-140 | 3.80 | (< 20 ) |
| Isopropylbenzene (Cumene) | 18.3U | 840 | 939 | 112 | | 840 | 930 | 111 | 75-130 | 1.00 | (< 20 ) |
| Methylene chloride | 73.0J | 840 | 985 | 117 | | 840 | 918 | 109 | 55-140 | 7.00 | (< 20 ) |
| Methyl-t-butyl ether | 73.0U | 1265 | 1417 | 113 | | 1265 | 1405 | 111 | 63-149 | 1.10 | (< 20 ) |
| Naphthalene | 36.5U | 840 | 772 | 92 | | 840 | 912 | 109 | 40-125 | 16.70 | (< 20 ) |
| n-Butylbenzene | 18.3U | 840 | 1009 | 120 | | 840 | 970 | 115 | 65-140 | 4.10 | (< 20 ) |
| n-Propylbenzene | 18.3U | 840 | 975 | 116 | | 840 | 958 | 114 | 65-135 | 1.80 | (< 20 ) |
| o-Xylene | 18.3U | 840 | 941 | 112 | | 840 | 925 | 110 | 75-125 | 1.80 | (< 20 ) |
| P & M -Xylene | 36.5U | 1674 | 1815 | 108 | | 1674 | 1862 | 111 | 80-125 | 2.30 | (< 20 ) |
| sec-Butylbenzene | 18.3U | 840 | 979 | 117 | | 840 | 946 | 113 | 65-130 | 3.50 | (< 20 ) |
| Styrene | 18.3U | 840 | 943 | 112 | | 840 | 939 | 112 | 75-125 | 0.30 | (< 20 ) |
| tert-Butylbenzene | 18.3U | 840 | 952 | 113 | | 840 | 937 | 112 | 65-130 | 1.70 | (< 20 ) |
| Tetrachloroethene | 9.15U | 840 | 816 | 97 | | 840 | 811 | 97 | 65-140 | 0.55 | (< 20 ) |
| Toluene | 34.0J | 840 | 844 | 101 | | 840 | 820 | 98 | 70-125 | 3.00 | (< 20 ) |
| trans-1,2-Dichloroethene | 18.3U | 840 | 970 | 116 | | 840 | 902 | 107 | 65-135 | 7.30 | (< 20 ) |
| trans-1,3-Dichloropropene | 18.3U | 840 | 787 | 94 | | 840 | 810 | 97 | 65-125 | 3.00 | (< 20 ) |
| Trichloroethene | 9.15U | 840 | 956 | 114 | | 840 | 936 | 111 | 75-125 | 2.10 | (< 20 ) |
| Trichlorofluoromethane | 36.5U | 840 | 1616 | 192 | * | 840 | 890 | 106 | 25-185 | 57.70 | * (< 20 ) |
| Vinyl chloride | 18.3U | 840 | 912 | 109 | | 840 | 827 | 99 | 60-125 | 9.70 | (< 20 ) |
| Xylenes (total) | 55.0U | 2518 | 2752 | 109 | | 2518 | 2775 | 110 | 80-125 | 0.90 | (< 20 ) |
| **Surrogates** | | | | | | | | | | | |
| 1,2-Dichloroethane-D4 (surr) | | 840 | 925 | 110 | | 840 | 892 | 106 | 79-118 | 3.50 | |
| 4-Bromofluorobenzene (surr) | | 2237 | 1792 | 80 | | 2237 | 1803 | 81 | 67-138 | 0.78 | |
| Toluene-d8 (surr) | | 840 | 937 | 112 | | 840 | 903 | 108 | 85-115 | 3.70 | |

Print Date: 06/05/2015 8:36:31AM

## Matrix Spike Summary

Original Sample ID: 1157901025
MS Sample ID: 1265808 MS
MSD Sample ID: 1265809 MSD

Analysis Date:
Analysis Date: 05/18/2015 21:25
Analysis Date: 05/18/2015 21:40
Matrix: Soil/Solid (dry weight)

QC for Samples: 1152028004, 1152028005, 1152028006

## Results by **SW8260B**

| | | Matrix Spike (%) | | | Spike Duplicate (%) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Parameter | Sample | Spike | Result | Rec (%) | Spike | Result | Rec (%) | CL | RPD (%) | RPD CL |

## Batch Information

Analytical Batch: VMS14931
Analytical Method: SW8260B
Instrument: Agilent 7890-75MS
Analyst: SP
Analytical Date/Time: 5/18/2015 9:25:00PM

Prep Batch: VXX27266
Prep Method: Vol. Extraction SW8260 Field Extracted L
Prep Date/Time: 5/18/2015 12:00:00AM
Prep Initial Wt./Vol.: 52.29g
Prep Extract Vol: 25.00mL



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## Method Blank

Blank ID: MB for HBN 1709118 [VXX/27267]
Blank Lab ID: 1265377

Matrix: Soil/Solid (dry weight)

QC for Samples:
1152028007, 1152028008, 1152028009, 1152028013, 1152028015, 1152028019, 1152028020

## Results by **SW8260B**

| Parameter | Results | LOQ/CL | DL | Units |
|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,1,1-Trichloroethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,1,2,2-Tetrachloroethane | 6.25U | 12.5 | 3.90 | ug/Kg |
| 1,1,2-Trichloroethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,1-Dichloroethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,1-Dichloroethene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,1-Dichloropropene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,2,3-Trichlorobenzene | 25.0U | 50.0 | 15.0 | ug/Kg |
| 1,2,3-Trichloropropane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,2,4-Trichlorobenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,2,4-Trimethylbenzene | 25.0U | 50.0 | 15.0 | ug/Kg |
| 1,2-Dibromo-3-chloropropane | 50.0U | 100 | 31.0 | ug/Kg |
| 1,2-Dibromoethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,2-Dichlorobenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,2-Dichloroethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,2-Dichloropropane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,3,5-Trimethylbenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,3-Dichlorobenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,3-Dichloropropane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,4-Dichlorobenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 2,2-Dichloropropane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 2-Butanone (MEK) | 125U | 250 | 78.0 | ug/Kg |
| 2-Chlorotoluene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 2-Hexanone | 125U | 250 | 78.0 | ug/Kg |
| 4-Chlorotoluene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 4-Isopropyltoluene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 4-Methyl-2-pentanone (MIBK) | 125U | 250 | 78.0 | ug/Kg |
| Benzene | 6.25U | 12.5 | 3.90 | ug/Kg |
| Bromobenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| Bromochloromethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| Bromodichloromethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| Bromoform | 12.5U | 25.0 | 7.80 | ug/Kg |
| Bromomethane | 100U | 200 | 62.0 | ug/Kg |
| Carbon disulfide | 50.0U | 100 | 31.0 | ug/Kg |
| Carbon tetrachloride | 6.25U | 12.5 | 3.90 | ug/Kg |
| Chlorobenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| Chloroethane | 100U | 200 | 62.0 | ug/Kg |
| Chloroform | 12.5U | 25.0 | 7.80 | ug/Kg |

## Method Blank

Blank ID: MB for HBN 1709118 [VXX/27267]
Blank Lab ID: 1265377

Matrix: Soil/Solid (dry weight)

QC for Samples:
1152028007, 1152028008, 1152028009, 1152028013, 1152028015, 1152028019, 1152028020

Results by **SW8260B**

| Parameter | Results | LOQ/CL | DL | Units |
|---|---|---|---|---|
| Chloromethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| cis-1,2-Dichloroethene | 12.5U | 25.0 | 7.80 | ug/Kg |
| cis-1,3-Dichloropropene | 12.5U | 25.0 | 7.80 | ug/Kg |
| Dibromochloromethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| Dibromomethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| Dichlorodifluoromethane | 25.0U | 50.0 | 15.0 | ug/Kg |
| Ethylbenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| Hexachlorobutadiene | 25.0U | 50.0 | 15.0 | ug/Kg |
| Isopropylbenzene (Cumene) | 12.5U | 25.0 | 7.80 | ug/Kg |
| Methylene chloride | 50.0U | 100 | 31.0 | ug/Kg |
| Methyl-t-butyl ether | 50.0U | 100 | 31.0 | ug/Kg |
| Naphthalene | 25.0U | 50.0 | 15.0 | ug/Kg |
| n-Butylbenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| n-Propylbenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| o-Xylene | 12.5U | 25.0 | 7.80 | ug/Kg |
| P & M -Xylene | 25.0U | 50.0 | 15.0 | ug/Kg |
| sec-Butylbenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| Styrene | 12.5U | 25.0 | 7.80 | ug/Kg |
| tert-Butylbenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| Tetrachloroethene | 6.25U | 12.5 | 3.90 | ug/Kg |
| Toluene | 12.5U | 25.0 | 7.80 | ug/Kg |
| trans-1,2-Dichloroethene | 12.5U | 25.0 | 7.80 | ug/Kg |
| trans-1,3-Dichloropropene | 12.5U | 25.0 | 7.80 | ug/Kg |
| Trichloroethene | 6.25U | 12.5 | 3.90 | ug/Kg |
| Trichlorofluoromethane | 25.0U | 50.0 | 15.0 | ug/Kg |
| Vinyl chloride | 12.5U | 25.0 | 7.80 | ug/Kg |
| Xylenes (total) | 37.5U | 75.0 | 22.8 | ug/Kg |
| **Surrogates** | | | | |
| 1,2-Dichloroethane-D4 (surr) | 117 | 79-118 | | % |
| 4-Bromofluorobenzene (surr) | 113 | 67-138 | | % |
| Toluene-d8 (surr) | 111 | 85-115 | | % |

## Method Blank

Blank ID: MB for HBN 1709118 [VXX/27267]
Blank Lab ID: 1265377

Matrix: Soil/Solid (dry weight)

QC for Samples:
1152028007, 1152028008, 1152028009, 1152028013, 1152028015, 1152028019, 1152028020

Results by **SW8260B**

| Parameter | Results | LOQ/CL | DL | Units |
|---|---|---|---|---|

### Batch Information

Analytical Batch: VMS14924
Analytical Method: SW8260B
Instrument: Agilent 7890-75MS
Analyst: SP
Analytical Date/Time: 5/19/2015 9:51:00AM

Prep Batch: VXX27267
Prep Method: SW5035A
Prep Date/Time: 5/19/2015 12:00:00AM
Prep Initial Wt./Vol.: 50 g
Prep Extract Vol: 25 mL



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## Blank Spike Summary

Blank Spike ID: LCS for HBN 1152028 [VXX27267]
Blank Spike Lab ID: 1265378
Date Analyzed: 05/19/2015 10:35

Matrix: Soil/Solid (dry weight)

QC for Samples: 1152028007, 1152028008, 1152028009, 1152028013, 1152028015, 1152028019, 1152028020

## Results by **SW8260B**

Blank Spike (ug/Kg)

| Parameter | Spike | Result | Rec (%) | CL |
|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 750 | 693 | 92 | ( 75-125 ) |
| 1,1,1-Trichloroethane | 750 | 803 | 107 | ( 70-135 ) |
| 1,1,2,2-Tetrachloroethane | 750 | 810 | 108 | ( 55-130 ) |
| 1,1,2-Trichloroethane | 750 | 732 | 98 | ( 60-125 ) |
| 1,1-Dichloroethane | 750 | 790 | 105 | ( 75-125 ) |
| 1,1-Dichloroethene | 750 | 877 | 117 | ( 65-135 ) |
| 1,1-Dichloropropene | 750 | 816 | 109 | ( 70-135 ) |
| 1,2,3-Trichlorobenzene | 750 | 646 | 86 | ( 60-135 ) |
| 1,2,3-Trichloropropane | 750 | 826 | 110 | ( 65-130 ) |
| 1,2,4-Trichlorobenzene | 750 | 712 | 95 | ( 65-130 ) |
| 1,2,4-Trimethylbenzene | 750 | 843 | 112 | ( 65-135 ) |
| 1,2-Dibromo-3-chloropropane | 750 | 662 | 88 | ( 40-135 ) |
| 1,2-Dibromoethane | 750 | 723 | 96 | ( 70-125 ) |
| 1,2-Dichlorobenzene | 750 | 825 | 110 | ( 75-120 ) |
| 1,2-Dichloroethane | 750 | 825 | 110 | ( 70-135 ) |
| 1,2-Dichloropropane | 750 | 823 | 110 | ( 70-120 ) |
| 1,3,5-Trimethylbenzene | 750 | 849 | 113 | ( 65-135 ) |
| 1,3-Dichlorobenzene | 750 | 820 | 109 | ( 70-125 ) |
| 1,3-Dichloropropane | 750 | 724 | 97 | ( 75-125 ) |
| 1,4-Dichlorobenzene | 750 | 832 | 111 | ( 70-125 ) |
| 2,2-Dichloropropane | 750 | 782 | 104 | ( 65-135 ) |
| 2-Butanone (MEK) | 2250 | 2000 | 89 | ( 30-160 ) |
| 2-Chlorotoluene | 750 | 852 | 114 | ( 70-130 ) |
| 2-Hexanone | 2250 | 2220 | 99 | ( 45-145 ) |
| 4-Chlorotoluene | 750 | 850 | 113 | ( 75-125 ) |
| 4-Isopropyltoluene | 750 | 848 | 113 | ( 75-135 ) |
| 4-Methyl-2-pentanone (MIBK) | 2250 | 2230 | 99 | ( 45-145 ) |
| Benzene | 750 | 809 | 108 | ( 75-125 ) |
| Bromobenzene | 750 | 841 | 112 | ( 65-120 ) |
| Bromochloromethane | 750 | 828 | 110 | ( 70-125 ) |
| Bromodichloromethane | 750 | 806 | 108 | ( 70-130 ) |
| Bromoform | 750 | 640 | 85 | ( 55-135 ) |
| Bromomethane | 750 | 651 | 87 | ( 30-160 ) |
| Carbon disulfide | 1130 | 1240 | 110 | ( 45-160 ) |

## Blank Spike Summary

Blank Spike ID: LCS for HBN 1152028 [VXX27267]
Blank Spike Lab ID: 1265378
Date Analyzed: 05/19/2015 10:35

Matrix: Soil/Solid (dry weight)

QC for Samples: 1152028007, 1152028008, 1152028009, 1152028013, 1152028015, 1152028019, 1152028020

## Results by **SW8260B**

Blank Spike (ug/Kg)

| Parameter | Spike | Result | Rec (%) | | CL |
|---|---|---|---|---|---|
| Carbon tetrachloride | 750 | 768 | 102 | | ( 65-135 ) |
| Chlorobenzene | 750 | 815 | 109 | | ( 75-125 ) |
| Chloroethane | 750 | 1670 | 222 | * | ( 40-155 ) |
| Chloroform | 750 | 807 | 108 | | ( 70-125 ) |
| Chloromethane | 750 | 697 | 93 | | ( 50-130 ) |
| cis-1,2-Dichloroethene | 750 | 801 | 107 | | ( 65-125 ) |
| cis-1,3-Dichloropropene | 750 | 783 | 104 | | ( 70-125 ) |
| Dibromochloromethane | 750 | 677 | 90 | | ( 65-130 ) |
| Dibromomethane | 750 | 829 | 110 | | ( 75-130 ) |
| Dichlorodifluoromethane | 750 | 769 | 102 | | ( 35-135 ) |
| Ethylbenzene | 750 | 801 | 107 | | ( 75-125 ) |
| Hexachlorobutadiene | 750 | 839 | 112 | | ( 55-140 ) |
| Isopropylbenzene (Cumene) | 750 | 821 | 109 | | ( 75-130 ) |
| Methylene chloride | 750 | 777 | 104 | | ( 55-140 ) |
| Methyl-t-butyl ether | 1130 | 1210 | 108 | | ( 63-149 ) |
| Naphthalene | 750 | 629 | 84 | | ( 40-125 ) |
| n-Butylbenzene | 750 | 881 | 117 | | ( 65-140 ) |
| n-Propylbenzene | 750 | 864 | 115 | | ( 65-135 ) |
| o-Xylene | 750 | 803 | 107 | | ( 75-125 ) |
| P & M -Xylene | 1500 | 1600 | 107 | | ( 80-125 ) |
| sec-Butylbenzene | 750 | 862 | 115 | | ( 65-130 ) |
| Styrene | 750 | 824 | 110 | | ( 75-125 ) |
| tert-Butylbenzene | 750 | 844 | 113 | | ( 65-130 ) |
| Tetrachloroethene | 750 | 692 | 92 | | ( 65-140 ) |
| Toluene | 750 | 700 | 93 | | ( 70-125 ) |
| trans-1,2-Dichloroethene | 750 | 820 | 109 | | ( 65-135 ) |
| trans-1,3-Dichloropropene | 750 | 677 | 90 | | ( 65-125 ) |
| Trichloroethene | 750 | 816 | 109 | | ( 75-125 ) |
| Trichlorofluoromethane | 750 | 1500 | 200 | * | ( 25-185 ) |
| Vinyl chloride | 750 | 743 | 99 | | ( 60-125 ) |
| Xylenes (total) | 2250 | 2400 | 107 | | ( 80-125 ) |
| **Surrogates** | | | | | |
| 1,2-Dichloroethane-D4 (surr) | 750 | 105 | 105 | | ( 79-118 ) |

Print Date: 06/05/2015 8:36:34AM

## Blank Spike Summary

Blank Spike ID: LCS for HBN 1152028 [VXX27267]
Blank Spike Lab ID: 1265378
Date Analyzed: 05/19/2015 10:35

Matrix: Soil/Solid (dry weight)

QC for Samples: 1152028007, 1152028008, 1152028009, 1152028013, 1152028015, 1152028019, 1152028020

## Results by **SW8260B**

| | | Blank Spike (%) | | |
|---|---|---|---|---|
| Parameter | Spike | Result | Rec (%) | CL |
| 4-Bromofluorobenzene (surr) | 750 | 103 | 103 | ( 67-138 ) |
| Toluene-d8 (surr) | 750 | 107 | 107 | ( 85-115 ) |

## Batch Information

Analytical Batch: **VMS14924**
Analytical Method: **SW8260B**
Instrument: **Agilent 7890-75MS**
Analyst: **SP**

Prep Batch: **VXX27267**
Prep Method: **SW5035A**
Prep Date/Time: **05/19/2015 00:00**
Spike Init Wt./Vol.: 750 ug/Kg Extract Vol: 25 mL
Dupe Init Wt./Vol.: Extract Vol:



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## Matrix Spike Summary

Original Sample ID: 1265676
MS Sample ID: 1265607 MS
MSD Sample ID: 1265608 MSD

Analysis Date: 05/19/2015 13:06
Analysis Date: 05/19/2015 12:19
Analysis Date: 05/19/2015 12:34
Matrix: Soil/Solid (dry weight)

QC for Samples: 1152028007, 1152028008, 1152028009, 1152028013, 1152028015, 1152028019, 1152028020

Results by **SW8260B**

| | | Matrix Spike (ug/Kg) | | | | Spike Duplicate (ug/Kg) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Parameter | Sample | Spike | Result | Rec (%) | | Spike | Result | Rec (%) | | CL | RPD (%) | RPD CL |
| 1,1,1,2-Tetrachloroethane | 9.85U | 591 | 588 | 100 | | 591 | 589 | 100 | | 75-125 | 0.10 | (< 20 ) |
| 1,1,1-Trichloroethane | 9.85U | 591 | 630 | 107 | | 591 | 640 | 108 | | 70-135 | 1.60 | (< 20 ) |
| 1,1,2,2-Tetrachloroethane | 4.93U | 591 | 703 | 119 | | 591 | 740 | 125 | | 55-130 | 5.20 | (< 20 ) |
| 1,1,2-Trichloroethane | 9.85U | 591 | 910 | 154 | * | 591 | 918 | 155 | * | 60-125 | 0.86 | (< 20 ) |
| 1,1-Dichloroethane | 9.85U | 591 | 634 | 107 | | 591 | 628 | 106 | | 75-125 | 0.91 | (< 20 ) |
| 1,1-Dichloroethene | 9.85U | 591 | 676 | 114 | | 591 | 659 | 111 | | 65-135 | 2.70 | (< 20 ) |
| 1,1-Dichloropropene | 9.85U | 591 | 641 | 108 | | 591 | 661 | 112 | | 70-135 | 3.10 | (< 20 ) |
| 1,2,3-Trichlorobenzene | 19.7U | 591 | 615 | 104 | | 591 | 719 | 122 | | 60-135 | 15.60 | (< 20 ) |
| 1,2,3-Trichloropropane | 9.85U | 591 | 694 | 117 | | 591 | 737 | 125 | | 65-130 | 6.10 | (< 20 ) |
| 1,2,4-Trichlorobenzene | 9.85U | 591 | 639 | 108 | | 591 | 719 | 122 | | 65-130 | 11.90 | (< 20 ) |
| 1,2,4-Trimethylbenzene | 3130 | 591 | 3530 | 67 | | 591 | 3650 | 89 | | 65-135 | 3.50 | (< 20 ) |
| 1,2-Dibromo-3-chloropropane | 39.4U | 591 | 568 | 96 | | 591 | 658 | 111 | | 40-135 | 14.60 | (< 20 ) |
| 1,2-Dibromoethane | 9.85U | 591 | 606 | 102 | | 591 | 616 | 104 | | 70-125 | 1.60 | (< 20 ) |
| 1,2-Dichlorobenzene | 9.85U | 591 | 655 | 111 | | 591 | 685 | 116 | | 75-120 | 4.40 | (< 20 ) |
| 1,2-Dichloroethane | 9.85U | 591 | 666 | 113 | | 591 | 671 | 113 | | 70-135 | 0.74 | (< 20 ) |
| 1,2-Dichloropropane | 9.85U | 591 | 669 | 113 | | 591 | 679 | 115 | | 70-120 | 1.50 | (< 20 ) |
| 1,3,5-Trimethylbenzene | 994 | 591 | 1610 | 104 | | 591 | 1630 | 107 | | 65-135 | 0.97 | (< 20 ) |
| 1,3-Dichlorobenzene | 9.85U | 591 | 655 | 111 | | 591 | 680 | 115 | | 70-125 | 3.60 | (< 20 ) |
| 1,3-Dichloropropane | 9.85U | 591 | 609 | 103 | | 591 | 621 | 105 | | 75-125 | 2.00 | (< 20 ) |
| 1,4-Dichlorobenzene | 9.85U | 591 | 663 | 112 | | 591 | 688 | 116 | | 70-125 | 3.70 | (< 20 ) |
| 2,2-Dichloropropane | 9.85U | 591 | 633 | 107 | | 591 | 638 | 108 | | 65-135 | 0.68 | (< 20 ) |
| 2-Butanone (MEK) | 98.5U | 1770 | 1710 | 97 | | 1770 | 2190 | 123 | | 30-160 | 24.50 | * (< 20 ) |
| 2-Chlorotoluene | 9.85U | 591 | 995 | 168 | * | 591 | 1010 | 172 | * | 70-130 | 1.90 | (< 20 ) |
| 2-Hexanone | 98.5U | 1770 | 1870 | 105 | | 1770 | 2150 | 121 | | 45-145 | 13.90 | (< 20 ) |
| 4-Chlorotoluene | 9.85U | 591 | 659 | 111 | | 591 | 677 | 115 | | 75-125 | 2.70 | (< 20 ) |
| 4-Isopropyltoluene | 180 | 591 | 1190 | 172 | * | 591 | 1210 | 175 | * | 75-135 | 1.70 | (< 20 ) |
| 4-Methyl-2-pentanone (MIBK) | 98.5U | 1770 | 1860 | 105 | | 1770 | 2080 | 117 | | 45-145 | 11.30 | (< 20 ) |
| Benzene | 3.35J | 591 | 651 | 110 | | 591 | 666 | 112 | | 75-125 | 2.20 | (< 20 ) |
| Bromobenzene | 9.85U | 591 | 660 | 112 | | 591 | 686 | 116 | | 65-120 | 3.80 | (< 20 ) |
| Bromochloromethane | 9.85U | 591 | 660 | 112 | | 591 | 647 | 109 | | 70-125 | 2.10 | (< 20 ) |
| Bromodichloromethane | 9.85U | 591 | 661 | 112 | | 591 | 656 | 111 | | 70-130 | 0.81 | (< 20 ) |
| Bromoform | 9.85U | 591 | 542 | 92 | | 591 | 541 | 92 | | 55-135 | 0.04 | (< 20 ) |
| Bromomethane | 79.0U | 591 | 591 | 100 | | 591 | 566 | 96 | | 30-160 | 4.30 | (< 20 ) |
| Carbon disulfide | 39.4U | 887 | 950 | 107 | | 887 | 933 | 105 | | 45-160 | 1.80 | (< 20 ) |
| Carbon tetrachloride | 4.93U | 591 | 608 | 103 | | 591 | 607 | 103 | | 65-135 | 0.13 | (< 20 ) |
| Chlorobenzene | 9.85U | 591 | 677 | 115 | | 591 | 692 | 117 | | 75-125 | 2.10 | (< 20 ) |
| Chloroethane | 79.0U | 591 | 1200 | 203 | * | 591 | 592 | 100 | | 40-155 | 68.20 | * (< 20 ) |



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## Matrix Spike Summary

Original Sample ID: 1265676
MS Sample ID: 1265607 MS
MSD Sample ID: 1265608 MSD

Analysis Date: 05/19/2015 13:06
Analysis Date: 05/19/2015 12:19
Analysis Date: 05/19/2015 12:34
Matrix: Soil/Solid (dry weight)

QC for Samples: 1152028007, 1152028008, 1152028009, 1152028013, 1152028015, 1152028019, 1152028020

## Results by **SW8260B**

| | | Matrix Spike (ug/Kg) | | | | Spike Duplicate (ug/Kg) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Parameter | Sample | Spike | Result | Rec (%) | | Spike | Result | Rec (%) | | CL | RPD (%) | RPD CL |
| Chloroform | 9.85U | 591 | 650 | 110 | | 591 | 648 | 110 | | 70-125 | 0.33 | (< 20 ) |
| Chloromethane | 9.85U | 591 | 540 | 91 | | 591 | 520 | 88 | | 50-130 | 3.80 | (< 20 ) |
| cis-1,2-Dichloroethene | 9.85U | 591 | 644 | 109 | | 591 | 641 | 108 | | 65-125 | 0.43 | (< 20 ) |
| cis-1,3-Dichloropropene | 9.85U | 591 | 653 | 110 | | 591 | 661 | 112 | | 70-125 | 1.30 | (< 20 ) |
| Dibromochloromethane | 9.85U | 591 | 577 | 98 | | 591 | 573 | 97 | | 65-130 | 0.72 | (< 20 ) |
| Dibromomethane | 9.85U | 591 | 656 | 111 | | 591 | 653 | 110 | | 75-130 | 0.54 | (< 20 ) |
| Dichlorodifluoromethane | 19.7U | 591 | 542 | 92 | | 591 | 520 | 88 | | 35-135 | 4.20 | (< 20 ) |
| Ethylbenzene | 183 | 591 | 814 | 107 | | 591 | 836 | 110 | | 75-125 | 2.60 | (< 20 ) |
| Hexachlorobutadiene | 19.7U | 591 | 885 | 150 | * | 591 | 893 | 151 | * | 55-140 | 0.93 | (< 20 ) |
| Isopropylbenzene (Cumene) | 156 | 591 | 809 | 111 | | 591 | 809 | 110 | | 75-130 | 0.10 | (< 20 ) |
| Methylene chloride | 39.4U | 591 | 627 | 106 | | 591 | 616 | 104 | | 55-140 | 1.80 | (< 20 ) |
| Methyl-t-butyl ether | 39.4U | 887 | 983 | 111 | | 887 | 997 | 112 | | 63-149 | 1.40 | (< 20 ) |
| Naphthalene | 2430 | 591 | 2640 | 35 | * | 591 | 3160 | 124 | | 40-125 | 18.00 | (< 20 ) |
| n-Butylbenzene | 699 | 591 | 1710 | 171 | * | 591 | 1690 | 168 | * | 65-140 | 1.20 | (< 20 ) |
| n-Propylbenzene | 444 | 591 | 1080 | 108 | | 591 | 1110 | 112 | | 65-135 | 2.30 | (< 20 ) |
| o-Xylene | 706 | 591 | 1300 | 100 | | 591 | 1310 | 101 | | 75-125 | 0.76 | (< 20 ) |
| P & M -Xylene | 1350 | 1180 | 2520 | 99 | | 1180 | 2510 | 99 | | 80-125 | 0.27 | (< 20 ) |
| sec-Butylbenzene | 212 | 591 | 895 | 116 | | 591 | 896 | 116 | | 65-130 | 0.02 | (< 20 ) |
| Styrene | 9.85U | 591 | 669 | 113 | | 591 | 673 | 114 | | 75-125 | 0.59 | (< 20 ) |
| tert-Butylbenzene | 33.9 | 591 | 699 | 112 | | 591 | 709 | 114 | | 65-130 | 1.50 | (< 20 ) |
| Tetrachloroethene | 7.10J | 591 | 572 | 96 | | 591 | 599 | 100 | | 65-140 | 4.60 | (< 20 ) |
| Toluene | 146 | 591 | 716 | 96 | | 591 | 736 | 100 | | 70-125 | 2.70 | (< 20 ) |
| trans-1,2-Dichloroethene | 9.85U | 591 | 643 | 109 | | 591 | 635 | 107 | | 65-135 | 1.20 | (< 20 ) |
| trans-1,3-Dichloropropene | 9.85U | 591 | 581 | 98 | | 591 | 588 | 100 | | 65-125 | 1.20 | (< 20 ) |
| Trichloroethene | 4.93U | 591 | 653 | 111 | | 591 | 668 | 113 | | 75-125 | 2.20 | (< 20 ) |
| Trichlorofluoromethane | 54.2 | 591 | 1210 | 196 | * | 591 | 723 | 113 | | 25-185 | 50.50 | * (< 20 ) |
| Vinyl chloride | 9.85U | 591 | 572 | 97 | | 591 | 555 | 94 | | 60-125 | 3.00 | (< 20 ) |
| Xylenes (total) | 2060 | 1770 | 3820 | 99 | | 1770 | 3820 | 100 | | 80-125 | 0.08 | (< 20 ) |
| **Surrogates** | | | | | | | | | | | | |
| 1,2-Dichloroethane-D4 (surr) | | 591 | 632 | 107 | | 591 | 636 | 108 | | 79-118 | 0.65 | |
| 4-Bromofluorobenzene (surr) | | 1580 | 1240 | 79 | | 1580 | 1290 | 82 | | 67-138 | 3.90 | |
| Toluene-d8 (surr) | | 591 | 649 | 110 | | 591 | 670 | 113 | | 85-115 | 3.30 | |



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## Matrix Spike Summary

Original Sample ID: 1265676
MS Sample ID: 1265607 MS
MSD Sample ID: 1265608 MSD

Analysis Date:
Analysis Date: 05/19/2015 12:19
Analysis Date: 05/19/2015 12:34
Matrix: Soil/Solid (dry weight)

QC for Samples: 1152028007, 1152028008, 1152028009, 1152028013, 1152028015, 1152028019, 1152028020

Results by **SW8260B**

| | | Matrix Spike (%) | | | Spike Duplicate (%) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Parameter | Sample | Spike | Result | Rec (%) | Spike | Result | Rec (%) | CL | RPD (%) | RPD CL |

### Batch Information

Analytical Batch: VMS14924
Analytical Method: SW8260B
Instrument: Agilent 7890-75MS
Analyst: SP
Analytical Date/Time: 5/19/2015 12:19:00PM

Prep Batch: VXX27267
Prep Method: Vol. Extraction SW8260 Field Extracted L
Prep Date/Time: 5/19/2015 12:00:00AM
Prep Initial Wt./Vol.: 63.42g
Prep Extract Vol: 25.00mL



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## Method Blank

Blank ID: MB for HBN 1709122 [VXX/27269]
Blank Lab ID: 1265393

Matrix: Soil/Solid (dry weight)

QC for Samples:
1152028001, 1152028002, 1152028003

Results by **SW8260B**

| Parameter | Results | LOQ/CL | DL | Units |
|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,1,1-Trichloroethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,1,2,2-Tetrachloroethane | 6.25U | 12.5 | 3.90 | ug/Kg |
| 1,1,2-Trichloroethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,1-Dichloroethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,1-Dichloroethene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,1-Dichloropropene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,2,3-Trichlorobenzene | 25.0U | 50.0 | 15.0 | ug/Kg |
| 1,2,3-Trichloropropane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,2,4-Trichlorobenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,2,4-Trimethylbenzene | 25.0U | 50.0 | 15.0 | ug/Kg |
| 1,2-Dibromo-3-chloropropane | 50.0U | 100 | 31.0 | ug/Kg |
| 1,2-Dibromoethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,2-Dichlorobenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,2-Dichloroethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,2-Dichloropropane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,3,5-Trimethylbenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,3-Dichlorobenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,3-Dichloropropane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,4-Dichlorobenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 2,2-Dichloropropane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 2-Butanone (MEK) | 125U | 250 | 78.0 | ug/Kg |
| 2-Chlorotoluene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 2-Hexanone | 125U | 250 | 78.0 | ug/Kg |
| 4-Chlorotoluene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 4-Isopropyltoluene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 4-Methyl-2-pentanone (MIBK) | 125U | 250 | 78.0 | ug/Kg |
| Benzene | 6.25U | 12.5 | 3.90 | ug/Kg |
| Bromobenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| Bromochloromethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| Bromodichloromethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| Bromoform | 12.5U | 25.0 | 7.80 | ug/Kg |
| Bromomethane | 100U | 200 | 62.0 | ug/Kg |
| Carbon disulfide | 50.0U | 100 | 31.0 | ug/Kg |
| Carbon tetrachloride | 6.25U | 12.5 | 3.90 | ug/Kg |
| Chlorobenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| Chloroethane | 100U | 200 | 62.0 | ug/Kg |
| Chloroform | 12.5U | 25.0 | 7.80 | ug/Kg |

## Method Blank

Blank ID: MB for HBN 1709122 [VXX/27269]
Blank Lab ID: 1265393

Matrix: Soil/Solid (dry weight)

QC for Samples:
1152028001, 1152028002, 1152028003

Results by **SW8260B**

| Parameter | Results | LOQ/CL | DL | Units |
|---|---|---|---|---|
| Chloromethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| cis-1,2-Dichloroethene | 12.5U | 25.0 | 7.80 | ug/Kg |
| cis-1,3-Dichloropropene | 12.5U | 25.0 | 7.80 | ug/Kg |
| Dibromochloromethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| Dibromomethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| Dichlorodifluoromethane | 25.0U | 50.0 | 15.0 | ug/Kg |
| Ethylbenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| Hexachlorobutadiene | 25.0U | 50.0 | 15.0 | ug/Kg |
| Isopropylbenzene (Cumene) | 12.5U | 25.0 | 7.80 | ug/Kg |
| Methylene chloride | 50.0U | 100 | 31.0 | ug/Kg |
| Methyl-t-butyl ether | 50.0U | 100 | 31.0 | ug/Kg |
| Naphthalene | 25.0U | 50.0 | 15.0 | ug/Kg |
| n-Butylbenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| n-Propylbenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| o-Xylene | 12.5U | 25.0 | 7.80 | ug/Kg |
| P & M -Xylene | 25.0U | 50.0 | 15.0 | ug/Kg |
| sec-Butylbenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| Styrene | 12.5U | 25.0 | 7.80 | ug/Kg |
| tert-Butylbenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| Tetrachloroethene | 6.25U | 12.5 | 3.90 | ug/Kg |
| Toluene | 12.5U | 25.0 | 7.80 | ug/Kg |
| trans-1,2-Dichloroethene | 12.5U | 25.0 | 7.80 | ug/Kg |
| trans-1,3-Dichloropropene | 12.5U | 25.0 | 7.80 | ug/Kg |
| Trichloroethene | 6.25U | 12.5 | 3.90 | ug/Kg |
| Trichlorofluoromethane | 25.0U | 50.0 | 15.0 | ug/Kg |
| Vinyl chloride | 12.5U | 25.0 | 7.80 | ug/Kg |
| Xylenes (total) | 37.5U | 75.0 | 22.8 | ug/Kg |
| **Surrogates** | | | | |
| 1,2-Dichloroethane-D4 (surr) | 115 | 79-118 | | % |
| 4-Bromofluorobenzene (surr) | 103 | 67-138 | | % |
| Toluene-d8 (surr) | 106 | 85-115 | | % |

## Method Blank

Blank ID: MB for HBN 1709122 [VXX/27269]
Blank Lab ID: 1265393

Matrix: Soil/Solid (dry weight)

QC for Samples:
1152028001, 1152028002, 1152028003

Results by **SW8260B**

| Parameter | Results | LOQ/CL | DL | Units |
|---|---|---|---|---|

### Batch Information

Analytical Batch: VMS14922
Analytical Method: SW8260B
Instrument: Agilent 7890-75MS
Analyst: SCL
Analytical Date/Time: 5/17/2015 8:21:00AM

Prep Batch: VXX27269
Prep Method: SW5035A
Prep Date/Time: 5/17/2015 8:00:00AM
Prep Initial Wt./Vol.: 50 g
Prep Extract Vol: 25 mL



SGS North America Inc.
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**t** 907.562.2343 **f** 907.561.5301 www.us.sgs.com

## Blank Spike Summary

Blank Spike ID: LCS for HBN 1152028 [VXX27269]
Blank Spike Lab ID: 1265394
Date Analyzed: 05/17/2015 08:53

Matrix: Soil/Solid (dry weight)

QC for Samples: 1152028001, 1152028002, 1152028003

## Results by **SW8260B**

Blank Spike (ug/Kg)

| Parameter | Spike | Result | Rec (%) | CL |
|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 750 | 663 | 88 | ( 75-125 ) |
| 1,1,1-Trichloroethane | 750 | 794 | 106 | ( 70-135 ) |
| 1,1,2,2-Tetrachloroethane | 750 | 767 | 102 | ( 55-130 ) |
| 1,1,2-Trichloroethane | 750 | 718 | 96 | ( 60-125 ) |
| 1,1-Dichloroethane | 750 | 768 | 102 | ( 75-125 ) |
| 1,1-Dichloroethene | 750 | 863 | 115 | ( 65-135 ) |
| 1,1-Dichloropropene | 750 | 805 | 107 | ( 70-135 ) |
| 1,2,3-Trichlorobenzene | 750 | 667 | 89 | ( 60-135 ) |
| 1,2,3-Trichloropropane | 750 | 778 | 104 | ( 65-130 ) |
| 1,2,4-Trichlorobenzene | 750 | 725 | 97 | ( 65-130 ) |
| 1,2,4-Trimethylbenzene | 750 | 821 | 109 | ( 65-135 ) |
| 1,2-Dibromo-3-chloropropane | 750 | 667 | 89 | ( 40-135 ) |
| 1,2-Dibromoethane | 750 | 709 | 95 | ( 70-125 ) |
| 1,2-Dichlorobenzene | 750 | 798 | 106 | ( 75-120 ) |
| 1,2-Dichloroethane | 750 | 809 | 108 | ( 70-135 ) |
| 1,2-Dichloropropane | 750 | 801 | 107 | ( 70-120 ) |
| 1,3,5-Trimethylbenzene | 750 | 818 | 109 | ( 65-135 ) |
| 1,3-Dichlorobenzene | 750 | 811 | 108 | ( 70-125 ) |
| 1,3-Dichloropropane | 750 | 711 | 95 | ( 75-125 ) |
| 1,4-Dichlorobenzene | 750 | 812 | 108 | ( 70-125 ) |
| 2,2-Dichloropropane | 750 | 780 | 104 | ( 65-135 ) |
| 2-Butanone (MEK) | 2250 | 2030 | 90 | ( 30-160 ) |
| 2-Chlorotoluene | 750 | 832 | 111 | ( 70-130 ) |
| 2-Hexanone | 2250 | 2210 | 98 | ( 45-145 ) |
| 4-Chlorotoluene | 750 | 821 | 110 | ( 75-125 ) |
| 4-Isopropyltoluene | 750 | 837 | 112 | ( 75-135 ) |
| 4-Methyl-2-pentanone (MIBK) | 2250 | 2110 | 94 | ( 45-145 ) |
| Benzene | 750 | 799 | 106 | ( 75-125 ) |
| Bromobenzene | 750 | 816 | 109 | ( 65-120 ) |
| Bromochloromethane | 750 | 810 | 108 | ( 70-125 ) |
| Bromodichloromethane | 750 | 794 | 106 | ( 70-130 ) |
| Bromoform | 750 | 640 | 85 | ( 55-135 ) |
| Bromomethane | 750 | 867 | 116 | ( 30-160 ) |
| Carbon disulfide | 1130 | 1220 | 108 | ( 45-160 ) |

## Blank Spike Summary

Blank Spike ID: LCS for HBN 1152028 [VXX27269]
Blank Spike Lab ID: 1265394
Date Analyzed: 05/17/2015 08:53

Matrix: Soil/Solid (dry weight)

QC for Samples: 1152028001, 1152028002, 1152028003

## Results by **SW8260B**

Blank Spike (ug/Kg)

| Parameter | Spike | Result | Rec (%) | | CL |
|---|---|---|---|---|---|
| Carbon tetrachloride | 750 | 776 | 103 | | ( 65-135 ) |
| Chlorobenzene | 750 | 802 | 107 | | ( 75-125 ) |
| Chloroethane | 750 | 1710 | 228 | * | ( 40-155 ) |
| Chloroform | 750 | 789 | 105 | | ( 70-125 ) |
| Chloromethane | 750 | 772 | 103 | | ( 50-130 ) |
| cis-1,2-Dichloroethene | 750 | 794 | 106 | | ( 65-125 ) |
| cis-1,3-Dichloropropene | 750 | 773 | 103 | | ( 70-125 ) |
| Dibromochloromethane | 750 | 680 | 91 | | ( 65-130 ) |
| Dibromomethane | 750 | 790 | 105 | | ( 75-130 ) |
| Dichlorodifluoromethane | 750 | 875 | 117 | | ( 35-135 ) |
| Ethylbenzene | 750 | 807 | 108 | | ( 75-125 ) |
| Hexachlorobutadiene | 750 | 859 | 114 | | ( 55-140 ) |
| Isopropylbenzene (Cumene) | 750 | 825 | 110 | | ( 75-130 ) |
| Methylene chloride | 750 | 752 | 100 | | ( 55-140 ) |
| Methyl-t-butyl ether | 1130 | 1180 | 105 | | ( 63-149 ) |
| Naphthalene | 750 | 652 | 87 | | ( 40-125 ) |
| n-Butylbenzene | 750 | 865 | 115 | | ( 65-140 ) |
| n-Propylbenzene | 750 | 837 | 112 | | ( 65-135 ) |
| o-Xylene | 750 | 798 | 106 | | ( 75-125 ) |
| P & M -Xylene | 1500 | 1620 | 108 | | ( 80-125 ) |
| sec-Butylbenzene | 750 | 850 | 113 | | ( 65-130 ) |
| Styrene | 750 | 820 | 109 | | ( 75-125 ) |
| tert-Butylbenzene | 750 | 833 | 111 | | ( 65-130 ) |
| Tetrachloroethene | 750 | 682 | 91 | | ( 65-140 ) |
| Toluene | 750 | 669 | 89 | | ( 70-125 ) |
| trans-1,2-Dichloroethene | 750 | 805 | 107 | | ( 65-135 ) |
| trans-1,3-Dichloropropene | 750 | 673 | 90 | | ( 65-125 ) |
| Trichloroethene | 750 | 808 | 108 | | ( 75-125 ) |
| Trichlorofluoromethane | 750 | 1580 | 211 | * | ( 25-185 ) |
| Vinyl chloride | 750 | 806 | 108 | | ( 60-125 ) |
| Xylenes (total) | 2250 | 2410 | 107 | | ( 80-125 ) |
| **Surrogates** | | | | | |
| 1,2-Dichloroethane-D4 (surr) | 750 | 108 | 108 | | ( 79-118 ) |

Print Date: 06/05/2015 8:36:38AM

## Blank Spike Summary

Blank Spike ID: LCS for HBN 1152028 [VXX27269]
Blank Spike Lab ID: 1265394
Date Analyzed: 05/17/2015 08:53

Matrix: Soil/Solid (dry weight)

QC for Samples: 1152028001, 1152028002, 1152028003

## Results by **SW8260B**

| | | Blank Spike (%) | | |
|---|---|---|---|---|
| Parameter | Spike | Result | Rec (%) | CL |
| 4-Bromofluorobenzene (surr) | 750 | 104 | 104 | ( 67-138 ) |
| Toluene-d8 (surr) | 750 | 107 | 107 | ( 85-115 ) |

## Batch Information

Analytical Batch: **VMS14922**
Analytical Method: **SW8260B**
Instrument: **Agilent 7890-75MS**
Analyst: **SCL**

Prep Batch: **VXX27269**
Prep Method: **SW5035A**
Prep Date/Time: **05/17/2015 08:00**
Spike Init Wt./Vol.: 750 ug/Kg Extract Vol: 25 mL
Dupe Init Wt./Vol.: Extract Vol:



SGS North America Inc.
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## Matrix Spike Summary

Original Sample ID: 1152027031
MS Sample ID: 1265557 MS
MSD Sample ID: 1265558 MSD

Analysis Date: 05/17/2015 10:43
Analysis Date: 05/17/2015 9:23
Analysis Date: 05/17/2015 9:56
Matrix: Soil/Solid (dry weight)

QC for Samples: 1152028001, 1152028002, 1152028003

## Results by **SW8260B**

| | | Matrix Spike (ug/Kg) | | | Spike Duplicate (ug/Kg) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Parameter | Sample | Spike | Result | Rec (%) | Spike | Result | Rec (%) | CL | RPD (%) | RPD CL |
| 1,1,1,2-Tetrachloroethane | 14.2U | 801 | 721 | 90 | 801 | 731 | 91 | 75-125 | 1.30 | (< 20 ) |
| 1,1,1-Trichloroethane | 14.2U | 801 | 822 | 103 | 801 | 822 | 103 | 70-135 | 0.00 | (< 20 ) |
| 1,1,2,2-Tetrachloroethane | 7.10U | 801 | 809 | 101 | 801 | 827 | 103 | 55-130 | 2.10 | (< 20 ) |
| 1,1,2-Trichloroethane | 14.2U | 801 | 775 | 97 | 801 | 779 | 97 | 60-125 | 0.52 | (< 20 ) |
| 1,1-Dichloroethane | 14.2U | 801 | 792 | 99 | 801 | 800 | 100 | 75-125 | 1.00 | (< 20 ) |
| 1,1-Dichloroethene | 14.2U | 801 | 894 | 112 | 801 | 890 | 111 | 65-135 | 0.45 | (< 20 ) |
| 1,1-Dichloropropene | 14.2U | 801 | 830 | 104 | 801 | 832 | 104 | 70-135 | 0.29 | (< 20 ) |
| 1,2,3-Trichlorobenzene | 28.3U | 801 | 744 | 93 | 801 | 710 | 89 | 60-135 | 4.70 | (< 20 ) |
| 1,2,3-Trichloropropane | 14.2U | 801 | 825 | 103 | 801 | 837 | 105 | 65-130 | 1.50 | (< 20 ) |
| 1,2,4-Trichlorobenzene | 14.2U | 801 | 774 | 97 | 801 | 755 | 94 | 65-130 | 2.40 | (< 20 ) |
| 1,2,4-Trimethylbenzene | 36.8J | 801 | 854 | 107 | 801 | 861 | 107 | 65-135 | 0.75 | (< 20 ) |
| 1,2-Dibromo-3-chloropropane | 56.5U | 801 | 735 | 92 | 801 | 731 | 91 | 40-135 | 0.66 | (< 20 ) |
| 1,2-Dibromoethane | 14.2U | 801 | 751 | 94 | 801 | 754 | 94 | 70-125 | 0.46 | (< 20 ) |
| 1,2-Dichlorobenzene | 14.2U | 801 | 816 | 102 | 801 | 826 | 103 | 75-120 | 1.10 | (< 20 ) |
| 1,2-Dichloroethane | 14.2U | 801 | 824 | 103 | 801 | 837 | 105 | 70-135 | 1.60 | (< 20 ) |
| 1,2-Dichloropropane | 14.2U | 801 | 818 | 102 | 801 | 832 | 104 | 70-120 | 1.60 | (< 20 ) |
| 1,3,5-Trimethylbenzene | 25.5J | 801 | 840 | 105 | 801 | 846 | 106 | 65-135 | 0.70 | (< 20 ) |
| 1,3-Dichlorobenzene | 14.2U | 801 | 810 | 101 | 801 | 829 | 103 | 70-125 | 2.20 | (< 20 ) |
| 1,3-Dichloropropane | 14.2U | 801 | 753 | 94 | 801 | 749 | 94 | 75-125 | 0.50 | (< 20 ) |
| 1,4-Dichlorobenzene | 14.2U | 801 | 824 | 103 | 801 | 835 | 104 | 70-125 | 1.40 | (< 20 ) |
| 2,2-Dichloropropane | 14.2U | 801 | 804 | 100 | 801 | 807 | 101 | 65-135 | 0.36 | (< 20 ) |
| 2-Butanone (MEK) | 142U | 2405 | 2281 | 95 | 2405 | 2260 | 94 | 30-160 | 1.30 | (< 20 ) |
| 2-Chlorotoluene | 14.2U | 801 | 831 | 104 | 801 | 851 | 106 | 70-130 | 2.60 | (< 20 ) |
| 2-Hexanone | 142U | 2405 | 2405 | 100 | 2405 | 2405 | 100 | 45-145 | 0.32 | (< 20 ) |
| 4-Chlorotoluene | 14.2U | 801 | 818 | 102 | 801 | 839 | 105 | 75-125 | 2.50 | (< 20 ) |
| 4-Isopropyltoluene | 14.2U | 801 | 850 | 106 | 801 | 863 | 108 | 75-135 | 1.50 | (< 20 ) |
| 4-Methyl-2-pentanone (MIBK) | 142U | 2405 | 2301 | 96 | 2405 | 2353 | 98 | 45-145 | 2.50 | (< 20 ) |
| Benzene | 5.95J | 801 | 840 | 105 | 801 | 845 | 106 | 75-125 | 0.57 | (< 20 ) |
| Bromobenzene | 14.2U | 801 | 816 | 102 | 801 | 843 | 105 | 65-120 | 3.30 | (< 20 ) |
| Bromochloromethane | 14.2U | 801 | 812 | 102 | 801 | 827 | 103 | 70-125 | 1.70 | (< 20 ) |
| Bromodichloromethane | 14.2U | 801 | 809 | 101 | 801 | 826 | 103 | 70-130 | 2.00 | (< 20 ) |
| Bromoform | 14.2U | 801 | 678 | 85 | 801 | 688 | 86 | 55-135 | 1.50 | (< 20 ) |
| Bromomethane | 114U | 801 | 757 | 95 | 801 | 934 | 117 | 30-160 | 20.90 | * (< 20 ) |
| Carbon disulfide | 56.5U | 1197 | 1269 | 106 | 1197 | 1269 | 105 | 45-160 | 0.57 | (< 20 ) |
| Carbon tetrachloride | 7.10U | 801 | 797 | 100 | 801 | 802 | 100 | 65-135 | 0.53 | (< 20 ) |
| Chlorobenzene | 14.2U | 801 | 834 | 104 | 801 | 842 | 105 | 75-125 | 0.96 | (< 20 ) |
| Chloroethane | 114U | 801 | 1238 | 155 | 801 | 1496 | 187 * | 40-155 | 19.10 | (< 20 ) |

Print Date: 06/05/2015 8:36:39AM

## Matrix Spike Summary

Original Sample ID: 1152027031
MS Sample ID: 1265557 MS
MSD Sample ID: 1265558 MSD

Analysis Date: 05/17/2015 10:43
Analysis Date: 05/17/2015 9:23
Analysis Date: 05/17/2015 9:56
Matrix: Soil/Solid (dry weight)

QC for Samples: 1152028001, 1152028002, 1152028003

## Results by **SW8260B**

| | | Matrix Spike (ug/Kg) | | | Spike Duplicate (ug/Kg) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Parameter | Sample | Spike | Result | Rec (%) | Spike | Result | Rec (%) | CL | RPD (%) | RPD CL |
| Chloroform | 14.2U | 801 | 806 | 101 | 801 | 816 | 102 | 70-125 | 1.30 | (< 20 ) |
| Chloromethane | 9.91J | 801 | 801 | 100 | 801 | 816 | 102 | 50-130 | 1.90 | (< 20 ) |
| cis-1,2-Dichloroethene | 14.2U | 801 | 822 | 103 | 801 | 812 | 102 | 65-125 | 1.20 | (< 20 ) |
| cis-1,3-Dichloropropene | 14.2U | 801 | 791 | 99 | 801 | 800 | 100 | 70-125 | 1.20 | (< 20 ) |
| Dibromochloromethane | 14.2U | 801 | 704 | 88 | 801 | 710 | 89 | 65-130 | 0.83 | (< 20 ) |
| Dibromomethane | 14.2U | 801 | 825 | 103 | 801 | 839 | 105 | 75-130 | 1.80 | (< 20 ) |
| Dichlorodifluoromethane | 28.3U | 801 | 930 | 116 | 801 | 931 | 116 | 35-135 | 0.09 | (< 20 ) |
| Ethylbenzene | 14.2U | 801 | 815 | 102 | 801 | 829 | 104 | 75-125 | 1.70 | (< 20 ) |
| Hexachlorobutadiene | 28.3U | 801 | 883 | 110 | 801 | 886 | 111 | 55-140 | 0.27 | (< 20 ) |
| Isopropylbenzene (Cumene) | 14.2U | 801 | 835 | 104 | 801 | 847 | 106 | 75-130 | 1.50 | (< 20 ) |
| Methylene chloride | 56.5U | 801 | 771 | 96 | 801 | 782 | 98 | 55-140 | 1.40 | (< 20 ) |
| Methyl-t-butyl ether | 56.5U | 1197 | 1197 | 100 | 1197 | 1238 | 103 | 63-149 | 2.80 | (< 20 ) |
| Naphthalene | 64.6 | 801 | 793 | 91 | 801 | 774 | 89 | 40-125 | 2.30 | (< 20 ) |
| n-Butylbenzene | 14.2U | 801 | 865 | 108 | 801 | 875 | 109 | 65-140 | 1.20 | (< 20 ) |
| n-Propylbenzene | 14.2U | 801 | 832 | 104 | 801 | 858 | 107 | 65-135 | 3.00 | (< 20 ) |
| o-Xylene | 30.9 | 801 | 840 | 101 | 801 | 859 | 103 | 75-125 | 2.20 | (< 20 ) |
| P & M -Xylene | 51.3J | 1600 | 1692 | 105 | 1600 | 1692 | 106 | 80-125 | 0.57 | (< 20 ) |
| sec-Butylbenzene | 14.2U | 801 | 853 | 107 | 801 | 865 | 108 | 65-130 | 1.40 | (< 20 ) |
| Styrene | 14.2U | 801 | 829 | 104 | 801 | 851 | 106 | 75-125 | 2.70 | (< 20 ) |
| tert-Butylbenzene | 14.2U | 801 | 827 | 103 | 801 | 851 | 106 | 65-130 | 2.90 | (< 20 ) |
| Tetrachloroethene | 7.10U | 801 | 731 | 91 | 801 | 733 | 92 | 65-140 | 0.18 | (< 20 ) |
| Toluene | 29.2 | 801 | 748 | 90 | 801 | 748 | 90 | 70-125 | 0.07 | (< 20 ) |
| trans-1,2-Dichloroethene | 14.2U | 801 | 828 | 103 | 801 | 834 | 104 | 65-135 | 0.74 | (< 20 ) |
| trans-1,3-Dichloropropene | 14.2U | 801 | 703 | 88 | 801 | 715 | 89 | 65-125 | 1.70 | (< 20 ) |
| Trichloroethene | 7.10U | 801 | 835 | 104 | 801 | 840 | 105 | 75-125 | 0.67 | (< 20 ) |
| Trichlorofluoromethane | 28.3U | 801 | 1424 | 178 | 801 | 1558 | 195 * | 25-185 | 8.60 | (< 20 ) |
| Vinyl chloride | 14.2U | 801 | 848 | 106 | 801 | 860 | 107 | 60-125 | 1.30 | (< 20 ) |
| Xylenes (total) | 82.1J | 2405 | 2528 | 105 | 2405 | 2559 | 106 | 80-125 | 1.10 | (< 20 ) |
| **Surrogates** | | | | | | | | | | |
| 1,2-Dichloroethane-D4 (surr) | | 801 | 854 | 107 | 801 | 871 | 109 | 79-118 | 1.90 | |
| 4-Bromofluorobenzene (surr) | | 2136 | 2002 | 94 | 2136 | 2064 | 97 | 67-138 | 2.90 | |
| Toluene-d8 (surr) | | 801 | 893 | 111 | 801 | 898 | 112 | 85-115 | 0.60 | |



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## Matrix Spike Summary

Original Sample ID: 1152027031
MS Sample ID: 1265557 MS
MSD Sample ID: 1265558 MSD

Analysis Date:
Analysis Date: 05/17/2015 9:23
Analysis Date: 05/17/2015 9:56
Matrix: Soil/Solid (dry weight)

QC for Samples: 1152028001, 1152028002, 1152028003

## Results by **SW8260B**

| | | Matrix Spike (%) | | | Spike Duplicate (%) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Parameter | Sample | Spike | Result | Rec (%) | Spike | Result | Rec (%) | CL | RPD (%) | RPD CL |

## Batch Information

Analytical Batch: VMS14922
Analytical Method: SW8260B
Instrument: Agilent 7890-75MS
Analyst: SCL
Analytical Date/Time: 5/17/2015 9:23:00AM

Prep Batch: VXX27269
Prep Method: Vol. Extraction SW8260 Field Extracted L
Prep Date/Time: 5/17/2015 8:00:00AM
Prep Initial Wt./Vol.: 48.34g
Prep Extract Vol: 25.00mL



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## Method Blank

Blank ID: MB for HBN 1709170 [VXX/27273]
Blank Lab ID: 1265630

Matrix: Soil/Solid (dry weight)

QC for Samples:
1152028012

## Results by **SW8260B**

| Parameter | Results | LOQ/CL | DL | Units |
|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,1,1-Trichloroethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,1,2,2-Tetrachloroethane | 6.25U | 12.5 | 3.90 | ug/Kg |
| 1,1,2-Trichloroethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,1-Dichloroethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,1-Dichloroethene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,1-Dichloropropene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,2,3-Trichlorobenzene | 25.0U | 50.0 | 15.0 | ug/Kg |
| 1,2,3-Trichloropropane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,2,4-Trichlorobenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,2,4-Trimethylbenzene | 25.0U | 50.0 | 15.0 | ug/Kg |
| 1,2-Dibromo-3-chloropropane | 50.0U | 100 | 31.0 | ug/Kg |
| 1,2-Dibromoethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,2-Dichlorobenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,2-Dichloroethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,2-Dichloropropane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,3,5-Trimethylbenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,3-Dichlorobenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,3-Dichloropropane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,4-Dichlorobenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 2,2-Dichloropropane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 2-Butanone (MEK) | 125U | 250 | 78.0 | ug/Kg |
| 2-Chlorotoluene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 2-Hexanone | 125U | 250 | 78.0 | ug/Kg |
| 4-Chlorotoluene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 4-Isopropyltoluene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 4-Methyl-2-pentanone (MIBK) | 125U | 250 | 78.0 | ug/Kg |
| Benzene | 6.25U | 12.5 | 3.90 | ug/Kg |
| Bromobenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| Bromochloromethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| Bromodichloromethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| Bromoform | 12.5U | 25.0 | 7.80 | ug/Kg |
| Bromomethane | 100U | 200 | 62.0 | ug/Kg |
| Carbon disulfide | 50.0U | 100 | 31.0 | ug/Kg |
| Carbon tetrachloride | 6.25U | 12.5 | 3.90 | ug/Kg |
| Chlorobenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| Chloroethane | 100U | 200 | 62.0 | ug/Kg |
| Chloroform | 12.5U | 25.0 | 7.80 | ug/Kg |

## Method Blank

Blank ID: MB for HBN 1709170 [VXX/27273]
Blank Lab ID: 1265630

Matrix: Soil/Solid (dry weight)

QC for Samples:
1152028012

## Results by **SW8260B**

| Parameter | Results | LOQ/CL | DL | Units |
|---|---|---|---|---|
| Chloromethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| cis-1,2-Dichloroethene | 12.5U | 25.0 | 7.80 | ug/Kg |
| cis-1,3-Dichloropropene | 12.5U | 25.0 | 7.80 | ug/Kg |
| Dibromochloromethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| Dibromomethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| Dichlorodifluoromethane | 25.0U | 50.0 | 15.0 | ug/Kg |
| Ethylbenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| Hexachlorobutadiene | 25.0U | 50.0 | 15.0 | ug/Kg |
| Isopropylbenzene (Cumene) | 12.5U | 25.0 | 7.80 | ug/Kg |
| Methylene chloride | 50.0U | 100 | 31.0 | ug/Kg |
| Methyl-t-butyl ether | 50.0U | 100 | 31.0 | ug/Kg |
| Naphthalene | 25.0U | 50.0 | 15.0 | ug/Kg |
| n-Butylbenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| n-Propylbenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| o-Xylene | 12.5U | 25.0 | 7.80 | ug/Kg |
| P & M -Xylene | 25.0U | 50.0 | 15.0 | ug/Kg |
| sec-Butylbenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| Styrene | 12.5U | 25.0 | 7.80 | ug/Kg |
| tert-Butylbenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| Tetrachloroethene | 6.25U | 12.5 | 3.90 | ug/Kg |
| Toluene | 12.5U | 25.0 | 7.80 | ug/Kg |
| trans-1,2-Dichloroethene | 12.5U | 25.0 | 7.80 | ug/Kg |
| trans-1,3-Dichloropropene | 12.5U | 25.0 | 7.80 | ug/Kg |
| Trichloroethene | 6.25U | 12.5 | 3.90 | ug/Kg |
| Trichlorofluoromethane | 25.0U | 50.0 | 15.0 | ug/Kg |
| Vinyl chloride | 12.5U | 25.0 | 7.80 | ug/Kg |
| Xylenes (total) | 37.5U | 75.0 | 22.8 | ug/Kg |
| **Surrogates** | | | | |
| 1,2-Dichloroethane-D4 (surr) | 108 | 79-118 | | % |
| 4-Bromofluorobenzene (surr) | 101 | 67-138 | | % |
| Toluene-d8 (surr) | 98.9 | 85-115 | | % |

## Method Blank

Blank ID: MB for HBN 1709170 [VXX/27273]
Blank Lab ID: 1265630

Matrix: Soil/Solid (dry weight)

QC for Samples:
1152028012

Results by **SW8260B**

| Parameter | Results | LOQ/CL | DL | Units |
|---|---|---|---|---|

### Batch Information

Analytical Batch: VMS14928
Analytical Method: SW8260B
Instrument: VQA 7890/5975 GC/MS
Analyst: SCL
Analytical Date/Time: 5/20/2015 8:31:00PM

Prep Batch: VXX27273
Prep Method: SW5035A
Prep Date/Time: 5/20/2015 12:00:00AM
Prep Initial Wt./Vol.: 50 g
Prep Extract Vol: 25 mL



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## Blank Spike Summary

Blank Spike ID: LCS for HBN 1152028 [VXX27273]
Blank Spike Lab ID: 1265631
Date Analyzed: 05/20/2015 21:05

Matrix: Soil/Solid (dry weight)

QC for Samples: 1152028012

## Results by **SW8260B**

Blank Spike (ug/Kg)

| Parameter | Spike | Result | Rec (%) | CL |
|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 750 | 731 | 98 | ( 75-125 ) |
| 1,1,1-Trichloroethane | 750 | 786 | 105 | ( 70-135 ) |
| 1,1,2,2-Tetrachloroethane | 750 | 773 | 103 | ( 55-130 ) |
| 1,1,2-Trichloroethane | 750 | 838 | 112 | ( 60-125 ) |
| 1,1-Dichloroethane | 750 | 692 | 92 | ( 75-125 ) |
| 1,1-Dichloroethene | 750 | 749 | 100 | ( 65-135 ) |
| 1,1-Dichloropropene | 750 | 777 | 104 | ( 70-135 ) |
| 1,2,3-Trichlorobenzene | 750 | 679 | 91 | ( 60-135 ) |
| 1,2,3-Trichloropropane | 750 | 833 | 111 | ( 65-130 ) |
| 1,2,4-Trichlorobenzene | 750 | 719 | 96 | ( 65-130 ) |
| 1,2,4-Trimethylbenzene | 750 | 752 | 100 | ( 65-135 ) |
| 1,2-Dibromo-3-chloropropane | 750 | 814 | 109 | ( 40-135 ) |
| 1,2-Dibromoethane | 750 | 746 | 100 | ( 70-125 ) |
| 1,2-Dichlorobenzene | 750 | 768 | 102 | ( 75-120 ) |
| 1,2-Dichloroethane | 750 | 785 | 105 | ( 70-135 ) |
| 1,2-Dichloropropane | 750 | 779 | 104 | ( 70-120 ) |
| 1,3,5-Trimethylbenzene | 750 | 755 | 101 | ( 65-135 ) |
| 1,3-Dichlorobenzene | 750 | 774 | 103 | ( 70-125 ) |
| 1,3-Dichloropropane | 750 | 856 | 114 | ( 75-125 ) |
| 1,4-Dichlorobenzene | 750 | 789 | 105 | ( 70-125 ) |
| 2,2-Dichloropropane | 750 | 722 | 96 | ( 65-135 ) |
| 2-Butanone (MEK) | 2250 | 2320 | 103 | ( 30-160 ) |
| 2-Chlorotoluene | 750 | 809 | 108 | ( 70-130 ) |
| 2-Hexanone | 2250 | 2480 | 110 | ( 45-145 ) |
| 4-Chlorotoluene | 750 | 802 | 107 | ( 75-125 ) |
| 4-Isopropyltoluene | 750 | 748 | 100 | ( 75-135 ) |
| 4-Methyl-2-pentanone (MIBK) | 2250 | 2130 | 95 | ( 45-145 ) |
| Benzene | 750 | 771 | 103 | ( 75-125 ) |
| Bromobenzene | 750 | 838 | 112 | ( 65-120 ) |
| Bromochloromethane | 750 | 772 | 103 | ( 70-125 ) |
| Bromodichloromethane | 750 | 818 | 109 | ( 70-130 ) |
| Bromoform | 750 | 768 | 102 | ( 55-135 ) |
| Bromomethane | 750 | 637 | 85 | ( 30-160 ) |
| Carbon disulfide | 1130 | 1130 | 101 | ( 45-160 ) |



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## Blank Spike Summary

Blank Spike ID: LCS for HBN 1152028 [VXX27273]
Blank Spike Lab ID: 1265631
Date Analyzed: 05/20/2015 21:05

Matrix: Soil/Solid (dry weight)

QC for Samples: 1152028012

## Results by **SW8260B**

Blank Spike (ug/Kg)

| Parameter | Spike | Result | Rec (%) | CL |
|---|---|---|---|---|
| Carbon tetrachloride | 750 | 810 | 108 | ( 65-135 ) |
| Chlorobenzene | 750 | 799 | 106 | ( 75-125 ) |
| Chloroethane | 750 | 861 | 115 | ( 40-155 ) |
| Chloroform | 750 | 780 | 104 | ( 70-125 ) |
| Chloromethane | 750 | 705 | 94 | ( 50-130 ) |
| cis-1,2-Dichloroethene | 750 | 762 | 102 | ( 65-125 ) |
| cis-1,3-Dichloropropene | 750 | 775 | 103 | ( 70-125 ) |
| Dibromochloromethane | 750 | 762 | 102 | ( 65-130 ) |
| Dibromomethane | 750 | 719 | 96 | ( 75-130 ) |
| Dichlorodifluoromethane | 750 | 664 | 89 | ( 35-135 ) |
| Ethylbenzene | 750 | 765 | 102 | ( 75-125 ) |
| Hexachlorobutadiene | 750 | 908 | 121 | ( 55-140 ) |
| Isopropylbenzene (Cumene) | 750 | 741 | 99 | ( 75-130 ) |
| Methylene chloride | 750 | 728 | 97 | ( 55-140 ) |
| Methyl-t-butyl ether | 1130 | 1120 | 100 | ( 63-149 ) |
| Naphthalene | 750 | 664 | 89 | ( 40-125 ) |
| n-Butylbenzene | 750 | 742 | 99 | ( 65-140 ) |
| n-Propylbenzene | 750 | 791 | 105 | ( 65-135 ) |
| o-Xylene | 750 | 787 | 105 | ( 75-125 ) |
| P & M -Xylene | 1500 | 1550 | 103 | ( 80-125 ) |
| sec-Butylbenzene | 750 | 771 | 103 | ( 65-130 ) |
| Styrene | 750 | 741 | 99 | ( 75-125 ) |
| tert-Butylbenzene | 750 | 800 | 107 | ( 65-130 ) |
| Tetrachloroethene | 750 | 803 | 107 | ( 65-140 ) |
| Toluene | 750 | 801 | 107 | ( 70-125 ) |
| trans-1,2-Dichloroethene | 750 | 763 | 102 | ( 65-135 ) |
| trans-1,3-Dichloropropene | 750 | 783 | 104 | ( 65-125 ) |
| Trichloroethene | 750 | 772 | 103 | ( 75-125 ) |
| Trichlorofluoromethane | 750 | 906 | 121 | ( 25-185 ) |
| Vinyl chloride | 750 | 700 | 93 | ( 60-125 ) |
| Xylenes (total) | 2250 | 2340 | 104 | ( 80-125 ) |
| **Surrogates** | | | | |
| 1,2-Dichloroethane-D4 (surr) | 750 | 108 | 108 | ( 79-118 ) |

## Blank Spike Summary

Blank Spike ID: LCS for HBN 1152028 [VXX27273]
Blank Spike Lab ID: 1265631
Date Analyzed: 05/20/2015 21:05

Matrix: Soil/Solid (dry weight)

QC for Samples: 1152028012

## Results by **SW8260B**

| | | Blank Spike (%) | | |
|---|---|---|---|---|
| Parameter | Spike | Result | Rec (%) | CL |
| 4-Bromofluorobenzene (surr) | 750 | 107 | 107 | ( 67-138 ) |
| Toluene-d8 (surr) | 750 | 109 | 109 | ( 85-115 ) |

## Batch Information

Analytical Batch: **VMS14928**
Analytical Method: **SW8260B**
Instrument: **VQA 7890/5975 GC/MS**
Analyst: **SCL**

Prep Batch: **VXX27273**
Prep Method: **SW5035A**
Prep Date/Time: **05/20/2015 00:00**
Spike Init Wt./Vol.: 750 ug/Kg Extract Vol: 25 mL
Dupe Init Wt./Vol.: Extract Vol:



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## Matrix Spike Summary

Original Sample ID: 1152077019
MS Sample ID: 1265632 MS
MSD Sample ID: 1265633 MSD

Analysis Date: 05/20/2015 23:06
Analysis Date: 05/20/2015 21:46
Analysis Date: 05/20/2015 22:02
Matrix: Soil/Solid (dry weight)

QC for Samples: 1152028012

Results by **SW8260B**

| | | Matrix Spike (ug/Kg) | | | Spike Duplicate (ug/Kg) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Parameter | Sample | Spike | Result | Rec (%) | Spike | Result | Rec (%) | CL | RPD (%) | RPD CL |
| 1,1,1,2-Tetrachloroethane | 33.3U | 685 | 643 | 94 | 685 | 662 | 97 | 75-125 | 3.00 | (< 20 ) |
| 1,1,1-Trichloroethane | 33.3U | 685 | 680 | 99 | 685 | 682 | 99 | 70-135 | 0.13 | (< 20 ) |
| 1,1,2,2-Tetrachloroethane | 16.7U | 685 | 663 | 97 | 685 | 697 | 102 | 55-130 | 5.00 | (< 20 ) |
| 1,1,2-Trichloroethane | 33.3U | 685 | 730 | 107 | 685 | 758 | 111 | 60-125 | 3.70 | (< 20 ) |
| 1,1-Dichloroethane | 33.3U | 685 | 605 | 88 | 685 | 603 | 88 | 75-125 | 0.49 | (< 20 ) |
| 1,1-Dichloroethene | 33.3U | 685 | 671 | 98 | 685 | 666 | 97 | 65-135 | 0.65 | (< 20 ) |
| 1,1-Dichloropropene | 33.3U | 685 | 686 | 100 | 685 | 688 | 100 | 70-135 | 0.27 | (< 20 ) |
| 1,2,3-Trichlorobenzene | 66.7U | 685 | 653 | 95 | 685 | 649 | 95 | 60-135 | 0.46 | (< 20 ) |
| 1,2,3-Trichloropropane | 33.3U | 685 | 709 | 103 | 685 | 769 | 112 | 65-130 | 8.00 | (< 20 ) |
| 1,2,4-Trichlorobenzene | 33.3U | 685 | 672 | 98 | 685 | 654 | 95 | 65-130 | 2.80 | (< 20 ) |
| 1,2,4-Trimethylbenzene | 66.7U | 685 | 692 | 101 | 685 | 708 | 103 | 65-135 | 2.30 | (< 20 ) |
| 1,2-Dibromo-3-chloropropane | 133U | 685 | 743 | 108 | 685 | 786 | 115 | 40-135 | 5.60 | (< 20 ) |
| 1,2-Dibromoethane | 33.3U | 685 | 650 | 95 | 685 | 674 | 98 | 70-125 | 3.80 | (< 20 ) |
| 1,2-Dichlorobenzene | 33.3U | 685 | 684 | 100 | 685 | 702 | 102 | 75-120 | 2.60 | (< 20 ) |
| 1,2-Dichloroethane | 33.3U | 685 | 691 | 101 | 685 | 692 | 101 | 70-135 | 0.10 | (< 20 ) |
| 1,2-Dichloropropane | 33.3U | 685 | 690 | 101 | 685 | 695 | 101 | 70-120 | 0.79 | (< 20 ) |
| 1,3,5-Trimethylbenzene | 33.3U | 685 | 703 | 103 | 685 | 717 | 104 | 65-135 | 1.80 | (< 20 ) |
| 1,3-Dichlorobenzene | 33.3U | 685 | 691 | 101 | 685 | 700 | 102 | 70-125 | 1.30 | (< 20 ) |
| 1,3-Dichloropropane | 33.3U | 685 | 746 | 109 | 685 | 766 | 112 | 75-125 | 2.70 | (< 20 ) |
| 1,4-Dichlorobenzene | 33.3U | 685 | 702 | 102 | 685 | 730 | 107 | 70-125 | 3.90 | (< 20 ) |
| 2,2-Dichloropropane | 33.3U | 685 | 651 | 95 | 685 | 644 | 94 | 65-135 | 1.20 | (< 20 ) |
| 2-Butanone (MEK) | 333U | 2058 | 2070 | 101 | 2058 | 2240 | 109 | 30-160 | 8.00 | (< 20 ) |
| 2-Chlorotoluene | 33.3U | 685 | 738 | 108 | 685 | 749 | 109 | 70-130 | 1.40 | (< 20 ) |
| 2-Hexanone | 333U | 2058 | 2215 | 108 | 2058 | 2312 | 113 | 45-145 | 4.60 | (< 20 ) |
| 4-Chlorotoluene | 33.3U | 685 | 718 | 105 | 685 | 731 | 107 | 75-125 | 1.90 | (< 20 ) |
| 4-Isopropyltoluene | 33.3U | 685 | 694 | 101 | 685 | 684 | 100 | 75-135 | 1.40 | (< 20 ) |
| 4-Methyl-2-pentanone (MIBK) | 333U | 2058 | 1852 | 90 | 2058 | 1937 | 94 | 45-145 | 4.20 | (< 20 ) |
| Benzene | 16.7U | 685 | 688 | 100 | 685 | 689 | 101 | 75-125 | 0.17 | (< 20 ) |
| Bromobenzene | 33.3U | 685 | 751 | 110 | 685 | 768 | 112 | 65-120 | 2.10 | (< 20 ) |
| Bromochloromethane | 33.3U | 685 | 685 | 100 | 685 | 671 | 98 | 70-125 | 2.10 | (< 20 ) |
| Bromodichloromethane | 33.3U | 685 | 728 | 106 | 685 | 722 | 105 | 70-130 | 0.73 | (< 20 ) |
| Bromoform | 33.3U | 685 | 669 | 98 | 685 | 690 | 101 | 55-135 | 3.00 | (< 20 ) |
| Bromomethane | 267U | 685 | 570 | 83 | 685 | 565 | 83 | 30-160 | 0.85 | (< 20 ) |
| Carbon disulfide | 133U | 1028 | 1005 | 98 | 1028 | 993 | 97 | 45-160 | 1.20 | (< 20 ) |
| Carbon tetrachloride | 16.7U | 685 | 712 | 104 | 685 | 708 | 103 | 65-135 | 0.58 | (< 20 ) |
| Chlorobenzene | 33.3U | 685 | 719 | 105 | 685 | 726 | 106 | 75-125 | 1.00 | (< 20 ) |
| Chloroethane | 267U | 685 | 815 | 119 | 685 | 676 | 99 | 40-155 | 18.60 | (< 20 ) |



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## Matrix Spike Summary

Original Sample ID: 1152077019
MS Sample ID: 1265632 MS
MSD Sample ID: 1265633 MSD

Analysis Date: 05/20/2015 23:06
Analysis Date: 05/20/2015 21:46
Analysis Date: 05/20/2015 22:02
Matrix: Soil/Solid (dry weight)

QC for Samples: 1152028012

## Results by **SW8260B**

| | | Matrix Spike (ug/Kg) | | | Spike Duplicate (ug/Kg) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Parameter | Sample | Spike | Result | Rec (%) | Spike | Result | Rec (%) | CL | RPD (%) | RPD CL |
| Chloroform | 33.3U | 685 | 688 | 100 | 685 | 685 | 100 | 70-125 | 0.27 | (< 20 ) |
| Chloromethane | 33.3U | 685 | 688 | 100 | 685 | 668 | 98 | 50-130 | 2.80 | (< 20 ) |
| cis-1,2-Dichloroethene | 33.3U | 685 | 666 | 97 | 685 | 669 | 98 | 65-125 | 0.48 | (< 20 ) |
| cis-1,3-Dichloropropene | 33.3U | 685 | 690 | 101 | 685 | 702 | 103 | 70-125 | 1.70 | (< 20 ) |
| Dibromochloromethane | 33.3U | 685 | 666 | 97 | 685 | 674 | 98 | 65-130 | 1.30 | (< 20 ) |
| Dibromomethane | 33.3U | 685 | 633 | 92 | 685 | 636 | 93 | 75-130 | 0.22 | (< 20 ) |
| Dichlorodifluoromethane | 66.7U | 685 | 720 | 105 | 685 | 697 | 102 | 35-135 | 3.20 | (< 20 ) |
| Ethylbenzene | 33.3U | 685 | 694 | 101 | 685 | 706 | 103 | 75-125 | 1.80 | (< 20 ) |
| Hexachlorobutadiene | 66.7U | 685 | 771 | 113 | 685 | 699 | 102 | 55-140 | 9.90 | (< 20 ) |
| Isopropylbenzene (Cumene) | 33.3U | 685 | 685 | 100 | 685 | 689 | 101 | 75-130 | 0.57 | (< 20 ) |
| Methylene chloride | 133U | 685 | 651 | 95 | 685 | 639 | 93 | 55-140 | 2.00 | (< 20 ) |
| Methyl-t-butyl ether | 133U | 1028 | 994 | 97 | 1028 | 1018 | 99 | 63-149 | 2.40 | (< 20 ) |
| Naphthalene | 66.7U | 685 | 689 | 101 | 685 | 694 | 101 | 40-125 | 0.76 | (< 20 ) |
| n-Butylbenzene | 33.3U | 685 | 677 | 99 | 685 | 653 | 95 | 65-140 | 3.70 | (< 20 ) |
| n-Propylbenzene | 33.3U | 685 | 711 | 104 | 685 | 731 | 107 | 65-135 | 2.90 | (< 20 ) |
| o-Xylene | 33.3U | 685 | 730 | 107 | 685 | 730 | 107 | 75-125 | 0.00 | (< 20 ) |
| P & M -Xylene | 66.7U | 1368 | 1404 | 102 | 1368 | 1429 | 104 | 80-125 | 1.90 | (< 20 ) |
| sec-Butylbenzene | 33.3U | 685 | 705 | 103 | 685 | 700 | 102 | 65-130 | 0.65 | (< 20 ) |
| Styrene | 33.3U | 685 | 661 | 96 | 685 | 669 | 98 | 75-125 | 1.30 | (< 20 ) |
| tert-Butylbenzene | 33.3U | 685 | 712 | 104 | 685 | 724 | 106 | 65-130 | 1.70 | (< 20 ) |
| Tetrachloroethene | 16.7U | 685 | 714 | 104 | 685 | 752 | 110 | 65-140 | 5.10 | (< 20 ) |
| Toluene | 33.3U | 685 | 720 | 105 | 685 | 731 | 107 | 70-125 | 1.50 | (< 20 ) |
| trans-1,2-Dichloroethene | 33.3U | 685 | 666 | 97 | 685 | 663 | 97 | 65-135 | 0.24 | (< 20 ) |
| trans-1,3-Dichloropropene | 33.3U | 685 | 709 | 103 | 685 | 705 | 103 | 65-125 | 0.61 | (< 20 ) |
| Trichloroethene | 16.7U | 685 | 683 | 100 | 685 | 684 | 100 | 75-125 | 0.20 | (< 20 ) |
| Trichlorofluoromethane | 66.7U | 685 | 787 | 115 | 685 | 847 | 124 | 25-185 | 7.30 | (< 20 ) |
| Vinyl chloride | 33.3U | 685 | 676 | 99 | 685 | 655 | 96 | 60-125 | 3.10 | (< 20 ) |
| Xylenes (total) | 100U | 2058 | 2131 | 104 | 2058 | 2155 | 105 | 80-125 | 1.30 | (< 20 ) |
| **Surrogates** | | | | | | | | | | |
| 1,2-Dichloroethane-D4 (surr) | | 685 | 722 | 105 | 685 | 715 | 104 | 79-118 | 0.70 | |
| 4-Bromofluorobenzene (surr) | | 1828 | 1392 | 76 | 1828 | 1404 | 77 | 67-138 | 0.28 | |
| Toluene-d8 (surr) | | 685 | 726 | 106 | 685 | 751 | 109 | 85-115 | 3.20 | |



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## Matrix Spike Summary

Original Sample ID: 1152077019
MS Sample ID: 1265632 MS
MSD Sample ID: 1265633 MSD

QC for Samples: 1152028012

Analysis Date:
Analysis Date: 05/20/2015 21:46
Analysis Date: 05/20/2015 22:02
Matrix: Soil/Solid (dry weight)

Results by **SW8260B**

| | | Matrix Spike (%) | | | Spike Duplicate (%) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Parameter | Sample | Spike | Result | Rec (%) | Spike | Result | Rec (%) | CL | RPD (%) | RPD CL |

### Batch Information

Analytical Batch: VMS14928
Analytical Method: SW8260B
Instrument: VQA 7890/5975 GC/MS
Analyst: SCL
Analytical Date/Time: 5/20/2015 9:46:00PM

Prep Batch: VXX27273
Prep Method: Vol. Extraction SW8260 Field Extracted L
Prep Date/Time: 5/20/2015 12:00:00AM
Prep Initial Wt./Vol.: 66.22g
Prep Extract Vol: 25.00mL



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## Method Blank

Blank ID: MB for HBN 1709195 [VXX/27276]
Blank Lab ID: 1265731

Matrix: Soil/Solid (dry weight)

QC for Samples:
1152028011, 1152028014

Results by **SW8260B**

| Parameter | Results | LOQ/CL | DL | Units |
|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,1,1-Trichloroethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,1,2,2-Tetrachloroethane | 6.25U | 12.5 | 3.90 | ug/Kg |
| 1,1,2-Trichloroethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,1-Dichloroethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,1-Dichloroethene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,1-Dichloropropene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,2,3-Trichlorobenzene | 25.0U | 50.0 | 15.0 | ug/Kg |
| 1,2,3-Trichloropropane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,2,4-Trichlorobenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,2,4-Trimethylbenzene | 25.0U | 50.0 | 15.0 | ug/Kg |
| 1,2-Dibromo-3-chloropropane | 50.0U | 100 | 31.0 | ug/Kg |
| 1,2-Dibromoethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,2-Dichlorobenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,2-Dichloroethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,2-Dichloropropane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,3,5-Trimethylbenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,3-Dichlorobenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,3-Dichloropropane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,4-Dichlorobenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 2,2-Dichloropropane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 2-Butanone (MEK) | 125U | 250 | 78.0 | ug/Kg |
| 2-Chlorotoluene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 2-Hexanone | 125U | 250 | 78.0 | ug/Kg |
| 4-Chlorotoluene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 4-Isopropyltoluene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 4-Methyl-2-pentanone (MIBK) | 125U | 250 | 78.0 | ug/Kg |
| Benzene | 6.25U | 12.5 | 3.90 | ug/Kg |
| Bromobenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| Bromochloromethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| Bromodichloromethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| Bromoform | 12.5U | 25.0 | 7.80 | ug/Kg |
| Bromomethane | 100U | 200 | 62.0 | ug/Kg |
| Carbon disulfide | 50.0U | 100 | 31.0 | ug/Kg |
| Carbon tetrachloride | 6.25U | 12.5 | 3.90 | ug/Kg |
| Chlorobenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| Chloroethane | 100U | 200 | 62.0 | ug/Kg |
| Chloroform | 12.5U | 25.0 | 7.80 | ug/Kg |

## Method Blank

Blank ID: MB for HBN 1709195 [VXX/27276]
Blank Lab ID: 1265731

Matrix: Soil/Solid (dry weight)

QC for Samples:
1152028011, 1152028014

Results by **SW8260B**

| Parameter | Results | LOQ/CL | DL | Units |
|---|---|---|---|---|
| Chloromethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| cis-1,2-Dichloroethene | 12.5U | 25.0 | 7.80 | ug/Kg |
| cis-1,3-Dichloropropene | 12.5U | 25.0 | 7.80 | ug/Kg |
| Dibromochloromethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| Dibromomethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| Dichlorodifluoromethane | 25.0U | 50.0 | 15.0 | ug/Kg |
| Ethylbenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| Hexachlorobutadiene | 25.0U | 50.0 | 15.0 | ug/Kg |
| Isopropylbenzene (Cumene) | 12.5U | 25.0 | 7.80 | ug/Kg |
| Methylene chloride | 50.0U | 100 | 31.0 | ug/Kg |
| Methyl-t-butyl ether | 50.0U | 100 | 31.0 | ug/Kg |
| Naphthalene | 25.0U | 50.0 | 15.0 | ug/Kg |
| n-Butylbenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| n-Propylbenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| o-Xylene | 12.5U | 25.0 | 7.80 | ug/Kg |
| P & M -Xylene | 25.0U | 50.0 | 15.0 | ug/Kg |
| sec-Butylbenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| Styrene | 12.5U | 25.0 | 7.80 | ug/Kg |
| tert-Butylbenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| Tetrachloroethene | 6.25U | 12.5 | 3.90 | ug/Kg |
| Toluene | 12.5U | 25.0 | 7.80 | ug/Kg |
| trans-1,2-Dichloroethene | 12.5U | 25.0 | 7.80 | ug/Kg |
| trans-1,3-Dichloropropene | 12.5U | 25.0 | 7.80 | ug/Kg |
| Trichloroethene | 6.25U | 12.5 | 3.90 | ug/Kg |
| Trichlorofluoromethane | 25.0U | 50.0 | 15.0 | ug/Kg |
| Vinyl chloride | 12.5U | 25.0 | 7.80 | ug/Kg |
| Xylenes (total) | 37.5U | 75.0 | 22.8 | ug/Kg |
| **Surrogates** | | | | |
| 1,2-Dichloroethane-D4 (surr) | 116 | 79-118 | | % |
| 4-Bromofluorobenzene (surr) | 105 | 67-138 | | % |
| Toluene-d8 (surr) | 105 | 85-115 | | % |

## Method Blank

Blank ID: MB for HBN 1709195 [VXX/27276]
Blank Lab ID: 1265731

Matrix: Soil/Solid (dry weight)

QC for Samples:
1152028011, 1152028014

Results by **SW8260B**

| Parameter | Results | LOQ/CL | DL | Units |
|---|---|---|---|---|

### Batch Information

Analytical Batch: VMS14934
Analytical Method: SW8260B
Instrument: Agilent 7890-75MS
Analyst: SP
Analytical Date/Time: 5/20/2015 7:58:00PM

Prep Batch: VXX27276
Prep Method: SW5035A
Prep Date/Time: 5/20/2015 12:00:00AM
Prep Initial Wt./Vol.: 50 g
Prep Extract Vol: 25 mL



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## Blank Spike Summary

Blank Spike ID: LCS for HBN 1152028 [VXX27276]
Blank Spike Lab ID: 1265732
Date Analyzed: 05/20/2015 20:27

Matrix: Soil/Solid (dry weight)

QC for Samples: 1152028011, 1152028014

## Results by **SW8260B**

Blank Spike (ug/Kg)

| Parameter | Spike | Result | Rec (%) | CL |
|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 750 | 668 | 89 | ( 75-125 ) |
| 1,1,1-Trichloroethane | 750 | 787 | 105 | ( 70-135 ) |
| 1,1,2,2-Tetrachloroethane | 750 | 826 | 110 | ( 55-130 ) |
| 1,1,2-Trichloroethane | 750 | 752 | 100 | ( 60-125 ) |
| 1,1-Dichloroethane | 750 | 785 | 105 | ( 75-125 ) |
| 1,1-Dichloroethene | 750 | 859 | 115 | ( 65-135 ) |
| 1,1-Dichloropropene | 750 | 807 | 108 | ( 70-135 ) |
| 1,2,3-Trichlorobenzene | 750 | 661 | 88 | ( 60-135 ) |
| 1,2,3-Trichloropropane | 750 | 829 | 110 | ( 65-130 ) |
| 1,2,4-Trichlorobenzene | 750 | 718 | 96 | ( 65-130 ) |
| 1,2,4-Trimethylbenzene | 750 | 842 | 112 | ( 65-135 ) |
| 1,2-Dibromo-3-chloropropane | 750 | 664 | 89 | ( 40-135 ) |
| 1,2-Dibromoethane | 750 | 728 | 97 | ( 70-125 ) |
| 1,2-Dichlorobenzene | 750 | 822 | 110 | ( 75-120 ) |
| 1,2-Dichloroethane | 750 | 834 | 111 | ( 70-135 ) |
| 1,2-Dichloropropane | 750 | 827 | 110 | ( 70-120 ) |
| 1,3,5-Trimethylbenzene | 750 | 846 | 113 | ( 65-135 ) |
| 1,3-Dichlorobenzene | 750 | 828 | 110 | ( 70-125 ) |
| 1,3-Dichloropropane | 750 | 742 | 99 | ( 75-125 ) |
| 1,4-Dichlorobenzene | 750 | 834 | 111 | ( 70-125 ) |
| 2,2-Dichloropropane | 750 | 731 | 98 | ( 65-135 ) |
| 2-Butanone (MEK) | 2250 | 2040 | 91 | ( 30-160 ) |
| 2-Chlorotoluene | 750 | 876 | 117 | ( 70-130 ) |
| 2-Hexanone | 2250 | 2270 | 101 | ( 45-145 ) |
| 4-Chlorotoluene | 750 | 852 | 114 | ( 75-125 ) |
| 4-Isopropyltoluene | 750 | 846 | 113 | ( 75-135 ) |
| 4-Methyl-2-pentanone (MIBK) | 2250 | 2150 | 96 | ( 45-145 ) |
| Benzene | 750 | 818 | 109 | ( 75-125 ) |
| Bromobenzene | 750 | 852 | 114 | ( 65-120 ) |
| Bromochloromethane | 750 | 823 | 110 | ( 70-125 ) |
| Bromodichloromethane | 750 | 797 | 106 | ( 70-130 ) |
| Bromoform | 750 | 630 | 84 | ( 55-135 ) |
| Bromomethane | 750 | 797 | 106 | ( 30-160 ) |
| Carbon disulfide | 1130 | 1200 | 107 | ( 45-160 ) |

## Blank Spike Summary

Blank Spike ID: LCS for HBN 1152028 [VXX27276]
Blank Spike Lab ID: 1265732
Date Analyzed: 05/20/2015 20:27

Matrix: Soil/Solid (dry weight)

QC for Samples: 1152028011, 1152028014

## Results by **SW8260B**

Blank Spike (ug/Kg)

| Parameter | Spike | Result | Rec (%) | | CL |
|---|---|---|---|---|---|
| Carbon tetrachloride | 750 | 736 | 98 | | ( 65-135 ) |
| Chlorobenzene | 750 | 817 | 109 | | ( 75-125 ) |
| Chloroethane | 750 | 1580 | 210 | * | ( 40-155 ) |
| Chloroform | 750 | 808 | 108 | | ( 70-125 ) |
| Chloromethane | 750 | 707 | 94 | | ( 50-130 ) |
| cis-1,2-Dichloroethene | 750 | 822 | 110 | | ( 65-125 ) |
| cis-1,3-Dichloropropene | 750 | 765 | 102 | | ( 70-125 ) |
| Dibromochloromethane | 750 | 672 | 90 | | ( 65-130 ) |
| Dibromomethane | 750 | 828 | 110 | | ( 75-130 ) |
| Dichlorodifluoromethane | 750 | 752 | 100 | | ( 35-135 ) |
| Ethylbenzene | 750 | 815 | 109 | | ( 75-125 ) |
| Hexachlorobutadiene | 750 | 865 | 115 | | ( 55-140 ) |
| Isopropylbenzene (Cumene) | 750 | 837 | 112 | | ( 75-130 ) |
| Methylene chloride | 750 | 776 | 103 | | ( 55-140 ) |
| Methyl-t-butyl ether | 1130 | 1190 | 106 | | ( 63-149 ) |
| Naphthalene | 750 | 637 | 85 | | ( 40-125 ) |
| n-Butylbenzene | 750 | 878 | 117 | | ( 65-140 ) |
| n-Propylbenzene | 750 | 872 | 116 | | ( 65-135 ) |
| o-Xylene | 750 | 819 | 109 | | ( 75-125 ) |
| P & M -Xylene | 1500 | 1630 | 109 | | ( 80-125 ) |
| sec-Butylbenzene | 750 | 871 | 116 | | ( 65-130 ) |
| Styrene | 750 | 838 | 112 | | ( 75-125 ) |
| tert-Butylbenzene | 750 | 854 | 114 | | ( 65-130 ) |
| Tetrachloroethene | 750 | 680 | 91 | | ( 65-140 ) |
| Toluene | 750 | 683 | 91 | | ( 70-125 ) |
| trans-1,2-Dichloroethene | 750 | 808 | 108 | | ( 65-135 ) |
| trans-1,3-Dichloropropene | 750 | 666 | 89 | | ( 65-125 ) |
| Trichloroethene | 750 | 811 | 108 | | ( 75-125 ) |
| Trichlorofluoromethane | 750 | 1460 | 195 | * | ( 25-185 ) |
| Vinyl chloride | 750 | 748 | 100 | | ( 60-125 ) |
| Xylenes (total) | 2250 | 2450 | 109 | | ( 80-125 ) |
| **Surrogates** | | | | | |
| 1,2-Dichloroethane-D4 (surr) | 750 | 105 | 105 | | ( 79-118 ) |

Print Date: 06/05/2015 8:36:46AM

## Blank Spike Summary

Blank Spike ID: LCS for HBN 1152028 [VXX27276]
Blank Spike Lab ID: 1265732
Date Analyzed: 05/20/2015 20:27

Matrix: Soil/Solid (dry weight)

QC for Samples: 1152028011, 1152028014

## Results by **SW8260B**

| | | Blank Spike (%) | | |
|---|---|---|---|---|
| Parameter | Spike | Result | Rec (%) | CL |
| 4-Bromofluorobenzene (surr) | 750 | 103 | 103 | ( 67-138 ) |
| Toluene-d8 (surr) | 750 | 103 | 103 | ( 85-115 ) |

## Batch Information

Analytical Batch: **VMS14934**
Analytical Method: **SW8260B**
Instrument: **Agilent 7890-75MS**
Analyst: **SP**

Prep Batch: **VXX27276**
Prep Method: **SW5035A**
Prep Date/Time: **05/20/2015 00:00**
Spike Init Wt./Vol.: 750 ug/Kg Extract Vol: 25 mL
Dupe Init Wt./Vol.: Extract Vol:



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## Matrix Spike Summary

Original Sample ID: 1152028014
MS Sample ID: 1265916 MS
MSD Sample ID: 1265917 MSD

Analysis Date: 05/20/2015 23:17
Analysis Date: 05/20/2015 21:42
Analysis Date: 05/20/2015 21:58
Matrix: Soil/Solid (dry weight)

QC for Samples: 1152028011, 1152028014

## Results by **SW8260B**

| | | Matrix Spike (ug/Kg) | | | | Spike Duplicate (ug/Kg) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Parameter | Sample | Spike | Result | Rec (%) | | Spike | Result | Rec (%) | | CL | RPD (%) | RPD CL |
| 1,1,1,2-Tetrachloroethane | 43.2U | 2604 | 2242 | 86 | | 2604 | 2369 | 91 | | 75-125 | 5.80 | (< 20 ) |
| 1,1,1-Trichloroethane | 43.2U | 2604 | 3201 | 123 | | 2604 | 3002 | 116 | | 70-135 | 6.40 | (< 20 ) |
| 1,1,2,2-Tetrachloroethane | 21.6U | 2604 | 3056 | 118 | | 2604 | 3165 | 122 | | 55-130 | 3.40 | (< 20 ) |
| 1,1,2-Trichloroethane | 43.2U | 2604 | 2550 | 98 | | 2604 | 2676 | 103 | | 60-125 | 4.80 | (< 20 ) |
| 1,1-Dichloroethane | 43.2U | 2604 | 3255 | 126 | * | 2604 | 3038 | 117 | | 75-125 | 7.30 | (< 20 ) |
| 1,1-Dichloroethene | 43.2U | 2604 | 3635 | 140 | * | 2604 | 3309 | 127 | | 65-135 | 9.30 | (< 20 ) |
| 1,1-Dichloropropene | 43.2U | 2604 | 3291 | 126 | | 2604 | 3128 | 120 | | 70-135 | 5.00 | (< 20 ) |
| 1,2,3-Trichlorobenzene | 86.5U | 2604 | 2423 | 93 | | 2604 | 2875 | 111 | | 60-135 | 17.40 | (< 20 ) |
| 1,2,3-Trichloropropane | 43.2U | 2604 | 3092 | 119 | | 2604 | 3255 | 125 | | 65-130 | 5.30 | (< 20 ) |
| 1,2,4-Trichlorobenzene | 43.2U | 2604 | 2604 | 100 | | 2604 | 2875 | 110 | | 65-130 | 9.70 | (< 20 ) |
| 1,2,4-Trimethylbenzene | 86.5U | 2604 | 3092 | 119 | | 2604 | 3092 | 119 | | 65-135 | 0.00 | (< 20 ) |
| 1,2-Dibromo-3-chloropropane | 173U | 2604 | 2514 | 97 | | 2604 | 2821 | 109 | | 40-135 | 11.80 | (< 20 ) |
| 1,2-Dibromoethane | 43.2U | 2604 | 2459 | 95 | | 2604 | 2586 | 100 | | 70-125 | 5.10 | (< 20 ) |
| 1,2-Dichlorobenzene | 43.2U | 2604 | 2966 | 114 | | 2604 | 3020 | 116 | | 75-120 | 2.10 | (< 20 ) |
| 1,2-Dichloroethane | 43.2U | 2604 | 3345 | 129 | | 2604 | 3237 | 125 | | 70-135 | 3.20 | (< 20 ) |
| 1,2-Dichloropropane | 43.2U | 2604 | 3327 | 128 | * | 2604 | 3201 | 123 | * | 70-120 | 3.50 | (< 20 ) |
| 1,3,5-Trimethylbenzene | 43.2U | 2604 | 3146 | 121 | | 2604 | 3092 | 119 | | 65-135 | 1.50 | (< 20 ) |
| 1,3-Dichlorobenzene | 43.2U | 2604 | 3002 | 116 | | 2604 | 3020 | 116 | | 70-125 | 0.37 | (< 20 ) |
| 1,3-Dichloropropane | 43.2U | 2604 | 2568 | 99 | | 2604 | 2658 | 103 | | 75-125 | 3.80 | (< 20 ) |
| 1,4-Dichlorobenzene | 43.2U | 2604 | 3074 | 118 | | 2604 | 3038 | 117 | | 70-125 | 0.88 | (< 20 ) |
| 2,2-Dichloropropane | 43.2U | 2604 | 3110 | 120 | | 2604 | 2893 | 111 | | 65-135 | 7.50 | (< 20 ) |
| 2-Butanone (MEK) | 432U | 7794 | 7939 | 102 | | 7794 | 9693 | 124 | | 30-160 | 19.90 | (< 20 ) |
| 2-Chlorotoluene | 43.2U | 2604 | 3219 | 124 | | 2604 | 3183 | 122 | | 70-130 | 1.60 | (< 20 ) |
| 2-Hexanone | 432U | 7794 | 8409 | 108 | | 7794 | 9638 | 124 | | 45-145 | 13.80 | (< 20 ) |
| 4-Chlorotoluene | 43.2U | 2604 | 3165 | 122 | | 2604 | 3146 | 121 | | 75-125 | 0.93 | (< 20 ) |
| 4-Isopropyltoluene | 43.2U | 2604 | 3056 | 118 | | 2604 | 3002 | 115 | | 75-135 | 1.90 | (< 20 ) |
| 4-Methyl-2-pentanone (MIBK) | 432U | 7794 | 8734 | 112 | | 7794 | 9512 | 122 | | 45-145 | 8.50 | (< 20 ) |
| Benzene | 21.6U | 2604 | 3183 | 122 | | 2604 | 3128 | 120 | | 75-125 | 1.50 | (< 20 ) |
| Bromobenzene | 43.2U | 2604 | 3183 | 122 | * | 2604 | 3165 | 122 | * | 65-120 | 0.19 | (< 20 ) |
| Bromochloromethane | 43.2U | 2604 | 3327 | 128 | * | 2604 | 3128 | 120 | | 70-125 | 6.20 | (< 20 ) |
| Bromodichloromethane | 43.2U | 2604 | 3237 | 124 | | 2604 | 3056 | 118 | | 70-130 | 5.50 | (< 20 ) |
| Bromoform | 43.2U | 2604 | 2152 | 83 | | 2604 | 2260 | 87 | | 55-135 | 4.90 | (< 20 ) |
| Bromomethane | 346U | 2604 | 3382 | 130 | | 2604 | 3146 | 121 | | 30-160 | 6.80 | (< 20 ) |
| Carbon disulfide | 173U | 3888 | 5208 | 134 | | 3888 | 4756 | 122 | | 45-160 | 9.10 | (< 20 ) |
| Carbon tetrachloride | 21.6U | 2604 | 3002 | 116 | | 2604 | 2803 | 108 | | 65-135 | 7.40 | (< 20 ) |
| Chlorobenzene | 43.2U | 2604 | 3002 | 116 | | 2604 | 3038 | 117 | | 75-125 | 1.20 | (< 20 ) |
| Chloroethane | 346U | 2604 | 6691 | 258 | * | 2604 | 3418 | 132 | | 40-155 | 64.60 | * (< 20 ) |

Print Date: 06/05/2015 8:36:47AM

## Matrix Spike Summary

Original Sample ID: 1152028014
MS Sample ID: 1265916 MS
MSD Sample ID: 1265917 MSD

Analysis Date: 05/20/2015 23:17
Analysis Date: 05/20/2015 21:42
Analysis Date: 05/20/2015 21:58
Matrix: Soil/Solid (dry weight)

QC for Samples: 1152028011, 1152028014

## Results by **SW8260B**

| | | Matrix Spike (ug/Kg) | | | Spike Duplicate (ug/Kg) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Parameter | Sample | Spike | Result | Rec (%) | Spike | Result | Rec (%) | CL | RPD (%) | RPD CL |
| Chloroform | 43.2U | 2604 | 3255 | 126 * | 2604 | 3092 | 119 | 70-125 | 5.40 | (< 20 ) |
| Chloromethane | 43.2U | 2604 | 3382 | 130 | 2604 | 3002 | 115 | 50-130 | 11.80 | (< 20 ) |
| cis-1,2-Dichloroethene | 43.2U | 2604 | 3255 | 125 | 2604 | 3128 | 120 | 65-125 | 3.80 | (< 20 ) |
| cis-1,3-Dichloropropene | 43.2U | 2604 | 3128 | 120 | 2604 | 3020 | 116 | 70-125 | 3.20 | (< 20 ) |
| Dibromochloromethane | 43.2U | 2604 | 2387 | 92 | 2604 | 2441 | 94 | 65-130 | 1.60 | (< 20 ) |
| Dibromomethane | 43.2U | 2604 | 3255 | 126 | 2604 | 3128 | 121 | 75-130 | 4.00 | (< 20 ) |
| Dichlorodifluoromethane | 86.5U | 2604 | 4014 | 155 * | 2604 | 3544 | 136 * | 35-135 | 12.80 | (< 20 ) |
| Ethylbenzene | 43.2U | 2604 | 2966 | 114 | 2604 | 2984 | 115 | 75-125 | 0.61 | (< 20 ) |
| Hexachlorobutadiene | 86.5U | 2604 | 3400 | 131 | 2604 | 3418 | 131 | 55-140 | 0.43 | (< 20 ) |
| Isopropylbenzene (Cumene) | 43.2U | 2604 | 2984 | 115 | 2604 | 2984 | 115 | 75-130 | 0.09 | (< 20 ) |
| Methylene chloride | 173U | 2604 | 3255 | 125 | 2604 | 3038 | 117 | 55-140 | 6.50 | (< 20 ) |
| Methyl-t-butyl ether | 173U | 3888 | 4846 | 124 | 3888 | 4774 | 122 | 63-149 | 1.60 | (< 20 ) |
| Naphthalene | 86.5U | 2604 | 2387 | 92 | 2604 | 2857 | 110 | 40-125 | 17.60 | (< 20 ) |
| n-Butylbenzene | 43.2U | 2604 | 3237 | 125 | 2604 | 3165 | 122 | 65-140 | 2.10 | (< 20 ) |
| n-Propylbenzene | 43.2U | 2604 | 3219 | 124 | 2604 | 3146 | 121 | 65-135 | 2.40 | (< 20 ) |
| o-Xylene | 43.2U | 2604 | 2948 | 114 | 2604 | 2966 | 114 | 75-125 | 0.18 | (< 20 ) |
| P & M -Xylene | 86.5U | 5190 | 5949 | 115 | 5190 | 5949 | 115 | 80-125 | 0.06 | (< 20 ) |
| sec-Butylbenzene | 43.2U | 2604 | 3165 | 122 | 2604 | 3110 | 119 | 65-130 | 1.90 | (< 20 ) |
| Styrene | 43.2U | 2604 | 3038 | 117 | 2604 | 3038 | 117 | 75-125 | 0.43 | (< 20 ) |
| tert-Butylbenzene | 43.2U | 2604 | 3110 | 119 | 2604 | 3020 | 116 | 65-130 | 2.50 | (< 20 ) |
| Tetrachloroethene | 21.6U | 2604 | 2405 | 92 | 2604 | 2477 | 95 | 65-140 | 2.90 | (< 20 ) |
| Toluene | 43.2U | 2604 | 2514 | 97 | 2604 | 2568 | 99 | 70-125 | 2.00 | (< 20 ) |
| trans-1,2-Dichloroethene | 43.2U | 2604 | 3345 | 129 | 2604 | 3128 | 120 | 65-135 | 7.10 | (< 20 ) |
| trans-1,3-Dichloropropene | 43.2U | 2604 | 2369 | 92 | 2604 | 2441 | 94 | 65-125 | 2.80 | (< 20 ) |
| Trichloroethene | 21.6U | 2604 | 3255 | 126 * | 2604 | 3165 | 122 | 75-125 | 3.30 | (< 20 ) |
| Trichlorofluoromethane | 86.5U | 2604 | 6148 | 236 * | 2604 | 3707 | 143 | 25-185 | 49.60 * | (< 20 ) |
| Vinyl chloride | 43.2U | 2604 | 3472 | 134 * | 2604 | 3092 | 119 | 60-125 | 11.80 | (< 20 ) |
| Xylenes (total) | 130U | 7794 | 8915 | 114 | 7794 | 8915 | 114 | 80-125 | 0.02 | (< 20 ) |
| **Surrogates** | | | | | | | | | | |
| 1,2-Dichloroethane-D4 (surr) | | 2604 | 3146 | 121 * | 2604 | 3020 | 116 | 79-118 | 3.80 | |
| 4-Bromofluorobenzene (surr) | | 4901 | 3237 | 66 * | 4901 | 3201 | 66 * | 67-138 | 0.75 | |
| Toluene-d8 (surr) | | 2604 | 2785 | 107 | 2604 | 2857 | 110 | 85-115 | 2.30 | |



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## Matrix Spike Summary

Original Sample ID: 1152028014
MS Sample ID: 1265916 MS
MSD Sample ID: 1265917 MSD

QC for Samples: 1152028011, 1152028014

Analysis Date:
Analysis Date: 05/20/2015 21:42
Analysis Date: 05/20/2015 21:58
Matrix: Soil/Solid (dry weight)

Results by **SW8260B**

| | | Matrix Spike (%) | | | Spike Duplicate (%) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Parameter | Sample | Spike | Result | Rec (%) | Spike | Result | Rec (%) | CL | RPD (%) | RPD CL |

### Batch Information

Analytical Batch: VMS14934
Analytical Method: SW8260B
Instrument: Agilent 7890-75MS
Analyst: SP
Analytical Date/Time: 5/20/2015 9:42:00PM

Prep Batch: VXX27276
Prep Method: Vol. Extraction SW8260 Field Extracted L
Prep Date/Time: 5/20/2015 12:00:00AM
Prep Initial Wt./Vol.: 49.08g
Prep Extract Vol: 46.92mL



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## Method Blank

Blank ID: MB for HBN 1709241 [VXX/27280]
Blank Lab ID: 1265918

Matrix: Soil/Solid (dry weight)

QC for Samples:
1152028010

## Results by **SW8260B**

| Parameter | Results | LOQ/CL | DL | Units |
|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,1,1-Trichloroethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,1,2,2-Tetrachloroethane | 6.25U | 12.5 | 3.90 | ug/Kg |
| 1,1,2-Trichloroethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,1-Dichloroethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,1-Dichloroethene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,1-Dichloropropene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,2,3-Trichlorobenzene | 25.0U | 50.0 | 15.0 | ug/Kg |
| 1,2,3-Trichloropropane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,2,4-Trichlorobenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,2,4-Trimethylbenzene | 25.0U | 50.0 | 15.0 | ug/Kg |
| 1,2-Dibromo-3-chloropropane | 50.0U | 100 | 31.0 | ug/Kg |
| 1,2-Dibromoethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,2-Dichlorobenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,2-Dichloroethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,2-Dichloropropane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,3,5-Trimethylbenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,3-Dichlorobenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,3-Dichloropropane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 1,4-Dichlorobenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 2,2-Dichloropropane | 12.5U | 25.0 | 7.80 | ug/Kg |
| 2-Butanone (MEK) | 125U | 250 | 78.0 | ug/Kg |
| 2-Chlorotoluene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 2-Hexanone | 125U | 250 | 78.0 | ug/Kg |
| 4-Chlorotoluene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 4-Isopropyltoluene | 12.5U | 25.0 | 7.80 | ug/Kg |
| 4-Methyl-2-pentanone (MIBK) | 125U | 250 | 78.0 | ug/Kg |
| Benzene | 6.25U | 12.5 | 3.90 | ug/Kg |
| Bromobenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| Bromochloromethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| Bromodichloromethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| Bromoform | 12.5U | 25.0 | 7.80 | ug/Kg |
| Bromomethane | 100U | 200 | 62.0 | ug/Kg |
| Carbon disulfide | 50.0U | 100 | 31.0 | ug/Kg |
| Carbon tetrachloride | 6.25U | 12.5 | 3.90 | ug/Kg |
| Chlorobenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| Chloroethane | 100U | 200 | 62.0 | ug/Kg |
| Chloroform | 12.5U | 25.0 | 7.80 | ug/Kg |

## Method Blank

Blank ID: MB for HBN 1709241 [VXX/27280]
Blank Lab ID: 1265918

Matrix: Soil/Solid (dry weight)

QC for Samples:
1152028010

Results by **SW8260B**

| Parameter | Results | LOQ/CL | DL | Units |
|---|---|---|---|---|
| Chloromethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| cis-1,2-Dichloroethene | 12.5U | 25.0 | 7.80 | ug/Kg |
| cis-1,3-Dichloropropene | 12.5U | 25.0 | 7.80 | ug/Kg |
| Dibromochloromethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| Dibromomethane | 12.5U | 25.0 | 7.80 | ug/Kg |
| Dichlorodifluoromethane | 25.0U | 50.0 | 15.0 | ug/Kg |
| Ethylbenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| Hexachlorobutadiene | 25.0U | 50.0 | 15.0 | ug/Kg |
| Isopropylbenzene (Cumene) | 12.5U | 25.0 | 7.80 | ug/Kg |
| Methylene chloride | 50.0U | 100 | 31.0 | ug/Kg |
| Methyl-t-butyl ether | 50.0U | 100 | 31.0 | ug/Kg |
| Naphthalene | 25.0U | 50.0 | 15.0 | ug/Kg |
| n-Butylbenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| n-Propylbenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| o-Xylene | 12.5U | 25.0 | 7.80 | ug/Kg |
| P & M -Xylene | 25.0U | 50.0 | 15.0 | ug/Kg |
| sec-Butylbenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| Styrene | 12.5U | 25.0 | 7.80 | ug/Kg |
| tert-Butylbenzene | 12.5U | 25.0 | 7.80 | ug/Kg |
| Tetrachloroethene | 6.25U | 12.5 | 3.90 | ug/Kg |
| Toluene | 12.5U | 25.0 | 7.80 | ug/Kg |
| trans-1,2-Dichloroethene | 12.5U | 25.0 | 7.80 | ug/Kg |
| trans-1,3-Dichloropropene | 12.5U | 25.0 | 7.80 | ug/Kg |
| Trichloroethene | 6.25U | 12.5 | 3.90 | ug/Kg |
| Trichlorofluoromethane | 25.0U | 50.0 | 15.0 | ug/Kg |
| Vinyl chloride | 12.5U | 25.0 | 7.80 | ug/Kg |
| Xylenes (total) | 37.5U | 75.0 | 22.8 | ug/Kg |
| **Surrogates** | | | | |
| 1,2-Dichloroethane-D4 (surr) | 112 | 79-118 | | % |
| 4-Bromofluorobenzene (surr) | 107 | 67-138 | | % |
| Toluene-d8 (surr) | 106 | 85-115 | | % |

## Method Blank

Blank ID: MB for HBN 1709241 [VXX/27280]
Blank Lab ID: 1265918

Matrix: Soil/Solid (dry weight)

QC for Samples:
1152028010

Results by **SW8260B**

| Parameter | Results | LOQ/CL | DL | Units |
|---|---|---|---|---|

### Batch Information

Analytical Batch: VMS14938
Analytical Method: SW8260B
Instrument: Agilent 7890-75MS
Analyst: SCL
Analytical Date/Time: 5/21/2015 10:44:00AM

Prep Batch: VXX27280
Prep Method: SW5035A
Prep Date/Time: 5/18/2015 12:00:00AM
Prep Initial Wt./Vol.: 50 g
Prep Extract Vol: 25 mL



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## Blank Spike Summary

Blank Spike ID: LCS for HBN 1152028 [VXX27280]
Blank Spike Lab ID: 1265919
Date Analyzed: 05/21/2015 12:03

Matrix: Soil/Solid (dry weight)

QC for Samples: 1152028010

## Results by **SW8260B**

Blank Spike (ug/Kg)

| Parameter | Spike | Result | Rec (%) | CL |
|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | 750 | 710 | 95 | ( 75-125 ) |
| 1,1,1-Trichloroethane | 750 | 792 | 106 | ( 70-135 ) |
| 1,1,2,2-Tetrachloroethane | 750 | 866 | 116 | ( 55-130 ) |
| 1,1,2-Trichloroethane | 750 | 773 | 103 | ( 60-125 ) |
| 1,1-Dichloroethane | 750 | 785 | 105 | ( 75-125 ) |
| 1,1-Dichloroethene | 750 | 880 | 117 | ( 65-135 ) |
| 1,1-Dichloropropene | 750 | 819 | 109 | ( 70-135 ) |
| 1,2,3-Trichlorobenzene | 750 | 720 | 96 | ( 60-135 ) |
| 1,2,3-Trichloropropane | 750 | 868 | 116 | ( 65-130 ) |
| 1,2,4-Trichlorobenzene | 750 | 772 | 103 | ( 65-130 ) |
| 1,2,4-Trimethylbenzene | 750 | 848 | 113 | ( 65-135 ) |
| 1,2-Dibromo-3-chloropropane | 750 | 694 | 93 | ( 40-135 ) |
| 1,2-Dibromoethane | 750 | 754 | 100 | ( 70-125 ) |
| 1,2-Dichlorobenzene | 750 | 833 | 111 | ( 75-120 ) |
| 1,2-Dichloroethane | 750 | 823 | 110 | ( 70-135 ) |
| 1,2-Dichloropropane | 750 | 832 | 111 | ( 70-120 ) |
| 1,3,5-Trimethylbenzene | 750 | 855 | 114 | ( 65-135 ) |
| 1,3-Dichlorobenzene | 750 | 831 | 111 | ( 70-125 ) |
| 1,3-Dichloropropane | 750 | 764 | 102 | ( 75-125 ) |
| 1,4-Dichlorobenzene | 750 | 835 | 111 | ( 70-125 ) |
| 2,2-Dichloropropane | 750 | 737 | 98 | ( 65-135 ) |
| 2-Butanone (MEK) | 2250 | 2060 | 91 | ( 30-160 ) |
| 2-Chlorotoluene | 750 | 864 | 115 | ( 70-130 ) |
| 2-Hexanone | 2250 | 2360 | 105 | ( 45-145 ) |
| 4-Chlorotoluene | 750 | 852 | 114 | ( 75-125 ) |
| 4-Isopropyltoluene | 750 | 864 | 115 | ( 75-135 ) |
| 4-Methyl-2-pentanone (MIBK) | 2250 | 2280 | 101 | ( 45-145 ) |
| Benzene | 750 | 815 | 109 | ( 75-125 ) |
| Bromobenzene | 750 | 853 | 114 | ( 65-120 ) |
| Bromochloromethane | 750 | 807 | 108 | ( 70-125 ) |
| Bromodichloromethane | 750 | 798 | 106 | ( 70-130 ) |
| Bromoform | 750 | 656 | 88 | ( 55-135 ) |
| Bromomethane | 750 | 828 | 110 | ( 30-160 ) |
| Carbon disulfide | 1130 | 1250 | 111 | ( 45-160 ) |

## Blank Spike Summary

Blank Spike ID: LCS for HBN 1152028 [VXX27280]
Blank Spike Lab ID: 1265919
Date Analyzed: 05/21/2015 12:03

Matrix: Soil/Solid (dry weight)

QC for Samples: 1152028010

## Results by **SW8260B**

Blank Spike (ug/Kg)

| Parameter | Spike | Result | Rec (%) | | CL |
|---|---|---|---|---|---|
| Carbon tetrachloride | 750 | 739 | 99 | | ( 65-135 ) |
| Chlorobenzene | 750 | 835 | 111 | | ( 75-125 ) |
| Chloroethane | 750 | 1280 | 171 | * | ( 40-155 ) |
| Chloroform | 750 | 806 | 107 | | ( 70-125 ) |
| Chloromethane | 750 | 719 | 96 | | ( 50-130 ) |
| cis-1,2-Dichloroethene | 750 | 801 | 107 | | ( 65-125 ) |
| cis-1,3-Dichloropropene | 750 | 769 | 103 | | ( 70-125 ) |
| Dibromochloromethane | 750 | 699 | 93 | | ( 65-130 ) |
| Dibromomethane | 750 | 806 | 107 | | ( 75-130 ) |
| Dichlorodifluoromethane | 750 | 763 | 102 | | ( 35-135 ) |
| Ethylbenzene | 750 | 803 | 107 | | ( 75-125 ) |
| Hexachlorobutadiene | 750 | 984 | 131 | | ( 55-140 ) |
| Isopropylbenzene (Cumene) | 750 | 813 | 108 | | ( 75-130 ) |
| Methylene chloride | 750 | 775 | 103 | | ( 55-140 ) |
| Methyl-t-butyl ether | 1130 | 1200 | 106 | | ( 63-149 ) |
| Naphthalene | 750 | 673 | 90 | | ( 40-125 ) |
| n-Butylbenzene | 750 | 911 | 122 | | ( 65-140 ) |
| n-Propylbenzene | 750 | 863 | 115 | | ( 65-135 ) |
| o-Xylene | 750 | 806 | 107 | | ( 75-125 ) |
| P & M -Xylene | 1500 | 1610 | 107 | | ( 80-125 ) |
| sec-Butylbenzene | 750 | 887 | 118 | | ( 65-130 ) |
| Styrene | 750 | 832 | 111 | | ( 75-125 ) |
| tert-Butylbenzene | 750 | 864 | 115 | | ( 65-130 ) |
| Tetrachloroethene | 750 | 703 | 94 | | ( 65-140 ) |
| Toluene | 750 | 722 | 96 | | ( 70-125 ) |
| trans-1,2-Dichloroethene | 750 | 818 | 109 | | ( 65-135 ) |
| trans-1,3-Dichloropropene | 750 | 693 | 92 | | ( 65-125 ) |
| Trichloroethene | 750 | 822 | 110 | | ( 75-125 ) |
| Trichlorofluoromethane | 750 | 1320 | 177 | | ( 25-185 ) |
| Vinyl chloride | 750 | 771 | 103 | | ( 60-125 ) |
| Xylenes (total) | 2250 | 2410 | 107 | | ( 80-125 ) |
| **Surrogates** | | | | | |
| 1,2-Dichloroethane-D4 (surr) | 750 | 105 | 105 | | ( 79-118 ) |

## Blank Spike Summary

Blank Spike ID: LCS for HBN 1152028 [VXX27280]
Blank Spike Lab ID: 1265919
Date Analyzed: 05/21/2015 12:03

Matrix: Soil/Solid (dry weight)

QC for Samples: 1152028010

## Results by **SW8260B**

| | | Blank Spike (%) | | |
|---|---|---|---|---|
| Parameter | Spike | Result | Rec (%) | CL |
| 4-Bromofluorobenzene (surr) | 750 | 103 | 103 | ( 67-138 ) |
| Toluene-d8 (surr) | 750 | 109 | 109 | ( 85-115 ) |

## Batch Information

Analytical Batch: **VMS14938**
Analytical Method: **SW8260B**
Instrument: **Agilent 7890-75MS**
Analyst: **SCL**

Prep Batch: **VXX27280**
Prep Method: **SW5035A**
Prep Date/Time: **05/18/2015 00:00**
Spike Init Wt./Vol.: 750 ug/Kg Extract Vol: 25 mL
Dupe Init Wt./Vol.: Extract Vol:



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## Matrix Spike Summary

Original Sample ID: 1266332
MS Sample ID: 1266107 MS
MSD Sample ID: 1266108 MSD

Analysis Date: 05/21/2015 13:17
Analysis Date: 05/21/2015 12:29
Analysis Date: 05/21/2015 12:45
Matrix: Soil/Solid (dry weight)

QC for Samples: 1152028010

## Results by **SW8260B**

| | | Matrix Spike (ug/Kg) | | | Spike Duplicate (ug/Kg) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Parameter | Sample | Spike | Result | Rec (%) | Spike | Result | Rec (%) | CL | RPD (%) | RPD CL |
| 1,1,1,2-Tetrachloroethane | 10.0U | 600 | 603 | 101 | 600 | 582 | 97 | 75-125 | 3.50 | (< 20 ) |
| 1,1,1-Trichloroethane | 10.0U | 600 | 670 | 112 | 600 | 650 | 108 | 70-135 | 3.00 | (< 20 ) |
| 1,1,2,2-Tetrachloroethane | 5.00U | 600 | 733 | 122 | 600 | 741 | 124 | 55-130 | 1.10 | (< 20 ) |
| 1,1,2-Trichloroethane | 10.0U | 600 | 723 | 121 | 600 | 708 | 118 | 60-125 | 2.10 | (< 20 ) |
| 1,1-Dichloroethane | 10.0U | 600 | 680 | 113 | 600 | 659 | 110 | 75-125 | 3.10 | (< 20 ) |
| 1,1-Dichloroethene | 10.0U | 600 | 750 | 125 | 600 | 720 | 120 | 65-135 | 4.10 | (< 20 ) |
| 1,1-Dichloropropene | 10.0U | 600 | 705 | 117 | 600 | 689 | 115 | 70-135 | 2.20 | (< 20 ) |
| 1,2,3-Trichlorobenzene | 20.0U | 600 | 629 | 105 | 600 | 662 | 110 | 60-135 | 5.10 | (< 20 ) |
| 1,2,3-Trichloropropane | 10.0U | 600 | 734 | 122 | 600 | 744 | 124 | 65-130 | 1.40 | (< 20 ) |
| 1,2,4-Trichlorobenzene | 10.0U | 600 | 658 | 110 | 600 | 665 | 111 | 65-130 | 1.10 | (< 20 ) |
| 1,2,4-Trimethylbenzene | 1470 | 600 | 2190 | 119 | 600 | 2180 | 118 | 65-135 | 0.15 | (< 20 ) |
| 1,2-Dibromo-3-chloropropane | 36.8J | 600 | 665 | 105 | 600 | 682 | 108 | 40-135 | 2.50 | (< 20 ) |
| 1,2-Dibromoethane | 10.0U | 600 | 651 | 109 | 600 | 639 | 106 | 70-125 | 2.00 | (< 20 ) |
| 1,2-Dichlorobenzene | 10.0U | 600 | 703 | 117 | 600 | 697 | 116 | 75-120 | 0.86 | (< 20 ) |
| 1,2-Dichloroethane | 10.0U | 600 | 718 | 120 | 600 | 694 | 116 | 70-135 | 3.50 | (< 20 ) |
| 1,2-Dichloropropane | 10.0U | 600 | 722 | 120 | 600 | 701 | 117 | 70-120 | 2.90 | (< 20 ) |
| 1,3,5-Trimethylbenzene | 467 | 600 | 1200 | 122 | 600 | 1180 | 119 | 65-135 | 1.50 | (< 20 ) |
| 1,3-Dichlorobenzene | 10.0U | 600 | 706 | 118 | 600 | 694 | 116 | 70-125 | 1.70 | (< 20 ) |
| 1,3-Dichloropropane | 10.0U | 600 | 656 | 109 | 600 | 640 | 107 | 75-125 | 2.40 | (< 20 ) |
| 1,4-Dichlorobenzene | 10.0U | 600 | 717 | 120 | 600 | 711 | 119 | 70-125 | 0.90 | (< 20 ) |
| 2,2-Dichloropropane | 10.0U | 600 | 648 | 108 | 600 | 627 | 104 | 65-135 | 3.30 | (< 20 ) |
| 2-Butanone (MEK) | 100U | 1800 | 2150 | 119 | 1800 | 2220 | 124 | 30-160 | 3.40 | (< 20 ) |
| 2-Chlorotoluene | 10.0U | 600 | 928 | 155 * | 600 | 918 | 153 * | 70-130 | 1.10 | (< 20 ) |
| 2-Hexanone | 100U | 1800 | 2170 | 120 | 1800 | 2220 | 123 | 45-145 | 2.50 | (< 20 ) |
| 4-Chlorotoluene | 10.0U | 600 | 727 | 121 | 600 | 718 | 120 | 75-125 | 1.20 | (< 20 ) |
| 4-Isopropyltoluene | 200 | 600 | 919 | 120 | 600 | 908 | 118 | 75-135 | 1.30 | (< 20 ) |
| 4-Methyl-2-pentanone (MIBK) | 100U | 1800 | 2050 | 114 | 1800 | 2120 | 118 | 45-145 | 3.20 | (< 20 ) |
| Benzene | 18.4 | 600 | 726 | 118 | 600 | 717 | 116 | 75-125 | 1.30 | (< 20 ) |
| Bromobenzene | 10.0U | 600 | 722 | 120 | 600 | 717 | 119 | 65-120 | 0.78 | (< 20 ) |
| Bromochloromethane | 10.0U | 600 | 702 | 117 | 600 | 667 | 111 | 70-125 | 5.10 | (< 20 ) |
| Bromodichloromethane | 10.0U | 600 | 690 | 115 | 600 | 652 | 109 | 70-130 | 5.60 | (< 20 ) |
| Bromoform | 10.0U | 600 | 556 | 93 | 600 | 533 | 89 | 55-135 | 4.30 | (< 20 ) |
| Bromomethane | 80.0U | 600 | 757 | 126 | 600 | 707 | 118 | 30-160 | 6.80 | (< 20 ) |
| Carbon disulfide | 40.0U | 900 | 1080 | 120 | 900 | 1040 | 115 | 45-160 | 4.30 | (< 20 ) |
| Carbon tetrachloride | 5.00U | 600 | 626 | 104 | 600 | 608 | 101 | 65-135 | 3.00 | (< 20 ) |
| Chlorobenzene | 10.0U | 600 | 712 | 119 | 600 | 694 | 116 | 75-125 | 2.60 | (< 20 ) |
| Chloroethane | 80.0U | 600 | 1190 | 198 * | 600 | 723 | 121 | 40-155 | 48.70 * | (< 20 ) |

Print Date: 06/05/2015 8:36:51AM

## Matrix Spike Summary

Original Sample ID: 1266332
MS Sample ID: 1266107 MS
MSD Sample ID: 1266108 MSD

Analysis Date: 05/21/2015 13:17
Analysis Date: 05/21/2015 12:29
Analysis Date: 05/21/2015 12:45
Matrix: Soil/Solid (dry weight)

QC for Samples: 1152028010

## Results by **SW8260B**

| | | Matrix Spike (ug/Kg) | | | | Spike Duplicate (ug/Kg) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Parameter | Sample | Spike | Result | Rec (%) | | Spike | Result | Rec (%) | CL | RPD (%) | RPD CL |
| Chloroform | 10.0U | 600 | 691 | 115 | | 600 | 663 | 111 | 70-125 | 4.20 | (< 20 ) |
| Chloromethane | 10.0U | 600 | 694 | 116 | | 600 | 654 | 109 | 50-130 | 6.10 | (< 20 ) |
| cis-1,2-Dichloroethene | 10.0U | 600 | 694 | 116 | | 600 | 676 | 113 | 65-125 | 2.60 | (< 20 ) |
| cis-1,3-Dichloropropene | 10.0U | 600 | 682 | 114 | | 600 | 657 | 109 | 70-125 | 3.80 | (< 20 ) |
| Dibromochloromethane | 10.0U | 600 | 595 | 99 | | 600 | 570 | 95 | 65-130 | 4.40 | (< 20 ) |
| Dibromomethane | 10.0U | 600 | 701 | 117 | | 600 | 671 | 112 | 75-130 | 4.30 | (< 20 ) |
| Dichlorodifluoromethane | 20.0U | 600 | 824 | 137 | * | 600 | 782 | 130 | 35-135 | 5.30 | (< 20 ) |
| Ethylbenzene | 358 | 600 | 1070 | 118 | | 600 | 1020 | 111 | 75-125 | 4.00 | (< 20 ) |
| Hexachlorobutadiene | 20.0U | 600 | 736 | 123 | | 600 | 701 | 117 | 55-140 | 4.80 | (< 20 ) |
| Isopropylbenzene (Cumene) | 102 | 600 | 802 | 117 | | 600 | 775 | 112 | 75-130 | 3.40 | (< 20 ) |
| Methylene chloride | 40.0U | 600 | 683 | 114 | | 600 | 654 | 109 | 55-140 | 4.30 | (< 20 ) |
| Methyl-t-butyl ether | 40.0U | 900 | 1060 | 117 | | 900 | 1030 | 115 | 63-149 | 2.10 | (< 20 ) |
| Naphthalene | 263 | 600 | 892 | 105 | | 600 | 963 | 117 | 40-125 | 7.60 | (< 20 ) |
| n-Butylbenzene | 238 | 600 | 991 | 126 | | 600 | 972 | 122 | 65-140 | 2.00 | (< 20 ) |
| n-Propylbenzene | 313 | 600 | 1050 | 123 | | 600 | 1040 | 121 | 65-135 | 1.50 | (< 20 ) |
| o-Xylene | 548 | 600 | 1260 | 118 | | 600 | 1210 | 110 | 75-125 | 3.90 | (< 20 ) |
| P & M -Xylene | 683 | 1200 | 2100 | 118 | | 1200 | 2020 | 111 | 80-125 | 3.80 | (< 20 ) |
| sec-Butylbenzene | 74.2 | 600 | 796 | 120 | | 600 | 777 | 117 | 65-130 | 2.40 | (< 20 ) |
| Styrene | 10.0U | 600 | 713 | 119 | | 600 | 686 | 114 | 75-125 | 3.90 | (< 20 ) |
| tert-Butylbenzene | 22.2 | 600 | 740 | 120 | | 600 | 722 | 117 | 65-130 | 2.50 | (< 20 ) |
| Tetrachloroethene | 8.20J | 600 | 615 | 101 | | 600 | 608 | 100 | 65-140 | 1.10 | (< 20 ) |
| Toluene | 67.4 | 600 | 682 | 102 | | 600 | 672 | 101 | 70-125 | 1.40 | (< 20 ) |
| trans-1,2-Dichloroethene | 10.0U | 600 | 702 | 117 | | 600 | 677 | 113 | 65-135 | 3.50 | (< 20 ) |
| trans-1,3-Dichloropropene | 10.0U | 600 | 602 | 100 | | 600 | 585 | 98 | 65-125 | 2.90 | (< 20 ) |
| Trichloroethene | 5.00U | 600 | 709 | 118 | | 600 | 694 | 116 | 75-125 | 2.10 | (< 20 ) |
| Trichlorofluoromethane | 20.0U | 600 | 1200 | 200 | * | 600 | 791 | 132 | 25-185 | 40.90 | * (< 20 ) |
| Vinyl chloride | 10.0U | 600 | 717 | 119 | | 600 | 681 | 114 | 60-125 | 5.10 | (< 20 ) |
| Xylenes (total) | 1230 | 1800 | 3350 | 118 | | 1800 | 3230 | 111 | 80-125 | 3.90 | (< 20 ) |
| **Surrogates** | | | | | | | | | | | |
| 1,2-Dichloroethane-D4 (surr) | | 600 | 679 | 113 | | 600 | 653 | 109 | 79-118 | 3.90 | |
| 4-Bromofluorobenzene (surr) | | 1600 | 1220 | 76 | | 1600 | 1220 | 76 | 67-138 | 0.07 | |
| Toluene-d8 (surr) | | 600 | 684 | 114 | | 600 | 675 | 113 | 85-115 | 1.30 | |

Print Date: 06/05/2015 8:36:51AM

## Matrix Spike Summary

Original Sample ID: 1266332
MS Sample ID: 1266107 MS
MSD Sample ID: 1266108 MSD

QC for Samples: 1152028010

Analysis Date:
Analysis Date: 05/21/2015 12:29
Analysis Date: 05/21/2015 12:45
Matrix: Soil/Solid (dry weight)

Results by **SW8260B**

| | | Matrix Spike (%) | | | Spike Duplicate (%) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Parameter | Sample | Spike | Result | Rec (%) | Spike | Result | Rec (%) | CL | RPD (%) | RPD CL |

### Batch Information

Analytical Batch: VMS14938
Analytical Method: SW8260B
Instrument: Agilent 7890-75MS
Analyst: SCL
Analytical Date/Time: 5/21/2015 12:29:00PM

Prep Batch: VXX27280
Prep Method: Vol. Extraction SW8260 Field Extracted L
Prep Date/Time: 5/18/2015 12:00:00AM
Prep Initial Wt./Vol.: 62.50g
Prep Extract Vol: 25.00mL

Print Date: 06/05/2015 8:36:51AM

## Method Blank

Blank ID: MB for HBN 1708754 [XXX/33067]
Blank Lab ID: 1264546

Matrix: Soil/Solid (dry weight)

QC for Samples:
1152028001, 1152028004, 1152028011, 1152028019

## Results by **8270D SIMS (PAH)**

| Parameter | Results | LOQ/CL | DL | Units |
|---|---|---|---|---|
| 1-Methylnaphthalene | 2.50U | 5.00 | 1.50 | ug/Kg |
| 2-Methylnaphthalene | 2.50U | 5.00 | 1.50 | ug/Kg |
| Acenaphthene | 2.50U | 5.00 | 1.50 | ug/Kg |
| Acenaphthylene | 2.50U | 5.00 | 1.50 | ug/Kg |
| Anthracene | 2.50U | 5.00 | 1.50 | ug/Kg |
| Benzo(a)Anthracene | 2.50U | 5.00 | 1.50 | ug/Kg |
| Benzo[a]pyrene | 2.50U | 5.00 | 1.50 | ug/Kg |
| Benzo[b]Fluoranthene | 2.50U | 5.00 | 1.50 | ug/Kg |
| Benzo[g,h,i]perylene | 2.50U | 5.00 | 1.50 | ug/Kg |
| Benzo[k]fluoranthene | 2.50U | 5.00 | 1.50 | ug/Kg |
| Chrysene | 2.50U | 5.00 | 1.50 | ug/Kg |
| Dibenzo[a,h]anthracene | 2.50U | 5.00 | 1.50 | ug/Kg |
| Fluoranthene | 2.50U | 5.00 | 1.50 | ug/Kg |
| Fluorene | 2.50U | 5.00 | 1.50 | ug/Kg |
| Indeno[1,2,3-c,d] pyrene | 2.50U | 5.00 | 1.50 | ug/Kg |
| Naphthalene | 2.50U | 5.00 | 1.50 | ug/Kg |
| Phenanthrene | 2.50U | 5.00 | 1.50 | ug/Kg |
| Pyrene | 2.50U | 5.00 | 1.50 | ug/Kg |
| **Surrogates** | | | | |
| 2-Fluorobiphenyl (surr) | 65.6 | 45-105 | | % |
| Terphenyl-d14 (surr) | 105 | 30-125 | | % |

## Batch Information

Analytical Batch: XMS8667
Analytical Method: 8270D SIMS (PAH)
Instrument: HP 6890/5973 MS SVQA
Analyst: SP
Analytical Date/Time: 5/20/2015 1:02:00AM

Prep Batch: XXX33067
Prep Method: SW3550C
Prep Date/Time: 5/16/2015 10:29:00AM
Prep Initial Wt./Vol.: 22.5 g
Prep Extract Vol: 1 mL



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## Blank Spike Summary

Blank Spike ID: LCS for HBN 1152028 [XXX33067]
Blank Spike Lab ID: 1264547
Date Analyzed: 05/20/2015 01:19

Matrix: Soil/Solid (dry weight)

QC for Samples: 1152028001, 1152028004, 1152028011, 1152028019

## Results by **8270D SIMS (PAH)**

Blank Spike (ug/Kg)

| Parameter | Spike | Result | Rec (%) | CL |
|---|---|---|---|---|
| 1-Methylnaphthalene | 22.2 | 13.1 | 59 | ( 44-107 ) |
| 2-Methylnaphthalene | 22.2 | 12.0 | 54 | ( 45-105 ) |
| Acenaphthene | 22.2 | 13.6 | 61 | ( 45-110 ) |
| Acenaphthylene | 22.2 | 13.6 | 61 | ( 45-105 ) |
| Anthracene | 22.2 | 16.2 | 73 | ( 55-105 ) |
| Benzo(a)Anthracene | 22.2 | 19.5 | 88 | ( 50-110 ) |
| Benzo[a]pyrene | 22.2 | 14.1 | 63 | ( 50-110 ) |
| Benzo[b]Fluoranthene | 22.2 | 18.3 | 82 | ( 45-115 ) |
| Benzo[g,h,i]perylene | 22.2 | 14.7 | 66 | ( 40-125 ) |
| Benzo[k]fluoranthene | 22.2 | 17.1 | 77 | ( 45-125 ) |
| Chrysene | 22.2 | 19.7 | 89 | ( 55-110 ) |
| Dibenzo[a,h]anthracene | 22.2 | 15.2 | 68 | ( 40-125 ) |
| Fluoranthene | 22.2 | 22.1 | 99 | ( 55-115 ) |
| Fluorene | 22.2 | 14.9 | 67 | ( 50-110 ) |
| Indeno[1,2,3-c,d] pyrene | 22.2 | 14.8 | 66 | ( 40-120 ) |
| Naphthalene | 22.2 | 11.5 | 52 | ( 40-105 ) |
| Phenanthrene | 22.2 | 16.9 | 76 | ( 50-110 ) |
| Pyrene | 22.2 | 20.9 | 94 | ( 45-125 ) |
| **Surrogates** | | | | |
| 2-Fluorobiphenyl (surr) | 22.2 | 58 | 58 | ( 45-105 ) |
| Terphenyl-d14 (surr) | 22.2 | 101 | 101 | ( 30-125 ) |

## Batch Information

Analytical Batch: **XMS8667**
Analytical Method: **8270D SIMS (PAH)**
Instrument: **HP 6890/5973 MS SVQA**
Analyst: **SP**

Prep Batch: **XXX33067**
Prep Method: **SW3550C**
Prep Date/Time: **05/16/2015 10:29**
Spike Init Wt./Vol.: 22.2 ug/Kg Extract Vol: 1 mL
Dupe Init Wt./Vol.: Extract Vol:

## Matrix Spike Summary

Original Sample ID: 1152001004
MS Sample ID: 1264548 MS
MSD Sample ID: 1264549 MSD

Analysis Date: 05/20/2015 2:28
Analysis Date: 05/20/2015 2:45
Analysis Date: 05/20/2015 3:02
Matrix: Soil/Solid (dry weight)

QC for Samples: 1152028001, 1152028004, 1152028011, 1152028019

## Results by **8270D SIMS (PAH)**

| | | Matrix Spike (ug/Kg) | | | Spike Duplicate (ug/Kg) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Parameter | Sample | Spike | Result | Rec (%) | Spike | Result | Rec (%) | CL | RPD (%) | RPD CL |
| Naphthalene | 2.55U | 22.6 | 13.8 | 61 | 22.6 | 15.5 | 68 | 40-105 | 10.80 | (< 30 ) |
| **Surrogates** | | | | | | | | | | |
| 2-Fluorobiphenyl (surr) | | 22.6 | 14.6 | 64 | 22.6 | 16.8 | 74 | 45-105 | 14.40 | |
| Terphenyl-d14 (surr) | | 22.6 | 23.8 | 105 | 22.6 | 20.6 | 91 | 30-125 | 14.30 | |

## Batch Information

Analytical Batch: XMS8667
Analytical Method: 8270D SIMS (PAH)
Instrument: HP 6890/5973 MS SVQA
Analyst: SP
Analytical Date/Time: 5/20/2015 2:45:00AM

Prep Batch: XXX33067
Prep Method: Sonication Extraction Soil 8270 PAH SIM
Prep Date/Time: 5/16/2015 10:29:00AM
Prep Initial Wt./Vol.: 22.92g
Prep Extract Vol: 1.00mL

Print Date: 06/05/2015 8:36:55AM

## Method Blank

Blank ID: MB for HBN 1709185 [XXX/33106]
Blank Lab ID: 1265673

Matrix: Soil/Solid (dry weight)

QC for Samples:
1152028001, 1152028002, 1152028003, 1152028004, 1152028005, 1152028006, 1152028007, 1152028008, 1152028009, 1152028010, 1152028011, 1152028012, 1152028013

## Results by **AK102**

| Parameter | Results | LOQ/CL | DL | Units |
|---|---|---|---|---|
| Diesel Range Organics | 9.44J | 20.0 | 6.20 | mg/Kg |
| **Surrogates** | | | | |
| 5a Androstane (surr) | 94.2 | 60-120 | | % |

## Batch Information

Analytical Batch: XFC11851
Analytical Method: AK102
Instrument: HP 6890 Series II FID SV D R
Analyst: MCM
Analytical Date/Time: 5/29/2015 12:40:00AM

Prep Batch: XXX33106
Prep Method: SW3550C
Prep Date/Time: 5/21/2015 1:06:15PM
Prep Initial Wt./Vol.: 30 g
Prep Extract Vol: 1 mL

## Blank Spike Summary

Blank Spike ID: LCS for HBN 1152028 [XXX33106]
Blank Spike Lab ID: 1265674
Date Analyzed: 05/29/2015 00:50

Spike Duplicate ID: LCSD for HBN 1152028 [XXX33106]
Spike Duplicate Lab ID: 1265675
Matrix: Soil/Solid (dry weight)

QC for Samples: 1152028001, 1152028002, 1152028003, 1152028004, 1152028005, 1152028006, 1152028007, 1152028008, 1152028009, 1152028010, 1152028011, 1152028012, 1152028013

## Results by **AK102**

| | Blank Spike (mg/Kg) | | | Spike Duplicate (mg/Kg) | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Parameter | Spike | Result | Rec (%) | Spike | Result | Rec (%) | CL | RPD (%) | RPD CL |
| Diesel Range Organics | 167 | 167 | 100 | 167 | 166 | 100 | ( 75-125 ) | 0.73 | (< 20 ) |
| **Surrogates** | | | | | | | | | |
| 5a Androstane (surr) | 3.33 | 94.4 | 94 | 3.33 | 95.6 | 96 | ( 60-120 ) | 1.30 | |

## Batch Information

Analytical Batch: **XFC11851**
Analytical Method: **AK102**
Instrument: **HP 6890 Series II FID SV D R**
Analyst: **MCM**

Prep Batch: **XXX33106**
Prep Method: **SW3550C**
Prep Date/Time: **05/21/2015 13:06**
Spike Init Wt./Vol.: 167 mg/Kg Extract Vol: 1 mL
Dupe Init Wt./Vol.: 167 mg/Kg Extract Vol: 1 mL



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## Method Blank

Blank ID: MB for HBN 1709185 [XXX/33106]
Blank Lab ID: 1265673

Matrix: Soil/Solid (dry weight)

QC for Samples:
1152028001, 1152028002, 1152028003, 1152028004, 1152028005, 1152028006, 1152028007, 1152028008, 1152028009, 1152028010, 1152028011, 1152028012, 1152028013

## Results by **AK103**

| Parameter | Results | LOQ/CL | DL | Units |
|---|---|---|---|---|
| Residual Range Organics | 13.3J | 20.0 | 6.20 | mg/Kg |
| **Surrogates** | | | | |
| n-Triacontane-d62 (surr) | 115 | 60-120 | | % |

## Batch Information

Analytical Batch: XFC11851
Analytical Method: AK103
Instrument: HP 6890 Series II FID SV D R
Analyst: MCM
Analytical Date/Time: 5/29/2015 12:40:00AM

Prep Batch: XXX33106
Prep Method: SW3550C
Prep Date/Time: 5/21/2015 1:06:15PM
Prep Initial Wt./Vol.: 30 g
Prep Extract Vol: 1 mL



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## Blank Spike Summary

Blank Spike ID: LCS for HBN 1152028 [XXX33106]
Blank Spike Lab ID: 1265674
Date Analyzed: 05/29/2015 00:50

Spike Duplicate ID: LCSD for HBN 1152028 [XXX33106]
Spike Duplicate Lab ID: 1265675
Matrix: Soil/Solid (dry weight)

QC for Samples: 1152028001, 1152028002, 1152028003, 1152028004, 1152028005, 1152028006, 1152028007, 1152028008, 1152028009, 1152028010, 1152028011, 1152028012, 1152028013

## Results by **AK103**

| | Blank Spike (mg/Kg) | | | Spike Duplicate (mg/Kg) | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Parameter | Spike | Result | Rec (%) | Spike | Result | Rec (%) | CL | RPD (%) | RPD CL |
| Residual Range Organics | 167 | 144 | 86 | 167 | 149 | 89 | ( 60-120 ) | 3.30 | (< 20 ) |
| **Surrogates** | | | | | | | | | |
| n-Triacontane-d62 (surr) | 3.33 | 100 | 100 | 3.33 | 106 | 106 | ( 60-120 ) | 5.10 | |

## Batch Information

Analytical Batch: **XFC11851**
Analytical Method: **AK103**
Instrument: **HP 6890 Series II FID SV D R**
Analyst: **MCM**

Prep Batch: **XXX33106**
Prep Method: **SW3550C**
Prep Date/Time: **05/21/2015 13:06**
Spike Init Wt./Vol.: 167 mg/Kg Extract Vol: 1 mL
Dupe Init Wt./Vol.: 167 mg/Kg Extract Vol: 1 mL



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## Method Blank

Blank ID: MB for HBN 1709209 [XXX/33109]
Blank Lab ID: 1265796

Matrix: Soil/Solid (dry weight)

QC for Samples:
1152028014, 1152028015, 1152028016, 1152028019

## Results by **AK102**

| Parameter | Results | LOQ/CL | DL | Units |
|---|---|---|---|---|
| Diesel Range Organics | 11.4J | 20.0 | 6.20 | mg/Kg |
| **Surrogates** | | | | |
| 5a Androstane (surr) | 79 | 60-120 | | % |

## Batch Information

Analytical Batch: XFC11854
Analytical Method: AK102
Instrument: HP 6890 Series II FID SV D R
Analyst: MCM
Analytical Date/Time: 5/30/2015 4:46:00PM

Prep Batch: XXX33109
Prep Method: SW3550C
Prep Date/Time: 5/21/2015 10:01:11PM
Prep Initial Wt./Vol.: 30 g
Prep Extract Vol: 1 mL



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## Blank Spike Summary

Blank Spike ID: LCS for HBN 1152028 [XXX33109]
Blank Spike Lab ID: 1265797
Date Analyzed: 05/30/2015 16:56

Spike Duplicate ID: LCSD for HBN 1152028 [XXX33109]
Spike Duplicate Lab ID: 1265798
Matrix: Soil/Solid (dry weight)

QC for Samples: 1152028014, 1152028015, 1152028016, 1152028019

## Results by **AK102**

| | Blank Spike (mg/Kg) | | | Spike Duplicate (mg/Kg) | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Parameter | Spike | Result | Rec (%) | Spike | Result | Rec (%) | CL | RPD (%) | RPD CL |
| Diesel Range Organics | 167 | 148 | 89 | 167 | 147 | 88 | ( 75-125 ) | 0.63 | (< 20 ) |
| **Surrogates** | | | | | | | | | |
| 5a Androstane (surr) | 3.33 | 80.3 | 80 | 3.33 | 78.7 | 79 | ( 60-120 ) | 2.00 | |

## Batch Information

Analytical Batch: **XFC11854**
Analytical Method: **AK102**
Instrument: **HP 6890 Series II FID SV D R**
Analyst: **MCM**

Prep Batch: **XXX33109**
Prep Method: **SW3550C**
Prep Date/Time: **05/21/2015 22:01**
Spike Init Wt./Vol.: 167 mg/Kg Extract Vol: 1 mL
Dupe Init Wt./Vol.: 167 mg/Kg Extract Vol: 1 mL



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## Billable Matrix Spike Summary

Original Sample ID: 1152028016
MS Sample ID: 1152028017 BMS
MSD Sample ID: 1152028018 BMSD

Analysis Date: 05/30/2015 17:26
Analysis Date: 05/30/2015 17:36
Analysis Date: 05/30/2015 17:46
Matrix: Soil/Solid (dry weight)

QC for Samples:

## Results by **AK102**

| | | Matrix Spike (mg/Kg) | | | Spike Duplicate (mg/Kg) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Parameter | Sample | Spike | Result | Rec (%) | Spike | Result | Rec (%) | CL | RPD (%) | RPD CL |
| Diesel Range Organics | 78.2 | 199 | 268 | 95 | 200 | 246 | 84 | 60-140 | 8.20 | (< 50 ) |
| **Surrogates** | | | | | | | | | | |
| 5a Androstane (surr) | | 3.98 | 3.90 | 98 | 4.00 | 3.72 | 93 | 50-150 | 4.70 | |

## Batch Information

Analytical Batch: XFC11854
Analytical Method: AK102
Instrument: HP 6890 Series II FID SV D R
Analyst: MCM
Analytical Date/Time: 5/30/2015 5:36:00PM

Prep Batch: XXX33109
Prep Method: Sonication Extraction Soil AK102
Prep Date/Time: 5/21/2015 10:01:11PM
Prep Initial Wt./Vol.: 30.28g
Prep Extract Vol: 1.00mL

Print Date: 06/05/2015 8:37:06AM

## Method Blank

Blank ID: MB for HBN 1709209 [XXX/33109]
Blank Lab ID: 1265796

Matrix: Soil/Solid (dry weight)

QC for Samples:
1152028014, 1152028015, 1152028016, 1152028019

## Results by **AK103**

| Parameter | Results | LOQ/CL | DL | Units |
|---|---|---|---|---|
| Residual Range Organics | 15.3J | 20.0 | 6.20 | mg/Kg |
| **Surrogates** | | | | |
| n-Triacontane-d62 (surr) | 104 | 60-120 | | % |

## Batch Information

Analytical Batch: XFC11854
Analytical Method: AK103
Instrument: HP 6890 Series II FID SV D R
Analyst: MCM
Analytical Date/Time: 5/30/2015 4:46:00PM

Prep Batch: XXX33109
Prep Method: SW3550C
Prep Date/Time: 5/21/2015 10:01:11PM
Prep Initial Wt./Vol.: 30 g
Prep Extract Vol: 1 mL



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## Blank Spike Summary

Blank Spike ID: LCS for HBN 1152028 [XXX33109]
Blank Spike Lab ID: 1265797
Date Analyzed: 05/30/2015 16:56

Spike Duplicate ID: LCSD for HBN 1152028 [XXX33109]
Spike Duplicate Lab ID: 1265798
Matrix: Soil/Solid (dry weight)

QC for Samples: 1152028014, 1152028015, 1152028016, 1152028019

## Results by **AK103**

| | Blank Spike (mg/Kg) | | | Spike Duplicate (mg/Kg) | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Parameter | Spike | Result | Rec (%) | Spike | Result | Rec (%) | CL | RPD (%) | RPD CL |
| Residual Range Organics | 167 | 132 | 79 | 167 | 137 | 82 | ( 60-120 ) | 3.70 | (< 20 ) |
| **Surrogates** | | | | | | | | | |
| n-Triacontane-d62 (surr) | 3.33 | 98.2 | 98 | 3.33 | 98 | 98 | ( 60-120 ) | 0.14 | |

## Batch Information

Analytical Batch: **XFC11854**
Analytical Method: **AK103**
Instrument: **HP 6890 Series II FID SV D R**
Analyst: **MCM**

Prep Batch: **XXX33109**
Prep Method: **SW3550C**
Prep Date/Time: **05/21/2015 22:01**
Spike Init Wt./Vol.: 167 mg/Kg Extract Vol: 1 mL
Dupe Init Wt./Vol.: 167 mg/Kg Extract Vol: 1 mL



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## Billable Matrix Spike Summary

Original Sample ID: 1152028016
MS Sample ID: 1152028017 BMS
MSD Sample ID: 1152028018 BMSD

Analysis Date: 05/30/2015 17:26
Analysis Date: 05/30/2015 17:36
Analysis Date: 05/30/2015 17:46
Matrix: Soil/Solid (dry weight)

QC for Samples:

## Results by **AK103**

| | | Matrix Spike (mg/Kg) | | | Spike Duplicate (mg/Kg) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Parameter | Sample | Spike | Result | Rec (%) | Spike | Result | Rec (%) | CL | RPD (%) | RPD CL |
| Residual Range Organics | 394 | 199 | 550 | 78 | 200 | 505 | 56 * | 60-140 | 8.50 | (< 50 ) |
| **Surrogates** | | | | | | | | | | |
| n-Triacontane-d62 (surr) | | 3.98 | 3.09 | 77 | 4.00 | 3.00 | 75 | 50-150 | 2.50 | |

## Batch Information

Analytical Batch: XFC11854
Analytical Method: AK103
Instrument: HP 6890 Series II FID SV D R
Analyst: MCM
Analytical Date/Time: 5/30/2015 5:36:00PM

Prep Batch: XXX33109
Prep Method: Sonication Extraction Soil AK102
Prep Date/Time: 5/21/2015 10:01:11PM
Prep Initial Wt./Vol.: 30.28g
Prep Extract Vol: 1.00mL

Print Date: 06/05/2015 8:37:10AM

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**CHAIN-OF-CUSTODY / Analytical Request Docum**

15-PLKS-5-10-15-001

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed and ac

**1152028**

Page: 1 of 2
Cooler # 1 of 1

sk: 15-PLK2-SOIL-4409
Total # of Samples: 18 Event Complete?

| Lab Information: | | Project Information: | | Other Information: | |
|---|---|---|---|---|---|
| Lab: | SGS Environmental Services, Inc. | Project: | Point Lay Kali School Phase II | Send Invoice to: | Diane Kinka / AGVIQ, LLC |
| | | Consultant: | AGVIQ, LLC / Environmental Services | | |
| Address: | 200 W Potter Drive Anchorage, AK 99518 | Address: | 301 W. Northern Lights Blvd., Suite 660 Anchorage, AK 99503 | Address: | 2809 S. Lynnhaven Road, Suite 200 Virginia Beach, VA 23452 |
| Lab PM: | Chuck Homestead | | | | |
| Phone/Fax: | (907) 562-2343 / (907) 562-0119 | Contact Name: | Gloria Beckman | Phone/Fax: | 907.365.6230 / 907.365.6350 |
| PM Email: | Charles.Homestead@sgs.com | | | | |
| Lab Quote #: | 12408B | Project #: | 4409 | Send EDD to: | gbeckman@tikigaq.com |

TAT: 14 d — Rush

Notes: F= Field Filtered , H= Hold , X = Shared Container

Lab Notes

| ITEM # | Field Sample No. /Identification | MATRIX CODE | G=GRAB C=COMP | SAMPLE DATE | #OF CONTAINERS | Comment | Preservative | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Analysis | AK_AK101(GRO)_SO | AK_AK102(DRO)/AK103(RRO)_SO | AK_SW8260B(VOCs)_SO | AK_SW8270D-SIM(PAHs)_SO | | | |
| | | | | | | | | MeOH | | MeOH | | | | |
| 1 | 15-PLK2-SBZ-01-1.0 (1) A-B | SO | G | 05/10/2015 09:40 | 2 | PAH | | 1 | 1 | X | X | | | |
| 2 | 15-PLK2-SBZ-02-6.0 (2) A-B | SO | G | 05/10/2015 10:30 | 2 | | | 1 | 1 | X | | | | |
| 3 | 15-PLK2-SO-01-1.0 (3) A-B | SO | G | 05/10/2015 07:30 | 2 | | | 1 | 1 | X | | | | |
| 4 | 15-PLK2-SO-01-3.0 (4) A-B | SO | G | 05/10/2015 07:35 | 2 | PAH | | 1 | 1 | X | X | | | |
| 5 | 15-PLK2-SO-02-0.0 (5) A-B | SO | G | 05/10/2015 08:20 | 2 | Peat Only Material Present to Sample | | 1 | 1 | X | | | | |
| 6 | 15-PLK2-SO-02-1.0 (6) A-B | SO | G | 05/10/2015 08:25 | 2 | Peat Only Material Present to Sample | | 1 | 1 | X | | | | |
| 7 | 15-PLK2-SO-03-1.0 (7) A-B | SO | G | 05/10/2015 07:55 | 2 | | | 1 | 1 | X | | | | |
| 8 | 15-PLK2-SO-03-2.0 (8) A-B | SO | G | 05/10/2015 08:00 | 2 | | | 1 | 1 | X | | | | |
| 9 | 15-PLK2-SO-04-0.0 (9) A-B | SO | G | 05/10/2015 08:40 | 2 | | | 1 | 1 | X | | | | |
| 10 | 15-PLK2-SO-04-6.0 (10) A-B | SO | G | 05/10/2015 08:45 | 2 | | | 1 | 1 | X | | | | |
| 11 | 15-PLK2-SO-05-1.0 (11) A-B | SO | G | 05/10/2015 09:30 | 2 | PAH | | 1 | 1 | X | X | | | |

**Additional Comments/Special Instructions:**

| | RELINQUISHED BY / AFFILIATION | DATE | TIME | ACCEPTED BY / AFFILIATION | DATE | TIME |
|---|---|---|---|---|---|---|
| SAMPLER: | Jacob Newton | 11-May | 7:00 | | | |
| RELINQUISHER 1: | Jacob Newton | 11-May | 7:00 | [illegible] | 13May15 | 0820 |
| RELINQUISHER 2: | | | | | | |
| RELINQUISHER 3: | | | | | | |
| RELINQUISHER 4: | | | | | | |
| RELINQUISHER 5: | | | | | | |
| RELINQUISHER 6: | | | | | | |
| RELINQUISHER 7: | | | | | | |

**Sample Receipt Conditions**

| | Temp in °C | Samples on Ice? | Sample intact? | Trip Blank? |
|---|---|---|---|---|
| | | Y/N | Y/N | Y/N |
| | | Y/N | Y/N | Y/N |
| | | Y/N | Y/N | Y/N |
| | 5.6 | Y/N | Y/N | Y/N |

#203

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**CHAIN-OF-CUSTODY / Analytical Request Documen**

15-PLKS-5-10-15-001

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed and accurat

**1152028**

Page: 2 of 2
Cooler # 1 of 1

: 15-PLK2-SOIL-4409
otal # of Samples: 18 Event Complete?

| Lab Information: | | Project Information: | | Other Information: | |
|---|---|---|---|---|---|
| Lab: | SGS Environmental Services, Inc. | Project: | Point Lay Kali School Phase II | Send Invoice to: | Diane Kinka / AGVIQ, LLC |
| | | Consultant: | AGVIQ, LLC / Environmental Services | | |
| Address: | 200 W Potter Drive Anchorage, AK 99518 | Address: | 301 W. Northern Lights Blvd., Suite 660 Anchorage, AK 99503 | Address: | 2809 S. Lynnhaven Road, Suite 200 Virginia Beach, VA 23452 |
| Lab PM: | Chuck Homestead | | | | |
| Phone/Fax: | (907) 562-2343 / (907) 562-0119 | Contact Name: | Gloria Beckman | Phone/Fax: | 907.365.6230 / 907.365.6350 |
| PM Email: | Charles.Homestead@sgs.com | | | | |
| Lab Quote #: | 12408B | Project #: | 4409 | Send EDD to: | gbeckman@tikigaq.com |

TAT: 14 d | Rush

Notes: F= Field Filtered , H= Hold , X = Shared Container

| ITEM # | Field Sample No. /Identification | MATRIX CODE | G=GRAB C=COMP | SAMPLE DATE | #OF CONTAINERS | Comment | Lab Notes | Preservative | Analysis | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | AK_AK101(GRO)_SO | AK_AK102(DRO)/AK103(RRO)_SO | AK_SW8260B(VOCs)_SO | AK_SW8270D-SIM(PAHs)_SO | | | | | |
| | | | | | | | | MeOH | | MeOH | | | | | | | |
| 12 | 15-PLK2-SO-05-3.0 (12) A-B | SO | G | 05/10/2015 09:35 | 2 | | | | 1 | 1 | X | | | | | | |
| 13 | 15-PLK2-SO-06-3.5 (13) A-B | SO | G | 05/10/2015 09:50 | 2 | | | | 1 | 1 | X | | | | | | |
| 14 | 15-PLK2-SO-07-1.0 (14) A-B | SO | G | 05/10/2015 10:20 | 2 | | | | 1 | 1 | X | | | | | | |
| 15 | 15-PLK2-SO-07-6.0 (15) A-B | SO | G | 05/10/2015 10:25 | 2 | | | | 1 | 1 | X | | | | | | |
| 16 | 15-PLK2-SO-08-1.0 (16) A-F (17) A-F (18) A-F | SO | G | 05/10/2015 10:05 | 6 | MS/MSD | | | 3 | 3 | X | | | | | | |
| 17 | 15-PLK2-SO-08-3.0 (19) A-B | SO | G | 05/10/2015 10:10 | 2 | PAH | | | 1 | 1 | X | X | | | | | |
| 18 | 15-PLK2-TB-01 (20) A | SO | G | 05/10/2015 08:00 | 1 | | | | 1 | | X | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |

**Additional Comments/Special Instructions:**

198 of 203

| RELINQUISHED BY / AFFILIATION | | DATE | TIME | ACCEPTED BY / AFFILIATION | DATE | TIME |
|---|---|---|---|---|---|---|
| SAMPLER: | Jacob Newton | 11-May | 7:00 | | | |
| RELINQUISHER 1: | | 11-May | 7:00 | | 13May15 | 0820 |
| RELINQUISHER 2: | | | | | | |
| RELINQUISHER 3: | | | | | | |
| RELINQUISHER 4: | | | | | | |
| RELINQUISHER 5: | | | | | | |
| RELINQUISHER 6: | | | | | | |
| RELINQUISHER 7: | | | | | | |

| Sample Receipt Conditions | | | |
|---|---|---|---|
| | Y / N | Y / N | Y / N |
| | Y / N | Y / N | Y / N |
| | Y / N | Y / N | Y / N |
| 5.5 | Y / N | Y / N | Y / N |
| Temp in °C | Samples on Ice? | Sample intact? | Trip Blank? |

#203

AIRPORT OF DEPARTURE PIZ 05/11/15 08:55 WWW **808 6825039**

| SHIPPER'S NAME, ADDRESS & PHONE | SHIPPER'S ACCOUNT NUMBER | NOT AIR WAYBILL (AIR CONSIGNMENT NOTE) |
|---|---|---|
| AGVIQ, LLC.<br>2809 S. LYNNHAVEN RD<br>VIRGINIA BEACH AK 23452 7573189420 | A0332 | Ravn ALASKA<br>4700 Old International Airport Road<br>Anchorage, Alaska 99502 |

It is agreed that the goods described herein are accepted in apparent good order and condition (except as noted) for carriage SUBJECT TO THE CONDITIONS OF CONTRACT AS LISTED IN THE COMPANIES TARIFFS. THE SHIPPER'S ATTENTION IS DRAWN TO THE NOTICE CONCERNING CARRIERS' LIMITATION OF LIABILITY. Shipper may increase such limitation of liability by declaring a higher value for carriage and paying a supplemental charge if required.

Received in Good Condition

Place _____ Date _____

TO EXPEDITE MOVEMENT, SHIPMENT MAY BE DIVERTED TO MOTOR OR OTHER CARRIER AS PER TARIFF RULE UNLESS SHIPPER GIVES OTHER INSTRUCTION HEREON

| CONSIGNEE'S NAME, ADDRESS & PHONE | CONSIGNEE'S ACCOUNT NUMBER |
|---|---|
| SGS North America<br>200 W. Potter Drive<br>Anchorage AK 99518 9075622343 | |

ISSUING CARRIER'S AGENT NAME, CITY & PHONE

ALSO NOTIFY NAME & ADDRESS

| AGENT'S IATA CODE | ACCOUNT NO. | ACCOUNTING INFORMATION 6969531 |
|---|---|---|
| | | Acc #: A0332 AGVIQ, LLC. |

| AIRPORT OF DEPARTURE | Declared Value | Insured Amount |
|---|---|---|
| Pt Lay | $ 0.00 | $ 0.00 |

ROUTING AND DESTINATION

| TO | BY FIRST | TO | BY | TO | BY |
|---|---|---|---|---|---|
| | | | | | |

COMMENTS TSA 1

AIRPORT OF DESTINATION: Anchorage

FOR CARRIER USE ONLY: FLIGHT/DATE 0 | FLIGHT/DATE

| No. Of Pieces Rcp | Gross Weight | kg lb | Rate Class | Commodity Item No. | Chargeable Weight | Rate/Charge | Total | Nature and Quantity of Goods |
|---|---|---|---|---|---|---|---|---|
| 3 | 108 | l.. | F | GEN | 1 | $347.29 | $347.29 | Sample Coolers |
| 3 | 108 | | | | | | $347.29 | |

| PREPAID | WEIGHT CHARGE | COLLECT |
|---|---|---|
| $347.29 | | |

| VALUATION CHARGE | FEDERAL EXCISE TAX | TOTAL OTHER CHARGES DUE AGENT |
|---|---|---|
| $0.00 | $21.71 | $0.00 |

| TOTAL OTHER CHARGES DUE CARRIER | TOTAL PREPAID | TOTAL COLLECT |
|---|---|---|
| $0.00 | $369.00 | |

OTHER CHARGES AND DESCRIPTION

| AMOUNT | DESCRIPTION |
|---|---|
| | |

HAZMAT No

Shipper certifies that the particulars on the face hereof are correct, agrees to the CONDITIONS AS LISTED IN THE COMPANIES TARIFFS, accepts that carrier's liability is limited as stated in the companies tariffs and accepts such value unless a higher value for carriage is declared on the face hereof subject to an additional charge and that insofar as any part of the consignment contains restricted articles, such part is described by name and is in proper condition for carriage by air according to applicable national governmental regulations, and for international shipments, the current International Air Transport Association's Restricted Articles Regulations.

Printed Name and Title _____

Signature

**STATION NUMBERS**
ANCHORAGE - (907) 243-2761
ANIAK - (907) 675-4572
BARROW - (907) 852-5300
BETHEL -(907) 543-3825
DEADHORSE - (907) 659-9222
FAIRBANKS - (907) 450-7250
GALENA -(907) 656-1875
KOTZEBUE - (907) 442-3020
NOME - (907) 443-7595
ST. MARYS - (907) 438-2247
UNALAKLEET - (907) 624-3595

Printed at 11:50:11 on 5/11/2015 at BRW-1 10.96.1.7

## Consignee Copy

# *Alert Expeditors Inc.* #354110

Citywide Delivery • 440-3351
8421 Flamingo Drive • Anchorage, Alaska 99502

Date 5.31.5

From Arvig

To 5.5

| Collect ❐ | Prepay ❐ Account ❐ | Advance Charges ❐ |
|---|---|---|
| Job # | PO# | |

3@ 108

Rcvd

L82 5039

Shipped Signature

Total Charge

Received By:

# 1152028

## SAMPLE RECEIPT FORM

| Review Criteria: | Yes | N/A | No | Comments/Action Taken: |
|---|---|---|---|---|
| Were **custody seals** intact? Note # & location, if applicable.<br>COC accompanied samples? | ☑<br>☑ | ☐<br>☐ | ☐<br>☐ | ***Exemption permitted if sampler hand carries/delivers.***<br>1F |
| **Temperature blank** compliant* (i.e., 0-6°C after CF)?<br>*If >6 °C, were samples collected <8 hours ago?*<br>*If <0 °C, were all sample containers ice free?*<br>Cooler ID: [1] _____ @ 5.8 _____ w/ Therm.ID: 203 _____<br>Cooler ID: _____ @ _____ w/ Therm.ID: _____<br>Cooler ID: _____ @ _____ w/ Therm.ID: _____<br>Cooler ID: _____ @ _____ w/ Therm.ID: _____<br>Cooler ID: _____ @ _____ w/ Therm.ID: _____<br>If samples are received without a temperature blank, the "cooler temperature" will be documented in lieu of the temperature blank & "**COOLER TEMP**" will be noted to the right. In cases where neither a temp blank nor cooler temp can be obtained, note "ambient" or "chilled." | ☑<br>☐<br>☐ | ☐<br>☑<br>☑ | ☐<br>☐<br>☐ | ***Exemption permitted if chilled & collected <8 hrs ago.***<br><br>***Note: Identify containers received at non-compliant temperature. Use form FS-0029 if more space is needed.*** |
| Delivery method (specify all that apply): ☐Client (hand carried)<br>☐USPS ☐Lynden ☐AK Air ☑Alert Courier<br>☐UPS ☐FedEx ☑RAVN ☐C&D Delivery<br>☐Carlile ☐Pen Air ☐Warp Speed ☐Other: _____<br>→ *For WO# with airbills, was the WO# & airbill info recorded in the Front Counter eLog?* | ☑ | ☐ | ☐ | |
| | Yes | N/A | No | |
| Were samples received within hold time?<br>Do samples **match COC*** (i.e., sample IDs, dates/times collected)?<br>Were analyses requested unambiguous? | ☑<br>☑<br>☑ | ☐<br>☐<br>☐ | ☐<br>☐<br>☐ | ***Note: Refer to form F-083 "Sample Guide" for hold times.***<br>***Note: If times differ <1hr, record details and login per COC.*** |
| Were samples in **good condition** (no leaks/cracks/breakage)?<br>Packing material used (specify all that apply): ☑Bubble Wrap<br>☐Separate plastic bags ☐Vermiculite ☑Other: BOX | ☑ | ☐ | ☐ | |
| Were **proper containers** (type/mass/volume/preservative*) used?<br>Were **Trip Blanks** (i.e., VOAs, LL-Hg) in cooler with samples?<br>Were all VOA vials **free of headspace** (i.e., bubbles ≤6 mm)?<br>Were all soil VOAs **field extracted** with MeOH+BFB? | ☑<br>☑<br>☐<br>☑ | ☐<br>☐<br>☑<br>☐ | ☐<br>☐<br>☐<br>☐ | ☐ ***Exemption permitted for metals (e.g., 200.8/6020A).*** |
| For preserved waters (other than VOA vials, LL-Mercury or microbiological analyses), was **pH verified and compliant**?<br>If pH was adjusted, were bottles flagged (i.e., stickers)? | ☐<br>☐ | ☑<br>☑ | ☐<br>☐ | |
| For **special handling** (e.g., "MI" soils, foreign soils, lab filter for dissolved…, lab extract for volatiles, Ref Lab, limited volume), were bottles/paperwork flagged (e.g., sticker)? | ☐ | ☑ | ☐ | |
| For **RUSH/SHORT Hold Time**, were COC/Bottles flagged accordingly? Was Rush/Short HT email sent, if applicable? | ☐ | ☑ | ☐ | |
| For **SITE-SPECIFIC QC, e.g. BMS/BMSD/BDUP**, were containers / paperwork flagged accordingly? | ☑ | ☐ | ☐ | |
| **For any question answered "No,"** has the PM been notified and the problem resolved (or paperwork put in their bin)? | ☐ | ☑ | ☐ | SRF Completed by: KMW<br>PM notified: |
| Was **PEER REVIEW** of ***sample numbering/labeling completed?*** | ☐ | ☑ | ☐ | Peer Reviewed by: |

Additional notes (if applicable):

***Note to Client:*** *Any "no" answer above indicates non-compliance with standard procedures and may impact data quality.*

## Sample Containers and Preservatives

| Container Id | Preservative | Container Condition |
|---|---|---|
| 1152028001-A | Methanol field pres. 4 C | OK |
| 1152028001-B | No Preservative Required | OK |
| 1152028002-A | Methanol field pres. 4 C | OK |
| 1152028002-B | No Preservative Required | OK |
| 1152028003-A | Methanol field pres. 4 C | OK |
| 1152028003-B | No Preservative Required | OK |
| 1152028004-A | Methanol field pres. 4 C | OK |
| 1152028004-B | No Preservative Required | OK |
| 1152028005-A | Methanol field pres. 4 C | OK |
| 1152028005-B | No Preservative Required | OK |
| 1152028006-A | Methanol field pres. 4 C | OK |
| 1152028006-B | No Preservative Required | OK |
| 1152028007-A | Methanol field pres. 4 C | OK |
| 1152028007-B | No Preservative Required | OK |
| 1152028008-A | Methanol field pres. 4 C | OK |
| 1152028008-B | No Preservative Required | OK |
| 1152028009-A | Methanol field pres. 4 C | OK |
| 1152028009-B | No Preservative Required | OK |
| 1152028010-A | Methanol field pres. 4 C | OK |
| 1152028010-B | No Preservative Required | OK |
| 1152028011-A | Methanol field pres. 4 C | OK |
| 1152028011-B | No Preservative Required | OK |
| 1152028012-A | Methanol field pres. 4 C | OK |
| 1152028012-B | No Preservative Required | OK |
| 1152028013-A | Methanol field pres. 4 C | OK |
| 1152028013-B | No Preservative Required | OK |
| 1152028014-A | Methanol field pres. 4 C | OK |
| 1152028014-B | No Preservative Required | OK |
| 1152028015-A | Methanol field pres. 4 C | OK |
| 1152028015-B | No Preservative Required | OK |
| 1152028016-A | Methanol field pres. 4 C | OK |
| 1152028016-B | Methanol field pres. 4 C | OK |
| 1152028016-C | Methanol field pres. 4 C | OK |
| 1152028016-D | No Preservative Required | OK |
| 1152028016-E | No Preservative Required | OK |
| 1152028016-F | No Preservative Required | OK |
| 1152028017-A | Methanol field pres. 4 C | OK |
| 1152028017-B | Methanol field pres. 4 C | OK |
| 1152028017-C | Methanol field pres. 4 C | OK |
| 1152028017-D | No Preservative Required | OK |
| 1152028017-E | No Preservative Required | OK |
| 1152028017-F | No Preservative Required | OK |
| 1152028018-A | Methanol field pres. 4 C | OK |
| 1152028018-B | Methanol field pres. 4 C | OK |
| 1152028018-C | Methanol field pres. 4 C | OK |
| 1152028018-D | No Preservative Required | OK |
| 1152028018-E | No Preservative Required | OK |
| 1152028018-F | No Preservative Required | OK |
| 1152028019-A | Methanol field pres. 4 C | OK |
| 1152028019-B | No Preservative Required | OK |
| 1152028020-A | Methanol field pres. 4 C | OK |

| Container Id | Preservative | Container Condition | Container Id | Preservative | Container Condition |
|---|---|---|---|---|---|

Container Condition Glossary

Containers for bacteriological, low level mercury and VOA vials are not opened prior to analysis and will be assigned condition code OK unless evidence indicates than an inappropriate container was submitted.

OK - The container was received at an acceptable pH for the analysis requested.
PA - The container was received outside of the acceptable pH for the analysis requested. Preservative was added upon receipt and the container is now at the correct pH. See the Sample Receipt Form for details on the amount and lot # of the preservative added.
PH - The container was received outside of the acceptable pH for the analysis requested. Preservative was added upon receipt, but was insufficient to bring the container to the correct pH for the analysis requested. See the Sample Receipt Form for details on the amount and lot # of the preservative added.
BU - The container was received with headspace greater than 6mm.

# APPENDIX D: RESPONSE TO ADEC COMMENTS ON DRAFT PHASE 11 SITE CHARACTERIZATION REPORT

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***Document Reviewed**: Site Characterization Phase II Report DRAFT*

***Commenter**: ADEC Keather McLoone* ***Date**: January, 29, 2016*

***Project**: Kali School Pt Lay, Alaska* ***Responder**: Gloria Beckman*

| Comment/ Response No. | Section | Comment | Response to Comment |
|---|---|---|---|
| 1. | | Please provide an electronic copy of the revised document on a disc along with the hardcopy. | The complete final document will be provided as both hard copy and on CD. |
| 2. | Cover Page | Please include name and signature indicating who is responsible for reporting the data. If another individual was responsible for interpreting the data, the name and signature of that individual should cosign the reporting document. | A signature line with name, signature and date of the qualified person responsible for interpreting and reporting the data will be added to the cover page of this document. Gloria Beckman is the qualified person that will be signing the cover page. See Attached Cover Page to the response to comments. |
| 3. | Appendix C | Please provide the laboratory data. | The laboratory data will be provided in Attachment C to the report. |
| 4. | InText Table 1 | Please revise Table 1 to make the presentation of information more clear. In particular, labeling and organization of the rows is confusing. | The following text was added to the paragraph preceding Table 1**.** ***Table 1*** *presents the results in samples collected at two locations during the 2014 Site Characterization of the Kali School where concentrations exceeded ADEC cleanup levels. At the location of MW-01, both a soil boring and groundwater sample were collected as this boring was converted to a monitoring well. At the location of PM-3, only a soil sample was collected because this boring was not converted into a monitoring well. See modified Table 1 attached to this document.* |
| 5. | Figure 3 | Field notes do not include a site sketch and Figure 3 or the work plan and Figure 3 of the report are identical other than Figure Title. Please confirm that the field effort was successful in advancing all eight borings in their proposed locations as the report also does not discuss whether or not there were any deviations from the work plan. | The location of the borings did not change and are as recommended in the work plan Figure 3 and reported in the report Figure 3. Section 5 Variances to the Work Plan will be added, and following text will be inserted into this section: There were no variances made during implementation of the work plan. The soil borings and monitoring wells were placed as identified in the work plan and on **Figure 3**. |
| 6. | Tables 2 and 3 | Please include flag definitions as Table notes for Table 2 and Table 3 | The Legend will be included that defines table flags. |
| 7. | Various locations in text and Acronyms | The text states that *all* samples were submitted for GRO, DRO, RRO, BTEX, and PAH which does not match the content or titles of Tables 2 and 3. Please correct where appropriate. | BTEX was replaced throughout the document with VOCS. |
| 8. | Appendix A | Please include notes defining the USCS abbreviations used in the Borelogs. An abbreviation page preceding the Borelogs would suffice. | Definition page will be added to Appendix A preceding the bore hole logs. |
| 9. | Section 7 | Change made after discussion with ADEC on February 2, 2016. | If ADEC determines, additional groundwater monitoring is not required, the monitoring wells installed during the 2014 and 2015 site characterizations should be decommissioned. |

**Table 1: Soil and Water Results Exceeding ADEC Cleanup Criteria from 2014 Site Characterization**

| Location of Sample | Analytical Results Above Cleanup Level | | |
|---|---|---|---|
| | **DRO** | **RRO** | **GRO** |
| **MW-01** | | | |
| Soil sample collected at depth of 4.6 feet | **68,600 mg/kg** | < ADEC CL | < ADEC CL |
| Groundwater sample collected from monitoring well | < ADEC CL | < ADEC CL | **1.26mg/L** |
| **PM-3** | | | |
| Soil sample collected at 3.5 feet | < ADEC CL | **15,200 mg/kg** | < ADEC CL |
| No monitoring well at this location | NA | NA | NA |

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**END OF DOCUMENT**