Facility # 324012
Minit Lube # 1102
Lynnwood
UST # 6802

CONESTOGA-ROVERS
& ASSOCIATES

May 31, 2007

ERTS # 560509

Mr. John Bails
Northwest Regional Office
Washington Department of Ecology
3190 160th Avenue SE
Bellevue, WA 98008-5452

Re: **Site Investigation Report**
Aloha Cafe (Former Jiffy Lube)
6808 196th Street
Lynnwood, Washington
SAP No. 171152
JLI No. 2069
Incident No. 97605410

Dear Mr. Bails:

Conestoga-Rovers & Associates, Inc. (CRA) prepared this report on behalf of Equilon Enterprises LLC dba Shell Oil Products US (Shell) to document the recent site investigation activities at the above referenced site. CRA acquired the former Cambria Environmental Technology, Inc (Cambria) on April 1, 2007. The majority of work was completed by Cambria and will be referenced as such. The purpose of the investigation was to evaluate soil conditions throughout the property boundary of the subject site.

## EXECUTIVE SUMMARY

- Cambria Environmental Technology Inc. supervised the drilling of five monitoring wells and one soil boring to evaluate the extent of impacted soils within the property boundary of the subject site.
- Soil analytical data indicate concentrations of petroleum-related compounds above the Washington State Model Toxics Control Act (MTCA) Method A cleanup levels are present at the site.
- The impacts are believed to be related to historical use at the property as a service station and the associated former underground storage tanks (USTs).

## SITE DESCRIPTION AND BACKGROUND

The subject site is located on the corner of 196th Street and 68th Avenue W in Lynnwood, Washington (Figure 1). The property was formerly a Jiffy Lube facility and a former service station. Currently a coffee and espresso shop called the Aloha Café uses the property and building (Figure 2). The groundwater flow direction appears to be toward the west.

## INVESTIGATION RESULTS

| | |
|---|---|
| ***Drilling Dates:*** | November 16 – 17, 2006 |
| ***Drilling Company:*** | Boart Longyear |
| ***Personnel:*** | Bryan Palmer of Cambria directed the drilling activities under the supervision of Justin Foslien (Washington State Licensed Geologist #2540). |
| ***Drilling Method:*** | Hollow-stem auger |
| ***Number of Borings:*** | Six borings, five monitoring wells (MW-1, MW-2, MW-3, MW-4, and MW-5) and one soil boring (SB1) were completed during the investigation. The boring and well specifications and soil types encountered are described on the boring logs contained in Attachment A. The boring and well locations are shown on Figure 2. |
| ***Boring Depths:*** | The boring depths were completed to a depth of 27.5 feet below ground surface (bgs). |
| ***Groundwater Depths:*** | Groundwater ranged from approximately 10 to 20 feet bgs. |
| ***Soil Disposal:*** | Soil generated from drilling was placed into nine 55-gallon drums. The drums were sampled and profiled prior to transport and disposal by Burlington Environmental, Inc. Waste disposal manifests are included in Attachment B. |

## FINDINGS

***Soil:*** The soil chemical analytical data are summarized in Table 1. Laboratory analytical reports are presented in Attachment C.

***Groundwater:*** No groundwater samples were collected during the installation of the monitoring wells.

## CONCLUSIONS

The laboratory results indicate soil samples collected from all locations exceed levels above the Washington State Model Toxics Control Act (MTCA) Method A. Benzene and gasoline range hydrocarbons present at the site indicate the impacts are likely related to the property's historical use as a service station.

## RECOMMENDATIONS

Cambria has initiated quarterly groundwater sampling at wells MW-1 through MW-5 and will forward future quarterly monitoring reports to the Washington Department of Ecology. Cambria proposes to install an additional soil borings and wells at the site to define the lateral extent of impacted soil.

## CLOSING

The data collected during this investigation will be used to evaluate corrective action alternatives for this site.

If you have any questions regarding the contents of this document, please call Justin Foslien at (425) 212-5111.

Sincerely,
**Conestoga-Rovers & Associates, Inc.**

Justin Foslien, LG
Project Geologist

Figures: 1 - Vicinity Map
2 - Site Map with Monitoring Well Locations

CONESTOGA-ROVERS
& ASSOCIATES

Mr. John Bails
May 31, 2007

Tables: 1 - Summary of Soil Analytical Data
2 - Summary of Soil Analytical Data
3 - Summary of Soil Analytical Data

Attachments: A - Boring Logs
B - Waste Disposal Manifests
C - Certified Analytical Reports

cc: Carol Campagna, Shell Oil Products US, 20945 S. Wilmington Ave., Carson, CA 90810
Brian Clark, Heartland Automotive Services, Inc., 11308 Davenport Street, The Atriam Building, Omaha, NB 68154-5645
Bob Cahill, Heartland Automotive Services, Inc., 15007 Woodinville-Redmond Rd. Suite A, Woodinville, WA 98072

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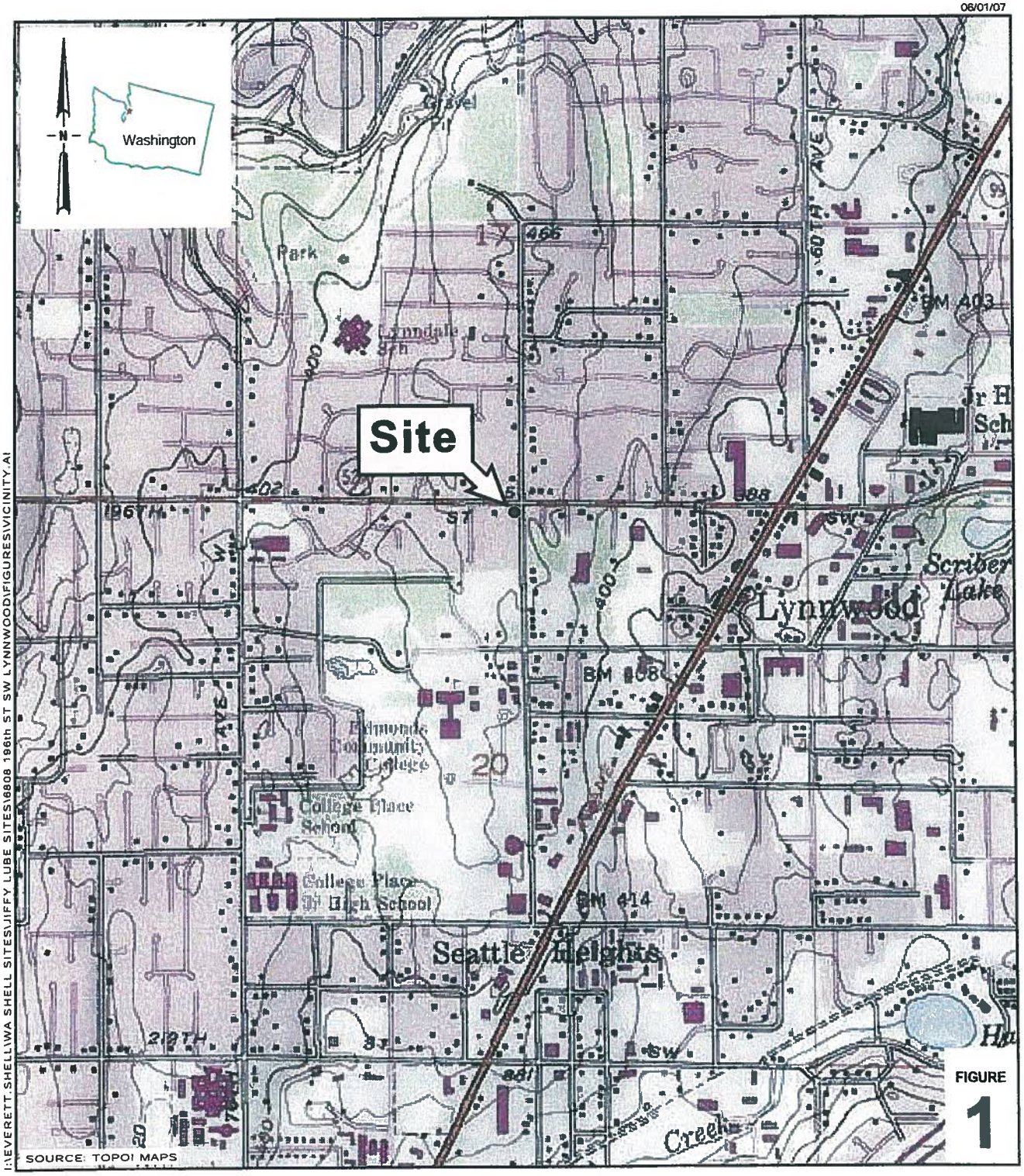


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FIGURE 1

0 1/8 1/4 1/2 1

SCALE : 1" = 1/4 MILE

**Jiffy Lube No. 2069**
6808 196th Street Southwest
Lynnwood, Washington

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**Vicinity Map**

**Jiffy Lube No. 2068**
6808 196th Street Southwest
Lynnwood, Washington

CONESTOGA-ROVERS & ASSOCIATES

**Site Plan**

**Table 1**

**SUMMARY OF SOIL ANALYTICAL RESULTS**
SAP# 171152
JLI# 2068
6808 196th ST SW
Lynnwood, Washington

| Sample Location | | MW-1 | | SB-1 | | MW-3 | | MW-2 | | MW-4 | | MW-5 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Analyte** | ***MTCA Method A Cleanup Levels*** | **GW1-27.5** | **GW1-17.5** | **SB1-12.5** | **SB1-7.5** | **GW3-7.5** | **GW3-17.5** | **GW2-12.5** | **GW2-17.5** | **GW4-7.5** | **GW4-17.5** | **GW5-7.5** | **GW5-17.5** |
| Sample Date | | 11/16/2006 | 11/16/2006 | 11/16/2006 | 11/16/2006 | 11/16/2006 | 11/16/2006 | 11/17/2006 | 11/17/2006 | 11/17/2006 | 11/17/2006 | 11/17/2006 | 11/17/2006 |
| Sample Depth | | 27.50 | 17.50 | 12.50 | 7.50 | 7.50 | 17.50 | 12.50 | 17.50 | 7.50 | 17.50 | 7.50 | 17.50 |
| **TPH-G (mg/kg)** | ***100*** | *4.54* | *<3.54* | *12.30* | *4.51* | *1820.00* | *8.39* | *<3.68* | *9.49* | *1060.00* | *8.57* | *1550.00* | *23.90* |
| **TPH-D (mg/kg)** | ***2000*** | *<10.6* | *<10.9* | *<11.4* | *<10.8* | *63.30* | *<11.1* | *<11.0* | *<11.2* | *30.90* | *<11.0* | *62.40* | *<11.0* |
| **TPH-O (mg/kg)** | ***2000*** | *<26.4* | *<27.2* | *<28.6* | *<27.1* | *<27.9* | *<27.8* | *<27.4* | *<28.1* | *<26.8* | *<27.5* | *<26.9* | *<27.5* |
| **MTBE (mg/kg)** | ***0.1*** | *<0.36* | *<0.35* | *<0.39* | *<0.41* | *<0.40* | *<0.39* | *<0.37* | *<0.43* | *<0.38* | *<0.38* | *<0.39* | *<0.37* |
| **Benzene (mg/kg)** | ***0.03*** | *0.14* | *0.16* | *0.73* | *0.14* | *8.60* | *0.53* | *0.02* | *0.33* | *0.48* | *0.24* | *0.97* | *0.09* |
| **Toluene (mg/kg)** | ***7*** | *0.38* | *0.34* | *1.70* | *0.42* | *99.00* | *0.85* | *<0.07* | *1.00* | *12.00* | *0.44* | *24.00* | *0.52* |
| **Ethylbenzene (mg/kg)** | ***6*** | *<0.07* | *<0.07* | *0.18* | *<0.08* | *25.00* | *0.12* | *<0.07* | *0.87* | *8.20* | *<0.08* | *14.00* | *0.19* |
| **Xylenes (mg/kg)** | ***9*** | *<0.21* | *<0.21* | *0.90* | *<0.24* | *160.00* | *0.39* | *<0.22* | *0.34* | *54.00* | *0.31* | *90.00* | *0.90* |
| **1,2-Dichloroethane (mg/kg)** | | *<0.04* | *<0.04* | *<0.04* | *<0.04* | *<0.04* | *<0.04* | *<0.04* | *<0.04* | *<0.04* | *<0.04* | *<0.04* | *<0.04* |
| **1,2-Dibromoethane (mg/kg)** | ***0.005*** | *<0.04* | *<0.04* | *<0.04* | *<0.04* | *<0.04* | *<0.04* | *<0.04* | *<0.04* | *<0.04* | *<0.04* | *<0.04* | *<0.04* |
| **Total Lead (mg/kg)** | ***250*** | *0.962* | *1.480* | *2.060* | *1.710* | *6.690* | *1.550* | *1.600* | *1.400* | *2.350* | *1.580* | *4.640* | *1.330* |

TPH-G = gasoline range hydrocarbons (C4-C12)
TPH-D = diesel range hydrocarbons (C10-C28)
TPH-O = oil range hydrocarbons (C16-C36)
MTBE = methyl-tert-butyl-ether
Xylenes = o-xylene + m,p xylene

Shaded concentrations indicate the result exceeds the MTCA Method A cleanup level for that analyte.

**Table 2**

**SUMMARY OF SOIL ANALYTICAL RESULTS**
SAP# 171152
JLI# 2068
6808 196th ST SW
Lynnwood, Washington

| Sample Location | | MW-1 | | SB-1 | | MW-3 | | MW-2 | | MW-4 | | MW-5 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Analyte** | ***MTCA Method A Cleanup Levels*** | **GW1-27.5** | **GW1-17.5** | **SB1-12.5** | **SB1-7.5** | **GW3-7.5** | **GW3-17.5** | **GW2-12.5** | **GW2-17.5** | **GW4-7.5** | **GW4-17.5** | **GW5-7.5** | **GW5-17.5** |
| Sample Date | | 11/16/2006 | 11/16/2006 | 11/16/2006 | 11/16/2006 | 11/16/2006 | 11/16/2006 | 11/17/2006 | 11/17/2006 | 11/17/2006 | 11/17/2006 | 11/17/2006 | 11/17/2006 |
| Sample Depth | | 27.50 | 17.50 | 12.50 | 7.50 | 7.50 | 17.50 | 12.50 | 17.50 | 7.50 | 17.50 | 7.50 | 17.50 |
| **VPHs (mg/kg)** | | | | | | | | | | | | | |
| C5-C6 Aliphatics | | --- | --- | --- | --- | *<198* | *<3.90* | --- | --- | *<75.5* | *<3.80* | *<77.2* | *<3.69* |
| C6-C8 Aliphatics | | --- | --- | --- | --- | *<198* | *4.15* | --- | --- | *104* | *<3.80* | *<77.2* | *7.96* |
| C8-C10 Aliphatics | | --- | --- | --- | --- | *289.00* | *<3.90* | --- | --- | *147* | *<3.80* | *<77.2* | *<3.69* |
| C8-C10 Aromatics | | --- | --- | --- | --- | *227.00* | *<3.90* | --- | --- | *140* | *<3.80* | *<77.2* | *<3.69* |
| C12-C13 Aromatics | | --- | --- | --- | --- | *<198* | *<3.90* | --- | --- | *<75.5* | *<3.80* | *<77.2* | *<3.69* |
| Total VPH | | --- | --- | --- | --- | *<1390* | *<3.90* | --- | --- | *699* | *<26.6* | *<77.2* | *<25.9* |
| **EPHs (mg/kg)** | | | | | | | | | | | | | |
| C8-C10 Aliphatics | | --- | --- | --- | --- | *30.10* | *<5.56* | --- | --- | *<5.35* | *<5.52* | *<5.41* | *<5.54* |
| C10-C12 Aliphatics | | --- | --- | --- | --- | *29.40* | *<5.56* | --- | --- | *11.30* | *<5.52* | *14.60* | *<5.54* |
| C12-C16 Aliphatics | | --- | --- | --- | --- | *7.95* | *<5.56* | --- | --- | *<5.35* | *<5.52* | *9.56* | *<5.54* |
| C16-C21 Aliphatics | | --- | --- | --- | --- | *<5.53* | *<5.56* | --- | --- | *<5.35* | *<5.52* | *<5.41* | *<5.54* |
| C21-C34 Aliphatics | | --- | --- | --- | --- | *<5.53* | *<5.56* | --- | --- | *<5.35* | *<5.52* | *<5.41* | *<5.54* |
| C8-C10 Aromatics | | --- | --- | --- | --- | *33.80* | *<5.56* | --- | --- | *<5.35* | *<5.52* | *<5.41* | *<5.54* |
| C10-C12 Aromatics | | --- | --- | --- | --- | *27.80* | *<5.56* | --- | --- | *19.40* | *<5.52* | *23.50* | *<5.54* |
| C12-C16 Aromatics | | --- | --- | --- | --- | *9.73* | *<5.56* | --- | --- | *11.10* | *<5.52* | *16.20* | *<5.54* |
| C16-C21 Aromatics | | --- | --- | --- | --- | *<5.53* | *<5.56* | --- | --- | *<5.35* | *<5.52* | *<5.41* | *<5.54* |
| C21-C34 Aromatics | | --- | --- | --- | --- | *<5.53* | *<55.6* | --- | --- | *<5.35* | *<5.52* | *<5.41* | *<5.54* |
| Extractable Petroleum Hydrocarbons | | --- | --- | --- | --- | *139.00* | *<53.5* | --- | --- | *<53.5* | *<55.2* | *63.90* | *<55.4* |
| **PCBs (mg/kg)** | | | | | | | | | | | | | |
| Aroclor- 1016 | | *<0.0264* | *<0.0271* | *<0.0288* | *<0.0270* | *<0.0280* | *<0.0270* | *<0.0273* | *<0.0282* | *<0.0269* | *<0.0276* | *<0.0269* | *<0.0275* |
| Aroclor - 1221 | | *<0.0529* | *<0.0541* | *<0.0575* | *<0.0540* | *<0.0561* | *<0.0554* | *<0.0546* | *<0.056.3* | *<0.0537* | *<0.0552* | *<0.0537* | *<0.0550* |
| Aroclor - 1232 | | *<0.0264* | *<0.0271* | *<0.0288* | *<0.0270* | *<0.0280* | *<0.0270* | *<0.0273* | *<0.0282* | *<0.0269* | *<0.0276* | *<0.0269* | *<0.0275* |
| Aroclor - 1242 | | *<0.0264* | *<0.0271* | *<0.0288* | *<0.0270* | *<0.0280* | *109* | *<0.0273* | *<0.0282* | *<0.0269* | *<0.0276* | *<0.0269* | *<0.0275* |
| Aroclor - 1248 | | *<0.0264* | *<0.0271* | *<0.0288* | *<0.0270* | *<0.0280* | *<0.0270* | *<0.0273* | *<0.0282* | *<0.0269* | *<0.0276* | *<0.0269* | *<0.0275* |
| Aroclor - 1254 | | *<0.0264* | *<0.0271* | *<0.0288* | *<0.0270* | *<0.0280* | *<0.0270* | *<0.0273* | *<0.0282* | *<0.0269* | *<0.0276* | *<0.0269* | *<0.0275* |
| Aroclor - 1260 | | *<0.0264* | *<0.0271* | *<0.0288* | *<0.0270* | *<0.0280* | *<0.0270* | *<0.0273* | *<0.0282* | *<0.0269* | *<0.0276* | *<0.0269* | *<0.0275* |
| Aroclor - 1262 | | *<0.0264* | *<0.0271* | *<0.0288* | *<0.0270* | *<0.0280* | *<0.0270* | *<0.0273* | *<0.0282* | *<0.0269* | *<0.0276* | *<0.0269* | *<0.0275* |
| Aroclor - 1268 | | *<0.0264* | *<0.0271* | *<0.0288* | *<0.0270* | *<0.0280* | *<0.0270* | *<0.0273* | *<0.0282* | *<0.0269* | *<0.0276* | *<0.0269* | *<0.0275* |

**Table 2**

**SUMMARY OF SOIL ANALYTICAL RESULTS**
SAP# 171152
JLI# 2068
6808 196th ST SW
Lynnwood, Washington

| Sample Location | | MW-1 | | SB-1 | | MW-3 | | MW-2 | | MW-4 | | MW-5 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Analyte** | ***MTCA Method A Cleanup Levels*** | **GW1-27.5** | **GW1-17.5** | **SB1-12.5** | **SB1-7.5** | **GW3-7.5** | **GW3-17.5** | **GW2-12.5** | **GW2-17.5** | **GW4-7.5** | **GW4-17.5** | **GW5-7.5** | **GW5-17.5** |
| Sample Date | | 11/16/2006 | 11/16/2006 | 11/16/2006 | 11/16/2006 | 11/16/2006 | 11/16/2006 | 11/17/2006 | 11/17/2006 | 11/17/2006 | 11/17/2006 | 11/17/2006 | 11/17/2006 |
| Sample Depth | | 27.50 | 17.50 | 12.50 | 7.50 | 7.50 | 17.50 | 12.50 | 17.50 | 7.50 | 17.50 | 7.50 | 17.50 |
| **cPAHs (mg/kg)** | | | | | | | | | | | | | |
| Acenaphthene | | *<0.0106* | *<0.0108* | *<0.0115* | *<0.0108* | *<0.0111* | *<0.0111* | *<0.0111* | *0.0113* | *<0.0107* | *<0.0110* | *<0.0108* | *<0.0111* |
| Acenaphthylene | | *<0.0106* | *<0.0108* | *<0.0115* | *<0.0108* | *<0.0111* | *<0.0111* | *<0.0111* | *<0.0113* | *<0.0107* | *<0.0110* | *<0.0108* | *<0.0111* |
| Anthracene | | *<0.0106* | *<0.0108* | *<0.0115* | *<0.0108* | *<0.0111* | *<0.0111* | *<0.0111* | *<0.0113* | *<0.0107* | *<0.0110* | *<0.0108* | *<0.0111* |
| Benzo(a)anthracene | | *<0.0106* | *<0.0108* | *<0.0115* | *<0.0108* | *<0.0111* | *<0.0111* | *<0.0111* | *<0.0113* | *<0.0107* | *<0.0110* | *<0.0108* | *<0.0111* |
| Chrysene | | *<0.0106* | *<0.0108* | *<0.0115* | *<0.0108* | *<0.0111* | *<0.0111* | *<0.0111* | *<0.0113* | *<0.0107* | *<0.0110* | *<0.0108* | *<0.0111* |
| Benzo(b)fluoranthene | | *<0.0106* | *<0.0108* | *<0.0115* | *<0.0108* | *<0.0111* | *<0.0111* | *<0.0111* | *<0.0113* | *<0.0107* | *<0.0110* | *<0.0108* | *<0.0111* |
| Benzo(k)fluoranthene | | *<0.0106* | *<0.0108* | *<0.0115* | *<0.0108* | *<0.0111* | *<0.0111* | *<0.0111* | *<0.0113* | *<0.0107* | *<0.0110* | *<0.0108* | *<0.0111* |
| Benzo(a)pyrene | ***0.1*** | *<0.0106* | *<0.0108* | *<0.0115* | *<0.0108* | *<0.0111* | *<0.0111* | *<0.0111* | *<0.0113* | *<0.0107* | *<0.0110* | *<0.0108* | *<0.0111* |
| Indeno(1,2,3-cd)pyrene | | *<0.0106* | *<0.0108* | *<0.0115* | *<0.0108* | *<0.0111* | *<0.0111* | *<0.0111* | *<0.0113* | *<0.0107* | *<0.0110* | *<0.0108* | *<0.0111* |
| Dibenzo(a,h)anthracene | | *<0.0106* | *<0.0108* | *<0.0115* | *<0.0108* | *<0.0111* | *<0.0111* | *<0.0111* | *<0.0113* | *<0.0107* | *<0.0110* | *<0.0108* | *<0.0111* |
| Fluoranthene | | *<0.0106* | *<0.0108* | *<0.0115* | *<0.0108* | *<0.0111* | *<0.0111* | *<0.0111* | *<0.0113* | *<0.0107* | *<0.0110* | *<0.0108* | *<0.0111* |
| Flourene | | *<0.0106* | *<0.0108* | *<0.0115* | *<0.0108* | *<0.0111* | *<0.0111* | *<0.0111* | *<0.0113* | *<0.0107* | *<0.0110* | *<0.0108* | *<0.0111* |
| 1-Methylnaphthalene | | *<0.0106* | *<0.0108* | *<0.0115* | *0.0177* | *0.671* | *<0.0111* | *<0.0111* | *<0.0113* | *0.611* | *<0.0110* | *1.11* | *<0.0111* |
| 2-Methylnaphthalene | | *<0.0106* | *<0.0108* | *<0.0115* | *0.0464* | *1.79* | *<0.0111* | *<0.0111* | *<0.0113* | *1.620* | *<0.0110* | *2.77* | *0.0127* |
| Naphthalene | ***5*** | *<0.0106* | *<0.0108* | *0.0152* | *0.0497* | *3.4* | *<0.0111* | *<0.0111* | *<0.0113* | *1.8700* | *<0.0110* | *2.46* | *<0.0111* |
| Phenanthrene | | *<0.0106* | *<0.0108* | *<0.0115* | *<0.0108* | *<0.0111* | *<0.0111* | *<0.0111* | *<0.0113* | *0.0120* | *<0.0110* | *<0.0108* | *<0.0111* |
| Pyrene | | *<0.0106* | *<0.0108* | *<0.0115* | *<0.0108* | *<0.0111* | *<0.0111* | *<0.0111* | *<0.0113* | *0.0121* | *<0.0110* | *<0.0108* | *<0.0111* |

PCBs = polychlorinated biphenols
cPAHs = polycyclic aromatic hydrocarbons identified as known or probable human carcinogens by the US EPA
VPHs = Volatile Petroleum Hydrocarbons
EPHs = Extractable Petroleum Hydrocarbons
--- = not analyzed

Shaded concentrations indicate the result exceeds the MTCA Method A cleanup level for that analyte.

**Table 3**

**SUMMARY OF SOIL ANALYTICAL RESULTS**
SAP# 171152
JLI# 2068
6808 196th St SW
Lynnwood, Washington

| Sample Location | | MW-1 | | SB-1 | | MW-3 | | MW-2 | | MW-4 | | MW-5 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Analyte** | ***MTCA Method A Cleanup Levels*** | **GW1-27.5** | **GW1-17.5** | **SB1-12.5** | **SB1-7.5** | **GW3-7.5** | **GW3-17.5** | **GW2-12.5** | **GW2-17.5** | **GW4-7.5** | **GW4-17.5** | **GW5-7.5** | **GW5-17.5** |
| Sample Date | | 11/16/2006 | 11/16/2006 | 11/16/2006 | 11/16/2006 | 11/16/2006 | 11/16/2006 | 11/17/2006 | 11/17/2006 | 11/17/2006 | 11/17/2006 | 11/17/2006 | 11/17/2006 |
| Sample Depth | | 27.50 | 17.50 | 12.50 | 7.50 | 7.50 | 17.50 | 12.50 | 17.50 | 7.50 | 17.50 | 7.50 | 17.50 |
| **PAHs (mg/kg)** | | | | | | | | | | | | | |
| Acenaphthene | | *< 0.0106* | *< 0.0108* | *< 0.0115* | *< 0.0108* | *< 0.0111* | *< 0.0111* | *< 0.0111* | *0.0113* | *< 0.0107* | *< 0.0110* | *< 0.0108* | *< 0.0111* |
| Acenaphthylene | | *< 0.0106* | *< 0.0108* | *< 0.0115* | *< 0.0108* | *< 0.0111* | *< 0.0111* | *< 0.0111* | *< 0.0113* | *< 0.0107* | *< 0.0110* | *< 0.0108* | *< 0.0111* |
| Anthracene | | *< 0.0106* | *< 0.0108* | *< 0.0115* | *< 0.0108* | *< 0.0111* | *< 0.0111* | *< 0.0111* | *< 0.0113* | *< 0.0107* | *< 0.0110* | *< 0.0108* | *< 0.0111* |
| Fluoranthene | | *< 0.0106* | *< 0.0108* | *< 0.0115* | *< 0.0108* | *< 0.0111* | *< 0.0111* | *< 0.0111* | *< 0.0113* | *< 0.0107* | *< 0.0110* | *< 0.0108* | *< 0.0111* |
| Flourene | | *< 0.0106* | *< 0.0108* | *< 0.0115* | *< 0.0108* | *< 0.0111* | *< 0.0111* | *< 0.0111* | *< 0.0113* | *< 0.0107* | *< 0.0110* | *< 0.0108* | *< 0.0111* |
| 1-Methylnaphthalene | | *< 0.0106* | *< 0.0108* | *< 0.0115* | *0.0177* | *0.671* | *< 0.0111* | *< 0.0111* | *< 0.0113* | *0.611* | *< 0.0110* | *1.11* | *< 0.0111* |
| 2-Methylnaphthalene | | *< 0.0106* | *< 0.0108* | *< 0.0115* | *0.0464* | *1.79* | *< 0.0111* | *< 0.0111* | *< 0.0113* | *1.620* | *< 0.0110* | *2.77* | *0.0127* |
| Naphthalene | *5* | *< 0.0106* | *< 0.0108* | *0.0152* | *0.0497* | *3.4* | *< 0.0111* | *< 0.0111* | *< 0.0113* | *1.8700* | *< 0.0110* | *2.46* | *< 0.0111* |
| Phenanthrene | | *< 0.0106* | *< 0.0108* | *< 0.0115* | *< 0.0108* | *< 0.0111* | *< 0.0111* | *< 0.0111* | *< 0.0113* | *0.0120* | *< 0.0110* | *< 0.0108* | *< 0.0111* |
| Pyrene | | *< 0.0106* | *< 0.0108* | *< 0.0115* | *< 0.0108* | *< 0.0111* | *< 0.0111* | *< 0.0111* | *< 0.0113* | *0.0121* | *< 0.0110* | *< 0.0108* | *< 0.0111* |
| **cPAHs (mg/kg)** | | | | | | | | | | | | | |
| Benzo(a)anthracene | | *< 0.0106* | *< 0.0108* | *< 0.0115* | *< 0.0108* | *< 0.0111* | *< 0.0111* | *< 0.0111* | *< 0.0113* | *< 0.0107* | *< 0.0110* | *< 0.0108* | *< 0.0111* |
| Chrysene | | *< 0.0106* | *< 0.0108* | *< 0.0115* | *< 0.0108* | *< 0.0111* | *< 0.0111* | *< 0.0111* | *< 0.0113* | *< 0.0107* | *< 0.0110* | *< 0.0108* | *< 0.0111* |
| Benzo(b)fluoranthene | | *< 0.0106* | *< 0.0108* | *< 0.0115* | *< 0.0108* | *< 0.0111* | *< 0.0111* | *< 0.0111* | *< 0.0113* | *< 0.0107* | *< 0.0110* | *< 0.0108* | *< 0.0111* |
| Benzo(k)fluoranthene | | *< 0.0106* | *< 0.0108* | *< 0.0115* | *< 0.0108* | *< 0.0111* | *< 0.0111* | *< 0.0111* | *< 0.0113* | *< 0.0107* | *< 0.0110* | *< 0.0108* | *< 0.0111* |
| Benzo(a)pyrene | ***0.1*** | *< 0.0106* | *< 0.0108* | *< 0.0115* | *< 0.0108* | *< 0.0111* | *< 0.0111* | *< 0.0111* | *< 0.0113* | *< 0.0107* | *< 0.0110* | *< 0.0108* | *< 0.0111* |
| Indeno(1,2,3-cd)pyrene | | *< 0.0106* | *< 0.0108* | *< 0.0115* | *< 0.0108* | *< 0.0111* | *< 0.0111* | *< 0.0111* | *< 0.0113* | *< 0.0107* | *< 0.0110* | *< 0.0108* | *< 0.0111* |
| Dibenzo(a,h)anthracene | | *< 0.0106* | *< 0.0108* | *< 0.0115* | *< 0.0108* | *< 0.0111* | *< 0.0111* | *< 0.0111* | *< 0.0113* | *< 0.0107* | *< 0.0110* | *< 0.0108* | *< 0.0111* |
| **Total cPAHs (mg/kg) Calculation** | | cPAHs x TEF (mg/kg) | cPAHs x TEF (mg/kg) | cPAHs x TEF (mg/kg) | cPAHs x TEF (mg/kg) | cPAHs x TEF (mg/kg) | cPAHs x TEF (mg/kg) | cPAHs x TEF (mg/kg) | cPAHs x TEF (mg/kg) | cPAHs x TEF (mg/kg) | cPAHs x TEF (mg/kg) | cPAHs x TEF (mg/kg) | cPAHs x TEF (mg/kg) | *Toxic Equivalency Factor (TEF)* |
| Benzo(a)anthracene | | 0.00106 | 0.00108 | 0.00115 | 0.00108 | 0.00111 | 0.00111 | 0.00111 | 0.00113 | 0.00107 | 0.0011 | 0.00108 | 0.00111 | *0.1* |
| Chrysene | | 0.000106 | 0.000108 | 0.000115 | 0.000108 | 0.000111 | 0.000111 | 0.000111 | 0.000113 | 0.000107 | 0.00011 | 0.000108 | 0.000111 | *0.01* |
| Benzo(b)fluoranthene | | 0.00106 | 0.00108 | 0.00115 | 0.00108 | 0.00111 | 0.00111 | 0.00111 | 0.00113 | 0.00107 | 0.0011 | 0.00108 | 0.00111 | *0.1* |
| Benzo(k)fluoranthene | | 0.00106 | 0.00108 | 0.00115 | 0.00108 | 0.00111 | 0.00111 | 0.00111 | 0.00113 | 0.00107 | 0.0011 | 0.00108 | 0.00111 | *0.1* |
| Benzo(a)pyrene | ***0.1*** | 0.0106 | 0.0108 | 0.0115 | 0.0108 | 0.0111 | 0.0111 | 0.0111 | 0.0113 | 0.0107 | 0.011 | 0.0108 | 0.0111 | *1.0* |
| Indeno(1,2,3-cd)pyrene | | 0.00106 | 0.00108 | 0.00115 | 0.00108 | 0.00111 | 0.00111 | 0.00111 | 0.00113 | 0.00107 | 0.0011 | 0.00108 | 0.00111 | *0.1* |
| Dibenzo(a,h)anthracene | | 0.00424 | 0.00432 | 0.0046 | 0.00432 | 0.00444 | 0.00444 | 0.00444 | 0.00452 | 0.00428 | 0.0044 | 0.00432 | 0.00444 | *0.4* |
| **Total cPAHs (mg/kg)*** | ***0.1*** | 0.019186 | 0.019548 | 0.020815 | 0.019548 | 0.020091 | 0.020091 | 0.020091 | 0.020453 | 0.019367 | 0.01991 | 0.019548 | 0.020091 | |

* = Total cPAHs are calculated using the Toxic Equivalency Factors for cPAHs found on page 21 of WSDOE's publication titled "Cleanup Levels and Risk Calculations under the Model Toxics Control Act Cleanup Regulation," Version 3.1, November 2001.
Total cPAHs MTCA Method A cleanup level is based on benzo(a)pyrene
PCBs = polychlorinated biphenols
cPAHs = polycyclic aromatic hydrocarbons identified as known or probable human carcinogens by the US EPA

VPHs = Volatile Petroleum Hydrocarbons
EPHs = Extractable Petroleum Hydrocarbons
--- = not analyzed

Shaded concentrations indicate the result exceeds the MTCA Method A cleanup level for that analyte.

# Attachment A

# Boring Logs

Cambria Environmental Technology, Inc.
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Everett, WA 98208
Telephone: 425.353.6670
Fax: 425.353.6443

# BORING/WELL LOG

| | | | |
|---|---|---|---|
| **CLIENT NAME** | Shell Oil Products US | **BORING/WELL NAME** | MW-1 |
| **JOB/SITE NAME** | LYNN6808 | **DRILLING STARTED** | 16-Nov-06 |
| **LOCATION** | 6808 196th Street, Lynnwood, WA | **DRILLING COMPLETED** | 16-Nov-06 |
| **PROJECT NUMBER** | 248-1739 | **WELL DEVELOPMENT DATE (YIELD)** | 28-Dec-06 (12/29/2006) |
| **DRILLER** | Boart Longyear Drilling | **GROUND SURFACE ELEVATION** | 452 ft above msl |
| **DRILLING METHOD** | Hollow-stem auger | **TOP OF CASING ELEVATION** | 452.00 ft above msl |
| **BORING DIAMETER** | 8" | **SCREENED INTERVAL** | 17.5 to 27.5 ft bgs |
| **LOGGED BY** | Bryan Palmer | **DEPTH TO WATER (First Encountered)** | NA |
| **REVIEWED BY** | T. Crotwell | **DEPTH TO WATER (Static)** | NA |
| **REMARKS** | | | |

| PID (ppm) | BLOW COUNTS | SAMPLE ID | EXTENT | DEPTH (ft bgs) | U.S.C.S. | GRAPHIC LOG | LITHOLOGIC DESCRIPTION | CONTACT DEPTH (ft bgs) | WELL DIAGRAM |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Asphalt | 0.5 | Portland Type I/II |
| | | | | | SW | | Gravelly SAND with trace cobbles (FILL): Dark Brown; dry, non plastic, high permeability. | | Bentonite Seal |
| | | | | 5 | SW | | Gravelly SAND with trace cobbles: Gray, moist, high permeability. | 5.0 | |
| 0 | 11<br>20<br>23 | | | | | | | 7.5 | |
| | | | | 10 | SC | | Sandy CLAY with cobbles: Gray, moist, low plsticity, medium permeability. | | 10/20 Filter Sand |
| 0 | 9<br>13<br>24 | | | | | | | 12.5 | |
| | | | | 15 | SM | | Silty SAND with cobbles: Gray, moist, high permeability. | | |
| 2.9 | 8<br>38<br>53 | MW1@1<br>7.5' | | | | | | 17.5 | |
| | | | | 20 | SM | | Silty SAND with cobbles: Gray, moist, high permeability. | | |
| 0 | 32<br>50<br>50 | | | | | | | 22.5 | 2" diameter schedule 40 PVC .010 slot size |
| | | | | 25 | SM | | Slity SAND with cobbles: Gray, moist, high to medium permeability. | | |
| 0 | 6<br>23<br>50 | MW1@2<br>7.5' | | | | | | 27.5 | |
| | | | | 30 | SM | | Slity SAND with cobbles: Gray, moist, high to medium permeability. | | |
| | | | | | | | | 32.5 | Bottom of Boring @ 32 ft |

WELL LOG EVERETT C:\DOCUMENTS AND SETTINGS\VANDERPAARDT\DESKTOP\9-3299 SB-1_MW-1 - MW-5.GPJ DEFAULT.GDT 3/13/07

Cambria Environmental Technology, Inc.
8620 Holly Drive, Suite 210
Everett, WA 98208
Telephone: 425.353.6670
Fax: 425.353.6443

# BORING/WELL LOG

| | | | |
|---|---|---|---|
| **CLIENT NAME** | Shell Oil Products US | **BORING/WELL NAME** | MW-2 |
| **JOB/SITE NAME** | LYNN6808 | **DRILLING STARTED** | 16-Nov-06 |
| **LOCATION** | 6808 196th Street, Lynnwood, WA | **DRILLING COMPLETED** | 17-Nov-06 |
| **PROJECT NUMBER** | 248-1739 | **WELL DEVELOPMENT DATE (YIELD)** | 28-Dec-06 (12/29/2006) |
| **DRILLER** | Boart Longyear Drilling | **GROUND SURFACE ELEVATION** | 451.04 ft above msl |
| **DRILLING METHOD** | Hollow-stem auger | **TOP OF CASING ELEVATION** | 451.04 ft above msl |
| **BORING DIAMETER** | 8" | **SCREENED INTERVAL** | 7.5 to 17.5 ft bgs |
| **LOGGED BY** | Bryan Palmer | **DEPTH TO WATER (First Encountered)** | NA |
| **REVIEWED BY** | T. Crotwell | **DEPTH TO WATER (Static)** | NA |
| **REMARKS** | | | |

| PID (ppm) | BLOW COUNTS | SAMPLE ID | EXTENT | DEPTH (ft bgs) | U.S.C.S. | GRAPHIC LOG | LITHOLOGIC DESCRIPTION | CONTACT DEPTH (ft bgs) | WELL DIAGRAM |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Asphalt | 0.5 | Portland Type I/II |
| | | | | | SW | | Gravelly SAND with trace cobbles (FILL): Dark Brown; dry, non plastic, high permeability. | | Bentonite Seal |
| | | | | 5 | SW | | Gravelly SAND with trace cobbles: Gray, moist, high permeability. | 5.0 | 10/20 Filter Sand |
| 0.6 | 11<br>17<br>21 | | | | | | | 7.5 | |
| | | | | 10 | SC | | Clayey SAND with trace gravel: Gray, wet, low placitiy, low permeability. | | |
| 0.7 | 7<br>21<br>35 | MW2@1<br>2.5' | | 15 | CL | | Sandy CLAY: Gray, wet, medium plasticity, low permeability. | 12.5 | 2" diameter schedule 40 PVC .010 slot size |
| 2.4 | 27<br>50<br>50 | MW2@1<br>7.5' | | | | | | 17.5 | Bottom of Boring @ 18 ft |

WELL LOG EVERETT C:\DOCUMENTS AND SETTINGS\AVANDERPAARD\DESKTOP\9-3299 SB-1 MW-1 - MW-5.GPJ DEFAULT.GDT 3/13/07

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# BORING/WELL LOG

| | | | |
|---|---|---|---|
| **CLIENT NAME** | Shell Oil Products US | **BORING/WELL NAME** | MW-3 |
| **JOB/SITE NAME** | LYNN6808 | **DRILLING STARTED** | 16-Nov-06 |
| **LOCATION** | 6808 196th Street, Lynnwood, WA | **DRILLING COMPLETED** | 16-Nov-06 |
| **PROJECT NUMBER** | 248-1739 | **WELL DEVELOPMENT DATE (YIELD)** | 28-Dec-06 (12/29/2006) |
| **DRILLER** | Boart Longyear Drilling | **GROUND SURFACE ELEVATION** | 452.01 ft above msl |
| **DRILLING METHOD** | Hollow-stem auger | **TOP OF CASING ELEVATION** | 452.01 ft above msl |
| **BORING DIAMETER** | 8" | **SCREENED INTERVAL** | 7.5 to 17.5 ft bgs |
| **LOGGED BY** | Bryan Palmer | **DEPTH TO WATER (First Encountered)** | NA |
| **REVIEWED BY** | T. Crotwell | **DEPTH TO WATER (Static)** | NA |
| **REMARKS** | | | |

| PID (ppm) | BLOW COUNTS | SAMPLE ID | EXTENT | DEPTH (ft bgs) | U.S.C.S. | GRAPHIC LOG | LITHOLOGIC DESCRIPTION | CONTACT DEPTH (ft bgs) | WELL DIAGRAM |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Asphalt | 0.5 | Portland Type I/II |
| | | | | | SW | | Gravelly SAND with trace cobbles (FILL): Dark Brown; dry, non plastic, high permeability. | | Bentonite Seal |
| | | | | 5 | | | | 5.0 | |
| | | | | | SC | | Clayey SAND with cobbles: Gray, wet, low plasticity, low permeability. | | 10/20 Filter Sand |
| | 3 | | | | | | | 7.5 | |
| | 8 | | | | | | Sandy CLAY with gravel: Gray, wet, medium plasticity, low permeability. | | |
| 2228 | 11 | MW3@7.5' | | | ML | | | | |
| | | | | 10 | | | | | |
| | 6 | | | | | | | 12.5 | |
| | 26 | | | | | | Sandy Clay with gravel: Gray, wet, low plasticity, low permeability. | | 2" diameter schedule 40 PVC .010 slot size |
| 189 | 50 | | | | | | | | |
| | | | | 15 | CL | | | | |
| | 14 | | | | | | | 17.5 | |
| | 31 | | | | | | | | |
| 38 | 50 | MW3@17.5' | | | | | | | Bottom of Boring @ 18 ft |

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# BORING/WELL LOG

| | | | |
|---|---|---|---|
| **CLIENT NAME** | Shell Oil Products US | **BORING/WELL NAME** | MW-4 |
| **JOB/SITE NAME** | LYNN6808 | **DRILLING STARTED** | 16-Nov-06 |
| **LOCATION** | 6808 196th Street, Lynnwood, WA | **DRILLING COMPLETED** | 16-Nov-06 |
| **PROJECT NUMBER** | 248-1739 | **WELL DEVELOPMENT DATE (YIELD)** | 28-Dec-06 (12/29/2006) |
| **DRILLER** | Boart Longyear Drilling | **GROUND SURFACE ELEVATION** | 452.28 ft above msl |
| **DRILLING METHOD** | Hollow-stem auger | **TOP OF CASING ELEVATION** | 452.28 ft above msl |
| **BORING DIAMETER** | 8" | **SCREENED INTERVAL** | 7.5 to 17.5 ft bgs |
| **LOGGED BY** | Bryan Palmer | **DEPTH TO WATER (First Encountered)** | NA |
| **REVIEWED BY** | T. Crotwell | **DEPTH TO WATER (Static)** | NA |
| **REMARKS** | | | |

| PID (ppm) | BLOW COUNTS | SAMPLE ID | EXTENT | DEPTH (ft bgs) | U.S.C.S. | GRAPHIC LOG | LITHOLOGIC DESCRIPTION | CONTACT DEPTH (ft bgs) | WELL DIAGRAM |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Asphalt | 0.5 | Portland Type I/II |
| | | | | | SW | | Gravelly SAND with trace cobbles (FILL): Dark Brown; dry, non plastic, high permeability. | | Bentonite Seal |
| | | | | 5 | SW | | Gravelly Sand: Gray; dry, high permeability. | 5.0 | 10/20 Filter Sand |
| 2390 | 7<br>21<br>23 | MW4@7<br>.5' | | 10 | CL | | Clayey SAND: Gray, wet, medium permeability. | 7.5 | |
| 149 | 7<br>13<br>14 | | | 15 | CL | | Silty sandy CLAY: Gray, low plasticity, medium permeability. | 12.5 | 2" diameter schedule 40 PVC .010 slot size |
| 63 | 19<br>50 | MW4@1<br>7.5' | | | | | | 17.5 | Bottom of Boring @ 18 ft |

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# BORING/WELL LOG

| | | | |
|---|---|---|---|
| **CLIENT NAME** | Shell Oil Products US | **BORING/WELL NAME** | MW-5 |
| **JOB/SITE NAME** | LYNN6808 | **DRILLING STARTED** | 16-Nov-06 |
| **LOCATION** | 6808 196th Street, Lynnwood, WA | **DRILLING COMPLETED** | 17-Nov-06 |
| **PROJECT NUMBER** | 248-1739 | **WELL DEVELOPMENT DATE (YIELD)** | 28-Dec-06 (12/29/2006) |
| **DRILLER** | Boart Longyear Drilling | **GROUND SURFACE ELEVATION** | 451.85 ft above msl |
| **DRILLING METHOD** | Hollow-stem auger | **TOP OF CASING ELEVATION** | 451.58 ft above msl |
| **BORING DIAMETER** | 8" | **SCREENED INTERVAL** | 7.5 to 17.5 ft bgs |
| **LOGGED BY** | Bryan Palmer | **DEPTH TO WATER (First Encountered)** | NA |
| **REVIEWED BY** | T. Crotwell | **DEPTH TO WATER (Static)** | NA |
| **REMARKS** | | | |

| PID (ppm) | BLOW COUNTS | SAMPLE ID | EXTENT | DEPTH (ft bgs) | U.S.C.S. | GRAPHIC LOG | LITHOLOGIC DESCRIPTION | CONTACT DEPTH (ft bgs) | WELL DIAGRAM |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Asphalt | 0.5 | Portland Type I/II |
| | | | | | SW | | Gravelly SAND with trace cobbles (FILL): Dark Brown; dry, non plastic, high permeability. | | Bentonite Seal |
| | | | | 5 | | | | 5.0 | |
| | | | | | SC | | Clayey SAND with gravel: Gray, dry, medium permeability. | 7.5 | 10/20 Filter Sand |
| 2956 | 11<br>17<br>14 | MW5@7.5' | | 10 | CL | | Sandy CLAY: Gray, wet, low plasticity, medium permeability. | 12.5 | |
| 499 | 11<br>14<br>9 | | | 15 | CL | | Sandy CLAY: Gray, wet, low plasticity, low permeability. | 17.5 | 2" diameter schedule 40 PVC .010 slot size |
| 72.5 | 17<br>32<br>50 | MW5@17.5' | | | | | | | Bottom of Boring @ 18 ft |

WELL LOG EVERETT C:\DOCUMENTS AND SETTINGS\AVANDERPAARDT\DESKTOP\9-3299 SB-1_MW-1 - MW-5.GPJ DEFAULT.GDT 3/13/07

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# BORING/WELL LOG

| | | | |
|---|---|---|---|
| **CLIENT NAME** | Shell Oil Products US | **BORING/WELL NAME** | SB-1 |
| **JOB/SITE NAME** | LYNN6808 | **DRILLING STARTED** | 16-Nov-06 |
| **LOCATION** | 6808 196th Street, Lynnwood, WA | **DRILLING COMPLETED** | 17-Nov-06 |
| **PROJECT NUMBER** | 248-1739 | **WELL DEVELOPMENT DATE (YIELD)** | NA |
| **DRILLER** | Boart Longyear Drilling | **GROUND SURFACE ELEVATION** | Not Surveyed |
| **DRILLING METHOD** | Hollow-stem auger | **TOP OF CASING ELEVATION** | Not Surveyed |
| **BORING DIAMETER** | 8" | **SCREENED INTERVAL** | NA |
| **LOGGED BY** | Bryan Palmer | **DEPTH TO WATER (First Encountered)** | NA |
| **REVIEWED BY** | T. Crotwell | **DEPTH TO WATER (Static)** | NA |
| **REMARKS** | | | |

| PID (ppm) | BLOW COUNTS | SAMPLE ID | EXTENT | DEPTH (ft bgs) | U.S.C.S. | GRAPHIC LOG | LITHOLOGIC DESCRIPTION | CONTACT DEPTH (ft bgs) | WELL DIAGRAM |
|---|---|---|---|---|---|---|---|---|---|
| 0 | | | | | | | Asphalt | 0.5 | Portland Type I/II |
| | | | | | SW | | Gravelly SAND with trace cobbles (FILL): Dark Brown; dry, non plastic, high permeability. | | |
| | | | | 5 | SW | | Gravelly SAND with trace cobbles: Gray; dry, high permeability. | 5.0 | |
| 7.7 | 3<br>8<br>9 | | | | SC | | Clayey SAND with trace cobbles: Gray; wet, low plasticity, low permeability. | 7.5 | Bentonite Seal |
| | | | | 10 | | | | | |
| 24.2 | 3<br>4<br>9 | SB1@1<br>2.5' | | | | | | 12.5 | |
| | | | | 15 | SW | | Gravelly SAND: Gray; moist, low permeability. | | |
| 7 | 11<br>24<br>50 | SB1@1<br>7.5' | | | | | | 17.5 | Bottom of Boring @ 18 ft |

WELL LOG EVERETT C:\DOCUMENTS AND SETTINGS\AVANDERPAARDT\DESKTOP\9-3299 SB-1_MW-1 - MW-5.GPJ DEFAULT.GDT 3/13/07

# Attachment B

# Waste Disposal Manifest

***24 HOUR EMERGENCY RESPONSE, CALL (800) 567-7455 ***

# SHIPPING PAPER

**Lading Manifest: 57881**

| | |
|---|---|
| | DELIVERY DATE / JOB 761545 |
| SHIPPER / CUSTOMER: SHELL OIL PRODUCTS US 300-F07 | POINT OF CONTACT: DON WISDOM |
| ADDRESS: 12700 NORTHBOROUGH DR | PHONE #: (281)874-2238 |
| CITY, STATE, ZIP: HOUSTON TX 77067 | |
| CARRIER / TRANSPORTER: BURLINGTON ENVIRONMENTAL, INC. | PHONE #: (253)383-3044 |
| CONSIGNEE / FACILITY: BURLINGTON ENVIRONMENTAL, INC. | POINT OF CONTACT |
| ADDRESS: 20245 77TH AVENUE SOUTH | PHONE #: (253)872-8030 |
| CITY, STATE, ZIP: KENT , WA 98032 | |

| HM | US DOT Description *(Including Proper Shipping Name, Hazard Class, and ID Number)* | Containers No. | Containers Type | Total Quantity | UOM |
|---|---|---|---|---|---|
| A X | GASOLINE MIXTURE 3 UN1203 PGII ERG(128) | 2 | DM | 110 | G |
| B | | | | | |
| C | | | | | |
| D | | | | | |

673F

Special Handling Instruction and Additional Information:

a) SHELLRECPROD-00 - RECOVERABLE PRODUCTS - AF01 AFB01 WAT05 WATR05 (12) SITE: 6808-196TH ST SW, LYNNWOOD WA 98036. CC# 276501. [redacted] PLEASE RETURN FINAL MANIFEST TO: CAMBRIA ENV'L, ATTN BRYAN PALMER, 8620 HOLLY DR, EVERETT WA 98208.***

Placards Provided YES_____ NO_____

SHIPPER'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway, vessel, and rail according to applicable international and national government regulations.

| | | MONTH | DAY | YEAR |
|---|---|---|---|---|
| (SHIPPER) PRINT OR TYPE NAME: Jolene Renner on behalf of Shell | SIGNATURE: x Jolene Renner | 01 | 10 | 07 |
| (CARRIER/TRANSPORTER) PRINT OR TYPE NAME: MARK BENNETT | SIGNATURE: | 01 | 17 | 07 |
| (CONSIGNEE/FACILITY) PRINT OR TYPE NAME: Megan Ah Mu | SIGNATURE: x Meg Ah Mu | 1 | 17 | 07 |

CONSIGNEE

PSC

***24 HOUR EMERGENCY RESPONSE, CALL (800) 567-7455 ***

# SHIPPING PAPER

**Lading Manifest: 17589-06**

| | |
|---|---|
| | DELIVERY DATE / JOB # 758309 |
| SHIPPER / CUSTOMER: SHELL OIL PRODUCTS US 300-F07 | POINT OF CONTACT: DON WISDOM |
| ADDRESS: 12700 NORTHBOROUGH DR | PHONE #: (281)874-2238 |
| CITY, STATE, ZIP: HOUSTON TX 77067 | |
| CARRIER / TRANSPORTER: BURLINGTON ENVIRONMENTAL, INC. | PHONE #: (253)383-3044 |
| CONSIGNEE / FACILITY: BURLINGTON ENVIRONMENTAL, INC. | POINT OF CONTACT |
| ADDRESS: 20245 77TH AVENUE SOUTH | PHONE #: (253)872-8030 |
| CITY, STATE, ZIP: KENT , WA 98032 | |

| HM | US DOT Description *(Including Proper Shipping Name, Hazard Class, and ID Number)* | Containers No. | Containers Type | Total Quantity | UOM |
|---|---|---|---|---|---|
| A | SOIL WITH GASOLINE AND DIESEL, NON HAZARDOUS, NON-DOT REGULATED | | 9 | DM 5400 | P |
| B | 9089E | | | | |
| C | | | | | |
| D | | | | | |

Special Handling Instruction and Additional Information:

a) 350039-01 - NON HAZ SOIL - LF01 LFB01 STAB01 (8) SITE: 6808 196TH ST SW, LYNNWOOD, WA. SHELL PH: CAROL CAMPAGNA. RIPR 57117. ** KENT: MAIL BOLS TO CAMBRIA, BRYAN PALMER, 8620 HOLLY DR, EVERETT, WA 98208.**

Placards Provided YES_____ NO_____

SHIPPER'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway, vessel, and rail according to applicable international and national government regulations.

| | | MONTH | DAY | YEAR |
|---|---|---|---|---|
| (SHIPPER) PRINT OR TYPE NAME: x Jolene Renner on behalf of | SIGNATURE: Jolene Renner | 12 | 20 | 06 |
| (CARRIER/TRANSPORTER) PRINT OR TYPE NAME: x MARK E BOWMAN | SIGNATURE: | 12 | 20 | 06 |
| (CONSIGNEE/FACILITY) PRINT OR TYPE NAME: x Megan Ann Mu | SIGNATURE: x | 12 | 20 | 06 |

CONSIGNEE

# Attachment C

# Certified Analytical Reports

TestAmerica
ANALYTICAL TESTING CORPORATION

SEATTLE, WA 11720 NORTH CREEK PKWY N, SUITE 400
BOTHELL, WA 98011-8244
PH: (425) 420.9200 FAX: (425) 420.9210

December 08, 2006

Justin Foslien
Cambria - Seattle
8620 Holly Drive, Suite 210
Everett, WA 98208

RE: Shell - 6808 196th SW, Lynnwood

Enclosed are the results of analyses for samples received by the laboratory on 11/17/06 16:00. The following list is a summary of the Work Orders contained in this report, generated on 12/08/06 18:57.

If you have any questions concerning this report, please feel free to contact me.

| Work Order | Project | ProjectNumber |
|---|---|---|
| BPK0570 | Shell - 6808 196th SW, Lynnw | 248-1739 |

TestAmerica - Seattle, WA

Kate Haney

Kate Haney, Project Manager

TestAmerica
ANALYTICAL TESTING CORPORATION

SEATTLE, WA 11720 NORTH CREEK PKWY N, SUITE 400
BOTHELL, WA 98011-8244
PH: (425) 420.9200 FAX: (425) 420.9210

| | | | |
|---|---|---|---|
| **Cambria - Seattle** | Project Name: | **Shell - 6808 196th SW, Lynnwood** | |
| 8620 Holly Drive, Suite 210 | Project Number: | 248-1739 | Report Created: |
| Everett, WA 98208 | Project Manager: | Justin Foslien | 12/08/06 18:57 |

## ANALYTICAL REPORT FOR SAMPLES

| Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|---|---|---|---|---|
| GW1@27.5' | BPK0570-01 | Soil | 11/16/06 10:30 | 11/17/06 16:00 |
| GW1@17.5' | BPK0570-02 | Soil | 11/16/06 10:03 | 11/17/06 16:00 |
| SB1@12.5' | BPK0570-03 | Soil | 11/16/06 13:20 | 11/17/06 16:00 |
| SB1@7.5' | BPK0570-04 | Soil | 11/16/06 13:15 | 11/17/06 16:00 |
| GW3@7.5' | BPK0570-05 | Soil | 11/16/06 14:35 | 11/17/06 16:00 |
| GW3@17.5' | BPK0570-06 | Soil | 11/16/06 14:50 | 11/17/06 16:00 |
| GW2@12.5' | BPK0570-07 | Soil | 11/17/06 08:39 | 11/17/06 16:00 |
| GW2@17.5' | BPK0570-08 | Soil | 11/17/06 08:50 | 11/17/06 16:00 |
| GW4@7.5' | BPK0570-09 | Soil | 11/17/06 10:32 | 11/17/06 16:00 |
| GW4@17.5' | BPK0570-10 | Soil | 11/17/06 10:45 | 11/17/06 16:00 |
| GW5@7.5' | BPK0570-11 | Soil | 11/17/06 12:27 | 11/17/06 16:00 |
| GW5@17.5' | BPK0570-12 | Soil | 11/17/06 12:45 | 11/17/06 16:00 |

TestAmerica - Seattle, WA

Kate Haney

Kate Haney, Project Manager

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ANALYTICAL TESTING CORPORATION

SEATTLE, WA 11720 NORTH CREEK PKWY N, SUITE 400
BOTHELL, WA 98011-8244
PH: (425) 420.9200 FAX: (425) 420.9210

| | | | |
|---|---|---|---|
| **Cambria - Seattle** | Project Name: | **Shell - 6808 196th SW, Lynnwood** | |
| 8620 Holly Drive, Suite 210 | Project Number: | 248-1739 | Report Created: |
| Everett, WA 98208 | Project Manager: | Justin Foslien | 12/08/06 18:57 |

## Volatile Petroleum Products by NWTPH-Gx

TestAmerica - Seattle, WA

| Analyte | Method | Result | MDL* | MRL | Units | Dil | Batch | Prepared | Analyzed | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **BPK0570-01 (GW1@27.5')** | | **Soil** | | | **Sampled: 11/16/06 10:30** | | | | | |
| **Gasoline Range Hydrocarbons** | NWTPH-Gx | **4.54** | ----- | 3.57 | mg/kg dry | 1x | 6K29027 | 11/29/06 11:15 | 11/29/06 19:12 | |
| *Surrogate(s): 4-BFB (FID)* | | *82.2%* | | *50 - 150 %* | " | | | | " | |
| **BPK0570-02 (GW1@17.5')** | | **Soil** | | | **Sampled: 11/16/06 10:03** | | | | | |
| Gasoline Range Hydrocarbons | NWTPH-Gx | ND | ----- | 3.54 | mg/kg dry | 1x | 6K29027 | 11/29/06 11:15 | 11/29/06 19:42 | |
| *Surrogate(s): 4-BFB (FID)* | | *84.0%* | | *50 - 150 %* | " | | | | " | |
| **BPK0570-03 (SB1@12.5')** | | **Soil** | | | **Sampled: 11/16/06 13:20** | | | | | |
| **Gasoline Range Hydrocarbons** | NWTPH-Gx | **12.3** | ----- | 3.92 | mg/kg dry | 1x | 6K29027 | 11/29/06 11:15 | 11/29/06 20:12 | |
| *Surrogate(s): 4-BFB (FID)* | | *82.6%* | | *50 - 150 %* | " | | | | " | |
| **BPK0570-04 (SB1@7.5')** | | **Soil** | | | **Sampled: 11/16/06 13:15** | | | | | |
| **Gasoline Range Hydrocarbons** | NWTPH-Gx | **4.51** | ----- | 4.05 | mg/kg dry | 1x | 6K29027 | 11/29/06 11:15 | 11/29/06 22:40 | |
| *Surrogate(s): 4-BFB (FID)* | | *83.1%* | | *50 - 150 %* | " | | | | " | |
| **BPK0570-05 (GW3@7.5')** | | **Soil** | | | **Sampled: 11/16/06 14:35** | | | | | |
| **Gasoline Range Hydrocarbons** | NWTPH-Gx | **1820** | ----- | 793 | mg/kg dry | 200x | 6K29027 | 11/29/06 11:15 | 11/29/06 23:10 | |
| *Surrogate(s): 4-BFB (FID)* | | *85.3%* | | *50 - 150 %* | *1x* | | | | " | |
| **BPK0570-06 (GW3@17.5')** | | **Soil** | | | **Sampled: 11/16/06 14:50** | | | | | |
| **Gasoline Range Hydrocarbons** | NWTPH-Gx | **8.39** | ----- | 3.90 | mg/kg dry | 1x | 6K29027 | 11/29/06 11:15 | 11/29/06 20:41 | |
| *Surrogate(s): 4-BFB (FID)* | | *85.9%* | | *50 - 150 %* | " | | | | " | |
| **BPK0570-07 (GW2@12.5')** | | **Soil** | | | **Sampled: 11/17/06 08:39** | | | | | |
| Gasoline Range Hydrocarbons | NWTPH-Gx | ND | ----- | 3.68 | mg/kg dry | 1x | 6K30024 | 11/30/06 10:49 | 11/30/06 20:27 | |
| *Surrogate(s): 4-BFB (FID)* | | *101%* | | *50 - 150 %* | " | | | | " | |
| **BPK0570-08 (GW2@17.5')** | | **Soil** | | | **Sampled: 11/17/06 08:50** | | | | | |
| **Gasoline Range Hydrocarbons** | NWTPH-Gx | **9.49** | ----- | 4.26 | mg/kg dry | 1x | 6K30024 | 11/30/06 10:49 | 11/30/06 22:59 | |
| *Surrogate(s): 4-BFB (FID)* | | *102%* | | *50 - 150 %* | " | | | | " | |

TestAmerica - Seattle, WA

Kate Haney, Project Manager

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ANALYTICAL TESTING CORPORATION

SEATTLE, WA 11720 NORTH CREEK PKWY N, SUITE 400
BOTHELL, WA 98011-8244
PH: (425) 420.9200 FAX: (425) 420.9210

| | | | |
|---|---|---|---|
| **Cambria - Seattle** | Project Name: | **Shell - 6808 196th SW, Lynnwood** | |
| 8620 Holly Drive, Suite 210 | Project Number: | 248-1739 | Report Created: |
| Everett, WA 98208 | Project Manager: | Justin Foslien | 12/08/06 18:57 |

## Volatile Petroleum Products by NWTPH-Gx

TestAmerica - Seattle, WA

| Analyte | Method | Result | MDL* | MRL | Units | Dil | Batch | Prepared | Analyzed | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **BPK0570-09 (GW4@7.5')** | | **Soil** | | | **Sampled: 11/17/06 10:32** | | | | | |
| **Gasoline Range Hydrocarbons** | NWTPH-Gx | **1060** | ---- | 189 | mg/kg dry | 50x | 6K30024 | 11/30/06 10:49 | 11/30/06 23:30 | |
| *Surrogate(s): 4-BFB (FID)* | | | *111%* | | *50 - 150 %* | *1x* | | | " | |
| **BPK0570-10 (GW4@17.5')** | | **Soil** | | | **Sampled: 11/17/06 10:45** | | | | | |
| **Gasoline Range Hydrocarbons** | NWTPH-Gx | **8.57** | ---- | 3.80 | mg/kg dry | 1x | 6K30024 | 11/30/06 10:49 | 11/30/06 20:57 | |
| *Surrogate(s): 4-BFB (FID)* | | | *99.1%* | | *50 - 150 %* | " | | | " | |
| **BPK0570-11 (GW5@7.5')** | | **Soil** | | | **Sampled: 11/17/06 12:27** | | | | | |
| **Gasoline Range Hydrocarbons** | NWTPH-Gx | **1550** | ---- | 193 | mg/kg dry | 50x | 6K30024 | 11/30/06 10:49 | 12/01/06 00:01 | |
| *Surrogate(s): 4-BFB (FID)* | | | *99.1%* | | *50 - 150 %* | *1x* | | | " | |
| **BPK0570-12 (GW5@17.5')** | | **Soil** | | | **Sampled: 11/17/06 12:45** | | | | | |
| **Gasoline Range Hydrocarbons** | NWTPH-Gx | **23.9** | ---- | 3.69 | mg/kg dry | 1x | 6K30024 | 11/30/06 10:49 | 11/30/06 19:56 | |
| *Surrogate(s): 4-BFB (FID)* | | | *99.1%* | | *50 - 150 %* | " | | | " | |

TestAmerica - Seattle, WA

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| | | | |
|---|---|---|---|
| **Cambria - Seattle** | Project Name: | **Shell - 6808 196th SW, Lynnwood** | |
| 8620 Holly Drive, Suite 210 | Project Number: | 248-1739 | Report Created: |
| Everett, WA 98208 | Project Manager: | Justin Foslien | 12/08/06 18:57 |

## Volatile Petroleum Hydrocarbons by WDOE TPH Policy Method

TestAmerica - Seattle, WA

| Analyte | Method | Result | MDL* | MRL | Units | Dil | Batch | Prepared | Analyzed | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **BPK0570-05RE2 (GW3@7.5')** | | **Soil** | | | **Sampled: 11/16/06 14:35** | | | | | **H2** |
| C5-C6 Aliphatics | WA MTCA-VPH | ND | ---- | 198 | mg/kg dry | 50x | 6L06021 | 12/06/06 09:31 | 12/07/06 00:04 | |
| C6-C8 Aliphatics | " | ND | ---- | 198 | " | " | " | " | " | L1 |
| **C8-C10 Aromatics** | " | **289** | ---- | 198 | " | " | " | " | " | |
| **C10-C12 Aromatics** | " | **227** | ---- | 198 | " | " | " | " | " | |
| C12-C13 Aromatics | " | ND | ---- | 198 | " | " | " | " | " | |
| Total VPH (TVPH) | " | ND | ---- | 1390 | " | " | " | " | " | |
| *Surrogate(s): 4-BFB (FID)* | | | *120%* | | *60 - 140 %* | *1x* | | | " | |
| *4-BFB (PID)* | | | *100%* | | *60 - 140 %* | " | | | " | |
| **BPK0570-06RE1 (GW3@17.5')** | | **Soil** | | | **Sampled: 11/16/06 14:50** | | | | | |
| C5-C6 Aliphatics | WA MTCA-VPH | ND | ---- | 3.90 | mg/kg dry | 1x | 6K28004 | 11/28/06 09:45 | 11/28/06 14:00 | |
| **C6-C8 Aliphatics** | " | **4.15** | ---- | 3.90 | " | " | " | " | " | |
| C8-C10 Aromatics | " | ND | ---- | 3.90 | " | " | " | " | " | |
| C10-C12 Aromatics | " | ND | ---- | 3.90 | " | " | " | " | " | |
| C12-C13 Aromatics | " | ND | ---- | 3.90 | " | " | " | " | " | |
| Total VPH (TVPH) | " | ND | ---- | 27.3 | " | " | " | " | " | |
| *Surrogate(s): 4-BFB (FID)* | | | *104%* | | *60 - 140 %* | " | | | " | |
| *4-BFB (PID)* | | | *96.6%* | | *60 - 140 %* | " | | | " | |
| **BPK0570-09RE2 (GW4@7.5')** | | **Soil** | | | **Sampled: 11/17/06 10:32** | | | | | **H2** |
| C5-C6 Aliphatics | WA MTCA-VPH | ND | ---- | 75.5 | mg/kg dry | 20x | 6L06021 | 12/06/06 09:31 | 12/07/06 00:35 | |
| **C6-C8 Aliphatics** | " | **104** | ---- | 75.5 | " | " | " | " | " | L1 |
| **C8-C10 Aromatics** | " | **147** | ---- | 75.5 | " | " | " | " | " | |
| **C10-C12 Aromatics** | " | **140** | ---- | 75.5 | " | " | " | " | " | |
| C12-C13 Aromatics | " | ND | ---- | 75.5 | " | " | " | " | " | |
| **Total VPH (TVPH)** | " | **699** | ---- | 528 | " | " | " | " | " | |
| *Surrogate(s): 4-BFB (FID)* | | | *127%* | | *60 - 140 %* | *1x* | | | " | |
| *4-BFB (PID)* | | | *96.9%* | | *60 - 140 %* | " | | | " | |
| **BPK0570-10RE1 (GW4@17.5')** | | **Soil** | | | **Sampled: 11/17/06 10:45** | | | | | |
| C5-C6 Aliphatics | WA MTCA-VPH | ND | ---- | 3.80 | mg/kg dry | 1x | 6K28004 | 11/28/06 09:45 | 11/28/06 15:41 | |
| C6-C8 Aliphatics | " | ND | ---- | 3.80 | " | " | " | " | " | |
| C8-C10 Aromatics | " | ND | ---- | 3.80 | " | " | " | " | " | |
| C10-C12 Aromatics | " | ND | ---- | 3.80 | " | " | " | " | " | |
| C12-C13 Aromatics | " | ND | ---- | 3.80 | " | " | " | " | " | |
| Total VPH (TVPH) | " | ND | ---- | 26.6 | " | " | " | " | " | |

TestAmerica - Seattle, WA

Kate Haney, Project Manager

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| | | | |
|---|---|---|---|
| **Cambria - Seattle** | Project Name: | **Shell - 6808 196th SW, Lynnwood** | |
| 8620 Holly Drive, Suite 210 | Project Number: | 248-1739 | Report Created: |
| Everett, WA 98208 | Project Manager: | Justin Foslien | 12/08/06 18:57 |

## Volatile Petroleum Hydrocarbons by WDOE TPH Policy Method

TestAmerica - Seattle, WA

| Analyte | Method | Result | MDL* | MRL | Units | Dil | Batch | Prepared | Analyzed | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **BPK0570-10RE1 (GW4@17.5')** | | **Soil** | | | **Sampled: 11/17/06 10:45** | | | | | |
| *Surrogate(s): 4-BFB (FID)* | | | *97.4%* | | *60 - 140 %* | *1x* | | | *11/28/06 15:41* | |
| *4-BFB (PID)* | | | *95.2%* | | *60 - 140 %* | " | | | " | |
| **BPK0570-11RE2 (GW5@7.5')** | | **Soil** | | | **Sampled: 11/17/06 12:27** | | | | | **H2** |
| C5-C6 Aliphatics | WA MTCA-VPH | ND | ---- | 77.2 | mg/kg dry | 20x | 6L06021 | 12/06/06 09:31 | 12/07/06 01:05 | |
| C6-C8 Aliphatics | " | ND | ---- | 77.2 | " | " | " | " | " | **L1** |
| C8-C10 Aromatics | " | ND | ---- | 77.2 | " | " | " | " | " | |
| C10-C12 Aromatics | " | ND | ---- | 77.2 | " | " | " | " | " | |
| C12-C13 Aromatics | " | ND | ---- | 77.2 | " | " | " | " | " | |
| Total VPH (TVPH) | " | ND | ---- | 541 | " | " | " | " | " | |
| *Surrogate(s): 4-BFB (FID)* | | | *99.6%* | | *60 - 140 %* | *1x* | | | " | |
| *4-BFB (PID)* | | | *100%* | | *60 - 140 %* | " | | | " | |
| **BPK0570-12RE1 (GW5@17.5')** | | **Soil** | | | **Sampled: 11/17/06 12:45** | | | | | |
| C5-C6 Aliphatics | WA MTCA-VPH | ND | ---- | 3.69 | mg/kg dry | 1x | 6K28004 | 11/28/06 09:45 | 11/28/06 16:11 | |
| **C6-C8 Aliphatics** | " | **7.96** | ---- | 3.69 | " | " | " | " | " | |
| C8-C10 Aromatics | " | ND | ---- | 3.69 | " | " | " | " | " | |
| C10-C12 Aromatics | " | ND | ---- | 3.69 | " | " | " | " | " | |
| C12-C13 Aromatics | " | ND | ---- | 3.69 | " | " | " | " | " | |
| Total VPH (TVPH) | " | ND | ---- | 25.9 | " | " | " | " | " | |
| *Surrogate(s): 4-BFB (FID)* | | | *114%* | | *60 - 140 %* | " | | | " | |
| *4-BFB (PID)* | | | *91.9%* | | *60 - 140 %* | " | | | " | |

TestAmerica - Seattle, WA

Kate Haney, Project Manager

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| | | | |
|---|---|---|---|
| **Cambria - Seattle** | Project Name: | **Shell - 6808 196th SW, Lynnwood** | |
| 8620 Holly Drive, Suite 210 | Project Number: | 248-1739 | Report Created: |
| Everett, WA 98208 | Project Manager: | Justin Foslien | 12/08/06 18:57 |

## Semivolatile Petroleum Products by NWTPH-Dx with Acid/Silica Gel Clean-up

TestAmerica - Seattle, WA

| Analyte | Method | Result | MDL* | MRL | Units | Dil | Batch | Prepared | Analyzed | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **BPK0570-01 (GW1@27.5')** | | **Soil** | | | **Sampled: 11/16/06 10:30** | | | | | |
| Diesel Range Hydrocarbons | NWTPH-Dx | ND | ----- | 10.6 | mg/kg dry | 1x | 6K27031 | 11/27/06 10:42 | 12/06/06 17:38 | |
| Lube Oil Range Hydrocarbons | " | ND | ----- | 26.4 | " | " | " | " | " | |
| *Surrogate(s): 2-FBP* | | | *105%* | | *54 - 148 %* | " | | | " | |
| *Octacosane* | | | *90.2%* | | *62 - 142 %* | " | | | " | |
| **BPK0570-02 (GW1@17.5')** | | **Soil** | | | **Sampled: 11/16/06 10:03** | | | | | |
| Diesel Range Hydrocarbons | NWTPH-Dx | ND | ----- | 10.9 | mg/kg dry | 1x | 6K27031 | 11/27/06 10:42 | 12/06/06 18:04 | |
| Lube Oil Range Hydrocarbons | " | ND | ----- | 27.2 | " | " | " | " | " | |
| *Surrogate(s): 2-FBP* | | | *95.5%* | | *54 - 148 %* | " | | | " | |
| *Octacosane* | | | *87.4%* | | *62 - 142 %* | " | | | " | |
| **BPK0570-03 (SB1@12.5')** | | **Soil** | | | **Sampled: 11/16/06 13:20** | | | | | |
| Diesel Range Hydrocarbons | NWTPH-Dx | ND | ----- | 11.4 | mg/kg dry | 1x | 6K27031 | 11/27/06 10:42 | 12/06/06 19:48 | |
| Lube Oil Range Hydrocarbons | " | ND | ----- | 28.6 | " | " | " | " | " | |
| *Surrogate(s): 2-FBP* | | | *97.5%* | | *54 - 148 %* | " | | | " | |
| *Octacosane* | | | *87.8%* | | *62 - 142 %* | " | | | " | |
| **BPK0570-04 (SB1@7.5')** | | **Soil** | | | **Sampled: 11/16/06 13:15** | | | | | |
| Diesel Range Hydrocarbons | NWTPH-Dx | ND | ----- | 10.8 | mg/kg dry | 1x | 6K27031 | 11/27/06 10:42 | 12/06/06 20:14 | |
| Lube Oil Range Hydrocarbons | " | ND | ----- | 27.1 | " | " | " | " | " | |
| *Surrogate(s): 2-FBP* | | | *102%* | | *54 - 148 %* | " | | | " | |
| *Octacosane* | | | *90.0%* | | *62 - 142 %* | " | | | " | |
| **BPK0570-05 (GW3@7.5')** | | **Soil** | | | **Sampled: 11/16/06 14:35** | | | | | |
| **Diesel Range Hydrocarbons** | NWTPH-Dx | **63.3** | ----- | 11.2 | mg/kg dry | 1x | 6K27031 | 11/27/06 10:42 | 12/06/06 20:40 | Q5 |
| Lube Oil Range Hydrocarbons | " | ND | ----- | 27.9 | " | " | " | " | " | |
| *Surrogate(s): 2-FBP* | | | *110%* | | *54 - 148 %* | " | | | " | |
| *Octacosane* | | | *96.9%* | | *62 - 142 %* | " | | | " | |
| **BPK0570-06 (GW3@17.5')** | | **Soil** | | | **Sampled: 11/16/06 14:50** | | | | | |
| Diesel Range Hydrocarbons | NWTPH-Dx | ND | ----- | 11.1 | mg/kg dry | 1x | 6K27031 | 11/27/06 10:42 | 12/06/06 21:06 | |
| Lube Oil Range Hydrocarbons | " | ND | ----- | 27.8 | " | " | " | " | " | |
| *Surrogate(s): 2-FBP* | | | *104%* | | *54 - 148 %* | " | | | " | |
| *Octacosane* | | | *91.5%* | | *62 - 142 %* | " | | | " | |

TestAmerica - Seattle, WA

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|---|---|---|---|
| **Cambria - Seattle** | Project Name: | **Shell - 6808 196th SW, Lynnwood** | |
| 8620 Holly Drive, Suite 210 | Project Number: | 248-1739 | Report Created: |
| Everett, WA 98208 | Project Manager: | Justin Foslien | 12/08/06 18:57 |

## Semivolatile Petroleum Products by NWTPH-Dx with Acid/Silica Gel Clean-up

TestAmerica - Seattle, WA

| Analyte | Method | Result | MDL* | MRL | Units | Dil | Batch | Prepared | Analyzed | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **BPK0570-07 (GW2@12.5')** | | **Soil** | | | **Sampled: 11/17/06 08:39** | | | | | |
| Diesel Range Hydrocarbons | NWTPH-Dx | ND | ---- | 11.0 | mg/kg dry | 1x | 6K27031 | 11/27/06 10:42 | 12/06/06 21:32 | |
| Lube Oil Range Hydrocarbons | " | ND | ---- | 27.4 | " | " | " | " | " | |
| *Surrogate(s): 2-FBP* | | | *106%* | | *54 - 148 %* | " | | | " | |
| *Octacosane* | | | *90.7%* | | *62 - 142 %* | " | | | " | |
| **BPK0570-08 (GW2@17.5')** | | **Soil** | | | **Sampled: 11/17/06 08:50** | | | | | |
| Diesel Range Hydrocarbons | NWTPH-Dx | ND | ---- | 11.2 | mg/kg dry | 1x | 6K27031 | 11/27/06 10:42 | 12/06/06 21:58 | |
| Lube Oil Range Hydrocarbons | " | ND | ---- | 28.1 | " | " | " | " | " | |
| *Surrogate(s): 2-FBP* | | | *106%* | | *54 - 148 %* | " | | | " | |
| *Octacosane* | | | *91.9%* | | *62 - 142 %* | " | | | " | |
| **BPK0570-09 (GW4@7.5')** | | **Soil** | | | **Sampled: 11/17/06 10:32** | | | | | |
| **Diesel Range Hydrocarbons** | NWTPH-Dx | **30.9** | ---- | 10.7 | mg/kg dry | 1x | 6K27031 | 11/27/06 10:42 | 12/06/06 22:24 | Q5 |
| Lube Oil Range Hydrocarbons | " | ND | ---- | 26.8 | " | " | " | " | " | |
| *Surrogate(s): 2-FBP* | | | *102%* | | *54 - 148 %* | " | | | " | |
| *Octacosane* | | | *93.8%* | | *62 - 142 %* | " | | | " | |
| **BPK0570-10 (GW4@17.5')** | | **Soil** | | | **Sampled: 11/17/06 10:45** | | | | | |
| Diesel Range Hydrocarbons | NWTPH-Dx | ND | ---- | 11.0 | mg/kg dry | 1x | 6K27031 | 11/27/06 10:42 | 12/06/06 22:50 | |
| Lube Oil Range Hydrocarbons | " | ND | ---- | 27.5 | " | " | " | " | " | |
| *Surrogate(s): 2-FBP* | | | *101%* | | *54 - 148 %* | " | | | " | |
| *Octacosane* | | | *89.3%* | | *62 - 142 %* | " | | | " | |
| **BPK0570-11 (GW5@7.5')** | | **Soil** | | | **Sampled: 11/17/06 12:27** | | | | | |
| **Diesel Range Hydrocarbons** | NWTPH-Dx | **62.4** | ---- | 10.7 | mg/kg dry | 1x | 6K27031 | 11/27/06 10:42 | 12/06/06 23:15 | Q5 |
| Lube Oil Range Hydrocarbons | " | ND | ---- | 26.9 | " | " | " | " | " | |
| *Surrogate(s): 2-FBP* | | | *109%* | | *54 - 148 %* | " | | | " | |
| *Octacosane* | | | *96.5%* | | *62 - 142 %* | " | | | " | |
| **BPK0570-12 (GW5@17.5')** | | **Soil** | | | **Sampled: 11/17/06 12:45** | | | | | |
| Diesel Range Hydrocarbons | NWTPH-Dx | ND | ---- | 11.0 | mg/kg dry | 1x | 6K27031 | 11/27/06 10:42 | 12/06/06 23:41 | |
| Lube Oil Range Hydrocarbons | " | ND | ---- | 27.5 | " | " | " | " | " | |
| *Surrogate(s): 2-FBP* | | | *103%* | | *54 - 148 %* | " | | | " | |
| *Octacosane* | | | *91.4%* | | *62 - 142 %* | " | | | " | |

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|---|---|---|---|
| **Cambria - Seattle** | Project Name: | **Shell - 6808 196th SW, Lynnwood** | |
| 8620 Holly Drive, Suite 210 | Project Number: | 248-1739 | Report Created: |
| Everett, WA 98208 | Project Manager: | Justin Foslien | 12/08/06 18:57 |

## Extractable Petroleum Hydrocarbons by WDOE TPH Policy Method

TestAmerica - Seattle, WA

| Analyte | Method | Result | MDL* | MRL | Units | Dil | Batch | Prepared | Analyzed | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **BPK0570-05 (GW3@7.5')** | | **Soil** | | | **Sampled: 11/16/06 14:35** | | | | | |
| **C8-C10 Aliphatics** | WA MTCA-EPH | **30.1** | ---- | 5.53 | mg/kg dry | 1x | 6K27029 | 11/27/06 10:39 | 12/01/06 16:09 | |
| **C10-C12 Aliphatics** | " | **29.4** | ---- | 5.53 | " | " | " | " | " | |
| **C12-C16 Aliphatics** | " | **7.95** | ---- | 5.53 | " | " | " | " | " | |
| C16-C21 Aliphatics | " | ND | ---- | 5.53 | " | " | " | " | " | |
| C21-C34 Aliphatics | " | ND | ---- | 5.53 | " | " | " | " | " | |
| **C8-C10 Aromatics** | " | **33.8** | ---- | 5.53 | " | " | " | " | 12/01/06 16:41 | |
| **C10-C12 Aromatics** | " | **27.8** | ---- | 5.53 | " | " | " | " | " | |
| **C12-C16 Aromatics** | " | **9.73** | ---- | 5.53 | " | " | " | " | " | |
| C16-C21 Aromatics | " | ND | ---- | 5.53 | " | " | " | " | " | |
| C21-C34 Aromatics | " | ND | ---- | 5.53 | " | " | " | " | " | |
| **Extractable Petroleum Hydrocarbons** | " | **139** | ---- | 55.3 | " | " | [CALC] | " | " | |
| *Surrogate(s): o-Terphenyl* | | | *92.4%* | | *60 - 140 %* | " | | | " | |
| *1-Chlorooctadecane* | | | *98.9%* | | *60 - 140 %* | " | | | *12/01/06 16:09* | |
| **BPK0570-06 (GW3@17.5')** | | **Soil** | | | **Sampled: 11/16/06 14:50** | | | | | |
| C8-C10 Aliphatics | WA MTCA-EPH | ND | ---- | 5.56 | mg/kg dry | 1x | 6K27029 | 11/27/06 10:39 | 12/01/06 19:18 | |
| C10-C12 Aliphatics | " | ND | ---- | 5.56 | " | " | " | " | " | |
| C12-C16 Aliphatics | " | ND | ---- | 5.56 | " | " | " | " | " | |
| C16-C21 Aliphatics | " | ND | ---- | 5.56 | " | " | " | " | " | |
| C21-C34 Aliphatics | " | ND | ---- | 5.56 | " | " | " | " | " | |
| C8-C10 Aromatics | " | ND | ---- | 5.56 | " | " | " | " | 12/01/06 19:49 | |
| C10-C12 Aromatics | " | ND | ---- | 5.56 | " | " | " | " | " | |
| C12-C16 Aromatics | " | ND | ---- | 5.56 | " | " | " | " | " | |
| C16-C21 Aromatics | " | ND | ---- | 5.56 | " | " | " | " | " | |
| C21-C34 Aromatics | " | ND | ---- | 5.56 | " | " | " | " | " | |
| Extractable Petroleum Hydrocarbons | " | ND | ---- | 55.6 | " | " | [CALC] | " | " | |
| *Surrogate(s): o-Terphenyl* | | | *91.9%* | | *60 - 140 %* | " | | | " | |
| *1-Chlorooctadecane* | | | *103%* | | *60 - 140 %* | " | | | *12/01/06 19:18* | |
| **BPK0570-09 (GW4@7.5')** | | **Soil** | | | **Sampled: 11/17/06 10:32** | | | | | |
| C8-C10 Aliphatics | WA MTCA-EPH | ND | ---- | 5.35 | mg/kg dry | 1x | 6K27029 | 11/27/06 10:39 | 12/01/06 20:21 | |
| **C10-C12 Aliphatics** | " | **11.3** | ---- | 5.35 | " | " | " | " | " | |
| C12-C16 Aliphatics | " | ND | ---- | 5.35 | " | " | " | " | " | |
| C16-C21 Aliphatics | " | ND | ---- | 5.35 | " | " | " | " | " | |
| C21-C34 Aliphatics | " | ND | ---- | 5.35 | " | " | " | " | " | |
| C8-C10 Aromatics | " | ND | ---- | 5.35 | " | " | " | " | 12/01/06 20:53 | |
| **C10-C12 Aromatics** | " | **19.4** | ---- | 5.35 | " | " | " | " | " | |
| **C12-C16 Aromatics** | " | **11.1** | ---- | 5.35 | " | " | " | " | " | |

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|---|---|---|---|
| **Cambria - Seattle** | Project Name: | **Shell - 6808 196th SW, Lynnwood** | |
| 8620 Holly Drive, Suite 210 | Project Number: | 248-1739 | Report Created: |
| Everett, WA 98208 | Project Manager: | Justin Foslien | 12/08/06 18:57 |

## Extractable Petroleum Hydrocarbons by WDOE TPH Policy Method

TestAmerica - Seattle, WA

| Analyte | Method | Result | MDL* | MRL | Units | Dil | Batch | Prepared | Analyzed | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **BPK0570-09 (GW4@7.5')** | | **Soil** | | | **Sampled: 11/17/06 10:32** | | | | | |
| C16-C21 Aromatics | WA MTCA-EPH | ND | ----- | 5.35 | mg/kg dry | 1x | 6K27029 | 11/27/06 10:39 | 12/01/06 20:53 | |
| C21-C34 Aromatics | " | ND | ----- | 5.35 | " | " | " | " | " | |
| Extractable Petroleum Hydrocarbons | " | ND | ----- | 53.5 | " | " | [CALC] | " | " | |
| *Surrogate(s): o-Terphenyl* | | | *93.3%* | | *60 - 140 %* | " | | | " | |
| *1-Chlorooctadecane* | | | *102%* | | *60 - 140 %* | " | | | *12/01/06 20:21* | |
| **BPK0570-10 (GW4@17.5')** | | **Soil** | | | **Sampled: 11/17/06 10:45** | | | | | |
| C8-C10 Aliphatics | WA MTCA-EPH | ND | ----- | 5.52 | mg/kg dry | 1x | 6K27029 | 11/27/06 10:39 | 12/01/06 21:24 | |
| C10-C12 Aliphatics | " | ND | ----- | 5.52 | " | " | " | " | " | |
| C12-C16 Aliphatics | " | ND | ----- | 5.52 | " | " | " | " | " | |
| C16-C21 Aliphatics | " | ND | ----- | 5.52 | " | " | " | " | " | |
| C21-C34 Aliphatics | " | ND | ----- | 5.52 | " | " | " | " | " | |
| C8-C10 Aromatics | " | ND | ----- | 5.52 | " | " | " | " | 12/01/06 21:55 | |
| C10-C12 Aromatics | " | ND | ----- | 5.52 | " | " | " | " | " | |
| C12-C16 Aromatics | " | ND | ----- | 5.52 | " | " | " | " | " | |
| C16-C21 Aromatics | " | ND | ----- | 5.52 | " | " | " | " | " | |
| C21-C34 Aromatics | " | ND | ----- | 5.52 | " | " | " | " | " | |
| Extractable Petroleum Hydrocarbons | " | ND | ----- | 55.2 | " | " | [CALC] | " | " | |
| *Surrogate(s): o-Terphenyl* | | | *91.8%* | | *60 - 140 %* | " | | | " | |
| *1-Chlorooctadecane* | | | *101%* | | *60 - 140 %* | " | | | *12/01/06 21:24* | |
| **BPK0570-11 (GW5@7.5')** | | **Soil** | | | **Sampled: 11/17/06 12:27** | | | | | |
| C8-C10 Aliphatics | WA MTCA-EPH | ND | ----- | 5.41 | mg/kg dry | 1x | 6K27029 | 11/27/06 10:39 | 12/01/06 22:27 | |
| **C10-C12 Aliphatics** | " | **14.6** | ----- | 5.41 | " | " | " | " | " | |
| **C12-C16 Aliphatics** | " | **9.56** | ----- | 5.41 | " | " | " | " | " | |
| C16-C21 Aliphatics | " | ND | ----- | 5.41 | " | " | " | " | " | |
| C21-C34 Aliphatics | " | ND | ----- | 5.41 | " | " | " | " | " | |
| C8-C10 Aromatics | " | ND | ----- | 5.41 | " | " | " | " | 12/01/06 22:58 | |
| **C10-C12 Aromatics** | " | **23.5** | ----- | 5.41 | " | " | " | " | " | |
| **C12-C16 Aromatics** | " | **16.2** | ----- | 5.41 | " | " | " | " | " | |
| C16-C21 Aromatics | " | ND | ----- | 5.41 | " | " | " | " | " | |
| C21-C34 Aromatics | " | ND | ----- | 5.41 | " | " | " | " | " | |
| **Extractable Petroleum Hydrocarbons** | " | **63.9** | ----- | 54.1 | " | " | [CALC] | " | " | |
| *Surrogate(s): o-Terphenyl* | | | *96.7%* | | *60 - 140 %* | " | | | " | |
| *1-Chlorooctadecane* | | | *104%* | | *60 - 140 %* | " | | | *12/01/06 22:27* | |

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| 8620 Holly Drive, Suite 210 | Project Number: | 248-1739 | Report Created: |
| Everett, WA 98208 | Project Manager: | Justin Foslien | 12/08/06 18:57 |

## Extractable Petroleum Hydrocarbons by WDOE TPH Policy Method

TestAmerica - Seattle, WA

| Analyte | Method | Result | MDL* | MRL | Units | Dil | Batch | Prepared | Analyzed | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **BPK0570-12 (GW5@17.5')** | | **Soil** | | | **Sampled: 11/17/06 12:45** | | | | | |
| C8-C10 Aliphatics | WA MTCA-EPH | ND | ---- | 5.54 | mg/kg dry | 1x | 6K27029 | 11/27/06 10:39 | 12/05/06 17:34 | |
| C10-C12 Aliphatics | " | ND | ---- | 5.54 | " | " | " | " | " | |
| C12-C16 Aliphatics | " | ND | ---- | 5.54 | " | " | " | " | " | |
| C16-C21 Aliphatics | " | ND | ---- | 5.54 | " | " | " | " | " | |
| C21-C34 Aliphatics | " | ND | ---- | 5.54 | " | " | " | " | " | |
| C8-C10 Aromatics | " | ND | ---- | 5.54 | " | " | " | " | 12/04/06 13:26 | |
| C10-C12 Aromatics | " | ND | ---- | 5.54 | " | " | " | " | " | |
| C12-C16 Aromatics | " | ND | ---- | 5.54 | " | " | " | " | " | |
| C16-C21 Aromatics | " | ND | ---- | 5.54 | " | " | " | " | " | |
| C21-C34 Aromatics | " | ND | ---- | 5.54 | " | " | " | " | " | |
| Extractable Petroleum Hydrocarbons | " | ND | ---- | 55.4 | " | " | [CALC] | " | 12/05/06 17:34 | |
| *Surrogate(s): o-Terphenyl* | | | *101%* | | *60 - 140 %* | " | | | *12/04/06 13:26* | |
| *1-Chlorooctadecane* | | | *87.6%* | | *60 - 140 %* | " | | | *12/05/06 17:34* | |

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| 8620 Holly Drive, Suite 210 | Project Number: | 248-1739 | Report Created: |
| Everett, WA 98208 | Project Manager: | Justin Foslien | 12/08/06 18:57 |

## Total Metals by EPA 6000/7000 Series Methods

TestAmerica - Seattle, WA

| Analyte | Method | Result | MDL* | MRL | Units | Dil | Batch | Prepared | Analyzed | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **BPK0570-01 (GW1@27.5')** | | **Soil** | | | | **Sampled: 11/16/06 10:30** | | | | |
| Lead | EPA 6020 | 0.962 | ---- | 0.543 | mg/kg dry | 1x | 6K30060 | 11/30/06 17:12 | 12/01/06 11:38 | |
| **BPK0570-02 (GW1@17.5')** | | **Soil** | | | | **Sampled: 11/16/06 10:03** | | | | |
| Lead | EPA 6020 | 1.48 | ---- | 0.539 | mg/kg dry | 1x | 6K30060 | 11/30/06 17:12 | 12/01/06 12:25 | |
| **BPK0570-03 (SB1@12.5')** | | **Soil** | | | | **Sampled: 11/16/06 13:20** | | | | |
| Lead | EPA 6020 | 2.06 | ---- | 0.550 | mg/kg dry | 1x | 6K30060 | 11/30/06 17:12 | 12/01/06 12:31 | |
| **BPK0570-04 (SB1@7.5')** | | **Soil** | | | | **Sampled: 11/16/06 13:15** | | | | |
| Lead | EPA 6020 | 1.71 | ---- | 0.440 | mg/kg dry | 1x | 6K30060 | 11/30/06 17:12 | 12/01/06 12:37 | |
| **BPK0570-05 (GW3@7.5')** | | **Soil** | | | | **Sampled: 11/16/06 14:35** | | | | |
| Lead | EPA 6020 | 6.69 | ---- | 0.431 | mg/kg dry | 1x | 6K30060 | 11/30/06 17:12 | 12/01/06 12:43 | |
| **BPK0570-06 (GW3@17.5')** | | **Soil** | | | | **Sampled: 11/16/06 14:50** | | | | |
| Lead | EPA 6020 | 1.55 | ---- | 0.545 | mg/kg dry | 1x | 6K30060 | 11/30/06 17:12 | 12/01/06 12:49 | |
| **BPK0570-07 (GW2@12.5')** | | **Soil** | | | | **Sampled: 11/17/06 08:39** | | | | |
| Lead | EPA 6020 | 1.60 | ---- | 0.477 | mg/kg dry | 1x | 6K30060 | 11/30/06 17:12 | 12/01/06 12:55 | |
| **BPK0570-08 (GW2@17.5')** | | **Soil** | | | | **Sampled: 11/17/06 08:50** | | | | |
| Lead | EPA 6020 | 1.40 | ---- | 0.569 | mg/kg dry | 1x | 6K30060 | 11/30/06 17:12 | 12/01/06 13:42 | |
| **BPK0570-09 (GW4@7.5')** | | **Soil** | | | | **Sampled: 11/17/06 10:32** | | | | |
| Lead | EPA 6020 | 2.35 | ---- | 0.532 | mg/kg dry | 1x | 6K30060 | 11/30/06 17:12 | 12/01/06 13:48 | |
| **BPK0570-10 (GW4@17.5')** | | **Soil** | | | | **Sampled: 11/17/06 10:45** | | | | |
| Lead | EPA 6020 | 1.58 | ---- | 0.509 | mg/kg dry | 1x | 6K30060 | 11/30/06 17:12 | 12/01/06 13:54 | |
| **BPK0570-11 (GW5@7.5')** | | **Soil** | | | | **Sampled: 11/17/06 12:27** | | | | |
| Lead | EPA 6020 | 4.64 | ---- | 0.516 | mg/kg dry | 1x | 6K30060 | 11/30/06 17:12 | 12/01/06 14:00 | |

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## Total Metals by EPA 6000/7000 Series Methods

TestAmerica - Seattle, WA

| Analyte | Method | Result | MDL* | MRL | Units | Dil | Batch | Prepared | Analyzed | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **BPK0570-12 (GW5@17.5')** | **Soil** | | | | **Sampled: 11/17/06 12:45** | | | | | |
| **Lead** | EPA 6020 | **1.33** | — | 0.477 | mg/kg dry | 1x | 6K30060 | 11/30/06 17:12 | 12/01/06 14:05 | |

TestAmerica - Seattle, WA

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| | | | |
|---|---|---|---|
| **Cambria - Seattle** | Project Name: | **Shell - 6808 196th SW, Lynnwood** | |
| 8620 Holly Drive, Suite 210 | Project Number: | 248-1739 | Report Created: |
| Everett, WA 98208 | Project Manager: | Justin Foslien | 12/08/06 18:57 |

## Polychlorinated Biphenyls by EPA Method 8082

TestAmerica - Seattle, WA

| Analyte | Method | Result | MDL* | MRL | Units | Dil | Batch | Prepared | Analyzed | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **BPK0570-01 (GW1@27.5')** | | **Soil** | | | **Sampled: 11/16/06 10:30** | | | | | |
| Aroclor 1016 [2C] | EPA 8082 | ND | ----- | 26.4 | ug/kg dry | 1x | 6K27027 | 11/27/06 10:36 | 11/30/06 00:01 | |
| Aroclor 1221 | " | ND | ----- | 52.9 | " | " | " | " | " | |
| Aroclor 1232 | " | ND | ----- | 26.4 | " | " | " | " | " | |
| Aroclor 1242 | " | ND | ----- | 26.4 | " | " | " | " | " | |
| Aroclor 1248 | " | ND | ----- | 26.4 | " | " | " | " | " | |
| Aroclor 1254 | " | ND | ----- | 26.4 | " | " | " | " | " | |
| Aroclor 1260 [2C] | " | ND | ----- | 26.4 | " | " | " | " | " | |
| Aroclor 1262 | " | ND | ----- | 26.4 | " | " | " | " | " | |
| Aroclor 1268 | " | ND | ----- | 26.4 | " | " | " | " | " | |
| *Surrogate(s):* *TCX [2C]* | | | *99.0%* | | *39 - 139 %* | " | | | " | |
| *Decachlorobiphenyl [2C]* | | | *82.0%* | | *33 - 163 %* | " | | | " | |
| **BPK0570-02 (GW1@17.5')** | | **Soil** | | | **Sampled: 11/16/06 10:03** | | | | | |
| Aroclor 1016 [2C] | EPA 8082 | ND | ----- | 27.1 | ug/kg dry | 1x | 6K27027 | 11/27/06 10:36 | 11/30/06 00:19 | |
| Aroclor 1221 | " | ND | ----- | 54.1 | " | " | " | " | " | |
| Aroclor 1232 | " | ND | ----- | 27.1 | " | " | " | " | " | |
| Aroclor 1242 | " | ND | ----- | 27.1 | " | " | " | " | " | |
| Aroclor 1248 | " | ND | ----- | 27.1 | " | " | " | " | " | |
| Aroclor 1254 | " | ND | ----- | 27.1 | " | " | " | " | " | |
| Aroclor 1260 [2C] | " | ND | ----- | 27.1 | " | " | " | " | " | |
| Aroclor 1262 | " | ND | ----- | 27.1 | " | " | " | " | " | |
| Aroclor 1268 | " | ND | ----- | 27.1 | " | " | " | " | " | |
| *Surrogate(s):* *TCX [2C]* | | | *99.0%* | | *39 - 139 %* | " | | | " | |
| *Decachlorobiphenyl [2C]* | | | *90.2%* | | *33 - 163 %* | " | | | " | |
| **BPK0570-03 (SB1@12.5')** | | **Soil** | | | **Sampled: 11/16/06 13:20** | | | | | |
| Aroclor 1016 [2C] | EPA 8082 | ND | ----- | 28.8 | ug/kg dry | 1x | 6K27027 | 11/27/06 10:36 | 11/30/06 00:37 | |
| Aroclor 1221 | " | ND | ----- | 57.5 | " | " | " | " | " | |
| Aroclor 1232 | " | ND | ----- | 28.8 | " | " | " | " | " | |
| Aroclor 1242 | " | ND | ----- | 28.8 | " | " | " | " | " | |
| Aroclor 1248 | " | ND | ----- | 28.8 | " | " | " | " | " | |
| Aroclor 1254 | " | ND | ----- | 28.8 | " | " | " | " | " | |
| Aroclor 1260 [2C] | " | ND | ----- | 28.8 | " | " | " | " | " | |
| Aroclor 1262 | " | ND | ----- | 28.8 | " | " | " | " | " | |
| Aroclor 1268 | " | ND | ----- | 28.8 | " | " | " | " | " | |
| *Surrogate(s):* *TCX [2C]* | | | *104%* | | *39 - 139 %* | " | | | " | |
| *Decachlorobiphenyl [2C]* | | | *94.7%* | | *33 - 163 %* | " | | | " | |

TestAmerica - Seattle, WA

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|---|---|---|---|
| **Cambria - Seattle** | Project Name: | **Shell - 6808 196th SW, Lynnwood** | |
| 8620 Holly Drive, Suite 210 | Project Number: | 248-1739 | Report Created: |
| Everett, WA 98208 | Project Manager: | Justin Foslien | 12/08/06 18:57 |

## Polychlorinated Biphenyls by EPA Method 8082

TestAmerica - Seattle, WA

| Analyte | Method | Result | MDL* | MRL | Units | Dil | Batch | Prepared | Analyzed | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **BPK0570-04 (SB1@7.5')** | | **Soil** | | | **Sampled: 11/16/06 13:15** | | | | | |
| Aroclor 1016 [2C] | EPA 8082 | ND | ----- | 27.0 | ug/kg dry | 1x | 6K27027 | 11/27/06 10:36 | 11/30/06 00:56 | |
| Aroclor 1221 | " | ND | ----- | 54.0 | " | " | " | " | " | |
| Aroclor 1232 | " | ND | ----- | 27.0 | " | " | " | " | " | |
| Aroclor 1242 | " | ND | ----- | 27.0 | " | " | " | " | " | |
| Aroclor 1248 | " | ND | ----- | 27.0 | " | " | " | " | " | |
| Aroclor 1254 | " | ND | ----- | 27.0 | " | " | " | " | " | |
| Aroclor 1260 [2C] | " | ND | ----- | 27.0 | " | " | " | " | " | |
| Aroclor 1262 | " | ND | ----- | 27.0 | " | " | " | " | " | |
| Aroclor 1268 | " | ND | ----- | 27.0 | " | " | " | " | " | |
| *Surrogate(s): TCX [2C]* | | | *101%* | | *39 - 139 %* | " | | | " | |
| *Decachlorobiphenyl [2C]* | | | *93.2%* | | *33 - 163 %* | " | | | " | |
| **BPK0570-05 (GW3@7.5')** | | **Soil** | | | **Sampled: 11/16/06 14:35** | | | | | |
| Aroclor 1016 [2C] | EPA 8082 | ND | ----- | 28.0 | ug/kg dry | 1x | 6K27027 | 11/27/06 10:36 | 11/30/06 01:14 | |
| Aroclor 1221 | " | ND | ----- | 56.1 | " | " | " | " | " | |
| Aroclor 1232 | " | ND | ----- | 28.0 | " | " | " | " | " | |
| Aroclor 1242 | " | ND | ----- | 28.0 | " | " | " | " | " | |
| Aroclor 1248 | " | ND | ----- | 28.0 | " | " | " | " | " | |
| Aroclor 1254 | " | ND | ----- | 28.0 | " | " | " | " | " | |
| Aroclor 1260 [2C] | " | ND | ----- | 28.0 | " | " | " | " | " | |
| Aroclor 1262 | " | ND | ----- | 28.0 | " | " | " | " | " | |
| Aroclor 1268 | " | ND | ----- | 28.0 | " | " | " | " | " | |
| *Surrogate(s): TCX [2C]* | | | *91.2%* | | *39 - 139 %* | " | | | " | |
| *Decachlorobiphenyl [2C]* | | | *88.0%* | | *33 - 163 %* | " | | | " | |
| **BPK0570-06 (GW3@17.5')** | | **Soil** | | | **Sampled: 11/16/06 14:50** | | | | | |
| Aroclor 1016 [2C] | EPA 8082 | ND | ----- | 27.7 | ug/kg dry | 1x | 6K27027 | 11/27/06 10:36 | 11/30/06 01:32 | |
| Aroclor 1221 | " | ND | ----- | 55.4 | " | " | " | " | " | |
| Aroclor 1232 | " | ND | ----- | 27.7 | " | " | " | " | " | |
| **Aroclor 1242 [2C]** | " | **109** | ----- | 27.7 | " | " | " | " | " | |
| Aroclor 1248 | " | ND | ----- | 27.7 | " | " | " | " | " | |
| Aroclor 1254 | " | ND | ----- | 27.7 | " | " | " | " | " | |
| Aroclor 1260 [2C] | " | ND | ----- | 27.7 | " | " | " | " | " | |
| Aroclor 1262 | " | ND | ----- | 27.7 | " | " | " | " | " | |
| Aroclor 1268 | " | ND | ----- | 27.7 | " | " | " | " | " | |
| *Surrogate(s): TCX [2C]* | | | *102%* | | *39 - 139 %* | " | | | " | |
| *Decachlorobiphenyl [2C]* | | | *96.5%* | | *33 - 163 %* | " | | | " | |

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|---|---|---|---|
| **Cambria - Seattle** | Project Name: | **Shell - 6808 196th SW, Lynnwood** | |
| 8620 Holly Drive, Suite 210 | Project Number: | 248-1739 | Report Created: |
| Everett, WA 98208 | Project Manager: | Justin Foslien | 12/08/06 18:57 |

## Polychlorinated Biphenyls by EPA Method 8082

TestAmerica - Seattle, WA

| Analyte | Method | Result | MDL* | MRL | Units | Dil | Batch | Prepared | Analyzed | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **BPK0570-07 (GW2@12.5')** | | **Soil** | | | **Sampled: 11/17/06 08:39** | | | | | |
| Aroclor 1016 [2C] | EPA 8082 | ND | ---- | 27.3 | ug/kg dry | 1x | 6K27027 | 11/27/06 10:36 | 11/30/06 01:50 | |
| Aroclor 1221 | " | ND | ---- | 54.6 | " | " | " | " | " | |
| Aroclor 1232 | " | ND | ---- | 27.3 | " | " | " | " | " | |
| Aroclor 1242 | " | ND | ---- | 27.3 | " | " | " | " | " | |
| Aroclor 1248 | " | ND | ---- | 27.3 | " | " | " | " | " | |
| Aroclor 1254 | " | ND | ---- | 27.3 | " | " | " | " | " | |
| Aroclor 1260 [2C] | " | ND | ---- | 27.3 | " | " | " | " | " | |
| Aroclor 1262 | " | ND | ---- | 27.3 | " | " | " | " | " | |
| Aroclor 1268 | " | ND | ---- | 27.3 | " | " | " | " | " | |
| *Surrogate(s):* *TCX [2C]* | | | *98.5%* | | *39 - 139 %* | " | | | " | |
| *Decachlorobiphenyl [2C]* | | | *98.2%* | | *33 - 163 %* | " | | | " | |
| **BPK0570-08 (GW2@17.5')** | | **Soil** | | | **Sampled: 11/17/06 08:50** | | | | | |
| Aroclor 1016 [2C] | EPA 8082 | ND | ---- | 28.2 | ug/kg dry | 1x | 6K27027 | 11/27/06 10:36 | 11/30/06 02:08 | |
| Aroclor 1221 | " | ND | ---- | 56.3 | " | " | " | " | " | |
| Aroclor 1232 | " | ND | ---- | 28.2 | " | " | " | " | " | |
| Aroclor 1242 | " | ND | ---- | 28.2 | " | " | " | " | " | |
| Aroclor 1248 | " | ND | ---- | 28.2 | " | " | " | " | " | |
| Aroclor 1254 | " | ND | ---- | 28.2 | " | " | " | " | " | |
| Aroclor 1260 [2C] | " | ND | ---- | 28.2 | " | " | " | " | " | |
| Aroclor 1262 | " | ND | ---- | 28.2 | " | " | " | " | " | |
| Aroclor 1268 | " | ND | ---- | 28.2 | " | " | " | " | " | |
| *Surrogate(s):* *TCX [2C]* | | | *97.2%* | | *39 - 139 %* | " | | | " | |
| *Decachlorobiphenyl [2C]* | | | *97.5%* | | *33 - 163 %* | " | | | " | |
| **BPK0570-09 (GW4@7.5')** | | **Soil** | | | **Sampled: 11/17/06 10:32** | | | | | |
| Aroclor 1016 [2C] | EPA 8082 | ND | ---- | 26.9 | ug/kg dry | 1x | 6K27027 | 11/27/06 10:36 | 11/30/06 02:27 | |
| Aroclor 1221 | " | ND | ---- | 53.7 | " | " | " | " | " | |
| Aroclor 1232 | " | ND | ---- | 26.9 | " | " | " | " | " | |
| Aroclor 1242 | " | ND | ---- | 26.9 | " | " | " | " | " | |
| Aroclor 1248 | " | ND | ---- | 26.9 | " | " | " | " | " | |
| Aroclor 1254 | " | ND | ---- | 26.9 | " | " | " | " | " | |
| Aroclor 1260 [2C] | " | ND | ---- | 26.9 | " | " | " | " | " | |
| Aroclor 1262 | " | ND | ---- | 26.9 | " | " | " | " | " | |
| Aroclor 1268 | " | ND | ---- | 26.9 | " | " | " | " | " | |
| *Surrogate(s):* *TCX [2C]* | | | *95.3%* | | *39 - 139 %* | " | | | " | |
| *Decachlorobiphenyl [2C]* | | | *96.5%* | | *33 - 163 %* | " | | | " | |

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|---|---|---|---|
| **Cambria - Seattle** | Project Name: | **Shell - 6808 196th SW, Lynnwood** | |
| 8620 Holly Drive, Suite 210 | Project Number: | 248-1739 | Report Created: |
| Everett, WA 98208 | Project Manager: | Justin Foslien | 12/08/06 18:57 |

## Polychlorinated Biphenyls by EPA Method 8082

TestAmerica - Seattle, WA

| Analyte | Method | Result | MDL* | MRL | Units | Dil | Batch | Prepared | Analyzed | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **BPK0570-10 (GW4@17.5')** | | **Soil** | | | **Sampled: 11/17/06 10:45** | | | | | |
| Aroclor 1016 [2C] | EPA 8082 | ND | ---- | 27.6 | ug/kg dry | 1x | 6K27027 | 11/27/06 10:36 | 11/30/06 02:45 | |
| Aroclor 1221 | " | ND | ---- | 55.2 | " | " | " | " | " | |
| Aroclor 1232 | " | ND | ---- | 27.6 | " | " | " | " | " | |
| Aroclor 1242 | " | ND | ---- | 27.6 | " | " | " | " | " | |
| Aroclor 1248 | " | ND | ---- | 27.6 | " | " | " | " | " | |
| Aroclor 1254 | " | ND | ---- | 27.6 | " | " | " | " | " | |
| Aroclor 1260 [2C] | " | ND | ---- | 27.6 | " | " | " | " | " | |
| Aroclor 1262 | " | ND | ---- | 27.6 | " | " | " | " | " | |
| Aroclor 1268 | " | ND | ---- | 27.6 | " | " | " | " | " | |
| *Surrogate(s): TCX [2C]* | | | *98.8%* | | *39 - 139 %* | " | | | " | |
| *Decachlorobiphenyl [2C]* | | | *99.3%* | | *33 - 163 %* | " | | | " | |
| **BPK0570-11 (GW5@7.5')** | | **Soil** | | | **Sampled: 11/17/06 12:27** | | | | | |
| Aroclor 1016 [2C] | EPA 8082 | ND | ---- | 26.9 | ug/kg dry | 1x | 6K27027 | 11/27/06 10:36 | 11/30/06 03:03 | |
| Aroclor 1221 | " | ND | ---- | 53.7 | " | " | " | " | " | |
| Aroclor 1232 | " | ND | ---- | 26.9 | " | " | " | " | " | |
| Aroclor 1242 | " | ND | ---- | 26.9 | " | " | " | " | " | |
| Aroclor 1248 | " | ND | ---- | 26.9 | " | " | " | " | " | |
| Aroclor 1254 | " | ND | ---- | 26.9 | " | " | " | " | " | |
| Aroclor 1260 [2C] | " | ND | ---- | 26.9 | " | " | " | " | " | |
| Aroclor 1262 | " | ND | ---- | 26.9 | " | " | " | " | " | |
| Aroclor 1268 | " | ND | ---- | 26.9 | " | " | " | " | " | |
| *Surrogate(s): TCX [2C]* | | | *86.8%* | | *39 - 139 %* | " | | | " | |
| *Decachlorobiphenyl [2C]* | | | *90.5%* | | *33 - 163 %* | " | | | " | |
| **BPK0570-12 (GW5@17.5')** | | **Soil** | | | **Sampled: 11/17/06 12:45** | | | | | |
| Aroclor 1016 [2C] | EPA 8082 | ND | ---- | 27.5 | ug/kg dry | 1x | 6K27027 | 11/27/06 10:36 | 11/30/06 03:21 | |
| Aroclor 1221 | " | ND | ---- | 55.0 | " | " | " | " | " | |
| Aroclor 1232 | " | ND | ---- | 27.5 | " | " | " | " | " | |
| Aroclor 1242 | " | ND | ---- | 27.5 | " | " | " | " | " | |
| Aroclor 1248 | " | ND | ---- | 27.5 | " | " | " | " | " | |
| Aroclor 1254 | " | ND | ---- | 27.5 | " | " | " | " | " | |
| Aroclor 1260 [2C] | " | ND | ---- | 27.5 | " | " | " | " | " | |
| Aroclor 1262 | " | ND | ---- | 27.5 | " | " | " | " | " | |
| Aroclor 1268 | " | ND | ---- | 27.5 | " | " | " | " | " | |
| *Surrogate(s): TCX [2C]* | | | *98.1%* | | *39 - 139 %* | " | | | " | |
| *Decachlorobiphenyl [2C]* | | | *96.2%* | | *33 - 163 %* | " | | | " | |

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|---|---|---|---|
| **Cambria - Seattle** | Project Name: | **Shell - 6808 196th SW, Lynnwood** | |
| 8620 Holly Drive, Suite 210 | Project Number: | 248-1739 | Report Created: |
| Everett, WA 98208 | Project Manager: | Justin Foslien | 12/08/06 18:57 |

## Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

TestAmerica - Seattle, WA

| Analyte | Method | Result | MDL* | MRL | Units | Dil | Batch | Prepared | Analyzed | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **BPK0570-01 (GW1@27.5')** | | **Soil** | | | **Sampled: 11/16/06 10:30** | | | | | |
| Acenaphthene | 8270C-SIM | ND | ----- | 0.0106 | mg/kg dry | 1x | 6K27029 | 11/27/06 10:39 | 12/01/06 19:33 | |
| Acenaphthylene | " | ND | ----- | 0.0106 | " | " | " | " | " | |
| Anthracene | " | ND | ----- | 0.0106 | " | " | " | " | " | |
| Benzo (a) anthracene | " | ND | ----- | 0.0106 | " | " | " | " | " | |
| Benzo (a) pyrene | " | ND | ----- | 0.0106 | " | " | " | " | " | |
| Benzo (b) fluoranthene | " | ND | ----- | 0.0106 | " | " | " | " | " | |
| Benzo (k) fluoranthene | " | ND | ----- | 0.0106 | " | " | " | " | " | |
| Benzo (ghi) perylene | " | ND | ----- | 0.0106 | " | " | " | " | " | |
| Chrysene | " | ND | ----- | 0.0106 | " | " | " | " | " | |
| Dibenz (a,h) anthracene | " | ND | ----- | 0.0106 | " | " | " | " | " | |
| Fluoranthene | " | ND | ----- | 0.0106 | " | " | " | " | " | |
| Fluorene | " | ND | ----- | 0.0106 | " | " | " | " | " | |
| Indeno (1,2,3-cd) pyrene | " | ND | ----- | 0.0106 | " | " | " | " | " | |
| 1-Methylnaphthalene | " | ND | ----- | 0.0106 | " | " | " | " | " | |
| 2-Methylnaphthalene | " | ND | ----- | 0.0106 | " | " | " | " | " | |
| Naphthalene | " | ND | ----- | 0.0106 | " | " | " | " | " | |
| Phenanthrene | " | ND | ----- | 0.0106 | " | " | " | " | " | |
| Pyrene | " | ND | ----- | 0.0106 | " | " | " | " | " | |
| *Surrogate(s): p-Terphenyl-d14* | | | *99.1%* | | *50 - 147 %* | " | | | " | |
| **BPK0570-02 (GW1@17.5')** | | **Soil** | | | **Sampled: 11/16/06 10:03** | | | | | |
| Acenaphthene | 8270C-SIM | ND | ----- | 0.0108 | mg/kg dry | 1x | 6K27029 | 11/27/06 10:39 | 12/01/06 19:59 | |
| Acenaphthylene | " | ND | ----- | 0.0108 | " | " | " | " | " | |
| Anthracene | " | ND | ----- | 0.0108 | " | " | " | " | " | |
| Benzo (a) anthracene | " | ND | ----- | 0.0108 | " | " | " | " | " | |
| Benzo (a) pyrene | " | ND | ----- | 0.0108 | " | " | " | " | " | |
| Benzo (b) fluoranthene | " | ND | ----- | 0.0108 | " | " | " | " | " | |
| Benzo (k) fluoranthene | " | ND | ----- | 0.0108 | " | " | " | " | " | |
| Benzo (ghi) perylene | " | ND | ----- | 0.0108 | " | " | " | " | " | |
| Chrysene | " | ND | ----- | 0.0108 | " | " | " | " | " | |
| Dibenz (a,h) anthracene | " | ND | ----- | 0.0108 | " | " | " | " | " | |
| Fluoranthene | " | ND | ----- | 0.0108 | " | " | " | " | " | |
| Fluorene | " | ND | ----- | 0.0108 | " | " | " | " | " | |
| Indeno (1,2,3-cd) pyrene | " | ND | ----- | 0.0108 | " | " | " | " | " | |
| 1-Methylnaphthalene | " | ND | ----- | 0.0108 | " | " | " | " | " | |
| 2-Methylnaphthalene | " | ND | ----- | 0.0108 | " | " | " | " | " | |
| Naphthalene | " | ND | ----- | 0.0108 | " | " | " | " | " | |
| Phenanthrene | " | ND | ----- | 0.0108 | " | " | " | " | " | |
| Pyrene | " | ND | ----- | 0.0108 | " | " | " | " | " | |
| *Surrogate(s): p-Terphenyl-d14* | | | *99.1%* | | *50 - 147 %* | " | | | " | |

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| | | | |
|---|---|---|---|
| **Cambria - Seattle** | Project Name: | **Shell - 6808 196th SW, Lynnwood** | |
| 8620 Holly Drive, Suite 210 | Project Number: | 248-1739 | Report Created: |
| Everett, WA 98208 | Project Manager: | Justin Foslien | 12/08/06 18:57 |

## Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

TestAmerica - Seattle, WA

| Analyte | Method | Result | MDL* | MRL | Units | Dil | Batch | Prepared | Analyzed | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **BPK0570-03 (SB1@12.5')** | | **Soil** | | | **Sampled: 11/16/06 13:20** | | | | | |
| Acenaphthene | 8270C-SIM | ND | ---- | 0.0115 | mg/kg dry | 1x | 6K27029 | 11/27/06 10:39 | 12/01/06 20:24 | |
| Acenaphthylene | " | ND | ---- | 0.0115 | " | " | " | " | " | |
| Anthracene | " | ND | ---- | 0.0115 | " | " | " | " | " | |
| Benzo (a) anthracene | " | ND | ---- | 0.0115 | " | " | " | " | " | |
| Benzo (a) pyrene | " | ND | ---- | 0.0115 | " | " | " | " | " | |
| Benzo (b) fluoranthene | " | ND | ---- | 0.0115 | " | " | " | " | " | |
| Benzo (k) fluoranthene | " | ND | ---- | 0.0115 | " | " | " | " | " | |
| Benzo (ghi) perylene | " | ND | ---- | 0.0115 | " | " | " | " | " | |
| Chrysene | " | ND | ---- | 0.0115 | " | " | " | " | " | |
| Dibenz (a,h) anthracene | " | ND | ---- | 0.0115 | " | " | " | " | " | |
| Fluoranthene | " | ND | ---- | 0.0115 | " | " | " | " | " | |
| Fluorene | " | ND | ---- | 0.0115 | " | " | " | " | " | |
| Indeno (1,2,3-cd) pyrene | " | ND | ---- | 0.0115 | " | " | " | " | " | |
| 1-Methylnaphthalene | " | ND | ---- | 0.0115 | " | " | " | " | " | |
| 2-Methylnaphthalene | " | ND | ---- | 0.0115 | " | " | " | " | " | |
| **Naphthalene** | " | **0.0152** | ---- | 0.0115 | " | " | " | " | " | |
| Phenanthrene | " | ND | ---- | 0.0115 | " | " | " | " | " | |
| Pyrene | " | ND | ---- | 0.0115 | " | " | " | " | " | |
| *Surrogate(s): p-Terphenyl-d14* | | | *101%* | | *50 - 147 %* | " | | | " | |
| **BPK0570-04 (SB1@7.5')** | | **Soil** | | | **Sampled: 11/16/06 13:15** | | | | | |
| Acenaphthene | 8270C-SIM | ND | ---- | 0.0108 | mg/kg dry | 1x | 6K27029 | 11/27/06 10:39 | 12/01/06 20:49 | |
| Acenaphthylene | " | ND | ---- | 0.0108 | " | " | " | " | " | |
| Anthracene | " | ND | ---- | 0.0108 | " | " | " | " | " | |
| Benzo (a) anthracene | " | ND | ---- | 0.0108 | " | " | " | " | " | |
| Benzo (a) pyrene | " | ND | ---- | 0.0108 | " | " | " | " | " | |
| Benzo (b) fluoranthene | " | ND | ---- | 0.0108 | " | " | " | " | " | |
| Benzo (k) fluoranthene | " | ND | ---- | 0.0108 | " | " | " | " | " | |
| Benzo (ghi) perylene | " | ND | ---- | 0.0108 | " | " | " | " | " | |
| Chrysene | " | ND | ---- | 0.0108 | " | " | " | " | " | |
| Dibenz (a,h) anthracene | " | ND | ---- | 0.0108 | " | " | " | " | " | |
| Fluoranthene | " | ND | ---- | 0.0108 | " | " | " | " | " | |
| Fluorene | " | ND | ---- | 0.0108 | " | " | " | " | " | |
| Indeno (1,2,3-cd) pyrene | " | ND | ---- | 0.0108 | " | " | " | " | " | |
| **1-Methylnaphthalene** | " | **0.0177** | ---- | 0.0108 | " | " | " | " | " | |
| **2-Methylnaphthalene** | " | **0.0464** | ---- | 0.0108 | " | " | " | " | " | |
| **Naphthalene** | " | **0.0497** | ---- | 0.0108 | " | " | " | " | " | |
| Phenanthrene | " | ND | ---- | 0.0108 | " | " | " | " | " | |
| Pyrene | " | ND | ---- | 0.0108 | " | " | " | " | " | |
| *Surrogate(s): p-Terphenyl-d14* | | | *102%* | | *50 - 147 %* | " | | | " | |

TestAmerica - Seattle, WA

Kate Haney

Kate Haney, Project Manager

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|---|---|---|---|
| **Cambria - Seattle** | Project Name: | **Shell - 6808 196th SW, Lynnwood** | |
| 8620 Holly Drive, Suite 210 | Project Number: | 248-1739 | Report Created: |
| Everett, WA 98208 | Project Manager: | Justin Foslien | 12/08/06 18:57 |

## Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

TestAmerica - Seattle, WA

| Analyte | Method | Result | MDL* | MRL | Units | Dil | Batch | Prepared | Analyzed | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **BPK0570-05 (GW3@7.5')** | | **Soil** | | | **Sampled: 11/16/06 14:35** | | | | | |
| Acenaphthene | 8270C-SIM | ND | ----- | 0.0111 | mg/kg dry | 1x | 6K27029 | 11/27/06 10:39 | 12/01/06 21:15 | |
| Acenaphthylene | " | ND | ----- | 0.0111 | " | " | " | " | " | |
| Anthracene | " | ND | ----- | 0.0111 | " | " | " | " | " | |
| Benzo (a) anthracene | " | ND | ----- | 0.0111 | " | " | " | " | " | |
| Benzo (a) pyrene | " | ND | ----- | 0.0111 | " | " | " | " | " | |
| Benzo (b) fluoranthene | " | ND | ----- | 0.0111 | " | " | " | " | " | |
| Benzo (k) fluoranthene | " | ND | ----- | 0.0111 | " | " | " | " | " | |
| Benzo (ghi) perylene | " | ND | ----- | 0.0111 | " | " | " | " | " | |
| Chrysene | " | ND | ----- | 0.0111 | " | " | " | " | " | |
| Dibenz (a,h) anthracene | " | ND | ----- | 0.0111 | " | " | " | " | " | |
| Fluoranthene | " | ND | ----- | 0.0111 | " | " | " | " | " | |
| Fluorene | " | ND | ----- | 0.0111 | " | " | " | " | " | |
| Indeno (1,2,3-cd) pyrene | " | ND | ----- | 0.0111 | " | " | " | " | " | |
| **1-Methylnaphthalene** | " | **0.671** | ----- | 0.0111 | " | " | " | " | " | |
| Phenanthrene | " | ND | ----- | 0.0111 | " | " | " | " | " | |
| Pyrene | " | ND | ----- | 0.0111 | " | " | " | " | " | |
| *Surrogate(s): p-Terphenyl-d14* | | *97.3%* | | | *50 - 147 %* | " | | | " | |
| **BPK0570-05RE1 (GW3@7.5')** | | **Soil** | | | **Sampled: 11/16/06 14:35** | | | | | |
| **2-Methylnaphthalene** | 8270C-SIM | **1.79** | ----- | 0.111 | mg/kg dry | 10x | 6K27029 | 11/27/06 10:39 | 12/02/06 13:27 | |
| **Naphthalene** | " | **3.40** | ----- | 0.111 | " | " | " | " | " | |
| *Surrogate(s): p-Terphenyl-d14* | | *93.7%* | | | *50 - 147 %* | " | | | " | |
| **BPK0570-06 (GW3@17.5')** | | **Soil** | | | **Sampled: 11/16/06 14:50** | | | | | |
| Acenaphthene | 8270C-SIM | ND | ----- | 0.0111 | mg/kg dry | 1x | 6K27029 | 11/27/06 10:39 | 12/01/06 21:40 | |
| Acenaphthylene | " | ND | ----- | 0.0111 | " | " | " | " | " | |
| Anthracene | " | ND | ----- | 0.0111 | " | " | " | " | " | |
| Benzo (a) anthracene | " | ND | ----- | 0.0111 | " | " | " | " | " | |
| Benzo (a) pyrene | " | ND | ----- | 0.0111 | " | " | " | " | " | |
| Benzo (b) fluoranthene | " | ND | ----- | 0.0111 | " | " | " | " | " | |
| Benzo (k) fluoranthene | " | ND | ----- | 0.0111 | " | " | " | " | " | |
| Benzo (ghi) perylene | " | ND | ----- | 0.0111 | " | " | " | " | " | |
| Chrysene | " | ND | ----- | 0.0111 | " | " | " | " | " | |
| Dibenz (a,h) anthracene | " | ND | ----- | 0.0111 | " | " | " | " | " | |
| Fluoranthene | " | ND | ----- | 0.0111 | " | " | " | " | " | |
| Fluorene | " | ND | ----- | 0.0111 | " | " | " | " | " | |
| Indeno (1,2,3-cd) pyrene | " | ND | ----- | 0.0111 | " | " | " | " | " | |
| 1-Methylnaphthalene | " | ND | ----- | 0.0111 | " | " | " | " | " | |
| 2-Methylnaphthalene | " | ND | ----- | 0.0111 | " | " | " | " | " | |
| Naphthalene | " | ND | ----- | 0.0111 | " | " | " | " | " | |
| Phenanthrene | " | ND | ----- | 0.0111 | " | " | " | " | " | |

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## Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

TestAmerica - Seattle, WA

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|---|---|---|---|---|---|---|---|---|---|---|
| **BPK0570-06 (GW3@17.5')** | | **Soil** | | | **Sampled: 11/16/06 14:50** | | | | | |
| Pyrene | 8270C-SIM | ND | ---- | 0.0111 | mg/kg dry | 1x | 6K27029 | 11/27/06 10:39 | 12/01/06 21:40 | |
| *Surrogate(s): p-Terphenyl-d14* | | | *104%* | | *50 - 147 %* | " | | | " | |
| **BPK0570-07 (GW2@12.5')** | | **Soil** | | | **Sampled: 11/17/06 08:39** | | | | | |
| Acenaphthene | 8270C-SIM | ND | ---- | 0.0111 | mg/kg dry | 1x | 6K27029 | 11/27/06 10:39 | 12/01/06 22:05 | |
| Acenaphthylene | " | ND | ---- | 0.0111 | " | " | " | " | " | |
| Anthracene | " | ND | ---- | 0.0111 | " | " | " | " | " | |
| Benzo (a) anthracene | " | ND | ---- | 0.0111 | " | " | " | " | " | |
| Benzo (a) pyrene | " | ND | ---- | 0.0111 | " | " | " | " | " | |
| Benzo (b) fluoranthene | " | ND | ---- | 0.0111 | " | " | " | " | " | |
| Benzo (k) fluoranthene | " | ND | ---- | 0.0111 | " | " | " | " | " | |
| Benzo (ghi) perylene | " | ND | ---- | 0.0111 | " | " | " | " | " | |
| Chrysene | " | ND | ---- | 0.0111 | " | " | " | " | " | |
| Dibenz (a,h) anthracene | " | ND | ---- | 0.0111 | " | " | " | " | " | |
| Fluoranthene | " | ND | ---- | 0.0111 | " | " | " | " | " | |
| Fluorene | " | ND | ---- | 0.0111 | " | " | " | " | " | |
| Indeno (1,2,3-cd) pyrene | " | ND | ---- | 0.0111 | " | " | " | " | " | |
| 1-Methylnaphthalene | " | ND | ---- | 0.0111 | " | " | " | " | " | |
| 2-Methylnaphthalene | " | ND | ---- | 0.0111 | " | " | " | " | " | |
| Naphthalene | " | ND | ---- | 0.0111 | " | " | " | " | " | |
| Phenanthrene | " | ND | ---- | 0.0111 | " | " | " | " | " | |
| Pyrene | " | ND | ---- | 0.0111 | " | " | " | " | " | |
| *Surrogate(s): p-Terphenyl-d14* | | | *99.1%* | | *50 - 147 %* | " | | | " | |
| **BPK0570-08 (GW2@17.5')** | | **Soil** | | | **Sampled: 11/17/06 08:50** | | | | | |
| Acenaphthene | 8270C-SIM | ND | ---- | 0.0113 | mg/kg dry | 1x | 6K27029 | 11/27/06 10:39 | 12/01/06 22:30 | |
| Acenaphthylene | " | ND | ---- | 0.0113 | " | " | " | " | " | |
| Anthracene | " | ND | ---- | 0.0113 | " | " | " | " | " | |
| Benzo (a) anthracene | " | ND | ---- | 0.0113 | " | " | " | " | " | |
| Benzo (a) pyrene | " | ND | ---- | 0.0113 | " | " | " | " | " | |
| Benzo (b) fluoranthene | " | ND | ---- | 0.0113 | " | " | " | " | " | |
| Benzo (k) fluoranthene | " | ND | ---- | 0.0113 | " | " | " | " | " | |
| Benzo (ghi) perylene | " | ND | ---- | 0.0113 | " | " | " | " | " | |
| Chrysene | " | ND | ---- | 0.0113 | " | " | " | " | " | |
| Dibenz (a,h) anthracene | " | ND | ---- | 0.0113 | " | " | " | " | " | |
| Fluoranthene | " | ND | ---- | 0.0113 | " | " | " | " | " | |
| Fluorene | " | ND | ---- | 0.0113 | " | " | " | " | " | |
| Indeno (1,2,3-cd) pyrene | " | ND | ---- | 0.0113 | " | " | " | " | " | |
| 1-Methylnaphthalene | " | ND | ---- | 0.0113 | " | " | " | " | " | |
| 2-Methylnaphthalene | " | ND | ---- | 0.0113 | " | " | " | " | " | |
| Naphthalene | " | ND | ---- | 0.0113 | " | " | " | " | " | |

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## Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

TestAmerica - Seattle, WA

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|---|---|---|---|---|---|---|---|---|---|---|
| **BPK0570-08 (GW2@17.5')** | | **Soil** | | | **Sampled: 11/17/06 08:50** | | | | | |
| Phenanthrene | 8270C-SIM | ND | ---- | 0.0113 | mg/kg dry | 1x | 6K27029 | 11/27/06 10:39 | 12/01/06 22:30 | |
| Pyrene | " | ND | ---- | 0.0113 | " | " | " | " | " | |
| *Surrogate(s): p-Terphenyl-d14* | | | *101%* | | *50 - 147 %* | " | | | " | |
| **BPK0570-09 (GW4@7.5')** | | **Soil** | | | **Sampled: 11/17/06 10:32** | | | | | |
| Acenaphthene | 8270C-SIM | ND | ---- | 0.0107 | mg/kg dry | 1x | 6K27029 | 11/27/06 10:39 | 12/01/06 22:56 | |
| Acenaphthylene | " | ND | ---- | 0.0107 | " | " | " | " | " | |
| Anthracene | " | ND | ---- | 0.0107 | " | " | " | " | " | |
| Benzo (a) anthracene | " | ND | ---- | 0.0107 | " | " | " | " | " | |
| Benzo (a) pyrene | " | ND | ---- | 0.0107 | " | " | " | " | " | |
| Benzo (b) fluoranthene | " | ND | ---- | 0.0107 | " | " | " | " | " | |
| Benzo (k) fluoranthene | " | ND | ---- | 0.0107 | " | " | " | " | " | |
| Benzo (ghi) perylene | " | ND | ---- | 0.0107 | " | " | " | " | " | |
| Chrysene | " | ND | ---- | 0.0107 | " | " | " | " | " | |
| Dibenz (a,h) anthracene | " | ND | ---- | 0.0107 | " | " | " | " | " | |
| Fluoranthene | " | ND | ---- | 0.0107 | " | " | " | " | " | |
| Fluorene | " | ND | ---- | 0.0107 | " | " | " | " | " | |
| Indeno (1,2,3-cd) pyrene | " | ND | ---- | 0.0107 | " | " | " | " | " | |
| **1-Methylnaphthalene** | " | **0.611** | ---- | 0.0107 | " | " | " | " | " | |
| **Phenanthrene** | " | **0.0120** | ---- | 0.0107 | " | " | " | " | " | |
| **Pyrene** | " | **0.0121** | ---- | 0.0107 | " | " | " | " | " | |
| *Surrogate(s): p-Terphenyl-d14* | | | *102%* | | *50 - 147 %* | " | | | " | |
| **BPK0570-09RE1 (GW4@7.5')** | | **Soil** | | | **Sampled: 11/17/06 10:32** | | | | | |
| **2-Methylnaphthalene** | 8270C-SIM | **1.62** | ---- | 0.0535 | mg/kg dry | 5x | 6K27029 | 11/27/06 10:39 | 12/02/06 13:53 | |
| **Naphthalene** | " | **1.87** | ---- | 0.0535 | " | " | " | " | " | |
| *Surrogate(s): p-Terphenyl-d14* | | | *101%* | | *50 - 147 %* | " | | | " | |
| **BPK0570-10 (GW4@17.5')** | | **Soil** | | | **Sampled: 11/17/06 10:45** | | | | | |
| Acenaphthene | 8270C-SIM | ND | ---- | 0.0110 | mg/kg dry | 1x | 6K27029 | 11/27/06 10:39 | 12/02/06 12:11 | |
| Acenaphthylene | " | ND | ---- | 0.0110 | " | " | " | " | " | |
| Anthracene | " | ND | ---- | 0.0110 | " | " | " | " | " | |
| Benzo (a) anthracene | " | ND | ---- | 0.0110 | " | " | " | " | " | |
| Benzo (a) pyrene | " | ND | ---- | 0.0110 | " | " | " | " | " | |
| Benzo (b) fluoranthene | " | ND | ---- | 0.0110 | " | " | " | " | " | |
| Benzo (k) fluoranthene | " | ND | ---- | 0.0110 | " | " | " | " | " | |
| Benzo (ghi) perylene | " | ND | ---- | 0.0110 | " | " | " | " | " | |
| Chrysene | " | ND | ---- | 0.0110 | " | " | " | " | " | |
| Dibenz (a,h) anthracene | " | ND | ---- | 0.0110 | " | " | " | " | " | |
| Fluoranthene | " | ND | ---- | 0.0110 | " | " | " | " | " | |

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## Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

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|---|---|---|---|---|---|---|---|---|---|---|
| **BPK0570-10 (GW4@17.5')** | | **Soil** | | | **Sampled: 11/17/06 10:45** | | | | | |
| Fluorene | 8270C-SIM | ND | ---- | 0.0110 | mg/kg dry | 1x | 6K27029 | 11/27/06 10:39 | 12/02/06 12:11 | |
| Indeno (1,2,3-cd) pyrene | " | ND | ---- | 0.0110 | " | " | " | " | " | |
| 1-Methylnaphthalene | " | ND | ---- | 0.0110 | " | " | " | " | " | |
| 2-Methylnaphthalene | " | ND | ---- | 0.0110 | " | " | " | " | " | |
| Naphthalene | " | ND | ---- | 0.0110 | " | " | " | " | " | |
| Phenanthrene | " | ND | ---- | 0.0110 | " | " | " | " | " | |
| Pyrene | " | ND | ---- | 0.0110 | " | " | " | " | " | |
| *Surrogate(s): p-Terphenyl-d14* | | *80.1%* | | | *50 - 147 %* | " | | | " | |
| **BPK0570-11 (GW5@7.5')** | | **Soil** | | | **Sampled: 11/17/06 12:27** | | | | | |
| Acenaphthene | 8270C-SIM | ND | ---- | 0.0108 | mg/kg dry | 1x | 6K27029 | 11/27/06 10:39 | 12/02/06 12:36 | |
| Acenaphthylene | " | ND | ---- | 0.0108 | " | " | " | " | " | |
| Anthracene | " | ND | ---- | 0.0108 | " | " | " | " | " | |
| Benzo (a) anthracene | " | ND | ---- | 0.0108 | " | " | " | " | " | |
| Benzo (a) pyrene | " | ND | ---- | 0.0108 | " | " | " | " | " | |
| Benzo (b) fluoranthene | " | ND | ---- | 0.0108 | " | " | " | " | " | |
| Benzo (k) fluoranthene | " | ND | ---- | 0.0108 | " | " | " | " | " | |
| Benzo (ghi) perylene | " | ND | ---- | 0.0108 | " | " | " | " | " | |
| Chrysene | " | ND | ---- | 0.0108 | " | " | " | " | " | |
| Dibenz (a,h) anthracene | " | ND | ---- | 0.0108 | " | " | " | " | " | |
| Fluoranthene | " | ND | ---- | 0.0108 | " | " | " | " | " | |
| Fluorene | " | ND | ---- | 0.0108 | " | " | " | " | " | |
| Indeno (1,2,3-cd) pyrene | " | ND | ---- | 0.0108 | " | " | " | " | " | |
| **1-Methylnaphthalene** | " | **1.11** | ---- | 0.0108 | " | " | " | " | " | |
| Phenanthrene | " | ND | ---- | 0.0108 | " | " | " | " | " | |
| Pyrene | " | ND | ---- | 0.0108 | " | " | " | " | " | |
| *Surrogate(s): p-Terphenyl-d14* | | *106%* | | | *50 - 147 %* | " | | | " | |
| **BPK0570-11RE1 (GW5@7.5')** | | **Soil** | | | **Sampled: 11/17/06 12:27** | | | | | |
| **2-Methylnaphthalene** | 8270C-SIM | **2.77** | ---- | 0.108 | mg/kg dry | 10x | 6K27029 | 11/27/06 10:39 | 12/02/06 14:18 | |
| **Naphthalene** | " | **2.46** | ---- | 0.108 | " | " | " | " | " | |
| *Surrogate(s): p-Terphenyl-d14* | | *95.4%* | | | *50 - 147 %* | " | | | " | |

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## Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring

TestAmerica - Seattle, WA

| Analyte | Method | Result | MDL* | MRL | Units | Dil | Batch | Prepared | Analyzed | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **BPK0570-12 (GW5@17.5')** | | **Soil** | | | **Sampled: 11/17/06 12:45** | | | | | |
| Acenaphthene | 8270C-SIM | ND | ----- | 0.0111 | mg/kg dry | 1x | 6K27029 | 11/27/06 10:39 | 12/02/06 13:02 | |
| Acenaphthylene | " | ND | ----- | 0.0111 | " | " | " | " | " | |
| Anthracene | " | ND | ----- | 0.0111 | " | " | " | " | " | |
| Benzo (a) anthracene | " | ND | ----- | 0.0111 | " | " | " | " | " | |
| Benzo (a) pyrene | " | ND | ----- | 0.0111 | " | " | " | " | " | |
| Benzo (b) fluoranthene | " | ND | ----- | 0.0111 | " | " | " | " | " | |
| Benzo (k) fluoranthene | " | ND | ----- | 0.0111 | " | " | " | " | " | |
| Benzo (ghi) perylene | " | ND | ----- | 0.0111 | " | " | " | " | " | |
| Chrysene | " | ND | ----- | 0.0111 | " | " | " | " | " | |
| Dibenz (a,h) anthracene | " | ND | ----- | 0.0111 | " | " | " | " | " | |
| Fluoranthene | " | ND | ----- | 0.0111 | " | " | " | " | " | |
| Fluorene | " | ND | ----- | 0.0111 | " | " | " | " | " | |
| Indeno (1,2,3-cd) pyrene | " | ND | ----- | 0.0111 | " | " | " | " | " | |
| 1-Methylnaphthalene | " | ND | ----- | 0.0111 | " | " | " | " | " | |
| **2-Methylnaphthalene** | " | **0.0127** | ----- | 0.0111 | " | " | " | " | " | |
| Naphthalene | " | ND | ----- | 0.0111 | " | " | " | " | " | |
| Phenanthrene | " | ND | ----- | 0.0111 | " | " | " | " | " | |
| Pyrene | " | ND | ----- | 0.0111 | " | " | " | " | " | |
| *Surrogate(s): p-Terphenyl-d14* | | *96.4%* | | | *50 - 147 %* | " | | | " | |

TestAmerica - Seattle, WA

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| | | | |
|---|---|---|---|
| **Cambria - Seattle** | Project Name: | **Shell - 6808 196th SW, Lynnwood** | |
| 8620 Holly Drive, Suite 210 | Project Number: | 248-1739 | Report Created: |
| Everett, WA 98208 | Project Manager: | Justin Foslien | 12/08/06 18:57 |

## Physical Parameters by APHA/ASTM/EPA Methods

TestAmerica - Seattle, WA

| Analyte | Method | Result | MDL* | MRL | Units | Dil | Batch | Prepared | Analyzed | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **BPK0570-01 (GW1@27.5')** | | **Soil** | | | **Sampled: 11/16/06 10:30** | | | | | |
| Dry Weight | BSOPSPL003R08 | 93.9 | ----- | 1.00 | % | 1x | 6K30051 | 11/30/06 15:18 | 12/01/06 00:00 | |
| **BPK0570-02 (GW1@17.5')** | | **Soil** | | | **Sampled: 11/16/06 10:03** | | | | | |
| Dry Weight | BSOPSPL003R08 | 91.8 | ----- | 1.00 | % | 1x | 6K30051 | 11/30/06 15:18 | 12/01/06 00:00 | |
| **BPK0570-03 (SB1@12.5')** | | **Soil** | | | **Sampled: 11/16/06 13:20** | | | | | |
| Dry Weight | BSOPSPL003R08 | 86.6 | ----- | 1.00 | % | 1x | 6K30051 | 11/30/06 15:18 | 12/01/06 00:00 | |
| **BPK0570-04 (SB1@7.5')** | | **Soil** | | | **Sampled: 11/16/06 13:15** | | | | | |
| Dry Weight | BSOPSPL003R08 | 92.3 | ----- | 1.00 | % | 1x | 6K30051 | 11/30/06 15:18 | 12/01/06 00:00 | |
| **BPK0570-05 (GW3@7.5')** | | **Soil** | | | **Sampled: 11/16/06 14:35** | | | | | |
| Dry Weight | BSOPSPL003R08 | 89.2 | ----- | 1.00 | % | 1x | 6K30051 | 11/30/06 15:18 | 12/01/06 00:00 | |
| **BPK0570-06 (GW3@17.5')** | | **Soil** | | | **Sampled: 11/16/06 14:50** | | | | | |
| Dry Weight | BSOPSPL003R08 | 89.9 | ----- | 1.00 | % | 1x | 6K30051 | 11/30/06 15:18 | 12/01/06 00:00 | |
| **BPK0570-07 (GW2@12.5')** | | **Soil** | | | **Sampled: 11/17/06 08:39** | | | | | |
| Dry Weight | BSOPSPL003R08 | 90.4 | ----- | 1.00 | % | 1x | 6K30051 | 11/30/06 15:18 | 12/01/06 00:00 | |
| **BPK0570-08 (GW2@17.5')** | | **Soil** | | | **Sampled: 11/17/06 08:50** | | | | | |
| Dry Weight | BSOPSPL003R08 | 88.8 | ----- | 1.00 | % | 1x | 6K30050 | 11/30/06 15:17 | 12/01/06 00:00 | |
| **BPK0570-09 (GW4@7.5')** | | **Soil** | | | **Sampled: 11/17/06 10:32** | | | | | |
| Dry Weight | BSOPSPL003R08 | 93.1 | ----- | 1.00 | % | 1x | 6K30050 | 11/30/06 15:17 | 12/01/06 00:00 | |
| **BPK0570-10 (GW4@17.5')** | | **Soil** | | | **Sampled: 11/17/06 10:45** | | | | | |
| Dry Weight | BSOPSPL003R08 | 90.2 | ----- | 1.00 | % | 1x | 6K30050 | 11/30/06 15:17 | 12/01/06 00:00 | |
| **BPK0570-11 (GW5@7.5')** | | **Soil** | | | **Sampled: 11/17/06 12:27** | | | | | |

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## Physical Parameters by APHA/ASTM/EPA Methods

TestAmerica - Seattle, WA

| Analyte | Method | Result | MDL* | MRL | Units | Dil | Batch | Prepared | Analyzed | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **BPK0570-11 (GW5@7.5')** | | **Soil** | | | | **Sampled: 11/17/06 12:27** | | | | |
| Dry Weight | BSOPSPL003R08 | 91.5 | ---- | 1.00 | % | 1x | 6K30050 | 11/30/06 15:17 | 12/01/06 00:00 | |
| **BPK0570-12 (GW5@17.5')** | | **Soil** | | | | **Sampled: 11/17/06 12:45** | | | | |
| Dry Weight | BSOPSPL003R08 | 90.3 | ---- | 1.00 | % | 1x | 6K30050 | 11/30/06 15:17 | 12/01/06 00:00 | |

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## Oxygenates by EPA Method 8260B

TestAmerica - Seattle, WA

| Analyte | Method | Result | MDL* | MRL | Units | Dil | Batch | Prepared | Analyzed | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **BPK0570-01 (GW1@27.5')** | | **Soil** | | | | **Sampled: 11/16/06 10:30** | | | | |
| tert-Amyl Methyl Ether | EPA 8260B | ND | ----- | 0.36 | mg/kg dry | 1x | 6K27048 | 11/27/06 13:30 | 11/27/06 21:10 | |
| **Benzene** | " | **0.14** | ----- | 0.01 | " | " | " | " | " | |
| tert-Butyl Alcohol | " | ND | ----- | 3.6 | " | " | " | " | " | |
| 1,2-Dibromoethane (EDB) | " | ND | ----- | 0.04 | " | " | " | " | " | |
| 1,2-Dichloroethane (EDC) | " | ND | ----- | 0.04 | " | " | " | " | " | |
| Diisopropyl ether | " | ND | ----- | 0.36 | " | " | " | " | " | C |
| Ethyl tert-butyl ether | " | ND | ----- | 0.36 | " | " | " | " | " | |
| Ethanol | " | ND | ----- | 14 | " | " | " | " | " | |
| Ethylbenzene | " | ND | ----- | 0.07 | " | " | " | " | " | |
| Methyl tert-butyl ether | " | ND | ----- | 0.36 | " | " | " | " | " | |
| **Toluene** | " | **0.38** | ----- | 0.07 | " | " | " | " | " | |
| o-Xylene | " | ND | ----- | 0.07 | " | " | " | " | " | |
| m,p-Xylene | " | ND | ----- | 0.14 | " | " | " | " | " | |
| Xylenes (total) | " | ND | ----- | 0.21 | " | " | " | " | " | |
| *Surrogate(s): 1,2-DCA-d4* | | | *93.0%* | | *75 - 125 %* | " | | | " | |
| *Toluene-d8* | | | *101%* | | *75 - 125 %* | " | | | " | |
| *4-BFB* | | | *98.6%* | | *75 - 125 %* | " | | | " | |
| **BPK0570-02 (GW1@17.5')** | | **Soil** | | | | **Sampled: 11/16/06 10:03** | | | | |
| tert-Amyl Methyl Ether | EPA 8260B | ND | ----- | 0.35 | mg/kg dry | 1x | 6K27048 | 11/27/06 13:30 | 11/27/06 21:49 | |
| **Benzene** | " | **0.16** | ----- | 0.01 | " | " | " | " | " | |
| tert-Butyl Alcohol | " | ND | ----- | 3.5 | " | " | " | " | " | |
| 1,2-Dibromoethane (EDB) | " | ND | ----- | 0.04 | " | " | " | " | " | |
| 1,2-Dichloroethane (EDC) | " | ND | ----- | 0.04 | " | " | " | " | " | |
| Diisopropyl ether | " | ND | ----- | 0.35 | " | " | " | " | " | C |
| Ethyl tert-butyl ether | " | ND | ----- | 0.35 | " | " | " | " | " | |
| Ethanol | " | ND | ----- | 14 | " | " | " | " | " | |
| Ethylbenzene | " | ND | ----- | 0.07 | " | " | " | " | " | |
| Methyl tert-butyl ether | " | ND | ----- | 0.35 | " | " | " | " | " | |
| **Toluene** | " | **0.34** | ----- | 0.07 | " | " | " | " | " | |
| o-Xylene | " | ND | ----- | 0.07 | " | " | " | " | " | |
| m,p-Xylene | " | ND | ----- | 0.14 | " | " | " | " | " | |
| Xylenes (total) | " | ND | ----- | 0.21 | " | " | " | " | " | |
| *Surrogate(s): 1,2-DCA-d4* | | | *91.5%* | | *75 - 125 %* | " | | | " | |
| *Toluene-d8* | | | *102%* | | *75 - 125 %* | " | | | " | |
| *4-BFB* | | | *96.5%* | | *75 - 125 %* | " | | | " | |

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## Oxygenates by EPA Method 8260B

TestAmerica - Seattle, WA

| Analyte | Method | Result | MDL* | MRL | Units | Dil | Batch | Prepared | Analyzed | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **BPK0570-03 (SB1@12.5')** | | **Soil** | | | **Sampled: 11/16/06 13:20** | | | | | |
| tert-Amyl Methyl Ether | EPA 8260B | ND | ---- | 0.39 | mg/kg dry | 1x | 6K27048 | 11/27/06 13:30 | 11/27/06 22:19 | |
| **Benzene** | " | **0.73** | ---- | 0.02 | " | " | " | " | " | |
| tert-Butyl Alcohol | " | ND | ---- | 3.9 | " | " | " | " | " | |
| 1,2-Dibromoethane (EDB) | " | ND | ---- | 0.04 | " | " | " | " | " | |
| 1,2-Dichloroethane (EDC) | " | ND | ---- | 0.04 | " | " | " | " | " | |
| Diisopropyl ether | " | ND | ---- | 0.39 | " | " | " | " | " | C |
| Ethyl tert-butyl ether | " | ND | ---- | 0.39 | " | " | " | " | " | |
| Ethanol | " | ND | ---- | 16 | " | " | " | " | " | |
| **Ethylbenzene** | " | **0.18** | ---- | 0.08 | " | " | " | " | " | |
| Methyl tert-butyl ether | " | ND | ---- | 0.39 | " | " | " | " | " | |
| **Toluene** | " | **1.7** | ---- | 0.08 | " | " | " | " | " | |
| **o-Xylene** | " | **0.18** | ---- | 0.08 | " | " | " | " | " | |
| **m,p-Xylene** | " | **0.72** | ---- | 0.16 | " | " | " | " | " | |
| **Xylenes (total)** | " | **0.90** | ---- | 0.23 | " | " | " | " | " | |
| *Surrogate(s): 1,2-DCA-d4* | | | *93.6%* | | *75 - 125 %* | " | | | " | |
| *Toluene-d8* | | | *103%* | | *75 - 125 %* | " | | | " | |
| *4-BFB* | | | *97.4%* | | *75 - 125 %* | " | | | " | |
| **BPK0570-04 (SB1@7.5')** | | **Soil** | | | **Sampled: 11/16/06 13:15** | | | | | |
| tert-Amyl Methyl Ether | EPA 8260B | ND | ---- | 0.41 | mg/kg dry | 1x | 6K29036 | 11/29/06 12:33 | 11/29/06 19:11 | |
| **Benzene** | " | **0.14** | ---- | 0.02 | " | " | " | " | " | |
| tert-Butyl Alcohol | " | ND | ---- | 4.1 | " | " | " | " | " | |
| 1,2-Dibromoethane (EDB) | " | ND | ---- | 0.04 | " | " | " | " | " | |
| 1,2-Dichloroethane (EDC) | " | ND | ---- | 0.04 | " | " | " | " | " | |
| Diisopropyl ether | " | ND | ---- | 0.41 | " | " | " | " | " | |
| Ethyl tert-butyl ether | " | ND | ---- | 0.41 | " | " | " | " | " | |
| Ethanol | " | ND | ---- | 16 | " | " | " | " | " | |
| Ethylbenzene | " | ND | ---- | 0.08 | " | " | " | " | " | |
| Methyl tert-butyl ether | " | ND | ---- | 0.41 | " | " | " | " | " | |
| **Toluene** | " | **0.42** | ---- | 0.08 | " | " | " | " | " | |
| o-Xylene | " | ND | ---- | 0.08 | " | " | " | " | " | |
| m,p-Xylene | " | ND | ---- | 0.16 | " | " | " | " | " | |
| Xylenes (total) | " | ND | ---- | 0.24 | " | " | " | " | " | |
| *Surrogate(s): 1,2-DCA-d4* | | | *93.8%* | | *75 - 125 %* | " | | | " | |
| *Toluene-d8* | | | *101%* | | *75 - 125 %* | " | | | " | |
| *4-BFB* | | | *98.8%* | | *75 - 125 %* | " | | | " | |

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## Oxygenates by EPA Method 8260B

TestAmerica - Seattle, WA

| Analyte | Method | Result | MDL* | MRL | Units | Dil | Batch | Prepared | Analyzed | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **BPK0570-05 (GW3@7.5')** | | **Soil** | | | **Sampled: 11/16/06 14:35** | | | | | |
| tert-Amyl Methyl Ether | EPA 8260B | ND | ----- | 0.40 | mg/kg dry | 1x | 6K29036 | 11/29/06 12:33 | 11/29/06 19:41 | |
| tert-Butyl Alcohol | " | ND | ----- | 4.0 | " | " | " | " | " | |
| 1,2-Dibromoethane (EDB) | " | ND | ----- | 0.04 | " | " | " | " | " | |
| 1,2-Dichloroethane (EDC) | " | ND | ----- | 0.04 | " | " | " | " | " | |
| Diisopropyl ether | " | ND | ----- | 0.40 | " | " | " | " | " | |
| Ethyl tert-butyl ether | " | ND | ----- | 0.40 | " | " | " | " | " | |
| Ethanol | " | ND | ----- | 16 | " | " | " | " | " | |
| Methyl tert-butyl ether | " | ND | ----- | 0.40 | " | " | " | " | " | |
| *Surrogate(s): 1,2-DCA-d4* | | *109%* | | *75 - 125 %* | | " | | | " | |
| *Toluene-d8* | | *106%* | | *75 - 125 %* | | " | | | " | |
| *4-BFB* | | *100%* | | *75 - 125 %* | | " | | | " | |
| **BPK0570-05RE1 (GW3@7.5')** | | **Soil** | | | **Sampled: 11/16/06 14:35** | | | | | |
| **Benzene** | EPA 8260B | **8.6** | ----- | 0.79 | mg/kg dry | 50x | 6K30039 | 11/30/06 11:22 | 11/30/06 14:11 | |
| **Ethylbenzene** | " | **25** | ----- | 4.0 | " | " | " | " | " | |
| **Toluene** | " | **99** | ----- | 4.0 | " | " | " | " | " | |
| **o-Xylene** | " | **44** | ----- | 4.0 | " | " | " | " | " | |
| **m,p-Xylene** | " | **120** | ----- | 7.9 | " | " | " | " | " | |
| **Xylenes (total)** | " | **160** | ----- | 12 | " | " | " | " | " | |
| *Surrogate(s): 1,2-DCA-d4* | | *91.8%* | | *75 - 125 %* | | *1x* | | | " | |
| *Toluene-d8* | | *102%* | | *75 - 125 %* | | " | | | " | |
| *4-BFB* | | *97.5%* | | *75 - 125 %* | | " | | | " | |
| **BPK0570-06 (GW3@17.5')** | | **Soil** | | | **Sampled: 11/16/06 14:50** | | | | | |
| tert-Amyl Methyl Ether | EPA 8260B | ND | ----- | 0.39 | mg/kg dry | 1x | 6K30039 | 11/30/06 11:22 | 11/30/06 14:40 | |
| **Benzene** | " | **0.53** | ----- | 0.02 | " | " | " | " | " | |
| tert-Butyl Alcohol | " | ND | ----- | 3.9 | " | " | " | " | " | |
| 1,2-Dibromoethane (EDB) | " | ND | ----- | 0.04 | " | " | " | " | " | |
| 1,2-Dichloroethane (EDC) | " | ND | ----- | 0.04 | " | " | " | " | " | |
| Diisopropyl ether | " | ND | ----- | 0.39 | " | " | " | " | " | |
| Ethyl tert-butyl ether | " | ND | ----- | 0.39 | " | " | " | " | " | |
| Ethanol | " | ND | ----- | 16 | " | " | " | " | " | |
| **Ethylbenzene** | " | **0.12** | ----- | 0.08 | " | " | " | " | " | |
| Methyl tert-butyl ether | " | ND | ----- | 0.39 | " | " | " | " | " | |
| **Toluene** | " | **0.85** | ----- | 0.08 | " | " | " | " | " | |
| **o-Xylene** | " | **0.08** | ----- | 0.08 | " | " | " | " | " | |
| **m,p-Xylene** | " | **0.30** | ----- | 0.16 | " | " | " | " | " | |
| **Xylenes (total)** | " | **0.39** | ----- | 0.23 | " | " | " | " | " | |
| *Surrogate(s): 1,2-DCA-d4* | | *91.7%* | | *75 - 125 %* | | " | | | " | |
| *Toluene-d8* | | *101%* | | *75 - 125 %* | | " | | | " | |

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## Oxygenates by EPA Method 8260B

TestAmerica - Seattle, WA

| Analyte | Method | Result | MDL* | MRL | Units | Dil | Batch | Prepared | Analyzed | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **BPK0570-06 (GW3@17.5')** | | **Soil** | | | **Sampled: 11/16/06 14:50** | | | | | |
| *4-BFB* | | *95.5%* | | | *75 - 125 %* | *1x* | | | *11/30/06 14:40* | |
| **BPK0570-07 (GW2@12.5')** | | **Soil** | | | **Sampled: 11/17/06 08:39** | | | | | |
| tert-Amyl Methyl Ether | EPA 8260B | ND | ----- | 0.37 | mg/kg dry | 1x | 6K30039 | 11/30/06 11:22 | 11/30/06 15:14 | |
| **Benzene** | " | **0.02** | ----- | 0.01 | " | " | " | " | " | |
| tert-Butyl Alcohol | " | ND | ----- | 3.7 | " | " | " | " | " | |
| 1,2-Dibromoethane (EDB) | " | ND | ----- | 0.04 | " | " | " | " | " | |
| 1,2-Dichloroethane (EDC) | " | ND | ----- | 0.04 | " | " | " | " | " | |
| Diisopropyl ether | " | ND | ----- | 0.37 | " | " | " | " | " | |
| Ethyl tert-butyl ether | " | ND | ----- | 0.37 | " | " | " | " | " | |
| Ethanol | " | ND | ----- | 15 | " | " | " | " | " | |
| Ethylbenzene | " | ND | ----- | 0.07 | " | " | " | " | " | |
| Methyl tert-butyl ether | " | ND | ----- | 0.37 | " | " | " | " | " | |
| Toluene | " | ND | ----- | 0.07 | " | " | " | " | " | |
| o-Xylene | " | ND | ----- | 0.07 | " | " | " | " | " | |
| m,p-Xylene | " | ND | ----- | 0.15 | " | " | " | " | " | |
| Xylenes (total) | " | ND | ----- | 0.22 | " | " | " | " | " | |
| *Surrogate(s): 1,2-DCA-d4* | | *92.5%* | | | *75 - 125 %* | " | | | " | |
| *Toluene-d8* | | *101%* | | | *75 - 125 %* | " | | | " | |
| *4-BFB* | | *97.3%* | | | *75 - 125 %* | " | | | " | |
| **BPK0570-08 (GW2@17.5')** | | **Soil** | | | **Sampled: 11/17/06 08:50** | | | | | |
| tert-Amyl Methyl Ether | EPA 8260B | ND | ----- | 0.43 | mg/kg dry | 1x | 6K29036 | 11/29/06 12:33 | 11/29/06 21:25 | |
| **Benzene** | " | **0.33** | ----- | 0.02 | " | " | " | " | " | |
| tert-Butyl Alcohol | " | ND | ----- | 4.3 | " | " | " | " | " | |
| 1,2-Dibromoethane (EDB) | " | ND | ----- | 0.04 | " | " | " | " | " | |
| 1,2-Dichloroethane (EDC) | " | ND | ----- | 0.04 | " | " | " | " | " | |
| Diisopropyl ether | " | ND | ----- | 0.43 | " | " | " | " | " | |
| Ethyl tert-butyl ether | " | ND | ----- | 0.43 | " | " | " | " | " | |
| Ethanol | " | ND | ----- | 17 | " | " | " | " | " | |
| **Ethylbenzene** | " | **0.87** | ----- | 0.09 | " | " | " | " | " | |
| Methyl tert-butyl ether | " | ND | ----- | 0.43 | " | " | " | " | " | |
| **Toluene** | " | **1.0** | ----- | 0.09 | " | " | " | " | " | |
| o-Xylene | " | ND | ----- | 0.09 | " | " | " | " | " | |
| **m,p-Xylene** | " | **0.28** | ----- | 0.17 | " | " | " | " | " | |
| **Xylenes (total)** | " | **0.34** | ----- | 0.26 | " | " | " | " | " | |
| *Surrogate(s): 1,2-DCA-d4* | | *91.8%* | | | *75 - 125 %* | " | | | " | |
| *Toluene-d8* | | *101%* | | | *75 - 125 %* | " | | | " | |
| *4-BFB* | | *97.6%* | | | *75 - 125 %* | " | | | " | |

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| **Cambria - Seattle** | Project Name: | **Shell - 6808 196th SW, Lynnwood** | |
| 8620 Holly Drive, Suite 210 | Project Number: | 248-1739 | Report Created: |
| Everett, WA 98208 | Project Manager: | Justin Foslien | 12/08/06 18:57 |

## Oxygenates by EPA Method 8260B

TestAmerica - Seattle, WA

| Analyte | Method | Result | MDL* | MRL | Units | Dil | Batch | Prepared | Analyzed | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **BPK0570-09 (GW4@7.5')** | | **Soil** | | | **Sampled: 11/17/06 10:32** | | | | | |
| tert-Amyl Methyl Ether | EPA 8260B | ND | ---- | 0.38 | mg/kg dry | 1x | 6K29036 | 11/29/06 12:33 | 11/29/06 21:55 | |
| **Benzene** | " | **0.48** | ---- | 0.02 | " | " | " | " | " | |
| tert-Butyl Alcohol | " | ND | ---- | 3.8 | " | " | " | " | " | |
| 1,2-Dibromoethane (EDB) | " | ND | ---- | 0.04 | " | " | " | " | " | |
| 1,2-Dichloroethane (EDC) | " | ND | ---- | 0.04 | " | " | " | " | " | |
| Diisopropyl ether | " | ND | ---- | 0.38 | " | " | " | " | " | |
| Ethyl tert-butyl ether | " | ND | ---- | 0.38 | " | " | " | " | " | |
| Ethanol | " | ND | ---- | 15 | " | " | " | " | " | |
| Methyl tert-butyl ether | " | ND | ---- | 0.38 | " | " | " | " | " | |
| *Surrogate(s): 1,2-DCA-d4* | | | *105%* | | *75 - 125 %* | " | | | " | |
| *Toluene-d8* | | | *106%* | | *75 - 125 %* | " | | | " | |
| *4-BFB* | | | *100%* | | *75 - 125 %* | " | | | " | |
| **BPK0570-09RE1 (GW4@7.5')** | | **Soil** | | | **Sampled: 11/17/06 10:32** | | | | | |
| **Ethylbenzene** | EPA 8260B | **8.2** | ---- | 0.75 | mg/kg dry | 10x | 6K30039 | 11/30/06 11:22 | 11/30/06 15:37 | |
| **Toluene** | " | **12** | ---- | 0.75 | " | " | " | " | " | |
| **o-Xylene** | " | **15** | ---- | 0.75 | " | " | " | " | " | |
| **m,p-Xylene** | " | **40** | ---- | 1.5 | " | " | " | " | " | |
| **Xylenes (total)** | " | **54** | ---- | 2.3 | " | " | " | " | " | |
| *Surrogate(s): 1,2-DCA-d4* | | | *93.4%* | | *75 - 125 %* | *1x* | | | " | |
| *Toluene-d8* | | | *101%* | | *75 - 125 %* | " | | | " | |
| *4-BFB* | | | *97.4%* | | *75 - 125 %* | " | | | " | |
| **BPK0570-10 (GW4@17.5')** | | **Soil** | | | **Sampled: 11/17/06 10:45** | | | | | |
| tert-Amyl Methyl Ether | EPA 8260B | ND | ---- | 0.38 | mg/kg dry | 1x | 6K30039 | 11/30/06 11:22 | 11/30/06 16:06 | |
| **Benzene** | " | **0.24** | ---- | 0.02 | " | " | " | " | " | |
| tert-Butyl Alcohol | " | ND | ---- | 3.8 | " | " | " | " | " | |
| 1,2-Dibromoethane (EDB) | " | ND | ---- | 0.04 | " | " | " | " | " | |
| 1,2-Dichloroethane (EDC) | " | ND | ---- | 0.04 | " | " | " | " | " | |
| Diisopropyl ether | " | ND | ---- | 0.38 | " | " | " | " | " | |
| Ethyl tert-butyl ether | " | ND | ---- | 0.38 | " | " | " | " | " | |
| Ethanol | " | ND | ---- | 15 | " | " | " | " | " | |
| Ethylbenzene | " | ND | ---- | 0.08 | " | " | " | " | " | |
| Methyl tert-butyl ether | " | ND | ---- | 0.38 | " | " | " | " | " | |
| **Toluene** | " | **0.44** | ---- | 0.08 | " | " | " | " | " | |
| o-Xylene | " | ND | ---- | 0.08 | " | " | " | " | " | |
| **m,p-Xylene** | " | **0.24** | ---- | 0.15 | " | " | " | " | " | |
| **Xylenes (total)** | " | **0.31** | ---- | 0.23 | " | " | " | " | " | |
| *Surrogate(s): 1,2-DCA-d4* | | | *94.1%* | | *75 - 125 %* | " | | | " | |
| *Toluene-d8* | | | *103%* | | *75 - 125 %* | " | | | " | |

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| 8620 Holly Drive, Suite 210 | Project Number: | 248-1739 | Report Created: |
| Everett, WA 98208 | Project Manager: | Justin Foslien | 12/08/06 18:57 |

## Oxygenates by EPA Method 8260B

TestAmerica - Seattle, WA

| Analyte | Method | Result | MDL* | MRL | Units | Dil | Batch | Prepared | Analyzed | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **BPK0570-10 (GW4@17.5')** | | **Soil** | | | **Sampled: 11/17/06 10:45** | | | | | |
| *4-BFB* | | | *98.0%* | | *75 - 125 %* | *1x* | | | *11/30/06 16:06* | |
| **BPK0570-11 (GW5@7.5')** | | **Soil** | | | **Sampled: 11/17/06 12:27** | | | | | |
| tert-Amyl Methyl Ether | EPA 8260B | ND | ---- | 0.39 | mg/kg dry | 1x | 6K29036 | 11/29/06 12:33 | 11/29/06 22:54 | |
| **Benzene** | " | **0.97** | ---- | 0.02 | " | " | " | " | " | |
| tert-Butyl Alcohol | " | ND | ---- | 3.9 | " | " | " | " | " | |
| 1,2-Dibromoethane (EDB) | " | ND | ---- | 0.04 | " | " | " | " | " | |
| 1,2-Dichloroethane (EDC) | " | ND | ---- | 0.04 | " | " | " | " | " | |
| Diisopropyl ether | " | ND | ---- | 0.39 | " | " | " | " | " | |
| Ethyl tert-butyl ether | " | ND | ---- | 0.39 | " | " | " | " | " | |
| Ethanol | " | ND | ---- | 15 | " | " | " | " | " | |
| Methyl tert-butyl ether | " | ND | ---- | 0.39 | " | " | " | " | " | |
| *Surrogate(s): 1,2-DCA-d4* | | | *110%* | | *75 - 125 %* | " | | | " | |
| *Toluene-d8* | | | *108%* | | *75 - 125 %* | " | | | " | |
| *4-BFB* | | | *98.1%* | | *75 - 125 %* | " | | | " | |
| **BPK0570-11RE1 (GW5@7.5')** | | **Soil** | | | **Sampled: 11/17/06 12:27** | | | | | |
| **Ethylbenzene** | EPA 8260B | **14** | ---- | 0.77 | mg/kg dry | 10x | 6K30039 | 11/30/06 11:22 | 11/30/06 16:40 | |
| **Toluene** | " | **24** | ---- | 0.77 | " | " | " | " | " | |
| **o-Xylene** | " | **24** | ---- | 0.77 | " | " | " | " | " | |
| **m,p-Xylene** | " | **67** | ---- | 1.5 | " | " | " | " | " | |
| **Xylenes (total)** | " | **90** | ---- | 2.3 | " | " | " | " | " | |
| *Surrogate(s): 1,2-DCA-d4* | | | *93.5%* | | *75 - 125 %* | *1x* | | | " | |
| *Toluene-d8* | | | *103%* | | *75 - 125 %* | " | | | " | |
| *4-BFB* | | | *96.8%* | | *75 - 125 %* | " | | | " | |
| **BPK0570-12 (GW5@17.5')** | | **Soil** | | | **Sampled: 11/17/06 12:45** | | | | | |
| tert-Amyl Methyl Ether | EPA 8260B | ND | ---- | 0.37 | mg/kg dry | 1x | 6K30039 | 11/30/06 11:22 | 11/30/06 17:24 | |
| **Benzene** | " | **0.09** | ---- | 0.01 | " | " | " | " | " | |
| tert-Butyl Alcohol | " | ND | ---- | 3.7 | " | " | " | " | " | |
| 1,2-Dibromoethane (EDB) | " | ND | ---- | 0.04 | " | " | " | " | " | |
| 1,2-Dichloroethane (EDC) | " | ND | ---- | 0.04 | " | " | " | " | " | |
| Diisopropyl ether | " | ND | ---- | 0.37 | " | " | " | " | " | |
| Ethyl tert-butyl ether | " | ND | ---- | 0.37 | " | " | " | " | " | |
| Ethanol | " | ND | ---- | 15 | " | " | " | " | " | |
| **Ethylbenzene** | " | **0.19** | ---- | 0.07 | " | " | " | " | " | |
| Methyl tert-butyl ether | " | ND | ---- | 0.37 | " | " | " | " | " | |
| **Toluene** | " | **0.52** | ---- | 0.07 | " | " | " | " | " | |
| **o-Xylene** | " | **0.27** | ---- | 0.07 | " | " | " | " | " | |
| **m,p-Xylene** | " | **0.90** | ---- | 0.15 | " | " | " | " | " | |

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| Everett, WA 98208 | Project Manager: | Justin Foslien | 12/08/06 18:57 |

## Oxygenates by EPA Method 8260B

TestAmerica - Seattle, WA

| Analyte | Method | Result | MDL* | MRL | Units | Dil | Batch | Prepared | Analyzed | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **BPK0570-12 (GW5@17.5')** | **Soil** | | | | **Sampled: 11/17/06 12:45** | | | | | |
| **Xylenes (total)** | EPA 8260B | **1.2** | ---- | 0.22 | mg/kg dry | 1x | 6K30039 | 11/30/06 11:22 | 11/30/06 17:24 | |
| *Surrogate(s): 1,2-DCA-d4* | | | *91.9%* | | *75 - 125 %* | " | | | " | |
| *Toluene-d8* | | | *102%* | | *75 - 125 %* | " | | | " | |
| *4-BFB* | | | *99.3%* | | *75 - 125 %* | " | | | " | |

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| Everett, WA 98208 | Project Manager: | Justin Foslien | 12/08/06 18:57 |

## Volatile Petroleum Products by NWTPH-Gx - Laboratory Quality Control Results

TestAmerica - Seattle, WA

**QC Batch: 6K29027** **Soil Preparation Method: EPA 5030B (MeOH)**

| Analyte | Method | Result | MDL* | MRL | Units | Dil | Source Result | Spike Amt | % REC | (Limits) | % RPD | (Limits) | Analyzed | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Blank (6K29027-BLK1)** | | | | | | | | Extracted: 11/29/06 11:15 | | | | | | |
| Gasoline Range Hydrocarbons | NWTPH-Gx | ND | --- | 5.00 | mg/kg wet | 1x | -- | -- | -- | -- | -- | -- | 11/29/06 12:30 | |
| *Surrogate(s): 4-BFB (FID)* | | *Recovery: 82.7%* | | | *Limits: 50-150%* | " | | | | | | | *11/29/06 12:30* | |
| **LCS (6K29027-BS1)** | | | | | | | | Extracted: 11/29/06 11:15 | | | | | | |
| Gasoline Range Hydrocarbons | NWTPH-Gx | 46.4 | --- | 5.00 | mg/kg wet | 1x | -- | 50.0 | 92.8% | (75-125) | -- | -- | 11/29/06 13:04 | |
| *Surrogate(s): 4-BFB (FID)* | | *Recovery: 90.7%* | | | *Limits: 50-150%* | " | | | | | | | *11/29/06 13:04* | |
| **Duplicate (6K29027-DUP1)** | | | | | QC Source: BPK0700-01 | | | Extracted: 11/29/06 11:15 | | | | | | |
| Gasoline Range Hydrocarbons | NWTPH-Gx | ND | --- | 12.5 | mg/kg dry | 1x | ND | -- | -- | -- | 22.5% | (40) | 11/29/06 16:14 | |
| *Surrogate(s): 4-BFB (FID)* | | *Recovery: 82.7%* | | | *Limits: 50-150%* | " | | | | | | | *11/29/06 16:14* | |
| **Duplicate (6K29027-DUP2)** | | | | | QC Source: BPK0642-01RE1 | | | Extracted: 11/29/06 11:15 | | | | | | |
| Gasoline Range Hydrocarbons | NWTPH-Gx | 3.30 | --- | 2.53 | mg/kg wet | 1x | 3.39 | -- | -- | -- | 2.69% | (40) | 11/29/06 21:41 | |
| *Surrogate(s): 4-BFB (FID)* | | *Recovery: 82.9%* | | | *Limits: 50-150%* | " | | | | | | | *11/29/06 21:41* | |
| **Matrix Spike (6K29027-MS1)** | | | | | QC Source: BPK0700-01 | | | Extracted: 11/29/06 11:15 | | | | | | |
| Gasoline Range Hydrocarbons | NWTPH-Gx | 131 | --- | 12.5 | mg/kg dry | 1x | 2.67 | 125 | 103% | (42-125) | -- | -- | 11/29/06 17:14 | |
| *Surrogate(s): 4-BFB (FID)* | | *Recovery: 95.2%* | | | *Limits: 50-150%* | " | | | | | | | *11/29/06 17:14* | |

**QC Batch: 6K30024** **Soil Preparation Method: EPA 5030B (MeOH)**

| Analyte | Method | Result | MDL* | MRL | Units | Dil | Source Result | Spike Amt | % REC | (Limits) | % RPD | (Limits) | Analyzed | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Blank (6K30024-BLK1)** | | | | | | | | Extracted: 11/30/06 10:49 | | | | | | |
| Gasoline Range Hydrocarbons | NWTPH-Gx | ND | --- | 5.00 | mg/kg wet | 1x | -- | -- | -- | -- | -- | -- | 11/30/06 16:34 | |
| *Surrogate(s): 4-BFB (FID)* | | *Recovery: 94.7%* | | | *Limits: 50-150%* | " | | | | | | | *11/30/06 16:34* | |
| **LCS (6K30024-BS1)** | | | | | | | | Extracted: 11/30/06 10:49 | | | | | | |
| Gasoline Range Hydrocarbons | NWTPH-Gx | 51.6 | --- | 5.00 | mg/kg wet | 1x | -- | 50.0 | 103% | (75-125) | -- | -- | 11/30/06 17:23 | |
| *Surrogate(s): 4-BFB (FID)* | | *Recovery: 117%* | | | *Limits: 50-150%* | " | | | | | | | *11/30/06 17:23* | |
| **Duplicate (6K30024-DUP1)** | | | | | QC Source: BPK0570-10 | | | Extracted: 11/30/06 10:49 | | | | | | |
| Gasoline Range Hydrocarbons | NWTPH-Gx | 13.9 | --- | 3.80 | mg/kg dry | 1x | 8.57 | -- | -- | -- | 47.4% | (40) | 11/30/06 19:25 | RP-3, A-01 |
| *Surrogate(s): 4-BFB (FID)* | | *Recovery: 101%* | | | *Limits: 50-150%* | " | | | | | | | *11/30/06 19:25* | |
| **Matrix Spike (6K30024-MS1)** | | | | | QC Source: BPK0570-10 | | | Extracted: 11/30/06 10:49 | | | | | | |
| Gasoline Range Hydrocarbons | NWTPH-Gx | 45.8 | --- | 3.80 | mg/kg dry | 1x | 8.57 | 38.0 | 98.0% | (42-125) | -- | -- | 11/30/06 21:28 | |
| *Surrogate(s): 4-BFB (FID)* | | *Recovery: 98.7%* | | | *Limits: 50-150%* | " | | | | | | | *11/30/06 21:28* | |

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| Everett, WA 98208 | Project Manager: | Justin Foslien | 12/08/06 18:57 |

**Volatile Petroleum Products by NWTPH-Gx - Laboratory Quality Control Results**
TestAmerica - Seattle, WA

TestAmerica - Seattle, WA

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| Everett, WA 98208 | Project Manager: | Justin Foslien | 12/08/06 18:57 |

## Volatile Petroleum Hydrocarbons by WDOE TPH Policy Method - Laboratory Quality Control Results

TestAmerica - Seattle, WA

**QC Batch: 6K28004** **Soil Preparation Method: EPA 5030B (MeOH)**

| Analyte | Method | Result | MDL* | MRL | Units | Dil | Source Result | Spike Amt | % REC | (Limits) | % RPD | (Limits) | Analyzed | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Blank (6K28004-BLK1)** | | | | | | | | Extracted: 11/28/06 09:45 | | | | | | |
| C5-C6 Aliphatics | WA MTCA-VPH | ND | --- | 5.00 | mg/kg wet | 1x | -- | -- | -- | -- | -- | -- | 11/28/06 12:58 | |
| C6-C8 Aliphatics | " | ND | --- | 5.00 | " | " | -- | -- | -- | -- | -- | -- | " | |
| C10-C12 Aliphatics | " | ND | --- | 5.00 | " | " | -- | -- | -- | -- | -- | -- | " | |
| C8-C10 Aromatics | " | ND | --- | 5.00 | " | " | -- | -- | -- | -- | -- | -- | " | |
| C10-C12 Aromatics | " | ND | --- | 5.00 | " | " | -- | -- | -- | -- | -- | -- | " | |
| C12-C13 Aromatics | " | ND | --- | 5.00 | " | " | -- | -- | -- | -- | -- | -- | " | |
| Total VPH (TVPH) | " | ND | --- | 35.0 | " | " | -- | -- | -- | -- | -- | -- | " | |
| *Surrogate(s): 4-BFB (FID)* | | *Recovery: 96.7%* | | | *Limits: 60-140%* | " | | | | | | | *11/28/06 12:58* | |
| *4-BFB (PID)* | | *100%* | | | *60-140%* | " | | | | | | | " | |
| **LCS (6K28004-BS2)** | | | | | | | | Extracted: 11/28/06 09:45 | | | | | | |
| C5-C6 Aliphatics | WA MTCA-VPH | 4.99 | --- | 5.00 | mg/kg wet | 1x | -- | 5.00 | 99.8% | (70-130) | -- | -- | 11/28/06 14:39 | |
| C6-C8 Aliphatics | " | 2.25 | --- | 5.00 | " | " | -- | 2.50 | 90.0% | " | -- | -- | " | |
| C10-C12 Aliphatics | " | 3.65 | --- | 5.00 | " | " | -- | " | 146% | " | -- | -- | " | BS-5 |
| C8-C10 Aromatics | " | 11.1 | --- | 5.00 | " | " | -- | 10.0 | 111% | " | -- | -- | " | |
| C10-C12 Aromatics | " | 2.81 | --- | 5.00 | " | " | -- | 2.50 | 112% | " | -- | -- | " | |
| C12-C13 Aromatics | " | 4.91 | --- | 5.00 | " | " | -- | 5.00 | 98.2% | " | -- | -- | " | |
| Total VPH (TVPH) | " | 39.5 | --- | 35.0 | " | " | -- | 40.0 | 98.8% | " | -- | -- | " | |
| *Surrogate(s): 4-BFB (FID)* | | *Recovery: 92.3%* | | | *Limits: 60-140%* | " | | | | | | | *11/28/06 14:39* | |
| *4-BFB (PID)* | | *104%* | | | *60-140%* | " | | | | | | | " | |
| **Duplicate (6K28004-DUP1)** | | | | | QC Source: BPK0570-06RE1 | | | Extracted: 11/28/06 09:45 | | | | | | |
| C5-C6 Aliphatics | WA MTCA-VPH | ND | --- | 3.90 | mg/kg dry | 1x | ND | -- | -- | -- | 5.62% | (25) | 11/28/06 15:10 | |
| C6-C8 Aliphatics | " | 4.18 | --- | 3.90 | " | " | 4.15 | -- | -- | -- | 0.720% | " | " | |
| C10-C12 Aliphatics | " | ND | --- | 3.90 | " | " | ND | -- | -- | -- | 18.6% | " | " | BS-1 |
| C8-C10 Aromatics | " | ND | --- | 3.90 | " | " | ND | -- | -- | -- | 1.58% | " | " | |
| C10-C12 Aromatics | " | ND | --- | 3.90 | " | " | ND | -- | -- | -- | 2.11% | " | " | |
| C12-C13 Aromatics | " | ND | --- | 3.90 | " | " | ND | -- | -- | -- | 3.24% | " | " | |
| Total VPH (TVPH) | " | ND | --- | 27.3 | " | " | ND | -- | -- | -- | 0.805% | " | " | |
| *Surrogate(s): 4-BFB (FID)* | | *Recovery: 104%* | | | *Limits: 60-140%* | " | | | | | | | *11/28/06 15:10* | |
| *4-BFB (PID)* | | *96.2%* | | | *60-140%* | " | | | | | | | " | |

TestAmerica - Seattle, WA

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| | | | |
|---|---|---|---|
| **Cambria - Seattle** | Project Name: | **Shell - 6808 196th SW, Lynnwood** | |
| 8620 Holly Drive, Suite 210 | Project Number: | 248-1739 | Report Created: |
| Everett, WA 98208 | Project Manager: | Justin Foslien | 12/08/06 18:57 |

## Volatile Petroleum Hydrocarbons by WDOE TPH Policy Method - Laboratory Quality Control Results

TestAmerica - Seattle, WA

**QC Batch: 6K28004** **Soil Preparation Method: EPA 5030B (MeOH)**

| Analyte | Method | Result | MDL* | MRL | Units | Dil | Source Result | Spike Amt | % REC | (Limits) | % RPD | (Limits) | Analyzed | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Matrix Spike (6K28004-MS1)** | | | | | QC Source: BPK0570-12RE1 | | | Extracted: 11/28/06 09:45 | | | | | | |
| C5-C6 Aliphatics | WA MTCA-VPH | 7.26 | --- | 3.69 | mg/kg dry | 1x | 2.25 | 3.69 | 136% | (70-130) | -- | -- | 11/28/06 16:42 | MS-3 |
| C6-C8 Aliphatics | " | 10.5 | --- | 3.69 | " | " | 7.96 | 1.85 | 137% | " | -- | -- | " | MS-3 |
| C10-C12 Aliphatics | " | 5.07 | --- | 3.69 | " | " | 2.62 | " | 132% | " | -- | -- | " | MS-3, BS-5 |
| C8-C10 Aromatics | " | 11.1 | --- | 3.69 | " | " | 2.74 | 7.39 | 113% | " | -- | -- | " | |
| C10-C12 Aromatics | " | 4.24 | --- | 3.69 | " | " | 2.09 | 1.85 | 116% | " | -- | -- | " | |
| C12-C13 Aromatics | " | 3.93 | --- | 3.69 | " | " | 0.668 | 3.69 | 88.4% | " | -- | -- | " | |
| Total VPH (TVPH) | " | 54.6 | --- | 25.9 | " | " | 21.4 | 29.6 | 112% | " | -- | -- | " | |
| *Surrogate(s): 4-BFB (FID)* | | *Recovery: 112%* | | | *Limits: 60-140%* | " | | | | | | | *11/28/06 16:42* | |
| *4-BFB (PID)* | | *91.0%* | | | *60-140%* | " | | | | | | | " | |

**QC Batch: 6L06021** **Soil Preparation Method: EPA 5030B (MeOH)**

| Analyte | Method | Result | MDL* | MRL | Units | Dil | Source Result | Spike Amt | % REC | (Limits) | % RPD | (Limits) | Analyzed | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Blank (6L06021-BLK1)** | | | | | | | | Extracted: 12/06/06 09:31 | | | | | | |
| C5-C6 Aliphatics | WA MTCA-VPH | ND | --- | 5.00 | mg/kg wet | 1x | -- | -- | -- | -- | -- | -- | 12/06/06 16:31 | |
| C6-C8 Aliphatics | " | ND | --- | 5.00 | " | " | -- | -- | -- | -- | -- | -- | " | |
| C8-C10 Aliphatics | " | ND | --- | 5.00 | " | " | -- | -- | -- | -- | -- | -- | " | |
| C10-C12 Aliphatics | " | ND | --- | 5.00 | " | " | -- | -- | -- | -- | -- | -- | " | |
| C8-C10 Aromatics | " | ND | --- | 5.00 | " | " | -- | -- | -- | -- | -- | -- | " | |
| C10-C12 Aromatics | " | ND | --- | 5.00 | " | " | -- | -- | -- | -- | -- | -- | " | |
| C12-C13 Aromatics | " | ND | --- | 5.00 | " | " | -- | -- | -- | -- | -- | -- | " | |
| Total VPH (TVPH) | " | ND | --- | 35.0 | " | " | -- | -- | -- | -- | -- | -- | " | |
| *Surrogate(s): 4-BFB (FID)* | | *Recovery: 99.0%* | | | *Limits: 60-140%* | " | | | | | | | *12/06/06 16:31* | |
| *4-BFB (PID)* | | *101%* | | | *60-140%* | " | | | | | | | " | |
| **LCS (6L06021-BS2)** | | | | | | | | Extracted: 12/06/06 09:31 | | | | | | |
| C5-C6 Aliphatics | WA MTCA-VPH | 7.06 | --- | 5.00 | mg/kg wet | 1x | -- | 8.00 | 88.2% | (70-130) | -- | -- | 12/07/06 08:38 | |
| C6-C8 Aliphatics | " | 6.08 | --- | 5.00 | " | " | -- | 4.00 | 152% | " | -- | -- | " | L1 |
| C8-C10 Aliphatics | " | 9.79 | --- | 5.00 | " | " | -- | 8.00 | 122% | " | -- | -- | " | |
| C10-C12 Aliphatics | " | 5.26 | --- | 5.00 | " | " | -- | 4.00 | 132% | " | -- | -- | " | L1 |
| C8-C10 Aromatics | " | 16.9 | --- | 5.00 | " | " | -- | 16.0 | 106% | " | -- | -- | " | |
| C10-C12 Aromatics | " | 4.55 | --- | 5.00 | " | " | -- | 4.00 | 114% | " | -- | -- | " | |
| C12-C13 Aromatics | " | 6.92 | --- | 5.00 | " | " | -- | 8.00 | 86.5% | " | -- | -- | " | |
| Total VPH (TVPH) | " | 73.1 | --- | 35.0 | " | " | -- | 64.0 | 114% | " | -- | -- | " | |
| *Surrogate(s): 4-BFB (FID)* | | *Recovery: 113%* | | | *Limits: 60-140%* | " | | | | | | | *12/07/06 08:38* | |
| *4-BFB (PID)* | | *100%* | | | *60-140%* | " | | | | | | | " | |

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|---|---|---|---|
| **Cambria - Seattle** | Project Name: | **Shell - 6808 196th SW, Lynnwood** | |
| 8620 Holly Drive, Suite 210 | Project Number: | 248-1739 | Report Created: |
| Everett, WA 98208 | Project Manager: | Justin Foslien | 12/08/06 18:57 |

## Volatile Petroleum Hydrocarbons by WDOE TPH Policy Method - Laboratory Quality Control Results

TestAmerica - Seattle, WA

**QC Batch: 6L06021** **Soil Preparation Method: EPA 5030B (MeOH)**

| Analyte | Method | Result | MDL* | MRL | Units | Dil | Source Result | Spike Amt | % REC | (Limits) | % RPD | (Limits) | Analyzed | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Duplicate (6L06021-DUP1)** | | | | | QC Source: BPK0455-06RE3 | | | Extracted: 12/06/06 09:31 | | | | | | |
| C5-C6 Aliphatics | WA MTCA-VPH | ND | --- | 4.46 | mg/kg dry | 1x | ND | -- | -- | -- | 2.34% | (25) | 12/06/06 18:57 | |
| C6-C8 Aliphatics | " | 22.6 | --- | 4.46 | " | " | 21.1 | -- | -- | -- | 6.86% | " | " | L1 |
| C8-C10 Aliphatics | " | 29.8 | --- | 4.46 | " | " | 24.2 | -- | -- | -- | 20.7% | " | " | |
| C10-C12 Aliphatics | " | 45.6 | --- | 4.46 | " | " | 34.6 | -- | -- | -- | 27.4% | " | " | R3, L1 |
| C8-C10 Aromatics | " | 14.1 | --- | 4.46 | " | " | 14.2 | -- | -- | -- | 0.707% | " | " | |
| C10-C12 Aromatics | " | 30.5 | --- | 4.46 | " | " | 30.1 | -- | -- | -- | 1.32% | " | " | |
| C12-C13 Aromatics | " | 15.9 | --- | 4.46 | " | " | 13.7 | -- | -- | -- | 14.9% | " | " | |
| Total VPH (TVPH) | " | 160 | --- | 31.2 | " | " | 140 | -- | -- | -- | 13.3% | " | " | |
| *Surrogate(s): 4-BFB (FID)* | | *Recovery: 171%* | | | *Limits: 60-140%* | " | | | | | | | *12/06/06 18:57* | ZX |
| *4-BFB (PID)* | | *89.2%* | | | *60-140%* | " | | | | | | | " | |
| **Matrix Spike (6L06021-MS1)** | | | | | QC Source: BPK0455-06RE3 | | | Extracted: 12/06/06 09:31 | | | | | | |
| C5-C6 Aliphatics | WA MTCA-VPH | 5.28 | --- | 4.46 | mg/kg dry | 1x | 0.928 | 7.14 | 61.0% | (70-130) | -- | -- | 12/07/06 03:09 | M2 |
| C6-C8 Aliphatics | " | 27.3 | --- | 4.46 | " | " | 21.1 | 3.57 | 174% | " | -- | -- | " | M1, L1 |
| C8-C10 Aliphatics | " | 38.4 | --- | 4.46 | " | " | 24.2 | 7.14 | 199% | " | -- | -- | " | M1 |
| C10-C12 Aliphatics | " | 48.8 | --- | 4.46 | " | " | 34.6 | 3.57 | 398% | " | -- | -- | " | M1, L1 |
| C8-C10 Aromatics | " | 21.8 | --- | 4.46 | " | " | 14.2 | 14.3 | 53.1% | " | -- | -- | " | M2 |
| C10-C12 Aromatics | " | 30.9 | --- | 4.46 | " | " | 30.1 | 3.57 | 22.4% | " | -- | -- | " | M2 |
| C12-C13 Aromatics | " | 17.3 | --- | 4.46 | " | " | 13.7 | 7.14 | 50.4% | " | -- | -- | " | M2 |
| Total VPH (TVPH) | " | 200 | --- | 31.2 | " | " | 140 | 57.1 | 105% | " | -- | -- | " | |
| *Surrogate(s): 4-BFB (FID)* | | *Recovery: 178%* | | | *Limits: 60-140%* | " | | | | | | | *12/07/06 03:09* | ZX |
| *4-BFB (PID)* | | *97.0%* | | | *60-140%* | " | | | | | | | " | |

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|---|---|---|---|
| **Cambria - Seattle** | Project Name: | **Shell - 6808 196th SW, Lynnwood** | |
| 8620 Holly Drive, Suite 210 | Project Number: | 248-1739 | Report Created: |
| Everett, WA 98208 | Project Manager: | Justin Foslien | 12/08/06 18:57 |

## Semivolatile Petroleum Products by NWTPH-Dx with Acid/Silica Gel Clean-up - Laboratory Quality Control Results

TestAmerica - Seattle, WA

**QC Batch: 6K27031** **Soil Preparation Method: EPA 3550B**

| Analyte | Method | Result | MDL* | MRL | Units | Dil | Source Result | Spike Amt | % REC | (Limits) | % RPD | (Limits) | Analyzed | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Blank (6K27031-BLK1)** | | | | | | | | Extracted: 11/27/06 10:42 | | | | | | |
| Diesel Range Hydrocarbons | NWTPH-Dx | ND | --- | 10.0 | mg/kg wet | 1x | -- | -- | -- | -- | -- | -- | 12/06/06 14:08 | |
| Lube Oil Range Hydrocarbons | " | ND | --- | 25.0 | " | " | -- | -- | -- | -- | -- | -- | " | |
| *Surrogate(s): 2-FBP* | | *Recovery: 106%* | | | *Limits: 54-148%* | " | | | | | | | *12/06/06 14:08* | |
| *Octacosane* | | *90.5%* | | | *62-142%* | " | | | | | | | " | |
| **LCS (6K27031-BS1)** | | | | | | | | Extracted: 11/27/06 10:42 | | | | | | |
| Diesel Range Hydrocarbons | NWTPH-Dx | 61.7 | --- | 10.0 | mg/kg wet | 1x | -- | 66.7 | 92.5% | (78-129) | -- | -- | 12/06/06 14:35 | |
| *Surrogate(s): 2-FBP* | | *Recovery: 101%* | | | *Limits: 54-148%* | " | | | | | | | *12/06/06 14:35* | |
| *Octacosane* | | *87.6%* | | | *62-142%* | " | | | | | | | " | |
| **Duplicate (6K27031-DUP1)** | | | | | QC Source: BPK0570-01 | | | Extracted: 11/27/06 10:42 | | | | | | |
| Diesel Range Hydrocarbons | NWTPH-Dx | ND | --- | 10.6 | mg/kg dry | 1x | ND | -- | -- | -- | NR | (50) | 12/06/06 15:01 | |
| Lube Oil Range Hydrocarbons | " | ND | --- | 26.5 | " | " | ND | -- | -- | -- | NR | " | " | |
| *Surrogate(s): 2-FBP* | | *Recovery: 101%* | | | *Limits: 54-148%* | " | | | | | | | *12/06/06 15:01* | |
| *Octacosane* | | *86.8%* | | | *62-142%* | " | | | | | | | " | |
| **Duplicate (6K27031-DUP2)** | | | | | QC Source: BPK0569-10 | | | Extracted: 11/27/06 10:42 | | | | | | |
| Diesel Range Hydrocarbons | NWTPH-Dx | 16.4 | --- | 10.7 | mg/kg dry | 1x | 12.3 | -- | -- | -- | 28.6% | (50) | 12/06/06 15:27 | |
| Lube Oil Range Hydrocarbons | " | 103 | --- | 26.8 | " | " | 84.3 | -- | -- | -- | 20.0% | " | " | |
| *Surrogate(s): 2-FBP* | | *Recovery: 89.5%* | | | *Limits: 54-148%* | " | | | | | | | *12/06/06 15:27* | |
| *Octacosane* | | *92.7%* | | | *62-142%* | " | | | | | | | " | |
| **Matrix Spike (6K27031-MS1)** | | | | | QC Source: BPK0570-01 | | | Extracted: 11/27/06 10:42 | | | | | | |
| Diesel Range Hydrocarbons | NWTPH-Dx | 67.0 | --- | 10.6 | mg/kg dry | 1x | ND | 71.0 | 94.4% | (46-155) | -- | -- | 12/06/06 15:53 | |
| *Surrogate(s): 2-FBP* | | *Recovery: 114%* | | | *Limits: 54-148%* | " | | | | | | | *12/06/06 15:53* | |
| *Octacosane* | | *90.9%* | | | *62-142%* | " | | | | | | | " | |

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|---|---|---|---|
| **Cambria - Seattle** | Project Name: | **Shell - 6808 196th SW, Lynnwood** | |
| 8620 Holly Drive, Suite 210 | Project Number: | 248-1739 | Report Created: |
| Everett, WA 98208 | Project Manager: | Justin Foslien | 12/08/06 18:57 |

## Extractable Petroleum Hydrocarbons by WDOE TPH Policy Method - Laboratory Quality Control Results

TestAmerica - Seattle, WA

**QC Batch: 6K27029** **Soil Preparation Method: EPA 3545**

| Analyte | Method | Result | MDL* | MRL | Units | Dil | Source Result | Spike Amt | % REC | (Limits) | % RPD | (Limits) | Analyzed | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Blank (6K27029-BLK1)** | | | | | | | | Extracted: 11/27/06 10:39 | | | | | | |
| C8-C10 Aliphatics | WA MTCA-EPH | ND | --- | 5.00 | mg/kg wet | 1x | -- | -- | -- | -- | -- | -- | 12/01/06 11:57 | |
| C10-C12 Aliphatics | " | ND | --- | 5.00 | " | " | -- | -- | -- | -- | -- | -- | " | |
| C12-C16 Aliphatics | " | ND | --- | 5.00 | " | " | -- | -- | -- | -- | -- | -- | " | |
| C16-C21 Aliphatics | " | ND | --- | 5.00 | " | " | -- | -- | -- | -- | -- | -- | " | |
| C21-C34 Aliphatics | " | ND | --- | 5.00 | " | " | -- | -- | -- | -- | -- | -- | " | |
| C8-C10 Aromatics | " | ND | --- | 5.00 | " | " | -- | -- | -- | -- | -- | -- | 12/01/06 12:28 | |
| C10-C12 Aromatics | " | ND | --- | 5.00 | " | " | -- | -- | -- | -- | -- | -- | " | |
| C12-C16 Aromatics | " | ND | --- | 5.00 | " | " | -- | -- | -- | -- | -- | -- | " | |
| C16-C21 Aromatics | " | ND | --- | 5.00 | " | " | -- | -- | -- | -- | -- | -- | " | |
| C21-C34 Aromatics | " | ND | --- | 5.00 | " | " | -- | -- | -- | -- | -- | -- | " | |
| *Surrogate(s): o-Terphenyl* | | *Recovery: 88.0%* | | | *Limits: 60-140%* | " | | | | | | | *12/01/06 12:28* | |
| *1-Chlorooctadecane* | | *95.8%* | | | *60-140%* | " | | | | | | | *12/01/06 11:57* | |
| **LCS (6K27029-BS1)** | | | | | | | | Extracted: 11/27/06 10:39 | | | | | | |
| C8-C10 Aliphatics | WA MTCA-EPH | 7.77 | --- | 5.00 | mg/kg wet | 1x | -- | 10.0 | 77.7% | (50-150) | -- | -- | 12/01/06 13:00 | |
| C10-C12 Aliphatics | " | 2.93 | --- | 5.00 | " | " | -- | 3.33 | 88.0% | (70-130) | -- | -- | " | |
| C12-C16 Aliphatics | " | 6.25 | --- | 5.00 | " | " | -- | 6.67 | 93.7% | " | -- | -- | " | |
| C16-C21 Aliphatics | " | 9.36 | --- | 5.00 | " | " | -- | 10.0 | 93.6% | " | -- | -- | " | |
| C21-C34 Aliphatics | " | 18.1 | --- | 5.00 | " | " | -- | 20.0 | 90.5% | " | -- | -- | " | |
| C8-C10 Aromatics | " | 3.01 | --- | 5.00 | " | " | -- | 3.33 | 90.4% | (50-150) | -- | -- | 12/01/06 13:31 | |
| C10-C12 Aromatics | " | 3.27 | --- | 5.00 | " | " | -- | " | 98.2% | (70-130) | -- | -- | " | |
| C12-C16 Aromatics | " | 9.34 | --- | 5.00 | " | " | -- | 10.0 | 93.4% | " | -- | -- | " | |
| C16-C21 Aromatics | " | 16.6 | --- | 5.00 | " | " | -- | 16.7 | 99.4% | " | -- | -- | " | |
| C21-C34 Aromatics | " | 28.9 | --- | 5.00 | " | " | -- | 26.7 | 108% | " | -- | -- | " | |
| *Surrogate(s): o-Terphenyl* | | *Recovery: 92.8%* | | | *Limits: 60-140%* | " | | | | | | | *12/01/06 13:31* | |
| *1-Chlorooctadecane* | | *95.8%* | | | *60-140%* | " | | | | | | | *12/01/06 13:00* | |
| **Matrix Spike (6K27029-MS1)** | | | | | QC Source: BPK0570-05 | | | Extracted: 11/27/06 10:39 | | | | | | |
| C8-C10 Aliphatics | WA MTCA-EPH | 17.6 | --- | 5.51 | mg/kg dry | 1x | 30.1 | 11.0 | -114% | (50-150) | -- | -- | 12/01/06 14:03 | MS-2 |
| C10-C12 Aliphatics | " | 15.8 | --- | 5.51 | " | " | 29.4 | 3.68 | -370% | (70-130) | -- | -- | " | MS-2 |
| C12-C16 Aliphatics | " | 10.2 | --- | 5.51 | " | " | 7.95 | 7.35 | 30.6% | " | -- | -- | " | MS-2 |
| C16-C21 Aliphatics | " | 10.2 | --- | 5.51 | " | " | ND | 11.0 | 92.7% | " | -- | -- | " | |
| C21-C34 Aliphatics | " | 20.0 | --- | 5.51 | " | " | ND | 22.1 | 90.5% | " | -- | -- | " | |
| C8-C10 Aromatics | " | 23.3 | --- | 5.51 | " | " | 33.8 | 3.68 | -285% | (50-150) | -- | -- | 12/01/06 14:34 | MS-2 |
| C10-C12 Aromatics | " | 19.1 | --- | 5.51 | " | " | 27.8 | " | -236% | (70-130) | -- | -- | " | MS-2 |
| C12-C16 Aromatics | " | 14.5 | --- | 5.51 | " | " | 9.73 | 11.0 | 43.4% | " | -- | -- | " | MS-2 |
| C16-C21 Aromatics | " | 16.8 | --- | 5.51 | " | " | ND | 18.4 | 91.3% | " | -- | -- | " | |
| C21-C34 Aromatics | " | 29.0 | --- | 5.51 | " | " | ND | 29.4 | 98.6% | " | -- | -- | " | |

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|---|---|---|---|
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## Extractable Petroleum Hydrocarbons by WDOE TPH Policy Method - Laboratory Quality Control Results

TestAmerica - Seattle, WA

**QC Batch: 6K27029** **Soil Preparation Method: EPA 3545**

| Analyte | Method | Result | MDL* | MRL | Units | Dil | Source Result | Spike Amt | % REC | (Limits) | % RPD | (Limits) | Analyzed | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Matrix Spike (6K27029-MS1)** | | | | | QC Source: BPK0570-05 | | | | Extracted: 11/27/06 10:39 | | | | | |
| *Surrogate(s): o-Terphenyl* | | *Recovery: 85.3%* | | | *Limits: 60-140%* | *1x* | | | | | | | *12/01/06 14:34* | |
| *1-Chlorooctadecane* | | *95.1%* | | | *60-140%* | " | | | | | | | *12/01/06 14:03* | |
| **Matrix Spike Dup (6K27029-MSD1)** | | | | | QC Source: BPK0570-05 | | | | Extracted: 11/27/06 10:39 | | | | | |
| C8-C10 Aliphatics | WA MTCA-EPH | 31.0 | --- | 5.61 | mg/kg dry | 1x | 30.1 | 11.2 | 8.04% | (50-150) | 55.1% | (25) | 12/01/06 15:06 | MS-2, RP-1 |
| C10-C12 Aliphatics | " | 33.4 | --- | 5.61 | " | " | 29.4 | 3.74 | 107% | (70-130) | 71.5% | " | " | RP-1 |
| C12-C16 Aliphatics | " | 15.3 | --- | 5.61 | " | " | 7.95 | 7.47 | 98.4% | " | 40.0% | " | " | RP-1 |
| C16-C21 Aliphatics | " | 11.2 | --- | 5.61 | " | " | ND | 11.2 | 100% | " | 9.35% | " | " | |
| C21-C34 Aliphatics | " | 21.6 | --- | 5.61 | " | " | ND | 22.4 | 96.4% | " | 7.69% | " | " | |
| C8-C10 Aromatics | " | 34.6 | --- | 5.61 | " | " | 33.8 | 3.74 | 21.4% | (50-150) | 39.0% | " | 12/01/06 15:38 | MS-2, RP-1 |
| C10-C12 Aromatics | " | 31.5 | --- | 5.61 | " | " | 27.8 | " | 98.9% | (70-130) | 49.0% | " | " | RP-1 |
| C12-C16 Aromatics | " | 19.6 | --- | 5.61 | " | " | 9.73 | 11.2 | 88.1% | " | 29.9% | " | " | RP-1 |
| C16-C21 Aromatics | " | 18.7 | --- | 5.61 | " | " | ND | 18.7 | 100% | " | 10.7% | " | " | |
| C21-C34 Aromatics | " | 32.7 | --- | 5.61 | " | " | ND | 29.9 | 109% | " | 12.0% | " | " | |
| *Surrogate(s): o-Terphenyl* | | *Recovery: 93.0%* | | | *Limits: 60-140%* | " | | | | | | | *12/01/06 15:38* | |
| *1-Chlorooctadecane* | | *100%* | | | *60-140%* | " | | | | | | | *12/01/06 15:06* | |

TestAmerica - Seattle, WA

Kate Haney, Project Manager

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report shall not be reproduced except in full, without the written approval of the laboratory*

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| | | | |
|---|---|---|---|
| **Cambria - Seattle** | Project Name: | **Shell - 6808 196th SW, Lynnwood** | |
| 8620 Holly Drive, Suite 210 | Project Number: | 248-1739 | Report Created: |
| Everett, WA 98208 | Project Manager: | Justin Foslien | 12/08/06 18:57 |

## Total Metals by EPA 6000/7000 Series Methods - Laboratory Quality Control Results

TestAmerica - Seattle, WA

**QC Batch: 6K30060** **Soil Preparation Method: EPA 3050B**

| Analyte | Method | Result | MDL* | MRL | Units | Dil | Source Result | Spike Amt | % REC | (Limits) | % RPD | (Limits) | Analyzed | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Blank (6K30060-BLK1)** | | | | | | | | Extracted: 11/30/06 17:12 | | | | | | |
| Lead | EPA 6020 | ND | --- | 0.500 | mg/kg wet | 1x | -- | -- | -- | -- | -- | -- | 12/01/06 12:01 | |
| **LCS (6K30060-BS1)** | | | | | | | | Extracted: 11/30/06 17:12 | | | | | | |
| Lead | EPA 6020 | 42.5 | --- | 0.500 | mg/kg wet | 1x | -- | 40.0 | 106% | (80-120) | -- | -- | 12/01/06 11:14 | |
| **Duplicate (6K30060-DUP1)** | | | | QC Source: BPK0570-01 | | | | Extracted: 11/30/06 17:12 | | | | | | |
| Lead | EPA 6020 | 1.29 | --- | 0.532 | mg/kg dry | 1x | 0.962 | -- | -- | -- | 29.1% | (30) | 12/01/06 11:32 | |
| **Matrix Spike (6K30060-MS1)** | | | | QC Source: BPK0570-01 | | | | Extracted: 11/30/06 17:12 | | | | | | |
| Lead | EPA 6020 | 45.0 | --- | 0.543 | mg/kg dry | 1x | 0.962 | 43.5 | 101% | (29-166) | -- | -- | 12/01/06 11:26 | |
| **Post Spike (6K30060-PS1)** | | | | QC Source: BPK0570-01 | | | | Extracted: 11/30/06 17:12 | | | | | | |
| Lead | EPA 6020 | 0.0988 | --- | | ug/ml | 1x | 0.00181 | 0.0995 | 97.5% | (75-125) | -- | -- | 12/01/06 11:20 | |

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|---|---|---|---|
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| Everett, WA 98208 | Project Manager: | Justin Foslien | 12/08/06 18:57 |

## Polychlorinated Biphenyls by EPA Method 8082 - Laboratory Quality Control Results

TestAmerica - Seattle, WA

**QC Batch: 6K27027** **Soil Preparation Method: EPA 3550B**

| Analyte | Method | Result | MDL* | MRL | Units | Dil | Source Result | Spike Amt | % REC | (Limits) | % RPD | (Limits) | Analyzed | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Blank (6K27027-BLK1)** | | | | | | | | Extracted: 11/27/06 10:36 | | | | | | |
| Aroclor 1016 [2C] | EPA 8082 | ND | --- | 25.0 | ug/kg wet | 1x | -- | -- | -- | -- | -- | -- | 11/29/06 18:33 | |
| Aroclor 1221 | " | ND | --- | 50.0 | " | " | -- | -- | -- | -- | -- | -- | " | |
| Aroclor 1232 | " | ND | --- | 25.0 | " | " | -- | -- | -- | -- | -- | -- | " | |
| Aroclor 1242 | " | ND | --- | 25.0 | " | " | -- | -- | -- | -- | -- | -- | " | |
| Aroclor 1248 | " | ND | --- | 25.0 | " | " | -- | -- | -- | -- | -- | -- | " | |
| Aroclor 1254 | " | ND | --- | 25.0 | " | " | -- | -- | -- | -- | -- | -- | " | |
| Aroclor 1260 [2C] | " | ND | --- | 25.0 | " | " | -- | -- | -- | -- | -- | -- | " | |
| Aroclor 1262 | " | ND | --- | 25.0 | " | " | -- | -- | -- | -- | -- | -- | " | |
| Aroclor 1268 | " | ND | --- | 25.0 | " | " | -- | -- | -- | -- | -- | -- | " | |
| *Surrogate(s): TCX [2C]* | | *Recovery: 102%* | | | *Limits: 39-139%* | " | | | | | | | *11/29/06 18:33* | |
| *Decachlorobiphenyl [2C]* | | *106%* | | | *33-163%* | " | | | | | | | " | |
| **LCS (6K27027-BS1)** | | | | | | | | Extracted: 11/27/06 10:36 | | | | | | MNR |
| Aroclor 1016 [2C] | EPA 8082 | 78.0 | --- | 25.0 | ug/kg wet | 1x | -- | 83.3 | 93.6% | (54-125) | -- | -- | 11/29/06 18:51 | |
| Aroclor 1260 [2C] | " | 80.2 | --- | 25.0 | " | " | -- | " | 96.3% | (58-128) | -- | -- | " | |
| *Surrogate(s): TCX [2C]* | | *Recovery: 99.1%* | | | *Limits: 39-139%* | " | | | | | | | *11/29/06 18:51* | |
| *Decachlorobiphenyl [2C]* | | *101%* | | | *33-163%* | " | | | | | | | " | |

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|---|---|---|---|
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| 8620 Holly Drive, Suite 210 | Project Number: | 248-1739 | Report Created: |
| Everett, WA 98208 | Project Manager: | Justin Foslien | 12/08/06 18:57 |

## Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring - Laboratory Quality Control Results

TestAmerica - Seattle, WA

**QC Batch: 6K27029** **Soil Preparation Method: EPA 3545**

| Analyte | Method | Result | MDL* | MRL | Units | Dil | Source Result | Spike Amt | % REC | (Limits) | % RPD | (Limits) | Analyzed | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Blank (6K27029-BLK2)** | | | | | | | | | Extracted: 11/27/06 10:39 | | | | | |
| Acenaphthene | 8270C-SIM | ND | --- | 0.0100 | mg/kg wet | 1x | -- | -- | -- | -- | -- | -- | 12/01/06 17:01 | |
| Acenaphthylene | " | ND | --- | 0.0100 | " | " | -- | -- | -- | -- | -- | -- | " | |
| Anthracene | " | ND | --- | 0.0100 | " | " | -- | -- | -- | -- | -- | -- | " | |
| Benzo (a) anthracene | " | ND | --- | 0.0100 | " | " | -- | -- | -- | -- | -- | -- | " | |
| Benzo (a) pyrene | " | ND | --- | 0.0100 | " | " | -- | -- | -- | -- | -- | -- | " | |
| Benzo (b) fluoranthene | " | ND | --- | 0.0100 | " | " | -- | -- | -- | -- | -- | -- | " | |
| Benzo (k) fluoranthene | " | ND | --- | 0.0100 | " | " | -- | -- | -- | -- | -- | -- | " | |
| Benzo (b & k) fluoranthene | " | ND | --- | 0.0200 | " | " | -- | -- | -- | -- | -- | -- | " | |
| Benzo (ghi) perylene | " | ND | --- | 0.0100 | " | " | -- | -- | -- | -- | -- | -- | " | |
| Chrysene | " | ND | --- | 0.0100 | " | " | -- | -- | -- | -- | -- | -- | " | |
| Dibenz (a,h) anthracene | " | ND | --- | 0.0100 | " | " | -- | -- | -- | -- | -- | -- | " | |
| Fluoranthene | " | ND | --- | 0.0100 | " | " | -- | -- | -- | -- | -- | -- | " | |
| Fluorene | " | ND | --- | 0.0100 | " | " | -- | -- | -- | -- | -- | -- | " | |
| Indeno (1,2,3-cd) pyrene | " | ND | --- | 0.0100 | " | " | -- | -- | -- | -- | -- | -- | " | |
| 1-Methylnaphthalene | " | ND | --- | 0.0100 | " | " | -- | -- | -- | -- | -- | -- | " | |
| 2-Methylnaphthalene | " | ND | --- | 0.0100 | " | " | -- | -- | -- | -- | -- | -- | " | |
| Naphthalene | " | ND | --- | 0.0100 | " | " | -- | -- | -- | -- | -- | -- | " | |
| Phenanthrene | " | ND | --- | 0.0100 | " | " | -- | -- | -- | -- | -- | -- | " | |
| Pyrene | " | ND | --- | 0.0100 | " | " | -- | -- | -- | -- | -- | -- | " | |
| *Surrogate(s): p-Terphenyl-d14* | | *Recovery: 99.3%* | | | *Limits: 50-147%* | " | | | | | | | *12/01/06 17:01* | |
| **LCS (6K27029-BS2)** | | | | | | | | | Extracted: 11/27/06 10:39 | | | | | |
| Acenaphthene | 8270C-SIM | 0.595 | --- | 0.0100 | mg/kg wet | 1x | -- | 0.667 | 89.2% | (70-125) | -- | -- | 12/01/06 17:26 | |
| Acenaphthylene | " | 0.634 | --- | 0.0100 | " | " | -- | " | 95.1% | (70-133) | -- | -- | " | |
| Anthracene | " | 0.681 | --- | 0.0100 | " | " | -- | " | 102% | (70-152) | -- | -- | " | |
| Benzo (a) anthracene | " | 0.524 | --- | 0.0100 | " | " | -- | " | 78.6% | (60-125) | -- | -- | " | |
| Benzo (a) pyrene | " | 0.649 | --- | 0.0100 | " | " | -- | " | 97.3% | (64-134) | -- | -- | " | |
| Benzo (b) fluoranthene | " | 0.624 | --- | 0.0100 | " | " | -- | " | 93.6% | (62-147) | -- | -- | " | |
| Benzo (k) fluoranthene | " | 0.619 | --- | 0.0100 | " | " | -- | " | 92.8% | (60-144) | -- | -- | " | |
| Benzo (ghi) perylene | " | 0.590 | --- | 0.0100 | " | " | -- | " | 88.5% | (57-137) | -- | -- | " | |
| Chrysene | " | 0.628 | --- | 0.0100 | " | " | -- | " | 94.2% | (70-139) | -- | -- | " | |
| Dibenz (a,h) anthracene | " | 0.636 | --- | 0.0100 | " | " | -- | " | 95.4% | (56-140) | -- | -- | " | |
| Fluoranthene | " | 0.632 | --- | 0.0100 | " | " | -- | " | 94.8% | (70-141) | -- | -- | " | |
| Fluorene | " | 0.670 | --- | 0.0100 | " | " | -- | " | 100% | (76-132) | -- | -- | " | |
| Indeno (1,2,3-cd) pyrene | " | 0.617 | --- | 0.0100 | " | " | -- | " | 92.5% | (55-138) | -- | -- | " | |
| 1-Methylnaphthalene | " | 0.612 | --- | 0.0100 | " | " | -- | " | 91.8% | (46-128) | -- | -- | " | |
| 2-Methylnaphthalene | " | 0.636 | --- | 0.0100 | " | " | -- | " | 95.4% | (41-125) | -- | -- | " | |
| Naphthalene | " | 0.607 | --- | 0.0100 | " | " | -- | " | 91.0% | (43-125) | -- | -- | " | |
| Phenanthrene | " | 0.580 | --- | 0.0100 | " | " | -- | " | 87.0% | (73-125) | -- | -- | " | |

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|---|---|---|---|
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| 8620 Holly Drive, Suite 210 | Project Number: | 248-1739 | Report Created: |
| Everett, WA 98208 | Project Manager: | Justin Foslien | 12/08/06 18:57 |

## Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring - Laboratory Quality Control Results

TestAmerica - Seattle, WA

**QC Batch: 6K27029** **Soil Preparation Method: EPA 3545**

| Analyte | Method | Result | MDL* | MRL | Units | Dil | Source Result | Spike Amt | % REC | (Limits) | % RPD | (Limits) | Analyzed | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **LCS (6K27029-BS2)** | | | | | | | | **Extracted: 11/27/06 10:39** | | | | | | |
| Pyrene | 8270C-SIM | 0.602 | --- | 0.0100 | mg/kg wet | 1x | -- | 0.667 | 90.3% | (68-140) | -- | -- | 12/01/06 17:26 | |
| *Surrogate(s): p-Terphenyl-d14* | | *Recovery: 94.1%* | | | *Limits: 50-147%* | " | | | | | | | *12/01/06 17:26* | |
| **Matrix Spike (6K27029-MS2)** | | | | | **QC Source: BPK0570-06** | | | **Extracted: 11/27/06 10:39** | | | | | | |
| Acenaphthene | 8270C-SIM | 0.599 | --- | 0.0110 | mg/kg dry | 1x | ND | 0.737 | 81.3% | (67-132) | -- | -- | 12/01/06 17:52 | |
| Acenaphthylene | " | 0.644 | --- | 0.0110 | " | " | ND | " | 87.4% | (65-142) | -- | -- | " | |
| Anthracene | " | 0.761 | --- | 0.0110 | " | " | ND | " | 103% | (66-158) | -- | -- | " | |
| Benzo (a) anthracene | " | 0.569 | --- | 0.0110 | " | " | ND | " | 77.2% | (41-156) | -- | -- | " | |
| Benzo (a) pyrene | " | 0.689 | --- | 0.0110 | " | " | ND | " | 93.5% | (52-148) | -- | -- | " | |
| Benzo (b) fluoranthene | " | 0.707 | --- | 0.0110 | " | " | ND | " | 95.9% | (53-151) | -- | -- | " | |
| Benzo (k) fluoranthene | " | 0.604 | --- | 0.0110 | " | " | ND | " | 82.0% | (46-161) | -- | -- | " | |
| Benzo (ghi) perylene | " | 0.630 | --- | 0.0110 | " | " | ND | " | 85.5% | (26-154) | -- | -- | " | |
| Chrysene | " | 0.674 | --- | 0.0110 | " | " | ND | " | 91.5% | (55-155) | -- | -- | " | |
| Dibenz (a,h) anthracene | " | 0.669 | --- | 0.0110 | " | " | ND | " | 90.8% | (27-157) | -- | -- | " | |
| Fluoranthene | " | 0.694 | --- | 0.0110 | " | " | ND | " | 94.2% | (46-172) | -- | -- | " | |
| Fluorene | " | 0.687 | --- | 0.0110 | " | " | ND | " | 93.2% | (66-143) | -- | -- | " | |
| Indeno (1,2,3-cd) pyrene | " | 0.655 | --- | 0.0110 | " | " | ND | " | 88.9% | (24-159) | -- | -- | " | |
| 1-Methylnaphthalene | " | 0.594 | --- | 0.0110 | " | " | ND | " | 80.6% | (39-140) | -- | -- | " | |
| 2-Methylnaphthalene | " | 0.624 | --- | 0.0110 | " | " | ND | " | 84.7% | (32-139) | -- | -- | " | |
| Naphthalene | " | 0.592 | --- | 0.0110 | " | " | 0.00193 | " | 80.1% | (38-134) | -- | -- | " | |
| Phenanthrene | " | 0.624 | --- | 0.0110 | " | " | ND | " | 84.7% | (63-139) | -- | -- | " | |
| Pyrene | " | 0.648 | --- | 0.0110 | " | " | ND | " | 87.9% | (51-172) | -- | -- | " | |
| *Surrogate(s): p-Terphenyl-d14* | | *Recovery: 89.8%* | | | *Limits: 50-147%* | " | | | | | | | *12/01/06 17:52* | |
| **Matrix Spike Dup (6K27029-MSD2)** | | | | | **QC Source: BPK0570-06** | | | **Extracted: 11/27/06 10:39** | | | | | | |
| Acenaphthene | 8270C-SIM | 0.597 | --- | 0.0111 | mg/kg dry | 1x | ND | 0.742 | 80.5% | (67-132) | 0.334% | (50) | 12/01/06 19:08 | |
| Acenaphthylene | " | 0.631 | --- | 0.0111 | " | " | ND | " | 85.0% | (65-142) | 2.04% | " | " | |
| Anthracene | " | 0.746 | --- | 0.0111 | " | " | ND | " | 101% | (66-158) | 1.99% | " | " | |
| Benzo (a) anthracene | " | 0.581 | --- | 0.0111 | " | " | ND | " | 78.3% | (41-156) | 2.09% | " | " | |
| Benzo (a) pyrene | " | 0.687 | --- | 0.0111 | " | " | ND | " | 92.6% | (52-148) | 0.291% | " | " | |
| Benzo (b) fluoranthene | " | 0.698 | --- | 0.0111 | " | " | ND | " | 94.1% | (53-151) | 1.28% | " | " | |
| Benzo (k) fluoranthene | " | 0.580 | --- | 0.0111 | " | " | ND | " | 78.2% | (46-161) | 4.05% | " | " | |
| Benzo (ghi) perylene | " | 0.623 | --- | 0.0111 | " | " | ND | " | 84.0% | (26-154) | 1.12% | " | " | |
| Chrysene | " | 0.672 | --- | 0.0111 | " | " | ND | " | 90.6% | (55-155) | 0.297% | (44) | " | |
| Dibenz (a,h) anthracene | " | 0.655 | --- | 0.0111 | " | " | ND | " | 88.3% | (27-157) | 2.11% | (50) | " | |
| Fluoranthene | " | 0.683 | --- | 0.0111 | " | " | ND | " | 92.0% | (46-172) | 1.60% | " | " | |
| Fluorene | " | 0.687 | --- | 0.0111 | " | " | ND | " | 92.6% | (66-143) | 0.00% | (52) | " | |
| Indeno (1,2,3-cd) pyrene | " | 0.656 | --- | 0.0111 | " | " | ND | " | 88.4% | (24-159) | 0.153% | (43) | " | |
| 1-Methylnaphthalene | " | 0.599 | --- | 0.0111 | " | " | ND | " | 80.7% | (39-140) | 0.838% | (50) | " | |

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| Everett, WA 98208 | Project Manager: | Justin Foslien | 12/08/06 18:57 |

## Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring - Laboratory Quality Control Results

TestAmerica - Seattle, WA

**QC Batch: 6K27029** **Soil Preparation Method: EPA 3545**

| Analyte | Method | Result | MDL* | MRL | Units | Dil | Source Result | Spike Amt | % REC | (Limits) | % RPD | (Limits) | Analyzed | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Matrix Spike Dup (6K27029-MSD2)** | | | | | **QC Source: BPK0570-06** | | | | **Extracted: 11/27/06 10:39** | | | | | |
| 2-Methylnaphthalene | 8270C-SIM | 0.613 | --- | 0.0111 | mg/kg dry | 1x | ND | 0.742 | 82.6% | (32-139) | 1.78% | (50) | 12/01/06 19:08 | |
| Naphthalene | " | 0.573 | --- | 0.0111 | " | " | 0.00193 | " | 77.0% | (38-134) | 3.26% | " | " | |
| Phenanthrene | " | 0.621 | --- | 0.0111 | " | " | ND | " | 83.7% | (63-139) | 0.482% | " | " | |
| Pyrene | " | 0.657 | --- | 0.0111 | " | " | ND | " | 88.5% | (51-172) | 1.38% | " | " | |
| *Surrogate(s): p-Terphenyl-d14* | | *Recovery: 89.3%* | | | *Limits: 50-147%* | " | | | | | | | *12/01/06 19:08* | |

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## Physical Parameters by APHA/ASTM/EPA Methods - Laboratory Quality Control Results

TestAmerica - Seattle, WA

**QC Batch: 6K30050** **Soil Preparation Method: Dry Weight**

| Analyte | Method | Result | MDL* | MRL | Units | Dil | Source Result | Spike Amt | % REC | (Limits) | % RPD | (Limits) | Analyzed | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Blank (6K30050-BLK1)** | | | | | | | | **Extracted: 11/30/06 15:17** | | | | | | |
| Dry Weight | BSOPSPL00 3R08 | 100 | --- | 1.00 | % | 1x | -- | -- | -- | -- | -- | -- | 12/01/06 00:00 | |

**QC Batch: 6K30051** **Soil Preparation Method: Dry Weight**

| Analyte | Method | Result | MDL* | MRL | Units | Dil | Source Result | Spike Amt | % REC | (Limits) | % RPD | (Limits) | Analyzed | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Blank (6K30051-BLK1)** | | | | | | | | **Extracted: 11/30/06 15:18** | | | | | | |
| Dry Weight | BSOPSPL00 3R08 | 99.8 | --- | 1.00 | % | 1x | -- | -- | -- | -- | -- | -- | 12/01/06 00:00 | |

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|---|---|---|---|
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| 8620 Holly Drive, Suite 210 | Project Number: | 248-1739 | Report Created: |
| Everett, WA 98208 | Project Manager: | Justin Foslien | 12/08/06 18:57 |

## Notes and Definitions

Report Specific Notes:

| | | |
|---|---|---|
| A-01 | - | Sample contains carryover from previous sample. |
| BS-1 | - | Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was above the laboratory control limits. Analyte not detected, data not impacted. |
| BS-5 | - | Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was above the laboratory control limits. A high bias to sample results is indicated. |
| C | - | Calibration Verification recovery was above the method control limit for this analyte. Analyte not detected, data not impacted. |
| H2 | - | Initial analysis within holding time. Reanalysis for the required dilution was past holding time. |
| L1 | - | Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was above acceptance limits. |
| M1 | - | The MS and/or MSD were above the acceptance limits due to sample matrix interference. See Blank Spike (LCS). |
| M2 | - | The MS and/or MSD were below the acceptance limits due to sample matrix interference. See Blank Spike (LCS). |
| MNR | - | No results were reported for the MS/MSD. The sample used for the MS/MSD required dilution due to the sample matrix. Because of this, the spike compounds were diluted below the detection limit. |
| MS-2 | - | The Matrix Spike and/or Matrix Spike Duplicate were below the acceptance limits due to sample matrix interference. See Laboratory Control Sample. |
| MS-3 | - | The Matrix Spike and/or Matrix Spike Duplicate were above the acceptance limits due to sample matrix interference. See Laboratory Control Sample. |
| Q5 | - | Results in the diesel organics range are primarily due to overlap from a gasoline range product. |
| R3 | - | The RPD exceeded the acceptance limit due to sample matrix effects. |
| RP-1 | - | The RPD exceeded the laboratory control limit due to sample matrix interference. The individual analyte QA/QC recoveries, however, were within laboratory control limits. |
| RP-3 | - | The RPD exceeded the laboratory control limit due to sample matrix effects. |
| ZX | - | Due to sample matrix effects, the surrogate recovery was outside the acceptance limits. |

Laboratory Reporting Conventions:

| | | |
|---|---|---|
| DET | - | Analyte DETECTED at or above the Reporting Limit. Qualitative Analyses only. |
| ND | - | Analyte NOT DETECTED at or above the reporting limit (MDL or MRL, as appropriate). |
| NR/NA | - | Not Reported / Not Available |
| dry | - | Sample results reported on a Dry Weight Basis. Results and Reporting Limits have been corrected for Percent Dry Weight. |
| wet | - | Sample results and reporting limits reported on a Wet Weight Basis (as received). Results with neither 'wet' nor 'dry' are reported on a Wet Weight Basis. |
| RPD | - | RELATIVE PERCENT DIFFERENCE (RPDs calculated using Results, not Percent Recoveries). |
| MRL | - | METHOD REPORTING LIMIT. Reporting Level at, or above, the lowest level standard of the Calibration Table. |
| MDL* | - | METHOD DETECTION LIMIT. Reporting Level at, or above, the statistically derived limit based on 40CFR, Part 136, Appendix B. *MDLs are listed on the report only if the data has been evaluated below the MRL. Results between the MDL and MRL are reported as Estimated Results. |
| Dil | - | Dilutions are calculated based on deviations from the standard dilution performed for an analysis, and may not represent the dilution found on the analytical raw data. |

TestAmerica - Seattle, WA

Kate Haney, Project Manager

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|---|---|---|---|
| **Cambria - Seattle** | Project Name: | **Shell - 6808 196th SW, Lynnwood** | |
| 8620 Holly Drive, Suite 210 | Project Number: | 248-1739 | Report Created: |
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Reporting Limits - Reporting limits (MDLs and MRLs) are adjusted based on variations in sample preparation amounts, analytical dilutions and percent solids, where applicable.

Electronic Signature - Electronic Signature added in accordance with TestAmerica's *Electronic Reporting and Electronic Signatures Policy.* Application of electronic signature indicates that the report has been reviewed and approved for release by the laboratory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

TestAmerica - Seattle, WA

Kate Haney

Kate Haney, Project Manager