

**REPORT**

---

***Phase II Pencil Pitch  
Investigation Report  
Terminal 4 Slip 3 Upland Facility***

**Port of Portland  
Portland, Oregon 97209**

**July 2007**



**REPORT**

---

***Phase II Pencil Pitch  
Investigation Report  
Terminal 4 Slip 3 Upland Facility***

**Port of Portland  
Portland, Oregon 97209  
July 2007**

Respectfully submitted,

---

Amanda L. Spencer, R.G., P.E.  
Principal, Ash Creek Associates



---

EXPIRES JUNE 30, 2008

Michael W. Stevens, P.E.  
Associate Engineer, Ash Creek Associates



Ash Creek Associates, Inc.  
Environmental and Geotechnical Consultants

---

# ***Table of Contents***

---

<b>Section 1. Introduction .....</b>	<b>1-1</b>
<b>Section 2. Background .....</b>	<b>2-1</b>
2.1 Facility Setting.....	2-1
2.2 Initial Observation of Pencil Pitch on River Bank and Limited Soil Removal .....	2-1
2.3 Visual Reconnaissance Surveys.....	2-1
2.4 Initial Characterization Sampling .....	2-2
<b>Section 3. Field Investigations .....</b>	<b>3-1</b>
3.1 Review of Historical Aerial Photographs.....	3-1
3.2 Soil Sampling Locations.....	3-1
<b>Section 4. Analytical Results .....</b>	<b>4-1</b>
<b>Section 5. Recommendations .....</b>	<b>5-1</b>
<b>Section 6. References .....</b>	<b>6-1</b>

## **Tables**

- 1 Laboratory Analytical Results: Slip Bank Samples
- 2 Laboratory Analytical Results: River Bank Samples

## **Figures**

- 1 Facility Location Map
- 2 Facility Vicinity Plan
- 3 Facility Site Conditions: 2002
- 4 Exploration Locations - Slip Bank Area
- 5 Exploration Locations - River Bank Area
- 6 PAH Concentrations - Slip Bank Area
- 7 PAH Concentrations - River Bank Area

## Appendices

- A Sampling and Analysis Plan
- B Data QA/QC Review

# 1. Introduction

---

This report describes a second phase of characterization that was completed to assess the lateral and vertical extent of Polycyclic Aromatic Hydrocarbons (PAHs) associated with pencil pitch observed in riverbank soil in two areas of the Port of Portland (Port) Terminal 4 Slip 3 Upland Facility (the Facility; Figure 1). The characterization supplements the work described in the May 10, 2006 *Pencil Pitch Investigation Report* prepared by Ash Creek Associates/Newfields (ACA/Newfields, 2006a). The investigation was performed in general accordance with the *Pencil Pitch Investigation Work Plan, Terminal 4 Slip 3 Upland Facility*, (the Work Plan) dated September 2005 and the Addendum to the Work Plan dated November 2006 (the Addendum).

The work was conducted pursuant to a Voluntary Cleanup Program (VCP) Agreement between the Port and the Oregon Department of Environmental Quality (DEQ) dated June 27, 2002 (LQVC-NWR-02-1 [VCP Agreement]), an April 2003 Record of Decision (ROD) issued by the DEQ for the remediation of the Facility (DEQ, 2002 and DEQ, 2003, respectively), and an October 2004 Consent Judgment entered in Multnomah County Circuit Court. As required by the DEQ, the objective of the work was to determine whether pencil pitch or PAHs were present in potentially erodible soil along the riverbanks of the Facility (specifically in two identified bank areas), and to make recommendations for source control measures and/or further work, if needed.

The initial pencil pitch investigation, described in the May 2006 investigation report, did not fully define the extent of PAHs associated with pencil pitch in the River Bank or Slip Bank areas. This report discusses the results of a second phase of characterization performed to complete the investigation. The scope of work included the collection and analysis of additional soil samples at both areas to better define the horizontal and vertical extent of PAHs associated with pencil pitch in soil, and a review of historical aerial photographs to guide the final selection of sampling locations. Results were compared to applicable ecological or human health screening levels, and appropriate actions to address areas containing PAHs exceeding these levels are recommended.

## **2. Background**

---

### **2.1 Facility Setting**

The Facility is located at 11040 North Lombard Street in Portland, Oregon, along the east bank of the Willamette River, near river mile 5 (Figure 1). The Facility is generally flat at an average elevation of about 35 feet above mean sea level (MSL). The river water elevation is typically less than 10 feet above MSL and is subject to a mean tidal range of about 2 feet. Immediately east of the Facility, the ground surface rises at about a 15 percent grade to an elevation of about 100 feet. The riverbank components of the pencil pitch investigation areas slope steeply to the Willamette River. The layout of Terminal 4 (T4) is shown on Figure 2; the areas of the pencil pitch investigation are identified on the figure.

### **2.2 Initial Observation of Pencil Pitch on River Bank and Limited Soil Removal**

Bank improvement activities were conducted in the fall of 2003 on the bank of the Willamette River in the southwestern portion of the Facility in conjunction with development activities at the adjacent Terminal 4 Auto Storage Area (T4 ASA). The area of the bank improvements and brush removal is shown on Figure 2. Pencil pitch was observed by the T4 ASA construction contractor during brush removal in a small area along the bank. DEQ was notified and approximately 50 cubic yards of soil with visible pencil pitch was excavated from the bank by the T4 ASA construction contractor. Fifty (50) cubic yards was the maximum amount that could be excavated on the riverbank within the existing project permits. The excavated soil containing pencil pitch was placed into roll-off containers and transported to the Hillsboro landfill for appropriate disposal. Pencil pitch was still observed in the area following the removal (referred to herein as the "River Bank area"). Confirmation samples were not collected because the Port understood that additional work would be required by the DEQ pursuant to the Terminal 4 Slip 3 VCP Agreement.

### **2.3 Visual Reconnaissance Surveys**

Hart Crowser, as a consultant to the Port, visited the River Bank pencil pitch area on December 12, 2003, with Port personnel. The excavated area had been stabilized with jute cloth to prevent erosion. Small amounts of pencil pitch were observed in the soil outside of the area covered by the jute cloth, extending approximately 20 to 25 feet north and 100 feet south of the excavated area. The presence of the pencil pitch was observed to be bounded to the west (i.e., riverward) by rip-rap, to the east and north by a concrete wall. The southern extent of the pencil pitch could not be readily observed.

A second reconnaissance was completed by ACA and Port personnel on March 23, 2005. The survey of the bank started south of the area included in the December 2003 reconnaissance and continued north along the riverbank and around the perimeter of Slip 3 (the south and east banks). The survey included a visual scan of the ground surface but did not include disturbing the ground surface or dense vegetation. Discrete pencil pitch pieces were observed in two areas. The first area was the area noted during the December 2003 event (i.e., the River Bank area).

The second area was observed near the northeast corner of Slip 3 and is referred to herein as the "Slip Bank area". The Slip Bank area containing visible pencil pitch is relatively small and is bounded

to the west by rip-rap, to the north by a concrete wall and dock structures, to the east by the bank boundary, and to the south by the bank improvements made during the Bank Excavation and Backfill Remedial Action (BEBRA) at the Facility. The bank improvements of the BEBRA included covering the bank in jute cloth and planting native vegetation to stabilize the bank soil.

## **2.4 Initial Characterization Sampling**

In November 2005, an investigation was completed in the River Bank and Slip Bank areas (ACA/Newfields, 2006a). The objective of the characterization was to define the horizontal and vertical extent of erodible soil containing PAHs at concentrations that could be of potential concern to the river. Concentrations of PAHs were detected above Probable Effects Concentrations (PECs) of the DEQ and EPA Portland Harbor Joint Source Control Strategy (JSCS) guidance document (DEQ/EPA, 2005) at the Slip Bank and the River Bank areas. The enrichment ratios (the ratio of the detected concentrations to the PEC) for PAH constituents in samples from the Slip Bank area ranged from 0.3 to 21.3 (ACA/Newfield, 2006a). The enrichment ratios for samples from the River Bank area ranged from 0.02 to 49. The extent of soil with PAH concentrations that exceeded PECs was not determined from the initial characterization results. Additional characterization sampling was recommended to define the extent sufficiently to assess appropriate remedial actions (ACA/Newfields, 2006b). Additional detail regarding the initial sampling and the chemical results is documented in the *Pencil Pitch Investigation Report* (ACA/Newfields, 2006a).

## **3. Field Investigations**

---

This section describes the procedures used for selecting the sampling locations to complete the assessment of the lateral and vertical extent of the PAHs in soil associated with pencil pitch sufficient to assess what further actions, if any, were needed. Details regarding field procedures, chemical analytical methods, and quality assurance/quality control (QA/QC) are discussed in the Sampling and Analysis Plan (SAP) contained in Appendix A.

Soil samples for the second phase of investigation were collected from the Slip Bank and River Bank areas over three separate sampling events (February 1, March 6, and April 16, 2007). Following each event, the collected samples were submitted to the analytical laboratory to be analyzed for Total Petroleum Hydrocarbons (TPH) and PAHs (as described in Section 4). Based on an evaluation of the analytical data from each of the first two events, additional sampling was completed as necessary to define the extent of pencil pitch in each area. Prior to completing the final event in the Slip Bank area, a review of historical aerial photos was conducted to guide the selection of sample locations. The following describes the results of the historical aerial review and the selected sample locations.

### **3.1 Review of Historical Aerial Photographs**

Results of the initial pencil pitch sampling indicated the presence of PAHs in Upland soil near the Slip Bank area at concentrations that exceeded DEQ's Risk-Based Concentrations (RBCs) for human receptors (DEQ, 2007). To better understand the possible lateral extent of PAHs in the Upland soil prior to completing soil sampling and analysis, historical aerial photographs were reviewed. The review of the aerial photographs identified areas at the Facility that were unpaved during the time period of the pencil pitch handling operations. Surface soil in areas covered by pavement or buildings during the time period of pencil pitch handling would not contain PAHs from pencil pitch.

Results of the aerial photograph review support that much of the area around Slip 3 had been paved or covered with buildings throughout the time period of pencil pitch handling at the Facility, which occurred from 1978 to 1998. As stated above, it is expected that these areas would not have been impacted by the historical handling of pencil pitch. Figure 3 shows the site conditions around the Slip Bank area in 2002 and is representative of the paved and unpaved areas on the east side of the slip dating back to at least the early 1950s. As shown on the figure, the extent of unpaved surfaces was apparently limited to the area immediately at the head of Slip 3, including the former Quaker State tank yard. On the south side of the slip, the area was (and remains) paved up to the top of the Slip Bank. Based on this evaluation, the Upland soil sampling was limited to the areas at the head of Slip 3 that were unpaved at the time of the pencil pitch handling, as identified on Figure 3.

### **3.2 Soil Sampling Locations**

Figures 4 and 5 are site plans for the Slip Bank and River Bank areas, respectively, showing the sampling locations completed in each area during both the first and second phases of investigation; Figure 2 shows the locations of the Slip and River Bank areas at the Facility. The locations of these explorations were selected based on the results of the preceding sampling and analysis event and the physical limitations described in Section 3.1.

**Slip Bank Area.** As shown on Figure 4, a total of 15 explorations were advanced in this area (over three sampling events) during the second phase of investigation. Explorations SB-11 through SB-15 were completed on February 1, 2007. Explorations SB-18 through SB-22 were completed on March 6, 2007. Explorations SB-24 through SB-27 were completed on April 16, 2007.

**River Bank Area.** Thirteen explorations were advanced in the River Bank area during the second phase of the investigation (Figure 5). Explorations SB-1 through SB-10 were completed on February 1, 2007, and explorations SB-16, SB-17, and SB-23 were completed on March 6, 2007.

### **3.2.1 Investigation-Derived Waste**

Investigation-derived waste (IDW) consisted of decontamination water and personal protection equipment (PPE) and supplies. IDW water was placed in Department of Transportation (DOT)-approved drums and stored at an approved location at the Facility pending proper disposal. PPE and supplies were disposed of as solid waste.

## 4. Analytical Results

---

The collected soil samples were analyzed for TPH (by Method NWTPH-Dx with Silica Gel Cleanup) and PAHs (by EPA Method 8270M-SIM). The analytical data are summarized in Table 1 (Slip Bank area) and Table 2 (River Bank area). The laboratory report with a data quality review is included in Appendix B. The tables also list the appropriate screening levels and contain the results of the first phase of the investigation. Samples from erodible areas (e.g., on the River or Slip Banks up to the top of bank) were compared to the JSCS PECs for each of the PAH compounds (Upland soil toxicity as shown on Table 3-1; DEQ/EPA, 2005). Samples from the Upland area of Slip 3 were compared to DEQ RBCs for surface soil ingestion, dermal contact, and inhalation by human receptors (DEQ, 2007). With the exception of samples collected from the Slip Bank area below top of bank during the first phase of investigation, samples from the Slip Bank area were not compared to PECs because soil inland of the top of bank cannot reach the slip or river (ACA/Newfields, 2007b).

**Slip Bank Upland Soil Samples.** All of the samples collected from the Slip Bank area during the second phase of investigation were collected from Upland soil. As shown on Figure 6, with the exception of two locations in the southern slip area (SB-25 and SB-26), samples collected in shallow (i.e., less than 3 feet) Upland soils contained PAHs at concentrations exceeding one or more RBC. With the exception of the southernmost sampling locations, PAH concentrations were relatively comparable between the surface (i.e., samples collected between 0 and 12 inches) and 2-foot depth samples, and in places, the 2-foot depth samples contained the higher concentrations. Concentrations decreased dramatically by a depth of 5 feet below grade. Samples collected at a depth of 5-feet did not contain PAH concentrations above RBCs (Table 2).

**River Bank Soil Samples.** The distribution of PAHs detected in the River Bank soil samples is shown on Figure 7. The figure includes total PAH concentrations and the color-scale illustration of relative magnitude of PAH concentrations to PECs. As shown on the Figure, one or more PAHs exceeded the relevant PEC at each location.

Exceedances along the River Bank area were highest in the vicinity of RB-1 and RB-2 (with total PAH concentrations as high as 552 milligrams per kilogram [mg/kg] and 14 of 16 PAH constituents encountered at concentrations above their respective PECs). Beyond these two samples, concentrations were significantly lower but varied across the study area. Although concentrations were less in the deeper samples (Table 2), one or more PAH concentrations exceeded the relevant PEC.

## **5. Recommendations**

---

**Slip Bank Area.** Results of the investigations indicate that shallow soil in Upland areas that were unpaved at the time of the pencil pitch handling operations contain PAHs at concentrations above DEQ RBCs for human receptors. Based on the results of the first phase of investigation, Slip Bank soil contains visible pencil pitch and PAHs in the southeast corner (Figure 6).

It is recommended that a source control action be conducted in the northeast Slip Bank area to remove soil containing visible pencil pitch. The action should remove the upper 2 feet of soil, replace the soil with clean fill and rip-rap, and stabilize the bank consistent with the adjacent BEBRA construction. To address the soil encountered Upland of the bank containing PAHs at concentrations above RBCs, it is recommended that the CAAMP required by the ROD include methods and procedures for the appropriate management of the Upland soil containing PAHs, including capping the impacted area to minimize and manage human contact. Capping with asphalt pavement would be suitable for this purpose and would be compatible with the anticipated use of this area of the Facility.

**River Bank Area.** The distribution of PAHs associated with pencil pitch along the River Bank area between the Toyota redevelopment and Slip 3 has been defined as part of this work. The area contains several PAHs that exceed screening criteria and is proximal to the river. A source control action may be needed for this area and a Source Control Measures Alternatives Evaluation similar to the scope of the evaluation conducted for the banks of Wheeler Bay located to the north (ACA/Newfields, 2007b) is recommended.

## **6. References**

---

Ash Creek/Newfields, 2006a. Pencil Pitch Investigation Report, Terminal 4 Slip 3 Upland Facility. May 11, 2006.

Ash Creek/Newfields, 2006b. Addendum to the Pencil Pitch Investigation Work Plan, Terminal 4 Slip 3 Upland Facility. November 2006.

Ash Creek/Newfields, 2007a. Source Control Alternative Evaluation, Terminal 4 Slip 1 Upland Facility Operable Unit 2. February 22, 2007.

Ash Creek/Newfields, 2007b. Stormwater Evaluation Work Plan, Terminal 4 Slip1 and Slip 3. June 7, 2007.

BBL/Ash Creek/Newfields, 2005. Pencil Pitch Investigation Work Plan, Terminal 4 Slip 3 Upland Facility. September 28, 2005.

DEQ, 2002. Voluntary Cleanup Program Agreement, Terminal 4 Slip 3 Upland. June 27, 2002.

DEQ, 2003. Record of Decision, Port of Portland Terminal 4 Slip 3 Upland. April 7, 2003.

DEQ, 2004a. Pencil Pitch and Storm Water Investigations Letter, Port of Portland Terminal 4/Slip 3 Upland Facility. April 28, 2004.

DEQ, 2004b. Comments on Pencil Pitch Investigation Work Plan, Port of Portland Terminal 4/Slip 3 Upland. July 17, 2004

DEQ and EPA, 2005. Portland Harbor Joint Source Control Strategy. December 2005.

**Table 1**  
**Laboratory Analytical Results: Slip Bank Samples**  
**Pencil Pitch Characterization**  
**Terminal 4 Slip 3 Upland Facility**  
**Portland, Oregon**

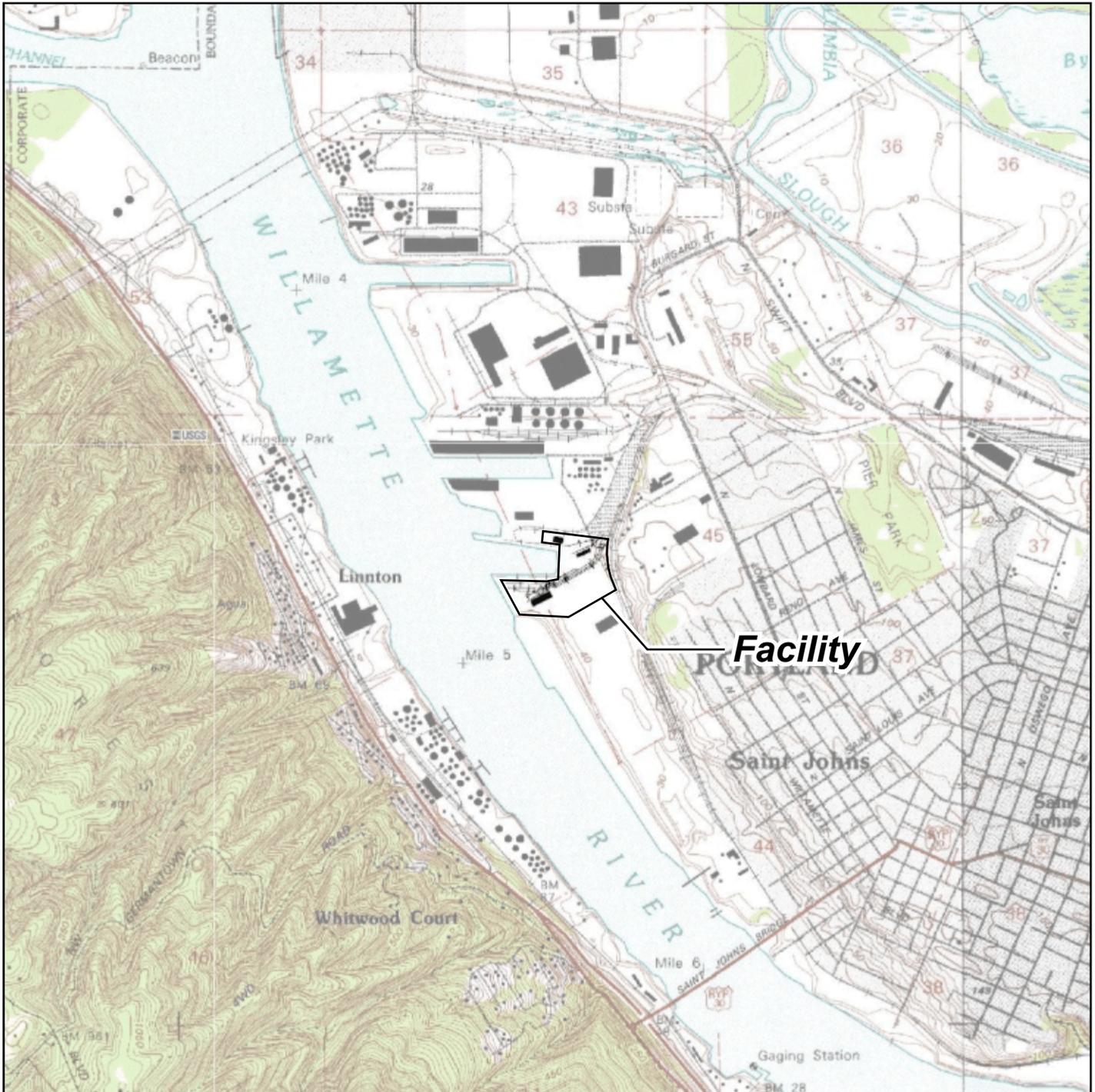
Sample ID	Date Collected	Sample Depth [feet]	Concentration in mg/kg (ppm)																				Total PAHs		
			Total Petroleum Hydrocarbons				Polynuclear Aromatic Hydrocarbons (PAHs)															Total	cPAHs	% cPAHs	
			Diesel	Heavy-Oil	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(ghi)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene					
<b>Pencil Pitch Standard</b>																									
Pencil Pitch	11/16/2005	NA	--	--	< 3,850	< 3,850	< 3,850	<b>8,420</b>	<b>13,400</b>	<b>11,000</b>	<b>9,360</b>	<b>9,350</b>	<b>8,440</b>	< 3,850	<b>11,200</b>	< 3,850	<b>8,740</b>	< 3,850	<b>6,100</b>	<b>10,700</b>	108,260	61,275	56.6%		
<b>Slip Bank Samples (Bank)</b>																									
T4S3PP-SB5-2.0	11/16/2005	2	--	--	<b>0.582</b>	< 0.0155	<b>0.673</b>	<b>4.51</b>	<b>3.90</b>	<b>4.75</b>	<b>2.37</b>	<b>3.06</b>	<b>4.40</b>	<b>1.16</b>	<b>6.46</b>	<b>0.549</b>	<b>2.27</b>	<b>0.111</b>	<b>4.18</b>	<b>4.86</b>	--	--	--		
				PEC	0.30	0.20	0.845	1.05	1.45	--	0.30	13.0	1.29	1.30	2.23	0.536	0.10	0.561	1.17	1.52					
<b>Slip Bank Samples (Upland)</b>																									
T4S3PP-SB1-2.0	11/16/2005	2	--	--	<b>2.56</b>	< 0.285	<b>2.33</b>	<b>21.5</b>	<b>24.1</b>	<b>23.5</b>	<b>15.2</b>	<b>18.7</b>	<b>20.1</b>	<b>6.48</b>	<b>28.1</b>	<b>0.831</b>	<b>13.8</b>	<b>0.383</b>	<b>10.2</b>	<b>24.3</b>	212	128	60.4%		
T4S3PP-SB2-2.0	11/16/2005	2	--	--	<b>0.758</b>	< 0.155	<b>0.757</b>	<b>7.87</b>	<b>9.08</b>	<b>9.76</b>	<b>5.79</b>	<b>6.52</b>	<b>7.85</b>	<b>2.39</b>	<b>11.3</b>	<b>0.309</b>	<b>5.21</b>	<b>0.162</b>	<b>3.63</b>	<b>9.38</b>	80.8	48.7	60.2%		
T4S3PP-SB3-2.0	11/16/2005	2	--	--	<b>0.0343</b>	< 0.0165	<b>0.0343</b>	<b>0.299</b>	<b>0.386</b>	<b>0.304</b>	<b>0.180</b>	<b>0.256</b>	<b>0.366</b>	<b>0.0506</b>	<b>0.483</b>	<b>0.0182</b>	<b>0.176</b>	<b>0.0213</b>	<b>0.182</b>	<b>0.484</b>	3.28	1.84	56.0%		
T4S3PP-SB4-2.0	11/16/2005	2	--	--	<b>0.273</b>	< 0.0154	<b>0.409</b>	<b>2.54</b>	<b>2.76</b>	<b>2.96</b>	<b>1.87</b>	<b>2.00</b>	<b>2.38</b>	<b>0.78</b>	<b>3.68</b>	<b>0.102</b>	<b>1.69</b>	<b>0.0567</b>	<b>1.64</b>	<b>2.96</b>	26.1	15.1	57.9%		
T4S3PP-SB6-2.0	11/16/2005	2	--	--	<b>1.86</b>	< 0.314	<b>1.67</b>	<b>18.8</b>	<b>20.7</b>	<b>22.8</b>	<b>13.0</b>	<b>15.1</b>	<b>18.5</b>	<b>5.63</b>	<b>28.7</b>	<b>1.04</b>	<b>11.8</b>	<b>0.325</b>	<b>9.33</b>	<b>23.0</b>	192	113	58.9%		
SB-11-0.5	2/1/2007	0.5	<b>173</b>	<b>402</b>	< 2.92	< 2.92	< 2.92	<b>27.8</b>	<b>34.7</b>	<b>31.7</b>	<b>25.7</b>	<b>27.2</b>	<b>29.6</b>	<b>8.26</b>	<b>36.0</b>	< 2.92	<b>23.9</b>	< 2.92	<b>13.1</b>	<b>32.5</b>	298	183	61.5%		
SB-11-2.5	2/1/2007	2.5	<b>353</b>	<b>1,160</b>	< 3.09	< 3.09	< 3.09	<b>4.74</b>	<b>40.7</b>	<b>38.2</b>	<b>28.3</b>	<b>30.2</b>	<b>40.4</b>	<b>9.57</b>	<b>57.8</b>	< 3.09	<b>25.9</b>	< 3.09	<b>24.2</b>	<b>46.5</b>	393	221	56.4%		
SB-12-0.5	2/1/2007	0.5	<b>73.4</b>	<b>151</b>	< 0.375	< 0.375	< 0.375	<b>0.820</b>	<b>5.73</b>	<b>6.69</b>	<b>5.95</b>	<b>4.47</b>	<b>5.14</b>	<b>5.74</b>	<b>8.17</b>	< 0.375	<b>4.25</b>	< 0.375	<b>3.40</b>	<b>6.84</b>	60.1	35.0	58.2%		
SB-12-2.5	2/1/2007	2.5	<b>517</b>	<b>853</b>	< 2.99	< 2.99	< 2.99	<b>7.79</b>	<b>65.3</b>	<b>65.3</b>	<b>47.2</b>	<b>50.2</b>	<b>58.8</b>	<b>16.2</b>	<b>84.9</b>	< 2.99	<b>44.1</b>	< 2.99	<b>35.3</b>	<b>64.3</b>	613	358	58.4%		
SB-12D-5	3/6/2007	5	<b>39.4</b>	<b>59.1</b>	< 0.0148	< 0.0148	< 0.0148	<b>0.0957</b>	<b>0.106</b>	<b>0.124</b>	<b>0.0647</b>	<b>0.0712</b>	<b>0.0845</b>	<b>0.0204</b>	<b>0.128</b>	< 0.0148	<b>0.061</b>	< 0.0148	<b>0.0554</b>	<b>0.132</b>	0.980	0.563	57.4%		
SB-13-0.5	2/1/2007	0.5	<b>204</b>	<b>680</b>	< 2.98	< 2.98	< 2.98	<b>12.6</b>	<b>15.0</b>	<b>13.8</b>	<b>10.8</b>	<b>12.0</b>	<b>13.1</b>	<b>3.37</b>	<b>17.6</b>	< 2.98	<b>9.83</b>	< 2.98	<b>7.72</b>	<b>15.4</b>	139	79.7	57.5%		
SB-13-2.5	2/1/2007	2.5	<b>2,090</b>	<b>4,410</b>	< 2.94	< 2.94	< 2.94	< 2.94	<b>3.22</b>	<b>2.94</b>	< 2.94	< 2.94	<b>3.11</b>	< 2.94	<b>4.29</b>	< 2.94	< 2.94	< 2.94	<b>3.56</b>	<b>33.3</b>	33.3	15.2	45.5%		
SB-14-0.5	2/1/2007	0.5	<b>39.7</b>	<b>88.8</b>	< 3.02	< 3.02	< 3.02	<b>6.84</b>	<b>8.01</b>	<b>7.08</b>	<b>5.96</b>	<b>6.32</b>	<b>7.02</b>	< 3.02	<b>9.20</b>	< 3.02	<b>5.40</b>	< 3.02	<b>3.91</b>	<b>8.38</b>	77.2	42.2	54.7%		
SB-14-2.4	2/1/2007	2.4	<b>78.9</b>	<b>176</b>	< 3.03	< 3.03	< 3.03	<b>12.9</b>	<b>14.7</b>	<b>12.7</b>	<b>10.6</b>	<b>11.3</b>	<b>12.8</b>	<b>3.36</b>	<b>17.6</b>	< 3.03	<b>9.81</b>	< 3.03	<b>7.72</b>	<b>15.0</b>	136	77.6	57.0%		
SB-15-0.5	2/1/2007	0.5	<b>29.0</b>	<b>85.8</b>	< 3.04	< 3.04	< 3.04	<b>5.71</b>	<b>7.04</b>	<b>6.74</b>	<b>5.65</b>	<b>5.55</b>	<b>6.04</b>	< 3.04	<b>7.50</b>	< 3.04	<b>4.96</b>	< 3.04	<b>6.97</b>	<b>66.8</b>	37.6	56.2%			
SB-15-2.8	2/1/2007	2.8	< 13.9	< 27.9	< 0.0147	< 0.0147	< 0.0147	<b>0.0686</b>	<b>0.0865</b>	<b>0.0803</b>	<b>0.0737</b>	<b>0.0671</b>	<b>0.0774</b>	<b>0.0199</b>	<b>0.100</b>	< 0.0147	<b>0.0624</b>	< 0.0147	<b>0.0394</b>	<b>0.0906</b>	0.803	0.462	57.6%		
SB-18D-0.5	3/6/2007	0.5	<b>166</b>	<b>366</b>	< 2.95	< 2.95	< 2.95	<b>7.40</b>	<b>8.52</b>	<b>10.7</b>	<b>5.15</b>	<b>5.47</b>	<b>6.62</b>	< 2.95	<b>9.00</b>	< 2.95	<b>5.09</b>	< 2.95	<b>3.34</b>	<b>9.03</b>	79.2	45.3	57.2%		
SB-18D-5	3/6/2007	5	<b>44.4</b>	<b>97.8</b>	< 0.0153	< 0.0153	< 0.0153	< 0.0153	< 0.0153	< 0.0153	< 0.0153	< 0.0153	< 0.0153	< 0.0153	< 0.0153	< 0.0153	< 0.0153	< 0.0153	< 0.0153	< 0.0153	0.122	0.0536	43.8%		
SB-19-0.5	3/6/2007	0.5	<b>107</b>	<b>233</b>	< 0.779	< 0.779	< 0.779	<b>7.06</b>	<b>7.95</b>	<b>9.78</b>	<b>4.77</b>	<b>5.06</b>	<b>6.40</b>	<b>1.91</b>	<b>8.90</b>	< 0.779	<b>4.80</b>	< 0.779	<b>3.17</b>	<b>8.73</b>	70.5	43.0	61.0%		
SB-19-2.5	3/6/2007	2.5	<b>82.6</b>	<b>167</b>	< 0.0149	< 0.0149	< 0.0149	<b>0.0317</b>	<b>0.256</b>	<b>0.277</b>	<b>0.296</b>	<b>0.150</b>	<b>0.204</b>	<b>0.0563</b>	<b>0.315</b>	< 0.0149	<b>0.152</b>	< 0.0149	<b>0.134</b>	<b>0.317</b>	2.46	1.46	59.2%		
SB-20-0.5	3/6/2007	0.5	<b>17.9</b>	<b>43.3</b>	< 0.743	< 0.743	< 0.743	<b>3.23</b>	<b>3.70</b>	<b>4.12</b>	<b>2.24</b>	<b>2.82</b>	<b>2.95</b>	<b>0.822</b>	<b>4.04</b>	< 0.743	<b>2.25</b>	< 0.743	<b>1.47</b>	<b>4.01</b>	53.7	19.9	37.1%		
SB-20-2.5	3/6/2007	2.5	< 13.9	< 27.8	< 0.752	< 0.752	< 0.752	<b>2.11</b>	<b>2.42</b>	<b>2.72</b>	<b>1.38</b>	<b>1.73</b>	<b>1.91</b>	< 0.752	<b>2.59</b>	< 0.752	<b>1.41</b>	< 0.752	<b>0.999</b>	<b>2.59</b>	22.1	12.7	57.3%		
SB-21-0.5	3/6/2007	0.5	<b>34.2</b>	<b>71.9</b>	< 1.53	< 1.53	< 1.53	<b>4.06</b>	<b>4.33</b>	<b>5.34</b>	<b>2.59</b>	<b>3.17</b>	<b>3.60</b>	< 1.53	<b>5.18</b>	< 1.53	<b>2.65</b>	< 1.53	<b>2.15</b>	<b>5.05</b>	42.7	23.9	56.0%		
SB-22-0.5	3/6/2007	0.5	<b>126</b>	<b>200</b>	< 2.90	< 2.90	< 2.90	<b>11.5</b>	<b>13.7</b>	<b>16.7</b>	<b>9.13</b>	<b>9.31</b>	<b>10.2</b>	<b>3.28</b>	<b>13.3</b>	< 2.90	<b>8.80</b>	< 2.90	<b>5.01</b>	<b>14.2</b>	122	73.5	60.1%		
SB-24-1	4/16/2007	1	<b>38.8</b>	<b>241</b>	< 0.691	< 0.691	< 0.691	<b>1.91</b>	<b>2.75</b>	<b>2.88</b>	<b>2.82</b>	<b>2.11</b>	<b>2.24</b>	<b>1.01</b>	<b>2.26</b>	< 0.691	<b>2.49</b>	< 0.691	<b>0.916</b>	<b>2.53</b>	25.6	15.4	60.0%		
SB-24-2	4/16/2007	2	< 13.6	< 27.1	< 0.288	< 0.288	< 0.288	<b>1.80</b>	<b>2.51</b>	<b>2.78</b>	<b>2.22</b>	<b>1.77</b>	<b>2.09</b>	<b>0.66</b>	<b>2.30</b>	< 0.288	<b>2.00</b>	< 0.288	<b>0.956</b>	<b>2.77</b>	22.6	13.6	60.3%		
SB-25-1	4/16/2007	1	<b>21.6</b>	<b>138</b>	< 0.293	< 0.293	< 0.293	<b>1.72</b>	<b>2.35</b>	<b>2.63</b>	<b>2.04</b>	<b>1.69</b>	<b>2.01</b>	<b>0.82</b>	<b>2.28</b>	< 0.293	<b>1.84</b>	< 0.293	<b>0.926</b>	<b>2.72</b>	21.8	13.1	60.0%		
SB-25-2	4/16/2007	2	< 13.3	< 26.7	< 0.0142	< 0.0142	< 0.0142	<b>0.0891</b>	<b>0.134</b>	<b>0.158</b>	<b>0.136</b>	<b>0.109</b>	<b>0.111</b>	<b>0.0452</b>	<b>0.117</b>	< 0.0142	<b>0.112</b>	< 0.0142	<b>0.0518</b>	<b>0.154</b>	1.25	0.758	60.5%		
SB-26-1	4/16/2007	1	<b>28.3</b>	<b>210</b>	< 0.370	< 0.370	< 0.370	<b>0.447</b>	<b>0.670</b>	<b>0.630</b>	<b>0.679</b>	<b>0.531</b>	<b>0.548</b>	< 0.370	<b>0.635</b>	< 0.370	<b>0.520</b>	< 0.370	<b>0.699</b>	<b>6.65</b>	3.53	53.1%			
SB-26-2	4/16/2007	2	<b>849</b>	<b>5,150</b>	< 0.714	< 0.714	< 0.714	< 0.714	< 0.714	< 0.714	< 0.714	< 0.714	< 0.714	< 0.714	< 0.714	< 0.714	< 0.714	< 0.714	< 0.714	< 0.714	5.71	2.50	43.8%		
SB-27-1	4/16/2007	1	<b>18.4</b>	<b>167</b>	< 0.297	< 0.297	< 0.297	<b>1.18</b>	<b>1.69</b>	<b>1.71</b>	<b>1.59</b>	<b>1.25</b>	<b>1.33</b>	<b>0.594</b>	<b>1.55</b>	< 0.297	<b>1.39</b>	< 0.297	<b>0.651</b>	<b>1.77</b>	15.4	9.14	59.2%		
SB-27-2	4/16/2007	2	<b>32.2</b>	<b>111</b>	< 0.295	< 0.295	< 0.295	<b>1.49</b>	<b>2.10</b>	<b>2.45</b>	<b>1.82</b>	<b>1.38</b>	<b>1.72</b>	<b>0.667</b>	<b>1.96</b>	< 0.295	<b>1.59</b>	< 0.295	<b>0.769</b>	<b>2.33</b>	19.0	11.4	59.9%		
				RBC	16,000	--	90,000	2.7	0.27	2.7	--	27	270	0.27	8,900	12,000	2.7	710	--	6,700					

**Notes:**  
**Bold** values represent detected concentrations of listed analyte.  
 Shaded values represent concentrations of analyte that exceed relevant RBC for upland soil or the PEC for erodible soil.  
 PEC = Joint Source Control Strategy (JSCS) Probable Effect Concentration.  
 RBC = Department of Environmental Quality Risk Based Concentration (lower of Construction Worker and Occupational exposure for soil ingestion, dermal contact, and inhalation).

**Table 2**  
**Laboratory Analytical Results: River Bank Samples**  
**Pencil Pitch Characterization**  
**Terminal 4 Slip 3 Upland Facility**  
**Portland, Oregon**

Sample ID	Date Collected	Sample Depth [feet]	Concentration in mg/kg (ppm)																	
			Total Petroleum Hydrocarbons			Polynuclear Aromatic Hydrocarbons (PAHs)														
			Diesel	Heavy-Oil	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a) anthracene	Benzo(a)pyrene	Benzo(b) fluoranthene	Benzo(ghi) perylene	Benzo(k) fluoranthene	Chrysene	Dibenzo(a,h) anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd) pyrene	Naphthalene	Phenanthrene	Pyrene
<b>Pencil Pitch Standard</b>																				
Pencil Pitch	11/16/2005	NA	--	--	< 3,850	< 3,850	< 3,850	<b>8,420</b>	<b>13,400</b>	<b>11,000</b>	<b>9,360</b>	<b>9,350</b>	<b>8,440</b>	< 3,850	<b>11,200</b>	< 3,850	<b>8,740</b>	< 3,850	<b>6,100</b>	<b>10,700</b>
<b>River Bank Samples</b>																				
T4S3PP-RB1-0.5	11/17/2005	0.5	--	--	<b>6.37</b>	< 0.373	<b>8.35</b>	<b>51.3</b>	<b>50.5</b>	<b>60.7</b>	<b>29.4</b>	<b>41.3</b>	<b>54.0</b>	<b>14.0</b>	<b>90.6</b>	<b>3.68</b>	<b>28.3</b>	<b>1.82</b>	<b>48.6</b>	<b>63.1</b>
T4S3PP-RB2-0.5	11/17/2005	0.5	--	--	<b>3.98</b>	< 0.314	<b>5.42</b>	<b>35.7</b>	<b>36.0</b>	<b>45.3</b>	<b>22.6</b>	<b>27.9</b>	<b>38.3</b>	<b>10.4</b>	<b>59.1</b>	<b>2.67</b>	<b>21.2</b>	<b>0.675</b>	<b>32.5</b>	<b>44.1</b>
T4S3PP-RB3-0.5	11/17/2005	0.5	--	--	<b>0.107</b>	< 0.0153	<b>0.107</b>	<b>1.11</b>	<b>1.30</b>	<b>1.46</b>	<b>0.858</b>	<b>1.02</b>	<b>1.18</b>	<b>0.370</b>	<b>1.73</b>	<b>0.0608</b>	<b>0.779</b>	< 0.0153	<b>0.672</b>	<b>1.32</b>
T4S3PP-RB4-1.0	11/17/2005	1	--	--	<b>0.0186</b>	< 0.0146	<b>0.0204</b>	<b>0.212</b>	<b>0.277</b>	<b>0.257</b>	<b>0.112</b>	<b>0.214</b>	<b>0.279</b>	<b>0.0364</b>	<b>0.343</b>	< 0.0146	<b>0.114</b>	< 0.0146	<b>0.141</b>	<b>0.308</b>
T4S3PP-RB5-1.0	11/17/2005	1	--	--	<b>0.198</b>	< 0.0156	<b>0.307</b>	<b>1.99</b>	<b>2.12</b>	<b>2.91</b>	<b>1.40</b>	<b>1.40</b>	<b>2.17</b>	<b>0.612</b>	<b>3.42</b>	<b>0.133</b>	<b>1.28</b>	<b>0.0288</b>	<b>1.76</b>	<b>2.42</b>
T4S3PP-RB6-1.0	11/17/2005	1	--	--	< 0.0149	< 0.0149	< 0.0149	<b>0.0235</b>	<b>0.0326</b>	<b>0.0293</b>	< 0.0149	<b>0.0258</b>	<b>0.0312</b>	< 0.0149	<b>0.0351</b>	< 0.0149	< 0.0149	< 0.0149	<b>0.015</b>	<b>0.0357</b>
SB-1-0.5	2/1/2007	0.5	<b>108</b>	<b>496</b>	< 2.83	< 2.83	< 2.83	<b>6.36</b>	<b>7.60</b>	<b>5.57</b>	<b>7.71</b>	<b>5.59</b>	<b>7.85</b>	< 2.83	<b>11.8</b>	< 2.83	<b>5.68</b>	< 2.83	< 2.83	<b>16.7</b>
SB-1-3	2/1/2007	3	< 69.9	<b>388 J</b>	< 0.075	<b>0.141 J</b>	<b>0.165 J</b>	<b>1.73 J</b>	<b>2.05 J</b>	<b>2.15 J</b>	<b>1.57 J</b>	<b>1.34 J</b>	<b>1.76 J</b>	<b>0.283 J</b>	<b>2.72 J</b>	< 0.075	<b>1.28 J</b>	<b>0.0763 J</b>	<b>0.462 J</b>	<b>3.10 J</b>
SB-2-0.5	2/1/2007	0.5	< 13.5	< 27.0	< 0.0738	< 0.0738	< 0.0738	<b>0.300</b>	<b>0.383</b>	<b>0.379</b>	<b>0.467</b>	<b>0.335</b>	<b>0.380</b>	<b>0.094</b>	<b>0.468</b>	< 0.0738	<b>0.373</b>	< 0.0738	<b>0.165</b>	<b>0.474</b>
SB-3-2.5	2/1/2007	2.5	< 14.7	< 29.3	< 0.077	< 0.077	< 0.077	<b>0.102</b>	<b>0.142</b>	<b>0.120</b>	<b>0.147</b>	<b>0.0965</b>	<b>0.120</b>	< 0.077	<b>0.181</b>	< 0.077	<b>0.107</b>	< 0.077	< 0.077	<b>0.202</b>
SB-4-3.0	2/1/2007	3	<b>297</b>	<b>520</b>	<b>4.48</b>	< 3.03	<b>4.51</b>	<b>27.1</b>	<b>28.5</b>	<b>29.6</b>	<b>20.3</b>	<b>23.3</b>	<b>30.8</b>	<b>7.43</b>	<b>46.9</b>	< 3.03	<b>19.1</b>	< 3.03	<b>24.8</b>	<b>33.7</b>
SB-5-0.5	2/1/2007	0.5	< 14.7	<b>147</b>	< 0.779	< 0.779	< 0.779	<b>1.21</b>	<b>1.39</b>	<b>1.39</b>	<b>1.09</b>	<b>1.09</b>	<b>1.42</b>	< 0.779	<b>1.87</b>	< 0.779	<b>0.944</b>	< 0.779	< 0.779	<b>1.60</b>
SB-6-0.5	2/1/2007	0.5	< 13.7	<b>60.2</b>	< 0.0736	< 0.0736	< 0.0736	<b>0.134</b>	<b>0.181</b>	<b>0.173</b>	<b>0.188</b>	<b>0.147</b>	<b>0.209</b>	< 0.0736	<b>0.196</b>	< 0.0736	<b>0.149</b>	< 0.0736	<b>0.130</b>	<b>0.236</b>
SB-7-0.5	2/1/2007	0.5	< 13.8	< 27.6	< 0.0735	< 0.0735	< 0.0735	<b>0.184</b>	<b>0.226</b>	<b>0.213</b>	<b>0.180</b>	<b>0.201</b>	<b>0.205</b>	< 0.0735	<b>0.256</b>	< 0.0735	<b>0.163</b>	< 0.0735	<b>0.0974</b>	<b>0.227</b>
SB-8-0.5	2/1/2007	0.5	< 13.9	< 27.8	< 0.0732	< 0.0732	< 0.0732	<b>0.0857</b>	<b>0.121</b>	<b>0.109</b>	<b>0.180</b>	<b>0.0981</b>	<b>0.0994</b>	< 0.0732	<b>0.122</b>	< 0.0732	<b>0.132</b>	< 0.0732	< 0.0732	<b>0.129</b>
SB-9-0.5	2/1/2007	0.5	< 13.9	<b>37.6</b>	< 0.072	< 0.072	<b>0.0966</b>	<b>0.891</b>	<b>1.16</b>	<b>1.00</b>	<b>0.961</b>	<b>0.886</b>	<b>0.894</b>	<b>0.246</b>	<b>1.42</b>	< 0.072	<b>0.856</b>	< 0.072	<b>0.481</b>	<b>1.19</b>
SB-10-0.5	2/1/2007	0.5	<b>19.8</b>	<b>221</b>	< 0.573	< 0.573	< 0.573	< 0.573	<b>0.688</b>	<b>0.710</b>	< 0.573	< 0.573	<b>0.643</b>	< 0.573	<b>0.806</b>	< 0.573	< 0.573	< 0.573	< 0.573	<b>0.717</b>
SB-16-0.5	3/6/2007	0.5	<b>59.9</b>	<b>378</b>	< 0.480	< 0.480	< 0.480	<b>0.658</b>	<b>0.663</b>	<b>1.15</b>	< 0.480	<b>0.596</b>	<b>0.829</b>	< 0.480	<b>0.847</b>	< 0.480	< 0.480	< 0.480	< 0.480	<b>0.829</b>
SB-17-0.5	3/6/2007	0.5	< 14.0	< 28.0	< 0.146	< 0.146	< 0.146	<b>0.187</b>	<b>0.205</b>	<b>0.242</b>	<b>0.147</b>	<b>0.170</b>	<b>0.179</b>	< 0.146	<b>0.261</b>	< 0.146	< 0.146	< 0.146	< 0.146	<b>0.271</b>
SB-23-0.5	3/6/2007	0.5	<b>91.3</b>	<b>569</b>	< 1.48	< 1.48	< 1.48	< 1.48	< 1.48	<b>2.22</b>	< 1.48	< 1.48	<b>1.51</b>	< 1.48	<b>1.48</b>	< 1.48	< 1.48	< 1.48	< 1.48	<b>1.51</b>
				PEC	0.30	0.20	0.845	1.05	1.45	--	0.30	13.0	1.29	1.30	2.23	0.536	0.10	0.561	1.17	1.52

**Notes:**  
**Bold** values represent detected concentrations of listed analyte.  
 Shaded values represent concentrations of analyte that exceed relevant PEC.  
 PEC = Joint Source Control Strategy (JSCS) Probable Effect Concentration.



Base map prepared from USGS 7.5-minute quadrangles as provided by TerraServer.



## Facility Location Map

Phase II Pencil Pitch Investigation Report  
Terminal 4 Slip 3 Upland Facility  
Portland, Oregon



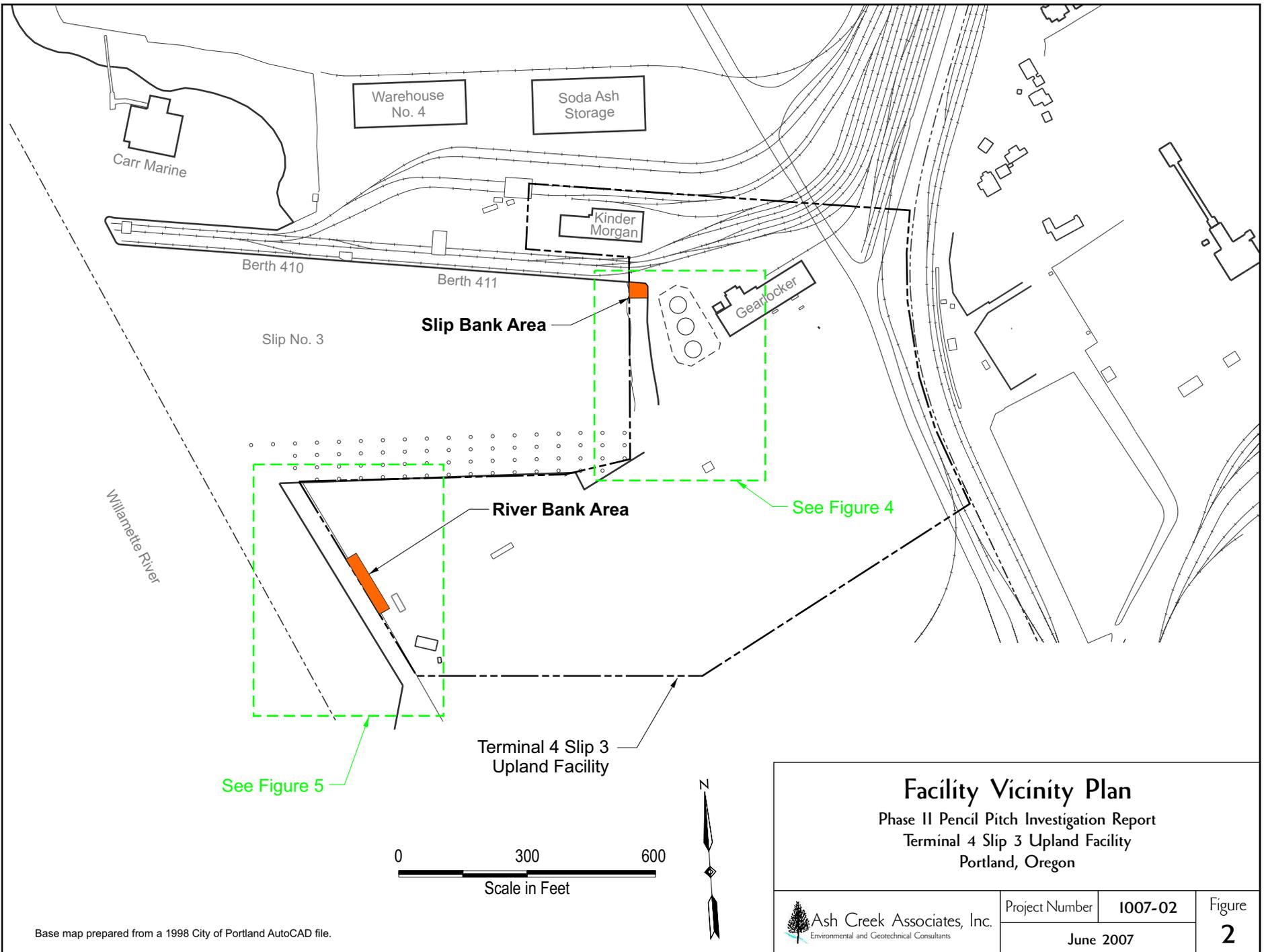
Ash Creek Associates, Inc.  
Environmental and Geotechnical Consultants

Project Number 1007-02

June 2007

Figure

1

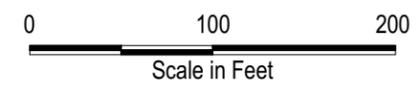


Base map prepared from a 1998 City of Portland AutoCAD file.

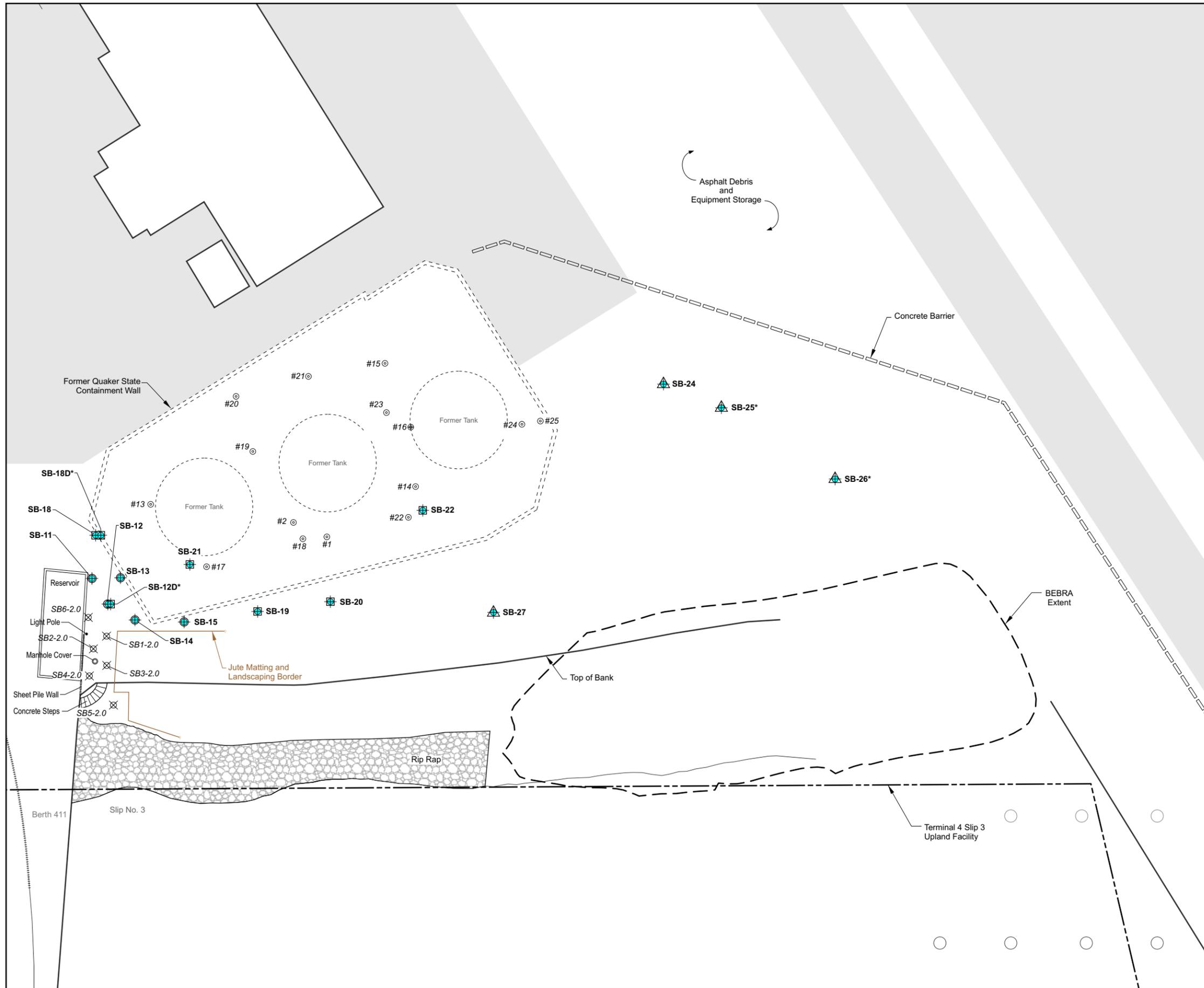
<h2>Facility Vicinity Plan</h2> <p>Phase II Pencil Pitch Investigation Report Terminal 4 Slip 3 Upland Facility Portland, Oregon</p>								
 <p>Ash Creek Associates, Inc. Environmental and Geotechnical Consultants</p>	<table border="1"> <tr> <td>Project Number</td> <td>1007-02</td> </tr> <tr> <td colspan="2" style="text-align: center;">June 2007</td> </tr> </table>	Project Number	1007-02	June 2007		<table border="1"> <tr> <td>Figure</td> <td>2</td> </tr> </table>	Figure	2
Project Number	1007-02							
June 2007								
Figure	2							



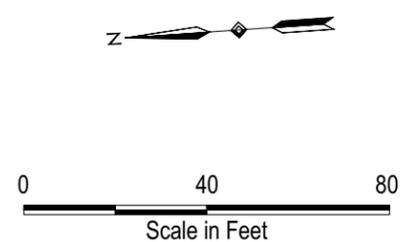
Aerial Photograph from PortlandMaps: 2002



<b>Facility Site Conditions: 2002</b>		
Phase II Pencil Pitch Investigation Report		
Terminal 4 Slip 3 Upland Facility		
Portland, Oregon		
Ash Creek Associates, Inc. Environmental and Geotechnical Consultants	Project Number 1007-02	Figure 3
	June 2007	

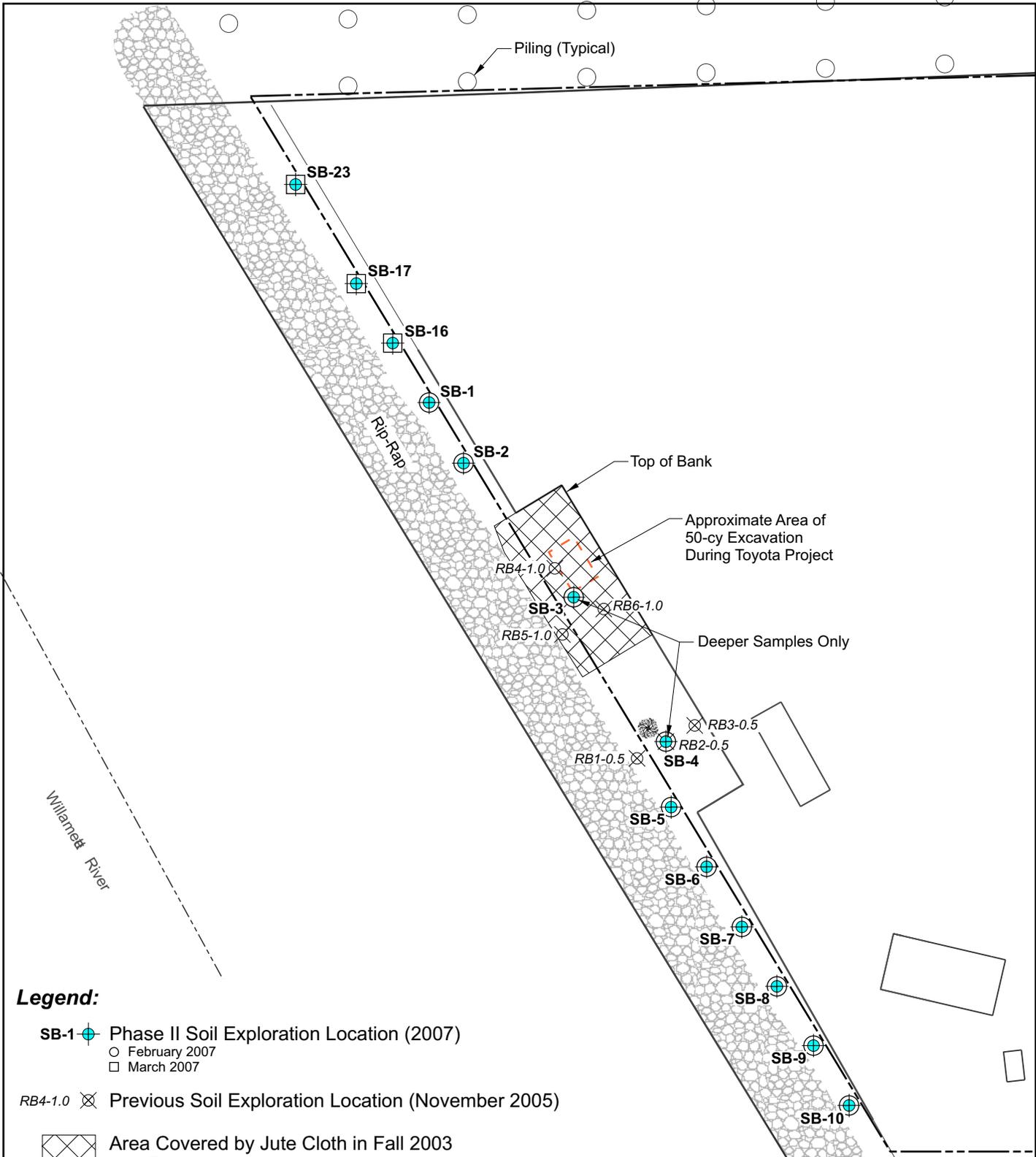


- Legend:**
- SB-1 ⊕ Phase II Soil Exploration Location
    - February 2007
    - March 2007
    - △ April 2007
  - RB4-1.0 ⊗ Phase I Soil Exploration Location (November 2005)
  - #2 ⊙ Historical Surface Soil Exploration Location
  - #16 ⊕ Historical Subsurface Soil Exploration Location
  - ▒ Paved Area



Base map prepared from a 1998 City of Portland AutoCAD file.

<b>Exploration Locations - Slip Bank Area</b> Phase II Pencil Pitch Investigation Report Terminal 4 Slip 3 Upland Facility Portland, Oregon		
 Ash Creek Associates, Inc. <small>Environmental and Geotechnical Consultants</small>	Project Number	1007-02
	June 2007	
		Figure <b>4</b>



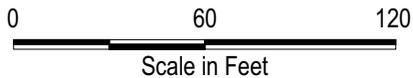
**Legend:**

- SB-1 Phase II Soil Exploration Location (2007)
- February 2007
- March 2007

- RB4-1.0 Previous Soil Exploration Location (November 2005)

- Area Covered by Jute Cloth in Fall 2003 and Re-Vegetated

- Tree



Base map prepared from a 1998 City of Portland AutoCAD file.

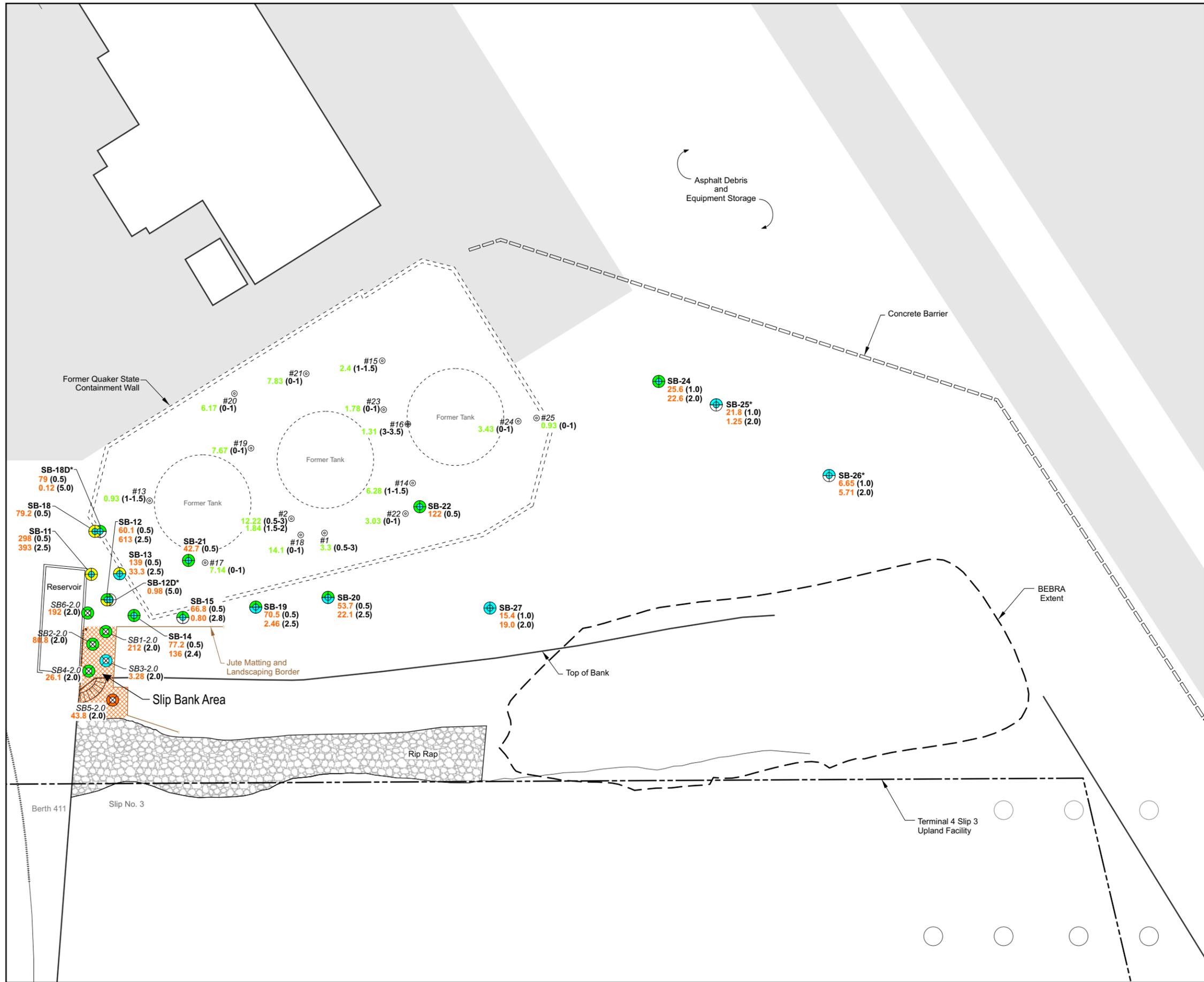
**Exploration Locations - River Bank Area**

Phase II Pencil Pitch Investigation Report  
Terminal 4 Slip 3 Upland Facility  
Portland, Oregon

Ash Creek Associates, Inc.  
Environmental and Geotechnical Consultants

Project Number	1007-02
June 2007	

Figure  
**5**

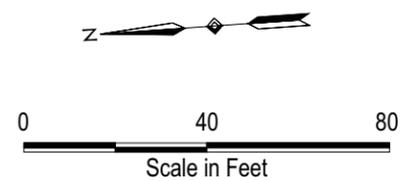


- Legend:**
- SB-1 ⊕ Soil Exploration Location (March 2007)
  - RB4-1.0 ⊗ Soil Exploration Location (November 2005)
  - #2 ⊙ Historical Surface Soil Exploration Location
  - #16 ⊕ Historical Subsurface Soil Exploration Location
  - ▒ Paved Area

Color in Symbol Reflects Number of Constituents Exceeding PEC/RBC (Based on Color Code Below)  
 (Locations at which two depths were sampled is coded such that the Upper Half is for Shallow Sample and Lower Half is for Deeper Sample)

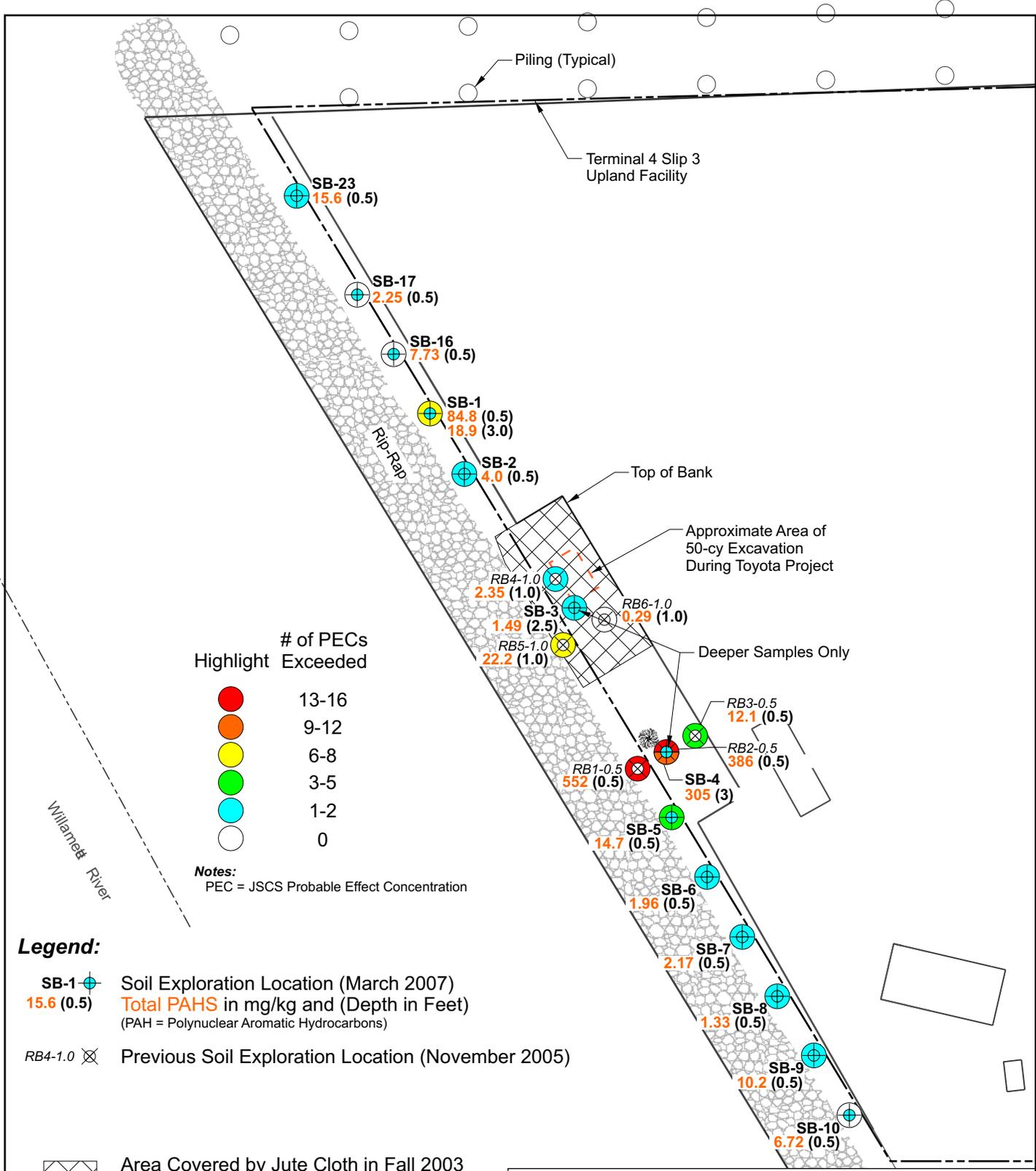
Highlight	Number of PECs/RBCs Exceeded
● (Red)	13-16
● (Orange)	9-12
● (Yellow)	6-8
● (Green)	3-5
● (Cyan)	1-2
○ (White)	0

**Notes:**  
 PECs Applied to All Samples West of Top of Bank.  
 PEC = JSCS Probable Effect Concentration  
 RBC = DEQ Risk Based Concentration



Base map prepared from a 1998 City of Portland AutoCAD file.

**PAH Concentrations - Slip Bank Area**  
 Phase II Pencil Pitch Investigation Report  
 Terminal 4 Slip 3 Upland Facility  
 Portland, Oregon

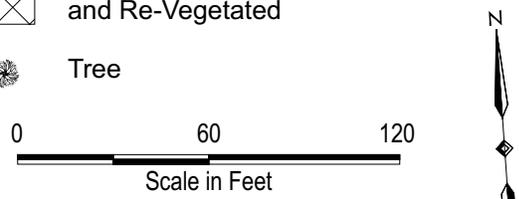


# of PECs Exceeded	Highlight
13-16	Red
9-12	Orange
6-8	Yellow
3-5	Light Green
1-2	Cyan
0	White

Notes:  
PEC = JSCS Probable Effect Concentration

**Legend:**

- SB-1** Soil Exploration Location (March 2007)  
**15.6 (0.5)** Total PAHS in mg/kg and (Depth in Feet)  
 (PAH = Polynuclear Aromatic Hydrocarbons)
- RB4-1.0** Previous Soil Exploration Location (November 2005)
- Area Covered by Jute Cloth in Fall 2003 and Re-Vegetated
- Tree



Base map prepared from a 1998 City of Portland AutoCAD file.

### PAH Concentrations - River Bank Area

Phase II Pencil Pitch Investigation Report  
Terminal 4 Slip 3 Upland Facility  
Portland, Oregon

Ash Creek Associates, Inc. <small>Environmental and Geotechnical Consultants</small>	Project Number	1007-02	Figure <b>7</b>
	June 2007		

***Appendix A***

---

**Sampling and Analysis Plan**

# ***1. Introduction***

---

The Sampling and Analysis Plan (SAP) presents the field and sampling procedures for the Terminal 4 Slip 3 Upland Facility (the Facility) Pencil Pitch Investigation.

## **1.1 Project Site Description**

The Facility is part of the Port of Portland (Port) Marine Terminal 4 facility located at 11040 North Lombard Street in Portland, Oregon (Figure 1 of the Report).

# ***2. Pencil Pitch Investigation Work Plan***

---

The objective of the investigation is to further assess the horizontal and vertical extent of pencil pitch in Facility soils to determine whether source control measures and/or further remedial work are required. Sample collection methods included hand collection of surface samples (less than 2 feet deep) and using push-probe equipment to collect near-surface samples (between 2 and 5 feet deep). Chemical analysis of the collected samples included total petroleum hydrocarbons (TPH) and polynuclear aromatic hydrocarbons (PAHs).

The field and sampling procedures described in this SAP include the following:

- Utility locating;
- Soil sampling;
- Sample management (e.g., containers, storage, and shipment);
- Decontamination procedures; and
- Handling of investigation-derived waste (IDW).

## **2.1 Preparatory Activities**

**Utilities.** Underground utilities were located and marked prior to beginning the field investigation work. The Oregon Utility Notification Center and the Port internal utility locate point of contact were notified to mark any underground installations in the vicinity of the Facility. Sample locations were adjusted as necessary to avoid conflict with utilities.

## **2.2 Soil Sampling**

Soil samples were collected during three separate sampling events (each completed as needed based on the results of the prior event until the extent of pencil pitch was delineated). The sample events occurred on February 1, March 6, and April 16, 2007.

**Locations.** Soil samples were collected from 28 locations (13 along the River Bank area and 15 samples across the Slip Bank area). The sample locations are indicated on Figures 4 and 5 of the Report. The locations of each sample are based on hand-taped measurements to fixed reference points.

**Shallow Soil Sampling (0 to 2 Feet Below Ground Surface).** Shallow (0 to 2 feet) soil samples were collected using properly decontaminated hand tools unless coincident with a deeper soil sample collected with push-probe equipment as described below. Prior to obtaining the sample, surficial gravel was removed with a shovel or stainless steel spoon to expose the surface soil. Collected soil was placed in a stainless steel bowl and transferred to laboratory-supplied sample jars. Each exploration was then backfilled in reverse order (last out, first in) with the removed soil augmented with hydrated bentonite.

**Deeper Soil Sampling (2 to 5 Feet Below Ground Surface).** The deeper soil samples (and any coincident shallow samples) were collected using truck-mounted push-probe drilling equipment in accordance with Oregon Water Resources Department (OWRD) requirements. The direct-push drilling method uses a 2-inch outside-diameter by 5-foot-long core sampler, which is driven into the ground to the desired depth to retrieve a 5-foot-long soil core sample. During each sample interval, a new, clean polyethylene liner is placed inside the sample barrel to prevent cross-contamination and to facilitate removal of the soil sample from the sampling device. Soil cores are collected continuously as the boring is advanced. Upon retrieval of each core, the polyethylene liner is removed from the core barrel and cut in half lengthwise to expose the soil core for observation and sample collection. Samples were collected from the soil core, generally at the surface, 2-foot below surface, and 5-foot below surface. Upon completion of each boring, the borehole was abandoned by placing hydrated bentonite chips in the borehole (as the push-probe rods were removed).

**Sample Containers, Labeling, and Locations.** All containers used to collect soil samples for chemical analysis were clean containers supplied by the analytical laboratory. Sample containers were fully filled leaving minimal headspace. All containers were marked with the project number, a sample number, depth, date and time of collection, and sampler's initials.

**Sample Storage and Shipment.** All samples were stored in a cooler chilled with ice or blue ice to nominally 4 degrees Celsius (°C). The samples were delivered to the analytical laboratory for chemical analysis within 48 hours of collection. Chain-of-custody was maintained and documented at all times.

## 2.3 Decontamination

To prevent cross-contamination between sampling for chemical analyses, clean, dedicated sampling equipment (e.g., gloves) were used when possible for each sampling event and discarded after use. Cleaning of non-disposable items (e.g., sieves, bowls, sample spoons) consisted of washing in a detergent (e.g., Alconox<sup>®</sup>) solution, rinsing with tap water, and followed with a deionized water rinse.

***Appendix B***

---

**Data QA/QC Review**

## ***Appendix B – Data QA/QC Review***

---

This appendix documents the results of a quality assurance (QA) review of the analytical data for soil samples collected during the pencil pitch sampling events between February and April 2007. TestAmerica (formerly North Creek Analytical) in Beaverton, Oregon, performed the analyses. Copies of the analytical laboratory reports are included in this appendix.

The QA review included examination and validation of the laboratory summary report, including:

- Analytical methods;
- Detection limits;
- Sample holding times;
- Custody records;
- Surrogates, spikes, and blanks; and
- Duplicates.

The QA review did not include a review of raw data.

## ***Analytical Methods and Detection Limits***

---

Collected soil samples were analyzed for the following:

- Diesel-range and oil-range total petroleum hydrocarbons (TPH) by Method NWTPH-Dx with Silica Gel Cleanup; and
- Polynuclear aromatic hydrocarbons (PAHs) by Environmental Protection Agency (EPA) Method 8270M-SIM.

## ***Quality Assurance Objectives and Review***

---

The general QA objectives for this project were to develop and implement procedures for obtaining and evaluating data of a quality that could be used for fulfilling the scope of work, and potentially such uses as a risk assessment for the site. To collect such information, analytical data must have an appropriate degree of accuracy and reproducibility, samples collected must

be representative of actual field conditions, and samples must be collected and analyzed using unbroken chain-of-custody procedures.

Reporting limits and analytical results were compared to action levels for each parameter in the media of concern. Precision, accuracy, representativeness, completeness, and comparability parameters used to indicate data quality are defined below.

**Holding Times.** All samples were analyzed within the holding times specified for the requested analyses, except for sample SB-1-3 (report PQB0100), which was analyzed 6 days past the holding time for TPH and PAHs. The potential exists for the data to have been affected, so these results were marked as being estimated values.

**Reporting Limits.** Detection limits are set by the laboratory and are based on instrumentation abilities, sample matrix, and suggested detection limits by the EPA or the Department of Environmental

Quality (DEQ). In some cases, the detection limit has been raised due to high concentrations of analytes in the samples or matrix interferences. Detection limits were generally consistent with industry standards, but were consistently above the relevant Probable Effect Concentrations (PECs).

Reporting limits were reviewed and are generally acceptable for this project, and all samples with non-detect values above PECs also had detected concentrations of analytes above PECs. Reporting limits for individual samples varied based on the magnitude of the chemical impact. The maximum sample dilution was 200 times (in samples SB-1-0.5, SB-4-3.0, SB-11-0.5, SB-11-2.5, SB-12-2.5, SB-13-0.5, SB-13-2.5, SB-14-0.5, SB-14-2.4, SB-15-0.5, SB-18D-0.5, and SB-22-0.5) due to high levels of the reported analyte or matrix interference. The raised detection limits did not compromise the usability of the data.

**Precision.** Precision measures the reproducibility of data under a given set of conditions. Specifically, it is a quantitative measure of the variability of a group of measurements compared to their average values. Analytical precision is measured through matrix spike/matrix spike duplicate (MS/MSD) samples for volatile organic compound (VOC) analyses. Analytical precision is quantitatively expressed as the relative percent difference (RPD) between the MS/MSD. The laboratory also prepares a batch laboratory control sample and duplicate (LCS and LCSD). All LCS/LCSD results were within acceptable ranges.

All MS/MSD results were within acceptable ranges except for the MS/MSD for QC batches 7020833 and 7030326. The MS/MSD results in these batches were outside of the acceptance limits due to sample matrix interference. However, as the LCS/LCSD results for these same batches were acceptable, they do not represent an out-of-control condition for each batch.

**Accuracy.** Accuracy is the measure of error between the reported test results and the true sample concentration. "Perfect" accuracy is 100 percent recovery. True sample concentration is never known due to analytical limitations and error. Consequently, accuracy is inferred from the recovery data from spiked samples. The laboratory performed sufficient spike samples of a similar matrix (i.e., water) to allow the computation of the accuracy.

The accuracy measurements were carried out in accordance with SW-846 method requirements. All surrogate spike results were within acceptable ranges except for:

- TPH surrogate recoveries from samples SB-13-0.5, SB-13-2.5, and SB-26-2, where the surrogate recoveries could not be calculated due to matrix interferences; and
- PAH surrogate recoveries from samples SB-1-0.5, SB-4-3.0, SB-4-3.0, SB-10-0.5, SB-11-0.5, SB-11-2.5, SB-12-0.5, SB-12-2.5, SB-13-0.5, SB-13-2.5, SB-14-0.5, SB-14-2.4, SB-15-0.5, SB-16-0.5, SB-18D-0.5, SB-19-0.5, SB-20-0.5, SB-20-2.5, SB-21-0.5, SB-22-0.5, SB-24-1, SB-26-1, and SB-26-2, where dilution of the sample reduced the surrogate spike concentration to a level where the recovery calculation is not useful.

Neither of these conditions are expected to compromise the usability of the data and the data are considered acceptable.

No field duplicate was collected.

**Representativeness.** Representativeness is a measure of how closely the results reflect the actual concentration of the chemical parameters in the medium sampled. Sampling procedures, as well as sample-handling protocols for storage, preservation, and transportation, are designed to preserve the representativeness of the samples collected. Laboratory method blanks are run in accordance with established laboratory protocols.

All samples for this project were received by the laboratory in good condition and in the proper, laboratory-supplied containers. No target compounds were detected in the laboratory method blanks.

**Completeness.** Completeness is defined as the percentage of measurements made which are judged to be valid measurements. The completeness of the data is the number of acceptable data points divided by the total number of data points multiplied by 100. The completeness goal is essentially that a sufficient amount of valid data can be generated to allow for the evaluation of the site investigation.

No data collected during the site investigation were rejected for this project; therefore, the completeness for this phase of the project is 100 percent.

**Comparability.** Comparability is a qualitative parameter expressing the confidence with which one data set can be compared with another. Based on this QA review, the quality of the data collected during this site investigation is similar to that of previously collected data and is, therefore, comparable.

**Conclusion.** In conclusion, the overall QA objectives have been met, and the data (as qualified) are of adequate quality for use in this project.

March 07, 2007

Mike Stevens  
Ash Creek Associates, Inc.  
9615 SW Allen Blvd. Suite 106  
Beaverton, OR 97005

RE: T4S3 - Pencil Pitch

Enclosed are the results of analyses for samples received by the laboratory on 02/02/07 15:07.  
The following list is a summary of the Work Orders contained in this report, generated on 03/07/07  
09:44.

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

---

<u>Work Order</u>	<u>Project</u>	<u>ProjectNumber</u>
PQB0100	T4S3 - Pencil Pitch	1007-03

---

---

TestAmerica - Portland, OR



Darrell Auvil, 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.*



<b>Ash Creek Associates, Inc.</b>	Project Name: <b>T4S3 - Pencil Pitch</b>	
9615 SW Allen Blvd. Suite 106	Project Number: 1007-03	Report Created:
Beaverton, OR 97005	Project Manager: Mike Stevens	03/07/07 09:44

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB-1-0.5	PQB0100-01	Soil	02/01/07 13:50	02/02/07 15:07
SB-2-0.5	PQB0100-02	Soil	02/01/07 14:35	02/02/07 15:07
SB-3-2.5	PQB0100-03	Soil	02/01/07 16:10	02/02/07 15:07
SB-4-3.0	PQB0100-04	Soil	02/01/07 15:30	02/02/07 15:07
SB-5-0.5	PQB0100-05	Soil	02/01/07 15:45	02/02/07 15:07
SB-6-0.5	PQB0100-06	Soil	02/02/07 09:07	02/02/07 15:07
SB-7-0.5	PQB0100-07	Soil	02/02/07 09:30	02/02/07 15:07
SB-8-0.5	PQB0100-08	Soil	02/02/07 09:50	02/02/07 15:07
SB-9-0.5	PQB0100-09	Soil	02/02/07 10:20	02/02/07 15:07
SB-10-0.5	PQB0100-10	Soil	02/02/07 10:55	02/02/07 15:07
SB-11-0.5	PQB0100-11	Soil	02/01/07 09:17	02/02/07 15:07
SB-11-2.5	PQB0100-12	Soil	02/01/07 10:05	02/02/07 15:07
SB-12-0.5	PQB0100-13	Soil	02/01/07 09:30	02/02/07 15:07
SB-12-2.5	PQB0100-14	Soil	02/01/07 11:22	02/02/07 15:07
SB-13-0.5	PQB0100-15	Soil	02/01/07 09:35	02/02/07 15:07
SB-13-2.5	PQB0100-16	Soil	02/01/07 10:57	02/02/07 15:07
SB-14-0.5	PQB0100-17	Soil	02/01/07 09:40	02/02/07 15:07
SB-14-2.4	PQB0100-18	Soil	02/01/07 12:01	02/02/07 15:07
SB-15-0.5	PQB0100-19	Soil	02/01/07 09:45	02/02/07 15:07
SB-15-2.8	PQB0100-20	Soil	02/01/07 12:46	02/02/07 15:07
SB-1-3	PQB0100-21	Soil	02/01/07 14:15	02/02/07 15:07

TestAmerica - Portland, OR



Darrell Auvil, 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.*



<b>Ash Creek Associates, Inc.</b>	Project Name: <b>T4S3 - Pencil Pitch</b>	
9615 SW Allen Blvd. Suite 106	Project Number: 1007-03	Report Created:
Beaverton, OR 97005	Project Manager: Mike Stevens	03/07/07 09:44

**Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method with Acid/Silica Gel Cleanup**  
 TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>PQB0100-01 (SB-1-0.5)</b>		<b>Soil</b>			<b>Sampled: 02/01/07 13:50</b>					
Diesel Range Organics	NWTPH-Dx	<b>108</b>	----	13.6	mg/kg dry	1x	7020220	02/06/07 15:35	02/08/07 13:16	<b>Q9</b>
Heavy Oil Range Hydrocarbons	"	<b>496</b>	----	27.3	"	"	"	"	"	<b>Q10</b>
<i>Surrogate(s): 1-Chlorooctadecane</i>			122%		50 - 150 %	"				"
<b>PQB0100-02 (SB-2-0.5)</b>		<b>Soil</b>			<b>Sampled: 02/01/07 14:35</b>					
Diesel Range Organics	NWTPH-Dx	ND	----	13.5	mg/kg dry	1x	7020220	02/06/07 15:35	02/08/07 12:05	
Heavy Oil Range Hydrocarbons	"	ND	----	27.0	"	"	"	"	"	
<i>Surrogate(s): 1-Chlorooctadecane</i>			115%		50 - 150 %	"				"
<b>PQB0100-03 (SB-3-2.5)</b>		<b>Soil</b>			<b>Sampled: 02/01/07 16:10</b>					
Diesel Range Organics	NWTPH-Dx	ND	----	14.7	mg/kg dry	1x	7020220	02/06/07 15:35	02/08/07 01:56	
Heavy Oil Range Hydrocarbons	"	ND	----	29.3	"	"	"	"	"	
<i>Surrogate(s): 1-Chlorooctadecane</i>			119%		50 - 150 %	"				"
<b>PQB0100-04 (SB-4-3.0)</b>		<b>Soil</b>			<b>Sampled: 02/01/07 15:30</b>					
Diesel Range Organics	NWTPH-Dx	<b>297</b>	----	14.5	mg/kg dry	1x	7020220	02/06/07 15:35	02/08/07 14:54	<b>Q9</b>
Heavy Oil Range Hydrocarbons	"	<b>520</b>	----	29.0	"	"	"	"	"	<b>Q9</b>
<i>Surrogate(s): 1-Chlorooctadecane</i>			135%		50 - 150 %	"				"
<b>PQB0100-05 (SB-5-0.5)</b>		<b>Soil</b>			<b>Sampled: 02/01/07 15:45</b>					
Diesel Range Organics	NWTPH-Dx	ND	----	14.7	mg/kg dry	1x	7020220	02/06/07 15:35	02/08/07 12:46	
Heavy Oil Range Hydrocarbons	"	<b>147</b>	----	29.3	"	"	"	"	"	<b>Q10</b>
<i>Surrogate(s): 1-Chlorooctadecane</i>			129%		50 - 150 %	"				"
<b>PQB0100-06 (SB-6-0.5)</b>		<b>Soil</b>			<b>Sampled: 02/02/07 09:07</b>					
Diesel Range Organics	NWTPH-Dx	ND	----	13.7	mg/kg dry	1x	7020220	02/06/07 15:35	02/08/07 13:19	
Heavy Oil Range Hydrocarbons	"	<b>60.2</b>	----	27.4	"	"	"	"	"	
<i>Surrogate(s): 1-Chlorooctadecane</i>			121%		50 - 150 %	"				"
<b>PQB0100-07 (SB-7-0.5)</b>		<b>Soil</b>			<b>Sampled: 02/02/07 09:30</b>					
Diesel Range Organics	NWTPH-Dx	ND	----	13.8	mg/kg dry	1x	7020220	02/06/07 15:35	02/08/07 02:28	
Heavy Oil Range Hydrocarbons	"	ND	----	27.6	"	"	"	"	"	
<i>Surrogate(s): 1-Chlorooctadecane</i>			116%		50 - 150 %	"				"

TestAmerica - Portland, OR



Darrell Auvil, 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.*

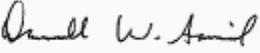


<b>Ash Creek Associates, Inc.</b>	Project Name: <b>T4S3 - Pencil Pitch</b>	
9615 SW Allen Blvd. Suite 106	Project Number: 1007-03	Report Created:
Beaverton, OR 97005	Project Manager: Mike Stevens	03/07/07 09:44

**Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method with Acid/Silica Gel Cleanup**  
 TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>PQB0100-08 (SB-8-0.5)</b>		<b>Soil</b>			<b>Sampled: 02/02/07 09:50</b>					
Diesel Range Organics	NWTPH-Dx	ND	----	13.9	mg/kg dry	1x	7020220	02/06/07 15:35	02/08/07 03:01	
Heavy Oil Range Hydrocarbons	"	ND	----	27.8	"	"	"	"	"	
<i>Surrogate(s): 1-Chlorooctadecane</i>			116%		50 - 150 %	"				"
<b>PQB0100-09 (SB-9-0.5)</b>		<b>Soil</b>			<b>Sampled: 02/02/07 10:20</b>					
Diesel Range Organics	NWTPH-Dx	ND	----	13.9	mg/kg dry	1x	7020220	02/06/07 15:35	02/08/07 12:38	
Heavy Oil Range Hydrocarbons	"	<b>37.6</b>	----	27.8	"	"	"	"	"	
<i>Surrogate(s): 1-Chlorooctadecane</i>			114%		50 - 150 %	"				"
<b>PQB0100-10 (SB-10-0.5)</b>		<b>Soil</b>			<b>Sampled: 02/02/07 10:55</b>					
Diesel Range Organics	NWTPH-Dx	<b>19.8</b>	----	13.3	mg/kg dry	1x	7020220	02/06/07 15:35	02/08/07 13:49	<b>Q6</b>
Heavy Oil Range Hydrocarbons	"	<b>221</b>	----	26.6	"	"	"	"	"	
<i>Surrogate(s): 1-Chlorooctadecane</i>			123%		50 - 150 %	"				"
<b>PQB0100-11 (SB-11-0.5)</b>		<b>Soil</b>			<b>Sampled: 02/01/07 09:17</b>					
Diesel Range Organics	NWTPH-Dx	<b>173</b>	----	13.8	mg/kg dry	1x	7020220	02/06/07 15:35	02/08/07 14:22	<b>Q9</b>
Heavy Oil Range Hydrocarbons	"	<b>402</b>	----	27.5	"	"	"	"	"	<b>Q9</b>
<i>Surrogate(s): 1-Chlorooctadecane</i>			119%		50 - 150 %	"				"
<b>PQB0100-12 (SB-11-2.5)</b>		<b>Soil</b>			<b>Sampled: 02/01/07 10:05</b>					
Diesel Range Organics	NWTPH-Dx	<b>353</b>	----	14.6	mg/kg dry	1x	7020220	02/06/07 15:35	02/08/07 11:03	<b>Q10</b>
Heavy Oil Range Hydrocarbons	"	<b>1160</b>	----	29.1	"	"	"	"	"	<b>Q10</b>
<i>Surrogate(s): 1-Chlorooctadecane</i>			144%		50 - 150 %	"				"
<b>PQB0100-13 (SB-12-0.5)</b>		<b>Soil</b>			<b>Sampled: 02/01/07 09:30</b>					
Diesel Range Organics	NWTPH-Dx	<b>73.4</b>	----	13.9	mg/kg dry	1x	7020220	02/06/07 15:35	02/08/07 13:49	<b>Q9</b>
Heavy Oil Range Hydrocarbons	"	<b>151</b>	----	27.7	"	"	"	"	"	<b>Q9</b>
<i>Surrogate(s): 1-Chlorooctadecane</i>			130%		50 - 150 %	"				"
<b>PQB0100-14 (SB-12-2.5)</b>		<b>Soil</b>			<b>Sampled: 02/01/07 11:22</b>					
Diesel Range Organics	NWTPH-Dx	<b>517</b>	----	14.1	mg/kg dry	1x	7020220	02/06/07 15:35	02/08/07 15:27	<b>Q9</b>
Heavy Oil Range Hydrocarbons	"	<b>853</b>	----	28.1	"	"	"	"	"	<b>Q9</b>
<i>Surrogate(s): 1-Chlorooctadecane</i>			144%		50 - 150 %	"				"

TestAmerica - Portland, OR



Darrell Auvil, 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.*



<b>Ash Creek Associates, Inc.</b>	Project Name: <b>T4S3 - Pencil Pitch</b>	
9615 SW Allen Blvd. Suite 106	Project Number: 1007-03	Report Created:
Beaverton, OR 97005	Project Manager: Mike Stevens	03/07/07 09:44

**Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method with Acid/Silica Gel Cleanup**  
TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>PQB0100-15 (SB-13-0.5)</b>		<b>Soil</b>			<b>Sampled: 02/01/07 09:35</b>					
Diesel Range Organics	NWTPH-Dx	<b>204</b>	----	14.3	mg/kg dry	1x	7020220	02/06/07 15:35	02/08/07 11:35	<b>Q9</b>
Heavy Oil Range Hydrocarbons	"	<b>680</b>	----	28.7	"	"	"	"	"	<b>Q9</b>
Surrogate(s): 1-Chlorooctadecane			189%		50 - 150 %	"				<b>Z9</b>
<b>PQB0100-16 (SB-13-2.5)</b>		<b>Soil</b>			<b>Sampled: 02/01/07 10:57</b>					
Diesel Range Organics	NWTPH-Dx	<b>2090</b>	----	137	mg/kg dry	10x	7020220	02/06/07 15:35	02/08/07 19:24	<b>A-01</b>
Heavy Oil Range Hydrocarbons	"	<b>4410</b>	----	273	"	"	"	"	"	<b>A-01</b>
Surrogate(s): 1-Chlorooctadecane			155%		50 - 150 %	"				<b>Z9</b>
<b>PQB0100-17 (SB-14-0.5)</b>		<b>Soil</b>			<b>Sampled: 02/01/07 09:40</b>					
Diesel Range Organics	NWTPH-Dx	<b>39.7</b>	----	14.0	mg/kg dry	1x	7020220	02/06/07 15:35	02/08/07 15:27	<b>Q9</b>
Heavy Oil Range Hydrocarbons	"	<b>88.8</b>	----	28.0	"	"	"	"	"	<b>Q9</b>
Surrogate(s): 1-Chlorooctadecane			122%		50 - 150 %	"				
<b>PQB0100-18 (SB-14-2.4)</b>		<b>Soil</b>			<b>Sampled: 02/01/07 12:01</b>					
Diesel Range Organics	NWTPH-Dx	<b>78.9</b>	----	14.5	mg/kg dry	1x	7020220	02/06/07 15:35	02/08/07 17:14	<b>Q9</b>
Heavy Oil Range Hydrocarbons	"	<b>176</b>	----	29.1	"	"	"	"	"	<b>Q9</b>
Surrogate(s): 1-Chlorooctadecane			112%		50 - 150 %	"				
<b>PQB0100-19 (SB-15-0.5)</b>		<b>Soil</b>			<b>Sampled: 02/01/07 09:45</b>					
Diesel Range Organics	NWTPH-Dx	<b>29.0</b>	----	14.3	mg/kg dry	1x	7020220	02/06/07 15:35	02/08/07 13:16	<b>Q9</b>
Heavy Oil Range Hydrocarbons	"	<b>85.8</b>	----	28.6	"	"	"	"	"	<b>Q9</b>
Surrogate(s): 1-Chlorooctadecane			103%		50 - 150 %	"				
<b>PQB0100-20 (SB-15-2.8)</b>		<b>Soil</b>			<b>Sampled: 02/01/07 12:46</b>					
Diesel Range Organics	NWTPH-Dx	<b>ND</b>	----	13.9	mg/kg dry	1x	7020220	02/06/07 15:35	02/08/07 03:34	
Heavy Oil Range Hydrocarbons	"	<b>ND</b>	----	27.9	"	"	"	"	"	
Surrogate(s): 1-Chlorooctadecane			111%		50 - 150 %	"				
<b>PQB0100-21 (SB-1-3)</b>		<b>Soil</b>			<b>Sampled: 02/01/07 14:15</b>					
Diesel Range Organics	NWTPH-Dx	<b>ND</b>	----	69.9	mg/kg dry	5x	7020752	02/20/07 15:50	02/21/07 17:37	<b>H8, RL7</b>
Heavy Oil Range Hydrocarbons	"	<b>388</b>	----	140	"	"	"	"	"	<b>H8</b>
Surrogate(s): 1-Chlorooctadecane			117%		50 - 150 %	"				<b>H8</b>

TestAmerica - Portland, OR

*Darrell W. Auvil*

Darrell Auvil, 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.*



<b>Ash Creek Associates, Inc.</b>	Project Name: <b>T4S3 - Pencil Pitch</b>	
9615 SW Allen Blvd. Suite 106	Project Number: 1007-03	Report Created:
Beaverton, OR 97005	Project Manager: Mike Stevens	03/07/07 09:44

**Polynuclear Aromatic Compounds per EPA 8270M-SIM**  
TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>PQB0100-01 (SB-1-0.5)</b>		<b>Soil</b>				<b>Sampled: 02/01/07 13:50</b>				<b>RL3</b>
Acenaphthene	EPA 8270m	ND	----	2830	ug/kg dry	200x	7020180	02/06/07 11:00	02/06/07 18:53	
Acenaphthylene	"	ND	----	2830	"	"	"	"	"	
Anthracene	"	ND	----	2830	"	"	"	"	"	
<b>Benzo (a) anthracene</b>	"	<b>6360</b>	----	2830	"	"	"	"	"	
<b>Benzo (a) pyrene</b>	"	<b>7600</b>	----	2830	"	"	"	"	"	
<b>Benzo (b) fluoranthene</b>	"	<b>5570</b>	----	2830	"	"	"	"	"	
<b>Benzo (ghi) perylene</b>	"	<b>7710</b>	----	2830	"	"	"	"	"	
<b>Benzo (k) fluoranthene</b>	"	<b>5590</b>	----	2830	"	"	"	"	"	
<b>Chrysene</b>	"	<b>7850</b>	----	2830	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	----	2830	"	"	"	"	"	
<b>Fluoranthene</b>	"	<b>11800</b>	----	2830	"	"	"	"	"	
Fluorene	"	ND	----	2830	"	"	"	"	"	
<b>Indeno (1,2,3-cd) pyrene</b>	"	<b>5680</b>	----	2830	"	"	"	"	"	
Naphthalene	"	ND	----	2830	"	"	"	"	"	
Phenanthrene	"	ND	----	2830	"	"	"	"	"	
<b>Pyrene</b>	"	<b>16700</b>	----	2830	"	"	"	"	"	
<i>Surrogate(s): Fluorene-d10</i>			NR		24 - 125 %	"				Z3
<i>Pyrene-d10</i>			NR		41 - 141 %	"				Z3
<i>Benzo (a) pyrene-d12</i>			NR		38 - 143 %	"				Z3

<b>PQB0100-02 (SB-2-0.5)</b>		<b>Soil</b>				<b>Sampled: 02/01/07 14:35</b>				<b>RL3</b>
Acenaphthene	EPA 8270m	ND	----	73.8	ug/kg dry	5x	7020180	02/06/07 11:00	02/06/07 19:29	
Acenaphthylene	"	ND	----	73.8	"	"	"	"	"	
Anthracene	"	ND	----	73.8	"	"	"	"	"	
<b>Benzo (a) anthracene</b>	"	<b>300</b>	----	73.8	"	"	"	"	"	
<b>Benzo (a) pyrene</b>	"	<b>383</b>	----	73.8	"	"	"	"	"	
<b>Benzo (b) fluoranthene</b>	"	<b>379</b>	----	73.8	"	"	"	"	"	
<b>Benzo (ghi) perylene</b>	"	<b>467</b>	----	73.8	"	"	"	"	"	
<b>Benzo (k) fluoranthene</b>	"	<b>335</b>	----	73.8	"	"	"	"	"	
<b>Chrysene</b>	"	<b>380</b>	----	73.8	"	"	"	"	"	
<b>Dibenzo (a,h) anthracene</b>	"	<b>94.0</b>	----	73.8	"	"	"	"	"	
<b>Fluoranthene</b>	"	<b>468</b>	----	73.8	"	"	"	"	"	
Fluorene	"	ND	----	73.8	"	"	"	"	"	
<b>Indeno (1,2,3-cd) pyrene</b>	"	<b>373</b>	----	73.8	"	"	"	"	"	
Naphthalene	"	ND	----	73.8	"	"	"	"	"	
<b>Phenanthrene</b>	"	<b>165</b>	----	73.8	"	"	"	"	"	
<b>Pyrene</b>	"	<b>474</b>	----	73.8	"	"	"	"	"	
<i>Surrogate(s): Fluorene-d10</i>			73.6%		24 - 125 %	"				
<i>Pyrene-d10</i>			94.9%		41 - 141 %	"				
<i>Benzo (a) pyrene-d12</i>			86.9%		38 - 143 %	"				

TestAmerica - Portland, OR

*Darrell W. Auvil*

Darrell Auvil, 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.*



<b>Ash Creek Associates, Inc.</b>	Project Name: <b>T4S3 - Pencil Pitch</b>	
9615 SW Allen Blvd. Suite 106	Project Number: 1007-03	Report Created:
Beaverton, OR 97005	Project Manager: Mike Stevens	03/07/07 09:44

**Polynuclear Aromatic Compounds per EPA 8270M-SIM**  
 TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
---------	--------	--------	------	-----	-------	-----	-------	----------	----------	-------

PQB0100-03 (SB-3-2.5)		Soil	Sampled: 02/01/07 16:10								RL3
Acenaphthene	EPA 8270m	ND	----	77.0	ug/kg dry	5x	7020180	02/06/07 11:00	02/06/07 20:04		
Acenaphthylene	"	ND	----	77.0	"	"	"	"	"		
Anthracene	"	ND	----	77.0	"	"	"	"	"		
<b>Benzo (a) anthracene</b>	"	<b>102</b>	----	77.0	"	"	"	"	"		
<b>Benzo (a) pyrene</b>	"	<b>142</b>	----	77.0	"	"	"	"	"		
<b>Benzo (b) fluoranthene</b>	"	<b>120</b>	----	77.0	"	"	"	"	"		
<b>Benzo (ghi) perylene</b>	"	<b>147</b>	----	77.0	"	"	"	"	"		
<b>Benzo (k) fluoranthene</b>	"	<b>96.5</b>	----	77.0	"	"	"	"	"		
<b>Chrysene</b>	"	<b>120</b>	----	77.0	"	"	"	"	"		
Dibenzo (a,h) anthracene	"	ND	----	77.0	"	"	"	"	"		
<b>Fluoranthene</b>	"	<b>181</b>	----	77.0	"	"	"	"	"		
Fluorene	"	ND	----	77.0	"	"	"	"	"		
<b>Indeno (1,2,3-cd) pyrene</b>	"	<b>107</b>	----	77.0	"	"	"	"	"		
Naphthalene	"	ND	----	77.0	"	"	"	"	"		
Phenanthrene	"	ND	----	77.0	"	"	"	"	"		
<b>Pyrene</b>	"	<b>202</b>	----	77.0	"	"	"	"	"		
<i>Surrogate(s): Fluorene-d10</i>			76.3%		24 - 125 %	"				"	
<i>Pyrene-d10</i>			102%		41 - 141 %	"				"	
<i>Benzo (a) pyrene-d12</i>			97.8%		38 - 143 %	"				"	

PQB0100-04 (SB-4-3.0)		Soil	Sampled: 02/01/07 15:30								RL3
Acenaphthene	EPA 8270m	<b>4480</b>	----	3030	ug/kg dry	200x	7020180	02/06/07 11:00	02/06/07 20:39		
Acenaphthylene	"	ND	----	3030	"	"	"	"	"		
<b>Anthracene</b>	"	<b>4510</b>	----	3030	"	"	"	"	"		
<b>Benzo (a) anthracene</b>	"	<b>27100</b>	----	3030	"	"	"	"	"		
<b>Benzo (a) pyrene</b>	"	<b>28500</b>	----	3030	"	"	"	"	"		
<b>Benzo (b) fluoranthene</b>	"	<b>29600</b>	----	3030	"	"	"	"	"		
<b>Benzo (ghi) perylene</b>	"	<b>20300</b>	----	3030	"	"	"	"	"		
<b>Benzo (k) fluoranthene</b>	"	<b>23300</b>	----	3030	"	"	"	"	"		
<b>Chrysene</b>	"	<b>30800</b>	----	3030	"	"	"	"	"		
Dibenzo (a,h) anthracene	"	<b>7430</b>	----	3030	"	"	"	"	"		
<b>Fluoranthene</b>	"	<b>46900</b>	----	3030	"	"	"	"	"		
Fluorene	"	ND	----	3030	"	"	"	"	"		
<b>Indeno (1,2,3-cd) pyrene</b>	"	<b>19100</b>	----	3030	"	"	"	"	"		
Naphthalene	"	ND	----	3030	"	"	"	"	"		
<b>Phenanthrene</b>	"	<b>24800</b>	----	3030	"	"	"	"	"		
<b>Pyrene</b>	"	<b>33700</b>	----	3030	"	"	"	"	"		
<i>Surrogate(s): Fluorene-d10</i>			NR		24 - 125 %	"				Z3	
<i>Pyrene-d10</i>			NR		41 - 141 %	"				Z3	

TestAmerica - Portland, OR



Darrell Auvil, 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.*



<b>Ash Creek Associates, Inc.</b>	Project Name: <b>T4S3 - Pencil Pitch</b>	
9615 SW Allen Blvd. Suite 106	Project Number: 1007-03	Report Created:
Beaverton, OR 97005	Project Manager: Mike Stevens	03/07/07 09:44

**Polynuclear Aromatic Compounds per EPA 8270M-SIM**  
TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
---------	--------	--------	------	-----	-------	-----	-------	----------	----------	-------

**PQB0100-04 (SB-4-3.0)** Soil **Sampled: 02/01/07 15:30** **RL3**

*Benzo (a) pyrene-d12* NR 38 - 143 % 200x 02/06/07 20:39 Z3

**PQB0100-05 (SB-5-0.5)** Soil **Sampled: 02/01/07 15:45** **RL3**

Acenaphthene	EPA 8270m	ND	----	779	ug/kg dry	50x	7020180	02/06/07 11:00	02/08/07 00:03	
Acenaphthylene	"	ND	----	779	"	"	"	"	"	
Anthracene	"	ND	----	779	"	"	"	"	"	
<b>Benzo (a) anthracene</b>	"	<b>1210</b>	----	779	"	"	"	"	"	
<b>Benzo (a) pyrene</b>	"	<b>1390</b>	----	779	"	"	"	"	"	
<b>Benzo (b) fluoranthene</b>	"	<b>1390</b>	----	779	"	"	"	"	"	
<b>Benzo (ghi) perylene</b>	"	<b>1090</b>	----	779	"	"	"	"	"	
<b>Benzo (k) fluoranthene</b>	"	<b>1090</b>	----	779	"	"	"	"	"	
<b>Chrysene</b>	"	<b>1420</b>	----	779	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	----	779	"	"	"	"	"	
<b>Fluoranthene</b>	"	<b>1870</b>	----	779	"	"	"	"	"	
Fluorene	"	ND	----	779	"	"	"	"	"	
<b>Indeno (1,2,3-cd) pyrene</b>	"	<b>944</b>	----	779	"	"	"	"	"	
Naphthalene	"	ND	----	779	"	"	"	"	"	
Phenanthrene	"	ND	----	779	"	"	"	"	"	
<b>Pyrene</b>	"	<b>1600</b>	----	779	"	"	"	"	"	

*Surrogate(s): Fluorene-d10* NR 24 - 125 % " " Z3  
*Pyrene-d10* NR 41 - 141 % " " Z3  
*Benzo (a) pyrene-d12* NR 38 - 143 % " " Z3

**PQB0100-06 (SB-6-0.5)** Soil **Sampled: 02/02/07 09:07** **RL3**

Acenaphthene	EPA 8270m	ND	----	73.6	ug/kg dry	5x	7020180	02/06/07 11:00	02/06/07 21:50	
Acenaphthylene	"	ND	----	73.6	"	"	"	"	"	
Anthracene	"	ND	----	73.6	"	"	"	"	"	
<b>Benzo (a) anthracene</b>	"	<b>134</b>	----	73.6	"	"	"	"	"	
<b>Benzo (a) pyrene</b>	"	<b>181</b>	----	73.6	"	"	"	"	"	
<b>Benzo (b) fluoranthene</b>	"	<b>173</b>	----	73.6	"	"	"	"	"	
<b>Benzo (ghi) perylene</b>	"	<b>188</b>	----	73.6	"	"	"	"	"	
<b>Benzo (k) fluoranthene</b>	"	<b>147</b>	----	73.6	"	"	"	"	"	
<b>Chrysene</b>	"	<b>209</b>	----	73.6	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	----	73.6	"	"	"	"	"	
<b>Fluoranthene</b>	"	<b>196</b>	----	73.6	"	"	"	"	"	
Fluorene	"	ND	----	73.6	"	"	"	"	"	
<b>Indeno (1,2,3-cd) pyrene</b>	"	<b>149</b>	----	73.6	"	"	"	"	"	
Naphthalene	"	ND	----	73.6	"	"	"	"	"	
<b>Phenanthrene</b>	"	<b>130</b>	----	73.6	"	"	"	"	"	
<b>Pyrene</b>	"	<b>236</b>	----	73.6	"	"	"	"	"	

TestAmerica - Portland, OR

*Darrell W. Auvil*

Darrell Auvil, 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.*



<b>Ash Creek Associates, Inc.</b>	Project Name: <b>T4S3 - Pencil Pitch</b>	
9615 SW Allen Blvd. Suite 106	Project Number: 1007-03	Report Created:
Beaverton, OR 97005	Project Manager: Mike Stevens	03/07/07 09:44

**Polynuclear Aromatic Compounds per EPA 8270M-SIM**  
 TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
---------	--------	--------	------	-----	-------	-----	-------	----------	----------	-------

<b>PQB0100-06 (SB-6-0.5)</b>		<b>Soil</b>			<b>Sampled: 02/02/07 09:07</b>					<b>RL3</b>
<i>Surrogate(s): Fluorene-d10</i>			78.8%		24 - 125 %	5x			02/06/07 21:50	
<i>Pyrene-d10</i>			98.4%		41 - 141 %	"			"	
<i>Benzo (a) pyrene-d12</i>			92.3%		38 - 143 %	"			"	

<b>PQB0100-07 (SB-7-0.5)</b>		<b>Soil</b>			<b>Sampled: 02/02/07 09:30</b>					<b>RL3</b>
Acenaphthene	EPA 8270m	ND	----	73.5	ug/kg dry	5x	7020180	02/06/07 11:00	02/06/07 22:25	
Acenaphthylene	"	ND	----	73.5	"	"	"	"	"	
Anthracene	"	ND	----	73.5	"	"	"	"	"	
<b>Benzo (a) anthracene</b>	"	<b>184</b>	----	73.5	"	"	"	"	"	
<b>Benzo (a) pyrene</b>	"	<b>226</b>	----	73.5	"	"	"	"	"	
<b>Benzo (b) fluoranthene</b>	"	<b>213</b>	----	73.5	"	"	"	"	"	
<b>Benzo (ghi) perylene</b>	"	<b>180</b>	----	73.5	"	"	"	"	"	
<b>Benzo (k) fluoranthene</b>	"	<b>201</b>	----	73.5	"	"	"	"	"	
<b>Chrysene</b>	"	<b>205</b>	----	73.5	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	----	73.5	"	"	"	"	"	
<b>Fluoranthene</b>	"	<b>256</b>	----	73.5	"	"	"	"	"	
Fluorene	"	ND	----	73.5	"	"	"	"	"	
<b>Indeno (1,2,3-cd) pyrene</b>	"	<b>163</b>	----	73.5	"	"	"	"	"	
Naphthalene	"	ND	----	73.5	"	"	"	"	"	
<b>Phenanthrene</b>	"	<b>97.4</b>	----	73.5	"	"	"	"	"	
<b>Pyrene</b>	"	<b>227</b>	----	73.5	"	"	"	"	"	
<i>Surrogate(s): Fluorene-d10</i>			68.5%		24 - 125 %	"			"	
<i>Pyrene-d10</i>			99.2%		41 - 141 %	"			"	
<i>Benzo (a) pyrene-d12</i>			87.7%		38 - 143 %	"			"	

<b>PQB0100-08 (SB-8-0.5)</b>		<b>Soil</b>			<b>Sampled: 02/02/07 09:50</b>					<b>RL3</b>
Acenaphthene	EPA 8270m	ND	----	73.2	ug/kg dry	5x	7020180	02/06/07 11:00	02/06/07 23:00	
Acenaphthylene	"	ND	----	73.2	"	"	"	"	"	
Anthracene	"	ND	----	73.2	"	"	"	"	"	
<b>Benzo (a) anthracene</b>	"	<b>85.7</b>	----	73.2	"	"	"	"	"	
<b>Benzo (a) pyrene</b>	"	<b>121</b>	----	73.2	"	"	"	"	"	
<b>Benzo (b) fluoranthene</b>	"	<b>109</b>	----	73.2	"	"	"	"	"	
<b>Benzo (ghi) perylene</b>	"	<b>180</b>	----	73.2	"	"	"	"	"	
<b>Benzo (k) fluoranthene</b>	"	<b>98.1</b>	----	73.2	"	"	"	"	"	
<b>Chrysene</b>	"	<b>99.4</b>	----	73.2	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	----	73.2	"	"	"	"	"	
<b>Fluoranthene</b>	"	<b>122</b>	----	73.2	"	"	"	"	"	
Fluorene	"	ND	----	73.2	"	"	"	"	"	
<b>Indeno (1,2,3-cd) pyrene</b>	"	<b>132</b>	----	73.2	"	"	"	"	"	
Naphthalene	"	ND	----	73.2	"	"	"	"	"	

TestAmerica - Portland, OR



Darrell Auvil, 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.*



<b>Ash Creek Associates, Inc.</b>	Project Name: <b>T4S3 - Pencil Pitch</b>	
9615 SW Allen Blvd. Suite 106	Project Number: 1007-03	Report Created:
Beaverton, OR 97005	Project Manager: Mike Stevens	03/07/07 09:44

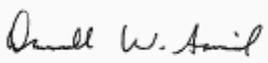
**Polynuclear Aromatic Compounds per EPA 8270M-SIM**  
 TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>PQB0100-08 (SB-8-0.5)</b>		<b>Soil</b>			<b>Sampled: 02/02/07 09:50</b>					<b>RL3</b>
Phenanthrene	EPA 8270m	ND	----	73.2	ug/kg dry	5x	7020180	02/06/07 11:00	02/06/07 23:00	
<b>Pyrene</b>	"	<b>129</b>	----	73.2	"	"	"	"	"	
<i>Surrogate(s): Fluorene-d10</i>			68.0%		24 - 125 %	"				"
<i>Pyrene-d10</i>			95.6%		41 - 141 %	"				"
<i>Benzo (a) pyrene-d12</i>			85.6%		38 - 143 %	"				"

<b>PQB0100-09 (SB-9-0.5)</b>		<b>Soil</b>			<b>Sampled: 02/02/07 10:20</b>					<b>RL3</b>
Acenaphthene	EPA 8270m	ND	----	72.0	ug/kg dry	5x	7020180	02/06/07 11:00	02/06/07 23:36	
Acenaphthylene	"	ND	----	72.0	"	"	"	"	"	
<b>Anthracene</b>	"	<b>96.6</b>	----	72.0	"	"	"	"	"	
<b>Benzo (a) anthracene</b>	"	<b>891</b>	----	72.0	"	"	"	"	"	
<b>Benzo (a) pyrene</b>	"	<b>1160</b>	----	72.0	"	"	"	"	"	
<b>Benzo (b) fluoranthene</b>	"	<b>1000</b>	----	72.0	"	"	"	"	"	
<b>Benzo (ghi) perylene</b>	"	<b>961</b>	----	72.0	"	"	"	"	"	
<b>Benzo (k) fluoranthene</b>	"	<b>886</b>	----	72.0	"	"	"	"	"	
<b>Chrysene</b>	"	<b>894</b>	----	72.0	"	"	"	"	"	
<b>Dibenzo (a,h) anthracene</b>	"	<b>246</b>	----	72.0	"	"	"	"	"	
<b>Fluoranthene</b>	"	<b>1420</b>	----	72.0	"	"	"	"	"	
Fluorene	"	ND	----	72.0	"	"	"	"	"	
<b>Indeno (1,2,3-cd) pyrene</b>	"	<b>856</b>	----	72.0	"	"	"	"	"	
Naphthalene	"	ND	----	72.0	"	"	"	"	"	
<b>Phenanthrene</b>	"	<b>481</b>	----	72.0	"	"	"	"	"	
<b>Pyrene</b>	"	<b>1190</b>	----	72.0	"	"	"	"	"	
<i>Surrogate(s): Fluorene-d10</i>			76.0%		24 - 125 %	"				"
<i>Pyrene-d10</i>			90.5%		41 - 141 %	"				"
<i>Benzo (a) pyrene-d12</i>			83.9%		38 - 143 %	"				"

<b>PQB0100-10 (SB-10-0.5)</b>		<b>Soil</b>			<b>Sampled: 02/02/07 10:55</b>					<b>RL3</b>
Acenaphthene	EPA 8270m	ND	----	573	ug/kg dry	40x	7020180	02/06/07 11:00	02/08/07 00:38	
Acenaphthylene	"	ND	----	573	"	"	"	"	"	
Anthracene	"	ND	----	573	"	"	"	"	"	
Benzo (a) anthracene	"	ND	----	573	"	"	"	"	"	
<b>Benzo (a) pyrene</b>	"	<b>688</b>	----	573	"	"	"	"	"	
<b>Benzo (b) fluoranthene</b>	"	<b>710</b>	----	573	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	----	573	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	----	573	"	"	"	"	"	
<b>Chrysene</b>	"	<b>643</b>	----	573	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	----	573	"	"	"	"	"	
<b>Fluoranthene</b>	"	<b>806</b>	----	573	"	"	"	"	"	
Fluorene	"	ND	----	573	"	"	"	"	"	

TestAmerica - Portland, OR



Darrell Auvil, 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.*



<b>Ash Creek Associates, Inc.</b>	Project Name: <b>T4S3 - Pencil Pitch</b>	
9615 SW Allen Blvd. Suite 106	Project Number: 1007-03	Report Created:
Beaverton, OR 97005	Project Manager: Mike Stevens	03/07/07 09:44

**Polynuclear Aromatic Compounds per EPA 8270M-SIM**  
TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>PQB0100-10 (SB-10-0.5)</b>		<b>Soil</b>			<b>Sampled: 02/02/07 10:55</b>					<b>RL3</b>
Indeno (1,2,3-cd) pyrene	EPA 8270m	ND	----	573	ug/kg dry	40x	7020180	02/06/07 11:00	02/08/07 00:38	
Naphthalene	"	ND	----	573	"	"	"	"	"	
Phenanthrene	"	ND	----	573	"	"	"	"	"	
<b>Pyrene</b>	"	<b>717</b>	----	573	"	"	"	"	"	
<i>Surrogate(s): Fluorene-d10</i>			<i>NR</i>		<i>24 - 125 %</i>	<i>"</i>				<i>Z3</i>
<i>Pyrene-d10</i>			<i>NR</i>		<i>41 - 141 %</i>	<i>"</i>				<i>Z3</i>
<i>Benzo (a) pyrene-d12</i>			<i>NR</i>		<i>38 - 143 %</i>	<i>"</i>				<i>Z3</i>

<b>PQB0100-11 (SB-11-0.5)</b>		<b>Soil</b>			<b>Sampled: 02/01/07 09:17</b>					<b>RL3</b>
Acenaphthene	EPA 8270m	ND	----	2920	ug/kg dry	200x	7020180	02/06/07 11:00	02/07/07 00:46	
Acenaphthylene	"	ND	----	2920	"	"	"	"	"	
Anthracene	"	ND	----	2920	"	"	"	"	"	
<b>Benzo (a) anthracene</b>	"	<b>27800</b>	----	2920	"	"	"	"	"	
<b>Benzo (a) pyrene</b>	"	<b>34700</b>	----	2920	"	"	"	"	"	
<b>Benzo (b) fluoranthene</b>	"	<b>31700</b>	----	2920	"	"	"	"	"	
<b>Benzo (ghi) perylene</b>	"	<b>25700</b>	----	2920	"	"	"	"	"	
<b>Benzo (k) fluoranthene</b>	"	<b>27200</b>	----	2920	"	"	"	"	"	
Chrysene	"	<b>29600</b>	----	2920	"	"	"	"	"	
<b>Dibenzo (a,h) anthracene</b>	"	<b>8260</b>	----	2920	"	"	"	"	"	
<b>Fluoranthene</b>	"	<b>36000</b>	----	2920	"	"	"	"	"	
Fluorene	"	ND	----	2920	"	"	"	"	"	
<b>Indeno (1,2,3-cd) pyrene</b>	"	<b>23900</b>	----	2920	"	"	"	"	"	
Naphthalene	"	ND	----	2920	"	"	"	"	"	
<b>Phenanthrene</b>	"	<b>13100</b>	----	2920	"	"	"	"	"	
<b>Pyrene</b>	"	<b>32500</b>	----	2920	"	"	"	"	"	
<i>Surrogate(s): Fluorene-d10</i>			<i>NR</i>		<i>24 - 125 %</i>	<i>"</i>				<i>Z3</i>
<i>Pyrene-d10</i>			<i>NR</i>		<i>41 - 141 %</i>	<i>"</i>				<i>Z3</i>
<i>Benzo (a) pyrene-d12</i>			<i>NR</i>		<i>38 - 143 %</i>	<i>"</i>				<i>Z3</i>

<b>PQB0100-12 (SB-11-2.5)</b>		<b>Soil</b>			<b>Sampled: 02/01/07 10:05</b>					<b>RL3</b>
Acenaphthene	EPA 8270m	<b>5100</b>	----	3090	ug/kg dry	200x	7020180	02/06/07 11:00	02/07/07 01:21	
Acenaphthylene	"	ND	----	3090	"	"	"	"	"	
<b>Anthracene</b>	"	<b>4740</b>	----	3090	"	"	"	"	"	
<b>Benzo (a) anthracene</b>	"	<b>36400</b>	----	3090	"	"	"	"	"	
<b>Benzo (a) pyrene</b>	"	<b>40700</b>	----	3090	"	"	"	"	"	
<b>Benzo (b) fluoranthene</b>	"	<b>38200</b>	----	3090	"	"	"	"	"	
<b>Benzo (ghi) perylene</b>	"	<b>28300</b>	----	3090	"	"	"	"	"	
<b>Benzo (k) fluoranthene</b>	"	<b>30200</b>	----	3090	"	"	"	"	"	
Chrysene	"	<b>40400</b>	----	3090	"	"	"	"	"	
<b>Dibenzo (a,h) anthracene</b>	"	<b>9570</b>	----	3090	"	"	"	"	"	

TestAmerica - Portland, OR

*Darrell W. Auvil*

Darrell Auvil, 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.*



<b>Ash Creek Associates, Inc.</b>	Project Name: <b>T4S3 - Pencil Pitch</b>	
9615 SW Allen Blvd. Suite 106	Project Number: 1007-03	Report Created:
Beaverton, OR 97005	Project Manager: Mike Stevens	03/07/07 09:44

**Polynuclear Aromatic Compounds per EPA 8270M-SIM**  
TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>PQB0100-12 (SB-11-2.5)</b>		<b>Soil</b>				<b>Sampled: 02/01/07 10:05</b>				<b>RL3</b>
<b>Fluoranthene</b>	EPA 8270m	<b>57800</b>	----	3090	ug/kg dry	200x	7020180	02/06/07 11:00	02/07/07 01:21	
Fluorene	"	ND	----	3090	"	"	"	"	"	
<b>Indeno (1,2,3-cd) pyrene</b>	"	<b>25900</b>	----	3090	"	"	"	"	"	
Naphthalene	"	ND	----	3090	"	"	"	"	"	
<b>Phenanthrene</b>	"	<b>24200</b>	----	3090	"	"	"	"	"	
<b>Pyrene</b>	"	<b>46500</b>	----	3090	"	"	"	"	"	
<i>Surrogate(s): Fluorene-d10</i>			NR		24 - 125 %	"			"	<b>Z3</b>
<i>Pyrene-d10</i>			NR		41 - 141 %	"			"	<b>Z3</b>
<i>Benzo (a) pyrene-d12</i>			NR		38 - 143 %	"			"	<b>Z3</b>

<b>PQB0100-13 (SB-12-0.5)</b>		<b>Soil</b>				<b>Sampled: 02/01/07 09:30</b>				<b>RL3</b>
<b>Acenaphthene</b>	EPA 8270m	<b>896</b>	----	375	ug/kg dry	25x	7020180	02/06/07 11:00	02/07/07 01:57	
Acenaphthylene	"	ND	----	375	"	"	"	"	"	
<b>Anthracene</b>	"	<b>820</b>	----	375	"	"	"	"	"	
<b>Benzo (a) anthracene</b>	"	<b>5730</b>	----	375	"	"	"	"	"	
<b>Benzo (a) pyrene</b>	"	<b>6690</b>	----	375	"	"	"	"	"	
<b>Benzo (b) fluoranthene</b>	"	<b>5950</b>	----	375	"	"	"	"	"	
<b>Benzo (ghi) perylene</b>	"	<b>4470</b>	----	375	"	"	"	"	"	
<b>Benzo (k) fluoranthene</b>	"	<b>5140</b>	----	375	"	"	"	"	"	
<b>Chrysene</b>	"	<b>5740</b>	----	375	"	"	"	"	"	
<b>Dibenzo (a,h) anthracene</b>	"	<b>1490</b>	----	375	"	"	"	"	"	
<b>Fluoranthene</b>	"	<b>8170</b>	----	375	"	"	"	"	"	
Fluorene	"	ND	----	375	"	"	"	"	"	
<b>Indeno (1,2,3-cd) pyrene</b>	"	<b>4250</b>	----	375	"	"	"	"	"	
Naphthalene	"	ND	----	375	"	"	"	"	"	
<b>Phenanthrene</b>	"	<b>3400</b>	----	375	"	"	"	"	"	
<b>Pyrene</b>	"	<b>6840</b>	----	375	"	"	"	"	"	
<i>Surrogate(s): Fluorene-d10</i>			78.1%		24 - 125 %	"			"	<b>Z3</b>
<i>Pyrene-d10</i>			100%		41 - 141 %	"			"	<b>Z3</b>
<i>Benzo (a) pyrene-d12</i>			99.8%		38 - 143 %	"			"	<b>Z3</b>

TestAmerica - Portland, OR

*Darrell W. Auvil*

Darrell Auvil, 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.*



<b>Ash Creek Associates, Inc.</b>	Project Name: <b>T4S3 - Pencil Pitch</b>	
9615 SW Allen Blvd. Suite 106	Project Number: 1007-03	Report Created:
Beaverton, OR 97005	Project Manager: Mike Stevens	03/07/07 09:44

**Polynuclear Aromatic Compounds per EPA 8270M-SIM**  
TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>PQB0100-14 (SB-12-2.5)</b>		<b>Soil</b>				<b>Sampled: 02/01/07 11:22</b>				<b>RL3</b>
Acenaphthene	EPA 8270m	<b>9040</b>	----	2990	ug/kg dry	200x	7020180	02/06/07 11:00	02/07/07 02:32	
Acenaphthylene	"	ND	----	2990	"	"	"	"	"	
Anthracene	"	<b>7790</b>	----	2990	"	"	"	"	"	
Benzo (a) anthracene	"	<b>55300</b>	----	2990	"	"	"	"	"	
Benzo (a) pyrene	"	<b>67900</b>	----	2990	"	"	"	"	"	
Benzo (b) fluoranthene	"	<b>65300</b>	----	2990	"	"	"	"	"	
Benzo (ghi) perylene	"	<b>47200</b>	----	2990	"	"	"	"	"	
Benzo (k) fluoranthene	"	<b>50200</b>	----	2990	"	"	"	"	"	
Chrysene	"	<b>58800</b>	----	2990	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	<b>16200</b>	----	2990	"	"	"	"	"	
Fluoranthene	"	<b>84900</b>	----	2990	"	"	"	"	"	
Fluorene	"	<b>3660</b>	----	2990	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	<b>44100</b>	----	2990	"	"	"	"	"	
Naphthalene	"	ND	----	2990	"	"	"	"	"	
Phenanthrene	"	<b>35300</b>	----	2990	"	"	"	"	"	
Pyrene	"	<b>64300</b>	----	2990	"	"	"	"	"	
Surrogate(s): Fluorene-d10			NR		24 - 125 %	"				Z3
Pyrene-d10			NR		41 - 141 %	"				Z3
Benzo (a) pyrene-d12			NR		38 - 143 %	"				Z3

<b>PQB0100-15 (SB-13-0.5)</b>		<b>Soil</b>				<b>Sampled: 02/01/07 09:35</b>				<b>RL3</b>
Acenaphthene	EPA 8270m	ND	----	2980	ug/kg dry	200x	7020180	02/06/07 11:00	02/07/07 03:07	
Acenaphthylene	"	ND	----	2980	"	"	"	"	"	
Anthracene	"	ND	----	2980	"	"	"	"	"	
Benzo (a) anthracene	"	<b>12600</b>	----	2980	"	"	"	"	"	
Benzo (a) pyrene	"	<b>15000</b>	----	2980	"	"	"	"	"	
Benzo (b) fluoranthene	"	<b>13800</b>	----	2980	"	"	"	"	"	
Benzo (ghi) perylene	"	<b>10800</b>	----	2980	"	"	"	"	"	
Benzo (k) fluoranthene	"	<b>12000</b>	----	2980	"	"	"	"	"	
Chrysene	"	<b>13100</b>	----	2980	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	<b>3370</b>	----	2980	"	"	"	"	"	
Fluoranthene	"	<b>17600</b>	----	2980	"	"	"	"	"	
Fluorene	"	ND	----	2980	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	<b>9830</b>	----	2980	"	"	"	"	"	
Naphthalene	"	ND	----	2980	"	"	"	"	"	
Phenanthrene	"	<b>7720</b>	----	2980	"	"	"	"	"	
Pyrene	"	<b>15400</b>	----	2980	"	"	"	"	"	
Surrogate(s): Fluorene-d10			NR		24 - 125 %	"				Z3
Pyrene-d10			NR		41 - 141 %	"				Z3
Benzo (a) pyrene-d12			NR		38 - 143 %	"				Z3

TestAmerica - Portland, OR

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.

*Darrell W. Auvil*

Darrell Auvil, Project Manager



<b>Ash Creek Associates, Inc.</b>	Project Name: <b>T4S3 - Pencil Pitch</b>	Report Created:
9615 SW Allen Blvd. Suite 106	Project Number: 1007-03	03/07/07 09:44
Beaverton, OR 97005	Project Manager: Mike Stevens	

**Polynuclear Aromatic Compounds per EPA 8270M-SIM**  
TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
---------	--------	--------	------	-----	-------	-----	-------	----------	----------	-------

PQB0100-16 (SB-13-2.5)		Soil		Sampled: 02/01/07 10:57							RL3
Acenaphthene	EPA 8270m	ND	----	2940	ug/kg dry	200x	7020180	02/06/07 11:00	02/07/07 21:06		
Acenaphthylene	"	ND	----	2940	"	"	"	"	"		
Anthracene	"	ND	----	2940	"	"	"	"	"		
Benzo (a) anthracene	"	ND	----	2940	"	"	"	"	"		
<b>Benzo (a) pyrene</b>	"	<b>3220</b>	----	2940	"	"	"	"	"		
<b>Benzo (b) fluoranthene</b>	"	<b>2940</b>	----	2940	"	"	"	"	"		
Benzo (ghi) perylene	"	ND	----	2940	"	"	"	"	"		
Benzo (k) fluoranthene	"	ND	----	2940	"	"	"	"	"		
<b>Chrysene</b>	"	<b>3110</b>	----	2940	"	"	"	"	"		
Dibenzo (a,h) anthracene	"	ND	----	2940	"	"	"	"	"		
<b>Fluoranthene</b>	"	<b>4290</b>	----	2940	"	"	"	"	"		
Fluorene	"	ND	----	2940	"	"	"	"	"		
Indeno (1,2,3-cd) pyrene	"	ND	----	2940	"	"	"	"	"		
Naphthalene	"	ND	----	2940	"	"	"	"	"		
Phenanthrene	"	ND	----	2940	"	"	"	"	"		
<b>Pyrene</b>	"	<b>3560</b>	----	2940	"	"	"	"	"		
<i>Surrogate(s): Fluorene-d10</i>			NR	24 - 125 %	"	"	"	"	"	Z3	
<i>Pyrene-d10</i>			NR	41 - 141 %	"	"	"	"	"	Z3	
<i>Benzo (a) pyrene-d12</i>			NR	38 - 143 %	"	"	"	"	"	Z3	

PQB0100-17 (SB-14-0.5)		Soil		Sampled: 02/01/07 09:40							RL3
Acenaphthene	EPA 8270m	ND	----	3020	ug/kg dry	200x	7020180	02/06/07 11:00	02/07/07 21:41		
Acenaphthylene	"	ND	----	3020	"	"	"	"	"		
Anthracene	"	ND	----	3020	"	"	"	"	"		
<b>Benzo (a) anthracene</b>	"	<b>6840</b>	----	3020	"	"	"	"	"		
<b>Benzo (a) pyrene</b>	"	<b>8010</b>	----	3020	"	"	"	"	"		
<b>Benzo (b) fluoranthene</b>	"	<b>7080</b>	----	3020	"	"	"	"	"		
<b>Benzo (ghi) perylene</b>	"	<b>5960</b>	----	3020	"	"	"	"	"		
<b>Benzo (k) fluoranthene</b>	"	<b>6320</b>	----	3020	"	"	"	"	"		
<b>Chrysene</b>	"	<b>7020</b>	----	3020	"	"	"	"	"		
Dibenzo (a,h) anthracene	"	ND	----	3020	"	"	"	"	"		
<b>Fluoranthene</b>	"	<b>9200</b>	----	3020	"	"	"	"	"		
Fluorene	"	ND	----	3020	"	"	"	"	"		
<b>Indeno (1,2,3-cd) pyrene</b>	"	<b>5400</b>	----	3020	"	"	"	"	"		
Naphthalene	"	ND	----	3020	"	"	"	"	"		
<b>Phenanthrene</b>	"	<b>3910</b>	----	3020	"	"	"	"	"		
<b>Pyrene</b>	"	<b>8380</b>	----	3020	"	"	"	"	"		
<i>Surrogate(s): Fluorene-d10</i>			NR	24 - 125 %	"	"	"	"	"	Z3	
<i>Pyrene-d10</i>			NR	41 - 141 %	"	"	"	"	"	Z3	
<i>Benzo (a) pyrene-d12</i>			NR	38 - 143 %	"	"	"	"	"	Z3	

TestAmerica - Portland, OR

*Darrell W. Auvil*

Darrell Auvil, 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.*



<b>Ash Creek Associates, Inc.</b>	Project Name: <b>T4S3 - Pencil Pitch</b>	
9615 SW Allen Blvd. Suite 106	Project Number: 1007-03	Report Created:
Beaverton, OR 97005	Project Manager: Mike Stevens	03/07/07 09:44

**Polynuclear Aromatic Compounds per EPA 8270M-SIM**  
TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
---------	--------	--------	------	-----	-------	-----	-------	----------	----------	-------

PQB0100-18 (SB-14-2.4)		Soil	Sampled: 02/01/07 12:01							RL3
Acenaphthene	EPA 8270m	ND	----	3030	ug/kg dry	200x	7020180	02/06/07 11:00	02/07/07 22:17	
Acenaphthylene	"	ND	----	3030	"	"	"	"	"	
Anthracene	"	ND	----	3030	"	"	"	"	"	
<b>Benzo (a) anthracene</b>	"	<b>12900</b>	----	3030	"	"	"	"	"	
<b>Benzo (a) pyrene</b>	"	<b>14700</b>	----	3030	"	"	"	"	"	
<b>Benzo (b) fluoranthene</b>	"	<b>12700</b>	----	3030	"	"	"	"	"	
<b>Benzo (ghi) perylene</b>	"	<b>10600</b>	----	3030	"	"	"	"	"	
<b>Benzo (k) fluoranthene</b>	"	<b>11300</b>	----	3030	"	"	"	"	"	
<b>Chrysene</b>	"	<b>12800</b>	----	3030	"	"	"	"	"	
<b>Dibenzo (a,h) anthracene</b>	"	<b>3360</b>	----	3030	"	"	"	"	"	
<b>Fluoranthene</b>	"	<b>17600</b>	----	3030	"	"	"	"	"	
Fluorene	"	ND	----	3030	"	"	"	"	"	
<b>Indeno (1,2,3-cd) pyrene</b>	"	<b>9810</b>	----	3030	"	"	"	"	"	
Naphthalene	"	ND	----	3030	"	"	"	"	"	
<b>Phenanthrene</b>	"	<b>7720</b>	----	3030	"	"	"	"	"	
<b>Pyrene</b>	"	<b>15000</b>	----	3030	"	"	"	"	"	
<i>Surrogate(s): Fluorene-d10</i>			NR	24 - 125 %	"	"	"	"	"	Z3
<i>Pyrene-d10</i>			NR	41 - 141 %	"	"	"	"	"	Z3
<i>Benzo (a) pyrene-d12</i>			NR	38 - 143 %	"	"	"	"	"	Z3

PQB0100-19 (SB-15-0.5)		Soil	Sampled: 02/01/07 09:45							RL3
Acenaphthene	EPA 8270m	ND	----	3040	ug/kg dry	200x	7020180	02/06/07 11:00	02/07/07 22:52	
Acenaphthylene	"	ND	----	3040	"	"	"	"	"	
Anthracene	"	ND	----	3040	"	"	"	"	"	
<b>Benzo (a) anthracene</b>	"	<b>5710</b>	----	3040	"	"	"	"	"	
<b>Benzo (a) pyrene</b>	"	<b>7040</b>	----	3040	"	"	"	"	"	
<b>Benzo (b) fluoranthene</b>	"	<b>6740</b>	----	3040	"	"	"	"	"	
<b>Benzo (ghi) perylene</b>	"	<b>5650</b>	----	3040	"	"	"	"	"	
<b>Benzo (k) fluoranthene</b>	"	<b>5550</b>	----	3040	"	"	"	"	"	
<b>Chrysene</b>	"	<b>6040</b>	----	3040	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	----	3040	"	"	"	"	"	
<b>Fluoranthene</b>	"	<b>7500</b>	----	3040	"	"	"	"	"	
Fluorene	"	ND	----	3040	"	"	"	"	"	
<b>Indeno (1,2,3-cd) pyrene</b>	"	<b>4960</b>	----	3040	"	"	"	"	"	
Naphthalene	"	ND	----	3040	"	"	"	"	"	
Phenanthrene	"	ND	----	3040	"	"	"	"	"	
<b>Pyrene</b>	"	<b>6970</b>	----	3040	"	"	"	"	"	
<i>Surrogate(s): Fluorene-d10</i>			NR	24 - 125 %	"	"	"	"	"	Z3
<i>Pyrene-d10</i>			NR	41 - 141 %	"	"	"	"	"	Z3

TestAmerica - Portland, OR

*Darrell W. Auvil*

Darrell Auvil, 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.*



<b>Ash Creek Associates, Inc.</b>	Project Name: <b>T4S3 - Pencil Pitch</b>	
9615 SW Allen Blvd. Suite 106	Project Number: 1007-03	Report Created:
Beaverton, OR 97005	Project Manager: Mike Stevens	03/07/07 09:44

**Polynuclear Aromatic Compounds per EPA 8270M-SIM**  
TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
---------	--------	--------	------	-----	-------	-----	-------	----------	----------	-------

**PQB0100-19 (SB-15-0.5) Soil Sampled: 02/01/07 09:45 RL3**

*Benzo (a) pyrene-d12* NR 38 - 143 % 200x 02/07/07 22:52 Z3

**PQB0100-20 (SB-15-2.8) Soil Sampled: 02/01/07 12:46**

Acenaphthene	EPA 8270m	ND	----	14.7	ug/kg dry	1x	7020180	02/06/07 11:00	02/07/07 23:28	
Acenaphthylene	"	ND	----	14.7	"	"	"	"	"	
Anthracene	"	ND	----	14.7	"	"	"	"	"	
<b>Benzo (a) anthracene</b>	"	<b>68.6</b>	----	14.7	"	"	"	"	"	
<b>Benzo (a) pyrene</b>	"	<b>86.5</b>	----	14.7	"	"	"	"	"	
<b>Benzo (b) fluoranthene</b>	"	<b>80.3</b>	----	14.7	"	"	"	"	"	
<b>Benzo (ghi) perylene</b>	"	<b>73.7</b>	----	14.7	"	"	"	"	"	
<b>Benzo (k) fluoranthene</b>	"	<b>67.1</b>	----	14.7	"	"	"	"	"	
<b>Chrysene</b>	"	<b>77.4</b>	----	14.7	"	"	"	"	"	
<b>Dibenzo (a,h) anthracene</b>	"	<b>19.9</b>	----	14.7	"	"	"	"	"	
<b>Fluoranthene</b>	"	<b>100</b>	----	14.7	"	"	"	"	"	
Fluorene	"	ND	----	14.7	"	"	"	"	"	
<b>Indeno (1,2,3-cd) pyrene</b>	"	<b>62.4</b>	----	14.7	"	"	"	"	"	
Naphthalene	"	ND	----	14.7	"	"	"	"	"	
<b>Phenanthrene</b>	"	<b>39.4</b>	----	14.7	"	"	"	"	"	
<b>Pyrene</b>	"	<b>90.6</b>	----	14.7	"	"	"	"	"	

*Surrogate(s): Fluorene-d10 57.8% 24 - 125 % " "*  
*Pyrene-d10 88.1% 41 - 141 % " "*  
*Benzo (a) pyrene-d12 88.1% 38 - 143 % " "*

**PQB0100-21 (SB-1-3) Soil Sampled: 02/01/07 14:15 H1, A-01a, RL3**

Acenaphthene	EPA 8270m	ND	----	75.0	ug/kg dry	1x	7020833	02/22/07 13:45	02/23/07 22:06	
Acenaphthylene	"	<b>141</b>	----	75.0	"	"	"	"	"	
Anthracene	"	<b>165</b>	----	75.0	"	"	"	"	"	
<b>Benzo (a) anthracene</b>	"	<b>1730</b>	----	75.0	"	"	"	"	"	
<b>Benzo (a) pyrene</b>	"	<b>2050</b>	----	75.0	"	"	"	"	"	
<b>Benzo (b) fluoranthene</b>	"	<b>2150</b>	----	75.0	"	"	"	"	"	
<b>Benzo (ghi) perylene</b>	"	<b>1570</b>	----	75.0	"	"	"	"	"	
<b>Benzo (k) fluoranthene</b>	"	<b>1340</b>	----	75.0	"	"	"	"	"	
<b>Chrysene</b>	"	<b>1760</b>	----	75.0	"	"	"	"	"	
<b>Dibenzo (a,h) anthracene</b>	"	<b>283</b>	----	75.0	"	"	"	"	"	
<b>Fluoranthene</b>	"	<b>2720</b>	----	75.0	"	"	"	"	"	
Fluorene	"	ND	----	75.0	"	"	"	"	"	
<b>Indeno (1,2,3-cd) pyrene</b>	"	<b>1280</b>	----	75.0	"	"	"	"	"	
Naphthalene	"	<b>76.3</b>	----	75.0	"	"	"	"	"	
<b>Phenanthrene</b>	"	<b>462</b>	----	75.0	"	"	"	"	"	
<b>Pyrene</b>	"	<b>3100</b>	----	375	"	5x	"	"	02/27/07 16:48	

TestAmerica - Portland, OR

*Darrell W. Auvil*

Darrell Auvil, 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.*



<b>Ash Creek Associates, Inc.</b>	Project Name: <b>T4S3 - Pencil Pitch</b>	
9615 SW Allen Blvd. Suite 106	Project Number: 1007-03	Report Created:
Beaverton, OR 97005	Project Manager: Mike Stevens	03/07/07 09:44

**Polynuclear Aromatic Compounds per EPA 8270M-SIM**  
TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>PQB0100-21</b>	<b>(SB-1-3)</b>									
		<b>Soil</b>			<b>Sampled: 02/01/07 14:15</b>					<b>H1, A-01a, RL3</b>

Surrogate(s):	Fluorene-d10	99.9%			24 - 125 %	1x			02/23/07 22:06	
	Pyrene-d10	120%			41 - 141 %	"			"	
	Benzo (a) pyrene-d12	114%			38 - 143 %	"			"	

TestAmerica - Portland, OR



Darrell Auvil, 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.*



<b>Ash Creek Associates, Inc.</b>	Project Name: <b>T4S3 - Pencil Pitch</b>	
9615 SW Allen Blvd. Suite 106	Project Number: 1007-03	Report Created:
Beaverton, OR 97005	Project Manager: Mike Stevens	03/07/07 09:44

**Percent Dry Weight (Solids) per Standard Methods**  
 TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>PQB0100-01 (SB-1-0.5)</b>		<b>Soil</b>			<b>Sampled: 02/01/07 13:50</b>					
% Solids	NCA SOP	93.7	----	0.00	% by Weight	1x	7020122	02/05/07 08:34	02/05/07 08:34	
<b>PQB0100-02 (SB-2-0.5)</b>		<b>Soil</b>			<b>Sampled: 02/01/07 14:35</b>					
% Solids	NCA SOP	90.4	----	0.00	% by Weight	1x	7020122	02/05/07 08:34	02/05/07 08:34	
<b>PQB0100-03 (SB-3-2.5)</b>		<b>Soil</b>			<b>Sampled: 02/01/07 16:10</b>					
% Solids	NCA SOP	86.9	----	0.00	% by Weight	1x	7020122	02/05/07 08:34	02/05/07 08:34	
<b>PQB0100-04 (SB-4-3.0)</b>		<b>Soil</b>			<b>Sampled: 02/01/07 15:30</b>					
% Solids	NCA SOP	87.6	----	0.00	% by Weight	1x	7020122	02/05/07 08:34	02/05/07 08:34	
<b>PQB0100-05 (SB-5-0.5)</b>		<b>Soil</b>			<b>Sampled: 02/01/07 15:45</b>					
% Solids	NCA SOP	86.0	----	0.00	% by Weight	1x	7020122	02/05/07 08:34	02/05/07 08:34	
<b>PQB0100-06 (SB-6-0.5)</b>		<b>Soil</b>			<b>Sampled: 02/02/07 09:07</b>					
% Solids	NCA SOP	91.0	----	0.00	% by Weight	1x	7020122	02/05/07 08:34	02/05/07 08:34	
<b>PQB0100-07 (SB-7-0.5)</b>		<b>Soil</b>			<b>Sampled: 02/02/07 09:30</b>					
% Solids	NCA SOP	90.6	----	0.00	% by Weight	1x	7020122	02/05/07 08:34	02/05/07 08:34	
<b>PQB0100-08 (SB-8-0.5)</b>		<b>Soil</b>			<b>Sampled: 02/02/07 09:50</b>					
% Solids	NCA SOP	90.7	----	0.00	% by Weight	1x	7020122	02/05/07 08:34	02/05/07 08:34	
<b>PQB0100-09 (SB-9-0.5)</b>		<b>Soil</b>			<b>Sampled: 02/02/07 10:20</b>					
% Solids	NCA SOP	91.9	----	0.00	% by Weight	1x	7020122	02/05/07 08:34	02/05/07 08:34	
<b>PQB0100-10 (SB-10-0.5)</b>		<b>Soil</b>			<b>Sampled: 02/02/07 10:55</b>					
% Solids	NCA SOP	92.8	----	0.00	% by Weight	1x	7020122	02/05/07 08:34	02/05/07 08:34	
<b>PQB0100-11 (SB-11-0.5)</b>		<b>Soil</b>			<b>Sampled: 02/01/07 09:17</b>					

TestAmerica - Portland, OR



Darrell Auvil, 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.*



<b>Ash Creek Associates, Inc.</b>	Project Name: <b>T4S3 - Pencil Pitch</b>	
9615 SW Allen Blvd. Suite 106	Project Number: 1007-03	Report Created:
Beaverton, OR 97005	Project Manager: Mike Stevens	03/07/07 09:44

**Percent Dry Weight (Solids) per Standard Methods**  
 TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>PQB0100-11 (SB-11-0.5)</b>		<b>Soil</b>			<b>Sampled: 02/01/07 09:17</b>					
% Solids	NCA SOP	<b>91.9</b>	----	0.00	% by Weight	1x	7020122	02/05/07 08:34	02/05/07 08:34	
<b>PQB0100-12 (SB-11-2.5)</b>		<b>Soil</b>			<b>Sampled: 02/01/07 10:05</b>					
% Solids	NCA SOP	<b>86.5</b>	----	0.00	% by Weight	1x	7020122	02/05/07 08:34	02/05/07 08:34	
<b>PQB0100-13 (SB-12-0.5)</b>		<b>Soil</b>			<b>Sampled: 02/01/07 09:30</b>					
% Solids	NCA SOP	<b>88.0</b>	----	0.00	% by Weight	1x	7020122	02/05/07 08:34	02/05/07 08:34	
<b>PQB0100-14 (SB-12-2.5)</b>		<b>Soil</b>			<b>Sampled: 02/01/07 11:22</b>					
% Solids	NCA SOP	<b>88.8</b>	----	0.00	% by Weight	1x	7020122	02/05/07 08:34	02/05/07 08:34	
<b>PQB0100-15 (SB-13-0.5)</b>		<b>Soil</b>			<b>Sampled: 02/01/07 09:35</b>					
% Solids	NCA SOP	<b>89.2</b>	----	0.00	% by Weight	1x	7020122	02/05/07 08:34	02/05/07 08:34	
<b>PQB0100-16 (SB-13-2.5)</b>		<b>Soil</b>			<b>Sampled: 02/01/07 10:57</b>					
% Solids	NCA SOP	<b>90.8</b>	----	0.00	% by Weight	1x	7020122	02/05/07 08:34	02/05/07 08:34	
<b>PQB0100-17 (SB-14-0.5)</b>		<b>Soil</b>			<b>Sampled: 02/01/07 09:40</b>					
% Solids	NCA SOP	<b>88.5</b>	----	0.00	% by Weight	1x	7020122	02/05/07 08:34	02/05/07 08:34	
<b>PQB0100-18 (SB-14-2.4)</b>		<b>Soil</b>			<b>Sampled: 02/01/07 12:01</b>					
% Solids	NCA SOP	<b>87.8</b>	----	0.00	% by Weight	1x	7020122	02/05/07 08:34	02/05/07 08:34	
<b>PQB0100-19 (SB-15-0.5)</b>		<b>Soil</b>			<b>Sampled: 02/01/07 09:45</b>					
% Solids	NCA SOP	<b>87.2</b>	----	0.00	% by Weight	1x	7020122	02/05/07 08:34	02/05/07 08:34	
<b>PQB0100-20 (SB-15-2.8)</b>		<b>Soil</b>			<b>Sampled: 02/01/07 12:46</b>					
% Solids	NCA SOP	<b>90.7</b>	----	0.00	% by Weight	1x	7020122	02/05/07 08:34	02/05/07 08:34	
<b>PQB0100-21 (SB-1-3)</b>		<b>Soil</b>			<b>Sampled: 02/01/07 14:15</b>					

TestAmerica - Portland, OR



Darrell Auvil, 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.*



<b>Ash Creek Associates, Inc.</b>	Project Name: <b>T4S3 - Pencil Pitch</b>	
9615 SW Allen Blvd. Suite 106	Project Number: 1007-03	Report Created:
Beaverton, OR 97005	Project Manager: Mike Stevens	03/07/07 09:44

**Percent Dry Weight (Solids) per Standard Methods**  
TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>PQB0100-21 (SB-1-3)</b>		<b>Soil</b>			<b>Sampled: 02/01/07 14:15</b>					
<b>% Solids</b>	NCA SOP	<b>89.0</b>	----	0.00	% by Weight	1x	7020664	02/19/07 08:29	02/19/07 08:29	

TestAmerica - Portland, OR

*Darrell W. Auvil*

Darrell Auvil, 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.*



<b>Ash Creek Associates, Inc.</b>	Project Name: <b>T4S3 - Pencil Pitch</b>	Report Created:
9615 SW Allen Blvd. Suite 106	Project Number: 1007-03	03/07/07 09:44
Beaverton, OR 97005	Project Manager: Mike Stevens	

**Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method with Acid/Silica Gel Cleanup - Laboratory Quality Control Results**  
 TestAmerica - Portland, OR

**QC Batch: 7020220      Soil Preparation Method: EPA 3550 Fuels**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes	
<b>Blank (7020220-BLK1)</b>										Extracted: 02/06/07 15:35					
Diesel Range Organics	NWTPH-Dx	ND	---	12.5	mg/kg wet	1x	--	--	--	--	--	--	02/08/07 04:39		
Heavy Oil Range Hydrocarbons	"	ND	---	25.0	"	"	--	--	--	--	--	--	"		
<i>Surrogate(s): 1-Chlorooctadecane</i>		<i>Recovery: 64.2%</i>		<i>Limits: 50-150%</i>	<i>"</i>								<i>02/08/07 04:39</i>		
<b>LCS (7020220-BS1)</b>										Extracted: 02/06/07 15:35					
Diesel Range Organics	NWTPH-Dx	128	---	12.5	mg/kg wet	1x	--	128	100%	(50-150)	--	--	02/08/07 04:06		
Heavy Oil Range Hydrocarbons	"	65.8	---	25.0	"	"	--	76.0	86.6%	"	--	--	"		
<i>Surrogate(s): 1-Chlorooctadecane</i>		<i>Recovery: 94.4%</i>		<i>Limits: 50-150%</i>	<i>"</i>								<i>02/08/07 04:06</i>		
<b>Duplicate (7020220-DUP1)</b>										QC Source: <b>PQB0100-01</b>		Extracted: 02/06/07 15:35			
Diesel Range Organics	NWTPH-Dx	211	---	66.6	mg/kg dry	5x	108	--	--	--	64.6%	(50)	02/08/07 18:51	R2, Q6	
Heavy Oil Range Hydrocarbons	"	2130	---	133	"	"	496	--	--	--	124%	"	"	R2, Q10	
<i>Surrogate(s): 1-Chlorooctadecane</i>		<i>Recovery: 121%</i>		<i>Limits: 50-150%</i>	<i>"</i>								<i>02/08/07 18:51</i>		
<b>Duplicate (7020220-DUP2)</b>										QC Source: <b>PQB0100-02</b>		Extracted: 02/06/07 15:35			
Diesel Range Organics	NWTPH-Dx	ND	---	13.6	mg/kg dry	1x	ND	--	--	--	NR	(50)	02/08/07 11:33		
Heavy Oil Range Hydrocarbons	"	32.5	---	27.2	"	"	ND	--	--	--	"	"	"		
<i>Surrogate(s): 1-Chlorooctadecane</i>		<i>Recovery: 110%</i>		<i>Limits: 50-150%</i>	<i>"</i>								<i>02/08/07 11:33</i>		

**QC Batch: 7020752      Soil Preparation Method: EPA 3550 Fuels**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes	
<b>Blank (7020752-BLK1)</b>										Extracted: 02/20/07 15:50					
Diesel Range Organics	NWTPH-Dx	ND	---	12.5	mg/kg wet	1x	--	--	--	--	--	--	02/21/07 20:02		
Heavy Oil Range Hydrocarbons	"	ND	---	25.0	"	"	--	--	--	--	--	--	"		
<i>Surrogate(s): 1-Chlorooctadecane</i>		<i>Recovery: 112%</i>		<i>Limits: 50-150%</i>	<i>"</i>								<i>02/21/07 20:02</i>		
<b>LCS (7020752-BS1)</b>										Extracted: 02/20/07 15:50					
Diesel Range Organics	NWTPH-Dx	134	---	12.5	mg/kg wet	1x	--	128	105%	(50-150)	--	--	02/21/07 19:26		
Heavy Oil Range Hydrocarbons	"	93.3	---	25.0	"	"	--	76.0	123%	"	--	--	"		
<i>Surrogate(s): 1-Chlorooctadecane</i>		<i>Recovery: 105%</i>		<i>Limits: 50-150%</i>	<i>"</i>								<i>02/21/07 19:26</i>		
<b>Duplicate (7020752-DUP1)</b>										QC Source: <b>PQB0391-04</b>		Extracted: 02/20/07 15:50			
Diesel Range Organics	NWTPH-Dx	244	---	68.1	mg/kg dry	5x	350	--	--	--	35.7%	(50)	02/21/07 18:50		
Heavy Oil Range Hydrocarbons	"	2560	---	136	"	"	4010	--	--	--	44.1%	"	"		
<i>Surrogate(s): 1-Chlorooctadecane</i>		<i>Recovery: 92.9%</i>		<i>Limits: 50-150%</i>	<i>"</i>								<i>02/21/07 18:50</i>		

TestAmerica - Portland, OR



Darrell Auvil, 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.*



<b>Ash Creek Associates, Inc.</b>	Project Name: <b>T4S3 - Pencil Pitch</b>	
9615 SW Allen Blvd. Suite 106	Project Number: 1007-03	Report Created:
Beaverton, OR 97005	Project Manager: Mike Stevens	03/07/07 09:44

**Polynuclear Aromatic Compounds per EPA 8270M-SIM - Laboratory Quality Control Results**  
 TestAmerica - Portland, OR

**QC Batch: 7020180**      **Soil Preparation Method: EPA 3550**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes		
<b>Blank (7020180-BLK1)</b>													<b>Extracted: 02/06/07 11:00</b>			
Acenaphthene	EPA 8270m	ND	---	13.3	ug/kg wet	1x	--	--	--	--	--	--	02/06/07 17:42			
Acenaphthylene	"	ND	---	13.3	"	"	--	--	--	--	--	--	"			
Anthracene	"	ND	---	13.3	"	"	--	--	--	--	--	--	"			
Benzo (a) anthracene	"	ND	---	13.3	"	"	--	--	--	--	--	--	"			
Benzo (a) pyrene	"	ND	---	13.3	"	"	--	--	--	--	--	--	"			
Benzo (b) fluoranthene	"	ND	---	13.3	"	"	--	--	--	--	--	--	"			
Benzo (ghi) perylene	"	ND	---	13.3	"	"	--	--	--	--	--	--	"			
Benzo (k) fluoranthene	"	ND	---	13.3	"	"	--	--	--	--	--	--	"			
Chrysene	"	ND	---	13.3	"	"	--	--	--	--	--	--	"			
Dibenzo (a,h) anthracene	"	ND	---	13.3	"	"	--	--	--	--	--	--	"			
Fluoranthene	"	ND	---	13.3	"	"	--	--	--	--	--	--	"			
Fluorene	"	ND	---	13.3	"	"	--	--	--	--	--	--	"			
Indeno (1,2,3-cd) pyrene	"	ND	---	13.3	"	"	--	--	--	--	--	--	"			
Naphthalene	"	ND	---	13.3	"	"	--	--	--	--	--	--	"			
Phenanthrene	"	ND	---	13.3	"	"	--	--	--	--	--	--	"			
Pyrene	"	ND	---	13.3	"	"	--	--	--	--	--	--	"			
<i>Surrogate(s): Fluorene-d10</i>													<i>Recovery: 54.7%</i>	<i>Limits: 24-125%</i>	<i>"</i>	<i>02/06/07 17:42</i>
<i>Pyrene-d10</i>													<i>108%</i>	<i>41-141%</i>	<i>"</i>	<i>"</i>
<i>Benzo (a) pyrene-d12</i>													<i>97.7%</i>	<i>38-143%</i>	<i>"</i>	<i>"</i>

<b>LCS (7020180-BS1)</b>													<b>Extracted: 02/06/07 11:00</b>		<b>MNR</b>	
Acenaphthene	EPA 8270m	141	---	13.3	ug/kg wet	1x	--	165	85.5%	(33-139)	--	--	02/06/07 18:18			
Benzo (a) pyrene	"	168	---	13.3	"	"	--	"	102%	(45-149)	--	--	"			
Pyrene	"	161	---	13.3	"	"	--	"	97.6%	(39-138)	--	--	"			
<i>Surrogate(s): Fluorene-d10</i>													<i>Recovery: 54.7%</i>	<i>Limits: 24-125%</i>	<i>"</i>	<i>02/06/07 18:18</i>
<i>Pyrene-d10</i>													<i>90.7%</i>	<i>41-141%</i>	<i>"</i>	<i>"</i>
<i>Benzo (a) pyrene-d12</i>													<i>90.9%</i>	<i>38-143%</i>	<i>"</i>	<i>"</i>

TestAmerica - Portland, OR



Darrell Auvil, 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.*



<b>Ash Creek Associates, Inc.</b>	Project Name: <b>T4S3 - Pencil Pitch</b>	
9615 SW Allen Blvd. Suite 106	Project Number: 1007-03	Report Created:
Beaverton, OR 97005	Project Manager: Mike Stevens	03/07/07 09:44

**Polynuclear Aromatic Compounds per EPA 8270M-SIM - Laboratory Quality Control Results**  
 TestAmerica - Portland, OR

**QC Batch: 7020833**      **Soil Preparation Method: EPA 3550**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
<b>Blank (7020833-BLK1)</b>													<b>Extracted: 02/22/07 13:45</b>	
Acenaphthene	EPA 8270m	ND	---	13.2	ug/kg wet	1x	--	--	--	--	--	--	02/23/07 21:10	
Acenaphthylene	"	ND	---	13.2	"	"	--	--	--	--	--	--	"	
Anthracene	"	ND	---	13.2	"	"	--	--	--	--	--	--	"	
Benzo (a) anthracene	"	ND	---	13.2	"	"	--	--	--	--	--	--	"	
Benzo (a) pyrene	"	ND	---	13.2	"	"	--	--	--	--	--	--	"	
Benzo (b) fluoranthene	"	ND	---	13.2	"	"	--	--	--	--	--	--	"	
Benzo (ghi) perylene	"	ND	---	13.2	"	"	--	--	--	--	--	--	"	
Benzo (k) fluoranthene	"	ND	---	13.2	"	"	--	--	--	--	--	--	"	
Chrysene	"	ND	---	13.2	"	"	--	--	--	--	--	--	"	
Dibenzo (a,h) anthracene	"	ND	---	13.2	"	"	--	--	--	--	--	--	"	
Fluoranthene	"	ND	---	13.2	"	"	--	--	--	--	--	--	"	
Fluorene	"	ND	---	13.2	"	"	--	--	--	--	--	--	"	
Indeno (1,2,3-cd) pyrene	"	ND	---	13.2	"	"	--	--	--	--	--	--	"	
Naphthalene	"	ND	---	13.2	"	"	--	--	--	--	--	--	"	
Phenanthrene	"	ND	---	13.2	"	"	--	--	--	--	--	--	"	
Pyrene	"	ND	---	13.2	"	"	--	--	--	--	--	--	"	
<i>Surrogate(s): Fluorene-d10</i>		<i>Recovery:</i>	<i>64.7%</i>	<i>Limits: 24-125%</i>		<i>"</i>							<i>02/23/07 21:10</i>	
<i>Pyrene-d10</i>			<i>112%</i>	<i>41-141%</i>		<i>"</i>							<i>"</i>	
<i>Benzo (a) pyrene-d12</i>			<i>110%</i>	<i>38-143%</i>		<i>"</i>							<i>"</i>	

<b>LCS (7020833-BS1)</b>													<b>Extracted: 02/22/07 13:45</b>	
Acenaphthene	EPA 8270m	113	---	13.2	ug/kg wet	1x	--	164	68.9%	(33-139)	--	--	02/23/07 21:38	
Benzo (a) pyrene	"	158	---	13.2	"	"	--	"	96.3%	(45-149)	--	--	"	
Pyrene	"	186	---	13.2	"	"	--	"	113%	(39-138)	--	--	"	
<i>Surrogate(s): Fluorene-d10</i>		<i>Recovery:</i>	<i>71.0%</i>	<i>Limits: 24-125%</i>		<i>"</i>							<i>02/23/07 21:38</i>	
<i>Pyrene-d10</i>			<i>118%</i>	<i>41-141%</i>		<i>"</i>							<i>"</i>	
<i>Benzo (a) pyrene-d12</i>			<i>108%</i>	<i>38-143%</i>		<i>"</i>							<i>"</i>	

<b>Matrix Spike (7020833-MS1)</b>													<b>QC Source: PQB0100-21</b>		<b>Extracted: 02/22/07 13:45</b>		<b>RL3</b>
Acenaphthene	EPA 8270m	182	---	370	ug/kg dry	5x	31.3	184	81.9%	(33-139)	--	--	02/27/07 17:16				
Benzo (a) pyrene	"	3300	---	370	"	"	2050	"	679%	(45-149)	--	--	"	M1			
Pyrene	"	6480	---	370	"	"	3100	"	1840%	(39-138)	--	--	"	M1			
<i>Surrogate(s): Fluorene-d10</i>		<i>Recovery:</i>	<i>97.1%</i>	<i>Limits: 24-125%</i>		<i>"</i>							<i>02/27/07 17:16</i>	<i>Z3</i>			
<i>Pyrene-d10</i>			<i>92.4%</i>	<i>41-141%</i>		<i>"</i>							<i>"</i>	<i>Z3</i>			
<i>Benzo (a) pyrene-d12</i>			<i>108%</i>	<i>38-143%</i>		<i>"</i>							<i>"</i>				

TestAmerica - Portland, OR



Darrell Auvil, 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.*



<b>Ash Creek Associates, Inc.</b>	Project Name: <b>T4S3 - Pencil Pitch</b>	
9615 SW Allen Blvd. Suite 106	Project Number: 1007-03	Report Created:
Beaverton, OR 97005	Project Manager: Mike Stevens	03/07/07 09:44

**Polynuclear Aromatic Compounds per EPA 8270M-SIM - Laboratory Quality Control Results**  
 TestAmerica - Portland, OR

**QC Batch: 7020833      Soil Preparation Method: EPA 3550**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
<b>Matrix Spike Dup (7020833-MSD1)</b>				QC Source: PQB0100-21			Extracted: 02/22/07 13:45							RL3
Acenaphthene	EPA 8270m	186	---	376	ug/kg dry	5x	31.3	187	82.7%	(33-139)	2.17%	(60)	02/27/07 17:45	
Benzo (a) pyrene	"	1590	---	376	"	"	2050	"	-246%	(45-149)	69.9%	"	"	M2, R3
Pyrene	"	2560	---	376	"	"	3100	"	-289%	(39-138)	86.7%	"	"	M2, R3
<i>Surrogate(s): Fluorene-d10</i>		<i>Recovery:</i>	<i>84.1%</i>	<i>Limits: 24-125%</i>		<i>"</i>							<i>02/27/07 17:45</i>	<i>Z3</i>
<i>Pyrene-d10</i>			<i>92.5%</i>	<i>41-141%</i>		<i>"</i>							<i>"</i>	<i>Z3</i>
<i>Benzo (a) pyrene-d12</i>			<i>105%</i>	<i>38-143%</i>		<i>"</i>							<i>"</i>	

TestAmerica - Portland, OR



Darrell Auvil, 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.*



<b>Ash Creek Associates, Inc.</b>	Project Name: <b>T4S3 - Pencil Pitch</b>	
9615 SW Allen Blvd. Suite 106	Project Number: 1007-03	Report Created:
Beaverton, OR 97005	Project Manager: Mike Stevens	03/07/07 09:44

**Percent Dry Weight (Solids) per Standard Methods - Laboratory Quality Control Results**  
 TestAmerica - Portland, OR

**QC Batch: 7020122      Soil Preparation Method: Dry Weight**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes	
<b>Duplicate (7020122-DUP1)</b>			QC Source: PQB0100-16					Extracted: 02/05/07 08:34							
% Solids	NCA SOP	89.7	---	0.00	% by Weight	1x	90.8	--	--	--	1.22%	(20)	02/05/07 08:34		

**QC Batch: 7020664      Soil Preparation Method: Dry Weight**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes	
<b>Duplicate (7020664-DUP1)</b>			QC Source: PQB0624-07					Extracted: 02/19/07 08:14							
% Solids	NCA SOP	93.5	---	0.00	% by Weight	1x	93.1	--	--	--	0.429%	(20)	02/19/07 08:14		

TestAmerica - Portland, OR



Darrell Auvil, 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.*



<b>Ash Creek Associates, Inc.</b>	Project Name: <b>T4S3 - Pencil Pitch</b>	
9615 SW Allen Blvd. Suite 106	Project Number: 1007-03	Report Created:
Beaverton, OR 97005	Project Manager: Mike Stevens	03/07/07 09:44

**Notes and Definitions**

Report Specific Notes:

- A-01 - Detected hydrocarbons appear to be due to a lighter weight oil.
- A-01a - MS/MSD performed on his sample indicates a non-homogeneous matrix.
- H1 - Sample analysis performed past the method-specified holding time per client's approval.
- H8 - The sample was extracted past the holding time.
- 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.
- Q10 - Hydrocarbon pattern most closely resembles a blend of creosote or similar product as well as oil.
- Q6 - Results in the diesel organics range are primarily due to overlap from a heavy oil range product.
- Q9 - Hydrocarbon pattern most closely resembles creosote or similar product.
- R2 - The RPD exceeded the acceptance limit.
- R3 - The RPD exceeded the acceptance limit due to sample matrix effects.
- RL3 - Reporting limit raised due to high concentrations of non-target analytes.
- RL7 - Sample required dilution due to high concentrations of target analyte.
- Z3 - The sample required a dilution due to the nature of the sample matrix. Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.
- Z9 - Unable to calculate surrogate recovery due to matrix interference.

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.
- Reporting Limits - Reporting limits (MDLs and MRLs) are adjusted based on variations in sample preparation amounts, analytical dilutions and percent solids, where applicable.

TestAmerica - Portland, OR



Darrell Auvil, 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.*



**Ash Creek Associates, Inc.**

9615 SW Allen Blvd. Suite 106  
Beaverton, OR 97005

Project Name: **T4S3 - Pencil Pitch**  
Project Number: 1007-03  
Project Manager: Mike Stevens

Report Created:  
03/07/07 09:44

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 - Portland, OR



Darrell Auvil, 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.*



## CHAIN OF CUSTODY REPORT

PAGE 1 of 3

Work Order #: **PCB0100**

CLIENT: <b>Asa Creek Associates</b>		INVOICE TO:		<b>SP-00</b>		<b>TURNAROUND REQUEST</b> in Business Days * Organic & Inorganic Analyses <input type="checkbox"/> 10 <input type="checkbox"/> 7 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1 <input type="checkbox"/> <1 <small>STD.</small> Petroleum Hydrocarbon Analyses <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1 <input type="checkbox"/> <1 <small>STD.</small> OTHER Specify: _____ <small>* Turnaround Requests less than standard may incur Rush Charges.</small>				
REPORT TO: <b>Mike Stevens</b>		P.O. NUMBER: <b>1007-03</b>								
ADDRESS: <b>4615 So Allen Blvd, Suite 100 Bremerton, WA 98005</b>		PRESERVATIVE								
PHONE: <b>503 924 4704</b> FAX: <b>503 924 4707</b>		REQUESTED ANALYSES								
PROJECT NAME: <b>T453 - Point 1704</b>		SAMPLING DATE/TIME								
PROJECT NUMBER: <b>1007-03</b>		TRH-0								
SAMPLER: <b>A. Schmitt / M. Drouin</b>		Residual Range								
		NEW TRH-0 X								
		PARTS PER 1000								
		GC/MS								
CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	TRH-0	Residual Range	NEW TRH-0 X	PARTS PER 1000	GC/MS	MATRIX (W, S, O)	# OF CONT.	LOCATION / COMMENTS	TA WO ID
1 SB-1-0.5	2/1/07 1350	X			X					
2 SB-2-0.5	1435	X			X					
3 SB-3-0.5	1610	X			X					
4 SB-4-0.5	1530	X			X					
5 SB-5-0.5	1545	X			X					
6 SB-6-0.5	2/2/07 907	X			X					
7 SB-7-0.5	930	X			X					
8 SB-8-0.5	950	X			X					
9 SB-9-0.5	1020	X			X					
10 SB-10-0.5	1055	X			X					
RELEASED BY: <b>A. Schmitt</b>		DATE: <b>2/2/07</b>		RECEIVED BY: <b>[Signature]</b>		DATE: <b>2/2/07</b>				
PRINT NAME: <b>A. Schmitt</b>		FIRM: <b>Asa Creek</b>		TIME: <b>1507</b>		PRINT NAME: <b>[Signature]</b>		FIRM: <b>TAP</b>		TIME: <b>1507</b>
RELEASED BY:		DATE:		RECEIVED BY:		DATE:				
PRINT NAME:		FIRM:		PRINT NAME:		FIRM:				
ADDITIONAL REMARKS:										

Note: By relinquishing samples to TestAmerica, client agrees to pay for the services requested on this chain of custody form and for any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice unless otherwise contracted. Sample(s) will be disposed of after 30 days unless otherwise contracted.

1.9

## CHAIN OF CUSTODY REPORT

PAGE 2 of 3

Work Order #:

CLIENT: Ash Creek		INVOICE TO:		<b>TURNAROUND REQUEST</b> in Business Days * Organic & Inorganic Analyses <input type="checkbox"/> 10 <input type="checkbox"/> 7 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1 <input type="checkbox"/> <1 <small>STD.</small> Petroleum Hydrocarbon Analyses <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1 <input type="checkbox"/> <1 <small>STD.</small> <input type="button" value="OTHER"/> Specify: <small>* Turnaround Requests less than standard may incur Rush Charges.</small>			
REPORT TO: M. Stevens ADDRESS: 1615 SW Dixon Blvd, Suite 102 Beaverton, OR 97005		P.O. NUMBER:					
PHONE: 503-924-4704 FAX: 503-924-4727		PRESERVATIVE					
PROJECT NAME: Tuss - Pined Oaks		REQUESTED ANALYSES					
PROJECT NUMBER: 1007-03		PAT-D + Residual Range WFTPH-Dx PATHS-BZPC CAC/MS-SM					
SAMPLED BY: A. Schmidt							
CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME			MATRIX (W, S, O)	# OF CONT.	LOCATION / COMMENTS	TA WO ID
1 SB-11-0.5	2/1/07	917	X	X			
2 SB-11-2.5	↓	1005	X	X			
3 SB-12-0.5		930	X	X			
4 SB-12-2.5		1122	X	X			
5 SB-13-0.5		935	X	X			
6 SB-13-2.5		1057	X	X			
7 SB-14-0.5		940	X	X			
8 SB-14-2.4		1201	X	X			
9 SB-15-0.5		945	X	X			
10 SB-15-2.0		1246	X	X			
RELEASED BY: A. Schmidt		FIRM: Ash Creek	DATE: 2/2/07	TIME: 1507	RECEIVED BY: [Signature]	FIRM: [Signature]	DATE: 2/2/07
RELEASED BY:	FIRM:	DATE:	TIME:	RECEIVED BY:	FIRM:	DATE:	TIME:
ADDITIONAL REMARKS:						TEMP:	PAGE OF



### TEST AMERICA SAMPLE RECEIPT CHECKLIST

Received By: \_\_\_\_\_  
(applies to temp at receipt)

Logged-in By: \_\_\_\_\_

Unpacked/Labeled By: \_\_\_\_\_

Cooler ID: \_\_\_\_\_ (\_\_\_\_ of \_\_\_\_)

Date: 2/20/07

Date: 2/20/07

Date: 2/20/07

Work Order No. POB0100

Time: 1547

Initials: \_\_\_\_\_

Initials: \_\_\_\_\_

Client: HSH Creek

Initials: \_\_\_\_\_

Project: Pencil pitch

Container Type:

COC Seals:

Packing Material

Cooler

\_\_\_\_ Ship. Container

\_\_\_\_ Sign By

\_\_\_\_ Bubble Bags

\_\_\_\_ Styrofoam

\_\_\_\_ Box

\_\_\_\_ On Bottles

\_\_\_\_ Date

\_\_\_\_ Foam Packs

\_\_\_\_ None/Other \_\_\_\_\_

None

None/Other Other \_\_\_\_\_

Refrigerant:

Received Via: Bill#

\_\_\_\_ Gel Ice Pack \_\_\_\_\_ None

\_\_\_\_ Fed Ex  Client

Loose Ice IN BAG

\_\_\_\_ UPS \_\_\_\_\_ NCA Courier

\_\_\_\_ None/Other \_\_\_\_\_

\_\_\_\_ DHL \_\_\_\_\_ Mid Valley

\_\_\_\_ Senvoy \_\_\_\_\_ TDP

\_\_\_\_ GS \_\_\_\_\_ Other \_\_\_\_\_

Cooler Temperature (IR): 1.9 °C Plastic  Glass (Frozen filters, Tedlars and aqueous Metals exempt)  
(circle one)

Temperature Blank? \_\_\_\_\_ °C or  NA

Trip Blank? \_\_\_\_\_ Y or N or  NA

Sample Containers:

ID

ID

Intact?  Y or N \_\_\_\_\_

Metals Preserved? \_\_\_\_\_ Y or N or  NA

Provided by NCA?  Y or N \_\_\_\_\_

Client QAPP Preserved? \_\_\_\_\_ Y or N or  NA

Correct Type?  Y or N \_\_\_\_\_

Adequate Volume? \_\_\_\_\_ Y or N

#Containers match COC?  Y or N \_\_\_\_\_

(for tests requested)  
Water VOAs: Headspace? \_\_\_\_\_ Y or N or  NA

IDs/time/date match COC?  Y or N \_\_\_\_\_

Comments: \_\_\_\_\_

Hold Times in hold?  Y or N \_\_\_\_\_

#### PROJECT MANAGEMENT

Is the Chain of Custody complete? \_\_\_\_\_ Y or N If N, circle the items that were incomplete

Comments, Problems \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Total access set up? \_\_\_\_\_

Y or N

Has client been contacted regarding non-conformances? \_\_\_\_\_

Y or N

If Y, \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
Date Time

PM Initials: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

March 21, 2007

Mike Stevens  
Ash Creek Associates, Inc.  
9615 SW Allen Blvd. Suite 106  
Beaverton, OR 97005

RE: T4S3 - Pencil Pitch

Enclosed are the results of analyses for samples received by the laboratory on 03/07/07 11:06.  
The following list is a summary of the Work Orders contained in this report, generated on 03/21/07  
17:13.

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

---

<u>Work Order</u>	<u>Project</u>	<u>ProjectNumber</u>
PQC0322	T4S3 - Pencil Pitch	1007-02

---



<b>Ash Creek Associates, Inc.</b>	Project Name: <b>T4S3 - Pencil Pitch</b>	
9615 SW Allen Blvd. Suite 106	Project Number: 1007-02	Report Created:
Beaverton, OR 97005	Project Manager: Mike Stevens	03/21/07 17:13

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB-16-0.5	PQC0322-01	Soil	03/06/07 13:01	03/07/07 11:06
SB-17-0.5	PQC0322-03	Soil	03/06/07 14:05	03/07/07 11:06
SB-18D-0.5	PQC0322-05	Soil	03/06/07 12:01	03/07/07 11:06
SB-18D-5	PQC0322-06	Soil	03/06/07 10:35	03/07/07 11:06
SB-19-0.5	PQC0322-08	Soil	03/06/07 11:55	03/07/07 11:06
SB-19-2.5	PQC0322-09	Soil	03/06/07 11:05	03/07/07 11:06
SB-20-0.5	PQC0322-10	Soil	03/06/07 11:25	03/07/07 11:06
SB-20-2.5	PQC0322-11	Soil	03/06/07 11:17	03/07/07 11:06
SB-21-0.5	PQC0322-12	Soil	03/06/07 10:06	03/07/07 11:06
SB-22-0.5	PQC0322-13	Soil	03/06/07 11:49	03/07/07 11:06
SB-23-0.5	PQC0322-14	Soil	03/06/07 15:00	03/07/07 11:06
SB-12D-5	PQC0322-16	Soil	03/06/07 10:48	03/07/07 11:06



<b>Ash Creek Associates, Inc.</b>	Project Name: <b>T4S3 - Pencil Pitch</b>	
9615 SW Allen Blvd. Suite 106	Project Number: 1007-02	Report Created:
Beaverton, OR 97005	Project Manager: Mike Stevens	03/21/07 17:13

**Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method with Acid/Silica Gel Cleanup**  
 TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>PQC0322-01 (SB-16-0.5)</b>		<b>Soil</b>			<b>Sampled: 03/06/07 13:01</b>					
Diesel Range Organics	NWTPH-Dx	<b>59.9</b>	----	17.7	mg/kg dry	1x	7030416	03/12/07 15:45	03/13/07 21:02	<b>Q10</b>
Heavy Oil Range Hydrocarbons	"	<b>378</b>	----	35.3	"	"	"	"	"	<b>Q10</b>
Surrogate(s): 1-Chlorooctadecane			101%		50 - 150 %	"				"
<b>PQC0322-03 (SB-17-0.5)</b>		<b>Soil</b>			<b>Sampled: 03/06/07 14:05</b>					
Diesel Range Organics	NWTPH-Dx	ND	----	14.0	mg/kg dry	1x	7030416	03/12/07 15:45	03/13/07 23:10	
Heavy Oil Range Hydrocarbons	"	ND	----	28.0	"	"	"	"	"	
Surrogate(s): 1-Chlorooctadecane			104%		50 - 150 %	"				"
<b>PQC0322-05 (SB-18D-0.5)</b>		<b>Soil</b>			<b>Sampled: 03/06/07 12:01</b>					
Diesel Range Organics	NWTPH-Dx	<b>166</b>	----	14.2	mg/kg dry	1x	7030416	03/12/07 15:45	03/13/07 21:34	<b>Q10</b>
Heavy Oil Range Hydrocarbons	"	<b>366</b>	----	28.4	"	"	"	"	"	<b>Q10</b>
Surrogate(s): 1-Chlorooctadecane			111%		50 - 150 %	"				"
<b>PQC0322-06 (SB-18D-5)</b>		<b>Soil</b>			<b>Sampled: 03/06/07 10:35</b>					
Diesel Range Organics	NWTPH-Dx	<b>44.4</b>	----	14.3	mg/kg dry	1x	7030416	03/12/07 15:45	03/13/07 23:10	<b>Q4</b>
Heavy Oil Range Hydrocarbons	"	<b>97.8</b>	----	28.5	"	"	"	"	"	<b>Q4</b>
Surrogate(s): 1-Chlorooctadecane			106%		50 - 150 %	"				"
<b>PQC0322-08 (SB-19-0.5)</b>		<b>Soil</b>			<b>Sampled: 03/06/07 11:55</b>					
Diesel Range Organics	NWTPH-Dx	<b>107</b>	----	14.4	mg/kg dry	1x	7030416	03/12/07 15:45	03/13/07 19:27	<b>Q9</b>
Heavy Oil Range Hydrocarbons	"	<b>233</b>	----	28.9	"	"	"	"	"	<b>Q9</b>
Surrogate(s): 1-Chlorooctadecane			119%		50 - 150 %	"				"
<b>PQC0322-09 (SB-19-2.5)</b>		<b>Soil</b>			<b>Sampled: 03/06/07 11:05</b>					
Diesel Range Organics	NWTPH-Dx	<b>82.6</b>	----	13.7	mg/kg dry	1x	7030416	03/12/07 15:45	03/13/07 19:59	<b>Q9</b>
Heavy Oil Range Hydrocarbons	"	<b>167</b>	----	27.3	"	"	"	"	"	<b>Q9</b>
Surrogate(s): 1-Chlorooctadecane			120%		50 - 150 %	"				"
<b>PQC0322-10 (SB-20-0.5)</b>		<b>Soil</b>			<b>Sampled: 03/06/07 11:25</b>					
Diesel Range Organics	NWTPH-Dx	<b>17.9</b>	----	13.8	mg/kg dry	1x	7030416	03/12/07 15:45	03/13/07 22:06	<b>Q9</b>
Heavy Oil Range Hydrocarbons	"	<b>43.3</b>	----	27.5	"	"	"	"	"	<b>Q9</b>
Surrogate(s): 1-Chlorooctadecane			111%		50 - 150 %	"				"

TestAmerica - Portland, OR

  
 Crystal Jones For Darrell Auvil, 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.*



<b>Ash Creek Associates, Inc.</b>	Project Name: <b>T4S3 - Pencil Pitch</b>	
9615 SW Allen Blvd. Suite 106	Project Number: 1007-02	Report Created:
Beaverton, OR 97005	Project Manager: Mike Stevens	03/21/07 17:13

**Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method with Acid/Silica Gel Cleanup**  
TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>PQC0322-11 (SB-20-2.5)</b>		<b>Soil</b>		<b>Sampled: 03/06/07 11:17</b>						
Diesel Range Organics	NWTPH-Dx	ND	----	13.9	mg/kg dry	1x	7030416	03/12/07 15:45	03/13/07 22:39	
Heavy Oil Range Hydrocarbons	"	ND	----	27.8	"	"	"	"	"	
<i>Surrogate(s): 1-Chlorooctadecane</i>			117%		50 - 150 %	"				"
<b>PQC0322-12 (SB-21-0.5)</b>		<b>Soil</b>		<b>Sampled: 03/06/07 10:06</b>						
Diesel Range Organics	NWTPH-Dx	<b>34.2</b>	----	14.7	mg/kg dry	1x	7030416	03/12/07 15:45	03/13/07 22:06	<b>Q10</b>
Heavy Oil Range Hydrocarbons	"	<b>71.9</b>	----	29.3	"	"	"	"	"	<b>Q10</b>
<i>Surrogate(s): 1-Chlorooctadecane</i>			106%		50 - 150 %	"				"
<b>PQC0322-13 (SB-22-0.5)</b>		<b>Soil</b>		<b>Sampled: 03/06/07 11:49</b>						
Diesel Range Organics	NWTPH-Dx	<b>126</b>	----	13.9	mg/kg dry	1x	7030416	03/12/07 15:45	03/13/07 19:27	<b>Q9</b>
Heavy Oil Range Hydrocarbons	"	<b>200</b>	----	27.8	"	"	"	"	"	<b>Q9</b>
<i>Surrogate(s): 1-Chlorooctadecane</i>			116%		50 - 150 %	"				"
<b>PQC0322-14 (SB-23-0.5)</b>		<b>Soil</b>		<b>Sampled: 03/06/07 15:00</b>						
Diesel Range Organics	NWTPH-Dx	<b>91.3</b>	----	14.0	mg/kg dry	1x	7030416	03/12/07 15:45	03/13/07 19:59	<b>Q6</b>
Heavy Oil Range Hydrocarbons	"	<b>569</b>	----	27.9	"	"	"	"	"	
<i>Surrogate(s): 1-Chlorooctadecane</i>			109%		50 - 150 %	"				"
<b>PQC0322-16 (SB-12D-5)</b>		<b>Soil</b>		<b>Sampled: 03/06/07 10:48</b>						
Diesel Range Organics	NWTPH-Dx	<b>39.4</b>	----	14.2	mg/kg dry	1x	7030416	03/12/07 15:45	03/13/07 21:34	<b>Q9</b>
Heavy Oil Range Hydrocarbons	"	<b>59.1</b>	----	28.4	"	"	"	"	"	<b>Q9</b>
<i>Surrogate(s): 1-Chlorooctadecane</i>			101%		50 - 150 %	"				"

TestAmerica - Portland, OR

  
Crystal Jones For Darrell Auvil, 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.*



<b>Ash Creek Associates, Inc.</b>	Project Name: <b>T4S3 - Pencil Pitch</b>	
9615 SW Allen Blvd. Suite 106	Project Number: 1007-02	Report Created:
Beaverton, OR 97005	Project Manager: Mike Stevens	03/21/07 17:13

**Polynuclear Aromatic Compounds per EPA 8270M-SIM**  
 TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
---------	--------	--------	------	-----	-------	-----	-------	----------	----------	-------

**PQC0322-01 (SB-16-0.5)** Soil Sampled: 03/06/07 13:01 RL3

Acenaphthene	EPA 8270m	ND	----	480	ug/kg dry	25x	7030326	03/09/07 06:40	03/13/07 23:52	
Acenaphthylene	"	ND	----	480	"	"	"	"	"	
Anthracene	"	ND	----	480	"	"	"	"	"	
<b>Benzo (a) anthracene</b>	"	<b>658</b>	----	480	"	"	"	"	"	
<b>Benzo (a) pyrene</b>	"	<b>663</b>	----	480	"	"	"	"	"	
<b>Benzo (b) fluoranthene</b>	"	<b>1150</b>	----	480	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	----	480	"	"	"	"	"	
<b>Benzo (k) fluoranthene</b>	"	<b>596</b>	----	480	"	"	"	"	"	
<b>Chrysene</b>	"	<b>829</b>	----	480	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	----	480	"	"	"	"	"	
<b>Fluoranthene</b>	"	<b>847</b>	----	480	"	"	"	"	"	
Fluorene	"	ND	----	480	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	----	480	"	"	"	"	"	
Naphthalene	"	ND	----	480	"	"	"	"	"	
Phenanthrene	"	ND	----	480	"	"	"	"	"	
<b>Pyrene</b>	"	<b>829</b>	----	480	"	"	"	"	"	

Surrogate(s):	Fluorene-d10	74.2%	24 - 125 %	"	"	<b>Z3</b>
	Pyrene-d10	84.0%	41 - 141 %	"	"	<b>Z3</b>
	Benzo (a) pyrene-d12	84.0%	38 - 143 %	"	"	<b>Z3</b>

**PQC0322-03 (SB-17-0.5)** Soil Sampled: 03/06/07 14:05 RL3

Acenaphthene	EPA 8270m	ND	----	146	ug/kg dry	10x	7030326	03/09/07 06:40	03/14/07 00:20	
Acenaphthylene	"	ND	----	146	"	"	"	"	"	
Anthracene	"	ND	----	146	"	"	"	"	"	
<b>Benzo (a) anthracene</b>	"	<b>187</b>	----	146	"	"	"	"	"	
<b>Benzo (a) pyrene</b>	"	<b>205</b>	----	146	"	"	"	"	"	
<b>Benzo (b) fluoranthene</b>	"	<b>242</b>	----	146	"	"	"	"	"	
<b>Benzo (ghi) perylene</b>	"	<b>147</b>	----	146	"	"	"	"	"	
<b>Benzo (k) fluoranthene</b>	"	<b>170</b>	----	146	"	"	"	"	"	
<b>Chrysene</b>	"	<b>179</b>	----	146	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	----	146	"	"	"	"	"	
<b>Fluoranthene</b>	"	<b>261</b>	----	146	"	"	"	"	"	
Fluorene	"	ND	----	146	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	----	146	"	"	"	"	"	
Naphthalene	"	ND	----	146	"	"	"	"	"	
Phenanthrene	"	ND	----	146	"	"	"	"	"	
<b>Pyrene</b>	"	<b>271</b>	----	146	"	"	"	"	"	

Surrogate(s):	Fluorene-d10	60.6%	24 - 125 %	"	"
	Pyrene-d10	74.4%	41 - 141 %	"	"
	Benzo (a) pyrene-d12	68.2%	38 - 143 %	"	"

TestAmerica - Portland, OR

  
 Crystal Jones For Darrell Auvil, 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.*



<b>Ash Creek Associates, Inc.</b>	Project Name: <b>T4S3 - Pencil Pitch</b>	
9615 SW Allen Blvd. Suite 106	Project Number: 1007-02	Report Created:
Beaverton, OR 97005	Project Manager: Mike Stevens	03/21/07 17:13

**Polynuclear Aromatic Compounds per EPA 8270M-SIM**  
 TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>PQC0322-05 (SB-18D-0.5)</b>		<b>Soil</b>			<b>Sampled: 03/06/07 12:01</b>					<b>RL3</b>
Acenaphthene	EPA 8270m	ND	----	2950	ug/kg dry	200x	7030326	03/09/07 06:40	03/14/07 00:48	
Acenaphthylene	"	ND	----	2950	"	"	"	"	"	
Anthracene	"	ND	----	2950	"	"	"	"	"	
<b>Benzo (a) anthracene</b>	"	<b>7400</b>	----	2950	"	"	"	"	"	
<b>Benzo (a) pyrene</b>	"	<b>8520</b>	----	2950	"	"	"	"	"	
<b>Benzo (b) fluoranthene</b>	"	<b>10700</b>	----	2950	"	"	"	"	"	
<b>Benzo (ghi) perylene</b>	"	<b>5150</b>	----	2950	"	"	"	"	"	
<b>Benzo (k) fluoranthene</b>	"	<b>5470</b>	----	2950	"	"	"	"	"	
<b>Chrysene</b>	"	<b>6620</b>	----	2950	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	----	2950	"	"	"	"	"	
<b>Fluoranthene</b>	"	<b>9000</b>	----	2950	"	"	"	"	"	
Fluorene	"	ND	----	2950	"	"	"	"	"	
<b>Indeno (1,2,3-cd) pyrene</b>	"	<b>5090</b>	----	2950	"	"	"	"	"	
Naphthalene	"	ND	----	2950	"	"	"	"	"	
<b>Phenanthrene</b>	"	<b>3340</b>	----	2950	"	"	"	"	"	
<b>Pyrene</b>	"	<b>9030</b>	----	2950	"	"	"	"	"	
<i>Surrogate(s): Fluorene-d10</i>			<i>NR</i>	<i>24 - 125 %</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>Z3</i>
<i>Pyrene-d10</i>			<i>NR</i>	<i>41 - 141 %</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>Z3</i>
<i>Benzo (a) pyrene-d12</i>			<i>NR</i>	<i>38 - 143 %</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>Z3</i>

<b>PQC0322-06 (SB-18D-5)</b>		<b>Soil</b>			<b>Sampled: 03/06/07 10:35</b>					
Acenaphthene	EPA 8270m	ND	----	15.3	ug/kg dry	1x	7030326	03/09/07 06:40	03/14/07 02:11	
Acenaphthylene	"	ND	----	15.3	"	"	"	"	"	
Anthracene	"	ND	----	15.3	"	"	"	"	"	
Benzo (a) anthracene	"	ND	----	15.3	"	"	"	"	"	
Benzo (a) pyrene	"	ND	----	15.3	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	----	15.3	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	----	15.3	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	----	15.3	"	"	"	"	"	
Chrysene	"	ND	----	15.3	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	----	15.3	"	"	"	"	"	
Fluoranthene	"	ND	----	15.3	"	"	"	"	"	
Fluorene	"	ND	----	15.3	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	----	15.3	"	"	"	"	"	
Naphthalene	"	ND	----	15.3	"	"	"	"	"	
Phenanthrene	"	ND	----	15.3	"	"	"	"	"	
Pyrene	"	ND	----	15.3	"	"	"	"	"	
<i>Surrogate(s): Fluorene-d10</i>			<i>64.3%</i>	<i>24 - 125 %</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	
<i>Pyrene-d10</i>			<i>79.2%</i>	<i>41 - 141 %</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	
<i>Benzo (a) pyrene-d12</i>			<i>76.8%</i>	<i>38 - 143 %</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	

TestAmerica - Portland, OR



Crystal Jones For Darrell Auvil, 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.*



<b>Ash Creek Associates, Inc.</b>	Project Name: <b>T4S3 - Pencil Pitch</b>	
9615 SW Allen Blvd. Suite 106	Project Number: 1007-02	Report Created:
Beaverton, OR 97005	Project Manager: Mike Stevens	03/21/07 17:13

**Polynuclear Aromatic Compounds per EPA 8270M-SIM**  
 TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>PQC0322-08 (SB-19-0.5)</b>		<b>Soil</b>				<b>Sampled: 03/06/07 11:55</b>				<b>RL3</b>
Acenaphthene	EPA 8270m	ND	----	779	ug/kg dry	50x	7030326	03/09/07 06:40	03/14/07 02:39	
Acenaphthylene	"	ND	----	779	"	"	"	"	"	
Anthracene	"	ND	----	779	"	"	"	"	"	
<b>Benzo (a) anthracene</b>	"	<b>7060</b>	----	779	"	"	"	"	"	
<b>Benzo (a) pyrene</b>	"	<b>7950</b>	----	779	"	"	"	"	"	
<b>Benzo (b) fluoranthene</b>	"	<b>9780</b>	----	779	"	"	"	"	"	
<b>Benzo (ghi) perylene</b>	"	<b>4770</b>	----	779	"	"	"	"	"	
<b>Benzo (k) fluoranthene</b>	"	<b>5060</b>	----	779	"	"	"	"	"	
<b>Chrysene</b>	"	<b>6400</b>	----	779	"	"	"	"	"	
<b>Dibenzo (a,h) anthracene</b>	"	<b>1910</b>	----	779	"	"	"	"	"	
<b>Fluoranthene</b>	"	<b>8900</b>	----	779	"	"	"	"	"	
Fluorene	"	ND	----	779	"	"	"	"	"	
<b>Indeno (1,2,3-cd) pyrene</b>	"	<b>4800</b>	----	779	"	"	"	"	"	
Naphthalene	"	ND	----	779	"	"	"	"	"	
<b>Phenanthrene</b>	"	<b>3170</b>	----	779	"	"	"	"	"	
<b>Pyrene</b>	"	<b>8730</b>	----	779	"	"	"	"	"	
<i>Surrogate(s): Fluorene-d10</i>			73.1%		24 - 125 %	"				<b>Z3</b>
<i>Pyrene-d10</i>			91.0%		41 - 141 %	"				<b>Z3</b>
<i>Benzo (a) pyrene-d12</i>			93.6%		38 - 143 %	"				<b>Z3</b>

<b>PQC0322-09 (SB-19-2.5)</b>		<b>Soil</b>				<b>Sampled: 03/06/07 11:05</b>				
Acenaphthene	EPA 8270m	<b>34.3</b>	----	14.9	ug/kg dry	1x	7030326	03/09/07 06:40	03/14/07 03:07	
Acenaphthylene	"	ND	----	14.9	"	"	"	"	"	
Anthracene	"	<b>31.7</b>	----	14.9	"	"	"	"	"	
<b>Benzo (a) anthracene</b>	"	<b>256</b>	----	14.9	"	"	"	"	"	
<b>Benzo (a) pyrene</b>	"	<b>277</b>	----	14.9	"	"	"	"	"	
<b>Benzo (b) fluoranthene</b>	"	<b>296</b>	----	14.9	"	"	"	"	"	
<b>Benzo (ghi) perylene</b>	"	<b>150</b>	----	14.9	"	"	"	"	"	
<b>Benzo (k) fluoranthene</b>	"	<b>204</b>	----	14.9	"	"	"	"	"	
<b>Chrysene</b>	"	<b>215</b>	----	14.9	"	"	"	"	"	
<b>Dibenzo (a,h) anthracene</b>	"	<b>56.3</b>	----	14.9	"	"	"	"	"	
<b>Fluoranthene</b>	"	<b>315</b>	----	14.9	"	"	"	"	"	
Fluorene	"	ND	----	14.9	"	"	"	"	"	
<b>Indeno (1,2,3-cd) pyrene</b>	"	<b>152</b>	----	14.9	"	"	"	"	"	
Naphthalene	"	ND	----	14.9	"	"	"	"	"	
<b>Phenanthrene</b>	"	<b>134</b>	----	14.9	"	"	"	"	"	
<b>Pyrene</b>	"	<b>317</b>	----	14.9	"	"	"	"	"	
<i>Surrogate(s): Fluorene-d10</i>			64.5%		24 - 125 %	"				"
<i>Pyrene-d10</i>			78.8%		41 - 141 %	"				"
<i>Benzo (a) pyrene-d12</i>			74.5%		38 - 143 %	"				"

TestAmerica - Portland, OR

*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.*

  
 Crystal Jones For Darrell Auvil, Project Manager



<b>Ash Creek Associates, Inc.</b>	Project Name: <b>T4S3 - Pencil Pitch</b>	
9615 SW Allen Blvd. Suite 106	Project Number: 1007-02	Report Created:
Beaverton, OR 97005	Project Manager: Mike Stevens	03/21/07 17:13

**Polynuclear Aromatic Compounds per EPA 8270M-SIM**  
 TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>PQC0322-10 (SB-20-0.5)</b>		<b>Soil</b>					<b>Sampled: 03/06/07 11:25</b>			<b>RL3</b>
Acenaphthene	EPA 8270m	ND	----	743	ug/kg dry	50x	7030326	03/09/07 06:40	03/14/07 03:35	
Acenaphthylene	"	ND	----	743	"	"	"	"	"	
Anthracene	"	ND	----	743	"	"	"	"	"	
<b>Benzo (a) anthracene</b>	"	<b>3230</b>	----	743	"	"	"	"	"	
<b>Benzo (a) pyrene</b>	"	<b>3700</b>	----	743	"	"	"	"	"	
<b>Benzo (b) fluoranthene</b>	"	<b>4120</b>	----	743	"	"	"	"	"	
<b>Benzo (ghi) perylene</b>	"	<b>2240</b>	----	743	"	"	"	"	"	
<b>Benzo (k) fluoranthene</b>	"	<b>2820</b>	----	743	"	"	"	"	"	
<b>Chrysene</b>	"	<b>2950</b>	----	743	"	"	"	"	"	
<b>Dibenzo (a,h) anthracene</b>	"	<b>822</b>	----	743	"	"	"	"	"	
<b>Fluoranthene</b>	"	<b>4040</b>	----	743	"	"	"	"	"	
Fluorene	"	ND	----	743	"	"	"	"	"	
<b>Indeno (1,2,3-cd) pyrene</b>	"	<b>2250</b>	----	743	"	"	"	"	"	
Naphthalene	"	ND	----	743	"	"	"	"	"	
<b>Phenanthrene</b>	"	<b>1470</b>	----	743	"	"	"	"	"	
<b>Pyrene</b>	"	<b>4010</b>	----	743	"	"	"	"	"	
<i>Surrogate(s): Fluorene-d10</i>			<i>NR</i>		<i>24 - 125 %</i>	<i>"</i>				<i>Z3</i>
<i>Pyrene-d10</i>			<i>NR</i>		<i>41 - 141 %</i>	<i>"</i>				<i>Z3</i>
<i>Benzo (a) pyrene-d12</i>			<i>NR</i>		<i>38 - 143 %</i>	<i>"</i>				<i>Z3</i>

<b>PQC0322-11 (SB-20-2.5)</b>		<b>Soil</b>					<b>Sampled: 03/06/07 11:17</b>			<b>RL3</b>
Acenaphthene	EPA 8270m	ND	----	752	ug/kg dry	50x	7030326	03/09/07 06:40	03/14/07 04:03	
Acenaphthylene	"	ND	----	752	"	"	"	"	"	
Anthracene	"	ND	----	752	"	"	"	"	"	
<b>Benzo (a) anthracene</b>	"	<b>2110</b>	----	752	"	"	"	"	"	
<b>Benzo (a) pyrene</b>	"	<b>2420</b>	----	752	"	"	"	"	"	
<b>Benzo (b) fluoranthene</b>	"	<b>2720</b>	----	752	"	"	"	"	"	
<b>Benzo (ghi) perylene</b>	"	<b>1380</b>	----	752	"	"	"	"	"	
<b>Benzo (k) fluoranthene</b>	"	<b>1730</b>	----	752	"	"	"	"	"	
<b>Chrysene</b>	"	<b>1910</b>	----	752	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	----	752	"	"	"	"	"	
<b>Fluoranthene</b>	"	<b>2590</b>	----	752	"	"	"	"	"	
Fluorene	"	ND	----	752	"	"	"	"	"	
<b>Indeno (1,2,3-cd) pyrene</b>	"	<b>1410</b>	----	752	"	"	"	"	"	
Naphthalene	"	ND	----	752	"	"	"	"	"	
<b>Phenanthrene</b>	"	<b>999</b>	----	752	"	"	"	"	"	
<b>Pyrene</b>	"	<b>2590</b>	----	752	"	"	"	"	"	
<i>Surrogate(s): Fluorene-d10</i>			<i>NR</i>		<i>24 - 125 %</i>	<i>"</i>				<i>Z3</i>
<i>Pyrene-d10</i>			<i>NR</i>		<i>41 - 141 %</i>	<i>"</i>				<i>Z3</i>

TestAmerica - Portland, OR

*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.*

  
 Crystal Jones For Darrell Auvil, Project Manager



<b>Ash Creek Associates, Inc.</b>	Project Name: <b>T4S3 - Pencil Pitch</b>	
9615 SW Allen Blvd. Suite 106	Project Number: 1007-02	Report Created:
Beaverton, OR 97005	Project Manager: Mike Stevens	03/21/07 17:13

**Polynuclear Aromatic Compounds per EPA 8270M-SIM**  
 TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
---------	--------	--------	------	-----	-------	-----	-------	----------	----------	-------

**PQC0322-11 (SB-20-2.5) Soil Sampled: 03/06/07 11:17 RL3**

*Benzo (a) pyrene-d12* NR 38 - 143 % 50x 03/14/07 04:03 Z3

**PQC0322-12 (SB-21-0.5) Soil Sampled: 03/06/07 10:06 RL3**

Acenaphthene	EPA 8270m	ND	----	1530	ug/kg dry	100x	7030326	03/09/07 06:40	03/14/07 04:31	
Acenaphthylene	"	ND	----	1530	"	"	"	"	"	
Anthracene	"	ND	----	1530	"	"	"	"	"	
<b>Benzo (a) anthracene</b>	"	<b>4060</b>	----	1530	"	"	"	"	"	
<b>Benzo (a) pyrene</b>	"	<b>4330</b>	----	1530	"	"	"	"	"	
<b>Benzo (b) fluoranthene</b>	"	<b>5340</b>	----	1530	"	"	"	"	"	
<b>Benzo (ghi) perylene</b>	"	<b>2590</b>	----	1530	"	"	"	"	"	
<b>Benzo (k) fluoranthene</b>	"	<b>3170</b>	----	1530	"	"	"	"	"	
<b>Chrysene</b>	"	<b>3600</b>	----	1530	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	----	1530	"	"	"	"	"	
<b>Fluoranthene</b>	"	<b>5180</b>	----	1530	"	"	"	"	"	
Fluorene	"	ND	----	1530	"	"	"	"	"	
<b>Indeno (1,2,3-cd) pyrene</b>	"	<b>2650</b>	----	1530	"	"	"	"	"	
Naphthalene	"	ND	----	1530	"	"	"	"	"	
<b>Phenanthrene</b>	"	<b>2150</b>	----	1530	"	"	"	"	"	
<b>Pyrene</b>	"	<b>5050</b>	----	1530	"	"	"	"	"	

*Surrogate(s): Fluorene-d10 NR 24 - 125 % " " Z3*  
*Pyrene-d10 NR 41 - 141 % " " Z3*  
*Benzo (a) pyrene-d12 NR 38 - 143 % " " Z3*

**PQC0322-13 (SB-22-0.5) Soil Sampled: 03/06/07 11:49 RL3**

Acenaphthene	EPA 8270m	ND	----	2900	ug/kg dry	200x	7030326	03/09/07 06:40	03/14/07 04:59	
Acenaphthylene	"	ND	----	2900	"	"	"	"	"	
Anthracene	"	ND	----	2900	"	"	"	"	"	
<b>Benzo (a) anthracene</b>	"	<b>11500</b>	----	2900	"	"	"	"	"	
<b>Benzo (a) pyrene</b>	"	<b>13700</b>	----	2900	"	"	"	"	"	
<b>Benzo (b) fluoranthene</b>	"	<b>16700</b>	----	2900	"	"	"	"	"	
<b>Benzo (ghi) perylene</b>	"	<b>9130</b>	----	2900	"	"	"	"	"	
<b>Benzo (k) fluoranthene</b>	"	<b>9310</b>	----	2900	"	"	"	"	"	
<b>Chrysene</b>	"	<b>10200</b>	----	2900	"	"	"	"	"	
<b>Dibenzo (a,h) anthracene</b>	"	<b>3280</b>	----	2900	"	"	"	"	"	
<b>Fluoranthene</b>	"	<b>13300</b>	----	2900	"	"	"	"	"	
Fluorene	"	ND	----	2900	"	"	"	"	"	
<b>Indeno (1,2,3-cd) pyrene</b>	"	<b>8800</b>	----	2900	"	"	"	"	"	
Naphthalene	"	ND	----	2900	"	"	"	"	"	
<b>Phenanthrene</b>	"	<b>5010</b>	----	2900	"	"	"	"	"	
<b>Pyrene</b>	"	<b>14200</b>	----	2900	"	"	"	"	"	

TestAmerica - Portland, OR

*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.*

  
 Crystal Jones For Darrell Auvil, Project Manager



<b>Ash Creek Associates, Inc.</b>	Project Name: <b>T4S3 - Pencil Pitch</b>	
9615 SW Allen Blvd. Suite 106	Project Number: 1007-02	Report Created:
Beaverton, OR 97005	Project Manager: Mike Stevens	03/21/07 17:13

**Polynuclear Aromatic Compounds per EPA 8270M-SIM**  
 TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>PQC0322-13 (SB-22-0.5)</b>		<b>Soil</b>			<b>Sampled: 03/06/07 11:49</b>					<b>RL3</b>
<i>Surrogate(s): Fluorene-d10</i>			NR		24 - 125 %	200x			03/14/07 04:59	Z3
<i>Pyrene-d10</i>			NR		41 - 141 %	"			"	Z3
<i>Benzo (a) pyrene-d12</i>			NR		38 - 143 %	"			"	Z3

<b>PQC0322-14 (SB-23-0.5)</b>		<b>Soil</b>			<b>Sampled: 03/06/07 15:00</b>					<b>RL3</b>
Acenaphthene	EPA 8270m	ND	----	1480	ug/kg dry	100x	7030326	03/09/07 06:40	03/14/07 14:45	
Acenaphthylene	"	ND	----	1480	"	"	"	"	"	
Anthracene	"	ND	----	1480	"	"	"	"	"	
Benzo (a) anthracene	"	ND	----	1480	"	"	"	"	"	
Benzo (a) pyrene	"	ND	----	1480	"	"	"	"	"	
<b>Benzo (b) fluoranthene</b>	"	<b>2220</b>	----	1480	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	----	1480	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	----	1480	"	"	"	"	"	
<b>Chrysene</b>	"	<b>1510</b>	----	1480	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	----	1480	"	"	"	"	"	
<b>Fluoranthene</b>	"	<b>1480</b>	----	1480	"	"	"	"	"	
Fluorene	"	ND	----	1480	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	----	1480	"	"	"	"	"	
Naphthalene	"	ND	----	1480	"	"	"	"	"	
Phenanthrene	"	ND	----	1480	"	"	"	"	"	
<b>Pyrene</b>	"	<b>1510</b>	----	1480	"	"	"	"	"	
<i>Surrogate(s): Fluorene-d10</i>			NR		24 - 125 %	"			"	Z3
<i>Pyrene-d10</i>			NR		41 - 141 %	"			"	Z3
<i>Benzo (a) pyrene-d12</i>			NR		38 - 143 %	"			"	Z3

<b>PQC0322-16 (SB-12D-5)</b>		<b>Soil</b>			<b>Sampled: 03/06/07 10:48</b>					
Acenaphthene	EPA 8270m	ND	----	14.8	ug/kg dry	1x	7030326	03/09/07 06:40	03/14/07 05:55	
Acenaphthylene	"	ND	----	14.8	"	"	"	"	"	
Anthracene	"	ND	----	14.8	"	"	"	"	"	
<b>Benzo (a) anthracene</b>	"	<b>95.7</b>	----	14.8	"	"	"	"	"	
<b>Benzo (a) pyrene</b>	"	<b>106</b>	----	14.8	"	"	"	"	"	
<b>Benzo (b) fluoranthene</b>	"	<b>124</b>	----	14.8	"	"	"	"	"	
<b>Benzo (ghi) perylene</b>	"	<b>64.7</b>	----	14.8	"	"	"	"	"	
<b>Benzo (k) fluoranthene</b>	"	<b>71.2</b>	----	14.8	"	"	"	"	"	
<b>Chrysene</b>	"	<b>84.5</b>	----	14.8	"	"	"	"	"	
<b>Dibenzo (a,h) anthracene</b>	"	<b>20.4</b>	----	14.8	"	"	"	"	"	
<b>Fluoranthene</b>	"	<b>128</b>	----	14.8	"	"	"	"	"	
Fluorene	"	ND	----	14.8	"	"	"	"	"	
<b>Indeno (1,2,3-cd) pyrene</b>	"	<b>61.0</b>	----	14.8	"	"	"	"	"	
Naphthalene	"	ND	----	14.8	"	"	"	"	"	

TestAmerica - Portland, OR

*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.*

  
 Crystal Jones For Darrell Auvil, Project Manager



<b>Ash Creek Associates, Inc.</b>	Project Name: <b>T4S3 - Pencil Pitch</b>	
9615 SW Allen Blvd. Suite 106	Project Number: 1007-02	Report Created:
Beaverton, OR 97005	Project Manager: Mike Stevens	03/21/07 17:13

**Polynuclear Aromatic Compounds per EPA 8270M-SIM**  
TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>PQC0322-16 (SB-12D-5)</b>		<b>Soil</b>			<b>Sampled: 03/06/07 10:48</b>					
<b>Phenanthrene</b>	EPA 8270m	<b>55.4</b>	----	14.8	ug/kg dry	1x	7030326	03/09/07 06:40	03/14/07 05:55	
<b>Pyrene</b>	"	<b>132</b>	----	14.8	"	"	"	"	"	
<i>Surrogate(s): Fluorene-d10</i>				56.7%		24 - 125 %	"			"
<i>Pyrene-d10</i>				77.2%		41 - 141 %	"			"
<i>Benzo (a) pyrene-d12</i>				69.5%		38 - 143 %	"			"

TestAmerica - Portland, OR

  
Crystal Jones For Darrell Auvil, 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.*



<b>Ash Creek Associates, Inc.</b>	Project Name: <b>T4S3 - Pencil Pitch</b>	Report Created:
9615 SW Allen Blvd. Suite 106	Project Number: 1007-02	03/21/07 17:13
Beaverton, OR 97005	Project Manager: Mike Stevens	

**Percent Dry Weight (Solids) per Standard Methods**  
 TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>PQC0322-01 (SB-16-0.5)</b>		<b>Soil</b>								<b>Sampled: 03/06/07 13:01</b>
% Solids	NCA SOP	<b>69.1</b>	----	0.00	% by Weight	1x	7030386	03/12/07 07:39	03/12/07 07:39	
<b>PQC0322-03 (SB-17-0.5)</b>		<b>Soil</b>								<b>Sampled: 03/06/07 14:05</b>
% Solids	NCA SOP	<b>90.5</b>	----	0.00	% by Weight	1x	7030386	03/12/07 07:39	03/12/07 07:39	
<b>PQC0322-05 (SB-18D-0.5)</b>		<b>Soil</b>								<b>Sampled: 03/06/07 12:01</b>
% Solids	NCA SOP	<b>89.8</b>	----	0.00	% by Weight	1x	7030386	03/12/07 07:39	03/12/07 07:39	
<b>PQC0322-06 (SB-18D-5)</b>		<b>Soil</b>								<b>Sampled: 03/06/07 10:35</b>
% Solids	NCA SOP	<b>86.4</b>	----	0.00	% by Weight	1x	7030386	03/12/07 07:39	03/12/07 07:39	
<b>PQC0322-08 (SB-19-0.5)</b>		<b>Soil</b>								<b>Sampled: 03/06/07 11:55</b>
% Solids	NCA SOP	<b>85.8</b>	----	0.00	% by Weight	1x	7030386	03/12/07 07:39	03/12/07 07:39	
<b>PQC0322-09 (SB-19-2.5)</b>		<b>Soil</b>								<b>Sampled: 03/06/07 11:05</b>
% Solids	NCA SOP	<b>89.6</b>	----	0.00	% by Weight	1x	7030386	03/12/07 07:39	03/12/07 07:39	
<b>PQC0322-10 (SB-20-0.5)</b>		<b>Soil</b>								<b>Sampled: 03/06/07 11:25</b>
% Solids	NCA SOP	<b>89.7</b>	----	0.00	% by Weight	1x	7030386	03/12/07 07:39	03/12/07 07:39	
<b>PQC0322-11 (SB-20-2.5)</b>		<b>Soil</b>								<b>Sampled: 03/06/07 11:17</b>
% Solids	NCA SOP	<b>87.9</b>	----	0.00	% by Weight	1x	7030386	03/12/07 07:39	03/12/07 07:39	
<b>PQC0322-12 (SB-21-0.5)</b>		<b>Soil</b>								<b>Sampled: 03/06/07 10:06</b>
% Solids	NCA SOP	<b>86.4</b>	----	0.00	% by Weight	1x	7030386	03/12/07 07:39	03/12/07 07:39	
<b>PQC0322-13 (SB-22-0.5)</b>		<b>Soil</b>								<b>Sampled: 03/06/07 11:49</b>
% Solids	NCA SOP	<b>92.4</b>	----	0.00	% by Weight	1x	7030386	03/12/07 07:39	03/12/07 07:39	
<b>PQC0322-14 (SB-23-0.5)</b>		<b>Soil</b>								<b>Sampled: 03/06/07 15:00</b>

TestAmerica - Portland, OR

  
 Crystal Jones For Darrell Auvil, 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.*



<b>Ash Creek Associates, Inc.</b>	Project Name: <b>T4S3 - Pencil Pitch</b>	
9615 SW Allen Blvd. Suite 106	Project Number: 1007-02	Report Created:
Beaverton, OR 97005	Project Manager: Mike Stevens	03/21/07 17:13

**Percent Dry Weight (Solids) per Standard Methods**  
TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>PQC0322-14 (SB-23-0.5)</b>		<b>Soil</b>			<b>Sampled: 03/06/07 15:00</b>					
% Solids	NCA SOP	<b>90.1</b>	----	0.00	% by Weight	1x	7030386	03/12/07 07:39	03/12/07 07:39	
<b>PQC0322-16 (SB-12D-5)</b>		<b>Soil</b>			<b>Sampled: 03/06/07 10:48</b>					
% Solids	NCA SOP	<b>90.1</b>	----	0.00	% by Weight	1x	7030386	03/12/07 07:39	03/12/07 07:39	

TestAmerica - Portland, OR

  
Crystal Jones For Darrell Auvil, 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.*



<b>Ash Creek Associates, Inc.</b>	Project Name: <b>T4S3 - Pencil Pitch</b>	
9615 SW Allen Blvd. Suite 106	Project Number: 1007-02	Report Created:
Beaverton, OR 97005	Project Manager: Mike Stevens	03/21/07 17:13

**Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method with Acid/Silica Gel Cleanup - Laboratory Quality Control Results**  
 TestAmerica - Portland, OR

**QC Batch: 7030416      Soil Preparation Method: EPA 3550 Fuels**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes	
<b>Blank (7030416-BLK1)</b>										Extracted: 03/12/07 15:45					
Diesel Range Organics	NWTPH-Dx	ND	---	12.5	mg/kg wet	1x	--	--	--	--	--	--	03/13/07 17:14		
Heavy Oil Range Hydrocarbons	"	ND	---	25.0	"	"	--	--	--	--	--	--	"		
<i>Surrogate(s): 1-Chlorooctadecane</i>		<i>Recovery: 106%</i>		<i>Limits: 50-150%</i>		<i>"</i>							<i>03/13/07 17:14</i>		
<b>LCS (7030416-BS1)</b>										Extracted: 03/12/07 15:45					
Diesel Range Organics	NWTPH-Dx	128	---	12.5	mg/kg wet	1x	--	128	100%	(50-150)	--	--	03/13/07 16:43		
Heavy Oil Range Hydrocarbons	"	79.5	---	25.0	"	"	--	76.0	105%	"	--	--	"		
<i>Surrogate(s): 1-Chlorooctadecane</i>		<i>Recovery: 115%</i>		<i>Limits: 50-150%</i>		<i>"</i>							<i>03/13/07 16:43</i>		
<b>Duplicate (7030416-DUP1)</b>										QC Source: PQC0322-01			Extracted: 03/12/07 15:45		
Diesel Range Organics	NWTPH-Dx	50.2	---	17.9	mg/kg dry	1x	59.9	--	--	--	17.6%	(50)	03/13/07 20:31	Q10	
Heavy Oil Range Hydrocarbons	"	433	---	35.8	"	"	378	--	--	--	13.6%	"	"	Q10	
<i>Surrogate(s): 1-Chlorooctadecane</i>		<i>Recovery: 106%</i>		<i>Limits: 50-150%</i>		<i>"</i>							<i>03/13/07 20:31</i>		
<b>Duplicate (7030416-DUP2)</b>										QC Source: PQC0322-03			Extracted: 03/12/07 15:45		
Diesel Range Organics	NWTPH-Dx	ND	---	14.0	mg/kg dry	1x	ND	--	--	--	NR	(50)	03/13/07 22:39		
Heavy Oil Range Hydrocarbons	"	ND	---	28.1	"	"	ND	--	--	--	NR	"	"		
<i>Surrogate(s): 1-Chlorooctadecane</i>		<i>Recovery: 101%</i>		<i>Limits: 50-150%</i>		<i>"</i>							<i>03/13/07 22:39</i>		

TestAmerica - Portland, OR

  
 Crystal Jones For Darrell Auvil, 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.*



<b>Ash Creek Associates, Inc.</b>	Project Name: <b>T4S3 - Pencil Pitch</b>	
9615 SW Allen Blvd. Suite 106	Project Number: 1007-02	Report Created:
Beaverton, OR 97005	Project Manager: Mike Stevens	03/21/07 17:13

**Polynuclear Aromatic Compounds per EPA 8270M-SIM - Laboratory Quality Control Results**  
 TestAmerica - Portland, OR

**QC Batch: 7030326**      **Soil Preparation Method: EPA 3550**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
<b>Blank (7030326-BLK1)</b>													<b>Extracted: 03/09/07 06:40</b>	
Acenaphthene	EPA 8270m	ND	---	13.4	ug/kg wet	1x	--	--	--	--	--	--	03/12/07 21:58	
Acenaphthylene	"	ND	---	13.4	"	"	--	--	--	--	--	--	"	
Anthracene	"	ND	---	13.4	"	"	--	--	--	--	--	--	"	
Benzo (a) anthracene	"	ND	---	13.4	"	"	--	--	--	--	--	--	"	
Benzo (a) pyrene	"	ND	---	13.4	"	"	--	--	--	--	--	--	"	
Benzo (b) fluoranthene	"	ND	---	13.4	"	"	--	--	--	--	--	--	"	
Benzo (ghi) perylene	"	ND	---	13.4	"	"	--	--	--	--	--	--	"	
Benzo (k) fluoranthene	"	ND	---	13.4	"	"	--	--	--	--	--	--	"	
Chrysene	"	ND	---	13.4	"	"	--	--	--	--	--	--	"	
Dibenzo (a,h) anthracene	"	ND	---	13.4	"	"	--	--	--	--	--	--	"	
Fluoranthene	"	ND	---	13.4	"	"	--	--	--	--	--	--	"	
Fluorene	"	ND	---	13.4	"	"	--	--	--	--	--	--	"	
Indeno (1,2,3-cd) pyrene	"	ND	---	13.4	"	"	--	--	--	--	--	--	"	
Naphthalene	"	ND	---	13.4	"	"	--	--	--	--	--	--	"	
Phenanthrene	"	ND	---	13.4	"	"	--	--	--	--	--	--	"	
Pyrene	"	ND	---	13.4	"	"	--	--	--	--	--	--	"	
<i>Surrogate(s): Fluorene-d10</i>		<i>Recovery:</i>	<i>64.4%</i>	<i>Limits: 24-125%</i>		<i>"</i>							<i>03/12/07 21:58</i>	
<i>Pyrene-d10</i>			<i>79.6%</i>	<i>41-141%</i>		<i>"</i>							<i>"</i>	
<i>Benzo (a) pyrene-d12</i>			<i>73.6%</i>	<i>38-143%</i>		<i>"</i>							<i>"</i>	

<b>LCS (7030326-BS1)</b>													<b>Extracted: 03/09/07 06:40</b>	
Acenaphthene	EPA 8270m	116	---	13.4	ug/kg wet	1x	--	166	69.9%	(33-139)	--	--	03/12/07 22:26	
Benzo (a) pyrene	"	123	---	13.4	"	"	--	"	74.1%	(45-149)	--	--	"	
Pyrene	"	131	---	13.4	"	"	--	"	78.9%	(39-138)	--	--	"	
<i>Surrogate(s): Fluorene-d10</i>		<i>Recovery:</i>	<i>66.9%</i>	<i>Limits: 24-125%</i>		<i>"</i>							<i>03/12/07 22:26</i>	
<i>Pyrene-d10</i>			<i>80.0%</i>	<i>41-141%</i>		<i>"</i>							<i>"</i>	
<i>Benzo (a) pyrene-d12</i>			<i>80.6%</i>	<i>38-143%</i>		<i>"</i>							<i>"</i>	

<b>Matrix Spike (7030326-MS1)</b>													<b>QC Source: PQB0983-04</b>		<b>Extracted: 03/09/07 06:40</b>	
Acenaphthene	EPA 8270m	552	---	371	ug/kg dry	20x	ND	231	239%	(33-139)	--	--	03/14/07 01:15	M1		
Benzo (a) pyrene	"	138	---	371	"	"	ND	"	59.7%	(45-149)	--	--	"			
Pyrene	"	365	---	371	"	"	248	"	50.6%	(39-138)	--	--	"			
<i>Surrogate(s): Fluorene-d10</i>		<i>Recovery:</i>	<i>102%</i>	<i>Limits: 24-125%</i>		<i>"</i>							<i>03/14/07 01:15</i>			
<i>Pyrene-d10</i>			<i>107%</i>	<i>41-141%</i>		<i>"</i>							<i>"</i>			
<i>Benzo (a) pyrene-d12</i>			<i>64.3%</i>	<i>38-143%</i>		<i>"</i>							<i>"</i>	Z3		

TestAmerica - Portland, OR



Crystal Jones For Darrell Auvil, 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.*



<b>Ash Creek Associates, Inc.</b>	Project Name: <b>T4S3 - Pencil Pitch</b>	
9615 SW Allen Blvd. Suite 106	Project Number: 1007-02	Report Created:
Beaverton, OR 97005	Project Manager: Mike Stevens	03/21/07 17:13

**Polynuclear Aromatic Compounds per EPA 8270M-SIM - Laboratory Quality Control Results**  
TestAmerica - Portland, OR

**QC Batch: 7030326      Soil Preparation Method: EPA 3550**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes	
<b>Matrix Spike Dup (7030326-MSD1)</b>			QC Source: <b>PQB0983-04</b>				Extracted: <b>03/09/07 06:40</b>								
Acenaphthene	EPA 8270m	434	---	369	ug/kg dry	20x	ND	229	190%	(33-139)	23.9% (60)		03/14/07 01:43	M1	
Benzo (a) pyrene	"	98.8	---	369	"	"	ND	"	43.1%	(45-149)	33.1% "	"	"	M2	
Pyrene	"	268	---	369	"	"	248	"	8.73%	(39-138)	30.6% "	"	"	M2	
<i>Surrogate(s): Fluorene-d10</i>		<i>Recovery:</i>	<i>80.4%</i>	<i>Limits: 24-125%</i>		<i>"</i>								<i>03/14/07 01:43</i>	
<i>Pyrene-d10</i>			<i>77.4%</i>	<i>41-141%</i>		<i>"</i>								<i>"</i>	<i>Z3</i>
<i>Benzo (a) pyrene-d12</i>			<i>48.5%</i>	<i>38-143%</i>		<i>"</i>								<i>"</i>	<i>Z3</i>

TestAmerica - Portland, OR

  
Crystal Jones For Darrell Auvil, 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.*



<b>Ash Creek Associates, Inc.</b>	Project Name: <b>T4S3 - Pencil Pitch</b>	
9615 SW Allen Blvd. Suite 106	Project Number: 1007-02	Report Created:
Beaverton, OR 97005	Project Manager: Mike Stevens	03/21/07 17:13

**Percent Dry Weight (Solids) per Standard Methods - Laboratory Quality Control Results**  
 TestAmerica - Portland, OR

**QC Batch: 7030386**      **Soil Preparation Method: Dry Weight**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes	
<b>Duplicate (7030386-DUP1)</b>			<b>QC Source: PQC0322-10</b>					<b>Extracted: 03/12/07 07:39</b>							
% Solids	NCA SOP	89.9	---	0.00	% by Weight	1x	89.7	--	--	--	0.223% (20)		03/12/07 07:39		

TestAmerica - Portland, OR

  
 Crystal Jones For Darrell Auvil, 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.*



<b>Ash Creek Associates, Inc.</b>	Project Name: <b>T4S3 - Pencil Pitch</b>	
9615 SW Allen Blvd. Suite 106	Project Number: 1007-02	Report Created:
Beaverton, OR 97005	Project Manager: Mike Stevens	03/21/07 17:13

**Notes and Definitions**

Report Specific Notes:

- 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).
- Q10 - Hydrocarbon pattern most closely resembles a blend of creosote or similar product as well as oil.
- Q4 - The hydrocarbons present are a complex mixture of diesel range and heavy oil range organics.
- Q6 - Results in the diesel organics range are primarily due to overlap from a heavy oil range product.
- Q9 - Hydrocarbon pattern most closely resembles creosote or similar product.
- RL3 - Reporting limit raised due to high concentrations of non-target analytes.
- Z3 - The sample required a dilution due to the nature of the sample matrix. Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

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.
- 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.




## CHAIN OF CUSTODY REPORT

Work Order #: **1 of 2**

CLIENT: <b>Ash Creek</b>			INVOICE TO: <b>SAME</b>				<b>TURNAROUND REQUEST</b> In Business Days * Organic & Inorganic Analyses <input type="checkbox"/> 10 <input type="checkbox"/> 7 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1 <input type="checkbox"/> <1 <small>STD.</small> Petroleum Hydrocarbon Analyses <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1 <input type="checkbox"/> <1 <small>STD.</small> <input type="checkbox"/> OTHER Specify: _____ <small>* Turnaround Requests less than standard may incur Rush Charges.</small>				
REPORT TO: <b>Mike Stevens</b> ADDRESS: <b>9615 SW Allen Blvd Suite 106 Beaverton, OR 97005</b>			P.O. NUMBER: <b>1007-02</b>								
PHONE: <b>503.924.4704</b> FAX: <b>503.924.4707</b>			PRESERVATIVE REQUESTED ANALYSES				MATRIX (W, S, O)   # OF CONT.   LOCATION / COMMENTS   NCA WO ID				
PROJECT NAME: <b>T453 Pencil Patch</b>											
PROJECT NUMBER: <b>1007-02</b>			PAHs B270 GC/MS TPH-D TPH-D				* Turnaround Requests less than standard may incur Rush Charges.				
SAMPLED BY: <b>A. Schmitt</b>											
CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME										
1 SB-16 - 0.5	3/6/07	1301	X	X					S	2	
2 SB-16 - 2.75	↓	1325							S	2	HOLD!
3 SB-17 - 0.5		1405	X	X					S	2	
4 SB-17 - 2.7		1415							S	2	HOLD!
5 SB-18D - 0.5		1201	X	X					S	2	
6 SB-18A - 5		1035	X	X					S	2	
7 SB-18D - 8		1038							S	2	HOLD!
8 SB-19 - 0.5		1155	X	X					S	2	
9 SB-19 - 2.5		1105	X	X					S	2	
10 SB-20 - 0.5		1125	X	X					S	2	
RELEASED BY: <b>A. Schmitt</b>			DATE: <b>3/7/07</b>			RECEIVED BY: <b>Camille Holladay</b>			DATE: <b>3/7/07</b>		
PRINT NAME: <b>A. Schmitt</b>			FIRM: <b>Ash Creek</b>			PRINT NAME: <b>Camille Holladay</b>			FIRM: <b>TAP</b>		
RELEASED BY:			DATE:			RECEIVED BY:			DATE:		
PRINT NAME:			FIRM:			PRINT NAME:			FIRM:		
ADDITIONAL REMARKS:											
COC REV 09/2004										TEMP: <b>0.5</b>	PAGE OF

## CHAIN OF CUSTODY REPORT

Work Order #: **PQ0300** 2 of 2

CLIENT: <b>Ash Creek</b>			INVOICE TO: <b>SAME</b>				<b>TURNAROUND REQUEST</b> In Business Days * Organic & Inorganic Analyses <input type="checkbox"/> 10 <input type="checkbox"/> 7 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1 <input type="checkbox"/> <1 STD. Petroleum Hydrocarbon Analyses <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1 <input type="checkbox"/> <1 STD. <input type="checkbox"/> OTHER Specify: _____ * Turnaround Requests less than standard may incur Rush Charges.				
REPORT TO: <b>MIKE STEVENS</b>			P.O. NUMBER: <b>1007-02</b>								
ADDRESS: <b>9615 SW Allen Blvd, Suite 106 Beaverton, OR 97005</b>			PROJECT NAME: <b>T153 Pencil Pits</b>				PRESERVATIVE				
PHONE: <b>503.924.4704</b> FAX: <b>503.924.4707</b>			PROJECT NUMBER: <b>1007-02</b>				REQUESTED ANALYSES				
SAMPLED BY: <b>A. Schmitt</b>			MATRIX (W, S, O)				# OF CONT.		LOCATION / COMMENTS		NCA WO ID
CLIENT SAMPLE IDENTIFICATION		SAMPLING DATE/TIME		PAHs BZTO GCHMs	TPH-D	NAPTH-QQ					
1 SB-20-2.5		3/6/07 1117		X	X		S		2		
2 SB-21-0.5		1006		X	X		S		2		
3 SB-22-0.5		1149		X	X		S		2		
4 SB-23-0.5		1500		X	X		S		2		
5 SB-23-2.5		1510					S		2 HOLD!		
6 SB-120-5		1048		X	X		S		2		
7 SB-120-0		1050					S		2 HOLD!		
8											
9											
10											
RELEASED BY: <b>A. Schmitt</b>			DATE: <b>3/7/07</b>			RECEIVED BY: <b>Camille Holladay</b>			DATE: <b>3/7/07</b>		
PRINT NAME: <b>A. Schmitt</b>			FIRM: <b>Ash Creek</b>			PRINT NAME: <b>Camille Holladay</b>			FIRM: <b>TAP</b>		
RELEASED BY:			DATE:			RECEIVED BY:			DATE:		
PRINT NAME:			FIRM:			PRINT NAME:			FIRM:		
ADDITIONAL REMARKS:			TEMP:			PAGE			OF		

TEST AMERICA SAMPLE RECEIPT CHECKLIST

Received By: (applies to temp receipt)

Logged-in By:

Unpacked/Labeled By:

Cooler ID: ( of )

Date: 3/7/07

Date: 3/8

Date: 3/8

Work Order No. P2C0322

Time: 1106

Initials: SM

Initials: SM

Client: Ash Creek

Initials: CA

Project: 7453 Penial Pitch

Container Type:

COC Seals:

Packing Material:

Cooler Ship. Container Sign By
Box On Bottles Date
None/Other None

Bubble Bags Styrofoam
Foam Packs
None/Other Other

Refrigerant:

Received Via: Bill#

Gel Ice Pack None
Loose Ice
None/Other

Fed Ex Client
UPS NCA Courier
DHL Mid Valley
Senvoy TDP
GS Other

Cooler Temperature (IR): 0.5 °C Plastic Glass (Frozen filters, Tedlars and aqueous Metals exempt)
(circle one)

Temperature Blank? °C or NA Trip Blank? Y or N or NA

Sample Containers: Intact? Y or N Metals Preserved? Y or N or NA
Provided by NCA? Y or N Client QAPP Preserved? Y or N or NA
Correct Type? Y or N Adequate Volume? Y or N
#Containers match COC? Y or N Water VOAs: Headspace? Y or N or NA
IDs/time/date match COC? Y or N Comments:
Hold Times in hold? Y or N

PROJECT MANAGEMENT

Is the Chain of Custody complete? Y or N If N, circle the items that were incomplete

Comments, Problems

Total access set up? Y or N
Has client been contacted regarding non-conformances? Y or N If Y, Date Time
PM Initials: Date: Time:

April 30, 2007

Mike Stevens  
Ash Creek Associates, Inc.  
9615 SW Allen Blvd. Suite 106  
Beaverton, OR 97005

RE: T4S3 - Pencil Pitch

Enclosed are the results of analyses for samples received by the laboratory on 04/17/07 12:10.  
The following list is a summary of the Work Orders contained in this report, generated on 04/30/07  
12:46.

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

---

<u>Work Order</u>	<u>Project</u>	<u>ProjectNumber</u>
PQD0638	T4S3 - Pencil Pitch	1007

---



<b>Ash Creek Associates, Inc.</b>	Project Name: <b>T4S3 - Pencil Pitch</b>	
9615 SW Allen Blvd. Suite 106	Project Number: 1007	Report Created:
Beaverton, OR 97005	Project Manager: Mike Stevens	04/30/07 12:46

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB-24-1	PQD0638-01	Soil	04/16/07 14:34	04/17/07 12:10
SB-24-2	PQD0638-02	Soil	04/16/07 14:39	04/17/07 12:10
SB-25-1	PQD0638-03	Soil	04/16/07 14:50	04/17/07 12:10
SB-25-2	PQD0638-04	Soil	04/16/07 14:53	04/17/07 12:10
SB-26-1	PQD0638-05	Soil	04/16/07 15:15	04/17/07 12:10
SB-26-2	PQD0638-06	Soil	04/16/07 15:20	04/17/07 12:10
SB-27-1	PQD0638-07	Soil	04/16/07 15:40	04/17/07 12:10
SB-27-2	PQD0638-08	Soil	04/16/07 15:45	04/17/07 12:10

TestAmerica - Portland, OR

  
Crystal Jones For Darrell Auvil, 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.*



<b>Ash Creek Associates, Inc.</b>	Project Name: <b>T4S3 - Pencil Pitch</b>	
9615 SW Allen Blvd. Suite 106	Project Number: 1007	Report Created:
Beaverton, OR 97005	Project Manager: Mike Stevens	04/30/07 12:46

**Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method**  
 TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>PQD0638-01 (SB-24-1)</b>		<b>Soil</b>		<b>Sampled: 04/16/07 14:34</b>						
Diesel Range Organics	NWTPH-Dx	<b>38.8</b>	----	12.8	mg/kg dry	1x	7040781	04/18/07 15:15	04/19/07 16:27	<b>Q9</b>
Heavy Oil Range Hydrocarbons	"	<b>241</b>	----	25.7	"	"	"	"	"	<b>Q9</b>
Surrogate(s): 1-Chlorooctadecane			106%		50 - 150 %	"				"
<b>PQD0638-02 (SB-24-2)</b>		<b>Soil</b>		<b>Sampled: 04/16/07 14:39</b>						
Diesel Range Organics	NWTPH-Dx	ND	----	13.6	mg/kg dry	1x	7040781	04/18/07 15:15	04/18/07 19:15	
Heavy Oil Range Hydrocarbons	"	ND	----	27.1	"	"	"	"	"	
Surrogate(s): 1-Chlorooctadecane			101%		50 - 150 %	"				"
<b>PQD0638-03 (SB-25-1)</b>		<b>Soil</b>		<b>Sampled: 04/16/07 14:50</b>						
Diesel Range Organics	NWTPH-Dx	<b>21.6</b>	----	13.5	mg/kg dry	1x	7040781	04/18/07 15:15	04/19/07 17:01	<b>Q9</b>
Heavy Oil Range Hydrocarbons	"	<b>138</b>	----	26.9	"	"	"	"	"	<b>Q9</b>
Surrogate(s): 1-Chlorooctadecane			101%		50 - 150 %	"				"
<b>PQD0638-04 (SB-25-2)</b>		<b>Soil</b>		<b>Sampled: 04/16/07 14:53</b>						
Diesel Range Organics	NWTPH-Dx	ND	----	13.3	mg/kg dry	1x	7040781	04/18/07 15:15	04/18/07 19:54	
Heavy Oil Range Hydrocarbons	"	ND	----	26.7	"	"	"	"	"	
Surrogate(s): 1-Chlorooctadecane			101%		50 - 150 %	"				"
<b>PQD0638-05 (SB-26-1)</b>		<b>Soil</b>		<b>Sampled: 04/16/07 15:15</b>						
Diesel Range Organics	NWTPH-Dx	<b>28.3</b>	----	13.8	mg/kg dry	1x	7040781	04/18/07 15:15	04/19/07 17:34	<b>Q10</b>
Heavy Oil Range Hydrocarbons	"	<b>210</b>	----	27.6	"	"	"	"	"	<b>Q10</b>
Surrogate(s): 1-Chlorooctadecane			102%		50 - 150 %	"				"
<b>PQD0638-06 (SB-26-2)</b>		<b>Soil</b>		<b>Sampled: 04/16/07 15:20</b>						
Diesel Range Organics	NWTPH-Dx	<b>849</b>	----	531	mg/kg dry	40x	7040781	04/18/07 15:15	04/19/07 12:12	<b>Q6</b>
Heavy Oil Range Hydrocarbons	"	<b>5150</b>	----	1060	"	"	"	"	"	
Surrogate(s): 1-Chlorooctadecane			NR		50 - 150 %	"				<b>Z3</b>
<b>PQD0638-07 (SB-27-1)</b>		<b>Soil</b>		<b>Sampled: 04/16/07 15:40</b>						
Diesel Range Organics	NWTPH-Dx	<b>18.4</b>	----	14.3	mg/kg dry	1x	7040781	04/18/07 15:15	04/19/07 18:09	<b>Q10</b>
Heavy Oil Range Hydrocarbons	"	<b>167</b>	----	28.5	"	"	"	"	"	<b>Q10</b>
Surrogate(s): 1-Chlorooctadecane			99.1%		50 - 150 %	"				"

TestAmerica - Portland, OR

  
 Crystal Jones For Darrell Auvil, 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.*



<b>Ash Creek Associates, Inc.</b>	Project Name: <b>T4S3 - Pencil Pitch</b>	
9615 SW Allen Blvd. Suite 106	Project Number: 1007	Report Created:
Beaverton, OR 97005	Project Manager: Mike Stevens	04/30/07 12:46

**Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method**  
TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>PQD0638-08 (SB-27-2)</b>										
		<b>Soil</b>					<b>Sampled: 04/16/07 15:45</b>			
<b>Diesel Range Organics</b>	NWTPH-Dx	<b>32.2</b>	----	13.7	mg/kg dry	1x	7040781	04/18/07 15:15	04/18/07 20:51	<b>Q9</b>
<b>Heavy Oil Range Hydrocarbons</b>	"	<b>111</b>	----	27.4	"	"	"	"	"	<b>Q9</b>
<i>Surrogate(s): 1-Chlorooctadecane</i>			<i>111%</i>		<i>50 - 150 %</i>	"			"	

TestAmerica - Portland, OR

  
Crystal Jones For Darrell Auvil, 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.*



<b>Ash Creek Associates, Inc.</b>	Project Name: <b>T4S3 - Pencil Pitch</b>	Report Created:
9615 SW Allen Blvd. Suite 106	Project Number: 1007	04/30/07 12:46
Beaverton, OR 97005	Project Manager: Mike Stevens	

**Polynuclear Aromatic Compounds per EPA 8270M-SIM**  
 TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>PQD0638-01 (SB-24-1)</b>		<b>Soil</b>				<b>Sampled: 04/16/07 14:34</b>				<b>RL3</b>
Acenaphthene	EPA 8270m	ND	----	691	ug/kg dry	50x	7040778	04/18/07 15:40	04/25/07 22:50	
Acenaphthylene	"	ND	----	691	"	"	"	"	"	
Anthracene	"	ND	----	691	"	"	"	"	"	
<b>Benzo (a) anthracene</b>	"	<b>1910</b>	----	691	"	"	"	"	"	
<b>Benzo (a) pyrene</b>	"	<b>2750</b>	----	691	"	"	"	"	"	
<b>Benzo (b) fluoranthene</b>	"	<b>2880</b>	----	691	"	"	"	"	"	
<b>Benzo (ghi) perylene</b>	"	<b>2820</b>	----	691	"	"	"	"	"	
<b>Benzo (k) fluoranthene</b>	"	<b>2110</b>	----	691	"	"	"	"	"	
<b>Chrysene</b>	"	<b>2240</b>	----	691	"	"	"	"	"	
<b>Dibenzo (a,h) anthracene</b>	"	<b>1010</b>	----	691	"	"	"	"	"	
<b>Fluoranthene</b>	"	<b>2260</b>	----	691	"	"	"	"	"	
Fluorene	"	ND	----	691	"	"	"	"	"	
<b>Indeno (1,2,3-cd) pyrene</b>	"	<b>2490</b>	----	691	"	"	"	"	"	
Naphthalene	"	ND	----	691	"	"	"	"	"	
<b>Phenanthrene</b>	"	<b>916</b>	----	691	"	"	"	"	"	
<b>Pyrene</b>	"	<b>2530</b>	----	691	"	"	"	"	"	
<i>Surrogate(s): Fluorene-d10</i>			<i>NR</i>	<i>24 - 125 %</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>Z3</i>
<i>Pyrene-d10</i>			<i>NR</i>	<i>41 - 141 %</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>Z3</i>
<i>Benzo (a) pyrene-d12</i>			<i>NR</i>	<i>38 - 143 %</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>Z3</i>

<b>PQD0638-02 (SB-24-2)</b>		<b>Soil</b>				<b>Sampled: 04/16/07 14:39</b>				<b>RL3</b>
Acenaphthene	EPA 8270m	ND	----	288	ug/kg dry	20x	7040778	04/18/07 15:40	04/25/07 23:17	
Acenaphthylene	"	ND	----	288	"	"	"	"	"	
Anthracene	"	ND	----	288	"	"	"	"	"	
<b>Benzo (a) anthracene</b>	"	<b>1800</b>	----	288	"	"	"	"	"	
<b>Benzo (a) pyrene</b>	"	<b>2510</b>	----	288	"	"	"	"	"	
<b>Benzo (b) fluoranthene</b>	"	<b>2780</b>	----	288	"	"	"	"	"	
<b>Benzo (ghi) perylene</b>	"	<b>2220</b>	----	288	"	"	"	"	"	
<b>Benzo (k) fluoranthene</b>	"	<b>1770</b>	----	288	"	"	"	"	"	
<b>Chrysene</b>	"	<b>2090</b>	----	288	"	"	"	"	"	
<b>Dibenzo (a,h) anthracene</b>	"	<b>660</b>	----	288	"	"	"	"	"	
<b>Fluoranthene</b>	"	<b>2300</b>	----	288	"	"	"	"	"	
Fluorene	"	ND	----	288	"	"	"	"	"	
<b>Indeno (1,2,3-cd) pyrene</b>	"	<b>2000</b>	----	288	"	"	"	"	"	
Naphthalene	"	ND	----	288	"	"	"	"	"	
<b>Phenanthrene</b>	"	<b>956</b>	----	288	"	"	"	"	"	
<b>Pyrene</b>	"	<b>2770</b>	----	288	"	"	"	"	"	
<i>Surrogate(s): Fluorene-d10</i>			<i>78.9%</i>	<i>24 - 125 %</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>Z3</i>
<i>Pyrene-d10</i>			<i>104%</i>	<i>41 - 141 %</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>
<i>Benzo (a) pyrene-d12</i>			<i>91.2%</i>	<i>38 - 143 %</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>	<i>"</i>

TestAmerica - Portland, OR

*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.*

  
 Crystal Jones For Darrell Auvil, Project Manager



<b>Ash Creek Associates, Inc.</b>	Project Name: <b>T4S3 - Pencil Pitch</b>	Report Created:
9615 SW Allen Blvd. Suite 106	Project Number: 1007	04/30/07 12:46
Beaverton, OR 97005	Project Manager: Mike Stevens	

**Polynuclear Aromatic Compounds per EPA 8270M-SIM**  
 TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
---------	--------	--------	------	-----	-------	-----	-------	----------	----------	-------

PQD0638-03 (SB-25-1)		Soil	Sampled: 04/16/07 14:50							RL3
Acenaphthene	EPA 8270m	ND	----	293	ug/kg dry	20x	7040778	04/18/07 15:40	04/25/07 23:44	
Acenaphthylene	"	ND	----	293	"	"	"	"	"	
Anthracene	"	ND	----	293	"	"	"	"	"	
<b>Benzo (a) anthracene</b>	"	<b>1720</b>	----	293	"	"	"	"	"	
<b>Benzo (a) pyrene</b>	"	<b>2350</b>	----	293	"	"	"	"	"	
<b>Benzo (b) fluoranthene</b>	"	<b>2630</b>	----	293	"	"	"	"	"	
<b>Benzo (ghi) perylene</b>	"	<b>2040</b>	----	293	"	"	"	"	"	
<b>Benzo (k) fluoranthene</b>	"	<b>1690</b>	----	293	"	"	"	"	"	
<b>Chrysene</b>	"	<b>2010</b>	----	293	"	"	"	"	"	
<b>Dibenzo (a,h) anthracene</b>	"	<b>820</b>	----	293	"	"	"	"	"	
<b>Fluoranthene</b>	"	<b>2280</b>	----	293	"	"	"	"	"	
Fluorene	"	ND	----	293	"	"	"	"	"	
<b>Indeno (1,2,3-cd) pyrene</b>	"	<b>1840</b>	----	293	"	"	"	"	"	
Naphthalene	"	ND	----	293	"	"	"	"	"	
<b>Phenanthrene</b>	"	<b>926</b>	----	293	"	"	"	"	"	
<b>Pyrene</b>	"	<b>2720</b>	----	293	"	"	"	"	"	
<i>Surrogate(s): Fluorene-d10</i>			75.9%		24 - 125 %	"				Z3
<i>Pyrene-d10</i>			106%		41 - 141 %	"				
<i>Benzo (a) pyrene-d12</i>			90.9%		38 - 143 %	"				

PQD0638-04 (SB-25-2)		Soil	Sampled: 04/16/07 14:53							
Acenaphthene	EPA 8270m	ND	----	14.2	ug/kg dry	1x	7040778	04/18/07 15:40	04/26/07 00:10	
Acenaphthylene	"	ND	----	14.2	"	"	"	"	"	
Anthracene	"	ND	----	14.2	"	"	"	"	"	
<b>Benzo (a) anthracene</b>	"	<b>89.1</b>	----	14.2	"	"	"	"	"	
<b>Benzo (a) pyrene</b>	"	<b>134</b>	----	14.2	"	"	"	"	"	
<b>Benzo (b) fluoranthene</b>	"	<b>158</b>	----	14.2	"	"	"	"	"	
<b>Benzo (ghi) perylene</b>	"	<b>136</b>	----	14.2	"	"	"	"	"	
<b>Benzo (k) fluoranthene</b>	"	<b>109</b>	----	14.2	"	"	"	"	"	
<b>Chrysene</b>	"	<b>111</b>	----	14.2	"	"	"	"	"	
<b>Dibenzo (a,h) anthracene</b>	"	<b>45.2</b>	----	14.2	"	"	"	"	"	
<b>Fluoranthene</b>	"	<b>117</b>	----	14.2	"	"	"	"	"	
Fluorene	"	ND	----	14.2	"	"	"	"	"	
<b>Indeno (1,2,3-cd) pyrene</b>	"	<b>112</b>	----	14.2	"	"	"	"	"	
Naphthalene	"	ND	----	14.2	"	"	"	"	"	
<b>Phenanthrene</b>	"	<b>51.8</b>	----	14.2	"	"	"	"	"	
<b>Pyrene</b>	"	<b>154</b>	----	14.2	"	"	"	"	"	
<i>Surrogate(s): Fluorene-d10</i>			78.0%		24 - 125 %	"				
<i>Pyrene-d10</i>			112%		41 - 141 %	"				

TestAmerica - Portland, OR

*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.*

  
 Crystal Jones For Darrell Auvil, Project Manager



**Ash Creek Associates, Inc.**  
 9615 SW Allen Blvd. Suite 106  
 Beaverton, OR 97005

Project Name: **T4S3 - Pencil Pitch**  
 Project Number: 1007  
 Project Manager: Mike Stevens

Report Created:  
 04/30/07 12:46

## Polynuclear Aromatic Compounds per EPA 8270M-SIM

TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
---------	--------	--------	------	-----	-------	-----	-------	----------	----------	-------

**PQD0638-04 (SB-25-2)** Soil **Sampled: 04/16/07 14:53**

*Benzo (a) pyrene-d12* 88.9% 38 - 143 % 1x 04/26/07 00:10

**PQD0638-05 (SB-26-1)** Soil **Sampled: 04/16/07 15:15** **RL3**

Acenaphthene	EPA 8270m	ND	----	370	ug/kg dry	25x	7040778	04/18/07 15:40	04/26/07 22:00	
Acenaphthylene	"	ND	----	370	"	"	"	"	"	
Anthracene	"	ND	----	370	"	"	"	"	"	
<b>Benzo (a) anthracene</b>	"	<b>447</b>	----	370	"	"	"	"	"	
<b>Benzo (a) pyrene</b>	"	<b>670</b>	----	370	"	"	"	"	"	
<b>Benzo (b) fluoranthene</b>	"	<b>630</b>	----	370	"	"	"	"	"	
<b>Benzo (ghi) perylene</b>	"	<b>679</b>	----	370	"	"	"	"	"	
<b>Benzo (k) fluoranthene</b>	"	<b>531</b>	----	370	"	"	"	"	"	
<b>Chrysene</b>	"	<b>548</b>	----	370	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	----	370	"	"	"	"	"	
<b>Fluoranthene</b>	"	<b>635</b>	----	370	"	"	"	"	"	
Fluorene	"	ND	----	370	"	"	"	"	"	
<b>Indeno (1,2,3-cd) pyrene</b>	"	<b>520</b>	----	370	"	"	"	"	"	
Naphthalene	"	ND	----	370	"	"	"	"	"	
Phenanthrene	"	ND	----	370	"	"	"	"	"	
<b>Pyrene</b>	"	<b>699</b>	----	370	"	"	"	"	"	

Surrogate(s): *Fluorene-d10* 60.0% 24 - 125 % " " **Z3**  
*Pyrene-d10* 71.6% 41 - 141 % " " **Z3**  
*Benzo (a) pyrene-d12* 70.5% 38 - 143 % " " **Z3**

**PQD0638-06 (SB-26-2)** Soil **Sampled: 04/16/07 15:20** **RL3**

Acenaphthene	EPA 8270m	ND	----	714	ug/kg dry	20x	7040778	04/18/07 15:40	04/26/07 22:27	
Acenaphthylene	"	ND	----	714	"	"	"	"	"	
Anthracene	"	ND	----	714	"	"	"	"	"	
Benzo (a) anthracene	"	ND	----	714	"	"	"	"	"	
Benzo (a) pyrene	"	ND	----	714	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	----	714	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	----	714	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	----	714	"	"	"	"	"	
Chrysene	"	ND	----	714	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	----	714	"	"	"	"	"	
Fluoranthene	"	ND	----	714	"	"	"	"	"	
Fluorene	"	ND	----	714	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	----	714	"	"	"	"	"	
Naphthalene	"	ND	----	714	"	"	"	"	"	
Phenanthrene	"	ND	----	714	"	"	"	"	"	
Pyrene	"	ND	----	714	"	"	"	"	"	

TestAmerica - Portland, OR

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.

  
 Crystal Jones For Darrell Auvil, Project Manager



<b>Ash Creek Associates, Inc.</b>	Project Name: <b>T4S3 - Pencil Pitch</b>	
9615 SW Allen Blvd. Suite 106	Project Number: 1007	Report Created:
Beaverton, OR 97005	Project Manager: Mike Stevens	04/30/07 12:46

**Polynuclear Aromatic Compounds per EPA 8270M-SIM**  
 TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
---------	--------	--------	------	-----	-------	-----	-------	----------	----------	-------

<b>PQD0638-06 (SB-26-2)</b>		<b>Soil</b>			<b>Sampled: 04/16/07 15:20</b>					<b>RL3</b>
<i>Surrogate(s): Fluorene-d10</i>			NR		24 - 125 %	20x			04/26/07 22:27	Z3
<i>Pyrene-d10</i>			NR		41 - 141 %	"			"	Z3
<i>Benzo (a) pyrene-d12</i>			NR		38 - 143 %	"			"	Z3

<b>PQD0638-07 (SB-27-1)</b>		<b>Soil</b>			<b>Sampled: 04/16/07 15:40</b>					<b>RL3</b>
Acenaphthene	EPA 8270m	ND	----	297	ug/kg dry	20x	7040778	04/18/07 15:40	04/26/07 01:31	
Acenaphthylene	"	ND	----	297	"	"	"	"	"	
Anthracene	"	ND	----	297	"	"	"	"	"	
<b>Benzo (a) anthracene</b>	"	<b>1180</b>	----	297	"	"	"	"	"	
<b>Benzo (a) pyrene</b>	"	<b>1690</b>	----	297	"	"	"	"	"	
<b>Benzo (b) fluoranthene</b>	"	<b>1710</b>	----	297	"	"	"	"	"	
<b>Benzo (ghi) perylene</b>	"	<b>1590</b>	----	297	"	"	"	"	"	
<b>Benzo (k) fluoranthene</b>	"	<b>1250</b>	----	297	"	"	"	"	"	
<b>Chrysene</b>	"	<b>1330</b>	----	297	"	"	"	"	"	
<b>Dibenzo (a,h) anthracene</b>	"	<b>594</b>	----	297	"	"	"	"	"	
<b>Fluoranthene</b>	"	<b>1550</b>	----	297	"	"	"	"	"	
Fluorene	"	ND	----	297	"	"	"	"	"	
<b>Indeno (1,2,3-cd) pyrene</b>	"	<b>1390</b>	----	297	"	"	"	"	"	
Naphthalene	"	ND	----	297	"	"	"	"	"	
<b>Phenanthrene</b>	"	<b>651</b>	----	297	"	"	"	"	"	
<b>Pyrene</b>	"	<b>1770</b>	----	297	"	"	"	"	"	
<i>Surrogate(s): Fluorene-d10</i>			77.1%		24 - 125 %	"			"	Z3
<i>Pyrene-d10</i>			99.4%		41 - 141 %	"			"	
<i>Benzo (a) pyrene-d12</i>			88.2%		38 - 143 %	"			"	

<b>PQD0638-08 (SB-27-2)</b>		<b>Soil</b>			<b>Sampled: 04/16/07 15:45</b>					<b>RL3</b>
Acenaphthene	EPA 8270m	ND	----	295	ug/kg dry	20x	7040778	04/18/07 15:40	04/26/07 01:58	
Acenaphthylene	"	ND	----	295	"	"	"	"	"	
Anthracene	"	ND	----	295	"	"	"	"	"	
<b>Benzo (a) anthracene</b>	"	<b>1490</b>	----	295	"	"	"	"	"	
<b>Benzo (a) pyrene</b>	"	<b>2100</b>	----	295	"	"	"	"	"	
<b>Benzo (b) fluoranthene</b>	"	<b>2450</b>	----	295	"	"	"	"	"	
<b>Benzo (ghi) perylene</b>	"	<b>1820</b>	----	295	"	"	"	"	"	
<b>Benzo (k) fluoranthene</b>	"	<b>1380</b>	----	295	"	"	"	"	"	
<b>Chrysene</b>	"	<b>1720</b>	----	295	"	"	"	"	"	
<b>Dibenzo (a,h) anthracene</b>	"	<b>667</b>	----	295	"	"	"	"	"	
<b>Fluoranthene</b>	"	<b>1960</b>	----	295	"	"	"	"	"	
Fluorene	"	ND	----	295	"	"	"	"	"	
<b>Indeno (1,2,3-cd) pyrene</b>	"	<b>1590</b>	----	295	"	"	"	"	"	
Naphthalene	"	ND	----	295	"	"	"	"	"	

TestAmerica - Portland, OR

*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.*

  
 Crystal Jones For Darrell Auvil, Project Manager



<b>Ash Creek Associates, Inc.</b>	Project Name: <b>T4S3 - Pencil Pitch</b>	
9615 SW Allen Blvd. Suite 106	Project Number: 1007	Report Created:
Beaverton, OR 97005	Project Manager: Mike Stevens	04/30/07 12:46

**Polynuclear Aromatic Compounds per EPA 8270M-SIM**  
TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>PQD0638-08 (SB-27-2)</b>		<b>Soil</b>			<b>Sampled: 04/16/07 15:45</b>					<b>RL3</b>
<b>Phenanthrene</b>	EPA 8270m	<b>769</b>	----	295	ug/kg dry	20x	7040778	04/18/07 15:40	04/26/07 01:58	
<b>Pyrene</b>	"	<b>2330</b>	----	295	"	"	"	"	"	
<i>Surrogate(s): Fluorene-d10</i>				63.7%	24 - 125 %	"				<b>Z3</b>
<i>Pyrene-d10</i>				95.5%	41 - 141 %	"				
<i>Benzo (a) pyrene-d12</i>				84.3%	38 - 143 %	"				

TestAmerica - Portland, OR

  
Crystal Jones For Darrell Auvil, 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.*



<b>Ash Creek Associates, Inc.</b>	Project Name: <b>T4S3 - Pencil Pitch</b>	
9615 SW Allen Blvd. Suite 106	Project Number: 1007	Report Created:
Beaverton, OR 97005	Project Manager: Mike Stevens	04/30/07 12:46

**Percent Dry Weight (Solids) per Standard Methods**  
TestAmerica - Portland, OR

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
<b>PQD0638-01 (SB-24-1)</b>		<b>Soil</b>			<b>Sampled: 04/16/07 14:34</b>					
% Solids	NCA SOP	96.4	----	0.00	% by Weight	1x	7040739	04/17/07 15:14	04/17/07 15:14	
<b>PQD0638-02 (SB-24-2)</b>		<b>Soil</b>			<b>Sampled: 04/16/07 14:39</b>					
% Solids	NCA SOP	92.8	----	0.00	% by Weight	1x	7040739	04/17/07 15:14	04/17/07 15:14	
<b>PQD0638-03 (SB-25-1)</b>		<b>Soil</b>			<b>Sampled: 04/16/07 14:50</b>					
% Solids	NCA SOP	91.4	----	0.00	% by Weight	1x	7040739	04/17/07 15:14	04/17/07 15:14	
<b>PQD0638-04 (SB-25-2)</b>		<b>Soil</b>			<b>Sampled: 04/16/07 14:53</b>					
% Solids	NCA SOP	93.7	----	0.00	% by Weight	1x	7040739	04/17/07 15:14	04/17/07 15:14	
<b>PQD0638-05 (SB-26-1)</b>		<b>Soil</b>			<b>Sampled: 04/16/07 15:15</b>					
% Solids	NCA SOP	90.3	----	0.00	% by Weight	1x	7040739	04/17/07 15:14	04/17/07 15:14	
<b>PQD0638-06 (SB-26-2)</b>		<b>Soil</b>			<b>Sampled: 04/16/07 15:20</b>					
% Solids	NCA SOP	93.8	----	0.00	% by Weight	1x	7040739	04/17/07 15:14	04/17/07 15:14	
<b>PQD0638-07 (SB-27-1)</b>		<b>Soil</b>			<b>Sampled: 04/16/07 15:40</b>					
% Solids	NCA SOP	89.1	----	0.00	% by Weight	1x	7040739	04/17/07 15:14	04/17/07 15:14	
<b>PQD0638-08 (SB-27-2)</b>		<b>Soil</b>			<b>Sampled: 04/16/07 15:45</b>					
% Solids	NCA SOP	89.4	----	0.00	% by Weight	1x	7040739	04/17/07 15:14	04/17/07 15:14	

TestAmerica - Portland, OR

  
Crystal Jones For Darrell Auvil, 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.*



<b>Ash Creek Associates, Inc.</b>	Project Name: <b>T4S3 - Pencil Pitch</b>	
9615 SW Allen Blvd. Suite 106	Project Number: 1007	Report Created:
Beaverton, OR 97005	Project Manager: Mike Stevens	04/30/07 12:46

**Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method - Laboratory Quality Control Results**  
 TestAmerica - Portland, OR

**QC Batch: 7040781      Soil Preparation Method: EPA 3550 Fuels**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
<b>Blank (7040781-BLK1)</b>							<b>Extracted: 04/18/07 15:15</b>							
Diesel Range Organics	NWTPH-Dx	ND	---	12.5	mg/kg wet	1x	--	--	--	--	--	--	04/18/07 17:59	
Heavy Oil Range Hydrocarbons	"	ND	---	25.0	"	"	--	--	--	--	--	--	"	
<i>Surrogate(s): 1-Chlorooctadecane</i>		<i>Recovery: 99.0%</i>		<i>Limits: 50-150%</i>		<i>"</i>							<i>04/18/07 17:59</i>	
<b>LCS (7040781-BS1)</b>							<b>Extracted: 04/18/07 15:15</b>							
Diesel Range Organics	NWTPH-Dx	138	---	12.5	mg/kg wet	1x	--	127	109%	(50-150)	--	--	04/18/07 18:18	
Heavy Oil Range Hydrocarbons	"	82.4	---	25.0	"	"	--	78.8	105%	"	--	--	"	
<i>Surrogate(s): 1-Chlorooctadecane</i>		<i>Recovery: 103%</i>		<i>Limits: 50-150%</i>		<i>"</i>							<i>04/18/07 18:18</i>	
<b>Duplicate (7040781-DUP1)</b>							<b>QC Source: PQD0638-01</b>			<b>Extracted: 04/18/07 15:15</b>				
Diesel Range Organics	NWTPH-Dx	37.6	---	12.8	mg/kg dry	1x	38.8	--	--	--	3.14%	(50)	04/19/07 15:53	Q9
Heavy Oil Range Hydrocarbons	"	216	---	25.6	"	"	241	--	--	--	10.9%	"	"	Q9
<i>Surrogate(s): 1-Chlorooctadecane</i>		<i>Recovery: 91.6%</i>		<i>Limits: 50-150%</i>		<i>"</i>							<i>04/19/07 15:53</i>	
<b>Duplicate (7040781-DUP2)</b>							<b>QC Source: PQD0646-01</b>			<b>Extracted: 04/18/07 15:15</b>				
Diesel Range Organics	NWTPH-Dx	77.7	---	74.0	mg/kg dry	1x	80.0	--	--	--	2.92%	(50)	04/18/07 18:37	Q10a
Heavy Oil Range Hydrocarbons	"	363	---	148	"	"	397	--	--	--	8.95%	"	"	
<i>Surrogate(s): 1-Chlorooctadecane</i>		<i>Recovery: 81.0%</i>		<i>Limits: 50-150%</i>		<i>"</i>							<i>04/18/07 18:37</i>	

TestAmerica - Portland, OR

  
 Crystal Jones For Darrell Auvil, 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.*



<b>Ash Creek Associates, Inc.</b>	Project Name: <b>T4S3 - Pencil Pitch</b>	
9615 SW Allen Blvd. Suite 106	Project Number: 1007	Report Created:
Beaverton, OR 97005	Project Manager: Mike Stevens	04/30/07 12:46

**Polynuclear Aromatic Compounds per EPA 8270M-SIM - Laboratory Quality Control Results**  
 TestAmerica - Portland, OR

**QC Batch: 7040778**      **Soil Preparation Method: EPA 3550/600 Series**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
---------	--------	--------	------	-----	-------	-----	---------------	-----------	-------	----------	-------	----------	----------	-------

**Blank (7040778-BLK1)**

Extracted: 04/18/07 15:40

1-Methylnaphthalene	EPA 8270m	ND	---	13.2	ug/kg wet	1x	--	--	--	--	--	--	04/20/07 19:49	
Benzo (e) pyrene	"	ND	---	13.2	"	"	--	--	--	--	--	--	"	ID5
2-Methylnaphthalene	"	ND	---	13.2	"	"	--	--	--	--	--	--	"	
Acenaphthene	"	ND	---	13.2	"	"	--	--	--	--	--	--	"	
Acenaphthylene	"	ND	---	13.2	"	"	--	--	--	--	--	--	"	
Anthracene	"	ND	---	13.2	"	"	--	--	--	--	--	--	"	
Benzo (a) anthracene	"	ND	---	13.2	"	"	--	--	--	--	--	--	"	
Benzo (a) pyrene	"	ND	---	13.2	"	"	--	--	--	--	--	--	"	
Benzo (b) fluoranthene	"	ND	---	13.2	"	"	--	--	--	--	--	--	"	
Benzo (ghi) perylene	"	ND	---	13.2	"	"	--	--	--	--	--	--	"	
Benzo (k) fluoranthene	"	ND	---	13.2	"	"	--	--	--	--	--	--	"	ID4
Chrysene	"	ND	---	13.2	"	"	--	--	--	--	--	--	"	
Dibenzo (a,h) anthracene	"	ND	---	13.2	"	"	--	--	--	--	--	--	"	
Fluoranthene	"	ND	---	13.2	"	"	--	--	--	--	--	--	"	
Fluorene	"	ND	---	13.2	"	"	--	--	--	--	--	--	"	
Indeno (1,2,3-cd) pyrene	"	ND	---	13.2	"	"	--	--	--	--	--	--	"	
Naphthalene	"	ND	---	13.2	"	"	--	--	--	--	--	--	"	
Phenanthrene	"	ND	---	13.2	"	"	--	--	--	--	--	--	"	
Pyrene	"	ND	---	13.2	"	"	--	--	--	--	--	--	"	

Surrogate(s): Fluorene-d10	Recovery:	67.1%	Limits:	24-125%	"	04/20/07 19:49
Pyrene-d10		89.5%		41-141%	"	"
Benzo (a) pyrene-d12		88.6%		38-143%	"	"

**LCS (7040778-BS1)**

Extracted: 04/18/07 15:40

Acenaphthene	EPA 8270m	136	---	13.4	ug/kg wet	1x	--	167	81.4%	(33-139)	--	--	04/20/07 20:17	
Benzo (a) pyrene	"	156	---	13.4	"	"	--	"	93.4%	(45-149)	--	--	"	
Pyrene	"	146	---	13.4	"	"	--	"	87.4%	(39-138)	--	--	"	

Surrogate(s): Fluorene-d10	Recovery:	82.0%	Limits:	24-125%	"	04/20/07 20:17
Pyrene-d10		86.6%		41-141%	"	"
Benzo (a) pyrene-d12		93.2%		38-143%	"	"

TestAmerica - Portland, OR



Crystal Jones For Darrell Auvil, 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.*



<b>Ash Creek Associates, Inc.</b>	Project Name: <b>T4S3 - Pencil Pitch</b>	
9615 SW Allen Blvd. Suite 106	Project Number: 1007	Report Created:
Beaverton, OR 97005	Project Manager: Mike Stevens	04/30/07 12:46

**Polynuclear Aromatic Compounds per EPA 8270M-SIM - Laboratory Quality Control Results**  
 TestAmerica - Portland, OR

**QC Batch: 7040778      Soil Preparation Method: EPA 3550/600 Series**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
---------	--------	--------	------	-----	-------	-----	---------------	-----------	-------	----------	-------	----------	----------	-------

<b>Matrix Spike (7040778-MS1)</b>		QC Source: PQD0668-01						Extracted: 04/18/07 15:40				RL3		
Acenaphthene	EPA 8270m	541	---	353	ug/kg dry	20x	307	220	106%	(33-139)	--	--	04/24/07 21:50	
Benzo (a) pyrene	"	170	---	353	"	"	ND	"	77.3%	(45-149)	--	--	"	
Pyrene	"	397	---	353	"	"	164	"	106%	(39-138)	--	--	"	
<i>Surrogate(s): Fluorene-d10</i>		<i>Recovery: NR</i>		<i>Limits: 24-125%</i>		<i>"</i>						<i>04/24/07 21:50</i>		<i>Z9</i>
<i>Pyrene-d10</i>		<i>NR</i>		<i>41-141%</i>		<i>"</i>						<i>"</i>		<i>Z9</i>
<i>Benzo (a) pyrene-d12</i>		<i>78.7%</i>		<i>38-143%</i>		<i>"</i>						<i>"</i>		<i>Z3</i>

<b>Matrix Spike Dup (7040778-MSD1)</b>		QC Source: PQD0668-01						Extracted: 04/18/07 15:40				RL3		
Acenaphthene	EPA 8270m	596	---	357	ug/kg dry	20x	307	222	130%	(33-139)	9.67%	(60)	04/24/07 22:17	
Benzo (a) pyrene	"	176	---	357	"	"	ND	"	79.3%	(45-149)	3.47%	"	"	
Pyrene	"	445	---	357	"	"	164	"	127%	(39-138)	11.4%	"	"	
<i>Surrogate(s): Fluorene-d10</i>		<i>Recovery: NR</i>		<i>Limits: 24-125%</i>		<i>"</i>						<i>04/24/07 22:17</i>		<i>Z9</i>
<i>Pyrene-d10</i>		<i>NR</i>		<i>41-141%</i>		<i>"</i>						<i>"</i>		<i>Z9</i>
<i>Benzo (a) pyrene-d12</i>		<i>80.3%</i>		<i>38-143%</i>		<i>"</i>						<i>"</i>		

TestAmerica - Portland, OR



Crystal Jones For Darrell Auvil, 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.*



<b>Ash Creek Associates, Inc.</b>	Project Name: <b>T4S3 - Pencil Pitch</b>	
9615 SW Allen Blvd. Suite 106	Project Number: 1007	Report Created:
Beaverton, OR 97005	Project Manager: Mike Stevens	04/30/07 12:46

**Percent Dry Weight (Solids) per Standard Methods - Laboratory Quality Control Results**  
 TestAmerica - Portland, OR

**QC Batch: 7040739**      **Soil Preparation Method: Dry Weight**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes	
<b>Duplicate (7040739-DUP1)</b>			<b>QC Source: PQD0637-01</b>					<b>Extracted: 04/17/07 15:14</b>							
% Solids	NCA SOP	68.8	---	0.00	% by Weight	1x	68.9	--	--	--	0.145% (20)		04/17/07 15:14		

TestAmerica - Portland, OR

  
 Crystal Jones For Darrell Auvil, 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.*



<b>Ash Creek Associates, Inc.</b>	Project Name: <b>T4S3 - Pencil Pitch</b>	
9615 SW Allen Blvd. Suite 106	Project Number: 1007	Report Created:
Beaverton, OR 97005	Project Manager: Mike Stevens	04/30/07 12:46

**Notes and Definitions**

Report Specific Notes:

- ID4 - Benzo(j)fluoranthene coelutes with Benzo(k)fluoranthene. The reported result is a summation of the isomers and the concentration is based on the response factor of Benzo(k)fluoranthene.
- ID5 - Benzo(e)pyrene concentration is based on the response factor of Benzo(a)pyrene, and has not been calibrated independently.
- Q10 - Hydrocarbon pattern most closely resembles a blend of oil as well as creosote or similar product.
- Q10a - Hydrocarbon pattern most closely resembles a blend of oil overlap as well as possible biogenic interference.
- Q6 - Results in the diesel organics range are primarily due to overlap from a heavy oil range product.
- Q9 - Hydrocarbon pattern most closely resembles creosote or similar product.
- RL3 - Reporting limit raised due to high concentrations of non-target analytes.
- Z3 - The sample required a dilution due to the nature of the sample matrix. Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.
- Z9 - Unable to calculate surrogate recovery due to matrix interference.

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.
- 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 - Portland, OR

  
Crystal Jones For Darrell Auvil, 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.*





11720 North Creek Pkwy N Suite 400, Bothell, WA 98011-8244 425-420-9200 FAX 420-9210  
 11922 E 1st Ave, Spokane, WA 99206-5302 509-924-9200 FAX 924-9290  
 9405 SW Nimbus Ave, Beaverton, OR 97008-7145 503-906-9200 FAX 906-9210  
 20332 Empire Ave, Ste F1, Bend, OR 97701-5712 541-383-9310 FAX 382-7588  
 2000 W International Airport Rd Ste A10, Anchorage, AK 99502-1119 907-563-9200 FAX 563-9210

### CHAIN OF CUSTODY REPORT

Work Order #: 1070638

NCA CLIENT: Ash Creek Associates  
 REPORT TO: AMANDA SPENCER / MIKE STEVENS  
 ADDRESS: 9615 SW Allen Blvd, Suite 106  
Bend, OR 97005  
 PHONE: 503.924.4704 FAX: 503.924.4707

INVOICE TO: SAME

**TURNAROUND REQUEST**  
 in Business Days \*

Organic & Inorganic Analyses  
 10  7  5  4  3  2  1  <1

Petroleum Hydrocarbon Analyses  
 5  4  3  2  1  <1

OTHER Specify: \_\_\_\_\_  
\* Turnaround Requested less than standard may incur Rush Charges.

PROJECT NAME: T453 Pencil Patch  
 PROJECT NUMBER: 1007  
 SAMPLED BY: ANDREW SCHMIDT

PRESERVATIVE									
REQUESTED ANALYSES									

CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	TPH	BZPH	TPH-Dx	Residual Range	CUMTPH-Dx	MATRIX (W, S, O)	# OF CONT.	LOCATION / COMMENTS	NCA WO ID
1 SB-24-1	4/16/07 1434	X	X				S	1		
2 SB-24-2	1439	X	X				S	1		
3 SB-25-1	1450	X	X				S	1		
4 SB-25-2	1453	X	X				S	1		
5 SB-26-1	1515	X	X				S	1		
6 SB-26-2	1520	X	X				S	1		
7 SB-27-1	1540	X	X				S	1		
8 SB-27-2	1545	X	X				S	1		
9										
10										

RELEASED BY: Andrew Schmidt DATE: 4/12/07  
 PRINT NAME: Andrew Schmidt FIRM: Ash Creek TIME: 12:10

RECEIVED BY: Camille Holladay DATE: 4/17/07  
 PRINT NAME: Camille Holladay FIRM: TRF TIME: 12:10

RELEASED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 PRINT NAME: \_\_\_\_\_ FIRM: \_\_\_\_\_ TIME: \_\_\_\_\_

RECEIVED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 PRINT NAME: \_\_\_\_\_ FIRM: \_\_\_\_\_ TIME: \_\_\_\_\_

ADDITIONAL REMARKS:

TEST AMERICA SAMPLE RECEIPT CHECKLIST

Received By: (applies to temp at receipt)

Logged-in By:

Unpacked/Labeled By:

Date: 4/17/07  
Time: 10:10  
Initials: CP

Date: 4/17/07  
Initials: CLK

Date: 4/17/07  
Initials: CLK

Work Order No. 1000038  
Client: Ash Creek  
Project: TY 53 female P. ten

Container Type:

COC Seals:

Packing Material

Cooler  Ship. Container  Name  
 Box  On Bottles  Date  
 None/Other  None

Bubble Bags  Styrofoam  
 Foam Packs  
 None/Other Other

Refrigerant:

Received Via: Bill#

Gel Ice Pack  
 Loose Ice  
 None/Other

Fed Ex  Client  
 UPS  TA Courier  
 DHL  Mid Valley  
 Senvoy  TDP  
 GS  Other

Cooler Temperature (IR): 2.3 °C Plastic  Glass (Frozen filters, Tedlars and aqueous Metals exempt)

Temperature Blank? °C or NA

Trip Blank? Y or N or NA

Sample Containers:

ID

ID

Intact?  Y or N  Metals Preserved?  Y or N or NA  
Provided by NCA?  Y or N  Client QAPP Preserved?  Y or N or NA  
Correct Type?  Y or N  Adequate Volume?  Y or N  
#Containers match COC?  Y or N  Water VOAs: Headspace?  Y or N or NA  
IDs/time/date match COC?  Y or N  Comments:  
Hold Times in hold?  Y or N

PROJECT MANAGEMENT

Is the Chain of Custody complete? Y or N If N, circle the items that were incomplete

Comments, Problems

Total access set up?

Has client been contacted regarding non-conformances?

Y or N

Y or N

If Y, / / Date Time

PM Initials: Date: Time: