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805 - 80th St. S.W., Everett, Washington 98203
(425) 337-2700 ** FAX (425) 514-3499

December 3, 2010

Mr. Jerome Cruz
Northwest Regional Office
Department of Ecology
3190 160th Ave SE
Bellevue, WA 98008

RE: Pacific Topsoils, Inc. Everett Mill E/Koppers Site 2010 Ground Water Monitoring Summary Report

Dear Mr. Cruz,

Please find the enclosed Mill E/Koppers Site 2010 Ground Water Monitoring Summary Report. If you have any questions, feel free to contact me directly at (425) 337-2700.

Janusz Bajsarowicz
Pacific Topsoils, Inc.

Associated Earth Sciences, Inc.



Celebrating Over 25 Years of Service

Technical Memorandum

Date: December 1, 2010

To: Pacific Topsoils, Inc.
805 80th Street SW
Everett, Washington 98203
Attn: Mr. Januz Bajsarowicz

Project Name: Mill E Site

From: Jon N. Sondergaard, L.G., L.E.G. *JK*

Project No: KV050654A

Subject: Mill E 2010 Ground Water Monitoring Summary

GROUND WATER MONITORING

Associated Earth Sciences, Inc. (AESI) performed annual ground water monitoring at the Mill E site on September 28, 2010, consistent with the Mill E's Performance and Compliance Monitoring Plan (PCMP) dated October 1998. During the September 2010 monitoring event, depth to water measurements were made in all of the site's six piezometers (PZ-1A, PZ-1B, PZ-2A, PZ-2B, PZ-3A, and PZ-3B). The depth to water measurements are summarized in Table 1. A site plan showing the approximate well locations is presented on Figure 1.

Table 1
Depth to Ground Water⁽¹⁾

Piezometer	Date	Reference Elevation (feet) Top of PVC ⁽²⁾	Depth to Water (feet) ⁽¹⁾	Ground Water Elevation (feet) ⁽³⁾
PZ-1A	9/28/10	9.90	5.90	4.00
PZ-1B	9/28/10	7.93	2.32	5.61
PZ-2A	9/28/10	9.40	5.85	3.55
PZ-2B	9/28/10	8.38	2.79	5.59
PZ-3A	9/28/10	10.31	7.88	2.43
PZ-3B	9/28/10	7.54	4.81	2.73

⁽¹⁾ Measurements collected at outgoing tide.

⁽²⁾ Top of casing elevations referenced to mean sea level (Shaw, 2003).

⁽³⁾ "A" wells are located inside the containment; "B" wells are located outside the containment.

Ground water samples were collected from piezometer PZ-3A only. Piezometer PZ-3A was purged and sampled using a disposable bailer, consistent with the facility's PCMP. Field measurements (depth to water, pH, conductivity, and temperature) were recorded at the time of sampling. The field measurements are summarized in Table 2. After purging and recording of field measurements, ground water samples were obtained for off-site analytical testing. The ground water samples were collected in laboratory prepared bottles. The samples were placed in a cooler packed with ice and delivered under chain of custody (COC) procedures to Test America Analytical Testing Corporation in Tacoma, Washington. The COC form outlining the requested analyses is attached.

Table 2
Field Monitoring Parameters
September 2010

Sample Location	Sample Date	Depth to Water (ft-BTOC)	Gallons Removed	pH (S.U.)	Specific Conductance ($\mu\text{S}/\text{cm}$)	Temperature ($^{\circ}\text{C}$)
PZ-3A	9/28/10	7.88	2	6.87	1062	26.1

ft-BTOC = feet below top of polyvinyl chloride (PVC) casing.

S.U. = standard pH units.

$\mu\text{S}/\text{cm}$ = microSiemens per centimeter.

$^{\circ}\text{C}$ = degrees Celsius.

ASPHALT CAP AND SOIL COVER

An asphalt cap and soil cover inspection was performed on September 29, 2010 by a professional engineer from AESI. A copy of the field report from that visit is attached. The majority of the cap was visible. The central interior portion of the cap was covered with wood chips and shipping containers and the asphalt was not visible in these areas. Where observed, the asphalt cap exhibited little evidence of deterioration and no signs of excessive settlement.

The areas to the south of the asphalt cap are covered with a 1-foot-thick soil cover with grass and some scattered brush. AESI did not observe pumping, rutting, or similar indications of surface disturbance. The soil cap appeared intact and was performing as intended, in our opinion.

QUALITY ASSURANCE/QUALITY CONTROL

Laboratory quality assurance/quality control (QA/QC) analyses were performed in conjunction with the September 2010 ground water quality monitoring event. Routine laboratory QA procedures included analyzing surrogate spikes, matrix spikes, matrix duplicates, laboratory control samples, and method blanks. The sample collected on September 28, 2010 and analyzed

for pentachlorophenol was tested past the holding time for that analyte. All other QA/QC results were judged to be acceptable for their intended use. The test results are presented in Table 3 below and the Test America Analytical Testing Corporation laboratory certificates are attached to this letter.

WATER BALANCE

Elevations for the top of the well casings and historic ground water elevations were obtained by reviewing the "2003 Annual Ground Water Compliance Monitoring and Five Year Data Review Report" prepared by Shaw Environmental, Inc. (Shaw) and obtained from the Washington State Department of Ecology (Ecology). Ground water elevations for the year 2005 could not be found. All "A" series wells (PZ-1A, PZ-2A, and PZ-3A) are located inside of the barrier wall and all "B" series wells (PZ-1B, PZ-2B, and PZ-3B) are located outside of the barrier wall. Figure 2 shows a comparison of historical ground water elevation data obtained for the site. Review of the data indicates that generally after 2001, ground water elevations outside of the barrier wall are higher than inside the barrier, with the exception of the 2007 measurement for well PZ-1A. The higher than expected water level in PZ-1A in 2007 was investigated, and was determined to be a result of surface water collecting in the well monument. This problem has been corrected by raising the elevation of the top of the well monument to prevent surface water from seeping into the monument (Technical Memorandum dated December 17, 2009).

The data for wells PZ-1A/1B, PZ-2A/2B and PZ-3A/3B suggests the barrier wall is generally performing as intended and isolating ground water inside the barrier from that outside the barrier.

RESULTS AND CONCLUSIONS

The September 2010 ground water analytical results for the Mill E site were compared to the Washington Model Toxics Control Act (MTCA) cleanup standards and are presented in Table 3. Concentrations of all analytical parameters detected in the PZ-3A ground water sample were below the established MTCA cleanup standards, except for arsenic. The September 2010 PZ-3A result of 610 micrograms per liter ($\mu\text{g/L}$) for arsenic is above the MTCA cleanup standard of 5 $\mu\text{g/L}$. Review of historic ground water quality data for the site indicates the 2010 results are within the range of past measurements (Figure 3). The concentrations of gasoline diesel and motor oil in the sample increased compared to the 2008 and 2009 results. This is likely the result of surface water seepage into well PZ-1A, which has been corrected.

Table 3
Comparison of Ground Water Analytical Results
and MTCA Cleanup Standard for Ground Water
September 2010

Sample Location	Sample Date	TPH-D ($\mu\text{g/L}$)	TPH-G ($\mu\text{g/L}$)	TPH-M ($\mu\text{g/L}$)	PCP ($\mu\text{g/L}$)	Arsenic ($\mu\text{g/L}$)
PZ-3A	9/28/10	7300	3100	3500	0.18	610
<i>MTCA⁽¹⁾</i>		<i>10,000</i>	<i>10,000</i>	<i>10,000</i>	<i>7.29</i>	<i>5</i>

TPH-D = total petroleum hydrocarbons-diesel

TPH-G = total petroleum hydrocarbons-gasoline

TPH-M = total petroleum hydrocarbons-motor oil

PCP = pentachlorophenol

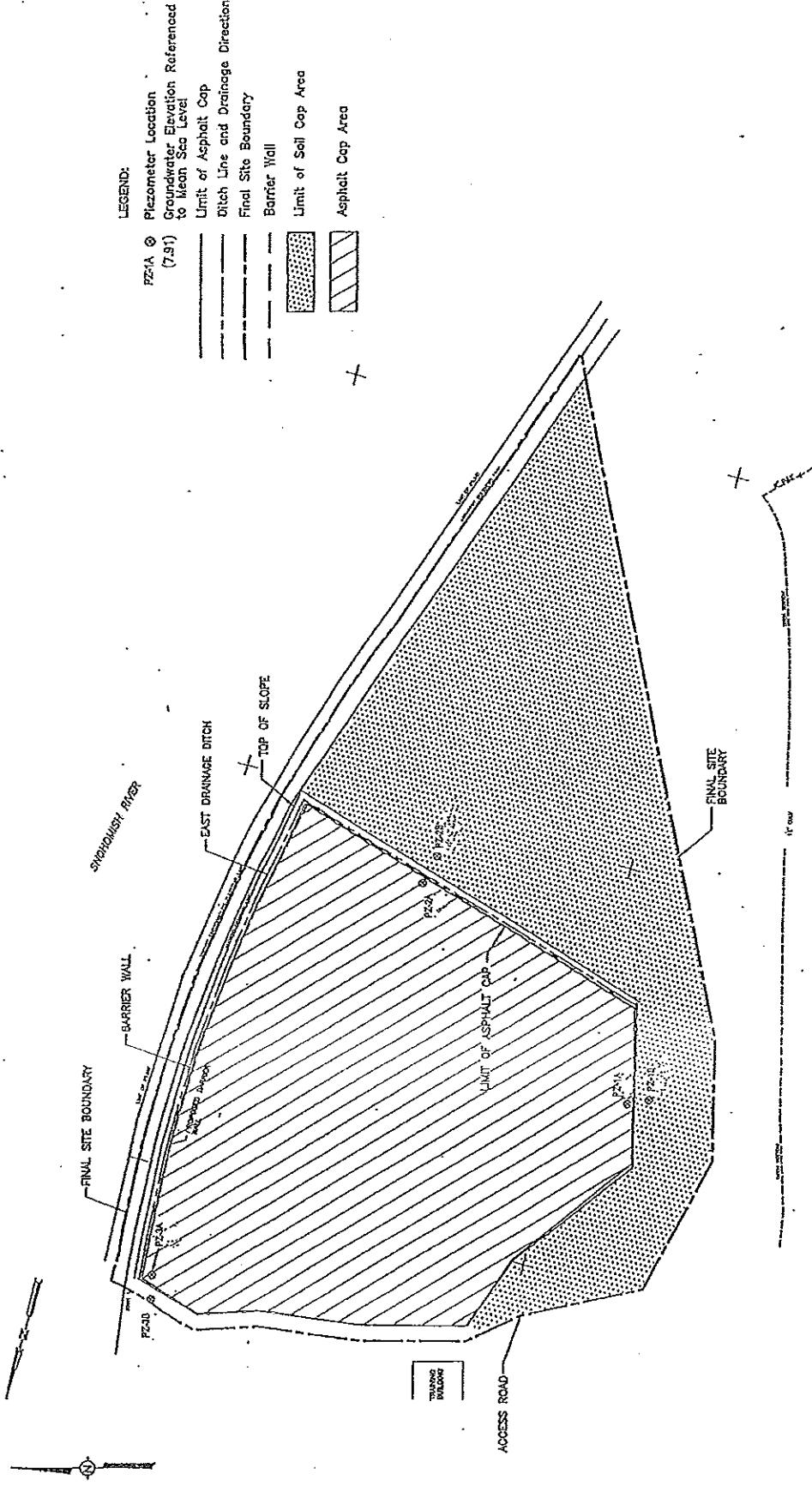
$\mu\text{g/L}$ = micrograms per liter

Bold denotes an exceedance of the MTCA cleanup standard for ground water.

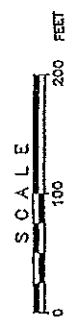
⁽¹⁾ MTCA = Model Toxics Control Act cleanup standards for ground water (WAC 173-340-720).

We trust the information presented meets your current needs. Please do not hesitate to contact us if you have any questions or require additional information.

Attachments: Figure 1: Site Plan
 Figure 2: Historic Ground Water Elevations
 Figure 3: Analyte Concentrations in Well PZ-3A
 Field Report of Cap Inspection
 Laboratory Test Certificates and Chain of Custody



- LEGEND:**
- PZ1A ⊗ Piezometer Location
 - ⊗ Groundwater Elevation Referenced to Mean Sea Level
 - Limit of Asphalt Cap
 - Ditch Line and Drainage Direction
 - - - Final Site Boundary
 - Barrier Wall
 - [Stippled Box] Limit of Soil Cap Area
 - [Hatched Box] Asphalt Cap Area



BASE MAP TOPOGRAPHY BASED ON AERIAL PHOTOGRAMMETRIC MAPPING BY RICHARD B. DAVIS CO., WITH CONTROL SURVEY BY CLARK M. LEE MAN SURVEYING, IN DECEMBER, 1997. (SHAW, 2003).

Associated Earth Sciences, Inc.



FORMER MILL E/KOPPERS SITE PLAN

FIGURE 1

DATE 9/2007

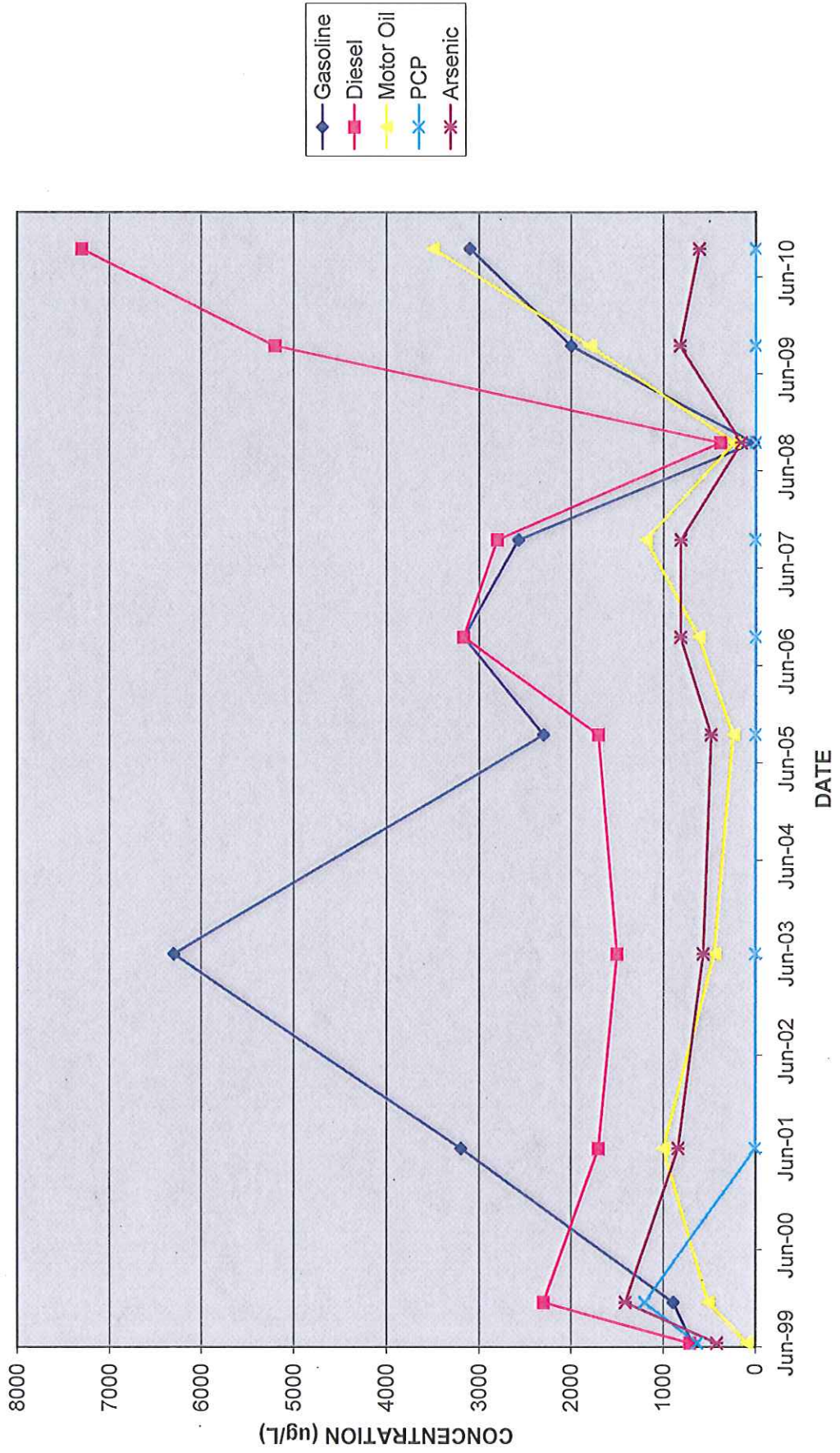
PROJ. NO. KE050654A

Project

Figure 2 Mill E Ground Water Elevations



FIGURE 3 MILL E SITE
ANALYTE CONCENTRATIONS WELL PZ-3A



FIELD REPORT

Associated Earth Sciences, Inc.



911 Fifth Avenue, Suite 100
Kirkland, Washington 98033
425-827-7701 FAX 827-5424

Page 1 of 1

Date	Project Name	Project No.
09-29-10	Mill E Site	KV050654
Location		Weather
Riverside Business Park		Sunny, 70's
Municipality		Report Number
Everett		3
Engineer		
AESI		
Client/Owner		
Pacific Topsoils, Inc.		

TO: Pacific Topsoils, Inc.
805 80th Street SW
Everett, WA 98203

ATTN: Mr. Januz Bajsarowicz

AS REQUESTED BY Performance and Compliance Monitoring Plan

THE FOLLOWING WAS NOTED:

As part of the Mill E Performance and Compliance Monitoring Plan, Associated Earth Sciences, Inc. (AESI) arrived on site to observe existing asphalt sections and fill soils covering previously identified contaminated soils on site. Eduardo Garcia, a professional engineer with our firm, was on site and performed site observations. The property is currently being utilized to recycle wood debris into wood chips and similar shredded wood products. The site contains several stockpiles of wood debris and wood chips in the central portion of the asphalt cap. During our site visit, the asphalt cap was observed to be in serviceable condition with no obvious signs of cracking, fissures, pumping, excessive settlements, or similar indicators of pavement distress. AESI should be contacted if indications of pavement distress are observed before our next scheduled site visit.

While on site, AESI also observed fill soils along the southwestern edge of the property. Approximately 1 foot of fill soil was placed on top of the site. AESI did not observe pumping, rutting, or similar indications of near surface disturbance. Silt fencing was observed in place along the eastern property boundary (adjacent to the Snohomish River), but not present along the western property boundary or along the perimeter of the fill cap.



COPIES TO: _____
DATE MAILED: _____

FIELD REP.: Eduardo Garcia, P.E. E.G.
PRINCIPAL / PM: _____

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

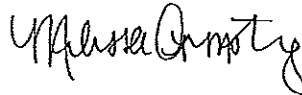
ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Seattle
5755 8th Street East
Tacoma, WA 98424
Tel: (253)922-2310

TestAmerica Job ID: 580-21881-1
Client Project/Site: Mill E Ground Water Monitoring, Everett

For:
Associated Earth Sciences
911 5th Avenue
Suite 100
Kirkland, Washington 98033

Attn: Jon Sondergaard



Authorized for release by:
10/13/2010 10:55 PM
Melissa Armstrong
Project Manager I
melissa.armstrong@testamericainc.com
Designee for
Curtis Armstrong
Project Manager I
curlis.armstrong@testamericainc.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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Job Narrative
580-21881-1

GC/MS VOA (NWTPH-Gx)

The Gasoline Range Organics (GRO) concentration reported for the following sample is due to the presence of discrete peaks: PZ-3A (580-21881-1). Naphthalene and another analyte.

GC Semi VOA (NWTPH-Dx)

For sample PZ-3A (580-21881-1) the results in the #2 Diesel (C10-C24) range are due to mineral/transformer oil and/or possibly biogenic interference. All affected analyte ranges are qualified with the "Y" qualifier and reported.

Qualifier Definition/Glossary

Client: Associated Earth Sciences
Project/Site: Mill E Ground Water Monitoring, Everett

TestAmerica Job ID: 580-21881-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
Y	The chromatographic response resembles a typical fuel pattern.

Metals

Qualifier	Qualifier Description
A	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.

Glossary

Glossary	Glossary Description
*	Listed under the "D" column to designate that the result is reported on a dry weight basis.

Analytical Data

Client: Associated Earth Sciences
 Project/Site: Mill E Ground Water Monitoring, Everett

TestAmerica Job ID: 580-21881-1

Client Sample ID: PZ-3A
 Date Collected: 09/28/10 00:00
 Date Received: 09/28/10 15:45

Lab Sample ID: 580-21881-1
 Matrix: Water

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	3.1		0.050		mg/L			10/01/10 22:47	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		50 - 150					10/01/10 22:47	1
Trifluorotoluene (Surr)	106		50 - 150					10/01/10 22:47	1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50		ug/L		10/05/10 12:51	10/08/10 07:01	1
PCB-1221	ND		0.50		ug/L		10/05/10 12:51	10/08/10 07:01	1
PCB-1232	ND		0.50		ug/L		10/05/10 12:51	10/08/10 07:01	1
PCB-1242	ND		0.50		ug/L		10/05/10 12:51	10/08/10 07:01	1
PCB-1248	ND		0.50		ug/L		10/05/10 12:51	10/08/10 07:01	1
PCB-1254	ND		0.50		ug/L		10/05/10 12:51	10/08/10 07:01	1
PCB-1260	ND		0.50		ug/L		10/05/10 12:51	10/08/10 07:01	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	81		60 - 150				10/05/10 12:51	10/08/10 07:01	1
DCB Decachlorobiphenyl	47		40 - 135				10/05/10 12:51	10/08/10 07:01	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	7.3	Y	0.12		mg/L		10/05/10 12:55	10/07/10 08:54	1
Motor Oil (>C24-C36)	3.5	Y	0.24		mg/L		10/05/10 12:55	10/07/10 08:54	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	98		50 - 150				10/05/10 12:55	10/07/10 08:54	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0061	^	0.0020		mg/L		10/11/10 12:37	10/12/10 17:31	5

5

Quality Control Data

TestAmerica Job ID: 580-21881-1

Client: Associated Earth Sciences
Project/Site: Mill E Ground Water Monitoring, Everett

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Lab Sample ID: MB 580-72808/8
Matrix: Water
Analysis Batch: 72808

Client Sample ID: MB 580-72808/8
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	ND		0.050		mg/L			10/01/10 18:50	1

Surrogate	MB % Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		50 - 150		10/01/10 18:50	1
Trifluorotoluene (Surr)	109		50 - 150		10/01/10 18:50	1

Lab Sample ID: LCS 580-72808/9
Matrix: Water
Analysis Batch: 72808

Client Sample ID: LCS 580-72808/9
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Gasoline	1.00	0.991		mg/L		99	79 - 110

Surrogate	LCS % Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	97		50 - 150
Trifluorotoluene (Surr)	101		50 - 150

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 580-73003/1-A
Matrix: Water
Analysis Batch: 73232

Client Sample ID: MB 580-73003/1-A
Prep Type: Total/NA
Prep Batch: 73003

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50		ug/L		10/05/10 12:51	10/08/10 06:19	1
PCB-1221	ND		0.50		ug/L		10/05/10 12:51	10/08/10 06:19	1
PCB-1232	ND		0.50		ug/L		10/05/10 12:51	10/08/10 06:19	1
PCB-1242	ND		0.50		ug/L		10/05/10 12:51	10/08/10 06:19	1
PCB-1248	ND		0.50		ug/L		10/05/10 12:51	10/08/10 06:19	1
PCB-1254	ND		0.50		ug/L		10/05/10 12:51	10/08/10 06:19	1
PCB-1260	ND		0.50		ug/L		10/05/10 12:51	10/08/10 06:19	1

Surrogate	MB % Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	74		60 - 150	10/05/10 12:51	10/08/10 06:19	1
DCB Decachlorobiphenyl	93		40 - 135	10/05/10 12:51	10/08/10 06:19	1

Lab Sample ID: LCS 580-73003/4-A
Matrix: Water
Analysis Batch: 73232

Client Sample ID: LCS 580-73003/4-A
Prep Type: Total/NA
Prep Batch: 73003

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
PCB-1016	1.00	0.876		ug/L		88	25 - 145
PCB-1260	1.00	0.964		ug/L		96	30 - 145

Surrogate	LCS % Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene	76		60 - 150
DCB Decachlorobiphenyl	94		40 - 135

TestAmerica Seattle

10/13/2010

Quality Control Data

TestAmerica Job ID: 580-21881-1

Client: Associated Earth Sciences
Project/Site: Mill E Ground Water Monitoring, Everett

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCSD 580-73003/5-A
Matrix: Water
Analysis Batch: 73232

Client Sample ID: LCSD 580-73003/5-A
Prep Type: Total/NA
Prep Batch: 73003

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	% Rec	% Rec.		Limit
							Limits	RPD	
PCB-1016	1.00	0.825		ug/L		83	25 - 145	6	27
PCB-1260	1.00	0.895		ug/L		89	30 - 145	8	22
Surrogate	LCSD % Recovery		LCSD Qualifier	Limits					
Tetrachloro-m-xylene	73			60 - 150					
DCB Decachlorobiphenyl	91			40 - 135					

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Lab Sample ID: MB 580-73004/1-A
Matrix: Water
Analysis Batch: 73147

Client Sample ID: MB 580-73004/1-A
Prep Type: Total/NA
Prep Batch: 73004

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Motor Oil (>C24-C36)	ND		0.25		mg/L	10/05/10 12:55	10/07/10 07:35	1	
Surrogate	MB % Recovery		MB Qualifier	Limits		Prepared	Analyzed	Dil Fac	
o-Terphenyl	84			50 - 150		10/05/10 12:55	10/07/10 07:35	1	

Lab Sample ID: LCS 580-73004/2-A
Matrix: Water
Analysis Batch: 73147

Client Sample ID: LCS 580-73004/2-A
Prep Type: Total/NA
Prep Batch: 73004

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec.		Limit
							Limits	RPD	
#2 Diesel (C10-C24)	5.00	4.34		mg/L		87	70 - 140		
Motor Oil (>C24-C36)	5.00	4.92		mg/L		98	65 - 125		
Surrogate	LCS % Recovery		LCS Qualifier	Limits					
o-Terphenyl	98			50 - 150					

Lab Sample ID: LCSD 580-73004/3-A
Matrix: Water
Analysis Batch: 73147

Client Sample ID: LCSD 580-73004/3-A
Prep Type: Total/NA
Prep Batch: 73004

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	% Rec	% Rec.		Limit
							Limits	RPD	
#2 Diesel (C10-C24)	5.00	4.33		mg/L		87	70 - 140	0	27
Motor Oil (>C24-C36)	5.00	4.81		mg/L		96	66 - 125	2	27
Surrogate	LCSD % Recovery		LCSD Qualifier	Limits					
o-Terphenyl	93			50 - 150					

Quality Control Data

Client: Associated Earth Sciences
 Project/Site: Mill E Ground Water Monitoring, Everett

TestAmerica Job ID: 580-21881-1

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 580-73350/22-A
 Matrix: Water
 Analysis Batch: 73534

Client Sample ID: MB 580-73350/22-A
 Prep Type: Total Recoverable
 Prep Batch: 73350

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND	^	0.0020		mg/L		10/11/10 12:37	10/12/10 15:20	5

Lab Sample ID: LCS 580-73350/23-A
 Matrix: Water
 Analysis Batch: 73534

Client Sample ID: LCS 580-73350/23-A
 Prep Type: Total Recoverable
 Prep Batch: 73350

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	Limits
Arsenic	4.00	3.88	^	mg/L		97	80 - 120

Lab Sample ID: LCSD 580-73350/24-A
 Matrix: Water
 Analysis Batch: 73534

Client Sample ID: LCSD 580-73350/24-A
 Prep Type: Total Recoverable
 Prep Batch: 73350

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	% Rec	Limits	RPD	Limit
Arsenic	4.00	3.84	^	mg/L		96	80 - 120	1	20

Lab Chronicle

Client: Associated Earth Sciences
 Project/Site: Mill E Ground Water Monitoring, Everett

TestAmerica Job ID: 580-21881-1

Client Sample ID: PZ-3A
 Date Collected: 09/28/10 00:00
 Date Received: 09/28/10 15:45

Lab Sample ID: 580-21881-1
 Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared Or Analyzed	Analyst	Lab
Total/NA	Analysis	NWTPH-Gx		1	72808	10/01/10 22:47	MAT	TestAmerica Seattle
Total/NA	Prep	3520C			73003	10/05/10 12:51	SP	TestAmerica Seattle
Total/NA	Analysis	8082		1	73232	10/08/10 07:01	MAM	TestAmerica Seattle
Total/NA	Prep	3510C			73004	10/05/10 12:55	SP	TestAmerica Seattle
Total/NA	Analysis	NWTPH-Dx		1	73147	10/07/10 08:54	EK	TestAmerica Seattle
Total Recoverable	Prep	3005A			73350	10/11/10 12:37	FCW	TestAmerica Seattle
Total Recoverable	Analysis	6020		5	73534	10/12/10 17:31	FCW	TestAmerica Seattle

Certification Summary

Client: Associated Earth Sciences
 Project/Site: Mill E Ground Water Monitoring, Everett

TestAmerica Job ID: 580-21881-1

Laboratory	Authority	Program	EPA Region	Certification ID	Expiration Date
TestAmerica Seattle		USDA		P330-08-00099	05/22/11
TestAmerica Seattle	Alaska	Alaska UST	10	UST-022	03/04/11
TestAmerica Seattle	California	NELAC Secondary AB	9	1115CA	01/31/11
TestAmerica Seattle	Florida	NELAC Secondary AB	4	E871074	08/30/11
TestAmerica Seattle	L-A-B	DoD ELAP	0	L2236	01/19/13
TestAmerica Seattle	L-A-B	ISO/IEC 17025	0	L2236	01/19/13
TestAmerica Seattle	Montana	State Program	8		04/30/20
TestAmerica Seattle	Oregon	NELAC Primary AB	10	WA100007	11/06/10
TestAmerica Seattle	Washington	State Program	10	C553	02/17/11

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Sample Summary

Client: Associated Earth Sciences
Project/Site: Mill E Ground Water Monitoring, Everett

TestAmerica Job ID: 580-21881-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-21881-1	PZ-3A	Water	09/28/10 00:00	09/28/10 15:45



Login Sample Receipt Check List

Client: Associated Earth Sciences

Job Number: 580-21881-1

Login Number: 21881

List Source: TestAmerica Seattle

Creator: Presley, Kim

List Number: 1

Question	T / F / NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	received same day sampled
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

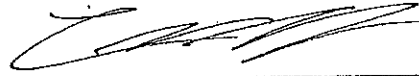
ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Seattle
5755 8th Street East
Tacoma, WA 98424
Tel: (253)922-2310

TestAmerica Job ID: 580-21881-2
Client Project/Site: Mill E Ground Water Monitoring, Everett

For:
Associated Earth Sciences
911 5th Avenue
Suite 100
Kirkland, Washington 98033

Attn: Jon Sondergaard



Authorized for release by:
11/8/2010 10:59 AM

Curtis Armstrong
Project Manager I
curtis.armstrong@testamericainc.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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Qualifier Definition/Glossary

Client: Associated Earth Sciences
Project/Site: Mill E Ground Water Monitoring, Everett

TestAmerica Job ID: 580-21881-2

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time

Glossary

Glossary	Glossary Description
✱	Listed under the "D" column to designate that the result is reported on a dry weight basis.

Analytical Data

Client: Associated Earth Sciences
Project/Site: Mill E Ground Water Monitoring, Everett

TestAmerica Job ID: 580-21881-2

Client Sample ID: PZ-3A
Date Collected: 09/28/10 00:00
Date Received: 09/28/10 15:45

Lab Sample ID: 580-21881-1
Matrix: Water

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	0.18	H	0.095		ug/L		10/25/10 13:24	10/26/10 18:33	1
Surrogate	% Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	78		44 - 125				10/25/10 13:24	10/26/10 18:33	1

Quality Control Data

Client: Associated Earth Sciences
 Project/Site: Mill E Ground Water Monitoring, Everett

TestAmerica Job ID: 580-21881-2

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 580-74326/1-A Client Sample ID: MB 580-74326/1-A
 Matrix: Water Prep Type: Total/NA
 Analysis Batch: 74399 Prep Batch: 74326

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Pentachlorophenol	ND		0.10		ug/L		10/25/10 13:24	10/26/10 16:17	1
Surrogate	MB MB		Limits			Prepared	Analyzed	Dil Fac	
% Recovery	Qualifier								
2,4,6-Tribromophenol	76		44 - 125			10/25/10 13:24	10/26/10 16:17	1	

Lab Sample ID: LCS 580-74326/2-A Client Sample ID: LCS 580-74326/2-A
 Matrix: Water Prep Type: Total/NA
 Analysis Batch: 74399 Prep Batch: 74326

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	% Rec	% Rec. Limits
Surrogate	LCS LCS		Limits			% Rec	
% Recovery	Qualifier						
2,4,6-Tribromophenol	94		44 - 125				

Lab Sample ID: LCSD 580-74326/3-A Client Sample ID: LCSD 580-74326/3-A
 Matrix: Water Prep Type: Total/NA
 Analysis Batch: 74399 Prep Batch: 74326

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	% Rec	% Rec. Limits	RPD	Limit
Surrogate	LCSD LCSD		Limits			% Rec			
% Recovery	Qualifier								
2,4,6-Tribromophenol	102		44 - 125						

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Login Sample Receipt Check List

Client: Associated Earth Sciences

Job Number: 580-21881-2

Login Number: 21881

List Source: TestAmerica Seattle

Creator: Presley, Kim

List Number: 1

Question	T / F / NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	received same day sampled
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	