ANCHOR ENVIRONMENTAL, L.L.C.

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1423 3rd Avenue, Suite 300
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January 3, 2008
000111-01 BG01 T04

Mark Edens
Department of Ecology
Northwest Regional Office
3190 160th Avenue SE
Bellevue, Washington 98008

Re: Duwamish Shipyard – Updated Information on Soil Management
Results of Test Pit Sample Reanalysis and Soil Stockpile Testing

Dear Mark:

This letter summarizes the results of soil testing performed at Duwamish Shipyard, Inc. (DSI) in Seattle. The DSI property is located at 5658 West Marginal Way SW in Seattle.

Background

In June 2007, Anchor reported to you the results of test pit investigations performed by others (GeoEngineers) at the DSI property and provided copies of associated soil analytical data. Specifically, CCI Analytical's laboratories analyzed soil samples from the four test pits for polycyclic aromatic hydrocarbons (PAHs) and heavy metals. We transmitted these data to you as part of our letter. These data indicated that the sampled soils complied with Model Toxics Control Act (MTCA) Method A Industrial soil cleanup levels for PAH and most heavy metals, but exceeded Method A cleanup levels for cadmium in all four samples. We stated in our letter that these stockpiled soils (approximately 450 cubic yards) were to be removed from the site for recycling or upland disposal.

Subsequent to our June 2007 notification, we have conducted additional data review, laboratory reanalysis, and supplemental soil sampling. This letter provides the results of that work and provides updated conclusions regarding the stockpiled soils. As summarized below, the

original cadmium analytical results were determined to be invalid, and subsequent sampling has shown that the soils do not exceed MTCA soil cleanup levels. Therefore, the soils can be retained for on-site reuse.

Review and Laboratory Reanalysis of Test Pit Samples

As part of our preparations for removing the stockpiled soils, Anchor Environmental, L.L.C. (Anchor) conducted a quality assurance review of the test pit data that were to be used in soil profiling. For that review, we obtained copies of the laboratory analytical reports from GeoEngineers and then requested supplemental quality assurance documentation from the analytical laboratory (CCI Analytical). Copies of these initial analytical data and chain-of-custody forms are included as Attachment A for your reference.

The data quality review indicated that the PAH analytical data were acceptable for use, including laboratory-applied data flags. However, problems were noted with the heavy metals data set. Specifically, the validation identified unacceptable calibration data and high bias based on internal check standard results.

After completing our validation, Anchor contacted CCI and discussed the findings with the laboratory. The laboratory concurred with the findings of our validator and concluded that corrective action was warranted. The laboratory still had the sample extracts (which remained within holding times) and elected to rerun the analyses to rectify the affected data and determine the true metals concentrations. The laboratory reanalysis indicated non-detect concentrations for cadmium. A letter from CCI summarizing its internal quality control review and corrective action is provided in Attachment B, along with the updated laboratory results and Anchor's validation of the updated laboratory report.

Table 1 summarizes the results of the updated CCI laboratory data, including the corrected heavy metals data. Based on the final laboratory data, no exceedances of MTCA Method A industrial soil cleanup levels were noted in any of the soil samples.

Additional Verification Testing

Anchor performed additional soil sampling prior to making a determination on soil management options. Specifically, we collected three soil samples from the soil stockpile (these are the same soils represented by the GeoEngineers test pits and the CCI laboratory analyses). Anchor submitted two of these samples to Analytical Resources (ARI) for chemical analysis of

heavy metals and petroleum hydrocarbons. A third sample was analyzed only for cadmium, with split samples analyzed by both ARI and CCI.

The results of verification testing are included in Table 1. No exceedances of MTCA Method A industrial soil cleanup levels were noted for any tested parameter. Cadmium was non-detect in all samples analyzed by either laboratory. The analytical laboratory reports and data validation report from the additional testing are included as Attachment C and Attachment D, respectively.

Conclusion: Updated Soil Management Decision

Based on the foregoing information, Anchor concludes that the soils excavated from the northwestern corner of the DSI property comply with MTCA Method A soil cleanup levels. The soils are therefore suitable for on-site reuse and can be retained for use as fill during future anticipated site work.

Please include a copy of this report in the site file, and make a note that our letter of June 2007 has been superseded by subsequent information.

If you have any questions, please do not hesitate to contact me at (206) 903-3312. I may also be reached by email at dtempleton@anchorenv.com.

Sincerely,

David Templeton
Anchor Environmental, L.L.C.

Cc: Kyle McCleary, Duwamish Shipyard, Inc.
Kim Maree Johannessen, Johannessen & Associates, P.S.
Ben Howard, Anchor
Mark Larsen, Anchor

Attachments

Table 1

Results of Test Pit and StockpileSampling for Soil Excavated in Northwest Corner of DSI Property

Parameter	MTCA Industrial Soil Cleanup Level (MTCA Method A) [1]	Toxicity Equivalence Factor (cPAH) [4]	Sample ID and Date						
			Test Pit Sampling Results				Soil Stockpile Sampling Results		
			CS-1 5/18/2007	CS-2 5/18/2007	CS-3 5/18/2007	CS-4 5/18/2007	DSI-SE1 7/3/2007	DSI-SE2 7/3/2007	DSI-SE3 7/3/2007
Heavy Metals									
Arsenic	20	--	5 U	5 U	5 U	5 U	9	--	8
Cadmium	2	--	1.0 [6] U	1.0 [5] U	1.0 [5] U	1.0 [5] U	0.2 U	0.2 (1.0) [6] U	0.2 U
Chromium	19/2000 [2]	--	14	18	11	13	12	--	11
Lead	1000	--	34	20	7	13	16	--	10
Mercury	2	--	0.04	0.02	0.02 U	0.02 U	0.05 U	--	0.04 U
Petroleum Hydrocarbons (mg/kg)									
Diesel-range	2000	--	--	--	--	--	8.1	--	5.3 U
Motor Oil-range	2000	--	--	--	--	--	51	--	31
Non-Carcinogenic PAH (mg/kg)									
Naphthalene	5	--	0.02 U	0.02 U	2	0.02 U	--	--	--
1-Methylnaphthalene	--	--	0.02 U	0.02 U	1.2	0.02 U	--	--	--
2-Methylnaphthalene	--	--	0.02 U	0.02 U	0.76	0.02 U	--	--	--
Acenaphthylene	--	--	0.02 U	0.02 U	0.09	0.02 U	--	--	--
Acenaphthene	--	--	0.02 U	0.02 U	4	0.02 U	--	--	--
Fluorene	--	--	0.02 U	0.02 U	3.3	0.02 U	--	--	--
Phenanthrene	--	--	0.05	0.04	5.1	0.02 U	--	--	--
Anthracene	--	--	0.02 U	0.02 U	0.78	0.02 U	--	--	--
Fluoranthene	--	--	0.08	0.11	1.5	0.04	--	--	--
Pyrene	--	--	0.1	0.1	1.3	0.04	--	--	--
Benzo(g,h,i)perylene	--	--	0.04	0.02 U	0.15	0.02 U	--	--	--
Carcinogenic PAH (mg/kg) [3]									
Benzo(a)anthracene	--	0.1	0.04	0.04	0.24	0.02 U	--	--	--
Chrysene	--	0.01	0.06	0.04	0.36	0.02 U	--	--	--
Benzo(b)fluoranthene	--	0.1	0.04	0.03	0.2	0.02 U	--	--	--
Benzo(k)fluoranthene	--	0.1	0.04	0.02	0.18	0.02 U	--	--	--
Benzo(a)pyrene	--	1	0.05	0.03	0.23	0.02 U	--	--	--
Indeno(1,2,3-cd)pyrene	--	0.1	0.03	0.02 U	0.13	0.02 U	--	--	--
Dibenz(a,h)anthracene	--	0.1	0.02 U	0.02 U	0.06	0.02 U	--	--	--
Total cPAH	--								
Carcinogenic PAH as BAP Equivalents (mg/kg) [4]									
Benzo(a)anthracene	--	--	0.004	0.004	0.024	0.001 U*	--	--	--
Chrysene	--	--	0.0006	0.0004	0.0036	0.0001 U*	--	--	--
Benzo(b)fluoranthene	--	--	0.004	0.003	0.02	0.001 U*	--	--	--
Benzo(k)fluoranthene	--	--	0.004	0.002	0.018	0.001 U*	--	--	--
Benzo(a)pyrene	--	--	0.05	0.03	0.23	0.01 U*	--	--	--
Indeno(1,2,3-cd)pyrene	--	--	0.003	0.001 U*	0.013	0.001 U*	--	--	--
Dibenz(a,h)anthracene	--	--	0.001 U*	0.001 U*	0.006	0.001 U*	--	--	--
Total cPAH as BAP	2	--	0.0666	0.0414	0.3146	0.0151	--	--	--

Notes:

Bolded and underlined values exceed the listed MTCA Method A cleanup level.

U Compound not detected. Value shown is the laboratory reporting limit.

U* Compound not detected. BAP equivalence calculated based on an assumed concentration equal to one half of the detection limit.

1 Method A industrial soil cleanup levels are used for preliminary evaluation. Final site cleanup levels to be determined following site remedial investigation.

2 Cleanup levels shown are based on chromium VI (19 mg/kg) and chromium III (2,000 mg/kg). Soil samples were analyzed for total chromium.

3 Carcinogenic PAH (cPAH) are those tested PAH compounds considered by EPA and Ecology to be known or probable human carcinogens.

4 The benzo(a)pyrene equivalency concentration was calculated using the toxicity equivalency factors specified in California EPA 2005 guidance.

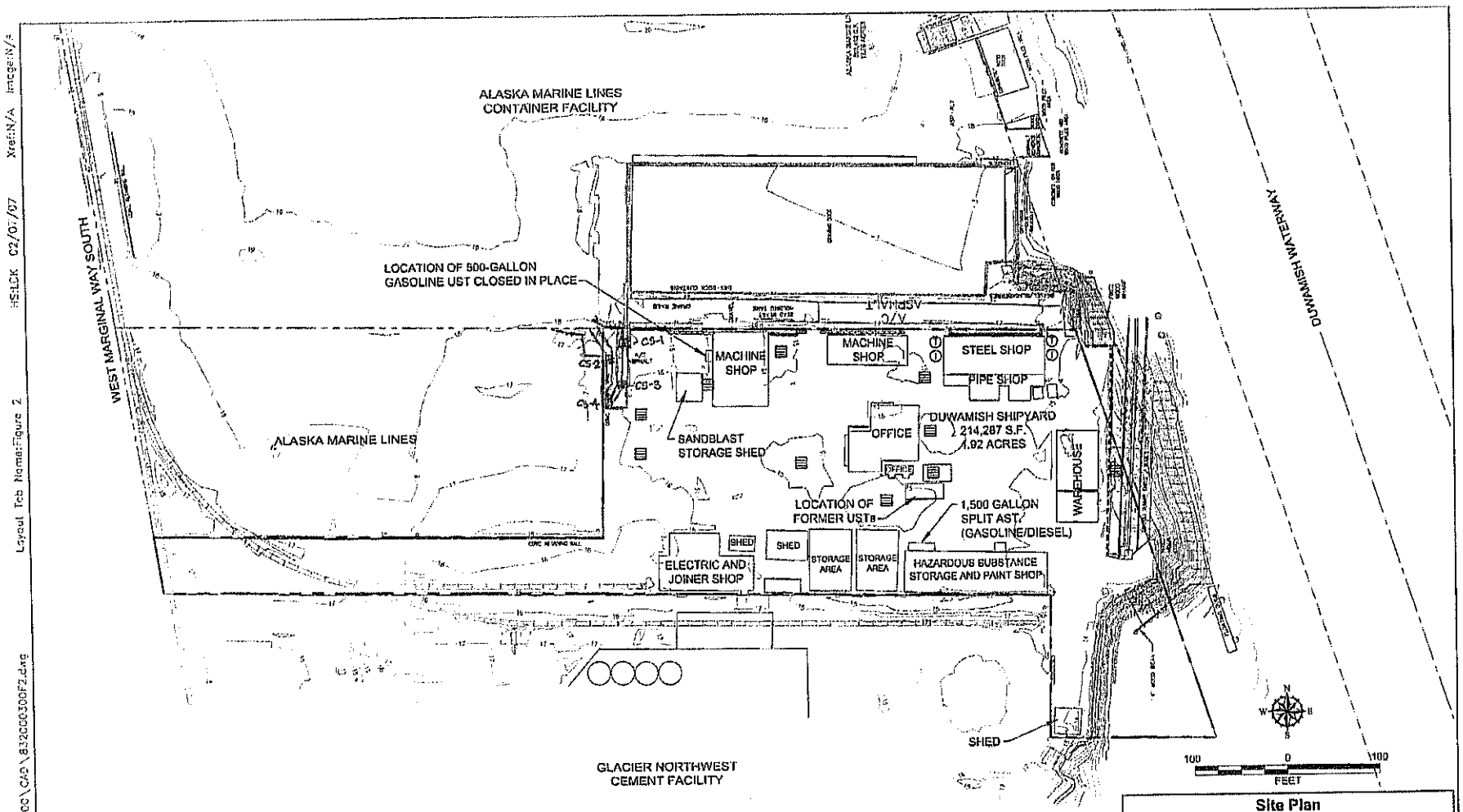
5 Test pit samples were reanalyzed for cadmium by CCI Analytical Laboratories and performed as corrective action due to quality control validation results. Only the valid re-analysis analytical results are presented in this table.

6 Soil sample DSI-SE2 was also analyzed at CCI Analytical Laboratories to confirm cadmium non-detect concentration. This concentrations is presented as less than (<) 1.0 mg/kg.

ATTACHMENT A

INITIAL TEST PIT SAMPLE LOCATIONS, RESULTS, AND CHAIN OF CUSTODY DOCUMENTATION

Note that cadmium data reported by CCI were determined to be invalid. Refer to Attachment B for final laboratory reports and data validation.



Site Plan

Duwamish Shipyard
Seattle, Washington

GeoEngineers | Figure 2

Legend:

- Transformer
- Catch Basin

Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. can not guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Reference: Drawing base from Anchor consultants LLC, AutoCAD files 00011101-011 (with structures).dwg and X Combined Duwa Bathy.dwg.

SEAT \\P:_6326003\cc\CAD\6326003002.dwg Layout Tab Name:Figure 2 HSLCK 02/07/07 Xref:N/A Image:N/A

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LABORATORIES

CERTIFICATE OF ANALYSIS

CLIENT: GEOENGINEERS, INC.
600 STEWART ST. PLAZA 600 BUILDING,
SUITE 1700
SEATTLE, WA 98101

DATE: 5/22/2007
CCIL JOB #: 0705096

DATE RECEIVED: 5/18/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: SEAN TRIMBLE
CLIENT PROJECT ID: 8320-003-00
CLIENT SAMPLE ID: 5/18/2007 10:20 CS-1
CCIL SAMPLE #: 01

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
Naphthalene	EPA-8270 SIM	ND	0 02	1	MG/KG	5/21/2007	RAL
1-Methylnaphthalene	EPA-8270 SIM	ND	0 02	1	MG/KG	5/21/2007	RAL
2-Methylnaphthalene	EPA-8270 SIM	ND	0 02	1	MG/KG	5/21/2007	RAL
Acenaphthylene	EPA-8270 SIM	ND	0 02	1	MG/KG	5/21/2007	RAL
Acenaphthene	EPA-8270 SIM	ND	0.02	1	MG/KG	5/21/2007	RAL
Fluorene	EPA-8270 SIM	ND	0.02	1	MG/KG	5/21/2007	RAL
Phenanthrene	EPA-8270 SIM	0 05	0 02	1	MG/KG	5/21/2007	RAL
Anthracene	EPA-8270 SIM	ND	0.02	1	MG/KG	5/21/2007	RAL
Fluoranthene	EPA-8270 SIM	0.08	0 02	1	MG/KG	5/21/2007	RAL
Pyrene	EPA-8270 SIM	0.10	0 02	1	MG/KG	5/21/2007	RAL
Benzo[A]Anthracene	EPA-8270 SIM	0.04	0 02	1	MG/KG	5/21/2007	RAL
Chrysene	EPA-8270 SIM	0 06	0 02	1	MG/KG	5/21/2007	RAL
Benzo[B]Fluoranthene	EPA-8270 SIM	0.04	0.02	1	MG/KG	5/21/2007	RAL
Benzo[K]Fluoranthene	EPA-8270 SIM	0 04	0 02	1	MG/KG	5/21/2007	RAL
Benzo(A)Pyrene	EPA-8270 SIM	0 05	0 02	1	MG/KG	5/21/2007	RAL
Indeno[1 2,3-Cd]Pyrene	EPA-8270 SIM	0.03	0 02	1	MG/KG	5/21/2007	RAL
Dibenz[A H]Anthracene	EPA-8270 SIM	ND	0 02	1	MG/KG	5/21/2007	RAL
Benzo[G,H I]Perylene	EPA-8270 SIM	0 04	0 02	1	MG/KG	5/21/2007	RAL
Arsenic	EPA-6010	ND	5	4	MG/KG	5/21/2007	ICP
Cadmium	EPA-6010	2 8	1	4	MG/KG	5/21/2007	ICP
Chromium	EPA-6010	14	1	4	MG/KG	5/21/2007	ICP
Lead	EPA-6010	34	5	4	MG/KG	5/21/2007	ICP
Mercury	EPA-7471	0 04	0 02	1	MG/KG	5/21/2007	ICP

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES
** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

APPROVED BY:

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CLIENT: GEOENGINEERS, INC.
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SEATTLE, WA 98101

DATE: 5/22/2007
CCIL JOB #: 0705096

DATE RECEIVED: 5/18/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: SEAN TRIMBLE
CLIENT PROJECT ID: 8320-003-00
CLIENT SAMPLE ID: 5/18/2007 10:30 CS-2
CCIL SAMPLE #: 02

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
Naphthalene	EPA-8270 SIM	ND	0 02	1	MG/KG	5/21/2007	RAL
1-Methylnaphthalene	EPA-8270 SIM	ND	0 02	1	MG/KG	5/21/2007	RAL
2-Methylnaphthalene	EPA-8270 SIM	ND	0.02	1	MG/KG	5/21/2007	RAL
Acenaphthylene	EPA-8270 SIM	ND	0 02	1	MG/KG	5/21/2007	RAL
Acenaphthene	EPA-8270 SIM	ND	0 02	1	MG/KG	5/21/2007	RAL
Fluorene	EPA-8270 SIM	ND	0 02	1	MG/KG	5/21/2007	RAL
Phenanthrene	EPA-8270 SIM	0.04	0 02	1	MG/KG	5/21/2007	RAL
Anthracene	EPA-8270 SIM	ND	0.02	1	MG/KG	5/21/2007	RAL
Fluoranthene	EPA-8270 SIM	0.11	0 02	1	MG/KG	5/21/2007	RAL
Pyrene	EPA-8270 SIM	0.10	0.02	1	MG/KG	5/21/2007	RAL
Benzo[A]Anthracene	EPA-8270 SIM	0 04	0 02	1	MG/KG	5/21/2007	RAL
Chrysene	EPA-8270 SIM	0.04	0 02	1	MG/KG	5/21/2007	RAL
Benzo[B]Fluoranthene	EPA-8270 SIM	0 03	0.02	1	MG/KG	5/21/2007	RAL
Benzo[K]Fluoranthene	EPA-8270 SIM	0 02	0 02	1	MG/KG	5/21/2007	RAL
Benzo(A)Pyrene	EPA-8270 SIM	0 03	0 02	1	MG/KG	5/21/2007	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	ND	0 02	1	MG/KG	5/21/2007	RAL
Dibenz[A,H]Anthracene	EPA-8270 SIM	ND	0 02	1	MG/KG	5/21/2007	RAL
Benzo[G,H,I]Perylene	EPA-8270 SIM	ND	0.02	1	MG/KG	5/21/2007	RAL
Arsenic	EPA-6010	ND	5	4	MG/KG	5/21/2007	ICP
Cadmium	EPA-6010	3.0	1	4	MG/KG	5/21/2007	ICP
Chromium	EPA-6010	18	1	4	MG/KG	5/21/2007	ICP
Lead	EPA-6010	20	5	4	MG/KG	5/21/2007	ICP
Mercury	EPA-7471	ND	0 02	1	MG/KG	5/21/2007	ICP

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SEATTLE, WA 98101

DATE: 5/22/2007
CCIL JOB #: 0705096

DATE RECEIVED: 5/18/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: SEAN TRIMBLE
CLIENT PROJECT ID: 8320-003-00
CLIENT SAMPLE ID: 5/18/2007 10:40 CS-3
CCIL SAMPLE #: 03

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
Naphthalene	EPA-8270 SIM	2.0	0.04	2	MG/KG	5/21/2007	RAL
1-Methylnaphthalene	EPA-8270 SIM	1.2	0.04	2	MG/KG	5/21/2007	RAL
2-Methylnaphthalene	EPA-8270 SIM	0.76	0.04	2	MG/KG	5/21/2007	RAL
Acenaphthylene	EPA-8270 SIM	0.09	0.04	2	MG/KG	5/21/2007	RAL
Acenaphthene	EPA-8270 SIM	4.0	0.04	2	MG/KG	5/21/2007	RAL
Fluorene	EPA-8270 SIM	3.3	0.04	2	MG/KG	5/21/2007	RAL
Phenanthrene	EPA-8270 SIM	5.1	0.04	2	MG/KG	5/21/2007	RAL
Anthracene	EPA-8270 SIM	0.78	0.04	2	MG/KG	5/21/2007	RAL
Fluoranthene	EPA-8270 SIM	1.5	0.04	2	MG/KG	5/21/2007	RAL
Pyrene	EPA-8270 SIM	1.3	0.04	2	MG/KG	5/21/2007	RAL
Benzo[A]Anthracene	EPA-8270 SIM	0.24	0.04	2	MG/KG	5/21/2007	RAL
Chrysene	EPA-8270 SIM	0.36	0.04	2	MG/KG	5/21/2007	RAL
Benzo[B]Fluoranthene	EPA-8270 SIM	0.20	0.04	2	MG/KG	5/21/2007	RAL
Benzo[K]Fluoranthene	EPA-8270 SIM	0.18	0.04	2	MG/KG	5/21/2007	RAL
Benzo(A)Pyrene	EPA-8270 SIM	0.23	0.04	2	MG/KG	5/21/2007	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	0.13	0.04	2	MG/KG	5/21/2007	RAL
Dibenz[A,H]Anthracene	EPA-8270 SIM	0.06	0.04	2	MG/KG	5/21/2007	RAL
Benzo[G,H,I]Perylene	EPA-8270 SIM	0.15	0.04	2	MG/KG	5/21/2007	RAL
Arsenic	EPA-6010	ND	5	4	MG/KG	5/21/2007	ICP
Cadmium	EPA-6010	2.4	1	4	MG/KG	5/21/2007	ICP
Chromium	EPA-6010	11	1	4	MG/KG	5/21/2007	ICP
Lead	EPA-6010	7.0	5	4	MG/KG	5/21/2007	ICP
Mercury	EPA-7471	ND	0.02	1	MG/KG	5/21/2007	ICP

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WDOE ACCREDITATION #: C142

CLIENT CONTACT: SEAN TRIMBLE
CLIENT PROJECT ID: 8320-003-00
CLIENT SAMPLE ID: 5/18/2007 10:50 CS-4
CCIL SAMPLE #: 04

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
Naphthalene	EPA-8270 SIM	ND	0 02	1	MG/KG	5/21/2007	RAL
1-Methylnaphthalene	EPA-8270 SIM	ND	0 02	1	MG/KG	5/21/2007	RAL
2-Methylnaphthalene	EPA-8270 SIM	ND	0 02	1	MG/KG	5/21/2007	RAL
Acenaphthylene	EPA-8270 SIM	ND	0.02	1	MG/KG	5/21/2007	RAL
Acenaphthene	EPA-8270 SIM	ND	0 02	1	MG/KG	5/21/2007	RAL
Fluorene	EPA-8270 SIM	ND	0 02	1	MG/KG	5/21/2007	RAL
Phenanthrene	EPA-8270 SIM	ND	0.02	1	MG/KG	5/21/2007	RAL
Anthracene	EPA-8270 SIM	ND	0.02	1	MG/KG	5/21/2007	RAL
Fluoranthene	EPA-8270 SIM	0 04	0.02	1	MG/KG	5/21/2007	RAL
Pyrene	EPA-8270 SIM	0 04	0.02	1	MG/KG	5/21/2007	RAL
Benzo[A]Anthracene	EPA-8270 SIM	ND	0 02	1	MG/KG	5/21/2007	RAL
Chrysene	EPA-8270 SIM	ND	0 02	1	MG/KG	5/21/2007	RAL
Benzo[B]Fluoranthene	EPA-8270 SIM	ND	0 02	1	MG/KG	5/21/2007	RAL
Benzo[K]Fluoranthene	EPA-8270 SIM	ND	0.02	1	MG/KG	5/21/2007	RAL
Benzo(A)Pyrene	EPA-8270 SIM	ND	0.02	1	MG/KG	5/21/2007	RAL
Indeno[1 2 3-Cd]Pyrene	EPA-8270 SIM	ND	0 02	1	MG/KG	5/21/2007	RAL
Dibenz[A,H]Anthracene	EPA-8270 SIM	ND	0 02	1	MG/KG	5/21/2007	RAL
Benzo[G,H I]Perylene	EPA-8270 SIM	ND	0 02	1	MG/KG	5/21/2007	RAL
Arsenic	EPA-6010	ND	5	4	MG/KG	5/21/2007	ICP
Cadmium	EPA-6010	2 4	1	4	MG/KG	5/21/2007	ICP
Chromium	EPA-6010	13	1	4	MG/KG	5/21/2007	ICP
Lead	EPA-6010	13	5	4	MG/KG	5/21/2007	ICP
Mercury	EPA-7471	ND	0 02	1	MG/KG	5/21/2007	ICP

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.
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CLIENT: GEOENGINEERS, INC.
600 STEWART ST. PLAZA 600 BUILDING,
SUITE 1700
SEATTLE, WA 98101

DATE: 5/22/2007
CCIL JOB #: 0705096

DATE RECEIVED: 5/18/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: SEAN TRIMBLE
CLIENT PROJECT ID: 8320-003-00

QUALITY CONTROL RESULTS

SURROGATE RECOVERY

CCIL SAMPLE ID	METHOD	SUR ID	SPIKE AMOUNT	% RECV
0705096-01	EPA-8270 SIM	Terphenyl-d14	1 PPM	104
0705096-02	EPA-8270 SIM	Terphenyl-d14	1 PPM	118
0705096-03	EPA-8270 SIM	Terphenyl-d14	1 PPM	96
0705096-04	EPA-8270 SIM	Terphenyl-d14	1 PPM	113

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

CCI
ANALYTICAL
LABORATORIES

CERTIFICATE OF ANALYSIS

CLIENT: GEOENGINEERS, INC.
600 STEWART ST. PLAZA 600 BUILDING,
SUITE 1700
SEATTLE, WA 98101

DATE: 5/22/2007
CCIL JOB #: 0705096

DATE RECEIVED: 5/18/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: SEAN TRIMBLE
CLIENT PROJECT ID: 8320-003-00

QUALITY CONTROL RESULTS

BLANK RESULTS

METHOD	RESULT	ASSOCIATED SAMPLES
EPA-8270 SIM (Naphthalene)	ND(<0.02)	0705096 -01 to 04
EPA-8270 SIM (1-Methylnaphthalene)	ND(<0.02)	0705096 -01 to 04
EPA-8270 SIM (2-Methylnaphthalene)	ND(<0.02)	0705096 -01 to 04
EPA-8270 SIM (Acenaphthylene)	ND(<0.02)	0705096 -01 to 04
EPA-8270 SIM (Acenaphthene)	ND(<0.02)	0705096 -01 to 04
EPA-8270 SIM (Fluorene)	ND(<0.02)	0705096 -01 to 04
EPA-8270 SIM (Phenanthrene)	ND(<0.02)	0705096 -01 to 04
EPA-8270 SIM (Anthracene)	ND(<0.02)	0705096 -01 to 04
EPA-8270 SIM (Fluoranthene)	ND(<0.02)	0705096 -01 to 04
EPA-8270 SIM (Pyrene)	ND(<0.02)	0705096 -01 to 04
EPA-8270 SIM (Benzo[A]Anthracene)	ND(<0.02)	0705096 -01 to 04
EPA-8270 SIM (Chrysene)	ND(<0.02)	0705096 -01 to 04
EPA-8270 SIM (Benzo[B]Fluoranthene)	ND(<0.02)	0705096 -01 to 04
EPA-8270 SIM (Benzo[K]Fluoranthene)	ND(<0.02)	0705096 -01 to 04
EPA-8270 SIM (Benzo(A)Pyrene)	ND(<0.02)	0705096 -01 to 04
EPA-8270 SIM (Indeno[1,2,3-Cd]Pyrene)	ND(<0.02)	0705096 -01 to 04
EPA-8270 SIM (Dibenz[A,H]Anthracene)	ND(<0.02)	0705096 -01 to 04
EPA-8270 SIM (Benzo[G,H,I]Perylene)	ND(<0.02)	0705096 -01 to 04
EPA-6010 (Arsenic)	ND(<5.0)	0705096 -01 to 04
EPA-6010 (Cadmium)	ND(<1.0)	0705096 -01 to 04
EPA-6010 (Chromium)	ND(<1.0)	0705096 -01 to 04
EPA-6010 (Lead)	ND(<5.0)	0705096 -01 to 04
EPA-7471 (Mercury)	ND(<0.02)	0705096 -01 to 04

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CERTIFICATE OF ANALYSIS

CLIENT: GEOENGINEERS, INC.
600 STEWART ST. PLAZA 600 BUILDING,
SUITE 1700
SEATTLE, WA 98101

DATE: 5/22/2007
CCIL JOB #: 0705096

DATE RECEIVED: 5/18/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: SEAN TRIMBLE
CLIENT PROJECT ID: 8320-003-00

QUALITY CONTROL RESULTS

SPIKE/SPIKE DUPLICATE RESULTS

METHOD	ANALYTE	ASSOCIATED SAMPLES	SPIKE AMOUNT	DILUTION FACTOR	SPIKE RECOVERY	SPIKE DUP RECOVERY	RPD
EPA-8270 SIM	Naphthalene	0705096-01 to 04	0 5 MG/KG	1	86 %	84 %	2
EPA-8270 SIM	Acenaphthene	0705096-01 to 04	0 5 MG/KG	1	80 %	80 %	0
EPA-8270 SIM	Pyrene	0705096-01 to 04	0 5 MG/KG	1	123 %	140 %	13
EPA-8270 SIM	Benzo[G,H,I]Perylene	0705096-01 to 04	0 5 MG/KG	1	78 %	81 %	4
EPA-6010	Arsenic	0705096-01 to 04	20 MG/KG	1	100 %	99 %	1
EPA-6010	Cadmium	0705096-01 to 04	20 MG/KG	1	101 %	99 %	2
EPA-6010	Chromium	0705096-01 to 04	20 MG/KG	1	99 %	98 %	1
EPA-6010	Lead	0705096-01 to 04	20 MG/KG	1	99 %	99 %	0
EPA-7471	Mercury	0705096-01 to 04	1 0 MG/KG	1	100 %	97 %	3

APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

CCI Analytical Laboratories, Inc.
8620 Holly Drive
Everett, WA 98208
Phone (425) 356-2600
(206) 292-9059 Seattle
(425) 356-2626 Fax
http://www.ccilabs.com

Chain Of Custody/ Laboratory Analysis Request

CCI Job# (Laboratory Use Only) 705096

Date 5-18-07 Page 1 Of 1

PROJECT ID: 8320-003-00
REPORT TO COMPANY: Geo Engineers
PROJECT MANAGER: Sean Trimble
ADDRESS: 600 Stewart St. Suite 1700
Seattle Wa
PHONE: 728-2674 FAX:
P.O. NUMBER: E-MAIL:
INVOICE TO COMPANY: SAME
ATTENTION:
ADDRESS:

ANALYSIS REQUESTED

SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA-8021	MTBE by EPA-8021 ☐ EPA-8260 ☐	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	Ethylene dibromide (EDB) by EPA-8260 ☐ EPA-504.1 ☐	1,2 Dichloroethene (EDC) by EPA-8260	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM ☐	PCB ☐ Pesticides ☐ by EPA 8081/8082	Metals-MTCA-5 ☐ RCRA-8 ☐ Pri Pol ☐ TAL ☐	Metals Other (Specify)	TCLP-Metals ☐ VOA ☐ Semi-Vol ☐ Pest ☐ Herbs ☐	OTHER (Specify)	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. CS-1	5-18	1020	S	1											X		X				1	
2. CS-2	"	1030	"	2											X		X				1	
3. CS-3	"	1040	"	3											X		X				1	
4. CS-4	"	1050	"	4											X		X				1	
5.																						
6.																						
7.																						
8.																						
9.																						
10.																						

LABORATORY COPY

SPECIAL INSTRUCTIONS

CCI Analytical Laboratories, Inc accepts and processes this request on the terms and conditions set forth on the reverse side. By its signature hereon, Customer accepts these terms and conditions.

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: Robert Trahan GeoEngineers 5-18-07 11:30
   Received By: CCI 5/18/64 1500
2. Relinquished By:
   Received By:

TURNAROUND REQUESTED In Business Days*

Organic, Metals & Inorganic Analysis: 10 (Standard) 5 3 2 1 SAME DAY

Fuels & Hydrocarbon Analysis: 5 (Standard) 3 2 1 SAME DAY

OTHER:

Specify:

* Turnaround request less than standard may incur Rush Charges

ATTACHMENT B

TEST PIT SAMPLING REANALYSIS AND DATA VALIADATION REPORT

CCI
ANALYTICAL
LABORATORIES

July 16, 2007

Mr. Sean Trimble
GeoEngineers
600 Stewart St, Suite 1700
Seattle, WA 98101

Dear Mr. Trimble

On May 18, 2007 four soil samples were received from your company and given our job number 705096. The samples were identified as your project # 8320-003-00.

Our laboratory provided incorrect cadmium values for these samples. We reported false positive results based on unacceptable calibration data. Our interference check standard (ICS) indicates the samples were biased high and should not have been reported.

A subsequent rerun of the samples today with a passing ICS indicates that all samples are ND (< 1) mg/kg.

I sincerely apologize for the error. While the QC data was within QC limits we should have recognized the problem with the calibration data and re run the samples at that time. All other data associated with this project is correct.

Please feel free to give me a call if you need any further clarification and, once again, I apologize for the incorrect data.

Sincerely

CCI Analytical Laboratories

Rick Bagan
Laboratory Director.

8620 Holly Drive • Everett, WA 98208 • 425 356-2600 • FAX 425 356-2626 • Seattle 206 292-9059

CCI Analytical Laboratories, Inc.
8620 Holly Drive
Everett, WA 98208
Phone (425) 356-2600
(206) 292-9059 Seattle
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http://www.ccilabs.com

Chain Of Custody/ Laboratory Analysis Request

705096

Date 5-18-07 Page 1 Of 1

PROJECT ID: 8320-003-00
REPORT TO COMPANY: Geo Engineers
PROJECT MANAGER: Sean Trimble
ADDRESS: 600 Stewart St. Suite 1700
Seattle Wa
PHONE: 723-2674 FAX:
P.O. NUMBER: E-MAIL:
INVOICE TO COMPANY: SAME
ATTENTION:
ADDRESS:

ANALYSIS REQUESTED

SAMPLE I.D.	DATE	TIME	TYPE	LAB#	NWTPH-HCID	NWTPH-DX	NWTPH-GX	BTEX by EPA-8021	MTBE by EPA-8021 ☐ EPA-8260 ☐	Halogenated Volatiles by EPA 8260	Volatile Organic Compounds by EPA 8260	Ethylene dibromide (EDB) by EPA-8260 ☐ EPA-504.1 ☐	1,2 Dichloroethene (EDC) by EPA-8260	Semivolatile Organic Compounds by EPA 8270	Polycyclic Aromatic Hydrocarbons (PAH) by EPA-8270 SIM ☐	PCB ☐ Pesticides ☐ by EPA 8081/8082	Metals-MTCA-5 ☐ RCRA-8 ☐ Pri Pol ☐ TAL ☐	Metals Other (Specify)	TCLP-Metals ☐ VOA ☐ Semi-Vol ☐ Pest ☐ Herbs ☐	OTHER (Specify)	NUMBER OF CONTAINERS	RECEIVED IN GOOD CONDITION?
1. CS-1	5-18	1020	S	1											X		X				1	
2. CS-2	"	1030	"	2											X		X				1	
3. CS-3	"	1040	"	3											X		X				1	
4. CS-4	"	1050	"	4											X		X				1	
5.																						
6.																						
7.																						
8.																						
9.																						
10.																						

LABORATORY COPY

SPECIAL INSTRUCTIONS

CCI Analytical Laboratories, Inc accepts and processes this request on the terms and conditions set forth on the reverse side. By its signature hereon, Customer accepts these terms and conditions.

SIGNATURES (Name, Company, Date, Time):

1. Relinquished By: Robert Tobin GeoEngineers 5-18-07 11:30
Received By: CCI 5/18/07 1500
2. Relinquished By:
Rece y:

TURNAROUND REQUESTED in Business Days*

Organic, Metals & Inorganic Analysis
10 Standard | 5 | 3 | 2 | 1 | SAME DAY

Fuels & Hydrocarbon Analysis
5 Standard | 3 | X | SAME DAY

OTHER:
Specify:

* Turnaround request less than standard may incur Rush Charges

CCI
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LABORATORIES
A Division of DataChem Laboratories Inc

CERTIFICATE OF ANALYSIS

CLIENT: GEOENGINEERS, INC.
600 STEWART ST PLAZA 600 BUILDING, SUITE 1700
SEATTLE, WA 98101

DATE: 7/16/2007
CCIL JOB #: 0705096
DATE RECEIVED: 5/18/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: SEAN TRIMBLE
CLIENT PROJECT ID: 8320-003-00
CLIENT SAMPLE ID: 5/18/2007 10:20 CS-1
CCIL SAMPLE #: -01

REPORT REVISED 7/16/07 TO CORRECT CADMIUM RESULTS

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
Naphthalene	EPA-8270 SIM	ND	0 02	1	MG/KG	5/21/2007	RAL
1-Methylnaphthalene	EPA-8270 SIM	ND	0 02	1	MG/KG	5/21/2007	RAL
2-Methylnaphthalene	EPA-8270 SIM	ND	0 02	1	MG/KG	5/21/2007	RAL
Acenaphthylene	EPA-8270 SIM	ND	0 02	1	MG/KG	5/21/2007	RAL
Acenaphthene	EPA-8270 SIM	ND	0 02	1	MG/KG	5/21/2007	RAL
Fluorene	EPA-8270 SIM	ND	0 02	1	MG/KG	5/21/2007	RAL
Phenanthrene	EPA-8270 SIM	0 05	0 02	1	MG/KG	5/21/2007	RAL
Anthracene	EPA-8270 SIM	ND	0 02	1	MG/KG	5/21/2007	RAL
Fluoranthene	EPA-8270 SIM	0 08	0 02	1	MG/KG	5/21/2007	RAL
Pyrene	EPA-8270 SIM	0 10	0 02	1	MG/KG	5/21/2007	RAL
Benzo[A]Anthracene	EPA-8270 SIM	0 04	0 02	1	MG/KG	5/21/2007	RAL
Chrysene	EPA-8270 SIM	0 06	0 02	1	MG/KG	5/21/2007	RAL
Benzo[B]Fluoranthene	EPA-8270 SIM	0 04	0 02	1	MG/KG	5/21/2007	RAL
Benzo[K]Fluoranthene	EPA-8270 SIM	0 04	0 02	1	MG/KG	5/21/2007	RAL
Benzo(A)Pyrene	EPA-8270 SIM	0 05	0 02	1	MG/KG	5/21/2007	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	0 03	0 02	1	MG/KG	5/21/2007	RAL
Dibenz[A,H]Anthracene	EPA-8270 SIM	ND	0 02	1	MG/KG	5/21/2007	RAL
Benzo[G H I]Perylene	EPA-8270 SIM	0 04	0 02	1	MG/KG	5/21/2007	RAL
Arsenic	EPA-6010	ND	5	4	MG/KG	5/21/2007	ICP
Cadmium	EPA-6010	ND	1	4	MG/KG	7/16/2007	CEO
Chromium	EPA-6010	14	1	4	MG/KG	5/21/2007	ICP
Lead	EPA-6010	34	5	4	MG/KG	5/21/2007	ICP
Mercury	EPA-7471	0 04	0 02	1	MG/KG	5/21/2007	ICP

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT REPORTING LIMIT IS GIVEN IN PARENTHESES
** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

CCI
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LABORATORIES
A Division of DataChem Laboratories Inc.

CERTIFICATE OF ANALYSIS

CLIENT: GEOENGINEERS, INC.
600 STEWART ST. PLAZA 600 BUILDING, SUITE 1700
SEATTLE, WA 98101

DATE: 7/16/2007
CCIL JOB #: 0705096
DATE RECEIVED: 5/18/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: SEAN TRIMBLE
CLIENT PROJECT ID: 8320-003-00
CLIENT SAMPLE ID: 5/18/2007 10:30 CS-2
CCIL SAMPLE #: -02

REPORT REVISED 7/16/07 TO CORRECT CADMIUM RESULTS

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
Naphthalene	EPA-8270 SIM	ND	0 02	1	MG/KG	5/21/2007	RAL
1-Methylnaphthalene	EPA-8270 SIM	ND	0 02	1	MG/KG	5/21/2007	RAL
2-Methylnaphthalene	EPA-8270 SIM	ND	0 02	1	MG/KG	5/21/2007	RAL
Acenaphthylene	EPA-8270 SIM	ND	0 02	1	MG/KG	5/21/2007	RAL
Acenaphthene	EPA-8270 SIM	ND	0 02	1	MG/KG	5/21/2007	RAL
Fluorene	EPA-8270 SIM	ND	0 02	1	MG/KG	5/21/2007	RAL
Phenanthrene	EPA-8270 SIM	0 04	0.02	1	MG/KG	5/21/2007	RAL
Anthracene	EPA-8270 SIM	ND	0 02	1	MG/KG	5/21/2007	RAL
Fluoranthene	EPA-8270 SIM	0.11	0 02	1	MG/KG	5/21/2007	RAL
Pyrene	EPA-8270 SIM	0 10	0.02	1	MG/KG	5/21/2007	RAL
Benzo[A]Anthracene	EPA-8270 SIM	0 04	0 02	1	MG/KG	5/21/2007	RAL
Chrysene	EPA-8270 SIM	0 04	0 02	1	MG/KG	5/21/2007	RAL
Benzo[B]Fluoranthene	EPA-8270 SIM	0 03	0.02	1	MG/KG	5/21/2007	RAL
Benzo[K]Fluoranthene	EPA-8270 SIM	0 02	0 02	1	MG/KG	5/21/2007	RAL
Benzo(A)Pyrene	EPA-8270 SIM	0.03	0 02	1	MG/KG	5/21/2007	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	ND	0.02	1	MG/KG	5/21/2007	RAL
Dibenz[A,H]Anthracene	EPA-8270 SIM	ND	0 02	1	MG/KG	5/21/2007	RAL
Benzo[G H,I]Perylene	EPA-8270 SIM	ND	0 02	1	MG/KG	5/21/2007	RAL
Arsenic	EPA-6010	ND	5	4	MG/KG	5/21/2007	ICP
Cadmium	EPA-6010	ND	1	4	MG/KG	7/16/2007	CEO
Chromium	EPA-6010	18	1	4	MG/KG	5/21/2007	ICP
Lead	EPA-6010	20	5	4	MG/KG	5/21/2007	ICP
Mercury	EPA-7471	ND	0 02	1	MG/KG	5/21/2007	ICP

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.
** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

APPROVED BY:

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A Division of DataChem Laboratories, Inc

CERTIFICATE OF ANALYSIS

CLIENT: GEOENGINEERS, INC
600 STEWART ST PLAZA 600 BUILDING,
SUITE 1700
SEATTLE, WA 98101

DATE: 7/16/2007
CCIL JOB #: 0705096

DATE RECEIVED: 5/18/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: SEAN TRIMBLE
CLIENT PROJECT ID: 8320-003-00
CLIENT SAMPLE ID: 5/18/2007 10:40 CS-3
CCIL SAMPLE #: -03

REPORT REVISED 7/16/07 TO CORRECT CADMIUM RESULTS

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
Naphthalene	EPA-8270 SIM	2 0	0 04	2	MG/KG	5/21/2007	RAL
1-Methylnaphthalene	EPA-8270 SIM	1 2	0 04	2	MG/KG	5/21/2007	RAL
2-Methylnaphthalene	EPA-8270 SIM	0 76	0 04	2	MG/KG	5/21/2007	RAL
Acenaphthylene	EPA-8270 SIM	0 09	0 04	2	MG/KG	5/21/2007	RAL
Acenaphthene	EPA-8270 SIM	4 0	0 04	2	MG/KG	5/21/2007	RAL
Fluorene	EPA-8270 SIM	3 3	0 04	2	MG/KG	5/21/2007	RAL
Phenanthrene	EPA-8270 SIM	5 1	0 04	2	MG/KG	5/21/2007	RAL
Anthracene	EPA-8270 SIM	0 78	0 04	2	MG/KG	5/21/2007	RAL
Fluoranthene	EPA-8270 SIM	1 5	0 04	2	MG/KG	5/21/2007	RAL
Pyrene	EPA-8270 SIM	1 3	0 04	2	MG/KG	5/21/2007	RAL
Benzo[A]Anthracene	EPA-8270 SIM	0 24	0 04	2	MG/KG	5/21/2007	RAL
Chrysene	EPA-8270 SIM	0 36	0 04	2	MG/KG	5/21/2007	RAL
Benzo[B]Fluoranthene	EPA-8270 SIM	0 20	0 04	2	MG/KG	5/21/2007	RAL
Benzo[K]Fluoranthene	EPA-8270 SIM	0 18	0 04	2	MG/KG	5/21/2007	RAL
Benzo(A)Pyrene	EPA-8270 SIM	0 23	0 04	2	MG/KG	5/21/2007	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	0 13	0 04	2	MG/KG	5/21/2007	RAL
Dibenz[A,H]Anthracene	EPA-8270 SIM	0 06	0 04	2	MG/KG	5/21/2007	RAL
Benzo[G H I]Perylene	EPA-8270 SIM	0 15	0 04	2	MG/KG	5/21/2007	RAL
Arsenic	EPA-6010	ND	5	4	MG/KG	5/21/2007	ICP
Cadmium	EPA-6010	ND	1	4	MG/KG	7/16/2007	CEO
Chromium	EPA-6010	11	1	4	MG/KG	5/21/2007	ICP
Lead	EPA-6010	7 0	5	4	MG/KG	5/21/2007	ICP
Mercury	EPA-7471	ND	0 02	1	MG/KG	5/21/2007	ICP

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT REPORTING LIMIT IS GIVEN IN PARENTHESES
** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

CCI
ANALYTICAL
LABORATORIES
A Division of DataChem Laboratories, Inc

CERTIFICATE OF ANALYSIS

CLIENT: GEOENGINEERS, INC
600 STEWART ST. PLAZA 600 BUILDING, SUITE 1700
SEATTLE, WA 98101

DATE: 7/16/2007
CCIL JOB #: 0705096
DATE RECEIVED: 5/18/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: SEAN TRIMBLE
CLIENT PROJECT ID: 8320-003-00
CLIENT SAMPLE ID: 5/18/2007 10:50 CS-4
CCIL SAMPLE #: -04

REPORT REVISED 7/16/07 TO CORRECT CADMIUM RESULTS

DATA RESULTS

ANALYTE	METHOD	RESULTS*	REPORTING LIMITS	DILUTION FACTOR	UNITS**	ANALYSIS DATE	ANALYSIS BY
Naphthalene	EPA-8270 SIM	ND	0 02	1	MG/KG	5/21/2007	RAL
1-Methylnaphthalene	EPA-8270 SIM	ND	0 02	1	MG/KG	5/21/2007	RAL
2-Methylnaphthalene	EPA-8270 SIM	ND	0 02	1	MG/KG	5/21/2007	RAL
Acenaphthylene	EPA-8270 SIM	ND	0 02	1	MG/KG	5/21/2007	RAL
Acenaphthene	EPA-8270 SIM	ND	0 02	1	MG/KG	5/21/2007	RAL
Fluorene	EPA-8270 SIM	ND	0 02	1	MG/KG	5/21/2007	RAL
Phenanthrene	EPA-8270 SIM	ND	0 02	1	MG/KG	5/21/2007	RAL
Anthracene	EPA-8270 SIM	ND	0 02	1	MG/KG	5/21/2007	RAL
Fluoranthene	EPA-8270 SIM	0 04	0 02	1	MG/KG	5/21/2007	RAL
Pyrene	EPA-8270 SIM	0 04	0 02	1	MG/KG	5/21/2007	RAL
Benzo[A]Anthracene	EPA-8270 SIM	ND	0 02	1	MG/KG	5/21/2007	RAL
Chrysene	EPA-8270 SIM	ND	0 02	1	MG/KG	5/21/2007	RAL
Benzo[B]Fluoranthene	EPA-8270 SIM	ND	0 02	1	MG/KG	5/21/2007	RAL
Benzo[K]Fluoranthene	EPA-8270 SIM	ND	0 02	1	MG/KG	5/21/2007	RAL
Benzo(A)Pyrene	EPA-8270 SIM	ND	0 02	1	MG/KG	5/21/2007	RAL
Indeno[1,2,3-Cd]Pyrene	EPA-8270 SIM	ND	0 02	1	MG/KG	5/21/2007	RAL
Dibenz[A,H]Anthracene	EPA-8270 SIM	ND	0 02	1	MG/KG	5/21/2007	RAL
Benzo[G H,I]Perylene	EPA-8270 SIM	ND	0 02	1	MG/KG	5/21/2007	RAL
Arsenic	EPA-6010	ND	5	4	MG/KG	5/21/2007	ICP
Cadmium	EPA-6010	ND	1	4	MG/KG	7/16/2007	CEO
Chromium	EPA-6010	13	1	4	MG/KG	5/21/2007	ICP
Lead	EPA-6010	13	5	4	MG/KG	5/21/2007	ICP
Mercury	EPA-7471	ND	0 02	1	MG/KG	5/21/2007	ICP

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES
** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

CCI
ANALYTICAL
LABORATORIES
A Division of DataChem Laboratories Inc

CERTIFICATE OF ANALYSIS

CLIENT: GEOENGINEERS, INC.
600 STEWART ST. PLAZA 600 BUILDING, SUITE 1700
SEATTLE, WA 98101

DATE: 7/16/2007
CCIL JOB #: 0705096
DATE RECEIVED: 5/18/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: SEAN TRIMBLE
CLIENT PROJECT ID: 8320-003-00

QUALITY CONTROL RESULTS

SURROGATE RECOVERY

CCIL SAMPLE ID	METHOD	SUR ID	SPIKE AMOUNT	% RECV
0705096-01	EPA-8270 SIM	Terphenyl-d14	1 PPM	104
0705096-02	EPA-8270 SIM	Terphenyl-d14	1 PPM	118
0705096-03	EPA-8270 SIM	Terphenyl-d14	1 PPM	96
0705096-04	EPA-8270 SIM	Terphenyl-d14	1 PPM	113

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CLIENT PROJECT ID: 8320-003-00

QUALITY CONTROL RESULTS

BLANK RESULTS

METHOD	RESULT	ASSOCIATED SAMPLES
EPA-8270 SIM (Naphthalene)	ND(<0 02)	0705096 -01 to 04
EPA-8270 SIM (1-Methylnaphthalene)	ND(<0 02)	0705096 -01 to 04
EPA-8270 SIM (2-Methylnaphthalene)	ND(<0 02)	0705096 -01 to 04
EPA-8270 SIM (Acenaphthylene)	ND(<0 02)	0705096 -01 to 04
EPA-8270 SIM (Acenaphthene)	ND(<0 02)	0705096 -01 to 04
EPA-8270 SIM (Fluorene)	ND(<0 02)	0705096 -01 to 04
EPA-8270 SIM (Phenanthrene)	ND(<0 02)	0705096 -01 to 04
EPA-8270 SIM (Anthracene)	ND(<0 02)	0705096 -01 to 04
EPA-8270 SIM (Fluoranthene)	ND(<0 02)	0705096 -01 to 04
EPA-8270 SIM (Pyrene)	ND(<0 02)	0705096 -01 to 04
EPA-8270 SIM (Benzo[A]Anthracene)	ND(<0 02)	0705096 -01 to 04
EPA-8270 SIM (Chrysene)	ND(<0 02)	0705096 -01 to 04
EPA-8270 SIM (Benzo[B]Fluoranthene)	ND(<0 02)	0705096 -01 to 04
EPA-8270 SIM (Benzo[K]Fluoranthene)	ND(<0 02)	0705096 -01 to 04
EPA-8270 SIM (Benzo(A)Pyrene)	ND(<0 02)	0705096 -01 to 04
EPA-8270 SIM (Indeno[1,2,3-Cd]Pyrene)	ND(<0 02)	0705096 -01 to 04
EPA-8270 SIM (Dibenz[A H]Anthracene)	ND(<0 02)	0705096 -01 to 04
EPA-8270 SIM (Benzo[G,H,I]Perylene)	ND(<0 02)	0705096 -01 to 04
EPA-6010 (Arsenic)	ND(<5 0)	0705096 -01 to 04
EPA-6010 (Cadmium)	ND(<1 0)	0705096 -01 to 04
EPA-6010 (Chromium)	ND(<1 0)	0705096 -01 to 04
EPA-6010 (Lead)	ND(<5 0)	0705096 -01 to 04
EPA-7471 (Mercury)	ND(<0 02)	0705096 -01 to 04

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CLIENT CONTACT: SEAN TRIMBLE
CLIENT PROJECT ID: 8320-003-00

QUALITY CONTROL RESULTS

SPIKE/SPIKE DUPLICATE RESULTS

METHOD	ANALYTE	ASSOCIATED SAMPLES	SPIKE AMOUNT	DILUTION FACTOR	SPIKE RECOVERY	SPIKE DUP RECOVERY	RPD
EPA-8270 SIM	Naphthalene	0705096 -01 to 04	0 5 MG/KG	1	86 %	84 %	2
EPA-8270 SIM	Acenaphthene	0705096 -01 to 04	0 5 MG/KG	1	80 %	80 %	0
EPA-8270 SIM	Pyrene	0705096 -01 to 04	0 5 MG/KG	1	123 %	140 %	13
EPA-8270 SIM	Benzo[G,H I]Perylene	0705096 -01 to 04	0 5 MG/KG	1	78 %	81 %	4
EPA-6010	Arsenic	0705096 -01 to 04	20 MG/KG	1	100 %	99 %	1
EPA-6010	Cadmium	0705096 -01 to 04	20 MG/KG	1	99 %	100 %	1
EPA-6010	Chromium	0705096 -01 to 04	20 MG/KG	1	99 %	98 %	1
EPA-6010	Lead	0705096 -01 to 04	20 MG/KG	1	99 %	99 %	0
EPA-7471	Mercury	0705096 -01 to 04	1 MG/KG	1	100 %	97 %	3

APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

ANCHOR ENVIRONMENTAL L.L.C.

Anchor Environmental, L.L.C.
1423 3rd Avenue, Suite 300
Seattle, Washington 98101
Phone 206 287 9130
Fax 206 287 9131

Data Validation Review Report

Project: Duwamish Shipyard CCI reanaysis

Project Number: 000111-01

Date: August 10, 2007

This report summarizes the review of analytical results for four soil samples collected on May 18th of 2007. Samples were collected by Geo Engineers and submitted to CCI Analytical Laboratories, Inc. (CCI) in Everett, Washington. Samples were analyzed for the following:

Metals by United States Environmental Protection Agency (USEPA) methods 6010B and 7471.
Polyaromatic Hydrocarbons (PAH) by USEPA method 8270-SIM

CCI sample data group number 0705096 was reviewed in this report. The samples reviewed in this report are presented in Table 1.

Table 1
Samples Reviewed

Sample ID	Lab ID	Matrix	Analysis Requested
CS-1	-01	Soil	Metals, PAH
CS-2	-02	Soil	Metals, PAH
CS-3	-03	Soil	Metals, PAH
CS-4	-04	Soil	Metals, PAH

Data Validation and Qualifications

The following comments refer to the laboratory's performance in meeting the quality assurance/quality control (QA/QC) guidelines outlined in the analytical procedures and data quality objective section of the Sampling and Analysis Plan (SAP). Laboratory results were reviewed following USEPA guidelines using *USEPA Contract Laboratory Program National Functional Guidelines for Inorganics Data Review (USEPA, 2004)* and *USEPA Contract Laboratory National Functional Guidelines for Organics Data Review (USEPA, 1999)* as

guidelines, and applying laboratory and method QC criteria as stated in SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update 1, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998. Unless noted in this report, laboratory results for the samples listed above were within QC criteria.

Laboratory Data Package and Field Documentation

Field documentation was checked for completeness and accuracy. The chain-of-custody was signed by CCI at the time of sample receipt; the samples were received in good condition. A temperature was not recorded on the COC at the time of delivery. Since the samples were delivered and refrigerated upon receipt within 1.5 hours of collection, samples were deemed valid.

Holding Times and Sample Preservation

Samples were appropriately preserved and analyses were conducted within holding times.

Laboratory Method Blanks

Laboratory method blanks were analyzed at the required frequencies. No target analytes were detected in the method blanks.

Field Quality Control

Field Duplicates

There were no field duplicates analyzed in this data set.

Surrogate Recoveries

Surrogate recoveries for organic analyses were performed at the required frequencies. Surrogate recoveries were within the laboratory control limits for all surrogates.

Matrix Spike (MS) and Matrix Spike Duplicate (MSD)

Matrix spike analyses were not performed for this SDG.

Laboratory Control Sample (LCS) and LCS Duplicate (LCSD)

An LCS and LCSD were analyzed at the required frequencies. All LCS and LCSD analyses were within laboratory control limits.

Laboratory Duplicates

There were no laboratory duplicates performed with this data set.

Method Reporting Limits

All results were reported using the laboratory's reporting limits and were reported as undiluted, or when diluted, the reporting limit accurately reflects the dilution factor. Reporting limits were deemed acceptable as reported.

Overall Assessment

No data were rejected during this review. The data are judged to be acceptable as reported.

Precision, Accuracy, and Completeness

Precision: All precision goals were met.

Accuracy: All accuracy goals were met.

Completeness: Completeness was 100 percent.

REFERENCES

USEPA. 1983. Methods for Chemical Analysis of Water and Wastes. U.S. Environmental Protection Agency, Environmental Monitoring and Support Laboratory, Cincinnati, Ohio. EPA-600/4-79-020.

USEPA. 1986. Test methods for Evaluating Solid Waste: Physical/Chemical Methods. U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response. EPA-530/SW-846.

USEPA. 1999. USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review. U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response. EPA 540/R-99/008. October.

USEPA. 2004. USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review. U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response. EPA 540-R-04-004. October 2004.

ATTACHMENT C

SOIL STOCKPILE LABORATORY RESULTS

Analytical Resources, Incorporated
Analytical Chemists and Consultants

July 18, 2007

Ben Howard
Anchor Environmental, L.L.C.
1423 3rd Avenue
Suite 300
Seattle, WA 98101

RE: Client Project: Duwamish Shipyard 010001-01
ARI Job No: LF83

Dear Ben:

Please find enclosed the original Chain-of-Custody record for the samples from the project referenced above. Four soil samples were received on July 3, 2007. The samples were received intact and there were no discrepancies in the paperwork. The samples were analyzed for metals and TBT parameters as requested.

These analyses proceeded without incident of note.

A copy of these reports and all associated raw data will be kept on file at ARI. If you have any questions or require additional information, please contact me at your convenience.

Sincerely,

ANALYTICAL RESOURCES, INC.

Susan D. Dunnihoo
Client Services Manager
206-695-6207
sue@arilabs.com

Enclosures

cc: Efile LF83

SD/esj

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: LF83	Turn-around Requested:	Page: 1 of 1	
ARI Client Company: Anchor Environmental	Phone: (206) 287-9130	Date: 7/3/07	Ice Present?
Client Contact: Ben Howard		No. of Coolers:	Cooler Temps:
Client Project Name: ~~Elliott~~ Duwamish Shipyard			
Client Project #: 010001-01	Samplers: B. Howard		

Analytical Resources, Incorporated
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6201 (fax)

Sample ID	Date	Time	Matrix	No. Containers	Analysis Requested: Cadmium	Analysis Requested: TBT-bulk	Notes/Comments
DSI-CB-070307	7/3/07	1136	solid	1		X	Expedite TBT
DSI-SE1-070307	"	1142	soil	1	X		Results by
DSI-SE2-070307	"	1145	"	1	X		Friday (7/6/07) or
DSI-SE3-070307	"	1149	"	1	X		Monday (7/9/07)

Comments/Special Instructions	Relinquished by: (Signature)	Received by: (Signature)	Relinquished by: (Signature)	Received by: (Signature)
	Printed Name: Ben Howard	Printed Name: ASHLEY CAMOUNTRY	Printed Name:	Printed Name:
	Company: Anchor	Company: ARI	Company:	Company:
	Date & Time: 7/3/07 1248	Date & Time: 7/3/07 1248	Date & Time:	Date & Time:

Limits of Liability: *ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.*

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: ANCHOR ENVIRONMENTAL Project Name: DUWAMISH SHIPYARD

COC No: — Delivered by: HAND-DELIVERED

Assigned ARI Job No: LFB3 Tracking No: —

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler?	YES	(NO)
Were custody papers included with the cooler?	(YES)	NO
Were custody papers properly filled out (ink, signed, etc.)	(YES)	NO
Record cooler temperature (recommended 2.0-6.0 °C for chemistry	AMB	°C

Cooler Accepted by: ael Date: 7/3/07 Time: _____

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?	YES	(NO)
What kind of packing material was used?		
Was sufficient ice used (if appropriate)?	(YES)	NO
Were all bottles sealed in individual plastic bags?	YES	(NO)
Did all bottle arrive in good condition (unbroken)?	YES	(NO)
Were all bottle labels complete and legible?	(YES)	NO
Did all bottle labels and tags agree with custody papers?	(YES)	NO
Were all bottles used correct for the requested analyses?	(YES)	NO
Do any of the analyses (bottles) require preservation? (attach preservation checklist)	YES	(NO)
Were all VOC vials free of air bubbles? (NA)	YES	NO
Was sufficient amount of sample sent in each bottle?	(YES)	NO

Samples Logged by: ael Date: 7/3/07 Time: 1315

***** Notify Project Manager of discrepancies or concerns *****

Explain discrepancies or negative responses:

By: Date:

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS **Sample ID: METHOD BLANK**

Lab Sample ID: LF83MB
LIMS ID: 07-13529
Matrix: Soil
Data Release Authorized:
Reported: 07/09/07

QC Report No: LF83-Anchor Enviromental, LLC
Project: Duwamish Shipyard
010001-01
Date Sampled: NA
Date Received: NA

Percent Total Solids: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	07/05/07	6010B	07/06/07	7440-43-9	Cadmium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: DSI-SE1-070307
SAMPLE

Lab Sample ID: LF83B
LIMS ID: 07-13529
Matrix: Soil
Data Release Authorized:
Reported: 07/09/07

QC Report No: LF83-Anchor Enviromental, LLC
Project: Duwamish Shipyard
010001-01
Date Sampled: 07/03/07
Date Received: 07/03/07

Percent Total Solids: 94.4%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	07/05/07	6010B	07/06/07	7440-43-9	Cadmium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: DSI-SE2-070307
SAMPLE

Lab Sample ID: LF83C
LIMS ID: 07-13530
Matrix: Soil
Data Release Authorized:
Reported: 07/09/07

QC Report No: LF83-Anchor Enviromental, LLC
Project: Duwamish Shipyard
010001-01
Date Sampled: 07/03/07
Date Received: 07/03/07

Percent Total Solids: 93.9%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	07/05/07	6010B	07/06/07	7440-43-9	Cadmium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: DSI-SE3-070307
SAMPLE

Lab Sample ID: LF83D
LIMS ID: 07-13531
Matrix: Soil
Data Release Authorized:
Reported: 07/09/07

QC Report No: LF83-Anchor Enviromental, LLC
Project: Duwamish Shipyard
010001-01
Date Sampled: 07/03/07
Date Received: 07/03/07

Percent Total Solids: 94.6%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	07/05/07	6010B	07/06/07	7440-43-9	Cadmium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: LAB CONTROL

Lab Sample ID: LF83LCS
LIMS ID: 07-13529
Matrix: Soil
Data Release Authorized:
Reported: 07/09/07

QC Report No: LF83-Anchor Enviromental, LLC
Project: Duwamish Shipyard
010001-01
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Cadmium	6010B	45.5	50.0	91.0%	

Reported in mg/kg-dry

N-Control limit not met
Control Limits: 80-120%

Analytical Resources, Incorporated
Analytical Chemists and Consultants

July 20, 2007

Ben Howard
Anchor Environmental, L.L.C.
1423 3rd Avenue, Suite 300
Seattle, WA 98101

RE: Client Project: Duwamish Shipyard 010001-01
ARI Job No: LG56 & LH40 (Relog of LF83)

Dear Ben:

Please find enclosed the original Chain-of-Custody record for the samples from the project referenced above. Four soil samples were originally received on July 3, 2007 under ARI sample delivery group LF83. The samples were received intact and there were no discrepancies in the paperwork. Results were reported under ARI Job LF83.

Selected samples were additionally analyzed for TCLP lead under ARI SDG LG56, as requested on July 10, 2007. On Friday July 13, ARI was instructed to transfer sample IDS-SE2-070307 to CCI in Everett for analysis of Cadmium. The sample was delivered on July 16 and results are included here. Also included are results for priority pollutant metals and NWTPH-Dx under SDG LH40, as requested on July 16, 2007.

These analyses proceeded without incident of note.

A copy of these reports and all associated raw data will be kept on file at ARI. If you have any questions or require additional information, please contact me at your convenience.

Sincerely,

ANALYTICAL RESOURCES, INC.

Susan D. Dunnihoo
Client Services Manager
206-695-6207
sue@arilabs.com

Enclosures

cc: Efile LG56, LH40

SD/eb

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: LF83	Turn-around Requested:	Page: 1 of 1	
ARI Client Company: Anchor Environmental	Phone: (206) 287-9130	Date: 7/3/07	Ice Present?
Client Contact: Ben Howard		No. of Coolers:	Cooler Temps:
Client Project Name: ~~Slocum~~ Duwamish Shipyard			
Client Project #: 010001-01	Samplers: B. Howard		

Analytical Resources, Incorporated
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6201 (fax)

Sample ID	Date	Time	Matrix	No. Containers	Analysis Requested: Cadmium	Analysis Requested: TBT-bulk	Notes/Comments
DSI-CB-070307	7/3/07	1136	solid	1		X	Expedite TBT
DSI-SE1-070307	"	1142	soil	1	X		Results by
DSI-SE2-070307		1145		1	X		Friday (7/6/07) or
DSI-SE3-070307	↓	1149	↓	1	X		Monday (7/9/07)

Comments/Special Instructions	Relinquished by: (Signature)	Received by: (Signature)	Relinquished by: (Signature)	Received by: (Signature)
	Printed Name: Ben Howard	Printed Name: ASHLEY CAMOUNTAIN	Printed Name:	Printed Name:
	Company: Anchor	Company: ARI	Company:	Company:
	Date & Time: 7/3/07 1248	Date & Time: 7/3/07 1248	Date & Time:	Date & Time:

Limits of Liability: *ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.*

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: Anchor Environmental Project Name: Duwamish Shipyard

COC No: — Delivered by: Hand-Delivered

Assigned ARI Job No: LFB3 Tracking No: —

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler?	YES	(NO)
Were custody papers included with the cooler?	(YES)	NO
Were custody papers properly filled out (ink, signed, etc.)	(YES)	NO
Record cooler temperature (recommended 2.0-6.0 °C for chemistry	Amb	°C

Cooler Accepted by: crl Date: 7/3/07 Time: _____

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?	YES	(NO)
What kind of packing material was used?		
Was sufficient ice used (if appropriate)?	(YES)	NO
Were all bottles sealed in individual plastic bags?	YES	(NO)
Did all bottle arrive in good condition (unbroken)?	YES	(NO)
Were all bottle labels complete and legible?	(YES)	NO
Did all bottle labels and tags agree with custody papers?	(YES)	NO
Were all bottles used correct for the requested analyses?	(YES)	NO
Do any of the analyses (bottles) require preservation? (attach preservation checklist)	YES	(NO)
Were all VOC vials free of air bubbles? (NA)	YES	NO
Was sufficient amount of sample sent in each bottle?	(YES)	NO

Samples Logged by: crl Date: 7/3/07 Time: 1315

*** Notify Project Manager of discrepancies or concerns ***

Explain discrepancies or negative responses:

By: Date:

Data Reporting Qualifiers

Effective 12/28/04

Inorganic Data

U	Indicates that the target analyte was not detected at the reported concentration
*	Duplicate RPD is not within established control limits
B	Reported value is less than the CRDL but ≥ the Reporting Limit
N	Matrix Spike recovery not within established control limits
NA	Not Applicable, analyte not spiked
H	The natural concentration of the spiked element is so much greater than the concentration spiked that an accurate determination of spike recovery is not possible
.	Analyte concentration is ≤5 times the Reporting Limit and the replicate control limit defaults to ±1 RL instead of the normal 20% RPD

Organic Data

U	Indicates that the target analyte was not detected at the reported concentration
	Flagged value is not within established control limits
B	Analyte detected in an associated Method Blank at a concentration greater than one-half of ARI's Reporting Limit or 5% of the regulatory limit or 5% of the analyte concentration in the sample.
J	Estimated concentration when the value is less than ARI's established reporting limits
D	The spiked compound was not detected due to sample extract dilution
IR	Spiked compound recovery is not reported due to chromatographic interference
E	Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.
	Indicates an analyte response that has saturated the detector. The calculated concentration is not valid; a dilution is required to obtain valid quantification of the analyte
A	The flagged analyte was not analyzed for

NS The flagged analyte was not spiked into the sample

M Estimated value for an analyte detected and confirmed by an analyst but with low spectral match parameters. This flag is used only for GC-MS analyses

N The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification"

Y The analyte is not detected at or above the reported concentration. The reporting limit is raised due to chromatographic interference. The Y flag is equivalent to the U flag with a raised reporting limit.

C The analyte was positively identified on only one of two chromatographic columns. Chromatographic interference prevented a positive identification on the second column

P The analyte was detected on both chromatographic columns but the quantified values differ by ≥40% RPD with no obvious chromatographic interference

Geotechnical Data

\ The total of all fines fractions. This flag is used to report total fines when only sieve analysis is requested and balances total grain size with sample weight.

: Samples were frozen prior to particle size determination

SM Sample matrix was not appropriate for the requested analysis. This normally refers to samples contaminated with an organic product that interferes with the sieving process and/or moisture content, porosity and saturation calculations

S Sample did not contain the proportion of "fines" required to perform the pipette portion of the grain size analysis

V Weight of sample in some pipette aliquots was below the level required for accurate weighting

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
TOTAL DIESEL RANGE HYDROCARBONS
NWTPHD by GC/FID
Page 1 of 1
Matrix: Soil

QC Report No: LH40-Anchor Enviromental, LLC
Project: Duwamish Shipyard
010001-01
Date Received: 07/03/07

Data Release Authorized:
Reported: 07/19/07

ARI ID	Sample ID	Extraction Date	Analysis Date	EFV DL	Range	RL	Result
MB-071607	Method Blank	07/16/07	07/17/07	1.00	Diesel	5.0	< 5.0 U
07-14368	HC ID: ---		FID3A	1.0	Motor Oil	10	< 10 U
					o-Terphenyl		102%
LH40A	DSI-SE1-070307	07/16/07	07/17/07	1.00	**Diesel**	**5.8**	**8.1**
07-14368	HC ID: **DRO/MOTOR OIL**		FID3A	1.0	**Motor Oil**	**12**	**51**
					o-Terphenyl		95.1%
LH40B	DSI-SE3-070307	07/16/07	07/17/07	1.00	Diesel	5.3	< 5.3 U
07-14539	HC ID: **DRO/MOTOR OIL**		FID3A	1.0	**Motor Oil**	**11**	**31**
					o-Terphenyl		105%

Reported in mg/kg (ppm)

EFV-Effective Final Volume in mL.
DL-Dilution of extract prior to analysis.
RL-Reporting limit.

Diesel quantitation on total peaks in the range from C12 to C24.
Motor Oil quantitation on total peaks in the range from C24 to C38.
HC ID: DRO/RRO indicates results of organics or additional hydrocarbons in ranges are not identifiable.

ANALYTICAL RESOURCES INCORPORATED

TPHD SURROGATE RECOVERY SUMMARY

Matrix: Soil

QC Report No: LH40-Anchor Enviromental, LLC
Project: Duwamish Shipyard
010001-01

Client ID	OTER	TOT OUT
071607MBS	102%	0
071607LCS	102%	0
DSI-SE1-070307	95.1%	0
DSI-SE3-070307	105%	0

	LCS/MB LIMITS	QC LIMITS
(OTER) = o-Terphenyl	(50-116)	(49-109)

Prep Method: SW3550B
Log Number Range: 07-14368 to 07-14539

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
NWTPHD by GC/FID
Page 1 of 1

Sample ID: LCS-071607
LAB CONTROL

Lab Sample ID: LCS-071607
LIMS ID: 07-14368
Matrix: Soil
Data Release Authorized:
Reported: 07/19/07

QC Report No: LH40-Anchor Enviromental, LLC
Project: Duwamish Shipyard
010001-01
Date Sampled: NA
Date Received: NA

Date Extracted: 07/16/07
Date Analyzed: 07/17/07 21:47
Instrument/Analyst: FID3A/JGR

Sample Amount: 10.0 g
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00

Range	Lab Control	Spike Added	Recovery
Diesel	133	150	88.7%

TPHD Surrogate Recovery

o-Terphenyl	102%

Results reported in mg/kg

ANALYTICAL RESOURCES INCORPORATED

TOTAL DIESEL RANGE HYDROCARBONS-EXTRACTION REPORT

ARI Job: LH40
Project: Duwamish Shipyard
010001-01

Matrix: Soil
Date Received: 07/03/07

ARI ID	Client ID	Client Amt	Final Vol	Basis	Prep Date
07-14368-071607MB1	Method Blank	10.0 g	1.00 mL	-	07/16/07
07-14368-071607LCS1	Lab Control	10.0 g	1.00 mL	-	07/16/07
07-14368-LH40A	DSI-SE1-070307	8.63 g	1.00 mL	D	07/16/07
07-14539-LH40B	DSI-SE3-070307	9.47 g	1.00 mL	D	07/16/07

Basis: D=Dry Weight W=As Received

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: DSI-SE1-070307
SAMPLE

Lab Sample ID: LH40A
LIMS ID: 07-14368
Matrix: Soil
Data Release Authorized:
Reported: 07/19/07

QC Report No: LH40-Anchor Enviromental, LLC
Project: Duwamish Shipyard
010001-01
Date Sampled: 07/03/07
Date Received: 07/03/07

Percent Total Solids: 93.6%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	07/17/07	6010B	07/18/07	7440-36-0	Antimony	5	5	U
3050B	07/17/07	6010B	07/18/07	**7440-38-2**	**Arsenic**	5	**9**	
3050B	07/17/07	6010B	07/18/07	7440-41-7	Beryllium	0.1	0.1	U
3050B	07/17/07	6010B	07/18/07	7440-43-9	Cadmium	0.2	0.2	U
3050B	07/17/07	6010B	07/18/07	**7440-47-3**	**Chromium**	0.5	**12.2**	
3050B	07/17/07	6010B	07/18/07	**7440-50-8**	**Copper**	0.2	**28.1**	
3050B	07/17/07	6010B	07/18/07	**7439-92-1**	**Lead**	2	**16**	
CLP	07/17/07	7471A	07/17/07	7439-97-6	Mercury	0.05	0.05	U
3050B	07/17/07	6010B	07/18/07	**7440-02-0**	**Nickel**	1	**10**	
3050B	07/17/07	6010B	07/18/07	7782-49-2	Selenium	5	5	U
3050B	07/17/07	6010B	07/18/07	7440-22-4	Silver	0.3	0.3	U
3050B	07/17/07	6010B	07/18/07	7440-28-0	Thallium	5	5	U
3050B	07/17/07	6010B	07/18/07	**7440-66-6**	**Zinc**	1	**50**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: DSI-SE3-070307
SAMPLE

Lab Sample ID: LH40B
LIMS ID: 07-14539
Matrix: Soil
Data Release Authorized:
Reported: 07/19/07

QC Report No: LH40-Anchor Enviromental, LLC
Project: Duwamish Shipyard
010001-01
Date Sampled: 07/03/07
Date Received: 07/03/07

Percent Total Solids: 94.3%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	07/17/07	6010B	07/18/07	7440-36-0	Antimony	5	5	U
3050B	07/17/07	6010B	07/18/07	**7440-38-2**	**Arsenic**	5	**8**	
3050B	07/17/07	6010B	07/18/07	7440-41-7	Beryllium	0.1	0.1	U
3050B	07/17/07	6010B	07/18/07	7440-43-9	Cadmium	0.2	0.2	U
3050B	07/17/07	6010B	07/18/07	**7440-47-3**	**Chromium**	0.5	**11.3**	
3050B	07/17/07	6010B	07/18/07	**7440-50-8**	**Copper**	0.2	**27.6**	
3050B	07/17/07	6010B	07/18/07	**7439-92-1**	**Lead**	2	**10**	
CLP	07/17/07	7471A	07/17/07	7439-97-6	Mercury	0.04	0.04	U
3050B	07/17/07	6010B	07/18/07	**7440-02-0**	**Nickel**	1	**11**	
3050B	07/17/07	6010B	07/18/07	7782-49-2	Selenium	5	5	U
3050B	07/17/07	6010B	07/18/07	7440-22-4	Silver	0.3	0.3	U
3050B	07/17/07	6010B	07/18/07	7440-28-0	Thallium	5	5	U
3050B	07/17/07	6010B	07/18/07	**7440-66-6**	**Zinc**	1	**52**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: LAB CONTROL

Lab Sample ID: LH40LCS
LIMS ID: 07-14368
Matrix: Soil
Data Release Authorized:
Reported: 07/19/07

QC Report No: LH40-Anchor Enviromental, LLC
Project: Duwamish Shipyard
010001-01
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Antimony	6010B	203	200	102%	
Arsenic	6010B	213	200	106%	
Beryllium	6010B	51.8	50.0	104%	
Cadmium	6010B	49.5	50.0	99.0%	
Chromium	6010B	49.8	50.0	99.6%	
Copper	6010B	50.2	50.0	100%	
Lead	6010B	203	200	102%	
Mercury	7471A	1.04	1.00	104%	
Nickel	6010B	49	50	98.0%	
Selenium	6010B	212	200	106%	
Silver	6010B	49.5	50.0	99.0%	
Thallium	6010B	204	200	102%	
Zinc	6010B	50	50	100%	

Reported in mg/kg-dry

N-Control limit not met
Control Limits: 80-120%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: METHOD BLANK

Lab Sample ID: LH40MB
LIMS ID: 07-14368
Matrix: Soil
Data Release Authorized:
Reported: 07/19/07

QC Report No: LH40-Anchor Enviromental, LLC
Project: Duwamish Shipyard
010001-01
Date Sampled: NA
Date Received: NA

Percent Total Solids: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	07/17/07	6010B	07/18/07	7440-36-0	Antimony	5	5	U
3050B	07/17/07	6010B	07/18/07	7440-38-2	Arsenic	5	5	U
3050B	07/17/07	6010B	07/18/07	7440-41-7	Beryllium	0.1	0.1	U
3050B	07/17/07	6010B	07/18/07	7440-43-9	Cadmium	0.2	0.2	U
3050B	07/17/07	6010B	07/18/07	7440-47-3	Chromium	0.5	0.5	U
3050B	07/17/07	6010B	07/18/07	7440-50-8	Copper	0.2	0.2	U
3050B	07/17/07	6010B	07/18/07	7439-92-1	Lead	2	2	U
CLP	07/17/07	7471A	07/17/07	7439-97-6	Mercury	0.05	0.05	U
3050B	07/17/07	6010B	07/18/07	7440-02-0	Nickel	1	1	U
3050B	07/17/07	6010B	07/18/07	7782-49-2	Selenium	5	5	U
3050B	07/17/07	6010B	07/18/07	7440-22-4	Silver	0.3	0.3	U
3050B	07/17/07	6010B	07/18/07	7440-28-0	Thallium	5	5	U
3050B	07/17/07	6010B	07/18/07	7440-66-6	Zinc	1	1	U

U-Analyte undetected at given RL
RL-Reporting Limit

CCI
ANALYTICAL
LABORATORIES
A Division of DataChem Laboratories, Inc.

CERTIFICATE OF ANALYSIS

CLIENT: ANALYTICAL RESOURCES, INC.
4611 SOUTH 134TH PLACE SUITE 100
TUKWILA, WA 98168

DATE: 7/16/2007
CCIL JOB #: 0707046
DATE RECEIVED: 7/16/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: SUE DUNNIHOO

CLIENT PROJECT ID: DUWAMISH SHIPYARD
CLIENT SAMPLE ID: 7/3/2007 07-13530-LF83C
CCIL SAMPLE #: -01

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
Cadmium	EPA-6010	ND(<1.0)	MG/KG	7/16/2007	CEO

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES.

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

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CERTIFICATE OF ANALYSIS

CLIENT: ANALYTICAL RESOURCES, INC.
4611 SOUTH 134TH PLACE SUITE 100
TUKWILA, WA 98168

DATE: 7/16/2007
CCIL JOB #: 0707046
DATE RECEIVED: 7/16/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: SUE DUNNIHOO

CLIENT PROJECT ID: DUWAMISH SHIPYARD

QUALITY CONTROL RESULTS

BLANK RESULTS

METHOD	MATRIX	QC BATCH ID	ASSOCIATED SAMPLES	ANALYTE	RESULT	UNITS
EPA-6010	Soil	ICPS071607-1	0707046-01	Cadmium	ND(<1.0)	MG/KG

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CERTIFICATE OF ANALYSIS

CLIENT: ANALYTICAL RESOURCES, INC.
4611 SOUTH 134TH PLACE SUITE 100
TUKWILA, WA 98168

DATE: 7/16/2007
CCIL JOB #: 0707046
DATE RECEIVED: 7/16/2007
WDOE ACCREDITATION #: C142

CLIENT CONTACT: SUE DUNNIHOO

CLIENT PROJECT ID: DUWAMISH SHIPYARD

QUALITY CONTROL RESULTS

SPIKE/SPIKE DUPLICATE RESULTS

METHOD	MATRIX	QC BATCH ID	ASSOCIATED SAMPLES	ANALYTE	SPIKE RECOVERY	SPIKE DUP RECOVERY	RPD
EPA-6010	Soil	ICPS071607-1	0707046 -01	Cadmium	99 %	100 %	1

APPROVED BY:

8620 Holly Drive Suite 100 Everett, WA 98208 425 356-2600 FAX 425 356-2626 Seattle 206 292-9059

SUBCONTRACTOR ANALYSIS REQUEST
CUSTODY TRANSFER 07/13/07

ANALYTICAL RESOURCES INCORPORATED

ARI Project: LF83

Laboratory: Bagan, Rick
Lab Contact: Rick Bagan
Lab Address: 8620 Holly Drive
Everett, WA 98208
Phone: 206-292-9059
Fax: 425-356-2626

ARI Client: Anchor Enviromental, LLC
Project ID: Duwamish Shipyard
ARI PM: Sue Dunnihoo
Phone:
Fax: 206-695-6201

Analytical Protocol: In-house
Special Instructions:

Requested Turn Around:
Fax Results (Y/N): **Yes**

Limits of Liability. *Subcontractor is expected to perform all requested services in accordance with appropriate methodology following Standard Operating Procedures that meet standards for the industry. The total liability of ARI, its officers, agents, employees, or sucessors, arising out of or in connection with the requested services, shall not exceed the negotiated amount for said services. The agreement by the Subcontractor to perform services requested by ARI releases ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Subcontractor.*

ARI ID	Client ID/ Add'l ID	Sampled	Matrix	Bottles	Analyses
07-13530-LF83C	DSI-SE2-070307	07/03/07	Soil		CADMIUM

Special Instructions: None

9010

Carrier HAND	Airbill	Date
Relinquished by	Company ARI	Date 07/16/07	Time 7:50
Received by	Company CCIAL	Date 7/16/07	Time 7:50

ATTACHMENT D

DATA VALIDATION REPORT FOR SOIL CHARACTERIZATION

ANCHOR ENVIRONMENTAL, L.L.C.

Anchor Environmental, L.L.C.
1423 3rd Avenue, Suite 300
Seattle, Washington 98101
Phone 206.287.9130
Fax 206.287.9131

Data Validation Review Report

Project: Duwamish Shipyard Soil Characterization

Project Number: 000111-01

Date: August 6, 2007

This report summarizes the review of analytical results for three soil samples collected on July 3, 2007. Samples were collected by Anchor Environmental and submitted to Analytical Resources, Inc. (ARI) in Tukwila, Washington. Samples were analyzed for the following:

- Metals by United States Environmental Protection Agency (USEPA) methods 6010B and 7471A
- Total petroleum hydrocarbon diesel range and motor oil by NWTPH-DX

ARI sample data group numbers LF83 and LH40 and CCI job number 0707046 were reviewed in this report. The samples reviewed in this report are presented in Table 1.

Table 1
Samples Reviewed

Sample ID	Lab ID	Matrix	Analysis Requested
DSI-SE1-070307	LF83B	Soil	Metals(Cd)
DSI-SE2-070307	LF83C	Soil	Metals(Cd)
DSI-SE2-070307	-01 (CCI labs)	Soil	Metals(Cd)
DSI-SE3-070307	LF83D	Soil	Metals(Cd)
DSI-SE1-070307	LH40A	Soil	NWTPH-DX, Metals
DSI-SE3-070307	LH40B	Soil	NWTPH-DX, Metals

Data Validation and Qualifications

The following comments refer to the laboratory's performance in meeting the quality assurance/quality control (QA/QC) guidelines outlined in the analytical procedures and data quality objective section of the Sampling and Analysis Plan (SAP). Laboratory results were reviewed following USEPA guidelines using *USEPA Contract Laboratory Program*

National Functional Guidelines for Inorganics Data Review (USEPA 2004) and *USEPA Contract Laboratory National Functional Guidelines for Organics Data Review (USEPA 1999)* as guidelines, and applying laboratory and method QC criteria as stated in SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update 1, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998. Unless noted in this report, laboratory results for the samples listed above were within QC criteria.

Laboratory Data Package and Field Documentation

Field documentation was checked for completeness and accuracy. The chain-of-custody was signed by ARI at the time of sample receipt; the samples were received in good condition. All samples were received at ambient temperature because they were delivered immediately to the lab after collection. Since the samples were delivered and refrigerated upon receipt within 12 hours of collection, samples were deemed valid.

Holding Times and Sample Preservation

Samples were appropriately preserved and analyses were conducted within holding times.

Laboratory Method Blanks

Laboratory method blanks were analyzed at the required frequencies. All method blanks were free of target analytes.

Field Quality Control

Field Duplicates

There were no field duplicates analyzed in this data set.

Surrogate Recoveries

Surrogate recoveries for organic analyses were performed at the required frequencies. Surrogate recoveries were within the laboratory control limits for all surrogates.

Matrix Spike (MS) and Matrix Spike Duplicate (MSD)

Due to insufficient sample volume MS/MSD analyses were not analyzed.

Laboratory Control Sample (LCS) and LCS Duplicate (LCSD)

An LCS and LCSD were analyzed at the required frequencies. All LCS and LCSD analyses were within laboratory control limits.

Laboratory Duplicates

There were no laboratory duplicates performed with this data set.

Method Reporting Limits

All results were reported using the laboratory's reporting limits and were reported as undiluted, or when diluted, the reporting limit accurately reflects the dilution factor. Reporting limits were deemed acceptable as reported.

Overall Assessment

No data were rejected during this review. The data are judged to be acceptable as reported.

Precision, Accuracy, and Completeness

Precision: All precision goals were met.

Accuracy: All accuracy goals were met.

Completeness: Completeness was 100 percent.

REFERENCES

USEPA. 1983. Methods for Chemical Analysis of Water and Wastes. U.S. Environmental Protection Agency, Environmental Monitoring and Support Laboratory, Cincinnati, Ohio. EPA-600/4-79-020.

USEPA. 1986. Test methods for Evaluating Solid Waste: Physical/Chemical Methods. U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response. EPA-530/SW-846.

USEPA. 1999. USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review. U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response. EPA 540/R-99/008. October.

USEPA. 2004. USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review. U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response. EPA 540-R-04-004. October 2004.