SoundEarth Strategies, Inc.
2811 Fairview Avenue East, Suite 2000
Seattle, Washington 98102

March 1, 2013

Mr. Marrell Livesay
Seattle Department of Parks and Recreation
800 Maynard Avenue South, Fourth Floor
Seattle, Washington 98134

SUBJECT: PHASE II ENVIRONMENTAL SITE ASSESSMENT - SEDIMENTS
Bryant Building Property
1101 through 1137 Northeast Boat Street
Seattle, Washington
Project Number: 0355-073-02

Dear Mr. Livesay:

SoundEarth Strategies, Inc. (SoundEarth) has prepared this letter report to document the results of the Phase II Environmental Site Assessment (ESA) completed by SoundEarth at the submerged portions of the Bryant Building property located at 1101 through 1137 Northeast Boat Street in Seattle, Washington (the Property). The Property consists of a portion of an irregularly shaped tax parcel (King County Parcel No. 1142004555) along the shoreline of Lake Union that covers approximately 71,934 square feet (1.65 acres) of land and approximately 85,701 square feet (1.97 acres) of submerged area in Lake Union. The location of the Property is shown on Figure 1.

The Property is currently occupied by a 1922-vintage, three-story building known as the Bryant Building, which encloses approximately 33,000 square feet of space. The wood-framed structure has a pitched roof and is heated by a natural gas system. Additional improvements include a wood-framed storage building constructed in the 1940s, boat moorage constructed in 1956, and asphalt-paved and concrete parking areas, as shown on Figure 2.

The purpose of this Phase II ESA report is to address the recognized environmental conditions related to the submerged portions of the Property that were identified in SoundEarth's Phase I Environmental Site Assessment (ESA) of the Property, dated September 17, 2012. The scope of this Phase II ESA was developed in general accordance with Chapter 173-204 WAC Sediment Management Standards dated December 1995, revised August 2012. A Phase II ESA report documenting the environmental conditions of uplands portions of the Property has been provided under separate cover.

PROJECT BACKGROUND

The Property was initially developed with a lumber mill in the early 1900s. Numerous house boats were also present along the western portion of the Property in the early 1900s. The lumber mill structure was converted to boat storage use by 1950 and was demolished by 1977. The structure currently identified as the Bryant Building was added to the Property in 1922. Boat manufacturing and repair activities began on the Property by 1938 and continued through at least the late 1960s. A marine fueling facility that included seven underground storage tanks (USTs) operated on the western portion of the Property

from the early 1960s until the late 1980s. The University of Washington has occupied the Property since the early 1970s. The Property is currently occupied by the Boat Street Marina, the University of Washington Police Department, and University of Washington Recycling and Solid Waste office and transfer facility.

The following recognized environmental conditions were identified as potentially impacting the sediment on the submerged portion of the Property during the course of SoundEarth's September 2012 Phase I ESA:

- **Confirmed impacts to subsurface soil and groundwater by petroleum products and lead.** Concentrations of petroleum products and lead above the applicable Washington State Model Toxics Control Act (MTCA) Method A cleanup levels remained beneath the western portion of the Property following the removal of seven marine fueling-related USTs in 1992 and the operation of a pump and treat remediation system for approximately 7 years. The Property appears on the Washington State Department of Ecology (Ecology) Independent Cleanup Reports, Leaking UST, and UST databases related to this reported past release. Shannon & Wilson, Inc. previously estimated that approximately 2,500 cubic yards of petroleum-contaminated soil (PCS) were present beneath the parking lot on the western portion of the Property, with an additional approximately 700 cubic yards of PCS present beneath the Bryant Building in 1991–1992 prior to installation of a remediation system at the Property. Approximately 1,028 tons of PCS were removed from the western portion of the Property by others in 1992 during the decommissioning of seven USTs.
  - **Data Gaps.** Concentrations of diesel- and heavy oil-range total petroleum hydrocarbons (DRPH and ORPH, respectively) and polycyclic aromatic hydrocarbons (PAHs) were reportedly above the MTCA Method A or Method B cleanup levels during the most recent sampling of five wells at the Property by others in 2007. The current environmental condition of sediments within the submerged western portions of the Property was not known.

    The extent of remaining PCS beneath the western portion of the Property following the shutdown of the remediation system in 1999 remained unassessed.
- **Former boat manufacturing and repairing activities performed at the Property over a period of at least 30 years beginning by 1938.** Historical records indicated that boat manufacturing activities occurred within the current Bryant Building and the current storage structure. A paint shop also existed on the east side of the current storage building in 1950. Contaminants in the form of petroleum products, solvents, and metals are commonly associated with historical boat manufacturing and repairing activities.
  - **Data Gaps.** No previous environmental investigations were apparently performed in the areas of former boat manufacturing activities on the Property. The environmental quality of sediment within the submerged portions of the Property remained unassessed.
- **Multiple incidental releases from marine vessels.** The Property is listed on the Emergency Response Notification System database and Reported Spills database for a total of seven events related to fluid spills, primarily petroleum products, incidentally released from marine vessels.

  - **Data Gaps.** The environmental quality of sediment within the submerged portions of the Property remained unassessed.

- **Presence of fill material of unknown origin beneath the Property**. The shoreline of the Property was extended southward by artificial filling during the early 1900s. The source and environmental quality of the fill material was not apparent.

  - **Data Gaps.** The environmental character of submerged fill material underlying the Property remained unassessed.

- **Historical operation of an industrial incinerator on the east-adjoining property (current Sakuma Viewpoint Park) in the 1920s to 1930s**. Public records indicate that the industrial incinerator may have been associated with lumber mill operations performed on the Property.

  - **Data Gap.** No previous environmental investigations were apparently performed on the eastern portion of the Property. The potential risk of impacts to sediments within submerged portions of the Property, if any, from the east-adjoining former industrial incinerator facility remained unassessed.

PHASE II ENVIRONMENTAL SITE ASSESSMENT - SEDIMENTS

Two sample station clusters were set up to evaluate suspected areas of sediment contamination based on historical land use. Sediment assessment activities focused on the area southwest of the Bryant Building (sample station cluster 1, SSO1), where the former boat manufacturing activities and releases may have occurred, and on the easternmost portion of the Property (sample station cluster 2, SS02), where the industrial incinerator was formerly located and fill material was potentially placed.

Field Activities

On February 11, 2013, SoundEarth observed the collection of six discrete sediment grab samples by Research Support Services, Inc. (RSS), of Bainbridge Island, Washington. Three grab samples were collected from each sample station cluster and analyzed for conventional parameters and chemicals of concern (COCs) for the Property.

Sample Locations

Station locations were chosen for the best characterization the two sample station clusters and the associated COCs (Figure 3). Three samples (SS01A, SS01B, and SS01C) were collected from the first sample station cluster, located immediately southwest of the Bryant Building, to characterize sediment potentially impacted by the former boat manufacturing activities and incidental releases on the Property. Three samples (SS02A, SS02B, and SS02C) were collected from the second station cluster located on the eastern portion of the Property to characterize sediment potentially impacted from the former industrial incinerator and fill material on the Property.

Sample station SS02A was deviated from its originally proposed sample location because of the presence of rocks on the lakebed. The sample was moved south until soft sediment was encountered.

The core sample locations were recorded using a global positioning system (GPS) unit and the North American 1983 datum (NAD83) coordinate system. The GPS precision averaged approximately 1 meter.

The depth to sediment, sample interval elevation, GPS coordinates, and the sample designations at each sampling location are summarized on Table 1.

Methods

Subsurface sediment samples for both conventional and chemical analyses were collected using a pneumatic power grab sampler. The 0.2-square-meter surface sediment grab sampler was used to collect large-volume surface samples (approximately 2.5 gallons from the upper 10 centimeters of sediment). The pneumatic power grab sampler was slowly suspended and lowered with a hydraulic winch until the grab sampler contacted the lakebed. The pneumatic ram closed the grab sampler around debris and substrate. During processing, the ram was swung away from the grab and the doors were removed, allowing unobstructed access to the sample for photos and visual characterization.

Each sampling substation was located with an appropriate field positioning system. The depth to sediment from the water line was measured at each sample location. The station number, station coordinates, date and time of collection, field crew, and weather conditions were recorded in the field log. For each sample, the physical description of the sediment, odors, vegetation, sheen, and debris content were recorded in the field log.

SoundEarth staff processed the samples aboard the RSS vessel. Sediment was collected from the pneumatic grab sampler into a stainless steel bowl. The samples were then collected using stainless steel spoons and placed into laboratory prepared containers. Sample containers were labeled and placed in coolers on ice.

RESULTS

The results of the physical and chemical analyses are summarized below. As directed by the client, chemistry data from the sediment sampling event were compared to applicable cleanup screening levels (CSLs) listed in Table 2-2 of Ecology's 2012 guidance document *Draft Sediment Cleanup User's Manual II, Guidance for Implementing the Sediment Management Standards* (SMS). If a sample contained detectable concentrations of any COCs, the three samples from that sampling station cluster were averaged to determine the mean. The average concentration of the COC was then compared to the applicable CSL. The results are summarized below. Laboratory analytical results are summarized in Table 2 and included in Appendix A.

Conventional Parameters

Conventional parameters were analyzed according to specifications listed in Table 3-1 of the SMS and are summarized below.

Total Solids

The sediment samples were submitted for analysis of total solids by SM2540B modified for analysis of soil. Total solids ranged from 9.90 percent at SS01-B to 28.10 percent at SS02-B with a mean of 14.87 percent.

Total Organic Carbon

The sediment samples were submitted for analysis of total organic carbon (TOC) by Method Plum, 1981. TOC ranged from 18.1 percent at SS02-B to 48.4 percent at SS02-A with a mean of 29.95 percent.

Moisture Content

The sediment samples were submitted for analysis of moisture content according to ASTM D2216. Moisture content ranged from 237.51 percent to 899.4 percent with a mean of 601.61 percent.

Grain Size

The sediment samples were submitted for grain size analysis by Puget Sound Estuary Program (PSEP) Particle Size. Grain size analysis results demonstrated that the sediment sampled primarily consisted of silty fine sand to fine sandy silt. Fines are sediment materials that are equivalent to material that passes through a standard Series 230 sieve. Fines are important because of the tendency of some COCs to adhere to fine-grained particles. Samples SS01-A and SS02-C had over 50% fines. Samples SS01-B and SS02-A were comprised of close to 50% fines and 50% sand. Samples SS01-C and SS02-B were comprised of mostly sand, both with over 67% sand.

Metals

The sediment samples were submitted for analysis of arsenic, cadmium, chromium, copper, lead, nickel, selenium, silver, and zinc by U.S. Environmental Protection Agency (EPA) Method 6020. Samples were submitted for analysis of mercury by EPA Method 7471A. Metals analytical results are summarized below and presented in Table 2.

- A concentration of mercury was detected above the CSL in sediment sample SS01-C. The average concentration of mercury at station cluster SS01 was 0.63 mg/kg, which is below the CSL of 0.9 mg/kg. Therefore, SS01 is not considered to be a station cluster of potential concern.
- A concentration of silver was detected above the CSL in the sediment sample SS02-B. The average concentration of silver at station cluster SS02 is 19.97 mg/kg, which is above the CSL of 1.7 mg/kg CSL. Therefore, SS02 is considered to be a station cluster of potential concern that may require further action.
- Concentrations of remaining metals were below their respective CSL in all sediment samples collected at SS01 and SS02.

Semi-Volatile Organic Compounds and Petroleum Hydrocarbons

The sediment samples were submitted for analysis of semi-volatile organic compounds (SVOCs) by EPA Method 8270D, low-level PAHs by EPA Method 8270D-SIM, gasoline by Northwest Total Petroleum Hydrocarbon (NWTPH) Method NWTPH-Gx, and diesel and motor oil by NWTPH-Dx. Analytical results are summarized below and presented in Table 2.

- A concentration of bis(2-ethylhexyl)phthalate was detected above the CSL in sediment sample SS02-C. The average concentration of bis(2-Ethylhexyl)phthalate at SS02 is 11,600 mg/kg, which

is below the CSL of 22,000 mg/kg. Therefore, station cluster SS02 is not considered to be a station cluster of potential concern for bis(2-Ethylhexyl)phthalate.

- Concentrations of remaining SVOCs were below their respective CSLs in all sediment samples collected from SS01 and SS02.
- Concentrations of Total PAHs were below their respective CSLs in all sediment samples collected at SS01 and SS02.
- Concentrations of petroleum hydrocarbons were below their respective CSLs in all sediment samples collected at SS01 and SS02.

DATA QUALITY REVIEW

A Data Quality Review was completed by Analytical Resources, Incorporated. The results of their review are summarized in the cover letter to their report, which is included as Attachment A to this report.

FINDINGS AND CONCLUSIONS

Elevated concentrations of mercury, silver, and bis(2-Ethylhexyl)phthalate were detected in sediments during the Phase II ESA that was conducted at submerged portions of the Property. Both mercury and bis(2-Ethylhexyl)phthalate were detected in one sample station at concentrations that exceeded the applicable CSL. However, the station cluster average for both contaminants was below the CSL.

Silver was detected above the CSL at sample station SS02-B, with the average concentration of silver at station cluster SS02 also above the CSL. The elevated concentration of silver indicates that station cluster SS02 is a station cluster of potential concern and may require further action.

RECOMMENDATIONS

While Ecology requires a minimum of three sample stations per station cluster (WAC 173-204-510), in cases where COCs are identified at concentrations exceeding the CSLs during sampling, as is the case with mercury, silver, and bis(2-Ethylhexyl)phthalate at the Property, Ecology frequently requires that additional sampling be conducted to evaluate the distribution of the COCs before they will define the station clusters as station clusters of low concern.

It should be noted that the CSLs were developed to mitigate the risk posed to benthic organisms. Considering the potential future use of the Property as a park, a human health risk assessment should be conducted to evaluate the potential impacts to humans as a result of the elevated concentrations of COCs identified in the two station clusters. This risk assessment was not envisioned in the proposed scope of work for this Phase II ESA.

Although the confirmed impacts to subsurface soil and groundwater by petroleum products and lead that resulted from releases at the former marina USTs was identified as a REC in SoundEarth's Phase I ESA, the western submerged portions of the Property could not be accessed during this Phase II ESA. As such, the environmental quality of sediment in the vicinity of these former USTs remains unassessed.

LIMITATIONS

The findings and conclusions documented in this report have been prepared for the specific application to this project and have been developed in a manner consistent with that level of care and skill normally

exercised by members of the environmental science profession currently practicing under similar conditions in the area. Sampling was conducted at widely spaced boring locations and depths, so the potential remains for unknown, unidentified, or unforeseen subsurface contamination to exist on portions of the Property that were not accessed in the course of this investigation. No warranty, expressed or implied, is made. This report is intended for the exclusive use of Seattle Department of Parks and Recreation and Washington State Department of Transportation.

CLOSING

SoundEarth appreciates the opportunity to work with you on this project. Please contact the undersigned at (206) 306-1900 if you have any questions or require additional information.

Respectfully,

SoundEarth Strategies, Inc.

Elizabeth Forbes
Staff Geologist

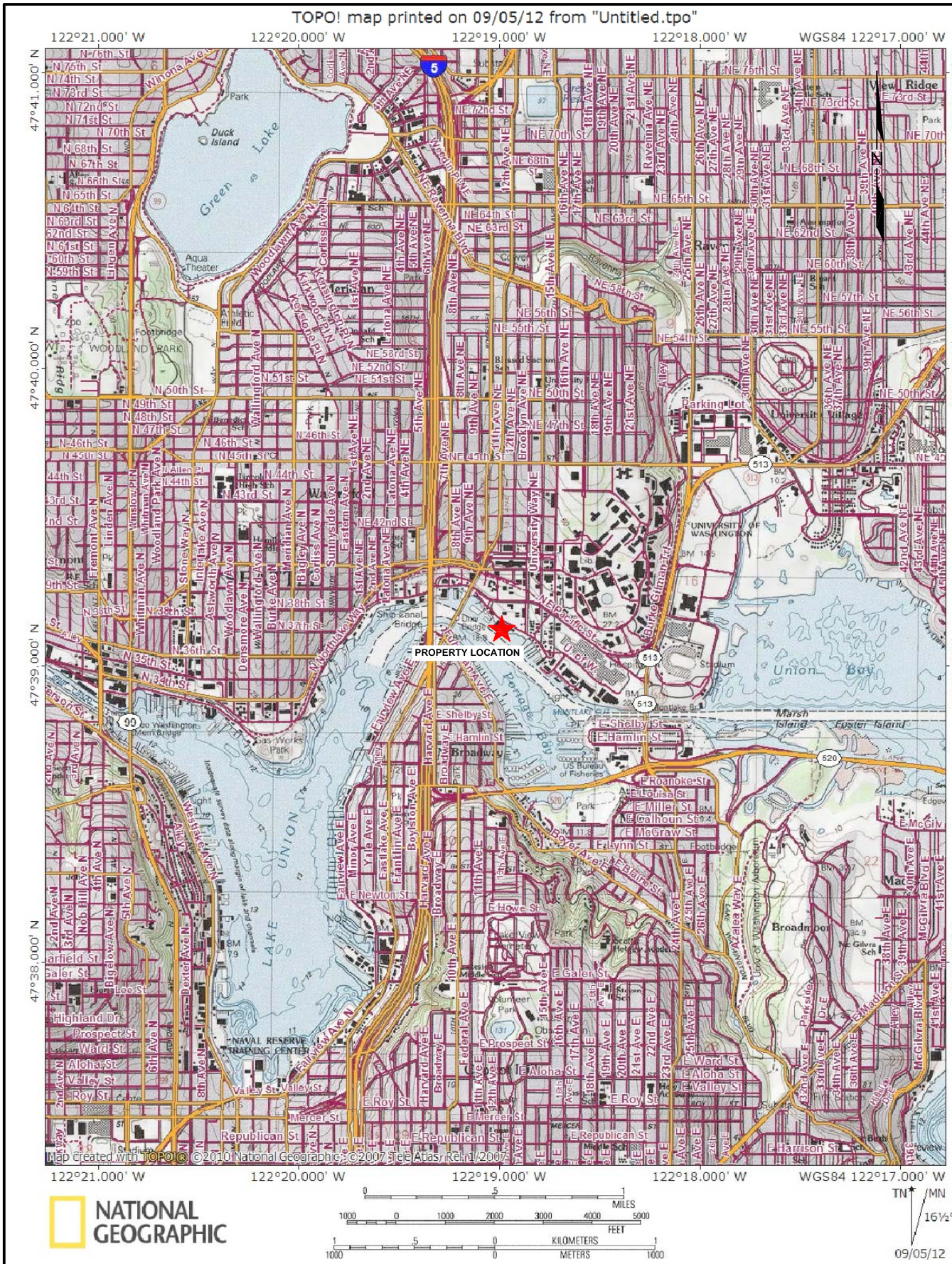
Erin K. Rothman, MS
Principal Scientist

Attachments: Figure 1, Property Location Map
Figure 2, Property Plan
Figure 3, Exploration Location Plan
Table 1, Sediment Sample Designations
Table 2, Summary of Sediment Sampling Analytical Results
A, Laboratory Analytical Report

EBF/EKR:srm

FIGURES

P:\0355 SEATTLE PARKS & RECREATION\0355-073 BRYANT BUILDING\TECHNICAL\CAD\FIGURE 1\0355-073_FIG 1.DWG



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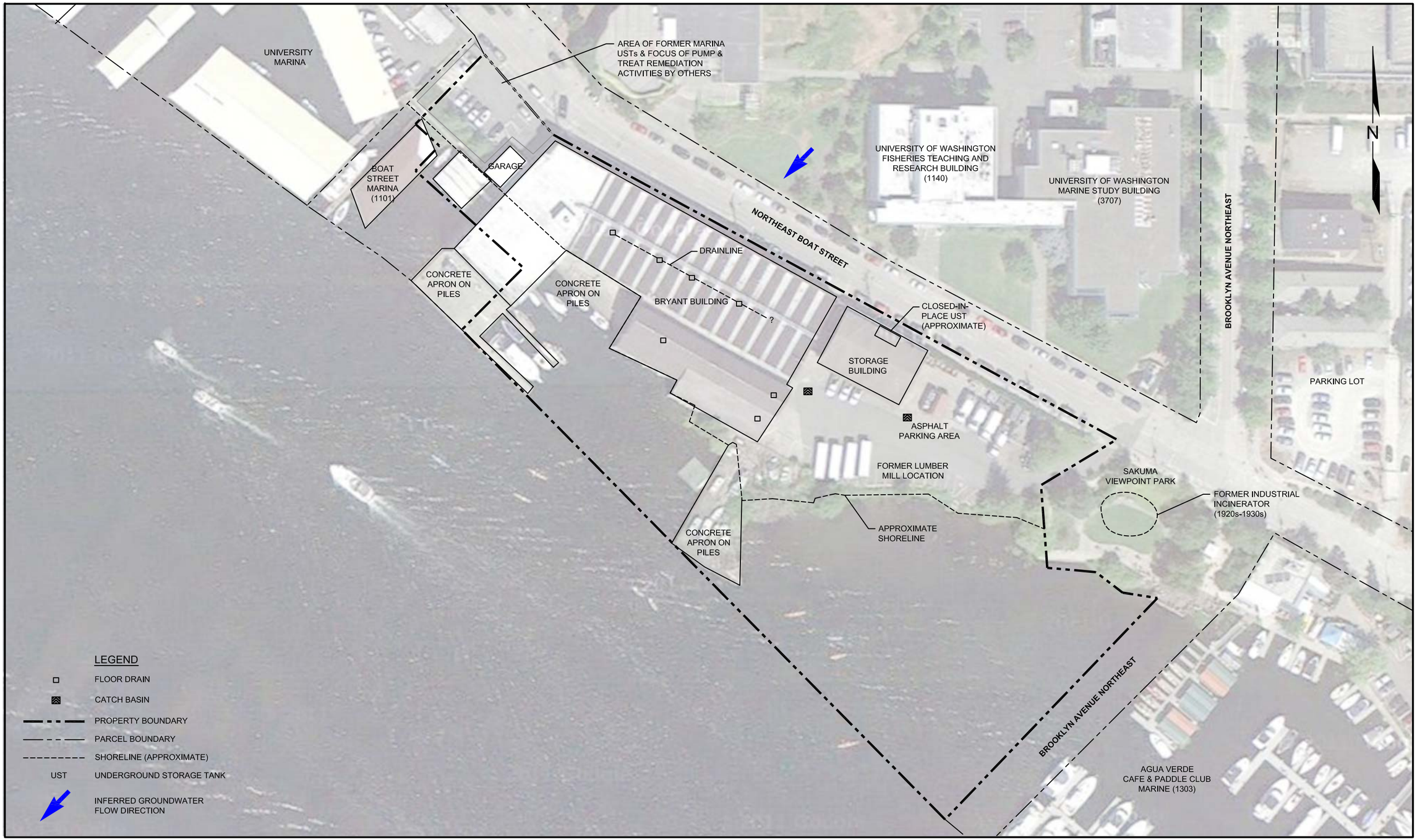
DATE:	09/06/12
DRAWN BY:	JQC
CHECKED BY:	CGS
CAD FILE:	0355-073_FIG1

PROJECT NAME:	BRYANT BUILDING PROPERTY
PROJECT NUMBER:	0355-073
STREET ADDRESS:	1101-1137 NORTHEAST BOAT STREET
CITY, STATE:	SEATTLE, WASHINGTON

FIGURE 1
PROPERTY
LOCATION MAP



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DATE: 02/08/13
DRAWN BY: NAC
CHECKED BY: CGC
CAD FILE: 0355-073_2013_PP

PROJECT NAME: BRYANT BUILDING PROPERTY
PROJECT NUMBER: 0355-073
STREET ADDRESS: 1101-1137 NORTHEAST BOAT STREET
CITY, STATE: SEATTLE, WASHINGTON

REGION:

0 40 80 160
APPROXIMATE SCALE IN FEET

FIGURE 2
PROPERTY PLAN

2/28/2013
P:\0355 SEATTLE PARKS & RECREATION\0355-073 BRYANT BUILDING\TECHNICAL\CAD\2013 SI\0355-073_2013_PP.DWG
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UNIVERSITY MARINA

AREA OF FORMER MARINA USTs & FOCUS OF PUMP & TREAT REMEDIATION ACTIVITIES BY OTHERS

P10
P11
MW05

BOAT STREET MARINA (1101)

GARAGE
MW11

MW14
MW16

NORTHEAST BOAT STREET

DRAINLINE
P08

CONCRETE APRON ON PILES

CONCRETE APRON ON PILES

BRYANT BUILDING
?

SS01A
P02

P05
P06
P04
CLOSED-IN-PLACE UST (APPROXIMATE)
STORAGE BUILDING

P03
SS01B
SS01C

ASPHALT PARKING AREA
P07
P09
FORMER LUMBER MILL LOCATION

UNIVERSITY OF WASHINGTON FISHERIES TEACHING AND RESEARCH BUILDING (1140)

UNIVERSITY OF WASHINGTON MARINE STUDY BUILDING (3707)

BROOKLYN AVENUE NORTHEAST

PARKING LOT

N

SAKUMA VIEWPOINT PARK

P01

FORMER INDUSTRIAL INCINERATOR (1920s-1930s)

APPROXIMATE SHORELINE

CONCRETE APRON ON PILES

SS02B

SS02A

SS02C

BROOKLYN AVENUE NORTHEAST

AGUA VERDE CAFE & PADDLE CLUB MARINE (1303)

LEGEND

- FLOOR DRAIN
- CATCH BASIN
- SS01A — SEDIMENT SAMPLE STATION
- P11 — SOIL BORING
- MW11 — MONITORING WELL
- PROPERTY BOUNDARY
- PARCEL BOUNDARY
- SHORELINE (APPROXIMATE)
- UST — UNDERGROUND STORAGE TANK
- INFERRED GROUNDWATER FLOW DIRECTION

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DATE: 02/08/13
DRAWN BY: NAC
CHECKED BY: CGC
CAD FILE: 0355-073_2013_EL

PROJECT NAME: BRYANT BUILDING PROPERTY
PROJECT NUMBER: 0355-073
STREET ADDRESS: 1101-1137 NORTHEAST BOAT STREET
CITY, STATE: SEATTLE, WASHINGTON

REGION:

0 40 80 160
APPROXIMATE SCALE IN FEET

FIGURE 3
EXPLORATION LOCATION PLAN

3/1/2013
P:\0355 SEATTLE PARKS & RECREATION\0355-073 BRYANT BUILDING\TECHNICAL\CAD\2013 SEDIMENT\0355-073_2013_EL_FIG3.DWG
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TABLE

Table 1
Sediment Sample Designations
Bryant Building
1101 through 1137 Northeast Boat Street
Seattle, Washington

Sample Station Cluster ID	Depth to Sediment (ft)[1]	Sample Interval Elevation (ft)	NAD83 GPS Coordinates		Sample ID
			X (ft)	Y (ft)	
Sample Station SS01					
SS01	9.1	-9.1 to -9.43	1274809.8	241398.2	SS01-A
SS01	8.42	-8.42 to -8.75	1274862.9	241340.3	SS01-B
SS01	6.77	-6.77 to -7.09	1274882.9	241314.4	SS01-C
Sample Station SS02					
SS02	8.91	-8.91 to -9.24	1275056.2	241181.4	SS02-A
SS02	2.68	-2.68 to -3.01	1275162.7	241208.6	SS02-B
SS02	5.74	-5.74 to -6.07	1275244.5	241144.6	SS02-C

NOTES:
[1]Depth to sediment measured from the top of water column
ft = feet
GPS = Global Positioning System
NAD83 = North American 1983 datum

SoundEarth Strategies

Table 2
Summary of Sediment Sampling Analytical Results
Bryant Building Property
1101 through 1137 Northeast Boat Street
Seattle, Washington

Sample Station Cluster ID:			SS01	SS01	SS01	SS02	SS02	SS02	Average Concentration of Three Samples Collected From
Sample Interval Elevation (Top to bottom in feet):			-9.1 to -9.43	-8.42 to -8.75	-6.77 to -7.09	-8.91 to -9.24	-2.68 to -3.01	-5.74 to -6.07	
Sample Date:			02/11/13	02/11/13	02/11/13	02/11/13	02/11/13	02/11/13	
Sample ID:			SS01-A	SS01-B	SS01-C	SS02-A	SS02-B	SS02-C	
	SQS[2]	CSL[2]							
Conventional Parameters									
Total Solids[3] (%)	NA	NA	10.30	9.90	12.70	12.30	28.10	15.90	--
Total Organic Carbon[4] (%)	NE	NE	21.0	35.6	22.3	48.4	18.1	34.3	--
Moisture Content[5] (%)	N A	NA	--	899.4	606.89	720.08	237.51	544.18	--
Grain Size[6] (%)									
Gravel	NA	NA	0.0	0.0	0.4	0.0	2.6	0.0	--
Sand	NA	NA	38.7	50.9	67.4	51.2	75	44	--
Fines (silt, clay)	NA	NA	61.3	49.1	32.2	48.8	22.4	56.0	--
Total	NA	NA	100	100	100	100	100	100	--
Metals[7] (mg/kg)									
Arsenic	14	120	17	16	20	16	12.9	13	--
Cadmium	2.1	5.4	3	2	2.3	2.1	1.6	2.8	--
Chromium	72	82	46	47	44	51	39	60	--
Copper	400	1,200	232	239	311	237	154	357	--
Lead	360	>1,300	189	190	218	235	266	313	--
Mercury	0.66	0.8	0.5	0.5	**0.9**	0.4	0.35	0.5	0.63
Nickel	26	110	44	44	42	42	32	42	--
Selenium	11	>20	5 U	5 U	4 U	4 U	2 U	3 U	--
Silver	0.57	1.7	2 U	2 U	2 U	2 U	**57.9**	1 U	**19.97**
Zinc	3,200	> 4,200	670	580	600	556	530	1,100	--
SVOCs[8] (mg/kg)									
Phenol	120	210	210	140	160	75	120	100	--
4-methylphenol	260	2,000	230	280	780	220	530	160	--
benzoic acid	2,900	3,800	1,900	2,100	1,100	550	730	< 1,600 U	--
dibenzofuran[9]	200	680	30	14	40	18	83	120	--
Pentachlorophenol	1,200	>1,200	< 400 U	< 200 U	< 200 U	< 200 U	< 190 U	< 780 U	--
carbazole	900	1,100	62	38	92	36	170	200	--
Di-n-butylphthalate	380	1,000	42	< 20 U	49	34	110	140	--
Bis(2-Ethylhexyl)phthalate	500	22,000	1,900	1,900	1,600	3,800	3,000	**28,000**	11,600
Di-n-octylphthalate	39	>1,100	< 40 U	< 20 U	220	< 20 U	< 19 U	< 78 U	--
PAHs[9] (µg/kg)									
Total PAHs[a]	17,000	30,000	4,251	2,386	4,161	3,595	7,743	13,212	--
Bulk Petroleum Hydrocarbons[10] (mg/kg)									
TPH-Diesel Range	340	510	150	91	110	170	160	460	--
TPH-Motor Oil Range	3,600	4,400	410	430	450	790	670	2,300	--

NOTES:

Matrix for all samples was sediment.

Chemical analyses conducted by Analytical Resources, Inc. of Tukwila, Washington.

[1]Average of three samples from one sample station cluster calculated when a concentration is detected over the CSL.

[2]Dry weight normalized sediment quality standards (SQS) and cleanup screening levels (CSL), Table 2-2 -Values for Comparison When Conducting CoC Screening. Values include freshwater and marine benthic criteria, target tissue levels for higher trophic level species, example human health risk-based concentrations, and MTCA TEE values. Draft Sediment Cleanup Users Manual II-Guidance for Implementing the Sediment Management Standards, Chapter 173-204 WAC, Washington State Department of Ecology, August 2012.

[3]Analyzed by SM2540B Modified for analysis of soil.

[4]Analyzed by Plum, 1981.

[5]Analyzed by ASTM D2216.

[6]Analyzed by PSEP Particle Size.

[7]Analyzed by EPA Method 6020. Mercury analyzed by EPA Method 7471A. Zinc analyzed by EPA Method 6010C.

[8]Analyzed by EPA Method 8270D.

[9]Analyzed by EPA Method 8270D-SIM.

[10] Diesel and Motor Oil Analyzed by Method NWTPH-Dx.

[a]The total PAH criterion represents the sum of the following polycyclic aromatic hydrocarbon compounds: 1-methylnaphthalene, 2-methylnaphthalene, acenaphthene, acenaphthylene, anthracene, benz(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(ghi)perylene, benzo(k)fluoranthene, chrysene, dibenz(ah)anthracene, fluoranthene, fluorene, indeno(123-cd)pyrene, naphthalene, phenanthrene, pyrene, total benzofluoranthenes (b+k+j).

µg/kg = micrograms per kilogram
CSL = Cleanup Screening Level
mg/kg = milligrams per kilogram
MTCA = Model Toxics Control Act
NA = Not Applicable
NE = Not Established
PAHs = polycyclic aromatic hydrocarbons
SQS = Sediment Quality Standard
SVOCs = semi-volatile organic compounds
TEE =Terrestrial Ecological Evaluation

Laboratory Notes:
U = Analyte undetected at given limit of quantitation

ATTACHMENT A
LABORATORY ANALYTICAL REPORT

Analytical Resources, Incorporated
Analytical Chemists and Consultants

February 18, 2013

Mr. Marrell Livesay, Project Manager
Seattle Department of Parks and Recreation
800 Maynard Ave South, 3rd Floor
Seattle, WA 98134-1335

RE: Project: Bryant Building
ARI Job No.: WD46

Dear Marrell:

Please find enclosed the original Chain-of-Custody (COC) record, sample receipt documentation, and the analytical results for the samples from the projects referenced above. Analytical Resources, Inc. (ARI) accepted six sediment samples and a trip blank on February 11, 2013 in good condition. For further details regarding sample receipt, please refer to the enclosed Cooler Receipt Form.

The samples were analyzed for SVOCs, SIM PAHs, NWTPH-Dx,, NWTPH-Gx, TOC, Total Solids, Grain Size, Moisture Content and Total Metals as requested, on the COC.

The NWTPH-Gx surrogates TFT and/or BBZ were out of control low for all associated samples which is likely due to the water content in the samples. All other QC is in control and no further corrective action was taken.

The SVOCs method blank contained Diethylphthalate. All associated samples that contain analyte have been flagged with a "B" qualifier.

The 2/16/13 SVOCs CCAL is out of control low for all associated FORM III "Q" flagged analytes with the exception of Diethylphthalate which is out of control high. All associated samples that contain analyte have been flagged with a "Q" qualifier.

The 2/15/13 SVOCs CCAL is out of control low for Hexachlorocyclopentadiene and Pentachlorophenol and out of control high for 3,3-Dichlorobenzidine. All associated samples
that contain analyte have been flagged with a "Q" qualifier.

The TOC matrix spike is out of control low in association with sample SS01-A. All other QC is in control and no further corrective action was taken.

There were no other anomalies associated with these analyses.

A copy of these reports and all associated supporting 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.

Kelly Bottem
Client Services Manager
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Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: WD46	Turn-around Requested: One Week	Page: 1 of 1	
ARI Client Company: Seattle Parks & Recreation	Phone: 206-306-1900	Date: 2/11/13	Ice Present? Y
Client Contact: Sheri Bozic		No. of Coolers: 3	Cooler Temps: 1.8, 5.4
Client Project Name: Bryant Building			
Client Project #: 0355-073	Samplers: SoundEarth Strategies / S. Bozic L. Forbes		

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: SVOCs 8270D SIM low level PAHs (SIM)	Total Metals (6010C Ca) 200.8	Hg (7471B)	TPH-Gx (NWTPH-Gx)	TPH-Dx (NWTPH-Dx)	TOC (PSEP TOC)	Grain Size (PSEP PS)	Total Solids (PSEP TS)	Notes/Comments: Moisture Content ASTM-D-2216
SS01-A	2/11/13	1015	Sed	5	X	X	X	X	X	X	X	X	
SS01-B		1100	Sed	6	X	X	X	X	X	X	X	X	X
SS01-C		1115	Sed	6	X	X	X	X	X	X	X	X	X
SS02-A		1150	Sed	6	X	X	X	X	X	X	X	X	X
SS02-B		1215	Sed	6	X	X	X	X	X	X	X	X	X
SS02-C		1230	Sed	6	X	X	X	X	X	X	X	X	X
				SCM	2/11/13								

Comments/Special Instructions	Relinquished by (Signature)	Received by (Signature)	Relinquished by (Signature)	Received by (Signature)
	Printed Name: Sheri Bozic	Printed Name: Taylor Streeter	Printed Name:	Printed Name:
	Company: SoundEarth Strategies	Company: ARI	Company:	Company:
	Date & Time: 2/11/13 1535	Date & Time: 2-11-13 1535	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: Sound Earth | Project Name: Bryant Building

COC No(s): (NA) | Delivered by: Fed-Ex UPS Courier Hand Delivered Other: ____

Assigned ARI Job No: 40D46 | Tracking No: ____ NA

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

Temperature of Cooler(s) (°C) (recommended 2 0-6 0 °C for chemistry) 5.1 1.8 [5.2]

If cooler temperature is out of compliance fill out form 00070F | Temp Gun ID# 90877

Cooler Accepted by: TS | Date: 2-11-13 | Time: 1535

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? Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other: ____

Was sufficient ice used (if appropriate)? NA YES NO

Were all bottles sealed in individual plastic bags? YES NO

Did all bottles arrive in good condition (unbroken)? YES NO

Were all bottle labels complete and legible? YES NO

Did the number of containers listed on COC match with the number of containers received? YES NO TS

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 sheet, excluding VOCs) NA YES NO

Were all VOC vials free of air bubbles? NA YES NO

Was sufficient amount of sample sent in each bottle? YES NO

Date VOC Trip Blank was made at ARI: NA AN 2/5/13

Was Sample Split by ARI: NA YES Date/Time: ____ Equipment: ____ Split by: ____

Samples Logged by: AN | Date: 2/11/13 | Time: 1638

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

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions: 1 extra 4oz for SS01-B

By: TS | Date: 2-11-13

Small Air Bubbles ~2mm	Peabubbles 2-4 mm	LARGE Air Bubbles > 4 mm	Small → "sm"
			Peabubbles → "pb"
			Large → "lg"
			Headspace → "hs"

Sample ID Cross Reference Report

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: WD46
Client: Sound Earth Strategies
Project Event: 0355-073
Project Name: Bryant Building

	Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1.	SS01-A	WD46A	13-2958	Sediment	02/11/13 10:15	02/11/13 15:35
2.	SS01-B	WD46B	13-2959	Sediment	02/11/13 11:00	02/11/13 15:35
3.	SS01-C	WD46C	13-2960	Sediment	02/11/13 11:15	02/11/13 15:35
4.	SS02-A	WD46D	13-2961	Sediment	02/11/13 11:50	02/11/13 15:35
5.	SS02-B	WD46E	13-2962	Sediment	02/11/13 12:15	02/11/13 15:35
6.	SS02-C	WD46F	13-2963	Sediment	02/11/13 12:30	02/11/13 15:35
7.	Trip Blanks	WD46G	13-2964	Water	02/11/13	02/11/13 15:35

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Data Reporting Qualifiers

Effective 2/14/2011

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
L	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
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.
Q	Indicates a detected analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20%Drift or minimum RRF).

S 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

NA The flagged analyte was not analyzed for

NR Spiked compound recovery is not reported due to chromatographic interference

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

M2 The sample contains PCB congeners that do not match any standard Aroclor pattern. The PCBs are identified and quantified as the Aroclor whose pattern most closely matches that of the sample. The reported value is an estimate.

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.

EMPC Estimated Maximum Possible Concentration (EMPC) defined in EPA Statement of Work DLM02.2 as a value "calculated for 2,3,7,8-substituted isomers for which the quantitation and /or confirmation ion(s) has signal to noise in excess of 2.5, but does not meet identification criteria" **(Dioxin/Furan analysis only)**

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

X Analyte signal includes interference from polychlorinated diphenyl ethers. **(Dioxin/Furan analysis only)**

Z Analyte signal includes interference from the sample matrix or perfluorokerosene ions **(Dioxin/Furan analysis only)**

Geotechnical Data

A	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.
F	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
SS	Sample did not contain the proportion of "fines" required to perform the pipette portion of the grain size analysis
W	Weight of sample in some pipette aliquots was below the level required for accurate weighting

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
TPHG by Method NWTPHG
Matrix: Sediment

Data Release Authorized: MW
Reported: 02/13/13

QC Report No: WD46-Sound Earth Strategies
Project: Bryant Building
Event: 0355-073
Date Sampled: 02/11/13
Date Received: 02/11/13

ARI ID	Client ID	Analysis Date	Basis	Range	Result
MB-021213	Method Blank	02/12/13	Dry	Gasoline	< 5.0 U
13-2958		PID1		HC ID	---
				Trifluorotoluene	89.2%
				Bromobenzene	91.7%
WD46A	SS01-A	02/12/13	Dry	Gasoline	< 130 U
13-2958		PID1		HC ID	---
				Trifluorotoluene	63.6%
				Bromobenzene	62.1%
WD46B	SS01-B	02/12/13	Dry	Gasoline	< 140 U
13-2959		PID1		HC ID	---
				Trifluorotoluene	64.2%
				Bromobenzene	60.8%
WD46C	SS01-C	02/12/13	Dry	Gasoline	< 97 U
13-2960		PID1		HC ID	---
				Trifluorotoluene	62.3%
				Bromobenzene	57.8%
WD46D	SS02-A	02/12/13	Dry	Gasoline	< 100 U
13-2961		PID1		HC ID	---
				Trifluorotoluene	55.7%
				Bromobenzene	51.5%
WD46E	SS02-B	02/12/13	Dry	Gasoline	< 41 U
13-2962		PID1		HC ID	---
				Trifluorotoluene	64.1%
				Bromobenzene	58.2%
WD46F	SS02-C	02/12/13	Dry	Gasoline	< 82 U
13-2963		PID1		HC ID	---
				Trifluorotoluene	43.1%
				Bromobenzene	38.1%

Gasoline values reported in mg/kg (ppm)

Quantitation on total peaks in the gasoline range from Toluene to Naphthalene.

GAS: Indicates the presence of gasoline or weathered gasoline.
GRO: Positive result that does not match an identifiable gasoline pattern.

Results corrected for soil moisture content per Section 11.10.5 of EPA Method 8000C.

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
TPHG by Method NWTPHG
Matrix: Water

Data Release Authorized:
Reported: 02/13/13

QC Report No: WD46-Sound Earth Strategies
Project: Bryant Building
Event: 0355-073
Date Sampled: 02/11/13
Date Received: 02/11/13

ARI ID	Client ID	Analysis Date	DL	Range	Result
WD46G	Trip Blanks	02/12/13	1.0	Gasoline	< 0.25 U
13-2964		PID1		HC ID	---
				Trifluorotoluene	90.3%
				Bromobenzene	91.7%

Gasoline values reported in mg/L (ppm)

Quantitation on total peaks in the gasoline range from Toluene to Naphthalene.

GAS: Indicates the presence of gasoline or weathered gasoline.
GRO: Positive result that does not match an identifiable gasoline pattern.

ANALYTICAL RESOURCES INCORPORATED

TPHG WATER SURROGATE RECOVERY SUMMARY

ARI Job: WD46
Matrix: Water

QC Report No: WD46-Sound Earth Strategies
Project: Bryant Building
Event: 0355-073

Client ID	TFT	BBZ	TOT OUT
Trip Blanks	90.3%	91.7%	0

	LCS/MB LIMITS	QC LIMITS
(TFT) = Trifluorotoluene	(80-120)	(80-120)
(BBZ) = Bromobenzene	(80-120)	(80-120)

Log Number Range: 13-2964 to 13-2964

ANALYTICAL RESOURCES INCORPORATED

TPHG SOIL SURROGATE RECOVERY SUMMARY

ARI Job: WD46
Matrix: Sediment

QC Report No: WD46-Sound Earth Strategies
Project: Bryant Building
Event: 0355-073

Client ID	BFB	TFT	BBZ	TOT OUT
MB-021213	NA	89.2%	91.7%	0
LCS-021213	NA	90.8%	89.8%	0
LCSD-021213	NA	89.6%	89.1%	0
SS01-A	NA	63.6%*	62.1%	1
SS01-B	NA	64.2%*	60.8%	1
SS01-C	NA	62.3%*	57.8%	1
SS02-A	NA	55.7%*	51.5%*	2
SS02-B	NA	64.1%*	58.2%	1
SS02-C	NA	43.1%*	38.1%*	2

	LCS/MB LIMITS	QC LIMITS
(TFT) = Trifluorotoluene	(80-120)	(65-128)
(BBZ) = Bromobenzene	(80-120)	(52-149)

Log Number Range: 13-2958 to 13-2963

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
TPHG by Method NWTPHG
Page 1 of 1

Sample ID: LCS-021213
LAB CONTROL SAMPLE

Lab Sample ID: LCS-021213
LIMS ID: 13-2958
Matrix: Sediment
Data Release Authorized: MW
Reported: 02/13/13

QC Report No: WD46-Sound Earth Strategies
Project: Bryant Building
Event: 0355-073
Date Sampled: NA
Date Received: NA

Date Analyzed LCS: 02/12/13 10:52
LCSD: 02/12/13 11:21
Instrument/Analyst LCS: PID1/PKC
LCSD: PID1/PKC

Purge Volume: 5.0 mL

Sample Amount LCS: 100 mg-dry-wt
LCSD: 100 mg-dry-wt

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Gasoline Range Hydrocarbons	48.6	50.0	97.2%	46.6	50.0	93.2%	4.2%

Reported in mg/kg (ppm)

RPD calculated using sample concentrations per SW846.

TPHG Surrogate Recovery

	LCS	LCSD
Trifluorotoluene	90.8%	89.6%
Bromobenzene	89.8%	89.1%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
TOTAL DIESEL RANGE HYDROCARBONS
NWTPHD by GC/FID-Silica and Acid Cleaned
Extraction Method: SW3546

QC Report No: WD46-Sound Earth Strategies
Project: Bryant Building
0355-073

Matrix: Sediment
Data Release Authorized: TW
Reported: 02/14/13

ARI ID	Sample ID	Extraction Date	Analysis Date	EFV DF	Range/Surrogate	RL	Result
MB-021213	Method Blank	02/12/13	02/13/13	1.00	Diesel Range	5.0	< 5.0 U
13-2958	HC ID: ---		FID4A	1.0	Motor Oil Range	10	< 10 U
					o-Terphenyl		99.9%
WD46A	SS01-A	02/12/13	02/13/13	1.00	**Diesel Range**	**44**	**150**
13-2958	HC ID: **DIESEL/MOTOR OIL**		FID4A	1.0	**Motor Oil Range**	**88**	**410**
					o-Terphenyl		71.8%
WD46B	SS01-B	02/12/13	02/13/13	1.00	**Diesel Range**	**48**	**91**
13-2959	HC ID: **DIESEL/MOTOR OIL**		FID4A	1.0	**Motor Oil Range**	**96**	**430**
					o-Terphenyl		73.8%
WD46C	SS01-C	02/12/13	02/13/13	1.00	**Diesel Range**	**34**	**110**
13-2960	HC ID: **DIESEL/MOTOR OIL**		FID4A	1.0	**Motor Oil Range**	**68**	**450**
					o-Terphenyl		66.5%
WD46D	SS02-A	02/12/13	02/13/13	1.00	**Diesel Range**	**36**	**170**
13-2961	HC ID: **DIESEL/MOTOR OIL**		FID4A	1.0	**Motor Oil Range**	**72**	**790**
					o-Terphenyl		76.8%
WD46E	SS02-B	02/12/13	02/13/13	1.00	**Diesel Range**	**16**	**160**
13-2962	HC ID: **DIESEL/MOTOR OIL**		FID4A	1.0	**Motor Oil Range**	**33**	**670**
					o-Terphenyl		85.7%
WD46F	SS02-C	02/12/13	02/13/13	1.00	**Diesel Range**	**300**	**460**
13-2963	HC ID: **DIESEL/MOTOR OIL**		FID4A	10	**Motor Oil Range**	**610**	**2300**
					o-Terphenyl		73.1%

Reported in mg/kg (ppm)

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

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

ANALYTICAL RESOURCES INCORPORATED

CLEANED TPHD SURROGATE RECOVERY SUMMARY

Matrix: Sediment

QC Report No: WD46-Sound Earth Strategies
Project: Bryant Building
0355-073

Client ID	OTER	TOT OUT
MB-021213	99.9%	0
LCS-021213	97.0%	0
LCSD-021213	94.4%	0
SS01-A	71.8%	0
SS01-B	73.8%	0
SS01-C	66.5%	0
SS02-A	76.8%	0
SS02-B	85.7%	0
SS02-C	73.1%	0

	LCS/MB LIMITS	QC LIMITS
(OTER) = o-Terphenyl	(50-150)	(50-150)

Prep Method: SW3546
Log Number Range: 13-2958 to 13-2963

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
NWTPHD by GC/FID-Silica and Acid Cleaned **Sample ID: LCS-021213**
Page 1 of 1 **LCS/LCSD**

Lab Sample ID: LCS-021213 QC Report No: WD46-Sound Earth Strategies
LIMS ID: 13-2958 Project: Bryant Building
Matrix: Sediment 0355-073
Data Release Authorized: Date Sampled: 02/11/13
Reported: 02/14/13 Date Received: 02/11/13

Date Extracted LCS/LCSD: 02/12/13 Sample Amount LCS: 10.0 g
LCSD: 10.0 g
Date Analyzed LCS: 02/13/13 14:32 Final Extract Volume LCS: 1.0 mL
LCSD: 02/13/13 14:53 LCSD: 1.0 mL
Instrument/Analyst LCS: FID/JLW Dilution Factor LCS: 1.0
LCSD: FID/JLW LCSD: 1.0

Range	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Diesel	126	150	84.0%	124	150	82.7%	1.6%

TPHD Surrogate Recovery

	LCS	LCSD
o-Terphenyl	97.0%	94.4%

Results reported in mg/kg
RPD calculated using sample concentrations per SW846.

ANALYTICAL RESOURCES INCORPORATED

TOTAL DIESEL RANGE HYDROCARBONS-EXTRACTION REPORT

ARI Job: WD46
Matrix: Sediment Project: Bryant Building
Date Received: 02/11/13 0355-073

ARI ID	Client ID	Client Amt	Final Vol	Basis	Prep Date
13-2958-021213MB1	Method Blank	10.0 g	1.00 mL	-	02/12/13
13-2958-021213LCS1	Lab Control	10.0 g	1.00 mL	-	02/12/13
13-2958-021213LCSD1	Lab Control Dup	10.0 g	1.00 mL	-	02/12/13
13-2958-WD46A	SS01-A	1.14 g	1.00 mL	D	02/12/13
13-2959-WD46B	SS01-B	1.04 g	1.00 mL	D	02/12/13
13-2960-WD46C	SS01-C	1.48 g	1.00 mL	D	02/12/13
13-2961-WD46D	SS02-A	1.38 g	1.00 mL	D	02/12/13
13-2962-WD46E	SS02-B	3.07 g	1.00 mL	D	02/12/13
13-2963-WD46F	SS02-C	1.65 g	1.00 mL	D	02/12/13

Basis: D=Dry Weight W=As Received

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PNAs by SIM SW8270D-SIM GC/MS **Sample ID: MB-021213**
Extraction Method: SW3546 **METHOD BLANK**

Lab Sample ID: MB-021213
LIMS ID: 13-2958
Matrix: Sediment
Data Release Authorized: MW
Reported: 02/15/13

QC Report No: WD46-Sound Earth Strategies
Project: Bryant Building
Event: 0355-073
Date Sampled: NA
Date Received: NA

Date Extracted: 02/12/13
Date Analyzed: 02/14/13 15:29
Instrument/Analyst: NT4/JZ
GPC Cleanup: No
Silica Gel Cleanup: Yes
Alumina Cleanup: No

Sample Amount: 10.00 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: NA

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	5.0	< 5.0 U
91-57-6	2-Methylnaphthalene	5.0	< 5.0 U
90-12-0	1-Methylnaphthalene	5.0	< 5.0 U
208-96-8	Acenaphthylene	5.0	< 5.0 U
83-32-9	Acenaphthene	5.0	< 5.0 U
86-73-7	Fluorene	5.0	< 5.0 U
85-01-8	Phenanthrene	5.0	< 5.0 U
120-12-7	Anthracene	5.0	< 5.0 U
206-44-0	Fluoranthene	5.0	< 5.0 U
129-00-0	Pyrene	5.0	< 5.0 U
56-55-3	Benzo(a)anthracene	5.0	< 5.0 U
218-01-9	Chrysene	5.0	< 5.0 U
205-99-2	Benzo(b)fluoranthene	5.0	< 5.0 U
207-08-9	Benzo(k)fluoranthene	5.0	< 5.0 U
50-32-8	Benzo(a)pyrene	5.0	< 5.0 U
193-39-5	Indeno(1,2,3-cd)pyrene	5.0	< 5.0 U
53-70-3	Dibenz(a,h)anthracene	5.0	< 5.0 U
191-24-2	Benzo(g,h,i)perylene	5.0	< 5.0 U
132-64-9	Dibenzofuran	5.0	< 5.0 U
TOTBFA	Total Benzofluoranthenes	5.0	< 5.0 U

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

d10-Fluoranthene	104%
d10-2-Methylnaphthalene	78.7%
d14-Dibenzo(a,h)anthracen	92.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PNAs by SIM SW8270D-SIM GC/MS **Sample ID: SS01-A**
Extraction Method: SW3546 **SAMPLE**

Lab Sample ID: WD46A
LIMS ID: 13-2958
Matrix: Sediment
Data Release Authorized: MW
Reported: 02/15/13

QC Report No: WD46-Sound Earth Strategies
Project: Bryant Building
Event: 0355-073
Date Sampled: 02/11/13
Date Received: 02/11/13

Date Extracted: 02/12/13
Date Analyzed: 02/14/13 16:51
Instrument/Analyst: NT4/JZ
GPC Cleanup: No
Silica Gel Cleanup: Yes
Alumina Cleanup: No

Sample Amount: 10.11 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 89.4%

CAS Number	Analyte	RL	Result	
91-20-3	Naphthalene	5.0	110	
91-57-6	2-Methylnaphthalene	5.0	54	
90-12-0	1-Methylnaphthalene	5.0	55	
208-96-8	Acenaphthylene	5.0	37	
83-32-9	Acenaphthene	5.0	30	
86-73-7	Fluorene	5.0	37	
85-01-8	Phenanthrene	5.0	400	
120-12-7	Anthracene	5.0	45	
206-44-0	Fluoranthene	5.0	570	E
129-00-0	Pyrene	5.0	520	E
56-55-3	Benzo(a)anthracene	5.0	170	
218-01-9	Chrysene	5.0	400	
205-99-2	Benzo(b)fluoranthene	5.0	300	
207-08-9	Benzo(k)fluoranthene	5.0	150	
50-32-8	Benzo(a)pyrene	5.0	230	
193-39-5	Indeno(1,2,3-cd)pyrene	5.0	160	
53-70-3	Dibenz(a,h)anthracene	5.0	43	
191-24-2	Benzo(g,h,i)perylene	5.0	190	
132-64-9	Dibenzofuran	5.0	30	
TOTBFA	Total Benzofluoranthenes	5.0	620	

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

d10-Fluoranthene	93.3%
d10-2-Methylnaphthalene	75.7%
d14-Dibenzo(a,h)anthracen	81.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PNAs by SIM SW8270D-SIM GC/MS **Sample ID: SS01-A**
Extraction Method: SW3546 **DILUTION**

Lab Sample ID: WD46A
LIMS ID: 13-2958
Matrix: Sediment
Data Release Authorized:
Reported: 02/15/13

QC Report No: WD46-Sound Earth Strategies
Project: Bryant Building
Event: 0355-073
Date Sampled: 02/11/13
Date Received: 02/11/13

Date Extracted: 02/12/13
Date Analyzed: 02/14/13 19:37
Instrument/Analyst: NT4/JZ
GPC Cleanup: No
Silica Gel Cleanup: Yes
Alumina Cleanup: No

Sample Amount: 10.11 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 3.00
Percent Moisture: 89.4%

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	15	120
91-57-6	2-Methylnaphthalene	15	54
90-12-0	1-Methylnaphthalene	15	62
208-96-8	Acenaphthylene	15	40
83-32-9	Acenaphthene	15	31
86-73-7	Fluorene	15	36
85-01-8	Phenanthrene	15	450
120-12-7	Anthracene	15	46
206-44-0	Fluoranthene	15	660
129-00-0	Pyrene	15	560
56-55-3	Benzo(a)anthracene	15	180
218-01-9	Chrysene	15	410
205-99-2	Benzo(b)fluoranthene	15	300
207-08-9	Benzo(k)fluoranthene	15	150
50-32-8	Benzo(a)pyrene	15	240
193-39-5	Indeno(1,2,3-cd)pyrene	15	130
53-70-3	Dibenz(a,h)anthracene	15	36
191-24-2	Benzo(g,h,i)perylene	15	150
132-64-9	Dibenzofuran	15	30
TOTBFA	Total Benzofluoranthenes	15	630

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

d10-Fluoranthene	97.0%
d10-2-Methylnaphthalene	80.0%
d14-Dibenzo(a,h)anthracen	66.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PNAs by SIM SW8270D-SIM GC/MS **Sample ID: SS01-B**
Extraction Method: SW3546 **SAMPLE**

Lab Sample ID: WD46B
LIMS ID: 13-2959
Matrix: Sediment
Data Release Authorized: MW
Reported: 02/15/13

QC Report No: WD46-Sound Earth Strategies
Project: Bryant Building
Event: 0355-073
Date Sampled: 02/11/13
Date Received: 02/11/13

Date Extracted: 02/12/13
Date Analyzed: 02/14/13 17:19
Instrument/Analyst: NT4/JZ
GPC Cleanup: No
Silica Gel Cleanup: Yes
Alumina Cleanup: No

Sample Amount: 10.12 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 90.0%

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	4.9	100
91-57-6	2-Methylnaphthalene	4.9	31
90-12-0	1-Methylnaphthalene	4.9	23
208-96-8	Acenaphthylene	4.9	26
83-32-9	Acenaphthene	4.9	19
86-73-7	Fluorene	4.9	24
85-01-8	Phenanthrene	4.9	140
120-12-7	Anthracene	4.9	29
206-44-0	Fluoranthene	4.9	310
129-00-0	Pyrene	4.9	280
56-55-3	Benzo(a)anthracene	4.9	120
218-01-9	Chrysene	4.9	230
205-99-2	Benzo(b)fluoranthene	4.9	190
207-08-9	Benzo(k)fluoranthene	4.9	87
50-32-8	Benzo(a)pyrene	4.9	150
193-39-5	Indeno(1,2,3-cd)pyrene	4.9	100
53-70-3	Dibenz(a,h)anthracene	4.9	27
191-24-2	Benzo(g,h,i)perylene	4.9	120
132-64-9	Dibenzofuran	4.9	14
TOTBFA	Total Benzofluoranthenes	4.9	380

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

d10-Fluoranthene	95.3%
d10-2-Methylnaphthalene	79.3%
d14-Dibenzo(a,h)anthracen	70.7%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PNAs by SIM SW8270D-SIM GC/MS **Sample ID: SS01-C**
Extraction Method: SW3546 **SAMPLE**

Lab Sample ID: WD46C
LIMS ID: 13-2960
Matrix: Sediment
Data Release Authorized: MW
Reported: 02/15/13

QC Report No: WD46-Sound Earth Strategies
Project: Bryant Building
Event: 0355-073
Date Sampled: 02/11/13
Date Received: 02/11/13

Date Extracted: 02/12/13
Date Analyzed: 02/14/13 17:47
Instrument/Analyst: NT4/JZ
GPC Cleanup: No
Silica Gel Cleanup: Yes
Alumina Cleanup: No

Sample Amount: 10.09 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 86.3%

CAS Number	Analyte	RL	Result	
91-20-3	Naphthalene	5.0	300	
91-57-6	2-Methylnaphthalene	5.0	90	
90-12-0	1-Methylnaphthalene	5.0	73	
208-96-8	Acenaphthylene	5.0	61	
83-32-9	Acenaphthene	5.0	71	
86-73-7	Fluorene	5.0	56	
85-01-8	Phenanthrene	5.0	420	
120-12-7	Anthracene	5.0	52	
206-44-0	Fluoranthene	5.0	560	E
129-00-0	Pyrene	5.0	500	E
56-55-3	Benzo(a)anthracene	5.0	180	
218-01-9	Chrysene	5.0	320	
205-99-2	Benzo(b)fluoranthene	5.0	240	
207-08-9	Benzo(k)fluoranthene	5.0	130	
50-32-8	Benzo(a)pyrene	5.0	230	
193-39-5	Indeno(1,2,3-cd)pyrene	5.0	120	
53-70-3	Dibenz(a,h)anthracene	5.0	38	
191-24-2	Benzo(g,h,i)perylene	5.0	140	
132-64-9	Dibenzofuran	5.0	40	
TOTBFA	Total Benzofluoranthenes	5.0	530	

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

d10-Fluoranthene	90.7%
d10-2-Methylnaphthalene	76.7%
d14-Dibenzo(a,h)anthracen	65.3%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PNAs by SIM SW8270D-SIM GC/MS **Sample ID: SS01-C**
Extraction Method: SW3546 **DILUTION**

Lab Sample ID: WD46C
LIMS ID: 13-2960
Matrix: Sediment
Data Release Authorized: MW
Reported: 02/15/13

QC Report No: WD46-Sound Earth Strategies
Project: Bryant Building
Event: 0355-073
Date Sampled: 02/11/13
Date Received: 02/11/13

Date Extracted: 02/12/13
Date Analyzed: 02/14/13 20:05
Instrument/Analyst: NT4/JZ
GPC Cleanup: No
Silica Gel Cleanup: Yes
Alumina Cleanup: No

Sample Amount: 10.09 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 3.00
Percent Moisture: 86.3%

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	15	310
91-57-6	2-Methylnaphthalene	15	92
90-12-0	1-Methylnaphthalene	15	70
208-96-8	Acenaphthylene	15	60
83-32-9	Acenaphthene	15	65
86-73-7	Fluorene	15	57
85-01-8	Phenanthrene	15	450
120-12-7	Anthracene	15	55
206-44-0	Fluoranthene	15	600
129-00-0	Pyrene	15	510
56-55-3	Benzo(a)anthracene	15	180
218-01-9	Chrysene	15	320
205-99-2	Benzo(b)fluoranthene	15	230
207-08-9	Benzo(k)fluoranthene	15	120
50-32-8	Benzo(a)pyrene	15	210
193-39-5	Indeno(1,2,3-cd)pyrene	15	100
53-70-3	Dibenz(a,h)anthracene	15	32
191-24-2	Benzo(g,h,i)perylene	15	120
132-64-9	Dibenzofuran	15	39
TOTBFA	Total Benzofluoranthenes	15	500

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

d10-Fluoranthene	91.0%
d10-2-Methylnaphthalene	74.0%
d14-Dibenzo(a,h)anthracen	47.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PNAs by SIM SW8270D-SIM GC/MS **Sample ID: SS02-A**
Extraction Method: SW3546 **SAMPLE**

Lab Sample ID: WD46D
LIMS ID: 13-2961
Matrix: Sediment
Data Release Authorized:
Reported: 02/15/13

QC Report No: WD46-Sound Earth Strategies
Project: Bryant Building
Event: 0355-073
Date Sampled: 02/11/13
Date Received: 02/11/13

Date Extracted: 02/12/13
Date Analyzed: 02/14/13 18:14
Instrument/Analyst: NT4/JZ
GPC Cleanup: No
Silica Gel Cleanup: Yes
Alumina Cleanup: No

Sample Amount: 10.08 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 87.1%

CAS Number	Analyte	RL	Result	
91-20-3	Naphthalene	5.0	130	
91-57-6	2-Methylnaphthalene	5.0	42	
90-12-0	1-Methylnaphthalene	5.0	31	
208-96-8	Acenaphthylene	5.0	24	
83-32-9	Acenaphthene	5.0	26	
86-73-7	Fluorene	5.0	32	
85-01-8	Phenanthrene	5.0	210	
120-12-7	Anthracene	5.0	46	
206-44-0	Fluoranthene	5.0	500	E
129-00-0	Pyrene	5.0	410	
56-55-3	Benzo(a)anthracene	5.0	200	
218-01-9	Chrysene	5.0	340	
205-99-2	Benzo(b)fluoranthene	5.0	300	
207-08-9	Benzo(k)fluoranthene	5.0	140	
50-32-8	Benzo(a)pyrene	5.0	240	
193-39-5	Indeno(1,2,3-cd)pyrene	5.0	120	
53-70-3	Dibenz(a,h)anthracene	5.0	34	
191-24-2	Benzo(g,h,i)perylene	5.0	140	
132-64-9	Dibenzofuran	5.0	18	
TOTBFA	Total Benzofluoranthenes	5.0	600	

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

d10-Fluoranthene	96.7%
d10-2-Methylnaphthalene	80.0%
d14-Dibenzo(a,h)anthracen	59.3%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PNAs by SIM SW8270D-SIM GC/MS **Sample ID: SS02-A**
Extraction Method: SW3546 **DILUTION**

Lab Sample ID: WD46D
LIMS ID: 13-2961
Matrix: Sediment
Data Release Authorized: MW
Reported: 02/15/13

QC Report No: WD46-Sound Earth Strategies
Project: Bryant Building
Event: 0355-073
Date Sampled: 02/11/13
Date Received: 02/11/13

Date Extracted: 02/12/13
Date Analyzed: 02/14/13 20:32
Instrument/Analyst: NT4/JZ
GPC Cleanup: No
Silica Gel Cleanup: Yes
Alumina Cleanup: No

Sample Amount: 10.08 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 3.00
Percent Moisture: 87.1%

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	15	130
91-57-6	2-Methylnaphthalene	15	46
90-12-0	1-Methylnaphthalene	15	34
208-96-8	Acenaphthylene	15	26
83-32-9	Acenaphthene	15	34
86-73-7	Fluorene	15	32
85-01-8	Phenanthrene	15	220
120-12-7	Anthracene	15	45
206-44-0	Fluoranthene	15	530
129-00-0	Pyrene	15	420
56-55-3	Benzo(a)anthracene	15	210
218-01-9	Chrysene	15	350
205-99-2	Benzo(b)fluoranthene	15	300
207-08-9	Benzo(k)fluoranthene	15	150
50-32-8	Benzo(a)pyrene	15	240
193-39-5	Indeno(1,2,3-cd)pyrene	15	120
53-70-3	Dibenz(a,h)anthracene	15	34
191-24-2	Benzo(g,h,i)perylene	15	150
132-64-9	Dibenzofuran	15	18
TOTBFA	Total Benzofluoranthenes	15	630

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

d10-Fluoranthene	97.0%
d10-2-Methylnaphthalene	82.0%
d14-Dibenzo(a,h)anthracen	54.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PNAs by SIM SW8270D-SIM GC/MS **Sample ID: SS02-B**
Extraction Method: SW3546 **SAMPLE**

Lab Sample ID: WD46E
LIMS ID: 13-2962
Matrix: Sediment
Data Release Authorized: MW
Reported: 02/15/13

QC Report No: WD46-Sound Earth Strategies
Project: Bryant Building
Event: 0355-073
Date Sampled: 02/11/13
Date Received: 02/11/13

Date Extracted: 02/12/13
Date Analyzed: 02/14/13 18:42
Instrument/Analyst: NT4/JZ
GPC Cleanup: No
Silica Gel Cleanup: Yes
Alumina Cleanup: No

Sample Amount: 10.33 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 71.0%

CAS Number	Analyte	RL	Result	
91-20-3	Naphthalene	4.8	260	
91-57-6	2-Methylnaphthalene	4.8	120	
90-12-0	1-Methylnaphthalene	4.8	87	
208-96-8	Acenaphthylene	4.8	54	
83-32-9	Acenaphthene	4.8	80	
86-73-7	Fluorene	4.8	120	
85-01-8	Phenanthrene	4.8	630	E
120-12-7	Anthracene	4.8	150	
206-44-0	Fluoranthene	4.8	1,000	ES
129-00-0	Pyrene	4.8	830	E
56-55-3	Benzo(a)anthracene	4.8	400	
218-01-9	Chrysene	4.8	670	E
205-99-2	Benzo(b)fluoranthene	4.8	490	E
207-08-9	Benzo(k)fluoranthene	4.8	220	
50-32-8	Benzo(a)pyrene	4.8	460	
193-39-5	Indeno(1,2,3-cd)pyrene	4.8	210	
53-70-3	Dibenz(a,h)anthracene	4.8	62	
191-24-2	Benzo(g,h,i)perylene	4.8	220	
132-64-9	Dibenzofuran	4.8	83	
TOTBFA	Total Benzofluoranthenes	4.8	1,000	

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

d10-Fluoranthene	91.3%
d10-2-Methylnaphthalene	72.7%
d14-Dibenzo(a,h)anthracen	67.7%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PNAs by SIM SW8270D-SIM GC/MS **Sample ID: SS02-B**
Extraction Method: SW3546 **DILUTION**

Lab Sample ID: WD46E
LIMS ID: 13-2962
Matrix: Sediment
Data Release Authorized: MW
Reported: 02/15/13

QC Report No: WD46-Sound Earth Strategies
Project: Bryant Building
Event: 0355-073
Date Sampled: 02/11/13
Date Received: 02/11/13

Date Extracted: 02/12/13
Date Analyzed: 02/14/13 21:00
Instrument/Analyst: NT4/JZ
GPC Cleanup: No
Silica Gel Cleanup: Yes
Alumina Cleanup: No

Sample Amount: 10.33 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 5.00
Percent Moisture: 71.0%

CAS Number	Analyte	RL	Result
91-20-3	Naphthalene	24	300
91-57-6	2-Methylnaphthalene	24	140
90-12-0	1-Methylnaphthalene	24	87
208-96-8	Acenaphthylene	24	59
83-32-9	Acenaphthene	24	85
86-73-7	Fluorene	24	130
85-01-8	Phenanthrene	24	760
120-12-7	Anthracene	24	160
206-44-0	Fluoranthene	24	1,300
129-00-0	Pyrene	24	970
56-55-3	Benzo(a)anthracene	24	420
218-01-9	Chrysene	24	740
205-99-2	Benzo(b)fluoranthene	24	530
207-08-9	Benzo(k)fluoranthene	24	270
50-32-8	Benzo(a)pyrene	24	490
193-39-5	Indeno(1,2,3-cd)pyrene	24	230
53-70-3	Dibenz(a,h)anthracene	24	62
191-24-2	Benzo(g,h,i)perylene	24	230
132-64-9	Dibenzofuran	24	86
TOTBFA	Total Benzofluoranthenes	24	1,100

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

d10-Fluoranthene	98.3%
d10-2-Methylnaphthalene	81.7%
d14-Dibenzo(a,h)anthracen	66.7%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PNAs by SIM SW8270D-SIM GC/MS **Sample ID: SS02-C**
Extraction Method: SW3546 **SAMPLE**

Lab Sample ID: WD46F
LIMS ID: 13-2963
Matrix: Sediment
Data Release Authorized: MW
Reported: 02/15/13

QC Report No: WD46-Sound Earth Strategies
Project: Bryant Building
Event: 0355-073
Date Sampled: 02/11/13
Date Received: 02/11/13

Date Extracted: 02/12/13
Date Analyzed: 02/14/13 19:09
Instrument/Analyst: NT4/JZ
GPC Cleanup: No
Silica Gel Cleanup: Yes
Alumina Cleanup: No

Sample Amount: 0.79 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 84.0%

CAS Number	Analyte	RL	Result	
91-20-3	Naphthalene	63	270	
91-57-6	2-Methylnaphthalene	63	130	
90-12-0	1-Methylnaphthalene	63	84	
208-96-8	Acenaphthylene	63	48	J
83-32-9	Acenaphthene	63	120	
86-73-7	Fluorene	63	160	
85-01-8	Phenanthrene	63	890	
120-12-7	Anthracene	63	170	
206-44-0	Fluoranthene	63	2,000	
129-00-0	Pyrene	63	1,700	
56-55-3	Benzo(a)anthracene	63	690	
218-01-9	Chrysene	63	1,300	
205-99-2	Benzo(b)fluoranthene	63	1,000	
207-08-9	Benzo(k)fluoranthene	63	440	
50-32-8	Benzo(a)pyrene	63	800	
193-39-5	Indeno(1,2,3-cd)pyrene	63	460	
53-70-3	Dibenz(a,h)anthracene	63	150	
191-24-2	Benzo(g,h,i)perylene	63	700	
132-64-9	Dibenzofuran	63	120	
TOTBFA	Total Benzofluoranthenes	63	2,100	

Reported in µg/kg (ppb)

SIM Semivolatile Surrogate Recovery

d10-Fluoranthene	100%
d10-2-Methylnaphthalene	78.7%
d14-Dibenzo(a,h)anthracen	67.3%

ANALYTICAL RESOURCES INCORPORATED

SIM SW8270 SURROGATE RECOVERY SUMMARY

Matrix: Sediment

QC Report No: WD46-Sound Earth Strategies
Project: Bryant Building
0355-073

Client ID	FLN	MNP	DBA	TOT OUT
MB-021213	104%	78.7%	92.0%	0
LCS-021213	94.0%	68.3%	90.0%	0
LCSD-021213	91.3%	68.7%	91.0%	0
SS01-A	93.3%	75.7%	81.0%	0
SS01-A DL	97.0%	80.0%	66.0%	0
SS01-B	95.3%	79.3%	70.7%	0
SS01-C	90.7%	76.7%	65.3%	0
SS01-C DL	91.0%	74.0%	47.0%	0
SS02-A	96.7%	80.0%	59.3%	0
SS02-A DL	97.0%	82.0%	54.0%	0
SS02-B	91.3%	72.7%	67.7%	0
SS02-B DL	98.3%	81.7%	66.7%	0
SS02-C	100%	78.7%	67.3%	0

	LCS/MB LIMITS	QC LIMITS
(FLN) = d10-Fluoranthene	(30-160)	(30-160)
(MNP) = d10-2-Methylnaphthalene	(35-100)	(34-100)
(DBA) = d14-Dibenzo(a,h)anthracene	(37-120)	(10-117)

Prep Method: SW3546
Log Number Range: 13-2958 to 13-2963

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PNAs by SW8270D-SIM GC/MS

Sample ID: LCS-021213
LAB CONTROL SAMPLE

Lab Sample ID: LCS-021213
LIMS ID: 13-2958
Matrix: Sediment
Data Release Authorized: MW
Reported: 02/15/13

QC Report No: WD46-Sound Earth Strategies
Project: Bryant Building
Event: 0355-073
Date Sampled: NA
Date Received: NA

Date Extracted: 02/12/13

Date Analyzed LCS: 02/14/13 15:56
LCSD: 02/14/13 16:24
Instrument/Analyst LCS: NT4/JZ
LCSD: NT4/JZ

Sample Amount LCS: 10.00 g-dry-wt
LCSD: 10.00 g-dry-wt
Final Extract Volume LCS: 0.50 mL
LCSD: 0.50 mL
Dilution Factor LCS: 1.00
LCSD: 1.00

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Naphthalene	74.8	150	49.9%	77.8	150	51.9%	3.9%
2-Methylnaphthalene	77.4	150	51.6%	82.1	150	54.7%	5.9%
1-Methylnaphthalene	76.8	150	51.2%	80.6	150	53.7%	4.8%
Acenaphthylene	74.4	150	49.6%	77.4	150	51.6%	4.0%
Acenaphthene	74.6	150	49.7%	76.4	150	50.9%	2.4%
Fluorene	83.6	150	55.7%	85.9	150	57.3%	2.7%
Phenanthrene	80.8	150	53.9%	86.8	150	57.9%	7.2%
Anthracene	90.7	150	60.5%	95.0	150	63.3%	4.6%
Fluoranthene	102	150	68.0%	102	150	68.0%	0.0%
Pyrene	93.2	150	62.1%	94.2	150	62.8%	1.1%
Benzo(a)anthracene	102	150	68.0%	104	150	69.3%	1.9%
Chrysene	99.1	150	66.1%	101	150	67.3%	1.9%
Benzo(b)fluoranthene	100	150	66.7%	101	150	67.3%	1.0%
Benzo(k)fluoranthene	95.8	150	63.9%	101	150	67.3%	5.3%
Benzo(a)pyrene	93.4	150	62.3%	96.8	150	64.5%	3.6%
Indeno(1,2,3-cd)pyrene	94.7	150	63.1%	100	150	66.7%	5.4%
Dibenz(a,h)anthracene	93.6	150	62.4%	97.4	150	64.9%	4.0%
Benzo(g,h,i)perylene	90.0	150	60.0%	93.3	150	62.2%	3.6%
Dibenzofuran	78.7	150	52.5%	80.1	150	53.4%	1.8%
Total Benzofluoranthenes	297	450	66.0%	298	450	66.2%	0.3%

Reported in µg/kg (ppb)

RPD calculated using sample concentrations per SW846.

SIM Semivolatile Surrogate Recovery

	LCS	LCSD
d10-Fluoranthene	94.0%	91.3%
d10-2-Methylnaphthalene	68.3%	68.7%
d14-Dibenzo(a,h)anthracen	90.0%	91.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: MB-021213**
Extraction Method: SW3546 **METHOD BLANK**

Lab Sample ID: MB-021213
LIMS ID: 13-2958
Matrix: Sediment
Data Release Authorized: MW
Reported: 02/18/13

QC Report No: WD46-Sound Earth Strategies
Project: Bryant Building
0355-073
Date Sampled: NA
Date Received: NA

Date Extracted: 02/12/13
Date Analyzed: 02/16/13 12:19
Instrument/Analyst: NT10/VTS
GPC Cleanup: Yes

Sample Amount: 10.00 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: NA

CAS Number	Analyte	RL	Result
108-95-2	Phenol	20	< 20 U
111-44-4	Bis-(2-Chloroethyl) Ether	20	< 20 U
95-57-8	2-Chlorophenol	20	< 20 U
541-73-1	1,3-Dichlorobenzene	20	< 20 U
106-46-7	1,4-Dichlorobenzene	20	< 20 U
100-51-6	Benzyl Alcohol	20	< 20 U
95-50-1	1,2-Dichlorobenzene	20	< 20 U
95-48-7	2-Methylphenol	20	< 20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20	< 20 U
106-44-5	4-Methylphenol	40	< 40 U
621-64-7	N-Nitroso-Di-N-Propylamine	20	< 20 U
67-72-1	Hexachloroethane	20	< 20 U
98-95-3	Nitrobenzene	20	< 20 U
78-59-1	Isophorone	20	< 20 U
88-75-5	2-Nitrophenol	100	< 100 U
105-67-9	2,4-Dimethylphenol	40	< 40 U
65-85-0	Benzoic Acid	400	< 400 U
111-91-1	bis(2-Chloroethoxy) Methane	20	< 20 U
120-83-2	2,4-Dichlorophenol	200	< 200 U
120-82-1	1,2,4-Trichlorobenzene	20	< 20 U
91-20-3	Naphthalene	20	< 20 U
106-47-8	4-Chloroaniline	270	< 270 U
87-68-3	Hexachlorobutadiene	20	< 20 U
59-50-7	4-Chloro-3-methylphenol	100	< 100 U
91-57-6	2-Methylnaphthalene	20	< 20 U
77-47-4	Hexachlorocyclopentadiene	400	< 400 U
88-06-2	2,4,6-Trichlorophenol	100	< 100 U
95-95-4	2,4,5-Trichlorophenol	100	< 100 U
91-58-7	2-Chloronaphthalene	20	< 20 U
88-74-4	2-Nitroaniline	100	< 100 U
131-11-3	Dimethylphthalate	20	< 20 U
208-96-8	Acenaphthylene	20	< 20 U
99-09-2	3-Nitroaniline	100	< 100 U
83-32-9	Acenaphthene	20	< 20 U
51-28-5	2,4-Dinitrophenol	850	< 850 U
100-02-7	4-Nitrophenol	100	< 100 U
132-64-9	Dibenzofuran	20	< 20 U

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: MB-021213**
Extraction Method: SW3546 **METHOD BLANK**

Lab Sample ID: MB-021213 QC Report No: WD46-Sound Earth Strategies
LIMS ID: 13-2958 Project: Bryant Building
Matrix: Sediment 0355-073
Date Analyzed: 02/16/13 12:19

CAS Number	Analyte	RL	Result
606-20-2	2,6-Dinitrotoluene	100	< 100 U
121-14-2	2,4-Dinitrotoluene	100	< 100 U
84-66-2	**Diethylphthalate**	**50**	**50**
7005-72-3	4-Chlorophenyl-phenylether	20	< 20 U
86-73-7	Fluorene	20	< 20 U
100-01-6	4-Nitroaniline	100	< 100 U
534-52-1	4,6-Dinitro-2-Methylphenol	200	< 200 U
86-30-6	N-Nitrosodiphenylamine	20	< 20 U
101-55-3	4-Bromophenyl-phenylether	20	< 20 U
118-74-1	Hexachlorobenzene	20	< 20 U
87-86-5	Pentachlorophenol	200	< 200 U
85-01-8	Phenanthrene	20	< 20 U
86-74-8	Carbazole	20	< 20 U
120-12-7	Anthracene	20	< 20 U
84-74-2	Di-n-Butylphthalate	20	< 20 U
206-44-0	Fluoranthene	20	< 20 U
129-00-0	Pyrene	20	< 20 U
85-68-7	Butylbenzylphthalate	20	< 20 U
91-94-1	3,3'-Dichlorobenzidine	150	< 150 U
56-55-3	Benzo(a)anthracene	20	< 20 U
117-81-7	bis(2-Ethylhexyl)phthalate	25	< 25 U
218-01-9	Chrysene	20	< 20 U
117-84-0	Di-n-Octyl phthalate	20	< 20 U
50-32-8	Benzo(a)pyrene	20	< 20 U
193-39-5	Indeno(1,2,3-cd)pyrene	20	< 20 U
53-70-3	Dibenz(a,h)anthracene	20	< 20 U
191-24-2	Benzo(g,h,i)perylene	20	< 20 U
90-12-0	1-Methylnaphthalene	20	< 20 U
TOTBFA	Total Benzofluoranthenes	40	< 40 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	86.2%	2-Fluorobiphenyl	89.6%
d14-p-Terphenyl	106%	d4-1,2-Dichlorobenzene	84.8%
d5-Phenol	75.9%	2-Fluorophenol	70.0%
2,4,6-Tribromophenol	83.9%	d4-2-Chlorophenol	76.9%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: SS01-A**
Extraction Method: SW3546 **SAMPLE**

Lab Sample ID: WD46A
LIMS ID: 13-2958
Matrix: Sediment
Data Release Authorized: MW
Reported: 02/18/13

QC Report No: WD46-Sound Earth Strategies
Project: Bryant Building
0355-073
Date Sampled: 02/11/13
Date Received: 02/11/13

Date Extracted: 02/12/13
Date Analyzed: 02/16/13 14:09
Instrument/Analyst: NT10/VTS
GPC Cleanup: Yes

Sample Amount: 10.08 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 2.00
Percent Moisture: 89.4%

CAS Number	Analyte	RL	Result
108-95-2	**Phenol**	**40**	**210**
111-44-4	Bis-(2-Chloroethyl) Ether	40	< 40 U
95-57-8	2-Chlorophenol	40	< 40 U
541-73-1	1,3-Dichlorobenzene	40	< 40 U
106-46-7	1,4-Dichlorobenzene	40	< 40 U
100-51-6	**Benzyl Alcohol**	**40**	**280**
95-50-1	1,2-Dichlorobenzene	40	< 40 U
95-48-7	2-Methylphenol	40	< 40 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	40	< 40 U
106-44-5	**4-Methylphenol**	**79**	**230**
621-64-7	N-Nitroso-Di-N-Propylamine	40	< 40 U
67-72-1	Hexachloroethane	40	< 40 U
98-95-3	Nitrobenzene	40	< 40 U
78-59-1	Isophorone	40	< 40 U
88-75-5	2-Nitrophenol	200	< 200 U
105-67-9	2,4-Dimethylphenol	79	< 79 U
65-85-0	**Benzoic Acid**	**790**	**1,900 Q**
111-91-1	bis(2-Chloroethoxy) Methane	40	< 40 U
120-83-2	2,4-Dichlorophenol	400	< 400 U
120-82-1	1,2,4-Trichlorobenzene	40	< 40 U
91-20-3	**Naphthalene**	**40**	**160**
106-47-8	4-Chloroaniline	540	< 540 U
87-68-3	Hexachlorobutadiene	40	< 40 U
59-50-7	4-Chloro-3-methylphenol	200	< 200 U
91-57-6	**2-Methylnaphthalene**	**40**	**62**
77-47-4	Hexachlorocyclopentadiene	790	< 790 U
88-06-2	2,4,6-Trichlorophenol	200	< 200 U
95-95-4	2,4,5-Trichlorophenol	200	< 200 U
91-58-7	2-Chloronaphthalene	40	< 40 U
88-74-4	2-Nitroaniline	200	< 200 U
131-11-3	Dimethylphthalate	40	< 40 U
208-96-8	**Acenaphthylene**	**40**	**69**
99-09-2	3-Nitroaniline	200	< 200 U
83-32-9	Acenaphthene	40	< 40 U
51-28-5	2,4-Dinitrophenol	1,700	< 1,700 U
100-02-7	4-Nitrophenol	200	< 200 U
132-64-9	Dibenzofuran	40	< 40 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: SS01-A**
Extraction Method: SW3546 **SAMPLE**

Lab Sample ID: WD46A QC Report No: WD46-Sound Earth Strategies
LIMS ID: 13-2958 Project: Bryant Building
Matrix: Sediment 0355-073
Date Analyzed: 02/16/13 14:09

CAS Number	Analyte	RL	Result
606-20-2	2,6-Dinitrotoluene	200	< 200 U
121-14-2	2,4-Dinitrotoluene	200	< 200 U
84-66-2	Diethylphthalate	99	< 99 U
7005-72-3	4-Chlorophenyl-phenylether	40	< 40 U
86-73-7	**Fluorene**	**40**	**44**
100-01-6	4-Nitroaniline	200	< 200 U
534-52-1	4,6-Dinitro-2-Methylphenol	400	< 400 U
86-30-6	N-Nitrosodiphenylamine	40	< 40 U
101-55-3	4-Bromophenyl-phenylether	40	< 40 U
118-74-1	Hexachlorobenzene	40	< 40 U
87-86-5	Pentachlorophenol	400	< 400 U
85-01-8	**Phenanthrene**	**40**	**470**
86-74-8	**Carbazole**	**40**	**62**
120-12-7	**Anthracene**	**40**	**66**
84-74-2	**Di-n-Butylphthalate**	**40**	**42**
206-44-0	**Fluoranthene**	**40**	**670**
129-00-0	**Pyrene**	**40**	**640**
85-68-7	**Butylbenzylphthalate**	**40**	**75**
91-94-1	3,3'-Dichlorobenzidine	300	< 300 U
56-55-3	**Benzo(a)anthracene**	**40**	**220**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**50**	**1,900**
218-01-9	**Chrysene**	**40**	**470**
117-84-0	Di-n-Octyl phthalate	40	< 40 U
50-32-8	**Benzo(a)pyrene**	**40**	**350**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**40**	**240**
53-70-3	**Dibenz(a,h)anthracene**	**40**	**100**
191-24-2	**Benzo(g,h,i)perylene**	**40**	**320**
90-12-0	**1-Methylnaphthalene**	**40**	**50**
TOTBFA	**Total Benzofluoranthenes**	**79**	**730**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	75.2%	2-Fluorobiphenyl	88.4%
d14-p-Terphenyl	90.0%	d4-1,2-Dichlorobenzene	72.0%
d5-Phenol	96.5%	2-Fluorophenol	66.9%
2,4,6-Tribromophenol	89.9%	d4-2-Chlorophenol	71.5%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: SS01-B**
Extraction Method: SW3546 **SAMPLE**

Lab Sample ID: WD46B
LIMS ID: 13-2959
Matrix: Sediment
Data Release Authorized: MW
Reported: 02/18/13

QC Report No: WD46-Sound Earth Strategies
Project: Bryant Building
0355-073
Date Sampled: 02/11/13
Date Received: 02/11/13

Date Extracted: 02/12/13
Date Analyzed: 02/15/13 13:46
Instrument/Analyst: NT10/VTS
GPC Cleanup: Yes

Sample Amount: 10.06 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 90.0%

CAS Number	Analyte	RL	Result
108-95-2	**Phenol**	**20**	**140**
111-44-4	Bis-(2-Chloroethyl) Ether	20	< 20 U
95-57-8	2-Chlorophenol	20	< 20 U
541-73-1	1,3-Dichlorobenzene	20	< 20 U
106-46-7	1,4-Dichlorobenzene	20	< 20 U
100-51-6	**Benzyl Alcohol**	**20**	**290**
95-50-1	1,2-Dichlorobenzene	20	< 20 U
95-48-7	**2-Methylphenol**	**20**	**20**
108-60-1	2,2'-Oxybis(1-Chloropropane)	20	< 20 U
106-44-5	**4-Methylphenol**	**40**	**280**
621-64-7	N-Nitroso-Di-N-Propylamine	20	< 20 U
67-72-1	Hexachloroethane	20	< 20 U
98-95-3	Nitrobenzene	20	< 20 U
78-59-1	**Isophorone**	**20**	**24**
88-75-5	2-Nitrophenol	99	< 99 U
105-67-9	2,4-Dimethylphenol	40	< 40 U
65-85-0	**Benzoic Acid**	**400**	**2,100**
111-91-1	bis(2-Chloroethoxy) Methane	20	< 20 U
120-83-2	2,4-Dichlorophenol	200	< 200 U
120-82-1	1,2,4-Trichlorobenzene	20	< 20 U
91-20-3	**Naphthalene**	**20**	**160**
106-47-8	4-Chloroaniline	270	< 270 U
87-68-3	Hexachlorobutadiene	20	< 20 U
59-50-7	4-Chloro-3-methylphenol	99	< 99 U
91-57-6	**2-Methylnaphthalene**	**20**	**44**
77-47-4	Hexachlorocyclopentadiene	400	< 400 U
88-06-2	2,4,6-Trichlorophenol	99	< 99 U
95-95-4	2,4,5-Trichlorophenol	99	< 99 U
91-58-7	2-Chloronaphthalene	20	< 20 U
88-74-4	2-Nitroaniline	99	< 99 U
131-11-3	Dimethylphthalate	20	< 20 U
208-96-8	**Acenaphthylene**	**20**	**41**
99-09-2	3-Nitroaniline	99	< 99 U
83-32-9	**Acenaphthene**	**20**	**26**
51-28-5	2,4-Dinitrophenol	840	< 840 U
100-02-7	4-Nitrophenol	99	< 99 U
132-64-9	**Dibenzofuran**	**20**	**26**

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: SS01-B**
Extraction Method: SW3546 **SAMPLE**

Lab Sample ID: WD46B
LIMS ID: 13-2959
Matrix: Sediment
Date Analyzed: 02/15/13 13:46

QC Report No: WD46-Sound Earth Strategies
Project: Bryant Building
0355-073

CAS Number	Analyte	RL	Result
606-20-2	2,6-Dinitrotoluene	99	< 99 U
121-14-2	2,4-Dinitrotoluene	99	< 99 U
84-66-2	Diethylphthalate	50	< 50 U
7005-72-3	4-Chlorophenyl-phenylether	20	< 20 U
86-73-7	**Fluorene**	**20**	**42**
100-01-6	4-Nitroaniline	99	< 99 U
534-52-1	4,6-Dinitro-2-Methylphenol	200	< 200 U
86-30-6	N-Nitrosodiphenylamine	20	< 20 U
101-55-3	4-Bromophenyl-phenylether	20	< 20 U
118-74-1	Hexachlorobenzene	20	< 20 U
87-86-5	Pentachlorophenol	200	< 200 U
85-01-8	**Phenanthrene**	**20**	**230**
86-74-8	**Carbazole**	**20**	**38**
120-12-7	**Anthracene**	**20**	**58**
84-74-2	Di-n-Butylphthalate	20	< 20 U
206-44-0	**Fluoranthene**	**20**	**380**
129-00-0	**Pyrene**	**20**	**360**
85-68-7	**Butylbenzylphthalate**	**20**	**110**
91-94-1	3,3'-Dichlorobenzidine	150	< 150 U
56-55-3	**Benzo(a)anthracene**	**20**	**140**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**25**	**1,900**
218-01-9	**Chrysene**	**20**	**340**
117-84-0	Di-n-Octyl phthalate	20	< 20 U
50-32-8	**Benzo(a)pyrene**	**20**	**220**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**20**	**82**
53-70-3	**Dibenz(a,h)anthracene**	**20**	**22**
191-24-2	**Benzo(g,h,i)perylene**	**20**	**110**
90-12-0	**1-Methylnaphthalene**	**20**	**27**
TOTBFA	**Total Benzofluoranthenes**	**40**	**460**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	84.0%	2-Fluorobiphenyl	85.6%
d14-p-Terphenyl	91.2%	d4-1,2-Dichlorobenzene	77.8%
d5-Phenol	92.4%	2-Fluorophenol	68.7%
2,4,6-Tribromophenol	88.3%	d4-2-Chlorophenol	75.1%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: SS01-C**
Extraction Method: SW3546 **SAMPLE**

Lab Sample ID: WD46C
LIMS ID: 13-2960
Matrix: Sediment
Data Release Authorized:
Reported: 02/18/13

QC Report No: WD46-Sound Earth Strategies
Project: Bryant Building
0355-073
Date Sampled: 02/11/13
Date Received: 02/11/13

Date Extracted: 02/12/13
Date Analyzed: 02/15/13 14:23
Instrument/Analyst: NT10/VTS
GPC Cleanup: Yes

Sample Amount: 10.06 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 86.3%

CAS Number	Analyte	RL	Result
108-95-2	**Phenol**	**20**	**160**
111-44-4	**Bis-(2-Chloroethyl) Ether**	**20**	**29**
95-57-8	2-Chlorophenol	20	< 20 U
541-73-1	1,3-Dichlorobenzene	20	< 20 U
106-46-7	1,4-Dichlorobenzene	20	< 20 U
100-51-6	**Benzyl Alcohol**	**20**	**210**
95-50-1	1,2-Dichlorobenzene	20	< 20 U
95-48-7	**2-Methylphenol**	**20**	**31**
108-60-1	2,2'-Oxybis(1-Chloropropane)	20	< 20 U
106-44-5	**4-Methylphenol**	**40**	**780**
621-64-7	N-Nitroso-Di-N-Propylamine	20	< 20 U
67-72-1	Hexachloroethane	20	< 20 U
98-95-3	Nitrobenzene	20	< 20 U
78-59-1	Isophorone	20	< 20 U
88-75-5	2-Nitrophenol	99	< 99 U
105-67-9	2,4-Dimethylphenol	40	< 40 U
65-85-0	**Benzoic Acid**	**400**	**1,100**
111-91-1	bis(2-Chloroethoxy) Methane	20	< 20 U
120-83-2	2,4-Dichlorophenol	200	< 200 U
120-82-1	1,2,4-Trichlorobenzene	20	< 20 U
91-20-3	**Naphthalene**	**20**	**440**
106-47-8	4-Chloroaniline	270	< 270 U
87-68-3	Hexachlorobutadiene	20	< 20 U
59-50-7	4-Chloro-3-methylphenol	99	< 99 U
91-57-6	**2-Methylnaphthalene**	**20**	**130**
77-47-4	Hexachlorocyclopentadiene	400	< 400 U
88-06-2	2,4,6-Trichlorophenol	99	< 99 U
95-95-4	2,4,5-Trichlorophenol	99	< 99 U
91-58-7	2-Chloronaphthalene	20	< 20 U
88-74-4	2-Nitroaniline	99	< 99 U
131-11-3	**Dimethylphthalate**	**20**	**120**
208-96-8	**Acenaphthylene**	**20**	**100**
99-09-2	3-Nitroaniline	99	< 99 U
83-32-9	**Acenaphthene**	**20**	**96**
51-28-5	2,4-Dinitrophenol	840	< 840 U
100-02-7	4-Nitrophenol	99	< 99 U
132-64-9	**Dibenzofuran**	**20**	**75**

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: SS01-C**
Extraction Method: SW3546 **SAMPLE**

Lab Sample ID: WD46C QC Report No: WD46-Sound Earth Strategies
LIMS ID: 13-2960 Project: Bryant Building
Matrix: Sediment 0355-073
Date Analyzed: 02/15/13 14:23

CAS Number	Analyte	RL	Result
606-20-2	2,6-Dinitrotoluene	99	< 99 U
121-14-2	2,4-Dinitrotoluene	99	< 99 U
84-66-2	Diethylphthalate	50	< 50 U
7005-72-3	4-Chlorophenyl-phenylether	20	< 20 U
86-73-7	**Fluorene**	**20**	**92**
100-01-6	4-Nitroaniline	99	< 99 U
534-52-1	4,6-Dinitro-2-Methylphenol	200	< 200 U
86-30-6	N-Nitrosodiphenylamine	20	< 20 U
101-55-3	4-Bromophenyl-phenylether	20	< 20 U
118-74-1	Hexachlorobenzene	20	< 20 U
87-86-5	Pentachlorophenol	200	< 200 U
85-01-8	**Phenanthrene**	**20**	**1,000**
86-74-8	**Carbazole**	**20**	**92**
120-12-7	**Anthracene**	**20**	**110**
84-74-2	**Di-n-Butylphthalate**	**20**	**49**
206-44-0	**Fluoranthene**	**20**	**990**
129-00-0	**Pyrene**	**20**	**930**
85-68-7	**Butylbenzylphthalate**	**20**	**73**
91-94-1	3,3'-Dichlorobenzidine	150	< 150 U
56-55-3	**Benzo(a)anthracene**	**20**	**290**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**25**	**1,600**
218-01-9	**Chrysene**	**20**	**560**
117-84-0	**Di-n-Octyl phthalate**	**20**	**220**
50-32-8	**Benzo(a)pyrene**	**20**	**450**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**20**	**180**
53-70-3	**Dibenz(a,h)anthracene**	**20**	**34**
191-24-2	**Benzo(g,h,i)perylene**	**20**	**180**
90-12-0	**1-Methylnaphthalene**	**20**	**120**
TOTBFA	**Total Benzofluoranthenes**	**40**	**810**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	78.2%	2-Fluorobiphenyl	89.2%
d14-p-Terphenyl	91.8%	d4-1,2-Dichlorobenzene	76.0%
d5-Phenol	91.3%	2-Fluorophenol	68.1%
2,4,6-Tribromophenol	92.1%	d4-2-Chlorophenol	74.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: SS02-A**
Extraction Method: SW3546 **SAMPLE**

Lab Sample ID: WD46D
LIMS ID: 13-2961
Matrix: Sediment
Data Release Authorized: MW
Reported: 02/18/13

QC Report No: WD46-Sound Earth Strategies
Project: Bryant Building
0355-073
Date Sampled: 02/11/13
Date Received: 02/11/13

Date Extracted: 02/12/13
Date Analyzed: 02/15/13 15:00
Instrument/Analyst: NT10/VTS
GPC Cleanup: Yes

Sample Amount: 10.09 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 87.1%

CAS Number	Analyte	RL	Result
108-95-2	**Phenol**	**20**	**75**
111-44-4	**Bis-(2-Chloroethyl) Ether**	**20**	**21**
95-57-8	2-Chlorophenol	20	< 20 U
541-73-1	1,3-Dichlorobenzene	20	< 20 U
106-46-7	1,4-Dichlorobenzene	20	< 20 U
100-51-6	**Benzyl Alcohol**	**20**	**71**
95-50-1	1,2-Dichlorobenzene	20	< 20 U
95-48-7	2-Methylphenol	20	< 20 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	20	< 20 U
106-44-5	**4-Methylphenol**	**40**	**220**
621-64-7	N-Nitroso-Di-N-Propylamine	20	< 20 U
67-72-1	Hexachloroethane	20	< 20 U
98-95-3	Nitrobenzene	20	< 20 U
78-59-1	Isophorone	20	< 20 U
88-75-5	2-Nitrophenol	99	< 99 U
105-67-9	2,4-Dimethylphenol	40	< 40 U
65-85-0	**Benzoic Acid**	**400**	**550**
111-91-1	bis(2-Chloroethoxy) Methane	20	< 20 U
120-83-2	2,4-Dichlorophenol	200	< 200 U
120-82-1	1,2,4-Trichlorobenzene	20	< 20 U
91-20-3	**Naphthalene**	**20**	**100**
106-47-8	4-Chloroaniline	270	< 270 U
87-68-3	Hexachlorobutadiene	20	< 20 U
59-50-7	4-Chloro-3-methylphenol	99	< 99 U
91-57-6	**2-Methylnaphthalene**	**20**	**40**
77-47-4	Hexachlorocyclopentadiene	400	< 400 U
88-06-2	2,4,6-Trichlorophenol	99	< 99 U
95-95-4	2,4,5-Trichlorophenol	99	< 99 U
91-58-7	2-Chloronaphthalene	20	< 20 U
88-74-4	2-Nitroaniline	99	< 99 U
131-11-3	Dimethylphthalate	20	< 20 U
208-96-8	**Acenaphthylene**	**20**	**26**
99-09-2	3-Nitroaniline	99	< 99 U
83-32-9	**Acenaphthene**	**20**	**29**
51-28-5	2,4-Dinitrophenol	840	< 840 U
100-02-7	4-Nitrophenol	99	< 99 U
132-64-9	**Dibenzofuran**	**20**	**30**

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: SS02-A**
Extraction Method: SW3546 **SAMPLE**

Lab Sample ID: WD46D
LIMS ID: 13-2961
Matrix: Sediment
Date Analyzed: 02/15/13 15:00

QC Report No: WD46-Sound Earth Strategies
Project: Bryant Building
0355-073

CAS Number	Analyte	RL	Result
606-20-2	2,6-Dinitrotoluene	99	< 99 U
121-14-2	2,4-Dinitrotoluene	99	< 99 U
84-66-2	Diethylphthalate	50	< 50 U
7005-72-3	4-Chlorophenyl-phenylether	20	< 20 U
86-73-7	**Fluorene**	**20**	**38**
100-01-6	4-Nitroaniline	99	< 99 U
534-52-1	4,6-Dinitro-2-Methylphenol	200	< 200 U
86-30-6	N-Nitrosodiphenylamine	20	< 20 U
101-55-3	4-Bromophenyl-phenylether	20	< 20 U
118-74-1	Hexachlorobenzene	20	< 20 U
87-86-5	Pentachlorophenol	200	< 200 U
85-01-8	**Phenanthrene**	**20**	**250**
86-74-8	**Carbazole**	**20**	**36**
120-12-7	**Anthracene**	**20**	**49**
84-74-2	**Di-n-Butylphthalate**	**20**	**34**
206-44-0	**Fluoranthene**	**20**	**460**
129-00-0	**Pyrene**	**20**	**430**
85-68-7	**Butylbenzylphthalate**	**20**	**130**
91-94-1	3,3'-Dichlorobenzidine	150	< 150 U
56-55-3	**Benzo(a)anthracene**	**20**	**170**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**25**	**3,800 E**
218-01-9	**Chrysene**	**20**	**330**
117-84-0	Di-n-Octyl phthalate	20	< 20 U
50-32-8	**Benzo(a)pyrene**	**20**	**280**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**20**	**87**
53-70-3	Dibenz(a,h)anthracene	20	< 20 U
191-24-2	**Benzo(g,h,i)perylene**	**20**	**100**
90-12-0	**1-Methylnaphthalene**	**20**	**21**
TOTBFA	**Total Benzofluoranthenes**	**40**	**560**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	63.0%	2-Fluorobiphenyl	73.6%
d14-p-Terphenyl	81.2%	d4-1,2-Dichlorobenzene	59.2%
d5-Phenol	71.9%	2-Fluorophenol	53.7%
2,4,6-Tribromophenol	77.3%	d4-2-Chlorophenol	58.8%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: SS02-A**
Extraction Method: SW3546 **DILUTION**

Lab Sample ID: WD46D
LIMS ID: 13-2961
Matrix: Sediment
Data Release Authorized: MW
Reported: 02/18/13

QC Report No: WD46-Sound Earth Strategies
Project: Bryant Building
0355-073
Date Sampled: 02/11/13
Date Received: 02/11/13

Date Extracted: 02/12/13
Date Analyzed: 02/16/13 14:45
Instrument/Analyst: NT10/VTS
GPC Cleanup: Yes

Sample Amount: 10.09 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 5.00
Percent Moisture: 87.1%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	99	< 99 U
111-44-4	Bis-(2-Chloroethyl) Ether	99	< 99 U
95-57-8	2-Chlorophenol	99	< 99 U
541-73-1	1,3-Dichlorobenzene	99	< 99 U
106-46-7	1,4-Dichlorobenzene	99	< 99 U
100-51-6	Benzyl Alcohol	99	< 99 U
95-50-1	1,2-Dichlorobenzene	99	< 99 U
95-48-7	2-Methylphenol	99	< 99 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	99	< 99 U
106-44-5	**4-Methylphenol**	**200**	**200**
621-64-7	N-Nitroso-Di-N-Propylamine	99	< 99 U
67-72-1	Hexachloroethane	99	< 99 U
98-95-3	Nitrobenzene	99	< 99 U
78-59-1	Isophorone	99	< 99 U
88-75-5	2-Nitrophenol	500	< 500 U
105-67-9	2,4-Dimethylphenol	200	< 200 U
65-85-0	Benzoic Acid	2,000	< 2,000 U
111-91-1	bis(2-Chloroethoxy) Methane	99	< 99 U
120-83-2	2,4-Dichlorophenol	990	< 990 U
120-82-1	1,2,4-Trichlorobenzene	99	< 99 U
91-20-3	**Naphthalene**	**99**	**99**
106-47-8	4-Chloroaniline	1,300	< 1,300 U
87-68-3	Hexachlorobutadiene	99	< 99 U
59-50-7	4-Chloro-3-methylphenol	500	< 500 U
91-57-6	2-Methylnaphthalene	99	< 99 U
77-47-4	Hexachlorocyclopentadiene	2,000	< 2,000 U
88-06-2	2,4,6-Trichlorophenol	500	< 500 U
95-95-4	2,4,5-Trichlorophenol	500	< 500 U
91-58-7	2-Chloronaphthalene	99	< 99 U
88-74-4	2-Nitroaniline	500	< 500 U
131-11-3	Dimethylphthalate	99	< 99 U
208-96-8	Acenaphthylene	99	< 99 U
99-09-2	3-Nitroaniline	500	< 500 U
83-32-9	Acenaphthene	99	< 99 U
51-28-5	2,4-Dinitrophenol	4,200	< 4,200 U
100-02-7	4-Nitrophenol	500	< 500 U
132-64-9	Dibenzofuran	99	< 99 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: SS02-A**
Extraction Method: SW3546 **DILUTION**

Lab Sample ID: WD46D
LIMS ID: 13-2961
Matrix: Sediment
Date Analyzed: 02/16/13 14:45

QC Report No: WD46-Sound Earth Strategies
Project: Bryant Building
0355-073

CAS Number	Analyte	RL	Result
606-20-2	2,6-Dinitrotoluene	500	< 500 U
121-14-2	2,4-Dinitrotoluene	500	< 500 U
84-66-2	Diethylphthalate	250	< 250 U
7005-72-3	4-Chlorophenyl-phenylether	99	< 99 U
86-73-7	Fluorene	99	< 99 U
100-01-6	4-Nitroaniline	500	< 500 U
534-52-1	4,6-Dinitro-2-Methylphenol	990	< 990 U
86-30-6	N-Nitrosodiphenylamine	99	< 99 U
101-55-3	4-Bromophenyl-phenylether	99	< 99 U
118-74-1	Hexachlorobenzene	99	< 99 U
87-86-5	Pentachlorophenol	990	< 990 U
85-01-8	**Phenanthrene**	**99**	**250**
86-74-8	Carbazole	99	< 99 U
120-12-7	Anthracene	99	< 99 U
84-74-2	Di-n-Butylphthalate	99	< 99 U
206-44-0	**Fluoranthene**	**99**	**440**
129-00-0	**Pyrene**	**99**	**410**
85-68-7	**Butylbenzylphthalate**	**99**	**150**
91-94-1	3,3'-Dichlorobenzidine	740	< 740 U
56-55-3	**Benzo(a)anthracene**	**99**	**180**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**120**	**3,800**
218-01-9	**Chrysene**	**99**	**320**
117-84-0	Di-n-Octyl phthalate	99	< 99 U
50-32-8	**Benzo(a)pyrene**	**99**	**250**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**99**	**180**
53-70-3	Dibenz(a,h)anthracene	99	< 99 U
191-24-2	**Benzo(g,h,i)perylene**	**99**	**250**
90-12-0	1-Methylnaphthalene	99	< 99 U
TOTBFA	**Total Benzofluoranthenes**	**200**	**500**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	65.0%	2-Fluorobiphenyl	73.0%
d14-p-Terphenyl	79.0%	d4-1,2-Dichlorobenzene	58.0%
d5-Phenol	71.3%	2-Fluorophenol	50.7%
2,4,6-Tribromophenol	72.0%	d4-2-Chlorophenol	56.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: SS02-B**
Extraction Method: SW3546 **SAMPLE**

Lab Sample ID: WD46E
LIMS ID: 13-2962
Matrix: Sediment
Data Release Authorized: MW
Reported: 02/18/13

QC Report No: WD46-Sound Earth Strategies
Project: Bryant Building
0355-073
Date Sampled: 02/11/13
Date Received: 02/11/13

Date Extracted: 02/12/13
Date Analyzed: 02/15/13 15:36
Instrument/Analyst: NT10/VTS
GPC Cleanup: Yes

Sample Amount: 10.42 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 71.0%

CAS Number	Analyte	RL	Result
108-95-2	**Phenol**	**19**	**120**
111-44-4	**Bis-(2-Chloroethyl) Ether**	**19**	**140**
95-57-8	2-Chlorophenol	19	< 19 U
541-73-1	1,3-Dichlorobenzene	19	< 19 U
106-46-7	**1,4-Dichlorobenzene**	**19**	**88**
100-51-6	**Benzyl Alcohol**	**19**	**280**
95-50-1	**1,2-Dichlorobenzene**	**19**	**250**
95-48-7	**2-Methylphenol**	**19**	**24**
108-60-1	**2,2'-Oxybis(1-Chloropropane)**	**19**	**120**
106-44-5	**4-Methylphenol**	**38**	**530**
621-64-7	N-Nitroso-Di-N-Propylamine	19	< 19 U
67-72-1	Hexachloroethane	19	< 19 U
98-95-3	Nitrobenzene	19	< 19 U
78-59-1	Isophorone	19	< 19 U
88-75-5	2-Nitrophenol	96	< 96 U
105-67-9	2,4-Dimethylphenol	38	< 38 U
65-85-0	**Benzoic Acid**	**380**	**730**
111-91-1	bis(2-Chloroethoxy) Methane	19	< 19 U
120-83-2	2,4-Dichlorophenol	190	< 190 U
120-82-1	1,2,4-Trichlorobenzene	19	< 19 U
91-20-3	**Naphthalene**	**19**	**350**
106-47-8	4-Chloroaniline	260	< 260 U
87-68-3	Hexachlorobutadiene	19	< 19 U
59-50-7	4-Chloro-3-methylphenol	96	< 96 U
91-57-6	**2-Methylnaphthalene**	**19**	**190**
77-47-4	Hexachlorocyclopentadiene	380	< 380 U
88-06-2	2,4,6-Trichlorophenol	96	< 96 U
95-95-4	2,4,5-Trichlorophenol	96	< 96 U
91-58-7	2-Chloronaphthalene	19	< 19 U
88-74-4	2-Nitroaniline	96	< 96 U
131-11-3	Dimethylphthalate	19	< 19 U
208-96-8	**Acenaphthylene**	**19**	**110**
99-09-2	3-Nitroaniline	96	< 96 U
83-32-9	**Acenaphthene**	**19**	**100**
51-28-5	2,4-Dinitrophenol	820	< 820 U
100-02-7	4-Nitrophenol	96	< 96 U
132-64-9	**Dibenzofuran**	**19**	**130**

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: SS02-B**
Extraction Method: SW3546 **SAMPLE**

Lab Sample ID: WD46E
LIMS ID: 13-2962
Matrix: Sediment
Date Analyzed: 02/15/13 15:36

QC Report No: WD46-Sound Earth Strategies
Project: Bryant Building
0355-073

CAS Number	Analyte	RL	Result
606-20-2	2,6-Dinitrotoluene	96	< 96 U
121-14-2	2,4-Dinitrotoluene	96	< 96 U
84-66-2	Diethylphthalate	48	< 48 U
7005-72-3	4-Chlorophenyl-phenylether	19	< 19 U
86-73-7	**Fluorene**	**19**	**190**
100-01-6	4-Nitroaniline	96	< 96 U
534-52-1	4,6-Dinitro-2-Methylphenol	190	< 190 U
86-30-6	N-Nitrosodiphenylamine	19	< 19 U
101-55-3	4-Bromophenyl-phenylether	19	< 19 U
118-74-1	Hexachlorobenzene	19	< 19 U
87-86-5	Pentachlorophenol	190	< 190 U
85-01-8	**Phenanthrene**	**19**	**1,300**
86-74-8	**Carbazole**	**19**	**170**
120-12-7	**Anthracene**	**19**	**280**
84-74-2	**Di-n-Butylphthalate**	**19**	**110**
206-44-0	**Fluoranthene**	**19**	**1,900 E**
129-00-0	**Pyrene**	**19**	**1,800**
85-68-7	Butylbenzylphthalate	19	< 19 U
91-94-1	3,3'-Dichlorobenzidine	140	< 140 U
56-55-3	**Benzo(a)anthracene**	**19**	**600**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**24**	**2,900 E**
218-01-9	**Chrysene**	**19**	**1,500**
117-84-0	Di-n-Octyl phthalate	19	< 19 U
50-32-8	**Benzo(a)pyrene**	**19**	**1,100**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**19**	**270**
53-70-3	**Dibenz(a,h)anthracene**	**19**	**52**
191-24-2	**Benzo(g,h,i)perylene**	**19**	**160**
90-12-0	**1-Methylnaphthalene**	**19**	**140**
TOTBFA	**Total Benzofluoranthenes**	**38**	**2,400**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	78.2%	2-Fluorobiphenyl	90.0%
d14-p-Terphenyl	98.2%	d4-1,2-Dichlorobenzene	78.4%
d5-Phenol	83.5%	2-Fluorophenol	69.1%
2,4,6-Tribromophenol	95.9%	d4-2-Chlorophenol	73.3%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: SS02-B**
Extraction Method: SW3546 **DILUTION**

Lab Sample ID: WD46E
LIMS ID: 13-2962
Matrix: Sediment
Data Release Authorized: MW
Reported: 02/18/13

QC Report No: WD46-Sound Earth Strategies
Project: Bryant Building
0355-073
Date Sampled: 02/11/13
Date Received: 02/11/13

Date Extracted: 02/12/13
Date Analyzed: 02/16/13 15:22
Instrument/Analyst: NT10/VTS
GPC Cleanup: Yes

Sample Amount: 10.42 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 5.00
Percent Moisture: 71.0%

CAS Number	Analyte	RL	Result
108-95-2	**Phenol**	**96**	**120**
111-44-4	**Bis-(2-Chloroethyl) Ether**	**96**	**130**
95-57-8	2-Chlorophenol	96	< 96 U
541-73-1	1,3-Dichlorobenzene	96	< 96 U
106-46-7	1,4-Dichlorobenzene	96	< 96 U
100-51-6	**Benzyl Alcohol**	**96**	**260**
95-50-1	**1,2-Dichlorobenzene**	**96**	**240**
95-48-7	2-Methylphenol	96	< 96 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	96	< 96 U
106-44-5	**4-Methylphenol**	**190**	**480**
621-64-7	N-Nitroso-Di-N-Propylamine	96	< 96 U
67-72-1	Hexachloroethane	96	< 96 U
98-95-3	Nitrobenzene	96	< 96 U
78-59-1	Isophorone	96	< 96 U
88-75-5	2-Nitrophenol	480	< 480 U
105-67-9	2,4-Dimethylphenol	190	< 190 U
65-85-0	Benzoic Acid	1,900	< 1,900 U
111-91-1	bis(2-Chloroethoxy) Methane	96	< 96 U
120-83-2	2,4-Dichlorophenol	960	< 960 U
120-82-1	1,2,4-Trichlorobenzene	96	< 96 U
91-20-3	**Naphthalene**	**96**	**360**
106-47-8	4-Chloroaniline	1,300	< 1,300 U
87-68-3	Hexachlorobutadiene	96	< 96 U
59-50-7	4-Chloro-3-methylphenol	480	< 480 U
91-57-6	**2-Methylnaphthalene**	**96**	**180**
77-47-4	Hexachlorocyclopentadiene	1,900	< 1,900 U
88-06-2	2,4,6-Trichlorophenol	480	< 480 U
95-95-4	2,4,5-Trichlorophenol	480	< 480 U
91-58-7	2-Chloronaphthalene	96	< 96 U
88-74-4	2-Nitroaniline	480	< 480 U
131-11-3	Dimethylphthalate	96	< 96 U
208-96-8	**Acenaphthylene**	**96**	**110**
99-09-2	3-Nitroaniline	480	< 480 U
83-32-9	**Acenaphthene**	**96**	**110**
51-28-5	2,4-Dinitrophenol	4,100	< 4,100 U
100-02-7	4-Nitrophenol	480	< 480 U
132-64-9	**Dibenzofuran**	**96**	**130**

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: SS02-B**
Extraction Method: SW3546 **DILUTION**

Lab Sample ID: WD46E
LIMS ID: 13-2962
Matrix: Sediment
Date Analyzed: 02/16/13 15:22

QC Report No: WD46-Sound Earth Strategies
Project: Bryant Building
0355-073

CAS Number	Analyte	RL	Result
606-20-2	2,6-Dinitrotoluene	480	< 480 U
121-14-2	2,4-Dinitrotoluene	480	< 480 U
84-66-2	Diethylphthalate	240	< 240 U
7005-72-3	4-Chlorophenyl-phenylether	96	< 96 U
86-73-7	**Fluorene**	**96**	**210**
100-01-6	4-Nitroaniline	480	< 480 U
534-52-1	4,6-Dinitro-2-Methylphenol	960	< 960 U
86-30-6	N-Nitrosodiphenylamine	96	< 96 U
101-55-3	4-Bromophenyl-phenylether	96	< 96 U
118-74-1	Hexachlorobenzene	96	< 96 U
87-86-5	Pentachlorophenol	960	< 960 U
85-01-8	**Phenanthrene**	**96**	**1,200**
86-74-8	**Carbazole**	**96**	**160**
120-12-7	**Anthracene**	**96**	**240**
84-74-2	**Di-n-Butylphthalate**	**96**	**100**
206-44-0	**Fluoranthene**	**96**	**1,900**
129-00-0	**Pyrene**	**96**	**1,600**
85-68-7	**Butylbenzylphthalate**	**96**	**200**
91-94-1	3,3'-Dichlorobenzidine	720	< 720 U
56-55-3	**Benzo(a)anthracene**	**96**	**660**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**120**	**3,000**
218-01-9	**Chrysene**	**96**	**1,400**
117-84-0	Di-n-Octyl phthalate	96	< 96 U
50-32-8	**Benzo(a)pyrene**	**96**	**840**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**96**	**540**
53-70-3	**Dibenz(a,h)anthracene**	**96**	**200**
191-24-2	**Benzo(g,h,i)perylene**	**96**	**620**
90-12-0	**1-Methylnaphthalene**	**96**	**120**
TOTBFA	**Total Benzofluoranthenes**	**190**	**1,700**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	82.0%	2-Fluorobiphenyl	91.0%
d14-p-Terphenyl	92.0%	d4-1,2-Dichlorobenzene	74.0%
d5-Phenol	80.7%	2-Fluorophenol	67.3%
2,4,6-Tribromophenol	88.7%	d4-2-Chlorophenol	74.7%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: SS02-C**
Extraction Method: SW3546 **SAMPLE**

Lab Sample ID: WD46F
LIMS ID: 13-2963
Matrix: Sediment
Data Release Authorized: MW
Reported: 02/18/13

QC Report No: WD46-Sound Earth Strategies
Project: Bryant Building
0355-073
Date Sampled: 02/11/13
Date Received: 02/11/13

Date Extracted: 02/12/13
Date Analyzed: 02/15/13 16:13
Instrument/Analyst: NT10/VTS
GPC Cleanup: Yes

Sample Amount: 2.55 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 1.00
Percent Moisture: 84.0%

CAS Number	Analyte	RL	Result
108-95-2	**Phenol**	**78**	**100**
111-44-4	Bis-(2-Chloroethyl) Ether	78	< 78 U
95-57-8	2-Chlorophenol	78	< 78 U
541-73-1	1,3-Dichlorobenzene	78	< 78 U
106-46-7	1,4-Dichlorobenzene	78	< 78 U
100-51-6	**Benzyl Alcohol**	**78**	**100**
95-50-1	1,2-Dichlorobenzene	78	< 78 U
95-48-7	2-Methylphenol	78	< 78 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	78	< 78 U
106-44-5	**4-Methylphenol**	**160**	**160**
621-64-7	N-Nitroso-Di-N-Propylamine	78	< 78 U
67-72-1	Hexachloroethane	78	< 78 U
98-95-3	Nitrobenzene	78	< 78 U
78-59-1	Isophorone	78	< 78 U
88-75-5	2-Nitrophenol	390	< 390 U
105-67-9	2,4-Dimethylphenol	160	< 160 U
65-85-0	Benzoic Acid	1,600	< 1,600 U
111-91-1	bis(2-Chloroethoxy) Methane	78	< 78 U
120-83-2	2,4-Dichlorophenol	780	< 780 U
120-82-1	1,2,4-Trichlorobenzene	78	< 78 U
91-20-3	**Naphthalene**	**78**	**130**
106-47-8	4-Chloroaniline	1,100	< 1,100 U
87-68-3	Hexachlorobutadiene	78	< 78 U
59-50-7	4-Chloro-3-methylphenol	390	< 390 U
91-57-6	**2-Methylnaphthalene**	**78**	**82**
77-47-4	Hexachlorocyclopentadiene	1,600	< 1,600 U
88-06-2	2,4,6-Trichlorophenol	390	< 390 U
95-95-4	2,4,5-Trichlorophenol	390	< 390 U
91-58-7	2-Chloronaphthalene	78	< 78 U
88-74-4	2-Nitroaniline	390	< 390 U
131-11-3	Dimethylphthalate	78	< 78 U
208-96-8	Acenaphthylene	78	< 78 U
99-09-2	3-Nitroaniline	390	< 390 U
83-32-9	**Acenaphthene**	**78**	**78**
51-28-5	2,4-Dinitrophenol	3,300	< 3,300 U
100-02-7	4-Nitrophenol	390	< 390 U
132-64-9	Dibenzofuran	78	< 78 U

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: SS02-C**
Extraction Method: SW3546 **SAMPLE**

Lab Sample ID: WD46F QC Report No: WD46-Sound Earth Strategies
LIMS ID: 13-2963 Project: Bryant Building
Matrix: Sediment 0355-073
Date Analyzed: 02/15/13 16:13

CAS Number	Analyte	RL	Result
606-20-2	2,6-Dinitrotoluene	390	< 390 U
121-14-2	2,4-Dinitrotoluene	390	< 390 U
84-66-2	Diethylphthalate	200	< 200 U
7005-72-3	4-Chlorophenyl-phenylether	78	< 78 U
86-73-7	**Fluorene**	**78**	**140**
100-01-6	4-Nitroaniline	390	< 390 U
534-52-1	4,6-Dinitro-2-Methylphenol	780	< 780 U
86-30-6	**N-Nitrosodiphenylamine**	**78**	**78**
101-55-3	4-Bromophenyl-phenylether	78	< 78 U
118-74-1	Hexachlorobenzene	78	< 78 U
87-86-5	Pentachlorophenol	780	< 780 U
85-01-8	**Phenanthrene**	**78**	**1,000**
86-74-8	**Carbazole**	**78**	**200**
120-12-7	**Anthracene**	**78**	**190**
84-74-2	**Di-n-Butylphthalate**	**78**	**140**
206-44-0	**Fluoranthene**	**78**	**2,300**
129-00-0	**Pyrene**	**78**	**2,400**
85-68-7	**Butylbenzylphthalate**	**78**	**450**
91-94-1	3,3'-Dichlorobenzidine	590	< 590 U
56-55-3	**Benzo(a)anthracene**	**78**	**670**
117-81-7	**bis(2-Ethylhexyl)phthalate**	**98**	**43,000 E**
218-01-9	**Chrysene**	**78**	**1,700**
117-84-0	Di-n-Octyl phthalate	78	< 78 U
50-32-8	**Benzo(a)pyrene**	**78**	**1,000**
193-39-5	**Indeno(1,2,3-cd)pyrene**	**78**	**260**
53-70-3	Dibenz(a,h)anthracene	78	< 78 U
191-24-2	**Benzo(g,h,i)perylene**	**78**	**200**
90-12-0	1-Methylnaphthalene	78	< 78 U
TOTBFA	**Total Benzofluoranthenes**	**160**	**3,000**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	82.8%	2-Fluorobiphenyl	95.2%
d14-p-Terphenyl	109%	d4-1,2-Dichlorobenzene	76.4%
d5-Phenol	74.1%	2-Fluorophenol	66.5%
2,4,6-Tribromophenol	104%	d4-2-Chlorophenol	71.9%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: SS02-C**
Extraction Method: SW3546 **DILUTION**

Lab Sample ID: WD46F
LIMS ID: 13-2963
Matrix: Sediment
Data Release Authorized:
Reported: 02/18/13

QC Report No: WD46-Sound Earth Strategies
Project: Bryant Building
0355-073
Date Sampled: 02/11/13
Date Received: 02/11/13

Date Extracted: 02/12/13
Date Analyzed: 02/16/13 15:58
Instrument/Analyst: NT10/VTS
GPC Cleanup: Yes

Sample Amount: 2.55 g-dry-wt
Final Extract Volume: 1.0 mL
Dilution Factor: 10.0
Percent Moisture: 84.0%

CAS Number	Analyte	RL	Result
108-95-2	Phenol	780	< 780 U
111-44-4	Bis-(2-Chloroethyl) Ether	780	< 780 U
95-57-8	2-Chlorophenol	780	< 780 U
541-73-1	1,3-Dichlorobenzene	780	< 780 U
106-46-7	1,4-Dichlorobenzene	780	< 780 U
100-51-6	Benzyl Alcohol	780	< 780 U
95-50-1	1,2-Dichlorobenzene	780	< 780 U
95-48-7	2-Methylphenol	780	< 780 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	780	< 780 U
106-44-5	4-Methylphenol	1,600	< 1,600 U
621-64-7	N-Nitroso-Di-N-Propylamine	780	< 780 U
67-72-1	Hexachloroethane	780	< 780 U
98-95-3	Nitrobenzene	780	< 780 U
78-59-1	Isophorone	780	< 780 U
88-75-5	2-Nitrophenol	3,900	< 3,900 U
105-67-9	2,4-Dimethylphenol	1,600	< 1,600 U
65-85-0	Benzoic Acid	16,000	< 16,000 U
111-91-1	bis(2-Chloroethoxy) Methane	780	< 780 U
120-83-2	2,4-Dichlorophenol	7,800	< 7,800 U
120-82-1	1,2,4-Trichlorobenzene	780	< 780 U
91-20-3	Naphthalene	780	< 780 U
106-47-8	4-Chloroaniline	11,000	< 11,000 U
87-68-3	Hexachlorobutadiene	780	< 780 U
59-50-7	4-Chloro-3-methylphenol	3,900	< 3,900 U
91-57-6	2-Methylnaphthalene	780	< 780 U
77-47-4	Hexachlorocyclopentadiene	16,000	< 16,000 U
88-06-2	2,4,6-Trichlorophenol	3,900	< 3,900 U
95-95-4	2,4,5-Trichlorophenol	3,900	< 3,900 U
91-58-7	2-Chloronaphthalene	780	< 780 U
88-74-4	2-Nitroaniline	3,900	< 3,900 U
131-11-3	Dimethylphthalate	780	< 780 U
208-96-8	Acenaphthylene	780	< 780 U
99-09-2	3-Nitroaniline	3,900	< 3,900 U
83-32-9	Acenaphthene	780	< 780 U
51-28-5	2,4-Dinitrophenol	33,000	< 33,000 U
100-02-7	4-Nitrophenol	3,900	< 3,900 U
132-64-9	Dibenzofuran	780	< 780 U

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: SS02-C**
Extraction Method: SW3546 **DILUTION**

Lab Sample ID: WD46F
LIMS ID: 13-2963
Matrix: Sediment
Date Analyzed: 02/16/13 15:58

QC Report No: WD46-Sound Earth Strategies
Project: Bryant Building
0355-073

CAS Number	Analyte	RL	Result
606-20-2	2,6-Dinitrotoluene	3,900	< 3,900 U
121-14-2	2,4-Dinitrotoluene	3,900	< 3,900 U
84-66-2	Diethylphthalate	2,000	< 2,000 U
7005-72-3	4-Chlorophenyl-phenylether	780	< 780 U
86-73-7	Fluorene	780	< 780 U
100-01-6	4-Nitroaniline	3,900	< 3,900 U
534-52-1	4,6-Dinitro-2-Methylphenol	7,800	< 7,800 U
86-30-6	N-Nitrosodiphenylamine	780	< 780 U
101-55-3	4-Bromophenyl-phenylether	780	< 780 U
118-74-1	Hexachlorobenzene	780	< 780 U
87-86-5	Pentachlorophenol	7,800	< 7,800 U
85-01-8	**Phenanthrene**	**780**	**860**
86-74-8	Carbazole	780	< 780 U
120-12-7	Anthracene	780	< 780 U
84-74-2	Di-n-Butylphthalate	780	< 780 U
206-44-0	**Fluoranthene**	**780**	**1,800**
129-00-0	**Pyrene**	**780**	**1,600**
85-68-7	Butylbenzylphthalate	780	< 780 U
91-94-1	3,3'-Dichlorobenzidine	5,900	< 5,900 U
56-55-3	Benzo(a)anthracene	780	< 780 U
117-81-7	**bis(2-Ethylhexyl)phthalate**	**980**	**28,000**
218-01-9	**Chrysene**	**780**	**1,200**
117-84-0	Di-n-Octyl phthalate	780	< 780 U
50-32-8	**Benzo(a)pyrene**	**780**	**860**
193-39-5	Indeno(1,2,3-cd)pyrene	780	< 780 U
53-70-3	Dibenz(a,h)anthracene	780	< 780 U
191-24-2	**Benzo(g,h,i)perylene**	**780**	**1,100**
90-12-0	1-Methylnaphthalene	780	< 780 U
TOTBFA	**Total Benzofluoranthenes**	**1,600**	**1,800**

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d5-Nitrobenzene	62.0%	2-Fluorobiphenyl	74.0%
d14-p-Terphenyl	86.0%	d4-1,2-Dichlorobenzene	58.0%
d5-Phenol	57.3%	2-Fluorophenol	54.7%
2,4,6-Tribromophenol	76.0%	d4-2-Chlorophenol	58.7%

ANALYTICAL RESOURCES INCORPORATED

SW8270 SEMIVOLATILES SOIL/SEDIMENT SURROGATE RECOVERY SUMMARY

Matrix: Sediment

QC Report No: WD46-Sound Earth Strategies
Project: Bryant Building
0355-073

Client ID	NBZ	FBP	TPH	DCB	PHL	2FP	TBP	2CP	TOT OUT
MB-021213	86.2%	89.6%	106%	84.8%	75.9%	70.0%	83.9%	76.9%	0
LCS-021213	87.0%	92.2%	102%	82.4%	81.3%	74.3%	88.8%	78.3%	0
LCSD-021213	83.0%	86.4%	102%	80.0%	78.1%	71.6%	82.0%	74.4%	0
SS01-A	75.2%	88.4%	90.0%	72.0%	96.5%	66.9%	89.9%	71.5%	0
SS01-B	84.0%	85.6%	91.2%	77.8%	92.4%	68.7%	88.3%	75.1%	0
SS01-C	78.2%	89.2%	91.8%	76.0%	91.3%	68.1%	92.1%	74.8%	0
SS02-A	63.0%	73.6%	81.2%	59.2%	71.9%	53.7%	77.3%	58.8%	0
SS02-A DL	65.0%	73.0%	79.0%	58.0%	71.3%	50.7%	72.0%	56.0%	0
SS02-B	78.2%	90.0%	98.2%	78.4%	83.5%	69.1%	95.9%	73.3%	0
SS02-B DL	82.0%	91.0%	92.0%	74.0%	80.7%	67.3%	88.7%	74.7%	0
SS02-C	82.8%	95.2%	109%	76.4%	74.1%	66.5%	104%	71.9%	0
SS02-C DL	62.0%	74.0%	86.0%	58.0%	57.3%	54.7%	76.0%	58.7%	0

	LCS/MB LIMITS	QC LIMITS
(NBZ) = d5-Nitrobenzene	(30-160)	(30-160)
(FBP) = 2-Fluorobiphenyl	(30-160)	(30-160)
(TPH) = d14-p-Terphenyl	(30-160)	(30-160)
(DCB) = d4-1,2-Dichlorobenzene	(30-160)	(30-160)
(PHL) = d5-Phenol	(30-160)	(30-160)
(2FP) = 2-Fluorophenol	(30-160)	(30-160)
(TBP) = 2,4,6-Tribromophenol	(30-160)	(30-160)
(2CP) = d4-2-Chlorophenol	(30-160)	(30-160)

Prep Method: SW3546
Log Number Range: 13-2958 to 13-2963

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: LCS-021213**
 LCS/LCSD

Lab Sample ID: LCS-021213 QC Report No: WD46-Sound Earth Strategies
LIMS ID: 13-2958 Project: Bryant Building
Matrix: Sediment 0355-073
Data Release Authorized: MW Date Sampled: 02/11/13
Reported: 02/18/13 Date Received: 02/11/13

Date Extracted LCS/LCSD: 02/12/13 Sample Amount LCS: 10.00 g
LCSD: 10.00 g
Date Analyzed LCS: 02/16/13 12:56 Final Extract Volume LCS: 1.0 mL
LCSD: 02/16/13 13:32 LCSD: 1.0 mL
Instrument/Analyst LCS: NT10/VTS Dilution Factor LCS: 1.00
LCSD: NT10/VTS LCSD: 1.00
GPC Cleanup: Yes Percent Moisture: NA

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Phenol	397	500	79.4%	385	500	77.0%	3.1%
Bis-(2-Chloroethyl) Ether	373	500	74.6%	364	500	72.8%	2.4%
2-Chlorophenol	358	500	71.6%	350	500	70.0%	2.3%
1,3-Dichlorobenzene	355	500	71.0%	344	500	68.8%	3.1%
1,4-Dichlorobenzene	357	500	71.4%	345	500	69.0%	3.4%
Benzyl Alcohol	377	500	75.4%	367	500	73.4%	2.7%
1,2-Dichlorobenzene	360	500	72.0%	345	500	69.0%	4.3%
2-Methylphenol	336	500	67.2%	328	500	65.6%	2.4%
2,2'-Oxybis(1-Chloropropane)	376	500	75.2%	349	500	69.8%	7.4%
4-Methylphenol	686	1000	68.6%	661	1000	66.1%	3.7%
N-Nitroso-Di-N-Propylamine	387	500	77.4%	374	500	74.8%	3.4%
Hexachloroethane	354	500	70.8%	336	500	67.2%	5.2%
Nitrobenzene	378	500	75.6%	370	500	74.0%	2.1%
Isophorone	396	500	79.2%	383	500	76.6%	3.3%
2-Nitrophenol	377	500	75.4%	366	500	73.2%	3.0%
2,4-Dimethylphenol	972	1500	64.8%	947	1500	63.1%	2.6%
Benzoic Acid	1340 Q	2750	48.7%	1350 Q	2750	49.1%	0.7%
bis(2-Chloroethoxy) Methane	394	500	78.8%	379	500	75.8%	3.9%
2,4-Dichlorophenol	1280	1500	85.3%	1120	1500	74.7%	13.3%
1,2,4-Trichlorobenzene	382	500	76.4%	375	500	75.0%	1.8%
Naphthalene	359	500	71.8%	347	500	69.4%	3.4%
4-Chloroaniline	531	1500	35.4%	579	1500	38.6%	8.6%
Hexachlorobutadiene	388	500	77.6%	373	500	74.6%	3.9%
4-Chloro-3-methylphenol	1270	1500	84.7%	1250	1500	83.3%	1.6%
2-Methylnaphthalene	398	500	79.6%	381	500	76.2%	4.4%
Hexachlorocyclopentadiene	645 Q	1500	43.0%	627 Q	1500	41.8%	2.8%
2,4,6-Trichlorophenol	1220	1500	81.3%	1180	1500	78.7%	3.3%
2,4,5-Trichlorophenol	1220	1500	81.3%	1150	1500	76.7%	5.9%
2-Chloronaphthalene	410	500	82.0%	385	500	77.0%	6.3%
2-Nitroaniline	1240	1500	82.7%	1190	1500	79.3%	4.1%
Dimethylphthalate	482	500	96.4%	451	500	90.2%	6.6%
Acenaphthylene	387	500	77.4%	370	500	74.0%	4.5%
3-Nitroaniline	1020	1500	68.0%	1050	1500	70.0%	2.9%
Acenaphthene	401	500	80.2%	384	500	76.8%	4.3%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PSDDA Semivolatiles by SW8270D GC/MS **Sample ID: LCSD-021213**
 LCS/LCSD

Lab Sample ID: LCS-021213 QC Report No: WD46-Sound Earth Strategies
LIMS ID: 13-2958 Project: Bryant Building
Matrix: Sediment 0355-073
Date Analyzed LCS: 02/16/13 12:56
LCSD: 02/16/13 13:32

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
2,4-Dinitrophenol	1450 Q	2750	52.7%	1420 Q	2750	51.6%	2.1%
4-Nitrophenol	1230	1500	82.0%	1220	1500	81.3%	0.8%
Dibenzofuran	408	500	81.6%	389	500	77.8%	4.8%
2,6-Dinitrotoluene	1330	1500	88.7%	1290	1500	86.0%	3.1%
2,4-Dinitrotoluene	1350	1500	90.0%	1300	1500	86.7%	3.8%
Diethylphthalate	557 BQ	500	111%	534 BQ	500	107%	4.2%
4-Chlorophenyl-phenylether	521	500	104%	502	500	100%	3.7%
Fluorene	405	500	81.0%	433	500	86.6%	6.7%
4-Nitroaniline	1200	1500	80.0%	1180	1500	78.7%	1.7%
4,6-Dinitro-2-Methylphenol	2120	2750	77.1%	2080	2750	75.6%	1.9%
N-Nitrosodiphenylamine	467	500	93.4%	441	500	88.2%	5.7%
4-Bromophenyl-phenylether	470	500	94.0%	454	500	90.8%	3.5%
Hexachlorobenzene	455	500	91.0%	437	500	87.4%	4.0%
Pentachlorophenol	691 Q	1500	46.1%	707 Q	1500	47.1%	2.3%
Phenanthrene	432	500	86.4%	413	500	82.6%	4.5%
Carbazole	599	500	120%	575	500	115%	4.1%
Anthracene	397	500	79.4%	392	500	78.4%	1.3%
Di-n-Butylphthalate	536	500	107%	535	500	107%	0.2%
Fluoranthene	462	500	92.4%	443	500	88.6%	4.2%
Pyrene	423	500	84.6%	428	500	85.6%	1.2%
Butylbenzylphthalate	531	500	106%	545	500	109%	2.6%
3,3'-Dichlorobenzidine	662	1500	44.1%	720	1500	48.0%	8.4%
Benzo(a)anthracene	428	500	85.6%	432	500	86.4%	0.9%
bis(2-Ethylhexyl)phthalate	480	500	96.0%	482	500	96.4%	0.4%
Chrysene	410	500	82.0%	431	500	86.2%	5.0%
Di-n-Octyl phthalate	458	500	91.6%	462	500	92.4%	0.9%
Benzo(a)pyrene	410	500	82.0%	406	500	81.2%	1.0%
Indeno(1,2,3-cd)pyrene	469	500	93.8%	467	500	93.4%	0.4%
Dibenz(a,h)anthracene	465	500	93.0%	467	500	93.4%	0.4%
Benzo(g,h,i)perylene	482	500	96.4%	474	500	94.8%	1.7%
1-Methylnaphthalene	414	500	82.8%	401	500	80.2%	3.2%
Total Benzofluoranthenes	866	1000	86.6%	850	1000	85.0%	1.9%

Semivolatile Surrogate Recovery

	LCS	LCSD
d5-Nitrobenzene	87.0%	83.0%
2-Fluorobiphenyl	92.2%	86.4%
d14-p-Terphenyl	102%	102%
d4-1,2-Dichlorobenzene	82.4%	80.0%
d5-Phenol	81.3%	78.1%
2-Fluorophenol	74.3%	71.6%
2,4,6-Tribromophenol	88.8%	82.0%
d4-2-Chlorophenol	78.3%	74.4%

Reported in µg/kg (ppb)
RPD calculated using sample concentrations per SW846.

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: SS01-A
SAMPLE

Lab Sample ID: WD46A
LIMS ID: 13-2958
Matrix: Sediment
Data Release Authorized:
Reported: 02/14/13

QC Report No: WD46-Sound Earth Strategies
Project: Bryant Building
0355-073
Date Sampled: 02/11/13
Date Received: 02/11/13

Percent Total Solids: 9.9%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/kg-dry	Q
3050B	02/12/13	200.8	02/13/13	**7440-38-2**	**Arsenic**	2	**17**	
3050B	02/12/13	200.8	02/13/13	**7440-43-9**	**Cadmium**	1	**3**	
3050B	02/12/13	200.8	02/13/13	**7440-47-3**	**Chromium**	5	**46**	
3050B	02/12/13	200.8	02/13/13	**7440-50-8**	**Copper**	5	**232**	
3050B	02/12/13	200.8	02/13/13	**7439-92-1**	**Lead**	1	**189**	
CLP	02/12/13	7471A	02/12/13	**7439-97-6**	**Mercury**	0.2	**0.5**	
3050B	02/12/13	200.8	02/13/13	**7440-02-0**	**Nickel**	5	**44**	
3050B	02/12/13	200.8	02/13/13	7782-49-2	Selenium	5	5	U
3050B	02/12/13	200.8	02/13/13	7440-22-4	Silver	2	2	U
3050B	02/12/13	6010C	02/13/13	**7440-66-6**	**Zinc**	10	**670**	

U-Analyte undetected at given LOQ
LOQ-Limit of Quantitation

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: SS01-A
DUPLICATE

Lab Sample ID: WD46A
LIMS ID: 13-2958
Matrix: Sediment
Data Release Authorized:
Reported: 02/14/13

QC Report No: WD46-Sound Earth Strategies
Project: Bryant Building
0355-073
Date Sampled: 02/11/13
Date Received: 02/11/13

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Arsenic	200.8	17	17	0.0%	+/- 20%	
Cadmium	200.8	3	3	0.0%	+/- 1	L
Chromium	200.8	46	45	2.2%	+/- 20%	
Copper	200.8	232	232	0.0%	+/- 20%	
Lead	200.8	189	186	1.6%	+/- 20%	
Mercury	7471A	0.5	0.4	22.2%	+/- 0.2	L
Nickel	200.8	44	42	4.7%	+/- 20%	
Selenium	200.8	5 U	5 U	0.0%	+/- 5	L
Silver	200.8	2 U	2 U	0.0%	+/- 2	L
Zinc	6010C	670	630	6.2%	+/- 20%	

Reported in mg/kg-dry

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: SS01-A
MATRIX SPIKE

Lab Sample ID: WD46A
LIMS ID: 13-2958
Matrix: Sediment
Data Release Authorized:
Reported: 02/14/13

QC Report No: WD46-Sound Earth Strategies
Project: Bryant Building
0355-073
Date Sampled: 02/11/13
Date Received: 02/11/13

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample		Spike	Spike Added	% Recovery	Q
Arsenic	200.8	17		276	238	109%	
Cadmium	200.8	3		246	238	102%	
Chromium	200.8	46		290	238	103%	
Copper	200.8	232		494	238	110%	
Lead	200.8	189		442	238	106%	
Mercury	7471A	0.5		2.8	2.04	113%	
Nickel	200.8	44		301	238	108%	
Selenium	200.8	5	U	793	763	104%	
Silver	200.8	2	U	243	238	102%	
Zinc	6010C	670		1,140	502	93.6%	

Reported in mg/kg-dry

N-Control Limit Not Met
H-% Recovery Not Applicable, Sample Concentration Too High
NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS **Sample ID: SS01-B**
Page 1 of 1 **SAMPLE**

Lab Sample ID: WD46B
LIMS ID: 13-2959
Matrix: Sediment
Data Release Authorized:
Reported: 02/14/13

QC Report No: WD46-Sound Earth Strategies
Project: Bryant Building
0355-073
Date Sampled: 02/11/13
Date Received: 02/11/13

Percent Total Solids: 9.6%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/kg-dry	Q
3050B	02/12/13	200.8	02/13/13	**7440-38-2**	**Arsenic**	2	**16**	
3050B	02/12/13	200.8	02/13/13	**7440-43-9**	**Cadmium**	1	**2**	
3050B	02/12/13	200.8	02/13/13	**7440-47-3**	**Chromium**	5	**47**	
3050B	02/12/13	200.8	02/13/13	**7440-50-8**	**Copper**	5	**239**	
3050B	02/12/13	200.8	02/13/13	**7439-92-1**	**Lead**	1	**190**	
CLP	02/12/13	7471A	02/12/13	**7439-97-6**	**Mercury**	0.2	**0.5**	
3050B	02/12/13	200.8	02/13/13	**7440-02-0**	**Nickel**	5	**44**	
3050B	02/12/13	200.8	02/13/13	7782-49-2	Selenium	5	5	U
3050B	02/12/13	200.8	02/13/13	7440-22-4	Silver	2	2	U
3050B	02/12/13	6010C	02/13/13	**7440-66-6**	**Zinc**	10	**580**	

U-Analyte undetected at given LOQ
LOQ-Limit of Quantitation

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: SS01-C
SAMPLE

Lab Sample ID: WD46C
LIMS ID: 13-2960
Matrix: Sediment
Data Release Authorized:
Reported: 02/14/13

QC Report No: WD46-Sound Earth Strategies
Project: Bryant Building
0355-073
Date Sampled: 02/11/13
Date Received: 02/11/13

Percent Total Solids: 12.1%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/kg-dry	Q
3050B	02/12/13	200.8	02/13/13	**7440-38-2**	**Arsenic**	2	**20**	
3050B	02/12/13	200.8	02/13/13	**7440-43-9**	**Cadmium**	0.8	**2.3**	
3050B	02/12/13	200.8	02/13/13	**7440-47-3**	**Chromium**	4	**44**	
3050B	02/12/13	200.8	02/13/13	**7440-50-8**	**Copper**	4	**311**	
3050B	02/12/13	200.8	02/13/13	**7439-92-1**	**Lead**	0.8	**218**	
CLP	02/12/13	7471A	02/12/13	**7439-97-6**	**Mercury**	0.2	**0.9**	
3050B	02/12/13	200.8	02/13/13	**7440-02-0**	**Nickel**	4	**42**	
3050B	02/12/13	200.8	02/13/13	7782-49-2	Selenium	4	4	U
3050B	02/12/13	200.8	02/13/13	7440-22-4	Silver	2	2	U
3050B	02/12/13	6010C	02/13/13	**7440-66-6**	**Zinc**	8	**600**	

U-Analyte undetected at given LOQ
LOQ-Limit of Quantitation

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: SS02-A
SAMPLE

Lab Sample ID: WD46D
LIMS ID: 13-2961
Matrix: Sediment
Data Release Authorized:
Reported: 02/14/13

QC Report No: WD46-Sound Earth Strategies
Project: Bryant Building
0355-073
Date Sampled: 02/11/13
Date Received: 02/11/13

Percent Total Solids: 12.4%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/kg-dry	Q
3050B	02/12/13	200.8	02/13/13	**7440-38-2**	**Arsenic**	2	**16**	
3050B	02/12/13	200.8	02/13/13	**7440-43-9**	**Cadmium**	0.8	**2.1**	
3050B	02/12/13	200.8	02/13/13	**7440-47-3**	**Chromium**	4	**51**	
3050B	02/12/13	200.8	02/13/13	**7440-50-8**	**Copper**	4	**237**	
3050B	02/12/13	200.8	02/13/13	**7439-92-1**	**Lead**	0.8	**235**	
CLP	02/12/13	7471A	02/12/13	**7439-97-6**	**Mercury**	0.2	**0.4**	
3050B	02/12/13	200.8	02/13/13	**7440-02-0**	**Nickel**	4	**42**	
3050B	02/12/13	200.8	02/13/13	7782-49-2	Selenium	4	4	U
3050B	02/12/13	200.8	02/13/13	7440-22-4	Silver	2	2	U
3050B	02/12/13	6010C	02/13/13	**7440-66-6**	**Zinc**	8	**556**	

U-Analyte undetected at given LOQ
LOQ-Limit of Quantitation

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: SS02-B
SAMPLE

Lab Sample ID: WD46E
LIMS ID: 13-2962
Matrix: Sediment
Data Release Authorized:
Reported: 02/14/13

QC Report No: WD46-Sound Earth Strategies
Project: Bryant Building
0355-073
Date Sampled: 02/11/13
Date Received: 02/11/13

Percent Total Solids: 26.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/kg-dry	Q
3050B	02/12/13	200.8	02/13/13	**7440-38-2**	**Arsenic**	0.7	**12.9**	
3050B	02/12/13	200.8	02/13/13	**7440-43-9**	**Cadmium**	0.4	**1.6**	
3050B	02/12/13	200.8	02/13/13	**7440-47-3**	**Chromium**	2	**39**	
3050B	02/12/13	200.8	02/13/13	**7440-50-8**	**Copper**	2	**154**	
3050B	02/12/13	200.8	02/13/13	**7439-92-1**	**Lead**	0.4	**266**	
CLP	02/12/13	7471A	02/12/13	**7439-97-6**	**Mercury**	0.07	**0.35**	
3050B	02/12/13	200.8	02/13/13	**7440-02-0**	**Nickel**	2	**32**	
3050B	02/12/13	200.8	02/13/13	7782-49-2	Selenium	2	2	U
3050B	02/12/13	200.8	02/13/13	**7440-22-4**	**Silver**	0.7	**57.9**	
3050B	02/12/13	6010C	02/13/13	**7440-66-6**	**Zinc**	4	**530**	

U-Analyte undetected at given LOQ
LOQ-Limit of Quantitation

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS **Sample ID: SS02-C**
Page 1 of 1 **SAMPLE**

Lab Sample ID: WD46F
LIMS ID: 13-2963
Matrix: Sediment
Data Release Authorized:
Reported: 02/14/13

QC Report No: WD46-Sound Earth Strategies
Project: Bryant Building
0355-073
Date Sampled: 02/11/13
Date Received: 02/11/13

Percent Total Solids: 15.6%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/kg-dry	Q
3050B	02/12/13	200.8	02/13/13	**7440-38-2**	**Arsenic**	1	**13**	
3050B	02/12/13	200.8	02/13/13	**7440-43-9**	**Cadmium**	0.6	**2.8**	
3050B	02/12/13	200.8	02/13/13	**7440-47-3**	**Chromium**	3	**60**	
3050B	02/12/13	200.8	02/13/13	**7440-50-8**	**Copper**	3	**357**	
3050B	02/12/13	200.8	02/13/13	**7439-92-1**	**Lead**	0.6	**313**	
CLP	02/12/13	7471A	02/12/13	**7439-97-6**	**Mercury**	0.1	**0.5**	
3050B	02/12/13	200.8	02/13/13	**7440-02-0**	**Nickel**	3	**42**	
3050B	02/12/13	200.8	02/13/13	7782-49-2	Selenium	3	3	U
3050B	02/12/13	200.8	02/13/13	7440-22-4	Silver	1	1	U
3050B	02/12/13	6010C	02/13/13	**7440-66-6**	**Zinc**	6	**1,100**	

U-Analyte undetected at given LOQ
LOQ-Limit of Quantitation

ANALYTICAL RESOURCES INCORPORATED

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

Lab Sample ID: WD46MB
LIMS ID: 13-2959
Matrix: Sediment
Data Release Authorized:
Reported: 02/14/13

QC Report No: WD46-Sound Earth Strategies
Project: Bryant Building
0355-073
Date Sampled: NA
Date Received: NA

Percent Total Solids: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/kg-dry	Q
3050B	02/12/13	200.8	02/13/13	7440-38-2	Arsenic	0.2	0.2	U
3050B	02/12/13	200.8	02/13/13	7440-43-9	Cadmium	0.1	0.1	U
3050B	02/12/13	200.8	02/13/13	7440-47-3	Chromium	0.5	0.5	U
3050B	02/12/13	200.8	02/13/13	7440-50-8	Copper	0.5	0.5	U
3050B	02/12/13	200.8	02/13/13	7439-92-1	Lead	0.1	0.1	U
CLP	02/12/13	7471A	02/12/13	7439-97-6	Mercury	0.02	0.02	U
3050B	02/12/13	200.8	02/13/13	7440-02-0	Nickel	0.5	0.5	U
3050B	02/12/13	200.8	02/13/13	7782-49-2	Selenium	0.5	0.5	U
3050B	02/12/13	200.8	02/13/13	7440-22-4	Silver	0.2	0.2	U
3050B	02/12/13	6010C	02/13/13	7440-66-6	Zinc	1	1	U

U-Analyte undetected at given LOQ
LOQ-Limit of Quantitation

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS **Sample ID: LAB CONTROL**

Lab Sample ID: WD46LCS
LIMS ID: 13-2959
Matrix: Sediment
Data Release Authorized:
Reported: 02/14/13

QC Report No: WD46-Sound Earth Strategies
Project: Bryant Building
0355-073
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Arsenic	200.8	27.0	25.0	108%	
Cadmium	200.8	25.8	25.0	103%	
Chromium	200.8	26.8	25.0	107%	
Copper	200.8	28.0	25.0	112%	
Lead	200.8	27.3	25.0	109%	
Mercury	7471A	0.53	0.50	106%	
Nickel	200.8	27.0	25.0	108%	
Selenium	200.8	83.2	80.0	104%	
Silver	200.8	26.3	25.0	105%	
Zinc	6010C	51	50	102%	

Reported in mg/kg-dry

N-Control limit not met
NA-Not Applicable, Analyte Not Spiked
Control Limits: 80-120%

SAMPLE RESULTS-CONVENTIONALS
WD46-Sound Earth Strategies

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 02/15/13

Project: Bryant Building
Event: 0355-073
Date Sampled: 02/11/13
Date Received: 02/11/13

Client ID: SS01-A
ARI ID: 13-2958 WD46A

Analyte	Date	Method	Units	RL	Sample
Total Solids	02/12/13 021213#1	SM2540B	Percent	0.01	10.30
Total Organic Carbon	02/15/13 021513#1	Plumb,1981	Percent	0.198	21.0

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
WD46-Sound Earth Strategies

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 02/15/13

Project: Bryant Building
Event: 0355-073
Date Sampled: 02/11/13
Date Received: 02/11/13

Client ID: SS01-B
ARI ID: 13-2959 WD46B

Analyte	Date	Method	Units	RL	Sample
Total Solids	02/12/13 021213#1	SM2540B	Percent	0.01	9.90
Total Organic Carbon	02/15/13 021513#1	Plumb,1981	Percent	0.198	35.6

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
WD46-Sound Earth Strategies

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 02/15/13

Project: Bryant Building
Event: 0355-073
Date Sampled: 02/11/13
Date Received: 02/11/13

Client ID: SS01-C
ARI ID: 13-2960 WD46C

Analyte	Date	Method	Units	RL	Sample
Total Solids	02/12/13 021213#1	SM2540B	Percent	0.01	12.70
Total Organic Carbon	02/15/13 021513#1	Plumb,1981	Percent	0.194	22.3

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
WD46-Sound Earth Strategies

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 02/15/13

Project: Bryant Building
Event: 0355-073
Date Sampled: 02/11/13
Date Received: 02/11/13

Client ID: SS02-A
ARI ID: 13-2961 WD46D

Analyte	Date	Method	Units	RL	Sample
Total Solids	02/12/13 021213#1	SM2540B	Percent	0.01	12.30
Total Organic Carbon	02/15/13 021513#1	Plumb,1981	Percent	0.200	48.4

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
WD46-Sound Earth Strategies

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 02/15/13

Project: Bryant Building
Event: 0355-073
Date Sampled: 02/11/13
Date Received: 02/11/13

Client ID: SS02-B
ARI ID: 13-2962 WD46E

Analyte	Date	Method	Units	RL	Sample
Total Solids	02/12/13 021213#1	SM2540B	Percent	0.01	28.10
Total Organic Carbon	02/15/13 021513#1	Plumb,1981	Percent	0.194	18.1

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
WD46-Sound Earth Strategies

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 02/15/13

Project: Bryant Building
Event: 0355-073
Date Sampled: 02/11/13
Date Received: 02/11/13

Client ID: SS02-C
ARI ID: 13-2963 WD46F

Analyte	Date	Method	Units	RL	Sample
Total Solids	02/12/13 021213#1	SM2540B	Percent	0.01	15.90
Total Organic Carbon	02/15/13 021513#1	Plumb,1981	Percent	0.200	34.3

RL Analytical reporting limit
U Undetected at reported detection limit

METHOD BLANK RESULTS-CONVENTIONALS
WD46-Sound Earth Strategies

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 02/15/13

Project: Bryant Building
Event: 0355-073
Date Sampled: NA
Date Received: NA

Analyte	Date	Units	Blank
Total Solids	02/12/13	Percent	< 0.01 U
Total Organic Carbon	02/15/13	Percent	< 0.020 U

LAB CONTROL RESULTS-CONVENTIONALS
WD46-Sound Earth Strategies

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 02/15/13

Project: Bryant Building
Event: 0355-073
Date Sampled: NA
Date Received: NA

Analyte/Method	QC ID	Date	Units	LCS	Spike Added	Recovery
Total Organic Carbon Plumb,1981	ICVL	02/15/13	Percent	0.093	0.100	93.0%

STANDARD REFERENCE RESULTS-CONVENTIONALS
WD46-Sound Earth Strategies

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 02/15/13

Project: Bryant Building
Event: 0355-073
Date Sampled: NA
Date Received: NA

Analyte/SRM ID	Date	Units	SRM	True Value	Recovery
Total Organic Carbon NIST 1941B	02/15/13	Percent	3.08	2.99	103.0%

REPLICATE RESULTS-CONVENTIONALS
WD46-Sound Earth Strategies

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 02/15/13

Project: Bryant Building
Event: 0355-073
Date Sampled: 02/11/13
Date Received: 02/11/13

Analyte	Date	Units	Sample	Replicate(s)	RPD/RSD
ARI ID: WD46A Client ID: SS01-A					
Total Solids	02/12/13	Percent	10.30	10.30 10.90	3.3%
Total Organic Carbon	02/15/13	Percent	21.0	17.4 17.2	11.5%

MS/MSD RESULTS-CONVENTIONALS
WD46-Sound Earth Strategies

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 02/15/13

Project: Bryant Building
Event: 0355-073
Date Sampled: 02/11/13
Date Received: 02/11/13

Analyte	Date	Units	Sample	Spike	Spike Added	Recovery
ARI ID: WD46A Client ID: SS01-A						
Total Organic Carbon	02/15/13	Percent	21.0	36.5	24.6	63.1%

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Client: Sound Earth Strategies	**ARI Job No.:** WD46
Client Project: Bryant Building	**Client Project No.:** 0355-073

Case Narrative

1. Six samples were submitted for grain size analysis according to Puget Sound Estuary Protocol (PSEP) methodology on February 12, 2013.
2. Moisture content was determined according to ASTM D2216.
3. The samples were run in a single batch and one sample from another job was chosen for triplicate analysis. The triplicate data is reported on the QA summary.
4. The samples contained woody or other organic matter which may have broken down during the sieving process, affecting the grain size analysis.
5. The data is provided in summary tables and plots.
6. There were no other noted anomalies in this project.

Released by: Christina Curtis *Technician* Date: 2/18/13

Reviewed by: Elizabeth Dobbs *Technician* Date: February 18, 2013

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GEOTECHNICAL ANALYSIS DATA SHEET
Moisture Content by Method ASTM D2216

ANALYTICAL RESOURCES INCORPORATED

Data Release Authorized: JC
Reported: 02/18/13
Date Received: 02/11/13
Page 1 of 1

QC Report No: WD46-Sound Earth Strategies
Project: Bryant Building
0355-073

Client/ ARI ID	Date Sampled	Matrix	Analysis Date	Result
SS01-B WD46B 13-2959	02/11/13	Sediment	02/13/13 09:30	899.40
SS01-C WD46C 13-2960	02/11/13	Sediment	02/13/13 09:30	606.89
SS02-A WD46D 13-2961	02/11/13	Sediment	02/13/13 09:30	720.08
SS02-B WD46E 13-2962	02/11/13	Sediment	02/13/13 09:30	237.51
SS02-C WD46F 13-2963	02/11/13	Sediment	02/13/13 09:30	544.18

Reported in Percent

Sound Earth Strategies
Bryant Building
0355-073

Apparent Grain Size Distribution Summary
Percent Finer Than Indicated Size

Sample No.	Gravel			Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Silt				Clay	
Phi Size	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10
Sieve Size (microns)	3/8"	#4 (4750)	#10 (2000)	#18 (1000)	#35 (500)	#60 (250)	#120 (125)	#230 (63)	31.00	15.60	7.80	3.90	2.00	1.00
WC26B	100.0	100.0	99.8	99.5	98.6	96 6	89.9	59.6	28.4	15.7	10.1	7.1	5.7	4.3
	100.0	100.0	99.3	99.0	98.0	96.0	88.5	59.2	28.6	15.4	9.8	7.2	5.3	4.2
	100.0	100.0	99.7	99.4	98.5	96.3	89.6	58.6	28.9	15.7	10.0	7.1	5.4	4.2
SS01-A	100.0	100.0	100.0	96.7	88.3	79.6	71.3	61.3	56.6	43.6	31.6	17.4	10.7	6.1
SS01-B	100.0	100.0	100.0	90.5	75.8	65.2	57.2	49.1	44.3	33.3	24.3	12.5	7.4	3.8
SS01-C	100.0	100.0	99.6	88.4	75.9	59.1	41.8	32.2	27.6	20.4	14.4	8.1	4.7	2.5
SS02-A	100.0	100.0	100.0	93.2	80.2	69.6	59.6	48.8	43.5	32.8	20.9	10.2	5.6	2.7
SS02-B	100.0	99.3	97.4	94.8	90.3	78.2	49.8	22.4	12.0	8.1	5.5	3.3	2.0	1.0
SS02-C	100.0	100.0	100.0	94.7	84.6	75.6	66.6	56.0	50.7	35.5	21.6	10.1	5.4	2.5

Notes to the Testing:

1. Organic matter was not removed prior to testing, thus the reported values are the "apparent" grain size distribution. See narrative for discussion of the testing.

WD46

Sound Earth Strategies
Bryant Building
0355-073

Apparent Grain Size Distribution Summary
Percent Retained in Each Size Fraction

Sample No.	Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Coarse Silt	Medium Silt	Fine Silt	Very Fine Silt	Clay			Total Fines
Phi Size	< -1	-1 to 0	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	> 10	> 4
Sieve Size (microns)	> #10 (2000)	10 to 18 (2000-1000)	18-35 (1000-500)	35-60 (500-250)	60-120 (250-125)	120-230 (125-62)	62 5-31 0	31 0-15 6	15 6-7.8	7.8-3.9	3 9-2 0	2.0-1.0	<1.0	<230 (<62)
WC26B	0.2	0.3	0.9	2 1	6.7	30.3	31.2	12.7	5.5	3.0	1.4	1.4	4.3	59.6
	0.7	0.4	0.9	2.1	7.4	29.4	30.6	13.2	5.5	2.7	1.9	1.1	4.2	59.2
	0.3	0.3	0.9	2.2	6.8	31.0	29.7	13.2	5.7	2.9	1.7	1.2	4.2	58.6
SS01-A	0.0	3.3	8.4	8.7	8.3	10.0	4.7	13.0	12.0	14.3	6.7	4.6	6.1	61.3
SS01-B	0.0	9.5	14.7	10.5	8.1	8.1	4.8	10.9	9.1	11.8	5.1	3.6	3.8	49.1
SS01-C	0.4	11.2	12.4	16.8	17.4	9.5	4.7	7.2	6.0	6.3	3.4	2.1	2.5	32.2
SS02-A	0.0	6.8	12.9	10.7	10.0	10.8	5.4	10.7	11.9	10.7	4.6	3.0	2.7	48.8
SS02-B	2.6	2.5	4.6	12.0	28.5	27.4	10.4	3.9	2.6	2.2	1.3	0.9	1.0	22.4
SS02-C	0.0	5.3	10.1	9.0	9.0	10.5	5.4	15.1	13.9	11.4	4.8	2.9	2.5	56.0

Notes to the Testing:

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QA SUMMARY

Client:	Sound Earth Strategies	Client Project:	Bryant Building
ARI Trip Sample ID	WC26B	Client Project No.:	0355-073
		Batch No :	WD46-1

Relative Standard Deviation, By Phi Size

Sample ID	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10
WC26B	100.0	100.0	99.8	99.5	98 6	96.6	89.9	59.6	28.4	15 7	10 1	7 1	5.7	4.3
	100 0	100.0	99.3	99.0	98.0	96.0	88.5	59.2	28.6	15.4	9 8	7 2	5.3	4.2
	100.0	100 0	99 7	99.4	98.5	96.3	89.6	58.6	28.9	15 7	10 0	7 1	5.4	4.2
AVE	NA	100.00	99.62	99.29	98 40	96.29	89 32	59 10	28.62	15 58	9.99	7.15	5 48	4.23
STDEV	NA	0.00	0.24	0.29	0.31	0.31	0.70	0.48	0.24	0 17	0 13	0.03	0 21	0.07
%RSD	NA	0.00	0 25	0 29	0.32	0 32	0.79	0.82	0.84	1.11	1.30	0.35	3 77	1.58

The Triplicate Applies To The Following Samples

Client ID	Date Sampled	Date Extracted	Date Complete	QA Ratio (95-105)	Data Qualifiers	Pipette Portion (5 0-25.0g)
WC26B	1/31/2013	2/6/2013	2/9/2013	102 7		15.8
	1/31/2013	2/6/2013	2/9/2013	102 3		15 8
	1/31/2013	2/6/2013	2/9/2013	103.3		15 4
SS01-A	2/11/2013	2/13/2013	2/16/2013	100.9		10 0
SS01-B	2/11/2013	2/13/2013	2/16/2013	99.9		7.5
SS01-C	2/11/2013	2/13/2013	2/16/2013	100 4		6.9
SS02-A	2/11/2013	2/13/2013	2/16/2013	101.7		9.0
SS02-B	2/11/2013	2/13/2013	2/16/2013	101 4		9.9
SS02-C	2/11/2013	2/13/2013	2/16/2013	101 6		13.4

* ARI Internal QA limits = 95-105%

Notes to the Testing:

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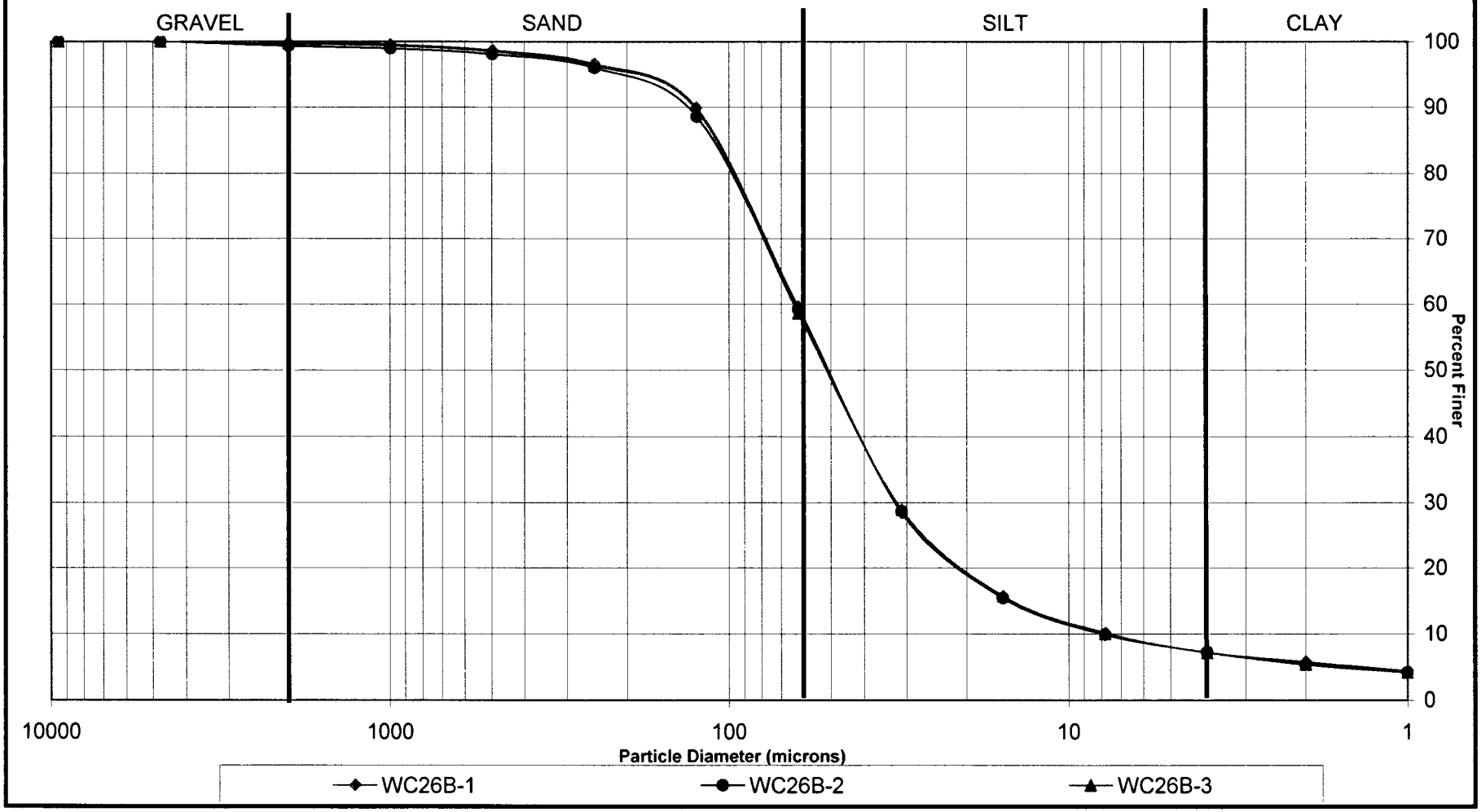
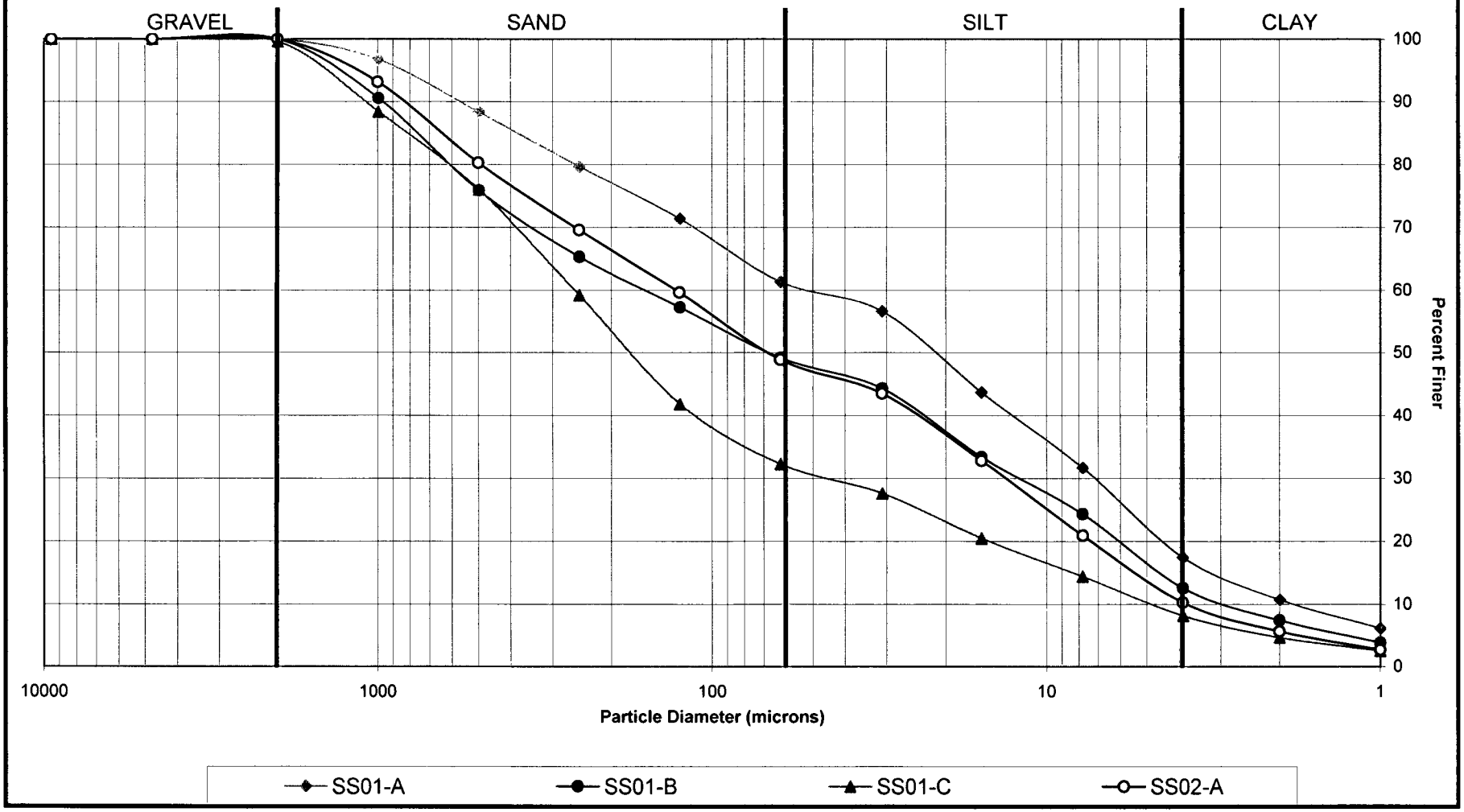
PSEP Grain Size Distribution

Triplicate Sample Plot



PSEP Grain Size Distribution



PSEP Grain Size Distribution