REMEDIAL INVESTIGATION REPORT

Block A & N, ESCI #5830

510 NW 3rd Avenue

Portland, Oregon

Prepared for:

Portland Development Commission
222 NW Fifth Avenue
Portland, Oregon 97209

Prepared by:

AMEC Environment & Infrastructure, Inc.
7376 SW Durham Road
Portland, Oregon 97224
(503) 639-3400

May 27, 2014

Project No. 4-61M-128331

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Portland Development Commission
222 NW Fifth Avenue
Portland, Oregon 97209

Attention: Mr. Colin Polk

Subject: Remedial Investigation Report
Block A & N, ECSI #5830
510 NW 3rd Avenue
Portland, Oregon

Dear Mr. Polk:

AMEC Environment & Infrastructure, Inc. (AMEC) is pleased to present this Remedial Investigation Report for the above-referenced property located in Portland, Oregon. Per your request, attached are two hard copies of the report. We have also sent a hard copy of the report directly to Shawn Rapp at the Oregon Department of Environmental Quality.

We appreciate the opportunity to serve you on this project. If you have any questions or desire further information, please feel free to contact the undersigned at (503) 639-3400.

Sincerely,

AMEC Environment & Infrastructure, Inc.

Leonard Farr Jr., RG
Senior Associate/Geologist

Attachments

LF/lp

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EXECUTIVE SUMMARY

AMEC Environment & Infrastructure, Inc. (AMEC) was retained by the Portland Development Commission (PDC) to complete a Remedial Investigation (RI) for the 0.77-acre property located at 510 NW 3rd Avenue, Portland, Oregon (Site). Consistent with Oregon Administrative Rules 340-122-080, the purpose of this RI is to develop information to determine the need for remedial action at the Site.

Background

The Site consists of a triangular shaped parcel at the northeast corner of the intersection of NW Glisan Street and NW 3rd Avenue. The Site was first developed between 1890 and 1906 as a railroad engine house and warehouse. A fire house was constructed on the Site in 1913 by the City of Portland, and operated until approximately 1953 when the Site was conveyed back to the Northern Pacific Terminal Company of Oregon (now known as Portland Terminal Railroad Company or PTRR). From 1953 to 1987, the Site building was used by PTRR as a carpenter shop and small office space. PDC acquired the Site on October 30, 1987. Under PDC ownership, the building was occupied as leased office space until 1997 and has been vacant thereafter. The Site has since been used for temporary construction staging. In September 2008 a portion of the Site (NW corner) was dedicated as an easement to TriMet for light rail use and a very small portion (southwest edge) dedicated for rail right-of-way. PDC intends to sell the property, with future development anticipated to consist of a new ground floor commercial/office building with potential upper floor office/residential, with external parking and landscaping. No subgrade parking is envisioned with future redevelopment.

Environmental assessment activities completed at the Site have included the following.

- A Phase I Environmental Site Assessment (ESA) completed by AMEC (formerly Rittenhouse Zeman and Associates, Inc. [RZA]) in January 1990.
- A Phase I ESA completed by Parametrix Inc. (Parametrix) in December 2005.
- A Phase II ESA completed by PBS Engineering + Environmental, Inc. (PBS) in 2010. This investigation included selective soil sampling in 14 direct push soil borings.
- The collection of confirmation soil samples by Parametrix following the decommissioning by removal of a 675-gallon heating oil tank by 3 Kings Environmental, Inc. in November 2013.
- A RI completed by AMEC in February 2014. This investigation included selective soil and groundwater sampling in five direct push borings.

AMEC completed a land use and beneficial use of water determination for the Site, and used this analysis in developing a conceptual site model. Potentially applicable risk-based concentrations (RBCs) were compared to hazardous substance concentrations detected in soil and groundwater at the Site to determine whether there is a need for remedial action at the Site.

Conclusions and Recommendations

RBC exceedances were noted for the following receptors and exposure pathways.

- Future urban residential receptors via direct contact with soil.
- Future occupational receptors via direct contact with soil.
- Future construction workers via direct contact with soil.

Based on the results of a beneficial use of water survey completed at the nearby Station Place property, groundwater ingestion was ruled-out as a complete exposure pathway for the Site. No RBCs exceedances for groundwater were noted for any other receptor exposure pathways.

Based upon the results of this RI, it appears that unacceptable risk to future urban residential, occupational, and construction worker receptors may result from direct contact exposure to soil at the Site. As a result, AMEC recommends that a focused feasibility study be completed that considers feasibility study outcomes for other vicinity properties (i.e., Station Place and The Yards at Union Station).

REMEDIAL INVESTIGATION REPORT
Block A & N, ECSI #5830
Portland, Oregon

1.0 INTRODUCTION

AMEC Environment & Infrastructure, Inc. (AMEC) has prepared this Remedial Investigation (RI) Report on behalf of the Portland Development Commission (PDC) in order to develop information to determine whether there is a need for remedial action at Block A & N (Site). The 0.77-acre Site is located at 510 NW 3rd Avenue in Portland, Oregon. PDC recently enrolled the Site into the Oregon Department of Environmental Quality (DEQ) Voluntary Cleanup Program.

2.0 SITE BACKGROUND

2.1 SITE LOCATION

The Site is located at 510 NW 3rd Avenue, Portland, Oregon as shown on Figure 1. The Site is comprised of tax lot 600 (0.77 acres) on Multnomah County tax assessment map 1N 1E 34BD. The latitude and longitude of the Site are 45.5271 degrees and -122.6729 degrees, respectively.

2.2 SITE DESCRIPTION AND HISTORY

The Site consists of a triangular shaped parcel at the northeast corner of the intersection of NW Glisan Street and NW 3rd Avenue. Immediately adjacent to the north is a railroad line; to the south is the base of the Steel Bridge. A railroad engine house and warehouse was located on the Site between 1890 and 1906 prior to sale of the property to the City of Portland for construction of the existing fire station building in 1913. The fire station building was occupied by the fire department until approximately 1950. The Site was conveyed back to the Northern Pacific Terminal Company of Oregon (now known as Portland Terminal Railroad Company or PTRR) in 1953. From 1953 to 1980 the building was used by PTRR as a carpenter shop, and was then converted to small office space.

PDC acquired the property on October 30, 1987 as part of a purchase from PTRR. Under PDC ownership, the building was occupied as leased office space until 1997 and has been vacant thereafter. The Site lot was used for temporary construction staging. In September 2008 a portion of the Site (NW corner) was dedicated as an easement to TriMet for light rail use and a very small portion (southwest edge) dedicated for rail right-of-way. PDC intends to sell the property with

future development anticipated to consist of a new ground floor commercial/office building with potential upper floor office/residential, with external parking and landscaping. No subgrade parking is envisioned with future redevelopment.

2.3 PREVIOUS INVESTIGATIONS

Two Phase I Environmental Site Assessments (ESAs) have been completed for the Site by AMEC (formerly Rittenhouse Zeman and Associates, Inc. [RZA]) in January 1990 and Parametrix, Inc. in December 2005. Both Phase I ESAs identified an underground heating oil tank (HOT) near the fire station building and historical railroad operations as potential areas/issues of concern. Parametrix recommended 1) a geophysical survey to locate the HOT, and investigation and decommissioning of the HOT (if present), and 2) a Site-wide Phase II ESA to investigate areas on the Site that may have been impacted by railroad operations and imported fill material.

In 2010, PBS Engineering + Environmental, Inc. conducted a Phase II ESA on the Site for PDC. One of four soil samples collected near the HOT contained diesel (8,370 milligrams per kilogram [mg/kg]) at 13 feet below ground surface (bgs). Petroleum hydrocarbons in the diesel and heavy oil range also were detected in soil samples collected from 8 of 17 borings located across the Site. Concentrations of polycyclic aromatic hydrocarbons (PAHs) exceeded DEQ risk-based concentrations (RBCs) for occupational direct contact in one sample. Arsenic concentrations ranged from 2.6 to 10.2 mg/kg, with three samples slightly exceeding the geographically applicable background concentration of 8.8 mg/kg.

PDC notified DEQ of the leaking HOT in January 2010, and leaking HOT file 26-10-0031 was initiated by the DEQ. In November 2013, the HOT was decommissioned by removal. In response to the receipt of the HOT Decommissioning Report prepared by 3 Kings Environmental, Inc., DEQ issued a no further action determination for the HOT on December 10, 2013.

3.0 ENVIRONMENTAL SETTING

3.1 CLIMATE INFORMATION

The average annual precipitation for the City of Portland is 37 inches. More than 70% of annual precipitation falls as rain between October and May. The average temperature in January, the coldest month, is 39 degrees Fahrenheit (°F). The average temperature in July, the hottest month, is 68°F.

3.2 TOPOGRAPHY

The elevation of the Site is approximately 31 feet above mean sea level. The land surface in the Site vicinity is generally flat, but does slope gently to the northeast toward the Willamette River.

3.3 SURFACE WATER HYDROLOGY

The Site building occupies the southwest corner of the Site. The remainder of the Site is covered by a pervious gravel surface. Building roof drains are connected to a City of Portland combined gravity main located on NW 3rd Avenue, which in turn connects to a combined gravity main located in NW Glisan Street. Precipitation that falls on the gravel-covered lot portion of the Site is presumed to infiltrate into the ground. Catch basins located in NW 3rd Avenue and NW Glisan Street drain to the same combined gravity main lines described above.

3.4 REGIONAL AND SITE GEOLOGY

3.4.1 Regional Geology

The general near-surface geology of the Site area consists of Quaternary alluvial soils and lacustrine deposits composed of clay, silt, sand, and gravels, typical bed features of a low-sinuosity river. The alluvium along the west bank of the Willamette River ranges in thickness from less than 50 to almost 100 feet.

Beneath Willamette River alluvium is the Troutdale Formation. The Troutdale Formation at this location is approximately 100 to 200 feet thick and consists of dense gravels and sands that are partially cemented in some areas. Gravel clasts within the Troutdale Formation are mostly Columbia River Basalt, with minor amounts of quartzite, granite, and metamorphic rocks. The Troutdale Formation is found at a depth of approximately 85 feet below ground surface (bgs) in the Site area.

3.4.2 Site Geology

During the subsurface exploration field sampling activities conducted at the Site by AMEC in February 2014, fill material comprised primarily of gravels, sands, and silt was encountered. Brick and wood debris was commonly observed in the fill materials. Fill thickness appeared to be more than 25 feet, which is the maximum depth explored at the Site by PBS and AMEC.

3.5 HYDROGEOLOGY

AMEC encountered groundwater in Site borings at a depth of approximately 10 to 15 feet bgs. Groundwater is presumed to flow to the northeast toward the Willamette River.

4.0 SITE INVESTIGATION

4.1 SITE CHARACTERIZATION PLAN

Following its review of prior environmental assessment results for the Site (PBS, 2010), AMEC prepared a Remedial Investigation/Feasibility Study (RI/FS) Work Plan for DEQ review and approval. The scope of Site characterization activities described in the work plan included:

- Soil sampling in the depth intervals 0 to 2.5 and 2.5 to 5 feet bgs in five soil borings, and testing of all soil samples for PAHs, and select soil samples for lead and arsenic.
- Groundwater sampling in three of the five borings, and testing of groundwater samples for PAHs and eight Resource Conservation and Recovery Act (RCRA) metals.

The work plan, dated October 4, 2013, was conditionally approved by the DEQ on December 18, 2013. The conditions of approval included the following:

- Soil samples should also be analyzed for Northwest Total Petroleum Hydrocarbons Hydrocarbon Identification Method (NWTPH-HCID), and quantified appropriately if they are detected.
- Groundwater samples should be analyzed for NWTPH-HCID, and quantified appropriately if they are detected. If hydrocarbons are detected, appropriate follow-up analyses should also be performed for gasoline constituents (volatile organic compound [VOCs] and PAHs).
- Groundwater samples should be analyzed for 13 priority pollutant metals.

4.2 SAMPLING METHODS

On February 25, 2014, an AMEC registered geologist performed field sampling activities at the Site. Sampling was conducted as described in the work plan and as amended by DEQ comments, with the following exceptions:

- The depth interval over which soil samples were collected varied from that described in the work plan as a result of poor sample recovery. Actual sample depth intervals are shown in

the boring logs provided in Appendix A, and in the sample identifications (IDs) provided in Tables 1 through 3.

The drilling investigation involved the collection of subsurface soil samples from five exploration locations (DP-1 through DP-5), and the collection of groundwater samples from three exploration locations (DP-1, DP-4, and DP-5). Approximate sampling locations are shown on Figure 2.

The subsurface investigation was conducted using direct-push drilling methods that minimized disturbance to the Site. Direct-push drilling was performed by Stratus, Inc., a licensed well driller in the State of Oregon. The direct-push sampling technique involves advancing a small diameter hollow rod into the subsurface using a hydraulically driven percussion hammer.

Soil borings were advanced to a maximum depth of 20 feet bgs. Soil samples were collected in 5-foot intervals from within each boring and classified according to the Unified Soil Classification System (USCS). The soil samples were field screened for the presence of VOCs using a photoionization detector (PID). An AMEC registered geologist logged the character of the soil encountered in addition to other observations (i.e., staining, odors, and PID readings). Selected soil samples were labeled, placed with ice in a cooler, and transported under chain-of-custody procedures to Apex Laboratories of Tigard, Oregon (Apex) for chemical analysis.

Following soil sampling and boring completion a temporary polyvinyl chloride (PVC) well was installed in the boring. Groundwater samples were collected from within the PVC screen and casing. Approximately 5 gallons of groundwater were purged prior to sample collection using a peristaltic pump. The interval screened during groundwater sampling was either 10 to 15 feet bgs (DP-1 and DP-5) or 10 to 20 feet bgs (DP-4).

Following the collection of soil and groundwater samples, temporary wells were removed and the borings permanently backfilled with bentonite chips, hydrated during placement with potable water, then capped at the surface with cold-patch asphalt if in a paved area. Soil cuttings and wastewater generated during drilling equipment decontamination were placed into a 55-gallon capacity steel drum, labeled, and staged on-Site. Following the receipt of laboratory testing data indicating that investigation-derived wastes were nonhazardous, the drum contents were solidified, and the drum was transported to the Hillsboro Landfill for disposal.

4.3 SAMPLING RESULTS

4.3.1 Soil Testing Results

A total of 10 soil samples were submitted for laboratory analysis. Methods utilized in testing soil samples included the following.

- Hydrocarbon Identification by method NWTPH-HCID.
- Diesel-range organics (DRO) and heavy oil-range organics (ORO) by method NWTPH-Dx.
- PAHs by United States Environmental Protection Agency (EPA) Method 8270D SIM.
- Lead and arsenic by EPA 6020 series methods.

Soil testing results are summarized in Tables 1 through 3. The laboratory analytical report is provided in Appendix B.

Petroleum Hydrocarbon Testing

Gasoline range organics were not detected in the ten soil samples analyzed by method NWTPH-HCID (Table 1). Diesel and/or oil range organics were detected in six of the ten soil samples analyzed by method NWTPH-HCID. Follow-up testing using method NWTPH-Dx indicated oil range hydrocarbons in all six soil samples tested at concentrations ranging from 388 mg/kg to 2,220 mg/kg. No DRO were detected in the six soil samples analyzed.

PAH Testing

PAHs were detected in all ten soil samples analyzed except DP-4_5-7.5 (Table 2). Individual PAH concentrations as high as 3.01 mg/kg were detected in soil samples.

Lead and Arsenic Testing

Lead and arsenic were detected in all four soil samples analyzed (Table 3). Individual lead and arsenic concentrations as high as 411 mg/kg and 9.66 mg/kg, respectively, were detected in soil samples.

4.3.2 Groundwater Testing Results

Three groundwater samples, collected from borings DP-1, DP-4, and DP-5, were submitted for analysis using the following test methods.

- Hydrocarbon Identification by method NWTPH-HCID.
- Gasoline range organics by method NWTPH-Gx

- DRO and ORO by method NWTPH-Dx.
- PAHs by EPA Method 8270D SIM.
- Priority pollutant metals by EPA 6020 series methods.

Groundwater testing results are summarized in Tables 4 through 6. The laboratory analytical report is provided in Appendix B.

Petroleum Hydrocarbon Testing

Gasoline range organics were detected in all three groundwater samples analyzed by method NWTPH-HCID (Table 4). However, the contract laboratory indicated that during HCID testing, gasoline range organics were detected in associated blanks at levels comparable to concentrations detected in the samples. Follow-up analysis by method NWTPH-Gx was conducted to confirm the presence/absence of gasoline range organics in the samples. Gasoline range organics were not detected in the samples.

Neither DRO nor ORO were detected in groundwater samples collected from borings DP-1 or DP-4. Testing by method NWTPH-HCID (Table 4) detected ORO in the groundwater sample collected from boring DP-5. However, oil range hydrocarbons were not detected during follow-up analysis by method NWTPH-Dx.

PAH Testing

PAHs were detected in groundwater samples collected from boring DP-1 and DP-4, but not DP-5 (Table 5). Individual PAH concentrations as high as 0.211 micrograms per liter (µg/L) were detected in groundwater samples.

Priority Pollutant Metals Testing

All metals were detected in one or more groundwater samples, and up to 13 metals were detected in individual groundwater samples. The metal concentrations detected are summarized in Table 6.

5.0 SOURCES, NATURE AND EXTENT OF CONTAMINATION

There are no known on-going sources of contamination present at the Site. The only historical potential point source of contamination was a HOT associated with the Site building. The nature and extent of contamination in the HOT area is described in Section 5.1 below, while the nature and extent of contamination in the remainder of the Site is described in Section 5.2.

5.1 HOT AREA

A 675-gallon HOT formerly was located in the southwest corner of the Site. The installation date of the HOT is unknown. The HOT was decommissioned by removal in November 2013. During decommissioning the HOT was noted to be in poor condition, with holes observed in the bottom of the tank. A total of 26.5 tons of petroleum-containing soil was excavated and transported to the Wasco County Landfill for disposal. Following tank and petroleum-containing soil removal, seven confirmation soil samples were collected from the base and sidewall of the HOT excavation (Table 1). The maximum diesel/oil concentration detected was 628 mg/kg. This concentration is well below the urban residential direct contact RBC of 2,200 mg/kg. This is the most conservative potentially applicable RBC for the Site. Based upon these testing results, it is clear that low level diesel containing soil remaining at the Site does not pose a risk to human health or the environment.

5.2 OTHER SITE AREAS

Soil and/or groundwater samples have been collected in 18 soil borings located across the Site (Figure 2). Testing of soil and groundwater samples focused on petroleum hydrocarbons, PAHs and metals as these contaminants are commonly associated with historical rail yards. As indicated in Tables 1 through 3, ORO, PAHs, and metals were detected in most soil samples collected from Site subsurface fill materials. This testing generally indicates that petroleum hydrocarbon, PAH, and metal analytes are widespread in subsurface soils across the Site, but at relatively low concentrations. An assessment of risk associated with these analyte concentrations is contained in Section 6.3 for this report.

Three groundwater samples have been collected in areas outside the HOT area. DP-4 and DP-5 were located in areas presumed downgradient of the HOT area. DP-1 was located in the eastern portion of the Site (Figure 2). Petroleum hydrocarbons were not detected in the three groundwater samples (Table 4). Low levels of PAHs were detected in DP-1 and DP-4 (Table 5). Metals were detected in all three groundwater samples, but metal concentrations in DP-1 and DP-5 appear consistent with typical background concentrations.

6.0 CONCEPTUAL SITE MODEL AND RISK SCREENING

A Conceptual Site Model (CSM) is a summary that:

- Describes all of the known or suspected sources of contamination;
- Considers how and where the contaminants are likely to move (pathways); and

- Identifies who/what is likely to be affected by the contaminants (receptors).

Figure 4 provides a graphical representation of CSM prepared for the Site. Justification for decisions regarding the applicable receptors and complete exposure pathways for the Site are provided in Sections 6.1 and 6.2 below.

6.1 LAND USE DETERMINATION

The Site is primarily a gravel-covered lot with a vacant building located in its southwest corner. The most recent land use, which spanned a period of approximately 10 years, was commercial office. It is anticipated that the Site building, which has been vacant since 1997, will be demolished following PDC sale of the property to a developer. The Site is zoned Central Commercial (CX). The CX zone is intended to provide for commercial development within Portland's most urban and intense areas. A broad range of uses is allowed to reflect Portland's role as a commercial, cultural, and governmental center. Development is intended to be very intense with high building coverage, large buildings, and buildings placed close together. Development is intended to be pedestrian-oriented with a strong emphasis on a safe and attractive streetscape. Consistent with this zoning, it is anticipated that the Site will be redeveloped with ground floor commercial/office building(s) with potential upper floor office/residential use. Redevelopment also may include limited external parking and landscaping. No subgrade parking is envisioned with future redevelopment.

Based upon historical Site land use, planned future land use, and Site zoning the current and reasonably likely land use for the Site is urban residential (2nd floor only) and commercial. Therefore, potential receptors for the Site include urban residential, occupational, construction, and excavation worker receptors, and do not include residential receptors. As ground floor residential is not planned for the Site, the vapor intrusion into building exposure pathway for urban residential receptors is considered incomplete.

6.2 BENEFICIAL USE OF WATER DETERMINATION

In 2002, AMEC completed a comprehensive beneficial water use determination for the Station Place property, located approximately 1,500 feet northwest of the Site. The Station Place beneficial water use determination concluded that there are no current or reasonably likely future beneficial water uses (both surface water and groundwater) associated with first-encountered groundwater or the Troutdale Formation. Therefore, direct groundwater exposure pathways (ingestion and dermal contact) were considered incomplete at Station Place. These findings were approved by the DEQ. This beneficial water use determination finding is considered applicable for

the Site as well given the proximity of the Site to Station Place, the similar geologic conditions at the two sites, and similar proximity of the two sites to the Willamette River.

Based upon this beneficial use of water scenario, all groundwater ingestion exposure pathways are considered incomplete. As ground floor residential is not planned for the Site, the vapor intrusion into building exposure pathway for urban residential receptors is considered incomplete as well.

6.3 HUMAN HEALTH RISK SCREENING

AMEC screened detected concentrations in soil and groundwater to potentially applicable RBCs consistent with the Site CSM (Figure 3). As indicated in Table 7, the comparison indicates that there may be unacceptable risk to the following receptors via the exposure pathways indicated.

Soil

- Urban residential receptors via direct contact;
- Occupational receptors via direct contact; and
- Construction workers via direct contact.

Groundwater

- None

6.4 ECOLOGICAL RISK SCREENING

The Site has been developed for more than 100 years, and is located near the center of a large metropolitan area. The only vegetative cover on the Site is several trees along the southern Site boundary and sparse weeds in the gravel-covered lot portion of the Site. These areas are not suitable as wildlife habitat. It is anticipated that the Site will be redeveloped, and redevelopment plans do not include wildlife habitat restoration. Accordingly, the Site will continue to be devoid of suitable wildlife habitat. As a result, it appears that hazardous substances detected in Site soil and groundwater do not pose an unacceptable risk to ecological receptors as ecological receptor exposure pathways are incomplete.

7.0 CONCLUSIONS AND RECOMMENDATIONS

AMEC has reviewed historical assessment information collected in 2010, and during completion of a recent remedial investigation. The data have been utilized in completing a remedial investigation for the Site. A CSM has been completed in evaluating: 1) sources of contamination, 2) exposure pathways, and 3) affected receptors. The evaluation also included the completion of land and

water use determinations. Potentially applicable RBCs were compared to facility-related hazardous substance concentrations detected in Site post HOT decommissioning soil and groundwater samples. RBC exceedances were noted for the following receptors and exposure pathways.

- Future urban residential receptors via direct contact with soil.
- Future occupational receptors via direct contact with soil.
- Future construction workers via direct contact with soil.

Based on the results of a beneficial use of water survey completed at the nearby Station Place property, groundwater ingestion was ruled out as a complete exposure pathway for the Site. No RBCs exceedances were noted for any other receptor exposure pathways.

Based upon the results of this remedial investigation, it appears that unacceptable risk to future urban residential, occupational, and construction worker receptors may result from direct contact exposure to soil at the Site. As a result, AMEC recommends that a focused feasibility study be completed that considers feasibility study outcomes for other vicinity properties (i.e., Station Place and The Yards at Union Station)..

AMEC Environment & Infrastructure, Inc.

Leonard C. Farr, Jr., RG
Senior Associate/Geologist

Reviewed by:

John L. Kuiper, RG
Principal Geologist

LCF/lp

REFERENCES

3 Kings Environmental, Inc. 2013. Heating Oil Tank Decommissioning Report, Commercial Property – 510 NW 3rd Avenue, Portland, Oregon. December 2, 2013.

AMEC Environment & Infrastructure, Inc. (formerly Rittenhouse-Zeman & Associates, Inc.). 1991. Level I Environmental Investigation, Union Station South C, North Downtown Development Site, Portland, Oregon. January 14, 1991.

AMEC Environment & Infrastructure, Inc., 2013, Remedial Investigation/Feasibility Study Work Plan, Block A&N, 510 NW 3rd Avenue, Portland, Oregon. October 4, 2013.

Oregon Department of Environmental Quality. 2003. (Updated July 2012). Risk-Based Decision Making for the Remediation of Petroleum-Contaminated Sites. September 22, 2003.

Oregon Department of Environmental Quality. 2013. Letter Approval of Remedial Investigation/Feasibility Study Work Plan, Block A&N, 510 NW 3rd Avenue, Portland, Oregon. December 18, 2013.

Parametrix, Inc. 2005. Phase I Environmental Site Assessment, Firehouse Properties, Portland, Oregon. December 30, 2005.

PBS Engineering + Environmental, Inc. 2010. Phase II Environmental Site Assessment, Blocks A & N, 510 NW 3rd Avenue, Portland, Oregon 97209. February 2010.

LIMITATIONS

This report was prepared exclusively for the Portland Development Commission by AMEC Environment & Infrastructure, Inc. (AMEC). The quality of information, conclusions and estimates contained herein is consistent with the level of effort involved in AMEC services and based on: i) information available at the time of preparation, ii) data supplied by outside sources, and iii) the assumptions, conditions and qualifications set forth in this report. This Remedial Investigation Report is intended to be used by PDC for the Block A & N property, Portland, Oregon only, subject to the terms and conditions of its contract with AMEC. Any other use of, or reliance on, this report by any third party is at that party's sole risk.

AMEC services have been performed in accordance with the normal and reasonable standard of care exercised by similar professionals performing services under similar conditions and geographic locations. Except for our stated standard of care, no other warranties or guarantees are offered as part of AMEC's contracted services.

TABLES

TABLE 1
Total Petroleum Hydrocarbon Soil Analytical Results
Block A+N

			NWTPH-HCID			NWTPH-Dx/Gx		
			Gasoline Range Organics	Diesel Range Organics	Oil Range Organics	Gasoline Range Organics	Diesel Range Organics	Oil Range Organics
Clean Fill Screening Value			1,200	1,100	--	1,200	1,100	--
Soil Ingestion, Dermal Contact, and Inhalation (Urban Residential)			2,500	2,200	--	2,500	2,200	--
Volatilization to Outdoor Air (Urban Residential			5,900	>Max	--	5,900	>Max	--
Soil Ingestion, Dermal Contact, and Inhalation (Occupational)			20,000	14,000	--	20,000	14,000	--
Vapor Intrusion Into Buildings (Occupational)			>Max	>Max	--	>Max	>Max	--
Volatilization to Outdoor Air (Occupational)			69,000	>Max	--	69,000	>Max	--
Soil Ingestion, Dermal Contact, and Inhalation (Const. Worker)			9,700	4,600	--	9,700	4,600	--
Location	**Sample ID**	**Sample Date**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
DP-1	DP-1_0-2.5	2/25/2014	21.5 U	53.9 U	**DET**	NT	25.0 U	**1,140**
DP-1	DP-1_5-7.5	2/25/2014	26.6 U	66.5 U	133 U	NT	NT	NT
DP-2	DP-2_0-2.5	2/25/2014	21.1 U	**DET**	**DET**	NT	28.0 U	**562**
DP-2	DP-2_2.5-5	2/25/2014	23.4 U	58.6 U	117 U	NT	NT	NT
DP-3	DP-3_0-2.5	2/25/2014	22.6 U	56.5 U	**DET**	NT	28.7 U	**388**
DP-3	DP-3_5-7.5	2/25/2014	24.8 U	**DET**	**DET**	NT	29.9 U	**2,220**
DP-4	DP-4_0-2	2/25/2014	21.7 U	**DET**	**DET**	NT	27.2 U	**1,600**
DP-4	DP-4_5-7.5	2/25/2014	25.6 U	63.9 U	128 U	NT	NT	NT
DP-5	DP-5_0-2.5	2/25/2014	24.8 U	62.1 U	**DET**	NT	29.2 U	**1,130**
DP-5	DP-5_5-7.5	2/25/2014	25.3 U	63.3 U	127 U	NT	NT	NT
Heating Oil Tank Decommissioning Confirmation Soil Samples	Wall - W	11/7/2013	NT	NT	NT	NT	19.1 U	59.7 U
	Wall - S	11/7/2013	NT	NT	NT	NT	**62.8**	62.8 U
	Wall - NW	11/7/2013	NT	NT	NT	NT	19.5 U	61.1 U
	Wall - NE3	11/7/2013	NT	NT	NT	NT	**482**	**146**
	Wall - E	11/7/2013	NT	NT	NT	NT	**27.3**	63.9 U
	Bottom - W	11/7/2013	NT	NT	NT	NT	18.0 U	56.3 U
	Bottom - E	11/7/2013	NT	NT	NT	NT	**221**	59.8 U
B1	B1-5	1/12/2010	NT	NT	NT	NT	34.3 U	68.5 U
B2	B2-17	1/12/2010	NT	NT	NT	NT	**602**	**1,410**
B2	B2-5	1/12/2010	NT	NT	NT	NT	68.3 U	**655**
B3	B3-5	1/12/2010	NT	NT	NT	NT	39.5 U	78.9 U
B4	B4-20	1/12/2010	NT	NT	NT	NT	**34.9**	63.1 U
B4	B4-3.5	1/12/2010	NT	NT	NT	NT	**64.2**	**95.8**
B5	B5-15	1/12/2010	NT	NT	NT	NT	31.4 U	62.8 U
B5	B5-5	1/12/2010	NT	NT	NT	NT	26.4 U	52.7 U
B6	B6-5	1/12/2010	NT	NT	NT	NT	547 U	**2,850**
B7	B7-7	1/12/2010	NT	NT	NT	NT	30.3 U	60.6 U
B8	B8-10	1/12/2010	NT	NT	NT	NT	33.1 U	66.3 U
B9	B9-15	1/12/2010	NT	NT	NT	NT	**78.4**	**115**
B9	B9-15	1/12/2010	NT	NT	NT	5.64 U	NT	NT
B9	B9-5	1/12/2010	NT	NT	NT	NT	**206**	**288**
B10	B10-9	1/12/2010	NT	NT	NT	NT	**415**	64.2 U
B10	B10-9	1/12/2010	NT	NT	NT	**96.2**	NT	NT
B11	B11-8	1/12/2010	NT	NT	NT	NT	33.3 U	66.6 U
B11	B11-8	1/12/2010	NT	NT	NT	6.37 U	NT	NT
B12	B12-8	1/12/2010	NT	NT	NT	NT	35.0 U	70.0 U
Tank East-13	Tank East-13	1/12/2010	NT	NT	NT	NT	**8,370**	1,260 U
Tank East-20	Tank East-20	1/12/2010	NT	NT	NT	NT	27.4 U	54.8 U
Tank West-10	Tank West-10	1/12/2010	NT	NT	NT	NT	25.2 U	50.5 U
Tank West-15	Tank West-15	1/12/2010	NT	NT	NT	NT	29.1 U	58.2 U

Notes:

Bold = Detected
Results not validated
mg/kg = milligrams per kilogram
Data reported to reporting limit
J = estimated result
U = not detected at or above the stated level
-- = No risk-based concentration (RBC)
NT = not tested
>Max = RBC for this pathway exceeds 1,000,000 mg/kg and is not deemed to pose a risk
Exceeds Most Conservative RBC (sum of diesel and oil)
Soil removed during HOT decommissioning

TABLE 2
Polycyclic Aromatic Hydrocarbon Soil Analytical Results
Block A+N

			Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(b+k)fluoranthene(s)	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene
Clean Fill Screening Value			29,000	--	29,000	150	15	150	150	--	1,100	14,000	15	29,000	29,000	150	1,090	--	1.7E+06
Soil Ingestion, Dermal Contact, and Inhalation (Urban Residential)			>Csat	--	>Csat	340	34	340	340	--	3,400	>Csat	34	>Csat	>Csat	340	25,000	--	>Csat
Volatilization to Outdoor Air (Urban Residential			>Max	--	>Max	NV	NV	>Csat	>Csat	--	NV	>Csat	NV	>Max	>Max	NV	18,000	--	--
Soil Ingestion, Dermal Contact, and Inhalation (Occupational)			>Csat	--	>Csat	2700	270	2700	2700	--	>Csat	>Csat	270	>Csat	>Csat	>Csat	23,000	--	>Csat
Vapor Intrusion Into Buildings (Occupational)			>Max	--	>Max	NV	NV	>Csat	>Csat	--	NV	>Csat	NV	>Max	>Max	NV	99,000	--	--
Volatilization to Outdoor Air (Occupational)			>Max	--	>Max	NV	NV	>Csat	>Csat	--	NV	>Csat	NV	>Max	>Max	NV	99,000	--	--
Soil Ingestion, Dermal Contact, and Inhalation (Const. Worker)			>Csat	--	>Csat	>Csat	2100	>Csat	>Csat	--	>Csat	>Csat	2100	>Csat	>Csat	>Csat	>Csat	--	>Csat
Location	**Sample ID**	**Sample Date**	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
DP-1	DP-1_0-2.5	2/25/2014	41.0 U	41.0 U	41.0 U	**62.2**	**101**	NT	**167**	**173**	NT	**96.7**	41.0 U	**122**	41.0 U	**127**	**88.5**	**132**	**175**
DP-1	DP-1_5-7.5	2/25/2014	51.7 U	**84.4**	**66.4**	**780**	**1210**	NT	**1690**	**848**	NT	**859**	**147**	**1470**	51.7 U	**864**	**121**	**72.6**	**1650**
DP-2	DP-2_0-2.5	2/25/2014	43.9 U	43.9 U	43.9 U	**74.8**	**72.7**	NT	**181**	**145**	NT	**174**	43.9 U	**170**	43.9 U	**119**	**262**	**368**	**169**
DP-2	DP-2_2.5-5	2/25/2014	9.28 U	9.28 U	9.28 U	**23.3**	**24.7**	NT	**42.4**	**18.5**	NT	**34.3**	9.28 U	**29.8**	9.28 U	**20.6**	**13.0**	**35.4**	**28.7**
DP-3	DP-3_0-2.5	2/25/2014	454 U	454 U	454 U	**615**	**1700**	NT	**2360**	**1860**	NT	**792**	454 U	**931**	454 U	**1820**	454 U	**520**	**971**
DP-3	DP-3_5-7.5	2/25/2014	47.8 U	47.8 U	47.8 U	47.8 U	47.8 U	NT	95.6 U	**83.7**	NT	**77.7**	47.8 U	**79.0**	47.8 U	**57.6**	**48.5**	**97.5**	**80.9**
DP-4	DP-4_0-2	2/25/2014	45.1 U	**60.8**	**80.0**	**272**	**295**	NT	**469**	**343**	NT	**365**	**49.9**	**500**	45.1 U	**282**	**318**	**586**	**529**
DP-4	DP-4_5-7.5	2/25/2014	9.95 U	9.95 U	9.95 U	9.95 U	9.95 U	9.95 U	NT	9.95 U	9.95 U	9.95 U	9.95 U	9.95 U	9.95 U	9.95 U	9.95 U	9.95 U	9.95 U
DP-5	DP-5_0-2.5	2/25/2014	459 U	459 U	459 U	**1790**	**2690**	NT	**3010**	**2080**	NT	**2270**	459 U	**1800**	459 U	**1710**	459 U	**800**	**3470**
DP-5	DP-5_5-7.5	2/25/2014	56.7 U	56.7 U	56.7 U	**99.8**	**97.3**	NT	**165**	**67.2**	NT	**138**	56.7 U	**214**	56.7 U	**77.5**	**79.0**	**152**	**192**
B2-17	B2-17	1/12/2010	**264**	**89.3**	**607**	**522**	**437**	NT	**614**	**286**	NT	**633**	**100**	**1250**	**397**	**259**	**468**	**2170**	**1070**
B6-5	B6-5	1/12/2010	**192**	178 U	**630**	**6510**	**17400**	NT	**21300**	**18800**	NT	**6330**	**3680**	**5480**	178 U	**19400**	**378**	**1920**	**5300**
Tank East-13	Tank East-13	1/12/2010	629 U	415 U	**225**	179 U	179 U	179 U	NT	179 U	179 U	179 U	179 U	179 U	**1900**	179 U	356 U	**4280**	179 U

Notes:

Bold = Detected
Results not validated
µg/kg = micrograms per kilogram
Data reported to reporting limit
J = estimated result
U = not detected at or above the stated level
NT = not tested
RBC = risk-based concentration

>Csat = RBC exceeds the limit of three phase partitioning
>Max = RBC for this pathway exceeds 1,000,000 mg/kg and is not deemed to pose a risk
NV = Compounds is considered "not volatile" for purposes of exposure concentrations
-- = No applicable RBC
Exceeds Most Conservative RBC
Exceeds Two or More RBCs
Soil removed during HOT decommissioning

TABLE 3
Metal Soil Analytical Results
Block A+N

			Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Selenium	Silver
DEQ Background Value			8.8	790	0.63	76	79	0.23	0.71	0.82
Soil Ingestion, Dermal Contact, and Inhalation (Urban Residential)			1.0	31,000	78	230,000	400	47	--	780
Soil Ingestion, Dermal Contact, and Inhalation (Occupational)			1.7	190,000	510	>Max	800	310	--	5,100
Soil Ingestion, Dermal Contact, and Inhalation (Const. Worker)			13	60,000	150	460,000	800	93	--	1,500
Location	**Sample ID**	**Sample Date**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**	**mg/kg**
DP-2	DP-2_2.5-5	2/25/2014	**6.71**	NT	NT	NT	**58.0**	NT	NT	NT
DP-3	DP-3_5-7.5	2/25/2014	**9.66**	NT	NT	NT	**82.5**	NT	NT	NT
DP-4	DP-4_5-7.5	2/25/2014	**6.19**	NT	NT	NT	**13.0**	NT	NT	NT
DP-5	DP-5_5-7.5	2/25/2014	**2.88**	NT	NT	NT	**411**	NT	NT	NT
B2	B2-5	1/12/2010	**7.15**	**193**	1.31 U	**25.7**	**56.0**	**0.184**	2.63 U	1.31 U
B3	B3-5	1/12/2010	**10.2**	**177**	1.35 U	**26.4**	**90.8**	**0.501**	2.71 U	1.35 U
B4	B4-3.5	1/12/2010	**4.97**	**379**	1.39 U	**17.3**	**208**	**0.919**	2.78 U	1.39 U
B5	B5-5	1/12/2010	**8.57**	**260**	1.21 U	**28.5**	**93.7**	**0.242**	2.42 U	1.21 U
B6	B6-5	1/12/2010	**8.94**	**157**	1.24 U	**20.6**	**101**	**0.310**	2.48 U	1.24 U
B7	B7-7	1/12/2010	**8.58**	**246**	1.27 U	**31.6**	**17.3**	0.102 U	2.54 U	1.27 U
B8	B8-3	1/12/2010	**8.94**	**172**	1.19 U	**24.7**	**305**	**0.367**	2.37 U	1.19 U
B9	B9-15	1/12/2010	**2.64**	**86.8**	1.30 U	**10.3**	**51.1**	**0.325**	2.60 U	1.30 U

Notes:
Bold = Detected
mg/kg = milligrams per kilogram
Data reported to reporting limit
J = estimated result
U = not detected at or above the stated level
NT = not tested
-- = No risk-based concentration (RBC)
>Max = RBC for this pathway exceeds 1,000,000 mg/kg and is not deemed to pose a risk
Exceeds Background and Urban Residential Direct Contact RBC
Exceeds Background and Occupational Direct Contact RBCs

TABLE 4
Total Petroleum Hydrocarbon Groundwater Analytical Results
Block A+N

			NWTPH-HCID			NWTPH-Dx/Gx		
			Gasoline Range Organics	**Diesel Range Organics**	**Oil Range Organics**	**Gasoline Range Organics**	**Diesel Range Organics**	**Oil Range Organics**
Volatilization to Outdoor Air (Urban Residential)			>S	>S	--	>S	>S	--
Vapor Intrusion into Buildings from Groundwater (Occupational)			>S	>S	--	>S	>S	--
Volatilization to Outdoor Air (Occupational)			>S	>S	--	>S	>S	--
Groundwater in Excavation (Construction & Excavation Worker)			14	>S	--	14	>S	--
Location	**Sample ID**	**Sample Date**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
DP-1	DP-1	2/25/2014	**DET**	0.255 U	0.255 U	0.100 U	NT	NT
DP-4	DP-4	2/25/2014	**DET**	0.278 U	0.278 U	0.100 U	NT	NT
DP-5	DP-5	2/25/2014	**DET**	0.240 U	**DET**	0.100 U	0.238 U	0.476 U

Notes:
Bold = Detected
mg/L = milligrams per liter
Data reported to reporting limit
DET = detection
J = estimated result
U = not detected at or above the stated level
NT = not tested
-- = no risk-based concentration (RBC)
>S = RBC exceeds the solubility limit

TABLE 5
Polycyclic Aromatic Hydrocarbon Groundwater Analytical Results
Block A+N

			Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(b+k)fluoranthene(s)	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene
Volatilization to Outdoor Air (Urban Residential)			>S	--	>S	NV	NV	>S	>S	--	NV	>S	NV	>S	>S	NV	8,400	--	>S
Vapor Intrusion into Buildings (Occupational)			>S	--	>S	NV	NV	>S	>S	--	NV	>S	NV	>S	>S	NV	10,000	--	>S
Volatilization to Outdoor Air (Occupational)			>S	--	>S	NV	NV	>S	>S	--	NV	>S	NV	>S	>S	NV	16,000	--	>S
Groundwater in Excavation (Const. & Excavation Worker)			>S	--	>S	9.1	0.53	>S	>S	--	>S	>S	0.21	>S	>S	>S	500	--	>S
Location	**Sample ID**	**Sample Date**	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
DP-1	DP-1	2/25/2014	0.0381 U	0.0381 U	0.0381 U	**0.100**	**0.125**	NT	**0.211**	**0.103**	NT	**0.0972**	0.0381 U	**0.171**	0.0381 U	**0.109**	0.0762 U	0.0381 U	**0.185**
DP-4	DP-4	2/25/2014	**0.0479**	0.0392 U	0.0392 U	0.0392 U	0.0392 U	0.0392 U	NT	0.0392 U	0.0392 U	0.0392 U	0.0392 U	**0.0815**	0.0392 U	0.0392 U	0.0784 U	**0.139**	**0.0734**
DP-5	DP-5	2/25/2014	0.0381 U	0.0381 U	0.0381 U	0.0381 U	0.0381 U	0.0381 U	NT	0.0381 U	0.0381 U	0.0381 U	0.0381 U	0.0381 U	0.0381 U	0.0381 U	0.0762 U	0.0381 U	0.0381 U

Notes:
Bold = Detected
µg/L = micrograms per liter
Data reported to reporting limit
J = estimated result
U = not detected at or above the stated level
NT = not tested
-- = no risk-based concentration (RBC)
>S = RBC exceeds the solubility limit
NV = not volatile

TABLE 6
Metal Groundwater Analytical Results
Block A+N

			Antimony	Arsenic	Beryllium	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Selenium	Silver	Thallium	Zinc
Groundwater in Excavation (Const. & Excavation Worker)			--	5,800	250,000	57,000	>S	5.0E+06	>S	>S	1.2E+07	--	1.0E+06	--	--
Location	**Sample ID**	**Sample Date**	**µg/L**	**µg/L**	**µg/L**	**µg/L**	**µg/L**	**µg/L**	**µg/L**	**µg/L**	**µg/L**	**µg/L**	**µg/L**	**µg/L**	**µg/L**
DP-1	DP-1	2/25/2014	**1.46**	**2.04**	0.200 U	0.200 U	**1.86**	**3.32**	**6.16**	0.0800 U	**1.86**	**1.81**	0.200 U	0.200 U	**6.43**
DP-4	DP-4	2/25/2014	**4.22**	**52.6**	**5.50**	**3.10**	**100**	**458**	**1180**	**2.76**	**121**	**3.62**	**1.65**	**0.675**	**740**
DP-5	DP-5	2/25/2014	1.00 U	**1.06**	0.200 U	0.200 U	**2.38**	**3.39**	**32.4**	0.0800 U	**2.01**	1.00 U	0.200 U	0.200 U	**11.2**

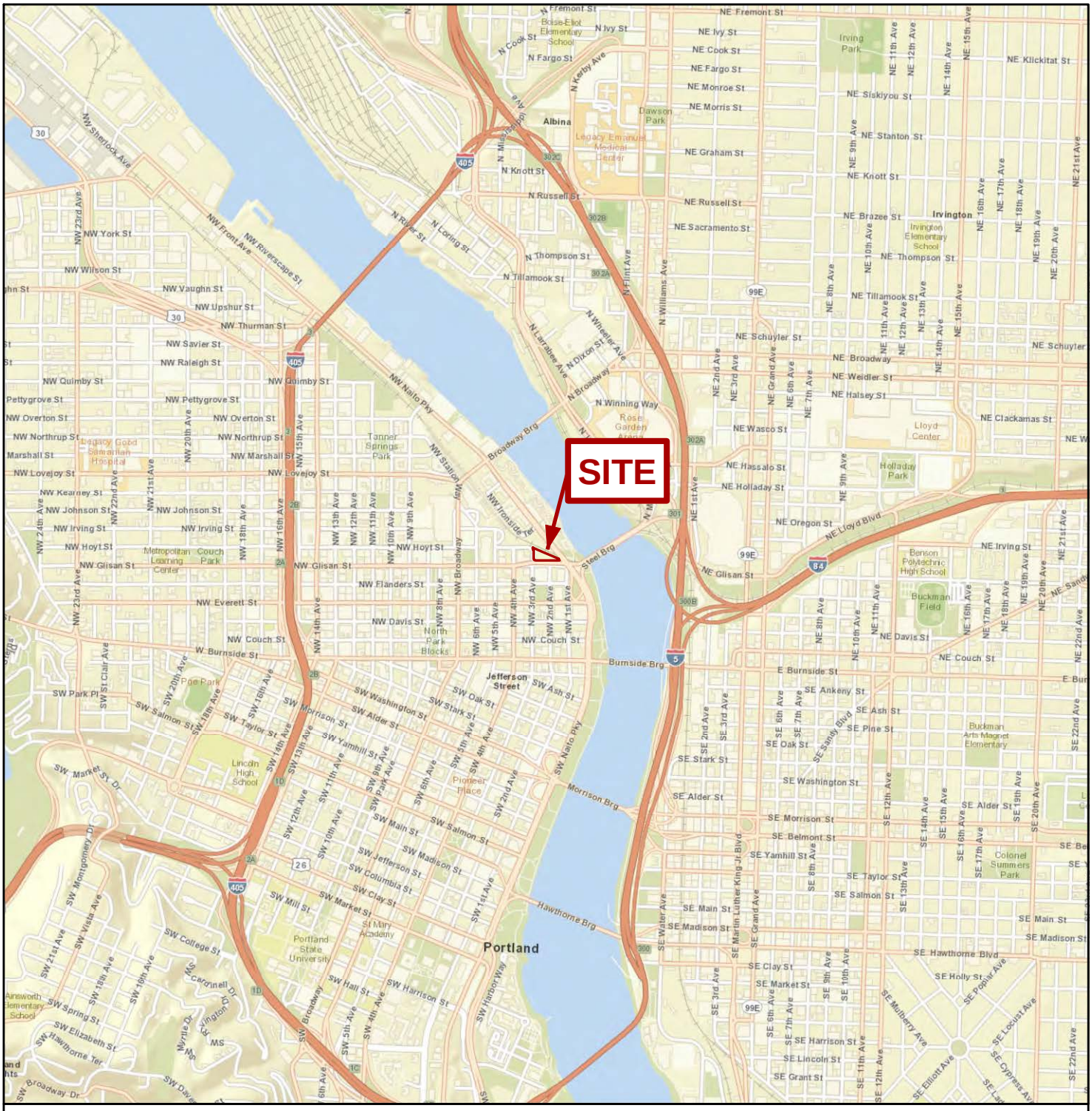
Notes:
Bold = Detected
µg/L = micrograms per liter
Data reported to reporting limit
J = estimated result
U = not detected at or above the stated level
-- = No risk-based concentration (RBC)
>S = RBC exceeds the solubility limit

TABLE 7
Risk Screening Summary
Block A + N

Receptor	Exposure Pathway	Facility-Related Hazardous Substances Detected (Post-Remediation)	RBC	Maximum Concentration Detected	# of Samples That Exceed
Media - Soil			mg/kg	mg/kg	
Urban Residential	Inhalation, Ingestion, or Dermal Contact (≤ 3 feet)	Diesel	2,200	2,220	1
		Benzo(a)anthracene	0.34	6.51	5
		Benzo(a)pyrene	0.034	17.4	9
		Benzo(b+k)fluoranthene	0.34	21.3	6
		Dibenz(a,h)anthracene	0.034	3.68	4
		Indeno(1,2,3-cd)pyrene	0.34	19.4	4
		Arsenic	8.8*	10.2	3
		Lead	400	411	1
	Volatilization to Outdoor Air	No Exceedances			
Occupational	Inhalation, Ingestion, or Dermal Contact (< 3 feet)	Benzo(a)anthracene	2.7	6.51	1
		Benzo(a)pyrene	0.27	17.4	6
		Benzo(b+k)fluoranthene	2.7	21.3	2
		Dibenz(a,h)anthracene	0.27	3.68	1
		Indeno(1,2,3-cd)pyrene	2.70	19.4	1
		Arsenic	8.8*	10.2	3
	Volatilization to Outdoor Air	No Exceedances			
	Vapor Intrusion into Buiildings	No Exceedances			
Construction Worker	Inhalation, Ingestion, or Dermal Contact	Benzo(a)pyrene	2.1	17.4	1
		Benzo(b+k)fluoranthene	21	21.3	1
		Dibenz(a,h)anthracene	2	3.68	1
Media - Groundwater			µg/L	µg/L	
Urban Residential	Volatilization to Outdoor Air	No Exceedances			
Occupational	Volatilization to Outdoor Air	No Exceedances			
	Vapor Intrusion into Buildings	No Exceedances			
Construction/ Excavation Worker	Groundwater in Excavation	No Exceedances			

Notes:
mg/kg = milligrams per kilogram
µg/L = micrograms per liter
* = concentration is background as background greater than (>) risk-based concentration (RBC)

FIGURES



AMEC 7376 SW Durham Road Portland, OR, U.S.A. 97224	amec		CLIENT: PORTLAND DEVELOPMENT COMMISSION	
TITLE: SITE LOCATION MAP		DWN BY: SD	DATUM: NAD83	DATE: MARCH 2014
PROJECT: BLOCK A & N PORTLAND, OREGON		CHK'D BY: LF	REV. NO.: 1	PROJECT NO.: 4-61M-128331
		PROJECTION: OR SP N. Ft.	SCALE: 1 inch = 2,000 feet	FIGURE NO.: 1

K:\12000\12800\12833\128331\dwg\Figure 1 - Site Location Map.mxd - stephane.descombes - 3/27/2014 - 3:09:15 PM

LEGEND:

- HOT Decommissioning Confirmation Soil Sample Location (3 Kings, 2013)
- Historical Sample Location (PBS, February 2010)
- AMEC 2014 Direct-Push Boring Location
- Site Boundary

NW Hoyt St.

NW Naito Pkwy.

B-1

DP-5

B-2

B-12

DP-4

B-3

B-11

DP-2

B-4

See Inset Map

B-10

B-9

DP-3

B-8

B-7

B-5

DP-1

B-6

Steel Bridge

NW Glisan St.

NW 3rd Ave.

NW 2nd Ave.

0 25 50 75 Feet

Inset Map

Building

Wall-NW

Wall-NE3

Tank West 10/15

Former 675-gallon Heating Oil Tank

Wall-E

Wall-W

Bottom-W

Bottom-E

Wall-S

Tank East 13/20

Limits of Excavation

0 2.5 5 10 Feet

CLIENT: PORTLAND DEVELOPMENT COMMISSION

AMEC
7376 SW Durham Road
Portland, OR, U.S.A. 97224

DWN BY: SD
CHK'D BY: LF
DATUM: NAD83
PROJECTION: OR SP N. Ft.
SCALE: 1 inch = 50 feet

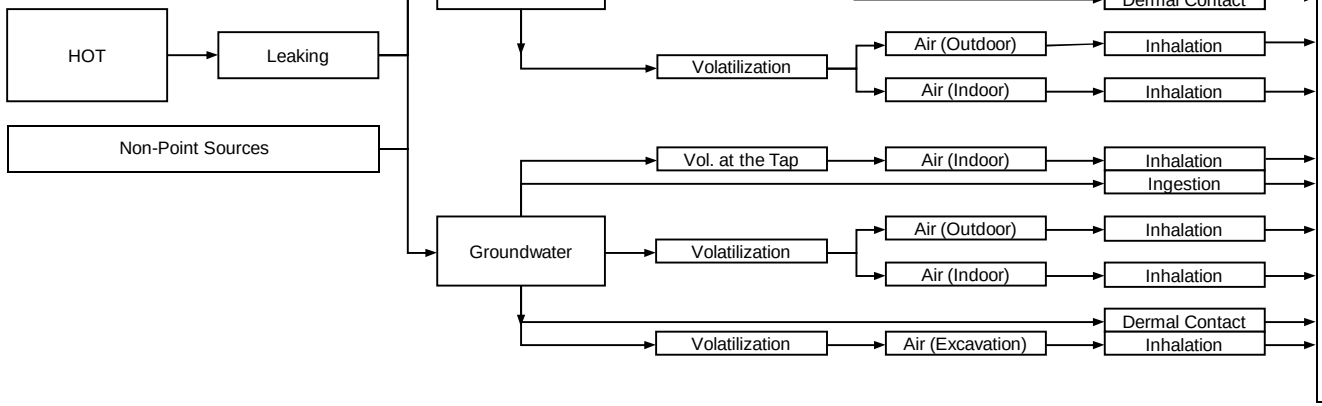
PROJECT: BLOCK A&N, PORTLAND,OREGON

TITLE: SITE PLAN WITH BORING LOCATIONS

DATE: MARCH 2014
PROJECT NO.: 4-61M-128331
REV. NO.: -
FIGURE NO.: 2

K:\12000\12800\12833\128331\dwg\Figure 2 - Site Plan with Boring Locations.mxd - stephane.descombes - 3/31/2014 - 11:51:37 AM

FIGURE 3
Conceptual Site Model
Block A + N
Portland, Oregon



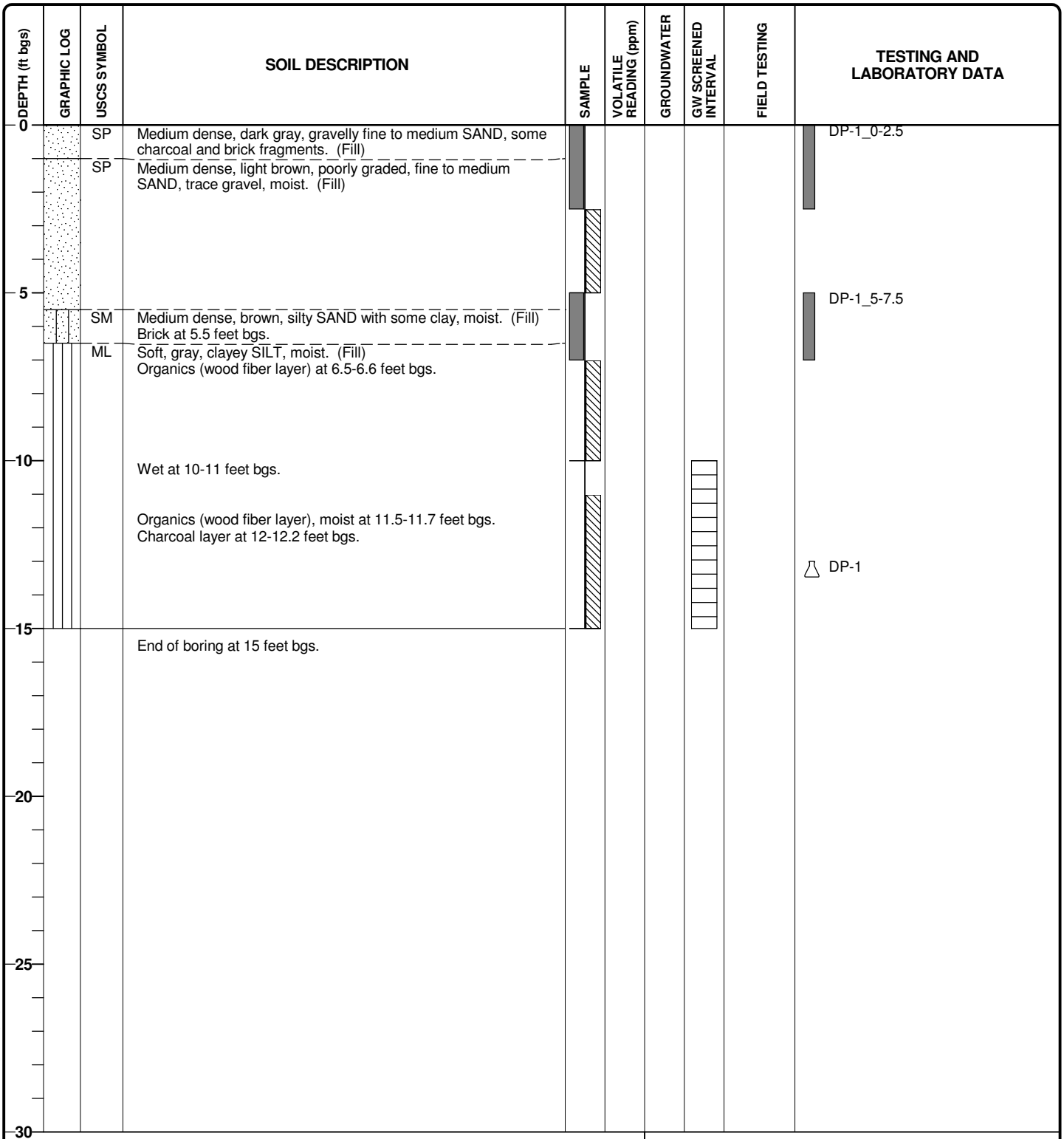
POTENTIAL RECEPTORS					
2nd-Floor Urban Residential		Occupational		Construction & Excavation	
Current	Future	Current	Future	Current	Future
-	+	-	+	-	+
-	+	-	+	-	+
-	+	-	+	-	+
-	-	-	-	-	+
-	-	-	-	-	+
-	-	-	-	-	+
-	+	-	+	-	-
-	-*	-	+	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	+	-	+	-	-
-	-	-	+	-	-
-	-	-		-	+
-	-	-		-	+

Notes:

+ This route is a primary source of exposure.
- There is no exposure by this route.
***** Vapor intrusion incomplete as no ground-floor urban residential development is planned.

APPENDIX A

Boring Logs



BORING METHOD: Direct Push
BOREHOLE DIAMETER: 2.0 (in)
DRILL RIG: Geoprobe 7822 DT
CONTRACTOR: Stratus
LOGGED BY: J. Fassio

ELEVATION REFERENCE: NA
GROUND SURFACE ELEVATION: NA
DRILLING DATES: 2/25/2014 - 2/25/2014

REMARKS:

DIRECT PUSH BORING 4-61M-128331.GPJ AMEC PORTLAND.GDT 3/23/14

PDC - Block A & N

4-61M-128331

AMEC Environment & Infrastructure, Inc.
7376 SW Durham Road
Portland, Oregon
USA 97224
Tel (503) 639-3400
Fax (503) 620-7892

LOG OF BORING DP-1

DEPTH (ft bgs)	GRAPHIC LOG	USCS SYMBOL	SOIL DESCRIPTION	SAMPLE	VOLATILE READING (ppm)	GROUNDWATER	GW SCREENED INTERVAL	FIELD TESTING	TESTING AND LABORATORY DATA
0		GW	Medium dense, dark brown, sandy fine to coarse rounded to angular GRAVEL. (Fill)						DP-2_0-2.5
		SW	Medium dense, brown, well-graded, fine to coarse SAND. (Fill)		0.0 0.2				
		ML	Medium stiff, brown with reddish-brown mottles, clayey SILT with scattered charcoal, brick fragments. (Fill)		0.2				DP-2_2.5-5
5			End of boring at 5 feet bgs.						
10									
15									
20									
25									
30									

BORING METHOD: Direct Push
BOREHOLE DIAMETER: 2.0 (in)
DRILL RIG: Geoprobe 7822 DT
CONTRACTOR: Stratus
LOGGED BY: J. Fassio

ELEVATION REFERENCE: NA
GROUND SURFACE ELEVATION: NA
DRILLING DATES: 2/25/2014 - 2/25/2014

REMARKS:

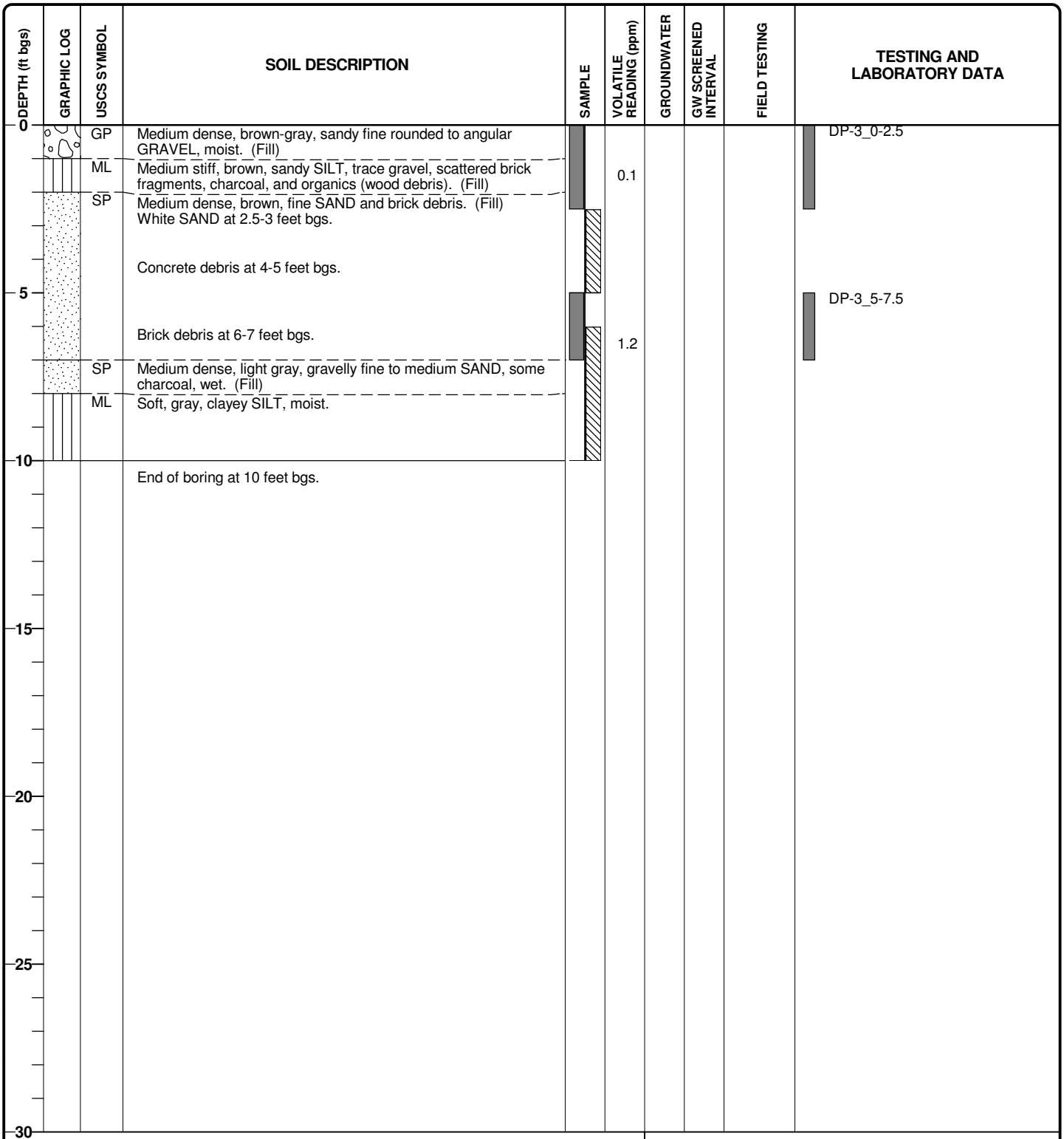
DIRECT PUSH BORING 4-61M-128331.GPJ AMEC PORTLAND.GDT 3/23/14

PDC - Block A & N

4-61M-128331

AMEC Environment & Infrastructure, Inc.
7376 SW Durham Road
Portland, Oregon
USA 97224
Tel (503) 639-3400
Fax (503) 620-7892

LOG OF BORING DP-2



BORING METHOD: Direct Push

BOREHOLE DIAMETER: 2.0 (in)

DRILL RIG: Geoprobe 7822 DT

CONTRACTOR: Stratus

LOGGED BY: J. Fassio

ELEVATION REFERENCE: NA

GROUND SURFACE ELEVATION: NA

DRILLING DATES: 2/25/2014 - 2/25/2014

REMARKS:

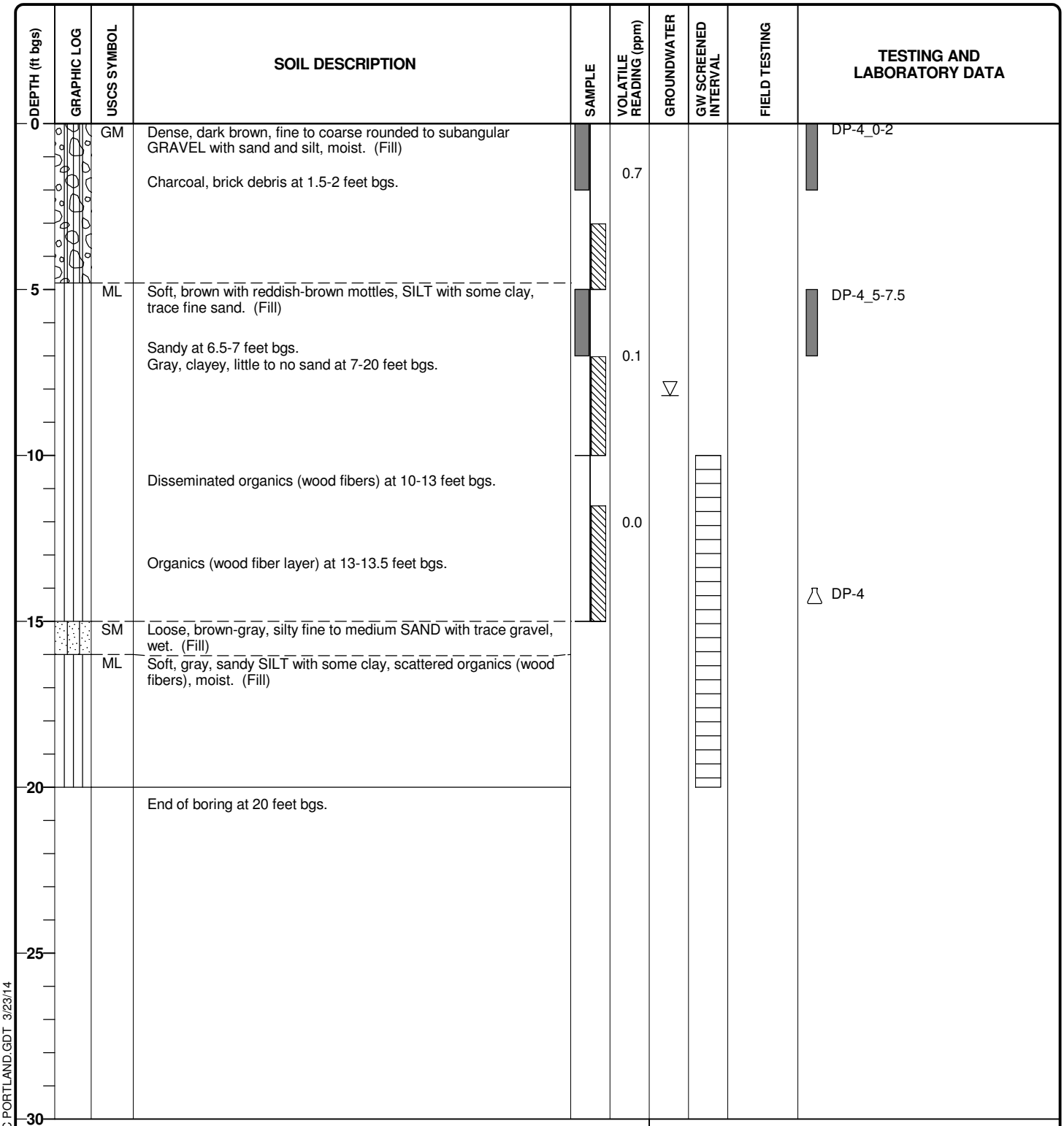
PDC - Block A & N

4-61M-128331

AMEC Environment & Infrastructure, Inc.
7376 SW Durham Road
Portland, Oregon
USA 97224
Tel (503) 639-3400
Fax (503) 620-7892

LOG OF BORING DP-3

DIRECT PUSH BORING 4-61M-128331.GPJ AMEC PORTLAND.GDT 3/23/14



BORING METHOD: Direct Push
BOREHOLE DIAMETER: 2.0 (in)
DRILL RIG: Geoprobe 7822 DT
CONTRACTOR: Stratus
LOGGED BY: J. Fassio

ELEVATION REFERENCE: NA
GROUND SURFACE ELEVATION: NA
DRILLING DATES: 2/25/2014 - 2/25/2014

REMARKS:

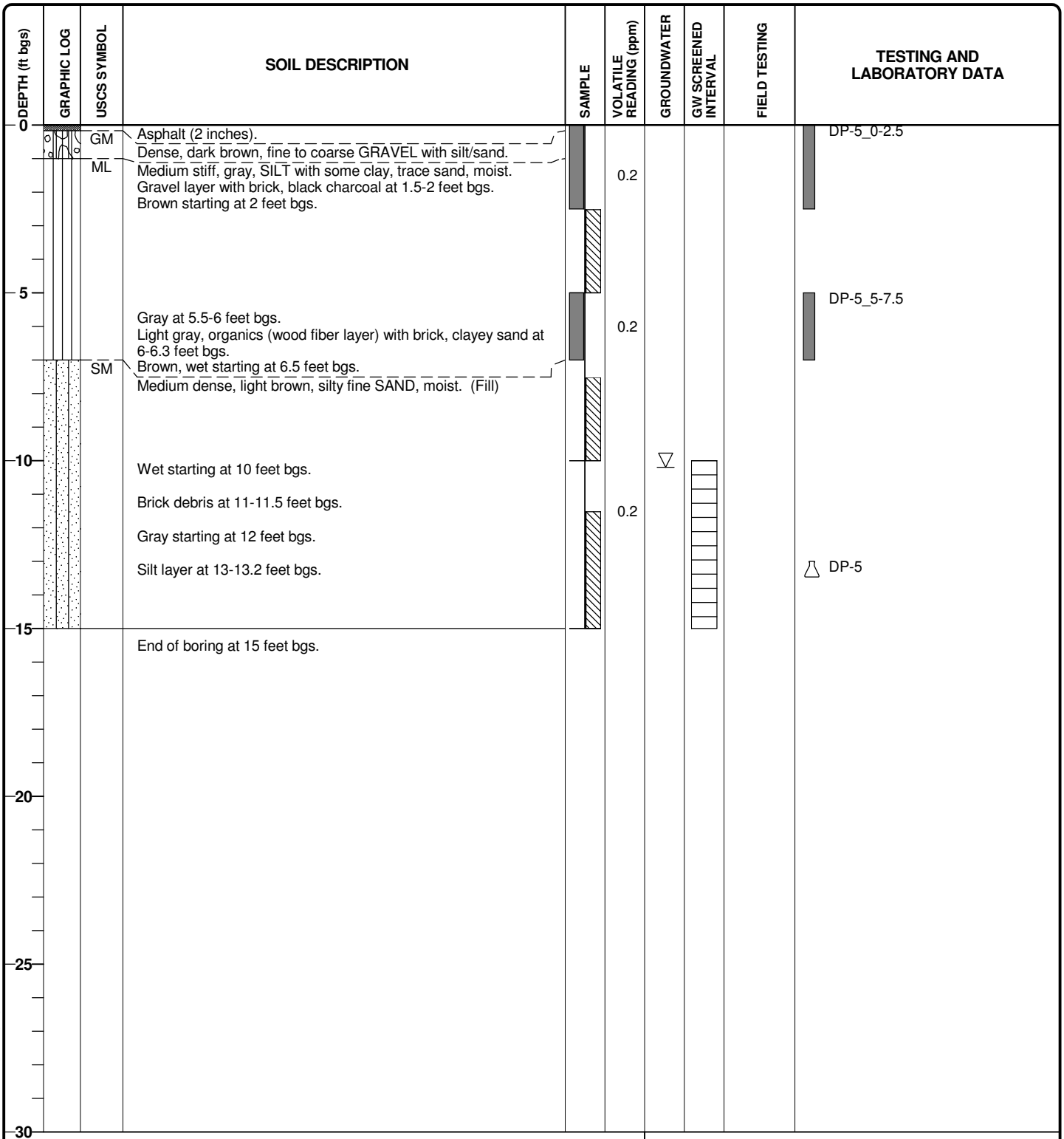
DIRECT PUSH BORING 4-61M-128331.GPJ AMEC PORTLAND.GDT 3/23/14

PDC - Block A & N

4-61M-128331

AMEC Environment & Infrastructure, Inc.
7376 SW Durham Road
Portland, Oregon
USA 97224
Tel (503) 639-3400
Fax (503) 620-7892

LOG OF BORING DP-4



BORING METHOD: Direct Push
BOREHOLE DIAMETER: 2.0 (in)
DRILL RIG: Geoprobe 7822 DT
CONTRACTOR: Stratus
LOGGED BY: J. Fassio

ELEVATION REFERENCE: NA
GROUND SURFACE ELEVATION: NA
DRILLING DATES: 2/25/2014 - 2/25/2014

REMARKS:

DIRECT PUSH BORING 4-61M-128331.GPJ AMEC PORTLAND.GDT 3/23/14

PDC - Block A & N

4-61M-128331

AMEC Environment & Infrastructure, Inc.
7376 SW Durham Road
Portland, Oregon
USA 97224
Tel (503) 639-3400
Fax (503) 620-7892

LOG OF BORING DP-5

APPENDIX B

Laboratory Reports

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Monday, March 17, 2014

Joe Fassio
Amec Environment & Infrastructure, Inc
7376 SW Durham Road
Portland, OR 97224

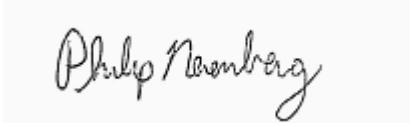
RE: Block A+N / 461M128331

Enclosed are the results of analyses for work order A4B0611, which was received by the laboratory on 2/25/2014 at 3:40:00PM.

Thank you for using Apex Labs. We appreciate your business and strive to provide the highest quality services to the environmental industry.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Apex Laboratories



Philip Nerenberg, Lab Director

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Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Amec Environment & Infrastructure, Inc	Project: **Block A+N**	
7376 SW Durham Road	Project Number: 461M128331	**Reported:**
Portland, OR 97224	Project Manager: Joe Fassio	03/17/14 10:40

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
DP-1_0-2.5	A4B0611-01	Soil	02/25/14 10:45	02/25/14 15:40
DP-1_5-7.5	A4B0611-02	Soil	02/25/14 11:00	02/25/14 15:40
DP-1	A4B0611-03	Water	02/25/14 11:15	02/25/14 15:40
DP-2_0-2.5	A4B0611-04	Soil	02/25/14 11:40	02/25/14 15:40
DP-2_2.5-5	A4B0611-05	Soil	02/25/14 11:45	02/25/14 15:40
DP-3_0-2.5	A4B0611-06	Soil	02/25/14 12:00	02/25/14 15:40
DP-3_5-7.5	A4B0611-07	Soil	02/25/14 12:15	02/25/14 15:40
DP-4_0-2	A4B0611-08	Soil	02/25/14 09:40	02/25/14 15:40
DP-4_5-7.5	A4B0611-09	Soil	02/25/14 09:50	02/25/14 15:40
DP-4	A4B0611-10	Water	02/25/14 10:15	02/25/14 15:40
DP-5_0-2.5	A4B0611-11	Soil	02/25/14 08:51	02/25/14 15:40
DP-5_5-7.5	A4B0611-12	Soil	02/25/14 09:00	02/25/14 15:40
DP-5	A4B0611-13	Water	02/25/14 09:10	02/25/14 15:40

Apex Laboratories

Philip Nerenberg, Lab Director

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Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Amec Environment & Infrastructure, Inc	Project: **Block A+N**	
7376 SW Durham Road	Project Number: 461M128331	**Reported:**
Portland, OR 97224	Project Manager: Joe Fassio	03/17/14 10:40

ANALYTICAL SAMPLE RESULTS

Hydrocarbon Identification Screen by NWTPH-HCID

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
DP-1_0-2.5 (A4B0611-01RE1)			**Matrix: Soil**		**Batch: 4020646**			
Gasoline Range Organics	ND	---	21.5	mg/kg dry	1	02/28/14 13:37	NWTPH-HCID	
Diesel Range Organics	ND	---	53.9	"	"	"	"	
Oil Range Organics	DET	---	108	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 103 %*	*Limits: 50-150 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*98 %*	*Limits: 50-150 %*	"	"	"	
DP-1_5-7.5 (A4B0611-02RE1)			**Matrix: Soil**		**Batch: 4020646**			
Gasoline Range Organics	ND	---	26.6	mg/kg dry	1	02/28/14 14:14	NWTPH-HCID	
Diesel Range Organics	ND	---	66.5	"	"	"	"	
Oil Range Organics	ND	---	133	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 85 %*	*Limits: 50-150 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*77 %*	*Limits: 50-150 %*	"	"	"	
DP-1 (A4B0611-03)			**Matrix: Water**		**Batch: 4020638**			
Gasoline Range Organics	DET	---	0.102	mg/L	1	02/27/14 21:55	NWTPH-HCID	B
Diesel Range Organics	ND	---	0.255	"	"	"	"	
Oil Range Organics	ND	---	0.255	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 104 %*	*Limits: 50-150 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*69 %*	*Limits: 10-120 %*	"	"	"	
DP-2_0-2.5 (A4B0611-04)			**Matrix: Soil**		**Batch: 4020646**			
Gasoline Range Organics	ND	---	21.1	mg/kg dry	1	02/28/14 03:47	NWTPH-HCID	
Diesel Range Organics	DET	---	52.7	"	"	"	"	F-11, F-15
Oil Range Organics	DET	---	105	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 74 %*	*Limits: 50-150 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*69 %*	*Limits: 50-150 %*	"	"	"	
DP-2_2.5-5 (A4B0611-05)			**Matrix: Soil**		**Batch: 4020646**			
Gasoline Range Organics	ND	---	23.4	mg/kg dry	1	02/27/14 21:00	NWTPH-HCID	
Diesel Range Organics	ND	---	58.6	"	"	"	"	
Oil Range Organics	ND	---	117	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 61 %*	*Limits: 50-150 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*57 %*	*Limits: 50-150 %*	"	"	"	
DP-3_0-2.5 (A4B0611-06)			**Matrix: Soil**		**Batch: 4020646**			
Gasoline Range Organics	ND	---	22.6	mg/kg dry	1	02/27/14 22:51	NWTPH-HCID	
Diesel Range Organics	ND	---	56.5	"	"	"	"	
Oil Range Organics	DET	---	113	"	"	"	"	

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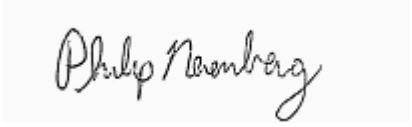

Philip Nerenberg, Lab Director

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Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Amec Environment & Infrastructure, Inc	Project: **Block A+N**	
7376 SW Durham Road	Project Number: 461M128331	**Reported:**
Portland, OR 97224	Project Manager: Joe Fassio	03/17/14 10:40

ANALYTICAL SAMPLE RESULTS

Hydrocarbon Identification Screen by NWTPH-HCID

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
DP-3_0-2.5 (A4B0611-06)			**Matrix: Soil**		**Batch: 4020646**			
Surrogate: o-Terphenyl (Surr)			*Recovery: 80 %*	*Limits: 50-150 %*	1	"	NWTPH-HCID	
4-Bromofluorobenzene (Surr)			*74 %*	*Limits: 50-150 %*	"	"	"	
DP-3_5-7.5 (A4B0611-07)			**Matrix: Soil**		**Batch: 4020646**			
Gasoline Range Organics	ND	---	24.8	mg/kg dry	1	02/27/14 23:28	NWTPH-HCID	
Diesel Range Organics	DET	---	61.9	"	"	"	"	F-11, F-15
Oil Range Organics	DET	---	124	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 83 %*	*Limits: 50-150 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*78 %*	*Limits: 50-150 %*	"	"	"	
DP-4_0-2 (A4B0611-08)			**Matrix: Soil**		**Batch: 4020646**			
Gasoline Range Organics	ND	---	21.7	mg/kg dry	1	02/28/14 00:05	NWTPH-HCID	
Diesel Range Organics	DET	---	54.2	"	"	"	"	F-11, F-15
Oil Range Organics	DET	---	108	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 95 %*	*Limits: 50-150 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*90 %*	*Limits: 50-150 %*	"	"	"	
DP-4_5-7.5 (A4B0611-09)			**Matrix: Soil**		**Batch: 4020646**			
Gasoline Range Organics	ND	---	25.6	mg/kg dry	1	02/27/14 21:18	NWTPH-HCID	
Diesel Range Organics	ND	---	63.9	"	"	"	"	
Oil Range Organics	ND	---	128	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 79 %*	*Limits: 50-150 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*69 %*	*Limits: 50-150 %*	"	"	"	
DP-4 (A4B0611-10)			**Matrix: Water**		**Batch: 4020638**			
Gasoline Range Organics	DET	---	0.111	mg/L	1	02/27/14 21:37	NWTPH-HCID	B
Diesel Range Organics	ND	---	0.278	"	"	"	"	
Oil Range Organics	ND	---	0.278	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 104 %*	*Limits: 50-150 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*73 %*	*Limits: 10-120 %*	"	"	"	
DP-5_0-2.5 (A4B0611-11)			**Matrix: Soil**		**Batch: 4020646**			
Gasoline Range Organics	ND	---	24.8	mg/kg dry	1	02/28/14 00:42	NWTPH-HCID	
Diesel Range Organics	ND	---	62.1	"	"	"	"	
Oil Range Organics	DET	---	124	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 72 %*	*Limits: 50-150 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*63 %*	*Limits: 50-150 %*	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

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12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

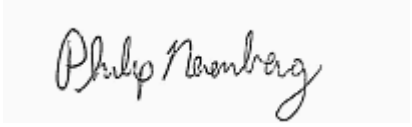
Amec Environment & Infrastructure, Inc	Project: **Block A+N**	
7376 SW Durham Road	Project Number: 461M128331	**Reported:**
Portland, OR 97224	Project Manager: Joe Fassio	03/17/14 10:40

ANALYTICAL SAMPLE RESULTS

Hydrocarbon Identification Screen by NWTPH-HCID

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
DP-5_5-7.5 (A4B0611-12RE1)			**Matrix: Soil**		**Batch: 4020646**			
Gasoline Range Organics	ND	---	25.3	mg/kg dry	1	02/28/14 12:22	NWTPH-HCID	
Diesel Range Organics	ND	---	63.3	"	"	"	"	
Oil Range Organics	ND	---	127	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 62 %*	*Limits: 50-150 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*50 %*	*Limits: 50-150 %*	"	"	"	
DP-5 (A4B0611-13)			**Matrix: Water**		**Batch: 4020638**			
Gasoline Range Organics	DET	---	0.0962	mg/L	1	02/27/14 22:14	NWTPH-HCID	B
Diesel Range Organics	ND	---	0.240	"	"	"	"	
Oil Range Organics	DET	---	0.240	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 100 %*	*Limits: 50-150 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*45 %*	*Limits: 10-120 %*	"	"	"	

Apex Laboratories



Philip Nerenberg, Lab Director

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Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

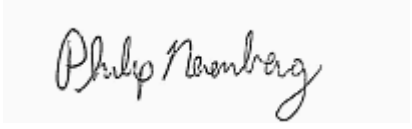
Amec Environment & Infrastructure, Inc	Project: **Block A+N**	
7376 SW Durham Road	Project Number: 461M128331	**Reported:**
Portland, OR 97224	Project Manager: Joe Fassio	03/17/14 10:40

ANALYTICAL SAMPLE RESULTS

Diesel and Oil Hydrocarbons by NWTPH-Dx with Silica Gel Cleanup

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
DP-1_0-2.5 (A4B0611-01)			**Matrix: Soil**		**Batch: 4030116**			
Diesel	ND	---	25.0	mg/kg dry	1	03/06/14 04:42	NWTPH-Dx/SG	
Oil	**1140**	---	50.0	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 101 %*	*Limits: 50-150 %*	"	"	"	
DP-2_0-2.5 (A4B0611-04)			**Matrix: Soil**		**Batch: 4030116**			
Diesel	ND	---	28.0	mg/kg dry	1	03/06/14 05:17	NWTPH-Dx/SG	
Oil	**562**	---	56.0	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 93 %*	*Limits: 50-150 %*	"	"	"	
DP-3_0-2.5 (A4B0611-06)			**Matrix: Soil**		**Batch: 4030116**			
Diesel	ND	---	28.7	mg/kg dry	1	03/06/14 05:53	NWTPH-Dx/SG	
Oil	**388**	---	57.5	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 93 %*	*Limits: 50-150 %*	"	"	"	
DP-3_5-7.5 (A4B0611-07)			**Matrix: Soil**		**Batch: 4030116**			
Diesel	ND	---	29.9	mg/kg dry	1	03/06/14 06:28	NWTPH-Dx/SG	
Oil	**2220**	---	59.7	"	"	"	"	A-01
Surrogate: o-Terphenyl (Surr)			*Recovery: 95 %*	*Limits: 50-150 %*	"	"	"	
DP-4_0-2 (A4B0611-08)			**Matrix: Soil**		**Batch: 4030116**			
Diesel	ND	---	27.2	mg/kg dry	1	03/06/14 07:04	NWTPH-Dx/SG	
Oil	**1600**	---	54.4	"	"	"	"	A-01
Surrogate: o-Terphenyl (Surr)			*Recovery: 96 %*	*Limits: 50-150 %*	"	"	"	
DP-5_0-2.5 (A4B0611-11)			**Matrix: Soil**		**Batch: 4030116**			
Diesel	ND	---	29.2	mg/kg dry	1	03/06/14 07:39	NWTPH-Dx/SG	
Oil	**1130**	---	58.5	"	"	"	"	Q-42
Surrogate: o-Terphenyl (Surr)			*Recovery: 96 %*	*Limits: 50-150 %*	"	"	"	

Apex Laboratories



Philip Nerenberg, Lab Director

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12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

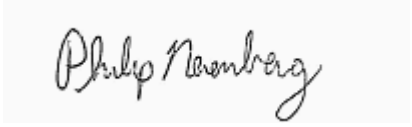
Amec Environment & Infrastructure, Inc	Project: **Block A+N**	
7376 SW Durham Road	Project Number: 461M128331	**Reported:**
Portland, OR 97224	Project Manager: Joe Fassio	03/17/14 10:40

ANALYTICAL SAMPLE RESULTS

Diesel and Oil Hydrocarbons by NWTPH-Dx with Acid/Silica Gel Cleanup

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
DP-5 (A4B0611-13)			**Matrix: Water**		**Batch: 4030069**			
Diesel	ND	---	0.238	mg/L	1	03/04/14 23:10	NWTPH-Dx/SG	
Oil	ND	---	0.476	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 80 %*	*Limits: 50-150 %*	"	"	"	

Apex Laboratories



Philip Nerenberg, Lab Director

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12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Amec Environment & Infrastructure, Inc	Project: **Block A+N**	
7376 SW Durham Road	Project Number: 461M128331	**Reported:**
Portland, OR 97224	Project Manager: Joe Fassio	03/17/14 10:40

ANALYTICAL SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene to Naphthalene) by NWTPH-Gx

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
DP-1 (A4B0611-03)			**Matrix: Water**		**Batch: 4020680**			
Gasoline Range Organics	ND	---	0.100	mg/L	1	02/28/14 18:42	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 81 %*	*Limits: 50-150 %*	"	"	"	
1,4-Difluorobenzene (Sur)			*109 %*	*Limits: 50-150 %*	"	"	"	
DP-4 (A4B0611-10)			**Matrix: Water**		**Batch: 4020680**			
Gasoline Range Organics	ND	---	0.100	mg/L	1	02/28/14 19:08	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 81 %*	*Limits: 50-150 %*	"	"	"	
1,4-Difluorobenzene (Sur)			*106 %*	*Limits: 50-150 %*	"	"	"	
DP-5 (A4B0611-13)			**Matrix: Water**		**Batch: 4020680**			
Gasoline Range Organics	ND	---	0.100	mg/L	1	02/28/14 19:35	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 87 %*	*Limits: 50-150 %*	"	"	"	
1,4-Difluorobenzene (Sur)			*112 %*	*Limits: 50-150 %*	"	"	"	

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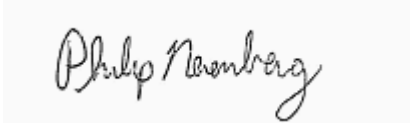

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Amec Environment & Infrastructure, Inc	Project: **Block A+N**	
7376 SW Durham Road	Project Number: 461M128331	**Reported:**
Portland, OR 97224	Project Manager: Joe Fassio	03/17/14 10:40

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
DP-1_0-2.5 (A4B0611-01RE1)			**Matrix: Soil**		**Batch: 4030015**			
Acenaphthene	ND	---	41.0	ug/kg dry	5	03/04/14 18:51	EPA 8270D (SIM)	
Acenaphthylene	ND	---	41.0	"	"	"	"	
Anthracene	ND	---	41.0	"	"	"	"	
Benz(a)anthracene	**62.2**	---	41.0	"	"	"	"	
Benzo(a)pyrene	**101**	---	41.0	"	"	"	"	
Benzo(b+k)fluoranthene(s)	**167**	---	81.9	"	"	"	"	Q-26
Benzo(g,h,i)perylene	**173**	---	41.0	"	"	"	"	
Chrysene	**96.7**	---	41.0	"	"	"	"	
Dibenz(a,h)anthracene	ND	---	41.0	"	"	"	"	
Fluoranthene	**122**	---	41.0	"	"	"	"	
Fluorene	ND	---	41.0	"	"	"	"	
Indeno(1,2,3-cd)pyrene	**127**	---	41.0	"	"	"	"	
Naphthalene	**88.5**	---	41.0	"	"	"	"	
Phenanthrene	**132**	---	41.0	"	"	"	"	
Pyrene	**175**	---	41.0	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 105 %*	*Limits: 45-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*102 %*	*Limits: 30-120 %*	"	"	"	
DP-1_5-7.5 (A4B0611-02)			**Matrix: Soil**		**Batch: 4030015**			
Acenaphthene	ND	---	51.7	ug/kg dry	5	03/03/14 18:42	EPA 8270D (SIM)	
Acenaphthylene	**84.4**	---	51.7	"	"	"	"	
Anthracene	**66.4**	---	51.7	"	"	"	"	
Benz(a)anthracene	**780**	---	51.7	"	"	"	"	
Benzo(a)pyrene	**1210**	---	51.7	"	"	"	"	
Benzo(g,h,i)perylene	**848**	---	51.7	"	"	"	"	
Chrysene	**859**	---	51.7	"	"	"	"	
Dibenz(a,h)anthracene	**147**	---	51.7	"	"	"	"	
Fluoranthene	**1470**	---	51.7	"	"	"	"	
Fluorene	ND	---	51.7	"	"	"	"	
Indeno(1,2,3-cd)pyrene	**864**	---	51.7	"	"	"	"	
Naphthalene	**121**	---	51.7	"	"	"	"	
Phenanthrene	**72.6**	---	51.7	"	"	"	"	
Pyrene	**1650**	---	51.7	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 97 %*	*Limits: 45-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*99 %*	*Limits: 30-120 %*	"	"	"	
DP-1_5-7.5 (A4B0611-02RE1)			**Matrix: Soil**		**Batch: 4030015**			

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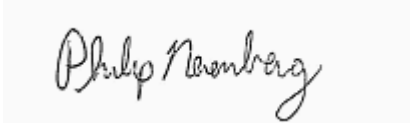

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Amec Environment & Infrastructure, Inc	Project: **Block A+N**	
7376 SW Durham Road	Project Number: 461M128331	**Reported:**
Portland, OR 97224	Project Manager: Joe Fassio	03/17/14 10:40

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
DP-1_5-7.5 (A4B0611-02RE1)			**Matrix: Soil**		**Batch: 4030015**			
Benzo(b+k)fluoranthene(s)	**1690**	---	103	ug/kg dry	5	03/05/14 17:15	EPA 8270D (SIM)	Q-26
DP-1 (A4B0611-03)			**Matrix: Water**		**Batch: 4020637**			
Acenaphthene	ND	---	0.0381	ug/L	1	02/28/14 14:42	EPA 8270D (SIM)	
Acenaphthylene	ND	---	0.0381	"	"	"	"	
Anthracene	ND	---	0.0381	"	"	"	"	
Benz(a)anthracene	**0.100**	---	0.0381	"	"	"	"	
Benzo(a)pyrene	**0.125**	---	0.0381	"	"	"	"	
Benzo(b+k)fluoranthene(s)	**0.211**	---	0.0762	"	"	"	"	Q-26
Benzo(g,h,i)perylene	**0.103**	---	0.0381	"	"	"	"	
Chrysene	**0.0972**	---	0.0381	"	"	"	"	
Dibenz(a,h)anthracene	ND	---	0.0381	"	"	"	"	
Fluoranthene	**0.171**	---	0.0381	"	"	"	"	
Fluorene	ND	---	0.0381	"	"	"	"	
Indeno(1,2,3-cd)pyrene	**0.109**	---	0.0381	"	"	"	"	
Naphthalene	ND	---	0.0762	"	"	"	"	
Phenanthrene	ND	---	0.0381	"	"	"	"	
Pyrene	**0.185**	---	0.0381	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 64 %*	*Limits: 45-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*73 %*	*Limits: 30-120 %*	"	"	"	
DP-2_0-2.5 (A4B0611-04RE1)			**Matrix: Soil**		**Batch: 4030015**			
Acenaphthene	ND	---	43.9	ug/kg dry	5	03/04/14 19:19	EPA 8270D (SIM)	
Acenaphthylene	ND	---	43.9	"	"	"	"	
Anthracene	ND	---	43.9	"	"	"	"	
Benz(a)anthracene	**74.8**	---	43.9	"	"	"	"	
Benzo(a)pyrene	**72.7**	---	43.9	"	"	"	"	
Benzo(b+k)fluoranthene(s)	**181**	---	87.8	"	"	"	"	Q-26
Benzo(g,h,i)perylene	**145**	---	43.9	"	"	"	"	
Chrysene	**174**	---	43.9	"	"	"	"	
Dibenz(a,h)anthracene	ND	---	43.9	"	"	"	"	
Fluoranthene	**170**	---	43.9	"	"	"	"	
Fluorene	ND	---	43.9	"	"	"	"	
Indeno(1,2,3-cd)pyrene	**119**	---	43.9	"	"	"	"	
Naphthalene	**262**	---	43.9	"	"	"	"	
Phenanthrene	**368**	---	43.9	"	"	"	"	
Pyrene	**169**	---	43.9	"	"	"	"	

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Amec Environment & Infrastructure, Inc	Project: **Block A+N**	
7376 SW Durham Road	Project Number: 461M128331	**Reported:**
Portland, OR 97224	Project Manager: Joe Fassio	03/17/14 10:40

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
DP-2_0-2.5 (A4B0611-04RE1)			**Matrix: Soil**		**Batch: 4030015**			
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 88 %*	*Limits: 45-120 %*	5	"	EPA 8270D (SIM)	
p-Terphenyl-d14 (Surr)			*88 %*	*Limits: 30-120 %*	"	"	"	
DP-2_2.5-5 (A4B0611-05)			**Matrix: Soil**		**Batch: 4030015**			
Acenaphthene	ND	---	9.28	ug/kg dry	1	03/03/14 19:35	EPA 8270D (SIM)	
Acenaphthylene	ND	---	9.28	"	"	"	"	
Anthracene	ND	---	9.28	"	"	"	"	
Benz(a)anthracene	**23.3**	---	9.28	"	"	"	"	
Benzo(a)pyrene	**24.7**	---	9.28	"	"	"	"	
Benzo(g,h,i)perylene	**18.5**	---	9.28	"	"	"	"	
Chrysene	**34.3**	---	9.28	"	"	"	"	
Dibenz(a,h)anthracene	ND	---	9.28	"	"	"	"	
Fluoranthene	**29.8**	---	9.28	"	"	"	"	
Fluorene	ND	---	9.28	"	"	"	"	
Indeno(1,2,3-cd)pyrene	**20.6**	---	9.28	"	"	"	"	
Naphthalene	**13.0**	---	9.28	"	"	"	"	
Phenanthrene	**35.4**	---	9.28	"	"	"	"	
Pyrene	**28.7**	---	9.28	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 79 %*	*Limits: 45-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*89 %*	*Limits: 30-120 %*	"	"	"	
DP-2_2.5-5 (A4B0611-05RE1)			**Matrix: Soil**		**Batch: 4030015**			
Benzo(b+k)fluoranthene(s)	**42.4**	---	18.6	ug/kg dry	1	03/05/14 17:43	EPA 8270D (SIM)	Q-26
DP-3_0-2.5 (A4B0611-06)			**Matrix: Soil**		**Batch: 4030015**			
Acenaphthene	ND	---	454	ug/kg dry	50	03/03/14 20:01	EPA 8270D (SIM)	
Acenaphthylene	ND	---	454	"	"	"	"	
Anthracene	ND	---	454	"	"	"	"	
Benz(a)anthracene	**615**	---	454	"	"	"	"	
Benzo(a)pyrene	**1700**	---	454	"	"	"	"	
Benzo(g,h,i)perylene	**1860**	---	454	"	"	"	"	
Chrysene	**792**	---	454	"	"	"	"	
Dibenz(a,h)anthracene	ND	---	454	"	"	"	"	
Fluoranthene	**931**	---	454	"	"	"	"	
Fluorene	ND	---	454	"	"	"	"	
Indeno(1,2,3-cd)pyrene	**1820**	---	454	"	"	"	"	
Naphthalene	ND	---	454	"	"	"	"	

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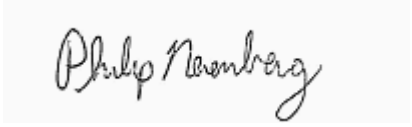

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Amec Environment & Infrastructure, Inc	Project: **Block A+N**	
7376 SW Durham Road	Project Number: 461M128331	**Reported:**
Portland, OR 97224	Project Manager: Joe Fassio	03/17/14 10:40

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
DP-3_0-2.5 (A4B0611-06)			**Matrix: Soil**		**Batch: 4030015**			
Phenanthrene	**520**	---	454	ug/kg dry	50	"	EPA 8270D (SIM)	
Pyrene	**971**	---	454	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 83 %*	*Limits: 45-120 %*	"	"	"	*S-05*
p-Terphenyl-d14 (Surr)			*84 %*	*Limits: 30-120 %*	"	"	"	*S-05*
DP-3_0-2.5 (A4B0611-06RE1)			**Matrix: Soil**		**Batch: 4030015**			
Benzo(b+k)fluoranthene(s)	**2360**	---	908	ug/kg dry	50	03/05/14 18:11	EPA 8270D (SIM)	Q-26
DP-3_5-7.5 (A4B0611-07RE1)			**Matrix: Soil**		**Batch: 4030015**			
Acenaphthene	ND	---	47.8	ug/kg dry	5	03/04/14 19:47	EPA 8270D (SIM)	
Acenaphthylene	ND	---	47.8	"	"	"	"	
Anthracene	ND	---	47.8	"	"	"	"	
Benz(a)anthracene	ND	---	47.8	"	"	"	"	
Benzo(a)pyrene	ND	---	47.8	"	"	"	"	
Benzo(b+k)fluoranthene(s)	ND	---	95.6	"	"	"	"	Q-26
Benzo(g,h,i)perylene	**83.7**	---	47.8	"	"	"	"	
Chrysene	**77.7**	---	47.8	"	"	"	"	
Dibenz(a,h)anthracene	ND	---	47.8	"	"	"	"	
Fluoranthene	**79.0**	---	47.8	"	"	"	"	
Fluorene	ND	---	47.8	"	"	"	"	
Indeno(1,2,3-cd)pyrene	**57.6**	---	47.8	"	"	"	"	
Naphthalene	**48.5**	---	47.8	"	"	"	"	
Phenanthrene	**97.5**	---	47.8	"	"	"	"	
Pyrene	**80.9**	---	47.8	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 92 %*	*Limits: 45-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*91 %*	*Limits: 30-120 %*	"	"	"	
DP-4_0-2 (A4B0611-08RE1)			**Matrix: Soil**		**Batch: 4030015**			
Acenaphthene	ND	---	45.1	ug/kg dry	5	03/04/14 20:14	EPA 8270D (SIM)	
Acenaphthylene	**60.8**	---	45.1	"	"	"	"	
Anthracene	**80.0**	---	45.1	"	"	"	"	
Benz(a)anthracene	**272**	---	45.1	"	"	"	"	
Benzo(a)pyrene	**295**	---	45.1	"	"	"	"	
Benzo(b+k)fluoranthene(s)	**469**	---	90.2	"	"	"	"	Q-26
Benzo(g,h,i)perylene	**343**	---	45.1	"	"	"	"	
Chrysene	**365**	---	45.1	"	"	"	"	
Dibenz(a,h)anthracene	**49.9**	---	45.1	"	"	"	"	

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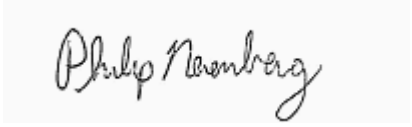

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Amec Environment & Infrastructure, Inc	Project: **Block A+N**	
7376 SW Durham Road	Project Number: 461M128331	**Reported:**
Portland, OR 97224	Project Manager: Joe Fassio	03/17/14 10:40

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
DP-4_0-2 (A4B0611-08RE1)			**Matrix: Soil**		**Batch: 4030015**			
Fluoranthene	**500**	---	45.1	ug/kg dry	5	"	EPA 8270D (SIM)	
Fluorene	ND	---	45.1	"	"	"	"	
Indeno(1,2,3-cd)pyrene	**282**	---	45.1	"	"	"	"	
Naphthalene	**318**	---	45.1	"	"	"	"	
Phenanthrene	**586**	---	45.1	"	"	"	"	
Pyrene	**529**	---	45.1	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 95 %*	*Limits: 45-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*97 %*	*Limits: 30-120 %*	"	"	"	
DP-4_5-7.5 (A4B0611-09)			**Matrix: Soil**		**Batch: 4030015**			
Acenaphthene	ND	---	9.95	ug/kg dry	1	03/03/14 21:19	EPA 8270D (SIM)	
Acenaphthylene	ND	---	9.95	"	"	"	"	
Anthracene	ND	---	9.95	"	"	"	"	
Benz(a)anthracene	ND	---	9.95	"	"	"	"	
Benzo(a)pyrene	ND	---	9.95	"	"	"	"	
Benzo(g,h,i)perylene	ND	---	9.95	"	"	"	"	
Chrysene	ND	---	9.95	"	"	"	"	
Dibenz(a,h)anthracene	ND	---	9.95	"	"	"	"	
Fluoranthene	ND	---	9.95	"	"	"	"	
Fluorene	ND	---	9.95	"	"	"	"	
Indeno(1,2,3-cd)pyrene	ND	---	9.95	"	"	"	"	
Naphthalene	ND	---	9.95	"	"	"	"	
Phenanthrene	ND	---	9.95	"	"	"	"	
Pyrene	ND	---	9.95	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 92 %*	*Limits: 45-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*95 %*	*Limits: 30-120 %*	"	"	"	
DP-4_5-7.5 (A4B0611-09RE1)			**Matrix: Soil**		**Batch: 4030015**			
Benzo(b)fluoranthene	ND	---	9.95	ug/kg dry	1	03/05/14 18:39	EPA 8270D (SIM)	
Benzo(k)fluoranthene	ND	---	9.95	"	"	"	"	
DP-4 (A4B0611-10)			**Matrix: Water**		**Batch: 4020637**			
Acenaphthene	**0.0479**	---	0.0392	ug/L	1	02/28/14 15:10	EPA 8270D (SIM)	
Acenaphthylene	ND	---	0.0392	"	"	"	"	
Anthracene	ND	---	0.0392	"	"	"	"	
Benz(a)anthracene	ND	---	0.0392	"	"	"	"	
Benzo(a)pyrene	ND	---	0.0392	"	"	"	"	

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7376 SW Durham Road	Project Number: 461M128331	**Reported:**
Portland, OR 97224	Project Manager: Joe Fassio	03/17/14 10:40

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
DP-4 (A4B0611-10)			**Matrix: Water**		**Batch: 4020637**			
Benzo(b)fluoranthene	ND	---	0.0392	ug/L	1	"	EPA 8270D (SIM)	
Benzo(k)fluoranthene	ND	---	0.0392	"	"	"	"	
Benzo(g,h,i)perylene	ND	---	0.0392	"	"	"	"	
Chrysene	ND	---	0.0392	"	"	"	"	
Dibenz(a,h)anthracene	ND	---	0.0392	"	"	"	"	
Fluoranthene	**0.0815**	---	0.0392	"	"	"	"	
Fluorene	ND	---	0.0392	"	"	"	"	
Indeno(1,2,3-cd)pyrene	ND	---	0.0392	"	"	"	"	
Naphthalene	ND	---	0.0784	"	"	"	"	
Phenanthrene	**0.139**	---	0.0392	"	"	"	"	
Pyrene	**0.0734**	---	0.0392	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 72 %*	*Limits: 45-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*63 %*	*Limits: 30-120 %*	"	"	"	
DP-5_0-2.5 (A4B0611-11)			**Matrix: Soil**		**Batch: 4030015**			
Acenaphthene	ND	---	459	ug/kg dry	50	03/03/14 21:46	EPA 8270D (SIM)	
Acenaphthylene	ND	---	459	"	"	"	"	
Anthracene	ND	---	459	"	"	"	"	
Benz(a)anthracene	**1790**	---	459	"	"	"	"	
Benzo(a)pyrene	**2690**	---	459	"	"	"	"	
Benzo(g,h,i)perylene	**2080**	---	459	"	"	"	"	
Chrysene	**2270**	---	459	"	"	"	"	
Dibenz(a,h)anthracene	ND	---	459	"	"	"	"	
Fluoranthene	**1800**	---	459	"	"	"	"	
Fluorene	ND	---	459	"	"	"	"	
Indeno(1,2,3-cd)pyrene	**1710**	---	459	"	"	"	"	
Naphthalene	ND	---	459	"	"	"	"	
Phenanthrene	**800**	---	459	"	"	"	"	
Pyrene	**3470**	---	459	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 87 %*	*Limits: 45-120 %*	"	"	"	*S-05*
p-Terphenyl-d14 (Surr)			*94 %*	*Limits: 30-120 %*	"	"	"	*S-05*
DP-5_0-2.5 (A4B0611-11RE1)			**Matrix: Soil**		**Batch: 4030015**			
Benzo(b+k)fluoranthene(s)	**3010**	---	919	ug/kg dry	50	03/05/14 19:06	EPA 8270D (SIM)	Q-26
DP-5_5-7.5 (A4B0611-12)			**Matrix: Soil**		**Batch: 4030093**			
Acenaphthene	ND	---	56.7	ug/kg dry	5	03/06/14 13:16	EPA 8270D (SIM)	

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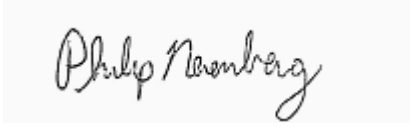

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Amec Environment & Infrastructure, Inc	Project: **Block A+N**	
7376 SW Durham Road	Project Number: 461M128331	**Reported:**
Portland, OR 97224	Project Manager: Joe Fassio	03/17/14 10:40

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
DP-5_5-7.5 (A4B0611-12)			**Matrix: Soil**		**Batch: 4030093**			
Acenaphthylene	ND	---	56.7	ug/kg dry	5	"	EPA 8270D (SIM)	
Anthracene	ND	---	56.7	"	"	"	"	
Benz(a)anthracene	**99.8**	---	56.7	"	"	"	"	
Benzo(a)pyrene	**97.3**	---	56.7	"	"	"	"	
Benzo(b+k)fluoranthene(s)	**165**	---	113	"	"	"	"	Q-26
Benzo(g,h,i)perylene	**67.2**	---	56.7	"	"	"	"	
Chrysene	**138**	---	56.7	"	"	"	"	
Dibenz(a,h)anthracene	ND	---	56.7	"	"	"	"	
Fluoranthene	**214**	---	56.7	"	"	"	"	
Fluorene	ND	---	56.7	"	"	"	"	
Indeno(1,2,3-cd)pyrene	**77.5**	---	56.7	"	"	"	"	
Naphthalene	**79.0**	---	56.7	"	"	"	"	
Phenanthrene	**152**	---	56.7	"	"	"	"	
Pyrene	**192**	---	56.7	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 85 %*	*Limits: 45-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*95 %*	*Limits: 30-120 %*	"	"	"	
DP-5 (A4B0611-13)			**Matrix: Water**		**Batch: 4020637**			
Acenaphthene	ND	---	0.0381	ug/L	1	02/28/14 15:38	EPA 8270D (SIM)	
Acenaphthylene	ND	---	0.0381	"	"	"	"	
Anthracene	ND	---	0.0381	"	"	"	"	
Benz(a)anthracene	ND	---	0.0381	"	"	"	"	
Benzo(a)pyrene	ND	---	0.0381	"	"	"	"	
Benzo(b)fluoranthene	ND	---	0.0381	"	"	"	"	
Benzo(k)fluoranthene	ND	---	0.0381	"	"	"	"	
Benzo(g,h,i)perylene	ND	---	0.0381	"	"	"	"	
Chrysene	ND	---	0.0381	"	"	"	"	
Dibenz(a,h)anthracene	ND	---	0.0381	"	"	"	"	
Fluoranthene	ND	---	0.0381	"	"	"	"	
Fluorene	ND	---	0.0381	"	"	"	"	
Indeno(1,2,3-cd)pyrene	ND	---	0.0381	"	"	"	"	
Naphthalene	ND	---	0.0762	"	"	"	"	
Phenanthrene	ND	---	0.0381	"	"	"	"	
Pyrene	ND	---	0.0381	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 53 %*	*Limits: 45-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*71 %*	*Limits: 30-120 %*	"	"	"	

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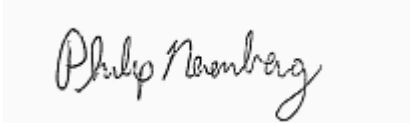

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Amec Environment & Infrastructure, Inc	Project: **Block A+N**	
7376 SW Durham Road	Project Number: 461M128331	**Reported:**
Portland, OR 97224	Project Manager: Joe Fassio	03/17/14 10:40

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
DP-1 (A4B0611-03)			**Matrix: Water**					
Batch: 4030229								
Antimony	**1.46**	---	1.00	ug/L	1	03/11/14 11:52	EPA 6020A	
Arsenic	**2.04**	---	1.00	"	"	"	"	
Beryllium	ND	---	0.200	"	"	"	"	
Cadmium	ND	---	0.200	"	"	"	"	
Chromium	**1.86**	---	1.00	"	"	"	"	
Copper	**3.32**	---	1.00	"	"	"	"	
Lead	**6.16**	---	0.200	"	"	"	"	
Mercury	ND	---	0.0800	"	"	"	"	
Nickel	**1.86**	---	1.00	"	"	"	"	
Selenium	**1.81**	---	1.00	"	"	"	"	
Silver	ND	---	0.200	"	"	"	"	
Thallium	ND	---	0.200	"	"	"	"	
Zinc	**6.43**	---	4.00	"	"	"	"	
DP-2_2.5-5 (A4B0611-05)			**Matrix: Soil**					
Batch: 4030192								
Arsenic	**6.71**	---	1.38	mg/kg dry	10	03/10/14 16:54	EPA 6020A	
Lead	**58.0**	---	0.276	"	"	"	"	
DP-3_5-7.5 (A4B0611-07)			**Matrix: Soil**					
Batch: 4030192								
Arsenic	**9.66**	---	1.43	mg/kg dry	10	03/10/14 16:57	EPA 6020A	
Lead	**82.5**	---	0.286	"	"	"	"	
DP-4_5-7.5 (A4B0611-09)			**Matrix: Soil**					
Batch: 4030192								
Arsenic	**6.19**	---	1.48	mg/kg dry	10	03/10/14 17:00	EPA 6020A	
Lead	**13.0**	---	0.296	"	"	"	"	
DP-4 (A4B0611-10)			**Matrix: Water**					
Batch: 4030229								
Antimony	**4.22**	---	2.25	ug/L	1	03/11/14 11:55	EPA 6020A	
Arsenic	**52.6**	---	2.25	"	"	"	"	
Beryllium	**5.50**	---	0.450	"	"	"	"	
Cadmium	**3.10**	---	0.450	"	"	"	"	
Chromium	**100**	---	2.25	"	"	"	"	
Copper	**458**	---	2.25	"	"	"	"	
Lead	**1180**	---	0.450	"	"	"	"	

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7376 SW Durham Road	Project Number: 461M128331	**Reported:**
Portland, OR 97224	Project Manager: Joe Fassio	03/17/14 10:40

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
DP-4 (A4B0611-10)			**Matrix: Water**					
Mercury	**2.76**	---	0.180	ug/L	1	"	EPA 6020A	
Nickel	**121**	---	2.25	"	"	"	"	
Selenium	**3.62**	---	2.25	"	"	"	"	
Silver	**1.65**	---	0.450	"	"	"	"	
Thallium	**0.675**	---	0.450	"	"	"	"	
Zinc	**740**	---	9.00	"	"	"	"	
DP-5_5-7.5 (A4B0611-12)			**Matrix: Soil**					
Batch: 4030192								
Arsenic	**2.88**	---	1.33	mg/kg dry	10	03/10/14 17:03	EPA 6020A	
Lead	**411**	---	0.266	"	"	"	"	
DP-5 (A4B0611-13)			**Matrix: Water**					
Batch: 4030229								
Antimony	ND	---	1.00	ug/L	1	03/11/14 11:58	EPA 6020A	
Arsenic	**1.06**	---	1.00	"	"	"	"	
Beryllium	ND	---	0.200	"	"	"	"	
Cadmium	ND	---	0.200	"	"	"	"	
Chromium	**2.38**	---	1.00	"	"	"	"	
Copper	**3.39**	---	1.00	"	"	"	"	
Lead	**32.4**	---	0.200	"	"	"	"	
Mercury	ND	---	0.0800	"	"	"	"	
Nickel	**2.01**	---	1.00	"	"	"	"	
Selenium	ND	---	1.00	"	"	"	"	
Silver	ND	---	0.200	"	"	"	"	
Thallium	ND	---	0.200	"	"	"	"	
Zinc	**11.2**	---	4.00	"	"	"	"	

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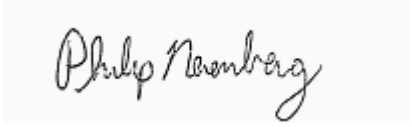

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7376 SW Durham Road	Project Number: 461M128331	**Reported:**
Portland, OR 97224	Project Manager: Joe Fassio	03/17/14 10:40

ANALYTICAL SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
DP-1_0-2.5 (A4B0611-01)			**Matrix: Soil**		**Batch: 4020616**			
% Solids	**86.9**	---	1.00	% by Weight	1	02/27/14 10:42	EPA 8000C	
DP-1_5-7.5 (A4B0611-02)			**Matrix: Soil**		**Batch: 4020616**			
% Solids	**71.5**	---	1.00	% by Weight	1	02/27/14 10:42	EPA 8000C	
DP-2_0-2.5 (A4B0611-04)			**Matrix: Soil**		**Batch: 4020616**			
% Solids	**86.1**	---	1.00	% by Weight	1	02/27/14 10:42	EPA 8000C	
DP-2_2.5-5 (A4B0611-05)			**Matrix: Soil**		**Batch: 4020616**			
% Solids	**78.0**	---	1.00	% by Weight	1	02/27/14 10:42	EPA 8000C	
DP-3_0-2.5 (A4B0611-06)			**Matrix: Soil**		**Batch: 4020616**			
% Solids	**79.2**	---	1.00	% by Weight	1	02/27/14 10:42	EPA 8000C	
DP-3_5-7.5 (A4B0611-07)			**Matrix: Soil**		**Batch: 4020616**			
% Solids	**75.6**	---	1.00	% by Weight	1	02/27/14 10:42	EPA 8000C	
DP-4_0-2 (A4B0611-08)			**Matrix: Soil**		**Batch: 4020616**			
% Solids	**83.4**	---	1.00	% by Weight	1	02/27/14 10:42	EPA 8000C	
DP-4_5-7.5 (A4B0611-09)			**Matrix: Soil**		**Batch: 4020616**			
% Solids	**71.2**	---	1.00	% by Weight	1	02/27/14 10:42	EPA 8000C	
DP-5_0-2.5 (A4B0611-11)			**Matrix: Soil**		**Batch: 4020616**			
% Solids	**76.0**	---	1.00	% by Weight	1	02/27/14 10:42	EPA 8000C	
DP-5_5-7.5 (A4B0611-12)			**Matrix: Soil**		**Batch: 4020616**			
% Solids	**75.4**	---	1.00	% by Weight	1	02/27/14 10:42	EPA 8000C	

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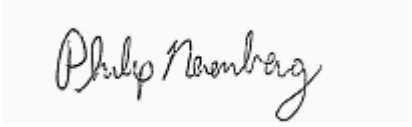

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7376 SW Durham Road	Project Number: 461M128331	**Reported:**
Portland, OR 97224	Project Manager: Joe Fassio	03/17/14 10:40

QUALITY CONTROL (QC) SAMPLE RESULTS

Hydrocarbon Identification Screen by NWTPH-HCID

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4020638 - EPA 3510C (Fuels/Acid Ext.)							**Water**					
Blank (4020638-BLK1)					Prepared: 02/27/14 07:28 Analyzed: 02/27/14 20:41							
NWTPH-HCID												
Gasoline Range Organics	**DET**	---	0.0909	mg/L	1	---	---	---	---	---	---	B
Diesel Range Organics	ND	---	0.227	"	"	---	---	---	---	---	---	
Oil Range Organics	ND	---	0.227	"	"	---	---	---	---	---	---	
Surr: o-Terphenyl (Surr)			*Recovery: 103 %*	*Limits: 50-150 %*			*Dilution: 1x*					
4-Bromofluorobenzene (Surr)			*67 %*	*10-120 %*			*"*					
Batch 4020646 - NWTPH-HCID (Soil)							**Soil**					
Blank (4020646-BLK1)					Prepared: 02/27/14 09:46 Analyzed: 02/27/14 20:05							
NWTPH-HCID												
Gasoline Range Organics	ND	---	16.7	mg/kg wet	1	---	---	---	---	---	---	
Diesel Range Organics	ND	---	41.7	"	"	---	---	---	---	---	---	
Oil Range Organics	ND	---	83.3	"	"	---	---	---	---	---	---	
Surr: o-Terphenyl (Surr)			*Recovery: 106 %*	*Limits: 50-150 %*			*Dilution: 1x*					
4-Bromofluorobenzene (Surr)			*102 %*	*50-150 %*			*"*					
Duplicate (4020646-DUP3)					Prepared: 02/27/14 09:46 Analyzed: 02/28/14 12:59							
QC Source Sample: DP-5_5-7.5 (A4B0611-12RE1)												
NWTPH-HCID												
Gasoline Range Organics	ND	---	24.1	mg/kg dry	1	---	ND	---	---	---	30%	
Diesel Range Organics	ND	---	60.2	"	"	---	ND	---	---	---	30%	
Oil Range Organics	ND	---	120	"	"	---	ND	---	---	---	30%	
Surr: o-Terphenyl (Surr)			*Recovery: 68 %*	*Limits: 50-150 %*			*Dilution: 1x*					
4-Bromofluorobenzene (Surr)			*54 %*	*50-150 %*			*"*					

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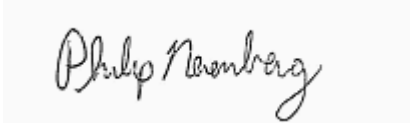

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7376 SW Durham Road	Project Number: 461M128331	**Reported:**
Portland, OR 97224	Project Manager: Joe Fassio	03/17/14 10:40

QUALITY CONTROL (QC) SAMPLE RESULTS

Diesel and Oil Hydrocarbons by NWTPH-Dx with Silica Gel Cleanup

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4030116 - EPA 3546 (Fuels)							**Soil**					
Blank (4030116-BLK1)					Prepared: 03/05/14 13:36 Analyzed: 03/06/14 04:06							
NWTPH-Dx/SG												
Diesel	ND	---	25.0	mg/kg wet	1	---	---	---	---	---	---	
Oil	ND	---	50.0	"	"	---	---	---	---	---	---	
Surr: o-Terphenyl (Surr)			*Recovery: 92 %*	*Limits: 50-150 %*			*Dilution: 1x*					
LCS (4030116-BS1)					Prepared: 03/05/14 13:36 Analyzed: 03/06/14 04:24							
NWTPH-Dx/SG												
Diesel	117	---	25.0	mg/kg wet	1	125	---	93	77-115%	---	---	
Surr: o-Terphenyl (Surr)			*Recovery: 100 %*	*Limits: 50-150 %*			*Dilution: 1x*					
Duplicate (4030116-DUP1)					Prepared: 03/05/14 13:36 Analyzed: 03/06/14 08:14							
QC Source Sample: DP-5_0-2.5 (A4B0611-11)												
NWTPH-Dx/SG												
Diesel	ND	---	27.1	mg/kg dry	1	---	ND	---	---	---	30%	
Oil	**1930**	---	54.3	"	"	---	1130	---	---	52	30%	Q-04
Surr: o-Terphenyl (Surr)			*Recovery: 96 %*	*Limits: 50-150 %*			*Dilution: 1x*					

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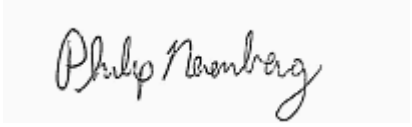

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7376 SW Durham Road	Project Number: 461M128331	**Reported:**
Portland, OR 97224	Project Manager: Joe Fassio	03/17/14 10:40

QUALITY CONTROL (QC) SAMPLE RESULTS

Diesel and Oil Hydrocarbons by NWTPH-Dx with Acid/Silica Gel Cleanup

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4030069 - EPA 3510C (Acid Extraction)							**Water**					
Blank (4030069-BLK3)					Prepared: 03/04/14 13:34 Analyzed: 03/05/14 12:20							
NWTPH-Dx/SG												
Diesel	ND	---	0.250	mg/L	2.5	---	---	---	---	---	---	
Oil	ND	---	0.500	"	"	---	---	---	---	---	---	
Surr: o-Terphenyl (Surr)			*Recovery: 87 %*	*Limits: 50-150 %*			*Dilution: 2.5x*					
LCS (4030069-BS3)					Prepared: 03/04/14 13:34 Analyzed: 03/05/14 12:38							
NWTPH-Dx/SG												
Diesel	1.04	---	0.250	mg/L	2.5	1.25	---	83	60-122%	---	---	
Surr: o-Terphenyl (Surr)			*Recovery: 90 %*	*Limits: 50-150 %*			*Dilution: 2.5x*					
LCS Dup (4030069-BSD3)					Prepared: 03/04/14 13:34 Analyzed: 03/05/14 12:56							**Q-19**
NWTPH-Dx/SG												
Diesel	1.09	---	0.250	mg/L	2.5	1.25	---	87	60-122%	5	20%	
Surr: o-Terphenyl (Surr)			*Recovery: 90 %*	*Limits: 50-150 %*			*Dilution: 2.5x*					

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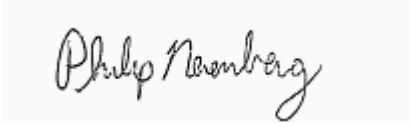

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QUALITY CONTROL (QC) SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene to Naphthalene) by NWTPH-Gx

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4020680 - EPA 5030B							**Water**					
Blank (4020680-BLK1)					Prepared: 02/28/14 09:00 Analyzed: 02/28/14 14:14							
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	---	0.100	mg/L	1	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)			*Recovery: 91 %*	*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*107 %*	*50-150 %*			*"*					
LCS (4020680-BS2)					Prepared: 02/28/14 09:00 Analyzed: 02/28/14 13:48							
NWTPH-Gx (MS)												
Gasoline Range Organics	0.441	---	0.100	mg/L	1	0.500	---	88	70-130%	---	---	
Surr: 4-Bromofluorobenzene (Sur)			*Recovery: 88 %*	*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*105 %*	*50-150 %*			*"*					

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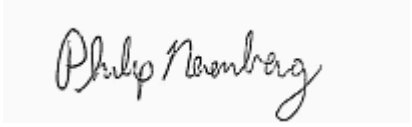

Philip Nerenberg, Lab Director

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Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Amec Environment & Infrastructure, Inc	Project: **Block A+N**	
7376 SW Durham Road	Project Number: 461M128331	**Reported:**
Portland, OR 97224	Project Manager: Joe Fassio	03/17/14 10:40

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4020637 - EPA 3510C (Acid Extraction)							**Water**					
Blank (4020637-BLK1)					Prepared: 02/27/14 07:10 Analyzed: 02/28/14 13:17							
EPA 8270D (SIM)												
Acenaphthene	ND	---	0.0364	ug/L	1	---	---	---	---	---	---	
Acenaphthylene	ND	---	0.0364	"	"	---	---	---	---	---	---	
Anthracene	ND	---	0.0364	"	"	---	---	---	---	---	---	
Benz(a)anthracene	ND	---	0.0364	"	"	---	---	---	---	---	---	
Benzo(a)pyrene	ND	---	0.0364	"	"	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	---	0.0364	"	"	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	---	0.0364	"	"	---	---	---	---	---	---	
Benzo(b+k)fluoranthene(s)	ND	---	0.0727	"	"	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	---	0.0364	"	"	---	---	---	---	---	---	
Chrysene	ND	---	0.0364	"	"	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	---	0.0364	"	"	---	---	---	---	---	---	
Dibenzofuran	ND	---	0.0364	"	"	---	---	---	---	---	---	
Fluoranthene	ND	---	0.0364	"	"	---	---	---	---	---	---	
Fluorene	ND	---	0.0364	"	"	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	---	0.0364	"	"	---	---	---	---	---	---	
1-Methylnaphthalene	ND	---	0.0727	"	"	---	---	---	---	---	---	
2-Methylnaphthalene	ND	---	0.0727	"	"	---	---	---	---	---	---	
Naphthalene	ND	---	0.0727	"	"	---	---	---	---	---	---	
Phenanthrene	ND	---	0.0364	"	"	---	---	---	---	---	---	
Pyrene	ND	---	0.0364	"	"	---	---	---	---	---	---	
Surr: 2-Fluorobiphenyl (Surr)			*Recovery: 77 %*		*Limits: 45-120 %*				*Dilution: 1x*			
p-Terphenyl-d14 (Surr)			*75 %*		*30-120 %*				*"*			
LCS (4020637-BS1)					Prepared: 02/27/14 07:10 Analyzed: 02/28/14 13:45							
EPA 8270D (SIM)												
Acenaphthene	7.10	---	0.0400	ug/L	1	8.00	---	89	45-125%	---	---	
Acenaphthylene	7.09	---	0.0400	"	"	"	---	89	50-125%	---	---	
Anthracene	8.06	---	0.0400	"	"	"	---	101	55-125%	---	---	
Benz(a)anthracene	7.30	---	0.0400	"	"	"	---	91	"	---	---	
Benzo(a)pyrene	7.51	---	0.0400	"	"	"	---	94	"	---	---	
Benzo(b)fluoranthene	7.67	---	0.0400	"	"	"	---	96	45-125%	---	---	

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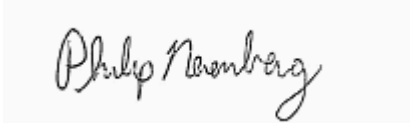

Philip Nerenberg, Lab Director

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Amec Environment & Infrastructure, Inc	Project: **Block A+N**	
7376 SW Durham Road	Project Number: 461M128331	**Reported:**
Portland, OR 97224	Project Manager: Joe Fassio	03/17/14 10:40

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4020637 - EPA 3510C (Acid Extraction)							**Water**					
LCS (4020637-BS1)					Prepared: 02/27/14 07:10 Analyzed: 02/28/14 13:45							
Benzo(k)fluoranthene	7.64	---	0.0400	"	"	"	---	96	"	---	---	
Benzo(b+k)fluoranthene(s)	15.3	---	0.0800	"	"	16.0	---	95	"	---	---	
Benzo(g,h,i)perylene	8.01	---	0.0400	"	"	8.00	---	100	40-125%	---	---	
Chrysene	7.55	---	0.0400	"	"	"	---	94	55-125%	---	---	
Dibenz(a,h)anthracene	8.31	---	0.0400	"	"	"	---	104	40-125%	---	---	
Dibenzofuran	6.66	---	0.0400	"	"	"	---	83	55-125%	---	---	
Fluoranthene	7.41	---	0.0400	"	"	"	---	93	"	---	---	
Fluorene	7.18	---	0.0400	"	"	"	---	90	50-125%	---	---	
Indeno(1,2,3-cd)pyrene	7.67	---	0.0400	"	"	"	---	96	45-125%	---	---	
1-Methylnaphthalene	6.48	---	0.0800	"	"	"	---	81	"	---	---	
2-Methylnaphthalene	6.39	---	0.0800	"	"	"	---	80	"	---	---	
Naphthalene	5.56	---	0.0800	"	"	"	---	69	40-125%	---	---	
Phenanthrene	7.89	---	0.0400	"	"	"	---	99	50-125%	---	---	
Pyrene	7.50	---	0.0400	"	"	"	---	94	"	---	---	
Surr: 2-Fluorobiphenyl (Surr)			*Recovery: 79 %*	*Limits: 45-120 %*		*Dilution: 1x*						
p-Terphenyl-d14 (Surr)			*79 %*	*30-120 %*		*"*						
LCS Dup (4020637-BSD1)					Prepared: 02/27/14 07:10 Analyzed: 02/28/14 14:13							**Q-19**
EPA 8270D (SIM)												
Acenaphthene	7.20	---	0.0400	ug/L	1	8.00	---	90	45-125%	1	30%	
Acenaphthylene	7.23	---	0.0400	"	"	"	---	90	50-125%	2	30%	
Anthracene	7.93	---	0.0400	"	"	"	---	99	55-125%	2	30%	
Benz(a)anthracene	7.20	---	0.0400	"	"	"	---	90	"	1	30%	
Benzo(a)pyrene	7.47	---	0.0400	"	"	"	---	93	"	0.6	30%	
Benzo(b)fluoranthene	7.59	---	0.0400	"	"	"	---	95	45-125%	1	30%	
Benzo(k)fluoranthene	7.42	---	0.0400	"	"	"	---	93	"	3	30%	
Benzo(b+k)fluoranthene(s)	14.9	---	0.0800	"	"	16.0	---	93	"	2	30%	
Benzo(g,h,i)perylene	8.10	---	0.0400	"	"	8.00	---	101	40-125%	1	30%	
Chrysene	7.51	---	0.0400	"	"	"	---	94	55-125%	0.6	30%	
Dibenz(a,h)anthracene	8.22	---	0.0400	"	"	"	---	103	40-125%	1	30%	
Dibenzofuran	6.83	---	0.0400	"	"	"	---	85	55-125%	2	30%	
Fluoranthene	7.47	---	0.0400	"	"	"	---	93	"	0.9	30%	

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Amec Environment & Infrastructure, Inc	Project: **Block A+N**	
7376 SW Durham Road	Project Number: 461M128331	**Reported:**
Portland, OR 97224	Project Manager: Joe Fassio	03/17/14 10:40

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4020637 - EPA 3510C (Acid Extraction)							**Water**					
LCS Dup (4020637-BSD1)					Prepared: 02/27/14 07:10		Analyzed: 02/28/14 14:13					**Q-19**
Fluorene	7.23	---	0.0400	"	"	"	---	90	50-125%	0.6	30%	
Indeno(1,2,3-cd)pyrene	7.75	---	0.0400	"	"	"	---	97	45-125%	1	30%	
1-Methylnaphthalene	6.68	---	0.0800	"	"	"	---	83	"	3	30%	
2-Methylnaphthalene	6.69	---	0.0800	"	"	"	---	84	"	5	30%	
Naphthalene	5.85	---	0.0800	"	"	"	---	73	40-125%	5	30%	
Phenanthrene	7.86	---	0.0400	"	"	"	---	98	50-125%	0.5	30%	
Pyrene	7.51	---	0.0400	"	"	"	---	94	"	0.09	30%	

Surr: 2-Fluorobiphenyl (Surr) *Recovery: 75 %* *Limits: 45-120 %* *Dilution: 1x*
p-Terphenyl-d14 (Surr) *71 %* *30-120 %* *"*

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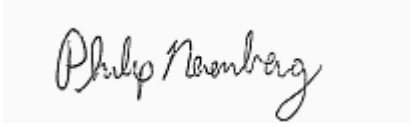

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7376 SW Durham Road	Project Number: 461M128331	**Reported:**
Portland, OR 97224	Project Manager: Joe Fassio	03/17/14 10:40

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4030015 - EPA 3546							**Soil**					
Blank (4030015-BLK1)					Prepared: 03/03/14 10:01 Analyzed: 03/03/14 15:36							
EPA 8270D (SIM)												
Acenaphthene	ND	---	6.67	ug/kg wet	1	---	---	---	---	---	---	
Acenaphthylene	ND	---	6.67	"	"	---	---	---	---	---	---	
Anthracene	ND	---	6.67	"	"	---	---	---	---	---	---	
Benz(a)anthracene	ND	---	6.67	"	"	---	---	---	---	---	---	
Benzo(a)pyrene	ND	---	6.67	"	"	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	---	6.67	"	"	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	---	6.67	"	"	---	---	---	---	---	---	
Benzo(b+k)fluoranthene(s)	ND	---	13.3	"	"	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	---	6.67	"	"	---	---	---	---	---	---	
Chrysene	ND	---	6.67	"	"	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	---	6.67	"	"	---	---	---	---	---	---	
Dibenzofuran	ND	---	6.67	"	"	---	---	---	---	---	---	
Fluoranthene	ND	---	6.67	"	"	---	---	---	---	---	---	
Fluorene	ND	---	6.67	"	"	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	---	6.67	"	"	---	---	---	---	---	---	
1-Methylnaphthalene	ND	---	6.67	"	"	---	---	---	---	---	---	
2-Methylnaphthalene	ND	---	6.67	"	"	---	---	---	---	---	---	
Naphthalene	ND	---	6.67	"	"	---	---	---	---	---	---	
Phenanthrene	ND	---	6.67	"	"	---	---	---	---	---	---	
Pyrene	ND	---	6.67	"	"	---	---	---	---	---	---	
Surr: 2-Fluorobiphenyl (Surr)			*Recovery: 94 %*	*Limits: 45-120 %*			*Dilution: 1x*					
p-Terphenyl-d14 (Surr)			*99 %*	*30-120 %*			*"*					
LCS (4030015-BS1)					Prepared: 03/03/14 10:01 Analyzed: 03/03/14 16:02							
EPA 8270D (SIM)												
Acenaphthene	783	---	10.0	ug/kg wet	1	800	---	98	45-125%	---	---	
Acenaphthylene	772	---	10.0	"	"	"	---	97	"	---	---	
Anthracene	793	---	10.0	"	"	"	---	99	55-125%	---	---	
Benz(a)anthracene	757	---	10.0	"	"	"	---	95	50-125%	---	---	
Benzo(a)pyrene	773	---	10.0	"	"	"	---	97	"	---	---	
Benzo(g,h,i)perylene	796	---	10.0	"	"	"	---	99	40-125%	---	---	

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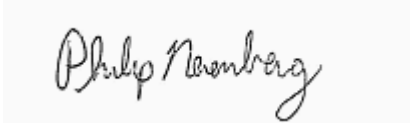

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Amec Environment & Infrastructure, Inc	Project: **Block A+N**	
7376 SW Durham Road	Project Number: 461M128331	**Reported:**
Portland, OR 97224	Project Manager: Joe Fassio	03/17/14 10:40

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4030015 - EPA 3546							**Soil**					
LCS (4030015-BS1)					Prepared: 03/03/14 10:01		Analyzed: 03/03/14 16:02					
Chrysene	803	---	10.0	"	"	"	---	100	55-125%	---	---	
Dibenz(a,h)anthracene	790	---	10.0	"	"	"	---	99	40-125%	---	---	
Dibenzofuran	777	---	10.0	"	"	"	---	97	50-125%	---	---	
Fluoranthene	784	---	10.0	"	"	"	---	98	55-125%	---	---	
Fluorene	761	---	10.0	"	"	"	---	95	50-125%	---	---	
Indeno(1,2,3-cd)pyrene	770	---	10.0	"	"	"	---	96	40-125%	---	---	
1-Methylnaphthalene	771	---	10.0	"	"	"	---	96	45-125%	---	---	
2-Methylnaphthalene	775	---	10.0	"	"	"	---	97	"	---	---	
Naphthalene	767	---	10.0	"	"	"	---	96	40-125%	---	---	
Phenanthrene	774	---	10.0	"	"	"	---	97	50-125%	---	---	
Pyrene	783	---	10.0	"	"	"	---	98	45-125%	---	---	
Surr: 2-Fluorobiphenyl (Surr)			*Recovery: 94 %*		*Limits: 45-120 %*				*Dilution: 1x*			
p-Terphenyl-d14 (Surr)			*92 %*		*30-120 %*				*"*			
LCS (4030015-BS2)					Prepared: 03/03/14 10:01		Analyzed: 03/05/14 16:47					
EPA 8270D (SIM)												
Benzo(b)fluoranthene	768	---	10.0	ug/kg wet	1	800	---	96	45-125%	---	---	
Benzo(k)fluoranthene	743	---	10.0	"	"	"	---	93	"	---	---	
Benzo(b+k)fluoranthene(s)	1490	---	20.0	"	"	1600	---	93	"	---	---	

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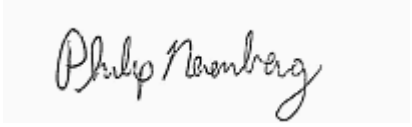

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Amec Environment & Infrastructure, Inc	Project: **Block A+N**	
7376 SW Durham Road	Project Number: 461M128331	**Reported:**
Portland, OR 97224	Project Manager: Joe Fassio	03/17/14 10:40

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4030093 - EPA 3546							**Soil**					
Blank (4030093-BLK1)					Prepared: 03/05/14 07:46 Analyzed: 03/05/14 12:08							
EPA 8270D (SIM)												
Acenaphthene	ND	---	8.33	ug/kg wet	1	---	---	---	---	---	---	
Acenaphthylene	ND	---	8.33	"	"	---	---	---	---	---	---	
Anthracene	ND	---	8.33	"	"	---	---	---	---	---	---	
Benz(a)anthracene	ND	---	8.33	"	"	---	---	---	---	---	---	
Benzo(a)pyrene	ND	---	8.33	"	"	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	---	8.33	"	"	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	---	8.33	"	"	---	---	---	---	---	---	
Benzo(b+k)fluoranthene(s)	ND	---	16.7	"	"	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	---	8.33	"	"	---	---	---	---	---	---	
Chrysene	ND	---	8.33	"	"	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	---	8.33	"	"	---	---	---	---	---	---	
Dibenzofuran	ND	---	8.33	"	"	---	---	---	---	---	---	
Fluoranthene	ND	---	8.33	"	"	---	---	---	---	---	---	
Fluorene	ND	---	8.33	"	"	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	---	8.33	"	"	---	---	---	---	---	---	
1-Methylnaphthalene	ND	---	8.33	"	"	---	---	---	---	---	---	
2-Methylnaphthalene	ND	---	8.33	"	"	---	---	---	---	---	---	
Naphthalene	ND	---	8.33	"	"	---	---	---	---	---	---	
Phenanthrene	ND	---	8.33	"	"	---	---	---	---	---	---	
Pyrene	ND	---	8.33	"	"	---	---	---	---	---	---	
Surr: 2-Fluorobiphenyl (Surr)			*Recovery: 88 %*		*Limits: 45-120 %*							
p-Terphenyl-d14 (Surr)			*93 %*		*30-120 %*							
					Dilution: 1x							
					"							
LCS (4030093-BS1)					Prepared: 03/05/14 07:46 Analyzed: 03/05/14 12:36							**Q-18**
EPA 8270D (SIM)												
Acenaphthene	760	---	10.0	ug/kg wet	1	800	---	95	45-125%	---	---	
Acenaphthylene	743	---	10.0	"	"	"	---	93	"	---	---	
Anthracene	822	---	10.0	"	"	"	---	103	55-125%	---	---	
Benz(a)anthracene	731	---	10.0	"	"	"	---	91	50-125%	---	---	
Benzo(a)pyrene	735	---	10.0	"	"	"	---	92	"	---	---	
Benzo(b)fluoranthene	763	---	10.0	"	"	"	---	95	45-125%	---	---	

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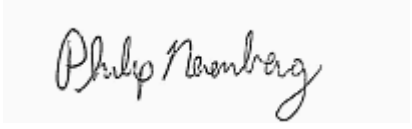

Philip Nerenberg, Lab Director

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Amec Environment & Infrastructure, Inc	Project: **Block A+N**	
7376 SW Durham Road	Project Number: 461M128331	**Reported:**
Portland, OR 97224	Project Manager: Joe Fassio	03/17/14 10:40

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4030093 - EPA 3546							**Soil**					
LCS (4030093-BS1)					Prepared: 03/05/14 07:46 Analyzed: 03/05/14 12:36							**Q-18**
Benzo(k)fluoranthene	771	---	10.0	"	"	"	---	96	"	---	---	
Benzo(b+k)fluoranthene(s)	1500	---	20.0	"	"	1600	---	94	"	---	---	
Benzo(g,h,i)perylene	807	---	10.0	"	"	800	---	101	40-125%	---	---	
Chrysene	770	---	10.0	"	"	"	---	96	55-125%	---	---	
Dibenz(a,h)anthracene	819	---	10.0	"	"	"	---	102	40-125%	---	---	
Dibenzofuran	717	---	10.0	"	"	"	---	90	50-125%	---	---	
Fluoranthene	775	---	10.0	"	"	"	---	97	55-125%	---	---	
Fluorene	763	---	10.0	"	"	"	---	95	50-125%	---	---	
Indeno(1,2,3-cd)pyrene	785	---	10.0	"	"	"	---	98	40-125%	---	---	
1-Methylnaphthalene	738	---	10.0	"	"	"	---	92	45-125%	---	---	
2-Methylnaphthalene	734	---	10.0	"	"	"	---	92	"	---	---	
Naphthalene	646	---	10.0	"	"	"	---	81	40-125%	---	---	
Phenanthrene	804	---	10.0	"	"	"	---	100	50-125%	---	---	
Pyrene	779	---	10.0	"	"	"	---	97	45-125%	---	---	
Surr: 2-Fluorobiphenyl (Surr)			*Recovery: 89 %*		*Limits: 45-120 %*				*Dilution: 1x*			
p-Terphenyl-d14 (Surr)			*90 %*		*30-120 %*				*"*			

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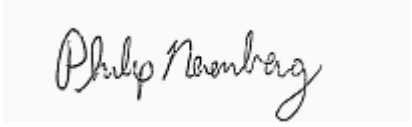

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Amec Environment & Infrastructure, Inc	Project: **Block A+N**	
7376 SW Durham Road	Project Number: 461M128331	**Reported:**
Portland, OR 97224	Project Manager: Joe Fassio	03/17/14 10:40

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4030192 - EPA 3051A							Soil					
Blank (4030192-BLK1)					Prepared: 03/07/14 09:12		Analyzed: 03/10/14 15:45					
EPA 6020A												
Arsenic	ND	---	1.00	mg/kg wet	10	---	---	---	---	---	---	
Lead	ND	---	0.200	"	"	---	---	---	---	---	---	
LCS (4030192-BS1)					Prepared: 03/07/14 09:12		Analyzed: 03/10/14 15:48					
EPA 6020A												
Arsenic	50.8	---	1.00	mg/kg wet	10	50.0	---	102	80-120%	---	---	
Lead	44.4	---	0.200	"	"	"	---	89	"	---	---	
Post Spike (4030192-PS1)					Prepared: 03/11/14 16:27		Analyzed: 03/11/14 17:14					
Lead	571	---		ug/L	10	476	71.7	105	80-120%		---	

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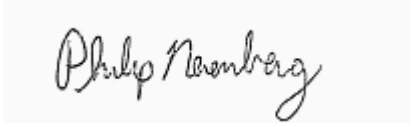

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7376 SW Durham Road	Project Number: 461M128331	**Reported:**
Portland, OR 97224	Project Manager: Joe Fassio	03/17/14 10:40

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4030229 - EPA 3015A								**Water**				
Blank (4030229-BLK1)					Prepared: 03/10/14 09:21 Analyzed: 03/11/14 11:17							
EPA 6020A												
Antimony	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Arsenic	ND	---	1.00	"	"	---	---	---	---	---	---	
Beryllium	ND	---	0.200	"	"	---	---	---	---	---	---	
Cadmium	ND	---	0.200	"	"	---	---	---	---	---	---	
Chromium	ND	---	1.00	"	"	---	---	---	---	---	---	
Copper	ND	---	1.00	"	"	---	---	---	---	---	---	
Lead	ND	---	0.200	"	"	---	---	---	---	---	---	
Mercury	ND	---	0.0800	"	"	---	---	---	---	---	---	
Nickel	ND	---	1.00	"	"	---	---	---	---	---	---	
Selenium	ND	---	1.00	"	"	---	---	---	---	---	---	
Silver	ND	---	0.200	"	"	---	---	---	---	---	---	
Thallium	ND	---	0.200	"	"	---	---	---	---	---	---	
Zinc	ND	---	4.00	"	"	---	---	---	---	---	---	
LCS (4030229-BS1)					Prepared: 03/10/14 09:21 Analyzed: 03/11/14 11:20							
EPA 6020A												
Antimony	27.1	---	1.00	ug/L	1	27.8	---	98	80-120%	---	---	
Arsenic	54.4	---	1.00	"	"	55.6	---	98	"	---	---	
Beryllium	27.9	---	0.200	"	"	27.8	---	100	"	---	---	
Cadmium	54.6	---	0.200	"	"	55.6	---	98	"	---	---	
Chromium	55.9	---	1.00	"	"	"	---	101	"	---	---	
Copper	55.2	---	1.00	"	"	"	---	99	"	---	---	
Lead	56.3	---	0.200	"	"	"	---	101	"	---	---	
Mercury	1.06	---	0.0800	"	"	1.11	---	95	"	---	---	
Nickel	55.1	---	1.00	"	"	55.6	---	99	"	---	---	
Selenium	26.8	---	1.00	"	"	27.8	---	97	"	---	---	
Silver	26.3	---	0.200	"	"	"	---	95	"	---	---	
Thallium	26.9	---	0.200	"	"	"	---	97	"	---	---	
Zinc	53.3	---	4.00	"	"	55.6	---	96	"	---	---	
Post Spike (4030229-PS1)					Prepared: 03/11/14 17:18 Analyzed: 03/11/14 18:15							

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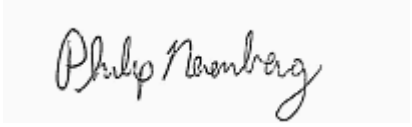

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Amec Environment & Infrastructure, Inc	Project: **Block A+N**	
7376 SW Durham Road	Project Number: 461M128331	**Reported:**
Portland, OR 97224	Project Manager: Joe Fassio	03/17/14 10:40

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4030229 - EPA 3015A							**Water**					
Post Spike (4030229-PS1)					Prepared: 03/11/14 17:18		Analyzed: 03/11/14 18:15					
Antimony	509	---		ug/L	10	495	0.673	103	80-120%		---	

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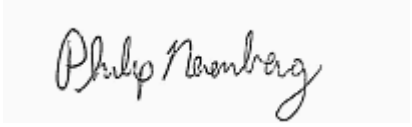

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7376 SW Durham Road	Project Number: 461M128331	**Reported:**
Portland, OR 97224	Project Manager: Joe Fassio	03/17/14 10:40

QUALITY CONTROL (QC) SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 4020616 - Total Solids (Dry Weight)												**Soil**

No Client related Batch QC samples analyzed for this batch. See notes page for more information.

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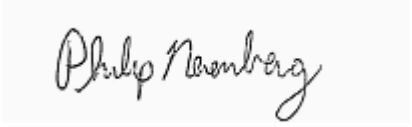

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7376 SW Durham Road	Project Number: 461M128331	**Reported:**
Portland, OR 97224	Project Manager: Joe Fassio	03/17/14 10:40

SAMPLE PREPARATION INFORMATION

Hydrocarbon Identification Screen by NWTPH-HCID

Prep: EPA 3510C (Fuels/Acid Ext.)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 4020638							
A4B0611-03	Water	NWTPH-HCID	02/25/14 11:15	02/27/14 07:28	980mL/5mL	1000mL/5mL	1.02
A4B0611-10	Water	NWTPH-HCID	02/25/14 10:15	02/27/14 07:28	900mL/5mL	1000mL/5mL	1.11
A4B0611-13	Water	NWTPH-HCID	02/25/14 09:10	02/27/14 07:28	1040mL/5mL	1000mL/5mL	0.96

Prep: NWTPH-HCID (Soil)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 4020646							
A4B0611-01RE1	Soil	NWTPH-HCID	02/25/14 10:45	02/27/14 09:46	10.68g/10mL	10g/10mL	0.94
A4B0611-02RE1	Soil	NWTPH-HCID	02/25/14 11:00	02/27/14 09:46	10.51g/10mL	10g/10mL	0.95
A4B0611-04	Soil	NWTPH-HCID	02/25/14 11:40	02/27/14 09:46	11.01g/10mL	10g/10mL	0.91
A4B0611-05	Soil	NWTPH-HCID	02/25/14 11:45	02/27/14 09:46	10.94g/10mL	10g/10mL	0.91
A4B0611-06	Soil	NWTPH-HCID	02/25/14 12:00	02/27/14 09:46	11.18g/10mL	10g/10mL	0.89
A4B0611-07	Soil	NWTPH-HCID	02/25/14 12:15	02/27/14 09:46	10.68g/10mL	10g/10mL	0.94
A4B0611-08	Soil	NWTPH-HCID	02/25/14 09:40	02/27/14 09:46	11.07g/10mL	10g/10mL	0.90
A4B0611-09	Soil	NWTPH-HCID	02/25/14 09:50	02/27/14 09:46	10.99g/10mL	10g/10mL	0.91
A4B0611-11	Soil	NWTPH-HCID	02/25/14 08:51	02/27/14 09:46	10.59g/10mL	10g/10mL	0.94
A4B0611-12RE1	Soil	NWTPH-HCID	02/25/14 09:00	02/27/14 09:46	10.47g/10mL	10g/10mL	0.96

Diesel and Oil Hydrocarbons by NWTPH-Dx with Silica Gel Cleanup

Prep: EPA 3546 (Fuels)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 4030116							
A4B0611-01	Soil	NWTPH-Dx/SG	02/25/14 10:45	03/05/14 13:36	11.97g/5mL	10g/5mL	0.84
A4B0611-04	Soil	NWTPH-Dx/SG	02/25/14 11:40	03/05/14 13:36	10.37g/5mL	10g/5mL	0.96
A4B0611-06	Soil	NWTPH-Dx/SG	02/25/14 12:00	03/05/14 13:36	10.98g/5mL	10g/5mL	0.91
A4B0611-07	Soil	NWTPH-Dx/SG	02/25/14 12:15	03/05/14 13:36	11.07g/5mL	10g/5mL	0.90
A4B0611-08	Soil	NWTPH-Dx/SG	02/25/14 09:40	03/05/14 13:36	11.02g/5mL	10g/5mL	0.91
A4B0611-11	Soil	NWTPH-Dx/SG	02/25/14 08:51	03/05/14 13:36	11.25g/5mL	10g/5mL	0.89

Diesel and Oil Hydrocarbons by NWTPH-Dx with Acid/Silica Gel Cleanup

Prep: EPA 3510C (Acid Extraction)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 4030069							

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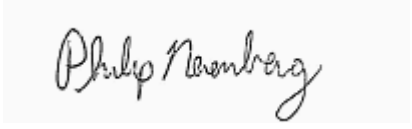

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Amec Environment & Infrastructure, Inc	Project: **Block A+N**	
7376 SW Durham Road	Project Number: 461M128331	**Reported:**
Portland, OR 97224	Project Manager: Joe Fassio	03/17/14 10:40

SAMPLE PREPARATION INFORMATION

Diesel and Oil Hydrocarbons by NWTPH-Dx with Acid/Silica Gel Cleanup

Prep: EPA 3510C (Acid Extraction)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
A4B0611-13	Water	NWTPH-Dx/SG	02/25/14 09:10	03/04/14 13:34	1050mL/5mL	1000mL/5mL	0.95

Gasoline Range Hydrocarbons (Benzene to Naphthalene) by NWTPH-Gx

Prep: EPA 5030B

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 4020680							
A4B0611-03	Water	NWTPH-Gx (MS)	02/25/14 11:15	02/28/14 16:00	5mL/5mL	5mL/5mL	1.00
A4B0611-10	Water	NWTPH-Gx (MS)	02/25/14 10:15	02/28/14 16:00	5mL/5mL	5mL/5mL	1.00
A4B0611-13	Water	NWTPH-Gx (MS)	02/25/14 09:10	02/28/14 16:00	5mL/5mL	5mL/5mL	1.00

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Prep: EPA 3510C (Acid Extraction)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 4020637							
A4B0611-03	Water	EPA 8270D (SIM)	02/25/14 11:15	02/27/14 07:10	1050mL/2mL	1000mL/2mL	0.95
A4B0611-10	Water	EPA 8270D (SIM)	02/25/14 10:15	02/27/14 07:10	1020mL/2mL	1000mL/2mL	0.98
A4B0611-13	Water	EPA 8270D (SIM)	02/25/14 09:10	02/27/14 07:10	1050mL/2mL	1000mL/2mL	0.95

Prep: EPA 3546

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 4030015							
A4B0611-01RE1	Soil	EPA 8270D (SIM)	02/25/14 10:45	03/03/14 10:01	14.05g/5mL	10g/5mL	0.71
A4B0611-02	Soil	EPA 8270D (SIM)	02/25/14 11:00	03/03/14 10:01	13.52g/5mL	10g/5mL	0.74
A4B0611-02RE1	Soil	EPA 8270D (SIM)	02/25/14 11:00	03/03/14 10:01	13.52g/5mL	10g/5mL	0.74
A4B0611-04RE1	Soil	EPA 8270D (SIM)	02/25/14 11:40	03/03/14 10:01	13.23g/5mL	10g/5mL	0.76
A4B0611-05	Soil	EPA 8270D (SIM)	02/25/14 11:45	03/03/14 10:01	13.82g/5mL	10g/5mL	0.72
A4B0611-05RE1	Soil	EPA 8270D (SIM)	02/25/14 11:45	03/03/14 10:01	13.82g/5mL	10g/5mL	0.72
A4B0611-06	Soil	EPA 8270D (SIM)	02/25/14 12:00	03/03/14 10:01	13.9g/5mL	10g/5mL	0.72
A4B0611-06RE1	Soil	EPA 8270D (SIM)	02/25/14 12:00	03/03/14 10:01	13.9g/5mL	10g/5mL	0.72
A4B0611-07RE1	Soil	EPA 8270D (SIM)	02/25/14 12:15	03/03/14 10:01	13.83g/5mL	10g/5mL	0.72
A4B0611-08RE1	Soil	EPA 8270D (SIM)	02/25/14 09:40	03/03/14 10:01	13.3g/5mL	10g/5mL	0.75
A4B0611-09	Soil	EPA 8270D (SIM)	02/25/14 09:50	03/03/14 10:01	14.12g/5mL	10g/5mL	0.71
A4B0611-09RE1	Soil	EPA 8270D (SIM)	02/25/14 09:50	03/03/14 10:01	14.12g/5mL	10g/5mL	0.71
A4B0611-11	Soil	EPA 8270D (SIM)	02/25/14 08:51	03/03/14 10:01	14.32g/5mL	10g/5mL	0.70

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7376 SW Durham Road	Project Number: 461M128331	**Reported:**
Portland, OR 97224	Project Manager: Joe Fassio	03/17/14 10:40

SAMPLE PREPARATION INFORMATION

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Prep: EPA 3546

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
A4B0611-11RE1	Soil	EPA 8270D (SIM)	02/25/14 08:51	03/03/14 10:01	14.32g/5mL	10g/5mL	0.70
Batch: 4030093							
A4B0611-12	Soil	EPA 8270D (SIM)	02/25/14 09:00	03/05/14 07:46	11.69g/5mL	10g/5mL	0.86

Total Metals by EPA 6020 (ICPMS)

Prep: EPA 3015A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 4030229							
A4B0611-03	Water	EPA 6020A	02/25/14 11:15	03/10/14 09:21	45mL/50mL	45mL/50mL	1.00
A4B0611-10	Water	EPA 6020A	02/25/14 10:15	03/10/14 09:21	20mL/50mL	45mL/50mL	2.25
A4B0611-13	Water	EPA 6020A	02/25/14 09:10	03/10/14 09:21	45mL/50mL	45mL/50mL	1.00

Prep: EPA 3051A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 4030192							
A4B0611-05	Soil	EPA 6020A	02/25/14 11:45	03/07/14 09:12	0.465g/50mL	0.5g/50mL	1.08
A4B0611-07	Soil	EPA 6020A	02/25/14 12:15	03/07/14 09:12	0.462g/50mL	0.5g/50mL	1.08
A4B0611-09	Soil	EPA 6020A	02/25/14 09:50	03/07/14 09:12	0.474g/50mL	0.5g/50mL	1.05
A4B0611-12	Soil	EPA 6020A	02/25/14 09:00	03/07/14 09:12	0.499g/50mL	0.5g/50mL	1.00

Percent Dry Weight

Prep: Total Solids (Dry Weight)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 4020616							
A4B0611-01	Soil	EPA 8000C	02/25/14 10:45	02/26/14 14:31	1N/A/1N/A	1N/A/1N/A	NA
A4B0611-02	Soil	EPA 8000C	02/25/14 11:00	02/26/14 14:31	1N/A/1N/A	1N/A/1N/A	NA
A4B0611-04	Soil	EPA 8000C	02/25/14 11:40	02/26/14 14:31	1N/A/1N/A	1N/A/1N/A	NA
A4B0611-05	Soil	EPA 8000C	02/25/14 11:45	02/26/14 14:31	1N/A/1N/A	1N/A/1N/A	NA
A4B0611-06	Soil	EPA 8000C	02/25/14 12:00	02/26/14 14:31	1N/A/1N/A	1N/A/1N/A	NA
A4B0611-07	Soil	EPA 8000C	02/25/14 12:15	02/26/14 14:31	1N/A/1N/A	1N/A/1N/A	NA
A4B0611-08	Soil	EPA 8000C	02/25/14 09:40	02/26/14 14:31	1N/A/1N/A	1N/A/1N/A	NA
A4B0611-09	Soil	EPA 8000C	02/25/14 09:50	02/26/14 14:31	1N/A/1N/A	1N/A/1N/A	NA
A4B0611-11	Soil	EPA 8000C	02/25/14 08:51	02/26/14 14:31	1N/A/1N/A	1N/A/1N/A	NA
A4B0611-12	Soil	EPA 8000C	02/25/14 09:00	02/26/14 14:31	1N/A/1N/A	1N/A/1N/A	NA

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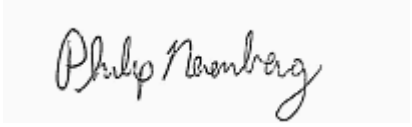

Philip Nerenberg, Lab Director

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12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Amec Environment & Infrastructure, Inc	Project: **Block A+N**	
7376 SW Durham Road	Project Number: 461M128331	**Reported:**
Portland, OR 97224	Project Manager: Joe Fassio	03/17/14 10:40

Notes and Definitions

Qualifiers:

A-01	Product does not match the fuel standard used for quantitation. Reported oil result is for carbon range C10 - >C40.
B	Analyte detected in an associated blank at a level above the MRL. (See Notes and Conventions below.)
F-11	The hydrocarbon pattern indicates possible weathered diesel, or a contribution from a related component.
F-15	Results for diesel are estimated due to overlap from the reported oil result.
Q-04	Spike recovery and/or RPD is outside control limits due to a non-homogeneous sample matrix.
Q-18	Matrix Spike results for this extraction batch are not reported due to the high dilution necessary for analysis of the source sample.
Q-19	Blank Spike Duplicate (BSD) sample analyzed in place of Matrix Spike/Duplicate samples due to limited sample amount available for analysis.
Q-26	Peak separation for Benzo(b) and Benzo(k)fluoranthenes does not meet method specified criteria. Reported result includes the combined area of the two isomers and should be considered the total of Benzo(b+k)Fluoranthenes.
Q-42	Matrix Spike and/or Duplicate analysis was performed on this sample. % Recovery or RPD for this analyte is outside laboratory control limits. (Refer to the QC Section of Analytical Report.)
S-05	Surrogate recovery is estimated due to sample dilution required for high analyte concentration and/or matrix interference.

Notes and Conventions:

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis. Results listed as 'wet' or without 'dry'designation are not dry weight corrected.
RPD	Relative Percent Difference
MDL	If MDL is not listed, data has been evaluated to the Method Reporting Limit only.
WMSC	Water Miscible Solvent Correction has been applied to Results and MRLs for volatiles soil samples per EPA 8000C.
Batch QC	Unless specifically requested, this report contains only results for Batch QC derived from client samples included in this report. All analyses were performed with the appropriate Batch QC (including Sample Duplicates, Matrix Spikes and/or Matrix Spike Duplicates) in order to meet or exceed method and regulatory requirements. Any exceptions to this will be qualified in this report. Complete Batch QC results are available upon request. In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) is analyzed to demonstrate accuracy and precision of the extraction and analysis.
Blank Policy	Apex assesses blank data for potential high bias down to a level equal to ½ the method reporting limit (MRL), except for conventional chemistry and HCID analyses which are assessed only to the MRL. Sample results flagged with a B or B-02 qualifier are potentially biased high if they are less than ten times the level found in the blank for inorganic analyses or less than five times the level found in the blank for organic analyses. For accurate comparison of volatile results to the level found in the blank; water sample results should be divided by the dilution factor, and soil sample results should be divided by 1/50 of the sample dilution to account for the sample prep factor. Results qualified as reported below the MRL may include a potential high bias if associated with a B or B-02 qualified blank. B and B-02 qualifications are not applied to J qualified results reported below the MRL.

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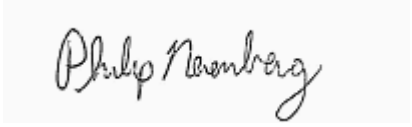

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--- QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

*** Used to indicate a possible discrepency with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

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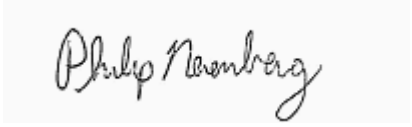

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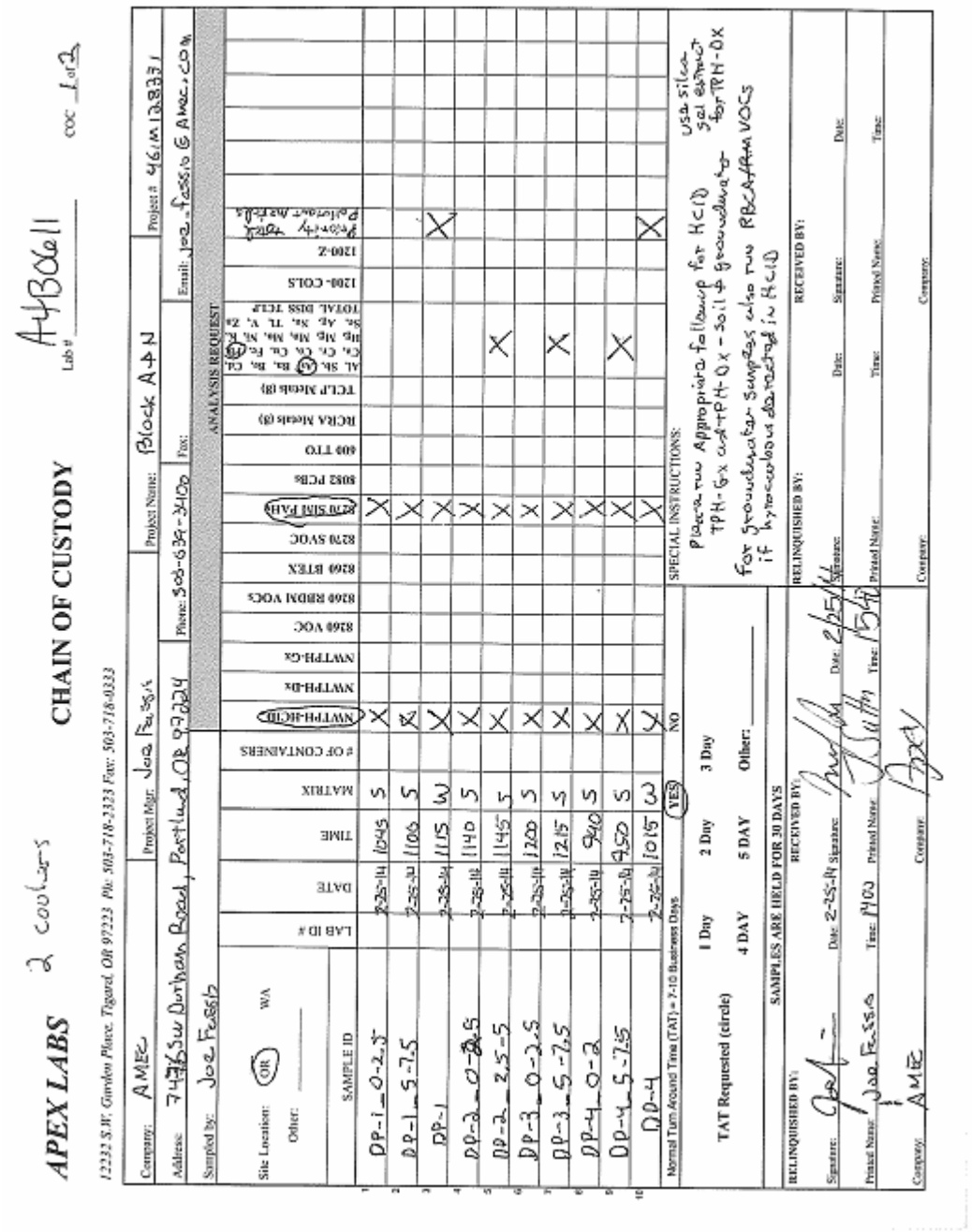

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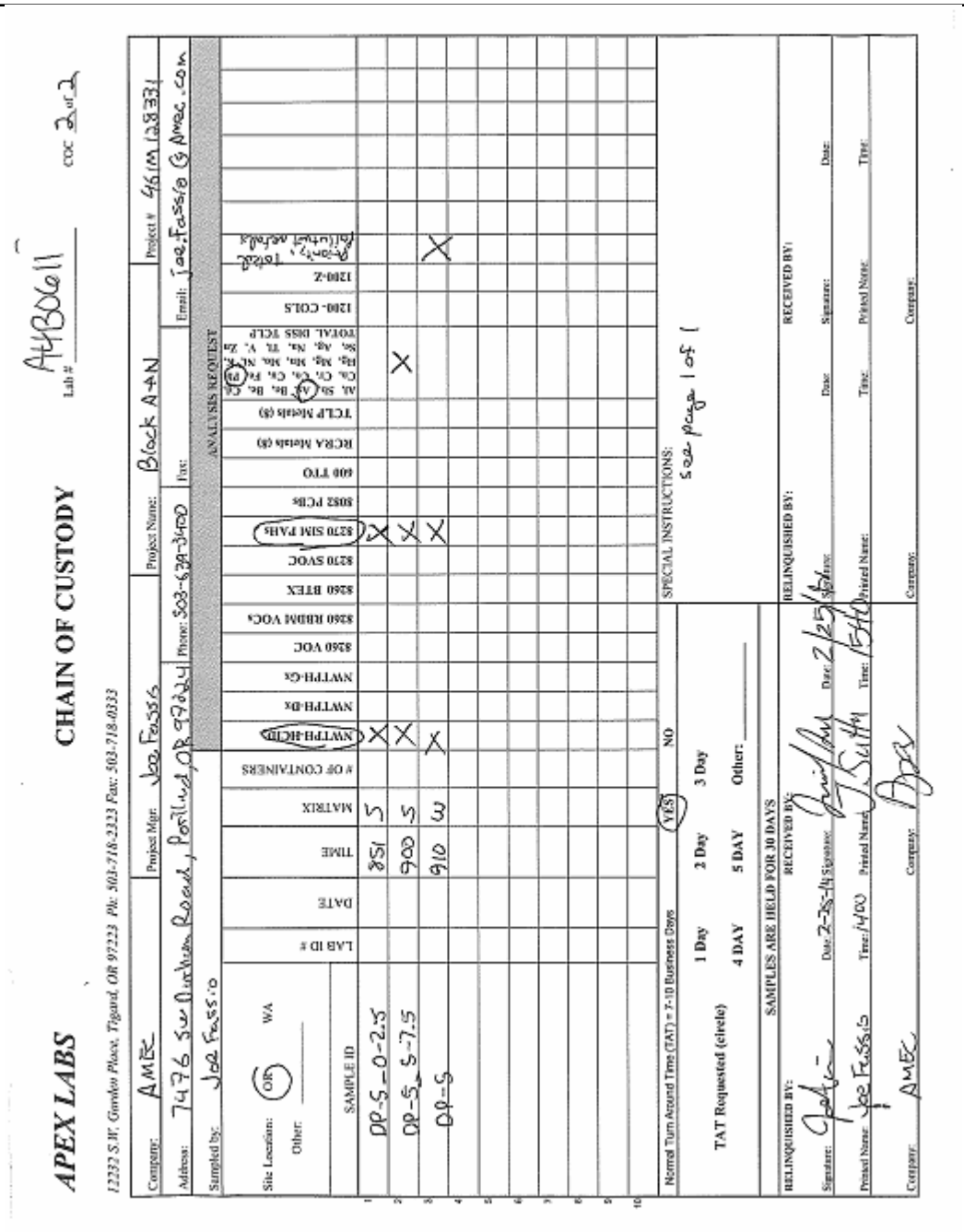

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