



State of Oregon
Department of
Environmental
Quality

Application for a Solid Waste Beneficial Use Determination

DEQ USE ONLY - BUSINESS OFFICE

Date Received: 12/15/2014
Amount Received: \$ 2000.00
Check No.: 2521368
Deposit No.: 31053

Forward confirmation of fee payment for:
Eastern Region to DEQ, The Dalles
Northwestern Region to DEQ-NWR, Portland
Western Region to DEQ, Salem

A. REFERENCE INFORMATION (Please type or print clearly.)

Oregon Department of Transportation		Oregon Department of Transportation	
Legal name of applicant		Business name of applicant if different	
3500 Stewart Parkway		Roseburg	Oregon 97470
Mailing address		City	State Zip
541-957-3594	541-430-4916	kenny.l.camp@odot.state.or.us	
Phone	Mobile	E-mail	Fax

Oregon Department of Transportation		Oregon Department of Transportation	
Generator of solid waste (may be same as applicant)			
100 Antelope Road		White City	Oregon 97503
Mailing address		City	State Zip
541-957-3594	541-430-4916	kenny.l.camp@odot.state.or.us	
Phone	Mobile	E-mail	Fax

B. TYPE OF BENEFICIAL USE DETERMINATION REQUESTED Beneficial Use Determination applications are categorized based on the type of information and potential amount of work required by DEQ staff to review application materials and render a decision. A tiered review and fee system has been established in rule. The tiers are:

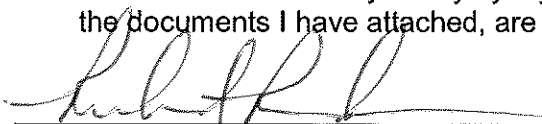
- Tier 1 For a beneficial use of a solid waste that does not contain hazardous substances significantly exceeding the concentration in a comparable raw material or commercial product and that will be used in a manufactured product;
- Tier 2 For a beneficial use of a solid waste that contains hazardous substances significantly exceeding the concentration in a comparable raw material or commercial product, or involves application on the land;
- Tier 3 For a beneficial use of a solid waste that requires research, such as a literature review or risk assessment, or for a demonstration project to demonstrate compliance with this rule.

I am applying for a Tier 1 Tier 2 Tier 3 determination.

C. DOES THIS PROPOSED BENEFICIAL USE INVOLVE LAND APPLICATION OF ANY MATERIAL?

Yes No

D. SIGNATURE I hereby certify by my signature below that the information contained in this application, and the documents I have attached, are true and correct to the best of my knowledge and belief.


Signature of legally authorized representative

RICHARD RANDLEMAN PROJECT LEADER 12/10/2014
Print name Title Date

E. REQUIRED ATTACHMENTS TO THIS APPLICATION *(For an application to be complete, it must provide the required information for each listed item of the tier which is being applied for.)*

Tier 1

- A description of the material, manner of generation, and estimated quantity to be used each year;
- A description of the proposed use;
- A comparison of the chemical and physical characteristics of the material proposed for use with the material it will replace;
- A demonstration of compliance with the performance criteria in OAR 340-093-0280 based on knowledge of the process that generated the material, properties of the finished product, or testing; and
- Any other information that DEQ may require to evaluate the proposal.

Tier 2

- The information required for a Tier 1 application;
- Sampling and analysis that provides chemical, physical, and biological characterization of the material and that identifies potential contaminants in the material or the end product, as applicable;
- A risk screening comparing the concentration of hazardous substances in the material to existing, DEQ approved, risk-based screening level values, and demonstrating compliance with acceptable risk levels;
- Location or type of land use where the material will be applied, consistent with the risk scenarios used to evaluate risk;
- Contact information of property owner(s) if this is a site-specific land application proposal, including name, address, phone number, e-mail, site address and site coordinates (latitude and longitude); and
- A description of how the material will be managed to minimize potential adverse impacts to public health, safety, welfare, or the environment.

Tier 3

- The information required for a Tier 1 & 2 application;
- A discussion of the justification for the proposal;
- An estimate of the expected length of time that would be required to complete the project, if it is a demonstration; and
- If it is a demonstration project, the methods proposed to ensure safe and proper management of the material.

F. PERFORMANCE CRITERIA *(For all tiers - An application for a beneficial use determination must demonstrate satisfactory compliance with the following performance criteria.)*

The use is productive, including:

- ◆ There is an identified or reasonably likely use for the material that is not speculative;
- ◆ The use is a valuable part of a manufacturing process, an effective substitute for a valuable raw material or commercial product, or otherwise authorized by DEQ, and does not constitute disposal; and
- ◆ The use is in accordance with applicable engineering standards, commercial standards, and agricultural or horticultural practices.

The use will not create an adverse impact to public health, safety, welfare, or the environment, including:

- ◆ The material is not a hazardous waste under ORS 466.005;
- ◆ Until the time the material is used in accordance with a beneficial use determination, the material will be managed, including any storage, transportation, or processing, to prevent releases to the environment or nuisance conditions;
- ◆ Hazardous substances in the material do not significantly exceed the concentration in a comparable raw material or commercial product, or do not exceed naturally occurring background concentrations, or do not exceed acceptable risk levels, including evaluation of persistence and potential bioaccumulation, when the material is managed according to a beneficial use determination.

The use will not result in the increase of a hazardous substance in a sensitive environment.

The use will not create objectionable odors, dust, unsightliness, fire, or other nuisance conditions.

The use will comply with all applicable federal, state, and local regulations.

G. FEES (Must accompany the application for it to be considered complete)

<input type="checkbox"/>	Tier 1 beneficial use determination	\$1,000
<input checked="" type="checkbox"/>	Tier 2 beneficial use determination	\$2,000
<input type="checkbox"/>	Tier 3 beneficial use determination	\$5,000

Make checks out to: **Oregon DEQ**

Total fees included: \$2000.00

H. APPLICATION PROCEDURE

Step 1

Contact a DEQ staff person for assistance with the preparation of the application. DEQ staff will help with: 1) Determination of the eligibility for a beneficial use determination of a particular waste or process; and, 2) If eligible, establish the tier of beneficial use determination review required and associated fee to submit with the application.

Step 2

Mail the original signed application, all attachments, including the fee payment plus one extra copy to the appropriate regional office (see listing below.) Note that DEQ review work will not begin until a complete application packet is received. Incomplete applications may be returned. DEQ recommends the applicant keep a full copy of all application materials to guard against possible loss in transit.

Step 3

DEQ will contact the applicant, acknowledging receipt of the application, and will identify the staff person assigned to carryout the review. This staff person will contact the applicant if any additional information is needed.

Region	Counties Served	Address & Phone
Eastern Region	Baker, Crook, Deschutes, Gilliam, Grant, Harney, Hood River, Jefferson, Klamath, Lake, Malheur, Morrow, Sherman, Umatilla, Union, Wallowa, Wasco, and Wheeler	Eastern Region Department of Environmental Quality 400 E Scenic Drive, Ste 2.307 The Dalles, OR 97058 (541) 298-7255 ext. 221
Northwest Region	Clatsop, Clackamas, Columbia, Multnomah, Tillamook, and Washington	Northwest Region DEQ Solid Waste Programs 2020 SW Fourth Ave. Ste 400 Portland, OR 97201 (503) 229-5353
Western Region	Benton, Coos, Curry, Douglas, Jackson, Josephine, Lane, Lincoln, Linn, Marion, Polk, and Yamhill	Western Region DEQ Solid Waste Programs 750 Front St. NE Suite 120 Salem, OR 97301 (503) 378-5047

Level 2
Preliminary Site Investigation

OR 62: Corridor Solution Unit 2 Phase 1
Key#13994
Medford, Jackson County

September, 2011

Prepared by: Kenny Camp

Oregon Department of Transportation
Region 3 Environmental Unit
Hazardous Materials Group

3500 Stewart Parkway
Roseburg, OR 97470

Executive Summary

ODOT Geo/Environmental HazMat Group performed a Level 2 Preliminary Site Investigation (PSI) for the Project Site OR 62: Corridor Unit 2 Phase 1. ODOT HazMat concludes the following:

- Petroleum-contaminated soils were encountered along the former Medco Haul Road in probe holes, HM-U2P1-01, HM-U2P1-01B, HM-U2P1-01C, HM-U2P1-02B, HM-U2P1-03, HM-U2P1-05, HM-U2P1-14, HM-U2P1-16, HM-U2P1-25, HM-U2P1-26, HM-U2P1-27, HM-U2P1-30, HM-U2P1-31, HM-U2P1-35, and along Hwy 62 at the south end of the Project in probe hole HM-U2P1-36. See Appendix A, Figure-2 Sheets 1-6 for probe hole locations. In addition low level Pesticides were detected below residential levels in probe hole HM-U2P1-09, and surface sample location HM-U2P1-PB, PC and PD which are located along the proposed Airport Access alignment that crosses through the area of the Medco Road Former Orchard. See Appendix A, Figure 2 Sheet 2 for surface sample locations. Soil samples were collected in these locations at an average depth of 0 to 3 feet below ground surface (bgs). Pesticides were detected below Risk based concentration (RBC's) for residential standards. Chromium samples returned above RBC's for residential standards but below industrial standards. It appears that chromium levels are consistent with regional background levels. Options for excavated soils located along the proposed Airport Access alignment through the Medco Road Former Orchard should include placement of excavated soil in accordance with DEQs general conditions to manage these contaminated soils with a soil management plan on to the existing orchard property and not on to ODOT right of way to prevent future liability.
- Concentrations of petroleum contaminated soils located along the Medco Haul Road if excavated will be required to be disposed of at a permitted landfill, encapsulated within the Project or managed under a Solid Waste Letter of Authorization (SWLA) obtained from DEQ.
- The previous Corridor Study identified materials that will require special handling if disposed of during construction, including treated timbers, PCB light ballasts.

Based on the results of this assessment, ODOT HazMat recommends the following actions:

- Petroleum Contaminated soils excavated from the Medco Haul Road during construction will be required to be land filled at a permitted land fill facility, encapsulated with in the Project or managed under a (SWLA) obtained from DEQ.
- Pesticide contaminated soils encountered along the proposed Airport Access alignment should be placed onto the adjacent former Orchard property in accordance with DEQs general conditions to manage these contaminated soils with a soil management plan to prevent ODOT from future liability.
- Special provisions are required to ensure appropriate management of contaminated soils.

As the scope of the Project changes to include additional excavation or right of way acquisition, Addendums to the Project will be provided.

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1 Introduction

The Oregon Department of Transportation (ODOT) Region 3 Environmental HazMat Group has conducted a Level 2 Preliminary Site Investigation (PSI) for the Project:

**OR62: Corridor Solution Unit 2 Phase 1 Project
Medford, Jackson County
Key#: 13994**

This PSI is intended to confirm the presence or absence of potential contamination identified in the HazMat Corridor Study for this Project. The presence of contamination could affect worker safety, property value, and construction costs.

1.1 Site Description

The Project Corridor consists of construction of Highway 62 Bypass which will extend from Highway 62 at the south end of the Medford/Jackson County International Airport north to Vilas Road along the east side of the airport. The project is located in Medford, Oregon, as indicated on Figure 1. Proposed Project Corridor activities include:

- Property Acquisition
- Construction of the new Bypass highway alignment.

1.2 Previous Assessments

In January, 2008, ODOT conducted a Hazardous Materials Corridor Study of the Project Corridor to identify potential sources of contamination that could impact the Project. Findings of the Corridor Study indicated the following areas of concern:

- A Medco Road Former Orchard is located on tax lot 2500 along the northwest boundary of the Project. Oregon Department of Environmental Quality lists the site as an Environmental Cleanup Site (ECSI). Information in the DEQ data base refers to a 59 acre subsection of tax lot 2500. This does not apply to the other 30 acres. The Medco Road Former Orchard site is a 49 acre industrial property located immediately northwest of the Medford Airport in Medford. The site is currently a vacant grassy field. Historical practices at the orchard included the use of agricultural chemicals including herbicides, pesticides, petroleum products, and fertilizers. In order to evaluate the potential for environmental impact, Agate Engineering, INC. conducted a Phase 1 and Phase 2 Environmental Site Assessment (ESA) in May of 2004. Arsenic was detected above Risk Base Concentrations (RBC's) but below background. Lead (Pb) was detected above background, but below appropriate RBC's. Dieldrin was present in soils above residential but below industrial standards. Therefore, risks at the site are managed with the following general conditions: (1.) No installation of wells on the property; (2.) No residential use of the property; (3.) Soil must be managed in accordance with a soil-management plan.
 - A former Medco Log Pond is located on the north eastern portion of the Project.
 - The former Medco Haul Road is located through out the project site.

Therefore, the HazMat Group recommended collecting subsurface samples at these locations to confirm the presence of contamination and develop associated project cost estimates.

1.3 DEQ File Review

ODOT HazMat conducted a review of DEQ files for select sites which the Corridor Study identified as having the potential to impact the Project Corridor. Details of these file reviews are set forth below:

- Medco Road Former Orchard– DEQ files indicate that this is an ECSI listed site. Agate Engineering, INC. conducted a Phase 1 and Phase 2 Environmental Site Assessment (ESA) in May of 2004. Arsenic was detected above Risk Base Concentrations (RBC's) but below background. Lead (Pb) was detected above background, but below appropriate RBC's. Dieldrin was present in soils above residential but below industrial standards. Therefore, Risks at the site are managed with the following general conditions: (1.) No installation of wells on the property; (2.) No residential use of the property; (3.) Soil must be managed in accordance with a soil-management plan.

2 Preliminary Site Assessment Activities

2.1 Scope of Work

ODOT HazMat prepared a Work Plan dated May 31st 2011 for the PSI activities, which included 2 surface soil samples and 39 probe holes. Appendix C contains the Work Plan which ODOT did not modify in the field.

ODOT prepared a site-specific Health and Safety (HASP) plan, a copy of which is available upon request. ODOT requested utility line marking through Oregon's Call-Before-You-Dig program.

2.2 Field Activities

Kenny Camp, ODOT Region 3 HazMat Coordinator oversaw the PSI assessment activities and collected soil samples from June 6th 2011 through June 8th 2011.

2.2.1 Surface Soil Samples

ODOT HazMat collected 2 surface soil samples in the area located south east of the former scale shack located along the Medco Haul Road at approximately 2 feet bgs, as shown in Appendix A, Figure 2 on sheet 2. Field staff collected the soil samples using a decontaminated steel shovel and screened them using a PID and the sheen method. Soil samples were collected in laboratory-prepared containers, labeled, placed in a cooler with ice and transported under chain-of-custody protocol to Pace Analytical (Pace) in Seattle, Washington for analysis.

2.2.2 Test Pits

ODOT HazMat did not excavate test pits.

2.2.3 Soil Borings

First Strike Environmental (FSE) advanced 39 probe hole borings with a Geo-Probe push probe sampling system and collected soil samples continuously in 3-foot long, disposable acetate liners. See Appendix A, Figure 2 Sheets 1-6 for probe hole locations. ODOT HazMat screened the soil samples using a PID meter, sheen method and emitted odor to select soil samples for laboratory analysis. Soil samples were collected in laboratory-prepared containers, labeled, placed in a cooler with ice and transported under chain-of-custody protocol to Pace Analytical for analysis. Appendix D contains boring logs, including geologic descriptions and field screening results.

2.2.4 Ground water Elevation Measurements

ODOT HazMat did not encounter groundwater in any of the probe hole borings. Therefore, it is assumed that the elevation of groundwater throughout the project area is below the bottom elevation of any one boring at the time of advancement.

2.3 Laboratory Analytical Methods

On 6/10/2011 ODOT submitted 86 soil samples to PACE for the following analyses:

- Gasoline range hydrocarbon quantification by NWTPH-Gx (if detected by NWTPH-HCID)
- Diesel range hydrocarbon quantification by NWTPH-Dx (if detected by NWTPH-HCID)
- Volatile Organic Compounds (VOCs) by EPA Method 8260B (if gasoline range hydrocarbons detected)
- Polynuclear Aromatic Hydrocarbons (PAHs) by EPA Method 8270SIM (if diesel range hydrocarbons detected)
- Total metals by EPA RCRA-8 methods
- Pesticides/Herbicides
- Polychlorinated Biphenyls (PCBs) by EPA Method 8082

On 6/10/2011 ODOT submitted 2 surface soil samples to Pace Analytical for the following analyses:

- Total metals by EPA RCRA-8 methods
- Petroleum hydrocarbon identification by NWTPH-HCID

3 Results

3.1 Geology and Hydrogeology

3.2 Based on the Probe Hole Logs, soils at the project site consist of approximately 1.5 to 12.0 feet of Fill overlying either Bedrock or approximately 1.5 to 10.0 feet of colluvium and/or alluvium. The Fill generally consisted of Gravelly Sand, Sandy

Gravel and Clay. The Colluvium generally consisted of Clay to Sandy Clay. The Alluvium generally consisted of, Gravel, Sandy Gravel, Clayey Sandy Gravel to Sand, Gravelly Sand, Silty Sand and Clayey Sand. Bedrock consisted of Igneous Intrusive Rock, Sandstone or Mudstone. For a more detailed description and thickness of the soil units along with the depth to bedrock see the attached Probe Hole Logs in Appendix D. In areas where fill is present, bedrock was encountered as shallow as 5.5 feet below the ground surface (bgs) and as deep as 14.2 feet bgs. In areas where fill was not present bedrock was encountered as shallow as 1.5 feet bgs to greater than 12 feet bgs. The probe holes encountered refusal as shallow as 2.0 feet bgs and as deep as 14.2 feet bgs. Drilling refusal was either a result of encountering bedrock or dense alluvium. The probe holes did not encounter ground water. However, ground water is expected to vary based on depth to bedrock, proximity to surface water features and the time of year.

3.3 Analytical Data

Where appropriate, analytical results presented in the following sections are compared to appropriate risk levels and regulatory limits for the contaminants and media of concern.

3.3.1 Soil

Laboratory analyses detected petroleum hydrocarbons at concentrations on the former Medco Haul Road which will require soil if excavated to be disposed of at a certified landfill, encapsulated within the road base or used on the Project under a SWLA obtained from the DEQ. Elevated levels of metals were found throughout the Project. However, these levels are within regional background levels. 4,4 DDD, 4,4-DDE, 4,4 DDT and Dieldrin were detected in the Medco Road Former Orchard below RBC's residential standards. Tables 1, 2 and 3 summarize the target compounds detected in soil samples and Appendix E contains the laboratory analytical data packages. Based on the DEQ ECIS and the detection of low level pesticides, on 8/10/2011 ODOT collected 4 additional soil samples which were shipped to Pace Analytical and analyzed for Pesticides 8081 to confirm or deny the presence of pesticides in the Medco Road Former Orchard. Soil samples were collected from 0 to 2 ft bgs returned below RBC's residential levels.

Based on these results the Petroleum soil contamination appears to be limited to Hwy 62, the Medco Haul Road and low level pesticides within the Medco Road Former Orchard area. Such contaminated soil will require special handling, if excavated during construction.

3.4 Investigation Derived Waste Management

Investigation derived wastes for this PSI included soil cuttings. This material was stored in labeled drums at the point of generation. Based on lab analysis of soil samples, the soil cuttings were transported to FSE for disposal.

4 Conclusions

ODOT Environmental HazMat Group performed a Level 2 Preliminary Site Investigation (PSI) for the Project Site OR 62: Corridor Unit 2 Phase 1. ODOT HazMat concludes the following:

- Petroleum-contaminated soils were encountered along the former Medco Haul Road in probe holes, HM-U2P1-01, HM-U2P1-01B, HM-U2P1-01C, HM-U2P1-02B, HM-U2P1-03, HM-U2P1-05, HM-U2P1-14, HM-U2P1-16, HM-U2P1-25, HM-U2P1-26, HM-U2P1-27, HM-U2P1-30, HM-U2P1-31, HM-U2P1-35, and along Hwy 62 at the south end of the Project in probe hole HM-U2P1-36. See Appendix A, Figure-2 Sheets 1-6 for probe hole locations. In addition low level Pesticides were detected below residential levels in probe hole HM-U2P1-09, and surface sample location HM-U2P1-PB, PC and PD which are located along the proposed Airport Access alignment that crosses through the area of the Medco Road Former Orchard. See Appendix A, Figure 2 Sheet 2 for surface sample locations. Soil samples were collected in these locations at an average depth of 0 to 3 feet below ground surface (bgs). Pesticides were detected below Risk based concentration (RBC's) for residential standards. Chromium samples returned above RBC's for residential standards but below industrial standards. It appears that chromium levels are consistent with regional background levels. Options for excavated soils located along the proposed Airport Access alignment through the Medco Road Former Orchard should include placement of excavated soil in accordance with DEQs general conditions to manage these contaminated soils with a soil management plan on to the existing orchard property and not on to ODOT right of way to prevent future liability.
- Concentrations of petroleum contaminated soils located along the Medco Haul Road if excavated will be required to be disposed of at a permitted landfill, encapsulated within the Project or managed under a Solid Waste Letter of Authorization (SWLA) obtained from DEQ.
- The previous Corridor Study identified materials that will require special handling if disposed of during construction, including treated timbers, PCB light ballasts.

Based on the results of this assessment, ODOT HazMat recommends the following actions:


- Petroleum Contaminated soils excavated during construction will be required to be land filled at a permitted land fill facility, encapsulated with in the Project or managed under a (SWLA) obtained from DEQ.
- Pesticide contaminated soils encountered along the proposed Airport Access alignment located in the Medco Road Former Orchard should be placed onto the adjacent former Orchard property in accordance with DEQ general conditions to manage these contaminated soils with a soil management plan to prevent ODOT from future liability.
- Special provisions are required to ensure appropriate management of contaminated soils.

5 Limitations

The HazMat Group conducted the work for this PSI report according to generally accepted environmental procedures as outlined in the American Association of State Highway and Transportation Officials (AASHTO) “Hazardous Waste Guide for Project Development” (1990) and the American Society for Testing and Materials (ASTM) “Standard Guide for Environmental Site Assessments: Phase II Environmental Site Assessment Process (ASTM E1903-00). This assessment is for internal ODOT use only and may not be relied upon by any other entity without the written permission of an authorized ODOT representative. This PSI is based on the ASTM and AASHTO standards; however, no environmental site assessment can eliminate all uncertainty. Any environmental sample (i.e. soil and groundwater samples) collected for analysis may or may not be representative of general Project Site conditions. The observations, findings, and conclusions in this PSI report are based solely on the Project Site conditions at the time of assessment and do not imply a warrantee or guarantee for the Project Site. Nothing in this PSI report constitutes a legal opinion or service and should not be relied on as such. ODOT is not responsible for the accuracy of information provided by third parties, which may be contained in this PSI report.

6 Signatures of Environmental Professionals

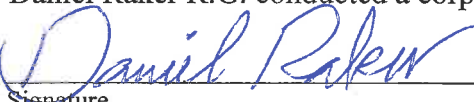
Kenny Camp prepared this PSI Report

 9/23/11
Signature Date

Nicholas Harris conducted a technical review of this PSI Report

 9/23/11
Signature Date

Daniel Raker R.G. conducted a corporate review of this PSI Report

 9/14/11
Signature Date

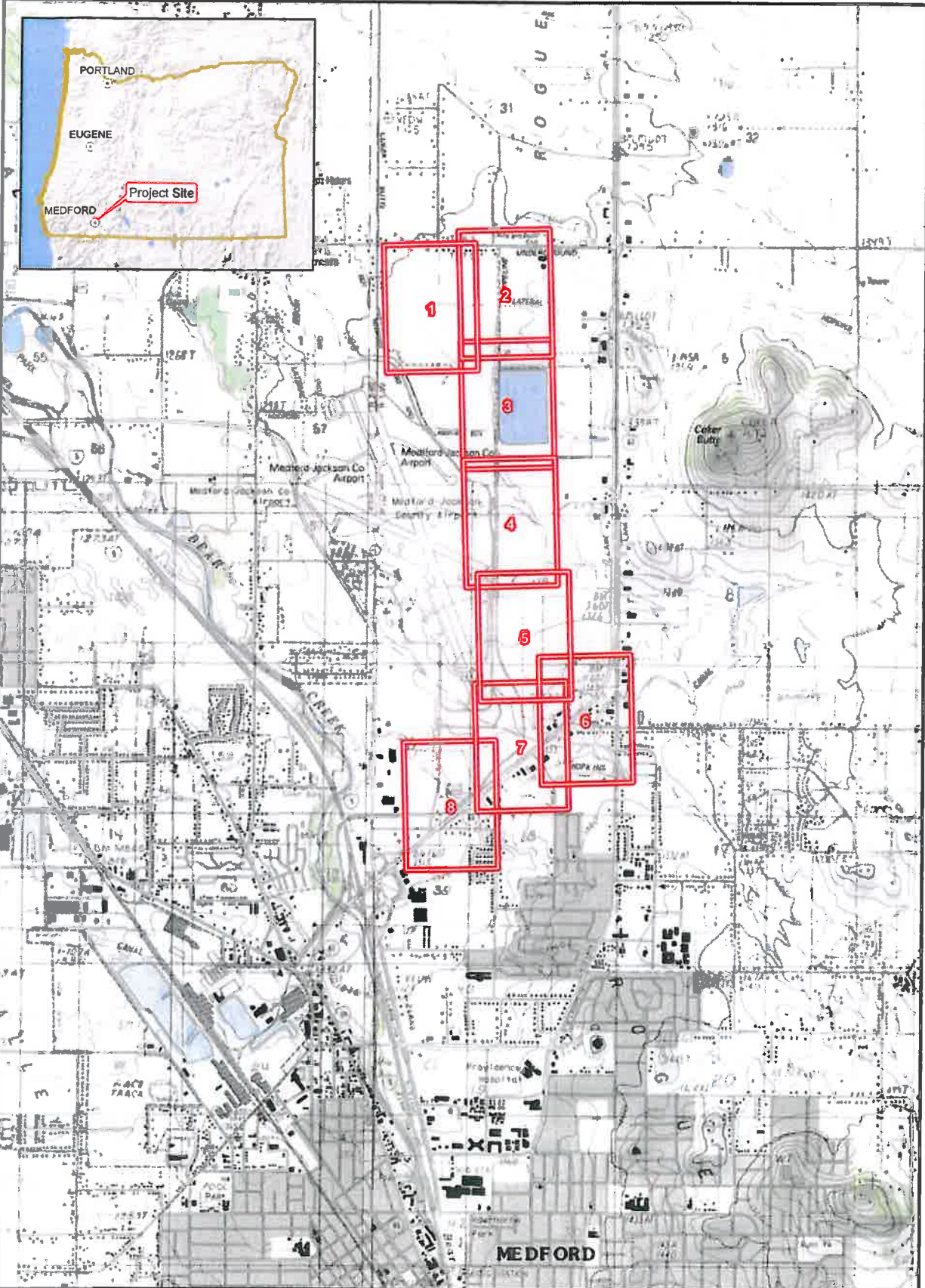
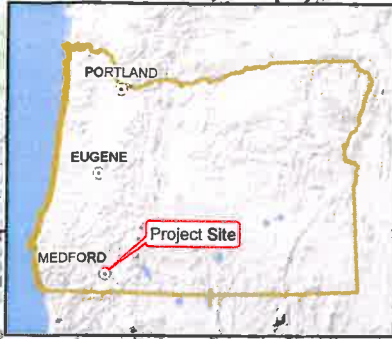
Oregon Registered Professional Geologist stamp:



Expires: 6/30/2012

Appendix-A

Figure 1 Project Site Location



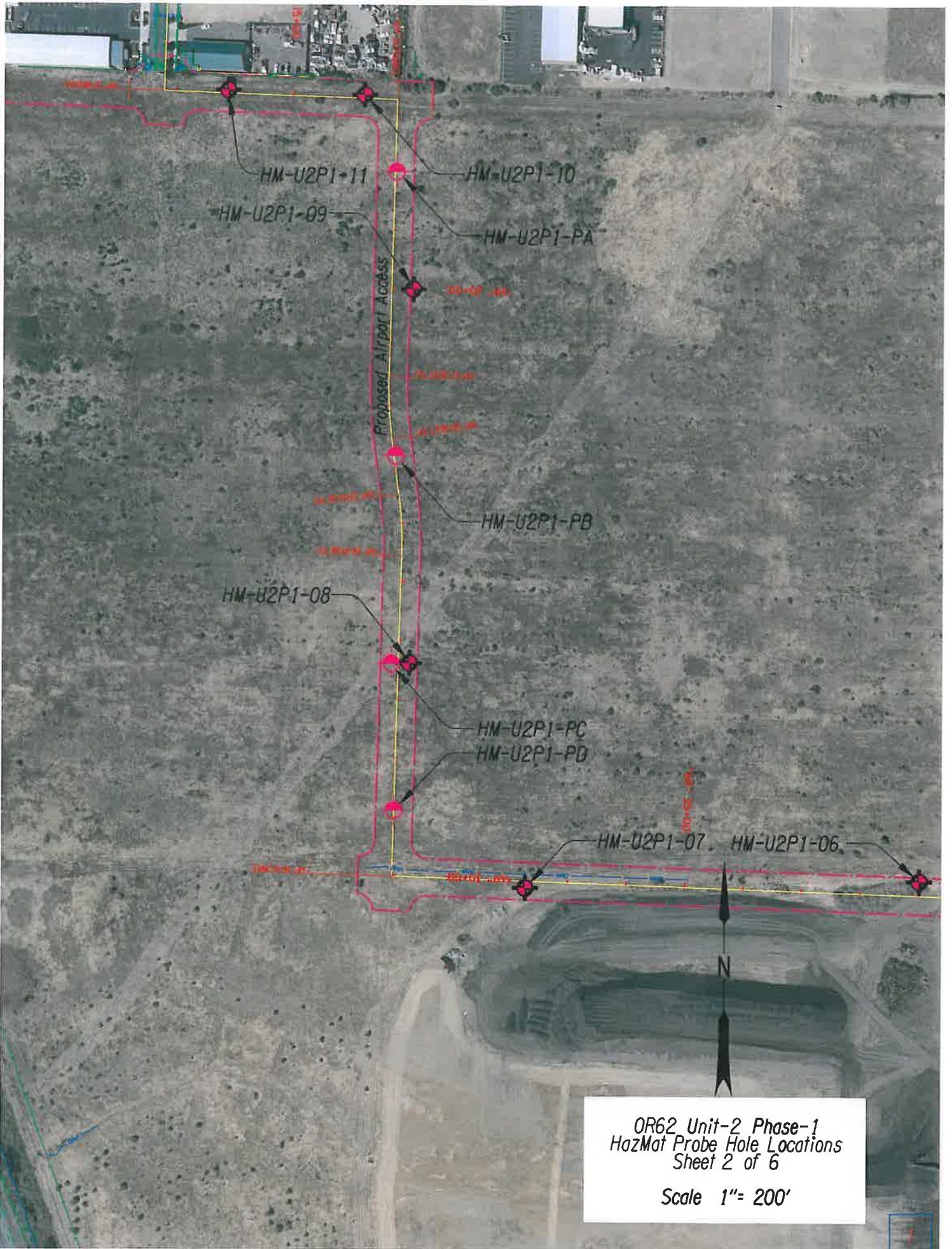
OR 62
Medford, OR

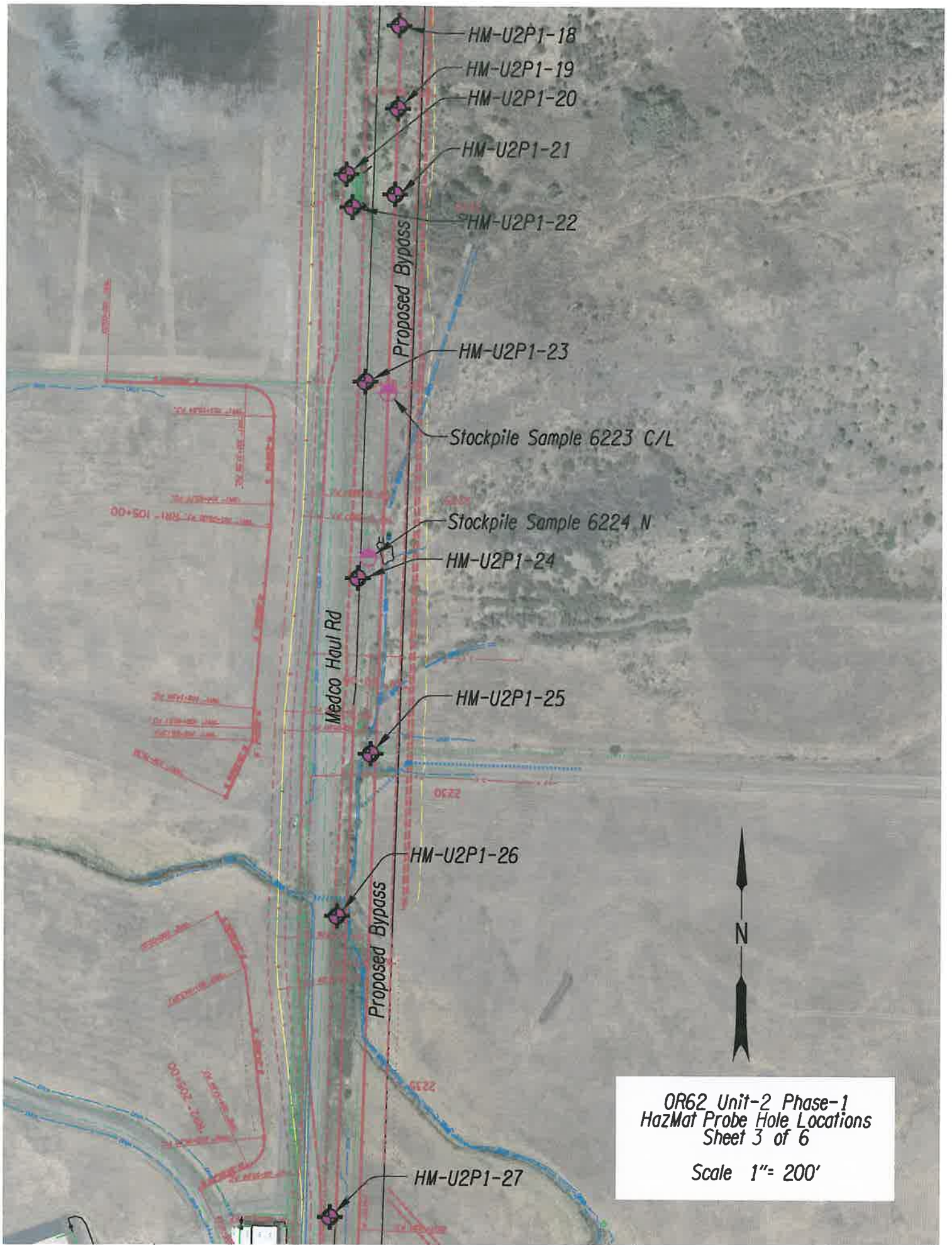
VICINITY MAP



Figure 2 Probe Hole and Sample Location Sheets 1-6

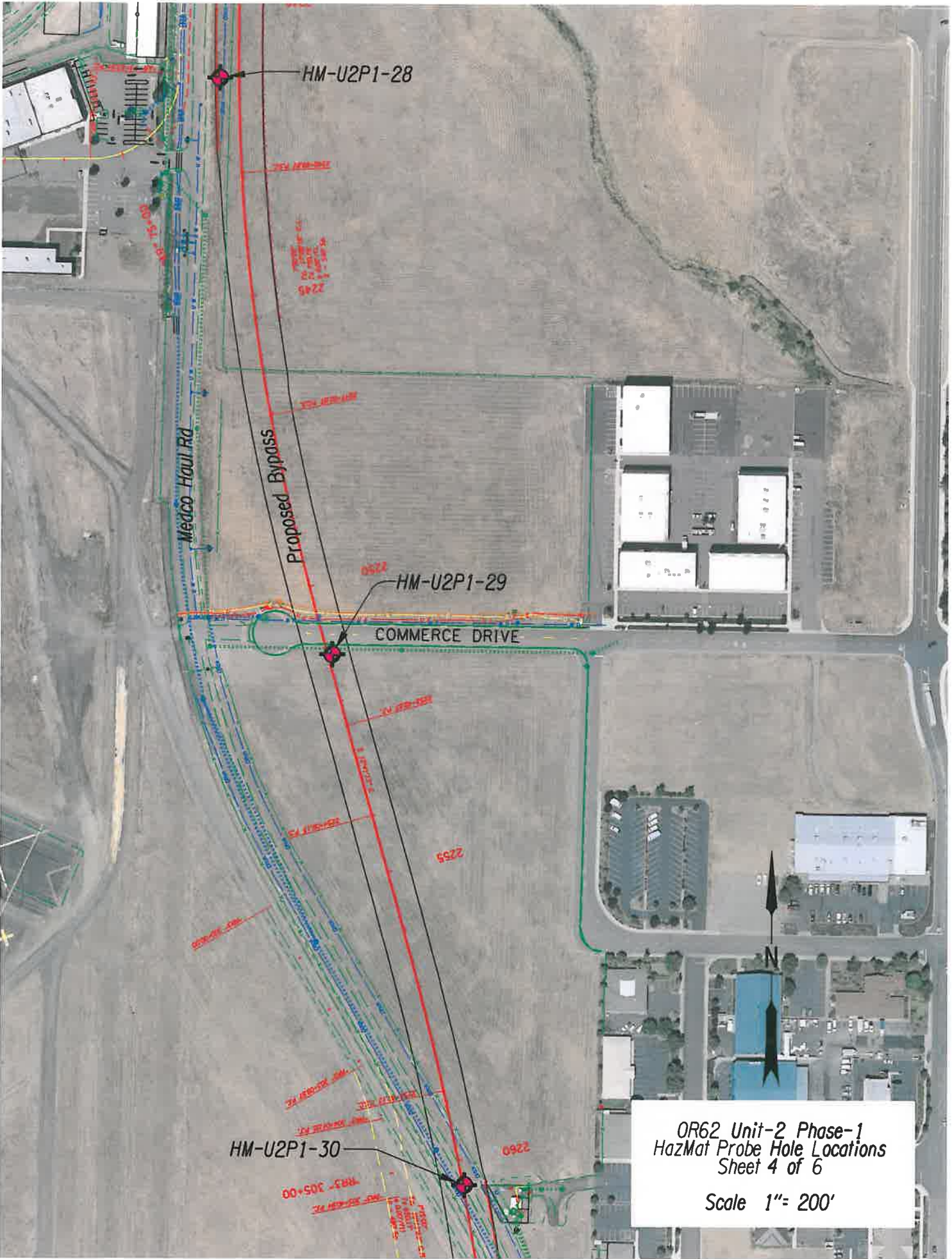






OR62 Unit-2 Phase-1
HazMat Probe Hole Locations
Sheet 3 of 6

Scale 1" = 200'



HM-U2P1-28

Mecco Haul Rd

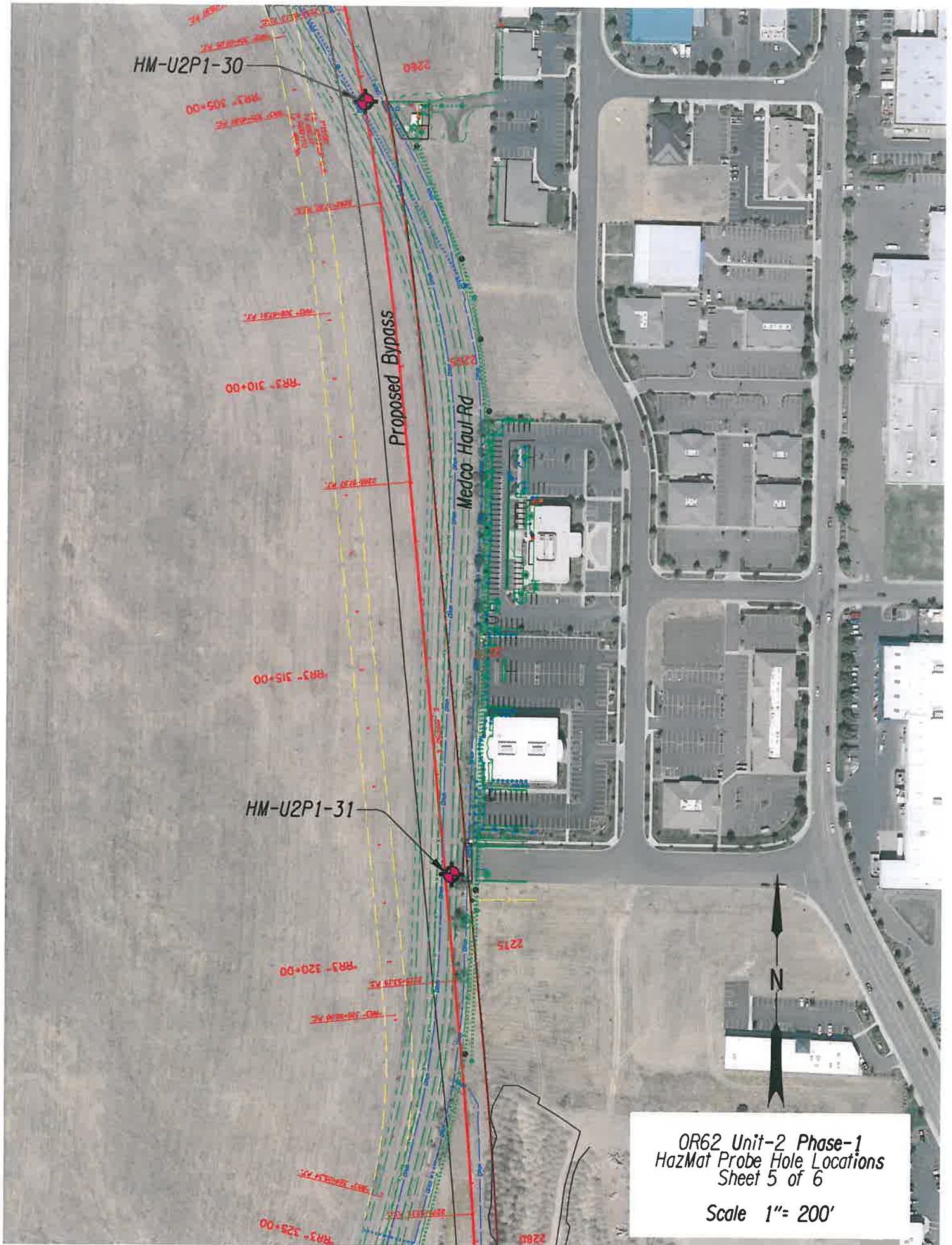
Proposed Bypass

HM-U2P1-29

COMMERCE DRIVE

HM-U2P1-30

OR62 Unit-2 Phase-1
HazMat Probe Hole Locations
Sheet 4 of 6
Scale 1"= 200'



HM-U2P1-30

RR3-305+00

RR3-310+00

RR3-315+00

HM-U2P1-31

RR3-320+00

RR3-325+00

Proposed Bypass

Medco Haul Rd

N

OR62 Unit-2 Phase-1
HazMat Probe Hole Locations
Sheet 5 of 6
Scale 1"= 200'



OR62 Unit-2 Phase-1
HazMat Probe Hole Locations
Sheet 6 of 6
Scale 1"= 200'

HM-U2P1-32

Medco Haul Rd

Proposed Bypass

HM-U2P1-34

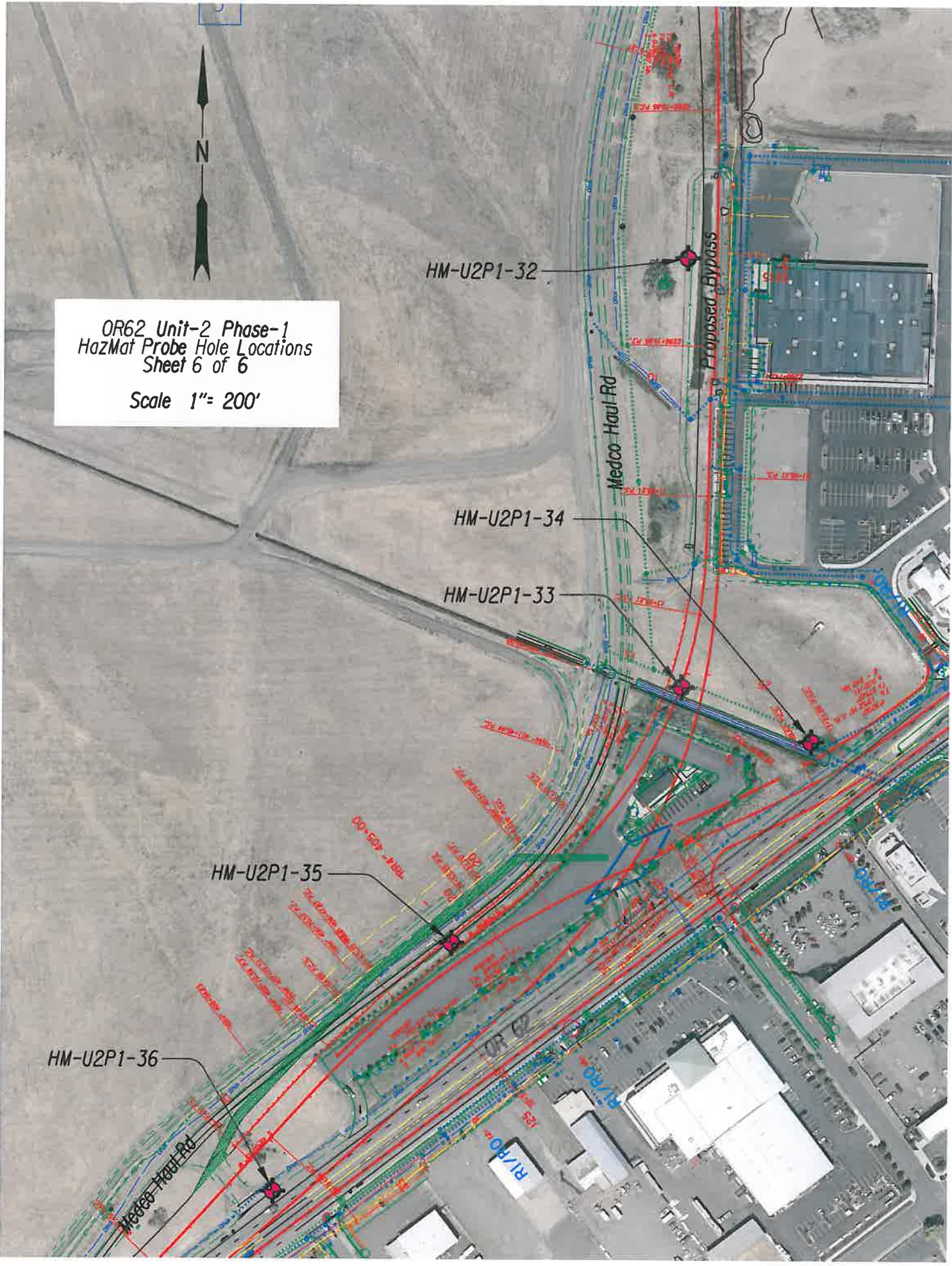
HM-U2P1-33

HM-U2P1-35

HM-U2P1-36

Medco Haul Rd

RI/RD



Appendix-B

Table 1 Soil Analytical Results

Table 1
Soil Analytical Results HCID GX DX
OR 62 Unit-2 Phase-1, Medford

Boring ID#	Depth (Feet bgs)	NWTPH-HCID			Gx		Dx	
		Gas mg/kg	Diesel mg/kg	Oil mg/kg	Gas mg/kg	Diesel mg/kg	Oil mg/kg	
6201	0-3	ND	Detect	Detect	ND	292	849	
6201	3-5.5	ND	ND	ND	NA	NA	NA	
6201B	0-3	ND	Detect	Detect	NA	256	1300	
6201B	4-5	ND	ND	ND	NA	NA	NA	
6201B	5-6	ND	ND	ND	NA	NA	NA	
6201C	0-3	ND	Detect	Detect	NA	546	1780	
6202	0-3	ND	ND	ND	NA	NA	NA	
6202B	0-3	ND	Detect	Detect	NA	243	655	
6203	1-2	ND	Detect	Detect	NA	181	385	
6203	2-3	ND	Detect	Detect	NA	129	257	
6203	3-6	ND	ND	ND	NA	NA	NA	
6203	6-6.5	ND	ND	ND	NA	NA	NA	
6205	0-3	ND	Detect	Detect	NA	1460	2330	
6205	4-5	ND	ND	ND	NA	NA	NA	

ND Compound not detected above laboratory detection limit
NA Sample not analyzed for that parameter
Analytes not listed in the table were not detected above the laboratory detection limit

**Soil Analytical Results HCID GX DX
OR 62 Unit-2 Phase-1, Medford**

Boring ID#	Depth	NWTPE-HCID			GX			DX		
		Gas	Diesel	Oil	Gas	Diesel	Oil	Gas	Diesel	Oil
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
	(Feet bgs)									
6205	5-6	ND	ND	ND	NA	NA	NA	NA	NA	NA
6205	8-9	ND	ND	ND	NA	NA	NA	NA	NA	NA
6207	0-2.5	ND	ND	ND	NA	NA	NA	NA	NA	NA
6212	0-3	ND	ND	ND	NA	NA	NA	NA	NA	NA
6213	4-5	ND	ND	ND	NA	NA	NA	NA	NA	NA
6213	5-6	ND	ND	ND	NA	NA	NA	NA	NA	NA
6214	0-3	ND	Detect	Detect	NA	NA	324	937	NA	NA
6214	4-5	ND	ND	ND	NA	NA	NA	NA	NA	NA
6214	5-6	ND	ND	ND	NA	NA	NA	NA	NA	NA
6214	8-9	ND	ND	ND	NA	NA	NA	NA	NA	NA
6215	0-3	ND	ND	ND	NA	NA	NA	NA	NA	NA
6216	0-3	ND	Detect	Detect	NA	NA	208	427	NA	NA
6216	5-6	ND	ND	ND	NA	NA	NA	NA	NA	NA
6216	7-8	ND	ND	ND	NA	NA	NA	NA	NA	NA
6217	2-3	ND	ND	ND	NA	NA	NA	NA	NA	NA

ND Compound not detected above laboratory detection limit

NA Sample not analyzed for that parameter

Analytes not listed in the table were not detected above the laboratory detection limit

**Soil Analytical Results HCID GX DX
OR 62 Unit-2 Phase-1, Medford**

Boring ID#	Depth (Feet bgs)	NWTPH-HCID			Gx		Dx	
		Gas mg/kg	Diesel mg/kg	Oil mg/kg	Gas mg/kg	Diesel mg/kg	Oil mg/kg	
6217	4-5	ND	ND	ND	NA	NA	NA	
6218	7-8	ND	ND	ND	NA	NA	NA	
6219	0-3	ND	ND	ND	NA	NA	NA	
6219	3-6	ND	ND	ND	NA	NA	NA	
6220	5-6	ND	ND	ND	NA	NA	NA	
6220	8-9	ND	ND	ND	NA	NA	NA	
6222	0-3	ND	ND	ND	NA	NA	NA	
6222	4-5	ND	ND	ND	NA	NA	NA	
6222	5-6	ND	ND	ND	NA	NA	NA	
6223	6-9	ND	ND	ND	NA	NA	NA	
6224	3-6	ND	ND	ND	NA	NA	NA	
6224	5.5-6.5	ND	ND	ND	NA	NA	NA	
6225	0-3	ND	Detect	Detect	NA	460	1230	
6225	3-5	ND	ND	ND	NA	NA	NA	
6226	0-3	ND	Detect	Detect	NA	131	684	

ND Compound not detected above laboratory detection limit

NA Sample not analyzed for that parameter

Analytes not listed in the table were not detected above the laboratory detection limit

**Soil Analytical Results HCID GX DX
OR 62 Unit-2 Phase-1, Medford**

Boring ID#	Depth (Feet bgs)	NWTPH-HCID			Gx		Dx	
		Gas mg/kg	Diesel mg/kg	Oil mg/kg	Gas mg/kg	Diesel mg/kg	Oil mg/kg	
6226	5-6	ND	ND	ND	NA	NA	NA	
6227	0-3	ND	Detect	Detect	NA	22.2	114	
6227	4-5	ND	ND	ND	NA	NA	NA	
6227	5-6	ND	ND	ND	NA	NA	NA	
6228	0-3	ND	ND	ND	NA	NA	NA	
6228	4-5	ND	ND	ND	NA	NA	NA	
6229	4-5	ND	ND	ND	NA	NA	NA	
6230	0-3	ND	Detect	Detect	NA	151	925	
6230	4-5	ND	ND	ND	NA	NA	NA	
6231	0-3	ND	Detect	Detect	NA	29.3	296	
6233	0-3	ND	ND	ND	NA	NA	NA	
6234	0-3	ND	ND	ND	NA	NA	NA	
6235	0-3	ND	Detect	Detect	NA	871	1690	
6235	3-6	ND	ND	ND	NA	NA	NA	
6235	6-9	ND	ND	ND	NA	NA	NA	
6236	0-3	ND	Detect	Detect	NA	193	2960	

ND Compound not detected above laboratory detection limit
NA Sample not analyzed for that parameter

Table 2
Soil Analytical Results Metals
OR 62 Unit-2 Phase-1, Medford

Boring ID#	Depth (Feet bgs)	Total RCRA Metals									
		Arsenic mg/kg	Barium mg/kg	Cadmium mg/kg	Chromium mg/kg	Lead mg/kg	Selenium mg/kg	Silver mg/kg	Mercury mg/kg		
Stockpile6223 C/L	2	ND	279	ND	56.4	7.4	ND	ND	ND	ND	
Stockpile6224 N	2	ND	619	ND	51.3	6.8	ND	ND	ND	ND	
6204	0-2	ND	172	ND	143	8.9	ND	ND	ND	ND	
6205	8-9	ND	83.7	ND	96.7	23.5	ND	ND	ND	ND	
6206	2-3	ND	103	ND	35.6	4.4	ND	ND	ND	ND	
6207	0-2.5	ND	272	ND	70.7	16.3	ND	ND	ND	ND	
6208	0-3	ND	271	ND	78	11.1	ND	ND	ND	ND	
6210	3-4	ND	242	ND	74.3	ND	ND	ND	ND	ND	
6211	4-5	ND	95.6	ND	62.3	ND	ND	ND	ND	ND	
6212	3-4.3	ND	90	ND	76.9	ND	ND	ND	ND	ND	
6216	5-6	ND	82	ND	75.7	ND	ND	ND	ND	ND	
6218	3-6	ND	106	ND	93.1	ND	ND	ND	ND	ND	
6220	0-3	ND	86.3	ND	31.9	10	ND	ND	ND	ND	
6221	3-4.3	ND	313	ND	64	15.2	ND	ND	ND	ND	

ND Compound not detected above laboratory detection limit
 NA Sample not analyzed for that parameter

Table 2
Soil Analytical Results Metals
OR 62 Unit-2 Phase-1, Medford

Boring ID#	Depth (Feet bgs)	Total RCRA Metals									
		Arsenic mg/kg	Barium mg/kg	Cadmium mg/kg	Chromium mg/kg	Lead mg/kg	Selenium mg/kg	Silver mg/kg	Mercury mg/kg		
6223	0-3	ND	256	ND	35.7	11.5	ND	ND	ND	ND	
6226	5-6	ND	175	ND	82.6	7.6	ND	ND	ND	ND	
6229	0-3	ND	137	ND	30.8	5.5	ND	ND	ND	ND	
6230	4-5	ND	345	ND	29.6	6.6	ND	ND	ND	ND	
6232	3-6	ND	231	ND	36.9	5.3	ND	ND	ND	ND	
6234	3-4	ND	98.6	ND	30.7	21.4	ND	ND	ND	ND	
6236	4-5	ND	85.2	ND	47.2	4.2	ND	ND	ND	ND	
DEQ Residential Direct Contact RBC's		0.39	15,000	18,000	38*	400	NA	390	23		
DEQ Construction Worker RBC's		13	60,000	>Max	4,800*	800	NA	1,500	93		

ND Compound not detected above laboratory detection limit

NA Sample not analyzed for that parameter

Analytes not listed in the table were not detected above the laboratory detection limit

DEQ RBC's are the Risk Based Concentrations published by DEQ on their web site, current as of the publication date for this report

*RBC provided is for Chromium VI, which is a lower value than the Chromium III RBC.

Table 3
Soil Analytical Results
OR 62 Unit-2 Phase-1, Medford
SVOCs / PAHs

Boring ID#	Depth (feet bgs)	Polycyclic Aromatic Hydrocarbons										Semi Volatile Organic Compounds
		2-Methylnaphthalene	Chrysene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Phenanthrene	Pyrene	Fluoranthene	Benzo(a)pyrene	Bis(2-Ethylhexyl)phthalate		
		ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
6201	0-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	800
6202B	0-3	8.5	28.5	7.7	9.1	19.4	24.7	ND	ND	ND	ND	ND
6212	0-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
6213	0-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
6215	3-4.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
6221	0-3	ND	ND	ND	ND	ND	ND	ND	ND	12.2	ND	ND
6222	11-12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
6230	0-3	ND	30.7	13.3	13.4	14.3	12.3	ND	ND	ND	8.8	ND
6231	0-3	ND	23	8.4	14.5	ND	14.5	ND	ND	ND	9.4	ND
6235	0-3	ND	29.8	13.6	10.6	13.8	17.4	ND	ND	ND	16.4	ND
DEQ Residential Direct Contact RBCs		310,000*	15,000	150	NA	NA	1,700,000	NA	2,300,000	15		35,000
DEQ Construction Worker RBCs		4,100,000*	2,100,000	21,000	NA	NA	6,700,000	8,900,000	21,000			1,200,000

ND Compound not detected above laboratory detection limit
 NA Sample not analyzed for that parameter
 DEQ RBCs are the Risk Based Concentrations published by DEQ on their web site, current as of the publication date for this report (* EPA Preliminary Remediation Goals used where DEQ RBCs were not available).

Table includes only detect results: (for complete analytical results including non detected see analytical results in (Appendix C))

Table 4

**Soil Analytical Results Herbicide and Pesticides
OR 62 Unit-2 Phase-1, Medford**

Boring # (Lab ID#)	Depth (feet bgs)	Chlorinated Herbicides ug/kg	Total Pesticide	Organochloride Pesticides (ug/kg)				
				4,4'-DDE	4,4''-DDD	4,4'-DDT	Dieldrin	
6206 (258066020)	1-2	Non Detect	NA	NA	NA	NA	NA	NA
6208 (258066023)	0-3	Non Detect	NA	NA	NA	NA	NA	NA
6208 (258066024)	4-5	Non Detect	NA	NA	NA	NA	NA	NA
6209 (258066025)	0-3	NA	Detect	9.46	ND	ND	ND	ND
6209 (258066026)	3-4	Non Detect	NA	NA	NA	NA	NA	NA
6210 (258066027)	0-3	Non Detect	NA	NA	NA	NA	NA	NA
6211 (258066029)	0-3	Non Detect	NA	NA	NA	NA	NA	NA
HM-U2P1-PA	0-2	NA	ND	ND	ND	ND	ND	ND
HM-U2P1-PB	0-2	NA	Detect	15.7	ND	ND	ND	ND
HM-U2P1-PC	0-2	NA	Detect	302	9.27	9.98	19.5	19.5
HM-U2P1-PD	0-2	NA	Detect	16.9	ND	ND	ND	ND
DEQ Residential Direct Contact RBCs				1,700	2,400	1,700	30	30
DEQ Construction Worker RBCs				58,000	83,000	58,000	1,000	1,000

ND Compound not detected above laboratory detection limit

NA Sample not analyzed for that parameter

DEQ RBCs are the Risk Based Concentrations published by DEQ on their web site, current as of the publication date for this report
Residential RBCs provide the most conservative value available, Construction Worker RBCs are directly applicable to activities at the site.

Table includes only detect results: (for complete analytical results including non detects see analytical results in (Appendix C))

*Level 2 Preliminary Site Investigation
OR 62: Corridor Solution Unit 2 Phase 1
Medford, Jackson County
Key Number 13994*

Table 5
Soil Analytical Results PCBs EPA Method 8082
OR 62 Unit-2 Phase-1, Medford

Boring ID#	Depth (Feet-bgs)	PCB1016	PCB1221	PCB1232	PCB1242	PCB1248	PCB1254	PCB1260
		ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
6205	0-3	ND	ND	ND	ND	ND	ND	ND
6216	0-3	ND	ND	ND	ND	ND	ND	ND
6235	0-3	ND	ND	ND	ND	ND	ND	ND

ND Compound not detected above laboratory detection limit

Appendix C

Work Plan

**Oregon Department of Transportation
HazMat Work Plan
OR 62 Unit-2 Phase-1
Medford, Oregon
Key Number: 13994**

Prepared by Kenny Camp, on May 31st 2011

1. Introduction

The goal of this work is to identify potential contamination associated with the OR 62 Unit-2 Phase-1 Project. Site Activities

ODOT will conduct subsurface sampling at the locations indicated on the attached Site Plan, as follows:

- Collect 2 surface soil samples from 24 inches below grade and submit them for the analyses listed in Section 3
- Advance 39 soil borings to approximately 9 feet below ground surface (bgs) using a Geo-Probe drill rig.
- Collect subsurface soil samples every 3 feet below grade using 3-foot long vinyl acetate core liners.
- Screen soil samples using a photo-ionization detector (PID) / soil sheening / visual / odor.
- Select soil samples for laboratory analysis based on field screening/ specific depth and submit for analyses listed in Section 3.

Standard operating procedures for these activities are attached to the Generic HASP.

2. Sample Analysis

ODOT will submit soil samples for the following laboratory analyses:

- Herbicides by EPA Method 8181, PCBs by 8082, NWTPH-HCID; NWTPH-Gx and/or -Dx (if HCID positive); PAHs by 8270SIM (if Dx positive); VOCs by 8260B (if Gx positive), RCRA Metals 7000.

3. Personnel Requirements

Proposed Site activities will require a contract drill crew and at least one fully trained ODOT HazMat specialist. A Limited Trained Buddy or additional HazMat Specialist will be required for groundwater sampling.




Appendix D

Boring Logs

DRILL LOG
OREGON DEPARTMENT OF TRANSPORTATION

Project OR62 Corridor Solutions Unit-2 Phase-1		Purpose Level-2 HazMat Investigation	Hole No. HM-U2P1-01
Highway Crater Lake Hwy No. 22 (OR62)		County Jackson	E.A. No. PE001522
Hole Location Northing:		Easting:	
Equipment (Geoprobe) Hole Location: On Medco Haul Rd.		Driller FSE Wes Harper MW# 10528	Key No. 17188
Project Geologist Kenny Camp Reg-3 HazMat Coordinator		Recorder Dan Raker	Start Card No.
Start Date June 6, 2011	End Date June 6, 2011	Total Depth 6.0 ft	Ground Elev. 1313.6 ft
			Tube Height

Test Type	Rock Abbreviations			Typical Drilling Abbreviations	
"A" - Advancer	<u>Discontinuity</u>	<u>Shape</u>	<u>Surface Roughness</u>	<u>Drilling Methods</u>	<u>Drilling Remarks</u>
"X" - Auger	J - Joint	Pl - Planar	P - Polished	WL - Wire Line	LW - Lost Water
"C" - Core	F - Fault	C - Curved	Sl - Slickensided	HS - Hollow Stem Auger	WR - Water Return
"N" - Standard Penetration Test	B - Bedding	U - Undulating	Sm - Smooth	DF - Drill Fluid	WC - Water Color
"U" - Undisturbed Sample	Fo - Foliation	St - Stepped	R - Rough	SA - Solid Auger	DP - Down Pressure
"D" - Oversize Split Spoon Sample	S - Shear	Ir - Irregular	VR - Very Rough	CA - Casing Advancer	DR - Drill Rate
				HA - Hand Auger	DA - Drill Action

Depth (ft)	Test Type No.	Percent Recovery	Soil Driving Resistance	Rock Discontinuity Data Or RQD%	Percent Natural Moisture	Material Description SOIL: Soil Name, USCS, Color, Plasticity, Moisture, Consistency/Relative Density, Texture, Cementation, Structure, Origin. ROCK: Rock Name, Color, Weathering, Hardness, Discontinuity Spacing, Joint Filling, Core Recovery, Formation Name.	Unit Description	Graphic Log	Drilling Methods, Size and Remarks	Water Level/Date	Backfill/Instrumentation
0	P1	50				P- 1 (0.0-3.0) From (0'-0.6') AC. From (0.6'-1.2') Base Rock. From (1.2'-3.0') Sandy CLAY, CL; dark brown, low plasticity, moist. Colluvium. Sample submitted for lab test = 6201 (0'-3')	0.0 - 0.6 AC		Drilling Method: 1"ID Push Probe (0'-6')		
	P2	84				P- 2 (3.0-5.5) From (3.0'-3.5') Sandy CLAY, CL; dark brown, low plasticity, moist. Colluvium. From (3.5'-5.5') Intrusive Rock, brown, predominantly decomposed, extremely soft to very soft. Igneous Intrusive. Sample submitted for lab test = 6201 (3'-5.')	0.6 - 1.2 Base Rock		(P-1) PID= 0 Sheen= Slight Odor= Yes		
	P3	100				P- 3 (5.5-6.0) Intrusive Rock, brown, predominantly decomposed, extremely soft to very soft. Igneous Intrusive. (6.0) Bottom of hole.	1.2 - 3.5 Sandy CLAY, CL; dark brown, low plasticity, moist; (Colluvium)		(P-2) PID= 0 Sheen= Yes Odor= Yes		
5							3.5 - 6.0 Intrusive Rock, brown, predominantly decomposed, extremely soft to very soft; (Igneous Intrusive)		← Bedrock Contact 3.5'		
10									(P-3) PID= 0 Sheen= No Odor= No		
15									Backfilled with; Bentonite Chips (6'-0.5') AC Cold Mix (0.5'-0')		

ODOT DRILL LOG 62-U2-P1-HAZMAT.GPJ_ODOT_MAN.GDT 09/03/11

DRILL LOG
OREGON DEPARTMENT OF TRANSPORTATION

Project OR62 Corridor Solutions Unit-2 Phase-1		Purpose Level-2 HazMat Investigation		Hole No. HM-U2P1-01B								
Highway Crater Lake Hwy No. 22 (OR62)		County Jackson		E.A. No. PE001522								
Hole Location Northing:		Easting:		Key No. 17188								
Equipment (Geoprobe) Hole Location: On Medco Haul Rd.		Driller FSE Wes Harper MW# 10528		Start Card No.								
Project Geologist Kenny Camp Reg-3 HazMat Coordinator		Recorder Dan Raker		Bridge No.								
Start Date June 6, 2011		End Date June 6, 2011		Ground Elev. 1313.4 ft								
		Total Depth 6.0 ft		Tube Height								
Test Type		Rock Abbreviations		Typical Drilling Abbreviations								
"A" - Advancer "X" - Auger "C" - Core "N" - Standard Penetration Test "U" - Undisturbed Sample "D" - Oversize Split Spoon Sample		Discontinuity J - Joint F - Fault B - Bedding Fo - Foliation S - Shear Shape Pl - Planar C - Curved U - Undulating St - Stepped Ir - Irregular Surface Roughness P - Polished Sl - Slicksided Sm - Smooth R - Rough VR - Very Rough		Drilling Methods WL - Wire Line HS - Hollow Stem Auger DF - Drill Fluid SA - Solid Auger CA - Casing Advancer HA - Hand Auger Drilling Remarks LW - Lost Water WR - Water Return WC - Water Color DP - Down Pressure DR - Drill Rate DA - Drill Action								
Depth (ft)	Test Type No.	Percent Recovery	Soil Driving Resistance	Rock Discontinuity Data Or RQD%	Percent Natural Moisture	Material Description SOIL: Soil Name, USCS, Color, Plasticity, Moisture, Consistency/Relative Density, Texture, Cementation, Structure, Origin. ROCK: Rock Name, Color, Weathering, Hardness, Discontinuity Spacing, Joint Filling, Core Recovery, Formation Name.	Unit Description	Graphic Log	Drilling Methods, Size and Remarks	Water Level/Date	Backfill/Instrumentation	
0	P1	43				P- 1 (0.0-3.0) From (0'-0.5') AC. From (0.5'-1.2') Base Rock. From (1.2'-3.0') Gravelly SAND with some silt, SP-SM; brown, low plasticity, damp. Fill. Sample submitted for lab test = 6201B (0'-3')	0.0 - 0.5 AC 0.5 - 1.2 Base Rock 1.2 - 3.0 Gravelly SAND with some silt, SP-SM; brown, low plasticity, damp; (Fill)		Drilling Method: 1"ID Push Probe (0'-6') (P-1) PID= 0 Sheen= Yes Odor= Yes			
5	P2	100				P- 2 (3.0-6.0) From (3.0'-5.7') CLAY, CH; dark brown, medium plasticity, moist. Colluvium. From (5.7'-6.0') Intrusive Rock, brown, predominantly decomposed, extremely soft to very soft. Igneous Intrusive. Sample submitted for lab test = 6201B (4'-5') Sample submitted for lab test = 6201B (5'-6')	3.0 - 5.7 CLAY, CH; dark brown, medium plasticity, moist; (Colluvium)		(P-2) PID= 0 Sheen= No Odor= Slight			
6.0						(6.0) Bottom of hole.	5.7 - 6.0 Intrusive Rock, brown, predominantly decomposed, extremely soft to very soft; (Igneous Intrusive)		← Bedrock Contact 5.7'		Backfilled with; Bentonite Chips (6'-0.5') AC Cold Mix (0.5'-0')	
10												
15												

ODOT DRILL LOG 62-U2-P1-HAZMAT.GPJ ODOT_MAN.GDT 09/03/11

DRILL LOG
OREGON DEPARTMENT OF TRANSPORTATION




Project OR62 Corridor Solutions Unit-2 Phase-1		Purpose Level-2 HazMat Investigation	Hole No. HM-U2P1-01C
Highway Crater Lake Hwy No. 22 (OR62)		County Jackson	E.A. No. PE001522
Hole Location Northing:		Easting:	
Equipment (Geoprobe) Hole Location: On Medco Haul Rd.		Driller FSE Wes Harper MW# 10528	Key No. 17188
Project Geologist Kenny Camp Reg-3 HazMat Coordinator		Recorder Dan Raker	Start Card No.
Start Date June 6, 2011	End Date June 6, 2011	Total Depth 5.8 ft	Ground Elev. 1313.3 ft
			Tube Height

Test Type	Rock Abbreviations			Typical Drilling Abbreviations	
"A" - Advancer	<u>Discontinuity</u>	<u>Shape</u>	<u>Surface Roughness</u>	<u>Drilling Methods</u>	<u>Drilling Remarks</u>
"X" - Auger	J - Joint	PI - Planar	P - Polished	WL - Wire Line	LW - Lost Water
"C" - Core	F - Fault	C - Curved	SI - Slickensided	HS - Hollow Stem Auger	WR - Water Return
"N" - Standard Penetration Test	B - Bedding	U - Undulating	Sm - Smooth	DF - Drill Fluid	WC - Water Color
"U" - Undisturbed Sample	Fo - Foliation	St - Stepped	R - Rough	SA - Solid Auger	DP - Down Pressure
"D" - Oversize Split Spoon Sample	S - Shear	Ir - Irregular	VR - Very Rough	CA - Casing Advancer	DR - Drill Rate
				HA - Hand Auger	DA - Drill Action

Depth (ft)	Test Type No.	Percent Recovery	Soil Driving Resistance	Rock Discontinuity Data Or RQD%	Percent Natural Moisture	Material Description SOIL: Soil Name, USCS, Color, Plasticity, Moisture, Consistency/Relative Density, Texture, Cementation, Structure, Origin. ROCK: Rock Name, Color, Weathering, Hardness, Discontinuity Spacing, Joint Filling, Core Recovery, Formation Name.	Unit Description	Graphic Log	Drilling Methods, Size and Remarks	Water Level/ Date	Backfill/ Instrumentation
0	P1	53				P- 1 (0.0-3.0) From (0'-0.5') AC. From (0.5'-1.5') Base Rock. From (1.5'-3.0') Gravelly SAND with some silt, SP-SM; brown, low plasticity, damp. Fill. Sample submitted for lab test = 6201C (0'-3')	0.0 - 0.5 AC		Drilling Method: 1"ID Push Probe (0'-5.8')		
	P2	14				P- 2 (3.0-5.8) From (3.0'-5.5') No recovery, gravel in tip of shoe. Colluvium. From (5.5'-5.8') Intrusive Rock, brown, predominantly decomposed, extremely soft to very soft. Igneous Intrusive.	0.5 - 1.5 Base Rock		(P-1) PID= 0 Sheen= Yes Odor= Yes		
							1.5 - 3.0 Gravelly SAND with some silt, SP-SM; brown, low plasticity, damp; (Fill)		Driller notes; soft from (3'-5')		
							3.0 - 5.5 CLAY, CH; (Colluvium)		Driller notes; hard at 5.5'		
						(5.8) Bottom of hole.	5.5 - 5.8 Intrusive Rock, brown, predominantly decomposed, extremely soft to very soft; (Igneous Intrusive)		Bedrock contact 5.5'		
									Backfilled with; Bentonite Chip (5.8'-0.5') AC Cold Mix (0.5'-0')		
5											
10											
15											

ODOT DRILL LOG 62-U2-P1-HAZMAT.GPJ ODOT_MAN.GDT 09/03/11

DRILL LOG
OREGON DEPARTMENT OF TRANSPORTATION

Project OR62 Corridor Solutions Unit-2 Phase-1		Purpose Level-2 HazMat Investigation		Hole No. HM-U2P1-02							
Highway Crater Lake Hwy No. 22 (OR62)		County Jackson		E.A. No. PE001522							
Hole Location Northing:		Easting:		Key No. 17188							
Equipment (Geoprobe) Hole Location: In field east of Medco Haul Rd.		Driller FSE Wes Harper MW# 10528		Start Card No.							
Project Geologist Kenny Camp Reg-3 HazMat Coordinator		Recorder Dan Raker		Bridge No.							
Start Date June 6, 2011		End Date June 6, 2011		Total Depth 4.1 ft							
				Ground Elev. 1311.5 ft							
				Tube Height							
Test Type		Rock Abbreviations		Typical Drilling Abbreviations							
"A" - Advancer "X" - Auger "C" - Core "N" - Standard Penetration Test "U" - Undisturbed Sample "D" - Oversize Split Spoon Sample		<u>Discontinuity</u> J - Joint F - Fault B - Bedding Fo - Foliation S - Shear		<u>Shape</u> Pl - Planar C - Curved U - Undulating St - Stepped Ir - Irregular	<u>Surface Roughness</u> P - Polished Sl - Slickensided Sm - Smooth R - Rough VR - Very Rough	<u>Drilling Methods</u> WL - Wire Line HS - Hollow Stem Auger DF - Drill Fluid SA - Solid Auger CA - Casing Advancer HA - Hand Auger	<u>Drilling Remarks</u> LW - Lost Water WR - Water Return WC - Water Color DP - Down Pressure DR - Drill Rate DA - Drill Action				
Depth (ft)	Test Type No.	Percent Recovery	Soil Driving Resistance	Rock Discontinuity Data Or RQD%	Percent Natural Moisture	Material Description SOIL: Soil Name, USCS, Color, Plasticity, Moisture, Consistency/Relative Density, Texture, Cementation, Structure, Origin. ROCK: Rock Name, Color, Weathering, Hardness, Discontinuity Spacing, Joint Filling, Core Recovery, Formation Name.	Unit Description	Graphic Log	Drilling Methods, Size and Remarks	Water Level/Date	Backfill/Instrumentation
0	P1	50				P- 1 (0.0-3.0) CLAY, CH; dark brown, medium plasticity, moist. Colluvium. Sample submitted for lab test = 6202 (0'-3')	0.0 - 3.1 CLAY, CH; dark brown, medium plasticity, moist; (Colluvium)		Drilling Method: 1"ID Push Probe (0'-4.1') (P-1) PID= 0 Sheen= No Odor= No (P-1) PID= 0 Sheen= No Odor= No		
	P2	80				P- 2 (3.0-4.1) From (3.0'-3.1') CLAY, CH; dark brown, medium plasticity, moist. Colluvium. From (3.1'-4.1') Intrusive Rock, brown, predominantly decomposed, extremely soft to very soft. Igneous Intrusive. (4.1) Bottom of hole.	3.1 - 4.1 Intrusive Rock, brown, predominantly decomposed, extremely soft to very soft; (Igneous Intrusive)		← Bedrock contact 3.1'.		
5									Backfilled with; Bentonite Chips (4.3'-0')		
10											
15											

ODOT DRILL LOG 62-U2-P1-HAZMAT.GPJ ODOT_MAN.GDT 09/03/11

DRILL LOG
OREGON DEPARTMENT OF TRANSPORTATION

Project OR62 Corridor Solutions Unit-2 Phase-1		Purpose Level-2 HazMat Investigation		Hole No. HM-U2P1-02B							
Highway Crater Lake Hwy No. 22 (OR62)		County Jackson		E.A. No. PE001522							
Hole Location Northing: _____ Easting: _____				Start Card No. _____							
Equipment (Geoprobe) Hole Location: On Medco Haul Rd.		Driller FSE Wes Harper MW# 10528		Bridge No. _____							
Project Geologist Kenny Camp Reg-3 HazMat Coordinator		Recorder Dan Raker		Ground Elev. 1314.1 ft							
Start Date June 6, 2011		End Date June 6, 2011		Total Depth 6.4 ft							
				Tube Height _____							
Test Type			Rock Abbreviations								
"A" - Advancer "X" - Auger "C" - Core "N" - Standard Penetration Test "U" - Undisturbed Sample "D" - Oversize Split Spoon Sample			Discontinuity J - Joint F - Fault B - Bedding Fo - Foliation S - Shear Shape Pl - Planar C - Curved U - Undulating St - Stepped Ir - Irregular Surface Roughness P - Polished Sl - Slickensided Sm - Smooth R - Rough VR - Very Rough								
			Typical Drilling Abbreviations								
			Drilling Methods WL - Wire Line HS - Hollow Stem Auger DF - Drill Fluid SA - Solid Auger CA - Casing Advancer HA - Hand Auger Drilling Remarks LW - Lost Water WR - Water Return WC - Water Color DP - Down Pressure DR - Drill Rate DA - Drill Action								
Depth (ft)	Test Type No.	Percent Recovery	Soil Driving Resistance	Rock Discontinuity Data Or RQD%	Percent Natural Moisture	Material Description SOIL: Soil Name, USCS, Color, Plasticity, Moisture, Consistency/Relative Density, Texture, Cementation, Structure, Origin. ROCK: Rock Name, Color, Weathering, Hardness, Discontinuity Spacing, Joint Filling, Core Recovery, Formation Name.	Unit Description	Graphic Log	Drilling Methods, Size and Remarks	Water Level/Date	Backfill/Instrumentation
0	P1	50				P- 1 (0.0-3.0) From (0'-0.5') AC. From (0.5'-1.5') Base Rock. From (1.5'-3.0') Sandy Gravel with some silt, GP; brown, nonplastic, damp. Fill. Sample submitted for lab test = 6202B (0'-3')	0.0 - 0.5 AC 0.5 - 1.5 Base Rock 1.5 - 3.1 Sandy Gravel with some silt, GP; brown, nonplastic, damp; (Fill) 3.1 - 5.8 CLAY, CH; (Colluvium) 5.8 - 6.4 Intrusive Rock, brown, predominantly decomposed, extremely soft to very soft; (Igneous Intrusive)		Drilling Method: 1"ID Push Probe (0'-6.4') (P-1) PID= 0 Sheen= Yes Odor= Yes Driller notes; soft from (3.1'-5.8') (P-2) PID= 0 Sheen= No Odor= No Driller notes; hard at 5.8'. ← Bedrock Contact 5.8'.		
	P2	10				P- 2 (3.0-6.0) Low Recovery, only gravel from upper fill, gravel in tip of shoe.					
	P3	100				P- 3 (6.0-6.4) Intrusive Rock, brown, predominantly decomposed, extremely soft to very soft. Igneous Intrusive. (6.4) Bottom of hole.					
5											
10											
15									Backfilled with; Bentonite Chip (6.4'-0.5') AC Cold Mix (0.5'-0')		



ODOT DRILL LOG 62-U2-P1-HAZMAT.GPJ ODOT_MAN.GDT 09/03/11

DRILL LOG
OREGON DEPARTMENT OF TRANSPORTATION

Project OR62 Corridor Solutions Unit-2 Phase-1					Purpose Level-2 HazMat Investigation		Hole No. HM-U2P1-03										
Highway Crater Lake Hwy No. 22 (OR62)					County Jackson		E.A. No. PE001522										
Hole Location Northing:					Easting:		Start Card No.										
Equipment (Geoprobe) Hole Location: On Medco Haul Rd.					Driller FSE Wes Harper MW# 10528		Bridge No.										
Project Geologist Kenny Camp Reg-3 HazMat Coordinator					Recorder Dan Raker		Ground Elev. 1316.4 ft										
Start Date June 6, 2011			End Date June 6, 2011		Total Depth 6.5 ft		Tube Height										
<u>Test Type</u>			<u>Rock Abbreviations</u>			<u>Typical Drilling Abbreviations</u>											
"A" - Advancer "X" - Auger "C" - Core "N" - Standard Penetration Test "U" - Undisturbed Sample "D" - Oversize Split Spoon Sample			<u>Discontinuity</u> J - Joint F - Fault B - Bedding Fo - Foliation S - Shear			<u>Shape</u> Pl - Planar C - Curved U - Undulating St - Stepped Ir - Irregular			<u>Surface Roughness</u> P - Polished Sl - Slickensided Sm - Smooth R - Rough VR - Very Rough			<u>Drilling Methods</u> WL - Wire Line HS - Hollow Stem Auger DF - Drill Fluid SA - Solid Auger CA - Casing Advancer HA - Hand Auger			<u>Drilling Remarks</u> LW - Lost Water WR - Water Return WC - Water Color DP - Down Pressure DR - Drill Rate DA - Drill Action		
Depth (ft)	Test Type No.	Percent Recovery	Soil Driving Resistance	Rock Discontinuity Data Or RQD%	Percent Natural Moisture	Material Description	Unit Description	Graphic Log	Drilling Methods, Size and Remarks	Water Level/Date	Backfill/Instrumentation						
0	P1	70				P- 1 (0.0-3.0) From (0'-0.5') AC. From (0.5'-1.5') Base Rock. From (1.5'-3.0') Sandy Gravel to Gravelly SAND, GP, SP; brown, nonplastic, damp. Fill. Sample submitted for lab test = 6203 (1'-2') Sample submitted for lab test = 6203 (2'-3')	0.0 - 0.5 AC 0.5 - 1.5 Base Rock 1.5 - 5.0 Sandy Gravel to Gravelly SAND, GP, SP; brown, nonelastic, damp; (Fill)		Drilling Method: 1"ID Push Probe (0'-6.5') (P-1) PID= 0 Sheen= Yes Odor= Yes								
5	P2	60				P- 2 (3.0-6.0) From (3.0'-5.0') Sandy Gravel to Gravelly SAND, GP, SP; brown, nonplastic, damp. Fill. From (5.0'-6.0') CLAY, CH; dark brown, medium plasticity, moist. Colluvium. Sample submitted for lab test = 6203 (3'-6')	5.0 - 6.3 CLAY, CH; dark brown, medium plasticity, moist; (Colluvium)		(P-2) PID= 0 Sheen= No Odor= Slight Driller notes; soft from (5'-6.3')								
10	P3	100				P- 3 (6.0-6.5) From (6.0'-6.3') CLAY, CH; dark brown, medium plasticity, moist. Colluvium. From (6.3'-6.5') Intrusive Rock, brown, predominantly decomposed, extremely soft to very soft. Igneous Intrusive. Sample submitted for lab test = 6203 (6'-6.5') (6.5) Bottom of hole.	6.3 - 6.5 Intrusive Rock, brown, predominantly decomposed, extremely soft to very soft; (Igneous Intrusive)		(P-3) PID= 0 Sheen= No Odor= No ← Bedrock Contact 6.3'.								
15									Backfilled with; Bentonite Chip (6.4'-0.5') AC Cold Mix (0.5'-0')								

ODOT DRILL LOG 62-U2-P1-HAZMAT.GPJ ODOT_MAN.GDT 09/03/11

DRILL LOG
OREGON DEPARTMENT OF TRANSPORTATION

Project OR62 Corridor Solutions Unit-2 Phase-1					Purpose Level-2 HazMat Investigation					Hole No. HM-U2P1-04							
Highway Crater Lake Hwy No. 22 (OR62)					County Jackson					E.A. No. PE001522							
Hole Location Northing: _____ Easting: _____										Key No. 17188							
Equipment (Geoprobe) Hole Location: In field east of Medco Haul Rd.					Driller FSE Wes Harper MW# 10528					Start Card No. _____							
Project Geologist Kenny Camp Reg-3 HazMat Coordinator					Recorder Dan Raker					Bridge No. _____							
Start Date June 6, 2011			End Date June 6, 2011			Total Depth 2.0 ft			Ground Elev. 1312.1 ft								
Tube Height _____																	
Test Type			Rock Abbreviations			Typical Drilling Abbreviations											
"A" - Advancer "X" - Auger "C" - Core "N" - Standard Penetration Test "U" - Undisturbed Sample "D" - Oversize Split Spoon Sample			Discontinuity J - Joint F - Fault B - Bedding Fo - Foliation S - Shear			Shape Pl - Planar C - Curved U - Undulating St - Stepped Ir - Irregular			Surface Roughness P - Polished Sl - Slickensided Sm - Smooth R - Rough VR - Very Rough			Drilling Methods WL - Wire Line HS - Hollow Stem Auger DF - Drill Fluid SA - Solid Auger CA - Casing Advancer HA - Hand Auger			Drilling Remarks LW - Lost Water WR - Water Return WC - Water Color DP - Down Pressure DR - Drill Rate DA - Drill Action		
Depth (ft)	Test Type No.	Percent Recovery	Soil Driving Resistance	Rock Discontinuity Data Or RQD%	Percent Natural Moisture	Material Description			Unit Description			Graphic Log	Drilling Methods, Size and Remarks	Water Level/ Date	Backfill/ Instrumentation		
						SOIL: Soil Name, USCS, Color, Plasticity, Moisture, Consistency/Relative Density, Texture, Cementation, Structure, Origin. ROCK: Rock Name, Color, Weathering, Hardness, Discontinuity Spacing, Joint Filling, Core Recovery, Formation Name.											
0	P1	75				P- 1 (0.0-2.0) From (0'-1.5') CLAY, CH; dark brown, medium plasticity, moist. Colluvium. From (1.5'-2') Intrusive Rock, brown, predominantly decomposed, extremely soft to very soft. Igneous Intrusive. Sample submitted for lab test = 6204 (0'-2') (2.0) Bottom of hole.			0.0 - 1.5 CLAY, CH; dark brown, medium plasticity, moist; (Colluvium) 1.5 - 2.0 Intrusive Rock, brown, predominantly decomposed, extremely soft to very soft; (Igneous Intrusive)			 Bedrock Contact 1.5'.	Drilling Method: 1"ID Push Probe (0'-2') (P-1) PID= 0 Sheen= No Odor= No				
5													Backfilled with; Bentonite Chips (2'-0')				
10																	
15																	

ODOT DRILL LOG 62-U2-P1-HAZMAT.GPJ ODOT_MAN.GDT 09/03/11

DRILL LOG
OREGON DEPARTMENT OF TRANSPORTATION

Project OR62 Corridor Solutions Unit-2 Phase-1		Purpose Level-2 HazMat Investigation		Hole No. HM-U2P1-05							
Highway Crater Lake Hwy No. 22 (OR62)		County Jackson		E.A. No. PE001522							
Hole Location Northing:		Easting:		Key No. 17188							
Equipment (Geoprobe) Hole Location: On Medco Haul Rd.		Driller FSE Wes Harper MW# 10528		Start Card No.							
Project Geologist Kenny Camp Reg-3 HazMat Coordinator		Recorder Dan Raker		Bridge No.							
Start Date June 6, 2011		End Date June 6, 2011		Ground Elev. 1320.9 ft							
		Total Depth 12.0 ft		Tube Height							
Test Type		Rock Abbreviations		Typical Drilling Abbreviations							
"A" - Advancer "X" - Auger "C" - Core "N" - Standard Penetration Test "U" - Undisturbed Sample "D" - Oversize Split Spoon Sample		Discontinuity J - Joint F - Fault B - Bedding Fo - Foliation S - Shear		Shape Pl - Planar C - Curved U - Undulating St - Stepped Ir - Irregular	Surface Roughness P - Polished Sl - Slicksided Sm - Smooth R - Rough VR - Very Rough						
				Drilling Methods WL - Wire Line HS - Hollow Stem Auger DF - Drill Fluid SA - Solid Auger CA - Casing Advancer HA - Hand Auger	Drilling Remarks LW - Lost Water WR - Water Return WC - Water Color DP - Down Pressure DR - Drill Rate DA - Drill Action						
Depth (ft)	Test Type, No.	Percent Recovery	Soil Driving Resistance	Rock Discontinuity Data Or RQD%	Percent Natural Moisture	Material Description	Unit Description	Graphic Log	Drilling Methods, Size and Remarks	Water Level/Date	Backfill/Instrumentation
0	P1	43				P- 1 (0.0-3.0) From (0'-0.5') AC. From (0.5'-1.2') Base Rock. From (1.2'-3.0') Gravelly SAND with some silt, SP-SM; brown, nonplastic, damp. Fill. Sample submitted for lab test = 6205 (0'-3')	0.0 - 0.5 AC 0.5 - 1.2 Base Rock 1.2 - 10.1 Sandy GRAVEL to Gravelly SAND, GP, SP and CLAY, CH; brown to dark brown, nonplastic to medium plasticity, damp to moist; (Fill)		Drilling Method: 1"ID Push Probe (0'-12') (P-1) PID= 0 Sheen= Yes Odor= Yes		
5	P2	100				P- 2 (3.0-6.0) Sandy GRAVEL to Gravelly SAND, GP, SP and CLAY, CH; brown to dark brown, nonplastic to medium plasticity, damp to moist. Fill. Sample submitted for lab test = 6205 (4'-5') Sample submitted for lab test = 6205 (5'-6')			(P-2) PID= 0 Sheen= No Odor= Slight		
10	P3	100				P- 3 (6.0-9.0) Sandy GRAVEL to Gravelly SAND, GP, SP and CLAY, CH; brown to dark brown, nonplastic to medium plasticity, damp to moist. Fill. Sample submitted for lab test = 6205 (8'-9')			(P-3) PID= 0 Sheen= Slight Odor= Slight		
15	N4	93				N- 4 (9.0-12.0) From (9.0'-10.1') Sandy GRAVEL to Gravelly SAND, GP, SP and CLAY, CH; brown to dark brown, nonplastic to medium plasticity, damp to moist. Fill. From (10.1'-12.0') CLAY, CH; dark brown to gray, medium plasticity, moist. Colluvium. (12.0) Bottom of hole.	10.1 - 12.0 CLAY, CH; dark brown to gray, medium plasticity, moist; (Colluvium)		(P-4) PID= 0 Sheen= No Odor= No		
									Backfilled with; Bentonite Chip (12'-0.5') AC Cold Mix (0.5'-0')		

ODOT DRILL LOG 62-U2-P1-HAZMAT.GPJ ODOT_MAN.GDT 09/03/11

DRILL LOG
OREGON DEPARTMENT OF TRANSPORTATION

Project OR62 Corridor Solutions Unit-2 Phase-1		Purpose Level-2 HazMat Investigation		Hole No. HM-U2P1-06								
Highway Crater Lake Hwy No. 22 (OR62)		County Jackson		E.A. No. PE001522								
Hole Location Northing:		Easting:		Key No. 17188								
Equipment (Geoprobe) Hole Location: On proposed airport access alignment		Driller FSE Wes Harper MW# 10528		Start Card No.								
Project Geologist Kenny Camp Reg-3 HazMat Coordinator		Recorder Dan Raker		Bridge No.								
Start Date June 7, 2011		End Date June 7, 2011		Ground Elev. 1308.3 ft								
		Total Depth 3.0 ft		Tube Height								
<u>Test Type</u>		<u>Rock Abbreviations</u>			<u>Typical Drilling Abbreviations</u>							
"A" - Advancer "X" - Auger "C" - Core "N" - Standard Penetration Test "U" - Undisturbed Sample "D" - Oversize Split Spoon Sample		<u>Discontinuity</u> J - Joint F - Fault B - Bedding Fo - Foliation S - Shear			<u>Shape</u> Pl - Planar C - Curved U - Undulating St - Stepped Ir - Irregular							
		<u>Surface Roughness</u> P - Polished Sl - Slickensided Sm - Smooth R - Rough VR - Very Rough			<u>Drilling Methods</u> WL - Wire Line HS - Hollow Stem Auger DF - Drill Fluid SA - Solid Auger CA - Casing Advancer HA - Hand Auger							
		<u>Drilling Remarks</u> LW - Lost Water WR - Water Return WC - Water Color DP - Down Pressure DR - Drill Rate DA - Drill Action										
Depth (ft)	Test Type No.	Percent Recovery	Soil Driving Resistance	Rock Discontinuity Data Or RQD%	Percent Natural Moisture	<u>Material Description</u> SOIL: Soil Name, USCS, Color, Plasticity, Moisture, Consistency/Relative Density, Texture, Cementation, Structure, Origin. ROCK: Rock Name, Color, Weathering, Hardness, Discontinuity Spacing, Joint Filling, Core Recovery, Formation Name.	<u>Unit Description</u>	Graphic Log	Drilling Methods, Size and Remarks	Water Level/Date	Backfill/Instrumentation	
0	P1	73				P- 1 (0.0-3.0) From (0'-2.2') CLAY with trace sand, CH; dark brown, medium plasticity, moist. Colluvium. From (2.2'-3.0') Intrusive Rock, brown, predominantly decomposed, extremely soft to very soft. Igneous Intrusive. Sample submitted for lab test = 6206 (1'-2') Sample submitted for lab test = 6206 (2'-3')	0.0 - 2.2 CLAY with trace sand, CH; dark brown, medium plasticity, moist; (Colluvium)		Drilling Method: 1"ID Push Probe (0'-3') (P-1) PID= 0 Sheen= No Odor= No			
5						(3.0) Bottom of hole.	2.2 - 3.0 Intrusive Rock, brown, predominantly decomposed, extremely soft to very soft; (Igneous Intrusive)		← Bedrock Contact 2.2'			
10												
15									Backfilled with; Bentonite Chips (3'-0')			

ODOT DRILL LOG 62-U2-P1-HAZMAT.GPJ ODOT_MAN.GDT 09/03/11

DRILL LOG
OREGON DEPARTMENT OF TRANSPORTATION





Project OR62 Corridor Solutions Unit-2 Phase-1		Purpose Level-2 HazMat Investigation	Hole No. HM-U2P1-07
Highway Crater Lake Hwy No. 22 (OR62)		County Jackson	E.A. No. PE001522
Hole Location Northing: _____ Easting: _____			Key No. 17188
Equipment (Geoprobe) Hole Location: On proposed airport access alignment		Driller FSE Wes Harper MW# 10528	Start Card No. _____
Project Geologist Kenny Camp Reg-3 HazMat Coordinator		Recorder Dan Raker	Bridge No. _____
Start Date June 7, 2011	End Date June 7, 2011	Total Depth 2.5 ft	Ground Elev. 1304.8 ft
			Tube Height _____

Test Type	Rock Abbreviations	Typical Drilling Abbreviations
"A" - Advancer "X" - Auger "C" - Core "N" - Standard Penetration Test "U" - Undisturbed Sample "D" - Oversize Split Spoon Sample	Discontinuity J - Joint F - Fault B - Bedding Fo - Foliation S - Shear Shape Pl - Planar C - Curved U - Undulating St - Stepped Ir - Irregular Surface Roughness P - Polished Sl - Slickensided Sm - Smooth R - Rough VR - Very Rough	Drilling Methods WL - Wire Line HS - Hollow Stem Auger DF - Drill Fluid SA - Solid Auger CA - Casing Advancer HA - Hand Auger Drilling Remarks LW - Lost Water WR - Water Return WC - Water Color DP - Down Pressure DR - Drill Rate DA - Drill Action

Depth (ft)	Test Type No.	Percent Recovery	Soil Driving Resistance	Rock Discontinuity Data Or RQD%	Percent Natural Moisture	Material Description	Unit Description	Graphic Log	Drilling Methods, Size and Remarks	Water Level/Date	Backfill/Instrumentation
0	P1	80				P- 1 (0.0-2.5) From (0'-1.5') CLAY with trace sand and gravel, CH; dark brown, medium plasticity, moist, Colluvium. From (1.5'-2.5') Intrusive Rock, brown, predominantly decomposed, extremely soft to very soft. Igneous Intrusive. Sample submitted for lab test = 6207 (0'-2.5')	0.0 - 1.5 CLAY with trace sand and gravel, CH; dark brown, medium plasticity, moist; (Colluvium) 1.5 - 2.5 Intrusive Rock, brown, predominantly decomposed, extremely soft to very soft; (Igneous Intrusive)		Drilling Method: 1"ID Push Probe (0'-2.5') (P-1) PID= 0 Sheen= No Odor= No ← Bedrock Contact 1.5'		
5						(2.5) Bottom of hole.			Backfilled with; Bentonite Chips (2.5'-0')		
10											
15											

ODOT DRILL LOG 62-U2-P1-HAZMAT.GPJ ODOT_MAN.GDT 09/03/11

DRILL LOG
OREGON DEPARTMENT OF TRANSPORTATION

Project OR62 Corridor Solutions Unit-2 Phase-1		Purpose Level-2 HazMat Investigation		Hole No. HM-U2P1-08							
Highway Crater Lake Hwy No. 22 (OR62)		County Jackson		E.A. No. PE001622							
Hole Location Northing:		Easting:		Key No. 17188							
Equipment (Geoprobe) Hole Location: On proposed airport access alignment		Driller FSE Wes Harper MWF# 10528		Start Card No.							
Project Geologist Kenny Camp Reg-3 HazMat Coordinator		Recorder Dan Raker		Bridge No.							
Start Date June 7, 2011		End Date June 7, 2011		Total Depth 6.0 ft							
				Tube Height							
Test Type "A" - Advancer "X" - Auger "C" - Core "N" - Standard Penetration Test "U" - Undisturbed Sample "D" - Oversize Split Spoon Sample		Rock Abbreviations <u>Discontinuity</u> J - Joint F - Fault B - Bedding Fo - Foliation S - Shear <u>Shape</u> Pl - Planar C - Curved U - Undulating St - Stepped Ir - Irregular <u>Surface Roughness</u> P - Polished Sl - Slickensided Sm - Smooth R - Rough VR - Very Rough		Typical Drilling Abbreviations <u>Drilling Methods</u> WL - Wire Line HS - Hollow Stem Auger DF - Drill Fluid SA - Solid Auger CA - Casing Advancer HA - Hand Auger <u>Drilling Remarks</u> LW - Lost Water WR - Water Return WC - Water Color DP - Down Pressure DR - Drill Rate DA - Drill Action							
Depth (ft)	Test Type No.	Percent Recovery	Soil Driving Resistance	Rock Discontinuity Data Or RQD%	Percent Natural Moisture	Material Description SOIL: Soil Name, USCS, Color, Plasticity, Moisture, Consistency/Relative Density, Texture, Cementation, Structure, Origin. ROCK: Rock Name, Color, Weathering, Hardness, Discontinuity Spacing, Joint Filling, Core Recovery, Formation Name.	Unit Description	Graphic Log	Drilling Methods, Size and Remarks	Water Level/ Date	Backfill/ Instrumentation
0	P1	33				P- 1 (0.0-3.0) CLAY , CH; dark brown, medium plasticity, moist. Colluvium. Sample submitted for lab test = 6208 (0'-3')	0.0 - 3.8 CLAY , CH; dark brown, medium plasticity, moist; (Colluvium)		Drilling Method: 1"ID Push Probe (0'-6') (P-1) PID= 0 Sheen= No Odor= No		
	P2	100				P- 2 (3.0-6.0) From (0'-1.5') CLAY, CH; dark brown, medium plasticity, moist. Colluvium. From (1.5'-2.5') Sandy GRAVEL with some clay, GP; brown, low plasticity, moist, Alluvium. Sample submitted for lab test = 6208 (4'-5')	3.8 - 6.0 Sandy GRAVEL with some clay, GP; brown, low plasticity, moist; (Alluvium)		(P-2) PID= 0 Sheen= No Odor= No		
5						(6.0) Bottom of hole.			Backfilled with; Bentonite Chips (6'-0')		
10											
15											

ODOT DRILL LOG 62-U2-P1-HAZMAT.GPJ ODOT_MAN.GDT 09/03/11

DRILL LOG
OREGON DEPARTMENT OF TRANSPORTATION

Project OR62 Corridor Solutions Unit-2 Phase-1		Purpose Level-2 HazMat Investigation	Hole No. HM-U2P1-09
Highway Crater Lake Hwy No. 22 (OR62)		County Jackson	E.A. No. PE001522
Hole Location Northing:		Easting:	
Equipment (Geoprobe) Hole Location: On proposed airport access alignment		Driller FSE Wes Harper MW# 10528	Key No. 17188
Project Geologist Kenny Camp Reg-3 HazMat Coordinator		Recorder Dan Raker	Start Card No.
Start Date June 7, 2011	End Date June 7, 2011	Total Depth 7.8 ft	Bridge No.
			Ground Elev. 1305.2 ft
			Tube Height

Test Type	Rock Abbreviations	Typical Drilling Abbreviations
"A" - Advancer	<u>Discontinuity</u>	<u>Drilling Methods</u>
"X" - Auger	<u>Shape</u>	<u>Drilling Remarks</u>
"C" - Core	J - Joint	WL - Wire Line
"N" - Standard Penetration Test	F - Fault	HS - Hollow Stem Auger
"U" - Undisturbed Sample	B - Bedding	DF - Drill Fluid
"D" - Oversize Split Spoon Sample	Fo - Foliation	SA - Solid Auger
	S - Shear	CA - Casing Advancer
		HA - Hand Auger
		LW - Lost Water
		WR - Water Return
		WC - Water Color
		DP - Down Pressure
		DR - Drill Rate
		DA - Drill Action

Depth (ft)	Test Type No.	Percent Recovery	Soil Driving Resistance Discontinuity Data Or RQD%	Rock Discontinuity Data Or RQD%	Percent Natural Moisture	Material Description	Unit Description	Graphic Log	Drilling Methods, Size and Remarks	Water Level/Date	Backfill/Instrumentation
0	P1	37				P- 1 (0.0-3.0) CLAY , CH; dark brown, medium plasticity, moist, Colluvium. Sample submitted for lab test = 6209 (0'-3')	0.0 - 4.5 CLAY , CH; dark brown, medium plasticity, moist; (Colluvium)		Drilling Method: 1"ID Push Probe (0'-7.8') (P-1) PID= 0 Sheen= No Odor= No		
	P2	73				P- 2 (3.0-6.0) From (3.0'-4.5') CLAY, CH; dark brown, medium plasticity, moist, Colluvium. From (4.5'-6.0') Silty SAND, SM; light brown, low plasticity, moist, Alluvium. Sample submitted for lab test = 6209 (3'-4')	4.5 - 6.8 Silty SAND, SM; light brown, low plasticity, moist; (Alluvium)		(P-2) PID= 0 Sheen= No Odor= No		
5	P3	100				P- 3 (6.0-7.8) From (6.0'-6.8') Silty SAND, SM; light brown, low plasticity, moist, Alluvium. From (6.8'-7.8') Intrusive Rock, brown, predominantly decomposed, extremely soft to very soft. Igneous Intrusive. (7.8) Bottom of hole.	6.8 - 7.8 Intrusive Rock, brown, predominantly decomposed, extremely soft to very soft; (Igneous Intrusive)		(P-3) PID= 0 Sheen= No Odor= No ← Bedrock Contact 6.8'		
									Backfilled with; Bentonite Chips (7.8'-0')		
15											

ODOT DRILL LOG 62-U2-P1-HAZMAT.GPJ ODOT_MAN.GDT 09/03/11

DRILL LOG
OREGON DEPARTMENT OF TRANSPORTATION

Project OR62 Corridor Solutions Unit-2 Phase-1		Purpose Level-2 HazMat Investigation	Hole No. HM-U2P1-10
Highway Crater Lake Hwy No. 22 (OR62)		County Jackson	E.A. No. PE001522
Hole Location Northing: _____ Easting: _____			Key No. 17188
Equipment (Geoprobe) Hole Location: On proposed airport access alignment		Driller FSE Wes Harper MW# 10528	Start Card No. _____
Project Geologist Kenny Camp Reg-3 HazMat Coordinator		Recorder Dan Raker	Bridge No. _____
Start Date June 7, 2011	End Date June 7, 2011	Total Depth 6.0 ft	Ground Elev. 1304.0 ft
			Tube Height _____

Test Type	Rock Abbreviations			Typical Drilling Abbreviations		
"A" - Advancer	<u>Discontinuity</u>	<u>Shape</u>	<u>Surface Roughness</u>	<u>Drilling Methods</u>	<u>Drilling Remarks</u>	
"X" - Auger	J - Joint	PI - Planar	P - Polished	WL - Wire Line	LW - Lost Water	
"C" - Core	F - Fault	C - Curved	SI - Slickensided	HS - Hollow Stem Auger	WR - Water Return	
"N" - Standard Penetration Test	B - Bedding	U - Undulating	Sm - Smooth	DF - Drill Fluid	WC - Water Color	
"U" - Undisturbed Sample	Fo - Foliation	St - Stepped	R - Rough	SA - Solid Auger	DP - Down Pressure	
"D" - Oversize Split Spoon Sample	S - Shear	Ir - Irregular	VR - Very Rough	CA - Casing Advancer	DR - Drill Rate	
				HA - Hand Auger	DA - Drill Action	

Depth (ft)	Test Type No.	Percent Recovery	Soil Driving Resistance	Rock Discontinuity Data Or RQD%	Percent Natural Moisture	Material Description SOIL: Soil Name, USCS, Color, Plasticity, Moisture, Consistency/Relative Density, Texture, Cementation, Structure, Origin. ROCK: Rock Name, Color, Weathering, Hardness, Discontinuity Spacing, Joint Filling, Core Recovery, Formation Name.	Unit Description	Graphic Log	Drilling Methods, Size and Remarks	Water Level/Date	Backfill/Instrumentation
0	P1	60				P- 1 (0.0-3.0) CLAY , CH; dark brown, medium plasticity, moist. Colluvium. Sample submitted for lab test = 6210 (0'-3')	0.0 - 4.0 CLAY , CH; dark brown, medium plasticity, moist; (Colluvium)		Drilling Method: 1"ID Push Probe (0'-6')		
5						(3.0-6.0) From (3.0'-4.0') CLAY, CH; dark brown, medium plasticity, moist. Colluvium. From (4.0'-5.4') Silty SAND with trace gravel, SM; light brown, low plasticity, moist, Alluvium. From (5.4'-6.0') Intrusive Rock, brown, predominantly decomposed, extremely soft to very soft. Igneous Intrusive. Sample submitted for lab test = 6210 (3'-4')	4.0 - 5.4 Silty SAND with trace gravel, SM; light brown, low plasticity, moist; (Alluvium)		(P-1) PID= 0 Sheen= No Odor= No		
						(6.0) Bottom of hole.	5.4 - 6.0 Intrusive Rock, brown, predominantly decomposed, extremely soft to very soft; (Igneous Intrusive)		(P-2) PID= 0 Sheen= No Odor= No		
									Bedrock Contact 5.4'		
									Backfilled with; Bentonite Chips (6'-0')		
10											
15											

ODOT DRILL LOG 62-U2-P1-HAZMAT.GPJ ODOT_MAN.GDT 09/03/11

DRILL LOG
OREGON DEPARTMENT OF TRANSPORTATION




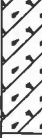
Project OR62 Corridor Solutions Unit-2 Phase-1		Purpose Level-2 HazMat Investigation		Hole No. HM-U2P1-11																																	
Highway Crater Lake Hwy No. 22 (OR62)		County Jackson		E.A. No. PE001522																																	
Hole Location Northing:		Easting:		Key No. 17188																																	
Equipment (Geoprobe) Hole Location: On proposed airport access alignment		Driller FSE Wes Harper MW# 10528		Start Card No.																																	
Project Geologist Kenny Camp Reg-3 HazMat Coordinator		Recorder Dan Raker		Bridge No.																																	
Start Date June 7, 2011		End Date June 7, 2011		Ground Elev. 1302.7 ft																																	
		Total Depth 6.0 ft		Tube Height																																	
Test Type "A" - Advancer "X" - Auger "C" - Core "N" - Standard Penetration Test "U" - Undisturbed Sample "D" - Oversize Split Spoon Sample		Rock Abbreviations <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="border-bottom: 1px solid black;"><u>Discontinuity</u></td> <td style="border-bottom: 1px solid black;"><u>Shape</u></td> <td style="border-bottom: 1px solid black;"><u>Surface Roughness</u></td> </tr> <tr> <td>J - Joint</td> <td>Pl - Planar</td> <td>P - Polished</td> </tr> <tr> <td>F - Fault</td> <td>C - Curved</td> <td>Sl - Slickensided</td> </tr> <tr> <td>B - Bedding</td> <td>U - Undulating</td> <td>Sm - Smooth</td> </tr> <tr> <td>Fo - Foliation</td> <td>St - Stepped</td> <td>R - Rough</td> </tr> <tr> <td>S - Shear</td> <td>Ir - Irregular</td> <td>VR - Very Rough</td> </tr> </table>		<u>Discontinuity</u>	<u>Shape</u>	<u>Surface Roughness</u>	J - Joint	Pl - Planar	P - Polished	F - Fault	C - Curved	Sl - Slickensided	B - Bedding	U - Undulating	Sm - Smooth	Fo - Foliation	St - Stepped	R - Rough	S - Shear	Ir - Irregular	VR - Very Rough	Typical Drilling Abbreviations <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="border-bottom: 1px solid black;"><u>Drilling Methods</u></td> <td style="border-bottom: 1px solid black;"><u>Drilling Remarks</u></td> </tr> <tr> <td>WL - Wire Line</td> <td>LW - Lost Water</td> </tr> <tr> <td>HS - Hollow Stem Auger</td> <td>WR - Water Return</td> </tr> <tr> <td>DF - Drill Fluid</td> <td>WC - Water Color</td> </tr> <tr> <td>SA - Solid Auger</td> <td>DP - Down Pressure</td> </tr> <tr> <td>CA - Casing Advancer</td> <td>DR - Drill Rate</td> </tr> <tr> <td>HA - Hand Auger</td> <td>DA - Drill Action</td> </tr> </table>		<u>Drilling Methods</u>	<u>Drilling Remarks</u>	WL - Wire Line	LW - Lost Water	HS - Hollow Stem Auger	WR - Water Return	DF - Drill Fluid	WC - Water Color	SA - Solid Auger	DP - Down Pressure	CA - Casing Advancer	DR - Drill Rate	HA - Hand Auger	DA - Drill Action
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Depth (ft)	Test Type, No.	Percent Recovery	Soil Driving Resistance	Rock Discontinuity Data Or RQD%	Percent Natural Moisture	Material Description SOIL: Soil Name, USCS, Color, Plasticity, Moisture, Consistency/Relative Density, Texture, Cementation, Structure, Origin. ROCK: Rock Name, Color, Weathering, Hardness, Discontinuity Spacing, Joint Filling, Core Recovery, Formation Name.	Unit Description	Graphic Log	Drilling Methods, Size and Remarks	Water Level/Date	Backfill/Instrumentation																										
0	P1	60				P- 1 (0.0-3.0) CLAY with trace sand and gravel , CH; dark brown, medium plasticity, moist. Colluvium. Sample submitted for lab test = 6211 (0'-3')	0.0 - 3.6 CLAY with trace sand and gravel , CH; dark brown, medium plasticity, moist; (Colluvium)		Drilling Method: 1"ID Push Probe (0'-6') (P-1) PID= 0 Sheen= No Odor= No																												
	P2	100				P- 2 (3.0-6.0) From (3.0'-3.6') CLAY with trace sand and gravel , CH; dark brown, medium plasticity, moist. Colluvium. From (3.6'-5.8') SAND with trace gravel some silt, SP-SM; light brown, nonplastic to low plasticity, moist, Alluvium. From (5.8'-6.0') Intrusive Rock, brown, predominantly decomposed, extremely soft to very soft. Igneous Intrusive. Sample submitted for lab test = 6211 (4'-5')	3.6 - 5.8 SAND with trace gravel some silt, SP-SM; light brown, nonplastic to low plasticity, moist; (Alluvium)		(P-1) PID= 0 Sheen= No Odor= No																												
5						(6.0) Bottom of hole.	5.8 - 6.0 Intrusive Rock, brown, predominantly decomposed, extremely soft to very soft; (Igneous Intrusive)		Bedrock Contact 5.8'.																												
									Backfilled with; Bentonite Chips (6'-0')																												
10																																					
15																																					

ODOT DRILL LOG 62-U2-P1-HAZMAT.GPJ ODOT_MAN.GDT 09/03/11

DRILL LOG
OREGON DEPARTMENT OF TRANSPORTATION

Project OR62 Corridor Solutions Unit-2 Phase-1		Purpose Level-2 HazMat Investigation	Hole No. HM-U2P1-12
Highway Crater Lake Hwy No. 22 (OR62)		County Jackson	E.A. No. PE001622
Hole Location Northing: _____ Easting: _____			Key No. 17188
Equipment (Geoprobe) Hole Location: In Medco Log Pond.		Driller FSE Wes Harper MW# 10528	Start Card No. _____
Project Geologist Kenny Camp Reg-3 HazMat Coordinator		Recorder Dan Raker	Bridge No. _____
Start Date June 7, 2011	End Date June 7, 2011	Total Depth 4.3 ft	Ground Elev. 1312.2 ft
			Tube Height _____

Test Type	Rock Abbreviations	Typical Drilling Abbreviations
"A" - Advancer "X" - Auger "C" - Core "N" - Standard Penetration Test "U" - Undisturbed Sample "D" - Oversize Split Spoon Sample	<u>Discontinuity</u> J - Joint F - Fault B - Bedding Fo - Foliation S - Shear <u>Shape</u> PI - Planar C - Curved U - Undulating St - Stepped Ir - Irregular <u>Surface Roughness</u> P - Polished Sl - Slickensided Sm - Smooth R - Rough VR - Very Rough	<u>Drilling Methods</u> WL - Wire Line HS - Hollow Stem Auger DF - Drill Fluid SA - Solid Auger CA - Casing Advancer HA - Hand Auger <u>Drilling Remarks</u> LW - Lost Water WR - Water Return WC - Water Color DP - Down Pressure DR - Drill Rate DA - Drill Action

Depth (ft)	Test Type No.	Percent Recovery	Soil Driving Resistance	Rock Discontinuity Data Or RQD%	Percent Natural Moisture	Material Description SOIL: Soil Name, USCS, Color, Plasticity, Moisture, Consistency/Relative Density, Texture, Cementation, Structure, Origin. ROCK: Rock Name, Color, Weathering, Hardness, Discontinuity Spacing, Joint Filling, Core Recovery, Formation Name.	Unit Description	Graphic Log	Drilling Methods, Size and Remarks	Water Level/Date	Backfill/Instrumentation
0	P1	50				P- 1 (0.0-3.0) From (0'-2.5') CLAY, CH; dark brown, medium plasticity, moist. Colluvium. From (2.5'-3') Intrusive Rock, brown, predominantly decomposed, extremely soft to very soft. Igneous Intrusive. Sample submitted for lab test = 6212 (0'-3')	0.0 - 2.5 CLAY, CH; dark brown, medium plasticity, moist; (Colluvium)		Drilling Method: 1"ID Push Probe (0'-4.3') (P-1) PID= 0 Sheen= No Odor= No		
	P2	100				P- 2 (3.0-4.3) Intrusive Rock, brown, predominantly decomposed, extremely soft to very soft. Igneous Intrusive. Sample submitted for lab test = 6213 (3'-4.3') (4.3) Bottom of hole.	2.5 - 4.3 Intrusive Rock, brown, predominantly decomposed, extremely soft to very soft; (Igneous Intrusive)		← Bedrock Contact 2.5'. (P-2) PID= 0 Sheen= No Odor= No		
5									Backfilled with; Bentonite Chips (4.3'-0')		
10											
15											

ODOT DRILL LOG 62-U2-P1-HAZMAT.GPJ ODOT_MANGDGT 09/03/11

DRILL LOG
OREGON DEPARTMENT OF TRANSPORTATION

Project OR62 Corridor Solutions Unit-2 Phase-1		Purpose Level-2 HazMat Investigation		Hole No. HM-U2P1-13								
Highway Crater Lake Hwy No. 22 (OR62)		County Jackson		E.A. No. PE001522								
Hole Location Northing:		Easting:		Start Card No.								
Equipment (Geoprobe) Hole Location: In Medco Log Pond.		Driller FSE Wes Harper MW# 10528		Bridge No.								
Project Geologist Kenny Camp Reg-3 HazMat Coordinator		Recorder Dan Raker		Ground Elev. 1312.1 ft								
Start Date June 7, 2011		End Date June 7, 2011		Total Depth 6.0 ft								
Tube Height												
Test Type		Rock Abbreviations			Typical Drilling Abbreviations							
"A" - Advancer "X" - Auger "C" - Core "N" - Standard Penetration Test "U" - Undisturbed Sample "D" - Oversize Split Spoon Sample		Discontinuity J - Joint F - Fault B - Bedding Fo - Foliation S - Shear	Shape Pl - Planar C - Curved U - Undulating St - Stepped Ir - Irregular	Surface Roughness P - Polished Sl - Slickensided Sm - Smooth R - Rough VR - Very Rough	Drilling Methods WL - Wire Line HS - Hollow Stem Auger DF - Drill Fluid SA - Solid Auger CA - Casing Advancer HA - Hand Auger	Drilling Remarks LW - Lost Water WR - Water Return WC - Water Color DP - Down Pressure DR - Drill Rate DA - Drill Action						
Depth (ft)	Test Type No.	Percent Recovery	Soil Driving Resistance	Rock Discontinuity Data Or RQD%	Percent Natural Moisture	Material Description SOIL: Soil Name, USCS, Color, Plasticity, Moisture, Consistency/Relative Density, Texture, Cementation, Structure, Origin. ROCK: Rock Name, Color, Weathering, Hardness, Discontinuity Spacing, Joint Filling, Core Recovery, Formation Name.	Unit Description	Graphic Log	Drilling Methods, Size and Remarks	Water Level/Date	Backfill/Instrumentation	
0	P1	33				P- 1 (0.0-3.0) CLAY, CH; dark brown, medium plasticity, moist. Colluvium. Sample submitted for lab test = 6213 (0'-3')	0.0 - 4.5 CLAY, CH; dark brown, medium plasticity, moist; (Colluvium)		Drilling Method: 1"ID Push Probe (0'-6') (P-1) PID= 0 Sheen= No Odor= No			
	P2	100				P- 2 (3.0-6.0) From (3'-4.5') CLAY, CH; dark brown, medium plasticity, moist. Colluvium. From (4.5'-6') Intrusive Rock, brown, predominantly decomposed, extremely soft to very soft. Igneous Intrusive. Sample submitted for lab test = 6213 (4'-5') Sample submitted for lab test = 6213 (5'-6')	4.5 - 6.0 Intrusive Rock, brown, predominantly decomposed, extremely soft to very soft; (Igneous Intrusive)		(P-2) PID= 0 Sheen= No Odor= No ← Bedrock Contact 4.5'.			
5						(6.0) Bottom of hole.						
10												
15									Backfilled with; Bentonite Chips (6'-0')			

ODOT DRILL LOG 62-U2-P1-HAZMAT.GPJ ODOT_MAN.GDT 09/03/11

DRILL LOG
OREGON DEPARTMENT OF TRANSPORTATION

Project OR62 Corridor Solutions Unit-2 Phase-1		Purpose Level-2 HazMat Investigation		Hole No. HM-U2P1-14							
Highway Crater Lake Hwy No. 22 (OR62)		County Jackson		E.A. No. PE001522							
Hole Location Northing:		Easting:		Key No. 17188							
Equipment (Geoprobe) Hole Location: On Medco Haul Rd. (Scale Shack)		Driller FSE Wes Harper MW# 10528		Start Card No.							
Project Geologist Kenny Camp Reg-3 HazMat Coordinator		Recorder Dan Raker		Bridge No.							
Start Date June 6, 2011		End Date June 6, 2011		Ground Elev. 1321.9 ft							
		Total Depth 12.0 ft		Tube Height							
Test Type		Rock Abbreviations		Typical Drilling Abbreviations							
"A" - Advancer "X" - Auger "C" - Core "N" - Standard Penetration Test "U" - Undisturbed Sample "D" - Oversize Split Spoon Sample		Discontinuity J - Joint F - Fault B - Bedding Fo - Foliation S - Shear		Shape Pl - Planar C - Curved U - Undulating St - Stepped Ir - Irregular	Surface Roughness P - Polished Sl - Slickensided Sm - Smooth R - Rough VR - Very Rough	Drilling Methods WL - Wire Line HS - Hollow Stem Auger DF - Drill Fluid SA - Solid Auger CA - Casing Advancer HA - Hand Auger	Drilling Remarks LW - Lost Water WR - Water Return WC - Water Color DP - Down Pressure DR - Drill Rate DA - Drill Action				
Depth (ft)	Test Type No.	Percent Recovery	Soil Driving Resistance	Rock Discontinuity Data Or RQD%	Percent Natural Moisture	Material Description	Unit Description	Graphic Log	Drilling Methods, Size and Remarks	Water Level/Date	Backfill/Instrumentation
0	P1	53				P- 1 (0.0-3.0) From (0'-0.5') AC. From (0.5'-1.2') Base Rock. From (1.2'-3.0') Sandy GRAVEL to Gravelly SAND, GP, SP; brown, nonplastic, damp. Fill. Sample submitted for lab test = 6214 (0'-3')	0.0 - 0.5 AC 0.5 - 1.5 Base Rock 1.5 - 12.0 Sandy GRAVEL to Gravelly SAND, GP, SP and CLAY, CH; brown to dark brown and gray-green, nonplastic to medium plasticity, damp to moist; (Fill)		Drilling Method: 1"ID Push Probe (0'-12') (P-1) PID= 0 Sheen= NA Odor= Yes		
5	P2	100				P- 2 (3.0-6.0) Sandy GRAVEL to Gravelly SAND, GP, SP and CLAY, CH; brown to dark brown and gray-green, nonplastic to medium plasticity, damp to moist. Fill. Sample submitted for lab test = 6214 (4'-5') Sample submitted for lab test = 6214 (5'-6')			(P-2) PID= 0 Sheen= NA Odor= Yes		
10	P3	100				P- 3 (6.0-9.0) Sandy GRAVEL to Gravelly SAND, GP, SP and CLAY, CH; brown to dark brown and gray-green, nonplastic to medium plasticity, damp to moist. Fill. Sample submitted for lab test = 6214 (8'-9')			(P-3) PID= 0 Sheen= NA Odor= No		
15	P4	100				P- 4 (9.0-12.0) Sandy GRAVEL to Gravelly SAND, GP, SP and CLAY, CH; brown to dark brown and gray-green, nonplastic to medium plasticity, damp to moist. Fill. (12.0) Bottom of hole.			(P-4) PID= 0 Sheen= NA Odor= No		
									Backfilled with; Bentonite Chip (12'-0.5') AC Cold Mix (0.5'-0')		

ODOT DRILL LOG 62-U2-P1-HAZMAT.GPJ ODOT_MAN.GDT 09/03/11

DRILL LOG
OREGON DEPARTMENT OF TRANSPORTATION

Project OR62 Corridor Solutions Unit-2 Phase-1		Purpose Level-2 HazMat Investigation	Hole No. HM-U2P1-15
Highway Crater Lake Hwy No. 22 (OR62)		County Jackson	E.A. No. PE001522
Hole Location Northing: _____ Easting: _____			Key No. 17188
Equipment (Geoprobe) Hole Location: In Medco Log Pond.		Driller FSE Wes Harper MW# 10528	Start Card No. _____
Project Geologist Kenny Camp Reg-3 HazMat Coordinator		Recorder Dan Raker	Bridge No. _____
Start Date June 8, 2011	End Date June 8, 2011	Total Depth 4.5 ft	Ground Elev. 1311.8 ft
			Tube Height _____

Test Type	Rock Abbreviations			Typical Drilling Abbreviations	
"A" - Advancer "X" - Auger "C" - Core "N" - Standard Penetration Test "U" - Undisturbed Sample "D" - Oversize Split Spoon Sample	<u>Discontinuity</u> J - Joint F - Fault B - Bedding Fo - Foliation S - Shear	<u>Shape</u> Pl - Planar C - Curved U - Undulating St - Stepped Ir - Irregular	<u>Surface Roughness</u> P - Polished Sl - Slickensided Sm - Smooth R - Rough VR - Very Rough	<u>Drilling Methods</u> WL - Wire Line HS - Hollow Stem Auger DF - Drill Fluid SA - Solid Auger CA - Casing Advancer HA - Hand Auger	<u>Drilling Remarks</u> LW - Lost Water WR - Water Return WC - Water Color DP - Down Pressure DR - Drill Rate DA - Drill Action

Depth (ft)	Test Type No.	Percent Recovery	Soil Driving Resistance	Rock Discontinuity Data Or RQD%	Percent Natural Moisture	Material Description SOIL: Soil Name, USCS, Color, Plasticity, Moisture, Consistency/Relative Density, Texture, Cementation, Structure, Origin. ROCK: Rock Name, Color, Weathering, Hardness, Discontinuity Spacing, Joint Filling, Core Recovery, Formation Name.	Unit Description	Graphic Log	Drilling Methods, Size and Remarks	Water Level/Date	Backfill/Instrumentation	
0	P1	53				P- 1 (0.0-3.0) CLAY, CH; dark brown, medium plasticity, moist. Colluvium. Sample submitted for lab test = 6215 (0'-3')	0.0 - 3.5 CLAY, CH; dark brown, medium plasticity, moist; (Colluvium)		Drilling Method: 1"ID Push Probe (0'-4.5') (P-1) PID= 0 Sheen= No Odor= No (P-2) PID= 0 Sheen= No Odor= No ← Bedrock Contact 3.5'			
	P2	100				P- 2 (3.0-4.5) From (3'-3.5') CLAY, CH; dark brown, medium plasticity, moist. Colluvium. From (3.5'-4.5') Intrusive Rock, brown, predominantly decomposed, extremely soft to very soft. Igneous Intrusive. Sample submitted for lab test = 6215 (3'-4.5') (4.5) Bottom of hole.	3.5 - 4.5 Intrusive Rock, brown, predominantly decomposed, extremely soft to very soft; (Igneous Intrusive)					
5									Backfilled with; Bentonite Chips (4.5'-0')			
10												
15												

ODOT DRILL LOG 62-U2-P1-HAZMAT.GPJ ODOT_MAN.GDT 09/03/11

DRILL LOG
OREGON DEPARTMENT OF TRANSPORTATION

Project OR62 Corridor Solutions Unit-2 Phase-1		Purpose Level-2 HazMat Investigation	Hole No. HM-U2P1-16
Highway Crater Lake Hwy No. 22 (OR62)		County Jackson	E.A. No. PE001522
Hole Location Northing:		Easting:	
Equipment (Geoprobe) Hole Location: On Medco Haul Rd. (Scale Shack)		Driller FSE Wes Harper MW# 10528	Key No. 17188
Project Geologist Kenny Camp Reg-3 HazMat Coordinator		Recorder Dan Raker	Start Card No.
Start Date June 7, 2011	End Date June 7, 2011	Total Depth 12.0 ft	Ground Elev. 1322.7 ft
			Tube Height

Test Type	Rock Abbreviations	Typical Drilling Abbreviations
"A" - Advancer	<u>Discontinuity</u>	<u>Drilling Methods</u>
"X" - Auger	J - Joint	WL - Wire Line
"C" - Core	F - Fault	HS - Hollow Stem Auger
"N" - Standard Penetration Test	B - Bedding	DF - Drill Fluid
"U" - Undisturbed Sample	Fo - Foliation	SA - Solid Auger
"D" - Oversize Split Spoon Sample	S - Shear	CA - Casing Advancer
		HA - Hand Auger
		<u>Drilling Remarks</u>
		LW - Lost Water
		WR - Water Return
		WC - Water Color
		DP - Down Pressure
		DR - Drill Rate
		DA - Drill Action





Depth (ft)	Test Type No.	Percent Recovery	Soil Driving Resistance	Rock Discontinuity Data Or RQD%	Percent Natural Moisture	Material Description SOIL: Soil Name, USCS, Color, Plasticity, Moisture, Consistency/Relative Density, Texture, Cementation, Structure, Origin. ROCK: Rock Name, Color, Weathering, Hardness, Discontinuity Spacing, Joint Filling, Core Recovery, Formation Name.	Unit Description	Graphic Log	Drilling Methods, Size and Remarks	Water Level/Date	Backfill/Instrumentation
0	P1	47				P- 1 (0.0-3.0) From (0'-0.5') AC. From (0.5'-1.2') Base Rock. From (1.2'-3.0') Sandy GRAVEL, GP; brown, nonplastic, damp. Fill. Sample submitted for lab test = 6216 (0'-3')	0.0 - 0.5 AC 0.5 - 1.5 Base Rock 1.5 - 12.0 CLAY with some sand and gravel, CH; dark brown to green, medium plasticity, moist; (Fill)		Drilling Method: 1"ID Push Probe (0'-12') (P-1) PID= 0 Sheen= Yes Odor= Yes		
	P2	100				P- 2 (3.0-6.0) CLAY with some sand and gravel, CH; dark brown, medium plasticity, moist. Fill. Sample submitted for lab test = 6216 (5'-6')			(P-2) PID= 0 Sheen= No Odor= No		
5	P3	100				P- 3 (6.0-9.0) CLAY with some sand and gravel, CH; dark brown to green, medium plasticity, moist. Fill. Sample submitted for lab test = 6216 (7'-8')			(P-3) PID= 0 Sheen= No Odor= No		
	P4	33				P- 4 (9.0-12.0) CLAY with some sand and gravel, CH; dark brown to green, medium plasticity, moist. Fill.			(P-4) PID= 0 Sheen= No Odor= No		
10						(12.0) Bottom of hole.					
15									Backfilled with; Bentonite Chip (12'-0.5') AC Cold Mix (0.5'-0')		

ODOT DRILL LOG 62-U2-P1-HAZMAT.GPJ ODOT_MAN.GDT 09/03/11

DRILL LOG
OREGON DEPARTMENT OF TRANSPORTATION

Project OR62 Corridor Solutions Unit-2 Phase-1		Purpose Level-2 HazMat Investigation	Hole No. HM-U2P1-17
Highway Crater Lake Hwy No. 22 (OR62)		County Jackson	E.A. No. PE001522
Hole Location Northing:		Easting:	
Equipment (Geoprobe) Hole Location: In Medco Log Pond.		Driller FSE Wes Harper MW# 10528	Start Card No.
Project Geologist Kenny Camp Reg-3 HazMat Coordinator		Recorder Dan Raker	Bridge No.
Start Date June 8, 2011	End Date June 8, 2011	Total Depth 5.0 ft	Ground Elev. 1311.2 ft
			Tube Height

Test Type	Rock Abbreviations	Typical Drilling Abbreviations
"A" - Advancer	Discontinuity	Drilling Methods
"X" - Auger	J - Joint	WL - Wire Line
"C" - Core	F - Fault	HS - Hollow Stem Auger
"N" - Standard Penetration Test	B - Bedding	DF - Drill Fluid
"U" - Undisturbed Sample	Fo - Foliation	SA - Solid Auger
"D" - Oversize Split Spoon Sample	S - Shear	CA - Casing Advancer
		HA - Hand Auger
		DA - Drill Action
		DR - Drill Rate
		WC - Water Color
		WR - Water Return
		LW - Lost Water
		Sm - Smooth
		St - Stepped
		R - Rough
		VR - Very Rough
		PI - Planar
		P - Polished
		SI - Slickensided
		U - Undulating
		Ir - Irregular

Depth (ft)	Test Type No.	Percent Recovery	Soil Driving Resistance	Rock Discontinuity Data Or RQD%	Percent Natural Moisture	Material Description SOIL: Soil Name, USCS, Color, Plasticity, Moisture, Consistency/Relative Density, Texture, Cementation, Structure, Origin. ROCK: Rock Name, Color, Weathering, Hardness, Discontinuity Spacing, Joint Filling, Core Recovery, Formation Name.	Unit Description	Graphic Log	Drilling Methods, Size and Remarks	Water Level/ Date	Backfill/ Instrumentation
0	P1	50				P- 1 (0.0-3.0) From (0'-2.5') CLAY, CH; dark brown, medium plasticity, moist. Colluvium. From (2.5'-3.0') Intrusive Rock, brown, predominantly decomposed, extremely soft to very soft. Igneous Intrusive. Sample submitted for lab test = 6217 (2'-3')	0.0 - 2.5 CLAY, CH; dark brown, medium plasticity, moist; (Colluvium)		Drilling Method: 1"ID Push Probe (0'-5') (P-1) PID= 0 Sheen= No Odor= No		
	P2	50				P- 2 (3.0-5.0) Intrusive Rock, brown, predominantly decomposed, extremely soft to very soft. Igneous Intrusive. Sample submitted for lab test = 6217 (4'-5')	2.5 - 5.0 Intrusive Rock, brown, predominantly decomposed, extremely soft to very soft; (Igneous Intrusive)		← Bedrock Contact 2.5'. (P-2) PID= 0 Sheen= No Odor= No		
5						(5.0) Bottom of hole.			Backfilled with; Bentonite Chips (5'-0')		
10											
15											

ODOT DRILL LOG 62-U2-P1-HAZMAT.GPJ ODOT_MAN.GDT 09/03/11

DRILL LOG
OREGON DEPARTMENT OF TRANSPORTATION

Project OR62 Corridor Solutions Unit-2 Phase-1		Purpose Level-2 HazMat Investigation	Hole No. HM-U2P1-18
Highway Crater Lake Hwy No. 22 (OR62)		County Jackson	E.A. No. PE001522
Hole Location Northing: _____ Easting: _____			Key No. 17188
Equipment (Geoprobe) Hole Location: In Medco Log Pond.		Driller FSE Wes Harper MW# 10528	Start Card No. _____
Project Geologist Kenny Camp Reg-3 HazMat Coordinator		Recorder Dan Raker	Bridge No. _____
Start Date June 8, 2011	End Date June 8, 2011	Total Depth 9.0 ft	Ground Elev. 1313.0 ft
			Tube Height _____

Test Type "A" - Advancer "X" - Auger "C" - Core "N" - Standard Penetration Test "U" - Undisturbed Sample "D" - Oversize Split Spoon Sample	Rock Abbreviations <u>Discontinuity</u> J - Joint F - Fault B - Bedding Fo - Foliation S - Shear <u>Shape</u> Pl - Planar C - Curved U - Undulating St - Stepped Ir - Irregular <u>Surface Roughness</u> P - Polished SI - Slickensided Sm - Smooth R - Rough VR - Very Rough	Typical Drilling Abbreviations <u>Drilling Methods</u> WL - Wire Line HS - Hollow Stem Auger DF - Drill Fluid SA - Solid Auger CA - Casing Advancer HA - Hand Auger <u>Drilling Remarks</u> LW - Lost Water WR - Water Return WC - Water Color DP - Down Pressure DR - Drill Rate DA - Drill Action
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Depth (ft)	Test Type No.	Percent Recovery	Soil Driving Resistance	Rock Discontinuity Data Or RQD%	Percent Natural Moisture	Material Description SOIL: Soil Name, USCS, Color, Plasticity, Moisture, Consistency/Relative Density, Texture, Cementation, Structure, Origin. ROCK: Rock Name, Color, Weathering, Hardness, Discontinuity Spacing, Joint Filling, Core Recovery, Formation Name.	Unit Description	Graphic Log	Drilling Methods, Size and Remarks	Water Level/Date	Backfill/Instrumentation
0	P1	33				P- 1 (0.0-3.0) From (0'-2.5') CLAY with some sand and gravel, CH; dark brown, low to medium plasticity, moist. Fill. From (2.5'-3.0') CLAY, CH; dark brown, medium plasticity, moist. Colluvium.	0.0 - 2.5 CLAY with some sand and gravel, CH; dark brown, low to medium plasticity, moist; (Fill)		Drilling Method: 1"ID Push Probe (0'-9') (P-1) PID= 0 Sheen= No Odor= No		
	P2	93				P- 2 (3.0-6.0) CLAY, CH; dark brown, medium plasticity, moist. Colluvium. Sample submitted for lab test = 6218 (3'-6')	2.5 - 7.0 CLAY, CH; dark brown, medium plasticity, moist; (Colluvium)		(P-2) PID= 0 Sheen= No Odor= No		
5	P3	100				P- 3 (6.0-9.0) From (6.0'-7.0') CLAY, CH; dark brown, medium plasticity, moist. Colluvium. From (7.0'-9.0') Intrusive Rock, brown, predominantly decomposed, extremely soft to very soft. Igneous Intrusive. Sample submitted for lab test = 6218 (7'-8')	7.0 - 9.0 Intrusive Rock, brown, predominantly decomposed, extremely soft to very soft; (Igneous Intrusive)		(P-3) PID= 0 Sheen= No Odor= No ← Bedrock Contact 7'.		
10						(9.0) Bottom of hole.			Backfilled with; Bentonite Chips (9'-0')		
15											

ODOT DRILL LOG 62-U2-P1-HAZMAT.GPJ ODOT_MAN.GDGT 09/03/11

DRILL LOG
OREGON DEPARTMENT OF TRANSPORTATION

Project OR62 Corridor Solutions Unit-2 Phase-1		Purpose Level-2 HazMat Investigation	Hole No. HM-U2P1-19
Highway Crater Lake Hwy No. 22 (OR62)		County Jackson	E.A. No. PE001522
Hole Location Northing: _____ Easting: _____		Key No. 17188	
Equipment (Geoprobe) Hole Location: In Medco Log Pond.		Driller FSE Wes Harper MW# 10528	Start Card No. _____
Project Geologist Kenny Camp Reg-3 HazMat Coordinator		Recorder Dan Raker	Bridge No. _____
Start Date June 8, 2011	End Date June 8, 2011	Total Depth 6.4 ft	Ground Elev. 1313.4 ft
		Tube Height _____	

Test Type	Rock Abbreviations	Typical Drilling Methods	Typical Drilling Abbreviations
"A" - Advancer "X" - Auger "C" - Core "N" - Standard Penetration Test "U" - Undisturbed Sample "D" - Oversize Split Spoon Sample	<u>Discontinuity</u> J - Joint F - Fault B - Bedding Fo - Foliation S - Shear <u>Shape</u> Pl - Planar C - Curved U - Undulating St - Stepped Ir - Irregular <u>Surface Roughness</u> P - Polished SI - Slickensided Sm - Smooth R - Rough VR - Very Rough	<u>Drilling Methods</u> WL - Wire Line HS - Hollow Stem Auger DF - Drill Fluid SA - Solid Auger CA - Casing Advancer HA - Hand Auger	<u>Drilling Remarks</u> LW - Lost Water WR - Water Return WC - Water Color DP - Down Pressure DR - Drill Rate DA - Drill Action

Depth (ft)	Test Type No.	Percent Recovery	Soil Driving Resistance	Rock Discontinuity Data Or RQD%	Percent Natural Moisture	Material Description SOIL: Soil Name, USCS, Color, Plasticity, Moisture, Consistency/Relative Density, Texture, Cementation, Structure, Origin. ROCK: Rock Name, Color, Weathering, Hardness, Discontinuity Spacing, Joint Filling, Core Recovery, Formation Name.	Unit Description	Graphic Log	Drilling Methods, Size and Remarks	Water Level/Date	Backfill/Instrumentation
0	P1	60				P- 1 (0.0-3.0) CLAY with some sand and gravel, CH; dark brown, low to medium plasticity, moist. Fill. Sample submitted for lab test = 6219 (0'-3')	0.0 - 6.3 CLAY with some sand and gravel, CH; dark brown, low to medium plasticity, moist; (Fill)		Drilling Method: 1"ID Push Probe (0'-6.4') (P-1) PID= 0 Sheen= No Odor= No		
	P2	37				P- 2 (3.0-6.0) CLAY with some sand and gravel, CH; dark brown, low to medium plasticity, moist. Fill. Sample submitted for lab test = 6219 (3'-6')			(P-2) PID= 0 Sheen= No Odor= No		
5	P3	100				P- 3 (6.0-6.4) From (6.0'-6.3') CLAY with some sand and gravel, CH; dark brown, low to medium plasticity, moist. Fill. From (6.3'-6.4') Intrusive Rock, brown, predominantly decomposed, extremely soft to very soft. Igneous Intrusive. (6.4) Bottom of hole.	6.3 - 6.4 Intrusive Rock, brown, predominantly decomposed, extremely soft to very soft; (Igneous Intrusive)		← Bedrock Contact 6.3'		
10									Backfilled with; Bentonite Chips (6.4'-0')		
15											

ODOT DRILL LOG 62-U2-P1-HAZMAT.GPJ ODOT_MAN.GDT 09/03/11

DRILL LOG
OREGON DEPARTMENT OF TRANSPORTATION



Project OR62 Corridor Solutions Unit-2 Phase-1		Purpose Level-2 HazMat Investigation		Hole No. HM-U2P1-20													
Highway Crater Lake Hwy No. 22 (OR62)		County Jackson		E.A. No. PE001522													
Hole Location Northing:		Easting:		Start Card No.													
Equipment (Geoprobe) Hole Location: On Medco Haul Rd. (Log Dump Station)		Driller FSE Wes Harper MW# 10528		Bridge No.													
Project Geologist Kenny Camp Reg-3 HazMat Coordinator		Recorder Dan Raker		Ground Elev. 1320.7 ft													
Start Date June 7, 2011		End Date June 7, 2011		Total Depth 9.0 ft													
Tube Height																	
Test Type			Rock Abbreviations			Typical Drilling Abbreviations											
"A" - Advancer "X" - Auger "C" - Core "N" - Standard Penetration Test "U" - Undisturbed Sample "D" - Oversize Split Spoon Sample			<u>Discontinuity</u> J - Joint F - Fault B - Bedding Fo - Foliation S - Shear			<u>Shape</u> Pl - Planar C - Curved U - Undulating St - Stepped Ir - Irregular			<u>Surface Roughness</u> P - Polished Sl - Slickensided Sm - Smooth R - Rough VR - Very Rough			<u>Drilling Methods</u> WL - Wire Line HS - Hollow Stem Auger DF - Drill Fluid SA - Solid Auger CA - Casing Advancer HA - Hand Auger			<u>Drilling Remarks</u> LW - Lost Water WR - Water Return WC - Water Color DP - Down Pressure DR - Drill Rate DA - Drill Action		
Depth (ft)	Test Type No.	Percent Recovery	Soil Driving Resistance	Rock Discontinuity Data Or RQD%	Percent Natural Moisture	Material Description	Unit Description	Graphic Log	Drilling Methods, Size and Remarks	Water Level/Date	Backfill/Instrumentation						
												SOIL: Soil Name, USCS, Color, Plasticity, Moisture, Consistency/Relative Density, Texture, Cementation, Structure, Origin.	ROCK: Rock Name, Color, Weathering, Hardness, Discontinuity Spacing, Joint Filling, Core Recovery, Formation Name.				
0	P1	73				P- 1 (0.0-3.0) Sandy GRAVEL to Gravelly SAND, GP, SP and CLAY, CH; light brown to dark brown, nonplastic to medium plasticity, damp to moist. Fill. Sample submitted for lab test = 6220 (0'-3')	0.0 - 9.0 Sandy GRAVEL to Gravelly SAND, GP, SP and CLAY with trace gravel, CH; light brown to dark brown, nonplastic to medium plasticity, damp to moist; (Fill)	[Cross-hatched pattern]	Drilling Method: 1"ID Push Probe (0'-12') (P-1) PID= 0 Sheen= No Odor= No		[Diagonal hatched pattern]						
	P2	100			P- 2 (3.0-6.0) Sandy GRAVEL to Gravelly SAND, GP, SP and CLAY, CH; light brown to dark brown, nonplastic to medium plasticity, damp to moist. Fill. Sample submitted for lab test = 6220 (5'-6')	(P-2) PID= 0 Sheen= No Odor= No											
	P3	100			P- 3 (6.0-9.0) CLAY with trace gravel, CH; dark brown, medium plasticity, damp to moist. Fill. Sample submitted for lab test = 6220 (8'-9')	(P-3) PID= 0 Sheen= No Odor= No											
10						(9.0) Bottom of hole.			Backfilled with; Bentonite Chips (9'-0')								
15																	

ODOT DRILL LOG 62-U2-P1-HAZMAT.GPJ ODOT_MAN.GDT 09/03/11

DRILL LOG
OREGON DEPARTMENT OF TRANSPORTATION

Project OR62 Corridor Solutions Unit-2 Phase-1		Purpose Level-2 HazMat Investigation	Hole No. HM-U2P1-21
Highway Crater Lake Hwy No. 22 (OR62)		County Jackson	E.A. No. PE001622
Hole Location Northing: _____ Easting: _____			Key No. 17188
Equipment (Geoprobe) Hole Location: In Medco Log Pond.		Driller FSE Wes Harper MW# 10528	Start Card No. _____
Project Geologist Kenny Camp Reg-3 HazMat Coordinator		Recorder Dan Raker	Bridge No. _____
Start Date June 8, 2011	End Date June 8, 2011	Total Depth 4.3 ft	Ground Elev. 1312.2 ft
			Tube Height _____

Test Type	Rock Abbreviations			Typical Drilling Abbreviations	
"A" - Advancer	<u>Discontinuity</u>	<u>Shape</u>	<u>Surface Roughness</u>	<u>Drilling Methods</u>	<u>Drilling Remarks</u>
"X" - Auger	J - Joint	Pl - Planar	P - Polished	WL - Wire Line	LW - Lost Water
"C" - Core	F - Fault	C - Curved	SI - Slickensided	HS - Hollow Stem Auger	WR - Water Return
"N" - Standard Penetration Test	B - Bedding	U - Undulating	Sm - Smooth	DF - Drill Fluid	WC - Water Color
"U" - Undisturbed Sample	Fo - Foliation	St - Stepped	R - Rough	SA - Solid Auger	DP - Down Pressure
"D" - Oversize Split Spoon Sample	S - Shear	Ir - Irregular	VR - Very Rough	CA - Casing Advancer	DR - Drill Rate
				HA - Hand Auger	DA - Drill Action

Depth (ft)	Test Type, No.	Percent Recovery	Soil Driving Resistance	Rock Discontinuity Data Or RQD%	Percent Natural Moisture	Material Description SOIL: Soil Name, USCS, Color, Plasticity, Moisture, Consistency/Relative Density, Texture, Cementation, Structure, Origin. ROCK: Rock Name, Color, Weathering, Hardness, Discontinuity Spacing, Joint Filling, Core Recovery, Formation Name.	Unit Description	Graphic Log	Drilling Methods, Size and Remarks	Water Level/Date	Backfill/Instrumentation
0	P1	37				P- 1 (0.0-3.0) CLAY with some sand and gravel, CH; light brown to dark brown, low to medium plasticity, moist. Fill. Sample submitted for lab test = 6221 (0'-3')	0.0 - 4.3 CLAY with some sand and gravel and ORGANIC DEBRIS of wood and bark, CH, PT; light brown to dark brown, low to medium plasticity, moist; (Fill)		Drilling Method: 1"ID Push Probe (0'-4.3')		
	P2	92			P- 2 (3.0-4.3) CLAY with some sand and gravel and ORGANIC DEBRIS of wood and bark, CH, PT; light brown to dark brown, low to medium plasticity, moist. Fill. Sample submitted for lab test = 6221 (3'-4.3') (4.3) Bottom of hole.	(P-1) PID= 0 Sheen= No Odor= No (P-2) PID= 0 Sheen= No Odor= No Drilling refusal at 4.3' likely woody debris.					
5									Backfilled with; Bentonite Chips (4.3'-0')		
10											
15											

ODOT DRILL LOG 62-U2-P1-HAZMAT.GPJ ODOT_MAN.GDT 09/03/11

DRILL LOG
OREGON DEPARTMENT OF TRANSPORTATION

Project OR62 Corridor Solutions Unit-2 Phase-1		Purpose Level-2 HazMat Investigation	Hole No. HM-U2P1-22
Highway Crater Lake Hwy No. 22 (OR62)		County Jackson	E.A. No. PE001522
Hole Location Northing:		Easting:	
Equipment (Geoprobe) Hole Location: On Medco Haul Rd. (Log Dump Station)		Driller FSE Wes Harper MW# 10528	Key No. 17188
Project Geologist Kenny Camp Reg-3 HazMat Coordinator		Recorder Dan Raker	Start Card No.
Start Date June 7, 2011	End Date June 7, 2011	Total Depth 15.3 ft	Ground Elev. 1320.8 ft
			Tube Height

Test Type	Rock Abbreviations	Typical Drilling Abbreviations
"A" - Advancer	Discontinuity J - Joint	Drilling Methods WL - Wire Line
"X" - Auger	Shape PI - Planar	Drilling Remarks LW - Lost Water
"C" - Core	Surface Roughness P - Polished	HS - Hollow Stem Auger
"N" - Standard Penetration Test	F - Fault	SI - Slickensided
"U" - Undisturbed Sample	C - Curved	DF - Drill Fluid
"D" - Oversize Split Spoon Sample	B - Bedding	Sm - Smooth
	U - Undulating	SA - Solid Auger
	Fo - Foliation	R - Rough
	S - Shear	CA - Casing Advancer
	Ir - Irregular	HA - Hand Auger
		VR - Very Rough
		DR - Drill Rate
		DA - Drill Action

Depth (ft)	Test Type No.	Percent Recovery	Soil Driving Resistance	Rock Discontinuity Data Or RQD%	Percent Natural Moisture	Material Description	Unit Description	Graphic Log	Drilling Methods, Size and Remarks	Water Level/Date	Backfill/Instrumentation
0	P1	43				<p>P- 1 (0.0-3.0) Sandy GRAVEL to Gravelly SAND, GP, SP and CLAY, CH; light brown to dark brown, nonplastic to medium plasticity, damp to moist. Fill.</p> <p>Sample submitted for lab test = 6222 (0'-3')</p>	<p>0.0 - 11.0 Sandy GRAVEL to Gravelly SAND, GP, SP and CLAY, CH; light brown to dark brown and green, nonplastic to medium plasticity, damp to moist; (Fill)</p>		<p>Drilling Method: 1"ID Push Probe (0'-15.3')</p> <p>(P-1) PID= 0 Sheen= No Odor= No</p>		
	P2	100			<p>P- 2 (3.0-6.0) Sandy GRAVEL to Gravelly SAND, GP, SP and CLAY, CH; light brown to dark brown, nonplastic to medium plasticity, damp to moist. Fill.</p> <p>Sample submitted for lab test = 6222 (4'-5')</p> <p>Sample submitted for lab test = 6222 (5'-6')</p>	<p>(P-2) PID= 0 Sheen= No Odor= No</p>					
5	P3	100			<p>P- 3 (6.0-9.0) Sandy GRAVEL to Gravelly SAND, GP, SP and CLAY, CH; light brown to dark brown, nonplastic to medium plasticity, damp to moist. Fill.</p>	<p>(P-3) PID= 0 Sheen= No Odor= No</p>					
	P4	100			<p>P- 4 (9.0-12.0) From (9.0'-11'0) Sandy GRAVEL to Gravelly SAND, GP, SP and CLAY, CH; light brown to dark brown and green, nonplastic to medium plasticity, damp to moist. Fill. From (11.0'-12.0') CLAY with some gravel, CH; dark brown, medium plasticity, moist. Colluvium.</p> <p>Sample submitted for lab test = 6222 (11'-12')</p>	<p>(P4) PID= 0 Sheen= No Odor= No</p>					
10	P5	100			<p>P- 5 (12.0-15.0) From (12.0'-14.2') CLAY, CH; dark brown, medium plasticity, moist. Colluvium. From (14.2'-15.0') Intrusive Rock, green, predominantly decomposed, extremely soft to very soft. Igneous intrusive.</p>	<p>11.0 - 14.2 Clay with some gravel, CH; dark brown, medium plasticity, moist; (Colluvium)</p>			<p>(P5) PID= 0 Sheen= No Odor= No</p>		
	P6	100			<p>P- 6 (15.0-15.3) Intrusive Rock, green, predominantly decomposed, extremely soft to very soft. Igneous intrusive. (15.3) Bottom of hole.</p>	<p>14.2 - 15.3 Intrusive Rock, green, predominantly decomposed, extremely soft to very soft; (Igneous Intrusive)</p>			<p>Bedrock Contact 14.2'</p>		
15								<p>Backfilled with; Bentonite Chips (15.3'-0')</p>			
17											

ODOT DRILL LOG 62-U2-P1-HAZMAT.GPJ ODOT_MAN.GDT 09/03/11

DRILL LOG
OREGON DEPARTMENT OF TRANSPORTATION

Project OR62 Corridor Solutions Unit-2 Phase-1		Purpose Level-2 HazMat Investigation	Hole No. HM-U2P1-23
Highway Crater Lake Hwy No. 22 (OR62)		County Jackson	E.A. No. PE001522
Hole Location Northing:		Easting:	Start Card No.
Equipment (Geoprobe) Hole Location: On Medco Haul Rd. (Adjacent fill piles)		Driller FSE Wes Harper MW# 10528	Bridge No.
Project Geologist Kenny Camp Reg-3 HazMat Coordinator		Recorder Dan Raker	Ground Elev. 1319.7 ft
Start Date June 7, 2011	End Date June 7, 2011	Total Depth 10.5 ft	Tube Height

Test Type	Rock Abbreviations	Typical Drilling Abbreviations
"A" - Advancer "X" - Auger "C" - Core "N" - Standard Penetration Test "U" - Undisturbed Sample "D" - Oversize Split Spoon Sample	<u>Discontinuity</u> J - Joint F - Fault B - Bedding Fo - Foliation S - Shear <u>Shape</u> Pl - Planar C - Curved U - Undulating St - Stepped Ir - Irregular <u>Surface Roughness</u> P - Polished Sl - Slickensided Sm - Smooth R - Rough VR - Very Rough	<u>Drilling Methods</u> WL - Wire Line HS - Hollow Stem Auger DF - Drill Fluid SA - Solid Auger CA - Casing Advancer HA - Hand Auger <u>Drilling Remarks</u> LW - Lost Water WR - Water Return WC - Water Color DP - Down Pressure DR - Drill Rate DA - Drill Action

Depth (ft)	Test Type No.	Percent Recovery	Soil Driving Resistance	Rock Discontinuity Data Or RQD%	Percent Natural Moisture	Material Description	Unit Description	Graphic Log	Drilling Methods, Size and Remarks	Water Level/Date	Backfill/Instrumentation
0	P1	83				P- 1 (0.0-3.0) CLAY with some sand and gravel, CH; dark brown, medium plasticity, moist. Fill. Sample submitted for lab test = 6223 (0'-3')	0.0 - 8.0 CLAY with some sand and gravel, CH; dark brown, medium plasticity, moist; (Fill)		Drilling Method: 1"ID Push Probe (0'-10.5') (P-1) PID= 0 Sheen= No Odor= No		
	P2	37				P- 2 (3.0-6.0) CLAY with some sand and gravel, CH; dark brown, medium plasticity, moist. Fill.			(P-1) PID= 0 Sheen= No Odor= No		
5	P3	37				P- 3 (6.0-9.0) From (6.0'-8.0') CLAY with some sand and gravel, CH; dark brown, medium plasticity, moist. Fill. From (8.0'-9.0') CLAY, CH; dark brown, medium plasticity, moist. Colluvium. Sample submitted for lab test = 6223 (6'-9')			(P-3) PID= 0 Sheen= No Odor= No		
	P4	50				P- 4 (9.0-10.4) From (9.0'-10.4') CLAY, CH; dark brown, medium plasticity, moist. Colluvium. From (10.4'-10.5') MUDSTONE/SANDSTONE, light brown to gray, moderately weathered, very soft, tuffaceous. (10.4) Bottom of hole.					
							8.0 - 10.4 CLAY, CH; dark brown, medium plasticity, moist; (Colluvium)				
10							10.4 - 10.5 MUDSTONE/SANDSTONE, light brown to gray, moderately weathered, very soft, tuffaceous.; (Eocene Sediments)				
									Bedrock Contact 10.4'		
									Backfilled with; Bentonite Chips (10.5'-0')		
15											

ODOT DRILL LOG 62-U2-P1-HAZMAT.GPJ ODOT_MAN.GDT 09/03/11

DRILL LOG
OREGON DEPARTMENT OF TRANSPORTATION

Project OR62 Corridor Solutions Unit-2 Phase-1		Purpose Level-2 HazMat Investigation		Hole No. HM-U2P1-24						
Highway Crater Lake Hwy No. 22 (OR62)		County Jackson		E.A. No. PE001522						
Hole Location Northing:		Easting:		Key No. 17188						
Equipment (Geoprobe) Hole Location: On Medco Haul Rd. (Adjacent fill piles)		Driller FSE Wes Harper MW# 10528		Start Card No.						
Project Geologist Kenny Camp Reg-3 HazMat Coordinator		Recorder Dan Raker		Bridge No.						
Start Date June 7, 2011		End Date June 7, 2011		Ground Elev. 1318.3 ft						
		Total Depth 7.5 ft		Tube Height						
Test Type		Rock Abbreviations		Typical Drilling Abbreviations						
"A" - Advancer "X" - Auger "C" - Core "N" - Standard Penetration Test "U" - Undisturbed Sample "D" - Oversize Split Spoon Sample		Discontinuity J - Joint F - Fault B - Bedding Fo - Foliation S - Shear Shape Pl - Planar C - Curved U - Undulating St - Stepped Ir - Irregular Surface Roughness P - Polished Sl - Slickensided Sm - Smooth R - Rough VR - Very Rough		Drilling Methods WL - Wire Line HS - Hollow Stem Auger DF - Drill Fluid SA - Solid Auger CA - Casing Advancer HA - Hand Auger Drilling Remarks LW - Lost Water WR - Water Return WC - Water Color DP - Down Pressure DR - Drill Rate DA - Drill Action						
Depth (ft)	Test Type No.	Percent Recovery	Soil Driving Resistance Discontinuity Data Or RQD%	Rock Percent Natural Moisture	Material Description SOIL: Soil Name, USCS, Color, Plasticity, Moisture, Consistency/Relative Density, Texture, Cementation, Structure, Origin. ROCK: Rock Name, Color, Weathering, Hardness, Discontinuity Spacing, Joint Filling, Core Recovery, Formation Name.	Unit Description	Graphic Log	Drilling Methods, Size and Remarks	Water Level/Date	Backfill/Instrumentation
0	P1	37			P- 1 (0.0-3.0) Sandy GRAVEL to CLAY with some sand and gravel, GP, CH; brown to dark brown, nonplastic to medium plasticity, moist. Fill.	0.0 - 5.5 Sandy GRAVEL to CLAY with some sand and gravel, GP, CH; brown to dark brown, nonplastic to medium plasticity, moist; (Fill)		Drilling Method: 1"ID Push Probe (0'-7.5')		
	P2	100		P- 2 (3.0-6.0) From (3.0'-5.5') Sandy GRAVEL to CLAY with some sand and gravel, GP, CH; brown to dark brown, nonplastic to medium plasticity, moist. Fill. From (5.5'-6.0') CLAY, CH; dark brown, medium plasticity, moist. Colluvium.				(P-1) PID= 0 Sheen= No Odor= No		
5	P3	100		Sample submitted for lab test = 6224 (3'-6')	P- 3 (6.0-7.5) From (6.0'-7.0') CLAY, CH; dark brown, medium plasticity, moist. Colluvium. From (7.0'-7.5') MUDSTONE/SANDSTONE, light brown to gray, moderately weathered, very soft, tuffaceous.			5.5 - 7.0 CLAY, CH; dark brown, medium plasticity, moist; (Colluvium)		
				Sample submitted for lab test = 6224 (5.5'-6.5') (7.5) Bottom of hole.	7.0 - 7.5 MUDSTONE/SANDSTONE, light brown to gray, moderately weathered, very soft, tuffaceous.; (Eocene Sediments)			← Bedrock Contact 7'.		
10								Backfilled with; Bentonite Chips (7.5'-0')		
15										

ODOT DRILL LOG 62-U2-P1-HAZMAT.GPJ ODOT_MAN.GDT 09/03/11

DRILL LOG
OREGON DEPARTMENT OF TRANSPORTATION

Project OR62 Corridor Solutions Unit-2 Phase-1		Purpose Level-2 HazMat Investigation	Hole No. HM-U2P1-25
Highway Crater Lake Hwy No. 22 (OR62)		County Jackson	E.A. No. PE001622
Hole Location Northing:		Easting:	
Equipment (Geoprobe) Hole Location: On Medco Haul Rd. (Coker Butte side Spic Rd.) FSE Wes Harper MW# 10528		Key No. 17188	
Project Geologist Kenny Camp Reg-3 HazMat Coordinator		Recorder Dan Raker	Start Card No.
Start Date June 7, 2011	End Date June 7, 2011	Total Depth 5.0 ft	Ground Elev. 1317.2 ft
		Tube Height	

Test Type	Rock Abbreviations	Typical Drilling Abbreviations
"A" - Advancer "X" - Auger "C" - Core "N" - Standard Penetration Test "U" - Undisturbed Sample "D" - Oversize Split Spoon Sample	<u>Discontinuity</u> J - Joint F - Fault B - Bedding Fo - Foliation S - Shear <u>Shape</u> Pl - Planar C - Curved U - Undulating St - Stepped Ir - Irregular <u>Surface Roughness</u> P - Polished Sl - Slickensided Sm - Smooth R - Rough VR - Very Rough	<u>Drilling Methods</u> WL - Wire Line HS - Hollow Stem Auger DF - Drill Fluid SA - Solid Auger CA - Casing Advancer HA - Hand Auger <u>Drilling Remarks</u> LW - Lost Water WR - Water Return WC - Water Color DP - Down Pressure DR - Drill Rate DA - Drill Action

Depth (ft)	Test Type No.	Percent Recovery	Soil Driving Resistance	Rock Discontinuity Data Or RQD%	Percent Natural Moisture	Material Description	Unit Description	Graphic Log	Drilling Methods, Size and Remarks	Water Level/Date	Backfill/Instrumentation
0	P1	60				P- 1 (0.0-3.0) From (0'-0.5') AC. From (0.5'-1.5') Base Rock. From (1.5'-3.0') Sandy GRAVEL, GP; brown, nonplastic, damp. Fill. Sample submitted for lab test = 6225 (0'-3')	0.0 - 0.5 AC 0.5 - 1.5 Base Rock		Drilling Method: 1"ID Push Probe (0'-5') (P-1) PID= 0 Sheen= No Odor= Slight		
	P2	100				P- 2 (3.0-5.0) Sandy GRAVEL to Gravelly SAND and CLAY, GP, SP, CH; light brown to dark brown, nonplastic to medium plasticity, damp to moist. Fill. Sample submitted for lab test = 6225 (3'-5')	1.5 - 5.0 Sandy GRAVEL to Gravelly SAND and CLAY, GP, SP, CH; light brown to dark brown, nonplastic to medium plasticity, damp to moist; (Fill)		(P-2) PID= 0 Sheen= No Odor= No Driller notes; hard at 4.9' Basalt gravel in shoe.		
5						(5.0) Bottom of hole.			Backfilled with; Bentonite Chip (5'-0.5') AC Cold Mix (0.5'-0')		
10											
15											

ODOT DRILL LOG 62-U2-P1-HAZMAT.GPJ ODOT_MAN.GDT 09/03/11

DRILL LOG
OREGON DEPARTMENT OF TRANSPORTATION

Project OR62 Corridor Solutions Unit-2 Phase-1		Purpose Level-2 HazMat Investigation	Hole No. HM-U2P1-26
Highway Crater Lake Hwy No. 22 (OR62)		County Jackson	E.A. No. PE001622
Hole Location Northing:		Easting:	
Equipment (Geoprobe) Hole Location: East shoulder of Medco Haul Rd.		Driller FSE Wes Harper MW# 10528	Bridge No.
Project Geologist Kenny Camp Reg-3 HazMat Coordinator		Recorder Dan Raker	Ground Elev. 1312.5 ft
Start Date June 7, 2011	End Date June 7, 2011	Total Depth 9.1 ft	Tube Height

Test Type	Rock Abbreviations			Typical Drilling Abbreviations	
"A" - Advancer	<u>Discontinuity</u>	<u>Shape</u>	<u>Surface Roughness</u>	<u>Drilling Methods</u>	<u>Drilling Remarks</u>
"X" - Auger	J - Joint	Pl - Planar	P - Polished	WL - Wire Line	LW - Lost Water
"C" - Core	F - Fault	C - Curved	Sl - Slickensided	HS - Hollow Stem Auger	WR - Water Return
"N" - Standard Penetration Test	B - Bedding	U - Undulating	Sm - Smooth	DF - Drill Fluid	WC - Water Color
"U" - Undisturbed Sample	Fo - Foliation	St - Stepped	R - Rough	SA - Solid Auger	DP - Down Pressure
"D" - Oversize Split Spoon Sample	S - Shear	Ir - Irregular	VR - Very Rough	CA - Casing Advancer	DR - Drill Rate
				HA - Hand Auger	DA - Drill Action




Depth (ft)	Test Type No.	Percent Recovery	Soil Driving Resistance	Rock Discontinuity Data Or RQD%	Percent Natural Moisture	Material Description SOIL: Soil Name, USCS, Color, Plasticity, Moisture, Consistency/Relative Density, Texture, Cementation, Structure, Origin. ROCK: Rock Name, Color, Weathering, Hardness, Discontinuity Spacing, Joint Filling, Core Recovery, Formation Name.	Unit Description	Graphic Log	Drilling Methods, Size and Remarks	Water Level/Date	Backfill/Instrumentation
0	P1	4				P- 1 (0.0-3.0) Sandy GRAVEL, GP; brown, nonplastic, damp. Fill. Sample submitted for lab test = 6226 (0'-3')	0.0 - 3.0 Sandy GRAVEL, GP; brown, nonplastic, damp; (Fill)		Drilling Method: 1"ID Push Probe (0'-9.1') (P-1) PID= 0 Sheen= No Odor= No		
5	P2	100				P- 2 (3.0-6.0) CLAY, CH; dark brown, medium plasticity, moist. Colluvium. Sample submitted for lab test = 6226 (5'-6') (6.0-9.0) CLAY, CH; dark brown, medium plasticity, moist Colluvium.	3.0 - 9.0 CLAY, CH; dark brown, medium plasticity, moist; (Colluvium)		(P-2) PID= 0 Sheen= No Odor= No		
10						(9.0-9.1) MUDSTONE/SANDSTONE, light brown to gray, moderately weathered, very soft, tuffaceous. (9.1) Bottom of hole.	9.0 - 9.1 MUDSTONE/ SANDSTONE, light brown to gray, moderately weathered, very soft, tuffaceous.; (Eocene Sediments)		(P-3) PID= 0 Sheen= No Odor= No		
15									Backfilled with; Bentonite Chips (9.1'-0')		

ODOT DRILL LOG 62-U2-P1-HAZMAT.GPJ ODOT_MAN.GDT 09/03/11

DRILL LOG
OREGON DEPARTMENT OF TRANSPORTATION



Project OR62 Corridor Solutions Unit-2 Phase-1		Purpose Level-2 HazMat Investigation	Hole No. HM-U2P1-27
Highway Crater Lake Hwy No. 22 (OR62)		County Jackson	E.A. No. PE001522
Hole Location Northing: _____ Easting: _____		Start Card No. _____	
Equipment (Geoprobe) Hole Location: East shoulder of Medco Haul Rd.		Driller FSE Wes Harper MW# 10528	Bridge No. _____
Project Geologist Kenny Camp Reg-3 HazMat Coordinator		Recorder Dan Raker	Ground Elev. 1312.6 ft
Start Date June 7, 2011	End Date June 7, 2011	Total Depth 6.3 ft	Tube Height _____

Test Type	Rock Abbreviations	Typical Drilling Abbreviations
"A" - Advancer "X" - Auger "C" - Core "N" - Standard Penetration Test "U" - Undisturbed Sample "D" - Oversize Split Spoon Sample	<u>Discontinuity</u> J - Joint F - Fault B - Bedding Fo - Foliation S - Shear <u>Shape</u> Pl - Planar C - Curved U - Undulating St - Stepped Ir - Irregular <u>Surface Roughness</u> P - Polished Sl - Slickensided Sm - Smooth R - Rough VR - Very Rough	<u>Drilling Methods</u> WL - Wire Line HS - Hollow Stem Auger DF - Drill Fluid SA - Solid Auger CA - Casing Advancer HA - Hand Auger <u>Drilling Remarks</u> LW - Lost Water WR - Water Return WC - Water Color DP - Down Pressure DR - Drill Rate DA - Drill Action

Depth (ft)	Test Type No.	Percent Recovery	Soil Driving Resistance	Rock Discontinuity Data Or RQD%	Percent Natural Moisture	Material Description	Unit Description	Graphic Log	Drilling Methods, Size and Remarks	Water Level/ Date	Backfill/ Instrumentation
0	P1	50				P- 1 (0.0-3.0) CLAY, CH; dark brown, medium plasticity, moist. Colluvium. Sample submitted for lab test = 6227 (0'-3')	0.0 - 6.1 CLAY, CH; dark brown, medium plasticity, moist; (Colluvium)		Drilling Method: 1"ID Push Probe (0'-6.3') (P-1) PID= 0 Sheen= No Odor= No		
	P2	100			P- 2 (3.0-6.0) CLAY, CH; dark brown, medium plasticity, moist. Colluvium. Sample submitted for lab test = 6227 (4'-5') Sample submitted for lab test = 6227 (5'-6')						
5	P3	100			P- 3 (6.0-6.3) From (6.0'-6.1') CLAY, CH; dark brown, medium plasticity, moist. Colluvium From (6.1'-6.3') SAND, SP; gray-brown, nonplastic, moist. Alluvium. (6.3) Bottom of hole.						
							6.1 - 6.3 SAND, SP; gray-brown, nonplastic, moist; (Alluvium)		Hard Drilling 6.1'.		
10									Backfilled with; Bentonite Chips (6.3'-0')		
15											

ODOT DRILL LOG 62-U2-P1-HAZMAT.GPJ ODOT_MAN.GDT 09/03/11

DRILL LOG
OREGON DEPARTMENT OF TRANSPORTATION

Project OR62 Corridor Solutions Unit-2 Phase-1		Purpose Level-2 HazMat Investigation		Hole No. HM-U2P1-28							
Highway Crater Lake Hwy No. 22 (OR62)		County Jackson		E.A. No. PE001522							
Hole Location Northing: _____ Easting: _____				Key No. 17188							
Equipment (Geoprobe) Hole Location: East shoulder of Medco Haul Rd.		Driller FSE Wes Harper MW# 10528		Start Card No. _____							
Project Geologist Kenny Camp Reg-3 HazMat Coordinator		Recorder Dan Raker		Bridge No. _____							
Start Date June 6, 2011		End Date June 6, 2011		Ground Elev. 1312.8 ft							
		Total Depth 5.0 ft		Tube Height _____							
Test Type "A" - Advancer "X" - Auger "C" - Core "N" - Standard Penetration Test "U" - Undisturbed Sample "D" - Oversize Split Spoon Sample		Rock Abbreviations <u>Discontinuity</u> J - Joint F - Fault B - Bedding Fo - Foliation S - Shear <u>Shape</u> Pl - Planar C - Curved U - Undulating St - Stepped Ir - Irregular <u>Surface Roughness</u> P - Polished Sl - Slickensided Sm - Smooth R - Rough VR - Very Rough		Typical Drilling Abbreviations <u>Drilling Methods</u> WL - Wire Line HS - Hollow Stem Auger DF - Drill Fluid SA - Solid Auger CA - Casing Advancer HA - Hand Auger <u>Drilling Remarks</u> LW - Lost Water WR - Water Return WC - Water Color DP - Down Pressure DR - Drill Rate DA - Drill Action							
Depth (ft)	Test Type No.	Percent Recovery	Soil Driving Resistance	Rock Discontinuity Data Or RQD%	Percent Natural Moisture	Material Description SOIL: Soil Name, USCS, Color, Plasticity, Moisture, Consistency/Relative Density, Texture, Cementation, Structure, Origin. ROCK: Rock Name, Color, Weathering, Hardness, Discontinuity Spacing, Joint Filling, Core Recovery, Formation Name.	Unit Description	Graphic Log	Drilling Methods, Size and Remarks	Water Level/Date	Backfill/Instrumentation
0	P1	47				P- 1 (0.0-3.0) CLAY, CH; dark brown, medium plasticity, moist. Colluvium. Sample submitted for lab test = 6228 (0'-3')	0.0 - 5.0 CLAY, CH; dark brown, medium plasticity, moist; (Colluvium)		Drilling Method: 1"ID Push Probe (0'-5')		
	P2	100				P- 2 (3.0-5.0) CLAY, CH; dark brown, medium plasticity, moist. Colluvium. Sample submitted for lab test = 6228 (4'-5')			(P-1) PID= 0 Sheen= No Odor= No		
5						(5.0) Bottom of hole.			Backfilled with; Bentonite Chips (5'-0')		
10											
15											

ODOT DRILL LOG 62-U2-P1-HAZMAT.GPJ ODOT_MAN.GDT 09/03/11

DRILL LOG
OREGON DEPARTMENT OF TRANSPORTATION

Project OR62 Corridor Solutions Unit-2 Phase-1		Purpose Level-2 HazMat Investigation	Hole No. HM-U2P1-29
Highway Crater Lake Hwy No. 22 (OR62)		County Jackson	E.A. No. PE001522
Hole Location Northing:		Easting:	
Equipment (Geoprobe) Hole Location: South shoulder of Commerce Dr.		Driller FSE Wes Harper MW# 10528	Start Card No.
Project Geologist Kenny Camp Reg-3 HazMat Coordinator		Recorder Dan Raker	Bridge No.
Start Date June 6, 2011	End Date June 6, 2011	Total Depth 5.0 ft	Ground Elev. 1317.2 ft
			Tube Height

Test Type	Rock Abbreviations			Typical Drilling Abbreviations	
"A" - Advancer	<u>Discontinuity</u>	<u>Shape</u>	<u>Surface Roughness</u>	<u>Drilling Methods</u>	<u>Drilling Remarks</u>
"X" - Auger	J - Joint	PI - Planar	P - Polished	WL - Wire Line	LW - Lost Water
"C" - Core	F - Fault	C - Curved	SI - Slickensided	HS - Hollow Stem Auger	WR - Water Return
"N" - Standard Penetration Test	B - Bedding	U - Undulating	Sm - Smooth	DF - Drill Fluid	WC - Water Color
"U" - Undisturbed Sample	Fo - Foliation	St - Stepped	R - Rough	SA - Solid Auger	DP - Down Pressure
"D" - Oversize Split Spoon Sample	S - Shear	Ir - Irregular	VR - Very Rough	CA - Casing Advancer	DR - Drill Rate
				HA - Hand Auger	DA - Drill Action

Depth (ft)	Test Type No.	Percent Recovery	Soil Driving Resistance	Rock Discontinuity Data Or RQD%	Percent Natural Moisture	Material Description SOIL: Soil Name, USCS, Color, Plasticity, Moisture, Consistency/Relative Density, Texture, Cementation, Structure, Origin. ROCK: Rock Name, Color, Weathering, Hardness, Discontinuity Spacing, Joint Filling, Core Recovery, Formation Name.	Unit Description	Graphic Log	Drilling Methods, Size and Remarks	Water Level/Date	Backfill/Instrumentation	
0	P1	60				P- 1 (0.0-3.0) From (0'-1.7') CLAY with trace sand and gravel, CH; dark brown, medium plasticity, moist. Colluvium. From (1.7'-3') SAND with some gravel and silt, SP-SM; brown, nonplastic, moist. Alluvium. Sample submitted for lab test = 6229 (0'-3')	0.0 - 1.7 CLAY with trace sand and gravel, CH; dark brown, medium plasticity, moist; (Colluvium)		Drilling Method: 1"ID Push Probe (0'-5') (P-1) PID= 0 Sheen= No Odor= No			
	P2	66				P- 2 (3.0-5.0) From (3'-3.4') SAND with some gravel and silt, SP-SM; brown, nonplastic, moist. Bench Gravel. From (3.4'-5') Clayey Sandy GRAVEL, GC; gray-brown, low to medium plasticity, moist. Alluvium. Sample submitted for lab test = 6229 (4'-5')	1.7 - 3.4 SAND with some gravel and silt, SP-SM; brown, nonplastic, moist; (Alluvium) 3.4 - 5.0 Clayey Sandy GRAVEL, GC; gray-brown, low to medium plasticity, moist; (Alluvium)		(P-2) PID= 0 Sheen= No Odor= No			
5						(5.0) Bottom of hole.						
									Backfilled with; Bentonite Chips (5'-0')			
10												
15												

DRILL LOG
OREGON DEPARTMENT OF TRANSPORTATION

Project OR62 Corridor Solutions Unit-2 Phase-1		Purpose Level-2 HazMat Investigation		Hole No. HM-U2P1-30																			
Highway Crater Lake Hwy No. 22 (OR62)		County Jackson		E.A. No. PE001522																			
Hole Location Northing:		Easting:		Start Card No.																			
Equipment (Geoprobe) Hole Location: West shoulder of Medco Haul Rd.		Driller FSE Wes Harper MW# 10528		Bridge No.																			
Project Geologist Kenny Camp Reg-3 HazMat Coordinator		Recorder Dan Raker		Ground Elev. 1325.1 ft																			
Start Date June 6, 2011		End Date June 6, 2011		Total Depth 6.0 ft																			
				Tube Height																			
<u>Test Type</u>			<u>Rock Abbreviations</u>																				
"A" - Advancer "X" - Auger "C" - Core "N" - Standard Penetration Test "U" - Undisturbed Sample "D" - Oversize Split Spoon Sample			<table border="0" style="width: 100%;"> <tr> <td><u>Discontinuity</u></td> <td><u>Shape</u></td> <td><u>Surface Roughness</u></td> </tr> <tr> <td>J - Joint</td> <td>P1 - Planar</td> <td>P - Polished</td> </tr> <tr> <td>F - Fault</td> <td>C - Curved</td> <td>SI - Slickensided</td> </tr> <tr> <td>B - Bedding</td> <td>U - Undulating</td> <td>Sm - Smooth</td> </tr> <tr> <td>Fo - Foliation</td> <td>St - Stepped</td> <td>R - Rough</td> </tr> <tr> <td>S - Shear</td> <td>Ir - Irregular</td> <td>VR - Very Rough</td> </tr> </table>			<u>Discontinuity</u>	<u>Shape</u>	<u>Surface Roughness</u>	J - Joint	P1 - Planar	P - Polished	F - Fault	C - Curved	SI - Slickensided	B - Bedding	U - Undulating	Sm - Smooth	Fo - Foliation	St - Stepped	R - Rough	S - Shear	Ir - Irregular	VR - Very Rough
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Depth (ft)	Test Type No.	Percent Recovery	Soil Driving Resistance	Rock Discontinuity Data Or RQD%	Percent Natural Moisture	<u>Material Description</u> SOIL: Soil Name, USCS, Color, Plasticity, Moisture, Consistency/Relative Density, Texture, Cementation, Structure, Origin. ROCK: Rock Name, Color, Weathering, Hardness, Discontinuity Spacing, Joint Filling, Core Recovery, Formation Name.	<u>Unit Description</u>	Graphic Log	Drilling Methods, Size and Remarks	Water Level/ Date	Backfill/ Instrumentation												
0	P1	60				P- 1 (0.0-3.0) From (0'-0.3') AC. From (0.3'-3.0') Sandy GRAVEL with some silt, GP-GM; brown, nonplastic, damp. Alluvium. Sample submitted for lab test = 6230 (0'-3')	0.0 - 0.3 AC 0.3 - 5.0 Sandy GRAVEL with some silt, GP-GM; brown, nonplastic, damp; (Alluvium)		Drilling Method: 1"ID Push Probe (0'-5') (P-1) PID= 0 Sheen= Slight Odor= No														
	P2	100				P- 2 (3.0-6.0) From (3.0'-5.0') Sandy GRAVEL with some silt, GP-GM; brown, nonplastic, damp. Alluvium. From (5.0'-6.0') MUDSTONE, light brown, slightly weathered, very soft. Eocene Sediments. Sample submitted for lab test = 6230 (4'-5')	5.0 - 6.0 MUDSTONE, light brown, slightly weathered, very soft; (Hornbrook Fm)		(P-2) PID= 0 Sheen= No Odor= No														
5									Bedrock Contact 5'.														
						(6.0) Bottom of hole.			Backfilled with; Bentonite Chip (5'-0.5') AC Cold Mix (0.5'-0')														
10																							
15																							

ODOT DRILL LOG 62-U2-P1-HAZMAT.GPJ ODOT_MAN.GDT 09/03/11

DRILL LOG
OREGON DEPARTMENT OF TRANSPORTATION

Project OR62 Corridor Solutions Unit-2 Phase-1		Purpose Level-2 HazMat Investigation	Hole No. HM-U2P1-31
Highway Crater Lake Hwy No. 22 (OR62)		County Jackson	E.A. No. PE001622
Hole Location Northing:		Easting:	
Equipment (Geoprobe) Hole Location: East shoulder of Medco Haul Rd.		Driller FSE Wes Harper MW# 10528	Key No. 17188
Project Geologist Kenny Camp Reg-3 HazMat Coordinator		Recorder Dan Raker	Start Card No.
Start Date June 6, 2011	End Date June 6, 2011	Total Depth 3.1 ft	Ground Elev. 1334.7 ft
			Tube Height

Test Type	Rock Abbreviations			Typical Drilling Abbreviations	
"A" - Advancer	<u>Discontinuity</u>	<u>Shape</u>	<u>Surface Roughness</u>	<u>Drilling Methods</u>	<u>Drilling Remarks</u>
"X" - Auger	J - Joint	PI - Planar	P - Polished	WL - Wire Line	LW - Lost Water
"C" - Core	F - Fault	C - Curved	SI - Slickensided	HS - Hollow Stem Auger	WR - Water Return
"N" - Standard Penetration Test	B - Bedding	U - Undulating	Sm - Smooth	DF - Drill Fluid	WC - Water Color
"U" - Undisturbed Sample	Fo - Foliation	St - Stepped	R - Rough	SA - Solid Auger	DP - Down Pressure
"D" - Oversize Split Spoon Sample	S - Shear	Ir - Irregular	VR - Very Rough	CA - Casing Advancer	DR - Drill Rate
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Depth (ft)	Test Type, No.	Percent Recovery	Soil Driving Resistance	Rock Discontinuity Data Or RQD%	Percent Natural Moisture	Material Description SOIL: Soil Name, USCS, Color, Plasticity, Moisture, Consistency/Relative Density, Texture, Cementation, Structure, Origin. ROCK: Rock Name, Color, Weathering, Hardness, Discontinuity Spacing, Joint Filling, Core Recovery, Formation Name.	Unit Description	Graphic Log	Drilling Methods, Size and Remarks	Water Level/ Date	Backfill/ Instrumentation
0	P60					P- 60 (0.0-3.0) From (0'-0.4') AC From (0.4'-1.0') Base Rock From (1.0'-2.8') CLAY, CH; dark brown, medium plasticity, moist. Colluvium. From (2.8'-3.0') Sandy GRAVEL with some silt, GP-GM; brown, nonplastic, damp. Alluvium. Sample submitted for lab test = 6231 (0'-3')	0.0 - 0.4 AC 0.4 - 1.0 Base Rack 1.0 - 2.8 CLAY, CH; dark brown, medium plasticity, moist; (Colluvium) 2.8 - 3.1 Sandy GRAVEL with some silt, GP-GM; brown, nonplastic, damp; (Alluvium)		Drilling Method: 1"ID Push Probe (0'-3.1') (P-1) PID= 0 Sheen= Slight Odor= No Drilling refusal at 3.1'.		
	P100					P- 100 (3.0-3.1) Sandy GRAVEL with some silt, GP-GM; brown, nonplastic, damp. Alluvium. (3.1) Bottom of hole.			Backfilled with; Bentonite Chip (3.1'-0.5') AC Cold Mix (0.5'-0')		
5											
10											
15											

ODOT DRILL LOG 62-U2-P1-HAZMAT.GPJ ODOT_MAN.GDT 09/03/11

DRILL LOG
OREGON DEPARTMENT OF TRANSPORTATION

Project OR62 Corridor Solutions Unit-2 Phase-1		Purpose Level-2 HazMat Investigation	Hole No. HM-U2P1-32
Highway Crater Lake Hwy No. 22 (OR62)		County Jackson	E.A. No. PE001522
Hole Location Northing: _____ Easting: _____		Key No. 17188	
Equipment (Geoprobe) Hole Location: West of Sportsman Warehouse pond		Driller FSE Wes Harper MW# 10528	Start Card No. _____
Project Geologist Kenny Camp Reg-3 HazMat Coordinator		Recorder Dan Raker	Bridge No. _____
Start Date June 6, 2011	End Date June 6, 2011	Total Depth 10.0 ft	Ground Elev. 1341.4 ft
			Tube Height _____

Test Type	Rock Abbreviations			Typical Drilling Abbreviations		
"A" - Advancer	<u>Discontinuity</u>	<u>Shape</u>	<u>Surface Roughness</u>	<u>Drilling Methods</u>	<u>Drilling Remarks</u>	
"X" - Auger	J - Joint	Pl - Planar	P - Polished	WL - Wire Line	LW - Lost Water	
"C" - Core	F - Fault	C - Curved	Sl - Slickensided	HS - Hollow Stem Auger	WR - Water Return	
"N" - Standard Penetration Test	B - Bedding	U - Undulating	Sm - Smooth	DF - Drill Fluid	WC - Water Color	
"U" - Undisturbed Sample	Fo - Foliation	St - Stepped	R - Rough	SA - Solid Auger	DP - Down Pressure	
"D" - Oversize Split Spoon Sample	S - Shear	Ir - Irregular	VR - Very Rough	CA - Casing Advancer	DR - Drill Rate	
				HA - Hand Auger	DA - Drill Action	

Depth (ft)	Test Type No.	Percent Recovery	Soil Driving Resistance	Rock Discontinuity Data Or RQD%	Percent Natural Moisture	Material Description SOIL: Soil Name, USCS, Color, Plasticity, Moisture, Consistency/Relative Density, Texture, Cementation, Structure, Origin. ROCK: Rock Name, Color, Weathering, Hardness, Discontinuity Spacing, Joint Filling, Core Recovery, Formation Name.	Unit Description	Graphic Log	Drilling Methods, Size and Remarks	Water Level/Date	Backfill/Instrumentation
0	P1	60				P- 1 (0.0-3.0) Clayey SAND with trace gravel, SC; light brown, low plasticity, moist. Alluvium.	0.0 - 2.5 Clayey SAND with trace gravel, SC; light brown, low plasticity, moist; (Alluvium)		Drilling Method: 1"ID Push Probe (0'-10') (P-1) PID= 0 Sheen= No Odor= No		
	P2	40				P- 2 (3.0-6.0) Gravelly SAND with trace silt, SP; light brown, nonplastic. Alluvium. Sample submitted for lab test = 6232 (3'-6')	2.5 - 5.5 Gravelly SAND with trace silt, SP; light brown, nonplastic; (Alluvium)		(P-2) PID= 0 Sheen= No Odor= No		
5	P3	100				P- 3 (6.0-9.0) CLAY, CL; light gray, low to medium plasticity, moist. Alluvium.	5.5 - 10.0 CLAY, CL; light gray, low to medium plasticity, moist; (Alluvium)		(P-3) PID= 0 Sheen= No Odor= No		
	P4	100				P- 4 (9.0-10.0) CLAY, CL; light gray, low to medium plasticity, moist. Alluvium.			(P-4) PID= 0 Sheen= No Odor= No		
10						(10.0) Bottom of hole.			Drilling refusal at 10'		
15									Backfilled with; Bentonite Chips (10'-0')		

ODOT DRILL LOG 62-U2-P1-HAZMAT.GPJ ODOT_MAN.GDT 09/03/11

DRILL LOG
OREGON DEPARTMENT OF TRANSPORTATION

Project OR62 Corridor Solutions Unit-2 Phase-1		Purpose Level-2 HazMat Investigation	Hole No. HM-U2P1-33
Highway Crater Lake Hwy No. 22 (OR62)		County Jackson	E.A. No. PE001522
Hole Location Northing: _____ Easting: _____			Key No. 17188
Equipment (Geoprobe) Hole Location: NW Bank of Lone Pine Cr Canal		Driller FSE Wes Harper MW# 10528	Start Card No. _____
Project Geologist Kenny Camp Reg-3 HazMat Coordinator		Recorder Dan Raker	Bridge No. _____
Start Date June 6, 2011	End Date June 6, 2011	Total Depth 4.0 ft	Ground Elev. 1330.9 ft
			Tube Height _____

Test Type	Rock Abbreviations	Typical Drilling Abbreviations
"A" - Advancer	<u>Discontinuity</u>	<u>Drilling Methods</u>
"X" - Auger	J - Joint	WL - Wire Line
"C" - Core	F - Fault	HS - Hollow Stem Auger
"N" - Standard Penetration Test	B - Bedding	DF - Drill Fluid
"U" - Undisturbed Sample	Fo - Foliation	SA - Solid Auger
"D" - Oversize Split Spoon Sample	S - Shear	CA - Casing Advancer
		HA - Hand Auger
	<u>Shape</u>	<u>Drilling Remarks</u>
	PI - Planar	LW - Lost Water
	C - Curved	WR - Water Return
	U - Undulating	WC - Water Color
	St - Stepped	DP - Down Pressure
	Ir - Irregular	DR - Drill Rate
		DA - Drill Action

Depth (ft)	Test Type No.	Percent Recovery	Soil Driving Resistance	Rock Discontinuity Data Or RQD%	Percent Natural Moisture	Material Description	Unit Description	Graphic Log	Drilling Methods, Size and Remarks	Water Level/Date	Backfill/Instrumentation
0	P1	60				P- 1 (0.0-3.0) CLAY with some sand, CH; dark brown, medium plasticity, moist. Colluvium. Sample submitted for lab test = 6233 (0'-3')	0.0 - 3.4 CLAY with some sand, CH; dark brown, medium plasticity, moist; (Colluvium)		Drilling Method: 1"ID Push Probe (0'-4') (P-1) PID= 0 Sheen= No Odor= No		
	P2	100				P- 2 (3.0-4.0) From (3.0'-3.4') CLAY with some sand, CH; dark brown, medium plasticity, moist. Colluvium. From (3.4'-3.7') Quartzite GRAVEL with some sand, light gray to brown, nonplastic, moist, Alluvium. From (3.4'-3.7') MUDSTONE, light brown, slightly weathered, very soft. Hornbrook Formation. (4.0) Bottom of hole.	3.4 - 3.7 Quartzite GRAVEL with some sand, light gray to brown, nonplastic, moist; (Alluvium) 3.7 - 4.0 MUDSTONE, light brown, slightly weathered, very soft. (Hornbrook Fm)		← Bedrock Contact 3.7'		
5									Backfilled with; Bentonite Chips (4'-0')		
10											
15											

ODOT DRILL LOG 62-U2-P1-HAZMAT.GPJ_ODOT_MAN.GDT 09/03/11

DRILL LOG
OREGON DEPARTMENT OF TRANSPORTATION

Project OR62 Corridor Solutions Unit-2 Phase-1		Purpose Level-2 HazMat Investigation	Hole No. HM-U2P1-34
Highway Crater Lake Hwy No. 22 (OR62)		County Jackson	E.A. No. PE001522
Hole Location Northing: _____ Easting: _____			Key No. 17188
Equipment (Geoprobe) Hole Location: NE Bank of Lone Pine Cr Canal		Driller FSE Wes Harper MW# 10528	Start Card No. _____
Project Geologist Kenny Camp Reg-3 HazMat Coordinator		Recorder Dan Raker	Bridge No. _____
Start Date June 6, 2011	End Date June 6, 2011	Total Depth 5.3 ft	Ground Elev. 1331.9 ft
			Tube Height _____

Test Type	Rock Abbreviations			Typical Drilling Abbreviations	
"A" - Advancer	<u>Discontinuity</u>	<u>Shape</u>	<u>Surface Roughness</u>	<u>Drilling Methods</u>	<u>Drilling Remarks</u>
"X" - Auger	J - Joint	Pl - Planar	P - Polished	WL - Wire Line	LW - Lost Water
"C" - Core	F - Fault	C - Curved	Sl - Slickensided	HS - Hollow Stem Auger	WR - Water Return
"N" - Standard Penetration Test	B - Bedding	U - Undulating	Sm - Smooth	DF - Drill Fluid	WC - Water Color
"U" - Undisturbed Sample	Fo - Foliation	St - Stepped	R - Rough	SA - Solid Auger	DP - Down Pressure
"D" - Oversize Split Spoon Sample	S - Shear	Ir - Irregular	VR - Very Rough	CA - Casing Advancer	DR - Drill Rate
				HA - Hand Auger	DA - Drill Action

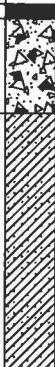







Depth (ft)	Test Type No.	Percent Recovery	Soil Driving Resistance	Rock Discontinuity Data Or RQD%	Percent Natural Moisture	Material Description SOIL: Soil Name, USCS, Color, Plasticity, Moisture, Consistency/Relative Density, Texture, Cementation, Structure, Origin. ROCK: Rock Name, Color, Weathering, Hardness, Discontinuity Spacing, Joint Filling, Core Recovery, Formation Name.	Unit Description	Graphic Log	Drilling Methods, Size and Remarks	Water Level/Date	Backfill/Instrumentation
0	P1	93				P- 1 (0.0-3.0) CLAY with some sand, CH; dark brown, medium plasticity, moist. Colluvium. Sample submitted for lab test = 6234 (0'-3')	0.0 - 3.1 CLAY with some sand, CH; dark brown, medium plasticity, moist; (Colluvium)		Drilling Method: 1"ID Push Probe (0'-5.3') (P-1) PID= 0 Sheen= No Odor= No		
	P2	87				P- 2 (3.0-5.3) From (3.0'-3.1') CLAY with some sand, CH; dark brown, medium plasticity, moist. Colluvium. From (3.1'-3.6') Quartzite GRAVEL with some sand, light gray to brown, nonplastic, moist. Alluvium. From (3.6'-5.3') MUDSTONE, light brown, moderately weathered, very soft. Hornbrook Formation. Sample submitted for lab test = 6234 (3'-4') (5.3) Bottom of hole.	3.1 - 3.6 Quartzite GRAVEL with some sand, light gray to brown, nonplastic, moist; (Alluvium) 3.6 - 5.3 MUDSTONE, light brown, moderately weathered, very soft; (Hornbrook Fm)		(P-2) PID= 0 Sheen= No Odor= No ← Bedrock Contact 3.6'		
5									Backfilled with; Bentonite Chips (5.3'-0')		
10											
15											

ODOT DRILL LOG 62-U2-P1-HAZMAT.GPJ_ODOT_MAN.GDT 09/03/11

DRILL LOG
OREGON DEPARTMENT OF TRANSPORTATION

Project OR62 Corridor Solutions Unit-2 Phase-1		Purpose Level-2 HazMat Investigation	Hole No. HM-U2P1-35
Highway Crater Lake Hwy No. 22 (OR62)		County Jackson	E.A. No. PE001522
Hole Location Northing: _____ Easting: _____		Start Card No. _____	
Equipment (Geoprobe) Hole Location: On Medco Haul Rd.		Driller FSE Wes Harper MW# 10528	Bridge No. _____
Project Geologist Kenny Camp Reg-3 HazMat Coordinator		Recorder Dan Raker	Ground Elev. 1335.0 ft
Start Date June 6, 2011	End Date June 6, 2011	Total Depth 12.0 ft	Tube Height _____

Test Type	Rock Abbreviations			Typical Drilling Abbreviations	
"A" - Advancer	<u>Discontinuity</u>	<u>Shape</u>	<u>Surface Roughness</u>	<u>Drilling Methods</u>	<u>Drilling Remarks</u>
"X" - Auger	J - Joint	Pl - Planar	P - Polished	WL - Wire Line	LW - Lost Water
"C" - Core	F - Fault	C - Curved	Sl - Slickensided	HS - Hollow Stem Auger	WR - Water Return
"N" - Standard Penetration Test	B - Bedding	U - Undulating	Sm - Smooth	DF - Drill Fluid	WC - Water Color
"U" - Undisturbed Sample	Fo - Foliation	St - Stepped	R - Rough	SA - Solid Auger	DP - Down Pressure
"D" - Oversize Split Spoon Sample	S - Shear	Ir - Irregular	VR - Very Rough	CA - Casing Advancer	DR - Drill Rate
				HA - Hand Auger	DA - Drill Action

Depth (ft)	Test Type No.	Percent Recovery	Soil Driving Resistance	Rock Discontinuity Data Or RQD%	Percent Natural Moisture	Material Description	Unit Description	Graphic Log	Drilling Methods, Size and Remarks	Water Level/ Date	Backfill/ Instrumentation	
												SOIL: Soil Name, USCS, Color, Plasticity, Moisture, Consistency/Relative Density, Texture, Cementation, Structure, Origin.
0	P1	57				P- 1 (0.0-3.0) From (0'-0.2') AC From (0.2'-1.5') Base Rock From (1.5'-3.0') Sandy GRAVEL with some silt, GP; brown, nonplastic, damp. Fill. Sample submitted for lab test = 6235 (0'-3')	0.0 - 0.2 AC 0.2 - 1.5 Base Rock 1.5 - 5.0 Sandy CLAY, CL; brown, medium plasticity, moist; (Alluvium)		Drilling Method: 1"ID Push Probe (0'-12') (P-1) PID= 0 Sheen= Yes Odor= Yes			
	P2	67				P- 2 (3.0-6.0) Sandy CLAY, CL; brown, medium plasticity, moist. Alluvium. Sample submitted for lab test = 6235 (3'-6')			(P-2) PID= 0 Sheen= No Odor= No			
5	P3	100				P- 3 (6.0-9.0) Sandy SILT with trace clay, ML; light brown, low plasticity, moist. Alluvium. Sample submitted for lab test = 6235 (6'-9')	5.0 - 12.0 Sandy SILT with trace clay, ML; light brown, low plasticity, moist; (Alluvium)		(P-3) PID= 0 Sheen= No Odor= No			
	P4	100				P- 4 (9.0-12.0) Sandy SILT with trace clay, ML; light brown, low plasticity, moist. Alluvium.			(P-4) PID= 0 Sheen= No Odor= No			
10						(12.0) Bottom of hole.						
15									Backfilled with; Bentonite Chip (12'-0.5') AC Cold Mix (0.5'-0')			

ODOT DRILL LOG 62-U2-P1-HAZMAT.GPJ ODOT_MAN.GDT 09/03/11

DRILL LOG
OREGON DEPARTMENT OF TRANSPORTATION

Project OR62 Corridor Solutions Unit-2 Phase-1		Purpose Level-2 HazMat Investigation		Hole No. HM-U2P1-36																																	
Highway Crater Lake Hwy No. 22 (OR62)		County Jackson		E.A. No. PE001522																																	
Hole Location Northing:		Easting:		Key No. 17188																																	
Equipment (Geoprobe) Hole Location: North shoulder of Hwy 62.		Driller FSE Wes Harper MW# 10528		Start Card No.																																	
Project Geologist Kenny Camp Reg-3 HazMat Coordinator		Recorder Dan Raker		Bridge No.																																	
Start Date June 6, 2011		End Date June 6, 2011		Ground Elev. 1331.8 ft																																	
		Total Depth 8.0 ft		Tube Height																																	
<p style="text-align: center;"><u>Test Type</u></p> "A" - Advancer "X" - Auger "C" - Core "N" - Standard Penetration Test "U" - Undisturbed Sample "D" - Oversize Split Spoon Sample		<p style="text-align: center;"><u>Rock Abbreviations</u></p> <table style="width: 100%; border: none;"> <tr> <td style="border: none;"><u>Discontinuity</u></td> <td style="border: none;"><u>Shape</u></td> <td style="border: none;"><u>Surface Roughness</u></td> </tr> <tr> <td style="border: none;">J - Joint</td> <td style="border: none;">Pl - Planar</td> <td style="border: none;">P - Polished</td> </tr> <tr> <td style="border: none;">F - Fault</td> <td style="border: none;">C - Curved</td> <td style="border: none;">Sl - Slickensided</td> </tr> <tr> <td style="border: none;">B - Bedding</td> <td style="border: none;">U - Undulating</td> <td style="border: none;">Sm - Smooth</td> </tr> <tr> <td style="border: none;">Fo - Foliation</td> <td style="border: none;">St - Stepped</td> <td style="border: none;">R - Rough</td> </tr> <tr> <td style="border: none;">S - Shear</td> <td style="border: none;">Ir - Irregular</td> <td style="border: none;">VR - Very Rough</td> </tr> </table>		<u>Discontinuity</u>	<u>Shape</u>	<u>Surface Roughness</u>	J - Joint	Pl - Planar	P - Polished	F - Fault	C - Curved	Sl - Slickensided	B - Bedding	U - Undulating	Sm - Smooth	Fo - Foliation	St - Stepped	R - Rough	S - Shear	Ir - Irregular	VR - Very Rough	<p style="text-align: center;"><u>Typical Drilling Abbreviations</u></p> <table style="width: 100%; border: none;"> <tr> <td style="border: none;"><u>Drilling Methods</u></td> <td style="border: none;"><u>Drilling Remarks</u></td> </tr> <tr> <td style="border: none;">WL - Wire Line</td> <td style="border: none;">LW - Lost Water</td> </tr> <tr> <td style="border: none;">HS - Hollow Stem Auger</td> <td style="border: none;">WR - Water Return</td> </tr> <tr> <td style="border: none;">DF - Drill Fluid</td> <td style="border: none;">WC - Water Color</td> </tr> <tr> <td style="border: none;">SA - Solid Auger</td> <td style="border: none;">DP - Down Pressure</td> </tr> <tr> <td style="border: none;">CA - Casing Advancer</td> <td style="border: none;">DR - Drill Rate</td> </tr> <tr> <td style="border: none;">HA - Hand Auger</td> <td style="border: none;">DA - Drill Action</td> </tr> </table>		<u>Drilling Methods</u>	<u>Drilling Remarks</u>	WL - Wire Line	LW - Lost Water	HS - Hollow Stem Auger	WR - Water Return	DF - Drill Fluid	WC - Water Color	SA - Solid Auger	DP - Down Pressure	CA - Casing Advancer	DR - Drill Rate	HA - Hand Auger	DA - Drill Action
<u>Discontinuity</u>	<u>Shape</u>	<u>Surface Roughness</u>																																			
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Depth (ft)	Test Type No.	Percent Recovery	Soil Driving Resistance	Rock Discontinuity Data Or RQD%	Material Description	Unit Description	Graphic Log	Drilling Methods, Size and Remarks	Water Level/Date	Backfill/Instrumentation																											
0	P1	50			P- 1 (0.0-3.0) From (0'-0.5') AC From (0.2'-3.0') Base Rock Sample submitted for lab test = 6236 (0'-3')	0.0 - 0.5 AC 0.5 - 3.0 Base Rock		Drilling Method: 1"ID Push Probe (0'-8') (P-1) PID= 0 Sheen= No Odor= No																													
	P2	100			P- 2 (3.0-6.0) Clayey SAND, SC; tan, low plasticity, moist. Alluvium. Sample submitted for lab test = 6236 (4'-5')	3.0 - 8.0 Clayey SAND, SC; tan, low plasticity, moist; (Alluvium)		(P-2) PID= 0 Sheen= No Odor= No																													
5	P3	100			P- 3 (6.0-8.0) Clayey SAND, SC; tan, low plasticity, moist. Alluvium.			(P-3) PID= 0 Sheen= No Odor= No																													
					(8.0) Bottom of hole.			Drilling refusal at 8'																													
								Backfilled with; Bentonite Chip (8'-0.5') AC Cold Mix (0.5'-0')																													
10																																					
15																																					

ODOT DRILL LOG 62-U2-P1-HAZMAT.GPJ_ODOT_MAN.GDT 09/03/11

Appendix E
Laboratory Analytical Data

State of Oregon Sample Chain of Custody

Agency, Authorized Purchaser or Agent: ODOT Send Lab Report To: ODOT 3500 Stewart Parkway Roseburg, Oregon 97470 Tel. #: _____ E-mail: _____	Contract Laboratory Name: PACE Lab Batch #: _____ Invoice To: _____ Address: SAME Tel. #: _____	Lab Selection Criteria: <input type="checkbox"/> Proximity (if TAT < 72 hrs) <input type="checkbox"/> Prior work on same project <input checked="" type="checkbox"/> Cost (for anticipated analyses) <input type="checkbox"/> Other labs disqualified or unable to perform requested services <input type="checkbox"/> Emergency work	Turn Around Time: <input checked="" type="checkbox"/> 10 days (std.) <input type="checkbox"/> 5 days <input type="checkbox"/> 72 hours <input type="checkbox"/> 48 hours <input type="checkbox"/> 24 hours <input type="checkbox"/> Other
---	---	---	--

Project Name:	Sample ID#		Collection Date/Time	Kenny Camp Matrix	Number of Containers	Requested Analyses		Comments
	Sampler Name:	Sample ID#				Requested Analyses	Requested Analyses	
Hwy 62 Phase-1	Stock Pile	62-2-3 C/L	8:50 6/7	Soil	1			
	Stockpile	62-2-4 N	8:52 6/7	"	1			
		62-01 0-3 BGL	12:50 6/6	"	1		X	
		62-01 3'-5.5 BGL	12:55 6/6	"	1			
		62-01 B 0'-3 BGL	1:57 6/6	"	1			
		62-01 B 4'-5' BGL	2:02 6/6	"	1			
		62-01 B 5'-6' BGL	2:02 6/6	"	1			
		62-01 C 0'-3 BGL	2:18 6/6	"	1			
		62-02 0-3 BGL	1:12 6/6	"	1			
		62-02 B 0-3 BGL	2:45 6/6	"	1		X	
		62-03 1-2 BGL	3:16 6/6	"	1			
		62-03 2-3 BGL	3:16 6/6	"	1			

Notes:

Relinquished By: _____ Agency/Agent: _____ Received By: _____ Agency/Agent: _____

Signature: _____ Time & Date: _____ Signature: _____ Time & Date: _____

Relinquished By: _____ Agency/Agent: _____ Received By: _____ Agency/Agent: _____

Signature: _____ Time & Date: _____ Signature: _____ Time & Date: _____

State of Oregon Sample Chain of Custody

Agency, Authorized Purchaser or Agent: ODOT		Contract Laboratory Name: PACE		Lab Selection Criteria: <input type="checkbox"/> Proximity (if TAT < 72 hrs) <input type="checkbox"/> Prior work on same project <input checked="" type="checkbox"/> Cost (for anticipated analyses) <input type="checkbox"/> Other labs disqualified or unable to perform requested services <input type="checkbox"/> Emergency work		Turn Around Time: <input checked="" type="checkbox"/> 10 days (std.) <input type="checkbox"/> 5 days <input type="checkbox"/> 72 hours <input type="checkbox"/> 48 hours <input type="checkbox"/> 24 hours <input type="checkbox"/> Other	
Send Lab Report To: ODOT 3500 Stewart Parkway Roseburg, Oregon 97470		Lab Batch #: Invoice To:		Address: SAME		Tel. #:	
Project Name: Hwy 62 Phase-1		Sample Preservative		Requested Analyses		Comments	
Sampler Name:	Sample ID#	Collection Date/Time	Kenny Camp Matrix	Number of Containers	Notes	Requested Analyses	Comments
6203	3'-6" B6L	3:21 6/6	Soil	1	MUTPH X Hold	5102 8270 Fall list Herbicide B151 8081	
6203	6'-6.5" B6L	3:25 6/6	"	1	X		
6204	0'-2" B6L	1:35 6/6	"	1	X		
6205	0'-3" B6L	4:07 6/6	"	1	X		
6205	4'-5" B6L	4:12 6/6	"	1	X		
6205	5'-6" B6L	4:12 6/6	"	1	X		
6205	8'-9" B6L	4:16 6/6	"	1	X		
6206	1'-2" B6L	12:38 6/7	"	1	X		
6206	2'-3" B6L	12:28 6/7	"	1	X		
6207	0'-2.5" B6L	12:40 6/7	"	1	X		
6208	0'-3" B6L	12:55 6/7	"	1	X		
6208	4'-5" B6L	1:01 6/7	"	1	X		
Notes:							
Relinquished By:				Received By:		Agency/Agent:	
Signature:				Signature:		Time & Date:	
Relinquished By:				Received By:		Agency/Agent:	
Signature:				Signature:		Time & Date:	

State of Oregon Sample Chain of Custody

Agency, Authorized Purchaser or Agent: ODOT		Contract Laboratory Name: PACE		Lab Selection Criteria: <input type="checkbox"/> Proximity (if TAT < 72 hrs) <input type="checkbox"/> Prior work on same project <input checked="" type="checkbox"/> Cost (for anticipated analyses) <input type="checkbox"/> Other labs disqualified or unable to perform requested services <input type="checkbox"/> Emergency work		Turn Around Time: <input checked="" type="checkbox"/> 10 days (std.) <input type="checkbox"/> 5 days <input type="checkbox"/> 72 hours <input type="checkbox"/> 48 hours <input type="checkbox"/> 24 hours <input type="checkbox"/> Other	
Send Lab Report To: ODOT 3500 Stewart Parkway Roseburg, Oregon 97470		Lab Batch #: Invoice To: SAME		Address: SAME		Tel. #: 8	
Project Name: Hwy 62 Phase-1		Sample Preservative					
Sampler Name:		Kenny Camp		Requested Analyses		Comments	
Sample ID#	Collection Date/Time	Matrix	Number of Containers				
6209 0-3 BGL	1:19 6/7	Soil	1				
6209 3-4 BGL	1:23 6/7	"	1				
6210 0-3 BGL	1:49 6/7	"	1				
6210 3-4 BGL	1:57 6/7	"	1				
6211 0-3 BGL	2:09 6/7	"	1				
6211 4"-5" BGL	2:15 6/7	"	1				
6212 0-3 BGL	2:49 6/7	"	1				
6212 3"-4.3 BGL	2:52 6/7	"	1				
6213 0-3 BGL	2:39 6/7	"	1				
6213 4"-5 BGL	2:36 6/7	"	1				
6213 5"-6 BGL	2:36 6/7	"	1				
Notes:							
Relinquished By:		Agency/Agent:		Received By:		Agency/Agent:	
Signature:		Time & Date:		Signature:		Time & Date:	
Relinquished By:		Agency/Agent:		Received By:		Agency/Agent:	
Signature:		Time & Date:		Signature:		Time & Date:	

Page - 4

State of Oregon Sample Chain of Custody

Agency, Authorized Purchaser or Agent: ODOT 3500 Stewart Parkway Roseburg, Oregon 97470		Contract Laboratory Name: PACE		Turn Around Time: <input checked="" type="checkbox"/> 10 days (std.) <input type="checkbox"/> 5 days <input type="checkbox"/> 72 hours <input type="checkbox"/> 48 hours <input type="checkbox"/> 24 hours <input type="checkbox"/> Other	
Send Lab Report To: ODOT Address: Tel. #: E-mail:		Lab Selection Criteria: <input type="checkbox"/> Proximity (if TAT < 72 hrs) <input type="checkbox"/> Prior work on same project <input checked="" type="checkbox"/> Cost (for anticipated analyses) <input type="checkbox"/> Other labs disqualified or unable to perform requested services <input type="checkbox"/> Emergency work			
Lab Report To: Address: SAME Tel. #:		Lab Batch #: Invoice To:			

Sampler Name:	Sample ID#	Collection Date/Time	Matrix	Kenny Camp Number of Containers	Sample Preservative		Requested Analyses	Comments
6214	0-3' BGL	4:42 6/6	S.L.	1				
6214	4-5' BGL	4:44 6/6	"	"				
6214	5-6' DGL	4:44 6/6	"	"				
6214	8-9' BGL	4:49 6/6	"	"				
6215	0-3' BGL	7:59 6/8	"	"				
6215	3-4'5 BGL	8:05 6/8	"	"				
6216	0-3' BGL	11:13 6/7	"	"				
6216	5-6' BGL	11:17 6/7	"	"				
6216	7-8' BGL	11:19 6/7	"	"				
6217	2-3 BGL	8:15 6/8	"	"				
6217	4-5 BGL	8:18 6/8	"	"				
6218	3-6 BGL	8:21 6/8	"	"				

Notes:

Relinquished By: _____ Agency/Agent: _____ Received By: _____ Agency/Agent: _____

Signature: _____ Time & Date: _____ Signature: _____ Time & Date: _____

Relinquished By: _____ Agency/Agent: _____ Received By: _____ Agency/Agent: _____

Signature: _____ Time & Date: _____ Signature: _____ Time & Date: _____

State of Oregon Sample Chain of Custody

Agency, Authorized Purchaser or Agent: ODOT		Contract Laboratory Name: PACE		Lab Selection Criteria: <input type="checkbox"/> Proximity (if TAT < 72 hrs) <input type="checkbox"/> Prior work on same project <input checked="" type="checkbox"/> Cost (for anticipated analyses) <input type="checkbox"/> Other labs disqualified or unable to perform requested services <input type="checkbox"/> Emergency work		Turn Around Time: <input checked="" type="checkbox"/> 10 days (std.) <input type="checkbox"/> 5 days <input type="checkbox"/> 72 hours <input type="checkbox"/> 48 hours <input type="checkbox"/> 24 hours <input type="checkbox"/> Other	
Send Lab Report To - ODOT Address: 3500 Stewart Parkway Roseburg, Oregon 97470 Tel. #: _____ E-mail: _____		Lab Batch #: Invoice To: _____ Address: SAME Tel. #: _____		Sample Preservative			
Project Name: hwy 62 Phase-1		Requested Analyses					
Sampler Name:		Kenny Camp		Comments			
Sample ID#	Collection Date/Time	Matrix	Number of Containers				
6218 7-8' B6L	8:37 6/8	Sol	1	X			
6219 0-3 B6L	8:48 6/8	"	1	X			
6219 3'-6 B6L	8:51 6/8	"	1	X			
6220 0-3 B6L	10:30 6/7	"	1	X			
6220 5-6 B6L	10:33 6/7	"	1	X			
6220 8-9 B6L	10:35 6/7	"	1	X			
6221 0-3 B6L	9:05 6/8	"	1	X			
6221 3-4.3 B6L	9:08 6/8	"	1	X			
6222 0-3 B6L	9:50 6/7	"	1	X			
6222 4-5 B6L	9:59 6/7	"	1	X			
6222 5-6 B6L	9:59 6/7	"	1	X			
6222 11'-12' B6L	10:05 6/7	"	1	X			
Notes:							
Relinquished By:		Agency/Agent:		Received By:		Agency/Agent:	
Signature:		Time & Date:		Signature:		Time & Date:	
Relinquished By:		Agency/Agent:		Received By:		Agency/Agent:	
Signature:		Time & Date:		Signature:		Time & Date:	

State of Oregon Sample Chain of Custody

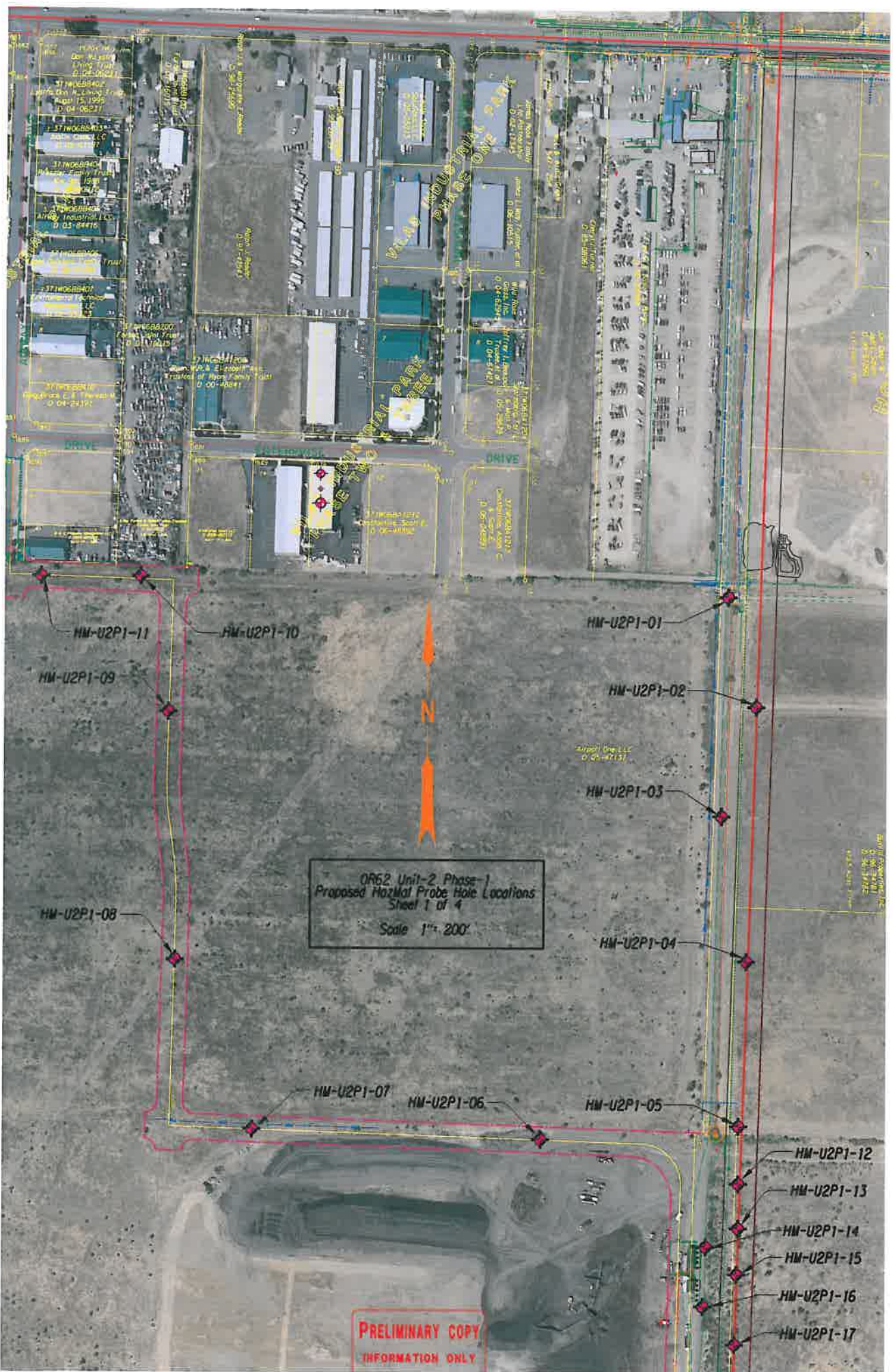
Agency, Authorized Purchaser or Agent: ODOT		Contract Laboratory Name: PACE		Lab Selection Criteria: <input type="checkbox"/> Proximity (if TAT < 72 hrs) <input type="checkbox"/> Prior work on same project <input checked="" type="checkbox"/> Cost (for anticipated analyses) <input type="checkbox"/> Other labs disqualified or unable to perform requested services <input type="checkbox"/> Emergency work		Turn Around Time: <input checked="" type="checkbox"/> 10 days (std.) <input type="checkbox"/> 5 days <input type="checkbox"/> 72 hours <input type="checkbox"/> 48 hours <input type="checkbox"/> 24 hours <input type="checkbox"/> Other	
Send Lab Report To: ODOT Address: 3500 Stewart Parkway Roseburg, Oregon 97470 Tel. #: _____ E-mail: _____		Lab Batch #: Invoice To: SAME Address: _____ Tel. #: _____		Sample Preservative			
Project Name: hwy 62 Phase-1		Requested Analyses					
Sampler Name: Kenny Camp		Collection Date/Time		Matrix		Number of Containers	
Sample ID#		Collection Date/Time		Matrix		Number of Containers	
62223	0-3 B6L	7:46	6/7	SuL			1
62223	6-9 B6L	9:22	6/7	"			1
62224	3'-4 B6L	8:35	6/7	"			1
62224	5'-6.5 B6L	8:55	6/7	"			1
62225	0-3 B6L	8:07	6/7	"			1
62225	3'-5 B6L	8:14	6/7	"			1
62226	0-3 B6L	7:34	6/7	"			1
62226	5-6 B6L	7:39	6/7	"			1
62227	0-3 B6L	7:18	6/7	"			1
62227	4-5 B6L	7:23	6/7	"			1
62227	5-6 B6L	7:20	6/7	"			1
Notes:							
Relinquished By:		Agency/Agent:		Received By:		Agency/Agent:	
Signature:		Time & Date:		Signature:		Time & Date:	
Relinquished By:		Agency/Agent:		Received By:		Agency/Agent:	
Signature:		Time & Date:		Signature:		Time & Date:	

State of Oregon Sample Chain of Custody

Agency, Authorized Purchaser or Agent: ODOT		Contract Laboratory Name: PACE		Lab Selection Criteria: <input type="checkbox"/> Proximity (if TAT < 72 hrs) <input type="checkbox"/> Prior work on same project		Turn Around Time: <input checked="" type="checkbox"/> 10 days (std.) <input type="checkbox"/> 5 days	
Sand Lab Report To: ODOT Address: 3500 Stewart Parkway Roseburg, Oregon 97470		Lab Batch #: Invoice To: SAME		<input checked="" type="checkbox"/> Cost (for anticipated analyses) <input type="checkbox"/> Other labs disqualified or unable to perform requested services <input type="checkbox"/> Emergency work		<input type="checkbox"/> 72 hours <input type="checkbox"/> 48 hours <input type="checkbox"/> 24 hours <input type="checkbox"/> Other	
Project Name: Hwy 62 Phase-1		Address: Tel. #:		Sample Preservative			
Sampler Name: Sample ID#		Collection Matrix Date/Time		Number of Containers		Requested Analyses	
62228 0-3 B6L		11:04 6/6		1		X Notes:	
62228 4-5 B6L		11:11 6/6		1		X Notes:	
62229 0-3 B6L		11:25 6/6		1		X Notes:	
62229 4-5 B6L		11:30 6/6		1		X Notes:	
62230 0-3 B6L		10:36 6/6		1		X Notes:	
62230 4-5 B6L		10:45 6/6		1		X Notes:	
62231 0-3 B6L		9:55 6/6		1		X Notes:	
62232 3-6 B6L		9:18 6/6		1		X Notes:	
62233 0-3 B6L		8:51 6/6		1		X Notes:	
62234 0-3 B6L		8:24 6/6		1		X Notes:	
62234 3-4 B6L		8:30 6/6		1		X Notes:	
62235 0-3 B6L		7:55 6/6		1		X Notes:	
Relinquished By: Signature:		Received By: Signature:		Agency/Agent: Time & Date:		Agency/Agent: Time & Date:	
Relinquished By: Signature:		Received By: Signature:		Agency/Agent: Time & Date:		Agency/Agent: Time & Date:	

State of Oregon Sample Chain of Custody

Agency, Authorized Purchaser or Agent: ODOT			Contract Laboratory Name: PACE			Lab Selection Criteria: <input checked="" type="checkbox"/> Proximity (if TAT < 72 hrs) <input type="checkbox"/> Prior work on same project <input checked="" type="checkbox"/> Cost (for anticipated analyses) <input type="checkbox"/> Other labs disqualified or unable to perform requested services <input type="checkbox"/> Emergency work			Turn Around Time: <input checked="" type="checkbox"/> 10 days (std.) <input type="checkbox"/> 5 days <input type="checkbox"/> 72 hours <input type="checkbox"/> 48 hours <input type="checkbox"/> 24 hours <input type="checkbox"/> Other		
Send Lab Report To: ODOT Address: 3500 Stewart Parkway Roseburg, Oregon 97470 Tel. #: _____ E-mail: _____			Lab Batch #: Invoice To: _____ Address: SAME Tel. #: _____								
Project Name: Project #: _____ Hwy 62 Phase-1			Sample Preservative								
Sampler Name: Sample ID# _____ Collection Date/Time _____ Matrix _____ Number of Containers _____ Kenny Camp			Requested Analyses								
G235 3-6' BGL 7:58 9/6 Si.L 1	G235 6-9' BGL 8:03 9/6 1	G236 0-3' BGL 7:07 6/6 1	G236 4-5' BGL 7:12 6/6 1								
Notes:											
Relinquished By: Signature: _____ Agency/Agent: _____ Time & Date: _____			Received By: Signature: _____ Agency/Agent: _____ Time & Date: _____								



OR62 Unit-2 Phase 1
Proposed Hazard Probe Hole Locations
Sheet 1 of 4
Scale 1"=200"

PRELIMINARY COPY
INFORMATION ONLY

HM-U2P1-11

HM-U2P1-10

HM-U2P1-01

HM-U2P1-09

HM-U2P1-02

HM-U2P1-03

HM-U2P1-08

HM-U2P1-04

HM-U2P1-07

HM-U2P1-06

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HM-U2P1-13

HM-U2P1-14

HM-U2P1-15

HM-U2P1-16

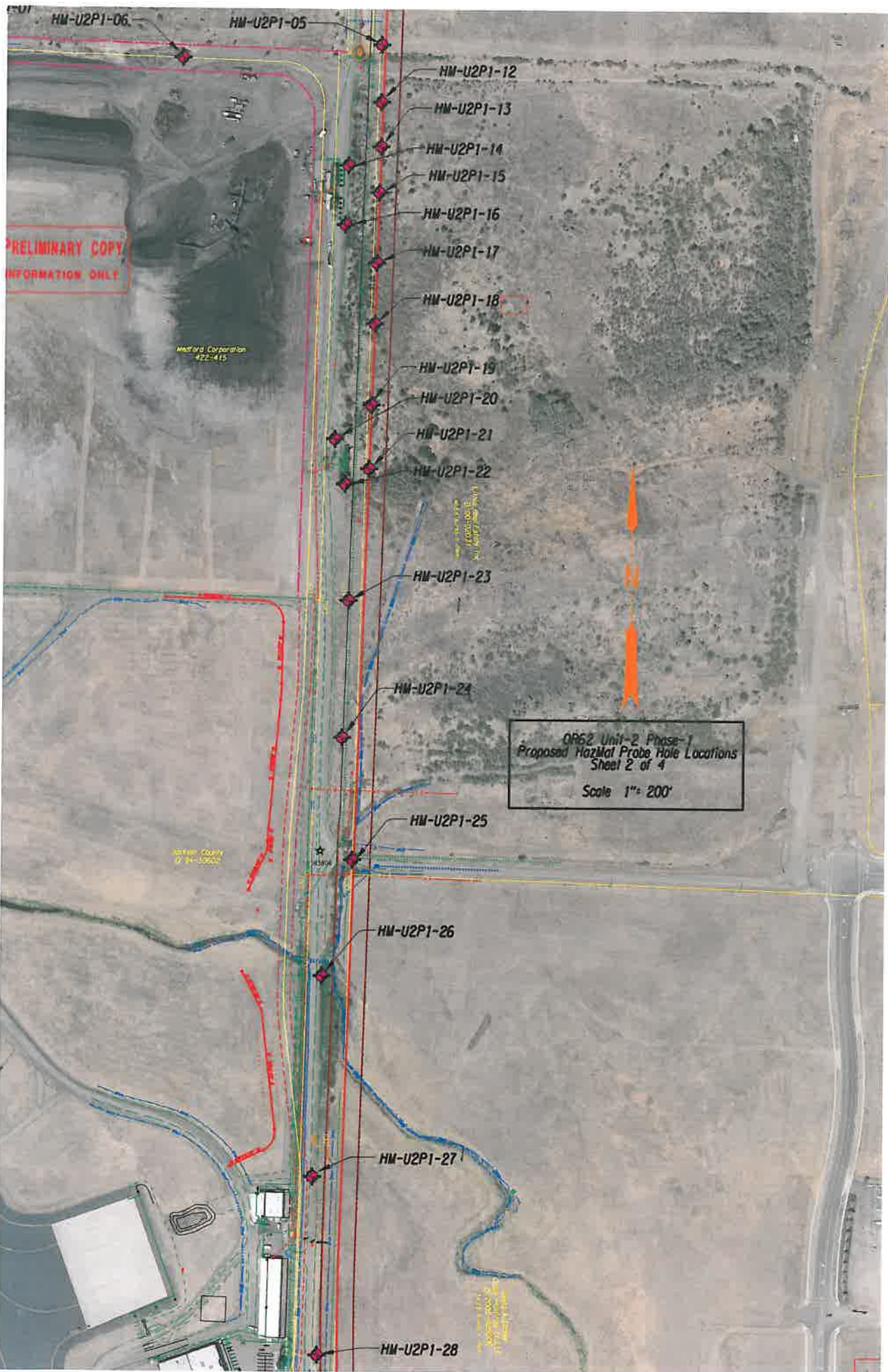
HM-U2P1-17

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INFORMATION ONLY

Madford Corporation
#22-415

WELLS COUNTY
D-21-10000

OR62 Unit-2 Phase 1
Proposed HazMat Probe Hole Locations
Sheet 2 of 4
Scale 1" = 200'



HM-U2P1-06

HM-U2P1-05

HM-U2P1-12

HM-U2P1-13

HM-U2P1-14

HM-U2P1-15

HM-U2P1-16

HM-U2P1-17

HM-U2P1-18

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HM-U2P1-20

HM-U2P1-21

HM-U2P1-22

HM-U2P1-23

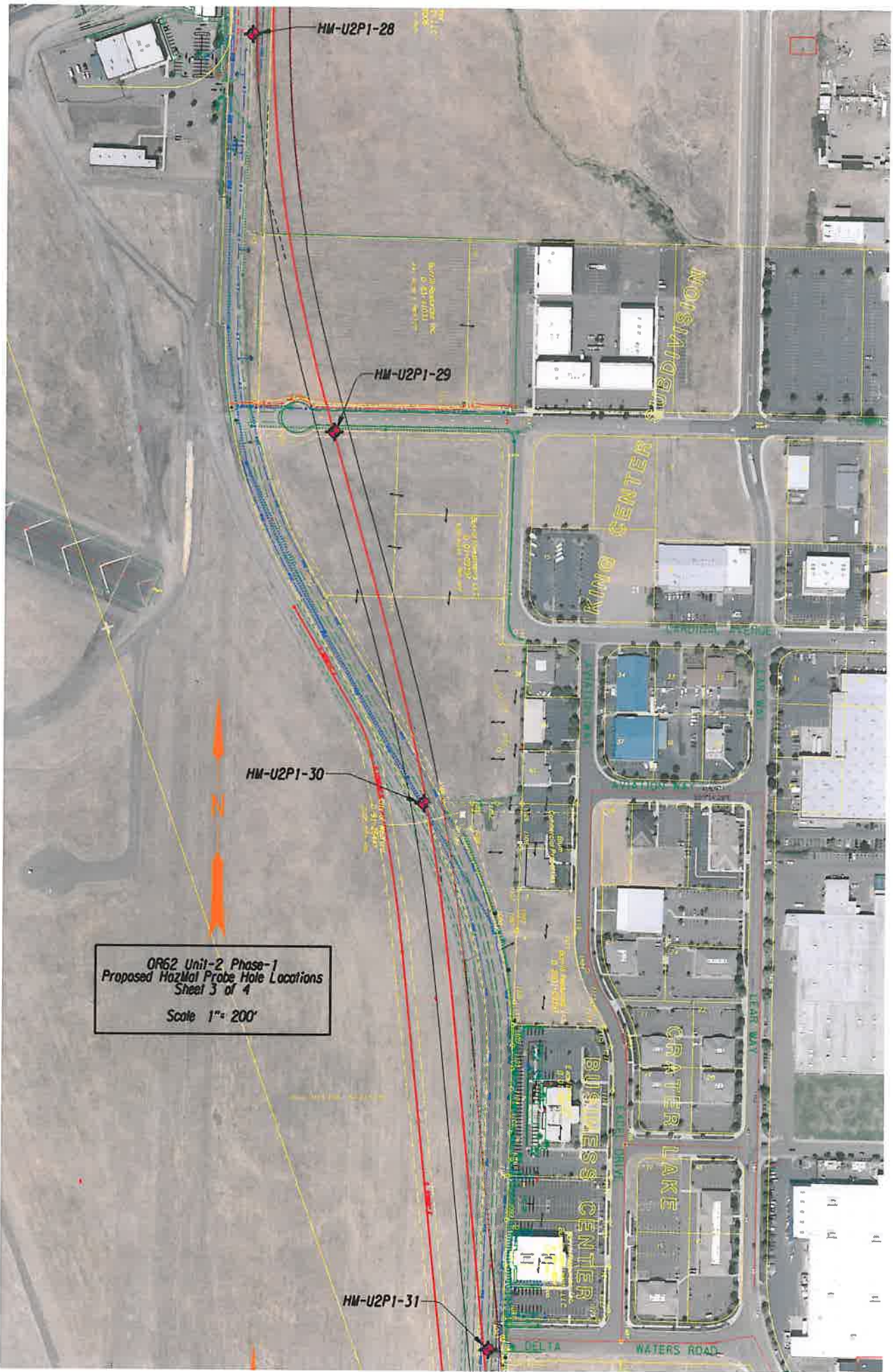
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HM-U2P1-25

HM-U2P1-26

HM-U2P1-27

HM-U2P1-28



QR62 Unit-2 Phase-1
Proposed Hazmat Probe Hole Locations
Sheet 3 of 4
Scale 1" = 200'

OR62 Unit-2 Phase-1
Proposed HazMat Probe Hole Locations
Sheet 4 of 4
Scale 1" = 200'

HM-U2P1-31

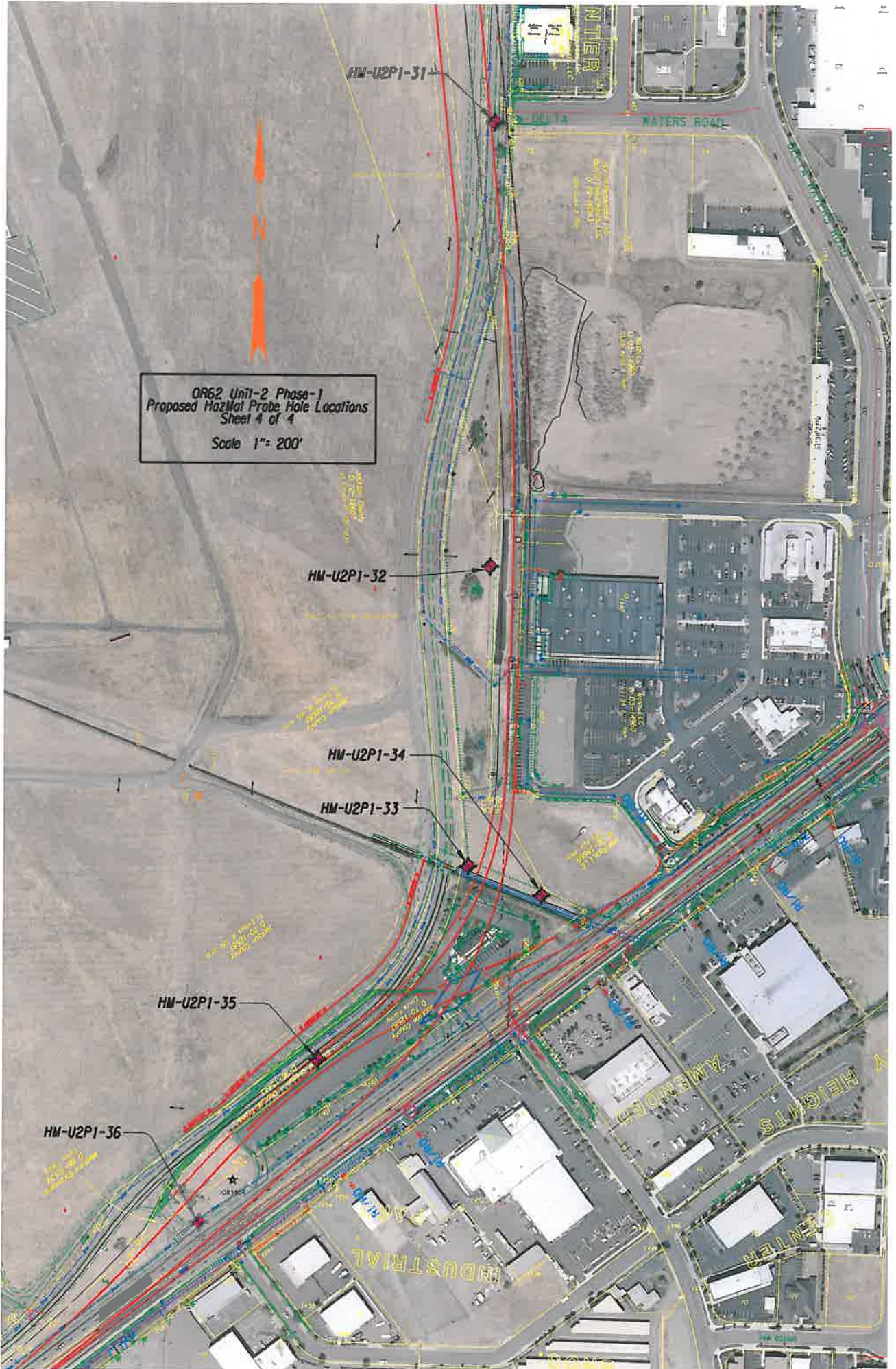
HM-U2P1-32

HM-U2P1-34

HM-U2P1-33

HM-U2P1-35

HM-U2P1-36





Pace Analytical Services, Inc.
940 South Hamey
Seattle, WA 98108
(206)767-5060

June 24, 2011

Kenny Camp
ODOT
3500 NW Stewart Pkwy
Roseburg, OR 97470

RE: Project: Hwy 62 Phase - 1
Pace Project No.: 258066

Dear Kenny Camp:

Enclosed are the analytical results for sample(s) received by the laboratory on June 10, 2011. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

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

Sincerely,

Andy Brownfield

andy.brownfield@pacelabs.com
Project Manager

Enclosures

cc: Jennie Armstrong, ODOT

REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Hwy 62 Phase - 1

Pace Project No.: 258066

Washington Certification IDs

940 South Hamey Street, Seattle, WA 98108

Alaska CS Certification #: UST-025

Alaska Drinking Water VOC Certification #: WA01230

Alaska Drinking Water Micro Certification #: WA01230

California Certification #: 01153CA

Florida/NELAP Certification #: E87617

Oregon Certification #: WA200007

Washington Certification #: C1229

REPORT OF LABORATORY ANALYSIS

Page 2 of 71

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SAMPLE ANALYTE COUNT

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
258066001	Stockpile 6223 C/L	EPA 6010	BGA	7	PASI-S
		EPA 7471	BGA	1	PASI-S
		ASTM D2974-87	KJ1	1	PASI-S
258066002	Stockpile 6224 N	EPA 6010	BGA	7	PASI-S
		EPA 7471	BGA	1	PASI-S
		ASTM D2974-87	KJ1	1	PASI-S
258066003	6201 0-3 BGL	NWTPH-Dx	AY1	4	PASI-S
		EPA 8270	ERB	72	PASI-S
		ASTM D2974-87	KJ1	1	PASI-S
258066004	6201 3'-5.5 BGL	ASTM D2974-87	KJ1	1	PASI-S
258066005	6201B 0'-3 BGL	NWTPH-Dx	AY1	4	PASI-S
		ASTM D2974-87	KJ1	1	PASI-S
258066006	6201B 4'-5' BGL	ASTM D2974-87	KJ1	1	PASI-S
258066007	6201B 5'-6' BGL	ASTM D2974-87	KJ1	1	PASI-S
258066008	6201C 0'-3 BGL	NWTPH-Dx	AY1	4	PASI-S
		ASTM D2974-87	KJ1	1	PASI-S
		ASTM D2974-87	KJ1	1	PASI-S
258066009	6202 0-3 BGL	ASTM D2974-87	KJ1	1	PASI-S
258066010	6202B 0-3 BGL	NWTPH-Dx	AY1	4	PASI-S
		EPA 8270 by SIM	ERB	20	PASI-S
		EPA 8270	ERB	54	PASI-S
		ASTM D2974-87	KJ1	1	PASI-S
		NWTPH-Dx	AY1	4	PASI-S
258066011	6203 1-2 BGL	ASTM D2974-87	KJ1	1	PASI-S
		NWTPH-Dx	AY1	4	PASI-S
		ASTM D2974-87	KJ1	1	PASI-S
258066012	6203 2'-3' BGL	NWTPH-Dx	AY1	4	PASI-S
		ASTM D2974-87	KJ1	1	PASI-S
258066013	6203 3'-6 BGL	ASTM D2974-87	KJ1	1	PASI-S
258066014	6203 6'-6.5 BGL	ASTM D2974-87	KJ1	1	PASI-S
258066015	6204 0'-2 BGL	EPA 6010	BGA	7	PASI-S
		EPA 7471	BGA	1	PASI-S
		ASTM D2974-87	KJ1	1	PASI-S
		EPA 8082	ERB	9	PASI-S
258066016	6205 0'-3' BGL	NWTPH-Dx	AY1	4	PASI-S
		ASTM D2974-87	KJ1	1	PASI-S
		ASTM D2974-87	KJ1	1	PASI-S
258066017	6205 4'-5' BGL	ASTM D2974-87	KJ1	1	PASI-S
258066018	6205 5'-6' BGL	ASTM D2974-87	KJ1	1	PASI-S
258066019	6205 8'-9' BGL	EPA 6010	BGA	7	PASI-S
		EPA 7471	BGA	1	PASI-S

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		ASTM D2974-87	KJ1	1	PASI-S
258066020	6206 1'-2' BGL	ASTM D2974-87	KJ1	1	PASI-S
258066021	6206 2'-3' BGL	EPA 6010	BGA	7	PASI-S
		EPA 7471	BGA	1	PASI-S
		ASTM D2974-87	KJ1	1	PASI-S
258066022	6207 0'-2.5 BGL	EPA 6010	BGA	7	PASI-S
		EPA 7471	BGA	1	PASI-S
		ASTM D2974-87	KJ1	1	PASI-S
258066023	6208 0'-3' BGL	EPA 6010	BGA	7	PASI-S
		EPA 7471	BGA	1	PASI-S
		ASTM D2974-87	KJ1	1	PASI-S
258066024	6208 4'-5' BGL	ASTM D2974-87	KJ1	1	PASI-S
258066025	6209 0-3 BGL	ASTM D2974-87	KJ1	1	PASI-S
258066026	6209 3-4' BGL	ASTM D2974-87	KJ1	1	PASI-S
258066027	6210 0-3 BGL	ASTM D2974-87	KJ1	1	PASI-S
258066028	6210 3-4 BGL	EPA 6010	BGA	7	PASI-S
		EPA 7471	BGA	1	PASI-S
		ASTM D2974-87	KJ1	1	PASI-S
258066029	6211 0-3 BGL	ASTM D2974-87	KJ1	1	PASI-S
258066030	6211 4'-5' BGL	EPA 6010	BGA	7	PASI-S
		EPA 7471	BGA	1	PASI-S
		ASTM D2974-87	KJ1	1	PASI-S
258066031	6212 0-3 BGL	EPA 8270 by SIM	ERB	20	PASI-S
		EPA 8270	ERB	54	PASI-S
		ASTM D2974-87	KJ1	1	PASI-S
258066032	6212 3'-4.3 BGL	EPA 6010	BGA	7	PASI-S
		EPA 7471	BGA	1	PASI-S
		ASTM D2974-87	KJ1	1	PASI-S
258066033	6213 0-3 BGL	EPA 8270 by SIM	ERB	20	PASI-S
		EPA 8270	ERB	54	PASI-S
		ASTM D2974-87	KJ1	1	PASI-S
258066034	6213 4'-5 BGL	ASTM D2974-87	KJ1	1	PASI-S
258066035	6213 5'-6 BGL	ASTM D2974-87	KJ1	1	PASI-S
258066036	6214 0-3' BGL	NWTPH-Dx	AY1	4	PASI-S
		ASTM D2974-87	KJ1	1	PASI-S
258066037	6214 4-5' BGL	ASTM D2974-87	KJ1	1	PASI-S
258066038	6214 5'-6' BGL	ASTM D2974-87	KJ1	1	PASI-S

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
258066039	6214 8'-9' BGL	ASTM D2974-87	KJ1	1	PASI-S
258066040	6215 0-3' BGL	ASTM D2974-87	KJ1	1	PASI-S
258066041	6215 3'-4.5 BGL	EPA 8270 by SIM	ERB	20	PASI-S
		EPA 8270	ERB	54	PASI-S
		ASTM D2974-87	KJ1	1	PASI-S
258066042	6216 0-3' BGL	EPA 8082	ERB	9	PASI-S
		NWTPH-Dx	AY1	4	PASI-S
		ASTM D2974-87	KJ1	1	PASI-S
258066043	6216 5-6' BGL	EPA 6010	BGA	7	PASI-S
		EPA 7471	BGA	1	PASI-S
		ASTM D2974-87	KJ1	1	PASI-S
258066044	6216 7'-8' BGL	ASTM D2974-87	KJ1	1	PASI-S
258066045	6217 2'-3 BGL	ASTM D2974-87	KJ1	1	PASI-S
258066046	6217 4-5 BGL	ASTM D2974-87	KJ1	1	PASI-S
258066047	6218 3'-6 BGL	EPA 6010	BGA	7	PASI-S
		EPA 7471	BGA	1	PASI-S
		ASTM D2974-87	KJ1	1	PASI-S
258066048	6218 7-8' BGL	ASTM D2974-87	KJ1	1	PASI-S
258066049	6219 0-3 BGL	ASTM D2974-87	KJ1	1	PASI-S
258066050	6219 3'-6 BGL	ASTM D2974-87	KJ1	1	PASI-S
258066051	6220 0-3 BGL	EPA 6010	BGA	7	PASI-S
		EPA 7471	BGA	1	PASI-S
		ASTM D2974-87	KJ1	1	PASI-S
258066052	6220 5'-6 BGL	ASTM D2974-87	KJ1	1	PASI-S
		ASTM D2974-87	KJ1	1	PASI-S
258066053	6220 8-9 BGL	ASTM D2974-87	KJ1	1	PASI-S
258066054	6221 0-3 BGL	EPA 8270 by SIM	ERB	20	PASI-S
		EPA 8270	ERB	54	PASI-S
		ASTM D2974-87	KJ1	1	PASI-S
258066055	6221 3-4.3 BGL	EPA 6010	BGA	7	PASI-S
		EPA 7471	BGA	1	PASI-S
		ASTM D2974-87	KJ1	1	PASI-S
258066056	6222 0-3' BGL	ASTM D2974-87	KJ1	1	PASI-S
258066057	6222 4-5 BGL	ASTM D2974-87	KJ1	1	PASI-S
258066058	6222 5'-6 BGL	ASTM D2974-87	KJ1	1	PASI-S
258066059	6222 11'-12' BGL	EPA 8270 by SIM	ERB	20	PASI-S
		EPA 8270	ERB	54	PASI-S
		ASTM D2974-87	KJ1	1	PASI-S

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SAMPLE ANALYTE COUNT

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
258066060	6223 0-3 BGL	EPA 6010	BGA	7	PASI-S
		EPA 7471	BGA	1	PASI-S
		ASTM D2974-87	KJ1	1	PASI-S
258066061	6223 6-9 BGL	ASTM D2974-87	KJ1	1	PASI-S
258066062	6224 3'-6 BGL	ASTM D2974-87	KJ1	1	PASI-S
258066063	6224 5.5-6.5 BGL	ASTM D2974-87	KJ1	1	PASI-S
258066064	6225 0-3 BGL	NWTPH-Dx	AY1	4	PASI-S
		ASTM D2974-87	KJ1	1	PASI-S
258066065	6225 3'-5 BGL	ASTM D2974-87	KJ1	1	PASI-S
258066066	6226 0-3 BGL	NWTPH-Dx	AY1	4	PASI-S
		ASTM D2974-87	KJ1	1	PASI-S
		EPA 6010	BGA	7	PASI-S
258066067	6226 5-6 BGL	EPA 7471	BGA	1	PASI-S
		ASTM D2974-87	KJ1	1	PASI-S
		NWTPH-Dx	AY1	4	PASI-S
258066068	6227 0-3 BGL	ASTM D2974-87	KJ1	1	PASI-S
		ASTM D2974-87	KJ1	1	PASI-S
258066069	6227 4-5 BGL	ASTM D2974-87	KJ1	1	PASI-S
258066070	6227 5-6 BGL	ASTM D2974-87	KJ1	1	PASI-S
258066071	6228 0-3' BGL	ASTM D2974-87	KJ1	1	PASI-S
258066072	6228 4-5 BGL	ASTM D2974-87	KJ1	1	PASI-S
258066073	6229 0-3 BGL	EPA 6010	BGA	7	PASI-S
		EPA 7471	BGA	1	PASI-S
		ASTM D2974-87	KJ1	1	PASI-S
		ASTM D2974-87	KJ1	1	PASI-S
258066074	6229 4'-5 BGL	NWTPH-Dx	AY1	4	PASI-S
		EPA 8270 by SIM	ERB	20	PASI-S
		EPA 8270	ERB	48	PASI-S
258066075	6230 0-3 BGL	ASTM D2974-87	KJ1	1	PASI-S
		EPA 6010	BGA	7	PASI-S
		EPA 7471	BGA	1	PASI-S
258066076	6230 4'-5 BGL	ASTM D2974-87	KJ1	1	PASI-S
		NWTPH-Dx	AY1	4	PASI-S
		EPA 8270 by SIM	ERB	20	PASI-S
		EPA 8270	ERB	54	PASI-S
258066077	6231 0-3 BGL	ASTM D2974-87	KJ1	1	PASI-S
		EPA 6010	BGA	7	PASI-S
		EPA 7471	BGA	1	PASI-S
258066078	6232 3-6 BGL	EPA 6010	BGA	7	PASI-S
		EPA 7471	BGA	1	PASI-S

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SAMPLE ANALYTE COUNT

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		ASTM D2974-87	KJ1	1	PASI-S
258066079	6233 0-3 BGL	ASTM D2974-87	KJ1	1	PASI-S
258066080	6234 0-3 BGL	ASTM D2974-87	KJ1	1	PASI-S
258066081	6234 3-4' BGL	EPA 6010	BGA	7	PASI-S
		EPA 7471	BGA	1	PASI-S
		ASTM D2974-87	KJ1	1	PASI-S
258066082	6235 0-3' BGL	EPA 8082	ERB	9	PASI-S
		NWTPH-Dx	AY1	4	PASI-S
		EPA 8270 by SIM	ERB	20	PASI-S
		EPA 8270	ERB	54	PASI-S
		ASTM D2974-87	KJ1	1	PASI-S
258066083	6235 3-6' BGL	ASTM D2974-87	KJ1	1	PASI-S
258066084	6235 6-9 BGL	ASTM D2974-87	KJ1	1	PASI-S
258066085	6236 0-3' BGL	NWTPH-Dx	AY1	4	PASI-S
		ASTM D2974-87	KJ1	1	PASI-S
258066086	6236 4-5 BGL	EPA 6010	BGA	7	PASI-S
		EPA 7471	BGA	1	PASI-S
		ASTM D2974-87	KJ1	1	PASI-S

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ANALYTICAL RESULTS

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

Sample: Stockpile 6223 C/L Lab ID: 258066001 Collected: 06/07/11 08:50 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3050						
Arsenic	ND	mg/kg	13.1	5	06/16/11 07:52	06/17/11 10:06	7440-38-2	
Barium	279	mg/kg	26.2	1	06/16/11 07:52	06/17/11 12:04	7440-39-3	
Cadmium	ND	mg/kg	6.6	5	06/16/11 07:52	06/17/11 10:06	7440-43-9	
Chromium	56.4	mg/kg	1.3	1	06/16/11 07:52	06/17/11 12:04	7440-47-3	
Lead	7.4	mg/kg	1.3	1	06/16/11 07:52	06/17/11 12:04	7439-92-1	
Selenium	ND	mg/kg	6.6	5	06/16/11 07:52	06/17/11 10:06	7782-49-2	
Silver	ND	mg/kg	6.6	5	06/16/11 07:52	06/17/11 10:06	7440-22-4	D3
7471 Mercury		Analytical Method: EPA 7471 Preparation Method: EPA 7471						
Mercury	ND	mg/kg	0.13	1	06/20/11 15:17	06/21/11 11:32	7439-97-6	
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	27.4	%	0.10	1		06/13/11 16:19		

Sample: Stockpile 6224 N Lab ID: 258066002 Collected: 06/07/11 08:32 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3050						
Arsenic	ND	mg/kg	12.5	5	06/16/11 07:52	06/17/11 10:10	7440-38-2	
Barium	619	mg/kg	125	5	06/16/11 07:52	06/17/11 10:10	7440-39-3	
Cadmium	ND	mg/kg	6.3	5	06/16/11 07:52	06/17/11 10:10	7440-43-9	
Chromium	51.3	mg/kg	1.3	1	06/16/11 07:52	06/17/11 12:13	7440-47-3	
Lead	6.8	mg/kg	6.3	5	06/16/11 07:52	06/17/11 10:10	7439-92-1	
Selenium	ND	mg/kg	6.3	5	06/16/11 07:52	06/17/11 10:10	7782-49-2	
Silver	ND	mg/kg	6.3	5	06/16/11 07:52	06/17/11 10:10	7440-22-4	D3
7471 Mercury		Analytical Method: EPA 7471 Preparation Method: EPA 7471						
Mercury	ND	mg/kg	0.090	1	06/20/11 15:17	06/21/11 11:34	7439-97-6	
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	27.4	%	0.10	1		06/13/11 16:19		

Sample: 6201 0-3 BGL Lab ID: 258066003 Collected: 06/06/11 12:50 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS		Analytical Method: NWTPH-Dx Preparation Method: EPA 3546						
Diesel Range	292	mg/kg	78.6	5	06/17/11 10:15	06/18/11 04:20		
Motor Oil Range	849	mg/kg	314	5	06/17/11 10:15	06/18/11 04:20	64742-65-0	
n-Octacosane (S)	103	%	50-150	5	06/17/11 10:15	06/18/11 04:20	630-02-4	

Date: 06/24/2011 04:23 PM

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ANALYTICAL RESULTS

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

Sample: 6201 0-3 BGL Lab ID: 258066003 Collected: 06/06/11 12:50 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS		Analytical Method: NWTPH-Dx Preparation Method: EPA 3546						
o-Terphenyl (S)	104 %		50-150	5	06/17/11 10:15	06/18/11 04:20	84-15-1	
8270 MSSV Semivolatiles		Analytical Method: EPA 8270 Preparation Method: EPA 3546						
Acenaphthene	ND	ug/kg	344	1	06/14/11 15:15	06/21/11 02:13	83-32-9	
Acenaphthylene	ND	ug/kg	344	1	06/14/11 15:15	06/21/11 02:13	208-96-8	
Anthracene	ND	ug/kg	344	1	06/14/11 15:15	06/21/11 02:13	120-12-7	
Benzo(a)anthracene	ND	ug/kg	344	1	06/14/11 15:15	06/21/11 02:13	56-55-3	
Benzo(a)pyrene	ND	ug/kg	344	1	06/14/11 15:15	06/21/11 02:13	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	344	1	06/14/11 15:15	06/21/11 02:13	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	344	1	06/14/11 15:15	06/21/11 02:13	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	344	1	06/14/11 15:15	06/21/11 02:13	207-08-9	
Benzoic acid	ND	ug/kg	1720	1	06/14/11 15:15	06/21/11 02:13	65-85-0	
Benzyl alcohol	ND	ug/kg	344	1	06/14/11 15:15	06/21/11 02:13	100-51-6	
4-Bromophenylphenyl ether	ND	ug/kg	344	1	06/14/11 15:15	06/21/11 02:13	101-55-3	
Butylbenzylphthalate	ND	ug/kg	344	1	06/14/11 15:15	06/21/11 02:13	85-68-7	
4-Chloro-3-methylphenol	ND	ug/kg	344	1	06/14/11 15:15	06/21/11 02:13	59-50-7	
4-Chloroaniline	ND	ug/kg	344	1	06/14/11 15:15	06/21/11 02:13	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/kg	344	1	06/14/11 15:15	06/21/11 02:13	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/kg	344	1	06/14/11 15:15	06/21/11 02:13	111-44-4	
bis(2-Chloroisopropyl) ether	ND	ug/kg	344	1	06/14/11 15:15	06/21/11 02:13	39638-32-9	
2-Chloronaphthalene	ND	ug/kg	344	1	06/14/11 15:15	06/21/11 02:13	91-58-7	
2-Chlorophenol	ND	ug/kg	344	1	06/14/11 15:15	06/21/11 02:13	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/kg	344	1	06/14/11 15:15	06/21/11 02:13	7005-72-3	
Chrysene	ND	ug/kg	344	1	06/14/11 15:15	06/21/11 02:13	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	344	1	06/14/11 15:15	06/21/11 02:13	53-70-3	
Dibenzofuran	ND	ug/kg	344	1	06/14/11 15:15	06/21/11 02:13	132-64-9	
1,2-Dichlorobenzene	ND	ug/kg	344	1	06/14/11 15:15	06/21/11 02:13	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	344	1	06/14/11 15:15	06/21/11 02:13	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	344	1	06/14/11 15:15	06/21/11 02:13	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/kg	344	1	06/14/11 15:15	06/21/11 02:13	91-94-1	
2,4-Dichlorophenol	ND	ug/kg	344	1	06/14/11 15:15	06/21/11 02:13	120-83-2	
Diethylphthalate	ND	ug/kg	344	1	06/14/11 15:15	06/21/11 02:13	84-66-2	
2,4-Dimethylphenol	ND	ug/kg	344	1	06/14/11 15:15	06/21/11 02:13	105-67-9	
Dimethylphthalate	ND	ug/kg	344	1	06/14/11 15:15	06/21/11 02:13	131-11-3	
Di-n-butylphthalate	ND	ug/kg	344	1	06/14/11 15:15	06/21/11 02:13	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/kg	344	1	06/14/11 15:15	06/21/11 02:13	534-52-1	
2,4-Dinitrophenol	ND	ug/kg	699	1	06/14/11 15:15	06/21/11 02:13	51-28-5	
2,4-Dinitrotoluene	ND	ug/kg	344	1	06/14/11 15:15	06/21/11 02:13	121-14-2	
2,6-Dinitrotoluene	ND	ug/kg	344	1	06/14/11 15:15	06/21/11 02:13	606-20-2	
Di-n-octylphthalate	ND	ug/kg	344	1	06/14/11 15:15	06/21/11 02:13	117-84-0	
bis(2-Ethylhexyl)phthalate	800	ug/kg	344	1	06/14/11 15:15	06/21/11 02:13	117-81-7	
Fluoranthene	ND	ug/kg	344	1	06/14/11 15:15	06/21/11 02:13	206-44-0	
Fluorene	ND	ug/kg	344	1	06/14/11 15:15	06/21/11 02:13	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/kg	344	1	06/14/11 15:15	06/21/11 02:13	87-68-3	
Hexachlorobenzene	ND	ug/kg	344	1	06/14/11 15:15	06/21/11 02:13	118-74-1	
Hexachlorocyclopentadiene	ND	ug/kg	344	1	06/14/11 15:15	06/21/11 02:13	77-47-4	

Date: 06/24/2011 04:23 PM

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ANALYTICAL RESULTS

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

Sample: 6201 0-3 BGL Lab ID: 258066003 Collected: 06/06/11 12:50 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Semivolatiles		Analytical Method: EPA 8270 Preparation Method: EPA 3546						
Hexachloroethane	ND	ug/kg	344	1	06/14/11 15:15	06/21/11 02:13	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	344	1	06/14/11 15:15	06/21/11 02:13	193-39-5	
Isophorone	ND	ug/kg	344	1	06/14/11 15:15	06/21/11 02:13	78-59-1	
1-Methylnaphthalene	ND	ug/kg	344	1	06/14/11 15:15	06/21/11 02:13	90-12-0	
2-Methylnaphthalene	ND	ug/kg	344	1	06/14/11 15:15	06/21/11 02:13	91-57-6	
2-Methylpheno(o-Cresol)	ND	ug/kg	344	1	06/14/11 15:15	06/21/11 02:13	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/kg	344	1	06/14/11 15:15	06/21/11 02:13		
Naphthalene	ND	ug/kg	344	1	06/14/11 15:15	06/21/11 02:13	91-20-3	
2-Nitroaniline	ND	ug/kg	344	1	06/14/11 15:15	06/21/11 02:13	88-74-4	
3-Nitroaniline	ND	ug/kg	344	1	06/14/11 15:15	06/21/11 02:13	99-09-2	
4-Nitroaniline	ND	ug/kg	344	1	06/14/11 15:15	06/21/11 02:13	100-01-6	
Nitrobenzene	ND	ug/kg	344	1	06/14/11 15:15	06/21/11 02:13	98-95-3	
2-Nitrophenol	ND	ug/kg	344	1	06/14/11 15:15	06/21/11 02:13	88-75-5	
4-Nitrophenol	ND	ug/kg	344	1	06/14/11 15:15	06/21/11 02:13	100-02-7	
N-Nitroso-di-n-propylamine	ND	ug/kg	344	1	06/14/11 15:15	06/21/11 02:13	621-64-7	
N-Nitrosodiphenylamine	ND	ug/kg	344	1	06/14/11 15:15	06/21/11 02:13	86-30-6	
Pentachlorophenol	ND	ug/kg	344	1	06/14/11 15:15	06/21/11 02:13	87-86-5	
Phenanthrene	ND	ug/kg	344	1	06/14/11 15:15	06/21/11 02:13	85-01-8	
Phenol	ND	ug/kg	344	1	06/14/11 15:15	06/21/11 02:13	108-95-2	
Pyrene	ND	ug/kg	344	1	06/14/11 15:15	06/21/11 02:13	129-00-0	
1,2,4-Trichlorobenzene	ND	ug/kg	344	1	06/14/11 15:15	06/21/11 02:13	120-82-1	
2,4,5-Trichlorophenol	ND	ug/kg	344	1	06/14/11 15:15	06/21/11 02:13	95-95-4	
2,4,6-Trichlorophenol	ND	ug/kg	344	1	06/14/11 15:15	06/21/11 02:13	88-06-2	
Nitrobenzene-d5 (S)	75 %		40-138	1	06/14/11 15:15	06/21/11 02:13	4165-60-0	
2-Fluorobiphenyl (S)	80 %		46-118	1	06/14/11 15:15	06/21/11 02:13	321-60-8	
Terphenyl-d14 (S)	80 %		41-137	1	06/14/11 15:15	06/21/11 02:13	1718-51-0	
Phenol-d6 (S)	78 %		44-120	1	06/14/11 15:15	06/21/11 02:13	13127-88-3	
2-Fluorophenol (S)	77 %		37-117	1	06/14/11 15:15	06/21/11 02:13	367-12-4	
2,4,6-Tribromophenol (S)	80 %		26-135	1	06/14/11 15:15	06/21/11 02:13	118-79-6	

Percent Moisture

Analytical Method: ASTM D2974-87

Percent Moisture 4.2 % 0.10 1 06/13/11 16:20

Sample: 6201 3'-5.5 BGL Lab ID: 258066004 Collected: 06/06/11 12:55 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	8.0 %		0.10	1		06/13/11 16:20		

ANALYTICAL RESULTS

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

Sample: 6201B 0'-3 BGL Lab ID: 258066005 Collected: 06/06/11 13:57 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS		Analytical Method: NWTPH-Dx Preparation Method: EPA 3546						
Diesel Range	256 mg/kg		82.9	5	06/17/11 10:15	06/18/11 04:37		
Motor Oil Range	1300 mg/kg		332	5	06/17/11 10:15	06/18/11 04:37	64742-65-0	
n-Octacosane (S)	108 %		50-150	5	06/17/11 10:15	06/18/11 04:37	630-02-4	
o-Terphenyl (S)	104 %		50-150	5	06/17/11 10:15	06/18/11 04:37	84-15-1	
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	9.3 %		0.10	1		06/13/11 16:21		

Sample: 6201B 4'-5' BGL Lab ID: 258066006 Collected: 06/06/11 14:02 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	28.6 %		0.10	1		06/13/11 16:22		

Sample: 6201B 5'-6' BGL Lab ID: 258066007 Collected: 06/06/11 14:02 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	26.2 %		0.10	1		06/13/11 16:22		

Sample: 6201C 0'-3 BGL Lab ID: 258066008 Collected: 06/06/11 14:18 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS		Analytical Method: NWTPH-Dx Preparation Method: EPA 3546						
Diesel Range	546 mg/kg		84.4	5	06/17/11 10:15	06/18/11 04:53		
Motor Oil Range	1780 mg/kg		337	5	06/17/11 10:15	06/18/11 04:53	64742-65-0	
n-Octacosane (S)	112 %		50-150	5	06/17/11 10:15	06/18/11 04:53	630-02-4	
o-Terphenyl (S)	105 %		50-150	5	06/17/11 10:15	06/18/11 04:53	84-15-1	
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	8.0 %		0.10	1		06/13/11 16:23		

ANALYTICAL RESULTS

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

Sample: 6202 0-3 BGL Lab ID: 258066009 Collected: 06/06/11 13:12 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	31.1 %		0.10	1		06/13/11 16:24		

Sample: 6202B 0-3 BGL Lab ID: 258066010 Collected: 06/06/11 14:45 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS		Analytical Method: NWTPH-Dx Preparation Method: EPA 3546						
Diesel Range	243 mg/kg		79.6	5	06/17/11 10:15	06/18/11 05:25		
Motor Oil Range	655 mg/kg		318	5	06/17/11 10:15	06/18/11 05:25	64742-65-0	
n-Octacosane (S)	100 %		50-150	5	06/17/11 10:15	06/18/11 05:25	630-02-4	
o-Terphenyl (S)	102 %		50-150	5	06/17/11 10:15	06/18/11 05:25	84-15-1	

8270 MSSV PAH by SIM Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546

Acenaphthene	ND ug/kg		7.2	1	06/14/11 15:15	06/15/11 17:30	83-32-9	
Acenaphthylene	ND ug/kg		7.2	1	06/14/11 15:15	06/15/11 17:30	208-96-8	
Anthracene	ND ug/kg		7.2	1	06/14/11 15:15	06/15/11 17:30	120-12-7	
Benzo(a)anthracene	ND ug/kg		7.2	1	06/14/11 15:15	06/15/11 17:30	56-55-3	
Benzo(a)pyrene	ND ug/kg		7.2	1	06/14/11 15:15	06/15/11 17:30	50-32-8	
Benzo(b)fluoranthene	7.7 ug/kg		7.2	1	06/14/11 15:15	06/15/11 17:30	205-99-2	
Benzo(g,h,i)perylene	9.1 ug/kg		7.2	1	06/14/11 15:15	06/15/11 17:30	191-24-2	
Benzo(k)fluoranthene	ND ug/kg		7.2	1	06/14/11 15:15	06/15/11 17:30	207-08-9	
Chrysene	28.5 ug/kg		7.2	1	06/14/11 15:15	06/15/11 17:30	218-01-9	
Dibenz(a,h)anthracene	ND ug/kg		7.2	1	06/14/11 15:15	06/15/11 17:30	53-70-3	
Fluoranthene	ND ug/kg		7.2	1	06/14/11 15:15	06/15/11 17:30	206-44-0	
Fluorene	ND ug/kg		7.2	1	06/14/11 15:15	06/15/11 17:30	86-73-7	
Indeno(1,2,3-cd)pyrene	ND ug/kg		7.2	1	06/14/11 15:15	06/15/11 17:30	193-39-5	
1-Methylnaphthalene	ND ug/kg		7.2	1	06/14/11 15:15	06/15/11 17:30	90-12-0	
2-Methylnaphthalene	8.5 ug/kg		7.2	1	06/14/11 15:15	06/15/11 17:30	91-57-6	
Naphthalene	ND ug/kg		7.2	1	06/14/11 15:15	06/15/11 17:30	91-20-3	
Phenanthrene	19.4 ug/kg		7.2	1	06/14/11 15:15	06/15/11 17:30	85-01-8	
Pyrene	24.7 ug/kg		7.2	1	06/14/11 15:15	06/15/11 17:30	129-00-0	
2-Fluorobiphenyl (S)	76 %		31-131	1	06/14/11 15:15	06/15/11 17:30	321-60-8	
Terphenyl-d14 (S)	80 %		30-133	1	06/14/11 15:15	06/15/11 17:30	1718-51-0	

8270 MSSV Semivolatiles Analytical Method: EPA 8270 Preparation Method: EPA 3546

Benzoic acid	ND ug/kg		1760	1	06/14/11 15:15	06/21/11 03:20	65-85-0	
Benzyl alcohol	ND ug/kg		352	1	06/14/11 15:15	06/21/11 03:20	100-51-6	
4-Bromophenylphenyl ether	ND ug/kg		352	1	06/14/11 15:15	06/21/11 03:20	101-55-3	
Butylbenzylphthalate	ND ug/kg		352	1	06/14/11 15:15	06/21/11 03:20	85-68-7	
4-Chloro-3-methylphenol	ND ug/kg		352	1	06/14/11 15:15	06/21/11 03:20	59-50-7	
4-Chloroaniline	ND ug/kg		352	1	06/14/11 15:15	06/21/11 03:20	106-47-8	
bis(2-Chloroethoxy)methane	ND ug/kg		352	1	06/14/11 15:15	06/21/11 03:20	111-91-1	
bis(2-Chloroethyl) ether	ND ug/kg		352	1	06/14/11 15:15	06/21/11 03:20	111-44-4	

ANALYTICAL RESULTS

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

Sample: 6202B 0-3 BGL Lab ID: 258066010 Collected: 06/06/11 14:45 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Semivolatiles		Analytical Method: EPA 8270 Preparation Method: EPA 3546						
bis(2-Chloroisopropyl) ether	ND	ug/kg	352	1	06/14/11 15:15	06/21/11 03:20	39638-32-9	
2-Chloronaphthalene	ND	ug/kg	352	1	06/14/11 15:15	06/21/11 03:20	91-58-7	
2-Chlorophenol	ND	ug/kg	352	1	06/14/11 15:15	06/21/11 03:20	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/kg	352	1	06/14/11 15:15	06/21/11 03:20	7005-72-3	
Dibenzofuran	ND	ug/kg	352	1	06/14/11 15:15	06/21/11 03:20	132-64-9	
1,2-Dichlorobenzene	ND	ug/kg	352	1	06/14/11 15:15	06/21/11 03:20	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	352	1	06/14/11 15:15	06/21/11 03:20	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	352	1	06/14/11 15:15	06/21/11 03:20	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/kg	352	1	06/14/11 15:15	06/21/11 03:20	91-94-1	
2,4-Dichlorophenol	ND	ug/kg	352	1	06/14/11 15:15	06/21/11 03:20	120-83-2	
Diethylphthalate	ND	ug/kg	352	1	06/14/11 15:15	06/21/11 03:20	84-66-2	
2,4-Dimethylphenol	ND	ug/kg	352	1	06/14/11 15:15	06/21/11 03:20	105-67-9	
Dimethylphthalate	ND	ug/kg	352	1	06/14/11 15:15	06/21/11 03:20	131-11-3	
Di-n-butylphthalate	ND	ug/kg	352	1	06/14/11 15:15	06/21/11 03:20	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/kg	352	1	06/14/11 15:15	06/21/11 03:20	534-52-1	
2,4-Dinitrophenol	ND	ug/kg	715	1	06/14/11 15:15	06/21/11 03:20	51-28-5	
2,4-Dinitrotoluene	ND	ug/kg	352	1	06/14/11 15:15	06/21/11 03:20	121-14-2	
2,6-Dinitrotoluene	ND	ug/kg	352	1	06/14/11 15:15	06/21/11 03:20	606-20-2	
Di-n-octylphthalate	ND	ug/kg	352	1	06/14/11 15:15	06/21/11 03:20	117-84-0	
bis(2-Ethylhexyl)phthalate	ND	ug/kg	352	1	06/14/11 15:15	06/21/11 03:20	117-81-7	
Hexachloro-1,3-butadiene	ND	ug/kg	352	1	06/14/11 15:15	06/21/11 03:20	87-68-3	
Hexachlorobenzene	ND	ug/kg	352	1	06/14/11 15:15	06/21/11 03:20	118-74-1	
Hexachlorocyclopentadiene	ND	ug/kg	352	1	06/14/11 15:15	06/21/11 03:20	77-47-4	
Hexachloroethane	ND	ug/kg	352	1	06/14/11 15:15	06/21/11 03:20	67-72-1	
Isophorone	ND	ug/kg	352	1	06/14/11 15:15	06/21/11 03:20	78-59-1	
2-Methylphenol(o-Cresol)	ND	ug/kg	352	1	06/14/11 15:15	06/21/11 03:20	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/kg	352	1	06/14/11 15:15	06/21/11 03:20		
2-Nitroaniline	ND	ug/kg	352	1	06/14/11 15:15	06/21/11 03:20	88-74-4	
3-Nitroaniline	ND	ug/kg	352	1	06/14/11 15:15	06/21/11 03:20	99-09-2	
4-Nitroaniline	ND	ug/kg	352	1	06/14/11 15:15	06/21/11 03:20	100-01-6	
Nitrobenzene	ND	ug/kg	352	1	06/14/11 15:15	06/21/11 03:20	98-95-3	
2-Nitrophenol	ND	ug/kg	352	1	06/14/11 15:15	06/21/11 03:20	88-75-5	
4-Nitrophenol	ND	ug/kg	352	1	06/14/11 15:15	06/21/11 03:20	100-02-7	
N-Nitroso-di-n-propylamine	ND	ug/kg	352	1	06/14/11 15:15	06/21/11 03:20	621-64-7	
N-Nitrosodiphenylamine	ND	ug/kg	352	1	06/14/11 15:15	06/21/11 03:20	86-30-6	
Pentachlorophenol	ND	ug/kg	352	1	06/14/11 15:15	06/21/11 03:20	87-86-5	
Phenol	ND	ug/kg	352	1	06/14/11 15:15	06/21/11 03:20	108-95-2	
1,2,4-Trichlorobenzene	ND	ug/kg	352	1	06/14/11 15:15	06/21/11 03:20	120-82-1	
2,4,5-Trichlorophenol	ND	ug/kg	352	1	06/14/11 15:15	06/21/11 03:20	95-95-4	
2,4,6-Trichlorophenol	ND	ug/kg	352	1	06/14/11 15:15	06/21/11 03:20	88-06-2	
Nitrobenzene-d5 (S)	86 %		40-138	1	06/14/11 15:15	06/21/11 03:20	4165-60-0	
2-Fluorobiphenyl (S)	93 %		46-118	1	06/14/11 15:15	06/21/11 03:20	321-60-8	
Terphenyl-d14 (S)	93 %		41-137	1	06/14/11 15:15	06/21/11 03:20	1718-51-0	
Phenol-d6 (S)	88 %		44-120	1	06/14/11 15:15	06/21/11 03:20	13127-88-3	
2-Fluorophenol (S)	87 %		37-117	1	06/14/11 15:15	06/21/11 03:20	367-12-4	
2,4,6-Tribromophenol (S)	97 %		26-135	1	06/14/11 15:15	06/21/11 03:20	118-79-6	

Date: 06/24/2011 04:23 PM

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

Sample: 6202B 0-3 BGL **Lab ID: 258066010** Collected: 06/06/11 14:45 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture Analytical Method: ASTM D2974-87								
Percent Moisture	7.4 %		0.10	1		06/13/11 16:24		

Sample: 6203 1-2 BGL **Lab ID: 258066011** Collected: 06/06/11 15:16 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS Analytical Method: NWTPH-Dx Preparation Method: EPA 3546								
Diesel Range	181 mg/kg		16.3	1	06/17/11 10:15	06/18/11 05:41		
Motor Oil Range	385 mg/kg		65.3	1	06/17/11 10:15	06/18/11 05:41	64742-65-0	
n-Octacosane (S)	108 %		50-150	1	06/17/11 10:15	06/18/11 05:41	630-02-4	
o-Terphenyl (S)	106 %		50-150	1	06/17/11 10:15	06/18/11 05:41	84-15-1	
Percent Moisture Analytical Method: ASTM D2974-87								
Percent Moisture	5.8 %		0.10	1		06/13/11 16:24		

Sample: 6203 2'-3' BGL **Lab ID: 258066012** Collected: 06/06/11 15:16 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS Analytical Method: NWTPH-Dx Preparation Method: EPA 3546								
Diesel Range	129 mg/kg		16.0	1	06/17/11 10:15	06/18/11 05:58		
Motor Oil Range	257 mg/kg		63.9	1	06/17/11 10:15	06/18/11 05:58	64742-65-0	
n-Octacosane (S)	107 %		50-150	1	06/17/11 10:15	06/18/11 05:58	630-02-4	
o-Terphenyl (S)	101 %		50-150	1	06/17/11 10:15	06/18/11 05:58	84-15-1	
Percent Moisture Analytical Method: ASTM D2974-87								
Percent Moisture	7.6 %		0.10	1		06/13/11 16:25		

Sample: 6203 3'-6 BGL **Lab ID: 258066013** Collected: 06/06/11 15:21 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture Analytical Method: ASTM D2974-87								
Percent Moisture	7.1 %		0.10	1		06/13/11 16:29		

ANALYTICAL RESULTS

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

Sample: 6203 6'-6.5 BGL Lab ID: 258066014 Collected: 06/06/11 15:25 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture Analytical Method: ASTM D2974-87								
Percent Moisture	30.7 %		0.10	1		06/13/11 16:29		

Sample: 6204 0'-2 BGL Lab ID: 258066015 Collected: 06/06/11 13:35 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	ND	mg/kg	12.4	5	06/16/11 07:52	06/17/11 10:19	7440-38-2	
Barium	172	mg/kg	24.7	1	06/16/11 07:52	06/17/11 12:16	7440-39-3	
Cadmium	ND	mg/kg	6.2	5	06/16/11 07:52	06/17/11 10:19	7440-43-9	
Chromium	143	mg/kg	1.2	1	06/16/11 07:52	06/17/11 12:16	7440-47-3	
Lead	8.9	mg/kg	6.2	5	06/16/11 07:52	06/17/11 10:19	7439-92-1	
Selenium	ND	mg/kg	6.2	5	06/16/11 07:52	06/17/11 10:19	7782-49-2	
Silver	ND	mg/kg	6.2	5	06/16/11 07:52	06/17/11 10:19	7440-22-4	D3
7471 Mercury Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	ND	mg/kg	0.083	1	06/20/11 15:17	06/21/11 11:36	7439-97-6	
Percent Moisture Analytical Method: ASTM D2974-87								
Percent Moisture	26.4 %		0.10	1		06/13/11 16:30		

Sample: 6205 0'-3' BGL Lab ID: 258066016 Collected: 06/06/11 16:07 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB S Analytical Method: EPA 8082 Preparation Method: EPA 3546								
PCB-1016 (Aroclor 1016)	ND	ug/kg	17.8	1	06/20/11 10:20	06/22/11 14:19	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/kg	17.8	1	06/20/11 10:20	06/22/11 14:19	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/kg	17.8	1	06/20/11 10:20	06/22/11 14:19	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/kg	17.8	1	06/20/11 10:20	06/22/11 14:19	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/kg	17.8	1	06/20/11 10:20	06/22/11 14:19	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/kg	17.8	1	06/20/11 10:20	06/22/11 14:19	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/kg	17.8	1	06/20/11 10:20	06/22/11 14:19	11096-82-5	
Tetrachloro-m-xylene (S)	68 %		29-128	1	06/20/11 10:20	06/22/11 14:19	877-09-8	
Decachlorobiphenyl (S)	64 %		23-129	1	06/20/11 10:20	06/22/11 14:19	2051-24-3	
NWTPH-Dx GCS Analytical Method: NWTPH-Dx Preparation Method: EPA 3546								
Diesel Range	1460	mg/kg	82.4	5	06/17/11 10:15	06/18/11 06:14		
Motor Oil Range	2330	mg/kg	330	5	06/17/11 10:15	06/18/11 06:14	64742-65-0	
n-Octacosane (S)	112 %		50-150	5	06/17/11 10:15	06/18/11 06:14	630-02-4	
o-Terphenyl (S)	113 %		50-150	5	06/17/11 10:15	06/18/11 06:14	84-15-1	

ANALYTICAL RESULTS

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

Sample: 6205 0'-3' BGL **Lab ID: 258066016** Collected: 06/06/11 16:07 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	5.7 %		0.10	1		06/13/11 16:30		

Sample: 6205 4'-5' BGL **Lab ID: 258066017** Collected: 06/06/11 16:12 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	25.8 %		0.10	1		06/13/11 16:31		

Sample: 6205 5'-6' BGL **Lab ID: 258066018** Collected: 06/06/11 16:12 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	26.4 %		0.10	1		06/13/11 16:32		

Sample: 6205 8'-9' BGL **Lab ID: 258066019** Collected: 06/06/11 16:16 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3050						
Arsenic	ND	mg/kg	10.8	5	06/16/11 07:52	06/17/11 10:22	7440-38-2	
Barium	83.7	mg/kg	21.7	1	06/16/11 07:52	06/17/11 12:20	7440-39-3	
Cadmium	ND	mg/kg	5.4	5	06/16/11 07:52	06/17/11 10:22	7440-43-9	
Chromium	96.7	mg/kg	1.1	1	06/16/11 07:52	06/17/11 12:20	7440-47-3	
Lead	23.5	mg/kg	5.4	5	06/16/11 07:52	06/17/11 10:22	7439-92-1	
Selenium	ND	mg/kg	5.4	5	06/16/11 07:52	06/17/11 10:22	7782-49-2	
Silver	ND	mg/kg	5.4	5	06/16/11 07:52	06/17/11 10:22	7440-22-4	D3

7471 Mercury		Analytical Method: EPA 7471 Preparation Method: EPA 7471						
Mercury	ND	mg/kg	0.097	1	06/20/11 15:17	06/21/11 11:43	7439-97-6	

Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	12.1 %		0.10	1		06/13/11 16:33		

ANALYTICAL RESULTS

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

Sample: 6206 1'-2' BGL **Lab ID: 258066020** Collected: 06/07/11 12:28 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	27.0 %		0.10	1		06/13/11 16:34		

Sample: 6206 2'-3' BGL **Lab ID: 258066021** Collected: 06/07/11 12:28 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3050						
Arsenic	ND	mg/kg	8.2	5	06/16/11 07:52	06/17/11 10:25	7440-38-2	
Barium	103	mg/kg	16.4	1	06/16/11 07:52	06/17/11 12:23	7440-39-3	
Cadmium	ND	mg/kg	4.1	5	06/16/11 07:52	06/17/11 10:25	7440-43-9	
Chromium	35.6	mg/kg	0.82	1	06/16/11 07:52	06/17/11 12:23	7440-47-3	
Lead	4.4	mg/kg	4.1	5	06/16/11 07:52	06/17/11 10:25	7439-92-1	
Selenium	ND	mg/kg	4.1	5	06/16/11 07:52	06/17/11 10:25	7782-49-2	
Silver	ND	mg/kg	4.1	5	06/16/11 07:52	06/17/11 10:25	7440-22-4	D3

7471 Mercury Analytical Method: EPA 7471 Preparation Method: EPA 7471

Mercury ND mg/kg 0.094 1 06/20/11 15:17 06/21/11 10:32 7439-97-6

Percent Moisture Analytical Method: ASTM D2974-87

Percent Moisture 8.4 % 0.10 1 06/13/11 16:34

Sample: 6207 0'-2.5 BGL **Lab ID: 258066022** Collected: 06/07/11 12:40 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3050						
Arsenic	ND	mg/kg	11.3	5	06/16/11 07:52	06/17/11 10:29	7440-38-2	
Barium	272	mg/kg	22.6	1	06/16/11 07:52	06/17/11 12:26	7440-39-3	
Cadmium	ND	mg/kg	5.7	5	06/16/11 07:52	06/17/11 10:29	7440-43-9	
Chromium	70.7	mg/kg	1.1	1	06/16/11 07:52	06/17/11 12:26	7440-47-3	
Lead	16.3	mg/kg	5.7	5	06/16/11 07:52	06/17/11 10:29	7439-92-1	
Selenium	ND	mg/kg	5.7	5	06/16/11 07:52	06/17/11 10:29	7782-49-2	
Silver	ND	mg/kg	5.7	5	06/16/11 07:52	06/17/11 10:29	7440-22-4	D3

7471 Mercury Analytical Method: EPA 7471 Preparation Method: EPA 7471

Mercury ND mg/kg 0.10 1 06/20/11 15:17 06/21/11 11:45 7439-97-6

Percent Moisture Analytical Method: ASTM D2974-87

Percent Moisture 21.0 % 0.10 1 06/13/11 16:35

ANALYTICAL RESULTS

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

Sample: 6208 0'-3' BGL **Lab ID: 258066023** Collected: 06/07/11 12:55 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3050						
Arsenic	ND	mg/kg	9.5	5	06/16/11 07:52	06/17/11 10:32	7440-38-2	
Barium	271	mg/kg	94.9	5	06/16/11 07:52	06/17/11 10:32	7440-39-3	
Cadmium	ND	mg/kg	4.7	5	06/16/11 07:52	06/17/11 10:32	7440-43-9	
Chromium	78.0	mg/kg	0.95	1	06/16/11 07:52	06/17/11 12:30	7440-47-3	
Lead	11.1	mg/kg	4.7	5	06/16/11 07:52	06/17/11 10:32	7439-92-1	
Selenium	ND	mg/kg	4.7	5	06/16/11 07:52	06/17/11 10:32	7782-49-2	
Silver	ND	mg/kg	4.7	5	06/16/11 07:52	06/17/11 10:32	7440-22-4	D3
7471 Mercury		Analytical Method: EPA 7471 Preparation Method: EPA 7471						
Mercury	ND	mg/kg	0.12	1	06/20/11 15:17	06/21/11 11:47	7439-97-6	
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	26.8	%	0.10	1		06/13/11 16:35		

Sample: 6208 4'-5' BGL **Lab ID: 258066024** Collected: 06/07/11 13:01 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	27.6	%	0.10	1		06/14/11 16:01		

Sample: 6209 0-3 BGL **Lab ID: 258066025** Collected: 06/07/11 13:19 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	27.6	%	0.10	1		06/14/11 16:01		

Sample: 6209 3-4' BGL **Lab ID: 258066026** Collected: 06/07/11 13:23 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	14.4	%	0.10	1		06/14/11 16:02		

ANALYTICAL RESULTS

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

Sample: 6210 0-3 BGL Lab ID: **258066027** Collected: 06/07/11 13:49 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	30.6 %		0.10	1		06/14/11 16:03		

Sample: 6210 3-4 BGL Lab ID: **258066028** Collected: 06/07/11 13:57 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3050						
Arsenic	ND	mg/kg	11.2	5	06/16/11 07:52	06/17/11 10:35	7440-38-2	
Barium	242	mg/kg	22.5	1	06/16/11 07:52	06/17/11 12:33	7440-39-3	
Cadmium	ND	mg/kg	5.6	5	06/16/11 07:52	06/17/11 10:35	7440-43-9	
Chromium	74.3	mg/kg	1.1	1	06/16/11 07:52	06/17/11 12:33	7440-47-3	
Lead	ND	mg/kg	5.6	5	06/16/11 07:52	06/17/11 10:35	7439-92-1	
Selenium	ND	mg/kg	5.6	5	06/16/11 07:52	06/17/11 10:35	7782-49-2	
Silver	ND	mg/kg	5.6	5	06/16/11 07:52	06/17/11 10:35	7440-22-4	D3

7471 Mercury Analytical Method: EPA 7471 Preparation Method: EPA 7471

Mercury	ND	mg/kg	0.099	1	06/20/11 15:17	06/21/11 11:49	7439-97-6	
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Percent Moisture Analytical Method: ASTM D2974-87

Percent Moisture	16.1 %		0.10	1		06/14/11 16:03		
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Sample: 6211 0-3 BGL Lab ID: **258066029** Collected: 06/07/11 14:09 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	26.9 %		0.10	1		06/14/11 16:04		

Sample: 6211 4'-5' BGL Lab ID: **258066030** Collected: 06/07/11 14:15 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3050						
Arsenic	ND	mg/kg	10.9	5	06/16/11 07:52	06/17/11 10:38	7440-38-2	
Barium	95.6	mg/kg	21.8	1	06/16/11 07:52	06/17/11 12:36	7440-39-3	
Cadmium	ND	mg/kg	5.4	5	06/16/11 07:52	06/17/11 10:38	7440-43-9	
Chromium	62.3	mg/kg	1.1	1	06/16/11 07:52	06/17/11 12:36	7440-47-3	
Lead	ND	mg/kg	5.4	5	06/16/11 07:52	06/17/11 10:38	7439-92-1	
Selenium	ND	mg/kg	5.4	5	06/16/11 07:52	06/17/11 10:38	7782-49-2	

ANALYTICAL RESULTS

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

Sample: 6211 4'-5' BGL Lab ID: 258066030 Collected: 06/07/11 14:15 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3050						
Silver	ND	mg/kg	5.4	5	06/16/11 07:52	06/17/11 10:38	7440-22-4	D3
7471 Mercury		Analytical Method: EPA 7471 Preparation Method: EPA 7471						
Mercury	ND	mg/kg	0.095	1	06/20/11 15:17	06/21/11 10:41	7439-97-6	
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	19.4	%	0.10	1		06/14/11 16:04		

Sample: 6212 0-3 BGL Lab ID: 258066031 Collected: 06/07/11 14:49 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546						
Acenaphthene	ND	ug/kg	9.6	1	06/14/11 15:15	06/15/11 17:47	83-32-9	
Acenaphthylene	ND	ug/kg	9.6	1	06/14/11 15:15	06/15/11 17:47	208-96-8	
Anthracene	ND	ug/kg	9.6	1	06/14/11 15:15	06/15/11 17:47	120-12-7	
Benzo(a)anthracene	ND	ug/kg	9.6	1	06/14/11 15:15	06/15/11 17:47	56-55-3	
Benzo(a)pyrene	ND	ug/kg	9.6	1	06/14/11 15:15	06/15/11 17:47	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	9.6	1	06/14/11 15:15	06/15/11 17:47	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	9.6	1	06/14/11 15:15	06/15/11 17:47	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	9.6	1	06/14/11 15:15	06/15/11 17:47	207-08-9	
Chrysene	ND	ug/kg	9.6	1	06/14/11 15:15	06/15/11 17:47	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	9.6	1	06/14/11 15:15	06/15/11 17:47	53-70-3	
Fluoranthene	ND	ug/kg	9.6	1	06/14/11 15:15	06/15/11 17:47	206-44-0	
Fluorene	ND	ug/kg	9.6	1	06/14/11 15:15	06/15/11 17:47	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	9.6	1	06/14/11 15:15	06/15/11 17:47	193-39-5	
1-Methylnaphthalene	ND	ug/kg	9.6	1	06/14/11 15:15	06/15/11 17:47	90-12-0	
2-Methylnaphthalene	ND	ug/kg	9.6	1	06/14/11 15:15	06/15/11 17:47	91-57-6	
Naphthalene	ND	ug/kg	9.6	1	06/14/11 15:15	06/15/11 17:47	91-20-3	
Phenanthrene	ND	ug/kg	9.6	1	06/14/11 15:15	06/15/11 17:47	85-01-8	
Pyrene	ND	ug/kg	9.6	1	06/14/11 15:15	06/15/11 17:47	129-00-0	
2-Fluorobiphenyl (S)	81	%	31-131	1	06/14/11 15:15	06/15/11 17:47	321-60-8	
Terphenyl-d14 (S)	73	%	30-133	1	06/14/11 15:15	06/15/11 17:47	1718-51-0	

8270 MSSV Semivolatiles

Analytical Method: EPA 8270 Preparation Method: EPA 3546

Benzoic acid	ND	ug/kg	2380	1	06/14/11 15:15	06/21/11 00:22	65-85-0	
Benzyl alcohol	ND	ug/kg	476	1	06/14/11 15:15	06/21/11 00:22	100-51-6	
4-Bromophenylphenyl ether	ND	ug/kg	476	1	06/14/11 15:15	06/21/11 00:22	101-55-3	
Butylbenzylphthalate	ND	ug/kg	476	1	06/14/11 15:15	06/21/11 00:22	85-68-7	
4-Chloro-3-methylphenol	ND	ug/kg	476	1	06/14/11 15:15	06/21/11 00:22	59-50-7	
4-Chloroaniline	ND	ug/kg	476	1	06/14/11 15:15	06/21/11 00:22	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/kg	476	1	06/14/11 15:15	06/21/11 00:22	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/kg	476	1	06/14/11 15:15	06/21/11 00:22	111-44-4	

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ANALYTICAL RESULTS

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

Sample: 6212 0-3 BGL Lab ID: 258066031 Collected: 06/07/11 14:49 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Semivolatiles		Analytical Method: EPA 8270 Preparation Method: EPA 3546						
bis(2-Chloroisopropyl) ether	ND	ug/kg	476	1	06/14/11 15:15	06/21/11 00:22	39638-32-9	
2-Chloronaphthalene	ND	ug/kg	476	1	06/14/11 15:15	06/21/11 00:22	91-58-7	
2-Chlorophenol	ND	ug/kg	476	1	06/14/11 15:15	06/21/11 00:22	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/kg	476	1	06/14/11 15:15	06/21/11 00:22	7005-72-3	
Dibenzofuran	ND	ug/kg	476	1	06/14/11 15:15	06/21/11 00:22	132-64-9	
1,2-Dichlorobenzene	ND	ug/kg	476	1	06/14/11 15:15	06/21/11 00:22	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	476	1	06/14/11 15:15	06/21/11 00:22	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	476	1	06/14/11 15:15	06/21/11 00:22	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/kg	476	1	06/14/11 15:15	06/21/11 00:22	91-94-1	
2,4-Dichlorophenol	ND	ug/kg	476	1	06/14/11 15:15	06/21/11 00:22	120-83-2	
Diethylphthalate	ND	ug/kg	476	1	06/14/11 15:15	06/21/11 00:22	84-66-2	
2,4-Dimethylphenol	ND	ug/kg	476	1	06/14/11 15:15	06/21/11 00:22	105-67-9	
Dimethylphthalate	ND	ug/kg	476	1	06/14/11 15:15	06/21/11 00:22	131-11-3	
Di-n-butylphthalate	ND	ug/kg	476	1	06/14/11 15:15	06/21/11 00:22	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/kg	476	1	06/14/11 15:15	06/21/11 00:22	534-52-1	
2,4-Dinitrophenol	ND	ug/kg	967	1	06/14/11 15:15	06/21/11 00:22	51-28-5	
2,4-Dinitrotoluene	ND	ug/kg	476	1	06/14/11 15:15	06/21/11 00:22	121-14-2	
2,6-Dinitrotoluene	ND	ug/kg	476	1	06/14/11 15:15	06/21/11 00:22	606-20-2	
Di-n-octylphthalate	ND	ug/kg	476	1	06/14/11 15:15	06/21/11 00:22	117-84-0	
bis(2-Ethylhexyl)phthalate	ND	ug/kg	476	1	06/14/11 15:15	06/21/11 00:22	117-81-7	
Hexachloro-1,3-butadiene	ND	ug/kg	476	1	06/14/11 15:15	06/21/11 00:22	87-68-3	
Hexachlorobenzene	ND	ug/kg	476	1	06/14/11 15:15	06/21/11 00:22	118-74-1	
Hexachlorocyclopentadiene	ND	ug/kg	476	1	06/14/11 15:15	06/21/11 00:22	77-47-4	
Hexachloroethane	ND	ug/kg	476	1	06/14/11 15:15	06/21/11 00:22	67-72-1	
Isophorone	ND	ug/kg	476	1	06/14/11 15:15	06/21/11 00:22	78-59-1	
2-Methylphenol(o-Cresol)	ND	ug/kg	476	1	06/14/11 15:15	06/21/11 00:22	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/kg	476	1	06/14/11 15:15	06/21/11 00:22		
2-Nitroaniline	ND	ug/kg	476	1	06/14/11 15:15	06/21/11 00:22	88-74-4	
3-Nitroaniline	ND	ug/kg	476	1	06/14/11 15:15	06/21/11 00:22	99-09-2	
4-Nitroaniline	ND	ug/kg	476	1	06/14/11 15:15	06/21/11 00:22	100-01-6	
Nitrobenzene	ND	ug/kg	476	1	06/14/11 15:15	06/21/11 00:22	98-95-3	
2-Nitrophenol	ND	ug/kg	476	1	06/14/11 15:15	06/21/11 00:22	88-75-5	
4-Nitrophenol	ND	ug/kg	476	1	06/14/11 15:15	06/21/11 00:22	100-02-7	
N-Nitroso-di-n-propylamine	ND	ug/kg	476	1	06/14/11 15:15	06/21/11 00:22	621-64-7	
N-Nitrosodiphenylamine	ND	ug/kg	476	1	06/14/11 15:15	06/21/11 00:22	86-30-6	
Pentachlorophenol	ND	ug/kg	476	1	06/14/11 15:15	06/21/11 00:22	87-86-5	
Phenol	ND	ug/kg	476	1	06/14/11 15:15	06/21/11 00:22	108-95-2	
1,2,4-Trichlorobenzene	ND	ug/kg	476	1	06/14/11 15:15	06/21/11 00:22	120-82-1	
2,4,5-Trichlorophenol	ND	ug/kg	476	1	06/14/11 15:15	06/21/11 00:22	95-95-4	
2,4,6-Trichlorophenol	ND	ug/kg	476	1	06/14/11 15:15	06/21/11 00:22	88-06-2	
Nitrobenzene-d5 (S)	83 %		40-138	1	06/14/11 15:15	06/21/11 00:22	4165-60-0	
2-Fluorobiphenyl (S)	84 %		46-118	1	06/14/11 15:15	06/21/11 00:22	321-60-8	
Terphenyl-d14 (S)	88 %		41-137	1	06/14/11 15:15	06/21/11 00:22	1718-51-0	
Phenol-d6 (S)	77 %		44-120	1	06/14/11 15:15	06/21/11 00:22	13127-88-3	
2-Fluorophenol (S)	74 %		37-117	1	06/14/11 15:15	06/21/11 00:22	367-12-4	
2,4,6-Tribromophenol (S)	85 %		26-135	1	06/14/11 15:15	06/21/11 00:22	118-79-6	

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ANALYTICAL RESULTS

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

Sample: 6212 0-3 BGL Lab ID: 258066031 Collected: 06/07/11 14:49 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	31.0 %		0.10	1		06/14/11 16:05		

Sample: 6212 3'-4.3 BGL Lab ID: 258066032 Collected: 06/07/11 14:52 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3050						
Arsenic	ND	mg/kg	10.2	5	06/16/11 07:52	06/17/11 10:41	7440-38-2	
Barium	90.0	mg/kg	20.5	1	06/16/11 07:52	06/17/11 12:39	7440-39-3	
Cadmium	ND	mg/kg	5.1	5	06/16/11 07:52	06/17/11 10:41	7440-43-9	
Chromium	76.9	mg/kg	1.0	1	06/16/11 07:52	06/17/11 12:39	7440-47-3	
Lead	ND	mg/kg	5.1	5	06/16/11 07:52	06/17/11 10:41	7439-92-1	
Selenium	ND	mg/kg	5.1	5	06/16/11 07:52	06/17/11 10:41	7782-49-2	
Silver	ND	mg/kg	5.1	5	06/16/11 07:52	06/17/11 10:41	7440-22-4	D3
7471 Mercury		Analytical Method: EPA 7471 Preparation Method: EPA 7471						
Mercury	ND	mg/kg	0.096	1	06/20/11 15:17	06/21/11 11:52	7439-97-6	
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	12.7 %		0.10	1		06/14/11 16:06		

Sample: 6213 0-3 BGL Lab ID: 258066033 Collected: 06/07/11 14:39 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546						
Acenaphthene	ND	ug/kg	9.5	1	06/14/11 15:15	06/15/11 18:03	83-32-9	
Acenaphthylene	ND	ug/kg	9.5	1	06/14/11 15:15	06/15/11 18:03	208-96-8	
Anthracene	ND	ug/kg	9.5	1	06/14/11 15:15	06/15/11 18:03	120-12-7	
Benzo(a)anthracene	ND	ug/kg	9.5	1	06/14/11 15:15	06/15/11 18:03	56-55-3	
Benzo(a)pyrene	ND	ug/kg	9.5	1	06/14/11 15:15	06/15/11 18:03	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	9.5	1	06/14/11 15:15	06/15/11 18:03	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	9.5	1	06/14/11 15:15	06/15/11 18:03	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	9.5	1	06/14/11 15:15	06/15/11 18:03	207-08-9	
Chrysene	ND	ug/kg	9.5	1	06/14/11 15:15	06/15/11 18:03	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	9.5	1	06/14/11 15:15	06/15/11 18:03	53-70-3	
Fluoranthene	ND	ug/kg	9.5	1	06/14/11 15:15	06/15/11 18:03	206-44-0	
Fluorene	ND	ug/kg	9.5	1	06/14/11 15:15	06/15/11 18:03	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	9.5	1	06/14/11 15:15	06/15/11 18:03	193-39-5	
1-Methylnaphthalene	ND	ug/kg	9.5	1	06/14/11 15:15	06/15/11 18:03	90-12-0	
2-Methylnaphthalene	ND	ug/kg	9.5	1	06/14/11 15:15	06/15/11 18:03	91-57-6	

ANALYTICAL RESULTS

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

Sample: 6213 0-3 BGL Lab ID: 258066033 Collected: 06/07/11 14:39 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546						
Naphthalene	ND ug/kg		9.5	1	06/14/11 15:15	06/15/11 18:03	91-20-3	
Phenanthrene	ND ug/kg		9.5	1	06/14/11 15:15	06/15/11 18:03	85-01-8	
Pyrene	ND ug/kg		9.5	1	06/14/11 15:15	06/15/11 18:03	129-00-0	
2-Fluorobiphenyl (S)	82 %		31-131	1	06/14/11 15:15	06/15/11 18:03	321-60-8	
Terphenyl-d14 (S)	79 %		30-133	1	06/14/11 15:15	06/15/11 18:03	1718-51-0	
8270 MSSV Semivolatiles		Analytical Method: EPA 8270 Preparation Method: EPA 3546						
Benzoic acid	ND ug/kg		2360	1	06/14/11 15:15	06/21/11 00:45	65-85-0	
Benzyl alcohol	ND ug/kg		472	1	06/14/11 15:15	06/21/11 00:45	100-51-6	
4-Bromophenylphenyl ether	ND ug/kg		472	1	06/14/11 15:15	06/21/11 00:45	101-55-3	
Butylbenzylphthalate	ND ug/kg		472	1	06/14/11 15:15	06/21/11 00:45	85-68-7	
4-Chloro-3-methylphenol	ND ug/kg		472	1	06/14/11 15:15	06/21/11 00:45	59-50-7	
4-Chloroaniline	ND ug/kg		472	1	06/14/11 15:15	06/21/11 00:45	106-47-8	
bis(2-Chloroethoxy)methane	ND ug/kg		472	1	06/14/11 15:15	06/21/11 00:45	111-91-1	
bis(2-Chloroethyl) ether	ND ug/kg		472	1	06/14/11 15:15	06/21/11 00:45	111-44-4	
bis(2-Chloroisopropyl) ether	ND ug/kg		472	1	06/14/11 15:15	06/21/11 00:45	39638-32-9	
2-Chloronaphthalene	ND ug/kg		472	1	06/14/11 15:15	06/21/11 00:45	91-58-7	
2-Chlorophenol	ND ug/kg		472	1	06/14/11 15:15	06/21/11 00:45	95-57-8	
4-Chlorophenylphenyl ether	ND ug/kg		472	1	06/14/11 15:15	06/21/11 00:45	7005-72-3	
Dibenzofuran	ND ug/kg		472	1	06/14/11 15:15	06/21/11 00:45	132-64-9	
1,2-Dichlorobenzene	ND ug/kg		472	1	06/14/11 15:15	06/21/11 00:45	95-50-1	
1,3-Dichlorobenzene	ND ug/kg		472	1	06/14/11 15:15	06/21/11 00:45	541-73-1	
1,4-Dichlorobenzene	ND ug/kg		472	1	06/14/11 15:15	06/21/11 00:45	106-46-7	
3,3'-Dichlorobenzidine	ND ug/kg		472	1	06/14/11 15:15	06/21/11 00:45	91-94-1	
2,4-Dichlorophenol	ND ug/kg		472	1	06/14/11 15:15	06/21/11 00:45	120-83-2	
Diethylphthalate	ND ug/kg		472	1	06/14/11 15:15	06/21/11 00:45	84-66-2	
2,4-Dimethylphenol	ND ug/kg		472	1	06/14/11 15:15	06/21/11 00:45	105-67-9	
Dimethylphthalate	ND ug/kg		472	1	06/14/11 15:15	06/21/11 00:45	131-11-3	
Di-n-butylphthalate	ND ug/kg		472	1	06/14/11 15:15	06/21/11 00:45	84-74-2	
4,6-Dinitro-2-methylphenol	ND ug/kg		472	1	06/14/11 15:15	06/21/11 00:45	534-52-1	
2,4-Dinitrophenol	ND ug/kg		959	1	06/14/11 15:15	06/21/11 00:45	51-28-5	
2,4-Dinitrotoluene	ND ug/kg		472	1	06/14/11 15:15	06/21/11 00:45	121-14-2	
2,6-Dinitrotoluene	ND ug/kg		472	1	06/14/11 15:15	06/21/11 00:45	606-20-2	
Di-n-octylphthalate	ND ug/kg		472	1	06/14/11 15:15	06/21/11 00:45	117-84-0	
bis(2-Ethylhexyl)phthalate	ND ug/kg		472	1	06/14/11 15:15	06/21/11 00:45	117-81-7	
Hexachloro-1,3-butadiene	ND ug/kg		472	1	06/14/11 15:15	06/21/11 00:45	87-68-3	
Hexachlorobenzene	ND ug/kg		472	1	06/14/11 15:15	06/21/11 00:45	118-74-1	
Hexachlorocyclopentadiene	ND ug/kg		472	1	06/14/11 15:15	06/21/11 00:45	77-47-4	
Hexachloroethane	ND ug/kg		472	1	06/14/11 15:15	06/21/11 00:45	67-72-1	
Isophorone	ND ug/kg		472	1	06/14/11 15:15	06/21/11 00:45	78-59-1	
2-Methylphenol(o-Cresol)	ND ug/kg		472	1	06/14/11 15:15	06/21/11 00:45	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND ug/kg		472	1	06/14/11 15:15	06/21/11 00:45		
2-Nitroaniline	ND ug/kg		472	1	06/14/11 15:15	06/21/11 00:45	88-74-4	
3-Nitroaniline	ND ug/kg		472	1	06/14/11 15:15	06/21/11 00:45	99-09-2	
4-Nitroaniline	ND ug/kg		472	1	06/14/11 15:15	06/21/11 00:45	100-01-6	
Nitrobenzene	ND ug/kg		472	1	06/14/11 15:15	06/21/11 00:45	98-95-3	

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ANALYTICAL RESULTS

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

Sample: 6213 0-3 BGL Lab ID: 258066033 Collected: 06/07/11 14:39 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Semivolatiles		Analytical Method: EPA 8270 Preparation Method: EPA 3546						
2-Nitrophenol	ND	ug/kg	472	1	06/14/11 15:15	06/21/11 00:45	88-75-5	
4-Nitrophenol	ND	ug/kg	472	1	06/14/11 15:15	06/21/11 00:45	100-02-7	
N-Nitroso-di-n-propylamine	ND	ug/kg	472	1	06/14/11 15:15	06/21/11 00:45	621-64-7	
N-Nitrosodiphenylamine	ND	ug/kg	472	1	06/14/11 15:15	06/21/11 00:45	86-30-6	
Pentachlorophenol	ND	ug/kg	472	1	06/14/11 15:15	06/21/11 00:45	87-86-5	
Phenol	ND	ug/kg	472	1	06/14/11 15:15	06/21/11 00:45	108-95-2	
1,2,4-Trichlorobenzene	ND	ug/kg	472	1	06/14/11 15:15	06/21/11 00:45	120-82-1	
2,4,5-Trichlorophenol	ND	ug/kg	472	1	06/14/11 15:15	06/21/11 00:45	95-95-4	
2,4,6-Trichlorophenol	ND	ug/kg	472	1	06/14/11 15:15	06/21/11 00:45	88-06-2	
Nitrobenzene-d5 (S)	82	%	40-138	1	06/14/11 15:15	06/21/11 00:45	4165-60-0	
2-Fluorobiphenyl (S)	78	%	46-118	1	06/14/11 15:15	06/21/11 00:45	321-60-8	
Terphenyl-d14 (S)	79	%	41-137	1	06/14/11 15:15	06/21/11 00:45	1718-51-0	
Phenol-d6 (S)	82	%	44-120	1	06/14/11 15:15	06/21/11 00:45	13127-88-3	
2-Fluorophenol (S)	81	%	37-117	1	06/14/11 15:15	06/21/11 00:45	367-12-4	
2,4,6-Tribromophenol (S)	84	%	26-135	1	06/14/11 15:15	06/21/11 00:45	118-79-6	

Percent Moisture

Analytical Method: ASTM D2974-87

Percent Moisture 30.2 % 0.10 1 06/14/11 16:06

Sample: 6213 4'-5 BGL Lab ID: 258066034 Collected: 06/07/11 14:36 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	20.6	%	0.10	1		06/13/11 16:36		

Sample: 6213 5'-6 BGL Lab ID: 258066035 Collected: 06/07/11 14:36 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	16.5	%	0.10	1		06/13/11 16:36		

Sample: 6214 0-3' BGL Lab ID: 258066036 Collected: 06/06/11 16:42 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS		Analytical Method: NWTPH-Dx Preparation Method: EPA 3546						
Diesel Range	324	mg/kg	87.3	5	06/17/11 10:15	06/18/11 06:30		
Motor Oil Range	937	mg/kg	349	5	06/17/11 10:15	06/18/11 06:30	64742-65-0	

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ANALYTICAL RESULTS

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

Sample: 6214 0-3' BGL Lab ID: 258066036 Collected: 06/06/11 16:42 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS		Analytical Method: NWTPH-Dx Preparation Method: EPA 3546						
n-Octacosane (S)	117 %		50-150	5	06/17/11 10:15	06/18/11 06:30	630-02-4	
o-Terphenyl (S)	109 %		50-150	5	06/17/11 10:15	06/18/11 06:30	84-15-1	
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	9.7 %		0.10	1		06/14/11 16:07		

Sample: 6214 4-5' BGL Lab ID: 258066037 Collected: 06/06/11 16:44 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	26.6 %		0.10	1		06/14/11 16:07		

Sample: 6214 5-6' BGL Lab ID: 258066038 Collected: 06/06/11 16:44 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	21.7 %		0.10	1		06/14/11 16:08		

Sample: 6214 8-9' BGL Lab ID: 258066039 Collected: 06/06/11 16:49 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	27.5 %		0.10	1		06/14/11 16:09		

Sample: 6215 0-3' BGL Lab ID: 258066040 Collected: 06/08/11 07:59 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	27.4 %		0.10	1		06/14/11 16:09		

ANALYTICAL RESULTS

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

Sample: 6215 3'-4.5 BGL Lab ID: 258066041 Collected: 06/08/11 08:05 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546						
Acenaphthene	ND	ug/kg	7.9	1	06/14/11 15:15	06/16/11 16:33	83-32-9	
Acenaphthylene	ND	ug/kg	7.9	1	06/14/11 15:15	06/16/11 16:33	208-96-8	
Anthracene	ND	ug/kg	7.9	1	06/14/11 15:15	06/16/11 16:33	120-12-7	
Benzo(a)anthracene	ND	ug/kg	7.9	1	06/14/11 15:15	06/16/11 16:33	56-55-3	
Benzo(a)pyrene	ND	ug/kg	7.9	1	06/14/11 15:15	06/16/11 16:33	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	7.9	1	06/14/11 15:15	06/16/11 16:33	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	7.9	1	06/14/11 15:15	06/16/11 16:33	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	7.9	1	06/14/11 15:15	06/16/11 16:33	207-08-9	
Chrysene	ND	ug/kg	7.9	1	06/14/11 15:15	06/16/11 16:33	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	7.9	1	06/14/11 15:15	06/16/11 16:33	53-70-3	
Fluoranthene	ND	ug/kg	7.9	1	06/14/11 15:15	06/16/11 16:33	206-44-0	
Fluorene	ND	ug/kg	7.9	1	06/14/11 15:15	06/16/11 16:33	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	7.9	1	06/14/11 15:15	06/16/11 16:33	193-39-5	
1-Methylnaphthalene	ND	ug/kg	7.9	1	06/14/11 15:15	06/16/11 16:33	90-12-0	
2-Methylnaphthalene	ND	ug/kg	7.9	1	06/14/11 15:15	06/16/11 16:33	91-57-6	
Naphthalene	ND	ug/kg	7.9	1	06/14/11 15:15	06/16/11 16:33	91-20-3	
Phenanthrene	ND	ug/kg	7.9	1	06/14/11 15:15	06/16/11 16:33	85-01-8	
Pyrene	ND	ug/kg	7.9	1	06/14/11 15:15	06/16/11 16:33	129-00-0	
2-Fluorobiphenyl (S)	86 %		31-131	1	06/14/11 15:15	06/16/11 16:33	321-60-8	
Terphenyl-d14 (S)	87 %		30-133	1	06/14/11 15:15	06/16/11 16:33	1718-51-0	
8270 MSSV Semivolatiles		Analytical Method: EPA 8270 Preparation Method: EPA 3546						
Benzoic acid	ND	ug/kg	1970	1	06/14/11 15:15	06/21/11 01:07	65-85-0	
Benzyl alcohol	ND	ug/kg	394	1	06/14/11 15:15	06/21/11 01:07	100-51-6	
4-Bromophenylphenyl ether	ND	ug/kg	394	1	06/14/11 15:15	06/21/11 01:07	101-55-3	
Butylbenzylphthalate	ND	ug/kg	394	1	06/14/11 15:15	06/21/11 01:07	85-68-7	
4-Chloro-3-methylphenol	ND	ug/kg	394	1	06/14/11 15:15	06/21/11 01:07	59-50-7	
4-Chloroaniline	ND	ug/kg	394	1	06/14/11 15:15	06/21/11 01:07	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/kg	394	1	06/14/11 15:15	06/21/11 01:07	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/kg	394	1	06/14/11 15:15	06/21/11 01:07	111-44-4	
bis(2-Chloroisopropyl) ether	ND	ug/kg	394	1	06/14/11 15:15	06/21/11 01:07	39638-32-9	
2-Chloronaphthalene	ND	ug/kg	394	1	06/14/11 15:15	06/21/11 01:07	91-58-7	
2-Chlorophenol	ND	ug/kg	394	1	06/14/11 15:15	06/21/11 01:07	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/kg	394	1	06/14/11 15:15	06/21/11 01:07	7005-72-3	
Dibenzofuran	ND	ug/kg	394	1	06/14/11 15:15	06/21/11 01:07	132-64-9	
1,2-Dichlorobenzene	ND	ug/kg	394	1	06/14/11 15:15	06/21/11 01:07	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	394	1	06/14/11 15:15	06/21/11 01:07	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	394	1	06/14/11 15:15	06/21/11 01:07	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/kg	394	1	06/14/11 15:15	06/21/11 01:07	91-94-1	
2,4-Dichlorophenol	ND	ug/kg	394	1	06/14/11 15:15	06/21/11 01:07	120-83-2	
Diethylphthalate	ND	ug/kg	394	1	06/14/11 15:15	06/21/11 01:07	84-66-2	
2,4-Dimethylphenol	ND	ug/kg	394	1	06/14/11 15:15	06/21/11 01:07	105-67-9	
Dimethylphthalate	ND	ug/kg	394	1	06/14/11 15:15	06/21/11 01:07	131-11-3	
Di-n-butylphthalate	ND	ug/kg	394	1	06/14/11 15:15	06/21/11 01:07	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/kg	394	1	06/14/11 15:15	06/21/11 01:07	534-52-1	
2,4-Dinitrophenol	ND	ug/kg	800	1	06/14/11 15:15	06/21/11 01:07	51-28-5	

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ANALYTICAL RESULTS

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

Sample: 6215 3'-4.5 BGL Lab ID: 258066041 Collected: 06/08/11 08:05 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Semivolatiles		Analytical Method: EPA 8270 Preparation Method: EPA 3546						
2,4-Dinitrotoluene	ND	ug/kg	394	1	06/14/11 15:15	06/21/11 01:07	121-14-2	
2,6-Dinitrotoluene	ND	ug/kg	394	1	06/14/11 15:15	06/21/11 01:07	606-20-2	
Di-n-octylphthalate	ND	ug/kg	394	1	06/14/11 15:15	06/21/11 01:07	117-84-0	
bis(2-Ethylhexyl)phthalate	ND	ug/kg	394	1	06/14/11 15:15	06/21/11 01:07	117-81-7	
Hexachloro-1,3-butadiene	ND	ug/kg	394	1	06/14/11 15:15	06/21/11 01:07	87-68-3	
Hexachlorobenzene	ND	ug/kg	394	1	06/14/11 15:15	06/21/11 01:07	118-74-1	
Hexachlorocyclopentadiene	ND	ug/kg	394	1	06/14/11 15:15	06/21/11 01:07	77-47-4	
Hexachloroethane	ND	ug/kg	394	1	06/14/11 15:15	06/21/11 01:07	67-72-1	
Isophorone	ND	ug/kg	394	1	06/14/11 15:15	06/21/11 01:07	78-59-1	
2-Methylphenol(o-Cresol)	ND	ug/kg	394	1	06/14/11 15:15	06/21/11 01:07	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/kg	394	1	06/14/11 15:15	06/21/11 01:07		
2-Nitroaniline	ND	ug/kg	394	1	06/14/11 15:15	06/21/11 01:07	88-74-4	
3-Nitroaniline	ND	ug/kg	394	1	06/14/11 15:15	06/21/11 01:07	99-09-2	
4-Nitroaniline	ND	ug/kg	394	1	06/14/11 15:15	06/21/11 01:07	100-01-6	
Nitrobenzene	ND	ug/kg	394	1	06/14/11 15:15	06/21/11 01:07	98-95-3	
2-Nitrophenol	ND	ug/kg	394	1	06/14/11 15:15	06/21/11 01:07	88-75-5	
4-Nitrophenol	ND	ug/kg	394	1	06/14/11 15:15	06/21/11 01:07	100-02-7	
N-Nitroso-di-n-propylamine	ND	ug/kg	394	1	06/14/11 15:15	06/21/11 01:07	621-64-7	
N-Nitrosodiphenylamine	ND	ug/kg	394	1	06/14/11 15:15	06/21/11 01:07	86-30-6	
Pentachlorophenol	ND	ug/kg	394	1	06/14/11 15:15	06/21/11 01:07	87-86-5	
Phenol	ND	ug/kg	394	1	06/14/11 15:15	06/21/11 01:07	108-95-2	
1,2,4-Trichlorobenzene	ND	ug/kg	394	1	06/14/11 15:15	06/21/11 01:07	120-82-1	
2,4,5-Trichlorophenol	ND	ug/kg	394	1	06/14/11 15:15	06/21/11 01:07	95-95-4	
2,4,6-Trichlorophenol	ND	ug/kg	394	1	06/14/11 15:15	06/21/11 01:07	88-06-2	
Nitrobenzene-d5 (S)	82 %		40-138	1	06/14/11 15:15	06/21/11 01:07	4165-60-0	
2-Fluorobiphenyl (S)	82 %		46-118	1	06/14/11 15:15	06/21/11 01:07	321-60-8	
Terphenyl-d14 (S)	85 %		41-137	1	06/14/11 15:15	06/21/11 01:07	1718-51-0	
Phenol-d6 (S)	82 %		44-120	1	06/14/11 15:15	06/21/11 01:07	13127-88-3	
2-Fluorophenol (S)	83 %		37-117	1	06/14/11 15:15	06/21/11 01:07	367-12-4	
2,4,6-Tribromophenol (S)	85 %		26-135	1	06/14/11 15:15	06/21/11 01:07	118-79-6	

Percent Moisture

Analytical Method: ASTM D2974-87

Percent Moisture 17.2 % 0.10 1 06/14/11 16:10

Sample: 6216 0-3' BGL Lab ID: 258066042 Collected: 06/07/11 11:13 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB S		Analytical Method: EPA 8082 Preparation Method: EPA 3546						
PCB-1016 (Aroclor 1016)	ND	ug/kg	18.0	1	06/20/11 10:20	06/22/11 14:39	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/kg	18.0	1	06/20/11 10:20	06/22/11 14:39	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/kg	18.0	1	06/20/11 10:20	06/22/11 14:39	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/kg	18.0	1	06/20/11 10:20	06/22/11 14:39	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/kg	18.0	1	06/20/11 10:20	06/22/11 14:39	12672-29-6	

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ANALYTICAL RESULTS

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

Sample: 6216 0-3' BGL Lab ID: 258066042 Collected: 06/07/11 11:13 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB S		Analytical Method: EPA 8082 Preparation Method: EPA 3546						
PCB-1254 (Aroclor 1254)	ND	ug/kg	18.0	1	06/20/11 10:20	06/22/11 14:39	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/kg	18.0	1	06/20/11 10:20	06/22/11 14:39	11096-82-5	
Tetrachloro-m-xylene (S)	69	%	29-128	1	06/20/11 10:20	06/22/11 14:39	877-09-8	
Decachlorobiphenyl (S)	66	%	23-129	1	06/20/11 10:20	06/22/11 14:39	2051-24-3	
NWTPH-Dx GCS		Analytical Method: NWTPH-Dx Preparation Method: EPA 3546						
Diesel Range	208	mg/kg	16.6	1	06/17/11 10:15	06/18/11 07:18		
Motor Oil Range	427	mg/kg	66.3	1	06/17/11 10:15	06/18/11 07:18	64742-65-0	
n-Octacosane (S)	104	%	50-150	1	06/17/11 10:15	06/18/11 07:18	630-02-4	
o-Terphenyl (S)	105	%	50-150	1	06/17/11 10:15	06/18/11 07:18	84-15-1	
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	7.2	%	0.10	1		06/14/11 16:10		

Sample: 6216 5-6' BGL Lab ID: 258066043 Collected: 06/07/11 11:17 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3050						
Arsenic	ND	mg/kg	10.8	5	06/16/11 07:52	06/17/11 11:04	7440-38-2	
Barium	82.0	mg/kg	21.7	1	06/16/11 07:52	06/17/11 12:43	7440-39-3	
Cadmium	ND	mg/kg	5.4	5	06/16/11 07:52	06/17/11 11:04	7440-43-9	
Chromium	75.7	mg/kg	1.1	1	06/16/11 07:52	06/17/11 12:43	7440-47-3	
Lead	ND	mg/kg	5.4	5	06/16/11 07:52	06/17/11 11:04	7439-92-1	
Selenium	ND	mg/kg	5.4	5	06/16/11 07:52	06/17/11 11:04	7782-49-2	
Silver	ND	mg/kg	5.4	5	06/16/11 07:52	06/17/11 11:04	7440-22-4	D3
7471 Mercury		Analytical Method: EPA 7471 Preparation Method: EPA 7471						
Mercury	ND	mg/kg	0.10	1	06/20/11 15:17	06/21/11 10:59	7439-97-6	
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	12.2	%	0.10	1		06/14/11 16:11		

Sample: 6216 7'-8' BGL Lab ID: 258066044 Collected: 06/07/11 11:19 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	20.9	%	0.10	1		06/14/11 16:14		

ANALYTICAL RESULTS

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

Sample: 6217 2'-3 BGL Lab ID: 258066045 Collected: 06/08/11 08:15 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	15.6 %		0.10	1		06/14/11 16:15		

Sample: 6217 4-5 BGL Lab ID: 258066046 Collected: 06/08/11 08:18 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	10.4 %		0.10	1		06/14/11 16:16		

Sample: 6218 3'-6 BGL Lab ID: 258066047 Collected: 06/08/11 08:31 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3050						
Arsenic	ND	mg/kg	11.2	5	06/16/11 07:52	06/17/11 11:13	7440-38-2	
Barium	106	mg/kg	22.4	1	06/16/11 07:52	06/17/11 12:59	7440-39-3	
Cadmium	ND	mg/kg	5.6	5	06/16/11 07:52	06/17/11 11:13	7440-43-9	
Chromium	93.1	mg/kg	1.1	1	06/16/11 07:52	06/17/11 12:59	7440-47-3	
Lead	ND	mg/kg	5.6	5	06/16/11 07:52	06/17/11 11:13	7439-92-1	
Selenium	ND	mg/kg	5.6	5	06/16/11 07:52	06/17/11 11:13	7782-49-2	
Silver	ND	mg/kg	5.6	5	06/16/11 07:52	06/17/11 11:13	7440-22-4	D3

7471 Mercury Analytical Method: EPA 7471 Preparation Method: EPA 7471

Mercury ND mg/kg 0.11 1 06/20/11 15:17 06/21/11 11:05 7439-97-6

Percent Moisture Analytical Method: ASTM D2974-87

Percent Moisture 23.1 % 0.10 1 06/14/11 16:16

Sample: 6218 7-8' BGL Lab ID: 258066048 Collected: 06/08/11 08:37 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	13.1 %		0.10	1		06/14/11 16:17		

ANALYTICAL RESULTS

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

Sample: 6219 0-3 BGL Lab ID: 258066049 Collected: 06/08/11 08:48 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture Analytical Method: ASTM D2974-87								
Percent Moisture	19.1	%	0.10	1		06/14/11 16:17		

Sample: 6219 3'-6 BGL Lab ID: 258066050 Collected: 06/08/11 08:51 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture Analytical Method: ASTM D2974-87								
Percent Moisture	16.8	%	0.10	1		06/14/11 16:18		

Sample: 6220 0-3 BGL Lab ID: 258066051 Collected: 06/07/11 10:30 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	ND	mg/kg	8.7	5	06/16/11 07:52	06/17/11 11:16	7440-38-2	
Barium	86.3	mg/kg	17.4	1	06/16/11 07:52	06/17/11 13:02	7440-39-3	
Cadmium	ND	mg/kg	4.3	5	06/16/11 07:52	06/17/11 11:16	7440-43-9	
Chromium	31.9	mg/kg	0.87	1	06/16/11 07:52	06/17/11 13:02	7440-47-3	
Lead	10.0	mg/kg	4.3	5	06/16/11 07:52	06/17/11 11:16	7439-92-1	
Selenium	ND	mg/kg	4.3	5	06/16/11 07:52	06/17/11 11:16	7782-49-2	
Silver	ND	mg/kg	4.3	5	06/16/11 07:52	06/17/11 11:16	7440-22-4	D3

7471 Mercury Analytical Method: EPA 7471 Preparation Method: EPA 7471

Mercury ND mg/kg 0.081 1 06/20/11 15:17 06/21/11 11:08 7439-97-6

Percent Moisture Analytical Method: ASTM D2974-87

Percent Moisture 13.6 % 0.10 1 06/14/11 16:18

Sample: 6220 5'-6 BGL Lab ID: 258066052 Collected: 06/07/11 10:33 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture Analytical Method: ASTM D2974-87								
Percent Moisture	19.8	%	0.10	1		06/14/11 16:18		

ANALYTICAL RESULTS

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

Sample: 6220 8-9 BGL Lab ID: 258066053 Collected: 06/07/11 10:35 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	17.1 %		0.10	1		06/14/11 16:19		

Sample: 6221 0-3 BGL Lab ID: 258066054 Collected: 06/08/11 09:05 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546						
Acenaphthene	ND	ug/kg	8.8	1	06/14/11 15:15	06/15/11 18:37	83-32-9	
Acenaphthylene	ND	ug/kg	8.8	1	06/14/11 15:15	06/15/11 18:37	208-96-8	
Anthracene	ND	ug/kg	8.8	1	06/14/11 15:15	06/15/11 18:37	120-12-7	
Benzo(a)anthracene	ND	ug/kg	8.8	1	06/14/11 15:15	06/15/11 18:37	56-55-3	
Benzo(a)pyrene	ND	ug/kg	8.8	1	06/14/11 15:15	06/15/11 18:37	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	8.8	1	06/14/11 15:15	06/15/11 18:37	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	8.8	1	06/14/11 15:15	06/15/11 18:37	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	8.8	1	06/14/11 15:15	06/15/11 18:37	207-08-9	
Chrysene	ND	ug/kg	8.8	1	06/14/11 15:15	06/15/11 18:37	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	8.8	1	06/14/11 15:15	06/15/11 18:37	53-70-3	
Fluoranthene	12.2	ug/kg	8.8	1	06/14/11 15:15	06/15/11 18:37	206-44-0	
Fluorene	ND	ug/kg	8.8	1	06/14/11 15:15	06/15/11 18:37	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	8.8	1	06/14/11 15:15	06/15/11 18:37	193-39-5	
1-Methylnaphthalene	ND	ug/kg	8.8	1	06/14/11 15:15	06/15/11 18:37	90-12-0	
2-Methylnaphthalene	ND	ug/kg	8.8	1	06/14/11 15:15	06/15/11 18:37	91-57-6	
Naphthalene	ND	ug/kg	8.8	1	06/14/11 15:15	06/15/11 18:37	91-20-3	
Phenanthrene	ND	ug/kg	8.8	1	06/14/11 15:15	06/15/11 18:37	85-01-8	
Pyrene	ND	ug/kg	8.8	1	06/14/11 15:15	06/15/11 18:37	129-00-0	
2-Fluorobiphenyl (S)	73 %		31-131	1	06/14/11 15:15	06/15/11 18:37	321-60-8	
Terphenyl-d14 (S)	79 %		30-133	1	06/14/11 15:15	06/15/11 18:37	1718-51-0	

8270 MSSV Semivolatiles Analytical Method: EPA 8270 Preparation Method: EPA 3546

Benzoic acid	ND	ug/kg	2160	1	06/14/11 15:15	06/21/11 01:29	65-85-0	
Benzyl alcohol	ND	ug/kg	431	1	06/14/11 15:15	06/21/11 01:29	100-51-6	
4-Bromophenylphenyl ether	ND	ug/kg	431	1	06/14/11 15:15	06/21/11 01:29	101-55-3	
Butylbenzylphthalate	ND	ug/kg	431	1	06/14/11 15:15	06/21/11 01:29	85-68-7	
4-Chloro-3-methylphenol	ND	ug/kg	431	1	06/14/11 15:15	06/21/11 01:29	59-50-7	
4-Chloroaniline	ND	ug/kg	431	1	06/14/11 15:15	06/21/11 01:29	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/kg	431	1	06/14/11 15:15	06/21/11 01:29	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/kg	431	1	06/14/11 15:15	06/21/11 01:29	111-44-4	
bis(2-Chloroisopropyl) ether	ND	ug/kg	431	1	06/14/11 15:15	06/21/11 01:29	39638-32-9	
2-Chloronaphthalene	ND	ug/kg	431	1	06/14/11 15:15	06/21/11 01:29	91-58-7	
2-Chlorophenol	ND	ug/kg	431	1	06/14/11 15:15	06/21/11 01:29	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/kg	431	1	06/14/11 15:15	06/21/11 01:29	7005-72-3	
Dibenzofuran	ND	ug/kg	431	1	06/14/11 15:15	06/21/11 01:29	132-64-9	
1,2-Dichlorobenzene	ND	ug/kg	431	1	06/14/11 15:15	06/21/11 01:29	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	431	1	06/14/11 15:15	06/21/11 01:29	541-73-1	

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ANALYTICAL RESULTS

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

Sample: 6221 0-3 BGL Lab ID: 258066054 Collected: 06/08/11 09:05 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Semivolatiles		Analytical Method: EPA 8270 Preparation Method: EPA 3546						
1,4-Dichlorobenzene	ND	ug/kg	431	1	06/14/11 15:15	06/21/11 01:29	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/kg	431	1	06/14/11 15:15	06/21/11 01:29	91-94-1	
2,4-Dichlorophenol	ND	ug/kg	431	1	06/14/11 15:15	06/21/11 01:29	120-83-2	
Diethylphthalate	ND	ug/kg	431	1	06/14/11 15:15	06/21/11 01:29	84-66-2	
2,4-Dimethylphenol	ND	ug/kg	431	1	06/14/11 15:15	06/21/11 01:29	105-67-9	
Dimethylphthalate	ND	ug/kg	431	1	06/14/11 15:15	06/21/11 01:29	131-11-3	
Di-n-butylphthalate	ND	ug/kg	431	1	06/14/11 15:15	06/21/11 01:29	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/kg	431	1	06/14/11 15:15	06/21/11 01:29	534-52-1	
2,4-Dinitrophenol	ND	ug/kg	876	1	06/14/11 15:15	06/21/11 01:29	51-28-5	
2,4-Dinitrotoluene	ND	ug/kg	431	1	06/14/11 15:15	06/21/11 01:29	121-14-2	
2,6-Dinitrotoluene	ND	ug/kg	431	1	06/14/11 15:15	06/21/11 01:29	606-20-2	
Di-n-octylphthalate	ND	ug/kg	431	1	06/14/11 15:15	06/21/11 01:29	117-84-0	
bis(2-Ethylhexyl)phthalate	ND	ug/kg	431	1	06/14/11 15:15	06/21/11 01:29	117-81-7	
Hexachloro-1,3-butadiene	ND	ug/kg	431	1	06/14/11 15:15	06/21/11 01:29	87-68-3	
Hexachlorobenzene	ND	ug/kg	431	1	06/14/11 15:15	06/21/11 01:29	118-74-1	
Hexachlorocyclopentadiene	ND	ug/kg	431	1	06/14/11 15:15	06/21/11 01:29	77-47-4	
Hexachloroethane	ND	ug/kg	431	1	06/14/11 15:15	06/21/11 01:29	67-72-1	
Isophorone	ND	ug/kg	431	1	06/14/11 15:15	06/21/11 01:29	78-59-1	
2-Methylphenol(o-Cresol)	ND	ug/kg	431	1	06/14/11 15:15	06/21/11 01:29	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/kg	431	1	06/14/11 15:15	06/21/11 01:29		
2-Nitroaniline	ND	ug/kg	431	1	06/14/11 15:15	06/21/11 01:29	88-74-4	
3-Nitroaniline	ND	ug/kg	431	1	06/14/11 15:15	06/21/11 01:29	99-09-2	
4-Nitroaniline	ND	ug/kg	431	1	06/14/11 15:15	06/21/11 01:29	100-01-6	
Nitrobenzene	ND	ug/kg	431	1	06/14/11 15:15	06/21/11 01:29	98-95-3	
2-Nitrophenol	ND	ug/kg	431	1	06/14/11 15:15	06/21/11 01:29	88-75-5	
4-Nitrophenol	ND	ug/kg	431	1	06/14/11 15:15	06/21/11 01:29	100-02-7	
N-Nitroso-di-n-propylamine	ND	ug/kg	431	1	06/14/11 15:15	06/21/11 01:29	621-64-7	
N-Nitrosodiphenylamine	ND	ug/kg	431	1	06/14/11 15:15	06/21/11 01:29	86-30-6	
Pentachlorophenol	ND	ug/kg	431	1	06/14/11 15:15	06/21/11 01:29	87-86-5	
Phenol	ND	ug/kg	431	1	06/14/11 15:15	06/21/11 01:29	108-95-2	
1,2,4-Trichlorobenzene	ND	ug/kg	431	1	06/14/11 15:15	06/21/11 01:29	120-82-1	
2,4,5-Trichlorophenol	ND	ug/kg	431	1	06/14/11 15:15	06/21/11 01:29	95-95-4	
2,4,6-Trichlorophenol	ND	ug/kg	431	1	06/14/11 15:15	06/21/11 01:29	88-06-2	
Nitrobenzene-d5 (S)	73 %		40-138	1	06/14/11 15:15	06/21/11 01:29	4165-60-0	
2-Fluorobiphenyl (S)	73 %		46-118	1	06/14/11 15:15	06/21/11 01:29	321-60-8	
Terphenyl-d14 (S)	75 %		41-137	1	06/14/11 15:15	06/21/11 01:29	1718-51-0	
Phenol-d6 (S)	72 %		44-120	1	06/14/11 15:15	06/21/11 01:29	13127-88-3	
2-Fluorophenol (S)	71 %		37-117	1	06/14/11 15:15	06/21/11 01:29	367-12-4	
2,4,6-Tribromophenol (S)	76 %		26-135	1	06/14/11 15:15	06/21/11 01:29	118-79-6	

Percent Moisture

Analytical Method: ASTM D2974-87

Percent Moisture	24.0 %	0.10	1	06/14/11 16:19
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ANALYTICAL RESULTS

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

Sample: 6221 3-4.3 BGL Lab ID: 258066055 Collected: 06/08/11 09:08 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	ND	mg/kg	13.6	5	06/16/11 07:52	06/17/11 11:19	7440-38-2	
Barium	313	mg/kg	27.2	1	06/16/11 07:52	06/17/11 13:05	7440-39-3	
Cadmium	ND	mg/kg	6.8	5	06/16/11 07:52	06/17/11 11:19	7440-43-9	
Chromium	64.0	mg/kg	1.4	1	06/16/11 07:52	06/17/11 13:05	7440-47-3	
Lead	15.2	mg/kg	6.8	5	06/16/11 07:52	06/17/11 11:19	7439-92-1	
Selenium	ND	mg/kg	6.8	5	06/16/11 07:52	06/17/11 11:19	7782-49-2	
Silver	ND	mg/kg	6.8	5	06/16/11 07:52	06/17/11 11:19	7440-22-4	D3
7471 Mercury Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	ND	mg/kg	0.14	1	06/20/11 15:17	06/21/11 11:10	7439-97-6	
Percent Moisture Analytical Method: ASTM D2974-87								
Percent Moisture	46.3	%	0.10	1		06/14/11 16:20		

Sample: 6222 0-3' BGL Lab ID: 258066056 Collected: 06/07/11 09:50 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture Analytical Method: ASTM D2974-87								
Percent Moisture	10.8	%	0.10	1		06/14/11 16:20		

Sample: 6222 4-5 BGL Lab ID: 258066057 Collected: 06/07/11 09:59 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture Analytical Method: ASTM D2974-87								
Percent Moisture	15.6	%	0.10	1		06/14/11 16:21		

Sample: 6222 5'-6 BGL Lab ID: 258066058 Collected: 06/07/11 09:59 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture Analytical Method: ASTM D2974-87								
Percent Moisture	11.4	%	0.10	1		06/14/11 16:22		

ANALYTICAL RESULTS

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

Sample: 6222 11'-12' BGL Lab ID: 258066059 Collected: 06/07/11 10:05 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM								
Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	ND	ug/kg	8.2	1	06/14/11 15:15	06/15/11 18:53	83-32-9	
Acenaphthylene	ND	ug/kg	8.2	1	06/14/11 15:15	06/15/11 18:53	208-96-8	
Anthracene	ND	ug/kg	8.2	1	06/14/11 15:15	06/15/11 18:53	120-12-7	
Benzo(a)anthracene	ND	ug/kg	8.2	1	06/14/11 15:15	06/15/11 18:53	56-55-3	
Benzo(a)pyrene	ND	ug/kg	8.2	1	06/14/11 15:15	06/15/11 18:53	50-32-8	
Benzo(b)fluoranthene	ND	ug/kg	8.2	1	06/14/11 15:15	06/15/11 18:53	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	8.2	1	06/14/11 15:15	06/15/11 18:53	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	8.2	1	06/14/11 15:15	06/15/11 18:53	207-08-9	
Chrysene	ND	ug/kg	8.2	1	06/14/11 15:15	06/15/11 18:53	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	8.2	1	06/14/11 15:15	06/15/11 18:53	53-70-3	
Fluoranthene	ND	ug/kg	8.2	1	06/14/11 15:15	06/15/11 18:53	206-44-0	
Fluorene	ND	ug/kg	8.2	1	06/14/11 15:15	06/15/11 18:53	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	8.2	1	06/14/11 15:15	06/15/11 18:53	193-39-5	
1-Methylnaphthalene	ND	ug/kg	8.2	1	06/14/11 15:15	06/15/11 18:53	90-12-0	
2-Methylnaphthalene	ND	ug/kg	8.2	1	06/14/11 15:15	06/15/11 18:53	91-57-6	
Naphthalene	ND	ug/kg	8.2	1	06/14/11 15:15	06/15/11 18:53	91-20-3	
Phenanthrene	ND	ug/kg	8.2	1	06/14/11 15:15	06/15/11 18:53	85-01-8	
Pyrene	ND	ug/kg	8.2	1	06/14/11 15:15	06/15/11 18:53	129-00-0	
2-Fluorobiphenyl (S)	77 %		31-131	1	06/14/11 15:15	06/15/11 18:53	321-60-8	
Terphenyl-d14 (S)	74 %		30-133	1	06/14/11 15:15	06/15/11 18:53	1718-51-0	

8270 MSSV Semivolatiles

Analytical Method: EPA 8270 Preparation Method: EPA 3546

Benzoic acid	ND	ug/kg	2040	1	06/14/11 15:15	06/21/11 01:51	65-85-0	
Benzyl alcohol	ND	ug/kg	408	1	06/14/11 15:15	06/21/11 01:51	100-51-6	
4-Bromophenylphenyl ether	ND	ug/kg	408	1	06/14/11 15:15	06/21/11 01:51	101-55-3	
Butylbenzylphthalate	ND	ug/kg	408	1	06/14/11 15:15	06/21/11 01:51	85-68-7	
4-Chloro-3-methylphenol	ND	ug/kg	408	1	06/14/11 15:15	06/21/11 01:51	59-50-7	
4-Chloroaniline	ND	ug/kg	408	1	06/14/11 15:15	06/21/11 01:51	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/kg	408	1	06/14/11 15:15	06/21/11 01:51	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/kg	408	1	06/14/11 15:15	06/21/11 01:51	111-44-4	
bis(2-Chloroisopropyl) ether	ND	ug/kg	408	1	06/14/11 15:15	06/21/11 01:51	39638-32-9	
2-Chloronaphthalene	ND	ug/kg	408	1	06/14/11 15:15	06/21/11 01:51	91-58-7	
2-Chlorophenol	ND	ug/kg	408	1	06/14/11 15:15	06/21/11 01:51	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/kg	408	1	06/14/11 15:15	06/21/11 01:51	7005-72-3	
Dibenzofuran	ND	ug/kg	408	1	06/14/11 15:15	06/21/11 01:51	132-64-9	
1,2-Dichlorobenzene	ND	ug/kg	408	1	06/14/11 15:15	06/21/11 01:51	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	408	1	06/14/11 15:15	06/21/11 01:51	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	408	1	06/14/11 15:15	06/21/11 01:51	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/kg	408	1	06/14/11 15:15	06/21/11 01:51	91-94-1	
2,4-Dichlorophenol	ND	ug/kg	408	1	06/14/11 15:15	06/21/11 01:51	120-83-2	
Diethylphthalate	ND	ug/kg	408	1	06/14/11 15:15	06/21/11 01:51	84-66-2	
2,4-Dimethylphenol	ND	ug/kg	408	1	06/14/11 15:15	06/21/11 01:51	105-67-9	
Dimethylphthalate	ND	ug/kg	408	1	06/14/11 15:15	06/21/11 01:51	131-11-3	
Di-n-butylphthalate	ND	ug/kg	408	1	06/14/11 15:15	06/21/11 01:51	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/kg	408	1	06/14/11 15:15	06/21/11 01:51	534-52-1	
2,4-Dinitrophenol	ND	ug/kg	829	1	06/14/11 15:15	06/21/11 01:51	51-28-5	

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ANALYTICAL RESULTS

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

Sample: 6222 11'-12' BGL Lab ID: 258066059 Collected: 06/07/11 10:05 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Semivolatiles		Analytical Method: EPA 8270 Preparation Method: EPA 3546						
2,4-Dinitrotoluene	ND	ug/kg	408	1	06/14/11 15:15	06/21/11 01:51	121-14-2	
2,6-Dinitrotoluene	ND	ug/kg	408	1	06/14/11 15:15	06/21/11 01:51	606-20-2	
Di-n-octylphthalate	ND	ug/kg	408	1	06/14/11 15:15	06/21/11 01:51	117-84-0	
bis(2-Ethylhexyl)phthalate	ND	ug/kg	408	1	06/14/11 15:15	06/21/11 01:51	117-81-7	
Hexachloro-1,3-butadiene	ND	ug/kg	408	1	06/14/11 15:15	06/21/11 01:51	87-68-3	
Hexachlorobenzene	ND	ug/kg	408	1	06/14/11 15:15	06/21/11 01:51	118-74-1	
Hexachlorocyclopentadiene	ND	ug/kg	408	1	06/14/11 15:15	06/21/11 01:51	77-47-4	
Hexachloroethane	ND	ug/kg	408	1	06/14/11 15:15	06/21/11 01:51	67-72-1	
Isophorone	ND	ug/kg	408	1	06/14/11 15:15	06/21/11 01:51	78-59-1	
2-Methylphenol(o-Cresol)	ND	ug/kg	408	1	06/14/11 15:15	06/21/11 01:51	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/kg	408	1	06/14/11 15:15	06/21/11 01:51		
2-Nitroaniline	ND	ug/kg	408	1	06/14/11 15:15	06/21/11 01:51	88-74-4	
3-Nitroaniline	ND	ug/kg	408	1	06/14/11 15:15	06/21/11 01:51	99-09-2	
4-Nitroaniline	ND	ug/kg	408	1	06/14/11 15:15	06/21/11 01:51	100-01-6	
Nitrobenzene	ND	ug/kg	408	1	06/14/11 15:15	06/21/11 01:51	98-95-3	
2-Nitrophenol	ND	ug/kg	408	1	06/14/11 15:15	06/21/11 01:51	88-75-5	
4-Nitrophenol	ND	ug/kg	408	1	06/14/11 15:15	06/21/11 01:51	100-02-7	
N-Nitroso-di-n-propylamine	ND	ug/kg	408	1	06/14/11 15:15	06/21/11 01:51	621-64-7	
N-Nitrosodiphenylamine	ND	ug/kg	408	1	06/14/11 15:15	06/21/11 01:51	86-30-6	
Pentachlorophenol	ND	ug/kg	408	1	06/14/11 15:15	06/21/11 01:51	87-86-5	
Phenol	ND	ug/kg	408	1	06/14/11 15:15	06/21/11 01:51	108-95-2	
1,2,4-Trichlorobenzene	ND	ug/kg	408	1	06/14/11 15:15	06/21/11 01:51	120-82-1	
2,4,5-Trichlorophenol	ND	ug/kg	408	1	06/14/11 15:15	06/21/11 01:51	95-95-4	
2,4,6-Trichlorophenol	ND	ug/kg	408	1	06/14/11 15:15	06/21/11 01:51	88-06-2	
Nitrobenzene-d5 (S)	73 %		40-138	1	06/14/11 15:15	06/21/11 01:51	4165-60-0	
2-Fluorobiphenyl (S)	85 %		46-118	1	06/14/11 15:15	06/21/11 01:51	321-60-8	
Terphenyl-d14 (S)	88 %		41-137	1	06/14/11 15:15	06/21/11 01:51	1718-51-0	
Phenol-d6 (S)	87 %		44-120	1	06/14/11 15:15	06/21/11 01:51	13127-88-3	
2-Fluorophenol (S)	87 %		37-117	1	06/14/11 15:15	06/21/11 01:51	367-12-4	
2,4,6-Tribromophenol (S)	94 %		26-135	1	06/14/11 15:15	06/21/11 01:51	118-79-6	

Percent Moisture

Analytical Method: ASTM D2974-87

Percent Moisture 20.1 % 0.10 1 06/14/11 16:22

Sample: 6223 0-3 BGL Lab ID: 258066060 Collected: 06/07/11 09:16 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3050						
Arsenic	ND	mg/kg	7.9	5	06/16/11 07:52	06/17/11 11:22	7440-38-2	
Barium	256	mg/kg	79.0	5	06/16/11 07:52	06/17/11 11:22	7440-39-3	
Cadmium	ND	mg/kg	3.9	5	06/16/11 07:52	06/17/11 11:22	7440-43-9	
Chromium	35.7	mg/kg	0.79	1	06/16/11 07:52	06/17/11 13:08	7440-47-3	
Lead	11.5	mg/kg	0.79	1	06/16/11 07:52	06/17/11 13:08	7439-92-1	

Date: 06/24/2011 04:23 PM

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

Sample: 6223 0-3 BGL Lab ID: 258066060 Collected: 06/07/11 09:16 Received: 06/10/11 09:50 Matrix: Solid
Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3050						
Selenium	ND	mg/kg	3.9	5	06/16/11 07:52	06/17/11 11:22	7782-49-2	
Silver	ND	mg/kg	3.9	5	06/16/11 07:52	06/17/11 11:22	7440-22-4	D3
7471 Mercury		Analytical Method: EPA 7471 Preparation Method: EPA 7471						
Mercury	ND	mg/kg	0.075	1	06/20/11 15:17	06/21/11 11:12	7439-97-6	
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	10.8	%	0.10	1		06/14/11 16:23		

Sample: 6223 6-9 BGL Lab ID: 258066061 Collected: 06/07/11 09:22 Received: 06/10/11 09:50 Matrix: Solid
Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	11.3	%	0.10	1		06/14/11 16:24		

Sample: 6224 3'-6 BGL Lab ID: 258066062 Collected: 06/07/11 08:35 Received: 06/10/11 09:50 Matrix: Solid
Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	14.0	%	0.10	1		06/14/11 16:25		

Sample: 6224 5.5-6.5 BGL Lab ID: 258066063 Collected: 06/07/11 08:55 Received: 06/10/11 09:50 Matrix: Solid
Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	7.8	%	0.10	1		06/14/11 16:26		

Sample: 6225 0-3 BGL Lab ID: 258066064 Collected: 06/07/11 08:07 Received: 06/10/11 09:50 Matrix: Solid
Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS		Analytical Method: NWTPH-Dx Preparation Method: EPA 3546						
Diesel Range	460	mg/kg	80.3	5	06/17/11 10:15	06/18/11 07:34		
Motor Oil Range	1230	mg/kg	321	5	06/17/11 10:15	06/18/11 07:34	64742-65-0	

ANALYTICAL RESULTS

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

Sample: 6225 0-3 BGL **Lab ID: 258066064** Collected: 06/07/11 08:07 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS		Analytical Method: NWTPH-Dx Preparation Method: EPA 3546						
n-Octacosane (S)	108 %		50-150	5	06/17/11 10:15	06/18/11 07:34	630-02-4	
o-Terphenyl (S)	107 %		50-150	5	06/17/11 10:15	06/18/11 07:34	84-15-1	
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	6.2 %		0.10	1		06/14/11 16:31		

Sample: 6225 3'-5 BGL **Lab ID: 258066065** Collected: 06/07/11 08:14 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	11.9 %		0.10	1		06/14/11 16:32		

Sample: 6226 0-3 BGL **Lab ID: 258066066** Collected: 06/07/11 07:36 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS		Analytical Method: NWTPH-Dx Preparation Method: EPA 3546						
Diesel Range	131 mg/kg		86.5	5	06/17/11 10:15	06/18/11 07:50		
Motor Oil Range	684 mg/kg		346	5	06/17/11 10:15	06/18/11 07:50	64742-65-0	
n-Octacosane (S)	110 %		50-150	5	06/17/11 10:15	06/18/11 07:50	630-02-4	
o-Terphenyl (S)	112 %		50-150	5	06/17/11 10:15	06/18/11 07:50	84-15-1	
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	8.5 %		0.10	1		06/14/11 16:32		

Sample: 6226 5-6 BGL **Lab ID: 258066067** Collected: 06/07/11 07:39 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3050						
Arsenic	ND mg/kg		11.9	5	06/16/11 07:52	06/17/11 11:26	7440-38-2	
Barium	175 mg/kg		23.7	1	06/16/11 07:52	06/17/11 13:12	7440-39-3	
Cadmium	ND mg/kg		5.9	5	06/16/11 07:52	06/17/11 11:26	7440-43-9	
Chromium	82.6 mg/kg		1.2	1	06/16/11 07:52	06/17/11 13:12	7440-47-3	
Lead	7.6 mg/kg		1.2	1	06/16/11 07:52	06/17/11 13:12	7439-92-1	
Selenium	ND mg/kg		5.9	5	06/16/11 07:52	06/17/11 11:26	7782-49-2	
Silver	ND mg/kg		5.9	5	06/16/11 07:52	06/17/11 11:26	7440-22-4	D3

ANALYTICAL RESULTS

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

Sample: 6226 5-6 BGL **Lab ID: 258066067** Collected: 06/07/11 07:39 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
7471 Mercury		Analytical Method: EPA 7471 Preparation Method: EPA 7471						
Mercury	ND	mg/kg	0.093	1	06/20/11 15:17	06/21/11 11:19	7439-97-6	
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	19.0	%	0.10	1		06/14/11 16:33		

Sample: 6227 0-3 BGL **Lab ID: 258066068** Collected: 06/07/11 07:18 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS		Analytical Method: NWTPH-Dx Preparation Method: EPA 3546						
Diesel Range	22.2	mg/kg	18.9	1	06/17/11 10:15	06/18/11 08:06		
Motor Oil Range	114	mg/kg	75.6	1	06/17/11 10:15	06/18/11 08:06	64742-65-0	
n-Octacosane (S)	93	%	50-150	1	06/17/11 10:15	06/18/11 08:06	630-02-4	
o-Terphenyl (S)	93	%	50-150	1	06/17/11 10:15	06/18/11 08:06	84-15-1	
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	15.8	%	0.10	1		06/14/11 16:34		

Sample: 6227 4-5 BGL **Lab ID: 258066069** Collected: 06/07/11 07:25 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	22.3	%	0.10	1		06/14/11 16:34		

Sample: 6227 5-6 BGL **Lab ID: 258066070** Collected: 06/07/11 07:20 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	18.7	%	0.10	1		06/14/11 16:35		

ANALYTICAL RESULTS

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

Sample: 6228 0-3' BGL Lab ID: 258066071 Collected: 06/06/11 11:04 Received: 06/10/11 09:50 Matrix: Solid
Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	20.5 %		0.10	1		06/14/11 16:36		

Sample: 6228 4-5 BGL Lab ID: 258066072 Collected: 06/06/11 11:11 Received: 06/10/11 09:50 Matrix: Solid
Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	15.6 %		0.10	1		06/14/11 16:36		

Sample: 6229 0-3 BGL Lab ID: 258066073 Collected: 06/06/11 11:25 Received: 06/10/11 09:50 Matrix: Solid
Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3050						
Arsenic	ND	mg/kg	9.5	5	06/16/11 07:52	06/17/11 11:35	7440-38-2	
Barium	137	mg/kg	19.1	1	06/16/11 07:52	06/17/11 13:15	7440-39-3	
Cadmium	ND	mg/kg	4.8	5	06/16/11 07:52	06/17/11 11:35	7440-43-9	
Chromium	30.8	mg/kg	0.95	1	06/16/11 07:52	06/17/11 13:15	7440-47-3	
Lead	5.5	mg/kg	0.95	1	06/16/11 07:52	06/17/11 13:15	7439-92-1	
Selenium	ND	mg/kg	4.8	5	06/16/11 07:52	06/17/11 11:35	7782-49-2	
Silver	ND	mg/kg	4.8	5	06/16/11 07:52	06/17/11 11:35	7440-22-4	D3

7471 Mercury		Analytical Method: EPA 7471 Preparation Method: EPA 7471						
Mercury	ND	mg/kg	0.094	1	06/20/11 15:17	06/21/11 11:21	7439-97-6	
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	16.1 %		0.10	1		06/14/11 16:37		

Sample: 6229 4'-5 BGL Lab ID: 258066074 Collected: 06/06/11 11:30 Received: 06/10/11 09:50 Matrix: Solid
Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	9.3 %		0.10	1		06/14/11 16:37		

ANALYTICAL RESULTS

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

Sample: 6230 0-3 BGL Lab ID: 258066075 Collected: 06/06/11 10:36 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS		Analytical Method: NWTPH-Dx Preparation Method: EPA 3546						
Diesel Range	151 mg/kg		84.8	5	06/17/11 10:15	06/18/11 08:54		
Motor Oil Range	925 mg/kg		339	5	06/17/11 10:15	06/18/11 08:54	64742-65-0	
n-Octacosane (S)	102 %		50-150	5	06/17/11 10:15	06/18/11 08:54	630-02-4	
o-Terphenyl (S)	97 %		50-150	5	06/17/11 10:15	06/18/11 08:54	84-15-1	
8270 MSSV PAH by SIM		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546						
Acenaphthene	ND ug/kg		7.7	1	06/14/11 15:15	06/15/11 19:10	83-32-9	
Acenaphthylene	ND ug/kg		7.7	1	06/14/11 15:15	06/15/11 19:10	208-96-8	
Anthracene	ND ug/kg		7.7	1	06/14/11 15:15	06/15/11 19:10	120-12-7	
Benzo(a)anthracene	ND ug/kg		7.7	1	06/14/11 15:15	06/15/11 19:10	56-55-3	
Benzo(a)pyrene	8.8 ug/kg		7.7	1	06/14/11 15:15	06/15/11 19:10	50-32-8	
Benzo(b)fluoranthene	13.3 ug/kg		7.7	1	06/14/11 15:15	06/15/11 19:10	205-99-2	
Benzo(g,h,i)perylene	13.4 ug/kg		7.7	1	06/14/11 15:15	06/15/11 19:10	191-24-2	
Benzo(k)fluoranthene	ND ug/kg		7.7	1	06/14/11 15:15	06/15/11 19:10	207-08-9	
Chrysene	30.7 ug/kg		7.7	1	06/14/11 15:15	06/15/11 19:10	218-01-9	
Dibenz(a,h)anthracene	ND ug/kg		7.7	1	06/14/11 15:15	06/15/11 19:10	53-70-3	
Fluoranthene	ND ug/kg		7.7	1	06/14/11 15:15	06/15/11 19:10	206-44-0	
Fluorene	ND ug/kg		7.7	1	06/14/11 15:15	06/15/11 19:10	86-73-7	
Indeno(1,2,3-cd)pyrene	ND ug/kg		7.7	1	06/14/11 15:15	06/15/11 19:10	193-39-5	
1-Methylnaphthalene	ND ug/kg		7.7	1	06/14/11 15:15	06/15/11 19:10	90-12-0	
2-Methylnaphthalene	ND ug/kg		7.7	1	06/14/11 15:15	06/15/11 19:10	91-57-6	
Naphthalene	ND ug/kg		7.7	1	06/14/11 15:15	06/15/11 19:10	91-20-3	
Phenanthrene	14.3 ug/kg		7.7	1	06/14/11 15:15	06/15/11 19:10	85-01-8	
Pyrene	12.3 ug/kg		7.7	1	06/14/11 15:15	06/15/11 19:10	129-00-0	
2-Fluorobiphenyl (S)	66 %		31-131	1	06/14/11 15:15	06/15/11 19:10	321-60-8	
Terphenyl-d14 (S)	66 %		30-133	1	06/14/11 15:15	06/15/11 19:10	1718-51-0	
8270 MSSV Semivolatiles		Analytical Method: EPA 8270 Preparation Method: EPA 3546						
Benzoic acid	ND ug/kg		1910	1	06/14/11 15:15	06/21/11 03:42	65-85-0	
Benzyl alcohol	ND ug/kg		382	1	06/14/11 15:15	06/21/11 03:42	100-51-6	
4-Bromophenylphenyl ether	ND ug/kg		382	1	06/14/11 15:15	06/21/11 03:42	101-55-3	
Butylbenzylphthalate	ND ug/kg		382	1	06/14/11 15:15	06/21/11 03:42	85-68-7	
4-Chloro-3-methylphenol	ND ug/kg		382	1	06/14/11 15:15	06/21/11 03:42	59-50-7	
4-Chloroaniline	ND ug/kg		382	1	06/14/11 15:15	06/21/11 03:42	106-47-8	
bis(2-Chloroethoxy)methane	ND ug/kg		382	1	06/14/11 15:15	06/21/11 03:42	111-91-1	
bis(2-Chloroethyl) ether	ND ug/kg		382	1	06/14/11 15:15	06/21/11 03:42	111-44-4	
bis(2-Chloroisopropyl) ether	ND ug/kg		382	1	06/14/11 15:15	06/21/11 03:42	39638-32-9	
2-Chloronaphthalene	ND ug/kg		382	1	06/14/11 15:15	06/21/11 03:42	91-58-7	
2-Chlorophenol	ND ug/kg		382	1	06/14/11 15:15	06/21/11 03:42	95-57-8	
4-Chlorophenylphenyl ether	ND ug/kg		382	1	06/14/11 15:15	06/21/11 03:42	7005-72-3	
Dibenzofuran	ND ug/kg		382	1	06/14/11 15:15	06/21/11 03:42	132-64-9	
1,2-Dichlorobenzene	ND ug/kg		382	1	06/14/11 15:15	06/21/11 03:42	95-50-1	
1,3-Dichlorobenzene	ND ug/kg		382	1	06/14/11 15:15	06/21/11 03:42	541-73-1	
1,4-Dichlorobenzene	ND ug/kg		382	1	06/14/11 15:15	06/21/11 03:42	106-46-7	
3,3'-Dichlorobenzidine	ND ug/kg		382	1	06/14/11 15:15	06/21/11 03:42	91-94-1	

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ANALYTICAL RESULTS

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

Sample: 6230 0-3 BGL **Lab ID: 258066075** Collected: 06/06/11 10:36 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Semivolatiles		Analytical Method: EPA 8270 Preparation Method: EPA 3546						
2,4-Dichlorophenol	ND	ug/kg	382	1	06/14/11 15:15	06/21/11 03:42	120-83-2	
Diethylphthalate	ND	ug/kg	382	1	06/14/11 15:15	06/21/11 03:42	84-66-2	
2,4-Dimethylphenol	ND	ug/kg	382	1	06/14/11 15:15	06/21/11 03:42	105-67-9	
Dimethylphthalate	ND	ug/kg	382	1	06/14/11 15:15	06/21/11 03:42	131-11-3	
Di-n-butylphthalate	ND	ug/kg	382	1	06/14/11 15:15	06/21/11 03:42	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/kg	382	1	06/14/11 15:15	06/21/11 03:42	534-52-1	
2,4-Dinitrophenol	ND	ug/kg	775	1	06/14/11 15:15	06/21/11 03:42	51-28-5	
2,4-Dinitrotoluene	ND	ug/kg	382	1	06/14/11 15:15	06/21/11 03:42	121-14-2	
2,6-Dinitrotoluene	ND	ug/kg	382	1	06/14/11 15:15	06/21/11 03:42	606-20-2	
Di-n-octylphthalate	ND	ug/kg	382	1	06/14/11 15:15	06/21/11 03:42	117-84-0	
bis(2-Ethylhexyl)phthalate	ND	ug/kg	382	1	06/14/11 15:15	06/21/11 03:42	117-81-7	
Hexachloro-1,3-butadiene	ND	ug/kg	382	1	06/14/11 15:15	06/21/11 03:42	87-68-3	
Hexachlorobenzene	ND	ug/kg	382	1	06/14/11 15:15	06/21/11 03:42	118-74-1	
Hexachlorocyclopentadiene	ND	ug/kg	382	1	06/14/11 15:15	06/21/11 03:42	77-47-4	
Hexachloroethane	ND	ug/kg	382	1	06/14/11 15:15	06/21/11 03:42	67-72-1	
Isophorone	ND	ug/kg	382	1	06/14/11 15:15	06/21/11 03:42	78-59-1	
2-Methylphenol(o-Cresol)	ND	ug/kg	382	1	06/14/11 15:15	06/21/11 03:42	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/kg	382	1	06/14/11 15:15	06/21/11 03:42		
2-Nitroaniline	ND	ug/kg	382	1	06/14/11 15:15	06/21/11 03:42	88-74-4	
3-Nitroaniline	ND	ug/kg	382	1	06/14/11 15:15	06/21/11 03:42	99-09-2	
4-Nitroaniline	ND	ug/kg	382	1	06/14/11 15:15	06/21/11 03:42	100-01-6	
Nitrobenzene	ND	ug/kg	382	1	06/14/11 15:15	06/21/11 03:42	98-95-3	
2-Nitrophenol	ND	ug/kg	382	1	06/14/11 15:15	06/21/11 03:42	88-75-5	
4-Nitrophenol	ND	ug/kg	382	1	06/14/11 15:15	06/21/11 03:42	100-02-7	
N-Nitroso-di-n-propylamine	ND	ug/kg	382	1	06/14/11 15:15	06/21/11 03:42	621-64-7	
N-Nitrosodiphenylamine	ND	ug/kg	382	1	06/14/11 15:15	06/21/11 03:42	86-30-6	
Pentachlorophenol	ND	ug/kg	382	1	06/14/11 15:15	06/21/11 03:42	87-86-5	
Phenol	ND	ug/kg	382	1	06/14/11 15:15	06/21/11 03:42	108-95-2	
1,2,4-Trichlorobenzene	ND	ug/kg	382	1	06/14/11 15:15	06/21/11 03:42	120-82-1	
2,4,5-Trichlorophenol	ND	ug/kg	382	1	06/14/11 15:15	06/21/11 03:42	95-95-4	
2,4,6-Trichlorophenol	ND	ug/kg	382	1	06/14/11 15:15	06/21/11 03:42	88-06-2	

Percent Moisture

Analytical Method: ASTM D2974-87

Percent Moisture **13.9 %** 0.10 1 06/14/11 16:38

Sample: 6230 4'-5 BGL **Lab ID: 258066076** Collected: 06/06/11 10:45 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3050						
Arsenic	ND	mg/kg	8.2	5	06/16/11 07:52	06/17/11 11:38	7440-38-2	
Barium	345	mg/kg	82.1	5	06/16/11 07:52	06/17/11 11:38	7440-39-3	
Cadmium	ND	mg/kg	4.1	5	06/16/11 07:52	06/17/11 11:38	7440-43-9	
Chromium	29.6	mg/kg	0.82	1	06/16/11 07:52	06/17/11 13:18	7440-47-3	

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ANALYTICAL RESULTS

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

Sample: 6230 4'-5 BGL Lab ID: 258066076 Collected: 06/06/11 10:45 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3050						
Lead	6.6	mg/kg	4.1	5	06/16/11 07:52	06/17/11 11:38	7439-92-1	
Selenium	ND	mg/kg	4.1	5	06/16/11 07:52	06/17/11 11:38	7782-49-2	
Silver	ND	mg/kg	4.1	5	06/16/11 07:52	06/17/11 11:38	7440-22-4	D3
7471 Mercury		Analytical Method: EPA 7471 Preparation Method: EPA 7471						
Mercury	ND	mg/kg	0.091	1	06/20/11 15:17	06/21/11 11:23	7439-97-6	
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	11.1	%	0.10	1		06/14/11 16:38		

Sample: 6231 0-3 BGL Lab ID: 258066077 Collected: 06/06/11 09:55 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS		Analytical Method: NWTPH-Dx Preparation Method: EPA 3546						
Diesel Range	29.3	mg/kg	16.4	1	06/17/11 10:15	06/18/11 08:22		
Motor Oil Range	296	mg/kg	65.5	1	06/17/11 10:15	06/18/11 08:22	64742-65-0	
n-Octacosane (S)	110	%	50-150	1	06/17/11 10:15	06/18/11 08:22	630-02-4	
o-Terphenyl (S)	106	%	50-150	1	06/17/11 10:15	06/18/11 08:22	84-15-1	
8270 MSSV PAH by SIM		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546						
Acenaphthene	ND	ug/kg	7.2	1	06/14/11 15:15	06/15/11 19:27	83-32-9	
Acenaphthylene	ND	ug/kg	7.2	1	06/14/11 15:15	06/15/11 19:27	208-96-8	
Anthracene	ND	ug/kg	7.2	1	06/14/11 15:15	06/15/11 19:27	120-12-7	
Benzo(a)anthracene	ND	ug/kg	7.2	1	06/14/11 15:15	06/15/11 19:27	56-55-3	
Benzo(a)pyrene	9.4	ug/kg	7.2	1	06/14/11 15:15	06/15/11 19:27	50-32-8	
Benzo(b)fluoranthene	8.4	ug/kg	7.2	1	06/14/11 15:15	06/15/11 19:27	205-99-2	
Benzo(g,h,i)perylene	14.5	ug/kg	7.2	1	06/14/11 15:15	06/15/11 19:27	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	7.2	1	06/14/11 15:15	06/15/11 19:27	207-08-9	
Chrysene	23.0	ug/kg	7.2	1	06/14/11 15:15	06/15/11 19:27	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	7.2	1	06/14/11 15:15	06/15/11 19:27	53-70-3	
Fluoranthene	ND	ug/kg	7.2	1	06/14/11 15:15	06/15/11 19:27	206-44-0	
Fluorene	ND	ug/kg	7.2	1	06/14/11 15:15	06/15/11 19:27	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	7.2	1	06/14/11 15:15	06/15/11 19:27	193-39-5	
1-Methylnaphthalene	ND	ug/kg	7.2	1	06/14/11 15:15	06/15/11 19:27	90-12-0	
2-Methylnaphthalene	ND	ug/kg	7.2	1	06/14/11 15:15	06/15/11 19:27	91-57-6	
Naphthalene	ND	ug/kg	7.2	1	06/14/11 15:15	06/15/11 19:27	91-20-3	
Phenanthrene	ND	ug/kg	7.2	1	06/14/11 15:15	06/15/11 19:27	85-01-8	
Pyrene	14.5	ug/kg	7.2	1	06/14/11 15:15	06/15/11 19:27	129-00-0	
2-Fluorobiphenyl (S)	71	%	31-131	1	06/14/11 15:15	06/15/11 19:27	321-60-8	
Terphenyl-d14 (S)	69	%	30-133	1	06/14/11 15:15	06/15/11 19:27	1718-51-0	

ANALYTICAL RESULTS

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

Sample: 6231 0-3 BGL Lab ID: 258066077 Collected: 06/06/11 09:55 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Semivolatiles		Analytical Method: EPA 8270 Preparation Method: EPA 3546						
Benzoic acid	ND	ug/kg	1770	1	06/14/11 15:15	06/21/11 04:04	65-85-0	
Benzyl alcohol	ND	ug/kg	355	1	06/14/11 15:15	06/21/11 04:04	100-51-6	
4-Bromophenylphenyl ether	ND	ug/kg	355	1	06/14/11 15:15	06/21/11 04:04	101-55-3	
Butylbenzylphthalate	ND	ug/kg	355	1	06/14/11 15:15	06/21/11 04:04	85-68-7	
4-Chloro-3-methylphenol	ND	ug/kg	355	1	06/14/11 15:15	06/21/11 04:04	59-50-7	
4-Chloroaniline	ND	ug/kg	355	1	06/14/11 15:15	06/21/11 04:04	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/kg	355	1	06/14/11 15:15	06/21/11 04:04	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/kg	355	1	06/14/11 15:15	06/21/11 04:04	111-44-4	
bis(2-Chloroisopropyl) ether	ND	ug/kg	355	1	06/14/11 15:15	06/21/11 04:04	39638-32-9	
2-Chloronaphthalene	ND	ug/kg	355	1	06/14/11 15:15	06/21/11 04:04	91-58-7	
2-Chlorophenol	ND	ug/kg	355	1	06/14/11 15:15	06/21/11 04:04	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/kg	355	1	06/14/11 15:15	06/21/11 04:04	7005-72-3	
Dibenzofuran	ND	ug/kg	355	1	06/14/11 15:15	06/21/11 04:04	132-64-9	
1,2-Dichlorobenzene	ND	ug/kg	355	1	06/14/11 15:15	06/21/11 04:04	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	355	1	06/14/11 15:15	06/21/11 04:04	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	355	1	06/14/11 15:15	06/21/11 04:04	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/kg	355	1	06/14/11 15:15	06/21/11 04:04	91-94-1	
2,4-Dichlorophenol	ND	ug/kg	355	1	06/14/11 15:15	06/21/11 04:04	120-83-2	
Diethylphthalate	ND	ug/kg	355	1	06/14/11 15:15	06/21/11 04:04	84-66-2	
2,4-Dimethylphenol	ND	ug/kg	355	1	06/14/11 15:15	06/21/11 04:04	105-67-9	
Dimethylphthalate	ND	ug/kg	355	1	06/14/11 15:15	06/21/11 04:04	131-11-3	
Di-n-butylphthalate	ND	ug/kg	355	1	06/14/11 15:15	06/21/11 04:04	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/kg	355	1	06/14/11 15:15	06/21/11 04:04	534-52-1	
2,4-Dinitrophenol	ND	ug/kg	720	1	06/14/11 15:15	06/21/11 04:04	51-28-5	
2,4-Dinitrotoluene	ND	ug/kg	355	1	06/14/11 15:15	06/21/11 04:04	121-14-2	
2,6-Dinitrotoluene	ND	ug/kg	355	1	06/14/11 15:15	06/21/11 04:04	606-20-2	
Di-n-octylphthalate	ND	ug/kg	355	1	06/14/11 15:15	06/21/11 04:04	117-84-0	
bis(2-Ethylhexyl)phthalate	ND	ug/kg	355	1	06/14/11 15:15	06/21/11 04:04	117-81-7	
Hexachloro-1,3-butadiene	ND	ug/kg	355	1	06/14/11 15:15	06/21/11 04:04	87-68-3	
Hexachlorobenzene	ND	ug/kg	355	1	06/14/11 15:15	06/21/11 04:04	118-74-1	
Hexachlorocyclopentadiene	ND	ug/kg	355	1	06/14/11 15:15	06/21/11 04:04	77-47-4	
Hexachloroethane	ND	ug/kg	355	1	06/14/11 15:15	06/21/11 04:04	67-72-1	
Isophorone	ND	ug/kg	355	1	06/14/11 15:15	06/21/11 04:04	78-59-1	
2-Methylphenol(o-Cresol)	ND	ug/kg	355	1	06/14/11 15:15	06/21/11 04:04	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/kg	355	1	06/14/11 15:15	06/21/11 04:04		
2-Nitroaniline	ND	ug/kg	355	1	06/14/11 15:15	06/21/11 04:04	88-74-4	
3-Nitroaniline	ND	ug/kg	355	1	06/14/11 15:15	06/21/11 04:04	99-09-2	
4-Nitroaniline	ND	ug/kg	355	1	06/14/11 15:15	06/21/11 04:04	100-01-6	
Nitrobenzene	ND	ug/kg	355	1	06/14/11 15:15	06/21/11 04:04	98-95-3	
2-Nitrophenol	ND	ug/kg	355	1	06/14/11 15:15	06/21/11 04:04	88-75-5	
4-Nitrophenol	ND	ug/kg	355	1	06/14/11 15:15	06/21/11 04:04	100-02-7	
N-Nitroso-di-n-propylamine	ND	ug/kg	355	1	06/14/11 15:15	06/21/11 04:04	621-64-7	
N-Nitrosodiphenylamine	ND	ug/kg	355	1	06/14/11 15:15	06/21/11 04:04	86-30-6	
Pentachlorophenol	ND	ug/kg	355	1	06/14/11 15:15	06/21/11 04:04	87-86-5	
Phenol	ND	ug/kg	355	1	06/14/11 15:15	06/21/11 04:04	108-95-2	
1,2,4-Trichlorobenzene	ND	ug/kg	355	1	06/14/11 15:15	06/21/11 04:04	120-82-1	

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ANALYTICAL RESULTS

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

Sample: 6231 0-3 BGL **Lab ID: 258066077** Collected: 06/06/11 09:55 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Semivolatiles		Analytical Method: EPA 8270 Preparation Method: EPA 3546						
2,4,5-Trichlorophenol	ND	ug/kg	355	1	06/14/11 15:15	06/21/11 04:04	95-95-4	
2,4,6-Trichlorophenol	ND	ug/kg	355	1	06/14/11 15:15	06/21/11 04:04	88-06-2	
Nitrobenzene-d5 (S)	72	%	40-138	1	06/14/11 15:15	06/21/11 04:04	4165-60-0	
2-Fluorobiphenyl (S)	83	%	46-118	1	06/14/11 15:15	06/21/11 04:04	321-60-8	
Terphenyl-d14 (S)	81	%	41-137	1	06/14/11 15:15	06/21/11 04:04	1718-51-0	
Phenol-d6 (S)	77	%	44-120	1	06/14/11 15:15	06/21/11 04:04	13127-88-3	
2-Fluorophenol (S)	74	%	37-117	1	06/14/11 15:15	06/21/11 04:04	367-12-4	
2,4,6-Tribromophenol (S)	77	%	26-135	1	06/14/11 15:15	06/21/11 04:04	118-79-6	
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	8.1	%	0.10	1		06/14/11 16:39		

Sample: 6232 3-6 BGL **Lab ID: 258066078** Collected: 06/06/11 09:18 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3050						
Arsenic	ND	mg/kg	10.6	5	06/16/11 07:52	06/17/11 11:41	7440-38-2	
Barium	231	mg/kg	21.1	1	06/16/11 07:52	06/17/11 13:21	7440-39-3	
Cadmium	ND	mg/kg	5.3	5	06/16/11 07:52	06/17/11 11:41	7440-43-9	
Chromium	36.9	mg/kg	1.1	1	06/16/11 07:52	06/17/11 13:21	7440-47-3	
Lead	5.3	mg/kg	1.1	1	06/16/11 07:52	06/17/11 13:21	7439-92-1	
Selenium	ND	mg/kg	5.3	5	06/16/11 07:52	06/17/11 11:41	7782-49-2	
Silver	ND	mg/kg	5.3	5	06/16/11 07:52	06/17/11 11:41	7440-22-4	D3
7471 Mercury		Analytical Method: EPA 7471 Preparation Method: EPA 7471						
Mercury	ND	mg/kg	0.081	1	06/20/11 15:17	06/21/11 11:25	7439-97-6	
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	16.3	%	0.10	1		06/14/11 16:40		

Sample: 6233 0-3 BGL **Lab ID: 258066079** Collected: 06/06/11 08:51 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	12.8	%	0.10	1		06/14/11 16:41		

ANALYTICAL RESULTS

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

Sample: 6234 0-3 BGL **Lab ID: 258066080** Collected: 06/06/11 08:26 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	15.6 %		0.10	1		06/14/11 16:41		

Sample: 6234 3-4' BGL **Lab ID: 258066081** Collected: 06/06/11 08:30 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3050						
Arsenic	ND	mg/kg	8.4	5	06/16/11 07:52	06/17/11 11:45	7440-38-2	
Barium	98.6	mg/kg	16.7	1	06/16/11 07:52	06/17/11 13:31	7440-39-3	
Cadmium	ND	mg/kg	4.2	5	06/16/11 07:52	06/17/11 11:45	7440-43-9	
Chromium	30.7	mg/kg	0.84	1	06/16/11 07:52	06/17/11 13:31	7440-47-3	
Lead	21.4	mg/kg	4.2	5	06/16/11 07:52	06/17/11 11:45	7439-92-1	
Selenium	ND	mg/kg	4.2	5	06/16/11 07:52	06/17/11 11:45	7782-49-2	
Silver	ND	mg/kg	4.2	5	06/16/11 07:52	06/17/11 11:45	7440-22-4	D3
7471 Mercury		Analytical Method: EPA 7471 Preparation Method: EPA 7471						
Mercury	ND	mg/kg	0.10	1	06/20/11 15:17	06/21/11 11:27	7439-97-6	
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	11.5 %		0.10	1		06/14/11 16:42		

Sample: 6235 0-3' BGL **Lab ID: 258066082** Collected: 06/06/11 07:55 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB S		Analytical Method: EPA 8082 Preparation Method: EPA 3546						
PCB-1016 (Aroclor 1016)	ND	ug/kg	18.6	1	06/20/11 10:20	06/22/11 15:37	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/kg	18.6	1	06/20/11 10:20	06/22/11 15:37	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/kg	18.6	1	06/20/11 10:20	06/22/11 15:37	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/kg	18.6	1	06/20/11 10:20	06/22/11 15:37	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/kg	18.6	1	06/20/11 10:20	06/22/11 15:37	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/kg	18.6	1	06/20/11 10:20	06/22/11 15:37	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/kg	18.6	1	06/20/11 10:20	06/22/11 15:37	11096-82-5	
Tetrachloro-m-xylene (S)	70 %		29-128	1	06/20/11 10:20	06/22/11 15:37	877-09-8	
Decachlorobiphenyl (S)	63 %		23-129	1	06/20/11 10:20	06/22/11 15:37	2051-24-3	
NWTPH-Dx GCS		Analytical Method: NWTPH-Dx Preparation Method: EPA 3546						
Diesel Range	871	mg/kg	89.1	5	06/17/11 10:15	06/18/11 08:38		
Motor Oil Range	1690	mg/kg	357	5	06/17/11 10:15	06/18/11 08:38	64742-65-0	
n-Octacosane (S)	109 %		50-150	5	06/17/11 10:15	06/18/11 08:38	630-02-4	
o-Terphenyl (S)	108 %		50-150	5	06/17/11 10:15	06/18/11 08:38	84-15-1	

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ANALYTICAL RESULTS

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

Sample: 6235 0-3' BGL Lab ID: 258066082 Collected: 06/06/11 07:55 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM		Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546						
Acenaphthene	ND	ug/kg	7.4	1	06/14/11 15:15	06/15/11 19:43	83-32-9	
Acenaphthylene	ND	ug/kg	7.4	1	06/14/11 15:15	06/15/11 19:43	208-96-8	
Anthracene	ND	ug/kg	7.4	1	06/14/11 15:15	06/15/11 19:43	120-12-7	
Benzo(a)anthracene	ND	ug/kg	7.4	1	06/14/11 15:15	06/15/11 19:43	56-55-3	
Benzo(a)pyrene	16.4	ug/kg	7.4	1	06/14/11 15:15	06/15/11 19:43	50-32-8	
Benzo(b)fluoranthene	13.6	ug/kg	7.4	1	06/14/11 15:15	06/15/11 19:43	205-99-2	
Benzo(g,h,i)perylene	10.6	ug/kg	7.4	1	06/14/11 15:15	06/15/11 19:43	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	7.4	1	06/14/11 15:15	06/15/11 19:43	207-08-9	
Chrysene	29.8	ug/kg	7.4	1	06/14/11 15:15	06/15/11 19:43	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	7.4	1	06/14/11 15:15	06/15/11 19:43	53-70-3	
Fluoranthene	ND	ug/kg	7.4	1	06/14/11 15:15	06/15/11 19:43	206-44-0	
Fluorene	ND	ug/kg	7.4	1	06/14/11 15:15	06/15/11 19:43	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	7.4	1	06/14/11 15:15	06/15/11 19:43	193-39-5	
1-Methylnaphthalene	ND	ug/kg	7.4	1	06/14/11 15:15	06/15/11 19:43	90-12-0	
2-Methylnaphthalene	ND	ug/kg	7.4	1	06/14/11 15:15	06/15/11 19:43	91-57-6	
Naphthalene	ND	ug/kg	7.4	1	06/14/11 15:15	06/15/11 19:43	91-20-3	
Phenanthrene	13.8	ug/kg	7.4	1	06/14/11 15:15	06/15/11 19:43	85-01-8	
Pyrene	17.4	ug/kg	7.4	1	06/14/11 15:15	06/15/11 19:43	129-00-0	
2-Fluorobiphenyl (S)	68 %		31-131	1	06/14/11 15:15	06/15/11 19:43	321-60-8	
Terphenyl-d14 (S)	65 %		30-133	1	06/14/11 15:15	06/15/11 19:43	1718-51-0	
8270 MSSV Semivolatiles		Analytical Method: EPA 8270 Preparation Method: EPA 3546						
Benzoic acid	ND	ug/kg	1840	1	06/14/11 15:15	06/21/11 04:26	65-85-0	
Benzyl alcohol	ND	ug/kg	368	1	06/14/11 15:15	06/21/11 04:26	100-51-6	
4-Bromophenylphenyl ether	ND	ug/kg	368	1	06/14/11 15:15	06/21/11 04:26	101-55-3	
Butylbenzylphthalate	ND	ug/kg	368	1	06/14/11 15:15	06/21/11 04:26	85-68-7	
4-Chloro-3-methylphenol	ND	ug/kg	368	1	06/14/11 15:15	06/21/11 04:26	59-50-7	
4-Chloroaniline	ND	ug/kg	368	1	06/14/11 15:15	06/21/11 04:26	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/kg	368	1	06/14/11 15:15	06/21/11 04:26	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/kg	368	1	06/14/11 15:15	06/21/11 04:26	111-44-4	
bis(2-Chloroisopropyl) ether	ND	ug/kg	368	1	06/14/11 15:15	06/21/11 04:26	39638-32-9	
2-Chloronaphthalene	ND	ug/kg	368	1	06/14/11 15:15	06/21/11 04:26	91-58-7	
2-Chlorophenol	ND	ug/kg	368	1	06/14/11 15:15	06/21/11 04:26	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/kg	368	1	06/14/11 15:15	06/21/11 04:26	7005-72-3	
Dibenzofuran	ND	ug/kg	368	1	06/14/11 15:15	06/21/11 04:26	132-64-9	
1,2-Dichlorobenzene	ND	ug/kg	368	1	06/14/11 15:15	06/21/11 04:26	95-50-1	
1,3-Dichlorobenzene	ND	ug/kg	368	1	06/14/11 15:15	06/21/11 04:26	541-73-1	
1,4-Dichlorobenzene	ND	ug/kg	368	1	06/14/11 15:15	06/21/11 04:26	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/kg	368	1	06/14/11 15:15	06/21/11 04:26	91-94-1	
2,4-Dichlorophenol	ND	ug/kg	368	1	06/14/11 15:15	06/21/11 04:26	120-83-2	
Diethylphthalate	ND	ug/kg	368	1	06/14/11 15:15	06/21/11 04:26	84-66-2	
2,4-Dimethylphenol	ND	ug/kg	368	1	06/14/11 15:15	06/21/11 04:26	105-67-9	
Dimethylphthalate	ND	ug/kg	368	1	06/14/11 15:15	06/21/11 04:26	131-11-3	
Di-n-butylphthalate	ND	ug/kg	368	1	06/14/11 15:15	06/21/11 04:26	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/kg	368	1	06/14/11 15:15	06/21/11 04:26	534-52-1	
2,4-Dinitrophenol	ND	ug/kg	748	1	06/14/11 15:15	06/21/11 04:26	51-28-5	

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ANALYTICAL RESULTS

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

Sample: 6235 0-3' BGL Lab ID: 258066082 Collected: 06/06/11 07:55 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Semivolatiles		Analytical Method: EPA 8270 Preparation Method: EPA 3546						
2,4-Dinitrotoluene	ND	ug/kg	368	1	06/14/11 15:15	06/21/11 04:26	121-14-2	
2,6-Dinitrotoluene	ND	ug/kg	368	1	06/14/11 15:15	06/21/11 04:26	606-20-2	
Di-n-octylphthalate	ND	ug/kg	368	1	06/14/11 15:15	06/21/11 04:26	117-84-0	
bis(2-Ethylhexyl)phthalate	ND	ug/kg	368	1	06/14/11 15:15	06/21/11 04:26	117-81-7	
Hexachloro-1,3-butadiene	ND	ug/kg	368	1	06/14/11 15:15	06/21/11 04:26	87-68-3	
Hexachlorobenzene	ND	ug/kg	368	1	06/14/11 15:15	06/21/11 04:26	118-74-1	
Hexachlorocyclopentadiene	ND	ug/kg	368	1	06/14/11 15:15	06/21/11 04:26	77-47-4	
Hexachloroethane	ND	ug/kg	368	1	06/14/11 15:15	06/21/11 04:26	67-72-1	
Isophorone	ND	ug/kg	368	1	06/14/11 15:15	06/21/11 04:26	78-59-1	
2-Methylphenol(o-Cresol)	ND	ug/kg	368	1	06/14/11 15:15	06/21/11 04:26	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/kg	368	1	06/14/11 15:15	06/21/11 04:26		
2-Nitroaniline	ND	ug/kg	368	1	06/14/11 15:15	06/21/11 04:26	88-74-4	
3-Nitroaniline	ND	ug/kg	368	1	06/14/11 15:15	06/21/11 04:26	99-09-2	
4-Nitroaniline	ND	ug/kg	368	1	06/14/11 15:15	06/21/11 04:26	100-01-6	
Nitrobenzene	ND	ug/kg	368	1	06/14/11 15:15	06/21/11 04:26	98-95-3	
2-Nitrophenol	ND	ug/kg	368	1	06/14/11 15:15	06/21/11 04:26	88-75-5	
4-Nitrophenol	ND	ug/kg	368	1	06/14/11 15:15	06/21/11 04:26	100-02-7	
N-Nitroso-di-n-propylamine	ND	ug/kg	368	1	06/14/11 15:15	06/21/11 04:26	621-64-7	
N-Nitrosodiphenylamine	ND	ug/kg	368	1	06/14/11 15:15	06/21/11 04:26	86-30-6	
Pentachlorophenol	ND	ug/kg	368	1	06/14/11 15:15	06/21/11 04:26	87-86-5	
Phenol	ND	ug/kg	368	1	06/14/11 15:15	06/21/11 04:26	108-95-2	
1,2,4-Trichlorobenzene	ND	ug/kg	368	1	06/14/11 15:15	06/21/11 04:26	120-82-1	
2,4,5-Trichlorophenol	ND	ug/kg	368	1	06/14/11 15:15	06/21/11 04:26	95-95-4	
2,4,6-Trichlorophenol	ND	ug/kg	368	1	06/14/11 15:15	06/21/11 04:26	88-06-2	
Nitrobenzene-d5 (S)	77 %		40-138	1	06/14/11 15:15	06/21/11 04:26	4165-60-0	
2-Fluorobiphenyl (S)	88 %		46-118	1	06/14/11 15:15	06/21/11 04:26	321-60-8	
Terphenyl-d14 (S)	88 %		41-137	1	06/14/11 15:15	06/21/11 04:26	1718-51-0	
Phenol-d6 (S)	82 %		44-120	1	06/14/11 15:15	06/21/11 04:26	13127-88-3	
2-Fluorophenol (S)	81 %		37-117	1	06/14/11 15:15	06/21/11 04:26	367-12-4	
2,4,6-Tribromophenol (S)	85 %		26-135	1	06/14/11 15:15	06/21/11 04:26	118-79-6	

Percent Moisture

Analytical Method: ASTM D2974-87

Percent Moisture 11.2 % 0.10 1 06/14/11 16:43

Sample: 6235 3-6' BGL Lab ID: 258066083 Collected: 06/06/11 07:58 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture		Analytical Method: ASTM D2974-87						
Percent Moisture	16.8 %		0.10	1		06/14/11 16:43		

ANALYTICAL RESULTS

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

Sample: 6235 6-9 BGL Lab ID: 258066084 Collected: 06/06/11 08:03 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Percent Moisture Analytical Method: ASTM D2974-87								
Percent Moisture	34.3 %		0.10	1		06/14/11 16:45		

Sample: 6236 0-3' BGL Lab ID: 258066085 Collected: 06/06/11 07:07 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS Analytical Method: NWTPH-Dx Preparation Method: EPA 3546								
Diesel Range	193 mg/kg		81.7	5	06/17/11 10:15	06/18/11 09:10		
Motor Oil Range	2960 mg/kg		327	5	06/17/11 10:15	06/18/11 09:10	64742-65-0	
n-Octacosane (S)	108 %		50-150	5	06/17/11 10:15	06/18/11 09:10	630-02-4	
o-Terphenyl (S)	104 %		50-150	5	06/17/11 10:15	06/18/11 09:10	84-15-1	
Percent Moisture Analytical Method: ASTM D2974-87								
Percent Moisture	4.7 %		0.10	1		06/14/11 16:46		

Sample: 6236 4-5 BGL Lab ID: 258066086 Collected: 06/06/11 07:12 Received: 06/10/11 09:50 Matrix: Solid

Results reported on a "dry-weight" basis

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	ND mg/kg		10.4	5	06/16/11 07:52	06/17/11 11:48	7440-38-2	
Barium	85.2 mg/kg		20.7	1	06/16/11 07:52	06/17/11 13:34	7440-39-3	
Cadmium	ND mg/kg		5.2	5	06/16/11 07:52	06/17/11 11:48	7440-43-9	
Chromium	47.2 mg/kg		1.0	1	06/16/11 07:52	06/17/11 13:34	7440-47-3	
Lead	4.2 mg/kg		1.0	1	06/16/11 07:52	06/17/11 13:34	7439-92-1	
Selenium	ND mg/kg		5.2	5	06/16/11 07:52	06/17/11 11:48	7782-49-2	
Silver	ND mg/kg		5.2	5	06/16/11 07:52	06/17/11 11:48	7440-22-4	D3
7471 Mercury Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	ND mg/kg		0.10	1	06/20/11 15:17	06/21/11 11:30	7439-97-6	
Percent Moisture Analytical Method: ASTM D2974-87								
Percent Moisture	17.6 %		0.10	1		06/14/11 16:47		

QUALITY CONTROL DATA

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

QC Batch: OEXT/3901 Analysis Method: EPA 8082
QC Batch Method: EPA 3546 Analysis Description: 8082 GCS PCB
Associated Lab Samples: 258066016, 258066042, 258066082

METHOD BLANK: 74902 Matrix: Solid
Associated Lab Samples: 258066016, 258066042, 258066082

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	ND	17.0	06/22/11 13:41	
PCB-1221 (Aroclor 1221)	ug/kg	ND	17.0	06/22/11 13:41	
PCB-1232 (Aroclor 1232)	ug/kg	ND	17.0	06/22/11 13:41	
PCB-1242 (Aroclor 1242)	ug/kg	ND	17.0	06/22/11 13:41	
PCB-1248 (Aroclor 1248)	ug/kg	ND	17.0	06/22/11 13:41	
PCB-1254 (Aroclor 1254)	ug/kg	ND	17.0	06/22/11 13:41	
PCB-1260 (Aroclor 1260)	ug/kg	ND	17.0	06/22/11 13:41	
Decachlorobiphenyl (S)	%	105	23-129	06/22/11 13:41	
Tetrachloro-m-xylene (S)	%	96	29-128	06/22/11 13:41	

LABORATORY CONTROL SAMPLE: 74903

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	167	147	88	51-120	
PCB-1260 (Aroclor 1260)	ug/kg	167	161	97	63-120	
Decachlorobiphenyl (S)	%			105	23-129	
Tetrachloro-m-xylene (S)	%			96	29-128	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 74904 74905

Parameter	Units	MS		MSD		MS		MSD		% Rec Limits	RPD	Qual
		258066042 Result	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec				
PCB-1016 (Aroclor 1016)	ug/kg	ND	179	179	111	116	62	65	27-121	4		
PCB-1260 (Aroclor 1260)	ug/kg	ND	179	179	122	128	69	72	23-127	5		
Decachlorobiphenyl (S)	%						67	70	23-129			
Tetrachloro-m-xylene (S)	%						71	75	29-128			

QUALITY CONTROL DATA

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

QC Batch: OEXT/3887 Analysis Method: NWTPH-Dx
QC Batch Method: EPA 3546 Analysis Description: NWTPH-Dx GCS
Associated Lab Samples: 258066003, 258066005, 258066008, 258066010, 258066011, 258066012, 258066016, 258066036, 258066042, 258066064, 258066066, 258066068, 258066075, 258066077, 258066082, 258066085

METHOD BLANK: 74705 Matrix: Solid
Associated Lab Samples: 258066003, 258066005, 258066008, 258066010, 258066011, 258066012, 258066016, 258066036, 258066042, 258066064, 258066066, 258066068, 258066075, 258066077, 258066082, 258066085

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diesel Range	mg/kg	ND	16.0	06/18/11 02:27	
Motor Oil Range	mg/kg	ND	64.0	06/18/11 02:27	
n-Octacosane (S)	%	100	50-150	06/18/11 02:27	
o-Terphenyl (S)	%	97	50-150	06/18/11 02:27	

LABORATORY CONTROL SAMPLE: 74706

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Diesel Range	mg/kg	500	465	93	56-124	
Motor Oil Range	mg/kg	500	499	100	50-150	
n-Octacosane (S)	%			108	50-150	
o-Terphenyl (S)	%			100	50-150	

SAMPLE DUPLICATE: 74707

Parameter	Units	258066008 Result	Dup Result	RPD	Qualifiers
Diesel Range	mg/kg	546	638	16	
Motor Oil Range	mg/kg	1780	1860	4	
n-Octacosane (S)	%	112	108	5	
o-Terphenyl (S)	%	105	105	2	

SAMPLE DUPLICATE: 74708

Parameter	Units	258131023 Result	Dup Result	RPD	Qualifiers
Diesel Range	mg/kg	11.7J	14.4J		
Motor Oil Range	mg/kg	193	215	11	
n-Octacosane (S)	%	92	96	4	
o-Terphenyl (S)	%	96	97	1	

QUALITY CONTROL DATA

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

QC Batch: MPRP/2282 Analysis Method: EPA 6010
QC Batch Method: EPA 3050 Analysis Description: 6010 MET
Associated Lab Samples: 258066001, 258066002, 258066015, 258066019, 258066021, 258066022, 258066023, 258066028, 258066030, 258066032

METHOD BLANK: 74422 Matrix: Solid
Associated Lab Samples: 258066001, 258066002, 258066015, 258066019, 258066021, 258066022, 258066023, 258066028, 258066030, 258066032

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/kg	ND	2.0	06/17/11 09:48	
Barium	mg/kg	ND	20.0	06/17/11 09:48	
Cadmium	mg/kg	ND	1.0	06/17/11 09:48	
Chromium	mg/kg	ND	1.0	06/17/11 09:48	
Lead	mg/kg	ND	1.0	06/17/11 09:48	
Selenium	mg/kg	ND	1.0	06/17/11 09:48	
Silver	mg/kg	ND	1.0	06/17/11 09:48	

LABORATORY CONTROL SAMPLE: 74423

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/kg	25	25.7	103	80-120	
Barium	mg/kg	25	26.2	105	80-120	
Cadmium	mg/kg	25	25.3	101	80-120	
Chromium	mg/kg	25	25.6	102	80-120	
Lead	mg/kg	25	25.4	102	80-120	
Selenium	mg/kg	25	25.2	101	80-120	
Silver	mg/kg	12.5	12.7	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 74424 74425

Parameter	Units	258061003 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
			Spike Conc.	MS Result	Spike Conc.	MSD Result					
Arsenic	mg/kg	ND	30.9	39.6	31.3	45.0	101	117	75-125	13	
Barium	mg/kg	378	30.9	411	31.3	442	105	206	75-125	7	M1
Cadmium	mg/kg	ND	30.9	39.2	31.3	35.3	106	117	75-125	11	
Chromium	mg/kg	64.5	30.9	101	31.3	99.3	119	111	75-125	2	
Lead	mg/kg	108	30.9	135	31.3	139	89	100	75-125	3	
Selenium	mg/kg	ND	30.9	32.6	31.3	36.7	101	113	75-125	12	
Silver	mg/kg	ND	15.4	16.1	15.7	17.7	105	113	75-125	9	

QUALITY CONTROL DATA

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

QC Batch: MPRP/2283 Analysis Method: EPA 6010
QC Batch Method: EPA 3050 Analysis Description: 6010 MET
Associated Lab Samples: 258066043, 258066047, 258066051, 258066055, 258066060, 258066067, 258066073, 258066076, 258066078, 258066081, 258066086

METHOD BLANK: 74426 Matrix: Solid
Associated Lab Samples: 258066043, 258066047, 258066051, 258066055, 258066060, 258066067, 258066073, 258066076, 258066078, 258066081, 258066086

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/kg	ND	2.0	06/17/11 10:44	
Barium	mg/kg	ND	20.0	06/17/11 10:44	
Cadmium	mg/kg	ND	1.0	06/17/11 10:44	
Chromium	mg/kg	ND	1.0	06/17/11 10:44	
Lead	mg/kg	ND	1.0	06/17/11 10:44	
Selenium	mg/kg	ND	1.0	06/17/11 10:44	
Silver	mg/kg	ND	1.0	06/17/11 10:44	

LABORATORY CONTROL SAMPLE: 74427

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/kg	25	26.6	106	80-120	
Barium	mg/kg	25	27.1	108	80-120	
Cadmium	mg/kg	25	26.6	107	80-120	
Chromium	mg/kg	25	27.0	108	80-120	
Lead	mg/kg	25	27.4	110	80-120	
Selenium	mg/kg	25	26.6	106	80-120	
Silver	mg/kg	12.5	13.4	107	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 74428 74429

Parameter	Units	258066043 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
			Spike Conc.	Spike Conc.	MS Result	MSD Result					
Arsenic	mg/kg	ND	25.8	26.1	28.8	32.2	108	120	75-125	11	
Barium	mg/kg	82.0	25.8	26.1	108	106	101	94	75-125	2	
Cadmium	mg/kg	ND	25.8	26.1	28.1	31.1	109	119	75-125	10	
Chromium	mg/kg	75.7	25.8	26.1	108	106	123	116	75-125	1	
Lead	mg/kg	ND	25.8	26.1	32.0	34.6	113	122	75-125	8	
Selenium	mg/kg	ND	25.8	26.1	28.9	31.7	107	116	75-125	9	
Silver	mg/kg	ND	13	13.1	14.9	16.9	115	129	75-125	12	M1

QUALITY CONTROL DATA

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

QC Batch: MERP/1456 Analysis Method: EPA 7471
QC Batch Method: EPA 7471 Analysis Description: 7471 Mercury
Associated Lab Samples: 258066001, 258066002, 258066015, 258066019, 258066021, 258066022, 258066023, 258066028, 258066030, 258066032

METHOD BLANK: 74430 Matrix: Solid
Associated Lab Samples: 258066001, 258066002, 258066015, 258066019, 258066021, 258066022, 258066023, 258066028, 258066030, 258066032

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	mg/kg	ND	0.10	06/21/11 10:06	

LABORATORY CONTROL SAMPLE: 74431

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/kg	.5	0.51	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 74432 74433

Parameter	Units	258061003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Mercury	mg/kg	ND	.78	.76	0.86	0.83	101	100	80-120	4	

QUALITY CONTROL DATA

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

QC Batch: MERP/1457 Analysis Method: EPA 7471
QC Batch Method: EPA 7471 Analysis Description: 7471 Mercury
Associated Lab Samples: 258066043, 258066047, 258066051, 258066055, 258066060, 258066067, 258066073, 258066076, 258066078, 258066081, 258066086

METHOD BLANK: 74434 Matrix: Solid
Associated Lab Samples: 258066043, 258066047, 258066051, 258066055, 258066060, 258066067, 258066073, 258066076, 258066078, 258066081, 258066086

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	mg/kg	ND	0.10	06/21/11 10:54	

LABORATORY CONTROL SAMPLE: 74435

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/kg	.5	0.50	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 74436 74437

Parameter	Units	258066043 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Mercury	mg/kg	ND	.38	.38	0.39	0.40	105	106	80-120	3	

QUALITY CONTROL DATA

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

QC Batch: OEXT/3858 Analysis Method: EPA 8270 by SIM
QC Batch Method: EPA 3546 Analysis Description: 8270/3546 MSSV PAH by SIM
Associated Lab Samples: 258066010, 258066031, 258066033, 258066041, 258066054, 258066059, 258066075, 258066077, 258066082

METHOD BLANK: 74206 Matrix: Solid
Associated Lab Samples: 258066010, 258066031, 258066033, 258066041, 258066054, 258066059, 258066075, 258066077, 258066082

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1-Methylnaphthalene	ug/kg	ND	6.7	06/15/11 15:50	
2-Methylnaphthalene	ug/kg	ND	6.7	06/15/11 15:50	
Acenaphthene	ug/kg	ND	6.7	06/15/11 15:50	
Acenaphthylene	ug/kg	ND	6.7	06/15/11 15:50	
Anthracene	ug/kg	ND	6.7	06/15/11 15:50	
Benzo(a)anthracene	ug/kg	ND	6.7	06/15/11 15:50	
Benzo(a)pyrene	ug/kg	ND	6.7	06/15/11 15:50	
Benzo(b)fluoranthene	ug/kg	ND	6.7	06/15/11 15:50	
Benzo(g,h,i)perylene	ug/kg	ND	6.7	06/15/11 15:50	
Benzo(k)fluoranthene	ug/kg	ND	6.7	06/15/11 15:50	
Chrysene	ug/kg	ND	6.7	06/15/11 15:50	
Dibenz(a,h)anthracene	ug/kg	ND	6.7	06/15/11 15:50	
Fluoranthene	ug/kg	ND	6.7	06/15/11 15:50	
Fluorene	ug/kg	ND	6.7	06/15/11 15:50	
Indeno(1,2,3-cd)pyrene	ug/kg	ND	6.7	06/15/11 15:50	
Naphthalene	ug/kg	ND	6.7	06/15/11 15:50	
Phenanthrene	ug/kg	ND	6.7	06/15/11 15:50	
Pyrene	ug/kg	ND	6.7	06/15/11 15:50	
2-Fluorobiphenyl (S)	%	84	31-131	06/15/11 15:50	
Terphenyl-d14 (S)	%	91	30-133	06/15/11 15:50	

LABORATORY CONTROL SAMPLE: 74207

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	ug/kg	133	106	79	37-121	
2-Methylnaphthalene	ug/kg	133	112	84	33-132	
Acenaphthene	ug/kg	133	112	84	32-127	
Acenaphthylene	ug/kg	133	116	87	31-134	
Anthracene	ug/kg	133	120	90	42-135	
Benzo(a)anthracene	ug/kg	133	132	99	43-139	
Benzo(a)pyrene	ug/kg	133	132	99	44-144	
Benzo(b)fluoranthene	ug/kg	133	131	98	42-144	
Benzo(g,h,i)perylene	ug/kg	133	117	88	46-136	
Benzo(k)fluoranthene	ug/kg	133	123	92	45-147	
Chrysene	ug/kg	133	118	89	42-144	
Dibenz(a,h)anthracene	ug/kg	133	121	91	48-142	
Fluoranthene	ug/kg	133	121	91	44-143	
Fluorene	ug/kg	133	116	87	32-146	
Indeno(1,2,3-cd)pyrene	ug/kg	133	121	90	47-140	
Naphthalene	ug/kg	133	108	81	35-118	
Phenanthrene	ug/kg	133	118	88	42-131	

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QUALITY CONTROL DATA

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

LABORATORY CONTROL SAMPLE: 74207

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Pyrene	ug/kg	133	120	90	47-136	
2-Fluorobiphenyl (S)	%			87	31-131	
Terphenyl-d14 (S)	%			95	30-133	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 74208 74209

Parameter	Units	258066002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1-Methylnaphthalene	ug/kg				150	146				2	
2-Methylnaphthalene	ug/kg				154	151				2	
Acenaphthene	ug/kg				155	152				2	
Acenaphthylene	ug/kg				160	159				.8	
Anthracene	ug/kg				156	147				6	
Benzo(a)anthracene	ug/kg				162	144				12	
Benzo(a)pyrene	ug/kg				154	135				13	
Benzo(b)fluoranthene	ug/kg				149	129				14	
Benzo(g,h,i)perylene	ug/kg				135	115				16	
Benzo(k)fluoranthene	ug/kg				138	122				13	
Chrysene	ug/kg				143	129				10	
Dibenz(a,h)anthracene	ug/kg				137	122				12	
Fluoranthene	ug/kg				156	142				9	
Fluorene	ug/kg				160	158				2	
Indeno(1,2,3-cd)pyrene	ug/kg				135	117				14	
Naphthalene	ug/kg				150	153				2	
Phenanthrene	ug/kg				158	148				6	
Pyrene	ug/kg				155	143				8	
2-Fluorobiphenyl (S)	%						82	79	31-131		
Terphenyl-d14 (S)	%						80	76	30-133		

QUALITY CONTROL DATA

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

QC Batch: OEXT/3859 Analysis Method: EPA 8270
QC Batch Method: EPA 3546 Analysis Description: 8270 Solid MSSV Microwave
Associated Lab Samples: 258066003, 258066010, 258066031, 258066033, 258066041, 258066054, 258066059, 258066075, 258066077, 258066082

METHOD BLANK: 74210 Matrix: Solid
Associated Lab Samples: 258066003, 258066010, 258066031, 258066033, 258066041, 258066054, 258066059, 258066075, 258066077, 258066082

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trichlorobenzene	ug/kg	ND	330	06/20/11 23:38	
1,2-Dichlorobenzene	ug/kg	ND	330	06/20/11 23:38	
1,3-Dichlorobenzene	ug/kg	ND	330	06/20/11 23:38	
1,4-Dichlorobenzene	ug/kg	ND	330	06/20/11 23:38	
2,4,5-Trichlorophenol	ug/kg	ND	330	06/20/11 23:38	
2,4,6-Trichlorophenol	ug/kg	ND	330	06/20/11 23:38	
2,4-Dichlorophenol	ug/kg	ND	330	06/20/11 23:38	
2,4-Dimethylphenol	ug/kg	ND	330	06/20/11 23:38	
2,4-Dinitrophenol	ug/kg	ND	670	06/20/11 23:38	
2,4-Dinitrotoluene	ug/kg	ND	330	06/20/11 23:38	
2,6-Dinitrotoluene	ug/kg	ND	330	06/20/11 23:38	
2-Chloronaphthalene	ug/kg	ND	330	06/20/11 23:38	
2-Chlorophenol	ug/kg	ND	330	06/20/11 23:38	
2-Methylnaphthalene	ug/kg	ND	330	06/20/11 23:38	
2-Methylphenol(o-Cresol)	ug/kg	ND	330	06/20/11 23:38	
2-Nitroaniline	ug/kg	ND	330	06/20/11 23:38	
2-Nitrophenol	ug/kg	ND	330	06/20/11 23:38	
3&4-Methylphenol(m&p Cresol)	ug/kg	ND	330	06/20/11 23:38	
3,3'-Dichlorobenzidine	ug/kg	ND	330	06/20/11 23:38	
3-Nitroaniline	ug/kg	ND	330	06/20/11 23:38	
4,6-Dinitro-2-methylphenol	ug/kg	ND	330	06/20/11 23:38	
4-Bromophenylphenyl ether	ug/kg	ND	330	06/20/11 23:38	
4-Chloro-3-methylphenol	ug/kg	ND	330	06/20/11 23:38	
4-Chloroaniline	ug/kg	ND	330	06/20/11 23:38	
4-Chlorophenylphenyl ether	ug/kg	ND	330	06/20/11 23:38	
4-Nitroaniline	ug/kg	ND	330	06/20/11 23:38	
4-Nitrophenol	ug/kg	ND	330	06/20/11 23:38	
Acenaphthene	ug/kg	ND	330	06/20/11 23:38	
Acenaphthylene	ug/kg	ND	330	06/20/11 23:38	
Anthracene	ug/kg	ND	330	06/20/11 23:38	
Benzo(a)anthracene	ug/kg	ND	330	06/20/11 23:38	
Benzo(a)pyrene	ug/kg	ND	330	06/20/11 23:38	
Benzo(b)fluoranthene	ug/kg	ND	330	06/20/11 23:38	
Benzo(g,h,i)perylene	ug/kg	ND	330	06/20/11 23:38	
Benzo(k)fluoranthene	ug/kg	ND	330	06/20/11 23:38	
Benzoic acid	ug/kg	ND	1650	06/20/11 23:38	
Benzyl alcohol	ug/kg	ND	330	06/20/11 23:38	
bis(2-Chloroethoxy)methane	ug/kg	ND	330	06/20/11 23:38	
bis(2-Chloroethyl) ether	ug/kg	ND	330	06/20/11 23:38	
bis(2-Chloroisopropyl) ether	ug/kg	ND	330	06/20/11 23:38	
bis(2-Ethylhexyl)phthalate	ug/kg	ND	330	06/20/11 23:38	

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QUALITY CONTROL DATA

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

METHOD BLANK: 74210

Matrix: Solid

Associated Lab Samples: 258066003, 258066010, 258066031, 258066033, 258066041, 258066054, 258066059, 258066075, 258066077, 258066082

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Butylbenzylphthalate	ug/kg	ND	330	06/20/11 23:38	
Chrysene	ug/kg	ND	330	06/20/11 23:38	
Di-n-butylphthalate	ug/kg	ND	330	06/20/11 23:38	
Di-n-octylphthalate	ug/kg	ND	330	06/20/11 23:38	
Dibenz(a,h)anthracene	ug/kg	ND	330	06/20/11 23:38	
Dibenzofuran	ug/kg	ND	330	06/20/11 23:38	
Diethylphthalate	ug/kg	ND	330	06/20/11 23:38	
Dimethylphthalate	ug/kg	ND	330	06/20/11 23:38	
Fluoranthene	ug/kg	ND	330	06/20/11 23:38	
Fluorene	ug/kg	ND	330	06/20/11 23:38	
Hexachloro-1,3-butadiene	ug/kg	ND	330	06/20/11 23:38	
Hexachlorobenzene	ug/kg	ND	330	06/20/11 23:38	
Hexachlorocyclopentadiene	ug/kg	ND	330	06/20/11 23:38	
Hexachloroethane	ug/kg	ND	330	06/20/11 23:38	
Indeno(1,2,3-cd)pyrene	ug/kg	ND	330	06/20/11 23:38	
Isophorone	ug/kg	ND	330	06/20/11 23:38	
N-Nitroso-di-n-propylamine	ug/kg	ND	330	06/20/11 23:38	
N-Nitrosodiphenylamine	ug/kg	ND	330	06/20/11 23:38	
Naphthalene	ug/kg	ND	330	06/20/11 23:38	
Nitrobenzene	ug/kg	ND	330	06/20/11 23:38	
Pentachlorophenol	ug/kg	ND	330	06/20/11 23:38	
Phenanthrene	ug/kg	ND	330	06/20/11 23:38	
Phenol	ug/kg	ND	330	06/20/11 23:38	
Pyrene	ug/kg	ND	330	06/20/11 23:38	
2,4,6-Tribromophenol (S)	%	70	26-135	06/20/11 23:38	
2-Fluorobiphenyl (S)	%	80	46-118	06/20/11 23:38	
2-Fluorophenol (S)	%	74	37-117	06/20/11 23:38	
Nitrobenzene-d5 (S)	%	79	40-138	06/20/11 23:38	
Phenol-d6 (S)	%	79	44-120	06/20/11 23:38	
Terphenyl-d14 (S)	%	82	41-137	06/20/11 23:38	

LABORATORY CONTROL SAMPLE: 74211

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trichlorobenzene	ug/kg	1330	1090	82	56-120	
1,4-Dichlorobenzene	ug/kg	1330	1020	77	51-105	
2,4-Dinitrotoluene	ug/kg	1330	991	74	43-114	
2-Chlorophenol	ug/kg	1330	1100	82	54-106	
2-Methylnaphthalene	ug/kg	1330	1100	82	47-124	
4-Chloro-3-methylphenol	ug/kg	1330	1170	88	57-122	
4-Nitrophenol	ug/kg	1330	1210	91	25-122	
Acenaphthene	ug/kg	1330	1170	88	48-117	
Acenaphthylene	ug/kg	1330	1120	84	43-118	
Anthracene	ug/kg	1330	1200	90	53-117	

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QUALITY CONTROL DATA

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

LABORATORY CONTROL SAMPLE: 74211

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzo(a)anthracene	ug/kg	1330	1210	91	52-124	
Benzo(a)pyrene	ug/kg	1330	1230	93	51-113	
Benzo(b)fluoranthene	ug/kg	1330	1230	92	49-119	
Benzo(g,h,i)perylene	ug/kg	1330	1110	83	52-117	
Benzo(k)fluoranthene	ug/kg	1330	1150	86	54-117	
Chrysene	ug/kg	1330	1170	88	53-124	
Dibenz(a,h)anthracene	ug/kg	1330	1110	83	51-123	
Fluoranthene	ug/kg	1330	1250	94	54-118	
Fluorene	ug/kg	1330	1170	88	47-123	
Indeno(1,2,3-cd)pyrene	ug/kg	1330	1150	86	50-122	
N-Nitroso-di-n-propylamine	ug/kg	1330	1130	85	52-123	
Naphthalene	ug/kg	1330	1130	85	48-131	
Pentachlorophenol	ug/kg	1330	846	63	20-89	
Phenanthrene	ug/kg	1330	1190	89	56-117	
Phenol	ug/kg	1330	1140	86	56-104	
Pyrene	ug/kg	1330	1170	88	54-118	
2,4,6-Tribromophenol (S)	%			82	26-135	
2-Fluorobiphenyl (S)	%			88	46-118	
2-Fluorophenol (S)	%			82	37-117	
Nitrobenzene-d5 (S)	%			88	40-138	
Phenol-d6 (S)	%			85	44-120	
Terphenyl-d14 (S)	%			91	41-137	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 74212 74213

Parameter	Units	258066003 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
			Spike Conc.	Spike Conc.							
1,2,4-Trichlorobenzene	ug/kg	ND	1390	1380	964	1190	69	87	35-137	21	D6
1,4-Dichlorobenzene	ug/kg	ND	1390	1380	935	1060	67	77	29-118	12	
2,4-Dinitrotoluene	ug/kg	ND	1390	1380	827	978	60	71	16-123	17	
2-Chlorophenol	ug/kg	ND	1390	1380	1110	1370	80	99	39-119	21	D6
2-Methylnaphthalene	ug/kg	ND	1390	1380	1010	1260	71	90	38-139	22	
4-Chloro-3-methylphenol	ug/kg	ND	1390	1380	1120	1380	80	100	33-155	21	
4-Nitrophenol	ug/kg	ND	1390	1380	1060	1260	77	92	10-146	17	
Acenaphthene	ug/kg	ND	1390	1380	1070	1340	77	98	37-129	23	R1
Acenaphthylene	ug/kg	ND	1390	1380	1070	1330	77	97	23-145	22	R1
Anthracene	ug/kg	ND	1390	1380	1110	1450	80	105	12-152	26	R1
Benzo(a)anthracene	ug/kg	ND	1390	1380	1110	1370	80	99	32-140	21	
Benzo(a)pyrene	ug/kg	ND	1390	1380	1130	1420	81	103	22-136	23	R1
Benzo(b)fluoranthene	ug/kg	ND	1390	1380	1190	1400	86	102	21-137	16	
Benzo(g,h,i)perylene	ug/kg	ND	1390	1380	749	939	54	68	31-127	22	
Benzo(k)fluoranthene	ug/kg	ND	1390	1380	1060	1460	76	106	29-126	32	R1
Chrysene	ug/kg	ND	1390	1380	1080	1300	78	95	21-144	18	
Dibenz(a,h)anthracene	ug/kg	ND	1390	1380	814	1040	59	76	28-146	24	R1
Fluoranthene	ug/kg	ND	1390	1380	1140	1420	82	103	10-155	22	R1
Fluorene	ug/kg	ND	1390	1380	1090	1330	78	97	32-141	20	
Indeno(1,2,3-cd)pyrene	ug/kg	ND	1390	1380	812	1030	59	75	30-132	23	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 74212												74213											
Parameter	Units	258066003 Result	MS		MSD		MS		MSD		% Rec		Limits	RPD	Qual								
			Spike Conc.	MSD Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec	% Rec													
N-Nitroso-di-n-propylamine	ug/kg	ND	1390	1380	1080	1270	78	92	36-136	16													
Naphthalene	ug/kg	ND	1390	1380	1010	1250	73	90	36-145	21	R1												
Pentachlorophenol	ug/kg	ND	1390	1380	970	1280	70	93	10-143	28													
Phenanthrene	ug/kg	ND	1390	1380	1150	1480	79	104	37-129	25													
Phenol	ug/kg	ND	1390	1380	1250	1520	81	102	36-127	20	D6												
Pyrene	ug/kg	ND	1390	1380	1170	1420	81	100	12-148	19													
2,4,6-Tribromophenol (S)	%						84	103	26-135														
2-Fluorobiphenyl (S)	%						76	95	46-118														
2-Fluorophenol (S)	%						76	92	37-117														
Nitrobenzene-d5 (S)	%						74	90	40-138														
Phenol-d6 (S)	%						79	97	44-120														
Terphenyl-d14 (S)	%						84	101	41-137														

QUALITY CONTROL DATA

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

QC Batch: PMST/1703 Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87 Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 258066001, 258066002, 258066003, 258066004, 258066005, 258066006, 258066007, 258066008, 258066009,
258066010, 258066011, 258066012

SAMPLE DUPLICATE: 74135

Parameter	Units	258074001 Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	21.6	21.9	1	

SAMPLE DUPLICATE: 74136

Parameter	Units	258066012 Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	7.6	7.6	.2	

QUALITY CONTROL DATA

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

QC Batch: PMST/1704 Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87 Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 258066013, 258066014, 258066015, 258066016, 258066017, 258066018, 258066019, 258066020, 258066021,
258066022, 258066023, 258066034, 258066035

SAMPLE DUPLICATE: 74137

Parameter	Units	258066016 Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	5.7	7.0	21	

SAMPLE DUPLICATE: 74138

Parameter	Units	258066035 Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	16.5	14.9	10	

QUALITY CONTROL DATA

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

QC Batch:	PMST/1705	Analysis Method:	ASTM D2974-87
QC Batch Method:	ASTM D2974-87	Analysis Description:	Dry Weight/Percent Moisture
Associated Lab Samples:	258066024, 258066025, 258066026, 258066027, 258066028, 258066029, 258066030, 258066031, 258066032, 258066033, 258066036, 258066037, 258066038, 258066039, 258066040, 258066041, 258066042, 258066043		

SAMPLE DUPLICATE: 74277

Parameter	Units	258079001 Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	26.6	26.5	.2	

SAMPLE DUPLICATE: 74278

Parameter	Units	258066042 Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	7.2	7.7	8	

QUALITY CONTROL DATA

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

QC Batch: PMST/1708 Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87 Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 258066084, 258066085, 258066086

SAMPLE DUPLICATE: 74287

Parameter	Units	258066084 Result	Dup Result	RPD	Qualifiers
Percent Moisture	%	34.3	34.5	.6	

QUALIFIERS

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel Clean-Up

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

LABORATORIES

PASI-S Pace Analytical Services - Seattle

ANALYTE QUALIFIERS

- D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
- D6 The relative percent difference (RPD) between the sample and sample duplicate exceeded laboratory control limits.
- M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
- R1 RPD value was outside control limits.

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
258066016	6205 0'-3' BGL	EPA 3546	OEXT/3901	EPA 8082	GCSV/2617
258066042	6216 0-3' BGL	EPA 3546	OEXT/3901	EPA 8082	GCSV/2617
258066082	6235 0-3' BGL	EPA 3546	OEXT/3901	EPA 8082	GCSV/2617
258066003	6201 0-3 BGL	EPA 3546	OEXT/3887	NWTPH-Dx	GCSV/2609
258066005	6201B 0'-3 BGL	EPA 3546	OEXT/3887	NWTPH-Dx	GCSV/2609
258066008	6201C 0'-3 BGL	EPA 3546	OEXT/3887	NWTPH-Dx	GCSV/2609
258066010	6202B 0-3 BGL	EPA 3546	OEXT/3887	NWTPH-Dx	GCSV/2609
258066011	6203 1-2 BGL	EPA 3546	OEXT/3887	NWTPH-Dx	GCSV/2609
258066012	6203 2'-3' BGL	EPA 3546	OEXT/3887	NWTPH-Dx	GCSV/2609
258066016	6205 0'-3' BGL	EPA 3546	OEXT/3887	NWTPH-Dx	GCSV/2609
258066036	6214 0-3' BGL	EPA 3546	OEXT/3887	NWTPH-Dx	GCSV/2609
258066042	6216 0-3' BGL	EPA 3546	OEXT/3887	NWTPH-Dx	GCSV/2609
258066064	6225 0-3 BGL	EPA 3546	OEXT/3887	NWTPH-Dx	GCSV/2609
258066066	6226 0-3 BGL	EPA 3546	OEXT/3887	NWTPH-Dx	GCSV/2609
258066068	6227 0-3 BGL	EPA 3546	OEXT/3887	NWTPH-Dx	GCSV/2609
258066075	6230 0-3 BGL	EPA 3546	OEXT/3887	NWTPH-Dx	GCSV/2609
258066077	6231 0-3 BGL	EPA 3546	OEXT/3887	NWTPH-Dx	GCSV/2609
258066082	6235 0-3' BGL	EPA 3546	OEXT/3887	NWTPH-Dx	GCSV/2609
258066085	6236 0-3' BGL	EPA 3546	OEXT/3887	NWTPH-Dx	GCSV/2609
258066001	Stockpile 6223 C/L	EPA 3050	MPRP/2282	EPA 6010	ICP/2185
258066002	Stockpile 6224 N	EPA 3050	MPRP/2282	EPA 6010	ICP/2185
258066015	6204 0'-2 BGL	EPA 3050	MPRP/2282	EPA 6010	ICP/2185
258066019	6205 8'-9' BGL	EPA 3050	MPRP/2282	EPA 6010	ICP/2185
258066021	6206 2'-3' BGL	EPA 3050	MPRP/2282	EPA 6010	ICP/2185
258066022	6207 0'-2.5 BGL	EPA 3050	MPRP/2282	EPA 6010	ICP/2185
258066023	6208 0'-3' BGL	EPA 3050	MPRP/2282	EPA 6010	ICP/2185
258066028	6210 3-4 BGL	EPA 3050	MPRP/2282	EPA 6010	ICP/2185
258066030	6211 4'-5' BGL	EPA 3050	MPRP/2282	EPA 6010	ICP/2185
258066032	6212 3'-4.3 BGL	EPA 3050	MPRP/2282	EPA 6010	ICP/2185
258066043	6216 5-6' BGL	EPA 3050	MPRP/2283	EPA 6010	ICP/2186
258066047	6218 3'-6 BGL	EPA 3050	MPRP/2283	EPA 6010	ICP/2186
258066051	6220 0-3 BGL	EPA 3050	MPRP/2283	EPA 6010	ICP/2186
258066055	6221 3-4.3 BGL	EPA 3050	MPRP/2283	EPA 6010	ICP/2186
258066060	6223 0-3 BGL	EPA 3050	MPRP/2283	EPA 6010	ICP/2186
258066067	6226 5-6 BGL	EPA 3050	MPRP/2283	EPA 6010	ICP/2186
258066073	6229 0-3 BGL	EPA 3050	MPRP/2283	EPA 6010	ICP/2186
258066076	6230 4'-5 BGL	EPA 3050	MPRP/2283	EPA 6010	ICP/2186
258066078	6232 3-6 BGL	EPA 3050	MPRP/2283	EPA 6010	ICP/2186
258066081	6234 3-4' BGL	EPA 3050	MPRP/2283	EPA 6010	ICP/2186
258066086	6236 4-5 BGL	EPA 3050	MPRP/2283	EPA 6010	ICP/2186
258066001	Stockpile 6223 C/L	EPA 7471	MERP/1456	EPA 7471	MERC/1470
258066002	Stockpile 6224 N	EPA 7471	MERP/1456	EPA 7471	MERC/1470
258066015	6204 0'-2 BGL	EPA 7471	MERP/1456	EPA 7471	MERC/1470
258066019	6205 8'-9' BGL	EPA 7471	MERP/1456	EPA 7471	MERC/1470
258066021	6206 2'-3' BGL	EPA 7471	MERP/1456	EPA 7471	MERC/1470
258066022	6207 0'-2.5 BGL	EPA 7471	MERP/1456	EPA 7471	MERC/1470
258066023	6208 0'-3' BGL	EPA 7471	MERP/1456	EPA 7471	MERC/1470

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
258066028	6210 3-4 BGL	EPA 7471	MERP/1456	EPA 7471	MERC/1470
258066030	6211 4'-5' BGL	EPA 7471	MERP/1456	EPA 7471	MERC/1470
258066032	6212 3'-4.3 BGL	EPA 7471	MERP/1456	EPA 7471	MERC/1470
258066043	6216 5-6' BGL	EPA 7471	MERP/1457	EPA 7471	MERC/1471
258066047	6218 3'-6 BGL	EPA 7471	MERP/1457	EPA 7471	MERC/1471
258066051	6220 0-3 BGL	EPA 7471	MERP/1457	EPA 7471	MERC/1471
258066055	6221 3-4.3 BGL	EPA 7471	MERP/1457	EPA 7471	MERC/1471
258066060	6223 0-3 BGL	EPA 7471	MERP/1457	EPA 7471	MERC/1471
258066067	6226 5-6 BGL	EPA 7471	MERP/1457	EPA 7471	MERC/1471
258066073	6229 0-3 BGL	EPA 7471	MERP/1457	EPA 7471	MERC/1471
258066076	6230 4'-5 BGL	EPA 7471	MERP/1457	EPA 7471	MERC/1471
258066078	6232 3-6 BGL	EPA 7471	MERP/1457	EPA 7471	MERC/1471
258066081	6234 3-4' BGL	EPA 7471	MERP/1457	EPA 7471	MERC/1471
258066086	6236 4-5 BGL	EPA 7471	MERP/1457	EPA 7471	MERC/1471
258066010	6202B 0-3 BGL	EPA 3546	OEXT/3858	EPA 8270 by SIM	MSSV/1656
258066031	6212 0-3 BGL	EPA 3546	OEXT/3858	EPA 8270 by SIM	MSSV/1656
258066033	6213 0-3 BGL	EPA 3546	OEXT/3858	EPA 8270 by SIM	MSSV/1656
258066041	6215 3'-4.5 BGL	EPA 3546	OEXT/3858	EPA 8270 by SIM	MSSV/1656
258066054	6221 0-3 BGL	EPA 3546	OEXT/3858	EPA 8270 by SIM	MSSV/1656
258066059	6222 11'-12' BGL	EPA 3546	OEXT/3858	EPA 8270 by SIM	MSSV/1656
258066075	6230 0-3 BGL	EPA 3546	OEXT/3858	EPA 8270 by SIM	MSSV/1656
258066077	6231 0-3 BGL	EPA 3546	OEXT/3858	EPA 8270 by SIM	MSSV/1656
258066082	6235 0-3' BGL	EPA 3546	OEXT/3858	EPA 8270 by SIM	MSSV/1656
258066003	6201 0-3 BGL	EPA 3546	OEXT/3859	EPA 8270	MSSV/1659
258066010	6202B 0-3 BGL	EPA 3546	OEXT/3859	EPA 8270	MSSV/1659
258066031	6212 0-3 BGL	EPA 3546	OEXT/3859	EPA 8270	MSSV/1659
258066033	6213 0-3 BGL	EPA 3546	OEXT/3859	EPA 8270	MSSV/1659
258066041	6215 3'-4.5 BGL	EPA 3546	OEXT/3859	EPA 8270	MSSV/1659
258066054	6221 0-3 BGL	EPA 3546	OEXT/3859	EPA 8270	MSSV/1659
258066059	6222 11'-12' BGL	EPA 3546	OEXT/3859	EPA 8270	MSSV/1659
258066075	6230 0-3 BGL	EPA 3546	OEXT/3859	EPA 8270	MSSV/1659
258066077	6231 0-3 BGL	EPA 3546	OEXT/3859	EPA 8270	MSSV/1659
258066082	6235 0-3' BGL	EPA 3546	OEXT/3859	EPA 8270	MSSV/1659
258066001	Stockpile 6223 C/L	ASTM D2974-87	PMST/1703		
258066002	Stockpile 6224 N	ASTM D2974-87	PMST/1703		
258066003	6201 0-3 BGL	ASTM D2974-87	PMST/1703		
258066004	6201 3'-5.5 BGL	ASTM D2974-87	PMST/1703		
258066005	6201B 0'-3 BGL	ASTM D2974-87	PMST/1703		
258066006	6201B 4'-5' BGL	ASTM D2974-87	PMST/1703		
258066007	6201B 5'-6' BGL	ASTM D2974-87	PMST/1703		
258066008	6201C 0'-3 BGL	ASTM D2974-87	PMST/1703		
258066009	6202 0-3 BGL	ASTM D2974-87	PMST/1703		
258066010	6202B 0-3 BGL	ASTM D2974-87	PMST/1703		
258066011	6203 1-2 BGL	ASTM D2974-87	PMST/1703		
258066012	6203 2'-3' BGL	ASTM D2974-87	PMST/1703		
258066013	6203 3'-6 BGL	ASTM D2974-87	PMST/1704		

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
258066014	6203 6'-6.5 BGL	ASTM D2974-87	PMST/1704		
258066015	6204 0'-2 BGL	ASTM D2974-87	PMST/1704		
258066016	6205 0'-3' BGL	ASTM D2974-87	PMST/1704		
258066017	6205 4'-5' BGL	ASTM D2974-87	PMST/1704		
258066018	6205 5'-6' BGL	ASTM D2974-87	PMST/1704		
258066019	6205 8'-9' BGL	ASTM D2974-87	PMST/1704		
258066020	6206 1'-2' BGL	ASTM D2974-87	PMST/1704		
258066021	6206 2'-3' BGL	ASTM D2974-87	PMST/1704		
258066022	6207 0'-2.5 BGL	ASTM D2974-87	PMST/1704		
258066023	6208 0'-3' BGL	ASTM D2974-87	PMST/1704		
258066024	6208 4'-5' BGL	ASTM D2974-87	PMST/1705		
258066025	6209 0-3 BGL	ASTM D2974-87	PMST/1705		
258066026	6209 3-4' BGL	ASTM D2974-87	PMST/1705		
258066027	6210 0-3 BGL	ASTM D2974-87	PMST/1705		
258066028	6210 3-4 BGL	ASTM D2974-87	PMST/1705		
258066029	6211 0-3 BGL	ASTM D2974-87	PMST/1705		
258066030	6211 4'-5' BGL	ASTM D2974-87	PMST/1705		
258066031	6212 0-3 BGL	ASTM D2974-87	PMST/1705		
258066032	6212 3'-4.3 BGL	ASTM D2974-87	PMST/1705		
258066033	6213 0-3 BGL	ASTM D2974-87	PMST/1705		
258066034	6213 4'-5 BGL	ASTM D2974-87	PMST/1704		
258066035	6213 5'-6 BGL	ASTM D2974-87	PMST/1704		
258066036	6214 0-3' BGL	ASTM D2974-87	PMST/1705		
258066037	6214 4-5' BGL	ASTM D2974-87	PMST/1705		
258066038	6214 5'-6' BGL	ASTM D2974-87	PMST/1705		
258066039	6214 8'-9' BGL	ASTM D2974-87	PMST/1705		
258066040	6215 0-3' BGL	ASTM D2974-87	PMST/1705		
258066041	6215 3'-4.5 BGL	ASTM D2974-87	PMST/1705		
258066042	6216 0-3' BGL	ASTM D2974-87	PMST/1705		
258066043	6216 5-6' BGL	ASTM D2974-87	PMST/1705		
258066044	6216 7'-8' BGL	ASTM D2974-87	PMST/1706		
258066045	6217 2'-3 BGL	ASTM D2974-87	PMST/1706		
258066046	6217 4-5 BGL	ASTM D2974-87	PMST/1706		
258066047	6218 3'-6 BGL	ASTM D2974-87	PMST/1706		
258066048	6218 7-8' BGL	ASTM D2974-87	PMST/1706		
258066049	6219 0-3 BGL	ASTM D2974-87	PMST/1706		
258066050	6219 3'-6 BGL	ASTM D2974-87	PMST/1706		
258066051	6220 0-3 BGL	ASTM D2974-87	PMST/1706		
258066052	6220 5'-6 BGL	ASTM D2974-87	PMST/1706		
258066053	6220 8-9 BGL	ASTM D2974-87	PMST/1706		
258066054	6221 0-3 BGL	ASTM D2974-87	PMST/1706		
258066055	6221 3-4.3 BGL	ASTM D2974-87	PMST/1706		
258066056	6222 0-3' BGL	ASTM D2974-87	PMST/1706		
258066057	6222 4-5 BGL	ASTM D2974-87	PMST/1706		
258066058	6222 5'-6 BGL	ASTM D2974-87	PMST/1706		
258066059	6222 11'-12' BGL	ASTM D2974-87	PMST/1706		
258066060	6223 0-3 BGL	ASTM D2974-87	PMST/1706		

Date: 06/24/2011 04:23 PM

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Hwy 62 Phase - 1
Pace Project No.: 258066

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
258066061	6223 6-9 BGL	ASTM D2974-87	PMST/1706		
258066062	6224 3'-6 BGL	ASTM D2974-87	PMST/1706		
258066063	6224 5.5-6.5 BGL	ASTM D2974-87	PMST/1706		
258066064	6225 0-3 BGL	ASTM D2974-87	PMST/1707		
258066065	6225 3'-5 BGL	ASTM D2974-87	PMST/1707		
258066066	6226 0-3 BGL	ASTM D2974-87	PMST/1707		
258066067	6226 5-6 BGL	ASTM D2974-87	PMST/1707		
258066068	6227 0-3 BGL	ASTM D2974-87	PMST/1707		
258066069	6227 4-5 BGL	ASTM D2974-87	PMST/1707		
258066070	6227 5-6 BGL	ASTM D2974-87	PMST/1707		
258066071	6228 0-3' BGL	ASTM D2974-87	PMST/1707		
258066072	6228 4-5 BGL	ASTM D2974-87	PMST/1707		
258066073	6229 0-3 BGL	ASTM D2974-87	PMST/1707		
258066074	6229 4'-5 BGL	ASTM D2974-87	PMST/1707		
258066075	6230 0-3 BGL	ASTM D2974-87	PMST/1707		
258066076	6230 4'-5 BGL	ASTM D2974-87	PMST/1707		
258066077	6231 0-3 BGL	ASTM D2974-87	PMST/1707		
258066078	6232 3-6 BGL	ASTM D2974-87	PMST/1707		
258066079	6233 0-3 BGL	ASTM D2974-87	PMST/1707		
258066080	6234 0-3 BGL	ASTM D2974-87	PMST/1707		
258066081	6234 3-4' BGL	ASTM D2974-87	PMST/1707		
258066082	6235 0-3' BGL	ASTM D2974-87	PMST/1707		
258066083	6235 3-6' BGL	ASTM D2974-87	PMST/1707		
258066084	6235 6-9 BGL	ASTM D2974-87	PMST/1708		
258066085	6236 0-3' BGL	ASTM D2974-87	PMST/1708		
258066086	6236 4-5 BGL	ASTM D2974-87	PMST/1708		

Agency, Authorized Purchaser or Agent: ODOT		Contract Laboratory Name: PACE		Lab Selection Criteria: <input type="checkbox"/> Proximity (if TAT < 72 hrs) <input type="checkbox"/> Prior work on same project <input checked="" type="checkbox"/> Cost (for anticipated analyses) <input type="checkbox"/> Other labs disqualified or unable to perform requested services <input type="checkbox"/> Emergency work		Turn Around Time: <input checked="" type="checkbox"/> 10 days (std.) <input type="checkbox"/> 5 days <input type="checkbox"/> 72 hours <input type="checkbox"/> 48 hours <input type="checkbox"/> 24 hours <input type="checkbox"/> Other	
Send Lab Report To: ODOT 3500 Stewart Parkway Roseburg, Oregon 97470		Lab Batch #: Invoice To:		Address: SAME		Tel. #:	
Project Name: Hwy 62 Phase-1		Sample Preservative					
Sampler Name: Kenny Camp		Requested Analyses					
Sample ID#	Collection Date/Time	Matrix	Number of Containers	Notes	Requested Analyses	Requested Analyses	Comments
1 Stock Pile 6223 C/L	8:50 6/7	Soil	1				
2 Stockpile 6224 N	8:38 6/7	"	1				
3 6201 0-3 BGL	18:50 6/6	"	1		X		
4 6201 3'-5.5 BGL	18:55 6/6	"	1		X		
5 6201 B 0-3 BGL	1:57 6/6	"	1		X		
6 6201 B 4'-5' BGL	2:02 6/6	"	1		X		
7 6201 B 5'-6' BGL	2:02 6/6	"	1		X		
8 6201 C 0-3 BGL	2:18 6/6	"	1		X		
9 6202 0-3 BGL	1:12 6/6	"	1		X		
10 6202 B 0-3 BGL	2:45 6/6	"	1		X		
11 6203 1-2 BGL	3:16 6/6	"	1		X		
12 6203 2'-3' BGL	3:16 6/6	"	1		X		
Notes: If oil is detected in sample - contact me for possible P.B. Testing, etc							
Relinquished By: Signature:		Agency/Agent: Fedex Time & Date: 6/10/11 0950		Received By: Signature:		Agency/Agent: PACE Time & Date: 6/10/11 0950	
Relinquished By: Signature:		Agency/Agent:		Received By: Signature:		Agency/Agent:	
Signature:		Time & Date:		Signature:		Time & Date:	

Received with ice at 1.1°C, 2.9°C, 0.6°C.

258066

State of Oregon Sample Chain of Custody

Agency, Authorized Purchaser or Agent: ODOT		Contract Laboratory Name: PACE		Lab Selection Criteria: <input type="checkbox"/> Proximity (if TAT < 72 hrs) <input type="checkbox"/> Prior work on same project <input checked="" type="checkbox"/> Cost (for anticipated analyses) <input type="checkbox"/> Other labs disqualified or unable to perform requested services <input type="checkbox"/> Emergency work		Turn Around Time: <input checked="" type="checkbox"/> 10 days (std.) <input type="checkbox"/> 5 days <input type="checkbox"/> 72 hours <input type="checkbox"/> 48 hours <input type="checkbox"/> 24 hours <input type="checkbox"/> Other	
Send Lab Report To: ODOT 3500 Stewart Parkway Roseburg, Oregon 97470		Lab Batch #: Invoice To: SAME Address: SAME Tel. #:		Sample Preservative 258066			
Project Name: Hwy 62 Phase-1		Requested Analyses		Comments			
Sampler Name:		Kenny Camp		1808			
Sample ID#		Collection Date/Time		8151			
13 6203 3'-6" B6L		3:21 6/6 Soil		8270 Full 1st Herbicide			
14 6203 6'-6.5" B6L		3:25 6/6 "		8470 Full 1st Herbicide			
15 6204 0'-2" B6L		1:35 6/6 "		Total Herbicide			
16 6205 0'-3" B6L		4:07 6/6 "		Total Herbicide			
17 6205 4'-5" B6L		4:12 6/6 "		Total Herbicide			
18 6205 5'-6" B6L		4:12 6/6 "		Total Herbicide			
19 6205 8'-9" B6L		4:16 6/6 "		Total Herbicide			
20 6206 1'-2" B6L		12:38 6/7 "		Total Herbicide			
21 6206 2'-3" B6L		12:28 6/7 "		Total Herbicide			
22 6207 0'-2.5" B6L		12:40 6/7 "		Total Herbicide			
23 6208 0'-3" B6L		12:55 6/7 "		Total Herbicide			
24 6208 4'-5" B6L		1:01 6/7 "		Total Herbicide			

Notes:

Relinquished By: Signature:	Agency/Agent: Fedex Time & Date: 6/16/11 0950	Received By: Signature:	Agency/Agent: Pace Time & Date: 6/16/11 0950
Relinquished By: Signature:	Agency/Agent:	Received By: Signature:	Agency/Agent:
Relinquished By: Signature:	Agency/Agent:	Received By: Signature:	Agency/Agent:

1.1°C, 2.9°C, 16°C

Agency, Authorized Purchaser or Agent:
 ODOT
 Send Lab Report To: ODOT
 Address: 3500 Stewart Parkway
 Roseburg, Oregon 97470
 Tel. #: _____
 E-mail: _____

Contract Laboratory Name:
 PACE
 Lab Batch #: _____
 Invoice To: _____
 Address: SAME
 Tel. #: _____

Lab Selection Criteria:
 Proximity (if TAT < 72 hrs)
 Prior work on same project
 Cost (for anticipated analyses)
 Other labs disqualified or unable to perform requested services
 Emergency work

Turn Around Time:
 10 days (std.)
 5 days
 72 hours
 48 hours
 24 hours
 Other

Project Name: Project #:	Sample Preservative		Requested Analyses	Comments
	0			
Sampler Name: Sample ID#	Collection Date/Time	Kenny Camp Matrix	Number of Containers	
25 6A09 0-3 BGL	1:19 6/7	Soil	1	
26 6A09 3-4' BGL	1:23 6/7	"	1	
27 6A10 0-3 BGL	1:49 6/7	"	1	
28 6A10 3-4 BGL	1:57 6/7	"	1	
29 6A11 0-3 BGL	2:09 6/7	"	1	
30 6A11 4'-5' BGL	2:15 6/7	"	1	
31 6A12 0-3 BGL	2:49 6/7	"	1	
32 6A12 3'-4.3 BGL	2:52 6/7	"	1	
33 6A13 0-3 BGL	2:39 6/7	"	1	
34 6A13 4'-5 BGL	2:36 6/7	"	1	
35 6A13 5'-6 BGL	2:36 6/7	"	1	

Notes:

Relinquished By: _____ Agency/Agent: _____
 Signature: _____ Time & Date: _____
 Relinquished By: _____ Agency/Agent: _____
 Signature: _____ Time & Date: _____

Received By: _____ Agency/Agent: _____
 Signature: _____ Time & Date: _____

1.1°C, 2.9°C, 0.6°C

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State of Oregon Sample Chain of Custody

Agency, Authorized Purchaser or Agent: ODOT		Contract Laboratory Name: PACE		Lab Selection Criteria: <input type="checkbox"/> Proximity (if TAT < 72 hrs) <input type="checkbox"/> Prior work on same project <input checked="" type="checkbox"/> Cost (for anticipated analyses) <input type="checkbox"/> Other labs disqualified or unable to perform requested services <input type="checkbox"/> Emergency work		Turn Around Time: <input checked="" type="checkbox"/> 10 days (std.) <input type="checkbox"/> 5 days <input type="checkbox"/> 72 hours <input type="checkbox"/> 48 hours <input type="checkbox"/> 24 hours <input type="checkbox"/> Other	
Send Lab Report To: ODOT 3500 Stewart Parkway Roseburg, Oregon 97470		Lab Batch #: Invoice To:		Address: SAME		Tel. #:	
Project Name: Project #:		Hwy 62 Phase-1		Sample Preservative		2 5 8 0 6 6	
Sampler Name:		Kenny Camp		Requested Analyses		Comments	
Sample ID#	Collection Date/Time	Matrix	Number of Containers	Requested Analyses	Requested Analyses	Requested Analyses	Comments
36 6214 0-3' B6L	4:42 6/6	SOL	1	X			
37 6214 4-5' B6L	4:44 6/6	"	"	X			
38 6214 5-6' B6L	4:44 6/6	"	"	X			
39 6214 8-9' B6L	4:49 6/6	"	"	X			
40 6215 0-3' B6L	7:59 6/8	"	"	X			
41 6215 3'-9.5' B6L	8:05 6/8	"	"	X			
42 6216 0-3' B6L	11:13 6/7	"	"	X			
43 6216 5-6' B6L	11:17 6/7	"	"	X			
44 6216 7-8' B6L	11:19 6/7	"	"	X			
45 6217 2'-3' B6L	8:15 6/8	"	"	X			
46 6217 4-5' B6L	8:18 6/8	"	"	X			
47 6218 3'6' B6L	8:31 6/8	"	"	X			

Notes:

Relinquished By: *redx* Agency/Agent: *J. John Swy* Received By: *J. John Swy* Agency/Agent: *PACE*

Signature: *[Signature]* Time & Date: *6/10/11 0930* Signature: *[Signature]* Time & Date: *6/10/11 0950*

Relinquished By: *[Signature]* Agency/Agent: *[Signature]* Received By: *[Signature]* Agency/Agent: *[Signature]*

Signature: *[Signature]* Time & Date: *[Signature]* Signature: *[Signature]* Time & Date: *[Signature]*

1-1°C, 2.9°C, ~~0.0°C~~ _{not 6/10} 0.6°C.

State of Oregon Sample Chain of Custody

Agency, Authorized Purchaser or Agent: ODOT		Contract Laboratory Name: PACE		Lab Selection Criteria: <input type="checkbox"/> Proximity (if TAT < 72 hrs) <input type="checkbox"/> Prior work on same project <input checked="" type="checkbox"/> Cost (for anticipated analyses) <input type="checkbox"/> Other labs disqualified or unable to perform requested services <input type="checkbox"/> Emergency work		Turn Around Time: <input checked="" type="checkbox"/> 10 days (std.) <input type="checkbox"/> 5 days <input type="checkbox"/> 72 hours <input type="checkbox"/> 48 hours <input type="checkbox"/> 24 hours <input type="checkbox"/> Other	
Send Lab Report To: ODOT 3500 Stewart Parkway Roseburg, Oregon 97470		Lab Batch #: Invoice To:		Address: SAME		Tel. #:	
Project Name: Project #:		Hwy 62 Phase-1		Sample Preservative		2 5 8 0 6 6	
Sampler Name:		Kenny Camp		Requested Analyses		Comments	
Sample ID#	Collection Date/Time	Matrix	Number of Containers	Requested Analyses	Requested Analyses	Requested Analyses	Comments
48 6218 7-8' BGL	8:37 6/8	Soil	1	X			
49 6219 0-3 BGL	8:48 6/8	"	1	X			
50 6219 3'-6 BGL	9:51 6/8	"	1	X			
51 6220 0-3 BGL	10:30 6/7	"	1	X			
52 6220 5'-6 BGL	10:33 6/7	"	1	X			
53 6220 8-9 BGL	10:35 6/7	"	1	X			
54 6221 0-3 BGL	9:05 6/8	"	1	X			
55 6221 3-4.3 BGL	9:08 6/8	"	1	X			
56 6222 0-3 BGL	9:50 6/7	"	1	X			
57 6222 4-5 BGL	9:59 6/7	"	1	X			
58 6222 5'-6 BGL	9:59 6/7	"	1	X			
59 6222 11'-12' BGL	10:05 6/7	"	1	X			
Notes:							
Relinquished By:		Agency/Agent:		Received By:		Agency/Agent:	
Signature:		Time & Date: 6/10/11 0950		Signature: <i>[Signature]</i>		Time & Date: 6/10/11 0950	
Relinquished By:		Agency/Agent:		Received By:		Agency/Agent:	
Signature:		Time & Date:		Signature:		Time & Date:	

11°C, 2.9°C, 0.6°C

State of Oregon Sample Chain of Custody

Agency, Authorized Purchaser or Agent: ODOT		Contract Laboratory Name: PACE		Lab Selection Criteria: <input type="checkbox"/> Proximity (if TAT < 72 hrs) <input type="checkbox"/> Prior work on same project <input checked="" type="checkbox"/> Cost (for anticipated analyses) <input type="checkbox"/> Other labs disqualified or unable to perform requested services <input type="checkbox"/> Emergency work		Turn Around Time: <input checked="" type="checkbox"/> 10 days (std.) <input type="checkbox"/> 5 days <input type="checkbox"/> 72 hours <input type="checkbox"/> 48 hours <input type="checkbox"/> 24 hours <input type="checkbox"/> Other	
Send Lab Report To: ODOT 3500 Stewart Parkway Roseburg, Oregon 97470		Lab Batch #: Invoice To:		Address: SAME		Tel. #: Sample Preservative	
Project Name: Hwy 62 Phase-1		Requested Analyses					
Sampler Name:		Kenny Camp					
Sample ID#		Collection Date/Time		Number of Containers		Comments	
60	6223 0-3 BGL	7/16 6/7	5.2	1			
61	6223 6-9 BGL	9:22 6/7	"	1			
62	6224 3'-4 BGL	8:35 6/7	11	1			
63	6224 5'-6.5 BGL	8:55 6/7	11	1			
64	6225 0-3 BGL	8:07 6/7	11	1			
65	6225 3'-5 BGL	8:14 6/7	11	1			
66	6226 0-3 BGL	7:34 6/7	11	1			
67	6226 5-6 BGL	7:39 6/7	11	1			
68	6227 0-3 BGL	7:18 6/7	11	1			
69	6227 4-5 BGL	7:25 6/7	11	1			
70	6227 5-6 BGL	7:20 6/7	11	1			
Notes:							
Relinquished By:		Received By:		Agency/Agent:		Agency/Agent:	
Signature:		Signature:		Signature:		Signature:	
Time & Date:		Time & Date:		Time & Date:		Time & Date:	

1-1, 2.9, 0.6°C.

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State of Oregon Sample Chain of Custody

Agency, Authorized Purchaser or Agent: ODOT		Contract Laboratory Name: PACE		Lab Selection Criteria: <input type="checkbox"/> Proximity (if TAT < 72 hrs) <input type="checkbox"/> Prior work on same project <input checked="" type="checkbox"/> Cost (for anticipated analyses) <input type="checkbox"/> Other labs disqualified or unable to perform requested services <input type="checkbox"/> Emergency work		Turn Around Time: <input checked="" type="checkbox"/> 10 days (std.) <input type="checkbox"/> 5 days <input type="checkbox"/> 72 hours <input type="checkbox"/> 48 hours <input type="checkbox"/> 24 hours <input type="checkbox"/> Other	
Send Lab Report To: ODOT 3500 Stewart Parkway Roseburg, Oregon 97470		Lab Batch #: Invoice To:		Address: SAME		Tel. #:	
Project Name: Hwy 62 Phase-1		Sample Preservative		2 5 8 0 6 6		Comments	
Sampler Name: Kenny Camp		Requested Analyses					
Sample ID#	Collection Date/Time	Matrix	Number of Containers				
71 6228 0-3 B6L	11:04 6/6	SrL	1	X			
72 6228 4-5 B6L	11:11 6/6	"	1	X			
73 6229 0-3 B6L	11:25 6/6	"	1	X			
74 6229 4-5 B6L	11:30 6/6	"	1	X			
75 6230 0-3 B6L	10:36 6/6	"	1	X			
76 6230 4-5 B6L	10:45 6/6	"	1	X			
77 6231 0-3 B6L	9:55 6/6	"	1	X			
78 6232 3-6 B6L	9:18 6/6	"	1	X			
79 6233 0-3 B6L	8:51 6/6	"	1	X			
80 6234 0-3 B6L	8:24 6/6	"	1	X			
81 6234 3-4 B6L	8:30 6/6	"	1	X			
82 6235 0-3 B6L	7:55 6/6	"	1	X			

Notes:
 1.6g 2.9g, 0.6g

Relinquished By: Agency/Agent: Fedex
 Signature: Received By: Jothi Swamy
 Time & Date: 6/10/11 0950
 Agency/Agent: PACE
 Signature: Received By: [Signature]
 Time & Date: 6/11 0950
 Agency/Agent: [Signature]
 Signature: Received By: [Signature]
 Time & Date: [Signature]

State of Oregon Sample Chain of Custody

Agency, Authorized Purchaser or Agent: ODOT		Contract Laboratory Name: PACE		Lab Selection Criteria: <input type="checkbox"/> Proximity (if TAT < 72 hrs) <input type="checkbox"/> Prior work on same project <input checked="" type="checkbox"/> Cost (for anticipated analyses) <input type="checkbox"/> Other labs disqualified or unable to perform requested services <input type="checkbox"/> Emergency work		Turn Around Time: <input checked="" type="checkbox"/> 10 days (std.) <input type="checkbox"/> 5 days <input type="checkbox"/> 72 hours <input type="checkbox"/> 48 hours <input type="checkbox"/> 24 hours <input type="checkbox"/> Other	
Send Lab Report To: ODOT Address: 3500 Stewart Parkway Roseburg, Oregon 97470		Lab Batch #: Invoice To: SAME		Sample Preservative		2 5 8 0 6 6	
Project Name: Hwy 62 Phase-1		Address: Tel. #:		Requested Analyses		Comments	
Sampler Name:		Collection Matrix		Number of Containers			
Sample ID#		Date/Time					
83	6235 3-6' B6L	7:58 6/6	SoL	1			
84	6235 6-9' B6L	8:03 6/6	"	1			
85	6236 0-3' B6L	7:07 6/6	"	1			
86	6236 4-5' B6L	7:12 6/6	"	1			
Notes:							
Relinquished By:		Agency/Agent:		Received By:		Agency/Agent:	
Signature:		Time & Date:		Signature:		Time & Date:	
Relinquished By:		Agency/Agent:		Received By:		Agency/Agent:	
Signature:		Time & Date:		Signature:		Time & Date:	

1.1°C, 2.9°C, 0.6°C.

Sample Container Count

258066

ODOT



CLIENT: _____
 COC PAGE 1 of 8
 COC ID# 1-

~~258066~~
 6/10

sleeve

Sample Line Item	VG9H	AG1H	AG1U	BG1H	BP1U	BP2U	BP3U	BP2N	BP2S	WG2S	WG2U	WG2K	Comments
1													
2													
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													Trip Blank? <i>No</i>

Sample Line Item	Description	BP2S	BP2U	BP2Z	BP3C	BP3N	BP3S	BP3U	DG9B	DG9H	DG9M	DG9T	DG9U	JGFU	Comments
AG1H	1 liter HCL amber glass													JGFU	4oz unpreserved amber wide
AG1U	1 liter unpreserved amber glass													R	terra core kit
AG2S	500mL H2SO4 amber glass													U	Summa Can
AG2U	500mL unpreserved amber glass													VG9H	40mL HCL clear vial
AG3S	250mL H2SO4 amber glass													VG9T	40mL Na Thio. clear vial
BG1H	1 liter HCL clear glass													VG9U	40mL unpreserved clear vial
BG1U	1 liter unpreserved glass													VG9W	40mL glass vial preweighted (EPA 5035)
BP1N	1 liter HNO3 plastic													VSG	Headspace septa vial & HCL
BP1S	1 liter H2SO4 plastic													WG9U	4oz clear soil jar
BP1U	1 liter unpreserved plastic													WG9X	4oz wide jar w/hexane wipe
BP1Z	1 liter NaOH, Zn, Ac													ZPLC	Ziploc Bag
BP2N	500mL HNO3 plastic														
BP2O	500mL NaOH plastic														

Sample Container Count

258066

CLIENT: ODOT

COC PAGE 2 of 8
COC ID# 2580001856/0



2580001856/0

Servers

Sample Line Item	VG9H	AG1H	AG1U	BG1H	BP1U	BP2U	BP3U	BP2N	BP2S	WG9U	WGKU	Comments
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												Trip Blank? <u>Nb</u>

Sample Line Item	Description	BP2S	BP2U	BP2Z	BP3C	BP3N	BP3S	BP3U	DG9B	DG9H	DG9M	DG9T	DG9U	JGFU	Comments
AG1H	1 liter HCL amber glass														4oz unpreserved amber wide
AG1U	1 liter unpreserved amber glass													R	terra core kit
AG2S	500mL H2SO4 amber glass													U	Summa Can
AG2U	500mL unpreserved amber glass													VG9H	40mL HCL clear vial
AG3S	250mL H2SO4 amber glass													VG9T	40mL Na Thio. clear vial
BG1H	1 liter HCL clear glass													VG9U	40mL unpreserved clear vial
BG1U	1 liter unpreserved glass													VG9W	40mL glass vial preweighted (EPA 5035)
BP1N	1 liter HNO3 plastic													VSG	Headspace septa vial & HCL
BP1S	1 liter H2SO4 plastic													WG9U	4oz clear soil jar
BP1U	1 liter unpreserved plastic													WG9X	4oz wide jar w/hexane wipe
BP1Z	1 liter NaOH, Zn, Ac													ZPLC	Ziploc Bag
BP2N	500mL HNO3 plastic														
BP2O	500mL NaOH plastic														

Sample Container Count



CLIENT: ODOT

COC PAGE 3 of 8
 COC ID# _____

Sample Line Item	VG9H	AG1H	AG1U	BG1H	BP1U	BP2U	BP3U	BP2N	BP2S	WG9U	WGKU	Comments
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												Trip Blank? <u>No</u>

sleeve →

AG1H	1 liter HCL amber glass						BP2S	500mL H2SO4 plastic		JGFU	4oz unpreserved amber wide
AG1U	1 liter unpreserved amber glass						BP2U	500mL unpreserved plastic		R	terra core kit
AG2S	500mL H2SO4 amber glass						BP2Z	500mL NaOH, Zn Ac		U	Summa Can
AG2U	500mL unpreserved amber glass						BP3C	250mL NaOH plastic		VG9H	40mL HCL clear vial
AG3S	250mL H2SO4 amber glass						BP3N	250mL HNO3 plastic		VG9T	40mL Na Thio. clear vial
BG1H	1 liter HCL clear glass						BP3S	250mL H2SO4 plastic		VG9U	40mL unpreserved clear vial
BG1U	1 liter unpreserved glass						BP3U	250mL unpreserved plastic		VG9W	40mL glass vial preweighted (EPA 5035)
BP1N	1 liter HNO3 plastic						DG9B	40mL Na Bisulfate amber vial		VSG	Headspace septa vial & HCL
BP1S	1 liter H2SO4 plastic						DG9H	40mL HCL amber vial		WGFU	4oz clear soil jar
BP1U	1 liter unpreserved plastic						DG9M	40mL MeOH clear vial		WGFY	4oz wide jar w/hexane wipe
BP1Z	1 liter NaOH, Zn, Ac						DG9T	40mL Na Thio amber vial		ZPLC	Ziploc Bag
BP2N	500mL HNO3 plastic						DG9U	40mL unpreserved amber vial			
BP2O	500mL NaOH plastic							Wipe/Swab			

Sample Container Count

258066

CLIENT: ODOT



COC PAGE 4 of 8
 COC ID# _____

5/22/12

Sample Line Item	VG9H	AG1H	AG1U	BG1H	BP1U	BP2U	BP3U	BP2N	BP2S	WG9H	WG9U	WG9V	WG9W	WG9X	WG9Y	WG9Z	Comments
1																	
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	Trip Blank? <i>No</i>

Sample Line Item	Description	BP2S	BP2U	BP2Z	BP3C	BP3N	BP3S	BP3U	DG9B	DG9H	DG9M	DG9T	DG9U	JGFU	Comments	
AG1H	1 liter HCL amber glass														4oz unpreserved amber wide	
AG1U	1 liter unpreserved amber glass													R	terra core kit	
AG2S	500mL H2SO4 amber glass													U	Summa Can	
AG2U	500mL unpreserved amber glass													VG9H	40mL HCL clear vial	
AG3S	250mL H2SO4 amber glass													VG9T	40mL Na Thio. clear vial	
BG1H	1 liter HCL clear glass													VG9U	40mL unpreserved clear vial	
BG1U	1 liter unpreserved glass													VG9W	40mL glass vial preweighted (EPA 5035)	
BP1N	1 liter HNO3 plastic													VSG	Headspace septa vial & HCL	
BP1S	1 liter H2SO4 plastic													WG9U	4oz clear soil jar	
BP1U	1 liter unpreserved plastic													WG9X	4oz wide jar w/hexane wipe	
BP1Z	1 liter NaOH, Zn, Ac													ZPLC	Ziploc Bag	
BP2N	500mL HNO3 plastic															
BP2O	500mL NaOH plastic															

Sample Container Count

258066

CLIENT: ODOT

COC PAGE 5 of 8
COC ID# _____



leave

Sample Line Item	VG9H	AG1H	AG1U	BG1H	BP1U	BP2U	BP3U	BP2N	BP2S	WG9H	WG9U	WG9W	WG9K	Comments
1														
2														
3														
4														
5														
6														
7														
8														
9														
10														
11														
12														Trip Blank? <i>No</i>

AG1H	1 liter HCL amber glass													
AG1U	1 liter unpreserved amber glass													
AG2S	500mL H2SO4 amber glass													
AG2U	500mL unpreserved amber glass													
AG3S	250mL H2SO4 amber glass													
BG1H	1 liter HCL clear glass													
BG1U	1 liter unpreserved glass													
BP1N	1 liter HNO3 plastic													
BP1S	1 liter H2SO4 plastic													
BP1U	1 liter unpreserved plastic													
BP1Z	1 liter NaOH, Zn, Ac													
BP2N	500mL HNO3 plastic													
BP2O	500mL NaOH plastic													
BP2S	500mL H2SO4 plastic													
BP2U	500mL unpreserved plastic													
BP2Z	500mL NaOH, Zn Ac													
BP3C	250mL NaOH plastic													
BP3N	250mL HNO3 plastic													
BP3S	250mL H2SO4 plastic													
BP3U	250mL unpreserved plastic													
DG9B	40mL Na Bisulfate amber vial													
DG9H	40mL HCL amber vial													
DG9M	40mL MeOH clear vial													
DG9T	40mL Na Thio amber vial													
DG9U	40mL unpreserved amber vial													
I	Wipe/Swab													
JGFU	4oz unpreserved amber wide terra core kit													
U	Summa Can													
VG9H	40mL HCL clear vial													
VG9T	40mL Na Thio. clear vial													
VG9U	40mL unpreserved clear vial													
VG9W	40mL glass vial preweighted (EPA 5035)													
VSG	Headspace septa vial & HCL													
WG9U	4oz clear soil jar													
WG9F	4oz wide jar w/hexane wipe													
ZPLC	Ziploc Bag													

2 5 8 0 6 6

Sample Container Count

CLIENT:

ODOT

COC PAGE 6 of 8

COC ID#



slane

Sample Line Item	VG9H	AG1H	AG1U	BG1H	BP1U	BP2U	BP3U	BP2N	BP2S	WG9U	WGKU	Comments
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												Trip Blank? No

Sample Line Item	Description	BP2S	BP2U	BP2Z	BP3C	BP3N	BP3S	BP3U	DG9B	DG9H	DG9M	DG9T	DG9U	JGFU	Comments
AG1H	1 liter HCL amber glass														4oz unpreserved amber wide
AG1U	1 liter unpreserved amber glass													R	terra core kit
AG2S	500mL H2SO4 amber glass													U	Summa Can
AG2U	500mL unpreserved amber glass													VG9H	40mL HCL clear vial
AG3S	250mL H2SO4 amber glass													VG9T	40mL Na Thio. clear vial
BG1H	1 liter HCL clear glass													VG9U	40mL unpreserved clear vial
BG1U	1 liter unpreserved glass													VG9W	40mL glass vial preweighted (EPA 5035)
BP1N	1 liter HNO3 plastic													VSG	Headspace septa vial & HCL
BP1S	1 liter H2SO4 plastic													WG9U	40z clear soil jar
BP1U	1 liter unpreserved plastic													WG9X	40z wide jar w/hexane wipe
BP1Z	1 liter NaOH, Zn, Ac													ZPLC	Ziploc Bag
BP2N	500mL HNO3 plastic														
BP2O	500mL NaOH plastic														

Sample Container Count

258066

CLIENT: ODOT

COC PAGE 7 of 8
 COC ID#



Slaves

Sample Line Item	VG9H	AG1H	AG1U	BG1H	BP1U	BP2U	BP3U	BP2N	BP2S	WGFU	WGKU	Comments
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												Trip Blank? <i>N b</i>

Sample Line Item	Description	BP2S	BP2U	BP2Z	BP3C	BP3N	BP3S	BP3U	DG9B	DG9H	DG9M	DG9T	DG9U	JGFU	Comments
AG1H	1 liter HCL amber glass														
AG1U	1 liter unpreserved amber glass														
AG2S	500mL H2SO4 amber glass														
AG2U	500mL unpreserved amber glass														
AG3S	250mL H2SO4 amber glass														
BG1H	1 liter HCL clear glass														
BG1U	1 liter unpreserved glass														
BP1N	1 liter HNO3 plastic														
BP1S	1 liter H2SO4 plastic														
BP1U	1 liter unpreserved plastic														
BP1Z	1 liter NaOH, Zn, Ac														
BP2N	500mL HNO3 plastic														
BP2O	500mL NaOH plastic														
BP2S	500mL H2SO4 plastic														
BP2U	500mL unpreserved plastic														
BP2Z	500mL NaOH, Zn Ac														
BP3C	250mL NaOH plastic														
BP3N	250mL HNO3 plastic														
BP3S	250mL H2SO4 plastic														
BP3U	250mL unpreserved plastic														
DG9B	40mL Na Bisulfate amber vial														
DG9H	40mL HCL amber vial														
DG9M	40mL MeOH clear vial														
DG9T	40mL Na Thio amber vial														
DG9U	40mL unpreserved amber vial														
JGFU	4oz unpreserved amber wide terra core kit														
U	Summa Can														
VG9H	40mL HCL clear vial														
VG9T	40mL Na Thio. clear vial														
VG9U	40mL unpreserved clear vial														
VG9W	40mL glass vial preweighted (EPA 5035)														
VSG	Headspace septa vial & HCL														
WGFU	4oz clear soil jar														
WGFY	4oz wide jar w/hexane wipe														
ZPLC	Ziploc Bag														
I	Wipe/Swab														

Sample Container Count

CLIENT: ODOT

COC PAGE 8 of 8
 COC ID# _____



sleeve

Sample Line Item	VG9H	AG1H	AG1U	BG1H	BP1U	BP2U	BP3U	BP2N	BP2S	WG9U	WGKU	Comments
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												Trip Blank? <i>No</i>

AG1H	1 liter HCL amber glass						BP2S	500mL H2SO4 plastic		JGFU	4oz unpreserved amber wide
AG1U	1liter unpreserved amber glass						BP2U	500mL unpreserved plastic		R	terra core kit
AG2S	500mL H2SO4 amber glass						BP2Z	500mL NaOH, Zn Ac		U	Summa Can
AG2U	500mL unpreserved amber glass						BP3C	250mL NaOH plastic		VG9H	40mL HCL clear vial
AG3S	250mL H2SO4 amber glass						BP3N	250mL HNO3 plastic		VG9T	40mL Na Thio. clear vial
BG1H	1 liter HCL clear glass						BP3S	250mL H2SO4 plastic		VG9U	40mL unpreserved clear vial
BG1U	1 liter unpreserved glass						BP3U	250mL unpreserved plastic		VG9W	40mL glass vial preweighted (EPA 5035)
BP1N	1 liter HNO3 plastic						DG9B	40mL Na Bisulfate amber vial		VSG	Headspace septa vial & HCL
BP1S	1 liter H2SO4 plastic						DG9H	40mL HCL amber vial		WG9U	4oz clear soil jar
BP1U	1 liter unpreserved plastic						DG9M	40mL MeOH clear vial		WG9X	4oz wide jar w/hexane wipe
BP1Z	1 liter NaOH, Zn, Ac						DG9T	40mL Na Thio amber vial		ZPLC	Ziploc Bag
BP2N	500mL HNO3 plastic						DG9U	40mL unpreserved amber vial			
BP2O	500mL NaOH plastic						I	Wipe/Swab			



Sample Condition Upon Receipt

Client Name: ODOT Project # 258066

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: 8957 9428 9404

Custody Seal on Cooler/Box Present: Yes No Seals intact: Yes No

Packing Material: Bubble Wrap Bubble Bags None Other _____ Temp. Blank Yes No

Thermometer Used 132013 or 101731962 or 226093 Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Cooler Temperature 1.1°C, 2.9°C, 0.6°C Biological Tissue is Frozen: Yes No Date and Initials of person examining contents: NJS 6/10/11

		Comments:
Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6. Sampling began 6/6/11.
Rush Turn Around Time Requested:	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7. HCID.
Follow Up / Hold Analysis Requested:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10. Sleeves.
-Pace Containers Used:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	11.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	12.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13. On sleeve it reads '6209 3-4-5' on COC it reads '6209 3-4'
-Includes date/time/ID/Analysis Matrix:	<u>Soil</u>	
All containers needing preservation have been checked	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14. Sleeve reads "HCID" for 62300-3, on COC, tested for 8270.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Exceptions: VOA, coliform, TOC, O&G		Initial when completed
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.
Trip Blanks Present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	17.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: _____ Field Data Required? Y / N

Person Contacted: Kenny Camp Date/Time: 6/13/11 0853

Comments/ Resolution: Called Client regarding above 10 and analysis discrepancies. Per client, use old 6209 3-4 as on COC. Also for 6230 0-3 schedule for both 8270 and HCID

* HCID on WO 258062 -

Project Manager Review: ARB Date: 6/13/11

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp. incorrect containers)



Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

June 28, 2011

Andy Brownfield
PASI Seattle
940 South Harney
Seattle, WA 98108

RE: Project 20124332
Project ID: 258066/ODOT

Dear Andy Brownfield:

Enclosed are the analytical results for sample(s) received by the laboratory on June 14, 2011. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

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

Sincerely,

Karen Brown
karen.brown@pacelabs.com



REPORT OF LABORATORY ANALYSIS

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the written consent of Pace Analytical Services, Inc.

Cover 6/28/2011 14:54:58



Laboratory Certifications

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Project: 20124332

Client: PASI Seattle

Project ID: 258066/ODOT

Washington Department of Ecology C2078
Oregon Environmental Laboratory Accreditation - LA200001
U.S. Dept. of Agriculture Foreign Soil Import P330-10-00119
Pennsylvania Dept. of Env Protection (NELAC) 68-04202
Texas Commission on Env. Quality (NELAC) T104704405-09-TX
Kansas Department of Health and Environment (NELAC) E-10266
Florida Department of Health (NELAC) E87595
Louisiana Dept. of Environmental Quality (NELAC/LELAP) 02006

6/28/2011 14:54:59



REPORT OF LABORATORY ANALYSIS

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Sample Cross Reference

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Project: 20124332

Client: PASI Seattle

Project ID: 258066/ODOT

Client Sample ID	Lab ID	Matrix	Collection Date/Time	Received Date/Time
258066020	20893631	Soil	07-Jun-11 12:28	14-Jun-11 10:10
258066023	20893632	Soil	07-Jun-11 12:55	14-Jun-11 10:10
258066024	20893633	Soil	07-Jun-11 13:01	14-Jun-11 10:10
258066025	20893634	Soil	07-Jun-11 13:19	14-Jun-11 10:10
258066026	20893635	Soil	07-Jun-11 13:23	14-Jun-11 10:10
258066027	20893636	Soil	07-Jun-11 13:49	14-Jun-11 10:10
258066029	20893637	Soil	07-Jun-11 14:09	14-Jun-11 10:10



Project Narrative

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Project: 20124332

Sample Receipt Condition:

All samples were received in accordance with EPA protocol.

Holding Times (Qualified):

These holding times were exceeded due to sample receipt or re-extraction after the holding time had expired.

See the previous page for a detailed explanation:

Sample 20893632 analysis 35468151 8151 Soil MWave Herbs

Blanks:

All blank results were below reporting limits.

Laboratory Control Samples:

All LCS recoveries were within QC limits.

Matrix Spikes and Duplicates:

MS or MSD recoveries outside of QC limits are qualified in the Report of Quality Control section.

Surrogates:

Surrogate recoveries outside of QC limits are qualified in the surrogate results section.



QC Cross Reference

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Project: 20124332

Analytical Method	Batch	Sample used for QC
EPA 8151	163057	Project sample 258066020
EPA 8081	163070	Project sample 258066025
EPA 8151	163715	Project sample 258066023
Dry Weight Moisture	163087	Batch sample from another client

For the sample used as the original for the DUP or MS/MSD for the batch:

Narrative1 6/28/2011 14:55:37

Project sample means a sample from this project was used.

Client sample means a sample from the same client but in a different project was used.

Batch sample means a sample from a different client was used.



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: PASI Seattle

Client ID: 258066020

Project: 20124332

Project ID: 258066/ODOT

Site: None

Lab ID: 20893631

Matrix: Soil

% Moisture: 26.7 Corrected

Description: None

Prep Level: Soil

Batch: 163057

Method: EPA 8151

Collected: 07-Jun-11

Received: 14-Jun-11

8151 Herbs Low Soil

Prepared: 15-Jun-11

Units: ug/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
94-75-7	2,4-D	1	ND		90.9		23-Jun-11 23:31 SLF
93-76-5	2,4,5-T	1	ND		90.9		23-Jun-11 23:31 SLF
93-72-1	2,4,5-TP (Silvex)	1	ND		90.9		23-Jun-11 23:31 SLF

3 compound(s) reported

ND denotes the analyte was analyzed for but not detected at the reporting limit or method detection limit indicated.

Protocol 6/28/2011 14:55:39
 Limits are corrected for sample size, dilution and moisture content if applicable.

Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: PASI Seattle

Client ID: 258066023

Project: 20124332

Project ID: 258066/ODOT

Site: None

Lab ID: 20893632

Matrix: Soil

% Moisture: 46.3 Corrected

Description: None

Prep Level: Soil

Batch: 163057

Method: EPA 8151

8151 Herbs Low Soil

Collected: 07-Jun-11

Received: 14-Jun-11

Prepared: 15-Jun-11

Units: ug/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
94-75-7	2,4-D	1	ND	M1,N	117.		24-Jun-11 00:40 SLF
93-76-5	2,4,5-T	1	ND	M1,N	117.		24-Jun-11 00:40 SLF
93-72-1	2,4,5-TP (Silvex)	1	ND	M1,N	117.		24-Jun-11 00:40 SLF

3 compound(s) reported

ND denotes the analyte was analyzed for but not detected at the reporting limit or method detection limit indicated.

Protocol 6/28/2011 14:55:39
 Limits are corrected for sample size, dilution and moisture content if applicable.

Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: PASI Seattle

Client ID: <u>258066023</u>	Project: <u>20124332</u>
Project ID: <u>258066/ODOT</u>	Site: <u>None</u>
Lab ID: <u>20893632RE1</u>	Matrix: <u>Soil</u> % Moisture: <u>46.3 Corrected</u>
Description: <u>None</u>	Prep Level: <u>Soil</u> Batch: <u>163715</u>
Method: <u>EPA 8151</u>	Collected: <u>07-Jun-11</u> Received: <u>14-Jun-11</u>
<u>8151 Herbs Low Soil</u>	Prepared: <u>24-Jun-11</u>

Units: ug/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
94-75-7	2,4-D	1	ND	M1,N	122.		28-Jun-11 10:36 SPP1
93-76-5	2,4,5-T	1	ND	M1,N	122.		28-Jun-11 10:36 SPP1
93-72-1	2,4,5-TP (Silvex)	1	ND	M1,N	122.		28-Jun-11 10:36 SPP1

3 compound(s) reported

ND denotes the analyte was analyzed for but not detected at the reporting limit or method detection limit indicated.

Protocol 6/28/2011 14:55:39
 Limits are corrected for sample size, dilution and moisture content if applicable.
 Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
 Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: PASI Seattle

Client ID: 258066024

Project: 20124332

Project ID: 258066/ODOT

Site: None

Lab ID: 20893633

Matrix: Soil

% Moisture: 31.2 Corrected

Description: None

Prep Level: Soil

Batch: 163057

Method: EPA 8151

8151 Herbs Low Soil

Collected: 07-Jun-11

Received: 14-Jun-11

Prepared: 15-Jun-11

Units: ug/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
94-75-7	2,4-D	1	ND		92.0		24-Jun-11 01:03 SLF
93-76-5	2,4,5-T	1	ND		92.0		24-Jun-11 01:03 SLF
93-72-1	2,4,5-TP (Silvex)	1	ND		92.0		24-Jun-11 01:03 SLF

3 compound(s) reported

ND denotes the analyte was analyzed for but not detected at the reporting limit or method detection limit indicated.

Protocol 6/28/2011 14:55:39
 Limits are corrected for sample size, dilution and moisture content if applicable.
 Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
 Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: PASI Seattle

Client ID: 258066025

Project: 20124332

Project ID: 258066/ODOT

Site: None

Lab ID: 20893634

Matrix: Soil

% Moisture: 28 Corrected

Description: None

Prep Level: Soil

Batch: 163070

Method: EPA 8081

Collected: 07-Jun-11

Received: 14-Jun-11

8081 Pests Low Soil

Prepared: 15-Jun-11

Units: ug/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
309-00-2	Aldrin	1	ND		2.28		17-Jun-11 13:21 TWB
319-84-6	alpha-BHC	1	ND		2.28		17-Jun-11 13:21 TWB
319-85-7	beta-BHC	1	ND		2.28		17-Jun-11 13:21 TWB
319-86-8	delta-BHC	1	ND		2.28		17-Jun-11 13:21 TWB
58-89-9	gamma-BHC (Lindane)	1	ND		2.28		17-Jun-11 13:21 TWB
5103-71-9	alpha-Chlordane	1	ND		2.28		17-Jun-11 13:21 TWB
5103-74-2	gamma-Chlordane	1	ND		2.28		17-Jun-11 13:21 TWB
72-54-8	4,4'-DDD	1	ND		4.46		17-Jun-11 13:21 TWB
72-55-9	4,4'-DDE	1	9.46		4.46		17-Jun-11 13:21 TWB
50-29-3	4,4'-DDT	1	ND		4.46		17-Jun-11 13:21 TWB
60-57-1	Dieldrin	1	ND		4.46		17-Jun-11 13:21 TWB
959-98-8	Endosulfan I	1	ND		2.28		17-Jun-11 13:21 TWB
33213-65-9	Endosulfan II	1	ND		4.46		17-Jun-11 13:21 TWB
1031-07-8	Endosulfan sulfate	1	ND		4.46		17-Jun-11 13:21 TWB
72-20-8	Endrin	1	ND		4.46		17-Jun-11 13:21 TWB
7421-93-4	Endrin aldehyde	1	ND		4.46		17-Jun-11 13:21 TWB
53494-70-5	Endrin ketone	1	ND		4.46		17-Jun-11 13:21 TWB
76-44-8	Heptachlor	1	ND		2.28		17-Jun-11 13:21 TWB
1024-57-3	Heptachlor epoxide	1	ND		2.28		17-Jun-11 13:21 TWB
72-43-5	Methoxychlor	1	ND		22.4		17-Jun-11 13:21 TWB
8001-35-2	Toxaphene	1	ND		89.3		17-Jun-11 13:21 TWB

21 compound(s) reported

ND denotes the analyte was analyzed for but not detected at the reporting limit or method detection limit indicated.

Limits are corrected for sample size, dilution and moisture content if applicable.

Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: PASI Seattle

Client ID: 258066026 Project: 20124332
 Project ID: 258066/ODOT Site: None
 Lab ID: 20893635 Matrix: Soil % Moisture: 29.3 Corrected
 Description: None Prep Level: Soil Batch: 163057
 Method: EPA 8151
8151 Herbs Low Soil Collected: 07-Jun-11 Received: 14-Jun-11
 Prepared: 15-Jun-11

Units: ug/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
94-75-7	2,4-D	1	ND		91.6		24-Jun-11 01:26 SLF
93-76-5	2,4,5-T	1	ND		91.6		24-Jun-11 01:26 SLF
93-72-1	2,4,5-TP (Silvex)	1	ND		91.6		24-Jun-11 01:26 SLF

3 compound(s) reported

ND denotes the analyte was analyzed for but not detected at the reporting limit or method detection limit indicated.

Protocol 6/28/2011 14:55:39
 Limits are corrected for sample size, dilution and moisture content if applicable.
 Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
 Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: PASI Seattle

Client ID: 258066027 Project: 20124332
 Project ID: 258066/ODOT Site: None
 Lab ID: 20893636 Matrix: Soil % Moisture: 26.9 Corrected
 Description: None Prep Level: Soil Batch: 163057
 Method: EPA 8151
8151 Herbs Low Soil Collected: 07-Jun-11 Received: 14-Jun-11
 Prepared: 15-Jun-11

Units: ug/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
94-75-7	2,4-D	1	ND		90.3		24-Jun-11 01:49 SLF
93-76-5	2,4,5-T	1	ND		90.3		24-Jun-11 01:49 SLF
93-72-1	2,4,5-TP (Silvex)	1	ND		90.3		24-Jun-11 01:49 SLF

3 compound(s) reported

ND denotes the analyte was analyzed for but not detected at the reporting limit or method detection limit indicated.

Protocol 6/28/2011 14:55:39
 Limits are corrected for sample size, dilution and moisture content if applicable.
 Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
 Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.



Sample Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Client: PASI Seattle

Client ID: 258066029

Project: 20124332

Project ID: 258066/ODOT

Site: None

Lab ID: 20893637

Matrix: Soil

% Moisture: 27.6 Corrected

Description: None

Prep Level: Soil

Batch: 163057

Method: EPA 8151

Collected: 07-Jun-11

Received: 14-Jun-11

8151 Herbs Low Soil

Prepared: 15-Jun-11

Units: ug/kg

CAS No.	Analyte	Dilution	Result	Qu	Reporting Limit	Reg Limit	Analysis
94-75-7	2,4-D	1	ND		86.7		24-Jun-11 02:12 SLF
93-76-5	2,4,5-T	1	ND		86.7		24-Jun-11 02:12 SLF
93-72-1	2,4,5-TP (Silvex)	1	ND		86.7		24-Jun-11 02:12 SLF

3 compound(s) reported

ND denotes the analyte was analyzed for but not detected at the reporting limit or method detection limit indicated.

Protocol 6/28/2011 14:55:39
 Limits are corrected for sample size, dilution and moisture content if applicable.

Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.



Surrogate Recovery

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Batch: 163057

Project: 20124332

Method: Soil GC Semivolatile Organics

Lab ID	Sample ID	Qu	Sur 1 %Rec	Sur 2 %Rec	Sur 3 %Rec	Sur 4 %Rec	Sur 5 %Rec	Sur 6 %Rec	Sur 7 %Rec	Sur 8 %Rec
20893752	163057 BLANK 1		99	93						
20893753	163057 LCS 1		102	102						
20893631	258066020		48	46						
20893754	258066020 MS 1		103	92						
20893755	258066020 MSD 1		120	107						
20893632	258066023	N	10	9 *						
20893633	258066024		49	47						
20893635	258066026		21	19						
20893636	258066027		51	52						
20893637	258066029		23	20						
QC limits:			10-169	10-161						

Sur 1: 2,4-DCPA (Conf)(S)

Sur 2: 2,4-DCPA (S)

* denotes surrogate recovery outside of QC limits.

D denotes surrogate recovery is outside of QC limits due to sample dilution, and is not considered an excursion.



Surrogate Recovery

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Batch: 163070

Project: 20124332

Method: Soil GC Semivolatile Organics

Lab ID	Sample ID	Qu	Sur 1 %Rec	Sur 2 %Rec	Sur 3 %Rec	Sur 4 %Rec	Sur 5 %Rec	Sur 6 %Rec	Sur 7 %Rec	Sur 8 %Rec
20893810	163070 BLANK 1		95	88	88	81				
20893811	163070 LCS 1		100	94	97	92				
20893634	258066025		82	74	91	84				
20893808	258066025 MS 1		89	80	96	89				
20893809	258066025 MSD 1		96	88	94	87				

QC limits: 15-179 15-177 10-144 10-178

Sur 1: Decachlorobiphenyl (Conf)(S)
 Sur 2: Decachlorobiphenyl (S)
 Sur 3: Tetrachloro-m-xylene (Conf)(S)
 Sur 4: Tetrachloro-m-xylene (S)

* denotes surrogate recovery outside of QC limits.

D denotes surrogate recovery is outside of QC limits due to sample dilution, and is not considered an excursion.



Surrogate Recovery

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Batch: 163715

Project: 20124332

Method: Soil GC Semivolatile Organics

Lab ID	Sample ID	Qu	Sur 1 %Rec	Sur 2 %Rec	Sur 3 %Rec	Sur 4 %Rec	Sur 5 %Rec	Sur 6 %Rec	Sur 7 %Rec	Sur 8 %Rec
20896836	163715 BLANK 1		62	60						
20896837	163715 LCS 1		105	99						
20893632	258066023	N	3 *	2 *						
20896838	258066023 MS 1		90	77						
20896839	258066023 MSD 1		92	84						

QC limits: 10-169 10-161

Sur 1: 2,4-DCPA (Conf)(S)
 Sur 2: 2,4-DCPA (S)

* denotes surrogate recovery outside of QC limits.

D denotes surrogate recovery is outside of QC limits due to sample dilution, and is not considered an excursion.



Quality Control

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Batch: 163070 Project: 20124332 LCS: 20893811 17-Jun-11 10:56
 Method: Soil GC Semivolatile Organics MS: 20893808 17-Jun-11 13:37
 Units: ug/kg MSD: 20893809 17-Jun-11 13:53
 Original for MS: Client Sample 20893634

Parameter Name	LCS	LCS	LCS	MS	Sample	MS	MSD	MS	MSD	RPD	QC Limits		Max	Qu
	Spike	Found	%Rec	Spike	Found	Found	Found	%Rec	%Rec		LCS	MS/MSD	RPD	
Aldrin	16.0	12.4	78	21.9		19.0	19.3	87	84	2	28-135	10-167	22	
alpha-BHC	16.0	12.5	78	21.9		19.9	19.6	91	85	1	27-135	10-175	20	
beta-BHC	16.0	12.9	81	21.9		20.1	19.9	92	86	1	30-136	10-188	24	
delta-BHC	16.0	12.0	75	21.9		18.8	18.7	86	82	0	20-147	10-182	22	
gamma-BHC (Lindane)	16.0	12.5	78	21.9		19.8	19.7	91	86	1	29-136	10-181	21	
alpha-Chlordane	16.0	13.5	84	21.9		20.8	21.2	95	92	2	31-139	10-180	20	
gamma-Chlordane	16.0	12.8	80	21.9		19.8	20.1	91	87	2	32-138	10-176	20	
4,4'-DDD	16.0	13.3	83	21.9		20.6	21.0	94	91	2	31-145	10-188	20	
4,4'-DDE	16.0	13.2	82	21.9	9.46	38.9	50.6	135	179	26 *	32-142	10-182	20	
4,4'-DDT	16.0	12.9	81	21.9	1.29	21.5	24.3	92	100	12	29-136	10-181	20	
Dieldrin	16.0	12.9	81	21.9	1.35	23.2	23.8	100	98	3	32-137	10-170	20	
Endosulfan I	16.0	9.52	60	21.9		15.2	15.2	69	66	0	10-121	10-160	24	
Endosulfan II	16.0	10.2	64	21.9		16.4	16.3	75	71	1	10-123	10-175	20	
Endosulfan sulfate	16.0	13.7	86	21.9		20.6	20.5	94	89	0	28-146	10-171	20	
Endrin	16.0	12.1	76	21.9		19.7	21.3	90	93	8	31-168	10-204	20	
Endrin aldehyde	16.0	12.8	80	21.9		18.7	18.7	86	81	0	20-143	10-176	22	
Endrin ketone	16.0	14.4	90	21.9		22.1	21.5	101	94	2	25-145	10-184	21	
Heptachlor	16.0	13.3	83	21.9		20.6	20.8	94	91	1	31-135	10-161	25	
Heptachlor epoxide	16.0	13.1	82	21.9		21.1	21.2	97	92	0	26-133	10-177	23	
Methoxychlor	16.0	15.0	94	21.9		26.3	27.9	120	121	6	27-155	10-207	23	

20 compound(s) reported

* denotes recovery outside of QC limits.
 MS/MSD RPD is calculated via SW-846 rules on the basis of spiked sample concentrations rather than spike recoveries.



Blank Results

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Blank ID: 163057 BLANK 1

Project: 20124332

Lab ID: 20893752

Prep Level: Soil

Batch: 163057

Method: Soil GC Semivolatile Organics

Prepared: 15-Jun-11

CAS Numb	Analyte	Dilution	Result	Qu	Units: <u>ug/kg</u> Reporting Limit	Analysis
94-75-7	2,4-D	1	ND		66.7	23-Jun-11 22:45 SLF
93-76-5	2,4,5-T	1	ND		66.7	23-Jun-11 22:45 SLF
93-72-1	2,4,5-TP (Silvex)	1	ND		66.7	23-Jun-11 22:45 SLF
3 compound(s) reported						

ND denotes the analyte was analyzed for but not detected at the reporting limit or method detection limit indicated.

Protocol Blank 6/28/2011 14:55:4
Limits are corrected for sample size, dilution and moisture content if applicable.

Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.



Blank Results

Pace Analytical Services, Inc.
 1000 Riverbend Blvd. Suite F
 St. Rose, LA 70087
 (504) 469-0333

Blank ID: 163070 BLANK 1

Project: 20124332

Lab ID: 20893810

Prep Level: Soil

Batch: 163070

Method: Soil GC Semivolatile Organics

Prepared: 15-Jun-11

CAS Numb	Analyte	Dilution	Result	Qu	Units: <u>ug/kg</u>	Analysis
					Reporting Limit	
309-00-2	Aldrin	1	ND		1.63	17-Jun-11 10:40 TWB
319-84-6	alpha-BHC	1	ND		1.63	17-Jun-11 10:40 TWB
319-85-7	beta-BHC	1	ND		1.63	17-Jun-11 10:40 TWB
319-86-8	delta-BHC	1	ND		1.63	17-Jun-11 10:40 TWB
58-89-9	gamma-BHC (Lindane)	1	ND		1.63	17-Jun-11 10:40 TWB
5103-71-9	alpha-Chlordane	1	ND		1.63	17-Jun-11 10:40 TWB
5103-74-2	gamma-Chlordane	1	ND		1.63	17-Jun-11 10:40 TWB
72-54-8	4,4'-DDD	1	ND		3.20	17-Jun-11 10:40 TWB
72-55-9	4,4'-DDE	1	ND		3.20	17-Jun-11 10:40 TWB
50-29-3	4,4'-DDT	1	ND		3.20	17-Jun-11 10:40 TWB
60-57-1	Dieldrin	1	ND		3.20	17-Jun-11 10:40 TWB
959-98-8	Endosulfan I	1	ND		1.63	17-Jun-11 10:40 TWB
33213-65-9	Endosulfan II	1	ND		3.20	17-Jun-11 10:40 TWB
1031-07-8	Endosulfan sulfate	1	ND		3.20	17-Jun-11 10:40 TWB
72-20-8	Endrin	1	ND		3.20	17-Jun-11 10:40 TWB
7421-93-4	Endrin aldehyde	1	ND		3.20	17-Jun-11 10:40 TWB
53494-70-5	Endrin ketone	1	ND		3.20	17-Jun-11 10:40 TWB
76-44-8	Heptachlor	1	ND		1.63	17-Jun-11 10:40 TWB
1024-57-3	Heptachlor epoxide	1	ND		1.63	17-Jun-11 10:40 TWB
72-43-5	Methoxychlor	1	ND		16.0	17-Jun-11 10:40 TWB
8001-35-2	Toxaphene	1	ND		64.0	17-Jun-11 10:40 TWB

21 compound(s) reported

ND denotes the analyte was analyzed for but not detected at the reporting limit or method detection limit indicated.

Protocol Blank 6/28/2011 14:55:4
 Limits are corrected for sample size, dilution and moisture content if applicable.
 Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
 Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.



Blank Results

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Blank ID: 163715 BLANK 1

Project: 20124332

Lab ID: 20896836

Prep Level: Soil

Batch: 163715

Method: Soil GC Semivolatile Organics

Prepared: 24-Jun-11

Units: ug/kg

Reporting

CAS Numb	Analyte	Dilution	Result	Qu	Limit	Analysis
94-75-7	2,4-D	1	ND		66.7	28-Jun-11 09:50 SPP1
93-76-5	2,4,5-T	1	ND		66.7	28-Jun-11 09:50 SPP1
93-72-1	2,4,5-TP (Silvex)	1	ND		66.7	28-Jun-11 09:50 SPP1

3 compound(s) reported

ND denotes the analyte was analyzed for but not detected at the reporting limit or method detection limit indicated.

Limits are corrected for sample size, dilution and moisture content if applicable.

Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

Regulatory limit may denote an actual regulatory limit or a client-requested notification limit.

Protocol Blank 6/28/2011 14:55:4



Definitions/Qualifiers

Pace Analytical Services, Inc.
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0333

Project: 20124332

Value	Description
M1	The sample required reextraction and/or reanalysis due to surrogate recoveries outside the QC limits. Reanalysis yielded similar results, indicating a sample matrix effect. The results reported are from the original analysis.
N	See narrative for a detailed explanation.
J	This estimated value for the analyte is below the adjusted reporting limit but above the instrument reporting limit.
U	The analyte was analyzed for but not detected at the reporting limit or method detection limit indicated.
B	This analyte was detected in the method blank.
E	The sample concentration is above the linear calibrated range of the analysis.
LCS	Laboratory Control Sample.
MS(D)	Matrix Spike (Duplicate).
DUP	Sample Duplicate.
RPD	Relative Percent Difference.



Pace Analytical Services, Inc
1000 Riverbend Blvd. Suite F
St. Rose, LA 70087
(504) 469-0331

Chains of Custody



20124332
 Pace Analytical
 www.paceabs.com

Chain of Custody

Workorder: 258066 Workorder Name: Hwy 62 Phase - 1

Owner Received Date: 6/10/2011 Results Requested By: 6/24/2011

Andy Brownfield
 Pace Analytical Services, Inc.
 940 South Hamley
 Seattle WA 98108
 Phone (206)767-5060
 Fax (206)767-5063

Pace Analytical New Orleans
 1000 Riverbend Blvd
 Suite F
 St. Rose, LA 70087
 Phone (504)469-0333

Sample ID	Sample Description	Sample Date/Time	Sample Type	Quantity	Preservation	Received Date/Time	Received By	Received on Ice	Custody Seal	Samples Intact	LAB USE ONLY
1	6206 1'-2' BGL	6/7/2011 12:28	PS	1	Solid	6/11/11	NS	X			20893631
2	6208 0'-3' BGL	6/7/2011 12:55	PS	1	Solid	6/11/11	NS	X			632
3	6208 4'-5' BGL	6/7/2011 13:01	PS	1	Solid	6/11/11	NS	X			633
4	6209 0-3 BGL	6/7/2011 13:19	PS	1	Solid	6/11/11	NS	X			634
5	6209 3-4' BGL	6/7/2011 13:23	PS	1	Solid	6/11/11	NS	X			635
6	6210 0-3 BGL	6/7/2011 13:49	PS	1	Solid	6/11/11	NS	X			636
7	6211 0-3 BGL	6/7/2011 14:09	PS	1	Solid	6/11/11	NS	X			637

Transfers	Released By	Received By	Date/Time	Date/Time
1	J.P. Sway	J.P. Sway	6/13/11 1:30	
2	J.P. Sway	J.P. Sway	6-14-11	1010
3				

Cooler Temperature on Receipt: 2.0C Received on Ice: Y or N Custody Seal: Y or N Samples Intact: Y or N



Sample Condition

1000 Riverbend Blvd., Suite F
St. Rose, LA 70087

PROJECT #: ZU

Courier: Pace Courier Hackbarth Fed X UPS DHL USPS Customer Other

Custody Seal on Cooler/Box Present: [see COC]

Custody Seals Intact: Yes No

Thermometer Used: Therm Fisher IR 1
 Therm Fisher IR 2
 Therm Fisher IR 4

Type of Ice: Wet Blue None

Samples on ice: [see COC]

Cooler Temperature: [see COC]

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 6-14-11

Temp must be measured from Temperature blank when present

Comments:

Temperature Blank Present?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	1
Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2
Chain of Custody Complete:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8
Filtered vol. Rec. for Diss. tests	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	9
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10
All containers received within manufacture's precautionary and/or expiration dates.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	11
All containers needing preservation have been checked (except VOA, coliform, & O&G).	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	12
All containers preservation checked found to be in compliance with EPA recommendation.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	17
Pace Trip Blank Lot # (if purchased): <u>N/A</u>		18

Client Notification/ Resolution:

Person Contacted: _____

Date/Time: _____

Comments/ Resolution: _____

Appendix F
Supporting Documentation

Protecting Oregon's Environment

[About DEQ](#) | [Contact DEQ](#) | [Sitemap](#) | [Feedback](#) | [DEQ Search](#)

Oregon Department of Environmental Quality

[Projects and Programs](#) [Publications and Forms](#) [Laws and Regulations](#) [Public Notices](#) [Permits and Licenses](#)
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**Land Quality****Environmental Cleanup**

[DEQ Home](#) > [Land Quality](#) > [Environmental Cleanup](#) > [ECSI](#) > [Site Summary](#)

Environmental Cleanup Site Information (ECSI) Database Site Summary Report - Details for Site ID 4435, Medco Road Former Orchard

This report shows data entered as of September 9, 2011 at 8:54:59 AM

This report contains site details, organized into the following sections: 1) [Site Photos](#) (appears only if the site has photos); 2) [General Site Information](#); 3) [Site Characteristics](#); 4) [Substance Contamination Information](#); 5) [Investigative, Remedial and Administrative Actions](#); and 6) [Site Environmental Controls](#) (i.e., institutional or engineering controls; appears only if DEQ has applied one or more such controls to the site). A key to certain acronyms and terms used in the report appears at the bottom of the page.

Go to [DEQ's Facility Profiler](#) to see a site map as well as information on what other DEQ programs may be active at this site.

General Site Information

Site ID: 4435	Site Name: Medco Road Former Orchard	CERCLIS No:
Address:	37S/1W/S6 Medford 97504	
	County: Jackson	Region: Western
Other location information:		
Investigation Status:	Listed on CRL or Inventory	
	Brownfield Site: No NPL Site: No	Orphan Site: Study Area:
		No No
Property:	Twntshp/Range/Sect: 37S , 1W , 6	Tax Lots: 2500
	Latitude: Longitude:	Site Size: 59 acres
	42.3841 deg. -122.869 deg.	
Other Site Names:		

Site Characteristics

General Site Description:	The information in this database refers to a 59 acre subsection of tax lot 2500. This does not apply to the other 30 acres.
Site History:	The Medco Road former orchard site is a 49 acre industrial property located immediately northwest of the Medford Airport in Medford, Oregon. The site was used historically a fruit orchard from some time prior to 1939 until the early 1990s. The site is currently a vacant grassy field.

Contamination Information: The subject property was used as an orchard from sometime prior to 1939 until around 1993, after which it was cleared and sat undeveloped. Historical practices at orchard sites included the use of agricultural chemicals including herbicides, pesticides, petroleum products, and fertilizers. In order to evaluate the potential for environmental impact based on historical use at the site, Agate Engineering, Inc. (Agate) conducted a Phase I and Phase II ESA in May of 2004.

As has been detected above RBCs, but below background. Pb has been detected above background, but below appropriate RBCs. Dieldrin is present in soils above residential but below industrial standards.

Manner and Time of Release:

Hazardous Substances/Waste Types:

Pathways:

Environmental/Health Threats:

Risks at the site may be managed by establishing an Equitable Easement and Servitude with the following general conditions:

1. No installation of wells on the property;
2. No residential use of the property;
3. Soil must be managed in accordance with a soil-management plan (which the site owner will need to develop and provide to DEQ).

Status of Investigative or Remedial Action:

Conditional no further action issued May 2005, based on the implementation of institutional controls.

Data Sources:

- August 20, 1996, No Further Action Letter, LUST 15-92-0098, DEQ
- April 28, 2004, Cursory Summary of On-Going Work Regarding the Environmental Site Assessment Jurisdictional Wetlands, and FAA Issues Concerning Property Identified as Taxlot 2500 Located in Section 6 Of Township 37 South, Range 1 West of the Willamette Meridian in Medford, Oregon, Agate Engineering, Inc.
- May 14, 2004, Phase I Environmental Site Assessment, Agate Engineering, Inc.
- May 26, 2004, Medco/International Road Property: Addendum No. 1 to Phase 1 ESA Report, Agate Engineering, Inc.
- May 28, 2004, Environmental Review for Industrial Lands Initiative, DEQ
- December 2, 2004, Email from Mike Wolf to Geoff Brown, FW: Medco Site, Options for NFA Status, DEQ
- March 9, 2005, Letter Re: Pete Naumes Description of Rogue Valley Cultivation Practices, William R. Bagley
- April 11, 2005, Email from Bill Mason to Geoff Brown, Subject: Medco Rd/Airport East TL 2500 Property, DEQ

Substance Contamination Information

Substance	Media Contaminated	Concentration Level	Date Recorded
No information is available			

Investigative, Remedial and Administrative Actions

Action	Start Date Compl.	Resp. Staff	Lead
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	Date		Pgm
No Further Action (Conditional) (Primary Action) View Full Report Showing Action History	09/22/2005 09/22/2005	Geoffrey Brown	VCS

Site Environmental Controls

Control Description	Begin Date	End Date	Last Reviewed By	Last Review Date
Easement Equitable Servitude	05/31/2005		Geoff Brown, DEQ	05/31/2005

Comments: Risks at the site are managed by an Easement and Equitable Servitude, with the following general conditions: 1. No installation of wells on the property; 2. No residential use of the property; 3. Soil must be managed in accordance with a soil-management plan (which the site owner will need to develop and provide to DEQ).

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STAFF MEMORANDUM BASIS AND REQUIREMENTS FOR NO FURTHER ACTION DETERMINATION MEDCO ROAD/AIRPORT EAST INDUSTRIAL LANDS ACT SITE

Site Name: Medco Road/Airport East



Geoff-there is none - enter into ECSI once agreement on this approach has been reached.

Site Location T37S, R1W, Section 6, Tax Lot 2500
Lat.: 42.3841 Long.: -122.869

Prepared by: Geoff Brown, R.G.
DEQ Western Region Project Manager

Reviewed by: Max Rosenberg, R.G.
Western Region Site Assessment Lead Worker

Date: April 19, 2005

INTRODUCTION

The Medco Road/Airport East site is a 49 acre industrial property located immediately northwest of the Medford Airport in Medford, Oregon. The site was used historically a fruit orchard from some time prior to 1939 until the early 1990s. The site is currently a vacant grassy field.

As a requirement of the Industrial Lands Act initiative, the site owners hired Agate Engineering to conduct a Phase I Environmental Site Assessment (ESA) on the site. Soil sampling data during the ESA and follow up work indicate elevated concentrations dieldrin and arsenic are present in on-site soils at concentrations above DEQ screening levels.

In reaching a conclusion that conditions at the site are sufficiently protective of human health and the environment to warrant site closure, the DEQ reviewed this report and other information contained in the file including the following:

- August 20, 1996, *No Further Action Letter, LUST 15-92-0098*, DEQ
- April 28, 2004, *Cursory Summary of On-Going Work Regarding the Environmental Site Assessment Jurisdictional Wetlands, and FAA Issues Concerning Property Identified as Taxlot 2500 Located in Section 6 Of Township 37 South, Range 1 West of the Willamette Meridian in Medford, Oregon*, Agate Engineering, Inc.
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BACKGROUND AND ENVIRONMENTAL CONCERNS

The subject property was used as an orchard from sometime prior to 1939 until around 1993, after which it was cleared and sat undeveloped. Historical practices at orchard sites included the use of agricultural chemicals including herbicides, pesticides, petroleum products, and fertilizers. In order to evaluate the potential for environmental impact based on historical use at the site, Agate Engineering, Inc. (Agate) conducted a Phase I and Phase II ESA in May of 2004.

Issues associated with the site include:

Underground Storage Tank

A leaking underground storage tank was removed from the site in 1992. No impact to groundwater was noted with respect to the UST release. On-site soil treatment was successfully conducted under a DEQ permit. After the cleanup and soil treatment was complete, DEQ issued a Letter of No Further Action for the UST release in 1996.

Surface Soil Sampling

In May 2004 Agate collected six shallow composite samples from the site and had them analyzed for lead, arsenic, organochlorine pesticides, and chlorinated herbicides. The samples were collected from surficial soils at a depth of around six inches. Lead, arsenic, Dieldrin, DDT, and DDT breakdown products were detected in all soil samples.

Lead

Lead was present in all soil samples at concentrations below EPA Region 9 Preliminary Remediation Goals (PRG)s. DEQ screens samples against the PRGs to estimate whether contaminants detected in a sample are likely to pose a risk to people. The residential PRG for lead is 400 mg/kg. For industrial properties it is 750 mg/kg. The highest lead concentration detected at the site was 291 mg/kg. The concentrations are below the PRGs and DEQ has concluded lead does not pose a risk to future site workers or residents.

Arsenic

The PRG for arsenic in soil is 0.39 mg/kg for residential receptors and 1.6 mg/kg for occupational/industrial receptors. Arsenic was detected in every composite sample collected at the site at concentrations ranging from 2 to 7 mg/kg. The default background concentration for naturally occurring arsenic in Oregon soil is 7 mg/kg. No samples from the site exceeded the



default background concentration for arsenic. Site specific background concentrations are always preferred over default background values, however the DEQ can use default background values during the screening phase of an investigation. The use of default background values is justified in this case because the site is a former orchard surrounded by former orchards, and collecting background samples from similar areas outside of the same types of agricultural influences as the site would be problematic.

Dieldrin

Dieldrin was present in all six composite samples at concentrations in excess of residential PRGs but below industrial PRGs. DEQ considers conditions at the site protective of industrial use. However, the presence of soils exceeding residential PRGs precludes future residential use of the site and will require a deed restriction preventing residential use. The deed restriction will also require proper handling and disposal of dieldrin-containing soils during site development activities.

The full horizontal and vertical extent of Dieldrin impact to soil is not known. However, since dieldrin was detected in all samples, it is likely that Dieldrin is present on all portions of the site. The relatively low and consistent concentrations of dieldrin detected in site soils indicate it is the result of pesticide application, not a spill or improper disposal. Since the site is surrounded by other former orchards that may have used similar pesticides, delineation of the extent of dieldrin beyond the property boundaries is considered by DEQ to be both impractical and unnecessary to assure the safe industrial development of the Medco Road/Airport East site.

Since chemical detected in groundwater exceed DEQ screening levels for drinking water near the north end of the property, potential drinking water impact was a concern at the site. Therefore, DEQ conducted an analysis of the potential fate and transport of the contaminants. The conclusion of the analysis is that off-site impact to shallow-groundwater users is not reasonably likely for the following reasons:

- Bedrock is very shallow, from 13-17 feet below ground surface, limiting the potential for vertical migration of contaminants;
- Water supply wells in the section (none closer than 2,500 feet from the site) Section 6 are completed in bedrock at depths ranging from 110-300 feet, with the top of shallowest screened interval at 50 feet below ground surface;
- "First water" was significantly deeper than corresponding static water levels on all water well reports for nearby wells, confirming that the bedrock aquifer(s) are confined and are therefore less vulnerable to surficial contaminants;
- Shallow soils at the site are classified as "Coleman Loam" (Jackson County Soil Survey), a low permeability soil consisting primarily of clay loam, which limits the potential for significant off-site migration of contaminants in any perched groundwater zones near the site ; and
- The primary contaminants of concern are heavy PAHs, which have a low water solubility, are strongly sorbed to soil, and are not likely to travel far in higher-clay-content soils.

The site specific soil and aquifer characteristics limit the maximum potential extent of shallow groundwater to the area immediately north of the site, certainly not extending to areas in which groundwater wells are present or likely to be constructed in the future. Therefore DEQ has determined that PAHs do not pose a risk to nearby residents via groundwater.

Ecological Risks

The site, a former orchard, consists of filled and disturbed soils with no significant ecological habitat.

CONCLUSIONS AND RECOMMENDATIONS

The site is suitable for industrial development provided potential risks from dieldrin are managed by establishing a DEQ-approved Easement and Equitable Servitude (EE&S) with the following general conditions:

1. No installation of wells on the property;
2. No residential use of the property;
3. Soil, including any soil taken off the site, is managed in accordance with a DEQ-approved soil management plan (which the site owner will need to develop and provide to DEQ prior to development).

Placing an EE&S on the property deed, and abiding by the conditions, will meet the standards set forth under 340-122-040 and will be protective of present and future public health, safety, welfare, and the environment.

DEQ will provide public notification of the proposed institutional control in the Secretary of State's Bulletin and the Medford Mail Tribune. The notification will summarize the proposed institutional control and allow the public a 30 day public comment period.

Upon closure of the public comment period, after any substantive public comments have been addressed, and the Equitable Easement and Servitude has been recorded, DEQ will issue a Letter of No Further Action (NFA) for the site.

DEQ will update the ECSI database to reflect the changes in site status.

Enc.

Figure 1 Site Location

Figure 2 Site Plan

April 11, 2005, *Email from Bill Mason to Geoff Brown, Subject: Medco Rd/Airport East TL 2500 Property, DEQ*

No Further Action (Conditional) (Primary Action)	Date	09/22/2005 09/22/2005	Geoffrey Brown	Pgm VCS
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Site Environmental Controls

Control Description	Begin Date	End Date	Last Reviewed By	Last Review Date
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