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DRAFT ATTORNEY WORK PRODUCT

PHASE II SOIL AND GROUNDWATER INVESTIGATION

Optimer Property
10605 NE 8TH STREET
Bellevue, Washington

Prepared for
Central Puget Sound Regional Transit Authority
Union Station
401 South Jackson Street
Seattle, Washington 98104-2826

April 13, 2000

URS Greiner Woodward Clyde
1501 Fourth Avenue, Suite 1500
Seattle, Washington 98101-1662
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1.1 PROJECT AUTHORIZATION

URS Greiner Woodward Clyde (URS) was retained by Central Puget Sound Regional Transit Authority (Sound Transit) to conduct a limited Phase II soil and groundwater investigation of the Optimer Property (the Property), located at 10605 NE 8th Street in Bellevue, Washington (Figure 1). This project was performed in accordance with our Agreement Number RTA\LE 36-99, dated May 28, 1999, and the scope of work for Work Order No. 12, signed on January 5, 2000.

We understand that Sound Transit is considering purchasing the Property, or a portion of the Property, from Optimer International, Inc. for future expansion of Regional Express services. Because of the potential acquisition, Sound Transit requested an evaluation of the Property's current environmental condition. This report includes descriptions of soil and groundwater at the Property, data collection methods, and laboratory analytical results used to evaluate potential contamination present in soil and groundwater.

1.2 PROJECT BACKGROUND

1.2.1 Phase I Site Investigation

In September 1999, URS conducted a Phase I Environmental Site Assessment of the Property and provided the results of the assessment in the "Phase I Environmental Site Assessment Final Report" dated September 17, 1999. The assessment revealed evidence of recognized environmental releases that were most likely related to activities conducted when a Union Oil service station was present on the Property between 1958 and 1991. In 1991, EMCON Northwest (EMCON) removed the station's underground storage tanks (USTs) and in 1992 excavated and disposed 1,500 cubic yards of contaminated soil. On July 2, 1992, the Washington State Department of Ecology (Ecology) issued a "no further action" letter for the USTs.

Results of the Phase I assessment also revealed that properties to the north and east have potential to affect the Optimer Property. A former service station and dry cleaner were once present approximately 100 feet north of the Property on a site currently occupied by a store called Thinker Toys. The presence of a monitoring well next to the Thinker Toys store suggests that an environmental investigation was conducted there, however, Ecology files contain no records pertaining to the well or a related investigation. Properties to the east with potential to affect the Property include a car lot and garage with an UST, a dry cleaner, and a photography shop. No releases have been reported for these sites, however because of their proximity to the Property, contaminant migration from these properties is possible.

1.2.2 Previous Investigations

EMCON conducted groundwater and soil investigations at the property between 1990 and 1992 and reported the results of the investigations in a report dated May 1992. According to the report, EMCON collected and analyzed groundwater and soil samples from areas next to USTs, pump islands, hoists, and a dry well. Additional soil samples were collected northwest of the waste oil tank, from side walls of excavations, and from soil stockpiles. In general, samples were collected from the central portion of the site.

Based on the locations of potential off-site sources of contamination, URS attempted to investigate the northern perimeter and the northwest quarter of the Property to account for migration of contaminants from adjacent properties. The southwest and southeast corners were investigated to identify potential contamination in areas not previously sampled or inadequately analyzed for on-site contaminant sources.

2.1 SOIL SAMPLING

Soil sampling was performed by Transglobal Environmental Geosciences Northwest, Inc. of Lacey, Washington (TEG) under direction of a URS hydrogeologist. In addition to drilling, TEG was responsible for obtaining and submitting well drilling permits and logs as required by the State of Washington. TEG is a licensed drilling contractor whose employees are qualified to work at hazardous waste sites.

Eight soil borings, URSSB-1 through URSSB-8, were advanced in the locations shown on Figure 2. The following list shows the boring number and potential contaminant sources that may have affected the boring location:

- URSSB-OP1: heating oil/waste oil tank and dry well
- URSSB-OP2: garage and hoist
- URSSB-OP3: gasoline UST
- URSSB-OP4/OP5: former gas station/dry cleaner to the north
- URSSB-OP6/OP7/OP8: garage UST, photo shop, dry cleaner to east/northeast

At each boring location, soil samples were obtained using a stainless-steel split-spoon sampler advanced with a truck-mounted, direct-push, drilling rig. One to two soil samples for laboratory analysis were collected from each boring at approximately 6 feet below ground surface (bgs), and/or approximately 18 feet bgs, just above the water table. The on-site URS hydrogeologist logged observations made during drilling and determined sampling depths in the field to ensure that soil samples were collected from depths above the water table. Boring logs that include detailed descriptions of soil characteristics and sampling depths are provided in Appendix A.

Each sample was observed to determine soil type, moisture content, and the potential presence of contaminants and to choose samples for analysis. Samples were evaluated for the presence of volatile organic compounds and petroleum hydrocarbons based on visual and olfactory evidence and results of screening using a photoionization detector (PID). Soil samples collected for analysis were placed into laboratory-provided, certified-clean, sample jars. Immediately after sampling, the filled sample jars were placed in coolers kept at or below 4° Celsius. When all of the borings were complete, coolers were hand-delivered to Onsite Environmental Laboratory (Onsite) in Redmond, Washington.

Shallow soil samples from borings OP2, OP6, and OP7 were not submitted for laboratory analysis because it is unlikely that former on-site or off-site sources would have affected shallow soil in these locations based on the review of historical information and previous site work. Samples from just above the water table were submitted for analysis because it is possible that contaminants from off-site sources could have migrated to these locations at these depths.

The information contained in this section includes field observations of hydrogeologic characteristics, results of groundwater quality parameter measurements, and results of laboratory analysis for soil and groundwater samples.

3.1 HYDROGEOLOGY

Based on observations during drilling, the entire site is paved with an approximately 6-inch-thick layer of asphalt that overlies approximately 7 feet of fill and/or topsoil composed of silty, sandy, gravel. Beneath the surficial layer, weathered glacial till composed of dense sandy gravel and/or gravelly sand is present between approximately 7 feet bgs and at least 25 feet bgs (depth of deepest boring). The density, moisture content, and lithologic characteristics of the till are highly variable across the site. Because of the nature of these deposits, the depth to groundwater across the Property is extremely variable, ranging from 12 feet bgs to at least 25 feet bgs. Soil boring logs are provided in Appendix A.

Based on previous projects conducted by URS within ¼ mile of the Property, very dense, weathered till with thin lenses of finer-grained material are present across the downtown Bellevue area. Just west of the Property, a thick layer of silty clay is present at approximately 60 feet bgs. The upper surface of the clay dips steeply to the east and may underlie the till at the Property at a depth of 100 feet or more below the ground surface. Throughout Bellevue, groundwater is present in very small, localized zones that are separated by relatively more dense layers of till or are perched on the small finer-grained lenses. At many of the sites where URS has drilled geotechnical borings, the variation in depth to groundwater across very small areas can be as much as 60 feet.

Eleven soil samples and three groundwater samples were submitted for analysis. Soil samples were chosen in the field based on depth and the results of field screening for contaminants. Because contaminants were not observed in the field, samples were collected based solely on depth to ensure analysis of both shallow and deep soil and to ensure collection of soil from above the saturated zone. As described above, groundwater samples were collected in only the southern portion of the property.

3.1.1 Soil

Eleven soil samples were submitted to OnSite Environmental, Inc. on March 13, 2000. The complete laboratory report prepared by OnSite, and dated March 20, 2000 is included in Appendix B. All eleven soil samples were analyzed for gasoline and BTEX by method NWTPH-Gx and diesel range hydrocarbons, including waste oil, by method NWTPH-Dx. Four of the eleven samples were analyzed for volatile organic compounds by EPA Method 8260B and two for metals by EPA Methods 6010B/7000A. Analytical results for soil analyses are summarized in Tables 1 through 3.

According to the analytical results, none of the soil samples contained gasoline, BTEX, diesel, or VOCs (Tables 1 and 2). Heavy oil was detected in sample URSSB-OP7-16 (Figure 2) at 88 mg/kg, a concentration well below the MTCA Method A cleanup level. This is the only location where heavy oil was detected.

Barium and chromium were detected in both of the soil samples submitted for metals analyses (URSSB-OP6-20 and URSSB-OP8-18). No other metals were detected. The barium

4.1 SUMMARY

On March 11, 1999, URS conducted a limited soil and groundwater investigation at the Optimer Property located at 10605 NE 8th Street in Bellevue, Washington. Eight soil borings were advanced and sampled at locations potentially affected by on-site and off-site historical activities. Eleven soil samples and three groundwater samples were submitted for analysis. Because of the heterogeneous hydrogeologic characteristics of the site, and the Bellevue area in general, groundwater was not encountered and groundwater samples were not collected in the northern portion of the site. During drilling and sampling, no visual or olfactory evidence of contamination was observed in soil or groundwater.

Very few analytes were detected in the soil and groundwater samples. One soil sample contained heavy oil at a very low concentration below MTCA cleanup levels. No other petroleum hydrocarbon compounds were detected. Barium and chromium were detected in soil below MTCA cleanup levels. Arsenic was detected in one groundwater sample at a concentration (19 mg/L) above the MTCA Method A cleanup level. The source of the arsenic is not known, but elevated background levels of arsenic in urban areas is not uncommon. PCE was also detected in groundwater samples at concentrations below the MTCA Method A cleanup level. The PCE is most likely due to former dry cleaning activities off-site.

4.2 CONCLUSIONS

With the exception of a low concentration of heavy oil in one sample location, petroleum hydrocarbons related to the former gas station do not appear to be present in soil or groundwater in the locations sampled. Based on these results, it is likely that the previous remediation activities, removed most or all of the petroleum hydrocarbon contaminated soil.

The concentrations of arsenic and PCE observed in groundwater samples are unlikely to pose a risk to public health or the environment for the following reasons:

1. It is very unlikely that groundwater in the perched groundwater zone will ever be used for drinking water because this area of Bellevue is supplied by municipal water from the Tolt pipeline.
2. Site workers are not likely to encounter the groundwater while digging utilities because of the depth at which groundwater was encountered.
3. Surface water receptors are not located in the immediate area (nearest surface water is Lake Washington, approximately 1 mile from site).

It should be noted that any dewatering conducted in association with future construction activities would require special consideration with respect to the arsenic and PCE.

We have performed our services for this project in accordance with our Agreement; no guarantees are either expressed or implied.

The records search used for background information in this workplan was limited to information that is reasonably available from public sources. This information is changing continually and is frequently incomplete. Unless we have actual knowledge to the contrary, information obtained from interviews or provided to us has been assumed to be correct and complete. We do not assume any liability for information that has been misrepresented to us or for items not visible, accessible, or present on the site at the time of the visit.

There is no investigation thorough enough to preclude the presence of materials on the Property which presently, or in the future, may be considered hazardous. Because regulatory evaluation criteria are constantly changing, concentrations of contaminants present and considered to be acceptable may, in the future, become subject to different regulatory standards and require remediation.

Where records indicate that prior site investigations, remediation work, or tank removals have occurred, there is a risk that the work may not have been performed correctly or completely. In these cases, if the regulatory agency has approved the closure of the tank or other work done, we have assumed that the work was done correctly and completely.

Opinions and judgments expressed herein, which are based on our understanding and interpretation of current regulatory standards, should not be construed as legal opinions. This document and the information contained herein have been prepared solely for the use of Sound Transit. This material is to be regarded as strictly confidential to URS and Sound Transit. No other party shall have the right to rely on our opinions rendered in connection with the services or in this document without our written consent and the other party's agreement to be bound to the same conditions and limitations as client.

The qualifications of the Project Manager and of the other environmental professionals involved in this ESA meet the URS corporate requirements for performing remedial investigations, risk assessments, and feasibility studies.

Table 1

SOIL ANALYTICAL RESULTS
BTEX, GASOLINE, DIESEL, AND OIL
(mg/kg)

BORING ID	SOIL SAMPLE DEPTH bgs	Benzene	Toluene	Ethyl Benzene	m,p-Xylene	o-Xylene	TPH-Gas	TPH-Diesel	Heavy Oil
URSSB-OP1	6	ND (<0.056)	ND (<0.056)	ND (<0.056)	ND (<0.056)	ND (<0.056)	ND (<5.6)	ND (<28)	ND (<56)
	18	ND (<0.056)	ND (<0.056)	ND (<0.056)	ND (<0.056)	ND (<0.056)	ND (<5.6)	ND (<28)	ND (<56)
URSSB-OP2	6	NA	NA	NA	NA	NA	NA	NA	NA
	12	ND (<0.054)	ND (<0.054)	ND (<0.054)	ND (<0.054)	ND (<0.054)	ND (<5.4)	ND (<27)	ND (<56)
URSSB-OP3	6	ND (<0.059)	ND (<0.059)	ND (<0.059)	ND (<0.059)	ND (<0.059)	ND (<5.9)	ND (<29)	ND (<59)
	18	ND (<0.056)	ND (<0.056)	ND (<0.056)	ND (<0.056)	ND (<0.056)	ND (<5.6)	ND (<28)	ND (<56)
URSSB-OP4	8	ND (<0.054)	ND (<0.054)	ND (<0.054)	ND (<0.054)	ND (<0.054)	ND (<5.4)	ND (<27)	ND (<54)
URSSB-OP5	12	ND (<0.054)	ND (<0.054)	ND (<0.054)	ND (<0.054)	ND (<0.054)	ND (<5.4)	ND (<27)	ND (<54)
URSSB-OP6	8	NA	NA	NA	NA	NA	NA	NA	NA
	20	ND (<0.054)	ND (<0.054)	ND (<0.054)	ND (<0.054)	ND (<0.054)	ND (<5.4)	ND (<27)	ND (<54)
URSSB-OP7	8	NA	NA	NA	NA	NA	NA	NA	NA
	16	ND (<0.054)	ND (<0.054)	ND (<0.054)	ND (<0.054)	ND (<0.054)	ND (<5.4)	ND (<28)	88
URSSB-OP8	8	ND (<0.056)	ND (<0.056)	ND (<0.056)	ND (<0.056)	ND (<0.056)	ND (<5.6)	ND (<28)	ND (<56)
	18	ND (<0.055)	ND (<0.055)	ND (<0.055)	ND (<0.055)	ND (<0.055)	ND (<5.5)	ND (<28)	ND (<55)

ND: not detected above laboratory quantitation limit
NA - Sample not analyzed
bgs - Below Ground Surface
Gasoline and BTEX analyzed by method NWTPH-Gx/BTEX.
Diesel and Oil analyzed by method NWTPH-Dx.

Table 2
SOIL ANALYTICAL RESULTS
VOLATILE ORGANIC COMPOUNDS
(mg/kg)

	Sample ID			
Compound	URSSB-OP1-18	URSSB-OP2-12	URSSB-OP5-12	URSSB-OP6-20
Dichlorodifluoromethane	ND (<0.056)	ND (<0.054)	ND (<0.054)	ND (<0.054)
Chloromethane	ND (<0.056)	ND (<0.054)	ND (<0.054)	ND (<0.054)
Vinyl Chloride	ND (<0.056)	ND (<0.054)	ND (<0.054)	ND (<0.054)
Bromomethane	ND (<0.056)	ND (<0.054)	ND (<0.054)	ND (<0.054)
Chloroethane	ND (<0.056)	ND (<0.054)	ND (<0.054)	ND (<0.054)
Trichlorofluoromethane	ND (<0.056)	ND (<0.054)	ND (<0.054)	ND (<0.054)
1,1-Dichloroethene	ND (<0.056)	ND (<0.054)	ND (<0.054)	ND (<0.054)
Acetone	ND (<0.28)	ND (<0.27)	ND (<0.27)	ND (<0.27)
Carbon Disulfide	ND (<0.056)	ND (<0.054)	ND (<0.054)	ND (<0.054)
Methylene Chloride	ND (<0.28)	ND (<0.27)	ND (<0.27)	ND (<0.27)
(trans) 1,2-Dichloroethene	ND (<0.056)	ND (<0.054)	ND (<0.054)	ND (<0.054)
1,1-Dichloroethane	ND (<0.056)	ND (<0.054)	ND (<0.054)	ND (<0.054)
Vinyl Acetate	ND (<0.056)	ND (<0.27)	ND (<0.27)	ND (<0.27)
2,2-Dichloropropane	ND (<0.056)	ND (<0.054)	ND (<0.054)	ND (<0.054)
(cis) 1,2-Dichloroethene	ND (<0.056)	ND (<0.054)	ND (<0.054)	ND (<0.054)
2-Butanone	ND (<1.1)	ND (<1.1)	ND (<1.1)	ND (<1.1)
Chloroform	ND (<0.056)	ND (<0.054)	ND (<0.054)	ND (<0.054)
1,1,1-Trichloroethane	ND (<0.056)	ND (<0.054)	ND (<0.054)	ND (<0.054)
Carbon Tetrachloride	ND (<0.056)	ND (<0.054)	ND (<0.054)	ND (<0.054)
1,1-Dichloropropene	ND (<0.056)	ND (<0.054)	ND (<0.054)	ND (<0.054)
Benzene	ND (<0.056)	ND (<0.054)	ND (<0.054)	ND (<0.054)
1,2-Dichloroethane	ND (<0.056)	ND (<0.054)	ND (<0.054)	ND (<0.054)
Trichloroethene	ND (<0.056)	ND (<0.054)	ND (<0.054)	ND (<0.054)
1,2-Dichloropropane	ND (<0.056)	ND (<0.054)	ND (<0.054)	ND (<0.054)
Dibromomethane	ND (<0.056)	ND (<0.054)	ND (<0.054)	ND (<0.054)
Bromodichloromethane	ND (<0.056)	ND (<0.054)	ND (<0.054)	ND (<0.054)
2-Chloroethyl Vinyl Ether	ND (<0.28)	ND (<0.27)	ND (<0.27)	ND (<0.27)
(cis) 1,3-Dichloropropene	ND (<0.056)	ND (<0.054)	ND (<0.054)	ND (<0.054)
Toluene	ND (<0.056)	ND (<0.054)	ND (<0.054)	ND (<0.054)
(trans) 1,3-Dichloropropene	ND (<0.056)	ND (<0.054)	ND (<0.054)	ND (<0.054)
1,1,2-Trichloroethane	ND (<0.056)	ND (<0.054)	ND (<0.054)	ND (<0.054)
Tetrachloroethene	ND (<0.056)	ND (<0.054)	ND (<0.054)	ND (<0.054)
1,3-Dichloropropane	ND (<0.056)	ND (<0.054)	ND (<0.054)	ND (<0.054)
Methyl Isobutyl Ketone	ND (<0.28)	ND (<0.27)	ND (<0.27)	ND (<0.27)
Dibromochloromethane	ND (<0.056)	ND (<0.054)	ND (<0.054)	ND (<0.054)
1,2-Dibromoethane	ND (<0.056)	ND (<0.054)	ND (<0.054)	ND (<0.054)
Chlorobenzene	ND (<0.056)	ND (<0.054)	ND (<0.054)	ND (<0.054)
1,1,1,2-Tetrachloroethane	ND (<0.056)	ND (<0.054)	ND (<0.054)	ND (<0.054)
Ethylbenzene	ND (<0.056)	ND (<0.054)	ND (<0.054)	ND (<0.054)
m,p-Xylene	ND (<.11)	ND (<0.11)	ND (<0.11)	ND (<0.11)
o-Xylene	ND (<0.056)	ND (<0.054)	ND (<0.054)	ND (<0.054)
Styrene	ND (<0.056)	ND (<0.054)	ND (<0.054)	ND (<0.054)
Bromoform	ND (<0.056)	ND (<0.054)	ND (<0.054)	ND (<0.054)
Isopropylbenzene	ND (<0.056)	ND (<0.054)	ND (<0.054)	ND (<0.054)
Bromobenzene	ND (<0.056)	ND (<0.054)	ND (<0.054)	ND (<0.054)
1,1,2,2-Tetrachloroethane	ND (<0.056)	ND (<0.054)	ND (<0.054)	ND (<0.054)
1,2,3-Trichloropropane	ND (<0.056)	ND (<0.054)	ND (<0.054)	ND (<0.054)
n-Propylbenzene	ND (<0.056)	ND (<0.054)	ND (<0.054)	ND (<0.054)
2-Chlorotoluene	ND (<0.056)	ND (<0.054)	ND (<0.054)	ND (<0.054)
4-Chlorotoluene	ND (<0.056)	ND (<0.054)	ND (<0.054)	ND (<0.054)
1,3,5-Trimethylbenzene	ND (<0.056)	ND (<0.054)	ND (<0.054)	ND (<0.054)
tert-Butylbenzene	ND (<0.056)	ND (<0.054)	ND (<0.054)	ND (<0.054)
1,2,4-Trimethylbenzene	ND (<0.056)	ND (<0.054)	ND (<0.054)	ND (<0.054)
sec-Butylbenzene	ND (<0.056)	ND (<0.054)	ND (<0.054)	ND (<0.054)
1,3-Dichlorobenzene	ND (<0.056)	ND (<0.054)	ND (<0.054)	ND (<0.054)
p-Isopropyltoluene	ND (<0.056)	ND (<0.054)	ND (<0.054)	ND (<0.054)
1,4-Dichlorobenzene	ND (<0.056)	ND (<0.054)	ND (<0.054)	ND (<0.054)
1,2-Dichlorobenzene	ND (<0.056)	ND (<0.054)	ND (<0.054)	ND (<0.054)
n-Butylbenzene	ND (<0.056)	ND (<0.054)	ND (<0.054)	ND (<0.054)
1,2-Dibromo-3-chloropropane	ND (<0.28)	ND (<0.27)	ND (<0.27)	ND (<0.27)
1,2,4-Trichlorobenzene	ND (<0.056)	ND (<0.054)	ND (<0.054)	ND (<0.054)
Hexachlorobutadiene	ND (<0.056)	ND (<0.054)	ND (<0.054)	ND (<0.054)
Naphthalene	ND (<0.056)	ND (<0.054)	ND (<0.054)	ND (<0.054)
1,2,3-Trichlorobenzene	ND (<0.056)	ND (<0.054)	ND (<0.054)	ND (<0.054)

Notes:
mg/kg - milligrams per kilogram
ND (<#) - Compound was not quantifiable below the stated concentration

Table 3

SOIL ANALYTICAL RESULTS
TOTAL METALS (mg/kg)

Boring Number	Barium	Cadmium	Chromium	Lead	Mercury	Selenium	Silver
URSSB-OP6-20	25	ND (<0.54)	10	ND (<5.4)	ND (<0.27)	ND (<11)	ND (<0.54)
URSSB-OP8-18	44	ND (<0.55)	18	ND (<5.5)	ND (<0.27)	ND (<11)	ND (<0.55)

ND: Compound not detected above laboratory quantitation limit.
Total Metals analyzed by EPA Method 6010B/7000A Series

Table 4

GROUNDWATER ANALYTICAL RESULTS
MTBE, BTEX, GASOLINE, DIESEL, AND HEAVY OIL (ug/L)

BORING Number	Benzene	Toluene	Ethyl Benzene	Total Xylene	Gasoline	Diesel	Heavy Oil
URSSB-OP1-W	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<100)	ND (<0.25)	ND (<0.50)
URSSB-OP3-W	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<100)	ND (<0.25)	ND (<0.50)
URSSB-OP10-W[1]	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<100)	ND (<0.25)	ND (<0.50)

1 - duplicate sample of URSSB-OP3-W.
ND: Compound not detected above laboratory quantitation limit.
Gasoline and BTEX analyzed by method NWTPH-G/BTEX.
MTBE analyzed by EPA Method 8021B.
Diesel and heavy oil analyzed by method NWTPH-Dx.

Table 5
GROUNDWATER ANALYTICAL RESULTS
VOLATILE ORGANIC COMPOUNDS
(ug/L)

	Sample ID		
Compound	URSSB-OP1-W	URSSB-OP3-W	URSSB-OP10-W[1]
Dichlorodifluoromethane	ND (<1.0)	ND (<1.0)	ND (<1.0)
Chloromethane	ND (<1.0)	ND (<1.0)	ND (<1.0)
Vinyl Chloride	ND (<1.0)	ND (<1.0)	ND (<1.0)
Bromomethane	ND (<1.0)	ND (<1.0)	ND (<1.0)
Chloroethane	ND (<1.0)	ND (<1.0)	ND (<1.0)
Trichlorofluoromethane	ND (<1.0)	ND (<1.0)	ND (<1.0)
1,1-Dichloroethene	ND (<1.0)	ND (<1.0)	ND (<1.0)
Acetone	ND (<5.0)	ND (<5.0)	ND (<5.0)
Carbon Disulfide	ND (<1.0)	ND (<1.0)	ND (<1.0)
Methylene Chloride	ND (<5.0)	ND (<5.0)	ND (<5.0)
(trans) 1,2-Dichloroethene	ND (<1.0)	ND (<1.0)	ND (<1.0)
1,1-Dichloroethane	ND (<1.0)	ND (<1.0)	ND (<1.0)
Vinyl Acetate	ND (<5.0)	ND (<5.0)	ND (<5.0)
2,2-Dichloropropane	ND (<1.0)	ND (<1.0)	ND (<1.0)
(cis) 1,2-Dichloroethene	ND (<1.0)	ND (<1.0)	ND (<1.0)
2-Butanone	ND (<20)	ND (<20)	ND (<20)
Chloroform	ND (<1.0)	ND (<1.0)	ND (<1.0)
1,1,1-Trichloroethane	ND (<1.0)	ND (<1.0)	ND (<1.0)
Carbon Tetrachloride	ND (<1.0)	ND (<1.0)	ND (<1.0)
1,1-Dichloropropene	ND (<1.0)	ND (<1.0)	ND (<1.0)
Benzene	ND (<1.0)	ND (<1.0)	ND (<1.0)
1,2-Dichloroethane	ND (<1.0)	ND (<1.0)	ND (<1.0)
Trichloroethene	ND (<1.0)	ND (<1.0)	ND (<1.0)
1,2-Dichloropropane	ND (<1.0)	ND (<1.0)	ND (<1.0)
Dibromomethane	ND (<1.0)	ND (<1.0)	ND (<1.0)
Bromodichloromethane	ND (<1.0)	ND (<1.0)	ND (<1.0)
2-Chloroethyl Vinyl Ether	ND (<5.0)	ND (<5.0)	ND (<5.0)
(cis) 1,3-Dichloropropene	ND (<1.0)	ND (<1.0)	ND (<1.0)
Toluene	ND (<2.0)	ND (<2.0)	ND (<2.0)
(trans) 1,3-Dichloropropene	ND (<1.0)	ND (<1.0)	ND (<1.0)
1,1,2-Trichloroethane	ND (<1.0)	ND (<1.0)	ND (<1.0)
Tetrachloroethene	2.1	1.7	1.5
1,3-Dichloropropane	ND (<1.0)	ND (<1.0)	ND (<1.0)
Methyl Isobutyl Ketone	ND (<5.0)	ND (<5.0)	ND (<5.0)
Dibromochloromethane	ND (<1.0)	ND (<1.0)	ND (<1.0)
1,2-Dibromoethane	ND (<1.0)	ND (<1.0)	ND (<1.0)
Chlorobenzene	ND (<1.0)	ND (<1.0)	ND (<1.0)
1,1,1,2-Tetrachloroethane	ND (<1.0)	ND (<1.0)	ND (<1.0)
Ethylbenzene	ND (<1.0)	ND (<1.0)	ND (<1.0)
m,p-Xylene	ND (<2.0)	ND (<2.0)	ND (<2.0)
o-Xylene	ND (<1.0)	ND (<1.0)	ND (<1.0)
Styrene	ND (<1.0)	ND (<1.0)	ND (<1.0)
Bromoform	ND (<1.0)	ND (<1.0)	ND (<1.0)
Isopropylbenzene	ND (<1.0)	ND (<1.0)	ND (<1.0)
Bromobenzene	ND (<1.0)	ND (<1.0)	ND (<1.0)
1,1,2,2-Tetrachloroethane	ND (<1.0)	ND (<1.0)	ND (<1.0)
1,2,3-Trichloropropane	ND (<1.0)	ND (<1.0)	ND (<1.0)
n-Propylbenzene	ND (<1.0)	ND (<1.0)	ND (<1.0)
2-Chlorotoluene	ND (<1.0)	ND (<1.0)	ND (<1.0)
4-Chlorotoluene	ND (<1.0)	ND (<1.0)	ND (<1.0)
1,3,5-Trimethylbenzene	ND (<1.0)	ND (<1.0)	ND (<1.0)
tert-Butylbenzene	ND (<1.0)	ND (<1.0)	ND (<1.0)
1,2,4-Trimethylbenzene	ND (<1.0)	ND (<1.0)	ND (<1.0)
sec-Butylbenzene	ND (<1.0)	ND (<1.0)	ND (<1.0)
1,3-Dichlorobenzene	ND (<1.0)	ND (<1.0)	ND (<1.0)
p-Isopropyltoluene	ND (<1.0)	ND (<1.0)	ND (<1.0)
1,4-Dichlorobenzene	ND (<1.0)	ND (<1.0)	ND (<1.0)
1,2-Dichlorobenzene	ND (<1.0)	ND (<1.0)	ND (<1.0)
n-Butylbenzene	ND (<1.0)	ND (<1.0)	ND (<1.0)
1,2-Dibromo-3-chloropropane	ND (<5.0)	ND (<5.0)	ND (<5.0)
1,2,4-Trichlorobenzene	ND (<1.0)	ND (<1.0)	ND (<1.0)
Hexachlorobutadiene	ND (<1.0)	ND (<1.0)	ND (<1.0)
Naphthalene	ND (<1.0)	ND (<1.0)	ND (<1.0)
1,2,3-Trichlorobenzene	ND (<1.0)	ND (<1.0)	ND (<1.0)

Notes:
1 - Duplicate sample of URSSB-OP3-W
mg/kg - milligrams per kilogram
BGS - Below Ground Surface
ND (<#) - Compound was not quantifiable below the stated concentration
Volatiles analyzed by EPA Method 8260B

Table 6

GROUNDWATER ANALYTICAL RESULTS FOR DISSOLVED METALS

(ug/L)

BORING ID	Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Selenium	Silver
URSSB-OP1-W	19	ND (<10)	ND (<4.0)	ND (<10)	ND <(1.0)	ND (<0.50)	ND (<5.0)	ND (<10)
URSSB-OP3-W	ND (<3.0)	ND (<10)	ND (<4.0)	ND (<10)	ND (<1.0)	ND (<0.50)	ND (<5.0)	ND (<10)
URSSB-OP10-W[1]	ND (<3.0)	ND (<10)	ND (<4.0)	ND (<10)	ND (<1.0)	ND (<0.50)	ND (<5.0)	ND (<10)

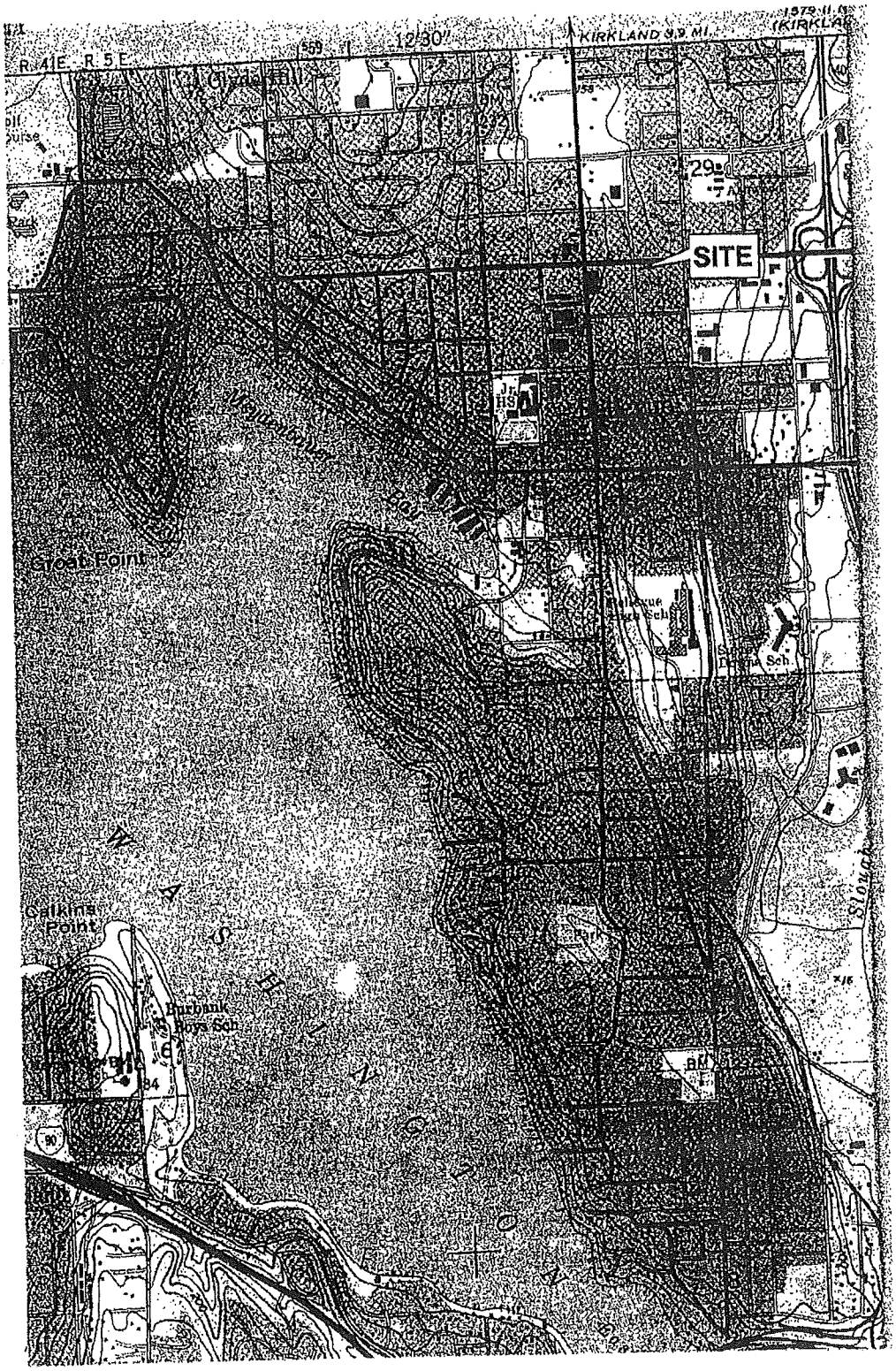
Notes:

ND (<#): compound not detected below the stated concentration

1: duplicate sample of URSSB-OP3-W

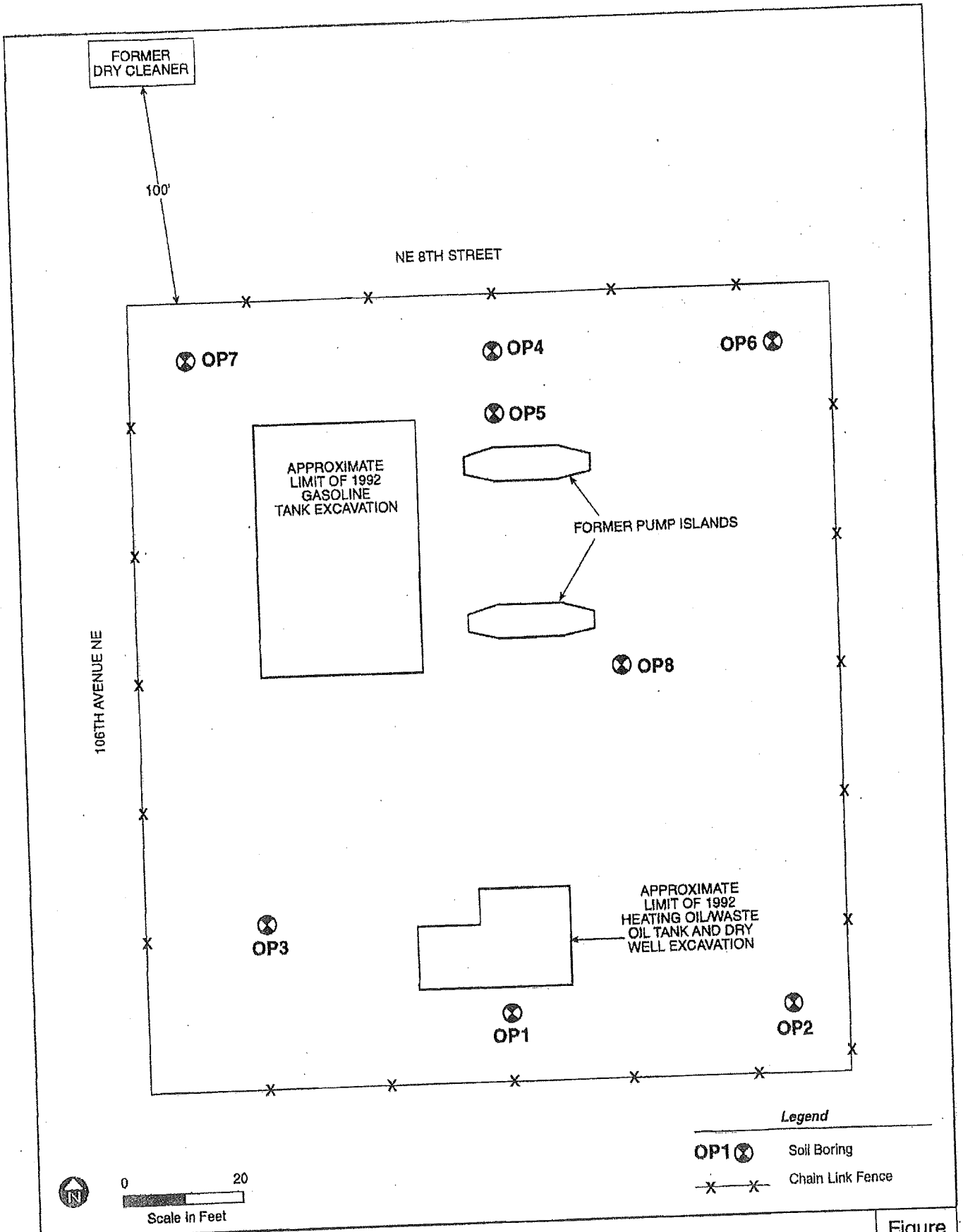
ug/L: micrograms per liter

Dissolved Metals analyzed by EPA Method 6010B/7000A Series



Sound Transit W.O. 12	Project No. 5409900024.12	Project Site Location	Figure 1
URS Greiner Woodward Clyde			

99/Sound Transit 12 3/00



Sound Transit W.O. 12	Project No. 5409900024.12	Soil Boring Locations	Figure 2
URS Dreiner Woodward Clyde			

99/Sound Transit 12 3/00

Appendix A
Boring Logs

Project: Cental Puget Sound Regional Transit Authority
Project Location: 10605 NE 8th Street, Bellevue, WA
Project Number: 54-09900024.12

Log of Boring URSSB-OP1

Sheet 1 of 1

Date(s) Drilled	3/11/00	Logged By	J. Rapp	Checked By	G. Davis
Drilling Method	Geoprobe	Drilling Contractor	TEG	Total Depth Drilled (feet)	23.0
Drill Rig Type	truck mounted	Sampler Type	Split Spoon	Surface Elevation	145 feet (MSL)
Groundwater Level	20	Hammer Weight and Drop	NA	Top of PVC Elevation	NA
Diameter of Hole (inches)	2"	Diameter of Well (inches)	NA	Type of Well Casing	NA	Screen Perforation	NA
Type of Sand Pack	NA	Type and Depth of Seal(s)	NA		
Comments	boring backfilled with bentonite chips				

Elevation, feet	Depth, feet	SAMPLES Type	SAMPLES Number	Blows per 6-inch interval	Percent Recovery	Graphic Log	MATERIAL DESCRIPTION	Well Completion Log	PID scan (ppmv)	Drilling Rate (Time, 24-hour clock)	REMARKS
	0						asphalt surface				
					100%		Gravelly Silty SAND (SP-SM) - moist, brown, no odor, no sheen		0	0820	
	5						Gravelly SAND (SP) - moist, medium dense, brown/tan, mottled, sub-rounded to sub-angular gravel, no odor, no sheen				
	10						same as above - gray, dense				
	15				100%				0	0900	
								▽			water encountered at approximately 19' bgs
	20				NA				0	0920	screen set at 20' - 23' bgs
	25										

URS Greiner Woodward Clyde

Report: ENV_23A; Project File: C:\PROGRA~1\GINTW\PROJECTS\OPTIMER.GPJ; Data Template:WC_CORP1.GDT Printed: 4/12/00

Project: Cental Puget Sound Regional Transit Authority
Project Location: 10605 NE 8th Street, Bellevue, WA
Project Number: 54-09900024.12

Log of Boring URSSB-OP3

Sheet 1 of 1

Date(s) Drilled	3/11/00	Logged By	J. Rapp	Checked By	G. Davis
Drilling Method	Geoprobe	Drilling Contractor	TEG	Total Depth Drilled (feet)	23.0
Drill Rig Type	truck mounted	Sampler Type	Split Spoon	Surface Elevation	145 feet (MSL)
Groundwater Level	20	Hammer Weight and Drop	NA	Top of PVC Elevation	
Diameter of Hole (inches)	2" / Diameter of Well (inches) NA	Type of Well Casing	NA	Screen Perforation	NA
Type of Sand Pack	NA	Type and Depth of Seal(s)	NA		
Comments	boring backfilled with bentonite chips				

Elevation, feet	Depth, feet	SAMPLES Type	SAMPLES Number	Blows per 6-inch Interval	Percent Recovery	Graphic Log	MATERIAL DESCRIPTION	Well Completion Log	PID scan (ppmv)	Drilling Rate (Time, 24-hour clock)	REMARKS
	0						asphalt surface Silty Sandy GRAVEL (GP) - moist, red, mottled, no odor, no sheen				
	5				100%				0	1030	
	10						Gravelly SAND (SP) - moist, brown/gray, sub-rounded to sub-angular gravel, no odor, no sheen same as above - no odor, no sheen				
	15				100%		same as above - no odor, no sheen same as above - no odor, no sheen		0	1100	
	20				NA			▽	0	1110	water encountered @ approximately 19' bgs
	25										duplicate water sample collected (OP10-W) @ 1700

URS Greiner Woodward Clyde

Report: ENV_23A; Project File: C:\PROGRA~1\GINTW\PROJECTS\OPTIMER.GPJ; Data Template:WC_CORP1.GDT Printed: 4/12/00

Project: Cental Puget Sound Regional Transit Authority
Project Location: 10605 NE 8th Street, Bellevue, WA
Project Number: 54-09900024.12

Log of Boring URSSB-OP5

Sheet 1 of 1

Date(s) Drilled	3/11/00	Logged By	J. Rapp	Checked By	G. Davis
Drilling Method	Geoprobe	Drilling Contractor	TEG	Total Depth Drilled (feet)	15.0
Drill Rig Type	truck mounted	Sampler Type	Split Spoon	Surface Elevation	145 feet (MSL)
Groundwater Level	not encountered	Hammer Weight and Drop	NA	Top of PVC Elevation	
Diameter of Hole (inches)	2" / Diameter of Well (inches) NA	Type of Well Casing	NA	Screen Perforation	NA
Type of Sand Pack	NA	Type and Depth of Seal(s)	NA		
Comments	boring backfilled with bentonite chips				

Elevation, feet	Depth, feet	SAMPLES: Type	SAMPLES: Number	Blows per 6-inch Interval	Percent Recovery	Graphic Log	MATERIAL DESCRIPTION	Well Completion Log	PID scan (ppmv)		Drilling Rate (Time, 24-hour clock)	REMARKS
	0						Sandy GRAVEL (GP) - moist, brown, mottled, no odor, no sheen					
	5											
	10				100%		SAND (SP) - moist, trace gravel, brown, no odor, no sheen		0		1230	
	15											refusal @ 15' bgs, no water encountered
	20											

URS Greiner Woodward Clyde

Report: ENV_23A; Project File: C:\PROGRA~1\GINTW\PROJECTS\OPTIMEFL.GPJ; Data Template:WC_CORP1.GDT Printed: 4/12/00

Project: Cental Puget Sound Regional Transit Authority
Project Location: 10605 NE 8th Street, Bellevue, WA
Project Number: 54-09900024.12

Log of Boring URSSB-OP7

Sheet 1 of 1

Date(s) Drilled	3/11/00	Logged By	J. Rapp	Checked By	G. Davis
Drilling Method	Geoprobe	Drilling Contractor	TEG	Total Depth Drilled (feet)	16.0
Drill Rig Type	truck mounted	Sampler Type	Split Spoon	Surface Elevation	145 feet (MSL)
Groundwater Level	not encountered	Hammer Weight and Drop	NA	Top of PVC Elevation	
Diameter of Hole (inches)	2"	Diameter of Well (inches)	NA	Type of Well Casing	NA	Screen Perforation	NA
Type of Sand Pack	NA	Type and Depth of Seal(s)	NA		
Comments	boring backfilled with bentonite chips				

Elevation, feet	Depth, feet	SAMPLES Type	SAMPLES Number	Blows per 6-inch interval	Percent Recovery	Graphic Log	MATERIAL DESCRIPTION	Well Completion Log	PID scan (ppmv)		Drilling Rate (Time, 24-hour clock)	REMARKS
	0						asphalt surface Silty Sandy GRAVEL (GP) - red/brown, dry, no odor, no sheen					
	5				100%				0		1440	
	10						Gravelly SAND (SP) - moist, brown, dense, trace gravel, sub-rounded to sub-angular gravel, no odor, no sheen					
	15				100%		same as above - very dense, no odor, no sheen		0		1505	refusal @ 16' bgs; no water encountered
	20											

URS Greiner Woodward Clyde

Report: ENV_23A; Project File: C:\PROGRA~1\GINT\PROJECTS\OPTIMER.GPJ; Data Template:WC_CORP1.GDT Printed: 4/12/00

Appendix B
Laboratory Data And QA/QC Report

INTRODUCTION

This section presents a quality control review of data generated from collection and analysis of soil and groundwater samples from the Optimer Property in March 2000. Eleven primary soil samples and three primary water samples were submitted to Onsite Environmental in Redmond, Washington for analysis. This review includes evaluation of the following:

- Chain of custody and holding times
- Laboratory report and reporting of required analyses
- Laboratory blanks
- Field duplicates
- Laboratory duplicates
- Matrix spike/matrix spike duplicates (MS/MSD)
- Blank spike/blank spike duplicates (BS/BSD)
- Surrogate recoveries (where applicable)
- Reporting limits

The samples were analyzed for one or more of the following chemicals and chemical groups.

Gasoline Range Hydrocarbons	NWTPH-G
Benzene, Toluene, Ethyl Benzene, Xylenes (BTEX) and MTBE	EPA 8021
Diesel Range Hydrocarbons	NWTPH-Dx
Volatile Organic Compounds	EPA 8260B
Total and Dissolved Metals	EPA 6010B and 7471A

Sample Case

The following samples were included in this data review:

FIELD ID	LABORATORY ID	MATRIX	ANALYTE	QUALIFIER
URSSB-OP1-6	03-095-01	soil	none	
URSSB-OP1-18	03-095-02	soil	none	
URSSB-OP2-12	03-095-04	soil	none	
URSSB-OP3-6	03-095-05	soil	none	
URSSB-OP3-18	03-095-06	soil	none	
URSSB-OP4-8	03-095-07	soil	none	
URSSB-OP5-12	03-095-08	soil	none	
URSSB-OP6-20	03-095-10	soil	none	
URSSB-OP7-16	03-095-12	soil	none	
URSSB-OP8-8	03-095-13	soil	none	

FIELD ID	LABORATORY ID	MATRIX	ANALYTE	QUALIFIER
URSSB-OP8-18	03-095-14	soil	none	
URSSB-OP1-W	03-095-15	water	none	
URSSB-OP3-W	03-095-16	water	none	
URSSB-OP10-W	03-095-17	water	none	

Laboratory Report and Reporting of Required Analyses

All sample and QC results were included, as requested. The project scope of work stated that URS Greiner Woodward Clyde would provide industry-accepted evaluation of data quality. The reports provide all necessary information to complete this data review.

Chain of Custody and Holding Times

The chain of custody forms indicate that samples were maintained under chain of custody, forms were signed on release and receipt, and samples were appropriately preserved. The laboratory reported all required analyses and the laboratory report is complete.

The samples were analyzed within the holding times. No data require qualification based on missed holding times.

Method Blanks

Method blanks were used to determine if samples were contaminated through laboratory procedures or equipment. The quality control frequency requirement of one laboratory blank per analytical batch was met. The laboratory method blanks were free of contamination, with the following exception.

- Soil VOC method blank MB0313S1: The method blank had a methylene chloride detection of 0.32 µg/L. Methylene chloride was not detected above the reporting limit in the associated samples; therefore, no data were qualified.

Laboratory Duplicates

The laboratory duplicate relative percent differences (RPDs) were within specified control limits. The laboratory analyzed matrix spike/matrix spike duplicates for some analyses, as reported below. No data require qualification based on laboratory duplicate RPDs.

Matrix Spike/Matrix Spike Duplicates

The laboratory analyzed an MS/MSD or a blank spike for each method. The QC frequency requirement of one matrix spike/blank spike or one matrix spike duplicate/blank spike duplicate per analytical batch was met. The spike percent recoveries and RPDs were within the control limits with the following exceptions.

- Soil BTEX BS/BSD SB0314S1: The duplicate RPDs were above the control limits for benzene at 16% and toluene at 18%. The associated BS/BSD percent recoveries were within the control limits; therefore, no data were qualified.

OnSite Environmental Inc.
Analytical Testing and Mobile Laboratory Services

March 20, 2000

Kathleen Goodman
URS Greiner Woodward Clyde
Century Square, Suite 1500
1501 Fourth Avenue
Seattle, WA 98101-1662

Re: Analytical Data for Project 54-09900024.07 12
Laboratory Reference No. 0003-095

Dear Kathleen:

Enclosed are the analytical results and associated quality control data for samples submitted on March 13, 2000.

The standard policy of OnSite Environmental Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

- Soil VOC MS/MSD 03-095-02: The duplicate RPD was above the control limit for toluene at 14%. The associated MS/MSD percent recoveries were within the control limits; therefore, no data were qualified.

Surrogate Recoveries

Surrogate compounds were used in the analysis of organic compounds to monitor analyte extraction efficiency/method accuracy on a per sample basis. Surrogate recoveries were within the control limits. No data require qualification based on surrogate percent recoveries.

Reporting Limits

To ensure that the level of sensitivity required for project goals was met, reporting limits were reviewed. The reporting limits were met or exceeded the requested reporting limits.

Summary

The data reviewed are acceptable for use based on a majority of acceptable quality control data. The data generally meet criteria specified in the scope of work. The data may be used to assess analyte concentrations without qualification.

Date of Report: March 20, 2000
Samples Submitted: March 13, 2000
Lab Traveler: 03-095
Project: 54-09900024.12

NWTPH-G/BTEX

Date Extracted: 3-14-00
Date Analyzed: 3-17-00

Matrix: Soil
Units: mg/Kg (ppm)

Client ID:	URSSB-OP1-6			URSSB-OP1-18		
Lab ID:	03-095-01			03-095-02		
	Result	Flags	PQL	**Result**	Flags	PQL
Benzene	ND		0.056	ND		0.056
Toluene	ND		0.056	ND		0.056
Ethyl Benzene	ND		0.056	ND		0.056
m,p-Xylene	ND		0.056	ND		0.056
o-Xylene	ND		0.056	ND		0.056
TPH-Gas	ND		5.6	ND		5.6
Surrogate Recovery: Fluorobenzene	85%			102%		

Date of Report: March 20, 2000
Samples Submitted: March 13, 2000
Lab Traveler: 03-095
Project: 54-09900024.12

NWTPH-G/BTEX

Date Extracted: 3-14-00
Date Analyzed: 3-17-00

Matrix: Soil
Units: mg/Kg (ppm)

Client ID:	URSSB-OP3-18			URSSB-OP4-8		
Lab ID:	03-095-06			03-095-07		
	Result	Flags	PQL	Result	Flags	PQL
Benzene	ND		0.056	ND		0.054
Toluene	ND		0.056	ND		0.054
Ethyl Benzene	ND		0.056	ND		0.054
m,p-Xylene	ND		0.056	ND		0.054
o-Xylene	ND		0.056	ND		0.054
TPH-Gas	ND		5.6	ND		5.4
Surrogate Recovery: Fluorobenzene	101%			110%		

Date of Report: March 20, 2000
Samples Submitted: March 13, 2000
Lab Traveler: 03-095
Project: 54-09900024.12

NWTPH-G/BTEX

Date Extracted: 3-14-00
Date Analyzed: 3-17-00

Matrix: Soil
Units: mg/Kg (ppm)

Client ID:	URSSB-OP7-16			URSSB-OP8-8		
Lab ID:	03-095-12			03-095-13		
	Result	Flags	PQL	**Result**	Flags	PQL
Benzene	ND		0.054	ND		0.056
Toluene	ND		0.054	ND		0.056
Ethyl Benzene	ND		0.054	ND		0.056
m,p-Xylene	ND		0.054	ND		0.056
o-Xylene	ND		0.054	ND		0.056
TPH-Gas	ND		5.4	ND		5.6
Surrogate Recovery: Fluorobenzene	112%			110%		

Date of Report: March 20, 2000
Samples Submitted: March 13, 2000
Lab Traveler: 03-095
Project: 54-09900024.12

NWTPH-G/BTEX
METHOD BLANK QUALITY CONTROL

Date Extracted: 3-14-00
Date Analyzed: 3-14-00

Matrix: Soil
Units: mg/Kg (ppm)

Lab ID: MB0314S1

	Result	Flags	PQL
Benzene	ND		0.050
Toluene	ND		0.050
Ethyl Benzene	ND		0.050
m,p-Xylene	ND		0.050
o-Xylene	ND		0.050
TPH-Gas	ND		5.0
Surrogate Recovery: Fluorobenzene	96%		

Date of Report: March 20, 2000
Samples Submitted: March 13, 2000
Lab Traveler: 03-095
Project: 54-09900024.12

NWTPH-G/BTEX
DUPLICATE QUALITY CONTROL

Date Extracted: 3-14-00
Date Analyzed: 3-14-00

Matrix: Soil
Units: mg/Kg (ppm)

Lab ID:	03-006-09 Original	03-006-09 Duplicate	RPD	Flags
Benzene	ND	ND	NA	
Toluene	ND	ND	NA	
Ethyl Benzene	ND	ND	NA	
m,p-Xylene	0.089	0.090	1.7	
o-Xylene	ND	ND	NA	
TPH-Gas	67.4	81.7	19	
Surrogate Recovery: Fluorobenzene	69%	80%		

Date of Report: March 20, 2000
Samples Submitted: March 13, 2000
Lab Traveler: 03-095
Project: 54-09900024.12

NWTPH-G/BTEX
SB/SBD QUALITY CONTROL

Date Extracted: 3-14-00
Date Analyzed: 3-14-00

Matrix: Soil
Units: mg/Kg (ppm)

Spike Level: 1.00 ppm

Lab ID:	SB0314S1 **Spike Blank**	Percent Recovery	SB0314S1 DUP **Duplicate**	Percent Recovery	RPD	Flags
Benzene	**0.641**	**64**	**0.754**	75	16	L
Toluene	**0.758**	**76**	**0.808**	81	6.5	
Ethyl Benzene	**0.811**	**81**	**0.975**	98	18	L
m,p-Xylene	**0.964**	**96**	**0.974**	97	1.0	
o-Xylene	**0.958**	**96**	**0.981**	98	2.3	
Surrogate Recovery: Fluorobenzene	68%		97%			

Date of Report: March 20, 2000
Samples Submitted: March 13, 2000
Lab Traveler: 03-095
Project: 54-09900024.12

NWTPH-G/BTEX

Date Extracted: 3-13-00
Date Analyzed: 3-13-00

Matrix: Water
Units: ug/L (ppb)

Client ID: **URSSB-OP10-W**
Lab ID: 03-095-17

	Result	Flags	PQL
MTBE	ND		1.0
Benzene	ND		1.0
Toluene	ND		1.0
Ethyl Benzene	ND		1.0
m,p-Xylene	ND		1.0
o-Xylene	ND		1.0
TPH-Gas	ND		100
Surrogate Recovery:			
Fluorobenzene	75%		

Date of Report: March 20, 2000
Samples Submitted: March 13, 2000
Lab Traveler: 03-095
Project: 54-09900024.12

NWTPH-G/BTEX
METHOD BLANK QUALITY CONTROL

Date Extracted: 3-14-00
Date Analyzed: 3-14-00

Matrix: Water
Units: ug/L (ppb)

Lab ID: MB0314W1

	Result	Flags	PQL
MTBE	ND		1.0
Benzene	ND		1.0
Toluene	ND		1.0
Ethyl Benzene	ND		1.0
m,p-Xylene	ND		1.0
o-Xylene	ND		1.0
TPH-Gas	ND		100
Surrogate Recovery: Fluorobenzene	99%		

Date of Report: March 20, 2000
Samples Submitted: March 13, 2000
Lab Traveler: 03-095
Project: 54-09900024.12

NWTPH-G/BTEX
DUPLICATE QUALITY CONTROL

Date Extracted: 3-14-00
Date Analyzed: 3-14-00

Matrix: Water
Units: ug/L (ppb)

Lab ID:	03-106-01 Original	03-106-01 Duplicate	RPD	Flags
MTBE	ND	ND	NA	
Benzene	ND	1.05	NA	
Toluene	ND	ND	NA	
Ethyl Benzene	ND	ND	NA	
m,p-Xylene	ND	ND	NA	
o-Xylene	2.27	2.15	5.3	
TPH-Gas	ND	ND	NA	
Surrogate Recovery: Fluorobenzene	58%	89%		

Date of Report: March 20, 2000
Samples Submitted: March 13, 2000
Lab Traveler: 03-095
Project: 54-09900024.12

NWTPH-G/BTEX
SB/SBD QUALITY CONTROL

Date Extracted: 3-14-00
Date Analyzed: 3-14-00

Matrix: Water
Units: ug/L (ppb)
Spike Level: 50.0 ppb

Lab ID:	SB0314W1 **Spike Blank**	Percent Recovery	SB0314W1 DUP **Duplicate**	Percent Recovery	RPD
MTBE	**45.3**	**91**	**41.1**	**82**	9.8
Benzene	**45.4**	**91**	**43.0**	**86**	5.5
Toluene	**46.3**	**93**	**43.5**	**87**	6.4
Ethyl Benzene	**45.4**	**91**	**41.9**	**84**	8.1
m,p-Xylene	**45.6**	**91**	**42.6**	**85**	6.7
o-Xylene	**46.3**	**93**	**43.0**	**86**	7.4
Surrogate Recovery:					
Fluorobenzene	103%		97%		

Date of Report: March 20, 2000
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Lab Traveler: 03-095
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NWTPH-Dx

Date Extracted:	3-14-00
Date Analyzed:	3-14&15-00
Matrix:	Soil
Units:	mg/Kg (ppm)

Client ID:	URSSB-OP3-6	URSSB-OP3-18	URSSB-OP4-8
Lab ID:	03-095-05	03-095-06	03-095-07
Diesel Fuel:	ND	ND	ND
PQL:	29	28	27
Heavy Oil:	ND	ND	ND
PQL:	59	56	54
Surrogate Recovery:			
o-Terphenyl	79%	81%	74%

Flags:

Date of Report: March 20, 2000
Samples Submitted: March 13, 2000
Lab Traveler: 03-095
Project: 54-09900024.12

NWTPH-Dx

Date Extracted:	3-14-00	
Date Analyzed:	3-14-00	
Matrix:	Soil	
Units:	mg/Kg (ppm)	
Client ID:	URSSB-OP8-8	URSSB-OP8-18
Lab ID:	03-095-13	03-095-14
Diesel Fuel:	ND	ND
PQL:	28	28
Heavy Oil:	ND	ND
PQL:	56	55
Surrogate Recovery:		
o-Terphenyl	75%	63%
Flags:		

Date of Report: March 20, 2000
Samples Submitted: March 13, 2000
Lab Traveler: 03-095
Project: 54-09900024.12

NWTPH-Dx
DUPLICATE QUALITY CONTROL

Date Extracted:	3-14-00
Date Analyzed:	3-14-00
Matrix:	Soil
Units:	mg/Kg (ppm)

Lab ID:	03-091-01	03-091-01 DUP
Diesel Fuel:	ND	ND
PQL:	25	25
RPD:	N/A	
Surrogate Recovery:		
o-Terphenyl	59%	72%

Flags:

Date of Report: March 20, 2000
Samples Submitted: March 13, 2000
Lab Traveler: 03-095
Project: 54-09900024.12

NWTPH-Dx

Date Extracted:	3-15-00		
Date Analyzed:	3-15-00		
Matrix:	Water		
Units:	mg/L (ppm)		
Client ID:	URSSB-OP1-W	URSSB-OP3-W	URSSB-OP10-W
Lab ID:	03-095-15	03-095-16	03-095-17
Diesel Fuel:	ND	ND	ND
PQL:	0.25	0.25	0.25
Heavy Oil:	ND	ND	ND
PQL:	0.50	0.50	0.50
Surrogate Recovery:			
o-Terphenyl	67%	59%	79%

Flags:

Date of Report: March 20, 2000
Samples Submitted: March 13, 2000
Lab Traveler: 03-095
Project: 54-09900024.12

NWTPH-Dx
DUPLICATE QUALITY CONTROL

Date Extracted:	3-15-00
Date Analyzed:	3-15-00
Matrix:	Water
Units:	mg/L (ppm)

Lab ID:	03-095-15	03-095-15 DUP
Diesel Fuel:	ND	ND
PQL:	0.25	0.25
RPD:	N/A	
Surrogate Recovery:		
o-Terphenyl	67%	68%

Flags:

Date of Report: March 20, 2000
Samples Submitted: March 13, 2000
Lab Traveler: 03-095
Project: 54-09900024.12

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Lab ID: 03-095-02
Client ID: URSSB-OP1-18

Compound	Results	Flags	PQL
Methyl Isobutyl Ketone	ND		0.28
Dibromochloromethane	ND		0.056
1,2-Dibromoethane	ND		0.056
Chlorobenzene	ND		0.056
1,1,1,2-Tetrachloroethane	ND		0.056
Ethylbenzene	ND		0.056
m,p-Xylene	ND		0.11
o-Xylene	ND		0.056
Styrene	ND		0.056
Bromoform	ND		0.056
Isopropylbenzene	ND		0.056
Bromobenzene	ND		0.056
1,1,2,2-Tetrachloroethane	ND		0.056
1,2,3-Trichloropropane	ND		0.056
n-Propylbenzene	ND		0.056
2-Chlorotoluene	ND		0.056
4-Chlorotoluene	ND		0.056
1,3,5-Trimethylbenzene	ND		0.056
tert-Butylbenzene	ND		0.056
1,2,4-Trimethylbenzene	ND		0.056
sec-Butylbenzene	ND		0.056
1,3-Dichlorobenzene	ND		0.056
p-Isopropyltoluene	ND		0.056
1,4-Dichlorobenzene	ND		0.056
1,2-Dichlorobenzene	ND		0.056
n-Butylbenzene	ND		0.056
1,2-Dibromo-3-chloropropane	ND		0.28
1,2,4-Trichlorobenzene	ND		0.056
Hexachlorobutadiene	ND		0.056
Naphthalene	ND		0.056
1,2,3-Trichlorobenzene	ND		0.056

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	79	65-125
Toluene-d8	90	77-116
4-Bromofluorobenzene	81	67-133

Date of Report: March 20, 2000
Samples Submitted: March 13, 2000
Lab Traveler: 03-095
Project: 54-09900024.12

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Lab ID: 03-095-04
Client ID: URSSB-OP2-12

Compound	Results	Flags	PQL
Methyl Isobutyl Ketone	ND		0.27
Dibromochloromethane	ND		0.054
1,2-Dibromoethane	ND		0.054
Chlorobenzene	ND		0.054
1,1,1,2-Tetrachloroethane	ND		0.054
Ethylbenzene	ND		0.054
m,p-Xylene	ND		0.11
o-Xylene	ND		0.054
Styrene	ND		0.054
Bromoform	ND		0.054
Isopropylbenzene	ND		0.054
Bromobenzene	ND		0.054
1,1,2,2-Tetrachloroethane	ND		0.054
1,2,3-Trichloropropane	ND		0.054
n-Propylbenzene	ND		0.054
2-Chlorotoluene	ND		0.054
4-Chlorotoluene	ND		0.054
1,3,5-Trimethylbenzene	ND		0.054
tert-Butylbenzene	ND		0.054
1,2,4-Trimethylbenzene	ND		0.054
sec-Butylbenzene	ND		0.054
1,3-Dichlorobenzene	ND		0.054
p-Isopropyltoluene	ND		0.054
1,4-Dichlorobenzene	ND		0.054
1,2-Dichlorobenzene	ND		0.054
n-Butylbenzene	ND		0.054
1,2-Dibromo-3-chloropropane	ND		0.27
1,2,4-Trichlorobenzene	ND		0.054
Hexachlorobutadiene	ND		0.054
Naphthalene	ND		0.054
1,2,3-Trichlorobenzene	ND		0.054

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	118	65-125
Toluene-d8	102	77-116
4-Bromofluorobenzene	110	67-133

Date of Report: March 20, 2000
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Lab ID: 03-095-08
Client ID: URSSB-OP5-12

Compound	Results	Flags	PQL
Methyl Isobutyl Ketone	ND		0.27
Dibromochloromethane	ND		0.054
1,2-Dibromoethane	ND		0.054
Chlorobenzene	ND		0.054
1,1,1,2-Tetrachloroethane	ND		0.054
Ethylbenzene	ND		0.054
m,p-Xylene	ND		0.11
o-Xylene	ND		0.054
Styrene	ND		0.054
Bromoform	ND		0.054
Isopropylbenzene	ND		0.054
Bromobenzene	ND		0.054
1,1,2,2-Tetrachloroethane	ND		0.054
1,2,3-Trichloropropane	ND		0.054
n-Propylbenzene	ND		0.054
2-Chlorotoluene	ND		0.054
4-Chlorotoluene	ND		0.054
1,3,5-Trimethylbenzene	ND		0.054
tert-Butylbenzene	ND		0.054
1,2,4-Trimethylbenzene	ND		0.054
sec-Butylbenzene	ND		0.054
1,3-Dichlorobenzene	ND		0.054
p-Isopropyltoluene	ND		0.054
1,4-Dichlorobenzene	ND		0.054
1,2-Dichlorobenzene	ND		0.054
n-Butylbenzene	ND		0.27
1,2-Dibromo-3-chloropropane	ND		0.054
1,2,4-Trichlorobenzene	ND		0.054
Hexachlorobutadiene	ND		0.054
Naphthalene	ND		0.054
1,2,3-Trichlorobenzene			

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	122	65-125
Toluene-d8	102	77-116
4-Bromofluorobenzene	108	67-133

Date of Report: March 20, 2000
Samples Submitted: March 13, 2000
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Lab ID: 03-095-10
Client ID: URSSB-OP6-20

Compound	Results	Flags	PQL
Methyl Isobutyl Ketone	ND		0.27
Dibromochloromethane	ND		0.054
1,2-Dibromoethane	ND		0.054
Chlorobenzene	ND		0.054
1,1,1,2-Tetrachloroethane	ND		0.054
Ethylbenzene	ND		0.054
m,p-Xylene	ND		0.11
o-Xylene	ND		0.054
Styrene	ND		0.054
Bromoform	ND		0.054
Isopropylbenzene	ND		0.054
Bromobenzene	ND		0.054
1,1,2,2-Tetrachloroethane	ND		0.054
1,2,3-Trichloropropane	ND		0.054
n-Propylbenzene	ND		0.054
2-Chlorotoluene	ND		0.054
4-Chlorotoluene	ND		0.054
1,3,5-Trimethylbenzene	ND		0.054
tert-Butylbenzene	ND		0.054
1,2,4-Trimethylbenzene	ND		0.054
sec-Butylbenzene	ND		0.054
1,3-Dichlorobenzene	ND		0.054
p-Isopropyltoluene	ND		0.054
1,4-Dichlorobenzene	ND		0.054
1,2-Dichlorobenzene	ND		0.054
n-Butylbenzene	ND		0.054
1,2-Dibromo-3-chloropropane	ND		0.27
1,2,4-Trichlorobenzene	ND		0.054
Hexachlorobutadiene	ND		0.054
Naphthalene	ND		0.054
1,2,3-Trichlorobenzene	ND		0.054

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	120	65-125
Toluene-d8	108	77-116
4-Bromofluorobenzene	110	67-133

Date of Report: March 20, 2000
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Lab ID: MB0313S1

Compound	Results	Flags	PQL
Methyl Isobutyl Ketone	ND		0.25
Dibromochloromethane	ND		0.050
1,2-Dibromoethane	ND		0.050
Chlorobenzene	ND		0.050
1,1,1,2-Tetrachloroethane	ND		0.050
Ethylbenzene	ND		0.050
m,p-Xylene	ND		0.10
o-Xylene	ND		0.050
Styrene	ND		0.050
Bromoform	ND		0.050
Isopropylbenzene	ND		0.050
Bromobenzene	ND		0.050
1,1,2,2-Tetrachloroethane	ND		0.050
1,2,3-Trichloropropane	ND		0.050
n-Propylbenzene	ND		0.050
2-Chlorotoluene	ND		0.050
4-Chlorotoluene	ND		0.050
1,3,5-Trimethylbenzene	ND		0.050
tert-Butylbenzene	ND		0.050
1,2,4-Trimethylbenzene	ND		0.050
sec-Butylbenzene	ND		0.050
1,3-Dichlorobenzene	ND		0.050
p-Isopropyltoluene	ND		0.050
1,4-Dichlorobenzene	ND		0.050
1,2-Dichlorobenzene	ND		0.050
n-Butylbenzene	ND		0.25
1,2-Dibromo-3-chloropropane	ND		0.050
1,2,4-Trichlorobenzene	ND		0.050
Hexachlorobutadiene	ND		0.050
Naphthalene	ND		0.050
1,2,3-Trichlorobenzene			

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	74	65-125
Toluene-d8	111	77-116
4-Bromofluorobenzene	98	67-133

Date of Report: March 20, 2000
Samples Submitted: March 13, 2000
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Date Extracted:	3-17-00
Date Analyzed:	3-17-00
Matrix:	Water
Units:	ug/L (ppb)
Lab ID:	03-095-15
Client ID:	**URSSB-OP1-W**

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		1.0
Chloromethane	ND		1.0
Vinyl Chloride	ND		1.0
Bromomethane	ND		1.0
Chloroethane	ND		1.0
Trichlorofluoromethane	ND		1.0
1,1-Dichloroethene	ND		1.0
Acetone	ND		5.0
Carbon Disulfide	ND		1.0
Methylene Chloride	ND		5.0
(trans) 1,2-Dichloroethene	ND		1.0
1,1-Dichloroethane	ND		1.0
Vinyl Acetate	ND		5.0
2,2-Dichloropropane	ND		1.0
(cis) 1,2-Dichloroethene	ND		1.0
2-Butanone	ND		20
Chloroform	ND		1.0
1,1,1-Trichloroethane	ND		1.0
Carbon Tetrachloride	ND		1.0
1,1-Dichloropropene	ND		1.0
Benzene	ND		1.0
1,2-Dichloroethane	ND		1.0
Trichloroethene	ND		1.0
1,2-Dichloropropane	ND		1.0
Dibromomethane	ND		1.0
Bromodichloromethane	ND		1.0
2-Chloroethyl Vinyl Ether	ND		5.0
(cis) 1,3-Dichloropropene	ND		1.0
Toluene	ND		2.0
(trans) 1,3-Dichloropropene	ND		1.0
1,1,2-Trichloroethane	ND		1.0
Tetrachloroethene	2.1		1.0
1,3-Dichloropropane	ND		1.0

Date of Report: March 20, 2000
Samples Submitted: March 13, 2000
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Date Extracted:	3-17-00
Date Analyzed:	3-17-00
Matrix:	Water
Units:	ug/L (ppb)
Lab ID:	03-095-16
Client ID:	**URSSB-OP3-W**

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		1.0
Chloromethane	ND		1.0
Vinyl Chloride	ND		1.0
Bromomethane	ND		1.0
Chloroethane	ND		1.0
Trichlorofluoromethane	ND		1.0
1,1-Dichloroethene	ND		1.0
Acetone	ND		20
Carbon Disulfide	ND		1.0
Methylene Chloride	ND		5.0
(trans) 1,2-Dichloroethene	ND		1.0
1,1-Dichloroethane	ND		1.0
Vinyl Acetate	ND		5.0
2,2-Dichloropropane	ND		1.0
(cis) 1,2-Dichloroethene	ND		1.0
2-Butanone	ND		20
Chloroform	ND		1.0
1,1,1-Trichloroethane	ND		1.0
Carbon Tetrachloride	ND		1.0
1,1-Dichloropropene	ND		1.0
Benzene	ND		1.0
1,2-Dichloroethane	ND		1.0
Trichloroethene	ND		1.0
1,2-Dichloropropane	ND		1.0
Dibromomethane	ND		1.0
Bromodichloromethane	ND		5.0
2-Chloroethyl Vinyl Ether	ND		1.0
(cis) 1,3-Dichloropropene	ND		1.0
Toluene	ND		1.0
(trans) 1,3-Dichloropropene	ND		1.0
1,1,2-Trichloroethane	1.7		1.0
Tetrachloroethene	ND		1.0
1,3-Dichloropropane			

Date of Report: March 20, 2000
Samples Submitted: March 13, 2000
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Date Extracted: 3-17-00
Date Analyzed: 3-17-00

Matrix: Water
Units: ug/L (ppb)

Lab ID: 03-095-17
Client ID: URSSB-OP10-W

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		1.0
Chloromethane	ND		1.0
Vinyl Chloride	ND		1.0
Bromomethane	ND		1.0
Chloroethane	ND		1.0
Trichlorofluoromethane	ND		1.0
1,1-Dichloroethene	ND		1.0
Acetone	ND		20
Carbon Disulfide	ND		1.0
Methylene Chloride	ND		5.0
(trans) 1,2-Dichloroethene	ND		1.0
1,1-Dichloroethane	ND		1.0
Vinyl Acetate	ND		5.0
2,2-Dichloropropane	ND		1.0
(cis) 1,2-Dichloroethene	ND		1.0
2-Butanone	ND		20
Chloroform	ND		1.0
1,1,1-Trichloroethane	ND		1.0
Carbon Tetrachloride	ND		1.0
1,1-Dichloropropene	ND		1.0
Benzene	ND		1.0
1,2-Dichloroethane	ND		1.0
Trichloroethene	ND		1.0
1,2-Dichloropropane	ND		1.0
Dibromomethane	ND		1.0
Bromodichloromethane	ND		1.0
2-Chloroethyl Vinyl Ether	ND		5.0
(cis) 1,3-Dichloropropene	ND		1.0
Toluene	ND		1.0
(trans) 1,3-Dichloropropene	ND		1.0
1,1,2-Trichloroethane	ND		1.0
Tetrachloroethene	1.5		1.0
1,3-Dichloropropane	ND		1.0

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Samples Submitted: March 13, 2000
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Project: 54-09900024.12

VOLATILES by EPA 8260B
METHOD BLANK QUALITY CONTROL
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Date Extracted: 3-17-00
Date Analyzed: 3-17-00

Matrix: Water
Units: ug/L (ppb)

Lab ID: MB0317W1

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		1.0
Chloromethane	ND		1.0
Vinyl Chloride	ND		1.0
Bromomethane	ND		1.0
Chloroethane	ND		1.0
Trichlorofluoromethane	ND		1.0
1,1-Dichloroethene	ND		1.0
Acetone	ND		5.0
Carbon Disulfide	ND		1.0
Methylene Chloride	ND		5.0
(trans) 1,2-Dichloroethene	ND		1.0
1,1-Dichloroethane	ND		1.0
Vinyl Acetate	ND		5.0
2,2-Dichloropropane	ND		1.0
(cis) 1,2-Dichloroethene	ND		1.0
2-Butanone	ND		20
Chloroform	ND		1.0
1,1,1-Trichloroethane	ND		1.0
Carbon Tetrachloride	ND		1.0
1,1-Dichloropropene	ND		1.0
Benzene	ND		1.0
1,2-Dichloroethane	ND		1.0
Trichloroethene	ND		1.0
1,2-Dichloropropane	ND		1.0
Dibromomethane	ND		1.0
Bromodichloromethane	ND		5.0
2-Chloroethyl Vinyl Ether	ND		1.0
(cis) 1,3-Dichloropropene	ND		2.0
Toluene	ND		1.0
(trans) 1,3-Dichloropropene	ND		1.0
1,1,2-Trichloroethane	ND		1.0
Tetrachloroethene	ND		1.0
1,3-Dichloropropane			

Date of Report: March 20, 2000
Samples Submitted: March 13, 2000
Lab Traveler: 03-095
Project: 54-09900024.12

VOLATILES by EPA 8260B
SB/SBD QUALITY CONTROL

Date Extracted: 3-17-00
Date Analyzed: 3-17-00

Matrix: Water
Units: ug/L (ppb)

Lab ID: SB0316W1

Compound	Spike Amount	SB	Percent Recovery	SBD	Percent Recovery	RPD	Flags
1,1-Dichloroethene	50.0	50.4	101	51.3	103	1.8	
Benzene	50.0	42.1	84	43.8	88	4.1	
Trichloroethene	50.0	43.6	87	46.4	93	6.2	
Toluene	50.0	51.0	102	49.4	99	3.2	
Chlorobenzene	50.0	48.5	97	49.3	99	1.7	

Date of Report: March 20, 2000
Samples Submitted: March 13, 2000
Lab Traveler: 03-095
Project: 54-09900024.12

TOTAL METALS
EPA 6010B/7471A

Date Extracted: 3-14-00
Date Analyzed: 3-14&15-00

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: 03-095-14
Client ID: URSSB-0P8-18

Analyte	Method	Result	PQL
Arsenic	6010B	ND	11
Barium	6010B	44	2.7
Cadmium	6010B	ND	0.55
Chromium	6010B	18	0.55
Lead	6010B	ND	5.5
Mercury	7471A	ND	0.27
Selenium	6010B	ND	11
Silver	6010B	ND	0.55

Date of Report: March 20, 2000
Samples Submitted: March 13, 2000
Lab Traveler: 03-095
Project: 54-09900024.12

TOTAL METALS
EPA 6010B/7471A
DUPLICATE QUALITY CONTROL

Date Extracted: 3-14-00
Date Analyzed: 3-14,15&16-00

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: 03-060-02

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Arsenic	ND	ND	NA	10	
Barium	34.3	32.1	6.8	2.5	
Cadmium	ND	ND	NA	0.50	
Chromium	14.6	12.1	18	0.50	
Lead	ND	ND	NA	5.0	
Mercury	ND	ND	NA	0.25	
Selenium	ND	ND	NA	5.0	
Silver	ND	ND	NA	0.50	

Date of Report: March 20, 2000
Samples Submitted: March 13, 2000
Lab Traveler: 03-095
Project: 54-09900024.12

Dissolved Metals
EPA 6010B/7000A Series

Date Filtered: 3-11-00
Date Analyzed: 3-16,20,&21-00

Matrix: Water
Units: ug/L (ppb)

Lab ID: 03-095-15
Client ID: URSSB-OP1-W

Analyte	Method	Result	PQL
Arsenic	7060A	**19**	3.0
Barium	6010B	**ND**	10
Cadmium	6010B	**ND**	4.0
Chromium	6010B	**ND**	10
Lead	7421A	**ND**	1.0
Mercury	7470A	**ND**	0.50
Selenium	7740A	**ND**	5.0
Silver	6010B	**ND**	10

Date of Report: March 20, 2000
Samples Submitted: March 13, 2000
Lab Traveler: 03-095
Project: 54-09900024.12

Dissolved Metals
EPA 6010B/7000A Series

Date Filtered: 3-11-00
Date Analyzed: 3-16,20,&21-00

Matrix: Water
Units: ug/L (ppb)

Lab ID: 03-095-17
Client ID: URSSB-OP10-W

Analyte	Method	Result	PQL
Arsenic	7060A	**ND**	3.0
Barium	6010B	**ND**	10
Cadmium	6010B	**ND**	4.0
Chromium	6010B	**ND**	10
Lead	7421A	**ND**	1.0
Mercury	7470A	**ND**	0.50
Selenium	7740A	**ND**	5.0
Silver	6010B	**ND**	10

Date of Report: March 20, 2000
Samples Submitted: March 13, 2000
Lab Traveler: 03-095
Project: 54-09900024.12

Dissolved Metals
EPA 6010B/7000A Series
DUPLICATE QUALITY CONTROL

Date Filtered: 3-11-00
Date Analyzed: 3-16,20,&21-00

Matrix: Water
Units: ug/L (ppb)

Lab ID: 03-095-15

Analyte	Method	Sample Result	Duplicate Result	RPD	PQL	Flags
Arsenic	7060A	**18.7**	**18.3**	2.2	3.0	
Barium	6010B	**ND**	**ND**	NA	10	
Cadmium	6010B	**ND**	**ND**	NA	4.0	
Chromium	6010B	**ND**	**ND**	NA	10	
Lead	7421A	**ND**	**ND**	NA	1.0	
Mercury	7470A	**ND**	**ND**	NA	0.50	
Selenium	7740A	**ND**	**ND**	NA	5.0	
Silver	6010B	**ND**	**ND**	NA	10	

Date of Report: March 20, 2000
Samples Submitted: March 13, 2000
Lab Traveler: 03-095
Project: 54-09900024.12

Date Analyzed: 3-14-00

% MOISTURE

Client ID	Lab ID	% Moisture
URSSB-OP1-6	03-095-01	11
URSSB-OP1-18	03-095-02	11
URSSB-OP2-12	03-095-04	8.0
URSSB-OP3-6	03-095-05	15
URSSB-OP3-18	03-095-06	11
URSSB-OP4-8	03-095-07	8.0
URSSB-OP5-12	03-095-08	8.0
URSSB-OP6-20	03-095-10	7.0
URSSB-OP7-16	03-095-12	7.0
URSSB-OP8-8	03-095-13	10
URSSB-OP8-18	03-095-14	9.0

OnSite Environmental Inc.

DATA QUALIFIERS AND ABBREVIATIONS

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

D - Data from 1:____ dilution.

E - The value reported exceeds the quantitation range, and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

G - Insufficient sample quantity for duplicate analysis.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeniety. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range (toluene-napthalene) are present in the sample.

O - Hydrocarbons outside the defined gasoline range are present in the sample; NWTPH-Dx recommended.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a silica gel cleanup procedure.

Y - Sample extract treated with an acid cleanup procedure.

Z -

ND - Not Detected
MRL - Method Reporting Limit
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

Page 1 of 1

Chain of Custody

OnSite Environmental Inc.
14648 NE 95th Street • Redmond, WA 98052
Fax: (425) 885-4603 • Phone: (425) 883-3881

Laboratory No. 03-095

Project Chemist: [illegible]

Company: URS Greiner

Project No.: 54.099000.24.12 (PH 3/21)

Project Name: Sound Transit - Greiner

Project Manager: Kathleen Goodman

Turnaround Request (in working days) (Check One)

- [ ] Same Day
- [ ] 1 Day
- [ ] 2 Day
- [ ] 3 Day
- [X] Standard (Hydrocarbon analyses: 5 days, All other analyses: 7 days)
- [ ] 3/20 - 3/21 (other)

Requested Analysis

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	# of Cont.	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Dx	Volatiles by 8260B	Halogenated Volatiles by 8260B	Semivolatiles by 8270C	PAHs by 8270C	PCB's by 8082	Pesticides by 8081	Total RCRA Metals (8)	TCLP Metals	VPH	EPH	% Moisture
1	URSSB-OP1-6	[illegible]	[illegible]	Soil	4		X	X											X
2	URSSB-OP1-18	↓	0900	↓	↓		X	X	X										X
3	URSSB-OP2-6	↓	0930	↓	↓	HOLD													X
4	URSSB-OP2-12	↓	1000	↓	↓		X	X	X										X
5	URSSB-OP3-6	↓	1030	↓	↓		X	X											X
6	URSSB-OP3-18	↓	1100	↓	↓		X	X											X
7	URSSB-OP4-8	↓	1130	↓	↓		X	X											X
8	URSSB-OP5-~~14~~ 12 (DR 3/13)	↓	1230	↓	↓		X	X	X										X
9	URSSB-OP6-8	↓	1320	↓	↓	HOLD													X
10	URSSB-OP6-20	↓	1400	↓	↓		X	X	X						X				X
11	URSSB-OP7-8	↓	1440	↓	↓	HOLD													X
12	URSSB-OP7-16	↓	1505	↓	↓		X	X											X

Relinquished by	Date	Received by	Date
[signature]	3/13/00	[signature]	3/13/00
Firm: URS Greiner	Time: 1020	Firm: OSE	Time: 10:26
Relinquished by:	Date:	Received by:	Date:
Firm:	Time:	Firm:	Time:
Reviewed by:		Date Reviewed:	

Comments:

Chromatographs with final report ☐

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OnSite Environmental Inc.

14924 NE 31st Circle • Redmond, WA 98052
Fax: (206) 885-4603 • Phone: (206) 883-3881

Company: URS Greiner
Project No: 54-09900024-12 (07) PH 3/21
Project Name: Sound Transit - Optimer
Project Manager: Kathleen Goodman

Turn Around Requested (Check One)
- ☐ Same Day
- ☐ 24 Hours
- ☐ 48 Hours
- ☒ Standard 3/20
- ☐ (other) 3/21

Project Chemist: DB
Laboratory No. 03-095

Requested Analysis

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	# of Cont.	WTPH-HCID	WTPH-G/BTEX	WTPH-D	WTPH-418.1	Volatiles by 8240/624	Volatiles by 8260	Chlorinated Volatiles by 8240/8260/624	Semivolatiles by 8270/625	PAHs by 8270/625	PCB's by 8080/608	Total RCRA Metals (8)	TCLP Metals	Dissolved Metals	MTBE	% Moisture
13	URSSB-OP8-8	3/11/00	1530	Soil	4		X	X								X				X
14	URSSB-OP8-18		1550	Soil	4		X	X								X				X
15	URSSB-OP1-W		0920	W	6		X	X			X					X		X	X	
16	URSSB-OP3-W		1110	W	6		X	X			X					X		X	X	
17	URSSB-OP10-W	↓	1700	W	6		X	X			X					X		X	X	
																		Silt		

RELINQUISHED BY	DATE	RECEIVED BY	DATE
John Rapp	3/13/00	[illegible]	3/13/00
FIRM: URS Greiner	TIME: 1020	FIRM: OSE	TIME: 10:20
RELINQUISHED BY	DATE	RECEIVED BY	DATE
FIRM	TIME	FIRM	TIME
REVIEWED BY		DATE REVIEWED	

COMMENTS: Water samples were field filtered.

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