GROUNDWATER SAMPLING DATA SHEET

URS

Date: 4/10/03 Station ID: MW-5 Page 1 of 1

Project Information

Project Name:	Former NPD Lab SI	Location:	Troutdale, OR
Project/Task No.:	33753523	Weather:	55° Showers
Samplers:	Lillyquist, Niemka	Other:	

Gauging and Purging Data

Station Type:	Monitoring well	Screen Interval:	3.35-18.35 (bgs)
Well Condition:	Fair, Grass Plug @ 10.4' Missing monument lid	Well Diameter:	2
		Annulus Diameter:	
Reference Point:	Marked PVC	Elevation (MSL)	31.91
		Gallons per Casing Foot: (2" well: 0.16 gal/ft; 4" well: 0.65 gal/ft)	0.16 / WV = 2.16 gal
Depth to Water:	3.55	Elevation	28.36
Depth to Bottom:	~19 / 17.95 with mud	Feet of Water:	13.5
		Gallons per Annulus Foot: (8" annulus with 2" casing = 1.85 gal/ft; 6" annulus with 2" casing = 1.34 gal/ft)	
Depth to LNAPL:	not collected	Thickness:	
		One Purge Volume:	Low-Flow
LNAPL Description:		Final Purge Volume:	3 liters
		Purge Method:	Bladder Pump
Other:		Water Disposal/Qty:	55 gal Drum / 3 Liters

Containers

Analysis	Type	Primary Qty	MS/MSD Qty
VOCs	40 mL	3	
SVOCs	1 L	1	
PCB/Pest	1 L	1	
Cyanide	500 mL	1	
Total Metals	500 mL	1	
Dissolved Metals	500 mL	1	

Meter Information

Model & Calibration Date

pH: QED Micropurge 4/10/03

ORP:

Conductivity:

DO:

Turbidity:

Temperature:

Other:

Sampling Data

Sample Name:	MW-005 @ 1527
Sample Method:	Bladder Pump FEP lined LDPE
Tubing Depth:	12
Pump Intake Depth:	12

QA/QC Samples:

Duplicate:	
MS/MSD:	
Blank:	Rinsate MW-605 post Sampling (after Decon)
Other:	

Field Parameters

Volume (gallons)	Temperature (°C)	pH (SU)	Conductivity (uS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Time (24 hr)	Water Level (Ft below TOC)	Flow Rate (L/min)
0	13.46	5.79	34.4	259	4.63	112.7	1433	3.57	0.06
0.30	12.91	5.65	34.5	259	3.86	68.9	1438	3.57	0.06
0.60	12.63	5.55	36.4	253	3.23	21.4	1443	3.57	0.06
0.90	12.34	5.50	35.5	240	3.16	32.6	1448	3.57	0.06
1.20	11.99	5.45	35.2	239	3.58	23.6	1453	3.57	0.06
1.50	11.74	5.44	35.0	223	2.78	13.3	1458	3.57	0.06
1.80	11.66	5.48	35.0	219	2.99	8.0	1503	3.57	0.06
2.10	11.69	5.38	35.5	218	3.00	3.4	1508	3.57	0.06
2.40	11.70	5.34	36.1	218	2.76	0	1513	3.57	0.06
2.70	11.65	5.35	36.6	220	2.60	0	1518	3.57	0.06
3	11.68	5.35	36.7	217	2.67	0	1523	3.57	0.06

Comments

0.75 Liters to fill flow-through cell and tubing
Pump slightly lower than planned due to grassy material at 10.5'
Metals Analyses include strontium, uranium

GROUNDWATER SAMPLING DATA SHEET

URS

Date: 4/10/03 Station ID: MW-2 Page 1 of 1

Project Information

Project Name:	Former NPD Lab SI	Location:	Troutdale, OR
Project/Task No.:	33753523	Weather:	55° Rain
Samplers:	Lillyquist, Nimba	Other:	

Gauging and Purging Data

Station Type:	Monitoring well	Screen Interval:	5-20
Well Condition:	Good	Well Diameter:	2
		Annulus Diameter:	
Reference Point:	Marked PVC	Elevation	36.66
		Gallons per Casing Foot: (2" well: 0.16 gal/ft; 4" well: 0.65 gal/ft)	0.16 / WV = 2.31 gal
		Gallons per Annulus Foot: (8" annulus with 2" casing = 1.85 gal/ft; 6" annulus with 2" casing = 1.34 gal/ft)	
Depth to Water:	8.65	Elevation	28.01
Depth to Bottom:	23.09	Feet of Water:	14.44
Depth to LNAPL:	Not collected	Thickness:	
LNAPL Description:		One Purge Volume:	Low-Flow
		Final Purge Volume:	2.8 Liters
		Purge Method:	Bladder Pump
Other:		Water Disposal/Qty:	55 gal drum / 2.8 Liters

Containers

Analysis	Type	Primary Qty	MS/MSD Qty
VOCs	40 mL	3	
SVOCs	1 L	1	
PCB/Pest	1 L	1	
Cyanide	500 mL	1	
Total Metals	500 mL	1	
Dissolved Metals	500 mL	1	

Meter Information

	Model & Calibration Date
pH:	QED Micropurge 4/10/03
ORP:	
Conductivity:	
DO:	
Turbidity:	
Temperature:	
Other:	

Sampling Data

Sample Name:	MW-002 @ 1937
Sample Method:	Bladder Pump FEP lined LDPE tubing
Tubing Depth:	16'
Pump Intake Depth:	16'

QA/QC Samples:

Duplicate:	
MS/MSD:	
Blank:	
Other:	

Field Parameters

Volume ~~(gallons)~~ LTR	Temperature (°C)	pH (SU)	Conductivity (uS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Time (24 hr)	Water Level (Ft below TOC)	Flow Rate (L/min)
0	12.51	5.70	29.3	268	2.93	0.0	1853	8.64	0.07
0.35	12.34	5.64	29.6	269	2.79	0.0	1858	8.64	0.07
0.70	12.23	5.63	30.0	273	2.40	0.0	1903	8.64	0.07
1.05	12.12	5.56	30.0	274	2.44	0.0	1908	8.64	0.07
1.40	12.06	5.56	30.5	275	2.36	0.0	1913	8.64	0.07
1.75	12.00	5.53	30.7	276	2.21	0.0	1918	8.64	0.07
2.10	11.99	5.56	30.5	275	2.02	0.0	1923	8.64	~~0.07~~ 0.07
2.45	11.95	5.56	30.9	277	2.01	0.0	1928	8.64	0.07
2.80	11.94	5.51	30.8	278	1.92	0.0	1933	8.64	0.07

Comments

0.75 liters to fill flow-through cell and tubing
Metals Analyses include strontium, uranium

GROUNDWATER SAMPLING DATA SHEET

URS

Date: 4/11/03 Station ID: MW-6 Page 1 of 1

Project Information

Project Name:	Former NDP Lab SI	Location:	Troutdale, OR
Project/Task No.:	33753523	Weather:	45° Showers
Samplers:	Lillybrick Nimba	Other:	

Gauging and Purging Data

Station Type:	Monitoring well	Screen Interval:	3.2 - 18.2 (bgs)
Well Condition:	Fair, Grass Plug at ≈ 8.6'	Well Diameter:	2
		Annulus Diameter:	
Reference Point:	Marked PVC	Elevation	32.09
Gallons per Casing Foot: (2" well: 0.16 gal/ft; 4" well: 0.65 gal/ft)	0.16 / WV = 2.31 gal		
Depth to Water:	3.68	Elevation	28.41
Gallons per Annulus Foot: (8" annulus with 2" casing = 1.85 gal/ft; 6" annulus with 2" casing = 1.34 gal/ft)			
Depth to Bottom:	18.13	Feet of Water:	14.45
One Purge Volume:	Low-Flow		
Depth to LNAPL:	Not collected	Thickness:	
Final Purge Volume:	3.6 liters		
LNAPL Description:		Purge Method:	Bladder Pump
Other:		Water Disposal/Qty:	55 gal drum / 3.6 liters

Containers

Analysis	Type	Primary Qty	MS/MSD Qty
VOCs	40 mL	3	
SVOCs	1 L	1	
PCB/Pest	1 L	1	
Total Metals	500 mL	1	
Dissolved Metals	500 mL	1	
Cyanide	500 mL	1	

Meter Information

Model & Calibration Date

pH: QED Micropurge 4/4/03

ORP:

Conductivity:

DO:

Turbidity:

Temperature:

Other:

Sampling Data

Sample Name:	MW-006 @
Sample Method:	Bladder Pump with FEP lined LDPE
Tubing Depth:	11
Pump Intake Depth:	11

QA/QC Samples:

Duplicate:	
MS/MSD:	
Blank:	
Other:	

Field Parameters

Volume ~~(gallons)~~ LTR	Temperature (°C)	pH (SU)	Conductivity (uS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Time (24 hr)	Water Level (Ft below TOC)	Flow Rate (L/min)
0	10.91	6.07	407.4	286	2.46	291.6	0820	3.69	0.06
0.30	10.61	6.38	413.2	280	2.29	247.1	0825	3.69	0.06
0.60	10.50	6.50	415.9	275	2.18	256.3	0830	3.69	0.06
0.90	10.44	6.57	416.8	270	2.27	234.6	0835	3.69	0.06
1.20	10.39	6.65	418.0	269	2.26	231.5	0840	3.69	0.06
1.50	10.38	6.65	418.1	266	2.32	222.2	0845	3.69	0.06
1.80	10.38	6.70	419.7	264	2.28	212.7	0850	3.69	0.06
2.10	10.36	6.71	419.8	263	2.29	162.3	0855	3.69	0.06
2.40	10.38	6.72	419.3	262	2.26	114.2	0900	3.69	0.06
2.70	10.49	6.73	421.0	260	2.26	78.2	0905	3.69	0.06
3.00	10.53	6.75	422.0	259	2.25	52.1	0910	3.69	0.06
3.30	10.58	6.76	421.8	258	2.21	91.7	0915	3.69	0.06
3.60	10.63	6.77	421.0	257	2.23	104.3	0920	3.69	0.06

Comments

0.75 Liters to fill Flow-through cell, tubing

Turbidity did not stabilize after 1 hour (Plan max for purging)

Metals Analyses include strontium, uranium

GROUNDWATER SAMPLING DATA SHEET

URS

Date: 4/11/03 Station ID: MW-4 Page 1 of 1

Project Information

Project Name:	Former NDP Lab SI	Location:	Troutdale, OR
Project/Task No.:	33753523	Weather:	55° Partly Sunny
Samplers:	Lillyquist, Namba	Other:	

Gauging and Purging Data

Station Type:	Monitoring well	Screen Interval:	3.5-18.5 (bgs)
Well Condition:	Fair, Grass Plug at 10.8'	Well Diameter:	2
		Annulus Diameter:	
Reference Point:	Marked PVC	Elevation	34.76
		Gallons per Casing Foot: (2" well: 0.16 gal/ft; 4" well: 0.65 gal/ft)	0.16 / WV = 1.93 gal
Depth to Water:	6.82	Elevation	27.94
		Gallons per Annulus Foot: (8" annulus with 2" casing = 1.85 gal/ft; 6" annulus with 2" casing = 1.34 gal/ft)	
Depth to Bottom:	18.90	Feet of Water:	12.08
Depth to LNAPL:	Not Collected	Thickness:	
		One Purge Volume:	Low-Flow
LNAPL Description:		Final Purge Volume:	2.4 Liters
		Purge Method:	Bladder Pump
Other:		Water Disposal/Qty:	55 gal drum / 2.4 Liters

Containers

Analysis	Type	Primary Qty	MS/MSD Qty
VOCs	40mL	3	
SVOCs	1L	1	
PCB/Pest	1L	1	
Total Metals	500 mL	1	
Dissolved Metals	500 mL	1	
Cyanide	500 mL	1	

Meter Information

Model & Calibration Date

pH: QED Micropurge 4/11/03

ORP:

Conductivity:

DO:

Turbidity:

Temperature:

Other:

Sampling Data

Sample Name:	MW-004 @ 1255
Sample Method:	Bladder Pump with FEP lined LDPE
Tubing Depth:	13
Pump Intake Depth:	13

QA/QC Samples:

Duplicate:	
MS/MSD:	
Blank:	
Other:	

Field Parameters

Volume ~~(gallons)~~	Temperature (°C)	pH (SU)	Conductivity (uS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Time (24 hr)	Water Level (Ft below TOC)	Flow Rate (L/min)
0	15.31	6.65	186.7	-11	1.58	38.5	1222	6.83	0.08
0.4	14.93	6.47	187.9	-7	1.16	16.0	1227	6.83	0.08
0.8	14.26	6.35	188.2	-10	1.23	0.0	1232	6.83	0.08
1.2	13.94	6.28	188.9	-14	0.85	0.0	1237	6.83	0.08
1.6	14.05	6.26	189.7	-18	0.74	0.0	1242	6.83	0.08
2.0	14.03	6.23	189.6	-18	0.70	0.0	1247	6.83	0.08
2.4	13.91	6.22	189.9	-19	0.63	0.0	1252	6.83	0.08

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Comments

0.75 Liters to fill flow-through cell and tubing
Metals Analyses include strontium and uranium

GROUNDWATER SAMPLING DATA SHEET

URS

Date: 4/11/03 Station ID: MW-1 Page 1 of 1

Project Information

Project Name:	Former NDP Lab SI	Location:	Troutdale, OR
Project/Task No.:	33753523	Weather:	55° Partly Sunny
Samplers:	Lillyhirk, Numba	Other:	

Gauging and Purging Data

Station Type:	Monitoring well	Screen Interval:	4.5-19.5 (bgs)
Well Condition:	Good	Well Diameter:	2
		Annulus Diameter:	
Reference Point:	Marked PVC	Elevation	38.62
		Gallons per Casing Foot: (2" well: 0.16 gal/ft; 4" well: 0.65 gal/ft)	0.16 / WV = 1.75 gal
		Gallons per Annulus Foot: (8" annulus with 2" casing = 1.85 gal/ft; 6" annulus with 2" casing = 1.34 gal/ft)	
Depth to Water:	11.02	Elevation	27.60
Depth to Bottom:	21.94	Feet of Water:	10.92
Depth to LNAPL:	not collected	Thickness:	
LNAPL Description:		One Purge Volume:	Low-Flow
		Final Purge Volume:	4.4 Liters
		Purge Method:	Bladder Pump
Other:		Water Disposal/Qty:	55-gal Drum / 4.4 liters

Containers

Analysis	Type	Primary Qty	MS/MSD Qty
VOCs	40mL	3	6
SVOCs	1L	1	2
PCB/Pest	1L	1	2
Total Metals	500mL	1	2
Dissolved Metals	500mL	1	2
Cyanide	500mL	1	2

Meter Information

Model & Calibration Date

pH:	QED Micropurge 4/11/03
ORP:	
Conductivity:	
DO:	
Turbidity:	
Temperature:	
Other:	

Sampling Data

Sample Name:	MW-001 @ 1515
Sample Method:	Bladder Pump with FEP lined LDPE
Tubing Depth:	16.5
Pump Intake Depth:	16.5

QA/QC Samples:

Duplicate:	
MS/MSD:	For all analytes
Blank:	
Other:	

Field Parameters

Volume ~~(gallons)~~ LTR	Temperature (°C)	pH (SU)	Conductivity (uS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Time (24 hr)	Water Level (Ft below TOC)	Flow Rate (L/min)
0	15.79	6.24	111.7	74	1.26	0.0	1432	11.00	0.110
0.55	15.99	6.21	111.6	83	1.11	0.0	1437	11.00	0.110
1.10	15.63	6.16	112.1	97	1.00	0.0	1442	11.01	0.110
1.65	15.08	6.15	111.3	110	0.97	0.0	1447	11.01	0.110
2.20	14.69	6.13	111.3	120	0.96	0.0	1452	11.01	0.110
2.75	14.52	6.06	111.1	126	0.93	0.0	1457	11.01	0.110
3.30	14.49	6.13	111.2	134	0.93	0.0	1502	11.01	0.110
3.85	14.58	6.05	111.3	137	0.90	0.0	1507	11.01	0.110
4.40	14.57	6.09	110.7	141	0.90	0.0	1512	11.01	0.110

Comments

0.75 liters to fill flow-through cell and tubing
Metals Analyses include strontium and uranium

DAILY CHEMICAL QUALITY CONTROL REPORT

Project Name:
Former NPD Lab site Investigation
Project No./Task No.:
53F0074212.02

Date	9/4/01						
Day	S	M	T	W	TH	F	S

Weather	Bright Sun	Clear	Overcast	Rain	Snow
Temp	To 32	32–50	50–70	70–85	85 up
Wind	Still	Mod.	High	Report No.	
Humidity	Dry	Mod.	Humid		

Subcontractors on Site:

None

Equipment on Site:

None

Description of Work Performed:

URS Mobilization to site:
Load equipment from office & storage
Pick up rental van
Pick up methanol, hexane, analyte-free water from supplier
Pick up containers from Sound Analytical
Drive to site, arrive ~ 3pm
Check equipment and bottle order

Attached Forms:

None

DAILY CHEMICAL QUALITY CONTROL REPORT

Project Name: Former NPD Lab Site Invest.

Project No./Task No.: 53F0074/212.02 **Date:** 9/5/01

Samples Collected/Requested Analyses:

None

Field Audit Results/Government Personnel Instructions:

None

Problems Encountered/Corrective Actions Taken:

None

By Janette Rau **Title** URS PM
(Signature/Printed Name)

DAILY CHEMICAL QUALITY CONTROL REPORT

Project Name:
Former NPD Lab Site Invest.

Project No./Task No.:
53F0074212.02

Date	9/5/01						
Day	S	M	T	W	TH	F	S

Weather	Bright Sun	Clear	Overcast	Rain	Snow
Temp	To 32	32–50	50–70	70–85	85 up
Wind	Still	Mod.	High	Report No.	
Humidity	Dry	Mod.	Humid	1	

Subcontractors on Site:
Geotech Explorations, Tualitin, OR (Geoprobe)
APS (utility locate service)

Equipment on Site:
Geoprobe rig and support trailer

Description of Work Performed:

- Utility locate (in addition to one-call service)
- Cut locks on existing monitoring wells and measured water levels (replaced locks with ones supplied by USACE Seattle)
- Geoprobe at cleanout pipe (3 locations), background (SS-1, one location), and drywell (5 locations).

Attached Forms:
field notes

DAILY CHEMICAL QUALITY CONTROL REPORT

Project Name: Former NPD Lab Site Investigation

Project No./Task No.: 53F0074212.02 **Date:** 9/5/01

Samples Collected/Requested Analyses:

SS-001-01 (Background - ~~north southeast~~ southeast near MW-1)

SS-014-04
SS-015-05
SS-016-06
} Cleanout pipe

drywell

SS-009-08
SS-009-11
SS-010-08 [SS-010-12]
SS-310-08 (duplicate)
SS-011-08
SS-011-11
SS-012-08
SS-012-11 (odor like paint thinner)
SS-312-11 (duplicate) PID ~60 ppm
SS-013-10
SS-013-12
} center of drywell

all samples collected today to be analyzed for VOCs, SVOCs, Pesticides and PCBs, metals incl. strontium and uranium, and cyanide

Field Audit Results/Government Personnel Instructions:

None given

Problems Encountered/Corrective Actions Taken:

Potable water obtained from city hydrant with permit

By Janette Rau, ~~UES PM~~ Title UES PM
(Signature/Printed Name)

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DAILY CHEMICAL QUALITY CONTROL REPORT

Project Name:
Former NPD Lab
Site Investigation

Project No./Task No.:
53F0074212.02

Date	9/6/01						
Day	S	M	T	W	TH	F	S

Weather	Bright Sun	Clear	Overcast	Rain	Snow
Temp	To 32	32–50	50–70	70–85	85 up
Wind	Still	Mod.	High	Report No.	
Humidity	Dry	Mod.	Humid		

Subcontractors on Site:
Geotech Explorations, Tualitin, OR (Geoprobe)

Equipment on Site:
Geoprobe rig and support trailer

Description of Work Performed:
Geoprobe soil sampling in drainage ditch & drywell.
Media Day
Pump water from concrete sump to sanitary sewer
(partially completed – will be resumed Monday)

Attached Forms:
field notes