



CH2M HILL
Applied Sciences Laboratory
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January 2, 2008

NW Pipe

358932.PH.0E

RE: Laboratory Report for NW Pipe
Applied Sciences Laboratory Reference No. G3320

Pat Heins/PDX:

On December 05, 2007, CH2M HILL Applied Sciences Laboratory received 18 samples with a request for analysis of selected parameters. All analyses were performed by CH2M HILL unless otherwise indicated below. The results included in this report only relate to the samples listed on the following Sample Cross-Reference page. This report shall not be reproduced except in full, without the written approval of the laboratory.

The analytical results and associated quality control data are enclosed. Any unusual difficulties encountered during the analysis of your samples are discussed in the case narrative.

We certify that the test results meet all NELAC requirements.

CH2M HILL Applied Sciences Laboratory appreciates your business and looks forward to serving your analytical needs again. If you should have any questions concerning the data, or if you need additional information, please call Kathy McKinley at (541) 758-0235, extension 3144.

Sincerely,

Kathy McKinley
Analytical Manager

Enclosures

cc: Tina Rice/PDX



OR100022

CLIENT SAMPLE CROSS-REFERENCE

CH2M HILL Applied Sciences Laboratory Reference No. G3320

Sample ID	Client Sample ID	Date Collected	Time Collected
G332001	SW101	12/03/2007	13:20
G332002	SW102	12/03/2007	13:40
G332003	SW103	12/03/2007	13:05
G332004	SW104	12/03/2007	12:40
G332005	SW105	12/03/2007	12:20
G332006	SW106	12/03/2007	12:45
G332007	SW107	12/03/2007	12:50
G332008	SW108	12/03/2007	12:00
G332009	SW108-1	12/03/2007	12:00
G332010	SW109	12/03/2007	11:30
G332011	SW110	12/03/2007	10:30
G332012	SW111	12/03/2007	15:40
G332013	SW112	12/03/2007	11:35
G332014	SW113	12/03/2007	15:25
G332015	SW114	12/03/2007	15:45
G332016	SW117	12/03/2007	14:00
G332017	SW118	12/03/2007	14:45
G332018	SW119	12/03/2007	10:55

**CASE NARRATIVE
GENERAL CHEMISTRY**

Lab Reference No.: G3320

Client/Project: NW Pipe

- I. Holding Time:
All acceptance criteria were met.
- II. Digestion Exceptions:
None.
- III. Analysis:
- A. Calibration:
All acceptance criteria were met.
 - B. Method Blank(s):
All acceptance criteria were met.
 - C. Duplicate Sample(s):
Analysis performed in accordance with standard operating procedure.
 - D. Matrix Spike Sample(s):
Analysis performed in accordance with standard operating procedure.
 - E. Lab Control Sample(s):
All acceptance criteria were met.
 - F. Other:
Not applicable.
- IV. Documentation Exceptions:
None.
- V. I certify that this data package is in compliance with the terms and conditions agreed to by the client and CH2M HILL, both technically and for completeness, except for the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Prepared by: Kate Muff Date: 12/26/07

Reviewed by: [Signature] Date: 26 Dec 2007

CH2M HILL Applied Sciences Laboratory (ASL)

<u>Client Information</u>	<u>Lab Information</u>
Project Name: NW Pipe	Lab Batch ID: G3320
Date Received: 12/05/07	Analysis Method: E160.2
Type: See C.O.C.	Units: mg/L
Matrix: Water	Report Revision No.: 0
	Reported By: KM
	Reviewed By: <i>[Signature]</i>

Client Sample ID	Lab Sample ID	Dilution Factor	Total Suspended Solids		Qualifier	Date Analyzed
			MRL	Result		
General Chemistry						
SW103	G332003	1	2.0	27.6		12/10/07
SW110	G332011	1	2.5	478		12/10/07
SW118	G332017	1	3.3	380		12/10/07
SW119	G332018	1	2.5	118		12/10/07
WB1-1210	WB1-1210	1	2.0	2.0	U	12/10/07

U=Not detected at specified reporting limit
 J=Estimated value below reporting limit
 E=Estimated value above calibration range
 *=See case narrative

**CASE NARRATIVE
METALS**

Lab Reference No.: G3320

Client/Project: NW Pipe

- I. Holding Time:
All acceptance criteria were met.

- II. Digestion Exceptions:
Client sample was not a drinking water; therefore, the sample was digested without preconcentration.

- III. Analysis:
 - A. Calibration:
All acceptance criteria were met.

 - B. Method Blank(s):
All acceptance criteria were met.

 - C. Duplicate Sample(s):
Analysis performed in accordance with standard operating procedure.

 - D. Spike Sample(s):
Analysis performed in accordance with standard operating procedure.

 - E. Laboratory Control Sample(s):
All acceptance criteria were met.

 - F. ICP Interference Check Sample(s):
All acceptance criteria were met.


 - G. ICP Serial Dilution(s):
Not Required.

 - H. Other:
Not applicable.


- IV. Documentation Exceptions:
None

- V. I certify that this data package is in compliance with the terms and conditions agreed to by the client and CH2M HILL, both technically and for completeness, except for the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Prepared by:  Date: 12/21/07

Reviewed by:  Date: 27 Dec 2007

CH2M HILL Applied Sciences Laboratory (ASL)

<u>Client Information</u>	<u>Lab Information</u>
Project Name: NW Pipe	Lab Batch ID: G3320
Date Received: 12/05/07	Analysis Method: SW6010B
Type: See C.O.C.	Units: ug/L
Matrix: Water	Report Revision No.: 0
	Reported By: KC
	Reviewed By: 

Client Sample ID	Lab Sample ID	Dilution Factor	MRL	Zinc Result	Qualifier	Date Analyzed
Metals						
SW103	G332003	1	20.0	1210		12/18/07
SW104	G332004	1	20.0	2520		12/18/07
SW105	G332005	1	20.0	951		12/18/07
SW106	G332006	1	20.0	2560		12/18/07
SW107	G332007	1	20.0	2370		12/18/07
SW108	G332008	1	20.0	990		12/18/07
SW108-1	G332009	1	20.0	651		12/18/07
SW109	G332010	1	20.0	1630		12/18/07
SW110	G332011	1	20.0	335		12/18/07
SW111	G332012	1	20.0	1830		12/18/07
SW112	G332013	1	20.0	104		12/18/07
SW113	G332014	1	20.0	74.7		12/18/07
SW114	G332015	1	20.0	2080		12/18/07
SW118	G332017	1	20.0	243		12/18/07
SW119	G332018	1	20.0	297		12/18/07
WB1-1206	WB1-1206	1	20.0	20.0	U	12/18/07

U=Not detected at specified reporting limit
 J=Estimated value below reporting limit
 E=Estimated value above calibration range
 *=See case narrative




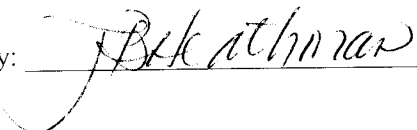
CASE NARRATIVE
ORGANICS

Lab Reference No.: G3320

Client/Project: NW Pipe

- I. Holding Times:
All acceptance criteria were met.
- II. Analysis:
- A. Calibration:
All acceptance criteria were met.
- B. Method Blank(s):
All acceptance criteria were met.
- C. Duplicate Sample(s):
Analysis performed in accordance with standard operating procedure.
- D. Spike Sample(s):
Analysis performed in accordance with standard operating procedure.
- E. Lab Control Sample(s):
All acceptance criteria were met.
- F. Surrogate Recoveries:
All acceptance criteria were met.
- G. Other:
Not applicable.
- III. Documentation Exceptions:
None.
- IV. I certify that this data package is in compliance with the terms and conditions agreed to by the client and CH2M HILL, both technically and for completeness, except for the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designee, as verified by the following signature.

Prepared by:  Date: 13 Dec 2007

Reviewed by:  Date: 12-17-07

CH2M HILL Applied Sciences Laboratory (ASL)

<u>Client Information</u>	<u>Lab Information</u>
Client Sample ID: SW101	Lab Sample ID: G332001
Project Name: NW Pipe	Date Received: 12/05/07
Sample Date: 12/03/07	Dilution Factor: 1
Sample Time: 13:20	Report Revision No.: 0
Type: Grab	Reported By: JB
Matrix: Water	Reviewed By: <i>JBA</i>

Analyte	CAS#	MRL	Sample Result	Qualifier	Units	Analysis Method	Date Analyzed
GC/MS							
Naphthalene	91-20-3	2.5	0.060	J	ug/L	SW8270SIM	12/10/07
Acenaphthylene	208-96-8	2.5	0.014	J	ug/L	SW8270SIM	12/10/07
Acenaphthene	83-32-9	2.5	0.072	J	ug/L	SW8270SIM	12/10/07
Fluorene	86-73-7	2.5	0.12	J	ug/L	SW8270SIM	12/10/07
Phenanthrene	85-01-8	2.5	0.82	J	ug/L	SW8270SIM	12/10/07
Anthracene	120-12-7	2.5	0.42	J	ug/L	SW8270SIM	12/10/07
Fluoranthene	206-44-0	2.5	1.7	J	ug/L	SW8270SIM	12/10/07
Pyrene	129-00-0	2.5	1.5	J	ug/L	SW8270SIM	12/10/07
Benzo(a)anthracene	56-55-3	2.5	0.56	J	ug/L	SW8270SIM	12/10/07
Chrysene	218-01-9	2.5	0.80	J	ug/L	SW8270SIM	12/10/07
Benzo(b)fluoranthene	205-99-2	2.5	0.69	J	ug/L	SW8270SIM	12/10/07
Benzo(k)fluoranthene	207-08-9	2.5	0.28	J	ug/L	SW8270SIM	12/10/07
Benzo(a)pyrene	50-32-8	2.5	0.41	J	ug/L	SW8270SIM	12/10/07
Indeno(1,2,3-c,d)pyrene	193-39-5	2.5	0.24	J	ug/L	SW8270SIM	12/10/07
Dibenzo(a,h)anthracene	53-70-3	2.5	0.082	J	ug/L	SW8270SIM	12/10/07
Benzo(g,h,i)perylene	191-24-2	2.5	0.30	J	ug/L	SW8270SIM	12/10/07

<u>Surrogate</u>	<u>% Recovery</u>	<u>Control Limits</u>	<u>Qualifier</u>
Terphenyl-d14	77	33-141	

U=Not detected at specified reporting limit
 J=Estimated value below reporting limit
 E=Estimated value above calibration range
 *=See case narrative

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CH2M HILL Applied Sciences Laboratory (ASL)

<u>Client Information</u>	<u>Lab Information</u>
Client Sample ID: SW102	Lab Sample ID: G332002
Project Name: NW Pipe	Date Received: 12/05/07
Sample Date: 12/03/07	Dilution Factor: 1
Sample Time: 13:40	Report Revision No.: 0
Type: Grab	Reported By: JB
Matrix: Water	Reviewed By: <i>JBH</i>

Analyte	CAS#	MRL	Sample Result	Qualifier	Units	Analysis Method	Date Analyzed
GC/MS							
Naphthalene	91-20-3	2.5	0.14	J	ug/L	SW8270SIM	12/10/07
Acenaphthylene	208-96-8	2.5	0.013	J	ug/L	SW8270SIM	12/10/07
Acenaphthene	83-32-9	2.5	0.15	J	ug/L	SW8270SIM	12/10/07
Fluorene	86-73-7	2.5	0.21	J	ug/L	SW8270SIM	12/10/07
Phenanthrene	85-01-8	2.5	1.1	J	ug/L	SW8270SIM	12/10/07
Anthracene	120-12-7	2.5	0.37	J	ug/L	SW8270SIM	12/10/07
Fluoranthene	206-44-0	2.5	2.2	E	ug/L	SW8270SIM	12/10/07
Pyrene	129-00-0	2.5	1.8	J	ug/L	SW8270SIM	12/10/07
Benzo(a)anthracene	56-55-3	2.5	0.89	J	ug/L	SW8270SIM	12/10/07
Chrysene	218-01-9	2.5	1.1	J	ug/L	SW8270SIM	12/10/07
Benzo(b)fluoranthene	205-99-2	2.5	1.1	J	ug/L	SW8270SIM	12/10/07
Benzo(k)fluoranthene	207-08-9	2.5	0.41	J	ug/L	SW8270SIM	12/10/07
Benzo(a)pyrene	50-32-8	2.5	0.73	J	ug/L	SW8270SIM	12/10/07
Indeno(1,2,3-c,d)pyrene	193-39-5	2.5	0.47	J	ug/L	SW8270SIM	12/10/07
Dibenzo(a,h)anthracene	53-70-3	2.5	0.15	J	ug/L	SW8270SIM	12/10/07
Benzo(g,h,i)perylene	191-24-2	2.5	0.60	J	ug/L	SW8270SIM	12/10/07

<u>Surrogate</u>	<u>% Recovery</u>	<u>Control Limits</u>	<u>Qualifier</u>
Terphenyl-d14	74	33-141	

U=Not detected at specified reporting limit
 J=Estimated value below reporting limit
 E=Estimated value above calibration range
 *=See case narrative

CH2M HILL Applied Sciences Laboratory (ASL)

Client Information		Lab Information	
Client Sample ID: SW102DL		Lab Sample ID: G332002DL	
Project Name: NW Pipe		Date Received: 12/05/07	
Sample Date: 12/03/07		Dilution Factor: 10	
Sample Time: 13:40		Report Revision No.: 0	
Type: Grab		Reported By: JB	
Matrix: Water		Reviewed By: JB #	

Analyte	CAS#	MRL	Sample Result	Qualifier	Units	Analysis Method	Date Analyzed
GC/MS							
Naphthalene	91-20-3	25.2	25.2	U	ug/L	SW8270SIM	12/11/07
Acenaphthylene	208-96-8	25.2	0.016	J	ug/L	SW8270SIM	12/11/07
Acenaphthene	83-32-9	25.2	0.082	J	ug/L	SW8270SIM	12/11/07
Fluorene	86-73-7	25.2	0.15	J	ug/L	SW8270SIM	12/11/07
Phenanthrene	85-01-8	25.2	0.98	J	ug/L	SW8270SIM	12/11/07
Anthracene	120-12-7	25.2	0.45	J	ug/L	SW8270SIM	12/11/07
Fluoranthene	206-44-0	25.2	1.9	J	ug/L	SW8270SIM	12/11/07
Pyrene	129-00-0	25.2	1.5	J	ug/L	SW8270SIM	12/11/07
Benzo(a)anthracene	56-55-3	25.2	0.64	J	ug/L	SW8270SIM	12/11/07
Chrysene	218-01-9	25.2	0.96	J	ug/L	SW8270SIM	12/11/07
Benzo(b)fluoranthene	205-99-2	25.2	0.91	J	ug/L	SW8270SIM	12/11/07
Benzo(k)fluoranthene	207-08-9	25.2	0.29	J	ug/L	SW8270SIM	12/11/07
Benzo(a)pyrene	50-32-8	25.2	0.46	J	ug/L	SW8270SIM	12/11/07
Indeno(1,2,3-c,d)pyrene	193-39-5	25.2	0.28	J	ug/L	SW8270SIM	12/11/07
Dibenzo(a,h)anthracene	53-70-3	25.2	0.098	J	ug/L	SW8270SIM	12/11/07
Benzo(g,h,i)perylene	191-24-2	25.2	0.35	J	ug/L	SW8270SIM	12/11/07

<u>Surrogate</u>	<u>% Recovery</u>	<u>Control Limits</u>	<u>Qualifier</u>
Terphenyl-d14	69	33-141	

U=Not detected at specified reporting limit
 J=Estimated value below reporting limit
 E=Estimated value above calibration range
 *=See case narrative

CH2M HILL Applied Sciences Laboratory (ASL)

Client Information		Lab Information	
Client Sample ID: SW103		Lab Sample ID: G332003	
Project Name: NW Pipe		Date Received: 12/05/07	
Sample Date: 12/03/07		Dilution Factor: 1	
Sample Time: 13:05		Report Revision No.: 0	
Type: Grab		Reported By: JB	
Matrix: Water		Reviewed By: <i>JBH</i>	

Analyte	CAS#	MRL	Sample Result	Qualifier	Units	Analysis Method	Date Analyzed
GC/MS							
Naphthalene	91-20-3	2.5	0.035	J	ug/L	SW8270SIM	12/10/07
Acenaphthylene	208-96-8	2.5	0.0091	J	ug/L	SW8270SIM	12/10/07
Acenaphthene	83-32-9	2.5	0.032	J	ug/L	SW8270SIM	12/10/07
Fluorene	86-73-7	2.5	0.058	J	ug/L	SW8270SIM	12/10/07
Phenanthrene	85-01-8	2.5	0.54	J	ug/L	SW8270SIM	12/10/07
Anthracene	120-12-7	2.5	0.19	J	ug/L	SW8270SIM	12/10/07
Fluoranthene	206-44-0	2.5	1.0	J	ug/L	SW8270SIM	12/10/07
Pyrene	129-00-0	2.5	0.84	J	ug/L	SW8270SIM	12/10/07
Benzo(a)anthracene	56-55-3	2.5	0.27	J	ug/L	SW8270SIM	12/10/07
Chrysene	218-01-9	2.5	0.45	J	ug/L	SW8270SIM	12/10/07
Benzo(b)fluoranthene	205-99-2	2.5	0.37	J	ug/L	SW8270SIM	12/10/07
Benzo(k)fluoranthene	207-08-9	2.5	0.13	J	ug/L	SW8270SIM	12/10/07
Benzo(a)pyrene	50-32-8	2.5	0.21	J	ug/L	SW8270SIM	12/10/07
Indeno(1,2,3-c,d)pyrene	193-39-5	2.5	0.13	J	ug/L	SW8270SIM	12/10/07
Dibenzo(a,h)anthracene	53-70-3	2.5	0.041	J	ug/L	SW8270SIM	12/10/07
Benzo(g,h,i)perylene	191-24-2	2.5	0.16	J	ug/L	SW8270SIM	12/10/07

<u>Surrogate</u>	<u>% Recovery</u>	<u>Control Limits</u>	<u>Qualifier</u>
Terphenyl-d14	77	33-141	

U=Not detected at specified reporting limit
 J=Estimated value below reporting limit
 E=Estimated value above calibration range
 *=See case narrative

CH2M HILL Applied Sciences Laboratory (ASL)

Client Information

Client Sample ID: SW105

Project Name: NW Pipe

Sample Date: 12/03/07

Sample Time: 12:20

Type: Grab

Matrix: Water

Lab Information

Lab Sample ID: G332005

Date Received: 12/05/07

Dilution Factor: 1

Report Revision No.: 0

Reported By: JB

Reviewed By: *JOA*

Analyte	CAS#	MRL	Sample Result	Qualifier	Units	Analysis Method	Date Analyzed
GC/MS							
Naphthalene	91-20-3	2.6	2.6	U	ug/L	SW8270SIM	12/10/07
Acenaphthylene	208-96-8	2.6	0.0054	J	ug/L	SW8270SIM	12/10/07
Acenaphthene	83-32-9	2.6	0.0071	J	ug/L	SW8270SIM	12/10/07
Fluorene	86-73-7	2.6	0.011	J	ug/L	SW8270SIM	12/10/07
Phenanthrene	85-01-8	2.6	0.078	J	ug/L	SW8270SIM	12/10/07
Anthracene	120-12-7	2.6	0.027	J	ug/L	SW8270SIM	12/10/07
Fluoranthene	206-44-0	2.6	0.24	J	ug/L	SW8270SIM	12/10/07
Pyrene	129-00-0	2.6	0.24	J	ug/L	SW8270SIM	12/10/07
Benzo(a)anthracene	56-55-3	2.6	0.093	J	ug/L	SW8270SIM	12/10/07
Chrysene	218-01-9	2.6	0.18	J	ug/L	SW8270SIM	12/10/07
Benzo(b)fluoranthene	205-99-2	2.6	0.17	J	ug/L	SW8270SIM	12/10/07
Benzo(k)fluoranthene	207-08-9	2.6	0.056	J	ug/L	SW8270SIM	12/10/07
Benzo(a)pyrene	50-32-8	2.6	0.076	J	ug/L	SW8270SIM	12/10/07
Indeno(1,2,3-c,d)pyrene	193-39-5	2.6	0.056	J	ug/L	SW8270SIM	12/10/07
Dibenzo(a,h)anthracene	53-70-3	2.6	0.019	J	ug/L	SW8270SIM	12/10/07
Benzo(g,h,i)perylene	191-24-2	2.6	0.069	J	ug/L	SW8270SIM	12/10/07

<u>Surrogate</u>	<u>% Recovery</u>	<u>Control Limits</u>	<u>Qualifier</u>
Terphenyl-d14	70	33-141	

U=Not detected at specified reporting limit
 J=Estimated value below reporting limit
 E=Estimated value above calibration range
 *=See case narrative

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CH2M HILL Applied Sciences Laboratory (ASL)

<u>Client Information</u>	<u>Lab Information</u>
Client Sample ID: SW108	Lab Sample ID: G332008
Project Name: NW Pipe	Date Received: 12/05/07
Sample Date: 12/03/07	Dilution Factor: 1
Sample Time: 12:00	Report Revision No.: 0
Type: Grab	Reported By: JB
Matrix: Water	Reviewed By: <i>JB</i>

Analyte	CAS#	MRL	Sample Result	Qualifier	Units	Analysis Method	Date Analyzed
GC/MS							
Naphthalene	91-20-3	2.6	2.6	U	ug/L	SW8270SIM	12/10/07
Acenaphthylene	208-96-8	2.6	0.0094	J	ug/L	SW8270SIM	12/10/07
Acenaphthene	83-32-9	2.6	0.0088	J	ug/L	SW8270SIM	12/10/07
Fluorene	86-73-7	2.6	0.012	J	ug/L	SW8270SIM	12/10/07
Phenanthrene	85-01-8	2.6	0.092	J	ug/L	SW8270SIM	12/10/07
Anthracene	120-12-7	2.6	0.042	J	ug/L	SW8270SIM	12/10/07
Fluoranthene	206-44-0	2.6	0.34	J	ug/L	SW8270SIM	12/10/07
Pyrene	129-00-0	2.6	0.36	J	ug/L	SW8270SIM	12/10/07
Benzo(a)anthracene	56-55-3	2.6	0.14	J	ug/L	SW8270SIM	12/10/07
Chrysene	218-01-9	2.6	0.28	J	ug/L	SW8270SIM	12/10/07
Benzo(b)fluoranthene	205-99-2	2.6	0.26	J	ug/L	SW8270SIM	12/10/07
Benzo(k)fluoranthene	207-08-9	2.6	0.085	J	ug/L	SW8270SIM	12/10/07
Benzo(a)pyrene	50-32-8	2.6	0.12	J	ug/L	SW8270SIM	12/10/07
Indeno(1,2,3-c,d)pyrene	193-39-5	2.6	0.081	J	ug/L	SW8270SIM	12/10/07
Dibenzo(a,h)anthracene	53-70-3	2.6	0.025	J	ug/L	SW8270SIM	12/10/07
Benzo(g,h,i)perylene	191-24-2	2.6	0.098	J	ug/L	SW8270SIM	12/10/07

<u>Surrogate</u>	<u>% Recovery</u>	<u>Control Limits</u>	<u>Qualifier</u>
Terphenyl-d14	77	33-141	

U=Not detected at specified reporting limit
 J=Estimated value below reporting limit
 E=Estimated value above calibration range
 *=See case narrative

CH2M HILL Applied Sciences Laboratory (ASL)

Client Information		Lab Information	
Client Sample ID: SW108-1		Lab Sample ID: G332009	
Project Name: NW Pipe		Date Received: 12/05/07	
Sample Date: 12/03/07		Dilution Factor: 1	
Sample Time: 12:00		Report Revision No.: 0	
Type: Grab		Reported By: JB	
Matrix: Water		Reviewed By: <i>JB</i>	

Analyte	CAS#	MRL	Sample Result	Qualifier	Units	Analysis Method	Date Analyzed
GC/MS							
Naphthalene	91-20-3	2.5	2.5	U	ug/L	SW8270SIM	12/10/07
Acenaphthylene	208-96-8	2.5	0.0094	J	ug/L	SW8270SIM	12/10/07
Acenaphthene	83-32-9	2.5	0.0083	J	ug/L	SW8270SIM	12/10/07
Fluorene	86-73-7	2.5	0.012	J	ug/L	SW8270SIM	12/10/07
Phenanthrene	85-01-8	2.5	0.090	J	ug/L	SW8270SIM	12/10/07
Anthracene	120-12-7	2.5	0.039	J	ug/L	SW8270SIM	12/10/07
Fluoranthene	206-44-0	2.5	0.35	J	ug/L	SW8270SIM	12/10/07
Pyrene	129-00-0	2.5	0.36	J	ug/L	SW8270SIM	12/10/07
Benzo(a)anthracene	56-55-3	2.5	0.15	J	ug/L	SW8270SIM	12/10/07
Chrysene	218-01-9	2.5	0.29	J	ug/L	SW8270SIM	12/10/07
Benzo(b)fluoranthene	205-99-2	2.5	0.27	J	ug/L	SW8270SIM	12/10/07
Benzo(k)fluoranthene	207-08-9	2.5	0.094	J	ug/L	SW8270SIM	12/10/07
Benzo(a)pyrene	50-32-8	2.5	0.13	J	ug/L	SW8270SIM	12/10/07
Indeno(1,2,3-c,d)pyrene	193-39-5	2.5	0.086	J	ug/L	SW8270SIM	12/10/07
Dibenzo(a,h)anthracene	53-70-3	2.5	0.027	J	ug/L	SW8270SIM	12/10/07
Benzo(g,h,i)perylene	191-24-2	2.5	0.10	J	ug/L	SW8270SIM	12/10/07

<u>Surrogate</u>	<u>% Recovery</u>	<u>Control Limits</u>	<u>Qualifier</u>
Terphenyl-d14	74	33-141	

U=Not detected at specified reporting limit
 J=Estimated value below reporting limit
 E=Estimated value above calibration range
 *=See case narrative

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CH2M HILL Applied Sciences Laboratory (ASL)

Client Information		Lab Information	
Client Sample ID: SW110		Lab Sample ID: G332011	
Project Name: NW Pipe		Date Received: 12/05/07	
Sample Date: 12/03/07		Dilution Factor: 1	
Sample Time: 10:30		Report Revision No.: 0	
Type: Grab		Reported By: JB	
Matrix: Water		Reviewed By: <i>JB</i>	

Analyte	CAS#	MRL	Sample Result	Qualifier	Units	Analysis Method	Date Analyzed
GC/MS							
Naphthalene	91-20-3	2.6	0.073	J	ug/L	SW8270SIM	12/10/07
Acenaphthylene	208-96-8	2.6	0.029	J	ug/L	SW8270SIM	12/10/07
Acenaphthene	83-32-9	2.6	0.13	J	ug/L	SW8270SIM	12/10/07
Fluorene	86-73-7	2.6	0.13	J	ug/L	SW8270SIM	12/10/07
Phenanthrene	85-01-8	2.6	1.3	J	ug/L	SW8270SIM	12/10/07
Anthracene	120-12-7	2.6	0.34	J	ug/L	SW8270SIM	12/10/07
Fluoranthene	206-44-0	2.6	2.3	E	ug/L	SW8270SIM	12/10/07
Pyrene	129-00-0	2.6	2.1	E	ug/L	SW8270SIM	12/10/07
Benzo(a)anthracene	56-55-3	2.6	0.96	J	ug/L	SW8270SIM	12/10/07
Chrysene	218-01-9	2.6	1.4	J	ug/L	SW8270SIM	12/10/07
Benzo(b)fluoranthene	205-99-2	2.6	1.4	J	ug/L	SW8270SIM	12/10/07
Benzo(k)fluoranthene	207-08-9	2.6	0.41	J	ug/L	SW8270SIM	12/10/07
Benzo(a)pyrene	50-32-8	2.6	0.93	J	ug/L	SW8270SIM	12/10/07
Indeno(1,2,3-c,d)pyrene	193-39-5	2.6	0.55	J	ug/L	SW8270SIM	12/10/07
Dibenzo(a,h)anthracene	53-70-3	2.6	0.17	J	ug/L	SW8270SIM	12/10/07
Benzo(g,h,i)perylene	191-24-2	2.6	0.72	J	ug/L	SW8270SIM	12/10/07

<u>Surrogate</u>	<u>% Recovery</u>	<u>Control Limits</u>	<u>Qualifier</u>
Terphenyl-d14	65	33-141	

U=Not detected at specified reporting limit
 J=Estimated value below reporting limit
 E=Estimated value above calibration range
 *=See case narrative

CH2M HILL Applied Sciences Laboratory (ASL)

<u>Client Information</u>	<u>Lab Information</u>
Client Sample ID: SW110DL	Lab Sample ID: G332011DL
Project Name: NW Pipe	Date Received: 12/05/07
Sample Date: 12/03/07	Dilution Factor: 10
Sample Time: 10:30	Report Revision No.: 0
Type: Grab	Reported By: JB
Matrix: Water	Reviewed By: <i>JB</i>

Analyte	CAS#	MRL	Sample Result	Qualifier	Units	Analysis Method	Date Analyzed
GC/MS							
Naphthalene	91-20-3	25.8	0.023	J	ug/L	SW8270SIM	12/11/07
Acenaphthylene	208-96-8	25.8	0.033	J	ug/L	SW8270SIM	12/11/07
Acenaphthene	83-32-9	25.8	0.14	J	ug/L	SW8270SIM	12/11/07
Fluorene	86-73-7	25.8	0.15	J	ug/L	SW8270SIM	12/11/07
Phenanthrene	85-01-8	25.8	1.5	J	ug/L	SW8270SIM	12/11/07
Anthracene	120-12-7	25.8	0.36	J	ug/L	SW8270SIM	12/11/07
Fluoranthene	206-44-0	25.8	2.6	J	ug/L	SW8270SIM	12/11/07
Pyrene	129-00-0	25.8	2.5	J	ug/L	SW8270SIM	12/11/07
Benzo(a)anthracene	56-55-3	25.8	1.1	J	ug/L	SW8270SIM	12/11/07
Chrysene	218-01-9	25.8	1.6	J	ug/L	SW8270SIM	12/11/07
Benzo(b)fluoranthene	205-99-2	25.8	1.6	J	ug/L	SW8270SIM	12/11/07
Benzo(k)fluoranthene	207-08-9	25.8	0.49	J	ug/L	SW8270SIM	12/11/07
Benzo(a)pyrene	50-32-8	25.8	1.0	J	ug/L	SW8270SIM	12/11/07
Indeno(1,2,3-c,d)pyrene	193-39-5	25.8	0.65	J	ug/L	SW8270SIM	12/11/07
Dibenzo(a,h)anthracene	53-70-3	25.8	0.21	J	ug/L	SW8270SIM	12/11/07
Benzo(g,h,i)perylene	191-24-2	25.8	0.85	J	ug/L	SW8270SIM	12/11/07

<u>Surrogate</u>	<u>% Recovery</u>	<u>Control Limits</u>	<u>Qualifier</u>
Terphenyl-d14	64	33-141	

U=Not detected at specified reporting limit
 J=Estimated value below reporting limit
 E=Estimated value above calibration range
 *=See case narrative

CH2M HILL Applied Sciences Laboratory (ASL)

Client Information	Lab Information
Client Sample ID: SW112	Lab Sample ID: G332013
Project Name: NW Pipe	Date Received: 12/05/07
Sample Date: 12/03/07	Dilution Factor: 1
Sample Time: 11:35	Report Revision No.: 0
Type: Grab	Reported By: JB
Matrix: Water	Reviewed By: <i>JOA</i>

Analyte	CAS#	MRL	Sample Result	Qualifier	Units	Analysis Method	Date Analyzed
GC/MS							
Naphthalene	91-20-3	2.6	0.0096	J	ug/L	SW8270SIM	12/10/07
Acenaphthylene	208-96-8	2.6	0.030	J	ug/L	SW8270SIM	12/10/07
Acenaphthene	83-32-9	2.6	0.017	J	ug/L	SW8270SIM	12/10/07
Fluorene	86-73-7	2.6	0.021	J	ug/L	SW8270SIM	12/10/07
Phenanthrene	85-01-8	2.6	0.18	J	ug/L	SW8270SIM	12/10/07
Anthracene	120-12-7	2.6	0.095	J	ug/L	SW8270SIM	12/10/07
Fluoranthene	206-44-0	2.6	0.48	J	ug/L	SW8270SIM	12/10/07
Pyrene	129-00-0	2.6	0.46	J	ug/L	SW8270SIM	12/10/07
Benzo(a)anthracene	56-55-3	2.6	0.21	J	ug/L	SW8270SIM	12/10/07
Chrysene	218-01-9	2.6	0.34	J	ug/L	SW8270SIM	12/10/07
Benzo(b)fluoranthene	205-99-2	2.6	0.40	J	ug/L	SW8270SIM	12/10/07
Benzo(k)fluoranthene	207-08-9	2.6	0.12	J	ug/L	SW8270SIM	12/10/07
Benzo(a)pyrene	50-32-8	2.6	0.23	J	ug/L	SW8270SIM	12/10/07
Indeno(1,2,3-c,d)pyrene	193-39-5	2.6	0.17	J	ug/L	SW8270SIM	12/10/07
Dibenzo(a,h)anthracene	53-70-3	2.6	0.051	J	ug/L	SW8270SIM	12/10/07
Benzo(g,h,i)perylene	191-24-2	2.6	0.22	J	ug/L	SW8270SIM	12/10/07

<u>Surrogate</u>	<u>% Recovery</u>	<u>Control Limits</u>	<u>Qualifier</u>
Terphenyl-d14	70	33-141	

U=Not detected at specified reporting limit
 J=Estimated value below reporting limit
 E=Estimated value above calibration range
 *=See case narrative

CH2M HILL Applied Sciences Laboratory (ASL)

Client Information		Lab Information	
Client Sample ID: SW113		Lab Sample ID: G332014	
Project Name: NW Pipe		Date Received: 12/05/07	
Sample Date: 12/03/07		Dilution Factor: 1	
Sample Time: 15:25		Report Revision No.: 0	
Type: Grab		Reported By: JB	
Matrix: Water		Reviewed By: <i>JB</i>	

Analyte	CAS#	MRL	Sample Result	Qualifier	Units	Analysis Method	Date Analyzed
GC/MS							
Naphthalene	91-20-3	2.5	0.051	J	ug/L	SW8270SIM	12/10/07
Acenaphthylene	208-96-8	2.5	0.016	J	ug/L	SW8270SIM	12/10/07
Acenaphthene	83-32-9	2.5	0.035	J	ug/L	SW8270SIM	12/10/07
Fluorene	86-73-7	2.5	0.062	J	ug/L	SW8270SIM	12/10/07
Phenanthrene	85-01-8	2.5	0.47	J	ug/L	SW8270SIM	12/10/07
Anthracene	120-12-7	2.5	0.20	J	ug/L	SW8270SIM	12/10/07
Fluoranthene	206-44-0	2.5	0.78	J	ug/L	SW8270SIM	12/10/07
Pyrene	129-00-0	2.5	0.66	J	ug/L	SW8270SIM	12/10/07
Benzo(a)anthracene	56-55-3	2.5	0.29	J	ug/L	SW8270SIM	12/10/07
Chrysene	218-01-9	2.5	0.46	J	ug/L	SW8270SIM	12/10/07
Benzo(b)fluoranthene	205-99-2	2.5	0.45	J	ug/L	SW8270SIM	12/10/07
Benzo(k)fluoranthene	207-08-9	2.5	0.13	J	ug/L	SW8270SIM	12/10/07
Benzo(a)pyrene	50-32-8	2.5	0.27	J	ug/L	SW8270SIM	12/10/07
Indeno(1,2,3-c,d)pyrene	193-39-5	2.5	0.16	J	ug/L	SW8270SIM	12/10/07
Dibenzo(a,h)anthracene	53-70-3	2.5	0.050	J	ug/L	SW8270SIM	12/10/07
Benzo(g,h,i)perylene	191-24-2	2.5	0.21	J	ug/L	SW8270SIM	12/10/07

<u>Surrogate</u>	<u>% Recovery</u>	<u>Control Limits</u>	<u>Qualifier</u>
Terphenyl-d14	72	33-141	

U=Not detected at specified reporting limit
 J=Estimated value below reporting limit
 E=Estimated value above calibration range
 *=See case narrative

CH2M HILL Applied Sciences Laboratory (ASL)

Client Information		Lab Information	
Client Sample ID: SW117		Lab Sample ID: G332016	
Project Name: NW Pipe		Date Received: 12/05/07	
Sample Date: 12/03/07		Dilution Factor: 1	
Sample Time: 14:00		Report Revision No.: 0	
Type: Grab		Reported By: JB	
Matrix: Water		Reviewed By: <i>JBA</i>	

Analyte	CAS#	MRL	Sample Result	Qualifier	Units	Analysis Method	Date Analyzed
GC/MS							
Naphthalene	91-20-3	2.5	0.0046	J	ug/L	SW8270SIM	12/10/07
Acenaphthylene	208-96-8	2.5	0.0096	J	ug/L	SW8270SIM	12/10/07
Acenaphthene	83-32-9	2.5	0.018	J	ug/L	SW8270SIM	12/10/07
Fluorene	86-73-7	2.5	0.026	J	ug/L	SW8270SIM	12/10/07
Phenanthrene	85-01-8	2.5	0.17	J	ug/L	SW8270SIM	12/10/07
Anthracene	120-12-7	2.5	0.060	J	ug/L	SW8270SIM	12/10/07
Fluoranthene	206-44-0	2.5	0.34	J	ug/L	SW8270SIM	12/10/07
Pyrene	129-00-0	2.5	0.29	J	ug/L	SW8270SIM	12/10/07
Benzo(a)anthracene	56-55-3	2.5	0.12	J	ug/L	SW8270SIM	12/10/07
Chrysene	218-01-9	2.5	0.20	J	ug/L	SW8270SIM	12/10/07
Benzo(b)fluoranthene	205-99-2	2.5	0.22	J	ug/L	SW8270SIM	12/10/07
Benzo(k)fluoranthene	207-08-9	2.5	0.061	J	ug/L	SW8270SIM	12/10/07
Benzo(a)pyrene	50-32-8	2.5	0.12	J	ug/L	SW8270SIM	12/10/07
Indeno(1,2,3-c,d)pyrene	193-39-5	2.5	0.092	J	ug/L	SW8270SIM	12/10/07
Dibenzo(a,h)anthracene	53-70-3	2.5	0.027	J	ug/L	SW8270SIM	12/10/07
Benzo(g,h,i)perylene	191-24-2	2.5	0.12	J	ug/L	SW8270SIM	12/10/07

<u>Surrogate</u>	<u>% Recovery</u>	<u>Control Limits</u>	<u>Qualifier</u>
Terphenyl-d14	72	33-141	

U=Not detected at specified reporting limit
 J=Estimated value below reporting limit
 E=Estimated value above calibration range
 *=See case narrative

CH2M HILL Applied Sciences Laboratory (ASL)

Client Information		Lab Information	
Client Sample ID: SW118		Lab Sample ID: G332017	
Project Name: NW Pipe		Date Received: 12/05/07	
Sample Date: 12/03/07		Dilution Factor: 1	
Sample Time: 14:45		Report Revision No.: 0	
Type: Grab		Reported By: JB	
Matrix: Water		Reviewed By: <i>JB</i>	

Analyte	CAS#	MRL	Sample Result	Qualifier	Units	Analysis Method	Date Analyzed
GC/MS							
Naphthalene	91-20-3	2.5	0.017	J	ug/L	SW8270SIM	12/10/07
Acenaphthylene	208-96-8	2.5	0.12	J	ug/L	SW8270SIM	12/10/07
Acenaphthene	83-32-9	2.5	0.051	J	ug/L	SW8270SIM	12/10/07
Fluorene	86-73-7	2.5	0.048	J	ug/L	SW8270SIM	12/10/07
Phenanthrene	85-01-8	2.5	0.32	J	ug/L	SW8270SIM	12/10/07
Anthracene	120-12-7	2.5	0.21	J	ug/L	SW8270SIM	12/10/07
Fluoranthene	206-44-0	2.5	0.91	J	ug/L	SW8270SIM	12/10/07
Pyrene	129-00-0	2.5	1.1	J	ug/L	SW8270SIM	12/10/07
Benzo(a)anthracene	56-55-3	2.5	0.42	J	ug/L	SW8270SIM	12/10/07
Chrysene	218-01-9	2.5	0.76	J	ug/L	SW8270SIM	12/10/07
Benzo(b)fluoranthene	205-99-2	2.5	0.94	J	ug/L	SW8270SIM	12/10/07
Benzo(k)fluoranthene	207-08-9	2.5	0.28	J	ug/L	SW8270SIM	12/10/07
Benzo(a)pyrene	50-32-8	2.5	0.68	J	ug/L	SW8270SIM	12/10/07
Indeno(1,2,3-c,d)pyrene	193-39-5	2.5	0.39	J	ug/L	SW8270SIM	12/10/07
Dibenzo(a,h)anthracene	53-70-3	2.5	0.10	J	ug/L	SW8270SIM	12/10/07
Benzo(g,h,i)perylene	191-24-2	2.5	0.54	J	ug/L	SW8270SIM	12/10/07

<u>Surrogate</u>	<u>% Recovery</u>	<u>Control Limits</u>	<u>Qualifier</u>
Terphenyl-d14	73	33-141	

U=Not detected at specified reporting limit
 J=Estimated value below reporting limit
 E=Estimated value above calibration range
 *=See case narrative

CH2M HILL Applied Sciences Laboratory (ASL)

Client Information	Lab Information
Client Sample ID: SW119	Lab Sample ID: G332018
Project Name: NW Pipe	Date Received: 12/05/07
Sample Date: 12/03/07	Dilution Factor: 1
Sample Time: 10:55	Report Revision No.: 0
Type: Grab	Reported By: JB
Matrix: Water	Reviewed By: <i>JH</i>

Analyte	CAS#	MRL	Sample Result	Qualifier	Units	Analysis Method	Date Analyzed
GC/MS							
Naphthalene	91-20-3	2.6	0.041	J	ug/L	SW8270SIM	12/10/07
Acenaphthylene	208-96-8	2.6	0.063	J	ug/L	SW8270SIM	12/10/07
Acenaphthene	83-32-9	2.6	0.11	J	ug/L	SW8270SIM	12/10/07
Fluorene	86-73-7	2.6	0.11	J	ug/L	SW8270SIM	12/10/07
Phenanthrene	85-01-8	2.6	0.74	J	ug/L	SW8270SIM	12/10/07
Anthracene	120-12-7	2.6	0.50	J	ug/L	SW8270SIM	12/10/07
Fluoranthene	206-44-0	2.6	1.3	J	ug/L	SW8270SIM	12/10/07
Pyrene	129-00-0	2.6	1.3	J	ug/L	SW8270SIM	12/10/07
Benzo(a)anthracene	56-55-3	2.6	0.61	J	ug/L	SW8270SIM	12/10/07
Chrysene	218-01-9	2.6	0.92	J	ug/L	SW8270SIM	12/10/07
Benzo(b)fluoranthene	205-99-2	2.6	1.0	J	ug/L	SW8270SIM	12/10/07
Benzo(k)fluoranthene	207-08-9	2.6	0.35	J	ug/L	SW8270SIM	12/10/07
Benzo(a)pyrene	50-32-8	2.6	0.67	J	ug/L	SW8270SIM	12/10/07
Indeno(1,2,3-c,d)pyrene	193-39-5	2.6	0.34	J	ug/L	SW8270SIM	12/10/07
Dibenzo(a,h)anthracene	53-70-3	2.6	0.11	J	ug/L	SW8270SIM	12/10/07
Benzo(g,h,i)perylene	191-24-2	2.6	0.44	J	ug/L	SW8270SIM	12/10/07

<u>Surrogate</u>	<u>% Recovery</u>	<u>Control Limits</u>	<u>Qualifier</u>
Terphenyl-d14	70	33-141	

U=Not detected at specified reporting limit
 J=Estimated value below reporting limit
 E=Estimated value above calibration range
 *=See case narrative

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CH2M HILL Applied Sciences Laboratory (ASL)

<u>Client Information</u>	<u>Lab Information</u>
Client Sample ID: WB1-1206	Lab Sample ID: WB1-1206
Project Name: NW Pipe	Date Received: N/A
Sample Date: N/A	Dilution Factor: 1
Sample Time: N/A	Report Revision No.: 0
Type: QC	Reported By: JB
Matrix: Water	Reviewed By: <i>JB</i>

Analyte	CAS#	MRL	Sample Result	Qualifier	Units	Analysis Method	Date Analyzed
GC/MS							
Naphthalene	91-20-3	2.5	2.5	U	ug/L	SW8270SIM	12/10/07
Acenaphthylene	208-96-8	2.5	2.5	U	ug/L	SW8270SIM	12/10/07
Acenaphthene	83-32-9	2.5	2.5	U	ug/L	SW8270SIM	12/10/07
Fluorene	86-73-7	2.5	2.5	U	ug/L	SW8270SIM	12/10/07
Phenanthrene	85-01-8	2.5	0.0019	J	ug/L	SW8270SIM	12/10/07
Anthracene	120-12-7	2.5	2.5	U	ug/L	SW8270SIM	12/10/07
Fluoranthene	206-44-0	2.5	0.0028	J	ug/L	SW8270SIM	12/10/07
Pyrene	129-00-0	2.5	0.0026	J	ug/L	SW8270SIM	12/10/07
Benzo(a)anthracene	56-55-3	2.5	0.0034	J	ug/L	SW8270SIM	12/10/07
Chrysene	218-01-9	2.5	0.0034	J	ug/L	SW8270SIM	12/10/07
Benzo(b)fluoranthene	205-99-2	2.5	0.0037	J	ug/L	SW8270SIM	12/10/07
Benzo(k)fluoranthene	207-08-9	2.5	0.0033	J	ug/L	SW8270SIM	12/10/07
Benzo(a)pyrene	50-32-8	2.5	0.0029	J	ug/L	SW8270SIM	12/10/07
Indeno(1,2,3-c,d)pyrene	193-39-5	2.5	0.0036	J	ug/L	SW8270SIM	12/10/07
Dibenzo(a,h)anthracene	53-70-3	2.5	0.0035	J	ug/L	SW8270SIM	12/10/07
Benzo(g,h,i)perylene	191-24-2	2.5	0.0044	J	ug/L	SW8270SIM	12/10/07

<u>Surrogate</u>	<u>% Recovery</u>	<u>Control Limits</u>	<u>Qualifier</u>
Terphenyl-d14	76	33-141	

U=Not detected at specified reporting limit
 J=Estimated value below reporting limit
 E=Estimated value above calibration range
 *=See case narrative

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**CASE NARRATIVE
PCB AROCLORS BY SW8082**

Lab Reference No.: G3320

Client/Project: NW Pipe

- I. Holding Times:
All acceptance criteria were met.
- II. Analysis:
- A. Calibration:
All acceptance criteria were met.
 - B. Method Blank(s):
All acceptance criteria were met.
 - C. Duplicate Sample(s):
Analysis performed in accordance with standard operating procedure.
 - D. Spike Sample(s):
Analysis performed in accordance with standard operating procedure.
 - E. Lab Control Sample(s):
All acceptance criteria were met.
 - F. Surrogate Recoveries:
All acceptance criteria were met.
 - G. Other:
Not applicable.
- III. Documentation Exceptions:
None.
- IV. I certify that this data package is in compliance with the terms and conditions agreed to by the client and CH2M HILL, both technically and for completeness, except for the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designee, as verified by the following signature.

Prepared by: Amber Jaylor Date: 12/27/07

Reviewed by: Mark Shaver Date: 12/27/07

CH2M HILL Applied Sciences Laboratory (ASL)

<u>Client Information</u>	<u>Lab Information</u>
Client Sample ID: SW101	Lab Sample ID: G332001
Project Name: NW Pipe	Date Received: 12/05/07
Sample Date: 12/03/07	Dilution Factor: 1
Sample Time: 13:20	Report Revision No.: 0
Type: Grab	Reported By: AT
Matrix: Water	Reviewed By: <i>MS</i>

Analyte	CAS#	MRL	Sample Result	Qualifier	Units	Analysis Method	Date Analyzed
GC Semi-Volatiles							
Aroclor-1016	12674-11-2	0.26	0.26	U	ug/L	SW8082	12/14/07
Aroclor-1260	11096-82-5	0.26	0.26	U	ug/L	SW8082	12/14/07
Aroclor-1221	11104-28-2	0.26	0.26	U	ug/L	SW8082	12/14/07
Aroclor-1232	11141-16-5	0.26	0.26	U	ug/L	SW8082	12/14/07
Aroclor-1242	53469-21-9	0.26	0.26	U	ug/L	SW8082	12/14/07
Aroclor-1248	12672-29-6	0.26	0.26	U	ug/L	SW8082	12/14/07
Aroclor-1254	11097-69-1	0.26	0.37		ug/L	SW8082	12/14/07

<u>Surrogate</u>	<u>% Recovery</u>	<u>Control Limits</u>	<u>Qualifier</u>
DCBP	62	34-133	

U=Not detected at specified reporting limit
 J=Estimated value below reporting limit
 E=Estimated value above calibration range
 *=See case narrative

24

CH2M HILL Applied Sciences Laboratory (ASL)

<u>Client Information</u>	<u>Lab Information</u>
Client Sample ID: SW102	Lab Sample ID: G332002
Project Name: NW Pipe	Date Received: 12/05/07
Sample Date: 12/03/07	Dilution Factor: 1
Sample Time: 13:40	Report Revision No.: 0
Type: Grab	Reported By: AT
Matrix: Water	Reviewed By: MAS

Analyte	CAS#	MRL	Sample Result	Qualifier	Units	Analysis Method	Date Analyzed
GC Semi-Volatiles							
Aroclor-1016	12674-11-2	0.25	0.25	U	ug/L	SW8082	12/14/07
Aroclor-1260	11096-82-5	0.25	0.25	U	ug/L	SW8082	12/14/07
Aroclor-1221	11104-28-2	0.25	0.25	U	ug/L	SW8082	12/14/07
Aroclor-1232	11141-16-5	0.25	0.25	U	ug/L	SW8082	12/14/07
Aroclor-1242	53469-21-9	0.25	0.25	U	ug/L	SW8082	12/14/07
Aroclor-1248	12672-29-6	0.25	0.25	U	ug/L	SW8082	12/14/07
Aroclor-1254	11097-69-1	0.25	0.34		ug/L	SW8082	12/14/07

<u>Surrogate</u>	<u>% Recovery</u>	<u>Control Limits</u>	<u>Qualifier</u>
DCBP	42	34-133	

U=Not detected at specified reporting limit
 J=Estimated value below reporting limit
 E=Estimated value above calibration range
 *=See case narrative

25

CH2M HILL Applied Sciences Laboratory (ASL)

<u>Client Information</u>	<u>Lab Information</u>
Client Sample ID: SW103	Lab Sample ID: G332003
Project Name: NW Pipe	Date Received: 12/05/07
Sample Date: 12/03/07	Dilution Factor: 1
Sample Time: 13:05	Report Revision No.: 0
Type: Grab	Reported By: AT
Matrix: Water	Reviewed By: MM


Analyte	CAS#	MRL	Sample Result	Qualifier	Units	Analysis Method	Date Analyzed
GC Semi-Volatiles							
Aroclor-1016	12674-11-2	0.26	0.26	U	ug/L	SW8082	12/13/07
Aroclor-1260	11096-82-5	0.26	0.26	U	ug/L	SW8082	12/13/07
Aroclor-1221	11104-28-2	0.26	0.26	U	ug/L	SW8082	12/13/07
Aroclor-1232	11141-16-5	0.26	0.26	U	ug/L	SW8082	12/13/07
Aroclor-1242	53469-21-9	0.26	0.26	U	ug/L	SW8082	12/13/07
Aroclor-1248	12672-29-6	0.26	0.26	U	ug/L	SW8082	12/13/07
Aroclor-1254	11097-69-1	0.26	0.26	U	ug/L	SW8082	12/13/07

<u>Surrogate</u>	<u>% Recovery</u>	<u>Control Limits</u>	<u>Qualifier</u>
DCBP	45	34-133	

U=Not detected at specified reporting limit
 J=Estimated value below reporting limit
 E=Estimated value above calibration range
 *=See case narrative

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CH2M HILL Applied Sciences Laboratory (ASL)

<u>Client Information</u>	<u>Lab Information</u>
Client Sample ID: SW110	Lab Sample ID: G332011
Project Name: NW Pipe	Date Received: 12/05/07
Sample Date: 12/03/07	Dilution Factor: 1
Sample Time: 10:30	Report Revision No.: 0
Type: Grab	Reported By: AT
Matrix: Water	Reviewed By: 

Analyte	CAS#	MRL	Sample Result	Qualifier	Units	Analysis Method	Date Analyzed
GC Semi-Volatiles							
Aroclor-1016	12674-11-2	0.26	0.26	U	ug/L	SW8082	12/14/07
Aroclor-1260	11096-82-5	0.26	0.26	U	ug/L	SW8082	12/14/07
Aroclor-1221	11104-28-2	0.26	0.26	U	ug/L	SW8082	12/14/07
Aroclor-1232	11141-16-5	0.26	0.26	U	ug/L	SW8082	12/14/07
Aroclor-1242	53469-21-9	0.26	0.26	U	ug/L	SW8082	12/14/07
Aroclor-1248	12672-29-6	0.26	0.26	U	ug/L	SW8082	12/14/07
Aroclor-1254	11097-69-1	0.26	0.32		ug/L	SW8082	12/14/07

<u>Surrogate</u>	<u>% Recovery</u>	<u>Control Limits</u>	<u>Qualifier</u>
DCBP	54	34-133	

U=Not detected at specified reporting limit
 J=Estimated value below reporting limit
 E=Estimated value above calibration range
 *=See case narrative



CH2M HILL Applied Sciences Laboratory (ASL)

<u>Client Information</u>	<u>Lab Information</u>
Client Sample ID: SW117	Lab Sample ID: G332016
Project Name: NW Pipe	Date Received: 12/05/07
Sample Date: 12/03/07	Dilution Factor: 1
Sample Time: 14:00	Report Revision No.: 0
Type: Grab	Reported By: AT
Matrix: Water	Reviewed By: <i>MT</i>

Analyte	CAS#	MRL	Sample Result	Qualifier	Units	Analysis Method	Date Analyzed
GC Semi-Volatiles							
Aroclor-1016	12674-11-2	0.25	0.25	U	ug/L	SW8082	12/13/07
Aroclor-1260	11096-82-5	0.25	0.25	U	ug/L	SW8082	12/13/07
Aroclor-1221	11104-28-2	0.25	0.25	U	ug/L	SW8082	12/13/07
Aroclor-1232	11141-16-5	0.25	0.25	U	ug/L	SW8082	12/13/07
Aroclor-1242	53469-21-9	0.25	0.25	U	ug/L	SW8082	12/13/07
Aroclor-1248	12672-29-6	0.25	0.25	U	ug/L	SW8082	12/13/07
Aroclor-1254	11097-69-1	0.25	0.25	U	ug/L	SW8082	12/13/07

<u>Surrogate</u>	<u>% Recovery</u>	<u>Control Limits</u>	<u>Qualifier</u>
DCBP	50	34-133	

U=Not detected at specified reporting limit
 J=Estimated value below reporting limit
 E=Estimated value above calibration range
 *=See case narrative

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CH2M HILL Applied Sciences Laboratory (ASL)

<u>Client Information</u>	<u>Lab Information</u>
Client Sample ID: SW118	Lab Sample ID: G332017
Project Name: NW Pipe	Date Received: 12/05/07
Sample Date: 12/03/07	Dilution Factor: 1
Sample Time: 14:45	Report Revision No.: 0
Type: Grab	Reported By: AT
Matrix: Water	Reviewed By: <i>MA</i>

Analyte	CAS#	MRL	Sample Result	Qualifier	Units	Analysis Method	Date Analyzed
GC Semi-Volatiles							
Aroclor-1016	12674-11-2	0.26	0.26	U	ug/L	SW8082	12/14/07
Aroclor-1260	11096-82-5	0.26	0.26	U	ug/L	SW8082	12/14/07
Aroclor-1221	11104-28-2	0.26	0.26	U	ug/L	SW8082	12/14/07
Aroclor-1232	11141-16-5	0.26	0.26	U	ug/L	SW8082	12/14/07
Aroclor-1242	53469-21-9	0.26	0.26	U	ug/L	SW8082	12/14/07
Aroclor-1248	12672-29-6	0.26	0.26	U	ug/L	SW8082	12/14/07
Aroclor-1254	11097-69-1	0.26	0.26	U	ug/L	SW8082	12/14/07

<u>Surrogate</u>	<u>% Recovery</u>	<u>Control Limits</u>	<u>Qualifier</u>
DCBP	35	34-133	

U=Not detected at specified reporting limit
 J=Estimated value below reporting limit
 E=Estimated value above calibration range
 *=See case narrative

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CH2M HILL Applied Sciences Laboratory (ASL)

<u>Client Information</u>	<u>Lab Information</u>
Client Sample ID: SW119	Lab Sample ID: G332018
Project Name: NW Pipe	Date Received: 12/05/07
Sample Date: 12/03/07	Dilution Factor: 1
Sample Time: 10:55	Report Revision No.: 0
Type: Grab	Reported By: AT
Matrix: Water	Reviewed By: <i>MS</i>

Analyte	CAS#	MRL	Sample Result	Qualifier	Units	Analysis Method	Date Analyzed
GC Semi-Volatiles							
Aroclor-1016	12674-11-2	0.25	0.25	U	ug/L	SW8082	12/13/07
Aroclor-1260	11096-82-5	0.25	0.25	U	ug/L	SW8082	12/13/07
Aroclor-1221	11104-28-2	0.25	0.25	U	ug/L	SW8082	12/13/07
Aroclor-1232	11141-16-5	0.25	0.25	U	ug/L	SW8082	12/13/07
Aroclor-1242	53469-21-9	0.25	0.25	U	ug/L	SW8082	12/13/07
Aroclor-1248	12672-29-6	0.25	0.25	U	ug/L	SW8082	12/13/07
Aroclor-1254	11097-69-1	0.25	0.25	U	ug/L	SW8082	12/13/07

<u>Surrogate</u>	<u>% Recovery</u>	<u>Control Limits</u>	<u>Qualifier</u>
DCBP	56	34-133	

U=Not detected at specified reporting limit
 J=Estimated value below reporting limit
 E=Estimated value above calibration range
 *=See case narrative

CH2M HILL Applied Sciences Laboratory (ASL)

<u>Client Information</u>	<u>Lab Information</u>
Client Sample ID: WB1-1209	Lab Sample ID: WB1-1209
Project Name: NW Pipe	Date Received: N/A
Sample Date: N/A	Dilution Factor: 1
Sample Time: N/A	Report Revision No.: 0
Type: QC	Reported By: AT
Matrix: Water	Reviewed By: MK

Analyte	CAS#	MRL	Sample Result	Qualifier	Units	Analysis Method	Date Analyzed
GC Semi-Volatiles							
Aroclor-1016	12674-11-2	0.25	0.25	U	ug/L	SW8082	12/13/07
Aroclor-1260	11096-82-5	0.25	0.25	U	ug/L	SW8082	12/13/07
Aroclor-1221	11104-28-2	0.25	0.25	U	ug/L	SW8082	12/13/07
Aroclor-1232	11141-16-5	0.25	0.25	U	ug/L	SW8082	12/13/07
Aroclor-1242	53469-21-9	0.25	0.25	U	ug/L	SW8082	12/13/07
Aroclor-1248	12672-29-6	0.25	0.25	U	ug/L	SW8082	12/13/07
Aroclor-1254	11097-69-1	0.25	0.25	U	ug/L	SW8082	12/13/07

<u>Surrogate</u>	<u>% Recovery</u>	<u>Control Limits</u>	<u>Qualifier</u>
DCBP	47	34-133	

U=Not detected at specified reporting limit
 J=Estimated value below reporting limit
 E=Estimated value above calibration range
 *=See case narrative

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**CASE NARRATIVE
FULES ANALYSIS BY NWTPH-Dx AND NWTPH-Rx**

Lab Reference No.: G3320

Client/Project: NW Pipe

- I. Holding Times:
All acceptance criteria were met.

- II. Analysis:
 - A. Calibration:
All acceptance criteria were met.

 - B. Method Blank(s):
All acceptance criteria were met.

 - C. Duplicate Sample(s):
Analysis performed in accordance with standard operating procedure.

 - D. Spike Sample(s):
Analysis performed in accordance with standard operating procedure.

 - E. Lab Control Sample(s):
All acceptance criteria were met.

 - F. Surrogate Recoveries:
All acceptance criteria were met.

 - G. Other:
"J" values are reported for samples that could not be analyzed undiluted due to instrument contamination concerns.

- III. Documentation Exceptions:
None.

- IV. I certify that this data package is in compliance with the terms and conditions agreed to by the client and CH2M HILL, both technically and for completeness, except for the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designee, as verified by the following signature.

Prepared by: Amber Taylor Date: 12/31/07

Reviewed by: J. Reathman Date: 12/31/07

CH2M HILL Applied Sciences Laboratory

<u>Client Information</u>	<u>Lab Information</u>
Project Name: NW Pipe	Lab Batch ID: G3320
Sampling Date: See Cross Reference	Date Received: 12/05/2007
Sampling Time: See Cross Reference	Analysis Method: NWTPH-HCID
Type: Grab	Report Revision No.: 0
Matrix: Water	Analyzed By: AJT
Basis: As Received	Reviewed By: <i>JDA</i>

Client ID	Lab ID	GRO* C7-C10	DRO* C10-C24	RRO* C24-C36	Date Analyzed
METHOD BLANK	WB2-1206	---	---	---	12/07/2007
SW101	G332001	---	---	+	12/07/2007
SW102	G332002	---	---	+	12/07/2007
SW103	G332003	---	---	---	12/07/2007
SW105	G332005	---	---	---	12/07/2007
SW108	G332008	---	---	---	12/07/2007
SW108-1	G332009	---	---	---	12/07/2007
SW110	G332011	---	+	+	12/07/2007
SW112	G332013	---	---	+	12/07/2007
SW113	G332014	---	+	+	12/11/2007
SW117	G332016	---	---	---	12/08/2007
SW118	G332017	---	---	+	12/11/2007
SW119	G332018	---	+	+	12/08/2007

+ = Detected at or above reporting limit.
 - = Not detected at specified reporting limit

***Reporting Limits for HCID Testing**

Matrix	Gasoline Range	Diesel Range	Oil Range
Soil	20mg/Kg	50mg/Kg	100 mg/Kg
Water	0.25 mg/L	0.63 mg/L	0.63 mg/L

CH2M HILL Applied Sciences Laboratory (ASL)

Client Information

Client Sample ID: SW101

Project Name: NW Pipe

Sample Date: 12/03/07

Sample Time: 13:20

Type: Grab

Matrix: Water

Lab Information

Lab Sample ID: G332001

Date Received: 12/05/07

Dilution Factor: 1

Report Revision No.: 0

Reported By: AT

Reviewed By: *JPA*

Analyte	CAS#	MRL	Sample Result	Qualifier	Units	Analysis Method	Date Analyzed
GC Semi-Volatiles							
TPH-Oil	TPH-Oil	0.51	0.67		mg/L	TPHNW-RX	12/07/07
	<u>Surrogate</u>	<u>% Recovery</u>	<u>Control Limits</u>	<u>Qualifier</u>			
	o-Terphenyl	97	70-130				
	Octacosane	90	70-130				

U=Not detected at specified reporting limit

J=Estimated value below reporting limit

E=Estimated value above calibration range

*=See case narrative

CH2M HILL ASL

AT071231-10-23-G3320-D1

2300 NW Walnut Blvd., Corvallis, OR 97330-3538
 P.O. Box 428, Corvallis, OR 97339-0428
 Tel 541.752.4271 Fax 541.752.0276

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CH2M HILL Applied Sciences Laboratory (ASL)

<u>Client Information</u>	<u>Lab Information</u>
Client Sample ID: SW102	Lab Sample ID: G332002
Project Name: NW Pipe	Date Received: 12/05/07
Sample Date: 12/03/07	Dilution Factor: 1
Sample Time: 13:40	Report Revision No.: 0
Type: Grab	Reported By: AT
Matrix: Water	Reviewed By: <i>JRA</i>

Analyte	CAS#	MRL	Sample Result	Qualifier	Units	Analysis Method	Date Analyzed
GC Semi-Volatiles							
TPH-Oil	TPH-Oil	0.51	1.1		mg/L	TPHNW-RX	12/07/07

<u>Surrogate</u>	<u>% Recovery</u>	<u>Control Limits</u>	<u>Qualifier</u>
o-Terphenyl	93	70-130	
Octacosane	82	70-130	

U=Not detected at specified reporting limit
 J=Estimated value below reporting limit
 E=Estimated value above calibration range
 *=See case narrative

JRA

CH2M HILL Applied Sciences Laboratory (ASL)

Client Information

Client Sample ID: SW110

Project Name: NW Pipe

Sample Date: 12/03/07

Sample Time: 10:30

Type: Grab

Matrix: Water

Lab Information

Lab Sample ID: G332011

Date Received: 12/05/07

Dilution Factor: 5

Report Revision No.: 0

Reported By: AT

Reviewed By: *BJH*

Analyte	CAS#	MRL	Sample Result	Qualifier	Units	Analysis Method	Date Analyzed
GC Semi-Volatiles							
TPH-Oil	TPH-Oil	2.6	2.6		mg/L	TPHNW-RX	12/07/07
	<u>Surrogate</u>		<u>% Recovery</u>	<u>Control Limits</u>		<u>Qualifier</u>	
	o-Terphenyl		97	70-130			
	Octacosane		90	70-130			

U=Not detected at specified reporting limit

J=Estimated value below reporting limit

E=Estimated value above calibration range

*=See case narrative

CH2M HILL ASL

AT071231-12:07-G3320-D1

2300 NW Walnut Blvd., Corvallis, OR 97330-3538
P.O. Box 428, Corvallis, OR 97339-0428
Tel 541.752.4271 Fax 541.752.0276

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CH2M HILL Applied Sciences Laboratory (ASL)

<u>Client Information</u>	<u>Lab Information</u>
Client Sample ID: SW110	Lab Sample ID: G332011
Project Name: NW Pipe	Date Received: 12/05/07
Sample Date: 12/03/07	Dilution Factor: 5
Sample Time: 10:30	Report Revision No.: 0
Type: Grab	Reported By: AT
Matrix: Water	Reviewed By: <i>DA</i>

Analyte	CAS#	MRL	Sample Result	Qualifier	Units	Analysis Method	Date Analyzed
GC Semi-Volatiles							
TPH-Diesel	TPH-Diesel	1.3	0.63	J	mg/L	TPHNW-DX	12/07/07

<u>Surrogate</u>	<u>% Recovery</u>	<u>Control Limits</u>	<u>Qualifier</u>
o-Terphenyl	97	70-130	
Octacosane	91	70-130	

U=Not detected at specified reporting limit
 J=Estimated value below reporting limit
 E=Estimated value above calibration range
 *=See case narrative

CH2M HILL Applied Sciences Laboratory (ASL)

<u>Client Information</u>	<u>Lab Information</u>
Client Sample ID: SW112	Lab Sample ID: G332013
Project Name: NW Pipe	Date Received: 12/05/07
Sample Date: 12/03/07	Dilution Factor: 1
Sample Time: 11:35	Report Revision No.: 0
Type: Grab	Reported By: AT
Matrix: Water	Reviewed By: <i>JA</i>

Analyte	CAS#	MRL	Sample Result	Qualifier	Units	Analysis Method	Date Analyzed
GC Semi-Volatiles							
TPH-Oil	TPH-Oil	0.50	0.66		mg/L	TPHNW-RX	12/07/07
	<u>Surrogate</u>		<u>% Recovery</u>	<u>Control Limits</u>		<u>Qualifier</u>	
	o-Terphenyl		97	70-130			
	Octacosane		89	70-130			

U=Not detected at specified reporting limit
 J=Estimated value below reporting limit
 E=Estimated value above calibration range
 *-See case narrative

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CH2M HILL Applied Sciences Laboratory (ASL)

<u>Client Information</u>		<u>Lab Information</u>	
Client Sample ID: SW113		Lab Sample ID: G332014	
Project Name: NW Pipe		Date Received: 12/05/07	
Sample Date: 12/03/07		Dilution Factor: 1	
Sample Time: 15:25		Report Revision No.: 0	
Type: Grab		Reported By: AT	
Matrix: Water		Reviewed By: <i>JRH</i>	

Analyte	CAS#	MRL	Sample Result	Qualifier	Units	Analysis Method	Date Analyzed
GC Semi-Volatiles							
TPH-Diesel	TPH-Diesel	0.26	1.0		mg/L	TPHNW-DX	12/08/07

<u>Surrogate</u>	<u>% Recovery</u>	<u>Control Limits</u>	<u>Qualifier</u>
o-Terphenyl	95	70-130	
Octacosane	79	70-130	

U=Not detected at specified reporting limit
 J=Estimated value below reporting limit
 E=Estimated value above calibration range
 *=See case narrative

CH2M HILL Applied Sciences Laboratory (ASL)

<u>Client Information</u>	<u>Lab Information</u>
Client Sample ID: SW113	Lab Sample ID: G332014
Project Name: NW Pipe	Date Received: 12/05/07
Sample Date: 12/03/07	Dilution Factor: 5
Sample Time: 15:25	Report Revision No.: 0
Type: Grab	Reported By: AT
Matrix: Water	Reviewed By: <i>JBH</i>

Analyte	CAS#	MRL	Sample Result	Qualifier	Units	Analysis Method	Date Analyzed
GC Semi-Volatiles							
TPH-Oil	TPH-Oil	2.6	6.4		mg/L	TPHNW-RX	12/11/07

<u>Surrogate</u>	<u>% Recovery</u>	<u>Control Limits</u>	<u>Qualifier</u>
o-Terphenyl	97	70-130	
Octacosane	90	70-130	

U=Not detected at specified reporting limit
 J=Estimated value below reporting limit
 E=Estimated value above calibration range
 *=See case narrative

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CH2M HILL Applied Sciences Laboratory (ASL)

<u>Client Information</u>		<u>Lab Information</u>	
Client Sample ID: SW118		Lab Sample ID: G332017	
Project Name: NW Pipe		Date Received: 12/05/07	
Sample Date: 12/03/07		Dilution Factor: 5	
Sample Time: 14:45		Report Revision No.: 0	
Type: Grab		Reported By: AT	
Matrix: Water		Reviewed By: <i>JBH</i>	

Analyte	CAS#	MRL	Sample Result	Qualifier	Units	Analysis Method	Date Analyzed
GC Semi-Volatiles							
TPH-Oil	TPH-Oil	2.5	3.2		mg/L	TPHNW-RX	12/11/07

<u>Surrogate</u>	<u>% Recovery</u>	<u>Control Limits</u>	<u>Qualifier</u>
o-Terphenyl	77	70-130	
Octacosane	73	70-130	

U=Not detected at specified reporting limit
 J=Estimated value below reporting limit
 E=Estimated value above calibration range
 *=See case narrative

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CH2M HILL Applied Sciences Laboratory (ASL)

<u>Client Information</u>	<u>Lab Information</u>
Client Sample ID: SW119	Lab Sample ID: G332018
Project Name: NW Pipe	Date Received: 12/05/07
Sample Date: 12/03/07	Dilution Factor: 5
Sample Time: 10:55	Report Revision No.: 0
Type: Grab	Reported By: AT
Matrix: Water	Reviewed By: <i>AT</i>

Analyte	CAS#	MRL	Sample Result	Qualifier	Units	Analysis Method	Date Analyzed
GC Semi-Volatiles							
TPH-Diesel	TPH-Diesel	1.3	0.81	J	mg/L	TPHNW-DX	12/08/07

<u>Surrogate</u>	<u>% Recovery</u>	<u>Control Limits</u>	<u>Qualifier</u>
o-Terphenyl	96	70-130	
Octacosane	92	70-130	

U=Not detected at specified reporting limit
 J=Estimated value below reporting limit
 E=Estimated value above calibration range
 *=See case narrative

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CH2M HILL Applied Sciences Laboratory (ASL)

<u>Client Information</u>		<u>Lab Information</u>	
Client Sample ID: SW119		Lab Sample ID: G332018	
Project Name: NW Pipe		Date Received: 12/05/07	
Sample Date: 12/03/07		Dilution Factor: 5	
Sample Time: 10:55		Report Revision No.: 0	
Type: Grab		Reported By: AT	
Matrix: Water		Reviewed By: <i>[Signature]</i>	

Analyte	CAS#	MRL	Sample Result	Qualifier	Units	Analysis Method	Date Analyzed
GC Semi-Volatiles							
TPH-Oil	TPH-Oil	2.5	3.7		mg/L	TPHNW-RX	12/08/07
	<u>Surrogate</u>		<u>% Recovery</u>			<u>Control Limits</u>	<u>Qualifier</u>
	o-Terphenyl		97			70-130	
	Octacosane		90			70-130	

U=Not detected at specified reporting limit
 J=Estimated value below reporting limit
 E=Estimated value above calibration range
 *=See case narrative

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CH2M HILL Applied Sciences Laboratory (ASL)

<u>Client Information</u>	<u>Lab Information</u>
Client Sample ID: WB2-1206	Lab Sample ID: WB2-1206
Project Name: NW Pipe	Date Received: N/A
Sample Date: N/A	Dilution Factor: 1
Sample Time: N/A	Report Revision No.: 0
Type: QC	Reported By: AT
Matrix: Water	Reviewed By: <i>BT</i>

Analyte	CAS#	MRL	Sample Result	Qualifier	Units	Analysis Method	Date Analyzed
GC Semi-Volatiles							
TPH-Diesel	TPH-Diesel	0.25	0.012	J	mg/L	TPHNW-DX	12/07/07

<u>Surrogate</u>	<u>% Recovery</u>	<u>Control Limits</u>	<u>Qualifier</u>
o-Terphenyl	105	70-130	
Octacosane	100	70-130	

U=Not detected at specified reporting limit
 J=Estimated value below reporting limit
 E=Estimated value above calibration range
 *=See case narrative

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CH2M HILL Applied Sciences Laboratory (ASL)

Client Information		Lab Information	
Client Sample ID: WB2-1206		Lab Sample ID: WB2-1206	
Project Name: NW Pipe		Date Received: N/A	
Sample Date: N/A		Dilution Factor: 1	
Sample Time: N/A		Report Revision No.: 0	
Type: QC		Reported By: AT	
Matrix: Water		Reviewed By: <i>[Signature]</i>	

Analyte	CAS#	MRL	Sample Result	Qualifier	Units	Analysis Method	Date Analyzed
GC Semi-Volatiles							
TPH-Oil	TPH-Oil	0.50	0.11	J	mg/L	TPHNW-RX	12/07/07
	<u>Surrogate</u>		<u>% Recovery</u>			<u>Control Limits</u>	<u>Qualifier</u>
	o-Terphenyl		97			70-130	
	Octacosane		90			70-130	

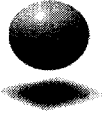
U=Not detected at specified reporting limit
 J=Estimated value below reporting limit
 E=Estimated value above calibration range
 *=See case narrative

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CH2M HILL Applied Sciences Laboratory
CHAIN OF CUSTODY RECORD

CVO 2300 NW Walnut Boulevard
Corvallis, OR 97330-3638
(541) 752-4271 FAX (541) 752-0276

Project/Contact Information				THIS AREA FOR LAB USE ONLY											
Project #	358932.PH.OE			Lab #	Pg 1 of 2		Requested Analysis			QC Level			Cooler Temperature		
Project Name	Northwest Pipe Co			Lab PM	Custody Review		TSS			1 2 3			Lab ID		
Report Copy to	Pat Heins & EData to Tina Rice			Log In	LIMS Verification		follow-up						Alternate Description		
Company Name/Contact	CH2M HILL Pat Heins/PDX			pH	Cust Seals Y N		PCBs Anclors SW8082						Lab ID		
Sampling				Type Matrix		Client Sample ID		PAHs SW8270 SIM						Lab ID	
				Date	Time	Comp	Grab	Water	Soil	Sediment	Metals SW610 Zinc only				
Total Number of Containers								PCBs Anclors SW8082						Lab ID	
								NWTPH W/ Dx & Ex						Lab ID	
								TSS						Lab ID	
								Preservative						Lab ID	
12/3/07	1:20	X	X			SW101			X	X	X			1	
12/3/07	1:40	X	X			SW102			X	X	X			2	
12/3/07	1:05	X	X			SW103			X	X	X			3	
12/3/07	12:40	X	X			SW104								4	
12/3/07	12:20	X	X			SW105			X	X	X			5	
12/3/07	12:45	X	X			SW106								6	
12/3/07	12:50	X	X			SW107								7	
12/3/07	12:00	X	X			SW108			X	X	X			8	
12/3/07	12:00	X	X			SW108-1			X	X	X			9	
12/3/07	11:30	X	X			SW109								10	
12/3/07	10:30	X	X			SW110			X	X	X			11	
12/3/07	3:40	X	X			SW111								12	
12/3/07	11:35	X	X			SW112			X	X	X			13	
12/3/07	3:25	X	X			SW113			X	X	X			14	
Relinquished By	Pat Heins			Date/Time		12/4/07 12:00		Received By			12-5-07 11:25				
Relinquished By	Pat Heins			Date/Time				Received By							
Relinquished By	Pat Heins			Date/Time				Received By							
Relinquished By	Pat Heins			Date/Time				Received By							
Special Instructions				* Metals: Zn ONLY Standard 21 DAY TAT											



Sample Receipt Exception Report

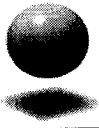
Sample Batch Number: G3320

Client /Project NW Pipe

The following exceptions were noted:	Comments (write number of exception description and the impacted sample numbers)
1. No custody seal as required by project	Metals container for sample SW114 (G332015) arrived leaking.
2. No chain-of-custody provided	
3. Analysis, description, date of collection not provided	
X 4. Samples broken or leaking on receipt.	VOC vials for samples: SW101 G3320-01 SW102 -02 SW103 -03 SW105 -05 SW108 -08 SW108-1 -09 SW110 -11 SW112 -13 SW113 -14 SW117 -16 SW118 -17 SW119 ↓ -18 Arrived but were not on COC.
5. Temperature of samples inappropriate for analysis requested	
6. Container inappropriate for analysis requested	
7. Inadequate sample volume.	
8. Preservation inappropriate for analysis requested	
9. Samples received out of holding time for analysis requested	
10. Discrepancies between COC form and container labels.	
11. Other.	

ACTION TAKEN: per client, proceed with analysis of metals sample G3320-15
VOC ~~are~~ containers for TPH-Gas analysis if required.
 REV DDM 12/15/07

Originator: Laura McKinley Date: 12-5-07
 Client was notified on: 12/5/07 Client Contact: Pat Hens / PDx
 (Date/Time)



Batch Number: 63320

Date received: 12-5-07

Client/Project: NW Rpe

VERIFICATION OF SAMPLE CONDITIONS (verify all items) * HD = Client Hand delivered Samples

Observation	YES	NO
Radiological Screening for AFCEE		X
Were custody seals intact and on the outside of the cooler?	X	
If yes, Where? Front <input checked="" type="checkbox"/> Rear <input checked="" type="checkbox"/> Lt Side <input checked="" type="checkbox"/> Rt Side <input checked="" type="checkbox"/>		
Type of packing material: <u>ice</u> Blue Ice <u>Bubble wrap</u>		
Was the Chain of Custody inside the cooler?	X	
Was the Chain of Custody properly filled out?	X	
Were the sample containers in good condition?		X
Containers supplied by ASL?	X	
Any sample with < 1/2 holding time remaining? If so contact LPM		X
Was there ice in the cooler? Enter temp. <u>1.4, 5.2, 2.8, 2.4, 4.4, 4.6, 5.4</u>	X	
All VOCs free of air bubbles?	X	

VERIFICATION OF SAMPLE PRESERVATION

Sample No	Nutrients pH <2	Metals pH <2	Volatiles pH <2	Cyanides pH >12	TOC pH <2	TOX pH <2	Other (specify)	N/A (soils/unpres)
1	<2							
2	<2							
3	<2	<2						
4								
5	<2							
6								
7								
8	<2							
9	<2							
10								
11	<2							
12								
13	<2							
14	<2							
15								
16	<2							
17	<2	<2						
18	<2	<2						
19								
20								
21								
22								
23								
24								
25								
26								
27								

LOGIN AND pH VERIFICATIONS PERFORMED BY

Gemma McKinley 12-5-07/11:42
Date/Time

Date/Time

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