TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

ORELAP#: OR100021

November 23, 2009

Pat Heins
CH2M-Hill
2020 SW 4th Suite 300
Portland, OR 97201

RE: NW Pipe Project

Enclosed are the results of analyses for samples received by the laboratory on 11/09/09 13:30. The following list is a summary of the Work Orders contained in this report, generated on 11/23/09 16:51.

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

Work Order	Project	ProjectNumber
PSK0253	NW Pipe Project	358932.RI.06

TestAmerica Portland

Darrell Auvil, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

CH2M-Hill	Project Name:	**NW Pipe Project**	
2020 SW 4th Suite 300	Project Number:	358932.RI.06	Report Created:
Portland, OR 97201	Project Manager:	Pat Heins	11/23/09 16:51

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
DS005-110709	PSK0253-01	Water	11/07/09 12:30	11/09/09 13:30
DS012-110709	PSK0253-02	Water	11/07/09 13:00	11/09/09 13:30
DS017--110709	PSK0253-03	Water	11/07/09 13:30	11/09/09 13:30
DS006--110709	PSK0253-04	Water	11/07/09 13:40	11/09/09 13:30
DS224--110709	PSK0253-05	Water	11/07/09 13:50	11/09/09 13:30
DS225--110709	PSK0253-06	Water	11/07/09 14:10	11/09/09 13:30
DS120-110709	PSK0253-07	Water	11/07/09 14:45	11/09/09 13:30
DS120-110709-1	PSK0253-08	Water	11/07/09 14:45	11/09/09 13:30
DS117--110709	PSK0253-09	Water	11/07/09 15:00	11/09/09 13:30
DS223-110709	PSK0253-10	Water	11/07/09 15:30	11/09/09 13:30
DS221-110709	PSK0253-11	Water	11/07/09 16:00	11/09/09 13:30
Trip Blank	PSK0253-12	Water	11/07/09 00:00	11/09/09 13:30

TestAmerica Portland

Darrell Auvil, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

CH2M-Hill	Project Name:	**NW Pipe Project**	
2020 SW 4th Suite 300	Project Number:	358932.RI.06	Report Created:
Portland, OR 97201	Project Manager:	Pat Heins	11/23/09 16:51

Total Metals per EPA 6000/7000 Series Methods

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PSK0253-01 (DS005-110709)			**Water**			**Sampled: 11/07/09 12:30**				
Aluminum	EPA 6010B	ND	*0.0150*	0.100	mg/l	1x	9110349	11/11/09 08:13	11/11/09 13:48	
Antimony	"	ND	*0.00600*	0.100	"	"	"	"	"	
Arsenic	"	**0.00347**	*0.00300*	0.0500	"	"	"	"	"	**J**
Cadmium	"	ND	*0.000300*	0.0100	"	"	"	"	"	
Chromium	"	ND	*0.00100*	0.0100	"	"	"	"	"	
Copper	"	ND	*0.00200*	0.0100	"	"	"	"	"	
Lead	"	ND	*0.00700*	0.0500	"	"	"	"	"	
Nickel	"	ND	*0.00100*	0.0500	"	"	"	"	"	
Selenium	"	ND	*0.00800*	0.0500	"	"	"	"	"	
Silver	"	ND	*0.00300*	0.0200	"	"	"	"	"	
Zinc	"	**0.0782**	*0.00200*	0.0200	"	"	"	"	"	
PSK0253-02 (DS012-110709)			**Water**			**Sampled: 11/07/09 13:00**				
Aluminum	EPA 6010B	ND	*0.0150*	0.100	mg/l	1x	9110349	11/11/09 08:13	11/11/09 13:54	
Antimony	"	ND	*0.00600*	0.100	"	"	"	"	"	
Arsenic	"	ND	*0.00300*	0.0500	"	"	"	"	"	
Cadmium	"	ND	*0.000300*	0.0100	"	"	"	"	"	
Chromium	"	ND	*0.00100*	0.0100	"	"	"	"	"	
Copper	"	ND	*0.00200*	0.0100	"	"	"	"	"	
Lead	"	ND	*0.00700*	0.0500	"	"	"	"	"	
Nickel	"	ND	*0.00100*	0.0500	"	"	"	"	"	
Selenium	"	ND	*0.00800*	0.0500	"	"	"	"	"	
Silver	"	ND	*0.00300*	0.0200	"	"	"	"	"	
Zinc	"	**0.0617**	*0.00200*	0.0200	"	"	"	"	"	
PSK0253-03 (DS017--110709)			**Water**			**Sampled: 11/07/09 13:30**				
Zinc	EPA 6010B	**0.0198**	*0.00200*	0.0200	mg/l	1x	9110349	11/11/09 08:13	11/11/09 14:13	**J**
PSK0253-04 (DS006--110709)			**Water**			**Sampled: 11/07/09 13:40**				
Zinc	EPA 6010B	**0.0908**	*0.00200*	0.0200	mg/l	1x	9110349	11/11/09 08:13	11/11/09 14:19	

TestAmerica Portland

Darrell Auvil, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

CH2M-Hill	Project Name:	**NW Pipe Project**	
2020 SW 4th Suite 300	Project Number:	358932.RI.06	Report Created:
Portland, OR 97201	Project Manager:	Pat Heins	11/23/09 16:51

Total Metals per EPA 6000/7000 Series Methods

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PSK0253-05 (DS224--110709)			**Water**			**Sampled: 11/07/09 13:50**				
Zinc	EPA 6010B	**0.382**	*0.00200*	0.0200	mg/l	1x	9110349	11/11/09 08:13	11/11/09 14:38	
PSK0253-06 (DS225--110709)			**Water**			**Sampled: 11/07/09 14:10**				
Zinc	EPA 6010B	**0.870**	*0.00200*	0.0200	mg/l	1x	9110349	11/11/09 08:13	11/11/09 14:44	
PSK0253-07 (DS120-110709)			**Water**			**Sampled: 11/07/09 14:45**				
Aluminum	EPA 6010B	ND	*0.0150*	0.100	mg/l	1x	9110349	11/11/09 08:13	11/11/09 14:50	
Antimony	"	ND	*0.00600*	0.100	"	"	"	"	"	
Arsenic	"	ND	*0.00300*	0.0500	"	"	"	"	"	
Cadmium	"	ND	*0.000300*	0.0100	"	"	"	"	"	
Chromium	"	ND	*0.00100*	0.0100	"	"	"	"	"	
Copper	"	ND	*0.00200*	0.0100	"	"	"	"	"	
Lead	"	ND	*0.00700*	0.0500	"	"	"	"	"	
Nickel	"	ND	*0.00100*	0.0500	"	"	"	"	"	
Selenium	"	ND	*0.00800*	0.0500	"	"	"	"	"	
Silver	"	ND	*0.00300*	0.0200	"	"	"	"	"	
Zinc	"	**0.0542**	*0.00200*	0.0200	"	"	"	"	"	
PSK0253-08 (DS120-110709-1)			**Water**			**Sampled: 11/07/09 14:45**				
Aluminum	EPA 6010B	ND	*0.0150*	0.100	mg/l	1x	9110349	11/11/09 08:13	11/11/09 14:57	
Antimony	"	ND	*0.00600*	0.100	"	"	"	"	"	
Arsenic	"	**0.00491**	*0.00300*	0.0500	"	"	"	"	"	**J**
Cadmium	"	ND	*0.000300*	0.0100	"	"	"	"	"	
Chromium	"	ND	*0.00100*	0.0100	"	"	"	"	"	
Copper	"	ND	*0.00200*	0.0100	"	"	"	"	"	
Lead	"	ND	*0.00700*	0.0500	"	"	"	"	"	
Nickel	"	ND	*0.00100*	0.0500	"	"	"	"	"	
Selenium	"	ND	*0.00800*	0.0500	"	"	"	"	"	
Silver	"	ND	*0.00300*	0.0200	"	"	"	"	"	
Zinc	"	**0.0557**	*0.00200*	0.0200	"	"	"	"	"	

TestAmerica Portland

Darrell Auvil, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

CH2M-Hill	Project Name:	**NW Pipe Project**	
2020 SW 4th Suite 300	Project Number:	358932.RI.06	Report Created:
Portland, OR 97201	Project Manager:	Pat Heins	11/23/09 16:51

Total Metals per EPA 6000/7000 Series Methods

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PSK0253-09 (DS117--110709)			**Water**			**Sampled: 11/07/09 15:00**				
Zinc	EPA 6010B	**0.818**	*0.00200*	0.0200	mg/l	1x	9110349	11/11/09 08:13	11/11/09 15:03	
PSK0253-10 (DS223-110709)			**Water**			**Sampled: 11/07/09 15:30**				
Aluminum	EPA 6010B	ND	*0.0150*	0.100	mg/l	1x	9110349	11/11/09 08:13	11/11/09 15:15	
Antimony	"	ND	*0.00600*	0.100	"	"	"	"	"	
Arsenic	"	**0.00604**	*0.00300*	0.0500	"	"	"	"	"	**J**
Cadmium	"	ND	*0.000300*	0.0100	"	"	"	"	"	
Chromium	"	**0.00107**	*0.00100*	0.0100	"	"	"	"	"	**J**
Copper	"	ND	*0.00200*	0.0100	"	"	"	"	"	
Lead	"	ND	*0.00700*	0.0500	"	"	"	"	"	
Nickel	"	ND	*0.00100*	0.0500	"	"	"	"	"	
Selenium	"	ND	*0.00800*	0.0500	"	"	"	"	"	
Silver	"	ND	*0.00300*	0.0200	"	"	"	"	"	
Zinc	"	**0.983**	*0.00200*	0.0200	"	"	"	"	"	
PSK0253-11 (DS221-110709)			**Water**			**Sampled: 11/07/09 16:00**				
Aluminum	EPA 6010B	**0.0209**	*0.0150*	0.100	mg/l	1x	9110349	11/11/09 08:13	11/11/09 15:22	**J**
Antimony	"	ND	*0.00600*	0.100	"	"	"	"	"	
Arsenic	"	ND	*0.00300*	0.0500	"	"	"	"	"	
Cadmium	"	ND	*0.000300*	0.0100	"	"	"	"	"	
Chromium	"	ND	*0.00100*	0.0100	"	"	"	"	"	
Copper	"	**0.00211**	*0.00200*	0.0100	"	"	"	"	"	**J**
Lead	"	ND	*0.00700*	0.0500	"	"	"	"	"	
Nickel	"	ND	*0.00100*	0.0500	"	"	"	"	"	
Selenium	"	ND	*0.00800*	0.0500	"	"	"	"	"	
Silver	"	ND	*0.00300*	0.0200	"	"	"	"	"	
Zinc	"	**0.0171**	*0.00200*	0.0200	"	"	"	"	"	**J**

TestAmerica Portland

Darrell Auvil, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

CH2M-Hill	Project Name:	**NW Pipe Project**	
2020 SW 4th Suite 300	Project Number:	358932.RI.06	Report Created:
Portland, OR 97201	Project Manager:	Pat Heins	11/23/09 16:51

Total Mercury per EPA Method 7470A

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PSK0253-01 (DS005-110709)			**Water**			**Sampled: 11/07/09 12:30**				
Mercury	EPA 7470A	ND	*0.0000590*	0.000200	mg/l	1x	9110417	11/12/09 13:07	11/13/09 09:14	
PSK0253-02 (DS012-110709)			**Water**			**Sampled: 11/07/09 13:00**				
Mercury	EPA 7470A	ND	*0.0000590*	0.000200	mg/l	1x	9110417	11/12/09 13:07	11/13/09 09:16	
PSK0253-07 (DS120-110709)			**Water**			**Sampled: 11/07/09 14:45**				
Mercury	EPA 7470A	ND	*0.0000590*	0.000200	mg/l	1x	9110417	11/12/09 13:07	11/13/09 09:19	
PSK0253-08 (DS120-110709-1)			**Water**			**Sampled: 11/07/09 14:45**				
Mercury	EPA 7470A	ND	*0.0000590*	0.000200	mg/l	1x	9110417	11/12/09 13:07	11/13/09 09:21	
PSK0253-10 (DS223-110709)			**Water**			**Sampled: 11/07/09 15:30**				
Mercury	EPA 7470A	ND	*0.0000590*	0.000200	mg/l	1x	9110417	11/12/09 13:07	11/13/09 10:04	
PSK0253-11 (DS221-110709)			**Water**			**Sampled: 11/07/09 16:00**				
Mercury	EPA 7470A	ND	*0.0000590*	0.000200	mg/l	1x	9110417	11/12/09 13:07	11/13/09 10:06	

TestAmerica Portland

Darrell Auvil, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

CH2M-Hill	Project Name:	**NW Pipe Project**	
2020 SW 4th Suite 300	Project Number:	358932.RI.06	Report Created:
Portland, OR 97201	Project Manager:	Pat Heins	11/23/09 16:51

Polychlorinated Biphenyls per EPA Method 8082

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PSK0253-01 (DS005-110709)			**Water**			**Sampled: 11/07/09 12:30**				
Aroclor 1016	EPA 8082	ND	*0.0476*	0.0952	ug/l	1x	9110339	11/11/09 11:10	11/18/09 13:23	
Aroclor 1221	"	ND	*0.0952*	0.190	"	"	"	"	"	
Aroclor 1232	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Aroclor 1242	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Aroclor 1248	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Aroclor 1254	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Aroclor 1260	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Aroclor 1262	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Aroclor 1268	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Surrogate(s): Decachlorobiphenyl			*41.6%*		*12 - 130 %*					"
PSK0253-02 (DS012-110709)			**Water**			**Sampled: 11/07/09 13:00**				
Aroclor 1016	EPA 8082	ND	*0.0476*	0.0952	ug/l	1x	9110339	11/11/09 11:10	11/18/09 13:45	
Aroclor 1221	"	ND	*0.0952*	0.190	"	"	"	"	"	
Aroclor 1232	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Aroclor 1242	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Aroclor 1248	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Aroclor 1254	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Aroclor 1260	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Aroclor 1262	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Aroclor 1268	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Surrogate(s): Decachlorobiphenyl			*42.8%*		*12 - 130 %*					"
PSK0253-07 (DS120-110709)			**Water**			**Sampled: 11/07/09 14:45**				
Aroclor 1016	EPA 8082	ND	*0.0476*	0.0952	ug/l	1x	9110339	11/11/09 11:10	11/18/09 14:07	
Aroclor 1221	"	ND	*0.0952*	0.190	"	"	"	"	"	
Aroclor 1232	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Aroclor 1242	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Aroclor 1248	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Aroclor 1254	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Aroclor 1260	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Aroclor 1262	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Aroclor 1268	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Surrogate(s): Decachlorobiphenyl			*53.8%*		*12 - 130 %*					"

TestAmerica Portland

Darrell Auvil, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

CH2M-Hill	Project Name:	**NW Pipe Project**	
2020 SW 4th Suite 300	Project Number:	358932.RI.06	Report Created:
Portland, OR 97201	Project Manager:	Pat Heins	11/23/09 16:51

Polychlorinated Biphenyls per EPA Method 8082

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PSK0253-10 (DS223-110709)			**Water**			**Sampled: 11/07/09 15:30**				
Aroclor 1016	EPA 8082	ND	*0.0476*	0.0952	ug/l	1x	9110339	11/11/09 11:10	11/18/09 14:29	
Aroclor 1221	"	ND	*0.0952*	0.190	"	"	"	"	"	
Aroclor 1232	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Aroclor 1242	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Aroclor 1248	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Aroclor 1254	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Aroclor 1260	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Aroclor 1262	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Aroclor 1268	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Surrogate(s): Decachlorobiphenyl			*61.6%*		*12 - 130 %*					"
PSK0253-11 (DS221-110709)			**Water**			**Sampled: 11/07/09 16:00**				
Aroclor 1016	EPA 8082	ND	*0.0476*	0.0952	ug/l	1x	9110339	11/11/09 11:10	11/18/09 14:51	
Aroclor 1221	"	ND	*0.0952*	0.190	"	"	"	"	"	
Aroclor 1232	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Aroclor 1242	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Aroclor 1248	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Aroclor 1254	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Aroclor 1260	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Aroclor 1262	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Aroclor 1268	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Surrogate(s): Decachlorobiphenyl			*57.3%*		*12 - 130 %*					"

TestAmerica Portland

Darrell Auvil, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

CH2M-Hill	Project Name:	**NW Pipe Project**	
2020 SW 4th Suite 300	Project Number:	358932.RI.06	Report Created:
Portland, OR 97201	Project Manager:	Pat Heins	11/23/09 16:51

Volatile Organic Compounds per EPA Method 8260B

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PSK0253-01 (DS005-110709)			**Water**			**Sampled: 11/07/09 12:30**				
Acetone	EPA 8260B	**10.0**	*7.76*	25.0	ug/l	1x	9110497	11/15/09 15:30	11/15/09 21:00	**J**
Benzene	"	ND	*0.0900*	0.200	"	"	"	"	"	
Bromobenzene	"	ND	*0.100*	1.00	"	"	"	"	"	
Bromochloromethane	"	ND	*0.180*	1.00	"	"	"	"	"	
Bromodichloromethane	"	ND	*0.110*	1.00	"	"	"	"	"	
Bromoform	"	ND	*0.100*	1.00	"	"	"	"	"	
Bromomethane	"	ND	*0.170*	5.00	"	"	"	"	"	
2-Butanone (MEK)	"	**3.56**	*3.50*	10.0	"	"	"	"	"	**J**
n-Butylbenzene	"	ND	*0.0600*	5.00	"	"	"	"	"	
sec-Butylbenzene	"	ND	*0.0800*	1.00	"	"	"	"	"	
tert-Butylbenzene	"	ND	*0.0600*	1.00	"	"	"	"	"	
Carbon disulfide	"	ND	*0.140*	10.0	"	"	"	"	"	
Carbon tetrachloride	"	ND	*0.0600*	1.00	"	"	"	"	"	
Chlorobenzene	"	ND	*0.0500*	1.00	"	"	"	"	"	
Chloroethane	"	ND	*0.110*	1.00	"	"	"	"	"	
Chloroform	"	ND	*0.0900*	0.200	"	"	"	"	"	
Chloromethane	"	ND	*0.0800*	5.00	"	"	"	"	"	
2-Chlorotoluene	"	ND	*0.0700*	1.00	"	"	"	"	"	
4-Chlorotoluene	"	ND	*0.110*	1.00	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	"	ND	*2.35*	5.00	"	"	"	"	"	
Dibromochloromethane	"	ND	*0.0700*	1.00	"	"	"	"	"	
1,2-Dibromoethane	"	ND	*0.110*	1.00	"	"	"	"	"	
Dibromomethane	"	ND	*0.100*	1.00	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	*0.0700*	1.00	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	*0.0600*	1.00	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	*0.120*	1.00	"	"	"	"	"	
Dichlorodifluoromethane	"	ND	*0.110*	5.00	"	"	"	"	"	
1,1-Dichloroethane	"	ND	*0.0800*	1.00	"	"	"	"	"	
1,2-Dichloroethane	"	ND	*0.100*	1.00	"	"	"	"	"	
1,1-Dichloroethene	"	ND	*0.120*	1.00	"	"	"	"	"	
cis-1,2-Dichloroethene	"	ND	*0.0900*	1.00	"	"	"	"	"	
trans-1,2-Dichloroethene	"	ND	*0.100*	1.00	"	"	"	"	"	
1,2-Dichloropropane	"	ND	*0.110*	1.00	"	"	"	"	"	
1,3-Dichloropropane	"	ND	*0.140*	1.00	"	"	"	"	"	
2,2-Dichloropropane	"	ND	*0.0900*	1.00	"	"	"	"	"	
1,1-Dichloropropene	"	ND	*0.0800*	1.00	"	"	"	"	"	

TestAmerica Portland

Darrell Auvil, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

CH2M-Hill	Project Name:	**NW Pipe Project**	
2020 SW 4th Suite 300	Project Number:	358932.RI.06	Report Created:
Portland, OR 97201	Project Manager:	Pat Heins	11/23/09 16:51

Volatile Organic Compounds per EPA Method 8260B

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PSK0253-01 (DS005-110709)			**Water**				**Sampled: 11/07/09 12:30**			
cis-1,3-Dichloropropene	EPA 8260B	ND	*0.0900*	1.00	ug/l	1x	9110497	11/15/09 15:30	11/15/09 21:00	
trans-1,3-Dichloropropene	"	ND	*0.100*	1.00	"	"	"	"	"	
Ethylbenzene	"	ND	*0.0600*	1.00	"	"	"	"	"	
Hexachlorobutadiene	"	ND	*0.210*	4.00	"	"	"	"	"	
2-Hexanone	"	ND	*3.62*	10.0	"	"	"	"	"	
Isopropylbenzene	"	ND	*0.0700*	2.00	"	"	"	"	"	
p-Isopropyltoluene	"	ND	*0.0600*	2.00	"	"	"	"	"	
4-Methyl-2-pentanone	"	ND	*0.290*	5.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	*0.0900*	1.00	"	"	"	"	"	
Methylene chloride	"	ND	*0.160*	5.00	"	"	"	"	"	
Naphthalene	"	ND	*0.0900*	2.00	"	"	"	"	"	
n-Propylbenzene	"	ND	*0.100*	1.00	"	"	"	"	"	
Styrene	"	ND	*0.0400*	1.00	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	"	ND	*0.0900*	1.00	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	"	ND	*0.0800*	1.00	"	"	"	"	"	
Tetrachloroethene	"	ND	*0.110*	1.00	"	"	"	"	"	
Toluene	"	ND	*0.110*	1.00	"	"	"	"	"	
1,2,3-Trichlorobenzene	"	ND	*0.100*	1.00	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	*0.110*	1.00	"	"	"	"	"	
1,1,1-Trichloroethane	"	ND	*0.120*	1.00	"	"	"	"	"	
1,1,2-Trichloroethane	"	ND	*0.130*	1.00	"	"	"	"	"	
Trichloroethene	"	ND	*0.0800*	1.00	"	"	"	"	"	
Trichlorofluoromethane	"	ND	*0.0600*	1.00	"	"	"	"	"	
1,2,3-Trichloropropane	"	ND	*0.130*	1.00	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	*0.0800*	1.00	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	*0.0700*	1.00	"	"	"	"	"	
Vinyl chloride	"	ND	*0.100*	1.00	"	"	"	"	"	
o-Xylene	"	ND	*0.0700*	1.00	"	"	"	"	"	
m,p-Xylene	"	ND	*0.210*	2.00	"	"	"	"	"	

Surrogate(s):	*Dibromofluoromethane*	*101%*	*80 - 120 %*	"
	1,2-DCA-d4	*104%*	*80 - 120 %*	"
	Toluene-d8	*99.8%*	*80 - 120 %*	"
	4-BFB	*107%*	*80 - 120 %*	"

TestAmerica Portland

Darrell Auvil, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

CH2M-Hill	Project Name:	**NW Pipe Project**	
2020 SW 4th Suite 300	Project Number:	358932.RI.06	Report Created:
Portland, OR 97201	Project Manager:	Pat Heins	11/23/09 16:51

Volatile Organic Compounds per EPA Method 8260B

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PSK0253-02 (DS012-110709)			**Water**			**Sampled: 11/07/09 13:00**				
Acetone	EPA 8260B	**10.6**	*7.76*	25.0	ug/l	1x	9110497	11/15/09 15:30	11/15/09 22:58	**J**
Benzene	"	ND	*0.0900*	0.200	"	"	"	"	"	
Bromobenzene	"	ND	*0.100*	1.00	"	"	"	"	"	
Bromochloromethane	"	ND	*0.180*	1.00	"	"	"	"	"	
Bromodichloromethane	"	ND	*0.110*	1.00	"	"	"	"	"	
Bromoform	"	ND	*0.100*	1.00	"	"	"	"	"	
Bromomethane	"	ND	*0.170*	5.00	"	"	"	"	"	
2-Butanone (MEK)	"	**19.7**	*3.50*	10.0	"	"	"	"	"	
n-Butylbenzene	"	ND	*0.0600*	5.00	"	"	"	"	"	
sec-Butylbenzene	"	ND	*0.0800*	1.00	"	"	"	"	"	
tert-Butylbenzene	"	ND	*0.0600*	1.00	"	"	"	"	"	
Carbon disulfide	"	ND	*0.140*	10.0	"	"	"	"	"	
Carbon tetrachloride	"	ND	*0.0600*	1.00	"	"	"	"	"	
Chlorobenzene	"	ND	*0.0500*	1.00	"	"	"	"	"	
Chloroethane	"	ND	*0.110*	1.00	"	"	"	"	"	
Chloroform	"	ND	*0.0900*	0.200	"	"	"	"	"	
Chloromethane	"	ND	*0.0800*	5.00	"	"	"	"	"	
2-Chlorotoluene	"	ND	*0.0700*	1.00	"	"	"	"	"	
4-Chlorotoluene	"	ND	*0.110*	1.00	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	"	ND	*2.35*	5.00	"	"	"	"	"	
Dibromochloromethane	"	ND	*0.0700*	1.00	"	"	"	"	"	
1,2-Dibromoethane	"	ND	*0.110*	1.00	"	"	"	"	"	
Dibromomethane	"	ND	*0.100*	1.00	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	*0.0700*	1.00	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	*0.0600*	1.00	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	*0.120*	1.00	"	"	"	"	"	
Dichlorodifluoromethane	"	ND	*0.110*	5.00	"	"	"	"	"	
1,1-Dichloroethane	"	ND	*0.0800*	1.00	"	"	"	"	"	
1,2-Dichloroethane	"	ND	*0.100*	1.00	"	"	"	"	"	
1,1-Dichloroethene	"	ND	*0.120*	1.00	"	"	"	"	"	
cis-1,2-Dichloroethene	"	ND	*0.0900*	1.00	"	"	"	"	"	
trans-1,2-Dichloroethene	"	ND	*0.100*	1.00	"	"	"	"	"	
1,2-Dichloropropane	"	ND	*0.110*	1.00	"	"	"	"	"	
1,3-Dichloropropane	"	ND	*0.140*	1.00	"	"	"	"	"	
2,2-Dichloropropane	"	ND	*0.0900*	1.00	"	"	"	"	"	
1,1-Dichloropropene	"	ND	*0.0800*	1.00	"	"	"	"	"	

TestAmerica Portland

Darrell Auvil, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

CH2M-Hill	Project Name:	**NW Pipe Project**	
2020 SW 4th Suite 300	Project Number:	358932.RI.06	Report Created:
Portland, OR 97201	Project Manager:	Pat Heins	11/23/09 16:51

Volatile Organic Compounds per EPA Method 8260B

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PSK0253-02 (DS012-110709)			**Water**			**Sampled: 11/07/09 13:00**				
cis-1,3-Dichloropropene	EPA 8260B	ND	*0.0900*	1.00	ug/l	1x	9110497	11/15/09 15:30	11/15/09 22:58	
trans-1,3-Dichloropropene	"	ND	*0.100*	1.00	"	"	"	"	"	
Ethylbenzene	"	ND	*0.0600*	1.00	"	"	"	"	"	
Hexachlorobutadiene	"	ND	*0.210*	4.00	"	"	"	"	"	
2-Hexanone	"	ND	*3.62*	10.0	"	"	"	"	"	
Isopropylbenzene	"	ND	*0.0700*	2.00	"	"	"	"	"	
p-Isopropyltoluene	"	ND	*0.0600*	2.00	"	"	"	"	"	
4-Methyl-2-pentanone	"	ND	*0.290*	5.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	*0.0900*	1.00	"	"	"	"	"	
Methylene chloride	"	ND	*0.160*	5.00	"	"	"	"	"	
Naphthalene	"	ND	*0.0900*	2.00	"	"	"	"	"	
n-Propylbenzene	"	ND	*0.100*	1.00	"	"	"	"	"	
Styrene	"	ND	*0.0400*	1.00	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	"	ND	*0.0900*	1.00	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	"	ND	*0.0800*	1.00	"	"	"	"	"	
Tetrachloroethene	"	ND	*0.110*	1.00	"	"	"	"	"	
Toluene	"	ND	*0.110*	1.00	"	"	"	"	"	
1,2,3-Trichlorobenzene	"	ND	*0.100*	1.00	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	*0.110*	1.00	"	"	"	"	"	
1,1,1-Trichloroethane	"	ND	*0.120*	1.00	"	"	"	"	"	
1,1,2-Trichloroethane	"	ND	*0.130*	1.00	"	"	"	"	"	
Trichloroethene	"	ND	*0.0800*	1.00	"	"	"	"	"	
Trichlorofluoromethane	"	ND	*0.0600*	1.00	"	"	"	"	"	
1,2,3-Trichloropropane	"	ND	*0.130*	1.00	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	*0.0800*	1.00	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	*0.0700*	1.00	"	"	"	"	"	
Vinyl chloride	"	ND	*0.100*	1.00	"	"	"	"	"	
o-Xylene	"	ND	*0.0700*	1.00	"	"	"	"	"	
m,p-Xylene	"	ND	*0.210*	2.00	"	"	"	"	"	

Surrogate(s):	*Dibromofluoromethane*	*99.8%*	*80 - 120 %*	"
	1,2-DCA-d4	*102%*	*80 - 120 %*	"
	Toluene-d8	*97.8%*	*80 - 120 %*	"
	4-BFB	*107%*	*80 - 120 %*	"

TestAmerica Portland

Darrell Auvil, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

CH2M-Hill	Project Name:	**NW Pipe Project**	
2020 SW 4th Suite 300	Project Number:	358932.RI.06	Report Created:
Portland, OR 97201	Project Manager:	Pat Heins	11/23/09 16:51

Volatile Organic Compounds per EPA Method 8260B

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PSK0253-07 (DS120-110709)			**Water**			**Sampled: 11/07/09 14:45**				
Acetone	EPA 8260B	**16.2**	*7.76*	25.0	ug/l	1x	9110497	11/15/09 15:30	11/15/09 21:24	**J**
Benzene	"	ND	*0.0900*	0.200	"	"	"	"	"	
Bromobenzene	"	ND	*0.100*	1.00	"	"	"	"	"	
Bromochloromethane	"	ND	*0.180*	1.00	"	"	"	"	"	
Bromodichloromethane	"	ND	*0.110*	1.00	"	"	"	"	"	
Bromoform	"	ND	*0.100*	1.00	"	"	"	"	"	
Bromomethane	"	ND	*0.170*	5.00	"	"	"	"	"	
2-Butanone (MEK)	"	**27.1**	*3.50*	10.0	"	"	"	"	"	
n-Butylbenzene	"	ND	*0.0600*	5.00	"	"	"	"	"	
sec-Butylbenzene	"	ND	*0.0800*	1.00	"	"	"	"	"	
tert-Butylbenzene	"	ND	*0.0600*	1.00	"	"	"	"	"	
Carbon disulfide	"	ND	*0.140*	10.0	"	"	"	"	"	
Carbon tetrachloride	"	ND	*0.0600*	1.00	"	"	"	"	"	
Chlorobenzene	"	ND	*0.0500*	1.00	"	"	"	"	"	
Chloroethane	"	ND	*0.110*	1.00	"	"	"	"	"	
Chloroform	"	ND	*0.0900*	0.200	"	"	"	"	"	
Chloromethane	"	ND	*0.0800*	5.00	"	"	"	"	"	
2-Chlorotoluene	"	ND	*0.0700*	1.00	"	"	"	"	"	
4-Chlorotoluene	"	ND	*0.110*	1.00	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	"	ND	*2.35*	5.00	"	"	"	"	"	
Dibromochloromethane	"	ND	*0.0700*	1.00	"	"	"	"	"	
1,2-Dibromoethane	"	ND	*0.110*	1.00	"	"	"	"	"	
Dibromomethane	"	ND	*0.100*	1.00	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	*0.0700*	1.00	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	*0.0600*	1.00	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	*0.120*	1.00	"	"	"	"	"	
Dichlorodifluoromethane	"	ND	*0.110*	5.00	"	"	"	"	"	
1,1-Dichloroethane	"	ND	*0.0800*	1.00	"	"	"	"	"	
1,2-Dichloroethane	"	ND	*0.100*	1.00	"	"	"	"	"	
1,1-Dichloroethene	"	ND	*0.120*	1.00	"	"	"	"	"	
cis-1,2-Dichloroethene	"	ND	*0.0900*	1.00	"	"	"	"	"	
trans-1,2-Dichloroethene	"	ND	*0.100*	1.00	"	"	"	"	"	
1,2-Dichloropropane	"	ND	*0.110*	1.00	"	"	"	"	"	
1,3-Dichloropropane	"	ND	*0.140*	1.00	"	"	"	"	"	
2,2-Dichloropropane	"	ND	*0.0900*	1.00	"	"	"	"	"	
1,1-Dichloropropene	"	ND	*0.0800*	1.00	"	"	"	"	"	

TestAmerica Portland

Darrell Auvil, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

CH2M-Hill	Project Name:	**NW Pipe Project**	
2020 SW 4th Suite 300	Project Number:	358932.RI.06	Report Created:
Portland, OR 97201	Project Manager:	Pat Heins	11/23/09 16:51

Volatile Organic Compounds per EPA Method 8260B

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PSK0253-07 (DS120-110709)			**Water**			**Sampled: 11/07/09 14:45**				
cis-1,3-Dichloropropene	EPA 8260B	ND	*0.0900*	1.00	ug/l	1x	9110497	11/15/09 15:30	11/15/09 21:24	
trans-1,3-Dichloropropene	"	ND	*0.100*	1.00	"	"	"	"	"	
Ethylbenzene	"	ND	*0.0600*	1.00	"	"	"	"	"	
Hexachlorobutadiene	"	ND	*0.210*	4.00	"	"	"	"	"	
2-Hexanone	"	ND	*3.62*	10.0	"	"	"	"	"	
Isopropylbenzene	"	ND	*0.0700*	2.00	"	"	"	"	"	
p-Isopropyltoluene	"	ND	*0.0600*	2.00	"	"	"	"	"	
4-Methyl-2-pentanone	"	ND	*0.290*	5.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	*0.0900*	1.00	"	"	"	"	"	
Methylene chloride	"	ND	*0.160*	5.00	"	"	"	"	"	
Naphthalene	"	ND	*0.0900*	2.00	"	"	"	"	"	
n-Propylbenzene	"	ND	*0.100*	1.00	"	"	"	"	"	
Styrene	"	ND	*0.0400*	1.00	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	"	ND	*0.0900*	1.00	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	"	ND	*0.0800*	1.00	"	"	"	"	"	
Tetrachloroethene	"	ND	*0.110*	1.00	"	"	"	"	"	
Toluene	"	ND	*0.110*	1.00	"	"	"	"	"	
1,2,3-Trichlorobenzene	"	ND	*0.100*	1.00	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	*0.110*	1.00	"	"	"	"	"	
1,1,1-Trichloroethane	"	ND	*0.120*	1.00	"	"	"	"	"	
1,1,2-Trichloroethane	"	ND	*0.130*	1.00	"	"	"	"	"	
Trichloroethene	"	ND	*0.0800*	1.00	"	"	"	"	"	
Trichlorofluoromethane	"	ND	*0.0600*	1.00	"	"	"	"	"	
1,2,3-Trichloropropane	"	ND	*0.130*	1.00	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	*0.0800*	1.00	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	*0.0700*	1.00	"	"	"	"	"	
Vinyl chloride	"	ND	*0.100*	1.00	"	"	"	"	"	
o-Xylene	"	ND	*0.0700*	1.00	"	"	"	"	"	
m,p-Xylene	"	ND	*0.210*	2.00	"	"	"	"	"	

Surrogate(s):	*Dibromofluoromethane*	*101%*	*80 - 120 %*	"
	1,2-DCA-d4	*103%*	*80 - 120 %*	"
	Toluene-d8	*99.6%*	*80 - 120 %*	"
	4-BFB	*110%*	*80 - 120 %*	"

TestAmerica Portland

Darrell Auvil, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

CH2M-Hill	Project Name:	**NW Pipe Project**	
2020 SW 4th Suite 300	Project Number:	358932.RI.06	Report Created:
Portland, OR 97201	Project Manager:	Pat Heins	11/23/09 16:51

Volatile Organic Compounds per EPA Method 8260B

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PSK0253-08 (DS120-110709-1)			**Water**			**Sampled: 11/07/09 14:45**				
Acetone	EPA 8260B	**15.9**	*7.76*	25.0	ug/l	1x	9110497	11/15/09 15:30	11/15/09 21:47	**J**
Benzene	"	ND	*0.0900*	0.200	"	"	"	"	"	
Bromobenzene	"	ND	*0.100*	1.00	"	"	"	"	"	
Bromochloromethane	"	ND	*0.180*	1.00	"	"	"	"	"	
Bromodichloromethane	"	ND	*0.110*	1.00	"	"	"	"	"	
Bromoform	"	ND	*0.100*	1.00	"	"	"	"	"	
Bromomethane	"	ND	*0.170*	5.00	"	"	"	"	"	
2-Butanone (MEK)	"	**52.0**	*3.50*	10.0	"	"	"	"	"	
n-Butylbenzene	"	ND	*0.0600*	5.00	"	"	"	"	"	
sec-Butylbenzene	"	ND	*0.0800*	1.00	"	"	"	"	"	
tert-Butylbenzene	"	ND	*0.0600*	1.00	"	"	"	"	"	
Carbon disulfide	"	ND	*0.140*	10.0	"	"	"	"	"	
Carbon tetrachloride	"	ND	*0.0600*	1.00	"	"	"	"	"	
Chlorobenzene	"	ND	*0.0500*	1.00	"	"	"	"	"	
Chloroethane	"	ND	*0.110*	1.00	"	"	"	"	"	
Chloroform	"	ND	*0.0900*	0.200	"	"	"	"	"	
Chloromethane	"	ND	*0.0800*	5.00	"	"	"	"	"	
2-Chlorotoluene	"	ND	*0.0700*	1.00	"	"	"	"	"	
4-Chlorotoluene	"	ND	*0.110*	1.00	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	"	ND	*2.35*	5.00	"	"	"	"	"	
Dibromochloromethane	"	ND	*0.0700*	1.00	"	"	"	"	"	
1,2-Dibromoethane	"	ND	*0.110*	1.00	"	"	"	"	"	
Dibromomethane	"	ND	*0.100*	1.00	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	*0.0700*	1.00	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	*0.0600*	1.00	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	*0.120*	1.00	"	"	"	"	"	
Dichlorodifluoromethane	"	ND	*0.110*	5.00	"	"	"	"	"	
1,1-Dichloroethane	"	ND	*0.0800*	1.00	"	"	"	"	"	
1,2-Dichloroethane	"	ND	*0.100*	1.00	"	"	"	"	"	
1,1-Dichloroethene	"	ND	*0.120*	1.00	"	"	"	"	"	
cis-1,2-Dichloroethene	"	ND	*0.0900*	1.00	"	"	"	"	"	
trans-1,2-Dichloroethene	"	ND	*0.100*	1.00	"	"	"	"	"	
1,2-Dichloropropane	"	ND	*0.110*	1.00	"	"	"	"	"	
1,3-Dichloropropane	"	ND	*0.140*	1.00	"	"	"	"	"	
2,2-Dichloropropane	"	ND	*0.0900*	1.00	"	"	"	"	"	
1,1-Dichloropropene	"	ND	*0.0800*	1.00	"	"	"	"	"	

TestAmerica Portland

Darrell Auvil, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

CH2M-Hill	Project Name:	**NW Pipe Project**	
2020 SW 4th Suite 300	Project Number:	358932.RI.06	Report Created:
Portland, OR 97201	Project Manager:	Pat Heins	11/23/09 16:51

Volatile Organic Compounds per EPA Method 8260B

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PSK0253-08 (DS120-110709-1)			**Water**			**Sampled: 11/07/09 14:45**				
cis-1,3-Dichloropropene	EPA 8260B	ND	*0.0900*	1.00	ug/l	1x	9110497	11/15/09 15:30	11/15/09 21:47	
trans-1,3-Dichloropropene	"	ND	*0.100*	1.00	"	"	"	"	"	
Ethylbenzene	"	ND	*0.0600*	1.00	"	"	"	"	"	
Hexachlorobutadiene	"	ND	*0.210*	4.00	"	"	"	"	"	
2-Hexanone	"	ND	*3.62*	10.0	"	"	"	"	"	
Isopropylbenzene	"	ND	*0.0700*	2.00	"	"	"	"	"	
p-Isopropyltoluene	"	ND	*0.0600*	2.00	"	"	"	"	"	
4-Methyl-2-pentanone	"	ND	*0.290*	5.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	*0.0900*	1.00	"	"	"	"	"	
Methylene chloride	"	ND	*0.160*	5.00	"	"	"	"	"	
Naphthalene	"	ND	*0.0900*	2.00	"	"	"	"	"	
n-Propylbenzene	"	ND	*0.100*	1.00	"	"	"	"	"	
Styrene	"	ND	*0.0400*	1.00	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	"	ND	*0.0900*	1.00	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	"	ND	*0.0800*	1.00	"	"	"	"	"	
Tetrachloroethene	"	ND	*0.110*	1.00	"	"	"	"	"	
Toluene	"	ND	*0.110*	1.00	"	"	"	"	"	
1,2,3-Trichlorobenzene	"	ND	*0.100*	1.00	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	*0.110*	1.00	"	"	"	"	"	
1,1,1-Trichloroethane	"	ND	*0.120*	1.00	"	"	"	"	"	
1,1,2-Trichloroethane	"	ND	*0.130*	1.00	"	"	"	"	"	
Trichloroethene	"	ND	*0.0800*	1.00	"	"	"	"	"	
Trichlorofluoromethane	"	ND	*0.0600*	1.00	"	"	"	"	"	
1,2,3-Trichloropropane	"	ND	*0.130*	1.00	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	*0.0800*	1.00	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	*0.0700*	1.00	"	"	"	"	"	
Vinyl chloride	"	ND	*0.100*	1.00	"	"	"	"	"	
o-Xylene	"	ND	*0.0700*	1.00	"	"	"	"	"	
m,p-Xylene	"	ND	*0.210*	2.00	"	"	"	"	"	

Surrogate(s):	*Dibromofluoromethane*	*101%*	*80 - 120 %*	"
	1,2-DCA-d4	*102%*	*80 - 120 %*	"
	Toluene-d8	*98.6%*	*80 - 120 %*	"
	4-BFB	*106%*	*80 - 120 %*	"

TestAmerica Portland

Darrell Auvil, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

CH2M-Hill	Project Name:	**NW Pipe Project**	
2020 SW 4th Suite 300	Project Number:	358932.RI.06	Report Created:
Portland, OR 97201	Project Manager:	Pat Heins	11/23/09 16:51

Volatile Organic Compounds per EPA Method 8260B

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PSK0253-10 (DS223-110709)			**Water**			**Sampled: 11/07/09 15:30**				
Acetone	EPA 8260B	**9.74**	*7.76*	25.0	ug/l	1x	9110497	11/15/09 15:30	11/15/09 22:11	**J**
Benzene	"	ND	*0.0900*	0.200	"	"	"	"	"	
Bromobenzene	"	ND	*0.100*	1.00	"	"	"	"	"	
Bromochloromethane	"	ND	*0.180*	1.00	"	"	"	"	"	
Bromodichloromethane	"	ND	*0.110*	1.00	"	"	"	"	"	
Bromoform	"	ND	*0.100*	1.00	"	"	"	"	"	
Bromomethane	"	ND	*0.170*	5.00	"	"	"	"	"	
2-Butanone (MEK)	"	**5.72**	*3.50*	10.0	"	"	"	"	"	**J**
n-Butylbenzene	"	ND	*0.0600*	5.00	"	"	"	"	"	
sec-Butylbenzene	"	ND	*0.0800*	1.00	"	"	"	"	"	
tert-Butylbenzene	"	ND	*0.0600*	1.00	"	"	"	"	"	
Carbon disulfide	"	ND	*0.140*	10.0	"	"	"	"	"	
Carbon tetrachloride	"	ND	*0.0600*	1.00	"	"	"	"	"	
Chlorobenzene	"	ND	*0.0500*	1.00	"	"	"	"	"	
Chloroethane	"	ND	*0.110*	1.00	"	"	"	"	"	
Chloroform	"	ND	*0.0900*	0.200	"	"	"	"	"	
Chloromethane	"	ND	*0.0800*	5.00	"	"	"	"	"	
2-Chlorotoluene	"	ND	*0.0700*	1.00	"	"	"	"	"	
4-Chlorotoluene	"	ND	*0.110*	1.00	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	"	ND	*2.35*	5.00	"	"	"	"	"	
Dibromochloromethane	"	ND	*0.0700*	1.00	"	"	"	"	"	
1,2-Dibromoethane	"	ND	*0.110*	1.00	"	"	"	"	"	
Dibromomethane	"	ND	*0.100*	1.00	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	*0.0700*	1.00	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	*0.0600*	1.00	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	*0.120*	1.00	"	"	"	"	"	
Dichlorodifluoromethane	"	ND	*0.110*	5.00	"	"	"	"	"	
1,1-Dichloroethane	"	ND	*0.0800*	1.00	"	"	"	"	"	
1,2-Dichloroethane	"	ND	*0.100*	1.00	"	"	"	"	"	
1,1-Dichloroethene	"	ND	*0.120*	1.00	"	"	"	"	"	
cis-1,2-Dichloroethene	"	ND	*0.0900*	1.00	"	"	"	"	"	
trans-1,2-Dichloroethene	"	ND	*0.100*	1.00	"	"	"	"	"	
1,2-Dichloropropane	"	ND	*0.110*	1.00	"	"	"	"	"	
1,3-Dichloropropane	"	ND	*0.140*	1.00	"	"	"	"	"	
2,2-Dichloropropane	"	ND	*0.0900*	1.00	"	"	"	"	"	
1,1-Dichloropropene	"	ND	*0.0800*	1.00	"	"	"	"	"	

TestAmerica Portland

Darrell Auvil, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

CH2M-Hill	Project Name:	**NW Pipe Project**	
2020 SW 4th Suite 300	Project Number:	358932.RI.06	Report Created:
Portland, OR 97201	Project Manager:	Pat Heins	11/23/09 16:51

Volatile Organic Compounds per EPA Method 8260B

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PSK0253-10 (DS223-110709)			**Water**			**Sampled: 11/07/09 15:30**				
cis-1,3-Dichloropropene	EPA 8260B	ND	*0.0900*	1.00	ug/l	1x	9110497	11/15/09 15:30	11/15/09 22:11	
trans-1,3-Dichloropropene	"	ND	*0.100*	1.00	"	"	"	"	"	
Ethylbenzene	"	ND	*0.0600*	1.00	"	"	"	"	"	
Hexachlorobutadiene	"	ND	*0.210*	4.00	"	"	"	"	"	
2-Hexanone	"	ND	*3.62*	10.0	"	"	"	"	"	
Isopropylbenzene	"	ND	*0.0700*	2.00	"	"	"	"	"	
p-Isopropyltoluene	"	ND	*0.0600*	2.00	"	"	"	"	"	
4-Methyl-2-pentanone	"	ND	*0.290*	5.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	*0.0900*	1.00	"	"	"	"	"	
Methylene chloride	"	ND	*0.160*	5.00	"	"	"	"	"	
Naphthalene	"	ND	*0.0900*	2.00	"	"	"	"	"	
n-Propylbenzene	"	ND	*0.100*	1.00	"	"	"	"	"	
Styrene	"	ND	*0.0400*	1.00	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	"	ND	*0.0900*	1.00	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	"	ND	*0.0800*	1.00	"	"	"	"	"	
Tetrachloroethene	"	ND	*0.110*	1.00	"	"	"	"	"	
Toluene	"	ND	*0.110*	1.00	"	"	"	"	"	
1,2,3-Trichlorobenzene	"	ND	*0.100*	1.00	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	*0.110*	1.00	"	"	"	"	"	
1,1,1-Trichloroethane	"	ND	*0.120*	1.00	"	"	"	"	"	
1,1,2-Trichloroethane	"	ND	*0.130*	1.00	"	"	"	"	"	
Trichloroethene	"	ND	*0.0800*	1.00	"	"	"	"	"	
Trichlorofluoromethane	"	ND	*0.0600*	1.00	"	"	"	"	"	
1,2,3-Trichloropropane	"	ND	*0.130*	1.00	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	*0.0800*	1.00	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	*0.0700*	1.00	"	"	"	"	"	
Vinyl chloride	"	ND	*0.100*	1.00	"	"	"	"	"	
o-Xylene	"	ND	*0.0700*	1.00	"	"	"	"	"	
m,p-Xylene	"	ND	*0.210*	2.00	"	"	"	"	"	

Surrogate(s):	*Dibromofluoromethane*	*99.7%*	*80 - 120 %*	"
	1,2-DCA-d4	*103%*	*80 - 120 %*	"
	Toluene-d8	*98.2%*	*80 - 120 %*	"
	4-BFB	*106%*	*80 - 120 %*	"

TestAmerica Portland

Darrell Auvil, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

CH2M-Hill	Project Name:	**NW Pipe Project**	
2020 SW 4th Suite 300	Project Number:	358932.RI.06	Report Created:
Portland, OR 97201	Project Manager:	Pat Heins	11/23/09 16:51

Volatile Organic Compounds per EPA Method 8260B

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PSK0253-11 (DS221-110709)			**Water**			**Sampled: 11/07/09 16:00**				
Acetone	EPA 8260B	**10.6**	*7.76*	25.0	ug/l	1x	9110497	11/15/09 15:30	11/15/09 22:34	**J**
Benzene	"	ND	*0.0900*	0.200	"	"	"	"	"	
Bromobenzene	"	ND	*0.100*	1.00	"	"	"	"	"	
Bromochloromethane	"	ND	*0.180*	1.00	"	"	"	"	"	
Bromodichloromethane	"	ND	*0.110*	1.00	"	"	"	"	"	
Bromoform	"	ND	*0.100*	1.00	"	"	"	"	"	
Bromomethane	"	ND	*0.170*	5.00	"	"	"	"	"	
2-Butanone (MEK)	"	ND	*3.50*	10.0	"	"	"	"	"	
n-Butylbenzene	"	ND	*0.0600*	5.00	"	"	"	"	"	
sec-Butylbenzene	"	ND	*0.0800*	1.00	"	"	"	"	"	
tert-Butylbenzene	"	ND	*0.0600*	1.00	"	"	"	"	"	
Carbon disulfide	"	ND	*0.140*	10.0	"	"	"	"	"	
Carbon tetrachloride	"	ND	*0.0600*	1.00	"	"	"	"	"	
Chlorobenzene	"	ND	*0.0500*	1.00	"	"	"	"	"	
Chloroethane	"	ND	*0.110*	1.00	"	"	"	"	"	
Chloroform	"	ND	*0.0900*	0.200	"	"	"	"	"	
Chloromethane	"	ND	*0.0800*	5.00	"	"	"	"	"	
2-Chlorotoluene	"	ND	*0.0700*	1.00	"	"	"	"	"	
4-Chlorotoluene	"	ND	*0.110*	1.00	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	"	ND	*2.35*	5.00	"	"	"	"	"	
Dibromochloromethane	"	ND	*0.0700*	1.00	"	"	"	"	"	
1,2-Dibromoethane	"	ND	*0.110*	1.00	"	"	"	"	"	
Dibromomethane	"	ND	*0.100*	1.00	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	*0.0700*	1.00	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	*0.0600*	1.00	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	*0.120*	1.00	"	"	"	"	"	
Dichlorodifluoromethane	"	ND	*0.110*	5.00	"	"	"	"	"	
1,1-Dichloroethane	"	ND	*0.0800*	1.00	"	"	"	"	"	
1,2-Dichloroethane	"	ND	*0.100*	1.00	"	"	"	"	"	
1,1-Dichloroethene	"	ND	*0.120*	1.00	"	"	"	"	"	
cis-1,2-Dichloroethene	"	ND	*0.0900*	1.00	"	"	"	"	"	
trans-1,2-Dichloroethene	"	ND	*0.100*	1.00	"	"	"	"	"	
1,2-Dichloropropane	"	ND	*0.110*	1.00	"	"	"	"	"	
1,3-Dichloropropane	"	ND	*0.140*	1.00	"	"	"	"	"	
2,2-Dichloropropane	"	ND	*0.0900*	1.00	"	"	"	"	"	
1,1-Dichloropropene	"	ND	*0.0800*	1.00	"	"	"	"	"	

TestAmerica Portland

Darrell Auvil, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

CH2M-Hill	Project Name:	**NW Pipe Project**	
2020 SW 4th Suite 300	Project Number:	358932.RI.06	Report Created:
Portland, OR 97201	Project Manager:	Pat Heins	11/23/09 16:51

Volatile Organic Compounds per EPA Method 8260B

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PSK0253-11 (DS221-110709)			**Water**			**Sampled: 11/07/09 16:00**				
cis-1,3-Dichloropropene	EPA 8260B	ND	*0.0900*	1.00	ug/l	1x	9110497	11/15/09 15:30	11/15/09 22:34	
trans-1,3-Dichloropropene	"	ND	*0.100*	1.00	"	"	"	"	"	
Ethylbenzene	"	ND	*0.0600*	1.00	"	"	"	"	"	
Hexachlorobutadiene	"	ND	*0.210*	4.00	"	"	"	"	"	
2-Hexanone	"	ND	*3.62*	10.0	"	"	"	"	"	
Isopropylbenzene	"	ND	*0.0700*	2.00	"	"	"	"	"	
p-Isopropyltoluene	"	ND	*0.0600*	2.00	"	"	"	"	"	
4-Methyl-2-pentanone	"	ND	*0.290*	5.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	*0.0900*	1.00	"	"	"	"	"	
Methylene chloride	"	ND	*0.160*	5.00	"	"	"	"	"	
Naphthalene	"	ND	*0.0900*	2.00	"	"	"	"	"	
n-Propylbenzene	"	ND	*0.100*	1.00	"	"	"	"	"	
Styrene	"	ND	*0.0400*	1.00	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	"	ND	*0.0900*	1.00	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	"	ND	*0.0800*	1.00	"	"	"	"	"	
Tetrachloroethene	"	ND	*0.110*	1.00	"	"	"	"	"	
Toluene	"	ND	*0.110*	1.00	"	"	"	"	"	
1,2,3-Trichlorobenzene	"	ND	*0.100*	1.00	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	*0.110*	1.00	"	"	"	"	"	
1,1,1-Trichloroethane	"	ND	*0.120*	1.00	"	"	"	"	"	
1,1,2-Trichloroethane	"	ND	*0.130*	1.00	"	"	"	"	"	
Trichloroethene	"	ND	*0.0800*	1.00	"	"	"	"	"	
Trichlorofluoromethane	"	ND	*0.0600*	1.00	"	"	"	"	"	
1,2,3-Trichloropropane	"	ND	*0.130*	1.00	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	*0.0800*	1.00	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	*0.0700*	1.00	"	"	"	"	"	
Vinyl chloride	"	ND	*0.100*	1.00	"	"	"	"	"	
o-Xylene	"	ND	*0.0700*	1.00	"	"	"	"	"	
m,p-Xylene	"	ND	*0.210*	2.00	"	"	"	"	"	

Surrogate(s):	*Dibromofluoromethane*	*100%*	*80 - 120 %*	"
	1,2-DCA-d4	*103%*	*80 - 120 %*	"
	Toluene-d8	*101%*	*80 - 120 %*	"
	4-BFB	*106%*	*80 - 120 %*	"

TestAmerica Portland

Darrell Auvil, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

CH2M-Hill	Project Name:	**NW Pipe Project**	
2020 SW 4th Suite 300	Project Number:	358932.RI.06	Report Created:
Portland, OR 97201	Project Manager:	Pat Heins	11/23/09 16:51

Volatile Organic Compounds per EPA Method 8260B

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PSK0253-12 (Trip Blank)			**Water**				**Sampled: 11/07/09 00:00**			
Acetone	EPA 8260B	ND	*7.76*	25.0	ug/l	1x	9110484	11/13/09 19:00	11/13/09 21:27	
Benzene	"	ND	*0.0900*	0.200	"	"	"	"	"	
Bromobenzene	"	ND	*0.100*	1.00	"	"	"	"	"	
Bromochloromethane	"	ND	*0.180*	1.00	"	"	"	"	"	
Bromodichloromethane	"	ND	*0.110*	1.00	"	"	"	"	"	
Bromoform	"	ND	*0.100*	1.00	"	"	"	"	"	
Bromomethane	"	ND	*0.170*	5.00	"	"	"	"	"	
2-Butanone (MEK)	"	ND	*3.50*	10.0	"	"	"	"	"	
n-Butylbenzene	"	ND	*0.0600*	5.00	"	"	"	"	"	
sec-Butylbenzene	"	ND	*0.0800*	1.00	"	"	"	"	"	
tert-Butylbenzene	"	ND	*0.0600*	1.00	"	"	"	"	"	
Carbon disulfide	"	ND	*0.140*	10.0	"	"	"	"	"	
Carbon tetrachloride	"	ND	*0.0600*	1.00	"	"	"	"	"	
Chlorobenzene	"	ND	*0.0500*	1.00	"	"	"	"	"	
Chloroethane	"	ND	*0.110*	1.00	"	"	"	"	"	
Chloroform	"	ND	*0.0900*	0.200	"	"	"	"	"	
Chloromethane	"	ND	*0.0800*	5.00	"	"	"	"	"	
2-Chlorotoluene	"	ND	*0.0700*	1.00	"	"	"	"	"	
4-Chlorotoluene	"	ND	*0.110*	1.00	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	"	ND	*2.35*	5.00	"	"	"	"	"	
Dibromochloromethane	"	ND	*0.0700*	1.00	"	"	"	"	"	
1,2-Dibromoethane	"	ND	*0.110*	1.00	"	"	"	"	"	
Dibromomethane	"	ND	*0.100*	1.00	"	"	"	"	"	
1,2-Dichlorobenzene	"	ND	*0.0700*	1.00	"	"	"	"	"	
1,3-Dichlorobenzene	"	ND	*0.0600*	1.00	"	"	"	"	"	
1,4-Dichlorobenzene	"	ND	*0.120*	1.00	"	"	"	"	"	
Dichlorodifluoromethane	"	ND	*0.110*	5.00	"	"	"	"	"	
1,1-Dichloroethane	"	ND	*0.0800*	1.00	"	"	"	"	"	
1,2-Dichloroethane	"	ND	*0.100*	1.00	"	"	"	"	"	
1,1-Dichloroethene	"	ND	*0.120*	1.00	"	"	"	"	"	
cis-1,2-Dichloroethene	"	ND	*0.0900*	1.00	"	"	"	"	"	
trans-1,2-Dichloroethene	"	ND	*0.100*	1.00	"	"	"	"	"	
1,2-Dichloropropane	"	ND	*0.110*	1.00	"	"	"	"	"	
1,3-Dichloropropane	"	ND	*0.140*	1.00	"	"	"	"	"	
2,2-Dichloropropane	"	ND	*0.0900*	1.00	"	"	"	"	"	
1,1-Dichloropropene	"	ND	*0.0800*	1.00	"	"	"	"	"	

TestAmerica Portland

Darrell Auvil, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

CH2M-Hill	Project Name:	**NW Pipe Project**	
2020 SW 4th Suite 300	Project Number:	358932.RI.06	Report Created:
Portland, OR 97201	Project Manager:	Pat Heins	11/23/09 16:51

Volatile Organic Compounds per EPA Method 8260B

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PSK0253-12 (Trip Blank)			**Water**				**Sampled: 11/07/09 00:00**			
cis-1,3-Dichloropropene	EPA 8260B	ND	*0.0900*	1.00	ug/l	1x	9110484	11/13/09 19:00	11/13/09 21:27	
trans-1,3-Dichloropropene	"	ND	*0.100*	1.00	"	"	"	"	"	
Ethylbenzene	"	ND	*0.0600*	1.00	"	"	"	"	"	
Hexachlorobutadiene	"	ND	*0.210*	4.00	"	"	"	"	"	
2-Hexanone	"	ND	*3.62*	10.0	"	"	"	"	"	
Isopropylbenzene	"	ND	*0.0700*	2.00	"	"	"	"	"	
p-Isopropyltoluene	"	ND	*0.0600*	2.00	"	"	"	"	"	
4-Methyl-2-pentanone	"	ND	*0.290*	5.00	"	"	"	"	"	
Methyl tert-butyl ether	"	ND	*0.0900*	1.00	"	"	"	"	"	
Methylene chloride	"	ND	*0.160*	5.00	"	"	"	"	"	
Naphthalene	"	ND	*0.0900*	2.00	"	"	"	"	"	
n-Propylbenzene	"	ND	*0.100*	1.00	"	"	"	"	"	
Styrene	"	ND	*0.0400*	1.00	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	"	ND	*0.0900*	1.00	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	"	ND	*0.0800*	1.00	"	"	"	"	"	
Tetrachloroethene	"	ND	*0.110*	1.00	"	"	"	"	"	
Toluene	"	ND	*0.110*	1.00	"	"	"	"	"	
1,2,3-Trichlorobenzene	"	ND	*0.100*	1.00	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	*0.110*	1.00	"	"	"	"	"	
1,1,1-Trichloroethane	"	ND	*0.120*	1.00	"	"	"	"	"	
1,1,2-Trichloroethane	"	ND	*0.130*	1.00	"	"	"	"	"	
Trichloroethene	"	ND	*0.0800*	1.00	"	"	"	"	"	
Trichlorofluoromethane	"	ND	*0.0600*	1.00	"	"	"	"	"	
1,2,3-Trichloropropane	"	ND	*0.130*	1.00	"	"	"	"	"	
1,2,4-Trimethylbenzene	"	ND	*0.0800*	1.00	"	"	"	"	"	
1,3,5-Trimethylbenzene	"	ND	*0.0700*	1.00	"	"	"	"	"	
Vinyl chloride	"	ND	*0.100*	1.00	"	"	"	"	"	
o-Xylene	"	ND	*0.0700*	1.00	"	"	"	"	"	
m,p-Xylene	"	ND	*0.210*	2.00	"	"	"	"	"	

Surrogate(s):	*Dibromofluoromethane*	*100%*	*80 - 120 %*	"
	1,2-DCA-d4	*104%*	*80 - 120 %*	"
	Toluene-d8	*100%*	*80 - 120 %*	"
	4-BFB	*108%*	*80 - 120 %*	"

TestAmerica Portland

Darrell Auvil, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

CH2M-Hill	Project Name:	**NW Pipe Project**	
2020 SW 4th Suite 300	Project Number:	358932.RI.06	Report Created:
Portland, OR 97201	Project Manager:	Pat Heins	11/23/09 16:51

Polynuclear Aromatic Compounds per EPA 8270M-SIM

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PSK0253-01 (DS005-110709)			**Water**			**Sampled: 11/07/09 12:30**				
Acenaphthene	EPA 8270m	ND	*0.0476*	0.0952	ug/l	1x	9110309	11/10/09 13:30	11/16/09 20:12	
Acenaphthylene	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Anthracene	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Benzo (a) anthracene	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Benzo (a) pyrene	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Chrysene	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	*0.0952*	0.190	"	"	"	"	"	
Fluoranthene	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Fluorene	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Naphthalene	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Phenanthrene	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Pyrene	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Surrogate(s): *Fluorene-d10*			*83.1%*			*25 - 125 %*				"
Pyrene-d10			*102%*			*23 - 150 %*				"
Benzo (a) pyrene-d12			*76.9%*			*10 - 125 %*				"
PSK0253-02 (DS012-110709)			**Water**			**Sampled: 11/07/09 13:00**				
Acenaphthene	EPA 8270m	ND	*0.0476*	0.0952	ug/l	1x	9110309	11/10/09 13:30	11/16/09 20:41	
Acenaphthylene	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Anthracene	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Benzo (a) anthracene	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Benzo (a) pyrene	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Chrysene	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	*0.0952*	0.190	"	"	"	"	"	
Fluoranthene	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Fluorene	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Naphthalene	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Phenanthrene	"	ND	*0.0476*	0.0952	"	"	"	"	"	

TestAmerica Portland

Darrell Auvil, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

CH2M-Hill	Project Name:	**NW Pipe Project**	
2020 SW 4th Suite 300	Project Number:	358932.RI.06	Report Created:
Portland, OR 97201	Project Manager:	Pat Heins	11/23/09 16:51

Polynuclear Aromatic Compounds per EPA 8270M-SIM

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PSK0253-02 (DS012-110709)			**Water**			**Sampled: 11/07/09 13:00**				
Pyrene	EPA 8270m	ND	*0.0476*	0.0952	ug/l	1x	9110309	11/10/09 13:30	11/16/09 20:41	
Surrogate(s): Fluorene-d10				*99.9%*		*25 - 125 %*				"
Pyrene-d10				*113%*		*23 - 150 %*				"
Benzo (a) pyrene-d12				*88.9%*		*10 - 125 %*				"
PSK0253-07 (DS120-110709)			**Water**			**Sampled: 11/07/09 14:45**				
Acenaphthene	EPA 8270m	ND	*0.0476*	0.0952	ug/l	1x	9110309	11/10/09 13:30	11/16/09 21:10	
Acenaphthylene	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Anthracene	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Benzo (a) anthracene	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Benzo (a) pyrene	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Chrysene	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	*0.0952*	0.190	"	"	"	"	"	
Fluoranthene	"	**0.103**	*0.0476*	0.0952	"	"	"	"	"	
Fluorene	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Naphthalene	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Phenanthrene	"	**0.182**	*0.0476*	0.0952	"	"	"	"	"	
Pyrene	"	**0.0590**	*0.0476*	0.0952	"	"	"	"	"	**J**
Surrogate(s): Fluorene-d10				*91.5%*		*25 - 125 %*				"
Pyrene-d10				*95.8%*		*23 - 150 %*				"
Benzo (a) pyrene-d12				*79.3%*		*10 - 125 %*				"
PSK0253-10 (DS223-110709)			**Water**			**Sampled: 11/07/09 15:30**				
Acenaphthene	EPA 8270m	ND	*0.0476*	0.0952	ug/l	1x	9110309	11/10/09 13:30	11/17/09 15:57	
Acenaphthylene	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Anthracene	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Benzo (a) anthracene	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Benzo (a) pyrene	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Chrysene	"	ND	*0.0476*	0.0952	"	"	"	"	"	

TestAmerica Portland

Darrell Auvil, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

CH2M-Hill	Project Name:	**NW Pipe Project**	
2020 SW 4th Suite 300	Project Number:	358932.RI.06	Report Created:
Portland, OR 97201	Project Manager:	Pat Heins	11/23/09 16:51

Polynuclear Aromatic Compounds per EPA 8270M-SIM

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PSK0253-10 (DS223-110709)			**Water**			**Sampled: 11/07/09 15:30**				
Dibenzo (a,h) anthracene	EPA 8270m	ND	*0.0952*	0.190	ug/l	1x	9110309	11/10/09 13:30	11/17/09 15:57	
Fluoranthene	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Fluorene	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Naphthalene	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Phenanthrene	"	**0.0561**	*0.0476*	0.0952	"	"	"	"	"	**J**
Pyrene	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Surrogate(s): *Fluorene-d10*			*76.3%*		*25 - 125 %*				"	
Pyrene-d10			*110%*		*23 - 150 %*				"	
Benzo (a) pyrene-d12			*66.0%*		*10 - 125 %*				"	
PSK0253-11 (DS221-110709)			**Water**			**Sampled: 11/07/09 16:00**				
Acenaphthene	EPA 8270m	ND	*0.0476*	0.0952	ug/l	1x	9110309	11/10/09 13:30	11/16/09 22:08	
Acenaphthylene	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Anthracene	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Benzo (a) anthracene	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Benzo (a) pyrene	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Chrysene	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	*0.0952*	0.190	"	"	"	"	"	
Fluoranthene	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Fluorene	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Naphthalene	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Phenanthrene	"	**0.0949**	*0.0476*	0.0952	"	"	"	"	"	**J**
Pyrene	"	ND	*0.0476*	0.0952	"	"	"	"	"	
Surrogate(s): *Fluorene-d10*			*96.7%*		*25 - 125 %*				"	
Pyrene-d10			*105%*		*23 - 150 %*				"	
Benzo (a) pyrene-d12			*86.3%*		*10 - 125 %*				"	

TestAmerica Portland

Darrell Auvil, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

CH2M-Hill	Project Name:	**NW Pipe Project**	
2020 SW 4th Suite 300	Project Number:	358932.RI.06	Report Created:
Portland, OR 97201	Project Manager:	Pat Heins	11/23/09 16:51

Phthalates per EPA 8270-SIM

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PSK0253-01 (DS005-110709)			**Water**			**Sampled: 11/07/09 12:30**				
Dimethyl phthalate	EPA 8270m	ND	*0.501*	0.952	ug/l	1x	9110309	11/10/09 13:30	11/16/09 16:16	
Diethyl phthalate	"	ND	*0.501*	0.952	"	"	"	"	"	
Di-n-butyl phthalate	"	ND	*0.501*	0.952	"	"	"	"	"	
Butyl benzyl phthalate	"	ND	*0.501*	0.952	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	"	ND	*0.501*	0.952	"	"	"	"	"	
Di-n-octyl phthalate	"	ND	*0.501*	0.952	"	"	"	"	"	
Surrogate(s): 2-Fluorobiphenyl				*76.5%*		*10 - 150 %*				"
p-Terphenyl-d14				*88.0%*		*10 - 150 %*				"
PSK0253-02 (DS012-110709)			**Water**			**Sampled: 11/07/09 13:00**				
Dimethyl phthalate	EPA 8270m	ND	*0.501*	0.952	ug/l	1x	9110309	11/10/09 13:30	11/16/09 16:52	
Diethyl phthalate	"	ND	*0.501*	0.952	"	"	"	"	"	
Di-n-butyl phthalate	"	ND	*0.501*	0.952	"	"	"	"	"	
Butyl benzyl phthalate	"	ND	*0.501*	0.952	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	"	ND	*0.501*	0.952	"	"	"	"	"	
Di-n-octyl phthalate	"	ND	*0.501*	0.952	"	"	"	"	"	
Surrogate(s): 2-Fluorobiphenyl				*74.0%*		*10 - 150 %*				"
p-Terphenyl-d14				*103%*		*10 - 150 %*				"
PSK0253-07 (DS120-110709)			**Water**			**Sampled: 11/07/09 14:45**				
Dimethyl phthalate	EPA 8270m	ND	*0.501*	0.952	ug/l	1x	9110309	11/10/09 13:30	11/16/09 17:28	
Diethyl phthalate	"	ND	*0.501*	0.952	"	"	"	"	"	
Di-n-butyl phthalate	"	ND	*0.501*	0.952	"	"	"	"	"	
Butyl benzyl phthalate	"	ND	*0.501*	0.952	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	"	ND	*0.501*	0.952	"	"	"	"	"	
Di-n-octyl phthalate	"	ND	*0.501*	0.952	"	"	"	"	"	
Surrogate(s): 2-Fluorobiphenyl				*90.7%*		*10 - 150 %*				"
p-Terphenyl-d14				*99.2%*		*10 - 150 %*				"
PSK0253-10 (DS223-110709)			**Water**			**Sampled: 11/07/09 15:30**				
Dimethyl phthalate	EPA 8270m	ND	*0.501*	0.952	ug/l	1x	9110309	11/10/09 13:30	11/16/09 18:03	
Diethyl phthalate	"	ND	*0.501*	0.952	"	"	"	"	"	
Di-n-butyl phthalate	"	ND	*0.501*	0.952	"	"	"	"	"	
Butyl benzyl phthalate	"	ND	*0.501*	0.952	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	"	ND	*0.501*	0.952	"	"	"	"	"	
Di-n-octyl phthalate	"	ND	*0.501*	0.952	"	"	"	"	"	

TestAmerica Portland

Darrell Auvil, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

CH2M-Hill	Project Name:	**NW Pipe Project**	
2020 SW 4th Suite 300	Project Number:	358932.RI.06	Report Created:
Portland, OR 97201	Project Manager:	Pat Heins	11/23/09 16:51

Phthalates per EPA 8270-SIM

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PSK0253-10 (DS223-110709)				**Water**			**Sampled: 11/07/09 15:30**			
Surrogate(s): 2-Fluorobiphenyl				*93.2%*		*10 - 150 %*			*11/16/09 18:03*	
p-Terphenyl-d14				*103%*		*10 - 150 %*			*"*	
PSK0253-11 (DS221-110709)				**Water**			**Sampled: 11/07/09 16:00**			
Dimethyl phthalate	EPA 8270m	ND	*0.501*	0.952	ug/l	1x	9110309	11/10/09 13:30	11/16/09 18:39	
Diethyl phthalate	"	ND	*0.501*	0.952	"	"	"	"	"	
Di-n-butyl phthalate	"	ND	*0.501*	0.952	"	"	"	"	"	
Butyl benzyl phthalate	"	ND	*0.501*	0.952	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	"	ND	*0.501*	0.952	"	"	"	"	"	
Di-n-octyl phthalate	"	ND	*0.501*	0.952	"	"	"	"	"	
Surrogate(s): 2-Fluorobiphenyl				*70.8%*		*10 - 150 %*			*"*	
p-Terphenyl-d14				*103%*		*10 - 150 %*			*"*	

TestAmerica Portland

Darrell Auvil, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

CH2M-Hill	Project Name:	**NW Pipe Project**	
2020 SW 4th Suite 300	Project Number:	358932.RI.06	Report Created:
Portland, OR 97201	Project Manager:	Pat Heins	11/23/09 16:51

Conventional Chemistry Parameters per Standard Methods

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PSK0253-01 (DS005-110709)			**Water**			**Sampled: 11/07/09 12:30**				
Total Suspended Solids	SM 2540D	ND	*3.50*	10.0	mg/l	1x	9110465	11/13/09 11:27	11/13/09 14:41	
PSK0253-02 (DS012-110709)			**Water**			**Sampled: 11/07/09 13:00**				
Total Suspended Solids	SM 2540D	ND	*3.50*	10.0	mg/l	1x	9110465	11/13/09 11:27	11/13/09 14:41	
PSK0253-07 (DS120-110709)			**Water**			**Sampled: 11/07/09 14:45**				
Total Suspended Solids	SM 2540D	ND	*3.50*	10.0	mg/l	1x	9110465	11/13/09 11:27	11/13/09 14:41	
PSK0253-08 (DS120-110709-1)			**Water**			**Sampled: 11/07/09 14:45**				
Total Suspended Solids	SM 2540D	ND	*3.50*	10.0	mg/l	1x	9110465	11/13/09 11:27	11/13/09 14:41	
PSK0253-10 (DS223-110709)			**Water**			**Sampled: 11/07/09 15:30**				
Total Suspended Solids	SM 2540D	ND	*3.50*	10.0	mg/l	1x	9110465	11/13/09 11:27	11/13/09 14:41	
PSK0253-11 (DS221-110709)			**Water**			**Sampled: 11/07/09 16:00**				
Total Suspended Solids	SM 2540D	ND	*3.50*	10.0	mg/l	1x	9110465	11/13/09 11:27	11/13/09 14:41	

TestAmerica Portland

Darrell Auvil, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

CH2M-Hill	Project Name:	**NW Pipe Project**	
2020 SW 4th Suite 300	Project Number:	358932.RI.06	Report Created:
Portland, OR 97201	Project Manager:	Pat Heins	11/23/09 16:51

Total Metals per EPA 6000/7000 Series Methods - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 9110349 **Water Preparation Method: EPA 200/3005**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (9110349-BLK1)								**Extracted: 11/11/09 08:13**						
Aluminum	EPA 6010B	ND	0.0150	0.100	mg/l	1x	--	--	--	--	--	--	11/11/09 13:14	
Antimony	"	ND	0.00600	0.100	"	"	--	--	--	--	--	--	"	
Arsenic	"	ND	0.00300	0.0500	"	"	--	--	--	--	--	--	"	
Cadmium	"	ND	0.000300	0.0100	"	"	--	--	--	--	--	--	"	
Chromium	"	ND	0.00100	0.0100	"	"	--	--	--	--	--	--	"	
Copper	"	ND	0.00200	0.0100	"	"	--	--	--	--	--	--	"	
Lead	"	ND	0.00700	0.0500	"	"	--	--	--	--	--	--	"	
Nickel	"	ND	0.00100	0.0500	"	"	--	--	--	--	--	--	"	
Selenium	"	ND	0.00800	0.0500	"	"	--	--	--	--	--	--	"	
Silver	"	ND	0.00300	0.0200	"	"	--	--	--	--	--	--	"	
Zinc	"	ND	0.00200	0.0200	"	"	--	--	--	--	--	--	"	
LCS (9110349-BS1)								**Extracted: 11/11/09 08:13**						
Aluminum	EPA 6010B	5.27	0.0150	0.100	mg/l	1x	--	5.00	105%	(85-115)	--	--	11/11/09 13:29	
Antimony	"	1.01	0.00600	0.100	"	"	--	1.00	101%	"	--	--	"	
Arsenic	"	0.994	0.00300	0.0500	"	"	--	"	99.4%	"	--	--	"	
Cadmium	"	0.508	0.000300	0.0100	"	"	--	0.500	102%	"	--	--	"	
Chromium	"	1.01	0.00100	0.0100	"	"	--	1.00	101%	"	--	--	"	
Copper	"	1.03	0.00200	0.0100	"	"	--	"	103%	"	--	--	"	
Lead	"	1.02	0.00700	0.0500	"	"	--	"	102%	"	--	--	"	
Nickel	"	1.02	0.00100	0.0500	"	"	--	"	102%	"	--	--	"	
Selenium	"	1.01	0.00800	0.0500	"	"	--	"	101%	"	--	--	"	
Silver	"	0.503	0.00300	0.0200	"	"	--	0.500	101%	"	--	--	"	
Zinc	"	1.02	0.00200	0.0200	"	"	--	1.00	102%	"	--	--	"	
Duplicate (9110349-DUP1)							**QC Source: PSK0253-02**						**Extracted: 11/11/09 08:13**	
Aluminum	EPA 6010B	ND	0.0150	0.100	mg/l	1x	ND	--	--	--	NR	(20)	11/11/09 14:00	
Antimony	"	ND	0.00600	0.100	"	"	ND	--	--	--	NR	"	"	
Arsenic	"	ND	0.00300	0.0500	"	"	ND	--	--	--	NR	"	"	
Cadmium	"	0.000342	0.000300	0.0100	"	"	ND	--	--	--		"	"	J
Chromium	"	ND	0.00100	0.0100	"	"	ND	--	--	--	NR	"	"	
Copper	"	ND	0.00200	0.0100	"	"	ND	--	--	--	NR	"	"	
Lead	"	ND	0.00700	0.0500	"	"	ND	--	--	--	NR	"	"	
Nickel	"	ND	0.00100	0.0500	"	"	ND	--	--	--	NR	"	"	
Selenium	"	ND	0.00800	0.0500	"	"	ND	--	--	--	NR	"	"	
Silver	"	ND	0.00300	0.0200	"	"	ND	--	--	--	NR	"	"	
Zinc	"	0.0633	0.00200	0.0200	"	"	0.0617	--	--	--	2.46%	"	"	

TestAmerica Portland

Darrell Auvil, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

CH2M-Hill	Project Name:	**NW Pipe Project**	
2020 SW 4th Suite 300	Project Number:	358932.RI.06	Report Created:
Portland, OR 97201	Project Manager:	Pat Heins	11/23/09 16:51

Total Metals per EPA 6000/7000 Series Methods - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 9110349 **Water Preparation Method: EPA 200/3005**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Matrix Spike (9110349-MS1)				**QC Source: PSK0253-02**				**Extracted: 11/11/09 08:13**						
Aluminum	EPA 6010B	5.34	0.0150	0.100	mg/l	1x	ND	5.00	107%	(75-125)	--	--	11/11/09 14:06	
Antimony	"	1.01	0.00600	0.100	"	"	ND	1.00	101%	"	--	--	"	
Arsenic	"	1.01	0.00300	0.0500	"	"	ND	"	101%	"	--	--	"	
Cadmium	"	0.515	0.000300	0.0100	"	"	ND	0.500	103%	"	--	--	"	
Chromium	"	1.02	0.00100	0.0100	"	"	ND	1.00	102%	"	--	--	"	
Copper	"	1.04	0.00200	0.0100	"	"	ND	"	104%	"	--	--	"	
Lead	"	1.03	0.00700	0.0500	"	"	ND	"	103%	(70-130)	--	--	"	
Nickel	"	1.03	0.00100	0.0500	"	"	ND	"	103%	(75-125)	--	--	"	
Selenium	"	1.01	0.00800	0.0500	"	"	ND	"	101%	"	--	--	"	
Silver	"	0.510	0.00300	0.0200	"	"	ND	0.500	102%	"	--	--	"	
Zinc	"	1.09	0.00200	0.0200	"	"	0.0617	1.00	103%	"	--	--	"	
Matrix Spike (9110349-MS2)				**QC Source: PSK0253-09**				**Extracted: 11/11/09 08:13**						
Aluminum	EPA 6010B	5.17	0.0150	0.100	mg/l	1x	ND	5.00	103%	(75-125)	--	--	11/11/09 15:09	
Antimony	"	0.987	0.00600	0.100	"	"	ND	1.00	98.7%	"	--	--	"	
Arsenic	"	0.969	0.00300	0.0500	"	"	ND	"	96.9%	"	--	--	"	
Cadmium	"	0.496	0.000300	0.0100	"	"	ND	0.500	99.2%	"	--	--	"	
Chromium	"	0.988	0.00100	0.0100	"	"	ND	1.00	98.8%	"	--	--	"	
Copper	"	1.01	0.00200	0.0100	"	"	ND	"	101%	"	--	--	"	
Lead	"	0.999	0.00700	0.0500	"	"	ND	"	99.9%	(70-130)	--	--	"	
Nickel	"	0.994	0.00100	0.0500	"	"	ND	"	99.4%	(75-125)	--	--	"	
Selenium	"	0.977	0.00800	0.0500	"	"	ND	"	97.7%	"	--	--	"	
Silver	"	0.495	0.00300	0.0200	"	"	ND	0.500	99.1%	"	--	--	"	
Zinc	"	1.82	0.00200	0.0200	"	"	0.818	1.00	100%	"	--	--	"	

TestAmerica Portland

Darrell Auvil, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

CH2M-Hill	Project Name:	**NW Pipe Project**	
2020 SW 4th Suite 300	Project Number:	358932.RI.06	Report Created:
Portland, OR 97201	Project Manager:	Pat Heins	11/23/09 16:51

Total Mercury per EPA Method 7470A - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 9110417 **Water Preparation Method: EPA 7470A**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (9110417-BLK1)								**Extracted: 11/12/09 13:07**						
Mercury	EPA 7470A	ND	0.0000590	0.000200	mg/l	1x	--	--	--	--	--	--	11/13/09 08:54	
LCS (9110417-BS1)								**Extracted: 11/12/09 13:07**						
Mercury	EPA 7470A	0.00516	0.0000590	0.000200	mg/l	1x	--	0.00500	103%	(85-115)	--	--	11/13/09 08:57	
LCS Dup (9110417-BSD1)								**Extracted: 11/12/09 13:07**						
Mercury	EPA 7470A	0.00496	0.0000590	0.000200	mg/l	1x	--	0.00500	99.2%	(85-115)	4.00%	(20)	11/13/09 09:00	
Duplicate (9110417-DUP1)				**QC Source: PSK0253-02**				**Extracted: 11/12/09 13:07**						
Mercury	EPA 7470A	0.000130	0.0000590	0.000200	mg/l	1x	ND	--	--	--		(20)	11/13/09 09:03	J
Matrix Spike (9110417-MS1)				**QC Source: PSK0253-02**				**Extracted: 11/12/09 13:07**						
Mercury	EPA 7470A	0.00501	0.0000590	0.000200	mg/l	1x	ND	0.00500	100%	(75-125)	--	--	11/13/09 09:08	
Matrix Spike Dup (9110417-MSD1)				**QC Source: PSK0253-02**				**Extracted: 11/12/09 13:07**						
Mercury	EPA 7470A	0.00466	0.0000590	0.000200	mg/l	1x	ND	0.00500	93.2%	(75-125)	7.21%	(20)	11/13/09 09:11	

TestAmerica Portland

Darrell Auvil, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

CH2M-Hill	Project Name:	**NW Pipe Project**	
2020 SW 4th Suite 300	Project Number:	358932.RI.06	Report Created:
Portland, OR 97201	Project Manager:	Pat Heins	11/23/09 16:51

Polychlorinated Biphenyls per EPA Method 8082 - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 9110339 **Water Preparation Method: EPA 3510/600 Series**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (9110339-BLK1)									**Extracted: 11/11/09 11:10**					
Aroclor 1016	EPA 8082	ND	0.0500	0.100	ug/l	1x	--	--	--	--	--	--	11/18/09 15:13	
Aroclor 1221	"	ND	0.100	0.200	"	"	--	--	--	--	--	--	"	
Aroclor 1232	"	ND	0.0500	0.100	"	"	--	--	--	--	--	--	"	
Aroclor 1242	"	ND	0.0500	0.100	"	"	--	--	--	--	--	--	"	
Aroclor 1248	"	ND	0.0500	0.100	"	"	--	--	--	--	--	--	"	
Aroclor 1254	"	ND	0.0500	0.100	"	"	--	--	--	--	--	--	"	
Aroclor 1260	"	ND	0.0500	0.100	"	"	--	--	--	--	--	--	"	
Aroclor 1262	"	ND	0.0500	0.100	"	"	--	--	--	--	--	--	"	
Aroclor 1268	"	ND	0.0500	0.100	"	"	--	--	--	--	--	--	"	
Surrogate(s): Decachlorobiphenyl		*Recovery: 75.1%*		*Limits: 12-130%*									*11/18/09 15:13*	
LCS (9110339-BS1)									**Extracted: 11/11/09 11:10**					
Aroclor 1016	EPA 8082	0.781	0.0500	0.100	ug/l	1x	--	1.00	78.1%	(50-114)	--	--	11/18/09 15:35	
Aroclor 1260	"	0.883	0.0500	0.100	"	"	--	"	88.3%	(8-127)	--	--	"	
Surrogate(s): Decachlorobiphenyl		*Recovery: 83.5%*		*Limits: 12-130%*									*11/18/09 15:35*	
LCS Dup (9110339-BSD1)									**Extracted: 11/11/09 11:10**					
Aroclor 1016	EPA 8082	0.731	0.0500	0.100	ug/l	1x	--	1.00	73.1%	(50-114)	6.57%	(22)	11/18/09 15:57	
Aroclor 1260	"	0.787	0.0500	0.100	"	"	--	"	78.7%	(8-127)	11.6%	(23)	"	
Surrogate(s): Decachlorobiphenyl		*Recovery: 76.0%*		*Limits: 12-130%*									*11/18/09 15:57*	

TestAmerica Portland

Darrell Auvil, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

CH2M-Hill	Project Name:	**NW Pipe Project**	
2020 SW 4th Suite 300	Project Number:	358932.RI.06	Report Created:
Portland, OR 97201	Project Manager:	Pat Heins	11/23/09 16:51

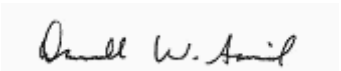
Volatile Organic Compounds per EPA Method 8260B - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 9110484 **Water Preparation Method: EPA 5030B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (9110484-BLK1)							**Extracted: 11/13/09 16:00**							
Acetone	EPA 8260B	ND	7.76	25.0	ug/l	1x	--	--	--	--	--	--	11/13/09 20:40	
Benzene	"	ND	0.0900	0.200	"	"	--	--	--	--	--	--	"	
Bromobenzene	"	ND	0.100	1.00	"	"	--	--	--	--	--	--	"	
Bromochloromethane	"	ND	0.180	1.00	"	"	--	--	--	--	--	--	"	
Bromodichloromethane	"	ND	0.110	1.00	"	"	--	--	--	--	--	--	"	
Bromoform	"	ND	0.100	1.00	"	"	--	--	--	--	--	--	"	
Bromomethane	"	ND	0.170	5.00	"	"	--	--	--	--	--	--	"	
2-Butanone (MEK)	"	ND	3.50	10.0	"	"	--	--	--	--	--	--	"	
n-Butylbenzene	"	0.150	0.0600	5.00	"	"	--	--	--	--	--	--	"	J
sec-Butylbenzene	"	0.0900	0.0800	1.00	"	"	--	--	--	--	--	--	"	J
tert-Butylbenzene	"	ND	0.0600	1.00	"	"	--	--	--	--	--	--	"	
Carbon disulfide	"	ND	0.140	10.0	"	"	--	--	--	--	--	--	"	
Carbon tetrachloride	"	ND	0.0600	1.00	"	"	--	--	--	--	--	--	"	
Chlorobenzene	"	ND	0.0500	1.00	"	"	--	--	--	--	--	--	"	
Chloroethane	"	ND	0.110	1.00	"	"	--	--	--	--	--	--	"	
Chloroform	"	ND	0.0900	0.200	"	"	--	--	--	--	--	--	"	
Chloromethane	"	ND	0.0800	5.00	"	"	--	--	--	--	--	--	"	
2-Chlorotoluene	"	ND	0.0700	1.00	"	"	--	--	--	--	--	--	"	
4-Chlorotoluene	"	ND	0.110	1.00	"	"	--	--	--	--	--	--	"	
1,2-Dibromo-3-chloropropane	"	ND	2.35	5.00	"	"	--	--	--	--	--	--	"	
Dibromochloromethane	"	ND	0.0700	1.00	"	"	--	--	--	--	--	--	"	
1,2-Dibromoethane	"	ND	0.110	1.00	"	"	--	--	--	--	--	--	"	
Dibromomethane	"	ND	0.100	1.00	"	"	--	--	--	--	--	--	"	
1,2-Dichlorobenzene	"	ND	0.0700	1.00	"	"	--	--	--	--	--	--	"	
1,3-Dichlorobenzene	"	ND	0.0600	1.00	"	"	--	--	--	--	--	--	"	
1,4-Dichlorobenzene	"	ND	0.120	1.00	"	"	--	--	--	--	--	--	"	
Dichlorodifluoromethane	"	ND	0.110	5.00	"	"	--	--	--	--	--	--	"	
1,1-Dichloroethane	"	ND	0.0800	1.00	"	"	--	--	--	--	--	--	"	
1,2-Dichloroethane	"	ND	0.100	1.00	"	"	--	--	--	--	--	--	"	
1,1-Dichloroethene	"	ND	0.120	1.00	"	"	--	--	--	--	--	--	"	
cis-1,2-Dichloroethene	"	ND	0.0900	1.00	"	"	--	--	--	--	--	--	"	
trans-1,2-Dichloroethene	"	ND	0.100	1.00	"	"	--	--	--	--	--	--	"	
1,2-Dichloropropane	"	ND	0.110	1.00	"	"	--	--	--	--	--	--	"	
1,3-Dichloropropane	"	ND	0.140	1.00	"	"	--	--	--	--	--	--	"	
2,2-Dichloropropane	"	ND	0.0900	1.00	"	"	--	--	--	--	--	--	"	
1,1-Dichloropropene	"	ND	0.0800	1.00	"	"	--	--	--	--	--	--	"	
cis-1,3-Dichloropropene	"	ND	0.0900	1.00	"	"	--	--	--	--	--	--	"	
trans-1,3-Dichloropropene	"	ND	0.100	1.00	"	"	--	--	--	--	--	--	"	
Ethylbenzene	"	ND	0.0600	1.00	"	"	--	--	--	--	--	--	"	

TestAmerica Portland



Darrell Auvil, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

CH2M-Hill	Project Name:	**NW Pipe Project**	
2020 SW 4th Suite 300	Project Number:	358932.RI.06	Report Created:
Portland, OR 97201	Project Manager:	Pat Heins	11/23/09 16:51

Volatile Organic Compounds per EPA Method 8260B - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 9110484 **Water Preparation Method: EPA 5030B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (9110484-BLK1)							**Extracted: 11/13/09 16:00**							
Hexachlorobutadiene	EPA 8260B	0.330	0.210	4.00	ug/l	1x	--	--	--	--	--	--	11/13/09 20:40	J
2-Hexanone	"	ND	3.62	10.0	"	"	--	--	--	--	--	--	"	
Isopropylbenzene	"	ND	0.0700	2.00	"	"	--	--	--	--	--	--	"	
p-Isopropyltoluene	"	0.0700	0.0600	2.00	"	"	--	--	--	--	--	--	"	J
4-Methyl-2-pentanone	"	ND	0.290	5.00	"	"	--	--	--	--	--	--	"	
Methyl tert-butyl ether	"	ND	0.0900	1.00	"	"	--	--	--	--	--	--	"	
Methylene chloride	"	ND	0.160	5.00	"	"	--	--	--	--	--	--	"	
Naphthalene	"	ND	0.0900	2.00	"	"	--	--	--	--	--	--	"	
n-Propylbenzene	"	ND	0.100	1.00	"	"	--	--	--	--	--	--	"	
Styrene	"	ND	0.0400	1.00	"	"	--	--	--	--	--	--	"	
1,1,1,2-Tetrachloroethane	"	ND	0.0900	1.00	"	"	--	--	--	--	--	--	"	
1,1,2,2-Tetrachloroethane	"	ND	0.0800	1.00	"	"	--	--	--	--	--	--	"	
Tetrachloroethene	"	ND	0.110	1.00	"	"	--	--	--	--	--	--	"	
Toluene	"	ND	0.110	1.00	"	"	--	--	--	--	--	--	"	
1,2,3-Trichlorobenzene	"	0.410	0.100	1.00	"	"	--	--	--	--	--	--	"	J
1,2,4-Trichlorobenzene	"	0.420	0.110	1.00	"	"	--	--	--	--	--	--	"	J
1,1,1-Trichloroethane	"	ND	0.120	1.00	"	"	--	--	--	--	--	--	"	
1,1,2-Trichloroethane	"	ND	0.130	1.00	"	"	--	--	--	--	--	--	"	
Trichloroethene	"	ND	0.0800	1.00	"	"	--	--	--	--	--	--	"	
Trichlorofluoromethane	"	ND	0.0600	1.00	"	"	--	--	--	--	--	--	"	
1,2,3-Trichloropropane	"	ND	0.130	1.00	"	"	--	--	--	--	--	--	"	
1,2,4-Trimethylbenzene	"	ND	0.0800	1.00	"	"	--	--	--	--	--	--	"	
1,3,5-Trimethylbenzene	"	ND	0.0700	1.00	"	"	--	--	--	--	--	--	"	
Vinyl chloride	"	ND	0.100	1.00	"	"	--	--	--	--	--	--	"	
o-Xylene	"	ND	0.0700	1.00	"	"	--	--	--	--	--	--	"	
m,p-Xylene	"	ND	0.210	2.00	"	"	--	--	--	--	--	--	"	

Surrogate(s):	*Dibromofluoromethane*	*Recovery: 101%*	*Limits: 80-120%*	*11/13/09 20:40*
	1,2-DCA-d4	*104%*	*80-120%*	*"*
	Toluene-d8	*100%*	*80-120%*	*"*
	4-BFB	*104%*	*80-120%*	*"*

TestAmerica Portland

Darrell Auvil, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

CH2M-Hill	Project Name:	**NW Pipe Project**	
2020 SW 4th Suite 300	Project Number:	358932.RI.06	Report Created:
Portland, OR 97201	Project Manager:	Pat Heins	11/23/09 16:51

Volatile Organic Compounds per EPA Method 8260B - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 9110484 **Water Preparation Method: EPA 5030B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
LCS (9110484-BS1)								**Extracted: 11/13/09 16:00**						
Acetone	EPA 8260B	92.4	7.76	25.0	ug/l	1x	--	100	92.4%	(56-141)	--	--	11/13/09 18:38	
Benzene	"	19.8	0.0900	0.200	"	"	--	20.0	98.8%	(80-120)	--	--	"	
Bromobenzene	"	18.9	0.100	1.00	"	"	--	"	94.4%	(78-120)	--	--	"	
Bromochloromethane	"	20.0	0.180	1.00	"	"	--	"	99.8%	(76-121)	--	--	"	
Bromodichloromethane	"	21.3	0.110	1.00	"	"	--	"	106%	(84-127)	--	--	"	
Bromoform	"	20.5	0.100	1.00	"	"	--	"	102%	(55-134)	--	--	"	
Bromomethane	"	22.6	0.170	5.00	"	"	--	"	113%	(38-150)	--	--	"	
2-Butanone (MEK)	"	111	3.50	10.0	"	"	--	100	111%	(71-136)	--	--	"	
n-Butylbenzene	"	20.7	0.0600	5.00	"	"	--	20.0	104%	(76-126)	--	--	"	
sec-Butylbenzene	"	19.5	0.0800	1.00	"	"	--	"	97.4%	(64-129)	--	--	"	
tert-Butylbenzene	"	19.6	0.0600	1.00	"	"	--	"	98.2%	(71-127)	--	--	"	
Carbon disulfide	"	40.3	0.140	10.0	"	"	--	40.0	101%	(58-120)	--	--	"	
Carbon tetrachloride	"	21.5	0.0600	1.00	"	"	--	20.0	108%	(73-134)	--	--	"	
Chlorobenzene	"	19.2	0.0500	1.00	"	"	--	"	95.8%	(80-124)	--	--	"	
Chloroethane	"	23.8	0.110	1.00	"	"	--	"	119%	(79-124)	--	--	"	
Chloroform	"	20.1	0.0900	0.200	"	"	--	"	101%	(80-120)	--	--	"	
Chloromethane	"	21.9	0.0800	5.00	"	"	--	"	110%	(47-146)	--	--	"	
2-Chlorotoluene	"	19.0	0.0700	1.00	"	"	--	"	95.0%	(72-125)	--	--	"	
4-Chlorotoluene	"	19.3	0.110	1.00	"	"	--	"	96.6%	(77-124)	--	--	"	
1,2-Dibromo-3-chloropropane	"	19.1	2.35	5.00	"	"	--	"	95.6%	(73-134)	--	--	"	
Dibromochloromethane	"	21.4	0.0700	1.00	"	"	--	"	107%	(69-138)	--	--	"	
1,2-Dibromoethane	"	19.4	0.110	1.00	"	"	--	"	97.2%	(80-122)	--	--	"	
Dibromomethane	"	20.0	0.100	1.00	"	"	--	"	99.8%	(80-120)	--	--	"	
1,2-Dichlorobenzene	"	20.0	0.0700	1.00	"	"	--	"	100%	(80-113)	--	--	"	
1,3-Dichlorobenzene	"	18.6	0.0600	1.00	"	"	--	"	93.2%	(76-123)	--	--	"	
1,4-Dichlorobenzene	"	18.8	0.120	1.00	"	"	--	"	93.8%	(73-120)	--	--	"	
Dichlorodifluoromethane	"	21.2	0.110	5.00	"	"	--	"	106%	(48-140)	--	--	"	
1,1-Dichloroethane	"	20.2	0.0800	1.00	"	"	--	"	101%	(80-120)	--	--	"	
1,2-Dichloroethane	"	21.4	0.100	1.00	"	"	--	"	107%	(78-123)	--	--	"	
1,1-Dichloroethene	"	19.1	0.120	1.00	"	"	--	"	95.6%	(78-120)	--	--	"	
cis-1,2-Dichloroethene	"	19.2	0.0900	1.00	"	"	--	"	95.9%	(80-120)	--	--	"	
trans-1,2-Dichloroethene	"	19.3	0.100	1.00	"	"	--	"	96.4%	"	--	--	"	
1,2-Dichloropropane	"	20.0	0.110	1.00	"	"	--	"	100%	(80-126)	--	--	"	
1,3-Dichloropropane	"	19.9	0.140	1.00	"	"	--	"	99.3%	(80-120)	--	--	"	
2,2-Dichloropropane	"	20.1	0.0900	1.00	"	"	--	"	101%	(60-144)	--	--	"	
1,1-Dichloropropene	"	19.8	0.0800	1.00	"	"	--	"	99.2%	(80-120)	--	--	"	
cis-1,3-Dichloropropene	"	16.8	0.0900	1.00	"	"	--	"	84.0%	(80-125)	--	--	"	
trans-1,3-Dichloropropene	"	16.6	0.100	1.00	"	"	--	"	83.2%	(80-130)	--	--	"	
Ethylbenzene	"	19.7	0.0600	1.00	"	"	--	"	98.3%	(80-120)	--	--	"	

TestAmerica Portland

Darrell Auvil, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

CH2M-Hill	Project Name:	**NW Pipe Project**	
2020 SW 4th Suite 300	Project Number:	358932.RI.06	Report Created:
Portland, OR 97201	Project Manager:	Pat Heins	11/23/09 16:51

Volatile Organic Compounds per EPA Method 8260B - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 9110484 **Water Preparation Method: EPA 5030B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
LCS (9110484-BS1)							**Extracted: 11/13/09 16:00**							
Hexachlorobutadiene	EPA 8260B	18.5	0.210	4.00	ug/l	1x	--	20.0	92.6%	(64-145)	--	--	11/13/09 18:38	
2-Hexanone	"	114	3.62	10.0	"	"	--	100	114%	(73-139)	--	--	"	
Isopropylbenzene	"	19.5	0.0700	2.00	"	"	--	20.0	97.4%	(77-124)	--	--	"	
p-Isopropyltoluene	"	18.6	0.0600	2.00	"	"	--	"	92.9%	(68-130)	--	--	"	
4-Methyl-2-pentanone	"	109	0.290	5.00	"	"	--	100	109%	(72-134)	--	--	"	
Methyl tert-butyl ether	"	19.1	0.0900	1.00	"	"	--	20.0	95.5%	(80-129)	--	--	"	
Methylene chloride	"	18.8	0.160	5.00	"	"	--	"	94.2%	(80-120)	--	--	"	
Naphthalene	"	17.8	0.0900	2.00	"	"	--	"	88.8%	(72-149)	--	--	"	
n-Propylbenzene	"	20.3	0.100	1.00	"	"	--	"	102%	(76-128)	--	--	"	
Styrene	"	19.4	0.0400	1.00	"	"	--	"	96.8%	(72-127)	--	--	"	
1,1,1,2-Tetrachloroethane	"	19.6	0.0900	1.00	"	"	--	"	98.1%	(69-138)	--	--	"	
1,1,2,2-Tetrachloroethane	"	21.7	0.0800	1.00	"	"	--	"	108%	(77-128)	--	--	"	
Tetrachloroethene	"	19.1	0.110	1.00	"	"	--	"	95.6%	(80-124)	--	--	"	
Toluene	"	19.1	0.110	1.00	"	"	--	"	95.4%	"	--	--	"	
1,2,3-Trichlorobenzene	"	18.2	0.100	1.00	"	"	--	"	91.0%	(69-138)	--	--	"	
1,2,4-Trichlorobenzene	"	18.5	0.110	1.00	"	"	--	"	92.4%	(75-127)	--	--	"	
1,1,1-Trichloroethane	"	20.3	0.120	1.00	"	"	--	"	101%	(76-132)	--	--	"	
1,1,2-Trichloroethane	"	20.2	0.130	1.00	"	"	--	"	101%	(80-123)	--	--	"	
Trichloroethene	"	19.5	0.0800	1.00	"	"	--	"	97.6%	(80-132)	--	--	"	
Trichlorofluoromethane	"	25.7	0.0600	1.00	"	"	--	"	128%	(77-137)	--	--	"	
1,2,3-Trichloropropane	"	19.4	0.130	1.00	"	"	--	"	97.1%	(75-125)	--	--	"	
1,2,4-Trimethylbenzene	"	19.1	0.0800	1.00	"	"	--	"	95.4%	(73-132)	--	--	"	
1,3,5-Trimethylbenzene	"	19.6	0.0700	1.00	"	"	--	"	97.8%	(75-132)	--	--	"	
Vinyl chloride	"	22.5	0.100	1.00	"	"	--	"	113%	(76-133)	--	--	"	
o-Xylene	"	19.5	0.0700	1.00	"	"	--	"	97.4%	(77-123)	--	--	"	
m,p-Xylene	"	39.3	0.210	2.00	"	"	--	40.0	98.2%	(72-127)	--	--	"	

Surrogate(s):	*Dibromofluoromethane*	*Recovery: 113%*	*Limits: 80-120%*	*11/13/09 18:38*
	1,2-DCA-d4	*111%*	*80-120%*	*"*
	Toluene-d8	*112%*	*80-120%*	*"*
	4-BFB	*118%*	*80-120%*	*"*

TestAmerica Portland

Darrell Auvil, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

CH2M-Hill	Project Name:	**NW Pipe Project**	
2020 SW 4th Suite 300	Project Number:	358932.RI.06	Report Created:
Portland, OR 97201	Project Manager:	Pat Heins	11/23/09 16:51

Volatile Organic Compounds per EPA Method 8260B - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 9110484 **Water Preparation Method: EPA 5030B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
LCS Dup (9110484-BSD1)								**Extracted: 11/13/09 16:00**						
Acetone	EPA 8260B	97.7	7.76	25.0	ug/l	1x	--	100	97.7%	(56-141)	5.66%	(25)	11/13/09 19:02	
Benzene	"	19.2	0.0900	0.200	"	"	--	20.0	96.2%	(80-120)	2.67%	"	"	
Bromobenzene	"	18.2	0.100	1.00	"	"	--	"	91.0%	(78-120)	3.61%	"	"	
Bromochloromethane	"	19.0	0.180	1.00	"	"	--	"	95.2%	(76-121)	4.72%	"	"	
Bromodichloromethane	"	21.1	0.110	1.00	"	"	--	"	106%	(84-127)	0.801%	"	"	
Bromoform	"	21.3	0.100	1.00	"	"	--	"	107%	(55-134)	4.02%	"	"	
Bromomethane	"	20.9	0.170	5.00	"	"	--	"	104%	(38-150)	8.14%	"	"	
2-Butanone (MEK)	"	119	3.50	10.0	"	"	--	100	119%	(71-136)	7.42%	"	"	
n-Butylbenzene	"	19.9	0.0600	5.00	"	"	--	20.0	99.3%	(76-126)	4.14%	"	"	
sec-Butylbenzene	"	19.2	0.0800	1.00	"	"	--	"	95.8%	(64-129)	1.66%	"	"	
tert-Butylbenzene	"	19.4	0.0600	1.00	"	"	--	"	96.9%	(71-127)	1.28%	"	"	
Carbon disulfide	"	37.3	0.140	10.0	"	"	--	40.0	93.3%	(58-120)	7.68%	"	"	
Carbon tetrachloride	"	20.5	0.0600	1.00	"	"	--	20.0	102%	(73-134)	5.09%	"	"	
Chlorobenzene	"	19.0	0.0500	1.00	"	"	--	"	94.8%	(80-124)	0.997%	"	"	
Chloroethane	"	22.0	0.110	1.00	"	"	--	"	110%	(79-124)	8.13%	"	"	
Chloroform	"	19.5	0.0900	0.200	"	"	--	"	97.5%	(80-120)	3.18%	"	"	
Chloromethane	"	20.5	0.0800	5.00	"	"	--	"	102%	(47-146)	6.83%	"	"	
2-Chlorotoluene	"	18.7	0.0700	1.00	"	"	--	"	93.6%	(72-125)	1.49%	"	"	
4-Chlorotoluene	"	19.0	0.110	1.00	"	"	--	"	95.2%	(77-124)	1.46%	"	"	
1,2-Dibromo-3-chloropropane	"	20.6	2.35	5.00	"	"	--	"	103%	(73-134)	7.64%	"	"	
Dibromochloromethane	"	21.5	0.0700	1.00	"	"	--	"	108%	(69-138)	0.466%	"	"	
1,2-Dibromoethane	"	20.3	0.110	1.00	"	"	--	"	101%	(80-122)	4.33%	"	"	
Dibromomethane	"	20.0	0.100	1.00	"	"	--	"	99.8%	(80-120)	0.0501%	"	"	
1,2-Dichlorobenzene	"	19.4	0.0700	1.00	"	"	--	"	96.8%	(80-113)	3.45%	"	"	
1,3-Dichlorobenzene	"	18.0	0.0600	1.00	"	"	--	"	90.2%	(76-123)	3.27%	"	"	
1,4-Dichlorobenzene	"	18.7	0.120	1.00	"	"	--	"	93.6%	(73-120)	0.213%	"	"	
Dichlorodifluoromethane	"	19.0	0.110	5.00	"	"	--	"	95.2%	(48-140)	10.5%	"	"	
1,1-Dichloroethane	"	19.5	0.0800	1.00	"	"	--	"	97.4%	(80-120)	3.73%	"	"	
1,2-Dichloroethane	"	21.1	0.100	1.00	"	"	--	"	105%	(78-123)	1.41%	"	"	
1,1-Dichloroethene	"	18.0	0.120	1.00	"	"	--	"	89.8%	(78-120)	6.20%	"	"	
cis-1,2-Dichloroethene	"	18.8	0.0900	1.00	"	"	--	"	93.8%	(80-120)	2.16%	"	"	
trans-1,2-Dichloroethene	"	18.8	0.100	1.00	"	"	--	"	94.2%	"	2.31%	"	"	
1,2-Dichloropropane	"	19.9	0.110	1.00	"	"	--	"	99.5%	(80-126)	0.701%	"	"	
1,3-Dichloropropane	"	20.3	0.140	1.00	"	"	--	"	101%	(80-120)	2.04%	"	"	
2,2-Dichloropropane	"	19.0	0.0900	1.00	"	"	--	"	94.8%	(60-144)	5.93%	"	"	
1,1-Dichloropropene	"	19.3	0.0800	1.00	"	"	--	"	96.4%	(80-120)	2.86%	"	"	
cis-1,3-Dichloropropene	"	16.9	0.0900	1.00	"	"	--	"	84.4%	(80-125)	0.594%	"	"	
trans-1,3-Dichloropropene	"	16.9	0.100	1.00	"	"	--	"	84.6%	(80-130)	1.67%	"	"	
Ethylbenzene	"	19.3	0.0600	1.00	"	"	--	"	96.3%	(80-120)	2.06%	"	"	

TestAmerica Portland

Darrell Auvil, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

CH2M-Hill	Project Name:	**NW Pipe Project**	
2020 SW 4th Suite 300	Project Number:	358932.RI.06	Report Created:
Portland, OR 97201	Project Manager:	Pat Heins	11/23/09 16:51

Volatile Organic Compounds per EPA Method 8260B - Laboratory Quality Control Results

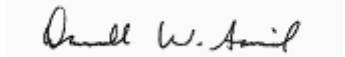
TestAmerica Portland

QC Batch: 9110484 **Water Preparation Method: EPA 5030B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
LCS Dup (9110484-BSD1)							**Extracted: 11/13/09 16:00**							
Hexachlorobutadiene	EPA 8260B	19.0	0.210	4.00	ug/l	1x	--	20.0	95.2%	(64-145)	2.66%	(25)	11/13/09 19:02	
2-Hexanone	"	121	3.62	10.0	"	"	--	100	121%	(73-139)	6.00%	"	"	
Isopropylbenzene	"	19.0	0.0700	2.00	"	"	--	20.0	94.9%	(77-124)	2.65%	"	"	
p-Isopropyltoluene	"	18.5	0.0600	2.00	"	"	--	"	92.3%	(68-130)	0.648%	"	"	
4-Methyl-2-pentanone	"	114	0.290	5.00	"	"	--	100	114%	(72-134)	5.10%	"	"	
Methyl tert-butyl ether	"	19.0	0.0900	1.00	"	"	--	20.0	95.2%	(80-129)	0.315%	"	"	
Methylene chloride	"	18.5	0.160	5.00	"	"	--	"	92.6%	(80-120)	1.82%	"	"	
Naphthalene	"	17.7	0.0900	2.00	"	"	--	"	88.6%	(72-149)	0.225%	"	"	
n-Propylbenzene	"	19.7	0.100	1.00	"	"	--	"	98.4%	(76-128)	3.30%	"	"	
Styrene	"	19.1	0.0400	1.00	"	"	--	"	95.6%	(72-127)	1.20%	"	"	
1,1,1,2-Tetrachloroethane	"	19.5	0.0900	1.00	"	"	--	"	97.6%	(69-138)	0.460%	"	"	
1,1,2,2-Tetrachloroethane	"	22.4	0.0800	1.00	"	"	--	"	112%	(77-128)	2.95%	"	"	
Tetrachloroethene	"	18.6	0.110	1.00	"	"	--	"	93.2%	(80-124)	2.44%	"	"	
Toluene	"	18.8	0.110	1.00	"	"	--	"	94.2%	"	1.27%	"	"	
1,2,3-Trichlorobenzene	"	17.6	0.100	1.00	"	"	--	"	87.8%	(69-138)	3.52%	"	"	
1,2,4-Trichlorobenzene	"	17.9	0.110	1.00	"	"	--	"	89.4%	(75-127)	3.30%	"	"	
1,1,1-Trichloroethane	"	19.4	0.120	1.00	"	"	--	"	97.2%	(76-132)	4.13%	"	"	
1,1,2-Trichloroethane	"	20.4	0.130	1.00	"	"	--	"	102%	(80-123)	1.48%	"	"	
Trichloroethene	"	19.0	0.0800	1.00	"	"	--	"	95.0%	(80-132)	2.70%	"	"	
Trichlorofluoromethane	"	22.9	0.0600	1.00	"	"	--	"	115%	(77-137)	11.3%	"	"	
1,2,3-Trichloropropane	"	20.2	0.130	1.00	"	"	--	"	101%	(75-125)	3.74%	"	"	
1,2,4-Trimethylbenzene	"	18.8	0.0800	1.00	"	"	--	"	94.1%	(73-132)	1.42%	"	"	
1,3,5-Trimethylbenzene	"	19.4	0.0700	1.00	"	"	--	"	97.0%	(75-132)	0.821%	"	"	
Vinyl chloride	"	20.5	0.100	1.00	"	"	--	"	103%	(76-133)	9.33%	"	"	
o-Xylene	"	19.0	0.0700	1.00	"	"	--	"	94.8%	(77-123)	2.71%	"	"	
m,p-Xylene	"	37.9	0.210	2.00	"	"	--	40.0	94.8%	(72-127)	3.63%	"	"	

Surrogate(s):	*Dibromofluoromethane*	*Recovery:*	*110%*	*Limits: 80-120%*	*11/13/09 19:02*
	1,2-DCA-d4		*111%*	*80-120%*	*"*
	Toluene-d8		*111%*	*80-120%*	*"*
	4-BFB		*118%*	*80-120%*	*"*

TestAmerica Portland



Darrell Auvil, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

CH2M-Hill	Project Name:	**NW Pipe Project**	
2020 SW 4th Suite 300	Project Number:	358932.RI.06	Report Created:
Portland, OR 97201	Project Manager:	Pat Heins	11/23/09 16:51

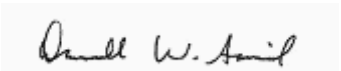
Volatile Organic Compounds per EPA Method 8260B - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 9110497 **Water Preparation Method: EPA 5030B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (9110497-BLK1)							**Extracted: 11/15/09 14:00**							
Acetone	EPA 8260B	ND	7.76	25.0	ug/l	1x	--	--	--	--	--	--	11/15/09 16:18	
Benzene	"	ND	0.0900	0.200	"	"	--	--	--	--	--	--	"	
Bromobenzene	"	ND	0.100	1.00	"	"	--	--	--	--	--	--	"	
Bromochloromethane	"	ND	0.180	1.00	"	"	--	--	--	--	--	--	"	
Bromodichloromethane	"	ND	0.110	1.00	"	"	--	--	--	--	--	--	"	
Bromoform	"	ND	0.100	1.00	"	"	--	--	--	--	--	--	"	
Bromomethane	"	ND	0.170	5.00	"	"	--	--	--	--	--	--	"	
2-Butanone (MEK)	"	ND	3.50	10.0	"	"	--	--	--	--	--	--	"	
n-Butylbenzene	"	0.130	0.0600	5.00	"	"	--	--	--	--	--	--	"	J
sec-Butylbenzene	"	0.0800	0.0800	1.00	"	"	--	--	--	--	--	--	"	J
tert-Butylbenzene	"	ND	0.0600	1.00	"	"	--	--	--	--	--	--	"	
Carbon disulfide	"	ND	0.140	10.0	"	"	--	--	--	--	--	--	"	
Carbon tetrachloride	"	ND	0.0600	1.00	"	"	--	--	--	--	--	--	"	
Chlorobenzene	"	ND	0.0500	1.00	"	"	--	--	--	--	--	--	"	
Chloroethane	"	ND	0.110	1.00	"	"	--	--	--	--	--	--	"	
Chloroform	"	ND	0.0900	0.200	"	"	--	--	--	--	--	--	"	
Chloromethane	"	ND	0.0800	5.00	"	"	--	--	--	--	--	--	"	
2-Chlorotoluene	"	ND	0.0700	1.00	"	"	--	--	--	--	--	--	"	
4-Chlorotoluene	"	ND	0.110	1.00	"	"	--	--	--	--	--	--	"	
1,2-Dibromo-3-chloropropane	"	ND	2.35	5.00	"	"	--	--	--	--	--	--	"	
Dibromochloromethane	"	ND	0.0700	1.00	"	"	--	--	--	--	--	--	"	
1,2-Dibromoethane	"	ND	0.110	1.00	"	"	--	--	--	--	--	--	"	
Dibromomethane	"	ND	0.100	1.00	"	"	--	--	--	--	--	--	"	
1,2-Dichlorobenzene	"	ND	0.0700	1.00	"	"	--	--	--	--	--	--	"	
1,3-Dichlorobenzene	"	ND	0.0600	1.00	"	"	--	--	--	--	--	--	"	
1,4-Dichlorobenzene	"	ND	0.120	1.00	"	"	--	--	--	--	--	--	"	
Dichlorodifluoromethane	"	ND	0.110	5.00	"	"	--	--	--	--	--	--	"	
1,1-Dichloroethane	"	ND	0.0800	1.00	"	"	--	--	--	--	--	--	"	
1,2-Dichloroethane	"	ND	0.100	1.00	"	"	--	--	--	--	--	--	"	
1,1-Dichloroethene	"	ND	0.120	1.00	"	"	--	--	--	--	--	--	"	
cis-1,2-Dichloroethene	"	ND	0.0900	1.00	"	"	--	--	--	--	--	--	"	
trans-1,2-Dichloroethene	"	ND	0.100	1.00	"	"	--	--	--	--	--	--	"	
1,2-Dichloropropane	"	ND	0.110	1.00	"	"	--	--	--	--	--	--	"	
1,3-Dichloropropane	"	ND	0.140	1.00	"	"	--	--	--	--	--	--	"	
2,2-Dichloropropane	"	ND	0.0900	1.00	"	"	--	--	--	--	--	--	"	
1,1-Dichloropropene	"	ND	0.0800	1.00	"	"	--	--	--	--	--	--	"	
cis-1,3-Dichloropropene	"	ND	0.0900	1.00	"	"	--	--	--	--	--	--	"	
trans-1,3-Dichloropropene	"	ND	0.100	1.00	"	"	--	--	--	--	--	--	"	
Ethylbenzene	"	ND	0.0600	1.00	"	"	--	--	--	--	--	--	"	

TestAmerica Portland



Darrell Auvil, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

CH2M-Hill	Project Name:	**NW Pipe Project**	
2020 SW 4th Suite 300	Project Number:	358932.RI.06	Report Created:
Portland, OR 97201	Project Manager:	Pat Heins	11/23/09 16:51

Volatile Organic Compounds per EPA Method 8260B - Laboratory Quality Control Results

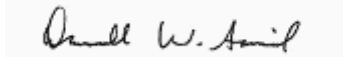
TestAmerica Portland

QC Batch: 9110497 **Water Preparation Method: EPA 5030B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (9110497-BLK1)							**Extracted: 11/15/09 14:00**							
Hexachlorobutadiene	EPA 8260B	0.330	0.210	4.00	ug/l	1x	--	--	--	--	--	--	11/15/09 16:18	J
2-Hexanone	"	ND	3.62	10.0	"	"	--	--	--	--	--	--	"	
Isopropylbenzene	"	ND	0.0700	2.00	"	"	--	--	--	--	--	--	"	
p-Isopropyltoluene	"	ND	0.0600	2.00	"	"	--	--	--	--	--	--	"	
4-Methyl-2-pentanone	"	ND	0.290	5.00	"	"	--	--	--	--	--	--	"	
Methyl tert-butyl ether	"	ND	0.0900	1.00	"	"	--	--	--	--	--	--	"	
Methylene chloride	"	ND	0.160	5.00	"	"	--	--	--	--	--	--	"	
Naphthalene	"	ND	0.0900	2.00	"	"	--	--	--	--	--	--	"	
n-Propylbenzene	"	ND	0.100	1.00	"	"	--	--	--	--	--	--	"	
Styrene	"	ND	0.0400	1.00	"	"	--	--	--	--	--	--	"	
1,1,1,2-Tetrachloroethane	"	ND	0.0900	1.00	"	"	--	--	--	--	--	--	"	
1,1,2,2-Tetrachloroethane	"	ND	0.0800	1.00	"	"	--	--	--	--	--	--	"	
Tetrachloroethene	"	ND	0.110	1.00	"	"	--	--	--	--	--	--	"	
Toluene	"	ND	0.110	1.00	"	"	--	--	--	--	--	--	"	
1,2,3-Trichlorobenzene	"	0.410	0.100	1.00	"	"	--	--	--	--	--	--	"	J
1,2,4-Trichlorobenzene	"	0.430	0.110	1.00	"	"	--	--	--	--	--	--	"	J
1,1,1-Trichloroethane	"	ND	0.120	1.00	"	"	--	--	--	--	--	--	"	
1,1,2-Trichloroethane	"	ND	0.130	1.00	"	"	--	--	--	--	--	--	"	
Trichloroethene	"	ND	0.0800	1.00	"	"	--	--	--	--	--	--	"	
Trichlorofluoromethane	"	ND	0.0600	1.00	"	"	--	--	--	--	--	--	"	
1,2,3-Trichloropropane	"	ND	0.130	1.00	"	"	--	--	--	--	--	--	"	
1,2,4-Trimethylbenzene	"	ND	0.0800	1.00	"	"	--	--	--	--	--	--	"	
1,3,5-Trimethylbenzene	"	ND	0.0700	1.00	"	"	--	--	--	--	--	--	"	
Vinyl chloride	"	ND	0.100	1.00	"	"	--	--	--	--	--	--	"	
o-Xylene	"	ND	0.0700	1.00	"	"	--	--	--	--	--	--	"	
m,p-Xylene	"	ND	0.210	2.00	"	"	--	--	--	--	--	--	"	

Surrogate(s):	*Dibromofluoromethane*	*Recovery: 96.4%*	*Limits: 80-120%*	*11/15/09 16:18*
	1,2-DCA-d4	*103%*	*80-120%*	*"*
	Toluene-d8	*98.9%*	*80-120%*	*"*
	4-BFB	*106%*	*80-120%*	*"*

TestAmerica Portland



Darrell Auvil, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

CH2M-Hill	Project Name:	**NW Pipe Project**	
2020 SW 4th Suite 300	Project Number:	358932.RI.06	Report Created:
Portland, OR 97201	Project Manager:	Pat Heins	11/23/09 16:51

Volatile Organic Compounds per EPA Method 8260B - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 9110497 **Water Preparation Method: EPA 5030B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
LCS (9110497-BS1)								**Extracted: 11/15/09 14:00**						
Acetone	EPA 8260B	97.9	7.76	25.0	ug/l	1x	--	100	97.9%	(56-141)	--	--	11/15/09 15:08	
Benzene	"	18.5	0.0900	0.200	"	"	--	20.0	92.7%	(80-120)	--	--	"	
Bromobenzene	"	17.8	0.100	1.00	"	"	--	"	89.2%	(78-120)	--	--	"	
Bromochloromethane	"	19.7	0.180	1.00	"	"	--	"	98.3%	(76-121)	--	--	"	
Bromodichloromethane	"	21.5	0.110	1.00	"	"	--	"	107%	(84-127)	--	--	"	
Bromoform	"	21.7	0.100	1.00	"	"	--	"	109%	(55-134)	--	--	"	
Bromomethane	"	19.8	0.170	5.00	"	"	--	"	99.2%	(38-150)	--	--	"	
2-Butanone (MEK)	"	110	3.50	10.0	"	"	--	100	110%	(71-136)	--	--	"	
n-Butylbenzene	"	19.0	0.0600	5.00	"	"	--	20.0	94.8%	(76-126)	--	--	"	
sec-Butylbenzene	"	18.3	0.0800	1.00	"	"	--	"	91.3%	(64-129)	--	--	"	
tert-Butylbenzene	"	18.3	0.0600	1.00	"	"	--	"	91.4%	(71-127)	--	--	"	
Carbon disulfide	"	37.9	0.140	10.0	"	"	--	40.0	94.8%	(58-120)	--	--	"	
Carbon tetrachloride	"	20.8	0.0600	1.00	"	"	--	20.0	104%	(73-134)	--	--	"	
Chlorobenzene	"	18.3	0.0500	1.00	"	"	--	"	91.5%	(80-124)	--	--	"	
Chloroethane	"	20.8	0.110	1.00	"	"	--	"	104%	(79-124)	--	--	"	
Chloroform	"	19.0	0.0900	0.200	"	"	--	"	95.2%	(80-120)	--	--	"	
Chloromethane	"	18.9	0.0800	5.00	"	"	--	"	94.7%	(47-146)	--	--	"	
2-Chlorotoluene	"	18.1	0.0700	1.00	"	"	--	"	90.6%	(72-125)	--	--	"	
4-Chlorotoluene	"	18.7	0.110	1.00	"	"	--	"	93.4%	(77-124)	--	--	"	
1,2-Dibromo-3-chloropropane	"	21.3	2.35	5.00	"	"	--	"	107%	(73-134)	--	--	"	
Dibromochloromethane	"	22.1	0.0700	1.00	"	"	--	"	111%	(69-138)	--	--	"	
1,2-Dibromoethane	"	19.4	0.110	1.00	"	"	--	"	96.8%	(80-122)	--	--	"	
Dibromomethane	"	19.5	0.100	1.00	"	"	--	"	97.6%	(80-120)	--	--	"	
1,2-Dichlorobenzene	"	19.0	0.0700	1.00	"	"	--	"	95.1%	(80-113)	--	--	"	
1,3-Dichlorobenzene	"	17.7	0.0600	1.00	"	"	--	"	88.3%	(76-123)	--	--	"	
1,4-Dichlorobenzene	"	18.2	0.120	1.00	"	"	--	"	90.8%	(73-120)	--	--	"	
Dichlorodifluoromethane	"	17.4	0.110	5.00	"	"	--	"	87.1%	(48-140)	--	--	"	
1,1-Dichloroethane	"	19.2	0.0800	1.00	"	"	--	"	95.8%	(80-120)	--	--	"	
1,2-Dichloroethane	"	20.6	0.100	1.00	"	"	--	"	103%	(78-123)	--	--	"	
1,1-Dichloroethene	"	18.1	0.120	1.00	"	"	--	"	90.5%	(78-120)	--	--	"	
cis-1,2-Dichloroethene	"	18.5	0.0900	1.00	"	"	--	"	92.4%	(80-120)	--	--	"	
trans-1,2-Dichloroethene	"	18.5	0.100	1.00	"	"	--	"	92.6%	"	--	--	"	
1,2-Dichloropropane	"	19.3	0.110	1.00	"	"	--	"	96.6%	(80-126)	--	--	"	
1,3-Dichloropropane	"	19.2	0.140	1.00	"	"	--	"	96.2%	(80-120)	--	--	"	
2,2-Dichloropropane	"	18.9	0.0900	1.00	"	"	--	"	94.6%	(60-144)	--	--	"	
1,1-Dichloropropene	"	18.5	0.0800	1.00	"	"	--	"	92.7%	(80-120)	--	--	"	
cis-1,3-Dichloropropene	"	16.6	0.0900	1.00	"	"	--	"	82.8%	(80-125)	--	--	"	
trans-1,3-Dichloropropene	"	16.4	0.100	1.00	"	"	--	"	82.2%	(80-130)	--	--	"	
Ethylbenzene	"	18.6	0.0600	1.00	"	"	--	"	93.0%	(80-120)	--	--	"	

TestAmerica Portland

Darrell Auvil, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

CH2M-Hill	Project Name:	**NW Pipe Project**	
2020 SW 4th Suite 300	Project Number:	358932.RI.06	Report Created:
Portland, OR 97201	Project Manager:	Pat Heins	11/23/09 16:51

Volatile Organic Compounds per EPA Method 8260B - Laboratory Quality Control Results

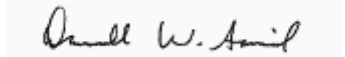
TestAmerica Portland

QC Batch: 9110497 **Water Preparation Method: EPA 5030B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
LCS (9110497-BS1)							**Extracted: 11/15/09 14:00**							
Hexachlorobutadiene	EPA 8260B	17.5	0.210	4.00	ug/l	1x	--	20.0	87.3%	(64-145)	--	--	11/15/09 15:08	
2-Hexanone	"	110	3.62	10.0	"	"	--	100	110%	(73-139)	--	--	"	
Isopropylbenzene	"	18.3	0.0700	2.00	"	"	--	20.0	91.4%	(77-124)	--	--	"	
p-Isopropyltoluene	"	17.5	0.0600	2.00	"	"	--	"	87.6%	(68-130)	--	--	"	
4-Methyl-2-pentanone	"	107	0.290	5.00	"	"	--	100	107%	(72-134)	--	--	"	
Methyl tert-butyl ether	"	18.7	0.0900	1.00	"	"	--	20.0	93.6%	(80-129)	--	--	"	
Methylene chloride	"	18.5	0.160	5.00	"	"	--	"	92.4%	(80-120)	--	--	"	
Naphthalene	"	17.4	0.0900	2.00	"	"	--	"	86.8%	(72-149)	--	--	"	
n-Propylbenzene	"	19.0	0.100	1.00	"	"	--	"	95.0%	(76-128)	--	--	"	
Styrene	"	18.3	0.0400	1.00	"	"	--	"	91.6%	(72-127)	--	--	"	
1,1,1,2-Tetrachloroethane	"	20.0	0.0900	1.00	"	"	--	"	99.9%	(69-138)	--	--	"	
1,1,2,2-Tetrachloroethane	"	21.3	0.0800	1.00	"	"	--	"	107%	(77-128)	--	--	"	
Tetrachloroethene	"	18.0	0.110	1.00	"	"	--	"	90.1%	(80-124)	--	--	"	
Toluene	"	17.8	0.110	1.00	"	"	--	"	89.0%	"	--	--	"	
1,2,3-Trichlorobenzene	"	17.6	0.100	1.00	"	"	--	"	87.8%	(69-138)	--	--	"	
1,2,4-Trichlorobenzene	"	17.5	0.110	1.00	"	"	--	"	87.6%	(75-127)	--	--	"	
1,1,1-Trichloroethane	"	19.4	0.120	1.00	"	"	--	"	97.2%	(76-132)	--	--	"	
1,1,2-Trichloroethane	"	19.0	0.130	1.00	"	"	--	"	95.2%	(80-123)	--	--	"	
Trichloroethene	"	18.2	0.0800	1.00	"	"	--	"	91.0%	(80-132)	--	--	"	
Trichlorofluoromethane	"	22.2	0.0600	1.00	"	"	--	"	111%	(77-137)	--	--	"	
1,2,3-Trichloropropane	"	19.3	0.130	1.00	"	"	--	"	96.3%	(75-125)	--	--	"	
1,2,4-Trimethylbenzene	"	18.1	0.0800	1.00	"	"	--	"	90.5%	(73-132)	--	--	"	
1,3,5-Trimethylbenzene	"	18.8	0.0700	1.00	"	"	--	"	94.0%	(75-132)	--	--	"	
Vinyl chloride	"	19.2	0.100	1.00	"	"	--	"	96.2%	(76-133)	--	--	"	
o-Xylene	"	18.4	0.0700	1.00	"	"	--	"	91.8%	(77-123)	--	--	"	
m,p-Xylene	"	36.9	0.210	2.00	"	"	--	40.0	92.4%	(72-127)	--	--	"	

Surrogate(s):	*Dibromofluoromethane*	*Recovery: 104%*	*Limits: 80-120%*	*11/15/09 15:08*
	1,2-DCA-d4	*101%*	*80-120%*	*"*
	Toluene-d8	*101%*	*80-120%*	*"*
	4-BFB	*110%*	*80-120%*	*"*

TestAmerica Portland



Darrell Auvil, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

CH2M-Hill	Project Name:	**NW Pipe Project**	
2020 SW 4th Suite 300	Project Number:	358932.RI.06	Report Created:
Portland, OR 97201	Project Manager:	Pat Heins	11/23/09 16:51

Volatile Organic Compounds per EPA Method 8260B - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 9110497 **Water Preparation Method: EPA 5030B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Matrix Spike (9110497-MS1)				**QC Source: PSK0253-02**				**Extracted: 11/15/09 14:00**						
Acetone	EPA 8260B	89.9	7.76	25.0	ug/l	1x	10.6	100	79.3%	(59.9-143)	--	--	11/15/09 23:21	
Benzene	"	18.2	0.0900	0.200	"	"	ND	20.0	91.0%	(80-124)	--	--	"	
Bromobenzene	"	17.2	0.100	1.00	"	"	ND	"	86.2%	(80-121)	--	--	"	
Bromochloromethane	"	17.6	0.180	1.00	"	"	ND	"	88.0%	(80-129)	--	--	"	
Bromodichloromethane	"	18.5	0.110	1.00	"	"	ND	"	92.4%	(80-135)	--	--	"	
Bromoform	"	15.7	0.100	1.00	"	"	ND	"	78.6%	(69.4-151)	--	--	"	
Bromomethane	"	19.4	0.170	5.00	"	"	ND	"	96.9%	(31-155)	--	--	"	
2-Butanone (MEK)	"	130	3.50	10.0	"	"	19.7	100	110%	(72.3-143)	--	--	"	
n-Butylbenzene	"	17.2	0.0600	5.00	"	"	ND	20.0	86.2%	(70.8-140)	--	--	"	
sec-Butylbenzene	"	16.3	0.0800	1.00	"	"	ND	"	81.5%	(72.5-134)	--	--	"	
tert-Butylbenzene	"	16.9	0.0600	1.00	"	"	ND	"	84.4%	(72.3-132)	--	--	"	
Carbon disulfide	"	36.1	0.140	10.0	"	"	ND	40.0	90.2%	(40-167)	--	--	"	
Carbon tetrachloride	"	17.4	0.0600	1.00	"	"	ND	20.0	86.8%	(78.8-129)	--	--	"	
Chlorobenzene	"	17.8	0.0500	1.00	"	"	ND	"	88.8%	(72.9-134)	--	--	"	
Chloroethane	"	20.9	0.110	1.00	"	"	ND	"	104%	(79-126)	--	--	"	
Chloroform	"	18.2	0.0900	0.200	"	"	ND	"	90.8%	(80-124)	--	--	"	
Chloromethane	"	19.6	0.0800	5.00	"	"	ND	"	98.0%	(40-150)	--	--	"	
2-Chlorotoluene	"	16.6	0.0700	1.00	"	"	ND	"	83.1%	(80-120)	--	--	"	
4-Chlorotoluene	"	17.0	0.110	1.00	"	"	ND	"	85.0%	(80-121)	--	--	"	
1,2-Dibromo-3-chloropropane	"	16.6	2.35	5.00	"	"	ND	"	83.2%	(58.5-143)	--	--	"	
Dibromochloromethane	"	18.1	0.0700	1.00	"	"	ND	"	90.6%	(80-129)	--	--	"	
1,2-Dibromoethane	"	18.2	0.110	1.00	"	"	ND	"	91.1%	(80-128)	--	--	"	
Dibromomethane	"	18.9	0.100	1.00	"	"	ND	"	94.6%	(76.4-131)	--	--	"	
1,2-Dichlorobenzene	"	17.5	0.0700	1.00	"	"	ND	"	87.6%	(80-120)	--	--	"	
1,3-Dichlorobenzene	"	15.8	0.0600	1.00	"	"	ND	"	79.2%	(80-122)	--	--	"	M8
1,4-Dichlorobenzene	"	16.2	0.120	1.00	"	"	ND	"	80.8%	(80-120)	--	--	"	
Dichlorodifluoromethane	"	17.3	0.110	5.00	"	"	ND	"	86.7%	(63.2-134)	--	--	"	
1,1-Dichloroethane	"	18.7	0.0800	1.00	"	"	ND	"	93.6%	(80-123)	--	--	"	
1,2-Dichloroethane	"	19.6	0.100	1.00	"	"	ND	"	98.2%	(80-121)	--	--	"	
1,1-Dichloroethene	"	17.0	0.120	1.00	"	"	ND	"	85.0%	(79.3-127)	--	--	"	
cis-1,2-Dichloroethene	"	17.7	0.0900	1.00	"	"	ND	"	88.6%	(76.6-136)	--	--	"	
trans-1,2-Dichloroethene	"	17.5	0.100	1.00	"	"	ND	"	87.7%	(80-120)	--	--	"	
1,2-Dichloropropane	"	18.7	0.110	1.00	"	"	ND	"	93.6%	"	--	--	"	
1,3-Dichloropropane	"	19.1	0.140	1.00	"	"	ND	"	95.6%	(80-132)	--	--	"	
2,2-Dichloropropane	"	15.1	0.0900	1.00	"	"	ND	"	75.4%	(74.8-143)	--	--	"	
1,1-Dichloropropene	"	17.8	0.0800	1.00	"	"	ND	"	88.8%	(80-123)	--	--	"	
cis-1,3-Dichloropropene	"	14.4	0.0900	1.00	"	"	ND	"	72.2%	(80-130)	--	--	"	M8
trans-1,3-Dichloropropene	"	14.7	0.100	1.00	"	"	ND	"	73.3%	(80-135)	--	--	"	M8
Ethylbenzene	"	17.4	0.0600	1.00	"	"	ND	"	86.8%	(80-124)	--	--	"	

TestAmerica Portland

Darrell Auvil, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

CH2M-Hill	Project Name:	**NW Pipe Project**	
2020 SW 4th Suite 300	Project Number:	358932.RI.06	Report Created:
Portland, OR 97201	Project Manager:	Pat Heins	11/23/09 16:51

Volatile Organic Compounds per EPA Method 8260B - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 9110497 **Water Preparation Method: EPA 5030B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Matrix Spike (9110497-MS1)				**QC Source: PSK0253-02**				**Extracted: 11/15/09 14:00**						
Hexachlorobutadiene	EPA 8260B	15.3	0.210	4.00	ug/l	1x	ND	20.0	76.4%	(46.3-157)	--	--	11/15/09 23:21	
2-Hexanone	"	116	3.62	10.0	"	"	ND	100	116%	(62.7-152)	--	--	"	
Isopropylbenzene	"	16.7	0.0700	2.00	"	"	ND	20.0	83.6%	(80-129)	--	--	"	
p-Isopropyltoluene	"	15.4	0.0600	2.00	"	"	ND	"	77.0%	(71.9-138)	--	--	"	
4-Methyl-2-pentanone	"	107	0.290	5.00	"	"	ND	100	107%	(58.7-151)	--	--	"	
Methyl tert-butyl ether	"	17.0	0.0900	1.00	"	"	ND	20.0	85.2%	(80-130)	--	--	"	
Methylene chloride	"	17.2	0.160	5.00	"	"	ND	"	86.2%	(80-120)	--	--	"	
Naphthalene	"	15.7	0.0900	2.00	"	"	ND	"	78.6%	(69-163)	--	--	"	
n-Propylbenzene	"	17.2	0.100	1.00	"	"	ND	"	86.0%	(74.3-133)	--	--	"	
Styrene	"	17.2	0.0400	1.00	"	"	ND	"	85.8%	(47.7-152)	--	--	"	
1,1,1,2-Tetrachloroethane	"	16.0	0.0900	1.00	"	"	ND	"	79.8%	(80-129)	--	--	"	M8
1,1,2,2-Tetrachloroethane	"	19.3	0.0800	1.00	"	"	ND	"	96.4%	(78.9-146)	--	--	"	
Tetrachloroethene	"	17.1	0.110	1.00	"	"	ND	"	85.3%	(80-125)	--	--	"	
Toluene	"	17.5	0.110	1.00	"	"	ND	"	87.7%	(79.7-131)	--	--	"	
1,2,3-Trichlorobenzene	"	15.4	0.100	1.00	"	"	ND	"	77.1%	(70.1-154)	--	--	"	
1,2,4-Trichlorobenzene	"	15.3	0.110	1.00	"	"	ND	"	76.7%	(71.2-148)	--	--	"	
1,1,1-Trichloroethane	"	17.6	0.120	1.00	"	"	ND	"	87.8%	(80-127)	--	--	"	
1,1,2-Trichloroethane	"	18.0	0.130	1.00	"	"	ND	"	90.2%	(80-130)	--	--	"	
Trichloroethene	"	17.9	0.0800	1.00	"	"	ND	"	89.4%	(68.4-130)	--	--	"	
Trichlorofluoromethane	"	20.7	0.0600	1.00	"	"	ND	"	103%	(79.1-129)	--	--	"	
1,2,3-Trichloropropane	"	17.8	0.130	1.00	"	"	ND	"	88.8%	(80-131)	--	--	"	
1,2,4-Trimethylbenzene	"	16.4	0.0800	1.00	"	"	ND	"	82.2%	(80-136)	--	--	"	
1,3,5-Trimethylbenzene	"	16.7	0.0700	1.00	"	"	ND	"	83.6%	(73.4-141)	--	--	"	
Vinyl chloride	"	19.7	0.100	1.00	"	"	ND	"	98.6%	(73.1-132)	--	--	"	
o-Xylene	"	17.1	0.0700	1.00	"	"	ND	"	85.3%	(85.5-124)	--	--	"	M8
m,p-Xylene	"	34.2	0.210	2.00	"	"	ND	40.0	85.4%	(76.2-134)	--	--	"	

Surrogate(s):	*Dibromofluoromethane*	*Recovery:*	*101%*	*Limits: 80-120%*	*11/15/09 23:21*
	1,2-DCA-d4		*101%*	*80-120%*	*"*
	Toluene-d8		*101%*	*80-120%*	*"*
	4-BFB		*107%*	*80-120%*	*"*

TestAmerica Portland

Darrell Auvil, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

CH2M-Hill	Project Name:	**NW Pipe Project**	
2020 SW 4th Suite 300	Project Number:	358932.RI.06	Report Created:
Portland, OR 97201	Project Manager:	Pat Heins	11/23/09 16:51

Volatile Organic Compounds per EPA Method 8260B - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 9110497 **Water Preparation Method: EPA 5030B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Matrix Spike Dup (9110497-MSD1)				**QC Source: PSK0253-02**				**Extracted: 11/15/09 15:30**						
Acetone	EPA 8260B	99.6	7.76	25.0	ug/l	1x	10.6	100	89.0%	(59.9-143)	10.2%	(25)	11/15/09 23:44	
Benzene	"	19.2	0.0900	0.200	"	"	ND	20.0	96.2%	(80-124)	5.61%	"	"	
Bromobenzene	"	17.8	0.100	1.00	"	"	ND	"	88.9%	(80-121)	3.14%	"	"	
Bromochloromethane	"	19.6	0.180	1.00	"	"	ND	"	97.8%	(80-129)	10.6%	"	"	
Bromodichloromethane	"	20.3	0.110	1.00	"	"	ND	"	101%	(80-135)	9.29%	"	"	
Bromoform	"	17.8	0.100	1.00	"	"	ND	"	88.8%	(69.4-151)	12.2%	"	"	
Bromomethane	"	20.2	0.170	5.00	"	"	ND	"	101%	(31-155)	3.95%	"	"	
2-Butanone (MEK)	"	133	3.50	10.0	"	"	19.7	100	114%	(72.3-143)	2.82%	"	"	
n-Butylbenzene	"	18.5	0.0600	5.00	"	"	ND	20.0	92.4%	(70.8-140)	6.94%	"	"	
sec-Butylbenzene	"	17.8	0.0800	1.00	"	"	ND	"	88.8%	(72.5-134)	8.63%	"	"	
tert-Butylbenzene	"	18.2	0.0600	1.00	"	"	ND	"	91.0%	(72.3-132)	7.58%	"	"	
Carbon disulfide	"	38.4	0.140	10.0	"	"	ND	40.0	96.1%	(40-167)	6.34%	"	"	
Carbon tetrachloride	"	19.5	0.0600	1.00	"	"	ND	20.0	97.7%	(78.8-129)	11.8%	"	"	
Chlorobenzene	"	18.6	0.0500	1.00	"	"	ND	"	92.9%	(72.9-134)	4.46%	"	"	
Chloroethane	"	21.4	0.110	1.00	"	"	ND	"	107%	(79-126)	2.79%	"	"	
Chloroform	"	19.3	0.0900	0.200	"	"	ND	"	96.6%	(80-124)	6.13%	"	"	
Chloromethane	"	20.3	0.0800	5.00	"	"	ND	"	102%	(40-150)	3.56%	"	"	
2-Chlorotoluene	"	18.0	0.0700	1.00	"	"	ND	"	89.9%	(80-120)	7.86%	"	"	
4-Chlorotoluene	"	18.3	0.110	1.00	"	"	ND	"	91.7%	(80-121)	7.58%	"	"	
1,2-Dibromo-3-chloropropane	"	17.6	2.35	5.00	"	"	ND	"	88.0%	(58.5-143)	5.55%	"	"	
Dibromochloromethane	"	19.8	0.0700	1.00	"	"	ND	"	99.2%	(80-129)	9.01%	"	"	
1,2-Dibromoethane	"	19.3	0.110	1.00	"	"	ND	"	96.3%	(80-128)	5.55%	"	"	
Dibromomethane	"	19.8	0.100	1.00	"	"	ND	"	99.2%	(76.4-131)	4.85%	"	"	
1,2-Dichlorobenzene	"	18.9	0.0700	1.00	"	"	ND	"	94.6%	(80-120)	7.69%	"	"	
1,3-Dichlorobenzene	"	17.3	0.0600	1.00	"	"	ND	"	86.6%	(80-122)	8.93%	"	"	
1,4-Dichlorobenzene	"	17.4	0.120	1.00	"	"	ND	"	87.2%	(80-120)	7.56%	"	"	
Dichlorodifluoromethane	"	18.2	0.110	5.00	"	"	ND	"	90.8%	(63.2-134)	4.62%	"	"	
1,1-Dichloroethane	"	19.5	0.0800	1.00	"	"	ND	"	97.5%	(80-123)	4.08%	"	"	
1,2-Dichloroethane	"	20.6	0.100	1.00	"	"	ND	"	103%	(80-121)	4.63%	"	"	
1,1-Dichloroethene	"	18.3	0.120	1.00	"	"	ND	"	91.4%	(79.3-127)	7.26%	"	"	
cis-1,2-Dichloroethene	"	18.8	0.0900	1.00	"	"	ND	"	93.9%	(76.6-136)	5.81%	"	"	
trans-1,2-Dichloroethene	"	18.8	0.100	1.00	"	"	ND	"	94.2%	(80-120)	7.15%	"	"	
1,2-Dichloropropane	"	20.0	0.110	1.00	"	"	ND	"	99.8%	"	6.41%	"	"	
1,3-Dichloropropane	"	19.6	0.140	1.00	"	"	ND	"	97.8%	(80-132)	2.33%	"	"	
2,2-Dichloropropane	"	16.2	0.0900	1.00	"	"	ND	"	80.8%	(74.8-143)	6.98%	"	"	
1,1-Dichloropropene	"	19.2	0.0800	1.00	"	"	ND	"	96.2%	(80-123)	7.89%	"	"	
cis-1,3-Dichloropropene	"	15.7	0.0900	1.00	"	"	ND	"	78.6%	(80-130)	8.42%	"	"	M8
trans-1,3-Dichloropropene	"	15.7	0.100	1.00	"	"	ND	"	78.5%	(80-135)	6.85%	"	"	M8
Ethylbenzene	"	18.7	0.0600	1.00	"	"	ND	"	93.4%	(80-124)	7.33%	"	"	

TestAmerica Portland

Darrell Auvil, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

CH2M-Hill	Project Name:	**NW Pipe Project**	
2020 SW 4th Suite 300	Project Number:	358932.RI.06	Report Created:
Portland, OR 97201	Project Manager:	Pat Heins	11/23/09 16:51

Volatile Organic Compounds per EPA Method 8260B - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 9110497 **Water Preparation Method: EPA 5030B**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Matrix Spike Dup (9110497-MSD1)					**QC Source: PSK0253-02**				**Extracted: 11/15/09 15:30**					
Hexachlorobutadiene	EPA 8260B	16.2	0.210	4.00	ug/l	1x	ND	20.0	81.2%	(46.3-157)	5.96%	(25)	11/15/09 23:44	
2-Hexanone	"	119	3.62	10.0	"	"	ND	100	119%	(62.7-152)	2.89%	"	"	
Isopropylbenzene	"	18.1	0.0700	2.00	"	"	ND	20.0	90.4%	(80-129)	7.70%	"	"	
p-Isopropyltoluene	"	17.2	0.0600	2.00	"	"	ND	"	85.8%	(71.9-138)	10.9%	"	"	
4-Methyl-2-pentanone	"	114	0.290	5.00	"	"	ND	100	114%	(58.7-151)	6.39%	"	"	
Methyl tert-butyl ether	"	18.7	0.0900	1.00	"	"	ND	20.0	93.4%	(80-130)	9.18%	"	"	
Methylene chloride	"	18.7	0.160	5.00	"	"	ND	"	93.6%	(80-120)	8.18%	"	"	
Naphthalene	"	16.8	0.0900	2.00	"	"	ND	"	83.8%	(69-163)	6.47%	"	"	
n-Propylbenzene	"	18.8	0.100	1.00	"	"	ND	"	94.0%	(74.3-133)	8.89%	"	"	
Styrene	"	18.4	0.0400	1.00	"	"	ND	"	91.8%	(47.7-152)	6.81%	"	"	
1,1,1,2-Tetrachloroethane	"	18.4	0.0900	1.00	"	"	ND	"	91.8%	(80-129)	14.0%	"	"	
1,1,2,2-Tetrachloroethane	"	20.8	0.0800	1.00	"	"	ND	"	104%	(78.9-146)	7.64%	"	"	
Tetrachloroethene	"	18.2	0.110	1.00	"	"	ND	"	91.2%	(80-125)	6.63%	"	"	
Toluene	"	18.4	0.110	1.00	"	"	ND	"	92.0%	(79.7-131)	4.79%	"	"	
1,2,3-Trichlorobenzene	"	16.5	0.100	1.00	"	"	ND	"	82.4%	(70.1-154)	6.65%	"	"	
1,2,4-Trichlorobenzene	"	17.2	0.110	1.00	"	"	ND	"	85.8%	(71.2-148)	11.3%	"	"	
1,1,1-Trichloroethane	"	18.7	0.120	1.00	"	"	ND	"	93.6%	(80-127)	6.45%	"	"	
1,1,2-Trichloroethane	"	19.4	0.130	1.00	"	"	ND	"	96.8%	(80-130)	7.01%	"	"	
Trichloroethene	"	18.9	0.0800	1.00	"	"	ND	"	94.3%	(68.4-130)	5.39%	"	"	
Trichlorofluoromethane	"	22.8	0.0600	1.00	"	"	ND	"	114%	(79.1-129)	9.48%	"	"	
1,2,3-Trichloropropane	"	18.8	0.130	1.00	"	"	ND	"	94.2%	(80-131)	5.90%	"	"	
1,2,4-Trimethylbenzene	"	17.9	0.0800	1.00	"	"	ND	"	89.5%	(80-136)	8.56%	"	"	
1,3,5-Trimethylbenzene	"	18.2	0.0700	1.00	"	"	ND	"	91.0%	(73.4-141)	8.53%	"	"	
Vinyl chloride	"	20.6	0.100	1.00	"	"	ND	"	103%	(73.1-132)	4.07%	"	"	
o-Xylene	"	18.4	0.0700	1.00	"	"	ND	"	92.1%	(85.5-124)	7.67%	"	"	
m,p-Xylene	"	36.8	0.210	2.00	"	"	ND	40.0	92.1%	(76.2-134)	7.52%	"	"	

Surrogate(s):	*Dibromofluoromethane*	*Recovery:*	*102%*	*Limits: 80-120%*	*11/15/09 23:44*
	1,2-DCA-d4		*104%*	*80-120%*	*"*
	Toluene-d8		*104%*	*80-120%*	*"*
	4-BFB		*109%*	*80-120%*	*"*

TestAmerica Portland

Darrell W. Auvil

Darrell Auvil, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

CH2M-Hill	Project Name:	**NW Pipe Project**	
2020 SW 4th Suite 300	Project Number:	358932.RI.06	Report Created:
Portland, OR 97201	Project Manager:	Pat Heins	11/23/09 16:51

Polynuclear Aromatic Compounds per EPA 8270M-SIM - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 9110309 **Water Preparation Method: 3520B Liq-Liq**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (9110309-BLK2)									**Extracted: 11/10/09 13:30**					
Acenaphthene	EPA 8270m	ND	0.0500	0.100	ug/l	1x	--	--	--	--	--	--	11/13/09 23:34	
Acenaphthylene	"	ND	0.0500	0.100	"	"	--	--	--	--	--	--	"	
Anthracene	"	ND	0.0500	0.100	"	"	--	--	--	--	--	--	"	
Benzo (a) anthracene	"	ND	0.0500	0.100	"	"	--	--	--	--	--	--	"	
Benzo (a) pyrene	"	ND	0.0500	0.100	"	"	--	--	--	--	--	--	"	
Benzo (b) fluoranthene	"	ND	0.0500	0.100	"	"	--	--	--	--	--	--	"	
Benzo (ghi) perylene	"	ND	0.0500	0.100	"	"	--	--	--	--	--	--	"	
Benzo (k) fluoranthene	"	ND	0.0500	0.100	"	"	--	--	--	--	--	--	"	
Chrysene	"	ND	0.0500	0.100	"	"	--	--	--	--	--	--	"	
Dibenzo (a,h) anthracene	"	ND	0.100	0.200	"	"	--	--	--	--	--	--	"	
Fluoranthene	"	ND	0.0500	0.100	"	"	--	--	--	--	--	--	"	
Fluorene	"	ND	0.0500	0.100	"	"	--	--	--	--	--	--	"	
Indeno (1,2,3-cd) pyrene	"	ND	0.0500	0.100	"	"	--	--	--	--	--	--	"	
Naphthalene	"	ND	0.0500	0.100	"	"	--	--	--	--	--	--	"	
Phenanthrene	"	ND	0.0500	0.100	"	"	--	--	--	--	--	--	"	
Pyrene	"	ND	0.0500	0.100	"	"	--	--	--	--	--	--	"	
Surrogate(s): Fluorene-d10		*Recovery: 99.4%*			*Limits: 25-125%*								*11/13/09 23:34*	
Pyrene-d10		*114%*			*23-150%*								*"*	
Benzo (a) pyrene-d12		*92.7%*			*10-125%*								*"*	
LCS (9110309-BS2)									**Extracted: 11/10/09 13:30**					
Acenaphthene	EPA 8270m	2.63	0.0500	0.100	ug/l	1x	--	2.50	105%	(26-135)	--	--	11/13/09 23:06	
Benzo (a) pyrene	"	2.54	0.0500	0.100	"	"	--	"	102%	(38-137)	--	--	"	
Pyrene	"	2.67	0.0500	0.100	"	"	--	"	107%	(33-133)	--	--	"	
Surrogate(s): Fluorene-d10		*Recovery: 100%*			*Limits: 25-125%*								*11/13/09 23:06*	
Pyrene-d10		*99.2%*			*23-150%*								*"*	
Benzo (a) pyrene-d12		*98.0%*			*10-125%*								*"*	
Matrix Spike (9110309-MS2)					**QC Source: PSK0253-02**				**Extracted: 11/10/09 13:30**					
Acenaphthene	EPA 8270m	2.47	0.100	0.200	ug/l	2x	ND	2.50	98.9%	(26-135)	--	--	11/14/09 00:04	
Benzo (a) pyrene	"	2.40	0.100	0.200	"	"	ND	"	96.0%	(38-137)	--	--	"	
Pyrene	"	2.68	0.100	0.200	"	"	ND	"	107%	(33-133)	--	--	"	
Surrogate(s): Fluorene-d10		*Recovery: 93.0%*			*Limits: 25-125%*								*11/14/09 00:04*	
Pyrene-d10		*98.3%*			*23-150%*								*"*	
Benzo (a) pyrene-d12		*89.3%*			*10-125%*								*"*	

TestAmerica Portland

Darrell Auvil, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

CH2M-Hill	Project Name:	**NW Pipe Project**	
2020 SW 4th Suite 300	Project Number:	358932.RI.06	Report Created:
Portland, OR 97201	Project Manager:	Pat Heins	11/23/09 16:51

Polynuclear Aromatic Compounds per EPA 8270M-SIM - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 9110309 **Water Preparation Method: 3520B Liq-Liq**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Matrix Spike Dup (9110309-MSD2)					**QC Source: PSK0253-02**				**Extracted: 11/10/09 13:30**					
Acenaphthene	EPA 8270m	2.10	0.100	0.200	ug/l	2x	ND	2.50	84.1%	(26-135)	16.2%	(60)	11/16/09 19:43	
Benzo (a) pyrene	"	2.07	0.100	0.200	"	"	ND	"	82.9%	(38-137)	14.7%	"	"	
Pyrene	"	3.33	0.100	0.200	"	"	ND	"	133%	(33-133)	21.7%	"	"	
Surrogate(s):	*Fluorene-d10*	*Recovery:*	*82.0%*		*Limits:*	*25-125%*							*11/16/09 19:43*	
	Pyrene-d10		*126%*			*23-150%*							*"*	
	Benzo (a) pyrene-d12		*81.1%*			*10-125%*							*"*	

TestAmerica Portland

Darrell Auvil, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

CH2M-Hill	Project Name:	**NW Pipe Project**	
2020 SW 4th Suite 300	Project Number:	358932.RI.06	Report Created:
Portland, OR 97201	Project Manager:	Pat Heins	11/23/09 16:51

Phthalates per EPA 8270-SIM - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 9110309 **Water Preparation Method: 3520B Liq-Liq**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (9110309-BLK1)									Extracted: 11/10/09 13:30					
Dimethyl phthalate	EPA 8270m	ND	0.526	1.00	ug/l	1x	--	--	--	--	--	--	11/16/09 11:30	
Diethyl phthalate	"	ND	0.526	1.00	"	"	--	--	--	--	--	--	"	
Di-n-butyl phthalate	"	ND	0.526	1.00	"	"	--	--	--	--	--	--	"	
Butyl benzyl phthalate	"	ND	0.526	1.00	"	"	--	--	--	--	--	--	"	
Bis(2-ethylhexyl)phthalate	"	ND	0.526	1.00	"	"	--	--	--	--	--	--	"	
Di-n-octyl phthalate	"	ND	0.526	1.00	"	"	--	--	--	--	--	--	"	
Surrogate(s): 2-Fluorobiphenyl		*Recovery: 68.7%*			*Limits: 10-150%*								*11/16/09 11:30*	
p-Terphenyl-d14		*107%*			*10-150%*								*"*	
LCS (9110309-BS1)									Extracted: 11/10/09 13:30					
Dimethyl phthalate	EPA 8270m	4.14	0.526	1.00	ug/l	1x	--	4.00	103%	(20-150)	--	--	11/16/09 12:42	
Diethyl phthalate	"	4.40	0.526	1.00	"	"	--	"	110%	"	--	--	"	
Di-n-butyl phthalate	"	4.84	0.526	1.00	"	"	--	"	121%	"	--	--	"	
Butyl benzyl phthalate	"	4.83	0.526	1.00	"	"	--	"	121%	"	--	--	"	
Bis(2-ethylhexyl)phthalate	"	2.22	0.526	1.00	"	"	--	"	55.5%	"	--	--	"	
Di-n-octyl phthalate	"	1.57	0.526	1.00	"	"	--	"	39.1%	"	--	--	"	
Surrogate(s): 2-Fluorobiphenyl		*Recovery: 68.4%*			*Limits: 10-150%*								*11/16/09 12:42*	
p-Terphenyl-d14		*92.1%*			*10-150%*								*"*	
Matrix Spike (9110309-MS1)					QC Source: PSK0253-02				Extracted: 11/10/09 13:30					
Dimethyl phthalate	EPA 8270m	4.11	1.05	2.00	ug/l	2x	ND	4.00	103%	(10-150)	--	--	11/16/09 13:17	
Diethyl phthalate	"	4.40	1.05	2.00	"	"	ND	"	110%	"	--	--	"	
Di-n-butyl phthalate	"	4.76	1.05	2.00	"	"	ND	"	119%	"	--	--	"	
Butyl benzyl phthalate	"	5.07	1.05	2.00	"	"	ND	"	127%	"	--	--	"	
Bis(2-ethylhexyl)phthalate	"	2.99	1.05	2.00	"	"	ND	"	74.8%	"	--	--	"	
Di-n-octyl phthalate	"	2.28	1.05	2.00	"	"	ND	"	56.9%	"	--	--	"	
Surrogate(s): 2-Fluorobiphenyl		*Recovery: 90.9%*			*Limits: 10-150%*								*11/16/09 13:17*	
p-Terphenyl-d14		*94.4%*			*10-150%*								*"*	
Matrix Spike Dup (9110309-MSD1)					QC Source: PSK0253-02				Extracted: 11/10/09 13:30					
Dimethyl phthalate	EPA 8270m	3.75	1.05	2.00	ug/l	2x	ND	4.00	93.7%	(10-150)	9.20%	(50)	11/16/09 13:53	
Diethyl phthalate	"	4.12	1.05	2.00	"	"	ND	"	103%	"	6.65%	"	"	
Di-n-butyl phthalate	"	4.46	1.05	2.00	"	"	ND	"	112%	"	6.52%	"	"	
Butyl benzyl phthalate	"	4.78	1.05	2.00	"	"	ND	"	119%	"	6.04%	"	"	
Bis(2-ethylhexyl)phthalate	"	2.68	1.05	2.00	"	"	ND	"	67.0%	"	11.0%	"	"	
Di-n-octyl phthalate	"	2.09	1.05	2.00	"	"	ND	"	52.3%	"	8.38%	"	"	
Surrogate(s): 2-Fluorobiphenyl		*Recovery: 62.6%*			*Limits: 10-150%*								*11/16/09 13:53*	
p-Terphenyl-d14		*89.5%*			*10-150%*								*"*	

TestAmerica Portland

Darrell Auvil, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

CH2M-Hill	Project Name:	**NW Pipe Project**	
2020 SW 4th Suite 300	Project Number:	358932.RI.06	Report Created:
Portland, OR 97201	Project Manager:	Pat Heins	11/23/09 16:51

Conventional Chemistry Parameters per Standard Methods - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 9110465 **Water Preparation Method: Wet Chem**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (9110465-BLK1)								**Extracted: 11/13/09 11:27**						
Total Suspended Solids	SM 2540D	ND	3.50	10.0	mg/l	1x	--	--	--	--	--	--	11/13/09 14:41	
LCS (9110465-BS1)								**Extracted: 11/13/09 11:27**						
Total Suspended Solids	SM 2540D	60.0	3.50	10.0	mg/l	1x	--	60.0	100%	(80-120)	--	--	11/13/09 14:41	
Duplicate (9110465-DUP1)						**QC Source: PSK0253-02**			**Extracted: 11/13/09 11:27**					
Total Suspended Solids	SM 2540D	ND	3.50	10.0	mg/l	1x	ND	--	--	--	NR	(20)	11/13/09 14:41	

TestAmerica Portland

Darrell Auvil, Project Manager

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

PORTLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210

CH2M-Hill	Project Name:	**NW Pipe Project**	
2020 SW 4th Suite 300	Project Number:	358932.RI.06	Report Created:
Portland, OR 97201	Project Manager:	Pat Heins	11/23/09 16:51

Notes and Definitions

Report Specific Notes:

J - Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of limited reliability.

M8 - The MS and/or MSD were below the acceptance limits. See Blank Spike (LCS).

Laboratory Reporting Conventions:

DET - Analyte DETECTED at or above the Reporting Limit. Qualitative Analyses only.

ND - Analyte NOT DETECTED at or above the reporting limit (MDL or MRL, as appropriate).

NR/NA - Not Reported / Not Available

dry - Sample results reported on a Dry Weight Basis. Results and Reporting Limits have been corrected for Percent Dry Weight.

wet - Sample results and reporting limits reported on a Wet Weight Basis (as received). Results with neither 'wet' nor 'dry' are reported on a Wet Weight Basis.

RPD - RELATIVE PERCENT DIFFERENCE (RPDs calculated using Results, not Percent Recoveries).

MRL - METHOD REPORTING LIMIT. Reporting Level at, or above, the lowest level standard of the Calibration Table.

MDL* - METHOD DETECTION LIMIT. Reporting Level at, or above, the statistically derived limit based on 40CFR, Part 136, Appendix B. *MDLs are listed on the report only if the data has been evaluated below the MRL. Results between the MDL and MRL are reported as Estimated Results.

Dil - Dilutions are calculated based on deviations from the standard dilution performed for an analysis, and may not represent the dilution found on the analytical raw data.

Reporting Limits - Reporting limits (MDLs and MRLs) are adjusted based on variations in sample preparation amounts, analytical dilutions and percent solids, where applicable.

Electronic Signature - Electronic Signature added in accordance with TestAmerica's *Electronic Reporting and Electronic Signatures Policy.* Application of electronic signature indicates that the report has been reviewed and approved for release by the laboratory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

TestAmerica Portland

Darrell Auvil, Project Manager