Appendix H

Monitoring

Stormwater/UIC Monitoring Data for 7/1/2016 to 6/30/2017

TABLE 1 – Action Levels for Pollutants	
Monitoring Parameter	**Action Level at Injection Point (µg/L)**
Benzo(a)pyrene	2
Pentachlorophenol	10
Di(2-ethylhexyl)phthalate	300
Lead (Total)	500
Zinc (Total)	50,000
Copper (Total)	1,300

Sample Location	1. 10/14/16 C6J1403	2. 3/30/17 C7C3002	3. 6/11/17 C7F1203	4.	5.	6.
1. Airport	x	x				
2. Century Drive	x	x				
3. Boyd Acres	x	x				
4. Empire Ave	x	x				
5. Brookswood	x	x				
6. Ladera Rd	x		x			
7. Dup	x	x				
8. Field Blank	x	x				

Date Sampled	Sample Location	UIC Number	COB Sample #	URC Sample #	*Benzo(a)pyrene	*Bis2-(ethylhexyl)phthalate	*Pentachlorophenol	*Copper	*Lead	*Zinc
Units					ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
Analytical Method					EPA 625	EPA 625	EPA 625	EPA 200.7	EPA 200.7	EPA 200.7
Reporting Limit (RDL)					1.00	3.00	10.0	1.00	1.00	50.0
Method Detection Limit (MDL)					0.340	0.709	0.313	0.270	0.260	9.55
Effluent Discharge Action Level at Injection Point (ug/l)					2.00	300	10.0	1300	500	50,000
1. C6J1403	1. Airport	DDW009628	C6J1403-01	L866644-01	Not	Not Detected(ND)	Not Detected(ND)	23.6	Not	708
Samplers:	2. Century Drive	DDW003323	C6J1403-02 **	L866644-02	Not	Not Detected(ND)	Not Detected(ND)	73.6	Not	384
Jeff Buystedt	**3. Boyd Acres**	**DDW003354**	**C6J1403-03**	**L866644-03**	Not	Not Detected(ND)	Not Detected(ND)	20.0	Not	244
Dave Buchanan	4. Empire Ave	DDW008884	C6J1403-04**	L866644-04	Not	Not Detected(ND)	Not Detected(ND)	67.2	5.35	539
Sean Mulderig	5. Brookswood	DDW003312	C6J1403-05**	L866644-05	Not	Not Detected(ND)	Not Detected(ND)	68.8	Not	172
	6. Ladera Rd	DDW003252	C6J1403-06	L866644-06	Not	Not Detected(ND)	Not Detected(ND)	20.7	Not	190
	7. Duplicate	**DDW003354**	**C6J1403-07**	**L866644-07**	Not	Not Detected(ND)	Not Detected(ND)	20.4	Not	320
	8. Field Blank	-	C6J1403-08	L866644-08	Not	Not Detected(ND)	Not Detected(ND)	Not	Not	Not

* Analysis was performed by ESC Lab Sciences

** For EPA 625, samples C6J1403-02,04,05 were diluted 5x due to matrix interference, therefore; the RDL's and MDL's are 5x greater.

Date Sampled	Sample Location	UIC Number	COB Sample #	URC Sample #	*Benzo(a)pyrene	*Bis2-(ethylhexyl)phthalate	*Pentachlorophenol	*Copper	*Lead	*Zinc
Units					ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
Analytical Method					EPA 625	EPA 625	EPA 625	EPA 200.8	EPA 200.8	EPA 200.8
Reporting Limit (RDL)					1.00	3.00	10.0	1.00	1.00	50.0
Method Detection Limit (MDL)					0.340	0.709	0.313	0.270	0.260	9.55
Effluent Discharge Action Level at Injection Point (ug/l)					2.00	300	10.0	1300	500	50,000
1. C7C3002	1. Airport	DDW009628	C7C3002-01	L899771-01	Not	Not Detected(ND)	Not Detected(ND)	7.85	1.55	2460
Samplers:	2. Century Drive	DDW003323	C7C3002-02 **	L899771-02	Not	Not Detected(ND)	Not Detected(ND)	41.2	3.33	384
Jeff Buystedt	3. Boyd Acres	DDW003354	C7C3002-03	L899771-03	Not	Not Detected(ND)	Not Detected(ND)	10.4	1.56	266
Dave Buchanan	4. Empire Ave	DDW008884	C7C3002-04**	L899771-04	Not	Not Detected(ND)	Not Detected(ND)	129	13.2	625
Sean Mulderig	5. Brookswood	DDW003312	C7C3002-05**	L899771-05	Not	Not Detected(ND)	Not Detected(ND)	24.5	1.46	232
	6. Ladera Rd*	DDW003252								
	7. Duplicate	DDW008884	C7C3002-07	L899771-06	Not	0.780	Not Detected(ND)	52.9	6.12	309
	8. Field Blank	-	C7C3002-08	L899771-07	Not	Not Detected(ND)	Not Detected(ND)	0.703	Not	47.5

* There was not enough rainfall to collect a sample at Ladera

*Analysis was performed by ESC Lab Sciences

** For EPA 625, samples C7C3002-02 Was diluted 10x due to matrix interference, therefore; the RDL and MDL are 10x greater. Samples C7C3002-04,05 were diluted 5x due to matrix interference,

Date Sampled	Sample Location	UIC Number	COB Sample #	ESC Sample #	*Benzo(a)pyrene	*Bis2-(ethylhexyl)phthalat	*Pentachlorophenol	*Copper	*Lead	*Zinc
Units					ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
Analytical Method					EPA 625	EPA 625	EPA 625	EPA 200.8	EPA 200.8	EPA 200.8
Detection Limit (RDL)					1.00	3.00	10.0	1.00	1.00	10.0
Method Detection Limit (MDL)					0.340	0.709	0.313	0.270	0.260	9.55
Effluent Discharge Action Level at Injection Point (ug/l)					2.00	300	10.0	1300	500	50,000
3. C7F1203	1. Airport	DDW009628								
Samplers:	2. Century Drive	DDW003323								
Jeff Buystedt	3. Boyd Acres	DDW003354								
Sean Mulderig	4. Empire Ave	DDW008884								
	5. Brookswood	DDW003312								
	6. Ladera Rd	DDW003252	C7F1203-01	L915564-01	Not	Not Detected(ND)	Not Detected(ND)	32.7	2.47	219
	7. Duplicate	DDW003354								
	8. Field Blank	-								

* Analysis was performed by ESC Lab Sciences

Note: For sample Number C7F1203, ESC performed the full EPA 625 analysis and reported all analytes from the analytical run. Reported here are just the required analytes. The additional results for EPA

ANALYTICAL REPORT

October 28, 2016

City of Bend Water Department

Sample Delivery Group:	L866644
Samples Received:	10/18/2016
Project Number:	STORMWATER
Description:	Stormwater Analysis

Report To: Drexell Barnes / Jeff Bysted
62975 Boyd Acres Rd
Bend, OR 97701

Entire Report Reviewed By:

Darren Reeder
Technical Service Representative

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C6J1403-01 L866644-01 WW

Collected by: Buystedt/Davenport | Collected date/time: 10/14/16 14:20 | Received date/time: 10/18/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICP) by Method 200.7	WG919163	1	10/23/16 07:00	10/24/16 17:42	ST
Semi Volatile Organic Compounds (GC/MS) by Method 625	WG919841	1	10/25/16 08:06	10/26/16 00:54	JF

C6J1403-02 L866644-02 WW

Collected by: Buystedt/Davenport | Collected date/time: 10/14/16 12:13 | Received date/time: 10/18/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICP) by Method 200.7	WG919163	1	10/23/16 07:00	10/24/16 17:50	ST
Semi Volatile Organic Compounds (GC/MS) by Method 625	WG919841	5	10/25/16 08:06	10/26/16 04:02	JF

C6J1403-03 L866644-03 WW

Collected by: Buystedt/Davenport | Collected date/time: 10/14/16 15:47 | Received date/time: 10/18/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICP) by Method 200.7	WG919163	1	10/23/16 07:00	10/24/16 17:53	ST
Semi Volatile Organic Compounds (GC/MS) by Method 625	WG919841	1	10/25/16 08:06	10/26/16 01:17	JF

C6J1403-04 L866644-04 WW

Collected by: Buystedt/Davenport | Collected date/time: 10/14/16 11:20 | Received date/time: 10/18/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICP) by Method 200.7	WG919163	1	10/23/16 07:00	10/24/16 17:56	ST
Semi Volatile Organic Compounds (GC/MS) by Method 625	WG919841	1	10/25/16 08:06	10/26/16 09:18	JF

C6J1403-05 L866644-05 WW

Collected by: Buystedt/Davenport | Collected date/time: 10/14/16 13:31 | Received date/time: 10/18/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICP) by Method 200.7	WG919163	1	10/23/16 07:00	10/24/16 17:58	ST
Semi Volatile Organic Compounds (GC/MS) by Method 625	WG919841	5	10/25/16 08:06	10/26/16 04:49	JF

C6J1403-06 L866644-06 WW

Collected by: Buystedt/Davenport | Collected date/time: 10/14/16 13:56 | Received date/time: 10/18/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICP) by Method 200.7	WG919163	1	10/23/16 07:00	10/24/16 18:01	ST
Semi Volatile Organic Compounds (GC/MS) by Method 625	WG919841	5	10/25/16 08:06	10/26/16 04:26	JF

C6J1403-07 L866644-07 WW

Collected by: Buystedt/Davenport | Collected date/time: 10/14/16 15:47 | Received date/time: 10/18/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICP) by Method 200.7	WG919163	1	10/23/16 07:00	10/24/16 18:04	ST
Semi Volatile Organic Compounds (GC/MS) by Method 625	WG919841	1	10/25/16 08:06	10/26/16 01:41	JF

C6J1403-08 L866644-08 WW

Collected by: Buystedt/Davenport
Collected date/time: 10/14/16 15:52
Received date/time: 10/18/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICP) by Method 200.7	WG919163	1	10/23/16 07:00	10/24/16 18:07	ST
Semi Volatile Organic Compounds (GC/MS) by Method 625	WG919841	1	10/25/16 08:06	10/26/16 02:04	JF

All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Darren Reeder
Technical Service Representative

Sample Handling and Receiving

The following samples were prepared and/or analyzed past recommended holding time. Concentrations should be considered minimum values.

ESC Sample ID	Project Sample ID	Method
L866644-01	C6J1403-01	625
L866644-02	C6J1403-02	625
L866644-03	C6J1403-03	625
L866644-04	C6J1403-04	625
L866644-05	C6J1403-05	625
L866644-06	C6J1403-06	625
L866644-07	C6J1403-07	625
L866644-08	C6J1403-08	625

Metals (ICP) by Method 200.7

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Copper	0.0236		0.0100	1	10/24/2016 17:42	WG919163
Lead	ND		0.00500	1	10/24/2016 17:42	WG919163
Zinc	0.708		0.0500	1	10/24/2016 17:42	WG919163

Semi Volatile Organic Compounds (GC/MS) by Method 625

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzo(a)pyrene	ND		0.00100	1	10/26/2016 00:54	WG919841
Bis(2-ethylhexyl)phthalate	ND		0.00300	1	10/26/2016 00:54	WG919841
Pentachlorophenol	ND		0.0100	1	10/26/2016 00:54	WG919841
(S) Nitrobenzene-d5	*60.9*		*21.8-123*		*10/26/2016 00:54*	WG919841
(S) 2-Fluorobiphenyl	*70.3*		*29.5-131*		*10/26/2016 00:54*	WG919841
(S) p-Terphenyl-d14	*73.3*		*29.3-137*		*10/26/2016 00:54*	WG919841
(S) Phenol-d5	*24.6*		*5.00-70.1*		*10/26/2016 00:54*	WG919841
(S) 2-Fluorophenol	*40.4*		*10.0-77.9*		*10/26/2016 00:54*	WG919841
(S) 2,4,6-Tribromophenol	*70.4*		*11.2-130*		*10/26/2016 00:54*	WG919841

Metals (ICP) by Method 200.7

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Copper	0.0736		0.0100	1	10/24/2016 17:50	WG919163
Lead	ND		0.00500	1	10/24/2016 17:50	WG919163
Zinc	0.384		0.0500	1	10/24/2016 17:50	WG919163

Semi Volatile Organic Compounds (GC/MS) by Method 625

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzo(a)pyrene	ND		0.00500	5	10/26/2016 04:02	WG919841
Bis(2-ethylhexyl)phthalate	ND		0.0150	5	10/26/2016 04:02	WG919841
Pentachlorophenol	ND		0.0500	5	10/26/2016 04:02	WG919841
(S) Nitrobenzene-d5	*65.2*		*21.8-123*		*10/26/2016 04:02*	WG919841
(S) 2-Fluorobiphenyl	*60.3*		*29.5-131*		*10/26/2016 04:02*	WG919841
(S) p-Terphenyl-d14	*56.5*		*29.3-137*		*10/26/2016 04:02*	WG919841
(S) Phenol-d5	*27.3*		*5.00-70.1*		*10/26/2016 04:02*	WG919841
(S) 2-Fluorophenol	*35.9*		*10.0-77.9*		*10/26/2016 04:02*	WG919841
(S) 2,4,6-Tribromophenol	*79.1*		*11.2-130*		*10/26/2016 04:02*	WG919841

Sample Narrative:

625 L866644-02 WG919841: Dilution due to matrix

Metals (ICP) by Method 200.7

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Copper	0.0200		0.0100	1	10/24/2016 17:53	WG919163
Lead	ND		0.00500	1	10/24/2016 17:53	WG919163
Zinc	0.244		0.0500	1	10/24/2016 17:53	WG919163

Semi Volatile Organic Compounds (GC/MS) by Method 625

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzo(a)pyrene	ND		0.00100	1	10/26/2016 01:17	WG919841
Bis(2-ethylhexyl)phthalate	ND		0.00300	1	10/26/2016 01:17	WG919841
Pentachlorophenol	ND		0.0100	1	10/26/2016 01:17	WG919841
(S) Nitrobenzene-d5	*65.9*		*21.8-123*		*10/26/2016 01:17*	WG919841
(S) 2-Fluorobiphenyl	*72.2*		*29.5-131*		*10/26/2016 01:17*	WG919841
(S) p-Terphenyl-d14	*78.3*		*29.3-137*		*10/26/2016 01:17*	WG919841
(S) Phenol-d5	*26.5*		*5.00-70.1*		*10/26/2016 01:17*	WG919841
(S) 2-Fluorophenol	*39.4*		*10.0-77.9*		*10/26/2016 01:17*	WG919841
(S) 2,4,6-Tribromophenol	*83.3*		*11.2-130*		*10/26/2016 01:17*	WG919841

Metals (ICP) by Method 200.7

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Copper	0.0672		0.0100	1	10/24/2016 17:56	WG919163
Lead	0.00535		0.00500	1	10/24/2016 17:56	WG919163
Zinc	0.539		0.0500	1	10/24/2016 17:56	WG919163

Semi Volatile Organic Compounds (GC/MS) by Method 625

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzo(a)pyrene	ND		0.00100	1	10/26/2016 09:18	WG919841
Bis(2-ethylhexyl)phthalate	ND		0.00300	1	10/26/2016 09:18	WG919841
Pentachlorophenol	ND		0.0100	1	10/26/2016 09:18	WG919841
(S) Nitrobenzene-d5	*66.1*		*21.8-123*		*10/26/2016 09:18*	WG919841
(S) 2-Fluorobiphenyl	*69.5*		*29.5-131*		*10/26/2016 09:18*	WG919841
(S) p-Terphenyl-d14	*71.4*		*29.3-137*		*10/26/2016 09:18*	WG919841
(S) Phenol-d5	*23.8*		*5.00-70.1*		*10/26/2016 09:18*	WG919841
(S) 2-Fluorophenol	*35.1*		*10.0-77.9*		*10/26/2016 09:18*	WG919841
(S) 2,4,6-Tribromophenol	*87.7*		*11.2-130*		*10/26/2016 09:18*	WG919841

Metals (ICP) by Method 200.7

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Copper	0.0688		0.0100	1	10/24/2016 17:58	WG919163
Lead	ND		0.00500	1	10/24/2016 17:58	WG919163
Zinc	0.172		0.0500	1	10/24/2016 17:58	WG919163

Semi Volatile Organic Compounds (GC/MS) by Method 625

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzo(a)pyrene	ND		0.00500	5	10/26/2016 04:49	WG919841
Bis(2-ethylhexyl)phthalate	ND		0.0150	5	10/26/2016 04:49	WG919841
Pentachlorophenol	ND		0.0500	5	10/26/2016 04:49	WG919841
(S) Nitrobenzene-d5	*39.1*		*21.8-123*		*10/26/2016 04:49*	WG919841
(S) 2-Fluorobiphenyl	*47.9*		*29.5-131*		*10/26/2016 04:49*	WG919841
(S) p-Terphenyl-d14	*42.7*		*29.3-137*		*10/26/2016 04:49*	WG919841
(S) Phenol-d5	*18.0*		*5.00-70.1*		*10/26/2016 04:49*	WG919841
(S) 2-Fluorophenol	*23.5*		*10.0-77.9*		*10/26/2016 04:49*	WG919841
(S) 2,4,6-Tribromophenol	*62.5*		*11.2-130*		*10/26/2016 04:49*	WG919841

Sample Narrative:

625 L866644-05 WG919841: Dilution due to matrix

Metals (ICP) by Method 200.7

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Copper	0.0207		0.0100	1	10/24/2016 18:01	WG919163
Lead	ND		0.00500	1	10/24/2016 18:01	WG919163
Zinc	0.190		0.0500	1	10/24/2016 18:01	WG919163

Semi Volatile Organic Compounds (GC/MS) by Method 625

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzo(a)pyrene	ND		0.00500	5	10/26/2016 04:26	WG919841
Bis(2-ethylhexyl)phthalate	ND		0.0150	5	10/26/2016 04:26	WG919841
Pentachlorophenol	ND		0.0500	5	10/26/2016 04:26	WG919841
(S) Nitrobenzene-d5	*94.8*		*21.8-123*		*10/26/2016 04:26*	WG919841
(S) 2-Fluorobiphenyl	*101*		*29.5-131*		*10/26/2016 04:26*	WG919841
(S) p-Terphenyl-d14	*107*		*29.3-137*		*10/26/2016 04:26*	WG919841
(S) Phenol-d5	*42.6*		*5.00-70.1*		*10/26/2016 04:26*	WG919841
(S) 2-Fluorophenol	*57.6*		*10.0-77.9*		*10/26/2016 04:26*	WG919841
(S) 2,4,6-Tribromophenol	*128*		*11.2-130*		*10/26/2016 04:26*	WG919841

Sample Narrative:

625 L866644-06 WG919841: Dilution due to matrix

Metals (ICP) by Method 200.7

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Copper	0.0204		0.0100	1	10/24/2016 18:04	WG919163
Lead	ND		0.00500	1	10/24/2016 18:04	WG919163
Zinc	0.320		0.0500	1	10/24/2016 18:04	WG919163

Semi Volatile Organic Compounds (GC/MS) by Method 625

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzo(a)pyrene	ND		0.00100	1	10/26/2016 01:41	WG919841
Bis(2-ethylhexyl)phthalate	ND		0.00300	1	10/26/2016 01:41	WG919841
Pentachlorophenol	ND		0.0100	1	10/26/2016 01:41	WG919841
(S) Nitrobenzene-d5	*67.0*		*21.8-123*		*10/26/2016 01:41*	WG919841
(S) 2-Fluorobiphenyl	*72.6*		*29.5-131*		*10/26/2016 01:41*	WG919841
(S) p-Terphenyl-d14	*83.1*		*29.3-137*		*10/26/2016 01:41*	WG919841
(S) Phenol-d5	*31.0*		*5.00-70.1*		*10/26/2016 01:41*	WG919841
(S) 2-Fluorophenol	*45.4*		*10.0-77.9*		*10/26/2016 01:41*	WG919841
(S) 2,4,6-Tribromophenol	*94.2*		*11.2-130*		*10/26/2016 01:41*	WG919841

Metals (ICP) by Method 200.7

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Copper	ND		0.0100	1	10/24/2016 18:07	WG919163
Lead	ND		0.00500	1	10/24/2016 18:07	WG919163
Zinc	ND		0.0500	1	10/24/2016 18:07	WG919163

Semi Volatile Organic Compounds (GC/MS) by Method 625

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzo(a)pyrene	ND		0.00100	1	10/26/2016 02:04	WG919841
Bis(2-ethylhexyl)phthalate	ND		0.00300	1	10/26/2016 02:04	WG919841
Pentachlorophenol	ND		0.0100	1	10/26/2016 02:04	WG919841
(S) Nitrobenzene-d5	*63.2*		*21.8-123*		*10/26/2016 02:04*	WG919841
(S) 2-Fluorobiphenyl	*70.6*		*29.5-131*		*10/26/2016 02:04*	WG919841
(S) p-Terphenyl-d14	*84.0*		*29.3-137*		*10/26/2016 02:04*	WG919841
(S) Phenol-d5	*31.1*		*5.00-70.1*		*10/26/2016 02:04*	WG919841
(S) 2-Fluorophenol	*49.0*		*10.0-77.9*		*10/26/2016 02:04*	WG919841
(S) 2,4,6-Tribromophenol	*71.3*		*11.2-130*		*10/26/2016 02:04*	WG919841

Method Blank (MB)

(MB) R3172942-1 10/24/16 17:19

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Copper	U		0.007	0.0100
Lead	U		0.002	0.00500
Zinc	U		0.0034	0.0500

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3172942-2 10/24/16 17:21 • (LCSD) R3172942-3 10/24/16 17:24

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Copper	1.00	1.00	0.990	100	99	85-115			1	20
Lead	1.00	1.02	1.02	102	102	85-115			0	20
Zinc	1.00	1.01	0.998	101	100	85-115			1	20

L865652-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L865652-01 10/24/16 17:26 • (MS) R3172942-5 10/24/16 17:32 • (MSD) R3172942-6 10/24/16 17:34

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Copper	1.00	ND	1.01	1.02	101	102	1	70-130			0	20
Lead	1.00	ND	1.03	1.04	103	104	1	70-130			0	20
Zinc	1.00	ND	1.02	1.01	102	101	1	70-130			0	20

L866644-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L866644-08 10/24/16 18:07 • (MS) R3172942-7 10/24/16 18:09 • (MSD) R3172942-8 10/24/16 18:12

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Copper	1.00	ND	0.997	0.994	100	99	1	70-130			0	20
Lead	1.00	ND	1.02	1.02	102	102	1	70-130			0	20
Zinc	1.00	ND	1.01	1.01	101	101	1	70-130			0	20

Method Blank (MB)

(MB) R3173460-3 10/25/16 18:15

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzo(a)pyrene	U		0.000340	0.00100
Bis(2-ethylhexyl)phthalate	U		0.000709	0.00300
Pentachlorophenol	U		0.000313	0.0100
(S) Nitrobenzene-d5	*53.9*			*21.8-123*
(S) 2-Fluorobiphenyl	*66.9*			*29.5-131*
(S) p-Terphenyl-d14	*74.4*			*29.3-137*
(S) Phenol-d5	*24.7*			*5.00-70.1*
(S) 2-Fluorophenol	*38.6*			*10.0-77.9*
(S) 2,4,6-Tribromophenol	*48.0*			*11.2-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3173460-1 10/25/16 17:28 • (LCSD) R3173460-2 10/25/16 17:52

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzo(a)pyrene	0.0500	0.0403	0.0340	80.6	68.1	45.6-106			16.8	20
Bis(2-ethylhexyl)phthalate	0.0500	0.0366	0.0301	73.1	60.2	36.9-134			19.3	23.6
Pentachlorophenol	0.0500	0.0330	0.0248	66.0	49.6	10.9-97.4			28.3	35.1
(S) Nitrobenzene-d5				*70.9*	*58.6*	*21.8-123*				
(S) 2-Fluorobiphenyl				*79.4*	*66.3*	*29.5-131*				
(S) p-Terphenyl-d14				*88.1*	*72.7*	*29.3-137*				
(S) Phenol-d5				*28.3*	*25.3*	*5.00-70.1*				
(S) 2-Fluorophenol				*41.5*	*37.7*	*10.0-77.9*				
(S) 2,4,6-Tribromophenol				*88.6*	*70.4*	*11.2-130*				

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.

Qualifier	Description
	The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Conneticut	PH-0197	North Carolina [1]	DW21704
Florida	E87487	North Carolina [2]	41
Georgia	NELAP	North Dakota	R-140
Georgia [1]	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky [1]	90010	South Dakota	n/a
Kentucky [2]	16	Tennessee [1 4]	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

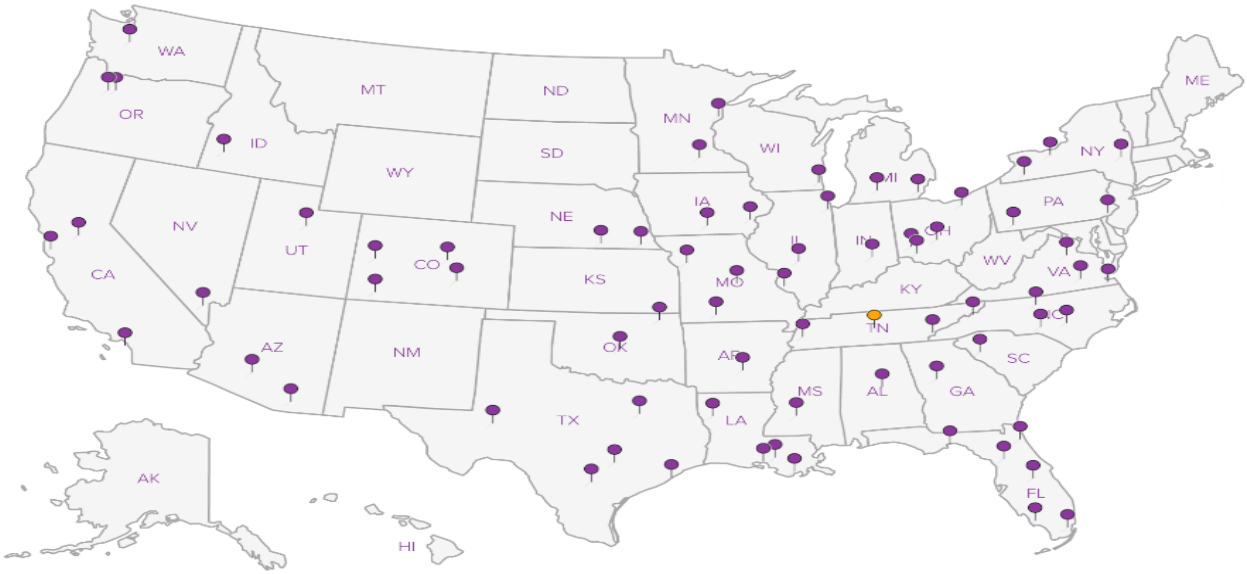
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [n/a] Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



Company Name/Address:
City of Bend- Laboratory
62975 Boyd Acres Rd.
Bend, OR 97701

Billing Information:
City of Bend Laboratory
62975 Boyd Acres Rd
Bend, OR 97701

Report to: Jeff Buystedt

Email To: jbuystedt@bendoregon.gov

Project Description: Stormwater 2016-17 UIC Monitoring

City/State Collected: Bend OR

Phone: 541-420-6892
Fax:

Client Project # STORMWATER

Lab Project # C6J1403

Collected by (print): Buystedt/Davenport

Site/Facility ID #

P.O. # 117597-001

Collected by (signature):

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day 200%
___ Next Day 100%
___ Two Day 50%
___ Three Day 25%

Date Results Needed

Email? ___No ✓Yes
FAX? ___No ___Yes

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	100ml NP 4 C Benzo(A)pyrene	100ml NP 4 C Di(2-ethylhexyl)phthalate	100ml NP 4 C Pentachlorophenol	Metals 500ML HDPE - HNO3 (CU, PB, ZN) C2	Rem./Contaminant	Sample # (lab only)
C6J1403-01	Grab	Other		10/14/2016	1420	2 3	X	X	X	X	Airport	-01
C6J1403-02	Grab	Other		10/14/2016	1213	2 3	X	X	X	X	Century	02
C6J1403-03	Grab	Other		10/14/2016	1547	2 3	X	X	X	X	Boyd	03
C6J1403-04	Grab	Other		10/14/2016	1120	2 3	X	X	X	X	Empire	04
C6J1403-05	Grab	Other		10/14/2016	1331	2 3	X	X	X	X	Brooks	05
C6J1403-06	Grab	Other		10/14/2016	1356	2 3	X	X	X	X	Ladera	06
C6J1403-07	Grab	Other		10/14/2016	1547	2 3	X	X	X	X	Dup Boyd	07
C6J1403-08	Grab	Other		10/14/2016	1552	2 3	X	X	X	X	Field Blk	08

Chain of Custody Page ___ of ___

ESC LABORATORY SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L866644
E196

Acctnum:
Template:
Prelogin:
TSR:
PB:

Shipped Via: Fedex

* Matrix: **SS** - Soil **GW** - Groundwater **WW** - WasteWater **DW** - Drinking Water **OT** - Other Stormwater 10-18-16

Remarks: 671101259429/671101259340

pH _____ Temp _____

Flow _____ Other _____

Hold #

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Christine Davenport	10-14-16	1608	Fridge #2 3.8°C
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Fridge #2 Jeff Buyst 3.7°	10-17-16	0746	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)
			Guy Dean

Samples returned via: ☐ UPS ☑ FedEx ☐ Courier ☐ _____

Temp: 3.2 °C Bottles Received: 24

Date: 10-18-16 Time: 900

Condition: (lab use only) MR (BW)

COC Seal Intact: ___Y ___N ___NA

pH Checked: C2 NCF:

ESC
L·A·B S·C·I·E·N·C·E·S
YOUR LAB OF CHOICE

Cooler Receipt Form

Client:	BENDWAT01	SDG#	L866644
Cooler Received/Opened On:	10-18-16	Temperature Upon Receipt:	3.2 °c
Received By:	Greg Dearmin		
Signature:			

Receipt Check List	Yes	No	N/A
Were custody seals on outside of cooler and intact?			✓
Were custody papers properly filled out?	✓		
Did all bottles arrive in good condition?	✓		
Were correct bottles used for the analyses requested?	✓		
Was sufficient amount of sample sent in each bottle?	✓		
Were all applicable sample containers correctly preserved and checked for preservation? (Any not in accepted range noted on COC)	✓		
If applicable, was an observable VOA headspace present?			✓
Non Conformance Generated. (If yes see attached NCF)			

ANALYTICAL REPORT

April 05, 2017

City of Bend Water Department

Sample Delivery Group:	L899771
Samples Received:	04/01/2017
Project Number:	Stormwater
Description:	Stormwater Analysis

Report To: Drexell Barnes / Jeff Bysted
62975 Boyd Acres Rd
Bend, OR 97701

Entire Report Reviewed By:

Darren Reeder
Technical Service Representative

TABLE OF CONTENTS

C7C3002-01 L899771-01 WW

Collected by: Buchanan | Collected date/time: 03/30/17 13:11 | Received date/time: 04/01/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 200.8	WG966903	1	04/04/17 09:15	04/05/17 12:06	LAT
Metals (ICPMS) by Method 200.8	WG966903	5	04/04/17 09:15	04/05/17 12:59	LAT
Semi Volatile Organic Compounds (GC/MS) by Method 625	WG966803	1	04/03/17 23:00	04/04/17 14:03	KMP

C7C3002-02 L899771-02 WW

Collected by: Buchanan | Collected date/time: 03/30/17 14:24 | Received date/time: 04/01/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 200.8	WG966903	1	04/04/17 09:15	04/05/17 12:10	LAT
Semi Volatile Organic Compounds (GC/MS) by Method 625	WG966803	10	04/03/17 23:00	04/04/17 16:01	KMP

C7C3002-03 L899771-03 WW

Collected by: Buchanan | Collected date/time: 03/30/17 12:47 | Received date/time: 04/01/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 200.8	WG966903	1	04/04/17 09:15	04/05/17 12:13	LAT
Semi Volatile Organic Compounds (GC/MS) by Method 625	WG966803	1	04/03/17 23:00	04/04/17 14:27	KMP

C7C3002-04 L899771-04 WW

Collected by: Buchanan | Collected date/time: 03/30/17 12:55 | Received date/time: 04/01/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 200.8	WG966903	1	04/04/17 09:15	04/05/17 12:25	LAT
Semi Volatile Organic Compounds (GC/MS) by Method 625	WG966803	5	04/03/17 23:00	04/04/17 16:24	KMP

C7C3002-05 L899771-05 WW

Collected by: Buchanan | Collected date/time: 03/30/17 14:12 | Received date/time: 04/01/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 200.8	WG966903	1	04/04/17 09:15	04/05/17 12:29	LAT
Semi Volatile Organic Compounds (GC/MS) by Method 625	WG966803	5	04/03/17 23:00	04/04/17 16:48	KMP

C7C3002-07 L899771-06 WW

Collected by: Buchanan | Collected date/time: 03/30/17 12:55 | Received date/time: 04/01/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 200.8	WG966903	1	04/04/17 09:15	04/05/17 12:32	LAT
Semi Volatile Organic Compounds (GC/MS) by Method 625	WG966803	1	04/03/17 23:00	04/04/17 15:37	KMP

C7C3002-08 L899771-07 WW

Collected by: Buchanan | Collected date/time: 03/30/17 12:45 | Received date/time: 04/01/17 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Metals (ICPMS) by Method 200.8	WG966903	1	04/04/17 09:15	04/05/17 12:36	LAT
Semi Volatile Organic Compounds (GC/MS) by Method 625	WG966803	1	04/03/17 23:00	04/04/17 14:50	KMP

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Darren Reeder
Technical Service Representative

Metals (ICPMS) by Method 200.8

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Copper	7.85		0.270	1.00	1	04/05/2017 12:06	WG966903
Lead	1.55		0.260	1.00	1	04/05/2017 12:06	WG966903
Zinc	2460		9.55	50.0	5	04/05/2017 12:59	WG966903

Semi Volatile Organic Compounds (GC/MS) by Method 625

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzo(a)pyrene	U		0.340	1.00	1	04/04/2017 14:03	WG966803
Bis(2-ethylhexyl)phthalate	U		0.709	3.00	1	04/04/2017 14:03	WG966803
Pentachlorophenol	U		0.313	10.0	1	04/04/2017 14:03	WG966803
(S) Nitrobenzene-d5	*69.2*			*10.0-126*		*04/04/2017 14:03*	WG966803
(S) 2-Fluorobiphenyl	*75.0*			*22.0-127*		*04/04/2017 14:03*	WG966803
(S) p-Terphenyl-d14	*83.4*			*29.0-141*		*04/04/2017 14:03*	WG966803
(S) Phenol-d5	*39.6*			*10.0-120*		*04/04/2017 14:03*	WG966803
(S) 2-Fluorophenol	*49.6*			*10.0-120*		*04/04/2017 14:03*	WG966803
(S) 2,4,6-Tribromophenol	*76.8*			*10.0-153*		*04/04/2017 14:03*	WG966803

Metals (ICPMS) by Method 200.8

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Copper	41.2		0.270	1.00	1	04/05/2017 12:10	WG966903
Lead	3.33		0.260	1.00	1	04/05/2017 12:10	WG966903
Zinc	384		1.91	10.0	1	04/05/2017 12:10	WG966903

Semi Volatile Organic Compounds (GC/MS) by Method 625

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzo(a)pyrene	U		3.40	10.0	10	04/04/2017 16:01	WG966803
Bis(2-ethylhexyl)phthalate	U		7.09	30.0	10	04/04/2017 16:01	WG966803
Pentachlorophenol	U		3.13	100	10	04/04/2017 16:01	WG966803
(S) Nitrobenzene-d5	*155*	J1		*10.0-126*		*04/04/2017 16:01*	WG966803
(S) 2-Fluorobiphenyl	*133*	J1		*22.0-127*		*04/04/2017 16:01*	WG966803
(S) p-Terphenyl-d14	*156*	J1		*29.0-141*		*04/04/2017 16:01*	WG966803
(S) Phenol-d5	*77.9*			*10.0-120*		*04/04/2017 16:01*	WG966803
(S) 2-Fluorophenol	*105*			*10.0-120*		*04/04/2017 16:01*	WG966803
(S) 2,4,6-Tribromophenol	*146*			*10.0-153*		*04/04/2017 16:01*	WG966803

Sample Narrative:

625 L899771-02 WG966803: Dilution due to matrix

Metals (ICPMS) by Method 200.8

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Copper	10.4		0.270	1.00	1	04/05/2017 12:13	WG966903
Lead	1.56		0.260	1.00	1	04/05/2017 12:13	WG966903
Zinc	266		1.91	10.0	1	04/05/2017 12:13	WG966903

Semi Volatile Organic Compounds (GC/MS) by Method 625

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzo(a)pyrene	U		0.340	1.00	1	04/04/2017 14:27	WG966803
Bis(2-ethylhexyl)phthalate	U		0.709	3.00	1	04/04/2017 14:27	WG966803
Pentachlorophenol	U		0.313	10.0	1	04/04/2017 14:27	WG966803
(S) Nitrobenzene-d5	*61.7*			*10.0-126*		*04/04/2017 14:27*	WG966803
(S) 2-Fluorobiphenyl	*64.7*			*22.0-127*		*04/04/2017 14:27*	WG966803
(S) p-Terphenyl-d14	*79.4*			*29.0-141*		*04/04/2017 14:27*	WG966803
(S) Phenol-d5	*36.3*			*10.0-120*		*04/04/2017 14:27*	WG966803
(S) 2-Fluorophenol	*45.6*			*10.0-120*		*04/04/2017 14:27*	WG966803
(S) 2,4,6-Tribromophenol	*74.2*			*10.0-153*		*04/04/2017 14:27*	WG966803

Metals (ICPMS) by Method 200.8

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Copper	129		0.270	1.00	1	04/05/2017 12:25	WG966903
Lead	13.2		0.260	1.00	1	04/05/2017 12:25	WG966903
Zinc	625		1.91	10.0	1	04/05/2017 12:25	WG966903

Semi Volatile Organic Compounds (GC/MS) by Method 625

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzo(a)pyrene	U		1.70	5.00	5	04/04/2017 16:24	WG966803
Bis(2-ethylhexyl)phthalate	U		3.54	15.0	5	04/04/2017 16:24	WG966803
Pentachlorophenol	U		1.56	50.0	5	04/04/2017 16:24	WG966803
(S) Nitrobenzene-d5	*45.7*			*10.0-126*		*04/04/2017 16:24*	WG966803
(S) 2-Fluorobiphenyl	*51.4*			*22.0-127*		*04/04/2017 16:24*	WG966803
(S) p-Terphenyl-d14	*67.5*			*29.0-141*		*04/04/2017 16:24*	WG966803
(S) Phenol-d5	*26.7*			*10.0-120*		*04/04/2017 16:24*	WG966803
(S) 2-Fluorophenol	*33.1*			*10.0-120*		*04/04/2017 16:24*	WG966803
(S) 2,4,6-Tribromophenol	*68.1*			*10.0-153*		*04/04/2017 16:24*	WG966803

Sample Narrative:

625 L899771-04 WG966803: Dilution due to matrix

Metals (ICPMS) by Method 200.8

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Copper	24.5		0.270	1.00	1	04/05/2017 12:29	WG966903
Lead	1.46		0.260	1.00	1	04/05/2017 12:29	WG966903
Zinc	232		1.91	10.0	1	04/05/2017 12:29	WG966903

Semi Volatile Organic Compounds (GC/MS) by Method 625

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzo(a)pyrene	U		1.70	5.00	5	04/04/2017 16:48	WG966803
Bis(2-ethylhexyl)phthalate	U		3.54	15.0	5	04/04/2017 16:48	WG966803
Pentachlorophenol	U		1.56	50.0	5	04/04/2017 16:48	WG966803
(S) Nitrobenzene-d5	*30.5*			*10.0-126*		*04/04/2017 16:48*	WG966803
(S) 2-Fluorobiphenyl	*31.1*			*22.0-127*		*04/04/2017 16:48*	WG966803
(S) p-Terphenyl-d14	*33.0*			*29.0-141*		*04/04/2017 16:48*	WG966803
(S) Phenol-d5	*16.1*			*10.0-120*		*04/04/2017 16:48*	WG966803
(S) 2-Fluorophenol	*19.7*			*10.0-120*		*04/04/2017 16:48*	WG966803
(S) 2,4,6-Tribromophenol	*31.8*			*10.0-153*		*04/04/2017 16:48*	WG966803

Sample Narrative:

625 L899771-05 WG966803: Dilution due to matrix

Metals (ICPMS) by Method 200.8

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Copper	52.9		0.270	1.00	1	04/05/2017 12:32	WG966903
Lead	6.12		0.260	1.00	1	04/05/2017 12:32	WG966903
Zinc	309		1.91	10.0	1	04/05/2017 12:32	WG966903

Semi Volatile Organic Compounds (GC/MS) by Method 625

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzo(a)pyrene	U		0.340	1.00	1	04/04/2017 15:37	WG966803
Bis(2-ethylhexyl)phthalate	0.780	J	0.709	3.00	1	04/04/2017 15:37	WG966803
Pentachlorophenol	U		0.313	10.0	1	04/04/2017 15:37	WG966803
(S) Nitrobenzene-d5	*71.8*			*10.0-126*		*04/04/2017 15:37*	WG966803
(S) 2-Fluorobiphenyl	*69.5*			*22.0-127*		*04/04/2017 15:37*	WG966803
(S) p-Terphenyl-d14	*87.8*			*29.0-141*		*04/04/2017 15:37*	WG966803
(S) Phenol-d5	*39.9*			*10.0-120*		*04/04/2017 15:37*	WG966803
(S) 2-Fluorophenol	*49.5*			*10.0-120*		*04/04/2017 15:37*	WG966803
(S) 2,4,6-Tribromophenol	*89.0*			*10.0-153*		*04/04/2017 15:37*	WG966803

Metals (ICPMS) by Method 200.8

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Copper	0.703	J	0.270	1.00	1	04/05/2017 12:36	WG966903
Lead	U		0.260	1.00	1	04/05/2017 12:36	WG966903
Zinc	47.5		1.91	10.0	1	04/05/2017 12:36	WG966903

Semi Volatile Organic Compounds (GC/MS) by Method 625

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzo(a)pyrene	U		0.340	1.00	1	04/04/2017 14:50	WG966803
Bis(2-ethylhexyl)phthalate	U		0.709	3.00	1	04/04/2017 14:50	WG966803
Pentachlorophenol	U		0.313	10.0	1	04/04/2017 14:50	WG966803
(S) Nitrobenzene-d5	*60.6*			*10.0-126*		*04/04/2017 14:50*	WG966803
(S) 2-Fluorobiphenyl	*62.6*			*22.0-127*		*04/04/2017 14:50*	WG966803
(S) p-Terphenyl-d14	*84.4*			*29.0-141*		*04/04/2017 14:50*	WG966803
(S) Phenol-d5	*35.4*			*10.0-120*		*04/04/2017 14:50*	WG966803
(S) 2-Fluorophenol	*46.0*			*10.0-120*		*04/04/2017 14:50*	WG966803
(S) 2,4,6-Tribromophenol	*69.0*			*10.0-153*		*04/04/2017 14:50*	WG966803

Method Blank (MB)

(MB) R3208221-1 04/04/17 18:56

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
Copper	U		0.270	1.00
Lead	U		0.260	1.00
Zinc	U		1.91	10.0

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3208221-2 04/04/17 18:59 • (LCSD) R3208221-3 04/04/17 19:03

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
Copper	50.0	54.5	52.7	109	105	85-115			3	20
Lead	50.0	50.9	49.6	102	99	85-115			3	20
Zinc	50.0	52.1	49.8	104	100	85-115			4	20

L899544-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L899544-01 04/04/17 19:07 • (MS) R3208221-5 04/04/17 19:14 • (MSD) R3208221-6 04/04/17 19:17

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Copper	50.0	3.59	52.0	53.0	97	99	1	70-130			2	20
Lead	50.0	1.18	50.8	51.4	99	100	1	70-130			1	20
Zinc	50.0	ND	58.9	58.3	99	98	1	70-130			1	20

L899670-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L899670-01 04/05/17 12:45 • (MS) R3208411-7 04/05/17 12:48 • (MSD) R3208411-8 04/05/17 12:52

Analyte	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	ug/l	%	%		%			%	%
Copper	50.0	2.49	58.0	57.0	111	109	1	70-130			2	20
Lead	50.0	ND	52.7	51.3	105	103	1	70-130			3	20
Zinc	50.0	75.4	129	133	108	116	1	70-130			3	20

Method Blank (MB)

(MB) R3207985-3 04/04/17 08:58

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzo(a)pyrene	U		0.340	1.00
Bis(2-ethylhexyl)phthalate	U		0.709	3.00
Pentachlorophenol	U		0.313	10.0
(S) Nitrobenzene-d5	*68.1*			*10.0-126*
(S) 2-Fluorobiphenyl	*76.3*			*22.0-127*
(S) p-Terphenyl-d14	*90.0*			*29.0-141*
(S) Phenol-d5	*46.6*			*10.0-120*
(S) 2-Fluorophenol	*55.3*			*10.0-120*
(S) 2,4,6-Tribromophenol	*68.5*			*10.0-153*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3207985-1 04/04/17 08:11 • (LCSD) R3207985-2 04/04/17 08:35

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzo(a)pyrene	50.0	37.4	39.3	74.8	78.6	41.0-120			4.95	20
Bis(2-ethylhexyl)phthalate	50.0	42.4	43.7	84.8	87.5	37.0-121			3.14	21
Pentachlorophenol	50.0	29.1	29.8	58.3	59.6	20.0-126			2.20	32
(S) Nitrobenzene-d5				*66.2*	*77.9*	*10.0-126*				
(S) 2-Fluorobiphenyl				*74.7*	*80.2*	*22.0-127*				
(S) p-Terphenyl-d14				*86.7*	*91.4*	*29.0-141*				
(S) Phenol-d5				*38.5*	*47.5*	*10.0-120*				
(S) 2-Fluorophenol				*50.5*	*62.0*	*10.0-120*				
(S) 2,4,6-Tribromophenol				*77.3*	*83.6*	*10.0-153*				

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.

ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE.**
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Conneticut	PH-0197	North Carolina [1]	DW21704
Florida	E87487	North Carolina [2]	41
Georgia	NELAP	North Dakota	R-140
Georgia [1]	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky [1]	90010	South Dakota	n/a
Kentucky [2]	16	Tennessee [1 4]	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

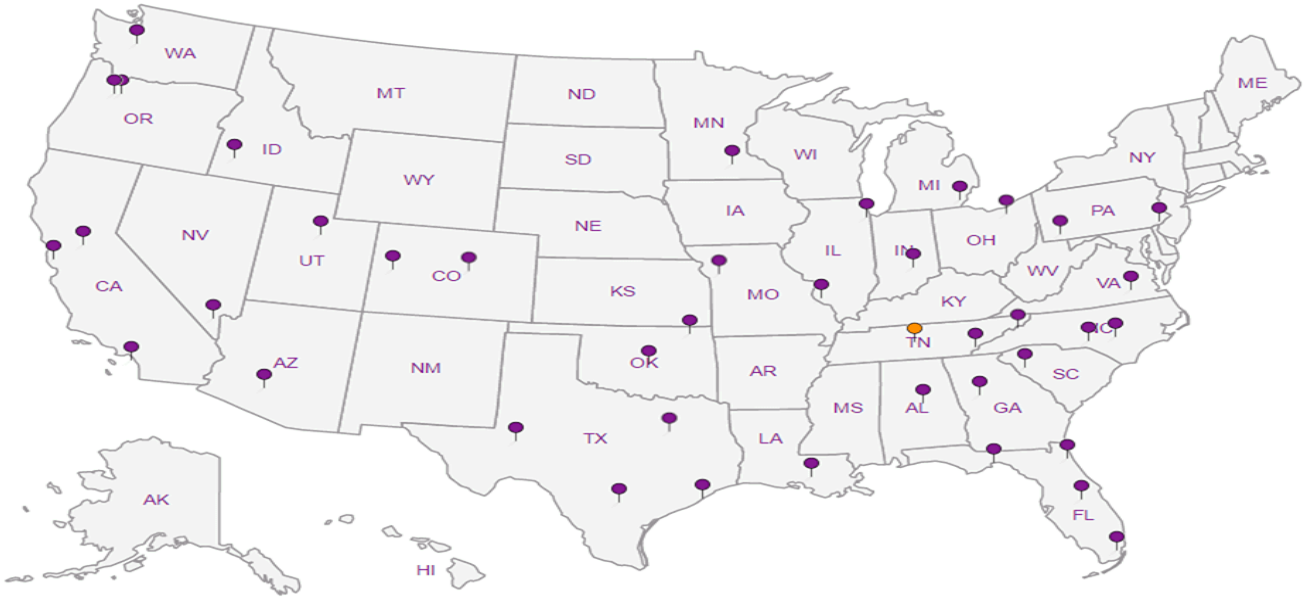
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [n/a] Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



Company Name/Address:
City of Bend- Laboratory
62975 Boyd Acres Rd.
Bend, OR 97701

Billing Information:
City of Bend Laboratory
62975 Boyd Acres Rd
Bend, OR 97701

Report to: **Jeff Buystedt**

Email To: **jbuystedt@bendoregon.gov**

Project Description: **Stormwater UIC Monitoring**

City/State Collected: **Bend OR**

Phone: **541-420-6892**
Fax:

Client Project # **STORMWATER**

Lab Project # **BENDWAT01-STORMWATER**

Collected by (print): **Buchanan**

Site/Facility ID #

P.O. # **117597-001**

Collected by (signature):

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day 200%
___ Next Day 100%
___ Two Day 50%
___ Three Day 25%

Date Results Needed

Email? ___No ✓Yes
FAX? ___No ___Yes

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

ESC LABS
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 899711
G126

Acctnum:
Template:
Prelogin:
TSR:
PB:

Shipped Via: **Fedex**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	625 100ml Amb	625 (Benzo(a)pyrene,	625 Bis(2-ethylhexyl)phthalate,	625 Pentachlorophenol		200.8 Metals 500ML HDPE - HNO3 (CU, PB, ZN) ✓					Rem./Contaminant	Sample # (lab only)
C7C3002-01	Grab	Other		3/30/17	1311	3	X	X	X	X		X					Airport	61
C7C3002-02	Grab	Other		3/30/17	1424	3	X	X	X	X		X					Century	02
C7C3002-03	Grab	Other		3/30/17	1247	3	X	X	X	X		X					**Boyd**	03
C7C3002-04	Grab	Other		3/30/17	1255	3	X	X	X	X		X					Empire	04
C7C3002-05	Grab	Other		3/30/17	1412	3	X	X	X	X		X					Brooks	05
* No Sample	Grab	Other				3											Ladera	
C7C3002-07	Grab	Other		3/30/17	1255	3	X	X	X	X		X					Dup Emp	06
C7C3002-08	Grab	Other		3/31/17	1245	3	X	X	X	X		X					Field Blk	07

* Matrix: **SS** - Soil **GW** - Groundwater **WW** - WasteWater **DW** - Drinking Water **OT** - Other **Stormwater**

Remarks:

pH ___ Temp ___
Flow ___ Other ___

Hold #

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
[signature]	3-30-17	1440	Fridge #2
Fridge #2	3-31-17	1401	Fed E
			[signature]

Samples returned via: ☐ UPS ☐ FedEx ☐ Courier ☐ ___

Temp: 1.9 °C Bottles Received: 21

Date: 4/4/17 Time: 845

Condition: (lab use only) a

COC Seal Intact: ___ Y ___ N ✓ NA

pH Checked: C2 NCF:

ESC LAB SCIENCES
Cooler Receipt Form

Client:	Broadwater	SDG#	369771
Cooler Received/Opened On: 4/ / /17		Temperature:	1.9
Received By: **Rickey Mosley**			
Signature:			

Receipt Check List	NP	Yes	No
COC Seal Present / Intact?	✓		
COC Signed / Accurate?		✓	
Bottles arrive intact?		✓	
Correct bottles used?		✓	
Sufficient volume sent?		✓	
If Applicable			
VOA Zero headspace?			
Preservation Correct / Checked?		✓	