20 YEARS FLOYD | SNIDER
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February 20, 2018

Mohsen Kourehdar
Washington State Department of Ecology
PO Box 47600
Olympia, Washington 98504-7600

SUBJECT: B&L WOODWASTE SITE JANUARY 2018 COMPLIANCE MONITORING RESULTS

Dear Mr. Kourehdar:

On behalf of the B&L Woodwaste Custodial Trust, we are submitting the results of compliance monitoring completed at the B&L Woodwaste site in January and February 2018.

Groundwater sampling and analysis were completed in accordance with the 2013 Compliance Monitoring Plan and 2017 Compliance Monitoring Plan Addendum. A Compliance Screening Tier 1 data quality review was performed on arsenic data resulting from laboratory analysis. Data were determined to be of acceptable quality for use as reported by the laboratory. The results are presented in the attached table and time-concentration plots.

We look forward to discussing the results with you.

Sincerely,
FLOYD | SNIDER

Brett Beaulieu, LHG
Hydrogeologist

Encl.: Table 1 Groundwater Arsenic Results
Attachment 1 Time-Concentration Plots
Attachment 2 Laboratory Analytical Reports

Copies: Dan Silver, B&L Woodwaste Custodial Trustee

Table 1

Groundwater Arsenic Results[1]

Sample Location	Upper Sand Aquifer Total Arsenic (µg/L)																			Lower Sand Aquifer Total Arsenic (µg/L)				
	D-5U	D-6A	D-7A	D-8A	D-9A	D-10A	MW-13	MW-15	MW-30	MW-31A	MW-33	MW-34	MW-35	PD-141	PD-214	PZ-3A	PZ-4A	R-15	PZ-5A	W-1	D-5L	D-6B	D-7B	D-8B	MW-40B
Compliance Monitoring Events																									
January 2018	NS	NS	NS	75.5	NS	NS	NS	NS	NS	NS	124	9.28	NS	NS	8.7	176	5.4	443	559	10.4	NS	NS	NS	8.23	9.8
October 2017	32.4	53.1	25	74.9	48.8	336	221	153	112	2.77	323	9.76	39.3	240	12.5	563	6.0	539	706	10.7	4	5	6	9.46	10.7
August 2017	NS	NS	NS	97.4	NS	NS	NS	NS	NS	NS	372	9.10	NS	NS	10.6	215	6.3	215	NS	13.7	NS	NS	NS	8.34	10.0
April 2017	23.7	NS	30	143	NS	NS	270	104	NS	NS	388	9.10	NS	324	13.3	NS	NS	NS	NS	12	NS	NS	NS	12.2	10.2
October 2016	43.6	NS	30	71.6	48.2	300	632	85.3	176	3.10	458	NS	31.4	451	NS	NS	NS	NS	643	18.6	4	NS	6	12.4	9.71
April 2016	22.8	50.2	34	108	41.0	273	1,200	183	170	2.7	431	NS	32.4	413	NS	NS	NS	NS	347	9	4	4	6	10.9	8.00
October 2015	21.1	60.3	37	87.9	43.0	300	1,220	752	139	2.4	423	NS	29.8	441	NS	NS	NS	NS	610	13.5	3	3	5	10.9	7.1
April 2015	22	47.8	45	342	42.0	354	1,580	1,070	204	4.1	399	NS	25.8	407	NS	NS	NS	NS	NS	10.1	4	4	5	9.3	8.4
October 2014	16.3	50.4	57	107	43.6	318	1,650	1,130	117	3.4	436	NS	23.2	323	NS	NS	NS	NS	NS	11.2	3	4	4	10.7	NS
April 2014	17.6	63.7	49	415	37.2	183	1,430	1,260	136	5.4	376	NS	23.2	326	NS	NS	NS	NS	NS	10.1	3	4	4	10.5	NS
October 2013	12.4	107	54	168	40	181	1,740	1,220	174	5.3	404	NS	21.9	302	NS	NS	NS	NS	NS	12	4	3.6	5	13.9	NS
April 2013	16.5	163	30	363	38.0	199	1,910	1,580	252	6.6	398	NS	23.8	296	NS	NS	NS	NS	NS	10.9	3	5	5	16.6	NS
October 2012	40.8	184	17	196	40	231	2,350	1,580	261	12.8	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	4	3.0	5	155	NS
April 2012	43.8	287	61	137	38	107	2,180	1,480	305	18.7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	4	4	5	370	NS
September 2011	86.3	885	23	99.6	38	213	2,520	1,520	640	21.7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	4	4	5	28.2	NS
April 2011	90	1,170	32	126	39	203	2,720	1,610	854	5.7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	3	3	5	21.2	NS
October 2010	86.4	1,290	41	34	37	211	2,220	1,460	1,580	5.9	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	3	3	5	6.1	NS
April 2010	100	1,370	27	31.1	37	159	2,450	1,610	2,410	15.5	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	4	4	5	12.8	NS
October 2009	113	1,320	38	39.8	37	202	2,220	1,390	2,060	16.3	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	3	2	5	11	NS
April 2009	144	1,490	331	68.2	38	175	2,340	1,630	2,190	22.4	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	3	3	5	11.1	NS
October 2008	143	1,430	98	37.7	38	204	2,510	1,720	2,270	22.2	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	3	2	5	12.2	NS
Historical Events																									
March 2007	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	5	3	5	18	NS
August 2006	89	1,900	56	450	38	200	3,800	3,700	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
September 2005	132	1,790	50 U	86.1	50 U	266	3,530	1,810	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
March 2005	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	7	2.5 U	5	21.2	NS
December 2003	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	6	5 U	6	21	NS
September 2003	190	1,900	5	110	31	300	4,600	2,800	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	6	5	8	20	NS
June 2003	240	1,800	5 U	370	38	270	4,600	2,600	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	5	5 U	6	30	NS
March 2003	230	1,700	5 U	330	38	240	4,300	2,500	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	5 U	5 U	5 U	30	NS
December 2002	230	1,600	5 U	58	36	310	4,500	2,500	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	5 U	5 U	5 U	20	NS
September 2002	220	1,600	5 U	97	35	280	4,500	2,300	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	5 U	5 U	5	20	NS
June 2002	240	1,800	5		38	260	4,700	2,500	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	5 U	5 U	6	30	NS
April 2002	300	1,800	5 U	400	50	300	4,300	2,500	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	5 U	5 U	5	30	NS
December 2001	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	8	8	5 U	30	NS
June 2001	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	4	4	6	30	NS
March 2001	280	1,800	3	130	39	230	4,300	2,700	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	3	3	6	30	NS
December 2000	280	2,100	3	62	39	270	5,300	3,100	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	4	4	6	20	NS

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Sample Location	Upper Sand Aquifer Total Arsenic (µg/L)																			Lower Sand Aquifer Total Arsenic (µg/L)				
	D-5U	D-6A	D-7A	D-8A	D-9A	D-10A	MW-13	MW-15	MW-30	MW-31A	MW-33	MW-34	MW-35	PD-141	PD-214	PZ-3A	PZ-4A	R-15	PZ-5A	W-1	D-5L	D-6B	D-7B	D-8B	MW-40B
Historical Events (cont.)																									
September 2000	260	2,000	5	68	58	350	4,600	2,700	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	4	5	6	20	NS
June 2000	180	1,500	5 U	96	40	250	3,200	2,500	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	5 U	5 U	5 U	20	NS
March 2000	310	1,600	5 U	150	39	220	6,200	2,300	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	5 U	5 U	5 U	20	NS
January 2000	300	1,400	5 U	130	40	240	4,300	2,600	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	5 U	5 U	6	30	NS
September 1999	300	1,900	5 U	140	47	310	5,600	3,400	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	4	5	6	20	NS
June 1999	300	1,800	5 U	180	38	260	4,600	2,600	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	5 U	5 U	5 U	20	NS
March 1999	340	2,000	5 U	200	39	260	4,600	3,000	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	5 U	5 U	6	30	NS
December 1998	320	980	6	100	38	260	5,700	3,200	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	5 U	5 U	7	30	NS
September 1998	290	1,800	5 U	150	52	340	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	5 U	5 U	5 U	20	NS
June 1998	320	1,900	5 U	69	42	360	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	5 U	5 U	5 U	20	NS
March 1998	380	2,400	5 U	97	38	350	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	5 U	5 U	5 U	40	NS
December 1997	480	2,600	5 U	130	41	490	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	5 U	5 U	7	60	NS
September 1997	340	2,400	5 U	210	56	390	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	5 U	5 U	5 U	60	NS
June 1997	390	2,200	5 U	200	49	350	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	5 U	5 U	5	60	NS
March 1997	360	1,900	5	110	36	340	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	5 U	5 U	7	60	NS
January 1997	310	2,000	5 U	130	39	310	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	5 U	5 U	5 U	90	NS
September 1996	300	2,000	5 U	260	73	470	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	5	6	5	100	NS
June 1996	NS	NS	5 U	130	49	470	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	5	100	NS
March 1996	NS	NS	5 U	150	39	420	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	5 U	100	NS
December 1995	NS	NS	5 U	270	44	540	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	5	100	NS
June 1995	300	2,200	5 U	170	55	540	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	5 U	5 U	5 U	200	NS
March 1995	350	2,400	5 U	180	34	320	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	5 U	5 U	5 U	200	NS
December 1994	312	2,494	5 U	130	42	492	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	5 U	5 U	5 U	300	NS
August 1994	314	3,252	5 U	145	84	542	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	5 U	5 U	5 U	400	NS
May 1994	307	2,745	5 U	133	39	363	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	5 U	5 U	9	700	NS
January 1994	284	2,505	5 U	165	64	402	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	5 U	5 U	5 U	800	NS
May 1993	170	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	20 U	NS	NS	NS	NS
August 1990	22	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
December 1989	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
September 1989	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Note:

1 Reported value is the maximum concentration per location, per sampling date.

Abbreviations:

µg/L Micrograms per liter

NS Not sampled

Qualifier:

U Analyte is undetected at given reporting limit.

Attachment 1
Time-Concentration Plots

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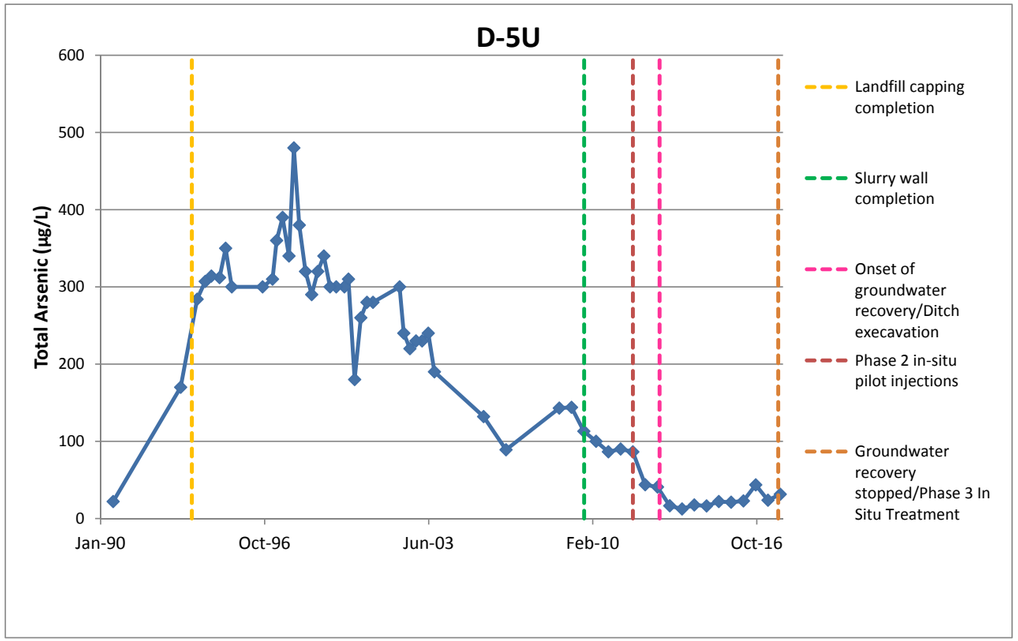
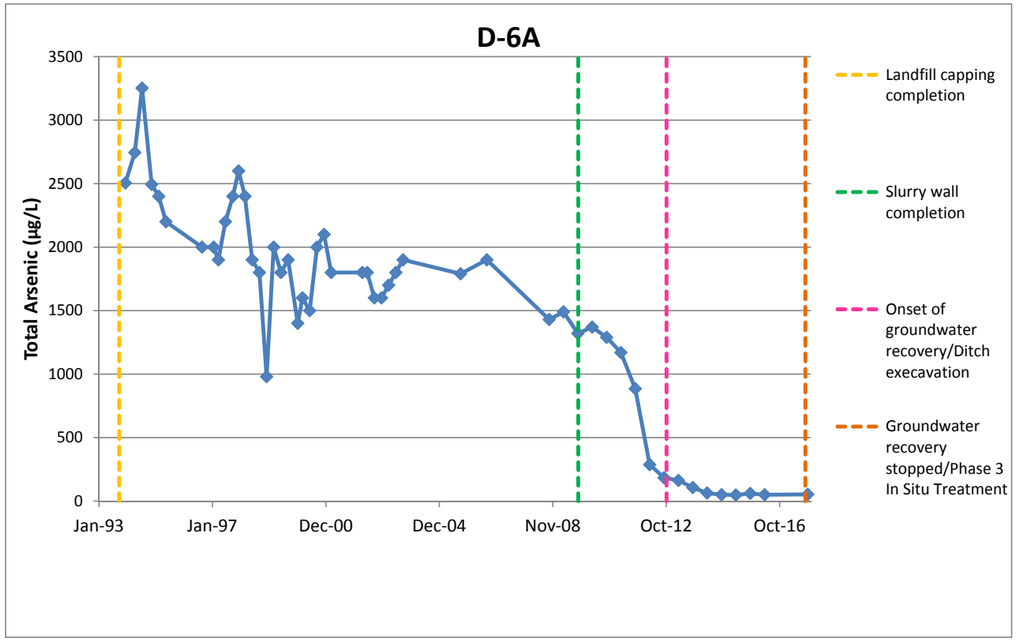
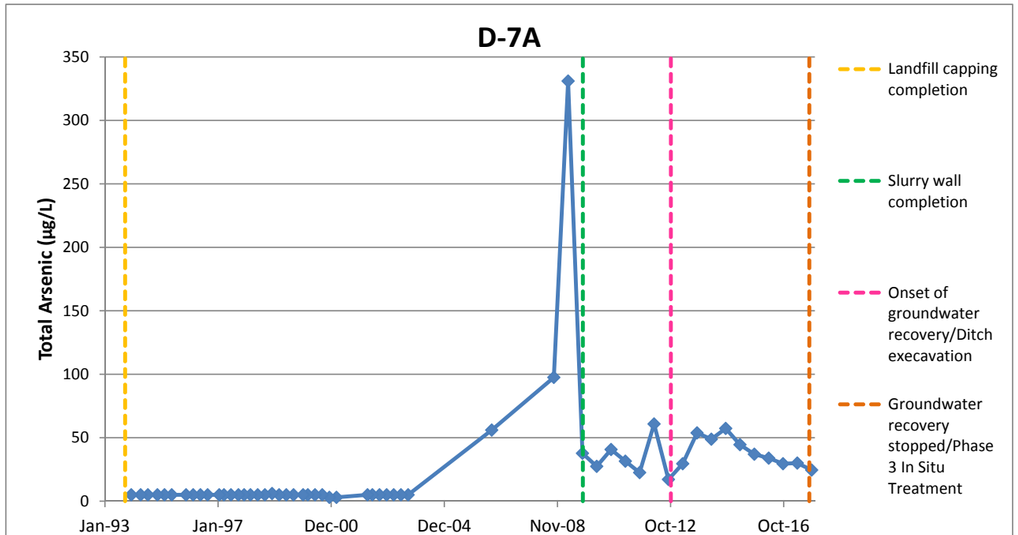
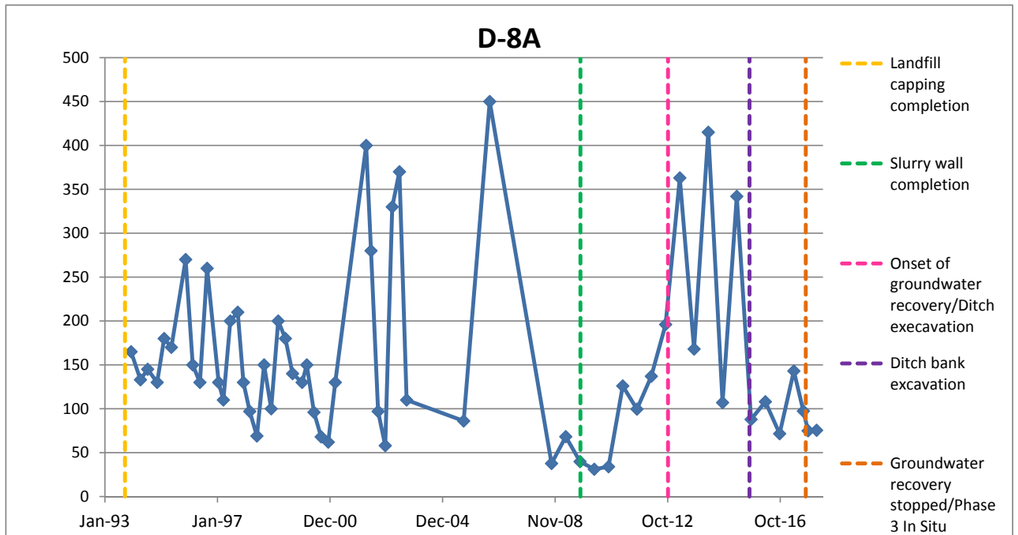
Time-Concentration Plots







Notes: Detection limits vary. Non-detect results with detection limits of 5 µg/L or less are plotted at the detection limit. Non-detect results with detection limits greater than 5 µg/L have been omitted. Refer to Table 2.3.



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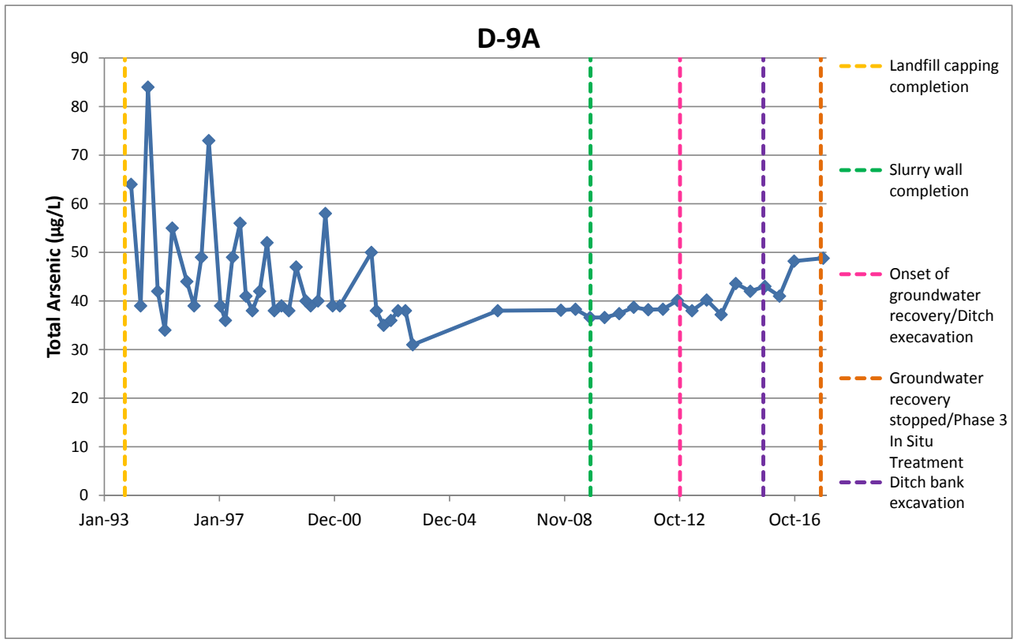

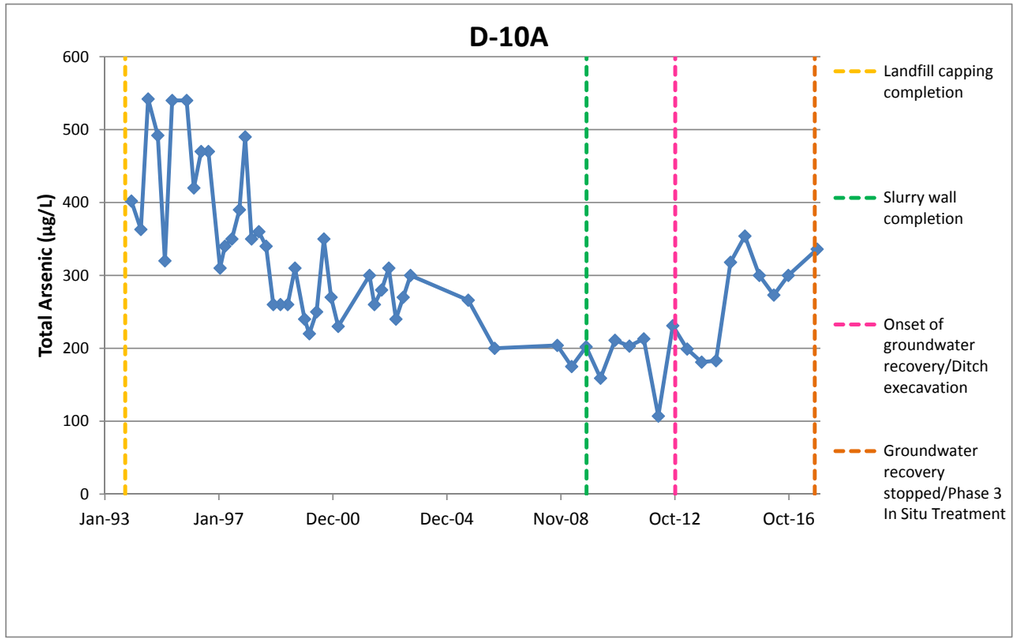

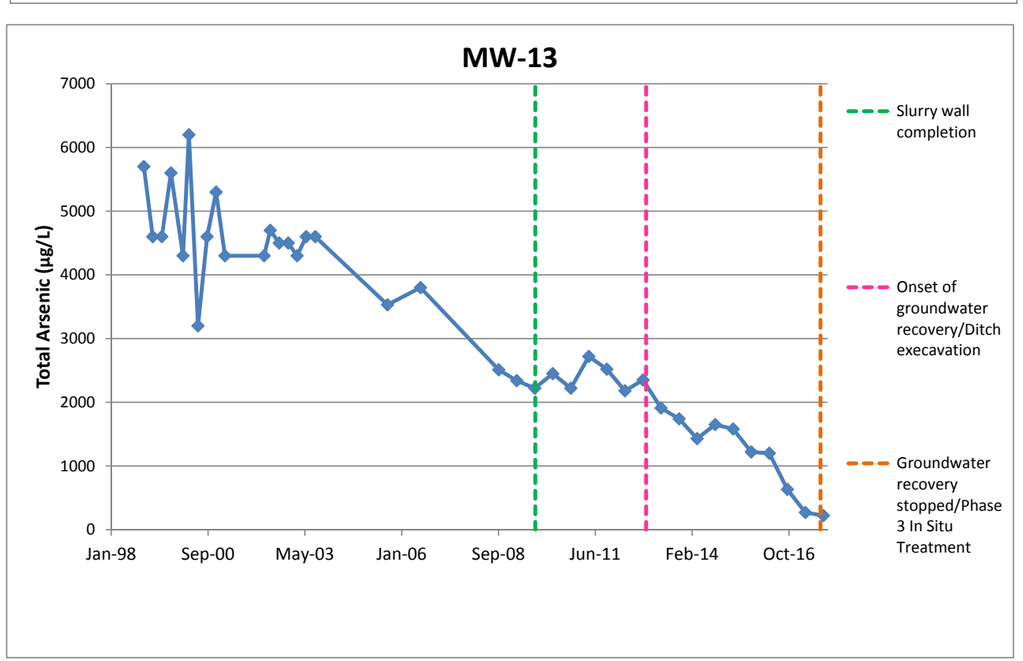

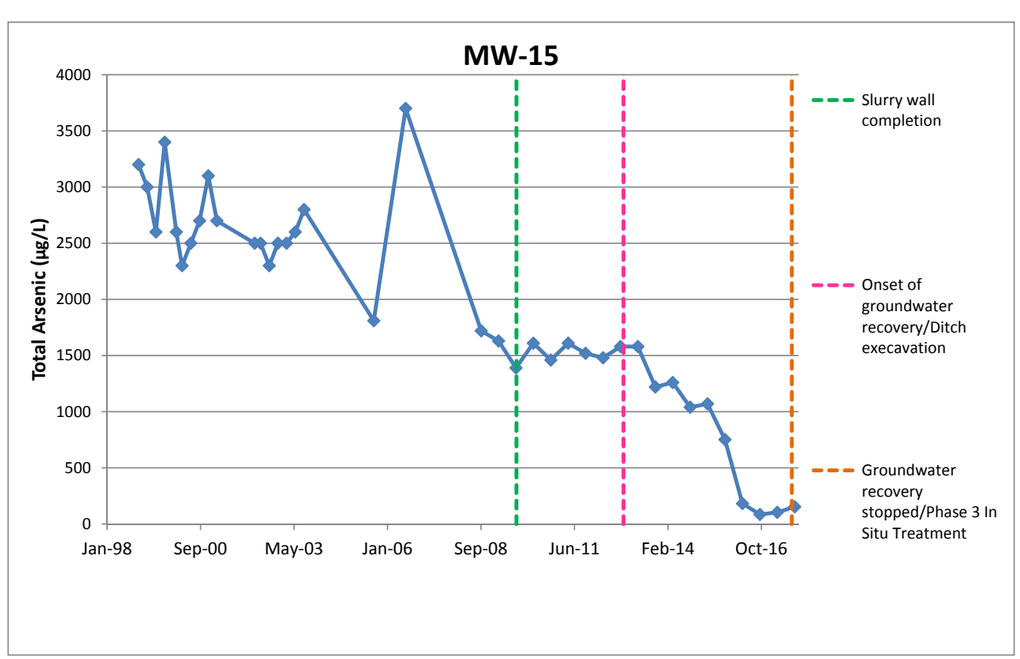

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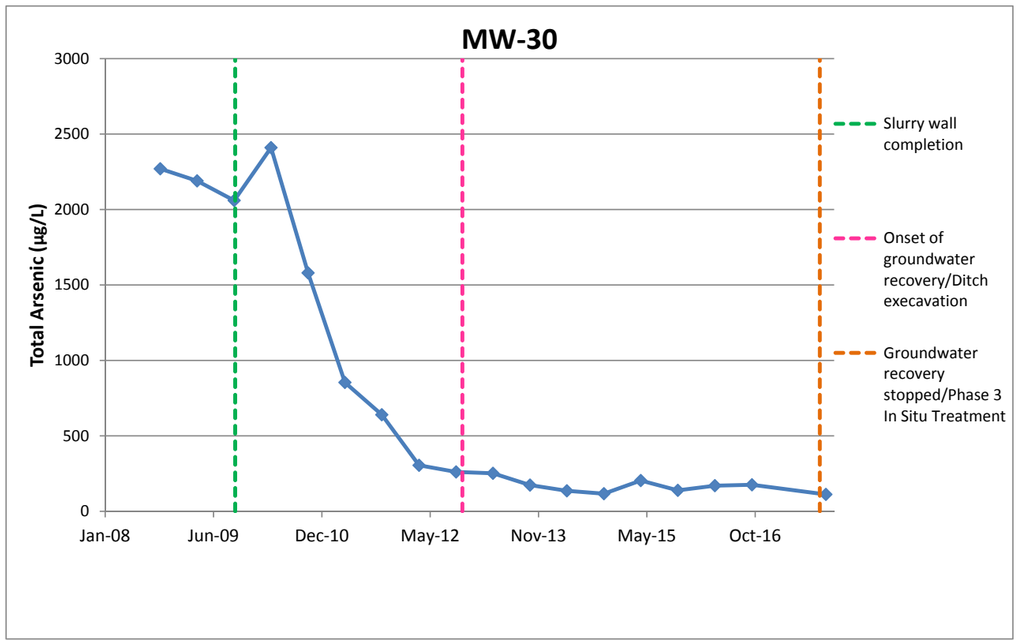

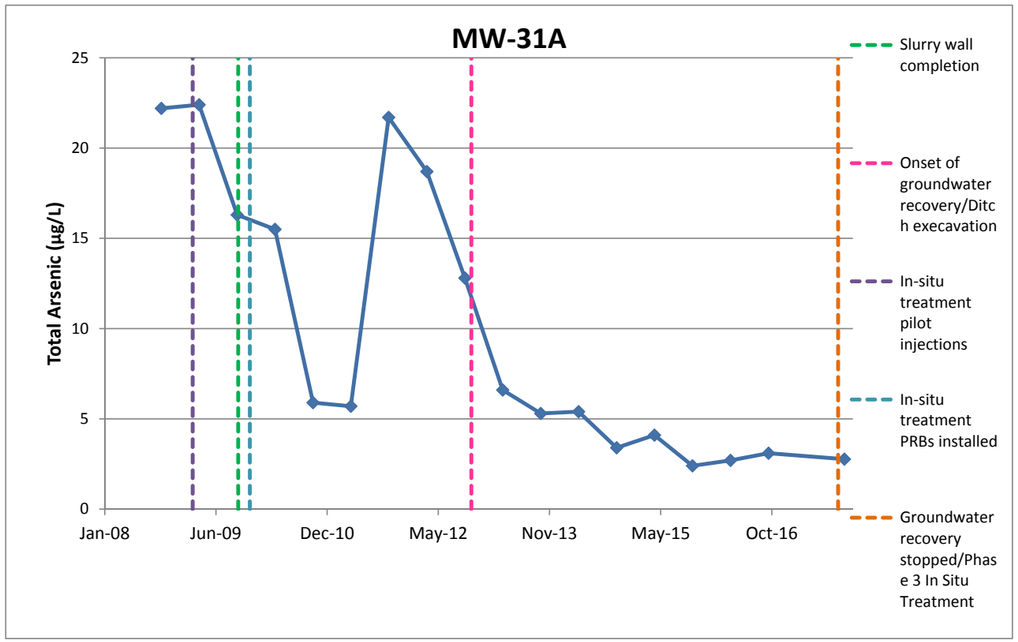

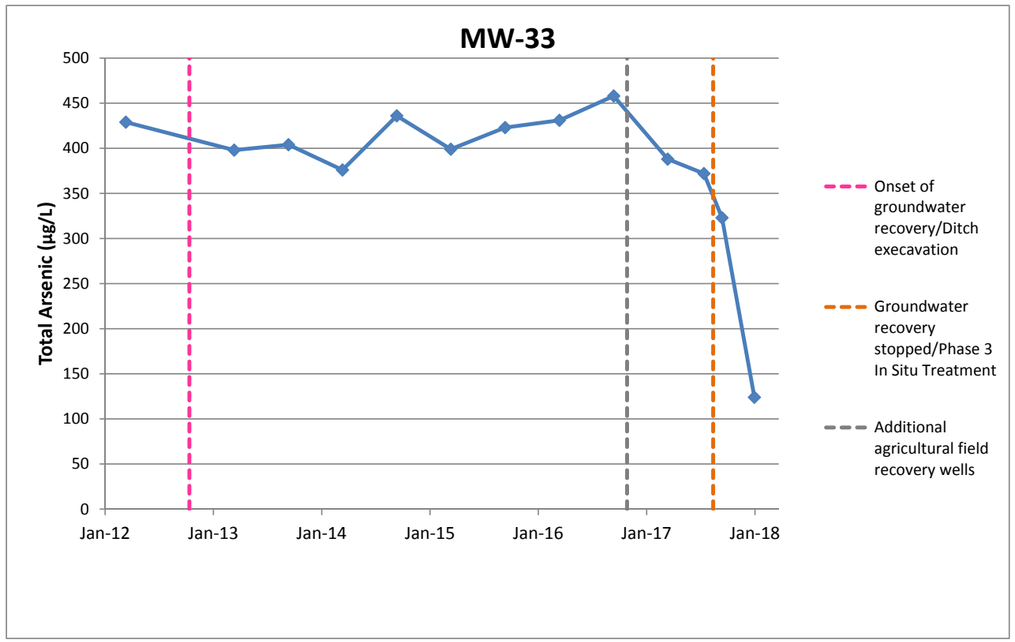

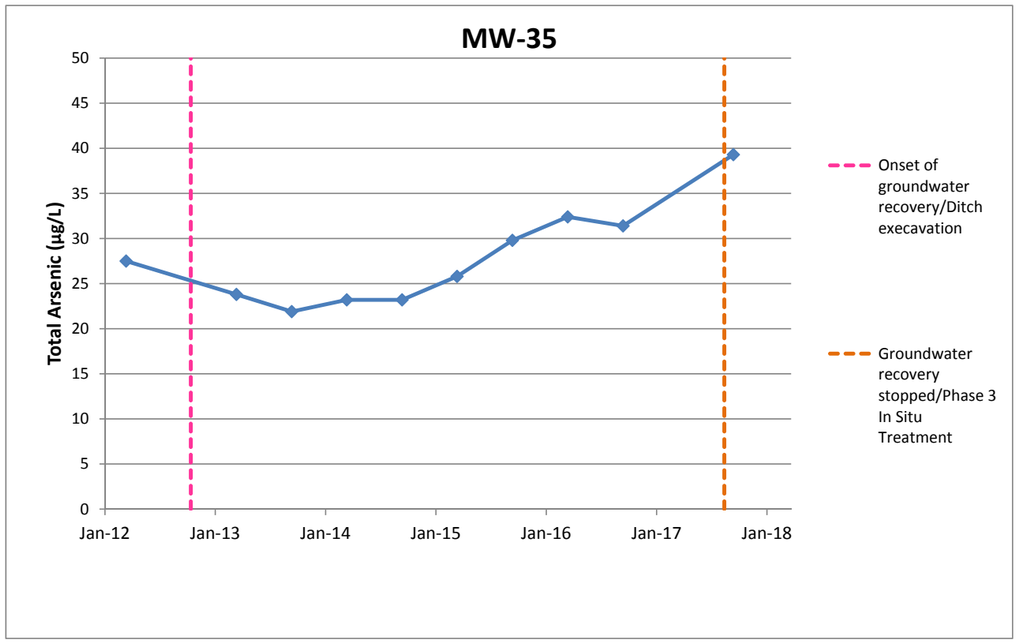

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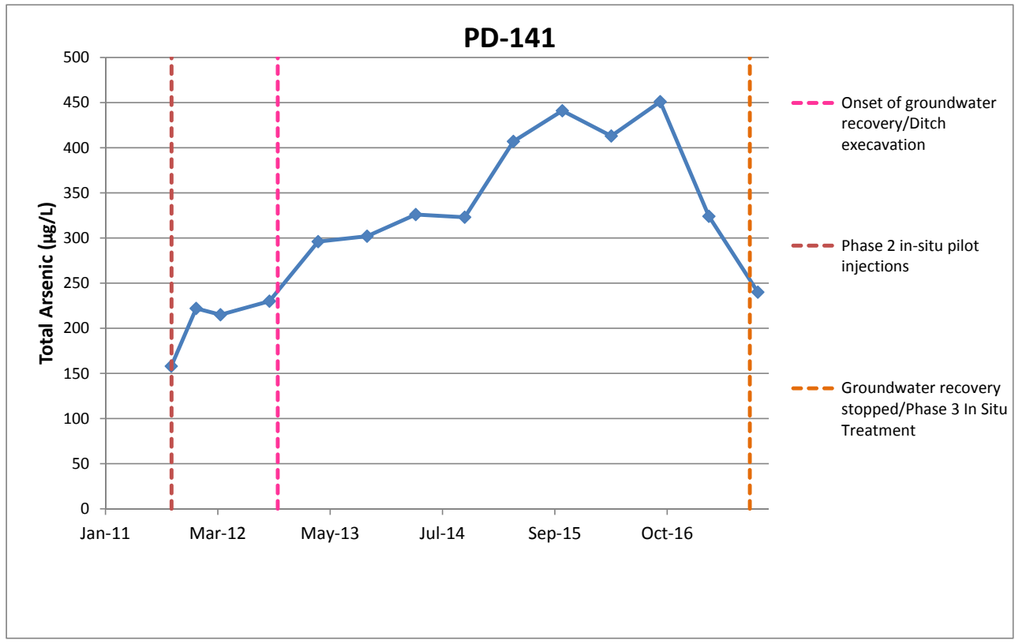
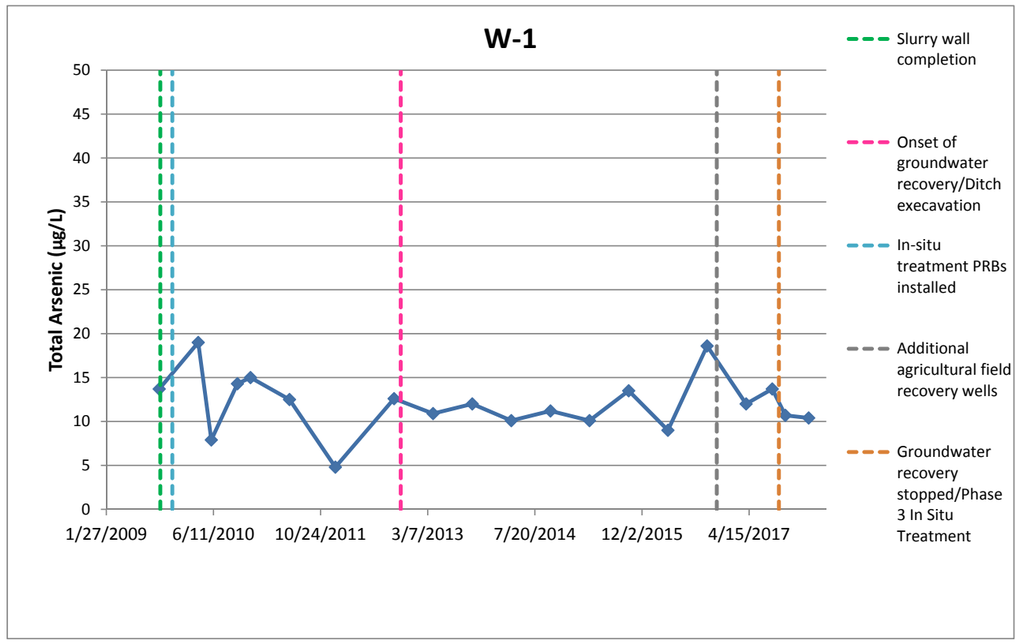
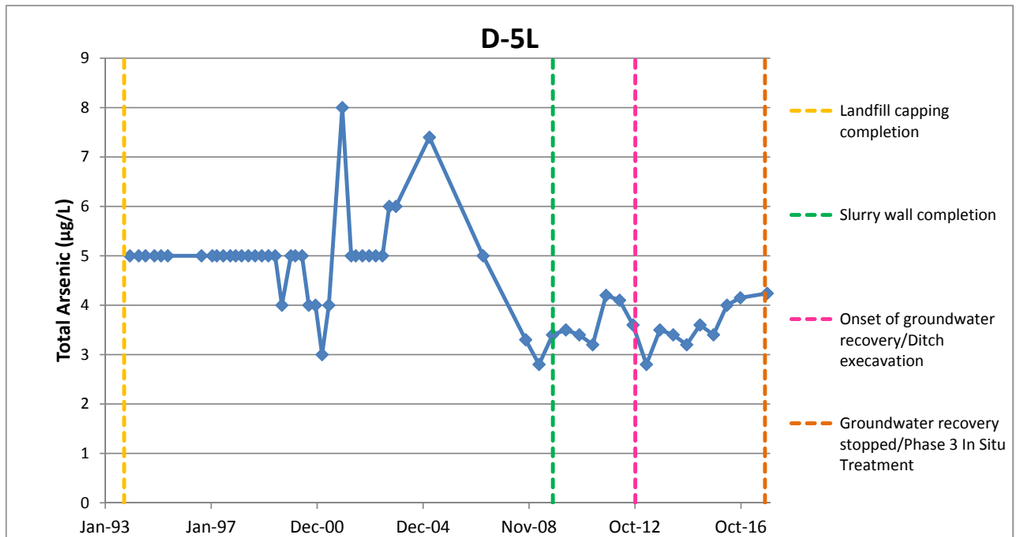
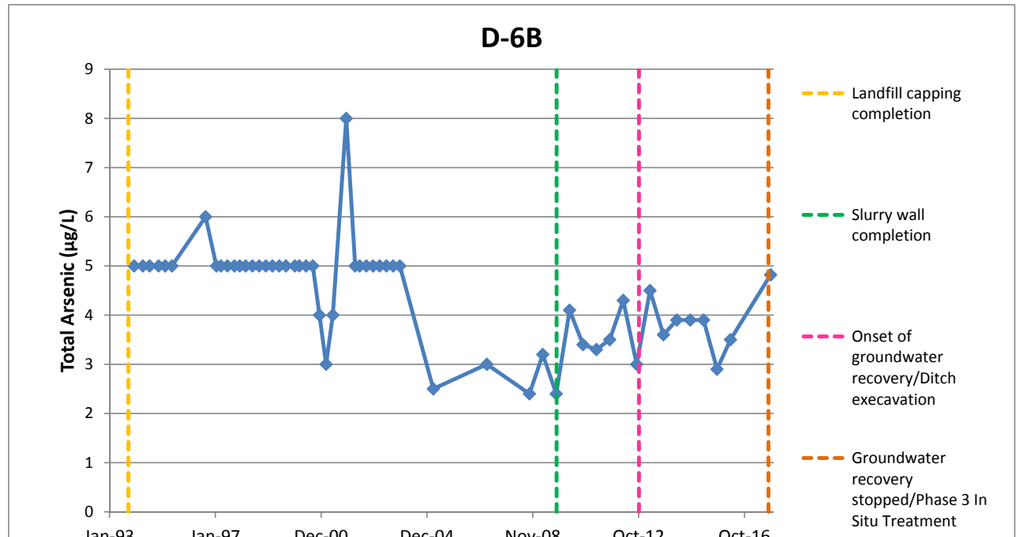






Notes: Detection limits vary. Non-detect results with detection limits of 5 µg/L or less are plotted at the detection limit. Non-detect results with detection limits greater than 5 µg/L have been omitted. Refer to Table 2.3.



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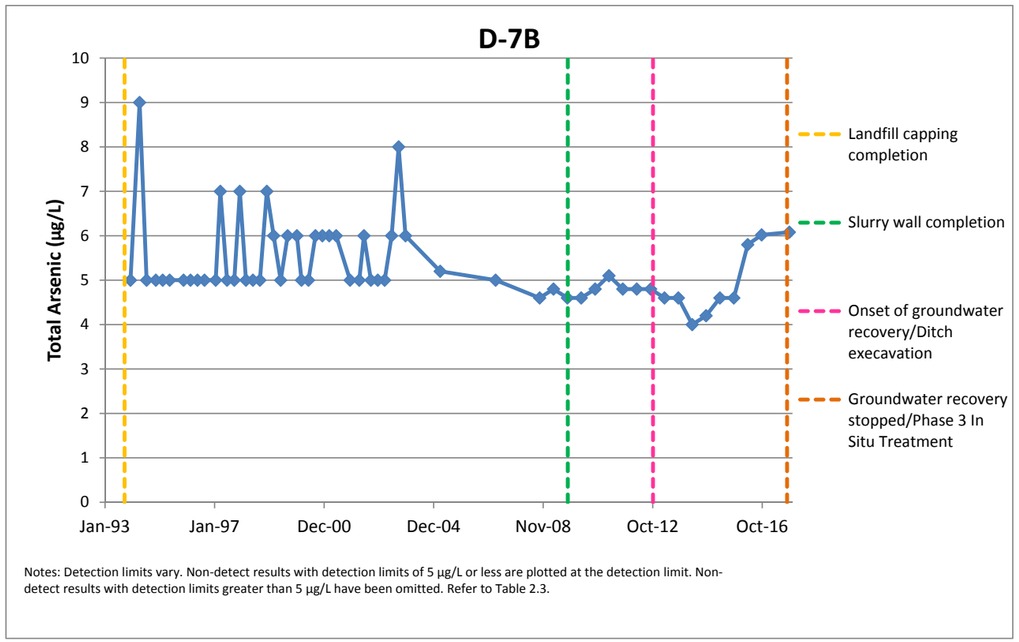

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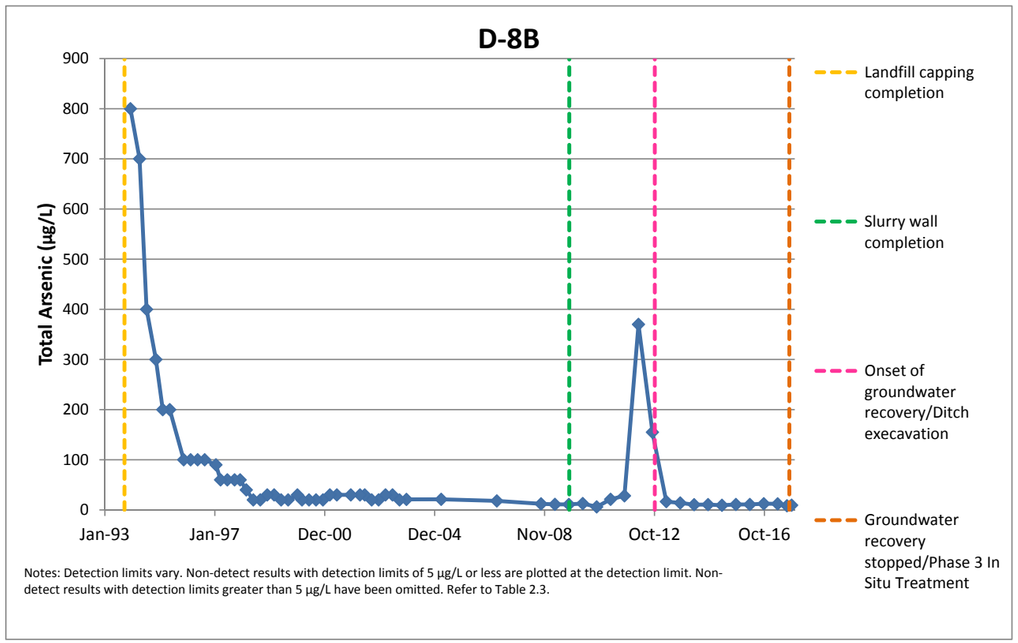
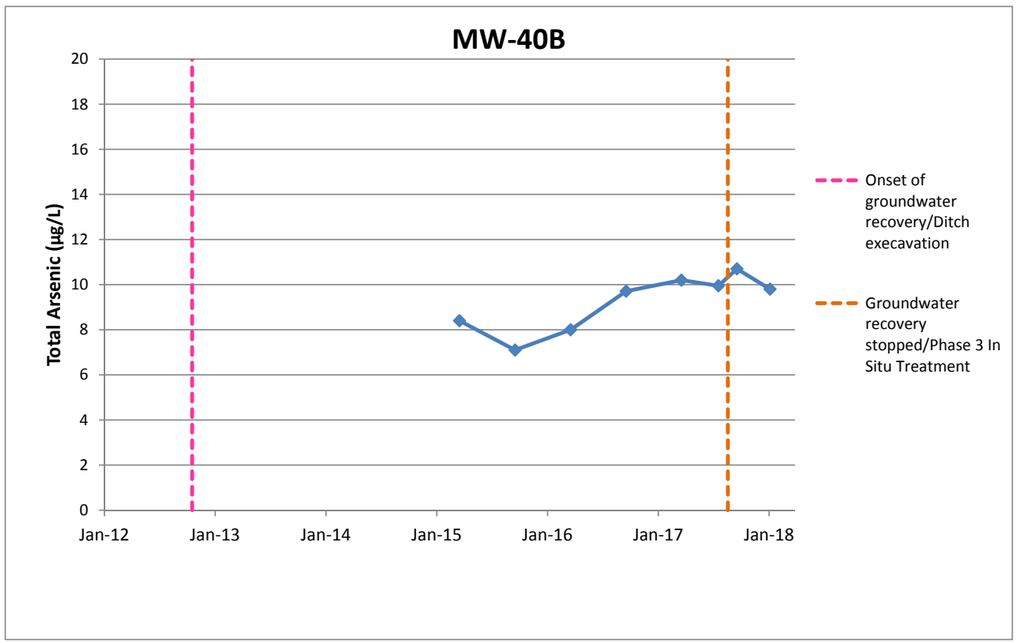
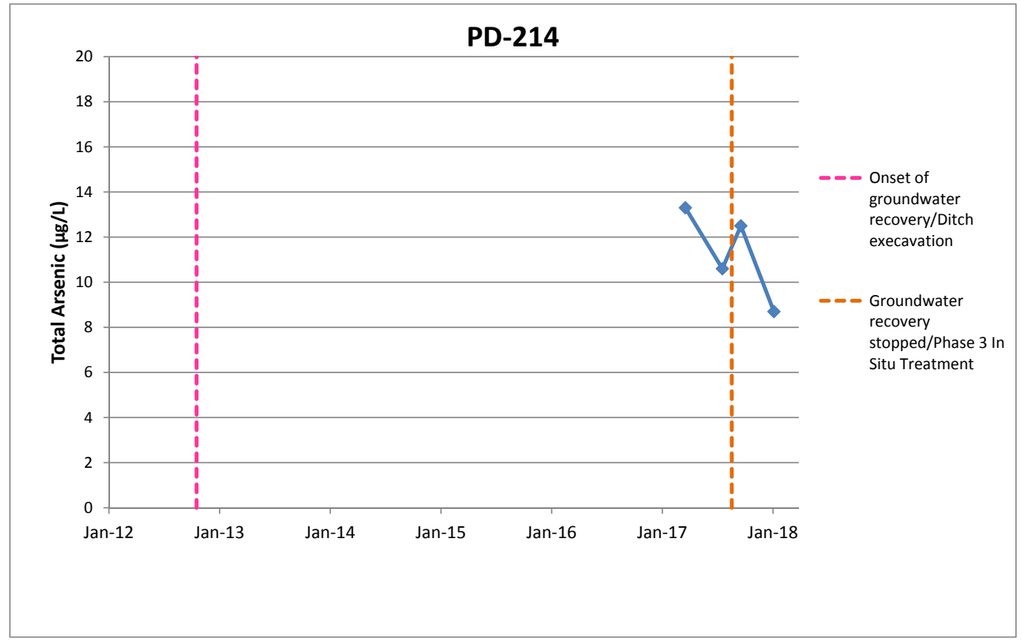


Notes: Detection limits vary. Non-detect results with detection limits of 5 µg/L or less are plotted at the detection limit. Non-detect results with detection limits greater than 5 µg/L have been omitted. Refer to Table 2.3.





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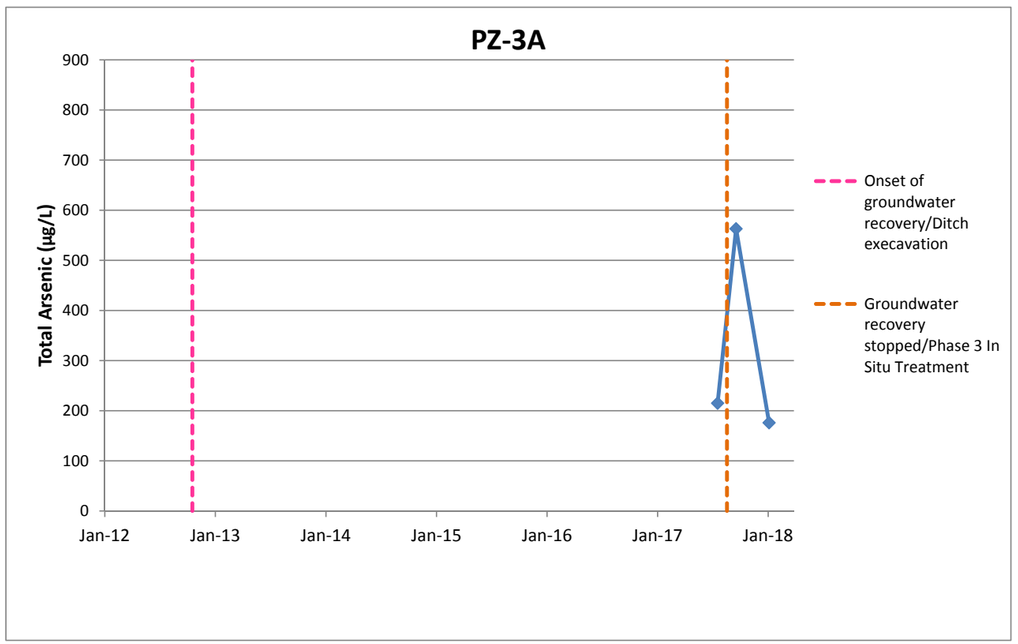
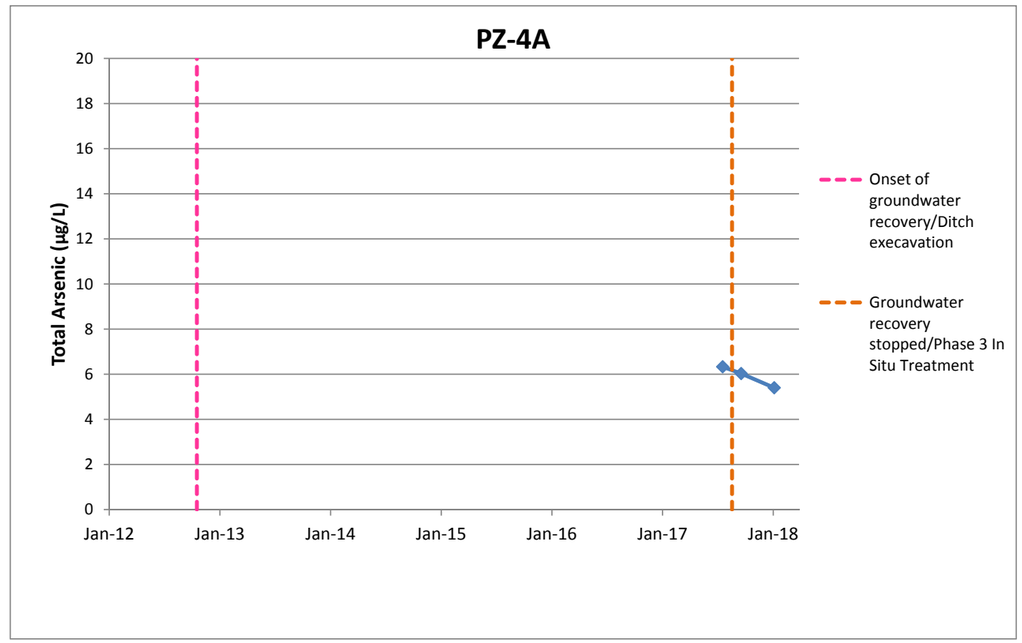
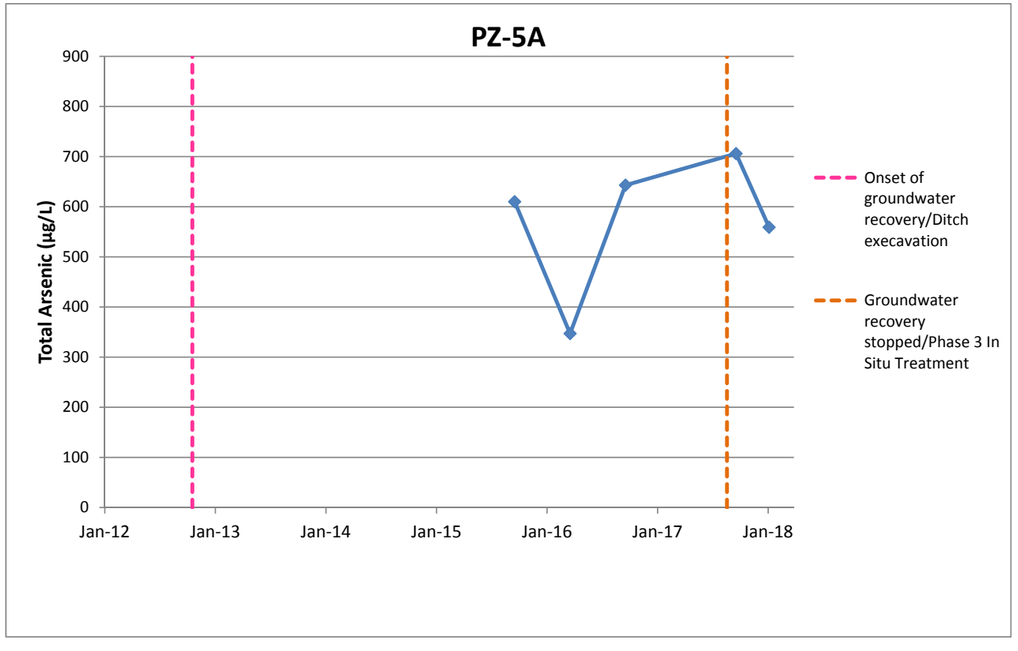
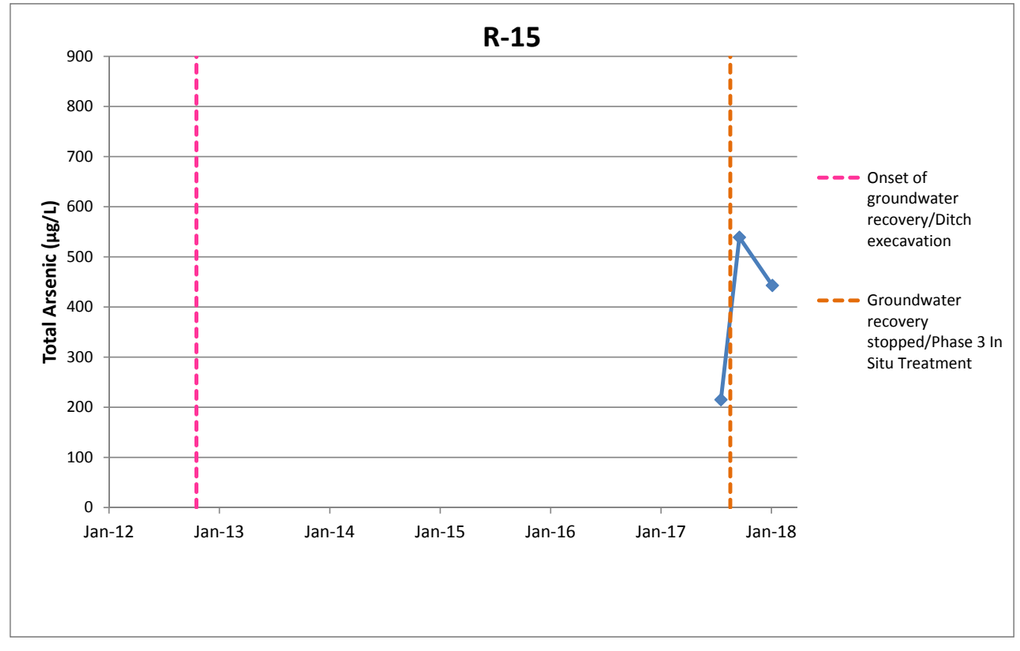
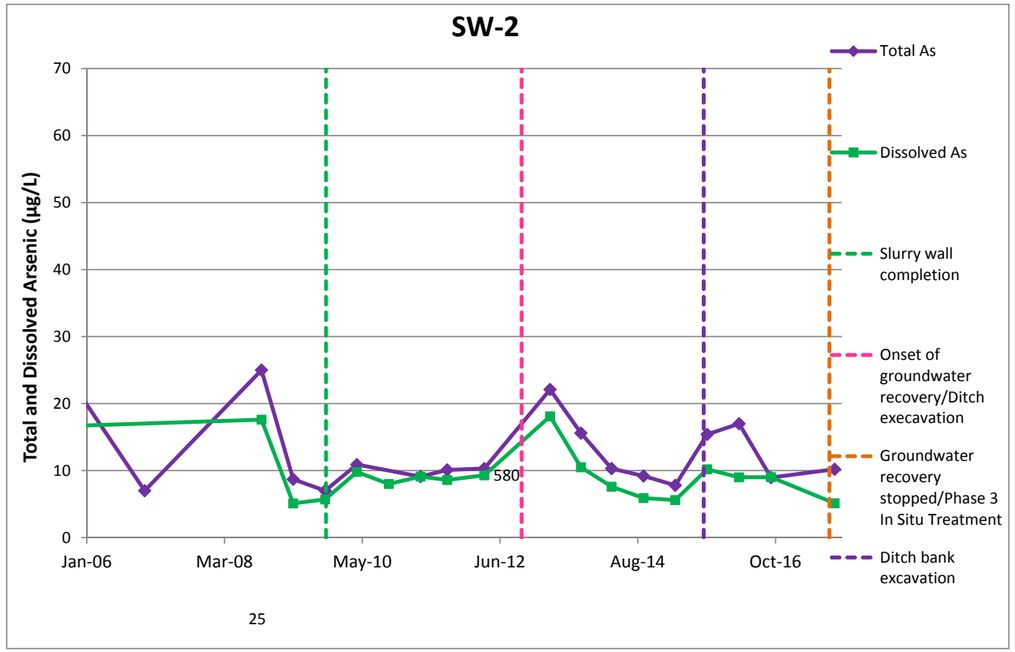


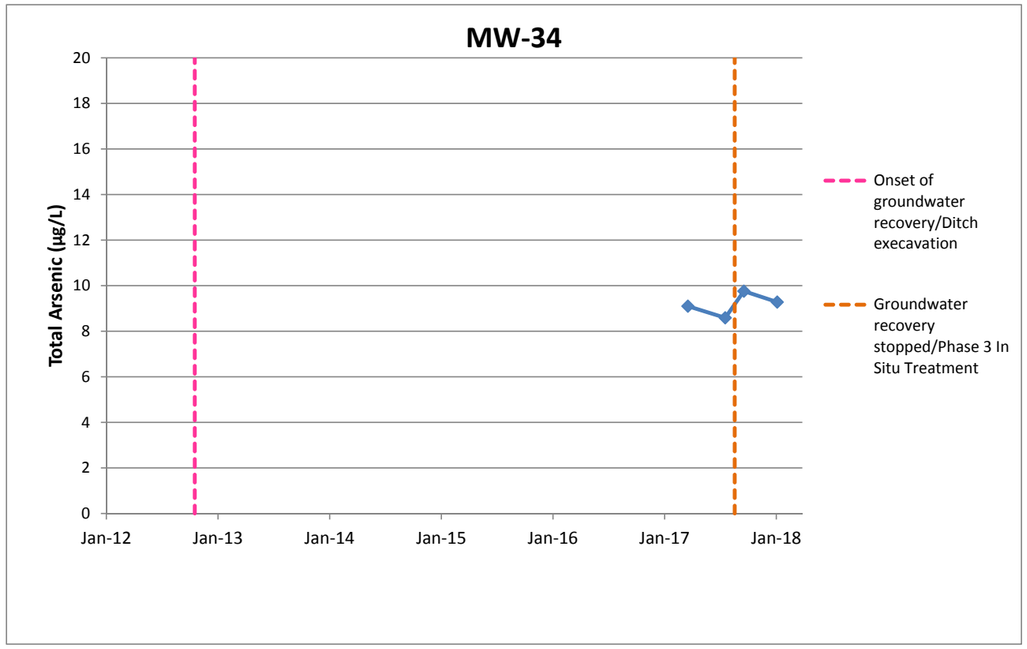


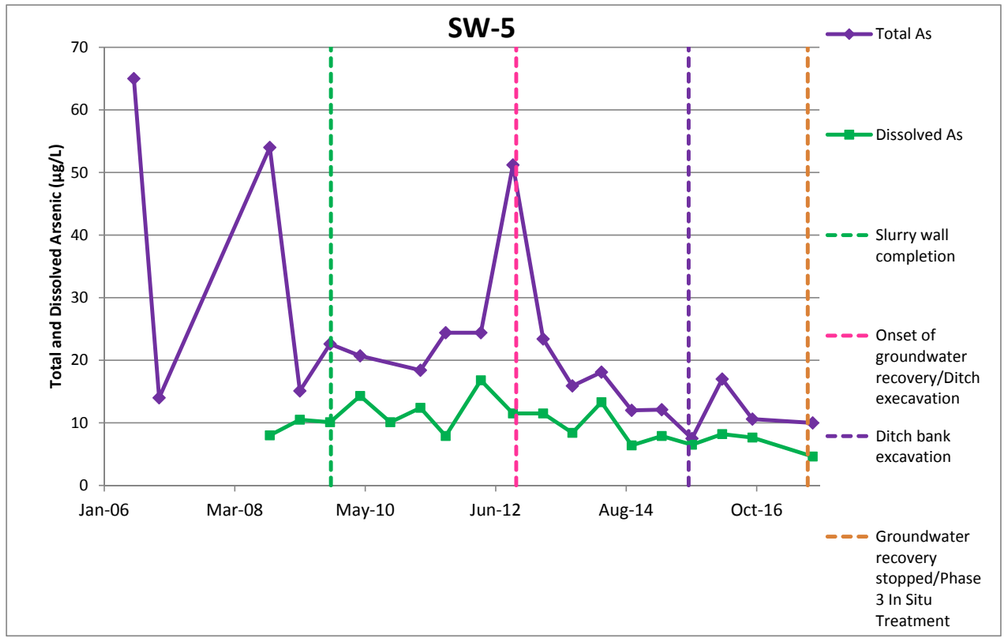


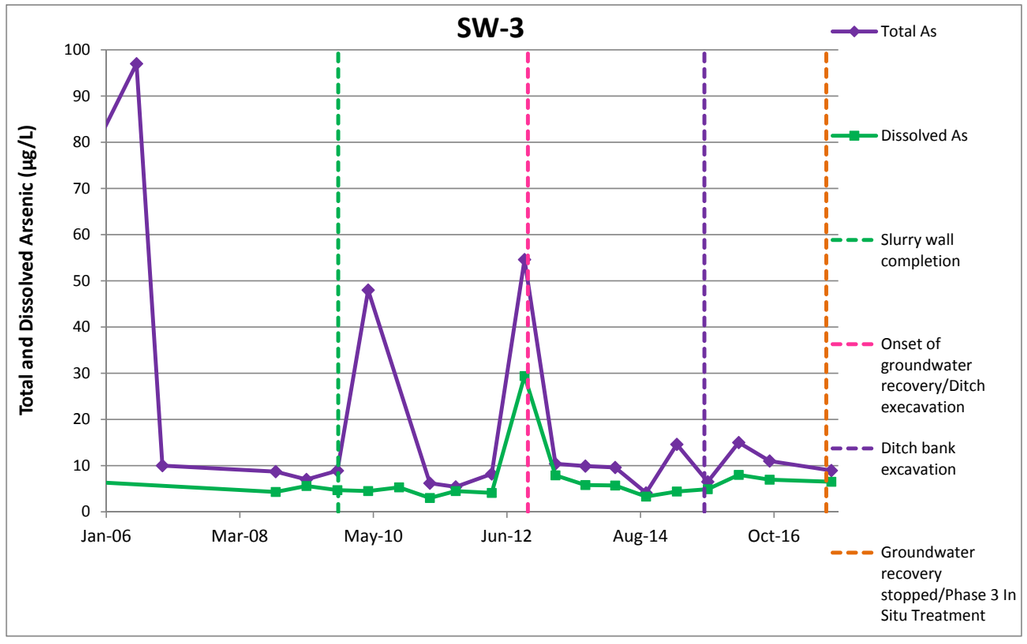


Attachment 1
Time-Concentration Plots









Attachment 2
Laboratory Analytical Reports

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

January 24, 2018

Brett Beaulieu, Project Manager
Floyd-Snider
Two Union Square, Suite 600
601 Union St
Seattle, WA 98101

Dear Mr Beaulieu:

Included are the results from the testing of material submitted on January 18, 2018 from the B and L Woodwaste, F&BI 801241 project. There are 15 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
FDS0124R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on January 18, 2018 by Friedman & Bruya, Inc. from the Floyd-Snider B and L Woodwaste, F&BI 801241 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Floyd-Snider
801241 -01	BLW-GW-D8B
801241 -02	BLW-GW-D8A
801241 -03	BLW-GW-PZ4A
801241 -04	BLW-GW-PZ3A
801241 -05	BLW-GW-MW40B
801241 -06	BLW-GW-170
801241 -07	BLW-GW-PD214
801241 -08	BLW-GW-MW33
801241 -09	BLW-GW-W1
801241 -10	BLW-GW-MW34
801241 -11	BLW-GW-R15

All quality control requirements were acceptable.

Analysis For Total Metals By EPA Method 200.8

Client ID:	BLW-GW-D8B	Client:	Floyd-Snider
Date Received:	01/18/18	Project:	B and L Woodwaste, F&BI 801241
Date Extracted:	01/19/18	Lab ID:	801241-01
Date Analyzed:	01/19/18	Data File:	801241-01.088
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	8.23

Analysis For Total Metals By EPA Method 200.8

Client ID:	BLW-GW-D8A	Client:	Floyd-Snider
Date Received:	01/18/18	Project:	B and L Woodwaste, F&BI 801241
Date Extracted:	01/19/18	Lab ID:	801241-02
Date Analyzed:	01/19/18	Data File:	801241-02.120
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	75.5

Analysis For Total Metals By EPA Method 200.8

Client ID:	BLW-GW-PZ4A	Client:	Floyd-Snider
Date Received:	01/18/18	Project:	B and L Woodwaste, F&BI 801241
Date Extracted:	01/19/18	Lab ID:	801241-03
Date Analyzed:	01/19/18	Data File:	801241-03.121
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	5.40

Analysis For Total Metals By EPA Method 200.8

Client ID:	BLW-GW-PZ3A	Client:	Floyd-Snider
Date Received:	01/18/18	Project:	B and L Woodwaste, F&BI 801241
Date Extracted:	01/19/18	Lab ID:	801241-04
Date Analyzed:	01/19/18	Data File:	801241-04.122
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1

Analysis For Total Metals By EPA Method 200.8

Client ID:	BLW-GW-MW40B	Client:	Floyd-Snider
Date Received:	01/18/18	Project:	B and L Woodwaste, F&BI 801241
Date Extracted:	01/19/18	Lab ID:	801241-05
Date Analyzed:	01/19/18	Data File:	801241-05.123
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	9.75

Analysis For Total Metals By EPA Method 200.8

Client ID:	BLW-GW-170	Client:	Floyd-Snider
Date Received:	01/18/18	Project:	B and L Woodwaste, F&BI 801241
Date Extracted:	01/19/18	Lab ID:	801241-06
Date Analyzed:	01/19/18	Data File:	801241-06.124
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	9.44

Analysis For Total Metals By EPA Method 200.8

Client ID:	BLW-GW-PD214	Client:	Floyd-Snider
Date Received:	01/18/18	Project:	B and L Woodwaste, F&BI 801241
Date Extracted:	01/19/18	Lab ID:	801241-07
Date Analyzed:	01/19/18	Data File:	801241-07.125
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	8.73

Analysis For Total Metals By EPA Method 200.8

Client ID:	BLW-GW-MW33	Client:	Floyd-Snider
Date Received:	01/18/18	Project:	B and L Woodwaste, F&BI 801241
Date Extracted:	01/19/18	Lab ID:	801241-08
Date Analyzed:	01/19/18	Data File:	801241-08.126
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	124

Analysis For Total Metals By EPA Method 200.8

Client ID:	BLW-GW-W1	Client:	Floyd-Snider
Date Received:	01/18/18	Project:	B and L Woodwaste, F&BI 801241
Date Extracted:	01/19/18	Lab ID:	801241-09
Date Analyzed:	01/19/18	Data File:	801241-09.127
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	10.4

Analysis For Total Metals By EPA Method 200.8

Client ID:	BLW-GW-MW34	Client:	Floyd-Snider
Date Received:	01/18/18	Project:	B and L Woodwaste, F&BI 801241
Date Extracted:	01/19/18	Lab ID:	801241-10
Date Analyzed:	01/19/18	Data File:	801241-10.132
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	9.28

Analysis For Total Metals By EPA Method 200.8

Client ID:	BLW-GW-R15	Client:	Floyd-Snider
Date Received:	01/18/18	Project:	B and L Woodwaste, F&BI 801241
Date Extracted:	01/19/18	Lab ID:	801241-11
Date Analyzed:	01/19/18	Data File:	801241-11.133
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	443

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Floyd-Snider
Date Received:	Not Applicable	Project:	B and L Woodwaste, F&BI 801241
Date Extracted:	01/19/18	Lab ID:	I8-040 mb
Date Analyzed:	01/19/18	Data File:	I8-040 mb.082
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1

Date of Report: 01/24/18
Date Received: 01/18/18
Project: B and L Woodwaste, F&BI 801241

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL METALS USING EPA METHOD 200.8

Laboratory Code: 801263-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	ug/L (ppb)	10	1.14	95	102	70-130	7

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	ug/L (ppb)	10	96	85-115

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

801241

SAMPLE CHAIN OF CUSTODY

ME 01-18-18

Page # 1 AT 3 of 2

Report To Brett Beaulieu
Company Floyd | Snider
Address 601 Union St, Suite 600
City, State, ZIP Seattle, WA 98101
Phone 206.292.2078 Email Brett

SAMPLERS (*signature*)

PROJECT NAME: B+L Woodwaste
PO #: 1507.1
REMARKS
INVOICE TO

TURNAROUND TIME
- [X] Standard Turnaround
- [ ] RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
- [X] Dispose after 30 days
- [ ] Archive Samples
- [ ] Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	Total As				Notes
						ANALYSES REQUESTED											
BLW-GW-D8B	01	1-17-18	916	Water	1								✓				
BLW-GW-D8A	02		920	Water	1								✓				
BLW-GW-P24A	03		1005		1								X				
BLW-GW-P23A	04		1020		1								X				
BLW-GW-MW40B	05		1122		1								X				
BLW-GW-170	06		1200		1								X				
BLW-GW-PD214	07		1205		1								X				
BLW-GW-MW33	08		1245		1								X				
BLW-GW-W1	09		1300		1								X				
BLW-GW-MW34	10		1338		1								X				

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		Pamela Osterhout	Floyd Snider	1/17/18	1630
Received by:		Nhan Phan	FCBT	1/18/18	1215
Relinquished by:					
Received by:					

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

801241

SAMPLE CHAIN OF CUSTODY

ME 01-18-18

AF 3

Page # 2 of 2

Report To Brett Beaulieu

Company Floyd Snider

Address

City, State, ZIP see page 1

Phone Email

SAMPLERS (*signature*)

PROJECT NAME: B+L Woodwaste

PO #: 1507.1

REMARKS

INVOICE TO

TURNAROUND TIME

- [X] Standard Turnaround
- [ ] RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL

- [X] Dispose after 30 days
- [ ] Archive Samples
- [ ] Other

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	TPH-HCID	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260C	SVOCs by 8270D	PAHs 8270D SIM	Total As				Notes
BLW-GW-R15	11	1/17/18	1425	W	1								X				

ANALYSES REQUESTED

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		Pamela Osterhart	Floyd Snider	1/17/18	1630
Received by:		Nhan Phan	FB+	1/18/18	1215
Relinquished by:					
Received by:					

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
(206) 285-8282
fbi@isomedia.com
www.friedmanandbruya.com

February 9, 2018

Brett Beaulieu, Project Manager
Floyd-Snider
Two Union Square, Suite 600
601 Union St
Seattle, WA 98101

Dear Mr Beaulieu:

Included are the results from the testing of material submitted on February 5, 2018 from the B and L, F&BI 802057 project. There are 6 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
FDS0209R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on February 5, 2018 by Friedman & Bruya, Inc. from the Floyd-Snider B and L, F&BI 802057 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Floyd-Snider
802057 -01	BLW-GW-PZ5A
802057 -02	BLW-GW-PZ3A

All quality control requirements were acceptable.

Analysis For Total Metals By EPA Method 200.8

Client ID:	BLW-GW-PZ5A	Client:	Floyd-Snider
Date Received:	02/05/18	Project:	B and L, F&BI 802057
Date Extracted:	02/06/18	Lab ID:	802057-01
Date Analyzed:	02/06/18	Data File:	802057-01.090
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	559

Analysis For Total Metals By EPA Method 200.8

Client ID:	BLW-GW-PZ3A	Client:	Floyd-Snider
Date Received:	02/05/18	Project:	B and L, F&BI 802057
Date Extracted:	02/06/18	Lab ID:	802057-02
Date Analyzed:	02/06/18	Data File:	802057-02.086
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	176

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Floyd-Snider
Date Received:	Not Applicable	Project:	B and L, F&BI 802057
Date Extracted:	02/06/18	Lab ID:	I8-084 mb
Date Analyzed:	02/06/18	Data File:	I8-084 mb.040
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1

Date of Report: 02/09/18
Date Received: 02/05/18
Project: B and L, F&BI 802057

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL METALS USING EPA METHOD 200.8

Laboratory Code: 802062-01 (Matrix Spike)

Analyte	Reporting Units	Spike Level	Sample Result	Percent Recovery MS	Percent Recovery MSD	Acceptance Criteria	RPD (Limit 20)
Arsenic	ug/L (ppb)	10	3.08	94	99	70-130	5

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Arsenic	ug/L (ppb)	10	86	85-115

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

Chain of Custody Record & Laboratory Analysis Request

NE 02-05-18

AI 2

Analytical Resources, Incorporated
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6201 (fax)
www.arilabs.com

ARI Assigned Number: 902057	Turn-around Requested: Std	Page: 1 of 1	
ARI Client Company: Floyd Snider	Phone: 206-292-2078	Date: 2/5/18	Ice Present?
Client Contact: Brett Beaulieu / Brett.Beaulieu@FloydSnider.com		No. of Coolers: 1	Cooler Temps:
Client Project Name: B+L			
Client Project #:	Samplers: P.O.		

Sample ID	Date	Time	Matrix	No. Containers	Tot. As							Lab ID	Notes/Comments
BLW-GW-P25A	2/5/18	0847	GW	1	X							01	Decant First!
BLW-GW-P23A	2/5/18	0932	GW	1	X							02	

Comments/Special Instructions

	Relinquished by:	Received by:	Relinquished by:	Received by:
(Signature)				
Printed Name:	Pamela Osterhaut	DOVO		
Company:	FS	FBI		Samples received at 12°C
Date & Time:	2/5/18 1048	02-05-18 10.55		

Limits of Liability: *ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.*

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.

DRAFT

Analysis For Total Metals By EPA Method 200.8

Client ID:	BLW-GW-PZ5A	Client:	Floyd-Snider
Date Received:	02/05/18	Project:	B and L, F&BI 802057
Date Extracted:	02/06/18	Lab ID:	802057-01
Date Analyzed:	02/06/18	Data File:	802057-01.090
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	559

Analysis For Total Metals By EPA Method 200.8

Client ID:	BLW-GW-PZ3A	Client:	Floyd-Snider
Date Received:	02/05/18	Project:	B and L, F&BI 802057
Date Extracted:	02/06/18	Lab ID:	802057-02
Date Analyzed:	02/06/18	Data File:	802057-02.086
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	176

Analysis For Total Metals By EPA Method 200.8

Client ID:	Method Blank	Client:	Floyd-Snider
Date Received:	Not Applicable	Project:	B and L, F&BI 802057
Date Extracted:	02/06/18	Lab ID:	I8-084 mb
Date Analyzed:	02/06/18	Data File:	I8-084 mb.040
Matrix:	Water	Instrument:	ICPMS2
Units:	ug/L (ppb)	Operator:	SP

Analyte:	Concentration ug/L (ppb)
Arsenic	<1

Chain of Custody Record & Laboratory Analysis Request

NE 02-05-18

AI 2

Analytical Resources, Incorporated
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6201 (fax)
www.arilabs.com

ARI Assigned Number: 902057	Turn-around Requested: Std	Page: 1 of 1	
ARI Client Company: Floyd Snider	Phone: 206-292-2078	Date: 2/5/18	Ice Present?
Client Contact: Brett Beaulieu / Brett.Beaulieu@FloydSnider.com		No. of Coolers: 1	Cooler Temps:
Client Project Name: B+L			
Client Project #:	Samplers: P.O.		

Sample ID	Date	Time	Matrix	No. Containers	Tot. As							Lab ID	Notes/Comments
BLW-GW-P25A	2/5/18	0847	GW	1	X							01	Decant First!
BLW-GW-P23A	2/5/18	0932	GW	1	X							02	

Comments/Special Instructions

	Relinquished by:	Received by:	Relinquished by:	Received by:
(Signature)				
Printed Name:	Pamela Osterhaut	DOVO		
Company:	FS	FBI		Samples received at 12°C
Date & Time:	2/5/18 1048	02-05-18 10.55		

Limits of Liability: *ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.*

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.