KINROSS

FAIRBANKS GOLD MINING, INC.
KINROSS GOLD CORPORATION

WASTE MANAGEMENT PERMIT #2014DB0002
Modification #2
Annual Report
Fourth Quarter 2019
MONITORING RESULTS

KINROSS Fort Knox

Fairbanks Gold Mining, Inc.
A Kinross company

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February 27, 2020

Mr. Tim Pilon
State of Alaska
Department of Environmental Conservation
610 University Avenue
Fairbanks, Alaska 99709-3643

RE: Waste Management Permit # 2014DB0002, Modification #2, 4th Qtr. Annual Report for 2019

Dear Mr. Pilon,

Fairbanks Gold Mining, Inc. (FGMI) submits this 4th Qtr. Annual Report for 2019 prepared in conformance with the requirements in Section 2.4 of the Waste Management Permit # 2014DB0002, Modification #2, which became effective June 13, 2018. This monitoring report contains the analytical results from compliance monitoring, an evaluation of the interceptor well system and the summary of spills during the quarter.

Seismic Activity

There were no seismic events during 4th Qtr. 2019.

Compliance Monitoring and Results of Sample Analysis

Surface water monitoring locations Upper and Lower Wetlands and Reservoir were sampled weekly. MW-6 monitoring well was sampled bi-monthly and MW-5 & MW-7 were monitored monthly. The surface water and groundwater monitoring results indicated compliance with Waste Management Permit # 2014DB0002, Modification #2 threshold limits, with the exception of Nitrate and Chloride Levels in the Upper Wetlands and Sulfate and Ammonia Levels in MW-6.
ADEC was notified on May 30, 2019 that nitrate levels in the Upper Wetlands had exceeded the UTL. A Corrective Action Plan was submitted on May 31, 2019 in accordance with Condition 2.5.3.1 in the Waste Management Permit.
In accordance with the Plan, FGMI will take the following actions:

- Weekly sampling of the upper wetlands, lower wetlands, and reservoir will occur on the same day we sample discharge from RO2 to Outfall 002. The sample parameters will

include APDES quarterly requirements and the waste management upper tolerance levels.

- Weekly sampling of RO1, RO2, and RO3 discharge and feed waters will include waste management permit monitoring parameters, as well as the quarterly APDES permit requirements.
- Review of water quality data, source controls, and best management practices to inform additional actions.

ADEC was notified on June 11, 2019 that sulfate levels in MW-6 had exceeded the UTL. A Corrective Action Plan was submitted on June 13, 2019 in accordance with Condition 2.5.3.1 in the Waste Management Permit.

In accordance with the Plan, FGMI will take the following actions:

- Bi-monthly sampling of MW-6 for the parameters with UTLs in the Waste Management Permit.
- Monthly sampling of MW-5 and MW-7 for the parameters with UTLs in the Waste Management Permit.
- Review of water monitoring data to inform additional actions.

ADEC was notified on August 29, 2019 that ammonia levels in MW-6 had exceeded the UTL. Bi-weekly sampling of MW-6 continues according to the action plan submitted June 13, 2019.

Monitoring data for the 4th Quarter 2019 and the previous four (4) quarters is provided in Attachment A. The previous four quarters are included to provide an indication of any recent trends that might have developed. Attachment A contains the Fort Knox Mine Monitoring Data for process solutions, groundwater, surface water, and acid base accounting for tailing solids and mine rock. Attachment B contains Heap Leach monitoring, and Attachment C contains Water Quality Graphs from compliance sample points.

Monitoring of the tailing discharge for pH and Weak Acid Dissociable (WAD) cyanide levels continued in accordance with permit requirements. A composite sample for each 12-hour shift is collected and the samples are analyzed daily by FGMI laboratory personnel using Method OIA-1677 to determine the WAD cyanide concentration. The pH is determined using a pH meter. Table 1 contains a summary of the tailing discharge pH range (minimum, maximum, and average) for the period October 1, 2019 through December 31, 2019.

TABLE 1
Tailing Discharge pH Levels

	Minimum	Maximum	Average
Oct	8.00	9.92	9.25
Nov	8.11	9.84	9.25
Dec	7.40	10.89	8.76

Tailing discharge WAD cyanide levels (parts per million) recorded for the period October 1, 2019 through December 31, 2019 has been included in Table 2.

TABLE 2
Tailing Discharge WAD Cyanide parts per million (ppm)

	Minimum	Maximum	Average
Oct	0.05	13.91	8.39
Nov	0.95	14.41	8.51
Dec	0.01	17.78	5.80

All FGMI process records and daily logs for the cyanide detoxification circuit are available for inspection upon request.

Tailing Impoundment Dam

Monitoring data on the tailing impoundment includes piezometer data, tailing pond elevations, and seepage pumping rates. The monitoring data did not display any unusual trends. The monitoring data is consistent with the recent measurements during 3rd Quarter 2019 and the historic seasonal trends measured in previous years.

Daily visual monitoring is conducted at the Tailings Storage Facility and Freshwater Reservoir. The visual monitoring looks for signs of damage or potential damage from settlement, ponding, leakage, thermal instability, frost action, erosion and thawing of waste material. These two locations are monitored and recorded daily by mill personnel.

Water within the seepage reclaim area below the TSF dam is collected and pumped back to the tailing storage facility in accordance with an approved design of the tailing dam. Groundwater and surface water compliance sampling points down gradient of the TSF continue to be free from cyanide.

Interceptor and Monitoring Wells

Except during times of maintenance, interceptor wells were pumped continuously throughout the 4th Quarter 2019. This is to ensure a hydraulic break is maintained below the TSF in the Fish

Creek Valley and that the impoundment continues to operate in compliance with Waste Management Permit # 2014DB0002, Modification #2 threshold limits.

The interceptor well system, including operating wells IW-1, IW-2, IW-3, IW-6, IW-7, IW-8, IW-11, IW-13, IW-14, IW-16 continued to perform successfully during the 4th Quarter 2019, maintaining a cone of depression across the Fish Creek Valley down gradient of the tailings impoundment (Attachment E). There were no samples taken from Site 401 during 2019 due to the well collapsing.

Following recommendations in the Interceptor Well Optimization Study, Interceptor Wells MW-1 & IW-5 were shut down on 11/17/16.

Six new groundwater monitoring wells were installed during the summer of 2017 between the interceptor well system and MW-5, MW-6 and MW-7. Water quality sampling began in 4th quarter 2017. These new wells are designated PMW-1 through PMW-6. The water quality is included in this report.

Walter Creek Heap Leach Facility

No water has reported to nor been collected from the PCMS since 11/26/14.

Pearl Creek & Victoria Creek Monitoring

FGMI identified (September 21, 2017) a statistically significant increase in concentration above background groundwater quality for nitrate (as nitrogen) in Pearl Creek monitoring well PC3-GW. Another Pearl Creek monitoring well PB-2D also shows an increase in nitrate (as nitrogen); however, it appears that not enough monitoring data has been collected for establishing a nitrate background concentration and to support a conclusion that there was a statistically significant increase. It is also noted that nitrate monitoring results in both wells are well below the protective standard of drinking water for nitrate (10.0 mg/l) and do not pose adverse environmental impacts. No other constituents were identified from the monitoring data as a concern for the five Pearl Creek and Victoria Creek monitoring wells.

The surface water of upper Victoria Creek shows consistent monitoring data and does not raise a concern for any constituent statistically significant increase.

FGMI met with ADEC personnel on September 22, 2017 to present and discuss the increase of nitrate (as nitrogen). Corrective actions include continue quarterly monitoring of the Pearl Creek and Victoria Creek monitoring wells, and a section added to each quarterly monitoring report addressing water quality in the monitoring wells and Victoria Creek surface water monitoring.

Attachment D contains water quality graphs for Victoria Creek and the Pearl/Victoria Creek Wells PB-2D, PC-1GW, PC-2GW & PC-3GW.

Interceptor System

Table 3 shows the depth of the wells, depth to the pump, current depth to water, and pumping rate for the interceptor wells and the monitoring wells. Table 4 contains construction information and depth to water measurements for the piezometers. Table 5 shows construction information and depth to water measurements for the 15 piezometers installed during the fourth quarter of 2008.

TABLE 3
Interceptor and Monitoring Well Measurements

	Top of Casing Elevation	Depth of Well in Feet	Depth to Pump in Feet	Depth to Water in Feet 9/21/19	Depth to Water in Feet 12/21/19	Change From 3rd Quarter 2019	Water Elevation at Pumping	Pumping Rate (GPM)
IW-1	1198	320	283	85	84	+1	1114	75
IW-2	1205	329	252	158	149	+9	1056	10
IW-3	1174	310	283	249	215	-34	959	27
IW-5*	1177	380	294	108	105	+3	1072	No Pump
IW-6	1176	380	320	159	148	+11	1028	20
IW-7	1243	197	160	141	132	+9	1111	24
IW-8	1267	184	172	101	155	-54	1112	120
IW-9**	1239	197	NA	61	61	0	1178	No Pump
IW-10**	1278	257	NA	69	68	+1	1210	No Pump
IW-11	1429	296	275	140	140	0	1289	18
IW-13	1173	480	440	404	404	0	769	89
IW-14	1251	400	337	91	106	-15	1145	54
IW-15	1312	380	NA	100	100	0	1212	NA
IW-16	1192	330	295	259	255	+4	937	15
MW-1*	1178	305	232	103	90	+13	1088	0
MW-3	1174	296	253	48	60	-12	1114	0
Site 401	1206	35	25	8	8	0	1198	NA
MW-2	1176	279	N/A	127	125	+2	1051	NA
MW-4	1196	285	N/A	67	67	0	1129	NA
MW-5	1163	120	N/A	29	29	0	1134	NA
MW-6	1178	150	N/A	47	47	0	1131	NA
MW-7	1149	135	N/A	11	11	0	1138	NA

*MW-1 & IW-5 were shut down 11/17/16 following recommendations in the Interceptor Well Optimization Study.
** IW-9 and IW-10 are not producing wells Site 401 well has collapsed and will need to be replaced.
*** IW-4 well collapsed and will not come back into service. IW-16 has been constructed to replace it.

TABLE 4
Piezometer Measurements and Change from the 3rd Quarter 2019

Well ID	Well Depth	Angle Degree	Vertical Depth in feet	Depth to Water in feet 9/21/19	Depth to Water in feet 12/21/19	Change From 3rd Qtr. 2019
PZ-1	420	60	324	54	54	0
PZ-2	450	60	371	108	107	+1
PZ-3	445	60	365	69	76	-7
PZ-4	550	60	523	25	25	0
PZ-5	450	60	190	157	157	0
PZ-6	150	60	12	90	98	-8
PZ-7	200	60	85	64	63	+1
				Water Elevation		
KPPZ-1	142	-	-	1380.60	1380.37	+.23
KPPZ-2	122	-	-	1391.96	1391.93	+.03
KPPZ-3	133	-	-	1393.75	1393.32	+.43
KPPZ-4	119	-	-	1394.78	1394.37	+.41
KPPZ-5	124	-	-	1403.12	1402.89	+.23
KPPZ-6	112	-	-	1399.33	1399.19	+.14

*KPPZ-1 through KPPZ-6 water elevations are the Piezometric elevations in feet. (AMSL)

TABLE 5
Piezometers

Well ID	Well Depth	Depth to Water(ft.) 9/24/19	Depth to Water(ft.) 12/10/19	Change From 3rd Quarter 2019
PZ08-01	120	90	85	+5
PZ08-02	120	42	44	-2
PZ08-03	115	77	78	-1
PZ08-04	96	Out of Service	Out of Service	NA
PZ08-05	155	87	86	+1
PZ08-06	185	30	30	0
PZ08-07	160	49	50	-1
PZ08-08	135	49	49	0
PZ08-09	135	Out of Service	Out of Service	NA
PZ08-10	100	8	8	0
PZ08-11	100	34	35	-1
PZ08-12	90	29	29	0
PZ08-13	62	Out of Service	Out of Service	NA
PZ08-14	37	8	9	-1
PZ08-15	82	40	40	0

Petroleum, Hazardous Substances, and Process Solution Spills

During the 4th Quarter 2019 Fort Knox had 11 petroleum spills, 7 ethylene glycol spills, 2 propylene glycol spills and 1 process solution spill. The spills were reported to the ADEC in accordance with discharge notification and reporting requirements, and there was no contamination of surface water or groundwater. The Fort Knox Mine Spill Reporting Log, containing a list of the year to date spills, has been included in Attachment G for your review.

If you have any questions or require additional information, please call me at (907) 490-2238.

Respectfully,

Dave Stewart
Environmental Coordinator

Attachment A-Compliance Monitoring Report

Attachment B-Heap Leach Monitoring Report

Attachment C-Water quality graphs from compliance sample points.

Attachment D-Victoria Creek Groundwater & Surface Water Quality Graphs

Attachment E-Graphs of the Four Metals in Tailings Seepage

Attachment F-Interceptor and Monitoring Well Groundwater Contour

Attachment G-Fort Knox Spill Log

Attachment H-Inert Solid Waste Landfill Summary

Attachment I-Fort Knox Waste Log

Attachment J-LCRS Flow Rate

cc: (by PDF file)

Alvin Ott, ADNR-OHM&P
Audra Brase ADNR-OHM&P
Cindi Godsey, EPA
Jim Vohden, ADNR
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FORT KNOX MINE
4th QTR 2019 COMPLIANCE SAMPLING DATA

FAIRBANKS GOLD MINING, INC.
FORT KNOX MINE

FORT KNOX MINE COMPLIANCE SAMPLING DATABASE

This document comprises a hard copy of the Fort Knox Mine compliance sampling results for the third quarter of 2019.
The previous four (4) quarters of compliance sample data are also included for tracking purposes. The objective of this monitoring program is to document and track local surface and groundwater conditions and characterizes overburden, waste, and ore rock for acid rock drainage potential, as specified in Waste Management Permit 2014DB0002, Modification #2 at the Fort Knox Mine.

The data is divided into the following sections:

- Major ion chemistry
- Minor ion chemistry
- Trace ion chemistry
- HL-1, HL-2, HL-3, OL-296, LCRS 2, PCMS, Pregnant Solution, Barren Solution, Under Drain Water Elevations
- UTL's for Groundwater and Surface Water Compliance Sampling Points
- Meteoric Water Mobility
- Acid Rock Drainage Characterization

ATTACHMENT A
Compliance Monitoring Data Report

COMPLIANCE SURFACE WATER PROCESS WATER QUALITY DATA

FAIRBANKS GOLD MINING, INC.
FORT KNOX MINE

4th Quarter 2019

Process Surface Water - Major Ion Chemistry

Site	Date	Reason If No Sample	Duplicate Sample	Bic Alk	Tot Alk	Ca	Cl	Hard	Mg	Lab pH	K	Si	Na	SS	Lab Cond.	SO4	Temp. (C)	TDS	TSS	Tur
Tailing Filtrate	11/14/2018			27.3	47.1	36.4	56.4	94	0.8	9	12.5	18.1	100	<0.1	763	159	16.2	568	11	111
Tailing Filtrate	02/19/2019			29	41.3	49.1	63.1	128	1.2	8.8	12	11.9	105	<0.1	834	173	16.4	538	6	18.6
Tailing Filtrate	04/11/2019			29.8	74.4	38.2	60	98	0.6	9.2	14.9	13	149	<0.1	979	198	16.9	654	17	44.8
Tailing Filtrate	08/27/2019			<2	98.8	66.5	75	166	<0.2	10	21.8	14	163	<0.1	1,170	187	19.5	792	<5	2.05
Tailing Filtrate	11/21/2019			<2	103	98.8	76	247	<0.2	10	11	13.7	149	<0.1	1,120	185	19.1	780	<5	2.19
Barge Pond (formerly Tailing Decant)	10/15/2018			80.1	80.1	55.5	33.5	171	7.9	8	7.9	6.6	64.5	<0.1	673	127	7.4	472	10	11.9
Barge Pond (formerly Tailing Decant)	01/21/2019			84.6	84.6	61.1	38	191	9.4	8.2	8	6.4	71.5	<0.1	753	135	3.1	506	<5	6.47
Barge Pond (formerly Tailing Decant)	04/08/2019			119	119	68.8	42.1	214	10.3	8.2	9.2	7	81.9	<0.1	875	173	6.3	606	<5	1.47
Barge Pond (formerly Tailing Decant)	04/24/2019			117	117	71	42.7		10	8.1	9.3	15	81.3			194	7			
Barge Pond (formerly Tailing Decant)	05/15/2019																6.5			
Barge Pond (formerly Tailing Decant)	09/02/2019			109	109	78.8	48.2	242	11	8.2	11	6.7	105	<0.1	981	199	12.7	674	<5	0.88
Barge Pond (formerly Tailing Decant)	11/25/2019			101	101	84.6	52.4	263	12.5	8.2	10.7	7	111	<0.1	1,060	215	4.4	734	<5	1.4
Tailings Seepage	10/15/2018			107	107	60.1	34	214	15.6	7.7	4.7	5.2	52.5	<0.1	682	149	6.4	462	<5	0.12
Tailings Seepage	01/14/2019			93	93	60.4	32.6	215	15.6	8.19	5.1	5.3	54.9	<0.1	701	163	5.3	440	<5	0.21
Tailings Seepage	04/08/2019			102	102	61	33.3	216	15.5	8.1	4.9	5.3	53.3	<0.1	721	154	8.2	482	<5	4.13
Tailings Seepage	09/02/2019			474	474	324	162	1,150	83.6	8.2	24.8	26.9	300	<0.1	2,990	801	8.7	2,380	<5	1.33
Tailings Seepage	12/02/2019			385	385	279	152	994	72.1	8.2	22	22.5	259	<0.1	2,750	686	6.8	2,150	<5	1.1
Tailings Seepage	12/19/2019			81.9	81.9	63.2	37.7	225	16.4	8	5.5	5.2	64.6	<0.1	764	159	5.5	548	<5	<0.1
501	10/15/2018			86.2	86.2	41.8	34.5	141	8.8	8	5.1	4.6	79.1	<0.1	682	124	7.2	464	<5	<0.1
501	01/14/2019			76	76	45.1	35.2	152	9.5	8.25	5.8	4.7	81.1	<0.1	719	143	7.4	440	<5	<0.2
501	04/03/2019			73.6	73.6	49.2	36.5	163	9.8	8.1	5.8	4.6	77.7	<0.1	724	136	5.3	474	<5	0.16
501	08/20/2019			79.6	79.6	54.3	37	179	10.5	8	5.7	4.5	78.2	<0.1	742	143	5.8	486	<5	<0.1
501	11/25/2019			81.3	81.3	65.7	43.4	216	12.5	8.2	6.9	5.1	91.7	<0.1	883	157	8.4	600	<5	0.21
801 pond	12/11/2018			56.1	56.1	38.9	27.5	144	11.4	7.9	2.5	4.9	28.5	<0.1	441	74.2	4.4	284	<5	1.7
801 pond	01/14/2019			53	53	38.8	22.2	145	11.7	8.05	2.4	4.7	31.2	<0.1	480	86.8	3.3	259	<5	0.56
801 pond	04/03/2019			45.9	45.9	20.4	6.2	81	7.2	7.9	3.2	9.1	7.7	<0.1	203	30.9	4.9	184	5	113
801 pond	08/20/2019			73.8	73.8	27.1	8.2	100	7.8	8	2.9	1.9	13.5	<0.1	266	47.2	13.2	162	<5	5.91
801 pond	11/25/2019	Frozen		No water reporting to 801																

Process Surface Water - Minor Ion Chemistry

Site	Date	Reason If No Sample	Duplicate Sample	NH4	As	CN	F	Fe	Mn	NO3	NO2	P	TPH	WAD CN
Tailing Filtrate	11/14/2018			5.23	0.117	8.5	0.7	0.76	0.006	23	0.57	0.07	<0.246	6.9
Tailing Filtrate	02/19/2019			5.18	0.0828	10.9	0.52	0.85	<0.005	30	0.37	0.02	<0.232	8.9
Tailing Filtrate	04/11/2019			15.9	0.0405	19.3	0.9	1.12	<0.01	27	0.63	0.03	<0.252	17.1
Tailing Filtrate	08/27/2019			18.7	0.0189	21.3	1.1	1.74	<0.01	57	3.1	0.02	<0.24	16.3
Tailing Filtrate	11/21/2019			7.66	0.127	38.1	1.2	0.95	<0.01	41	1.16	0.03	<0.257	33.7
Barge Pond (formerly Tailing Decant)	10/15/2018			0.27	0.0241	0.074	0.37	0.26	0.062	17	0.35	0.02	<0.237	0.011
Barge Pond (formerly Tailing Decant)	01/21/2019			0.88	0.0257	0.39	0.45	0.18	0.081	22	0.03	<0.02	<0.243	0.025
Barge Pond (formerly Tailing Decant)	04/08/2019			0.94	0.0297	0.45	0.5	0.2	0.1	26	0.23	0.06	<0.242	0.142
Barge Pond (formerly Tailing Decant)	04/24/2019			1.04	0.0292		0.44	<0.2	0.106			0.05		
Barge Pond (formerly Tailing Decant)	05/15/2019					0.096								0.027
Barge Pond (formerly Tailing Decant)	09/02/2019			0.3	0.0231	0.042	0.7	0.06	0.06	31	0.44	0.06	<0.244	0.014
Barge Pond (formerly Tailing Decant)	11/25/2019			1.26	0.0236	0.6	0.6	0.25	0.13	35	0.55	0.05	<0.244	0.2
Tailings Seepage	10/15/2018			<0.05	0.0004	0.354	0.19	0.18	0.059	13	<0.01	0.02	<0.239	0.02
Tailings Seepage	01/14/2019			<0.4	0.0007	0.396	0.24	0.16	0.0839	14.5	<0.01	<0.01	<0.254	0.034
Tailings Seepage	04/08/2019			<0.05	0.0009	0.328	0.2	0.44	0.05	14	0.01	<0.01	<0.254	0.022
Tailings Seepage	09/02/2019			<0.05	0.0036	1.31	1	0.76	0.26	75	<0.01	0.99	<0.246	0.179
Tailings Seepage	12/02/2019			<0.05	0.0028	1.14	1	0.53	0.19	70	<0.01	0.9	0.26	0.044
Tailings Seepage	12/19/2019			<0.05	0.0008	0.326	0.5	0.13	0.03	19	<0.01	0.02	<0.259	0.015
501	10/15/2018			<0.05	0.0023	0.41	0.59	0.17	0.006	17	<0.01	0.02	<0.241	0.014
501	01/14/2019			<0.4	0.00268	0.46	0.56	0.14	0.00183	27	<0.01	0.01	<0.248	0.036
501	04/03/2019			<0.05	0.0026	0.46	0.47	0.16	<0.005	24	<0.01	<0.01	<0.248	<0.003
501	08/20/2019			<0.05	0.0024	0.299	0.4	0.13	<0.01	24	<0.01	<0.01	<0.247	0.028
501	11/25/2019			<0.05	0.0027	0.28	0.5	0.11	<0.01	32	<0.01	<0.01	<0.246	0.017
801 pond	12/11/2018			<0.05	0.0003	0.232	0.07	0.13	0.025	13	<0.01	<0.02	<0.239	0.03
801 pond	01/14/2019			<0.4	<0.0005	0.181	<0.2	0.11	0.027	14.2	<0.01	<0.02	<0.239	0.044
801 pond	04/03/2019			<0.05	0.0036	0.025	0.09	5.51	0.195	1.56	0.01	0.07	<0.231	<0.003
801 pond	08/20/2019			<0.05	0.0011	0.005	<0.1	0.54	0.03	0.71	<0.01	<0.01	<0.244	<0.003
801 pond	11/25/2019	Frozen		No water reporting to 801										

Process Surface Water - Trace Ion Chemistry

Site	Date	Reason If No Sample	Duplicate Sample	Al	Sb	Ba	Bi	Cd	Cr	Cu	Pb	Hg	Ni	Se	Ag	Zn
Tailing Filtrate	11/14/2018			4.27	0.021	0.078	<0.04	0.00021	<0.01	0.18	0.0019	<0.0002	0.019	0.0024	<0.01	0.06
Tailing Filtrate	02/19/2019			1.41	0.0209	0.03	<0.04	0.00032	<0.01	0.13	0.0009	<0.0002	0.016	0.0019	<0.01	0.06
Tailing Filtrate	04/11/2019			2.14	0.0327	0.04	<0.04	0.00028	<0.01	0.2	0.0019	0.0002	0.062	0.0028	<0.01	0.14
Tailing Filtrate	08/27/2019			0.19	0.0163	0.015	<0.04	0.00046	<0.01	0.32	0.0001	<0.0002	0.121	0.0044	<0.01	0.04
Tailing Filtrate	11/21/2019			0.2	0.0116	0.008	<0.04	0.00118	<0.01	0.21	0.0002	<0.0002	0.084	0.0036	<0.01	0.13
Barge Pond (formerly Tailing Decant)	10/15/2018			0.61	0.0172	0.019	<0.04	0.00009	<0.01	0.01	0.0005	<0.0002	0.01	0.0014	<0.01	<0.01
Barge Pond (formerly Tailing Decant)	01/21/2019			0.14	0.0182	0.018	<0.04	0.00006	<0.01	0.01	0.0002	<0.0002	0.012	0.0014	<0.01	0.04
Barge Pond (formerly Tailing Decant)	04/08/2019			<0.05	0.0197	0.018	<0.04	<0.00005	<0.01	<0.01	0.0001	<0.0002	0.015	0.0015	<0.01	<0.01
Barge Pond (formerly Tailing Decant)	04/24/2019				0.0201	0.0184									0.0003	
Barge Pond (formerly Tailing Decant)	09/02/2019			<0.05	0.0217	0.018	<0.04	0.00008	<0.01	<0.01	0.0001	<0.0002	0.01	0.0017	<0.01	<0.01
Barge Pond (formerly Tailing Decant)	11/25/2019			0.08	0.0214	0.023	<0.04	<0.00005	<0.01	0.05	0.0003	<0.0002	0.025	0.0022	<0.01	0.01
Tailings Seepage	10/15/2018			<0.03	0.0172	0.01	<0.04	0.00007	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.001	<0.01	0.01
Tailings Seepage	01/14/2019			<0.03	0.0168	12.4	<0.04	<0.00005	<0.01	<0.01	0.00003	<0.0002	<0.008	<1	<0.01	0.0031
Tailings Seepage	04/08/2019			<0.05	0.0176	0.014	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	0.017	0.0009	<0.01	0.01
Tailings Seepage	09/02/2019			<0.1	0.0925	0.05	<0.08	<0.0001	<0.02	<0.02	<0.0002	<0.0002	0.02	0.004	<0.02	0.04
Tailings Seepage	12/02/2019			<0.1	0.0839	0.05	<0.08	<0.0001	<0.02	<0.02	<0.0002	<0.0002	0.03	0.0041	<0.02	<0.02
Tailings Seepage	12/19/2019			<0.05	0.0244	0.015	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.001	<0.01	<0.01
501	10/15/2018			<0.03	0.0123	<0.003	<0.04	0.00007	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0013	<0.01	<0.01
501	01/14/2019			<0.03	0.00979	4.63	<0.04	<0.00005	<0.01	<0.01	0.00003	<0.0002	0.002	0.0012	<0.01	<0.002
501	04/03/2019			<0.03	0.0098	0.005	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0012	<0.01	<0.01
501	08/20/2019			<0.05	0.0086	0.008	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0011	<0.01	0.04
501	11/25/2019			<0.05	0.01	0.01	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0013	<0.01	<0.01
801 pond	12/11/2018			0.05	<0.0004	0.022	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0006	<0.01	<0.01
801 pond	01/14/2019			0.014	<0.0004	0.017	<0.04	<0.00005	<0.0002	<0.01	0.00002	<0.0002	<0.008	<1	<0.01	<0.002
801 pond	04/03/2019			3.84	0.0006	0.046	<0.04	0.00007	<0.01	<0.01	0.0046	<0.0002	0.009	0.0003	<0.01	0.02
801 pond	08/20/2019			0.27	<0.0004	0.022	<0.04	<0.00005	<0.01	<0.01	0.0005	<0.0002	<0.008	0.0002	<0.01	0.03
801 pond	11/25/2019	Frozen	No water reporting to 801													

COMPLIANCE SURFACE WATER
NON-PROCESS WATER QUALITY DATA

FAIRBANKS GOLD MINING, INC.
FORT KNOX MINE

4th Quarter 2019

Non-Process Surface Water - Major Ion Chemistry

Site	Date	Reason If No Sample	Duplicate Sample	Bic Alk	Tot Alk	Ca	Cl	Hard	Mg	Lab pH	K	Si	Na	SS	Lab Cond.	SO4	Temp. (C)	TDS	TSS	Tur
Upper Wetlands	10/03/2018			106	106	29.2	1.3	101	6.7	8	1.9	6.1	5.4	<0.1	219	<1	4	158	31	18.5
Upper Wetlands	10/10/2018						1										2.2			
Upper Wetlands	02/19/2019			60.7	60.7	8.7	1.9	30	1.9	7.8	1.1	1.9	17.8	<0.1	139	6.2	1.6	76	<5	2.11
Upper Wetlands	04/23/2019			52.2	52.2	25.5	<0.5	78	3.4	7.8	1	3	11	<0.1	212	42.2	3.9	156	<5	7.27
Upper Wetlands	05/20/2019			58.6	58.6	26.4	2.2	83	4.1	8.1	1.3	2.7	11.8	0.2	231	40	15.9	170	14	9.01
Upper Wetlands	06/04/2019			57.4	57.4	27.7	2.1	87	4.3	7.9	1.4	2.7	11.5	<0.1	228	38.3	5.9	158	17	6.81
Upper Wetlands	06/12/2019															43.9	11.4		<5	
Upper Wetlands	06/19/2019															37.9	14.6		6	
Upper Wetlands	06/26/2019						2.6									38.1	11.8		12	
Upper Wetlands	06/26/2019			42.7	42.7	20.5	2.1	63	2.8	7.9	1.3	2	11	<0.1	190	36.5	19	96	45	5.39
Upper Wetlands	07/03/2019															25.1	13.5		10	
Upper Wetlands	07/10/2019															36.3	12.1		<5	
Upper Wetlands	07/10/2019			33.9	33.9	15.9	2.3	48	2.1	7.9	1.1	1.4	11.7	<0.1	163	30.1	12.1	88	<5	1.23
Upper Wetlands	07/17/2019															18.2	12		<5	
Upper Wetlands	07/24/2019															25.3	13.7		18	
Upper Wetlands	07/31/2019															35.8	12.5		8	
Upper Wetlands	08/07/2019															29.1	13		7	
Upper Wetlands	08/14/2019			40.5	40.5	19.5	2.8	60	2.8	7.6	1.5	2.2	12.1	<0.1	192	36.1	13.3	122	<5	2.83
Upper Wetlands	08/14/2019	Dup		40.5	40.5	19.5	2.8	60	2.8	7.6	1.5	2.2	12.1	<0.1	192	35.8	13.3	122	5	2.83
Upper Wetlands	08/21/2019						2.5									29.3	10.5		<5	
Upper Wetlands	08/28/2019															30.2	10.5		<5	
Upper Wetlands	09/04/2019															29.9	10.1		<5	
Upper Wetlands	09/11/2019						2.8									36.9	9.6		<5	
Upper Wetlands	09/18/2019															36.8	8.8		<5	
Upper Wetlands	09/18/2019			43.2	43.2	24.1	2.9	75	3.7	7.7	1.7	2.1	13.4	<0.1	225	38.2	9.6	130	5	2.11
Upper Wetlands	09/25/2019															36	6.2		<5	
Upper Wetlands	10/02/2019															38.9	6.6		<5	
Upper Wetlands	10/16/2019															51.8	1.7		<5	
Upper Wetlands	10/23/2019	Unsafe Access																		
Upper Wetlands	10/24/2019			52.2	52.2	25.2	3.6	80	4.1	7.8	1.6	4.4	9.9	<0.1	229	40.9	3.7	140	<5	4.17
Upper Wetlands	10/24/2019			50.6	50.6	27.7	2.7	86	4.1	7.9	1.5	3.6	10.3	<0.1	239	42.2	3.7	146	<5	2.45
Upper Wetlands	10/30/2019															40.9	5.2		<5	
Upper Wetlands	11/06/2019						3									36.1	2.3		<5	
Upper Wetlands	11/11/2019			44.3	44.3	23.3	2.6	74	3.8	7.8	1.7	3.7	12	<0.1	223	39.6	2.4	140	<5	3.5
Upper Wetlands	11/13/2019															35.3	1.8		<5	
Upper Wetlands	11/20/2019						3.1									35.1	3.9		5	
Upper Wetlands	11/25/2019															32.5	4.6		<5	
Upper Wetlands	12/04/2019						3.1									38.3	1		<5	
Upper Wetlands	12/09/2019			44.7	44.7	18.4	1.9	61	3.6	7.7	1.3	4.5	9.1	<0.1	172	26.1	4.5	104	<5	7.05
Upper Wetlands	12/11/2019															35	2		<5	
Upper Wetlands	12/18/2019															31.3	1.2		<5	
Lower Wetlands	10/03/2018			74.6	74.6	21.3	0.7	73	4.8	8.1	1.1	5.2	3.5	<0.1	168	<1	5	110	<5	4.34
Lower Wetlands	10/10/2018						0.6										2.3			

Non-Process Surface Water - Major Ion Chemistry

Site	Date	Reason If No Sample	Duplicate Sample	Bic Alk	Tot Alk	Ca	Cl	Hard	Mg	Lab pH	K	Si	Na	SS	Lab Cond.	SO4	Temp. (C)	TDS	TSS	Tur
Lower Wetlands	03/11/2019			62.1	62.1	18.7	<0.5	63	3.9	8	1.1	3.4	7.4	<0.1	162	17.3	2.3	134	<5	4.54
Lower Wetlands	04/09/2019			55.4	55.4	23.9	1.1	75	3.7	8.1	1.1	3.1	8.9	<0.1	201	35.7	4	128	<5	5.77
Lower Wetlands	06/04/2019			60.8	60.8	26.2	1.7	85	4.7	8.1	1.2	2.7	9.8	<0.1	216	38.2	11.4	144	<5	1.78
Lower Wetlands	06/12/2019															37.4	14.8		<5	
Lower Wetlands	06/19/2019															35.4	15.9		<5	
Lower Wetlands	06/26/2019						2									37.9	14.9		6	
Lower Wetlands	07/03/2019															31.9	14.7		5	
Lower Wetlands	07/10/2019															2.3	14.3		<5	
Lower Wetlands	07/10/2019			64.9	64.9	23.7	1.7	77	4.4	8.1	1.5	3.5	9.9	<0.1	200	2.4	14.3	120	5	4.58
Lower Wetlands	07/17/2019															<1	13.8		7	
Lower Wetlands	07/24/2019															25.8	14.7		<5	
Lower Wetlands	07/31/2019															28.8	13		17	
Lower Wetlands	08/07/2019															24.7	12.6		22	
Lower Wetlands	08/14/2019															22.6	12.3		7	
Lower Wetlands	08/21/2019						1.7									23.8	9.4		<5	
Lower Wetlands	08/28/2019															23.4	9.2		<5	
Lower Wetlands	09/04/2019															26.4	9.6		<5	
Lower Wetlands	09/11/2019						2									31.1	8.9		<5	
Lower Wetlands	09/18/2019															30.3	7.8		<5	
Lower Wetlands	09/25/2019															28.2	4.6		<5	
Lower Wetlands	10/02/2019															29.2	5.3		<5	
Lower Wetlands	10/09/2019															30.4	3.2		8	
Lower Wetlands	10/16/2019															33	2.7		<5	
Lower Wetlands	10/23/2019															29.7	3.4		<5	
Lower Wetlands	10/30/2019															38.2	3		<5	
Lower Wetlands	11/06/2019						2.6									35.6	1.5		<5	
Lower Wetlands	11/13/2019															36.3	6.4		22	
Lower Wetlands	11/20/2019						2.2									37.2	1.4		<5	
Lower Wetlands	11/20/2019			60.1	60.1	27.4	<0.5	88	4.7	8.1	1.6	3.9	11	<0.1	237	36.8	1.4	142	<5	4.5
Lower Wetlands	11/25/2019															35	1.2		<5	
Lower Wetlands	12/04/2019						2.6									34.1	0.4		6	
Lower Wetlands	12/11/2019															34.1	1.6		<5	
Lower Wetlands	12/18/2019															26.9	0.5		<5	
Water Reservoir	10/03/2018			53.5	53.5	15.6	<0.5	55	3.8	7.9	0.9	4.3	2.6	<0.1	125	<1	4.1	88	8	5.54
Water Reservoir	02/27/2019			144	151	55	2.4	193	13.4	8.4	3.3	17	10	<0.1	397	71.2	1.7	296	41	32.5
Water Reservoir	04/09/2019			58.8	58.8	18.2	0.5	62	3.9	8.1	1.1	4.4	4.8	<0.1	151	19	7.4	98	<5	2.23
Water Reservoir	07/10/2019			56.6	56.6	21.2	0.8	70	4.1	8.1	1	2.3	6.6	<0.1	171	<1	19.7	102	<5	0.34
Water Reservoir	10/23/2019			47.1	47.1	19.7	1.4	64	3.5	8	1.2	3.2	7.1	<0.1	154	21	3.4	106	<5	2.21
Water Dam Seepage	10/15/2018			94.4	94.4	25	<0.5	88	6.1	7.6	1.6	6.2	5.1	<0.1	197	10.1	8	158	<5	1.81
Water Dam Seepage	01/21/2019			92.5	92.5	26	0.6	91	6.4	8	1.7	6.5	5.4	<0.1	204	10.5	3.8	136	<5	1.84
Water Dam Seepage	04/08/2019			100	100	26.4	<0.5	93	6.5	8	1.7	6.6	5.3	<0.1	209	13.1	5	162	<5	2.82
Water Dam Seepage	09/02/2019			95.7	95.7	26.8	1.1	93	6.4	8	1.6	6.3	6.2	<0.1	207	15.5	6.2	148	<5	4.46
Water Dam Seepage	11/20/2019			88.1	88.1	27.1	1.5	94	6.3	7.9	1.7	6.2	6.5	<0.1	208	16.7	6.1	140	<5	1.03
Victoria Creek Upper	10/01/2018			37.6	37.6	13.3	<0.5	37	0.8	8	0.5	6.1	2.2	<0.1	90	<1	2.9	72	<5	0.24

Non-Process Surface Water - Major Ion Chemistry

Site	Date	Reason If No Sample	Duplicate Sample	Bic Alk	Tot Alk	Ca	Cl	Hard	Mg	Lab pH	K	Si	Na	SS	Lab Cond.	SO4	Temp. (C)	TDS	TSS	Tur
Victoria Creek Upper	01/15/2019	Frozen																		
Victoria Creek Upper	06/25/2019			40.1	40.1	15.9	0.7	43	0.8	8	0.4	6.5	2.5	<0.1	99	3.8	6.5	84	<5	1.21
Victoria Creek Upper	06/25/2019		Dup	39.3	39.3	16.2	0.5	44	0.8	8.1	0.5	6.4	2.6	<0.1	99	3.8		80	5	1.27
Victoria Creek Upper	09/03/2019			37.9	37.9	13.7	<0.5	37	0.7	7.9	0.5	6.5	2.5	<0.8	87	2.5	4.8	58	6	0.51
Victoria Creek Upper	10/08/2019	Frozen																		
Fort Knox Rinse	03/20/2019			260	260	<0.1	<0.5	<0.2	<0.2	7.9	<0.2	<0.1	<0.2	<0.1	840	178	17.7	596	49	29.2
Fort Knox Rinse	06/26/2019			2.3	2.3	<0.1	<0.5	<0.2	<0.2	6.3	<0.2	0.3	<0.2	<0.1	2	<1	19	<20	<5	<0.1
Fort Knox Rinse	07/29/2019			<2	<2	<0.1	<0.5	<0.2	<0.2	6.3	<0.2	<0.1	<0.2	<0.1	2	<1	20.5	<20	<5	<0.1
Fort Knox Rinse	11/20/2019			<2	<2	<0.1	<0.5	<0.2	<0.2	6.1	<0.2	<0.1	<0.2	<0.1	<1	<1	18.7	<20	<5	0.24

Non-Process Surface Water - Minor Ion Chemistry

Site	Date	Reason If No Sample	Duplicate Sample	NH4	As	CN	F	Fe	Mn	NO3	NO2	P	TPH	WAD CN
Upper Wetlands	10/03/2018			<0.05	0.0023	<0.003	0.09	4.45	0.658	<0.02	<0.01	0.52	<0.247	<0.003
Upper Wetlands	02/19/2019			0.05	0.0008	<0.003	<0.05	0.86	0.079	2.2	0.01	0.04	<0.232	<0.003
Upper Wetlands	04/23/2019			<0.05	0.0036	<0.003	0.1	1.21	0.17	4.2	0.27	0.02	<0.235	<0.003
Upper Wetlands	05/20/2019			<0.05	0.0035	<0.003	0.1	1.13	0.11	2.75	0.02	0.07	<0.233	<0.003
Upper Wetlands	06/04/2019			<0.05	0.0028	<0.003	0.1	0.69	0.07	2.44	0.02	0.07	<0.244	<0.003
Upper Wetlands	06/12/2019			<0.05						2.7	0.02			0.003
Upper Wetlands	06/19/2019			<0.05						1.02	0.05			<0.003
Upper Wetlands	06/26/2019			<0.05	0.0024					2.97	0.07			<0.003
Upper Wetlands	06/26/2019			<0.05	0.0027	<0.003	<0.1	0.59	0.1	3.23	0.05	0.04	<0.241	<0.003
Upper Wetlands	07/03/2019			0.07						2.32	0.07			<0.003
Upper Wetlands	07/10/2019			<0.05						3.52	0.1			0.004
Upper Wetlands	07/10/2019			<0.05	0.002	0.005	0.1	0.23	0.04	3.53	0.1	0.01	<0.241	<0.003
Upper Wetlands	07/17/2019			<0.05						3.65	0.13			<0.003
Upper Wetlands	07/24/2019			<0.05						2.59	0.11			<0.003
Upper Wetlands	07/31/2019			<0.05						3.33	0.06			<0.003
Upper Wetlands	08/07/2019			<0.05						1.69	0.08			<0.003
Upper Wetlands	08/14/2019			0.05	0.0023	0.011	0.1	0.66	0.09	3.71	0.15	0.01	<0.25	0.008
Upper Wetlands	08/14/2019			<0.05	0.0023	0.011	0.1	0.66	0.09	3.73	0.15	0.01	<0.25	0.007
Upper Wetlands	08/21/2019			<0.05	0.0019					4.19	0.08			0.004
Upper Wetlands	08/28/2019			<0.05						2.89	0.09			<0.003
Upper Wetlands	09/04/2019			<0.05						4.44	0.07			0.004
Upper Wetlands	09/11/2019			<0.05	0.0019					5.23	0.09			0.004
Upper Wetlands	09/18/2019			<0.05						6.2	0.1			0.004
Upper Wetlands	09/18/2019			<0.05	0.0016	0.006	<0.1	0.3	0.05	6.16	0.1	0.01	<0.251	0.003
Upper Wetlands	09/25/2019			<0.05						5.39	0.21			0.014
Upper Wetlands	10/02/2019			<0.05						4.87	0.08			0.004
Upper Wetlands	10/16/2019			<0.05						5.32	0.01			0.005
Upper Wetlands	10/23/2019	Unsafe Access												
Upper Wetlands	10/24/2019			<0.05	0.0024	0.006	0.2	1.37	0.27	2.87	<0.01	0.04	<0.242	0.004
Upper Wetlands	10/24/2019			<0.05	0.0025	0.007	0.1	0.91	0.18	3.58	<0.01	0.03	<0.243	0.004
Upper Wetlands	10/30/2019			<0.05						6.04	0.06			<0.003

Non-Process Surface Water - Minor Ion Chemistry

Site	Date	Reason If No Sample	Duplicate Sample	NH4	As	CN	F	Fe	Mn	NO3	NO2	P	TPH	WAD CN
Upper Wetlands	11/06/2019			<0.05	0.0025					4.95	0.04			<0.003
Upper Wetlands	11/11/2019			0.08	0.0022	0.009	0.1	0.86	0.2	3.79	0.04	<0.01	<0.24	0.005
Upper Wetlands	11/13/2019			<0.05						6.1	0.08			0.016
Upper Wetlands	11/20/2019			<0.05	0.0029					6	0.04			<0.003
Upper Wetlands	11/25/2019			<0.05						5.92	0.03			0.006
Upper Wetlands	12/04/2019			<0.05	0.0026					5.4	0.02			0.006
Upper Wetlands	12/09/2019			0.13	0.0013	0.005	0.1	1.48	0.24	1.78	0.02	0.02	<0.262	0.003
Upper Wetlands	12/11/2019			0.06						2.96	0.03			0.009
Upper Wetlands	12/18/2019			0.05						5.41	0.11			0.116
Lower Wetlands	10/03/2018			<0.05	0.0011	<0.003	0.07	1.11	0.151	0.21	<0.01	0.03	<0.247	<0.003
Lower Wetlands	03/11/2019			<0.05	0.001	<0.003	0.11	0.84	0.116	0.81	<0.01	<0.02	<0.237	<0.003
Lower Wetlands	04/09/2019			<0.05	0.0014	<0.003	0.1	0.6	0.07	1.32	0.02	0.02	<0.244	<0.003
Lower Wetlands	06/04/2019			<0.05	0.0011	<0.003	0.1	0.46	0.05	1.84	<0.01	<0.01	<0.237	<0.003
Lower Wetlands	06/12/2019			<0.05						1.78	0.01			<0.003
Lower Wetlands	06/19/2019			<0.05						1.45	<0.01			<0.003
Lower Wetlands	06/26/2019			<0.05	0.0009					1.97	<0.01			<0.003
Lower Wetlands	07/03/2019			<0.05						1.91	0.02			<0.003
Lower Wetlands	07/10/2019			<0.05						1.85	0.02			<0.003
Lower Wetlands	07/10/2019			<0.05	0.0011	<0.003	<0.1	0.8	0.16	1.88	0.02	0.02	<0.24	<0.003
Lower Wetlands	07/17/2019			<0.05						2.12	0.02			<0.003
Lower Wetlands	07/24/2019			<0.05						2.4	0.03			<0.003
Lower Wetlands	07/31/2019			<0.05						2.55	0.02			<0.003
Lower Wetlands	08/07/2019			<0.05						2.11	<0.01			<0.003
Lower Wetlands	08/14/2019			<0.05						1.76	0.01			<0.003
Lower Wetlands	08/21/2019			<0.05	0.0008					2.04	<0.01			<0.003
Lower Wetlands	08/28/2019			<0.05						2.07	<0.01			<0.003
Lower Wetlands	09/04/2019			<0.05						3.22	0.03			<0.003
Lower Wetlands	09/11/2019			<0.05	0.0008					2.91	0.02			<0.003
Lower Wetlands	09/18/2019			<0.05						4.07	0.02			<0.003
Lower Wetlands	09/25/2019			<0.05						3.32	0.03			<0.003
Lower Wetlands	10/02/2019			<0.05						2.81	0.01			<0.003
Lower Wetlands	10/09/2019			0.06						3.01	<0.01			<0.003

Non-Process Surface Water - Minor Ion Chemistry

Site	Date	Reason If No Sample	Duplicate Sample	NH4	As	CN	F	Fe	Mn	NO3	NO2	P	TPH	WAD CN
Lower Wetlands	10/16/2019			<0.05						2.68	<0.01			<0.003
Lower Wetlands	10/23/2019			<0.05						1.95	<0.01			<0.003
Lower Wetlands	10/30/2019			<0.05						2.51	<0.01			<0.003
Lower Wetlands	11/06/2019			<0.05	0.0011					3.94	0.01			<0.003
Lower Wetlands	11/13/2019			<0.05						4.29	0.02			<0.003
Lower Wetlands	11/20/2019			<0.05	0.001					3.89	0.01			<0.003
Lower Wetlands	11/20/2019			<0.05	0.001	0.004	0.1	0.68	0.14	3.92	0.01	0.01	<0.245	<0.003
Lower Wetlands	11/25/2019			<0.05						3.74	<0.01			0.003
Lower Wetlands	12/04/2019			<0.05	0.0011					3.61	0.01			<0.003
Lower Wetlands	12/11/2019			<0.05						3.18	0.01			0.004
Lower Wetlands	12/18/2019			<0.05						3.19	0.03			0.017
Water Reservoir	10/03/2018			<0.05	0.0013	<0.003	0.11	1.27	0.289	0.04	<0.01	0.03	<0.1	<0.003
Water Reservoir	02/27/2019			<0.05	0.0017	<0.003	0.3	2.75	0.247	1.03	<0.01	0.02	<0.237	<0.003
Water Reservoir	04/09/2019			<0.05	0.0007	<0.003	0.1	0.39	0.03	0.49	<0.01	0.01	<0.253	<0.003
Water Reservoir	07/10/2019			<0.05	0.0007	<0.003	<0.1	0.13	<0.01	0.81	<0.01	<0.01	<0.243	<0.003
Water Reservoir	10/23/2019			<0.05	0.0008	<0.003	0.2	0.54	0.14	1.63	<0.01	0.02	<0.245	<0.003
Water Dam Seepage	10/15/2018			0.21	0.0038	<0.003	0.35	4.9	1.05	<0.02	<0.01	0.07	<0.239	<0.003
Water Dam Seepage	01/21/2019			0.2	0.0041	<0.003	0.43	5.12	1.12	0.04	<0.01	0.06	<0.245	<0.003
Water Dam Seepage	04/08/2019			0.16	0.0037	<0.003	0.4	4.88	1.1	0.05	<0.01	0.04	<0.25	<0.003
Water Dam Seepage	09/02/2019			0.2	0.0038	<0.003	0.4	4.83	1.05	0.07	<0.01	0.06	<0.243	<0.003
Water Dam Seepage	11/20/2019			0.19	0.0033	<0.003	0.4	4.57	1.01	0.27	<0.01	0.04	<0.249	<0.003
Victoria Creek Upper	10/01/2018			<0.05	0.0003	<0.003	0.63	0.12	0.005	1.05	<0.01	<0.02	<0.246	<0.003
Victoria Creek Upper	01/15/2019	Frozen												
Victoria Creek Upper	06/25/2019			<0.05	0.0004	<0.003	0.7	0.12	<0.01	1.08	<0.01	<0.01	<0.231	<0.003
Victoria Creek Upper	06/25/2019		Dup	<0.05	0.0003	<0.003	0.7	0.1	<0.01	1.08	<0.01	<0.01	<0.241	<0.003
Victoria Creek Upper	09/03/2019			<0.05	0.0003	<0.003	0.7	0.14	<0.01	1.01	<0.01	0.01	<0.243	<0.003
Victoria Creek Upper	10/08/2019	Frozen												
Fort Knox Rinse	03/20/2019			1.66	<0.0002	<0.003	<0.05	<0.02	<0.005	0.02	<0.01	0.14	<0.231	<0.003
Fort Knox Rinse	06/26/2019			<0.05	<0.0002	<0.003	<0.1	<0.03	<0.01	<0.02	<0.01	<0.01	<0.237	<0.003
Fort Knox Rinse	07/29/2019			<0.05	<0.0002	<0.003	<0.1	<0.03	<0.01	<0.02	<0.01	<0.01	<0.241	<0.003
Fort Knox Rinse	11/20/2019			<0.05	<0.0002	<0.003	<0.1	<0.03	<0.01	<0.02	<0.01	<0.01	0.4	<0.003

Non-Process Surface Water - Trace Ion Chemistry

Site	Date	Reason If No Sample	Duplicate Sample	Al	Sb	Ba	Bi	Cd	Cr	Cu	Pb	Hg	Ni	Se	Ag	Zn
Upper Wetlands	10/03/2018			0.28	<0.0004	0.034	<0.04	0.00006	<0.01	<0.01	0.0002	<0.0002	<0.008	0.0001	<0.01	0.02
Upper Wetlands	02/19/2019			0.06	<0.0004	0.008	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	<0.0001	<0.01	<0.01
Upper Wetlands	04/23/2019			<0.05	0.0023	0.013	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0004	<0.01	<0.01
Upper Wetlands	05/20/2019			0.09	0.0016	0.016	<0.04	0.00006	<0.01	<0.01	0.0003	<0.0002	<0.008	0.0004	<0.01	0.01
Upper Wetlands	06/04/2019			0.06	0.0017	0.017	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0004	<0.01	<0.01
Upper Wetlands	06/12/2019											<0.0002				
Upper Wetlands	06/19/2019											<0.0002				
Upper Wetlands	06/26/2019				0.0015			<0.00005		<0.0008	0.0003	<0.0002				0.005
Upper Wetlands	06/26/2019			0.22	0.0016	0.016	<0.04	<0.00005	<0.01	<0.01	0.0002	<0.0002	<0.008	0.0002	<0.01	0.01
Upper Wetlands	07/03/2019											<0.0002				
Upper Wetlands	07/10/2019											<0.0002				
Upper Wetlands	07/10/2019			<0.05	0.0013	0.009	<0.04	<0.00005	<0.01	<0.01	0.0001	<0.0002	<0.008	0.0002	<0.01	<0.01
Upper Wetlands	07/17/2019											<0.0002				
Upper Wetlands	07/24/2019											<0.0002				
Upper Wetlands	07/31/2019											<0.0002				
Upper Wetlands	08/07/2019											<0.0002				
Upper Wetlands	08/14/2019			0.08	0.0012	0.009	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0002	<0.01	0.02
Upper Wetlands	08/14/2019			0.08	0.0012	0.009	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0002	<0.01	0.02
Upper Wetlands	08/21/2019				0.0009			<0.00005		<0.0008	<0.0001	<0.0002				0.005
Upper Wetlands	08/28/2019											<0.0002				
Upper Wetlands	09/04/2019											<0.0002				
Upper Wetlands	09/11/2019				0.0013			<0.00005		<0.0008	0.0001	<0.0002				0.005
Upper Wetlands	09/18/2019											<0.0002				
Upper Wetlands	09/18/2019			<0.05	0.0011	<0.007	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0003	<0.01	<0.01
Upper Wetlands	09/25/2019											<0.0002				
Upper Wetlands	10/02/2019											<0.0002				
Upper Wetlands	10/16/2019											<0.0002				
Upper Wetlands	10/23/2019	Unsafe Access														
Upper Wetlands	10/24/2019			0.1	0.0012	0.027	<0.04	<0.00005	0.01	<0.01	<0.0001	<0.0002	<0.008	0.0003	<0.01	<0.01
Upper Wetlands	10/24/2019			0.1	0.0015	0.023	<0.04	<0.00005	0.01	<0.01	<0.0001	<0.0002	<0.008	0.0004	<0.01	<0.01
Upper Wetlands	10/30/2019											<0.0002				
Upper Wetlands	11/06/2019				0.0014			<0.00005		<0.0008	<0.0001	<0.0002				0.006
Upper Wetlands	11/11/2019			<0.05	0.0011	0.023	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0003	<0.01	<0.01
Upper Wetlands	11/13/2019											<0.0002				
Upper Wetlands	11/20/2019				0.0017			<0.00005		0.001	0.0006	<0.0002				0.01
Upper Wetlands	11/25/2019											<0.0002				
Upper Wetlands	12/04/2019				0.0013			<0.00005		<0.0008	<0.0001	<0.0002				<0.004
Upper Wetlands	12/09/2019			<0.05	0.0004	0.018	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0002	<0.01	<0.01
Upper Wetlands	12/11/2019											<0.0002				
Upper Wetlands	12/18/2019											<0.0002				
Lower Wetlands	10/03/2018			0.08	<0.0004	0.025	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	<0.0001	<0.01	<0.01
Lower Wetlands	03/11/2019			<0.03	<0.0004	0.019	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	<0.0001	<0.01	<0.01
Lower Wetlands	04/09/2019			0.09	0.0015	0.02	<0.04	<0.00005	<0.01	<0.01	0.0001	<0.0002	0.009	0.0003	<0.01	<0.01

Non-Process Surface Water - Trace Ion Chemistry

Site	Date	Reason if No Sample	Duplicate Sample	Al	Sb	Ba	Bi	Cd	Cr	Cu	Pb	Hg	Ni	Se	Ag	Zn
Lower Wetlands	06/04/2019			0.08	0.0011	0.024	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0003	<0.01	<0.01
Lower Wetlands	06/12/2019											<0.0002				
Lower Wetlands	06/19/2019											<0.0002				
Lower Wetlands	06/26/2019				0.0007			<0.00005		0.0012	0.0001	<0.0002				<0.004
Lower Wetlands	07/03/2019											<0.0002				
Lower Wetlands	07/10/2019											<0.0002				
Lower Wetlands	07/10/2019			0.08	0.0006	0.036	<0.04	<0.00005	<0.01	<0.01	0.0002	<0.0002	<0.008	0.0001	<0.01	<0.01
Lower Wetlands	07/17/2019											<0.0002				
Lower Wetlands	07/24/2019											<0.0002				
Lower Wetlands	07/31/2019											<0.0002				
Lower Wetlands	08/07/2019											<0.0002				
Lower Wetlands	08/14/2019											<0.0002				
Lower Wetlands	08/21/2019				<0.0004			<0.00005		0.0012	<0.0001	<0.0002				0.004
Lower Wetlands	08/28/2019											<0.0002				
Lower Wetlands	09/04/2019											<0.0002				
Lower Wetlands	09/11/2019				0.0006			<0.00005		<0.0008	0.0002	<0.0002				0.004
Lower Wetlands	09/18/2019											<0.0002				
Lower Wetlands	09/25/2019											<0.0002				
Lower Wetlands	10/02/2019											<0.0002				
Lower Wetlands	10/09/2019											<0.0002				
Lower Wetlands	10/16/2019											<0.0002				
Lower Wetlands	10/23/2019											<0.0002				
Lower Wetlands	10/30/2019											<0.0002				
Lower Wetlands	11/06/2019				0.0009			<0.00005		0.0008	<0.0001	<0.0002				0.005
Lower Wetlands	11/13/2019											<0.0002				
Lower Wetlands	11/20/2019				0.0008			<0.00005		0.0009	0.0001	<0.0002				0.006
Lower Wetlands	11/20/2019			<0.05	0.0008	0.028	<0.04	<0.00005	<0.01	<0.02	0.0001	<0.0002	<0.008	0.0002	<0.01	<0.01
Lower Wetlands	11/25/2019											<0.0002				
Lower Wetlands	12/04/2019				0.0007			<0.00005		0.0011	0.0002	<0.0002				<0.004
Lower Wetlands	12/11/2019											<0.0002				
Lower Wetlands	12/18/2019											<0.0002				
Water Reservoir	10/03/2018			0.11	<0.0004	0.021	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0001	<0.01	<0.01
Water Reservoir	02/27/2019			0.69	0.0004	0.178	<0.04	<0.00005	0.08	<0.01	0.0003	<0.0002	<0.008	0.0004	<0.01	<0.01
Water Reservoir	04/09/2019			<0.05	<0.0004	0.017	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	0.01	0.0001	<0.01	<0.01
Water Reservoir	07/10/2019			<0.05	0.0006	0.019	<0.04	<0.00005	<0.01	<0.01	0.0001	<0.0002	<0.008	0.0002	<0.01	<0.01
Water Reservoir	10/23/2019			<0.05	0.0004	0.021	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0002	<0.01	<0.01
Water Dam Seepage	10/15/2018			<0.03	<0.0004	0.006	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0001	<0.01	<0.01
Water Dam Seepage	01/21/2019			0.03	<0.0004	0.011	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	<0.0001	<0.01	<0.01
Water Dam Seepage	04/08/2019			<0.05	<0.0004	0.009	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0001	<0.01	<0.01
Water Dam Seepage	09/02/2019			<0.05	<0.0004	0.009	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	<0.0001	<0.01	<0.01
Water Dam Seepage	11/20/2019			<0.05	<0.0004	0.009	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0001	<0.01	0.04
Victoria Creek Upper	10/01/2018			0.14	<0.0004	0.01	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	<0.0001	<0.01	<0.01
Victoria Creek Upper	01/15/2019	Frozen														
Victoria Creek Upper	06/25/2019			0.13	<0.0004	0.007	<0.04	<0.00005	<0.01	<0.01	0.0001	<0.0002	<0.008	0.0001	<0.01	<0.01

Non-Process Surface Water - Trace Ion Chemistry

Site	Date	Reason If No Sample	Duplicate Sample	Al	Sb	Ba	Bi	Cd	Cr	Cu	Pb	Hg	Ni	Se	Ag	Zn
Victoria Creek Upper	06/25/2019		Dup	0.1	<0.0004	0.007	<0.04	<0.00005	<0.01	<0.01	0.0001	<0.0002	0.009	0.0001	<0.01	<0.01
Victoria Creek Upper	09/03/2019			0.15	<0.0004	<0.007	<0.04	<0.00005	<0.01	<0.01	0.0001	<0.0002	<0.008	<0.0001	<0.01	<0.01
Victoria Creek Upper	10/08/2019	Frozen														
Fort Knox Rinse	03/20/2019			<0.03	<0.0004	<0.003	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	<0.0001	<0.01	<0.01
Fort Knox Rinse	06/26/2019			<0.05	<0.0004	0.007	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	<0.0001	<0.01	<0.01
Fort Knox Rinse	07/29/2019			<0.05	<0.0004	<0.007	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	<0.0001	<0.01	<0.01
Fort Knox Rinse	11/20/2019			<0.05	<0.0004	<0.007	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	<0.0001	<0.01	0.02

COMPLIANCE GROUNDWATER PROCESS WATER QUALITY DATA

FAIRBANKS GOLD MINING, INC.
FORT KNOX MINE

4th Quarter 2019

Process Ground Water - Major Ion Chemistry

Site	Date	Reason If No Sample	Duplicate Sample	Bic Alk	Tot Alk	Ca	Cl	Hard	Mg	Lab pH	K	Si	Na	Lab Cond.	SO4	S	Temp. (C)	TDS	TSS	Tur
MW-1	12/09/2018			536	536	192	13.6	603	30.1	8.3	2.9	12.6	15.4	1,060	67.8	0.04	3.3	732	5	51.6
MW-1	12/09/2018		Dup	528	528	195	13	612	30.3	8.3	3	12.7	15.5	1,070	75	0.05	3.3	728	<5	52.2
MW-1	04/09/2019			548	548	187	15.3	586	28.9	7.9	3.1	12.2	13.9	1,070	63.8	0.09	5.5	730	27	42.8
MW-1	09/19/2019			488	488	183	15.3	572	27.9	7.9	3	11.1	14.9	1,010	77.3	0.21	33	700	26	22.3
MW-1	11/04/2019			553	553	189	12	588	28.2	8.1	2.7	12.9	13.7	1,070	51.6	0.07	2.3	712	7	39.2
MW-2	11/26/2018			87.3	87.3	77.5	20.5	247	13	7.7	2.9	9.7	20.4	571	168	0.46	5.5	398	52	117
MW-2	03/11/2019			94.9	94.9	95.5	19.7	304	15.9	7.3	2.8	9.1	20.1	714	246	0.04	4.3	532	<5	5.92
MW-2	03/11/2019		Dup	94.4	94.4	95.2	19.3	303	15.8	7.3	2.8	9.1	19.9	715	238	0.04	4.3	534	<5	6.09
MW-2	04/09/2019			91.2	91.2	85.9	19.4	274	14.4	7.6	2.9	8.8	19	648	212	0.08	7.3	482	18	18.2
MW-2	09/09/2019			84.2	84.2	116	18.6	366	18.5	7.3	3.1	9.7	21	793	326	<0.02	5.2	568	<5	2.43
MW-2	11/04/2019			99.1	99.1	96.4	18.2	302	14.8	7.5	3.1	9.2	19.1	702	229	0.03	4.9	502	<5	5.07
MW-3	11/06/2018			159	159	93.3	20.7	280	11.4	7.9	1.8	6.2	27.2	639	148	<0.02	3.1	426	43	20.1
MW-3	09/09/2019			135	135	77.4	21.3	232	9.5	8.1	1.8	5.1	26.2	568	139	<0.02	3.4	370	13	5.86
MW-3	12/26/2019			92.6	92.6	55.7	16.4	172	7.9	8	1.8	5.5	23.5	471	87.9	<0.02	2.1	292	19	24.5
IW-1	12/19/2018			239	239	94.6	15.7	312	18.4	8.3	5.8	7.3	9.4	634	71.6	<0.02	3.5	388	<5	0.89
IW-1	04/16/2019			211	211	87.8	17	290	17.3	8.2	5.4	7.1	9.1	622	80	<0.02	3	400	<5	<0.1
IW-1	07/29/2019			205	205	86.5	14	288	17.4	8.2	5.7	7.5	9.7	611	78.5	<0.02	2.5	364	<5	<0.1
IW-1	11/05/2019			225	225	85.8	13.2	281	16.3	8.2	5.6	7.2	10.2	605	70.9	<0.02	3	382	<5	<0.1
IW-2	11/13/2018			542	542	189	16.6	596	30.1	7.9	4	9.9	23.4	1,160	111	<0.02	4.7	772	12	22.3
IW-2	02/04/2019			581	581	196	14.2	616	30.8	8	3.8	10.8	21.6	1,160	97.6	<0.02	4.2	764	<5	21.7
IW-2	04/03/2019			532	532	185	14.9	588	30.7	7.9	3.8	11.6	20	1,130	84.9	<0.02	4	776	103	152
IW-2	09/09/2019			489	489	173	14.5	545	27.5	7.8	3.6	10.9	21.9	1,020	96.4	<0.02	4.2	688	7	15.9
IW-2	11/05/2019			483	483	171	14	534	26.1	8	3.7	10.7	20.9	1,050	80.2	<0.02	4	710	5	20.6
IW-3	11/13/2018			138	138	69.3	22	212	9.4	8.1	1.9	6	27.3	556	125	<0.02	4.4	354	<5	0.47
IW-3	02/04/2019			110	110	64.2	22.2	197	9	8.2	1.8	6	28.3	540	114	<0.02	4.5	344	<5	<0.1
IW-3	04/03/2019			116	116	62	20.9	189	8.3	8.2	1.9	7.4	28.9	522	113	<0.02	7.1	340	<5	0.45
IW-3	09/09/2019			118	118	62	18.6	190	8.6	8	1.9	7	29	499	109	<0.02	4.3	318	<5	0.42
IW-3	11/05/2019			140	140	63.5	18.6	193	8.4	8.2	2	7	27.8	527	108	<0.02	4.5	342	<5	0.16
IW-5	12/12/2018			111	111	84.3	37.4	272	14.9	8.1	9.1	4.7	40.8	749	197	<0.02	7.8	508	132	540
IW-5	03/28/2019	Frozen																		
IW-5	04/09/2019			124	124	84.3	34.6	274	15.3	8.1	8.8	5.2	38.6	744	161	<0.02	8.7	498	28	92.1
IW-5	09/09/2019			111	111	86.5	37	279	15.3	8.1	8.8	5.1	41.5	756	175	<0.02	10.7	490	8	19
IW-5	11/04/2019			122	122	86.8	35	279	15	8.2	8.8	5.3	39.1	764	176	<0.02	7.4	492	<5	7.38
IW-6	10/09/2018			188	188	105	24.9	323	14.8	7.9	3.5	8	27.4	720	175	<0.02	5.5	476	<5	0.69
IW-6	01/08/2019			184	184	106	24.1	322	13.8	8.1	3.4	8	27	721	150	<0.02	3.2	464	<5	1.01
IW-6	04/09/2019			208	208	104	24.2	320	14.6	8.1	3.7	7.9	27.3	739	167	<0.02	5.8	514	<5	0.76
IW-6	07/29/2019			204	204	108	24.2	333	15.3	8	4	8.1	29.3	767	181	<0.02	4.9	492	<5	0.83
IW-6	07/29/2019		Dup	191	191	106	24.4	329	15.5	8	3.9	8.1	28.7	766	174	<0.02	4.9	498	<5	0.98
IW-6	11/04/2019			188	188	116	24	355	15.9	8.2	3.9	8.1	29.2	813	196	<0.02	4.2	558	<5	0.88
IW-7	10/09/2018			185	185	86.3	20.3	273	14	7.7	2.6	5.2	9.4	574	97.2	<0.02	3.4	356	<5	<0.1
IW-7	01/08/2019			182	182	92.7	18.8	293	14.9	8	2.5	5.5	9.1	600	79	<0.02	3.3	368	<5	0.14
IW-7	04/24/2019			182	182	89.3	19.6	281	14	8.1	2.5	5.6	9.1	589	92.9	<0.02	4.1	380	<5	0.76
IW-7	07/29/2019			172	172	88.2	19.2	280	14.4	8.1	2.6	5.6	9.4	599	90	<0.02	4.2	364	<5	<0.1

Process Ground Water - Major Ion Chemistry

Site	Date	Reason If No Sample	Duplicate Sample	Bic Alk	Tot Alk	Ca	Cl	Hard	Mg	Lab pH	K	Si	Na	Lab Cond.	SO4	S	Temp. (C)	TDS	TSS	Tur
IW-7	10/02/2019			178	178	85.7	19.4	269	13.3	8	2.6	5.1	10.8	581	105	<0.02	4.1	370	<5	0.1
IW-8	10/09/2018			69.1	69.1	41.9	21.8	140	8.5	7.7	2.2	4.7	27.6	427	73.2	<0.02	4.8	262	<5	<0.1
IW-8	02/25/2019			80	80	57	29.7	187	10.9	8.2	2.6	4.7	37.6	588	97.7	<0.02	5.3	364	<5	0.69
IW-8	04/03/2019			82.6	82.6	57.1	29.6	187	10.9	8.1	2.7	4.8	36.3	586	106	<0.02	8.5	384	<5	<0.1
IW-8	09/09/2019			63.2	63.2	38.4	17.5	131	8.5	7.8	1.9	4.8	24.9	391	66.9	<0.02	4.5	244	<5	0.2
IW-8	10/02/2019			78	78	47.7	22	155	8.8	7.9	2.4	4.5	32.2	489	92.3	<0.02	4.2	308	<5	0.12
IW-11	10/09/2018			70.9	70.9	48.9	37.9	192	16.9	7.6	2	4.6	53.6	650	133	<0.02	4.9	402	<5	0.46
IW-11	01/08/2019			72.3	72.3	48.7	34.2	188	16.1	7.9	1.9	4.7	52.7	655	126	<0.02	7.1	410	<5	0.13
IW-11	04/24/2019			74.3	74.3	46.2	34.7	178	15.3	8	1.9	4.7	52	636	128	<0.02	7.1	436	<5	3.15
IW-11	09/09/2019			75.5	75.5	49.1	33.5	191	16.5	7.7	1.8	4.8	56.8	637	124	<0.02	6.5	408	<5	<0.1
IW-11	10/02/2019			75.2	75.2	46.7	34.4	180	15.4	7.7	1.9	4.4	53	644	132	<0.02	6.3	436	<5	0.21
IW-13	10/09/2018			158	158	97.9	38.5	315	17.1	7.9	9.7	5.2	40.5	800	194	<0.02	6.4	520	<5	1.51
IW-13	01/23/2019			170	170	92.1	34.2	297	16.3	8	8.3	6.2	43.4	790	180	<0.02	8.3	530	<5	0.65
IW-13	04/09/2019			181	181	90.2	32.5	293	16.4	8	8.1	6.4	42.2	776	175	<0.02	6.8	536	18	15.7
IW-13	07/29/2019			174	174	91.5	33.4	299	17.2	8.1	8.1	6.6	42.5	805	170	<0.02	5.2	512	<5	0.68
IW-13	11/05/2019			170	170	93.2	32.7	299	16.2	8	8.2	6.3	43.1	807	170	<0.02	5.4	540	<5	1.78
IW-14	12/09/2018			67.8	67.8	48.8	24.2	161	9.6	8.2	2.4	4.9	33.6	486	89.7	<0.02	4.2	310	<5	13
IW-14	01/08/2019			67.8	67.8	51.9	26.5	171	10.1	7.9	2.5	4.8	34.9	535	91.4	<0.02	4.4	330	<5	0.49
IW-14	04/24/2019			72.6	72.6	53.2	28.7	176	10.4	8	2.5	4.8	37.3	560	111	<0.02	5	376	<5	1
IW-14	09/09/2019			72	72	36.3	14.3	119	7	7.9	2	5	25.3	377	62.3	<0.02	5.3	222	<5	0.13
IW-14	10/02/2019			67.4	67.4	39.2	17.8	128	7.3	7.8	2.2	4.5	28.3	415	80.5	<0.02	3.8	256	<5	0.48
IW-16	12/16/2018			226	226	105	22	306	10.7	8.1	2.1	9.4	24	694	153	<0.02	1.4	486	5	4.54
IW-16	01/23/2019			225	225	114	19.9	325	9.7	8.2	1.7	10.1	29.4	735	142	0.09	9.1	502	<5	0.44
IW-16	04/03/2019			206	206	89.6	21	253	7.1	8.2	1.3	10.8	36.5	660	123	0.05	2.7	448	<5	1.25
IW-16	09/09/2019			194	194	92.6	20.3	258	6.6	8.1	1.2	10.2	39.2	639	124	0.04	2.7	428	<5	1.08
IW-16	11/05/2019			196	196	92.3	19.6	257	6.4	8.2	1.3	9.7	37.3	665	126	0.05	2.5	448	<5	0.74
401	10/09/2018			52.1	52.1	30.4	17.1	113	8.9	7.6	1.5	5	22.8	345	30.6	<0.02	4.6	204	<5	3.87
401	03/28/2019	Frozen																		
PMW-1	10/23/2018			326	326	108	2	304	8.4	8.1	3	7.1	3.6	582	6.2	<0.02	3.4	340	<5	1.48
PMW-1	11/05/2018			320	320	113	1.9	318	8.7	8	3.1	7.6	3.5	586	6.7	<0.02	2.5	346	<5	0.49
PMW-1	01/22/2019			368	368	124	2.6	348	9.4	8.1	3.5	7.4	3.7	665	9.5	<0.02	2.5	400	<5	1.33
PMW-1	02/26/2019			347	347	120	2.7	338	9.2	8.1	3.3	7.4	3.3	645	11.4	<0.02	3.8	386	<5	1.58
PMW-1	03/18/2019			338	338	119	2.6	335	9.2	8.2	3.5	7.4	3.7	623	20.1	<0.02	4.6	378	<5	0.75
PMW-1	04/08/2019			347	347	116	2	326	8.8	8.2	3.3	7.4	3.4	632	8.7	<0.02	3.7	392	<5	1.68
PMW-1	06/16/2019			357	357	128	1.9	358	9.4	8.2	3.3	7.4	3.7	657	7.3	<0.02	4.9	388	<5	1.14
PMW-1	07/15/2019			346	346	128	1.8	357	9	8.2	3.3	7.5	3.6	586	1.6	<0.02	5.2	374	<5	0.74
PMW-1	08/12/2019			341	341	120	2.1	337	9	8.1	3.5	7.7	3.5	613	8.3	<0.02	3.5	376	<5	1.01
PMW-1	09/16/2019			324	324	117	1.8	328	8.7	8.2	3.3	7.4	3.5	613	7.5	<0.02	3.6	352	<5	0.9
PMW-1	10/21/2019			334	334	122	2	341	8.8	8.3	3.3	7.5	3.6	624	6.9	<0.02	3.2	372	<5	1.4
PMW-1	12/16/2019			351	360	124	2.2	347	9	8.3	3.5	7.9	3.5	634	9.6	<0.02	3.4	378	<5	1.67
PMW-2	10/23/2018			254	261	74.6	1.1	248	14.9	8.3	4.1	5.5	6	492	13	<0.02	1.2	274	<5	1.55
PMW-2	11/05/2018			278	278	76.5	<0.5	254	15.3	8.2	4	5.9	6.1	489	12.9	<0.02	0.7	276	<5	2.57
PMW-2	01/22/2019			260	260	75.7	0.5	252	15.2	8.3	4.1	5.7	6	494	13.8	<0.02	2	292	<5	1.28
PMW-2	02/26/2019	Frozen																		

Process Ground Water - Major Ion Chemistry

Site	Date	Reason If No Sample	Duplicate Sample	Bic Alk	Tot Alk	Ca	Cl	Hard	Mg	Lab pH	K	Si	Na	Lab Cond.	SO4	S	Temp. (C)	TDS	TSS	Tur
PMW-2	04/08/2019	Frozen																		
PMW-2	07/15/2019	Frozen																		
PMW-2	12/18/2019	Frozen																		
PMW-3D	10/25/2018			96.1	109	10.9	4.7	27	<0.2	8.8	0.6	5.7	55.9	307	44.6	<0.02	4.2	200	<5	1.26
PMW-3D	11/05/2018			93.5	108	11.7	5	29	<0.2	8.9	0.7	6	58.9	311	41.4	<0.02	4.7	202	<5	0.33
PMW-3D	01/23/2019			93.9	104	11.6	4.9	29	<0.2	8.8	0.8	5.7	58.2	313	42.1	0.02	8	214	<5	0.86
PMW-3D	02/26/2019			92.1	104	11.5	4.9	29	<0.2	8.8	0.7	5.9	56	314	45.7	<0.02	5.5	198	<5	1.71
PMW-3D	03/19/2019			94.8	106	11.8	5	30	<0.2	8.8	0.8	5.7	55.6	323	42.2	<0.02	5.5	212	<5	0.64
PMW-3D	04/08/2019			100	113	12.1	4.5	30	<0.2	8.8	0.8	6	55.7	319	37.3	<0.02	5.9	222	<5	2.92
PMW-3D	06/16/2019			92.6	105	12.8	4.8	32	<0.2	8.8	0.7	6	60	322	38.4	0.02	5.9	204	<5	0.4
PMW-3D	07/15/2019			101	114	13.5	4.6	34	<0.2	8.8	0.6	6	63.7	306	38.7	<0.02	4.9	194	<5	0.32
PMW-3D	08/12/2019			101	111	13.8	5.2	35	<0.2	8.7	0.9	6.2	60.4	328	42	<0.02	5.4	216	<5	0.44
PMW-3D	09/16/2019			102	107	13.3	5	33	<0.2	8.6	0.8	5.9	61	327	41.7	<0.02	5.4	194	<5	0.35
PMW-3D	10/21/2019			107	118	13.9	5.6	38	0.9	8.7	1.1	6	61.1	341	43.6	0.03	4.1	210	<5	0.39
PMW-3D	12/16/2019			107	118	14.1	5.5	35	<0.2	8.7	0.8	6.1	59.6	341	45.1	0.02	3.8	208	<5	1.42
PMW-3S	10/25/2018			206	206	56.8	11.9	167	6	8.2	1.3	10	39.3	486	38.2	<0.08	3.3	318	258	192
PMW-3S	11/05/2018			207	207	58.4	11.5	170	5.9	8.2	1.2	10	39.5	484	38.8	0.08	2.6	308	75	58.2
PMW-3S	01/23/2019			214	214	63.6	11.8	188	7	8.2	1.5	10.3	36	501	39.1	0.26	7.1	334	177	88.3
PMW-3S	02/26/2019			215	215	61.8	11.3	182	6.7	8.2	1.4	9.9	35.3	499	36.1	0.21	3.5	312	117	89.5
PMW-3S	03/19/2019			221	221	60.9	10.5	179	6.6	8.2	1.5	9.4	34.9	508	30.9	<0.02	3.6	320	76	78.9
PMW-3S	04/08/2019			234	234	63.2	10.7	186	6.8	8.3	1.5	10.2	36.2	505	30.3	0.03	4	334	59	57.5
PMW-3S	06/16/2019			241	241	67.8	10.8	199	7.1	8.2	1.3	10	36.2	515	34.2	0.07	3.3	316	67	60.2
PMW-3S	07/15/2019			240	240	69.9	10.5	205	7.3	8.2	1.3	10.5	36.9	486	1.7	<0.02	4.5	318	59	56.3
PMW-3S	08/12/2019			218	218	67.5	11.2	199	7.3	8.1	1.6	10.5	35.1	513	33.9	0.1	4.1	334	49	57.9
PMW-3S	09/16/2019			213	213	69.1	11.9	203	7.5	8.1	1.4	10.6	33.9	518	37.9	0.09	4	332	35	32.9
PMW-3S	12/18/2019			223	223	63	12	185	6.7	8.1	1.3	9.7	29	521	31.9	0.08	2.7	336	33	40
PMW-4	10/24/2018			107	107	38.3	0.5	116	5	8.2	1.4	4.2	5.6	239	20.4	0.91	2.1	164	<5	1.05
PMW-4	02/26/2019	Blocked																		
PMW-4	04/08/2019	Frozen																		
PMW-4	04/09/2019			111	112	34.8	1.4	105	4.4	8.3	1.4	4.1	5.2	239	18.6	1.19	3.1	168	<5	2.45
PMW-4	06/16/2019			112	117	37.5	1.4	113	4.6	8.4	1.4	4.2	5.5	244	9.4	1.7	2.6	140	<5	12.4
PMW-4	07/15/2019			111	116	39.3	1	117	4.7	8.4	1.3	4.3	5.6	225	<1	3	2	140	<5	18.7
PMW-4	08/13/2019			111	112	37.4	1.8	113	4.7	8.3	1.6	4.3	5.3	239	7.5	3.2	4.2	154	<5	20.9
PMW-4	09/16/2019			110	110	37.4	1.5	112	4.6	8.3	1.5	4.2	5.5	238	7.4	3.3	2.6	142	<5	21.7
PMW-4	10/24/2019			120	124	41.2	2.2	123	5	8.4	1.6	4.5	5.7	244	5.7	4.2	1	142	<5	30.3
PMW-4	12/16/2019			116	119	37.7	1.1	113	4.6	8.4	1.5	4.5	5.2	237	6.5	3.3	1.4	142	<5	25.8
PMW-5	10/24/2018			70.6	70.6	26.6	1	85	4.6	8.1	0.5	4.5	3.5	179	23.9	<0.02	3	120	<5	0.5
PMW-5	11/06/2018			68.5	68.5	24.6	1.1	78	4.1	8.1	0.5	4.5	3.2	182	21.2	<0.02	1.6	116	<5	1.29
PMW-5	01/22/2019			64.3	64.3	30.2	4.3	96	5.1	8.1	0.6	4.5	3.7	217	25.8	<0.02	2.8	138	<5	0.52
PMW-5	02/26/2019			64.3	64.3	38.3	10.4	122	6.4	8.1	0.6	4.6	5	293	40.4	<0.02	2.8	182	<5	0.59
PMW-5	03/18/2019			64.7	64.7	46	14.7	147	7.8	8.1	0.9	4.7	7.4	348	44.4	<0.02	2.7	228	<5	0.21
PMW-5	04/08/2019			81.6	81.6	48.9	16.3	156	8.2	8.1	0.9	4.8	8.9	387	53.7	<0.02	2.1	278	<5	0.72
PMW-5	06/16/2019			68	68	51.1	17.2	162	8.3	8.2	0.7	4.7	11.9	398	53.9	<0.02	2.9	262	<5	0.78
PMW-5	07/15/2019			67.4	67.4	49.2	15.9	155	7.7	8.1	0.6	4.7	11.7	344	52.1	<0.02	3.5	230	<5	0.35

Process Ground Water - Major Ion Chemistry

Site	Date	Reason If No Sample	Duplicate Sample	Bic Alk	Tot Alk	Ca	Cl	Hard	Mg	Lab pH	K	Si	Na	Lab Cond.	SO4	S	Temp. (C)	TDS	TSS	Tur
PMW-5	08/12/2019			61.6	61.6	45.7	15	145	7.6	7.9	0.9	4.9	11.3	360	50	<0.02	4.1	234	<5	0.42
PMW-5	09/16/2019			57.7	57.7	34.5	8.4	109	5.6	8	0.7	4.6	8.2	271	38.7	<0.02	3.3	166	<5	1.05
PMW-5	10/21/2019			64	64	36.1	9.6	114	5.8	8.2	0.6	4.6	8.5	289	39.7	<0.02	2.1	178	<5	0.66
PMW-5	12/16/2019			64.8	64.8	41	11.8	130	6.6	8.2	0.8	4.7	9.8	328	40.9	<0.02	2.6	198	<5	1.06
PMW-6	10/24/2018			73.1	73.1	37.1	10.1	117	6	8.1	0.7	3.6	3.5	259	37.1	<0.02	3	164	<5	4.09
PMW-6	11/06/2018			70	70	37.2	9.7	117	5.9	8.1	0.7	3.8	3.5	265	26.8	<0.02	2.3	152	<5	3.84
PMW-6	01/22/2019			67.6	67.6	38.5	11.3	122	6.3	8.2	0.9	3.5	3.6	280	23.2	<0.02	3.5	170	<5	6.37
PMW-6	02/26/2019			69.7	69.7	40.5	13.4	128	6.5	8.2	0.7	3.6	3.3	300	26.9	<0.02	3.7	186	<5	17.6
PMW-6	03/18/2019			68.7	68.7	39.6	12	126	6.5	8.2	0.9	3.6	3.6	287	23.8	<0.02	3.5	188	<5	1.8
PMW-6	04/09/2019			72.5	72.5	39	13.3	123	6.3	8.2	0.8	3.6	3.4	293	24.5	<0.02	5.4	198	<5	5.27
PMW-6	06/16/2019			70.1	70.1	42	12.5	131	6.4	8.2	0.7	3.6	3.6	308	25.1	<0.02	4.1	198	<5	4.45
PMW-6	07/15/2019			69.7	69.7	43.5	12.3	136	6.6	8.2	0.6	3.7	3.7	276	27.3	<0.02	3.4	196	<5	3.17
PMW-6	08/12/2019			64.2	64.2	43.8	13.1	138	6.9	8	0.9	3.9	3.7	308	27.4	<0.02	4	210	<5	2.91
PMW-6	09/16/2019			63.3	63.3	41.9	12.2	131	6.5	8.1	0.8	3.7	3.6	302	25.8	<0.02	3.4	180	<5	3.23
PMW-6	10/21/2019			70.3	70.3	42.1	12.8	132	6.5	8.2	0.7	3.6	3.5	307	26.3	<0.02	3.1	186	<5	3.77
PMW-6	12/16/2019			68.8	68.8	44.3	12.8	139	6.8	8.2	0.9	3.8	3.5	315	28.9	<0.02	3.6	192	<5	3.49

Process Ground Water - Minor Ion Chemistry

Site	Date	Reason If No Sample	Duplicate Sample	NH4	As	CN	F	Fe	Mn	NO3	NO2	P	TPH	WAD CN
MW-1	12/09/2018			<0.05	<0.002	<0.02	<0.05	3.92	1.14	<0.02	<0.01	<0.02		<0.003
MW-1	12/09/2018		Dup	<0.05	0.0005	<0.02	<0.05	0.47	1.14	<0.02	<0.01	<0.02		<0.02
MW-1	04/09/2019			<0.05	0.0007	<0.02	<0.1	5.8	1.04	0.37	0.03	<0.01		<0.003
MW-1	09/19/2019			<0.05	0.0008	<0.003	<0.1	1.03	1.04	0.87	0.05	0.02		<0.003
MW-1	11/04/2019			<0.05	0.0012	<0.003	<0.1	6.6	1.13	0.25	0.01	0.02		<0.003
MW-2	11/26/2018			<0.05	0.0032	<0.003	0.05	28.5	0.687	<0.02	<0.01	<0.02		<0.003
MW-2	03/11/2019			<0.05	0.0005	<0.003	<0.05	7.98	0.731	0.03	<0.01	<0.02		<0.003
MW-2	03/11/2019		Dup	<0.05	0.0005	<0.003	<0.05	7.95	0.725	0.04	<0.01	<0.02		<0.003
MW-2	04/09/2019			<0.05	0.0004	<0.003	<0.1	16	0.67	<0.02	0.03	<0.01		<0.003
MW-2	09/09/2019			<0.05	0.0002	<0.003	<0.1	5.3	1.02	<0.02	<0.01	<0.01		<0.003
MW-2	11/04/2019			<0.05	0.0003	<0.003	<0.1	7.94	0.88	<0.02	<0.01	<0.01		<0.003
MW-3	11/06/2018			<0.05	0.0005	<0.003	0.06	0.06	0.429	0.4	<0.01	0.04		<0.003
MW-3	09/09/2019			<0.05	0.0004	<0.003	<0.1	0.18	0.51	0.26	<0.01	<0.01		<0.003
MW-3	12/26/2019			0.05	0.0005	<0.003	<0.1	1.12	1.22	0.32	<0.01	0.02		<0.003
IW-1	12/19/2018			<0.05	0.0016	0.004	<0.05	0.03	0.107	3.11	0.06	<0.02		<0.003
IW-1	04/16/2019			<0.05	0.0015	0.004	<0.1	<0.03	0.11	3.84	0.05	<0.01		<0.003
IW-1	07/29/2019			<0.05	0.0014	<0.003	0.2	<0.03	0.14	2.39	0.05	<0.01		<0.003
IW-1	11/05/2019			<0.05	0.0014	0.005	0.3	0.03	0.16	1.99	0.04	0.01		<0.003
IW-2	11/13/2018			<0.05	0.0019	<0.02	<0.05	2.58	1.2	0.14	<0.01	0.03		<0.003
IW-2	02/04/2019			<0.05	0.0031	<0.003	<0.05	5.58	1.26	<0.02	<0.01	0.03		<0.003
IW-2	04/03/2019			<0.05	0.0037	<0.02	0.06	7.34	1.33	<0.02	<0.01	0.02		<0.003
IW-2	09/09/2019			<0.05	0.0025	<0.003	<0.1	4.11	1.15	0.05	0.01	0.01		<0.003
IW-2	11/05/2019			<0.05	0.0031	<0.003	<0.1	4.73	1.14	<0.02	<0.01	0.01		<0.003
IW-3	11/13/2018			<0.05	0.0006	0.011	0.08	<0.02	0.257	1.41	<0.01	<0.02		0.004
IW-3	02/04/2019			<0.05	0.0006	0.026	0.09	<0.02	0.193	3.25	0.02	<0.02		0.003
IW-3	04/03/2019			<0.05	0.0008	0.004	0.12	0.04	0.234	0.39	<0.01	<0.01		<0.003
IW-3	09/09/2019			<0.05	0.0006	0.018	<0.1	0.06	0.3	1.59	<0.01	<0.01		0.003
IW-3	11/05/2019			<0.05	0.0007	0.013	0.1	<0.03	0.35	1.32	<0.01	0.01		<0.003
IW-5	12/12/2018			0.37	0.0023	0.65	0.17	2.55	0.641	10	0.05	0.16		0.012

Process Ground Water - Minor Ion Chemistry

Site	Date	Reason If No Sample	Duplicate Sample	NH4	As	CN	F	Fe	Mn	NO3	NO2	P	TPH	WAD CN
IW-5	03/28/2019	Frozen												
IW-5	04/09/2019			0.19	0.0019	0.297	0.2	1.74	0.4	11	0.05	0.01		0.004
IW-5	09/09/2019			<0.05	0.0007	0.053	0.1	0.87	0.31	11	0.05	<0.01		0.005
IW-5	11/04/2019			<0.05	0.0007	0.057	0.1	0.35	0.25	10	0.04	<0.01		0.005
IW-6	10/09/2018			<0.05	0.0003	0.004	0.06	0.34	0.557	0.32	<0.01	<0.02		<0.003
IW-6	01/08/2019			<0.05	0.0002	<0.003	0.07	0.13	0.564	0.35	<0.01	<0.02		<0.003
IW-6	04/09/2019			<0.05	0.0003	0.004	<0.1	0.35	0.6	0.56	<0.01	<0.01		<0.02
IW-6	07/29/2019			<0.05	0.0003	<0.003	<0.1	0.39	0.67	0.65	<0.01	<0.01		<0.003
IW-6	07/29/2019		Dup	<0.05	0.0003	<0.003	0.1	0.39	0.68	0.65	<0.01	<0.01		<0.003
IW-6	11/04/2019			<0.05	0.0004	0.004	<0.1	0.41	0.8	0.88	<0.01	<0.01		<0.003
IW-7	10/09/2018			<0.05	<0.0002	0.016	<0.05	<0.02	0.006	4.05	0.07	<0.02		0.006
IW-7	01/08/2019			<0.05	0.0002	0.017	<0.05	<0.02	0.011	4.19	0.05	<0.02		0.004
IW-7	04/24/2019			<0.05	0.0003	0.02	<0.1	<0.03	<0.01	4.15	0.07	<0.01		0.005
IW-7	07/29/2019			<0.05	0.0003	0.02	<0.1	<0.03	<0.01	4.15	0.07	<0.01		0.003
IW-7	10/02/2019			<0.05	<0.0002	0.02	<0.1	<0.03	<0.01	4.3	0.05	<0.01		0.004
IW-8	10/09/2018			<0.05	0.0003	0.217	0.08	0.06	<0.005	9.9	<0.01	<0.02		0.038
IW-8	02/25/2019			<0.05	0.0006	0.214	0.12	0.09	<0.005	16	<0.01	<0.02		0.035
IW-8	04/03/2019			<0.05	0.0006	0.225	0.1	0.11	0.005	16	<0.01	<0.01		<0.003
IW-8	09/09/2019			<0.05	0.0003	0.095	<0.1	0.07	<0.01	10	<0.01	<0.01		0.01
IW-8	10/02/2019			<0.05	0.0004	0.163	<0.1	0.07	<0.01	12	<0.01	<0.01		0.009
IW-11	10/09/2018			<0.05	0.0002	0.55	0.08	0.13	0.016	17	0.31	<0.02		0.048
IW-11	01/08/2019			<0.05	0.0003	0.34	0.12	0.14	0.02	17	0.27	<0.02		0.019
IW-11	04/24/2019			<0.05	0.0003	0.33	<0.1	0.18	0.01	19	0.25	0.01		0.02
IW-11	09/09/2019			<0.05	0.0003	0.291	<0.1	0.13	0.02	19	0.24	<0.01		0.017
IW-11	10/02/2019			<0.05	<0.0002	0.245	0.1	0.1	0.02	18	0.23	<0.01		0.015
IW-13	10/09/2018			<0.05	0.0002	0.026	0.07	0.56	0.266	6.57	0.02	<0.02		0.004
IW-13	01/23/2019			<0.05	0.0004	0.045	0.14	0.27	0.445	7.53	0.02	<0.02		0.005
IW-13	04/09/2019			<0.05	0.0011	0.054	0.1	1.64	0.44	7.2	0.02	0.03		0.003
IW-13	07/29/2019			<0.05	0.0003	0.036	0.3	0.19	0.43	7.5	<0.01	<0.01		0.003
IW-13	11/05/2019			<0.05	0.0004	0.043	0.2	0.19	0.41	7.32	<0.01	0.01		0.004

Process Ground Water - Minor Ion Chemistry

Site	Date	Reason If No Sample	Duplicate Sample	NH4	As	CN	F	Fe	Mn	NO3	NO2	P	TPH	WAD CN
IW-14	12/09/2018			<0.05	0.0011	0.232	0.07	0.09	<0.005	12	0.04	<0.02		0.033
IW-14	01/08/2019			<0.05	0.0012	0.224	0.08	0.09	0.01	14	0.04	<0.02		0.017
IW-14	04/24/2019			<0.05	0.0015	0.205	<0.1	0.13	<0.01	15	0.04	<0.01		0.032
IW-14	09/09/2019			<0.05	0.0009	0.118	<0.1	0.06	<0.01	8	0.02	0.03		0.008
IW-14	10/02/2019			<0.05	0.0012	0.129	<0.1	0.05	<0.01	9.1	0.04	<0.01		0.007
IW-16	12/16/2018			<0.05	0.0042	<0.003	0.07	0.97	1.08	<0.02	<0.01	<0.02		<0.003
IW-16	01/23/2019			<0.05	0.0023	<0.003	0.08	0.29	1.04	<0.02	<0.01	<0.02		<0.003
IW-16	04/03/2019			<0.05	0.0018	<0.003	0.19	0.32	0.531	<0.02	<0.01	0.01		<0.003
IW-16	09/09/2019			<0.05	0.0016	<0.003	0.1	0.36	0.41	<0.02	<0.01	0.02		<0.003
IW-16	11/05/2019			<0.05	0.0014	<0.003	0.2	0.3	0.38	<0.02	<0.01	0.02		<0.003
401	10/09/2018			<0.05	<0.0002	0.237	0.08	0.29	<0.005	8.9	<0.01	<0.02		0.018
401	03/28/2019	Frozen												
PMW-1	10/23/2018			<0.05	0.0004	<0.003	<0.05	0.08	0.012	1.14	<0.01	<0.02		<0.003
PMW-1	11/05/2018			<0.05	0.0004	<0.003	0.08	0.05	0.011	1.23	<0.01	<0.02		<0.003
PMW-1	01/22/2019			<0.05	0.0004	<0.003	0.06	0.1	0.006	1.43	<0.01	<0.02		<0.003
PMW-1	02/26/2019			<0.05	0.0004	<0.003	0.07	0.06	0.01	1.55	<0.01	<0.02		<0.003
PMW-1	03/18/2019			<0.05	0.0004	<0.003	0.08	0.05	<0.005	1.49	<0.01	<0.02		<0.003
PMW-1	04/08/2019			<0.05	0.0004	<0.003	<0.1	0.04	<0.01	1.38	<0.01	<0.01		<0.003
PMW-1	06/16/2019			<0.05	0.0003	<0.003	<0.1	0.12	0.01	1.31	<0.01	<0.01		<0.003
PMW-1	07/15/2019			<0.05	0.0004	<0.02	<0.1	0.07	0.01	1.38	<0.01	<0.01		<0.003
PMW-1	08/12/2019			<0.05	0.0003	<0.003	0.1	0.04	<0.01	1.42	<0.01	<0.01		<0.003
PMW-1	09/16/2019			<0.05	0.0003	<0.003	<0.1	0.07	0.01	1.49	<0.01	<0.01		<0.003
PMW-1	10/21/2019			<0.05	0.0002	<0.003	<0.1	0.06	0.02	1.41	<0.01	<0.01		<0.003
PMW-1	12/16/2019			<0.05	0.0004	<0.003	<0.1	0.17	<0.01	1.39	<0.01	<0.01		<0.003
PMW-2	10/23/2018			<0.05	0.0003	<0.003	<0.05	0.32	0.133	<0.02	<0.01	<0.02		<0.003
PMW-2	11/05/2018			<0.05	0.0003	<0.003	0.06	0.34	0.137	<0.02	<0.01	<0.02		<0.003
PMW-2	01/22/2019			<0.05	0.0002	<0.003	0.05	0.28	0.121	<0.02	<0.01	<0.02		<0.003
PMW-2	02/26/2019	Frozen												
PMW-2	04/08/2019	Frozen												
PMW-2	07/15/2019	Frozen												

Process Ground Water - Minor Ion Chemistry

Site	Date	Reason If No Sample	Duplicate Sample	NH4	As	CN	F	Fe	Mn	NO3	NO2	P	TPH	WAD CN
PMW-2	12/18/2019	Frozen												
PMW-3D	10/25/2018			<0.05	<0.0002	<0.003	0.25	0.03	<0.005	<0.02	<0.01	<0.02		<0.003
PMW-3D	11/05/2018			<0.05	<0.0002	<0.003	0.25	0.02	<0.005	<0.02	<0.01	<0.02		<0.003
PMW-3D	01/23/2019			<0.05	<0.0002	0.017	0.26	<0.02	<0.005	<0.02	<0.01	<0.02		<0.003
PMW-3D	02/26/2019			<0.05	<0.0002	<0.003	0.25	0.02	<0.005	<0.02	<0.01	<0.02		<0.003
PMW-3D	03/19/2019			<0.05	<0.0002	<0.003	0.22	<0.02	<0.005	<0.02	<0.01	<0.02		<0.003
PMW-3D	04/08/2019			<0.05	<0.0002	<0.003	0.2	<0.03	<0.01	<0.02	<0.01	<0.01		<0.003
PMW-3D	06/16/2019			<0.05	<0.0002	<0.003	0.2	<0.03	<0.01	<0.02	<0.01	<0.01		<0.003
PMW-3D	07/15/2019			<0.05	<0.0002	<0.003	0.2	<0.03	<0.01	<0.02	<0.01	<0.01		<0.003
PMW-3D	08/12/2019			<0.05	<0.0002	<0.003	0.2	<0.03	<0.01	<0.02	<0.01	<0.01		<0.003
PMW-3D	09/16/2019			<0.05	<0.0002	<0.003	0.2	<0.03	<0.01	<0.02	<0.01	<0.01		<0.003
PMW-3D	10/21/2019			<0.05	0.0002	<0.003	0.2	0.11	0.02	<0.02	<0.01	<0.01		<0.003
PMW-3D	12/16/2019			<0.05	<0.0002	<0.003	0.3	<0.03	<0.01	<0.02	<0.01	<0.01		<0.003
PMW-3S	10/25/2018			0.07	0.0009	<0.003	0.13	3.63	0.365	<0.02	<0.01	0.17		<0.003
PMW-3S	11/05/2018			<0.05	0.0007	<0.003	0.12	3.34	0.396	<0.02	<0.01	0.05		<0.003
PMW-3S	01/23/2019			<0.05	0.0007	<0.003	0.14	4.05	0.466	<0.02	<0.01	0.16		<0.003
PMW-3S	02/26/2019			<0.05	0.0006	<0.003	0.13	3.65	0.44	<0.02	<0.01	0.05		<0.003
PMW-3S	03/19/2019			<0.05	0.0006	<0.003	0.11	3.55	0.432	<0.02	<0.01	0.08		<0.003
PMW-3S	04/08/2019			<0.05	0.0006	<0.003	<0.1	3.74	0.45	<0.02	<0.01	0.04		<0.003
PMW-3S	06/16/2019			<0.05	0.0005	<0.003	<0.1	4.01	0.49	0.04	<0.01	0.04		<0.003
PMW-3S	07/15/2019			<0.05	0.0006	<0.003	0.1	4.6	0.51	<0.02	<0.01	0.05		<0.003
PMW-3S	08/12/2019			<0.05	0.0006	<0.003	<0.1	5.12	0.53	<0.02	<0.01	0.04		<0.003
PMW-3S	09/16/2019			<0.05	0.0006	<0.003	<0.1	5.26	0.56	<0.02	<0.01	0.04		<0.003
PMW-3S	12/18/2019			<0.05	0.0007	<0.003	<0.1	5.36	0.53	<0.02	<0.01	0.04		<0.003
PMW-4	10/24/2018			<0.05	0.0005	<0.003	0.13	0.04	0.174	<0.02	<0.01	<0.02		<0.003
PMW-4	02/26/2019	Blocked												
PMW-4	04/09/2019			<0.05	0.0004	<0.003	0.1	0.17	0.17	<0.02	<0.01	<0.01		<0.003
PMW-4	06/16/2019			<0.05	0.0003	<0.003	0.1	0.04	0.17	<0.02	<0.01	<0.01		<0.003
PMW-4	07/15/2019			<0.05	0.0004	<0.003	0.1	<0.03	0.17	<0.02	<0.01	<0.01		<0.003
PMW-4	08/13/2019			<0.05	0.0003	<0.003	0.1	<0.03	0.18	<0.02	<0.01	<0.01		<0.003

Process Ground Water - Minor Ion Chemistry

Site	Date	Reason If No Sample	Duplicate Sample	NH4	As	CN	F	Fe	Mn	NO3	NO2	P	TPH	WAD CN
PMW-4	09/16/2019			<0.05	0.0003	<0.003	0.1	0.05	0.18	<0.02	0.01	<0.01		<0.003
PMW-4	10/24/2019			<0.05	<0.004	<0.003	0.1	0.03	0.19	<0.02	<0.01	0.01		<0.003
PMW-4	12/16/2019			<0.05	0.0003	<0.003	0.1	<0.03	0.16	<0.02	0.01	<0.01		<0.003
PMW-5	10/24/2018			<0.05	0.0076	<0.003	0.13	0.05	0.059	0.78	<0.01	<0.02		<0.003
PMW-5	11/06/2018			<0.05	0.007	<0.003	0.14	0.05	0.052	0.91	<0.01	<0.02		<0.003
PMW-5	01/22/2019			<0.05	0.0064	0.014	0.12	0.06	0.029	3.25	<0.01	<0.02		0.007
PMW-5	02/26/2019			<0.05	0.006	0.045	0.17	0.07	0.022	7.09	<0.01	<0.02		0.013
PMW-5	03/18/2019			<0.05	0.006	0.076	0.09	0.05	0.014	9.3	<0.01	<0.02		0.018
PMW-5	04/08/2019			<0.05	0.0071	0.079	<0.1	0.05	0.02	9.7	0.01	<0.01		<0.003
PMW-5	06/16/2019			<0.05	0.0054	0.089	0.1	0.06	0.02	9.5	0.04	<0.01		0.016
PMW-5	07/15/2019			<0.05	0.0048	0.087	<0.1	0.06	0.01	9.2	0.04	<0.01		0.018
PMW-5	08/12/2019			<0.05	0.0042	0.07	<0.1	<0.03	0.02	9	0.03	<0.01		0.01
PMW-5	09/16/2019			<0.05	0.0048	0.037	<0.1	0.04	0.02	5.24	0.02	<0.01		0.008
PMW-5	10/21/2019			<0.05	0.0045	0.048	<0.1	0.05	0.02	5.9	0.02	<0.01		0.007
PMW-5	12/16/2019			<0.05	0.0048	0.063	0.1	0.05	0.01	7.37	0.03	<0.01		0.01
PMW-6	10/24/2018			0.12	<0.0002	0.014	0.16	<0.02	<0.005	6.85	<0.01	<0.02		0.011
PMW-6	11/06/2018			0.07	<0.0002	0.013	0.17	0.05	0.009	7.6	<0.01	<0.02		0.011
PMW-6	01/22/2019			0.18	<0.0002	0.021	0.16	0.17	<0.005	8.42	<0.01	<0.02		0.016
PMW-6	02/26/2019			0.14	<0.0002	0.022	0.16	0.42	0.014	10	0.02	<0.02		0.016
PMW-6	03/18/2019			0.07	<0.0002	0.023	0.14	<0.02	<0.005	9.3	<0.01	<0.02		0.015
PMW-6	04/09/2019			<0.05	<0.0002	0.02	0.2	0.05	<0.01	9.1	0.01	<0.01		0.018
PMW-6	06/16/2019			<0.05	<0.0002	0.021	0.2	0.06	<0.01	8.8	<0.01	<0.01		0.015
PMW-6	07/15/2019			<0.05	<0.0002	0.028	0.1	0.05	<0.01	9.2	<0.01	<0.01		0.018
PMW-6	08/12/2019			<0.05	<0.0002	0.024	0.1	0.21	<0.01	9.8	<0.01	<0.01		0.017
PMW-6	09/16/2019			<0.05	<0.0002	0.023	0.1	0.08	<0.01	9.1	<0.01	<0.01		0.017
PMW-6	10/21/2019			<0.05	<0.0002	0.027	0.2	0.1	0.02	9.6	<0.01	<0.01		0.015
PMW-6	12/16/2019			0.05	<0.0002	0.03	0.1	0.05	<0.01	9.7	<0.01	<0.01		0.019

Process Ground Water - Trace Ion Chemistry

Site	Date	Reason If No Sample	Duplicate Sample	Al	Sb	Ba	Bi	Cd	Cr	Cu	Pb	Hg	Ni	Se	Ag	Zn
MW-1	12/09/2018			<0.03	<0.004	0.017	<0.04	<0.0005	0.02	<0.01	<0.001	<0.0002	0.052	0.059	<0.01	<0.01
MW-1	12/09/2018			<0.03	<0.0004	0.018	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	0.055	0.0002	<0.01	<0.01
MW-1	04/09/2019			<0.05	<0.0004	0.018	<0.04	0.00008	<0.01	<0.01	<0.0001	<0.0002	0.035	0.0003	<0.01	<0.01
MW-1	09/19/2019			<0.05	<0.0004	0.014	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	0.038	0.0003	<0.01	<0.01
MW-1	11/04/2019			<0.05	<0.0004	0.015	<0.04	0.00011	<0.01	<0.01	0.0001	<0.0002	0.03	0.0002	<0.01	<0.01
MW-2	11/26/2018			0.22	0.0006	0.009	<0.04	0.00035	0.01	0.03	0.0011	<0.0002	0.084	0.004	<0.01	1.53
MW-2	03/11/2019			<0.03	<0.0004	0.015	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	0.16	<0.0001	<0.01	0.62
MW-2	03/11/2019		Dup	<0.03	<0.0004	0.014	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	0.161	<0.0001	<0.01	0.6
MW-2	04/09/2019			<0.05	<0.0004	0.014	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	0.137	0.0002	<0.01	1.28
MW-2	09/09/2019			0.07	<0.0004	0.022	<0.04	0.0001	<0.01	<0.01	0.0001	<0.0002	0.346	0.0002	<0.01	0.8
MW-2	11/04/2019			<0.05	<0.0004	0.019	<0.04	0.00006	<0.01	<0.01	0.0001	<0.0002	0.245	<0.0002	<0.01	0.88
MW-3	11/06/2018			0.05	0.0008	0.018	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	0.023	<0.0001	<0.01	0.01
MW-3	09/09/2019			<0.05	0.0007	0.013	<0.04	<0.00005	<0.01	<0.01	0.0001	<0.0002	0.028	<0.0001	<0.01	<0.01
MW-3	12/26/2019			<0.05	<0.0004	0.013	<0.04	<0.00005	<0.01	0.01	0.0028	<0.0002	0.025	<0.0001	<0.01	0.03
IW-1	12/19/2018			<0.03	0.0015	0.073	<0.04	<0.00005	<0.01	0.02	0.0003	<0.0002	0.027	0.0015	<0.01	<0.01
IW-1	04/16/2019			<0.05	0.0013	0.072	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	0.033	0.0015	<0.01	<0.01
IW-1	07/29/2019			<0.05	0.0012	0.078	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	0.022	0.0013	<0.01	<0.01
IW-1	11/05/2019			<0.05	0.0012	0.082	<0.04	<0.00005	<0.01	<0.01	0.0001	<0.0002	0.026	0.0011	<0.01	<0.01
IW-2	11/13/2018			<0.03	0.0007	0.013	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	0.06	0.0003	<0.01	<0.01
IW-2	02/04/2019			<0.03	0.0005	0.015	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	0.067	0.0002	<0.01	<0.01
IW-2	04/03/2019			0.04	<0.0004	0.013	<0.04	0.00006	<0.01	<0.01	<0.0001	<0.0002	0.071	0.0003	<0.01	0.01
IW-2	09/09/2019			<0.05	0.0005	0.014	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	0.048	0.0002	<0.01	0.01
IW-2	11/05/2019			<0.05	<0.0004	0.014	<0.04	<0.00005	<0.01	<0.01	0.0001	<0.0002	0.051	0.0002	<0.01	0.01
IW-3	11/13/2018			<0.03	0.0006	0.01	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	0.019	0.0002	<0.01	<0.01
IW-3	02/04/2019			<0.03	0.0006	0.01	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	0.019	0.0002	<0.01	<0.01
IW-3	04/03/2019			<0.03	<0.0004	<0.007	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	0.018	0.0001	<0.01	0.02
IW-3	09/09/2019			<0.05	<0.0004	0.009	<0.04	<0.00005	<0.01	<0.01	0.0002	<0.0002	0.025	0.0002	<0.01	0.02
IW-3	11/05/2019			<0.05	<0.0004	0.008	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	0.022	<0.0001	<0.01	0.02
IW-5	12/12/2018			<0.03	0.0079	0.033	<0.04	<0.00005	<0.01	<0.01	0.0001	<0.0002	0.015	0.0017	<0.01	0.28
IW-5	03/28/2019	Frozen														
IW-5	04/09/2019			<0.05	0.0094	0.03	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	0.014	0.0014	<0.01	0.23
IW-5	09/09/2019			<0.05	0.009	0.031	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	0.015	0.0009	<0.01	0.18
IW-5	11/04/2019			<0.05	0.0088	0.027	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	0.013	0.0009	<0.01	0.17
IW-6	10/09/2018			<0.03	<0.0004	0.011	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	0.059	<0.0001	<0.01	0.01
IW-6	01/08/2019			0.03	<0.0004	0.007	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	0.039	<0.0001	<0.01	0.02
IW-6	04/09/2019			<0.05	<0.0004	0.012	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	0.06	0.0002	<0.01	<0.01
IW-6	07/29/2019			<0.05	<0.0004	0.014	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	0.066	<0.0001	<0.01	0.02
IW-6	07/29/2019		Dup	<0.05	<0.0004	0.014	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	0.067	0.0001	<0.01	0.02
IW-6	11/04/2019			<0.05	0.0006	0.01	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	0.105	<0.0001	<0.01	0.03
IW-7	10/09/2018			<0.03	<0.0004	0.013	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0003	<0.01	<0.01
IW-7	01/08/2019			0.04	<0.0004	0.011	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0002	<0.01	0.01
IW-7	04/24/2019			<0.05	<0.0004	0.014	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0002	<0.01	<0.01
IW-7	07/29/2019			<0.05	<0.0004	0.016	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0002	<0.01	<0.01

Process Ground Water - Trace Ion Chemistry

Site	Date	Reason if No Sample	Duplicate Sample	Al	Sb	Ba	Bi	Cd	Cr	Cu	Pb	Hg	Ni	Se	Ag	Zn
IW-7	10/02/2019			<0.05	<0.0004	0.013	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0002	<0.01	<0.01
IW-8	10/09/2018			<0.03	0.0005	<0.003	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0006	<0.01	<0.01
IW-8	02/25/2019			<0.03	0.0012	0.006	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	0.009	0.0011	<0.01	<0.01
IW-8	04/03/2019			<0.03	0.0014	<0.007	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	0.008	0.0011	<0.01	0.01
IW-8	09/09/2019			<0.05	<0.0004	<0.007	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0005	<0.01	<0.01
IW-8	10/02/2019			<0.05	0.0011	<0.007	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0006	<0.01	<0.01
IW-11	10/09/2018			<0.03	0.001	0.005	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0012	<0.01	<0.01
IW-11	01/08/2019			<0.03	0.0008	<0.003	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.001	<0.01	0.02
IW-11	04/24/2019			<0.05	0.0009	<0.007	<0.04	<0.00005	<0.01	<0.01	0.0001	<0.0002	<0.008	0.001	<0.01	<0.01
IW-11	09/09/2019			<0.05	0.001	<0.007	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0009	<0.01	<0.01
IW-11	10/02/2019			<0.05	0.0009	<0.007	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0007	<0.01	<0.01
IW-13	10/09/2018			<0.03	0.0059	0.029	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	0.057	0.0005	<0.01	0.01
IW-13	01/23/2019			<0.03	0.0067	0.026	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	0.037	0.0005	<0.01	<0.01
IW-13	04/09/2019			<0.05	0.0075	0.029	<0.04	<0.00005	<0.01	<0.01	0.0004	<0.0002	0.035	0.0009	<0.01	<0.01
IW-13	07/29/2019			<0.05	0.0072	0.033	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	0.031	0.0005	<0.01	<0.01
IW-13	11/05/2019			<0.05	0.0075	0.031	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	0.031	0.0005	<0.01	<0.01
IW-14	12/09/2018			<0.03	0.0023	0.005	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0008	<0.01	<0.01
IW-14	01/08/2019			<0.03	0.0024	<0.003	<0.04	<0.00005	0.01	<0.01	<0.0001	<0.0002	<0.008	0.0008	<0.01	0.02
IW-14	04/24/2019			<0.05	0.0023	0.007	<0.04	<0.00005	<0.01	<0.01	0.0005	<0.0002	0.019	0.0009	<0.01	0.07
IW-14	09/09/2019			<0.05	0.0015	<0.007	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0005	<0.01	<0.01
IW-14	10/02/2019			<0.05	0.0023	<0.007	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0005	<0.01	<0.01
IW-16	12/16/2018			<0.03	0.0022	0.019	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0008	<0.01	<0.01
IW-16	01/23/2019			<0.03	<0.0004	<0.003	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0006	<0.01	<0.01
IW-16	04/03/2019			<0.03	0.0007	<0.007	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	<0.0001	<0.01	<0.01
IW-16	09/09/2019			<0.05	<0.0004	<0.007	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0001	<0.01	0.01
IW-16	11/05/2019			<0.05	<0.0004	<0.007	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0002	<0.01	<0.01
401	10/09/2018			<0.03	<0.0004	0.012	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0005	<0.01	<0.01
401	03/28/2019	Frozen														
PMW-1	10/23/2018			<0.03	<0.0004	0.273	<0.04	<0.00005	<0.01	<0.01	0.001	<0.0002	<0.008	0.0002	<0.01	0.09
PMW-1	11/05/2018			0.05	<0.0004	0.301	<0.04	<0.00005	<0.01	<0.01	0.0009	<0.0002	<0.008	0.0002	<0.01	0.1
PMW-1	01/22/2019			<0.03	<0.0004	0.341	<0.04	<0.00005	<0.01	<0.01	0.0012	<0.0002	<0.008	0.0012	<0.01	0.11
PMW-1	02/26/2019			<0.03	<0.0004	0.328	<0.04	<0.00005	<0.01	<0.01	0.0033	<0.0002	<0.008	0.0002	<0.01	0.11
PMW-1	03/18/2019			<0.03	<0.0004	0.327	<0.04	<0.00005	<0.01	<0.01	0.0006	<0.0002	<0.008	0.0002	<0.01	0.11
PMW-1	04/08/2019			<0.05	<0.0004	0.322	<0.04	<0.00005	<0.01	<0.01	0.0008	<0.0002	<0.008	0.0002	<0.01	0.09
PMW-1	06/16/2019			<0.05	<0.0004	0.338	<0.04	<0.00005	<0.01	<0.01	0.001	<0.0002	<0.008	0.0002	<0.01	0.11
PMW-1	07/15/2019			0.08	<0.0004	0.328	<0.04	<0.00005	<0.01	0.04	0.0007	<0.0002	<0.008	0.0002	<0.01	0.11
PMW-1	08/12/2019			<0.05	<0.0004	0.326	<0.04	<0.00005	<0.01	<0.01	0.0006	<0.0002	<0.008	0.0002	<0.01	0.11
PMW-1	09/16/2019			<0.05	<0.0004	0.309	<0.04	0.00006	<0.01	<0.01	0.0003	<0.0002	<0.008	0.0001	<0.01	0.11
PMW-1	10/21/2019			<0.05	<0.0004	0.328	<0.04	<0.00005	<0.01	<0.01	0.0002	<0.0002	<0.008	0.0001	<0.01	0.1
PMW-1	12/16/2019			<0.05	<0.0004	0.336	<0.04	<0.00005	<0.01	<0.01	0.0005	<0.0002	<0.008	0.0002	<0.01	0.1
PMW-2	10/23/2018			<0.03	<0.0004	0.13	<0.04	<0.00005	<0.01	<0.01	0.0004	<0.0002	<0.008	<0.0001	<0.01	0.05
PMW-2	11/05/2018			0.05	<0.0004	0.141	<0.04	<0.00005	<0.01	<0.01	0.0006	<0.0002	<0.008	<0.0001	<0.01	0.05
PMW-2	01/22/2019			<0.03	<0.0004	0.132	<0.04	<0.00005	<0.01	<0.01	0.0003	<0.0002	<0.008	0.0004	<0.01	0.05
PMW-2	02/26/2019	Frozen														

Process Ground Water - Trace Ion Chemistry

Site	Date	Reason If No Sample	Duplicate Sample	Al	Sb	Ba	Bi	Cd	Cr	Cu	Pb	Hg	Ni	Se	Ag	Zn
PMW-2	04/08/2019	Frozen														
PMW-2	07/15/2019	Frozen														
PMW-2	12/18/2019	Frozen														
PMW-3D	10/25/2018			<0.03	<0.0004	<0.003	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	<0.0001	<0.01	0.03
PMW-3D	11/05/2018			0.04	<0.0004	0.004	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	<0.0001	<0.01	<0.01
PMW-3D	01/23/2019			<0.03	<0.0004	<0.003	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0001	<0.01	0.04
PMW-3D	02/26/2019			<0.03	<0.0004	0.004	<0.04	<0.00005	<0.01	<0.01	0.0003	<0.0002	<0.008	<0.0001	<0.01	0.02
PMW-3D	03/19/2019			<0.03	<0.0004	<0.003	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	<0.0001	<0.01	0.01
PMW-3D	04/08/2019			<0.05	<0.0004	<0.007	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	<0.0001	<0.01	<0.01
PMW-3D	06/16/2019			<0.05	<0.0004	<0.007	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	<0.0001	<0.01	<0.01
PMW-3D	07/15/2019			<0.05	<0.0004	<0.007	<0.04	<0.00005	<0.01	0.01	<0.0001	<0.0002	<0.008	<0.0001	<0.01	0.01
PMW-3D	08/12/2019			<0.05	<0.0004	<0.007	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	<0.0001	<0.01	0.02
PMW-3D	09/16/2019			<0.05	<0.0004	<0.007	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	<0.0001	<0.01	0.02
PMW-3D	10/21/2019			0.08	<0.0004	<0.007	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0001	<0.01	0.02
PMW-3D	12/16/2019			<0.05	<0.0004	<0.007	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	<0.0001	<0.01	0.02
PMW-3S	10/25/2018			0.33	<0.0004	0.006	<0.04	0.00012	<0.01	<0.01	0.0003	<0.0002	<0.008	<0.0001	<0.01	0.04
PMW-3S	11/05/2018			0.05	<0.0004	0.011	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	<0.0001	<0.01	0.03
PMW-3S	01/23/2019			0.25	<0.0004	0.006	<0.04	<0.00005	<0.01	<0.01	0.0002	<0.0002	<0.008	0.0005	<0.01	0.05
PMW-3S	02/26/2019			0.06	0.0009	0.012	<0.04	<0.00005	<0.01	<0.01	0.0072	<0.0002	<0.008	0.006	<0.01	0.01
PMW-3S	03/19/2019			<0.03	<0.0004	0.007	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	<0.0001	<0.01	0.03
PMW-3S	04/08/2019			0.06	<0.0004	0.009	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	<0.0001	<0.01	0.03
PMW-3S	06/16/2019			0.06	<0.0004	0.013	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	<0.0001	<0.01	0.04
PMW-3S	07/15/2019			0.13	<0.0004	0.008	<0.04	<0.00005	<0.01	<0.01	0.0001	<0.0002	<0.008	<0.0001	<0.01	0.03
PMW-3S	08/12/2019			<0.05	<0.0004	0.01	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	<0.0001	<0.01	0.08
PMW-3S	09/16/2019			<0.05	<0.0004	0.011	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	<0.0001	<0.01	0.07
PMW-3S	12/18/2019			<0.05	<0.0004	<0.007	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0021	<0.01	0.04
PMW-4	10/24/2018			<0.03	<0.0004	<0.003	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0005	<0.01	<0.01
PMW-4	02/26/2019	Blocked														
PMW-4	04/08/2019	Frozen														
PMW-4	04/09/2019			<0.05	<0.0004	0.007	<0.04	<0.00005	<0.01	<0.01	0.0001	<0.0002	0.008	0.0115	<0.01	0.01
PMW-4	06/16/2019			<0.05	<0.0004	0.007	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0619	<0.01	<0.01
PMW-4	07/15/2019			<0.05	<0.0004	<0.007	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0075	<0.01	<0.01
PMW-4	08/13/2019			<0.05	<0.0004	<0.007	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.141	<0.01	<0.01
PMW-4	09/16/2019			<0.05	<0.0004	<0.007	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0749	<0.01	<0.01
PMW-4	10/24/2019			<0.05	<0.008	<0.007	<0.04	<0.001	<0.01	<0.01	<0.002	<0.0002	<0.008	0.155	<0.01	<0.01
PMW-4	12/16/2019			<0.05	<0.0004	<0.007	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0332	<0.01	<0.01
PMW-5	10/24/2018			<0.03	<0.0004	<0.003	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0002	<0.01	0.03
PMW-5	11/06/2018			0.04	<0.0004	0.004	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	<0.0001	<0.01	0.03
PMW-5	01/22/2019			<0.03	<0.0004	<0.003	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0004	<0.01	0.03
PMW-5	02/26/2019			<0.03	<0.0004	0.004	<0.04	<0.00005	<0.01	<0.01	0.0003	<0.0002	<0.008	0.0004	<0.01	0.02
PMW-5	03/18/2019			<0.03	0.0005	<0.003	<0.04	<0.00005	<0.01	<0.01	0.0003	<0.0002	<0.008	0.0005	<0.01	0.01
PMW-5	04/08/2019			<0.05	0.0021	<0.007	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0007	<0.01	<0.01
PMW-5	06/16/2019			<0.05	0.0055	<0.007	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0007	<0.01	0.02
PMW-5	07/15/2019			<0.05	0.0056	<0.007	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0008	<0.01	0.02

Process Ground Water - Trace Ion Chemistry

Site	Date	Reason If No Sample	Duplicate Sample	Al	Sb	Ba	Bi	Cd	Cr	Cu	Pb	Hg	Ni	Se	Ag	Zn
PMW-5	08/12/2019			<0.05	0.0041	<0.007	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0007	<0.01	0.02
PMW-5	09/16/2019			<0.05	0.0041	<0.007	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0006	<0.01	0.02
PMW-5	10/21/2019			<0.05	0.0039	<0.007	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0006	<0.01	0.02
PMW-5	12/16/2019			<0.05	0.0038	<0.007	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0006	<0.01	0.02
PMW-6	10/24/2018			<0.03	<0.0004	0.003	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0009	<0.01	0.04
PMW-6	11/06/2018			0.04	<0.0004	0.009	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0008	<0.01	0.07
PMW-6	01/22/2019			<0.03	<0.0004	<0.003	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0009	<0.01	0.07
PMW-6	02/26/2019			<0.03	<0.0004	0.011	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.001	<0.01	0.12
PMW-6	03/18/2019			<0.03	<0.0004	0.005	<0.04	<0.00005	<0.01	<0.01	0.0003	<0.0002	<0.008	0.001	<0.01	0.03
PMW-6	04/09/2019			<0.05	<0.0004	0.009	0.05	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0016	<0.01	0.05
PMW-6	06/16/2019			<0.05	<0.0004	0.01	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.001	<0.01	0.06
PMW-6	07/15/2019			<0.05	<0.0004	<0.007	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.001	<0.01	0.06
PMW-6	08/12/2019			<0.05	<0.0004	<0.007	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0009	<0.01	0.1
PMW-6	09/16/2019			<0.05	<0.0004	0.007	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0011	<0.01	0.07
PMW-6	10/21/2019			<0.05	<0.0004	0.009	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0009	<0.01	0.08
PMW-6	12/16/2019			<0.05	<0.0004	<0.007	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0009	<0.01	0.08

COMPLIANCE GROUNDWATER
NON-PROCESS WATER QUALITY DATA

FAIRBANKS GOLD MINING, INC.
FORT KNOX MINE

4th Quarter 2019

Non-Process Ground Water - Major Ion Chemistry

Site	Date	Reason If No Sample	Duplicate Sample	Bic Alk	Tot Alk	Ca	Cl	Hard	Mg	Lab pH	K	Si	Na	Lab Cond.	SO4	S	Temp. (C)	TDS	TSS	Tur
MW-5	10/08/2018			339	339	104	11.8	310	12.2	7.9	1.5	13.1	18.7	628	3.1	0.07	4.1	422	<5	23.1
MW-5	11/19/2018			327	327	98.2	12.4	292	11.4	8	1.3	12.3	17.6	617	6.7	0.07	3.4	424	<5	22.3
MW-5	01/02/2019			334	334	102	12	303	11.8	8.1	1.4	12.4	18.2	641	<20	0.06	4.2	392	<5	29.1
MW-5	02/11/2019			356	356	104	12.3	308	11.8	8.1	1.3	12.8	18	641	1.1	0.06	2.9	412	<5	17.9
MW-5	03/13/2019			343	343	102	12	303	11.7	7.9	1.4	12.7	17.5	634	<50	0.06	2.9	416	<5	25.8
MW-5	03/20/2019			338	338	101	11	300	11.7	7.9	1.4	12.3	17.4	641	<5	0.04	3.5	430	<5	17.5
MW-5	04/23/2019			334	334	97.7	10.7	290	11.3	7.9	1.3	12.7	16.6	624	<2	0.06	3.6	434	<5	16.9
MW-5	05/22/2019			322	322	102	10.8	302	11.5	8.1	1.4	13.2	18	622	<1	0.06	4.2	418	<5	18.5
MW-5	06/19/2019			366	366	111	10.2	327	12	7.9	1.3	13.7	17.3	649	<5	0.04	5	430	<5	23.6
MW-5	07/10/2019			343	343	107	10.3	315	11.7	7.9	1.4	12.4	18.7	623	1.1	0.04	4.2	396	<5	15.6
MW-5	08/13/2019			314	314	99.7	10.4	295	11.2	8	1.5	12.8	18.9	605	<5	0.07	4.8	414	<5	13.3
MW-5	09/18/2019			313	313	101	9.9	299	11.3	7.9	1.4	12.8	18.9	596	<1	0.06	4.1	382	<5	11.5
MW-5	10/10/2019			312	312	98.2	11	290	10.9	8	1.3	12.8	18.6	591	<10	0.08	2.9	394	<5	15.4
MW-5	11/11/2019			309	309	96.8	10.9	285	10.6	8	1.3	13	18.1	587	<5	0.08	3	384	<5	10.3
MW-5	12/04/2019			307	307	92.8	10.5	274	10.3	7.9	1.4	12.6	18.3	578	3.9	0.1	2.1	382	<5	7.47
MW-6	10/08/2018			384	384	125	9.2	410	23.8	7.8	2	14.8	18.4	790	11.6	0.04	4.3	470	26	10.1
MW-6	11/19/2018			391	391	126	8.5	409	22.8	8	2.1	13.4	15.7	811	62.7	0.04	3.8	546	10	34
MW-6	01/02/2019			394	394	121	9	396	22.7	8.1	1.9	14.2	17.2	804	39.6	0.05	4.8	496	<5	23.9
MW-6	02/05/2019			401	401	122	9.3	400	23.1	8.1	1.6	14.8	17.2	805	40.8	0.09	6.8	512	6	12.1
MW-6	03/13/2019			390	390	116	8.4	379	21.8	7.8	1.7	14.3	15.2	767	38.2	0.05	4.1	508	10	22.7
MW-6	03/20/2019			386	386	118	8.1	386	22.2	8	1.8	13.9	15.5	788	38.7	0.04	4.3	504	5	19.4
MW-6	04/23/2019			349	349	119	6.5	389	22.3	7.7	1.9	13.1	13.7	800	95.2	0.05	3.2	570	12	14.9
MW-6	05/22/2019			329	329	132	6.6	428	23.8	8	2.2	14.1	15.2	826	114	0.11	4.5	602	20	39
MW-6	06/19/2019			357	357	126	6.6	406	22.3	7.7	1.9	13.8	15.4	789	68.9	0.11	6.8	522	31	33.2
MW-6	07/10/2019			338	338	131	4.8	422	23.1	7.7	2.2	13.6	15.5	767	83.3	0.1	4.9	512	26	23.3
MW-6	07/29/2019			329	329	112	5.8	369	21.6	7.9	2.1	13.6	14.1	757	64.9	0.14	3.6	462	25	30.7
MW-6	08/13/2019			286	286	111	5.4	362	20.5	7.9	2.1	12.8	13.5	717	67	0.08	7.2	474	36	58.3
MW-6	09/16/2019			289	289	118	6.1	383	21.5	7.8	2.2	12.9	14.4	752	104	0.16	4.5	534	14	18.6
MW-6	10/10/2019			323	323	119	7.9	384	21.2	7.9	1.9	13.5	14.5	737	78.6	0.13	3.3	496	25	79.6
MW-6	10/24/2019			311	311	116	6.9	374	20.6	7.9	2.2	13.1	14.5	720	75	0.12	3.1	468	18	45.1
MW-6	11/06/2019			325	325	114	8.3	368	20.2	8	2.2	12.5	13.6	741	73.4	0.1	3.6	492	29	100
MW-6	11/21/2019			293	293	114	8.8	370	20.8	7.8	2.3	13.1	14	692	55.2	0.12	3.9	460	38	28.4
MW-6	12/05/2019			326	326	113	7.9	366	20.4	7.8	2.1	13.1	13.9	719	73.9	12.7	3.4	486	13	50.7
MW-6	12/16/2019			295	295	107	9.7	348	19.7	8	2.1	12.5	13.7	694	71.8	0.14	3.9	480	26	24.9
MW-7	10/08/2018			118	133	26.5	10.9	72	1.4	8.6	1.4	7.1	48.6	349	4.8	<0.02	3.5	228	<5	0.14
MW-7	11/19/2018			133	137	26.1	10.6	71	1.4	8.4	1.3	6.7	45.9	346	40.2	<0.02	3.5	234	<5	<0.1
MW-7	01/02/2019			127	137	26.2	10	71	1.4	8.6	1.4	6.7	47.2	357	42.4	<0.02	3.7	218	<5	0.63
MW-7	02/05/2019			118	124	26.2	9.6	71	1.3	8.5	1.2	6.7	46.6	359	64.3	<0.02	4.5	226	<5	0.27
MW-7	03/13/2019			116	124	26.2	10	72	1.5	8.5	1.3	7.1	45.6	353	40.6	<0.02	2.7	242	<5	3.15
MW-7	03/20/2019			129	134	26	9.1	71	1.5	8.4	1.4	6.8	44.8	349	42.9	<0.02	3.3	240	<5	0.65
MW-7	04/23/2019			113	121	25.3	9.4	69	1.3	8.5	1.3	6.9	43	341	37.6	<0.02	2.3	244	<5	0.21
MW-7	05/20/2019			113	123	26.1	9.1	71	1.5	8.6	1.4	7.1	45.4	349	36.3	<0.02	2.9	238	<5	0.21
MW-7	06/19/2019			115	124	27.5	8.6	74	1.3	8.5	1.2	7.3	48.5	351	38.9	<0.02	3.7	214	<5	0.3

Non-Process Ground Water - Major Ion Chemistry

Site	Date	Reason If No Sample	Duplicate Sample	Bic Alk	Tot Alk	Ca	Cl	Hard	Mg	Lab pH	K	Si	Na	Lab Cond.	SO4	S	Temp. (C)	TDS	TSS	Tur
MW-7	07/10/2019			117	123	27.8	8.7	75	1.3	8.5	1.3	7	48	349	5.1	<0.02	5.3	220	<5	<0.1
MW-7	08/13/2019			109	114	27.1	9.2	73	1.4	8.4	1.5	7.2	46.9	352	42.5	<0.02	4.2	226	<5	<0.1
MW-7	09/18/2019			114	120	27.6	9.3	74	1.3	8.5	1.3	7.2	48.3	349	40.8	<0.02	2.2	208	<5	<0.1
MW-7	10/10/2019			115	121	28	9.3	76	1.4	8.5	1.3	7.2	47.8	353	41.6	<0.02	1.2	222	<5	<0.1
MW-7	11/11/2019			116	123	28.3	9.4	77	1.5	8.5	1.2	7.3	46.9	359	40.4	<0.02	1.8	222	<5	1.37
MW-7	12/04/2019			115	123	28.5	9.6	77	1.4	8.6	1.5	7.4	49.1	350	38.2	<0.02	1.6	222	<5	<0.1
MW-4	11/06/2018			316	316	146	19.4	477	27.4	7.5	4.8	9.3	11.9	912	176	0.05	1.8	656	60	42.6
MW-4	03/20/2019			260	260	128	21	414	22.9	7.9	4.8	8.8	10.3	840	178	0.05	3.7	596	49	29.2
MW-4	04/24/2019			230	230	125	22.2	402	21.8	7.9	5	9.5	10.5	804	175	0.08	2.7	586	38	13.8
MW-4	08/27/2019			300	300	119	18.3	396	24	7.6	5	9.7	11.8	776	124	0.11	3.1	568	19	19.2
MW-4	12/27/2019	Pump/Motor Broken																		
PB-2D	10/01/2018			39.4	39.4	8.4	<0.5	26	1.2	7.9	0.7	11.1	5.5	77	<1	<0.02	3.7	74	42	16.4
PB-2D	01/15/2019			37	37	8.2	<0.5	25	1.2	7.8	0.5	10.9	5.2	77	<1	<0.02	2.2	74	22	9.74
PB-2D	06/25/2019			37.7	37.7	9	0.6	27	1	8	0.6	11.2	5.8	79	<1	<0.02	4	82	21	7.84
PB-2D	09/03/2019			44.9	44.9	8.8	0.5	27	1.1	7.8	0.6	11.1	5.5	81	<1	<0.02	4.5	60	48	13.1
PB-2D	10/08/2019			38	38	9.2	0.6	28	1.1	7.6	0.6	11.7	5.8	77	<1	<0.02	3.1	78	19	6.03
PC-1GW	10/01/2018			74.2	74.2	29.8	<0.5	79	1.1	8.2	0.7	6.1	4.9	184	16.8	<0.02	4.9	118	<5	<0.1
PC-1GW	01/15/2019			73.5	73.5	29.1	<0.5	77	1.1	8.2	0.4	6.1	4.9	184	17.6	<0.02	5	124	<5	0.38
PC-1GW	06/25/2019			82.7	82.7	32.1	<0.5	84	1	8.3	1.1	6.3	7.6	199	13.8	<0.02	3.9	122	<5	0.11
PC-1GW	09/03/2019			91.6	91.6	30.6	<0.5	81	1	8.1	0.9	6.1	6.5	187	12.3	<0.02	4.4	106	<5	0.1
PC-1GW	10/08/2019			76.1	76.1	32.4	<0.5	85	1.1	8.2	0.7	6.6	5.9	187	13.6	<0.02	4.6	128	<5	0.17
PC-2GW	10/01/2018			20.3	20.3	5.5	<0.5	15	0.4	7.7	0.4	8.1	2	43	<1	<0.02	5.5	48	<5	0.68
PC-2GW	01/15/2019			15.8	15.8	5.6	<0.5	16	0.4	7.7	<0.2	8.2	1.9	44	<1	<0.02	3	52	<5	0.66
PC-2GW	06/25/2019			24.5	24.5	7.7	0.6	21	0.3	7.8	0.2	8.4	2.2	55	<1	<0.02	3.2	58	<5	0.16
PC-2GW	09/03/2019			26.8	26.8	6.1	<0.5	17	0.3	7.6	0.2	8.2	2	45	<1	<0.02	3.3	32	<5	0.16
PC-2GW	10/08/2019			20.4	20.4	6.2	0.5	17	0.3	7.5	0.2	8.9	2.1	42	<1	<0.02	2.6	46	<5	0.19
PC-3GW	10/01/2018			77.4	77.4	19.2	<0.5	70	5.3	7.9	0.5	10.7	5.7	161	<1	<0.02	4.6	106	<5	0.55
PC-3GW	01/15/2019			77.1	77.1	18.5	<0.5	67	5.1	7.9	0.3	10.3	5.4	162	<1	<0.02	3.8	118	<5	1.94
PC-3GW	06/25/2019			76.6	76.6	19.4	0.8	68	4.8	8.1	0.3	10.9	5.6	158	<1	<0.02	4.6	114	<5	1.45
PC-3GW	09/03/2019			96.1	96.1	18.8	<0.5	67	4.9	7.8	0.3	10.5	5.5	155	<1	<0.02	4.9	102	12	3.39
PC-3GW	10/08/2019			73.9	73.9	19.4	0.6	69	4.9	7.6	0.3	10.9	5.6	151	<1	<0.02	3.6	114	<5	0.64

Non-Process Ground Water - Minor Ion Chemistry

Site	Date	Reason If No Sample	Duplicate Sample	NH4	As	CN	F	Fe	Mn	NO3	NO2	P	TPH	WAD CN
MW-5	10/08/2018			0.13	0.0004	<0.003	0.07	10.1	1.31	<0.02	<0.01	0.04		<0.003
MW-5	11/19/2018			0.17	0.0005	<0.003	0.08	9.9	1.22	<0.02	<0.01	0.02		<0.003
MW-5	01/02/2019			0.16	0.0004	<0.003	0.09	10.1	1.29	<0.02	<0.01	0.02		<0.003
MW-5	02/11/2019			0.14	0.0004	<0.003	0.21	9.68	1.27	<0.02	<0.01	0.03		<0.003
MW-5	03/13/2019			0.16	0.0005	<0.003	0.19	9.59	1.27	<0.02	<0.01	0.02		<0.003
MW-5	03/20/2019			0.13	0.0004	<0.003	0.08	9.44	1.25	<0.02	<0.01	<0.02		<0.003
MW-5	04/23/2019			0.2	0.0004	<0.003	<0.1	8.9	1.21	<0.02	<0.01	0.03		<0.003
MW-5	05/22/2019			0.16	0.0004	<0.003	<0.1	9.47	1.26	<0.02	<0.01	0.02		<0.003
MW-5	06/19/2019			0.17	0.0005	<0.003	<0.1	11.4	1.32	<0.02	<0.01	0.01		<0.003
MW-5	07/10/2019			0.12	0.0005	<0.003	0.3	2.05	1.25	<0.02	<0.01	0.02		<0.003
MW-5	08/13/2019			0.17	0.0003	<0.02	<0.1	8.98	1.24	<0.02	<0.01	0.02		<0.003
MW-5	09/18/2019			0.12	0.0004	<0.003	<0.1	9.59	1.27	<0.02	<0.01	0.05		<0.003
MW-5	10/10/2019			0.14	0.0005	<0.003	<0.1	9.12	1.26	<0.02	<0.01	0.01		<0.003
MW-5	11/11/2019			0.13	0.0004	<0.003	<0.1	9.26	1.22	<0.02	<0.01	0.02		<0.003
MW-5	12/04/2019			0.13	0.0003	<0.003	<0.1	8.58	1.17	<0.02	<0.01	0.01		<0.003
MW-6	10/08/2018			<0.05	<0.0002	<0.003	<0.05	1.7	0.897	<0.02	<0.01	0.02		<0.003
MW-6	11/19/2018			0.19	0.0006	<0.02	<0.05	5.51	1.65	<0.02	<0.01	<0.02		<0.003
MW-6	01/02/2019			0.05	0.0003	<0.003	<0.05	2.81	0.922	<0.02	<0.01	<0.02		<0.003
MW-6	02/05/2019			<0.05	0.0003	<0.003	<0.05	1.58	0.759	<0.02	<0.01	<0.02		<0.003
MW-6	03/13/2019			0.22	0.0005	<0.003	<0.05	4.58	1.23	<0.02	<0.01	<0.02		<0.003
MW-6	03/20/2019			0.09	0.0003	<0.003	<0.05	2.94	1.09	<0.02	<0.01	<0.02		<0.003
MW-6	04/23/2019			0.3	0.0009	<0.003	<0.1	11.4	2.07	<0.02	<0.01	0.02		<0.003
MW-6	05/22/2019			0.27	0.0015	<0.02	<0.1	16.6	2.63	<0.02	<0.01	0.02		<0.003
MW-6	06/19/2019			0.26	0.0011	<0.003	<0.1	13.7	2.09	<0.02	0.01	0.01		<0.003
MW-6	07/10/2019			0.26	0.0009	<0.003	<0.1	11	2.3	132	<0.01	0.01		<0.003
MW-6	07/29/2019			0.27	0.0011	<0.003	<0.1	13.7	2	<0.02	<0.01	0.01		<0.003
MW-6	08/13/2019			0.35	0.001	<0.003	<0.1	16.3	2.12	<0.02	<0.01	0.01		<0.003
MW-6	09/16/2019			0.36	0.0016	<0.003	<0.1	19.6	2.26	<0.02	<0.01	0.01		<0.003
MW-6	10/10/2019			0.36	0.0011	<0.003	<0.1	17.4	2.07	<0.02	<0.01	<0.01		<0.003
MW-6	10/24/2019			0.37	0.0009	<0.003	<0.1	17.9	2.06	<0.02	<0.01	0.02		<0.003
MW-6	11/06/2019			0.4	0.001	<0.003	<0.1	16.8	1.99	<0.02	<0.01	0.01		<0.003

Non-Process Ground Water - Minor Ion Chemistry

Site	Date	Reason If No Sample	Duplicate Sample	NH4	As	CN	F	Fe	Mn	NO3	NO2	P	TPH	WAD CN
MW-6	11/21/2019			0.48	0.0011	<0.003	<0.1	19.7	2.14	<0.02	<0.01	<0.01		<0.003
MW-6	12/05/2019			0.41	0.0006	<0.02	<0.1	16.6	1.94	<0.02	<0.01	0.04		<0.003
MW-6	12/16/2019			0.47	0.0011	<0.003	<0.1	22.6	2.05	<0.02	0.02	<0.01		<0.003
MW-7	10/08/2018			<0.05	0.0011	<0.003	0.5	<0.02	0.066	<0.02	<0.01	0.03		<0.003
MW-7	11/19/2018			<0.05	0.0012	<0.003	0.53	0.02	0.069	<0.02	<0.01	<0.02		<0.003
MW-7	01/02/2019			<0.05	0.0011	<0.003	0.53	0.04	0.069	0.04	<0.01	<0.02		<0.003
MW-7	02/05/2019			<0.05	0.0013	<0.003	0.49	<0.02	0.072	<0.02	<0.01	<0.02		<0.003
MW-7	03/13/2019			0.05	0.0014	<0.003	0.49	0.98	0.099	<0.02	<0.01	<0.02		<0.003
MW-7	03/20/2019			<0.05	0.0013	<0.003	0.47	0.64	0.09	<0.02	<0.01	<0.02		<0.003
MW-7	04/23/2019			<0.05	0.0012	<0.003	0.5	0.06	0.07	<0.02	<0.01	<0.01		<0.003
MW-7	05/20/2019			0.07	0.0012	<0.003	0.5	0.03	0.08	<0.02	<0.01	0.01		<0.003
MW-7	06/19/2019			<0.05	0.0011	<0.003	0.5	<0.03	0.08	<0.02	<0.01	<0.01		<0.003
MW-7	07/10/2019			<0.05	0.0011	<0.003	0.4	<0.03	0.08	<0.02	<0.01	<0.01		<0.003
MW-7	08/13/2019			<0.05	0.001	<0.003	0.5	<0.03	0.08	<0.02	<0.01	0.01		<0.003
MW-7	09/18/2019			<0.05	0.0012	<0.003	0.4	<0.03	0.08	<0.02	<0.01	0.02		<0.003
MW-7	10/10/2019			<0.05	0.0012	<0.003	0.4	<0.03	0.08	0.08	<0.01	<0.01		<0.003
MW-7	11/11/2019			<0.05	0.0012	<0.003	0.4	0.04	0.08	<0.02	<0.01	<0.01		<0.003
MW-7	12/04/2019			0.07	0.0012	<0.003	0.4	0.03	0.08	<0.02	<0.01	<0.01		<0.003
MW-4	11/06/2018			2.83	0.0026	<0.02	0.12	20.1	1.07	0.07	<0.01	0.26		0.003
MW-4	03/20/2019			1.66	0.0038	<0.003	0.11	15	0.772	0.02	<0.01	0.14		<0.003
MW-4	04/24/2019			1.49	0.0036	<0.003	<0.1	14.4	0.74	0.03	<0.01	0.11		<0.003
MW-4	08/27/2019			2.77	0.0039	<0.003	<0.1	22.1	1.06	<0.02	<0.01	0.31		<0.003
MW-4	12/27/2019	Pump/Motor Broken												
PB-2D	10/01/2018			<0.05	<0.0002	<0.003	<0.05	<0.02	<0.005	0.56	<0.01	0.05		<0.003
PB-2D	01/15/2019			<0.05	<0.0002	<0.003	0.1	<0.02	<0.005	0.61	<0.01	0.04		<0.003
PB-2D	06/25/2019			<0.05	<0.0002	<0.003	<0.1	<0.03	<0.01	0.69	<0.01	0.02		<0.003
PB-2D	09/03/2019			<0.05	<0.0002	<0.003	<0.1	<0.03	<0.01	0.72	<0.01	0.06		<0.003
PB-2D	10/08/2019			<0.05	<0.0002	<0.003	<0.1	<0.03	<0.01	0.77	<0.01	0.03		<0.003
PC-1GW	10/01/2018			<0.05	0.0033	<0.003	1.49	<0.02	<0.005	0.28	<0.01	<0.02		<0.003
PC-1GW	01/15/2019			<0.05	0.0033	<0.003	1.53	<0.02	<0.005	0.25	<0.01	<0.02		<0.003
PC-1GW	06/25/2019			<0.05	0.0027	<0.003	1.5	<0.03	<0.01	0.16	<0.01	<0.01		<0.003
PC-1GW	09/03/2019			<0.05	0.003	<0.003	1.7	<0.03	<0.01	0.22	<0.01	<0.01		<0.003

Non-Process Ground Water - Minor Ion Chemistry

Site	Date	Reason If No Sample	Duplicate Sample	NH4	As	CN	F	Fe	Mn	NO3	NO2	P	TPH	WAD CN
PC-1GW	10/08/2019			<0.05	0.0034	<0.003	1.5	<0.03	<0.01	0.25	<0.01	<0.01		<0.003
PC-2GW	10/01/2018			<0.05	0.0008	<0.003	0.54	<0.02	<0.005	0.56	<0.01	<0.02		<0.003
PC-2GW	01/15/2019			<0.05	0.0007	<0.003	0.56	<0.02	<0.005	0.6	<0.01	<0.02		<0.003
PC-2GW	06/25/2019			<0.05	0.0008	<0.003	0.7	<0.03	<0.01	0.67	<0.01	<0.01		<0.003
PC-2GW	09/03/2019			<0.05	0.0008	<0.003	0.7	<0.03	<0.01	0.54	<0.01	<0.01		<0.003
PC-2GW	10/08/2019			<0.05	0.0009	<0.003	0.6	<0.03	<0.01	0.53	<0.01	<0.01		<0.003
PC-3GW	10/01/2018			<0.05	<0.0002	<0.003	0.06	<0.02	<0.005	1.69	<0.01	0.04		<0.003
PC-3GW	01/15/2019			<0.05	<0.0002	<0.003	0.06	<0.02	<0.005	1.89	<0.01	0.03		<0.003
PC-3GW	06/25/2019			<0.05	<0.0002	<0.003	<0.1	<0.03	<0.01	1.85	<0.01	0.02		<0.003
PC-3GW	09/03/2019			<0.05	<0.0002	<0.003	<0.1	<0.03	<0.01	1.59	<0.01	0.04		<0.003
PC-3GW	10/08/2019			<0.05	<0.0002	<0.003	<0.1	<0.03	<0.01	1.44	<0.01	0.03		<0.003

Non-Process Ground Water - Trace Ion Chemistry

Site	Date	Reason If No Sample	Duplicate Sample	Al	Sb	Ba	Bi	Cd	Cr	Cu	Pb	Hg	Ni	Se	Ag	Zn
MW-5	10/08/2018			<0.03	<0.0004	0.034	<0.04	0.00007	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0007	<0.01	<0.01
MW-5	11/19/2018			<0.03	<0.0004	0.034	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0012	<0.01	0.01
MW-5	01/02/2019			<0.03	<0.0004	0.035	<0.04	0.00007	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0009	<0.01	<0.01
MW-5	02/11/2019			<0.03	<0.0004	0.037	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.004	<0.01	<0.01
MW-5	03/13/2019			<0.03	<0.0004	0.037	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0001	<0.01	<0.01
MW-5	03/20/2019			<0.03	<0.0004	0.034	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	<0.0001	<0.01	<0.01
MW-5	04/23/2019			<0.05	<0.0004	0.032	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0009	<0.01	<0.01
MW-5	05/22/2019			<0.05	<0.0004	0.038	<0.04	0.00006	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0015	<0.01	<0.01
MW-5	06/19/2019			<0.05	<0.0004	0.041	<0.04	0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0004	<0.01	<0.01
MW-5	07/10/2019			<0.05	<0.0004	0.034	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0002	<0.01	<0.01
MW-5	08/13/2019			<0.05	<0.0004	0.036	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.007	<0.01	<0.01
MW-5	09/18/2019			<0.05	<0.0004	0.031	<0.04	0.00006	<0.01	<0.01	<0.0001	<0.0002	<0.008	<0.0001	<0.01	<0.01
MW-5	10/10/2019			<0.05	<0.0004	0.034	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	<0.0001	<0.01	<0.01
MW-5	11/11/2019			<0.05	<0.0004	0.034	<0.04	<0.00005	<0.01	<0.01	0.0003	<0.0002	<0.008	0.0026	<0.01	0.01
MW-5	12/04/2019			<0.05	<0.0004	0.031	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0009	<0.01	<0.01
MW-6	10/08/2018			<0.03	<0.0004	0.004	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0008	<0.01	<0.01
MW-6	11/19/2018			<0.03	<0.0004	0.013	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	0.025	0.0011	<0.01	0.03
MW-6	01/02/2019			<0.03	<0.0004	0.007	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.001	<0.01	<0.01
MW-6	02/05/2019			<0.03	<0.0004	0.007	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0018	<0.01	0.01
MW-6	03/13/2019			<0.03	0.0004	0.011	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0001	<0.01	<0.01
MW-6	03/20/2019			<0.03	<0.0004	0.009	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	<0.0001	<0.01	0.01
MW-6	04/23/2019			<0.05	<0.0004	0.018	<0.04	0.00005	<0.01	<0.01	0.0001	<0.0002	0.035	0.0002	<0.01	<0.01
MW-6	05/22/2019			<0.05	<0.0004	0.027	<0.04	0.00006	<0.01	<0.01	0.0001	<0.0002	0.049	0.0002	<0.01	0.02
MW-6	06/19/2019			<0.05	<0.0004	0.021	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	0.027	0.0009	<0.01	<0.01
MW-6	07/10/2019			<0.05	<0.0004	0.026	<0.04	<0.00005	<0.01	<0.01	0.0001	<0.0002	0.03	0.0002	<0.01	<0.01
MW-6	07/29/2019			<0.05	<0.0004	0.022	<0.04	0.00005	<0.01	<0.01	0.0001	<0.0002	0.025	0.0002	<0.01	<0.01
MW-6	08/13/2019			<0.05	<0.0004	0.025	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	0.028	0.001	<0.01	<0.01
MW-6	09/16/2019			<0.05	<0.0004	0.026	<0.04	0.00006	<0.01	<0.01	0.0002	<0.0002	0.043	0.0002	<0.01	<0.01
MW-6	10/10/2019			<0.05	<0.0004	0.021	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	0.026	0.0001	<0.01	<0.01
MW-6	10/24/2019			<0.05	<0.0004	0.024	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	0.025	0.0001	<0.01	<0.01
MW-6	11/06/2019			<0.05	<0.0004	0.027	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	0.023	0.001	<0.01	<0.01
MW-6	11/21/2019			0.06	<0.0004	0.031	<0.04	<0.00005	0.02	<0.01	0.0001	<0.0002	0.02	0.001	<0.01	<0.01
MW-6	12/05/2019			<0.05	<0.0004	0.021	<0.04	<0.00005	<0.01	<0.01	0.0002	<0.0002	0.019	0.0024	<0.01	<0.01
MW-6	12/16/2019			<0.05	<0.0004	0.025	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	0.017	0.0026	<0.01	<0.01
MW-7	10/08/2018			<0.03	<0.0004	<0.003	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	<0.0001	<0.01	<0.01
MW-7	11/19/2018			<0.03	<0.0004	<0.003	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	<0.0001	<0.01	<0.01
MW-7	01/02/2019			<0.03	<0.0004	<0.003	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	<0.0001	<0.01	<0.01
MW-7	02/05/2019			<0.03	<0.0004	<0.003	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	<0.0001	<0.01	<0.01
MW-7	03/13/2019			<0.03	<0.0004	0.005	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	<0.0001	<0.01	<0.01
MW-7	03/20/2019			<0.03	<0.0004	<0.003	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	<0.0001	<0.01	<0.01
MW-7	04/23/2019			<0.05	<0.0004	<0.007	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	<0.0001	<0.01	<0.01
MW-7	05/20/2019			<0.05	<0.0004	<0.007	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	<0.0001	<0.01	<0.01
MW-7	06/19/2019			<0.05	<0.0004	<0.007	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	<0.0001	<0.01	<0.01

Non-Process Ground Water - Trace Ion Chemistry

Site	Date	Reason If No Sample	Duplicate Sample	Al	Sb	Ba	Bi	Cd	Cr	Co	Pb	Hg	Ni	Se	Ag	Zn
MW-7	07/10/2019			<0.05	<0.0004	0.008	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	<0.0001	<0.01	<0.01
MW-7	08/13/2019			<0.05	<0.0004	<0.007	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	<0.0001	<0.01	<0.01
MW-7	09/18/2019			<0.05	<0.0004	<0.007	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	<0.0001	<0.01	<0.01
MW-7	10/10/2019			<0.05	<0.0004	<0.007	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	<0.0001	<0.01	<0.01
MW-7	11/11/2019			<0.05	<0.0004	<0.007	<0.04	<0.00005	<0.01	<0.01	0.0029	<0.0002	<0.008	<0.0001	<0.01	<0.01
MW-7	12/04/2019			<0.05	<0.0004	<0.007	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	<0.0001	<0.01	<0.01
MW-4	11/06/2018			0.08	<0.0004	0.044	<0.04	<0.00005	<0.01	<0.01	0.0002	<0.0002	0.12	0.0003	<0.01	0.56
MW-4	03/20/2019			<0.03	<0.0004	0.032	<0.04	<0.00005	<0.01	<0.01	0.0002	<0.0002	0.074	0.0003	<0.01	0.45
MW-4	04/24/2019			<0.05	<0.0004	0.034	<0.04	<0.00005	<0.01	<0.01	0.0001	<0.0002	0.071	0.0016	<0.01	0.47
MW-4	08/27/2019			0.06	<0.0004	0.051	<0.04	<0.00005	<0.01	<0.01	0.0001	<0.0002	0.048	0.0021	<0.01	0.61
MW-4	12/27/2019	Pump/Motor Broken														
PB-2D	10/01/2018			<0.03	<0.0004	<0.003	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	<0.0001	<0.01	<0.01
PB-2D	01/15/2019			<0.03	<0.0004	0.003	<0.04	<0.00005	<0.01	<0.01	0.0001	<0.0002	<0.008	<0.0001	<0.01	<0.01
PB-2D	06/25/2019			<0.05	<0.0004	<0.007	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	<0.0001	<0.01	<0.01
PB-2D	09/03/2019			<0.05	<0.0004	<0.007	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	0.009	<0.0001	<0.01	<0.01
PB-2D	10/08/2019			<0.05	<0.0004	<0.007	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	<0.0001	<0.01	<0.01
PC-1GW	10/01/2018			<0.03	0.0009	0.005	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	<0.0001	<0.01	<0.01
PC-1GW	01/15/2019			<0.03	0.0009	0.008	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	<0.0001	<0.01	<0.01
PC-1GW	06/25/2019			<0.05	0.0009	0.012	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0001	<0.01	<0.01
PC-1GW	09/03/2019			<0.05	0.0009	<0.007	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0001	<0.01	<0.01
PC-1GW	10/08/2019			<0.05	0.0009	0.008	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	0.0001	<0.01	<0.01
PC-2GW	10/01/2018			<0.03	<0.0004	<0.003	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	<0.0001	<0.01	<0.01
PC-2GW	01/15/2019			<0.03	<0.0004	<0.003	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	<0.0001	<0.01	<0.01
PC-2GW	06/25/2019			<0.05	<0.0004	<0.007	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	<0.0001	<0.01	<0.01
PC-2GW	09/03/2019			<0.05	<0.0004	<0.007	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	<0.0001	<0.01	<0.01
PC-2GW	10/08/2019			<0.05	<0.0004	<0.007	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	<0.0001	<0.01	<0.01
PC-3GW	10/01/2018			<0.03	<0.0004	<0.003	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	<0.0001	<0.01	<0.01
PC-3GW	01/15/2019			<0.03	<0.0004	0.005	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	<0.0001	<0.01	<0.01
PC-3GW	06/25/2019			<0.05	<0.0004	0.008	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	<0.0001	<0.01	<0.01
PC-3GW	09/03/2019			<0.05	<0.0004	<0.007	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	<0.0001	<0.01	<0.01
PC-3GW	10/08/2019			<0.05	<0.0004	<0.007	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	<0.0001	<0.01	<0.01

METEORIC WATER MOBILITY DATA

FAIRBANKS GOLD MINING, INC.
FORT KNOX MINE

4th Quarter 2019

Meteoric Water Mobility - Major Ion Chemistry

Site	Date	Reason If No Sample	Duplicate Sample	Bic Alk	Tot Alk	Ca	Cl	Hard	Mg	Lab pH	K	Si	Na	Lab Cond.	SO4	TDS	TSS
Waste Rock	10/17/2014					15.3			1.9		6.6		22				
Waste Rock	10/28/2015					49.1			8.3		13.6		8.8				
Waste Rock	12/19/2016					32.5			5.5		16.2		11.8				
Waste Rock	10/09/2017				116	34.2			6.7		3.8		8.6	270		152	
Waste Rock	11/06/2018				158	37			11.5		6.2		12.4	326		192	
Waste Rock	10/25/2019				75.6	28.6			4.1		13.4		11	268		178	
Yearly A-Ore	10/17/2014					12.7			1.9		8.1		19.3				
Yearly A-Ore	10/28/2015					12.3			1.3		7.2		21.1				
Yearly A-Ore	12/19/2016					9.7			0.9		7.8		19.9				
Yearly A-Ore	10/09/2017				61	14.3			1.1		6.5		26.8	238		138	
Yearly A-Ore	11/06/2018				68.8	18.2			1.5		6.8		24.2	236		158	
Yearly A-Ore	10/25/2019				54.4	12.9			0.7		5.2		23.6	198		136	
Low Grade Stockpile	10/17/2014					13.2			1.6		9		19.4				
Low Grade Stockpile	10/28/2015					13.8			1.5		6.6		14.5				
Low Grade Stockpile	12/19/2016					10.5			0.9		8.1		22.1				
Low Grade Stockpile	10/09/2017				50.4	12.9			1.1		6.1		18.9	194		106	
Low Grade Stockpile	11/06/2018				66.5	12.6			1.1		5.8		22.5	190		110	
Low Grade Stockpile	10/25/2019				51.3	13.2			0.9		4		24.6	203		136	
Topsoil Sample	10/17/2014					112			13.8		17.5		11.2				
Topsoil Sample	10/28/2015					125			11.4		12.9		12.7				
Topsoil Sample	12/19/2016					11.8			4.7		11.6		10.9				
Topsoil Sample	10/09/2017				90	53.9			8		7.9		6.8	376		666	
Topsoil Sample	11/06/2018				38.7	52.6			14.4		13.8		10	473		778	
Topsoil Sample	10/25/2019				20.7	45.5			8.8		9.1		8	355		1,070	
Tailing Solids	02/19/2014					4.2			0.2		7.8		59.7				
Tailing Solids	05/20/2014					3.7			0.4		8.2		65.1				
Tailing Solids	08/28/2014					4.4			<0.2		8		74.5				
Tailing Solids	10/17/2014					4.1			0.5		8.5		76.4				
Tailing Solids	03/18/2015					5.4			0.5		10.8		71.9				
Tailing Solids	06/22/2015					6.3			0.8		10		64.3				
Tailing Solids	07/29/2015					4			0.3		6.9		40.6				
Tailing Solids	10/28/2015					6.2			0.5		10.6		74.6				
Tailing Solids	03/10/2016					5.4			0.5		9.9		93				
Tailing Solids	06/03/2016					6.1			0.4		9.7		80.1				
Tailing Solids	09/28/2016					4.7			<0.2		8.5		95.1				
Tailing Solids	12/19/2016					4.5			0.4		8.2		87.2				
Tailing Solids	02/13/2017					5.4			0.5		10.6		84.5				
Tailing Solids	04/13/2017					6.5			0.3		12.4		110				
Tailing Solids	07/26/2017				77.7	5.3			<0.2		10.9		120	660		332	
Tailing Solids	10/09/2017				73.3	4.9			<0.2		7.1		60.5	349		198	
Tailing Solids	01/09/2018				76.7	5.5			0.3		13.2		112	621		326	
Tailing Solids	04/19/2018				124	2.9			<0.2		8.5		102	534		302	
Tailing Solids	07/19/2018				124	2.6			<0.2		7.7		84.5	450		290	

Meteoric Water Mobility - Major Ion Chemistry

Site	Date	Reason If No Sample	Duplicate Sample	Bic Alk	Tot Alk	Ca	Cl	Hard	Mg	Lab pH	K	Si	Na	Lab Cond.	SO4	TDS	TSS
Tailing Solids	11/06/2018				92.3	3.8			0.3		7.7		68.2	356		204	
Tailing Solids	03/14/2019				121	2.1			<0.4		7.2		82.7	414		276	
Tailing Solids	04/30/2019				110	3.5			0.2		9.6		67.1	351		210	
Tailing Solids	08/12/2019				133	2.3			0.2		6.9		80.7	401		244	
Tailing Solids	10/25/2019				154	2			<0.2		6.8		97.6	458		306	

Meteoric Water Mobility - Minor Ion Chemistry

Site	Date	Reason If No Sample	Duplicate Sample	NH4	As	CN	F	Fe	Mn	NO3	NO2	P	TPH	WAD CN
Waste Rock	10/17/2014				0.0062	<0.1		0.17	0.008					
Waste Rock	10/28/2015				0.0024	<0.1		0.05	0.197					
Waste Rock	12/19/2016				0.0042	<0.1		0.03	0.029					
Waste Rock	10/09/2017			<0.05	0.0016	<0.003		<0.02	0.115	2.39	<0.01	0.04		
Waste Rock	11/06/2018			<0.05	0.0008	<0.02		<0.02	0.054	0.92	0.07	<0.05		
Waste Rock	10/25/2019			<0.05	0.0098	<0.2		<0.03	0.02	1.53	0.02	<0.01		
Yearly A-Ore	10/17/2014				0.0094	<0.1		0.03	<0.005					
Yearly A-Ore	10/28/2015					<0.2								
Yearly A-Ore	10/28/2015				0.0476	<0.1		0.04	<0.005					
Yearly A-Ore	12/19/2016				0.0115	<0.1		0.05	<0.005					
Yearly A-Ore	10/09/2017			0.27	0.0132	<0.003		<0.02	0.006	4.93	0.02	<0.02		
Yearly A-Ore	11/06/2018			0.11	0.0226	<0.02		<0.02	<0.005	4.72	0.06	<0.02		
Yearly A-Ore	10/25/2019			0.35	0.0108	0.003		<0.03	<0.01	3.91	0.02	0.01		
Low Grade Stockpile	10/17/2014				0.0068	<0.1		0.12	<0.005					
Low Grade Stockpile	10/28/2015				0.0568	<0.1		0.05	<0.005					
Low Grade Stockpile	12/19/2016				0.0151	<0.1		<0.02	<0.005					
Low Grade Stockpile	10/09/2017			0.32	0.0423	<0.003		<0.02	0.009	4.33	0.02	0.03		
Low Grade Stockpile	11/06/2018			<0.05	0.0158	<0.02		0.02	<0.005	1.41	0.05	<0.02		
Low Grade Stockpile	10/25/2019			0.19	0.0103	<0.003		<0.03	<0.01	6.56	0.02	0.01		
Topsoil Sample	10/17/2014				0.0065	<0.1		0.13	2.21					
Topsoil Sample	10/28/2015				0.004	<0.2		0.19	1.84					
Topsoil Sample	12/19/2016				0.0038	<0.1		1.81	0.969					
Topsoil Sample	10/09/2017			1.18	0.0274	0.009		0.31	3.2	1.84	<0.01	0.23		
Topsoil Sample	11/06/2018			1.77	0.005	<0.02		0.99	8.33	0.55	0.03	0.53		
Topsoil Sample	10/25/2019			1.52	0.006	0.02		1.77	5.51	0.27	0.02	0.63		
Tailing Solids	02/19/2014				0.0243	0.6		0.13	<0.005					
Tailing Solids	05/20/2014				0.0397	0.4		1.1	0.024					
Tailing Solids	08/28/2014				0.0565	0.2		0.06	<0.005					
Tailing Solids	10/17/2014				0.0648	0.2		0.59	0.011					

Meteoric Water Mobility - Minor Ion Chemistry

Site	Date	Reason If No Sample	Duplicate Sample	NH4	As	CN	F	Fe	Mn	NO3	NO2	P	TPH	WAD CN
Tailing Solids	03/18/2015				0.0347	0.4		0.11	<0.005					
Tailing Solids	06/22/2015				0.0423	0.5		0.79	0.024					
Tailing Solids	07/29/2015				0.0598	0.4		0.12	<0.005					
Tailing Solids	10/28/2015				0.0341	0.3		0.23	<0.005					
Tailing Solids	03/10/2016				0.0514	0.4		0.1	<0.005					
Tailing Solids	06/03/2016				0.0585	0.5		0.06	<0.005					
Tailing Solids	09/28/2016				0.1356	0.3		0.04	<0.005					
Tailing Solids	12/19/2016				0.112	0.3		0.43	0.006					
Tailing Solids	02/13/2017				0.0574	0.5		0.07	<0.005					
Tailing Solids	04/13/2017				0.0388	0.5		0.14	<0.005					
Tailing Solids	07/26/2017			0.09	0.0466	0.038		0.06	<0.005	2.23	<0.01	0.03		
Tailing Solids	10/09/2017			0.1	0.0842	0.046		0.07	0.007	1.28	0.02	0.03		
Tailing Solids	01/09/2018			0.25	0.0362	0.05		0.11	0.006	2.18	0.02	0.03		
Tailing Solids	04/19/2018			0.23	0.243	0.077		0.05	<0.005	1.18	0.15	0.04		
Tailing Solids	07/19/2018			0.07	0.189	<0.03		0.2	<0.005	0.6	0.03	0.05		
Tailing Solids	11/06/2018			0.13	0.111	<0.02		0.08	<0.005	0.76	0.03	<0.05		
Tailing Solids	03/14/2019			0.22	0.104	0.035		0.09	0.01	0.85	0.13	0.04		
Tailing Solids	04/30/2019			0.25	0.0894	0.043		0.09	<0.01	0.63	0.22	0.03		
Tailing Solids	08/12/2019			0.17	0.0931	0.036		0.54	0.01	0.89	0.06	0.05		
Tailing Solids	10/25/2019			0.11	0.0612	0.015		0.62	<0.01	0.53	0.06	0.06		

Meteoric Water Mobility - Trace Ion Chemistry

Site	Date	Reason If No Sample	Duplicate Sample	Al	Sb	Ba	Bi	Cd	Cr	Cu	Pb	Hg	Ni	Se	Ag	Zn
Waste Rock	10/17/2014			0.37	0.0057	0.004	<0.04	<0.0001	0.0008	0.0014	0.0004	<0.0002	<0.0006	0.0002	<0.00005	<0.01
Waste Rock	10/28/2015			0.05	0.0032	0.015	<0.04	<0.0001	<0.0005	0.0042	0.0001	<0.0002	0.0028	0.0006	<0.00005	0.01
Waste Rock	12/19/2016			0.08	0.0038	0.006	<0.04	<0.0001	<0.0005	<0.0005	<0.0001	<0.0002	0.0011	0.0006	<0.00005	<0.01
Waste Rock	10/09/2017			<0.03	0.0026	0.008	<0.04	<0.0001	<0.0005	0.0128	<0.0001	<0.0002	0.0008	0.0003	<0.00005	<0.01
Waste Rock	11/06/2018			<0.03	0.0017	0.007	<0.04	<0.00005	<0.0005	0.0018	0.0002	<0.0002	0.001	0.0003	<0.0001	<0.01
Waste Rock	10/25/2019			0.11	0.0128	<0.007	<0.04	<0.0001	<0.001	<0.002	<0.0002	<0.0002	<0.0008	0.0009	<0.0002	<0.01
Yearly A-Ore	10/17/2014			0.21	0.0074	0.005	<0.04	<0.0001	<0.0005	0.0009	0.0002	<0.0002	<0.0006	0.0007	<0.00005	<0.01
Yearly A-Ore	10/28/2015			0.17	0.0188	0.005	<0.04	<0.0001	<0.0005	0.001	0.0002	<0.0002	<0.0006	0.0008	<0.00005	<0.01
Yearly A-Ore	12/19/2016			0.31	0.0107	<0.003	<0.04	<0.0001	<0.0005	<0.0005	0.0002	<0.0002	<0.0006	0.0011	<0.00005	<0.01
Yearly A-Ore	10/09/2017			0.11	0.0254	0.005	<0.04	<0.0001	<0.0005	0.0028	<0.0001	<0.0002	<0.0006	0.0005	0.00011	<0.01
Yearly A-Ore	11/06/2018			0.12	0.0175	0.004	<0.04	0.00006	<0.0005	<0.0008	0.0001	<0.0002	<0.0006	0.0008	<0.0001	<0.01
Yearly A-Ore	10/25/2019			0.18	0.0112	<0.007	<0.04	<0.0001	<0.001	<0.002	<0.0002	<0.0002	<0.0008	0.0004	<0.0002	<0.01
Low Grade Stockpile	10/17/2014			0.49	0.008	0.006	<0.04	<0.0001	<0.0005	0.0009	0.0003	<0.0002	<0.0006	0.0025	<0.00005	<0.01
Low Grade Stockpile	10/28/2015			0.19	0.0074	0.006	<0.04	<0.0001	<0.0005	0.0008	0.0002	<0.0002	<0.0006	0.0003	<0.00005	<0.01
Low Grade Stockpile	12/19/2016			0.22	0.0264	<0.003	<0.04	<0.0001	<0.0005	<0.0005	<0.0001	<0.0002	<0.0006	0.0007	<0.00005	<0.01
Low Grade Stockpile	10/09/2017			0.14	0.0271	0.006	<0.04	<0.0001	<0.0005	0.0017	<0.0001	<0.0002	<0.0006	0.0007	<0.00005	<0.01
Low Grade Stockpile	11/06/2018			0.16	0.0108	0.003	<0.04	<0.00005	<0.0005	<0.0008	0.0001	<0.0002	<0.0006	0.0003	<0.0001	<0.01
Low Grade Stockpile	10/25/2019			0.19	0.0072	<0.007	<0.04	<0.0001	<0.001	<0.002	<0.0002	<0.0002	<0.0008	0.0003	<0.0002	<0.01
Topsoil Sample	10/17/2014			0.21	0.0035	0.087	<0.04	0.0001	0.0017	0.0089	0.0002	<0.0002	0.0245	0.0007	<0.00005	0.02
Topsoil Sample	10/28/2015			0.18	0.005	0.11	<0.04	<0.0005	<0.003	0.014	<0.0005	<0.0002	0.008	0.0014	<0.0003	<0.01
Topsoil Sample	12/19/2016			1.1	0.0008	0.026	<0.04	<0.0001	0.0037	0.0082	0.0015	<0.0002	0.0138	0.0006	<0.00005	<0.01
Topsoil Sample	10/09/2017			0.47	0.0036	0.108	<0.04	0.0003	0.0047	0.0164	0.0002	<0.0002	0.0106	0.0019	<0.00005	<0.01
Topsoil Sample	11/06/2018			3.3	<0.004	0.277	<0.04	0.001	0.015	0.019	<0.001	<0.0002	0.039	0.001	<0.001	0.04
Topsoil Sample	10/25/2019			4.93	<0.002	0.291	<0.04	0.001	0.015	0.017	0.001	<0.0002	0.017	0.0011	<0.0005	0.04
Tailing Solids	02/19/2014			0.78	0.0108	0.006	0.07	<0.0001	<0.0005	<0.0005	0.0005	<0.0002	<0.0006	0.0007	<0.00005	<0.01
Tailing Solids	05/20/2014			3.59	0.0118	0.037	<0.04	<0.0001	0.0008	0.0023	0.0032	<0.0002	<0.0006	0.0007	<0.00005	0.01
Tailing Solids	08/28/2014			0.35	0.0135	0.004	0.05	<0.0001	0.0011	0.005	0.0003	<0.0002	<0.0006	0.0008	<0.00005	0.02
Tailing Solids	10/17/2014			1.84	0.0129	0.017	<0.04	0.0001	0.0018	0.0011	0.0021	<0.0002	<0.0006	0.0008	<0.00005	<0.01
Tailing Solids	03/18/2015			0.76	0.0124	0.007	<0.04	<0.0001	0.0009	<0.0005	0.0002	<0.0002	<0.0006	0.0008	<0.00005	<0.01
Tailing Solids	06/22/2015			2.71	0.0072	0.033	<0.04	<0.0001	0.0009	<0.0005	0.0018	<0.0002	<0.0006	0.0007	<0.00005	0.01
Tailing Solids	07/29/2015			0.51	0.0054	0.005	0.06	<0.0001	0.0008	0.0074	0.0009	<0.0002	<0.0006	0.0005	<0.00005	0.02
Tailing Solids	10/28/2015			0.74	0.0102	0.01	<0.04	<0.0001	<0.0005	0.0005	0.0007	<0.0002	<0.0006	0.0007	<0.00005	<0.01
Tailing Solids	03/10/2016			0.56	0.0104	0.004	<0.04	0.0001	0.0006	0.0009	0.0004	<0.0002	<0.0006	0.0008	<0.00005	<0.01
Tailing Solids	06/03/2016			0.41	0.0154	<0.003	<0.04	0.0001	<0.0005	0.0007	<0.0001	<0.0002	<0.0006	0.0011	0.00015	<0.01
Tailing Solids	09/28/2016			0.32	0.0153	0.003	<0.04	0.0001	0.0006	0.0013	0.0005	<0.0002	<0.0006	0.0018	<0.00005	<0.01
Tailing Solids	12/19/2016			1.14	0.0146	0.012	<0.04	<0.0001	0.0013	<0.0005	0.001	<0.0002	<0.0006	0.0016	<0.00005	<0.01
Tailing Solids	02/13/2017			0.58	0.0185	0.006	<0.04	<0.0001	0.0006	0.0006	0.0002	<0.0002	<0.0006	0.0011	<0.00005	<0.01
Tailing Solids	04/13/2017			0.85	0.0184	0.006	<0.04	<0.0001	0.0013	0.0016	0.0003	<0.0002	<0.0006	0.0011	<0.00005	<0.01
Tailing Solids	07/26/2017			0.3	0.0216	<0.003	<0.04	<0.0001	<0.0005	<0.0004	0.0002	<0.0002	<0.0006	0.001	<0.00005	<0.01
Tailing Solids	10/09/2017			0.37	0.0152	0.005	<0.04	<0.0001	<0.0005	0.0027	0.0002	<0.0002	<0.0006	0.0008	<0.00005	<0.01
Tailing Solids	01/09/2018			0.45	0.0145	0.008	<0.04	<0.0001	0.0006	0.0025	0.0004	<0.0002	<0.0006	0.0009	<0.00005	<0.01
Tailing Solids	04/19/2018			0.9	0.039	0.005	<0.04	<0.0001	0.0014	0.0011	<0.0001	<0.0002	<0.0006	0.0012	<0.00005	<0.01
Tailing Solids	07/19/2018			0.87	0.0189	0.006	<0.04	<0.0001	0.0016	0.0014	0.0006	<0.0002	0.0025	0.0011	<0.00005	<0.01

Meteoric Water Mobility - Trace Ion Chemistry

Site	Date	Reason If No Sample	Duplicate Sample	Al	Sb	Ba	Bi	Cd	Cr	Cu	Pb	Hg	Ni	Se	Ag	Zn
Tailing Solids	11/06/2018			0.46	0.0153	0.005	<0.04	0.00005	0.0007	0.0023	0.0003	<0.0002	<0.0006	0.0007	<0.0001	<0.01
Tailing Solids	03/14/2019			1.06	0.0118	<0.006	<0.08	0.00006	0.0014	<0.0008	0.0002	<0.0002	<0.0004	0.0007	<0.0001	<0.02
Tailing Solids	04/30/2019			1.01	0.0215	0.007	<0.04	0.00006	0.0014	0.0016	0.0005	<0.0002	0.0004	0.0007	<0.0001	<0.01
Tailing Solids	08/12/2019			1.51	0.0087	0.012	<0.04	<0.00005	0.0026	0.0038	0.0017	<0.0002	0.0029	0.0007	<0.0001	0.01
Tailing Solids	10/25/2019			1.92	0.0112	<0.007	<0.04	<0.0001	0.003	<0.002	0.0026	<0.0002	<0.0008	0.0007	<0.0002	<0.01

ACID ROCK DRAINAGE CHARACTERIZATION DATA

FAIRBANKS GOLD MINING, INC.
FORT KNOX MINE

4th Quarter 2019

Static Acid/Base Accounting

Site	Date	Reason If No Sample	Duplicate Sample	Acid Generation Potential AGP (tons/100tons)	Acid Neutralization Potential ANP (tons/100tons)	ANP/AGP
Waste Rock	10/17/2014			0.6	35	58.3
Waste Rock	10/28/2015			0.6	18	30
Waste Rock	12/19/2016			0.94	23	24.5
Waste Rock	10/09/2017			<0.31	33	106.5
Waste Rock	11/06/2018			0.63	13	20.6
Waste Rock	10/25/2019			3.75	43	11.5
Yearly A-Ore	10/17/2014			1.3	46	35.4
Yearly A-Ore	10/28/2015			0.9	71	78.9
Yearly A-Ore	12/19/2016			1.88	49	26.1
Yearly A-Ore	10/09/2017			3.44	54	15.7
Yearly A-Ore	11/06/2018			2.81	56	19.9
Yearly A-Ore	10/25/2019			1.56	68	43.6
Low Grade Stockpile	10/17/2014			0.9	44	48.9
Low Grade Stockpile	10/28/2015			0.6	75	125
Low Grade Stockpile	12/19/2016			1.25	45	36
Low Grade Stockpile	10/09/2017			1.25	61	49
Low Grade Stockpile	11/06/2018			1.56	54	34.6
Low Grade Stockpile	10/25/2019			0.94	64	68.1
Topsoil Sample	10/17/2014			<0.31	12	38.7
Topsoil Sample	10/28/2015			<0.31	12	38.7
Topsoil Sample	12/19/2016			<0.31	8	25.8
Topsoil Sample	10/09/2017			0.63	19	30.2
Topsoil Sample	11/06/2018			0.63	3	4.8
Topsoil Sample	10/25/2019			0.63	0	0
Tailing Solids	02/19/2014			<1	55	55
Tailing Solids	05/20/2014			1	34	34
Tailing Solids	08/28/2014			<0.3	44	147
Tailing Solids	10/17/2014			0.6	41	68.3
Tailing Solids	03/18/2015			0.9	51	56.7

Static Acid/Base Accounting

Site	Date	Reason If No Sample	Duplicate Sample	Acid Generation Potential AGP (tons/100tons)	Acid Neutralization Potential ANP (tons/100tons)	ANP/AGP
Tailing Solids	06/22/2015			0.6	60	100
Tailing Solids	07/29/2015			0.6	60	100
Tailing Solids	10/28/2015			0.6	84	140
Tailing Solids	03/10/2016			0.63	64	101.6
Tailing Solids	06/03/2016			0.63	56	88.9
Tailing Solids	09/28/2016			1.25	51	40.8
Tailing Solids	12/19/2016			1.25	39	31.2
Tailing Solids	02/13/2017			0.94	49	52.1
Tailing Solids	04/13/2017			0.94	37	39.4
Tailing Solids	07/26/2017			1.56	35	22.4
Tailing Solids	10/09/2017			1.56	54	34.6
Tailing Solids	01/09/2018			0.94	34	36.2
Tailing Solids	04/19/2018			1.88	33	17.6
Tailing Solids	07/19/2018			1.25	33	26.4
Tailing Solids	11/06/2018			1.25	51	40.8
Tailing Solids	03/14/2019			0.63	51	81
Tailing Solids	04/30/2019			1.25	46	36.8
Tailing Solids	08/12/2019			1.25	39	31.2
Tailing Solids	10/25/2019			0.31	50	161.3

ATTACHMENT B
Heap Leach Compliance Monitoring Data Report

Walter Creek Heap Leach Facility
Water Quality Data

FAIRBANKS GOLD MINING, INC.
FORT KNOX MINE

4th Quarter 2019

Process Ground Water - Major Ion Chemistry

Site	Date	Reason If No Sample	Duplicate Sample	Bic Alk	Tot Alk	Ca	Cl	Hard	Mg	Lab pH	K	Si	Na	Lab Cond.	SO4	S	Temp. (C)	TDS	TSS	Tur
Barren Solution	10/08/2018			<2	154	133	104	335	0.6	10.1	5.6	4.4	127	1,370	52.7	0.06		938	<5	2.13
Barren Solution	01/02/2019			<2	271	133	190	335	0.7	10.3	5.7	4.1	198	1,710	117	0.07	8.6	1,130	<5	0.79
Barren Solution	06/24/2019			<2	273	153	170	384	0.4	10.4	5.8	4.3	213	1,800	131	0.08		1,160	<5	1.78
Barren Solution	07/16/2019			<2	367	150	210	377	0.6	10.6	5.7	4.5	254	1,730	89.5	0.08		1,280	14	4.87
Barren Solution	11/25/2019			<2	178	137	105	350	2	10	5.6	3.9	158	1,520	130	0.1		1,080	<5	4.32
Pregnant Solution	10/08/2018			<2	144	134	116	337	0.6	10.2	5.6	4.3	127	1,380	88.9	0.07		946	<5	0.33
Pregnant Solution	10/08/2018		Dup	<2	146	134	108	337	0.6	10.2	5.6	4.3	128	1,370	85	0.08		950	<5	0.16
Pregnant Solution	01/02/2019			<2	136	133	105	335	0.8	10	5.6	4.1	139	1,410	110	0.07		996	<5	0.11
Pregnant Solution	06/24/2019			<2	157	152	80	381	0.4	10.1	5.9	4.2	154	1,520	128	0.07		1,030	6	<0.1
Pregnant Solution	07/16/2019			<2	143	152	89	382	0.7	10	5.7	4.2	148	1,390	160	0.09	8.8	1,080	<5	<0.1
Pregnant Solution	11/25/2019			<2	106	137	79	350	1.9	9.8	5.5	3.9	129	1,410	132	0.09		1,000	<5	<0.1
LCRS-2	11/25/2019			<2	178	137	105	350	2	10	5.6	3.9	158	1,520	130	0.1		1,080	<5	4.32

Process Ground Water - Minor Ion Chemistry

Site	Date	Reason If No Sample	Duplicate Sample	NH4	As	CN	F	Fe	Mn	NO3	NO2	P	TPH	WAD CN
Barren Solution	10/08/2018			20.2	0.0396	63	0.58	2.08	<0.005	84	5.1	0.2		55
Barren Solution	01/02/2019			19.9	0.0339	124	0.62	2.19	<0.005	85	5	0.14		129
Barren Solution	06/24/2019			20.3	0.0335	101	0.6	2.03	<0.01	95	6	0.12		126
Barren Solution	07/16/2019			18.1	0.0324	177	0.6	1.8	<0.01	104	7.3	0.26		177
Barren Solution	11/25/2019			14.2	0.031	104	0.6	1.93	<0.01	92	6.7	0.13		97
Pregnant Solution	10/08/2018			19.4	0.0383	59	0.59	2.09	<0.005	84	5.1	0.04		56
Pregnant Solution	10/08/2018		Dup	18.8	0.0391	63	0.59	2.11	<0.005	84	5.1	0.03		55
Pregnant Solution	01/02/2019			18.8	0.0337	65	0.68	2.21	<0.005	84	4.9	0.02		55
Pregnant Solution	06/24/2019			19.7	0.0336	67	0.6	2.06	<0.01	97	6	<0.01		58
Pregnant Solution	07/16/2019			15.3	0.0305	58.4	0.5	1.97	<0.01	97	7.2	0.02		56
Pregnant Solution	11/25/2019			14	0.032	52	0.6	1.91	<0.01	97	7	<0.01		50
LCRS-2	10/03/2018					0.143								0.033
LCRS-2	10/17/2018					0.169								0.033
LCRS-2	10/24/2018					0.123								0.039
LCRS-2	10/31/2018					0.127								0.037
LCRS-2	11/07/2018					0.12								0.046
LCRS-2	11/13/2018					0.124								0.039
LCRS-2	11/19/2018					0.101								0.038
LCRS-2	11/27/2018					0.109								0.046
LCRS-2	12/03/2018					0.159								0.04
LCRS-2	12/12/2018					0.17								0.038
LCRS-2	12/19/2018					0.138								0.039
LCRS-2	12/26/2018					0.105								0.029
LCRS-2	01/02/2019					0.144								0.027
LCRS-2	01/09/2019					0.152								0.037
LCRS-2	01/16/2019					0.205								0.028
LCRS-2	01/23/2019					0.175								0.041
LCRS-2	01/30/2019					0.104								0.045
LCRS-2	02/06/2019					0.15								0.037

Process Ground Water - Minor Ion Chemistry

Site	Date	Reason If No Sample	Duplicate Sample	NH4	As	CN	F	Fe	Mn	NO3	NO2	P	TPH	WAD CN
LCRS-2	02/13/2019					0.164								0.047
LCRS-2	02/20/2019					0.194								0.045
LCRS-2	02/27/2019					0.12								0.042
LCRS-2	03/06/2019					0.123								0.027
LCRS-2	03/13/2019					0.178								0.041
LCRS-2	03/20/2019					0.188								0.044
LCRS-2	03/27/2019					0.121								0.036
LCRS-2	04/03/2019					0.138								0.028
LCRS-2	04/10/2019					0.142								0.043
LCRS-2	04/17/2019					0.166								0.05
LCRS-2	04/24/2019					0.142								0.049
LCRS-2	05/01/2019					0.074								0.051
LCRS-2	05/08/2019					0.195								0.035
LCRS-2	05/14/2019					0.173								0.044
LCRS-2	05/22/2019					0.14								0.042
LCRS-2	05/29/2019					0.17								0.049
LCRS-2	06/12/2019					0.168								0.047
LCRS-2	06/19/2019					0.196								0.05
LCRS-2	07/03/2019					0.151								0.041
LCRS-2	07/10/2019					0.197								0.037
LCRS-2	07/24/2019					0.194								0.048
LCRS-2	07/31/2019					0.164								0.048
LCRS-2	08/07/2019					0.17								0.042
LCRS-2	08/14/2019					0.221								0.04
LCRS-2	08/21/2019					0.14								0.047
LCRS-2	08/28/2019					0.199								0.043
LCRS-2	09/04/2019					0.232								0.054
LCRS-2	09/11/2019					0.174								0.043
LCRS-2	09/18/2019					0.179								0.049
LCRS-2	09/25/2019					0.169								0.051

Process Ground Water - Minor Ion Chemistry

Site	Date	Reason If No Sample	Duplicate Sample	NH4	As	CN	F	Fe	Mn	NO3	NO2	P	TPH	WAD CN
LCRS-2	10/02/2019					0.178								0.042
LCRS-2	10/09/2019					0.157								0.05
LCRS-2	10/17/2019					0.221								0.057
LCRS-2	10/23/2019					<0.003								0.042
LCRS-2	10/30/2019					0.298								0.06
LCRS-2	11/06/2019					0.291								0.057
LCRS-2	11/13/2019					0.236								0.021
LCRS-2	11/20/2019					0.285								0.045
LCRS-2	11/25/2019					0.209								0.054
LCRS-2	12/04/2019					0.161								0.06
LCRS-2	12/11/2019					0.227								0.064
LCRS-2	12/18/2019					0.37								0.064
LCRS-2	12/30/2019					0.32								0.052

Process Ground Water - Trace Ion Chemistry

Site	Date	Reason If No Sample	Duplicate Sample	Al	Sb	Ba	Bi	Cd	Cr	Cu	Pb	Hg	Ni	Se	Ag	Zn
Barren Solution	10/08/2018			0.09	0.0081	0.009	<0.04	0.00547	<0.01	0.87	0.0007	0.0015	0.131	0.0081	<0.01	1.04
Barren Solution	01/02/2019			0.06	0.0066	0.008	<0.04	0.0038	<0.01	1.12	0.0063	0.0014	0.121	0.0069	<0.01	1.11
Barren Solution	06/24/2019			0.07	0.0069	0.013	<0.04	0.00378	<0.01	0.43	<0.0001	0.0015	0.093	0.0064	<0.01	0.9
Barren Solution	07/16/2019			0.11	0.007	0.012	<0.04	0.00442	<0.01	0.21	0.0001	0.0017	0.104	0.0071	<0.01	0.95
Barren Solution	11/25/2019			0.05	0.007	0.012	<0.04	0.0047	<0.01	0.68	<0.001	0.0014	0.116	0.006	<0.01	0.99
Pregnant Solution	10/08/2018			0.09	0.0079	0.008	<0.04	0.0055	<0.01	0.82	<0.0001	0.0018	0.14	0.0081	0.01	0.99
Pregnant Solution	10/08/2018		Dup	0.1	0.0079	0.009	<0.04	0.00565	<0.01	0.84	<0.0001	0.0019	0.139	0.0081	0.01	0.99
Pregnant Solution	01/02/2019			0.05	0.0066	0.008	<0.04	0.004	<0.01	0.81	<0.0002	0.0017	0.129	0.007	<0.01	0.87
Pregnant Solution	06/24/2019			0.06	0.007	0.013	<0.04	0.00412	<0.01	0.51	<0.0001	0.0019	0.106	0.0067	<0.01	0.9
Pregnant Solution	07/16/2019			0.08	0.0064	0.012	<0.04	0.00452	<0.01	0.46	<0.0001	0.0021	0.107	0.0072	0.01	0.95
Pregnant Solution	11/25/2019			<0.05	0.006	0.012	<0.04	0.0047	<0.01	0.67	<0.001	0.0019	0.131	0.007	0.01	1.01

Non-Process Ground Water - Major Ion Chemistry

Site	Date	Reason If No Sample	Duplicate Sample	Bic Alk	Tot Alk	Ca	Cl	GW Elev.	Hard	Mg	Lab pH	K	Si	Na	Lab Cond.	SO4	S	Temp. (C)	TDS	TSS	Tur
HL-1	10/02/2018			224	224	141	10.3		422	17.1	8.1	4.6	9.4	43.4	1,000	314	<0.02	6.6	710	<5	0.33
HL-1	11/01/2018							1,552.407													
HL-1	12/03/2018							1,551.707													
HL-1	12/07/2018							1,551.707													
HL-1	01/09/2019							1,551.907													
HL-1	02/18/2019			207	207	129	9.5	1,550.807	389	16.3	8.2	4.4	9.6	37.9	901	240	<0.02	6.4	636	<5	0.93
HL-1	02/18/2019		Dup	207	207	131	9.5	1,550.807	395	16.4	8.2	4.4	9.6	38.4	897	241	<0.02		638	<5	0.95
HL-1	03/21/2019							1,550.507													
HL-1	04/30/2019			195	195	120	8.6	1,548.907	361	14.8	8.2	4.3	9.3	34.4	842	218	<0.02	5.4	606	<5	<0.1
HL-1	05/27/2019							1,549.107													
HL-1	07/16/2019			198	198	103	5.6	1,539.757	311	13	8.2	3.8	8.8	30	675	174	<0.02	4.8	488	<5	0.48
HL-1	08/26/2019							1,548.607													
HL-1	09/19/2019							1,549.807													
HL-1	10/28/2019							1,553.507													
HL-1	11/28/2019							1,560.507													
HL-1	12/02/2019			211	211	156	60.7	1,559.937	459	16.8	8.2	6.7	9.4	90.6	1,320	184	<0.02	4.4	926	<5	1.2
HL-2	10/02/2018			177	177	102	5.7	1,552.52	297	10.3	8.2	2.7	7.5	19.8	685	175	<0.02	6.8	472	44	28.4
HL-2	11/01/2018							1,551.72													
HL-2	12/03/2018							1,550.97													
HL-2	01/09/2019							1,550.52													
HL-2	03/05/2019			185	185	103	6.2	1,550.02	303	11.2	8.2	3.4	8	20.5	668	132	<0.02	5.7	440	<5	0.77
HL-2	03/21/2019							1,549.72													
HL-2	04/30/2019			191	191	91.1	4.9	1,549.22	267	9.5	8.2	3.2	8	17.9	601	112	<0.02	7.1	410	<5	0.77
HL-2	04/30/2019		Dup	178	178	91.7	4.9	1,549.22	269	9.6	8.3	3.1	8	17.8	602	111	<0.02	7.1	404	<5	0.85
HL-2	05/27/2019							1,548.44													
HL-2	07/16/2019			170	170	64.4	0.5	1,539.07	186	6	8.2	1.6	7.8	8	365	38.5	<0.02	6.1	236	12	1.52
HL-2	08/26/2019							1,547.82													
HL-2	09/19/2019							1,549.17													
HL-2	10/28/2019							1,552.82													
HL-2	11/28/2019							1,559.27													
HL-2	12/03/2019			228	228	150	38.8	1,559.22	442	16.3	8.2	4.8	9.1	55.5	1,110	191	<0.02	4.4	770	12	1.6
HL-3	10/02/2018			184	184	84.9	2.6	1,554.564	243	7.5	8.2	2	7.6	12.9	546	106	<0.02	5.7	348	5	2.74
HL-3	11/01/2018							1,551.964													
HL-3	12/03/2018							1,551.064													
HL-3	01/09/2019							1,550.664													
HL-3	02/18/2019			169	169	66.7	1.4	1,550.264	192	6.1	8.2	1.6	8	8.1	400	45.7	<0.02	5.3	242	42	33.9
HL-3	03/21/2019							1,549.764													
HL-3	04/30/2019			168	168	73.7	2.4	1,548.264	214	7.3	8.3	2.2	7.9	11.3	470	57.1	<0.02	7.5	312	31	14.5
HL-3	05/27/2019							1,548.624													
HL-3	07/16/2019			170	170	63.8	<0.5	1,539.284	182	5.5	8.1	1.2	7.5	7.6	363	38.9	<0.02	7.5	240	13	7.21
HL-3	07/16/2019		Dup	160	160	64.7	0.6	1,539.284	185	5.6	8.2	1.2	7.8	7.6	360	37.7	<0.02		244	14	9.08
HL-3	08/26/2019							1,548.164													
HL-3	09/19/2019							1,549.344													
HL-3	10/28/2019							1,552.964													

Non-Process Ground Water - Major Ion Chemistry

Site	Date	Reason If No Sample	Duplicate Sample	Bic Alk	Tot Alk	Ca	Cl	GW Elev.	Hard	Mg	Lab pH	K	Si	Na	Lab Cond.	SO4	S	Temp. (C)	TDS	TSS	Tur
HL-3	11/28/2019							1,559.514													
HL-3	12/03/2019			235	235	157	39	1,559.344	458	16	8.2	4.5	9.3	55.3	1,120	197	<0.02	4.6	778	<5	0.41
OL-296	10/02/2018			58.2	58.2	17.2	1.5		65	5.4	7.5	0.8	8.7	4.9	170	34.7	0.15	5.6	108	36	71.3
OL-296	03/05/2019			60.1	60.1	19.1	<0.5		70	5.5	7.8	1	8.5	5	182	27	0.13	4.5	130	58	128
OL-296	04/29/2019			68.5	68.5	22.7	<0.5		83	6.5	7.9	1.1	9.5	5.5	193	32.2	0.08	4.9	132	40	68.3
OL-296	07/16/2019			58.2	58.2	19	<0.5		69	5.2	7.3	0.7	8.9	5.1	176	39.1	0.04	3.8	112	30	59.7
OL-296	12/02/2019			57.9	57.9	17.4	1		63	4.8	7.6	0.7	10	5.2	172	26.4	0.07	3.5	130	27	57.8
OL-296	12/02/2019		Dup	58	58	17.6	0.8		64	4.8	7.6	0.7	10.1	5.2	170	25.7	0.09	3.5	132	30	65.8

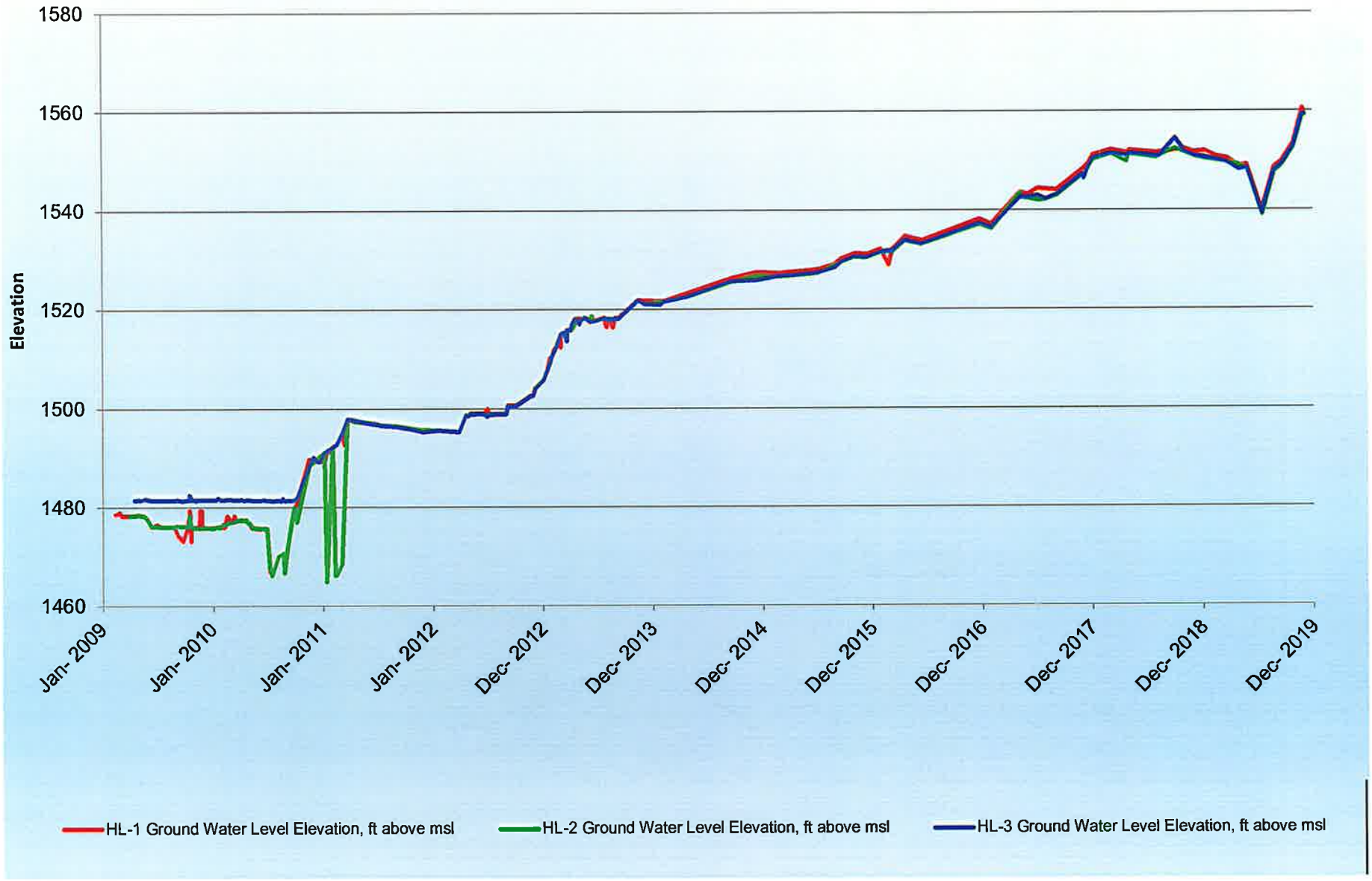
Non-Process Ground Water - Minor Ion Chemistry

Site	Date	Reason If No Sample	Duplicate Sample	NH4	As	CN	F	Fe	Mn	NO3	NO2	P	TPH	WAD CN
HL-1	10/02/2018			0.22	0.0063	0.174	0.51	0.07	0.769	11	<0.01	0.04		0.02
HL-1	02/18/2019			0.23	0.0054	0.132	0.52	0.08	0.803	10	<0.01	0.03		0.008
HL-1	02/18/2019		Dup	0.18	0.0053	0.138	0.52	0.08	0.807	9.8	<0.01	0.03		0.009
HL-1	04/30/2019			0.14	0.0046	0.112	0.5	0.09	0.77	8.29	<0.01	0.02		0.007
HL-1	07/16/2019			0.06	0.0039	0.086	0.5	0.07	0.67	5.8	<0.01	0.02		0.007
HL-1	12/02/2019			1.1	0.0119	0.83	0.6	0.33	0.54	36	0.44	0.05		0.061
HL-2	10/02/2018			<0.1	0.0033	0.052	0.3	0.02	0.267	8.37	<0.01	0.09		0.01
HL-2	03/05/2019			<0.05	0.0026	0.04	0.36	<0.02	0.512	7.01	<0.01	<0.02		0.004
HL-2	04/30/2019			<0.05	0.0024	0.025	0.3	<0.03	0.44	5.04	<0.01	0.01		<0.003
HL-2	04/30/2019		Dup	<0.05	0.0025	0.03	0.4	<0.03	0.44	5.1	<0.01	0.02		<0.003
HL-2	07/16/2019			<0.05	0.0028	<0.003	0.2	<0.03	0.03	2.73	<0.01	0.01		<0.003
HL-2	12/03/2019			0.17	0.0059	0.53	0.4	0.22	0.66	26	0.3	0.02		0.039
HL-3	10/02/2018			<0.05	0.0034	0.021	0.26	<0.02	0.22	4.14	<0.01	<0.02		0.005
HL-3	02/18/2019			<0.05	0.0036	0.005	0.26	0.08	0.108	1.66	<0.01	0.05		<0.003
HL-3	04/30/2019			<0.05	0.0025	0.012	0.3	<0.03	0.31	2.17	<0.01	0.03		<0.003
HL-3	07/16/2019			<0.05	0.0036	<0.003	0.3	0.07	0.03	4.16	0.01	0.02		<0.003
HL-3	07/16/2019		Dup	<0.05	0.0034	<0.003	0.3	0.06	0.03	4.25	0.01	0.02		<0.003
HL-3	12/03/2019			0.08	0.0036	0.52	0.4	0.19	0.64	26	0.26	<0.01		0.041
OL-296	10/02/2018			<0.05	0.0008	<0.003	0.19	15.2	0.433	<0.02	<0.01	0.03		<0.003
OL-296	03/05/2019			<0.05	0.0003	<0.02	0.21	8.2	0.297	<0.02	<0.01	<0.02		<0.003
OL-296	04/29/2019			<0.05	0.0006	<0.003	0.2	18.2	0.4	<0.02	<0.01	0.02		<0.003
OL-296	07/16/2019			<0.05	0.0005	<0.003	0.4	13.3	0.3	<0.02	0.01	0.01		<0.003
OL-296	12/02/2019			<0.05	0.0008	<0.003	0.2	20.8	0.33	<0.02	<0.01	<0.01		<0.003
OL-296	12/02/2019		Dup	<0.05	0.0008	<0.003	0.2	20.7	0.33	<0.02	<0.01	<0.01		<0.003

Non-Process Ground Water - Trace Ion Chemistry

Site	Date	Reason If No Sample	Duplicate Sample	Al	Sb	Ba	Bi	Cd	Cr	Cu	Pb	Hg	Ni	Se	Ag	Zn
HL-1	10/02/2018			<0.03	0.0062	0.031	<0.04	0.00056	<0.01	0.01	0.0118	<0.0002	<0.008	0.0007	<0.01	0.02
HL-1	02/18/2019			<0.03	0.0055	0.031	<0.04	0.00048	<0.01	<0.01	0.0083	<0.0002	<0.008	0.0004	<0.01	0.02
HL-1	02/18/2019		Dup	<0.03	0.0058	0.032	<0.04	0.00046	<0.01	<0.01	0.0085	<0.0002	<0.008	0.0005	<0.01	0.02
HL-1	04/30/2019			<0.05	0.0046	0.023	<0.04	0.00033	<0.01	<0.01	0.0069	<0.0002	<0.008	0.0003	<0.01	0.01
HL-1	07/16/2019			<0.05	0.004	0.026	<0.04	0.00028	<0.01	<0.01	0.0034	<0.0002	<0.008	0.0003	<0.01	<0.01
HL-1	12/02/2019			<0.05	0.0142	0.036	<0.04	0.00008	<0.01	0.01	0.0024	<0.0002	0.011	0.0025	<0.01	<0.01
HL-2	10/02/2018			<0.03	0.0019	0.012	<0.04	0.00021	<0.01	<0.01	0.0138	<0.0002	<0.008	0.0004	<0.01	0.01
HL-2	03/05/2019			<0.03	0.002	0.019	<0.04	0.00032	<0.01	<0.01	0.0039	<0.0002	<0.008	0.0002	<0.01	<0.01
HL-2	04/30/2019			<0.05	0.0016	0.011	<0.04	0.00023	<0.01	<0.01	0.004	<0.0002	<0.008	0.0001	<0.01	<0.01
HL-2	04/30/2019		Dup	<0.05	0.0017	0.011	<0.04	0.0002	<0.01	<0.01	0.004	<0.0002	<0.008	0.0001	<0.01	<0.01
HL-2	07/16/2019			<0.05	0.0011	0.009	<0.04	<0.00005	<0.01	<0.01	0.0004	<0.0002	<0.008	0.0002	<0.01	<0.01
HL-2	12/03/2019			<0.05	0.005	0.027	<0.04	0.00005	<0.01	<0.01	0.0024	<0.0002	<0.008	0.0015	<0.01	0.01
HL-3	10/02/2018			<0.03	0.0017	0.01	<0.04	0.00015	<0.01	0.01	0.0072	<0.0002	<0.008	0.0002	<0.01	0.02
HL-3	02/18/2019			0.05	0.0015	0.01	<0.04	0.00006	<0.01	<0.01	0.0017	<0.0002	<0.008	0.0002	<0.01	<0.01
HL-3	04/30/2019			<0.05	0.0013	0.008	<0.04	0.00011	<0.01	<0.01	0.0016	<0.0002	<0.008	0.0001	<0.01	0.01
HL-3	07/16/2019			<0.05	0.0013	0.008	<0.04	<0.00005	<0.01	<0.01	0.0003	<0.0002	<0.008	0.0002	<0.01	0.01
HL-3	07/16/2019		Dup	0.05	0.0012	0.008	<0.04	<0.00005	<0.01	<0.01	0.0003	<0.0002	<0.008	0.0002	<0.01	<0.01
HL-3	12/03/2019			<0.05	0.0045	0.032	<0.04	0.00017	<0.01	<0.01	0.0027	<0.0002	0.014	0.0015	<0.01	0.02
OL-296	10/02/2018			<0.03	<0.0004	0.004	<0.04	0.00018	<0.01	<0.01	<0.0001	<0.0002	0.01	<0.0001	<0.01	<0.01
OL-296	03/05/2019			<0.03	<0.0004	0.009	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	<0.0001	<0.01	<0.01
OL-296	04/29/2019			<0.05	<0.0004	0.008	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	<0.0001	<0.01	<0.01
OL-296	07/16/2019			0.05	<0.0004	0.009	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	<0.008	<0.0001	<0.01	0.02
OL-296	12/02/2019			<0.05	<0.0004	<0.007	<0.04	<0.00005	<0.01	<0.01	0.0006	<0.0002	<0.008	<0.0001	<0.01	<0.01
OL-296	12/02/2019		Dup	<0.05	<0.0004	<0.007	<0.04	<0.00005	<0.01	<0.01	<0.0001	<0.0002	0.012	0.0002	<0.01	<0.01

Heap Leach Water Elevations



UPPER TOLERANCE LIMITS FOR GROUNDWATER & SURFACE WATER COMPLIANCE SAMPLING POINTS

FAIRBANKS GOLD MINING, INC.
FORT KNOX MINE

4th Quarter 2019

UTLs for Monitoring Wells below the TSF

Parameter	Upper Tolerance Limit (mg/L) MW-5 & MW-6	Upper Tolerance Limit (mg/L) MW-7
Ammonia as Nitrogen NH4	0.33	0.36
Antimony Sb	0.002	0.0155
Arsenic As	0.005	0.002
Chloride Cl	17	26
CN, WAD	0.020	0.020
Copper Cu	0.02	0.02
Nitrite as Nitrogen NO2	1	1
Nitrate as Nitrogen NO3	3.87	13
Sulfate SO4	70	910

Dissolved Concentrations

For cyanide, WAD analytical methods, 0.020 mg/L is minimum level of quantification and the compliance level and 0.005 mg/L the method detection level.

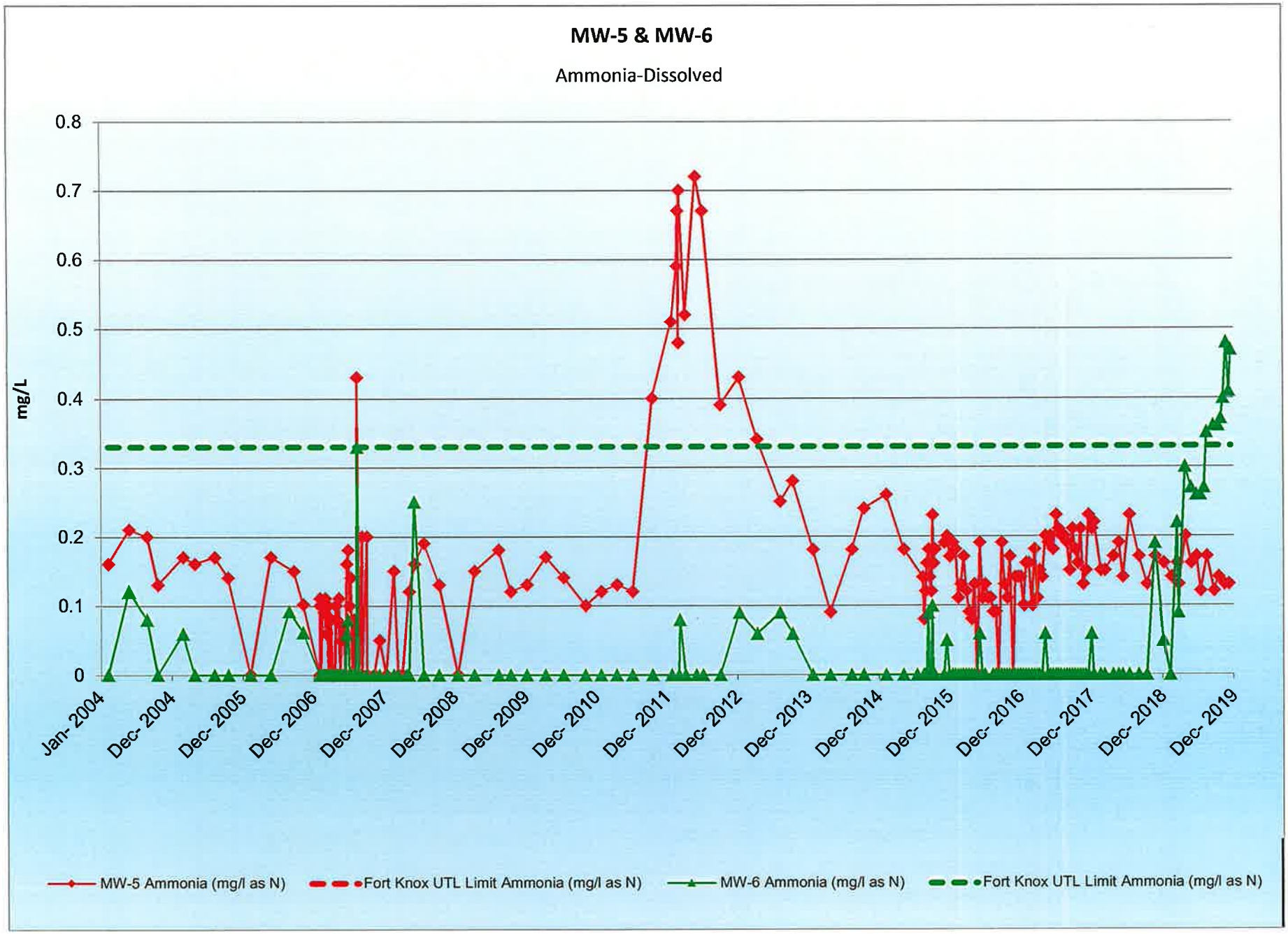
UTLs for Surface Water Monitoring Locations below the TSF

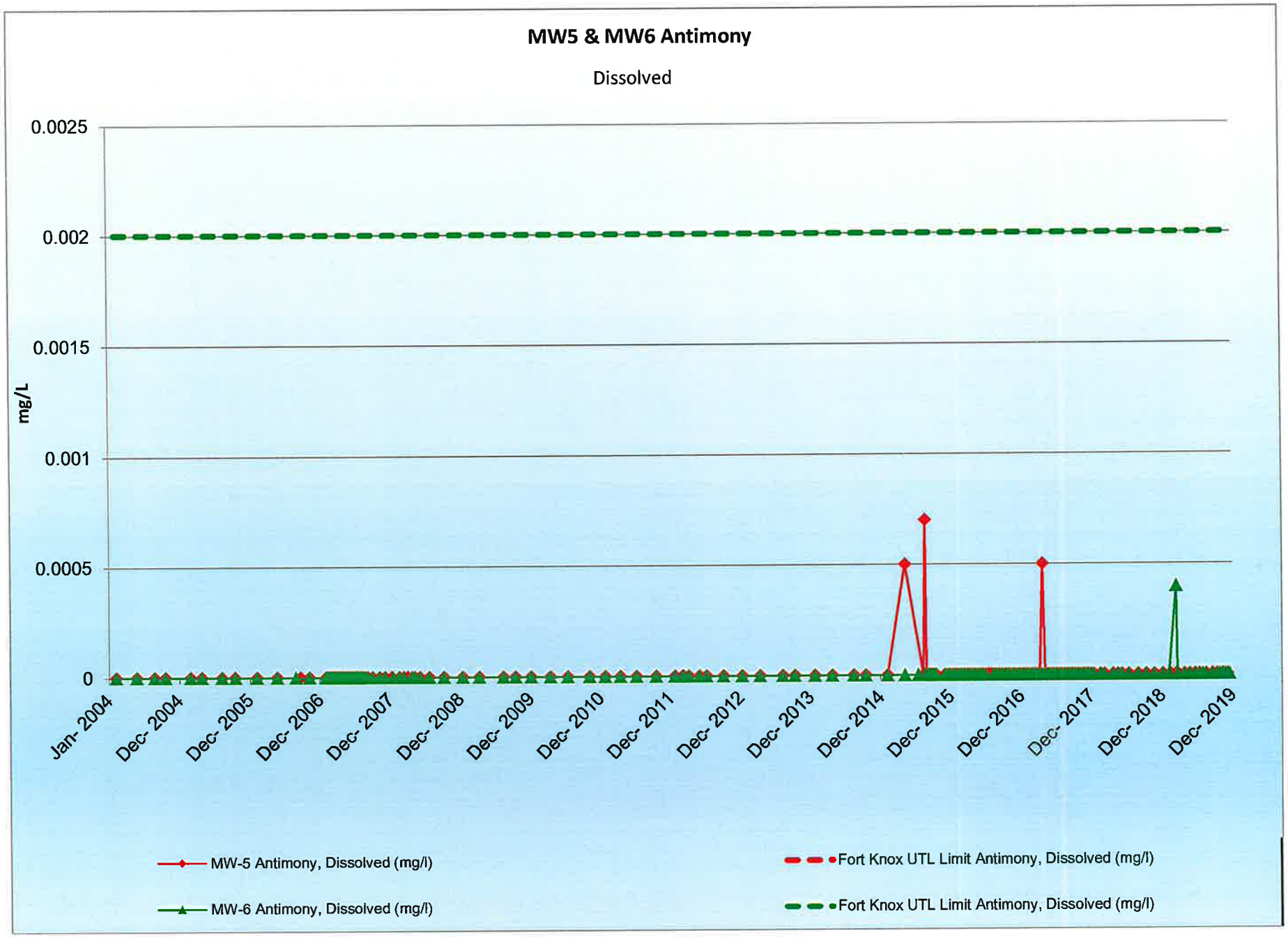
Parameter	Upper Tolerance Limit (mg/L)
Ammonia as Nitrogen NH4	1.1
Antimony Sb	0.005
Arsenic As	0.0437
Chloride Cl	2.5
Copper Cu	0.01
CN, WAD	0.020
Nitrite as Nitrogen NO2	1
Nitrate as Nitrogen NO3	1.4
Sulfate SO4	53

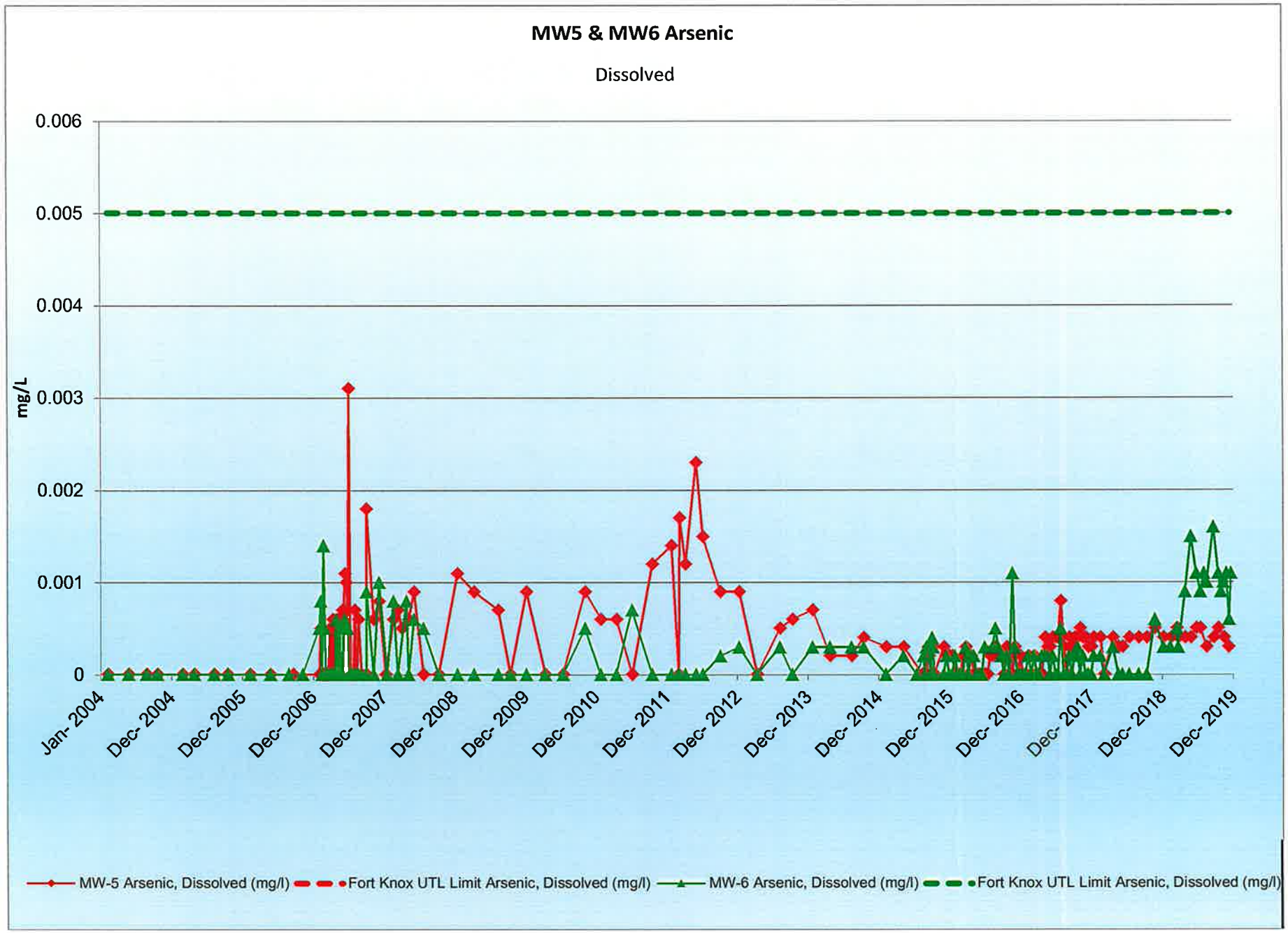
Total Concentrations

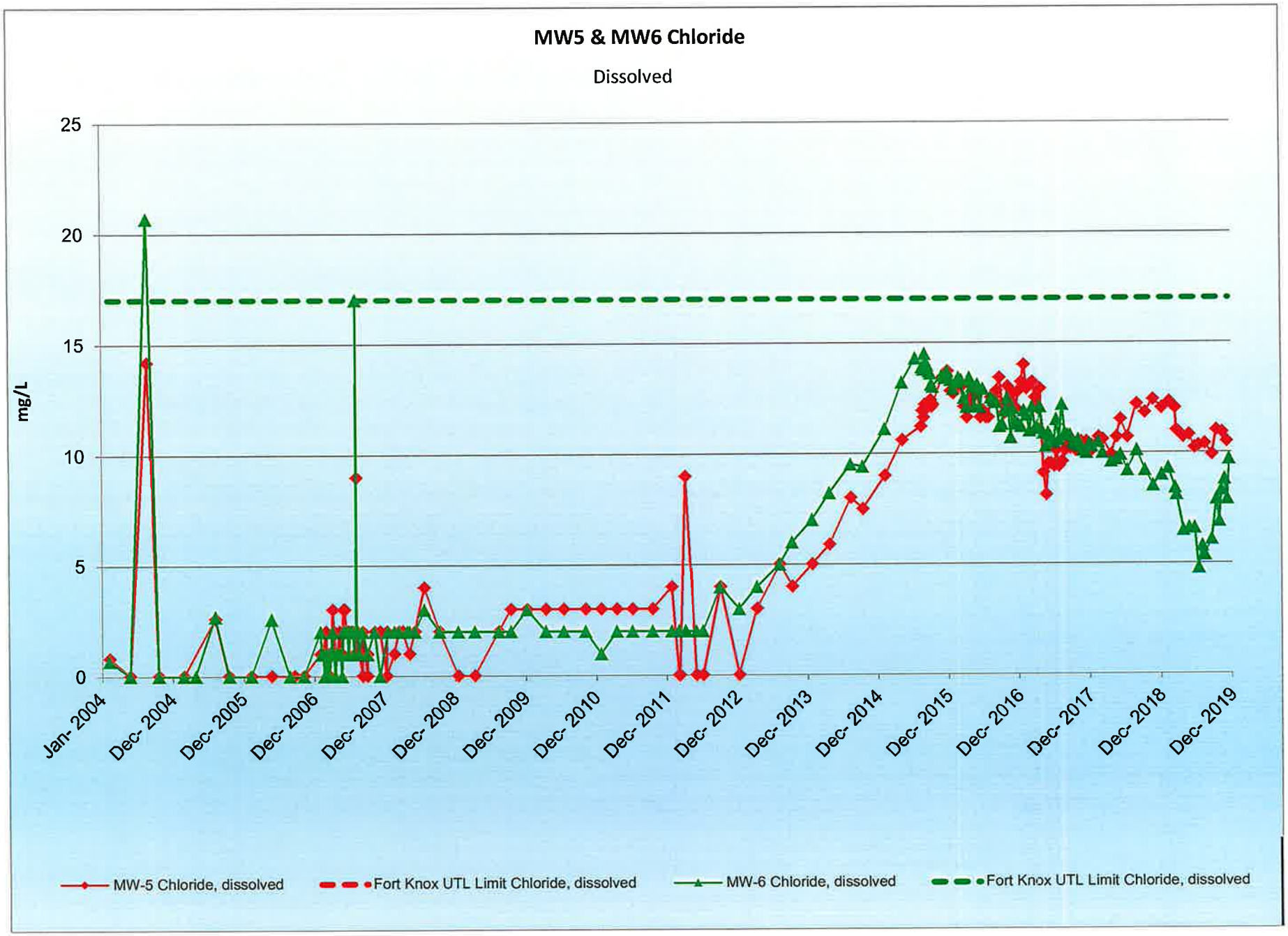
For cyanide, WAD analytical methods, 0.020 mg/L is minimum level of quantification and the compliance level and 0.005 mg/L the method detection level.

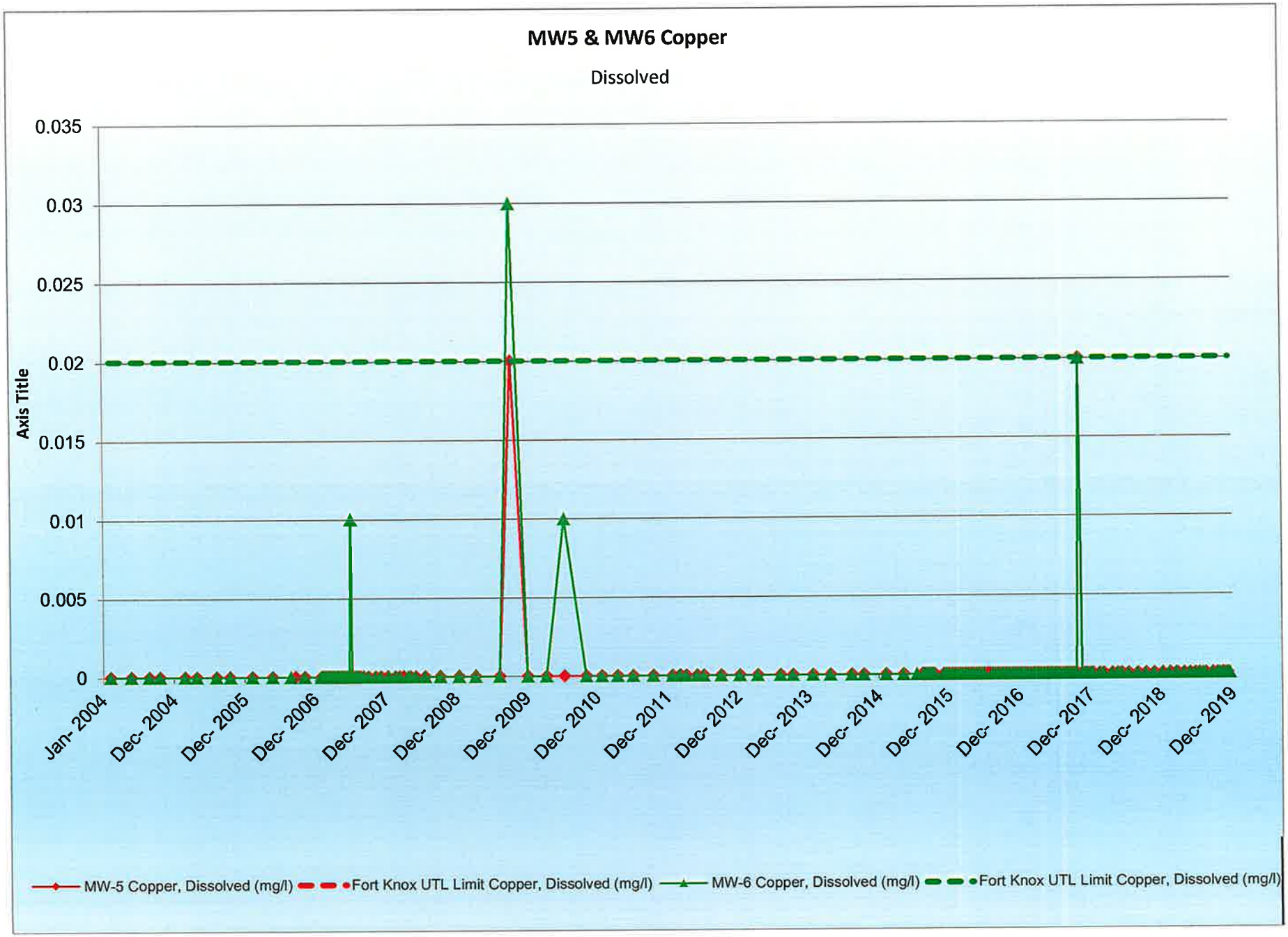
ATTACHMENT C
Compliance Sampling
Water Quality Graphs

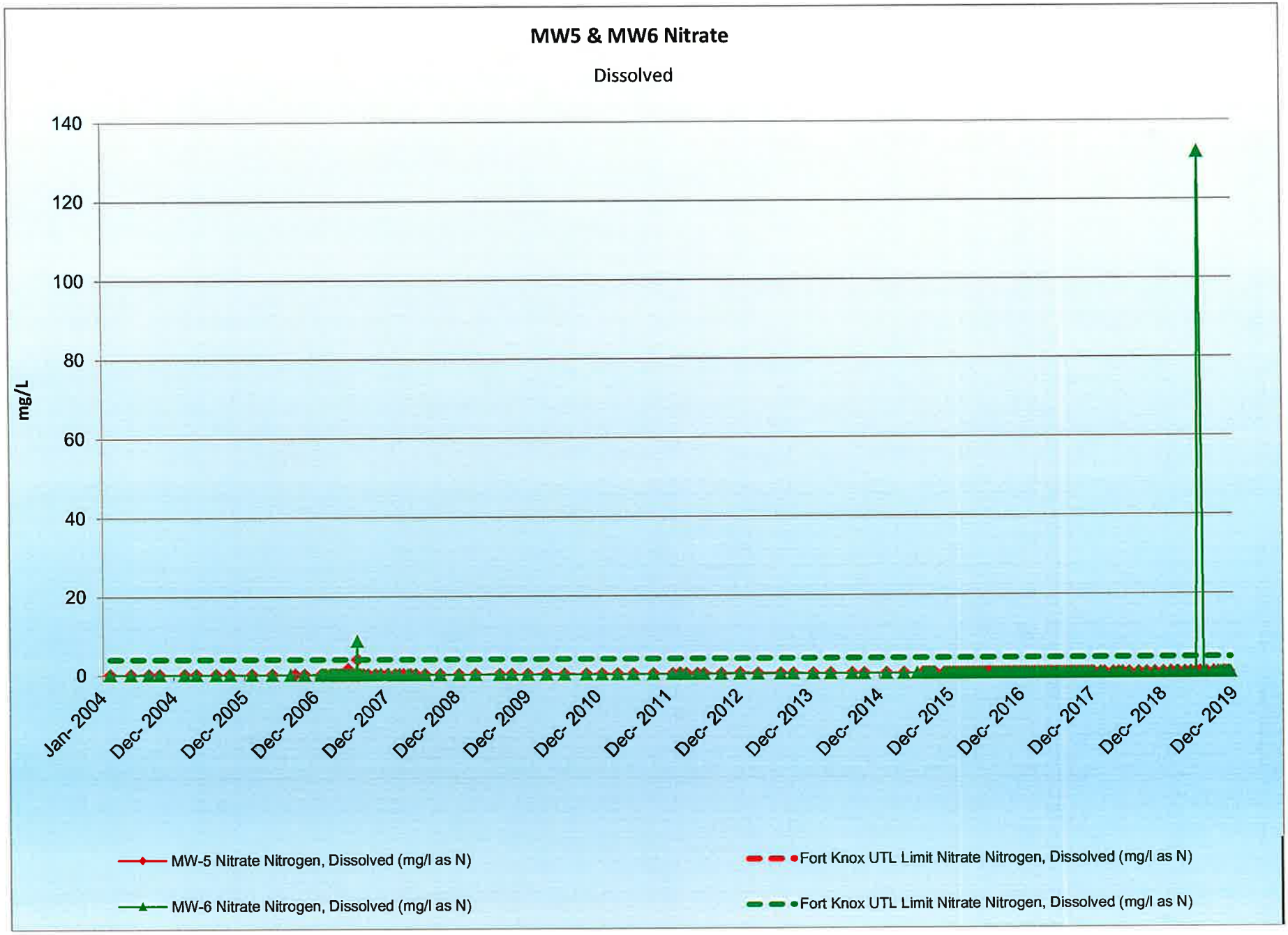

MW-5 & MW-6
Ammonia-Dissolved
mg/L
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
Jan- 2004
Dec- 2004
Dec- 2005
Dec- 2006
Dec- 2007
Dec- 2008
Dec- 2009
Dec- 2010
Dec- 2011
Dec- 2012
Dec- 2013
Dec- 2014
Dec- 2015
Dec- 2016
Dec- 2017
Dec- 2018
Dec- 2019
MW-5 Ammonia (mg/l as N)
Fort Knox UTL Limit Ammonia (mg/l as N)
MW-6 Ammonia (mg/l as N)
Fort Knox UTL Limit Ammonia (mg/l as N)

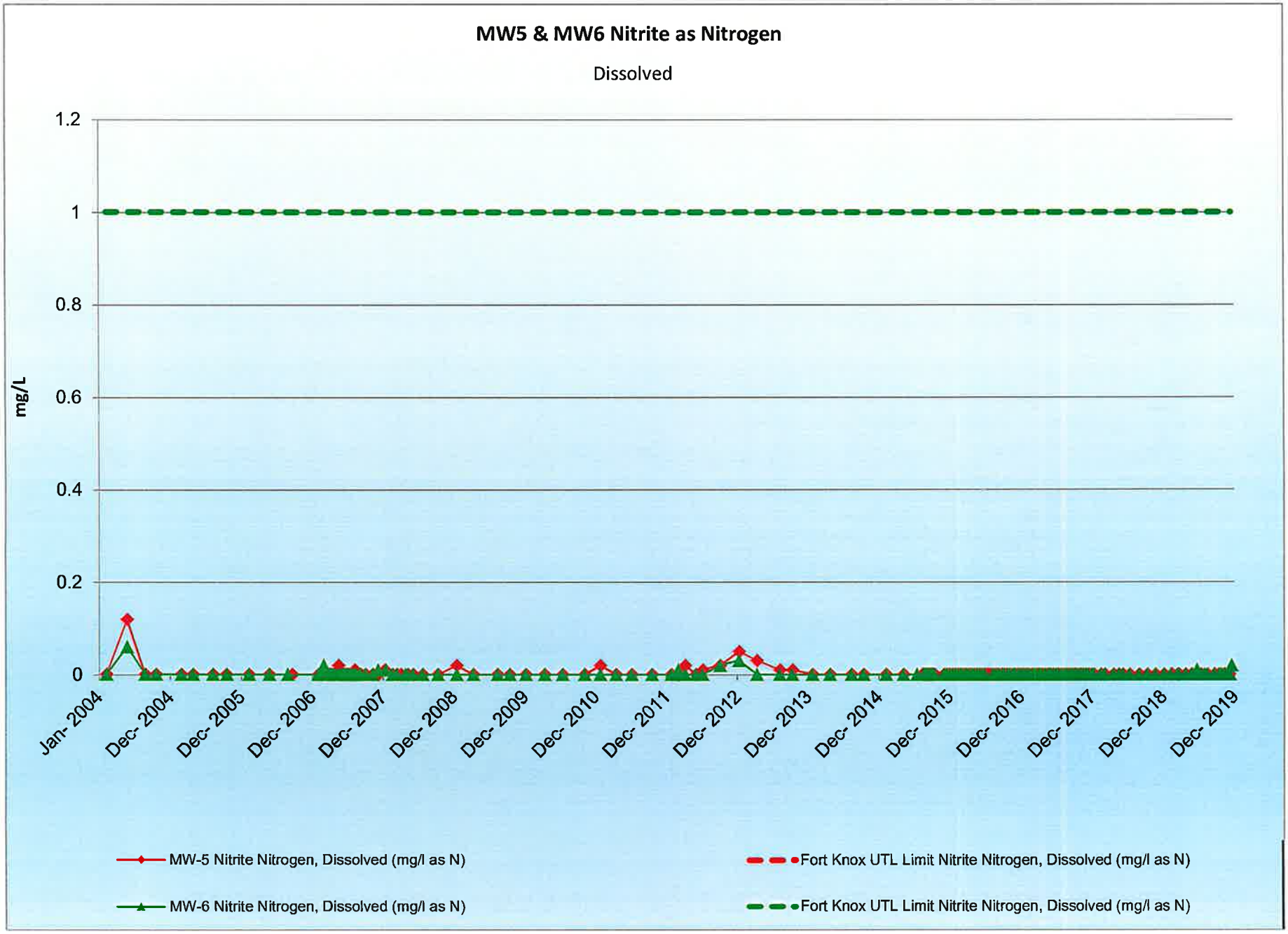

MW5 & MW6 Antimony
Dissolved
mg/L
0.0025
0.002
0.0015
0.001
0.0005
0
Jan- 2004
Dec- 2004
Dec- 2005
Dec- 2006
Dec- 2007
Dec- 2008
Dec- 2009
Dec- 2010
Dec- 2011
Dec- 2012
Dec- 2013
Dec- 2014
Dec- 2015
Dec- 2016
Dec- 2017
Dec- 2018
Dec- 2019
MW-5 Antimony, Dissolved (mg/l)
MW-6 Antimony, Dissolved (mg/l)
Fort Knox UTL Limit Antimony, Dissolved (mg/l)
Fort Knox UTL Limit Antimony, Dissolved (mg/l)

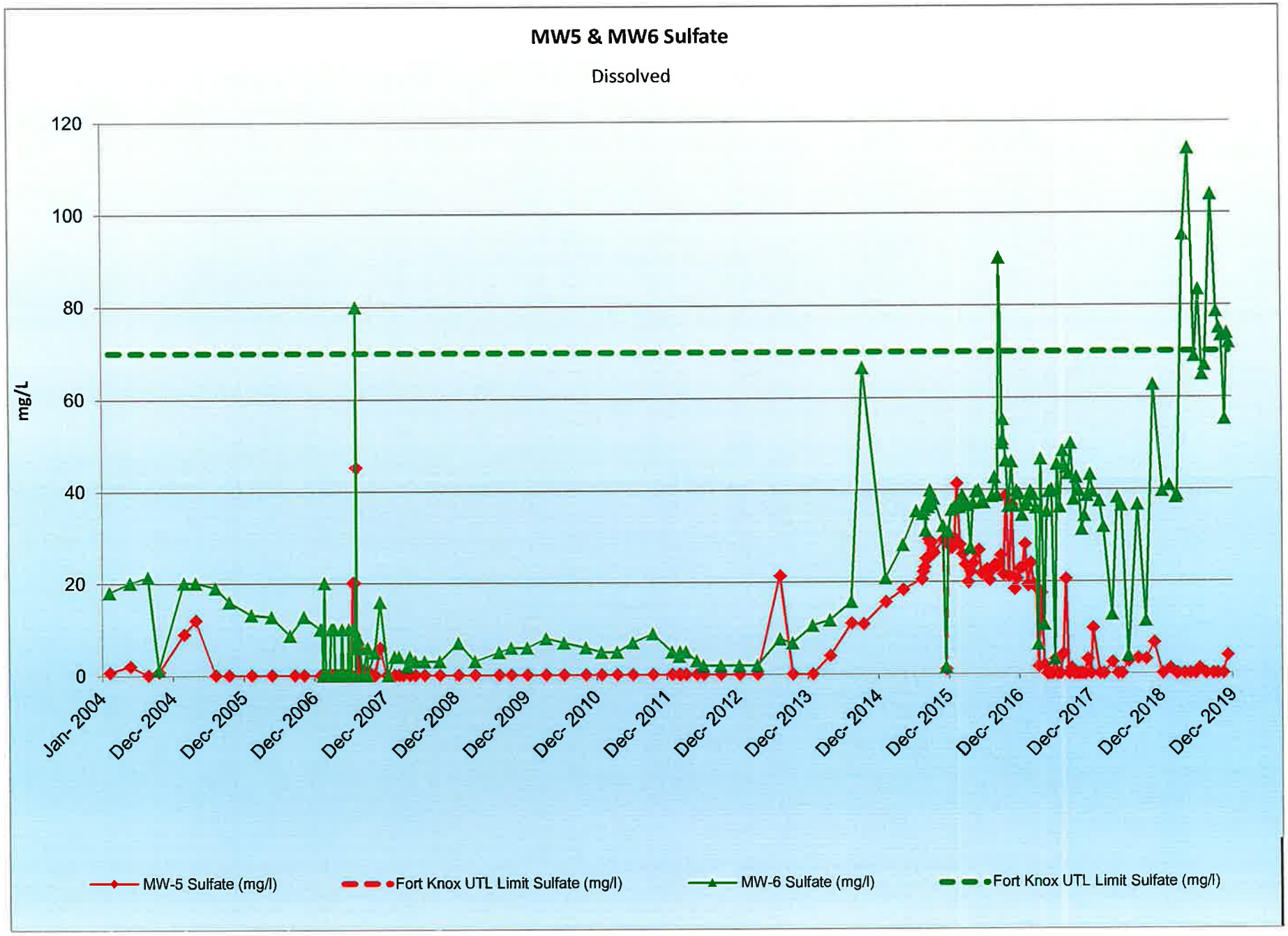

MW5 & MW6 Arsenic
Dissolved
mg/L
0.006
0.005
0.004
0.003
0.002
0.001
0
Jan- 2004
Dec- 2004
Dec- 2005
Dec- 2006
Dec- 2007
Dec- 2008
Dec- 2009
Dec- 2010
Dec- 2011
Dec- 2012
Dec- 2013
Dec- 2014
Dec- 2015
Dec- 2016
Dec- 2017
Dec- 2018
Dec- 2019
MW-5 Arsenic, Dissolved (mg/l)
Fort Knox UTL Limit Arsenic, Dissolved (mg/l)
MW-6 Arsenic, Dissolved (mg/l)
Fort Knox UTL Limit Arsenic, Dissolved (mg/l)

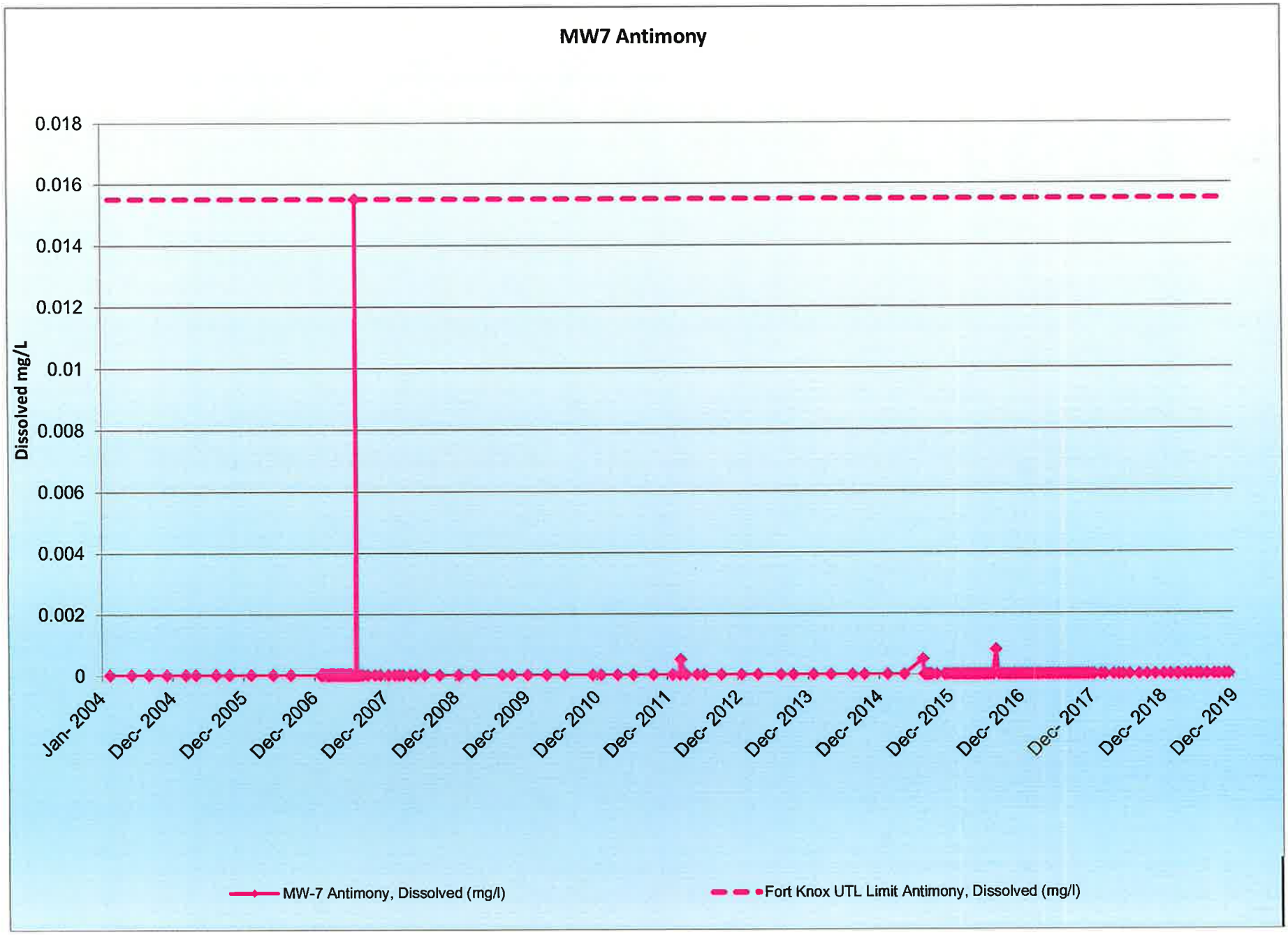

MW5 & MW6 Chloride
Dissolved
mg/L
25
20
15
10
5
0
Jan- 2004
Dec- 2004
Dec- 2005
Dec- 2006
Dec- 2007
Dec- 2008
Dec- 2009
Dec- 2010
Dec- 2011
Dec- 2012
Dec- 2013
Dec- 2014
Dec- 2015
Dec- 2016
Dec- 2017
Dec- 2018
Dec- 2019
MW-5 Chloride, dissolved
Fort Knox UTL Limit Chloride, dissolved
MW-6 Chloride, dissolved
Fort Knox UTL Limit Chloride, dissolved

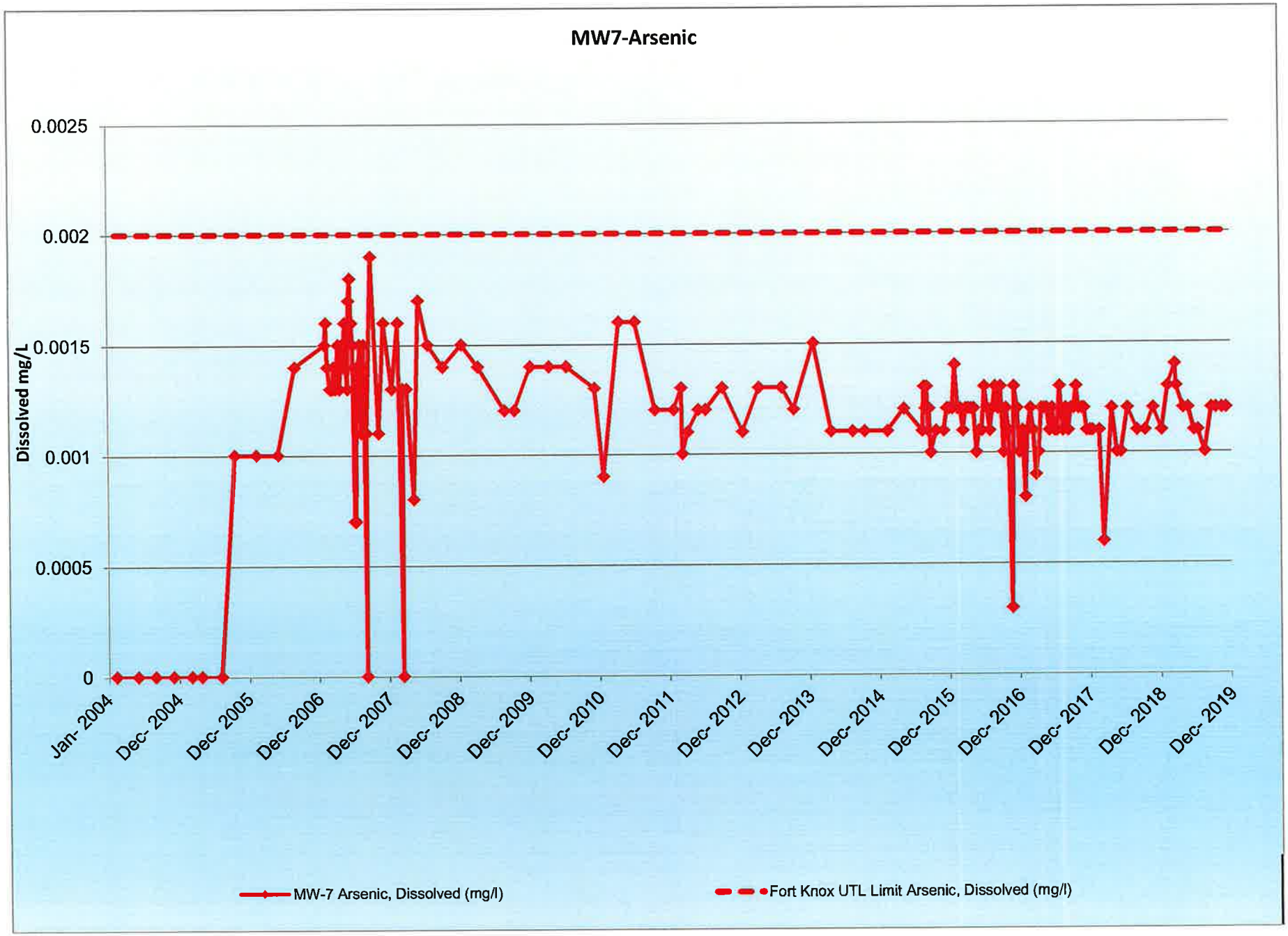

MW5 & MW6 Copper
Dissolved
Axis Title
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
Jan- 2004
Dec- 2004
Dec- 2005
Dec- 2006
Dec- 2007
Dec- 2008
Dec- 2009
Dec- 2010
Dec- 2011
Dec- 2012
Dec- 2013
Dec- 2014
Dec- 2015
Dec- 2016
Dec- 2017
Dec- 2018
Dec- 2019
MW-5 Copper, Dissolved (mg/l)
Fort Knox UTL Limit Copper, Dissolved (mg/l)
MW-6 Copper, Dissolved (mg/l)
Fort Knox UTL Limit Copper, Dissolved (mg/l)

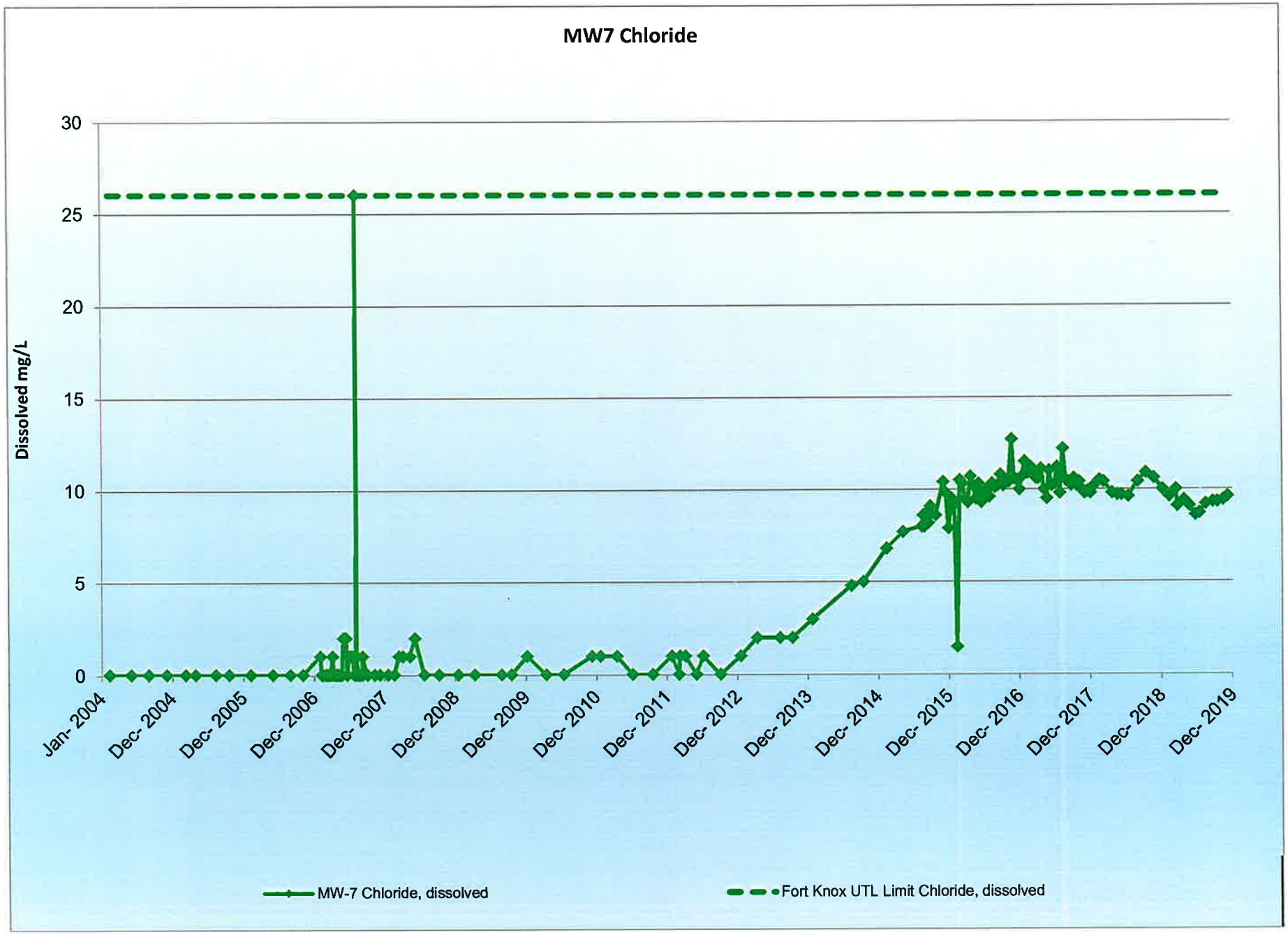

MW5 & MW6 Nitrate
Dissolved
mg/L
140
120
100
80
60
40
20
0
Jan- 2004
Dec- 2004
Dec- 2005
Dec- 2006
Dec- 2007
Dec- 2008
Dec- 2009
Dec- 2010
Dec- 2011
Dec- 2012
Dec- 2013
Dec- 2014
Dec- 2015
Dec- 2016
Dec- 2017
Dec- 2018
Dec- 2019
MW-5 Nitrate Nitrogen, Dissolved (mg/l as N)
MW-6 Nitrate Nitrogen, Dissolved (mg/l as N)
Fort Knox UTL Limit Nitrate Nitrogen, Dissolved (mg/l as N)
Fort Knox UTL Limit Nitrate Nitrogen, Dissolved (mg/l as N)

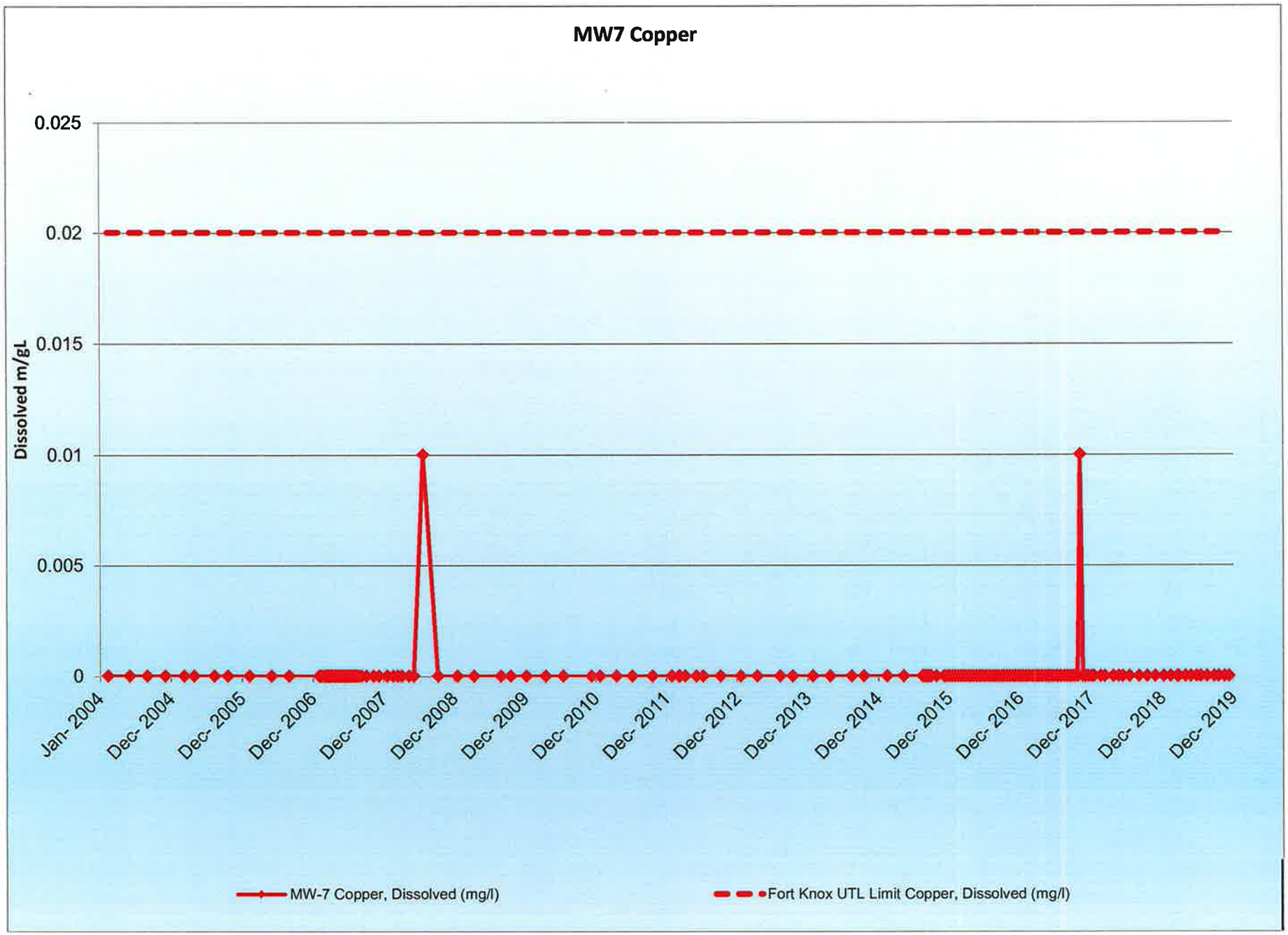

MW5 & MW6 Nitrite as Nitrogen
Dissolved
mg/L
1.2
1
0.8
0.6
0.4
0.2
0
Jan- 2004
Dec- 2004
Dec- 2005
Dec- 2006
Dec- 2007
Dec- 2008
Dec- 2009
Dec- 2010
Dec- 2011
Dec- 2012
Dec- 2013
Dec- 2014
Dec- 2015
Dec- 2016
Dec- 2017
Dec- 2018
Dec- 2019
MW-5 Nitrite Nitrogen, Dissolved (mg/l as N)
Fort Knox UTL Limit Nitrite Nitrogen, Dissolved (mg/l as N)
MW-6 Nitrite Nitrogen, Dissolved (mg/l as N)
Fort Knox UTL Limit Nitrite Nitrogen, Dissolved (mg/l as N)

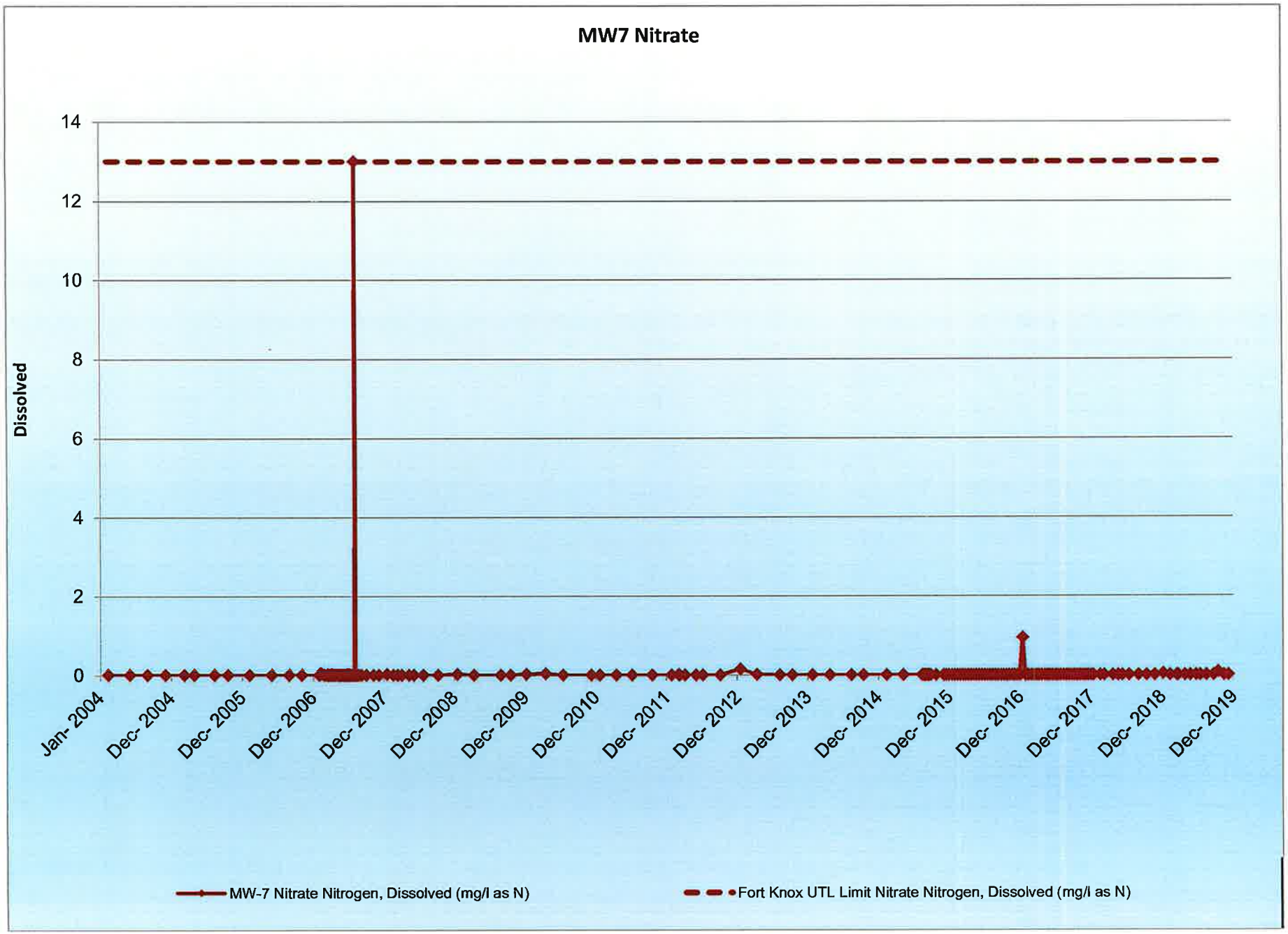

MW5 & MW6 Sulfate
Dissolved
mg/L
120
100
80
60
40
20
0
Jan- 2004
Dec- 2004
Dec- 2005
Dec- 2006
Dec- 2007
Dec- 2008
Dec- 2009
Dec- 2010
Dec- 2011
Dec- 2012
Dec- 2013
Dec- 2014
Dec- 2015
Dec- 2016
Dec- 2017
Dec- 2018
Dec- 2019
MW-5 Sulfate (mg/l)
Fort Knox UTL Limit Sulfate (mg/l)
MW-6 Sulfate (mg/l)
Fort Knox UTL Limit Sulfate (mg/l)

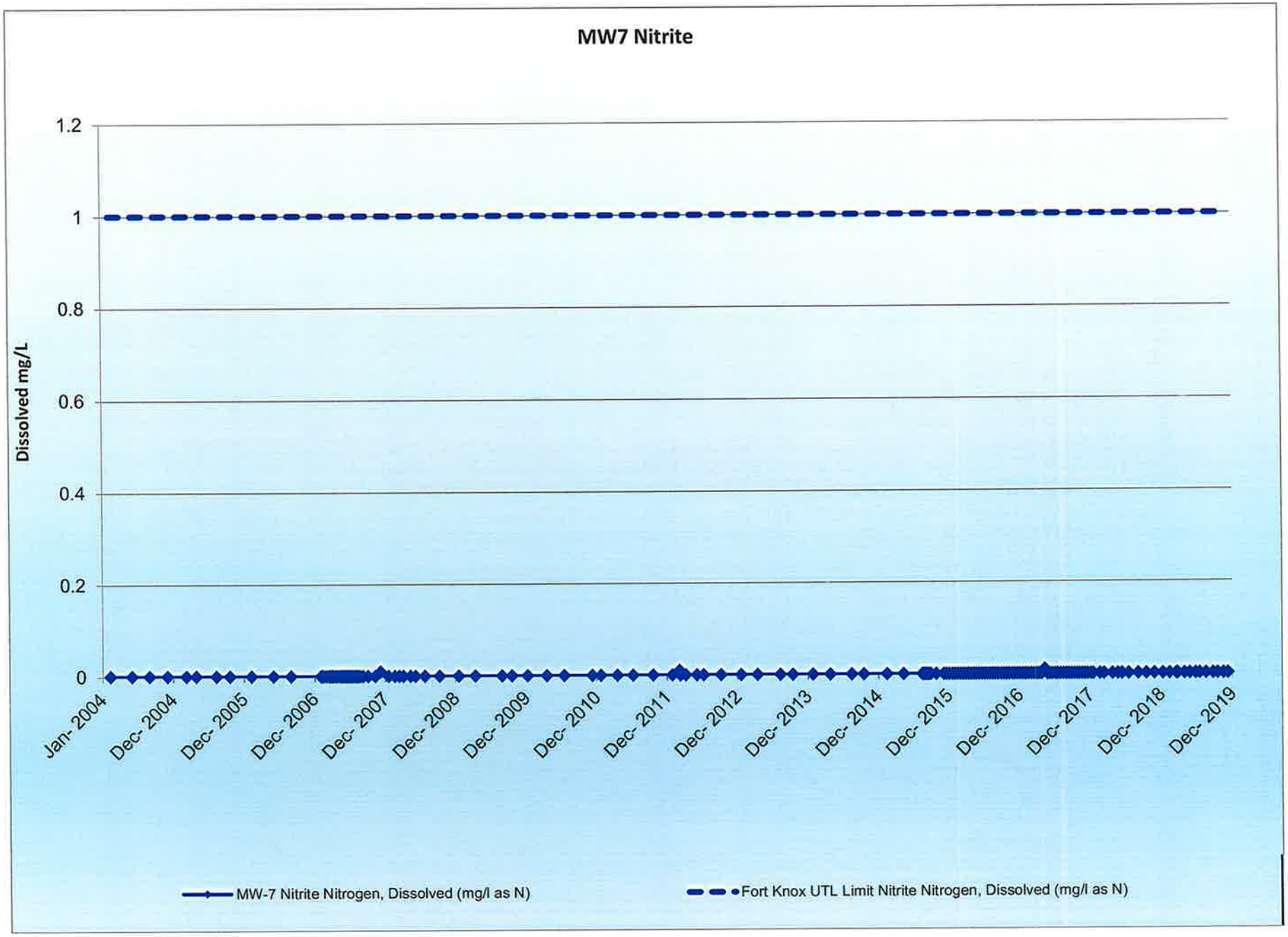

MW7 Antimony
Dissolved mg/L
0.018
0.016
0.014
0.012
0.01
0.008
0.006
0.004
0.002
0
Jan- 2004
Dec- 2004
Dec- 2005
Dec- 2006
Dec- 2007
Dec- 2008
Dec- 2009
Dec- 2010
Dec- 2011
Dec- 2012
Dec- 2013
Dec- 2014
Dec- 2015
Dec- 2016
Dec- 2017
Dec- 2018
Dec- 2019
MW-7 Antimony, Dissolved (mg/l)
Fort Knox UTL Limit Antimony, Dissolved (mg/l)

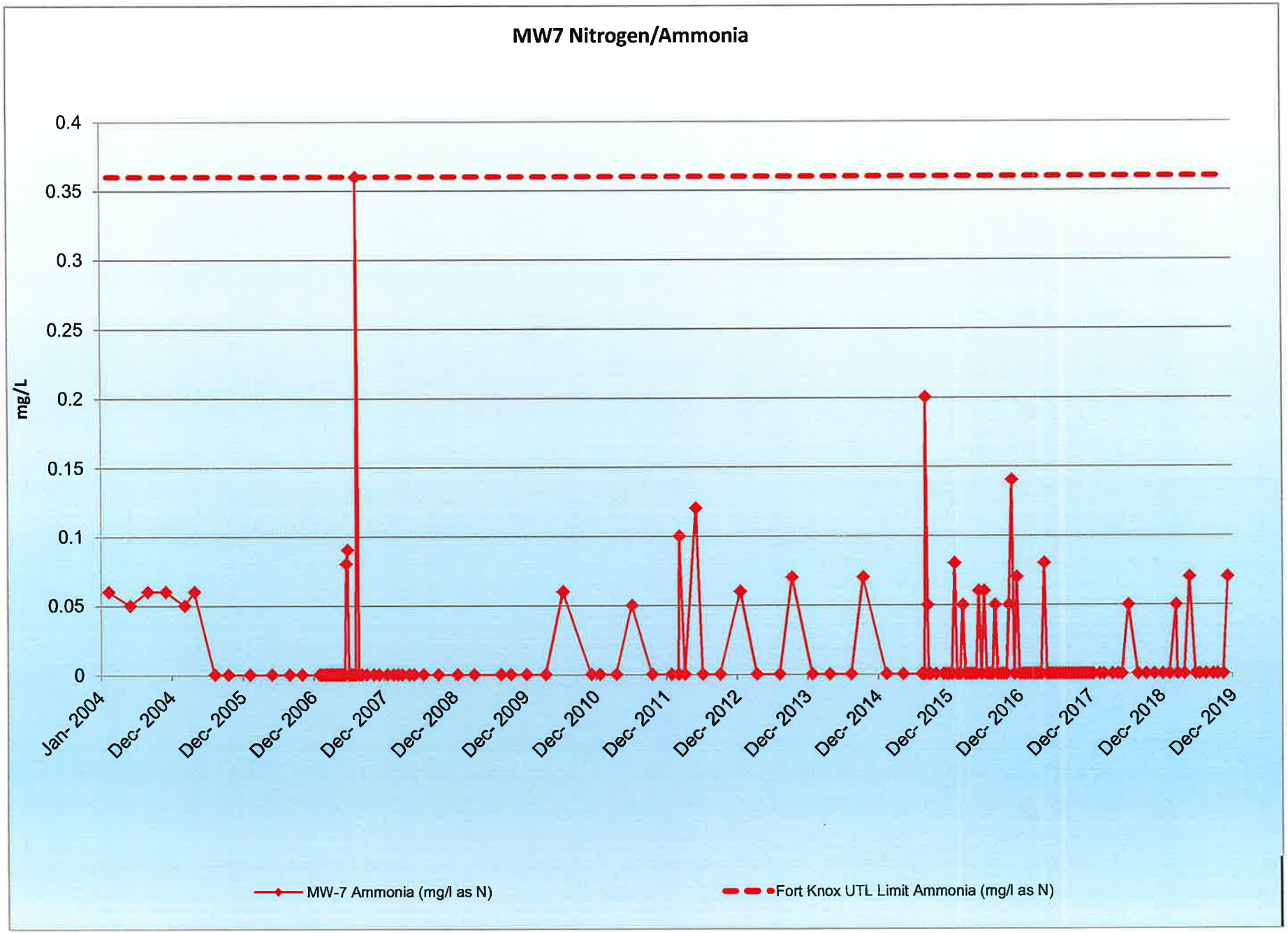

MW7-Arsenic
Dissolved mg/L
0.0025
0.002
0.0015
0.001
0.0005
0
Jan- 2004
Dec- 2004
Dec- 2005
Dec- 2006
Dec- 2007
Dec- 2008
Dec- 2009
Dec- 2010
Dec- 2011
Dec- 2012
Dec- 2013
Dec- 2014
Dec- 2015
Dec- 2016
Dec- 2017
Dec- 2018
Dec- 2019
MW-7 Arsenic, Dissolved (mg/l)
Fort Knox UTL Limit Arsenic, Dissolved (mg/l)

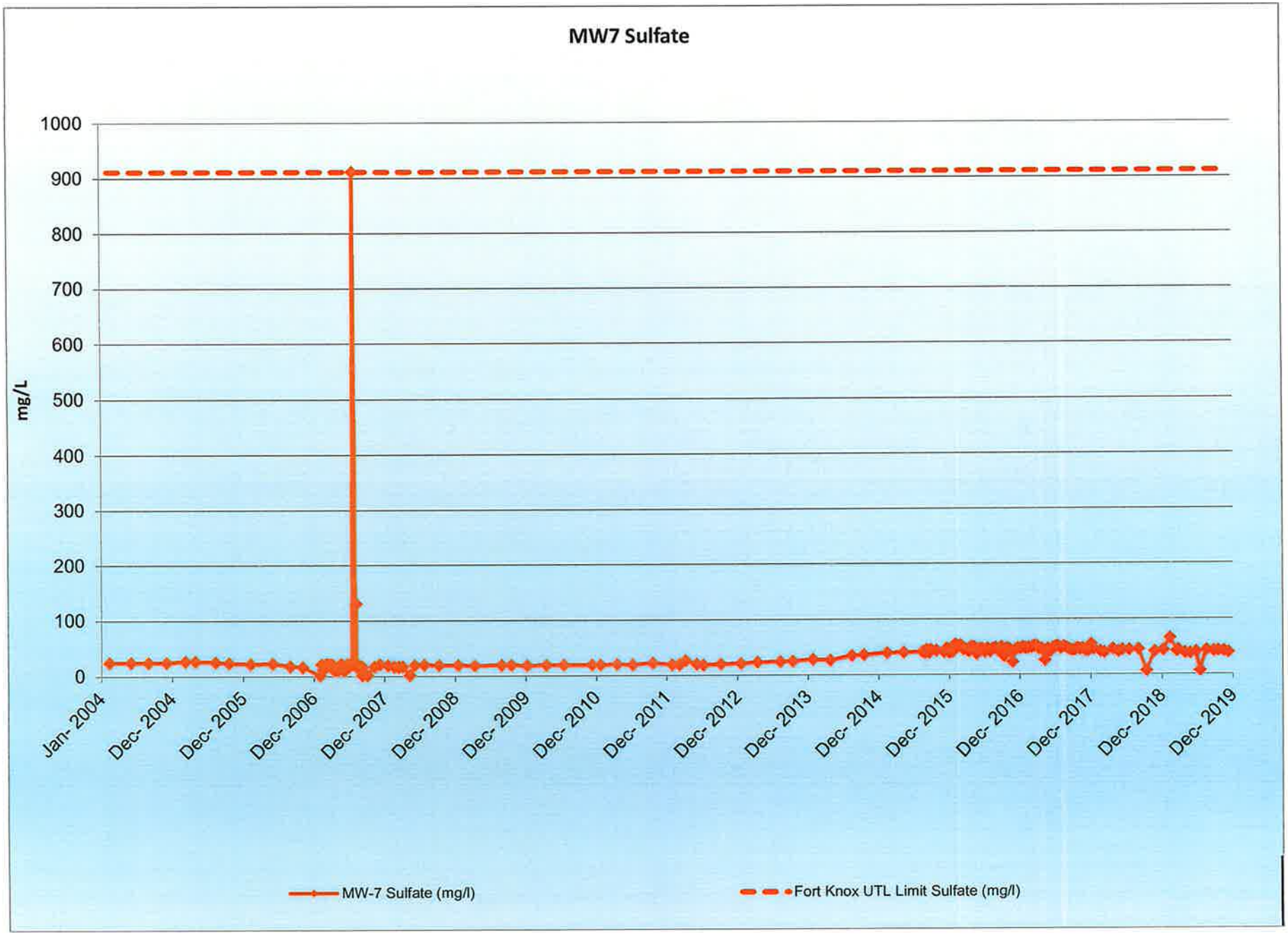

MW7 Chloride
Dissolved mg/L
30
25
20
15
10
5
0
Jan- 2004
Dec- 2004
Dec- 2005
Dec- 2006
Dec- 2007
Dec- 2008
Dec- 2009
Dec- 2010
Dec- 2011
Dec- 2012
Dec- 2013
Dec- 2014
Dec- 2015
Dec- 2016
Dec- 2017
Dec- 2018
Dec- 2019
MW-7 Chloride, dissolved
Fort Knox UTL Limit Chloride, dissolved

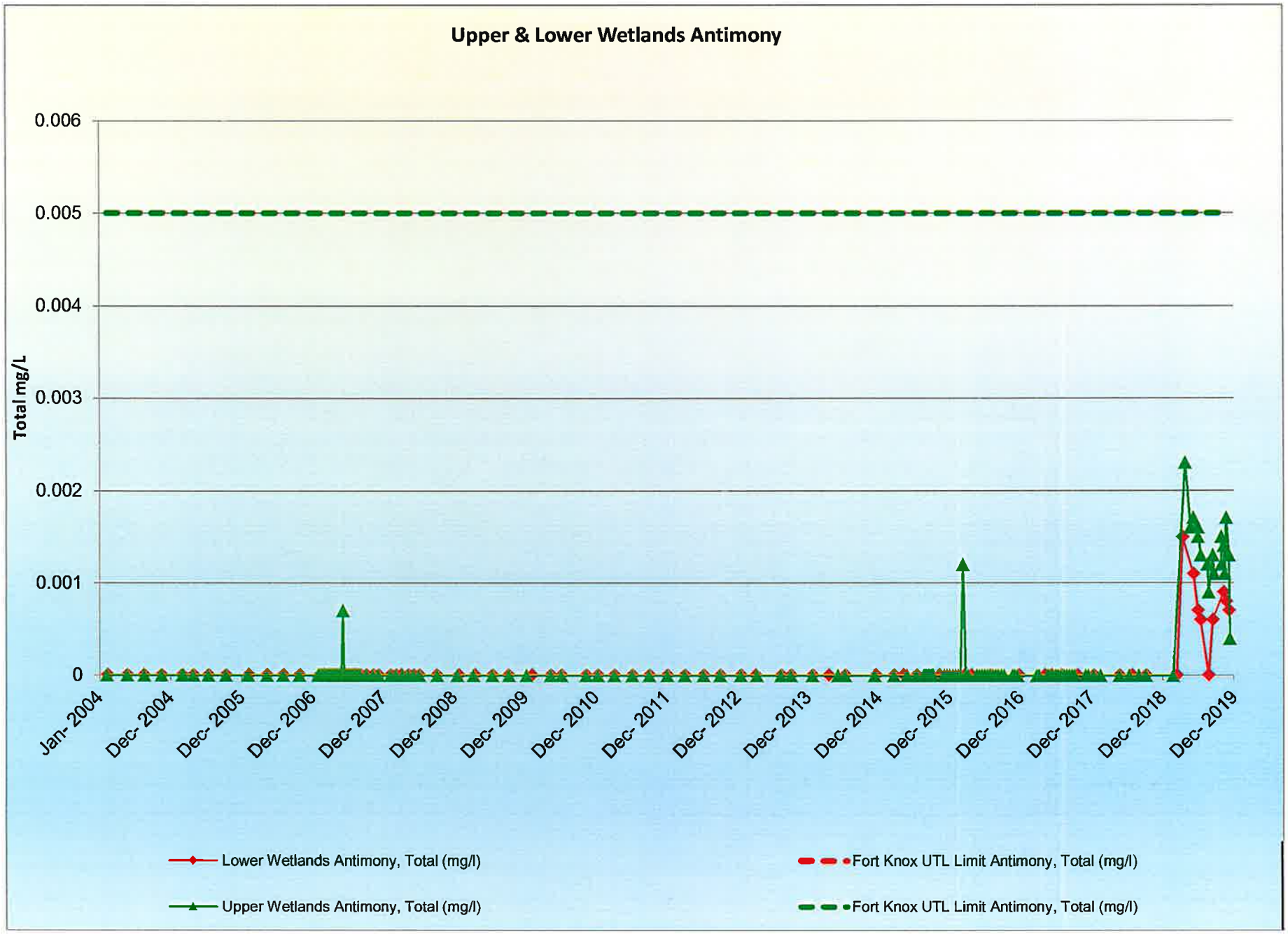

MW7 Copper
Dissolved m/gL
0.025
0.02
0.015
0.01
0.005
0
Jan- 2004
Dec- 2004
Dec- 2005
Dec- 2006
Dec- 2007
Dec- 2008
Dec- 2009
Dec- 2010
Dec- 2011
Dec- 2012
Dec- 2013
Dec- 2014
Dec- 2015
Dec- 2016
Dec- 2017
Dec- 2018
Dec- 2019
MW-7 Copper, Dissolved (mg/l)
Fort Knox UTL Limit Copper, Dissolved (mg/l)

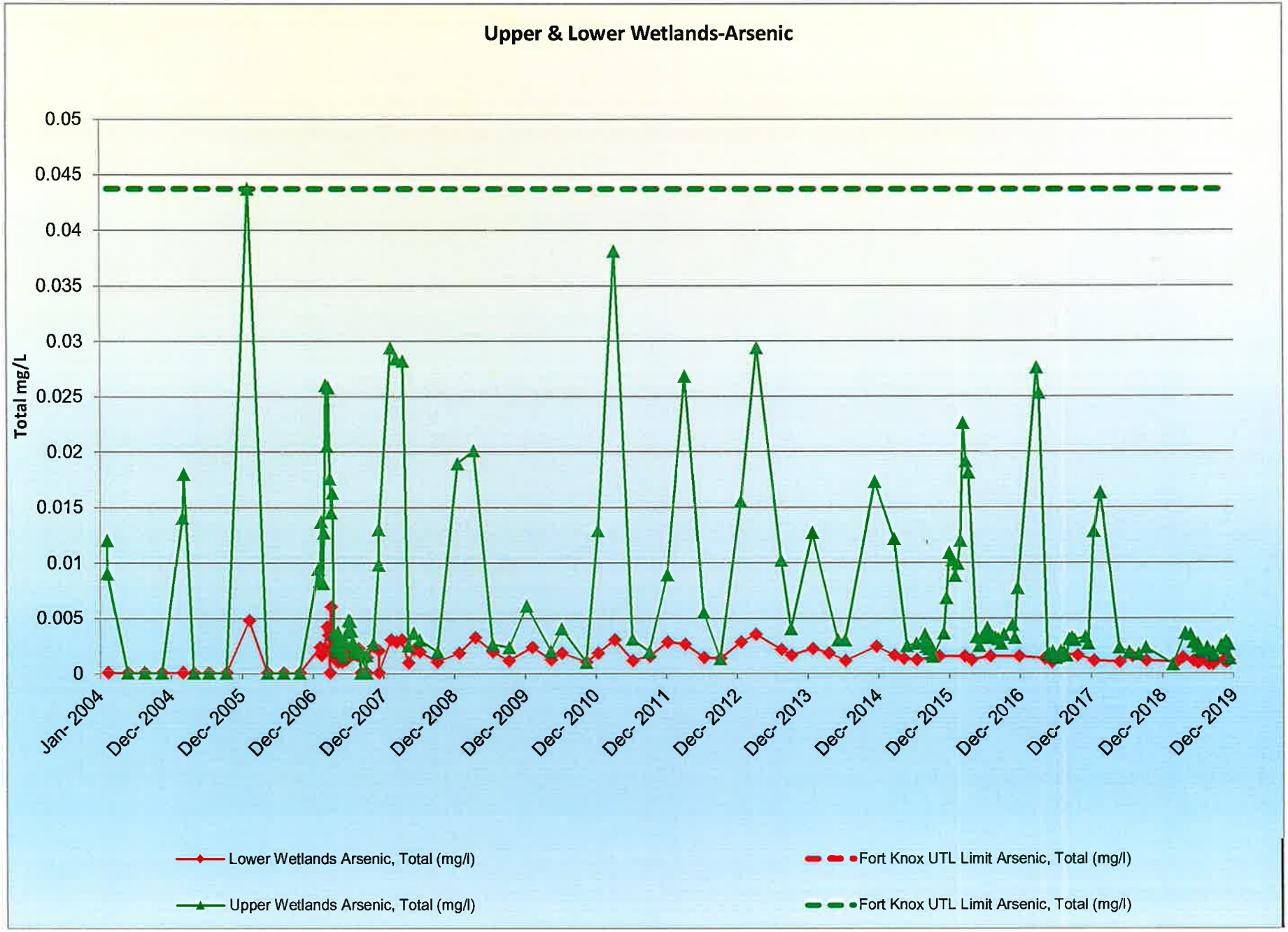

MW7 Nitrate
Dissolved
14
12
10
8
6
4
2
0
Jan- 2004
Dec- 2004
Dec- 2005
Dec- 2006
Dec- 2007
Dec- 2008
Dec- 2009
Dec- 2010
Dec- 2011
Dec- 2012
Dec- 2013
Dec- 2014
Dec- 2015
Dec- 2016
Dec- 2017
Dec- 2018
Dec- 2019
MW-7 Nitrate Nitrogen, Dissolved (mg/l as N)
Fort Knox UTL Limit Nitrate Nitrogen, Dissolved (mg/l as N)

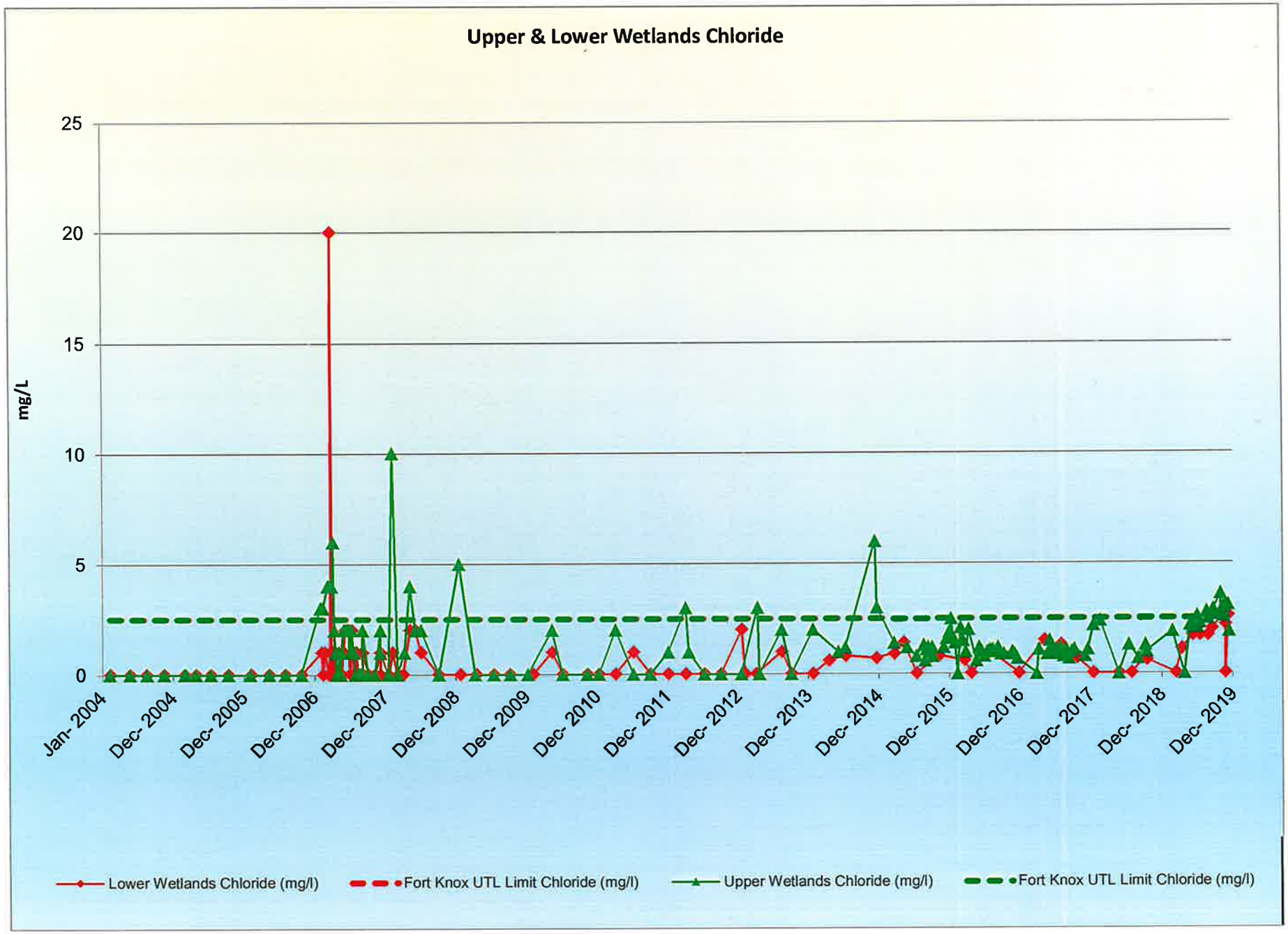

MW7 Nitrite
Dissolved mg/L
1.2
1
0.8
0.6
0.4
0.2
0
Jan- 2004
Dec- 2004
Dec- 2005
Dec- 2006
Dec- 2007
Dec- 2008
Dec- 2009
Dec- 2010
Dec- 2011
Dec- 2012
Dec- 2013
Dec- 2014
Dec- 2015
Dec- 2016
Dec- 2017
Dec- 2018
Dec- 2019
MW-7 Nitrite Nitrogen, Dissolved (mg/l as N)
Fort Knox UTL Limit Nitrite Nitrogen, Dissolved (mg/l as N)

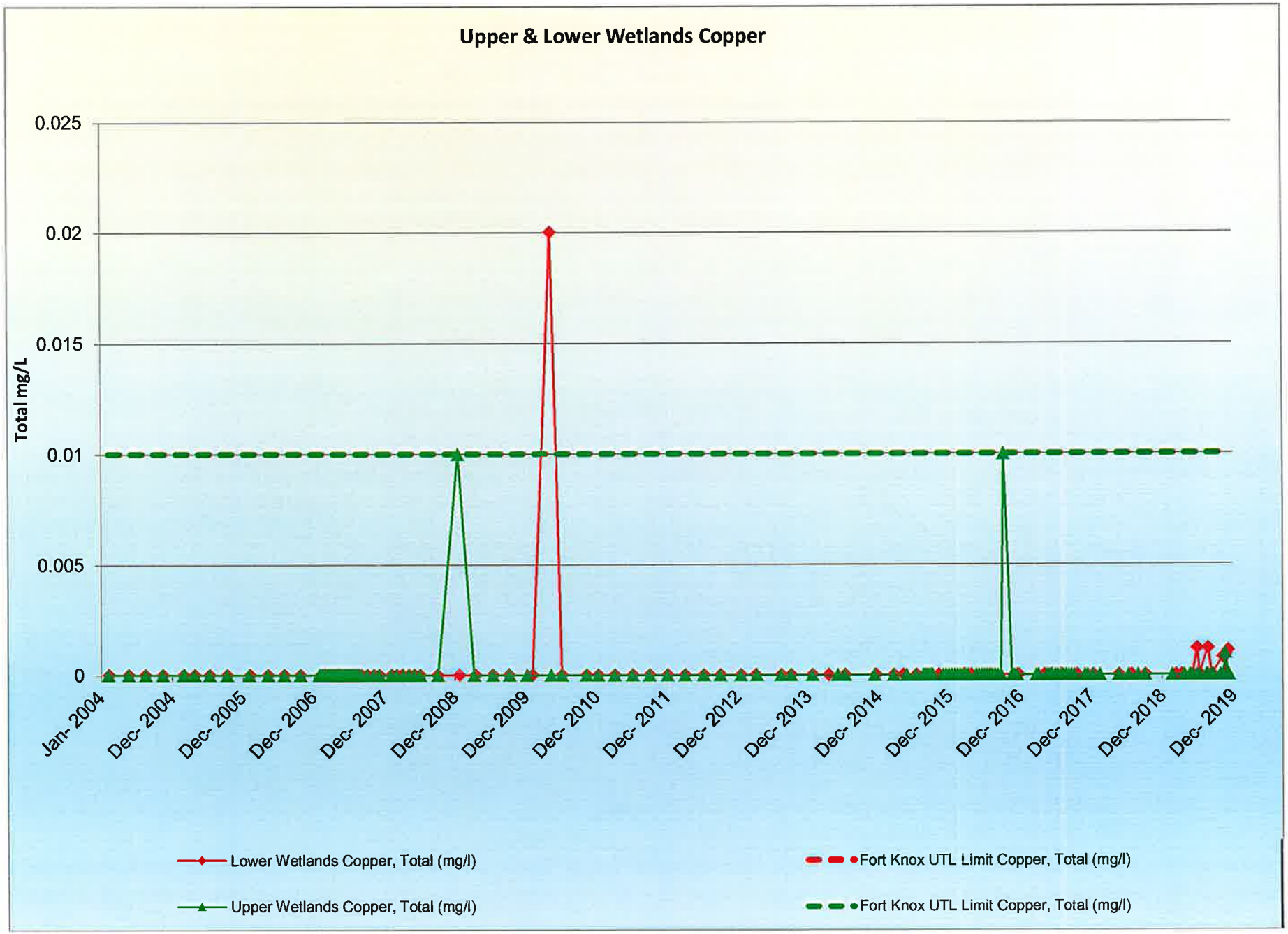

MW7 Nitrogen/Ammonia
mg/L
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
Jan- 2004
Dec- 2004
Dec- 2005
Dec- 2006
Dec- 2007
Dec- 2008
Dec- 2009
Dec- 2010
Dec- 2011
Dec- 2012
Dec- 2013
Dec- 2014
Dec- 2015
Dec- 2016
Dec- 2017
Dec- 2018
Dec- 2019
MW-7 Ammonia (mg/l as N)
Fort Knox UTL Limit Ammonia (mg/l as N)

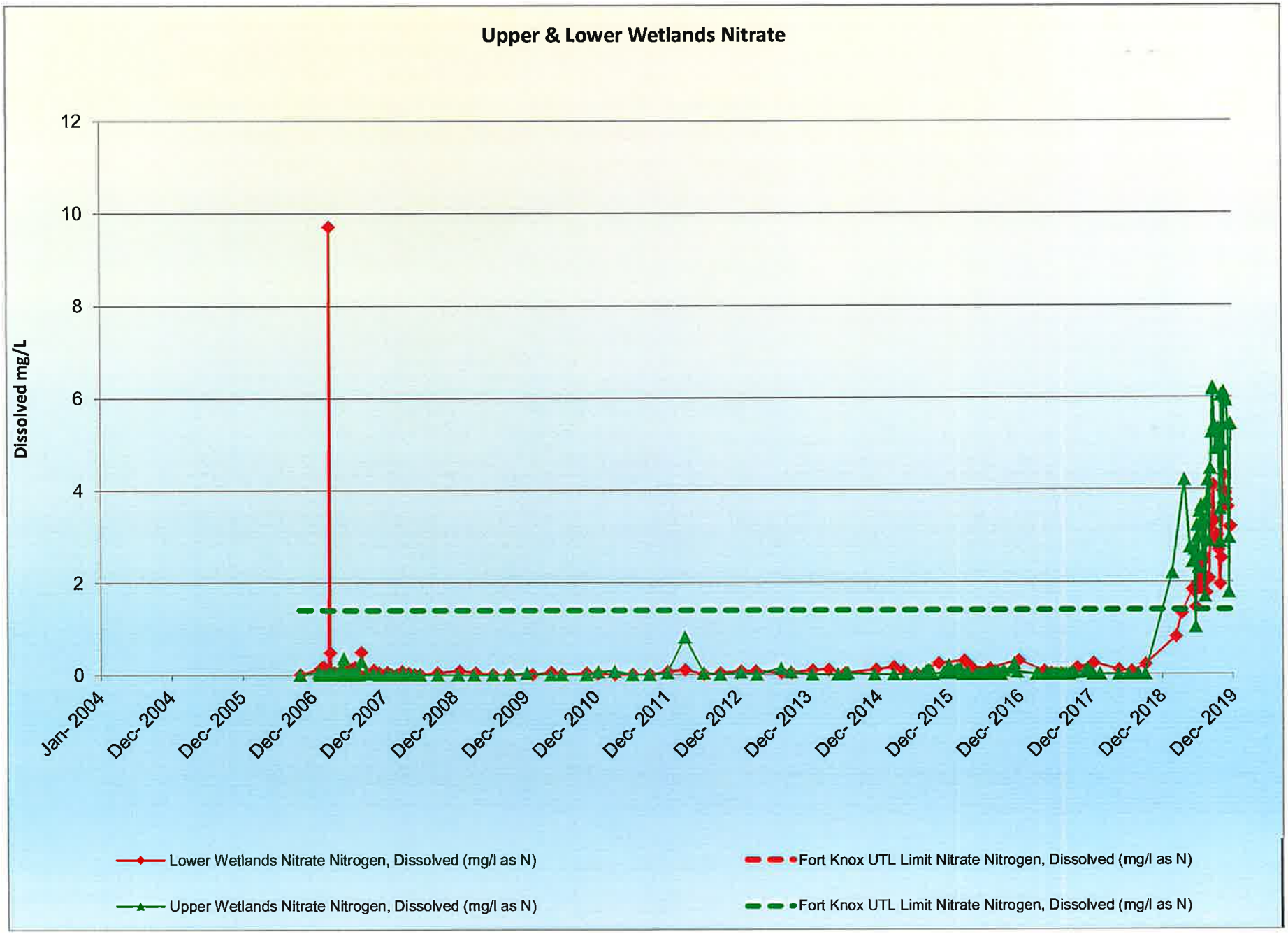

MW7 Sulfate
mg/L
1000
900
800
700
600
500
400
300
200
100
0
Jan- 2004
Dec- 2004
Dec- 2005
Dec- 2006
Dec- 2007
Dec- 2008
Dec- 2009
Dec- 2010
Dec- 2011
Dec- 2012
Dec- 2013
Dec- 2014
Dec- 2015
Dec- 2016
Dec- 2017
Dec- 2018
Dec- 2019
MW-7 Sulfate (mg/l)
Fort Knox UTL Limit Sulfate (mg/l)

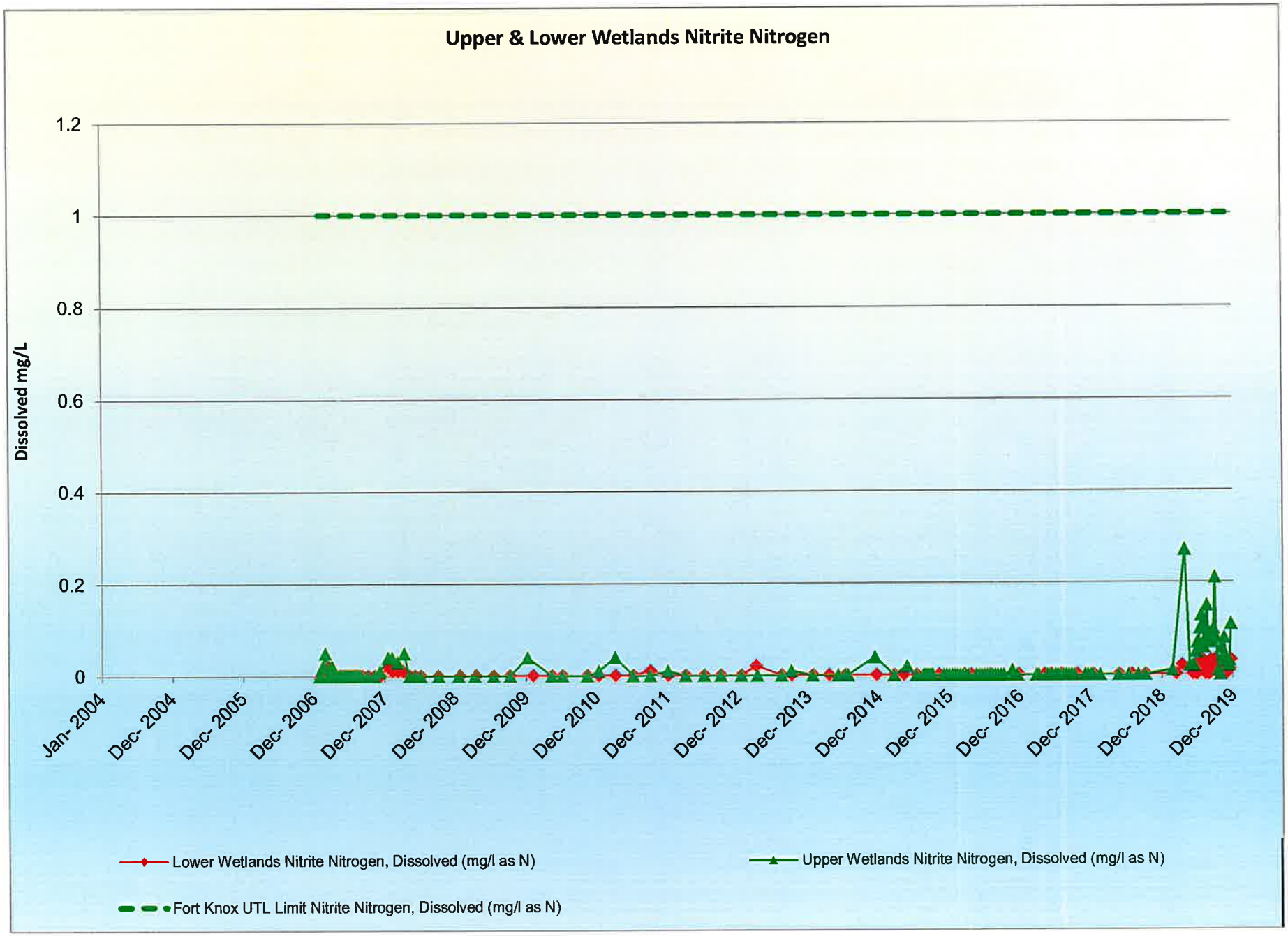

Upper & Lower Wetlands Antimony
Total mg/L
0.006
0.005
0.004
0.003
0.002
0.001
0
Jan- 2004
Dec- 2004
Dec- 2005
Dec- 2006
Dec- 2007
Dec- 2008
Dec- 2009
Dec- 2010
Dec- 2011
Dec- 2012
Dec- 2013
Dec- 2014
Dec- 2015
Dec- 2016
Dec- 2017
Dec- 2018
Dec- 2019
Lower Wetlands Antimony, Total (mg/l)
Fort Knox UTL Limit Antimony, Total (mg/l)
Upper Wetlands Antimony, Total (mg/l)
Fort Knox UTL Limit Antimony, Total (mg/l)

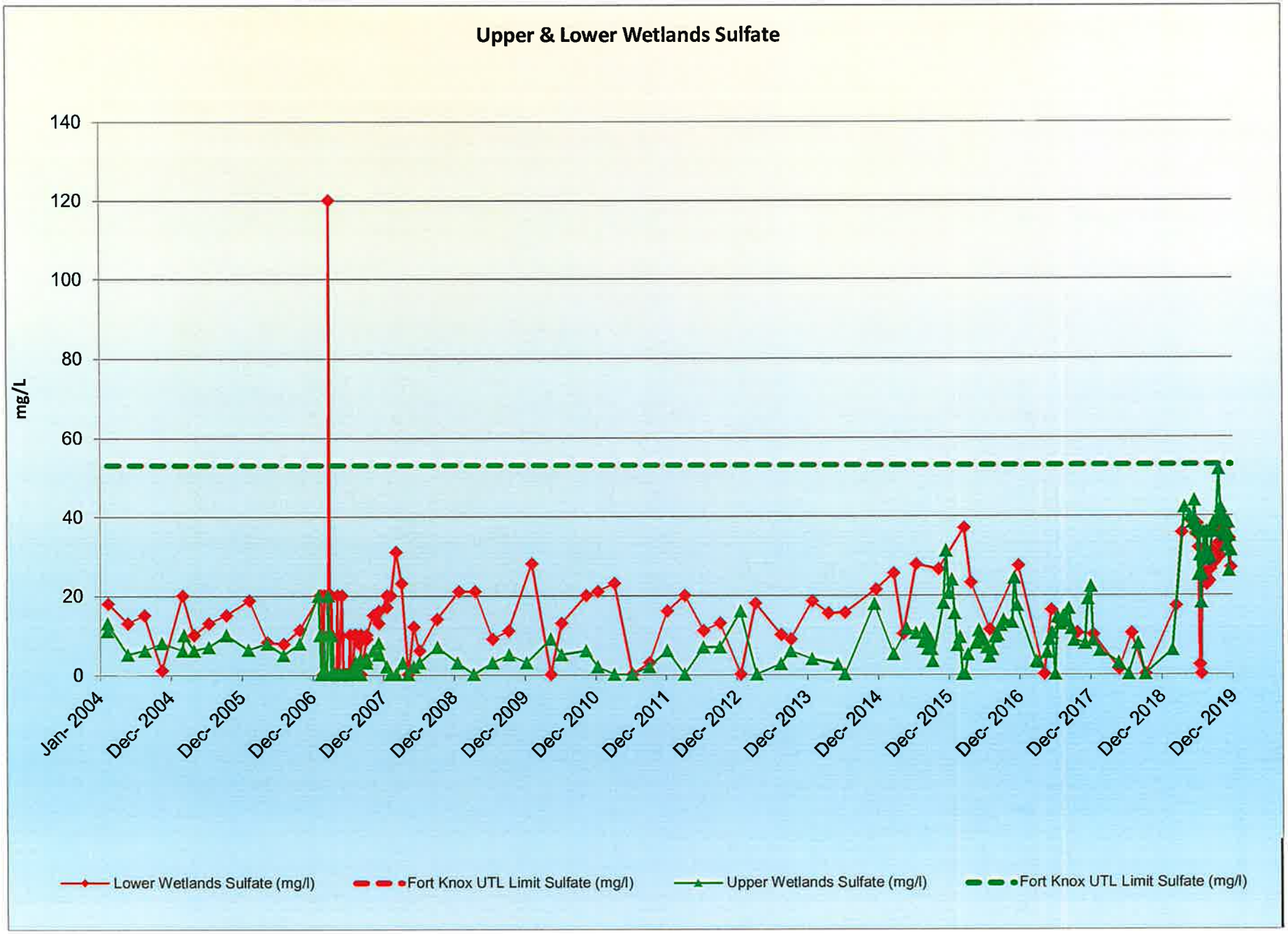

Upper & Lower Wetlands-Arsenic
Total mg/L
0.05
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
Jan- 2004
Dec- 2004
Dec- 2005
Dec- 2006
Dec- 2007
Dec- 2008
Dec- 2009
Dec- 2010
Dec- 2011
Dec- 2012
Dec- 2013
Dec- 2014
Dec- 2015
Dec- 2016
Dec- 2017
Dec- 2018
Dec- 2019
Lower Wetlands Arsenic, Total (mg/l)
Fort Knox UTL Limit Arsenic, Total (mg/l)
Upper Wetlands Arsenic, Total (mg/l)
Fort Knox UTL Limit Arsenic, Total (mg/l)


Upper & Lower Wetlands Chloride
mg/L
25
20
15
10
5
0
Jan- 2004
Dec- 2004
Dec- 2005
Dec- 2006
Dec- 2007
Dec- 2008
Dec- 2009
Dec- 2010
Dec- 2011
Dec- 2012
Dec- 2013
Dec- 2014
Dec- 2015
Dec- 2016
Dec- 2017
Dec- 2018
Dec- 2019
Lower Wetlands Chloride (mg/l)
Fort Knox UTL Limit Chloride (mg/l)
Upper Wetlands Chloride (mg/l)
Fort Knox UTL Limit Chloride (mg/l)


Upper & Lower Wetlands Copper
Total mg/L
0.025
0.02
0.015
0.01
0.005
0
Jan- 2004
Dec- 2004
Dec- 2005
Dec- 2006
Dec- 2007
Dec- 2008
Dec- 2009
Dec- 2010
Dec- 2011
Dec- 2012
Dec- 2013
Dec- 2014
Dec- 2015
Dec- 2016
Dec- 2017
Dec- 2018
Dec- 2019
Lower Wetlands Copper, Total (mg/l)
Upper Wetlands Copper, Total (mg/l)
Fort Knox UTL Limit Copper, Total (mg/l)
Fort Knox UTL Limit Copper, Total (mg/l)

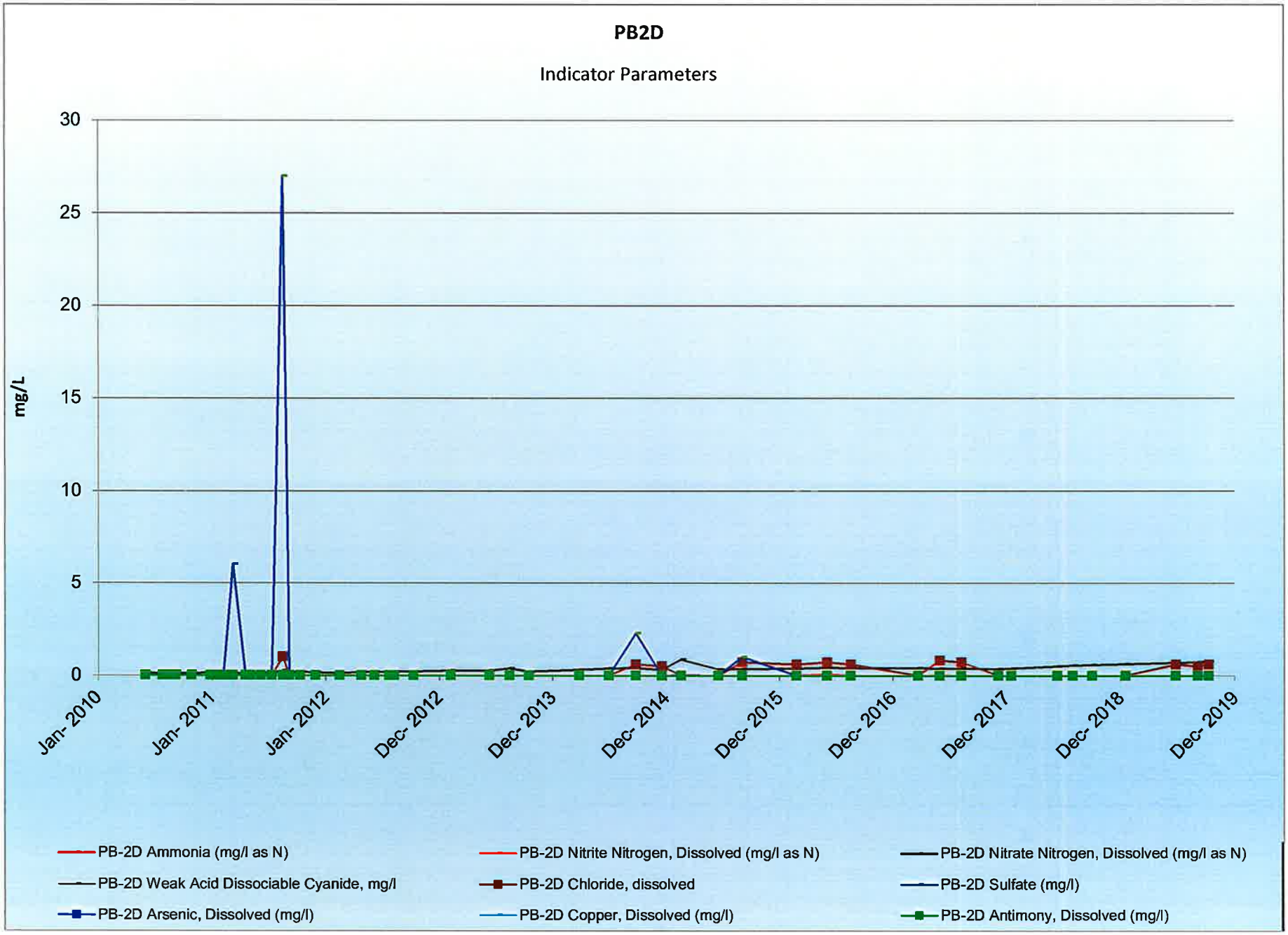

Upper & Lower Wetlands Nitrate
Dissolved mg/L
12
10
8
6
4
2
0
Jan- 2004
Dec- 2004
Dec- 2005
Dec- 2006
Dec- 2007
Dec- 2008
Dec- 2009
Dec- 2010
Dec- 2011
Dec- 2012
Dec- 2013
Dec- 2014
Dec- 2015
Dec- 2016
Dec- 2017
Dec- 2018
Dec- 2019
Lower Wetlands Nitrate Nitrogen, Dissolved (mg/l as N)
Fort Knox UTL Limit Nitrate Nitrogen, Dissolved (mg/l as N)
Upper Wetlands Nitrate Nitrogen, Dissolved (mg/l as N)
Fort Knox UTL Limit Nitrate Nitrogen, Dissolved (mg/l as N)

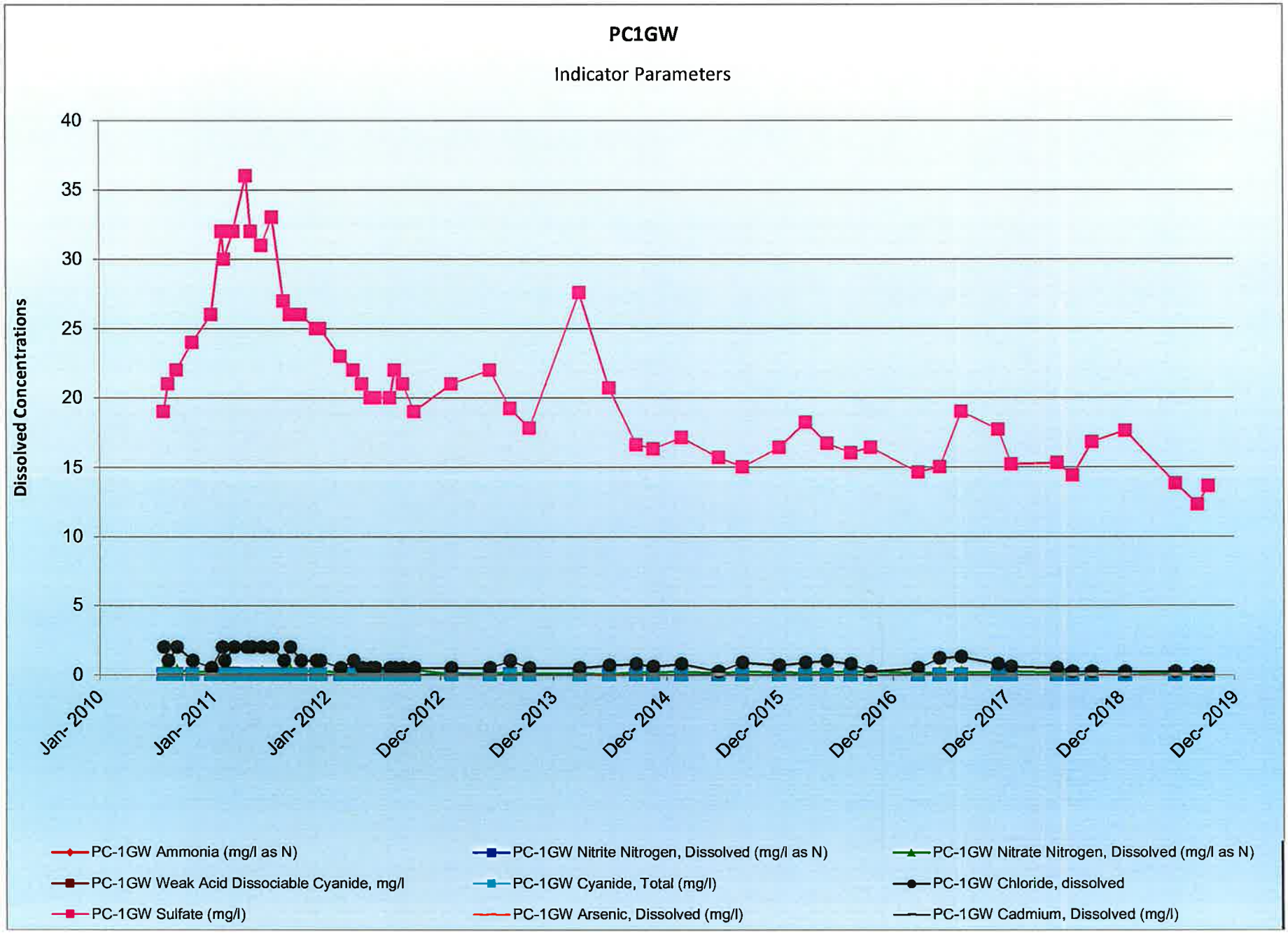

Upper & Lower Wetlands Nitrite Nitrogen
Dissolved mg/L
1.2
1
0.8
0.6
0.4
0.2
0
Jan- 2004
Dec- 2004
Dec- 2005
Dec- 2006
Dec- 2007
Dec- 2008
Dec- 2009
Dec- 2010
Dec- 2011
Dec- 2012
Dec- 2013
Dec- 2014
Dec- 2015
Dec- 2016
Dec- 2017
Dec- 2018
Dec- 2019
Lower Wetlands Nitrite Nitrogen, Dissolved (mg/l as N)
Upper Wetlands Nitrite Nitrogen, Dissolved (mg/l as N)
Fort Knox UTL Limit Nitrite Nitrogen, Dissolved (mg/l as N)

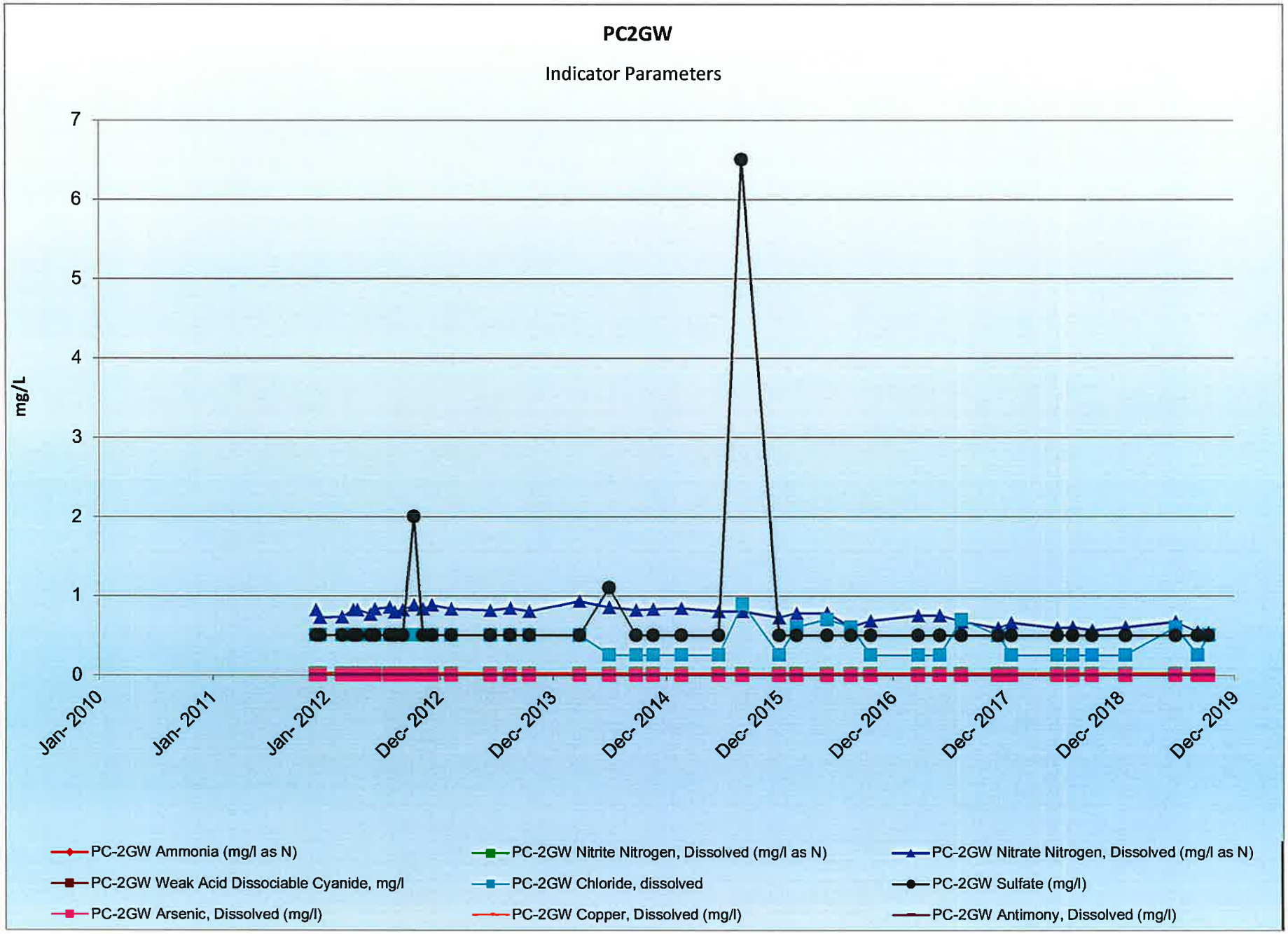

Upper & Lower Wetlands Sulfate
mg/L
140
120
100
80
60
40
20
0
Jan- 2004
Dec- 2004
Dec- 2005
Dec- 2006
Dec- 2007
Dec- 2008
Dec- 2009
Dec- 2010
Dec- 2011
Dec- 2012
Dec- 2013
Dec- 2014
Dec- 2015
Dec- 2016
Dec- 2017
Dec- 2018
Dec- 2019
Lower Wetlands Sulfate (mg/l)
Fort Knox UTL Limit Sulfate (mg/l)
Upper Wetlands Sulfate (mg/l)
Fort Knox UTL Limit Sulfate (mg/l)

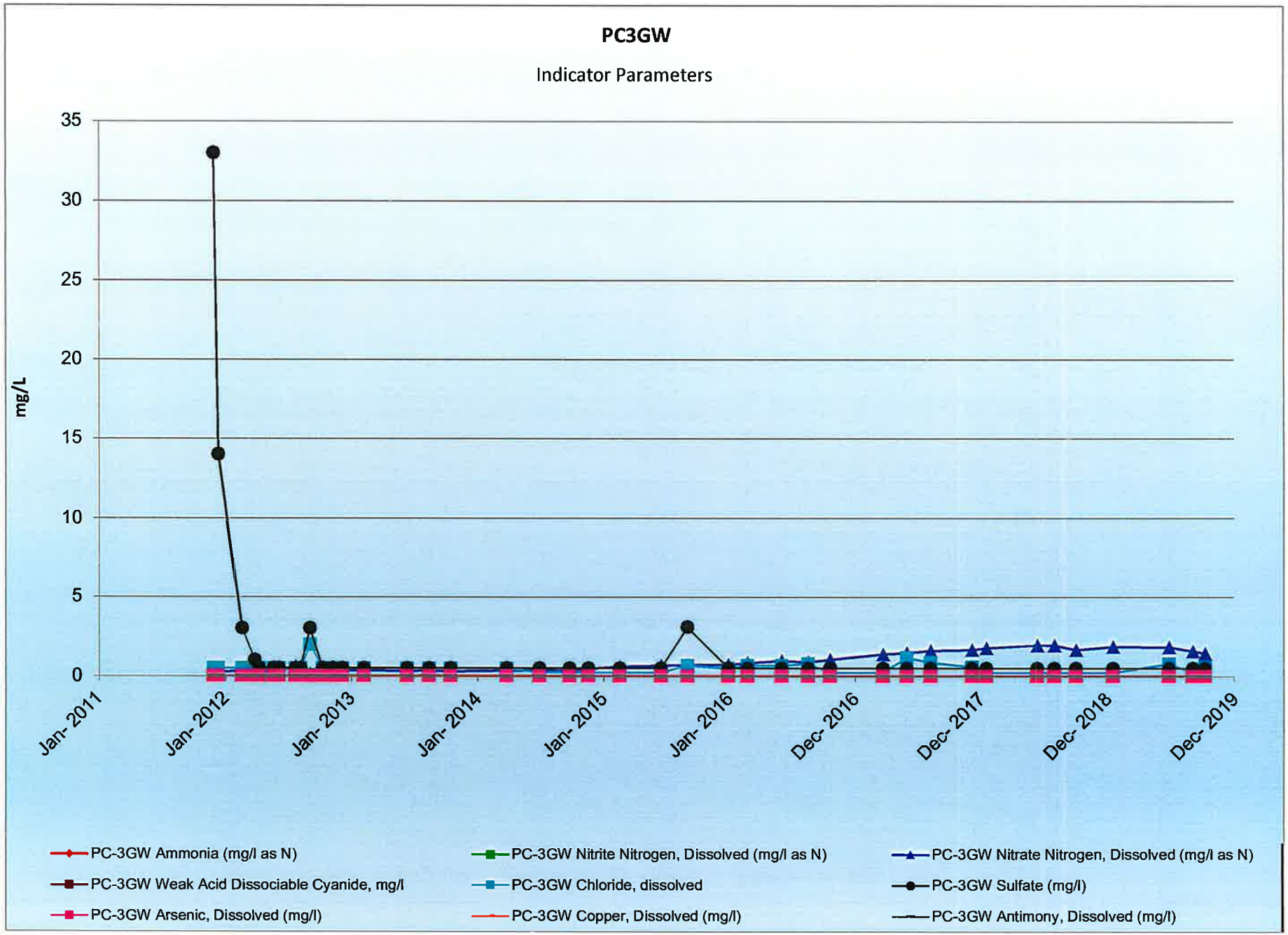
ATTACHMENT D

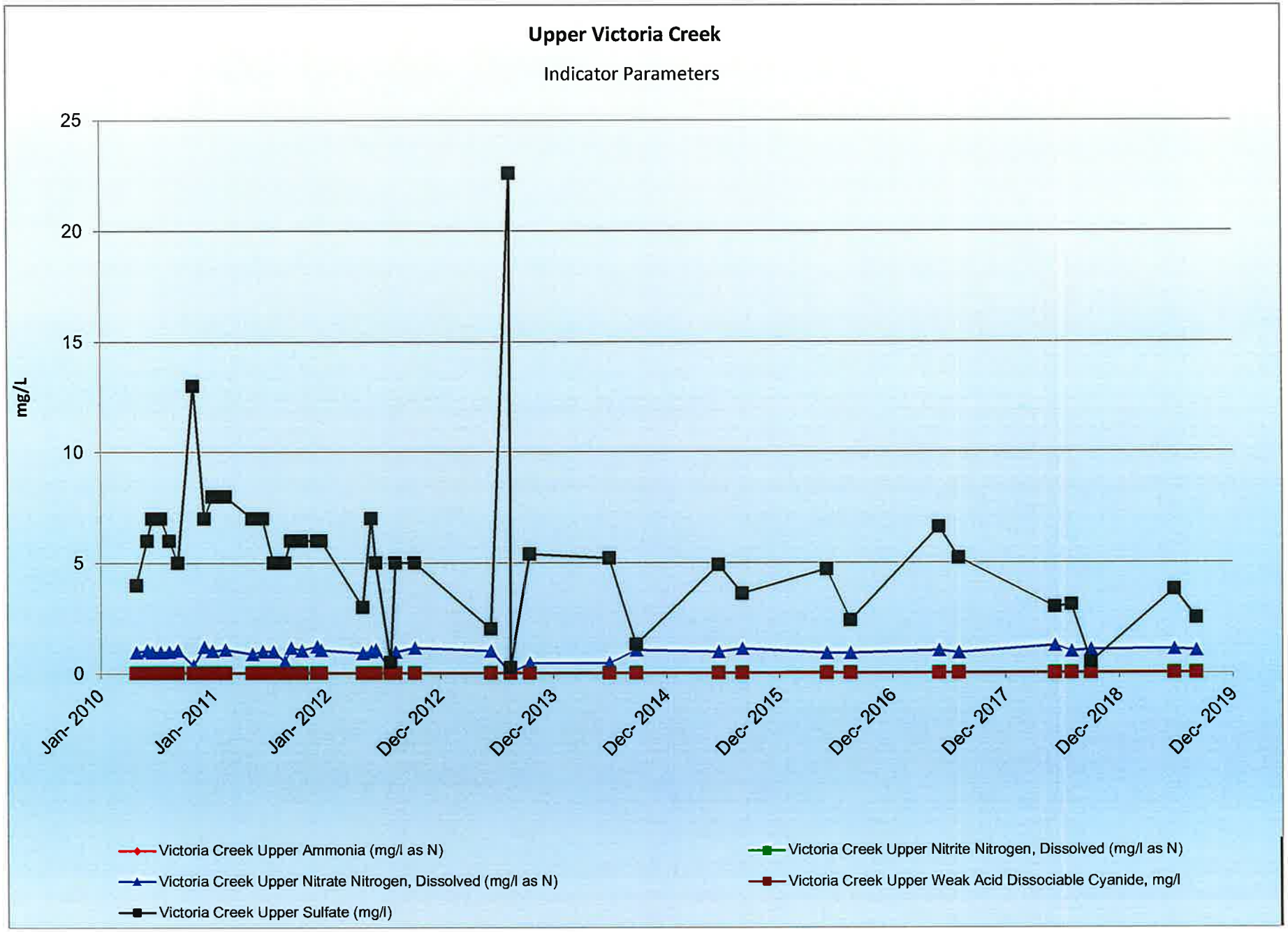
Victoria Creek & PB-2D, PC-1GW, PC-2GW, PC-3GW Water Quality Graphs


PB2D
Indicator Parameters
mg/L
30
25
20
15
10
5
0
Jan- 2010
Jan- 2011
Jan- 2012
Dec- 2012
Dec- 2013
Dec- 2014
Dec- 2015
Dec- 2016
Dec- 2017
Dec- 2018
Dec- 2019
PB-2D Ammonia (mg/l as N)
PB-2D Nitrite Nitrogen, Dissolved (mg/l as N)
PB-2D Nitrate Nitrogen, Dissolved (mg/l as N)
PB-2D Weak Acid Dissociable Cyanide, mg/l
PB-2D Chloride, dissolved
PB-2D Sulfate (mg/l)
PB-2D Arsenic, Dissolved (mg/l)
PB-2D Copper, Dissolved (mg/l)
PB-2D Antimony, Dissolved (mg/l)

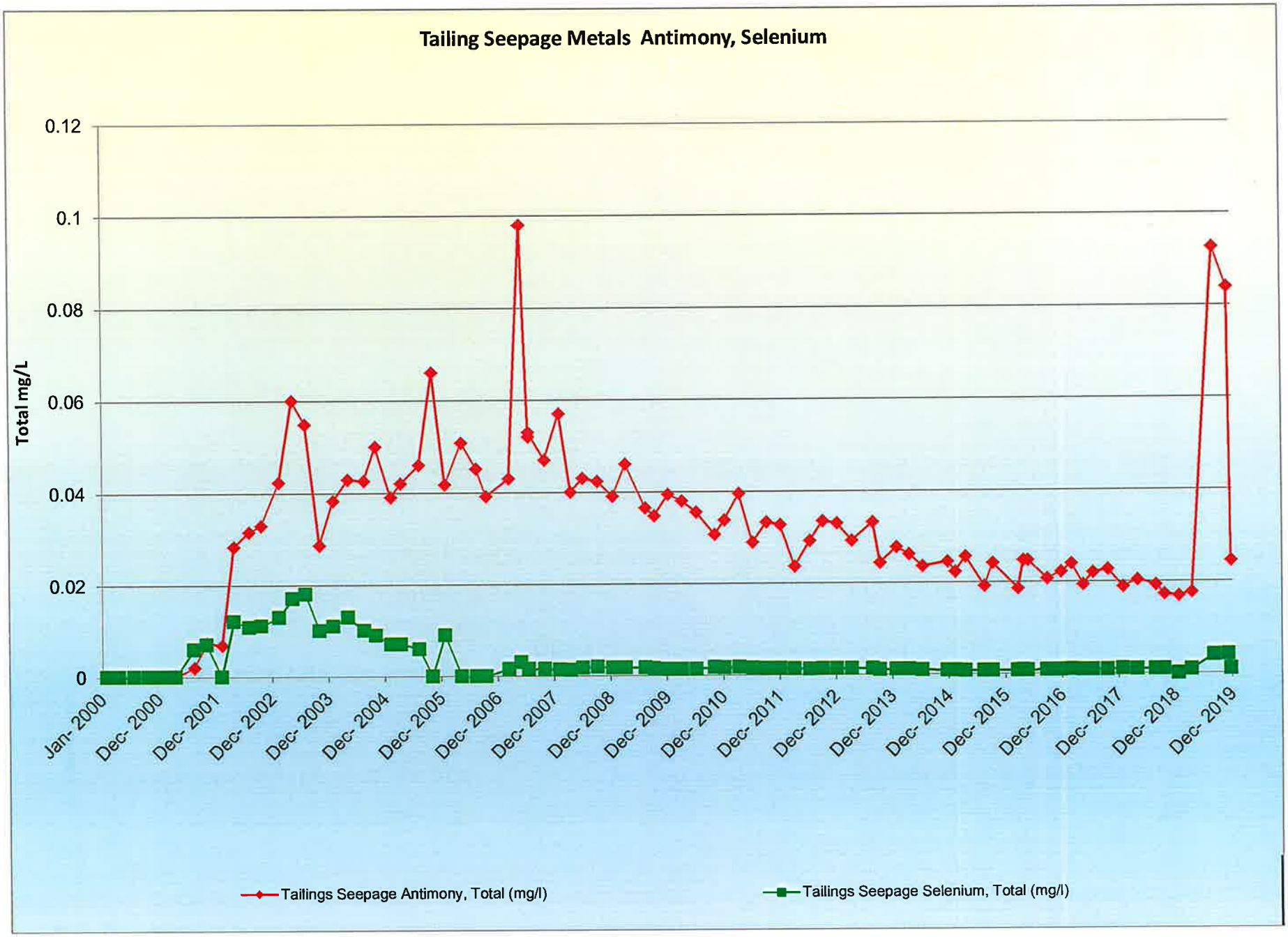

PC1GW
Indicator Parameters
Dissolved Concentrations
40
35
30
25
20
15
10
5
0
Jan- 2010
Jan- 2011
Jan- 2012
Dec- 2012
Dec- 2013
Dec- 2014
Dec- 2015
Dec- 2016
Dec- 2017
Dec- 2018
Dec- 2019
PC-1GW Ammonia (mg/l as N)
PC-1GW Nitrite Nitrogen, Dissolved (mg/l as N)
PC-1GW Nitrate Nitrogen, Dissolved (mg/l as N)
PC-1GW Weak Acid Dissociable Cyanide, mg/l
PC-1GW Cyanide, Total (mg/l)
PC-1GW Chloride, dissolved
PC-1GW Sulfate (mg/l)
PC-1GW Arsenic, Dissolved (mg/l)
PC-1GW Cadmium, Dissolved (mg/l)

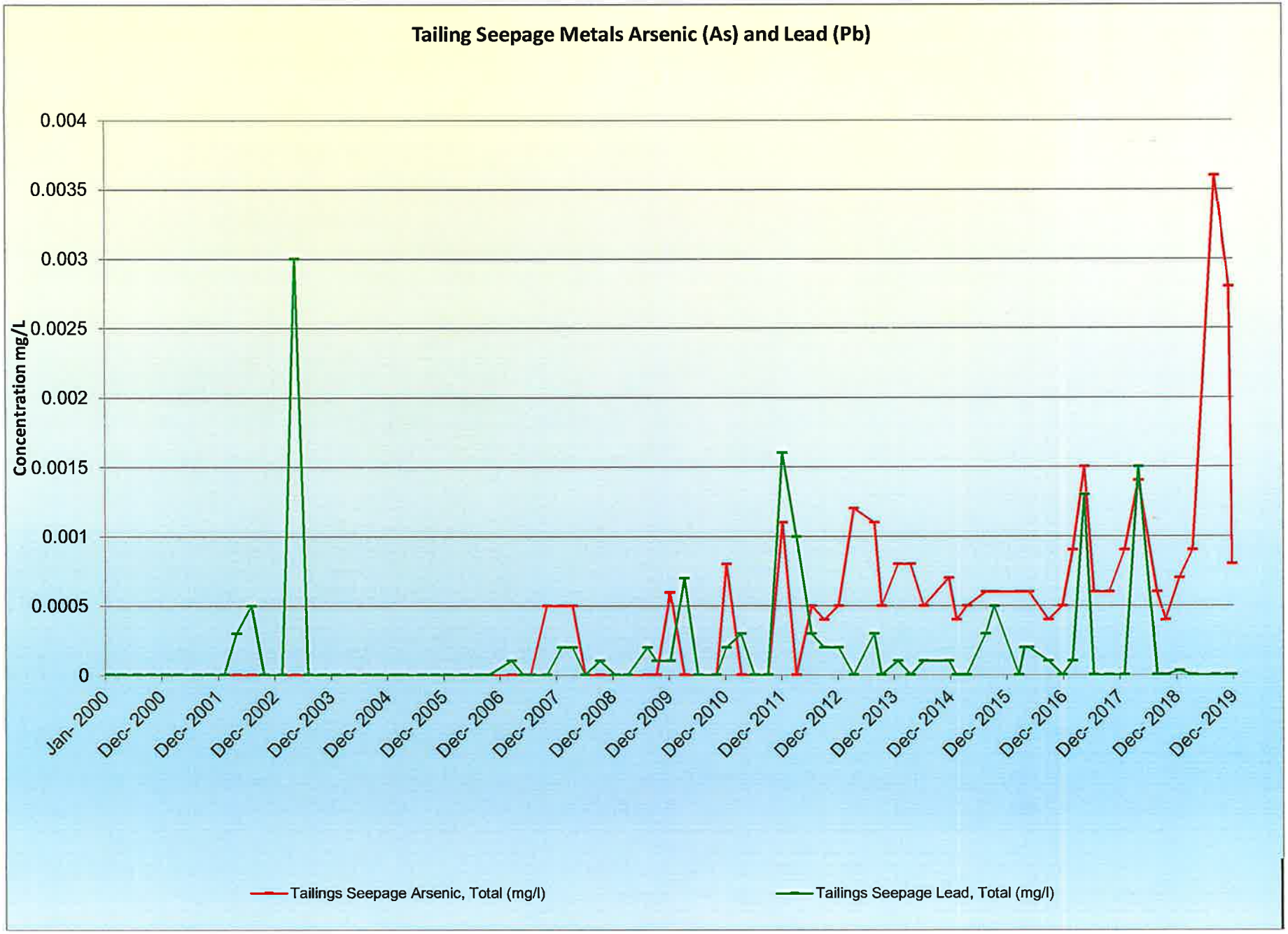

PC2GW
Indicator Parameters
mg/L
7
6
5
4
3
2
1
0
Jan- 2010
Jan- 2011
Jan- 2012
Dec- 2012
Dec- 2013
Dec- 2014
Dec- 2015
Dec- 2016
Dec- 2017
Dec- 2018
Dec- 2019
PC-2GW Ammonia (mg/l as N)
PC-2GW Nitrite Nitrogen, Dissolved (mg/l as N)
PC-2GW Nitrate Nitrogen, Dissolved (mg/l as N)
PC-2GW Weak Acid Dissociable Cyanide, mg/l
PC-2GW Chloride, dissolved
PC-2GW Sulfate (mg/l)
PC-2GW Arsenic, Dissolved (mg/l)
PC-2GW Copper, Dissolved (mg/l)
PC-2GW Antimony, Dissolved (mg/l)


PC3GW
Indicator Parameters
mg/L
35
30
25
20
15
10
5
0
Jan- 2011
Jan- 2012
Jan- 2013
Jan- 2014
Jan- 2015
Jan- 2016
Dec- 2016
Dec- 2017
Dec- 2018
Dec- 2019
PC-3GW Ammonia (mg/l as N)
PC-3GW Nitrite Nitrogen, Dissolved (mg/l as N)
PC-3GW Nitrate Nitrogen, Dissolved (mg/l as N)
PC-3GW Weak Acid Dissociable Cyanide, mg/l
PC-3GW Chloride, dissolved
PC-3GW Sulfate (mg/l)
PC-3GW Arsenic, Dissolved (mg/l)
PC-3GW Copper, Dissolved (mg/l)
PC-3GW Antimony, Dissolved (mg/l)


Upper Victoria Creek
Indicator Parameters
mg/L
25
20
15
10
5
0
Jan- 2010
Jan- 2011
Jan- 2012
Dec- 2012
Dec- 2013
Dec- 2014
Dec- 2015
Dec- 2016
Dec- 2017
Dec- 2018
Dec- 2019
Victoria Creek Upper Ammonia (mg/l as N)
Victoria Creek Upper Nitrite Nitrogen, Dissolved (mg/l as N)
Victoria Creek Upper Nitrate Nitrogen, Dissolved (mg/l as N)
Victoria Creek Upper Weak Acid Dissociable Cyanide, mg/l
Victoria Creek Upper Sulfate (mg/l)

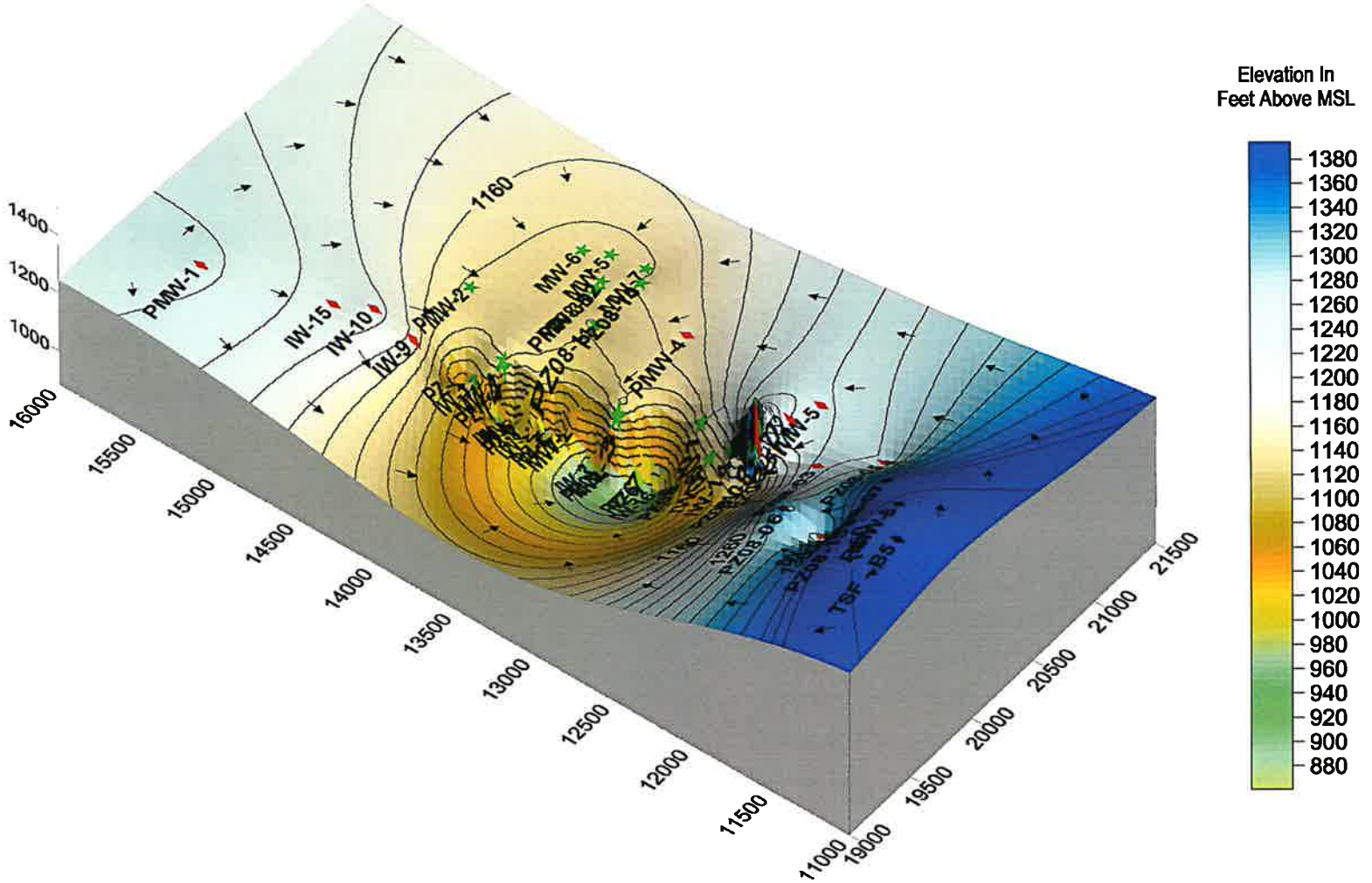
ATTACHMENT E
Quarterly Metal Samples of Tailing Impoundment Seepage As, Sb, Pb, Se


Tailing Seepage Metals Antimony, Selenium
Total mg/L
0.12
0.1
0.08
0.06
0.04
0.02
0
Jan- 2000
Dec- 2000
Dec- 2001
Dec- 2002
Dec- 2003
Dec- 2004
Dec- 2005
Dec- 2006
Dec- 2007
Dec- 2008
Dec- 2009
Dec- 2010
Dec- 2011
Dec- 2012
Dec- 2013
Dec- 2014
Dec- 2015
Dec- 2016
Dec- 2017
Dec- 2018
Dec- 2019
Tailings Seepage Antimony, Total (mg/l)
Tailings Seepage Selenium, Total (mg/l)

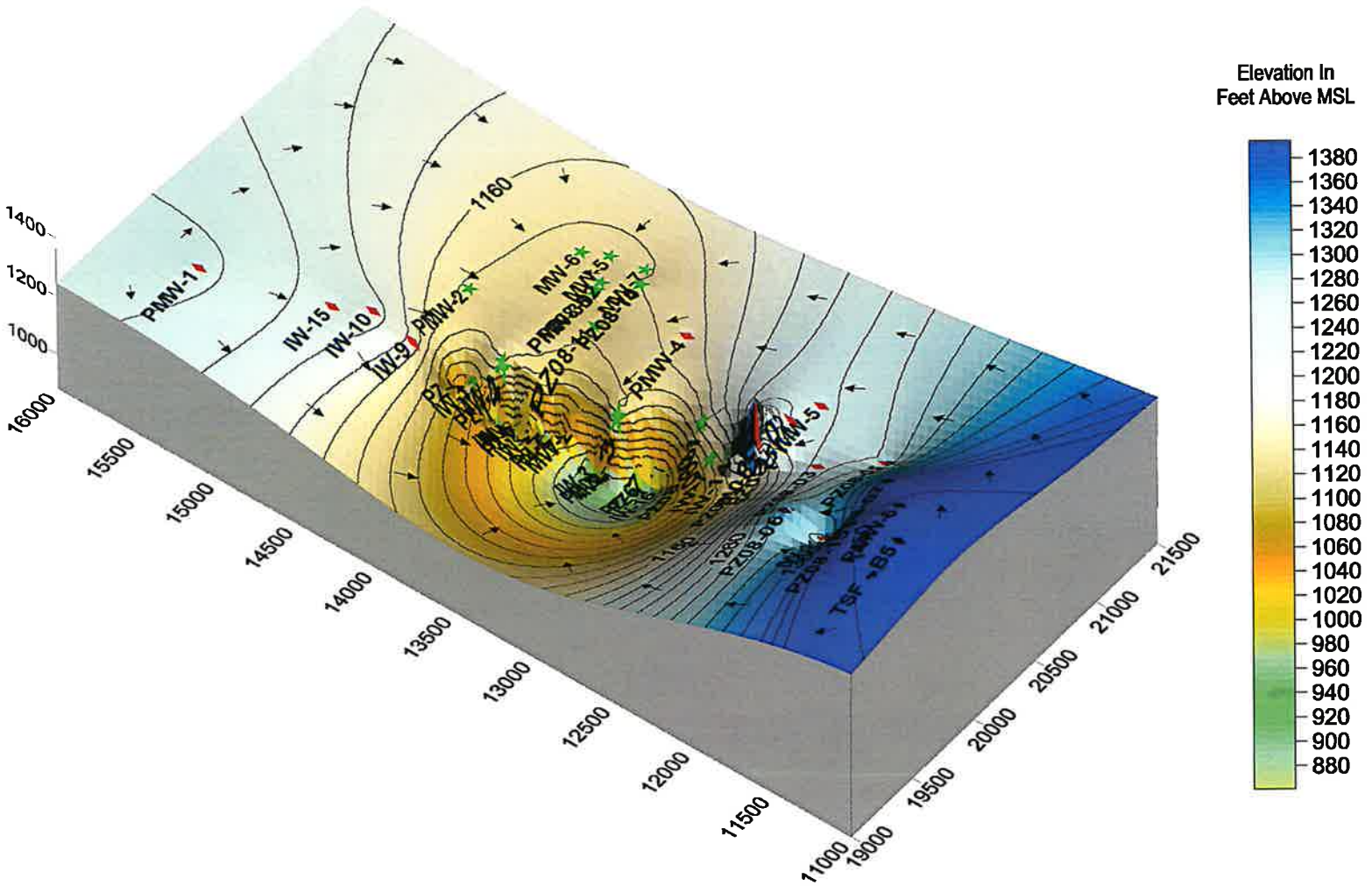

Tailing Seepage Metals Arsenic (As) and Lead (Pb)
Concentration mg/L
0.004
0.0035
0.003
0.0025
0.002
0.0015
0.001
0.0005
0
Jan- 2000
Dec- 2000
Dec- 2001
Dec- 2002
Dec- 2003
Dec- 2004
Dec- 2005
Dec- 2006
Dec- 2007
Dec- 2008
Dec- 2009
Dec- 2010
Dec- 2011
Dec- 2012
Dec- 2013
Dec- 2014
Dec- 2015
Dec- 2016
Dec- 2017
Dec- 2018
Dec- 2019
Tailings Seepage Arsenic, Total (mg/l)
Tailings Seepage Lead, Total (mg/l)

ATTACHMENT F

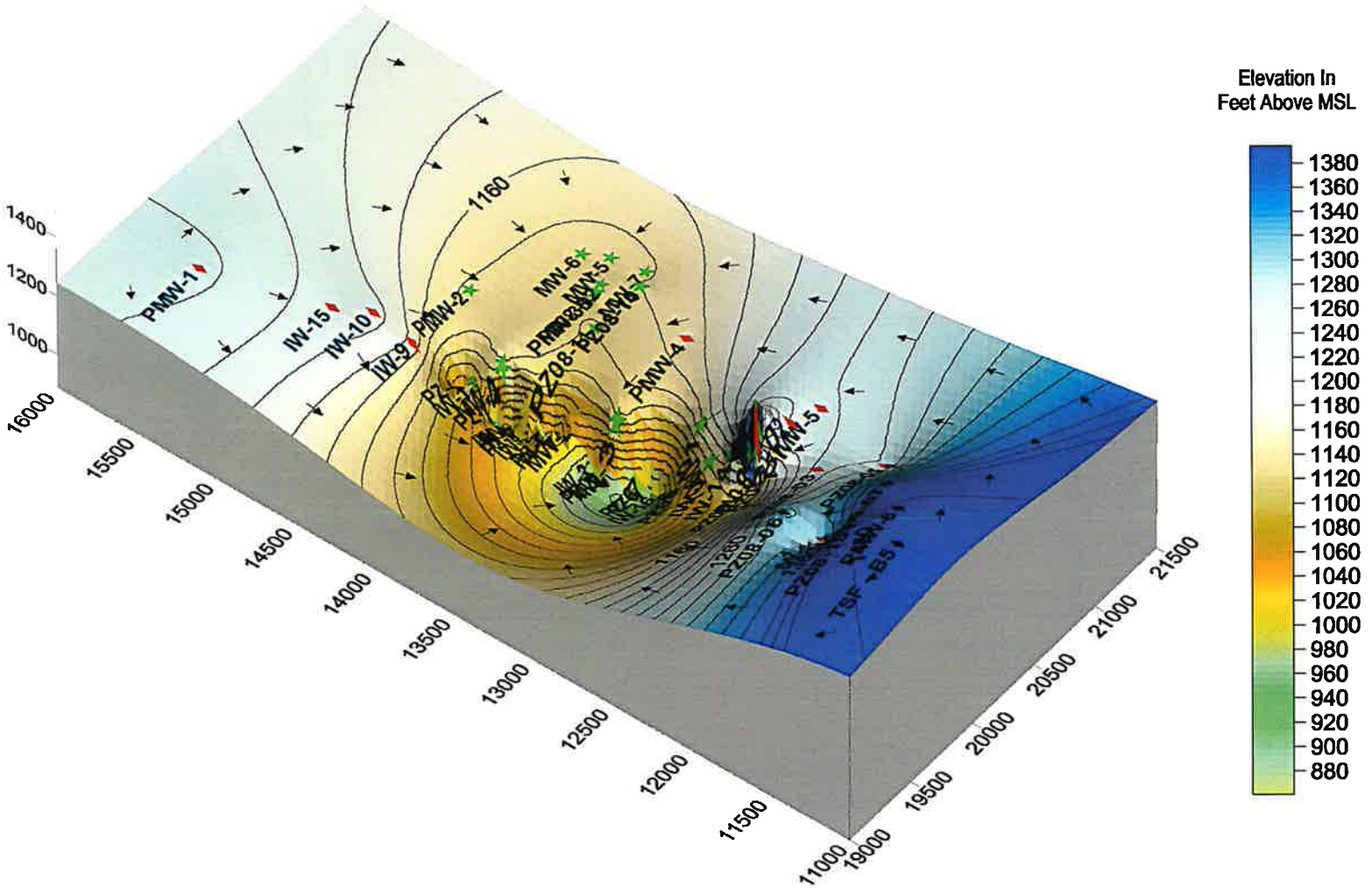
Interceptor and Monitoring Well Groundwater Contour



Fort Knox Mine Interceptor Wells
October 2019



Fort Knox Mine Interceptor Wells
November 2019



Fort Knox Mine Interceptor Wells
December 2019

ATTACHMENT G
Spill Reporting Log

Fort Knox Mine Spill Log 2019

Spill Number	Date	Time	Location	Material	Quantity	Units	Equipment	Department	Cause	Cleanup Measures	Disposal	Agency Notified	Date	Time
19-05-01	1/1/2019	6:56 AM	Phase 8 West-1300 Level	Ethylene Glycol	70	Gallons	HT-464	MEM	Heater Hose Failure	Excavation/Absorbs	Rock to Fish Creek/Absorbs to Smart Ash Burner	ADEC Spill Hotline-Mona	1/1/2019	9:08 AM
19-01-02	1/5/2019	7:03 PM	Phase 8 West	Hydraulic Oil	30	Gallons	SH-108	MEM	Boom Cylinder Failure	Excavation/Absorbs	Rock to Fish Creek/Absorbs to Smart Ash Burner	ADEC Spill Hotline-Responder	1/5/2019	1:38 PM
19-01-03	1/11/2019	9:00 AM	Fish Creek Waste Rock Dump	Hydraulic Oil	60	Gallons	LDR-153	MEM	Rear Trunnion Failure	Excavation/Absorbs	Rock to Fish Creek/Absorbs to Smart Ash Burner	ADEC Spill Response-Bonnie	1/11/2019	10:05 AM
19-01-04	1/14/2019	8:45 AM	Phase 8 East-1690 Level	Hydraulic Oil	30	Gallons	SH-109	MEM	Radiator Fan Failure	Excavation/Absorbs	Rock to Yellow Pup/Absorbs to Smart Ash Burner	ADEC Spill Response-Bonnie	1/14/2019	9:35 AM
19-01-05	1/22/2019	1:44 AM	Phase 8 West-1300 Level	Hydraulic Oil	72	Gallons	HT-461	MEM	O-Ring Failure	Excavation/Absorbs	Rock to Barnes Creek/Absorbs to Smart Ash Burner	ADEC Spill Hotline-Spill Responder	1/22/2019	4:50 AM
19-01-06	1/26/2019	12:15 AM	A Gode Stockpile	Hydraulic Oil	62	Gallons	LDR-153	MEM	O-Ring Seal Failure	Excavation/Absorbs	Rock to Yellow Pup/Absorbs to Smart Ash Burner	ADEC Spill Hotline-Mona	1/26/2019	12:55 PM
19-01-07	2/10/2019	2:45 AM	Phase 8 West-1240 Level	Hydraulic Oil	150	Gallons	SH-108	MEM	Control Valve Failure	Excavation/Absorbs	Rock to Barnes Creek/Absorbs to Smart Ash Burner	ADEC Spill Hotline-Sean	2/10/2019	4:30 AM
19-01-08	2/10/2019	4:51 AM	Phase 8 West-1270 Level	Hydraulic Oil	08	Gallons	SH-105	MEM	Suction Hose Failure	Excavation/Absorbs	Rock to Barnes Creek/Absorbs to Smart Ash Burner	ADEC Spill Hotline-Mona	2/10/2019	7:31 AM
19-05-09	2/11/2019	2:28 PM	Fish Creek Waste Rock Dump	Ethylene Glycol	10	Gallons	HT-464	MEM	Coolant Drain Hose Failure	Excavation/Absorbs	Rock to Fish Creek/Absorbs to Smart Ash Burner	ADEC Spill Response-Bonnie Workman	2/11/2019	2:33 PM
19-05-10	2/12/2019	11:10 AM	Fish Creek Waste Rock Dump	Ethylene Glycol	10	Gallons	HT-465	MEM	Water Pump Seal Failure	Excavation/Absorbs	Rock to Fish Creek/Absorbs to Smart Ash Burner	ADEC Spill Responsee-John Ebel	2/12/2019	12:48 PM
19-01-11	2/15/2019	3:30 PM	Phase 8 East-1690 Level	Hydraulic Oil	5	Gallons	GR-258	MEM	Hydraulic Filter Housing Failure	Excavation/Absorbs	Rock to Fish Creek/Absorbs to Smart Ash Burner	ADEC Spill Response-Bonnie	3/8/2019	2:57 PM
19-05-12	2/16/2019	9:45 PM	Phase 8 East-1690 Level	Ethylene Glycol	20	Gallons	HT-465	MEM	Heater Hose Failure	Excavation/Absorbs	Rock to Fish Creek/Absorbs to Smart Ash Burner	ADEC Spill Hotline-Sean	2/16/2019	10:06 PM
19-05-13	2/24/2019	9:50 PM	Heap Leach Pad	Ethylene Glycol	2	Gallons	HT-479	MEM	Heater Hose Failure	Absorbs	Absorbs to Smart Ash Burner	ADEC Spill Hotline-Sean	2/24/2019	10:40 PM
19-05-14	2/25/2019	4:42 PM	Phase 8 West	Ethylene Glycol	15	Gallons	HT-480	MEM	Coolant Hose Failure	Excavation/Absorbs	Rock to Fish Creek/Absorbs to Smart Ash Burner	ADEC Spill Hotline-Tracy	2/25/2019	6:13 PM
19-01-15	3/1/2019	2:00 PM	Fish Creek Waste Rock Dump	Hydraulic Oil	2	Gallons	FLR-026	Heap Leach	Hydraulic Hose Failure	Absorbs	Absorbs to Smart Ash Burner	ADEC Spill Response-EOM Report	4/1/2019	8:00 AM
19-01-16	3/8/2019	2:54 AM	Phase 8 West	Hydraulic Oil	15	Gallons	HT-464	MEM	Hydraulic Hoist Line Failure	Excavation/Absorbs	Rock to Fish Creek/Absorbs to Smart Ash Burner	ADEC Spill Response-Bonnie Workman	3/8/2019	9:50 AM
19-01-17	3/10/2019	12:30 PM	Phase 8 East-1645	Hydraulic Oil	380	Gallons	SH-107	MEM	Hose Failure in Pump Room	Excavation/Absorbs	Rock to Barnes Creek/Absorbs to Smart Ash Burner	ADEC Spill Hotline-Mona	3/10/2019	1:50 PM
19-01-18	3/19/2019	12:19 AM	Phase 8 West 1300 Level	Hydraulic Oil	300	Gallons	SH-105	MEM	Hydraulic Hose Failure	Excavation/Absorbs	Rock to Barnes Creek/Absorbs to Smart Ash Burner	ADEC Spill Hotline-Mona	3/19/2019	12:35 AM
19-05-19	3/23/2019	12:25 PM	ALPM Containment	Ethylene Glycol	25	Gallons	Coolant Tank	MEM	Used Coolant Tank Overfill	Recovery/Absorbs	Coolant Recycled/Absorbs to Smart Ash Burner	ADEC Spill Hotline-Mona	3/23/2019	3:47 PM
19-01-20	3/24/2019	7:45 AM	Phase 8 West	Hydraulic Oil	10	Gallons	SH-108	MEM	O-Ring Failure	Absorbs	Absorbs to Smart Ash Burner	ADEC EOM Report	4/1/2019	8:00 AM
19-05-21	3/24/2019	8:22 AM	Phase 8 East	Ethylene Glycol	10	Gallons	HT-465	MEM	Heater Hose Failure	Absorbs	Absorbs to Smart Ash Burner	ADEC Spill Hotline-Mona	3/24/2019	9:54 AM
19-01-22	3/31/2019	12:30 AM	Phase 8 East	Hydraulic Oil	40	Gallons	SH-107	MEM	O-Ring Failure/Hardline Failure	Excavation/Absorbs	Rock to Barnes Creek/Absorbs to Smart Ash Burner	ADEC Spill Hotline-Tracy	3/31/2019	12:13 PM
19-04-23	4/4/2019	7:00 AM	Employee Parking Lot	Gasoline	3	Gallons	Employee POV	Employee	Fuel Pump Failure	Absorbs	Absorbs to Smart Ash Burner	ADEC Spill Response-Bonnie Workman	4/4/2019	8:07 AM
19-01-24	4/5/2019	9:45 PM	Phase 8 West-1150 Level	Hydraulic Oil	400	Gallons	SH-108	MEM	Control Valve Plug Failure	Excavation/Absorbs	Rock to Barnes Creek/Absorbs to Smart Ash Burner	ADEC Spill Hotline-Isaac Lovato	4/5/2019	10:06 PM
19-01-25	4/18/2019	12:01 AM	Phase 8 East 1600 Level	Hydraulic Oil	274	Gallons	SH-107	MEM	O-Ring & Hydraulic Hose Failure	Excavation/Absorbs	Rock to Barnes Creek/Absorbs to Smart Ash Burner	ADEC Spill Hotline-Isaac Lovato	4/18/19	1:17 AM
19-01-26	4/23/2019	4:45 AM	Phase 8 West-1270 Level	Hydraulic Oil	150	Gallons	SH-105	MEM	Hydraulic Hose Clamp Failure	Excavation/Absorbs	Rock to Barnes Creek/Absorbs to Smart Ash Burner	ADEC Spill Hotline-David	4/23/2019	4:45 AM
19-05-27	4/24/2019	4:00 PM	Phase 8 East	Ethylene Glycol	2	Gallons	SH-109	MEM	Leaking Radiator Core	Excavation/Absorbs	Rock to Barnes Creek/Absorbs to Smart Ash Burner	ADEC Spill Hotline-David	4/24/2019	6:10 PM
19-01-28	5/5/2019	8:05 PM	Heap Leach Haul Road	Hydraulic Oil	30	Gallons	HT-493	MEM	Hydraulic Steering Hose Failure	Excavation/Absorbs	Rock to Barnes Creek/Absorbs to Smart Ash Burner	ADEC Spill Response-Bonnie Workman	5/5/2019	8:41 AM
19-01-29	5/7/2019	7:20 AM	Phase 8 East-1555 Level	Hydraulic Oil	183	Gallons	SH-109	MEM	Hydraulic Hose Failure	Excavation/Absorbs	Rock to Yellow Pup/Absorbs to Smart Ash Burner	ADEC Spill Response-Patrick Sartz	5/8/2019	9:50 AM
19-01-30	5/17/2019	9:58 PM	Phase 8 West-1210 Level	Hydraulic Oil	109	Gallons	SH-108	MEM	Hydraulic Hose Failure	Excavation/Absorbs	Fish Creek/Absorbs to Smart Ash Burner	ADEC Spill Hotline-Responder	5/17/2019	11:07 PM
19-05-31	5/19/2019	7:03 PM	Phase 8 East-1555 Level	Ethylene Glycol	5	Gallons	SH-109	MEM	Radiator Core Failure	Excavation/Absorbs	Rock to Yellow Pup/Absorbs to Smart Ash Burner	ADEC Spill Hotline-Responder	5/19/2019	7:30 PM
19-01-32	5/20/2019	1:17 AM	Phase 8 East-1510 Level	ATF Oil	15	Gallons	Drill 215	MEM	Oil Cooler Failure	Excavation/Absorbs	Rock to Yellow Pup/Absorbs to Smart Ash Burner	ADEC Spill Responsee-Paul Lhotka	5/20/2019	2:36 AM
19-01-33	6/1/2019	7:15 AM	Phase 8 West 1210 Level	Hydraulic Oil	60	Gallons	SH-108	MEM	Return Line Coupler Failure	Excavation/Absorbs	Rock to Barnes Creek/Absorbs to Smart Ash Burner	ADEC Spill Hotline-Mona	6/1/2019	7:33 AM
19-10-34	6/3/2019	1:45 PM	RO3 Water Plant	Blue Deodorant	2	Gallons	RO3 Blue House	Fort Knox	Operator Spilled Blue House Deodorant	Absorbs and H2O Flush	Absorbs to FNSB Landfill	ADEC Spill Responsee	6/3/2019	2:04 PM
19-01-35	6/23/2019	7:15 AM	Ball Rail/T-Bar	Engine Oil	2	Gallons	Ambulance FDE 003	Safety	Oil Filter Failure	Absorbs	Absorbs to Smart Ash Burner	ADEC Spill Response-Patrick Sartz	7/8/2019	3:22 PM
19-05-36	6/25/2019	12:50 PM	ALPM Shop	Ethylene Glycol	3	Gallons	Sourdough Truck	Contractor	Loose Hose Clamp	Absorbs	Absorbs to Smart Ash Burner	ADEC Spill Response-Paul Lhotka	6/25/2019	2:04 PM
19-01-37	7/9/2019	10:24 AM	Phase 8 West	Hydraulic Oil	30	Gallons	SH-108	MEM	Hydraulic Brake Line Failure	Excavation/Absorbs	Rock to Barnes Creek/Absorbs to Smart Ash Burner	ADEC Spill Response-Paul Lhotka	7/10/2019	10:01 AM
19-01-38	7/14/2019	7:30 PM	B Stockpile 1610 Level	Hydraulic Oil	10	Gallons	LDR-150	MEM	Hoist Cylinder Bolt Failure	Excavation/Absorbs	Rock to Barnes Creek/Absorbs to Smart Ash Burner	ADEC Spill Response-Patrick Sartz	7/14/2019	8:05 AM
19-01-39	7/18/2019	3:20 AM	Phase 8 West	ATF Oil	40	Gallons	Drill 207	MEM	Compressor Line Failure	Excavation/Absorbs	Rock to Barnes Creek/Absorbs to Smart Ash Burner	ADEC Spill Response-Jill	7/18/2019	9:16 AM
19-01-40	7/18/2019	5:10 AM	Phase 8 West	Hydraulic Oil	391	Gallons	SH-108	MEM	Hydraulic Return Coupler Failure	Excavation/Absorbs	Rock to Barnes Creek/Absorbs to Smart Ash Burner	ADEC Spill Response-Jill	7/18/2019	9:58 AM
19-05-41	7/21/2019	1:58 AM	Phase 8 West	Ethylene Glycol	40	Gallons	HT-464	MEM	Cooler Gasket Failure	Excavation/Absorbs	Rock to Fish Creek/Absorbs to Smart Ash Burner	ADEC Spill Hotline	7/21/2019	3:12 AM
19-01-42	8/4/2019	8:05 AM	Phase 8 West 1090 Level	Hydraulic Oil	75	Gallons	SH-105	MEM	Hydraulic Coupler Failure	Excavation/Absorbs	Rock to Fish Creek/Absorbs to Smart Ash Burner	ADEC Spill Hotline-Mona	8/4/2019	8:03 AM
19-05-43	8/19/2019	5:58 PM	Administration Building-East End	Propylene Glycol	0.75	Gallons	Heating System	Bld Maint	Air Bleed Valve Failure	Absorbs/Recovery	Absorbs to Smart Ash Burner/Recycle Glycol-Water	ADEC Spill Hotline-Tracy	8/19/2019	7:07 PM
19-01-44	8/25/2019	6:00 PM	Tailings Dam	Hydraulic Oil	10	Gallons	Rental D-6 Dozer	AAP	Hydraulic Hose Failure	Excavation/Absorbs	Rock to Fish Creek/Absorbs to Smart Ash Burner	ADEC Spill Responsee-Bonnie	8/30/2019	8:33 AM
19-03-45	8/30/2019	7:25 AM	Phase 8 West	Diesel Fuel	30	Gallons	SH-105	MEM	Automatic Shut Off Failure	Excavation/Absorbs	Rock to Fish Creek/Absorbs to Smart Ash Burner	ADEC Spill Responsee-Bonnie	8/30/2019	8:33 AM
19-03-46	9/11/2019	9:30 AM	TSF Barge	Diesel Fuel	1	Gallons	Godwin Pump 903	Mill	Overfilled Fuel Tank	Absorbs	Absorbs to Smart Ash Burner	ADEC Spill Responsee EOM	10/3/2019	3:32 PM
19-01-47	9/16/2019	2:28 PM	Barnes Creek Waste Rock Dump	Hydraulic Oil	100	Gallons	HT-467	MEM	Wheel Seal Failure	Excavation/Absorbs	Rock to Fish Creek/Absorbs to Smart Ash Burner	ADEC Spill Responsee-Colin Taylor	9/16/2019	3:15 PM
19-01-48	9/24/2019	4:30 PM	Phase 8 West	Hydraulic Oil	80	Gallons	HT-477	MEM	Hydraulic Hose Failure	Excavation/Absorbs	Rock to Fish Creek/Absorbs to Smart Ash Burner	ADEC Spill Hotline-Tracy Peterson	9/24/2019	8:05 PM
19-05-49	10/3/2019	7:55 PM	Phase 9 West	Ethylene Glycol	4	Gallons	HT-448	MEM	Coolant Hose Failure	Excavation/Absorbs	Rock to Barnes Creek/Absorbs to Smart Ash Burner	ADEC Spill Hotline-Isaac Lovato	10/3/2019	9:08 PM
19-05-50	10/10/2019	7:30 AM	MEM Wash Bay	Propylene Glycol	5	Gallons	Heating System Valve	MEM	Valve Inadvertently Burned Open	Absorbs	Absorbs to Smart Ash Burner	ADEC Spill Response-Bonnie Workman	10/10/2019	8:13 AM
19-01-51	10/15/2019	8:15 PM	Phase 8 East-1420 Level	Hydraulic Oil	155	Gallons	SH-107	MEM	Center Swivel Plug Failure	Excavation/Absorbs	Rock to Fish Creek/Absorbs to Smart Ash Burner	ADEC Spill Hotline-Spill Responder	10/15/2019	12:15 AM
19-01-52	10/17/2019	4:35 AM	ALPM Bulk Containment	Rock Oil	650	Gallons	Rock Oil Pump	MEM	Rock Oil Pump Fitting Failure	Excavation/Absorbs	All Rock Oil Recovered	ADEC Spill Hotline-Spill Responder	10/17/2019	4:55 AM
19-06-53	10/22/2019	11:10 AM	Detox Pump Alley	Process Solution	24,100	Gallons	F29PP211 Valve	Mill	Valve Failure	Excavation	Rock Taken To Heap Leach	ADEC Spill Responsee-Paul Lhotka	10/22/2019	12:30 PM
19-05-54	10/22/2019	12:37 PM	Phase 8 West	Ethylene Glycol	30	Gallons	Drill 213	MEM	Engine Failure	Excavation/Absorbs	Rock to Fish Creek/Absorbs to Smart Ash Burner	ADEC Spill Responsee-Scott Jovce	10/22/2019	4:11 PM
19-01-55	10/28/2019	4:15 AM	Phase 9 West	Hydraulic Oil	10	Gallons	SH-105	MEM	Fan Motor Failure	Excavation/Absorbs	Rock to Barnes Creek/Absorbs to Smart Ash Burner	ADEC Spill Responsee-Bonnie Workman	11/1/2019	2:02 PM
19-01-56	11/3/2019	3:20 AM	Phase 8 West-970 Level	Hydraulic Oil	30	Gallons	SH-108	MEM	Hydraulic Return Coupler Failure	Excavation/Absorbs	Rock to Barnes Creek/Absorbs to Smart Ash Burner	ADEC Spill Responsee-Bonnie Workman	11/4/2019	9:16 AM
19-01-57	11/5/2019	12:43 AM	Phase 8 West-1000 Level	Hydraulic Oil	2	Gallons	SH-108	MEM	Hydraulic Return Coupler Failure	Excavation/Absorbs	Rock to Barnes Creek/Absorbs to Smart Ash Burner	ADEC Spill Responsee-Bonnie Workman	11/14/2019	11:16 AM
19-05-58	11/5/2019	9:00 AM	Admin Boiler Room	Propylene Glycol	5	Gallons	Pressure Valve	MEM	Relief Valve Failure	Absorbs	Absorbs burned in Smart Ash Burners	ADEC Spill Responsee-Bonnie Workman	11/5/2019	9:42 AM
19-05-59	11/8/2019	4:00 AM	Phase 8 West	Ethylene Glycol	10	Gallons	HT-467	MEM	Engine Failure	Excavation/Absorbs	Rock to Fish Creek/Absorbs to Smart Ash Burner	ADEC Spill Hotline-Isaac Lovato	11/8/2019	4:23 AM
19-01-60	11/24/2019	1:37 PM	Fish Creek Waste Rock Dump	Hydraulic Oil	20	Gallons	LDR-152	MEM	Hydraulic Return Coupler Failure	Excavation/Absorbs	Rock to Barnes Creek/Absorbs to Smart Ash Burner	ADEC Spill Hotline-Mona	11/24/2019	2:48 PM
19-01-61	11/25/2019	11:39 PM	Phase 8 East	Hydraulic Oil	100	Gallons	SH-108	MEM	Hydraulic Hose Failure	Excavation/Absorbs	Rock to Fish Creek/Absorbs to Smart Ash Burner	ADEC Spill Responsee-Bonnie Workman	11/26/2019	11:24 AM
19-01-62	11/27/2019	12:15 PM	Mill Lab Parking Lot	ATF Oil	2	Gallons	Skid Steer 825	Mill	Hydraulic Hose Leak	Excavation/Absorbs	Snow to Wash Bay/Absorbs to Smart Ash Burner	ADEC Spill Responsee-	12/16/2019	9:17 AM
19-01-63	12/4/2019	3:15 AM	Phase 9 West	Hydraulic Oil	5	Gallons	Drill-207	MEM	Oil Filter Failure	Excavation/Absorbs	Rock to Fish Creek/Absorbs to Smart Ash Burner	ADEC Spill Responsee-	12/16/2019	9:17 AM
19-05-64	12/9/2019	2:50 PM	Security Scale	Ethylene Glycol	0.5	Gallons	Contractor Truck	Carlisle	Coolant Hose Leak	Excavation/Absorbs	Snow to Barns/Absorbs to Smart Ash Burner	ADEC Spill Responsee-Scott Jovce	12/9/2019	3:35 PM
19-05-65	12/11/2019	12:30 PM	Phase 8 East	Ethylene Glycol	45	Gallons	Dozer-322	MEM	Lower Coolant Hose Failure	Excavation/Absorbs	Rock to Barnes Creek/Absorbs to Smart Ash Burner	ADEC Spill Hotline-Spill Dispatcher	12/12/2019	12:57 AM
19-01-66	12/12/2019	1:30 AM	Phase 8 West	Hydraulic Oil	30	Gallons	Fuel Truck 703	MEM	Hydraulic Pump Failure	Excavation/Absorbs	Rock to Barnes Creek/Absorbs to Smart Ash Burner	ADEC Spill Responsee-Paul Lhotka	12/12/2019	10:57 AM
19-05-67	12/21/2019	7:00 AM	Barnes Creek Ramp-1890 Level	Ethylene Glycol	10	Gallons	HT-477	MEM	Heater Hose Failure	Excavation/Absorbs	Rock to Barnes Creek/Absorbs to Smart Ash Burner	ADEC Spill Hotline-Mona	12/21/2019	7:42 AM
19-05-68	12/25/2019	3:00 AM	Barnes Creek Haul Road Ramp	Ethylene Glycol	70	Gallons	HT-477	MEM	Heater Hose Failure	Excavation/Absorbs	Rock to Barnes Creek/Absorbs to Smart Ash Burner	ADEC Spill Hotline-Isaac Lovato	12/25/2019	4:18 AM
19-01-69	12/27/2019	12:40 PM	Barnes Creek Waste Rock Dump	Hydraulic Oil	45	Gallons	HT-467	MEM	Final Drip Core Seal Failure	Excavation/Absorbs	Rock to Barnes Creek/Absorbs to Smart Ash Burner	ADEC Spill Hotline-Rachael	12/27/2019	3:35 PM

Spill Number Key: 1-Oil, 2-Grease, 3-Diesel, 4-Gas, 5-Ethylene or Propylene Glycol, 6-Process Solution, 7-Reagent, 8-Blasting Emulsion, 9-Ammonium Nitrate-10-Other, 11-Seed Based Oil

ATTACHMENT H
Inert Solid Waste Landfill Summary

KINROSS Fort Knox Mine
FAIRBANKS, ALASKA

Fairbanks Gold Mining, Inc
A subsidiary of Kinross Gold Corp.
PO Box 73726
Fairbanks, AK 99707-3726

Phone: (907) 488-4653
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www.kinross.com

Fort Knox Annual Inert Solid Waste Landfill Report 2019

Solid Waste Disposal Permit #2014DB0002, Modification #2

This report shows the locations of the Solid Waste Disposal Sites, Burn Pits, Crushed Barrel Pits, Smart Ash Barrel Pits and other points of interest at the Fort Knox Mine during 2019. All solid waste landfills for 2019 were located on the Yellow Pup Waste Rock Dump.
All landfills were operated according to the Fort Knox Mine Solid Waste Management Plan. At closure of an individual trench, a minimum of two feet of cover is placed over solid waste within 60 days of the last waste being placed in the trench.

Solid Waste Landfill activity in 2019

The landfill that was opened 8/26/16 on the Yellow Pup Waste Rock Dump was closed on 1/5/18. This landfill was compacted and covered according to permit requirements. A new landfill was opened the same day.

The coordinates for the landfill opened 4/18/18:

Name	Easting	Northing	Elevation
Landfill	15437.00	10107.66	1580.23
Landfill	15466.19	10156.47	1579.78
Landfill	15570.39	10117.73	1579.78
Landfill	15558.32	10073.88	1579.45

The landfill that was opened 4/18/19 on the Yellow Pup Waste Rock Dump was closed on 1/1/19. This landfill was compacted and covered according to permit requirements. A new landfill was opened the same day.

The coordinates for the landfill opened 1/1/19:

Name	Easting	Northing	Elevation
Landfill	13024.43	10372.29	1896.80
Landfill	12977.01	10344.54	1898.37
Landfill	13042.38	10191.54	1898.50
Landfill	13097.25	10219.32	1897.81

Fairbanks Gold Mining, Inc
A subsidiary of Kinross Gold Corp.
PO Box 73726
Fairbanks, AK 99707-3726

Phone: (907) 488-4653
Fax: (907) 490-2290
www.kinross.com

The landfill that was opened 1/1/19 on the Yellow Pup Waste Rock Dump was closed on 7/1/19. This landfill was compacted and covered according to permit requirements. A new landfill was opened the same day.

The coordinates for the landfill opened 7/1/19:

Name	Easting	Northing	Elevation
Landfill	13014.06	10174.08	1898.68
Landfill	12959.82	10340.93	1898.70
Landfill	12901.76	10341.26	1899.26
Landfill	12956.47	10159.55	1898.10

This landfill is still active.

Coordinates for the Burn Pit opened 4/18/18:

Name	Easting	Northing	Elevation
Burn Pit	15553.10	10299.93	1580.63
Burn Pit	15491.06	10323.55	1580.55
Burn Pit	15507.88	10352.50	1581.39
Burn Pit	15564.57	10340.71	1597.97

The Burn Pit that was opened 4/18/18 on the Yellow Pup Waste Rock Dump was closed on 1/1/19. This landfill was compacted and covered according to permit requirements. A new landfill was opened the same day.

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The coordinates for the Burn Pit opened 1/1/19:

Name	Easting	Northing	Elevation
Crushed Barrel Pit	12868.60	10056.80	1898.76
Crushed Barrel Pit	12770.98	10036.06	1900.04
Crushed Barrel Pit	12799.69	9976.21	1899.65
Crushed Barrel Pit	12882.51	10010.65	1898.52

This Burn Pit is still active.

The coordinates of the Crushed Barrel Pit opened 4/18/18:

Name	Easting	Northing	Elevation
Crushed Barrel Pit	15462.96	10197.49	1580.19
Crushed Barrel Pit	15475.53	10223.51	1579.95
Crushed Barrel Pit	15524.27	10203.18	1580.54
Crushed Barrel Pit	15518.81	10177.84	1581.08

This Crushed Barrel Pit was active throughout 2018.

The Crushed Barrel Pit on Yellow Pup Waste Rock Dump that was opened 4/18/18 was closed on 1/1/19. A new Crushed Barrel Pit was opened the same day.

The coordinates for the Crushed Barrel Pit opened 1/1/19:

Name	Easting	Northing	Elevation
Crushed Barrel Pit	12855.00	10128.93	1900.26
Crushed Barrel Pit	12852.10	10091.06	1902.06
Crushed Barrel Pit	12806.88	10095.25	1900.95
Crushed Barrel Pit	12814.64	10136.33	1899.93

This Crushed Barrel Pit is still active.

Fairbanks Gold Mining, Inc
A subsidiary of Kinross Gold Corp.
PO Box 73726
Fairbanks, AK 99707-3726

Phone: (907) 488-4653
Fax: (907) 490-2290
www.kinross.com

Smart Ash Barrel Pit

In accordance with the Solid Waste Management Plan dated April 2016, a pit was constructed for disposal of full barrels of ash (after cooling) from the Smart Ash Burners.

The coordinates for the new Smart Ash Burner barrel pit opened 4/18/18 are:

Name	Easting	Northing	Elevation
Smart Ash Barrel Pit	12716.68	8933.30	1581.00
Smart Ash Barrel Pit	12724.91	8970.27	1581.00
Smart Ash Barrel Pit	12774.67	8960.20	1581.00
Smart Ash Barrel Pit	12761.00	8906.02	1581.00

This Smart Ash Burner barrel pit was closed 1/1/19, and a new one was opened the same day.

The coordinates for the new Smart Ash Burner barrel pit opened 1/1/19 are:

Name	Easting	Northing	Elevation
Smart Ash Barrel Pit	12775.37	10109.00	1900.00
Smart Ash Barrel Pit	12781.31	10139.53	1900.00
Smart Ash Barrel Pit	12750.94	10141.05	1900.00
Smart Ash Barrel Pit	12743.64	10112.39	1900.00

This Smart Ash barrel pit is still active.

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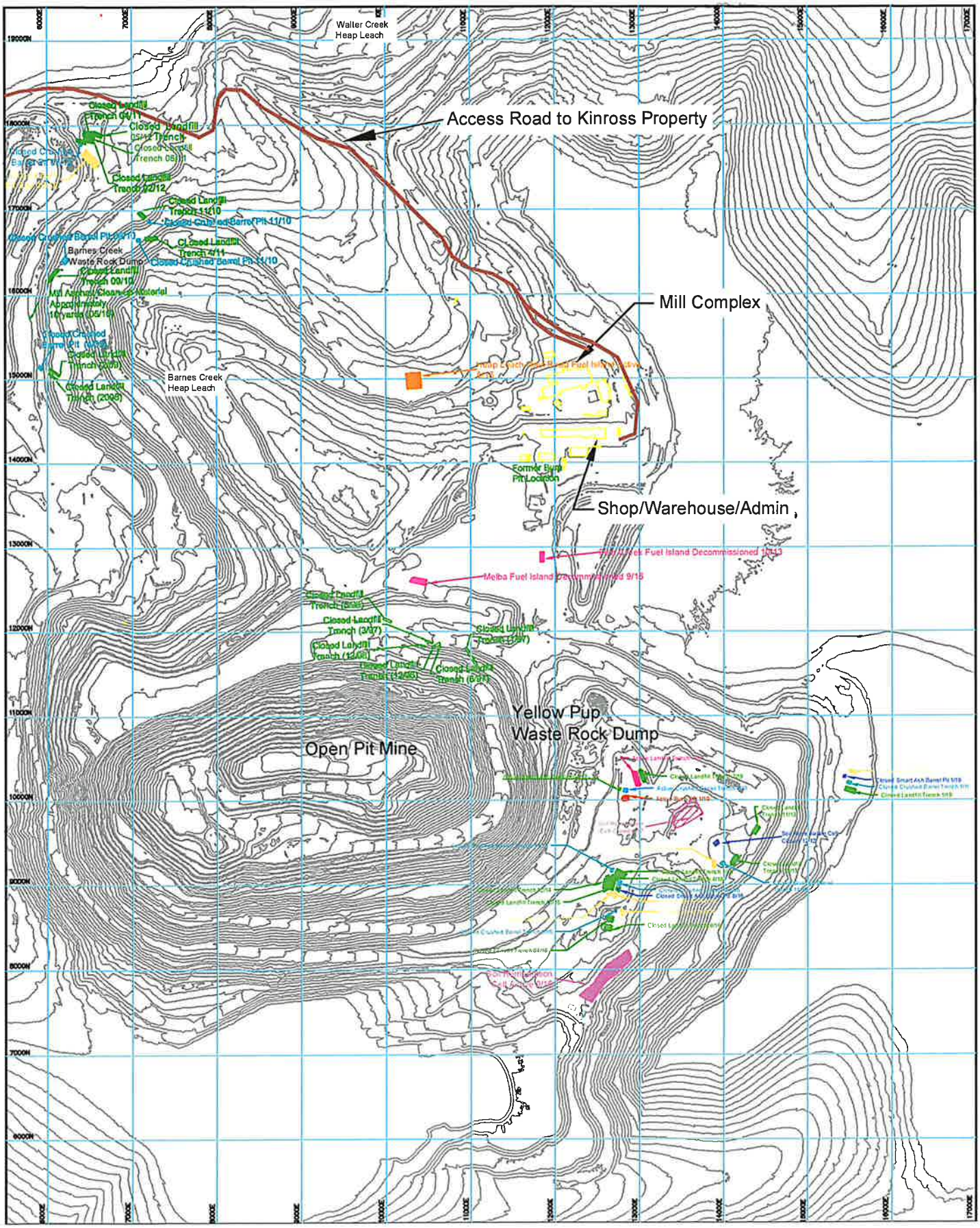
In August 2015, Fort Knox submitted a plan to remediate the material above the liner on the Melba/Monte Cristo Causeway Fuel Island. On 9/15/15, the material was excavated and moved to a site on the Yellow Pup Waste Rock Dump.

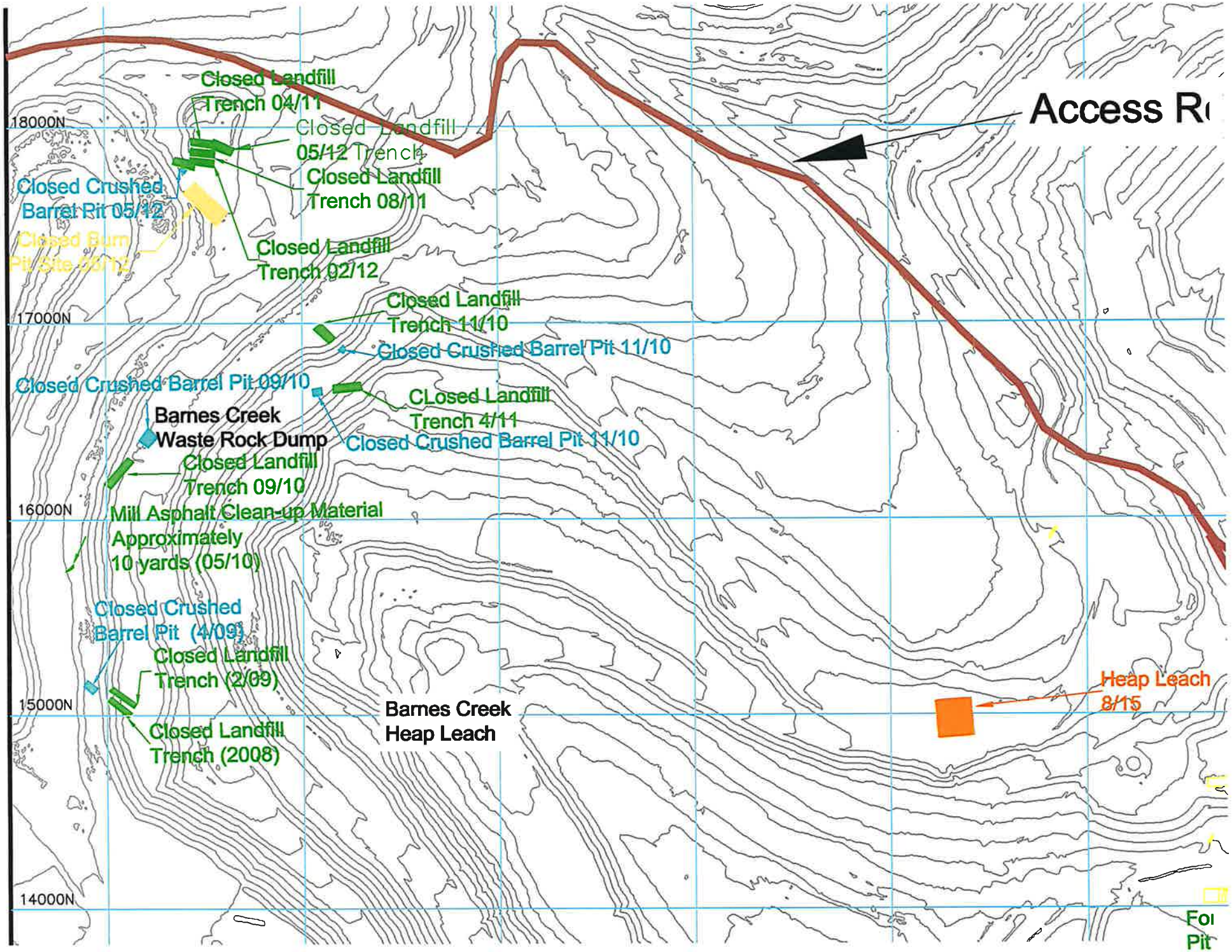
The coordinates for the Soil Remediation Cell opened on 9/15/15:

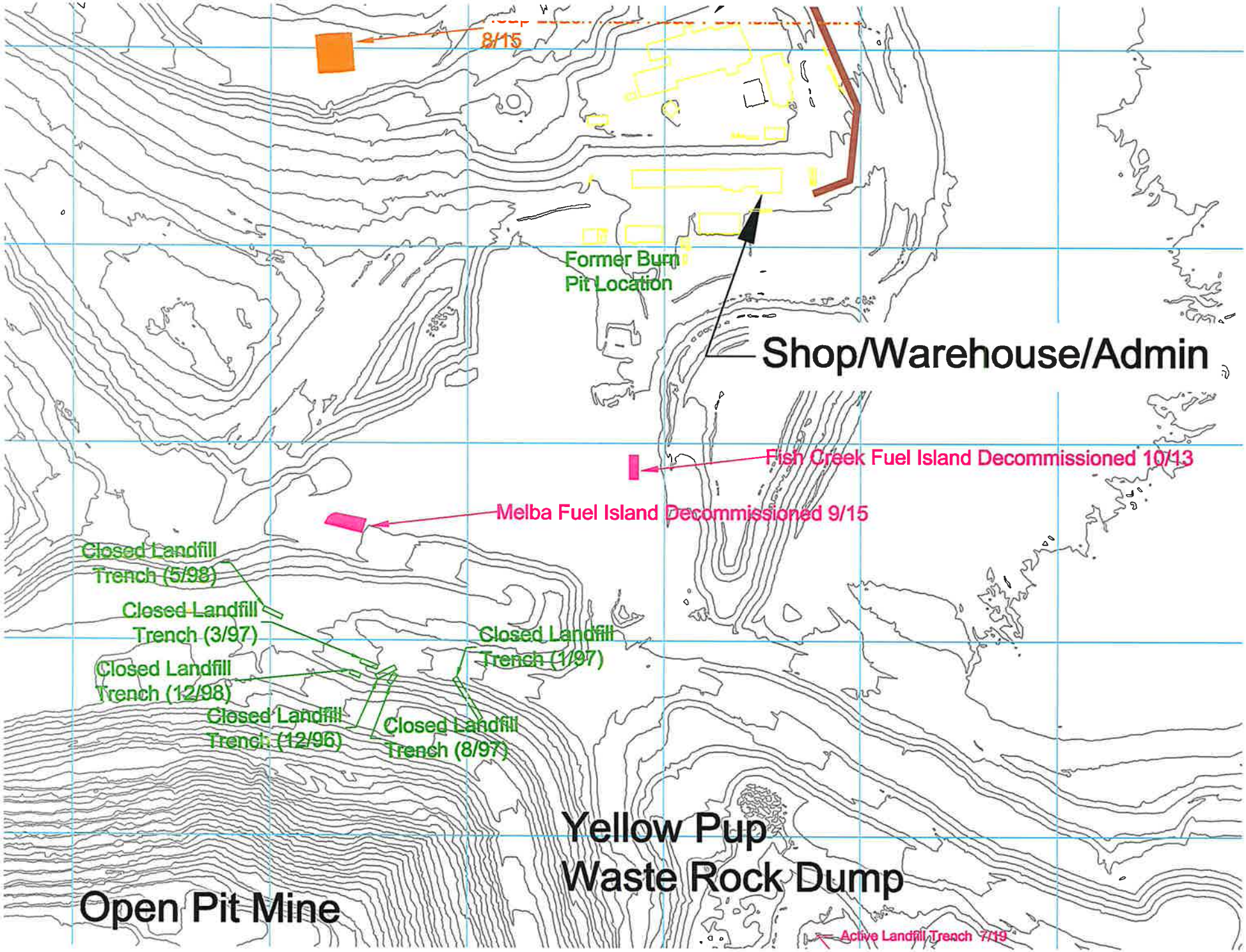
Name	Easting	Northing	Elevation
Soil Remediation Cell	12283.83	7684.97	2088.60
Soil Remediation Cell	12435.00	7607.39	2085.29
Soil Remediation Cell	12893.04	8100.83	2085.03
Soil Remediation Cell	12866.45	8224.70	2085.71

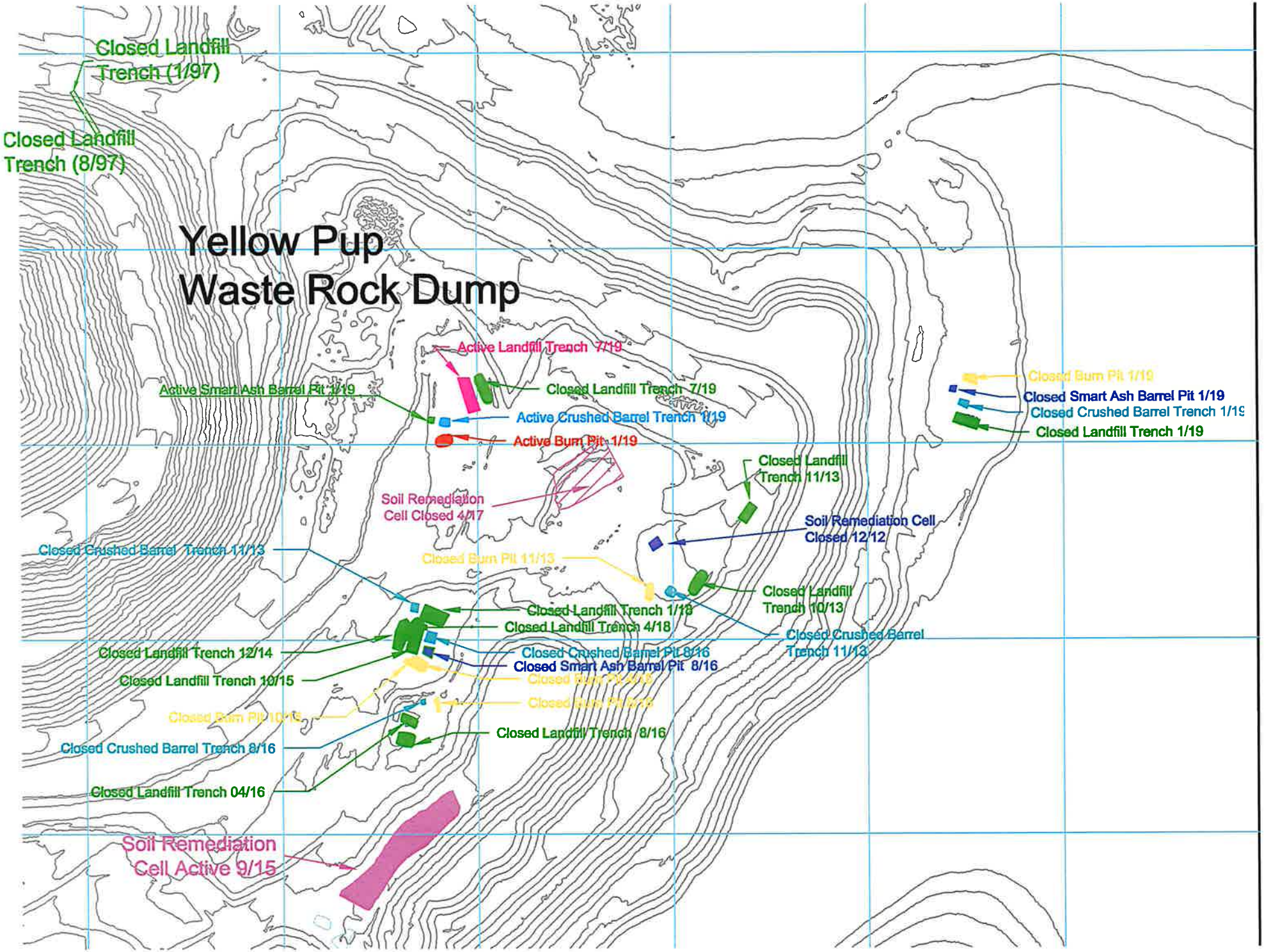
This Soil Remediation Cell is still active.

Fort Knox Landfill Areas as of December 31, 2019




Closed Landfill
Trench 04/11
Closed Landfill
05/12 Trench
Closed Landfill
Trench 08/11
Closed Crushed
Barrel Pit 05/12
Closed Burn
Pit Site 05/12
Closed Landfill
Trench 02/12
Closed Landfill
Trench 11/10
Closed Crushed Barrel Pit 11/10
Closed Crushed Barrel Pit 09/10
CLosed Landfill
Trench 4/11
Closed Crushed Barrel Pit 11/10
Barnes Creek
Waste Rock Dump
Closed Landfill
Trench 09/10
Mill Asphalt Clean-up Material
Approximately
10 yards (05/10)
Closed Crushed
Barrel Pit (4/09)
Closed Landfill
Trench (2/09)
Closed Landfill
Trench (2008)
Barnes Creek
Heap Leach
Heap Leach
8/15
Access R
18000N
17000N
16000N
15000N
14000N


8/15
Former Burn
Pit Location
Shop/Warehouse/Admin
Fish Creek Fuel Island Decommissioned 10/13
Melba Fuel Island Decommissioned 9/15
Closed Landfill
Trench (5/98)
Closed Landfill
Trench (3/97)
Closed Landfill
Trench (12/98)
Closed Landfill
Trench (12/96)
Closed Landfill
Trench (8/97)
Closed Landfill
Trench (1/97)
Yellow Pup
Waste Rock Dump
Open Pit Mine
Active Landfill Trench 7/19


Closed Landfill Trench (1/97)
Closed Landfill Trench (8/97)
Yellow Pup Waste Rock Dump
Active Landfill Trench 7/19
Closed Landfill Trench 7/19
Active Smart Ash Barrel Pit 1/19
Active Crushed Barrel Trench 1/19
Active Burn Pit 1/19
Closed Burn Pit 1/19
Closed Smart Ash Barrel Pit 1/19
Closed Crushed Barrel Trench 1/19
Closed Landfill Trench 1/19
Closed Landfill Trench 11/13
Soil Remediation Cell Closed 4/17
Soil Remediation Cell Closed 12/12
Closed Crushed Barrel Trench 11/13
Closed Burn Pit 11/13
Closed Landfill Trench 10/13
Closed Landfill Trench 1/18
Closed Landfill Trench 4/18
Closed Crushed Barrel Trench 11/13
Closed Landfill Trench 12/14
Closed Crushed Barrel Pit 8/16
Closed Smart Ash Barrel Pit 8/16
Closed Landfill Trench 10/15
Closed Burn Pit 10/15
Closed Landfill Trench 8/16
Closed Crushed Barrel Trench 8/16
Closed Landfill Trench 04/16
Soil Remediation Cell Active 9/15

ATTACHMENT I
Fort Knox Waste Log

Fort Knox Waste Shipped Off Site 2018			
Contents	Weight/Gallons	Disposal Facility	Disposal Method
Refinery Filters	420 pounds	US Ecology	Encapsulation
DIBK	200 pounds	Burlington Environmental	Incineration
Spent High Efficiency Filter Rolls	200 pounds	US Ecology	Encapsulation
Used Ethylene Glycol for Recycle	14,210 gallons	NRC Alaska	Recycle
Used Propylene Glycol for Recycle	1440 gallons	NRC Alaska	Recycle
Used Grease for Recycle	2255 gallons	Burlington Environmental	Recycle
Used Oil-Bulk	98874 gallons	Bloom Enterprises	Recycle
Used Oil-Drums	1575 gallons	NRC Alaska	Recycle
Petroleum Contaminated Soil	2900 pounds	Organic Incineration Technology, Inc.	Thermal Remediation
Aerosol Can Aspirator Liquids	300 pounds	Burlington Environmental	Incineration
Light Bulbs	232 pounds	NRC Alaska	Recycle
Batteries for Recycle	25 pounds	NRC Alaska	Recycle
Refrigerant Cylinders for Recycle	95 pounds	NRC Alaska	Recycle
Parts Washer Fluid	430 pounds	NRC Alaska	Solidified/Landfilled
Non-TSCA Ballast	200 pounds	NRC Alaska	Recycle

ATTACHMENT J
LCRS Flow Rate

Month	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation
1	1541.2	1541.2	1548.3	1548.3	1575.5	1576.5	1585.8	1585.8
	Feet of Solution							
Monthly Avg.	4.04	4.67	1.08	0.82	0.81	-0.18	0.82	89.72
Monthly Avg. Min	2.70	3.03	0.97	0.80	0.80	-0.19	0.81	44.11
Monthly Avg. Max	5.44	5.56	1.24	0.90	0.82	-0.18	0.82	232.46

Pond (Above the Liner Piezos)

	PIEZO 9	PIEZO 10	PIEZO 11	PIEZO 12	PIEZO 13	PIEZO 14	PIEZO 15	PIEZO 16	POND SOLUTION LEVEL
	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	
	1554.1	1554.1	1567.2	1567.2	1594.5	1594.5	1659.3	1658.9	
	Feet of Solution								
Monthly Avg.	52.25	52.06	39.27	36.05	9.68	12.81	-0.08	-0.13	1604.58
Monthly Avg. Min	51.41	48.36	35.93	32.59	6.45	5.14	-0.13	-0.18	1603.61
Monthly Avg. Max	65.46	56.78	39.92	36.68	11.11	15.07	1.87	2.45	1605.51

LCRS Gallons

	Date & Time	Gallons	Leakage GPM
Start			
Finish	12/26/2018 13:00	0.0	
Total	27-PP-208	0.0	0.000
	Date & Time	Gallons	
Start	1/2/2019 7:50	124961.2	
Finish	1/2/2019 8:35	125445.1	
Total	27-PP-208	483.9	0.049
	Date & Time	Gallons	
Start	1/9/2019 8:15	125445.1	
Finish	1/9/2019 9:00	125933.1	
Total	27-PP-208	488.0	0.048
	Date & Time	Gallons	
Start	1/16/2019 12:45	125933.1	
Finish	1/16/2019 13:30	126415.9	
Total	27-PP-208	482.8	0.047
	Date & Time	Gallons	
Start	1/23/2019 7:20	126415.9	
Finish	12/26/2018 13:00	126878.6	
Total	27-PP-208	462.7	0.047

Total Monthly Values	
Gallons	2364.0
Leakage GPM	0.0472

Month	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation
2	1541.2	1541.2	1548.3	1548.3	1575.5	1576.5	1585.8	1585.8

	Feet of Solution							
Monthly Avg.	3.57	4.22	1.25	0.83	0.83	-0.17	0.83	86.80
Monthly Avg. Min	0.79	0.82	0.79	0.78	0.76	-0.23	0.79	1.07
Monthly Avg. Max	5.17	6.02	3.67	1.16	0.88	0.46	0.88	345.04

Pond (Above the Liner Piezos)

	PIEZO 9	PIEZO 10	PIEZO 11	PIEZO 12	PIEZO 13	PIEZO 14	PIEZO 15	PIEZO 16	POND SOLUTION LEVEL
	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	
	1554.1	1554.1	1567.2	1567.2	1594.5	1594.5	1659.3	1658.9	
	Feet of Solution								
Monthly Avg.	47.31	47.15	34.73	31.48	5.56	8.57	0.14	0.16	1599.40
Monthly Avg. Min	46.34	45.92	31.58	28.17	3.75	3.55	0.06	0.08	1598.44
Monthly Avg. Max	52.19	47.97	39.72	36.39	8.92	12.86	9.41	9.68	1600.38

LCRS Gallons

	Date & Time	Gallons	Leakage GPM
Start			
Finish	1/30/2019 8:15	0.0	
Total	27-PP-208	0.0	0.000
	Date & Time	Gallons	
Start	2/6/2019 8:25	127325.2	
Finish	2/6/2019 9:10	127764.4	
Total	27-PP-208	439.2	0.043
	Date & Time	Gallons	
Start	2/13/2019 8:05	127764.4	
Finish	2/13/2019 8:50	128198.7	
Total	27-PP-208	434.2	0.043
	Date & Time	Gallons	
Start	2/20/2019 7:46	128198.7	
Finish	2/20/2019 8:31	128628.2	
Total	27-PP-208	429.5	0.043
	Date & Time	Gallons	
Start	2/27/2019 8:00	128628.2	
Finish	2/27/2019 8:45	129036.2	
Total	27-PP-208	408.0	0.040

Total Monthly Values	
Gallons	1711.0
Leakage GPM	0.0424

Month	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation
3	1541.2	1541.2	1548.3	1548.3	1575.5	1576.5	1585.8	1585.8
	Feet of Solution							
Monthly Avg.	3.37	4.00	1.13	0.83	0.84	-0.15	0.84	11.86
Monthly Avg. Min	0.79	0.81	0.79	0.79	0.77	-0.22	0.79	0.78
Monthly Avg. Max	5.46	5.71	4.35	1.22	0.90	1.66	0.89	190.93

Pond (Above the Liner Piezos)

	PIEZO 9	PIEZO 10	PIEZO 11	PIEZO 12	PIEZO 13	PIEZO 14	PIEZO 15	PIEZO 16	POND SOLUTION LEVEL
	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	
	1554.1	1554.1	1567.2	1567.2	1594.5	1594.5	1659.3	1658.9	
	Feet of Solution								
Monthly Avg.	46.95	46.82	34.47	31.22	5.93	9.09	0.23	0.06	1598.74
Monthly Avg. Min	43.51	41.89	30.99	26.26	4.42	4.61	0.15	0.00	1597.79
Monthly Avg. Max	54.11	51.68	39.04	35.64	9.48	19.22	10.55	9.03	1599.73

LCRS Gallons

	Date & Time	Gallons	Leakage GPM
Start			
Finish	2/27/2019 8:45	0.0	
Total	27-PP-208	0.0	0.000
	Date & Time	Gallons	
Start	3/6/2019 7:45	129036.2	
Finish	3/6/2019 8:30	129423.3	
Total	27-PP-208	387.1	0.038
	Date & Time	Gallons	
Start	3/13/2019 7:25	129423.3	
Finish	3/13/2019 8:10	129824.2	
Total	27-PP-208	400.9	0.040
	Date & Time	Gallons	
Start	3/20/2019 7:30	129824.2	
Finish	3/20/2019 8:15	130238.7	
Total	27-PP-208	414.5	0.041
	Date & Time	Gallons	
Start	3/27/2019 7:25	130238.7	
Finish	3/27/2019 8:10	130636.3	
Total	27-PP-208	397.6	0.039

Total Monthly Values	
Gallons	1600.1
Leakage GPM	0.0397

Month	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation
4	1541.2	1541.2	1548.3	1548.3	1575.5	1576.5	1585.8	1585.8

	Feet of Solution							
Monthly Avg.	3.27	3.89	1.03	0.79	0.80	-0.19	0.80	18.83
Monthly Avg. Min	0.73	0.80	0.73	0.69	0.72	-0.27	0.74	0.70
Monthly Avg. Max	4.65	5.54	1.26	0.88	0.82	1.03	0.82	165.21

Pond (Above the Liner Piezos)

	PIEZO 9	PIEZO 10	PIEZO 11	PIEZO 12	PIEZO 13	PIEZO 14	PIEZO 15	PIEZO 16	POND SOLUTION LEVEL
	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	
	1554.1	1554.1	1567.2	1567.2	1594.5	1594.5	1659.3	1658.9	
	Feet of Solution								
Monthly Avg.	55.13	54.95	42.21	38.94	12.38	15.38	0.02	0.01	1607.62
Monthly Avg. Min	38.46	43.89	35.19	26.66	4.91	3.53	-0.05	-0.06	1606.86
Monthly Avg. Max	59.46	59.68	46.64	60.15	13.81	18.31	28.23	11.65	1608.20

LCRS Gallons

	Date & Time	Gallons	Leakage GPM
Start			
Finish	3/27/2019 8:10	0.0	
Total	27-PP-208	0.0	0.000
	Date & Time	Gallons	
Start	4/3/2019 7:35	130636.3	
Finish	4/3/2019 8:20	131017.3	
Total	27-PP-208	381.0	0.038
	Date & Time	Gallons	
Start	4/10/2019 7:35	131017.3	
Finish	4/10/2019 8:20	131386.1	
Total	27-PP-208	368.9	0.037
	Date & Time	Gallons	
Start	4/17/2019 7:50	131386.1	
Finish	4/17/2019 8:35	131757.8	
Total	27-PP-208	371.6	0.037
	Date & Time	Gallons	
Start	4/24/2019 8:10	131757.8	
Finish	4/24/2019 8:55	132145.2	
Total	27-PP-208	387.5	0.038

Total Monthly Values	
Gallons	1509.0
Leakage GPM	0.0374

Month	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation
5	1541.2	1541.2	1548.3	1548.3	1575.5	1576.5	1585.8	1585.8

	Feet of Solution							
Monthly Avg.	3.38	4.03	1.06	0.81	0.82	-0.18	0.82	34.92
Monthly Avg. Min	0.80	0.81	0.80	0.77	0.78	-0.21	0.79	0.73
Monthly Avg. Max	4.83	5.73	2.43	1.18	1.17	2.33	1.01	299.10

Pond (Above the Liner Piezos)

	PIEZO 9	PIEZO 10	PIEZO 11	PIEZO 12	PIEZO 13	PIEZO 14	PIEZO 15	PIEZO 16	POND SOLUTION LEVEL
	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	
	1554.1	1554.1	1567.2	1567.2	1594.5	1594.5	1659.3	1658.9	
	Feet of Solution								
Monthly Avg.	47.67	47.99	38.00	33.48	10.02	12.88	-0.04	0.05	1606.60
Monthly Avg. Min	29.43	25.05	23.00	15.93	3.79	3.76	-0.11	-0.06	1605.60
Monthly Avg. Max	54.53	57.80	41.86	38.38	14.25	17.81	10.82	18.55	1607.66

LCRS Gallons

	Date & Time	Gallons	Leakage GPM
Start			
Finish	4/24/2019 8:55	0.0	
Total	27-PP-208	0.0	0.000
	Date & Time	Gallons	
Start	5/1/2019 7:45	132145.2	
Finish	5/1/2019 8:30	132534.9	
Total	27-PP-208	389.7	0.039
	Date & Time	Gallons	
Start	5/8/2019 7:20	132534.9	
Finish	5/8/2019 8:05	132942.6	
Total	27-PP-208	407.6	0.041
	Date & Time	Gallons	
Start	5/14/2019 13:50	132942.6	
Finish	5/14/2019 14:35	133348.8	
Total	27-PP-208	406.3	0.045
	Date & Time	Gallons	
Start	5/22/2019 7:20	133348.8	
Finish	5/22/2019 8:05	133791.3	
Total	27-PP-208	442.5	0.040

Total Monthly Values	
Gallons	2086.6
Leakage GPM	0.0415

Month	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation
6	1541.2	1541.2	1548.3	1548.3	1575.5	1576.5	1585.8	1585.8

	Feet of Solution							
Monthly Avg.	3.69	4.21	1.17	0.81	0.81	-0.18	0.81	70.10
Monthly Avg. Min	0.77	0.79	0.73	0.75	0.76	-0.23	0.77	0.70
Monthly Avg. Max	5.70	5.97	2.67	1.12	0.99	0.40	0.83	403.37

Pond (Above the Liner Piezos)

	PIEZO 9	PIEZO 10	PIEZO 11	PIEZO 12	PIEZO 13	PIEZO 14	PIEZO 15	PIEZO 16	POND SOLUTION LEVEL
	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	
	1554.1	1554.1	1567.2	1567.2	1594.5	1594.5	1659.3	1658.9	
	Feet of Solution								
Monthly Avg.	40.28	40.25	28.53	25.37	1.24	4.39	-4.58	-4.51	1598.78
Monthly Avg. Min	16.85	22.55	12.54	8.97	-9.80	-13.80	-16.72	-16.63	1597.04
Monthly Avg. Max	55.09	47.74	35.44	32.29	11.16	18.84	17.52	15.52	1600.72

LCRS Gallons

	Date & Time	Gallons	Leakage GPM
Start			
Finish	5/29/2019 7:45	0.0	
Total	27-PP-208	0.0	0.000
	Date & Time	Gallons	
Start	6/12/2019 7:10	134231.9	
Finish	6/12/2019 7:55	134712.3	
Total	27-PP-208	480.4	0.024
	Date & Time	Gallons	
Start	6/19/2019 7:20	134712.3	
Finish	6/19/2019 8:05	135190.6	
Total	27-PP-208	478.3	0.047
	Date & Time	Gallons	
Start	6/26/2019 7:05	135191.6	
Finish	6/26/2019 7:50	135668.1	
Total	27-PP-208	476.5	0.047
	Date & Time	Gallons	

Total Monthly Values	
Gallons	1623.9
Leakage GPM	0.0401

Month	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation
7	1541.2	1541.2	1548.3	1548.3	1575.5	1576.5	1585.8	1585.8

	Feet of Solution							
Monthly Avg.	3.41	4.06	1.13	0.80	1.13	-0.20	0.80	157.48
Monthly Avg. Min	0.75	0.80	0.74	0.71	0.72	-0.26	0.72	0.70
Monthly Avg. Max	6.05	5.70	2.41	0.82	15.69	0.34	0.82	545.53

Pond (Above the Liner Piezos)

	PIEZO 9	PIEZO 10	PIEZO 11	PIEZO 12	PIEZO 13	PIEZO 14	PIEZO 15	PIEZO 16	POND SOLUTION LEVEL
	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	
	1554.1	1554.1	1567.2	1567.2	1594.5	1594.5	1659.3	1658.9	
	Feet of Solution								
Monthly Avg.	50.63	50.58	38.04	35.01	10.21	13.71	21.11	21.12	1603.43
Monthly Avg. Min	36.14	39.88	28.91	25.91	3.77	-1.53	11.02	11.04	1602.24
Monthly Avg. Max	56.14	52.48	45.34	36.77	12.93	17.44	28.12	31.96	1604.83

LCRS Gallons

	Date & Time	Gallons	Leakage GPM
Start			
Finish	6/26/2019 10:10	0.0	
Total	27-PP-208	0.0	0.000
	Date & Time	Gallons	
Start	7/3/2019 8:55	135856.8	
Finish	7/3/2019 9:40	136256.8	
Total	27-PP-208	400.0	0.040
	Date & Time	Gallons	
Start	7/10/2019 7:21	136258.3	
Finish	7/10/2019 8:06	136643.6	
Total	27-PP-208	385.4	0.039
	Date & Time	Gallons	
Start	7/17/2019 7:15	136643.2	
Finish	7/17/2019 8:00	137031.3	
Total	27-PP-208	388.1	0.039
	Date & Time	Gallons	
Start	7/24/2019 6:55	137031.3	
Finish	7/24/2019 7:40	137422.5	
Total	27-PP-208	391.2	0.039

Total Monthly Values	
Gallons	2119.8
Leakage GPM	0.0421

Month	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation
8	1541.2	1541.2	1548.3	1548.3	1575.5	1576.5	1585.8	1585.8

	Feet of Solution							
Monthly Avg.	3.25	3.85	1.11	1.02	0.78	-0.23	0.78	387.52
Monthly Avg. Min	0.68	0.75	0.67	0.89	0.65	-0.33	0.69	1.64
Monthly Avg. Max	4.61	5.44	1.46	1.36	0.83	1.39	0.82	627.01

Pond (Above the Liner Piezos)

	PIEZO 9	PIEZO 10	PIEZO 11	PIEZO 12	PIEZO 13	PIEZO 14	PIEZO 15	PIEZO 16	POND SOLUTION LEVEL
	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	
	1554.1	1554.1	1567.2	1567.2	1594.5	1594.5	1659.3	1658.9	
	Feet of Solution								
Monthly Avg.	57.11	57.06	44.19	41.06	13.45	16.59	-3.12	-3.16	1614.41
Monthly Avg. Min	39.89	38.02	29.17	24.06	-1.94	-2.14	-10.98	-11.02	1613.39
Monthly Avg. Max	85.48	66.33	62.46	45.87	22.87	22.52	6.29	7.55	1615.40

LCRS Gallons

	Date & Time	Gallons	Leakage GPM
Start			
Finish	7/31/2019 9:20	0.0	
Total	27-PP-208	0.0	0.000
	Date & Time	Gallons	
Start	8/7/2019 7:25	137978.5	
Finish	8/7/2019 8:10	138331.5	
Total	27-PP-208	353.0	0.035
	Date & Time	Gallons	
Start	8/14/2019 7:20	138331.5	
Finish	8/14/2019 8:05	138733.5	
Total	27-PP-208	402.1	0.040
	Date & Time	Gallons	
Start	8/21/2019 7:20	138734.5	
Finish	8/21/2019 8:05	139166.9	
Total	27-PP-208	432.3	0.043
	Date & Time	Gallons	

Total Monthly Values	
Gallons	1637.8
Leakage GPM	0.0407

Month	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation
9	1541.2	1541.2	1548.3	1548.3	1575.5	1576.5	1585.8	1585.8
	Feet of Solution							
Monthly Avg.	3.28	3.90	1.00	0.75	0.75	-0.25	0.75	441.02
Monthly Avg. Min	0.67	0.71	0.67	0.64	0.65	-0.36	0.67	2.05
Monthly Avg. Max	5.23	5.51	5.90	1.24	0.81	0.33	0.81	670.14

Pond (Above the Liner Piezos)

	PIEZO 9	PIEZO 10	PIEZO 11	PIEZO 12	PIEZO 13	PIEZO 14	PIEZO 15	PIEZO 16	POND SOLUTION LEVEL
	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	
	1554.1	1554.1	1567.2	1567.2	1594.5	1594.5	1659.3	1658.9	
	Feet of Solution								
Monthly Avg.	43.59	43.78	32.91	29.28	5.17	8.19	-0.08	-0.08	1597.44
Monthly Avg. Min	30.66	31.07	25.32	19.67	2.39	3.95	-0.13	-0.14	1596.14
Monthly Avg. Max	46.82	46.65	34.53	31.47	9.31	13.69	5.19	6.55	1598.63

LCRS Gallons

	Date & Time	Gallons	Leakage GPM
Start			
Finish	8/28/2019 7:55	0.0	
Total	27-PP-208	0.0	0.000
	Date & Time	Gallons	
Start	9/4/2019 7:10	139617.3	
Finish	9/4/2019 7:55	140073.1	
Total	27-PP-208	455.9	0.045
	Date & Time	Gallons	
Start	9/11/2019 7:10	140073.1	
Finish	9/11/2019 7:55	140522.2	
Total	27-PP-208	449.1	0.045
	Date & Time	Gallons	
Start	9/18/2019 7:35	140522.2	
Finish	9/18/2019 8:20	140963.8	
Total	27-PP-208	441.5	0.044
	Date & Time	Gallons	

Total Monthly Values	
Gallons	1778.4
Leakage GPM	0.0441

Month	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation
10	1541.2	1541.2	1548.3	1548.3	1575.5	1576.5	1585.8	1585.8
	Feet of Solution							
Monthly Avg.	3.26	3.87	0.99	0.77	0.78	-0.22	0.77	435.83
Monthly Avg. Min	0.69	0.76	0.71	0.69	0.69	-0.31	0.69	3.94
Monthly Avg. Max	5.24	5.47	3.06	0.92	0.82	1.88	0.82	670.14

Pond (Above the Liner Piezos)

	PIEZO 9	PIEZO 10	PIEZO 11	PIEZO 12	PIEZO 13	PIEZO 14	PIEZO 15	PIEZO 16	POND SOLUTION LEVEL
	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	
	1554.1	1554.1	1567.2	1567.2	1594.5	1594.5	1659.3	1658.9	
	Feet of Solution								
Monthly Avg.	58.79	58.81	45.56	42.40	14.12	16.99	-1.91	-1.90	1615.10
Monthly Avg. Min	43.98	43.61	33.70	27.49	3.46	0.73	-5.49	-5.47	1614.29
Monthly Avg. Max	67.38	66.40	49.12	45.72	18.76	27.39	11.62	12.49	1615.87

LCRS Gallons

	Date & Time	Gallons	Leakage GPM
Start			
Finish	9/25/2019 7:55	0.0	
Total	27-PP-208	0.0	0.000
	Date & Time	Gallons	
Start	10/2/2019 7:05	141395.6	
Finish	10/2/2019 7:50	141806.8	
Total	27-PP-208	411.2	0.041
	Date & Time	Gallons	
Start	10/9/2019 8:35	141806.8	
Finish	10/9/2019 9:20	142216.1	
Total	27-PP-208	409.2	0.040
	Date & Time	Gallons	
Start	10/17/2019 8:20	142216.1	
Finish	10/17/2019 9:05	142662.9	
Total	27-PP-208	446.8	0.039
	Date & Time	Gallons	
Start	10/23/2019 7:55	142662.9	
Finish	10/23/2019 8:40	143092.0	
Total	27-PP-208	429.1	0.050

Total Monthly Values	
Gallons	2133.5
Leakage GPM	0.0423

Month	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation
11	1541.2	1541.2	1548.3	1548.3	1575.5	1576.5	1585.8	1585.8

	Feet of Solution							
Monthly Avg.	3.24	3.85	1.04	0.80	0.80	-0.20	0.80	325.08
Monthly Avg. Min	0.76	0.81	0.73	0.71	0.73	-0.28	0.72	1.28
Monthly Avg. Max	4.62	5.48	3.14	0.97	0.82	1.15	0.82	536.34

Pond (Above the Liner Piezos)

	PIEZO 9	PIEZO 10	PIEZO 11	PIEZO 12	PIEZO 13	PIEZO 14	PIEZO 15	PIEZO 16	POND SOLUTION LEVEL
	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	
	1554.1	1554.1	1567.2	1567.2	1594.5	1594.5	1659.3	1658.9	
	Feet of Solution								
Monthly Avg.	53.35	53.50	41.45	38.07	10.80	13.51	-0.10	-0.01	1610.49
Monthly Avg. Min	33.46	36.18	31.77	25.77	3.37	4.30	-0.16	-0.08	1609.69
Monthly Avg. Max	59.54	59.80	46.42	43.22	14.21	22.85	5.86	5.97	1611.30

LCRS Gallons

	Date & Time	Gallons	Leakage GPM
Start			
Finish	10/30/2019 8:25	0.0	
Total	27-PP-208	0.0	0.000
	Date & Time	Gallons	
Start	11/6/2019 7:05	143529.2	
Finish	11/6/2019 7:50	143979.4	
Total	27-PP-208	450.2	0.045
	Date & Time	Gallons	
Start	11/13/2019 7:25	143980.5	
Finish	11/13/2019 8:10	144431.3	
Total	27-PP-208	450.8	0.045
	Date & Time	Gallons	
Start	11/13/2019 10:20	144431.3	
Finish	11/13/2019 11:05	144651.8	
Total	27-PP-208	220.5	1.260
	Date & Time	Gallons	
Start	11/20/2019 7:15	144651.8	
Finish	11/20/2019 8:00	145037.5	
Total	27-PP-208	385.7	0.039

Total Monthly Values	
Gallons	1870.2
Leakage GPM	0.0500

Month	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation
12	1541.2	1541.2	1548.3	1548.3	1575.5	1576.5	1585.8	1585.8
	Feet of Solution							
Monthly Avg.	3.12	3.72	0.84	0.80	0.80	-0.20	0.81	122.11
Monthly Avg. Min	0.78	0.80	0.74	0.73	0.73	-0.28	0.77	0.75
Monthly Avg. Max	5.97	5.24	2.67	1.06	0.82	2.34	0.83	300.47

Pond (Above the Liner Piezos)

	PIEZO 9	PIEZO 10	PIEZO 11	PIEZO 12	PIEZO 13	PIEZO 14	PIEZO 15	PIEZO 16	POND SOLUTION LEVEL
	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	Installed Elevation	
	1554.1	1554.1	1567.2	1567.2	1594.5	1594.5	1659.3	1658.9	
	Feet of Solution								
Monthly Avg.	33.22	34.10	28.41	23.19	1.90	3.97	-0.21	0.09	1599.79
Monthly Avg. Min	13.17	12.97	16.66	9.32	-0.48	0.74	-0.26	0.03	1599.03
Monthly Avg. Max	42.16	46.77	37.28	31.81	4.45	8.09	3.01	3.93	1600.53

LCRS Gallons

	Date & Time	Gallons	Leakage GPM
Start			
Finish	11/25/2019 8:05	0.0	
Total	27-PP-208	0.0	0.000
	Date & Time	Gallons	
Start	12/4/2019 7:40	145400.5	
Finish	12/4/2019 8:25	145861.7	
Total	27-PP-208	461.2	0.036
	Date & Time	Gallons	
Start	12/11/2019 7:30	145861.7	
Finish	12/11/2019 8:15	146309.9	
Total	27-PP-208	448.2	0.045
	Date & Time	Gallons	
Start	12/18/2019 7:10	146309.9	
Finish	12/18/2019 7:55	146761.4	
Total	27-PP-208	451.5	0.045
	Date & Time	Gallons	

Total Monthly Values	
Gallons	1861.1
Leakage GPM	0.0369