

COLORADO OPERATIONS

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May 28, 2021

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DIVISION OF RECLAMATION
MINING AND SAFETY

Mr. Peter Hays Colorado Division of Reclamation, Mining and Safety 1313 Sherman Street, Room 215 Denver, Colorado 80203

Re: Permit M-1977-341, Submittal of Annual Water Monitoring Report – Henderson Operations Groundwater Management Plan

Dear Mr. Hays:

Climax Molybdenum Company (Climax) is submitting this Annual Water Monitoring Report to the Division of Reclamation, Mining and Safety (DRMS) pursuant to the requirements in Section 7.1 of the Henderson Operations Groundwater Management Plan (GWMP) approved on July 25, 2012 as Technical Revision 16 to Reclamation Permit No. M-1977-342.

Included in this annual report are:

- Data tables and graphs from triannual DRMS sampling events for Point of Compliance (POC) and non-POC wells for both the Henderson Mine and Henderson Mill.
- Explanation of outliers, trends, and Numeric Protection Limits (NPL) exceedances (where applicable).

If you have any questions or need additional information, please do not hesitate to contact me at qniggele@fmi.com or (720) 942-3631 or Miguel Hamarat at mhamarat@fmi.com or (720) 942-3255.

Sincerely,

Geoff Niggeler Chief Environmental Engineer Climax Molybdenum Company Henderson Operations

Attachments:

1. Annual Water Monitoring Report

Cc (via email): Miguel Hamarat, Climax



2020 Annual Water Monitoring Report Division of Reclamation, Mining and Safety

Climax Molybdenum Company Henderson Operations P.O. Box 68 Empire, CO 80438

May 2021

Table of Contents

Executive Su	ımmary	1
Introduction.		2
1.0 Discus	ssion of Annual Water Monitoring Data	2
	iderson Mine	
2.1.1	Point of Compliance Sampling Location: MNGW-1	2
2.1.2	Surface Water Sampling Location: BG-20	
2.1.3	Surface Water Sampling Location: CC-10	
2.1.4	Surface Water Sampling Location: CC-30	3
2.2 Hen	derson Mill	
2.2.1	Point of Compliance Sampling Location: MLGW-7	3
2.2.2	Proposed Point of Compliance Sampling Location: MLGW-15	
2.2.3	Proposed Point of Compliance Sampling Location: MLGW-17	4
2.2.4	Point of Compliance Sampling Location: MLGW-ACR	4
2.2.5	Surface Water Sampling Location: WFR-20	4
2.2.6	Surface Water Sampling Location: WFR-40	4
3.0 Concl	usion	5

Figures

Figure 1, Monitoring Locations, Henderson Mine

Figure 2, Monitoring Locations, Henderson Mill

Tables

Table 1, Annual Water Monitoring Data, Henderson Mine

Table 2, Annual Water Monitoring Data, Henderson Mill

Trend Evaluation

Trend Evaluation 1, MNGW-1: Fe, Mn, Se, and Zn

Trend Evaluation 2, MNGW-1: Specific Conductivity

Trend Evaluation 3, MNGW-1: pH

Trend Evaluation 4, MNGW-1: Sulfate

Trend Evaluation 5, BG-20: Fe, Mn, Se, and Zn

Trend Evaluation 6, BG-20: Specific Conductivity

Trend Evaluation 7, BG-20: pH

Trend Evaluation 8, BG-20: Sulfate

Trend Evaluation 9, CC-10: Fe, Mn, Se, and Zn

Trend Evaluation 10, CC-10: Specific Conductivity

Trend Evaluation 11, CC-10: pH

Trend Evaluation 12, CC-10: Sulfate

Trend Evaluation 13, CC-30: Fe, Mn, Se, and Zn

Trend Evaluation 14, CC-30: Specific Conductivity

Trend Evaluation 15, CC-30: pH

Trend Evaluation 16, CC-30: Sulfate

Trend Evaluation 17, MLGW-7: Fe, Mn, Se, and Zn

Trend Evaluation 18, MLGW-7: Specific Conductivity

Trend Evaluation 19, MLGW-7: pH

Trend Evaluation 20, MLGW-7: Sulfate

Trend Evaluation 21, MLGW-15: Fe, Mn, Se, and Zn

Trend Evaluation 22, MLGW-15: Specific Conductivity

Trend Evaluation 23, MLGW-15: pH

Trend Evaluation 24, MLGW-15: Sulfate

Trend Evaluation 25, MLGW-17: Fe, Mn, Se, and Zn

Trend Evaluation 26, MLGW-17: Specific Conductivity

Trend Evaluation 27, MLGW-17: pH

Trend Evaluation 28, MLGW-17: Sulfate

Trend Evaluation 29, MLGW-ACR: Fe, Mn, Se, and Zn

Trend Evaluation 30, MLGW-ACR: Specific Conductivity

Trend Evaluation 31, MLGW-ACR: pH

Trend Evaluation 32, MLGW-ACR: Sulfate

Trend Evaluation 33, WFR-20: Fe, Mn, Se, and Zn

Trend Evaluation 34, WFR-20: Specific Conductivity

Trend Evaluation 35, WFR-20: pH

Trend Evaluation 36, WFR-20: Sulfate

Trend Evaluation 37, WFR-40: Fe, Mn, Se, and Zn

Trend Evaluation 38, WFR-40: Specific Conductivity

Trend Evaluation 39, WFR-40: pH

Trend Evaluation 40, WFR-40: Sulfate

Executive Summary

This report provides a summary of the 2020 water monitoring data collected pursuant to the Climax Molybdenum Company (CMC) – Henderson Operations (Henderson) Technical Revision 16 (TR-16) to Permit M-1977-342 Groundwater Management Plan (GWMP). The Division of Reclamation, Mining and Safety (DRMS) approved the Henderson GWMP in July 2012. The focus of this report is 2020 data; however, historical data is also included from the 2015-2019 monitoring periods to allow for the assessment of trends over time. All sampling was conducted at the required locations in accordance with the GWMP and each sample was analyzed for the required parameters.

In a memorandum dated April 14, 2015, the DRMS preliminarily accepted new proposed Numeric Protection Limits (NPLs) for indicator parameters at Mill Point of Compliance (POC) locations. Given that the NPLs were only preliminarily accepted, the 2020 report will again be using the original NPLs of pH 6.5 to 8.5 until the new limits are formally accepted. Proposed POC wells MLGW-15 and MLGW-17 are also being monitored and results presented in this report.

Mine Water Monitoring

Henderson observed pH values during 2020 that were below the NPL limits at POC location MNGW-1. No deviations or anomalies were observed at non-POC locations at the Mine.

Mine water monitoring data for POC well MNGW-1 and non-POC long-term surface water locations BG-20, CC-10 and CC-30 are included in this report and presented both in a table and trend evaluation graphs.

Mill Water Monitoring

No deviations or anomalies from established NPLs were observed at Mill POC wells.

Mill water monitoring data for POC wells MLGW-ACR and MLGW-7, proposed POC wells MLGW-15 and MLGW-17, and non-POC long-term surface water monitoring locations WFR-20 and WFR-40 are included in this report and presented both in a table and trend evaluation graphs.

Introduction

The GWMP establishes a plan for groundwater monitoring at the Henderson Mine and Mill for the protection of groundwater quality pursuant to Rule 3.1.7(5) of the Mineral Rules and Regulations of the Colorado Mined Land Reclamation Board for Hard Rock, Metal, and Designated Mining Operations and the Colorado Water Quality Control Commission (WQCC) standards. Henderson has prepared this report in accordance with the requirements of Section 7.1 of the GWMP to summarize results of 2020 water monitoring activities.

1.0 Discussion of Annual Water Monitoring Data

This section provides a summary of the annual water monitoring data collected in 2020 in accordance with the GWMP for each permit-identified POC well and non-POC long-term surface water monitoring location at the Henderson Mine and Mill. Monitoring is conducted three times per year as stipulated in the GWMP as follows:

- During the April through May spring run-off period;
- During the summer months of July and August; and
- During the September through December low-flow period.

To provide a better data set for trending purposes, the 2020 water quality data has been appended to the previous six years of data. This data can be seen in trend evaluation graphs as well as in the data tables. Note that for trending the analytical data, results reported below the laboratory detection limit are shown as a value of zero. All monitoring locations are depicted in Figures 1 and 2.

Outliers are identified, as needed, using either the Dixon's or the Rosner's statistical method depending on the available number of data points. Although data from prior reporting years is presented herein for trending and discussion purposes, outlier and NPL assessments/discussions are limited to current reporting year data.

2.1 Henderson Mine

Henderson Mine monitoring locations include POC well MNGW-1 and surface water locations BG-20, CC-10 and CC-30. Graphical trends for MNGW-1, BG-20, CC-10 and CC-30 are presented as Trend Evaluations 1-16 of this report.

2.1.1 Point of Compliance Sampling Location: MNGW-1

MNGW-1 is a shallow alluvial well located downgradient of the Henderson Mine operations. Values of pH below the established NPLs were seen during monitoring events in 2020: 6.3 standard units (s.u.) on 5/14/20, 6.0 s.u. on 8/20/20, and 6.2 s.u. on 12/14/20. In accordance with the GWMP, Henderson has provided notification to the DRMS upon reoccurring pH exceedances for POC wells, when necessary.

Slightly increasing trends in dissolved zinc, continued to be monitored and those trends were confirmed with the 2020 data as well. While not significant, and with respect to dissolved zinc well below the NPL, this trend will continue to be monitored.

Tabular data for MNGW-1, along with applicable NPLs, is presented in Table 1. Accompanying graphs are provided in Trend Evaluations 1-4.

2.1.2 Surface Water Sampling Location: BG-20

BG-20 is located upgradient of the Henderson Mine in Butler Gulch and serves as an indicator of background surface water quality. 2020 results indicate a continued increasing trend developing in specific conductivity and sulfate. While the 2020 results for specific conductivity remain within historical ranges, the sulfate result from the third trimester indicates an increase relative to historical data over the past six years. It should be noted that the difference between this result and the next highest value over the past six years is only 5.4 mg/L and the scale exaggerates this difference. Nevertheless, this will continue to be monitored following future Triannual events.

Tabular data for BG-20 are presented in Table 1 with accompanying Trend Evaluations 5-8.

2.1.3 Surface Water Sampling Location: CC-10

CC-10 is also located upgradient of the Henderson Mine in the West Fork of Clear Creek and serves as another indicator of background surface water quality. An increase in dissolved iron and zinc concentrations during the spring run-off periods is observed and will continue to be monitored. Like BG-20, specific conductivity and sulfate concentrations indicate slightly increasing trends and will continue to be monitored.

Tabular data for CC-10 are presented in Table 1 with accompanying Trend Evaluations 9-12.

2.1.4 Surface Water Sampling Location: CC-30

CC-30 is located downgradient of the Henderson Mine in the West Fork of Clear Creek. Dissolved manganese and dissolved zinc on 5/20/19 were determined to be outliers using Rosner's statistical method. With the inclusion of 2020 results, there appears to be a developing trend of increasing concentrations of dissolved iron, manganese, and zinc. This trend will continue to be monitored in addition to performing statistical analyses following future sampling events.

Tabular data for CC-30 are presented in Table 1 with accompanying Trend Evaluations 13-16

2.2 Henderson Mill

The Henderson Mill monitoring locations include POC wells MLGW-7 and MLGW-ACR, non-POC wells MLGW-15, and MLGW-17, as well as non-POC surface water locations WFR-20 and WFR-40. Graphical trends are presented as Trend Evaluations 17-40 of this report.

2.2.1 Point of Compliance Sampling Location: MLGW-7

MLGW-7 is a shallow alluvial well paired with MLGW-15 located downgradient of 1-Dam.

Henderson continues to note a slight decreasing trend in sulfate and specific conductivity.

Tabular data for MLGW-7 along with applicable NPLs are presented in Table 2. Accompanying graphs are provided in Trend Evaluations 17-20.

2.2.2 Proposed Point of Compliance Sampling Location: MLGW-15

MLGW-15 is a deeper well paired with MLGW-7 located just downgradient of 1-Dam. Similar to MLGW-7, slight decreasing trends are observed for specific conductivity and sulfate.

Tabular data for MLGW-15 along with applicable NPLs are presented in Table 2. Accompanying graphs are provided in Trend Evaluations 21-24.

2.2.3 Proposed Point of Compliance Sampling Location: MLGW-17

MLGW-17 is a deep alluvial well located downgradient of 3-Dam. Although a trend of increasing dissolved iron and zinc concentrations was noted previously, most of the 2019 and all of the 2020 results indicate an overall decrease in concentrations.

Tabular data for MLGW-17 along with applicable NPLs are presented in Table 2. Accompanying graphs are provided in Trend Evaluations 25-28.

2.2.4 Point of Compliance Sampling Location: MLGW-ACR

MLGW-ACR is a domestic water supply POC well located in the Aspen Canyon Ranch area.

Starting in the third trimester of 2019, changes to the MLGW-ACR sampling method likely caused disturbances to the solid-wall well construction indicated by the increase in iron concentrations and established the need for the well to undergo rehabilitation. The current results presented are not believed to be representative of background water quality. Well rehabilitation will be conducted.

Altogether, this has been an effort to establish an accurate representation of the ambient groundwater conditions far downstream from Henderson operations. Henderson will continue to evaluate the data collected at MLGW-ACR following future sampling events to better understand these data.

Tabular data for MLGW-ACR along with applicable NPLs are presented in Table 2. Accompanying graphs are provided in Trend Evaluations 29-32.

2.2.5 Surface Water Sampling Location: WFR-20

WFR-20 is located upgradient of the Henderson Mill in the Williams Fork River and serves as an indicator of background surface water quality. A small increase in specific conductivity and sulfate during the second and third trimesters, respectively, during the summer and low-flow months might correlate with influence from Williams Fork wildfire activity. Firefighting efforts and rainfall can mobilize suspended and dissolved material into surface water. Although an increase in pH and metal concentrations was not observed, WFR-20 will continue to be monitored while the newly burned area remains susceptible to increased erosion.

Tabular data for WFR-20 are presented in Table 2 with accompanying Trend Evaluations 33-36.

2.2.6 Surface Water Sampling Location: WFR-40

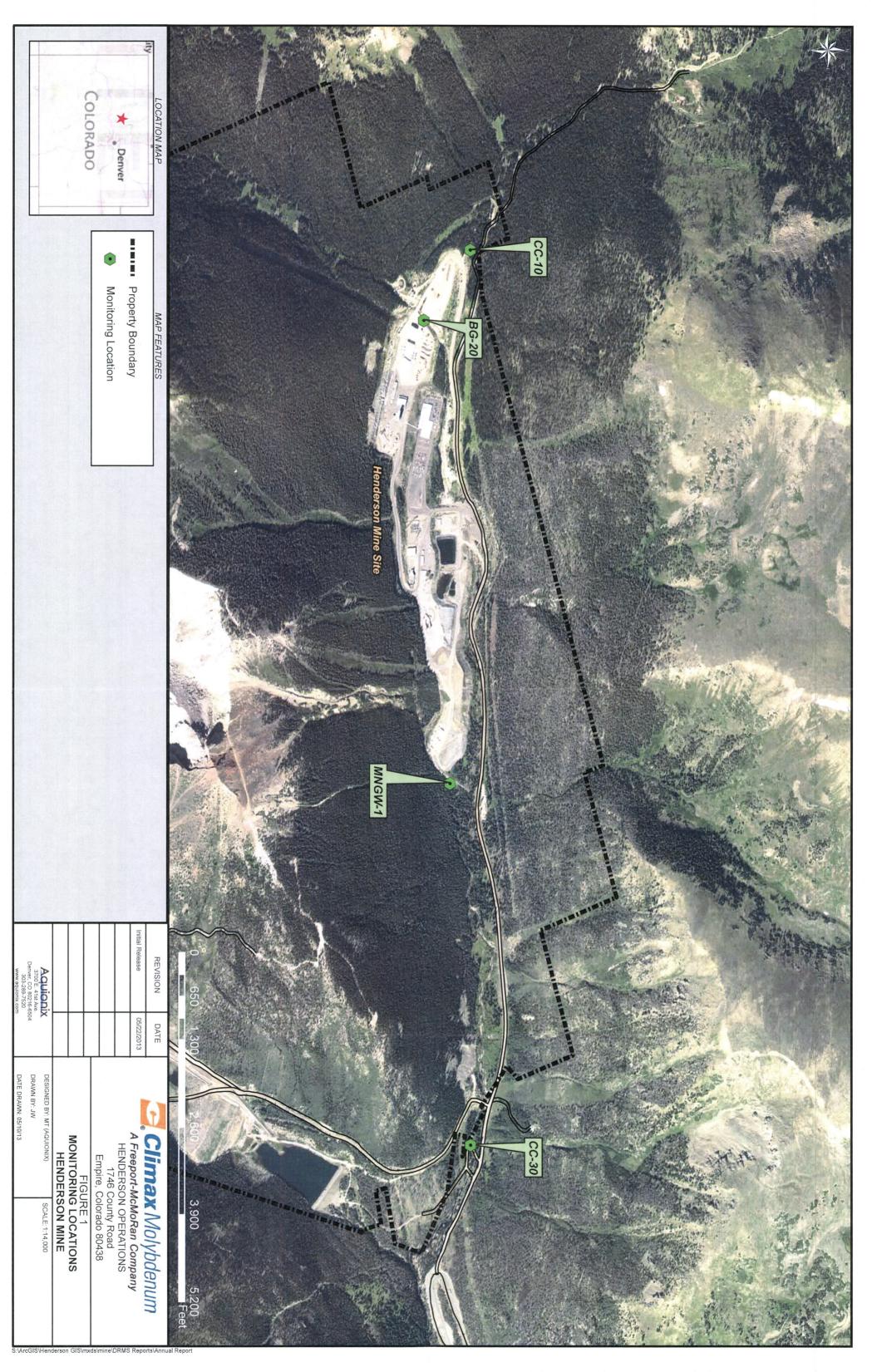
WFR-40 is located downgradient of the Henderson Mill in the Williams Fork River. Although still within historical levels, pH and sulfate concentrations measured in 2020 increased relative to 2019 which may relate to the Williams Fork fire activity. Increased pH and major ion loading into adjacent surface water are common responses from runoff interacting with a recently burned area. WFR-40 will continue to be monitored to determine potential influences from the recent fire activity.

Tabular data for WFR-40 are presented in Table 2 with accompanying Trend Evaluations 37-40.

3.0 Conclusion

This report summarizing annual water monitoring data collected for each POC well, non-POC well, and long-term surface water monitoring locations meets the conditions of the Henderson GWMP reporting requirements. In accordance with the GWMP, Henderson has provided a summary of 2020 water monitoring data, a comparison to NPLs (where applicable), evaluation of water quality trends, and outlier identification for each permit-required parameter for POC and non-POC surface water and groundwater locations.

Figures



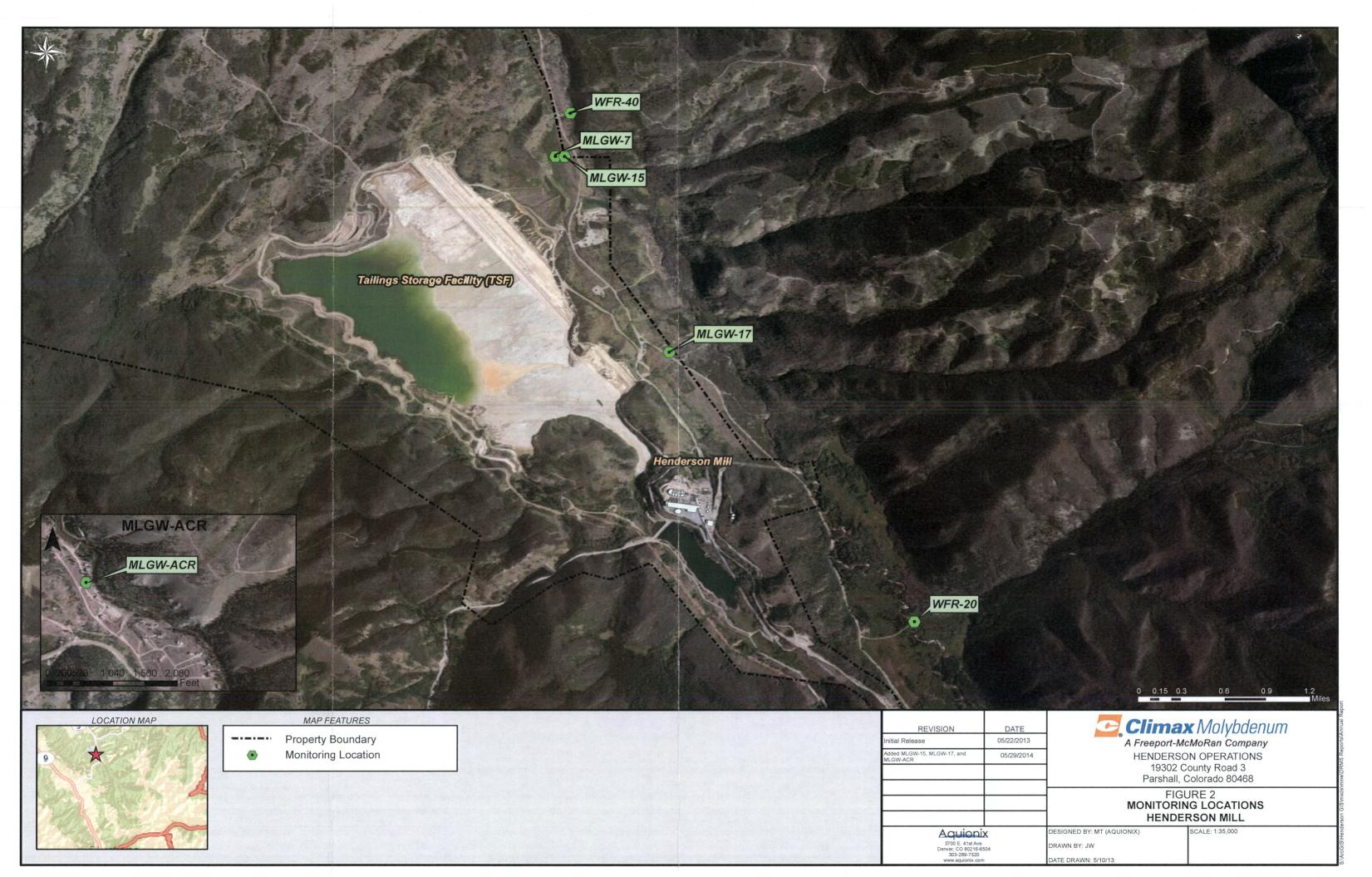




Table 1 Annual Water Monitoring Data Henderson Mine

Location	Sample Date	Sample Time	Analytical Laboratory	Iron, Dissolved ¹ (μg/L as Fe)	Manganese, Dissolved² (μg/L as Mn)	Selenium, Dissolved² (µg/L as Se)	Zinc, Dissolved ² (µg/L as Zn)	Specific Conductivity ³ (μS/cm)	pH ³ (Standard Units)	Sulfate ⁴ (mg/L)
MNGW-1	6/8/2015	9:50	Accutest	14.5	0.9	<0.42	18.0	171.0	6.5	75.0
MNGW-1	8/13/2015	9:50	Accutest	<9.2	1.3	<0.42	9.9	136.7	6.5	46.4
MNGW-1	11/11/2015	12:25	Accutest	17.6	8.5	<0.42	20.2	343.1	6.7	120.0
MNGW-1	6/20/2016	9:30	Accutest	12.5	2.6	<0.42	11.3	184.9	6.3	58.6
MNGW-1	8/15/2016	15:02	Accutest	<6.9	2.9	2.00	17.3	170.5	5.9	56.1
MNGW-1	12/7/2016	12:40	Accutest	178.0	2.0	<0.42	37.4	421.7	6.1	169.0
MNGW-1	6/7/2017	9:30	Accutest	<9.2	1.9	<0.42	15.0	207.4	6.3	72.4
MNGW-1	8/7/2017	13:25	Accutest	<9.2	2.1	0.52	15.1	161.7	6.4	59.4
MNGW-1	11/30/2017	11:00	Accutest	61.4	1.4	<0.42	27.8	300.4	6.2	113.0
MNGW-1	5/22/2018	10:29	Accutest	<9.2	1.1	<0.42	19.2	248.5	6.3	81.3
MNGW-1	8/15/2018	11:30	Accutest	<9.2	2.5	<0.42	18.8	194.4	6.2	66.9
MNGW-1	12/12/2018	12:11	Accutest	230.0	1.9	<0.42	38.7	368.8	6.5	144.0
MNGW-1	5/20/2019	11:37	ACZ	<5	19.7	<0.10	19.0	257.3	6.0	74.4
MNGW-1	8/20/2019	11:04	ACZ	7.0	17.1	<0.10	24.0	199.9	5.9	73.8
MNGW-1	12/3/2019	10:40	ACZ	23.0	143.0	<0.10	44.0	304.3	6.2	82.0
MNGW-1	5/14/2020	10:50	ACZ	<5	0.9	<0.10	16.0	267.3	6.3	79.1
MNGW-1	8/20/2020	11:00	ACZ	<5	0.0	<0.10	16.0	195.5	6.0	72.8
MNGW-1	12/14/2020	9:58	ACZ	<5	12.0	<0.10	48.2	370.5	6.2	137.0
Numeric Pro	tection Limit (NPL)		5,000	790	20	2,000	N/A (report)	6.5 - 8.5	N/A (report)

Location	Sample Date	Sample Time	Analytical Laboratory	Iron, Dissolved ¹ (μg/L as Fe)	Manganese, Dissolved² (μg/L as Mn)	Selenium, Dissolved ² (µg/L as Se)	Zinc, Dissolved ² (µg/L as Zn)	Specific Conductivity ³ (μS/cm)	pH ³ (Standard Units)	Sulfate ⁴ (mg/L)
BG-20	6/8/2015	15:00	Accutest	38.3	2.7	<0.42	17.9	40.2	6.9	5.6
BG-20	8/13/2015	13:50	Accutest	<9.2	2.4	<0.42	8.6	36.7	7.6	10.1
BG-20	11/11/2015	11:25	Accutest	<9.2	5.9	<0.42	12.0	78.7	7.6	16.1
BG-20	6/20/2016	14:15	Accutest	12.5	2.2	<0.42	17.2	33.6	7.3	5.4
BG-20	8/15/2016	13:37	Accutest	10.5	1.9	<1.1	15.6	76.4	7.6	10.7
BG-20	12/7/2016	9:45	Accutest	32.4	16.7	<0.42	15.6	71.6	6.9	15.4
BG-20	6/7/2017	13:35	Accutest	49.2	4.5	<0.42	16.9	37.0	7.1	5.4
BG-20	8/7/2017	15:45	Accutest	<9.2	2.0	<0.42	10.2	51.6	7.3	10.9
BG-20	11/30/2017	12:55	Accutest	19.4	1.8	<0.42	13.6	71.3	7.1	15.6
BG-20	5/22/2018	11:17	Accutest	<9.2	2.0	<0.42	19.8	43.6	6.8	6.3
BG-20	8/15/2018	13:20	Accutest	<9.2	3.0	<0.42	12.0	65.3	7.2	14.4
BG-20	12/12/2018	10:45	Accutest	53.4	1.9	<0.42	11.1	77.5	7.6	16.7
BG-20	5/20/2019	15:15	ACZ	26.0	7.6	<0.10	18.0	80.1	7.0	12.5
BG-20	8/20/2019	12:50	ACZ	<5.0	1.5	<0.10	9.0	58.8	7.0	12.7
BG-20	12/3/2019	12:45	ACZ	<5.0	11.4	<0.10	13.0	84.3	6.8	15.8
BG-20	5/14/2020	12:30	ACZ	48.0	5.9	<0.10	17.0	63.2	7.4	11.9
BG-20	8/18/2020	12:25	ACZ	<5.0	1.7	<0.10	8.0	63.9	7.4	11.8
BG-20	12/14/2020	11:17	ACZ	<5.0	2.4	<0.10	11.0	78.2	7.5	22.1

Notes:

RED = Resulting concentration falls outside of the Numeric Protection Limit (NPL).

BLUE=Rosner/Dixon Statistical outlier

< = not detected at concentrations exceeding the laboratory method detection limit

mg/L = milligrams per liter

μg/L = micrograms per liter

 μ S/cm = micro Siemens per centimeter

EPA = Environmental Protection Agency

¹Analyzed by EPA Method 200.7 or 200.8.

²Analyzed by EPA Method 200.8.

³Analyzed using field instrumentation.

⁴Analyzed by EPA Method 300.0.



Table 1 Annual Water Monitoring Data Henderson Mine

Location	Sample Date	Sample Time	Analytical Laboratory	Iron, Dissolved ¹ (μg/L as Fe)	Manganese, Dissolved² (μg/L as Mn)	Selenium, Dissolved² (µg/L as Se)	Zinc, Dissolved ² (µg/L as Zn)	Specific Conductivity ³ (μS/cm)	pH ³ (Standard Units)	Sulfate ⁴ (mg/L)
CC-10	6/8/2015	14:40	Accutest	46.3	15.3	<0.42	31.9	28.0	7.2	3.1
CC-10	8/13/2015	13:25	Accutest	15.2	3.8	<0.42	11.2	44.2	7.6	4.0
CC-10	11/11/2015	11:05	Accutest	21.5	8.8	<0.42	18.4	67.3	7.6	8.2
CC-10	6/20/2016	10:30	Accutest	20.9	4.1	<0.42	9.2	22.3	7.3	2.2
CC-10	8/15/2016	13:16	Accutest	14.0	2.9	<1.1	15.8	40.8	7.1	4.3
CC-10	12/7/2016	10:35	Accutest	34.8	1.0	<0.42	16.3	63.7	7.1	8.1
CC-10	6/7/2017	13:10	Accutest	153.0	16.5	0.56	28.4	26.8	7.2	3.0
CC-10	8/7/2017	15:35	Accutest	15.9	3.3	0.79	9.4	46.1	7.3	4.0
CC-10	11/30/2017	12:39	Accutest	28.1	2.8	0.43	17.6	54.0	6.7	7.1
CC-10	5/22/2018	12:02	Accutest	29.1	11.4	<0.42	28.1	29.1	6.1	3.6
CC-10	8/15/2018	12:52	Accutest	<92	41.1	<0.42	12.1	46.4	6.9	5.5
CC-10	12/12/2018	10:15	Accutest	46.8	2.7	<0.42	12.9	63.8	7.8	9.2
CC-10	5/20/2019	14:45	ACZ	236	22.8	<0.10	67	64	6.4	14.8
CC-10	8/20/2019	12:25	ACZ	11	2.3	<0.10	8	38.6	7.0	4.9
CC-10	12/3/2019	11:35	ACZ	10	4.8	<0.10	13	69.7	6.6	9
CC-10	5/14/2020	12:00	ACZ	363	34.5	<0.10	80	51.8	7.2	9.6
CC-10	8/18/2020	11:58	ACZ	0	1.7	<0.10	6	46.3	7.5	4.4
CC-10	12/14/2020	10:38	ACZ	9	15.9	<0.10	16.4	71.3	7.3	17.2

^{*}Specific Conductivity was not recorded during the 12/12/18 sample at CC-10

Location	Sample Date	Sample Time	Analytical Laboratory	Iron, Dissolved ¹ (μg/L as Fe)	Manganese, Dissolved² (μg/L as Mn)	Selenium, Dissolved² (µg/L as Se)	Zinc, Dissolved ² (μg/L as Zn)	Specific Conductivity ³ (μS/cm)	pH ³ (Standard Units)	Sulfate ⁴ (mg/L)
CC-30	6/8/2015	16:15	Accutest	47.1	212	<0.42	108	56.8	7.1	12.5
CC-30	8/13/2015	14:35	Accutest	17.8	103	<0.42	41.3	73.5	7.6	11.6
CC-30	11/11/2015	12:00	Accutest	16	161	<0.42	63.3	130.5	7.5	24.3
CC-30	6/22/2016	9:33	Accutest	22.4	97.2	<0.42	47.5	39.9	6.9	6.6
CC-30	8/15/2016	12:51	Accutest	29.9	144	<1.1	55.1	81.3	7.5	15.1
CC-30	12/7/2016	11:25	Accutest	70.1	132	<0.42	57.9	126.8	7.2	25.2
CC-30	6/7/2017	12:45	Accutest	61.8	152	<0.42	80.9	51.0	7.5	9.1
CC-30	8/7/2017	12:05	Accutest	19.5	161	<0.42	55.2	76.7	7.8	13.9
CC-30	11/30/2017	12:10	Accutest	29.8	271	<0.42	97.7	120.6	6.9	25.4
CC-30	5/22/2018	12:28	Accutest	30	160	<0.42	79.3	62.5	6.6	11.2
CC-30	8/15/2018	13:35	Accutest	<92	152	<0.42	62.2	100.3	7.1	20.3
CC-30	12/12/2018	13:25	Accutest	133	133	< 0.42	59.7	131.5	6.5	25.3
CC-30	5/20/2019	15:45	ACZ	80	424	<0.10	178	171.6	7.1	27.5
CC-30	8/20/2019	11:50	ACZ	22	114	<0.10	52	73.6	6.6	13.7
CC-30	12/3/2019	13:15	ACZ	12	141	<0.10	66	123.0	6.7	18.8
CC-30	5/14/2020	11:30	ACZ	140.9	334	<0.10	167	140.9	7.2	25.4
CC-30	8/18/2020	11:20	ACZ	87.5	132	<0.10	60	87.5	7.2	16.3
CC-30	12/14/2020	11:53	ACZ	118.7	142	<0.10	77	118.7	7.3	25.6

Notes:

RED = Resulting concentration falls outside of the Numeric Protection Limit (NPL).

BLUE=Rosner/Dixon Statistical outlier

< = not detected at concentrations exceeding the laboratory method detection limit

mg/L = milligrams per liter

μg/L = micrograms per liter

μS/cm = micro Siemens per centimeter

EPA = Environmental Protection Agency

¹Analyzed by EPA Method 200.7 or 200.8.

²Analyzed by EPA Method 200.8.

³Analyzed using field instrumentation.

⁴Analyzed by EPA Method 300.0.



Table 2 Annual Water Monitoring Data Henderson Mill

Location	Sample Date	Sample Time	Analytical Laboratory	Iron, Dissolved ¹ (μg/L as Fe)	Manganese, Dissolved² (μg/L as Mn)	Selenium, Dissolved² (µg/L as Se)	Zinc, Dissolved² (μg/L as Zn)	Specific Conductivity ³ (µS/cm)	pH ³ (Standard Units)	Sulfate ⁴ (mg/L)
MLGW-7	4/28/2015	14:25	Accutest	<9.2	0.86	<0.42	12.5	339.4	6.7	70.6
MLGW-7	8/20/2015	10:20	Accutest	18.3	<0.26	<0.42	3.7	198.4	7	32.3
MLGW-7	11/23/2015	14:20	Accutest	20.2	1	<0.42	1.9	203.6	6.8	31.9
MLGW-7	6/9/2016	13:31	Accutest	12.8	0.47	0.23	2.9	137.7	6.5	32.5
MLGW-7	8/8/2016	10:21	Accutest	<9.2	<0.26	<0.42	4.9	187.3	6.5	23.6
MLGW-7	12/13/2016	14:00	Accutest	34.9	1.7	<0.42	3.3	173.1	6.8	17.9
MLGW-7	5/10/2017	13:10	Accutest	<9.2	0.96	<0.42	5.2	208.9	6.7	22.4
MLGW-7	8/16/2017	8:38	Accutest	15.5	<0.26	0.42	8.4	167	6.7	20
MLGW-7	11/15/2017	13:25	Accutest	<9.2	0.81	<0.42	3.3	160.1	6.6	17.7
MLGW-7	5/16/2018	13:10	Accutest	9.5	0.41	<0.42	7.5	141.5	6.3	17
MLGW-7	8/9/2018	13:05	Accutest	<46	3.2	<2.1	24.6	154.6	6.2	14.6
MLGW-7	12/4/2018	12:30	Accutest	35.6	0.89	<0.42	<1.9	149.4	6.8	13.6
MLGW-7	5/14/2019	10:32	ACZ	14	<0.4	0.3	<4.0	151.1	6.5	18.7
MLGW-7	8/13/2019	08:30	ACZ	25	0.6	0.2	<4.0	144	6	12.9
MLGW-7	11/13/2019	12:47	ACZ	17	0.7	0.1	<4.0	138.5	6.7	10.3
MLGW-7	5/7/2020	10:25	ACZ	14	<0.4	0.1	<6.0	130.6	6.6	10.4
MLGW-7	8/27/2020	9:40	ACZ	8	0.6	0.1	<6.0	144	6.8	7.1
MLGW-7	12/9/2020	10:53	ACZ	21.3	0.69	<0.1	<6.0	125.8	6.7	6.7
Numeric Protec	ction Limit (NP	L)		5,000	420	20	2,000	N/A (report)	6.5 - 8.5	N/A (report)

Location	Sample Date	Sample Time	Analytical Laboratory	lron, Dissolved ¹ (μg/L as Fe)	Manganese, Dissolved² (μg/L as Mn)	Selenium, Dissolved ² (µg/L as Se)	Zinc, Dissolved² (μg/L as Zn)	Specific Conductivity ³ (µS/cm)	pH ³ (Standard Units)	Sulfate⁴ (mg/L)
MLGW-15	4/28/2015	15:00	Accutest	<9.2	0.56	0.84	2.9	1597	6.6	711
MLGW-15	8/20/2015	12:15	Accutest	<9.2	<0.26	<0.42	3.7	1668	6.5	665
MLGW-15	11/23/2015	15:50	Accutest	104	0.58	<0.42	3.5	1660	6.6	626
MLGW-15	6/9/2016	13:55	Accutest	<46	5.2	0.35	4.3	1656	6.5	684
MLGW-15	8/8/2016	13:11	Accutest	211	1.1	<0.42	7.2	1696	6.5	681
MLGW-15	12/13/2016	14:35	Accutest	<230	0.94	<0.42	3.4	1471	6.8	642
MLGW-15	5/10/2017	12:50	Accutest	9.3	0.87	<0.42	4.9	1584	6.5	621
MLGW-15	8/16/2017	9:21	Accutest	21.2	<0.26	0.81	6.5	1519	6.5	598
MLGW-15	11/15/2017	15:20	Accutest	<230	0.78	1.3	5.6	1500	6.5	604
MLGW-15	5/16/2018	12:46	Accutest	<46	0.45	1	13.8	1271	6.5	545
MLGW-15	8/10/2018	10:32	Accutest	<46	2.9	<2.1	23.3	1401	6.5	564
MLGW-15	12/6/2018	12:35	Accutest	466	4.4	1.3	<1.9	1380	6.8	578
MLGW-15	5/14/2019	09:53	ACZ	<5.0	<0.4	<0.1	<4.0	1250	6.5	526
MLGW-15	8/13/2019	10:20	ACZ	<5.0	<0.4	0.1	<4.0	1264	6.7	528
MLGW-15	11/13/2019	13:15	ACZ	<5.0	<0.4	<0.1	<4.0	1293	6.8	551
MLGW-15	5/7/2020	12:05	ACZ	<7.0	<0.4	<0.1	<6.0	1327	6.5	559
MLGW-15	8/27/2020	11:10	ACZ	<7.0	1.7	0.1	<6.0	1369	6.6	563
MLGW-15	12/9/2020	11:35	ACZ	12.9	<0.4	0.11	<6.0	1334	6.7	563

Notes

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Table 2 Annual Water Monitoring Data Henderson Mill

Location	Sample Date	Sample Time	Analytical Laboratory	lron, Dissolved ¹ (μg/L as Fe)	Manganese, Dissolved² (μg/L as Mn)	Selenium, Dissolved ² (µg/L as Se)	Zinc, Dissolved ² (µg/L as Zn)	Specific Conductivity ³ (µS/cm)	pH ³ (Standard Units)	Sulfate ⁴ (mg/L)
MLGW-17	4/28/2015	16:10	Accutest	<9.2	<0.26	<0.42	<1.9	231.4	7.1	39.7
MLGW-17	8/20/2015	14:55	Accutest	<9.2	<0.26	< 0.42	2.8	225.7	7.5	35.1
MLGW-17	11/23/2015	13:05	Accutest	9.6	0.36	<0.42	<1.9	221.4	7.1	34.7
MLGW-17	6/9/2016	15:00	Accutest	10.5	0.29	<0.21	2.3	236.9	6.9	33.5
MLGW-17	8/8/2016	14:07	Accutest	28.6	1	<0.42	4.1	221.9	6.7	33.1
MLGW-17	12/13/2016	11:17	Accutest	14.6	0.93	<0.42	<1.9	217.9	7.3	39
MLGW-17	5/10/2017	11:05	Accutest	12.7	1.1	<0.42	4.1	244.6	7.0	38.6
MLGW-17	8/16/2017	11:58	Accutest	45.5	0.5	0.42	3.6	223.6	6.8	33.9
MLGW-17	11/15/2017	16:25	Accutest	28	0.81	<0.42	5.4	221.9	7.0	34.6
MLGW-17	5/16/2018	15:32	Accutest	<9.2	0.32	<0.42	13.7	206.2	6.6	34.7
MLGW-17	8/9/2018	11:10	Accutest	<46	5.2	<2.1	24.3	226.1	6.7	33.7
MLGW-17	12/6/2018	10:24	Accutest	65.6	0.96	<0.42	<1.9	210.9	7.2	29.6
MLGW-17	5/14/2019	13:45	ACZ	46	0.5	0.1	<4.0	208.0	7.0	37
MLGW-17	8/13/2019	11:45	ACZ	<5.0	<0.4	0.1	<4.0	201.1	6.9	29.8
MLGW-17	11/13/2019	13:59	ACZ	<5.0	<0.4	0.1	<4.0	214.9	7.1	33.1
MLGW-17	5/7/2020	13:10	ACZ	<6.0	<0.4	<0.1	11	225.9	7.0	38.7
MLGW-17	8/27/2020	11:45	ACZ	<7.0	0.7	0.1	<6.0	223.3	7.1	33.5
MLGW-17	12/9/2020	12:16	ACZ	<7.0	0.41	<0.1	<6.0	218.3	7.1	36.5

Location	Sample Date	Sample Time	Analytical Laboratory	lron, Dissolved ¹ (μg/L as Fe)	Manganese, Dissolved² (μg/L as Mn)	Selenium, Dissolved² (µg/L as Se)	Zinc, Dissolved ² (μg/L as Zn)	Specific Conductivity ³ (µS/cm)	pH ³ (Standard Units)	Sulfate ⁴ (mg/L)
MLGW-ACR	4/28/2015	12:15	Accutest	64	15.2	<0.42	3.6	311.4	7.4	67.1
MLGW-ACR	8/20/2015	11:10	Accutest	18.2	3.3	<0.42	2.3	378.5	7.6	86.4
MLGW-ACR	11/23/2015	14:55	Accutest	2920	1100	<0.42	<1.9	382.8	7.0	80.8
MLGW-ACR	2/3/2016	10:37	Accutest	3310	770	<0.42	2.6	367.7	7.0	52.4
MLGW-ACR	6/9/2016	12:20	Accutest	183	23.4	0.32	4.2	466.5	6.6	110
MLGW-ACR	8/8/2016	10:15	Accutest	181	5.4	0.42	7.4	456.1	6.6	112
MLGW-ACR	12/13/2016	11:05	Accutest	275	7.2	0.8	2.9	400.9	6.6	99.1
MLGW-ACR	5/10/2017	10:40	Accutest	172	10.8	<0.42	6.2	464.8	7.3	114
MLGW-ACR	8/16/2017	8:45	Accutest	168	1.8	< 0.42	5.3	482.1	6.5	121
MLGW-ACR	11/15/2017	12:30	Accutest	66.3	23.6	0.58	18.7	469.9	6.7	124
MLGW-ACR	5/16/2018	10:35	Accutest	173	6.5	<0.42	5.9	503.7	6.6	136
MLGW-ACR	8/9/2018	12:25	Accutest	<46	8.2	<2.1	20.8	544	6.7	140
MLGW-ACR	5/14/2019	12:15	ACZ	76	29.3	<0.1	<4.0	243.1	8.3	4.3
MLGW-ACR	8/13/2019	08:10	ACZ	71	6.2	<0.1	<4.0	209.1	8.9	2.5
MLGW-ACR	11/13/2019	11:13	ACZ	1200	39	<0.1	<4.0	502.9	6.8	139
MLGW-ACR	5/7/2020	9:00	ACZ	965	29.7	<0.1	<6.0	488.2	6.7	125
MLGW-ACR	8/28/2020	11:30	ACZ	833	25.1	<0.1	<6.0	526.1	7	121
MLGW-ACR	12/9/2020	9:05	ACZ	950	33	<0.1	<6.0	504.9	6.8	130
Numeric Protec	tion Limit (NP	L)		5,000	420	20	2,000	N/A (report)	5.9 - 8.5	N/A (report)

Notes:

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Table 2 Annual Water Monitoring Data Henderson Mill

Location	Sample Date	Sample Time	Analytical Laboratory	Iron, Dissolved ¹ (μg/L as Fe)	Manganese, Dissolved² (μg/L as Mn)	Selenium, Dissolved ² (µg/L as Se)	Zinc, Dissolved ² (µg/L as Zn)	Specific Conductivity ³ (µS/cm)	pH ³ (Standard Units)	Sulfate ⁴ (mg/L)
WFR-20	4/28/2015	10:30	Accutest	48.1	5.2	<0.42	<1.9	83.9	8.1	4.6
WFR-20	8/20/2015	13:30	Accutest	95.6	4.7	<0.42	3.4	81	8.1	4.6
WFR-20	11/23/2015	10:10	Accutest	82	6.1	<0.42	2.1	89.1	7.5	5.5
WFR-20	6/9/2016	9:25	Accutest	62.1	5.7	<0.21	2.1	47.7	7.3	2.6
WFR-20	8/8/2016	13:11	Accutest	105	9.8	<0.42	4.8	77.9	6.7	4.6
WFR-20	12/13/2016	8:50	Accutest	80.6	7.3	<0.42	4.4	87	6.6	5.7
WFR-20	5/10/2017	8:35	Accutest	103	4.9	<0.42	3.9	75.6	7.9	3.9
WFR-20	8/16/2017	10:45	Accutest	82.7	5.2	<0.42	8	83.7	7.5	4.5
WFR-20	11/15/2017	10:55	Accutest	66.8	6.3	<0.42	3.7	95.6	7.3	5.7
WFR-20	5/16/2018	9:32	Accutest	64.6	10.8	<0.42	7.7	59	7.8	3.2
WFR-20	8/9/2018	9:10	Accutest	<46	10.5	<2.1	19.3	86.8	6.5	4.7
WFR-20	12/4/2018	8:30	Accutest	114	142	<0.42	<1.9	88.8	7.2	6.4
WFR-20	5/14/2019	13:00	ACZ	86	4.7	<0.1	<4.0	72	8.0	6.4
WFR-20	8/13/2019	12:15	ACZ	74	7.2	<0.1	<4.0	72.8	7.0	4.3
WFR-20	11/13/2019	14:35	ACZ	62	6.2	<0.1	<4.0	85.9	7.1	5.5
WFR-20	5/7/2020	13:45	ACZ	98	5.2	<0.1	<6.0	70.4	7.4	5
WFR-20	8/28/2020	13:10	ACZ	85	8.4	<0.1	<6.0	92.5	7.5	9.5
WFR-20	12/9/2020	12:48	ACZ	70.7	7.14	<0.1	<6.0	134.3	7.2	5.7

Location	Sample Date	Sample Time	Analytical Laboratory	Iron, Dissolved ¹ (μg/L as Fe)	Manganese, Dissolved² (μg/L as Mn)	Selenium, Dissolved ² (µg/L as Se)	Zinc, Dissolved² (μg/L as Zn)	Specific Conductivity ³ (µS/cm)	pH ³ (Standard Units)	Sulfate ⁴ (mg/L)
WFR-40	4/28/2015	11:35	Accutest	175	20.7	<0.42	2.3	137.1	7.8	19.3
WFR-40	8/20/2015	12:40	Accutest	76.8	4.3	<0.42	2	128.9	7.8	13.8
WFR-40	11/23/2015	9:20	Accutest	38.8	7.2	<0.42	2.8	140.1	7.5	17.7
WFR-40	6/9/2016	10:47	Accutest	85.6	4.2	<0.21	2.9	5.38	7.1	3.1
WFR-40	8/8/2016	14:33	Accutest	108	46.6	<0.42	3.6	106.2	6.8	10.4
WFR-40	12/13/2016	10:00	Accutest	29.9	4.2	<0.42	<1.9	162.1	7.7	18.6
WFR-40	5/10/2017	9:20	Accutest	389	7.3	<0.42	3.1	82.5	7.4	7.6
WFR-40	8/16/2017	10:05	Accutest	69.9	20.1	<0.42	5.3	121.9	7.2	12.6
WFR-40	11/15/2017	11:50	Accutest	58.9	8.2	<0.42	4.8	145.4	7.3	22.4
WFR-40	5/16/2018	10:22	Accutest	188	7	<0.42	9.7	15.7	7.6	4.6
WFR-40	8/9/2018	14:35	Accutest	<46	7.7	<2.1	22.7	119.6	7.2	13.1
WFR-40	12/4/2018	11:30	Accutest	79.7	5	<0.42	<1.9	124.1	7.4	13.9
WFR-40	5/14/2019	09:20	ACZ	122	6.9	<0.1	<4.0	87.5	7.2	8.7
WFR-40	8/13/2019	10:50	ACZ	72	8.7	<0.1	<4.0	86.8	7.3	7.8
WFR-40	11/13/2019	11:35	ACZ	54	7.7	<0.1	<4.0	109	6.8	10.3
WFR-40	5/7/2020	9:45	ACZ	116	12.5	<0.1	<6.0	80.5	7.5	9
WFR-40	8/27/2020	9:05	ACZ	86	4.9	<0.1	<6.0	123	7.8	10.5
WFR-40	12/9/2020	9:38	ACZ	41.8	2.36	<0.1	<6.0	125.8	7.7	15

Notes

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GREEN= Newly estblished NPLs

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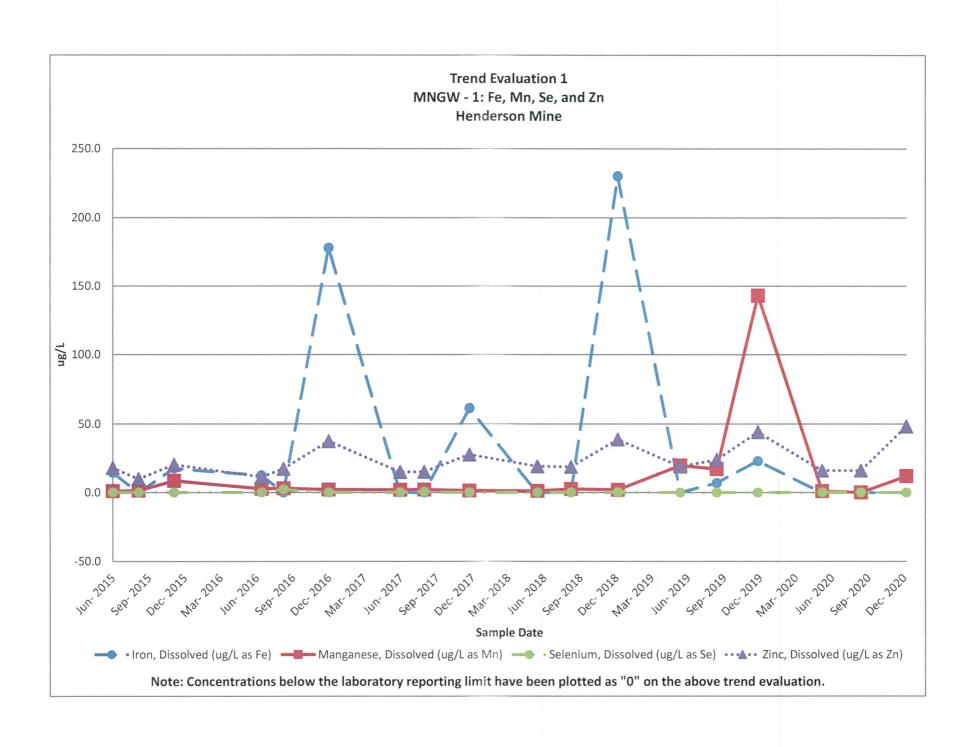
EPA = Environmental Protection Agency

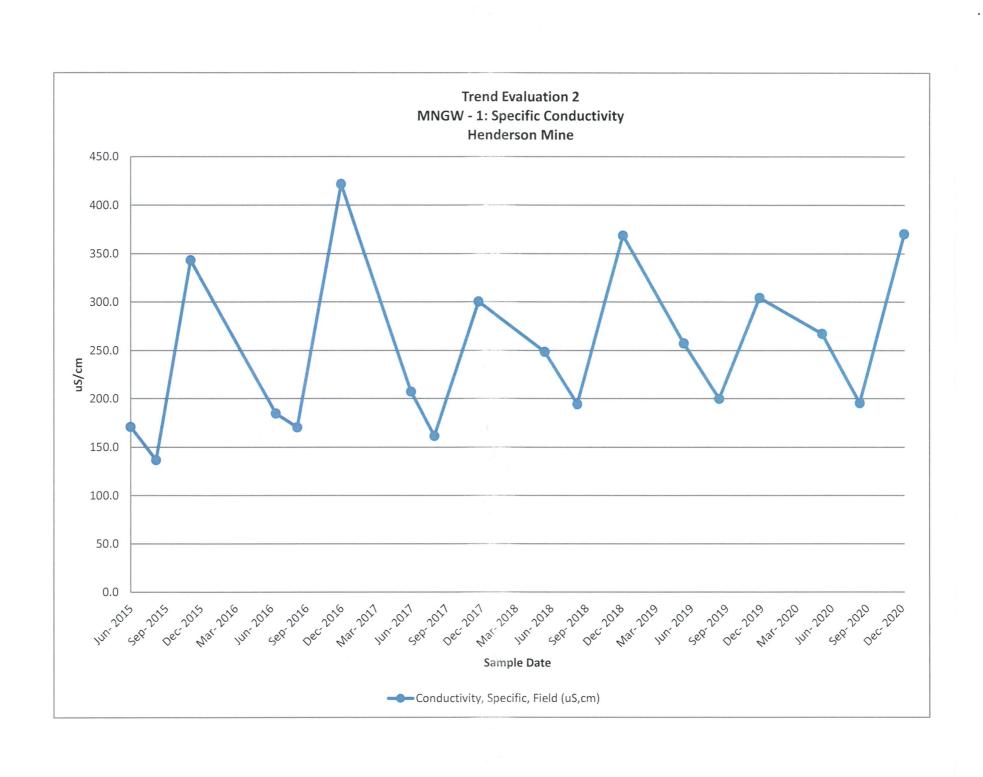
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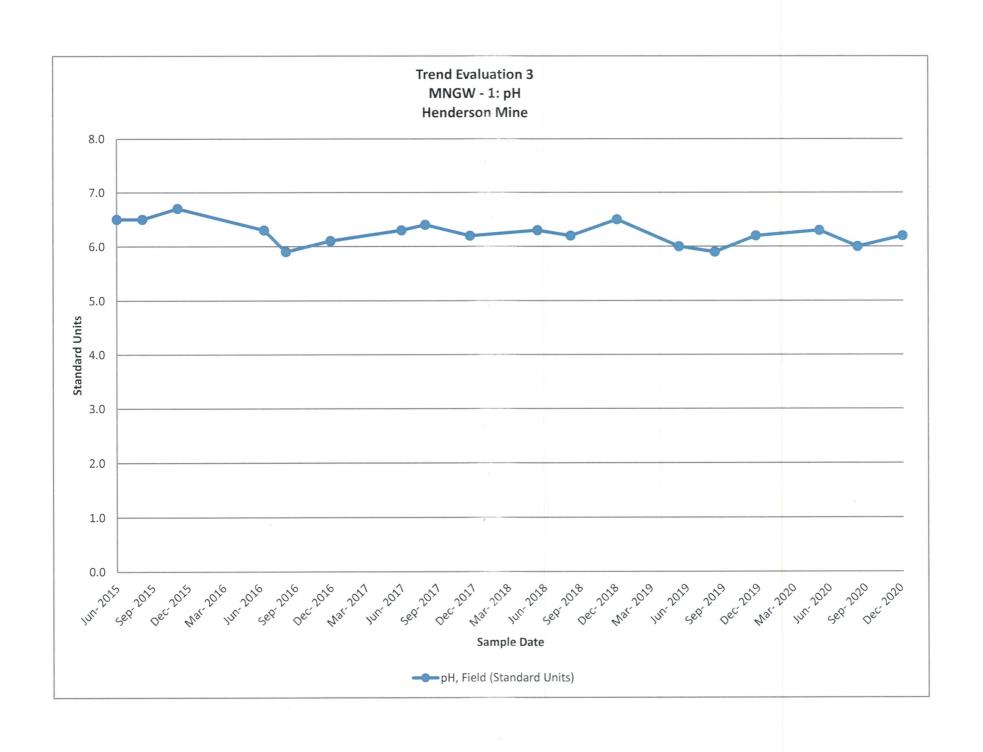
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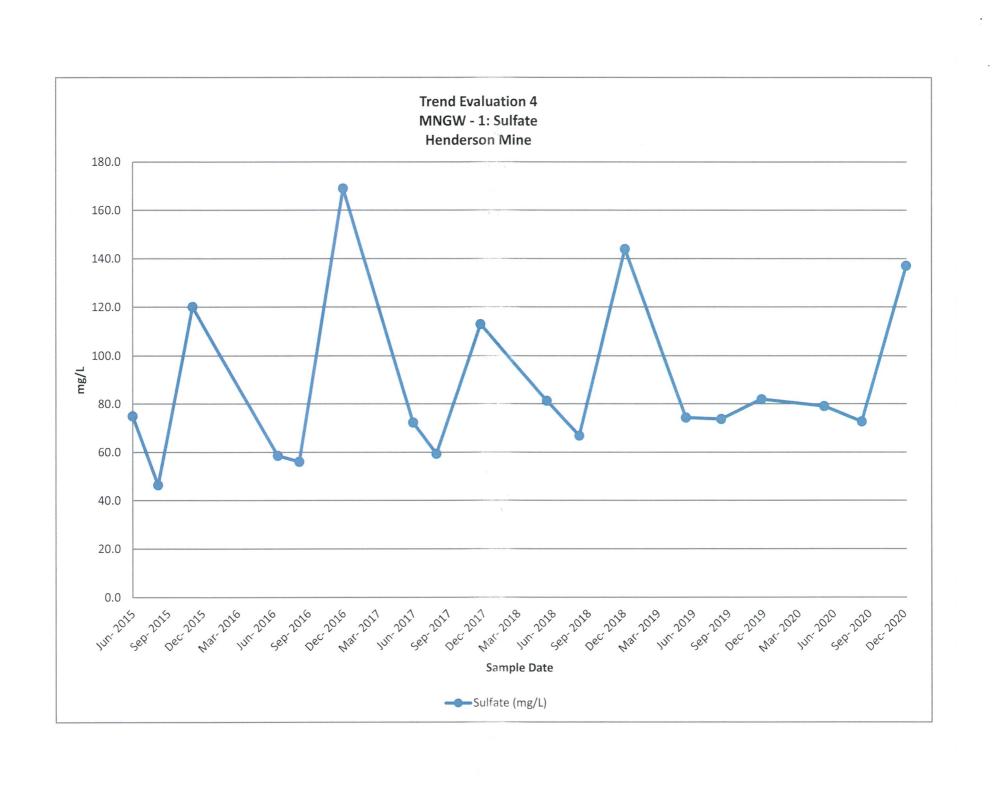
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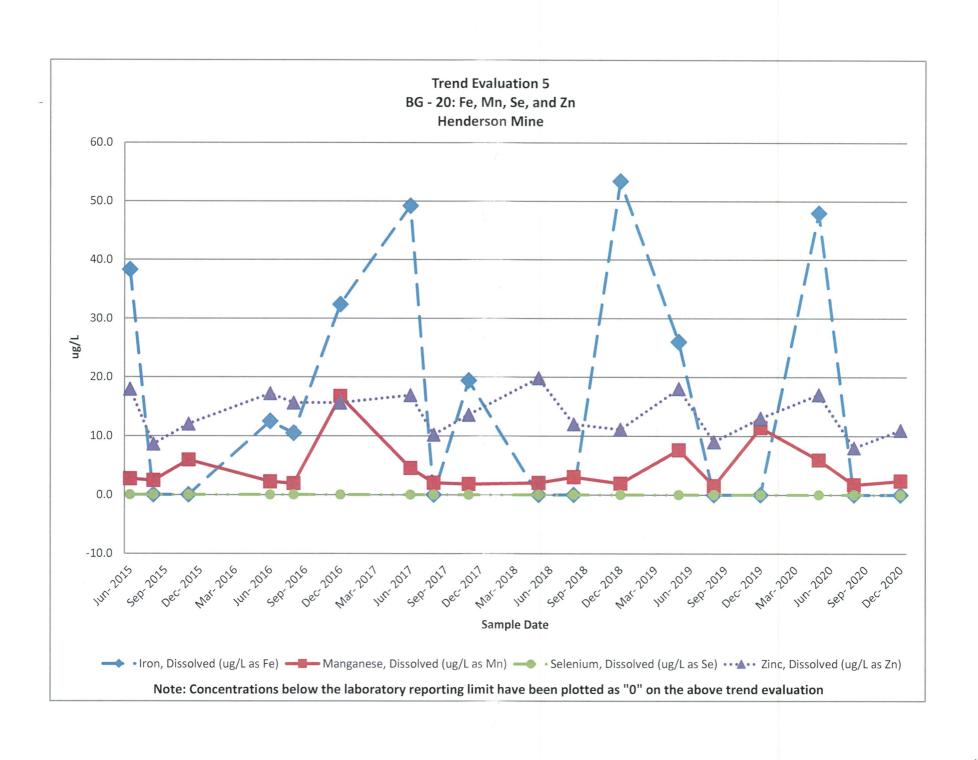
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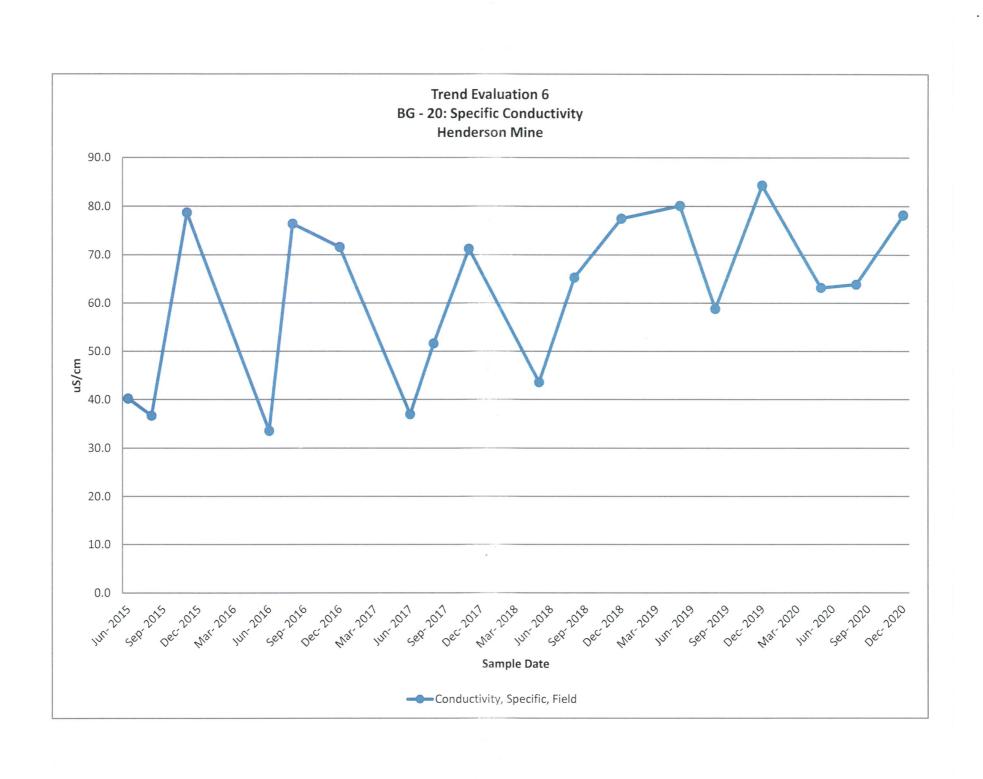


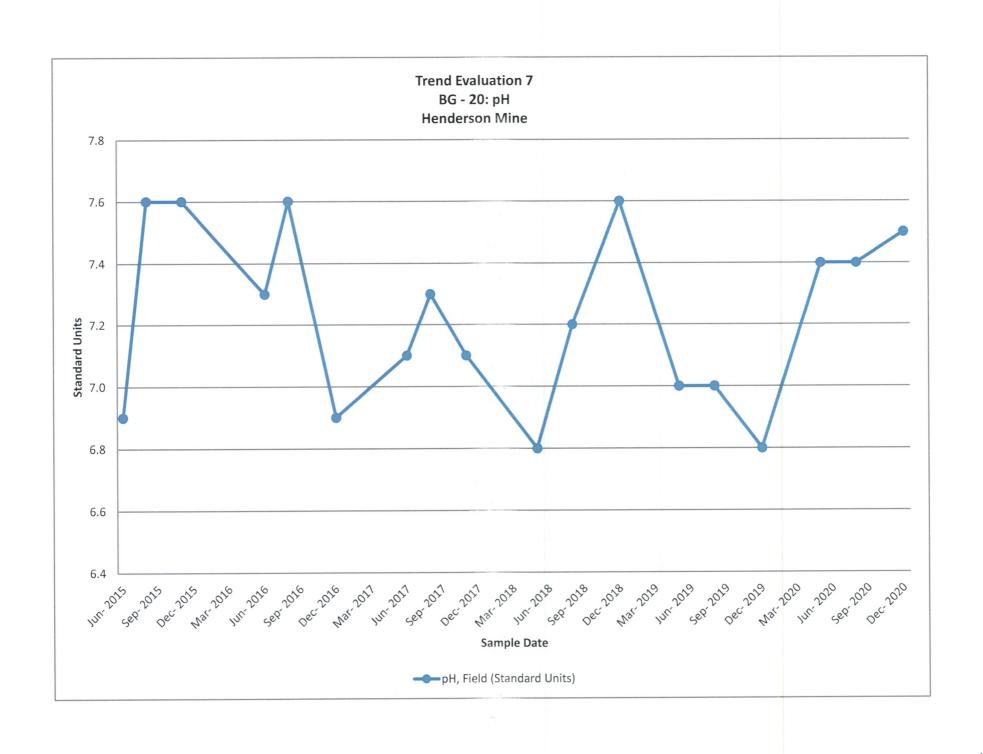


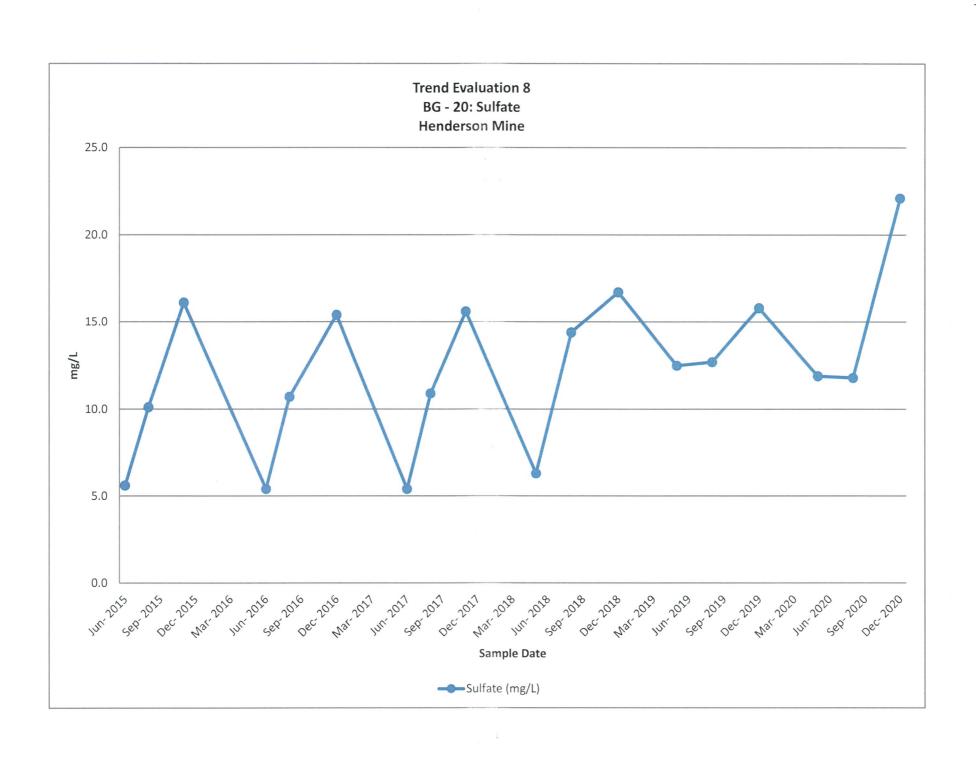


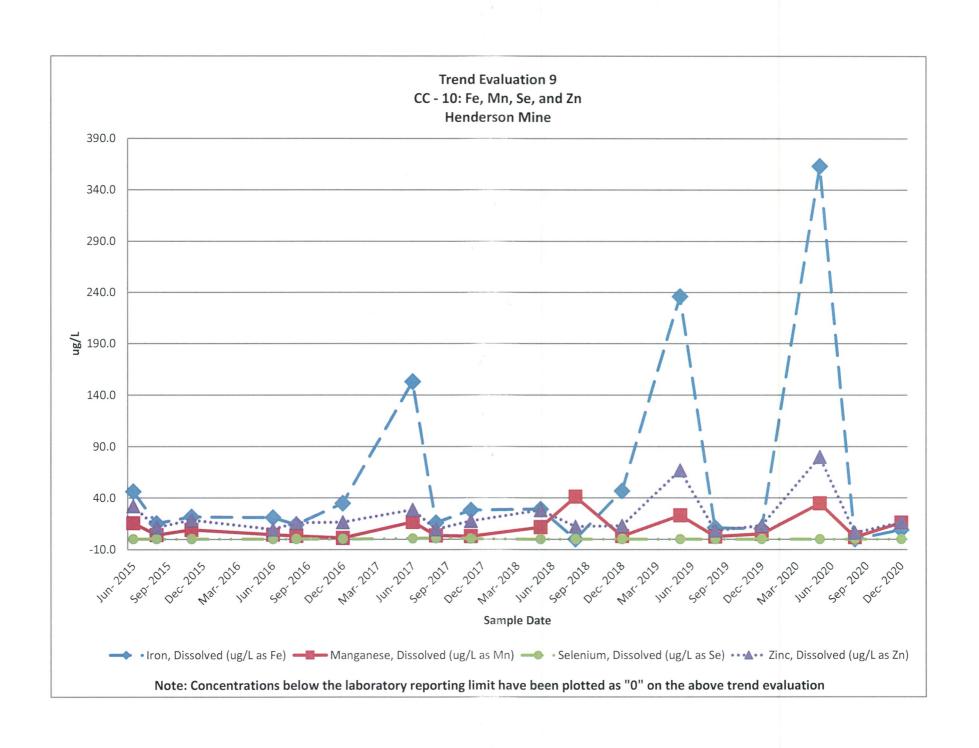


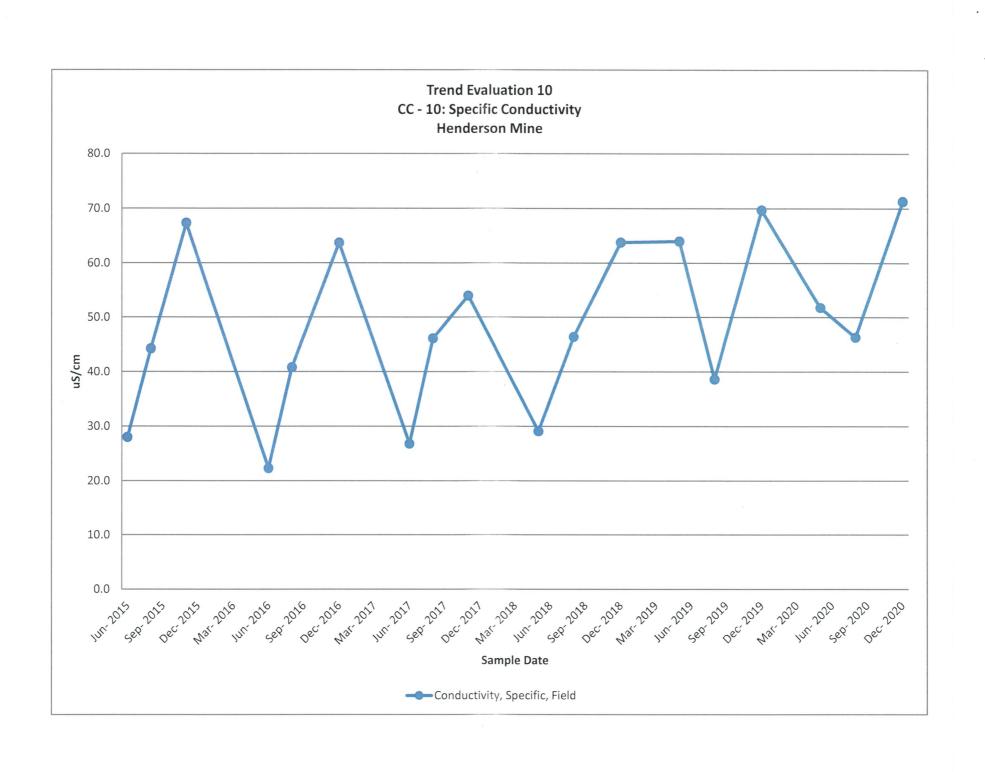


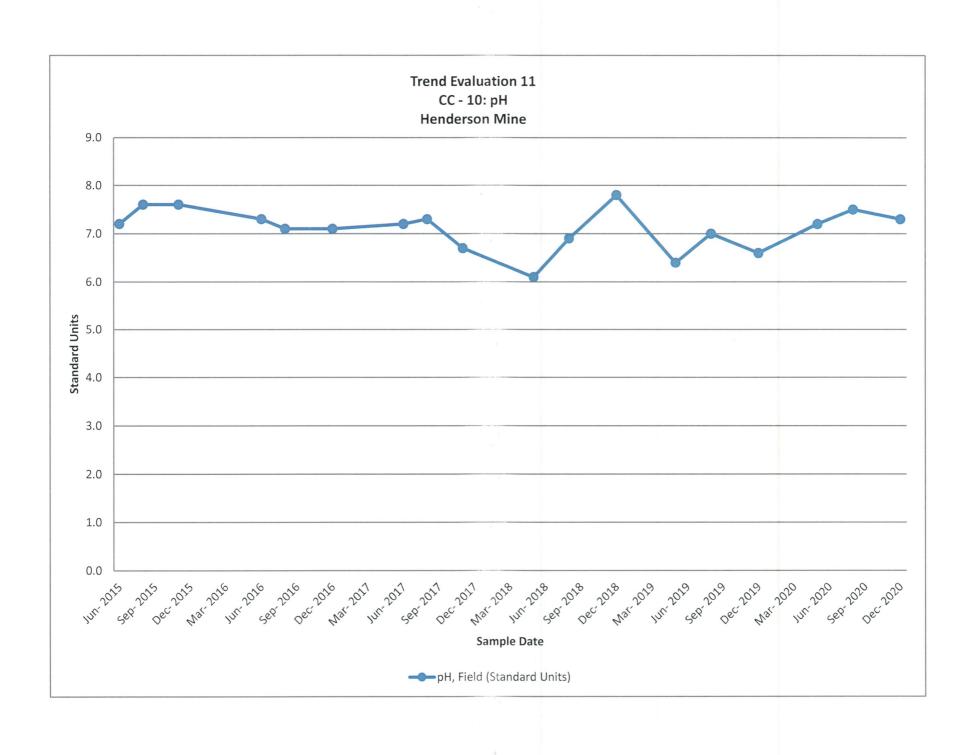


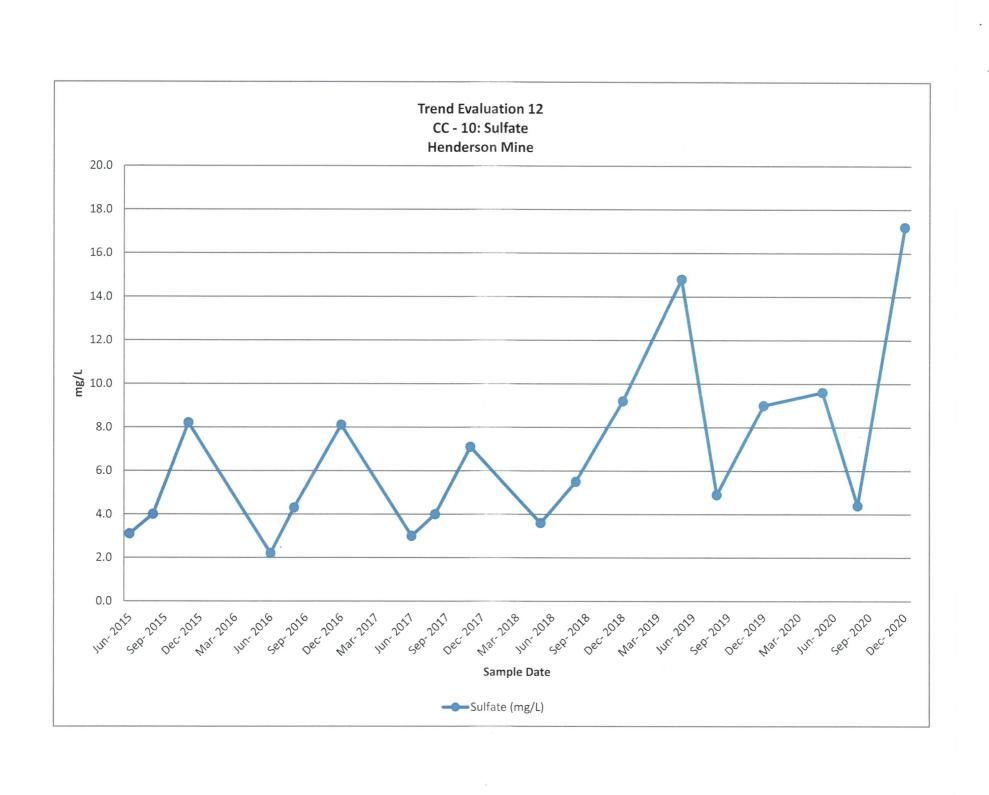


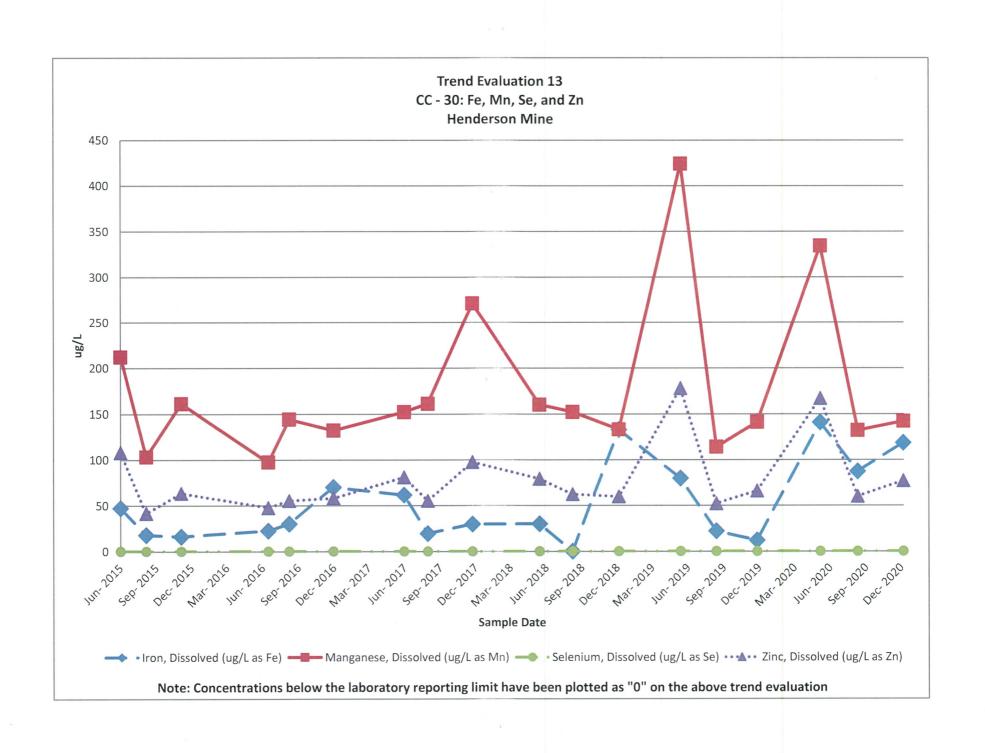


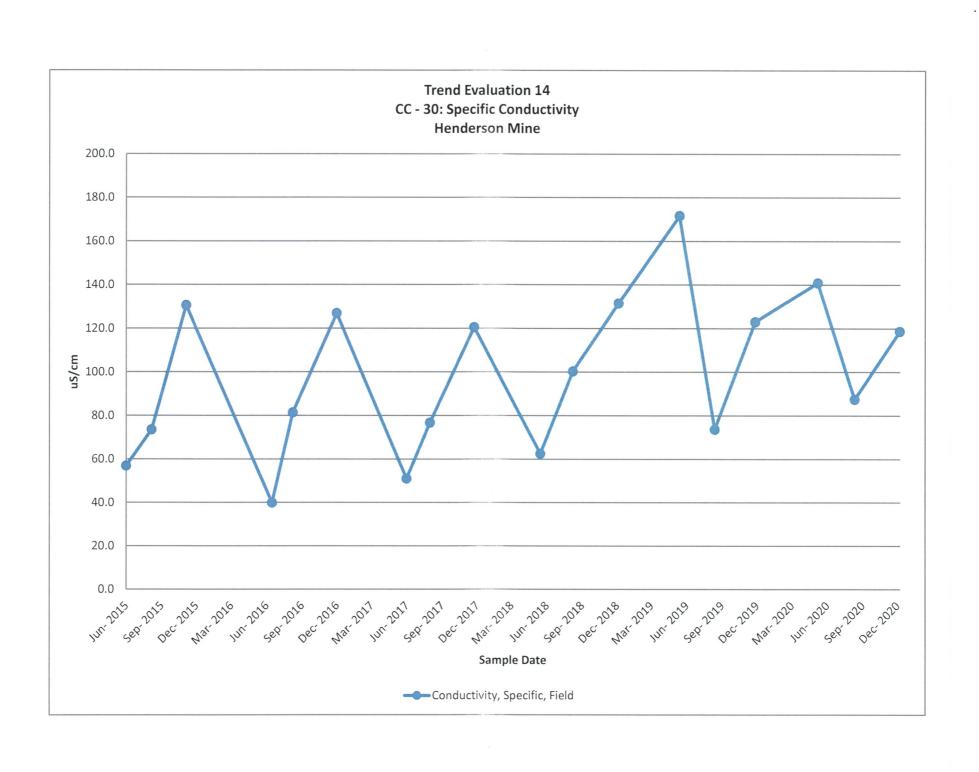


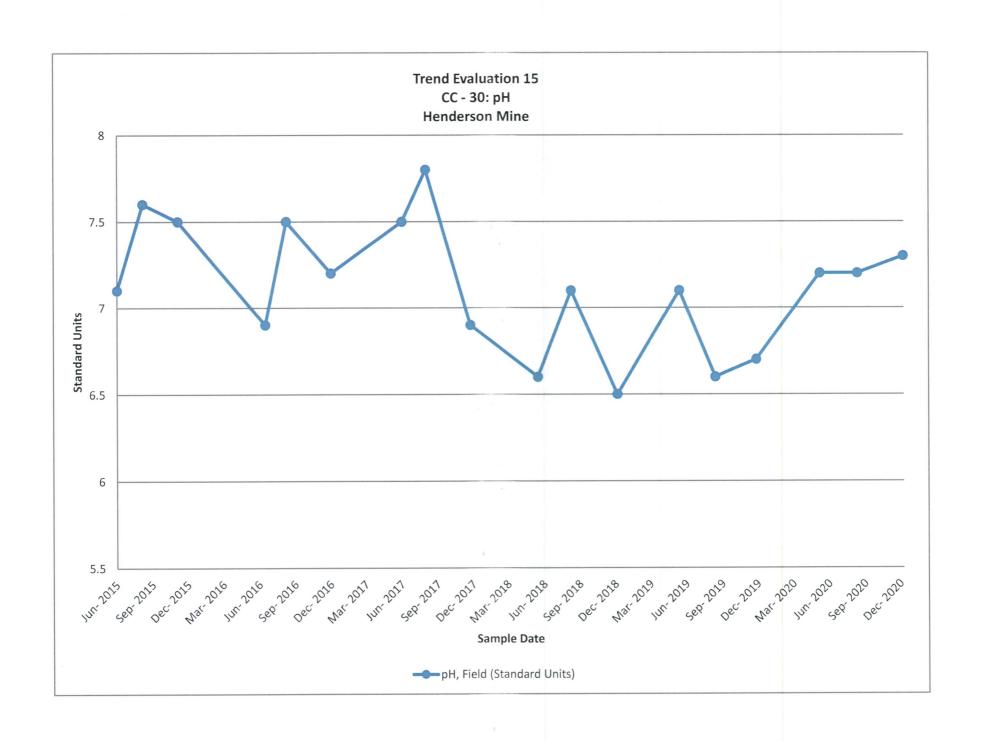


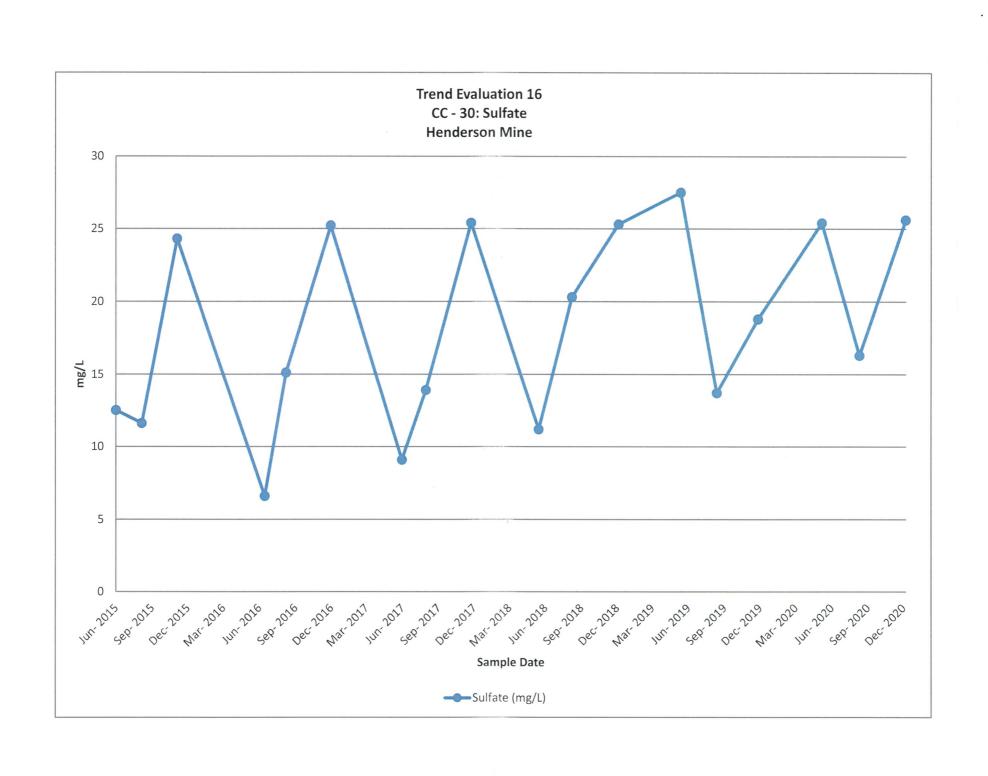


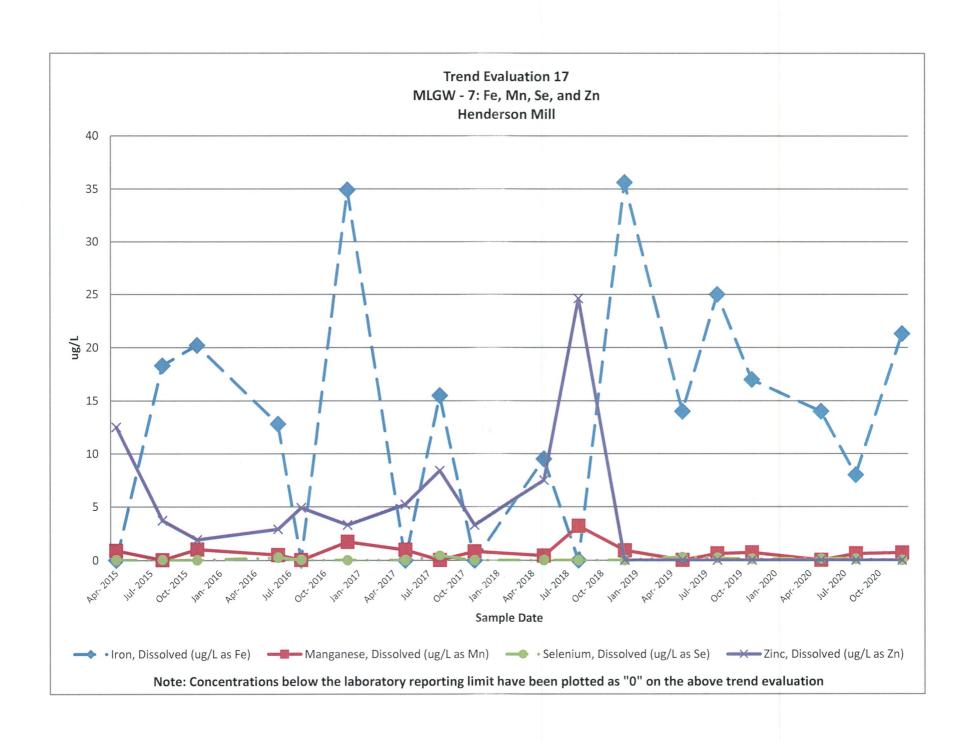


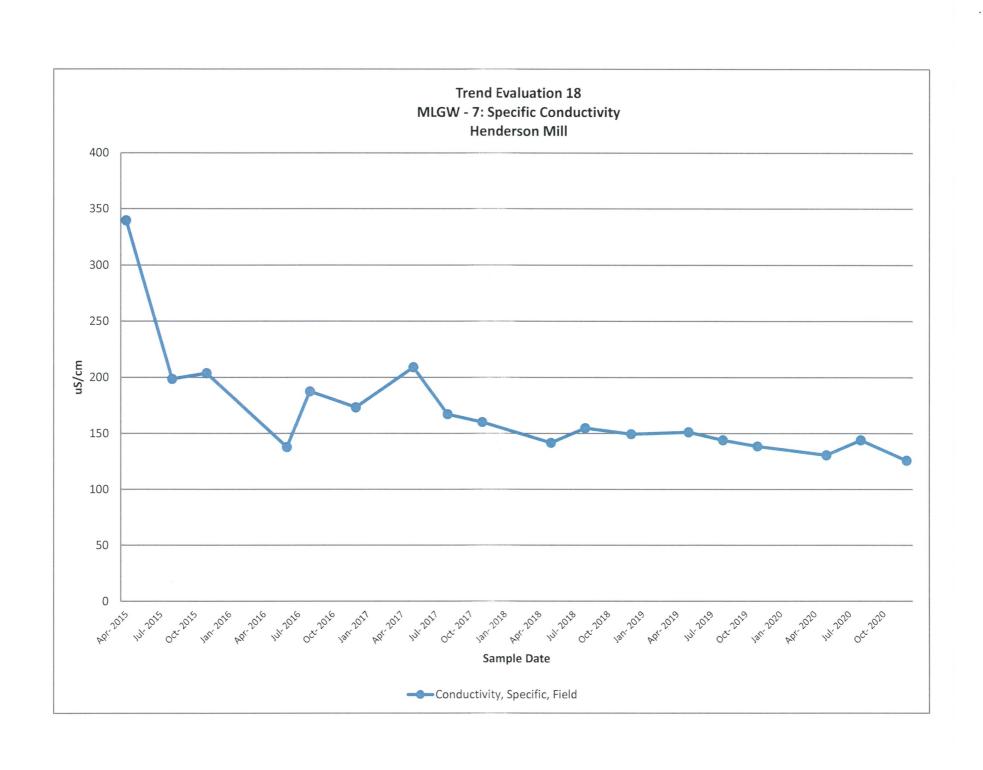


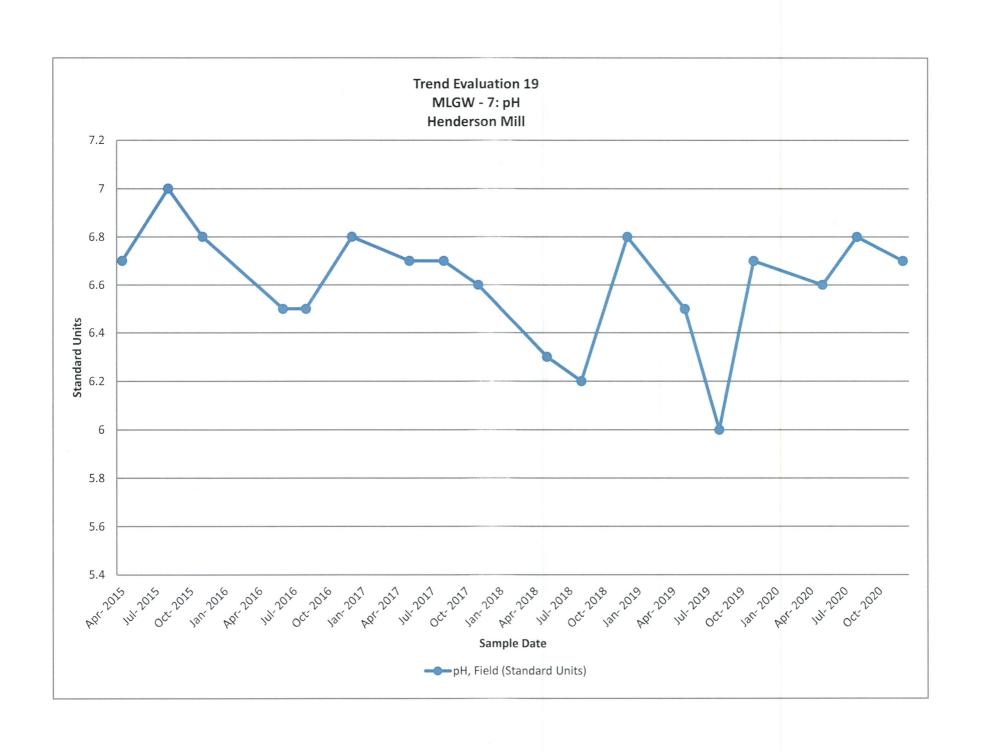


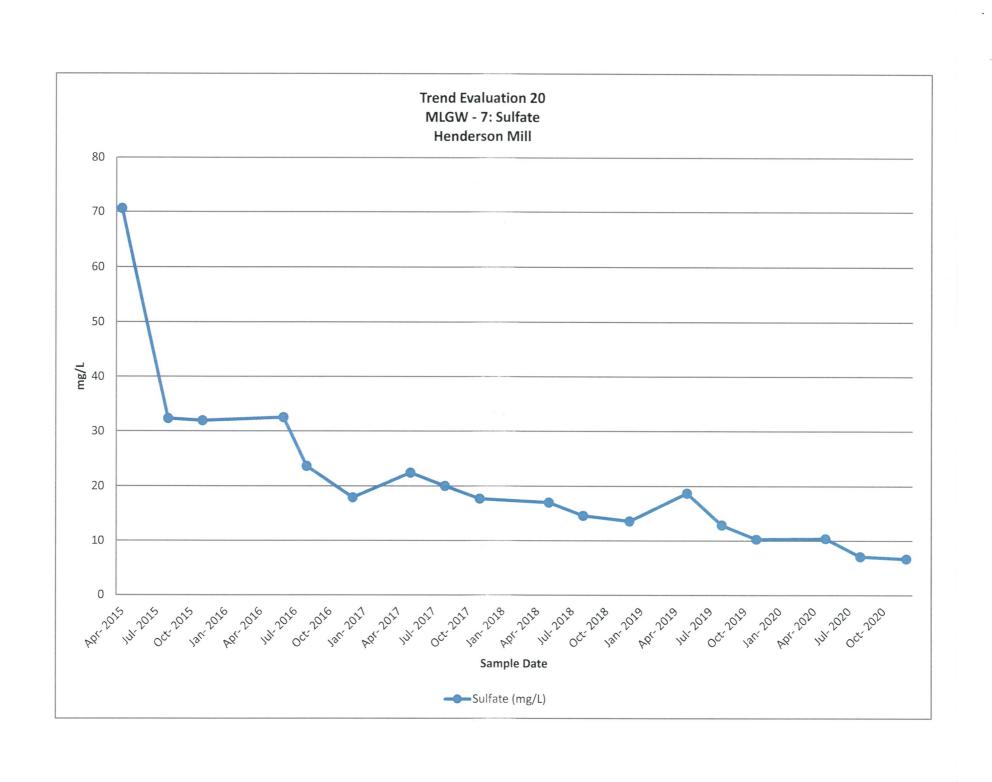


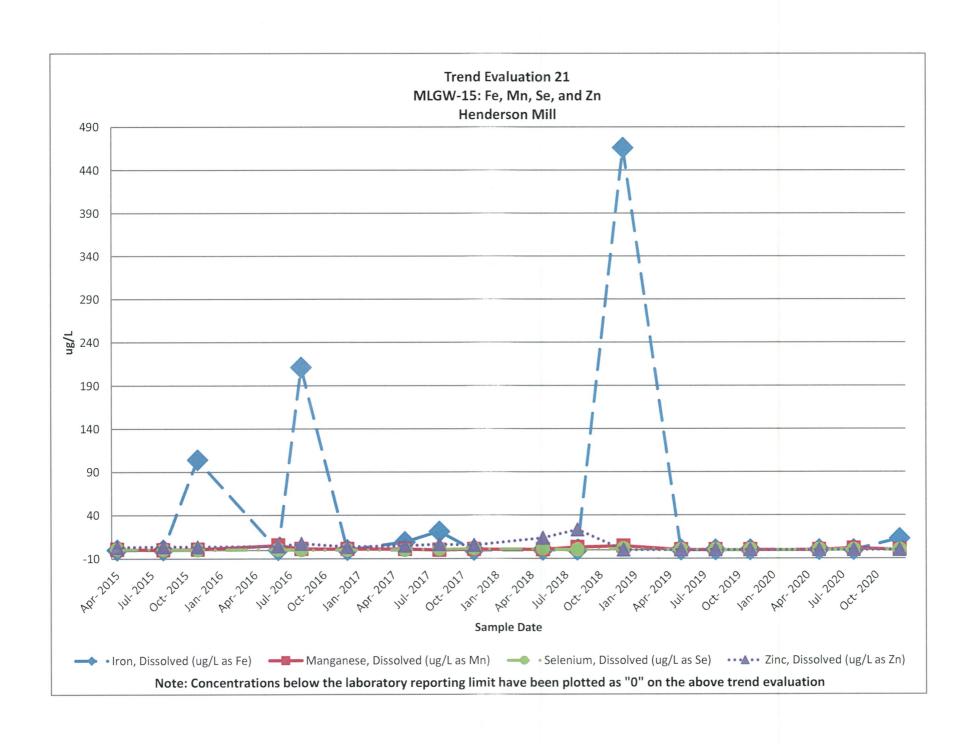


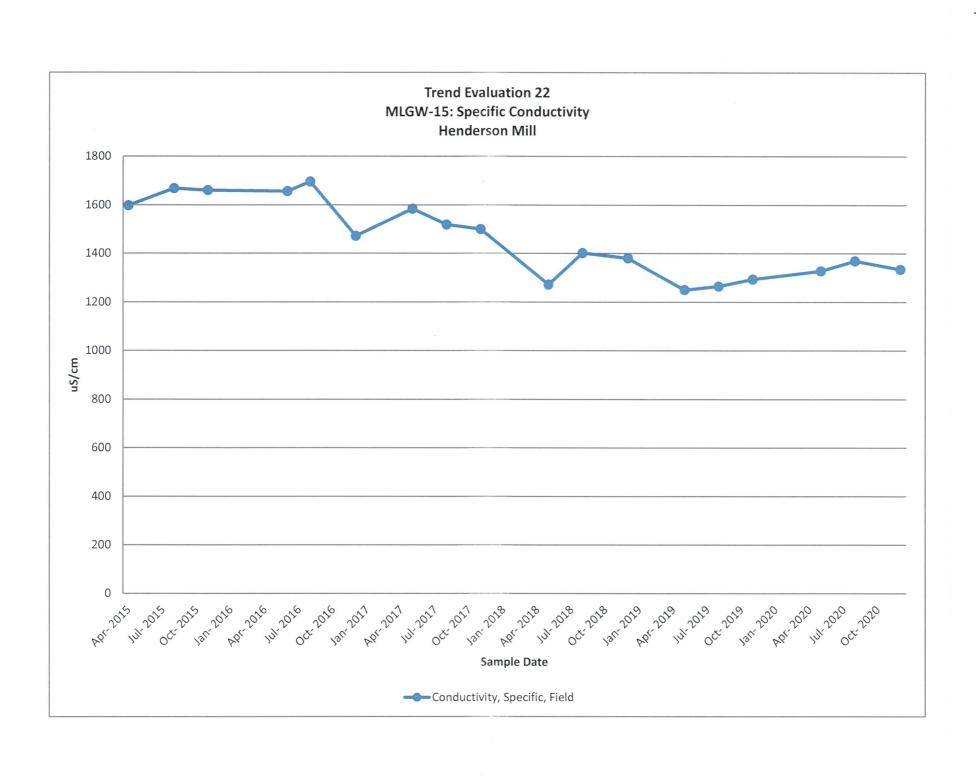


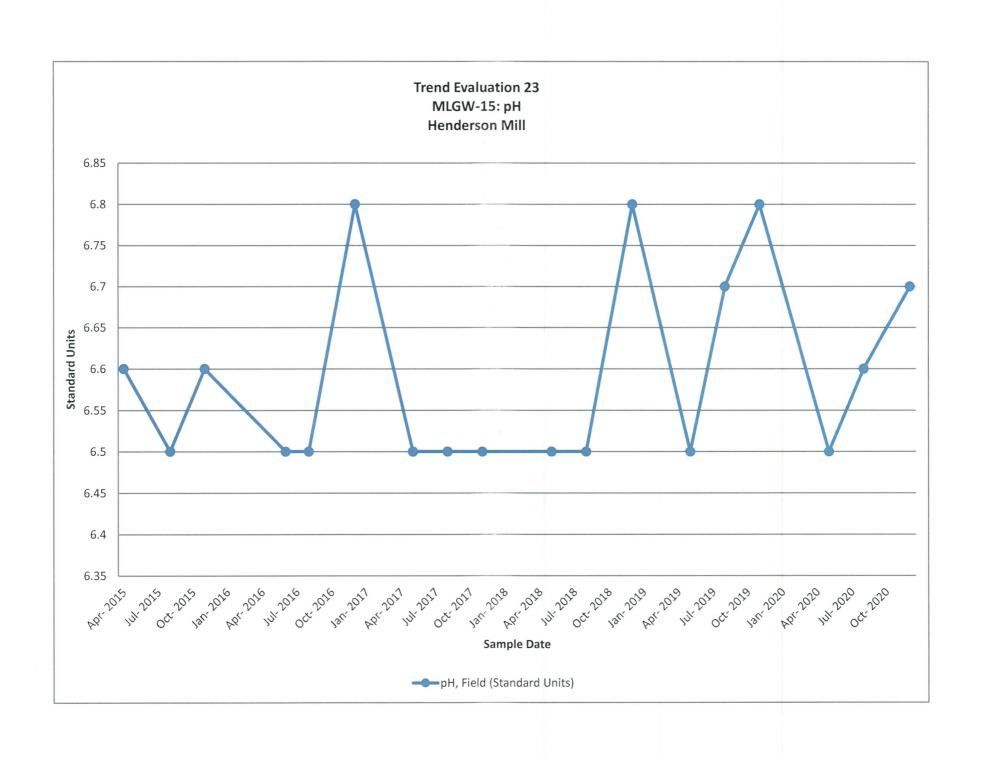


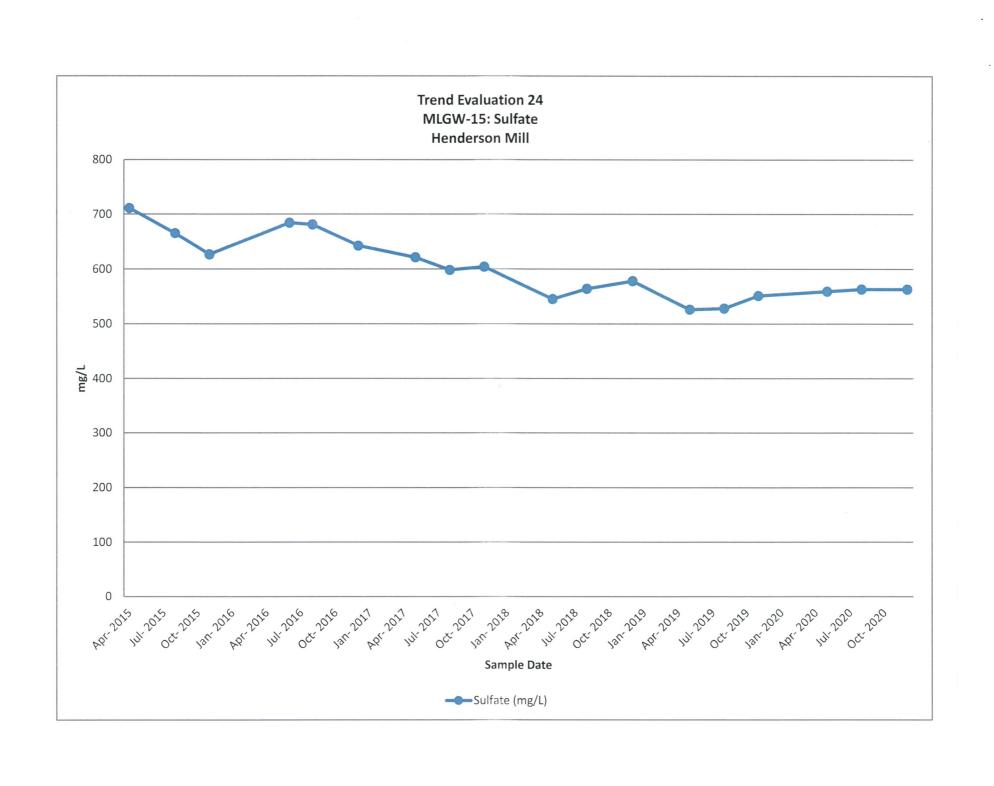


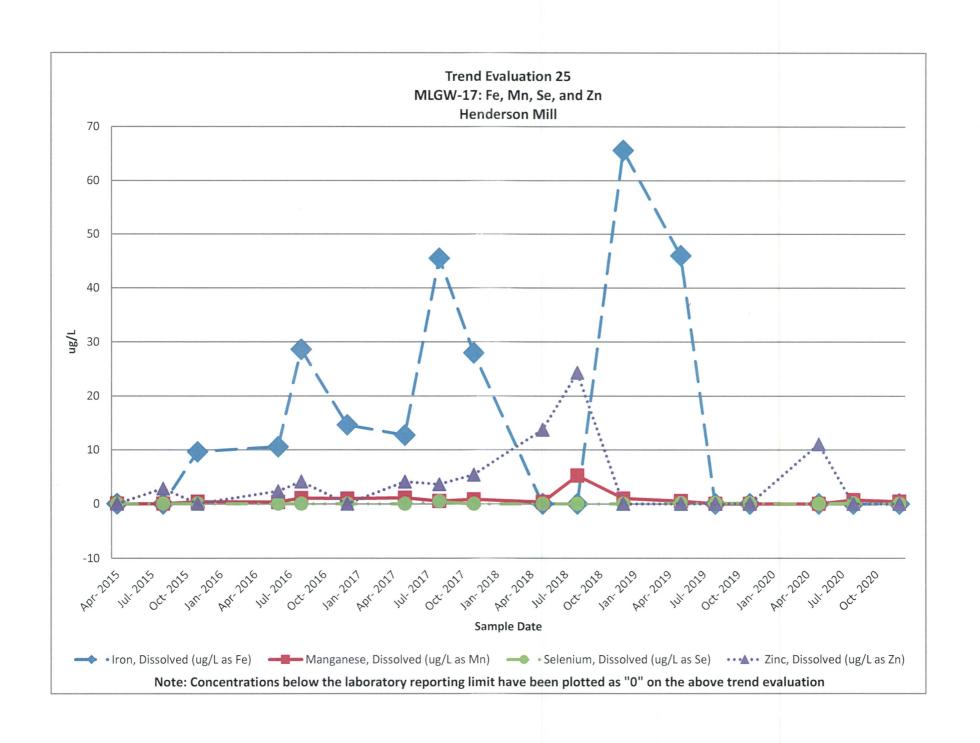


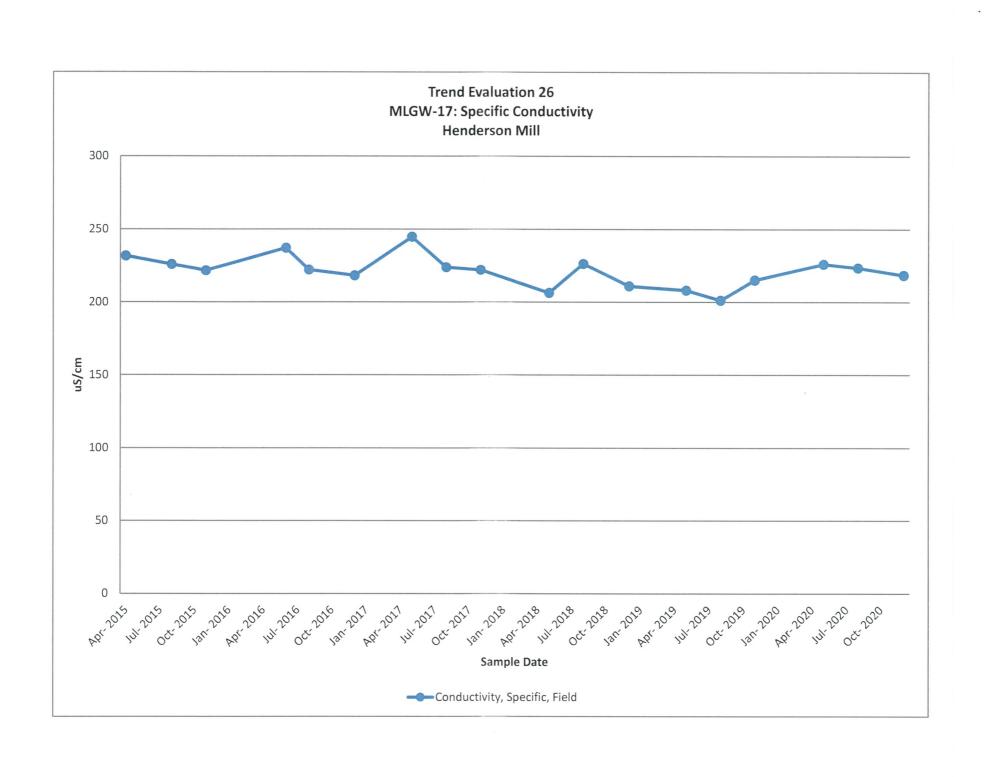


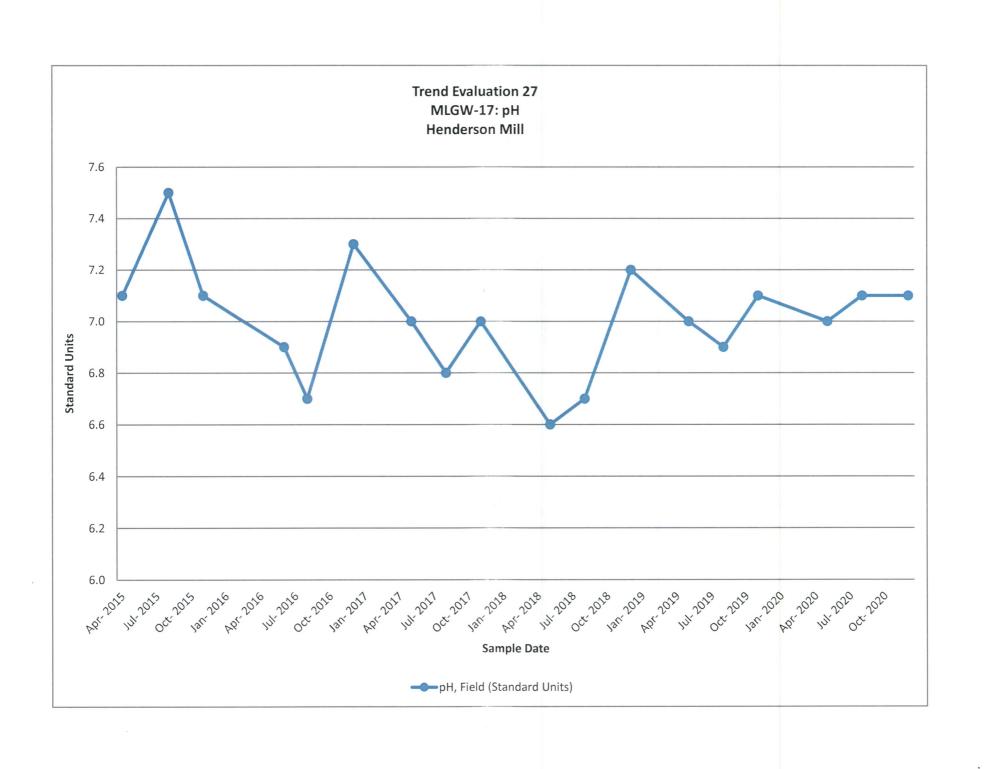


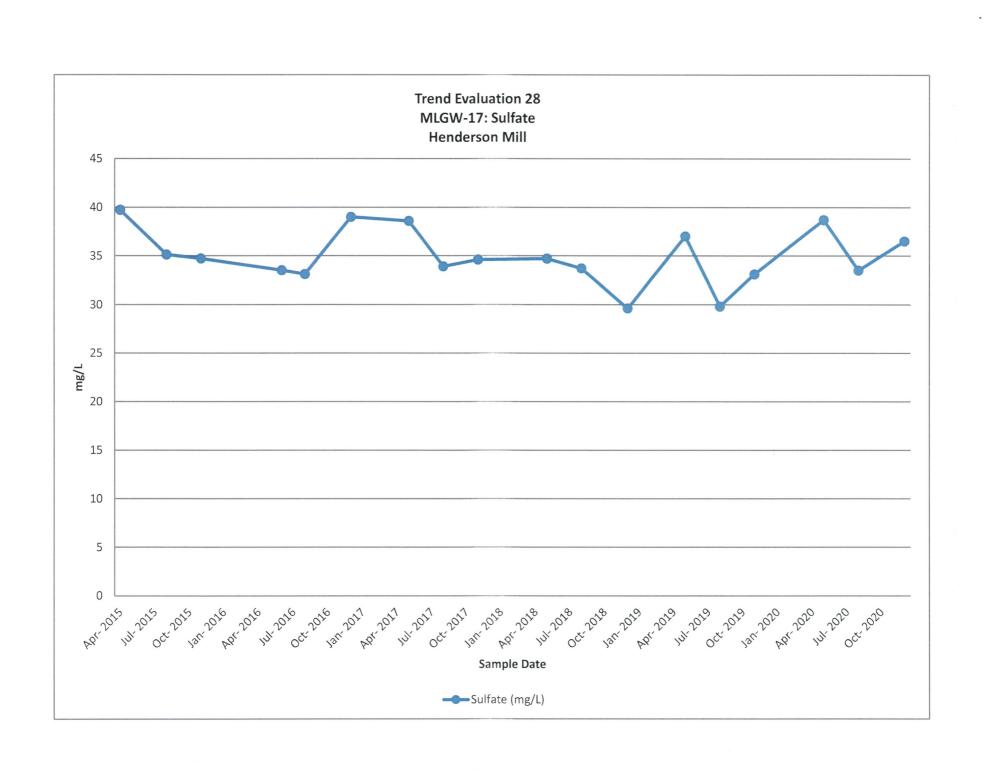


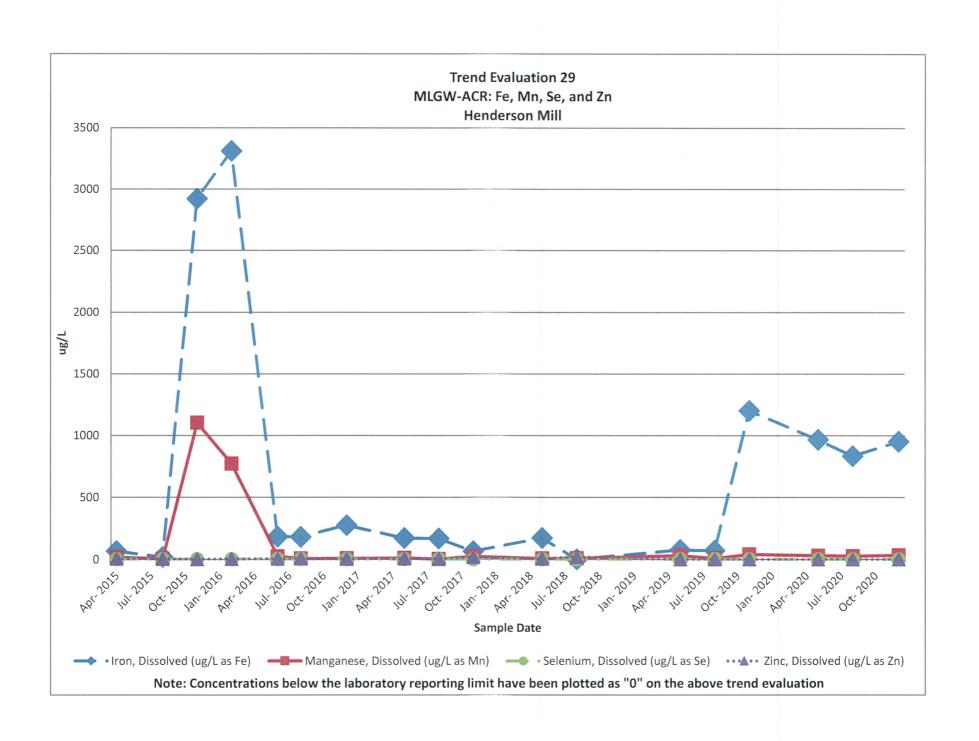


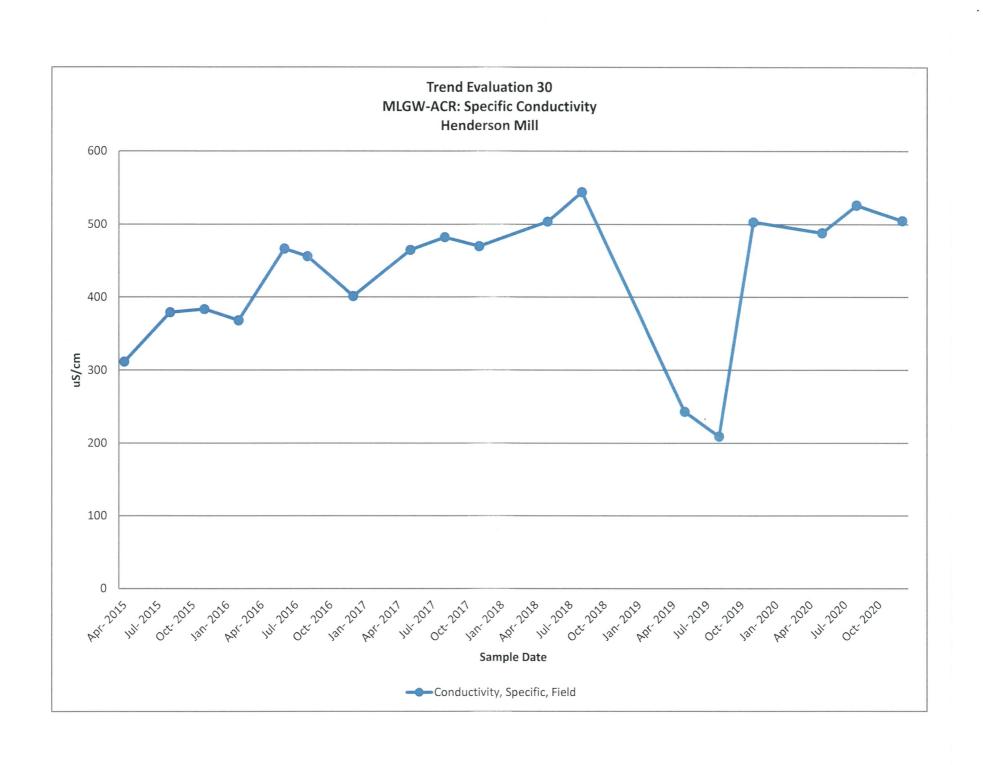


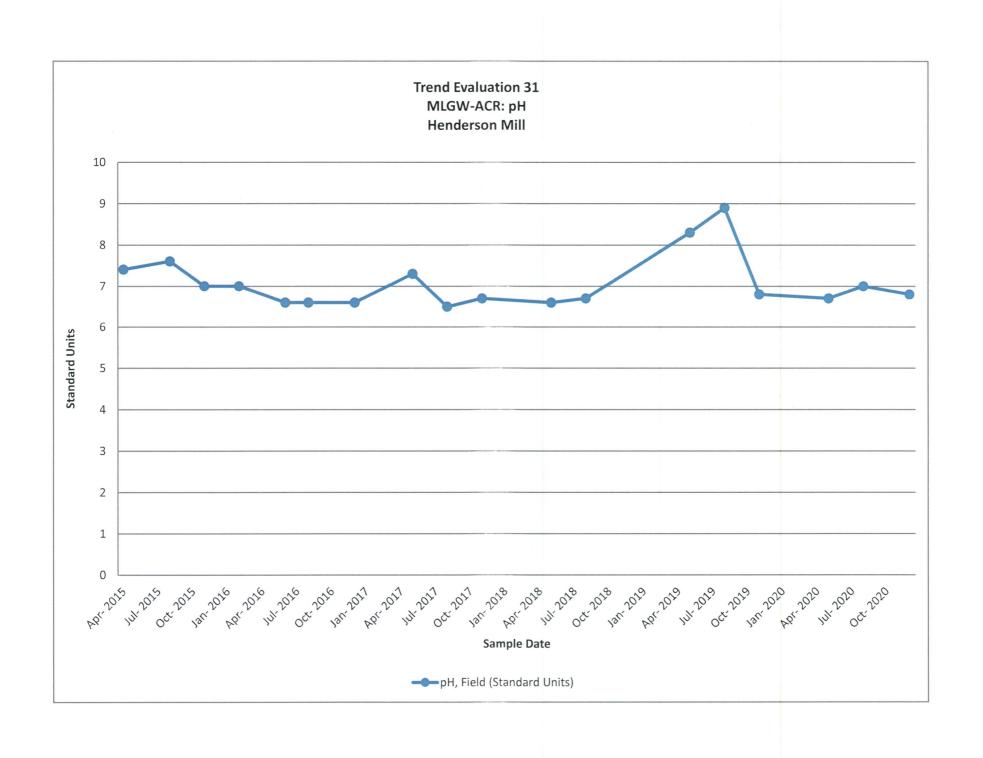


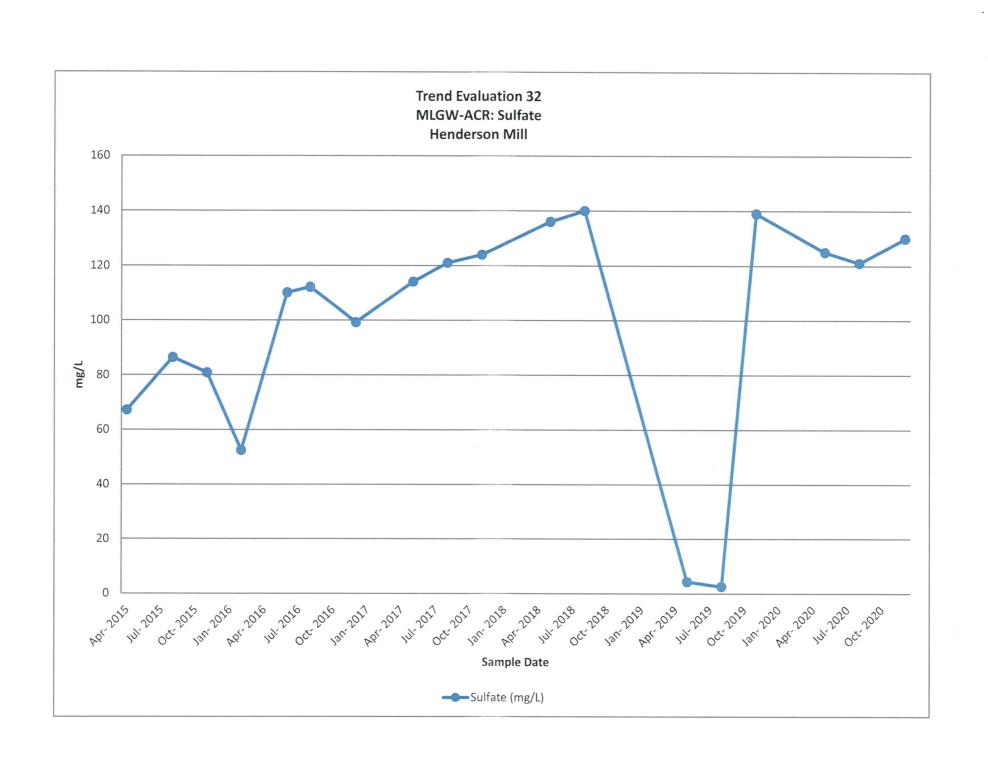


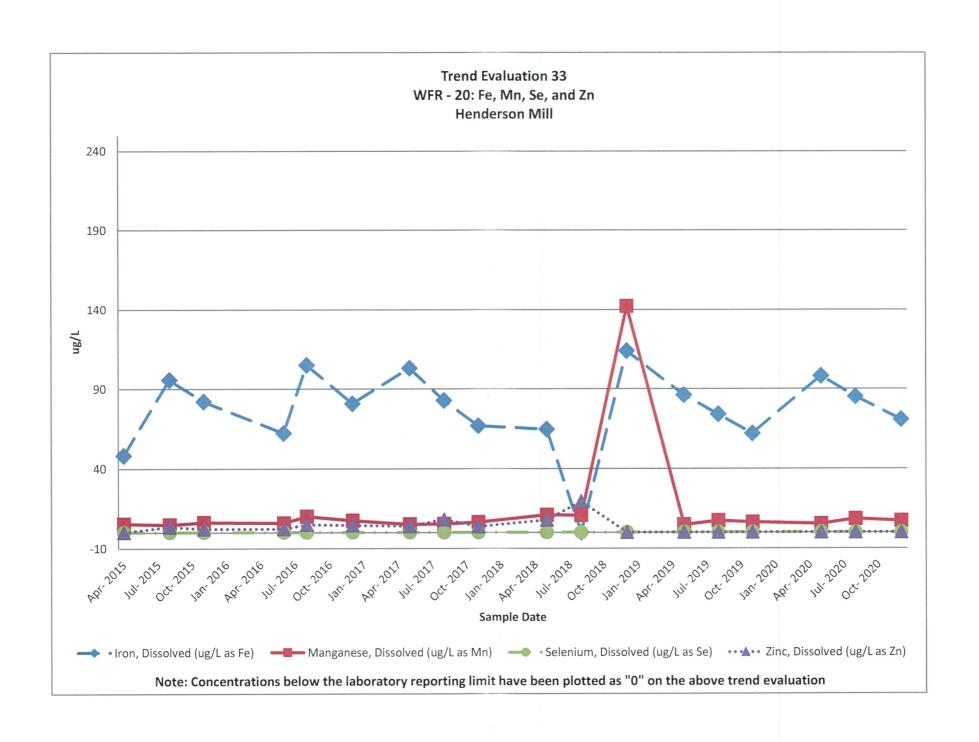


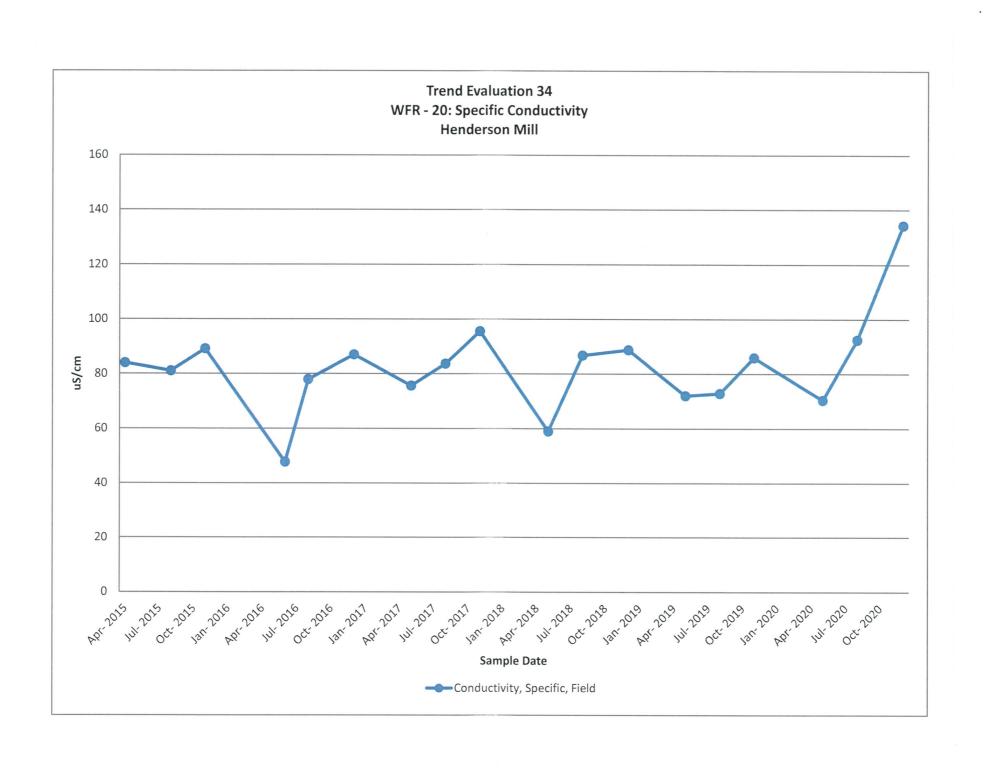


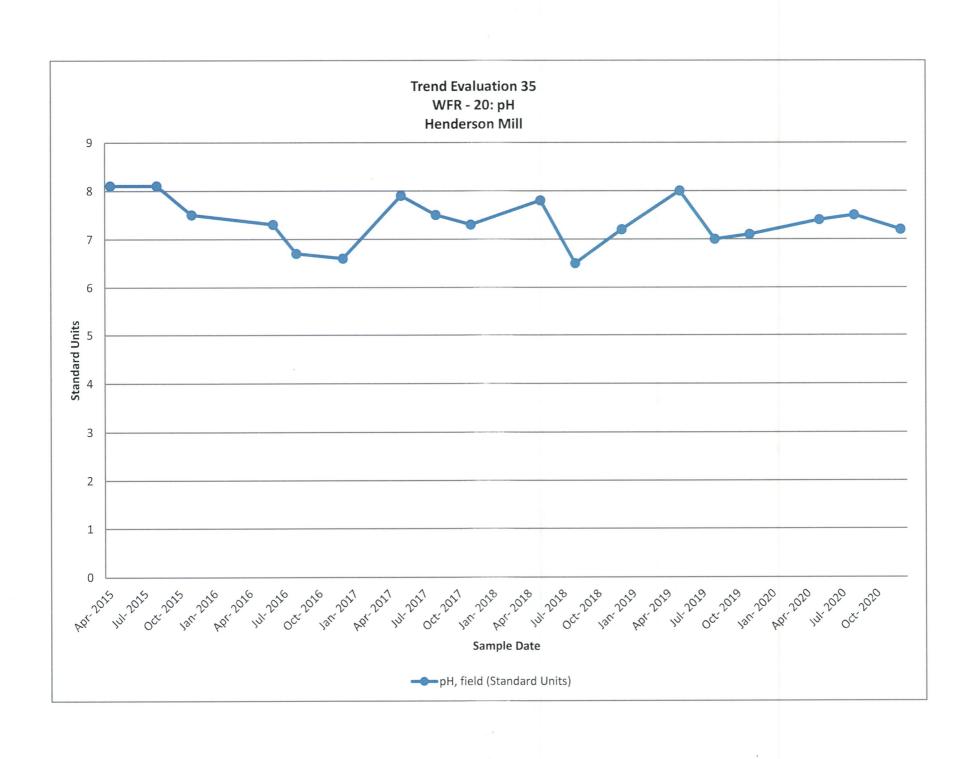


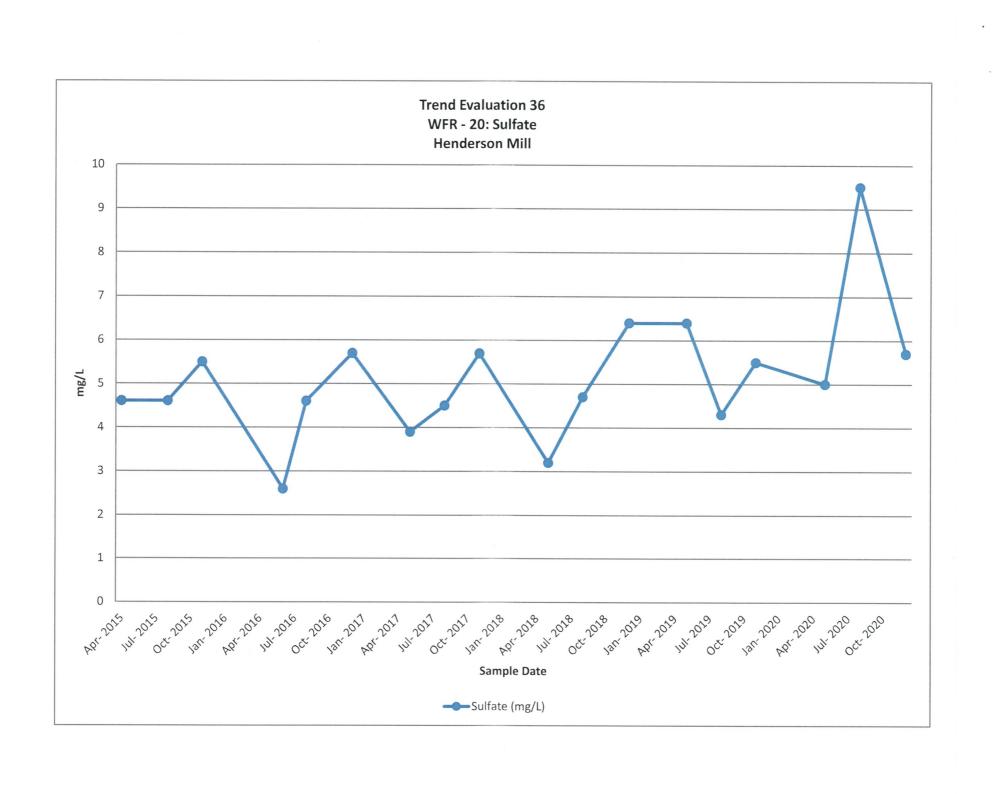


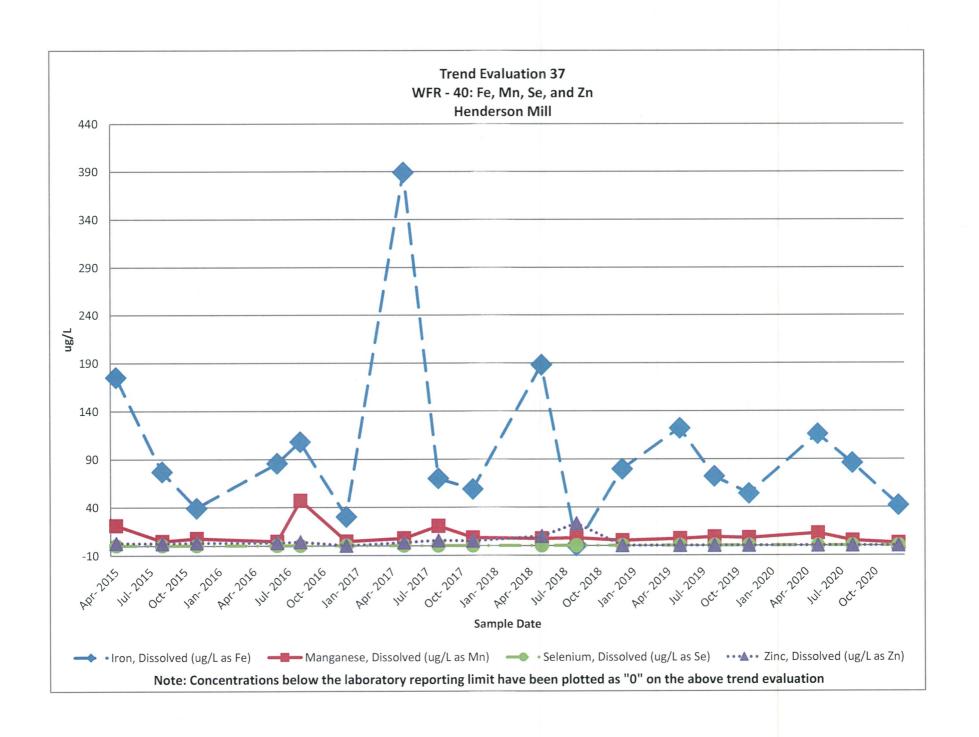


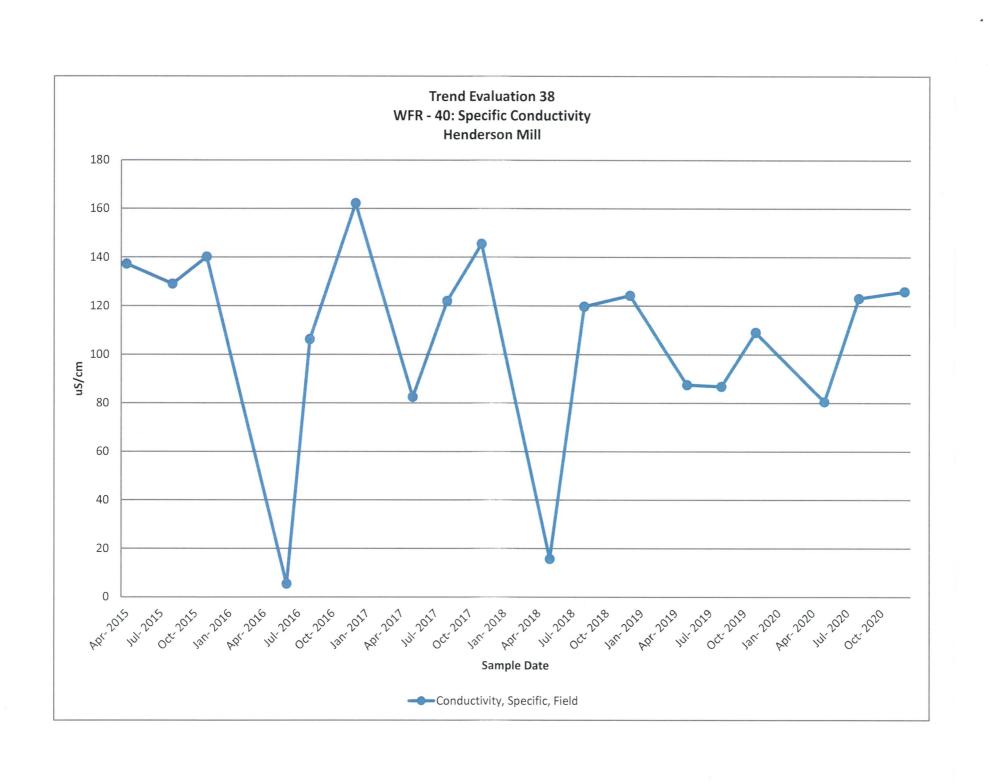


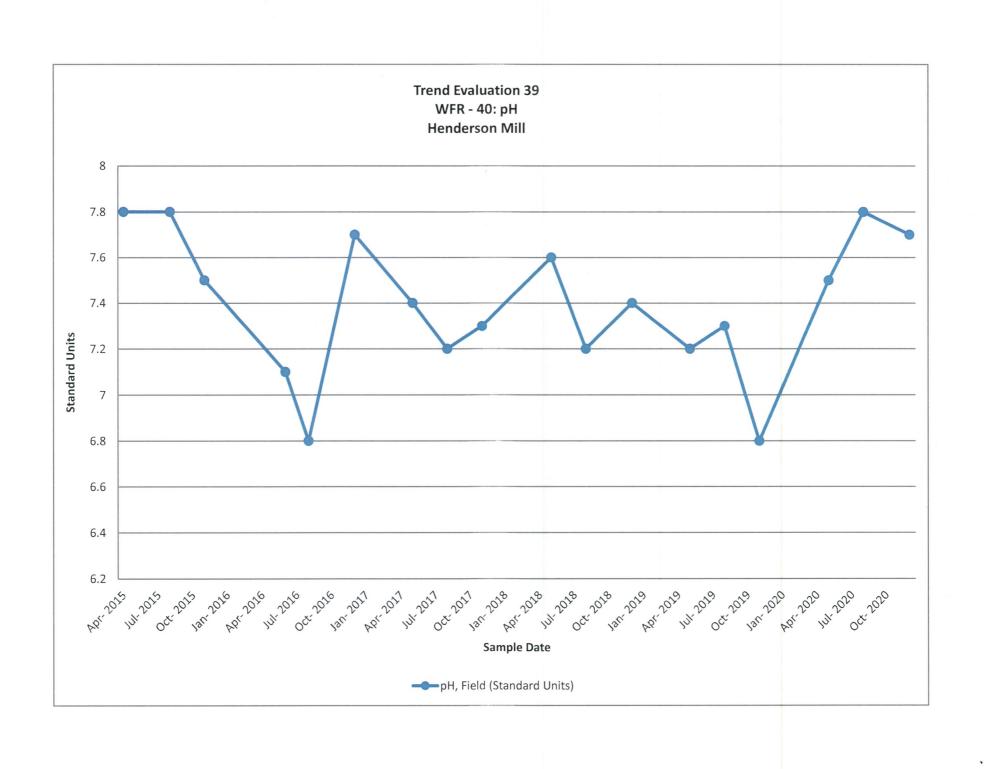


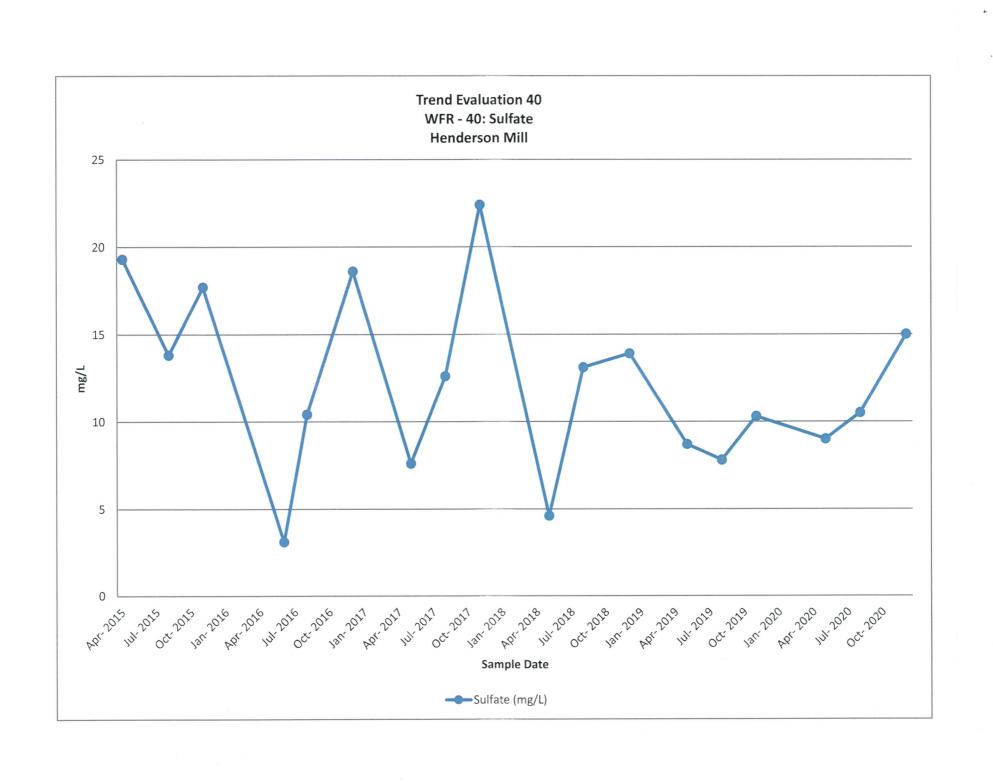












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