

May 30, 2025

Submitted via email:

Nikie Gagnon
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 Nikie:

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. On May 13, 2025, the DRMS approved Technical Revision 37 (TR-37) to Permit M-1977-342 revision to the GWMP. However, this report reflects monitoring and reporting requirements defined in the TR-16 GWMP, effective during the 2024 collection period.

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 bbates1@fmi.com, or (970) 433-0894, Ron Hickman at rhickman1@fmi.com, or (970) 393-7515.

Sincerely,



Ben Bates
Senior Environmental Engineer
Climax Molybdenum Company
Henderson Operations

Attachments:

1. Annual Water Monitoring Report

Cc (via email):

Miguel Hamarat, Climax
Ron Hickman, Climax



2024 Annual Water Monitoring Report Division of Reclamation, Mining and Safety

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

May 2025

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Executive Summary

This report provides a summary of the 2024 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 2024 data. However, historical data is included from the 2020-2024 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, except as noted below for MLGW-ACR.

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 during the 2024 collection period, the 2024 report will again be using the original NPLs of pH 6.5 to 8.5. Also, during the 2024 collection period, proposed POC wells MLGW-15 and MLGW-17 had not been formally recognized in the GWMP. This report reflects monitoring and reporting requirements defined in the TR-16 GWMP.

On May 13, 2025, the DRMS approved Technical Revision 37 (TR-37) to Permit M-1977-342 revision to the Groundwater Management Plan. The revised TR-37 GWMP addresses, among other things, the proposed sampling locations, and limits outlined in the 2015 memorandum.

Mine Water Monitoring

Henderson observed pH values during 2024 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

The Aspen Canyon Ranch property was sold in 2023, and Henderson was unable to gain access to complete required sampling at MLGW-ACR. Further, as mentioned in prior Henderson annual water quality reports, MLGW-ACR has an unconventional well design that is believed to cause elevated iron and manganese levels due to corrosion and stagnation within the well casing. As such, Henderson proposed to use the newly constructed well MLGW-37 as the internal POC monitoring location for domestic water supply standards under the GWMP. MLGW-37 monitoring was completed in 2024 in lieu of MLGW-ACR for DRMS indicator parameters and data are presented in this report. Consistent with the recently approved TR-37 GWMP, a comprehensive five-quarter baseline report will be prepared upon the successful collection of an expanded baseline dataset (see Table 4-3 in the GWMP) over a period of time necessary to provide a minimum of 5 triannual sampling events.

Mill water monitoring data for proposed POC well MLGW-37 (was still “proposed” at the time of collection) and POC well MLGW-7, proposed POC wells MLGW-15, and MLGW-17 (were still “proposed” at the time of collection), 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.

Changes Over the Preceding Year Regarding any Disturbances to the Prevailing Hydrologic Balance

Henderson has not identified any changes over the preceding year (2024) regarding any disturbances to the prevailing hydrologic balance within the permitted affected area.

Changes Over the Preceding Year Regarding any Disturbances of the Quality and Quantity of Water in Surface and Groundwater Systems

Henderson has not identified any changes over the preceding year (2024) regarding any disturbances to the quality and quantity of water in surface and groundwater systems within the permitted affected area.

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 2024 water monitoring activities.

1.0 Discussion of Annual Water Monitoring Data

This section provides a summary of the annual water monitoring data collected in 2024 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 June 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 2024 water quality data has been appended to the previous four 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. 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 non-POC 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 colluvial well located downgradient of the Henderson Mine operations. Values of pH below the established NPLs were observed during monitoring events in 2024: 5.9 standard units (s.u.) on 6/6/24, 5.8 s.u. on 8/6/24, and 5.8 s.u. on 12/9/24. No new trends or deviations were observed in 2024.

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. No apparent trends or anomalies were observed in 2024.

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. The spike in manganese observed in August was statistically evaluated and determined to be four standard deviations from the mean over the historical period of record. A Rosner outlier statistical analysis will be performed to qualify this datapoint. No apparent trends or anomalies were observed in 2024.

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 and serves as an indicator of surface water quality downstream of Mine development. No apparent trends or anomalies were observed in 2024.

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 well MLGW-7, proposed POC wells (at the time of sampling) MLGW-37, 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 nested with MLGW-15 located downgradient of 1-Dam. No apparent trends, deviations, or exceedances were observed in 2024.

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 nested with MLGW-7 located downgradient of 1-Dam. Henderson observed significant increases in dissolved iron values during the second and third triannual sampling events in 2023. These values coincide with the installation of new dedicated pumps between the first and second triannual events in 2023. The 2024 Triannual results indicate that the 2023 spikes were likely linked to equipment issues. Henderson noted addressing this issue in 2023 after the results suggested that the heightened values were not reflective of actual groundwater conditions. The two results from 8/14/2023 and 12/14/2023 were statistically evaluated and determined to be almost four standard deviations from the mean over the historical period of record. A Rosner outlier statistical analysis will be performed to qualify these data. No other apparent trends, deviations, or exceedances were observed in 2024.

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 shallow alluvial well located downgradient of 3-Dam. No new trends, deviations, or exceedances were observed in 2024.

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-37

MLGW-37 is the internal domestic water supply POC well located downstream of the Henderson Mill and upstream of the former MLGW-ACR POC location. As mentioned in the executive summary, Henderson has not had access to MLGW-ACR (former POC) due to a change in property ownership. MLGW-37 was preliminarily accepted as a replacement in 2024 for evaluating groundwater quality for domestic water supply standards. MLGW-37 was formally accepted as the internal POC monitoring location in May 2025 with the approval of TR-37.

In accordance with Section 4.2, a baseline dataset will be collected at MLGW-37 over a period of time necessary to provide a minimum of 5 triannual sampling events. Once sampling has been completed, the baseline data will be assessed to determine a final list of domestic water supply parameters and related limits for long-term monitoring. Henderson will present the results of this assessment to DRMS for review and approval.

Water quality data reported in this annual report are limited to the indicator parameters listed in the GWMP to demonstrate compliance following the access restrictions at Aspen Canyon Ranch. No trends, deviations, or exceedances were observed in 2024.

Tabular data for MLGW-37 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. No new trends, deviations, or exceedances were observed in 2024.

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. No new trends, deviations, or exceedances were observed in 2024.

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 and non-POC long-term surface water monitoring location meets the conditions of the Henderson GWMP reporting requirements. In accordance with the GWMP, Henderson has provided a summary of 2024 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 locations.

4.0 References

Climax Molybdenum Company (CMC) Henderson Operations and Aquionix. Technical Revision (TR-16) to Permit M-1977-342 Groundwater Management Plan. April, 2012.

Climax Molybdenum Company (CMC) Henderson Operations and Aquionix. Technical Revision (TR-37) to Permit M-1977-342 Groundwater Management Plan. May, 2025.

Climax Molybdenum Company (CMC) Henderson Operations. Mine Groundwater NPL Exceedance Notification, Permit M-1977-342. December, 2015.

Division of Reclamation, Mining and Safety. Review of Numeric Protection Limits (NPLs) Proposed by Climax Molybdenum for Indicator Parameters at the Henderson Operations, Memorandum, 2015.

Figures



Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

LOCATION MAP

MAP FEATURES

- Permit Boundary
- POC Groundwater Monitoring Location
- Surface Water Monitoring Location

REVISION	DATE	 A Freeport-McMoRan Company HENDERSON OPERATIONS 1746 County Road Empire, Colorado 80438	
Initial Release	05/22/2013		
Updated Permit Boundary	05/30/2025		
		FIGURE 1 MONITORING LOCATIONS HENDERSON MINE	
 1841 Wadsworth Blvd. Lakewood, CO 80214 303-289-7520 www.aquionix.com		DESIGNED BY: MT (AQUIONIX)	SCALE: 1:14,000
		DRAWN BY: JW	
		DATE DRAWN: 05/10/13	

0

0.25

0.5

1

Miles

Henderson Mine Site

CC-10

BG-20

MNGW-1

CC-30

LOCATION MAP

MAP FEATURES

Permit Boundary

POC Groundwater Monitoring Location

Surface Water Monitoring Location

© OpenStreetMap (and contributors, CC-BY-SA)
Sources: Esri, HERE, Garmin,

Aquionix
EHS Services

1841 Wadsworth Blvd.
Lakewood, CO 80214
303-289-7520
www.aquionix.com

DESIGNED BY: MT (AQUIONIX)

DRAWN BY: JW

DATE DRAWN: 05/10/13

SCALE: 1:14,000

FIGURE 1
MONITORING LOCATIONS
HENDERSON MINE

 **Climax Molybdenum**
A Freeport-McMoRan Company

HENDERSON OPERATIONS
1746 County Road
Empire, Colorado 80438

Tables

Table 1
Annual Water Monitoring Data
Henderson Mine

Location	Sample Date	Sample Time	Analytical Laboratory	Iron, Dissolved ¹ (µg/L as Fe)	Manganese, Dissolved ² (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)
MNGW-1	5/14/2020	10:50	ACZ	<7	0.9	<0.10	16.0	267.3	6.3	79.1
MNGW-1	8/20/2020	11:00	ACZ	<7	<0.4	<0.10	16.0	195.5	6.0	7.2
MNGW-1	12/14/2020	9:58	ACZ	<7	12.0	<0.10	48.2	370.5	6.2	137.0
MNGW-1	6/2/2021	10:46	ACZ	<7	0.4	<0.10	22.8	240.3	6.3	71.9
MNGW-1	8/13/2021	11:44	ACZ	<7	0.5	<0.10	19.6	213.2	6.2	69.4
MNGW-1	11/30/2021	13:03	ACZ	<7	6.8	<0.10	49.9	319.8	6.3	120.0
MNGW-1	5/24/2022	10:45	ACZ	<7	<0.4	<0.10	21.3	210.6	6.2	77.5
MNGW-1	8/15/2022	11:22	ACZ	<7	2.4	<0.10	26.0	206.7	5.9	79.8
MNGW-1	12/12/2022	12:17	ACZ	<7	2.0	<0.10	35.8	316.2	6.0	125.0
MNGW-1	6/13/2023	10:37	ACZ	30.6	1.5	<0.10	25.5	224.3	6.1	80.5
MNGW-1	8/9/2023	11:46	ACZ	<7	1.2	<0.10	57.8	178.9	5.9	71.2
MNGW-1	12/7/2023	10:48	ACZ	41.0	31.7	<0.10	46.2	288.3	6.1	135.0
MNGW-1	6/6/2024	11:38	ACZ	<7	1.17	<0.10	39.3	209.9	5.9	87.1
MNGW-1	8/6/2024	11:58	ACZ	<7	5.63	<0.10	81.9	48.1	5.8	60.1
MNGW-1	12/9/2024	10:21	ACZ	<7	4.17	<0.10	73.2	345.8	5.8	139
Numeric Protection 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, Dissolved ² (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	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	<7	1.7	<0.10	8.0	63.9	7.4	11.8
BG-20	12/14/2020	11:17	ACZ	<7	2.4	<0.10	11.0	78.2	7.5	22.1
BG-20	6/14/2021	9:15	ACZ	12.9	1.1	<0.10	18.3	36.9	8.0	10.2
BG-20	8/13/2021	12:35	ACZ	<7	1.4	<0.10	9.3	69.1	7.3	14.2
BG-20	12/1/2021	12:10	ACZ	<7	1.1	<0.10	15.4	78.4	6.5	19.6
BG-20	5/24/2022	13:05	ACZ	16.4	2.5	0.13	14.5	43.6	6.9	10.3
BG-20	8/15/2022	12:16	ACZ	<7	3.5	<0.10	22.7	68.9	7.1	14.7
BG-20	12/12/2022	9:20	ACZ	<7	1.1	<0.10	17.5	78.2	7.0	20.2
BG-20	6/13/2023	11:08	ACZ	13.7	2.1	<0.10	18.4	44.8	6.8	9.1
BG-20	8/7/2023	12:20	ACZ	<7	1.1	<0.10	11.2	66.2	7.3	13.0
BG-20	12/7/2023	14:19	ACZ	<7	1.8	<0.10	15.7	76.3	6.6	25.0
BG-20	5/28/2024	9:05	ACZ	25.6	1.47	0.16	15.5	61.2	7.8	10.7
BG-20	8/6/2024	13:25	ACZ	<7	1.76	<0.10	13.8	59.4	6.7	15
BG-20	12/3/2024	9:00	ACZ	<7	1.04	<0.10	14.3	94.8	7.4	24.7

Notes:

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

BLUE=Rosner/Dixon Statistical outlier

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.

< = 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

(Blank Field)=No data was required for this parameter during monthly pH assessment monitoring

Table 1
Annual Water Monitoring Data
Henderson Mine

Location	Sample Date	Sample Time	Analytical Laboratory	Iron, Dissolved ¹ (µg/L as Fe)	Manganese, Dissolved ² (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)
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	<7	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	7.34	17.2
CC-10	6/14/2021	9:50	ACZ	31	2.94	<0.10	<6	23.8	7.5	2.8
CC-10	8/13/2021	13:20	ACZ	10.2	1.47	<0.10	8.1	44.2	7.6	<1
CC-10	12/1/2021	13:50	ACZ	13.8	5	<0.10	18.8	62.5	7.2	8.2
CC-10	5/24/2022	12:40	ACZ	43.2	7.69	<0.10	22.8	29.7	6.8	4.6
CC-10	8/15/2022	11:54	ACZ	22.4	2.72	<0.10	9.1	40.1	6.7	5.1
CC-10	12/12/2022	9:45	ACZ	16.6	2.01	<0.10	18.1	57.8	7	8.3
CC-10	6/13/2023	11:28	ACZ	37.5	6.87	<0.10	13.7	27.6	7.3	<1
CC-10	8/7/2023	11:50	ACZ	9.7	2.45	<0.10	8.1	30.4	7.4	4.1
CC-10	12/7/2023	14:53	ACZ	12.3	3.63	<0.10	14.3	52.8	6.6	9
CC-10	5/28/2024	8:40	ACZ	327	24.4	<0.10	59.1	52	7.5	8.2
CC-10	8/23/2024	10:30	ACZ	27.9	200	<0.10	15.5	89.4	7.3	21.1
CC-10	12/3/2024	8:39	ACZ	14.9	1.13	<0.10	97.7	68.5	7	10.1

Location	Sample Date	Sample Time	Analytical Laboratory	Iron, Dissolved ¹ (µg/L as Fe)	Manganese, Dissolved ² (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)
CC-30	5/14/2020	11:30	ACZ	214.0	334	<0.10	167	140.9	7.2	25.4
CC-30	8/18/2020	11:20	ACZ	19.0	132	<0.10	60.0	87.5	7.2	16.3
CC-30	12/14/2020	11:53	ACZ	10.0	142	<0.10	77.0	118.7	7.3	25.6
CC-30	6/14/2021	10:35	ACZ	37	153	<0.10	56	40.7	6.9	21
CC-30	8/13/2021	14:25	ACZ	31.1	192	<0.10	75.6	99.9	7.6	18.8
CC-30	12/1/2021	13:15	ACZ	25.6	185	<0.10	90.0	116.5	6.9	20.8
CC-30	5/24/2022	12:10	ACZ	54.6	218	<0.10	102	67.8	6.8	14.8
CC-30	8/15/2022	12:50	ACZ	37.7	206	<0.10	83.3	96.6	7.2	19.2
CC-30	12/12/2022	10:41	ACZ	20	306	<0.10	137.0	124.6	7	28.2
CC-30	6/13/2023	11:54	ACZ	38.3	262	0.10	91.5	52.4	7.1	10.7
CC-30	8/7/2023	13:10	ACZ	18.7	170	<0.10	76.9	64.7	7.6	16.3
CC-30	12/7/2023	15:40	ACZ	18.0	187	<0.10	99.2	109.7	6.7	26.4
CC-30	5/28/2024	10:15	ACZ	185	159	<0.10	191	116.1	7.3	26.1
CC-30	8/23/2024	10:00	ACZ	16.8	193	<0.10	92.7	85.3	7.2	20.6
CC-30	12/3/2024	10:33	ACZ	25.7	376	<0.10	86.1	138.2	6.8	31.9

Notes:

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

BLUE=Rosner/Dixon Statistical outlier

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.

< = 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

(Blank Field)=No data was required for this parameter during monthly pH assessment monitoring

Table 2
Annual Water Monitoring Data
Henderson Mill

Location	Sample Date	Sample Time	Analytical Laboratory	Iron, Dissolved ¹ (µg/L as Fe)	Manganese, Dissolved ² (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-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
MLGW-7	5/25/2021	11:54	ACZ	7.3	0.89	<0.1	<6.0	109.4	6.6	<1
MLGW-7	8/26/2021	10:03	ACZ	<7	1.42	<0.1	<6.0	128.9	6.6	4.2
MLGW-7	12/9/2021	11:23	ACZ	7.9	1.16	<0.1	<6.0	123.9	6.5	7.1
MLGW-7	5/17/2022	9:43	ACZ	12.4	<0.4	<0.1	<6.0	114.9	6.5	8.4
MLGW-7	8/25/2022	12:29	ACZ	8.7	0.66	0.13	15.3	125.1	6.6	5.8
MLGW-7	12/19/2022	15:24	ACZ	12.8	<0.4	<0.2	<6.0	114.4	6.5	5
MLGW-7	6/6/2023	9:34	ACZ	11.2	<0.4	<0.1	<6.0	126.4	6.8	9.1
MLGW-7	8/14/2023	9:58	ACZ	15.3	1.41	<0.1	<6.0	166.4	6.6	6
MLGW-7	12/14/2023	11:02	ACZ	36.7	0.92	<0.1	<6.0	101.6	6.6	4.9
MLGW-7	5/20/2024	12:46	ACZ	30	<0.4	0.14	<6.0	98.6	7.2	9.9
MLGW-7	8/26/2024	13:13	ACZ	18	<0.4	<0.1	<6.0	105.9	7	4.9
MLGW-7	12/10/2024	10:00	ACZ	11.5	<0.4	<0.1	<6.0	115	6.6	6.3
Numeric Protection Limit (NPL)				5,000	420	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, Dissolved ² (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-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
MLGW-15	5/25/2021	11:01	ACZ	<7.0	<0.4	<0.1	<6.0	1182	6.7	576
MLGW-15	8/26/2021	11:39	ACZ	<7.0	<0.4	0.11	<6.0	1229	6.6	585
MLGW-15	12/9/2021	12:17	ACZ	<7.0	0.55	0.11	<6.0	1289	6.6	501
MLGW-15	5/17/2022	11:02	ACZ	<7.0	<0.4	<0.1	<6.0	1242	6.5	582
MLGW-15	8/23/2022	14:25	ACZ	<7.0	<0.4	<0.1	19.8	1367	6.7	646
MLGW-15	12/19/2022	15:32	ACZ	<7.0	<0.4	<0.2	<6.0	1279	6.5	608
MLGW-15	6/6/2023	10:25	ACZ	<7.0	<0.4	<0.1	<6.0	1423	6.7	635
MLGW-15	8/14/2023	9:05	ACZ	1660	12.8	<0.1	9.6	1818	6.9	652
MLGW-15	12/14/2023	11:31	ACZ	1570	12.1	0.12	<6.0	1333	6.9	662
MLGW-15	5/20/2024	13:09	ACZ	372	15.3	0.15	<6.0	1262	7.3	590
MLGW-15	8/26/2024	12:18	ACZ	84.4	1.08	<0.1	6.3	1328	7.1	531
MLGW-15	12/18/2024	11:27	ACZ	30.3	0.72	<0.1	<6.0	1517	6.8	663

Notes:

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

BLUE=Rosner Statistical outlier

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²Analyzed by EPA Method 200.8.

³Analyzed using field instrumentation.

⁴Analyzed by EPA Method 300.0.

< = 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

(Blank Field)=No data was required for this parameter during monthly pH assessment monitoring

Table 2
Annual Water Monitoring Data
Henderson Mill

Location	Sample Date	Sample Time	Analytical Laboratory	Iron, Dissolved ¹ (µg/L as Fe)	Manganese, Dissolved ² (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	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
MLGW-17	5/25/2021	16:45	ACZ	<7.0	0.96	<0.1	<6.0	196.6	7.1	32.1
MLGW-17	8/26/2021	15:56	ACZ	<7.0	<0.4	0.14	<6.0	202.7	7.1	36.7
MLGW-17	12/9/2021	14:27	ACZ	<7.0	<0.4	0.12	<6.0	205.8	7.0	34.1
MLGW-17	5/18/2022	9:53	ACZ	<7.0	<0.4	0.11	<6.0	197.3	6.7	37.5
MLGW-17	8/25/2022	11:42	ACZ	32.8	1.12	0.14	12.6	198.5	7.2	30.8
MLGW-17	12/21/2022	10:22	ACZ	<7.0	<0.4	<0.1	<6.0	191.0	6.7	32.2
MLGW-17	6/6/2023	15:01	ACZ	<7.0	<0.4	<0.1	<6.0	218.7	7.1	36.1
MLGW-17	8/14/2023	12:13	ACZ	7.2	1.8	0.11	<6.0	296.2	7.3	37.5
MLGW-17	12/13/2023	14:17	ACZ	<7.0	1.27	0.74	<6.0	239.1	6.7	43.3
MLGW-17	5/31/2024	10:27	ACZ	<7.0	0.51	0.1	<6.0	226.6	6.7	49.8
MLGW-17	8/28/2024	14:21	ACZ	<7.0	<0.4	0.12	<6.0	246	7	44.4
MLGW-17	12/10/2024	13:05	ACZ	<7.0	<0.4	0.12	<6.0	246.5	7	48.5

Location	Sample Date	Sample Time	Analytical Laboratory	Iron, Dissolved ¹ (µg/L as Fe)	Manganese, Dissolved ² (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-37	6/26/2024	11:08	ACZ	36.8	1.34	0.12	<6.0	535.2	6.9	153
MLGW-37	8/28/2024	12:41	ACZ	24.2	2.09	0.13	6.7	431.1	6.7	118
MLGW-37	12/19/2024	14:15	ACZ	<7.0	0.51	0.15	<6.0	618	6.8	162
MLGW-37			ACZ							
MLGW-37			ACZ							
MLGW-37			ACZ							
MLGW-37			ACZ							
MLGW-37			ACZ							
MLGW-37			ACZ							
MLGW-37			ACZ							
MLGW-37			ACZ							
MLGW-37			ACZ							
MLGW-37			ACZ							
MLGW-37			ACZ							
MLGW-37			ACZ							
MLGW-37			ACZ							

Notes:

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

BLUE=Rosner Statistical outlier

¹Analyzed by EPA Method 200.7 or 200.8.

²Analyzed by EPA Method 200.8.

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

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µg/L = micrograms per liter

µS/cm = micro Siemens per centimeter

EPA = Environmental Protection Agency

(Blank Field)=No data was required for this parameter during monthly pH assessment monitoring

Table 2
Annual Water Monitoring Data
Henderson Mill

Location	Sample Date	Sample Time	Analytical Laboratory	Iron, Dissolved ¹ (µg/L as Fe)	Manganese, Dissolved ² (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	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
WFR-20	5/24/2021	11:05	ACZ	63.5	3.85	<0.1	<6.0	61.5	7.7	<1.0
WFR-20	8/23/2021	13:20	ACZ	80.8	11.1	<0.1	<6.0	81.3	7.7	<1.0
WFR-20	12/6/2021	14:38	ACZ	72	10.5	<0.1	<6.0	91.6	7.1	9.9
WFR-20	5/16/2022	10:00	ACZ	73.8	10.9	<0.1	<6.0	59.4	6.9	4.5
WFR-20	8/22/2022	9:57	ACZ	81.4	9.12	<0.1	13.2	78.7	6.9	4.7
WFR-20	12/20/2022	10:47	ACZ	57.7	10.1	<0.1	<6.0	84.6	6.5	5.9
WFR-20	6/5/2023	11:06	ACZ	44.6	3.89	<0.1	<6.0	54.4	7.6	<1
WFR-20	8/23/2023	11:08	ACZ	193	21.6	<0.1	<6.0	157.3	7.6	4.9
WFR-20	12/6/2023	10:35	ACZ	64.4	10.6	<0.1	<6.0	88.8	7.3	5.3
WFR-20	6/5/2024	11:03	ACZ	61.4	5.65	<0.1	<6.0	51.9	6.7	3.7
WFR-20	8/21/2024	12:30	ACZ	68.8	8.22	<0.1	<6.0	81.6	7.53	5
WFR-20	12/11/2024	12:27	ACZ	156	12.9	<0.1	<6.0	93.5	7	7.5

Location	Sample Date	Sample Time	Analytical Laboratory	Iron, Dissolved ¹ (µg/L as Fe)	Manganese, Dissolved ² (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-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
WFR-40	5/24/2021	10:25	ACZ	148	8.26	<0.1	<6.0	66.8	7.7	<1.0
WFR-40	8/23/2021	11:55	ACZ	76.4	11.9	<0.1	<6.0	106.8	7.8	11.7
WFR-40	12/6/2021	12:00	ACZ	69.6	15.3	<0.1	<6.0	107.7	7.7	9.6
WFR-40	5/16/2022	10:40	ACZ	111	5.11	0.1	<6.0	61	7	4.4
WFR-40	8/22/2022	11:08	ACZ	96.5	13.4	<0.1	15.8	102.6	7.3	8.2
WFR-40	12/20/2022	11:39	ACZ	30.6	5.11	<0.1	<6.0	116.2	6.9	9
WFR-40	6/5/2023	12:00	ACZ	67.1	4.11	<0.1	<6.0	59.6	7.7	<1.0
WFR-40	8/23/2023	10:39	ACZ	60.9	8.02	<0.1	<6.0	182.5	6.7	9
WFR-40	12/6/2023	11:40	ACZ	40	7.49	<0.1	<6.0	121.8	7.6	12
WFR-40	6/5/2024	12:56	ACZ	83.5	5.25	0.26	<6.0	55.5	7.04	4.6
WFR-40	8/21/2024	13:45	ACZ	129	55.2	<0.1	<6.0	131	7.3	13.7
WFR-40	12/11/2024	11:26	ACZ	31.1	6.44	<0.1	<6.0	137.2	6.84	15.7

Notes:

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

BLUE=Rosner Statistical outlier

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.

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

mg/L = milligrams per liter

µg/L = micrograms per liter

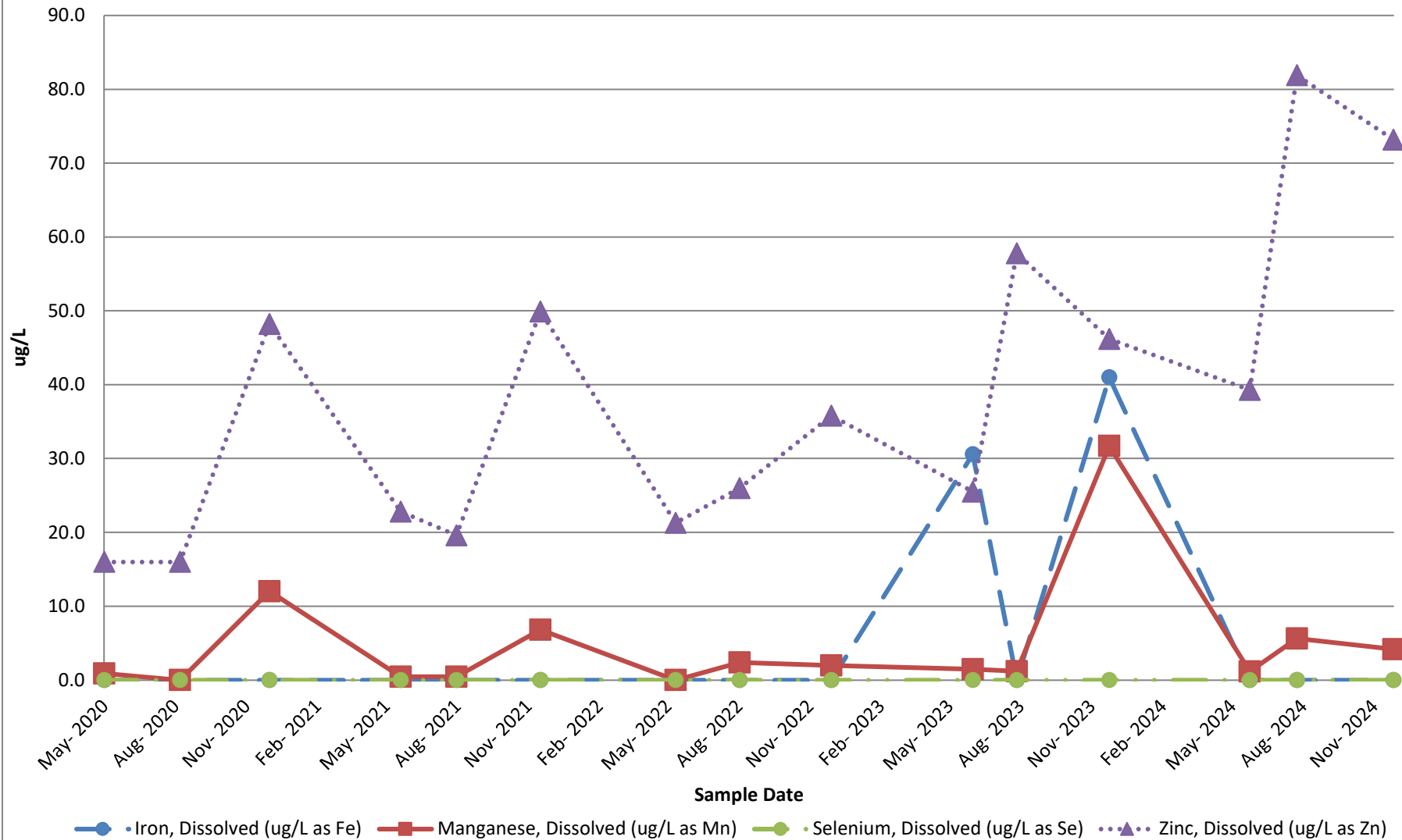
µS/cm = micro Siemens per centimeter

EPA = Environmental Protection Agency

(Blank Field)=No data was required for this parameter during monthly pH assessment monitoring

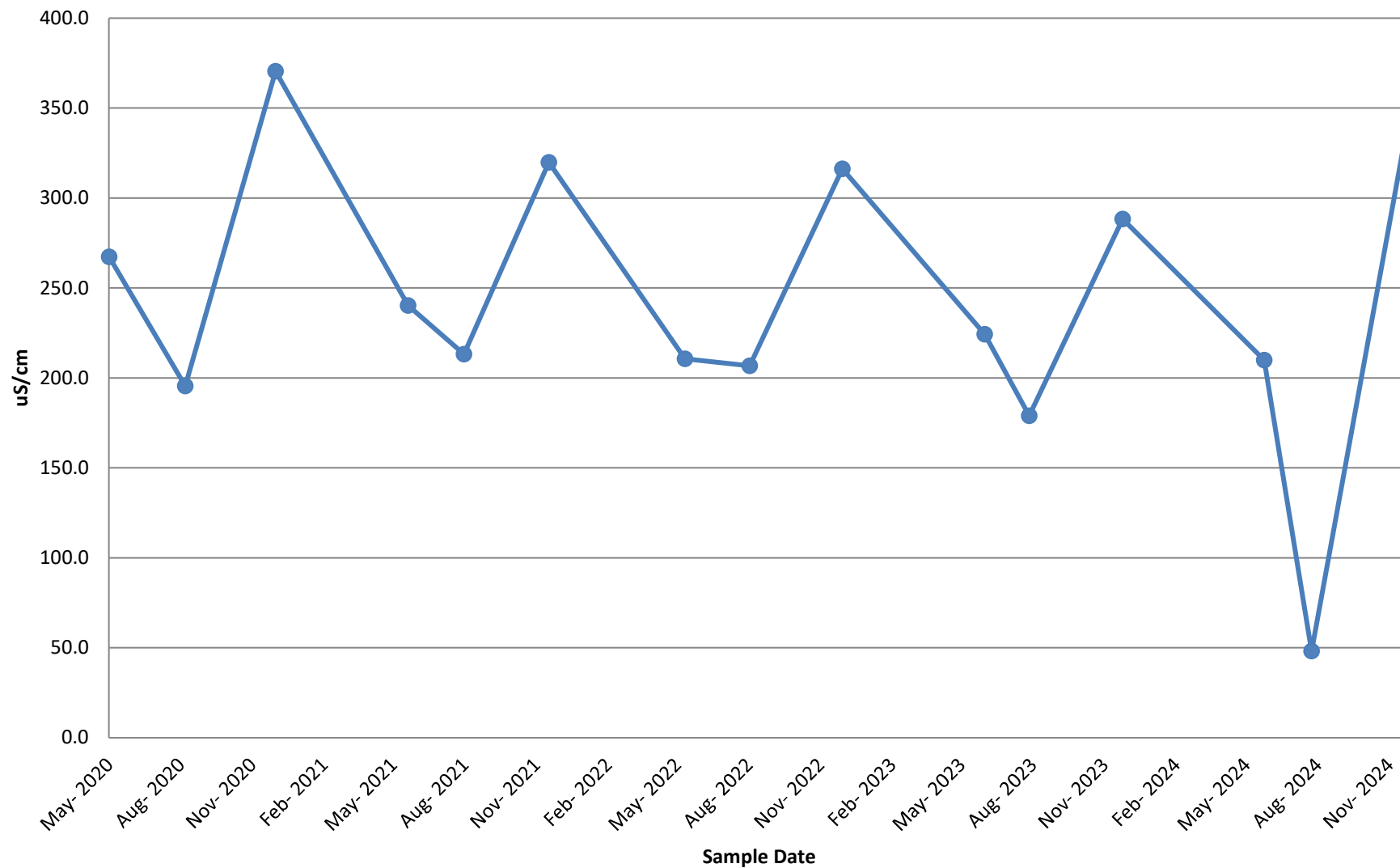
Trend Evaluations

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



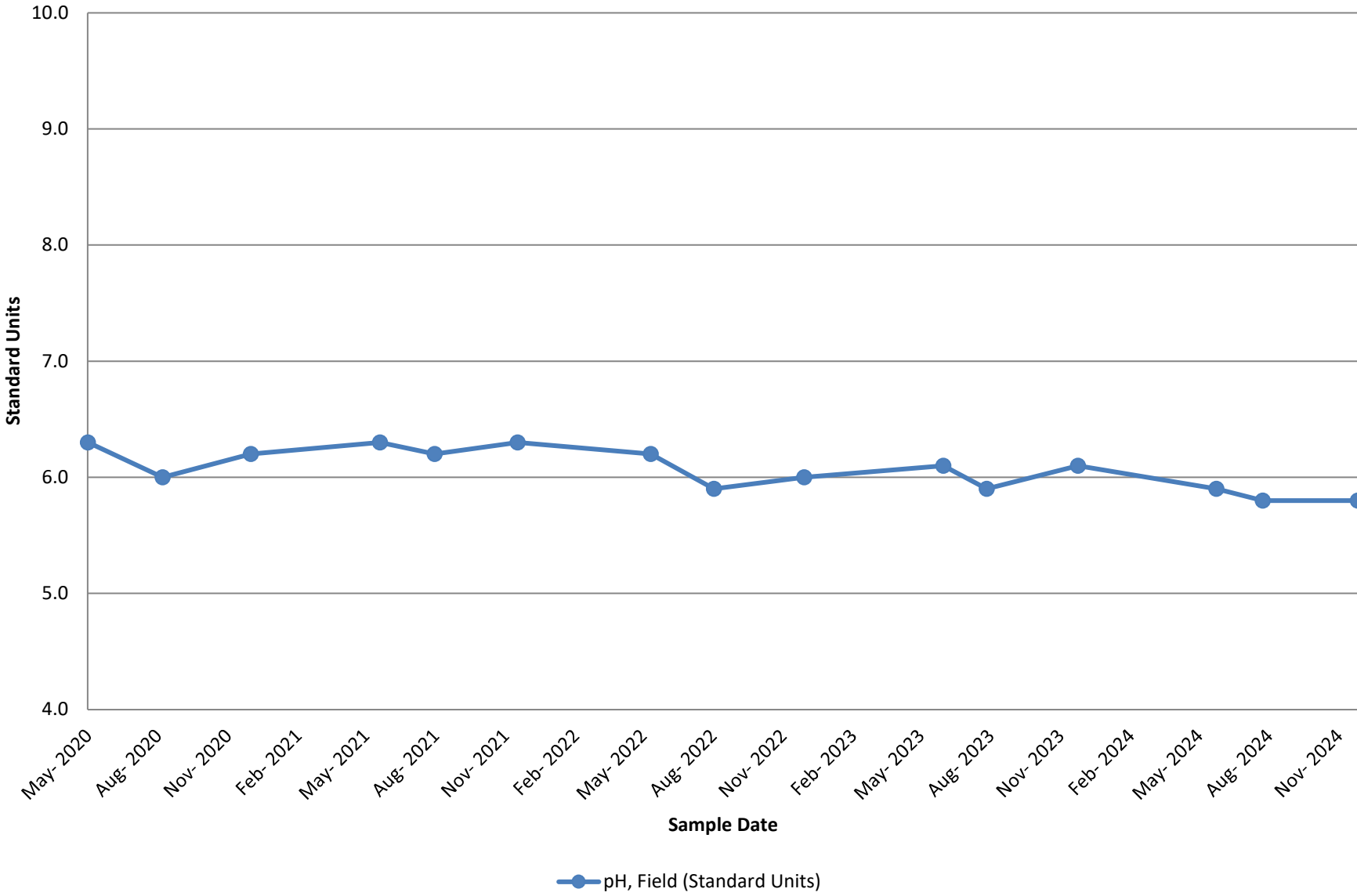
Note: Concentrations below the laboratory reporting limit have been plotted as "0" on the above trend evaluation.

Trend Evaluation 2
MNGW - 1: Specific Conductivity
Henderson Mine

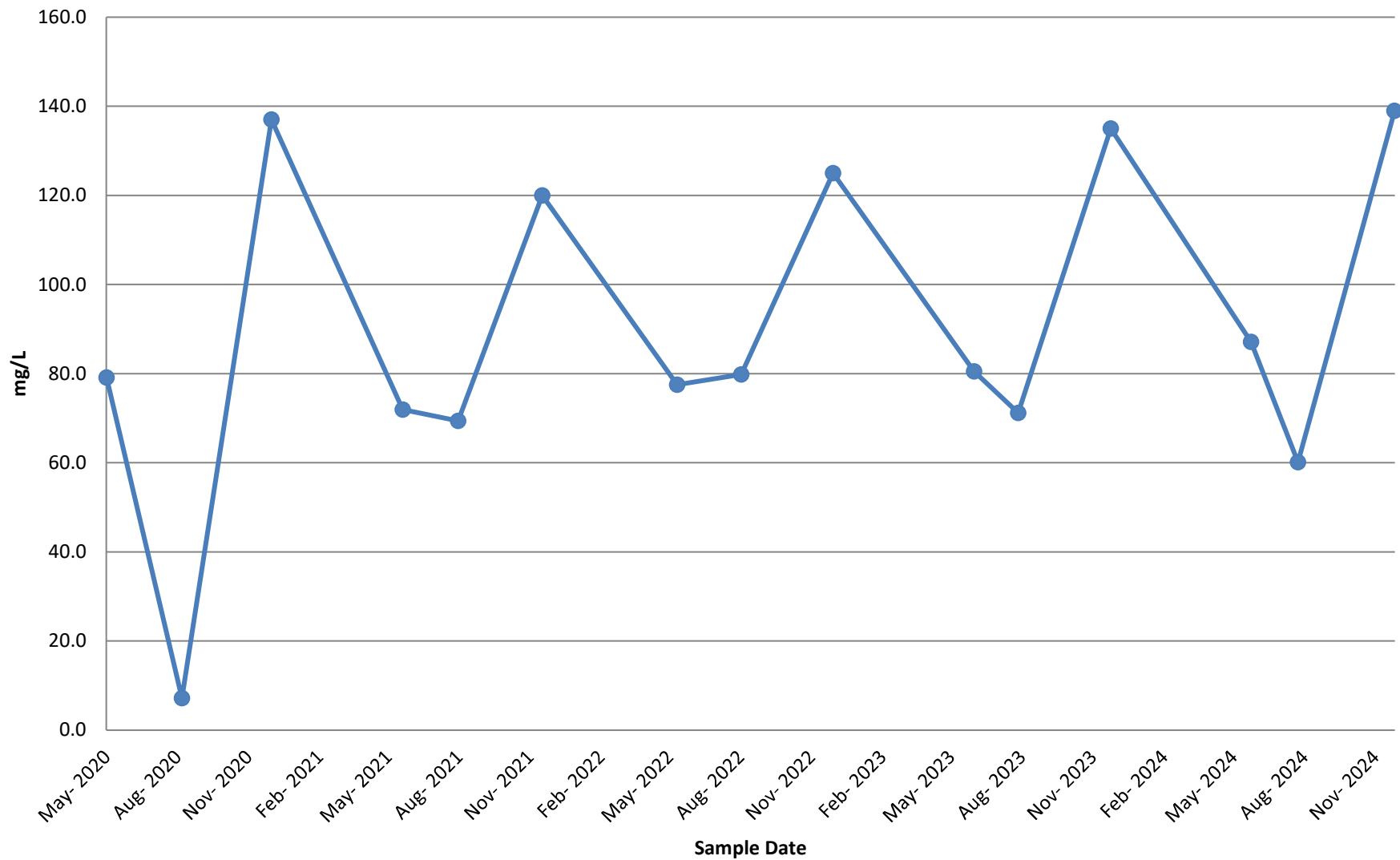


—●— Conductivity, Specific, Field (uS,cm)

Trend Evaluation 3
MNGW - 1: pH
Henderson Mine

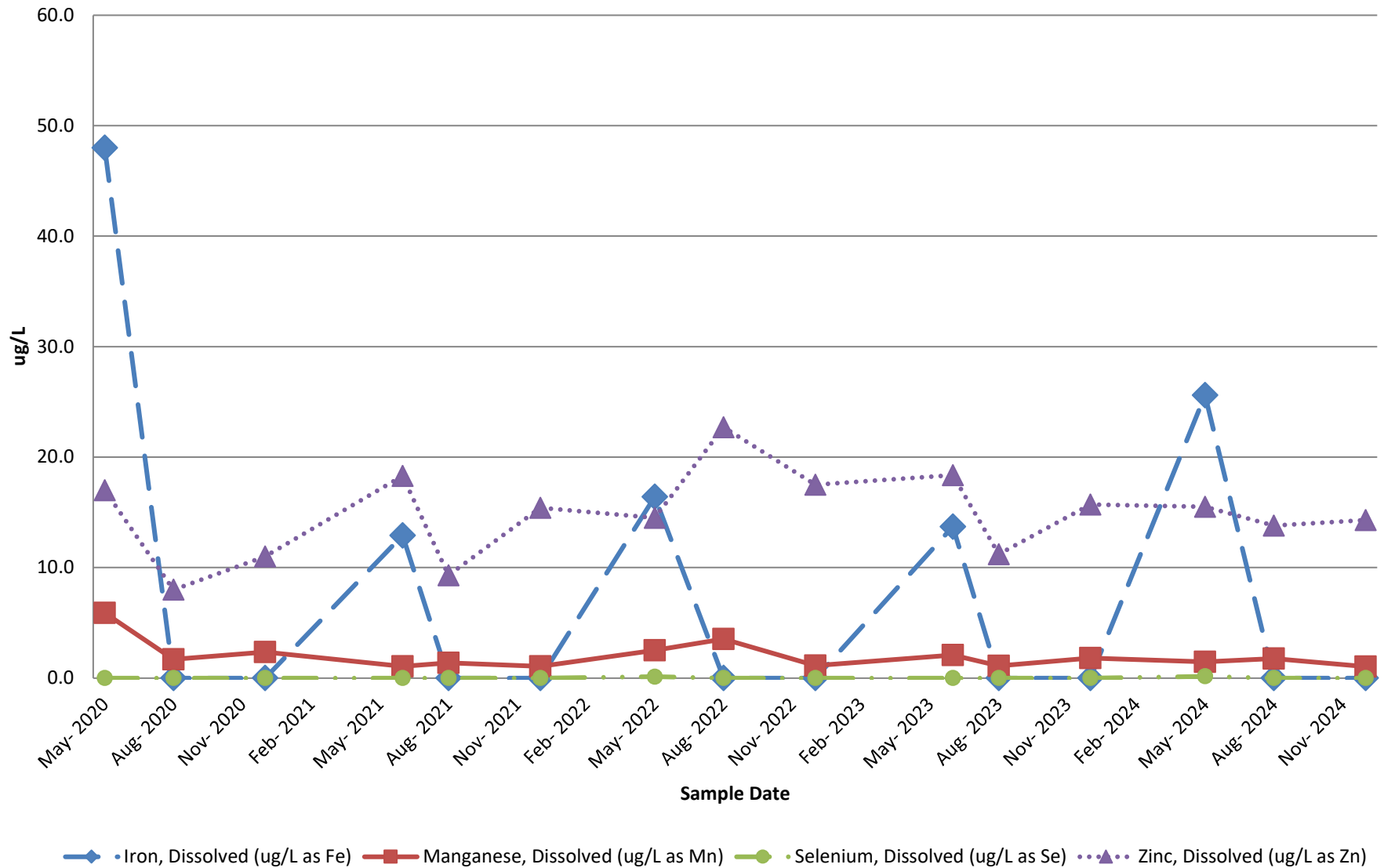


Trend Evaluation 4
MNGW - 1: Sulfate
Henderson Mine



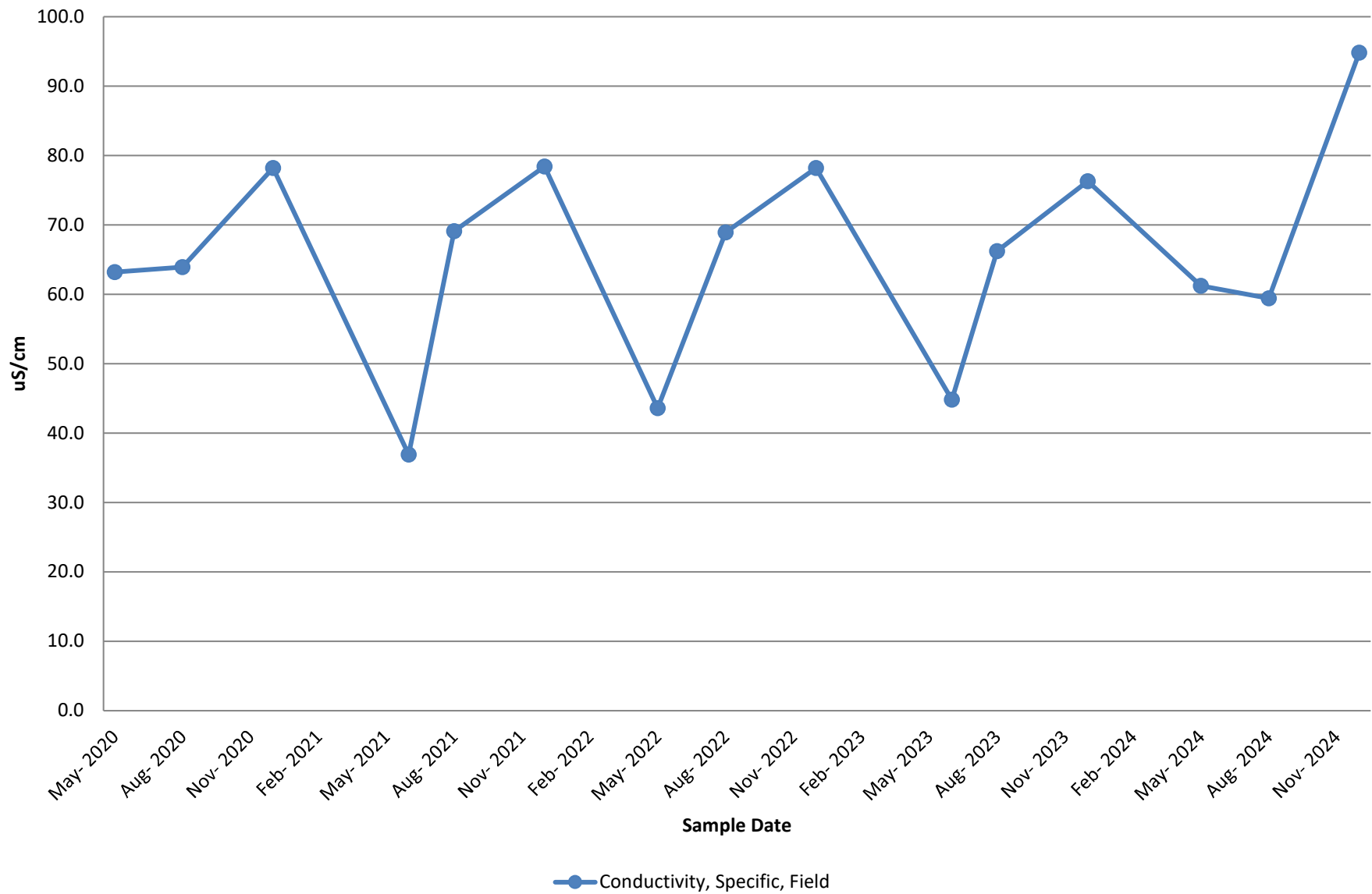
—●— Sulfate (mg/L)

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

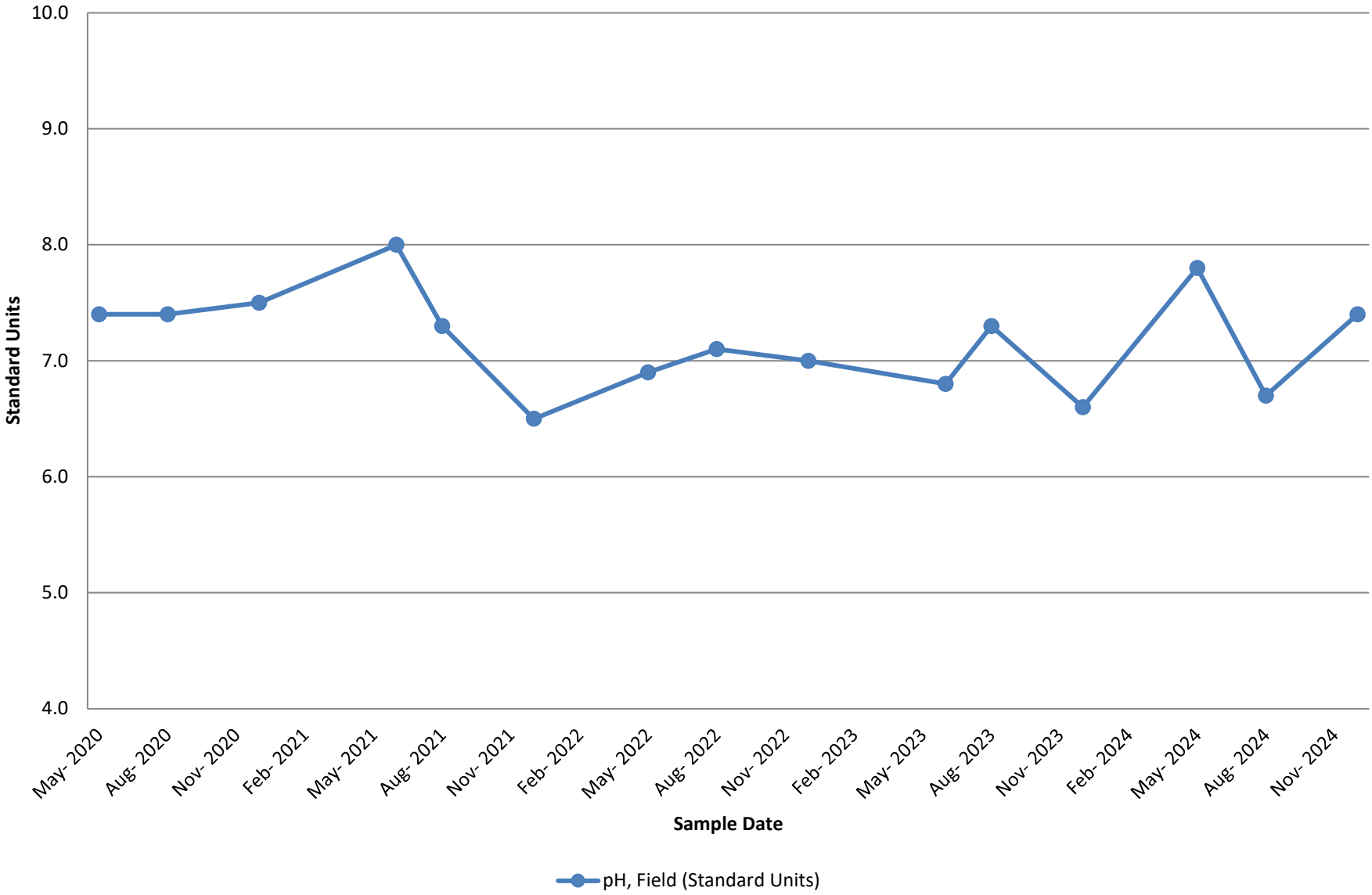


Note: Concentrations below the laboratory reporting limit have been plotted as "0" on the above trend evaluation

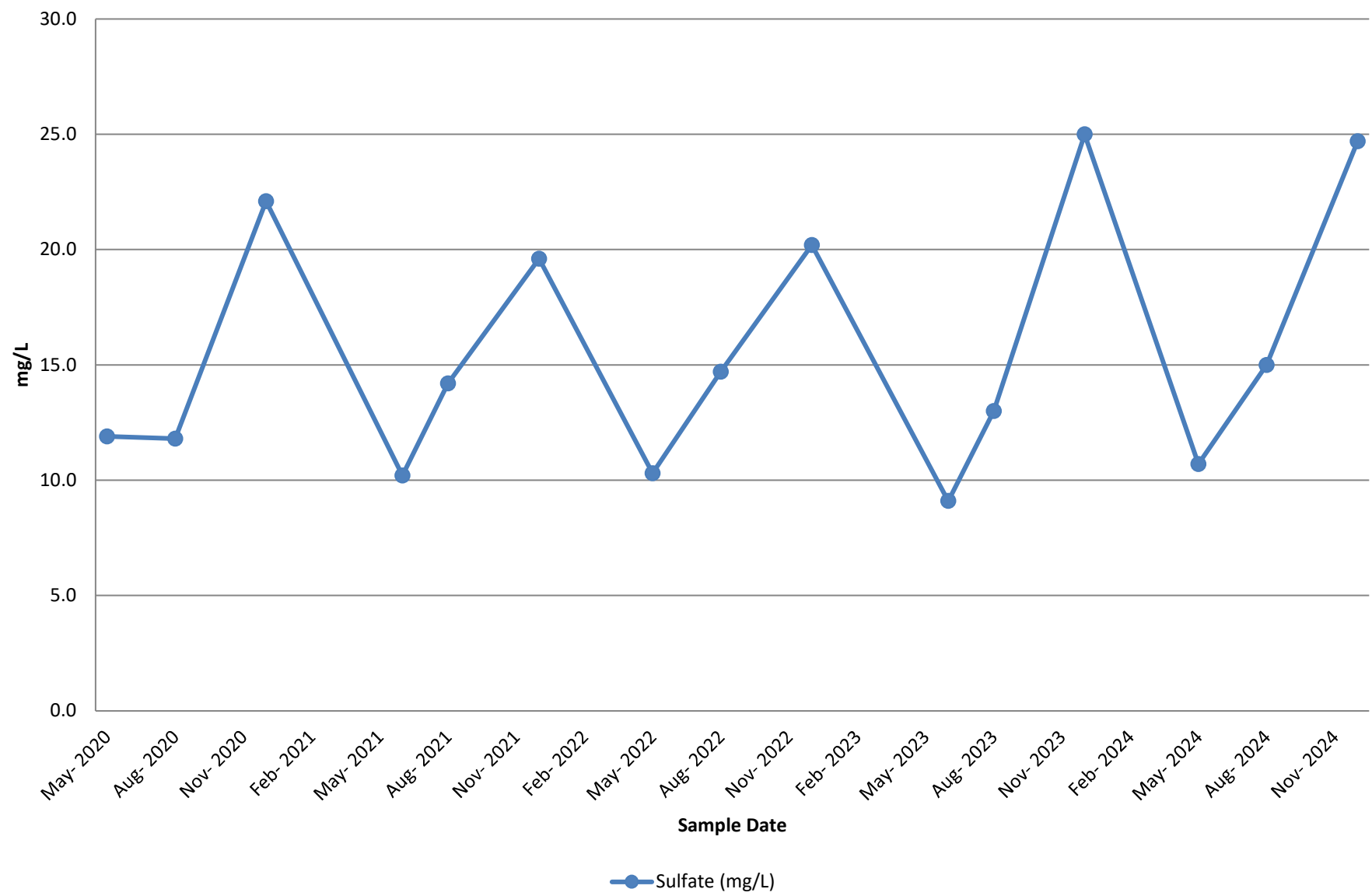
Trend Evaluation 6
BG - 20: Specific Conductivity
Henderson Mine



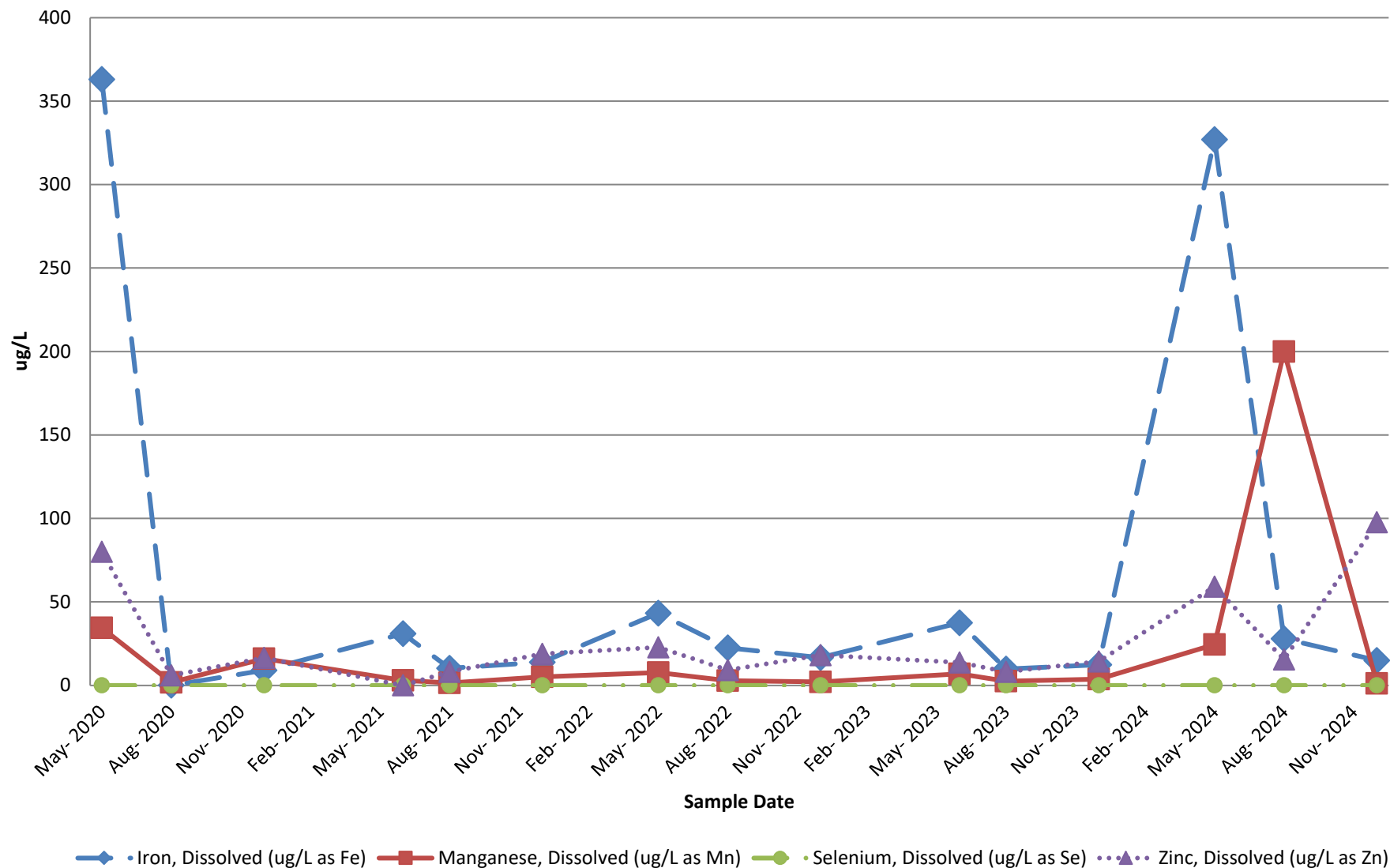
Trend Evaluation 7
BG - 20: pH
Henderson Mine



Trend Evaluation 8
BG - 20: Sulfate
Henderson Mine

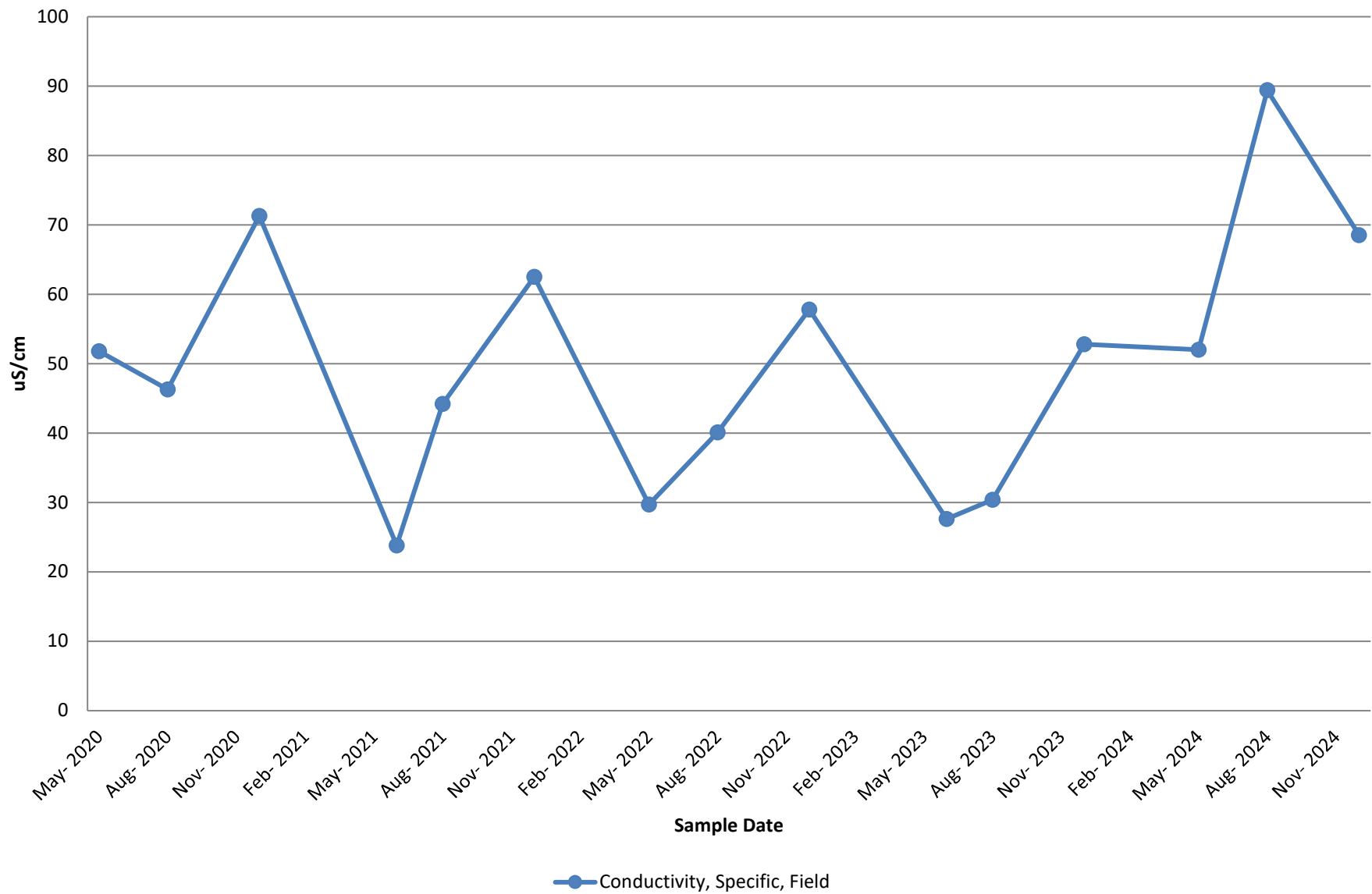


Trend Evaluation 9
CC - 10: Fe, Mn, Se, and Zn
Henderson Mine

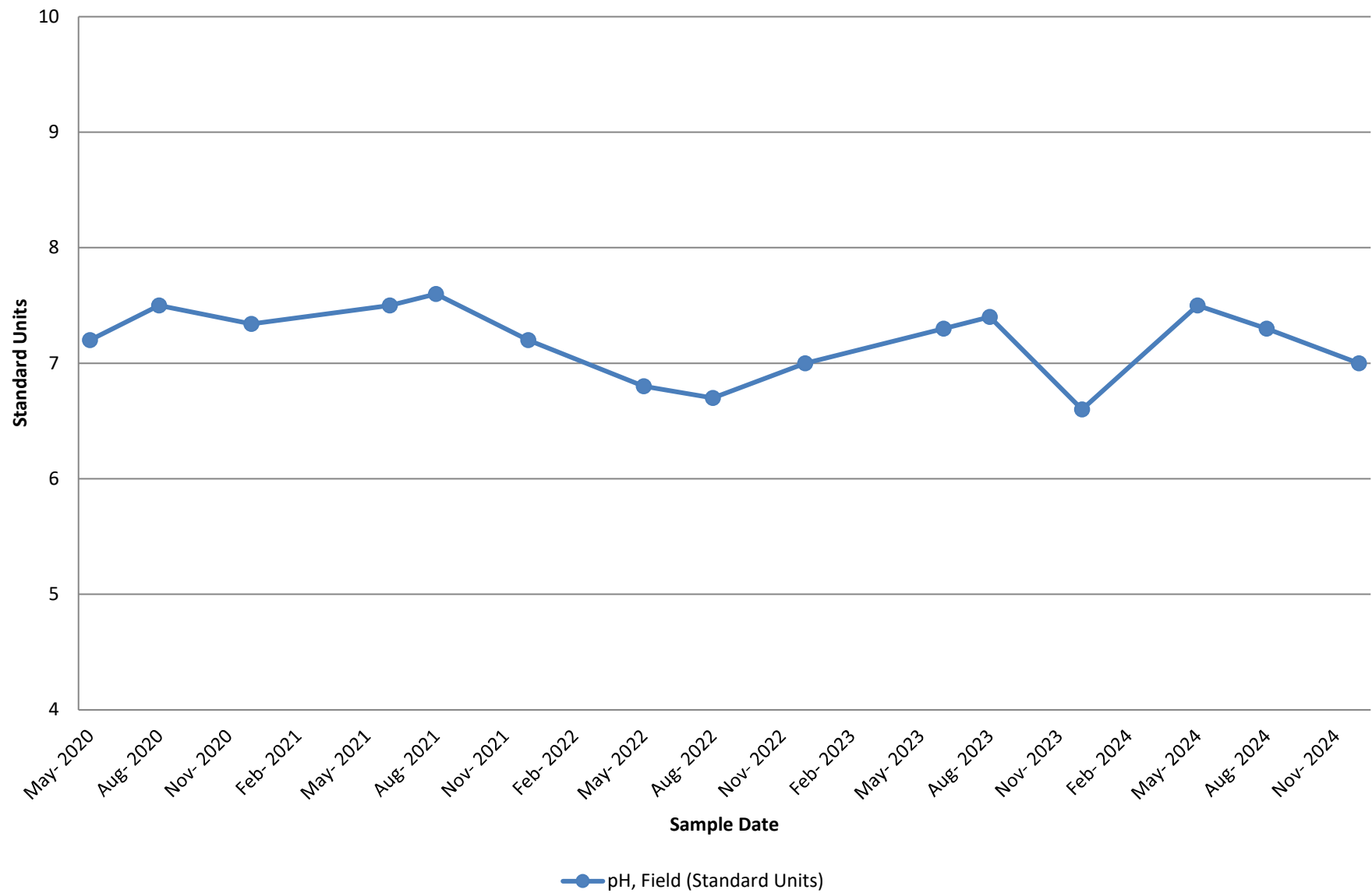


Note: Concentrations below the laboratory reporting limit have been plotted as "0" on the above trend evaluation

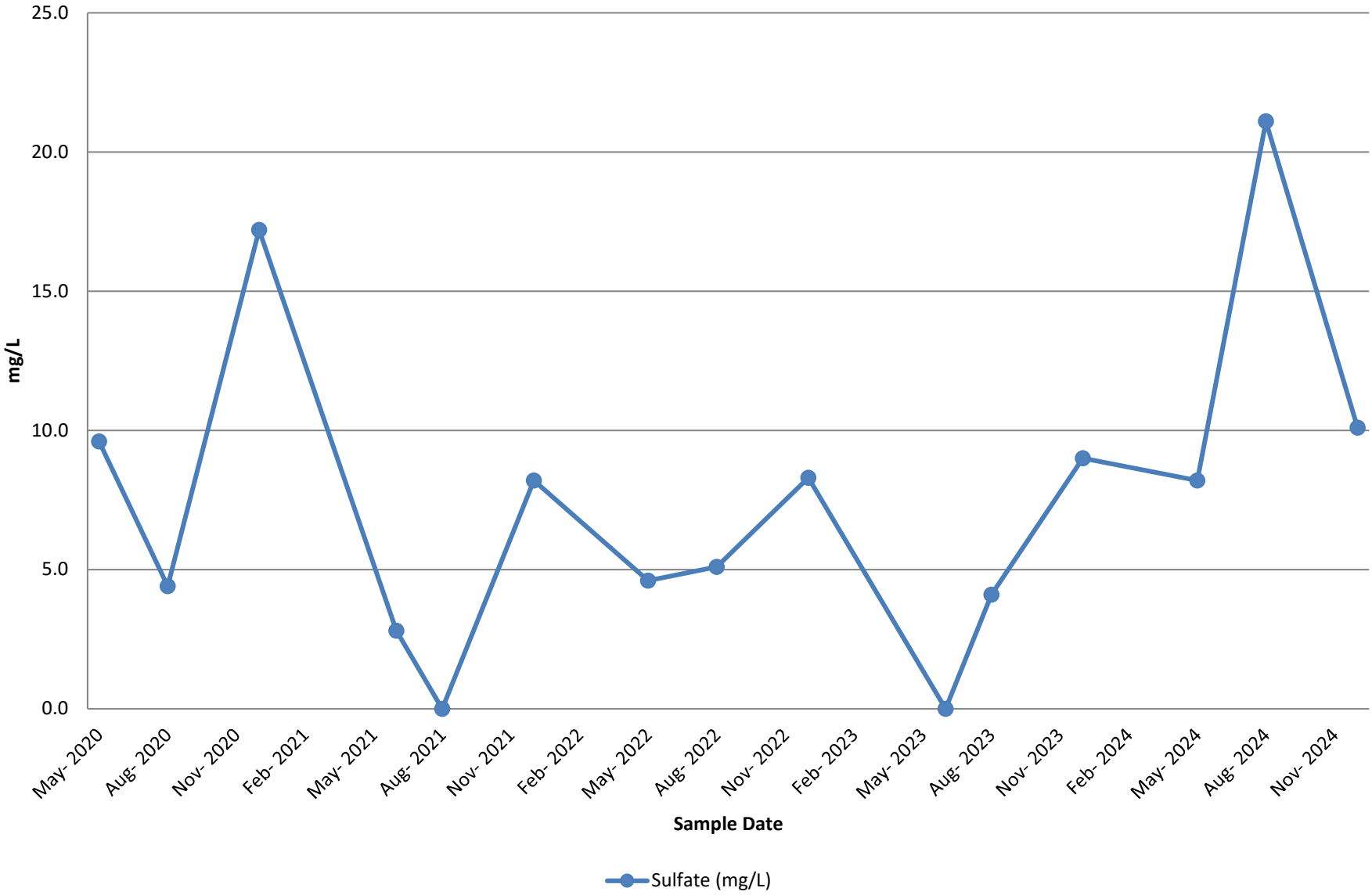
Trend Evaluation 10
CC - 10: Specific Conductivity
Henderson Mine



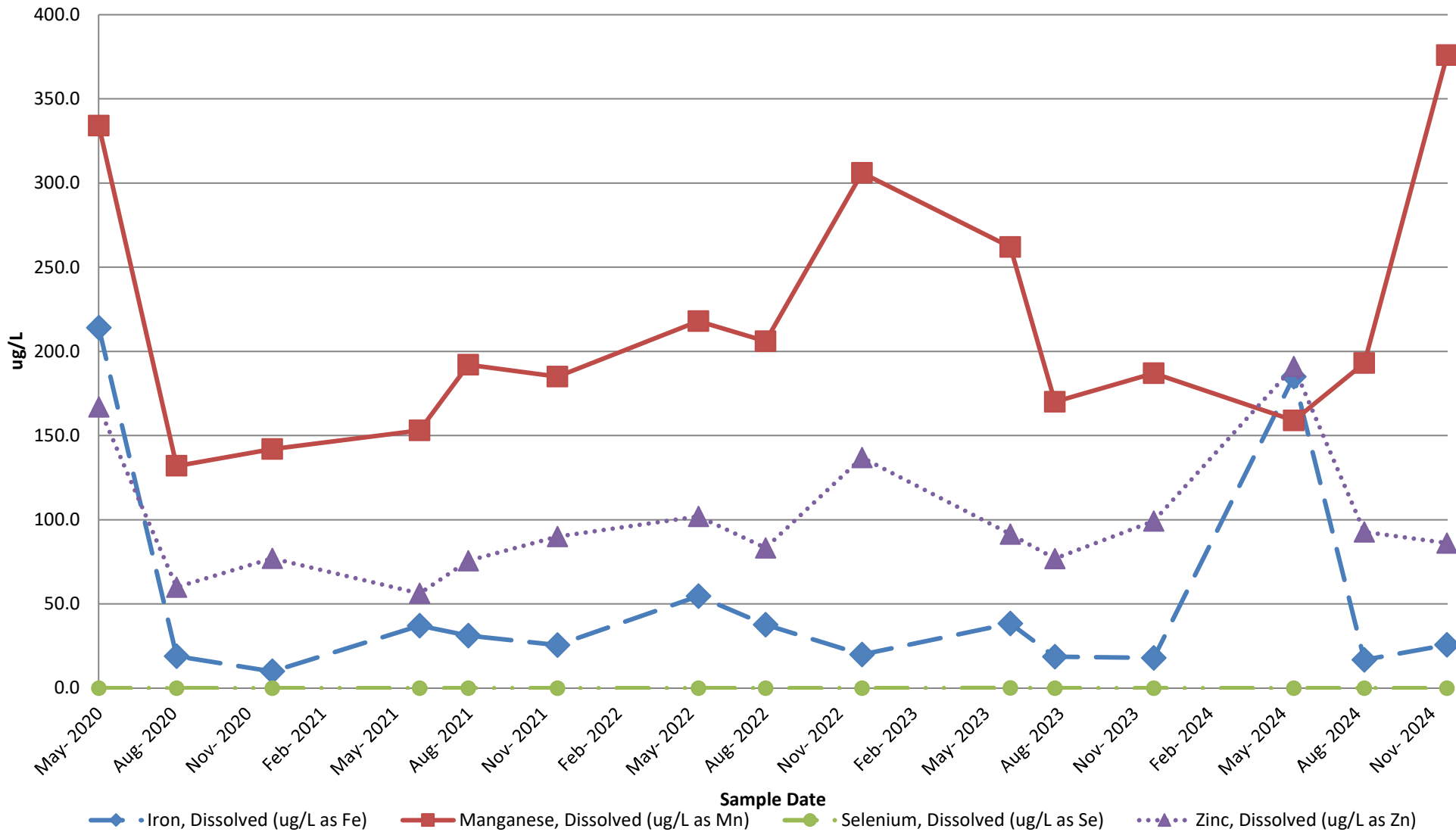
Trend Evaluation 11
CC - 10: pH
Henderson Mine



Trend Evaluation 12
CC - 10: Sulfate
Henderson Mine

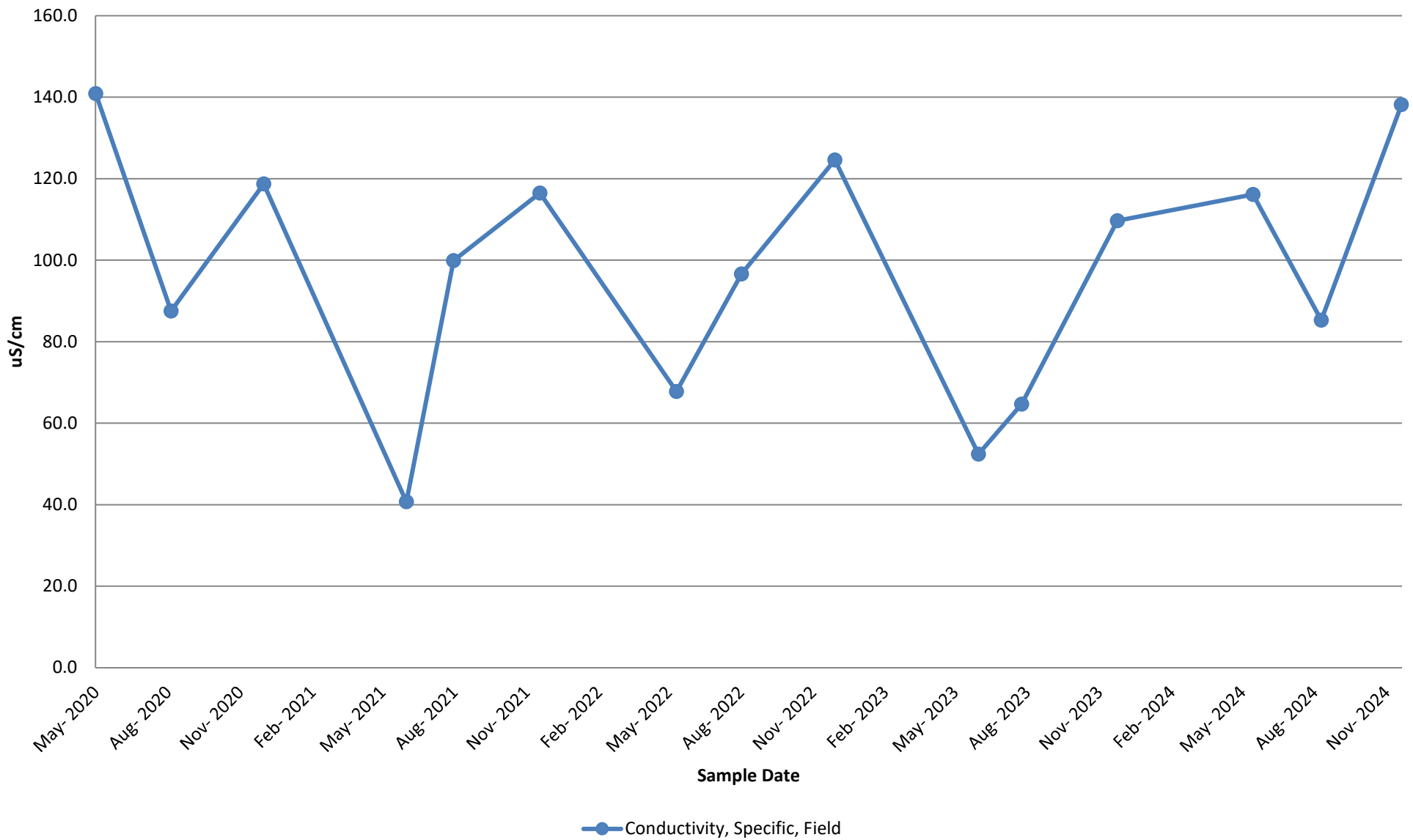


Trend Evaluation 13
CC - 30: Fe, Mn, Se, and Zn
Henderson Mine

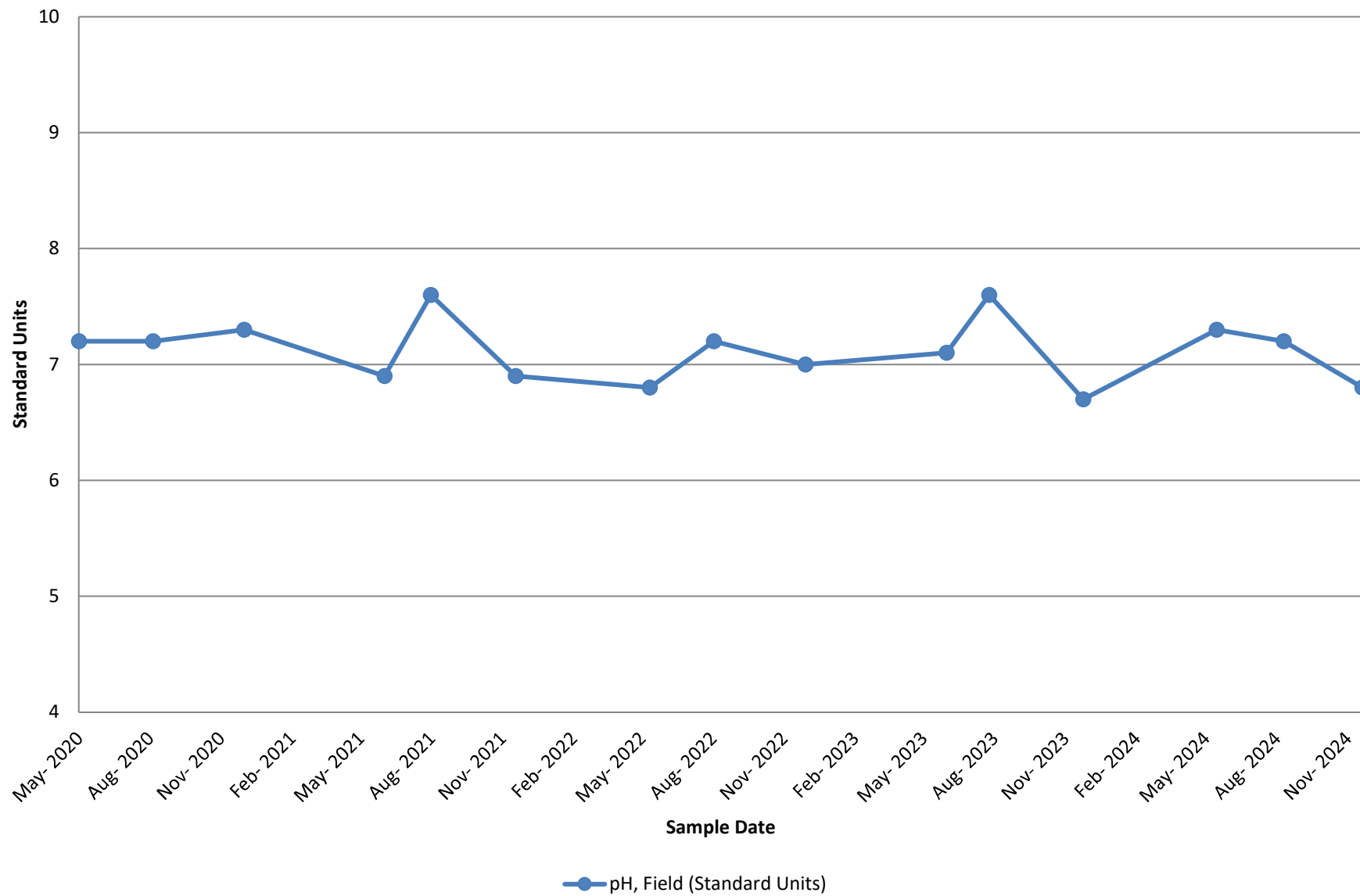


Note: Concentrations below the laboratory reporting limit have been plotted as "0" on the above trend evaluation

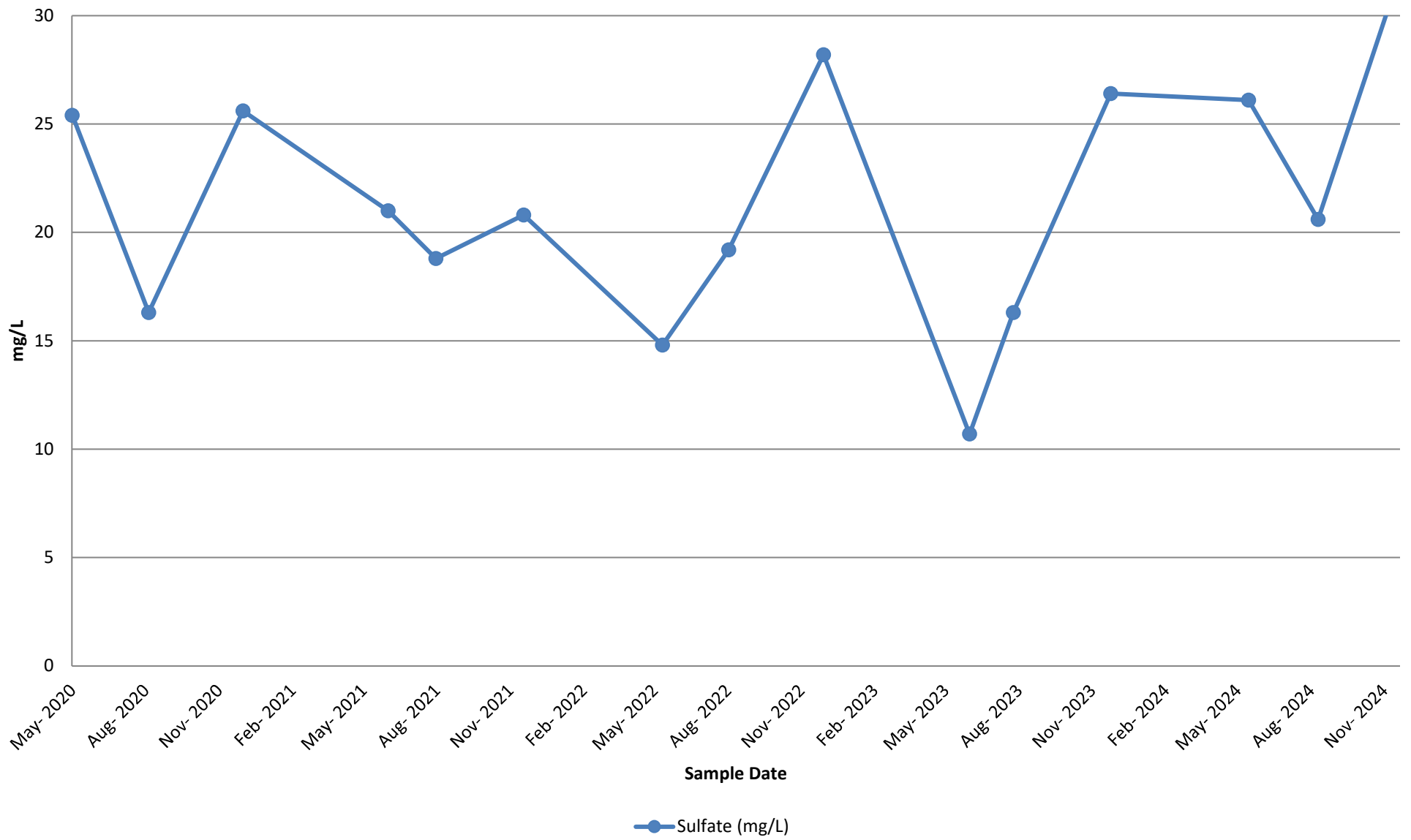
Trend Evaluation 14
CC - 30: Specific Conductivity
Henderson Mine



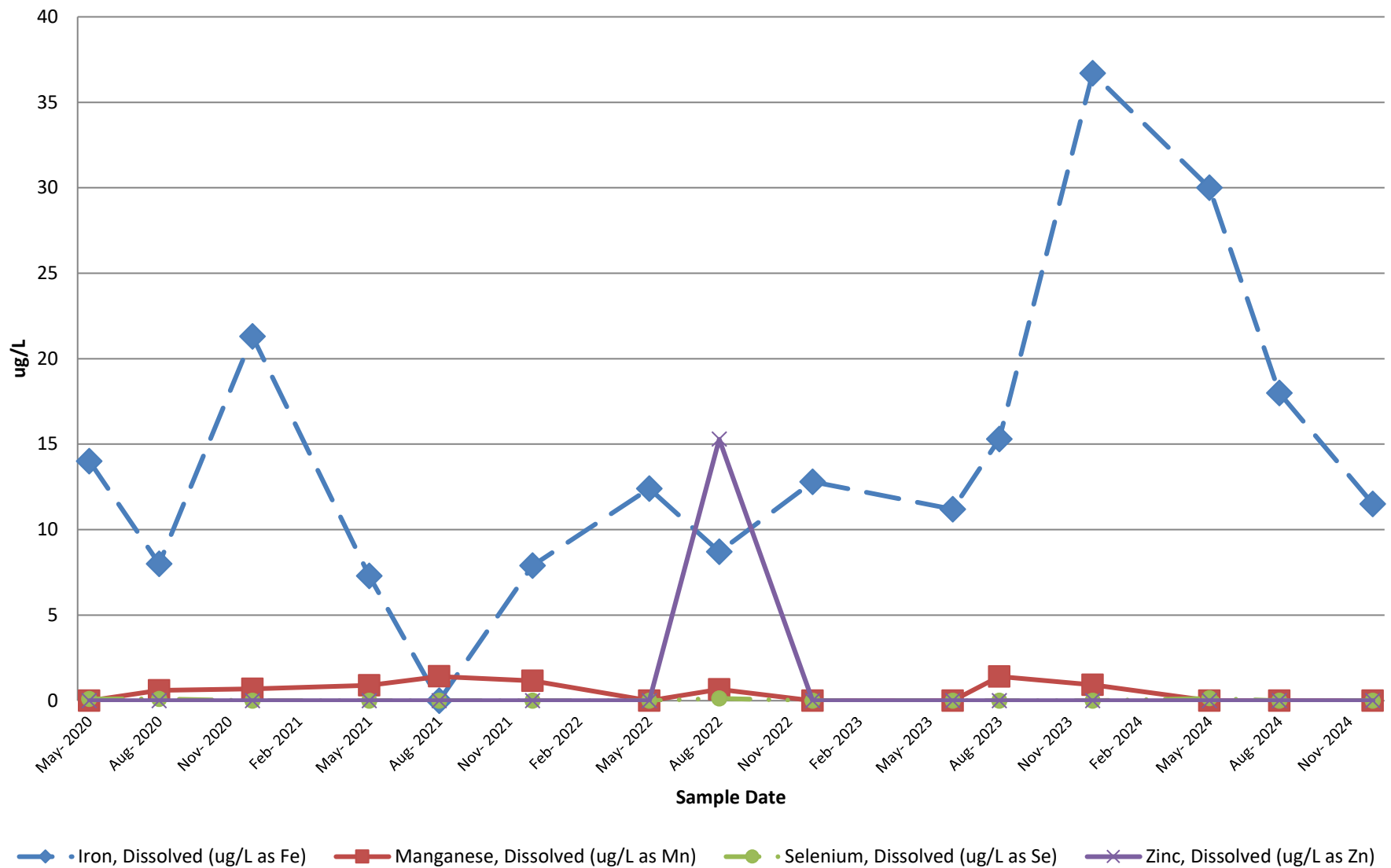
Trend Evaluation 15
CC - 30: pH
Henderson Mine



Trend Evaluation 16
CC - 30: Sulfate
Henderson Mine

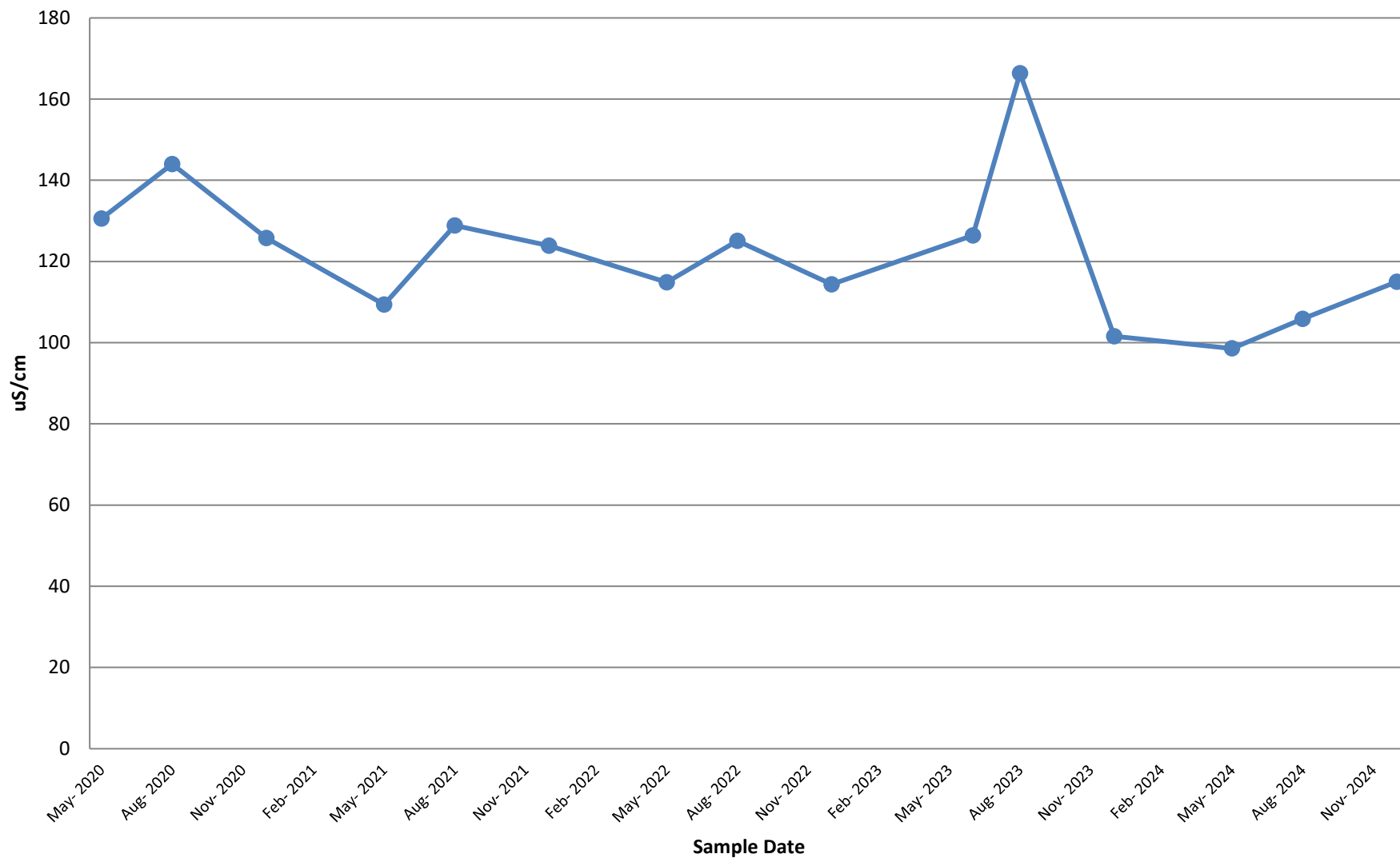


Trend Evaluation 17
MLGW - 7: Fe, Mn, Se, and Zn
Henderson Mill



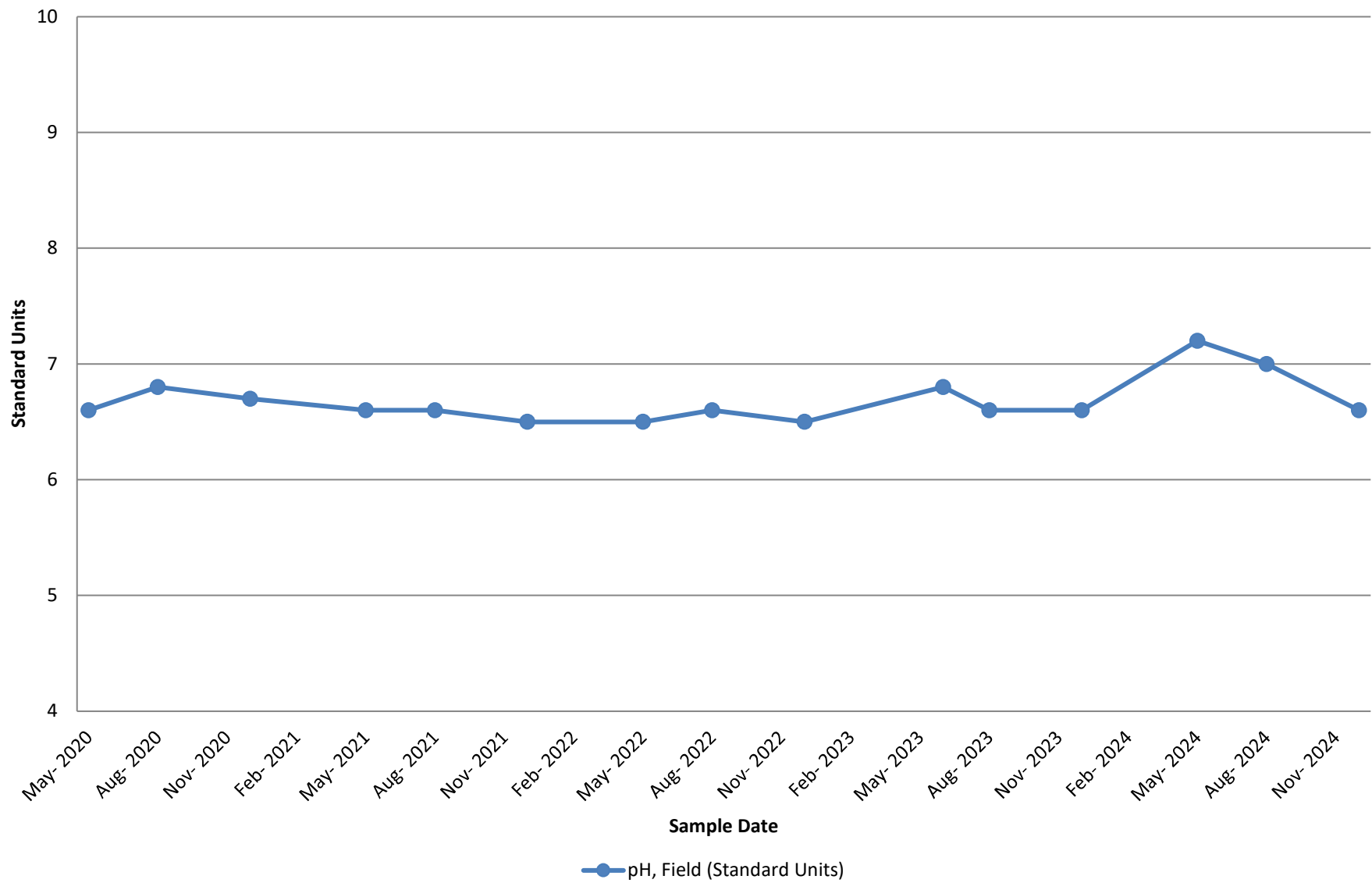
Note: Concentrations below the laboratory reporting limit have been plotted as "0" on the above trend evaluation

Trend Evaluation 18
MLGW - 7: Specific Conductivity
Henderson Mill

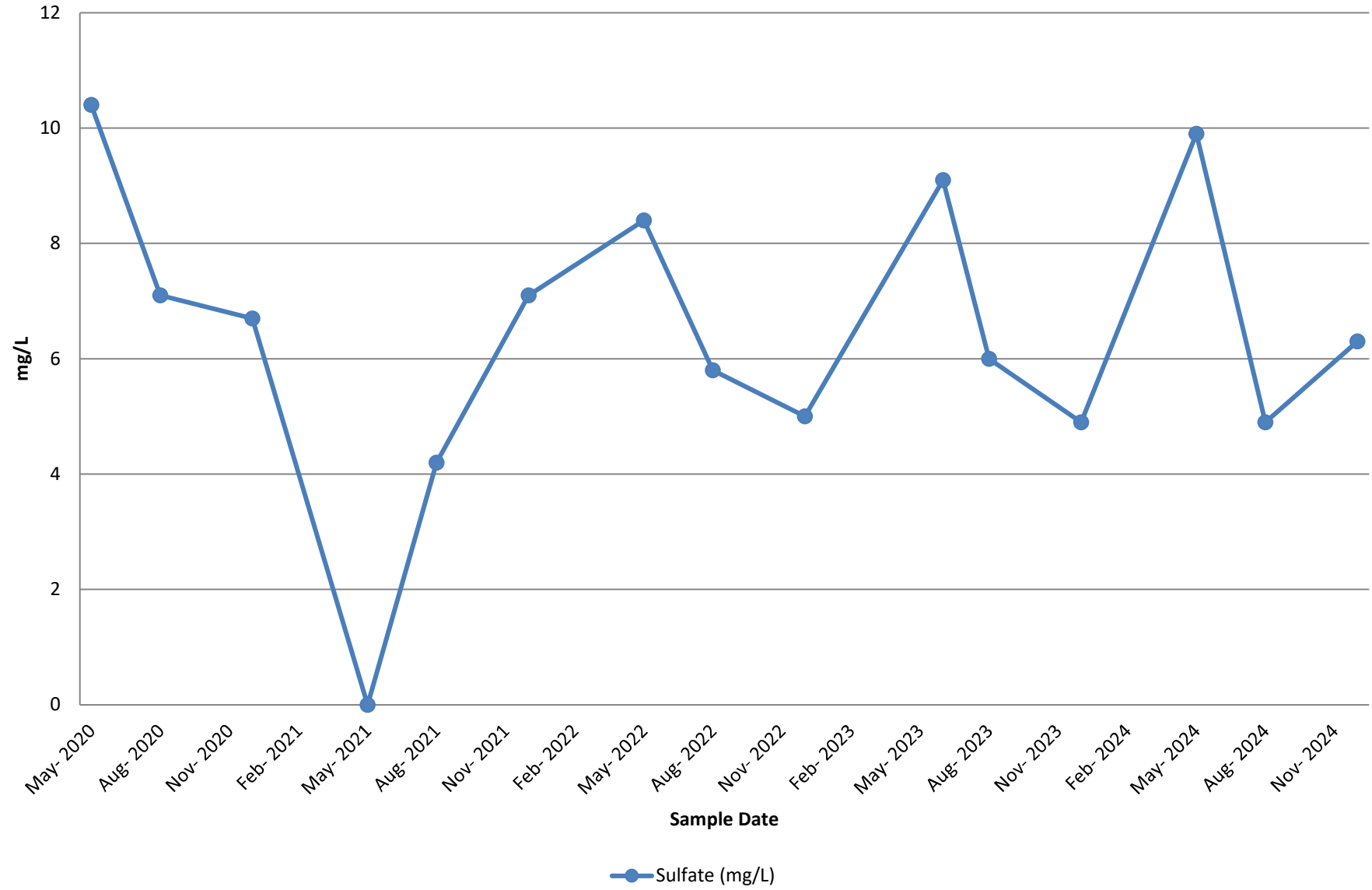


—●— Conductivity, Specific, Field

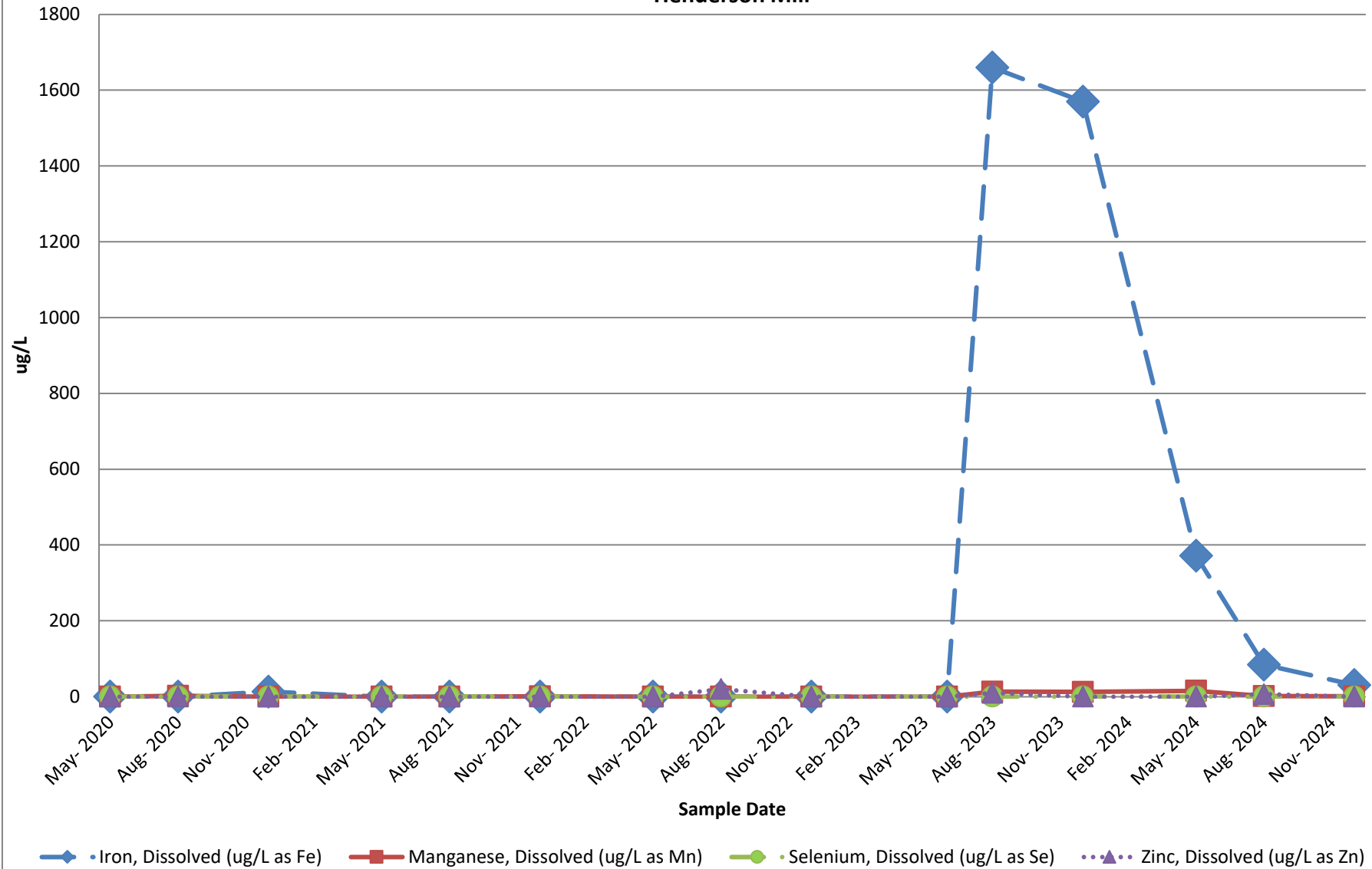
Trend Evaluation 19
MLGW - 7: pH
Henderson Mill



Trend Evaluation 20
MLGW - 7: Sulfate
Henderson Mill

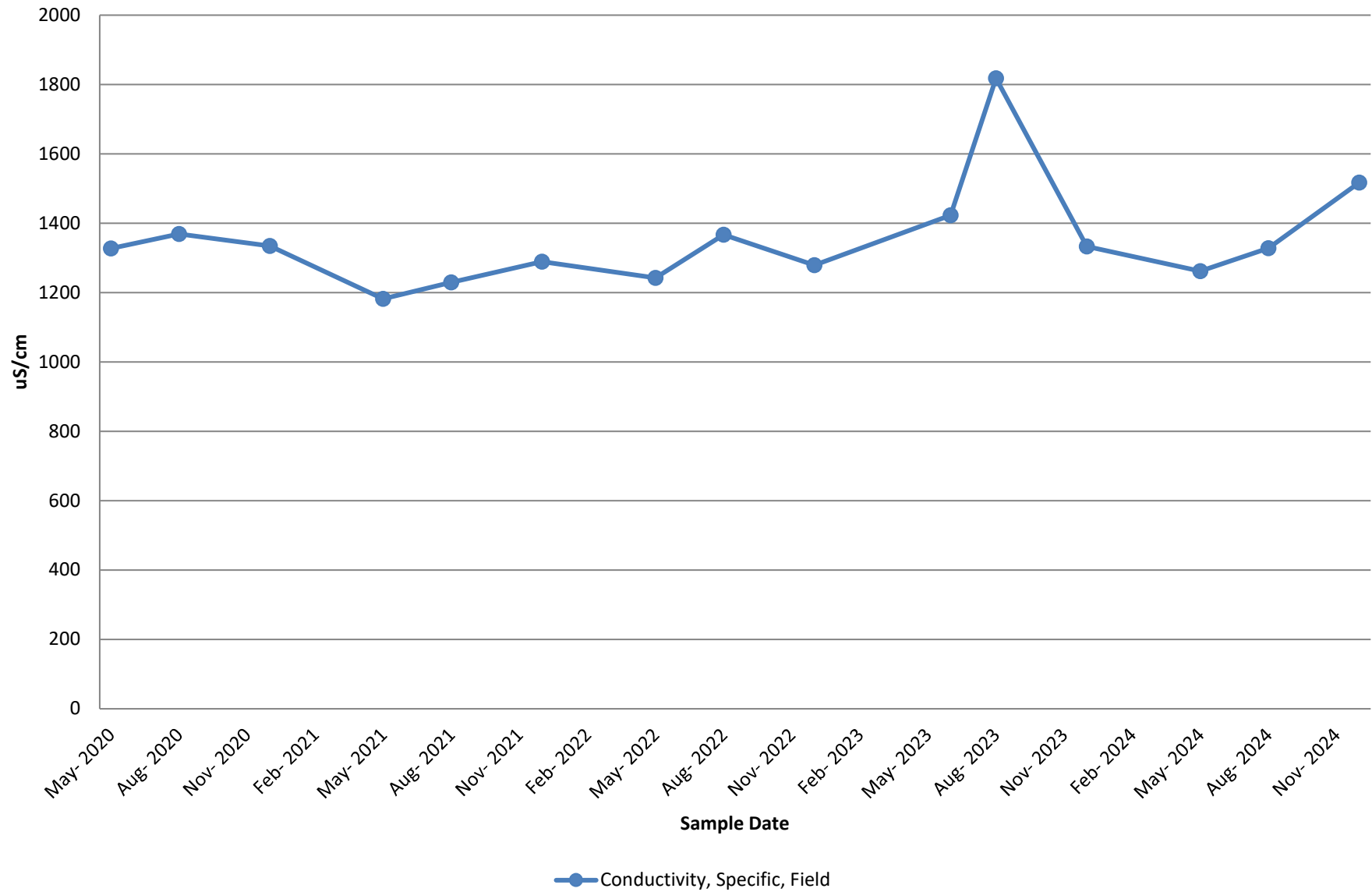


Trend Evaluation 21
MLGW-15: Fe, Mn, Se, and Zn
Henderson Mill

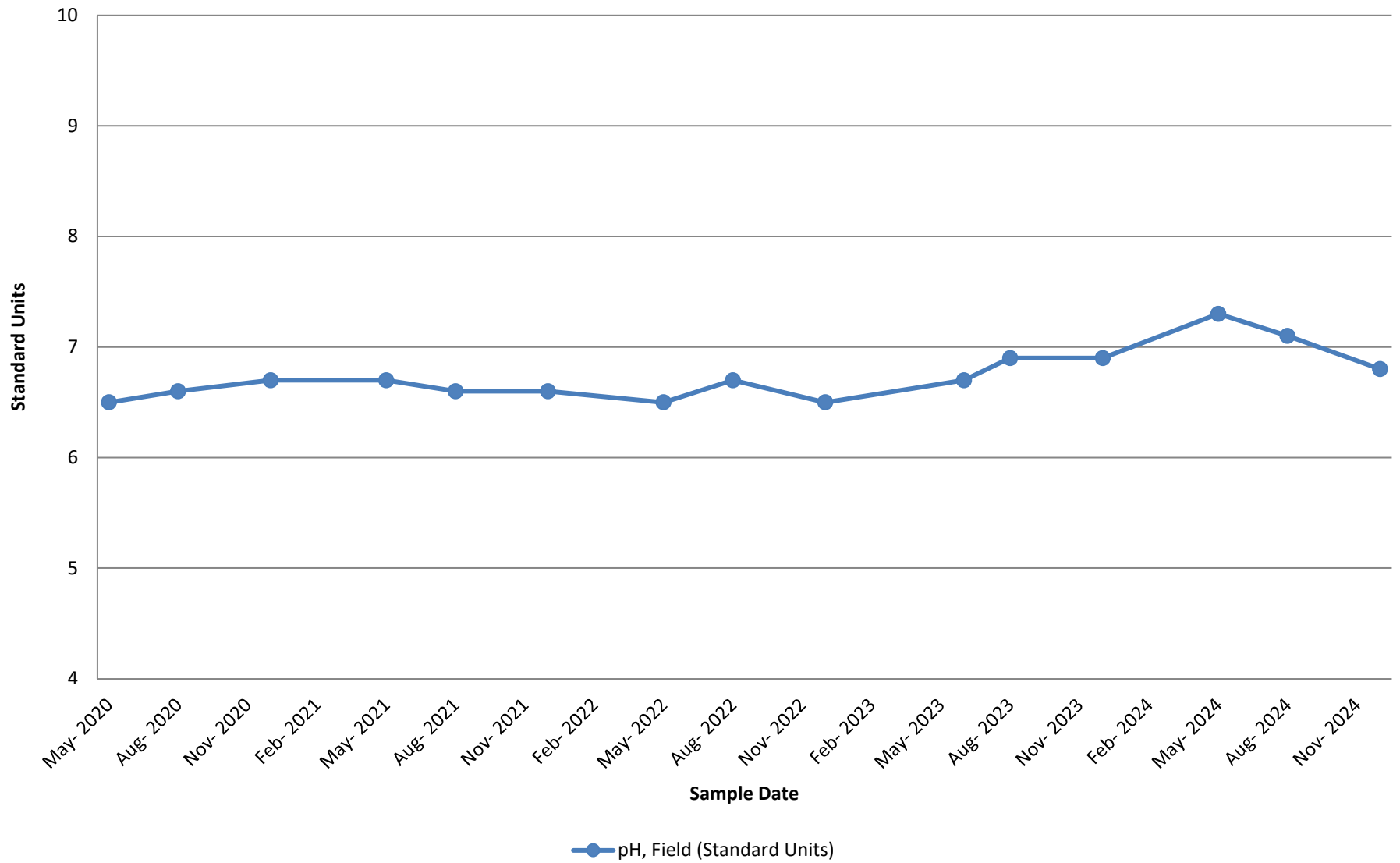


Note: Concentrations below the laboratory reporting limit have been plotted as "0" on the above trend evaluation

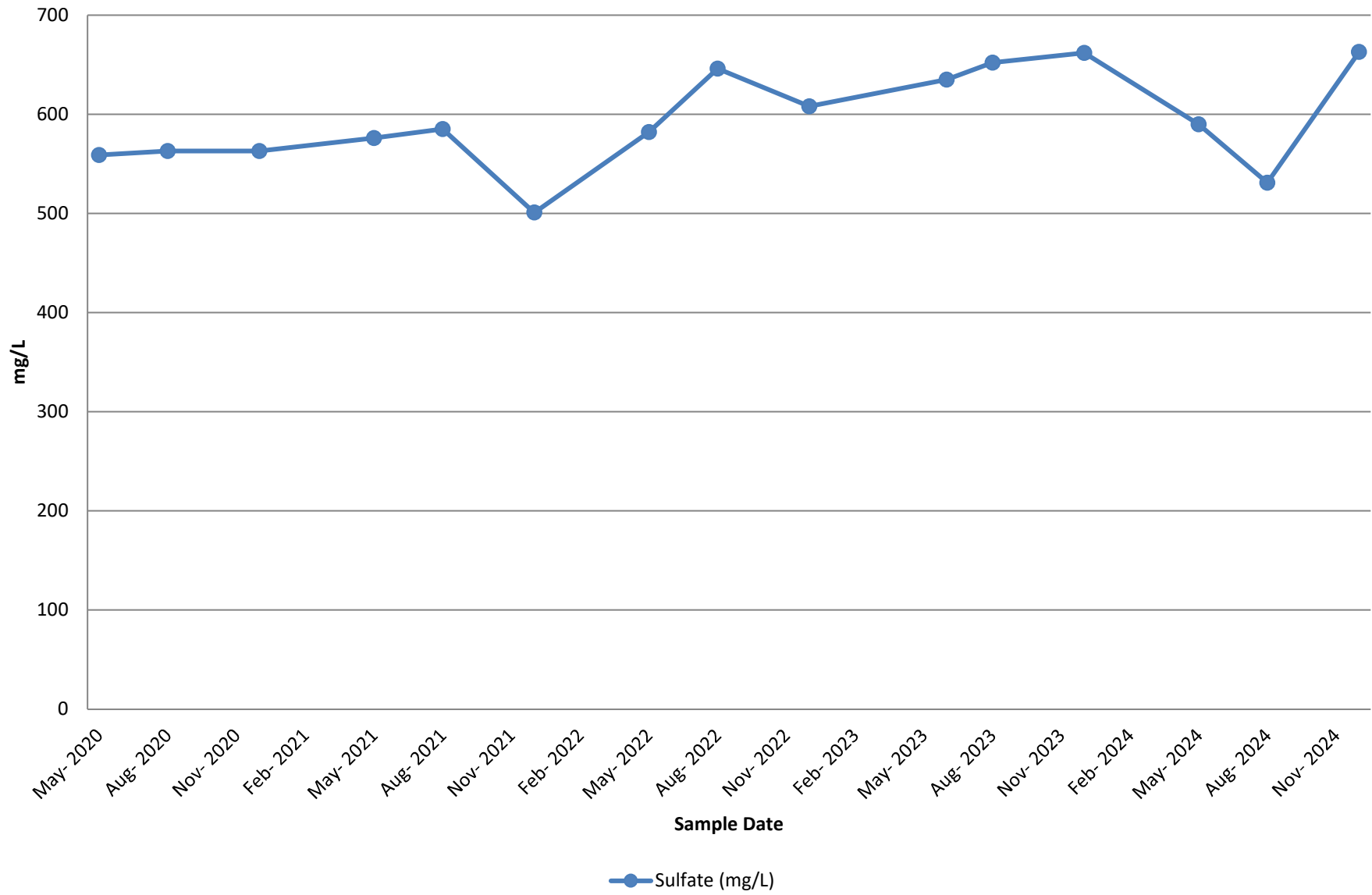
Trend Evaluation 22
MLGW-15: Specific Conductivity
Henderson Mill



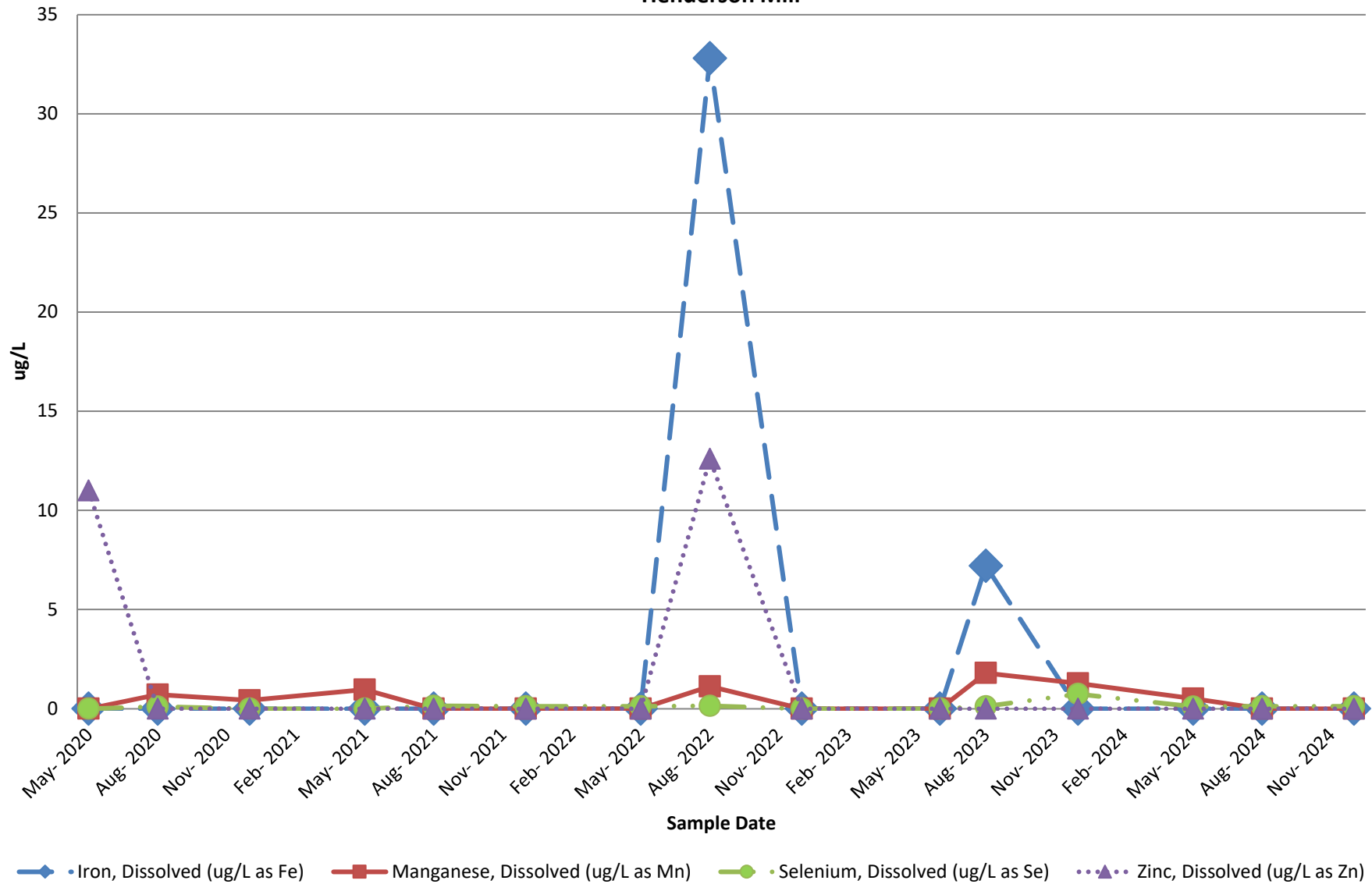
Trend Evaluation 23
MLGW-15: pH
Henderson Mill



Trend Evaluation 24
MLGW-15: Sulfate
Henderson Mill

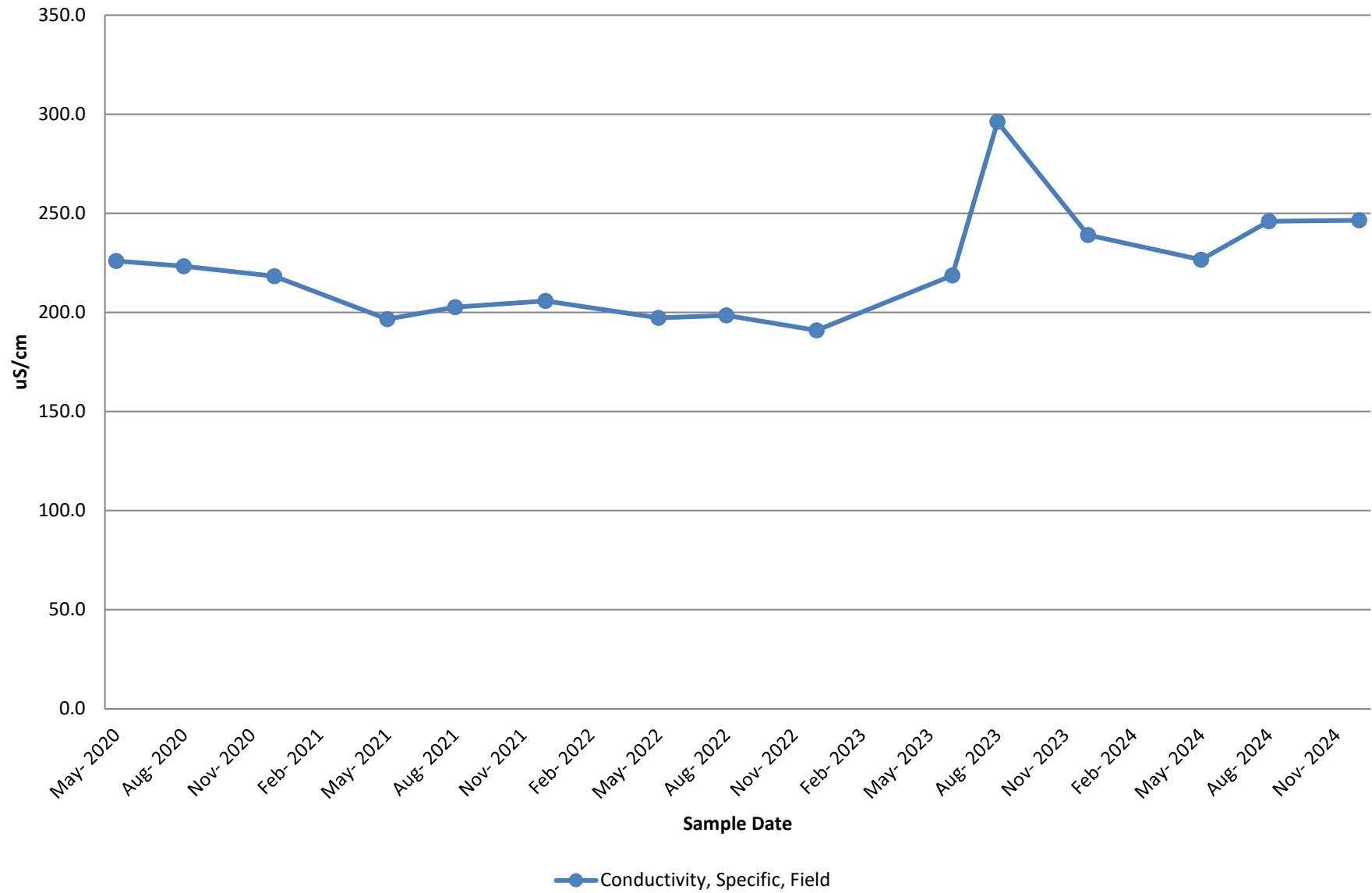


Trend Evaluation 25
MLGW-17: Fe, Mn, Se, and Zn
Henderson Mill

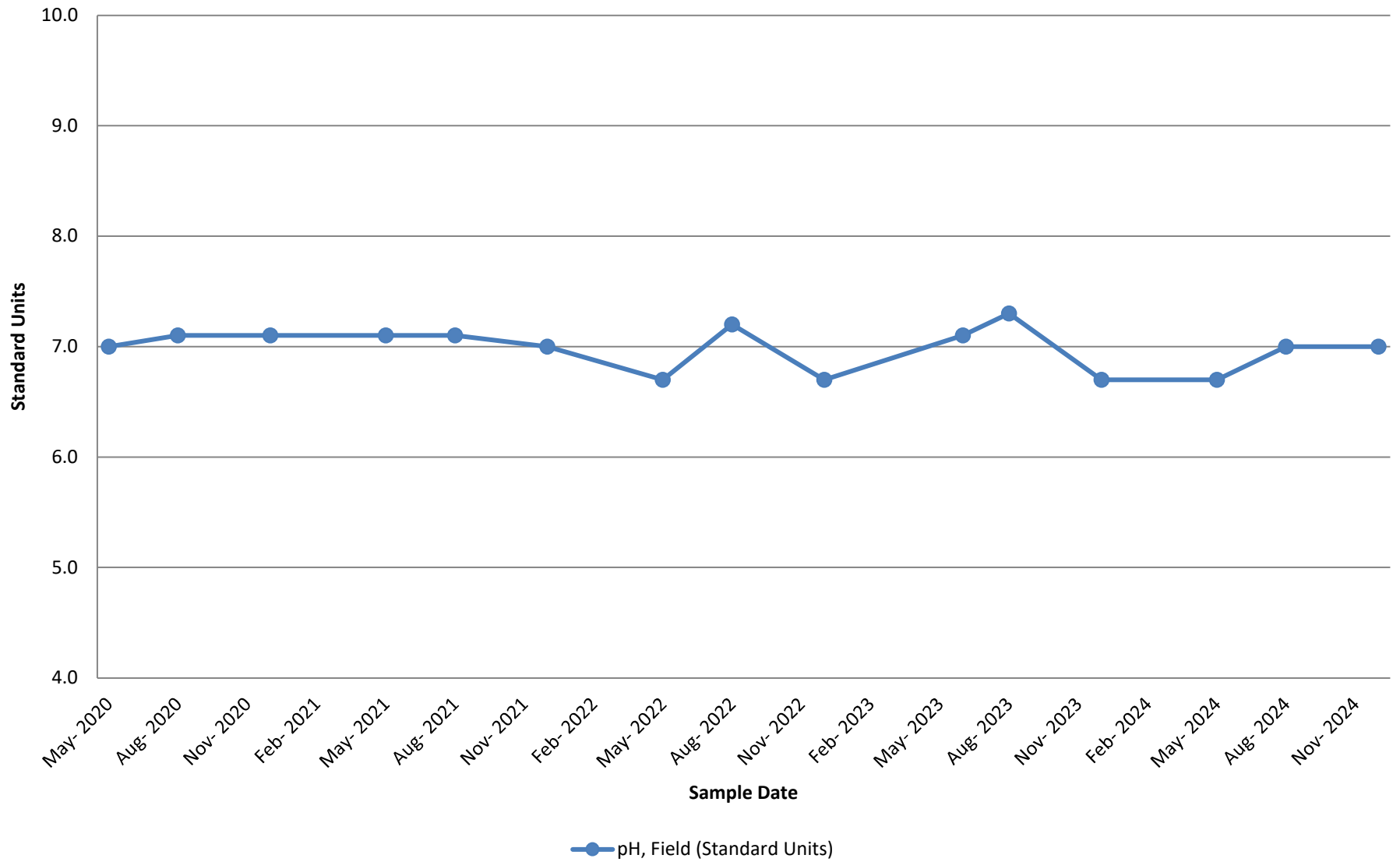


Note: Concentrations below the laboratory reporting limit have been plotted as "0" on the above trend evaluation

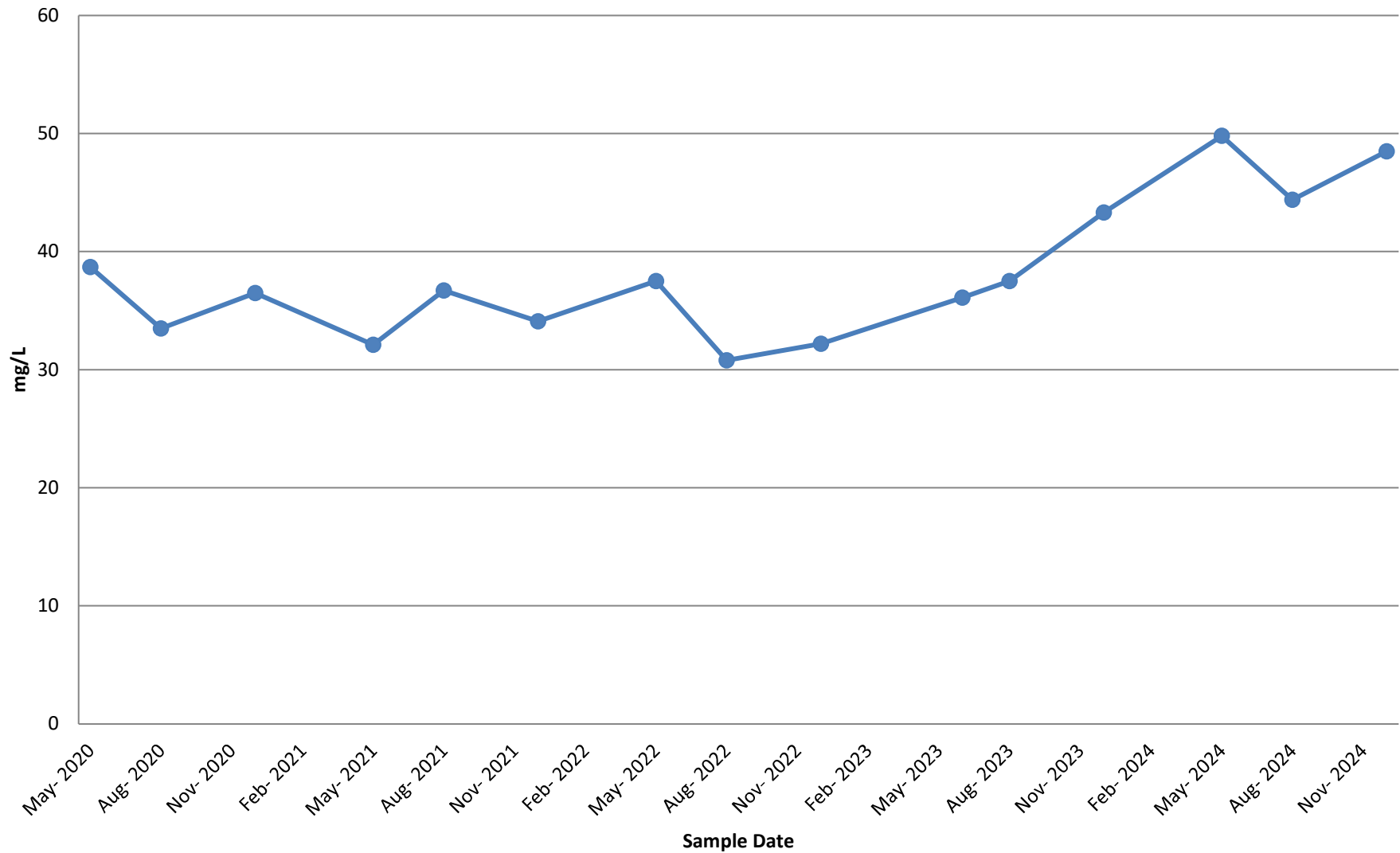
Trend Evaluation 26
MLGW-17: Specific Conductivity
Henderson Mill



Trend Evaluation 27
MLGW-17: pH
Henderson Mill

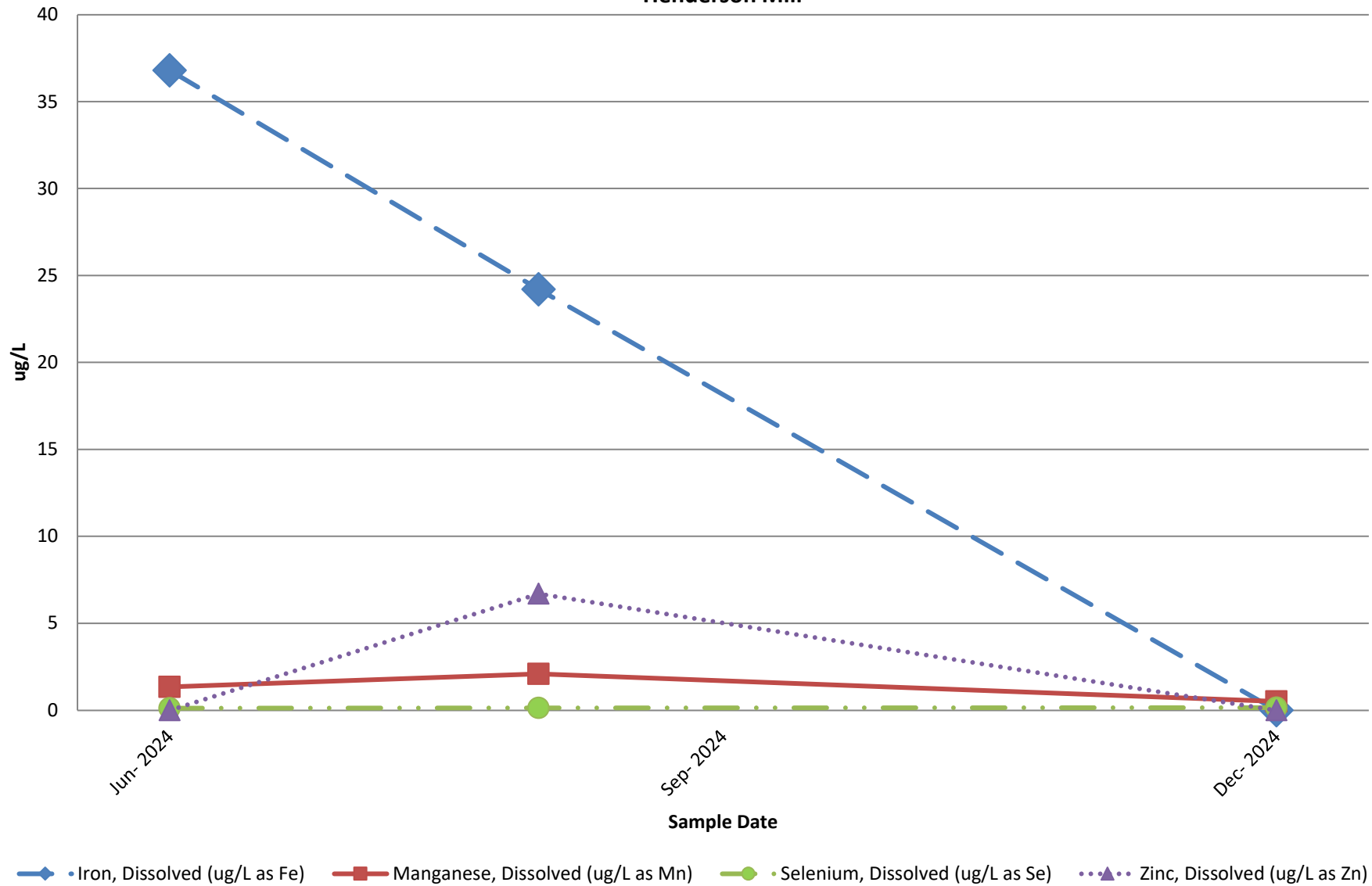


Trend Evaluation 28
MLGW-17: Sulfate
Henderson Mill



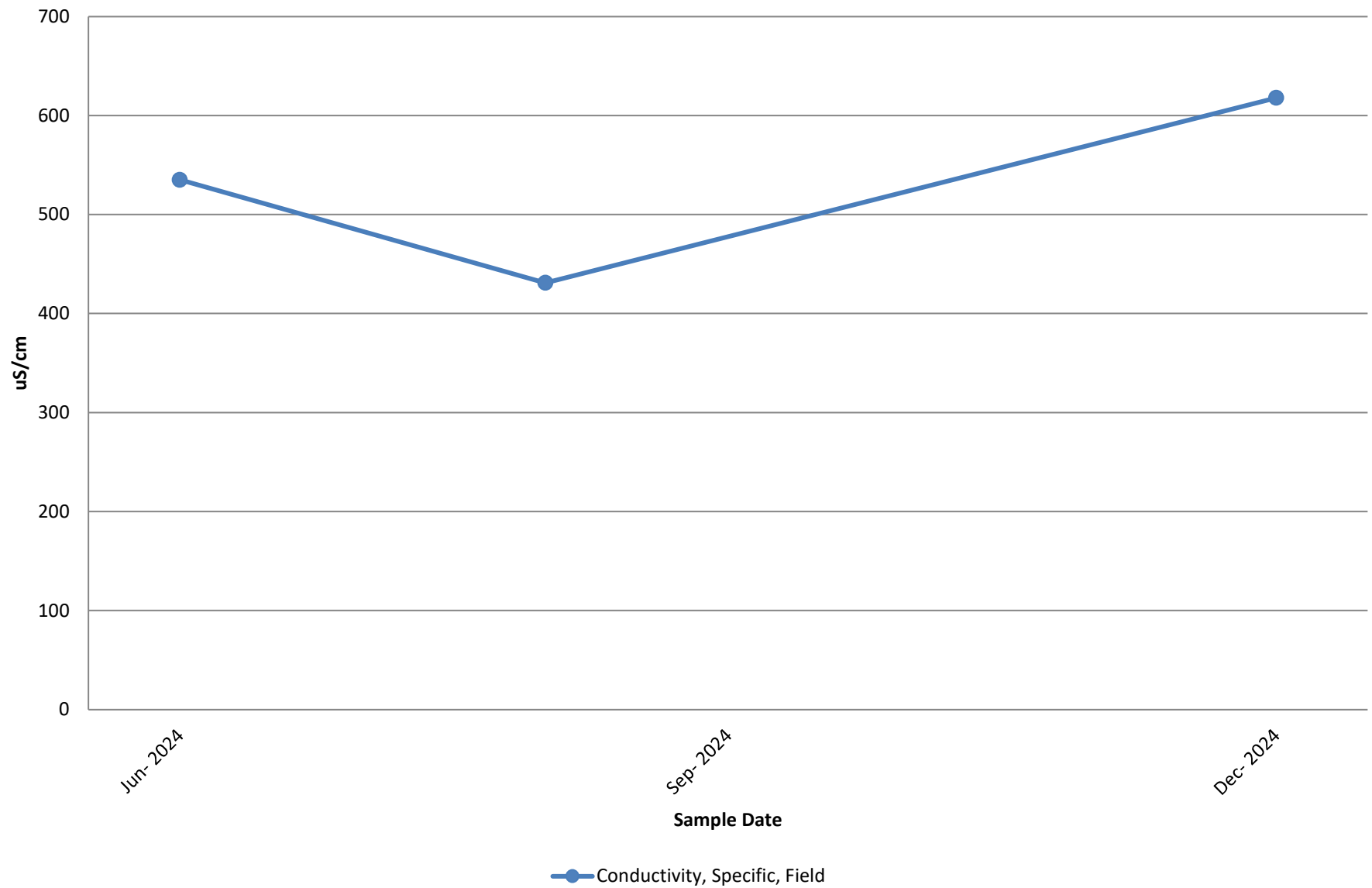
—●— Sulfate (mg/L)

Trend Evaluation 29
MLGW-37: Fe, Mn, Se, and Zn
Henderson Mill

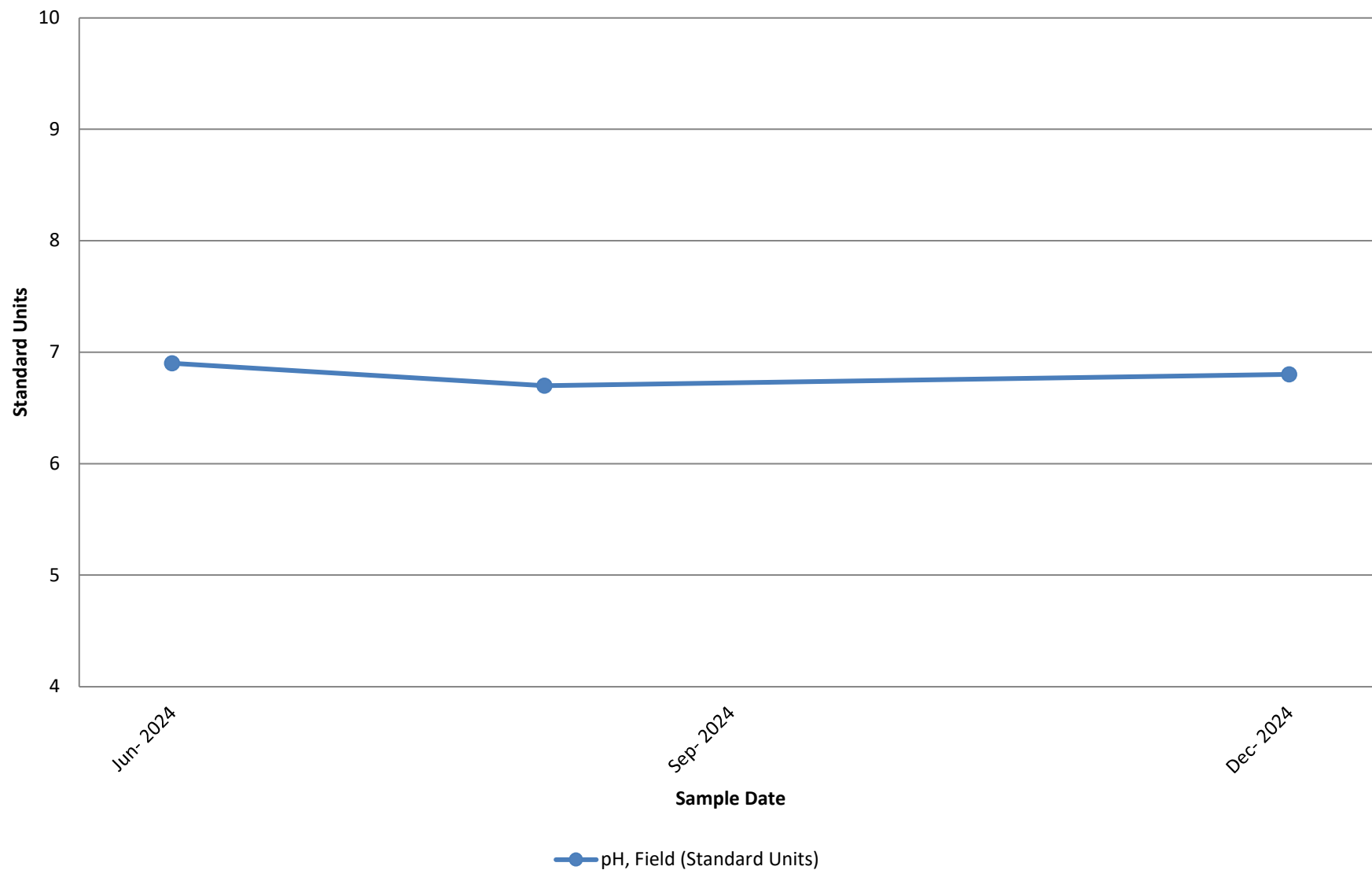


Note: Concentrations below the laboratory reporting limit have been plotted as "0" on the above trend evaluation

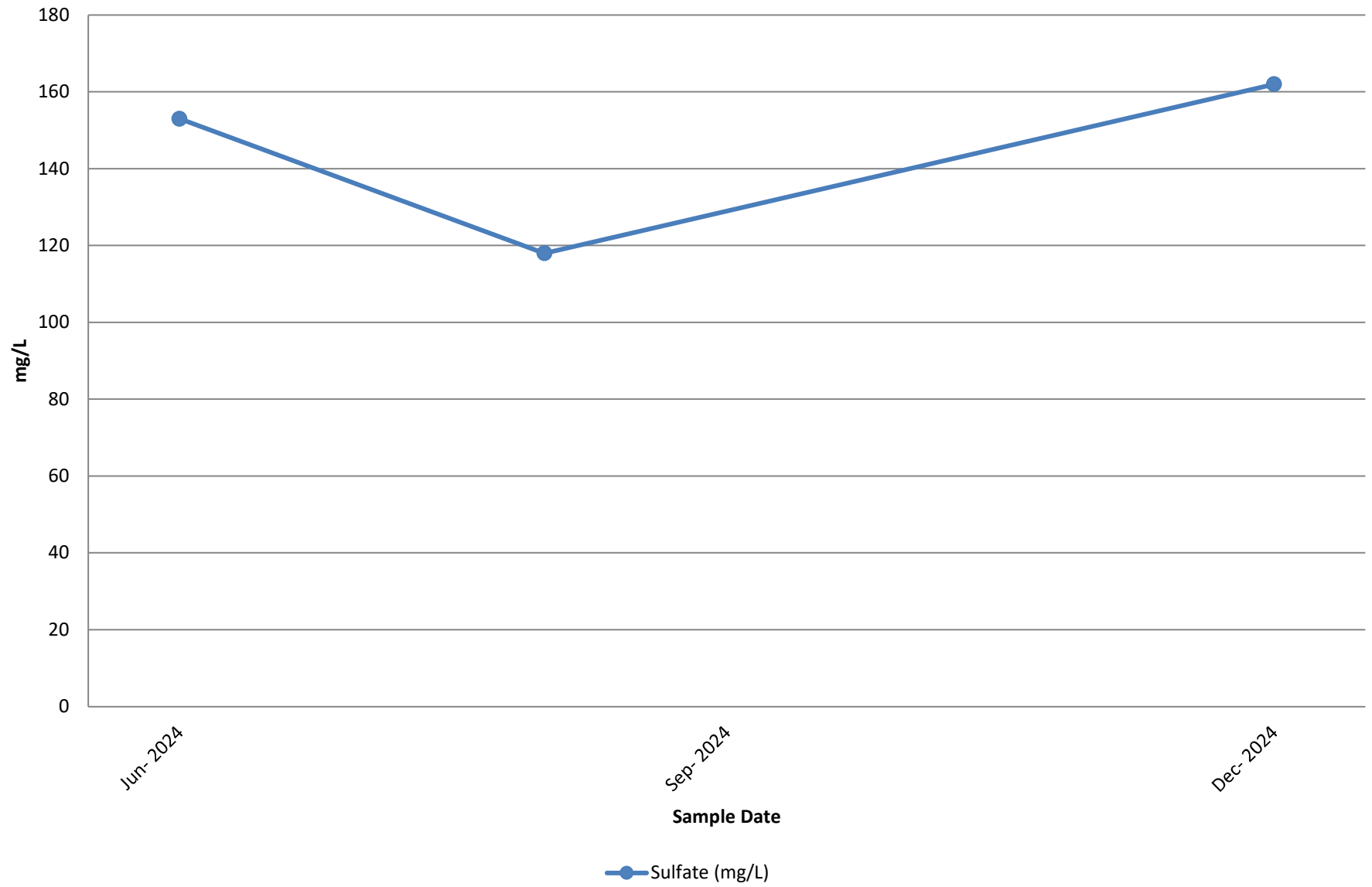
Trend Evaluation 30
MLGW-37: Specific Conductivity
Henderson Mill



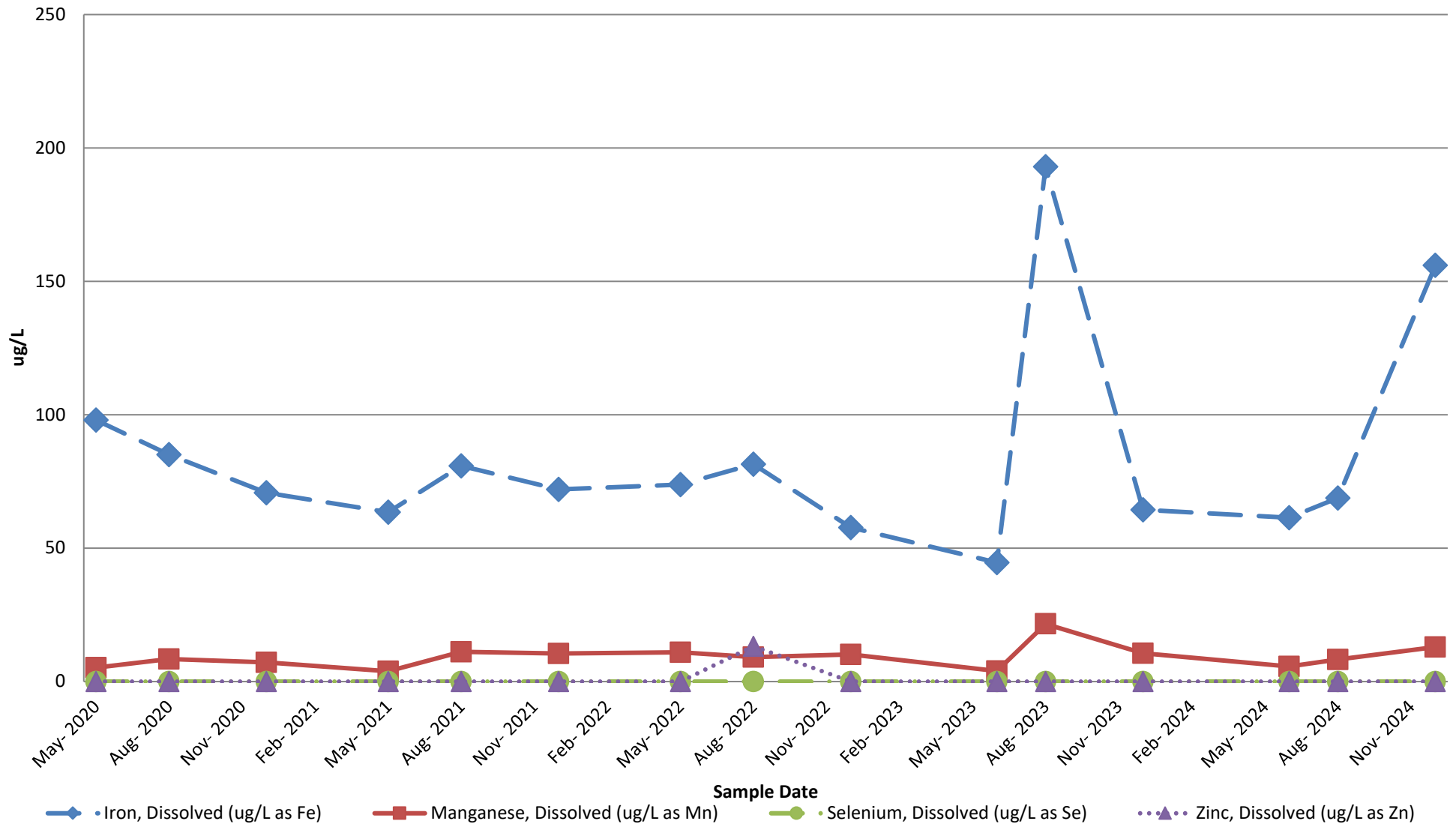
Trend Evaluation 31
MLGW-37: pH
Henderson Mill



Trend Evaluation 32
MLGW-37: Sulfate
Henderson Mill

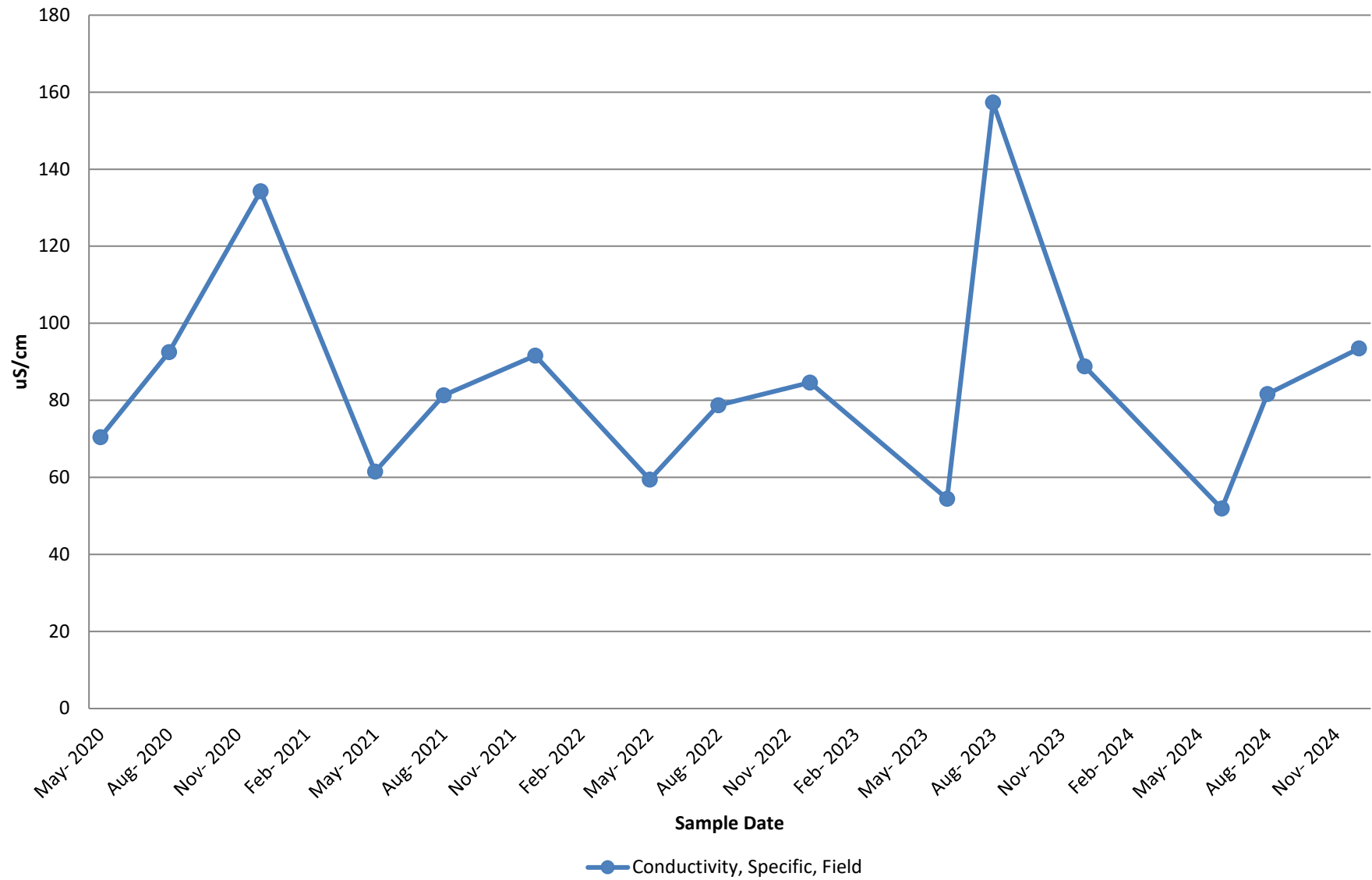


Trend Evaluation 33
WFR - 20: Fe, Mn, Se, and Zn
Henderson Mill

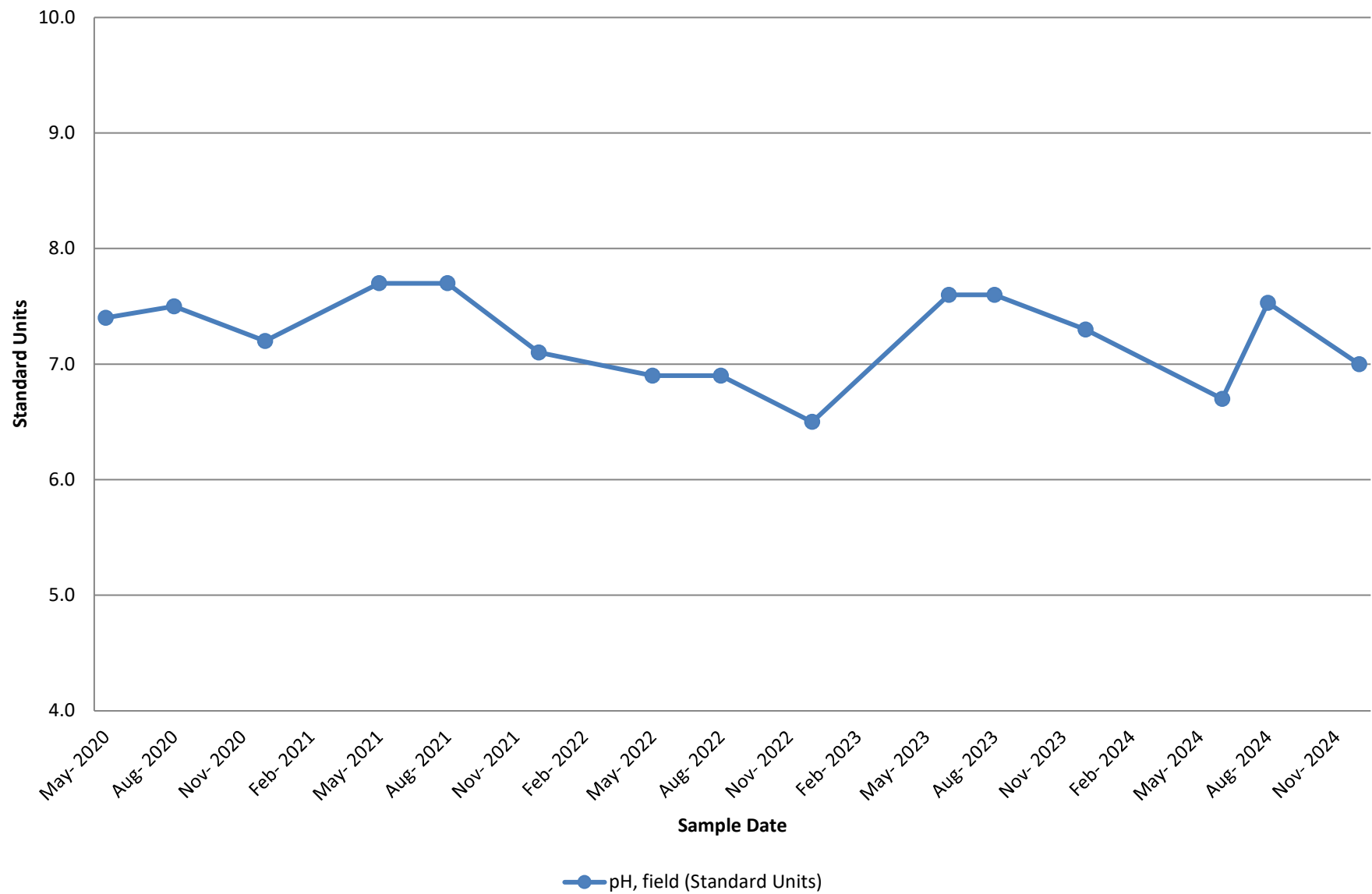


Note: Concentrations below the laboratory reporting limit have been plotted as "0" on the above trend evaluation

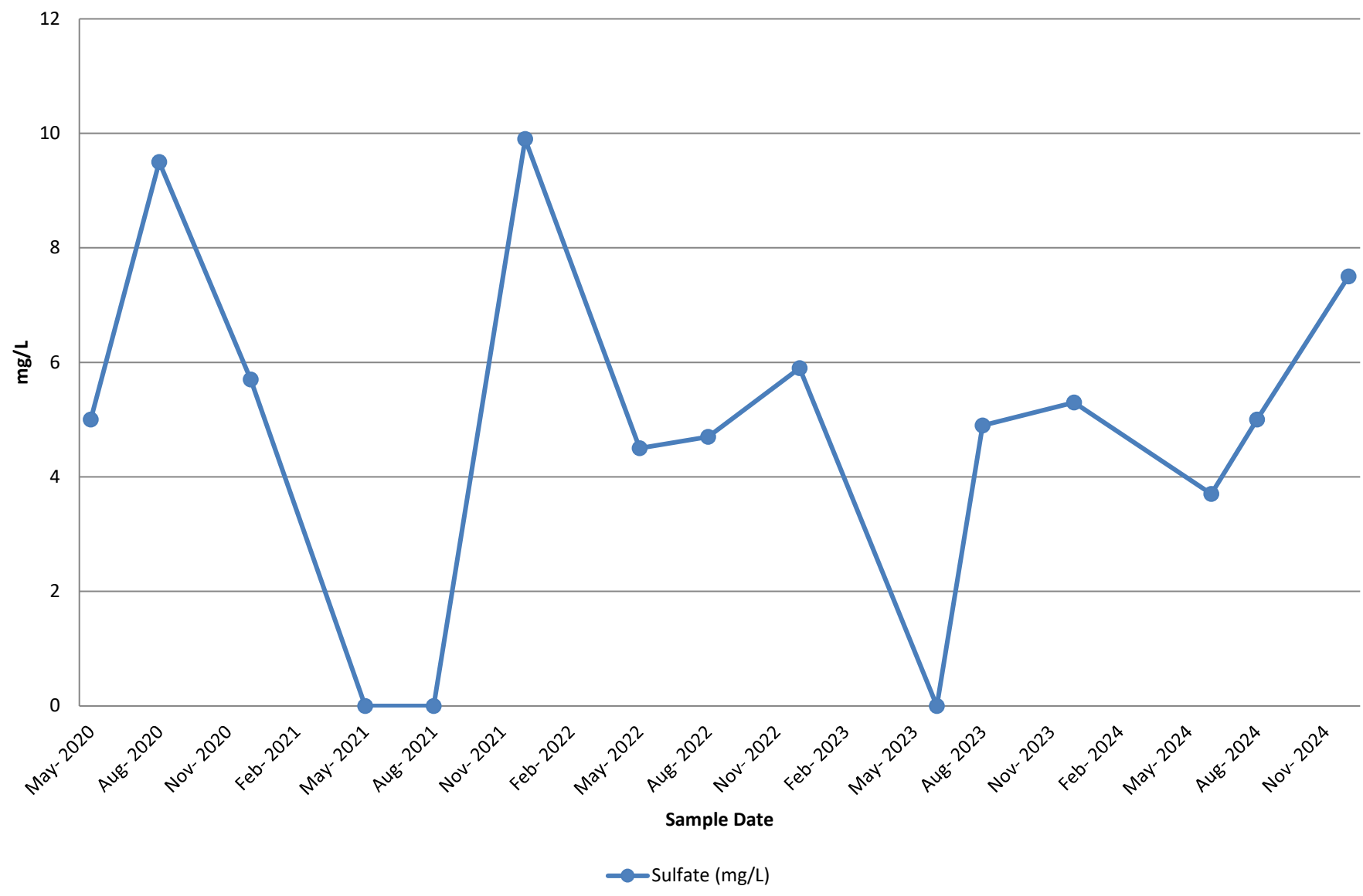
Trend Evaluation 34
WFR - 20: Specific Conductivity
Henderson Mill



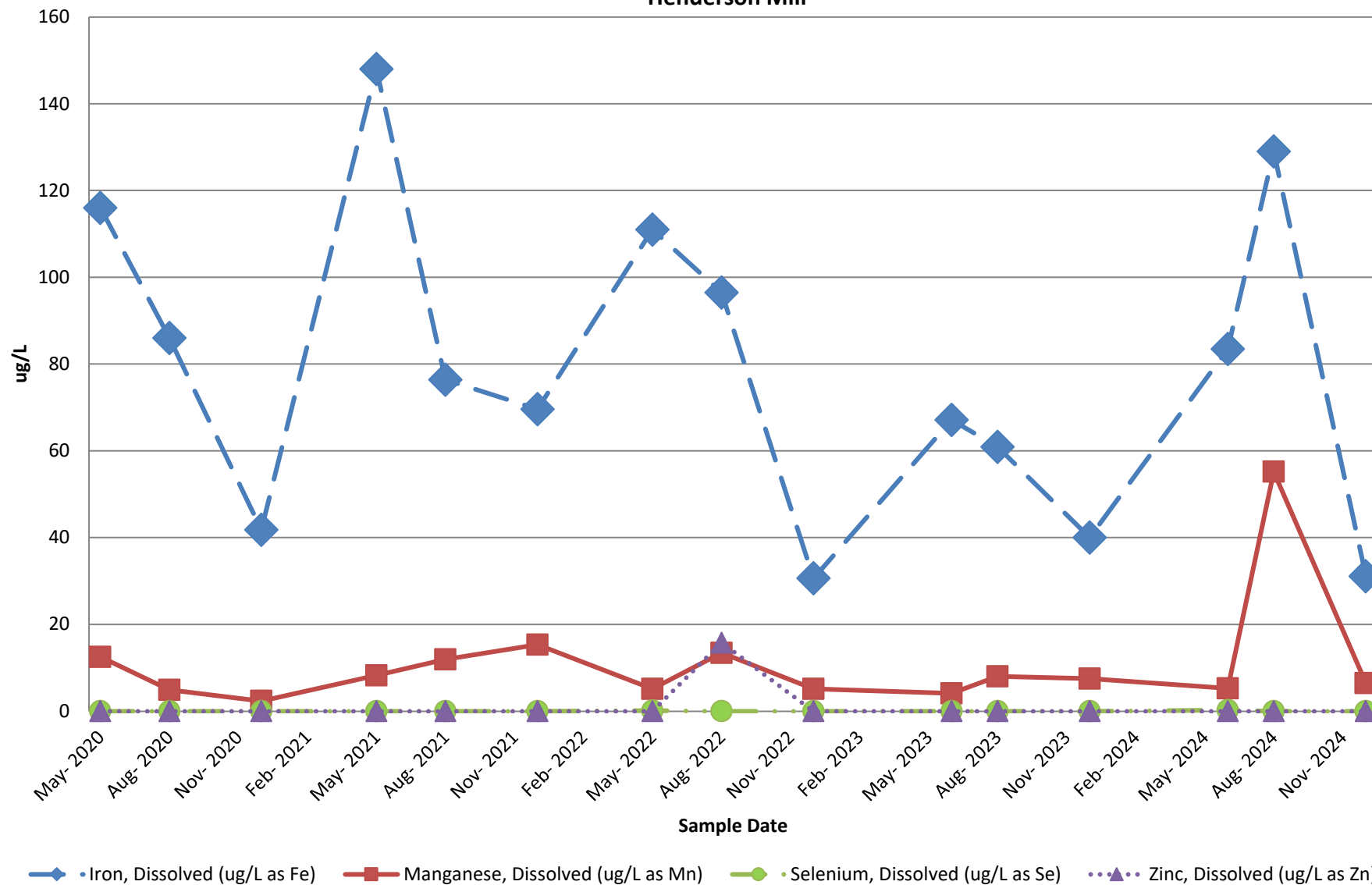
Trend Evaluation 35
WFR - 20: pH
Henderson Mill



Trend Evaluation 36
WFR - 20: Sulfate
Henderson Mill

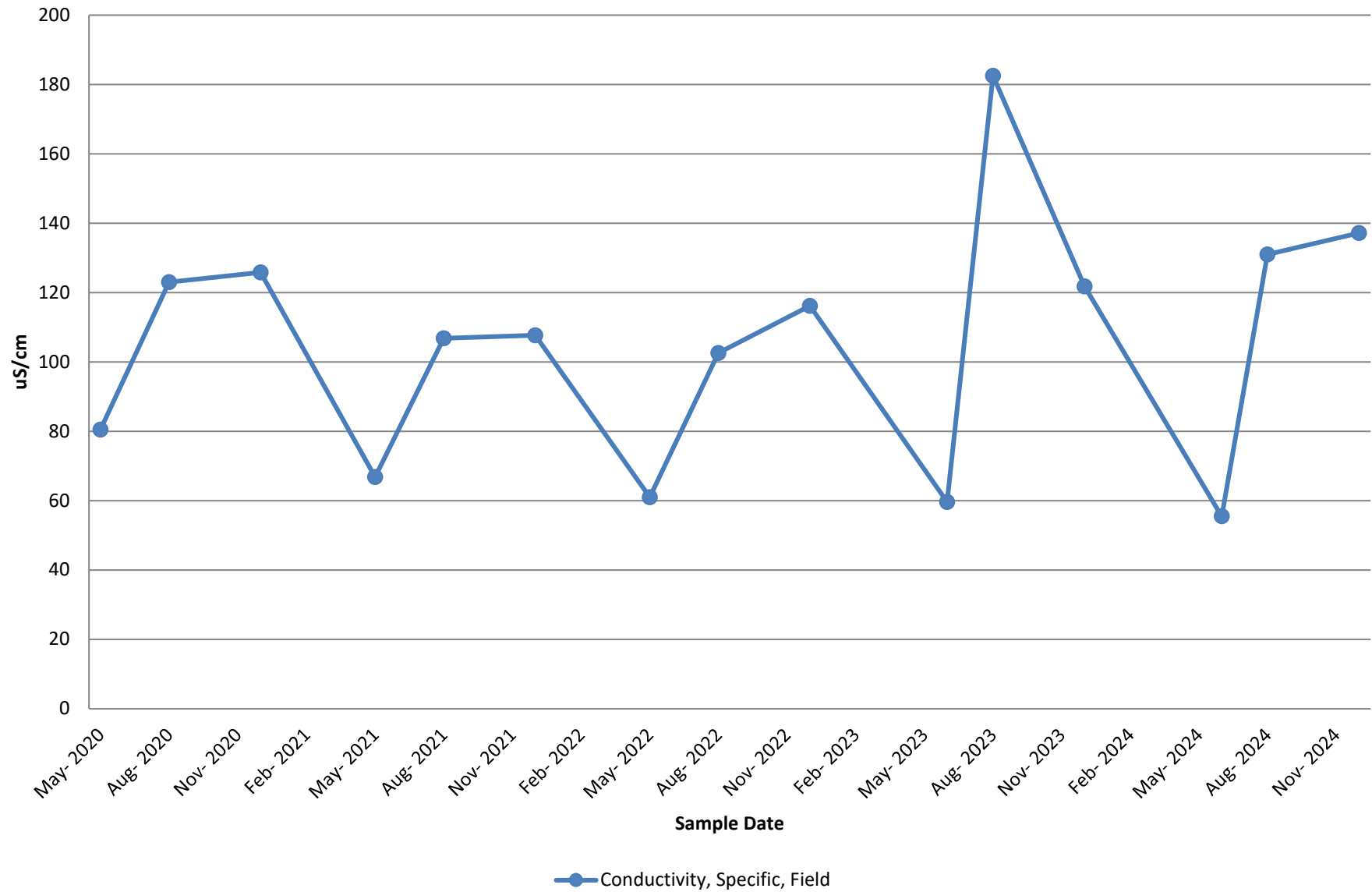


Trend Evaluation 37
WFR - 40: Fe, Mn, Se, and Zn
Henderson Mill

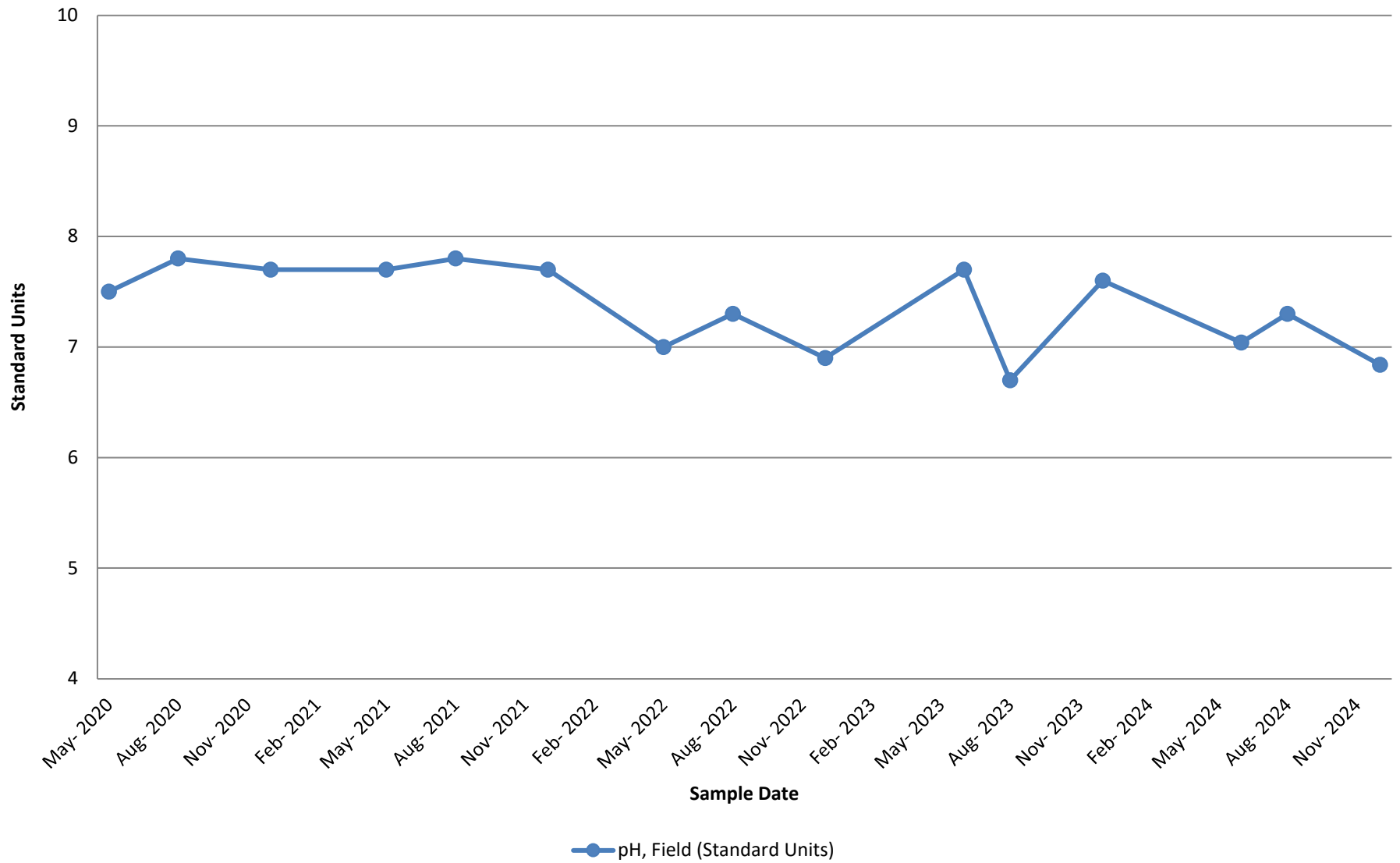


Note: Concentrations below the laboratory reporting limit have been plotted as "0" on the above trend evaluation

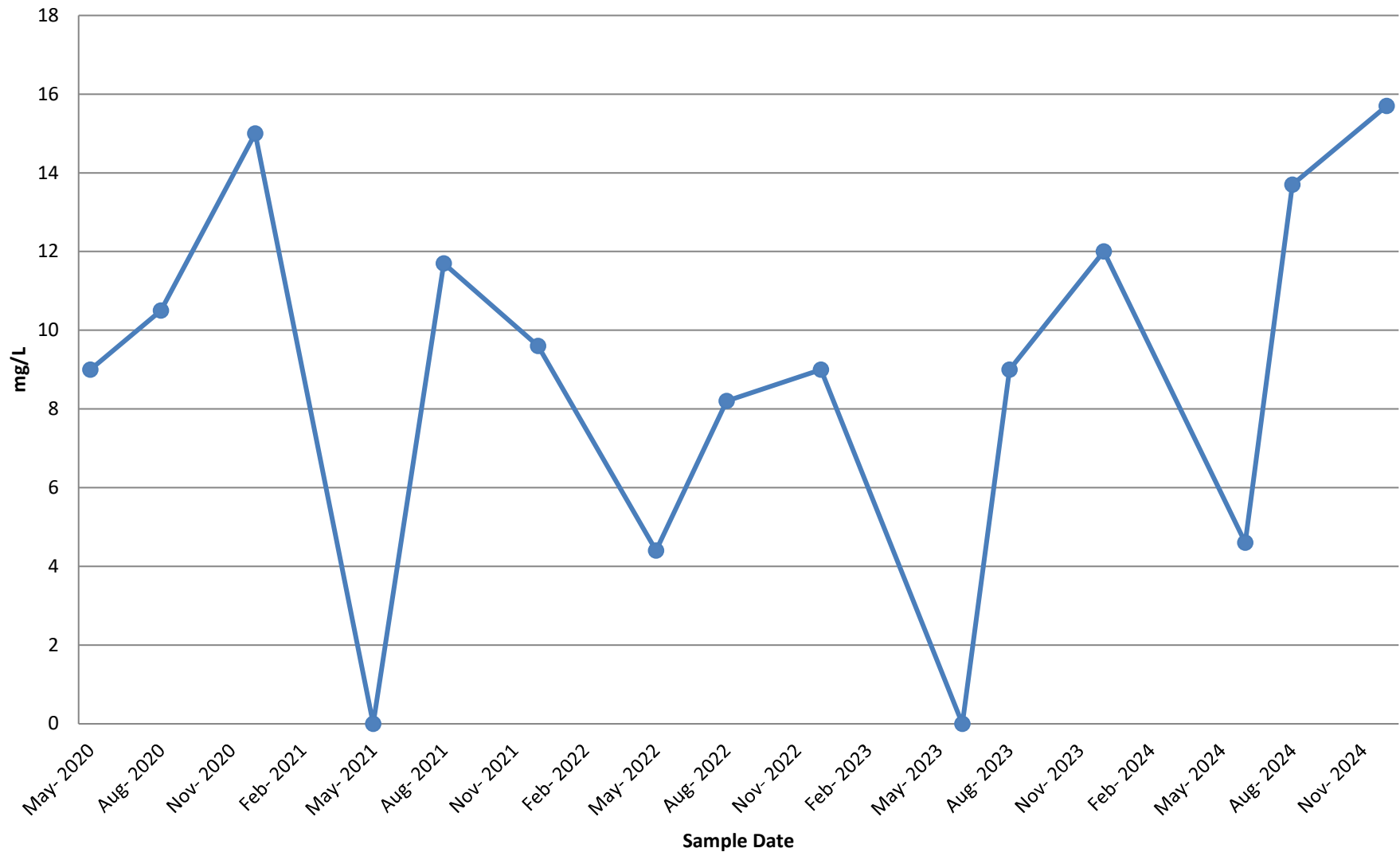
Trend Evaluation 38
WFR - 40: Specific Conductivity
Henderson Mill



Trend Evaluation 39
WFR - 40: pH
Henderson Mill



Trend Evaluation 40
WFR - 40: Sulfate
Henderson Mill



—●— Sulfate (mg/L)