

Question 21.

2024 WATER QUALITY DATA

- 2024 DRMS Water Quality Monitoring Plan Evaluation
- Table 1: Indicator Parameters 5-Year Groundwater Quality Monitoring Data
- Table 2: Indicator Parameters 5-Year Surface Water Quality Monitoring Data
- Table 3: Baseline Parameters 5-Year Groundwater Quality Monitoring Data
- Table 4: Baseline Parameter 5-Year Surface Water Quality Monitoring Data
- Charts 1-35: POC Five-Year Data Graphs (Metals, pH, Sulfate, TDS, Fluoride)
- Charts 36-40: EVMW-1S Five-Year Data Graphs (Metals, pH, Sulfate, TDS, Fluoride)
- Map 5: WQMP Sites Eagle River Watershed
- Map 6: WQMP Sites Tenmile Creek Watershed
- Map 7: WQMP Sites Arkansas River Watershed

Climax Mine Water Quality Monitoring Plan Evaluation - 2024

Sampling Locations

Groundwater

Sample Locations:

ARWell, ARK-MW-001D, EVMW-3S, EVMW-3D, EV-MW-004, TM-MW-002D, GW#2, TM-MW-001D, GW#1, ARK-MW-002S, ARK-MW-002D, EVMW-1D, EVMW-1S, EVMW-2, EVS-1, EVS-2, EVS-3

Internal Surface Water

Sample Locations:

CC-SW1, EI-SW1

Surface Water

Sample Locations:

Arkansas #1, Arkansas #2, AI, BI, EPR Outlet

Duplicate Sample Locations:

- First Quarter: ARWell
- Second Quarter: EVMW-3D
- Third Quarter: TM-MW-002D
- Fourth Quarter: CC-SW1

In 2024, all water quality samples were successfully collected (as planned) except:

First Quarter:

- EVMW-1D was not sampled due to pump failure.
- Inaccessible or frozen due to winter conditions:
 - o EVS-1, EVS-2, EVS-3, EI-SW1, CC-SW1

Second Quarter:

- No Observable Discharge:
 - o EPR Outlet (typically collected Q2 & Q3, but biannual samples collected in Q3 & Q4 this year)

Third Quarter:

- No sample due to dry conditions or no flows:
 - o EVS-1 (dry)
 - o EI-SW1 (dry – planned to collect baseline sampling suite in Q3, therefore no baseline data in 2024)

Fourth Quarter:

- Dry, no flows:
 - o EVS-1 (dry)
 - o EI-SW1 (dry)

Discussion of Results: POC Wells

Numeric Protection Limits (NPLs) were implemented at point of compliance (POC) wells in the approved Water Quality Monitoring Plan (WQMP) for the indicator parameter list. Section 5.0 of the WQMP discusses the rationale for selection of the NPLs. A comparison of results to applicable NPLs is provided in attached Table 1 and Charts 1-35 show five-year time series graphs for all indicator parameters at each POC well. In 2024, all indicator parameter results were below applicable NPLs except for pH at monitoring well GW#2 (below pH of 6.5—see below discussion) and pH at monitoring well TM-MW-002D (pH above 8.5). Well TM-MW-002D was monitored monthly in 2024 and pH values were below the pH NPL of 8.5 since July 2024. Climax intends to continue monthly monitoring at TM-MW-002D in 2025 to verify this return to below NPLs.

Also included are the five-year time series data graphs for all indicator parameters at internal groundwater well location EVMW-1S (see below discussion and Charts 36-40).

GW#2 pH discussion:

Groundwater in the Tenmile Creek drainage area occurs within a shallow alluvial/glacial till aquifer and within the underlying bedrock units, which consist of granodiorite and monzonite. Groundwater flow direction in both systems is toward the northeast. The alluvial/glacial aquifer is monitored downgradient of the Mayflower TSF in wells GW#1 and GW#2, which were installed by Climax in 1987. Groundwater conditions in the underlying bedrock system is monitored in wells TM-MW-001D and TM-MW-002D which were installed in 2012. A site map showing the locations of monitor wells is presented in the attached 2023 GW#2 report, as Figure 1. Construction and test reports for the four monitor wells are also included as Attachment A. Climax maintains a database with monitoring results for each of the wells. The database extends back to 1990 for monitor wells GW#1 and GW#2, and 2012 for the two bedrock monitor wells. Analytical results for the two bedrock monitor wells consistently yield neutral pH and low, or background, concentrations for tested parameters.

On April 16, 2018, the pH at GW#2 was measured at 6.18 standard units, which is outside the numeric protection level (NPL) range of 6.5 to 8.5. Climax notified Colorado Department of Reclamation, Mining and Safety (DRMS) April 17, 2018, per section 5.2.1.1 of the Water Quality Monitoring Plan (WQMP). Climax and DRMS agreed the site should be monitored on a monthly basis until the pH was measured within the NPL range for three consecutive months.

Summary of GW#2 Activities in 2024:

In 2024 Climax completed the following investigation activities:

- Continuation of monthly pH measurements in GW#2

- Quarterly groundwater sample collection and analysis at all four monitor wells

Climax had also planned to conduct video surveys of GW#1 and GW#2 in 2024; however, this task was delayed so Climax could facilitate contractor access to the wellheads, which are currently within small buildings. The following sections summarize the monitoring results for 2024:

GW#2 pH Monitoring:

Table A (below) presents 2024 pH results from GW#2; these data are graphically displayed in attached Chart 32. Monthly monitoring in 2024 yielded pH measurements below the NPL range in 3 of 12 months. The three months that yielded values below 6.5 were September, November, and December. By comparison, pH less than 6.5 was observed in four consecutive months (March through June) in 2023.

Table A – GW#2 pH Measurements from 2024

Location	Sample Date	pH, Field (Standard Units)
GW#2	01/17/2024	6.73
GW#2	02/14/2024	6.5
GW#2	03/19/2024	6.61
GW#2	04/15/2024	6.52
GW#2	05/09/2024	6.64
GW#2	06/06/2024	6.56
GW#2	07/03/2024	6.55
GW#2	08/19/2024	6.53
GW#2	09/09/2024	6.33
GW#2	10/15/2024	6.58
GW#2	11/14/2024	6.36
GW#2	12/18/2024	6.3

2024 Indicator Parameter Results:

Water quality samples were collected from GW-#2 in January, April, September, and October 2024. The results are consistent with past results with concentrations of all other parameters well below respective Numeric Protection Limits (NPLs) established in the WQMP. Table B, below, lists minimum and maximum concentrations measured in 2024 in GW#2 along with respective NPL.

Table B – GW#2 Range of 2024 Concentrations for Parameters with NPLs

Parameter	Min (mg/L)	Max (mg/L)	NPL (mg/L)
Cadmium, dissolved	<0.0005	<0.0005	0.005
Copper, dissolved	<0.0008	0.00177	0.2
Iron, dissolved	<0.06	0.206	0.3
Manganese, dissolved	<0.010	<0.010	0.050
Molybdenum, dissolved	0.00108	0.0013	0.210
Zinc, dissolved	<0.02	0.103	2.0
Sulfate	38.1	57	250
TDS	132	182	400

2023 Complete Well Profile Assessments of Wells GW#1 and GW#2:

As discussed in the 2023 Annual Report, following the July 25, 2023, sampling event, Climax completed a well profile assessment for wells GW#1 and GW#2. The purpose of the assessment was to evaluate whether the water pumped from the well could be influenced by chemical and/or microbiological activity within the well or within the near-well aquifer environment. Based on review of the report prepared by Water Systems Engineering (WSE), the well casing and aquifer at GW#1 and GW#2 are not conducive to the formation of chemical and/or microbiological scale that could cause an influence in the chemistry of a properly purged sample. Based on these results, neither well requires chemical or mechanical rehabilitation at this time. Additionally, it does not appear the water pumped from the wells is being influenced by chemical and/or microbiological activity within the well or within the near-well aquifer environment.

Analysis and Next Steps:

Climax has continued to conduct additional work to evaluate the presence and nature of the lower pH values observed in well GW#2. In addition to the 2023 comprehensive chemical and microbiological well assessments of wells GW#1 and GW#2, monthly pH monitoring and quarterly groundwater sampling has continued through 2024. Key findings from this additional work include:

- In 2024, the pH in GW#2 ranged from 6.3 to 6.73. The average of all readings collected in 2024 was 6.52, which is slightly lower than the historical average of all measurements collected since 1997 of 6.6, but like the average from 2023. Fluctuations above and below the average value are to be expected and values below 6.5 are not necessarily out of line with normal conditions at this location.

- Figure 3 is a graph of all pH measurements in GW#2 collected since 1997. The graph shows that from 1997 to 2007, the pH varied over a wide range, approximately 6.3 to 8. From 2007 to late 2014, the pH varied over a narrower range, approximately 6.4 to 7.3. In late 2014 there was a shift back to a more variable and slightly lower pH measurement range.
- A Mann-Kendall statistical analysis of GW#2 pH measurements collected in the past five years (since 2018) yielded a stable trend (attached in 2024 GW#2 report, as Figure 4).
- Despite the lower pH values, water chemistry data since 2012 have had non-detect or low concentrations for indicator parameters (no other exceedances of NPLs). More recent results from GW#2 (post 2012) have yielded lower concentrations of most parameters and lower total dissolved solids.
- Climax's characterization efforts of uncaptured seeps and surface waters located between Mayflower TSF and GW#2 suggest potential opportunities for additional capture of impacted waters. In 2023, Climax initiated a field program to advance several tasks to enhance capture of potentially impacted seeps and surface waters. This included construction of the Mayflower Seepage Collection and Secondary Containment System (see TR-37) in the drainage east of the 5 Dam Seepwater Pump System, which was initiated in late 2023 and completed in 2024. Based on the distance of the monitor wells from this area, we anticipate that up to 2 to 3 years may be needed to assess whether this activity has an effect on downgradient groundwater chemistry in the alluvial/glacial aquifer.

In 2025, Climax will continue to collect and analyze monthly pH data from GW#2 in addition to regularly scheduled quarterly samples. Climax intends to advance the assessment of GW#1 and GW#2 to include camera surveys. Due to aging well sheds, the 2024 camera survey was not performed to be cautious to not destroy the buildings. A plan has been made for building removals in 2025. The purpose of the camera surveys is to confirm that rehabilitation of the wells is or is not necessary, and inspect the wells for other flow features, such as seeping or cascading water above the water table.

ARK-MW-001D Iron discussion:

All parameters measured at Arkansas POC well ARK-MW-001D in 2024 were below the applicable NPL criteria and generally within historic ranges. Iron values though, appear to be generally increasing since September 2021 (though still below the NPL), based on a visual trend in Chart 6. There are no known sources or suspected causes of this possible trend. Upgradient bedrock well ARK-MW-002D has not detected dissolved iron since 2020

(at 0.03 mg/L in a November 6, 2020 sample). Out of an abundance of caution, Climax intends to increase the monitoring frequency at ARK-MW-001D to monthly beginning in March of 2025.

GW#1 TDS and Sulfate discussion:

Sulfate and TDS were measured at levels in the shallow Tenmile basin well GW#1 April and October 2024 quarterly samples at levels above their five-year historic ranges (and visually showing a possible increasing trend in both parameters), while other parameters like iron and manganese were not detected. Though GW#1 is not a POC well, Climax intends to increase the monitoring frequency at GW#1 to monthly beginning in March of 2025.

Discussion of Results: Evaluation of Groundwater and Surface Water Data

Tenmile and Arkansas Watersheds

In accordance with Section 5.2.2.1 of the WQMP regarding trend evaluation of data collected in the Tenmile and Arkansas basins, Climax will “routinely evaluate indicator parameter water quality trends for the groundwater monitoring sites identified above on an annual basis, and report findings in the Annual Report to DRMS.”

As requested by DRMS, five-year indicator parameter data sets for each of the POC wells are presented in the attached data tables (Tables 1 and 2) and depicted on Charts 1-35. Graph titles are color coordinated, matching the color of the data table to the corresponding POC well.

Every three years, Climax samples one of the four quarters using an expanded parameter list known as the baseline parameter analytical suite. The most recent baseline parameter sampling event was in 2021; so, in one quarter in 2024, baseline parameters were obtained in addition to the indicator parameters. These data are summarized in Table 2 (groundwater baseline parameters) and Table 4 (surface water baseline parameters). The 2024 baseline parameter data are tabulated with 2018 and 2021 baseline data for comparison. In general, there are no apparent trends or outlier data identified in the 2024 baseline monitoring data.

Except for GW#2 (pH), GW#1 (Sulfate, TDS), and ARK-MW-001D (Iron all other groundwater data and graphs do not indicate an apparent decline in 2024 in indicator parameter quality at any of the POC wells in the Tenmile and Arkansas basins.

In addition to the pH excursion observed at GW#2, discussed above, a pH of 8.56 s.u., was observed at POC well TM-MW-002D in October 2023. Climax increased pH sampling to a monthly frequency in 2024 to further investigate and similarly elevated pH values were observed in January, March, May and June. However, as indicated on Chart 27, which

presents the pH measurements at this well for the last five years (2020-2024), the pH has had an apparent decrease with no exceedances since June 2024.

The 6/19/2024 CC-SW1 sample result for dissolved zinc was 0.085 mg/L. This result did not correlate with historical dissolved zinc data at CC-SW1 (i.e., outside historic ranges), and other metals results from the same 6/19/2024 sample analysis were within historic ranges. Dissolved zinc returned to historical ranges in the 7/11/2024 sample, where results were below the MDL. Due to the anomalous results, Climax will continue to monitor zinc levels at this site in 2025.

Eagle River Watershed

In accordance with Section 6.0 of the WQMP, Climax evaluated Eagle River basin POC well data against applicable NPLs. The review revealed no exceedances of the NPLs in the Eagle River basin. Likewise, no trends of indicator or baseline parameters (suggesting a decline in water quality) were apparent in any of the three POC wells (see outlier discussion regarding August 2024 results from EVMW-004). Laboratory data and graphs presenting indicator and baseline parameter concentrations over the last five years are presented in Tables 1, 2, 3 and 4 and Charts 11-25, attached.

Climax also evaluated indicator parameter data from the remaining wells and surface water monitoring locations in the Eagle River basin in accordance with Section 6.3.2 of the WQMP. The first part of this evaluation involved looking for any potential discernable water quality trends over time. No apparent trends at surface water monitoring sites AI, BI or Eagle Park Reservoir Outlet (EPR Outlet) were noted during this evaluation. Similarly, no apparent trends were noted in indicator parameters at seeps EVS-1, EVS-2, or EVS-3. Indicator parameter values at groundwater wells EVMW-1D and EVMW-2 were generally within historic ranges.

Eagle River Watershed Well EVMW-1S

As previously reported, during the second and third quarter monitoring events in 2022, iron and manganese concentrations in well EVMW-1S increased outside the range of data from recent years. In response to this observation, Climax increased the monitoring frequency to monthly beginning in March 2023 at wells EVMW-1S, EVMW-1D and EVMW-004 in accordance with Section 6.3.2.4 of the Climax WQMP. Due to the failure of the dedicated well pump in monitoring well EVMW-1D (reported in the 2023 report), monthly sampling was suspended in September 2023, but resumed in April 2024 when the well pump was replaced.

Well EVMW-1S is a shallow internal monitoring well completed through the alluvium and upper weathered bedrock immediately downgradient of the seepage collection cutoff wall below Robinson Lake. Increasing trends of certain parameters (including sulfate, TDS, iron and manganese) were previously observed at well EVMW-1S beginning in late 2012. In response, monitoring frequency was increased and additional investigations were conducted between 2012 and 2014, including studies to understand the potential quantity

of water that is conveyed through this shallow system and its relation to the Robinson Lake seep. Increased iron and manganese concentrations were observed in well EVMW-004 in late 2013, although at much lower concentrations than at EVMW-1S, but no discernable change in sulfate and TDS concentrations has been observed since the well was installed in late 2012. In evaluating the full period of record of data from well EVMW-1D, there does not appear to be much correlation to the water quality observed in well EVMW-1S.

Chart 16 presents the most recent five years of data from Well EVMW-1S for iron, manganese, and other indicator metals molybdenum, cadmium, copper, and zinc. As has been observed in the past, iron and to a lesser degree manganese, show greater variability, while other metals remain consistently low, without significant spikes, fluctuations, or trends commensurate with the behavior of iron and manganese. Concentrations of primary indicator parameters, sulfate, and TDS, over the last five years are presented on Charts 18 and 19, demonstrating stable conditions, contrary to the situation in 2013, when an increase in sulfate and TDS concentrations was observed. While a slightly increasing visual trend was observed in the sulfate and TDS data between 2017 and 2019, concentrations over the last five years (2020 – 2024) remain stable, and all concentrations have remained lower than historic highs over the full period of record at this location beginning in 1993. The data observed at wells EVMW-1D and POC Well EVMW-004 have not shown any evidence of declining water quality over the last 5 years. Graphic presentation of EVMW-004 data is included as Charts 21 through 25.

Considering all data collected at the EVMW-1S location since 2001, following the completion of the seepage collection system, only iron and manganese can be perceived as having any kind of increasing trend, however, previous studies have also established that dissolved iron and manganese concentrations are highly variable and susceptible to phase changes potentially related to redox conditions. Seasonally, lower concentrations of iron and manganese are typically observed in first quarter samples, followed by higher levels in second and third quarter samples. TDS and sulfate concentrations do not show any strong seasonal variations although first quarter samples have had higher concentrations the last several years followed by lower concentrations in the second quarter samples, potentially related to greater influx from snow melt.

As part of the additional data evaluation prescribed in Section 6.3.2.1 of the WQMP, a statistical evaluation was performed using iron, manganese, sulfate and TDS data beginning in 2022, comparing the 4 most recent quarterly sampling results against the 80th percentile upper prediction limit (UPL), and the 2 most recent quarterly sampling results against the 95th percentile UPL. In accordance with the WQMP, four consecutive quarterly sample results exceeding the 80th percentile, or two consecutive quarterly sample results exceeding the 95th percentile are an indication of a trend. The 80th and 95th percentile values were calculated, conservatively using baseline data collected from 2011 through 2021. The table below presents the evaluation of the data collected during 2022, 2023, and 2024 at EVMW-1S relative to the UPL values. As indicated, the dissolved iron and manganese concentrations observed during both the 2nd and 3rd quarters exceed the 95th

percentile UPL values. The monthly data collected during 2023 and 2024 have also been added to this evaluation and are presented in the table below. As illustrated, iron and manganese results from at least one sample during two consecutive quarters have exceeded the 95th percentile UPL, in 2023 and 2024. Despite these observed iron and manganese values, the more stable indicator parameters of sulfate and TDS have remained generally steady over the last several years, with no statistical indication of a trend and exceedances of the UPLs primarily limited to the first quarter samples.

Year	Quarter	Sample Date	Iron Diss. (mg/l)	Manganese Diss. (mg/l)	Sulfate Diss. (mg/l)	TDS (mg/l)
2022	Q1	3/29/2022	1.6	0.87	614	1060
	Q2	6/16/2022	4.8	1.18	497	934
	Q3	9/1/2022	5.4	1.37	491	996
	Q4	12/27/2022	1.8	0.86	505	986
2023	Q1	03/29/2023	1.91	0.789	615	1000
	Q2	04/12/2023	1.42	0.851	550	986
		05/16/2023	***	***	***	***
		06/21/2023	1.42	1.56	454	926
	Q3	07/20/2023	2.2	0.82	484	906
		08/16/2023	2.45	0.858	481	930
		09/25/2023	3.18	1.00	489	930
	Q4	10/26/2023	0.03	1.12	419	922
		11/15/2023	3.5	1.09	434	924
		12/14/2023	2.08	0.94	519	924
2024	Q1	01/22/2024	1.59	0.895	572	970
		02/21/2024	1.61	0.788	609	1020
		03/20/2024	1.45	0.976	593	1020
	Q2	04/23/2024	4.21	1.18	413	920
		05/28/2024	6.08	1.42	442	864
		06/10/2024	4.25	1.1	437	814
	Q3	07/08/2024	5.25	1.2	422	830
		08/22/2024	6.74	1.43	425	908
		09/10/2024	4.25	1.13	426	922
	Q4	10/07/2024	2.88	1.02	518	982
		11/06/2024	3.4	1.16	459	954

Year	Quarter	Sample Date	Iron Diss. (mg/l)	Manganese Diss. (mg/l)	Sulfate Diss. (mg/l)	TDS (mg/l)
		12/03/2024	1.9	0.991	506	978
		80th % UPL	2.3	0.89	540	1030
		95th % UPL	2.7	0.97	593	1074

UPL values calculated using baseline data from 2011 - 2021

To evaluate any potential relationship between water level in the seepage collection pond and iron and manganese concentrations in well EVMW-1S, data loggers to record water level were installed in August 2024 wells EVMW-1S and EVMW-1D as well as the pump sump for the seepage collection pond. The range of water level elevation in the seepage collection pond is limited to approximately 1 foot and the fluctuations occur daily, as the pump cycles on and off. Water levels in the monitoring wells appear to fluctuate less than one-tenth of a foot daily. Based on the limited data collected thus far, there does not appear to be an obvious correlation, but data will continue to be collected and evaluated.

Water quality data from Robinson Lake and the Robinson Lake Seep have again been considered in relation to the observed quality at EVMW-1S. These samples have been analyzed with a suite different than the Indicator and Baseline suites. Consistent with previous evaluation, these data confirm the effectiveness of the Robinson Seep Collection Cut-off Wall, as the manganese concentrations at the seep are on the order of 3 to 6 times greater than those observed at EVMW-1S. Similarly, sulfate and TDS concentrations at the seep are generally 1.5 to 2 times greater than the well concentrations. Concentrations of these three parameters in Robinson Lake are considerably higher than at the seep, but dissolved iron concentrations in both the seep and Robinson Lake are generally very low. When the lake and seep data are considered temporally, there do not appear to be specific trends or events that could directly affect water quality at EVMW-1S, although the period of record of available data is less consistent than the well data.

Climax intends to continue monthly sampling of monitoring wells EVMW-1S, and EVMW-004, as well as periodic sampling of Robinson Lake and Robinson Lake Seep. Although no trends are observed in the EVMW-004 water quality data, this well will continue to be sampled monthly since it is the nearest POC well, however, monitoring of EVMW-1D will return to quarterly. At this stage no definitive correlation has been determined, but work will continue to determine potential reasons for the observed increases.

Discussion of Results: Outlier Identification and Data Validation

The 2024 groundwater and surface water data were analyzed for outliers.

A data outlier was identified for the 8/26/2024 EV-MW-004 elevated metals results but September sample reported historical ranges. Elevated August sample was below NPL and Climax determined to be a field error. These values were used for the August 2024 sample results to show that no data trend was identified. Two data outliers were identified for the 4/15/2024 TM-MW-002D sample and the 9/11/2024 EVMW-3S sample with elevated Fluoride results, the data was included in the trend analysis but determined to not be a trend.

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

Climax 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

Except as discussed herein (see above discussions regarding continued water quality investigations at wells GW#2 and EVMW-1S), Climax 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.

GW#2 Investigation Report

2024 Activities &

2025 Plans



Memorandum

To: Alex Ungers and Meghan Graham, Climax Molybdenum **Date:** February 27, 2025
From: Michael Alter, CPG
CC: Eric Detmer and Elaine DuBois, Climax Molybdenum
Subject: GW#2 Evaluation Update

Clear Creek Associates is assisting Climax Molybdenum Company (Climax) evaluate groundwater conditions in the Tenmile Creek drainage area north (downgradient) of the Mayflower Tailings Storage Facility (TSF). The evaluation was initiated by Climax in 2021 to understand the presence and nature of lower pH values recorded in monitor well GW#2, which monitors groundwater conditions in the shallow alluvial aquifer near the northern property boundary. This memo provides background information, describes 2024 investigation activities, reviews current conditions/trends, and discusses next steps in the evaluation.

Background Information

Groundwater in the Tenmile Creek drainage area occurs within a shallow alluvial/glacial till aquifer and within the underlying bedrock units, which consist of granodiorite and monzonite. Groundwater flow direction in both systems is toward the northeast. The alluvial/glacial aquifer is monitored downgradient of the Mayflower TSF in wells GW#1 and GW#2, which were installed by Climax in 1987. Groundwater conditions in the underlying bedrock system is monitored in wells TM-MW-001D and TM-MW-002D which were installed in 2012. A site map showing the locations of monitor wells is presented in Figure 1. Construction and test reports for the four monitor wells were included in Attachment A of the 2023 GW #2 update memo¹. Climax maintains a database with monitoring results for each of the wells. The database extends back to 1990 for monitor wells GW#1 and GW#2, and 2012 for the two bedrock monitor wells. Analytical results for the two bedrock monitor wells consistently yield neutral pH and low, or background, concentrations for tested parameters.

¹ Clear Creek, 2024. GW #2 Evaluation Update Technical Memorandum. Climax Molybdenum. February 20, 2024

On April 16, 2018, the pH at GW#2 was measured at 6.18 standard units, which is outside the numeric protection level (NPL) range of 6.5 to 8.5. Climax notified Colorado Department of Reclamation, Mining and Safety (DRMS) on April 17, 2018, per section 5.2.1.1 of the Water Quality Monitoring Plan (WQMP). Climax and DRMS agreed the site should be monitored on a monthly basis until the pH was measured within the NPL range for three consecutive months.

Summary of 2024 Activities

In 2024, Climax completed the following investigation activities:

- Continuation of monthly pH measurements in GW#2
- Quarterly groundwater sample collection and analysis at all four monitor wells

Climax had also planned video surveys of GW#1 and GW#2 in 2024; however, this task was delayed due to well access limitations. The wellheads are located within small buildings, which are scheduled for removal to facilitate access, but early winter storms prevented this work. Climax plans to remove the sheds and conduct the video surveys in May/June of 2025.

The following sections provide a summary of evaluation activities conducted in 2024.

GW#2 pH Monitoring

Monthly pH results for monitor well GW#2 are presented in Table 1 (below) and Figure 2. The pH measurements ranged from 6.30 to 6.73. Monthly monitoring yielded pH values below 6.5 in 3 of 12 months (September, November and December). Measurements from January through August, and October were above 6.5.

Table 1 – GW#2 pH Measurements from 2024

Site Number	Sample Date	pH, Field, Standard Units
GW#2	01/17/2024	6.73
GW#2	02/14/2024	6.5
GW#2	03/19/2024	6.61
GW#2	04/15/2024	6.52
GW#2	05/09/2024	6.64
GW#2	06/06/2024	6.56
GW#2	07/03/2024	6.55
GW#2	08/19/2024	6.53
GW#2	09/09/2024	6.33
GW#2	10/15/2024	6.58
GW#2	11/14/2024	6.36
GW#2	12/18/2024	6.3

2024 Monitoring Activities

Water quality samples were collected from GW#2 in January, April, September, and October 2024. The results are generally consistent with past results, with concentrations of all other parameters below respective Numeric Protection Limits (NPLs) established in the WQMP. Iron was detected at 0.206 mg/L during the January sampling event; iron was non-detect in the remaining three sample events. Manganese concentrations were non-detect in GW#2 in all samples collected in 2024. Table 2, below, lists minimum and maximum concentrations measured in 2024 in GW#2 along with respective NPLs.

Table 2 – GW#2 Range of 2024 Concentrations for Parameters with NPLs

Parameter	Min	Max	NPL
Cadmium, dissolved (mg/L)	<0.0005	<0.0005	0.005
Copper, dissolved (mg/L)	<0.0008	0.00177	0.2
Iron, dissolved (mg/L)	<0.06	0.206	0.3
Manganese, dissolved (mg/L)	<0.01	<0.01	0.05
Molybdenum, dissolved (mg/L)	0.00108	0.0013	0.21
Zinc, dissolved (mg/L)	<0.02	0.103	2
Sulfate (mg/L)	38.1	57	250
TDS (mg/L)	132	182	400

Discussion

Climax has continued monthly pH monitoring and quarterly groundwater sampling to understand the presence and nature of the lower pH values observed in well GW#2. Key findings from this work include:

- In 2024, the pH in GW#2 ranged from 6.30 to 6.73. The average of all readings collected in 2024 was 6.5, which is slightly lower than the historical average of 6.6 for all measurements collected since 1997. Fluctuations above and below the average value are to be expected and values below 6.5 are not necessarily out of line with normal conditions at this location.
- DRMS and Climax agreed to continue monthly monitoring in GW#2 until the pH was within NPL range for three consecutive months. In 2024, there was an 8-month period where all 8 samples from GW#2 were within the NPL range (at or above 6.5). The pH then dropped below 6.5 again. Climax will continue to monitor pH monthly through 2025.
- Figure 3 is a graph of all pH measurements in GW#2 collected since 1997. The graph shows that from 1997 to 2007, the pH varied over a wide range, approximately 6.3 to 8. From 2007 to late 2014, the pH varied over a narrower range, approximately 6.4 to 7.3. In late 2014 there was a shift back to a more variable and slightly lower pH measurement range.
- A Mann-Kendall statistical analysis of GW#2 pH measurements collected from 2019 through 2024 yielded a stable trend (Figure 4).
- Despite the lower pH values, water chemistry data since 2012 have had non-detect or low concentrations for indicator parameters (no other exceedances of NPLs). More recent results from GW#2 (post 2012) have yielded lower concentrations of most parameters and lower total dissolved solids.
- In October 2023, the pH measurement in TM-MW-002D was 8.56, above the NPL range of 6.5 to 8.5. Subsequent pH measurements collected in January 2024 and March 2024 were also above the NPL range (8.6 and 8.57, respectively). Climax collected monthly pH measurements at TM-MW-002D for the remainder of 2024. The pH was measured above 8.5 in May (8.56) and June (8.51), and then was below 8.5 from July through December

2024. Water chemistry data from TM-MW-002D from 2024 had either non-detect or low concentrations for tested parameters.

- In February 2024, Climax installed a new industrial well to supply water to the Molybdenum Recovery Water Treatment Plant (MRWTP Utility Well; permit #87172-F). The new well is located approximately 730 feet southwest of GW#2 and is screened within the alluvial aquifer. The depth to water in MRWTP Utility Well was measured at 13.64 feet on February 19, 2024 and the lab pH was measured at 7.0 on February 20, 2024. This water level supports a northeast flow direction within the alluvial aquifer, toward GW#2. Figure 5 shows first quarter 2024 water level elevations for alluvial wells in Tenmile basin.
- Climax continues to advance projects to understand and improve conditions in the watershed upstream of monitor well GW#2, including:
 - 5 Dam Seepwater Collection Secondary Containment System – This project involves several tasks Climax is conducting to improve drainage and surface water quality in Tenmile Creek downstream of Mayflower TSF (upstream of GW#2). Components of the project include drainage improvements, the installation of a new concrete structure to cut off surface and near-surface flow in the channel, and construction of a secondary containment pump station (Mayflower Pump Station).

Climax will continue monitoring conditions in GW#2 to assess whether these improvements have an effect on the groundwater chemistry in the alluvial/glacial aquifer.

2025 Planned Activities

In 2025, Climax will continue to collect and analyze monthly pH data from GW#2, in addition to regularly-scheduled quarterly samples. Climax also intends to conduct the following tasks in 2025:

- Advance the assessment of GW#1 and GW#2 to include camera surveys. The purpose of the camera surveys is to confirm that rehabilitation of the wells is not necessary, and inspect the wells for other flow features, such as seeping or cascading water above the water table.
- Install water level and pH transducers in GW#2, and potentially other monitoring locations, to evaluate correlation, if any, between water levels and pH measurements.

- Conduct two water level sweep events that will include all accessible nearby monitoring locations, including the new MRWTP utility well. The sweep events will be scheduled for June-July (peak snowmelt) and October. Climax will use the water level data to develop more detailed water level contour maps of the alluvial aquifer in Tenmile basin. The maps will support Climax' analysis of hydraulic gradients and flow directions in the alluvial aquifer. This analysis will also integrate water quality information to further the understanding of groundwater conditions and water quality at POC GW#2. Based on this assessment, Climax will evaluate the need for possibly establishing additional monitoring locations in 2026.

FIGURES



Legend

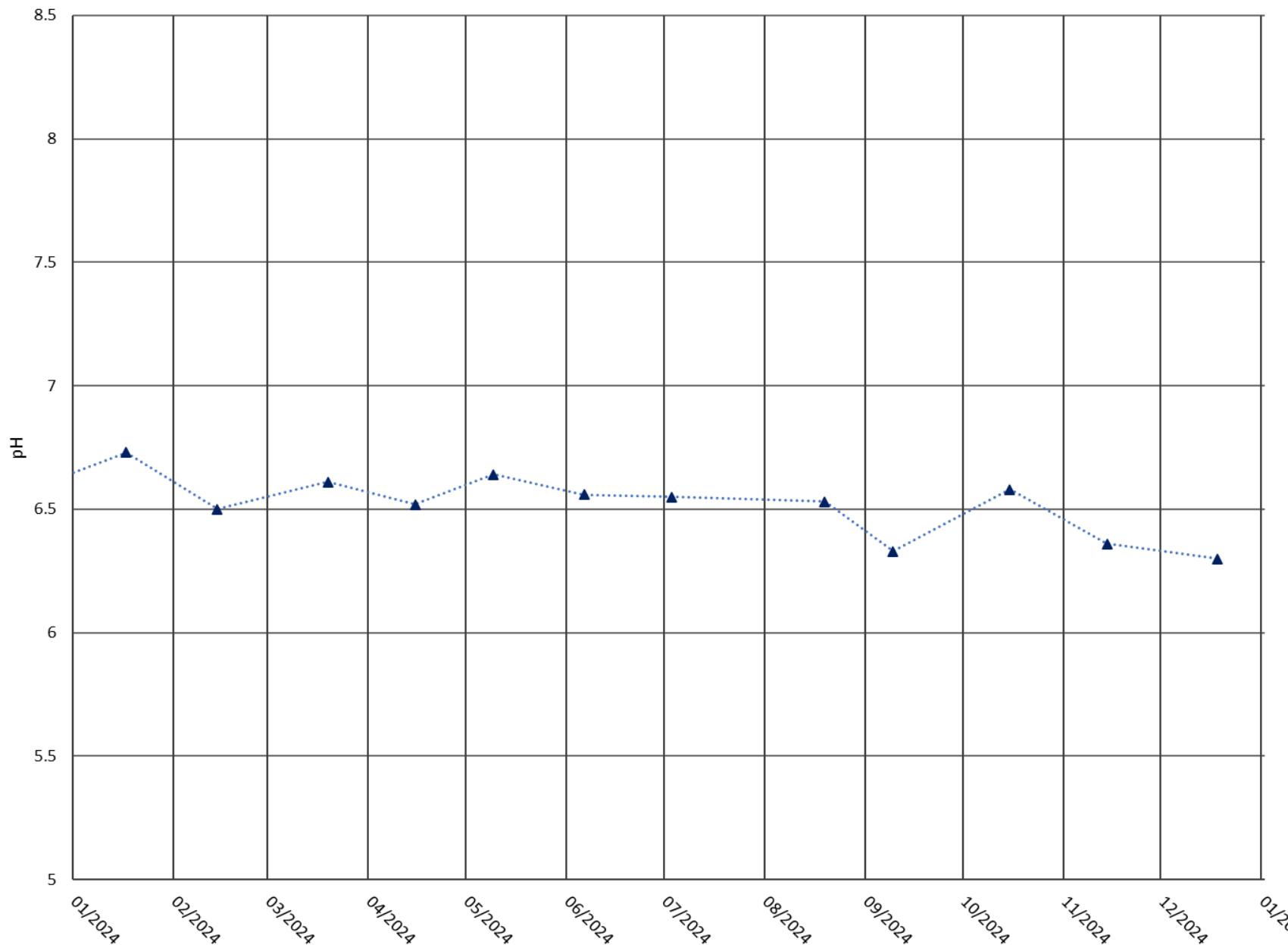
- Monitoring Wells

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
Imagery from USDA NAIP Natural Color Imagery for Colorado acquired 2013.



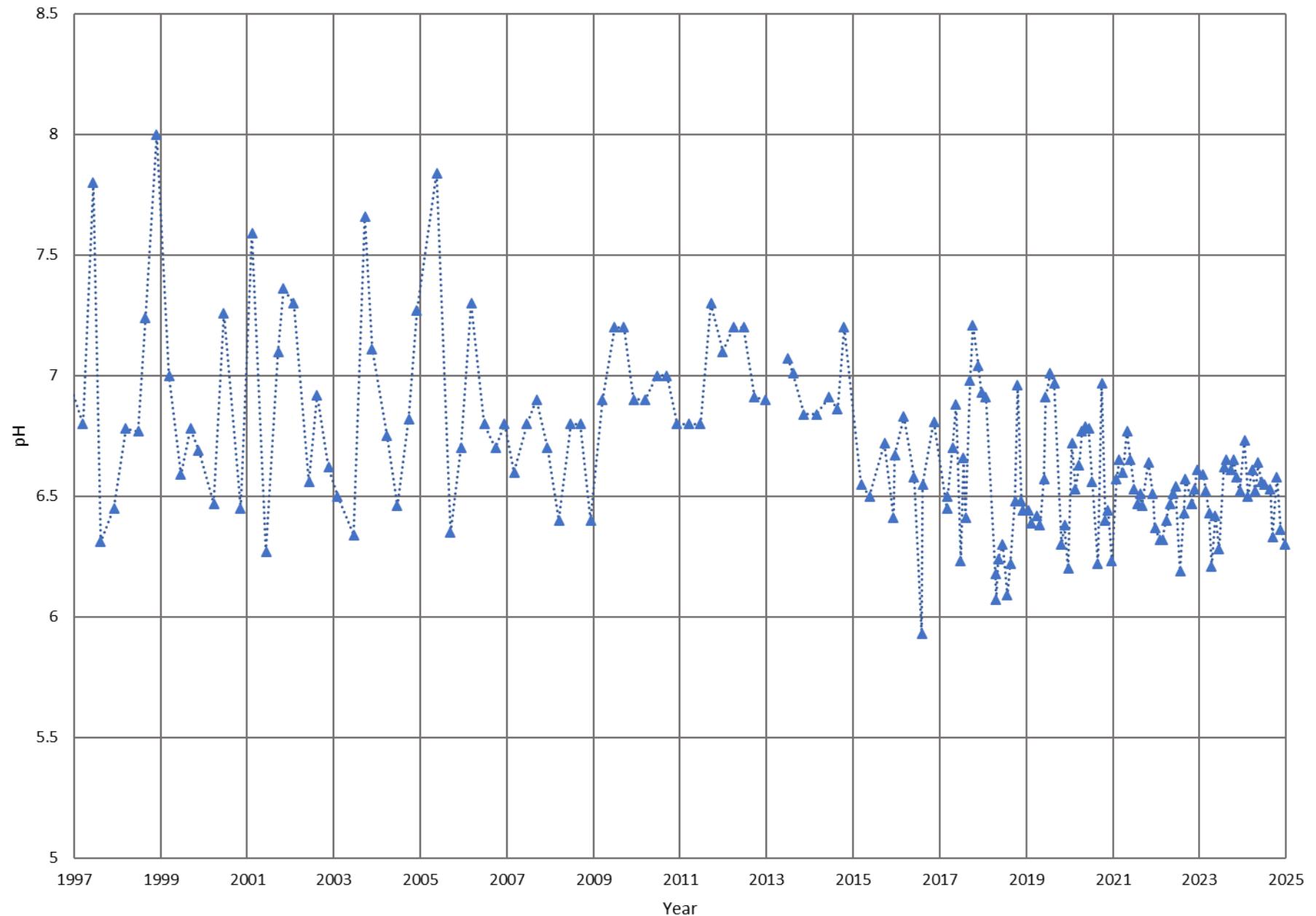
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Figure 1
Site Map
Ten Mile Basin Site
Climax Mine, CO



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Figure 2 – GW#2 pH 2024



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Figure 3 – GW#2 pH 1997 to 2024

GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

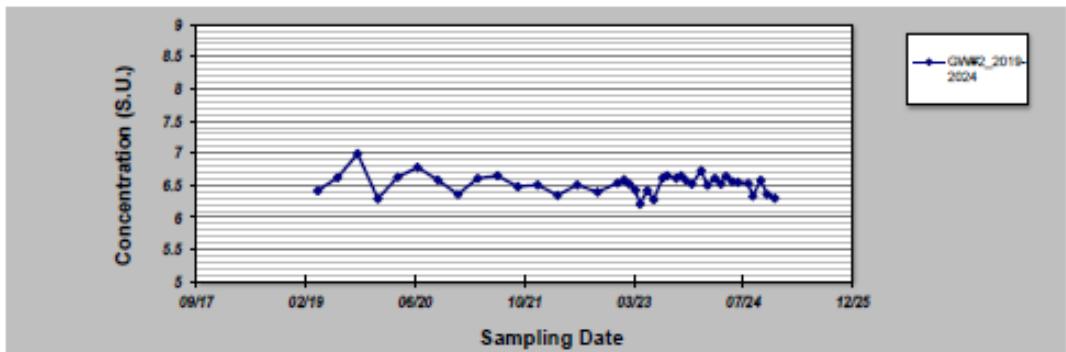
Evaluation Date: **8-Feb-26**
 Facility Name: **CIImax**
 Conducted By: **G. Kilduff**

Job ID: **CC21.1118**
 Constituent: **pH**
 Concentration Units: **S.U.**

Sampling Point ID: **GW#2_2019-2024**

Sampling Event	Sampling Date	PH CONCENTRATION (S.U.)									
1	3/31/2019	6.42									
2	6/30/2019	6.62									
3	9/30/2019	6.99									
4	12/31/2019	6.29									
5	3/31/2020	6.63									
6	6/30/2020	6.78									
7	9/30/2020	6.58									
8	12/31/2020	6.36									
9	3/31/2021	6.61									
10	6/30/2021	6.65									
11	9/30/2021	6.48									
12	12/31/2021	6.51									
13	3/31/2022	6.35									
14	6/30/2022	6.51									
15	9/30/2022	6.40									
16	12/31/2022	6.54									
17	01/30/2023	6.59									
18	02/22/2023	6.52									
19	03/21/2023	6.43									
20	04/13/2023	6.21									
21	05/15/2023	6.42									
22	06/14/2023	6.28									
23	07/25/2023	6.62									
24	08/14/2023	6.65									
25	09/25/2023	6.61									
26	10/17/2023	6.65									
27	11/07/2023	6.58									
28	12/06/2023	6.52									
29	01/17/2024	6.73									
30	02/14/2024	6.50									
31	03/19/2024	6.61									
32	04/15/2024	6.52									
33	05/09/2024	6.64									
34	06/06/2024	6.56									
35	07/03/2024	6.55									
36	08/19/2024	6.53									
37	09/05/2024	6.33									
38	10/15/2024	6.58									
39	11/14/2024	6.36									
40	12/18/2024	6.30									

Coefficient of Variation: **0.02**
 Mann-Kendall Statistic (S): **-54**
 Confidence Factor: **75.6%**
 Concentration Trend: **Stable**



- Notes:
- At least four independent sampling events per well are required for calculating the trend. Methodology is valid for 4 to 40 samples.
 - Confidence in Trend = Confidence (in percent) that constituent concentration is increasing ($S > 0$) or decreasing ($S < 0$): $> 95\% = \text{Increasing or Decreasing}$; $\geq 90\% = \text{Probably Increasing or Probably Decreasing}$; $< 90\% \text{ and } S=0 = \text{No Trend}$; $< 90\%, S \neq 0, \text{ and } COV \geq 1 = \text{No Trend}$; $< 90\% \text{ and } COV < 1 = \text{Stable}$.
 - Methodology based on "MARIO8: A Decision Support System for Optimizing Monitoring Plans", J.J. Atz, M. Ling, H.S. Rifa, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

DISCLAIMER: The GSI Mann-Kendall Toolkit is available "as is". Considerable care has been exercised in preparing this software product; however, no party, including without limitation GSI Environmental Inc., makes any representation or warranty regarding the accuracy, correctness, or completeness of the information contained herein, and no such party shall be liable for any direct, indirect, consequential, incidental or other damages resulting from the use of this product or the information contained herein. Information in this publication is subject to change without notice. GSI Environmental Inc. disclaims any responsibility or obligation to update the information contained herein.

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**Figure 4 – Statistical Analysis
GW#2 pH 2019 - 2024**

Legend

- Monitoring Well
- Utility/Potable Well



SCALE: 1 inch: 1,300 feet

0 1,000 2,000 Feet

Service Layer Credits: World Imagery: Maxar
World_Imagery: Maxar
Imagery from USDA NAIP Natural Color Imagery for Colorado acquired 2013.



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Figure 5
Water Level Elevation Map
Ten Mile Basin Site
Climax Mine, CO

Table 1 - Indicator Parameters
5-Year Groundwater Quality Monitoring Data
Climax Mine

Location	Sample Date	Cadmium, Dissolved (mg/L)	Copper, Dissolved (mg/L)	Iron, Dissolved (mg/L)	Manganese, Dissolved (mg/L)	Molybdenum, Dissolved (mg/L)	Zinc, Dissolved (mg/L)	pH, Field Measurement (Standard Units)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Fluoride (mg/L)
ARwell	03/12/2020	0.000025	0.0004	0.015	0.22	0.0062	0.005	7.05	28.1	170	0.5
	03/12/2020	0.000025	0.0004	0.04	0.23	0.0069	0.005	7.05	28.5	182	0.6
	05/19/2020	0.000025	0.0004	0.015	0.05	0.0043	0.01	7.23	24.5	176	0.3
	09/03/2020	0.000025	0.0004	0.015	0.07	0.0043	0.01	7.45	29.5	178	0.4
	11/10/2020	***	***	***	***	***	***	***	***	***	***
	03/25/2021	0.000025	0.0004	0.015	0.22	0.0062	0.005	7.05	28.1	170	0.5
	06/11/2021	0.000025	0.0004	0.04	0.159	0.00731	0.01	7.47	27.3	161	0.71
	09/23/2021	0.000025	0.0004	0.03	0.138	0.0062	0.01	7.39	29.5	172	0.53
	12/02/2021	0.000025	0.00763	0.03	0.157	0.00671	0.01	7.42	28.8	188	0.57
	03/25/2022	0.000025	0.0004	0.03	0.2	0.00716	0.05	7.54	30.9	170	0.53
	03/25/2022	0.000025	0.0004	0.03	0.22	0.00773	0.05	7.54	30.2	170	0.6
	06/20/2022	0.000025	0.0004	0.03	0.121	0.00484	0.01	7.22	29.8	164	0.36
	09/02/2022	0.000025	0.0004	0.03	0.186	0.00536	0.01	7.36	29.5	166	0.39
	12/14/2022	***	***	***	***	***	***	***	***	***	***
	03/28/2023	0.000025	0.0004	0.03	0.292	0.00685	0.01	7.54	27.6	172	0.53
	06/19/2023	0.000025	0.0004	0.03	0.054	0.00373	0.01	7.16	18.8	154	0.29
	08/23/2023	0.000025	0.0004	0.03	0.13	0.00408	0.01	7.4	28.4	172	0.37
	10/10/2023	0.000025	0.0004	0.03	0.199	0.00446	0.01	7.4	30.2	186	0.4
	01/24/2024	0.000025	0.0004	0.03	0.197	0.0052	0.01	7.4	27.1	178	0.49
	01/24/2024	0.000025	0.0004	0.03	0.2	0.00526	0.01	7.18	26	182	0.5
	06/04/2024	0.000025	0.0004	0.03	0.081	0.00372	0.01	7.18	21.9	158	0.41
	07/22/2024	0.000025	0.0004	0.119	0.068	0.00762	0.01	7.09	22.5	158	0.25
	10/23/2024	0.000025	0.0004	0.03	0.183	0.00507	0.01	7.41	30.4	184	0.45
<i>Numeric Protection Limit (NPL)</i>		0.005	0.2	0.3	TBD	0.210	2.0	6.5 - 8.5	250	400	2.0

Note: Bold italicized data are results below Lab Method Detection Limits (MDL) and are reported as 1/2 the MDL.

*** = No Sample Collected - Not Accessible (or Frozen) or Dry

Note: Data in purple represents a duplicate sample

Location	Sample Date	Cadmium, Dissolved (mg/L)	Copper, Dissolved (mg/L)	Iron, Dissolved (mg/L)	Manganese, Dissolved (mg/L)	Molybdenum, Dissolved (mg/L)	Zinc, Dissolved (mg/L)	pH, Field Measurement (Standard Units)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Fluoride (mg/L)
ARK-MW-001D	03/16/2020	0.000025	0.0004	0.08	0.005	0.0306	0.005	7.98	42.6	206	1.7
	05/19/2020	0.000025	0.0004	0.11	0.005	0.0301	0.01	7.46	39.3	224	1.7
	09/22/2020	0.000025	0.0004	0.099	0.019	0.0331	0.01	8.17	42.7	212	1.8
	09/22/2020	0.000025	0.0004	0.121	0.061	0.0307	0.01	8.17	43.5	212	1.7
	11/10/2020	0.000025	0.0004	0.097	0.066	0.0289	0.01	7.96	42.8	222	1.84
	03/25/2021	***	***	***	***	***	***	***	***	***	***
	06/23/2021	0.000025	0.0004	0.129	0.091	0.0288	0.01	8.12	38.1	218	1.76
	09/23/2021	0.000025	0.0004	0.075	0.005	0.0313	0.01	7.99	40.8	218	1.89
	12/06/2021	***	***	***	***	***	***	***	***	***	***
	03/25/2022	***	***	***	***	***	***	***	***	***	***
	06/21/2022	0.000025	0.0004	0.105	0.005	0.031	0.01	7.85	45	220	1.87
	09/02/2022	0.000025	0.0004	0.124	0.012	0.0308	0.01	7.98	43.3	210	1.64
	12/14/2022	***	***	***	***	***	***	***	***	***	***
	03/28/2023	***	***	***	***	***	***	***	***	***	***
	06/26/2023	0.000025	0.0004	0.144	0.061	0.0318	0.021	7.87	40.6	218	1.79
	08/23/2023	0.000025	0.0004	0.134	0.026	0.032	0.01	8.08	41.4	222	1.57
	10/10/2023	0.000025	0.0004	0.141	0.015	0.0316	0.01	8.03	46.6	230	1.78
	03/22/2024	0.000025	0.0004	0.169	0.077	0.0314	0.01	8.12	43.2	218	1.55
	06/05/2024	0.000025	0.0004	0.131	0.043	0.0001	0.01	8.07	43.6	218	1.67
	07/22/2024	0.000025	0.0004	0.121	0.032	0.0329	0.01	7.91	45.7	216	1.81
	10/23/2024	0.000025	0.0004	0.212	0.086	0.0317	0.01	8.05	39.3	220	1.66
<i>Numeric Protection Limit (NPL)</i>		0.005	0.2	0.3	TBD	0.210	2.0	6.5 - 8.5	250	400	2.0

Note: Bold italicized data are results below Lab Method Detection Limits (MDL) and are reported as 1/2 the MDL.

*** = No Sample Collected - Not Accessible (or Frozen) or Dry

Note: Data in purple represents a duplicate sample

Table 1 - Indicator Parameters
5-Year Groundwater Quality Monitoring Data
Climax Mine

Location	Sample Date	Cadmium, Dissolved (mg/L)	Copper, Dissolved (mg/L)	Iron, Dissolved (mg/L)	Manganese, Dissolved (mg/L)	Molybdenum, Dissolved (mg/L)	Zinc, Dissolved (mg/L)	pH, Field Measurement (Standard Units)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Fluoride (mg/L)
EVMW-3S	03/17/2020	0.000025	0.002	0.015	0.04	0.0012	0.005	7.89	11.7	218	0.05
	06/11/2020	0.000025	0.0013	0.03	0.03	0.0013	0.01	7.54	8.6	186	0.05
	08/18/2020	0.000025	0.0028	0.03	0.02	0.0021	0.01	7.27	11.8	236	0.05
	11/02/2020	0.000025	0.0004	0.03	0.07	0.00146	0.01	7.43	11.5	252	0.06
	03/22/2021	***	***	***	***	***	***	***	***	***	***
	06/18/2021	0.000025	0.004	0.03	0.016	0.00093	0.01	7.23	10.5	200	0.075
	09/16/2021	0.000025	0.004	0.03	0.019	0.00174	0.01	7.1	10.9	268	0.075
	12/08/2021	0.000025	0.004	0.03	0.06	0.00168	0.01	7.48	10.1	240	0.075
	12/08/2021	0.000025	0.004	0.115	0.065	0.00167	0.022	7.48	14.9	246	0.075
	03/22/2022	0.000025	0.004	0.03	0.012	0.00064	0.01	7.16	15.3	246	0.075
	06/15/2022	0.000025	0.00124	0.03	0.018	0.00159	0.01	7.31	7	224	0.075
	09/14/2022	0.000025	0.00424	0.03	0.021	0.00078	0.01	7.14	7.8	106	0.075
	12/13/2022	0.000025	0.004	0.03	0.017	0.00091	0.04	7.02	9.5	244	0.075
	03/23/2023	0.000025	0.004	0.03	0.027	0.00195	0.01	7.2	12.9	226	0.075
	06/20/2023	0.000025	0.004	0.03	0.005	0.00079	0.01	7.32	7.1	210	0.075
	09/20/2023	0.000025	0.004	0.03	0.005	0.0012	0.01	7.47	9.9	246	0.075
	10/09/2023	0.000025	0.004	0.03	0.036	0.00302	0.01	7.59	12.3	252	0.075
	03/20/2024	0.000025	0.004	0.03	0.014	0.00116	0.01	7.11	17.3	280	0.075
	06/18/2024	0.000025	0.004	0.03	0.005	0.00111	0.01	7.25	11.1	218	0.075
	09/11/2024	0.000025	0.004	0.03	0.012	0.00143	0.01	7.17	11.5	242	0.21
	10/22/2024	0.000025	0.0016	0.03	0.005	0.00195	0.01	7.21	11.2	240	0.075
<i>Numeric Protection Limit (NPL)</i>		0.005	0.2	0.3	TBD	0.210	2.0	6.5 - 8.5	250	400	None

Note: Bold italicized data are results below Lab Method Detection Limits (MDL) and are reported as 1/2 the MDL.

Note: Data in purple represents a duplicate sample

*** = No Sample Collected - Not Accessible (or Frozen) or Dry

nd = no data collected for parameter at location during sampling event

Location	Sample Date	Cadmium, Dissolved (mg/L)	Copper, Dissolved (mg/L)	Iron, Dissolved (mg/L)	Manganese, Dissolved (mg/L)	Molybdenum, Dissolved (mg/L)	Zinc, Dissolved (mg/L)	pH, Field Measurement (Standard Units)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Fluoride (mg/L)
EVMW-3D	03/17/2020	0.000025	0.0004	0.015	0.005	0.0006	0.005	7.78	1.9	246	0.3
	06/11/2020	0.000025	0.0004	0.03	0.02	0.0007	0.01	7.46	5.2	244	0.3
	08/18/2020	0.000025	0.0037	0.03	0.06	0.0016	0.01	7.79	2.9	272	0.2
	11/02/2020	0.000025	0.0004	0.03	0.046	0.0008	0.01	7.39	6.2	272	0.34
	03/22/2021	***	***	***	***	***	***	***	***	***	***
	06/18/2021	0.000025	0.0124	0.03	0.023	0.00078	0.01	7.71	9.4	230	0.34
	06/18/2021	0.000025	0.00129	0.03	0.021	0.00078	0.01	7.71	2.7	234	0.34
	09/16/2021	0.000141	0.0038	0.03	0.024	0.00105	0.01	7.62	4.1	246	0.31
	12/08/2021	0.000025	0.0004	0.03	0.021	0.00062	0.032	7.71	2.3	242	0.38
	03/22/2022	0.00058	0.0004	0.03	0.005	0.00068	0.01	7.92	3.4	232	0.35
	06/15/2022	0.000025	0.00217	0.03	0.017	0.00081	0.01	7.26	2.2	232	0.37
	09/14/2022	0.000142	0.0004	0.03	0.005	0.00062	0.01	7.88	3.3	210	0.27
	12/13/2022	0.000025	0.00092	0.158	0.018	0.0007	0.044	8.02	2	238	0.37
	03/23/2023	0.000025	0.00164	0.03	0.017	0.00074	0.01	7.72	1.8	232	0.35
	06/20/2023	0.000025	0.0004	0.03	0.025	0.00072	0.01	7.69	1.5	242	0.3
	09/20/2023	0.000025	0.00178	0.03	0.005	0.00068	0.01	7.63	1.9	236	0.3
	09/20/2023	0.000025	0.0004	0.03	0.005	0.0007	0.01	7.63	2.9	248	0.3
	10/09/2023	0.000061	0.00335	0.03	0.005	0.00139	0.01	7.78	2.6	236	0.34
	3/20/2024	0.000061	0.00251	0.03	0.005	0.00074	0.021	7.78	2.8	236	0.3
	6/18/2024	0.000025	0.00105	0.03	0.017	0.00075	0.028	7.74	4	242	0.28
	9/11/2024	0.000025	0.00099	0.03	0.014	0.00075	0.01	7.74	4.2	230	0.28
	10/22/2024	0.000025	0.00282	0.03	0.005	0.0006	0.01	7.61	3.8	224	0.28
<i>Numeric Protection Limit (NPL)</i>		0.005	0.2	0.3	TBD	0.210	2.0	6.5 - 8.5	250	400	None

Note: Bold italicized data are results below Lab Method Detection Limits (MDL) and are reported as 1/2 the MDL.

Note: Data in purple represents a duplicate sample

*** = No Sample Collected - Not Accessible (or Frozen) or Dry

Table 1 - Indicator Parameters
5-Year Groundwater Quality Monitoring Data
Climax Mine

Location	Sample Date	Cadmium, Dissolved (mg/L)	Copper, Dissolved (mg/L)	Iron, Dissolved (mg/L)	Manganese, Dissolved (mg/L)	Molybdenum, Dissolved (mg/L)	Zinc, Dissolved (mg/L)	pH, Field Measurement (Standard Units)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Fluoride (mg/L)
EV-MW-004	03/03/2020	***	***	***	***	***	***	***	***	***	***
	06/24/2020	0.000025	0.0004	0.03	0.08	0.0032	0.01	6.92	48.8	304	0.2
	09/02/2020	0.000025	0.0004	0.03	0.005	0.0025	0.01	7.59	44.2	286	0.1
	11/03/2020	0.000025	0.0004	0.03	0.005	0.00258	0.01	7.24	47.7	300	0.14
	03/22/2021	***	***	***	***	***	***	***	***	***	***
	06/22/2021	0.000025	0.0004	0.03	0.005	0.00258	0.01	7.52	45.9	296	0.15
	08/31/2021	0.000025	0.0004	0.03	0.017	0.00302	0.041	7.46	51.7	314	0.075
	12/09/2021	0.000025	0.0004	0.03	0.069	0.00361	0.01	7.47	48.6	296	0.15
	03/23/2022	0.000025	0.0004	0.03	0.028	0.00283	0.01	7.4	51	308	0.075
	06/16/2022	0.000025	0.0004	0.03	0.044	0.00339	0.01	7.38	50.7	304	0.075
	09/15/2022	0.000025	0.00138	0.03	0.013	0.00316	0.01	7.41	49.1	292	0.075
	12/13/2022	0.000025	0.0004	0.03	0.015	0.00248	0.01	7.41	44.2	294	0.31
	12/13/2022	0.000025	0.0004	0.03	0.016	0.00247	0.036	7.41	47.1	300	0.075
	03/29/2023	***	***	***	***	***	***	***	***	***	***
	04/25/2023	0.000025	0.0004	0.03	0.02	0.00289	0.01	7.41	47.6	286	0.27
	05/16/2023	0.000025	0.0004	0.03	0.026	0.00308	0.01	7.39	52.5	298	0.21
	06/21/2023	0.000025	0.0004	0.03	0.005	0.00332	0.01	7.5	45.3	282	0.075
	07/20/2023	0.000025	0.00089	0.03	0.005	0.00375	0.01	7.54	48.1	292	0.075
	08/16/2023	0.000025	0.00085	0.03	0.005	0.00381	0.01	7.62	50.3	378	0.075
	09/25/2023	0.000025	0.0004	0.03	0.005	0.00378	0.01	7.21	59.5	272	0.075
	10/26/2023	0.000025	0.00118	0.03	0.005	0.0036	0.01	7.62	45.8	284	0.075
	11/15/2023	0.000025	0.00113	0.03	0.005	0.00353	0.01	7.52	60.1	278	0.075
	12/14/2023	0.000025	0.00138	0.03	0.005	0.00374	0.01	7.74	43.9	266	0.075
	1/23/2024	0.000025	0.0004	0.03	0.005	0.0039	0.01	7.87	47.5	274	0.075
	2/21/2024	0.000025	0.0004	0.03	0.005	0.00303	0.01	7.74	45.5	296	0.075
	3/22/2024	0.000025	0.0004	0.03	0.005	0.00332	0.01	7.57	49.8	280	0.075
	4/23/2024	0.000025	0.0004	0.03	0.014	0.00376	0.023	7.74	56.1	280	0.075
	5/28/2024	0.000025	0.0004	0.03	0.005	0.00348	0.01	7.71	54.2	272	0.075
	6/10/2024	0.000025	0.0004	0.03	0.005	0.00373	0.01	7.75	59.3	266	0.075
	7/8/2024	0.000025	0.0004	0.03	0.005	0.00458	0.01	7.7	56.1	272	0.075
	8/26/2024	0.000025	0.00089	0.195	0.07	0.00438	0.066	7.5	45.8	248	0.075
	9/10/2024	0.000025	0.0004	0.03	0.005	0.00385	0.01	7.49	53.9	296	0.075
	10/7/2024	0.000025	0.0004	0.03	0.005	0.00393	0.01	7.54	49.1	260	0.075
	11/7/2024	0.000025	0.00232	0.03	0.005	0.00384	0.01	7.55	48.8	282	0.075
	12/4/2024	0.000025	0.0004	0.03	0.005	0.00358	0.01	7.56	51.8	282	0.075
Numeric Protection Limit (NPL)		0.005	0.2	0.3	TBD	0.210	2.0	6.5 - 8.5	250	400	None

Note: Bold italicized data are results below Lab Method Detection Limits (MDL) and are reported as 1/2 the MDL.

Note: Data in purple represents a duplicate sample

*** = No Sample Collected - Not Accessible (or Frozen) or Dry

Location	Sample Date	Cadmium, Dissolved (mg/L)	Copper, Dissolved (mg/L)	Iron, Dissolved (mg/L)	Manganese, Dissolved (mg/L)	Molybdenum, Dissolved (mg/L)	Zinc, Dissolved (mg/L)	pH, Field Measurement (Standard Units)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Fluoride (mg/L)
TM-MW-002D	01/22/2020	0.000025	0.0004	0.015	0.005	0.0068	0.005	8.26	62.1	162	0.5
	05/12/2020	0.000025	0.0004	0.03	0.005	0.0058	0.01	8.08	55.5	180	0.5
	08/25/2020	0.000025	0.0009	0.03	0.005	0.0074	0.01	8.41	58.2	172	0.5
	11/19/2020	0.000025	0.0004	0.03	0.005	0.0066	0.01	8.31	54.1	172	0.39
	03/24/2021	0.000025	0.0004	0.03	0.005	0.00616	0.01	8.37	63.7	170	0.34
	06/28/2021	0.000025	0.0004	0.03	0.005	0.00636	0.01	8.39	57	182	0.62
	09/02/2021	0.000025	0.0004	0.03	0.005	0.00585	0.01	8.28	58.3	164	0.49
	11/30/2021	0.000025	0.0004	0.03	0.005	0.00596	0.01	8.31	57.6	190	0.4
	03/24/2022	0.000025	0.0004	0.03	0.005	0.00651	0.05	8.35	62.6	168	0.45
	06/13/2022	0.000025	0.00113	0.03	0.005	0.00641	0.01	8.23	59.8	178	0.46
	09/05/2022	0.000025	0.0004	0.03	0.005	0.00608	0.01	8.37	59.6	172	0.41
	12/12/2022	0.000025	0.0004	0.03	0.005	0.00643	0.026	8.48	54.9	178	0.3
	03/21/2023	0.000025	0.0004	0.03	0.005	0.00634	0.024	8.42	61.7	176	0.46
	06/14/2023	0.000025	0.0004	0.03	0.005	0.00683	0.01	8.34	58.6	168	0.43
	07/25/2023	0.000025	0.0004	0.03	0.005	0.00675	0.01	8.5	52.5	162	0.5
	10/17/2023	0.000025	0.0004	0.03	0.005	0.00653	0.01	8.56	57.7	172	0.44
	01/17/2024	0.000025	0.0004	0.03	0.005	0.00724	0.01	8.6	55.9	168	0.4
	03/19/2024	*	*	*	*	*	*	8.57	*	*	*
	04/15/2024	0.000025	0.0004	0.03	0.005	0.00681	0.01	8.38	66.9	174	3.21
	05/09/2024	*	*	*	*	*	*	8.56	*	*	*
	06/06/2024	*	*	*	*	*	*	8.51	*	*	*
	07/03/2024	*	*	*	*	*	*	8.41	*	*	*
	08/26/2024	*	*	*	*	*	*	8.34	*	*	*
	09/09/2024	0.000025	0.0004	0.03	0.005	0.00726	0.039	8.19	60.5	182	0.38

**Table 1 - Indicator Parameters
5-Year Groundwater Quality Monitoring Data
Climax Mine**

	09/09/2024	0.000025	0.0004	0.03	0.005	0.00729	0.031	8.19	60.3	182	0.4
	10/15/2024	0.000025	0.0004	0.03	0.005	0.00669	0.01	8.27	53.4	170	0.39
	11/14/2024	*	*	*	*	*	*	8.07	*	*	*
	12/18/2024	*	*	*	*	*	*	8.18	*	*	*
Numeric Protection Limit (NPL)		0.005	0.2	0.3	0.050	0.210	2.0	6.5 - 8.5	250	400	None

Note: **Bold italicized** data are results below Lab Method Detection Limits (MDL) and are reported as 1/2 the MDL.

Note: Red italicized data are results below the Method Detection Limits (MDL) and are reported as 1/2 the MDL.

* Monthly pH data collection at TM-MW-002D did not include sampling for other parameters.

*** = No Sample Collected - Not Accessible (or Frozen) or Problematic

Table 1 - Indicator Parameters
5-Year Groundwater Quality Monitoring Data
Climax Mine

Location	Sample Date	Cadmium, Dissolved (mg/L)	Copper, Dissolved (mg/L)	Iron, Dissolved (mg/L)	Manganese, Dissolved (mg/L)	Molybdenum, Dissolved (mg/L)	Zinc, Dissolved (mg/L)	pH, Field Measurement (Standard Units)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Fluoride (mg/L)
GW#2	01/22/2020	0.000025	0.0004	0.015	0.005	0.0011	0.03	6.72	54.5	138	0.05
	02/18/2020	*	*	*	*	*	*	6.53	*	*	*
	03/19/2020	*	*	*	*	*	*	6.63	*	*	*
	04/13/2020	*	*	*	*	*	*	6.77	*	*	*
	05/12/2020	0.000025	0.0004	0.03	0.005	0.001	0.01	6.79	47.2	142	0.05
	06/10/2020	*	*	*	*	*	*	6.78	*	*	*
	07/08/2020	*	*	*	*	*	*	6.56	*	*	*
	08/25/2020	0.000025	0.0004	0.03	0.005	0.0012	0.01	6.22	42.5	128	0.4
	09/30/2020	*	*	*	*	*	*	6.97	*	*	*
	10/15/2020	*	*	*	*	*	*	6.4	*	*	*
	11/19/2020	0.000025	0.0004	0.03	0.005	0.00122	0.027	6.44	47.4	144	0.06
	12/21/2020	*	*	*	*	*	*	6.23	*	*	*
	01/28/2021	*	*	*	*	*	*	6.57	*	*	*
	02/23/2021	*	*	*	*	*	*	6.65	*	*	*
	03/24/2021	0.000025	0.0004	0.03	0.005	0.001	0.01	6.6	69.8	154	0.08
	04/28/2021	*	*	*	*	*	*	6.77	*	*	*
	05/27/2021	*	*	*	*	*	*	6.65	*	*	*
	06/28/2021	0.000025	0.0004	0.03	0.005	0.00099	0.032	6.53	45.6	115	0.89
	07/27/2021	*	*	*	*	*	*	6.47	*	*	*
	08/17/2021	*	*	*	*	*	*	6.51	*	*	*
	09/02/2021	0.000025	0.0004	0.03	0.005	0.00105	0.01	6.46	60	146	0.08
	10/26/2021	*	*	*	*	*	*	6.64	*	*	*
	11/30/2021	0.000025	0.0004	0.03	0.005	0.00106	0.02	6.51	59.5	176	0.08
	12/22/2021	*	*	*	*	*	*	6.37	*	*	*
	01/31/2022	*	*	*	*	*	*	6.32	*	*	*
	02/22/2022	*	*	*	*	*	*	6.32	*	*	*
	03/24/2022	0.00025	0.0004	0.03	0.005	0.00107	0.01	6.4	72.2	172	0.08
	04/26/2022	*	*	*	*	*	*	6.47	*	*	*
	05/25/2022	*	*	*	*	*	*	6.4	*	*	*
	06/13/2022	0.00025	0.0004	0.03	0.005	0.0011	0.01	6.54	53.3	154	0.08
	07/20/2022	*	*	*	*	*	*	6.19	*	*	*
	08/23/2022	*	*	*	*	*	*	6.43	*	*	*
	09/05/2022	0.00025	0.0004	0.03	0.005	0.00105	0.01	6.57	57.1	152	0.08
	10/28/2022	0.00025	0.0004	0.03	0.005	0.0011	0.027	6.47	57.3	152	0.08
	10/28/2022	0.00025	0.0004	0.03	0.005	0.00113	0.01	6.47	60.1	150	0.08
	11/22/2022	*	*	*	*	*	*	6.53	*	*	*
	12/12/2022	*	*	*	*	*	*	6.61	*	*	*
	01/30/2023	*	*	*	*	*	*	6.59	*	*	*
	02/22/2023	*	*	*	*	*	*	6.52	*	*	*
	03/21/2023	0.000081	0.0004	0.03	0.005	0.00108	0.027	6.43	70.9	178	0.08
	04/13/2023	*	*	*	*	*	*	6.21	*	*	*
	05/15/2023	*	*	*	*	*	*	6.42	*	*	*
	06/14/2023	0.00025	0.0004	0.03	0.005	0.00172	0.022	6.28	49.7	146	0.08
	07/25/2023	0.000053	0.0004	0.03	0.005	0.00102	0.01	6.62	48.3	148	0.08
	08/14/2023	*	*	*	*	*	*	6.65	*	*	*
	09/25/2023	*	*	*	*	*	*	6.61	*	*	*
	10/17/2023	0.00025	0.0004	0.03	0.005	0.00116	0.01	6.65	42.3	148	0.08
	11/07/2023	*	*	*	*	*	*	6.58	*	*	*
	12/06/2023	*	*	*	*	*	*	6.52	*	*	*
	01/17/2024	0.00025	0.00177	0.206	0.005	0.00117	0.01	6.73	53.9	182	0.08
	02/14/2024	*	*	*	*	*	*	6.5	*	*	*
	03/19/2024	*	*	*	*	*	*	6.61	*	*	*
	04/15/2024	0.00025	0.0004	0.03	0.005	0.0013	0.01	6.52	57	168	0.075
	05/09/2024	*	*	*	*	*	*	6.64	*	*	*
	06/06/2024	*	*	*	*	*	*	6.56	*	*	*
	07/03/2024	*	*	*	*	*	*	6.55	*	*	*
	08/19/2024	*	*	*	*	*	*	6.53	*	*	*
	09/09/2024	0.00025	0.0004	0.03	0.005	0.0012	0.103	6.33	38.1	150	0.075
	10/15/2024	0.00025	0.0004	0.03	0.005	0.00108	0.01	6.58	43.3	132	0.075
	11/14/2024	*	*	*	*	*	*	6.36	*	*	*
	12/18/2024	*	*	*	*	*	*	6.3	*	*	*
Numeric Protection Limit (NPL)		0.005	0.2	0.3	0.050	0.210	2.0	6.5 - 8.5	250	400	None

Note: Bold italicized data are results below Lab Method Detection Limits (MDL) and are reported as 1/2 the MDL.

Note: Data in purple represents a duplicate sample

Note: Red italicized data are NPL exceedances for site, which have been communicated to DRMS and investigations are currently ongoing.

* Monthly pH data collection at GW#2 did not include sampling for other parameters

Table 1 - Indicator Parameters
5-Year Groundwater Quality Monitoring Data
Climax Mine

Location	Sample Date	Cadmium, Dissolved (mg/L)	Copper, Dissolved (mg/L)	Iron, Dissolved (mg/L)	Manganese, Dissolved (mg/L)	Molybdenum, Dissolved (mg/L)	Zinc, Dissolved (mg/L)	pH, Field Measurement (Standard Units)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Fluoride (mg/L)
TM-MW-001D	03/11/2020	0.00009	0.0004	0.015	0.005	0.0398	0.005	8.26	176	336	3.3
	05/12/2020	0.00006	0.0004	0.03	0.005	0.0365	0.01	8.14	174	350	3.3
	08/25/2020	0.00025	0.0004	0.03	0.005	0.0393	0.01	8.5	186	342	3
	11/19/2020	0.000025	0.0004	0.03	0.005	0.037	0.01	8.45	180	338	3.36
	11/19/2020	0.000025	0.0004	0.03	0.081	0.0479	0.01	8.45	179	338	3.34
	03/24/2021	0.000059	0.0004	0.03	0.005	0.0367	0.01	8.44	195	330	3.02
	06/28/2021	0.000025	0.0004	0.03	0.005	0.0369	0.01	8.55	182	318	3.29
	09/02/2021	0.000025	0.0004	0.03	0.005	0.0403	0.01	8.45	183	344	3.31
	12/02/2021	0.000025	0.0004	0.03	0.005	0.0375	0.01	8.48	176	348	3.24
	03/24/2022	0.000025	0.0004	0.03	0.005	0.0378	0.01	8.49	194	334	3.2
	06/13/2022	0.000025	0.0004	0.03	0.005	0.0376	0.01	8.11	192	342	3.27
	06/13/2022	0.000025	0.0004	0.03	0.005	0.0376	0.01	8.11	189	338	3.29
	09/05/2022	0.000025	0.0004	0.03	0.005	0.0368	0.01	8.44	197	336	3.09
	12/12/2022	0.000056	0.0004	0.03	0.005	0.0374	0.023	8.48	186	334	3.23
	03/30/2023	0.000025	0.0004	0.03	0.005	0.0362	0.024	8.52	172	338	3.43
	06/22/2023	0.000025	0.0004	0.03	0.005	0.0436	0.02	8.45	177	340	3.19
	07/25/2023	0.000025	0.0004	0.03	0.005	0.0442	0.01	8.64	185	338	3.43
	10/17/2023	0.000025	0.0004	0.03	0.005	0.0387	0.01	8.58	184	334	3.42
	01/17/2024	0.000025	0.0004	0.03	0.005	0.0418	0.01	8.6	177	342	3.29
	04/16/2024	0.000025	0.0004	0.03	0.005	0.0407	0.01	8.65	161	358	3.22
	07/09/2024	0.000085	0.0004	0.03	0.005	0.0416	0.01	8.48	194	344	2.98
	08/15/2024	0.000025	0.0004	0.03	0.005	0.0411	0.01	8.48	178	340	3.1
	10/28/2024	0.000006	0.0004	0.03	0.005	0.0379	0.01	8.44	181	320	3.07

Note: Bold italicized data are results below Lab Method Detection Limits (MDL) and are reported as 1/2 the MDL.

Note: Data in purple represents a duplicate sample

Location	Sample Date	Cadmium, Dissolved (mg/L)	Copper, Dissolved (mg/L)	Iron, Dissolved (mg/L)	Manganese, Dissolved (mg/L)	Molybdenum, Dissolved (mg/L)	Zinc, Dissolved (mg/L)	pH, Field Measurement (Standard Units)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Fluoride (mg/L)
GW#1	03/11/2020	0.00209	0.0027	0.015	0.005	0.141	0.46	6.51	205	390	1.1
	05/12/2020	0.00161	0.0013	0.03	0.005	0.118	0.33	6.74	159	346	1.1
	08/25/2020	0.00193	0.0014	0.03	0.005	0.127	0.48	6.48	189	370	0.9
	11/19/2020	0.00211	0.00208	0.03	0.005	0.124	0.453	6.44	189	392	1.14
	03/24/2021	0.00228	0.00213	0.03	0.005	0.126	0.441	6.51	236	392	1.13
	06/28/2021	0.00205	0.00161	0.03	0.005	0.118	0.431	6.43	219	365	1.15
	09/02/2021	0.00227	0.00186	0.03	0.005	0.127	0.432	6.24	230	420	1.23
	12/02/2021	0.00244	0.00202	0.03	0.005	0.129	0.441	6.32	218	428	1.19
	03/24/2022	0.00236	0.00164	0.03	0.005	0.13	0.438	6.3	229	418	1.14
	06/13/2022	0.0021	0.0016	0.03	0.005	0.119	0.398	6.22	202	380	1.1
	09/05/2022	0.00233	0.00188	0.03	0.005	0.125	0.454	6.1	242	422	1.07
	12/12/2022	0.00256	0.00199	0.03	0.005	0.123	0.492	6.38	247	430	1.1
	03/30/2023	0.00246	0.00162	0.03	0.005	0.13	0.488	6.27	235	448	1.24
	06/22/2023	0.0022	0.00159	0.03	0.005	0.122	0.394	6.25	257	408	1.06
	07/25/2023	0.00242	0.00166	0.03	0.005	0.129	0.427	6.42	229	424	1.18
	10/17/2023	0.00226	0.00165	0.03	0.005	0.121	0.462	6.36	245	436	1.18
	01/17/2024	0.00254	0.00186	0.03	0.005	0.13	0.458	6.4	243	440	1.1
	04/16/2024	0.00243	0.00188	0.03	0.005	0.13	0.46	6.39	296	462	1.14
	07/09/2024	0.00242	0.0019	0.03	0.005	0.114	0.429	6.25	219	402	1.02
	08/13/2024	0.00254	0.00197	0.03	0.005	0.123	0.488	6.32	216	442	1.03
	10/28/2024	0.00254	0.0017	0.03	0.005	0.123	0.504	6.22	273	484	1.2

Note: Bold italicized data are results below Lab Method Detection Limits (MDL) and are reported as 1/2 the MDL.

Table 1 - Indicator Parameters
5-Year Groundwater Quality Monitoring Data
Climax Mine

Location	Sample Date	Cadmium, Dissolved (mg/L)	Copper, Dissolved (mg/L)	Iron, Dissolved (mg/L)	Manganese, Dissolved (mg/L)	Molybdenum, Dissolved (mg/L)	Zinc, Dissolved (mg/L)	pH (Standard Units)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Fluoride (mg/L)
ARK-MW-002S	03/16/2020	0.00006	0.0004	0.67	3.26	0.0059	0.005	6.92	8.2	644	0.1
	06/25/2020	0.000025	0.0004	4.36	4.2	0.0037	0.005	7.2	5	666	0.05
	09/03/2020	0.000025	0.0004	4.22	4.28	0.0039	0.01	7.13	0.5	654	0.1
	11/06/2020	0.000093	0.0004	3.7	3.91	0.00313	0.01	6.99	1.5	664	0.14
	03/25/2021	0.00005	0.0004	3.21	3.47	0.00517	0.01	7.15	1.4	650	0.25
	03/25/2021	0.000025	0.0004	3.33	3.71	0.00549	0.01	7.15	0.5	650	0.075
	06/14/2021	0.000025	0.0004	3.65	4.07	0.0104	0.01	6.89	0.5	605	0.075
	09/22/2021	0.000025	0.0004	4.19	4.26	0.00223	0.01	6.93	12.5	648	0.075
	12/06/2021	***	***	***	***	***	***	***	***	***	***
	03/28/2022	0.000025	0.0004	4.55	3.69	0.214	0.01	7.06	0.5	632	0.16
	06/20/2022	0.000025	0.0004	3.45	4.18	0.00493	0.01	6.94	1	628	0.16
	09/02/2022	0.000025	0.0004	2.99	3.82	0.00332	0.01	6.91	0.5	608	0.075
	12/14/2022	***	***	***	***	***	***	***	***	***	***
	03/28/2023	0.000058	0.0004	2.83	4.01	0.00515	0.01	6.98	0.5	636	0.075
	03/28/2023	0.000025	0.0004	3.18	4.17	0.00559	0.01	6.98	0.5	616	0.075
	06/26/2023	0.000025	0.0004	1.86	4.21	0.00364	0.01	6.84	0.5	630	0.075
	08/23/2023	0.000025	0.0004	8.28	3.69	0.0127	0.01	7.12	0.5	632	0.075
	10/10/2023	0.000051	0.0004	3.2	4.21	0.00868	0.01	7.08	0.5	622	0.075
	02/21/2024	0.000025	0.0004	5.11	4.23	0.00498	0.01	7.04	0.5	648	0.075
	06/05/2024	0.000025	0.0004	5.77	4.91	0.0334	0.01	7.01	10	664	0.16
	07/23/2024	0.000071	0.0004	5.97	4.22	0.00492	0.01	6.9	1.4	642	0.075
	10/24/2024	0.000058	0.0004	5.1	4.09	0.00498	0.01	6.98	12.5	670	0.24

Note: Bold italicized data are results below Lab Method Detection Limits (MDL) and are reported as 1/2 the MDL.

Note: Data in purple represents a duplicate sample

*** = No Sample Collected - Not Accessible (or Frozen) or Dry

Location	Sample Date	Cadmium, Dissolved (mg/L)	Copper, Dissolved (mg/L)	Iron, Dissolved (mg/L)	Manganese, Dissolved (mg/L)	Molybdenum, Dissolved (mg/L)	Zinc, Dissolved (mg/L)	pH, Field Measurement (Standard Units)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Fluoride (mg/L)
ARK-MW-002D	03/16/2020	0.000025	0.0004	0.015	0.005	0.0231	0.005	8.46	13.1	242	7.6
	06/25/2020	0.000025	0.0004	0.03	0.01	0.0233	0.01	8.68	17	284	8
	09/03/2020	0.000025	0.0004	0.03	0.01	0.0257	0.01	8.49	16.7	294	7.3
	11/06/2020	0.000025	0.0004	0.03	0.005	0.0237	0.01	8.73	15.4	274	7.68
	03/25/2021	0.000025	0.0004	0.03	0.018	0.0273	0.01	8.81	18.5	282	7.82
	06/14/2021	0.000025	0.0004	0.03	0.034	0.0285	0.01	8.83	23.1	286	7.42
	09/22/2021	0.000025	0.0004	0.03	0.005	0.0287	0.01	8.83	18.1	258	8.04
	12/06/2021	0.000025	0.0004	0.03	0.026	0.0325	0.01	8.75	20.8	292	8.11
	03/28/2022	0.000025	0.0004	0.03	0.025	0.0269	0.05	8.68	17.7	272	7.63
	06/17/2022	0.000025	0.0004	0.03	0.012	0.0282	0.01	8.67	16.9	286	8
	09/02/2022	0.000025	0.0004	0.03	0.011	0.0252	0.01	8.65	15.1	238	7.34
	12/15/2022	0.000025	0.0004	0.03	0.005	0.0302	0.01	8.9	14.4	256	7.72
	03/28/2023	0.000025	0.0004	0.03	0.005	0.0265	0.01	9.02	14.8	226	7.6
	06/26/2023	0.000025	0.0004	0.03	0.005	0.0282	0.01	8.99	15.3	284	8.12
	08/23/2023	0.000025	0.0004	0.03	0.005	0.0416	0.01	9.04	19.7	272	7.33
	10/10/2023	0.000053	0.0004	0.03	0.016	0.36	0.01	8.98	21.1	252	7.82
	01/23/2024	0.000025	0.0004	0.03	0.005	0.0307	0.01	9.17	20	246	7.72
	06/05/2024	0.000025	0.0004	0.03	0.018	0.0294	0.01	9.04	18.2	238	7.96
	07/23/2024	0.000025	0.0004	0.03	0.005	0.0411	0.01	8.93	21	278	8.26
	10/23/2024	0.000025	0.0004	0.03	0.005	0.0252	0.01	9.15	15.8	238	7.04

Note: Bold italicized data are results below Lab Method Detection Limits (MDL) and are reported as 1/2 the MDL.

Table 1 - Indicator Parameters
5-Year Groundwater Quality Monitoring Data
Climax Mine

Location	Sample Date	Cadmium, Dissolved (mg/L)	Copper, Dissolved (mg/L)	Iron, Dissolved (mg/L)	Manganese, Dissolved (mg/L)	Molybdenum, Dissolved (mg/L)	Zinc, Dissolved (mg/L)	pH (Standard Units)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Fluoride (mg/L)
EVMW-1D	03/10/2020	0.000025	0.0004	0.12	0.17	0.0021	0.005	7.89	398	754	0.1
	05/13/2020	0.000025	0.0004	0.07	0.14	0.0024	0.01	8.08	356	718	0.2
	09/02/2020	0.000025	0.0004	0.1	0.24	0.0023	0.01	7.82	394	724	0.1
	11/06/2020	0.000025	0.0004	0.193	0.16	0.00182	0.01	7.73	398	730	0.13
	02/24/2021	0.000025	0.0004	0.093	0.188	0.0024	0.01	7.6	451	732	0.16
	06/15/2021	0.000025	0.0004	0.122	0.298	0.0021	0.01	7.56	413	703	0.075
	08/31/2021	0.000025	0.0004	0.003	0.051	0.00183	0.035	7.61	419	728	0.075
	12/01/2021	0.000025	0.0004	0.108	0.195	0.00187	0.01	7.64	443	712	0.075
	03/30/2022	***	***	***	***	***	***	***	***	***	***
	06/16/2022	0.000025	0.0011	0.102	0.288	0.00236	0.01	7.49	418	738	0.17
	09/01/2022	0.000025	0.0004	0.19	0.3	0.00183	0.01	7.51	386	748	0.075
	12/27/2022	0.000025	0.0004	0.283	0.281	0.00252	0.01	7.46	369	732	0.16
	03/29/2023	0.000025	0.0004	0.251	0.316	0.00288	0.022	7.57	413	730	0.22
	04/12/2023	0.000025	0.0004	0.321	0.342	0.00215	0.022	7.21	404	714	0.16
	05/16/2023	***	***	***	***	***	***	***	***	***	***
	06/21/2023	0.000025	0.0004	0.374	0.383	0.00247	0.01	7.65	441	758	0.075
	07/20/2023	0.000025	0.0189	0.03	0.046	0.00404	0.043	7.72	411	702	0.16
	08/16/2023	0.000025	0.00263	0.03	0.044	0.00276	0.01	7.6	424	720	0.075
	09/25/2023	*	*	*	*	*	*	*	*	*	*
	09/28/2023	*	*	*	*	*	*	*	*	*	*
	10/26/2023	*	*	*	*	*	*	*	*	*	*
	11/15/2023	*	*	*	*	*	*	*	*	*	*
	12/15/2023	*	*	*	*	*	*	*	*	*	*
	1/15/2024	*	*	*	*	*	*	*	*	*	*
	2/15/2024	*	*	*	*	*	*	*	*	*	*
	3/15/2024	*	*	*	*	*	*	*	*	*	*
	4/30/2024	0.00005	0.0004	0.03	0.058	0.00231	0.01	7.84	425	724	0.18
	5/13/2024	0.000101	0.0004	0.03	0.028	0.0042	0.01	7.84	438	766	0.18
	6/10/2024	0.000057	0.00158	0.03	0.129	0.00735	0.01	7.46	451	738	0.075
	7/8/2024	0.000051	0.0004	0.03	0.208	0.00418	0.01	7.58	418	768	0.075
	8/22/2024	0.000025	0.0004	0.003	0.139	0.00337	0.01	7.49	441	758	0.075
	9/10/2024	0.000025	0.0004	0.003	0.201	0.00407	0.01	7.63	382	718	0.27
	10/7/2024	0.000025	0.0004	0.003	0.011	0.00223	0.01	7.63	411	734	0.075
	11/6/2024	0.000065	0.00194	0.03	0.038	0.0027	0.01	7.49	449	728	0.15
	12/3/2024	0.000066	0.00097	0.03	0.069	0.00248	0.01	7.63	506	758	0.23

Note: Bold italicized data are results below Lab Method Detection Limits (MDL) and are reported as 1/2 the MDL.

*=No sample collected - Failed pump

*** = No Sample Collected - Not Accessible (or Frozen) or Dry

Location	Sample Date	Cadmium, Dissolved (mg/L)	Copper, Dissolved (mg/L)	Iron, Dissolved (mg/L)	Manganese, Dissolved (mg/L)	Molybdenum, Dissolved (mg/L)	Zinc, Dissolved (mg/L)	pH, Field Measurement (Standard Units)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Fluoride (mg/L)
EVMW-1S	03/09/2020	0.00009	0.0004	1.53	0.83	0.338	0.005	7.25	589	1080	0.2
	06/15/2020	0.00007	0.0004	2.08	0.75	0.332	0.01	7.28	493	932	0.2
	09/02/2020	0.00007	0.0004	2.45	0.93	0.366	0.01	7.19	539	1030	0.2
	11/06/2020	0.000025	0.0004	1.7	0.897	0.346	0.01	7.33	541	1030	0.21
	02/24/2021	0.000109	0.0004	1.42	0.798	0.333	0.01	7.41	635	1070	0.2
	06/15/2021	0.000052	0.0004	2.46	0.883	0.338	0.01	7.25	519	911	0.24
	08/31/2021	0.000111	0.0004	2.55	0.996	0.332	0.01	7.25	554	1050	0.26
	12/01/2021	0.000025	0.0004	2.48	0.918	0.328	0.01	7.27	578	1030	0.25
	03/29/2022	0.000061	0.0004	1.6	0.868	0.372	0.01	7.17	614	1060	0.23
	06/16/2022	0.000025	0.0004	4.79	1.18	0.291	0.01	7.03	497	934	0.41
	09/01/2022	0.000084	0.0004	5.39	1.37	0.309	0.01	7.05	491	996	0.41
	12/27/2022	0.000051	0.0004	1.84	0.855	0.374	0.01	7.01	505	986	0.18
	03/29/2023	0.000072	0.0004	1.91	0.789	0.341	0.01	7.34	615	1000	0.18
	04/12/2023	0.0000115	0.0004	1.42	0.851	0.328	0.01	7.25	550	986	0.19
	05/16/2023	***	***	***	***	***	***	***	***	***	***
	06/21/2023	0.000078	0.0004	1.42	1.56	0.283	0.01	6.85	454	926	0.51
	07/20/2023	0.000058	0.0004	2.2	0.82	0.352	0.01	7.17	484	906	0.3
	08/16/2023	0.000025	0.0004	2.45	0.858	0.316	0.01	7.24	481	930	0.3
	09/25/2023	0.000025	0.0004	3.18	1	0.322	0.01	7.19	489	930	0.34
	10/26/2023	0.000059	0.0004	0.03	1.12	0.338	0.01	7.16	419	922	0.35
	11/15/2023	0.00006	0.0004	3.5	1.09	0.35	0.01	7.02	434	924	0.42
	12/14/2023	0.000069	0.0004	2.08	0.94	0.342	0.01	7.37	519	924	0.25
	12/14/2023	0.000084	0.0004	1.99	0.937	0.35	0.01	7.37	519	932	0.28
	01/22/2024	0.000093	0.0004	1.59	0.895	0.337	0.01	7.31	572	970	0.24
	02/21/2024	0.000073	0.0004	1.61	0.788	0.333	0.01	7.45	609	1020	0.19
	03/20/2024	0.000097	0.0004	1.45	0.976	0.314	0.01	7.4	593	1020	0.21

Table 1 - Indicator Parameters
5-Year Groundwater Quality Monitoring Data
Climax Mine

04/23/2024	0.000053	0.0004	4.21	1.18	0.235	0.01	7.25	413	920	0.39
05/28/2024	0.000067	0.0004	6.08	1.42	0.242	0.01	7.18	442	864	0.62
06/10/2024	0.000083	0.0004	4.25	1.1	0.28	0.01	7.19	437	814	0.42
07/08/2024	0.000091	0.0004	5.25	1.2	0.291	0.01	7.09	422	830	0.49
08/22/2024	0.000085	0.0004	6.74	1.43	0.285	0.01	6.95	425	908	0.6
09/10/2024	0.000094	0.0004	4.25	1.13	0.316	0.01	6.93	426	922	0.45
10/07/2024	0.000077	0.0004	2.88	1.02	0.357	0.01	7.12	518	982	0.31
11/06/2024	0.000063	0.0004	3.4	1.16	0.321	0.01	7.06	459	954	0.32
12/03/2024	0.000078	0.0004	1.9	0.991	0.324	0.01	7.14	506	978	0.25

Note: Bold italicized data are results below Lab Method Detection Limits (MDL) and are reported as 1/2 the MDL.

*** = No Sample Collected - Not Accessible (or Frozen) or Dry

Table 1 - Indicator Parameters
5-Year Groundwater Quality Monitoring Data
Climax Mine

Location	Sample Date	Cadmium, Dissolved (mg/L)	Copper, Dissolved (mg/L)	Iron, Dissolved (mg/L)	Manganese, Dissolved (mg/L)	Molybdenum, Dissolved (mg/L)	Zinc, Dissolved (mg/L)	pH, Field Measurement (Standard Units)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Fluoride (mg/L)
EVMW-2	03/03/2020	***	***	***	***	***	***	***	***	***	***
	06/24/2020	0.000025	0.0009	0.03	0.04	0.0029	0.01	7.28	24	304	0.05
	09/02/2020	0.000025	0.0012	0.03	0.02	0.003	0.01	7.76	22.6	286	0.05
	11/03/2020	0.000025	0.0013	0.03	0.022	0.00623	0.01	7.8	37.2	322	0.06
	02/24/2021	***	***	***	***	***	***	***	***	***	***
	06/04/2021	0.000025	0.00098	0.03	0.028	0.0074	0.01	7.72	41.6	338	0.075
	08/31/2021	0.000025	0.00104	0.03	0.017	0.00225	0.01	7.74	25.5	308	0.075
	12/08/2021	0.000025	0.0004	0.03	0.038	0.00242	0.03	7.75	25.2	286	0.075
	03/23/2022	***	***	***	***	***	***	***	***	***	***
	06/21/2022	0.000025	0.0004	0.03	0.055	0.00319	0.01	7.61	31.8	302	0.075
	09/01/2022	0.000025	0.00296	0.03	0.028	0.0023	0.01	7.59	16.2	288	0.075
	12/27/2022	***	***	***	***	***	***	***	***	***	***
	03/23/2023	***	***	***	***	***	***	***	***	***	***
	06/20/2023	0.000025	0.00085	0.03	0.005	0.00082	0.01	7.69	15.8	288	0.075
	06/20/2023	0.000025	0.00081	0.03	0.005	0.00084	0.023	7.69	15.3	290	0.075
	09/20/2023	0.000025	0.00232	0.03	0.005	0.017	0.01	7.69	62.6	365	0.075
	10/26/2023	0.000025	0.00119	0.03	0.005	0.0029	0.01	7.71	21.1	302	0.075
	1/23/2024	0.000025	0.00118	0.03	0.024	0.0108	0.01	7.81	61.8	332	0.075
	6/11/2024	0.000025	0.00181	0.03	0.005	0.00194	0.01	7.74	19.8	278	0.075
	9/10/2024	0.000025	0.00225	0.03	0.025	0.00499	0.01	7.49	39	324	0.075
	10/7/2024	0.000025	0.0024	0.03	0.087	0.00534	0.01	7.58	38.4	342	0.075

Note: Bold italicized data are results below Lab Method Detection Limits (MDL) and are reported as 1/2 the MDL.

*** = No Sample Collected - Not Accessible (or Frozen) or Dry

Location	Sample Date	Cadmium, Dissolved (mg/L)	Copper, Dissolved (mg/L)	Iron, Dissolved (mg/L)	Manganese, Dissolved (mg/L)	Molybdenum, Dissolved (mg/L)	Zinc, Dissolved (mg/L)	pH, Field Measurement (Standard Units)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Fluoride (mg/L)
EVS-1	03/15/2020	***	***	***	***	***	***	***	***	***	***
	06/25/2020	0.000025	0.0017	0.03	0.005	0.109	0.01	7.65	41	268	0.4
	06/25/2020	0.000025	0.0017	0.03	0.005	0.11	0.01	7.65	41.5	260	0.5
	09/01/2020	***	***	***	***	***	***	***	***	***	***
	10/05/2020	***	***	***	***	***	***	***	***	***	***
	02/24/2021	***	***	***	***	***	***	***	***	***	***
	06/22/2021	0.000025	0.00207	0.03	0.005	0.12	0.01	7.79	88.7	350	0.44
	09/02/2021	***	***	***	***	***	***	***	***	***	***
	12/09/2021	***	***	***	***	***	***	***	***	***	***
	03/30/2022	***	***	***	***	***	***	***	***	***	***
	06/22/2022	0.000025	0.0004	0.03	0.005	0.00561	0.01	7.99	29.7	152	0.55
	09/01/2022	0.000051	0.00164	0.03	0.005	0.138	0.01	7.93	31.5	322	0.49
	12/13/2022	***	***	***	***	***	***	***	***	***	***
	03/31/2023	***	***	***	***	***	***	***	***	***	***
	06/28/2023	0.000056	0.00245	0.03	0.005	0.107	0.01	7.81	17	238	0.44
	08/21/2023	***	***	***	***	***	***	***	***	***	***
	10/09/2023	***	***	***	***	***	***	***	***	***	***
	03/31/2024	***	***	***	***	***	***	***	***	***	***
	06/11/2024	0.000025	0.00159	0.03	0.005	0.0821	0.01	7.9	37.3	238	0.36
	07/25/2024	***	***	***	***	***	***	***	***	***	***
	10/08/2024	***	***	***	***	***	***	***	***	***	***

Note: Bold italicized data are results below Lab Method Detection Limits (MDL) and are reported as 1/2 the MDL.

Note: Data in purple represents a duplicate sample

***= No Sample Collected - Insufficient flow (or dry)

Table 1 - Indicator Parameters
5-Year Groundwater Quality Monitoring Data
Climax Mine

Location	Sample Date	Cadmium, Dissolved (mg/L)	Copper, Dissolved (mg/L)	Iron, Dissolved (mg/L)	Manganese, Dissolved (mg/L)	Molybdenum, Dissolved (mg/L)	Zinc, Dissolved (mg/L)	pH, Field Measurement (Standard Units)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Fluoride (mg/L)
EVS-2	03/15/2020	***	***	***	***	***	***	***	***	***	***
	06/25/2020	0.000025	0.0004	0.03	0.005	0.0071	0.01	7.51	13	128	0.2
	09/01/2020	0.000025	0.0004	0.03	0.005	0.0073	0.01	8.21	30.9	192	0.3
	10/05/2020	0.000025	0.0004	0.03	0.005	0.00728	0.01	7.79	31.6	198	0.3
	02/24/2021	***	***	***	***	***	***	***	***	***	***
	06/22/2021	0.000025	0.0004	0.03	0.005	0.00749	0.01	17.7	158	0.27	
	09/02/2021	0.000025	0.0004	0.03	0.005	0.00863	0.01	8.16	31.3	194	0.32
	12/09/2021	***	***	***	***	***	***	***	***	***	***
	03/30/2022	***	***	***	***	***	***	***	***	***	***
	06/22/2022	0.000025	0.0004	0.03	0.005	0.00757	0.01	7.48	13.8	142	0.3
	09/01/2022	0.000025	0.0004	0.03	0.005	0.00887	0.01	8.06	33.2	216	0.26
	12/13/2022	***	***	***	***	***	***	***	***	***	***
	03/31/2023	***	***	***	***	***	***	***	***	***	***
	06/28/2023	0.000025	0.0004	0.03	0.005	0.00864	0.01	7.64	11.9	136	0.22
	08/21/2023	0.000025	0.0004	0.03	0.005	0.0103	0.01	8.11	30.7	204	0.36
	10/09/2023	0.000025	0.0004	0.03	0.005	0.00788	0.01	8.21	36.6	218	0.075
	03/31/2024	***	***	***	***	***	***	***	***	***	***
	06/11/2024	0.000025	0.0004	0.03	0.005	0.0102	0.01	7.79	13.5	124	0.21
	07/25/2024	0.000025	0.0004	0.03	0.005	0.00889	0.01	7.69	25.4	166	0.35
	10/08/2024	***	***	***	***	***	***	***	***	***	***

Note: **Bold italicized data** are results below Lab Method Detection Limits (MDL) and are reported as 1/2 the MDL.

***= No Sample Collected - Insufficient flow (or dry)

Location	Sample Date	Cadmium, Dissolved (mg/L)	Copper, Dissolved (mg/L)	Iron, Dissolved (mg/L)	Manganese, Dissolved (mg/L)	Molybdenum, Dissolved (mg/L)	Zinc, Dissolved (mg/L)	pH, Field Measurement (Standard Units)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Fluoride (mg/L)
EVS-3	03/15/2020	***	***	***	***	***	***	***	***	***	***
	06/25/2020	0.000025	0.0004	0.03	0.005	0.0051	0.01	7.99	17.1	138	0.3
	09/01/2020	0.000025	0.0004	0.03	0.005	0.006	0.01	7.98	39	214	0.3
	10/05/2020	0.000025	0.0004	0.03	0.018	0.00512	0.01	7.62	39.9	238	0.3
	02/24/2021	***	***	***	***	***	***	***	***	***	***
	06/22/2021	0.000025	0.0004	0.03	0.005	0.0064	0.01	8.01	24	147	0.39
	09/02/2021	***	***	***	***	***	***	***	***	***	***
	12/09/2021	***	***	***	***	***	***	***	***	***	***
	03/30/2022	***	***	***	***	***	***	***	***	***	***
	06/22/2022	0.000025	0.00183	0.03	0.005	0.133	0.01	7.71	34.1	268	0.54
	09/01/2022	0.000025	0.0004	0.03	0.005	0.00746	0.01	8.05	39.9	236	0.37
	12/13/2022	***	***	***	***	***	***	***	***	***	***
	03/31/2023	***	***	***	***	***	***	***	***	***	***
	06/28/2023	0.000025	0.0004	0.03	0.005	0.00687	0.01	7.36	16.4	140	0.33
	08/21/2023	0.00133	0.00086	0.03	0.005	0.0107	0.01	8.2	32.1	210	0.5
	10/09/2023	0.000025	0.0004	0.03	0.005	0.00769	0.01	8.21	38.2	232	0.23
	03/31/2024	***	***	***	***	***	***	***	***	***	***
	06/11/2024	0.000025	0.0004	0.03	0.005	0.00776	0.01	8.07	16.6	130	0.35
	07/25/2024	0.000025	0.00081	0.03	0.005	0.00917	0.01	7.84	27.5	172	0.4
	10/08/2024	***	***	***	***	***	***	***	***	***	***

Note: **Bold italicized data** are results below Lab Method Detection Limits (MDL) and are reported as 1/2 the MDL.

***= No Sample Collected - Insufficient flow (or dry)

Table 2 - Indicator Parameters
5-Year Surface Water Quality Monitoring Data
Climax Mine

Location	Sample Date	Cadmium, Dissolved (mg/L)	Copper, Dissolved (mg/L)	Iron, Dissolved (mg/L)	Iron, Total Recoverable (mg/L)	Manganese, Dissolved (mg/L)	Molybdenum, Dissolved (mg/L)
Arkansas #1	06/22/2020	0.000025	0.001	0.03	0.08	0.01	0.0015
	08/31/2020	0.000025	0.0004	0.06	0.1	0.02	0.0017
	06/17/2021	0.000052	0.00093	0.03	0.075	0.05	0.00147
	09/21/2021	0.000025	0.0004	0.101	0.151	0.02	0.00195
	06/21/2022	0.000025	0.0004	0.068	0.091	0.05	0.00139
	09/26/2022	0.000051	0.0004	0.03	0.097	0.05	0.0018
	06/28/2023	0.000025	0.0004	0.03	0.064	0.05	0.00142
	08/21/2023	0.000025	0.0004	0.068	0.114	0.032	0.00198
	06/20/2024	0.000025	0.0004	0.03	0.095	0.05	0.00177
	07/23/2024	0.000025	0.0004	0.03	0.03	0.019	0.00173

Note: Bold italicized data are results below Lab Method Detection Limits (MDL) and are reported as 1/2 the MDL.

*** = No Sample Collected - Not Accessible (or Frozen) or Dry

Location	Sample Date	Molybdenum, Total Recoverable (mg/L)	Zinc, Dissolved (mg/L)	pH, Field Measurement (Standard Units)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Hardness (mg/L)
Arkansas #1	06/22/2020	0.0014	0.01	6.82	5.4	50	21
	08/31/2020	0.0016	0.01	7.99	24.4	60	51
	06/17/2021	0.00127	0.01	7.6	5.4	34	20
	09/21/2021	0.002	0.01	7.94	27.2	76	58
	06/21/2022	0.00124	0.01	7.6	17.4	28	22
	09/26/2022	0.00185	0.01	7.59	34.9	92	69
	06/28/2023	0.00166	0.029	7.1	5.8	36	24
	08/21/2023	0.00207	0.01	7.87	16.2	58	49
	06/20/2024	0.00157	0.01	7.5	4.7	30	20
	07/23/2024	0.00164	0.01	7.45	9.1	44	31

Note: Bold italicized data are results below Lab Method Detection Limits (MDL) and are reported as 1/2 the MDL.

*** = No Sample Collected - Not Accessible (or Frozen) or Dry

nd = No Data. Pre-dates data collection at location.

Table 2 - Indicator Parameters
5-Year Surface Water Quality Monitoring Data
Climax Mine

Location	Sample Date	Cadmium, Dissolved (mg/L)	Copper, Dissolved (mg/L)	Iron, Dissolved (mg/L)	Iron, Total Recoverable (mg/L)	Manganese, Dissolved (mg/L)	Molybdenum, Dissolved (mg/L)
Arkansas #2	06/22/2020	0.00006	0.0009	0.03	0.09	0.03	0.0038
	08/31/2020	0.00025	0.0004	0.03	0.09	0.04	0.0056
	03/30/2021	***	***	***	***	***	***
	06/17/2021	0.00005	0.0004	0.03	0.072	0.017	0.00278
	09/21/2021	0.00025	0.0004	0.062	0.113	0.059	0.00759
	06/21/2022	0.00025	0.0009	0.03	0.071	0.023	0.00313
	09/02/2022	0.00025	0.0004	0.076	0.03	0.03	0.00489
	06/26/2023	0.00025	0.00083	0.03	0.068	0.018	0.00287
	08/21/2023	0.00025	0.0004	0.03	0.113	0.028	0.00441
	06/05/2024	0.000174	0.00156	0.071	0.377	0.058	0.0081
	07/22/2024	0.00025	0.0004	0.03	0.133	0.03	0.00398

Note: Bold italicized data are results below Lab Method Detection Limits (MDL) and are reported as 1/2 the MDL.

*** = No Sample Collected - Not Accessible (or Frozen) or Dry

Location	Sample Date	Molybdenum, Total Recoverable (mg/L)	Zinc, Dissolved (mg/L)	pH, Field Measurement (Standard Units)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Hardness (mg/L)
Arkansas #2	06/22/2020	0.0036	0.02	6.99	8.2	50	26
	08/31/2020	0.0054	0.01	8.12	16.9	58	47
	06/17/2021	0.00272	0.01	7.68	5.8	38	22
	09/21/2021	0.00776	0.01	8.94	23.2	78	60
	06/21/2022	0.0028	0.01	7.72	8.3	28	25
	09/02/2022	0.00504	0.01	8.23	26.2	74	56
	06/26/2023	0.00314	0.043	7.83	7.8	44	28
	08/21/2023	0.00425	0.01	8.32	17.4	44	46
	06/05/2024	0.0078	0.083	7.33	14.6	52	34
	07/22/2024	0.00167	0.01	7.83	9.7	46	32

Note: Bold italicized data are results below Lab Method Detection Limits (MDL) and are reported as 1/2 the MDL.

*** = No Sample Collected - Not Accessible (or Frozen) or Dry

Table 2 - Indicator Parameters
5-Year Surface Water Quality Monitoring Data
Climax Mine

Location	Sample Date	Cadmium, Dissolved (mg/L)	Copper, Dissolved (mg/L)	Iron, Dissolved (mg/L)	Iron, Total Recoverable (mg/L)	Manganese, Dissolved (mg/L)	Molybdenum, Dissolved (mg/L)
AI	06/11/2020	0.000025	0.0004	0.03	0.03	0.005	0.0101
	09/21/2020	0.000025	0.0004	0.03	0.03	0.005	0.025
	06/18/2021	0.000025	0.0004	0.03	0.089	0.005	0.0016
	09/16/2021	0.000025	0.0004	0.03	0.03	0.005	0.0336
	06/15/2022	0.000025	0.0004	0.03	0.188	0.005	0.0272
	09/14/2022	0.000025	0.0004	0.03	0.03	0.005	0.0327
	06/20/2023	0.000025	0.0004	0.03	0.089	0.005	0.0087
	09/20/2023	0.000025	0.0004	0.03	0.03	0.005	0.001
	06/18/2024	0.000125	0.002	0.06	0.226	0.005	0.00813
	09/11/2024	0.000025	0.0004	0.03	0.03	0.005	0.00174

Bold italicized data are results below Lab Method Detection Limits (MDL) and are reported as 1/2 the MDL.

*** = No Sample Collected - Not Accessible (or Frozen) or Dry

Location	Sample Date	Molybdenum, Total Recoverable (mg/L)	Zinc, Dissolved (mg/L)	pH, Field Measurement (Standard Units)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Hardness (mg/L)
AI	06/11/2020	0.0115	0.01	7.39	13	88	61
	09/21/2020	0.0264	0.01	8.48	24.8	120	93
	06/18/2021	0.00345	0.01	7.98	6.1	60	49
	09/16/2021	0.0325	0.01	8.22	23.4	116	104
	06/15/2022	0.0275	0.01	7.85	24.2	120	94
	09/14/2022	0.0336	0.01	8.22	26.2	178	102
	06/20/2023	0.00855	0.01	7.92	9.4	76	63
	09/20/2023	0.00077	0.01	8.15	10.9	102	81
	06/18/2024	0.00784	0.01	8.03	11.3	64	47
	09/11/2024	0.00175	0.01	7.83	9.3	84	85

Note: Bold italicized data are results below Lab Method Detection Limits (MDL) and are reported as 1/2 the MDL.

*** = No Sample Collected - Not Accessible (or Frozen) due to Winter Conditions

nd = No Data. Pre-dates data collection at location.

Table 2 - Indicator Parameters
5-Year Surface Water Quality Monitoring Data
Climax Mine

Location	Sample Date	Cadmium, Dissolved (mg/L)	Copper, Dissolved (mg/L)	Iron, Dissolved (mg/L)	Iron, Total Recoverable (mg/L)	Manganese, Dissolved (mg/L)	Molybdenum, Dissolved (mg/L)
BI	06/11/2020	0.000025	0.0004	0.03	0.19	0.005	0.0102
	09/21/2020	0.000025	0.0004	0.03	0.03	0.005	0.0005
	06/18/2021	0.000025	0.0004	0.03	0.03	0.005	0.00041
	09/16/2021	0.000025	0.0004	0.03	0.03	0.005	0.00061
	06/15/2022	0.000025	0.0004	0.03	0.083	0.005	0.0059
	09/14/2022	0.000025	0.0004	0.03	0.03	0.005	0.00068
	06/20/2023	0.000025	0.0004	0.03	0.075	0.005	0.0097
	09/20/2023	0.000025	0.0004	0.03	0.03	0.005	0.0332
	06/18/2024	0.000025	0.0004	0.03	0.178	0.005	0.00788
	09/11/2024	0.000025	0.0004	0.03	0.03	0.005	0.0238

Note: Bold italicized data are results below Lab Method Detection Limits (MDL) and are reported as 1/2 the MDL.

*** = No Sample Collected - Not Accessible (or Frozen) or Dry

Location	Sample Date	Molybdenum, Total Recoverable (mg/L)	Zinc, Dissolved (mg/L)	pH, Field Measurement (Standard Units)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Hardness (mg/L)
BI	06/11/2020	0.0133	0.01	7.2	12.6	86	59
	09/21/2020	0.0005	0.01	8.42	10.3	84	77
	06/18/2021	0.000036	0.01	7.96	5.4	48	44
	09/16/2021	0.000092	0.01	8.03	8.9	90	81
	06/15/2022	0.0061	0.01	7.73	9.9	70	53
	09/14/2022	0.00046	0.01	8.13	11.1	82	73
	06/20/2023	0.00927	0.022	8.03	10.7	82	69
	09/20/2023	0.0321	0.01	8.15	28.4	132	122
	06/18/2024	0.00795	0.01	8.03	11.2	72	49
	09/11/2024	0.0244	0.01	7.95	22.8	100	105

Note: Bold italicized data are results below Lab Method Detection Limits (MDL) and are reported as 1/2 the MDL.

*** = No Sample Collected - Not Accessible (or Frozen) or Dry

Table 2 - Indicator Parameters
5-Year Surface Water Quality Monitoring Data
Climax Mine

Location	Sample Date	Cadmium, Dissolved (mg/L)	Copper, Dissolved (mg/L)	Iron, Dissolved (mg/L)	Iron, Total Recoverable (mg/L)	Manganese, Dissolved (mg/L)	Molybdenum, Dissolved (mg/L)
EPR Outlet	06/25/2020	***	***	***	***	***	***
	09/21/2020	0.000025	0.0004	0.03	0.03	0.005	0.0252
	06/30/2021	***	***	***	***	***	***
	09/02/2021	0.000025	0.0004	0.03	0.06	0.005	0.0329
	06/15/2022	***	***	***	***	***	***
	09/14/2022	0.000025	0.0004	0.03	0.06	0.005	0.0334
	06/28/2023	***	***	***	***	***	***
	09/20/2023	0.000025	0.0004	0.03	0.03	0.005	0.0353
	09/03/2024	0.000025	0.0004	0.03	0.03	0.005	0.0354
	10/16/2024	0.000025	0.0004	0.03	0.03	0.005	0.0323

Note: Bold italicized data are results below Lab Method Detection Limits (MDL) and are reported as 1/2 the MDL.

*** = No Sample Collected - Not Accessible (or Frozen) or Dry

Location	Sample Date	Molybdenum, Total Recoverable (mg/L)	Zinc, Dissolved (mg/L)	pH, Field Measurement (Standard Units)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Hardness (mg/L)
EPR Outlet	06/25/2020	***	***	***	***	***	***
	09/21/2020	0.025	0.01	8.38	21.7	112	93
	06/30/2021	***	***	***	***	***	***
	09/02/2021	0.0355	0.01	7.97	25.5	118	103
	06/15/2022	***	***	***	***	***	***
	09/14/2022	0.0038	0.01	7.99	26.3	108	102
	06/28/2023	***	***	***	***	***	***
	09/20/2023	0.0333	0.01	7.8	26.8	124	106
	09/03/2024	0.0375	0.01	7.77	30.1	124	110
	10/16/2024	0.0297	0.01	8.14	29.1	132	112

Note: Bold italicized data are results below Lab Method Detection Limits (MDL) and are reported as 1/2 the MDL.

*** = No Sample Collected - Not Accessible (or Frozen) or Dry

Table 2 - Indicator Parameters
5-Year Surface Water Quality Monitoring Data
Climax Mine

Location	Sample Date	Cadmium, Dissolved (mg/L)	Copper, Dissolved (mg/L)	Iron, Dissolved (mg/L)	Iron, Total Recoverable (mg/L)	Manganese, Dissolved (mg/L)	Molybdenum, Dissolved (mg/L)
CC-SW1	03/24/2020	***	***	***	***	***	***
	06/22/2020	0.00011	0.001	0.03	0.07	0.005	0.0014
	08/31/2020	0.00007	0.0004	0.03	0.03	0.005	0.0017
	10/19/2020	0.000094	0.0004	0.03	0.063	0.005	0.00249
	03/31/2021	***	***	***	***	***	***
	06/17/2021	0.000108	0.0004	0.03	0.115	0.005	0.00128
	<i>09/21/2021</i>	<i>0.000079</i>	<i>0.0004</i>	<i>0.03</i>	<i>0.03</i>	<i>0.005</i>	<i>0.00173</i>
	09/21/2021	0.000076	0.0004	0.03	0.03	0.005	0.00178
	10/29/2021	***	***	***	***	***	***
	03/15/2022	***	***	***	***	***	***
	06/22/2022	0.000097	0.0004	0.03	0.098	0.005	0.00144
	09/26/2022	0.000087	0.0004	0.03	0.03	0.005	0.00168
	11/28/2022	***	***	***	***	***	***
	06/22/2023	0.000107	0.00086	0.03	0.03	0.005	0.00122
	08/22/2023	0.000094	0.0004	0.03	0.07	0.005	0.00184
	10/11/2023	0.000086	0.0004	0.03	0.03	0.013	0.00203
	03/30/2024	***	***	***	***	***	***
	06/19/2024	0.000087	0.00123	0.03	0.08	0.005	0.00129
	07/11/2024	0.000103	0.0004	0.03	0.081	0.005	0.0023
	10/03/2024	0.00008	0.0004	0.03	0.03	0.005	0.00202
	10/03/2024	0.000088	<i>0.0004</i>	<i>0.03</i>	<i>0.03</i>	<i>0.005</i>	<i>0.002</i>

Note: Bold italicized data are results below Lab Method Detection Limits (MDL) and are reported as 1/2 the MDL.

*** = No Sample Collected - Not Accessible (or Frozen) or Dry

Note: Data in purple represents a duplicate sample

Location	Sample Date	Molybdenum, Total Recoverable (mg/L)	Zinc, Dissolved (mg/L)	pH, Field Measurement (Standard Units)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Hardness (mg/L)
CC-SW1	03/24/2020	***	***	***	***	***	***
	06/22/2020	0.0012	0.02	6.94	5	62	32
	08/31/2020	0.0016	0.01	7.31	30.8	80	54
	10/19/2020	0.00176	0.01	7.24	35.1	100	66
	03/31/2021	***	***	***	***	***	***
	06/17/2021	0.00119	0.024	7.52	17.7	52	33
	<i>09/21/2021</i>	<i>0.00163</i>	<i>0.01</i>	<i>7.57</i>	<i>35.6</i>	<i>86</i>	<i>69</i>
	09/21/2021	0.0168	0.01	7.57	35.7	90	68
	10/29/2021	***	***	***	***	***	***
	03/15/2022	***	***	***	***	***	***
	06/22/2022	0.0013	0.023	7.56	20.6	58	37
	09/26/2022	0.00155	0.01	7.73	38.7	96	68
	11/28/2022	***	***	***	***	***	***
	06/22/2023	0.00122	0.035	7.39	17.8	62	37
	08/22/2023	0.00177	0.01	7.72	34.3	84	62
	10/11/2023	0.00178	0.023	7.84	41.2	104	75
	03/30/2024	***	***	***	***	***	***
	06/19/2024	0.0012	0.085	6.39	15.7	60	33
	07/11/2024	0.0164	0.01	7.41	19.7	56	39
	10/03/2024	0.00235	0.01	7.52	34.2	102	78
	10/03/2024	0.00281	<i>0.01</i>	<i>7.52</i>	<i>32.9</i>	<i>106</i>	<i>78</i>

Note: Bold italicized data are results below Lab Method Detection Limits (MDL) and are reported as 1/2 the MDL.

*** = No Sample Collected - Not Accessible (or Frozen) or Dry

Note: Data in purple represents a duplicate sample

Table 2 - Indicator Parameters
5-Year Surface Water Quality Monitoring Data
Climax Mine

Location	Sample Date	Cadmium, Dissolved (mg/L)	Copper, Dissolved (mg/L)	Iron, Dissolved (mg/L)	Iron, Total Recoverable (mg/L)	Manganese, Dissolved (mg/L)	Molybdenum, Dissolved (mg/L)
EI-SW1	03/24/2020	***	***	***	***	***	***
	06/22/2020	0.000025	0.0004	0.03	0.12	0.005	0.0014
	08/31/2020	0.000025	0.0004	0.03	0.03	0.005	0.0016
	10/19/2020	0.000025	0.0004	0.03	0.156	0.005	0.00201
	03/31/2021	***	***	***	***	***	***
	05/27/2021	***	***	***	***	***	***
	06/08/2021	0.000025	0.0004	0.03	0.134	0.005	0.00247
	07/29/2021	0.000095	0.0273	0.03	0.03	0.005	0.0013
	08/12/2021	0.000025	0.0004	0.03	0.03	0.005	0.00129
	09/15/2021	0.000025	0.0004	0.03	0.03	0.005	0.0017
	10/29/2021	0.000025	0.0004	0.03	0.03	0.005	0.00141
	03/15/2022	***	***	***	***	***	***
	06/29/2022	0.000025	0.0004	0.03	0.03	0.005	0.00134
	07/28/2022	0.000025	0.0004	0.03	0.03	0.005	0.00049
	09/26/2022	0.000025	0.0004	0.03	0.271	0.005	0.00436
	11/28/2022	***	***	***	***	***	***
	06/22/2023	0.000688	0.0096	0.03	0.148	0.263	0.00524
	09/04/2023	***	***	***	***	***	***
	10/11/2023	***	***	***	***	***	***
	01/31/2024	***	***	***	***	***	***
	02/18/2024	***	***	***	***	***	***
	03/30/2024	***	***	***	***	***	***
	04/30/2024	***	***	***	***	***	***
	05/30/2024	***	***	***	***	***	***
	06/20/2024	0.000081	0.00091	0.03	7.81	0.104	0.0252
	06/26/2024	0.000051	0.00735	0.03	0.729	0.115	0.0172
	07/24/2024	***	***	***	***	***	***
	08/26/2024	***	***	***	***	***	***
	09/17/2024	***	***	***	***	***	***
	10/03/2024	***	***	***	***	***	***
	11/30/2024	***	***	***	***	***	***
	12/31/2024	***	***	***	***	***	***

Note: Bold italicized data are results below Lab Method Detection Limits (MDL) and are reported as 1/2 the MDL.

*** = No Sample Collected - Not Accessible (or Frozen) or Dry

Location	Sample Date	Molybdenum, Total Recoverable (mg/L)	Zinc, Dissolved (mg/L)	pH, Field Measurement (Standard Units)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	Hardness (mg/L)
EI-SW1	03/24/2020	***	***	***	***	***	***
	06/22/2020	0.0014	0.01	7.77	14.3	152	107
	08/31/2020	0.0015	0.01	8.31	7.7	180	156
	10/19/2020	0.00191	0.02	8.33	11.4	184	160
	03/31/2021	***	***	***	***	***	***
	05/27/2021	***	***	***	***	***	***
	06/08/2021	0.00250	0.01	8.35	0.5	94	85
	07/29/2021	0.00135	0.01	8.41	9.4	154	149
	08/12/2021	0.00124	0.01	8.4	7.4	156	149
	09/15/2021	0.0168	0.01	8.36	7.7	172	181
	10/29/2021	0.00131	0.01	8.33	7.7	176	153
	03/15/2022	***	***	***	***	***	***
	06/29/2022	0.00129	0.01	8.11	6.1	128	121
	07/28/2022	0.0028	0.01	8.41	6	144	140
	09/26/2022	0.00494	0.01	8.29	7.9	170	150

Table 2 - Indicator Parameters
5-Year Surface Water Quality Monitoring Data
Climax Mine

EI-SW1	11/28/2022	***	***	***	***	***	***
	06/22/2023	0.00532	0.084	7.08	27.8	156	128
	09/04/2023	***	***	***	***	***	***
	10/11/2023	***	***	***	***	***	***
	01/31/2024	***	***	***	***	***	***
	02/18/2024	***	***	***	***	***	***
	03/30/2024	***	***	***	***	***	***
	04/30/2024	***	***	***	***	***	***
	05/30/2024	***	***	***	***	***	***
	06/20/2024	0.0253	0.03	7.8	10	126	72
	06/26/2024	0.0177	0.076	7.64	25.9	132	108
	07/24/2024	***	***	***	***	***	***
	08/26/2024	***	***	***	***	***	***
	09/17/2024	***	***	***	***	***	***
	10/03/2024	***	***	***	***	***	***
	11/30/2024	***	***	***	***	***	***
	12/31/2024	***	***	***	***	***	***

Bold italicized data are results below Lab Method Detection Limits (MDL) and are reported as 1/2 the MDL.

*** = No Sample Collected - Not Accessible (or Frozen) or Dry

Table 3 - Baseline Parameters
Groundwater Quality Monitoring Data
Climax Mine

Location	Sample Date	Aluminum, Dissolved (mg/L)	Antimony, Dissolved (mg/L)	Arsenic, Dissolved (mg/L)	Barium, Dissolved (mg/L)	Beryllium, Dissolved (mg/L)	Calcium, Dissolved (mg/L)	Chromium (Cr(III) + Cr(VI)), Dissolved (mg/L)	Cobalt, Dissolved (mg/L)	Lead, Dissolved (mg/L)	Magnesium, Dissolved (mg/L)	Mercury, Dissolved (mg/L)	Nickel, Dissolved (mg/L)	Potassium, Dissolved (mg/L)	Selenium, Dissolved (mg/L)	Silver, Dissolved (mg/L)	Sodium, Dissolved (mg/L)	Thallium, Dissolved (mg/L)	Vanadium, Dissolved (mg/L)	Bicarbonate (HCO ₃) (mg/L)	Total Alkalinity (mg/L)	Chloride, Dissolved (mg/L)	Cyanide (WAD) (mg/L)	Cyanide, Total (mg/L)	Total Nitrite + Nitrate as N (mg/L)	Total Organic Carbon (TOC) (mg/L)
ARwell	02/26/2018	0.015	0.0002	0.0001	0.068	0.00025	33.3	0.0008	0.00145	0.00005	12.7	0.0001	0.0297	1.2	0.00005	0.005	0.00025	0.00005	0.00005	140	140	2.9	0.0015	0.01	0.5	
	03/26/2018	0.015	0.0002	0.0001	0.064	0.00025	28	0.0009	0.00025	0.00005	12.6	0.0001	0.0187	1.2	0.00005	0.005	0.00025	0.00005	0.00005	137	137	2.9	0.0015	0.01	0.5	
	06/05/2018	0.04	0.0002	0.0001	0.064	0.00025	28	0.0009	0.00025	0.00005	12.2	0.0001	0.0062	1.2	0.00005	0.005	0.00025	0.00005	0.00005	120	120	1.9	0.0015	0.01	1.5	
	08/11/2021	0.376	0.0002	0.0003	0.0981	0.00004	32.3	0.0025	0.000114	0.00005	14	0.0001	0.0002	1.3	0.00005	0.005	0.00025	0.00005	0.00005	121	121	3.7	0.0015	0.01	1.4	
ARK-MW-001D	07/22/2024	0.035	0.0002	0.0003	0.0722	0.00005	30.9	0.0025	0.00012	0.00005	14	0.0001	0.0002	1.2	0.00005	0.005	0.00025	0.00005	0.00005	129	129	7.1	0.0015	0.01	0.53	
	02/26/2018	0.015	0.0002	0.0001	0.054	0.00025	23.9	0.0025	0.00014	0.00005	17.7	0.0001	0.0003	1.6	0.00005	0.005	0.00025	0.00005	0.00005	143	143	1.0	0.0015	0.01	0.5	
	05/14/2018	0.015	0.0002	0.0003	0.021	0.00025	24.6	0.0025	0.00005	17.9	0.0001	0.0003	1.7	0.00005	0.005	0.00025	0.00005	0.00005	151	153	1.1	0.0015	0.01	0.5		
	06/23/2021	0.026	0.0002	0.0001	0.0252	0.00004	25.3	0.0025	0.00005	0.00005	19	0.0001	0.0002	1.7	0.00007	0.005	0.00025	0.00005	0.00005	141	150	0.7	0.0015	0.01	0.5	
ARK-MW-002D	07/22/2024	0.035	0.0002	0.0003	0.0337	0.00005	26.9	0.0025	0.00007	0.00005	19	0.0001	0.0002	2.0	0.00005	0.005	0.00025	0.00005	0.00005	167	167	0.5	0.0015	0.01	0.5	
	03/12/2018	0.015	0.0002	0.0015	0.031	0.00025	3	0.0025	0.00006	0.00005	0.7	0.0001	0.0003	0.5	0.00004	0.005	0.00025	0.00005	0.00005	177	188	1.4	0.0015	0.01	0.5	
	05/14/2018	0.04	0.0002	0.018	0.005	0.00025	3.5	0.0025	0.00005	0.00005	0.8	0.0001	0.0003	0.5	0.00004	0.005	0.00025	0.00005	0.00005	204	215	2.6	0.0015	0.01	10.6	
	06/14/2021	0.025	0.00045	0.0196	0.0135	0.00004	3.28	0.0025	0.00005	0.00005	0.8	0.0001	0.0002	0.5	0.000048	0.005	0.00025	0.00005	0.00005	197	213	2.4	0.0015	0.01	1.4	
ARK-MW-002S	07/23/2024	0.035	0.0001	0.0018	0.0405	0.00004	2.51	0.0025	0.00005	0.00005	0.65	0.0001	0.0002	0.3	0.00006	0.005	0.00025	0.00005	0.00005	208	208	1.4	0.0015	0.01	1.1	
	03/12/2018	0.015	0.0002	0.0011	0.039	0.00025	163	0.0025	0.00005	0.00005	26.1	0.0001	0.00255	3.1	0.00005	0.005	0.00025	0.00005	0.00005	521	521	54.9	0.0015	0.01	8.6	
	05/14/2018	0.03	0.0002	0.0015	0.039	0.00025	169	0.0025	0.000032	0.00005	27	0.0001	0.00345	3.2	0.0001	0.005	0.00025	0.00005	0.00005	539	539	56.7	0.0015	0.01	15	
	06/14/2021	0.025	0.0002	0.018	0.0405	0.00004	173	0.0025	0.000047	0.00005	27.2	0.0001	0.00211	3.4	0.00005	0.005	0.00025	0.00005	0.00005	519	519	49.0	0.0015	0.01	20.7	
EVMW-1D	01/29/2018	0.015	0.0002	0.0003	0.038	0.00025	69.1	0.0025	0.000071	0.00005	27.6	0.0001	0.0024	1.7	0.00005	0.005	0.00025	0.00005	0.00005	121	121	5.1	0.0015	0.01	9.5	
	04/23/2018	0.015	0.0002	0.0004	0.034	0.00025	71.2	0.0025	0.000167	0.00005	28.2	0.0001	0.0016	1.6	0.00005	0.005	0.00025	0.00005	0.00005	103	103	5.7	0.0015	0.01	0.5	
	06/15/2021	0.025	0.0002	0.00053	0.0351	0.00004	77.9	0.0025	0.000069	0.00005	30.6	0.0001	0.00066	1.8	0.00005	0.005	0.00025	0.00005	0.00005	117	117	6.9	0.0015	0.01	2.1	
	09/10/2024	0.035	0.0002	0.0004	0.0488	0.00005	80.5	0.0025	0.000025	0.00005	30.6	0.0001	0.00386	1.8	0.00005	0.005	0.00025	0.00005	0.00005	175	175	8.0	0.0015	0.01	1.2	
EVMW-1S	01/29/2018	0.015	0.00																							

Table 4 - Baseline Parameters
Surface Water Quality Monitoring Data
Climax Mine

Site Number	Sample Date	Aluminum, Dissolved (mg/L)	Antimony, Dissolved (mg/L)	Arsenic, Dissolved (mg/L)	Arsenic, Total Recoverable (mg/L)	Barium, Dissolved (mg/L)	Beryllium, Dissolved (mg/L)	Calcium, Dissolved (mg/L)	Chromium (Cr(III) + Cr(VI)), Dissolved (mg/L)
CC-SW1	03/19/2018	***	***	***	***	***	***	***	***
	06/18/2018	0.04	0.0002	0.0001	***	0.018	0.000025	9.6	0.00025
	06/16/2021	0.025	0.0002	0.0001	0.0001	0.0198	0.00004	10.8	0.00025
	07/11/2024	0.035	0.0002	0.0001	0.0001	0.0045	0.00005	12.6	0.00025
EI-SW1	03/26/2018	***	***	***	***	***	***	***	***
	06/18/2018	0.04	0.0002	0.0001	***	0.175	0.000025	37	0.00025
	06/07/2021	0.025	0.0002	0.0002	0.0001	0.126	0.00004	27.9	0.00025
	07/15/2024	**	**	**	**	**	**	**	**
Arkansas #1	03/15/2018	***	***	***	***	***	***	***	***
	06/18/2018	0.05	0.0002	0.0001	0.0001	0.014	0.000025	5.4	0.00025
	06/16/2021	0.025	0.0002	0.0001	0.0001	0.0174	0.00004	5.82	0.00025
	07/23/2024	0.035	0.0002	0.0001	0.0001	0.0168	0.00005	8.69	0.00025
Arkansas #2	03/15/2018	***	***	***	***	***	***	***	***
	06/18/2018	0.05	0.0002	0.0001	0.0001	0.017	0.000025	7.2	0.00025
	06/16/2021	0.025	0.0002	0.0001	0.0001	0.017	0.00004	6.45	0.00025
	07/22/2024	0.035	0.0002	0.0001	0.0001	0.0139	0.00005	9.05	0.00025
AI	02/12/2018	0.015	0.0002	0.0001	0.0001	0.069	0.000025	17.7	0.00025
	06/11/2018	0.015	0.0002	0.0001	0.0001	0.046	0.000025	9.3	0.00025
	06/17/2021	0.025	0.0002	0.0001	0.0001	0.0538	0.00004	10.7	0.00025
	09/11/2024	0.035	0.0002	0.0001	0.0001	0.0753	0.00005	19	0.00025
BI	02/12/2018	0.015	0.0002	0.0001	0.0001	0.049	0.000025	24.7	0.00025
	06/11/2018	0.015	0.0002	0.0001	0.0001	0.046	0.000025	10.1	0.00025
	06/17/2021	0.025	0.0002	0.0001	0.0001	0.0527	0.00004	9.66	0.00025
	09/11/2024	0.035	0.0002	0.0001	0.0001	0.0647	0.00005	24.4	0.00025
EPR Outlet	02/12/2018	0.015	0.0002	0.0001	0.0001	0.046	0.000025	25.5	0.00025
	06/29/2021	**	**	**	**	**	**	**	**
	09/03/2024	0.035	0.0002	0.0001	0.0001	0.0467	0.00005	25.6	0.00025

Table 4 - Baseline Parameters
Surface Water Quality Monitoring Data
Climax Mine

Site Number	Sample Date	Cobalt, Dissolved (mg/L)	Lead, Dissolved (mg/L)	Magnesium, Dissolved (mg/L)	Mercury, Total (mg/L)	Nickel, Dissolved (mg/L)	Potassium, Dissolved (mg/L)	Selenium, Dissolved (mg/L)	Silver, Dissolved (mg/L)
CC-SW1	03/19/2018	***	***	***	***	***	***	***	***
	06/18/2018	0.000025	0.00005	1.6	0.0001	0.0003	0.5	0.0005	0.005
	06/16/2021	0.000025	0.00034	1.57	0.0001	0.0002	0.73	0.001	0.005
	07/11/2024	0.00009	0.00005	1.91	0.0001	0.0002	0.56	0.001	0.005
EI-SW1	03/26/2018	***	***	***	***	***	***	***	***
	06/18/2018	0.00008	0.00005	5.3	0.0001	0.0003	0.5	0.0005	0.005
	06/07/2021	0.000092	0.00005	3.7	0.0001	0.0002	0.49	0.001	0.005
	07/15/2024	**	**	**	**	**	**	**	**
Arkansas #1	03/15/2018	***	***	***	***	***	***	***	***
	06/18/2018	0.000025	0.00005	1.4	0.0001	0.0003	0.3	0.0005	0.005
	06/16/2021	0.000025	0.00019	1.35	0.0001	0.0002	0.54	0.001	0.005
	07/23/2024	0.000051	0.00012	2.16	0.0001	0.0002	0.25	0.001	0.005
Arkansas #2	03/15/2018	***	***	***	***	***	***	***	***
	06/18/2018	0.000025	0.0001	1.7	0.0001	0.0003	0.4	0.0005	0.005
	06/16/2021	0.000025	0.00019	1.37	0.0001	0.0002	0.42	0.001	0.005
	07/22/2024	0.000025	0.00015	2.21	0.0001	0.0002	0.25	0.001	0.005
AI	02/12/2018	0.000025	0.00005	9.4	0.0001	0.0003	0.7	0.0005	0.005
	06/11/2018	0.00005	0.00005	4.8	0.0001	0.0003	0.5	0.0005	0.005
	06/18/2021	0.000025	0.00005	5.28	0.0001	0.0002	0.68	0.001	0.005
	09/11/2024	0.000088	0.00005	9.03	0.0001	0.0002	0.77	0.001	0.001
BI	02/12/2018	0.000025	0.00005	11	0.0001	0.0003	1	0.0005	0.005
	06/11/2018	0.00005	0.00005	5.1	0.0001	0.0003	0.5	0.0005	0.005
	06/17/2021	0.000025	0.00005	4.85	0.0001	0.0002	0.65	0.001	0.005
	09/11/2024	0.00009	0.00005	10.7	0.0001	0.0002	0.96	0.001	0.005
EPR Outlet	02/12/2018	0.000025	0.00005	11.1	0.0001	0.0003	1.1	0.0005	0.005
	06/29/2021	**	**	**	**	**	**	**	**
	09/03/2024	0.000076	0.00005	11.1	0.0001	0.0004	1.04	0.001	0.005

Notes:

** = No Sample Collected - No flow in Q3 2024

*** = No Sample Collected - Not Accessible (or Frozen) due to Winter Conditions

Bold italicized data are results below Lab Method Detection Limits (MDL) and are reported as 1/2 the MDL.

Table 4 - Baseline Parameters
Surface Water Quality Monitoring Data
Climax Mine

Site Number	Sample Date	Sodium, Dissolved (mg/L)	Thallium, Dissolved (mg/L)	Vanadium, Dissolved (mg/L)	Nitrogen, Ammonia, Total (mg/L)	Alkalinity, Bicarbonate (mg/L)	Alkalinity, Total (mg/L)	Chloride, Dissolved (mg/L)	Cyanide, WAD (mg/L)
CC-SW1	03/19/2018	***	***	***	***	***	***	***	***
	06/18/2018	0.7	0.00005	0.0025	0.025	20.3	20.3	0.25	0.0015
	06/17/2021	0.83	0.00012	0.005	0.089	21.1	21.1	0.25	0.0015
	07/11/2024	0.87	0.00005	0.005	0.05	33.9	33.9	0.5	0.0015
EI-SW1	03/26/2018	***	***	***	***	***	***	***	***
	06/18/2018	1.2	0.00005	0.0025	0.025	113	113	0.6	0.0015
	06/07/2021	0.97	0.00005	0.005	0.025	76.2	76.2	0.25	0.0015
	07/11/2024	**	**	**	**	**	**	**	**
Arkansas #1	03/15/2018	***	***	***	***	***	***	***	***
	06/18/2018	0.5	0.00005	0.0025	0.025	14.6	14.6	0.25	0.0015
	06/17/2021	0.65	0.00005	0.005	0.071	12.8	12.8	0.25	0.0015
	07/23/2024	0.62	0.00005	0.005	0.05	32.9	32.9	0.05	0.0015
Arkansas #2	03/15/2018	***	***	***	***	***	***	***	***
	06/18/2018	1	0.00005	0.0025	0.025	20.9	20.9	1.3	0.0015
	06/17/2021	0.89	0.00005	0.005	0.178	23.9	23.9	0.99	0.0015
AI	02/12/2018	1	0.00005	0.0025	0.025	91.4	91.4	0.7	0.0015
	06/11/2018	0.7	0.00005	0.0025	0.025	41.9	41.9	0.5	0.0015
	06/18/2021	0.72	0.00005	0.005	0.025	49.5	49.5	0.53	0.0015
BI	02/12/2018	1.1	0.00005	0.0025	0.025	82.9	84.3	0.8	0.0015
	06/11/2018	0.7	0.00005	0.0025	0.025	43.8	43.8	0.5	0.0015
	06/18/2021	0.66	0.00005	0.005	0.025	43.8	43.8	0.25	0.0015
EPR Outlet	02/12/2018	1.1	0.00005	0.0025	0.025	85.1	85.4	0.7	0.0015
	06/29/2021	**	**	**	**	**	**	**	**
	09/03/2024	0.94	0.00005	0.005	0.654	90.3	90.3	0.5	0.0015

Table 4 - Baseline Parameters
Surface Water Quality Monitoring Data
Climax Mine

Site Number	Sample Date	Cyanide, Total (mg/L)	Fluoride, Dissolved (mg/L)	Total Nitrate + Nitrite as N (mg/L)	Total Organic Carbon (mg/L)
CC-SW1	03/19/2018	***	***	***	***
	06/18/2018	0.0015	0.36	0.11	2
	06/16/2021	0.0015	0.74	0.186	1.5
	07/11/2024	0.0015	0.42	0.118	1.9
EI-SW1	03/26/2018	***	***	***	***
	06/18/2018	0.0015	0.09	0.06	1.4
	06/07/2021	0.0015	0.075	0.197	3.2
	07/15/2024	**	**	**	**
Arkansas #1	03/15/2018	***	***	***	***
	06/18/2018	0.0015	0.18	0.16	1.5
	06/17/2021	0.0015	0.31	0.171	2
Arkansas #2	03/15/2018	***	***	***	***
	06/18/2018	0.0015	0.22	0.08	1.8
	06/17/2021	0.0015	0.27	0.13	1.8
AI	02/12/2018	0.0015	0.09	0.12	1.3
	06/11/2018	0.0015	0.05	0.01	4.2
	06/18/2021	0.0015	0.17	0.01	4.5
	02/12/2018	0.0015	0.29	0.06	2.3
BI	06/11/2018	0.0015	0.025	0.01	3.8
	06/18/2021	0.0015	0.075	0.01	4.8
	02/12/2018	0.0015	0.32	0.05	2.9
EPR Outlet	06/30/2021	**	**	**	**
	09/03/2024	0.0015	0.33	0.043	3

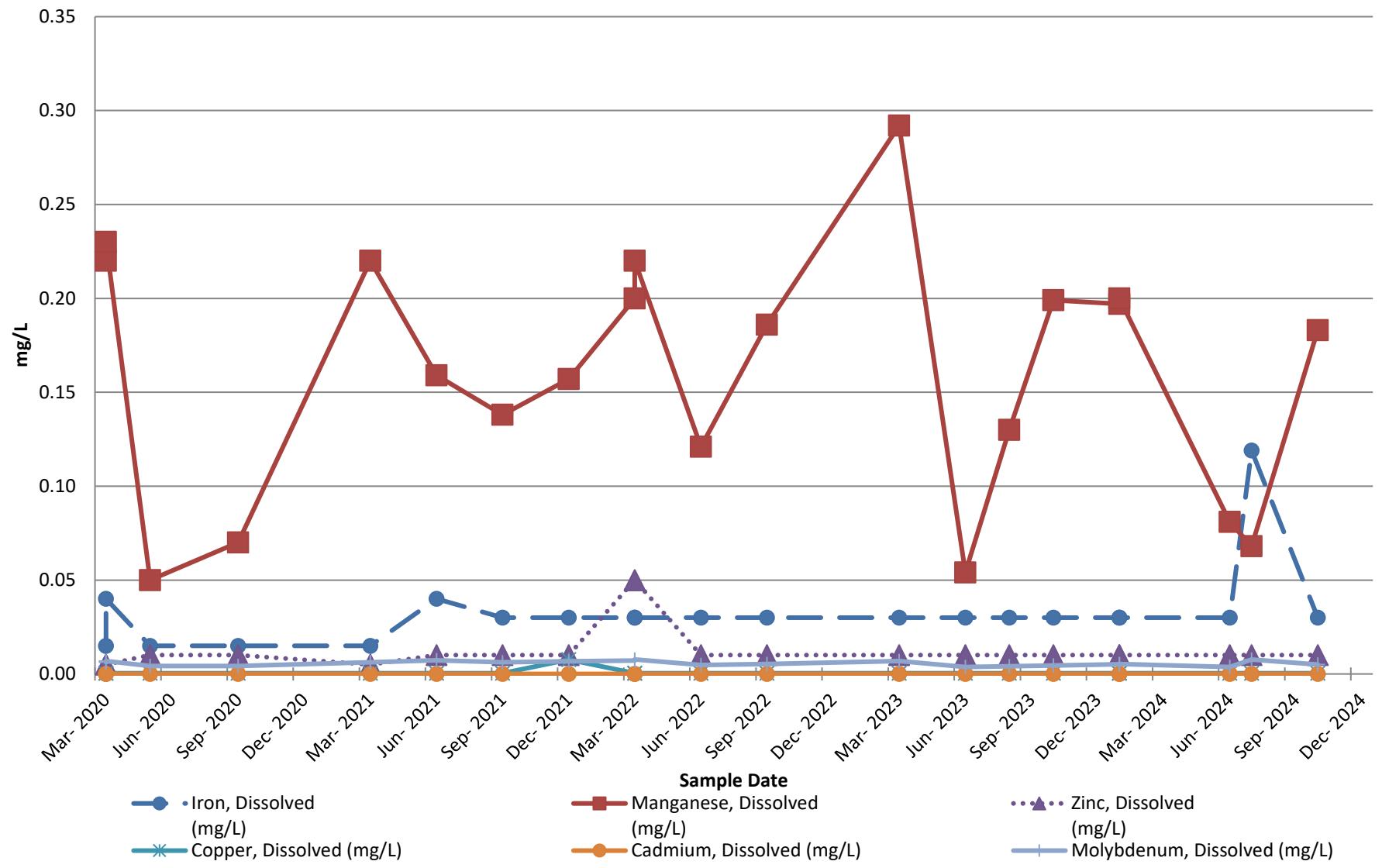
Notes:

** = No Sample Collected - No flow in Q3 2024

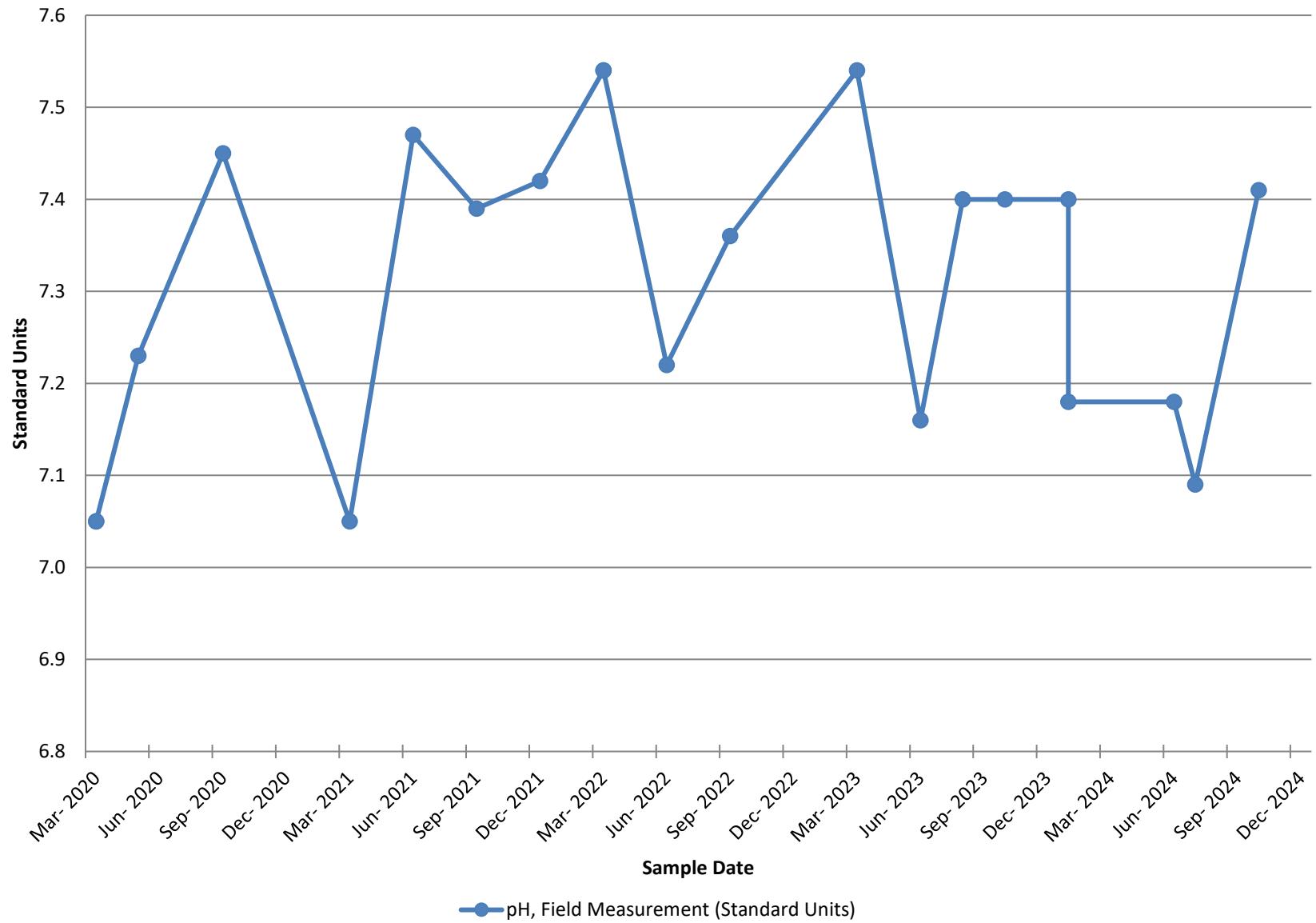
*** = No Sample Collected - Not Accessible (or Frozen) due to Winter Conditions

Bold italicized data are results below Lab Method Detection Limits (MDL) and are reported as 1/2 the MDL.

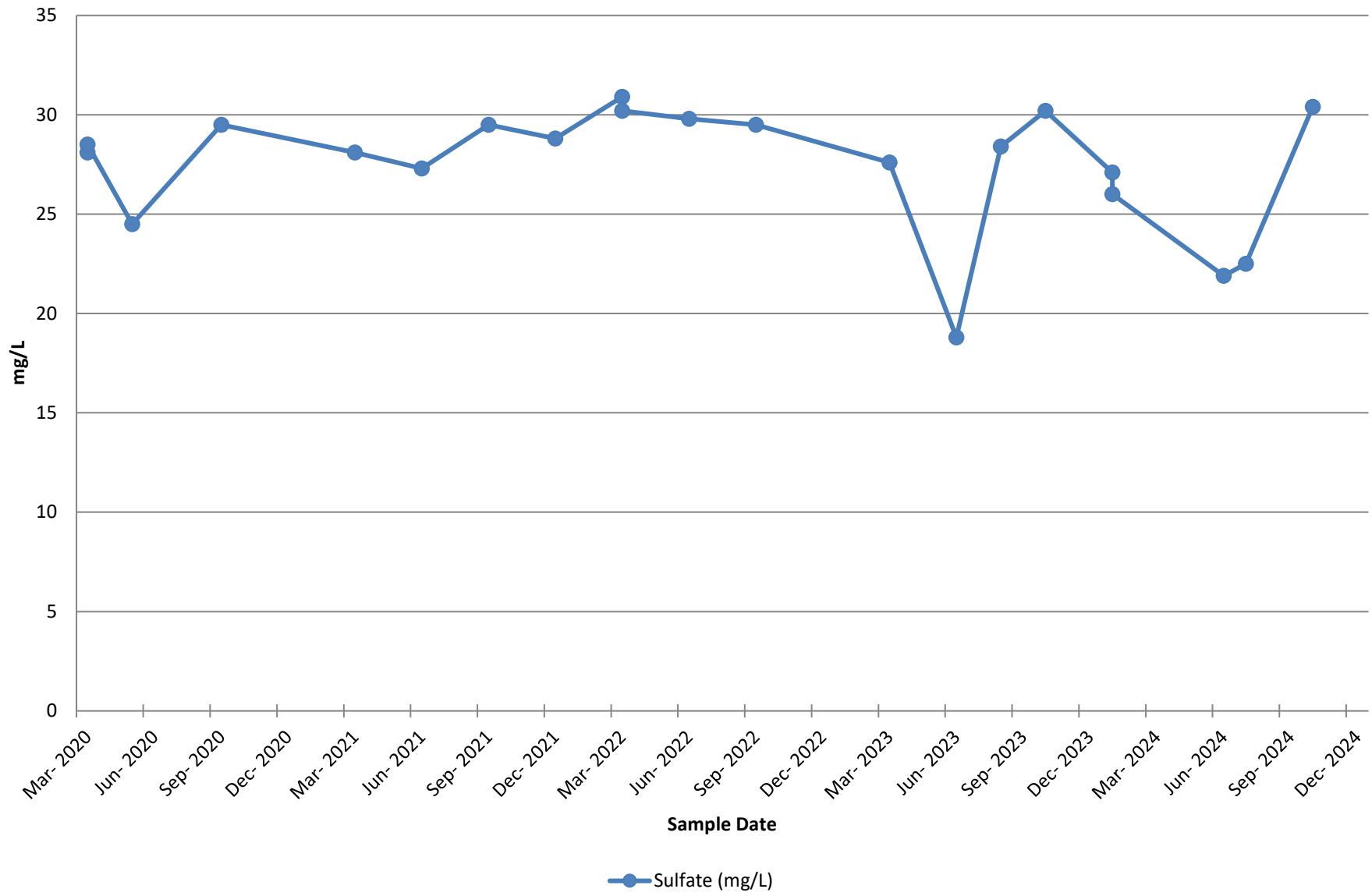
Trend Evaluation 1
ARwell: Metals
Climax Mine



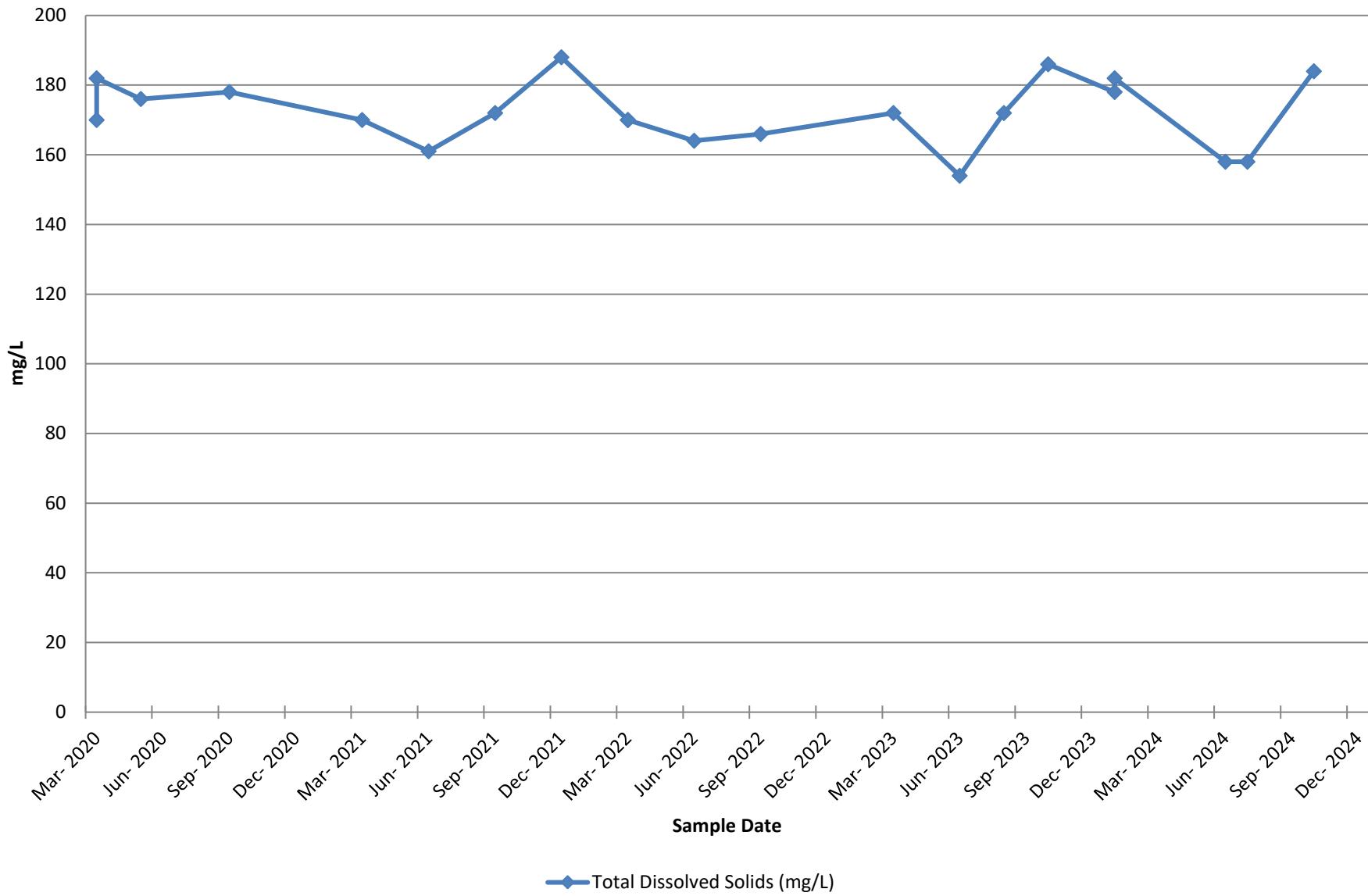
Trend Evaluation 2
ARwell: pH
Climax Mine



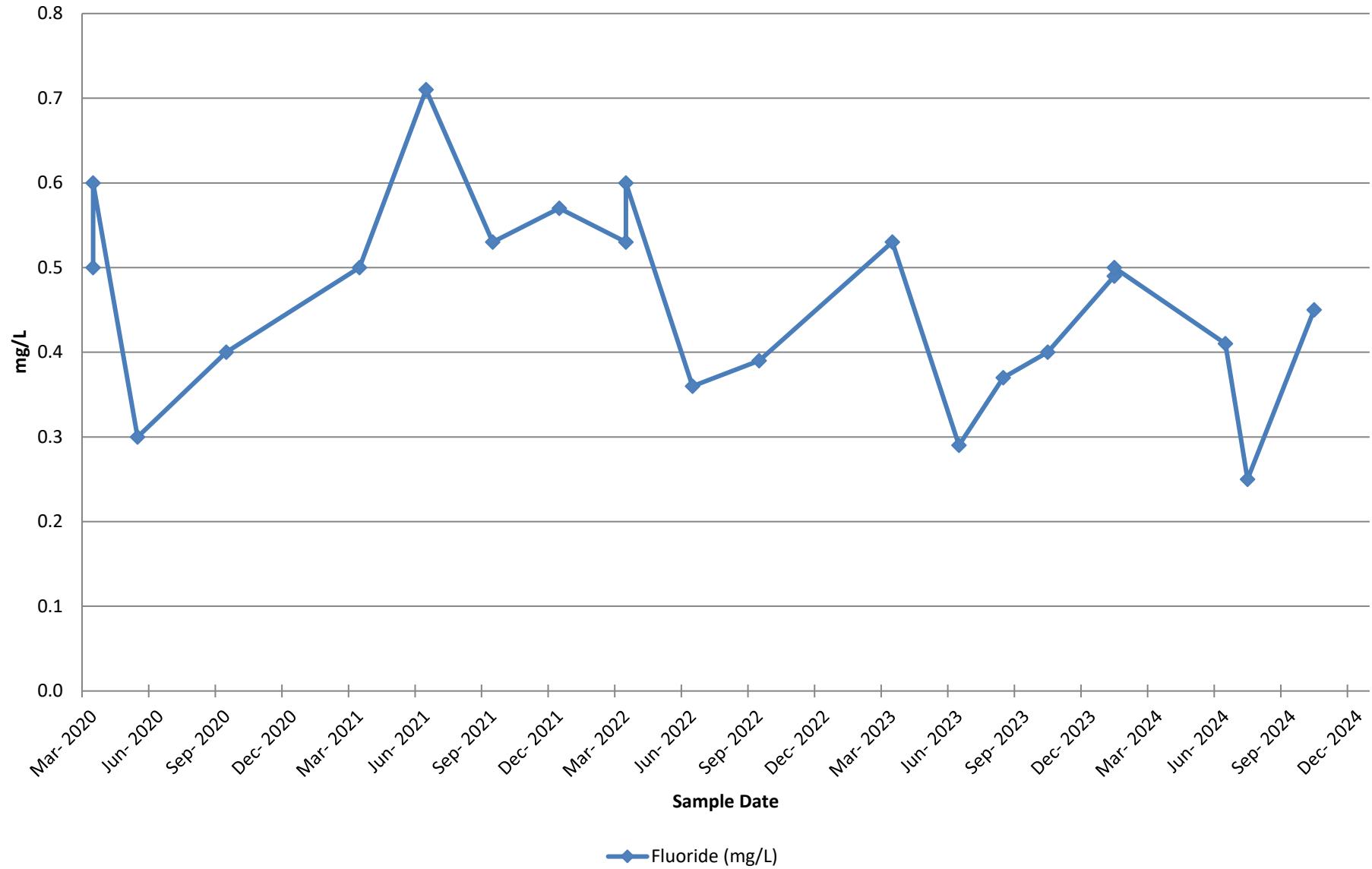
Trend Evaluation 3
ARwell: Sulfate
Climax Mine



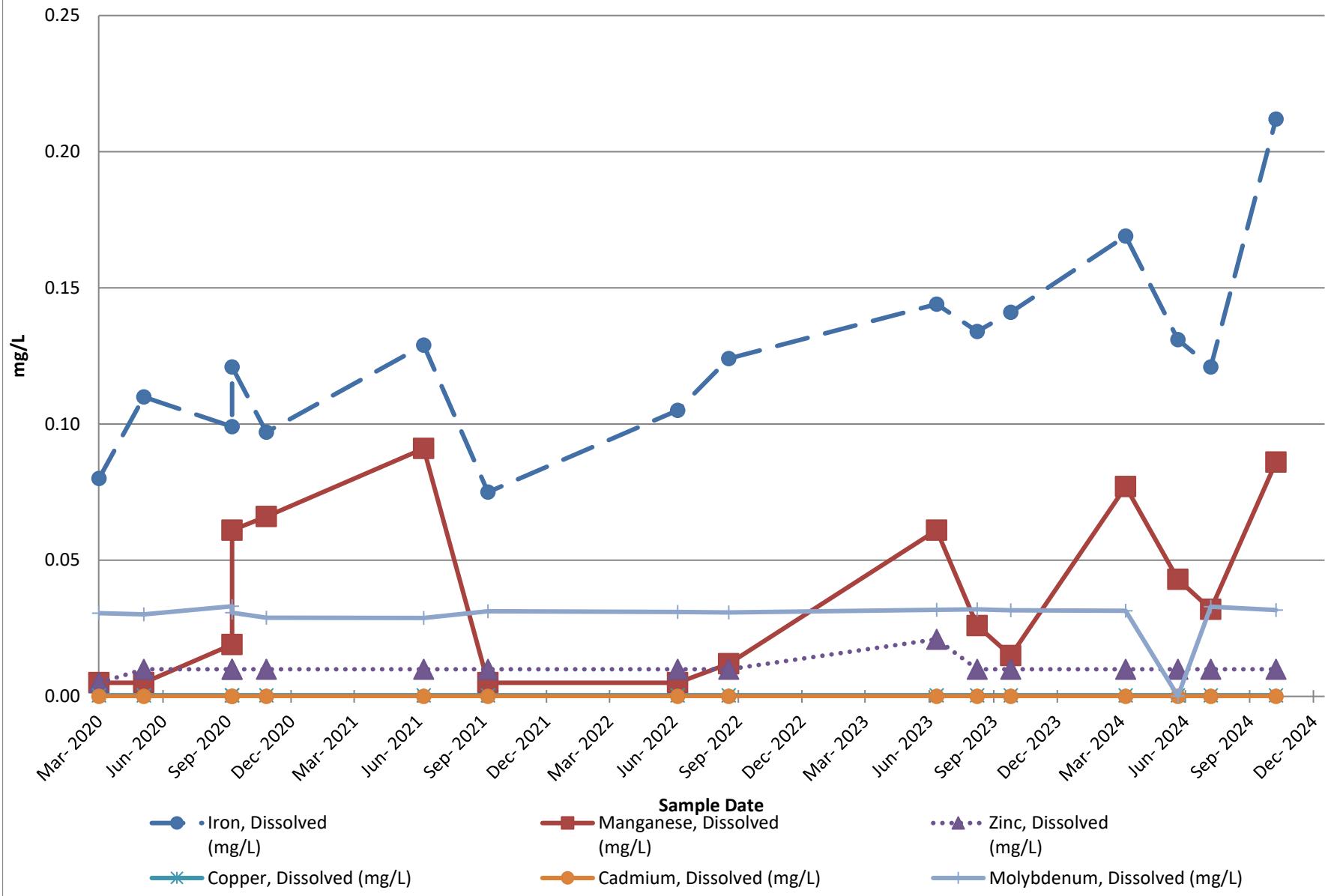
Trend Evaluation 4
ARwell: TDS
Climax Mine



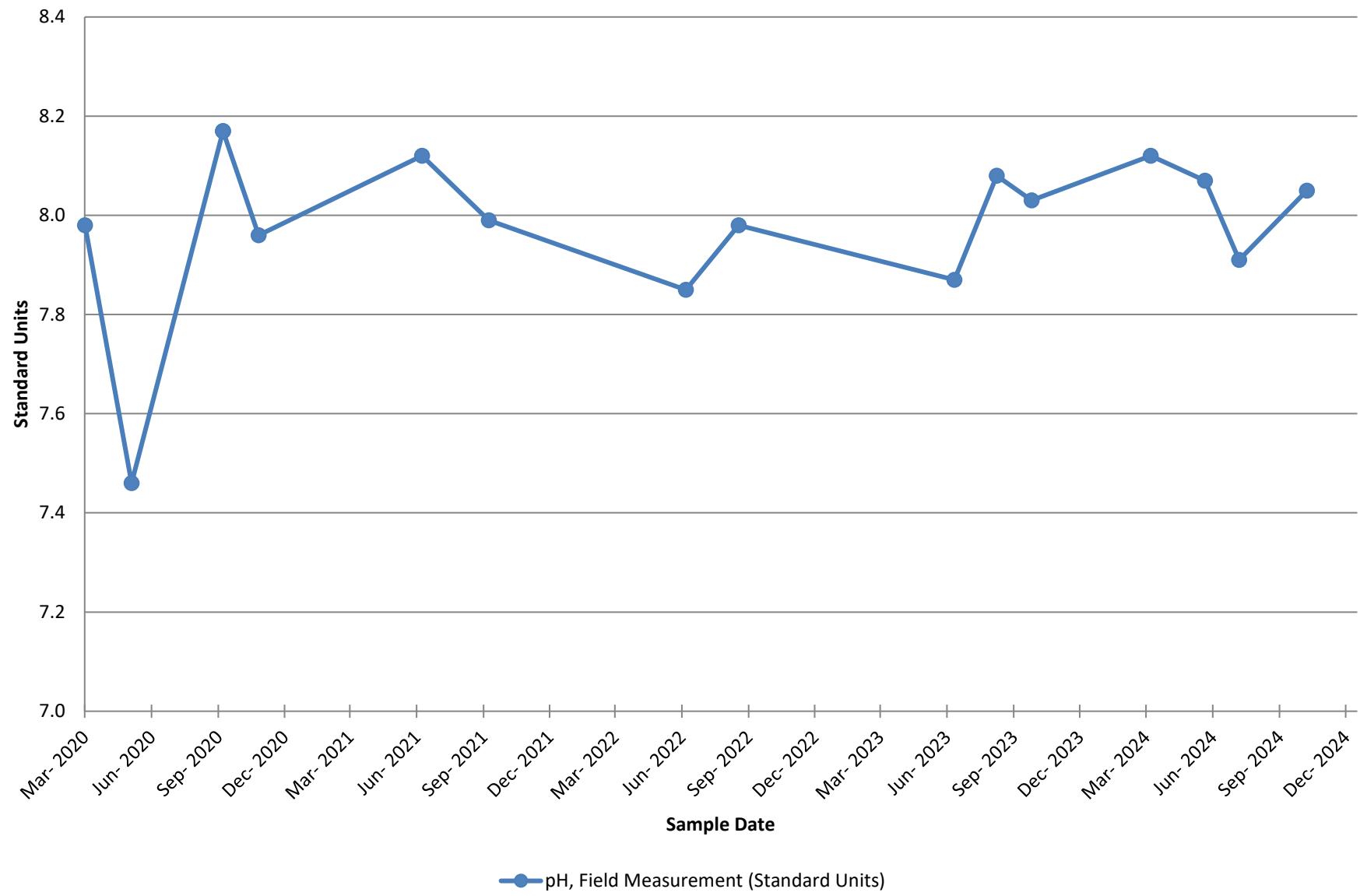
Trend Evaluation 5
ARwell: Fluoride
Climax Mine



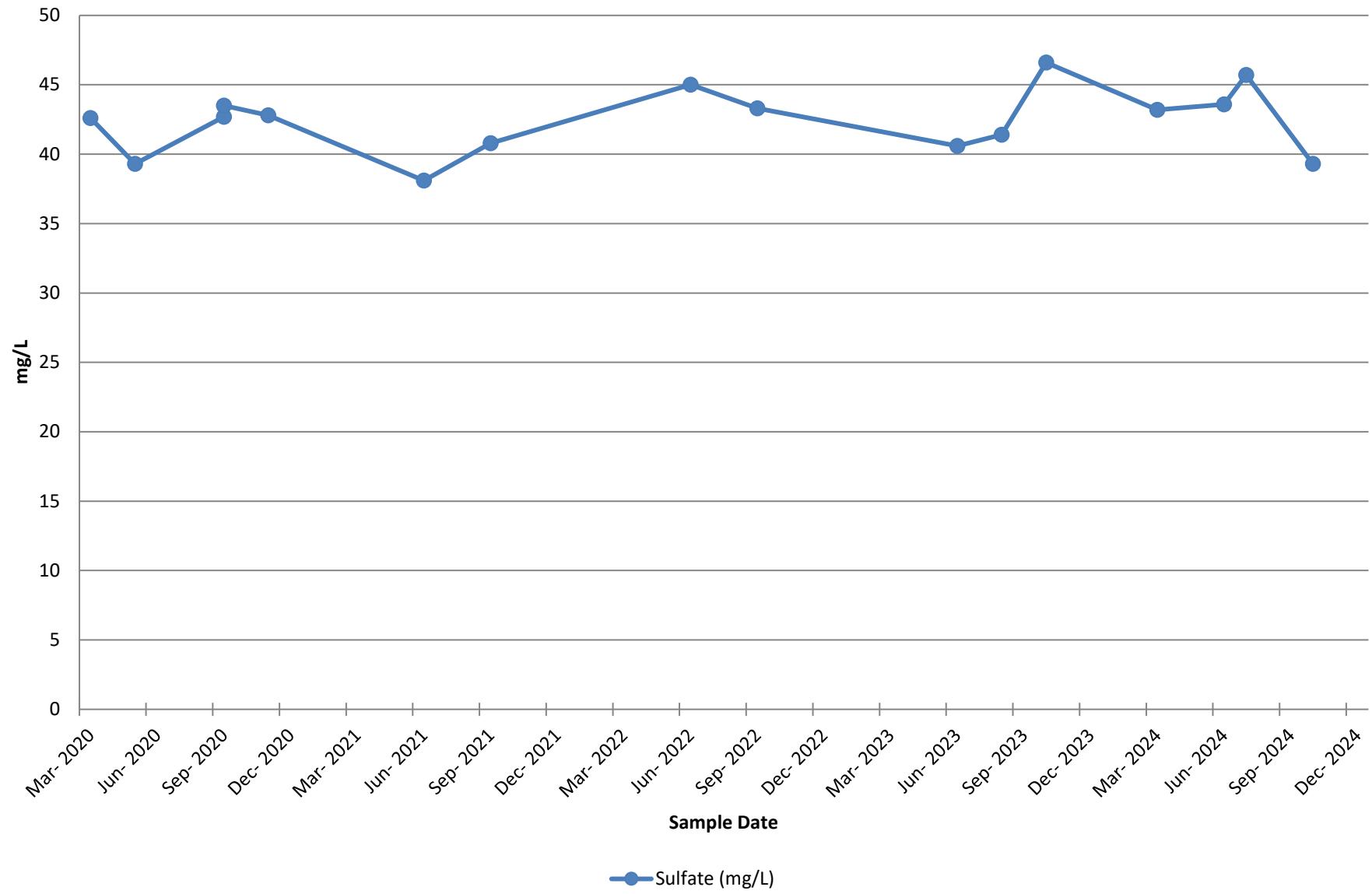
Trend Evaluation 6
ARK-MW-001D: Metals
Climax Mine



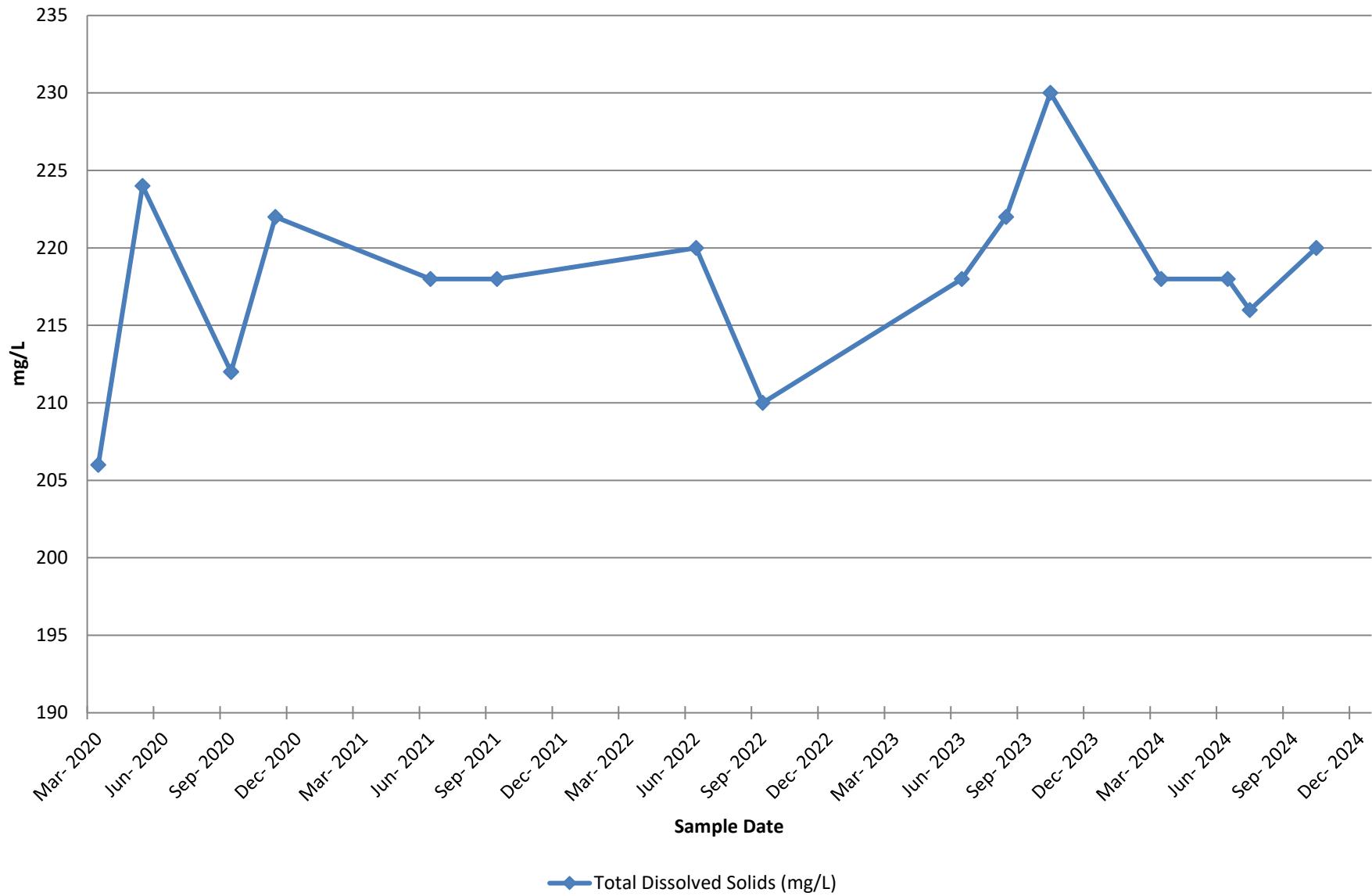
Trend Evaluation 7
ARK-MW-001D: pH
Climax Mine



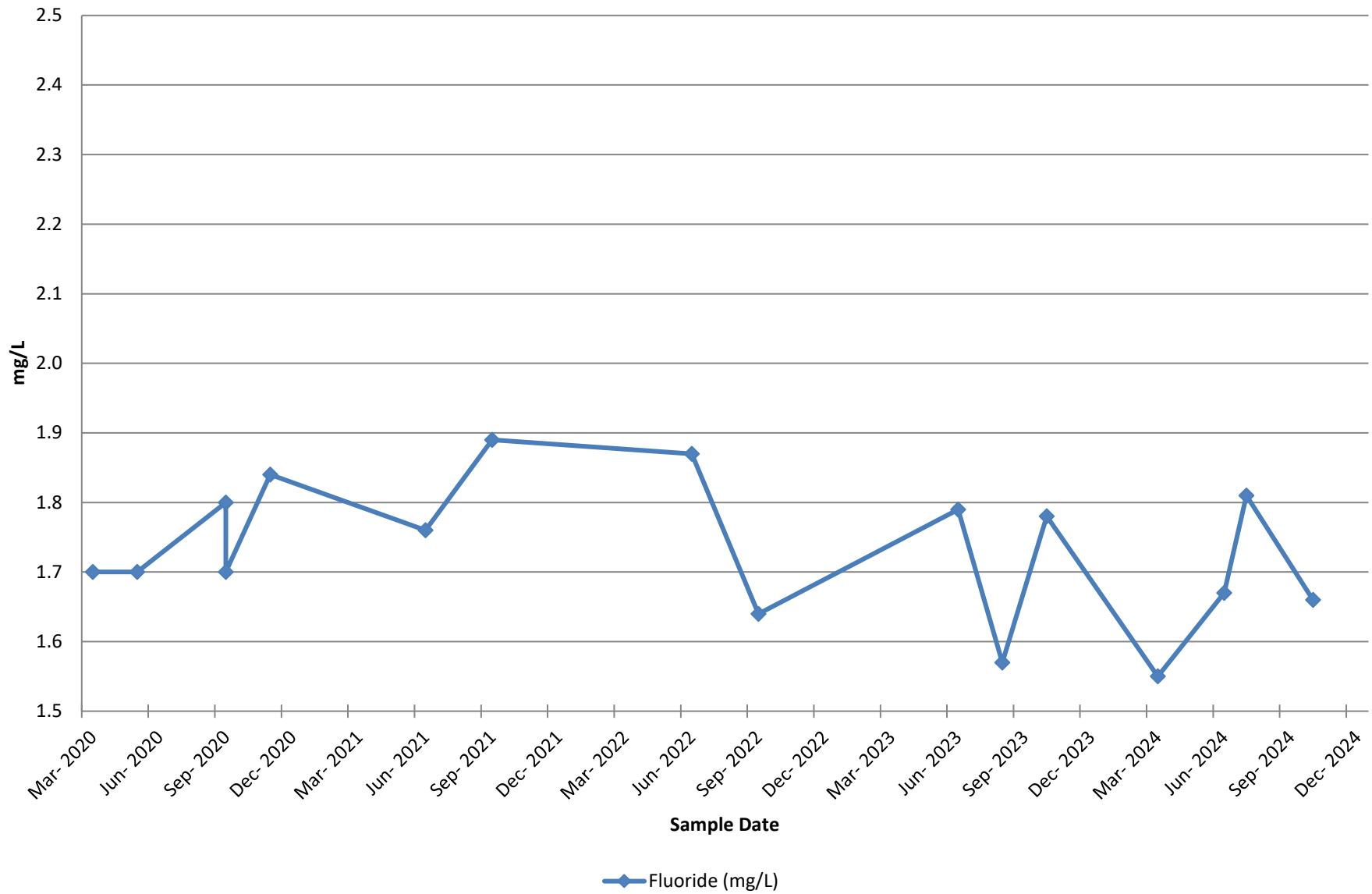
Trend Evaluation 8
ARK-MW-001D: Sulfate
Climax Mine



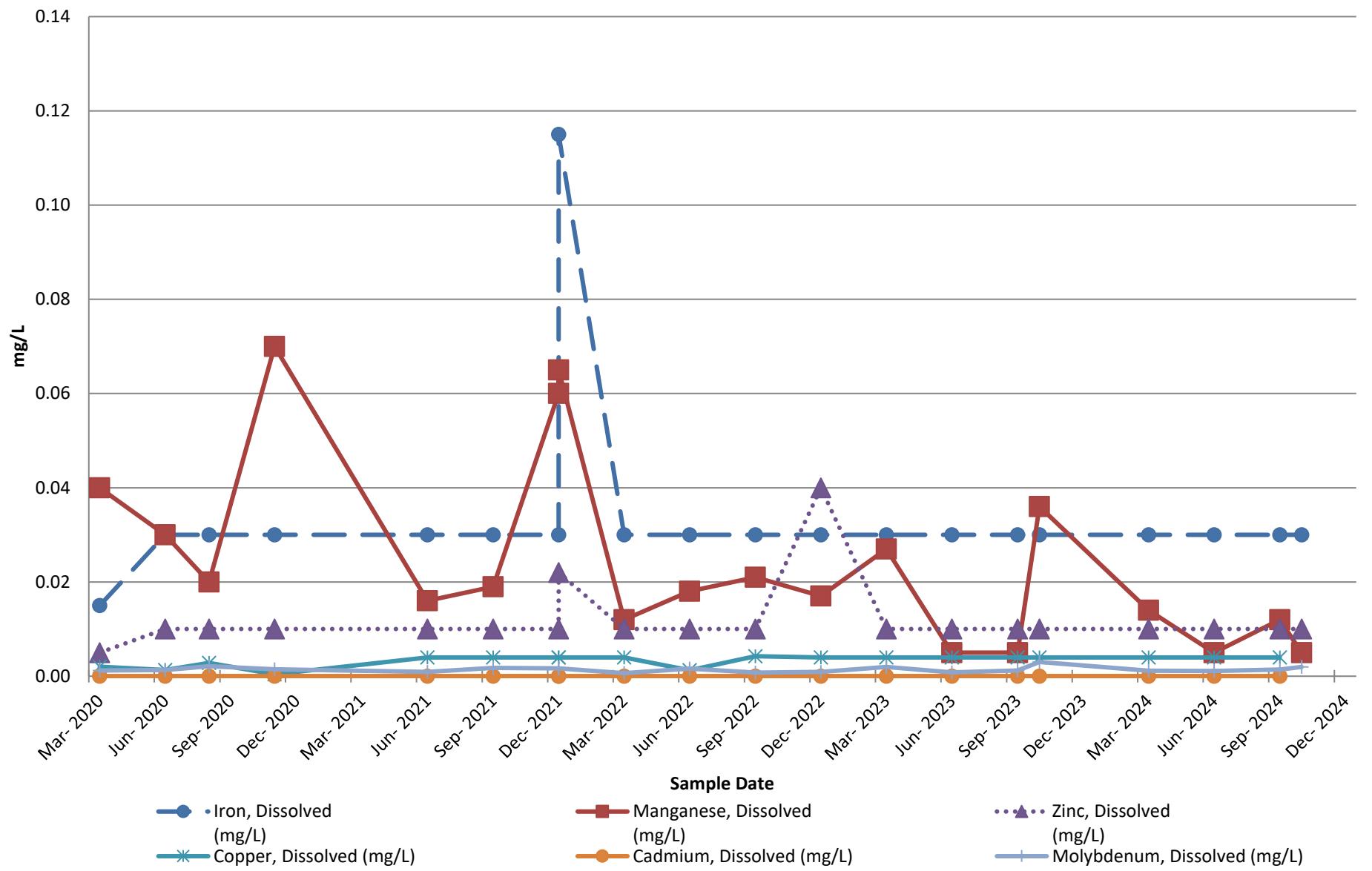
Trend Evaluation 9
ARK-MW-001D: TDS
Climax Mine



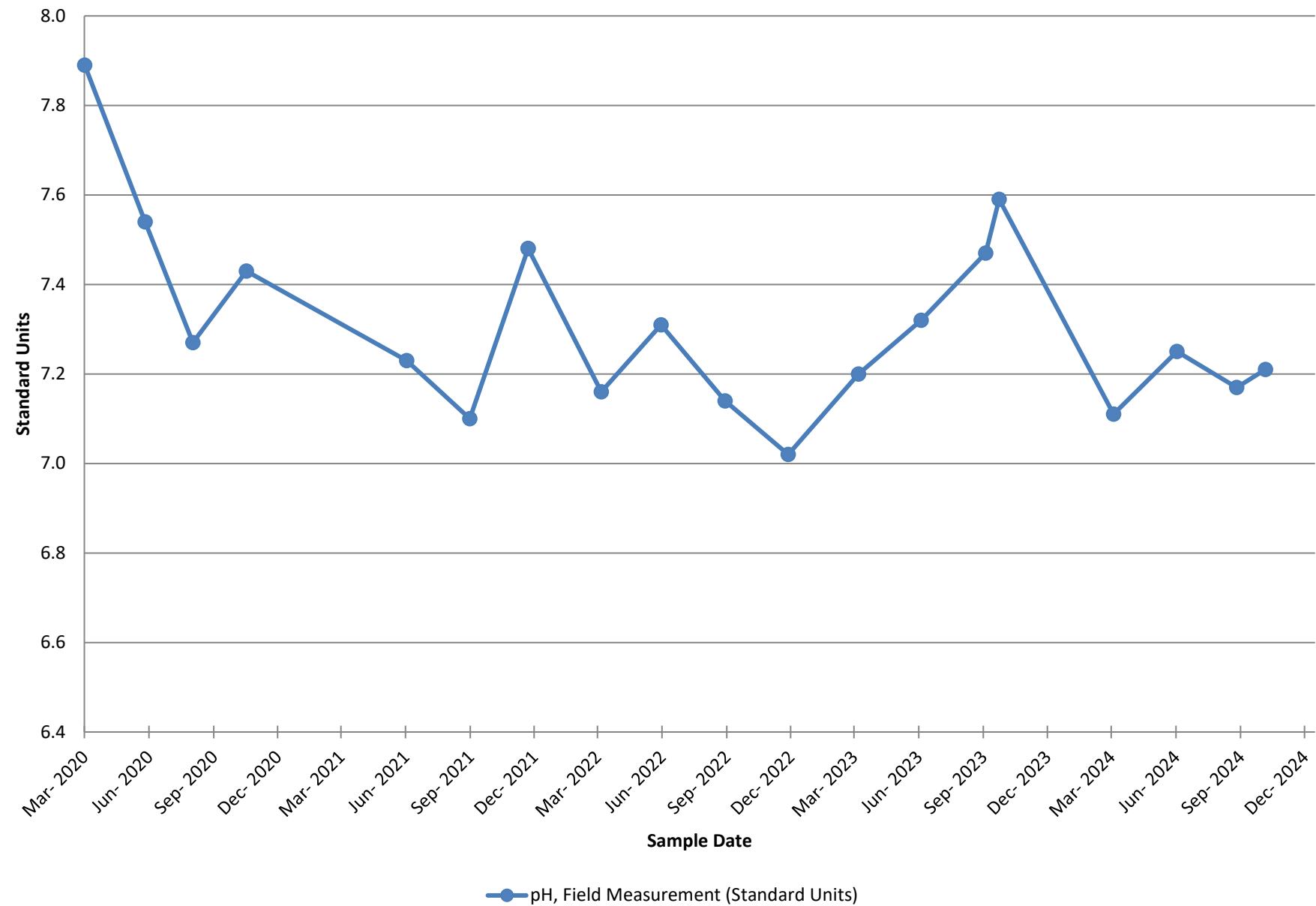
Trend Evaluation 10
ARK-MW-001D: Fluoride
Climax Mine



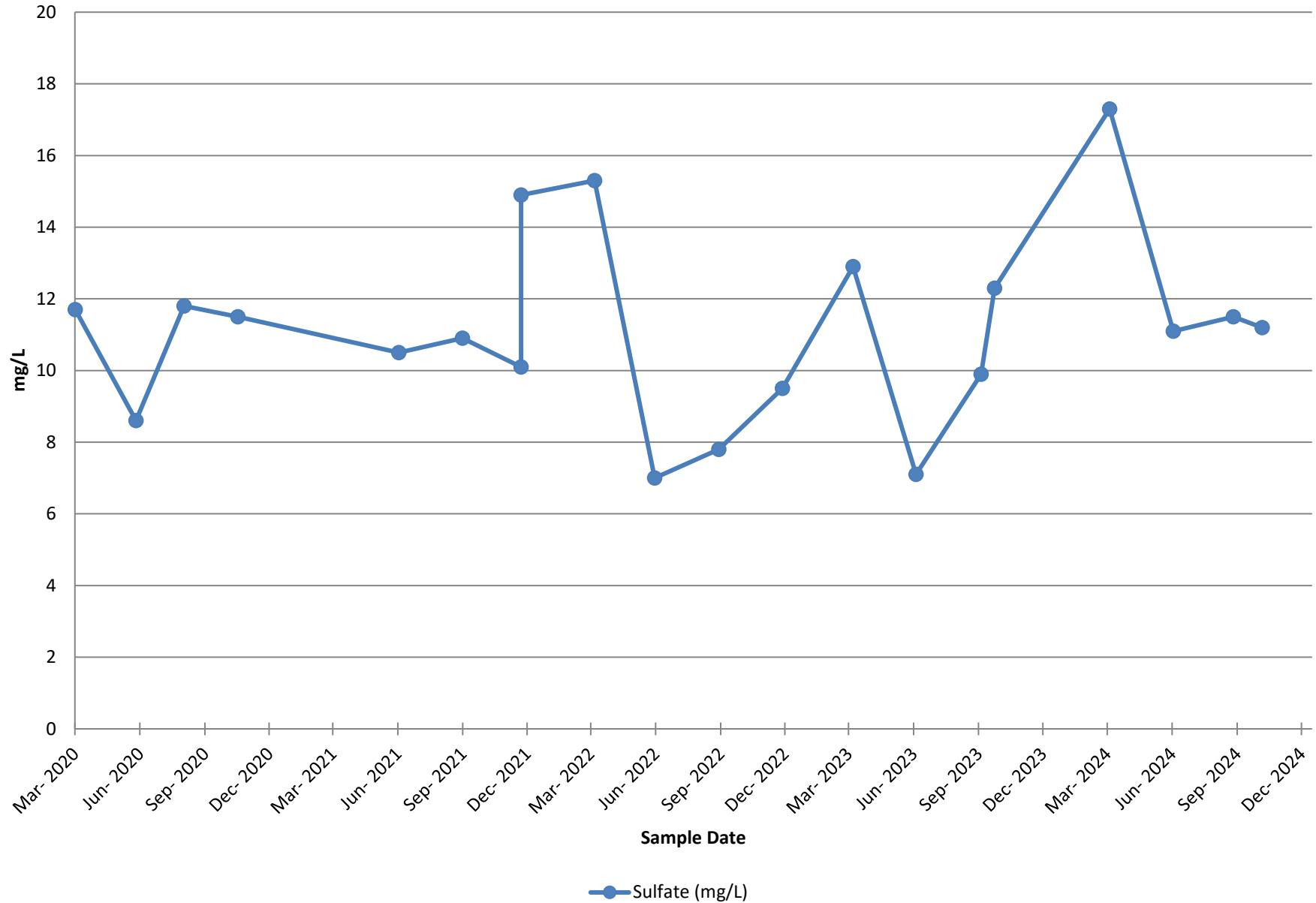
Trend Evaluation 11
EVMW-3S: Metals
Climax Mine



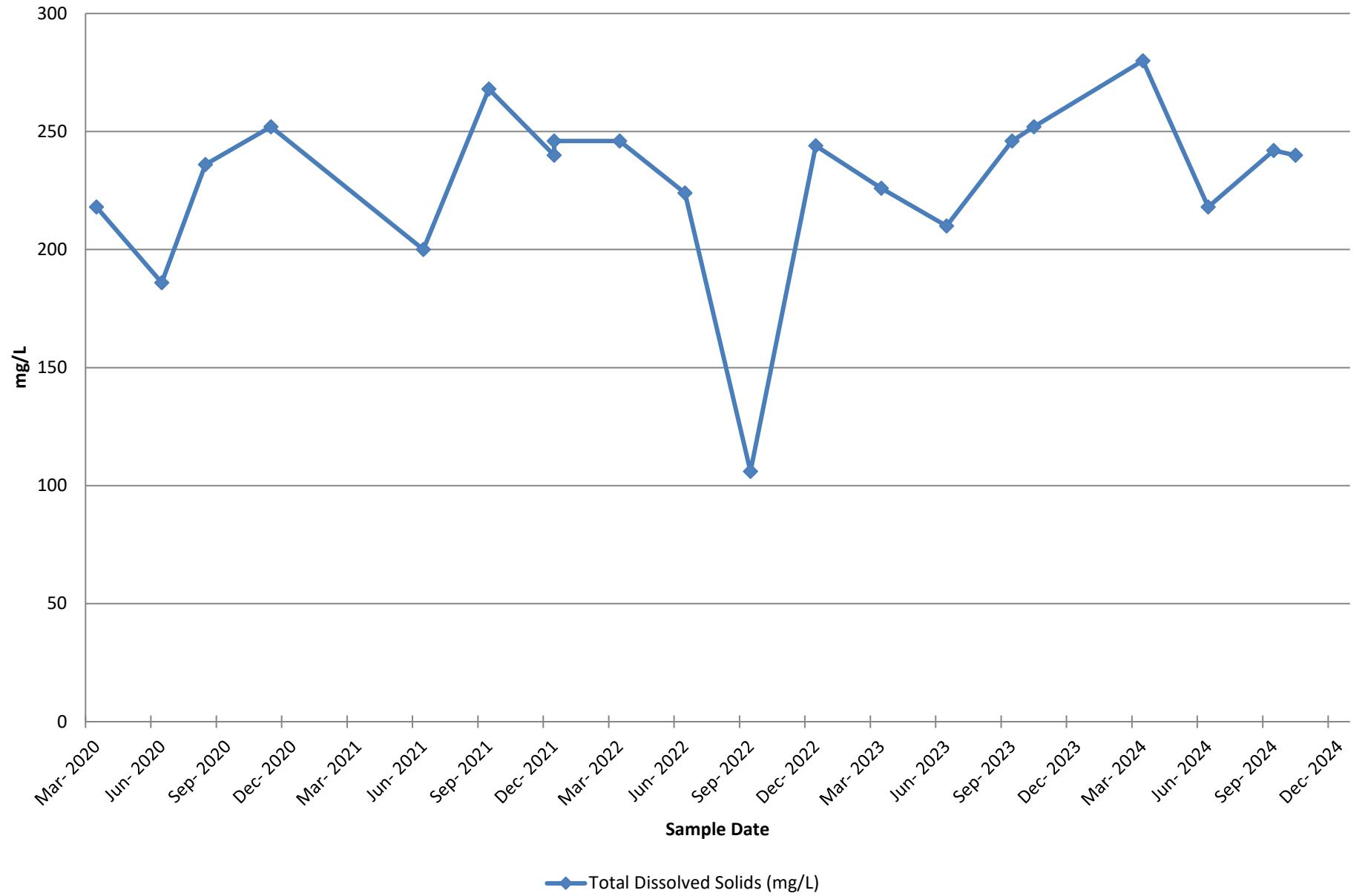
Trend Evaluation 12
EVMW-3S: pH
Climax Mine



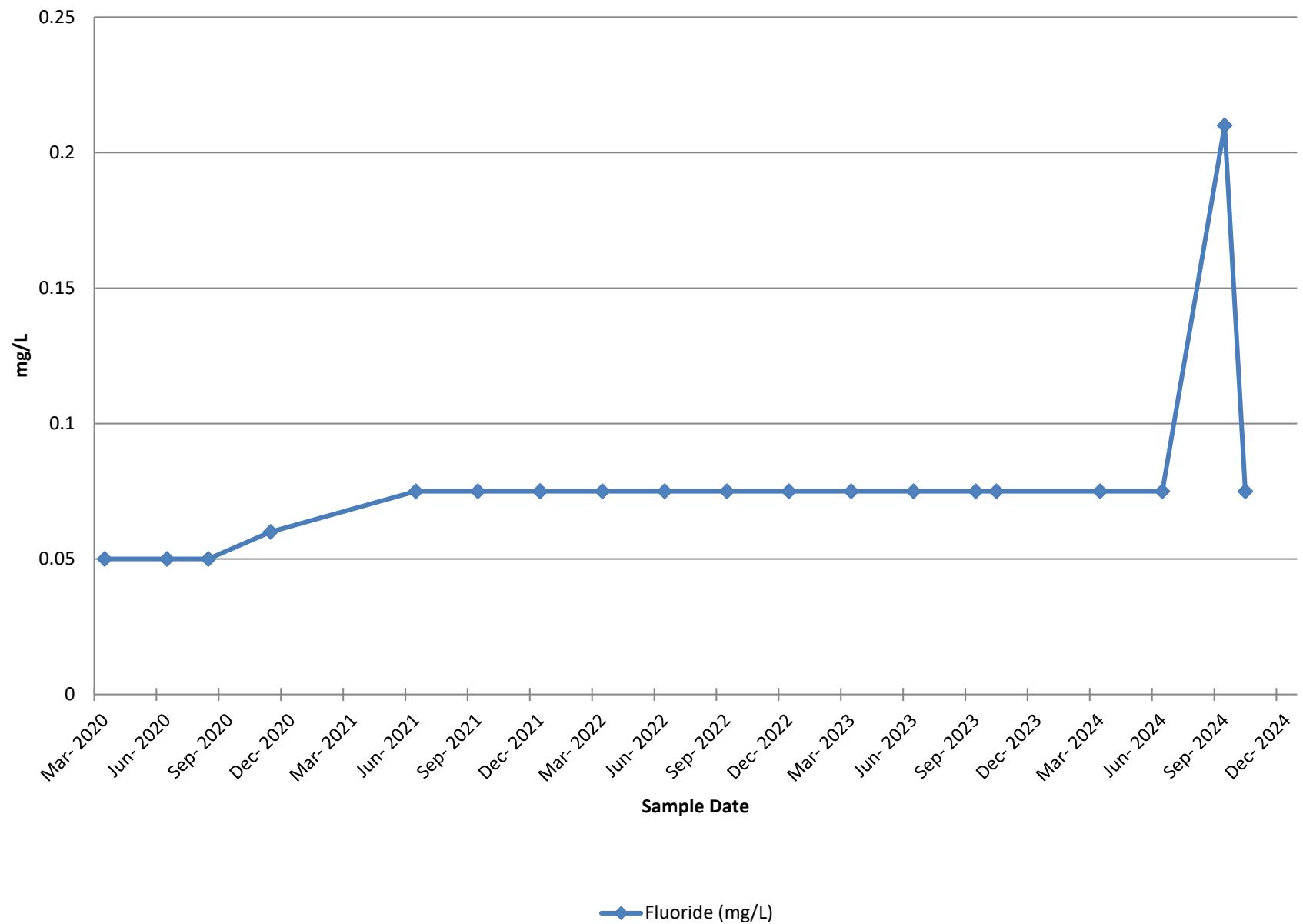
Trend Evaluation 13
EVMW-3S: Sulfate
Climax Mine



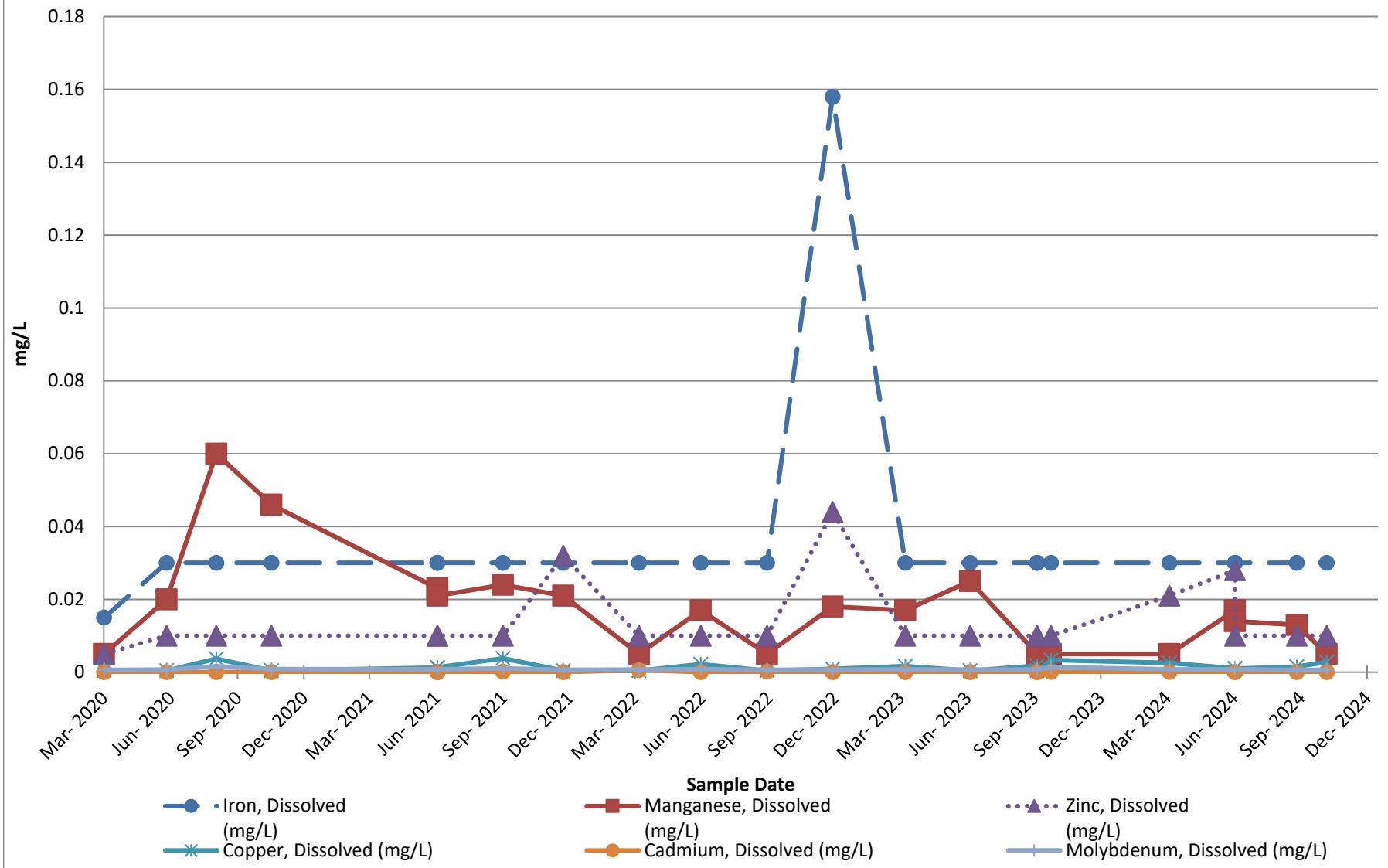
Trend Evaluation 14
EVMW-3S: TDS
Climax Mine



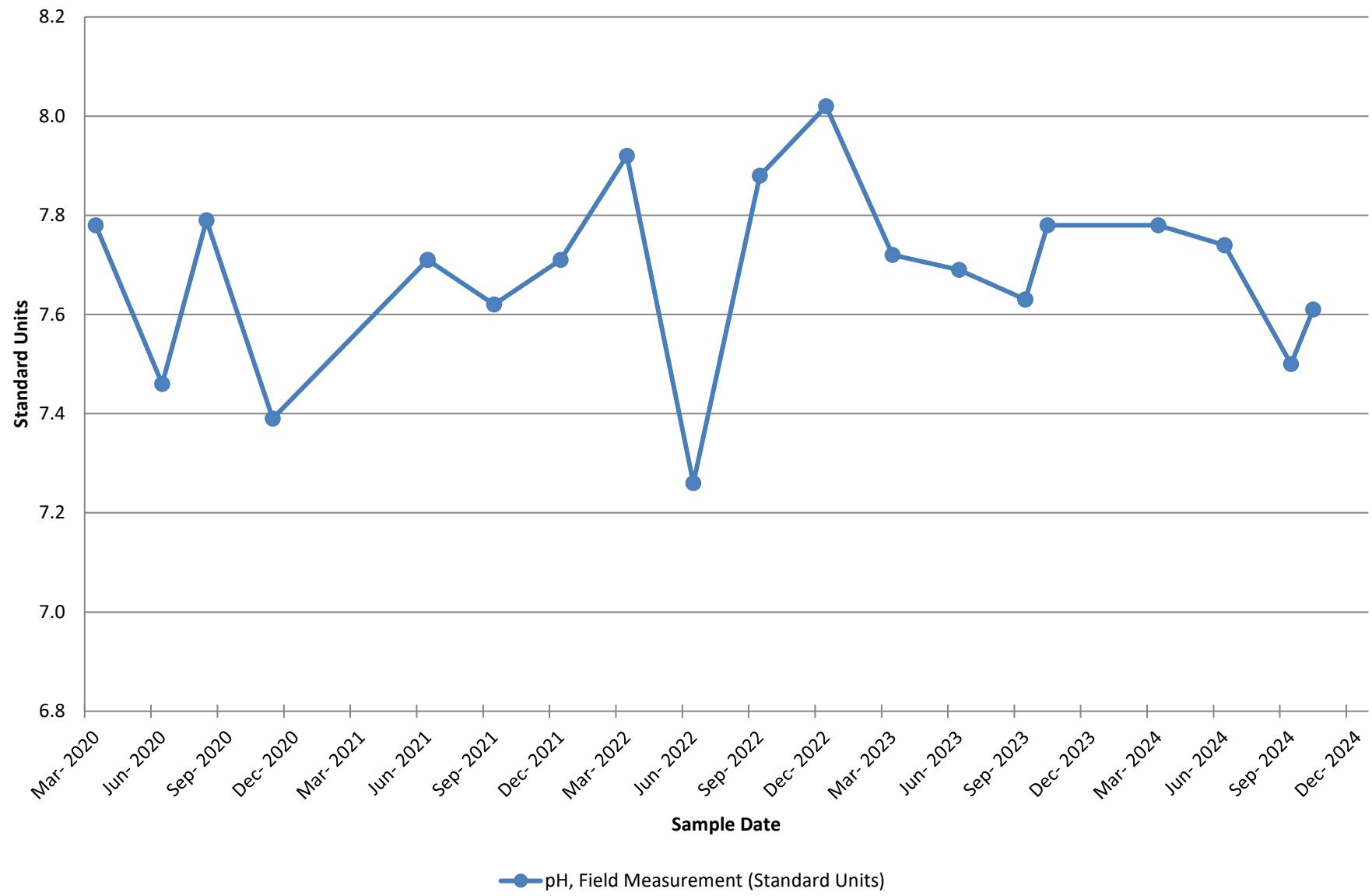
Trend Evaluation 15
EVMW-3S: Fluoride
Climax Mine



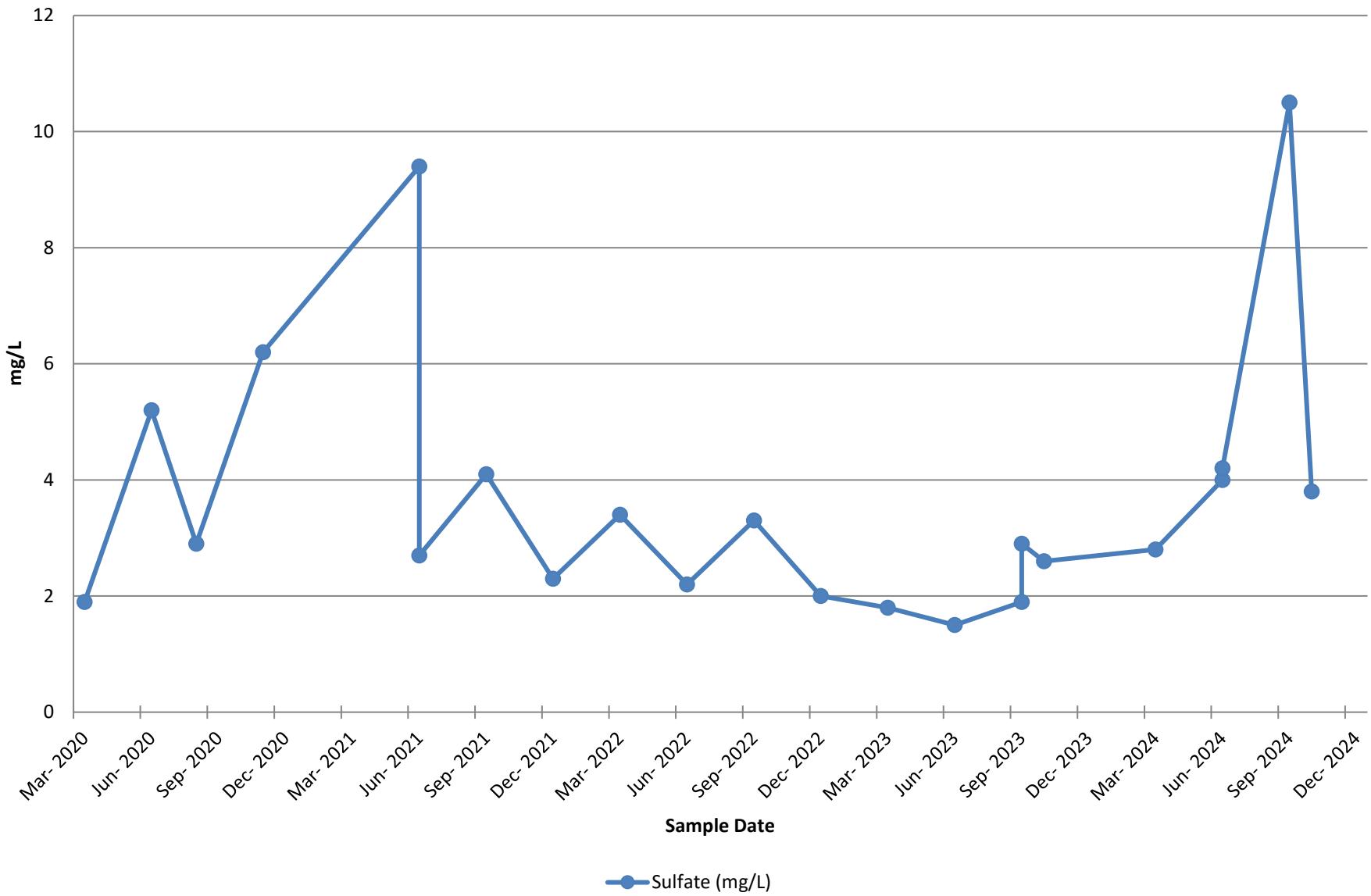
Trend Evaluation 16
EVMW-3D: Metals
Climax Mine



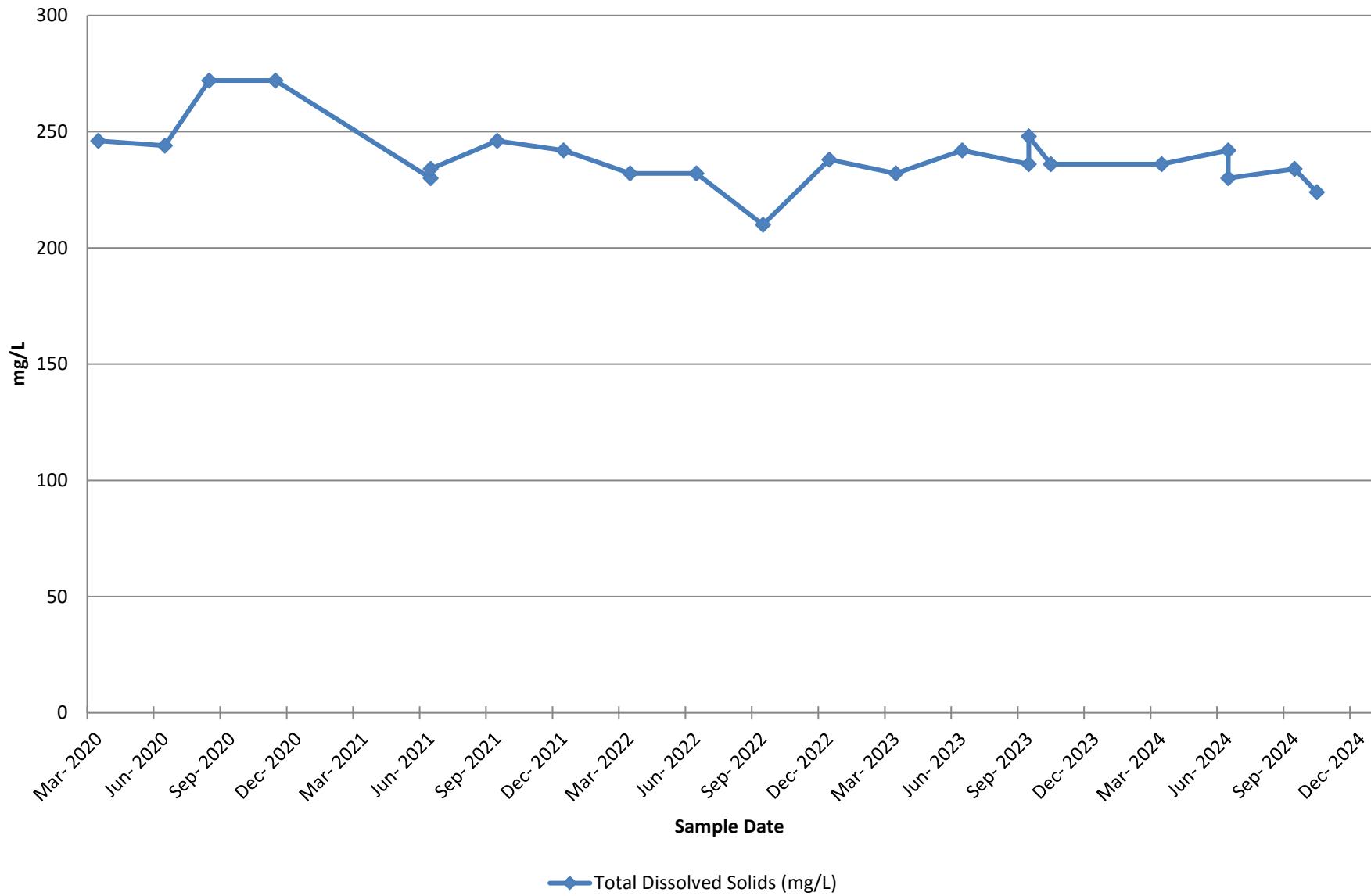
Trend Evaluation 17
EVMW-3D: pH
Climax Mine



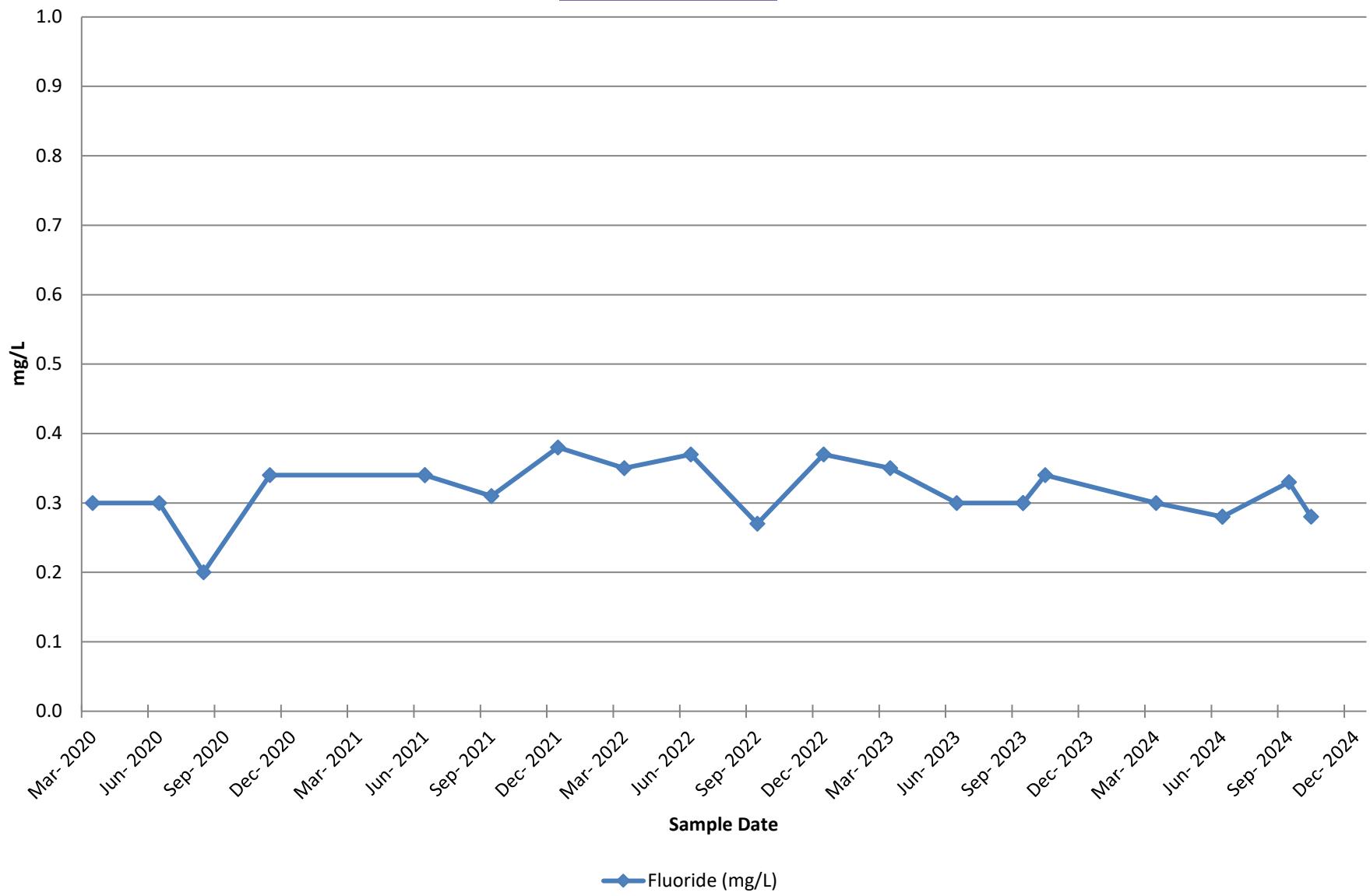
Trend Evaluation 18
EVMW-3D: Sulfate
Climax Mine



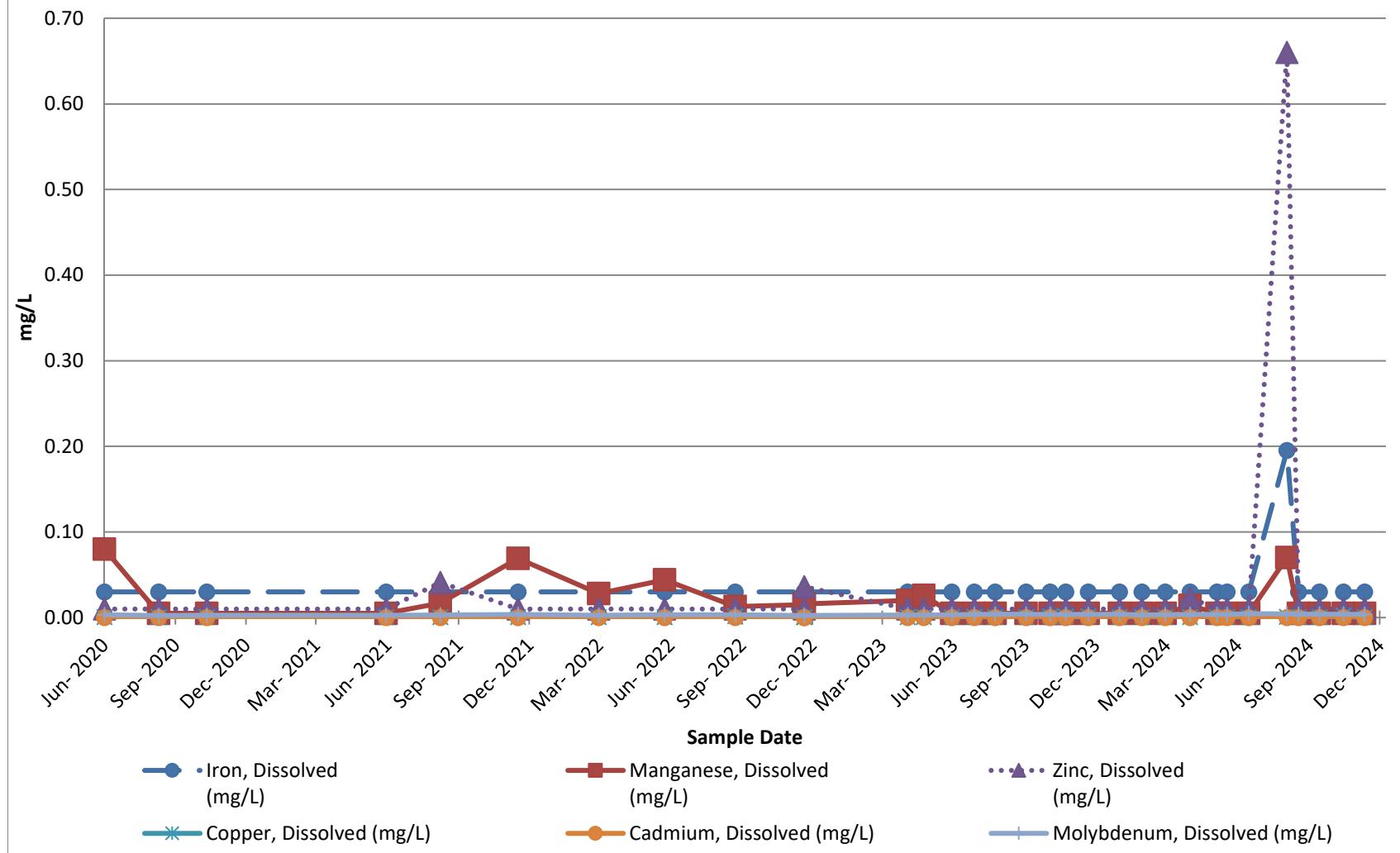
Trend Evaluation 19
EVMW-3D: TDS
Climax Mine



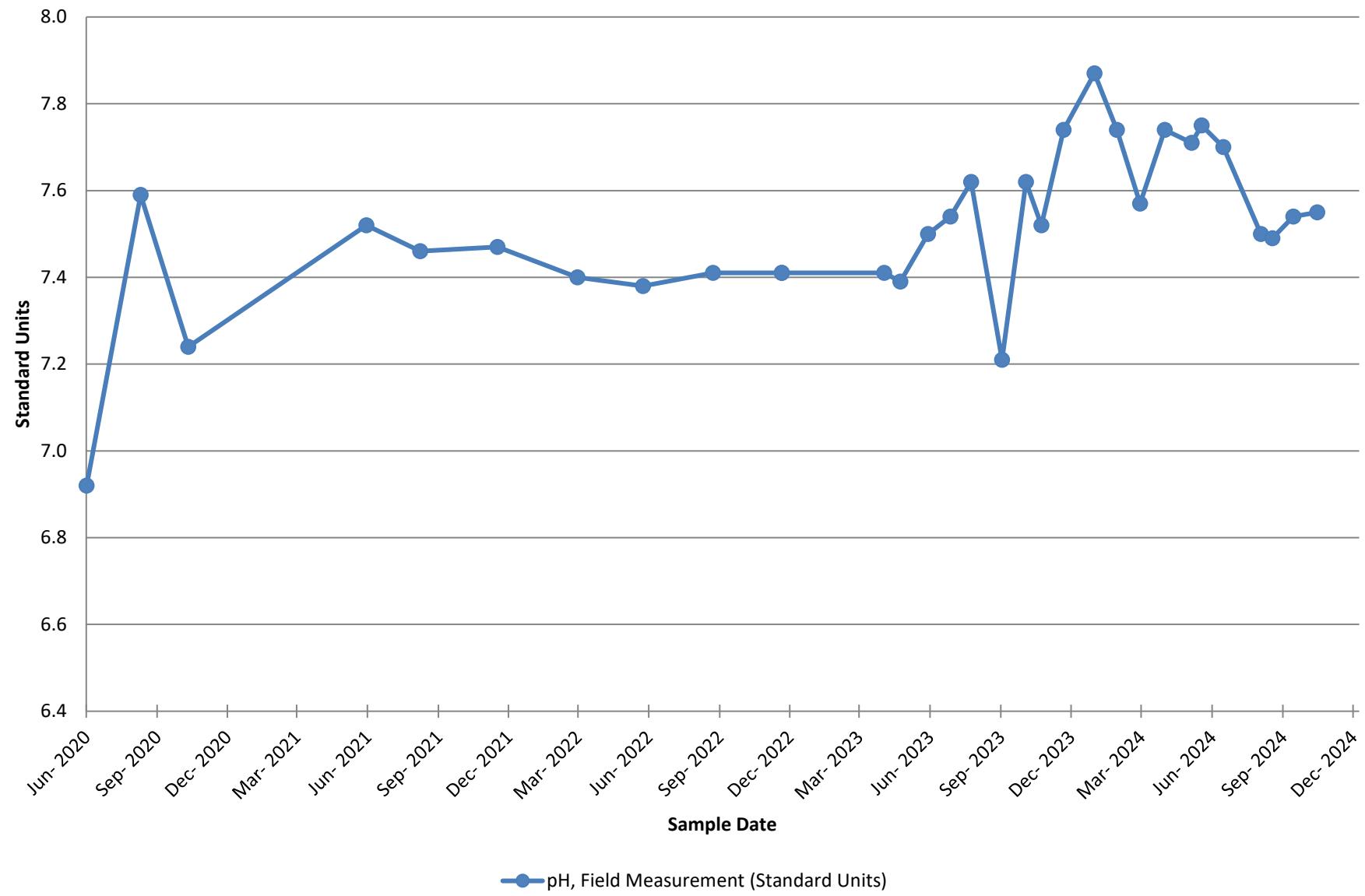
**Trend Evaluation 20
EVMW-3D: Fluoride
Climax Mine**



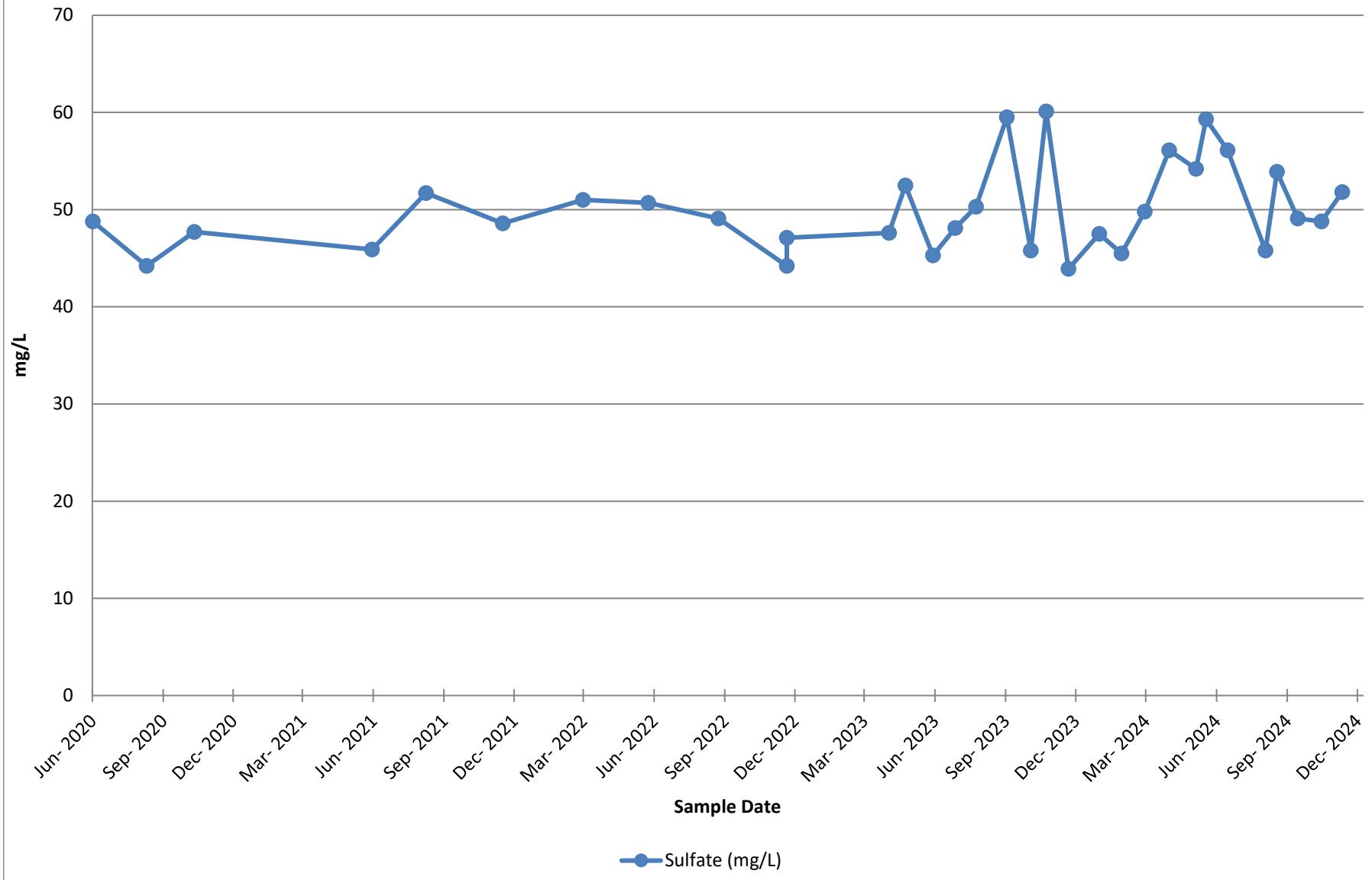
Trend Evaluation 21
EV-MW-004: Metals
Climax Mine



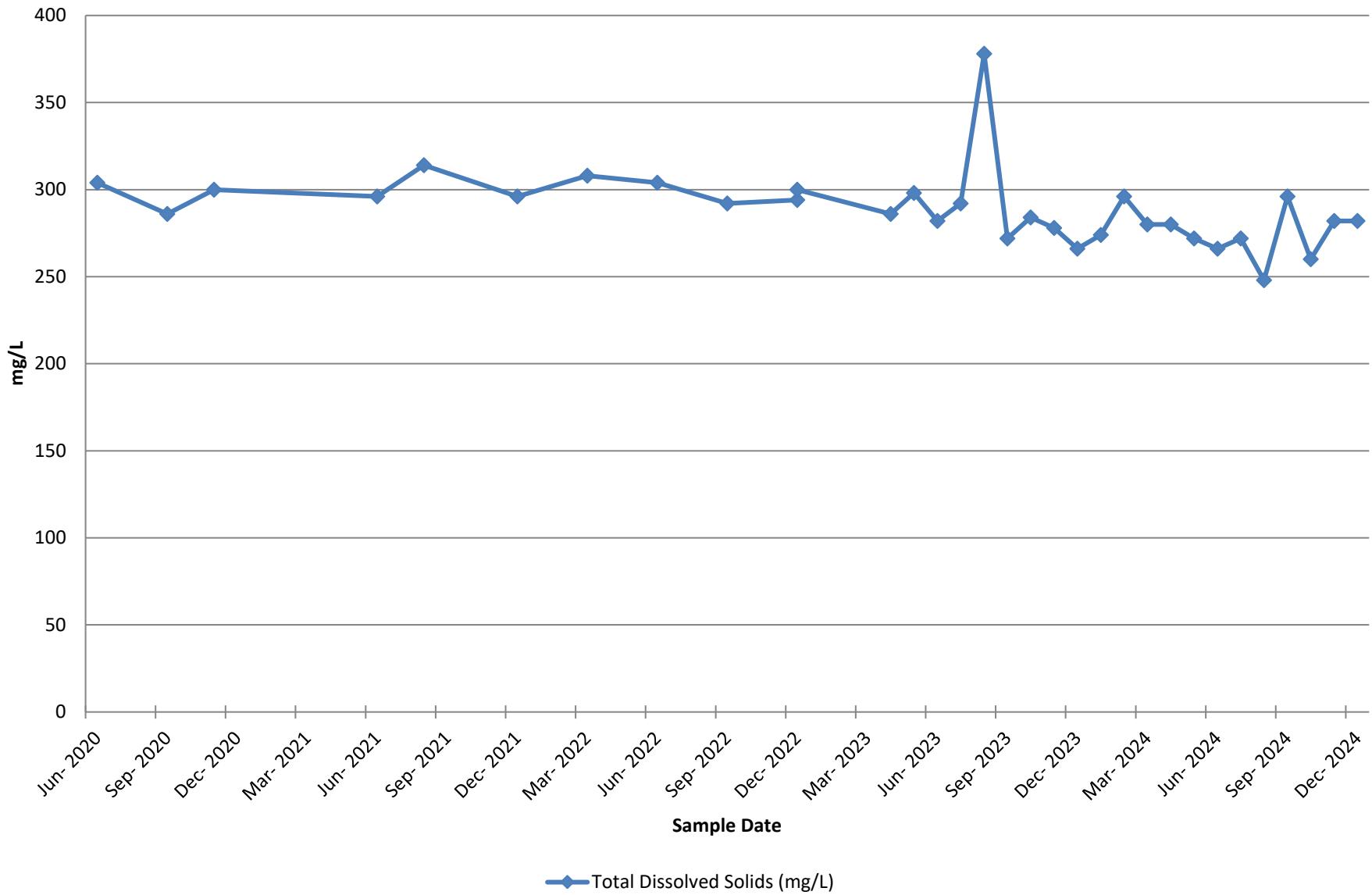
Trend Evaluation 22
EV-MW-004: pH
Climax Mine



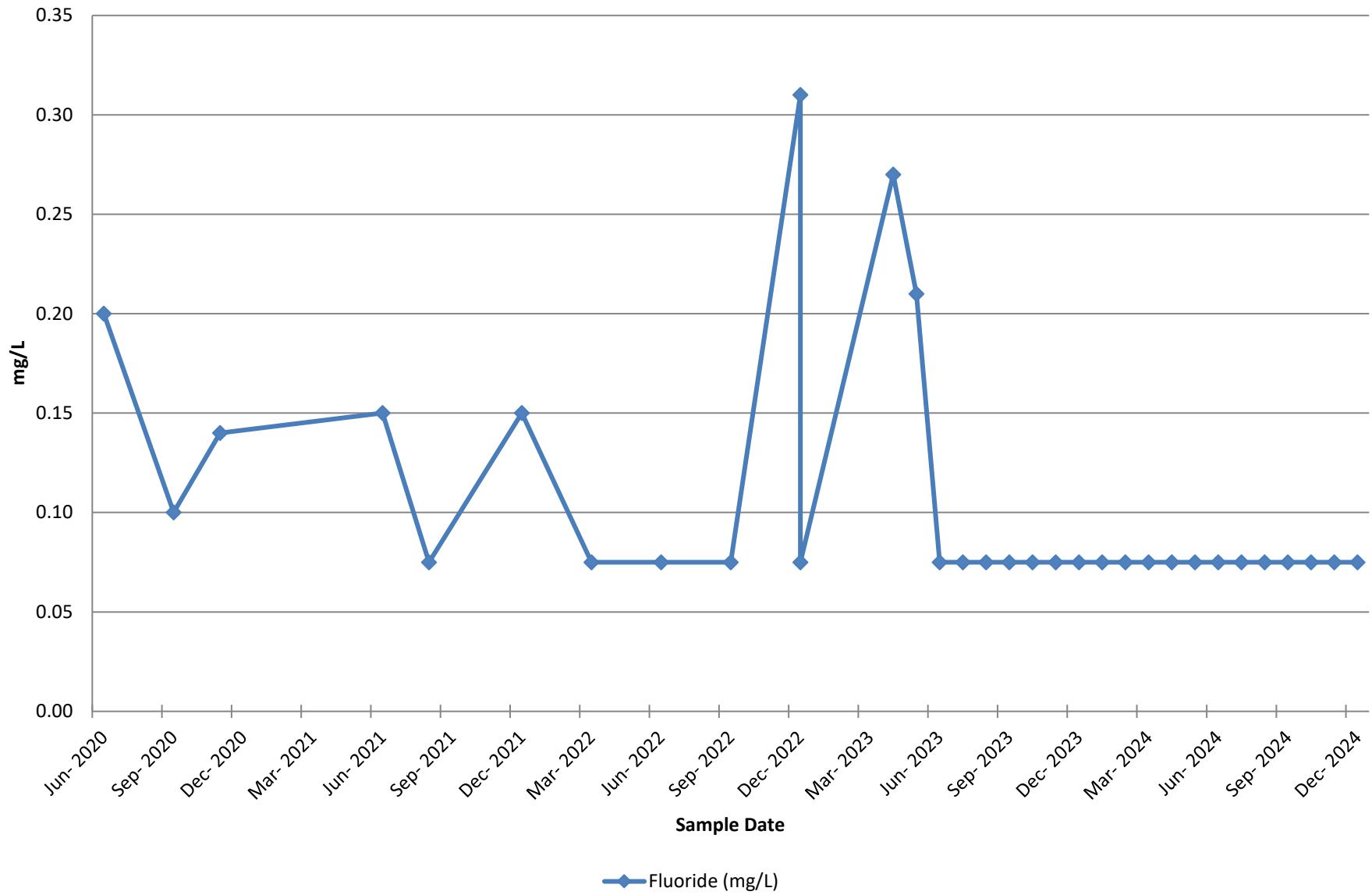
Trend Evaluation 23
EV-MW-004: Sulfate
Climax Mine



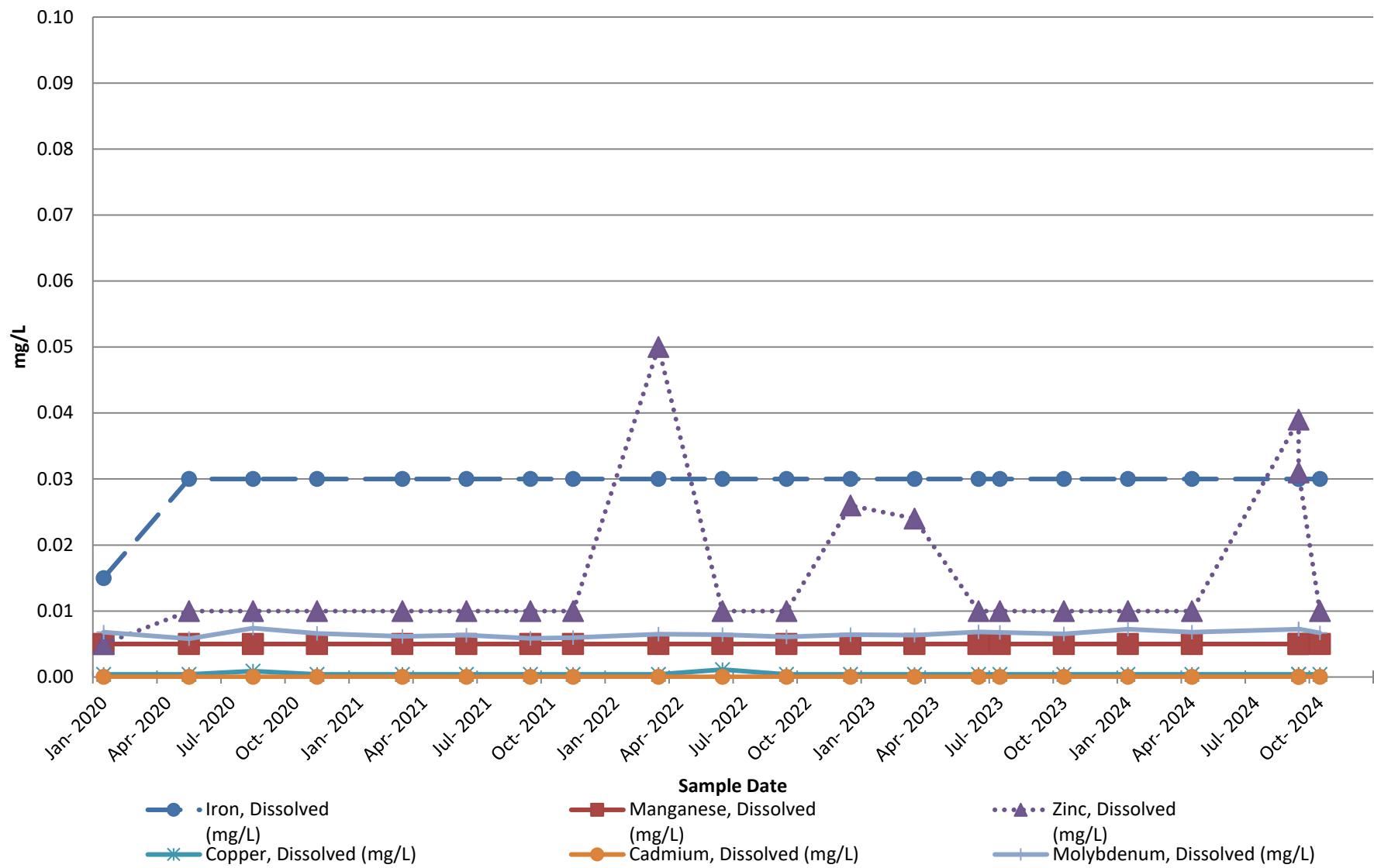
Trend Evaluation 24
EV-MW-004: TDS
Climax Mine



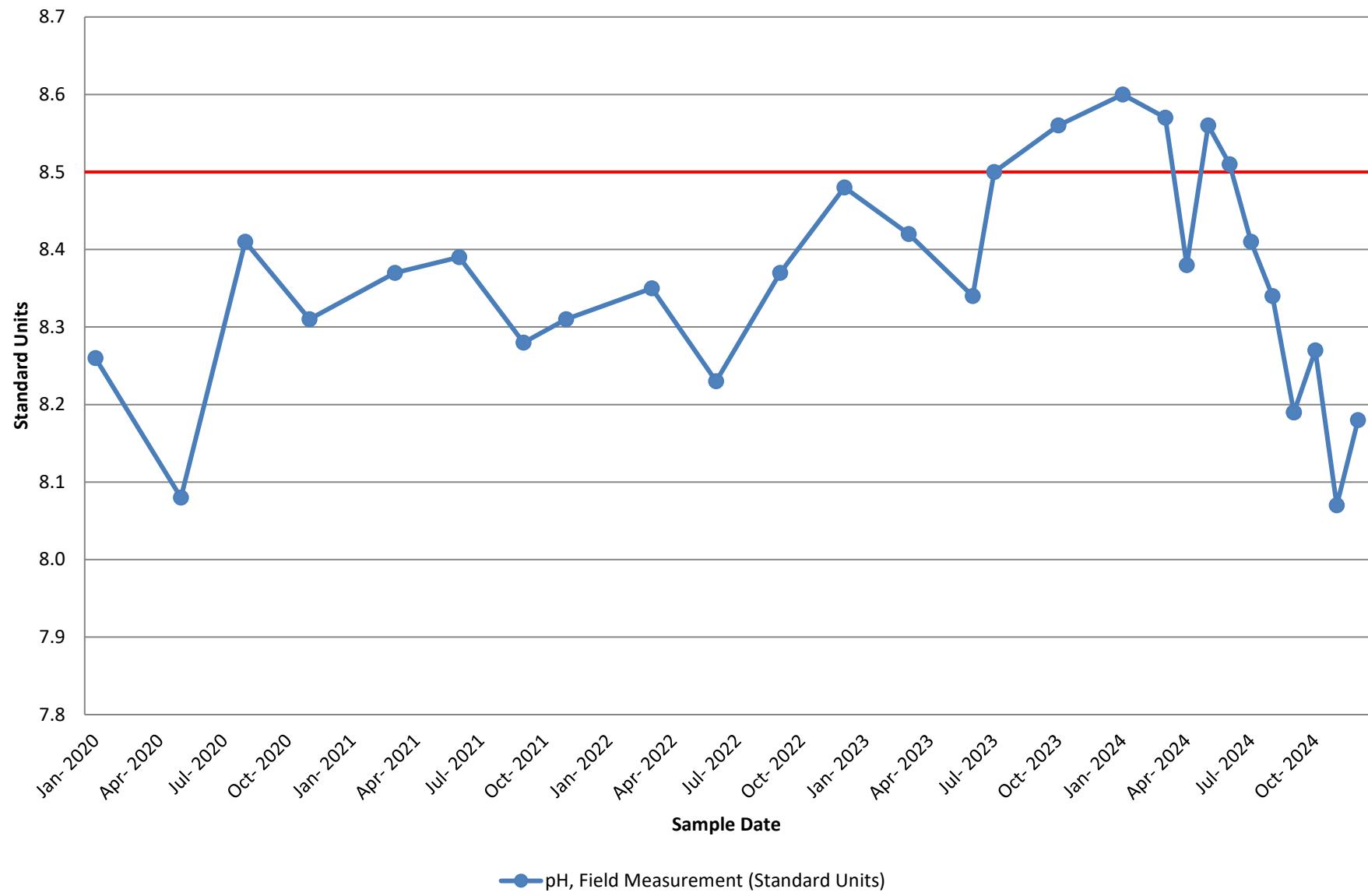
Trend Evaluation 25
EV-MW-004: Fluoride
Climax Mine



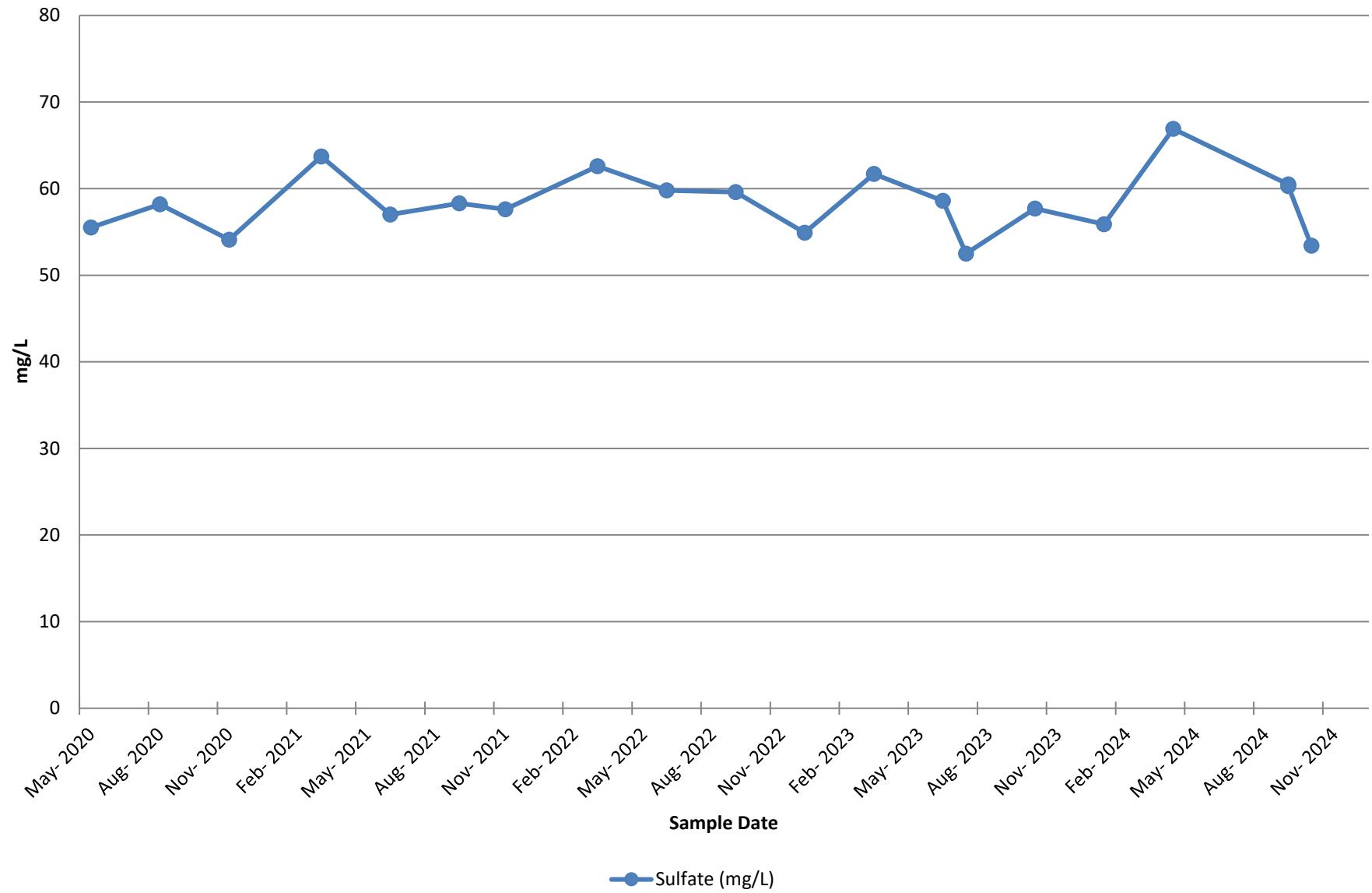
Trend Evaluation 26
TM-MW-002D: Metals
Climax Mine



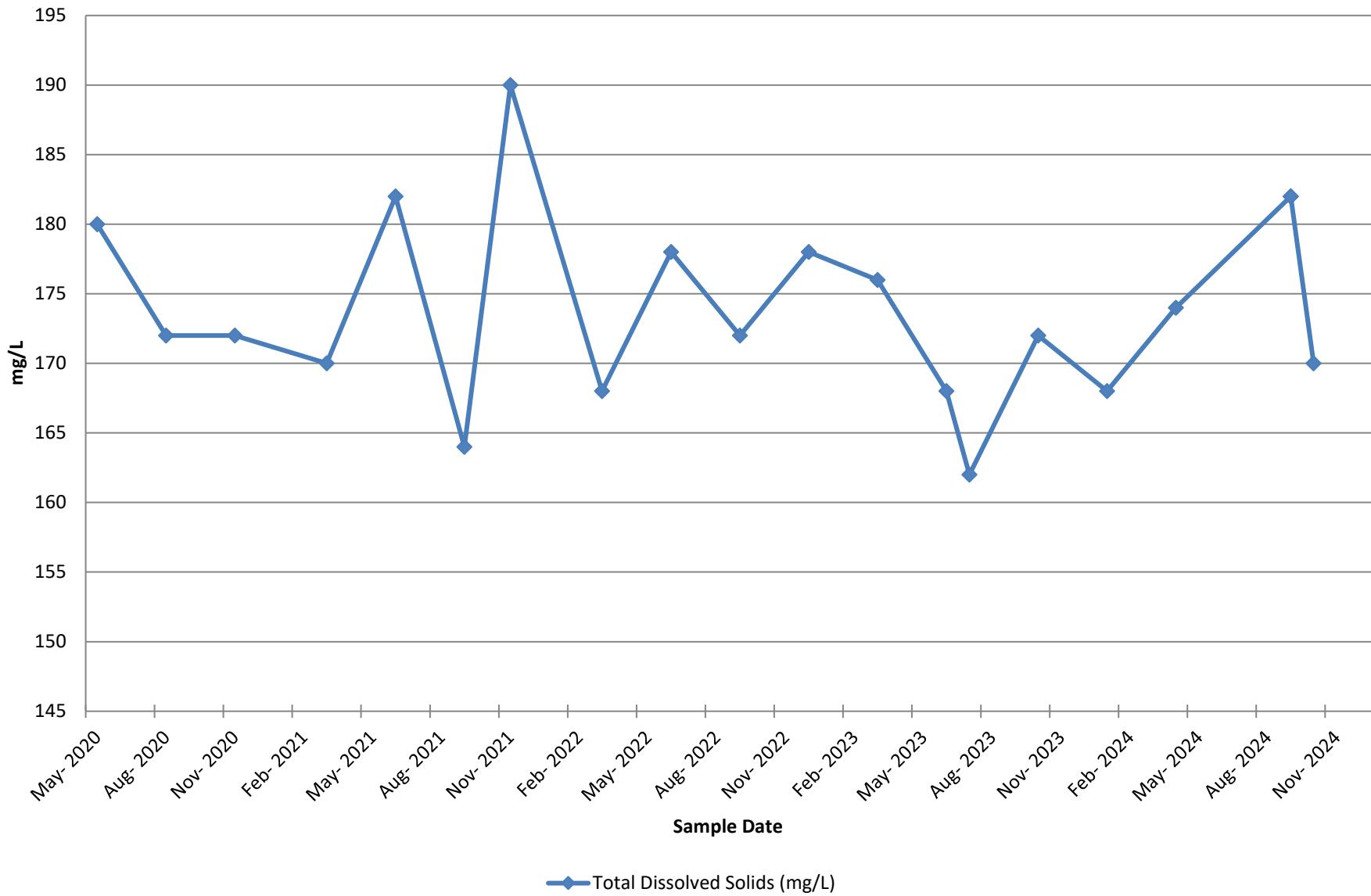
Trend Evaluation 27
TM-MW-002D: pH
Climax Mine



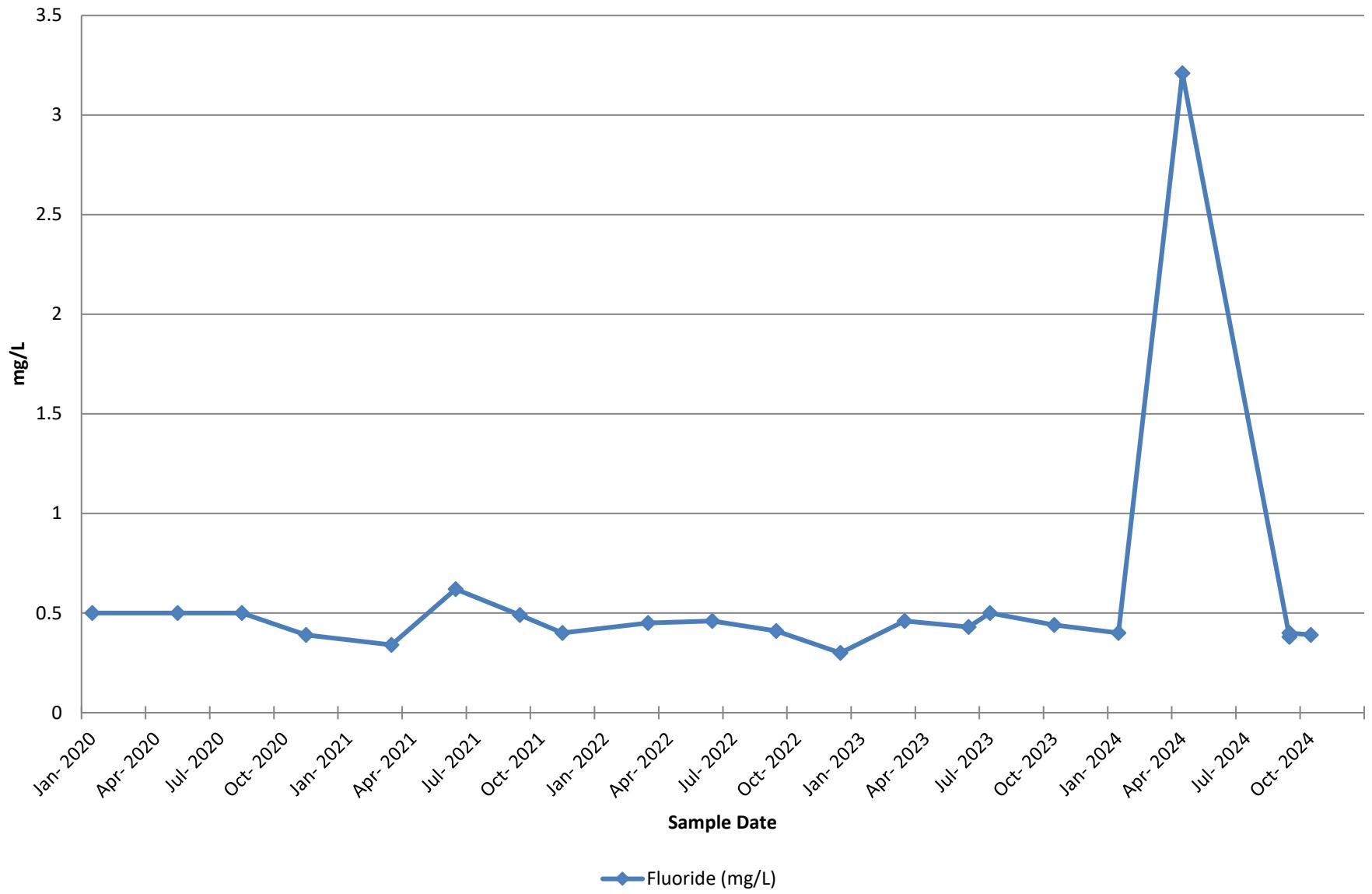
Trend Evaluation 28
TM-MW-002D: Sulfate
Climax Mine



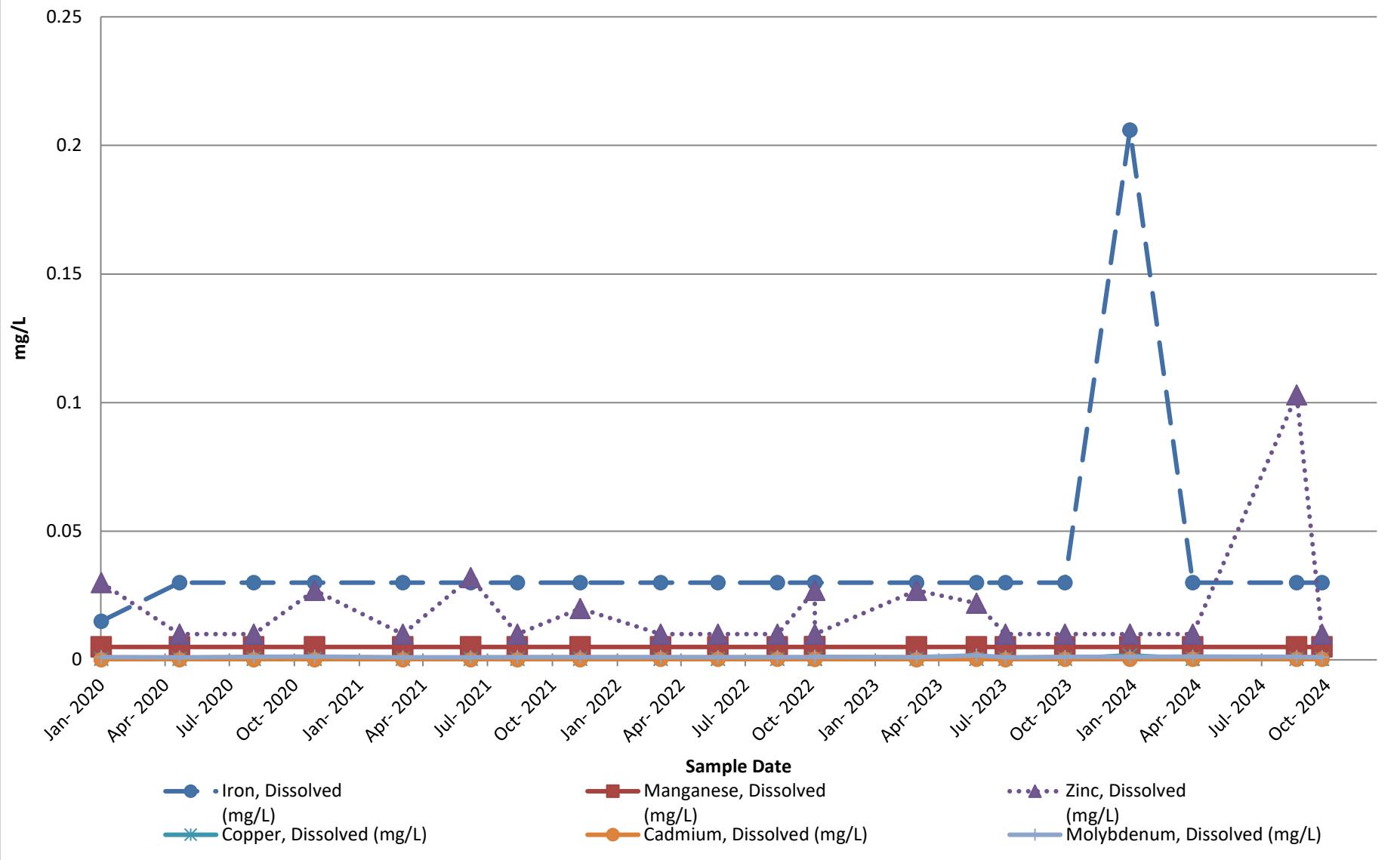
Trend Evaluation 29
TM-MW-002D: TDS
Climax Mine



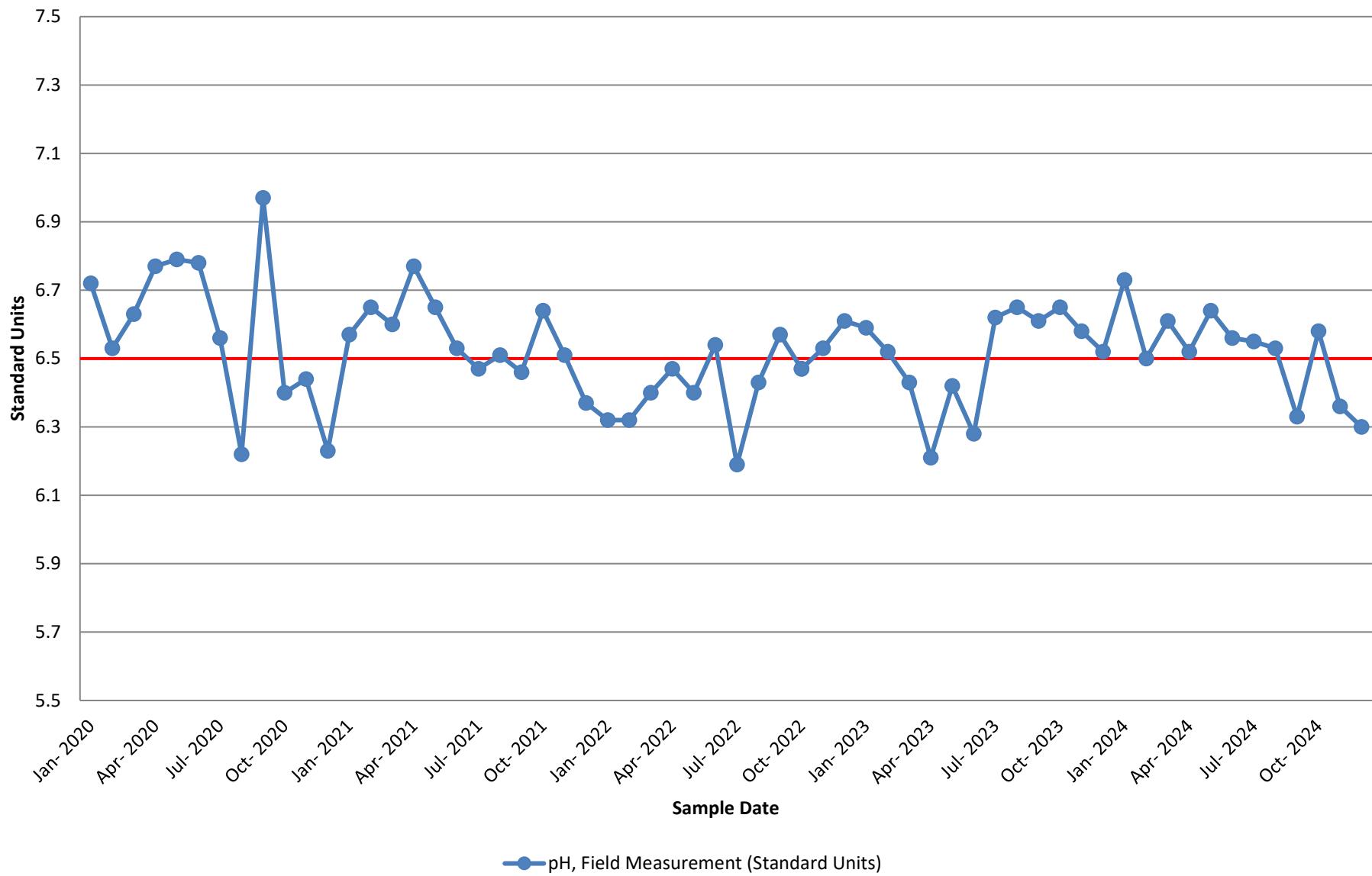
Trend Evaluation 30
TM-MW-002D: Fluoride
Climax Mine



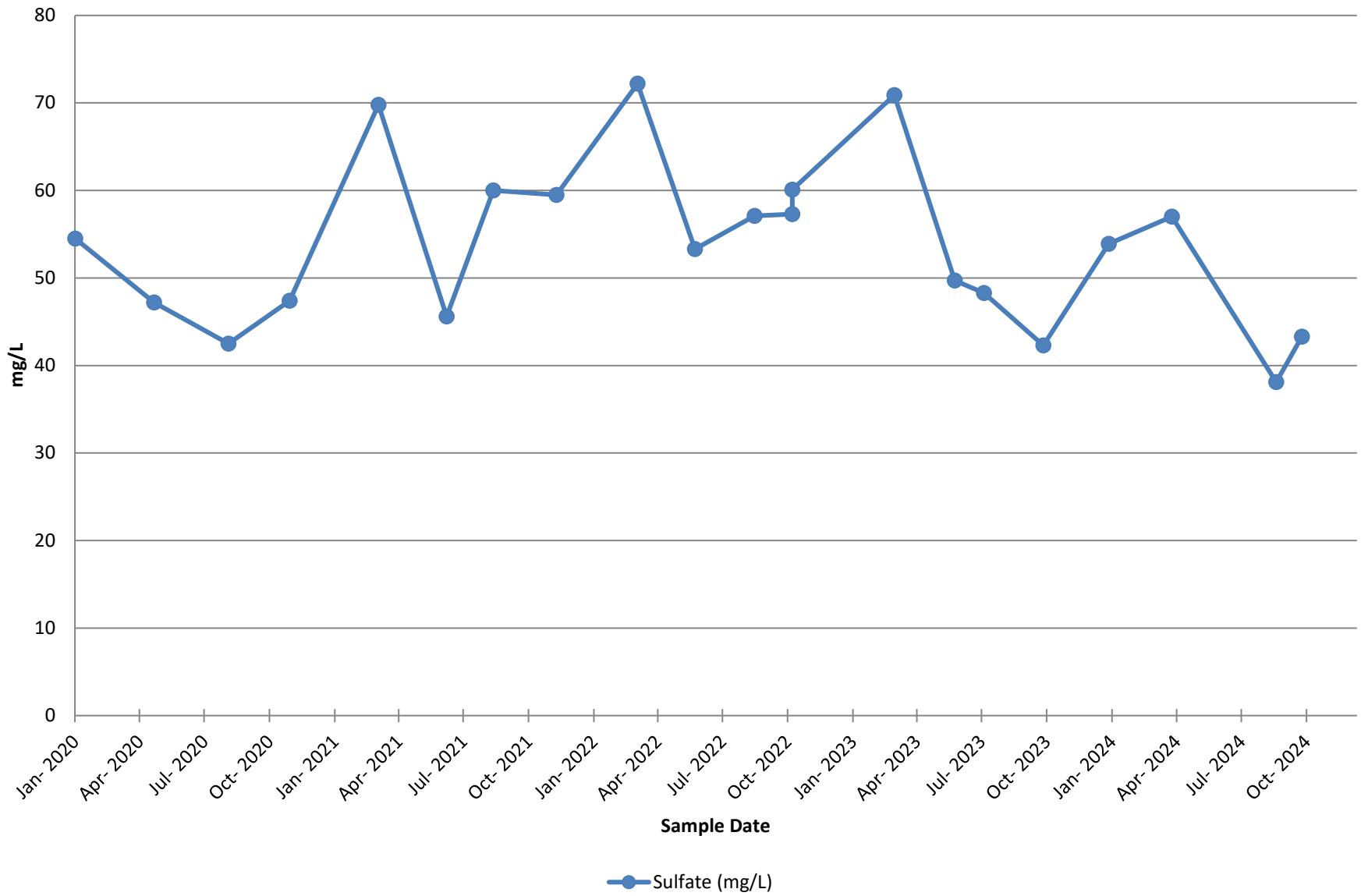
Trend Evaluation 31
GW#2: Metals
Climax Mine



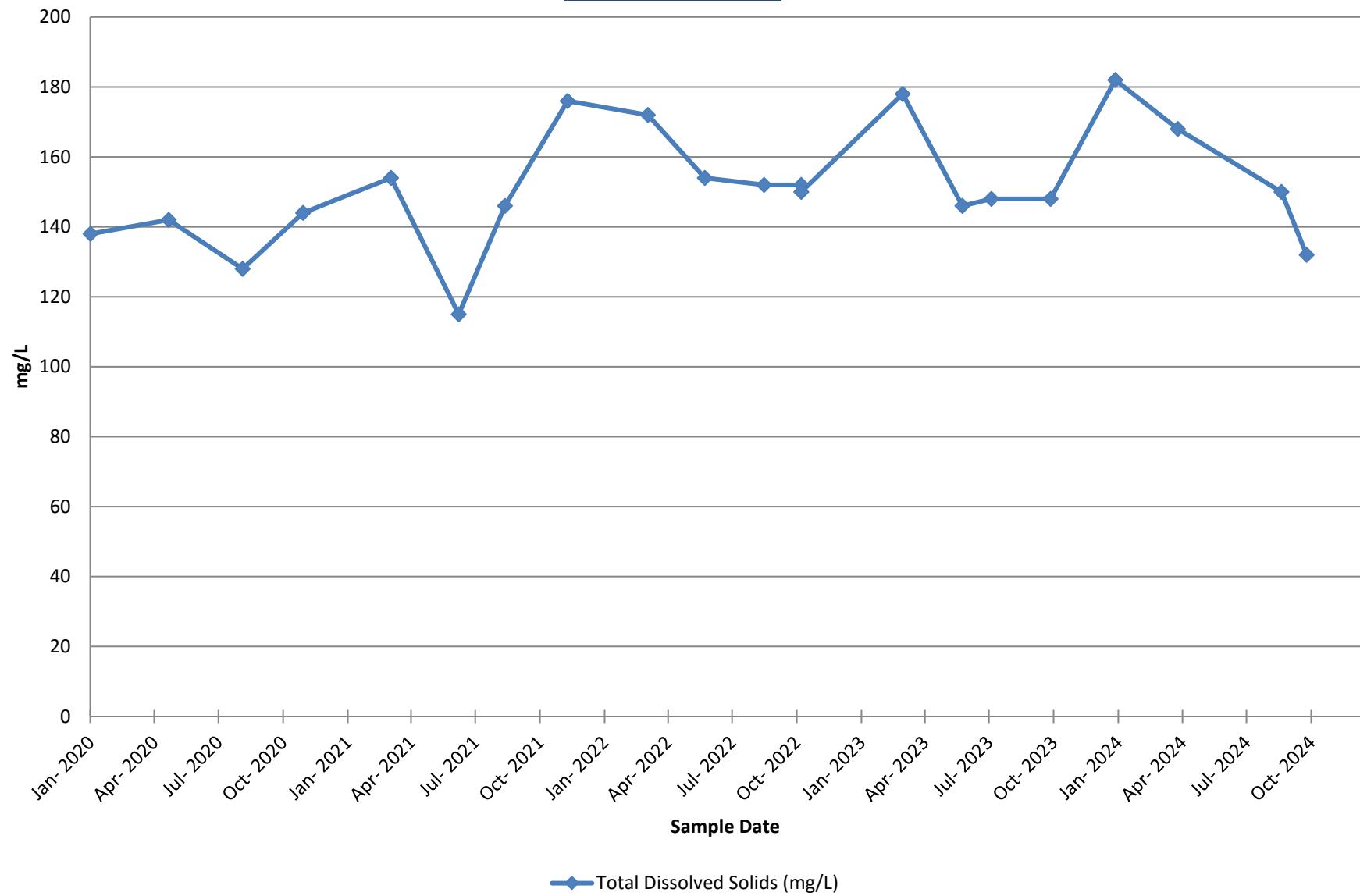
Trend Evaluation 32
GW#2: pH
Climax Mine



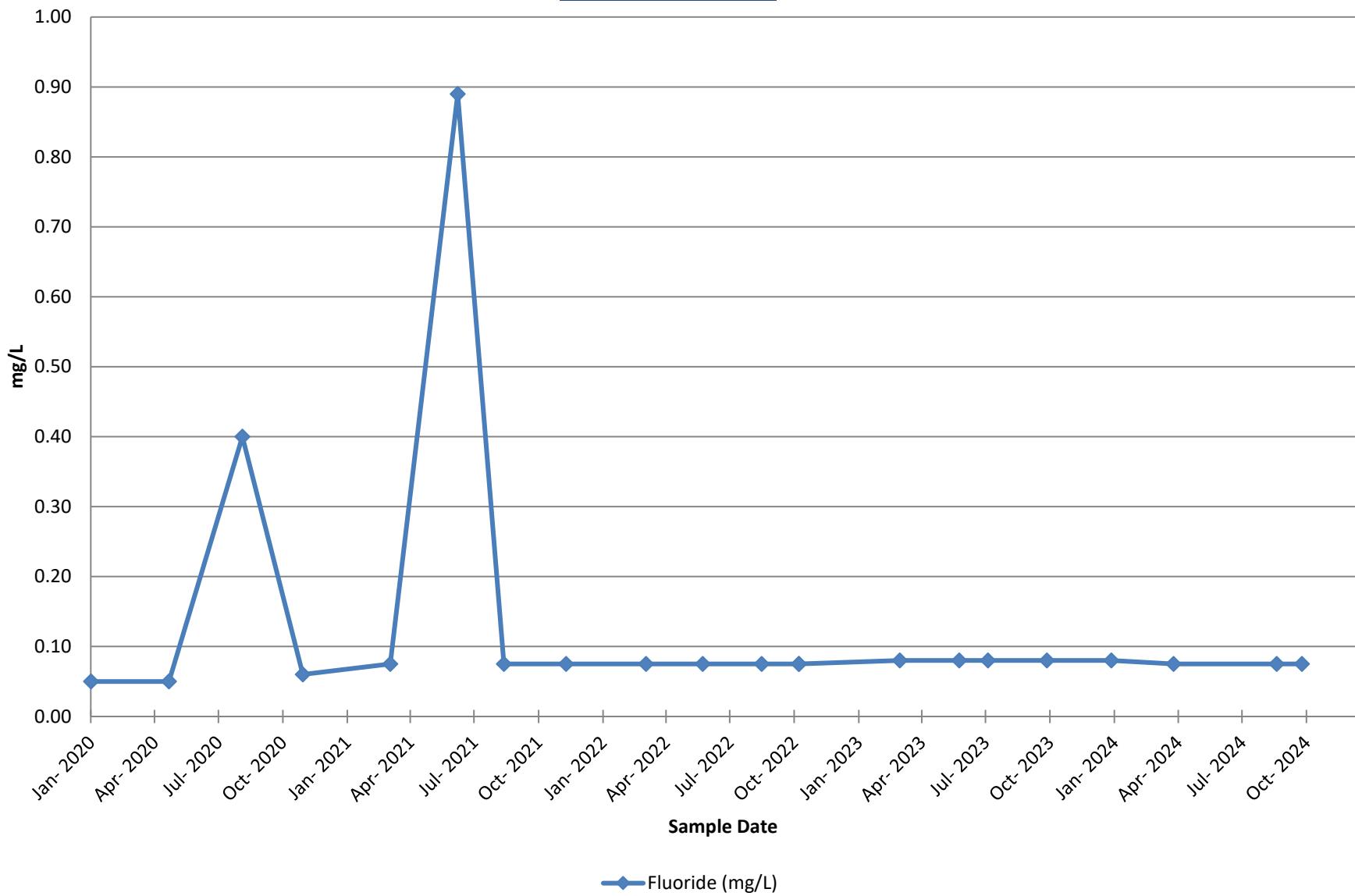
Trend Evaluation 33
GW#2: Sulfate
Climax Mine



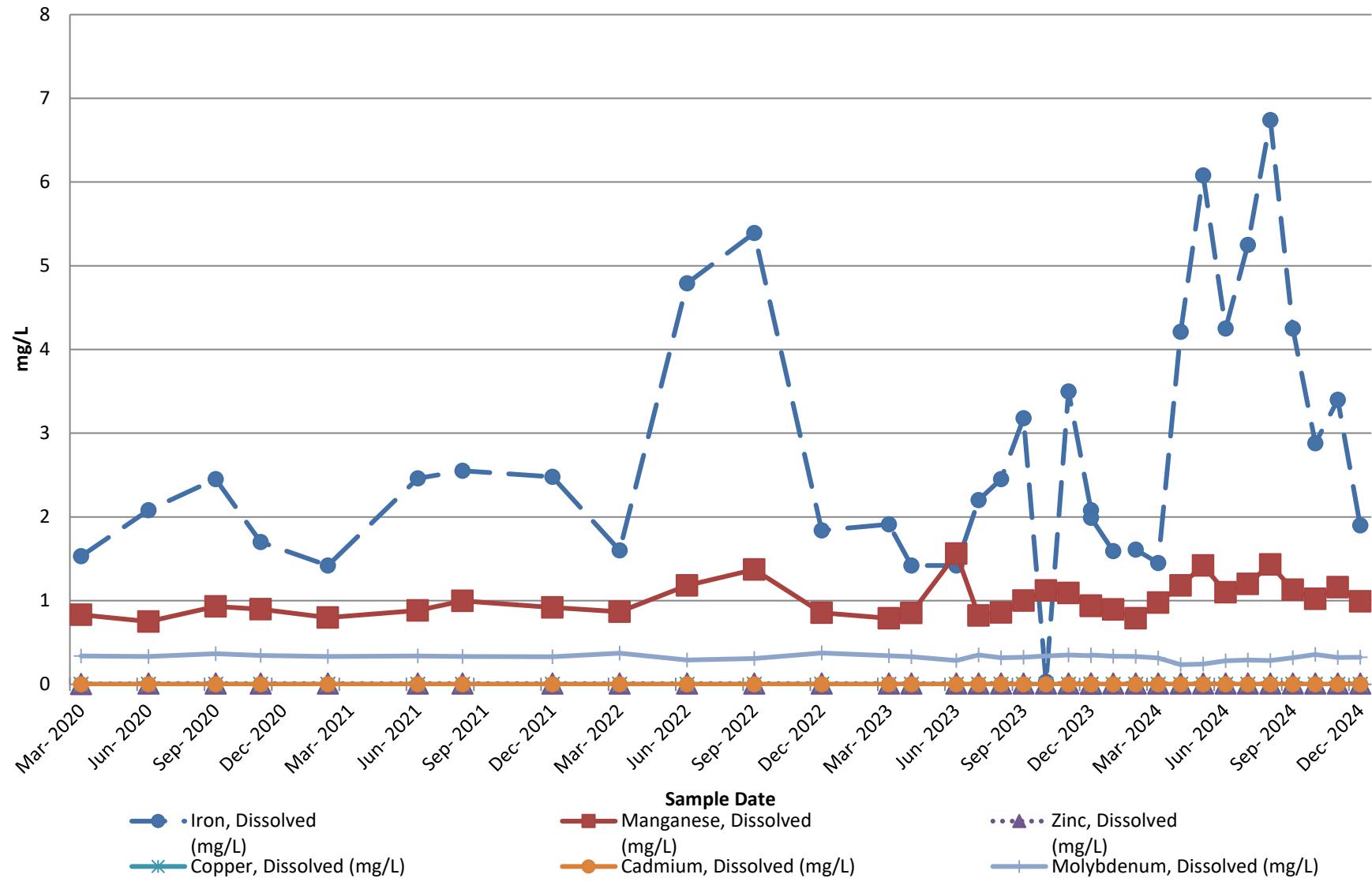
Trend Evaluation 34
GW#2: TDS
Climax Mine



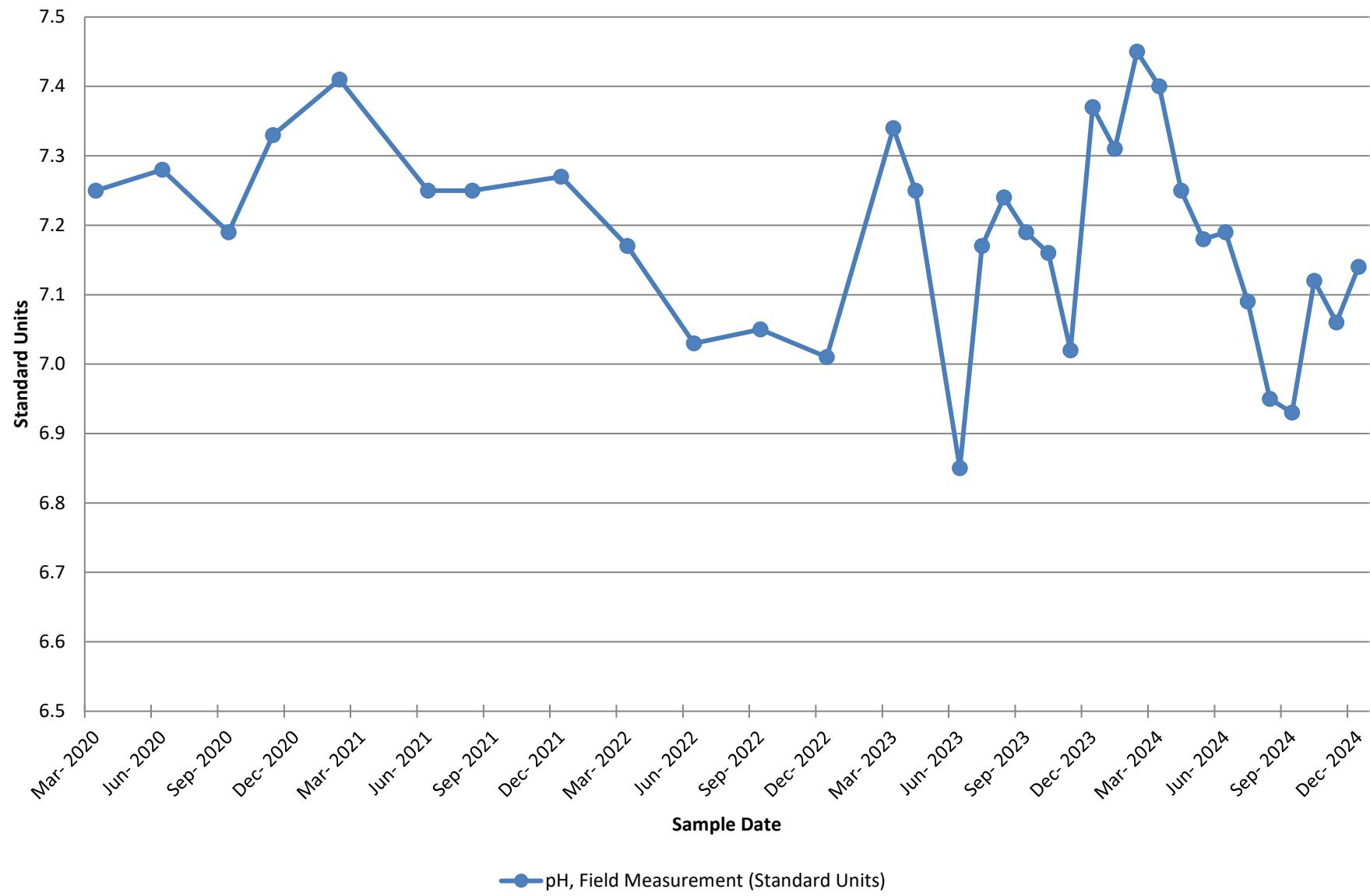
Trend Evaluation 35
GW#2: Fluoride
Climax Mine



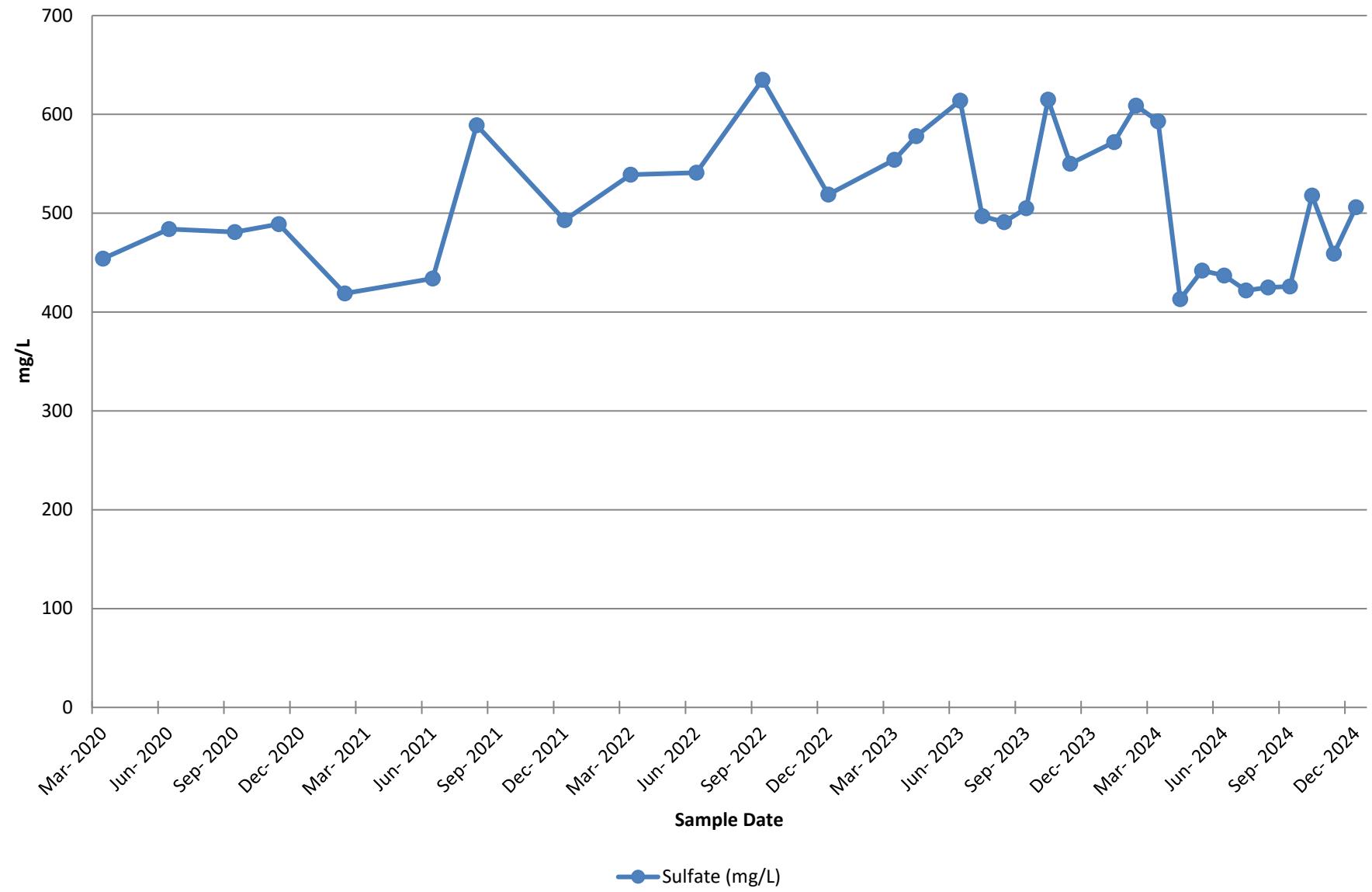
Trend Evaluation 36
EVMW-1S: Metals
Climax Mine



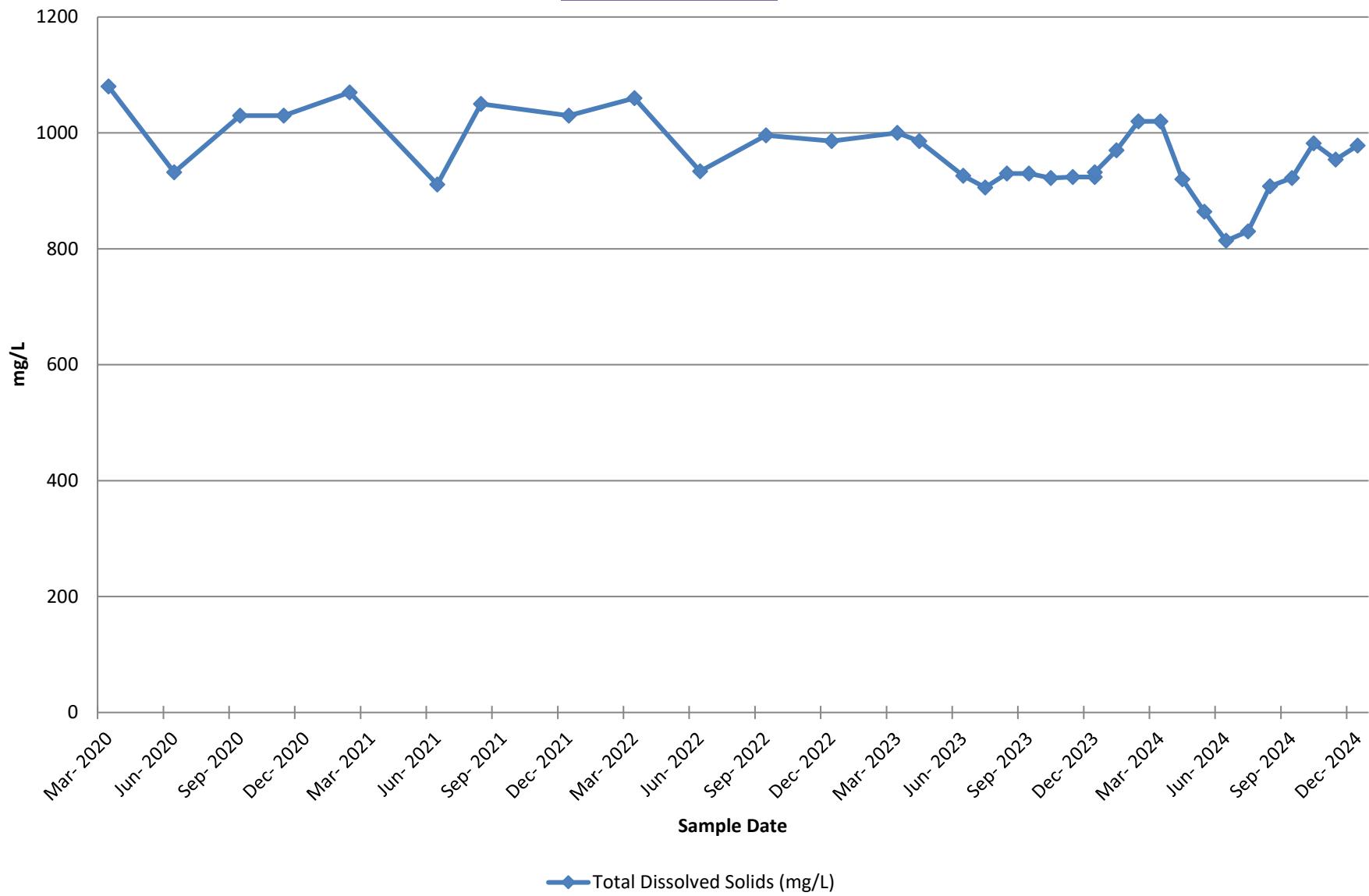
Trend Evaluation 37
EVMW-1S: pH
Climax Mine



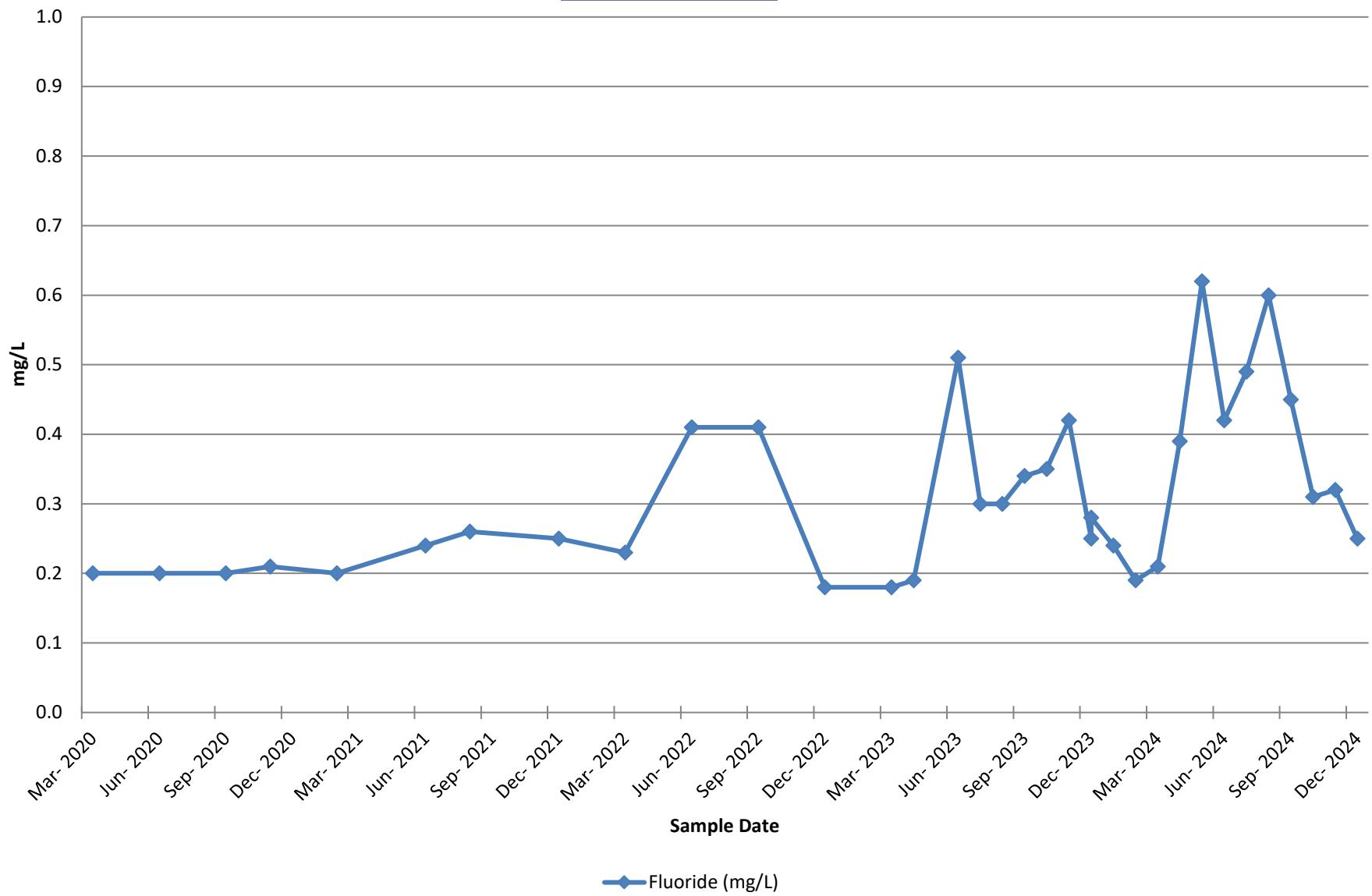
Trend Evaluation 38
EVMW-1S: Sulfate
Climax Mine



Trend Evaluation 39
EVMW-1S: TDS
Climax Mine



Trend Evaluation 40
EVMW-1S: Fluoride
Climax Mine





REVISIONS		BY	DATE	SCALE: 1:13,655	sheet size ANSI B	CLIMAX OPERATIONS	ENVIRONMENTAL DEPT.
A	MODIFIED LAYOUT	JD	1/23/18	ENG'D BY: DWN BY: CHKD BY: APVD BY:	DATE: DATE: DATE: DATE:	Climax Molybdenum A Freeport-McMoRan Company	DWG. NO. TITLE: ANNUAL REPORT MAP 5 - WQMP SITES EAGLE RIVER WATERSHED
1				JH	1/23/18		
2				JH	2/8/18		
3				JH	2/8/18		

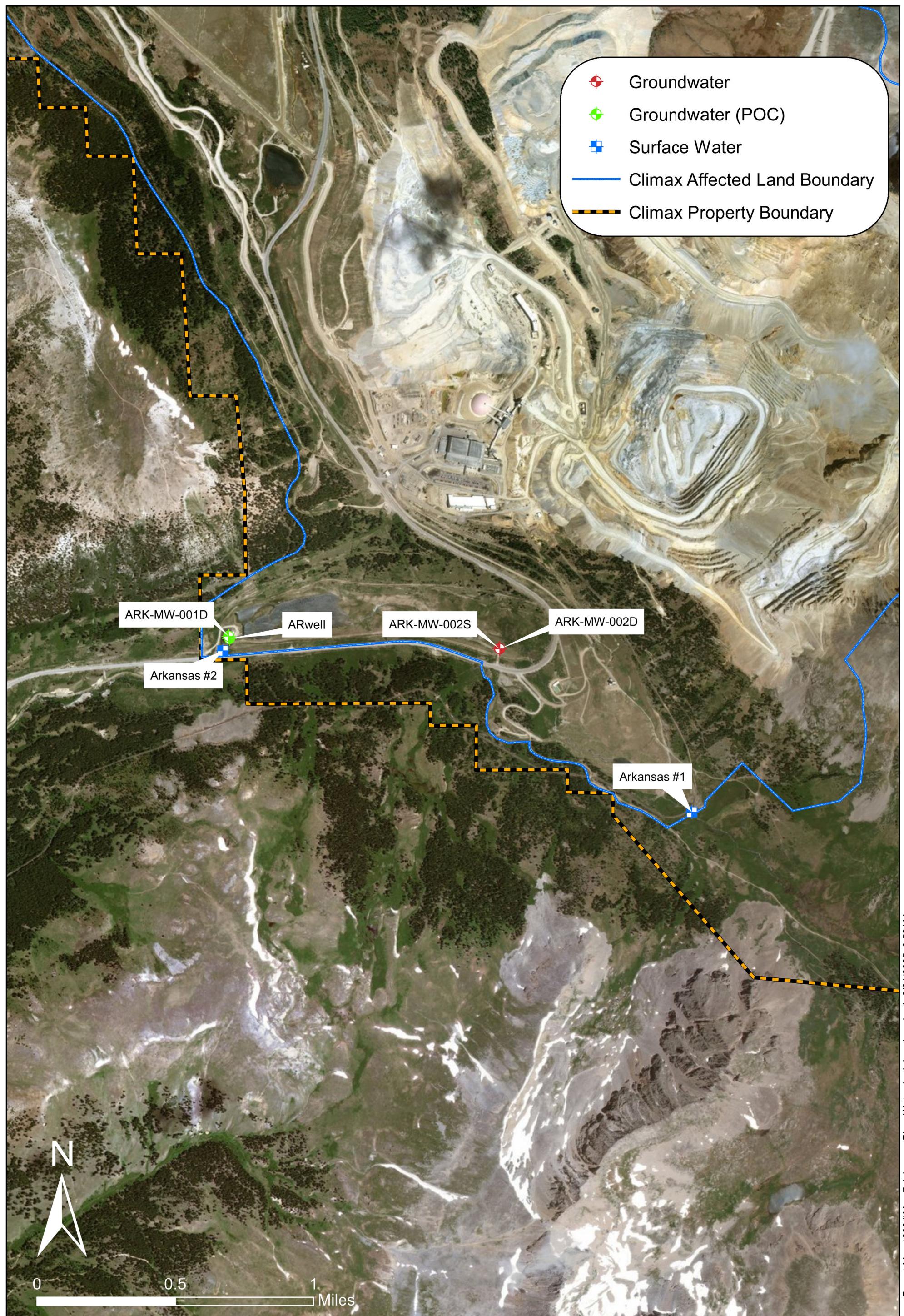


REVISIONS		BY	DATE	SCALE: 1:30,000	SHEET SIZE ANSI B
A	MODIFIED LAYOUT	JD	1/23/18	ENG'D BY:	DATE:
1	UPDATED LOCATION OF EI-SW1	KM	2/20/25	DWN'ED BY: JD	DATE: 1/23/18
2				CHK'D BY: JH	DATE: 2/8/18
3				APVD BY: JH	DATE: 2/8/18

CLIMAX OPERATIONS
 **Climax Molybdenum**
 A Freeport-McMoRan Company

ENVIRONMENTAL DEPT.
 DIVISION: ENVIRONMENTAL DEPT.
 AREA: ENVIRONMENTAL DEPT.
 TITLE: ANNUAL REPORT
 MAP 6 - WQMP SITES
 TENMILE CREEK WATERSHED

DWG. NO.	
REVISION:	
SHT.	OF



REVISIONS			SCALE:	1:20,000	SHEET SIZE	ANSI B	CLIMAX OPERATIONS	ENVIRONMENTAL DEPT.
REV No	MODIFIED LAYOUT	BY JD	DATE	ENG'D BY:	DATE:	AREA:		
A	MODIFIED LAYOUT		1/23/18	DWN BY: JD	DATE: 1/23/18			
1				CHK'D BY: JH	DATE: 2/8/18			
2				APVD BY: JH	DATE: 2/8/18			
3							ANNUAL REPORT MAP 7 - WQMP SITES ARKANSAS RIVER WATERSHED	
							DWG. NO.	
							REVISION:	
							SHT.	OF